



**THE
GORDIAN
GROUP®**

THE STANDARD FOR JOB ORDER CONTRACTING®



**County of Ventura
Annual Road Rehabilitation
Job Order Contract**

**Project #50492
Specification #RD12-08**

Construction Task Catalog®

CSI SECTIONS 01000 - 03000

March 2012

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CTC Information:

- ☑ This Construction Task Catalog® was developed and customized by The Gordian Group, Inc. specifically for **County of Ventura**, priced locally using current labor, material and equipment costs, and published in March 2012.
- ☑ The Gordian Group, Inc. licenses the use of this CTC and other proprietary information and software for the sole purpose of providing Job Order Contracting services to **County of Ventura**. Use of The Gordian Group's CTC and other proprietary information and software for any other purpose or any other entity is expressly prohibited without the express written consent of The Gordian Group, Inc.

The Unit Prices Include:**LABOR COSTS:**

- ☑ Labor costs include direct labor through the working foreperson level at straight-time prevailing wage rates including fringe benefits and an allowance for Social Security and Medicare taxes, worker's compensation, unemployment insurance and employee benefits.
- ☑ Labor costs are based on workers familiar with and skilled in the performance of the task following OSHA requirements.
- ☑ Labor costs include time lost for normal work breaks, layout, measuring and cutting to fit, clean-up of regular construction debris, inspection, permit compliance, job meetings and start-up.

EQUIPMENT COSTS:

- ☑ Equipment costs include all equipment required to accomplish the task including rigging and mobilization, except large equipment (e.g. cranes, pile drivers, bulldozers, excavators, backhoes, bobcats etc.) which exclude mobilization.

- ☑ Equipment costs include all operating expenses such as fuel, electricity, lubricants, etc.

MATERIAL COSTS:

- ☑ Material costs include the cost of the material being installed and all incidentals and accessories integral to the installation.
- ☑ Material costs include manufacturer's and/or fabricator's shop drawings.

Complete and In-Place Construction:

- ☑ Unit prices are for complete and in-place construction and include all labor, equipment and material required to complete the task as described in the CTC.
- ☑ Unit Prices include delivery, unloading and storing materials, tools and equipment on site; moving, materials, tools and equipment from storage area or truck up to 2 ½ stories (2 stories with an attic) and within 125' to reach the site.
- ☑ Unit prices exclude moving material and equipment greater than 2 ½ stories and handling material and equipment more than 125' (See 01660).
- ☑ Unit prices for imported materials (aggregate, sand, soil, etc.) include delivery up to 15 miles from the closest approved source.
- ☑ Unit prices include testing, calibration, balancing and the like required to ensure proper installation, construction and performance (e.g. compaction test for backfill, balancing of heating ventilation and air conditioning, pneumatic or hydrostatic testing, soaping of joints, others as required). Use of owner supplied materials, equipment or tying into existing equipment/piping may justify testing, balancing, etc.

Demolition:

- ☒ Unit prices for demolition include all labor, equipment and material required for the complete removal of the required items; clean-up of the area; and transferring down 2 ½ stories and within 125' of the site into a truck or dumpster for debris or to a designated area for owner requested items.
- ☒ Unit prices for demolition exclude costs for hauling (See 02119), dump fees (See 02119), dumpsters (See 01510), trash chutes (See 01510), and handling materials more than 2 ½ stories or more than 125' from the site (See 01660), unless the task description states otherwise.
- ☒ If the item being demolished is attached to another item being removed and can be removed as one item, then that item shall not be priced as a separate demolition task, unless the component alone must be demolished to accomplish the task (e.g. demolition of pipe includes pipe fittings unless the fitting must be demolished separately to accomplish the task; demolition of a wood door includes hinges, hardware, closures, kick plates, etc.).
- ☒ The description "replace" includes the demolition of the existing item and the installation of the new item.
- ☒ The descriptions "remove and relocate" or "remove and reinstall" includes the removal, cleaning of item and installation of the existing item in either the same location or another location.
- ☒ The description "reinstall" includes the cleaning and installation of the existing item.
- ☒ Salvageable materials remain the property of the Owner and shall be turned over as directed when specified in the Job Order.

The Adjustment Factors Include:

BUSINESS COSTS:

- ☒ Overhead costs, including, unless specifically excluded in the Contract Documents, but not limited to;
 - home office overhead
 - insurance, bonds, and indemnification
 - project meetings, training, management and supervision
 - mobilization and close-out for the contract and each Job Order and
 - project office staff and equipment.
- ☒ Profit.
- ☒ Subcontractor's overhead and profit.
- ☒ All taxes for which a waiver is not available including material sales tax and equipment rental.
- ☒ Employee or Subcontractor's wage rates that exceed the prevailing wage rates.
- ☒ Fringe benefits, payroll taxes, worker's compensation, insurance costs and any other payment mandated by law in connection with labor that exceeds the labor rate allowances.
- ☒ Cost of financing the work.
- ☒ Business risks such as the risk of a lower than expected volume of work, smaller than anticipated Job Orders, poor Subcontractor performance, and inflation or material cost fluctuations.

CONSTRUCTION RELATED COSTS:

- ☒ Services required to obtain filings and permits.
- ☒ Preparation and modification of proposals, sketches, drawings, submittals, as-built drawings, CADD drawings, microfilm, and other project records.
- ☒ Incidental engineering and architectural services.
- ☒ Office trailer and portable toilets for Contractor's use.

- ☒ Construction vehicles such as pick-up trucks, utility trucks, vans, flat bed trucks, tractors, trailers, etc.
- ☒ Storage devices or items such as gang boxes and containers for Contractor's tools, equipment and materials.
- ☒ Personnel safety equipment (hard hats, ropes, harness, etc.) and basic safety signage, railings, minor barricades, tape, roping, cable, markings, cones, etc.
- ☒ Meeting Owner security requirements.
- ☒ Excess waste including pipe, conduit, siding, concrete, etc. This list is not intended to be all inclusive, but descriptive of the types of construction materials that are typically sold in standard lengths, sizes and weights.
- ☒ Removing and returning Owner's furniture and furnishings (chairs, tables, pictures, etc. but excluding modular furniture, wall or ceiling attached or fastened devices or furnishings, safes or other furniture requiring disassembly).
- ☒ Protection of all surfaces including those not in the scope of work from construction dust, debris or damage during construction up until final acceptance. The methods of protection including plastic, paper, sealing doors or windows, etc. are the Contractor's responsibility.
- ☒ Daily clean-up.
- ☒ Final professional project clean-up.
- ☒ Costs resulting from inadequate supply of building materials, fuel, electricity, or skilled labor.
- ☒ Costs resulting from productivity loss.
- ☒ Working in extreme temperatures (below or above normal) or adverse conditions such as excessive rain, wind, sleet or snow.
- ☒ Differences in project size; complexity and location.
- ☒ All costs for other than discreet items of work specifically required to complete a particular Job Order.

PRICE VARIATIONS:

- ☒ Contractors may find differences in labor, equipment and material costs due to certain economic factors. Variations in labor cost can also result from labor efficiency, labor restrictions, working conditions and local work rules. Variations in material costs can also result from the quantity of material purchased, the existing relationship with suppliers, and because the materials have been discontinued or have become obsolete.
- ☒ While diligent effort is made to provide accurate and reliable up-to-date pricing, it is the responsibility of the Contractor to verify the unit prices and to modify their Adjustment Factors accordingly.

GENERAL COSTS:

- ☒ This list is not exhaustive and is intended to provide general examples of cost items to be included in the Contractor's Adjustment Factor as defined in the Contract.
- ☒ The only compensation to be paid to a Contractor for the unit price tasks will be:

Published Unit Price	X	Installation (or Demolition) Quantity	X	Appropriate Adjustment Factor
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- ☒ No additional payments of any kind whatsoever will be made. All costs not included in the unit prices must be part of the Adjustment Factors.

General Interpretations:

FIELD ENGINEERING:

- ☒ Surveying tasks shall be used only when the Owner requests the Contractor to perform topographic surveys, property line surveys or to establish horizontal and vertical controls. If the Owner provides horizontal and vertical control points within or adjacent to the site, any other surveying required to complete the work is considered construction

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staking or layout and the cost thereof is included in the appropriate task.

ASSEMBLIES:

- ☒ Assembly unit prices take precedence over individual component pricing.

TESTING:

- ☒ Contractor will be paid for testing existing material, as required by the technical specifications and as directed by the Owner (record tests) at the unit price for the appropriate task. The cost of process quality control testing routinely performed by the Contractor is included in the unit prices for the individual tasks.

MISCELLANEOUS:

- ☒ For the purpose of quantity discounts, quantities are calculated on a per project basis. The quantity discount applies to the total quantity so determined.
- ☒ Whenever there are alternative tasks that may be selected to complete work the Contractor shall select the most practical and economical tasks available (e.g. rental of equipment by weeks or months rather than days or painting by roller or spray rather than brush).
- ☒ Restricted Working Space is defined as any area with less than 3' vertical or horizontal clearance and includes areas such as crawl spaces, ceiling plenums where the grid is not removed, narrow piping tunnels, and equipment rooms where the space to install the new work is congested as a result of equipment and piping placement that meet these dimensional restrictions. A Restricted Working Space modifier is available for certain mechanical piping and piping accessories tasks and for certain electrical conduit and conduit accessories tasks. Only those tasks with a modifier for Restricted Working Space are eligible for a price adjustment, and then only if the modifier applies to the contemplated tasks. A non pre-priced task will not be allowed because of Restricted Working Space for any CTC task.

- ☒ Confined Working Space is defined according to the OSHA definition 29 CFR 1926.21(b)(6)(i): "Any space having limited means of egress, which is subject to accumulation of toxic or flammable contaminants or has an oxygen deficient atmosphere, including, but not limited to, storage tanks, process vessels, bins, boilers, ventilation and exhaust duct, sewers, underground vaults, tunnels, pipelines and open top spaces more than 4 feet in depth such as pits and tubs." The Contractor shall conform to all OSHA and Owner requirements for working in Confined Working Spaces. Required ventilation and air monitoring equipment tasks shall be priced from the CTC.

- ☒ Whenever a material, article or piece of equipment is identified in the CTC or in the specifications by reference to manufacturers' or vendors' names, trade names, catalogue numbers, or make, the identification is intended to establish a standard. Any material, article or equipment of another manufacturer or vendor which performs satisfactorily the duties imposed by the general design may be considered equally acceptable provided that, in the opinion of the Owner, the material, article or equipment so proposed is of equal quality, substance and function. The Contractor shall not provide, furnish or install any proposed material, article or equipment without the prior written approval of the Owner. The burden of proof and all costs related thereto concerning the "or equal" nature of the substitute item, whether approved or disapproved, shall be borne by the Contractor.

SPECIFICATIONS:

- ☒ Specifications for tasks shall be interpreted as follows: All labor, material, equipment, spare parts, services, and work required by a specification shall be considered part of the unit price, unless the task description or technical specifications state otherwise.



Useful Information:

UNIT OF MEASURE DEFINITIONS:

ACR – Acre, **BAG** – Bag, **BBL** – Barrel, **BCY** - Bank (In-place) Cubic Yards, **BF** - Board Foot, **BOX** - Box (each), **BTU** - British Thermal Unit, **C** - One Hundred, **CCF** - One Hundred Cubic Feet, **CCY** - Compacted Cubic Yards, **CF** - Cubic Foot, **CFM** - Cubic Feet Per Minute, **CI** - Cubic Inch, **CLF** - One Hundred Linear Feet, **CSF** - One Hundred Square Feet, **CSY** - Hundred Square Yards, **CWT** - Hundred Weight, **CY** - Cubic Yard, **CYM** - Cubic Yard Mile, **DAY** – Day, **DRM** - Drum (each), **EA** – Each, **FLR** - Floor (Per Floor), **FT** – Foot, **GAL** – Gallon, **GSF** - Ground Square Foot, **HR** – Hour, **HWT** - Hundred Carton Weight, **HYR** – Half Year, **IN** – Inch, **JOB** – Job, **LAN** – Lane, **LB** – Pound, **LCY** - Loose (Excavated) Cubic Yards, **LF** - Linear Foot, **LFD** - Linear Feet Per Day, **LIT** – Liter, **LOT** – Lot, **MBF** - One Thousand Board Feet, **MBH** - One Thousand British Thermal Units, **MCF** – One Thousand Cubic Feet, **MF3** - One Thousand Cubic Feet Per Minute, **MGL** – One Thousand Gallons, **MI** – Mile, **MLF** - One Thousand Linear Feet, **MO** – Month, **MSF** - One Thousand Square Feet, **MSY** - One Thousand Square Yards, **MT** – Metric Ton, **MTK** – Metric Ton Kilometer, **M2** – Square Meter, **M3K** – Cubic Meter Kilometer, **NTE** – Note, **OPN** – Opening, **OUT** - Outlet or Output (each), **OZ** – Ounce, **PKG** – Package, **PNT** – Point, **PR** – Pair, **QT** – Quart, **ROL** - Roll (each), **ROM** – Room, **ROW** – Row, **RSR** - Riser (Per Rise), **SEA** – Seat, **SET** – Set, **SF** - Square Foot, **SHT** – Sheet, **SI** - Square Inch, **STP** - Stop (each), **SQ** - Square or One Hundred Square Feet, **SY** - Square Yard, **SYI** – Inches per Square Yard, **TNM** - Tons per Mile, **TON** – Ton, **TRK** – Truck Load, **UI** - United Inch, **UNT** – Unit, **VLF** - Vertical Linear Foot, **WK** – Week, **YD** – Yard, **YR** – Year

MATERIAL WEIGHTS:

EARTHEN MATERIAL

- ☒ The following engineering values for establishing shrink/swell factors shall be used unless otherwise directed by the Owner.

Material	Material Weight (Lbs Per CY)		
	In-place (Bank)	Loose (Excavated Materials)	Compacted
Earth, Common (Average)	3170	2536	3520
Sand	2880	2590	3240
Earth, Rock Mix. (75% E/ 25% R)	3380	2370	3720
Earth, Rock Mix. (50% E/50% R)	3750	2710	4000
Earth, Rock Mix. (25% E/ 75% R)	4120	3140	3680
Gravel (Average)	3280	2730	3570
Limestone	4380	2690	3220
Riprap Rock (Average)	4500	2610	3150
Granite	4540	2640	3170
Basalt	4950	3020	3640
Clay	3220	2150	3570
Gneiss	4550	2720	3180

BULK FACTORS FOR DEMOLITION:

- ☒ The following bulk factors shall be used to calculate the volume of demolished material to be transported from the site, unless otherwise directed by the Owner.
- **Asphalt** = 1.25
 - **Concrete** = 1.40

CONVERSIONS:

1 Acre = 43,560 Square Feet = 4046.8 Square Meters

1 Board Foot = 12" x 12" x 1" = 144 Cubic Inches

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1 Centimeter = 0.3937 Inches = 0.0328 Feet

1 Cubic Foot = 0.03704 Cubic Yards = 0.02832 Cubic
Meters

1 Cubic Meter = 1.3080 Cubic Yards = 35.3147 Cubic
Feet

1 Cubic Yard = 27 Cubic Feet = 0.7646 Cubic Meters

1 Foot = 12 Inches = 0.3048 Meters

1 Inch = 2.54 Centimeters = 0.0254 Meters

1 Kilogram = 2.2046 Pounds

1 Kilometer = 0.6214 Miles = 3280 Feet

1 Meter = 100 Centimeters = 3.2808 Feet

1 Mile = 5280 Feet = 1.6093 Kilometers

1 Pound = 0.4536 Kilograms

1 Square Foot = 144 Square Inches = .0929 Square
Meters

1 Square Meter = 1.1960 Square Yards = 10.7639
Square Feet

1 Square Yard = 9 Square Feet = 0.8361 Square
Meters

1 Ton = 2000 Pounds = 907.185 Kilograms

1 Yard = 3 Feet = 0.9144 Meters

STANDARD GEOMETRY:**Circle**

- Circumference = $2 \pi \text{ radius} = \pi \text{ diameter}$
- Area = $\pi \text{ radius}^2 = \pi (\text{diameter}^2 / 4)$

Cylinder

- Volume = $(\pi \text{ radius}^2) \text{height}$
- Surface Area = $2 \pi \text{ radius}^2 + (2 \pi \text{ radius}) \text{height}$

Sphere

- Volume = $(4 \pi \text{ radius}^3) / 3$
- Surface Area = $4 \pi \text{ radius}^2$

 $\pi = 3.14159$ **United Inch**

- The industry standard for measuring windows is the United Inch or UI. The UI is determined by adding the width and the height in inches.

TRADEMARKS

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**General Requirements 01000****Reimbursable Costs 01200****Reimbursable Fees 01204****5**MINOR
CSI UOM DESCRIPTIONTOTAL DIRECT DEMOLITION
UNIT COST UNIT COST**01000 General Requirements****01200 Reimbursable Costs** (01000)**01204 Reimbursable Fees** (01200)**01204-0001 Reimbursable Fees** (01204)

Note: Reimbursable fees include but are not limited to permits, special inspections, special insurance, additional warranties, tolls, etc., which are not included in a task or an Adjustment Factor as explained in the Contract or The Construction Task Catalog®.

01204-0002	EA	Reimbursable Fees.....	1.00
<p>Note: Reimbursable Fees will be paid to the contractor for the actual cost of all permits, without mark-up, for which a receipt or bill is received. The Adjustment Factor applied to Reimbursable Fees will be 1.0000. The labor cost involved in obtaining all permits is in the Adjustment Factor. The base cost of the Reimbursable Fee is \$1.00. The quantity used will adjust the base cost to the actual Reimbursable Fee (e.g. quantity of 125 = \$125.00 Reimbursable Fee). If there are multiple Reimbursable Fees, each one shall be listed separately with a comment in the "note" block to identify the Reimbursable Fees (e.g. sidewalk closure, road cut, various permits, extended warrantee, expedited shipping costs, etc.). A copy of each receipt shall be included with the Proposal.</p>			

01350 Labor/Wage Rates (01000)

Note: For tasks not included in the Construction Task Catalog® and as directed by the Owner only.

01352 Wage Rates (01350)

Note: Wage rates include base rate, fringe and an allowance for payroll taxes, worker's compensation, unemployment insurance, etc.

01352-0001 Local Labor/Wage Rates (01352)

Note: Welders receive the rate prescribed for the craft performing the operation to which the welding is incidental.

01352-0002	HR	Asbestos Removal Worker.....	59.72
<p>Note: Tasks in the CTC include appropriate costs to cover labor. These tasks will be requested specifically by the owner for miscellaneous work not covered in the CTC.</p>			
	01MOD-0001	For Foreman, Add	2.99
	01MOD-0002	For Apprentice, Deduct	-11.94
01352-0003	HR	Insulator.....	60.70
<p>Note: Tasks in the CTC include appropriate costs to cover labor. These tasks will be requested specifically by the owner for miscellaneous work not covered in the CTC.</p>			
	01MOD-0001	For Foreman, Add	3.04
	01MOD-0002	For Apprentice, Deduct	-12.14
01352-0004	HR	Boilermaker.....	80.68
<p>Note: Tasks in the CTC include appropriate costs to cover labor. These tasks will be requested specifically by the owner for miscellaneous work not covered in the CTC.</p>			
	01MOD-0001	For Foreman, Add	4.03
	01MOD-0002	For Apprentice, Deduct	-16.14
01352-0005	HR	Brick Layer.....	59.35
<p>Note: Tasks in the CTC include appropriate costs to cover labor. These tasks will be requested specifically by the owner for miscellaneous work not covered in the CTC.</p>			
	01MOD-0001	For Foreman, Add	2.97
	01MOD-0002	For Apprentice, Deduct	-11.87
01352-0006	HR	Carpenter.....	63.77
<p>Note: Tasks in the CTC include appropriate costs to cover labor. These tasks will be requested specifically by the owner for miscellaneous work not covered in the CTC.</p>			
	01MOD-0001	For Foreman, Add	3.19
	01MOD-0002	For Apprentice, Deduct	-12.75
01352-0007	HR	Carpet, Linoleum.....	53.41
<p>Note: Tasks in the CTC include appropriate costs to cover labor. These tasks will be requested specifically by the owner for miscellaneous work not covered in the CTC.</p>			
	01MOD-0001	For Foreman, Add	2.67
	01MOD-0002	For Apprentice, Deduct	-10.68
01352-0008	HR	Cement Mason.....	59.79
<p>Note: Tasks in the CTC include appropriate costs to cover labor. These tasks will be requested specifically by the owner for miscellaneous work not covered in the CTC.</p>			
	01MOD-0001	For Foreman, Add	2.99
	01MOD-0002	For Apprentice, Deduct	-11.96
01352-0009	HR	Drywall Finisher.....	59.33
<p>Note: Tasks in the CTC include appropriate costs to cover labor. These tasks will be requested specifically by the owner for miscellaneous work not covered in the CTC.</p>			
	01MOD-0001	For Foreman, Add	2.97
	01MOD-0002	For Apprentice, Deduct	-11.87
01352-0010	HR	Electrician.....	66.05
<p>Note: Tasks in the CTC include appropriate costs to cover labor. These tasks will be requested specifically by the owner for miscellaneous work not covered in the CTC.</p>			
	01MOD-0001	For Foreman, Add	3.30
	01MOD-0002	For Apprentice, Deduct	-13.21
01352-0011	HR	Equipment Operator, Heavy (Crane).....	74.85
<p>Note: Tasks in the CTC include appropriate costs to cover labor. These tasks will be requested specifically by the owner for miscellaneous work not covered in the CTC.</p>			
	01MOD-0001	For Foreman, Add	3.74
	01MOD-0002	For Apprentice, Deduct	-14.97
01352-0012	HR	Equipment Operator, Medium (Bulldozer).....	74.19
<p>Note: Tasks in the CTC include appropriate costs to cover labor. These tasks will be requested specifically by the owner for miscellaneous work not covered in the CTC.</p>			
	01MOD-0001	For Foreman, Add	3.71
	01MOD-0002	For Apprentice, Deduct	-14.84

01000 General Requirements**01350 Labor/Wage Rates****01352 Wage Rates**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
01352-0013	HR	Equipment Operator, Light (Backhoe, Bobcat).....	72.74	
		Note: Tasks in the CTC include appropriate costs to cover labor. These tasks will be requested specifically by the owner for miscellaneous work not covered in the CTC.		
	01MOD-0001	For Foreman, Add	3.64	
	01MOD-0002	For Apprentice, Deduct	-14.55	
01352-0014	HR	Glazier.....	72.27	
		Note: Tasks in the CTC include appropriate costs to cover labor. These tasks will be requested specifically by the owner for miscellaneous work not covered in the CTC.		
	01MOD-0001	For Foreman, Add	3.61	
	01MOD-0002	For Apprentice, Deduct	-14.45	
01352-0015	HR	Laborer.....	64.04	
		Note: Tasks in the CTC include appropriate costs to cover labor. These tasks will be requested specifically by the owner for miscellaneous work not covered in the CTC.		
01352-0016	HR	Lather.....	60.90	
		Note: Tasks in the CTC include appropriate costs to cover labor. These tasks will be requested specifically by the owner for miscellaneous work not covered in the CTC.		
	01MOD-0001	For Foreman, Add	3.05	
	01MOD-0002	For Apprentice, Deduct	-12.18	
01352-0017	HR	Marble Setter.....	59.35	
		Note: Tasks in the CTC include appropriate costs to cover labor. These tasks will be requested specifically by the owner for miscellaneous work not covered in the CTC.		
	01MOD-0001	For Foreman, Add	2.97	
	01MOD-0002	For Apprentice, Deduct	-11.87	
01352-0018	HR	Millwright.....	61.15	
		Note: Tasks in the CTC include appropriate costs to cover labor. These tasks will be requested specifically by the owner for miscellaneous work not covered in the CTC.		
	01MOD-0001	For Foreman, Add	3.06	
	01MOD-0002	For Apprentice, Deduct	-12.23	
01352-0019	HR	Mold Removal Worker.....	108.39	
		Note: Tasks in the CTC include appropriate costs to cover labor. These tasks will be requested specifically by the owner for miscellaneous work not covered in the CTC.		
	01MOD-0001	For Foreman, Add	5.42	
	01MOD-0002	For Apprentice, Deduct	-21.68	
01352-0020	HR	Painter, Ordinary.....	47.78	
		Note: Tasks in the CTC include appropriate costs to cover labor. These tasks will be requested specifically by the owner for miscellaneous work not covered in the CTC.		
	01MOD-0001	For Foreman, Add	2.39	
	01MOD-0002	For Apprentice, Deduct	-9.56	
01352-0021	HR	Painter, Structural Steel.....	62.89	
		Note: Tasks in the CTC include appropriate costs to cover labor. These tasks will be requested specifically by the owner for miscellaneous work not covered in the CTC.		
	01MOD-0001	For Foreman, Add	3.14	
	01MOD-0002	For Apprentice, Deduct	-12.58	
01352-0022	HR	Paperhanger.....	48.18	
		Note: Tasks in the CTC include appropriate costs to cover labor. These tasks will be requested specifically by the owner for miscellaneous work not covered in the CTC.		
	01MOD-0001	For Foreman, Add	2.41	
	01MOD-0002	For Apprentice, Deduct	-9.64	
01352-0023	HR	Pile Drivers.....	75.60	
		Note: Tasks in the CTC include appropriate costs to cover labor. These tasks will be requested specifically by the owner for miscellaneous work not covered in the CTC.		
	01MOD-0001	For Foreman, Add	3.78	
	01MOD-0002	For Apprentice, Deduct	-15.12	
01352-0024	HR	Plasterer.....	60.56	
		Note: Tasks in the CTC include appropriate costs to cover labor. These tasks will be requested specifically by the owner for miscellaneous work not covered in the CTC.		
	01MOD-0001	For Foreman, Add	3.03	
	01MOD-0002	For Apprentice, Deduct	-12.11	
01352-0025	HR	Plumber.....	69.11	
		Note: Tasks in the CTC include appropriate costs to cover labor. These tasks will be requested specifically by the owner for miscellaneous work not covered in the CTC.		
	01MOD-0001	For Foreman, Add	3.46	
	01MOD-0002	For Apprentice, Deduct	-13.82	
01352-0026	HR	Powderman.....	63.46	
		Note: Tasks in the CTC include appropriate costs to cover labor. These tasks will be requested specifically by the owner for miscellaneous work not covered in the CTC.		
	01MOD-0001	For Foreman, Add	3.17	
	01MOD-0002	For Apprentice, Deduct	-12.69	
01352-0027	HR	Rodman (Reinforcing)/Ornamental Steel Worker.....	74.62	
		Note: Tasks in the CTC include appropriate costs to cover labor. These tasks will be requested specifically by the owner for miscellaneous work not covered in the CTC.		
	01MOD-0001	For Foreman, Add	3.73	
	01MOD-0002	For Apprentice, Deduct	-14.92	
01352-0028	HR	Roofer, Composite.....	67.87	
		Note: Tasks in the CTC include appropriate costs to cover labor. These tasks will be requested specifically by the owner for miscellaneous work not covered in the CTC.		
	01MOD-0001	For Foreman, Add	3.39	
	01MOD-0002	For Apprentice, Deduct	-13.57	
01352-0029	HR	Roofer, Tile/Slate.....	67.41	
		Note: Tasks in the CTC include appropriate costs to cover labor. These tasks will be requested specifically by the owner for miscellaneous work not covered in the CTC.		
	01MOD-0001	For Foreman, Add	3.37	
	01MOD-0002	For Apprentice, Deduct	-13.48	
01352-0030	HR	Sheet Metal Worker.....	71.74	
		Note: Tasks in the CTC include appropriate costs to cover labor. These tasks will be requested specifically by the owner for miscellaneous work not covered in the CTC.		
	01MOD-0001	For Foreman, Add	3.59	
	01MOD-0002	For Apprentice, Deduct	-14.35	

**General Requirements 01000****Labor/Wage Rates 01350****Wage Rates 01352**

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MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
01352-0031	HR	Sprinkler Installer75.64 Note: Tasks in the CTC include appropriate costs to cover labor. These tasks will be requested specifically by the owner for miscellaneous work not covered in the CTC.		
	01MOD-0001	For Foreman, Add	3.78	
	01MOD-0002	For Apprentice, Deduct	-15.13	
01352-0032	HR	Steam / Pipe Fitter69.11 Note: Tasks in the CTC include appropriate costs to cover labor. These tasks will be requested specifically by the owner for miscellaneous work not covered in the CTC.		
	01MOD-0001	For Foreman, Add	3.46	
	01MOD-0002	For Apprentice, Deduct	-13.82	
01352-0033	HR	Stone Mason59.35 Note: Tasks in the CTC include appropriate costs to cover labor. These tasks will be requested specifically by the owner for miscellaneous work not covered in the CTC.		
	01MOD-0001	For Foreman, Add	2.97	
	01MOD-0002	For Apprentice, Deduct	-11.87	
01352-0034	HR	Structural Steel Worker79.11 Note: Tasks in the CTC include appropriate costs to cover labor. These tasks will be requested specifically by the owner for miscellaneous work not covered in the CTC.		
	01MOD-0001	For Foreman, Add	3.96	
	01MOD-0002	For Apprentice, Deduct	-15.82	
01352-0035	HR	Tile Layer56.28 Note: Tasks in the CTC include appropriate costs to cover labor. These tasks will be requested specifically by the owner for miscellaneous work not covered in the CTC.		
	01MOD-0001	For Foreman, Add	2.81	
	01MOD-0002	For Apprentice, Deduct	-11.26	
01352-0036	HR	Terrazzo Finisher53.91 Note: Tasks in the CTC include appropriate costs to cover labor. These tasks will be requested specifically by the owner for miscellaneous work not covered in the CTC.		
	01MOD-0001	For Foreman, Add	2.70	
	01MOD-0002	For Apprentice, Deduct	-10.78	
01352-0037	HR	Truck Driver, Light58.97 Note: Tasks in the CTC include appropriate costs to cover labor. These tasks will be requested specifically by the owner for miscellaneous work not covered in the CTC.		
	01MOD-0001	For Foreman, Add	2.95	
	01MOD-0002	For Apprentice, Deduct	-11.79	
01352-0038	HR	Truck Driver, Heavy59.18 Note: Tasks in the CTC include appropriate costs to cover labor. These tasks will be requested specifically by the owner for miscellaneous work not covered in the CTC.		
	01MOD-0001	For Foreman, Add	2.96	
	01MOD-0002	For Apprentice, Deduct	-11.84	
01352-0039	HR	Class I Diver149.94 Note: Tasks in the CTC include appropriate costs to cover labor. These tasks will be requested specifically by the owner for miscellaneous work not covered in the CTC.		
01352-0040	HR	Class III Diver Tender78.05 Note: Tasks in the CTC include appropriate costs to cover labor. These tasks will be requested specifically by the owner for miscellaneous work not covered in the CTC.		
01352-0041	Rates For Services (01352)			
01352-0042	HR	Watchman/Guard, Unarmed16.78		
01352-0043	HR	Watchman/Guard, Armed24.64		
01352-0044	HR	OSHA Testing66.55		
01352-0045	HR	Investigating Engineer Or Specialty Consultant80.00 Note: For special investigating requirements or services outside required architectural and engineering services.		
01352-0046	HR	Investigating Senior Engineer Or Specialty Consultant125.00 Note: For special investigating requirements or services outside required architectural and engineering services.		
01352-0047	HR	Industrial Hygienist42.76		
01352-0048	HR	On-site Material Testing Technician49.50		
01352-0049	MI	Mileage For Professional Services (Engineering, Surveying, Etcetera)0.56 Note: For use only when the government orders the contractor to use personnel whose base of operations is outside of a 100 mile radius of the site (use only miles that exceed 100 mi)		
01352-0050	Rates For Traffic Control (01352)			
01352-0051	HR	Flagperson For Traffic Control64.04		

01500 Construction Facilities And Temporary Construction (01000)**01510 Temporary Facilities (01500)**

Note: Tasks in this section shall be used as directed by owner.

01510-0001	Chutes (01510)			
	Note: Not for use with any other task when less than 2-1/2 stories.			
01510-0002	Steel Temporary Chutes (01510-0001)			
01510-0003	LF	18" Diameter Circular Prefabricated Steel, Remove After Use	20.57	
01510-0004	LF	30" Diameter Circular Prefabricated Steel, Remove After Use	31.06	
01510-0005	Plastic Temporary Chutes (01510-0001)			
01510-0006	LF	Temporary Trash Chutes, Plastic, Round With Chain Connection, Re-Useable	8.14	
01510-0007	Wood Temporary Chutes (01510-0001)			

01000 General Requirements**01500 Construction Facilities And Temporary Construction****01510 Temporary Facilities**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
01510-0008	LF	Temporary Plywood Trash Chutes, 4' Base With 4' Sides Note: Includes fabrication and installation.	15.89	
01510-0009		Construction Dumpsters Rental ⁽⁰¹⁵¹⁰⁾ Note: Includes delivery and pick-up of dumpster, hauling of debris, rental of dumpster and all applicable non-hazardous disposal fees. Cost of "each" is based on each pick-up.		
01510-0010	EA	6 CY Dumpster (1 Ton) "Construction Debris" Note: Includes delivery of dumpster, rental cost, pick-up cost, hauling, and disposal fee. Non-hazardous material.	231.58	
		01MOD-0003 For Each Ton Over Capacity, Add	30.80	
01510-0011	EA	10 CY Dumpster (1.5 Ton) "Construction Debris" Note: Includes delivery of dumpster, rental cost, pick-up cost, hauling, and disposal fee. Non-hazardous material.	274.99	
		01MOD-0003 For Each Ton Over Capacity, Add	30.80	
01510-0012	EA	15 CY Dumpster (2 Ton) "Construction Debris" Note: Includes delivery of dumpster, rental cost, pick-up cost, hauling, and disposal fee. Non-hazardous material.	300.98	
		01MOD-0003 For Each Ton Over Capacity, Add	30.80	
01510-0013	EA	20 CY Dumpster (3 Ton) "Construction Debris" Note: Includes delivery of dumpster, rental cost, pick-up cost, hauling, and disposal fee. Non-hazardous material.	349.00	
		01MOD-0003 For Each Ton Over Capacity, Add	30.80	
01510-0014	EA	30 CY Dumpster (4 Ton) "Construction Debris" Note: Includes delivery of dumpster, rental cost, pick-up cost, hauling, and disposal fee. Non-hazardous material.	396.99	
		01MOD-0003 For Each Ton Over Capacity, Add	30.80	
01510-0015	EA	40 CY Dumpster (5 Ton) "Construction Debris" Note: Includes delivery of dumpster, rental cost, pick-up cost, hauling, and disposal fee. Non-hazardous material.	444.99	
		01MOD-0003 For Each Ton Over Capacity, Add	30.80	
01520		Construction Facilities ⁽⁰¹⁵⁰⁰⁾ Note: Tasks in this section shall be used as directed by owner for owner's use.		
01520-0001		Portable Toilets ⁽⁰¹⁵²⁰⁾ Note: Includes delivery, set-up, servicing once per week and removal.		
01520-0002	WK	Portable Toilets, Chemical 01MOD-0004 For Each Additional Servicing Per Unit Per Week, Add	31.66 25.00	
01520-0003	MO	Portable Toilets, Chemical 01MOD-0004 For Each Additional Servicing Per Unit Per Week, Add	94.99 25.00	
01520-0004	WK	ADA Portable Toilets, Chemical 01MOD-0004 For Each Additional Servicing Per Unit Per Week, Add	37.77 25.00	
01520-0005	MO	ADA Portable Toilets, Chemical 01MOD-0004 For Each Additional Servicing Per Unit Per Week, Add	110.82 25.00	
01520-0006		Storage Containers ⁽⁰¹⁵²⁰⁾		
01520-0007	MO	8' x 8' x 10' Storage Container 01MOD-0005 For Delivery, Each Way, Add	80.00 65.00	
01520-0008	MO	8' x 8' x 20' Storage Container 01MOD-0006 For Delivery, Each Way, Add	114.28 85.00	
01520-0009	MO	8' x 8' x 40' Storage Container 01MOD-0006 For Delivery, Each Way, Add	257.13 85.00	
01550		Vehicular Access And Parking ⁽⁰¹⁵⁰⁰⁾		
01550-0001		Parking Lot, Roads And Pathway Maintenance ⁽⁰¹⁵⁵⁰⁾ Note: These tasks shall be used for maintenance of existing roads and walks only as requested by the owner. Do not use these tasks in conjunction with related installation/demolition tasks in the Construction Task Catalog®.		
01550-0002		Parking Lot, Road, And Street Sweeping ⁽⁰¹⁵⁵⁰⁻⁰⁰⁰¹⁾		
01550-0003	MSF	Sweep Parking Lot, With Street Sweeper 01550-0004 MSF Sweeper/Vacuum/Sprayer For Parking Lots, Streets And Roads 01550-0005 MSF Sweep Runway, With Street Sweep.....	15.12 18.15 22.69	
01550-0006		Removable Preformed Traffic Line Mask ⁽⁰¹⁵⁵⁰⁾ Note: Includes installation and removal after use.		
01550-0007	LF	4" Removable Traffic Line Mask..... 01550-0008 LF 6" Removable Traffic Line Mask..... 01550-0009 LF 8" Removable Traffic Line Mask.....	2.77 3.49 4.22	
01550-0010		Temporary Preformed Traffic Line Tape ⁽⁰¹⁵⁵⁰⁾ Note: Includes installation and removal after use.		
01550-0011	LF	4" Temporary Preformed Traffic Line Tape.....	2.29	
01550-0012		Temporary Traffic Markings ⁽⁰¹⁵⁵⁰⁾		
01550-0013	LF	4" Temporary Painted Traffic Lines.....	0.44	
01550-0014		Pedestrian Traffic Control ⁽⁰¹⁵⁵⁰⁾		
01550-0015	CLF	Safety Tape For Area Isolation..... 01550-0016 CLF Danger Tape	9.35 9.93	



General Requirements			01000	10
Construction Facilities And Temporary Construction			01500	
Temporary Barriers And Enclosures			01560	

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
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01560 Temporary Barriers And Enclosures (01500)

Note: Includes removal after use.

01560-0001	Temporary Fence, Street Barricades, And Tree Guards (01560)				
01560-0002	Temporary Fencing (01560-0001)				
	Note: Includes set-up and removal. Excludes auguring/drilling for posts.				
01560-0003	Temporary Chain Link Fence (01560-0002)				
	Note: Includes set-up and removal. Excludes auguring/drilling for posts.				
01560-0004	Temporary Chain Link Fence, Up To 6 Months (01560-0003)				
01560-0005	LF	Temporary 4' High Chain Link Fence And Posts, Up To 6 Months	1.35		
	01MOD-0018	For > 100 To 250 LF, Deduct	-0.07		
	01MOD-0019	For > 250 To 500 LF, Deduct	-0.14		
	01MOD-0020	For > 500 LF, Deduct	-0.20		
	01MOD-0021	For Shade Cloth, Add	1.60		
01560-0006	LF	Temporary 6' High Chain Link Fence And Posts, Up To 6 Months	1.52		
	01MOD-0018	For > 100 To 250 LF, Deduct	-0.08		
	01MOD-0019	For > 250 To 500 LF, Deduct	-0.15		
	01MOD-0020	For > 500 LF, Deduct	-0.23		
	01MOD-0022	For Shade Cloth, Add	2.55		
01560-0007	Temporary Chain Link Fence Gates (01560-0002)				
	Note: Includes set-up and removal. Excludes auguring/drilling for posts.				
01560-0008	Temporary Chain Link Fence Gates, Up To 6 Months (01560-0007)				
01560-0009	6' High, Temporary Chain Link Fence Gates, Up To 6 Months (01560-0008)				
01560-0010	EA	4' Wide, 6' High, Temporary Chain Link Fence Gate, Up To 6 Months	89.61		
	01MOD-0024	For Shade Cloth, Add	10.20		
01560-0011	EA	10' Wide, 6' High, Temporary Chain Link Fence Gate, Up To 6 Months	139.39		
	01MOD-0025	For Shade Cloth, Add	25.50		
01560-0012	EA	12' Wide, 6' High, Temporary Chain Link Fence Gate, Up To 6 Months	159.30		
	01MOD-0026	For Shade Cloth, Add	30.60		
01560-0013	EA	15' Wide, 6' High, Temporary Chain Link Fence Gate, Up To 6 Months	179.22		
	01MOD-0027	For Shade Cloth, Add	38.25		
01560-0014	EA	20' Wide, 6' High, Temporary Chain Link Fence Gate, Up To 6 Months	219.05		
	01MOD-0028	For Shade Cloth, Add	51.00		
01560-0015	EA	24' Wide, 6' High, Temporary Chain Link Fence Gate, Up To 6 Months	238.96		
	01MOD-0029	For Shade Cloth, Add	61.20		
01560-0016	Temporary Chain Link Fence Gates, > 6 To 12 Months (01560-0007)				
01560-0017	6' High, Temporary Chain Link Fence Gates, > 6 To 12 Months (01560-0016)				
01560-0018	EA	4' Wide, 6' High, Temporary Chain Link Fence Gate, > 6 To 12 Months	94.09		
	01MOD-0024	For Shade Cloth, Add	10.20		
01560-0019	EA	10' Wide, 6' High, Temporary Chain Link Fence Gate, > 6 To 12 Months	146.36		
	01MOD-0025	For Shade Cloth, Add	25.50		
01560-0020	EA	12' Wide, 6' High, Temporary Chain Link Fence Gate, > 6 To 12 Months	167.27		
	01MOD-0026	For Shade Cloth, Add	30.60		
01560-0021	EA	15' Wide, 6' High, Temporary Chain Link Fence Gate, > 6 To 12 Months	188.19		
	01MOD-0027	For Shade Cloth, Add	38.25		
01560-0022	EA	20' Wide, 6' High, Temporary Chain Link Fence Gate, > 6 To 12 Months	230.00		
	01MOD-0028	For Shade Cloth, Add	51.00		
01560-0023	EA	24' Wide, 6' High, Temporary Chain Link Fence Gate, > 6 To 12 Months	250.91		
	01MOD-0029	For Shade Cloth, Add	61.20		
01560-0024	Temporary Chain Link Fence Panels (Portable) (01560-0002)				
	Note: Includes set-up and removal. Excludes sandbags.				
01560-0025	Temporary Chain Link Fence Panels (Portable), Up To 6 Months (01560-0024)				
01560-0026	LF	Temporary 4' High Chain Link Fence Panels (Portable), Up To 6 Months	1.61		
	01MOD-0018	For > 100 To 250 LF, Deduct	-0.08		
	01MOD-0019	For > 250 To 500 LF, Deduct	-0.16		
	01MOD-0020	For > 500 LF, Deduct	-0.24		
	01MOD-0021	For Shade Cloth, Add	1.60		
01560-0027	LF	Temporary 6' High Chain Link Fence Panels (Portable), Up To 6 Months	1.81		
	01MOD-0018	For > 100 To 250 LF, Deduct	-0.09		
	01MOD-0019	For > 250 To 500 LF, Deduct	-0.18		
	01MOD-0020	For > 500 LF, Deduct	-0.27		
	01MOD-0022	For Shade Cloth, Add	2.55		
01560-0028	LF	Temporary 8' High Chain Link Fence Panels (Portable), Up To 6 Months	2.91		
	01MOD-0018	For > 100 To 250 LF, Deduct	-0.15		
	01MOD-0019	For > 250 To 500 LF, Deduct	-0.29		
	01MOD-0020	For > 500 LF, Deduct	-0.44		
	01MOD-0023	For Shade Cloth, Add	3.60		
01560-0029	Temporary Tree Guards (01560-0001)				
	Note: Includes digging holes and removal.				
01560-0030	EA	Up To 4' x 4' Temporary Tree Guard, 2" x 4" Wood Stud Framing Construction, 4 Uprights Set In Earth 2' Deep, With Double Rail	125.94		
01560-0031	EA	4' x 4' Temporary Tree Guard, 2" x 4" Wood Stud Framing Construction, 4 Uprights Set In Earth 2' Deep, With Double Rail	145.59		

01000 General Requirements**01500 Construction Facilities And Temporary Construction****01560 Temporary Barriers And Enclosures**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
01560-0032	EA	6' x 6' Temporary Tree Guard, 2" x 4" Wood Stud Framing Construction, 4 Uprights Set In Earth 2' Deep, With Double Rail.....	157.42	
01560-0033		Temporary Street Barricade (01560-0001)		
01560-0034	LF	Temporary Street Barricade, Using 12" x 12" Beam As Base With 2" x 4" Top Warning Rail And Sides, Per Month	7.20	
01560-0035		Temporary Fiberglass Panels (01560)		
01560-0036	SF	Prefabricated Fiberglass Panels.....	1.32	
01560-0037		Temporary Safety Fence (01560)		
01560-0038	LF	Temporary Safety Fence, Plastic Mesh, 48" High With Posts At 8' On Center	1.24	
01560-0039		Traffic Protection (01560)		
01560-0040		Portable Traffic Control Device Rental (01560-0039)		
		Note: Excludes placing and removing devices.		
01560-0041	DAY	28" Cone With Reflective Collar	0.40	
01560-0042	WK	28" Cone With Reflective Collar	1.20	
01560-0043	MO	28" Cone With Reflective Collar	3.61	
01560-0044	DAY	Vertical Panel	1.21	
01560-0045	WK	Vertical Panel	3.64	
01560-0046	MO	Vertical Panel	10.91	
01560-0047	DAY	Channelizer Drum	1.32	
01560-0048	WK	Channelizer Drum	3.95	
01560-0049	MO	Channelizer Drum	11.84	
01560-0050	DAY	Stackable Channelizer Panel	0.62	
01560-0051	WK	Stackable Channelizer Panel	1.87	
01560-0052	MO	Stackable Channelizer Panel	5.60	
01560-0053	DAY	Type I Barricade, Up To 3' Wide With Reflective Rail Each Side	0.86	
01560-0054	WK	Type I Barricade, Up To 3' Wide With Reflective Rail Each Side	2.58	
01560-0055	MO	Type I Barricade, Up To 3' Wide With Reflective Rail Each Side	7.75	
01560-0056	DAY	Type II Barricade, Up To 3' Wide With Two Reflective Rails Each Side.....	1.91	
01560-0057	WK	Type II Barricade, Up To 3' Wide With Two Reflective Rails Each Side.....	5.73	
01560-0058	MO	Type II Barricade, Up To 3' Wide With Two Reflective Rails Each Side.....	17.18	
01560-0059	DAY	Type III Barricade, Up To 5' Wide With Three Reflective Rails	2.18	
01560-0060	WK	Type III Barricade, Up To 5' Wide With Three Reflective Rails	6.53	
01560-0061	MO	Type III Barricade, Up To 5' Wide With Three Reflective Rails	19.59	
01560-0062	DAY	Type III Barricade, > 5' To 10' Wide With Three Reflective Rails	3.98	
01560-0063	WK	Type III Barricade, > 5' To 10' Wide With Three Reflective Rails	11.94	
01560-0064	MO	Type III Barricade, > 5' To 10' Wide With Three Reflective Rails	35.82	
01560-0065	DAY	Up To 10' Wide A Frame Barricade.....	2.18	
01560-0066	WK	Up To 10' Wide A Frame Barricade.....	6.55	
01560-0067	MO	Up To 10' Wide A Frame Barricade.....	19.65	
01560-0068	DAY	Type A Or C Flasher	0.44	
01560-0069	WK	Type A Or C Flasher	1.33	
01560-0070	MO	Type A Or C Flasher	4.00	
01560-0071	DAY	Type B Flasher (High Intensity).....	2.41	
01560-0072	WK	Type B Flasher (High Intensity).....	7.24	
01560-0073	MO	Type B Flasher (High Intensity).....	21.72	
01560-0074		Traffic Barriers Rental (01560-0039)		
		Note: Excludes placing and removing devices.		
01560-0075	DAY	6' Long Portable Parking Curbs.....	1.04	
01560-0076	WK	6' Long Portable Parking Curbs.....	3.12	
01560-0077	MO	6' Long Portable Parking Curbs.....	9.36	
01560-0078	DAY	6' Long Portable Speed Bumps.....	3.08	
01560-0079	WK	6' Long Portable Speed Bumps.....	9.23	
01560-0080	MO	6' Long Portable Speed Bumps.....	27.69	
01560-0081	DAY	Up To 12.5' Concrete Traffic Barrier.....	7.39	
01560-0082	WK	Up To 12.5' Concrete Traffic Barrier.....	22.17	
01560-0083	MO	Up To 12.5' Concrete Traffic Barrier.....	66.52	
01560-0084	DAY	> 12.5' To 20' Concrete Traffic Barrier.....	14.78	
01560-0085	WK	> 12.5' To 20' Concrete Traffic Barrier.....	44.34	
01560-0086	MO	> 12.5' To 20' Concrete Traffic Barrier.....	133.03	
01560-0087	DAY	6' x 32" Tall Plastic Water Barrier	8.83	
01560-0088	WK	6' x 32" Tall Plastic Water Barrier	26.48	
01560-0089	MO	6' x 32" Tall Plastic Water Barrier	79.44	
01560-0090	DAY	6' x 46" Tall Plastic Water Barrier	12.60	
01560-0091	WK	6' x 46" Tall Plastic Water Barrier	37.81	
01560-0092	MO	6' x 46" Tall Plastic Water Barrier	113.43	
01560-0093	DAY	Sand Filled Crash Attenuator Barrels.....	4.93	
01560-0094	WK	Sand Filled Crash Attenuator Barrels.....	14.80	
01560-0095	MO	Sand Filled Crash Attenuator Barrels.....	44.40	
01560-0096		Portable Signs And Message Displays Rental (01560-0039)		
		Note: Excludes placing and removing devices.		
01560-0097	DAY	Mesh Or Vinyl Roll-up Sign With Stand.....	3.87	



General Requirements			01000	10
Construction Facilities And Temporary Construction			01500	
Temporary Barriers And Enclosures			01560	

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
01560-0098	WK	Mesh Or Vinyl Roll-up Sign With Stand.....	11.62	
01560-0099	MO	Mesh Or Vinyl Roll-up Sign With Stand.....	34.86	
01560-0100	DAY	Aluminum Sign And Post.....	2.26	
01560-0101	WK	Aluminum Sign And Post.....	6.78	
01560-0102	MO	Aluminum Sign And Post.....	20.35	
01560-0103	DAY	Aluminum Sign And A Frame Stand.....	2.93	
01560-0104	WK	Aluminum Sign And A Frame Stand.....	8.79	
01560-0105	MO	Aluminum Sign And A Frame Stand.....	26.36	
01560-0106	DAY	Trailer Mounted Arrow Board.....	59.99	
01560-0107	WK	Trailer Mounted Arrow Board.....	179.98	
01560-0108	MO	Trailer Mounted Arrow Board.....	539.93	
01560-0109	DAY	Trailer Mounted Message Board.....	183.00	
01560-0110	WK	Trailer Mounted Message Board.....	549.00	
01560-0111	MO	Trailer Mounted Message Board.....	1,647.00	
01560-0112	DAY	Trailer Mounted Traffic Signal.....	274.50	
01560-0113	WK	Trailer Mounted Traffic Signal.....	823.50	
01560-0114	MO	Trailer Mounted Traffic Signal.....	2,470.50	
01560-0115 Place And Remove Traffic Protection Using Truck (01560-0039)				
Note: Includes delivery and return up to 15 miles.				
01560-0116	EA	Place And Remove Up To 250 Cones Using Truck.....	3.32	
01560-0117	EA	Place And Remove > 250 Cones Using Truck.....	2.65	
01560-0118	EA	Place And Remove Up To 250 Panels/Channelizers Using Truck.....	4.43	
01560-0119	EA	Place And Remove > 250 Panels/Channelizers Using Truck.....	3.53	
01560-0120	EA	Place And Remove Up To 250 Barricades Using Truck.....	6.63	
01560-0121	EA	Place And Remove > 250 Barricades Using Truck.....	5.31	
01560-0122	EA	Place And Remove Curbs/Speed Bumps Using Truck.....	6.63	
01560-0123	EA	Place And Remove Portable Sign And Stand Using Truck.....	3.98	
01560-0124	EA	Place And Remove Aluminum Sign And Post Using Truck.....	16.59	
01560-0125	EA	Place And Remove Trailer Mounted Boards Using Truck.....	49.76	
01560-0126	EA	Place And Remove Up To 12.5' Concrete Traffic Barrier.....	67.58	
Note: If lifting equipment is not available on site, See CSI section 01590-0000 for mobilization and rentals tasks.				
01MOD-0014	For 1 Barrier, Add		168.95	
01MOD-0015	For 2 Barriers, Add		60.82	
01MOD-0016	For 3 Barriers, Add		20.27	
01560-0127	EA	Place And Remove > 12.5' Concrete Traffic Barrier.....	101.37	
Note: If lifting equipment is not available on site, See CSI section 01590-0000 for mobilization and rentals tasks.				
01MOD-0014	For 1 Barrier, Add		253.43	
01MOD-0015	For 2 Barriers, Add		91.23	
01MOD-0016	For 3 Barriers, Add		30.41	
01560-0128	EA	Place And Remove Plastic Water Barrier.....	35.20	
Note: Includes water. If lifting equipment is not available on site, See CSI section 01590-0000 for mobilization and rentals tasks.				
01MOD-0014	For 1 Barrier, Add		84.48	
01MOD-0015	For 2 Barriers, Add		30.41	
01MOD-0016	For 3 Barriers, Add		10.14	
01560-0129	EA	Place And Remove Crash Attenuator Barrels.....	50.69	
Note: If lifting equipment is not available on site, See CSI section 01590-0000 for mobilization and rentals tasks.				
01MOD-0014	For 1 Barrier, Add		126.73	
01MOD-0015	For 2 Barriers, Add		45.62	
01MOD-0016	For 3 Barriers, Add		15.21	
01560-0130 Place And Remove Traffic Protection From Roadside (Daily) (01560-0039)				
01560-0131	EA	Place And Remove Up To 250 Cones By Hand From Roadside.....	1.66	
01560-0132	EA	Place And Remove > 250 Cones By Hand From Roadside.....	1.33	
01560-0133	EA	Place And Remove Up To 250 Panels/Channelizers By Hand From Roadside.....	2.21	
01560-0134	EA	Place And Remove > 250 Panels/Channelizers By Hand From Roadside.....	1.76	
01560-0135	EA	Place And Remove Up To 250 Barricades By Hand From Roadside.....	3.32	
01560-0136	EA	Place And Remove > 250 Barricades By Hand From Roadside.....	2.65	
01560-0137	EA	Place And Remove Portable Sign And Stand From Roadside.....	2.06	
01560-0138	EA	Place And Remove Trailer Mounted Boards From Roadside.....	24.88	
01560-0139	EA	Relocate Concrete Traffic Barrier.....	33.79	
Note: Excludes flatbed truck (if required). If lifting equipment is not available on site. See CSI section 01590-0000 for mobilization and rentals tasks.				
01580 Project Identification (01500)				
Note: Includes furnishing, installation and removal.				
01580-0001 Project Sign (01580)				
01580-0002	EA	Construction Project Identification Sign, Painted Letters.....	745.22	
Note: Up to 4' x 8' with logos, project name, address, owner's name, contractor names, A/E or design firm names, etc.				
01580-0003	EA	Install And Remove Owner Supplied Project Sign.....	64.36	
01590 Equipment Rentals (01500)				
Note: Includes fuel costs unless otherwise stated. These tasks will be requested specifically by the owner for miscellaneous work not covered in the Construction Task Catalog®, for work above 14' for general construction and 4' for masonry, or for staging materials above 2-1/2 stories. Do not use these rental costs in addition to, or as a substitute for, any task.				
01590-0001 Aerial Equipment (01590)				

01000 General Requirements**01500 Construction Facilities And Temporary Construction****01590 Equipment Rentals**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

01590-0002

Manlifts (01590-0001)

Note: Excludes operator, delivery, set-up, and removal. See CSI section 01590-0666 for equipment mobilization/demobilization.

01590-0003

Telescoping Boom Manlifts (01590-0002)

01590-0004

Engine Powered, Telescoping Boom Manlifts (01590-0003)

Note: Diesel or dual fuel (gasoline or liquid propane gas). Two- or four-wheel drive. For use on unpaved or paved surfaces.

01590-0005	DAY	40' Engine Powered, Telescoping Boom Manlift	339.36
01590-0006	WK	40' Engine Powered, Telescoping Boom Manlift	853.87
01590-0007	MO	40' Engine Powered, Telescoping Boom Manlift	1,915.72
01590-0008	DAY	60' Engine Powered, Telescoping Boom Manlift	498.09
01590-0009	WK	60' Engine Powered, Telescoping Boom Manlift	1,187.75
01590-0010	MO	60' Engine Powered, Telescoping Boom Manlift	2,599.91
01590-0011	DAY	80' Engine Powered, Telescoping Boom Manlift	968.81
01590-0012	WK	80' Engine Powered, Telescoping Boom Manlift	2,348.13
01590-0013	MO	80' Engine Powered, Telescoping Boom Manlift	4,926.15
01590-0014	DAY	110' Engine Powered, Telescoping Boom Manlift	1,379.32
01590-0015	WK	110' Engine Powered, Telescoping Boom Manlift	3,321.32
01590-0016	MO	110' Engine Powered, Telescoping Boom Manlift	8,275.93
01590-0017	DAY	120' Engine Powered, Telescoping Boom Manlift	1,680.36
01590-0018	WK	120' Engine Powered, Telescoping Boom Manlift	4,285.75
01590-0019	MO	120' Engine Powered, Telescoping Boom Manlift	9,742.83

01590-0020

Articulating (Up/Over) Boom Manlifts (01590-0002)

01590-0021

Engine Powered, Articulating (Up/Over) Boom Manlifts (01590-0020)

Note: Diesel or dual fuel (gasoline or liquid propane gas). Two- or four-wheel drive. For use on unpaved or paved surfaces.

01590-0022	DAY	34' Engine Powered, Articulating (Up/Over) Boom Manlift	293.10
01590-0023	WK	34' Engine Powered, Articulating (Up/Over) Boom Manlift	711.62
01590-0024	MO	34' Engine Powered, Articulating (Up/Over) Boom Manlift	1,764.98
01590-0025	DAY	45' Engine Powered, Articulating (Up/Over) Boom Manlift	396.77
01590-0026	WK	45' Engine Powered, Articulating (Up/Over) Boom Manlift	959.92
01590-0027	MO	45' Engine Powered, Articulating (Up/Over) Boom Manlift	2,163.03
01590-0028	DAY	60' Engine Powered, Articulating (Up/Over) Boom Manlift	422.37
01590-0029	WK	60' Engine Powered, Articulating (Up/Over) Boom Manlift	1,055.92
01590-0030	MO	60' Engine Powered, Articulating (Up/Over) Boom Manlift	2,879.78
01590-0031	DAY	80' Engine Powered, Articulating (Up/Over) Boom Manlift	844.73
01590-0032	WK	80' Engine Powered, Articulating (Up/Over) Boom Manlift	2,111.84
01590-0033	MO	80' Engine Powered, Articulating (Up/Over) Boom Manlift	5,759.55
01590-0034	DAY	125' Engine Powered, Articulating (Up/Over) Boom Manlift	1,663.87
01590-0035	WK	125' Engine Powered, Articulating (Up/Over) Boom Manlift	4,178.87
01590-0036	MO	125' Engine Powered, Articulating (Up/Over) Boom Manlift	11,391.11

01590-0037

Electric, Articulating (Up/Over) Boom Manlifts (01590-0020)

Note: For use on paved surfaces.

01590-0038	DAY	30' Electric, Articulating (Up/Over) Boom Manlift	287.98
01590-0039	WK	30' Electric, Articulating (Up/Over) Boom Manlift	742.34
01590-0040	MO	30' Electric, Articulating (Up/Over) Boom Manlift	1,663.87
01590-0041	DAY	40' Electric, Articulating (Up/Over) Boom Manlift	371.17
01590-0042	WK	40' Electric, Articulating (Up/Over) Boom Manlift	966.32
01590-0043	MO	40' Electric, Articulating (Up/Over) Boom Manlift	2,163.03
01590-0044	DAY	45' Electric, Articulating (Up/Over) Boom Manlift	371.17
01590-0045	WK	45' Electric, Articulating (Up/Over) Boom Manlift	966.32
01590-0046	MO	45' Electric, Articulating (Up/Over) Boom Manlift	2,163.03

01590-0047

Platform Lifts (01590-0001)

Note: Excludes operator, delivery, set-up, and removal. See CSI section 01590-0666 for equipment mobilization/demobilization.

01590-0048

Electric, Scissor Platform Lifts (01590-0047)

Note: For use on paved surfaces.

01590-0049	DAY	20' Electric, Scissor Platform Lift	107.95
01590-0050	WK	20' Electric, Scissor Platform Lift	238.62
01590-0051	MO	20' Electric, Scissor Platform Lift	499.97
01590-0052	DAY	30' Electric, Scissor Platform Lift	227.26
01590-0053	WK	30' Electric, Scissor Platform Lift	494.29
01590-0054	MO	30' Electric, Scissor Platform Lift	1,034.03

01590-0055

Engine Powered, Scissor Platform Lifts (01590-0047)

Note: Diesel or dual fuel (gasoline or liquid propane gas). Two- or four-wheel drive. For use on unpaved or paved surfaces.

01590-0056	DAY	25' Engine Powered, Scissor Platform Lift	238.62
01590-0057	WK	25' Engine Powered, Scissor Platform Lift	545.42
01590-0058	MO	25' Engine Powered, Scissor Platform Lift	1,221.52
01590-0059	DAY	33' Engine Powered, Scissor Platform Lift	272.71
01590-0060	WK	33' Engine Powered, Scissor Platform Lift	630.65
01590-0061	MO	33' Engine Powered, Scissor Platform Lift	1,477.19
01590-0062	DAY	40' Engine Powered, Scissor Platform Lift	284.08



General Requirements			01000	10
Construction Facilities And Temporary Construction			01500	
Equipment Rentals			01590	

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
01590-0063	WK	40' Engine Powered, Scissor Platform Lift	653.37	
01590-0064	MO	40' Engine Powered, Scissor Platform Lift	1,534.00	
01590-0065	DAY	43' Engine Powered, Scissor Platform Lift	335.21	
01590-0066	WK	43' Engine Powered, Scissor Platform Lift	772.68	
01590-0067	MO	43' Engine Powered, Scissor Platform Lift	1,818.08	
01590-0068	DAY	50' Engine Powered, Scissor Platform Lift	378.39	
01590-0069	WK	50' Engine Powered, Scissor Platform Lift	919.27	
01590-0070	MO	50' Engine Powered, Scissor Platform Lift	1,818.08	
01590-0071 Personnel Lifts (01590-0001)				
Note: Includes delivery to job site and pick-up when complete. Excludes operator. For use on paved surfaces. See CSI section 01590-0666 for equipment mobilization/demobilization.				
01590-0072	DAY	20' Electric, Single Man Personnel Lift	103.27	
01590-0073	WK	20' Electric, Single Man Personnel Lift	273.35	
01590-0074	MO	20' Electric, Single Man Personnel Lift	571.00	
01590-0075	DAY	24' Electric, Single Man Personnel Lift	109.34	
01590-0076	WK	24' Electric, Single Man Personnel Lift	309.80	
01590-0077	MO	24' Electric, Single Man Personnel Lift	662.12	
01590-0078	DAY	30' Electric, Single Man Personnel Lift	121.49	
01590-0079	WK	30' Electric, Single Man Personnel Lift	309.80	
01590-0080	MO	30' Electric, Single Man Personnel Lift	649.97	
01590-0081 Bucket Trucks (01590-0001)				
Note: Includes full-time operator, delivery, and removal.				
01590-0082	DAY	48' Bucket Truck With Full-Time Operator	893.41	
	01MOD-0009	For Equipment Without Operator, Deduct	-473.41	
01590-0083	WK	48' Bucket Truck With Full-Time Operator	3,867.03	
	01MOD-0009	For Equipment Without Operator, Deduct	-2,367.03	
01590-0084	MO	48' Bucket Truck With Full-Time Operator	14,502.72	
	01MOD-0009	For Equipment Without Operator, Deduct	-10,202.72	
01590-0085 Air Equipment (01590)				
01590-0086 Air Compressors (01590-0085)				
Note: Includes delivery, set-up, and removal. Excludes operator.				
01590-0087	DAY	100 CFM Diesel Powered Portable Air Compressor	116.60	
01590-0088	WK	100 CFM Diesel Powered Portable Air Compressor	349.78	
01590-0089	MO	100 CFM Diesel Powered Portable Air Compressor	971.62	
01590-0090	DAY	130 CFM Diesel Powered Portable Air Compressor	139.91	
01590-0091	WK	130 CFM Diesel Powered Portable Air Compressor	411.97	
01590-0092	MO	130 CFM Diesel Powered Portable Air Compressor	1,165.95	
01590-0093	DAY	185 CFM Diesel Powered Portable Air Compressor	186.55	
01590-0094	WK	185 CFM Diesel Powered Portable Air Compressor	419.74	
01590-0095	MO	185 CFM Diesel Powered Portable Air Compressor	924.99	
01590-0096	DAY	375 CFM Diesel Powered Portable Air Compressor	264.28	
01590-0097	WK	375 CFM Diesel Powered Portable Air Compressor	668.48	
01590-0098	MO	375 CFM Diesel Powered Portable Air Compressor	1,593.46	
01590-0099	DAY	600 CFM Diesel Powered Portable Air Compressor	587.64	
01590-0100	WK	600 CFM Diesel Powered Portable Air Compressor	1,414.69	
01590-0101	MO	600 CFM Diesel Powered Portable Air Compressor	3,525.83	
01590-0102	DAY	750 CFM Diesel Powered Portable Air Compressor	707.34	
01590-0103	WK	750 CFM Diesel Powered Portable Air Compressor	1,741.15	
01590-0104	MO	750 CFM Diesel Powered Portable Air Compressor	4,275.15	
01590-0105	DAY	825 CFM Diesel Powered Portable Air Compressor	707.34	
01590-0106	WK	825 CFM Diesel Powered Portable Air Compressor	1,741.15	
01590-0107	MO	825 CFM Diesel Powered Portable Air Compressor	4,275.15	
01590-0108	DAY	1,300 CFM Diesel Powered Portable Air Compressor	823.94	
01590-0109	WK	1,300 CFM Diesel Powered Portable Air Compressor	1,846.86	
01590-0110	MO	1,300 CFM Diesel Powered Portable Air Compressor	4,924.97	
01590-0111	DAY	1,600 CFM Diesel Powered Portable Air Compressor	1,026.04	
01590-0112	WK	1,600 CFM Diesel Powered Portable Air Compressor	2,308.58	
01590-0113	MO	1,600 CFM Diesel Powered Portable Air Compressor	6,156.22	
01590-0114 Compaction And Paving Equipment (01590)				
01590-0115 Steel Plates (01590-0114)				
Note: 3 day minimum.				
01590-0116	DAY	1" x 4' x 8' Steel Plate	38.62	
01590-0117	WK	1" x 4' x 8' Steel Plate	91.18	
01590-0118	MO	1" x 4' x 8' Steel Plate	119.99	
01590-0119	DAY	1" x 4' x 10' Steel Plate	51.49	
01590-0120	WK	1" x 4' x 10' Steel Plate	115.85	
01590-0121	MO	1" x 4' x 10' Steel Plate	141.60	
01590-0122	DAY	1" x 5' x 10' Steel Plate	53.64	
01590-0123	WK	1" x 5' x 10' Steel Plate	121.22	
01590-0124	MO	1" x 5' x 10' Steel Plate	321.81	
01590-0125	DAY	1" x 6' x 8' Steel Plate	34.33	
01590-0126	WK	1" x 6' x 8' Steel Plate	77.23	
01590-0127	MO	1" x 6' x 8' Steel Plate	205.96	
01590-0128	DAY	1" x 6' x 10' Steel Plate	64.36	

01000 General Requirements**01500 Construction Facilities And Temporary Construction****01590 Equipment Rentals**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
01590-0129	WK	1" x 6' x 10' Steel Plate.....	84.74	
01590-0130	MO	1" x 6' x 10' Steel Plate.....	226.34	
01590-0131	DAY	1" x 6' x 12' Steel Plate.....	90.11	
01590-0132	WK	1" x 6' x 12' Steel Plate.....	115.32	
01590-0133	MO	1" x 6' x 12' Steel Plate.....	312.16	
01590-0134	DAY	1" x 8' x 10' Steel Plate.....	56.85	
01590-0135	WK	1" x 8' x 10' Steel Plate.....	127.65	
01590-0136	MO	1" x 8' x 10' Steel Plate.....	340.05	
01590-0137	DAY	1" x 8' x 12' Steel Plate.....	102.98	
01590-0138	WK	1" x 8' x 12' Steel Plate.....	127.65	
01590-0139	MO	1" x 8' x 12' Steel Plate.....	617.88	
01590-0140	DAY	1" x 8' x 16' Steel Plate.....	137.31	
01590-0141	WK	1" x 8' x 16' Steel Plate.....	308.94	
01590-0142	MO	1" x 8' x 16' Steel Plate.....	823.83	
01590-0143	LF	Cold Mix For Temporary Ramp Base, 6" At Edge Of Trench Plate.....	1.55	0.79
01590-0144	EA	Remove And Reset Trench Plate.....	21.79	

01590-0145**Street Sweepers** (01590-0114)

Note: Includes full-time operator. Excludes delivery, set-up, and removal. See CSI section 01590-0666 for equipment mobilization/demobilization.

01590-0146	DAY	8' Broom Sweeper With Full-Time Operator.....	837.03	
		01MOD-0017 For Equipment Without Operator, Deduct.....	-581.95	
01590-0147	WK	8' Broom Sweeper With Full-Time Operator.....	3,601.30	
		01MOD-0017 For Equipment Without Operator, Deduct.....	-2,909.74	
01590-0148	MO	8' Broom Sweeper With Full-Time Operator.....	14,735.71	
		01MOD-0017 For Equipment Without Operator, Deduct.....	-12,542.00	
01590-0149	DAY	Self-Propelled Street Sweeper With Hopper And Full-Time Operator.....	876.71	
		Note: Truck with main and gutter brooms, elevator, debris hopper and water tank.		
		01MOD-0017 For Equipment Without Operator, Deduct.....	-581.95	
01590-0150	WK	Self-Propelled Street Sweeper With Hopper And Full-Time Operator.....	4,255.44	
		Note: Truck with main and gutter brooms, elevator, debris hopper and water tank.		
		01MOD-0017 For Equipment Without Operator, Deduct.....	-2,909.74	
01590-0151	MO	Self-Propelled Street Sweeper With Hopper And Full-Time Operator.....	17,652.72	
		Note: Truck with main and gutter brooms, elevator, debris hopper and water tank.		
		01MOD-0017 For Equipment Without Operator, Deduct.....	-12,542.00	

01590-0152**Earthmoving Equipment** (01590)**01590-0153****Skid-Steer Loaders (Bobcat)** (01590-0152)

Note: Includes full-time operator and combination bucket and dozer blade attachments. Add extra attachments where necessary. Excludes delivery, set-up, and removal. See CSI section 01590-0666 for equipment mobilization/demobilization.

01590-0154	DAY	700 LB Capacity, 36" Wide, Skid-Steer Loader (Bobcat) With Full-Time Operator.....	734.93	
		01MOD-0017 For Equipment Without Operator, Deduct.....	-581.95	
01590-0155	WK	700 LB Capacity, 36" Wide, Skid-Steer Loader (Bobcat) With Full-Time Operator.....	3,341.91	
		01MOD-0017 For Equipment Without Operator, Deduct.....	-2,909.74	
01590-0156	MO	700 LB Capacity, 36" Wide, Skid-Steer Loader (Bobcat) With Full-Time Operator.....	13,697.00	
		01MOD-0017 For Equipment Without Operator, Deduct.....	-12,542.00	
01590-0157	DAY	1,500 LB Capacity, 60" Wide, Skid-Steer Loader (Bobcat) With Full-Time Operator.....	723.46	
		01MOD-0017 For Equipment Without Operator, Deduct.....	-581.95	
01590-0158	WK	1,500 LB Capacity, 60" Wide, Skid-Steer Loader (Bobcat) With Full-Time Operator.....	3,334.26	
		01MOD-0017 For Equipment Without Operator, Deduct.....	-2,909.74	
01590-0159	MO	1,500 LB Capacity, 60" Wide, Skid-Steer Loader (Bobcat) With Full-Time Operator.....	13,555.49	
		01MOD-0017 For Equipment Without Operator, Deduct.....	-12,542.00	
01590-0160	DAY	2,400 LB Capacity, 72" Wide, Skid-Steer Loader (Bobcat) With Full-Time Operator.....	966.61	
		01MOD-0017 For Equipment Without Operator, Deduct.....	-744.79	
01590-0161	WK	2,400 LB Capacity, 72" Wide, Skid-Steer Loader (Bobcat) With Full-Time Operator.....	4,416.15	
		01MOD-0017 For Equipment Without Operator, Deduct.....	-3,723.92	
01590-0162	MO	2,400 LB Capacity, 72" Wide, Skid-Steer Loader (Bobcat) With Full-Time Operator.....	17,730.34	
		01MOD-0017 For Equipment Without Operator, Deduct.....	-16,051.38	
01590-0163	DAY	Hydraulic Hammer Attachment For Skid-Steer Loaders.....	114.74	
01590-0164	WK	Hydraulic Hammer Attachment For Skid-Steer Loaders.....	313.61	
01590-0165	MO	Hydraulic Hammer Attachment For Skid-Steer Loaders.....	891.11	
01590-0166	DAY	Forklift Attachment For Skid-Steer Loaders.....	32.89	
01590-0167	WK	Forklift Attachment For Skid-Steer Loaders.....	87.96	
01590-0168	MO	Forklift Attachment For Skid-Steer Loaders.....	248.59	
01590-0169	DAY	Backhoe Attachment For Skid-Steer Loaders.....	72.67	
01590-0170	WK	Backhoe Attachment For Skid-Steer Loaders.....	174.40	
01590-0171	MO	Backhoe Attachment For Skid-Steer Loaders.....	433.70	
01590-0172	DAY	Broom Attachment For Skid-Steer Loaders.....	71.90	
01590-0173	WK	Broom Attachment For Skid-Steer Loaders.....	195.05	
01590-0174	MO	Broom Attachment For Skid-Steer Loaders.....	516.31	
01590-0175	DAY	9", 12", Or 16" Auger Attachment For Skid-Steer Loaders.....	48.19	
01590-0176	WK	9", 12", Or 16" Auger Attachment For Skid-Steer Loaders.....	152.98	
01590-0177	MO	9", 12", Or 16" Auger Attachment For Skid-Steer Loaders.....	363.33	

01590-0178**Bulldozers** (01590-0152)

Note: Includes full-time operator. Excludes delivery, set-up, and removal. See CSI section 01590-0666 for equipment mobilization/demobilization.

01590-0179	DAY	70 HP, D3 Bulldozer With Full-Time Operator.....	867.09	
		01MOD-0017 For Equipment Without Operator, Deduct.....	-593.56	
01590-0180	WK	70 HP, D3 Bulldozer With Full-Time Operator.....	4,046.43	
		01MOD-0017 For Equipment Without Operator, Deduct.....	-2,967.78	



General Requirements			01000	10
Construction Facilities And Temporary Construction			01500	
Equipment Rentals			01590	

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
01590-0181	MO	70 HP, D3 Bulldozer With Full-Time Operator.....	15,991.98	
	01MOD-0017	For Equipment Without Operator, Deduct	-12,792.16	
01590-0182	DAY	90 To 105 HP, D4 Or D5 Bulldozer With Full-Time Operator.....	996.12	
	01MOD-0017	For Equipment Without Operator, Deduct	-593.56	
01590-0183	WK	90 To 105 HP, D4 Or D5 Bulldozer With Full-Time Operator.....	4,567.69	
	01MOD-0017	For Equipment Without Operator, Deduct	-2,967.78	
01590-0184	MO	90 To 105 HP, D4 Or D5 Bulldozer With Full-Time Operator.....	17,591.89	
	01MOD-0017	For Equipment Without Operator, Deduct	-12,792.16	
01590-0185	DAY	140 HP, D6 Bulldozer With Full-Time Operator.....	1,362.55	
	01MOD-0017	For Equipment Without Operator, Deduct	-593.56	
01590-0186	WK	140 HP, D6 Bulldozer With Full-Time Operator.....	6,033.41	
	01MOD-0017	For Equipment Without Operator, Deduct	-2,967.78	
01590-0187	MO	140 HP, D6 Bulldozer With Full-Time Operator.....	21,978.74	
	01MOD-0017	For Equipment Without Operator, Deduct	-12,792.16	
01590-0188	DAY	200 HP, D7 Bulldozer With Full-Time Operator.....	1,687.69	
	01MOD-0017	For Equipment Without Operator, Deduct	-593.56	
01590-0189	WK	200 HP, D7 Bulldozer With Full-Time Operator.....	7,339.15	
	01MOD-0017	For Equipment Without Operator, Deduct	-2,967.78	
01590-0190	MO	200 HP, D7 Bulldozer With Full-Time Operator.....	25,901.10	
	01MOD-0017	For Equipment Without Operator, Deduct	-12,792.16	
01590-0191	DAY	335 HP, D8 Bulldozer With Full-Time Operator.....	2,074.77	
	01MOD-0017	For Equipment Without Operator, Deduct	-593.56	
01590-0192	WK	335 HP, D8 Bulldozer With Full-Time Operator.....	8,887.45	
	01MOD-0017	For Equipment Without Operator, Deduct	-2,967.78	
01590-0193	MO	335 HP, D8 Bulldozer With Full-Time Operator.....	30,546.00	
	01MOD-0017	For Equipment Without Operator, Deduct	-12,792.16	
01590-0194	DAY	460 HP, D9 Bulldozer With Full-Time Operator.....	2,291.53	
	01MOD-0017	For Equipment Without Operator, Deduct	-593.56	
01590-0195	WK	460 HP, D9 Bulldozer With Full-Time Operator.....	9,749.33	
	01MOD-0017	For Equipment Without Operator, Deduct	-2,967.78	
01590-0196	MO	460 HP, D9 Bulldozer With Full-Time Operator.....	33,126.50	
	01MOD-0017	For Equipment Without Operator, Deduct	-12,792.16	
01590-0197 Motor Scraper (01590-0152)				
Note: Includes full-time operator. Excludes delivery, set-up, and removal. See CSI section 01590-0666 for equipment mobilization/demobilization.				
01590-0198	DAY	11 CY Motor Scraper-Hauler With Full-Time Operator.....	1,440.36	
	01MOD-0017	For Equipment Without Operator, Deduct	-593.56	
01590-0199	WK	11 CY Motor Scraper-Hauler With Full-Time Operator.....	6,354.98	
	01MOD-0017	For Equipment Without Operator, Deduct	-2,967.78	
01590-0200	MO	11 CY Motor Scraper-Hauler With Full-Time Operator.....	22,942.16	
	01MOD-0017	For Equipment Without Operator, Deduct	-12,792.16	
01590-0201	DAY	18 CY Motor Scraper-Hauler With Full-Time Operator.....	1,782.56	
	01MOD-0017	For Equipment Without Operator, Deduct	-593.56	
01590-0202	WK	18 CY Motor Scraper-Hauler With Full-Time Operator.....	7,723.78	
	01MOD-0017	For Equipment Without Operator, Deduct	-2,967.78	
01590-0203	MO	18 CY Motor Scraper-Hauler With Full-Time Operator.....	27,060.16	
	01MOD-0017	For Equipment Without Operator, Deduct	-12,792.16	
01590-0204	DAY	24 CY Motor Scraper-Hauler With Full-Time Operator.....	2,113.16	
	01MOD-0017	For Equipment Without Operator, Deduct	-593.56	
01590-0205	WK	24 CY Motor Scraper-Hauler With Full-Time Operator.....	9,040.38	
	01MOD-0017	For Equipment Without Operator, Deduct	-2,967.78	
01590-0206	MO	24 CY Motor Scraper-Hauler With Full-Time Operator.....	31,004.16	
	01MOD-0017	For Equipment Without Operator, Deduct	-12,792.16	
01590-0207 Hydraulic Excavators (01590-0152)				
Note: Includes full-time operator. Excludes delivery, set-up, and removal. See CSI section 01590-0666 for equipment mobilization/demobilization.				
01590-0208	DAY	3/8 CY Hydraulic Excavator With Full-Time Operator.....	826.38	
	01MOD-0017	For Equipment Without Operator, Deduct	-593.56	
01590-0209	WK	3/8 CY Hydraulic Excavator With Full-Time Operator.....	3,884.52	
	01MOD-0017	For Equipment Without Operator, Deduct	-2,967.78	
01590-0210	MO	3/8 CY Hydraulic Excavator With Full-Time Operator.....	15,537.54	
	01MOD-0017	For Equipment Without Operator, Deduct	-12,792.16	
01590-0211	DAY	1/2 CY Hydraulic Excavator With Full-Time Operator.....	908.84	
	01MOD-0017	For Equipment Without Operator, Deduct	-593.56	
01590-0212	WK	1/2 CY Hydraulic Excavator With Full-Time Operator.....	4,199.81	
	01MOD-0017	For Equipment Without Operator, Deduct	-2,967.78	
01590-0213	MO	1/2 CY Hydraulic Excavator With Full-Time Operator.....	16,114.75	
	01MOD-0017	For Equipment Without Operator, Deduct	-12,792.16	
01590-0214	DAY	5/8 CY Hydraulic Excavator With Full-Time Operator.....	996.15	
	01MOD-0017	For Equipment Without Operator, Deduct	-593.56	
01590-0215	WK	5/8 CY Hydraulic Excavator With Full-Time Operator.....	4,568.44	
	01MOD-0017	For Equipment Without Operator, Deduct	-2,967.78	
01590-0216	MO	5/8 CY Hydraulic Excavator With Full-Time Operator.....	17,594.16	
	01MOD-0017	For Equipment Without Operator, Deduct	-12,792.16	
01590-0217	DAY	3/4 CY Hydraulic Excavator With Full-Time Operator.....	962.20	
	01MOD-0017	For Equipment Without Operator, Deduct	-593.56	
01590-0218	WK	3/4 CY Hydraulic Excavator With Full-Time Operator.....	4,442.33	
	01MOD-0017	For Equipment Without Operator, Deduct	-2,967.78	
01590-0219	MO	3/4 CY Hydraulic Excavator With Full-Time Operator.....	17,206.12	
	01MOD-0017	For Equipment Without Operator, Deduct	-12,792.16	
01590-0220	DAY	7/8 To 1 CY Hydraulic Excavator With Full-Time Operator.....	996.15	
	01MOD-0017	For Equipment Without Operator, Deduct	-593.56	

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MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
01590-0221 WK 7/8 To 1 CY Hydraulic Excavator With Full-Time Operator	4,568.44	
01MOD-0017 For Equipment Without Operator, Deduct	-2,967.78	
01590-0222 MO 7/8 To 1 CY Hydraulic Excavator With Full-Time Operator	17,836.68	
01MOD-0017 For Equipment Without Operator, Deduct	-12,792.16	
01590-0223 DAY 1-1/8 To 1-1/4 CY Hydraulic Excavator With Full-Time Operator	1,258.08	
01MOD-0017 For Equipment Without Operator, Deduct	-593.56	
01590-0224 WK 1-1/8 To 1-1/4 CY Hydraulic Excavator With Full-Time Operator	5,611.30	
01MOD-0017 For Equipment Without Operator, Deduct	-2,967.78	
01590-0225 MO 1-1/8 To 1-1/4 CY Hydraulic Excavator With Full-Time Operator	20,722.73	
01MOD-0017 For Equipment Without Operator, Deduct	-12,792.16	
01590-0226 DAY 1-3/8 To 1-1/2 CY Hydraulic Excavator With Full-Time Operator	1,296.88	
01MOD-0017 For Equipment Without Operator, Deduct	-593.56	
01590-0227 WK 1-3/8 To 1-1/2 CY Hydraulic Excavator With Full-Time Operator	5,781.07	
01MOD-0017 For Equipment Without Operator, Deduct	-2,967.78	
01590-0228 MO 1-3/8 To 1-1/2 CY Hydraulic Excavator With Full-Time Operator	21,232.03	
01MOD-0017 For Equipment Without Operator, Deduct	-12,792.16	
01590-0229 DAY 1-5/8 To 1-7/8 CY Hydraulic Excavator With Full-Time Operator	1,369.64	
01MOD-0017 For Equipment Without Operator, Deduct	-593.56	
01590-0230 WK 1-5/8 To 1-7/8 CY Hydraulic Excavator With Full-Time Operator	6,072.10	
01MOD-0017 For Equipment Without Operator, Deduct	-2,967.78	
01590-0231 MO 1-5/8 To 1-7/8 CY Hydraulic Excavator With Full-Time Operator	22,105.12	
01MOD-0017 For Equipment Without Operator, Deduct	-12,792.16	
01590-0232 DAY 2 To 2-3/8 CY Hydraulic Excavator With Full-Time Operator	1,452.10	
01MOD-0017 For Equipment Without Operator, Deduct	-593.56	
01590-0233 WK 2 To 2-3/8 CY Hydraulic Excavator With Full-Time Operator	6,397.08	
01MOD-0017 For Equipment Without Operator, Deduct	-2,967.78	
01590-0234 MO 2 To 2-3/8 CY Hydraulic Excavator With Full-Time Operator	23,075.22	
01MOD-0017 For Equipment Without Operator, Deduct	-12,792.16	
01590-0235 DAY 2-1/2 To 2-7/8 CY Hydraulic Excavator With Full-Time Operator	1,476.35	
01MOD-0017 For Equipment Without Operator, Deduct	-593.56	
01590-0236 WK 2-1/2 To 2-7/8 CY Hydraulic Excavator With Full-Time Operator	6,494.09	
01MOD-0017 For Equipment Without Operator, Deduct	-2,967.78	
01590-0237 MO 2-1/2 To 2-7/8 CY Hydraulic Excavator With Full-Time Operator	23,366.25	
01MOD-0017 For Equipment Without Operator, Deduct	-12,792.16	
01590-0238 DAY 3 To 3-3/4 CY Hydraulic Excavator With Full-Time Operator	1,709.18	
01MOD-0017 For Equipment Without Operator, Deduct	-593.56	
01590-0239 WK 3 To 3-3/4 CY Hydraulic Excavator With Full-Time Operator	7,430.24	
01MOD-0017 For Equipment Without Operator, Deduct	-2,967.78	
01590-0240 MO 3 To 3-3/4 CY Hydraulic Excavator With Full-Time Operator	26,179.54	
01MOD-0017 For Equipment Without Operator, Deduct	-12,792.16	
01590-0241 DAY 4 To 5-3/4 CY Hydraulic Excavator With Full-Time Operator	2,043.86	
01MOD-0017 For Equipment Without Operator, Deduct	-593.56	
01590-0242 WK 4 To 5-3/4 CY Hydraulic Excavator With Full-Time Operator	8,759.28	
01MOD-0017 For Equipment Without Operator, Deduct	-2,967.78	
01590-0243 MO 4 To 5-3/4 CY Hydraulic Excavator With Full-Time Operator	30,156.95	
01MOD-0017 For Equipment Without Operator, Deduct	-12,792.16	
01590-0244 DAY Thumbs Or Grapple Attachment For Hydraulic Excavators.....	67.91	
01590-0245 WK Thumbs Or Grapple Attachment For Hydraulic Excavators.....	261.93	
01590-0246 MO Thumbs Or Grapple Attachment For Hydraulic Excavators.....	776.08	
01590-0247 DAY 1,000 Ft-Lb Hydraulic Hammer Attachment For Hydraulic Excavators	300.73	
01590-0248 WK 1,000 Ft-Lb Hydraulic Hammer Attachment For Hydraulic Excavators	795.48	
01590-0249 MO 1,000 Ft-Lb Hydraulic Hammer Attachment For Hydraulic Excavators	2,226.38	
01590-0250 DAY 1,500 Ft-Lb Hydraulic Hammer Attachment For Hydraulic Excavators	465.65	
01590-0251 WK 1,500 Ft-Lb Hydraulic Hammer Attachment For Hydraulic Excavators	1,188.37	
01590-0252 MO 1,500 Ft-Lb Hydraulic Hammer Attachment For Hydraulic Excavators	3,089.77	
01590-0253 DAY 3,000 Ft-Lb Hydraulic Hammer Attachment For Hydraulic Excavators	649.97	
01590-0254 WK 3,000 Ft-Lb Hydraulic Hammer Attachment For Hydraulic Excavators	1,751.03	
01590-0255 MO 3,000 Ft-Lb Hydraulic Hammer Attachment For Hydraulic Excavators	4,908.71	
01590-0256 DAY 24" Compaction Wheel Attachment For Hydraulic Excavators.....	135.81	
01590-0257 WK 24" Compaction Wheel Attachment For Hydraulic Excavators.....	543.26	
01590-0258 MO 24" Compaction Wheel Attachment For Hydraulic Excavators.....	1,629.77	
01590-0259 DAY 36" Compaction Wheel Attachment For Hydraulic Excavators.....	194.02	
01590-0260 WK 36" Compaction Wheel Attachment For Hydraulic Excavators.....	776.08	
01590-0261 MO 36" Compaction Wheel Attachment For Hydraulic Excavators.....	2,328.24	
01590-0262 DAY 48" Compaction Wheel Attachment For Hydraulic Excavators.....	213.42	
01590-0263 WK 48" Compaction Wheel Attachment For Hydraulic Excavators.....	843.99	
01590-0264 MO 48" Compaction Wheel Attachment For Hydraulic Excavators.....	2,522.26	
01590-0265 Mini-Excavators <small>(01590-0152)</small>		
Note: Includes full-time operator. Excludes delivery, set-up, and removal.		
01590-0266 DAY 2000# Mini-Excavator With Full-Time Operator; Bobcat 316.....	797.28	
01MOD-0017 For Equipment Without Operator, Deduct	-593.56	
01590-0267 WK 2000# Mini-Excavator With Full-Time Operator; Bobcat 316.....	3,544.99	
01MOD-0017 For Equipment Without Operator, Deduct	-2,967.78	
01590-0268 MO 2000# Mini-Excavator With Full-Time Operator; Bobcat 316.....	14,062.99	
01MOD-0017 For Equipment Without Operator, Deduct	-12,792.16	
01590-0269 DAY 3500# Mini-Excavator With Full-Time Operator; Bobcat 322 Or 323.....	802.13	
01MOD-0017 For Equipment Without Operator, Deduct	-593.56	
01590-0270 WK 3500# Mini-Excavator With Full-Time Operator; Bobcat 322 Or 323.....	3,559.54	
01MOD-0017 For Equipment Without Operator, Deduct	-2,967.78	
01590-0271 MO 3500# Mini-Excavator With Full-Time Operator; Bobcat 322 Or 323.....	14,368.57	
01MOD-0017 For Equipment Without Operator, Deduct	-12,792.16	
01590-0272 DAY 6000# Mini-Excavator With Full-Time Operator; Bobcat 325 Or 328.....	826.38	
01MOD-0017 For Equipment Without Operator, Deduct	-593.56	



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MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
01590-0273	WK	6000# Mini-Excavator With Full-Time Operator; Bobcat 325 Or 328	3,627.45	
	01MOD-0017	For Equipment Without Operator, Deduct	-2,967.78	
01590-0274	MO	6000# Mini-Excavator With Full-Time Operator; Bobcat 325 Or 328	14,412.23	
	01MOD-0017	For Equipment Without Operator, Deduct	-12,792.16	
01590-0275	DAY	7500# Mini-Excavator With Full-Time Operator; Bobcat 329, 331 Or 334.....	836.08	
	01MOD-0017	For Equipment Without Operator, Deduct	-593.56	
01590-0276	WK	7500# Mini-Excavator With Full-Time Operator; Bobcat 329, 331 Or 334.....	3,661.40	
	01MOD-0017	For Equipment Without Operator, Deduct	-2,967.78	
01590-0277	MO	7500# Mini-Excavator With Full-Time Operator; Bobcat 329, 331 Or 334.....	14,431.63	
	01MOD-0017	For Equipment Without Operator, Deduct	-12,792.16	
01590-0278	DAY	9500# Mini-Excavator With Full-Time Operator; Bobcat 335	894.29	
	01MOD-0017	For Equipment Without Operator, Deduct	-593.56	
01590-0279	WK	9500# Mini-Excavator With Full-Time Operator; Bobcat 335	3,709.91	
	01MOD-0017	For Equipment Without Operator, Deduct	-2,967.78	
01590-0280	MO	9500# Mini-Excavator With Full-Time Operator; Bobcat 335	14,994.29	
	01MOD-0017	For Equipment Without Operator, Deduct	-12,792.16	
01590-0281	DAY	11000# Mini-Excavator With Full-Time Operator; Bobcat 337	899.14	
	01MOD-0017	For Equipment Without Operator, Deduct	-593.56	
01590-0282	WK	11000# Mini-Excavator With Full-Time Operator; Bobcat 337	3,952.43	
	01MOD-0017	For Equipment Without Operator, Deduct	-2,967.78	
01590-0283	MO	11000# Mini-Excavator With Full-Time Operator; Bobcat 337	15,018.54	
	01MOD-0017	For Equipment Without Operator, Deduct	-12,792.16	
01590-0284 Road Graders (01590-0152)				
Note: Includes full-time operator. Excludes delivery, set-up, and removal. See CSI section 01590-0666 for equipment mobilization/demobilization.				
01590-0285	DAY	60 HP Road Grader With Full-Time Operator	1,073.10	
	01MOD-0017	For Equipment Without Operator, Deduct	-593.56	
01590-0286	WK	60 HP Road Grader With Full-Time Operator	4,265.01	
	01MOD-0017	For Equipment Without Operator, Deduct	-2,967.78	
01590-0287	MO	60 HP Road Grader With Full-Time Operator	16,671.55	
	01MOD-0017	For Equipment Without Operator, Deduct	-12,792.16	
01590-0288	DAY	80 HP Road Grader With Full-Time Operator	1,214.51	
	01MOD-0017	For Equipment Without Operator, Deduct	-593.56	
01590-0289	WK	80 HP Road Grader With Full-Time Operator	4,658.48	
	01MOD-0017	For Equipment Without Operator, Deduct	-2,967.78	
01590-0290	MO	80 HP Road Grader With Full-Time Operator	17,864.26	
	01MOD-0017	For Equipment Without Operator, Deduct	-12,792.16	
01590-0291	DAY	130 HP Road Grader With Full-Time Operator	1,312.76	
	01MOD-0017	For Equipment Without Operator, Deduct	-593.56	
01590-0292	WK	130 HP Road Grader With Full-Time Operator	5,096.38	
	01MOD-0017	For Equipment Without Operator, Deduct	-2,967.78	
01590-0293	MO	130 HP Road Grader With Full-Time Operator	19,172.16	
	01MOD-0017	For Equipment Without Operator, Deduct	-12,792.16	
01590-0294 Loader-Backhoes With Standard Bucket (01590-0152)				
Note: Includes full-time operator. Excludes delivery, set-up, and removal. See CSI section 01590-0666 for equipment mobilization/demobilization.				
01590-0295	DAY	1/2 To 5/8 CY, 65 HP, Loader-Backhoe With Standard Bucket And Full-Time Operator.....	911.00	
	01MOD-0017	For Equipment Without Operator, Deduct	-593.56	
01590-0296	WK	1/2 To 5/8 CY, 65 HP, Loader-Backhoe With Standard Bucket And Full-Time Operator.....	3,721.69	
	01MOD-0017	For Equipment Without Operator, Deduct	-2,967.78	
01590-0297	MO	1/2 To 5/8 CY, 65 HP, Loader-Backhoe With Standard Bucket And Full-Time Operator.....	14,566.40	
	01MOD-0017	For Equipment Without Operator, Deduct	-12,792.16	
01590-0298	DAY	1 CY, 24" Bucket, 14'-4" Deep, 75 HP, Loader-Backhoe With Full-Time Operator	945.01	
	01MOD-0017	For Equipment Without Operator, Deduct	-593.56	
01590-0299	WK	1 CY, 24" Bucket, 14'-4" Deep, 75 HP, Loader-Backhoe With Full-Time Operator	3,840.73	
	01MOD-0017	For Equipment Without Operator, Deduct	-2,967.78	
01590-0300	MO	1 CY, 24" Bucket, 14'-4" Deep, 75 HP, Loader-Backhoe With Full-Time Operator	15,291.97	
	01MOD-0017	For Equipment Without Operator, Deduct	-12,792.16	
01590-0301	DAY	1-1/2 CY, 24" Bucket, 16'-6" Deep, 90 HP, Loader-Backhoe With Full-Time Operator	997.44	
	01MOD-0017	For Equipment Without Operator, Deduct	-593.56	
01590-0302	WK	1-1/2 CY, 24" Bucket, 16'-6" Deep, 90 HP, Loader-Backhoe With Full-Time Operator.....	3,971.10	
	01MOD-0017	For Equipment Without Operator, Deduct	-2,967.78	
01590-0303	MO	1-1/2 CY, 24" Bucket, 16'-6" Deep, 90 HP, Loader-Backhoe With Full-Time Operator	15,666.09	
	01MOD-0017	For Equipment Without Operator, Deduct	-12,792.16	
01590-0304	DAY	1-3/4 CY, 30" Bucket, 18'-0" Deep, 112 HP, Loader-Backhoe With Full-Time Operator	1,231.27	
	01MOD-0017	For Equipment Without Operator, Deduct	-593.56	
01590-0305	WK	1-3/4 CY, 30" Bucket, 18'-0" Deep, 112 HP, Loader-Backhoe With Full-Time Operator	4,668.33	
	01MOD-0017	For Equipment Without Operator, Deduct	-2,967.78	
01590-0306	MO	1-3/4 CY, 30" Bucket, 18'-0" Deep, 112 HP, Loader-Backhoe With Full-Time Operator	17,661.40	
	01MOD-0017	For Equipment Without Operator, Deduct	-12,792.16	
01590-0307 Heavy Duty Construction Loaders (01590-0152)				
Note: Includes full-time operator. Excludes delivery, set-up, and removal. See CSI section 01590-0666 for equipment mobilization/demobilization.				
01590-0308	DAY	2-1/2 CY, 119 HP, Heavy Duty Construction Loader With Full-Time Operator	1,009.95	
	01MOD-0017	For Equipment Without Operator, Deduct	-593.56	
01590-0309	WK	2-1/2 CY, 119 HP, Heavy Duty Construction Loader With Full-Time Operator	4,614.12	
	01MOD-0017	For Equipment Without Operator, Deduct	-2,967.78	
01590-0310	MO	2-1/2 CY, 119 HP, Heavy Duty Construction Loader With Full-Time Operator	17,724.78	
	01MOD-0017	For Equipment Without Operator, Deduct	-12,792.16	

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MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
01590-0311	DAY	3 CY, 135 HP, Heavy Duty Construction Loader With Full-Time Operator.....	1,355.87	
	01MOD-0017	For Equipment Without Operator, Deduct.....	-593.56	
01590-0312	WK	3 CY, 135 HP, Heavy Duty Construction Loader With Full-Time Operator.....	4,992.08	
	01MOD-0017	For Equipment Without Operator, Deduct.....	-2,967.78	
01590-0313	MO	3 CY, 135 HP, Heavy Duty Construction Loader With Full-Time Operator.....	17,916.96	
	01MOD-0017	For Equipment Without Operator, Deduct.....	-12,792.16	
01590-0314	DAY	3-1/2 CY, 198 HP, Heavy Duty Construction Loader With Full-Time Operator.....	1,432.75	
	01MOD-0017	For Equipment Without Operator, Deduct.....	-593.56	
01590-0315	WK	3-1/2 CY, 198 HP, Heavy Duty Construction Loader With Full-Time Operator.....	5,197.07	
	01MOD-0017	For Equipment Without Operator, Deduct.....	-2,967.78	
01590-0316	MO	3-1/2 CY, 198 HP, Heavy Duty Construction Loader With Full-Time Operator.....	18,429.44	
	01MOD-0017	For Equipment Without Operator, Deduct.....	-12,792.16	
01590-0317	DAY	4-1/2 CY, 215 HP, Heavy Duty Construction Loader With Full-Time Operator.....	1,644.14	
	01MOD-0017	For Equipment Without Operator, Deduct.....	-593.56	
01590-0318	WK	4-1/2 CY, 215 HP, Heavy Duty Construction Loader With Full-Time Operator.....	10,014.38	
	01MOD-0017	For Equipment Without Operator, Deduct.....	-2,967.78	
01590-0319	MO	4-1/2 CY, 215 HP, Heavy Duty Construction Loader With Full-Time Operator.....	19,838.76	
	01MOD-0017	For Equipment Without Operator, Deduct.....	-12,792.16	
01590-0320	DAY	7-1/3 CY, 330 HP, Heavy Duty Construction Loader With Full-Time Operator.....	2,188.65	
	01MOD-0017	For Equipment Without Operator, Deduct.....	-593.56	
01590-0321	WK	7-1/3 CY, 330 HP, Heavy Duty Construction Loader With Full-Time Operator.....	9,335.34	
	01MOD-0017	For Equipment Without Operator, Deduct.....	-2,967.78	
01590-0322	MO	7-1/3 CY, 330 HP, Heavy Duty Construction Loader With Full-Time Operator.....	31,882.04	
	01MOD-0017	For Equipment Without Operator, Deduct.....	-12,792.16	
01590-0323	DAY	13-1/2 CY, 690 HP, Heavy Duty Construction Loader With Full-Time Operator.....	5,775.95	
	01MOD-0017	For Equipment Without Operator, Deduct.....	-593.56	
01590-0324	WK	13-1/2 CY, 690 HP, Heavy Duty Construction Loader With Full-Time Operator.....	19,796.16	
	01MOD-0017	For Equipment Without Operator, Deduct.....	-2,967.78	
01590-0325	MO	13-1/2 CY, 690 HP, Heavy Duty Construction Loader With Full-Time Operator.....	58,654.06	
	01MOD-0017	For Equipment Without Operator, Deduct.....	-12,792.16	
01590-0326		Shoring <small>(01590-0152)</small>		
		Note: Includes delivery to job site and pick-up when complete.		
01590-0327		Aluminum Hydraulic Shoring <small>(01590-0326)</small>		
		Note: Includes delivery to job site and pick-up when complete. Excludes sheeting.		
01590-0328	WK	2' Rails, 1 Cylinder, Aluminum Hydraulic Shoring.....	30.17	
		Note: Up to 88" spread width.		
01590-0329	MO	2' Rails, 1 Cylinder, Aluminum Hydraulic Shoring.....	88.99	
		Note: Up to 88" spread width.		
01590-0330	WK	Up To 12' Rails, 2 Cylinders, Aluminum Hydraulic Shoring.....	40.47	
		Note: Up to 88" spread width.		
01590-0331	MO	Up To 12' Rails, 2 Cylinders, Aluminum Hydraulic Shoring.....	119.38	
		Note: Up to 88" spread width.		
01590-0332	WK	Up To 16' Rails, 3 Cylinders, Aluminum Hydraulic Shoring.....	75.05	
		Note: Up to 88" spread width.		
01590-0333	MO	Up To 16' Rails, 3 Cylinders, Aluminum Hydraulic Shoring.....	221.40	
		Note: Up to 88" spread width.		
01590-0334	EA	Set-up And Remove Aluminum Hydraulic Shores, 1 Cylinder.....	20.11	
01590-0335	EA	Set-up And Remove Aluminum Hydraulic Shores, 2 Cylinders.....	32.18	
01590-0336	EA	Set-up And Remove Aluminum Hydraulic Shores, 3 Cylinders.....	53.63	
01590-0337		Trench Boxes/Trench Shields <small>(01590-0152)</small>		
		Note: Trenching tasks include moving the trench box in excavation as trenching proceeds. Includes delivery to job site and pick-up when complete. For stackable units, combine multiple units for depth required.		
01590-0338	WK	4' x 6' Trench Box With Up To 48" Spreaders.....	162.38	
01590-0339	MO	4' x 6' Trench Box With Up To 48" Spreaders.....	487.13	
01590-0340	WK	6' x 6' Trench Box With Up To 48" Spreaders.....	183.33	
01590-0341	MO	6' x 6' Trench Box With Up To 48" Spreaders.....	549.99	
01590-0342	WK	8' x 6' Trench Box With Up To 48" Spreaders.....	193.81	
01590-0343	MO	8' x 6' Trench Box With Up To 48" Spreaders.....	581.42	
01590-0344	WK	4' x 8' Trench Box With Up To 48" Spreaders.....	178.09	
01590-0345	MO	4' x 8' Trench Box With Up To 48" Spreaders.....	534.28	
01590-0346	WK	6' x 8' Trench Box With Up To 48" Spreaders.....	209.52	
01590-0347	MO	6' x 8' Trench Box With Up To 48" Spreaders.....	628.56	
01590-0348	WK	8' x 8' Trench Box With Up To 48" Spreaders.....	235.71	
01590-0349	MO	8' x 8' Trench Box With Up To 48" Spreaders.....	707.13	
01590-0350	WK	4' x 10' Trench Box With Up To 48" Spreaders.....	199.04	
01590-0351	MO	4' x 10' Trench Box With Up To 48" Spreaders.....	597.13	
01590-0352	WK	6' x 10' Trench Box With Up To 48" Spreaders.....	235.71	
01590-0353	MO	6' x 10' Trench Box With Up To 48" Spreaders.....	707.13	
01590-0354	WK	8' x 10' Trench Box With Up To 48" Spreaders.....	288.09	
01590-0355	MO	8' x 10' Trench Box With Up To 48" Spreaders.....	859.03	
01590-0356	WK	4' x 12' Trench Box With Up To 48" Spreaders.....	235.71	
01590-0357	MO	4' x 12' Trench Box With Up To 48" Spreaders.....	707.13	
01590-0358	WK	6' x 12' Trench Box With Up To 48" Spreaders.....	288.09	
01590-0359	MO	6' x 12' Trench Box With Up To 48" Spreaders.....	864.27	
01590-0360	WK	8' x 12' Trench Box With Up To 48" Spreaders.....	366.66	
01590-0361	MO	8' x 12' Trench Box With Up To 48" Spreaders.....	1,099.98	
01590-0362	WK	4' x 14' Trench Box With Up To 48" Spreaders.....	261.90	
01590-0363	MO	4' x 14' Trench Box With Up To 48" Spreaders.....	785.70	
01590-0364	WK	6' x 14' Trench Box With Up To 48" Spreaders.....	340.47	
01590-0365	MO	6' x 14' Trench Box With Up To 48" Spreaders.....	1,021.41	
01590-0366	WK	8' x 14' Trench Box With Up To 48" Spreaders.....	419.04	



General Requirements			01000	10
Construction Facilities And Temporary Construction			01500	
Equipment Rentals			01590	

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
01590-0367	MO	8' x 14' Trench Box With Up To 48" Spreaders	1,257.12	
01590-0368	WK	4' x 16' Trench Box With Up To 48" Spreaders	288.09	
01590-0369	MO	4' x 16' Trench Box With Up To 48" Spreaders	864.27	
01590-0370	WK	6' x 16' Trench Box With Up To 48" Spreaders	392.85	
01590-0371	MO	6' x 16' Trench Box With Up To 48" Spreaders	1,178.55	
01590-0372	WK	8' x 16' Trench Box With Up To 48" Spreaders	471.42	
01590-0373	MO	8' x 16' Trench Box With Up To 48" Spreaders	1,414.26	
01590-0374	WK	4' x 20' Trench Box With Up To 48" Spreaders	340.47	
01590-0375	MO	4' x 20' Trench Box With Up To 48" Spreaders	1,021.41	
01590-0376	WK	6' x 20' Trench Box With Up To 48" Spreaders	471.42	
01590-0377	MO	6' x 20' Trench Box With Up To 48" Spreaders	1,414.26	
01590-0378	WK	8' x 20' Trench Box With Up To 48" Spreaders	549.99	
01590-0379	MO	8' x 20' Trench Box With Up To 48" Spreaders	1,649.97	
01590-0380	WK	4' x 24' Trench Box With Up To 48" Spreaders	471.42	
01590-0381	MO	4' x 24' Trench Box With Up To 48" Spreaders	1,414.26	
01590-0382	WK	6' x 24' Trench Box With Up To 48" Spreaders	576.18	
01590-0383	MO	6' x 24' Trench Box With Up To 48" Spreaders	1,728.54	
01590-0384	WK	8' x 24' Trench Box With Up To 48" Spreaders	628.56	
01590-0385	MO	8' x 24' Trench Box With Up To 48" Spreaders	1,885.68	
01590-0386	WK	For Spreaders > 48" To 84", Add	15.71	
01590-0387	MO	For Spreaders > 48" To 84", Add	47.14	
01590-0388	WK	For Spreaders > 84" To 120", Add	94.28	
01590-0389	MO	For Spreaders > 84" To 120", Add	282.85	
01590-0390	WK	For Spreaders > 120", Add	199.04	
01590-0391	MO	For Spreaders > 120", Add	597.13	
01590-0392	WK	8' x 4' Manhole Box	247.50	
01590-0393	MO	8' x 4' Manhole Box	742.49	
01590-0394	WK	8' x 8' Manhole Box	353.57	
01590-0395	MO	8' x 8' Manhole Box	1,060.70	

01590-0396 Electrical Equipment (01590)

01590-0397 Floodlights (01590-0396)

Note: Includes delivery to job site and pick-up when complete. Excludes operator.

01590-0398	DAY	4-1000 Watt Floodlights, 30' Telescoping Tower, Diesel Power Trailer Mounted Light Tower	142.17
01590-0399	WK	4-1000 Watt Floodlights, 30' Telescoping Tower, Diesel Power Trailer Mounted Light Tower	315.26
01590-0400	MO	4-1000 Watt Floodlights, 30' Telescoping Tower, Diesel Power Trailer Mounted Light Tower	679.96

01590-0401 Generator Sets (01590-0396)

01590-0402 Portable, Gas Or Diesel Powered Generator Sets (01590-0401)

Note: With 24 hour day-tank. Includes delivery to job site and pick-up when complete. Excludes operator and off-road fuel costs. See CSI section 01590-0464 for reimbursable fuel fees.

01590-0403	DAY	3.6 KW, 8 HP Gas Powered Generator Set	43.00
	01MOD-0007	For LP Or NG Gas, Add	5.38
01590-0404	WK	3.6 KW, 8 HP Gas Powered Generator Set	155.00
	01MOD-0007	For LP Or NG Gas, Add	19.38
01590-0405	MO	3.6 KW, 8 HP Gas Powered Generator Set	430.00
	01MOD-0007	For LP Or NG Gas, Add	53.75
01590-0406	DAY	5 KW, 11 HP Gas Powered Generator Set	61.00
	01MOD-0007	For LP Or NG Gas, Add	7.63
01590-0407	WK	5 KW, 11 HP Gas Powered Generator Set	195.00
	01MOD-0007	For LP Or NG Gas, Add	24.38
01590-0408	MO	5 KW, 11 HP Gas Powered Generator Set	445.00
	01MOD-0007	For LP Or NG Gas, Add	55.63
01590-0409	DAY	6.5 KW, 13 HP Gas Powered Generator Set	78.00
	01MOD-0007	For LP Or NG Gas, Add	9.75
01590-0410	WK	6.5 KW, 13 HP Gas Powered Generator Set	210.00
	01MOD-0007	For LP Or NG Gas, Add	26.25
01590-0411	MO	6.5 KW, 13 HP Gas Powered Generator Set	580.00
	01MOD-0007	For LP Or NG Gas, Add	72.50
01590-0412	DAY	10 KW, 18 HP Gas Powered Generator Set	87.00
	01MOD-0007	For LP Or NG Gas, Add	10.88
01590-0413	WK	10 KW, 18 HP Gas Powered Generator Set	235.00
	01MOD-0007	For LP Or NG Gas, Add	29.38
01590-0414	MO	10 KW, 18 HP Gas Powered Generator Set	675.00
	01MOD-0007	For LP Or NG Gas, Add	84.38

01590-0415 Towable, Diesel Powered Generator Sets (01590-0401)

Note: Includes 24 hour day-tank on sizes up to 180KW, 40 hour day-tank for sizes greater than 180KW To 300 KW and 1000 gallon for sizes greater than 300KW. Multi-voltage transformer unless stated otherwise, trailer mounted including sound attenuation and control panel. Excludes operator and off-road fuel costs. See CSI section 01590-0464 for reimbursable fuel fees.

01590-0416	DAY	20 KW, 60 Hertz Diesel Powered Generator Set	179.00
		Note: Fuel consumption: 100% load - 1.7 gallons per hour, 75% load - 1.3 gallons per hour, 50% load - 1.0 gallons per hour.	
01590-0417	WK	20 KW, 60 Hertz Diesel Powered Generator Set	468.00
		Note: Fuel consumption: 100% load - 1.7 gallons per hour, 75% load - 1.3 gallons per hour, 50% load - 1.0 gallons per hour.	
01590-0418	MO	20 KW, 60 Hertz Diesel Powered Generator Set	1,275.00
		Note: Fuel consumption: 100% load - 1.7 gallons per hour, 75% load - 1.3 gallons per hour, 50% load - 1.0 gallons per hour.	

01000 General Requirements**01500 Construction Facilities And Temporary Construction****01590 Equipment Rentals**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
01590-0419	DAY	40.0 KW, 60 Hertz Diesel Powered Generator Set..... Note: Fuel consumption: 100% load - 3.1 gallons per hour, 75% load - 2.3 gallons per hour, 50% load - 1.7 gallons per hour.	229.07	
01590-0420	WK	40.0 KW, 60 Hertz Diesel Powered Generator Set..... Note: Fuel consumption: 100% load - 3.1 gallons per hour, 75% load - 2.3 gallons per hour, 50% load - 1.7 gallons per hour.	515.95	
01590-0421	MO	40.0 KW, 60 Hertz Diesel Powered Generator Set..... Note: Fuel consumption: 100% load - 3.1 gallons per hour, 75% load - 2.3 gallons per hour, 50% load - 1.7 gallons per hour.	1,374.41	
01590-0422	DAY	70.0 KW, 60 Hertz Diesel Powered Generator Set..... Note: Fuel consumption: 100% load - 6.25 gallons per hour, 75% load - 10.0 gallons per hour, 50% load - 3.8 gallons per hour.	299.97	
01590-0423	WK	70.0 KW, 60 Hertz Diesel Powered Generator Set..... Note: Fuel consumption: 100% load - 6.25 gallons per hour, 75% load - 10.0 gallons per hour, 50% load - 3.8 gallons per hour.	672.66	
01590-0424	MO	70.0 KW, 60 Hertz Diesel Powered Generator Set..... Note: Fuel consumption: 100% load - 6.25 gallons per hour, 75% load - 10.0 gallons per hour, 50% load - 3.8 gallons per hour.	1,868.00	
01590-0425	DAY	100.0 KW, 60 Hertz Diesel Powered Generator Set..... Note: Fuel consumption: 100% load - 7.9 gallons per hour, 75% load - 5.9 gallons per hour, 50% load - 4.2 gallons per hour.	377.24	
01590-0426	WK	100.0 KW, 60 Hertz Diesel Powered Generator Set..... Note: Fuel consumption: 100% load - 7.9 gallons per hour, 75% load - 5.9 gallons per hour, 50% load - 4.2 gallons per hour.	831.74	
01590-0427	MO	100.0 KW, 60 Hertz Diesel Powered Generator Set..... Note: Fuel consumption: 100% load - 7.9 gallons per hour, 75% load - 5.9 gallons per hour, 50% load - 4.2 gallons per hour.	2,367.94	
01590-0428	DAY	120.0 KW, 60 Hertz Diesel Powered Generator Set..... Note: Fuel consumption: 100% load - 10.7 gallons per hour, 75% load - 8.3 gallons per hour, 50% load - 6.5 gallons per hour.	388.60	
01590-0429	WK	120.0 KW, 60 Hertz Diesel Powered Generator Set..... Note: Fuel consumption: 100% load - 10.7 gallons per hour, 75% load - 8.3 gallons per hour, 50% load - 6.5 gallons per hour.	895.36	
01590-0430	MO	120.0 KW, 60 Hertz Diesel Powered Generator Set..... Note: Fuel consumption: 100% load - 10.7 gallons per hour, 75% load - 8.3 gallons per hour, 50% load - 6.5 gallons per hour.	2,758.82	
01590-0431	DAY	150.0 KW, 60 Hertz Diesel Powered Generator Set..... Note: Fuel consumption: 100% load - 10.7 gallons per hour, 75% load - 8.3 gallons per hour, 50% load - 6.5 gallons per hour.	399.96	
01590-0432	WK	150.0 KW, 60 Hertz Diesel Powered Generator Set..... Note: Fuel consumption: 100% load - 10.7 gallons per hour, 75% load - 8.3 gallons per hour, 50% load - 6.5 gallons per hour.	954.45	
01590-0433	MO	150.0 KW, 60 Hertz Diesel Powered Generator Set..... Note: Fuel consumption: 100% load - 10.7 gallons per hour, 75% load - 8.3 gallons per hour, 50% load - 6.5 gallons per hour.	3,149.68	
01590-0434	DAY	175.0 KW, 60 Hertz Diesel Powered Generator Set..... Note: Fuel consumption: 100% load - 16.1 gallons per hour, 75% load - 12.3 gallons per hour, 50% load - 8.9 gallons per hour.	438.14	
01590-0435	WK	175.0 KW, 60 Hertz Diesel Powered Generator Set..... Note: Fuel consumption: 100% load - 16.1 gallons per hour, 75% load - 12.3 gallons per hour, 50% load - 8.9 gallons per hour.	996.26	
01590-0436	MO	175.0 KW, 60 Hertz Diesel Powered Generator Set..... Note: Fuel consumption: 100% load - 16.1 gallons per hour, 75% load - 12.3 gallons per hour, 50% load - 8.9 gallons per hour.	3,149.68	
01590-0437	DAY	250.0 KW, 60 Hertz Diesel Powered Generator Set..... Note: Fuel consumption: 100% load - 19.4 gallons per hour, 75% load - 15.5 gallons per hour, 50% load - 11.6 gallons per hour.	580.85	
01590-0438	WK	250.0 KW, 60 Hertz Diesel Powered Generator Set..... Note: Fuel consumption: 100% load - 19.4 gallons per hour, 75% load - 15.5 gallons per hour, 50% load - 11.6 gallons per hour.	1,492.58	
01590-0439	MO	250.0 KW, 60 Hertz Diesel Powered Generator Set..... Note: Fuel consumption: 100% load - 19.4 gallons per hour, 75% load - 15.5 gallons per hour, 50% load - 11.6 gallons per hour.	3,681.45	
01590-0440	DAY	300.0 KW, 60 Hertz Diesel Powered Generator Set..... Note: Fuel consumption: 100% load - 22.7 gallons per hour, 75% load - 17.6 gallons per hour, 50% load - 13.6 gallons per hour.	545.40	
01590-0441	WK	300.0 KW, 60 Hertz Diesel Powered Generator Set..... Note: Fuel consumption: 100% load - 22.7 gallons per hour, 75% load - 17.6 gallons per hour, 50% load - 13.6 gallons per hour.	1,363.50	
01590-0442	MO	300.0 KW, 60 Hertz Diesel Powered Generator Set..... Note: Fuel consumption: 100% load - 22.7 gallons per hour, 75% load - 17.6 gallons per hour, 50% load - 13.6 gallons per hour.	4,090.50	
01590-0443	DAY	350.0 KW, 60 Hertz Diesel Powered Generator Set..... Note: Fuel consumption: 100% load - 29.1 gallons per hour, 75% load - 23.9 gallons per hour, 50% load - 18.3 gallons per hour.	872.64	
01590-0444	WK	350.0 KW, 60 Hertz Diesel Powered Generator Set..... Note: Fuel consumption: 100% load - 29.1 gallons per hour, 75% load - 23.9 gallons per hour, 50% load - 18.3 gallons per hour.	1,963.44	
01590-0445	MO	350.0 KW, 60 Hertz Diesel Powered Generator Set..... Note: Fuel consumption: 100% load - 29.1 gallons per hour, 75% load - 23.9 gallons per hour, 50% load - 18.3 gallons per hour.	5,235.84	
01590-0446	DAY	400.0 KW, 60 Hertz Diesel Powered Generator Set..... Note: Fuel consumption: 100% load - 32.7 gallons per hour, 75% load - 26.4 gallons per hour, 50% load - 19.9 gallons per hour.	931.72	
01590-0447	WK	400.0 KW, 60 Hertz Diesel Powered Generator Set..... Note: Fuel consumption: 100% load - 32.7 gallons per hour, 75% load - 26.4 gallons per hour, 50% load - 19.9 gallons per hour.	2,254.32	



General Requirements 01000		
Construction Facilities And Temporary Construction 01500		
Equipment Rentals 01590		

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
01590-0448	MO	400.0 KW, 60 Hertz Diesel Powered Generator Set Note: Fuel consumption: 100% load - 32.7 gallons per hour, 75% load - 26.4 gallons per hour, 50% load - 19.9 gallons per hour.	6,590.25	
01590-0449	DAY	500.0 KW, 60 Hertz Diesel Powered Generator Set Note: Fuel consumption: 100% load - 37.4 gallons per hour, 75% load - 28.5 gallons per hour, 50% load - 23.7 gallons per hour.	1,039.90	
01590-0450	WK	500.0 KW, 60 Hertz Diesel Powered Generator Set Note: Fuel consumption: 100% load - 37.4 gallons per hour, 75% load - 28.5 gallons per hour, 50% load - 23.7 gallons per hour.	2,363.40	
01590-0451	MO	500.0 KW, 60 Hertz Diesel Powered Generator Set Note: Fuel consumption: 100% load - 37.4 gallons per hour, 75% load - 28.5 gallons per hour, 50% load - 23.7 gallons per hour.	7,090.20	
01590-0452	DAY	750.0 KW, 60 Hertz Diesel Powered Generator Set Note: Fuel consumption: 100% load - 54.8 gallons per hour, 75% load - 40.9 gallons per hour, 50% load - 28.8 gallons per hour.	1,454.40	
01590-0453	WK	750.0 KW, 60 Hertz Diesel Powered Generator Set Note: Fuel consumption: 100% load - 54.8 gallons per hour, 75% load - 40.9 gallons per hour, 50% load - 28.8 gallons per hour.	3,636.00	
01590-0454	MO	750.0 KW, 60 Hertz Diesel Powered Generator Set Note: Fuel consumption: 100% load - 54.8 gallons per hour, 75% load - 40.9 gallons per hour, 50% load - 28.8 gallons per hour.	10,908.00	
01590-0455	EA	Up To 300 KW Generator Set Delivery, Set-Up, Testing And Pick-up	663.01	
01590-0456	EA	350 To 750 KW Generator Set Delivery, Set-Up, Testing And Pick-up	1,053.33	
01590-0457 Cabling For Generator Sets (01590-0401)				
Note: Includes delivery to job site and pick-up when complete.				
01590-0458	DAY	#1 Banded Cable, 50' With Camlock Ends For Generator Set.....	20.00	
01590-0459	WK	#1 Banded Cable, 50' With Camlock Ends For Generator Set.....	35.00	
01590-0460	MO	#1 Banded Cable, 50' With Camlock Ends For Generator Set.....	104.99	
01590-0461	DAY	4/0 Cable, 50' With Camlock Ends For Generator Set	10.00	
01590-0462	WK	4/0 Cable, 50' With Camlock Ends For Generator Set	29.09	
01590-0463	MO	4/0 Cable, 50' With Camlock Ends For Generator Set	80.90	
01590-0464 Fuel Reimbursement For Generators (01590-0401)				
01590-0465	EA	Fuel Reimbursement For Generators..... Note: Purchases made by the contractor for fuel will be reimbursed to the Contractor at the actual cost of the purchase, without mark-up, for which a receipt or bill is received. The Adjustment Factor applied to Reimbursable Fees will be 1.0000. The base cost of the purchase is \$1.00, quantity will adjust cost to actual purchase cost, i.e.; quantity of 125 = \$125.00 purchase. If there are multiple purchases, each one shall be listed separately with a comment in the "note" block to identify the purchase.	1.00	
01590-0466 General Equipment (01590)				
01590-0467 Jacks And Bracing (01590-0466)				
Note: Includes delivery to job site and pick-up when complete.				
01590-0468 Manual Hydraulic Jacks (01590-0467)				
01590-0469	DAY	12 Ton Manual Hydraulic Bottle Jack.....	12.76	
01590-0470	WK	12 Ton Manual Hydraulic Bottle Jack.....	33.18	
01590-0471	MO	12 Ton Manual Hydraulic Bottle Jack.....	58.70	
01590-0472	DAY	20 Ton Manual Hydraulic Bottle Jack.....	25.52	
01590-0473	WK	20 Ton Manual Hydraulic Bottle Jack.....	71.46	
01590-0474	MO	20 Ton Manual Hydraulic Bottle Jack.....	140.36	
01590-0475	DAY	50 Ton Manual Hydraulic Bottle Jack.....	39.56	
01590-0476	WK	50 Ton Manual Hydraulic Bottle Jack.....	98.25	
01590-0477	MO	50 Ton Manual Hydraulic Bottle Jack.....	165.88	
01590-0478	DAY	100 Ton Manual Hydraulic Bottle Jack.....	104.63	
01590-0479	WK	100 Ton Manual Hydraulic Bottle Jack.....	251.37	
01590-0480	MO	100 Ton Manual Hydraulic Bottle Jack.....	418.53	
01590-0481 Manual Screw Jacks (01590-0467)				
01590-0482	DAY	10 To 20 Ton Manual Screw Jack.....	16.59	
01590-0483	WK	10 To 20 Ton Manual Screw Jack.....	44.66	
01590-0484	MO	10 To 20 Ton Manual Screw Jack.....	123.77	
01590-0485 Material Handling Equipment (01590)				
01590-0486 Truck Mounted Hydraulic Cranes (01590-0485)				
Note: Includes full-time operator. Excludes delivery, set-up, and removal. See CSI section 01590-0666 for equipment mobilization/demobilization.				
01590-0487	DAY	6 Ton Lift Hydraulic Crane With Full-Time Operator	922.34	
	01MOD-0008	For Equipment Without Operator, Deduct	-593.56	
01590-0488	WK	6 Ton Lift Hydraulic Crane With Full-Time Operator	3,963.79	
	01MOD-0008	For Equipment Without Operator, Deduct	-2,967.78	
01590-0489	MO	6 Ton Lift Hydraulic Crane With Full-Time Operator	15,789.86	
	01MOD-0008	For Equipment Without Operator, Deduct	-12,792.16	
01590-0490	DAY	8 To 9 Ton Lift Hydraulic Crane With Full-Time Operator	1,009.37	
	01MOD-0008	For Equipment Without Operator, Deduct	-593.56	
01590-0491	WK	8 To 9 Ton Lift Hydraulic Crane With Full-Time Operator	4,222.46	
	01MOD-0008	For Equipment Without Operator, Deduct	-2,967.78	

01000 General Requirements**01500 Construction Facilities And Temporary Construction****01590 Equipment Rentals**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
01590-0492	MO	8 To 9 Ton Lift Hydraulic Crane With Full-Time Operator	16,563.46	
	01MOD-0008	For Equipment Without Operator, Deduct	-12,792.16	
01590-0493	DAY	14 To 15 Ton Lift Hydraulic Crane With Full-Time Operator	1,096.40	
	01MOD-0008	For Equipment Without Operator, Deduct	-593.56	
01590-0494	WK	14 To 15 Ton Lift Hydraulic Crane With Full-Time Operator	4,481.14	
	01MOD-0008	For Equipment Without Operator, Deduct	-2,967.78	
01590-0495	MO	14 To 15 Ton Lift Hydraulic Crane With Full-Time Operator	17,337.06	
	01MOD-0008	For Equipment Without Operator, Deduct	-12,792.16	
01590-0496	DAY	20 To 25 Ton Lift Hydraulic Crane With Full-Time Operator	1,212.44	
	01MOD-0008	For Equipment Without Operator, Deduct	-593.56	
01590-0497	WK	20 To 25 Ton Lift Hydraulic Crane With Full-Time Operator	4,829.26	
	01MOD-0008	For Equipment Without Operator, Deduct	-2,967.78	
01590-0498	MO	20 To 25 Ton Lift Hydraulic Crane With Full-Time Operator	18,376.58	
	01MOD-0008	For Equipment Without Operator, Deduct	-12,792.16	
01590-0499	DAY	30 To 35 Ton Lift Hydraulic Crane With Full-Time Operator	1,318.81	
	01MOD-0008	For Equipment Without Operator, Deduct	-593.56	
01590-0500	WK	30 To 35 Ton Lift Hydraulic Crane With Full-Time Operator	5,549.67	
	01MOD-0008	For Equipment Without Operator, Deduct	-2,967.78	
01590-0501	MO	30 To 35 Ton Lift Hydraulic Crane With Full-Time Operator	20,535.90	
	01MOD-0008	For Equipment Without Operator, Deduct	-12,792.16	
01590-0502	DAY	40 To 45 Ton Lift Hydraulic Crane With Full-Time Operator	1,570.23	
	01MOD-0008	For Equipment Without Operator, Deduct	-593.56	
01590-0503	WK	40 To 45 Ton Lift Hydraulic Crane With Full-Time Operator	6,448.98	
	01MOD-0008	For Equipment Without Operator, Deduct	-2,967.78	
01590-0504	MO	40 To 45 Ton Lift Hydraulic Crane With Full-Time Operator	23,235.76	
	01MOD-0008	For Equipment Without Operator, Deduct	-12,792.16	
01590-0505	DAY	50 To 55 Ton Lift Hydraulic Crane With Full-Time Operator	1,729.78	
	01MOD-0008	For Equipment Without Operator, Deduct	-593.56	
01590-0506	WK	50 To 55 Ton Lift Hydraulic Crane With Full-Time Operator	7,009.84	
	01MOD-0008	For Equipment Without Operator, Deduct	-2,967.78	
01590-0507	MO	50 To 55 Ton Lift Hydraulic Crane With Full-Time Operator	24,922.21	
	01MOD-0008	For Equipment Without Operator, Deduct	-12,792.16	
01590-0508	DAY	60 To 65 Ton Lift Hydraulic Crane With Full-Time Operator	1,855.50	
	01MOD-0008	For Equipment Without Operator, Deduct	-593.56	
01590-0509	WK	60 To 65 Ton Lift Hydraulic Crane With Full-Time Operator	7,464.33	
	01MOD-0008	For Equipment Without Operator, Deduct	-2,967.78	
01590-0510	MO	60 To 65 Ton Lift Hydraulic Crane With Full-Time Operator	26,283.74	
	01MOD-0008	For Equipment Without Operator, Deduct	-12,792.16	
01590-0511	DAY	70 To 75 Ton Lift Hydraulic Crane With Full-Time Operator	1,981.20	
	01MOD-0008	For Equipment Without Operator, Deduct	-593.56	
01590-0512	WK	70 To 75 Ton Lift Hydraulic Crane With Full-Time Operator	7,918.82	
	01MOD-0008	For Equipment Without Operator, Deduct	-2,967.78	
01590-0513	MO	70 To 75 Ton Lift Hydraulic Crane With Full-Time Operator	27,645.28	
	01MOD-0008	For Equipment Without Operator, Deduct	-12,792.16	
01590-0514	DAY	90 Ton Lift Hydraulic Crane With Full-Time Operator	2,063.40	
	01MOD-0008	For Equipment Without Operator, Deduct	-593.56	
01590-0515	WK	90 Ton Lift Hydraulic Crane With Full-Time Operator	8,199.25	
	01MOD-0008	For Equipment Without Operator, Deduct	-2,967.78	
01590-0516	MO	90 Ton Lift Hydraulic Crane With Full-Time Operator	28,496.24	
	01MOD-0008	For Equipment Without Operator, Deduct	-12,792.16	
01590-0517	DAY	100 Ton Lift Hydraulic Crane With Full-Time Operator	2,174.60	
	01MOD-0008	For Equipment Without Operator, Deduct	-593.56	
01590-0518	WK	100 Ton Lift Hydraulic Crane With Full-Time Operator	8,615.06	
	01MOD-0008	For Equipment Without Operator, Deduct	-2,967.78	
01590-0519	MO	100 Ton Lift Hydraulic Crane With Full-Time Operator	29,734.00	
	01MOD-0008	For Equipment Without Operator, Deduct	-12,792.16	
01590-0520		Cranes, Mechanical, Cable Controlled Lattice Boom, Truck Mounted (01590-0485) Note: Includes full-time operator. Excludes delivery, set-up, and removal. See CSI section 01590-0666 for equipment mobilization/demobilization.		
01590-0521	DAY	75 To 80 Ton Lift Mechanical Crane With Full-Time Operator	1,753.96	
	01MOD-0008	For Equipment Without Operator, Deduct	-593.56	
01590-0522	WK	75 To 80 Ton Lift Mechanical Crane With Full-Time Operator	7,106.54	
	01MOD-0008	For Equipment Without Operator, Deduct	-2,967.78	
01590-0523	MO	75 To 80 Ton Lift Mechanical Crane With Full-Time Operator	25,208.44	
	01MOD-0008	For Equipment Without Operator, Deduct	-12,792.16	
01590-0524	DAY	100 To 110 Ton Lift Mechanical Crane With Full-Time Operator	2,648.44	
	01MOD-0008	For Equipment Without Operator, Deduct	-593.56	
01590-0525	WK	100 To 110 Ton Lift Mechanical Crane With Full-Time Operator	8,595.72	
	01MOD-0008	For Equipment Without Operator, Deduct	-2,967.78	
01590-0526	MO	100 To 110 Ton Lift Mechanical Crane With Full-Time Operator	29,675.98	
	01MOD-0008	For Equipment Without Operator, Deduct	-12,792.16	
01590-0527	DAY	125 Ton Lift Mechanical Crane With Full-Time Operator	2,793.48	
	01MOD-0008	For Equipment Without Operator, Deduct	-593.56	
01590-0528	WK	125 Ton Lift Mechanical Crane With Full-Time Operator	9,654.58	
	01MOD-0008	For Equipment Without Operator, Deduct	-2,967.78	
01590-0529	MO	125 Ton Lift Mechanical Crane With Full-Time Operator	32,851.61	
	01MOD-0008	For Equipment Without Operator, Deduct	-12,792.16	
01590-0530	DAY	150 Ton Lift Mechanical Crane With Full-Time Operator	3,083.58	
	01MOD-0008	For Equipment Without Operator, Deduct	-593.56	
01590-0531	WK	150 Ton Lift Mechanical Crane With Full-Time Operator	10,713.45	
	01MOD-0008	For Equipment Without Operator, Deduct	-2,967.78	
01590-0532	MO	150 Ton Lift Mechanical Crane With Full-Time Operator	36,023.37	
	01MOD-0008	For Equipment Without Operator, Deduct	-12,792.16	
01590-0533	DAY	250 Ton Lift Mechanical Crane With Full-Time Operator	3,359.18	
	01MOD-0008	For Equipment Without Operator, Deduct	-593.56	



General Requirements			01000	10
Construction Facilities And Temporary Construction			01500	
Equipment Rentals			01590	

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
01590-0534	WK	250 Ton Lift Mechanical Crane With Full-Time Operator	12,831.18	
	01MOD-0008	For Equipment Without Operator, Deduct	-2,967.78	
01590-0535	MO	250 Ton Lift Mechanical Crane With Full-Time Operator	42,382.36	
	01MOD-0008	For Equipment Without Operator, Deduct	-12,792.16	
01590-0536	DAY	300 Ton Lift Mechanical Crane With Full-Time Operator	3,813.67	
	01MOD-0008	For Equipment Without Operator, Deduct	-593.56	
01590-0537	WK	300 Ton Lift Mechanical Crane With Full-Time Operator	14,460.58	
	01MOD-0008	For Equipment Without Operator, Deduct	-2,967.78	
01590-0538	MO	300 Ton Lift Mechanical Crane With Full-Time Operator	47,263.78	
	01MOD-0008	For Equipment Without Operator, Deduct	-12,792.16	
01590-0539	DAY	500 Ton Lift Mechanical Crane With Full-Time Operator	6,608.30	
	01MOD-0008	For Equipment Without Operator, Deduct	-593.56	
01590-0540	WK	500 Ton Lift Mechanical Crane With Full-Time Operator	24,420.68	
	01MOD-0008	For Equipment Without Operator, Deduct	-2,967.78	
01590-0541	MO	500 Ton Lift Mechanical Crane With Full-Time Operator	77,155.68	
	01MOD-0008	For Equipment Without Operator, Deduct	-12,792.16	
01590-0542 Chain Hoists (01590-0485)				
Note: Includes delivery to job site and pick-up when complete.				
01590-0543	DAY	1 Ton, 20' Lift, Manual Chain Hoist	12.76	
01590-0544	WK	1 Ton, 20' Lift, Manual Chain Hoist	34.45	
01590-0545	MO	1 Ton, 20' Lift, Manual Chain Hoist	86.77	
01590-0546	DAY	3 Ton, 20' Lift, Manual Chain Hoist	28.07	
01590-0547	WK	3 Ton, 20' Lift, Manual Chain Hoist	67.63	
01590-0548	MO	3 Ton, 20' Lift, Manual Chain Hoist	168.43	
01590-0549	DAY	5 Ton, 20' Lift, Manual Chain Hoist	40.83	
01590-0550	WK	5 Ton, 20' Lift, Manual Chain Hoist	98.25	
01590-0551	MO	5 Ton, 20' Lift, Manual Chain Hoist	244.99	
01590-0552	DAY	2 Ton, 20' Lift, 2-Speed, 230/460V 60 Cycle, Electric Chain Hoist	81.66	
01590-0553	WK	2 Ton, 20' Lift, 2-Speed, 230/460V 60 Cycle, Electric Chain Hoist	196.50	
01590-0554	MO	2 Ton, 20' Lift, 2-Speed, 230/460V 60 Cycle, Electric Chain Hoist	489.98	
01590-0555	DAY	3 Ton, 20' Lift, 2-Speed, 230/460V 60 Cycle, Electric Chain Hoist	91.87	
01590-0556	WK	3 Ton, 20' Lift, 2-Speed, 230/460V 60 Cycle, Electric Chain Hoist	222.02	
01590-0557	MO	3 Ton, 20' Lift, 2-Speed, 230/460V 60 Cycle, Electric Chain Hoist	551.23	
01590-0558	DAY	5 Ton, 20' Lift, 2-Speed, 230/460V 60 Cycle, Electric Chain Hoist	114.84	
01590-0559	WK	5 Ton, 20' Lift, 2-Speed, 230/460V 60 Cycle, Electric Chain Hoist	276.89	
01590-0560	MO	5 Ton, 20' Lift, 2-Speed, 230/460V 60 Cycle, Electric Chain Hoist	689.04	
01590-0561 Pumping Equipment (01590)				
01590-0562 Gas Powered Portable Centrifugal Pumps (01590-0561)				
Note: Includes delivery, set-up, and removal. Excludes operator.				
01590-0563	DAY	8,500 GPH, 2" Discharge, 108' Maximum Head, Gas Powered Portable Centrifugal Pump	45.18	
01590-0564	WK	8,500 GPH, 2" Discharge, 108' Maximum Head, Gas Powered Portable Centrifugal Pump	101.65	
01590-0565	MO	8,500 GPH, 2" Discharge, 108' Maximum Head, Gas Powered Portable Centrifugal Pump	271.06	
01590-0566	DAY	16,500 GPH, 3" Discharge, 85' Maximum Head, Gas Powered Portable Centrifugal Pump	54.21	
01590-0567	WK	16,500 GPH, 3" Discharge, 85' Maximum Head, Gas Powered Portable Centrifugal Pump	121.98	
01590-0568	MO	16,500 GPH, 3" Discharge, 85' Maximum Head, Gas Powered Portable Centrifugal Pump	325.27	
01590-0569 Gas Powered Portable Diaphragm Pumps (01590-0561)				
Note: Includes delivery, set-up, and removal. Excludes operator.				
01590-0570	DAY	3,000 GPH, 2" Discharge, 25' Maximum Head, Gas Powered Portable Diaphragm Pump	51.95	
01590-0571	WK	3,000 GPH, 2" Discharge, 25' Maximum Head, Gas Powered Portable Diaphragm Pump	146.82	
01590-0572	MO	3,000 GPH, 2" Discharge, 25' Maximum Head, Gas Powered Portable Diaphragm Pump	372.70	
01590-0573	DAY	5,200 GPH, 3" Discharge, 25' Maximum Head, Gas Powered Portable Diaphragm Pump	63.25	
01590-0574	WK	5,200 GPH, 3" Discharge, 25' Maximum Head, Gas Powered Portable Diaphragm Pump	169.41	
01590-0575	MO	5,200 GPH, 3" Discharge, 25' Maximum Head, Gas Powered Portable Diaphragm Pump	480.00	
01590-0576 Gas Powered Portable Trash Pumps (01590-0561)				
Note: Includes delivery, set-up, and removal. Excludes operator.				
01590-0577	DAY	12,000 GPH, 2" Discharge, 100' Maximum Head, Gas Powered Portable Trash Pump	65.51	
01590-0578	WK	12,000 GPH, 2" Discharge, 100' Maximum Head, Gas Powered Portable Trash Pump	135.53	
01590-0579	MO	12,000 GPH, 2" Discharge, 100' Maximum Head, Gas Powered Portable Trash Pump	406.58	
01590-0580	DAY	25,000 GPH, 3" Discharge, 90' Maximum Head, Gas Powered Portable Trash Pump	65.51	
01590-0581	WK	25,000 GPH, 3" Discharge, 90' Maximum Head, Gas Powered Portable Trash Pump	175.06	
01590-0582	MO	25,000 GPH, 3" Discharge, 90' Maximum Head, Gas Powered Portable Trash Pump	480.00	
01590-0583	DAY	35,000 GPH, 4" Discharge, 106' Maximum Head, Gas Powered Portable Trash Pump	103.90	
01590-0584	WK	35,000 GPH, 4" Discharge, 106' Maximum Head, Gas Powered Portable Trash Pump	293.64	
01590-0585	MO	35,000 GPH, 4" Discharge, 106' Maximum Head, Gas Powered Portable Trash Pump	852.70	
01590-0586 Hydraulic Submersible Pumps (01590-0561)				
Note: Includes delivery, set-up, and removal. Excludes operator.				
01590-0587	DAY	60,000 GPH, 4" Discharge, 115' Maximum Head, Hydraulic Submersible Pump	74.54	
01590-0588	WK	60,000 GPH, 4" Discharge, 115' Maximum Head, Hydraulic Submersible Pump	199.90	
01590-0589	MO	60,000 GPH, 4" Discharge, 115' Maximum Head, Hydraulic Submersible Pump	559.05	
01590-0590	DAY	132,000 GPH, 6" Discharge, 90' Maximum Head, Hydraulic Submersible Pump	94.87	
01590-0591	WK	132,000 GPH, 6" Discharge, 90' Maximum Head, Hydraulic Submersible Pump	243.95	
01590-0592	MO	132,000 GPH, 6" Discharge, 90' Maximum Head, Hydraulic Submersible Pump	745.40	

01000 General Requirements**01500 Construction Facilities And Temporary Construction****01590 Equipment Rentals**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

01590-0593**Suction Hose With Couplings** (01590-0561)

Note: Includes delivery, set-up, and removal.

01590-0594	DAY 1-1/2" Inside Diameter, 20' Length, Suction Hose With Couplings	7.79
01590-0595	WK 1-1/2" Inside Diameter, 20' Length, Suction Hose With Couplings	19.48
01590-0596	MO 1-1/2" Inside Diameter, 20' Length, Suction Hose With Couplings	48.06
01590-0597	DAY 2" Inside Diameter, 20' Length, Suction Hose With Couplings	9.09
01590-0598	WK 2" Inside Diameter, 20' Length, Suction Hose With Couplings	20.78
01590-0599	MO 2" Inside Diameter, 20' Length, Suction Hose With Couplings	50.65
01590-0600	DAY 3" Inside Diameter, 20' Length, Suction Hose With Couplings	19.48
01590-0601	WK 3" Inside Diameter, 20' Length, Suction Hose With Couplings	42.86
01590-0602	MO 3" Inside Diameter, 20' Length, Suction Hose With Couplings	115.59
01590-0603	DAY 4" Inside Diameter, 20' Length, Suction Hose With Couplings	24.68
01590-0604	WK 4" Inside Diameter, 20' Length, Suction Hose With Couplings	55.85
01590-0605	MO 4" Inside Diameter, 20' Length, Suction Hose With Couplings	149.36
01590-0606	DAY 6" Inside Diameter, 20' Length, Suction Hose With Couplings	32.47
01590-0607	WK 6" Inside Diameter, 20' Length, Suction Hose With Couplings	75.33
01590-0608	MO 6" Inside Diameter, 20' Length, Suction Hose With Couplings	170.14

01590-0609**Discharge Hose With Couplings** (01590-0561)

Note: Includes delivery, set-up, and removal.

01590-0610	DAY 1-1/2" Inside Diameter, 50' Length, Discharge Hose With Couplings	11.29
01590-0611	WK 1-1/2" Inside Diameter, 50' Length, Discharge Hose With Couplings	23.72
01590-0612	MO 1-1/2" Inside Diameter, 50' Length, Discharge Hose With Couplings	50.82
01590-0613	DAY 2" Inside Diameter, 50' Length, Discharge Hose With Couplings	18.07
01590-0614	WK 2" Inside Diameter, 50' Length, Discharge Hose With Couplings	25.98
01590-0615	MO 2" Inside Diameter, 50' Length, Discharge Hose With Couplings	54.21
01590-0616	DAY 3" Inside Diameter, 50' Length, Discharge Hose With Couplings	18.07
01590-0617	WK 3" Inside Diameter, 50' Length, Discharge Hose With Couplings	36.14
01590-0618	MO 3" Inside Diameter, 50' Length, Discharge Hose With Couplings	71.15
01590-0619	DAY 4" Inside Diameter, 50' Length, Discharge Hose With Couplings	24.85
01590-0620	WK 4" Inside Diameter, 50' Length, Discharge Hose With Couplings	65.51
01590-0621	MO 4" Inside Diameter, 50' Length, Discharge Hose With Couplings	132.14
01590-0622	DAY 6" Inside Diameter, 50' Length, Discharge Hose With Couplings	49.69
01590-0623	WK 6" Inside Diameter, 50' Length, Discharge Hose With Couplings	101.65
01590-0624	MO 6" Inside Diameter, 50' Length, Discharge Hose With Couplings	214.59

01590-0625**Truck And Trailer Equipment** (01590)**01590-0626****Trucks** (01590-0625)

Note: Includes full-time driver, delivery, and removal.

01590-0627**Flat Bed Trucks** (01590-0626)

Note: Includes hydraulic tilt bed.

01590-0628	DAY 1-1/2 Ton, 4 x 2 Flat Bed Truck With Full-Time Truck Driver	786.76
	01MOD-0009 For Equipment Without Operator, Deduct	-473.41
01590-0629	WK 1-1/2 Ton, 4 x 2 Flat Bed Truck With Full-Time Truck Driver	3,188.52
	01MOD-0009 For Equipment Without Operator, Deduct	-2,367.03
01590-0630	MO 1-1/2 Ton, 4 x 2 Flat Bed Truck With Full-Time Truck Driver	12,277.62
	01MOD-0009 For Equipment Without Operator, Deduct	-10,202.72
01590-0631	DAY 3 Ton, 4 x 2 Flat Bed Truck With Full-Time Truck Driver	922.27
	01MOD-0009 For Equipment Without Operator, Deduct	-473.41
01590-0632	WK 3 Ton, 4 x 2 Flat Bed Truck With Full-Time Truck Driver	3,535.75
	01MOD-0009 For Equipment Without Operator, Deduct	-2,367.03
01590-0633	MO 3 Ton, 4 x 2 Flat Bed Truck With Full-Time Truck Driver	13,166.87
	01MOD-0009 For Equipment Without Operator, Deduct	-10,202.72

01590-0634**Light Duty Trucks** (01590-0626)

01590-0635	DAY 1/2 To 3/4 Ton, 4 x 2 Light Duty Conventional Pickup Truck With Full-Time Truck Driver	628.48
	01MOD-0009 For Equipment Without Operator, Deduct	-473.41
01590-0636	WK 1/2 To 3/4 Ton, 4 x 2 Light Duty Conventional Pickup Truck With Full-Time Truck Driver	2,875.86
	01MOD-0009 For Equipment Without Operator, Deduct	-2,367.03
01590-0637	MO 1/2 To 3/4 Ton, 4 x 2 Light Duty Conventional Pickup Truck With Full-Time Truck Driver	11,268.84
	01MOD-0009 For Equipment Without Operator, Deduct	-10,202.72
01590-0638	DAY 3/4 Ton, 4 x 4 Crew Cab Pickup Truck With Full-Time Truck Driver	657.56
	01MOD-0009 For Equipment Without Operator, Deduct	-473.41
01590-0639	WK 3/4 Ton, 4 x 4 Crew Cab Pickup Truck With Full-Time Truck Driver	2,963.09
	01MOD-0009 For Equipment Without Operator, Deduct	-2,367.03
01590-0640	MO 3/4 Ton, 4 x 4 Crew Cab Pickup Truck With Full-Time Truck Driver	11,462.68
	01MOD-0009 For Equipment Without Operator, Deduct	-10,202.72

01590-0641**Rear Dump Trucks** (01590-0626)

01590-0642	DAY 4 CY Rear Dump Truck With Full-Time Truck Driver	744.94
	01MOD-0009 For Equipment Without Operator, Deduct	-473.41
01590-0643	WK 4 CY Rear Dump Truck With Full-Time Truck Driver	3,115.13
	01MOD-0009 For Equipment Without Operator, Deduct	-2,367.03
01590-0644	MO 4 CY Rear Dump Truck With Full-Time Truck Driver	12,142.24
	01MOD-0009 For Equipment Without Operator, Deduct	-10,202.72
01590-0645	DAY 6 CY Rear Dump Truck With Full-Time Truck Driver	783.73
	01MOD-0009 For Equipment Without Operator, Deduct	-473.41
01590-0646	WK 6 CY Rear Dump Truck With Full-Time Truck Driver	3,198.25
	01MOD-0009 For Equipment Without Operator, Deduct	-2,367.03



General Requirements			01000	10
Construction Facilities And Temporary Construction			01500	
Equipment Rentals			01590	

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
01590-0647	MO	6 CY Rear Dump Truck With Full-Time Truck Driver	12,197.66	
	01MOD-0009	For Equipment Without Operator, Deduct	-10,202.72	
01590-0648	DAY	13 CY Rear Dump Truck With Full-Time Truck Driver	1,243.68	
	01MOD-0009	For Equipment Without Operator, Deduct	-473.41	
01590-0649	WK	13 CY Rear Dump Truck With Full-Time Truck Driver	4,145.85	
	01MOD-0009	For Equipment Without Operator, Deduct	-2,367.03	
01590-0650	MO	13 CY Rear Dump Truck With Full-Time Truck Driver	14,857.58	
	01MOD-0009	For Equipment Without Operator, Deduct	-10,202.72	
01590-0651	DAY	18 CY Rear Dump Truck With Full-Time Truck Driver	1,320.71	
	01MOD-0009	For Equipment Without Operator, Deduct	-473.41	
01590-0652	WK	18 CY Rear Dump Truck With Full-Time Truck Driver	4,323.73	
	01MOD-0009	For Equipment Without Operator, Deduct	-2,367.03	
01590-0653	MO	18 CY Rear Dump Truck With Full-Time Truck Driver	15,323.07	
	01MOD-0009	For Equipment Without Operator, Deduct	-10,202.72	
01590-0654		Water Trucks (01590-0626)		
		See CSI section 01590-0662 for water trailer, 02223-0000 for water as required for earth/aggregate backfill.		
01590-0655	DAY	2,000 Gallon Water Truck With Full-Time Operator	861.53	
	01MOD-0009	For Equipment Without Operator, Deduct	-473.41	
	01MOD-0010	For Each 1000 Gallon Of Purchased Water, Add	2.55	
01590-0656	WK	2,000 Gallon Water Truck With Full-Time Operator	3,389.09	
	01MOD-0009	For Equipment Without Operator, Deduct	-2,367.03	
	01MOD-0010	For Each 1000 Gallon Of Purchased Water, Add	2.55	
01590-0657	MO	2,000 Gallon Water Truck With Full-Time Operator	12,617.72	
	01MOD-0009	For Equipment Without Operator, Deduct	-10,202.72	
	01MOD-0010	For Each 1000 Gallon Of Purchased Water, Add	2.55	
01590-0658	DAY	3,700 To 4,000 Gallon Water Truck With Full-Time Operator	1,051.29	
	01MOD-0009	For Equipment Without Operator, Deduct	-473.41	
	01MOD-0010	For Each 1000 Gallon Of Purchased Water, Add	2.55	
01590-0659	WK	3,700 To 4,000 Gallon Water Truck With Full-Time Operator	3,958.34	
	01MOD-0009	For Equipment Without Operator, Deduct	-2,367.03	
	01MOD-0010	For Each 1000 Gallon Of Purchased Water, Add	2.55	
01590-0660	MO	3,700 To 4,000 Gallon Water Truck With Full-Time Operator	14,083.97	
	01MOD-0009	For Equipment Without Operator, Deduct	-10,202.72	
	01MOD-0010	For Each 1000 Gallon Of Purchased Water, Add	2.55	
01590-0661		Trailers (01590-0625)		
		Note: Includes delivery to job site and pick-up when complete.		
01590-0662		Water Trailers With Pump (01590-0661)		
01590-0663	DAY	500 To 600 Gallon Water Trailer With Pump	99.19	
01590-0664	WK	500 To 600 Gallon Water Trailer With Pump	254.44	
01590-0665	MO	500 To 600 Gallon Water Trailer With Pump	681.38	
01590-0666		Rental Equipment Delivery, Mobilization And Demobilization (01590)		
01590-0667		Equipment Delivery, Pickup, Mobilization And Demobilization (01590-0666)		
		Note: Includes delivery of equipment, off loading on site and rigging. Return includes dismantling, loading and transporting away. Excludes flagman for traffic control where necessary.		
01590-0668	EA	Equipment Delivery, Pickup, Mobilization And Demobilization Using A Rollback Flatbed Truck	201.32	
		Note: For equipment such as trenchers, skid-steer loaders (bobcats), industrial warehouse forklifts, sweepers, scissor platform lifts, telescoping and articulating boom manlifts with up to 40' boom lengths, etc.		
01590-0669	EA	Equipment Delivery, Pickup, Mobilization And Demobilization Using A Tractor Trailer With Up To 53' Bed	402.63	
		Note: For equipment such as bulldozers, motor scrapers, hydraulic excavators, gradalls, road graders, loader-backhoes, heavy duty construction loaders, tractors, pavers, rollers, bridge finishers, straight mast construction forklifts, telescoping boom rough terrain construction forklifts, telescoping and articulating boom manlifts with > 40' boom lengths, etc.		
01590-0670		Crane Delivery, Pickup, Mobilization And Demobilization (01590-0666)		
		Note: Includes delivery of equipment, off loading on site and rigging. Return includes dismantling, loading and transporting away. Excludes flagman for traffic control where necessary.		
01590-0671	EA	Less Than 20 Ton Lift Move On/Off Cost, Truck Mounted Crane	260.40	
	01MOD-0011	For > 30 To 60 Miles Radius, Add	65.10	
	01MOD-0012	For > 60 To 100 Miles Radius, Add	104.16	
01590-0672	EA	20 To 30 Ton Lift Move On/Off Cost, Truck Mounted Crane	374.98	
	01MOD-0011	For > 30 To 60 Miles Radius, Add	93.75	
	01MOD-0012	For > 60 To 100 Miles Radius, Add	149.99	
01590-0673	EA	40 To 50 Ton Lift Move On/Off Cost, Truck Mounted Crane	499.97	
	01MOD-0011	For > 30 To 60 Miles Radius, Add	124.99	
	01MOD-0012	For > 60 To 100 Miles Radius, Add	199.99	
01590-0674	EA	70 To 100 Ton Lift Move On/Off Cost, Truck Mounted Crane	812.45	
	01MOD-0011	For > 30 To 60 Miles Radius, Add	203.11	
	01MOD-0012	For > 60 To 100 Miles Radius, Add	324.98	
01590-0675	EA	75 Ton Lift Move On/Off Cost, Mechanical Crane	641.63	
	01MOD-0011	For > 30 To 60 Miles Radius, Add	160.41	
	01MOD-0012	For > 60 To 100 Miles Radius, Add	256.65	
01590-0676	EA	100 Ton Lift Move On/Off Cost, Mechanical Crane	1,041.60	
	01MOD-0011	For > 30 To 60 Miles Radius, Add	260.40	
	01MOD-0012	For > 60 To 100 Miles Radius, Add	416.64	
01590-0677	EA	125 Ton Lift Move On/Off Cost, Mechanical Crane	1,291.58	
	01MOD-0011	For > 30 To 60 Miles Radius, Add	322.90	
	01MOD-0012	For > 60 To 100 Miles Radius, Add	516.63	

01000 General Requirements**01500 Construction Facilities And Temporary Construction****01590 Equipment Rentals**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
01590-0678 EA 150 Ton Lift Move On/Off Cost, Mechanical Crane.....	1,604.06	
01MOD-0011 For > 30 To 60 Miles Radius, Add	401.02	
01MOD-0012 For > 60 To 100 Miles Radius, Add	641.62	
01590-0679 EA 250 Ton Lift Move On/Off Cost, Mechanical Crane.....	2,916.48	
01MOD-0011 For > 30 To 60 Miles Radius, Add	729.12	
01MOD-0012 For > 60 To 100 Miles Radius, Add	1,166.59	
01590-0680 EA 300 Ton Lift Move On/Off Cost, Mechanical Crane.....	4,166.40	
01MOD-0011 For > 30 To 60 Miles Radius, Add	1,041.60	
01MOD-0012 For > 60 To 100 Miles Radius, Add	1,666.56	
01590-0681 EA 500 Ton Lift Move On/Off Cost, Mechanical Crane.....	6,249.60	
01MOD-0011 For > 30 To 60 Miles Radius, Add	1,562.40	
01MOD-0012 For > 60 To 100 Miles Radius, Add	2,499.84	

01700 Execution Requirements (01000)**01720 Surveying** (01700)**01720-0001 Field Surveying** (01720)**01720-0002 Conventional Topographic Survey** (01720-0001)

Note: The professional services include AutoCAD drafting and certification. The survey includes location of structures, walks, drives, parking, significant vegetation, utilities, etc. The area within building footprint is not to be considered as part of the acreage.

01720-0003 ACR Survey Clear Area With Few To No Obstacles.....	634.47
01720-0004 ACR Survey Clear Area With Medium Height Vegetation, Few Trees (<5% Buildings).....	1,879.66
01720-0005 ACR Survey Clear Area With Few Structures, And/Or Wooded (5-25% Buildings).....	2,697.28
01720-0006 ACR Survey Developed Areas With Several Structures (25-65% Buildings).....	4,071.85
01720-0007 ACR Survey Highly Developed Areas, Sidewalks, Etcetera (>65% Buildings).....	5,103.81

01720-0008 Property Lines Survey (01720-0001)

Note: Not to be added to tasks in the "Conventional Topographic Survey" section.

01720-0009 LF Survey Property Lines On Cleared Land.....	1.44
01720-0010 LF Survey Property Lines On Slightly Wooded Land.....	1.67
01720-0011 LF Survey Property Lines On Wooded Land.....	1.95
01720-0012 EA Install Survey Monument.....	102.25
01MOD-0013 For Owner Furnished Monument, Deduct	-36.63

01720-0013 Facade Surveying (01720-0001)

01720-0014 LF Facade Survey And Reports (LF Of Facade x Number Of Floors).....	4.20
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01720-0015 Utility Survey (01720-0001)

Note: This survey is only for the location of underground utilities.

01720-0016 ACR Survey Clear Area For Underground Utilities.....	3,503.62
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01740 Cleaning (01700)

Note: For use on existing areas other than where actual work is to be performed where ordered by the owner. Daily cleanup and final cleanup is included in the contractor's adjustment factor.

01740-0001 General (01740)

01740-0002 CSF Clean Miscellaneous Surfaces, Wipe Down With Mild Detergent.....	16.10
01740-0003 CY Collect Existing Debris And Load Into Truck Or Dumpster.....	18.87

Note: Per CY of debris removed.

01740-0004 Glass (01740)

01740-0005 CSF Clean Existing Glass Surfaces.....	21.06
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END OF SECTION 01



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
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02000 Site Construction

02010 Subsurface Investigation (02000)

02011 Borings And Samplings (02010)

02011-0001 Auger Borings (02011)

02011-0002	LF	Standard Auger Hole With Split Spoon Sample At 5 Ft Intervals	21.54
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02011-0003 Cased Borings In Earth, With Samples (02011)

Note: All types of soils.

02011-0004	LF	2-1/2" Diameter Cased Borings In Earth, With Samples	30.65
02011-0005	LF	4" Diameter Cased Borings In Earth, With Samples	29.45

02011-0006 Drilling In Rock, BW Core (2.125") (02011)

02011-0007	LF	Drill In Rock, BW Core	75.83
Note: Includes sampling.			
02011-0008	LF	Drill In Rock, BW Core, With Casing	88.36
Note: Includes sampling.			

02011-0009 Drilling In Rock, NW Core (2.98") (02011)

02011-0010	LF	Drill In Rock, NW Core	66.03
Note: Includes sampling.			
02011-0011	LF	Drill In Rock, NW Core, With Casing	70.73
Note: Includes sampling.			
02011-0012	EA	Drill In Rock, With NW Core Boxes	6.16

02011-0013 Test Pits For Boring Activities (02011)

Note: Excludes backfill.

02011-0014 Backhoe Dug Test Pits (02011-0013)

02011-0015	CY	Excavation For Test Pit, Light Material, Backhoe Excavation	46.86
02011-0016	CY	Excavation For Test Pits, Medium Material, Backhoe Excavation	54.67
02011-0017	CY	Excavation For Test Pit, Heavy Material, Backhoe Excavation	72.89

02011-0018 Hand-Dug Test Pits (02011-0013)

02011-0019	CY	Excavation For Test Pit, Light Soil, Hand Excavation	143.01
02011-0020	CY	Excavation For Test Pit, Heavy Soil, Hand Excavation	257.41

02011-0021 Shelby Tube Sampling (02011)

02011-0022	EA	Shelby Tube Sampling	32.42
02011-0023	EA	Penetration Test	20.60

02100 Site Preparation (02000)

02102 Clearing And Grubbing (02100)

02102-0001 Clearing And Grubbing (02102)

02102-0002 Cut Trees - Grub Roots And Stump (02102-0001)

Note: Tree diameter (diameter at breast height) is the diameter of the tree trunk measured at 4.5' above ground level.
Based on tree density (light, medium or heavy) to be removed.

02102-0003	ACR	Clear And Grub Light Trees Up To 6" Diameter, Cut And Chip	6,079.97
Note: Includes grub and removal of stump			
02102-0004	ACR	Clear And Grub Light Stumps Only Up To 6" Diameter	1,538.24
02102-0005	ACR	Clear And Grub Medium Trees Up To 10" Diameter, Cut And Chip	7,093.29
Note: Includes grub and removal of stump			
02102-0006	ACR	Clear And Grub Medium Stumps Only Up To 10" Diameter	2,563.73
02102-0007	ACR	Clear And Grub Heavy Trees Up To 16" Diameter, Cut And Chip	8,060.56
Note: Includes grub and removal of stump			
02102-0008	ACR	Clear And Grub Heavy Stumps Only Up To 16" Diameter	2,563.73
02102-0009	ACR	Clearing - Light Brush Without Grub	233.66
02102-0010	ACR	Clearing - Medium Brush Without Grub	483.87
02102-0011	ACR	Clearing - Heavy Brush Without Grub	688.52
02102-0012	ACR	Chipping - Light Brush	1,891.88
02102-0013	ACR	Chipping - Medium Brush	2,432.55
02102-0014	ACR	Chipping - Heavy Brush	3,405.87

02102-0015 Loading Of Cleared And Grubbed Material (02102-0001)

See CSI section 02119-0011 for hauling.

02102-0016	CY	Machine Loading Of Cleared And Grubbed Material	8.04
02102-0017	CY	Chute Loading Of Cleared And Grubbed Material	9.65
02102-0018	CY	Hand Loading Of Cleared And Grubbed Material	29.26

02000 Site Construction**02100 Site Preparation****02102 Clearing And Grubbing**
 MINOR
CSI UOM DESCRIPTION

 TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

02102-0019 CY Wheel And Ramp Loading Of Cleared And Grubbed Material 22.98

02110 Demolition (02000)**02112 Selective Demolition** (02110)**02112-0001 Other Selective Demolition** (02112)

Note: Not to be used in conjunction with tasks in Building Demolition.

02112-0002 By Machine, Break-up And Leave In Place Bituminous And Concrete Paving (02112-0001)

Note: Includes slabs, pavements, sidewalks and base courses. Includes work around obstacles. These tasks are not to be used in conjunction with any other loading activities or other break-up tasks. Excludes saw cutting. See CSI section 02112-0019 for breaking-up, removal and loading as a combined operation.

02112-0003	SY Up To 3" By Machine, Break-up And Leave In Place Bituminous Paving.....	4.89
	02MOD-0003 For > 500 To 1000, Deduct	-0.49
	02MOD-0004 For > 1000 To 2500, Deduct	-0.88
	02MOD-0005 For > 2500 To 5000, Deduct	-1.27
	02MOD-0006 For > 5000 To 10000, Deduct	-1.66
	02MOD-0007 For > 10000, Deduct	-2.05
02112-0004	SY > 3" To 6" By Machine, Break-up And Leave In Place Bituminous Paving.....	7.34
	02MOD-0003 For > 500 To 1000, Deduct	-0.73
	02MOD-0004 For > 1000 To 2500, Deduct	-1.32
	02MOD-0005 For > 2500 To 5000, Deduct	-1.91
	02MOD-0006 For > 5000 To 10000, Deduct	-2.50
	02MOD-0007 For > 10000, Deduct	-3.08
02112-0005	SY > 6" To 8" By Machine, Break-up And Leave In Place Bituminous Paving.....	9.77
	02MOD-0003 For > 500 To 1000, Deduct	-0.98
	02MOD-0004 For > 1000 To 2500, Deduct	-1.76
	02MOD-0005 For > 2500 To 5000, Deduct	-2.54
	02MOD-0006 For > 5000 To 10000, Deduct	-3.32
	02MOD-0007 For > 10000, Deduct	-4.10
02112-0006	SY Up To 3" By Machine, Break-up And Leave In Place Concrete Paving.....	8.81
	02MOD-0003 For > 500 To 1000, Deduct	-0.88
	02MOD-0004 For > 1000 To 2500, Deduct	-1.59
	02MOD-0005 For > 2500 To 5000, Deduct	-2.29
	02MOD-0006 For > 5000 To 10000, Deduct	-3.00
	02MOD-0007 For > 10000, Deduct	-3.70
02112-0007	SY > 3" To 6" By Machine, Break-up And Leave In Place Concrete Paving.....	12.43
	02MOD-0003 For > 500 To 1000, Deduct	-1.24
	02MOD-0004 For > 1000 To 2500, Deduct	-2.24
	02MOD-0005 For > 2500 To 5000, Deduct	-3.23
	02MOD-0006 For > 5000 To 10000, Deduct	-4.23
	02MOD-0007 For > 10000, Deduct	-5.22
02112-0008	SY > 6" To 9" By Machine, Break-up And Leave In Place Concrete Paving.....	17.62
	02MOD-0003 For > 500 To 1000, Deduct	-1.76
	02MOD-0004 For > 1000 To 2500, Deduct	-3.17
	02MOD-0005 For > 2500 To 5000, Deduct	-4.58
	02MOD-0006 For > 5000 To 10000, Deduct	-5.99
	02MOD-0007 For > 10000, Deduct	-7.40
02112-0009	SY > 9" To 14" By Machine, Break-up And Leave In Place Concrete Paving.....	24.87
	02MOD-0003 For > 500 To 1000, Deduct	-2.49
	02MOD-0004 For > 1000 To 2500, Deduct	-4.48
	02MOD-0005 For > 2500 To 5000, Deduct	-6.47
	02MOD-0006 For > 5000 To 10000, Deduct	-8.46
	02MOD-0007 For > 10000, Deduct	-10.45
02112-0010	SY > 14" To 19" By Machine, Break-up And Leave In Place Concrete Paving.....	32.53
	02MOD-0003 For > 500 To 1000, Deduct	-3.25
	02MOD-0004 For > 1000 To 2500, Deduct	-5.86
	02MOD-0005 For > 2500 To 5000, Deduct	-8.46
	02MOD-0006 For > 5000 To 10000, Deduct	-11.06
	02MOD-0007 For > 10000, Deduct	-13.66
02112-0011	SY > 19" To 24" By Machine, Break-up And Leave In Place Concrete Paving.....	42.29
	02MOD-0003 For > 500 To 1000, Deduct	-4.23
	02MOD-0004 For > 1000 To 2500, Deduct	-7.61
	02MOD-0005 For > 2500 To 5000, Deduct	-11.00
	02MOD-0006 For > 5000 To 10000, Deduct	-14.38
	02MOD-0007 For > 10000, Deduct	-17.76

02112-0012 By Hand, Break-up And Leave In Place Bituminous And Concrete Paving (02112-0001)

Note: Includes slabs, pavements, sidewalks and base courses. Includes work around obstacles with jackhammer and hand tools. For individual work areas up to 100 SF where conventional equipment access is limited or prohibited. Task is only to be used when requested by owner. These tasks are not to be used in conjunction with any other loading activities or other break-up tasks. Excludes saw cutting. See CSI section 02112-0033 for breaking-up, removal and loading as a combined operation.

02112-0013	SF Up To 3" By Hand, Break-up And Leave In Place Bituminous Paving	1.26
02112-0014	SF > 3" To 6" By Hand, Break-up And Leave In Place Bituminous Paving.....	1.61
02112-0015	SF > 6" To 8" By Hand, Break-up And Leave In Place Bituminous Paving.....	2.12
02112-0016	SF Up To 3" By Hand, Break-up And Leave In Place Concrete Paving.....	1.58
02112-0017	SF > 3" To 6" By Hand, Break-up And Leave In Place Concrete Paving.....	2.01
02112-0018	SF Break-Up > 6" To 8" Concrete Paving By Hand With Material Left In Place After Break-up.....	2.65



Site Construction		02000	02
Demolition		02110	
Selective Demolition		02112	

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02112-0019		Break-up And Remove, By Machine, Bituminous And Concrete Paving (02112-0001) Note: Includes slabs, pavements, sidewalks and base courses. Includes work around obstacles, breaking into manageable sizes by machine and loading into truck, dumpster or moving material to stockpile. Excludes saw cutting. See CSI section 02205-0000 for excavation and loading of aggregate base course.		
02112-0020	SY	Up To 3" By Machine, Break-up And Remove Bituminous Paving.....	9.83	
	02MOD-0001	For Additional Cost Of Hand Held Equipment Usage (Around Existing Structures And Obstructions), Add	2.95	
		Note: (Around Existing Structures And Obstructions), Add		
	02MOD-0002	For Elevated Slab, Add	4.92	
	02MOD-0003	For > 500 To 1000, Deduct	-0.98	
	02MOD-0004	For > 1000 To 2500, Deduct	-1.77	
	02MOD-0005	For > 2500 To 5000, Deduct	-2.56	
	02MOD-0006	For > 5000 To 10000, Deduct	-3.34	
	02MOD-0007	For > 10000, Deduct	-4.13	
02112-0021	SY	> 3" To 6" By Machine, Break-up And Remove Bituminous Paving.....	13.43	
	02MOD-0001	For Additional Cost Of Hand Held Equipment Usage (Around Existing Structures And Obstructions), Add	4.03	
		Note: (Around Existing Structures And Obstructions), Add		
	02MOD-0002	For Elevated Slab, Add	6.72	
	02MOD-0003	For > 500 To 1000, Deduct	-1.34	
	02MOD-0004	For > 1000 To 2500, Deduct	-2.42	
	02MOD-0005	For > 2500 To 5000, Deduct	-3.49	
	02MOD-0006	For > 5000 To 10000, Deduct	-4.57	
	02MOD-0007	For > 10000, Deduct	-5.64	
02112-0022	SY	Up To 3" By Machine, Break-up And Remove Non Reinforced Concrete Paving.....	11.32	
	02MOD-0001	For Additional Cost Of Hand Held Equipment Usage (Around Existing Structures And Obstructions), Add	3.40	
		Note: (Around Existing Structures And Obstructions), Add		
	02MOD-0002	For Elevated Slab, Add	5.66	
	02MOD-0003	For > 500 To 1000, Deduct	-1.13	
	02MOD-0004	For > 1000 To 2500, Deduct	-2.04	
	02MOD-0005	For > 2500 To 5000, Deduct	-2.94	
	02MOD-0006	For > 5000 To 10000, Deduct	-3.85	
	02MOD-0007	For > 10000, Deduct	-4.75	
02112-0023	SY	> 3" To 6" By Machine, Break-up And Remove Non Reinforced Concrete Paving.....	14.80	
	02MOD-0001	For Additional Cost Of Hand Held Equipment Usage (Around Existing Structures And Obstructions), Add	4.44	
		Note: (Around Existing Structures And Obstructions), Add		
	02MOD-0002	For Elevated Slab, Add	7.40	
	02MOD-0003	For > 500 To 1000, Deduct	-1.48	
	02MOD-0004	For > 1000 To 2500, Deduct	-2.66	
	02MOD-0005	For > 2500 To 5000, Deduct	-3.85	
	02MOD-0006	For > 5000 To 10000, Deduct	-5.03	
	02MOD-0007	For > 10000, Deduct	-6.22	
02112-0024	SY	Up To 3" By Machine, Break-up And Remove Wire Mesh Reinforced Concrete Paving.....	15.01	
	02MOD-0001	For Additional Cost Of Hand Held Equipment Usage (Around Existing Structures And Obstructions), Add	4.50	
		Note: (Around Existing Structures And Obstructions), Add		
	02MOD-0002	For Elevated Slab, Add	7.51	
	02MOD-0003	For > 500 To 1000, Deduct	-1.50	
	02MOD-0004	For > 1000 To 2500, Deduct	-2.70	
	02MOD-0005	For > 2500 To 5000, Deduct	-3.90	
	02MOD-0006	For > 5000 To 10000, Deduct	-5.10	
	02MOD-0007	For > 10000, Deduct	-6.30	
02112-0025	SY	> 3" To 6" By Machine, Break-up And Remove Wire Mesh Reinforced Concrete Paving.....	19.45	
	02MOD-0001	For Additional Cost Of Hand Held Equipment Usage (Around Existing Structures And Obstructions), Add	5.84	
		Note: (Around Existing Structures And Obstructions), Add		
	02MOD-0002	For Elevated Slab, Add	9.73	
	02MOD-0003	For > 500 To 1000, Deduct	-1.95	
	02MOD-0004	For > 1000 To 2500, Deduct	-3.50	
	02MOD-0005	For > 2500 To 5000, Deduct	-5.06	
	02MOD-0006	For > 5000 To 10000, Deduct	-6.61	
	02MOD-0007	For > 10000, Deduct	-8.17	
02112-0026	SY	> 6" To 9" By Machine, Break-up And Remove Wire Mesh Reinforced Concrete Paving.....	32.24	
	02MOD-0001	For Additional Cost Of Hand Held Equipment Usage (Around Existing Structures And Obstructions), Add	9.67	
		Note: (Around Existing Structures And Obstructions), Add		
	02MOD-0002	For Elevated Slab, Add	16.12	
	02MOD-0003	For > 500 To 1000, Deduct	-3.22	
	02MOD-0004	For > 1000 To 2500, Deduct	-5.80	
	02MOD-0005	For > 2500 To 5000, Deduct	-8.38	
	02MOD-0006	For > 5000 To 10000, Deduct	-10.96	
	02MOD-0007	For > 10000, Deduct	-13.54	
02112-0027	SY	Up To 3" By Machine, Break-up And Remove Rod Reinforced Concrete Paving.....	16.27	
	02MOD-0002	For Elevated Slab, Add	8.14	
	02MOD-0003	For > 500 To 1000, Deduct	-1.63	
	02MOD-0004	For > 1000 To 2500, Deduct	-2.93	
	02MOD-0005	For > 2500 To 5000, Deduct	-4.23	
	02MOD-0006	For > 5000 To 10000, Deduct	-5.53	
	02MOD-0007	For > 10000, Deduct	-6.83	
02112-0028	SY	> 3" To 6" By Machine, Break-up And Remove Rod Reinforced Concrete Paving.....	20.93	
	02MOD-0002	For Elevated Slab, Add	10.47	
	02MOD-0003	For > 500 To 1000, Deduct	-2.09	
	02MOD-0004	For > 1000 To 2500, Deduct	-3.77	
	02MOD-0005	For > 2500 To 5000, Deduct	-5.44	
	02MOD-0006	For > 5000 To 10000, Deduct	-7.12	
	02MOD-0007	For > 10000, Deduct	-8.79	
02112-0029	SY	> 6" To 9" By Machine, Break-up And Remove Rod Reinforced Concrete Paving.....	37.42	
	02MOD-0002	For Elevated Slab, Add	18.71	
	02MOD-0003	For > 500 To 1000, Deduct	-3.74	
	02MOD-0004	For > 1000 To 2500, Deduct	-6.74	
	02MOD-0005	For > 2500 To 5000, Deduct	-9.73	
	02MOD-0006	For > 5000 To 10000, Deduct	-12.72	
	02MOD-0007	For > 10000, Deduct	-15.72	

02000 Site Construction**02110 Demolition****02112 Selective Demolition**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02112-0030 SY > 9" To 14" By Machine, Break-up And Remove Rod Reinforced Concrete Paving	48.83	
02MOD-0002 For Elevated Slab, Add	24.42	
02MOD-0003 For > 500 To 1000, Deduct	-4.88	
02MOD-0004 For > 1000 To 2500, Deduct	-8.79	
02MOD-0005 For > 2500 To 5000, Deduct	-12.70	
02MOD-0006 For > 5000 To 10000, Deduct	-16.60	
02MOD-0007 For > 10000, Deduct	-20.51	
02112-0031 SY >14" To 19" By Machine, Break-up And Remove Rod Reinforced Concrete Paving	63.85	
02MOD-0002 For Elevated Slab, Add	31.93	
02MOD-0003 For > 500 To 1000, Deduct	-6.39	
02MOD-0004 For > 1000 To 2500, Deduct	-11.49	
02MOD-0005 For > 2500 To 5000, Deduct	-16.60	
02MOD-0006 For > 5000 To 10000, Deduct	-21.71	
02MOD-0007 For > 10000, Deduct	-26.82	
02112-0032 SY > 19" To 24" By Machine, Break-up And Remove Rod Reinforced Concrete Paving	77.48	
02MOD-0002 For Elevated Slab, Add	38.74	
02MOD-0003 For > 500 To 1000, Deduct	-7.75	
02MOD-0004 For > 1000 To 2500, Deduct	-13.95	
02MOD-0005 For > 2500 To 5000, Deduct	-20.14	
02MOD-0006 For > 5000 To 10000, Deduct	-26.34	
02MOD-0007 For > 10000, Deduct	-32.54	
02112-0033 By Hand, Break-up And Remove Bituminous And Concrete Paving (02112-0001)		
Note: Includes slabs, pavements, sidewalks and base courses. Includes work around obstacles. Work includes breaking into manageable size with jackhammer and hand tools, removal and loading onto a truck or dumpster. For individual work areas up to 100 SF where conventional equipment access is limited or prohibited. Task is only to be used when requested by owner. Excludes saw cutting.		
02112-0034 SF Up To 3" By Hand, Break-up And Remove Bituminous Paving.....	2.82	
02112-0035 SF > 3" To 6" By Hand, Break-up And Remove Bituminous Paving.....	3.71	
02112-0036 SF > 6" To 8" By Hand, Break-up And Remove Bituminous Paving.....	4.83	
02112-0037 SF Up To 3" By Hand, Break-up And Remove Concrete Paving.....	3.52	
02112-0038 SF > 3" To 6" By Hand, Break-up And Remove Concrete Paving.....	4.87	
02112-0039 SF > 6" To 8" By Hand, Break-up And Remove Concrete Paving.....	6.23	
02112-0040 Elevated Concrete Removal (02112)		
02112-0041 CF Elevated Concrete Beam/Slab/Steps Removal, Reinforced.....	9.31	
02112-0042 Drilling (02112)		
Note: Includes drill bit wear, water, layout, set-up and clean-up.		
02112-0043 Concrete Core Drilling (02112-0042)		
02112-0044 Up To 4" Thick Concrete Core Drilling (02112-0043)		
02112-0045 EA Drill 2" Diameter Core In Up To 4" Concrete	38.61	
02MOD-0008 For Horizontal Cores, Add	7.09	
02MOD-0009 For Overhead Ceiling Cores (Where Not Accessible From Above), Add	14.17	
02MOD-0010 For Holes In Brick, Deduct	-12.40	
02112-0046 EA Drill 3" Diameter Core In Up To 4" Concrete	54.87	
02MOD-0008 For Horizontal Cores, Add	10.12	
02MOD-0009 For Overhead Ceiling Cores (Where Not Accessible From Above), Add	20.24	
02MOD-0010 For Holes In Brick, Deduct	-17.71	
02112-0047 EA Drill 4" Diameter Core In Up To 4" Concrete	73.57	
02MOD-0008 For Horizontal Cores, Add	13.56	
02MOD-0009 For Overhead Ceiling Cores (Where Not Accessible From Above), Add	27.13	
02MOD-0010 For Holes In Brick, Deduct	-23.74	
02112-0048 EA Drill 6" Diameter Core In Up To 4" Concrete	83.15	
02MOD-0008 For Horizontal Cores, Add	15.18	
02MOD-0009 For Overhead Ceiling Cores (Where Not Accessible From Above), Add	30.36	
02MOD-0010 For Holes In Brick, Deduct	-26.57	
02112-0049 EA Drill 8" Diameter Core In Up To 4" Concrete	131.39	
02MOD-0008 For Horizontal Cores, Add	24.29	
02MOD-0009 For Overhead Ceiling Cores (Where Not Accessible From Above), Add	48.59	
02MOD-0010 For Holes In Brick, Deduct	-42.51	
02112-0050 EA Drill 10" Diameter Core In Up To 4" Concrete	165.37	
02MOD-0008 For Horizontal Cores, Add	30.37	
02MOD-0009 For Overhead Ceiling Cores (Where Not Accessible From Above), Add	60.74	
02MOD-0010 For Holes In Brick, Deduct	-53.14	
02112-0051 EA Drill 12" Diameter Core In Up To 4" Concrete	193.37	
02MOD-0008 For Horizontal Cores, Add	35.43	
02MOD-0009 For Overhead Ceiling Cores (Where Not Accessible From Above), Add	70.86	
02MOD-0010 For Holes In Brick, Deduct	-62.01	
02112-0052 EA Drill 14" Diameter Core In Up To 4" Concrete	221.74	
02MOD-0008 For Horizontal Cores, Add	40.49	
02MOD-0009 For Overhead Ceiling Cores (Where Not Accessible From Above), Add	80.98	
02MOD-0010 For Holes In Brick, Deduct	-70.85	
02112-0053 EA Drill 18" Diameter Core In Up To 4" Concrete	252.52	
02MOD-0008 For Horizontal Cores, Add	45.55	
02MOD-0009 For Overhead Ceiling Cores (Where Not Accessible From Above), Add	91.09	
02MOD-0010 For Holes In Brick, Deduct	-79.71	
02112-0054 > 4" To 6" Thick Concrete Core Drilling (02112-0043)		



Site Construction			02000	02
Demolition			02110	
Selective Demolition			02112	

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02112-0055	EA	Drill 2" Diameter Core In > 4" To 6" Concrete	55.47	
	02MOD-0008	For Horizontal Cores, Add	10.12	
	02MOD-0009	For Overhead Ceiling Cores (Where Not Accessible From Above), Add	20.24	
	02MOD-0010	For Holes In Brick, Deduct	-17.71	
02112-0056	EA	Drill 3" Diameter Core In > 4" To 6" Concrete	67.40	
	02MOD-0008	For Horizontal Cores, Add	12.15	
	02MOD-0009	For Overhead Ceiling Cores (Where Not Accessible From Above), Add	24.29	
	02MOD-0010	For Holes In Brick, Deduct	-21.26	
02112-0057	EA	Drill 4" Diameter Core In > 4" To 6" Concrete	84.74	
	02MOD-0008	For Horizontal Cores, Add	15.18	
	02MOD-0009	For Overhead Ceiling Cores (Where Not Accessible From Above), Add	30.36	
	02MOD-0010	For Holes In Brick, Deduct	-26.57	
02112-0058	EA	Drill 6" Diameter Core In > 4" To 6" Concrete	112.22	
	02MOD-0008	For Horizontal Cores, Add	20.25	
	02MOD-0009	For Overhead Ceiling Cores (Where Not Accessible From Above), Add	40.49	
	02MOD-0010	For Holes In Brick, Deduct	-35.43	
02112-0059	EA	Drill 8" Diameter Core In > 4" To 6" Concrete	166.85	
	02MOD-0008	For Horizontal Cores, Add	30.37	
	02MOD-0009	For Overhead Ceiling Cores (Where Not Accessible From Above), Add	60.74	
	02MOD-0010	For Holes In Brick, Deduct	-53.14	
02112-0060	EA	Drill 10" Diameter Core In > 4" To 6" Concrete	197.39	
	02MOD-0008	For Horizontal Cores, Add	35.43	
	02MOD-0009	For Overhead Ceiling Cores (Where Not Accessible From Above), Add	70.86	
	02MOD-0010	For Holes In Brick, Deduct	-62.01	
02112-0061	EA	Drill 12" Diameter Core In > 4" To 6" Concrete	226.69	
	02MOD-0008	For Horizontal Cores, Add	40.49	
	02MOD-0009	For Overhead Ceiling Cores (Where Not Accessible From Above), Add	80.98	
	02MOD-0010	For Holes In Brick, Deduct	-70.85	
02112-0062	EA	Drill 14" Diameter Core In > 4" To 6" Concrete	257.21	
	02MOD-0008	For Horizontal Cores, Add	45.55	
	02MOD-0009	For Overhead Ceiling Cores (Where Not Accessible From Above), Add	91.09	
	02MOD-0010	For Holes In Brick, Deduct	-79.71	
02112-0063	EA	Drill 18" Diameter Core In > 4" To 6" Concrete	291.25	
	02MOD-0008	For Horizontal Cores, Add	50.61	
	02MOD-0009	For Overhead Ceiling Cores (Where Not Accessible From Above), Add	101.22	
	02MOD-0010	For Holes In Brick, Deduct	-88.57	
02112-0064		> 6" To 8" Thick Concrete Core Drilling (02112-0043)		
02112-0065	EA	Drill 2" Diameter Core In > 6" To 8" Concrete	62.28	
	02MOD-0008	For Horizontal Cores, Add	11.13	
	02MOD-0009	For Overhead Ceiling Cores (Where Not Accessible From Above), Add	22.27	
	02MOD-0010	For Holes In Brick, Deduct	-19.48	
02112-0066	EA	Drill 3" Diameter Core In > 6" To 8" Concrete	74.88	
	02MOD-0008	For Horizontal Cores, Add	13.16	
	02MOD-0009	For Overhead Ceiling Cores (Where Not Accessible From Above), Add	26.32	
	02MOD-0010	For Holes In Brick, Deduct	-23.03	
02112-0067	EA	Drill 4" Diameter Core In > 6" To 8" Concrete	97.95	
	02MOD-0008	For Horizontal Cores, Add	17.21	
	02MOD-0009	For Overhead Ceiling Cores (Where Not Accessible From Above), Add	34.42	
	02MOD-0010	For Holes In Brick, Deduct	-30.11	
02112-0068	EA	Drill 6" Diameter Core In > 6" To 8" Concrete	136.21	
	02MOD-0008	For Horizontal Cores, Add	24.29	
	02MOD-0009	For Overhead Ceiling Cores (Where Not Accessible From Above), Add	48.59	
	02MOD-0010	For Holes In Brick, Deduct	-42.51	
02112-0069	EA	Drill 8" Diameter Core In > 6" To 8" Concrete	222.54	
	02MOD-0008	For Horizontal Cores, Add	40.49	
	02MOD-0009	For Overhead Ceiling Cores (Where Not Accessible From Above), Add	80.98	
	02MOD-0010	For Holes In Brick, Deduct	-70.85	
02112-0070	EA	Drill 10" Diameter Core In > 6" To 8" Concrete	254.66	
	02MOD-0008	For Horizontal Cores, Add	45.55	
	02MOD-0009	For Overhead Ceiling Cores (Where Not Accessible From Above), Add	91.09	
	02MOD-0010	For Holes In Brick, Deduct	-79.71	
02112-0071	EA	Drill 12" Diameter Core In > 6" To 8" Concrete	285.35	
	02MOD-0008	For Horizontal Cores, Add	50.61	
	02MOD-0009	For Overhead Ceiling Cores (Where Not Accessible From Above), Add	101.22	
	02MOD-0010	For Holes In Brick, Deduct	-88.57	
02112-0072	EA	Drill 14" Diameter Core In > 6" To 8" Concrete	317.97	
	02MOD-0008	For Horizontal Cores, Add	55.66	
	02MOD-0009	For Overhead Ceiling Cores (Where Not Accessible From Above), Add	111.32	
	02MOD-0010	For Holes In Brick, Deduct	-97.41	
02112-0073	EA	Drill 18" Diameter Core In > 6" To 8" Concrete	355.27	
	02MOD-0008	For Horizontal Cores, Add	60.74	
	02MOD-0009	For Overhead Ceiling Cores (Where Not Accessible From Above), Add	121.47	
	02MOD-0010	For Holes In Brick, Deduct	-106.29	
02112-0074		> 8" To 10" Thick Concrete Core Drilling (02112-0043)		
02112-0075	EA	Drill 2" Diameter Core In > 8" To 10" Concrete	74.14	
	02MOD-0008	For Horizontal Cores, Add	13.16	
	02MOD-0009	For Overhead Ceiling Cores (Where Not Accessible From Above), Add	26.32	
	02MOD-0010	For Holes In Brick, Deduct	-23.03	
02112-0076	EA	Drill 3" Diameter Core In > 8" To 10" Concrete	87.41	
	02MOD-0008	For Horizontal Cores, Add	15.18	
	02MOD-0009	For Overhead Ceiling Cores (Where Not Accessible From Above), Add	30.36	
	02MOD-0010	For Holes In Brick, Deduct	-26.57	

02000 Site Construction**02110 Demolition****02112 Selective Demolition**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02112-0077	EA	Drill 4" Diameter Core In > 8" To 10" Concrete	101.03	
	02MOD-0008	For Horizontal Cores, Add	17.21	
	02MOD-0009	For Overhead Ceiling Cores (Where Not Accessible From Above), Add	34.42	
	02MOD-0010	For Holes In Brick, Deduct	-30.11	
02112-0078	EA	Drill 6" Diameter Core In > 8" To 10" Concrete	139.96	
	02MOD-0008	For Horizontal Cores, Add	24.29	
	02MOD-0009	For Overhead Ceiling Cores (Where Not Accessible From Above), Add	48.59	
	02MOD-0010	For Holes In Brick, Deduct	-42.51	
02112-0079	EA	Drill 8" Diameter Core In > 8" To 10" Concrete	227.63	
	02MOD-0008	For Horizontal Cores, Add	40.49	
	02MOD-0009	For Overhead Ceiling Cores (Where Not Accessible From Above), Add	80.98	
	02MOD-0010	For Holes In Brick, Deduct	-70.85	
02112-0080	EA	Drill 10" Diameter Core In > 8" To 10" Concrete	261.36	
	02MOD-0008	For Horizontal Cores, Add	45.55	
	02MOD-0009	For Overhead Ceiling Cores (Where Not Accessible From Above), Add	91.09	
	02MOD-0010	For Holes In Brick, Deduct	-79.71	
02112-0081	EA	Drill 12" Diameter Core In > 8" To 10" Concrete	293.34	
	02MOD-0008	For Horizontal Cores, Add	50.60	
	02MOD-0009	For Overhead Ceiling Cores (Where Not Accessible From Above), Add	101.20	
	02MOD-0010	For Holes In Brick, Deduct	-88.55	
02112-0082	EA	Drill 14" Diameter Core In > 8" To 10" Concrete	328.16	
	02MOD-0008	For Horizontal Cores, Add	55.66	
	02MOD-0009	For Overhead Ceiling Cores (Where Not Accessible From Above), Add	111.32	
	02MOD-0010	For Holes In Brick, Deduct	-97.41	
02112-0083	EA	Drill 18" Diameter Core In > 8" To 10" Concrete	368.59	
	02MOD-0008	For Horizontal Cores, Add	60.72	
	02MOD-0009	For Overhead Ceiling Cores (Where Not Accessible From Above), Add	121.44	
	02MOD-0010	For Holes In Brick, Deduct	-106.26	
02112-0084	Asphalt Core Drilling (02112-0042)			
02112-0085	Up To 2" Thick Asphalt Core Drilling (02112-0084)			
02112-0086	EA	Drill 2" Diameter Core In Up To 2" Asphalt.....	22.66	
02112-0087	EA	Drill 3" Diameter Core In Up To 2" Asphalt.....	28.19	
02112-0088	EA	Drill 4" Diameter Core In Up To 2" Asphalt.....	35.52	
02112-0089	EA	Drill 6" Diameter Core In Up To 2" Asphalt.....	44.65	
02112-0090	EA	Drill 8" Diameter Core In Up To 2" Asphalt.....	55.87	
02112-0091	EA	Drill 10" Diameter Core In Up To 2" Asphalt.....	69.31	
02112-0092	EA	Drill 12" Diameter Core In Up To 2" Asphalt.....	86.46	
02112-0093	> 2" To 3" Thick Asphalt Core Drilling (02112-0084)			
02112-0094	EA	Drill 2" Diameter Core In > 2" To 3" Asphalt.....	28.86	
02112-0095	EA	Drill 3" Diameter Core In > 2" To 3" Asphalt.....	36.19	
02112-0096	EA	Drill 4" Diameter Core In > 2" To 3" Asphalt.....	45.32	
02112-0097	EA	Drill 6" Diameter Core In > 2" To 3" Asphalt.....	57.13	
02112-0098	EA	Drill 8" Diameter Core In > 2" To 3" Asphalt.....	71.05	
02112-0099	EA	Drill 10" Diameter Core In > 2" To 3" Asphalt.....	88.94	
02112-0100	EA	Drill 12" Diameter Core In > 2" To 3" Asphalt.....	110.55	
02112-0101	> 3" To 4" Thick Asphalt Core Drilling (02112-0084)			
02112-0102	EA	Drill 2" Diameter Core In > 3" To 4" Asphalt.....	37.12	
02112-0103	EA	Drill 3" Diameter Core In > 3" To 4" Asphalt.....	46.32	
02112-0104	EA	Drill 4" Diameter Core In > 3" To 4" Asphalt.....	58.33	
02112-0105	EA	Drill 6" Diameter Core In > 3" To 4" Asphalt.....	72.93	
02112-0106	EA	Drill 8" Diameter Core In > 3" To 4" Asphalt.....	91.59	
02112-0107	EA	Drill 10" Diameter Core In > 3" To 4" Asphalt.....	114.02	
02112-0108	EA	Drill 12" Diameter Core In > 3" To 4" Asphalt.....	142.02	
02112-0109	> 4" To 6" Thick Asphalt Core Drilling (02112-0084)			
02112-0110	EA	Drill 2" Diameter Core In > 4" To 6" Asphalt.....	47.46	
02112-0111	EA	Drill 3" Diameter Core In > 4" To 6" Asphalt.....	60.53	
02112-0112	EA	Drill 4" Diameter Core In > 4" To 6" Asphalt.....	75.46	
02112-0113	EA	Drill 6" Diameter Core In > 4" To 6" Asphalt.....	93.85	
02112-0114	EA	Drill 8" Diameter Core In > 4" To 6" Asphalt.....	118.38	
02112-0115	EA	Drill 10" Diameter Core In > 4" To 6" Asphalt.....	147.25	
02112-0116	EA	Drill 12" Diameter Core In > 4" To 6" Asphalt.....	183.66	
02112-0117	Manhole Core Drilling (02112-0042)			
02112-0118	EA	Drill 4" Diameter Core In 6" Brick Manhole.....	157.80	
02112-0119	EA	Drill 5" Diameter Core In 6" Brick Manhole.....	180.23	
02112-0120	EA	Drill 6" Diameter Core In 6" Brick Manhole.....	209.81	
02112-0121	EA	Drill 8" Diameter Core In 6" Brick Manhole.....	313.73	
02112-0122	EA	Drill 2" Diameter Core In 8" Concrete Manhole	210.18	
02112-0123	EA	Drill 3" Diameter Core In 8" Concrete Manhole	225.66	
02112-0124	EA	Drill 4" Diameter Core In 8" Concrete Manhole	250.14	
02112-0125	EA	Drill 5" Diameter Core In 8" Concrete Manhole	268.89	
02112-0126	EA	Drill 6" Diameter Core In 8" Concrete Manhole	317.94	
02112-0127	EA	Drill 8" Diameter Core In 8" Concrete Manhole	453.25	
02112-0128	EA	Drill 2" Diameter Core In Fiberglass Manhole	20.36	

**Site Construction 02000****Demolition 02110****Selective Demolition 02112****02**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02112-0129	EA	Drill 3" Diameter Core In Fiberglass Manhole	23.55	
02112-0130	EA	Drill 4" Diameter Core In Fiberglass Manhole	25.55	
02112-0131	EA	Drill 5" Diameter Core In Fiberglass Manhole	27.89	
02112-0132	EA	Drill 6" Diameter Core In Fiberglass Manhole	30.68	
02112-0133	EA	Drill 8" Diameter Core In Fiberglass Manhole	34.12	
02112-0134		Block Walls Core Drilling (02112-0042)		
02112-0135	EA	Drill 6" Diameter Core In 8" Block Wall.....	112.29	
02112-0136	EA	Drill 6" Diameter Core In 12" Block Wall.....	143.20	
02112-0137		Drilling In Concrete Per Inch Of Depth (02112-0042)		
Note: Includes layout.				
02112-0138	IN	1/4" Diameter Drilling In Concrete Per Inch Of Depth	2.23	
02112-0139	IN	3/8" Diameter Drilling In Concrete Per Inch Of Depth	2.34	
02112-0140	IN	1/2" Diameter Drilling In Concrete Per Inch Of Depth	2.51	
02112-0141	IN	5/8" Diameter Drilling In Concrete Per Inch Of Depth	2.67	
02112-0142	IN	3/4" Diameter Drilling In Concrete Per Inch Of Depth	2.93	
02112-0143	IN	7/8" Diameter Drilling In Concrete Per Inch Of Depth	3.17	
02112-0144	IN	1" Diameter Drilling In Concrete Per Inch Of Depth	3.34	
02112-0145	IN	1-1/4" Diameter Drilling In Concrete Per Inch Of Depth	3.69	
02112-0146	IN	1-1/2" Diameter Drilling In Concrete Per Inch Of Depth	4.17	
02112-0147		Drilling In Brick Or Block Per Inch Of Depth (02112-0042)		
Note: Includes layout.				
02112-0148	IN	1/4" Diameter Drilling In Brick Or Block Per Inch Of Depth	1.43	
02112-0149	IN	3/8" Diameter Drilling In Brick Or Block Per Inch Of Depth	1.50	
02112-0150	IN	1/2" Diameter Drilling In Brick Or Block Per Inch Of Depth	1.61	
02112-0151	IN	5/8" Diameter Drilling In Brick Or Block Per Inch Of Depth	1.71	
02112-0152	IN	3/4" Diameter Drilling In Brick Or Block Per Inch Of Depth	1.87	
02112-0153	IN	7/8" Diameter Drilling In Brick Or Block Per Inch Of Depth	2.04	
02112-0154	IN	1" Diameter Drilling In Brick Or Block Per Inch Of Depth	2.14	
02112-0155	IN	1-1/4" Diameter Drilling In Brick Or Block Per Inch Of Depth	2.36	
02112-0156	IN	1-1/2" Diameter Drilling In Brick Or Block Per Inch Of Depth	2.68	
02112-0157		Minimum Charge For Core Drilling (02112-0042)		
02112-0158	EA	Core Drill Minimum Charge.....	460.00	
Note: For projects where the total core drilling charge is less than the minimum charge, use task "Minimum Charge For Core Drilling" exclusively. Task "Minimum Charge For Core Drilling" should not be used in conjunction with any other tasks in this section. Does not apply to sections "Drilling In Concrete Per Inch Of Depth" or "Drilling In Brick Or Block Per Inch Of Depth".				
02112-0159		Cut-Outs (02112)		
Note: Includes drilling pilot hole at corners, saw cutting, cleaning and removal. For vertical heights over 14' add appropriate equipment rental (scaffolding, lifts). Not to be used for openings greater than 24 SF.				
02112-0160		Concrete (02112-0159)		
02112-0161		Concrete Slab On Grade Cutouts (02112-0160)		
02112-0162	SF	Up To 6" Thick Concrete Cutouts, Up To 8 SF With Light Reinforced, Slab On Grade.....	32.73	
02112-0163	SF	Up To 6" Thick Concrete Cutouts, > 8 SF With Light Reinforced, Slab On Grade	15.92	
02112-0164	SF	Up To 6" Thick Concrete Cutouts, Up To 8 SF With Bar Reinforced, Slab On Grade.....	37.02	
02112-0165	SF	Up To 6" Thick Concrete Cutouts, > 8 SF With Bar Reinforced, Slab On Grade	26.45	
02112-0166		Concrete Elevated Slab Cutouts (02112-0160)		
Note: Includes cutting and removing reinforcing bars and steel decking.				
02112-0167	CF	Concrete Cutouts Elevated Slabs, Up To 6 CF With Light Reinforced.....	37.04	
02112-0168	CF	Concrete Cutouts Elevated Slabs, > 6 CF With Light Reinforced	30.87	
02112-0169	CF	Concrete Cutouts Elevated Slabs, Up To 6 CF With Bar Reinforced	55.56	
02112-0170	CF	Concrete Cutouts Elevated Slabs, > 6 CF With Bar Reinforced.....	46.30	
02119		Hauling And Disposal Processing Fee (02110)		
02119-0001		Debris Processing Fee (02119)		
02119-0002		Recycler Fees (02119-0001)		
Note: Excludes hauling.				
02119-0003	CY	Drop-Off Asphalt At Recycling Center	10.62	
02119-0004	CY	Drop-Off Concrete At Recycling Center	5.31	
02119-0005		Landfill Dump Fees (02119-0001)		
Note: Does not apply when material is transferred to owner's site or facility, or with use of dumpsters. Excludes hauling.				
02119-0006	CY	Traditional Building Construction Materials Landfill Dump Fee	7.07	
02119-0007	CY	Trees, Stumps And Brush Landfill Dump Fee	8.51	
02119-0008	CY	Rubbish Landfill Dump Fee.....	6.94	
02119-0009	CY	Hazardous Materials And Rubbish (Paint Cans, Etcetera) Landfill Dump Fee.....	20.29	
02119-0010	CY	Excavated Dirt Landfill Dump Fee.....	6.81	

02000 Site Construction**02110 Demolition****02119 Hauling And Disposal Processing Fee**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

02119-0011**Hauling** (02119)

Note: Includes driver and equipment, ten (10) to fifteen (15) minutes load time, time for travel, dump time and return (roundtrip). The task quantity is the number of miles to the disposal site/transfer station (one way mileage) times the number of cubic yards being transported. For example, to haul 8 CY to a site 14 miles away, the quantity is calculated as follows: 14 miles x 8 CY = 112 CYM. Use both hauling tasks for distances greater than 15 miles. To haul 28 CY to a site 32 miles away, the quantity for the task to haul the first 15 miles is calculated: 15 miles x 28 CY = 420 CYM. The quantity for the additional hauling task over the first 15 miles is calculated: 32 total miles less 15 initial miles equals 17 miles x 28 CY = 476 CYM.

02119-0012	CYM Hauling On Paved Roads, First 15 Miles.....	0.87
02119-0013	CYM Hauling On Paved Roads, Miles Over Initial 15 Miles	0.65
02119-0014	CYM Hauling On Unimproved Roads, First 15 Miles.....	1.20
02119-0015	CYM Hauling On Unimproved Roads, Miles Over Initial 15 Miles.....	0.98

02200 Earthwork (02000)

Note: Per OSHA -Soil Classification - 1926 Subpart P App A. Light material: Class A site material, normally referred to as "easy digging". Consisting of loose, soft, free running materials. Close lying, which will fill blade, digger or bucket to capacity, and frequently provide a heaped load. Materials such as dry sand, small gravel, unpacked earth, loam, etc., would fall into this category. Medium material: Class B site material, normally referred to as "medium and tough, wet and sticky clay would be examples of this medium digging", consisting of harder materials that are not difficult to dig without assistance such as ripping, blasting, etc. Material break up with some bulkiness causing voids in digger or bucket. Materials such as packed earth, common earth with some clay, soil with less than 25% rock content would be examples of this category. Heavy/wet material: Class C site material, normally referred to as "hard digging", consisting of materials which may require some assistance in breaking up. Bulky and somewhat hard to penetrate materials would be found in this category and voids in dipper or bucket would be common. Materials such as very hard packed soil, with up to 50% to 70% rock content and hard category. Soil conditions will be determined by soil analysis to provide appropriate percentage (%) for the various types of soil conditions. Apply the percentages to the various soil types to generate an appropriate representation of the soil condition.

02201 Earthwork Equipment Mobilization (02200)**02201-0001 Equipment Delivery, Pickup, Mobilization And Demobilization** (02201)

Note: Includes delivery of equipment, off loading on site and rigging. Return includes dismantling, loading and transporting away. Excludes flagman for traffic control where necessary.

02201-0002	EA Equipment Delivery, Pickup, Mobilization And Demobilization Using A Rollback Flatbed Truck	201.32
	Note: For equipment such as trenchers, skid-steer loaders (bobcats), industrial warehouse forklifts, sweepers, scissor platform lifts, telescoping and articulating boom manlifts with up to 40' boom lengths, etc.	
02201-0003	EA Equipment Delivery, Pickup, Mobilization And Demobilization Using A Tractor Trailer With Up To 53' Bed	402.63
	Note: For equipment such as bulldozers, motor scrapers, hydraulic excavators, gradalls, road graders, loader-backhoes, heavy duty construction loaders, tractors, pavers, rollers, bridge finishers, straight mast construction forklifts, telescoping boom rough terrain construction forklifts, telescoping and articulating boom manlifts with > 40' boom lengths, etc.	

02203 Rock Breaking (02200)**02203-0001 Rock Breaking By Machine** (02203)

Note: Excludes excavation of broken-up rock.

02203-0002	CY Rock Breaking By Machine, Soft Sedimentary Rocks (Shale, Sandstone, Limestone)	20.29
02203-0003	CY Rock Breaking By Machine, Medium Metamorphic Rock (Slate)	21.64
02203-0004	CY Rock Breaking By Machine, Hard Igneous Rock (Granite, Basalt)	25.70

02204 Site Scarify (02200)**02204-0001 Rip Settling Basins** (02204)

Note: Rip through light soil and sand in settling basin. 8' on center (machine width).

02204-0002	ACR Rip Light Soil And Sand, By Dozer.....	463.94
02204-0003	ACR Rip Light Soil And Sand, By Grader With Rear Ripper.....	738.93
02204-0004	ACR Rip Light Soil And Sand, By Rubber Tire Front End Loader.....	626.27

02205 Bulk Excavation (02200)

Note: For excavations where the total quantity for a project is greater than 500 cubic yards. See CSI section 02213-0000 for imported material.

02205-0001 Excavation (02205)

Note: For bulk excavation. Includes stockpiling excavated materials within 100' of point of excavation.

02205-0002	CY Bulk Excavation by Dozer in Soil.....	6.92
	02MOD-0011 For Excavation In Light Material (Class A), Deduct	-0.87
	02MOD-0012 For Excavation In Heavy/Wet Material (Class C), Add	2.77
	02MOD-0013 For > 1000, Deduct	-1.04
02205-0003	CY Bulk Excavation by Hydraulic Excavator, Front End Loader, Backhoe in Soil	4.14
	02MOD-0011 For Excavation In Light Material (Class A), Deduct	-0.52
	02MOD-0012 For Excavation In Heavy/Wet Material (Class C), Add	1.66
	02MOD-0013 For > 1000, Deduct	-0.62
02205-0004	CY Bulk Excavation by Dozer in Loose Rock.....	8.50
	02MOD-0013 For > 1000, Deduct	-1.28
02205-0005	CY Bulk Excavation by Hydraulic Excavator, Front End Loader, Backhoe in Loose Rock.....	5.10
	02MOD-0013 For > 1000, Deduct	-0.77

02205-0006 Spreading, Shaping And Rough Grading (02205)

Note: Imported or stockpiled material for bulk excavation.

**Site Construction 02000****Earthwork 02200****Bulk Excavation 02205****02**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02205-0007	CY	Spreading, Shaping, and Rough Grading Imported or Stockpiled Material for Bulk Excavation by Machine4.26 02MOD-0013 For > 1000, Deduct -0.64		
02205-0008		Cutting, Shaping and Rough Grading Of Existing Elevations (02205) Note: For bulk excavation.		
02205-0009	CY	Cutting, Shaping and Rough Grading Existing Elevations For Bulk Excavation by Machine4.74 02MOD-0013 For > 1000, Deduct -0.71		
02205-0010		Relocating On Site Excavated Material From Excavation (02205) Note: For bulk excavation.		
02205-0011	CY	Relocating On Site Excavated Material From Bulk Excavation Over 100' to 300'3.79 02MOD-0013 For > 1000, Deduct -0.57		
02205-0012	CY	Relocating On Site Excavated Material From Bulk Excavation Over 300' to 500'5.69 02MOD-0013 For > 1000, Deduct -0.85		
02205-0013	CY	Relocating On Site Excavated Material From Bulk Excavation Over 500' To 1000'8.54 02MOD-0013 For > 1000, Deduct -1.28		
02205-0014	CY	Relocating On Site Excavated Material From Bulk Excavation Over 1000'11.39 02MOD-0013 For > 1000, Deduct -1.71		
02205-0015		Finish Grading (02205) Note: For bulk excavation.		
02205-0016	SY	Finish Grading for Bulk Excavation by Machine0.47		
02205-0017		Compaction Of Fill Or Subbase, Per Lift (02205) Note: For bulk excavation. See CSI section 02223-0000 for compaction water.		
02205-0018	SY	Compaction of Fill or Subbase for Bulk Excavation by Machine0.49 Note: Per Lift		
02205-0019		Loading Excess Material For Removal From Excavation (02205) Note: For bulk excavation. Includes hand work by laborer for clean-up. Not to be used when excavated material can be loaded directly into truck instead of stock-piling.		
02205-0020	CY	Loading Excess Material For Removal From Bulk Excavation4.15 02MOD-0014 For > 1000, Deduct -0.62		
02212		Roadway, Parking Areas, Landscaping And Embankment Excavation And Shaping Operations (02200) Note: Use this section for excavation and shaping operations even if the total quantity for the project exceeds 500 CY. See CSI section 02213-0000 for imported material, 02612-0000 for asphalt paving, 02614-0000 for concrete paving.		
02212-0001		Cutting, Shaping And Rough Grading (02212) Note: For roadways, parking areas, landscaping, and embankments. Includes loading or stockpiling excess materials within 300' of initial cut.		
02212-0002		Cutting, Shaping, And Rough Grading By Machine (02212-0001)		
02212-0003	CY	Cut, Shape, and Rough Grading for Roadways, Parking Areas, Landscaping and Embankments by Machine in Soil4.74 02MOD-0019 For Up To 20, Add 4.74 02MOD-0020 For > 20 To 50, Add 3.56 02MOD-0021 For > 50 To 250, Add 1.90 02MOD-0022 For > 250 To 500, Add 0.71 02MOD-0023 For > 1000, Deduct -0.71		
02212-0004	CY	Cut, Shape, and Rough Grading for Roadways, Parking Areas, Landscaping and Embankments by Machine in Loose Rock5.88 02MOD-0019 For Up To 20, Add 5.88 02MOD-0020 For > 20 To 50, Add 4.41 02MOD-0021 For > 50 To 250, Add 2.35 02MOD-0022 For > 250 To 500, Add 0.88 02MOD-0023 For > 1000, Deduct -0.88		
02212-0005		Cutting, Shaping, And Rough Grading By Hand (02212-0001)		
02212-0006	SY	Shape Embankment/Slope By Hand Up To 1 On 4 Slope4.95		
02212-0007	SY	Shape Embankment/Slope By Hand Greater Than 1 On 4 Slope6.43		
02212-0008		Scarify Soil (02212) Note: For roadways, parking areas, landscaping and embankments by machine.		
02212-0009	CSF	Scarify Soil For Roadways, Parking Areas, Landscaping And Embankments By Machine4.39 02MOD-0015 For Up To 20, Add 2.20 02MOD-0016 For > 20 To 50, Add 1.10 02MOD-0017 For > 250 To 500, Deduct -0.44 02MOD-0018 For > 500, Deduct -0.88		
02212-0010		Relocating On Site Excavated Material (02212) Note: For roadways, parking areas, landscaping and embankments over 300'.		

02	02000 Site Construction
	02200 Earthwork
	02212 Roadway, Parking Areas, Landscaping And Embankment Excavation And Shaping Operations



MINOR CSI UOM DESCRIPTION			TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02212-0011	CY	Relocating On Site Excavated Material For Roadways, Parking Areas, Landscaping and Embankments Over 500' to 1000'	8.54	
	02MOD-0024	For Up To 20, Add	8.54	
	02MOD-0025	For > 20 To 50, Add	6.41	
	02MOD-0026	For > 50 To 250, Add	3.42	
	02MOD-0027	For > 250 To 500, Add	1.28	
	02MOD-0028	For > 1000, Deduct	-1.28	
02212-0012	CY	Relocating On Site Excavated Material For Roadways, Parking Areas, Landscaping and Embankments Over 1000'	11.39	
	02MOD-0024	For Up To 20, Add	11.39	
	02MOD-0025	For > 20 To 50, Add	8.54	
	02MOD-0026	For > 50 To 250, Add	4.56	
	02MOD-0027	For > 250 To 500, Add	1.71	
	02MOD-0028	For > 1000, Deduct	-1.71	
02212-0013	Spread And Shape Imported Or Stockpiled Material (02212)			
Note: For roadways, parking areas, landscaping and embankments.				
02212-0014	CY	Spread And Shape Imported Or Stockpiled Material For Roadways, Parking Areas, Landscaping and Embankments	5.22	
	02MOD-0024	For Up To 20, Add	5.22	
	02MOD-0025	For > 20 To 50, Add	3.92	
	02MOD-0026	For > 50 To 250, Add	2.09	
	02MOD-0027	For > 250 To 500, Add	0.78	
	02MOD-0028	For > 1000, Deduct	-0.78	
02212-0015	Grading (02212)			
Note: For roadways, parking areas, landscaping and embankments by machine.				
02212-0016	SY	Rough Grade Roadway, Parking Areas, Landscaping And Embankments By Machine	0.55	
02212-0017	LF	Finish Grade For Curb	0.83	
02212-0018	LF	Finish Grade For Curb And Gutter	1.01	
02212-0019	Compaction Of Fill Or Subbase (02212)			
Note: For roadways, parking areas, landscaping and embankments by machine, per lift. See CSI section 02223-0000 for compaction water.				
02212-0020	SY	Compaction Of Fill Or Subbase For Roadways, Parking Areas, Landscaping And Embankments By Machine Per Lift	0.49	
	02MOD-0356	For Up To 250, Add	0.49	
	02MOD-0357	For > 250 To 500, Add	0.37	
	02MOD-0358	For > 500 To 1000, Add	0.20	
	02MOD-0359	For > 5000, Deduct	-0.07	
02212-0021	Loading Excess Material For Removal From Excavation (02212)			
Note: For roadways, parking areas, landscaping and embankments by machine. Includes hand work by laborer for clean-up.				
02212-0022	CY	Load Excess Material For Removal For Roadways, Parking Areas, Landscaping and Embankments by Machine	4.15	
	02MOD-0029	For Up To 20, Add	4.15	
	02MOD-0030	For > 20 To 50, Add	3.11	
	02MOD-0031	For > 50 To 250, Add	1.66	
	02MOD-0032	For > 250 To 500, Add	0.62	
	02MOD-0033	For > 1000, Deduct	-0.62	
02212-0023	Roadway Fine Grade (02212)			
02212-0024	SF	Fine Grade From + Or - 0.25, 1-2500 SF	0.54	
02212-0025	SF	Fine Grade From + Or - 0.25, 2501-10000 SF	0.41	
02212-0026	SF	Fine Grade From + Or - 0.25, 10001-20000 SF	0.35	
02212-0027	SF	Fine Grade From + Or - 0.50, 1-2500 SF	0.75	
02212-0028	SF	Fine Grade From + Or - 0.50, 2501-10000 SF	0.54	
02212-0029	SF	Fine Grade From + Or - 0.50, 10001-20000 SF	0.42	
02213	Imported Materials (02200)			
02213-0001	Fill Material (Loose, Purchased Material) (02213)			
Note: Includes delivery up to 15 miles from the closest approved source, loading and dumping. Excludes spreading or backfilling. See CSI section 02119-0011 for hauling greater than 15 miles.				
02213-0002	CY	Sand, Bank Run	30.70	
02213-0003	CY	Sand, Washed	39.45	
02213-0004	CY	Native Clean Fill Soil/Dirt - Common	21.39	
02213-0005	CY	Lime Rock Screening	23.07	
02213-0006	CY	Crushed Lime Rock Maximum 3-1/2"	21.70	
02213-0007	CY	Asphalt Sand	28.71	
02213-0008	CY	Lawn Sand	23.89	
02213-0009	CY	Sand/Clay	29.87	
02213-0010	CY	Recycled Concrete Aggregate	38.75	
02213-0011	CY	Sand Fill, Washed Aggregate	39.45	
02213-0012	CY	Pond Sand	19.73	
02213-0013	CY	Pitrun Clay	24.92	
02213-0014	CY	Light Clay / Loam	34.17	
02213-0015	CY	Heavy Clay	29.58	

**Site Construction 02000****Earthwork 02200****Imported Materials 02213****02**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02213-0016		Aggregate (Loose, Purchased Material) (02213) Note: Includes delivery up to 15 miles from the closest approved source, loading and dumping. Excludes spreading or backfilling. See CSI section 02119-0011 for hauling greater than 15 miles.		
02213-0017	CY	#3 Stone Aggregate Fill (1" To 2" Clean)	28.55	
	02MOD-0034	For Up To 10, Add	7.97	
	02MOD-0035	For > 10 To 25, Add	2.86	
02213-0018	CY	#4 Stone Aggregate Fill (3/4" To 1-1/2" Clean)	29.00	
	02MOD-0034	For Up To 10, Add	8.11	
	02MOD-0035	For > 10 To 25, Add	2.90	
02213-0019	CY	#5 Stone Aggregate Fill (1/2" To 1" Clean)	31.17	
	02MOD-0034	For Up To 10, Add	8.76	
	02MOD-0035	For > 10 To 25, Add	3.12	
02213-0020	CY	#6 Stone Aggregate Fill (3/8" To 3/4" Clean)	31.60	
	02MOD-0034	For Up To 10, Add	8.89	
	02MOD-0035	For > 10 To 25, Add	3.16	
02213-0021	CY	#56 Stone Aggregate Fill (3/8" To 1")	32.49	
	02MOD-0034	For Up To 10, Add	9.15	
	02MOD-0035	For > 10 To 25, Add	3.25	
02213-0022	CY	#57 Stone Aggregate Fill (#4 To 1")	33.02	
	02MOD-0034	For Up To 10, Add	9.31	
	02MOD-0035	For > 10 To 25, Add	3.30	
02213-0023	CY	#67 Or #68 Stone Aggregate Fill (#4 To 3/4")	33.51	
	02MOD-0034	For Up To 10, Add	9.46	
	02MOD-0035	For > 10 To 25, Add	3.35	
02213-0024	CY	#7 Stone Aggregate Fill (1/2" To #4)	33.60	
	02MOD-0034	For Up To 10, Add	9.49	
	02MOD-0035	For > 10 To 25, Add	3.36	
02213-0025	CY	#78 Stone Aggregate Fill (#8 To 1/2")	34.49	
	02MOD-0034	For Up To 10, Add	9.75	
	02MOD-0035	For > 10 To 25, Add	3.45	
02213-0026	CY	#8 Stone Aggregate Fill (3/8" x 1/8")	35.38	
	02MOD-0034	For Up To 10, Add	10.02	
	02MOD-0035	For > 10 To 25, Add	3.54	
02213-0027	CY	#89 Stone Aggregate Fill (#16 To 3/8")	35.51	
	02MOD-0034	For Up To 10, Add	10.06	
	02MOD-0035	For > 10 To 25, Add	3.55	
02213-0028	CY	#9 Stone Aggregate Fill (1/4" Clean)	35.66	
	02MOD-0034	For Up To 10, Add	10.10	
	02MOD-0035	For > 10 To 25, Add	3.57	
02213-0029	CY	#10 Stone Aggregate Fill (#8 To 3/4)	37.01	
	02MOD-0034	For Up To 10, Add	10.51	
	02MOD-0035	For > 10 To 25, Add	3.70	
02213-0030	CY	#610 Modified Stone Aggregate Fill (#16 To 3/4")	34.30	
	02MOD-0034	For Up To 10, Add	9.70	
	02MOD-0035	For > 10 To 25, Add	3.43	
02213-0031	CY	Screenings Stone Aggregate Fill	27.74	
	02MOD-0034	For Up To 10, Add	7.73	
	02MOD-0035	For > 10 To 25, Add	2.77	
02213-0032	CY	Stone Aggregate Fill, Random Size, Over 6" To 12"	39.21	
	02MOD-0034	For Up To 10, Add	11.17	
	02MOD-0035	For > 10 To 25, Add	3.92	
02213-0033	CY	Graded Stone Aggregate Fill, Over 6" To 12"	43.31	
	02MOD-0034	For Up To 10, Add	12.40	
	02MOD-0035	For > 10 To 25, Add	4.33	
02213-0034	CY	Surge Stone Aggregate Fill (3" To 7" Random)	33.45	
	02MOD-0034	For Up To 10, Add	9.44	
	02MOD-0035	For > 10 To 25, Add	3.35	
02213-0035	CY	Surge Stone Graded Aggregate Fill (3" To 7")	38.60	
	02MOD-0034	For Up To 10, Add	10.99	
	02MOD-0035	For > 10 To 25, Add	3.86	
02213-0036	CY	Crusher Run Aggregate Fill (2-1/2" Minus)	32.01	
	02MOD-0034	For Up To 10, Add	9.01	
	02MOD-0035	For > 10 To 25, Add	3.20	
02213-0037	CY	Crusher Run Aggregate Fill (1-1/2" Minus)	31.13	
	02MOD-0034	For Up To 10, Add	8.74	
	02MOD-0035	For > 10 To 25, Add	3.11	
02213-0038	CY	Crusher Run Aggregate Fill (3/4" Minus)	28.11	
	02MOD-0034	For Up To 10, Add	7.84	
	02MOD-0035	For > 10 To 25, Add	2.81	
02213-0039	CY	Miscellaneous Crushed Base, Processed Concrete, Paving	34.13	
	02MOD-0034	For Up To 10, Add	9.64	
	02MOD-0035	For > 10 To 25, Add	3.41	

02215 Excavation Operations For Trenching (02200)

Note: Use this section for trenching operations even if the total project volume exceeds 500 CY. Use tasks for work by hand only for areas not accessible by machine. See CSI section 02213-0000 for imported material.

02215-0001 Excavation For Trenching By Machine (02215)

Note: Includes stockpiling excess materials and trimming sides and bottom of trench.

02000 Site Construction**02200 Earthwork****02215 Excavation Operations For Trenching**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02215-0002 CY 12" Wide or Less, Excavation for Trenching by Machine in Soil.....	7.82	
02MOD-0036 For Excavation In Light Material (Class A), Deduct	-0.98	
02MOD-0037 For Excavation In Heavy/Wet Material (Class C), Add	3.13	
02MOD-0038 For Up To 20, Add	6.26	
02MOD-0039 For > 20 To 50, Add	3.91	
02MOD-0040 For > 50 To 250, Add	1.96	
02MOD-0041 For > 500 To 1000, Deduct	-1.17	
02MOD-0042 For > 1000, Deduct	-2.35	
02215-0003 CY Over 12" Wide, Excavation for Trenching by Machine in Soil.....	5.13	
02MOD-0036 For Excavation In Light Material (Class A), Deduct	-0.64	
02MOD-0037 For Excavation In Heavy/Wet Material (Class C), Add	2.05	
02MOD-0038 For Up To 20, Add	4.10	
02MOD-0039 For > 20 To 50, Add	2.57	
02MOD-0040 For > 50 To 250, Add	1.28	
02MOD-0041 For > 500 To 1000, Deduct	-0.77	
02MOD-0042 For > 1000, Deduct	-1.54	
02215-0004 CY 12" Wide or Less, Excavation for Trenching by Machine in Loose Rock.....	12.93	
02MOD-0038 For Up To 20, Add	10.34	
02MOD-0039 For > 20 To 50, Add	6.47	
02MOD-0040 For > 50 To 250, Add	3.23	
02MOD-0041 For > 500 To 1000, Deduct	-1.94	
02MOD-0042 For > 1000, Deduct	-3.88	
02215-0005 CY Over 12" Wide, Excavation for Trenching by Machine in Loose Rock.....	9.13	
02MOD-0038 For Up To 20, Add	7.30	
02MOD-0039 For > 20 To 50, Add	4.57	
02MOD-0040 For > 50 To 250, Add	2.28	
02MOD-0041 For > 500 To 1000, Deduct	-1.37	
02MOD-0042 For > 1000, Deduct	-2.74	
02215-0006 Excavation For Trenching By Hand (02215)		
02215-0007 CY Excavation For Trenching By Hand In Soil.....	128.70	
Note: Includes stockpiling excess materials and trimming sides and bottom of trench.		
02215-0008 CY Excavation For Trenching By Hand In Loose Rock	165.58	
Note: Includes stockpiling excess materials and trimming sides and bottom of trench.		
02215-0009 Backfilling Or Placing Subbase For Trenches (02215)		
Note: With imported or stockpiled materials.		
02215-0010 CY Backfilling or Placing Subbase for Trenches with Imported or Stockpiled Materials by Machine	2.75	
02MOD-0043 For Up To 20, Add	2.20	
02MOD-0044 For > 20 To 50, Add	1.38	
02MOD-0045 For > 50 To 250, Add	0.69	
02MOD-0046 For > 500 To 1000, Deduct	-0.41	
02MOD-0047 For > 1000, Deduct	-0.83	
02215-0011 CY Backfilling or Placing Subbase for Trenches with Imported or Stockpiled Materials by Hand	26.82	
02215-0012 Compaction Of Fill Or Subbase For Trenches (02215)		
Note: Includes restoration of final grade. See CSI section 02223-0000 for compaction water.		
02215-0013 CY Compaction of Fill or Subbase for Trenches by Vibratory Plate, Air Tamper, Etcetera	5.60	
02MOD-0048 For Up To 20, Add	4.48	
02MOD-0049 For > 20 To 50, Add	2.80	
02MOD-0050 For > 50 To 250, Add	1.40	
02MOD-0051 For > 500 To 1000, Deduct	-0.84	
02MOD-0052 For > 1000, Deduct	-1.68	
02215-0014 CY Compaction of Fill or Subbase for Trenches by Hand	30.25	
02215-0015 Flowable Cement Backfill For Trenches (02215)		
Note: Includes compaction and restoration of final grade.		
02215-0016 CY Flowable Cement Backfill for Trenches	86.83	
02MOD-0058 For Up To 20, Add	36.65	
02MOD-0059 For > 20 To 50, Add	23.73	
02MOD-0060 For > 50 To 250, Add	11.86	
02MOD-0061 For > 500 To 1000, Deduct	-6.46	
02MOD-0062 For > 1000, Deduct	-12.93	
02215-0017 Loading Excess Material For Removal From Excavation For Trenches (02215)		
Note: Includes hand work by laborer for clean-up.		
02215-0018 CY Load Excess Material by Machine for Removal from Excavation for Trenching	4.79	
02MOD-0053 For Up To 20, Add	3.83	
02MOD-0054 For > 20 To 50, Add	2.40	
02MOD-0055 For > 50 To 250, Add	1.20	
02MOD-0056 For > 500 To 1000, Deduct	-0.72	
02MOD-0057 For > 1000, Deduct	-1.44	
02215-0019 CY Load Excess Material by Hand for Removal from Excavation for Trenching	70.78	
02215-0020 Spread Excess Or Imported Material For Trenches (02215)		
Note: Includes hand work by laborer for clean-up.		
02215-0021 CY Spread Excess Or Imported Material On Site With Machine	2.21	

02218 Mass Excavation (02200)



Site Construction			02000	02
Earthwork			02200	
Mass Excavation			02218	

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02218-0001		Mass Excavation By Dozer (02218) Note: In CY/Hour and using 50 Min/Hour, +5% grade, average operator and material conversion factors. Pushed to stockpile area.		
02218-0002		Dozing Distance Averages 150 Feet Push (02218-0001)		
02218-0003		Dozer With Blade, 65 HP, (D-3B) (02218-0002)		
02218-0004		BCY Mass Excavation, D-3B Dozer, Light Material 65 HP With Blade, 150' Push, 30 CY/Hour	5.13	
02218-0005		BCY Mass Excavation, D-3B Dozer, Medium Material 65 HP With Blade, 150' Push, 25 CY/Hour	6.17	
02218-0006		BCY Mass Excavation, D-3B Dozer, Wet/Loose Rock 65 HP With Blade, 150' Push 20 CY/Hour.....	7.70	
02218-0007		Dozer With Blade, 90 HP, (D-4H) (02218-0002)		
02218-0008		BCY Mass Excavation, D-4H Dozer, Light Material 90 HP With Blade, 150' Push, 60 CY/Hour	2.51	
02218-0009		BCY Mass Excavation, D-4H Dozer, Medium Material 90 HP With Blade, 150' Push, 45 CY/Hour	3.35	
02218-0010		BCY Mass Excavation, D-4H Dozer, Wet/Loose Rock 90 HP With Blade, 150' Push, 35 CY/Hour	4.30	
02218-0011		Dozer With Blade, 120 HP, (D-5H) (02218-0002)		
02218-0012		BCY Mass Excavation, D-5H Dozer, Light Material 120 HP With Blade, 150' Push, 85 CY/Hour	1.86	
02218-0013		BCY Mass Excavation, D-5H Dozer, Medium Material 120 HP With Blade, 150' Push, 70 CY/Hour	2.25	
02218-0014		BCY Mass Excavation, D-5H Dozer, Wet/Loose Rock 120 HP With Blade, 150' Push, 50 CY/Hour	3.16	
02218-0015		Dozer With Blade, 140 HP, (D-6D) (02218-0002)		
02218-0016		BCY Mass Excavation, D-6D Dozer, Light Material 140 HP With Blade, 150' Push, 115 CY/Hour	1.64	
02218-0017		BCY Mass Excavation, D-6D Dozer, Medium Material 140 HP With Blade, 150' Push, 90 CY/Hour	2.09	
02218-0018		BCY Mass Excavation, D-6D Dozer, Wet/Loose Rock 140 HP With Blade, 150' Push, 70 CY/Hour	2.68	
02218-0019		Dozer With U-Blade, 200 HP, (D-7G) (02218-0002)		
02218-0020		BCY Mass Excavation, D-7G Dozer, Light Material 200 HP With U-Blade, 150' Push, 185 CY/Hour	1.10	
02218-0021		BCY Mass Excavation, D-7G Dozer, Medium Material 200 HP With U-Blade 150' Push, 150 CY/Hour	1.35	
02218-0022		BCY Mass Excavation, D-7G Dozer, Wet/Loose Rock 200 HP With U-Blade, 150' Push, 115 CY/Hour.....	1.77	
02218-0023		BCY Mass Excavation, D-7G Dozer, Blasted Rock 200 HP With U-Blade, 150' Push, 90 CY/Hour.....	2.26	
02218-0024		Dozer With U-Blade, 335 HP, (D-8L) (02218-0002)		
02218-0025		BCY Mass Excavation, D-8L Dozer, Light Material 335 HP With U-Blade, 150' Push, 290 CY/Hour	0.89	
02218-0026		BCY Mass Excavation, D-8L Dozer, Medium Material 335 HP With U-Blade 150' Push, 235 CY/Hour	1.09	
02218-0027		BCY Mass Excavation, D-8L Dozer, Wet/Loose Rock 335 HP With U-Blade, 150' Push, 180 CY/Hour	1.44	
02218-0028		BCY Mass Excavation, D-8L Dozer, Blasted Rock 335 HP With U-Blade, 150' Push, 145 CY/Hour	1.78	
02218-0029		Dozer With U-Blade, 460 HP, (D-9L) (02218-0002)		
02218-0030		BCY Mass Excavation, D-9L Dozer, Light Material 460 HP With U-Blade, 150' Push, 375 CY/Hour	0.68	
02218-0031		BCY Mass Excavation, D-9L Dozer, Medium Material 460 HP With U-Blade 150' Push, 300 CY/Hour	0.84	
02218-0032		BCY Mass Excavation, D-9L Dozer, Wet/Loose Rock 460 HP With U-Blade, 150' Push, 230 CY/Hour	1.10	
02218-0033		BCY Mass Excavation, D-9L Dozer, Blasted Rock 460 HP With U-Blade, 150' Push, 185 CY/Hour	1.36	
02218-0034		Dozer With U-Blade, 700 HP, (D-10) (02218-0002)		
02218-0035		BCY Mass Excavation, D-10 Dozer, Light Material 700 HP With U-Blade, 150' Push, 495 CY/Hour	0.56	
02218-0036		BCY Mass Excavation, D-10 Dozer, Medium Material 700 HP With U-Blade 150' Push, 400 CY/Hour	0.69	
02218-0037		BCY Mass Excavation, D-10 Dozer, Wet/Loose Rock 700 HP With U-Blade, 150' Push, 305 CY/Hour	0.91	
02218-0038		BCY Mass Excavation, D-10 Dozer, Blasted Rock 700 HP With U-Blade, 150' Push, 245 CY/Hour	1.13	
02218-0039		Dozing Distance Averages 300 Feet Push (02218-0001)		
02218-0040		Dozer With Blade, 65 HP, (D-3B) (02218-0039)		
02218-0041		BCY Mass Excavation, D-3B Dozer, Light Material 65 HP With Blade, 12.5 CY/Hour, 300' Push	12.32	
02218-0042		BCY Mass Excavation, D-3B Dozer, Medium Material 65 HP With Blade, 10 CY/Hour, 300' Push	15.41	
02218-0043		Dozer With Blade, 90 HP, (D-4H) (02218-0039)		
02218-0044		BCY Mass Excavation, D-4H Dozer, Light Material 90 HP With Blade, 20 CY/Hour, 300' Push	7.52	
02218-0045		BCY Mass Excavation, D-4H Dozer, Medium Material 90 HP With Blade, 17.5 CY/Hour, 300' Push	8.61	
02218-0046		BCY Mass Excavation, D-4H Dozer, Loose Rock 90 HP With Blade, 15 CY/Hour, 300' Push.....	10.04	
02218-0047		Dozer With Blade, 120 HP, (D-5H) (02218-0039)		
02218-0048		BCY Mass Excavation, D-5H Dozer, Light Material 120 HP With Blade, 35 CY/Hour, 300' Push	4.52	
02218-0049		BCY Mass Excavation, D-5H Dozer, Medium Material 120 HP With Blade, 30 CY/Hour, 300' Push	5.27	
02218-0050		BCY Mass Excavation, D-5H Dozer, Loose Rock 120 HP With Blade, 25 CY/Hour, 300' Push.....	6.33	
02218-0051		Dozer With Blade, 140 HP, (D-6D) (02218-0039)		
02218-0052		BCY Mass Excavation, D-6D Dozer, Light Material 140 HP With Blade, 55 CY/Hour, 300' Push	3.42	
02218-0053		BCY Mass Excavation, D-6D Dozer, Medium Material 140 HP With Blade, 45 CY/Hour, 300' Push	4.19	
02218-0054		BCY Mass Excavation, D-6D Dozer, Loose Rock 140 HP With Blade, 35 CY/Hour, 300' Push.....	5.38	

02000 Site Construction**02200 Earthwork****02218 Mass Excavation**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

02218-0055	Dozer With U-Blade, 200 HP, (D-7G) (02218-0039)	
02218-0056	BCY Mass Excavation, D-7G Dozer, Light Material 200 HP With U-Blade, 85 CY/Hour, 300' Push	2.39
02218-0057	BCY Mass Excavation, D-7G Dozer, Medium Material 200 HP With U-Blade 65 CY/Hour, 300' Push	3.12
02218-0058	BCY Mass Excavation, D-7G Dozer, Loose Rock 200 HP With U-Blade, 50 CY/Hour, 300' Push.....	4.06
02218-0059	BCY Mass Excavation, D-7G Dozer, Blasted Rock 200 HP With U-Blade, 40 CY/Hour, 300' Push.....	5.07
02218-0060	Dozer With U-Blade, 335 HP, (D-8L) (02218-0039)	
02218-0061	BCY Mass Excavation, D-8L Dozer, Light Material 335 HP With U-Blade, 145 CY/Hour, 300' Push	1.78
02218-0062	BCY Mass Excavation, D-8L Dozer, Medium Material 335 HP With U-Blade 115 CY/Hour, 300' Push	2.24
02218-0063	BCY Mass Excavation, D-8L Dozer, Loose Rock 335 HP With U-Blade, 90 CY/Hour, 300' Push.....	2.87
02218-0064	BCY Mass Excavation, D-8L Dozer, Blasted Rock 335 HP With U-Blade, 70 CY/Hour, 300' Push.....	3.69
02218-0065	Dozer With U-Blade, 460 HP, (D-9L) (02218-0039)	
02218-0066	BCY Mass Excavation, D-9L Dozer, Light Material 460 HP With U-Blade, 195 CY/Hour, 300' Push	1.29
02218-0067	BCY Mass Excavation, D-9L Dozer, Medium Material 460 HP With U-Blade 160 CY/Hour, 300' Push	1.58
02218-0068	BCY Mass Excavation, D-9L Dozer, Loose Rock 460 HP With U-Blade, 120 CY/Hour, 300' Push.....	2.10
02218-0069	BCY Mass Excavation, D-9L Dozer, Blasted Rock 460 HP With U-Blade, 95 CY/Hour, 300' Push.....	2.65
02218-0070	Dozer With U-Blade, 700 HP, (D-10) (02218-0039)	
02218-0071	BCY Mass Excavation, D-10 Dozer, Light Material 700 HP With U-Blade, 275 CY/Hour, 300' Push	1.01
02218-0072	BCY Mass Excavation, D-10 Dozer, Medium Material 700 HP With U-Blade 220 CY/Hour, 300' Push	1.26
02218-0073	BCY Mass Excavation, D-10 Dozer, Loose Rock 700 HP With U-Blade, 170 CY/Hour, 300' Push.....	1.64
02218-0074	BCY Mass Excavation, D-10 Dozer, Blasted Rock 700 HP With U-Blade, 135 CY/Hour, 300' Push.....	2.06
02218-0075	Dozing Distance Averages 450 Feet Push (02218-0001)	
02218-0076	Dozer With U-Blade, 215 HP, (D-7G) (02218-0075)	
02218-0077	BCY Mass Excavation, D-7G Dozer, Light Material 215 HP With U-Blade, 75 CY/Hour, 450' Push	2.71
02218-0078	BCY Mass Excavation, D-7G Dozer, Medium Material 215 HP With U-Blade 60 CY/Hour, 450' Push	3.38
02218-0079	BCY Mass Excavation, D-7G Dozer, Loose Rock 215 HP With U-Blade, 45 CY/Hour, 450' Push.....	4.51
02218-0080	BCY Mass Excavation, D-7G Dozer, Blasted Rock 215 HP With U-Blade, 35 CY/Hour, 450' Push.....	5.80
02218-0081	Dozer With U-Blade, 335 HP, (D-8L) (02218-0075)	
02218-0082	BCY Mass Excavation, D-8L Dozer, Light Material 335 HP With U-Blade, 105 CY/Hour, 450' Push	2.46
02218-0083	BCY Mass Excavation, D-8L Dozer, Medium Material 335 HP With U-Blade 85 CY/Hour, 450' Push	3.04
02218-0084	BCY Mass Excavation, D-8L Dozer, Loose Rock 335 HP With U-Blade, 65 CY/Hour, 450' Push.....	3.97
02218-0085	BCY Mass Excavation, D-8L Dozer, Blasted Rock 335 HP With U-Blade, 50 CY/Hour, 450' Push.....	5.16
02218-0086	Dozer With U-Blade, 460 HP, (D-9L) (02218-0075)	
02218-0087	BCY Mass Excavation, D-9L Dozer, Light Material 460 HP With U-Blade, 145 CY/Hour, 450' Push	1.74
02218-0088	BCY Mass Excavation, D-9L Dozer, Medium Material 460 HP With U-Blade 115 CY/Hour, 450' Push	2.19
02218-0089	BCY Mass Excavation, D-9L Dozer, Loose Rock 460 HP With U-Blade, 90 CY/Hour, 450' Push.....	2.81
02218-0090	BCY Mass Excavation, D-9L Dozer, Blasted Rock 460 HP With U-Blade, 70 CY/Hour, 450' Push.....	3.61
02218-0091	Dozer With U-Blade, 700 HP, (D-10) (02218-0075)	
02218-0092	BCY Mass Excavation, D-10 Dozer, Light Material 700 HP With U-Blade, 185 CY/Hour, 450' Push	1.50
02218-0093	BCY Mass Excavation, D-10 Dozer, Medium Material 700 HP With U-Blade 150 CY/Hour, 450' Push	1.86
02218-0094	BCY Mass Excavation, D-10 Dozer, Loose Rock 700 HP With U-Blade, 115 CY/Hour, 450' Push.....	2.41
02218-0095	BCY Mass Excavation, D-10 Dozer, Blasted Rock 700 HP With U-Blade, 90 CY/Hour, 450' Push.....	3.09

02223 Compaction Water (02200)

02223-0001	Compaction Water, Water Truck And Operator (02223)	
02223-0002	MGL Compaction Water, Water Truck And Operator.....	144.35
Note: Use this task in situations where fill, base material, etc. requires additional moisture to comply with the compaction specification. Includes delivery up to 15 miles. (Per 1000 Gallons) See CSI section 01590-0654 for water truck when water is available on site.		

02240 Soil Stabilization: Cementitious Soil Binder (02200)

02240-0001	Soil Stabilizers (02240)	
02240-0002	CY Cementitious Soil Binder, 4% Cement Mix By Volume.....	26.11
02240-0003	CY Cementitious Soil Binder, 6% Cement Mix By Volume.....	29.70
02240-0004	CY Cementitious Soil Binder, 9% Cement Mix By Volume.....	35.61
02240-0005	CY Cementitious Soil Binder, 12% Cement Mix By Volume.....	41.43
02240-0006	GAL Polyacrylamide And Calcium Solution.....	1.74

02241 Soil Stabilization: Lime (02200)

Note: Includes delivery up to 15 miles from the closest approved source, the cost for loading, hauling up to 15 miles, and dumping.

**Site Construction 02000****Earthwork 02200****Soil Stabilization: Lime 02241****02**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
See CSI section 02119-0011 for hauling greater than 15 miles.				
02241-0001		Lime Slurry (02241)		
02241-0002	LCY	Soil Stabilization With Lime Slurry 10% Lime Slurry By Volume	22.80	
02241-0003	TON	Cement Stabilized Base Material	42.37	
02241-0004	HWT	Lime For Soil Stabilization.....	5.99	
		Note: Excludes the cost for spreading or backfilling		
02241-0005	LCY	Roller, Grader - Lime Stabilization	12.97	
02241-0006	LCY	Roller, Grader - Cement Stabilization.....	2.93	
02241-0007		Lime Stabilized Subgrade (02241)		
		Note: Based on soil weight of 110 LB/CF using lime weight of 5.5 LB/CF (5%).		
02241-0008	SY	6" Thick Lime Stabilized Subgrade, 25 LB	5.74	
	02MOD-0063	For 4% Lime Instead Of 5%, Deduct	-0.11	
	02MOD-0064	For 6% Lime Instead Of 5%, Add	0.11	
02241-0009	SY	7" Thick Lime Stabilized Subgrade, 29 LB	6.66	
	02MOD-0063	For 4% Lime Instead Of 5%, Deduct	-0.12	
	02MOD-0064	For 6% Lime Instead Of 5%, Add	0.12	
02241-0010	SY	8" Thick Lime Stabilized Subgrade, 33 LB	7.61	
	02MOD-0063	For 4% Lime Instead Of 5%, Deduct	-0.14	
	02MOD-0064	For 6% Lime Instead Of 5%, Add	0.14	
02242		Soil Stabilization: Fabrics (02242)		
02242-0001		Geotextile Fabrics (02242)		
02242-0002		Nonwoven Polypropylene Geotextiles (02242-0001)		
		Note: For drainage, filtration and separation.		
02242-0003	SY	2.6 Oz/SY, 90 LB Grab Tensile Nonwoven Polypropylene Geotextile Paving Fabric.....	0.75	
	02MOD-0065	For Up To 50, Add	0.18	
	02MOD-0066	For > 50 To 150, Add	0.13	
	02MOD-0067	For > 150 To 250, Add	0.09	
	02MOD-0068	For > 250 To 500, Add	0.04	
02242-0004	SY	3.0 Oz/SY, 40 Mil, 80 LB Grab Tensile Nonwoven Polypropylene Geotextile Fabric.....	0.65	
	02MOD-0065	For Up To 50, Add	0.16	
	02MOD-0066	For > 50 To 150, Add	0.12	
	02MOD-0067	For > 150 To 250, Add	0.08	
	02MOD-0068	For > 250 To 500, Add	0.04	
02242-0005	SY	3.5 Oz/SY, 50 Mil, 95 LB Grab Tensile Nonwoven Polypropylene Geotextile Fabric.....	0.70	
	02MOD-0065	For Up To 50, Add	0.17	
	02MOD-0066	For > 50 To 150, Add	0.13	
	02MOD-0067	For > 150 To 250, Add	0.08	
	02MOD-0068	For > 250 To 500, Add	0.04	
02242-0006	SY	4.0 Oz/SY, 60 Mil, 115 LB Grab Tensile Nonwoven Polypropylene Geotextile Fabric.....	0.75	
	02MOD-0065	For Up To 50, Add	0.18	
	02MOD-0066	For > 50 To 150, Add	0.13	
	02MOD-0067	For > 150 To 250, Add	0.09	
	02MOD-0068	For > 250 To 500, Add	0.04	
02242-0007	SY	4.1 Oz/SY, 101 LB Grab Tensile Nonwoven Polypropylene Geotextile Paving Fabric.....	0.80	
	02MOD-0065	For Up To 50, Add	0.19	
	02MOD-0066	For > 50 To 150, Add	0.14	
	02MOD-0067	For > 150 To 250, Add	0.09	
	02MOD-0068	For > 250 To 500, Add	0.05	
02242-0008	SY	4.5 Oz/SY, 55 Mil, 120 LB Grab Tensile Nonwoven Polypropylene Geotextile Fabric.....	0.80	
	02MOD-0065	For Up To 50, Add	0.19	
	02MOD-0066	For > 50 To 150, Add	0.14	
	02MOD-0067	For > 150 To 250, Add	0.09	
	02MOD-0068	For > 250 To 500, Add	0.05	
02242-0009	SY	6.0 Oz/SY, 70 Mil, 160 LB Grab Tensile Nonwoven Polypropylene Geotextile Fabric.....	0.94	
	02MOD-0065	For Up To 50, Add	0.22	
	02MOD-0066	For > 50 To 150, Add	0.16	
	02MOD-0067	For > 150 To 250, Add	0.10	
	02MOD-0068	For > 250 To 500, Add	0.05	
02242-0010	SY	7.0 Oz/SY, 85 Mil, 180 LB Grab Tensile Nonwoven Polypropylene Geotextile Fabric.....	1.12	
	02MOD-0065	For Up To 50, Add	0.26	
	02MOD-0066	For > 50 To 150, Add	0.19	
	02MOD-0067	For > 150 To 250, Add	0.13	
	02MOD-0068	For > 250 To 500, Add	0.06	
02242-0011	SY	8.0 Oz/SY, 85 Mil, 205 LB Grab Tensile Nonwoven Polypropylene Geotextile Fabric.....	1.22	
	02MOD-0065	For Up To 50, Add	0.28	
	02MOD-0066	For > 50 To 150, Add	0.21	
	02MOD-0067	For > 150 To 250, Add	0.14	
	02MOD-0068	For > 250 To 500, Add	0.07	
02242-0012	SY	10 Oz/SY, 115 Mil, 250 LB Grab Tensile Nonwoven Polypropylene Geotextile Fabric.....	1.49	
	02MOD-0065	For Up To 50, Add	0.34	
	02MOD-0066	For > 50 To 150, Add	0.25	
	02MOD-0067	For > 150 To 250, Add	0.16	
	02MOD-0068	For > 250 To 500, Add	0.08	
02242-0013		Woven Geotextiles Fabric (02242-0001)		
02242-0014	SY	200 LB Grab Tensile Woven Slit Film Geotextile Fabric	0.92	
	02MOD-0065	For Up To 50, Add	0.21	
	02MOD-0066	For > 50 To 150, Add	0.16	
	02MOD-0067	For > 150 To 250, Add	0.10	
	02MOD-0068	For > 250 To 500, Add	0.05	

02000 Site Construction
02200 Earthwork
02242 Soil Stabilization: Fabrics



MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02242-0015	SY	315 LB Grab Tensile Woven Slit Film Geotextile Fabric.....	1.28	
	02MOD-0065	For Up To 50, Add	0.29	
	02MOD-0066	For > 50 To 150, Add	0.21	
	02MOD-0067	For > 150 To 250, Add	0.14	
	02MOD-0068	For > 250 To 500, Add	0.07	
02242-0016	SY	4 To 6% Open Area, 370 x 250 LB Grab Tensile Woven Monofilament Geotextile Fabric.....	2.24	
	02MOD-0065	For Up To 50, Add	0.49	
	02MOD-0066	For > 50 To 150, Add	0.36	
	02MOD-0067	For > 150 To 250, Add	0.24	
	02MOD-0068	For > 250 To 500, Add	0.12	
02242-0017	SY	11 To 15% Open Area, 370 x 220 LB Grab Tensile Woven Monofilament Geotextile Fabric.....	2.19	
	02MOD-0065	For Up To 50, Add	0.48	
	02MOD-0066	For > 50 To 150, Add	0.35	
	02MOD-0067	For > 150 To 250, Add	0.23	
	02MOD-0068	For > 250 To 500, Add	0.12	
02242-0018	SY	6.9 Oz/SY, 250 LB/IN Wide Width Tensile Ultimate Woven Twill Weave Geotextile Fabric.....	1.92	
	02MOD-0065	For Up To 50, Add	0.42	
	02MOD-0066	For > 50 To 150, Add	0.31	
	02MOD-0067	For > 150 To 250, Add	0.21	
	02MOD-0068	For > 250 To 500, Add	0.10	
02242-0019	SY	9.1 Oz/SY, 333 LB/IN Wide Width Tensile Ultimate Woven Twill Weave Geotextile Fabric.....	2.05	
	02MOD-0065	For Up To 50, Add	0.45	
	02MOD-0066	For > 50 To 150, Add	0.33	
	02MOD-0067	For > 150 To 250, Add	0.22	
	02MOD-0068	For > 250 To 500, Add	0.11	
02242-0020	SY	12.1 Oz/SY, 400 LB/IN Wide Width Tensile Ultimate Woven Twill Weave Geotextile Fabric.....	2.60	
	02MOD-0065	For Up To 50, Add	0.56	
	02MOD-0066	For > 50 To 150, Add	0.42	
	02MOD-0067	For > 150 To 250, Add	0.27	
	02MOD-0068	For > 250 To 500, Add	0.14	
02242-0021	SY	12.1 Oz/SY, 400 LB/IN Wide Width Tensile Ultimate Woven Monofilament And Fibrillated Geotextile Fabric.....	3.68	
	02MOD-0065	For Up To 50, Add	0.78	
	02MOD-0066	For > 50 To 150, Add	0.58	
	02MOD-0067	For > 150 To 250, Add	0.38	
	02MOD-0068	For > 250 To 500, Add	0.19	
02242-0022		Geogrid Fabrics (02242) Note: For reinforcement of over steepened earth slopes, segmental retaining walls and other mechanically stabilized earth applications.		
02242-0023	SY	5.3 Oz/SY, 1700 LB/FT Wide Width Tensile Ultimate Bi-Directional Woven Polyester Geogrid Fabric.....	2.08	
	02MOD-0065	For Up To 50, Add	0.50	
	02MOD-0066	For > 50 To 150, Add	0.37	
	02MOD-0067	For > 150 To 250, Add	0.24	
	02MOD-0068	For > 250 To 500, Add	0.12	
02242-0024	SY	6.9 Oz/SY, 3100 LB/FT Wide Width Tensile Ultimate Bi-Directional Woven Polyester Geogrid Fabric.....	2.36	
	02MOD-0065	For Up To 50, Add	0.56	
	02MOD-0066	For > 50 To 150, Add	0.41	
	02MOD-0067	For > 150 To 250, Add	0.26	
	02MOD-0068	For > 250 To 500, Add	0.13	
02242-0025	SY	8.7 Oz/SY, 4280 LB/FT Wide Width Tensile Ultimate Bi-Directional Woven Polyester Geogrid Fabric.....	2.56	
	02MOD-0065	For Up To 50, Add	0.60	
	02MOD-0066	For > 50 To 150, Add	0.44	
	02MOD-0067	For > 150 To 250, Add	0.29	
	02MOD-0068	For > 250 To 500, Add	0.14	
02242-0026	SY	12.6 Oz/SY, 7315 LB/FT Wide Width Tensile Ultimate Bi-Directional Woven Polyester Geogrid Fabric.....	3.65	
	02MOD-0065	For Up To 50, Add	0.82	
	02MOD-0066	For > 50 To 150, Add	0.61	
	02MOD-0067	For > 150 To 250, Add	0.40	
	02MOD-0068	For > 250 To 500, Add	0.20	
02242-0027	SY	14.1 Oz/SY, 9790 LB/FT Wide Width Tensile Ultimate Bi-Directional Woven Polyester Geogrid Fabric.....	4.15	
	02MOD-0065	For Up To 50, Add	0.93	
	02MOD-0066	For > 50 To 150, Add	0.69	
	02MOD-0067	For > 150 To 250, Add	0.45	
	02MOD-0068	For > 250 To 500, Add	0.22	
02242-0028	SY	4.3 Oz/SY, 1658 LB/FT Wide Width Tensile Ultimate Bi-Axial Extruded Polypropylene Geogrid Fabric.....	2.11	
	02MOD-0065	For Up To 50, Add	0.50	
	02MOD-0066	For > 50 To 150, Add	0.37	
	02MOD-0067	For > 150 To 250, Add	0.24	
	02MOD-0068	For > 250 To 500, Add	0.12	
02242-0029	SY	5.9 Oz/SY, 2192 LB/FT Wide Width Tensile Ultimate Bi-Axial Extruded Polypropylene Geogrid Fabric.....	3.05	
	02MOD-0065	For Up To 50, Add	0.69	
	02MOD-0066	For > 50 To 150, Add	0.51	
	02MOD-0067	For > 150 To 250, Add	0.33	
	02MOD-0068	For > 250 To 500, Add	0.17	
02242-0030		Geonet Fabrics (02242)		
02242-0031	SF	.8" Thick Nylon Geomatrix/PVC Coated Polyester Fabric.....	2.30	
02242-0032		Geomembranes (02242)		
02242-0033		Polyvinyl Chloride (PVC) Geomembrane (02242-0032)		
02242-0034	SF	20 Mil PVC Geomembrane	0.75	
02242-0035	SF	30 Mil PVC Geomembrane	0.86	
02242-0036	SF	40 Mil PVC Geomembrane	1.02	
02242-0037	SF	50 Mil PVC Geomembrane	1.22	



Site Construction		02000	02
Earthwork		02200	
Soil Stabilization: Fabrics		02242	

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02242-0038	SF	60 Mil PVC Geomembrane	1.39	
02242-0039	SF	70 Mil PVC Geomembrane	1.51	
02242-0040	SF	80 Mil PVC Geomembrane	1.63	
02242-0041	SF	90 Mil PVC Geomembrane	1.81	
02242-0042	SF	100 Mil PVC Geomembrane	1.97	
02242-0043 HDPE Geomembrane (02242-0032)				
02242-0044	SF	20 Mil High Density Polyethylene Membrane	0.54	
02242-0045	SF	30 Mil High Density Polyethylene Membrane	0.71	
02242-0046	SF	40 Mil High Density Polyethylene Membrane	0.83	
02242-0047	SF	50 Mil High Density Polyethylene Membrane	1.36	
02242-0048	SF	60 Mil High Density Polyethylene Membrane	1.06	
02242-0049	SF	80 Mil High Density Polyethylene Membrane	1.30	
02242-0050	SF	100 Mil High Density Polyethylene Membrane	1.54	
02242-0051	SF	120 Mil High Density Polyethylene Membrane	2.77	
02242-0052	SF	140 Mil High Density Polyethylene Membrane	2.87	
02242-0053 Geoweb Cellular Confinement System (02242)				
Note: Includes staples, stakes and filling cells with stockpiled material. Excludes site preparation and imported materials.				
02242-0054	SF	4" Geoweb Cellular Confinement System	4.03	
		02MOD-0305 For > 20,000, Deduct	-0.07	
		02MOD-0306 For > 2:1 Slope, Add	0.86	
02242-0055	SF	6" Geoweb Cellular Confinement System	4.67	
		02MOD-0305 For > 20,000, Deduct	-0.10	
		02MOD-0306 For > 2:1 Slope, Add	0.86	
02242-0056	SF	8" Geoweb Cellular Confinement System	5.42	
		02MOD-0305 For > 20,000, Deduct	-0.14	
		02MOD-0306 For > 2:1 Slope, Add	0.86	
02243 Soil Stabilization: Vibroflotation (02200)				
02243-0001 Vibroflotation (02243)				
02243-0002	LCY	Soil Stabilization, Vibroflotation	10.60	
02244 Soil Treatments (02200)				
02244-0001 Soil Treatment (02244)				
02244-0002	CSF	Soil Poisoning - Application Below Slabs Or Pavements	4.35	
02244-0003	MSF	Herbicide - Weed Killer	8.71	
02244-0004	MSF	Herbicide - Brush Killer	14.73	
02244-0005	MSF	Herbicide - Pre-Emergent And Post-Emergent Select	6.57	
02260 Slope Protection (02000)				
Note: Includes the cost for loading, hauling up to 15 miles from the closest approved source, and dumping. See CSI section 02119-0011 for hauling greater than 15 miles.				
02261 Rip Rap (02260)				
02261-0001 Random - Filter Stone (02261)				
02261-0002	CY	Rip Rap, 10 LB To 50 LB Average Pieces Random, Dumped From Truck	43.07	
		02MOD-0069 For Chinking Material, Add	12.97	
02261-0003	CY	Rip Rap, 51 LB To 100 LB Average Pieces Random, Dumped From Truck	49.69	
		02MOD-0069 For Chinking Material, Add	12.97	
02261-0004	CY	Rip Rap, 101 LB To 200 LB Average Pieces Random, Dumped From Truck	52.81	
		02MOD-0069 For Chinking Material, Add	12.97	
02261-0005	CY	Rip Rap, 201 LB To 300 LB Average Pieces Random, Dumped From Truck	56.36	
		02MOD-0069 For Chinking Material, Add	12.97	
02261-0006	CY	Rip Rap, 301 LB To 600 LB Average Pieces Random, Dumped From Truck	59.22	
		02MOD-0069 For Chinking Material, Add	12.97	
02261-0007	CY	Rip Rap, > 600 LB Average Pieces Random, Dumped From Truck	63.90	
02261-0008	CY	Rip Rap, 3/8 CY To 1/4 CY Pieces Random, Dumped From Truck, Machine Spread And Placed Slope Protection (Keyed)	77.47	
02261-0009	TON	Rip Rap, 10 LB To 50 LB Average Pieces Random, Dumped From Truck	28.72	
02261-0010	TON	Rip Rap, 51 LB To 100 LB Average Pieces Random, Dumped From Truck	32.92	
02261-0011	TON	Rip Rap, 101 LB To 200 LB Average Pieces Random, Dumped From Truck	34.90	
02261-0012	TON	Rip Rap, 201 LB To 300 LB Average Pieces Random, Dumped From Truck	37.15	
02261-0013	TON	Rip Rap, 301 LB To 600 LB Average Pieces Random, Dumped From Truck	38.97	
02261-0014	TON	Rip Rap, > 600 LB Average Pieces Random, Dumped From Truck	41.98	
02261-0015	TON	Rip Rap, 3/8 CY To 1/4 CY Pieces Random, Dumped From Truck, Machine Spread And Placed Slope Protection (Keyed)	52.65	
02262 Gabions (02260)				
02262-0001 Stone Filled Gabions (02262)				
Note: Machine placed by SY of total top face area for depth indicated.				
02262-0002	SY	Slope Protection, Gabions, 6" Deep Stone Filled	52.61	
02262-0003	SY	Slope Protection, Gabions, 9" Deep Stone Filled	62.30	

02000 Site Construction**02260 Slope Protection****02262 Gabions**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02262-0004	SY	Slope Protection, Gabions, 12" Deep Stone Filled.....	75.63	
02262-0005	SY	Slope Protection, Gabions, 15" Deep Stone Filled.....	89.16	
02262-0006	SY	Slope Protection, Gabions, 18" Deep Stone Filled.....	104.63	
02262-0007	SY	Slope Protection, Gabions, 24" Deep Stone Filled.....	143.35	
02262-0008	SY	Slope Protection, Gabions, 36" Deep Stone Filled.....	181.36	
02264 Erosion Control <small>(02260)</small>				
Note: Includes all erosion control blankets and turf reinforcement mats staples or stakes.				
02264-0001 Erosion Control Blankets And Turf Reinforcement Mats <small>(02264)</small>				
02264-0002 Erosion Control Blankets, Short Term, Light Duty <small>(02264-0001)</small>				
02264-0003	SY	S75 Single Net Erosion Control Blanket..... Note: Straw matrix with degradable thread to a single standard photodegradable polypropylene netting as manufactured by North American Green.	1.48	
02264-0004	SY	S75BN Single Net Erosion Control Blanket..... Note: Straw Matrix with Biodegradable Thread to a Single Natural Fiber Netting as manufactured by North American Green.	1.80	
02264-0005	SY	Curlex 1, Single Net Erosion Control Blanket..... Note: As manufactured by American Excelsior	1.43	
02264-0006	SY	Curlex 1, Single Net Erosion Control Blanket..... Note: As manufactured by American Green.	1.48	
02264-0007	SY	Futerra Erosion Control Blanket, Wood Fibers With Biodegradable Netting	1.36	
02264-0008 Erosion Control Blankets, Intermediate Duration <small>(02264-0001)</small>				
02264-0009	SY	S150 Double Net Erosion Control Blanket Note: Straw matrix with degradable thread to a double standard photodegradable polypropylene netting as manufactured by North American Green.	1.89	
02264-0010	SY	S150 BN Double Net Erosion Control Blanket..... Note: Straw matrix with biodegradable thread to a double natural fiber netting as manufactured by North American Green.	2.39	
02264-0011	SY	Curlex II, Double Net Erosion Control Blanket, Natural..... Note: As manufactured by American Excelsior.	1.65	
02264-0012	SY	Curlex II, Double Net Erosion Control Blanket, Green..... Note: As manufactured by American Excelsior.	1.71	
02264-0013	SY	Enforcer Double Net Erosion Control Blanket Note: As manufactured by American Excelsior.	1.79	
02264-0014 Turf Reinforcement Mats (TRM) <small>(02264-0001)</small>				
Note: Permanent, UV stabilized.				
02264-0015	SY	P300 Permanent Polypropylene Turf Reinforcement Mat Note: 100% synthetic, UV stabilized, two layer netting.	7.79	
02264-0016	SY	C350 Permanent Turf Reinforcement Mat..... Note: 100% synthetic, UV stabilized netting incorporating natural coconut fibers as manufactured by North American Green.	7.24	
02264-0017	SY	Recyclex TRM, Permanent Turf Reinforcement Mat..... Note: As manufactured by American Excelsior, 100% recycled	7.31	
02264-0018 Jute Mesh Erosion Control Blankets <small>(02264-0001)</small>				
02264-0019	SY	Jute Mesh, Open Uniform Weave	1.66	
02264-0020 Revegetation Mat <small>(02264-0001)</small>				
02264-0021	SY	3-Dimensional Webbed Revegetation Mat, Polyolefin Fiber Note: Polyolefin fibers oriented and mechanically bonded between two nets. Landlok TRM 450 or equal.	5.50	
02264-0022	SY	Webbed Revegetation Mat, Polypropylene Fiber Note: Polypropylene fibers positioned between two high strength biaxially oriented nets and mechanically held together by parallel stitching with polypropylene thread. Landlok TRM 1060 or equal.	7.79	
02264-0023 Silt Fences And Dike Barriers <small>(02264)</small>				
Note: Includes stakes, embedding and removal after use.				
02264-0024 Silt Fences 2' High <small>(02264-0023)</small>				
02264-0025	LF	2' High Silt Fence with Stakes at 4' O.C.....	2.05	
02264-0026	LF	2' High Silt Fence with Stakes at 6' O.C.....	1.57	
02264-0027	LF	2' High Silt Fence with Stakes at 8' O.C.....	1.11	
02264-0028	LF	2' High Silt Fence with Stakes at 10' O.C.....	0.94	
02264-0029 Silt Fences 3' High <small>(02264-0023)</small>				
02264-0030	LF	3' High Silt Fence with Stakes at 4' O.C.....	2.12	
02264-0031	LF	3' High Silt Fence with Stakes at 6' O.C.....	1.61	
02264-0032	LF	3' High Silt Fence with Stakes at 8' O.C.....	1.16	
02264-0033	LF	3' High Silt Fence with Stakes at 10' O.C.....	0.97	
02264-0034 Silt Dike Barrier <small>(02264-0023)</small>				
02264-0035	LF	Silt Dike Barrier With Stakes	2.19	

**Site Construction 02000****Slope Protection 02260****Erosion Control 02264****02**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02264-0036		Sediment Logs (02264)		
02264-0037		Sediment Logs (02264-0036)		
		Note: Includes stakes and removal after use. Curlex sediment logs as manufactured by American Excelsior.		
02264-0038	LF	12" Sediment Log.....	7.58	
02264-0039	LF	20" Sediment Log.....	9.03	
02264-0040		Wattles (02264-0036)		
		Note: Includes trench for placement, 24" wood staking at 4' O.C.		
02264-0041	EA	Wattles (Sterile Straw Filled Rolls), 9" x 25'	90.34	
02264-0042	EA	Wattles (Sterile Straw Filled Rolls), 12" x 18'	87.29	
02264-0043		Sand And Gravel Bags (02264)		
		Note: Bags filled on site with delivered material. Includes material and placement of bags.		
02264-0044	BAG	Sand Bag With 50 LB Sand.....	3.15	
		02MOD-0070 For > 2500 To 5000, Deduct	-0.27	
		02MOD-0071 For > 5000, Deduct	-0.58	
02264-0045	BAG	Gravel Bag #33 With 5/16" Birdseye Gravel	3.73	
02264-0046	BAG	Bag Removal.....	1.79	
02264-0047		Turbidity Curtain (02264)		
02264-0048	LF	3' High Turbidity Curtain.....	12.65	
02264-0049	LF	4' High Turbidity Curtain.....	13.80	
02264-0050	LF	5' High Turbidity Curtain.....	15.43	
02264-0051	LF	6' High Turbidity Curtain.....	16.80	
02264-0052	LF	7' High Turbidity Curtain.....	17.62	
02264-0053	LF	8' High Turbidity Curtain.....	18.44	
02264-0054	LF	9' High Turbidity Curtain.....	19.42	
02264-0055	LF	10' High Turbidity Curtain.....	20.84	
02264-0056	LF	12' High Turbidity Curtain.....	21.92	
02264-0057	LF	13' High Turbidity Curtain.....	23.45	
02264-0058	LF	14' High Turbidity Curtain.....	24.86	
02264-0059	LF	15' High Turbidity Curtain.....	26.24	
02264-0060	LF	16' High Turbidity Curtain.....	28.84	
02264-0061	LF	17' High Turbidity Curtain.....	30.38	
02264-0062	LF	18' High Turbidity Curtain.....	31.91	
02264-0063	LF	19' High Turbidity Curtain.....	33.59	
02264-0064	LF	20' High Turbidity Curtain.....	35.30	
02264-0065		Filter Bags (02264)		
02264-0066		Non-Woven Filter Bags (02264-0065)		
02264-0067	EA	6' x 15' Non-Woven Filter Bag.....	121.98	
02264-0068	EA	13' x 15' Non-Woven Filter Bag.....	175.87	
02264-0069	EA	15' x 15' Non-Woven Filter Bag.....	202.95	
02264-0070		Monofilament Filter Bags (02264-0065)		
02264-0071	EA	5' x 15' Monofilament Filter Bag.....	126.60	
02264-0072	EA	10' x 15' Monofilament Filter Bag.....	174.53	
02264-0073		Hay And Straw Bales (02264)		
		Note: Includes stakes and removal after use.		
02264-0074	LF	Place And Remove Straw Bales	4.26	
		Note: Includes securing in ground with stakes.		
02264-0075	LF	Place And Remove Hay Bales	3.87	
		Note: Includes securing in ground with stakes.		
02264-0076		Mat Pavement / Protection (02264)		
02264-0077		Cable Articulating Concrete Block (02264-0076)		
		Note: 4000 PSI Compressive strength, 12 LB/CF maximum absorption. Interlocking block with longitudinal revetment cable and fill. Includes anchoring block to 12" x 12" x 6" concrete pier every 5' with anchor.		
02264-0078	SF	4.75" Open Cell Articulated Concrete Block With Earth Backfill	27.29	
		02MOD-0072 For Gravel Fill, Add	0.62	
		02MOD-0073 For Up To 500, Add	6.28	
		02MOD-0074 For > 500 To 1000, Add	3.55	
02264-0079	SF	6" Open Cell Articulated Concrete Block With Earth Backfill.....	30.95	
		02MOD-0072 For Gravel Fill, Add	0.70	
		02MOD-0073 For Up To 500, Add	7.09	
		02MOD-0074 For > 500 To 1000, Add	3.99	
02264-0080	SF	7.5" Open Cell Articulated Concrete Block With Earth Backfill.....	35.16	
		02MOD-0072 For Gravel Fill, Add	0.79	
		02MOD-0073 For Up To 500, Add	8.02	
		02MOD-0074 For > 500 To 1000, Add	4.50	
02264-0081	SF	9" Open Cell Articulated Concrete Block With Earth Backfill.....	39.54	
		02MOD-0072 For Gravel Fill, Add	0.88	
		02MOD-0073 For Up To 500, Add	9.01	
		02MOD-0074 For > 500 To 1000, Add	5.05	

02000 Site Construction**02260 Slope Protection****02264 Erosion Control**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02264-0082	SF	4.75" Closed Cell Articulated Concrete Block.....	28.93	
	02MOD-0073	For Up To 500, Add	6.61	
	02MOD-0074	For > 500 To 1000, Add	3.72	
02264-0083	SF	6" Closed Cell Articulated Concrete Block.....	32.90	
	02MOD-0073	For Up To 500, Add	7.48	
	02MOD-0074	For > 500 To 1000, Add	4.19	
02264-0084	SF	7.5" Closed Cell Articulated Concrete Block.....	37.47	
	02MOD-0073	For Up To 500, Add	8.48	
	02MOD-0074	For > 500 To 1000, Add	4.73	
02264-0085	SF	9" Closed Cell Articulated Concrete Block.....	42.19	
	02MOD-0073	For Up To 500, Add	9.54	
	02MOD-0074	For > 500 To 1000, Add	5.32	
02264-0086	Other (02264)			
02264-0087	Bonded Fiber Matrix (02264-0086)			
02264-0088	MSF	Bonded Fiber Matrix, Hydraulically Applied, Up To 25000 SF.....	36.02	
02264-0089	MSF	Bonded Fiber Matrix, Hydraulically Applied, 25001 To 50000 SF	32.61	
02264-0090	MSF	Bonded Fiber Matrix, Hydraulically Applied, 50001 To 100000 SF	29.72	
02264-0091	MSF	Bonded Fiber Matrix, Hydraulically Applied, > 100000	28.07	
02268	Soil Nailing And Stabilization (02260)			
02268-0001	Landslide and Slip-Out Stabilization (02268)			
	Note: Work shall consist of the Contractor stabilizing identified slides by internally reinforcing the soil mass with reinforcing elements (nails) by using one or more of the installation methods specified in this contract. The Owner will identify locations for work to be performed as specified herein. The Contractor shall review all locations with Owner representatives to determine the method to be used. The Contractor will provide all necessary engineering plans and details required to successfully repair slides as noted. These plans shall be stamped by a registered professional engineer with a current California license who is knowledgeable in the design and implementation of slope stabilization with soil nails and related work. The contractor shall furnish all labor, materials, and equipment required to complete the work. Any necessary installation methods and associated costs are the responsibility of the contractor. The Contractor will also warrant the stability of the repaired roadway section for a period of not less than five (5) years.			
02268-0002	Launched Soil Nails™ (02268-0001)			
	Note: Furnish Launched Soil Nails™ up to 20 feet in length composed of a tube (1.5 inch outside diameter, 0.120 inch wall thickness hot-dipped galvanized 36ksi steel (ASTM A513) that is mechanically deformed or GalvaDized™ to produce a plurality of surficial asperities). Alternately, the tube may be composed of fiberglass (1.5 inch outside diameter, 0.5 inch wall thickness Strongwell EXTREN Series 625 Vinyl Ester fiberglass). Furnish equipment and incidentals necessary to complete the work. Insert Launched Soil Nails™ with a single stroke at initial velocities in excess of 200 miles per hour. Inserted length and spacing will be determined by the Contractor's Engineer and identified in the Contractor's stamped plans and submittals.			
02268-0003	EA	Launched Soil Nails™ up to 20-ft. length	600.00	
02268-0004	EA	Fiberglass Launched Soil Nails™ up to 20-ft. length.....	700.00	
02268-0005	SuperNails® (02268-0001)			
	Note: Furnish SuperNails® that are a three stage construction including installation of (1) an outer tube (1.5 inch outside diameter, 0.120 inch wall thickness hot-dipped galvanized steel tube that is mechanically deformed or GalvaDized™ to produce a plurality of surficial asperities); (2) neat cement grout that completely encases and fills the outer tube; and (3) immediately install an epoxy coated, #4 (or greater) grade 60 rebar or threadbar as the inner bar. SuperNails® may be in lengths up to 80 feet. Although field adjustments in design may be allowed on certain projects (subject to approval by the Contractor's Engineer) bidding an equivalent system is not allowed (i.e. the winning bidder must have the ability to install the above system). Furnish equipment and incidentals necessary to complete the work. Insert SuperNail® outer tubes with a single stroke at initial velocities in excess of 200 miles per hour or by drilling a hole to a prescribed depth and inserting the outer tube. Fill the outer tube with neat cement grout and immediately insert a #4 or larger epoxy coated inner bar. Inserted length and spacing will be determined by the Contractor's Engineer and identified in the Contractor's stamped plans and submittals.			
02268-0006	EA	SuperNails® up to 20-ft. length	600.00	
02268-0007	EA	SuperNails® up to 30-ft. length	750.00	
02268-0008	EA	SuperNails® up to 40-ft. length	1,100.00	
02268-0009	EA	SuperNails® up to 50-ft. length	1,375.00	
02268-0010	EA	SuperNails® up to 60-ft. length	1,650.00	
02268-0011	EA	SuperNails® up to 70-ft. length	1,925.00	
02268-0012	EA	SuperNails® up to 80-ft. length	2,200.00	
02268-0013	Self Drilling SuperNails® (02268-0001)			
	Note: Furnish Self Drilling SuperNails® that are a two stage construction including installation of (1) an outer tube that is mechanically deformed or GalvaDized™ to produce a plurality of surficial asperities with a sacrificial drill bit; and (2) neat cement grout that is installed as the outer tube is drilled that completely encases and fills the outer tube; and (3) immediately install an epoxy coated, #4 (or greater) grade 60 or greater rebar or threadbar as the inner bar, if required by the Contractor's Engineer. Self Drilling SuperNails® may be in lengths up to 80 feet. Although field adjustments in design may be allowed on certain projects (subject to approval by the Contract's Engineer) bidding an equivalent system is not allowed (i.e. the winning bidder must have the ability to install the above system). Furnish equipment and incidentals necessary to complete the work. Insert Self Drilling SuperNail® outer tubes by drilling a hole to a prescribed depth and grouting during drilling operations. If required, immediately insert a #4 or larger epoxy coated inner bar. Inserted length and spacing will be determined by the Contractor's Engineer and identified in the Contractor's stamped plans and submittals.			
02268-0014	EA	Self Drilling SuperNails® up to 20-ft.....	700.00	
02268-0015	EA	Self Drilling SuperNails® up to 30-ft.....	1,200.00	
02268-0016	EA	Self Drilling SuperNails® up to 40-ft.....	2,000.00	
02268-0017	EA	Self Drilling SuperNails® up to 50-ft.....	2,400.00	
02268-0018	EA	Self Drilling SuperNails® up to 60-ft.....	2,950.00	
02268-0019	EA	Self Drilling SuperNails® up to 70-ft.....	3,100.00	



	Site Construction	02000	02
	Slope Protection	02260	
	Soil Nailing And Stabilization	02268	

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02268-0020	EA	Self Drilling SuperNails® up to 80-ft.....	3,300.00	
02268-0021		SuperMicropiles™ (02268-0001) Note: Furnish SuperMicropiles™ that are a three stage construction including installation of (1) an outer tube (1.5 inch outside diameter, 0.120 inch wall thickness hot-dipped galvanized steel tube that is mechanically deformed or GalvaDized™ to produce a plurality of surficial asperities); (2) neat cement grout that completely encases and fills the outer tube; and (3) immediately install an epoxy coated, #4 (or greater) grade 60 rebar or threadbar as the inner bar. SuperMicropiles™ may be in lengths up to 80 feet. Although field adjustments in design may be allowed on certain projects (subject to approval by the Contractor's Engineer) bidding an equivalent system is not allowed (i.e. the winning bidder must have the ability to install the above system). Furnish equipment and incidentals necessary to complete the work. Insert SuperMicropile™ outer tubes with a single stroke at initial velocities in excess of 200 miles per hour or by drilling a hole to a prescribed depth and inserting the outer tube. Fill the outer tube with neat cement grout and immediately insert a #4 or larger epoxy coated inner bar. Inserted length and spacing will be determined by the Contractor's Engineer and identified in the Contractor's stamped plans and submittals.		
02268-0022	EA	SuperMicropiles™ up to 20-ft. length	600.00	
02268-0023	EA	SuperMicropiles™ up to 30-ft. length	750.00	
02268-0024	EA	SuperMicropiles™ up to 40-ft. length	1,100.00	
02268-0025	EA	SuperMicropiles™ up to 50-ft. length	1,375.00	
02268-0026		BioWall® (02268-0001) Note: Furnish and install the BioWall® to integrate with Launched Soil Nails™, SuperNails® or Self Drilling SuperNails®. The BioWall® is a confined soil/compost mass capable of sustaining vegetation at slope angles up to ¼(H):1(V), and is composed of 2 layers of galvanized wire mesh and 2 layers of lightweight geosynthetic encasing a seeded compost and/or topsoil mix, tied to the soil nails by steel plates. Furnish equipment and incidentals necessary to complete the work. BioWall® to soil nail connection details will be determined by the Contractor's Engineer and identified in the Contractor's stamped plans and submittals.		
02268-0027	SF	BioWall®	30.00	
02268-0028		Geosynthetically Confined Soil Wall™ (02268-0001) Note: Furnish and install geosynthetic reinforcement, backfill and facing element to construct a Geosynthetically Confined Soil Wall™. Designs shall comply with the Design Standards for Geosynthetically Confined Soil Walls (adapted from the NCHRP Report 556 – "Design and Construction Guidelines for Geosynthetic – Reinforced Soil Bridge Abutments with a Flexible Facing")		
02268-0029	SF	GCS® Wall.....	35.00	
02268-0030		Shotcrete (02268-0001) Note: Furnish shotcrete to integrate with Launched Soil Nails™, SuperNails®, SuperMicropiles™ or Self Drilling SuperNails® and complying with the requirements of ACI 506.2, "Specifications for Materials, Proportioning and Application of Shotcrete", except as otherwise specified. Shotcreting consists applying of one or more layers of concrete conveyed through a hose pneumatically projected at a high velocity against a prepared surface. Produce shotcrete by either a wet-mix or dry-mix process. The wet-mix process consists of thoroughly mixing all the ingredients except accelerating admixtures, but including the mixing water, introducing the mixture into the delivery equipment and delivering it, by positive displacement, to the nozzle. Air jet the wet-mix shotcrete from the nozzle at high velocity onto the surface. The dry-mix process consists of shotcrete without mixing water that is conveyed through the hose pneumatically with the mixing water introduced at the nozzle. For additional descriptive information, refer to the American Concrete Institute ACI 506R "Guide to Shotcrete". The Contractor's Engineer shall provide all necessary details required to successfully construct the temporary or permanent facing and facing drainage system to satisfy the design intent of the facing. Comply with AASHTO Specifications, or accepted industry standards for any specific items that may not be addressed herein or elsewhere in this Contract Document.		
02268-0031	SF	Shotcrete – 4" thick	30.00	
02268-0032	SF	Shotcrete – 8" thick	40.00	
02268-0033	SF	Shotcrete – 10" thick	50.00	
02268-0034	SF	Shotcrete – Sculpted and stained – varying thickness	12.50	
02268-0035		Steel Mesh (02268-0001) Note: Furnish Galvanized Steel Mesh for use with Launched Soil Nails™, SuperNails® or Self Drilling SuperNails® that is a double twisted hexagonal galvanized steel wire mesh manufactured according to ASTM A975-97 guidelines for Double Twisted Hexagonal Mesh Gabions. Alternately, the mesh may be a diamond shaped, three dimensional mesh made with high capacity 3-millimeter diameter wire. Furnish steel plates to connect the mesh to the nail systems described herein. Furnish equipment and incidentals necessary to complete the work. Soil Nail to mesh connection details will be determined by the Contractor's Engineer and identified in the Contractor's stamped plans and submittals.		
02268-0036	SF	Galvanized Steel Mesh	15.00	
02268-0037		Mobilization / Demobilization (02268-0001) Note: Point of origin is from the acceptable contractor's facility location. Contractors meeting these requirements and are authorized to install the materials are as follows: a) Landslide Solutions, Inc., 9362 Cedarview Way, Elk Grove, CA 95758 b) Soil Nail Launcher, Inc. 955 Malachite Drive, Fruita, CO 81521 c) Geostabilization Inc., 955 Malachite Drive, Fruita, CO 81521.		
02268-0038	EA	Mobilization / Demobilization Less than 50 miles	2,000.00	
02268-0039	EA	Mobilization / Demobilization > 50 To 700 miles	5,000.00	
02268-0040	EA	Mobilization / Demobilization > 700 To 1500 miles	8,000.00	
02268-0041	EA	Mobilization / Demobilization > 1500 To 5000 miles	15,000.00	

02450 Utility Pipelines (02000)

02000 Site Construction**02450 Utility Pipelines****02268 Soil Nailing And Stabilization**
 MINOR
 CSI UOM DESCRIPTION

 TOTAL DIRECT DEMOLITION
 UNIT COST UNIT COST

Note: Piping includes hydrostatic testing, disinfecting and warning tape. See CSI section 02215-0000 for excavation and backfill.

02452 Reinforced Concrete Piping (02450)**02452-0001 Class III Reinforced Concrete Piping Without Gaskets** (02452)

02452-0002	LF 12" Diameter Class III Reinforced Concrete Pipe Without Gaskets.....	34.99	11.23
	02MOD-0075 For > 1000, Deduct	-1.75	
	02MOD-0076 For Class 4, Add	1.72	
	02MOD-0077 For Class 5, Add	5.44	
02452-0003	LF 15" Diameter Class III Reinforced Concrete Pipe Without Gaskets.....	41.97	12.64
	02MOD-0075 For > 1000, Deduct	-2.10	
	02MOD-0076 For Class 4, Add	2.21	
	02MOD-0077 For Class 5, Add	6.97	
02452-0004	LF 18" Diameter Class III Reinforced Concrete Pipe Without Gaskets.....	47.81	16.15
	02MOD-0075 For > 1000, Deduct	-2.39	
	02MOD-0076 For Class 4, Add	2.32	
	02MOD-0077 For Class 5, Add	7.33	
02452-0005	LF 21" Diameter Class III Reinforced Concrete Pipe Without Gaskets.....	61.23	20.71
	02MOD-0075 For > 1000, Deduct	-3.06	
	02MOD-0076 For Class 4, Add	3.02	
	02MOD-0077 For Class 5, Add	9.53	
02452-0006	LF 24" Diameter Class III Reinforced Concrete Pipe Without Gaskets.....	71.72	25.26
	02MOD-0075 For > 1000, Deduct	-3.59	
	02MOD-0076 For Class 4, Add	3.41	
	02MOD-0077 For Class 5, Add	10.78	
02452-0007	LF 27" Diameter Class III Reinforced Concrete Pipe Without Gaskets.....	90.38	31.08
	02MOD-0075 For > 1000, Deduct	-4.52	
	02MOD-0076 For Class 4, Add	4.31	
	02MOD-0077 For Class 5, Add	13.60	
02452-0008	LF 30" Diameter Class III Reinforced Concrete Pipe Without Gaskets.....	96.10	32.56
	02MOD-0075 For > 1000, Deduct	-4.81	
	02MOD-0076 For Class 4, Add	4.66	
	02MOD-0077 For Class 5, Add	14.71	
02452-0009	LF 36" Diameter Class III Reinforced Concrete Pipe Without Gaskets.....	118.83	37.00
	02MOD-0075 For > 1000, Deduct	-5.94	
	02MOD-0076 For Class 4, Add	6.32	
	02MOD-0077 For Class 5, Add	19.95	
02452-0010	LF 42" Diameter Class III Reinforced Concrete Pipe Without Gaskets.....	153.80	40.69
	02MOD-0075 For > 1000, Deduct	-7.69	
	02MOD-0076 For Class 4, Add	9.14	
	02MOD-0077 For Class 5, Add	28.87	
02452-0011	LF 48" Diameter Class III Reinforced Concrete Pipe Without Gaskets.....	184.11	45.32
	02MOD-0075 For > 1000, Deduct	-9.21	
	02MOD-0076 For Class 4, Add	11.34	
	02MOD-0077 For Class 5, Add	35.81	
02452-0012	LF 54" Diameter Class III Reinforced Concrete Pipe Without Gaskets.....	228.99	51.79
	02MOD-0075 For > 1000, Deduct	-11.45	
	02MOD-0076 For Class 4, Add	14.72	
	02MOD-0077 For Class 5, Add	46.50	
02452-0013	LF 60" Diameter Class III Reinforced Concrete Pipe Without Gaskets.....	276.46	60.08
	02MOD-0075 For > 1000, Deduct	-13.82	
	02MOD-0076 For Class 4, Add	18.11	
	02MOD-0077 For Class 5, Add	57.19	
02452-0014	LF 66" Diameter Class III Reinforced Concrete Pipe Without Gaskets.....	324.19	66.59
	02MOD-0075 For > 1000, Deduct	-16.21	
	02MOD-0076 For Class 4, Add	21.80	
	02MOD-0077 For Class 5, Add	68.84	
02452-0015	LF 72" Diameter Class III Reinforced Concrete Pipe Without Gaskets.....	371.94	72.52
	02MOD-0075 For > 1000, Deduct	-18.60	
	02MOD-0076 For Class 4, Add	25.49	
	02MOD-0077 For Class 5, Add	80.51	
02452-0016	LF 78" Diameter Class III Reinforced Concrete Pipe Without Gaskets.....	442.17	81.40
	02MOD-0075 For > 1000, Deduct	-22.11	
	02MOD-0076 For Class 4, Add	30.93	
	02MOD-0077 For Class 5, Add	97.69	
02452-0017	LF 84" Diameter Class III Reinforced Concrete Pipe Without Gaskets.....	559.46	90.64
	02MOD-0075 For > 1000, Deduct	-27.97	
	02MOD-0076 For Class 4, Add	40.85	
	02MOD-0077 For Class 5, Add	128.99	

02452-0018 Concrete Reducing Wye Without Gaskets (02452)

02452-0019	EA 12" Concrete Reducing Wye Without Gaskets.....	422.75	44.92
02452-0020	EA 15" Concrete Reducing Wye Without Gaskets.....	506.99	54.75
02452-0021	EA 18" Concrete Reducing Wye Without Gaskets.....	626.25	60.36
02452-0022	EA 21" Concrete Reducing Wye Without Gaskets.....	718.92	74.40
02452-0023	EA 24" Concrete Reducing Wye Without Gaskets.....	812.67	89.85

02452-0024 Concrete Pipe Joint Gaskets (02452)

02452-0025	EA 12" Diameter Concrete Pipe Joint Gasket.....	4.02	
02452-0026	EA 15" Diameter Concrete Pipe Joint Gasket.....	4.76	
02452-0027	EA 18" Diameter Concrete Pipe Joint Gasket.....	5.51	
02452-0028	EA 21" Diameter Concrete Pipe Joint Gasket.....	6.66	
02452-0029	EA 24" Diameter Concrete Pipe Joint Gasket.....	7.81	
02452-0030	EA 27" Diameter Concrete Pipe Joint Gasket.....	8.70	
02452-0031	EA 30" Diameter Concrete Pipe Joint Gasket.....	9.56	



	Site Construction	02000	02
	Utility Pipelines	02450	
	Reinforced Concrete Piping	02452	

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02452-0032	EA	36" Diameter Concrete Pipe Joint Gasket.....	11.68	
02452-0033	EA	42" Diameter Concrete Pipe Joint Gasket.....	13.54	
02452-0034	EA	48" Diameter Concrete Pipe Joint Gasket.....	15.61	
02452-0035	EA	54" Diameter Concrete Pipe Joint Gasket.....	19.14	
02452-0036	EA	60" Diameter Concrete Pipe Joint Gasket.....	28.33	
02452-0037	EA	66" Diameter Concrete Pipe Joint Gasket.....	12.92	
02452-0038	EA	72" Diameter Concrete Pipe Joint Gasket.....	30.53	
02452-0039	EA	78" Diameter Concrete Pipe Joint Gasket.....	15.42	
02452-0040	EA	84" Diameter Concrete Pipe Joint Gasket.....	18.49	
02452-0041 Precast Concrete End Sections (02452)				
02452-0042 Precast Concrete End Sections (02452-0041)				
02452-0043	EA	12" Diameter Pipe Precast Concrete End Section	501.95	82.33
02452-0044	EA	15" Diameter Pipe Precast Concrete End Section	674.20	101.92
02452-0045	EA	18" Diameter Pipe Precast Concrete End Section	834.65	129.01
02452-0046	EA	21" Diameter Pipe Precast Concrete End Section	957.55	154.28
02452-0047	EA	24" Diameter Pipe Precast Concrete End Section	1,017.03	178.56
02452-0048	EA	27" Diameter Pipe Precast Concrete End Section	1,273.90	220.51
02452-0049	EA	30" Diameter Pipe Precast Concrete End Section	1,577.19	331.21
02452-0050	EA	36" Diameter Pipe Precast Concrete End Section	1,946.80	417.92
02452-0051	EA	42" Diameter Pipe Precast Concrete End Section	2,354.20	524.25
02452-0052	EA	48" Diameter Pipe Precast Concrete End Section	2,579.13	591.22
02452-0053	EA	54" Diameter Pipe Precast Concrete End Section	2,812.09	662.26
02452-0054	EA	60" Diameter Pipe Precast Concrete End Section	3,050.88	736.25
02452-0055	EA	66" Diameter Pipe Precast Concrete End Section	3,059.70	598.37
02452-0056	EA	72" Diameter Pipe Precast Concrete End Section	3,501.65	747.94
02452-0057	EA	78" Diameter Pipe Precast Concrete End Section	4,161.29	934.93
02452-0058	EA	84" Diameter Pipe Precast Concrete End Section	4,923.22	1,121.91
02452-0059 Round Flared Precast Concrete End Sections (02452-0041)				
02452-0060	EA	12" Round Flared Precast Concrete End Section	630.33	86.20
02452-0061	EA	15" Round Flared Precast Concrete End Section	758.88	107.44
02452-0062	EA	18" Round Flared Precast Concrete End Section	920.98	136.00
02452-0063	EA	21" Round Flared Precast Concrete End Section	1,051.95	162.64
02452-0064	EA	24" Round Flared Precast Concrete End Section	1,284.21	188.25
02452-0065	EA	27" Round Flared Precast Concrete End Section	1,544.31	300.64
02452-0066	EA	30" Round Flared Precast Concrete End Section	1,600.66	413.93
02452-0067	EA	36" Round Flared Precast Concrete End Section	2,164.88	522.41
02452-0068	EA	42" Round Flared Precast Concrete End Section	2,596.12	655.45
02452-0069	EA	48" Round Flared Precast Concrete End Section	2,807.32	739.21
02452-0070	EA	54" Round Flared Precast Concrete End Section	3,139.96	827.93
02452-0071	EA	60" Round Flared Precast Concrete End Section	3,478.76	919.61
02452-0072	EA	66" Round Flared Precast Concrete End Section	4,058.36	1,059.53
02452-0073	EA	72" Round Flared Precast Concrete End Section	4,736.75	1,182.59
02452-0074	EA	78" Round Flared Precast Concrete End Section	5,371.95	1,330.36
02452-0075	EA	84" Round Flared Precast Concrete End Section	6,200.22	1,477.98
02459 High Density Polyethylene (HDPE) Piping (02450)				
02459-0001 Smooth Interior, Double Wall, Corrugated HDPE Piping (02459)				
Note: Excludes couplings and gaskets.				
02459-0002 Coupled, Smooth Interior, Double Wall, Corrugated HDPE Piping (02459-0001)				
02459-0003	LF	4" Coupled, Smooth Interior, Double Wall, Corrugated HDPE Pipe.....	5.91	3.37
	02MOD-0075	For > 1000, Deduct	-0.30	
02459-0004	LF	6" Coupled, Smooth Interior, Double Wall, Corrugated HDPE Pipe.....	7.49	3.54
	02MOD-0075	For > 1000, Deduct	-0.37	
02459-0005	LF	8" Coupled, Smooth Interior, Double Wall, Corrugated HDPE Pipe.....	8.79	3.69
	02MOD-0075	For > 1000, Deduct	-0.44	
02459-0006	LF	10" Coupled, Smooth Interior, Double Wall, Corrugated HDPE Pipe.....	10.48	3.85
	02MOD-0075	For > 1000, Deduct	-0.52	
02459-0007	LF	12" Coupled, Smooth Interior, Double Wall, Corrugated HDPE Pipe.....	11.32	4.14
	02MOD-0075	For > 1000, Deduct	-0.57	
02459-0008	LF	15" Coupled, Smooth Interior, Double Wall, Corrugated HDPE Pipe.....	13.58	4.49
	02MOD-0075	For > 1000, Deduct	-0.68	
02459-0009	LF	18" Coupled, Smooth Interior, Double Wall, Corrugated HDPE Pipe.....	17.56	4.90
	02MOD-0075	For > 1000, Deduct	-0.88	
02459-0010	LF	24" Coupled, Smooth Interior, Double Wall, Corrugated HDPE Pipe.....	24.34	5.39
	02MOD-0075	For > 1000, Deduct	-1.22	
02459-0011	LF	30" Coupled, Smooth Interior, Double Wall, Corrugated HDPE Pipe.....	33.64	6.41
	02MOD-0075	For > 1000, Deduct	-1.68	
02459-0012	LF	36" Coupled, Smooth Interior, Double Wall, Corrugated HDPE Pipe.....	43.39	7.28
	02MOD-0075	For > 1000, Deduct	-2.17	
02459-0013 Bell And Spigot, Smooth Interior, Double Wall, Corrugated HDPE Piping (02459-0001)				
02459-0014	LF	12" Bell And Spigot, Smooth Interior, Double Wall, Corrugated HDPE Pipe.....	11.23	4.14
	02MOD-0075	For > 1000, Deduct	-0.56	
02459-0015	LF	15" Bell And Spigot, Smooth Interior, Double Wall, Corrugated HDPE Pipe.....	13.94	4.49
	02MOD-0075	For > 1000, Deduct	-0.70	

02000 Site Construction**02450 Utility Pipelines****02459 High Density Polyethylene (HDPE) Piping**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02459-0016	LF	18" Bell And Spigot, Smooth Interior, Double Wall, Corrugated HDPE Pipe.....	18.10	4.90
		02MOD-0075 For > 1000, Deduct	-0.91	
02459-0017	LF	24" Bell And Spigot, Smooth Interior, Double Wall, Corrugated HDPE Pipe.....	25.19	5.39
		02MOD-0075 For > 1000, Deduct	-1.26	
02459-0018	LF	30" Bell And Spigot, Smooth Interior, Double Wall, Corrugated HDPE Pipe.....	35.98	6.41
		02MOD-0075 For > 1000, Deduct	-1.80	
02459-0019	LF	36" Bell And Spigot, Smooth Interior, Double Wall, Corrugated HDPE Pipe.....	45.13	7.28
		02MOD-0075 For > 1000, Deduct	-2.26	
02459-0020	LF	42" Bell And Spigot, Smooth Interior, Double Wall, Corrugated HDPE Pipe.....	62.02	8.43
		02MOD-0075 For > 1000, Deduct	-3.10	
02459-0021	LF	48" Bell And Spigot, Smooth Interior, Double Wall, Corrugated HDPE Pipe.....	66.28	8.90
		02MOD-0075 For > 1000, Deduct	-3.31	
02459-0022		Single Wall, Corrugated HDPE Piping (02459)		
		Note: Excludes couplings and gaskets.		
02459-0023		Coupled, Single Wall, Corrugated HDPE Piping (02459-0022)		
02459-0024	LF	4" Coupled, Single Wall, Corrugated HDPE Pipe.....	5.58	3.37
		02MOD-0075 For > 1000, Deduct	-0.28	
02459-0025	LF	6" Coupled, Single Wall, Corrugated HDPE Pipe.....	6.48	3.54
		02MOD-0075 For > 1000, Deduct	-0.32	
02459-0026	LF	8" Coupled, Single Wall, Corrugated HDPE Pipe.....	7.60	3.69
		02MOD-0075 For > 1000, Deduct	-0.38	
02459-0027	LF	10" Coupled, Single Wall, Corrugated HDPE Pipe.....	9.61	3.85
		02MOD-0075 For > 1000, Deduct	-0.48	
02459-0028	LF	12" Coupled, Single Wall, Corrugated HDPE Pipe.....	10.99	4.14
		02MOD-0075 For > 1000, Deduct	-0.55	
02459-0029	LF	15" Coupled, Single Wall, Corrugated HDPE Pipe.....	13.68	4.49
		02MOD-0075 For > 1000, Deduct	-0.68	
02459-0030	LF	18" Coupled, Single Wall, Corrugated HDPE Pipe.....	18.23	4.90
		02MOD-0075 For > 1000, Deduct	-0.91	
02459-0031	LF	24" Coupled, Single Wall, Corrugated HDPE Pipe.....	25.07	5.39
		02MOD-0075 For > 1000, Deduct	-1.25	
02459-0032		Perforated, Corrugated HDPE Piping (02459)		
		Note: Excludes couplings and gaskets.		
02459-0033		Coupled, Perforated, Smooth Interior, Double Wall, Corrugated HDPE Piping (02459-0032)		
02459-0034	LF	4" Coupled, Perforated, Smooth Interior, Double Wall, Corrugated HDPE Pipe	5.92	3.37
		02MOD-0078 For > 1000, Deduct	-0.30	
02459-0035	LF	6" Coupled, Perforated, Smooth Interior, Double Wall, Corrugated HDPE Pipe	7.50	3.54
		02MOD-0078 For > 1000, Deduct	-0.38	
02459-0036	LF	8" Coupled, Perforated, Smooth Interior, Double Wall, Corrugated HDPE Pipe	8.79	3.69
		02MOD-0078 For > 1000, Deduct	-0.44	
02459-0037	LF	10" Coupled, Perforated, Smooth Interior, Double Wall, Corrugated HDPE Pipe	10.49	3.85
		02MOD-0078 For > 1000, Deduct	-0.52	
02459-0038	LF	12" Coupled, Perforated, Smooth Interior, Double Wall, Corrugated HDPE Pipe	11.32	4.14
		02MOD-0078 For > 1000, Deduct	-0.57	
02459-0039	LF	15" Coupled, Perforated, Smooth Interior, Double Wall, Corrugated HDPE Pipe	13.59	4.49
		02MOD-0078 For > 1000, Deduct	-0.68	
02459-0040	LF	18" Coupled, Perforated, Smooth Interior, Double Wall, Corrugated HDPE Pipe	17.57	4.90
		02MOD-0078 For > 1000, Deduct	-0.88	
02459-0041	LF	24" Coupled, Perforated, Smooth Interior, Double Wall, Corrugated HDPE Pipe	24.34	5.39
		02MOD-0078 For > 1000, Deduct	-1.22	
02459-0042	LF	30" Coupled, Perforated, Smooth Interior, Double Wall, Corrugated HDPE Pipe	33.79	6.41
		02MOD-0078 For > 1000, Deduct	-1.69	
02459-0043	LF	36" Coupled, Perforated, Smooth Interior, Double Wall, Corrugated HDPE Pipe	43.39	7.28
02459-0044		Bell And Spigot, Perforated, Smooth Interior, Double Wall, Corrugated HDPE Piping (02459-0032)		
02459-0045	LF	12" Bell And Spigot, Perforated, Smooth Interior, Double Wall, Corrugated HDPE Pipe	11.25	4.14
		02MOD-0075 For > 1000, Deduct	-0.56	
02459-0046	LF	15" Bell And Spigot, Perforated, Smooth Interior, Double Wall, Corrugated HDPE Pipe	13.95	4.49
		02MOD-0075 For > 1000, Deduct	-0.70	
02459-0047	LF	18" Bell And Spigot, Perforated, Smooth Interior, Double Wall, Corrugated HDPE Pipe	18.11	4.90
		02MOD-0075 For > 1000, Deduct	-0.91	
02459-0048	LF	24" Bell And Spigot, Perforated, Smooth Interior, Double Wall, Corrugated HDPE Pipe	25.19	5.39
		02MOD-0075 For > 1000, Deduct	-1.26	
02459-0049	LF	30" Bell And Spigot, Perforated, Smooth Interior, Double Wall, Corrugated HDPE Pipe	35.98	6.41
		02MOD-0075 For > 1000, Deduct	-1.80	
02459-0050	LF	36" Bell And Spigot, Perforated, Smooth Interior, Double Wall, Corrugated HDPE Pipe	45.13	7.28
		02MOD-0075 For > 1000, Deduct	-2.26	
02459-0051	LF	42" Bell And Spigot, Perforated, Smooth Interior, Double Wall, Corrugated HDPE Pipe	62.42	8.69
		02MOD-0075 For > 1000, Deduct	-3.12	
02459-0052	LF	48" Bell And Spigot, Perforated, Smooth Interior, Double Wall, Corrugated HDPE Pipe	69.10	10.78
		02MOD-0075 For > 1000, Deduct	-3.46	
02459-0053		Coupled, Perforated, Single Wall, Corrugated HDPE Piping (02459-0032)		
02459-0054	LF	4" Coupled, Perforated, Single Wall, Corrugated HDPE Pipe	5.59	3.37
		02MOD-0075 For > 1000, Deduct	-0.28	



Site Construction 02000			02
Utility Pipelines 02450			
High Density Polyethylene (HDPE) Piping 02459			

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02459-0055	LF	6" Coupled, Perforated, Single Wall, Corrugated HDPE Pipe <i>02MOD-0075 For > 1000, Deduct</i>	6.48 -0.32	3.54
02459-0056	LF	8" Coupled, Perforated, Single Wall, Corrugated HDPE Pipe <i>02MOD-0075 For > 1000, Deduct</i>	7.54 -0.38	3.69
02459-0057	LF	10" Coupled, Perforated, Single Wall, Corrugated HDPE Pipe <i>02MOD-0075 For > 1000, Deduct</i>	9.61 -0.48	3.85
02459-0058	LF	12" Coupled, Perforated, Single Wall, Corrugated HDPE Pipe <i>02MOD-0075 For > 1000, Deduct</i>	10.99 -0.55	4.14
02459-0059	LF	15" Coupled, Perforated, Single Wall, Corrugated HDPE Pipe <i>02MOD-0075 For > 1000, Deduct</i>	13.68 -0.68	4.49
02459-0060	LF	18" Coupled, Perforated, Single Wall, Corrugated HDPE Pipe <i>02MOD-0075 For > 1000, Deduct</i>	18.23 -0.91	4.90
02459-0061	LF	24" Coupled, Perforated, Single Wall, Corrugated HDPE Pipe <i>02MOD-0075 For > 1000, Deduct</i>	25.07 -1.25	5.39
02459-0062 Smooth Interior, Double Wall, Corrugated HDPE Pipe Fittings (02459)				
Note: Excludes couplings and gaskets.				
02459-0063 Tees, Smooth Interior, Double Wall, Corrugated HDPE (02459-0062)				
02459-0064	EA	4" Tee, Smooth Interior, Double Wall, Corrugated HDPE	44.33	15.98
02459-0065	EA	6" Tee, Smooth Interior, Double Wall, Corrugated HDPE	55.85	18.65
02459-0066	EA	8" Tee, Smooth Interior, Double Wall, Corrugated HDPE	90.94	22.65
02459-0067	EA	10" Tee, Smooth Interior, Double Wall, Corrugated HDPE	139.40	27.98
02459-0068	EA	12" Tee, Smooth Interior, Double Wall, Corrugated HDPE	221.10	33.31
02459-0069	EA	15" Tee, Smooth Interior, Double Wall, Corrugated HDPE	312.41	43.53
02459-0070	EA	18" Tee, Smooth Interior, Double Wall, Corrugated HDPE	449.71	58.61
02459-0071	EA	24" Tee, Smooth Interior, Double Wall, Corrugated HDPE	577.24	66.91
02459-0072	EA	30" Tee, Smooth Interior, Double Wall, Corrugated HDPE	1,012.71	77.27
02459-0073	EA	36" Tee, Smooth Interior, Double Wall, Corrugated HDPE	1,301.68	89.26
02459-0074	EA	45" Tee, Smooth Interior, Double Wall, Corrugated HDPE	2,171.38	106.58
02459-0075	EA	48" Tee, Smooth Interior, Double Wall, Corrugated HDPE	2,726.19	126.56
02459-0076 Wyes, Smooth Interior, Double Wall, Corrugated HDPE (02459-0062)				
02459-0077	EA	4" Wye, Smooth Interior, Double Wall, Corrugated HDPE	65.74	15.98
02459-0078	EA	6" Wye, Smooth Interior, Double Wall, Corrugated HDPE	79.34	18.65
02459-0079	EA	8" Wye, Smooth Interior, Double Wall, Corrugated HDPE	105.77	22.65
02459-0080	EA	10" Wye, Smooth Interior, Double Wall, Corrugated HDPE	155.75	27.98
02459-0081	EA	12" Wye, Smooth Interior, Double Wall, Corrugated HDPE	273.71	33.31
02459-0082	EA	15" Wye, Smooth Interior, Double Wall, Corrugated HDPE	296.28	43.53
02459-0083	EA	18" Wye, Smooth Interior, Double Wall, Corrugated HDPE	418.32	58.61
02459-0084 22-1/2 Degree Bends, Smooth Interior, Double Wall, Corrugated HDPE (02459-0062)				
02459-0085	EA	4" 22-1/2 Degree Bend, Smooth Interior, Double Wall, Corrugated HDPE	26.86	10.66
02459-0086	EA	6" 22-1/2 Degree Bend, Smooth Interior, Double Wall, Corrugated HDPE	33.22	12.44
02459-0087	EA	8" 22-1/2 Degree Bend, Smooth Interior, Double Wall, Corrugated HDPE	48.76	15.10
02459-0088	EA	10" 22-1/2 Degree Bend, Smooth Interior, Double Wall, Corrugated HDPE	61.40	18.65
02459-0089	EA	12" 22-1/2 Degree Bend, Smooth Interior, Double Wall, Corrugated HDPE	89.54	22.20
02459-0090	EA	15" 22-1/2 Degree Bend, Smooth Interior, Double Wall, Corrugated HDPE	142.10	28.42
02459-0091	EA	18" 22-1/2 Degree Bend, Smooth Interior, Double Wall, Corrugated HDPE	188.20	39.08
02459-0092	EA	24" 22-1/2 Degree Bend, Smooth Interior, Double Wall, Corrugated HDPE	360.01	44.40
02459-0093	EA	30" 22-1/2 Degree Bend, Smooth Interior, Double Wall, Corrugated HDPE	501.20	51.51
02459-0094	EA	36" 22-1/2 Degree Bend, Smooth Interior, Double Wall, Corrugated HDPE	587.42	59.51
02459-0095	EA	42" 22-1/2 Degree Bend, Smooth Interior, Double Wall, Corrugated HDPE	751.19	71.05
02459-0096	EA	48" 22-1/2 Degree Bend, Smooth Interior, Double Wall, Corrugated HDPE	1,016.62	84.38
02459-0097 45 Degree Bends, Smooth Interior, Double Wall, Corrugated HDPE (02459-0062)				
02459-0098	EA	4" 45 Degree Bend, Smooth Interior, Double Wall, Corrugated HDPE	29.21	10.66
02459-0099	EA	6" 45 Degree Bend, Smooth Interior, Double Wall, Corrugated HDPE	38.10	12.44
02459-0100	EA	8" 45 Degree Bend, Smooth Interior, Double Wall, Corrugated HDPE	51.25	15.10
02459-0101	EA	10" 45 Degree Bend, Smooth Interior, Double Wall, Corrugated HDPE	81.67	18.65
02459-0102	EA	12" 45 Degree Bend, Smooth Interior, Double Wall, Corrugated HDPE	89.54	22.20
02459-0103	EA	15" 45 Degree Bend, Smooth Interior, Double Wall, Corrugated HDPE	141.70	28.42
02459-0104	EA	18" 45 Degree Bend, Smooth Interior, Double Wall, Corrugated HDPE	220.88	39.08
02459-0105	EA	24" 45 Degree Bend, Smooth Interior, Double Wall, Corrugated HDPE	385.26	44.40
02459-0106	EA	30" 45 Degree Bend, Smooth Interior, Double Wall, Corrugated HDPE	502.40	51.51
02459-0107	EA	36" 45 Degree Bend, Smooth Interior, Double Wall, Corrugated HDPE	641.84	59.51
02459-0108	EA	42" 45 Degree Bend, Smooth Interior, Double Wall, Corrugated HDPE	961.24	71.05
02459-0109	EA	48" 45 Degree Bend, Smooth Interior, Double Wall, Corrugated HDPE	1,204.88	84.38
02459-0110 Single Wall, Corrugated HDPE Pipe Fittings (02459)				
Note: Excludes couplings and gaskets.				
02459-0111 Tees, Single Wall, Corrugated HDPE (02459-0110)				
02459-0112	EA	4" Tee, Single Wall, Corrugated HDPE	29.92	15.98
02459-0113	EA	6" Tee, Single Wall, Corrugated HDPE	35.61	18.65
02459-0114	EA	8" Tee, Single Wall, Corrugated HDPE	58.45	22.65
02459-0115	EA	10" Tee, Single Wall, Corrugated HDPE	75.13	27.98
02459-0116	EA	12" Tee, Single Wall, Corrugated HDPE	112.27	33.31
02459-0117	EA	15" Tee, Single Wall, Corrugated HDPE	246.30	43.53

02000 Site Construction**02450 Utility Pipelines****02459 High Density Polyethylene (HDPE) Piping**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02459-0118	EA	18" Tee, Single Wall, Corrugated HDPE	293.95	58.61
02459-0119	EA	24" Tee, Single Wall, Corrugated HDPE	560.01	66.61
02459-0120		Wyes, Single Wall, Corrugated HDPE (02459-0110)		
02459-0121	EA	4" Wye, Single Wall, Corrugated HDPE	30.80	15.98
02459-0122	EA	6" Wye, Single Wall, Corrugated HDPE	38.51	18.65
02459-0123	EA	8" Wye, Single Wall, Corrugated HDPE	88.76	22.65
02459-0124		45 Degree Bends, Single Wall, Corrugated HDPE (02459-0110)		
02459-0125	EA	4" 45 Degree Bend, Single Wall, Corrugated HDPE	20.24	10.66
02459-0126		90 Degree Bends, Single Wall, Corrugated HDPE (02459-0110)		
02459-0127	EA	4" 90 Degree Bend, Single Wall, Corrugated HDPE	21.17	10.66
02459-0128	EA	6" 90 Degree Bend, Single Wall, Corrugated HDPE	27.48	12.44
02459-0129	EA	8" 90 Degree Bend, Single Wall, Corrugated HDPE	41.14	15.10
02459-0130	EA	10" 90 Degree Bend, Single Wall, Corrugated HDPE	54.32	18.65
02459-0131		Couplings And End Sections, Corrugated HDPE Pipe (02459)		
		Note: For single and double wall HDPE piping.		
02459-0132		Couplings, Corrugated HDPE Pipe (02459-0131)		
02459-0133	EA	4" Coupling, Corrugated HDPE Pipe	1.40	
02459-0134	EA	6" Coupling, Corrugated HDPE Pipe	2.51	
02459-0135	EA	8" Coupling, Corrugated HDPE Pipe	3.86	
02459-0136	EA	10" Coupling, Corrugated HDPE Pipe	4.74	
02459-0137	EA	12" Coupling, Corrugated HDPE Pipe	5.10	
02459-0138	EA	15" Coupling, Corrugated HDPE Pipe	7.27	
02459-0139	EA	18" Coupling, Corrugated HDPE Pipe	10.75	
02459-0140	EA	24" Coupling, Corrugated HDPE Pipe	17.11	
02459-0141	EA	30" Coupling, Corrugated HDPE Pipe	26.27	
02459-0142	EA	36" Coupling, Corrugated HDPE Pipe	34.38	
02459-0143	EA	42" Coupling, Corrugated HDPE Pipe	54.05	
02459-0144	EA	48" Coupling, Corrugated HDPE Pipe	73.10	
02459-0145		Self Adhering Gaskets, Corrugated HDPE Pipe (02459-0131)		
02459-0146	EA	4" Self Adhering Gasket, Corrugated HDPE Pipe	74.01	
02459-0147	EA	6" Self Adhering Gasket, Corrugated HDPE Pipe	77.50	
02459-0148	EA	8" Self Adhering Gasket, Corrugated HDPE Pipe	81.15	
02459-0149	EA	10" Self Adhering Gasket, Corrugated HDPE Pipe	84.96	
02459-0150	EA	12" Self Adhering Gasket, Corrugated HDPE Pipe	100.77	
02459-0151	EA	15" Self Adhering Gasket, Corrugated HDPE Pipe	104.04	
02459-0152	EA	18" Self Adhering Gasket, Corrugated HDPE Pipe	108.51	
02459-0153	EA	24" Self Adhering Gasket, Corrugated HDPE Pipe	123.60	
02459-0154	EA	30" Self Adhering Gasket, Corrugated HDPE Pipe	198.14	
02459-0155	EA	36" Self Adhering Gasket, Corrugated HDPE Pipe	217.03	
02459-0156	EA	42" Self Adhering Gasket, Corrugated HDPE Pipe	236.47	
02459-0157	EA	48" Self Adhering Gasket, Corrugated HDPE Pipe	287.20	
02459-0158		End Sections, Corrugated HDPE Pipe (02459-0131)		
02459-0159	EA	10" End Section, Corrugated HDPE Pipe	168.62	39.94
02459-0160	EA	12" Or 15" End Section, Corrugated HDPE Pipe	204.23	46.61
02459-0161	EA	18" End Section, Corrugated HDPE Pipe	255.01	53.26
02459-0162	EA	24" End Section, Corrugated HDPE Pipe	330.95	63.24
02459-0163	EA	30" End Section, Corrugated HDPE Pipe	836.74	63.24
02459-0164	EA	36" End Section, Corrugated HDPE Pipe	930.47	79.89

02500 Site Drainage (02000)

Note: Underground utilities and pipe include warning tape.

02511 Subdrainage (02500)**02511-0001 Drainage Piping (02511)**

See CSI section 02459-0000 for polyethylene drain pipe.

02511-0002 Perforated PVC Drainage Piping, D2729 (02511-0001)

Note: Includes couplings, elbows, etc.

02511-0003	LF	4" Perforated PVC Drainage Piping	3.72	3.37
02511-0004	LF	6" Perforated PVC Drainage Piping	4.91	4.04
02511-0005	LF	8" Perforated PVC Drainage Piping	6.50	5.05
02511-0006	LF	10" Perforated PVC Drainage Piping	8.68	5.78
02511-0007	LF	12" Perforated PVC Drainage Piping	11.08	6.73
02511-0008	LF	15" Perforated PVC Drainage Piping	26.61	8.08

02511-0009 Perforated Nonreinforced Concrete Drainage Piping, C444 (02511-0001)

**Site Construction 02000****Site Drainage 02500****Subdrainage 02511****02**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02511-0010	LF	6" Perforated Nonreinforced Concrete Drainage Pipe.....	19.66	4.21
	02MOD-0079	For Extra Strength, Add	1.27	
	02MOD-0080	For > 1000, Deduct	-0.98	
02511-0011	LF	8" Perforated Nonreinforced Concrete Drainage Pipe.....	23.00	4.92
	02MOD-0079	For Extra Strength, Add	1.57	
	02MOD-0080	For > 1000, Deduct	-1.15	
02511-0012	LF	10" Perforated Nonreinforced Concrete Drainage Pipe.....	26.13	5.62
	02MOD-0079	For Extra Strength, Add	1.82	
	02MOD-0080	For > 1000, Deduct	-1.31	
02511-0013	LF	12" Perforated Nonreinforced Concrete Drainage Pipe.....	31.25	7.02
	02MOD-0079	For Extra Strength, Add	2.28	
	02MOD-0080	For > 1000, Deduct	-1.56	
02511-0014		Extra Strength Porous Nonreinforced Concrete Drainage Piping, C654 (02511-0001)		
		Note: Bell and spigot or tongue and groove. With seals and gaskets.		
02511-0015	LF	6" Extra Strength Porous Nonreinforced Concrete Drainage Pipe.....	19.51	8.84
	02MOD-0080	For > 1000, Deduct	-0.98	
02511-0016	LF	8" Extra Strength Porous Nonreinforced Concrete Drainage Pipe.....	21.58	9.82
	02MOD-0080	For > 1000, Deduct	-1.08	
02511-0017	LF	10" Extra Strength Porous Nonreinforced Concrete Drainage Pipe.....	23.81	10.81
	02MOD-0080	For > 1000, Deduct	-1.19	
02511-0018	LF	12" Extra Strength Porous Nonreinforced Concrete Drainage Pipe.....	27.15	11.23
	02MOD-0080	For > 1000, Deduct	-1.36	
02511-0019	LF	15" Extra Strength Porous Nonreinforced Concrete Drainage Pipe.....	31.51	12.64
	02MOD-0080	For > 1000, Deduct	-1.58	
02511-0020	LF	18" Extra Strength Porous Nonreinforced Concrete Drainage Pipe.....	39.01	16.15
	02MOD-0080	For > 1000, Deduct	-1.95	
02511-0021	LF	21" Extra Strength Porous Nonreinforced Concrete Drainage Pipe.....	48.73	20.71
	02MOD-0080	For > 1000, Deduct	-2.44	
02511-0022	LF	24" Extra Strength Porous Nonreinforced Concrete Drainage Pipe.....	59.41	25.26
	02MOD-0080	For > 1000, Deduct	-2.97	
02511-0023		Standard Strength Porous Nonreinforced Concrete Drainage Piping, C654 (02511-0001)		
02511-0024	LF	6" Standard Strength Porous Nonreinforced Concrete Drainage Pipe.....	14.43	4.21
	02MOD-0080	For > 1000, Deduct	-0.72	
02511-0025	LF	8" Standard Strength Porous Nonreinforced Concrete Drainage Pipe.....	18.67	4.92
	02MOD-0080	For > 1000, Deduct	-0.93	
02511-0026	LF	10" Standard Strength Porous Nonreinforced Concrete Drainage Pipe.....	24.20	5.62
	02MOD-0080	For > 1000, Deduct	-1.21	
02511-0027	LF	12" Standard Strength Porous Nonreinforced Concrete Drainage Pipe.....	35.12	11.23
	02MOD-0080	For > 1000, Deduct	-1.76	
02511-0028	LF	15" Standard Strength Porous Nonreinforced Concrete Drainage Pipe.....	40.19	12.64
	02MOD-0080	For > 1000, Deduct	-2.01	
02511-0029	LF	18" Standard Strength Porous Nonreinforced Concrete Drainage Pipe.....	52.05	16.15
	02MOD-0080	For > 1000, Deduct	-2.60	
02511-0030		Aluminum, Perforated Corrugated Metal Drainage Piping (02511-0001)		
02511-0031	LF	6" 18 Gauge, Aluminum, Perforated Corrugated Metal Drainage Pipe.....	14.12	4.21
	02MOD-0081	For Galvanized, Add	1.43	
	02MOD-0082	For Steel, Add	0.43	
02511-0032	LF	8" 16 Gauge, Aluminum, Perforated Corrugated Metal Drainage Pipe.....	16.78	5.27
	02MOD-0081	For Galvanized, Add	1.64	
	02MOD-0082	For Steel, Add	0.49	
02511-0033	LF	10" 16 Gauge, Aluminum, Perforated Corrugated Metal Drainage Pipe.....	19.97	6.31
	02MOD-0081	For Galvanized, Add	1.75	
	02MOD-0082	For Steel, Add	0.53	
02511-0034	LF	12" 16 Gauge, Aluminum, Perforated Corrugated Metal Drainage Pipe.....	24.07	7.37
	02MOD-0081	For Galvanized, Add	2.19	
	02MOD-0082	For Steel, Add	0.66	
02511-0035	LF	15" 16 Gauge, Aluminum, Perforated Corrugated Metal Drainage Pipe.....	22.66	7.72
	02MOD-0081	For Galvanized, Add	1.70	
	02MOD-0082	For Steel, Add	0.51	
02511-0036	LF	18" 16 Gauge, Aluminum, Perforated Corrugated Metal Drainage Pipe.....	30.45	8.42
	02MOD-0081	For Galvanized, Add	3.51	
	02MOD-0082	For Steel, Add	1.05	
02511-0037		Perforated Vitrified Clay Drainage Piping, C700 (02511-0001)		
02511-0038	LF	4" Perforated Vitrified Clay Drainage Pipe.....	10.88	5.62
02511-0039	LF	6" Perforated Vitrified Clay Drainage Pipe.....	14.19	5.62
02511-0040	LF	8" Perforated Vitrified Clay Drainage Pipe.....	16.11	5.62
02511-0041	LF	10" Perforated Vitrified Clay Drainage Pipe.....	19.31	5.62
02511-0042	LF	12" Perforated Vitrified Clay Drainage Pipe.....	22.91	5.62
02511-0043		Geotextile Filter Fabric Sock (02511-0001)		
02511-0044	LF	3" Geotextile Filter Fabric Sock.....	0.50	
02511-0045	LF	4" Geotextile Filter Fabric Sock.....	0.66	
02511-0046	LF	6" Geotextile Filter Fabric Sock.....	1.00	
02511-0047	LF	8" Geotextile Filter Fabric Sock.....	1.35	
02511-0048	LF	10" Geotextile Filter Fabric Sock.....	1.95	
02511-0049	LF	12" Geotextile Filter Fabric Sock.....	2.61	

02000 Site Construction**02500 Site Drainage****02511 Subdrainage**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

02512 Underslab Drainage (02500)**02512-0001 Capillary Water Barrier Underslab Drainage** (02512)

Note: Consists of a layer of fine granular material overlying a coarse layer.

02512-0002	CY	2" Stone Capillary Water Barrier (Compacted Thickness) Underslab Drainage	25.05	
02512-0003	CY	4" Stone Capillary Water Barrier (Compacted Thickness) Underslab Drainage	23.18	
02512-0004	CY	6" Stone Capillary Water Barrier (Compacted Thickness) Underslab Drainage	22.43	
02512-0005	CY	8" Stone Capillary Water Barrier (Compacted Thickness) Underslab Drainage	21.31	

02520 Storm Drains (02500)

See CSI section 02561-0000 for manhole structures.

02520-0001 Catch Basins And Inlet Basins (02520)

Note: Includes base slab, opening and grout. Excludes frame and grate, excavation and backfill.

02520-0002 Cast In Place, Grate Drop Inlet Basins (02520-0001)

Note: Inside dimensions.

02520-0003 3' x 3' x 4" Thick Wall, Cast In Place, Grate Drop Inlet Basins (02520-0002)

02520-0004	EA	2' Deep, 3' x 3' x 4" Thick Wall, Cast In Place, Grate Drop Inlet Basin	1,335.32	209.14
02520-0005	EA	3' Deep, 3' x 3' x 4" Thick Wall, Cast In Place, Grate Drop Inlet Basin	1,667.27	274.50
02520-0006	EA	4' Deep, 3' x 3' x 4" Thick Wall, Cast In Place, Grate Drop Inlet Basin	2,161.88	375.80
02520-0007	EA	5' Deep, 3' x 3' x 4" Thick Wall, Cast In Place, Grate Drop Inlet Basin	2,569.13	441.16
02520-0008	EA	6' Deep, 3' x 3' x 4" Thick Wall, Cast In Place, Grate Drop Inlet Basin	2,978.43	506.52

02520-0009 3'-8" x 3'-8" x 6" Thick Wall, Cast In Place, Grate Drop Inlet Basins (02520-0002)

02520-0010	EA	2' Deep, 3'-8" x 3'-8" x 6" Thick Wall, Cast In Place, Grate Drop Inlet Basin	1,448.87	215.68
02520-0011	EA	3' Deep, 3'-8" x 3'-8" x 6" Thick Wall, Cast In Place, Grate Drop Inlet Basin	1,797.70	287.57
02520-0012	EA	4' Deep, 3'-8" x 3'-8" x 6" Thick Wall, Cast In Place, Grate Drop Inlet Basin	2,302.77	392.14
02520-0013	EA	5' Deep, 3'-8" x 3'-8" x 6" Thick Wall, Cast In Place, Grate Drop Inlet Basin	2,799.07	457.50
02520-0014	EA	6' Deep, 3'-8" x 3'-8" x 6" Thick Wall, Cast In Place, Grate Drop Inlet Basin	3,199.90	522.86

02520-0015 4' x 4' x 8" Thick Wall, Cast In Place, Grate Drop Inlet Basins (02520-0002)

02520-0016	EA	2' Deep, 4' x 4' x 8" Thick Wall, Cast In Place, Grate Drop Inlet Basin	1,556.17	235.28
02520-0017	EA	3' Deep, 4' x 4' x 8" Thick Wall, Cast In Place, Grate Drop Inlet Basin	2,154.88	326.78
02520-0018	EA	4' Deep, 4' x 4' x 8" Thick Wall, Cast In Place, Grate Drop Inlet Basin	2,641.51	424.83
02520-0019	EA	5' Deep, 4' x 4' x 8" Thick Wall, Cast In Place, Grate Drop Inlet Basin	3,050.64	490.18
02520-0020	EA	6' Deep, 4' x 4' x 8" Thick Wall, Cast In Place, Grate Drop Inlet Basin	3,871.33	627.43

02520-0021 Precast Concrete Catch Basins (02520-0001)

Note: Inside dimensions.

02520-0022 1'-6" Diameter Precast Catch Basins (02520-0001)

02520-0023	EA	4' Deep, 1'-6" Diameter Precast Catch Basins	460.46	150.12
02520-0024	EA	6' Deep, 1'-6" Diameter Precast Catch Basins	644.30	225.17
02520-0025	EA	8' Deep, 1'-6" Diameter Precast Catch Basins	819.64	292.73
02520-0026	EA	10' Deep, 1'-6" Diameter Precast Catch Basins	979.92	346.02
02520-0027	EA	12' Deep, 1'-6" Diameter Precast Catch Basins	1,209.97	439.10
02520-0028	EA	14' Deep, 1'-6" Diameter Precast Catch Basins	1,385.32	506.65
02520-0029	VLF	Vertical Linear Foot Over 14' Deep, 1'-6" Diameter Precast Catch Basins	96.79	33.77

02520-0030 2' Diameter Precast Catch Basins (02520-0001)

02520-0031	EA	4' Deep, 2' Diameter Precast Catch Basin	523.74	167.01
02520-0032	EA	6' Deep, 2' Diameter Precast Catch Basin	728.85	247.69
02520-0033	EA	8' Deep, 2' Diameter Precast Catch Basin	923.50	326.51
02520-0034	EA	10' Deep, 2' Diameter Precast Catch Basin	1,100.32	380.92
02520-0035	EA	12' Deep, 2' Diameter Precast Catch Basin	1,367.35	487.88
02520-0036	EA	14' Deep, 2' Diameter Precast Catch Basin	1,563.49	562.94
02520-0037	VLF	Vertical Linear Foot Over 14' Deep, 2' Diameter Precast Catch Basin	109.28	40.53

02520-0038 3' Diameter Precast Catch Basins (02520-0001)

02520-0039	EA	4' Deep, 3' Diameter Precast Catch Basin	685.02	197.03
02520-0040	EA	6' Deep, 3' Diameter Precast Catch Basin	940.73	291.22
02520-0041	EA	8' Deep, 3' Diameter Precast Catch Basin	1,186.83	384.67
02520-0042	EA	10' Deep, 3' Diameter Precast Catch Basin	1,478.03	480.38
02520-0043	EA	12' Deep, 3' Diameter Precast Catch Basin	1,747.69	572.70
02520-0044	EA	14' Deep, 3' Diameter Precast Catch Basin	2,008.91	666.53
02520-0045	VLF	Vertical Linear Foot Over 14' Deep, 3' Diameter Precast Catch Basin	138.65	47.61

02520-0046 4' Diameter Precast Catch Basins (02520-0001)

02520-0047	EA	4' Deep, 4' Diameter Precast Catch Basin	823.72	219.17
02520-0048	EA	6' Deep, 4' Diameter Precast Catch Basin	1,075.27	300.24
02520-0049	EA	8' Deep, 4' Diameter Precast Catch Basin	1,452.35	450.36
02520-0050	EA	10' Deep, 4' Diameter Precast Catch Basin	1,812.46	562.94

**Site Construction 02000****Site Drainage 02500****Storm Drains 02520****02**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02520-0051	EA	12' Deep, 4' Diameter Precast Catch Basin	2,144.93	675.53
02520-0052	EA	14' Deep, 4' Diameter Precast Catch Basin	2,468.23	788.12
02520-0053	VLF	Vertical Linear Foot Over 14' Deep, 4' Diameter Precast Catch Basin.....	169.97	56.29
02520-0054 5' Diameter Precast Catch Basins (02520-0021)				
02520-0055	EA	4' Deep, 5' Diameter Precast Catch Basin	1,110.26	300.24
02520-0056	EA	6' Deep, 5' Diameter Precast Catch Basin	1,530.13	450.36
02520-0057	EA	8' Deep, 5' Diameter Precast Catch Basin	1,952.21	600.47
02520-0058	EA	10' Deep, 5' Diameter Precast Catch Basin	2,390.98	750.59
02520-0059	EA	12' Deep, 5' Diameter Precast Catch Basin	2,824.19	900.70
02520-0060	EA	14' Deep, 5' Diameter Precast Catch Basin	3,289.01	1,050.82
02520-0061	VLF	Vertical Linear Foot Over 14' Deep, 5' Diameter Precast Catch Basin.....	226.18	75.05
02520-0062 6' Diameter Precast Catch Basins (02520-0021)				
02520-0063	EA	4' Deep, 6' Diameter Precast Catch Basin	1,627.34	450.36
02520-0064	EA	6' Deep, 6' Diameter Precast Catch Basin	2,222.71	675.53
02520-0065	EA	8' Deep, 6' Diameter Precast Catch Basin	2,856.93	900.70
02520-0066	EA	10' Deep, 6' Diameter Precast Catch Basin	3,561.45	1,125.88
02520-0067	EA	12' Deep, 6' Diameter Precast Catch Basin	4,246.51	1,351.06
02520-0068	EA	14' Deep, 6' Diameter Precast Catch Basin	4,917.99	1,576.24
02520-0069	VLF	Vertical Linear Foot Over 14' Deep, 6' Diameter Precast Catch Basin.....	337.33	112.59
02520-0070 Precast Catch Basins Accessories (02520-0021)				
02520-0071	EA	Single Or Double Wing Slab Top With Throat.....	1,038.27	487.88
02520-0072	EA	4' x 4' Weir Box, Precast Catch Basin	434.46	60.04
02520-0073	EA	4' Diameter Inlet Round To Square Adapter, Precast Catch Basin	252.32	63.80
02520-0074	EA	3' Diameter, Up To 6" High, Precast Extension Ring	318.00	93.83
		02MOD-0361 For Each Additional Inch In Height, Add	37.35	
02520-0075	EA	4' Diameter, Up To 6" High, Precast Extension Ring	375.61	112.59
		02MOD-0361 For Each Additional Inch In Height, Add	43.82	
02520-0076	EA	5' Diameter, Up To 6" High, Precast Extension Ring	438.05	131.35
		02MOD-0361 For Each Additional Inch In Height, Add	51.14	
02520-0077	EA	6' Diameter, Up To 6" High, Precast Extension Ring	554.45	187.65
		02MOD-0361 For Each Additional Inch In Height, Add	61.17	
02520-0078	EA	Adjust Existing Catch Basin Inlet Grate To Match Grade.....	450.32	
02520-0079 Catch Basin Risers (02520-0021)				
02520-0080	EA	Up To 860 Square Inch, Up to 2" Rise, Catch Basin Riser.....	270.12	
02520-0081	EA	> 860 To 1140 Square Inch, Up To 2" Rise, Catch Basin Riser	301.14	
02520-0082	EA	> 1140 Square Inch, Up To 2" Rise, Catch Basin Riser	338.02	
02520-0083	EA	Up To 860 Square Inch, > 2" To 3" Rise, Catch Basin Riser.....	290.74	
02520-0084	EA	> 860 To 1140 Square Inch, > 2" To 3" Rise, Catch Basin Riser	323.85	
02520-0085	EA	> 1140 Square Inch, > 2" To 3" Rise, Catch Basin Riser	364.71	
02520-0086	EA	Up To 860 Square Inch, > 3" To 4" Rise, Catch Basin Riser.....	321.43	
02520-0087	EA	> 860 To 1140 Square Inch, > 3" To 4" Rise, Catch Basin Riser	350.85	
02520-0088	EA	> 1140 Square Inch, > 3" To 4" Rise, Catch Basin Riser	391.85	
02520-0089 CalTran Concrete Drainage Inlet Structures (02520-0001)				
02520-0090 Type OS Concrete Drainage Inlet Structure (02520-0089)				
02520-0091	EA	3' Deep Type OS Concrete Drainage Inlet Structure, 6" Wall Thickness	1,704.13	
02520-0092	EA	4' Deep Type OS Concrete Drainage Inlet Structure, 6" Wall Thickness	1,979.45	
02520-0093	EA	5' Deep Type OS Concrete Drainage Inlet Structure, 6" Wall Thickness	2,234.91	
02520-0094	EA	6' Deep Type OS Concrete Drainage Inlet Structure, 6" Wall Thickness	2,470.54	
02520-0095	EA	7' Deep Type OS Concrete Drainage Inlet Structure, 6" Wall Thickness	2,686.34	
02520-0096	EA	8' Deep Type OS Concrete Drainage Inlet Structure, 6" Wall Thickness	2,882.28	
02520-0097	EA	8' Deep Type OS Concrete Drainage Inlet Structure, 8" Wall Thickness	3,921.96	
02520-0098	EA	10' Deep Type OS Concrete Drainage Inlet Structure, 8" Wall Thickness	4,571.72	
02520-0099	EA	12' Deep Type OS Concrete Drainage Inlet Structure, 8" Wall Thickness	5,171.20	
02520-0100	EA	14' Deep Type OS Concrete Drainage Inlet Structure, 8" Wall Thickness	5,721.94	
02520-0101	EA	16' Deep Type OS Concrete Drainage Inlet Structure, 8" Wall Thickness	6,251.18	
02520-0102	EA	18' Deep Type OS Concrete Drainage Inlet Structure, 8" Wall Thickness	6,737.35	
02520-0103	EA	20' Deep Type OS Concrete Drainage Inlet Structure, 8" Wall Thickness	7,180.47	
02520-0104 Type OL-7 Concrete Drainage Inlet Structure (02520-0089)				
02520-0105	EA	3' Deep Type OL-7 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,320.52	
02520-0106	EA	4' Deep Type OL-7 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,577.70	
02520-0107	EA	5' Deep Type OL-7 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,815.04	
02520-0108	EA	6' Deep Type OL-7 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,032.54	
02520-0109	EA	7' Deep Type OL-7 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,229.44	
02520-0110	EA	8' Deep Type OL-7 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,407.27	
02520-0111	EA	8' Deep Type OL-7 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	4,416.06	
02520-0112	EA	10' Deep Type OL-7 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	5,050.57	
02520-0113	EA	12' Deep Type OL-7 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	5,634.80	
02520-0114	EA	14' Deep Type OL-7 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	6,169.53	
02520-0115	EA	16' Deep Type OL-7 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	6,685.52	
02520-0116	EA	18' Deep Type OL-7 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	7,158.44	

02000 Site Construction**02500 Site Drainage****02520 Storm Drains**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02520-0117	EA	20' Deep Type OL-7 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	7,588.30	
02520-0118		Type OL-10 Concrete Drainage Inlet Structure (02520-0089)		
02520-0119	EA	3' Deep Type OL-10 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,888.57	
02520-0120	EA	4' Deep Type OL-10 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,129.20	
02520-0121	EA	5' Deep Type OL-10 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,349.25	
02520-0122	EA	6' Deep Type OL-10 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,550.19	
02520-0123	EA	7' Deep Type OL-10 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,730.56	
02520-0124	EA	8' Deep Type OL-10 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,891.08	
02520-0125	EA	8' Deep Type OL-10 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	4,910.17	
02520-0126	EA	10' Deep Type OL-10 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	5,528.66	
02520-0127	EA	12' Deep Type OL-10 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	6,098.40	
02520-0128	EA	14' Deep Type OL-10 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	6,617.87	
02520-0129	EA	16' Deep Type OL-10 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	7,119.85	
02520-0130	EA	18' Deep Type OL-10 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	7,579.53	
02520-0131	EA	20' Deep Type OL-10 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	7,995.39	
02520-0132		Type OL-14 Concrete Drainage Inlet Structure (02520-0089)		
02520-0133	EA	3' Deep Type OL-14 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,698.34	
02520-0134	EA	4' Deep Type OL-14 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,914.51	
02520-0135	EA	5' Deep Type OL-14 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	4,110.83	
02520-0136	EA	6' Deep Type OL-14 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	4,287.31	
02520-0137	EA	7' Deep Type OL-14 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	4,443.96	
02520-0138	EA	8' Deep Type OL-14 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	4,580.77	
02520-0139	EA	8' Deep Type OL-14 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	5,610.15	
02520-0140	EA	10' Deep Type OL-14 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	6,206.98	
02520-0141	EA	12' Deep Type OL-14 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	6,754.30	
02520-0142	EA	14' Deep Type OL-14 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	7,252.09	
02520-0143	EA	16' Deep Type OL-14 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	7,735.98	
02520-0144	EA	18' Deep Type OL-14 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	8,176.06	
02520-0145	EA	20' Deep Type OL-14 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	8,573.08	
02520-0146		Type OL-21 Concrete Drainage Inlet Structure (02520-0089)		
02520-0147	EA	3' Deep Type OL-21 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	5,342.05	
02520-0148	EA	4' Deep Type OL-21 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	5,509.61	
02520-0149	EA	5' Deep Type OL-21 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	5,657.33	
02520-0150	EA	6' Deep Type OL-21 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	5,785.23	
02520-0151	EA	7' Deep Type OL-21 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	5,892.52	
02520-0152	EA	8' Deep Type OL-21 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	5,980.72	
02520-0153	EA	8' Deep Type OL-21 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	6,979.24	
02520-0154	EA	10' Deep Type OL-21 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	7,533.34	
02520-0155	EA	12' Deep Type OL-21 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	8,037.93	
02520-0156	EA	14' Deep Type OL-21 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	8,493.01	
02520-0157	EA	16' Deep Type OL-21 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	8,939.73	
02520-0158	EA	18' Deep Type OL-21 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	9,342.64	
02520-0159	EA	20' Deep Type OL-21 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	9,702.47	
02520-0160		Type GOL-7 Concrete Drainage Inlet Structure (02520-0089)		
02520-0161	EA	3' Deep Type GOL-7 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,816.05	
02520-0162	EA	4' Deep Type GOL-7 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,099.89	
02520-0163	EA	5' Deep Type GOL-7 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,360.91	
02520-0164	EA	6' Deep Type GOL-7 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,599.14	
02520-0165	EA	7' Deep Type GOL-7 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,815.33	
02520-0166	EA	8' Deep Type GOL-7 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	4,009.46	
02520-0167	EA	8' Deep Type GOL-7 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	5,105.75	
02520-0168	EA	10' Deep Type GOL-7 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	5,812.39	
02520-0169	EA	12' Deep Type GOL-7 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	6,463.36	
02520-0170	EA	14' Deep Type GOL-7 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	7,057.88	
02520-0171	EA	16' Deep Type GOL-7 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	7,632.61	
02520-0172	EA	18' Deep Type GOL-7 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	8,158.89	
02520-0173	EA	20' Deep Type GOL-7 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	8,635.98	
02520-0174		Type GOL-10 Concrete Drainage Inlet Structure (02520-0089)		
02520-0175	EA	3' Deep Type GOL-10 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,432.44	
02520-0176	EA	4' Deep Type GOL-10 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,697.39	
02520-0177	EA	5' Deep Type GOL-10 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,940.29	
02520-0178	EA	6' Deep Type GOL-10 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	4,161.14	
02520-0179	EA	7' Deep Type GOL-10 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	4,359.20	
02520-0180	EA	8' Deep Type GOL-10 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	4,534.44	
02520-0181	EA	8' Deep Type GOL-10 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	5,630.73	
02520-0182	EA	10' Deep Type GOL-10 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	6,320.74	
02520-0183	EA	12' Deep Type GOL-10 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	6,955.08	
02520-0184	EA	14' Deep Type GOL-10 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	7,533.72	
02520-0185	EA	16' Deep Type GOL-10 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	8,093.96	
02520-0186	EA	18' Deep Type GOL-10 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	8,605.73	
02520-0187	EA	20' Deep Type GOL-10 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	9,069.07	

**Site Construction 02000****Site Drainage 02500****Storm Drains 02520****02**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02520-0188		Type G-1 Concrete Drainage Inlet Structure (02520-0089)		
02520-0189	EA	3' Deep Type G-1 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	1,148.18	
02520-0190	EA	4' Deep Type G-1 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	1,372.43	
02520-0191	EA	5' Deep Type G-1 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	1,580.02	
02520-0192	EA	6' Deep Type G-1 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	1,772.43	
02520-0193	EA	7' Deep Type G-1 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	1,949.67	
02520-0194	EA	8' Deep Type G-1 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,110.25	
02520-0195		Type G-2 Concrete Drainage Inlet Structure (02520-0089)		
02520-0196	EA	3' Deep Type G-2 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	1,583.28	
02520-0197	EA	4' Deep Type G-2 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	1,835.23	
02520-0198	EA	5' Deep Type G-2 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,069.04	
02520-0199	EA	6' Deep Type G-2 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,284.73	
02520-0200	EA	7' Deep Type G-2 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,482.28	
02520-0201	EA	8' Deep Type G-2 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,660.95	
02520-0202	EA	8' Deep Type G-2 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	3,602.85	
02520-0203	EA	10' Deep Type G-2 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	4,202.31	
02520-0204	EA	12' Deep Type G-2 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	4,756.24	
02520-0205	EA	14' Deep Type G-2 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	5,264.68	
02520-0206	EA	16' Deep Type G-2 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	5,753.33	
02520-0207	EA	18' Deep Type G-2 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	6,202.41	
02520-0208	EA	20' Deep Type G-2 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	6,611.19	
02520-0209		Type G-3 Concrete Drainage Inlet Structure (02520-0089)		
02520-0210	EA	3' Deep Type G-3 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	1,244.86	
02520-0211	EA	4' Deep Type G-3 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	1,465.96	
02520-0212	EA	5' Deep Type G-3 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	1,671.11	
02520-0213	EA	6' Deep Type G-3 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	1,861.12	
02520-0214	EA	7' Deep Type G-3 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,034.44	
02520-0215	EA	8' Deep Type G-3 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,192.59	
02520-0216		Type G-4_24 Concrete Drainage Inlet Structure (02520-0089)		
02520-0217	EA	3' Deep Type G-4_24 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	1,534.93	
02520-0218	EA	4' Deep Type G-4_24 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	1,788.46	
02520-0219	EA	5' Deep Type G-4_24 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,023.86	
02520-0220	EA	6' Deep Type G-4_24 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,240.39	
02520-0221	EA	7' Deep Type G-4_24 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,439.53	
02520-0222	EA	8' Deep Type G-4_24 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,619.79	
02520-0223	EA	8' Deep Type G-4_24 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	3,582.26	
02520-0224	EA	10' Deep Type G-4_24 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	4,182.88	
02520-0225	EA	12' Deep Type G-4_24 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	4,737.23	
02520-0226	EA	14' Deep Type G-4_24 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	5,264.68	
02520-0227	EA	16' Deep Type G-4_24 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	5,735.08	
02520-0228	EA	18' Deep Type G-4_24 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	6,184.50	
02520-0229	EA	20' Deep Type G-4_24 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	6,594.35	
02520-0230		Type G-4_18 Concrete Drainage Inlet Structure (02520-0089)		
02520-0231	EA	3' Deep Type G-4_18 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	1,583.28	
02520-0232	EA	4' Deep Type G-4_18 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	1,835.23	
02520-0233	EA	5' Deep Type G-4_18 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,069.04	
02520-0234	EA	6' Deep Type G-4_18 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,284.73	
02520-0235	EA	7' Deep Type G-4_18 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,482.28	
02520-0236	EA	8' Deep Type G-4_18 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,660.95	
02520-0237	EA	8' Deep Type G-4_18 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	3,602.85	
02520-0238	EA	10' Deep Type G-4_18 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	4,202.31	
02520-0239	EA	12' Deep Type G-4_18 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	4,756.24	
02520-0240	EA	14' Deep Type G-4_18 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	5,264.68	
02520-0241	EA	16' Deep Type G-4_18 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	5,753.33	
02520-0242	EA	18' Deep Type G-4_18 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	6,202.41	
02520-0243	EA	20' Deep Type G-4_18 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	6,611.19	
02520-0244		Type G-5 Concrete Drainage Inlet Structure (02520-0089)		
02520-0245	EA	3' Deep Type G-5 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	1,232.78	
02520-0246	EA	4' Deep Type G-5 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	1,454.08	
02520-0247	EA	5' Deep Type G-5 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	1,660.20	
02520-0248	EA	6' Deep Type G-5 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	1,849.65	
02520-0249	EA	7' Deep Type G-5 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,023.94	
02520-0250	EA	8' Deep Type G-5 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,182.29	
02520-0251		Type G-6 Concrete Drainage Inlet Structure (02520-0089)		
02520-0252	EA	3' Deep Type G-6 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	1,256.95	
02520-0253	EA	4' Deep Type G-6 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	1,477.84	
02520-0254	EA	5' Deep Type G-6 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	1,682.79	
02520-0255	EA	6' Deep Type G-6 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	1,871.83	
02520-0256	EA	7' Deep Type G-6 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,044.95	

02000 Site Construction**02500 Site Drainage****02520 Storm Drains**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02520-0257	EA	8' Deep Type G-6 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,202.88	
02520-0258		Type GT1 Concrete Drainage Inlet Structure (02520-0089)		
02520-0259	EA	3' Deep Type GT1 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,102.98	
02520-0260	EA	4' Deep Type GT1 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,448.55	
02520-0261	EA	5' Deep Type GT1 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,792.37	
02520-0262	EA	6' Deep Type GT1 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,065.42	
02520-0263	EA	7' Deep Type GT1 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,335.97	
02520-0264	EA	8' Deep Type GT1 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,582.26	
02520-0265		Type GT2 Concrete Drainage Inlet Structure (02520-0089)		
02520-0266	EA	3' Deep Type GT2 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,550.16	
02520-0267	EA	4' Deep Type GT2 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,926.34	
02520-0268	EA	5' Deep Type GT2 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,274.48	
02520-0269	EA	6' Deep Type GT2 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,595.31	
02520-0270	EA	7' Deep Type GT2 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,888.10	
02520-0271	EA	8' Deep Type GT2 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	4,153.57	
02520-0272	EA	8' Deep Type GT2 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	5,558.68	
02520-0273	EA	10' Deep Type GT2 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	6,442.45	
02520-0274	EA	12' Deep Type GT2 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	7,258.02	
02520-0275	EA	14' Deep Type GT2 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	8,006.16	
02520-0276	EA	16' Deep Type GT2 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	8,726.28	
02520-0277	EA	18' Deep Type GT2 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	9,387.05	
02520-0278	EA	20' Deep Type GT2 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	9,988.48	
02520-0279		Type GT3 Concrete Drainage Inlet Structure (02520-0089)		
02520-0280	EA	3' Deep Type GT3 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,090.89	
02520-0281	EA	4' Deep Type GT3 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,436.68	
02520-0282	EA	5' Deep Type GT3 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,758.19	
02520-0283	EA	6' Deep Type GT3 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,054.71	
02520-0284	EA	7' Deep Type GT3 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,325.47	
02520-0285	EA	8' Deep Type GT3 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,571.97	
02520-0286		Type GT4 Concrete Drainage Inlet Structure (02520-0089)		
02520-0287	EA	3' Deep Type GT4 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,634.77	
02520-0288	EA	4' Deep Type GT4 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,008.00	
02520-0289	EA	5' Deep Type GT4 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,353.91	
02520-0290	EA	6' Deep Type GT4 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,671.78	
02520-0291	EA	7' Deep Type GT4 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,962.35	
02520-0292	EA	8' Deep Type GT4 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	4,225.63	
02520-0293	EA	8' Deep Type GT4 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	5,568.98	
02520-0294	EA	10' Deep Type GT4 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	6,452.52	
02520-0295	EA	12' Deep Type GT4 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	7,267.90	
02520-0296	EA	14' Deep Type GT4 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	8,015.09	
02520-0297	EA	16' Deep Type GT4 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	8,735.04	
02520-0298	EA	18' Deep Type GT4 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	9,395.65	
02520-0299	EA	20' Deep Type GT4 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	9,996.89	
02520-0300		Type GO Concrete Drainage Inlet Structure (02520-0089)		
02520-0301	EA	3' Deep Type GO Concrete Drainage Inlet Structure, 6" Wall Thickness.....	1,498.68	
02520-0302	EA	4' Deep Type GO Concrete Drainage Inlet Structure, 6" Wall Thickness.....	1,741.71	
02520-0303	EA	5' Deep Type GO Concrete Drainage Inlet Structure, 6" Wall Thickness.....	1,967.02	
02520-0304	EA	6' Deep Type GO Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,174.62	
02520-0305	EA	7' Deep Type GO Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,364.51	
02520-0306	EA	8' Deep Type GO Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,537.43	
02520-0307	EA	8' Deep Type GO Concrete Drainage Inlet Structure, 8" Wall Thickness.....	3,489.61	
02520-0308	EA	10' Deep Type GO Concrete Drainage Inlet Structure, 8" Wall Thickness.....	4,071.28	
02520-0309	EA	12' Deep Type GO Concrete Drainage Inlet Structure, 8" Wall Thickness.....	4,607.59	
02520-0310	EA	14' Deep Type GO Concrete Drainage Inlet Structure, 8" Wall Thickness.....	5,100.06	
02520-0311	EA	16' Deep Type GO Concrete Drainage Inlet Structure, 8" Wall Thickness.....	5,574.34	
02520-0312	EA	18' Deep Type GO Concrete Drainage Inlet Structure, 8" Wall Thickness.....	6,009.04	
02520-0313	EA	20' Deep Type GO Concrete Drainage Inlet Structure, 8" Wall Thickness.....	6,405.66	
02520-0314		Type GDO Concrete Drainage Inlet Structure (02520-0089)		
02520-0315	EA	3' Deep Type GDO Concrete Drainage Inlet Structure, 6" Wall Thickness.....	1,957.95	
02520-0316	EA	4' Deep Type GDO Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,277.39	
02520-0317	EA	5' Deep Type GDO Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,573.65	
02520-0318	EA	6' Deep Type GDO Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,847.50	
02520-0319	EA	7' Deep Type GDO Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,097.42	
02520-0320	EA	8' Deep Type GDO Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,324.91	
02520-0321	EA	8' Deep Type GDO Concrete Drainage Inlet Structure, 8" Wall Thickness.....	4,488.12	
02520-0322	EA	10' Deep Type GDO Concrete Drainage Inlet Structure, 8" Wall Thickness.....	5,237.77	
02520-0323	EA	12' Deep Type GDO Concrete Drainage Inlet Structure, 8" Wall Thickness.....	5,929.99	
02520-0324	EA	14' Deep Type GDO Concrete Drainage Inlet Structure, 8" Wall Thickness.....	6,565.53	
02520-0325	EA	16' Deep Type GDO Concrete Drainage Inlet Structure, 8" Wall Thickness.....	7,176.66	
02520-0326	EA	18' Deep Type GDO Concrete Drainage Inlet Structure, 8" Wall Thickness.....	7,737.80	

**Site Construction 02000**

Site Drainage 02500

Storm Drains 02520

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MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02520-0327	EA	20' Deep Type GDO Concrete Drainage Inlet Structure, 8" Wall Thickness	8,248.95	
02520-0328		Headwalls (02520)		
		Note: Excludes excavation and backfill. Select pipe with closest opening area for square or round culverts.		
02520-0329		Cast In Place Concrete Headwalls (02520-0328)		
02520-0330		Skewed Wingwall, Cast In Place Concrete Headwall (02520-0329)		
		Note: Sized by pipe diameter.		
02520-0331	EA	12" Pipe, Skewed Wingwall, Cast In Place Concrete Headwall	1,134.92	441.16
02520-0332	EA	15" Pipe, Skewed Wingwall, Cast In Place Concrete Headwall	1,234.95	470.57
02520-0333	EA	18" Pipe, Skewed Wingwall, Cast In Place Concrete Headwall	1,629.46	616.39
02520-0334	EA	24" Pipe, Skewed Wingwall, Cast In Place Concrete Headwall	2,408.19	882.32
02520-0335	EA	30" Pipe, Skewed Wingwall, Cast In Place Concrete Headwall	3,256.32	1,176.43
02520-0336	EA	36" Pipe, Skewed Wingwall, Cast In Place Concrete Headwall	3,999.95	1,550.67
02520-0337	EA	42" Pipe, Skewed Wingwall, Cast In Place Concrete Headwall	5,398.26	2,138.94
02520-0338	EA	48" Pipe, Skewed Wingwall, Cast In Place Concrete Headwall	6,411.93	2,520.90
02520-0339	EA	54" Pipe, Skewed Wingwall, Cast In Place Concrete Headwall	7,722.35	3,068.98
02520-0340	EA	60" Pipe, Skewed Wingwall, Cast In Place Concrete Headwall	9,289.86	3,715.04
02520-0341		Precast Concrete Headwalls (02520-0328)		
02520-0342	EA	12" Pipe, Precast Concrete Headwall	449.56	126.34
02520-0343	EA	15" Pipe, Precast Concrete Headwall	470.62	133.36
02520-0344	EA	18" Pipe, Precast Concrete Headwall	520.29	151.61
02520-0345	EA	24" Pipe, Precast Concrete Headwall	571.29	161.44
02520-0346	EA	30" Pipe, Precast Concrete Headwall	733.73	189.51
02520-0347	EA	36" Pipe, Precast Concrete Headwall	833.08	196.53
02520-0348	EA	42" Pipe, Precast Concrete Headwall	1,065.03	228.35
02520-0349	EA	48" Pipe, Precast Concrete Headwall	1,167.77	251.58
02520-0350	EA	54" Pipe, Precast Concrete Headwall	1,282.08	266.39
02520-0351	EA	60" Pipe, Precast Concrete Headwall	1,442.45	266.39
02520-0352	EA	72" Pipe, Precast Concrete Headwall	1,704.00	332.98
02520-0353	EA	84" Pipe, Precast Concrete Headwall	2,348.82	399.57
02520-0354		Precast Concrete Wingwalls (02520-0328)		
02520-0355	EA	18" ID Pipe (26" Hole) Precast Concrete Wingwall	2,909.31	1,318.59
		Note: 12" Thick wall and base. Wingwalls are configured at 0-30 degrees off centerline of pipe.		
02520-0356	EA	24" ID Pipe (32" Hole) Precast Concrete Wingwall	3,131.29	1,465.11
		Note: 12" Thick wall and base. Wingwalls are configured at 0-30 degrees off centerline of pipe.		
02520-0357	EA	30" ID Pipe (42" Hole) Precast Concrete Wingwall	3,501.27	1,709.28
		Note: 12" Thick wall and base. Wingwalls are configured at 0-30 degrees off centerline of pipe.		
02520-0358	EA	33" ID Pipe (46" Hole) Precast Concrete Wingwall	3,871.25	1,953.47
		Note: 12" thick wall and base. Wingwalls are configured at zero degrees only off centerline of pipe.		
02520-0359	EA	36" ID Pipe (50" Hole) Precast Concrete Wingwall	3,871.25	1,953.47
		Note: 12" Thick wall and base. Wingwalls are configured at 0-30 degrees off centerline of pipe.		
02520-0360	EA	44" ID Pipe (58" Hole) Precast Concrete Wingwall	4,019.24	2,051.14
		Note: 12" Thick wall and base. Wingwalls are configured at 0-30 degrees off centerline of pipe.		
02520-0361	EA	48" ID Pipe (62" Hole) Precast Concrete Wingwall	5,897.14	2,099.98
		Note: 12" thick wall and base. Wingwalls are configured at 0-30 degrees off centerline of pipe.		
02520-0362	EA	52" ID Pipe (66" Hole) Precast Concrete Wingwall	6,119.13	2,246.49
		Note: 12" thick wall and base. Wingwalls are configured at zero degrees only off centerline of pipe.		
02520-0363		Precast Concrete Transverse Drainage Interceptor (02520-0328)		
02520-0364	EA	34" x 48" x 28" Precast Concrete Transverse Drainage Interceptor With Frame And Grate	2,290.07	517.97
02520-0365		Catch Basin Frames And Covers (02520)		
02520-0366		Cast Iron Frames And Covers (02520-0365)		
02520-0367	EA	18" Diameter Cast Iron Catch Basin Frame And Cover	376.83	75.05
02520-0368	EA	22" Diameter Cast Iron Catch Basin Frame And Cover	468.51	84.82
02520-0369	EA	24" Diameter Cast Iron Catch Basin Frame And Cover	523.43	87.82
02520-0370	EA	26" Diameter Cast Iron Catch Basin Frame And Cover	587.14	102.08
02520-0371	EA	28" Diameter Cast Iron Catch Basin Frame And Cover	679.32	116.34
02520-0372	EA	32" Diameter Cast Iron Catch Basin Frame And Cover	1,050.38	121.59
02520-0373	EA	16" x 16" Cast Iron Catch Basin Frame And Cover	581.92	92.32
02520-0374	EA	18" x 24" Cast Iron Catch Basin Frame And Cover	748.36	106.58
02520-0375	EA	20" x 27" Cast Iron Catch Basin Frame And Cover	839.50	111.08
02520-0376	EA	23" x 23" Cast Iron Catch Basin Frame And Cover	797.67	111.08
02520-0377	EA	24" x 24" Cast Iron Catch Basin Frame And Cover	825.10	115.60
02520-0378	EA	26" x 26" Cast Iron Catch Basin Frame And Cover	883.19	120.10
02520-0379	EA	24" x 36" Cast Iron Catch Basin Frame And Cover	1,050.79	129.10
02520-0380		Curb Inlet Frames And Covers (02520)		
02520-0381		Cast Iron Frames And Covers (02520-0380)		
02520-0382	EA	20" x 22" Cast Iron Curb Inlet Frame And Cover	715.34	87.82
02520-0383	EA	22" x 24" Cast Iron Curb Inlet Frame And Cover	766.46	102.08
02520-0384	EA	24" x 24" Cast Iron Curb Inlet Frame And Cover	793.87	102.08

02000 Site Construction**02500 Site Drainage****02520 Storm Drains**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02520-0385	EA	27" x 27" Cast Iron Curb Inlet Frame And Cover	869.73	120.10
02520-0386	EA	36" x 24" Cast Iron Curb Inlet Frame And Cover	857.18	123.85
02520-0387		Modular Trench Drains (02520) See CSI section 03311-0002 for concrete.		
02520-0388		Modular Trench Drains (02520-0387) Note: Excludes grates. See CSI section 02520-0482 for grates.		
02520-0389		6" Wide, Modular Trench Drains (02520-0388)		
02520-0390		6" Wide, High Density Polyethylene, Modular Trench Drains (02520-0389)		
02520-0391		6" Wide, High Density Polyethylene, Modular Trench Drains (02520-0390)		
02520-0392	LF	6" Wide, High Density Polyethylene, Modular Trench Drain.....	74.64	12.01
	02MOD-0324	For Extra Heavy Duty Frame Assembly With Anchor Studs And Grate Lockdown, Add	29.34	
	02MOD-0325	For Galvanized Extra Heavy Duty Frame Assembly With Anchor Studs And Grate Lockdown, Add	58.68	
	02MOD-0326	For Stainless Steel Extra Heavy Duty Frame Assembly With Anchor Studs And Grate Lockdown, Add	93.88	
	02MOD-0327	For Type 304 Stainless Steel Top Veneer Frame, Add	23.47	
	02MOD-0328	For Aluminum Veneer Bronze Anodized Frame, Add	11.74	
02520-0393		Outlet Adapters For 6" Wide, High Density Polyethylene, Modular Trench Drains (02520-0390)		
02520-0394	EA	Closed End Cap For 6" Wide, High Density Polyethylene, Modular Trench Drains	36.13	
02520-0395	EA	No-Hub End Outlet For 6" Wide, High Density Polyethylene, Modular Trench Drains	43.64	
02520-0396	EA	No-Hub Bottom Outlet For 6" Wide, High Density Polyethylene, Modular Trench Drains	43.64	
02520-0397		Other Fittings For 6" Wide, High Density Polyethylene, Modular Trench Drains (02520-0390)		
02520-0398	EA	Bottom Dome Strainer For 6" Wide, High Density Polyethylene, Modular Trench Drains	59.37	
02520-0399	EA	Joint Connector For 6" Wide, High Density Polyethylene, Modular Trench Drains	59.37	
02520-0400	EA	90 Degree, 45 Degree, Tee Or Side Outlet Charge For 6" Wide, High Density Polyethylene, Modular Trench Drains.....	272.23	
02520-0401	EA	Cross For 6" Wide, High Density Polyethylene, Modular Trench Drains	506.93	
02520-0402	EA	Cutting Charge For 6" Wide, High Density Polyethylene, Modular Trench Drains	58.68	
02520-0403		6" Wide, Fiber Reinforced Polyester, Modular Trench Drains (02520-0389)		
02520-0404		6" Wide, Fiber Reinforced Polyester, Modular Trench Drains (02520-0403)		
02520-0405	LF	6" Wide, Fiber Reinforced Polyester, Modular Trench Drain	102.22	12.01
	02MOD-0329	For Black Acid Resistant Coated Frame, Add	22.30	
	02MOD-0330	For Galvanized Top Frame Assembly, Add	22.30	
	02MOD-0331	For Type 304 Stainless Steel Top Frame Assembly, Add	82.14	
02520-0406		Outlet Adapters For 6" Wide, Fiber Reinforced Polyester, Modular Trench Drains (02520-0403)		
02520-0407	EA	Closed End Cap For 6" Wide, Fiber Reinforced Polyester, Modular Trench Drains.....	38.48	
02520-0408	EA	No-Hub End Outlet For 6" Wide, Fiber Reinforced Polyester, Modular Trench Drains.....	45.99	
02520-0409	EA	No-Hub Bottom Outlet For 6" Wide, Fiber Reinforced Polyester, Modular Trench Drains.....	45.99	
02520-0410		Other Fittings For 6" Wide, Fiber Reinforced Polyester, Modular Trench Drains (02520-0403)		
02520-0411	EA	Bottom Dome Strainer For 6" Wide, Fiber Reinforced Polyester, Modular Trench Drains.....	59.37	
02520-0412	EA	Joint Connector For 6" Wide, Fiber Reinforced Polyester, Modular Trench Drains.....	59.37	
02520-0413	EA	90 Degree, 45 Degree, Tee Or Side Outlet For 6" Wide, Fiber Reinforced Polyester, Modular Trench Drains.....	272.23	
02520-0414	EA	Cross For 6" Wide, Fiber Reinforced Polyester, Modular Trench Drains.....	506.93	
02520-0415	EA	Cutting Charge For 6" Wide, Fiber Reinforced Polyester, Modular Trench Drains.....	58.68	
02520-0416		6" Wide, Vinylester Fiberglass, Modular Trench Drains (02520-0389)		
02520-0417		6" Wide, Vinylester Fiberglass, Modular Trench Drains (02520-0416)		
02520-0418	LF	6" Wide, Vinylester Fiberglass, Modular Trench Drain	128.04	12.01
	02MOD-0329	For Black Acid Resistant Coated Frame, Add	22.30	
	02MOD-0330	For Galvanized Top Frame Assembly, Add	22.30	
	02MOD-0331	For Type 304 Stainless Steel Top Frame Assembly, Add	82.14	
02520-0419		Outlet Adapters For 6" Wide, Vinylester Fiberglass, Modular Trench Drains (02520-0416)		
02520-0420	EA	Closed End Cap For 6" Wide, Vinylester Fiberglass, Modular Trench Drains	57.26	
02520-0421	EA	No-Hub End Outlet For 6" Wide, Vinylester Fiberglass, Modular Trench Drains	64.77	
02520-0422	EA	No-Hub Bottom Outlet For 6" Wide, Vinylester Fiberglass, Modular Trench Drains	64.77	
02520-0423		Other Fittings For 6" Wide, Vinylester Fiberglass, Modular Trench Drains (02520-0416)		
02520-0424	EA	Bottom Dome Strainer For 6" Wide, Vinylester Fiberglass, Modular Trench Drains.....	59.37	
02520-0425	EA	Joint Connector For 6" Wide, Vinylester Fiberglass, Modular Trench Drains.....	59.37	
02520-0426	EA	90 Degree, 45 Degree, Tee Or Side Outlet For 6" Wide, Vinylester Fiberglass, Modular Trench Drains.....	272.23	
02520-0427	EA	Cross For 6" Wide, Vinylester Fiberglass, Modular Trench Drains.....	506.93	
02520-0428	EA	Cutting Charge For 6" Wide, Vinylester Fiberglass, Modular Trench Drains.....	58.68	

**Site Construction 02000****Site Drainage 02500****Storm Drains 02520****02**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02520-0429		12" Wide, Modular Trench Drains (02520-0388)		
02520-0430		12" Wide, High Density Polyethylene, Modular Trench Drains (02520-0429)		
02520-0431		12" Wide, High Density Polyethylene, Modular Trench Drains (02520-0430)		
02520-0432	LF	12" Wide, High Density Polyethylene, Modular Trench Drain	132.78	16.51
02MOD-0332		For Acid Resistant Coated Top Frame, Add	30.51	
02MOD-0333		For Galvanized Welded Frame Assembly, Add	31.98	
02MOD-0334		For Type 304 Stainless Steel Top Frame, Add	183.07	
02520-0433		Outlet Adapters For 12" Wide, High Density Polyethylene, Modular Trench Drains (02520-0430)		
02520-0434	EA	End Cap For 12" Wide, High Density Polyethylene, Modular Trench Drains	68.12	
02520-0435	EA	No-Hub End Outlet For 12" Wide, High Density Polyethylene, Modular Trench Drains	78.13	
02520-0436	EA	No-Hub Bottom Outlet For 12" Wide, High Density Polyethylene, Modular Trench Drains	78.13	
02520-0437		Other Fittings For 12" Wide, High Density Polyethylene, Modular Trench Drains (02520-0430)		
02520-0438	EA	Bottom Dome Strainer For 12" Wide, High Density Polyethylene, Modular Trench Drains	103.41	
02520-0439	EA	Joint Connector For 12" Wide, High Density Polyethylene, Modular Trench Drains	132.75	
02520-0440	EA	90 Degree, 45 Degree, Tee Or Side Outlet For 12" Wide, High Density Polyethylene, Modular Trench Drains	527.13	
02520-0441	EA	Cross For 12" Wide, High Density Polyethylene, Modular Trench Drains	996.53	
02520-0442	EA	Cutting Charges For 12" Wide, High Density Polyethylene, Modular Trench Drains	117.35	
02520-0443		12" Wide, Fiber Reinforced Polyester, Modular Trench Drains (02520-0429)		
02520-0444		12" Wide, Fiber Reinforced Polyester, Modular Trench Drains (02520-0443)		
02520-0445	LF	12" Wide, Fiber Reinforced Polyester, Modular Trench Drain	162.11	16.51
02MOD-0332		For Acid Resistant Coated Top Frame, Add	30.51	
02MOD-0333		For Galvanized Welded Frame Assembly, Add	31.98	
02MOD-0334		For Type 304 Stainless Steel Top Frame, Add	183.07	
02520-0446		Outlet Adapters For 12" Wide, Fiber Reinforced Polyester, Modular Trench Drains (02520-0443)		
02520-0447	EA	End Cap For 12" Wide, Fiber Reinforced Polyester, Modular Trench Drains	70.47	
02520-0448	EA	No-Hub End Outlet For 12" Wide, Fiber Reinforced Polyester, Modular Trench Drains	80.48	
02520-0449	EA	No-Hub Bottom Outlet For 12" Wide, Fiber Reinforced Polyester, Modular Trench Drains	80.48	
02520-0450		Other Fittings For 12" Wide, Fiber Reinforced Polyester, Modular Trench Drains (02520-0443)		
02520-0451	EA	Bottom Dome Strainer For 12" Wide, Fiber Reinforced Polyester, Modular Trench Drains	103.41	
02520-0452	EA	Joint Connector For 12" Wide, Fiber Reinforced Polyester, Modular Trench Drains	132.75	
02520-0453	EA	90 Degree, 45 Degree, Tee Or Side Outlet For 12" Wide, Fiber Reinforced Polyester, Modular Trench Drains	527.13	
02520-0454	EA	Cross For 12" Wide, Fiber Reinforced Polyester, Modular Trench Drains	996.53	
02520-0455	EA	Cutting Charges For 12" Wide, Fiber Reinforced Polyester, Modular Trench Drains	117.35	
02520-0456		12" Wide, Vinylester Fiberglass, Modular Trench Drains (02520-0429)		
02520-0457		12" Wide, Vinylester Fiberglass, Modular Trench Drains (02520-0456)		
02520-0458	LF	12" Wide, Vinylester Fiberglass, Modular Trench Drain	220.79	16.51
02MOD-0332		For Acid Resistant Coated Top Frame, Add	30.51	
02MOD-0333		For Galvanized Welded Frame Assembly, Add	31.98	
02MOD-0334		For Type 304 Stainless Steel Top Frame, Add	183.07	
02520-0459		Outlet Adapters For 12" Wide, Vinylester Fiberglass, Modular Trench Drains (02520- 0456)		
02520-0460	EA	End Cap For 12" Wide, Vinylester Fiberglass, Modular Trench Drains	158.48	
02520-0461	EA	No-Hub End Outlet For 12" Wide, Vinylester Fiberglass, Modular Trench Drains	168.49	
02520-0462	EA	No-Hub Bottom Outlet For 12" Wide, Vinylester Fiberglass, Modular Trench Drains	168.49	
02520-0463		Other Fittings For 12" Wide, Vinylester Fiberglass, Modular Trench Drains (02520-0456)		
02520-0464	EA	Bottom Dome Strainer For 12" Wide, Vinylester Fiberglass, Modular Trench Drains	103.41	
02520-0465	EA	Joint Connector For 12" Wide, Vinylester Fiberglass, Modular Trench Drains	132.75	
02520-0466	EA	90 Degree, 45 Degree, Tee Or Side Outlet For 12" Wide, Vinylester Fiberglass, Modular Trench Drains	527.13	
02520-0467	EA	Cross For 12" Wide, Vinylester Fiberglass, Modular Trench Drains	996.53	
02520-0468	EA	Cutting Charges For 12" Wide, Vinylester Fiberglass, Modular Trench Drains	117.35	
02520-0469		23" Wide, Modular Trench Drains (02520-0388)		
02520-0470		23" Wide, High Density Polyethylene, Modular Trench Drains (02520-0469)		
02520-0471		23" Wide, High Density Polyethylene, Modular Trench Drains (02520-0470)		

02000 Site Construction**02500 Site Drainage****02520 Storm Drains**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02520-0472	LF	23" Wide, High Density Polyethylene, Modular Trench Drain.....	184.85	22.52
	02MOD-0335	For Acid Resistant Coated Frame, Add	45.77	
	02MOD-0336	For Galvanized Frame Assembly, Add	45.77	
	02MOD-0337	For Type 304 Stainless Steel Top Frame, Add	281.64	
02520-0473		Outlet Adapters For 23" Wide, High Density Polyethylene, Modular Trench Drains (02520-0470)		
02520-0474	EA	End Cap For 23" Wide, High Density Polyethylene, Modular Trench Drains.....	195.67	
02520-0475	EA	No-Hub End Outlet For 23" Wide, High Density Polyethylene, Modular Trench Drains	301.42	
02520-0476	EA	No-Hub Bottom Outlet For 23" Wide, High Density Polyethylene, Modular Trench Drains	301.42	
02520-0477		Other Fittings For 23" Wide, High Density Polyethylene, Modular Trench Drains (02520-0470)		
02520-0478	EA	Bottom Dome Strainer For 23" Wide, High Density Polyethylene, Modular Trench Drains	227.88	
02520-0479	EA	90 Degree, 45 Degree, Tee Or Side Outlet For 23" Wide, High Density Polyethylene, Modular Trench Drains	1,032.62	
02520-0480	EA	Cross For 23" Wide, High Density Polyethylene, Modular Trench Drains	1,971.42	
02520-0481	EA	Cutting Charges For 23" Wide, High Density Polyethylene, Modular Trench Drains.....	234.70	
02520-0482		Modular Trench Drain Grates (02520-0387)		
02520-0483		6" Wide, Modular Trench Drain Grates (02520-0482)		
02520-0484	LF	6" Wide, Galvanized Ductile Iron Cast Bar, Modular Trench Drain Grate.....	60.08	2.26
02520-0485	LF	6" Wide, Ductile Iron Cast Bar, Modular Trench Drain Grate	51.22	2.26
02520-0486	LF	6" Wide, Ductile Iron Solid Cover, Modular Trench Drain Grate.....	53.68	2.26
02520-0487	LF	6" Wide, Ductile Iron Slotted, Modular Trench Drain Grate	47.17	2.26
02520-0488	LF	6" Wide, Galvanized Ductile Iron Slotted, Modular Trench Drain Grate	50.69	2.26
02520-0489	LF	6" Wide, Heel Proof Ductile Iron, Modular Trench Drain Grate	51.28	2.26
02520-0490	LF	6" Wide, Ductile Iron Longitudinal Slotted, Modular Trench Drain Grate	51.28	2.26
02520-0491	LF	6" Wide, Galvanized Cast Iron Slotted, Modular Trench Drain Grate.....	50.69	2.26
02520-0492	LF	6" Wide, Galvanized Steel Slotted, Modular Trench Drain Grate	44.82	2.26
02520-0493	LF	6" Wide, Perforated Galvanized Steel, Modular Trench Drain Grate.....	44.82	2.26
02520-0494	LF	6" Wide, Reinforced Galvanized Steel Slotted, Modular Trench Drain Grate	47.52	2.26
02520-0495	LF	6" Wide, Reinforced Perforated Galvanized Steel, Modular Trench Drain Grate	47.52	2.26
02520-0496	LF	6" Wide, Fabricated Stainless Steel Slotted, Modular Trench Drain Grate.....	61.25	2.26
02520-0497	LF	6" Wide, Perforated Stainless Steel, Modular Trench Drain Grate	61.25	2.26
02520-0498	LF	6" Wide, Reinforced Stainless Steel Slotted, Modular Trench Drain Grate	110.54	2.26
02520-0499	LF	6" Wide, Reinforced Perforated Stainless Steel, Modular Trench Drain Grate.....	110.54	2.26
02520-0500	LF	6" Wide, Stainless Steel Bar, Modular Trench Drain Grate	304.17	2.26
02520-0501	LF	6" Wide, Heel Proof Polyethylene, Modular Trench Drain Grate	42.48	2.26
02520-0502	LF	6" Wide, Fiberglass, Modular Trench Drain Grate.....	89.42	2.26
02520-0503		12" Wide, Modular Trench Drain Grates (02520-0482)		
02520-0504	LF	12" Wide, Black Acid Resistant Coated Ductile Iron, Modular Trench Drain Grate	162.55	2.44
02520-0505	LF	12" Wide, Ductile Iron Solid Cover, Modular Trench Drain Grate	155.51	2.44
02520-0506	LF	12" Wide, Galvanized Ductile Iron Slotted, Modular Trench Drain Grate	135.56	2.44
02520-0507	LF	12" Wide, Heel Proof Ductile Iron, Modular Trench Drain Grate	142.31	2.44
02520-0508	LF	12" Wide, Perforated Galvanized Steel, Modular Trench Drain Grate.....	123.24	2.44
02520-0509	LF	12" Wide, Reinforced Galvanized Steel Slotted, Modular Trench Drain Grate.....	239.12	2.44
02520-0510	LF	12" Wide, Reinforced Perforated Galvanized Steel, Modular Trench Drain Grate	239.12	2.44
02520-0511	LF	12" Wide, Fabricated Stainless Steel Slotted, Modular Trench Drain Grate.....	304.55	2.44
02520-0512	LF	12" Wide, Perforated Stainless Steel, Modular Trench Drain Grate.....	304.55	2.44
02520-0513	LF	12" Wide, Reinforced Stainless Steel Slotted, Modular Trench Drain Grate.....	388.16	2.44
02520-0514	LF	12" Wide, Reinforced Perforated Stainless Steel Slotted, Modular Trench Drain Grate.....	388.16	2.44
02520-0515	LF	12" Wide, Stainless Steel Cast Bar, Modular Trench Drain Grate	368.50	2.44
02520-0516	LF	12" Wide, Fiberglass, Modular Trench Drain Grate.....	175.17	2.44
02520-0517		23" Wide, Modular Trench Drain Grates (02520-0482)		
02520-0518	LF	23" Wide, Ductile Iron Solid Cover, Modular Trench Drain Grate	255.63	2.62
02520-0519	LF	23" Wide, Ductile Iron Slotted, Modular Trench Drain Grate	215.73	2.62
02520-0520	LF	23" Wide, Galvanized Ductile Iron Slotted, Modular Trench Drain Grate	333.08	2.62
02520-0521	LF	23" Wide, Heel Proof Longitudinal Ductile Iron, Modular Trench Drain Grate	247.41	2.62
02520-0522		Area Yard Drain (02520)		
02520-0523		Ductile Iron Grates (02520-0522)		
		Note: Not for traffic loading.		
02520-0524	EA	8" Diameter Ductile Iron Grate Adapter Necks Down To 4" and 6" Diameter Pipe.....	107.13	24.97
02520-0525	EA	10" Diameter Ductile Iron Grate Adapters To 4", 6", or 8" Diameter Pipe.....	131.49	26.63
02520-0526	EA	12" Diameter Ductile Iron Grate Adapters To 4" Through 12" Diameter Pipe.....	307.25	33.29
02520-0527	EA	15" Diameter Ductile Iron Grate Adapters To 4" Through 12" Diameter Pipe.....	367.12	39.94
02522		Corrugated Metal Piping (02500)		
02522-0001		Galvanized Corrugated Steel Piping (02522)		
02522-0002		2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Piping (02522-0001)		



Site Construction		02000	02
Site Drainage		02500	
Corrugated Metal Piping		02522	

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02522-0003		16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Piping (02522-0002)		
02522-0004	LF	12" 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe	23.61	7.37
	02MOD-0083	For Asphalt Coated Pipe, Add	2.01	
	02MOD-0084	For Asphalt Coated And 25% Paved, Add	4.11	
	02MOD-0085	For Smooth-Flo, Add	7.34	
02522-0005	LF	15" 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe	26.31	7.72
	02MOD-0083	For Asphalt Coated Pipe, Add	2.53	
	02MOD-0084	For Asphalt Coated And 25% Paved, Add	5.17	
	02MOD-0085	For Smooth-Flo, Add	9.24	
02522-0006	LF	18" 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe	29.09	8.42
	02MOD-0083	For Asphalt Coated Pipe, Add	3.06	
	02MOD-0084	For Asphalt Coated And 25% Paved, Add	6.27	
	02MOD-0085	For Smooth-Flo, Add	11.19	
02522-0007	LF	21" 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe	32.87	9.13
	02MOD-0083	For Asphalt Coated Pipe, Add	3.66	
	02MOD-0084	For Asphalt Coated And 25% Paved, Add	7.49	
	02MOD-0085	For Smooth-Flo, Add	13.38	
02522-0008	LF	24" 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe	36.28	9.82
	02MOD-0083	For Asphalt Coated Pipe, Add	4.12	
	02MOD-0084	For Asphalt Coated And 25% Paved, Add	8.43	
	02MOD-0085	For Smooth-Flo, Add	15.05	
02522-0009	LF	30" 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe	48.01	12.64
	02MOD-0083	For Asphalt Coated Pipe, Add	5.35	
	02MOD-0084	For Asphalt Coated And 25% Paved, Add	10.94	
	02MOD-0085	For Smooth-Flo, Add	19.54	
02522-0010	LF	36" 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe	62.41	16.28
	02MOD-0083	For Asphalt Coated Pipe, Add	6.75	
	02MOD-0084	For Asphalt Coated And 25% Paved, Add	13.80	
	02MOD-0085	For Smooth-Flo, Add	24.65	
02522-0011	LF	42" 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe	70.65	19.24
	02MOD-0083	For Asphalt Coated Pipe, Add	7.98	
	02MOD-0084	For Asphalt Coated And 25% Paved, Add	16.33	
	02MOD-0085	For Smooth-Flo, Add	29.15	
02522-0012	LF	48" 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe	79.44	22.20
	02MOD-0083	For Asphalt Coated Pipe, Add	8.94	
	02MOD-0084	For Asphalt Coated And 25% Paved, Add	18.29	
	02MOD-0085	For Smooth-Flo, Add	32.65	
02522-0013		14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Piping (02522-0002)		
02522-0014	LF	12" 14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe	25.40	7.37
	02MOD-0086	For Asphalt Coated Pipe, Add	2.04	
	02MOD-0087	For Asphalt Coated And 25% Paved, Add	4.72	
	02MOD-0088	For Smooth-Flo, Add	9.55	
02522-0015	LF	15" 14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe	28.52	7.72
	02MOD-0086	For Asphalt Coated Pipe, Add	2.56	
	02MOD-0087	For Asphalt Coated And 25% Paved, Add	5.92	
	02MOD-0088	For Smooth-Flo, Add	11.98	
02522-0016	LF	18" 14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe	31.75	8.42
	02MOD-0086	For Asphalt Coated Pipe, Add	3.09	
	02MOD-0087	For Asphalt Coated And 25% Paved, Add	7.17	
	02MOD-0088	For Smooth-Flo, Add	14.49	
02522-0017	LF	21" 14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe	35.95	9.13
	02MOD-0086	For Asphalt Coated Pipe, Add	3.68	
	02MOD-0087	For Asphalt Coated And 25% Paved, Add	8.53	
	02MOD-0088	For Smooth-Flo, Add	17.24	
02522-0018	LF	24" 14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe	39.87	9.82
	02MOD-0086	For Asphalt Coated Pipe, Add	4.17	
	02MOD-0087	For Asphalt Coated And 25% Paved, Add	9.65	
	02MOD-0088	For Smooth-Flo, Add	19.51	
02522-0019	LF	30" 14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe	52.39	12.64
	02MOD-0086	For Asphalt Coated Pipe, Add	5.35	
	02MOD-0087	For Asphalt Coated And 25% Paved, Add	12.39	
	02MOD-0088	For Smooth-Flo, Add	25.05	
02522-0020	LF	36" 14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe	67.72	16.28
	02MOD-0086	For Asphalt Coated Pipe, Add	6.70	
	02MOD-0087	For Asphalt Coated And 25% Paved, Add	15.53	
	02MOD-0088	For Smooth-Flo, Add	31.40	
02522-0021	LF	42" 14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe	76.74	19.24
	02MOD-0086	For Asphalt Coated Pipe, Add	7.89	
	02MOD-0087	For Asphalt Coated And 25% Paved, Add	18.28	
	02MOD-0088	For Smooth-Flo, Add	36.96	
02522-0022	LF	48" 14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe	86.41	22.20
	02MOD-0086	For Asphalt Coated Pipe, Add	8.87	
	02MOD-0087	For Asphalt Coated And 25% Paved, Add	20.55	
	02MOD-0088	For Smooth-Flo, Add	41.54	
02522-0023	LF	54" 14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe	102.75	25.15
	02MOD-0086	For Asphalt Coated Pipe, Add	10.91	
	02MOD-0087	For Asphalt Coated And 25% Paved, Add	25.27	
	02MOD-0088	For Smooth-Flo, Add	51.08	
02522-0024		12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Piping (02522-0002)		
02522-0025	LF	18" 12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe	37.28	8.42
	02MOD-0089	For Asphalt Coated Pipe, Add	3.54	
	02MOD-0090	For Asphalt Coated And 25% Paved, Add	6.40	
	02MOD-0091	For Smooth-Flo, Add	12.30	

02000 Site Construction**02500 Site Drainage****02522 Corrugated Metal Piping**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02522-0026	LF 21"	12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe	42.37	9.13
	02MOD-0089	For Asphalt Coated Pipe, Add	4.19	
	02MOD-0090	For Asphalt Coated And 25% Paved, Add	7.56	
	02MOD-0091	For Smooth-Flo, Add	14.54	
02522-0027	LF 24"	12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe	47.19	9.13
	02MOD-0089	For Asphalt Coated Pipe, Add	4.75	
	02MOD-0090	For Asphalt Coated And 25% Paved, Add	8.58	
	02MOD-0091	For Smooth-Flo, Add	16.48	
02522-0028	LF 30"	12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe	61.44	12.64
	02MOD-0089	For Asphalt Coated Pipe, Add	6.04	
	02MOD-0090	For Asphalt Coated And 25% Paved, Add	10.91	
	02MOD-0091	For Smooth-Flo, Add	20.96	
02522-0029	LF 36"	12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe	78.46	16.28
	02MOD-0089	For Asphalt Coated Pipe, Add	7.47	
	02MOD-0090	For Asphalt Coated And 25% Paved, Add	13.49	
	02MOD-0091	For Smooth-Flo, Add	25.92	
02522-0030	LF 42"	12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe	89.15	19.24
	02MOD-0089	For Asphalt Coated Pipe, Add	8.75	
	02MOD-0090	For Asphalt Coated And 25% Paved, Add	15.80	
	02MOD-0091	For Smooth-Flo, Add	30.37	
02522-0031	LF 48"	12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe	100.63	22.20
	02MOD-0089	For Asphalt Coated Pipe, Add	9.88	
	02MOD-0090	For Asphalt Coated And 25% Paved, Add	17.85	
	02MOD-0091	For Smooth-Flo, Add	34.30	
02522-0032	LF 54"	12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe	118.45	25.15
	02MOD-0089	For Asphalt Coated Pipe, Add	11.85	
	02MOD-0090	For Asphalt Coated And 25% Paved, Add	21.40	
	02MOD-0091	For Smooth-Flo, Add	41.12	
02522-0033	LF 60"	12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe	129.46	26.64
	02MOD-0089	For Asphalt Coated Pipe, Add	12.98	
	02MOD-0090	For Asphalt Coated And 25% Paved, Add	23.43	
	02MOD-0091	For Smooth-Flo, Add	45.03	
02522-0034	LF 66"	12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe	156.67	32.56
	02MOD-0089	For Asphalt Coated Pipe, Add	15.80	
	02MOD-0090	For Asphalt Coated And 25% Paved, Add	28.53	
	02MOD-0091	For Smooth-Flo, Add	54.82	
02522-0035		10 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Piping (02522-0002)		
02522-0036	LF 36"	10 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe	88.51	16.28
	02MOD-0092	For Asphalt Coated Pipe, Add	9.50	
	02MOD-0093	For Asphalt Coated And 25% Paved, Add	15.87	
	02MOD-0094	For Smooth-Flo, Add	22.64	
02522-0037	LF 42"	10 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe	100.91	19.24
	02MOD-0092	For Asphalt Coated Pipe, Add	11.13	
	02MOD-0093	For Asphalt Coated And 25% Paved, Add	18.59	
	02MOD-0094	For Smooth-Flo, Add	26.53	
02522-0038	LF 48"	10 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe	113.97	22.20
	02MOD-0092	For Asphalt Coated Pipe, Add	12.58	
	02MOD-0093	For Asphalt Coated And 25% Paved, Add	21.01	
	02MOD-0094	For Smooth-Flo, Add	29.98	
02522-0039	LF 54"	10 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe	133.40	25.15
	02MOD-0092	For Asphalt Coated Pipe, Add	14.90	
	02MOD-0093	For Asphalt Coated And 25% Paved, Add	24.89	
	02MOD-0094	For Smooth-Flo, Add	35.51	
02522-0040	LF 60"	10 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe	146.10	26.64
	02MOD-0092	For Asphalt Coated Pipe, Add	16.36	
	02MOD-0093	For Asphalt Coated And 25% Paved, Add	27.33	
	02MOD-0094	For Smooth-Flo, Add	39.00	
02522-0041	LF 66"	10 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe	174.96	32.56
	02MOD-0092	For Asphalt Coated Pipe, Add	19.57	
	02MOD-0093	For Asphalt Coated And 25% Paved, Add	32.70	
	02MOD-0094	For Smooth-Flo, Add	46.65	
02522-0042	LF 72"	10 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe	213.58	47.35
	02MOD-0092	For Asphalt Coated Pipe, Add	21.01	
	02MOD-0093	For Asphalt Coated And 25% Paved, Add	35.10	
	02MOD-0094	For Smooth-Flo, Add	50.09	
02522-0043		3" x 1" Corrugation, Galvanized Corrugated Steel Piping (02522-0001)		
02522-0044		16 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Piping (02522-0043)		
02522-0045	LF 36"	16 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	71.62	16.28
	02MOD-0095	For Asphalt Coated Pipe, Add	7.42	
	02MOD-0096	For Asphalt Coated And 25% Paved, Add	16.84	
	02MOD-0097	For Smooth-Flo, Add	33.53	
02522-0046	LF 42"	16 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	81.22	19.24
	02MOD-0095	For Asphalt Coated Pipe, Add	8.71	
	02MOD-0096	For Asphalt Coated And 25% Paved, Add	19.77	
	02MOD-0097	For Smooth-Flo, Add	39.37	
02522-0047	LF 48"	16 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	91.35	22.20
	02MOD-0095	For Asphalt Coated Pipe, Add	9.77	
	02MOD-0096	For Asphalt Coated And 25% Paved, Add	22.18	
	02MOD-0097	For Smooth-Flo, Add	44.16	
02522-0048	LF 54"	16 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	108.42	25.15
	02MOD-0095	For Asphalt Coated Pipe, Add	11.93	
	02MOD-0096	For Asphalt Coated And 25% Paved, Add	27.09	
	02MOD-0097	For Smooth-Flo, Add	53.94	



Site Construction			02000	02
Site Drainage			02500	
Corrugated Metal Piping			02522	

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02522-0049	LF	60" 16 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	118.14	26.64
	02MOD-0095	For Asphalt Coated Pipe, Add	13.00	
	02MOD-0096	For Asphalt Coated And 25% Paved, Add	29.51	
	02MOD-0097	For Smooth-Flo, Add	58.77	
02522-0050	LF	66" 16 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	147.25	32.56
	02MOD-0095	For Asphalt Coated Pipe, Add	16.70	
	02MOD-0096	For Asphalt Coated And 25% Paved, Add	37.91	
	02MOD-0097	For Smooth-Flo, Add	75.48	
02522-0051	LF	72" 16 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	183.18	47.35
	02MOD-0095	For Asphalt Coated Pipe, Add	17.80	
	02MOD-0096	For Asphalt Coated And 25% Paved, Add	40.41	
	02MOD-0097	For Smooth-Flo, Add	80.46	
02522-0052	LF	78" 16 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	198.12	51.79
	02MOD-0095	For Asphalt Coated Pipe, Add	18.91	
	02MOD-0096	For Asphalt Coated And 25% Paved, Add	42.92	
	02MOD-0097	For Smooth-Flo, Add	85.46	
02522-0053	LF	84" 16 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	211.04	55.49
	02MOD-0095	For Asphalt Coated Pipe, Add	20.01	
	02MOD-0096	For Asphalt Coated And 25% Paved, Add	45.42	
	02MOD-0097	For Smooth-Flo, Add	90.45	
02522-0054	LF	90" 16 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	224.00	59.20
	02MOD-0095	For Asphalt Coated Pipe, Add	21.12	
	02MOD-0096	For Asphalt Coated And 25% Paved, Add	47.94	
	02MOD-0097	For Smooth-Flo, Add	95.46	
02522-0055	LF	96" 16 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	237.44	62.89
	02MOD-0095	For Asphalt Coated Pipe, Add	22.22	
	02MOD-0096	For Asphalt Coated And 25% Paved, Add	50.44	
	02MOD-0097	For Smooth-Flo, Add	100.43	
02522-0056	LF	102" 16 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	252.98	66.59
	02MOD-0095	For Asphalt Coated Pipe, Add	23.33	
	02MOD-0096	For Asphalt Coated And 25% Paved, Add	52.97	
	02MOD-0097	For Smooth-Flo, Add	105.47	
02522-0057		14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Piping (02522-0043)		
02522-0058	LF	54" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	117.82	25.15
	02MOD-0098	For Asphalt Coated Pipe, Add	13.81	
	02MOD-0099	For Asphalt Coated And 25% Paved, Add	27.08	
	02MOD-0100	For Smooth-Flo, Add	54.70	
02522-0059	LF	60" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	128.54	26.64
	02MOD-0098	For Asphalt Coated Pipe, Add	15.08	
	02MOD-0099	For Asphalt Coated And 25% Paved, Add	29.56	
	02MOD-0100	For Smooth-Flo, Add	59.72	
02522-0060	LF	66" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	158.70	32.56
	02MOD-0098	For Asphalt Coated Pipe, Add	18.99	
	02MOD-0099	For Asphalt Coated And 25% Paved, Add	37.22	
	02MOD-0100	For Smooth-Flo, Add	75.20	
02522-0061	LF	72" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	195.65	47.35
	02MOD-0098	For Asphalt Coated Pipe, Add	20.29	
	02MOD-0099	For Asphalt Coated And 25% Paved, Add	39.78	
	02MOD-0100	For Smooth-Flo, Add	80.36	
02522-0062	LF	78" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	211.59	51.79
	02MOD-0098	For Asphalt Coated Pipe, Add	21.60	
	02MOD-0099	For Asphalt Coated And 25% Paved, Add	42.34	
	02MOD-0100	For Smooth-Flo, Add	85.54	
02522-0063	LF	84" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	225.58	55.49
	02MOD-0098	For Asphalt Coated Pipe, Add	22.92	
	02MOD-0099	For Asphalt Coated And 25% Paved, Add	44.92	
	02MOD-0100	For Smooth-Flo, Add	90.76	
02522-0064	LF	90" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	239.51	59.20
	02MOD-0098	For Asphalt Coated Pipe, Add	24.22	
	02MOD-0099	For Asphalt Coated And 25% Paved, Add	47.48	
	02MOD-0100	For Smooth-Flo, Add	95.92	
02522-0065	LF	96" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	253.98	62.89
	02MOD-0098	For Asphalt Coated Pipe, Add	25.53	
	02MOD-0099	For Asphalt Coated And 25% Paved, Add	50.03	
	02MOD-0100	For Smooth-Flo, Add	101.09	
02522-0066	LF	102" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	270.51	66.59
	02MOD-0098	For Asphalt Coated Pipe, Add	26.84	
	02MOD-0099	For Asphalt Coated And 25% Paved, Add	52.61	
	02MOD-0100	For Smooth-Flo, Add	106.29	
02522-0067	LF	108" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	288.76	74.00
	02MOD-0098	For Asphalt Coated Pipe, Add	28.15	
	02MOD-0099	For Asphalt Coated And 25% Paved, Add	55.18	
	02MOD-0100	For Smooth-Flo, Add	111.49	
02522-0068	LF	114" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	306.59	81.40
	02MOD-0098	For Asphalt Coated Pipe, Add	29.44	
	02MOD-0099	For Asphalt Coated And 25% Paved, Add	57.71	
	02MOD-0100	For Smooth-Flo, Add	116.59	
02522-0069		12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Piping (02522-0043)		
02522-0070	LF	60" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	151.62	26.64
	02MOD-0101	For Asphalt Coated Pipe, Add	19.70	
	02MOD-0102	For Asphalt Coated And 25% Paved, Add	37.52	
	02MOD-0103	For Smooth-Flo, Add	61.16	

02000 Site Construction**02500 Site Drainage****02522 Corrugated Metal Piping**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02522-0071	LF	66" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	184.26	32.56
	02MOD-0101	For Asphalt Coated Pipe, Add	24.10	
	02MOD-0102	For Asphalt Coated And 25% Paved, Add	45.91	
	02MOD-0103	For Smooth-Flo, Add	74.84	
02522-0072	LF	72" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	223.44	47.35
	02MOD-0101	For Asphalt Coated Pipe, Add	25.85	
	02MOD-0102	For Asphalt Coated And 25% Paved, Add	49.25	
	02MOD-0103	For Smooth-Flo, Add	80.27	
02522-0073	LF	78" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	241.63	51.79
	02MOD-0101	For Asphalt Coated Pipe, Add	27.61	
	02MOD-0102	For Asphalt Coated And 25% Paved, Add	52.59	
	02MOD-0103	For Smooth-Flo, Add	85.72	
02522-0074	LF	84" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	257.85	55.49
	02MOD-0101	For Asphalt Coated Pipe, Add	29.37	
	02MOD-0102	For Asphalt Coated And 25% Paved, Add	55.95	
	02MOD-0103	For Smooth-Flo, Add	91.20	
02522-0075	LF	90" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	274.04	59.20
	02MOD-0101	For Asphalt Coated Pipe, Add	31.13	
	02MOD-0102	For Asphalt Coated And 25% Paved, Add	59.30	
	02MOD-0103	For Smooth-Flo, Add	96.65	
02522-0076	LF	96" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	290.78	62.89
	02MOD-0101	For Asphalt Coated Pipe, Add	32.89	
	02MOD-0102	For Asphalt Coated And 25% Paved, Add	62.65	
	02MOD-0103	For Smooth-Flo, Add	102.12	
02522-0077	LF	102" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	309.57	66.59
	02MOD-0101	For Asphalt Coated Pipe, Add	34.65	
	02MOD-0102	For Asphalt Coated And 25% Paved, Add	66.01	
	02MOD-0103	For Smooth-Flo, Add	107.59	
02522-0078	LF	108" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	330.02	74.00
	02MOD-0101	For Asphalt Coated Pipe, Add	36.41	
	02MOD-0102	For Asphalt Coated And 25% Paved, Add	69.35	
	02MOD-0103	For Smooth-Flo, Add	113.04	
02522-0079	LF	114" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	350.13	81.40
	02MOD-0101	For Asphalt Coated Pipe, Add	38.15	
	02MOD-0102	For Asphalt Coated And 25% Paved, Add	72.68	
	02MOD-0103	For Smooth-Flo, Add	118.46	
02522-0080	LF	120" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	369.39	88.79
	02MOD-0101	For Asphalt Coated Pipe, Add	39.91	
	02MOD-0102	For Asphalt Coated And 25% Paved, Add	76.04	
	02MOD-0103	For Smooth-Flo, Add	123.93	
02522-0081		10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Piping (02522-0043)		
02522-0082	LF	72" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	249.36	47.35
	02MOD-0104	For Asphalt Coated Pipe, Add	31.04	
	02MOD-0105	For Asphalt Coated And 25% Paved, Add	58.97	
	02MOD-0106	For Smooth-Flo, Add	78.83	
02522-0083	LF	78" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	269.67	51.79
	02MOD-0104	For Asphalt Coated Pipe, Add	33.22	
	02MOD-0105	For Asphalt Coated And 25% Paved, Add	63.11	
	02MOD-0106	For Smooth-Flo, Add	84.37	
02522-0084	LF	84" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	288.02	55.49
	02MOD-0104	For Asphalt Coated Pipe, Add	35.41	
	02MOD-0105	For Asphalt Coated And 25% Paved, Add	67.27	
	02MOD-0106	For Smooth-Flo, Add	89.93	
02522-0085	LF	90" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	306.33	59.20
	02MOD-0104	For Asphalt Coated Pipe, Add	37.59	
	02MOD-0105	For Asphalt Coated And 25% Paved, Add	71.41	
	02MOD-0106	For Smooth-Flo, Add	95.47	
02522-0086	LF	96" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	325.20	62.89
	02MOD-0104	For Asphalt Coated Pipe, Add	39.77	
	02MOD-0105	For Asphalt Coated And 25% Paved, Add	75.57	
	02MOD-0106	For Smooth-Flo, Add	101.02	
02522-0087	LF	102" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	346.11	66.59
	02MOD-0104	For Asphalt Coated Pipe, Add	41.96	
	02MOD-0105	For Asphalt Coated And 25% Paved, Add	79.72	
	02MOD-0106	For Smooth-Flo, Add	106.58	
02522-0088	LF	108" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	368.70	74.00
	02MOD-0104	For Asphalt Coated Pipe, Add	44.14	
	02MOD-0105	For Asphalt Coated And 25% Paved, Add	83.87	
	02MOD-0106	For Smooth-Flo, Add	112.12	
02522-0089	LF	114" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	390.91	81.40
	02MOD-0104	For Asphalt Coated Pipe, Add	46.31	
	02MOD-0105	For Asphalt Coated And 25% Paved, Add	87.98	
	02MOD-0106	For Smooth-Flo, Add	117.62	
02522-0090	LF	120" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	412.31	88.79
	02MOD-0104	For Asphalt Coated Pipe, Add	48.50	
	02MOD-0105	For Asphalt Coated And 25% Paved, Add	92.15	
	02MOD-0106	For Smooth-Flo, Add	123.18	
02522-0091	LF	126" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	435.10	96.20
	02MOD-0104	For Asphalt Coated Pipe, Add	50.67	
	02MOD-0105	For Asphalt Coated And 25% Paved, Add	96.28	
	02MOD-0106	For Smooth-Flo, Add	128.71	
02522-0092	LF	132" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	459.75	103.59
	02MOD-0104	For Asphalt Coated Pipe, Add	52.86	
	02MOD-0105	For Asphalt Coated And 25% Paved, Add	100.43	
	02MOD-0106	For Smooth-Flo, Add	134.26	



Site Construction			02000	02
Site Drainage			02500	
Corrugated Metal Piping			02522	

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02522-0093	LF	138" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	486.69	110.99
	02MOD-0104	For Asphalt Coated Pipe, Add	55.05	
	02MOD-0105	For Asphalt Coated And 25% Paved, Add	104.60	
	02MOD-0106	For Smooth-Flo, Add	139.84	
02522-0094		125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Piping (02522-0001)		
02522-0095		16 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Piping (02522-0094)		
02522-0096	LF	48" 16 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	91.62	22.20
	02MOD-0107	For Asphalt Coated Pipe, Add	12.28	
	02MOD-0108	For Asphalt Coated And 25% Paved, Add	28.00	
	02MOD-0109	For Smooth-Flo, Add	44.45	
02522-0097	LF	54" 16 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	108.94	25.15
	02MOD-0107	For Asphalt Coated Pipe, Add	15.05	
	02MOD-0108	For Asphalt Coated And 25% Paved, Add	34.31	
	02MOD-0109	For Smooth-Flo, Add	54.47	
02522-0098	LF	60" 16 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	118.60	26.64
	02MOD-0107	For Asphalt Coated Pipe, Add	16.37	
	02MOD-0108	For Asphalt Coated And 25% Paved, Add	37.32	
	02MOD-0109	For Smooth-Flo, Add	59.25	
02522-0099	LF	66" 16 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	146.17	32.56
	02MOD-0107	For Asphalt Coated Pipe, Add	20.61	
	02MOD-0108	For Asphalt Coated And 25% Paved, Add	46.98	
	02MOD-0109	For Smooth-Flo, Add	74.59	
02522-0100	LF	72" 16 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	181.98	47.35
	02MOD-0107	For Asphalt Coated Pipe, Add	21.95	
	02MOD-0108	For Asphalt Coated And 25% Paved, Add	50.05	
	02MOD-0109	For Smooth-Flo, Add	79.46	
02522-0101	LF	78" 16 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	196.74	51.79
	02MOD-0107	For Asphalt Coated Pipe, Add	23.29	
	02MOD-0108	For Asphalt Coated And 25% Paved, Add	53.10	
	02MOD-0109	For Smooth-Flo, Add	84.30	
02522-0102	LF	84" 16 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	209.48	55.49
	02MOD-0107	For Asphalt Coated Pipe, Add	24.62	
	02MOD-0108	For Asphalt Coated And 25% Paved, Add	56.14	
	02MOD-0109	For Smooth-Flo, Add	89.13	
02522-0103	LF	90" 16 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	222.21	59.20
	02MOD-0107	For Asphalt Coated Pipe, Add	25.95	
	02MOD-0108	For Asphalt Coated And 25% Paved, Add	59.17	
	02MOD-0109	For Smooth-Flo, Add	93.95	
02522-0104	LF	96" 16 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	235.55	62.89
	02MOD-0107	For Asphalt Coated Pipe, Add	27.30	
	02MOD-0108	For Asphalt Coated And 25% Paved, Add	62.25	
	02MOD-0109	For Smooth-Flo, Add	98.84	
02522-0105	LF	102" 16 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	251.04	66.59
	02MOD-0107	For Asphalt Coated Pipe, Add	28.68	
	02MOD-0108	For Asphalt Coated And 25% Paved, Add	65.40	
	02MOD-0109	For Smooth-Flo, Add	103.83	
02522-0106		14 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Piping (02522-0094)		
02522-0107	LF	54" 14 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	120.70	25.15
	02MOD-0110	For Asphalt Coated Pipe, Add	14.39	
	02MOD-0111	For Asphalt Coated And 25% Paved, Add	33.82	
	02MOD-0112	For Smooth-Flo, Add	61.23	
02522-0108	LF	60" 14 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	131.67	26.64
	02MOD-0110	For Asphalt Coated Pipe, Add	15.71	
	02MOD-0111	For Asphalt Coated And 25% Paved, Add	36.91	
	02MOD-0112	For Smooth-Flo, Add	66.84	
02522-0109	LF	66" 14 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	160.43	32.56
	02MOD-0110	For Asphalt Coated Pipe, Add	19.34	
	02MOD-0111	For Asphalt Coated And 25% Paved, Add	45.44	
	02MOD-0112	For Smooth-Flo, Add	82.27	
02522-0110	LF	72" 14 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	197.38	47.35
	02MOD-0110	For Asphalt Coated Pipe, Add	20.64	
	02MOD-0111	For Asphalt Coated And 25% Paved, Add	48.50	
	02MOD-0112	For Smooth-Flo, Add	87.82	
02522-0111	LF	78" 14 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	213.55	51.79
	02MOD-0110	For Asphalt Coated Pipe, Add	21.99	
	02MOD-0111	For Asphalt Coated And 25% Paved, Add	51.68	
	02MOD-0112	For Smooth-Flo, Add	93.58	
02522-0112	LF	84" 14 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	227.60	55.49
	02MOD-0110	For Asphalt Coated Pipe, Add	23.32	
	02MOD-0111	For Asphalt Coated And 25% Paved, Add	54.81	
	02MOD-0112	For Smooth-Flo, Add	99.24	
02522-0113	LF	90" 14 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	240.97	59.20
	02MOD-0110	For Asphalt Coated Pipe, Add	24.51	
	02MOD-0111	For Asphalt Coated And 25% Paved, Add	57.61	
	02MOD-0112	For Smooth-Flo, Add	104.31	
02522-0114	LF	96" 14 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	256.21	62.89
	02MOD-0110	For Asphalt Coated Pipe, Add	25.97	
	02MOD-0111	For Asphalt Coated And 25% Paved, Add	61.04	
	02MOD-0112	For Smooth-Flo, Add	110.52	

02000 Site Construction**02500 Site Drainage****02522 Corrugated Metal Piping**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02522-0115	LF	102" 14 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	272.81	66.59
	02MOD-0110	For Asphalt Coated Pipe, Add	27.30	
	02MOD-0111	For Asphalt Coated And 25% Paved, Add	64.16	
	02MOD-0112	For Smooth-Flo, Add	116.16	
02522-0116	LF	108" 14 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	291.06	74.00
	02MOD-0110	For Asphalt Coated Pipe, Add	28.61	
	02MOD-0111	For Asphalt Coated And 25% Paved, Add	67.24	
	02MOD-0112	For Smooth-Flo, Add	121.75	
02522-0117	LF	114" 14 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	309.18	81.40
	02MOD-0110	For Asphalt Coated Pipe, Add	29.96	
	02MOD-0111	For Asphalt Coated And 25% Paved, Add	70.41	
	02MOD-0112	For Smooth-Flo, Add	127.48	
02522-0118 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Piping				
(02522-0094)				
02522-0119	LF	60" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	156.14	26.64
	02MOD-0113	For Asphalt Coated Pipe, Add	20.60	
	02MOD-0114	For Asphalt Coated And 25% Paved, Add	39.14	
	02MOD-0115	For Smooth-Flo, Add	70.66	
02522-0120	LF	66" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	187.38	32.56
	02MOD-0113	For Asphalt Coated Pipe, Add	24.73	
	02MOD-0114	For Asphalt Coated And 25% Paved, Add	46.98	
	02MOD-0115	For Smooth-Flo, Add	84.81	
02522-0121	LF	72" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	226.90	47.35
	02MOD-0113	For Asphalt Coated Pipe, Add	26.54	
	02MOD-0114	For Asphalt Coated And 25% Paved, Add	50.43	
	02MOD-0115	For Smooth-Flo, Add	91.05	
02522-0122	LF	78" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	245.34	51.79
	02MOD-0113	For Asphalt Coated Pipe, Add	28.35	
	02MOD-0114	For Asphalt Coated And 25% Paved, Add	53.87	
	02MOD-0115	For Smooth-Flo, Add	97.24	
02522-0123	LF	84" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	261.69	55.49
	02MOD-0113	For Asphalt Coated Pipe, Add	30.14	
	02MOD-0114	For Asphalt Coated And 25% Paved, Add	57.27	
	02MOD-0115	For Smooth-Flo, Add	103.38	
02522-0124	LF	90" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	278.17	59.20
	02MOD-0113	For Asphalt Coated Pipe, Add	31.95	
	02MOD-0114	For Asphalt Coated And 25% Paved, Add	60.71	
	02MOD-0115	For Smooth-Flo, Add	109.60	
02522-0125	LF	96" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	295.11	62.89
	02MOD-0113	For Asphalt Coated Pipe, Add	33.75	
	02MOD-0114	For Asphalt Coated And 25% Paved, Add	64.13	
	02MOD-0115	For Smooth-Flo, Add	115.78	
02522-0126	LF	102" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	314.07	66.59
	02MOD-0113	For Asphalt Coated Pipe, Add	35.55	
	02MOD-0114	For Asphalt Coated And 25% Paved, Add	67.55	
	02MOD-0115	For Smooth-Flo, Add	121.94	
02522-0127	LF	108" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	334.82	74.00
	02MOD-0113	For Asphalt Coated Pipe, Add	37.37	
	02MOD-0114	For Asphalt Coated And 25% Paved, Add	71.00	
	02MOD-0115	For Smooth-Flo, Add	128.17	
02522-0128	LF	114" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	355.21	81.40
	02MOD-0113	For Asphalt Coated Pipe, Add	39.17	
	02MOD-0114	For Asphalt Coated And 25% Paved, Add	74.42	
	02MOD-0115	For Smooth-Flo, Add	134.34	
02522-0129	LF	120" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	374.66	88.79
	02MOD-0113	For Asphalt Coated Pipe, Add	40.97	
	02MOD-0114	For Asphalt Coated And 25% Paved, Add	77.84	
	02MOD-0115	For Smooth-Flo, Add	140.52	
02522-0130 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Piping				
(02522-0094)				
02522-0131	LF	72" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	255.18	47.35
	02MOD-0116	For Asphalt Coated Pipe, Add	32.20	
	02MOD-0117	For Asphalt Coated And 25% Paved, Add	61.18	
	02MOD-0118	For Smooth-Flo, Add	96.12	
02522-0132	LF	78" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	276.24	51.79
	02MOD-0116	For Asphalt Coated Pipe, Add	34.53	
	02MOD-0117	For Asphalt Coated And 25% Paved, Add	65.61	
	02MOD-0118	For Smooth-Flo, Add	103.07	
02522-0133	LF	84" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	295.05	55.49
	02MOD-0116	For Asphalt Coated Pipe, Add	36.81	
	02MOD-0117	For Asphalt Coated And 25% Paved, Add	69.94	
	02MOD-0118	For Smooth-Flo, Add	109.88	
02522-0134	LF	90" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	313.76	59.20
	02MOD-0116	For Asphalt Coated Pipe, Add	39.07	
	02MOD-0117	For Asphalt Coated And 25% Paved, Add	74.24	
	02MOD-0118	For Smooth-Flo, Add	116.63	
02522-0135	LF	96" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	333.12	62.89
	02MOD-0116	For Asphalt Coated Pipe, Add	41.36	
	02MOD-0117	For Asphalt Coated And 25% Paved, Add	78.58	
	02MOD-0118	For Smooth-Flo, Add	123.45	
02522-0136	LF	102" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe	354.41	66.59
	02MOD-0116	For Asphalt Coated Pipe, Add	43.62	
	02MOD-0117	For Asphalt Coated And 25% Paved, Add	82.88	
	02MOD-0118	For Smooth-Flo, Add	130.21	



Site Construction			02000	02
Site Drainage			02500	
Corrugated Metal Piping			02522	

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02522-0137	LF	108" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe.....	377.50	74.00
	02MOD-0116	For Asphalt Coated Pipe, Add	45.90	
	02MOD-0117	For Asphalt Coated And 25% Paved, Add	87.21	
	02MOD-0118	For Smooth-Flo, Add	137.02	
02522-0138	LF	114" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe.....	400.27	81.40
	02MOD-0116	For Asphalt Coated Pipe, Add	48.18	
	02MOD-0117	For Asphalt Coated And 25% Paved, Add	91.54	
	02MOD-0118	For Smooth-Flo, Add	143.81	
02522-0139	LF	120" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe.....	422.03	88.79
	02MOD-0116	For Asphalt Coated Pipe, Add	50.44	
	02MOD-0117	For Asphalt Coated And 25% Paved, Add	95.84	
	02MOD-0118	For Smooth-Flo, Add	150.57	
02522-0140	LF	126" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe.....	448.90	96.20
	02MOD-0116	For Asphalt Coated Pipe, Add	53.43	
	02MOD-0117	For Asphalt Coated And 25% Paved, Add	101.52	
	02MOD-0118	For Smooth-Flo, Add	159.49	
02522-0141	LF	132" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe.....	474.93	103.59
	02MOD-0116	For Asphalt Coated Pipe, Add	55.90	
	02MOD-0117	For Asphalt Coated And 25% Paved, Add	106.20	
	02MOD-0118	For Smooth-Flo, Add	166.85	
02522-0142	LF	138" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe.....	503.70	110.99
	02MOD-0116	For Asphalt Coated Pipe, Add	58.46	
	02MOD-0117	For Asphalt Coated And 25% Paved, Add	111.07	
	02MOD-0118	For Smooth-Flo, Add	174.49	
02522-0143		1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Piping (02522-0001)		
02522-0144		1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Piping (02522-0143)		
02522-0145	LF	6" 18 Gauge, 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe.....	12.37	4.21
	02MOD-0119	For Asphalt Coated Pipe, Add	0.97	
02522-0146	LF	6" 16 Gauge, 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe.....	13.17	4.21
	02MOD-0119	For Asphalt Coated Pipe, Add	1.16	
02522-0147	LF	8" 18 Gauge, 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe.....	15.43	5.27
	02MOD-0119	For Asphalt Coated Pipe, Add	1.28	
02522-0148	LF	8" 16 Gauge, 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe.....	16.46	5.27
	02MOD-0119	For Asphalt Coated Pipe, Add	1.53	
02522-0149	LF	10" 18 Gauge, 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe.....	19.52	6.31
	02MOD-0119	For Asphalt Coated Pipe, Add	1.61	
02522-0150	LF	10" 16 Gauge, 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe.....	20.82	6.31
	02MOD-0119	For Asphalt Coated Pipe, Add	1.93	
02522-0151		Perforated, 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Piping (02522-0143)		
02522-0152	LF	6" 18 Gauge, Perforated, 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe.....	12.48	4.21
	02MOD-0120	For Asphalt Coated Pipe, Add	0.95	
02522-0153	LF	6" 16 Gauge, Perforated, 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe.....	13.26	4.21
	02MOD-0120	For Asphalt Coated Pipe, Add	1.14	
02522-0154	LF	8" 18 Gauge, Perforated, 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe.....	15.55	5.27
	02MOD-0120	For Asphalt Coated Pipe, Add	1.25	
02522-0155	LF	8" 16 Gauge, Perforated, 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe.....	16.63	5.27
	02MOD-0120	For Asphalt Coated Pipe, Add	1.51	
02522-0156	LF	10" 18 Gauge, Perforated, 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe.....	19.72	6.31
	02MOD-0120	For Asphalt Coated Pipe, Add	1.59	
02522-0157	LF	10" 16 Gauge, Perforated, 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe.....	21.05	6.31
	02MOD-0120	For Asphalt Coated Pipe, Add	1.90	
02522-0158		1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe Fittings (02522-0143)		
02522-0159	EA	6" 18 Gauge, Connection Band For 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe.....	5.97	
	02MOD-0121	For Asphalt Coated Pipe, Add	1.34	
02522-0160	EA	8" 18 Gauge, Connection Band For 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe.....	7.91	
	02MOD-0121	For Asphalt Coated Pipe, Add	1.78	
02522-0161	EA	10" 18 Gauge, Connection Band For 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe.....	9.69	
	02MOD-0121	For Asphalt Coated Pipe, Add	2.18	
02522-0162	EA	6" 18 Gauge, Band Elbows For 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe.....	21.54	
	02MOD-0122	For Asphalt Coated Pipe, Add	2.97	
02522-0163	EA	6" End Caps For 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe.....	5.83	
	02MOD-0123	For Asphalt Coated Pipe, Add	0.68	
02522-0164	EA	8" End Caps For 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe.....	7.21	
	02MOD-0123	For Asphalt Coated Pipe, Add	1.02	
02522-0165		2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Piping (02522-0001)		
02522-0166		16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Piping (02522-0165)		
02522-0167	LF	12" 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	35.46	7.37
02522-0168	LF	15" 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	41.25	7.72
02522-0169	LF	18" 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	47.20	8.42
02522-0170	LF	21" 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	54.52	9.13
02522-0171	LF	24" 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	60.68	9.82
02522-0172	LF	30" 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	79.61	12.64
02522-0173	LF	36" 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	102.32	16.28
02522-0174	LF	42" 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	117.86	19.24
02522-0175	LF	48" 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	132.33	22.20

02000 Site Construction**02500 Site Drainage****02522 Corrugated Metal Piping**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02522-0176 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Piping (02522-0165)				
02522-0177	LF	12" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	39.83	7.37
02522-0178	LF	15" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	46.65	7.72
02522-0179	LF	18" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	53.68	8.42
02522-0180	LF	21" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	62.01	9.13
02522-0181	LF	24" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	69.39	9.82
02522-0182	LF	30" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	90.30	12.64
02522-0183	LF	36" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	115.22	16.28
02522-0184	LF	42" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	132.66	19.24
02522-0185	LF	48" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	149.23	22.20
02522-0186	LF	54" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	180.02	25.15
02522-0187 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Piping (02522-0165)				
02522-0188	LF	18" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	67.17	8.42
02522-0189	LF	21" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	77.77	9.13
02522-0190	LF	24" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	87.30	9.82
02522-0191	LF	30" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	112.68	12.64
02522-0192	LF	36" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	136.58	16.28
02522-0193	LF	42" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	163.96	19.24
02522-0194	LF	48" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	184.95	22.20
02522-0195	LF	54" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	220.78	25.15
02522-0196	LF	60" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	241.22	26.64
02522-0197	LF	66" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	295.10	32.56
02522-0198 10 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Piping (02522-0165)				
02522-0199	LF	36" 10 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	166.59	16.28
02522-0200	LF	42" 10 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	192.47	19.24
02522-0201	LF	48" 10 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	217.33	22.20
02522-0202	LF	54" 10 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	257.06	25.15
02522-0203	LF	60" 10 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	281.61	26.64
02522-0204	LF	66" 10 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	339.46	32.56
02522-0205	LF	72" 10 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	389.78	47.35
02522-0206 3" x 1" Corrugation, Polymeric Corrugated Steel Piping (02522-0001)				
02522-0207 16 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Piping (02522-0206)				
02522-0208	LF	36" 16 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	127.08	16.28
02522-0209	LF	42" 16 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	146.42	19.24
02522-0210	LF	48" 16 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	164.35	22.20
02522-0211	LF	54" 16 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	198.23	25.15
02522-0212	LF	60" 16 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	215.86	26.64
02522-0213	LF	66" 16 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	273.87	32.56
02522-0214	LF	72" 16 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	317.98	47.35
02522-0215	LF	78" 16 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	341.06	51.79
02522-0216	LF	84" 16 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	362.18	55.49
02522-0217	LF	90" 16 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	383.32	59.20
02522-0218	LF	96" 16 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	404.93	62.89
02522-0219	LF	102" 16 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	428.69	66.59
02522-0220 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Piping (02522-0206)				
02522-0221	LF	54" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	221.56	25.15
02522-0222	LF	60" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	241.64	26.64
02522-0223	LF	66" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	302.27	32.56
02522-0224	LF	72" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	348.87	47.35
02522-0225	LF	78" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	374.47	51.79
02522-0226	LF	84" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	398.20	55.49
02522-0227	LF	90" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	421.80	59.20
02522-0228	LF	96" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	445.91	62.89
02522-0229	LF	102" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	472.22	66.59
02522-0230	LF	108" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	500.16	74.00
02522-0231	LF	114" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	527.52	81.40
02522-0232 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Piping (02522-0206)				
02522-0233	LF	60" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	300.30	26.64
02522-0234	LF	66" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	367.52	32.56
02522-0235	LF	72" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	419.77	47.35
02522-0236	LF	78" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	451.06	51.79
02522-0237	LF	84" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	480.46	55.49
02522-0238	LF	90" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	509.74	59.20
02522-0239	LF	96" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	539.59	62.89
02522-0240	LF	102" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	571.54	66.59
02522-0241	LF	108" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	605.10	74.00
02522-0242	LF	114" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	638.23	81.40
02522-0243	LF	120" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	670.66	88.79



Site Construction			02000	02
Site Drainage			02500	
Corrugated Metal Piping			02522	

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02522-0244		10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Piping (02522-0206)		
02522-0245	LF	72" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	484.39	47.35
02522-0246	LF	78" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	520.94	51.79
02522-0247	LF	84" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	555.64	55.49
02522-0248	LF	90" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	590.21	59.20
02522-0249	LF	96" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	625.38	62.89
02522-0250	LF	102" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	662.63	66.59
02522-0251	LF	108" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	701.50	74.00
02522-0252	LF	114" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	739.90	81.40
02522-0253	LF	120" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	777.64	88.79
02522-0254	LF	126" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	816.65	96.20
02522-0255	LF	132" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	857.64	103.59
02522-0256	LF	138" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	900.93	110.99
02522-0257		125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Piping (02522-0001)		
02522-0258		16 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Piping (02522-0257)		
02522-0259	LF	48" 16 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	159.33	22.20
02522-0260	LF	54" 16 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	192.70	25.15
02522-0261	LF	60" 16 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	209.52	26.64
02522-0262	LF	66" 16 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	262.09	32.56
02522-0263	LF	72" 16 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	305.23	47.35
02522-0264	LF	78" 16 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	327.31	51.79
02522-0265	LF	84" 16 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	347.29	55.49
02522-0266	LF	90" 16 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	367.23	59.20
02522-0267	LF	96" 16 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	387.89	62.89
02522-0268	LF	102" 16 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	410.95	66.59
02522-0269		14 Gauge, 125mm x 25mm Corrugation, Polymeric Corrugated Steel Piping (02522-0257)		
02522-0270	LF	54" 14 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	220.40	25.15
02522-0271	LF	60" 14 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	240.38	26.64
02522-0272	LF	66" 14 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	295.74	32.56
02522-0273	LF	72" 14 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	341.59	47.35
02522-0274	LF	78" 14 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	366.95	51.79
02522-0275	LF	84" 14 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	390.02	55.49
02522-0276	LF	90" 14 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	411.51	59.20
02522-0277	LF	96" 14 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	436.67	62.89
02522-0278	LF	102" 14 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	462.31	66.59
02522-0279	LF	108" 14 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	489.47	74.00
02522-0280	LF	114" 14 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	516.75	81.40
02522-0281		12 Gauge, 125mm x 25mm Corrugation, Polymeric Corrugated Steel Piping (02522-0257)		
02522-0282	LF	60" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	302.22	26.64
02522-0283	LF	66" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	364.16	32.56
02522-0284	LF	72" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	416.48	47.35
02522-0285	LF	78" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	447.53	51.79
02522-0286	LF	84" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	476.39	55.49
02522-0287	LF	90" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	505.61	59.20
02522-0288	LF	96" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	535.18	62.89
02522-0289	LF	102" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	566.70	66.59
02522-0290	LF	108" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	600.18	74.00
02522-0291	LF	114" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	633.20	81.40
02522-0292	LF	120" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	665.26	88.79
02522-0293		10 Gauge, 125mm x 25mm Corrugation, Polymeric Corrugated Steel Piping (02522-0257)		
02522-0294	LF	72" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	484.36	47.35
02522-0295	LF	78" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	521.72	51.79
02522-0296	LF	84" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	556.53	55.49
02522-0297	LF	90" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	591.09	59.20
02522-0298	LF	96" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	626.41	62.89
02522-0299	LF	102" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	663.61	66.59
02522-0300	LF	108" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	702.64	74.00
02522-0301	LF	114" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	741.36	81.40
02522-0302	LF	120" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	779.02	88.79
02522-0303	LF	126" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	826.81	96.20
02522-0304	LF	132" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	870.13	103.59
02522-0305	LF	138" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	916.83	110.99
02522-0306		Galvanized Corrugated Steel Pipe-Arch (02522)		
02522-0307		2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch (02522-0306)		
02522-0308		16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch (02522-0307)		

02000 Site Construction**02500 Site Drainage****02522 Corrugated Metal Piping**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02522-0309	LF	17" x 13" 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	26.91	7.72
	02MOD-0124	For Asphalt Coated Pipe, Add	2.75	
	02MOD-0125	For Asphalt Coated And 25% Paved, Add	6.65	
	02MOD-0126	For Smooth-Flo, Add	10.97	
02522-0310	LF	21" x 15" 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	29.63	8.42
	02MOD-0124	For Asphalt Coated Pipe, Add	3.29	
	02MOD-0125	For Asphalt Coated And 25% Paved, Add	7.95	
	02MOD-0126	For Smooth-Flo, Add	13.11	
02522-0311	LF	24" x 18" 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	33.62	9.13
	02MOD-0124	For Asphalt Coated Pipe, Add	3.96	
	02MOD-0125	For Asphalt Coated And 25% Paved, Add	9.57	
	02MOD-0126	For Smooth-Flo, Add	15.78	
02522-0312	LF	28" x 20" 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	37.56	9.82
	02MOD-0124	For Asphalt Coated Pipe, Add	4.56	
	02MOD-0125	For Asphalt Coated And 25% Paved, Add	11.02	
	02MOD-0126	For Smooth-Flo, Add	18.18	
02522-0313	LF	35" x 24" 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	49.16	12.64
	02MOD-0124	For Asphalt Coated Pipe, Add	5.79	
	02MOD-0125	For Asphalt Coated And 25% Paved, Add	14.00	
	02MOD-0126	For Smooth-Flo, Add	23.09	
02522-0314	LF	42" x 29" 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	64.51	16.28
	02MOD-0124	For Asphalt Coated Pipe, Add	7.47	
	02MOD-0125	For Asphalt Coated And 25% Paved, Add	18.05	
	02MOD-0126	For Smooth-Flo, Add	29.77	
02522-0315		14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch (02522-0307)		
02522-0316	LF	17" x 13" 14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	29.14	7.72
	02MOD-0127	For Asphalt Coated Pipe, Add	2.86	
	02MOD-0128	For Asphalt Coated And 25% Paved, Add	6.68	
	02MOD-0129	For Smooth-Flo, Add	10.96	
02522-0317	LF	21" x 15" 14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	32.36	8.42
	02MOD-0127	For Asphalt Coated Pipe, Add	3.42	
	02MOD-0128	For Asphalt Coated And 25% Paved, Add	8.01	
	02MOD-0129	For Smooth-Flo, Add	13.14	
02522-0318	LF	24" x 18" 14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	36.66	9.13
	02MOD-0127	For Asphalt Coated Pipe, Add	4.07	
	02MOD-0128	For Asphalt Coated And 25% Paved, Add	9.52	
	02MOD-0129	For Smooth-Flo, Add	15.62	
02522-0319	LF	28" x 20" 14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	41.08	9.82
	02MOD-0127	For Asphalt Coated Pipe, Add	4.69	
	02MOD-0128	For Asphalt Coated And 25% Paved, Add	10.98	
	02MOD-0129	For Smooth-Flo, Add	18.01	
02522-0320	LF	35" x 24" 14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	53.56	12.64
	02MOD-0127	For Asphalt Coated Pipe, Add	5.94	
	02MOD-0128	For Asphalt Coated And 25% Paved, Add	13.91	
	02MOD-0129	For Smooth-Flo, Add	22.81	
02522-0321	LF	42" x 29" 14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	69.74	16.28
	02MOD-0127	For Asphalt Coated Pipe, Add	7.57	
	02MOD-0128	For Asphalt Coated And 25% Paved, Add	17.71	
	02MOD-0129	For Smooth-Flo, Add	29.05	
02522-0322	LF	49" x 33" 14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	79.62	19.24
	02MOD-0127	For Asphalt Coated Pipe, Add	9.02	
	02MOD-0128	For Asphalt Coated And 25% Paved, Add	21.10	
	02MOD-0129	For Smooth-Flo, Add	34.61	
02522-0323		12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch (02522-0307)		
02522-0324	LF	21" x 15" 12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	41.62	8.88
	02MOD-0130	For Asphalt Coated Pipe, Add	3.70	
	02MOD-0131	For Asphalt Coated And 25% Paved, Add	8.24	
	02MOD-0132	For Smooth-Flo, Add	12.67	
02522-0325	LF	24" x 18" 12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	47.20	9.62
	02MOD-0130	For Asphalt Coated Pipe, Add	4.39	
	02MOD-0131	For Asphalt Coated And 25% Paved, Add	9.78	
	02MOD-0132	For Smooth-Flo, Add	15.03	
02522-0326	LF	28" x 20" 12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	52.81	10.36
	02MOD-0130	For Asphalt Coated Pipe, Add	5.04	
	02MOD-0131	For Asphalt Coated And 25% Paved, Add	11.22	
	02MOD-0132	For Smooth-Flo, Add	17.24	
02522-0327	LF	35" x 24" 12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	68.55	13.32
	02MOD-0130	For Asphalt Coated Pipe, Add	6.34	
	02MOD-0131	For Asphalt Coated And 25% Paved, Add	14.12	
	02MOD-0132	For Smooth-Flo, Add	21.71	
02522-0328	LF	42" x 29" 12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	80.42	16.28
	02MOD-0130	For Asphalt Coated Pipe, Add	7.94	
	02MOD-0131	For Asphalt Coated And 25% Paved, Add	17.67	
	02MOD-0132	For Smooth-Flo, Add	27.17	
02522-0329	LF	49" x 33" 12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	91.94	19.24
	02MOD-0130	For Asphalt Coated Pipe, Add	9.39	
	02MOD-0131	For Asphalt Coated And 25% Paved, Add	20.89	
	02MOD-0132	For Smooth-Flo, Add	32.13	
02522-0330	LF	57" x 38" 12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	106.86	22.20
	02MOD-0130	For Asphalt Coated Pipe, Add	11.13	
	02MOD-0131	For Asphalt Coated And 25% Paved, Add	24.78	
	02MOD-0132	For Smooth-Flo, Add	38.10	



Site Construction			02000	02
Site Drainage			02500	
Corrugated Metal Piping			02522	

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02522-0331	LF	64" x 43" 12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	119.82	25.15
02MOD-0130		For Asphalt Coated Pipe, Add	12.30	
02MOD-0131		For Asphalt Coated And 25% Paved, Add	27.36	
02MOD-0132		For Smooth-Flo, Add	42.07	
02522-0332		10 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch (02522-0307)		
02522-0333	LF	42" x 29" 10 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	90.47	16.28
02MOD-0133		For Asphalt Coated Pipe, Add	9.57	
02MOD-0134		For Asphalt Coated And 25% Paved, Add	20.14	
02MOD-0135		For Smooth-Flo, Add	25.40	
02522-0334	LF	49" x 33" 10 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	103.66	19.24
02MOD-0133		For Asphalt Coated Pipe, Add	11.28	
02MOD-0134		For Asphalt Coated And 25% Paved, Add	23.76	
02MOD-0135		For Smooth-Flo, Add	29.96	
02522-0335	LF	57" x 38" 10 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	120.14	22.20
02MOD-0133		For Asphalt Coated Pipe, Add	13.28	
02MOD-0134		For Asphalt Coated And 25% Paved, Add	27.95	
02MOD-0135		For Smooth-Flo, Add	35.25	
02522-0336	LF	64" x 43" 10 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	134.84	25.15
02MOD-0133		For Asphalt Coated Pipe, Add	14.72	
02MOD-0134		For Asphalt Coated And 25% Paved, Add	30.99	
02MOD-0135		For Smooth-Flo, Add	39.08	
02522-0337	LF	71" x 47" 10 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	147.64	26.64
02MOD-0133		For Asphalt Coated Pipe, Add	16.16	
02MOD-0134		For Asphalt Coated And 25% Paved, Add	34.02	
02MOD-0135		For Smooth-Flo, Add	42.91	
02522-0338		3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch (02522-0306)		
02522-0339		14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch (02522-0338)		
02522-0340	LF	60" x 46" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	119.68	25.15
02MOD-0136		For Asphalt Coated Pipe, Add	14.19	
02MOD-0137		For Asphalt Coated And 25% Paved, Add	43.13	
02MOD-0138		For Smooth-Flo, Add	48.23	
02522-0341	LF	66" x 51" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	130.75	26.64
02MOD-0136		For Asphalt Coated Pipe, Add	15.52	
02MOD-0137		For Asphalt Coated And 25% Paved, Add	47.19	
02MOD-0138		For Smooth-Flo, Add	52.78	
02522-0342	LF	73" x 55" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	161.24	32.56
02MOD-0136		For Asphalt Coated Pipe, Add	19.50	
02MOD-0137		For Asphalt Coated And 25% Paved, Add	59.27	
02MOD-0138		For Smooth-Flo, Add	66.29	
02522-0343	LF	81" x 59" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	198.70	47.35
02MOD-0136		For Asphalt Coated Pipe, Add	20.90	
02MOD-0137		For Asphalt Coated And 25% Paved, Add	63.55	
02MOD-0138		For Smooth-Flo, Add	71.07	
02522-0344	LF	87" x 63" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	215.49	51.79
02MOD-0136		For Asphalt Coated Pipe, Add	22.38	
02MOD-0137		For Asphalt Coated And 25% Paved, Add	68.04	
02MOD-0138		For Smooth-Flo, Add	76.09	
02522-0345	LF	95" x 67" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	230.31	55.49
02MOD-0136		For Asphalt Coated Pipe, Add	23.86	
02MOD-0137		For Asphalt Coated And 25% Paved, Add	72.55	
02MOD-0138		For Smooth-Flo, Add	81.14	
02522-0346	LF	103" x 71" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	245.10	59.20
02MOD-0136		For Asphalt Coated Pipe, Add	25.34	
02MOD-0137		For Asphalt Coated And 25% Paved, Add	77.03	
02MOD-0138		For Smooth-Flo, Add	86.16	
02522-0347	LF	112" x 75" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	260.40	62.89
02MOD-0136		For Asphalt Coated Pipe, Add	26.81	
02MOD-0137		For Asphalt Coated And 25% Paved, Add	81.51	
02MOD-0138		For Smooth-Flo, Add	91.16	
02522-0348		12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch (02522-0338)		
02522-0349	LF	66" x 51" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	153.85	26.64
02MOD-0139		For Asphalt Coated Pipe, Add	20.14	
02MOD-0140		For Asphalt Coated And 25% Paved, Add	52.78	
02MOD-0141		For Smooth-Flo, Add	62.45	
02522-0350	LF	73" x 55" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	186.86	32.56
02MOD-0139		For Asphalt Coated Pipe, Add	24.62	
02MOD-0140		For Asphalt Coated And 25% Paved, Add	64.51	
02MOD-0141		For Smooth-Flo, Add	76.33	
02522-0351	LF	81" x 59" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	226.59	47.35
02MOD-0139		For Asphalt Coated Pipe, Add	26.48	
02MOD-0140		For Asphalt Coated And 25% Paved, Add	69.38	
02MOD-0141		For Smooth-Flo, Add	82.09	
02522-0352	LF	87" x 63" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	245.63	51.79
02MOD-0139		For Asphalt Coated Pipe, Add	28.41	
02MOD-0140		For Asphalt Coated And 25% Paved, Add	74.43	
02MOD-0141		For Smooth-Flo, Add	88.06	
02522-0353	LF	95" x 67" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	262.71	55.49
02MOD-0139		For Asphalt Coated Pipe, Add	30.34	
02MOD-0140		For Asphalt Coated And 25% Paved, Add	79.50	
02MOD-0141		For Smooth-Flo, Add	94.07	

02000 Site Construction**02500 Site Drainage****02522 Corrugated Metal Piping**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02522-0354	LF	103" x 71" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	279.77	59.20
	02MOD-0139	For Asphalt Coated Pipe, Add	32.27	
	02MOD-0140	For Asphalt Coated And 25% Paved, Add	84.56	
	02MOD-0141	For Smooth-Flo, Add	100.05	
02522-0355	LF	112" x 75" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	297.32	62.89
	02MOD-0139	For Asphalt Coated Pipe, Add	34.20	
	02MOD-0140	For Asphalt Coated And 25% Paved, Add	89.59	
	02MOD-0141	For Smooth-Flo, Add	106.01	
02522-0356	LF	117" x 79" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	317.01	66.59
	02MOD-0139	For Asphalt Coated Pipe, Add	36.14	
	02MOD-0140	For Asphalt Coated And 25% Paved, Add	94.69	
	02MOD-0141	For Smooth-Flo, Add	112.03	
02522-0357	LF	128" x 83" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	338.34	74.00
	02MOD-0139	For Asphalt Coated Pipe, Add	38.07	
	02MOD-0140	For Asphalt Coated And 25% Paved, Add	99.74	
	02MOD-0141	For Smooth-Flo, Add	118.02	
02522-0358	LF	137" x 87" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	360.34	81.40
	02MOD-0139	For Asphalt Coated Pipe, Add	40.19	
	02MOD-0140	For Asphalt Coated And 25% Paved, Add	105.30	
	02MOD-0141	For Smooth-Flo, Add	124.60	
02522-0359		10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch (02522-0338)		
02522-0360	LF	81" x 59" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	252.51	47.35
	02MOD-0142	For Asphalt Coated Pipe, Add	31.67	
	02MOD-0143	For Asphalt Coated And 25% Paved, Add	75.37	
	02MOD-0144	For Smooth-Flo, Add	81.86	
02522-0361	LF	87" x 63" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	273.70	51.79
	02MOD-0142	For Asphalt Coated Pipe, Add	34.02	
	02MOD-0143	For Asphalt Coated And 25% Paved, Add	80.97	
	02MOD-0144	For Smooth-Flo, Add	87.95	
02522-0362	LF	95" x 67" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	292.90	55.49
	02MOD-0142	For Asphalt Coated Pipe, Add	36.38	
	02MOD-0143	For Asphalt Coated And 25% Paved, Add	86.59	
	02MOD-0144	For Smooth-Flo, Add	94.05	
02522-0363	LF	103" x 71" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	312.05	59.20
	02MOD-0142	For Asphalt Coated Pipe, Add	38.73	
	02MOD-0143	For Asphalt Coated And 25% Paved, Add	92.18	
	02MOD-0144	For Smooth-Flo, Add	100.12	
02522-0364	LF	112" x 75" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	331.74	62.89
	02MOD-0142	For Asphalt Coated Pipe, Add	41.08	
	02MOD-0143	For Asphalt Coated And 25% Paved, Add	97.77	
	02MOD-0144	For Smooth-Flo, Add	106.19	
02522-0365	LF	117" x 79" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	353.54	66.59
	02MOD-0142	For Asphalt Coated Pipe, Add	43.45	
	02MOD-0143	For Asphalt Coated And 25% Paved, Add	103.40	
	02MOD-0144	For Smooth-Flo, Add	112.31	
02522-0366	LF	128" x 83" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	377.00	74.00
	02MOD-0142	For Asphalt Coated Pipe, Add	45.80	
	02MOD-0143	For Asphalt Coated And 25% Paved, Add	109.01	
	02MOD-0144	For Smooth-Flo, Add	118.40	
02522-0367	LF	137" x 87" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	400.96	81.40
	02MOD-0142	For Asphalt Coated Pipe, Add	48.32	
	02MOD-0143	For Asphalt Coated And 25% Paved, Add	114.99	
	02MOD-0144	For Smooth-Flo, Add	124.90	
02522-0368	LF	142" x 91" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch.....	426.49	88.79
	02MOD-0142	For Asphalt Coated Pipe, Add	51.33	
	02MOD-0143	For Asphalt Coated And 25% Paved, Add	122.17	
	02MOD-0144	For Smooth-Flo, Add	132.70	
02522-0369		125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch (02522-0306)		
02522-0370		12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch (02522-0369)		
02522-0371	LF	81" x 59" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch	229.14	47.35
	02MOD-0145	For Asphalt Coated Pipe, Add	26.99	
	02MOD-0146	For Asphalt Coated And 25% Paved, Add	65.86	
	02MOD-0147	For Smooth-Flo, Add	83.81	
02522-0372	LF	87" x 63" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch	247.93	51.79
	02MOD-0145	For Asphalt Coated Pipe, Add	28.87	
	02MOD-0146	For Asphalt Coated And 25% Paved, Add	70.44	
	02MOD-0147	For Smooth-Flo, Add	89.64	
02522-0373	LF	95" x 67" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch	264.61	55.49
	02MOD-0145	For Asphalt Coated Pipe, Add	30.72	
	02MOD-0146	For Asphalt Coated And 25% Paved, Add	74.97	
	02MOD-0147	For Smooth-Flo, Add	95.40	
02522-0374	LF	103" x 71" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch	281.29	59.20
	02MOD-0145	For Asphalt Coated Pipe, Add	32.58	
	02MOD-0146	For Asphalt Coated And 25% Paved, Add	79.49	
	02MOD-0147	For Smooth-Flo, Add	101.15	
02522-0375	LF	112" x 75" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch	298.57	62.89
	02MOD-0145	For Asphalt Coated Pipe, Add	34.45	
	02MOD-0146	For Asphalt Coated And 25% Paved, Add	84.05	
	02MOD-0147	For Smooth-Flo, Add	106.95	



Site Construction			02000	02
Site Drainage			02500	
Corrugated Metal Piping			02522	

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02522-0376	LF	117" x 79" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch	318.05	66.59
	02MOD-0145	For Asphalt Coated Pipe, Add	36.35	
	02MOD-0146	For Asphalt Coated And 25% Paved, Add	88.69	
	02MOD-0147	For Smooth-Flo, Add	112.86	
02522-0377	LF	128" x 83" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch	339.18	74.00
	02MOD-0145	For Asphalt Coated Pipe, Add	38.24	
	02MOD-0146	For Asphalt Coated And 25% Paved, Add	93.30	
	02MOD-0147	For Smooth-Flo, Add	118.73	
02522-0378	LF	137" x 87" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch	362.41	81.40
	02MOD-0145	For Asphalt Coated Pipe, Add	40.61	
	02MOD-0146	For Asphalt Coated And 25% Paved, Add	99.08	
	02MOD-0147	For Smooth-Flo, Add	126.08	
02522-0379		10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch (02522-0369)		
02522-0380	LF	81" x 59" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch	257.82	47.35
	02MOD-0148	For Asphalt Coated Pipe, Add	32.73	
	02MOD-0149	For Asphalt Coated And 25% Paved, Add	73.97	
	02MOD-0150	For Smooth-Flo, Add	80.35	
02522-0381	LF	87" x 63" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch	278.91	51.79
	02MOD-0148	For Asphalt Coated Pipe, Add	35.06	
	02MOD-0149	For Asphalt Coated And 25% Paved, Add	79.24	
	02MOD-0150	For Smooth-Flo, Add	86.08	
02522-0382	LF	95" x 67" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch	297.92	55.49
	02MOD-0148	For Asphalt Coated Pipe, Add	37.39	
	02MOD-0149	For Asphalt Coated And 25% Paved, Add	84.49	
	02MOD-0150	For Smooth-Flo, Add	91.78	
02522-0383	LF	103" x 71" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch	317.01	59.20
	02MOD-0148	For Asphalt Coated Pipe, Add	39.72	
	02MOD-0149	For Asphalt Coated And 25% Paved, Add	89.77	
	02MOD-0150	For Smooth-Flo, Add	97.52	
02522-0384	LF	112" x 75" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch	336.23	62.89
	02MOD-0148	For Asphalt Coated Pipe, Add	41.98	
	02MOD-0149	For Asphalt Coated And 25% Paved, Add	94.87	
	02MOD-0150	For Smooth-Flo, Add	103.06	
02522-0385	LF	117" x 79" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch	358.35	66.59
	02MOD-0148	For Asphalt Coated Pipe, Add	44.41	
	02MOD-0149	For Asphalt Coated And 25% Paved, Add	100.36	
	02MOD-0150	For Smooth-Flo, Add	109.02	
02522-0386	LF	128" x 83" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch	381.85	74.00
	02MOD-0148	For Asphalt Coated Pipe, Add	46.77	
	02MOD-0149	For Asphalt Coated And 25% Paved, Add	105.70	
	02MOD-0150	For Smooth-Flo, Add	114.83	
02522-0387	LF	137" x 87" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch	407.44	81.40
	02MOD-0148	For Asphalt Coated Pipe, Add	49.61	
	02MOD-0149	For Asphalt Coated And 25% Paved, Add	112.12	
	02MOD-0150	For Smooth-Flo, Add	121.80	
02522-0388	LF	142" x 91" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch	431.29	88.79
	02MOD-0148	For Asphalt Coated Pipe, Add	52.29	
	02MOD-0149	For Asphalt Coated And 25% Paved, Add	118.18	
	02MOD-0150	For Smooth-Flo, Add	128.38	
02522-0389		2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch (02522-0306)		
02522-0390		16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch (02522-0389)		
02522-0391	LF	17" x 13" 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	41.29	7.72
02522-0392	LF	21" x 15" 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	46.81	8.42
02522-0393	LF	24" x 18" 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	54.35	9.13
02522-0394	LF	28" x 20" 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	61.48	9.82
02522-0395	LF	35" x 24" 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	79.63	12.64
02522-0396	LF	42" x 29" 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	104.10	16.28
02522-0397		14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch (02522-0389)		
02522-0398	LF	17" x 13" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	46.42	7.72
02522-0399	LF	21" x 15" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	53.08	8.42
02522-0400	LF	24" x 18" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	61.35	9.13
02522-0401	LF	28" x 20" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	69.61	9.82
02522-0402	LF	35" x 24" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	89.75	12.64
02522-0403	LF	42" x 29" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	116.13	16.28
02522-0404	LF	49" x 33" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	134.99	19.24
02522-0405		12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch (02522-0389)		
02522-0406	LF	21" x 15" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	68.44	8.42
02522-0407	LF	24" x 18" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	79.55	9.13
02522-0408	LF	28" x 20" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	90.23	9.82
02522-0409	LF	35" x 24" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	115.47	12.64
02522-0410	LF	42" x 29" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	147.20	16.28
02522-0411	LF	49" x 33" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	171.18	19.24
02522-0412	LF	57" x 38" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	201.47	22.20
02522-0413	LF	64" x 43" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	224.02	25.15

02000 Site Construction**02500 Site Drainage****02522 Corrugated Metal Piping**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02522-0414		10 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch (02522-0389)		
02522-0415	LF	42" x 29" 10 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	171.57	16.28
02522-0416	LF	49" x 33" 10 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	199.61	19.24
02522-0417	LF	57" x 38" 10 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	233.71	22.20
02522-0418	LF	64" x 43" 10 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	260.47	25.15
02522-0419	LF	64" x 43" 10 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	285.28	26.64
02522-0420		3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch (02522-0306)		
02522-0421		14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch (02522-0420)		
02522-0422	LF	60" x 46" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	226.14	25.15
02522-0423	LF	66" x 51" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	247.03	26.64
02522-0424	LF	73" x 55" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	308.52	32.56
02522-0425	LF	81" x 59" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	356.37	47.35
02522-0426	LF	87" x 63" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	384.10	51.79
02522-0427	LF	95" x 67" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	409.90	55.49
02522-0428	LF	103" x 71" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	435.61	59.20
02522-0429	LF	112" x 75" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	461.89	62.89
02522-0430		12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch (02522-0420)		
02522-0431	LF	66" x 51" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	305.80	26.64
02522-0432	LF	73" x 55" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	373.94	32.56
02522-0433	LF	81" x 59" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	427.57	47.35
02522-0434	LF	87" x 63" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	460.98	51.79
02522-0435	LF	95" x 67" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	492.48	55.49
02522-0436	LF	103" x 71" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	523.96	59.20
02522-0437	LF	112" x 75" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	555.89	62.89
02522-0438	LF	117" x 79" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	590.04	66.59
02522-0439	LF	128" x 83" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	625.79	74.00
02522-0440	LF	137" x 87" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	663.65	81.40
02522-0441		10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch (02522-0420)		
02522-0442	LF	81" x 59" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	492.17	47.35
02522-0443	LF	87" x 63" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	530.91	51.79
02522-0444	LF	95" x 67" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	567.76	55.49
02522-0445	LF	103" x 71" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	604.42	59.20
02522-0446	LF	112" x 75" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	641.67	62.89
02522-0447	LF	117" x 79" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	681.11	66.59
02522-0448	LF	128" x 83" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	722.17	74.00
02522-0449	LF	137" x 87" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	764.88	81.40
02522-0450	LF	142" x 91" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	812.93	88.79
02522-0451		125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch (02522-0306)		
02522-0452		12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch (02522-0451)		
02522-0453	LF	81" x 59" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	421.76	47.35
02522-0454	LF	87" x 63" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	453.72	51.79
02522-0455	LF	95" x 67" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	483.41	55.49
02522-0456	LF	103" x 71" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	513.07	59.20
02522-0457	LF	112" x 75" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	543.44	62.89
02522-0458	LF	117" x 79" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	576.24	66.59
02522-0459	LF	128" x 83" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	610.59	74.00
02522-0460	LF	137" x 87" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	650.41	81.40
02522-0461		10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch (02522-0451)		
02522-0462	LF	81" x 59" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	490.66	47.35
02522-0463	LF	87" x 63" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	528.08	51.79
02522-0464	LF	95" x 67" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	563.36	55.49
02522-0465	LF	103" x 71" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	598.81	59.20
02522-0466	LF	112" x 75" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	633.87	62.89
02522-0467	LF	117" x 79" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	672.99	66.59
02522-0468	LF	128" x 83" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	713.07	74.00
02522-0469	LF	137" x 87" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	758.62	81.40
02522-0470	LF	142" x 91" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	801.15	88.79
02522-0471		Corrugated Steel Pipe Fittings (02522)		
		Note: Equivalent pipe-arch sizes are approximate.		
02522-0472		Fabricate 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fittings (02522-0471)		
		Note: Excludes material. Use appropriate size, gauge, corrugation and type of material from pipe sections for the listed requirements of pipe needed.		
02522-0473	EA	Fabricate 6" 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 2' Of Appropriate Pipe).....	62.95	
02522-0474	EA	Fabricate 8" 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 2' Of Appropriate Pipe).....	78.95	
02522-0475	EA	Fabricate 10" 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 2' Of Appropriate Pipe).....	94.95	



Site Construction			02000	02
Site Drainage			02500	
Corrugated Metal Piping			02522	

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02522-0476	EA	Fabricate 12" 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 4' Of Appropriate Pipe).....	111.94	
02522-0477	EA	Fabricate 15" (Or 17" x 13" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 4' Of Appropriate Pipe).....	135.91	
02522-0478	EA	Fabricate 18" (Or 21" x 15" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 4' Of Appropriate Pipe).....	159.89	
02522-0479	EA	Fabricate 21" (Or 24" x 18" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 4' Of Appropriate Pipe).....	183.88	
02522-0480	EA	Fabricate 24" (Or 28" x 20" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 4' Of Appropriate Pipe).....	207.85	
02522-0481	EA	Fabricate 30" (Or 35" x 24" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 6' Of Appropriate Pipe).....	270.83	
02522-0482	EA	Fabricate 36" (Or 42" x 29" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 6' Of Appropriate Pipe).....	322.78	
02522-0483	EA	Fabricate 42" (Or 49" x 33" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 6' Of Appropriate Pipe).....	374.76	
02522-0484	EA	Fabricate 48" (Or 57" x 38" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 6' Of Appropriate Pipe).....	484.69	
02522-0485	EA	Fabricate 54" (Or 64" x 43" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 8' Of Appropriate Pipe).....	546.66	
02522-0486	EA	Fabricate 60" (Or 71" x 47" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 8' Of Appropriate Pipe).....	610.62	
02522-0487	EA	Fabricate 66" (Or 77" x 52" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 8' Of Appropriate Pipe).....	676.57	
02522-0488	EA	Fabricate 72" (Or 83" x 57" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 10' Of Appropriate Pipe).....	824.47	
02522-0489	EA	Fabricate 78" (Or 87" x 63" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 10' Of Appropriate Pipe).....	899.42	
02522-0490	EA	Fabricate 84" (Or 95" x 67" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 10' Of Appropriate Pipe).....	976.37	
02522-0491	EA	Fabricate 90" (Or 103" x 71" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 12' Of Appropriate Pipe).....	1,198.22	
02522-0492	EA	Fabricate 96" (Or 112" x 75" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 12' Of Appropriate Pipe).....	1,286.18	
02522-0493	EA	Fabricate 102" (Or 117" x 79" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 12' Of Appropriate Pipe).....	1,375.13	
02522-0494	EA	Fabricate 108" (Or 128" x 83" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 14' Of Appropriate Pipe).....	1,464.05	
02522-0495	EA	Fabricate 114" (Or 137" x 87" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 14' Of Appropriate Pipe).....	1,552.00	
02522-0496	EA	Fabricate 120" (Or 142" x 91" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 14' Of Appropriate Pipe).....	1,640.95	
02522-0497	EA	Fabricate 126" 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 16' Of Appropriate Pipe).....	1,734.72	
02522-0498	EA	Fabricate 132" 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 16' Of Appropriate Pipe).....	1,833.86	
02522-0499	EA	Fabricate 138" 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 16' Of Appropriate Pipe).....	1,938.64	

02522-0500

Fabricate Corrugated Steel Pipe Tees Or Laterals (02522-0471)

Note: Fabrication charge excludes material. Use appropriate size, gauge, corrugation and type of material from pipe sections for the listed requirements of pipe needed.

02522-0501	EA	Fabricate 6" Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 3' Of Appropriate Pipe)	81.95	
02522-0502	EA	Fabricate 8" Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 3' Of Appropriate Pipe)	104.93	
02522-0503	EA	Fabricate 10" Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 3' Of Appropriate Pipe)	127.91	
02522-0504	EA	Fabricate 12" Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 3' Of Appropriate Pipe)	150.91	
02522-0505	EA	Fabricate 15" (Or 17" x 13" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 4' Of Appropriate Pipe)	183.88	
02522-0506	EA	Fabricate 18" (Or 21" x 15" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 6' Of Appropriate Pipe)	217.85	
02522-0507	EA	Fabricate 21" (Or 24" x 18" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 6' Of Appropriate Pipe)	251.85	
02522-0508	EA	Fabricate 24" (Or 28" x 20" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 6' Of Appropriate Pipe)	285.80	
02522-0509	EA	Fabricate 30" (Or 35" x 24" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 8' Of Appropriate Pipe)	374.76	
02522-0510	EA	Fabricate 36" (Or 42" x 29" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 9' Of Appropriate Pipe)	446.71	
02522-0511	EA	Fabricate 42" (Or 49" x 33" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 9' Of Appropriate Pipe)	519.66	
02522-0512	EA	Fabricate 48" (Or 57" x 38" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 9' Of Appropriate Pipe)	674.56	
02522-0513	EA	Fabricate 54" (Or 64" x 43" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 12' Of Appropriate Pipe)	759.51	
02522-0514	EA	Fabricate 60" (Or 71" x 47" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 12' Of Appropriate Pipe)	847.45	
02522-0515	EA	Fabricate 66" (Or 77" x 52" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 12' Of Appropriate Pipe)	937.39	
02522-0516	EA	Fabricate 72" (Or 83" x 57" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 14' Of Appropriate Pipe)	1,143.26	
02522-0517	EA	Fabricate 78" (Or 87" x 63" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 16' Of Appropriate Pipe)	1,245.20	
02522-0518	EA	Fabricate 84" (Or 95" x 67" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 16' Of Appropriate Pipe)	1,349.13	
02522-0519	EA	Fabricate 90" (Or 103" x 71" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 18' Of Appropriate Pipe)	1,659.91	
02522-0520	EA	Fabricate 96" (Or 112" x 75" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 18' Of Appropriate Pipe)	1,778.85	

02000 Site Construction**02500 Site Drainage****02522 Corrugated Metal Piping**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02522-0521	EA	Fabricate 102" (Or 117" x 79" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 20' Of Appropriate Pipe)	1,897.77	
02522-0522	EA	Fabricate 108" (Or 128" x 83" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 20' Of Appropriate Pipe)	2,017.69	
02522-0523	EA	Fabricate 114" (Or 137" x 87" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 21' Of Appropriate Pipe)	2,137.61	
02522-0524	EA	Fabricate 120" (Or 142" x 91" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 21' Of Appropriate Pipe)	2,256.52	
02522-0525	EA	Fabricate 126" Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 23' Of Appropriate Pipe)	2,382.06	
02522-0526	EA	Fabricate 132" Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 24' Of Appropriate Pipe)	2,514.57	
02522-0527	EA	Fabricate 138" Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 24' Of Appropriate Pipe)	2,654.45	

02522-0528**Fabricate Skew Or Bevel Ends, Corrugated Steel Pipe Fitting (02522-0471)**

Note: Applied to pipe tasks.

02522-0529	EA	Fabricate 6" Skew Or Bevel End, Corrugated Steel Pipe Fitting	31.56	
02522-0530	EA	Fabricate 8" Skew Or Bevel End, Corrugated Steel Pipe Fitting	39.70	
02522-0531	EA	Fabricate 10" Skew Or Bevel End, Corrugated Steel Pipe Fitting	49.93	
02522-0532	EA	Fabricate 12" Skew Or Bevel End, Corrugated Steel Pipe Fitting	61.14	
02522-0533	EA	Fabricate 15" (Or 17" x 13" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting	77.36	
02522-0534	EA	Fabricate 18" (Or 21" x 15" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting	94.74	
02522-0535	EA	Fabricate 21" (Or 24" x 18" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting	110.97	
02522-0536	EA	Fabricate 24" (Or 28" x 20" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting	128.93	
02522-0537	EA	Fabricate 30" (Or 35" x 24" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting	158.35	
02522-0538	EA	Fabricate 36" (Or 42" x 29" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting	188.80	
02522-0539	EA	Fabricate 42" (Or 49" x 33" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting	225.27	
02522-0540	EA	Fabricate 48" (Or 57" x 38" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting	277.11	
02522-0541	EA	Fabricate 54" (Or 64" x 43" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting	313.66	
02522-0542	EA	Fabricate 60" (Or 71" x 47" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting	353.23	
02522-0543	EA	Fabricate 66" (Or 77" x 52" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting	428.36	
02522-0544	EA	Fabricate 72" (Or 83" x 57" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting	475.03	
02522-0545	EA	Fabricate 78" (Or 87" x 63" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting	579.59	
02522-0546	EA	Fabricate 84" (Or 95" x 67" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting	631.38	
02522-0547	EA	Fabricate 90" (Or 103" x 71" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting	686.21	
02522-0548	EA	Fabricate 96" (Or 112" x 75" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting	739.97	
02522-0549	EA	Fabricate 102" (Or 117" x 79" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting	794.79	
02522-0550	EA	Fabricate 108" (Or 128" x 83" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting	850.61	
02522-0551	EA	Fabricate 114" (Or 137" x 87" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting	905.45	
02522-0552	EA	Fabricate 120" (Or 142" x 91" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting	960.24	
02522-0553	EA	Fabricate 126" Skew Or Bevel End, Corrugated Steel Pipe Fitting	1,018.36	
02522-0554	EA	Fabricate 132" Skew Or Bevel End, Corrugated Steel Pipe Fitting	1,079.99	
02522-0555	EA	Fabricate 138" Skew Or Bevel End, Corrugated Steel Pipe Fitting	1,145.36	

02522-0556**Coupling Bands, Corrugated Metal Pipe Fitting (02522-0471)**

02522-0557	EA	6" Coupling Band, Corrugated Metal Pipe Fitting	7.26	
	02MOD-0151	For Asphalt Coated, Add	2.11	
02522-0558	EA	8" Coupling Band, Corrugated Metal Pipe Fitting	9.63	
	02MOD-0151	For Asphalt Coated, Add	2.79	
02522-0559	EA	10" Coupling Band, Corrugated Metal Pipe Fitting	12.13	
	02MOD-0151	For Asphalt Coated, Add	3.52	
02522-0560	EA	12" Coupling Band, Corrugated Metal Pipe Fitting	20.14	
	02MOD-0151	For Asphalt Coated, Add	5.84	
02522-0561	EA	15" Coupling Band, Corrugated Metal Pipe Fitting	25.39	
	02MOD-0151	For Asphalt Coated, Add	7.36	
02522-0562	EA	18" Coupling Band, Corrugated Metal Pipe Fitting	37.26	
	02MOD-0151	For Asphalt Coated, Add	10.81	
02522-0563	EA	21" Coupling Band, Corrugated Metal Pipe Fitting	44.22	
	02MOD-0151	For Asphalt Coated, Add	12.82	
02522-0564	EA	24" Coupling Band, Corrugated Metal Pipe Fitting	50.14	
	02MOD-0151	For Asphalt Coated, Add	14.54	
02522-0565	EA	30" Coupling Band, Corrugated Metal Pipe Fitting	86.77	
	02MOD-0151	For Asphalt Coated, Add	25.16	
02522-0566	EA	36" Coupling Band, Corrugated Metal Pipe Fitting	138.83	
	02MOD-0152	For Asphalt Coated, Add	33.32	
02522-0567	EA	42" Coupling Band, Corrugated Metal Pipe Fitting	163.12	
	02MOD-0152	For Asphalt Coated, Add	39.15	
02522-0568	EA	48" Coupling Band, Corrugated Metal Pipe Fitting	182.78	
	02MOD-0152	For Asphalt Coated, Add	43.87	
02522-0569	EA	54" Coupling Band, Corrugated Metal Pipe Fitting	259.22	
	02MOD-0152	For Asphalt Coated, Add	62.21	
02522-0570	EA	60" Coupling Band, Corrugated Metal Pipe Fitting	370.76	
	02MOD-0153	For Asphalt Coated, Add	66.74	
02522-0571	EA	66" Coupling Band, Corrugated Metal Pipe Fitting	455.65	
	02MOD-0153	For Asphalt Coated, Add	82.02	
02522-0572	EA	72" Coupling Band, Corrugated Metal Pipe Fitting	585.31	
	02MOD-0154	For Asphalt Coated, Add	81.94	
02522-0573	EA	78" Coupling Band, Corrugated Metal Pipe Fitting	626.03	
	02MOD-0154	For Asphalt Coated, Add	87.64	
02522-0574	EA	84" Coupling Band, Corrugated Metal Pipe Fitting	666.98	
	02MOD-0154	For Asphalt Coated, Add	93.38	
02522-0575	EA	90" Coupling Band, Corrugated Metal Pipe Fitting	707.72	
	02MOD-0154	For Asphalt Coated, Add	99.08	
02522-0576	EA	96" Coupling Band, Corrugated Metal Pipe Fitting	748.56	
	02MOD-0154	For Asphalt Coated, Add	104.80	



	Site Construction	02000	02
	Site Drainage	02500	
	Corrugated Metal Piping	02522	

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02522-0577	EA	102" Coupling Band, Corrugated Metal Pipe Fitting.....	789.51	
	02MOD-0154	For Asphalt Coated, Add.....	110.53	
02522-0578	EA	108" Coupling Band, Corrugated Metal Pipe Fitting.....	830.27	
	02MOD-0154	For Asphalt Coated, Add.....	116.24	
02522-0579	EA	114" Coupling Band, Corrugated Metal Pipe Fitting.....	983.36	
	02MOD-0155	For Asphalt Coated, Add.....	118.00	
02522-0580	EA	120" Coupling Band, Corrugated Metal Pipe Fitting.....	911.73	
	02MOD-0155	For Asphalt Coated, Add.....	109.41	
02522-0581	EA	126" Coupling Band, Corrugated Metal Pipe Fitting.....	952.36	
	02MOD-0155	For Asphalt Coated, Add.....	114.28	
02522-0582	EA	132" Coupling Band, Corrugated Metal Pipe Fitting.....	993.29	
	02MOD-0155	For Asphalt Coated, Add.....	119.19	
02522-0583	EA	138" Coupling Band, Corrugated Metal Pipe Fitting.....	1,034.26	
	02MOD-0155	For Asphalt Coated, Add.....	124.11	
02522-0584		Corrugated Metal Pipe End Sections (02522)		
02522-0585		Galvanized Corrugated Steel Pipe End Sections (02522-0584)		
02522-0586		Type 1 Galvanized Corrugated Steel Pipe End Sections (02522-0585)		
	Note: Used with annular corrugations, no band required. Consists of a 12 gauge steel strap with a 6" bolt and nut.			
02522-0587	EA	12" 16 Gauge, Type 1 Galvanized Corrugated Steel Pipe End Section.....	189.45	49.13
02522-0588	EA	15" 16 Gauge, Type 1 Galvanized Corrugated Steel Pipe End Section.....	219.34	52.64
02522-0589	EA	18" 16 Gauge, Type 1 Galvanized Corrugated Steel Pipe End Section.....	255.43	56.15
02522-0590	EA	21" 16 Gauge, Type 1 Galvanized Corrugated Steel Pipe End Section.....	308.52	61.42
02522-0591	EA	24" 16 Gauge, Type 1 Galvanized Corrugated Steel Pipe End Section.....	341.60	66.68
02522-0592		Type 2 Galvanized Corrugated Steel Pipe End Sections (02522-0585)		
	Note: Partial circumferential rod with two hinge type lugs used with annular corrugations. No band required.			
02522-0593	EA	30" 14 Gauge, Type 2 Galvanized Corrugated Steel Pipe End Section.....	546.86	75.45
02522-0594	EA	36" 14 Gauge, Type 2 Galvanized Corrugated Steel Pipe End Section.....	707.36	88.79
02522-0595	EA	42" 12 Gauge, Type 2 Galvanized Corrugated Steel Pipe End Section.....	1,081.71	103.59
02522-0596	EA	48" 12 Gauge, Type 2 Galvanized Corrugated Steel Pipe End Section.....	1,320.58	118.40
02522-0597	EA	54" 12 Gauge, Type 2 Galvanized Corrugated Steel Pipe End Section.....	1,573.87	147.99
02522-0598	EA	60" 10 Gauge, Type 2 Galvanized Corrugated Steel Pipe End Section.....	1,838.53	177.58
02522-0599		Type 3 Or 5 Galvanized Corrugated Steel Pipe End Sections (02522-0585)		
	Note: Stubbed with 1' of pipe (excluded in price). Used with all pipe having annular end corrugations.			
02522-0600	EA	12" 16 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe End Section.....	197.60	49.13
02522-0601	EA	15" 16 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe End Section.....	227.72	52.64
02522-0602	EA	18" 16 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe End Section.....	268.31	56.15
02522-0603	EA	21" 16 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe End Section.....	323.98	61.42
02522-0604	EA	24" 16 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe End Section.....	359.14	66.68
02522-0605	EA	30" 14 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe End Section.....	600.70	75.45
02522-0606	EA	36" 14 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe End Section.....	773.52	88.79
02522-0607	EA	42" 12 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe End Section.....	1,227.70	103.59
02522-0608	EA	48" 12 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe End Section.....	1,508.98	118.40
02522-0609	EA	54" 12 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe End Section.....	1,764.40	147.99
02522-0610	EA	60" 10 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe End Section.....	2,441.97	177.58
02522-0611	EA	66" 10 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe End Section.....	2,778.57	266.39
02522-0612	EA	72" 10 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe End Section.....	3,256.30	355.18
02522-0613	EA	78" 10 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe End Section.....	3,546.35	381.08
02522-0614	EA	84" 10 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe End Section.....	3,843.36	406.97
02522-0615		Toe Plate Extensions For Galvanized Corrugated Steel Pipe End Section (02522-0585)		
02522-0616	EA	Toe Plate Extension For 12" Diameter Galvanized Corrugated Steel Pipe End Section.....	21.45	
02522-0617	EA	Toe Plate Extension For 15" Diameter Galvanized Corrugated Steel Pipe End Section.....	23.74	
02522-0618	EA	Toe Plate Extension For 18" Diameter Galvanized Corrugated Steel Pipe End Section.....	26.53	
02522-0619	EA	Toe Plate Extension For 21" Diameter Galvanized Corrugated Steel Pipe End Section.....	28.83	
02522-0620	EA	Toe Plate Extension For 24" Diameter Galvanized Corrugated Steel Pipe End Section.....	32.19	
02522-0621	EA	Toe Plate Extension For 30" Diameter Galvanized Corrugated Steel Pipe End Section.....	55.14	
02522-0622	EA	Toe Plate Extension For 36" Diameter Galvanized Corrugated Steel Pipe End Section.....	59.36	
02522-0623	EA	Toe Plate Extension For 42" Diameter Galvanized Corrugated Steel Pipe End Section.....	80.22	
02522-0624	EA	Toe Plate Extension For 48" Diameter Galvanized Corrugated Steel Pipe End Section.....	86.11	
02522-0625	EA	Toe Plate Extension For 54" Diameter Galvanized Corrugated Steel Pipe End Section.....	104.80	
02522-0626	EA	Toe Plate Extension For 60" Diameter Galvanized Corrugated Steel Pipe End Section.....	107.73	
02522-0627	EA	Toe Plate Extension For 66" Diameter Galvanized Corrugated Steel Pipe End Section.....	115.81	
02522-0628	EA	Toe Plate Extension For 72" Diameter Galvanized Corrugated Steel Pipe End Section.....	134.23	
02522-0629	EA	Toe Plate Extension For 78" Diameter Galvanized Corrugated Steel Pipe End Section.....	149.93	
02522-0630	EA	84" Diameter Galvanized Corrugated Steel Pipe End Section Toe Plate Extension.....	154.16	
02522-0631		Galvanized Corrugated Steel Pipe-Arch End Sections (02522-0584)		
02522-0632		Type 1 Galvanized Corrugated Steel Pipe-Arch End Sections (02522-0631)		
	Note: Used with annular corrugations, no band required. Consists of a 12 gauge steel strap with a 6" bolt and nut.			
02522-0633	EA	17" x 13" 16 Gauge, Type 1 Galvanized Corrugated Steel Pipe-Arch End Section.....	219.34	52.64
02522-0634	EA	21" x 15" 16 Gauge, Type 1 Galvanized Corrugated Steel Pipe-Arch End Section.....	255.43	56.15
02522-0635	EA	24" x 18" 16 Gauge, Type 1 Galvanized Corrugated Steel Pipe-Arch End Section.....	308.52	61.42
02522-0636	EA	28" x 20" 16 Gauge, Type 1 Galvanized Corrugated Steel Pipe-Arch End Section.....	341.60	66.68

02000 Site Construction**02500 Site Drainage****02522 Corrugated Metal Piping**
 MINOR
 CSI UOM DESCRIPTION

 TOTAL DIRECT DEMOLITION
 UNIT COST UNIT COST
02522-0637**Type 2 Galvanized Corrugated Steel Pipe-Arch End Sections (02522-0631)**

Note: Partial circumferential rod with two hinge type lugs used with annular corrugations. No band required.

02522-0638	EA	17" x 13" 16 Gauge, Type 2 Galvanized Corrugated Steel Pipe-Arch End Section.....	212.31	52.64
02522-0639	EA	21" x 15" 16 Gauge, Type 2 Galvanized Corrugated Steel Pipe-Arch End Section.....	242.42	56.15
02522-0640	EA	24" x 18" 16 Gauge, Type 2 Galvanized Corrugated Steel Pipe-Arch End Section.....	271.28	61.42
02522-0641	EA	28" x 20" 16 Gauge, Type 2 Galvanized Corrugated Steel Pipe-Arch End Section.....	306.04	66.68
02522-0642	EA	35" x 24" 14 Gauge, Type 2 Galvanized Corrugated Steel Pipe-Arch End Section.....	445.48	75.45
02522-0643	EA	42" x 29" 14 Gauge, Type 2 Galvanized Corrugated Steel Pipe-Arch End Section.....	645.73	88.79
02522-0644	EA	49" x 33" 12 Gauge, Type 2 Galvanized Corrugated Steel Pipe-Arch End Section.....	1,001.57	103.59
02522-0645	EA	57" x 38" 12 Gauge, Type 2 Galvanized Corrugated Steel Pipe-Arch End Section.....	1,267.17	118.40

02522-0646**Type 3 Or 5 Galvanized Corrugated Steel Pipe-Arch End Sections (02522-0631)**

Note: Stubbed with 1' of pipe (excluded in price). Used with all pipe having annular end corrugations.

02522-0647	EA	17" x 13" 16 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe-Arch End Section.....	215.88	52.64
02522-0648	EA	21" x 15" 16 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe-Arch End Section.....	250.18	56.15
02522-0649	EA	24" x 18" 16 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe-Arch End Section.....	283.41	61.42
02522-0650	EA	28" x 20" 16 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe-Arch End Section.....	320.42	66.68
02522-0651	EA	35" x 24" 14 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe-Arch End Section.....	469.92	75.45
02522-0652	EA	42" x 29" 14 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe-Arch End Section.....	679.07	88.79
02522-0653	EA	49" x 33" 12 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe-Arch End Section.....	1,054.89	103.59
02522-0654	EA	57" x 38" 12 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe-Arch End Section.....	1,328.54	118.40
02522-0655	EA	64" x 43" 12 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe-Arch End Section.....	1,599.09	147.99
02522-0656	EA	71" x 47" 10 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe-Arch End Section.....	2,100.35	177.58
02522-0657	EA	77" x 52" 10 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe-Arch End Section.....	2,933.43	266.39
02522-0658	EA	83" x 57" 10 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe-Arch End Section.....	3,254.25	355.18

02522-0659**Toe Plate Extensions For Galvanized Corrugated Steel Pipe-Arch End Section (02522-0631)**

02522-0660	EA	Toe Plate Extension For 17" x 13" Galvanized Corrugated Steel Pipe-Arch End Section.....	23.74	
02522-0661	EA	Toe Plate Extension For 21" x 15" Galvanized Corrugated Steel Pipe-Arch End Section.....	26.53	
02522-0662	EA	Toe Plate Extension For 24" x 18" Galvanized Corrugated Steel Pipe-Arch End Section.....	28.83	
02522-0663	EA	Toe Plate Extension For 28" x 20" Galvanized Corrugated Steel Pipe-Arch End Section.....	32.19	
02522-0664	EA	Toe Plate Extension For 35" x 24" Galvanized Corrugated Steel Pipe-Arch End Section.....	55.14	
02522-0665	EA	Toe Plate Extension For 42" x 29" Galvanized Corrugated Steel Pipe-Arch End Section.....	59.36	
02522-0666	EA	Toe Plate Extension For 49" x 33" Galvanized Corrugated Steel Pipe-Arch End Section.....	80.22	
02522-0667	EA	Toe Plate Extension For 57" x 38" Galvanized Corrugated Steel Pipe-Arch End Section.....	89.37	
02522-0668	EA	Toe Plate Extension For 64" x 43" Galvanized Corrugated Steel Pipe-Arch End Section.....	104.80	
02522-0669	EA	Toe Plate Extension For 71" x 47" Galvanized Corrugated Steel Pipe-Arch End Section.....	109.02	
02522-0670	EA	Toe Plate Extension For 77" x 52" Galvanized Corrugated Steel Pipe-Arch End Section.....	126.36	
02522-0671	EA	Toe Plate Extension For 83" x 57" Galvanized Corrugated Steel Pipe-Arch End Section.....	145.84	

02522-0672**Low Slope Corrugated Steel Pipe End Sections And Accessories (02522-0584)****02522-0673****4:1 Corrugated Steel Pipe End Sections (02522-0672)**

02522-0674	EA	15" 16 Gauge, 4:1 Corrugated Steel Pipe End Section.....	369.75	52.64
02522-0675	EA	18" 16 Gauge, 4:1 Corrugated Steel Pipe End Section.....	471.27	56.15
02522-0676	EA	21" 16 Gauge, 4:1 Corrugated Steel Pipe End Section.....	573.94	61.42
02522-0677	EA	24" 16 Gauge, 4:1 Corrugated Steel Pipe End Section.....	683.75	66.68

02522-0678**3" Diameter Parallel Safety Bar For 4:1 Corrugated Steel Pipe End Sections (02522-0672)**

Note: Includes nut and bolt set.

02522-0679	EA	3" Diameter Parallel Safety Bar For 15" 4:1 Corrugated Steel Pipe End Section.....	258.82	
02522-0680	EA	3" Diameter Parallel Safety Bar For 18" 4:1 Corrugated Steel Pipe End Section.....	508.65	
02522-0681	EA	3" Diameter Parallel Safety Bar For 21" 4:1 Corrugated Steel Pipe End Section.....	558.14	
02522-0682	EA	3" Diameter Parallel Safety Bar For 24" 4:1 Corrugated Steel Pipe End Section.....	580.85	

02522-0683**6:1 Corrugated Steel Pipe End Sections (02522-0672)**

02522-0684	EA	15" 16 Gauge, 6:1 Corrugated Steel Pipe End Section.....	453.68	52.64
02522-0685	EA	18" 16 Gauge, 6:1 Corrugated Steel Pipe End Section.....	594.17	56.15
02522-0686	EA	21" 16 Gauge, 6:1 Corrugated Steel Pipe End Section.....	790.08	61.42
02522-0687	EA	24" 16 Gauge, 6:1 Corrugated Steel Pipe End Section.....	928.00	66.68

02522-0688**3" Diameter Parallel Safety Bar For 6:1 Corrugated Steel Pipe End Sections (02522-0672)**

Note: Includes nut and bolt set.

02522-0689	EA	3" Diameter Parallel Safety Bar For 15" 6:1 Corrugated Steel Pipe End Section.....	599.84	
02522-0690	EA	3" Diameter Parallel Safety Bar For 18" 6:1 Corrugated Steel Pipe End Section.....	636.75	
02522-0691	EA	3" Diameter Parallel Safety Bar For 21" 6:1 Corrugated Steel Pipe End Section.....	700.39	
02522-0692	EA	3" Diameter Parallel Safety Bar For 24" 6:1 Corrugated Steel Pipe End Section.....	1,312.95	

02522-0693**Toe Plate Extensions For Low Slope Corrugated Steel Pipe End Section (02522-0672)**

02522-0694	EA	Toe Plate Extension For 15" Low Slope Corrugated Steel Pipe End Section.....	45.43	
02522-0695	EA	Toe Plate Extension For 18" Low Slope Corrugated Steel Pipe End Section.....	50.71	
02522-0696	EA	Toe Plate Extension For 21" Low Slope Corrugated Steel Pipe End Section.....	55.16	



Site Construction			02000	02
Site Drainage			02500	
Corrugated Metal Piping			02522	

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02522-0697	EA	Toe Plate Extension For 24" Low Slope Corrugated Steel Pipe End Section	61.49	
02522-0698		Low Slope Corrugated Steel Pipe-Arch End Sections And Accessories (02522-0584)		
02522-0699		4:1 Corrugated Steel Pipe-Arch End Section (02522-0698)		
02522-0700	EA	21" x 15" 16 Gauge, 4:1 Corrugated Steel Pipe-Arch End Section	514.73	56.15
02522-0701	EA	24" x 18" 16 Gauge, 4:1 Corrugated Steel Pipe-Arch End Section	645.49	61.42
02522-0702	EA	28" x 20" 16 Gauge, 4:1 Corrugated Steel Pipe-Arch End Section	763.81	66.68
02522-0703	EA	35" x 24" 16 Gauge, 4:1 Corrugated Steel Pipe-Arch End Section	1,437.57	75.45
02522-0704		3" Diameter Parallel Safety Bar For 4:1 Corrugated Steel Pipe-Arch End Sections (02522-0698)		
		Note: Includes nut and bolt set.		
02522-0705	EA	3" Diameter Parallel Safety Bar For 21" x 15" 4:1 Corrugated Steel Pipe-Arch End Section	367.32	
02522-0706	EA	3" Diameter Parallel Safety Bar For 24" x 18" 4:1 Corrugated Steel Pipe-Arch End Section	668.62	
02522-0707	EA	3" Diameter Parallel Safety Bar For 28" x 20" 4:1 Corrugated Steel Pipe-Arch End Section	704.48	
02522-0708	EA	3" Diameter Parallel Safety Bar For 35" x 24" 4:1 Corrugated Steel Pipe-Arch End Section	1,036.55	
02522-0709		Toe Plate Extensions For Low Slope Corrugated Steel Pipe-Arch End Section (02522-0698)		
02522-0710	EA	Toe Plate Extension For 21" x 15" Low Slope Corrugated Steel Pipe-Arch End Section	53.11	
02522-0711	EA	Toe Plate Extension For 24" x 18" Low Slope Corrugated Steel Pipe-Arch End Section	60.25	
02522-0712	EA	Toe Plate Extension For 28" x 20" Low Slope Corrugated Steel Pipe-Arch End Section	65.69	
02522-0713	EA	Toe Plate Extension For 35" x 24" Low Slope Corrugated Steel Pipe-Arch End Section	78.30	
02525		Culverts (02500)		
02525-0001		Precast Reinforced Concrete Box Culvert (02525)		
		Note: The quantity required shall be the entire length of the culvert including the length of the cut-off sections. Includes delivery, handling, hoisting into place, alignment, bracing, permanent connections, grouting of joints and caulking of joints. Excludes excavation and backfill. Minimum length 6'-0".		
02525-0002	LF	4' x 2' Precast Reinforced Concrete Box Culvert	187.94	37.00
	02MOD-0156	For Each LF Of Cut-Off Section, Add	7.52	
02525-0003	LF	4' x 3' Precast Reinforced Concrete Box Culvert	203.52	37.00
	02MOD-0156	For Each LF Of Cut-Off Section, Add	8.14	
02525-0004	LF	5' x 3' Precast Reinforced Concrete Box Culvert	266.71	46.25
	02MOD-0156	For Each LF Of Cut-Off Section, Add	10.67	
02525-0005	LF	5' x 4' Precast Reinforced Concrete Box Culvert	285.50	46.25
	02MOD-0156	For Each LF Of Cut-Off Section, Add	11.42	
02525-0006	LF	5' x 5' Precast Reinforced Concrete Box Culvert	304.28	46.25
	02MOD-0156	For Each LF Of Cut-Off Section, Add	12.17	
02525-0007	LF	6' x 3' Precast Reinforced Concrete Box Culvert	321.64	48.10
	02MOD-0156	For Each LF Of Cut-Off Section, Add	12.87	
02525-0008	LF	6' x 4' Precast Reinforced Concrete Box Culvert	343.60	48.10
	02MOD-0156	For Each LF Of Cut-Off Section, Add	13.74	
02525-0009	LF	6' x 6' Precast Reinforced Concrete Box Culvert	387.37	48.10
	02MOD-0156	For Each LF Of Cut-Off Section, Add	15.49	
02525-0010	LF	7' x 4' Precast Reinforced Concrete Box Culvert	418.51	55.49
	02MOD-0156	For Each LF Of Cut-Off Section, Add	16.74	
02525-0011	LF	7' x 6' Precast Reinforced Concrete Box Culvert	508.19	75.47
	02MOD-0156	For Each LF Of Cut-Off Section, Add	20.33	
02525-0012	LF	8' x 2' Precast Reinforced Concrete Box Culvert	378.92	48.10
	02MOD-0156	For Each LF Of Cut-Off Section, Add	15.16	
02525-0013	LF	8' x 3' Precast Reinforced Concrete Box Culvert	414.52	55.49
	02MOD-0156	For Each LF Of Cut-Off Section, Add	16.58	
02525-0014	LF	8' x 4' Precast Reinforced Concrete Box Culvert	443.49	55.49
	02MOD-0156	For Each LF Of Cut-Off Section, Add	17.74	
02525-0015	LF	8' x 5' Precast Reinforced Concrete Box Culvert	505.27	74.00
	02MOD-0156	For Each LF Of Cut-Off Section, Add	20.21	
02525-0016	LF	8' x 6' Precast Reinforced Concrete Box Culvert	530.24	74.00
	02MOD-0156	For Each LF Of Cut-Off Section, Add	21.21	
02525-0017	LF	8' x 8' Precast Reinforced Concrete Box Culvert	616.99	92.49
	02MOD-0156	For Each LF Of Cut-Off Section, Add	24.68	
02525-0018	LF	9' x 4' Precast Reinforced Concrete Box Culvert	550.15	74.00
	02MOD-0156	For Each LF Of Cut-Off Section, Add	22.01	
02525-0019	LF	9' x 6' Precast Reinforced Concrete Box Culvert	643.09	92.49
	02MOD-0156	For Each LF Of Cut-Off Section, Add	25.72	
02525-0020	LF	10' x 3' Precast Reinforced Concrete Box Culvert	631.64	92.49
	02MOD-0156	For Each LF Of Cut-Off Section, Add	25.27	
02525-0021	LF	10' x 4' Precast Reinforced Concrete Box Culvert	661.76	92.49
	02MOD-0156	For Each LF Of Cut-Off Section, Add	26.47	
02525-0022	LF	10' x 5' Precast Reinforced Concrete Box Culvert	730.76	110.99
	02MOD-0156	For Each LF Of Cut-Off Section, Add	29.23	
02525-0023	LF	10' x 6' Precast Reinforced Concrete Box Culvert	762.13	110.99
	02MOD-0156	For Each LF Of Cut-Off Section, Add	30.49	
02525-0024	LF	10' x 7' Precast Reinforced Concrete Box Culvert	793.49	110.99
	02MOD-0156	For Each LF Of Cut-Off Section, Add	31.74	
02525-0025	LF	10' x 8' Precast Reinforced Concrete Box Culvert	824.66	110.99
	02MOD-0156	For Each LF Of Cut-Off Section, Add	32.99	
02525-0026	LF	12' x 3' Precast Reinforced Concrete Box Culvert	717.20	129.49
	02MOD-0156	For Each LF Of Cut-Off Section, Add	28.69	

02000 Site Construction**02500 Site Drainage****02525 Culverts**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02525-0027	LF	12' x 4' Precast Reinforced Concrete Box Culvert.....	907.25	129.49
		02MOD-0156 For Each LF Of Cut-Off Section, Add	36.29	
02525-0028	LF	12' x 6' Precast Reinforced Concrete Box Culvert.....	982.38	129.49
		02MOD-0156 For Each LF Of Cut-Off Section, Add	39.30	
02525-0029	LF	12' x 8' Precast Reinforced Concrete Box Culvert.....	1,057.49	129.49
		02MOD-0156 For Each LF Of Cut-Off Section, Add	42.30	
02525-0030	LF	16' x 10' Precast Reinforced Concrete Box Culvert.....	1,319.46	147.99
		02MOD-0156 For Each LF Of Cut-Off Section, Add	52.78	
02525-0031	LF	24' x 10' Precast Reinforced Concrete Box Culvert.....	1,619.92	147.99
		02MOD-0156 For Each LF Of Cut-Off Section, Add	64.80	

02525-0032 Precast Reinforced Concrete Box Culvert For Roadways (02525)

Note: AASHTO H/20, H/25 Rated. The quantity required shall be the entire length of the culvert including the length of the cut-off sections. Includes delivery, handling, hoisting into place, alignment, bracing, permanent connections, grouting of joints and caulking of joints. Excludes excavation and backfill. Minimum length 6'-0".

02525-0033	LF	4' x 2' Precast Reinforced Concrete Box Culvert For Roadways.....	556.19	37.00
		02MOD-0156 For Each LF Of Cut-Off Section, Add	22.25	
02525-0034	LF	4' x 3' Precast Reinforced Concrete Box Culvert For Roadways.....	621.94	37.00
		02MOD-0156 For Each LF Of Cut-Off Section, Add	24.88	
02525-0035	LF	5' x 3' Precast Reinforced Concrete Box Culvert For Roadways.....	706.17	46.25
		02MOD-0156 For Each LF Of Cut-Off Section, Add	28.25	
02525-0036	LF	5' x 4' Precast Reinforced Concrete Box Culvert For Roadways.....	771.93	46.25
		02MOD-0156 For Each LF Of Cut-Off Section, Add	30.88	
02525-0037	LF	5' x 5' Precast Reinforced Concrete Box Culvert For Roadways.....	837.68	46.25
		02MOD-0156 For Each LF Of Cut-Off Section, Add	33.51	
02525-0038	LF	6' x 3' Precast Reinforced Concrete Box Culvert For Roadways.....	775.64	48.10
		02MOD-0156 For Each LF Of Cut-Off Section, Add	31.03	
02525-0039	LF	6' x 4' Precast Reinforced Concrete Box Culvert For Roadways.....	841.39	48.10
		02MOD-0156 For Each LF Of Cut-Off Section, Add	33.66	
02525-0040	LF	6' x 6' Precast Reinforced Concrete Box Culvert For Roadways.....	972.90	48.10
		02MOD-0156 For Each LF Of Cut-Off Section, Add	38.92	
02525-0041	LF	7' x 4' Precast Reinforced Concrete Box Culvert For Roadways.....	921.94	55.49
		02MOD-0156 For Each LF Of Cut-Off Section, Add	36.88	
02525-0042	LF	7' x 6' Precast Reinforced Concrete Box Culvert For Roadways.....	1,093.39	75.47
		02MOD-0156 For Each LF Of Cut-Off Section, Add	43.74	
02525-0043	LF	8' x 2' Precast Reinforced Concrete Box Culvert For Roadways.....	841.39	48.10
		02MOD-0156 For Each LF Of Cut-Off Section, Add	33.66	
02525-0044	LF	8' x 3' Precast Reinforced Concrete Box Culvert For Roadways.....	921.94	55.49
		02MOD-0156 For Each LF Of Cut-Off Section, Add	36.88	
02525-0045	LF	8' x 4' Precast Reinforced Concrete Box Culvert For Roadways.....	987.69	55.49
		02MOD-0156 For Each LF Of Cut-Off Section, Add	39.51	
02525-0046	LF	8' x 4' Precast Reinforced Concrete Box Culvert For Roadways.....	1,090.43	74.00
		02MOD-0156 For Each LF Of Cut-Off Section, Add	43.62	
02525-0047	LF	8' x 6' Precast Reinforced Concrete Box Culvert For Roadways.....	1,156.19	74.00
		02MOD-0156 For Each LF Of Cut-Off Section, Add	46.25	
02525-0048	LF	8' x 8' Precast Reinforced Concrete Box Culvert For Roadways.....	1,324.70	92.49
		02MOD-0156 For Each LF Of Cut-Off Section, Add	52.99	
02525-0049	LF	9' x 4' Precast Reinforced Concrete Box Culvert For Roadways.....	1,166.95	74.00
		02MOD-0156 For Each LF Of Cut-Off Section, Add	46.68	
02525-0050	LF	9' x 6' Precast Reinforced Concrete Box Culvert For Roadways.....	1,344.48	92.49
		02MOD-0156 For Each LF Of Cut-Off Section, Add	53.78	
02525-0051	LF	10' x 3' Precast Reinforced Concrete Box Culvert For Roadways.....	1,330.18	92.49
		02MOD-0156 For Each LF Of Cut-Off Section, Add	53.21	
02525-0052	LF	10' x 4' Precast Reinforced Concrete Box Culvert For Roadways.....	1,408.26	92.49
		02MOD-0156 For Each LF Of Cut-Off Section, Add	56.33	
02525-0053	LF	10' x 5' Precast Reinforced Concrete Box Culvert For Roadways.....	1,523.33	110.99
		02MOD-0156 For Each LF Of Cut-Off Section, Add	60.93	
02525-0054	LF	10' x 6' Precast Reinforced Concrete Box Culvert For Roadways.....	1,601.41	110.99
		02MOD-0156 For Each LF Of Cut-Off Section, Add	64.06	
02525-0055	LF	10' x 7' Precast Reinforced Concrete Box Culvert For Roadways.....	1,679.50	110.99
		02MOD-0156 For Each LF Of Cut-Off Section, Add	67.18	
02525-0056	LF	10' x 8' Precast Reinforced Concrete Box Culvert For Roadways.....	1,757.58	110.99
		02MOD-0156 For Each LF Of Cut-Off Section, Add	70.30	
02525-0057	LF	12' x 3' Precast Reinforced Concrete Box Culvert For Roadways.....	1,768.00	129.49
		02MOD-0156 For Each LF Of Cut-Off Section, Add	70.72	
02525-0058	LF	12' x 4' Precast Reinforced Concrete Box Culvert For Roadways.....	1,856.75	129.49
		02MOD-0156 For Each LF Of Cut-Off Section, Add	74.27	
02525-0059	LF	12' x 6' Precast Reinforced Concrete Box Culvert For Roadways.....	2,034.29	129.49
		02MOD-0156 For Each LF Of Cut-Off Section, Add	81.37	
02525-0060	LF	12' x 8' Precast Reinforced Concrete Box Culvert For Roadways.....	2,211.82	129.49
		02MOD-0156 For Each LF Of Cut-Off Section, Add	88.47	
02525-0061	LF	16' x 10' Precast Reinforced Concrete Box Culvert For Roadways.....	2,643.33	147.99
		02MOD-0156 For Each LF Of Cut-Off Section, Add	105.73	
02525-0062	LF	24' x 10' Precast Reinforced Concrete Box Culvert For Roadways.....	3,314.00	147.99
		02MOD-0156 For Each LF Of Cut-Off Section, Add	132.56	

02530 Dewatering (02500)**02530-0001 Well Point Dewatering System (02530)****02530-0002 Delivery, Installation And Removal Cost (02530-0001)**

Note: Priced by linear foot of header used.

02530-0003	LF	Up To 100' In Length Well Point System Delivery, Installation And Removal.....	93.83
02530-0004	LF	>100' To 250' In Length Well Point System Delivery, Installation And Removal	51.60
02530-0005	LF	>250' To 500' In Length Well Point System Delivery, Installation And Removal	46.91

**Site Construction 02000****Site Drainage 02500****Dewatering 02530****02**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02530-0006	LF	>250' To 500' In Length Well Point System Delivery, Installation And Removal	42.22	
02530-0007	LF	>500' To 1000' In Length Well Point System Delivery, Installation And Removal	37.53	
02530-0008	LF	>1000' In Length Well Point System Delivery, Installation And Removal	32.84	
02530-0009		Well Point Dewatering System Rental (02530-0001) Note: Includes all necessary equipment for a well point system (well point with risers, pump, valves, header pipe, discharge pipe, etc.). Use normal adjustment factor only for rental tasks and modifiers. Unit of measure and modifier quantities are based on linear feet of header per day (ex. 200 ft of header for four days - quantity should be 200x4 or 800 ft). Rental days include weekends, when appropriate, regardless if the system is operational during that time. Use weekly modifier for system use of five days to less than a month. Use monthly modifier for system use of one month or greater. See CSI section 02530-0002 for installation, 02530-0015 for operational costs.		
02530-0010		LFD Up To 100' In Length Well Point System Rental (LF x Days = Quantity)	0.98	
		02MOD-0157 For > 5 Days And < 1 Month, Deduct	-0.22	
		02MOD-0158 For > 1 Month, Deduct	-0.27	
02530-0011		LFD >100' To 250' In Length Well Point System Rental (LF x Days = Quantity)	0.57	
		02MOD-0157 For > 5 Days And < 1 Month, Deduct	-0.13	
		02MOD-0158 For > 1 Month, Deduct	-0.16	
02530-0012		LFD >250' To 500' In Length Well Point System Rental (LF x Days = Quantity)	0.41	
		02MOD-0157 For > 5 Days And < 1 Month, Deduct	-0.09	
		02MOD-0158 For > 1 Month, Deduct	-0.11	
02530-0013		LFD >500' To 1000' In Length Well Point System Rental (LF x Days = Quantity)	0.30	
		02MOD-0157 For > 5 Days And < 1 Month, Deduct	-0.07	
		02MOD-0158 For > 1 Month, Deduct	-0.08	
02530-0014		LFD >1000' In Length Well Point System Rental (LF x Days = Quantity)	0.27	
		02MOD-0157 For > 5 Days And < 1 Month, Deduct	-0.06	
		02MOD-0158 For > 1 Month, Deduct	-0.08	
02530-0015		Well Point Dewatering System Operation Costs (02530-0001) Note: The quantity for operation shall be the total number of hours the well point system is operational.		
02530-0016	HR	Operation Costs	71.13	
02531		Drainage Wells (02500)		
02531-0001		Drainage Wells (02531)		
02531-0002	LF	12" Diameter Drainage Well With Corrugated Metal Liner	20.45	
02531-0003	LF	18" Diameter Drainage Well With Corrugated Metal Liner	24.67	
02531-0004	LF	24" Diameter Drainage Well With Corrugated Metal Liner	32.46	
02550		Site Utilities (02000) Note: New pipe includes hydrostatic testing and disinfecting. Underground utilities and pipe include warning tape. Excludes excavation and backfill. See CSI section 02215-0000 for excavation and backfill.		
02561		Waste Water Collection Structures (02550) See CSI section 02200-0000 for excavation and backfill.		
02561-0001		Manhole Accessories (02561)		
02561-0002		Precast Concrete Manhole Tops (02561-0001)		
02561-0003		Precast Slab Tops (02561-0002)		
02561-0004	EA	3' Diameter x 8" Thick Precast Manhole Top Slab	355.78	56.29
02561-0005	EA	3'-6" Diameter x 8" Thick Precast Manhole Top Slab	412.67	58.55
02561-0006	EA	4' Diameter x 8" Thick Precast Manhole Top Slab	476.03	60.80
02561-0007	EA	5' Diameter x 8" Thick Precast Manhole Top Slab	622.90	65.30
02561-0008	EA	6' Diameter x 8" Thick Precast Manhole Top Slab	735.91	69.80
02561-0009		Precast Cone Tops (02561-0002)		
02561-0010	EA	3' Diameter x 8" Thick Precast Manhole Top Cone	542.68	70.36
02561-0011	EA	3'-6" Diameter x 8" Thick Precast Manhole Top Cone	597.47	73.18
02561-0012	EA	4' Diameter x 8" Thick Precast Manhole Top Cone	652.28	75.99
02561-0013	EA	5' Diameter x 8" Thick Precast Manhole Top Cone	758.10	80.68
02561-0014	EA	6' Diameter x 8" Thick Precast Manhole Top Cone	867.69	86.32
02561-0015		Concrete Grade Extensions/Grade Rings (02561-0001)		
02561-0016		18" Diameter (02561-0015)		
02561-0017	EA	4" High, 8" Wall, 18" Diameter Concrete Grade Extension	65.85	
02561-0018	EA	6" High, 8" Wall, 18" Diameter Concrete Grade Extension	72.27	
02561-0019	EA	8" High, 8" Wall, 18" Diameter Concrete Grade Extension	78.68	
02561-0020	EA	10" High, 8" Wall, 18" Diameter Concrete Grade Extension	83.07	
02561-0021		24" Diameter (02561-0015)		
02561-0022	EA	4" High, 8" Wall, 24" Diameter Concrete Grade Extension	73.99	
02561-0023	EA	6" High, 8" Wall, 24" Diameter Concrete Grade Extension	81.28	
02561-0024	EA	8" High, 8" Wall, 24" Diameter Concrete Grade Extension	88.57	
02561-0025	EA	10" High, 8" Wall, 24" Diameter Concrete Grade Extension	95.86	

02000 Site Construction**02550 Site Utilities****02561 Waste Water Collection Structures**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

02561-0026	30" Diameter (02561-0015)	
02561-0027	EA 4" High, 8" Wall, 30" Diameter Concrete Grade Extension.....	81.93
02561-0028	EA 6" High, 8" Wall, 30" Diameter Concrete Grade Extension.....	90.06
02561-0029	EA 8" High, 8" Wall, 30" Diameter Concrete Grade Extension.....	98.19
02561-0030	EA 10" High, 8" Wall, 30" Diameter Concrete Grade Extension.....	106.32

02570 Maintenance And Repair For Manholes And Sewer Structures (02550)**02570-0001 Up To 12" Rise, Manhole Risers** (02570)

Note: Includes valve boxes.

02570-0002	Up To 26" Diameter, Up To 6" Rise Adjustable Or Solid Manhole Risers (02570-0001)	
02570-0003	EA Up To 2" Rise, Up To 26" Diameter, Adjustable Or Solid Manhole Risers	308.37
	Note: For manholes up to 26" in diameter.	
02570-0004	EA >2" To 3" Rise, Up To 26" Diameter, Adjustable Or Solid Manhole Risers	348.92
	Note: For manholes up to 26" in diameter.	
02570-0005	EA >3" To 4" Rise, Up To 26" Diameter, Adjustable Or Solid Manhole Risers	385.46
	Note: For manholes up to 26" in diameter.	
02570-0006	EA >4" To 5" Rise, Up To 26" Diameter, Adjustable Or Solid Manhole Risers	426.98
	Note: For manholes up to 26" in diameter.	
02570-0007	EA >5" To 6" Rise, Up To 26" Diameter, Adjustable Or Solid Manhole Risers	460.14
	Note: For manholes up to 26" in diameter.	

02570-0008 >26" To 32-1/2" Diameter, Up To 6" Rise Adjustable Or Solid Manhole Risers

(02570-0001)

02570-0009	EA Up To 2" Rise, >26" To 32-1/2" Diameter, Adjustable Or Solid Manhole Risers	368.38
	Note: For manholes over 26" in diameter and up to 32 1/2" diameter.	
02570-0010	EA >2 To 3" Rise, >26" To 32-1/2" Diameter, Adjustable Or Solid Manhole Risers	402.40
	Note: For manholes over 26" in diameter and up to 32 1/2" diameter.	
02570-0011	EA >3" To 4" Rise, >26" To 32-1/2" Diameter, Adjustable Or Solid Manhole Risers	445.62
	Note: For manholes over 26" in diameter and up to 32 1/2" diameter.	
02570-0012	EA >4" To 5" Rise, >26" To 32-1/2" Diameter, Adjustable Or Solid Manhole Risers	487.15
	Note: For manholes over 26" in diameter and up to 32 1/2" diameter.	
02570-0013	EA >5" To 6" Rise, >26" To 32-1/2" Diameter, Adjustable Or Solid Manhole Risers	526.97
	Note: For manholes over 26" in diameter and up to 32 1/2" diameter.	

02570-0014 Up To 36" Diameter, > 6" To 12" Rise Solid Manhole Risers (02570-0001)

02570-0015	EA 6-1/2" Rise, Up To 36" Diameter, Solid Manhole Risers.....	512.71
02570-0016	EA 7" Rise, Up To 36" Diameter, Solid Manhole Risers.....	558.77
02570-0017	EA 7-1/2" Rise, Up To 36" Diameter, Solid Manhole Risers.....	605.45
02570-0018	EA 8" Rise, Up To 36" Diameter, Solid Manhole Risers.....	641.75
02570-0019	EA 9" Rise, Up To 36" Diameter, Solid Manhole Risers.....	698.75
02570-0020	EA 10" Rise, Up To 36" Diameter, Solid Manhole Risers.....	749.97
02570-0021	EA 11" Rise, Up To 36" Diameter, Solid Manhole Risers.....	799.80
02570-0022	EA 12" Rise, Up To 36" Diameter, Solid Manhole Risers.....	850.54

02570-0023 > 12" Rise, Solid Manhole Risers (02570)

Note: Includes valve boxes.

02570-0024 Precast Concrete Manhole Riser (02570-0023)

02570-0025	VLF Up To 26" Diameter Precast Concrete Manhole Riser	70.77
02570-0026	VLF >26" To 36" Diameter Precast Concrete Manhole Riser	84.78
02570-0027	VLF >36" To 48" Diameter Precast Concrete Manhole Riser	96.56
02570-0028	VLF >48" To 60" Diameter Precast Concrete Manhole Riser	188.69
02570-0029	VLF >60" To 72" Diameter Precast Concrete Manhole Riser	277.84

02570-0030 Restoration And Rehabilitation Of Manholes (02570)

Note: Work is in confined spaces.

02570-0031 Inspection And Ventilation System Set-up (02570-0030)

02570-0032	EA Inspect Manhole	120.18
02570-0033	EA Installation And Maintenance Of Ventilation System, 36" to 60" diameter to 2600'	7,664.83
	Note: For internal inspection and repair of water mains.	
02570-0034	EA Installation And Maintenance Of Ventilation System, >60" to 108" diameter to 2600'	10,790.70
	Note: For internal inspection and repair of water mains	

02570-0035 Manhole Seals (02570-0030)**02570-0036 Internal Manhole Chimney Seals** (02570-0035)

Note: Cretex.

02570-0037	EA 20" Internal Manhole Chimney Seal	341.75
02570-0038	EA 22" Internal Manhole Chimney Seal	360.22
02570-0039	EA 24" Internal Manhole Chimney Seal	369.45
02570-0040	EA 26" Internal Manhole Chimney Seal	424.87
02570-0041	EA 28" Internal Manhole Chimney Seal	480.29
02570-0042	EA 30" Internal Manhole Chimney Seal	535.70
02570-0043	EA 36" Internal Manhole Chimney Seal	646.54



Site Construction		02000	02
Site Utilities		02550	
Maintenance And Repair For Manholes And Sewer Structures		02570	

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02570-0044		External Manhole Encapsulation (02570-0035) Note: Wrap/seal.		
02570-0045	EA	24" External Manhole Encapsulation.....	498.75	
02570-0046	EA	30" External Manhole Encapsulation.....	526.46	
02570-0047	EA	36" External Manhole Encapsulation.....	563.41	
02570-0048	EA	42" External Manhole Encapsulation.....	609.59	
02570-0049	EA	48" External Manhole Encapsulation.....	674.24	
02570-0050	EA	54" External Manhole Encapsulation.....	748.14	
02570-0051	EA	60" External Manhole Encapsulation.....	840.50	
02600		Paving And Surfacing (02600)		
02611		Base Courses (02600)		
02611-0001		Gravel And Stone Base And Subbase Courses (02611)		
02611-0002		Base And Subbase Courses For Roadways And Parking Areas (02611-0001) Note: Includes 3/4" To 1-1/2" aggregate material, hauling up to 15 miles, dumping, spreading, grading, compacting and watering. See CSI section 02119-0011 for hauling greater than 15 miles.		
02611-0003		Base And Subbase Courses By The CY (02611-0002)		
02611-0004	CY	Bituminous Stabilized Base Course Note: 3/4" ASTM C33.	75.65	
02611-0005	CY	Class II Base Course	58.70	
02611-0006	CY	Class III Base Course	59.55	
02611-0007		Base Courses For Sidewalk (Asphalt Or Concrete) (02611-0001) Note: Includes material, hauling up to 15 miles, placement, spreading, grading, and compaction. See CSI section 02119-0011 for hauling greater than 15 miles.		
02611-0008	SF	2" Crushed Aggregate Base Course	0.41	
		02MOD-0159 For Up To 1000, Add	0.11	
		02MOD-0160 For > 1000 To 2500, Add	0.04	
02611-0009	SF	3" Crushed Aggregate Base Course	0.58	
		02MOD-0159 For Up To 1000, Add	0.16	
		02MOD-0160 For > 1000 To 2500, Add	0.06	
02611-0010	SF	4" Crushed Aggregate Base Course	0.75	
		02MOD-0159 For Up To 1000, Add	0.21	
		02MOD-0160 For > 1000 To 2500, Add	0.08	
02611-0011	SF	5" Crushed Aggregate Base Course	0.97	
		02MOD-0159 For Up To 1000, Add	0.27	
		02MOD-0160 For > 1000 To 2500, Add	0.10	
02611-0012	SF	6" Crushed Aggregate Base Course	1.18	
		02MOD-0159 For Up To 1000, Add	0.33	
		02MOD-0160 For > 1000 To 2500, Add	0.12	
02611-0013	SF	7" Crushed Aggregate Base Course	1.36	
		02MOD-0159 For Up To 1000, Add	0.38	
		02MOD-0160 For > 1000 To 2500, Add	0.14	
02611-0014	SF	8" Crushed Aggregate Base Course	1.56	
		02MOD-0159 For Up To 1000, Add	0.44	
		02MOD-0160 For > 1000 To 2500, Add	0.16	
02612		Bituminous Paving (02600) Note: Includes delivery to the site, placement, rolling, finishing and sweeping. Thicknesses indicated are compacted depth.		
02612-0001		Bituminous Concrete Paving (02612)		
02612-0002		Intermediate Binder Courses (02612-0001) Note: Meets Caltran requirements.		
02612-0003	TON	Bituminous Hot Mix Intermediate Course 3954 LB/CY	86.14	
		Note: Includes Type A and Type B with 1/2" to 3/4" course or medium aggregate, placement, rolling, finishing and sweeping. Used for applications not described elsewhere in this section.		
		02MOD-0360 For Warm Mix Additive, Add	3.60	
02612-0004		Surface Courses (02612-0001) Note: Meets Caltran requirements.		
02612-0005	TON	Bituminous Hot Mix Surface Course 3954 LB/CY	86.14	
		Note: Includes Type A and Type B with 1/2" to 3/4" course or medium aggregate, placement, rolling, finishing and sweeping. Used for applications not described elsewhere in this section.		
		02MOD-0360 For Warm Mix Additive, Add	3.60	
02612-0006	TON	Asphalt Rubberized Hot Mix (ARHM) Surface Course	95.17	
		Note: Includes 1/2" to 3/4" course or medium aggregate, placement, rolling, finishing and sweeping.		
		02MOD-0360 For Warm Mix Additive, Add	3.60	
02612-0007	TON	Hand Placed Hot Mixed Asphalt 3954 LB/CY	180.81	
		Note: For small areas not reachable by machine. Includes placement, rolling, finishing and sweeping.		
02612-0008	SY	Surface Prime Coat, 0.28 Gallon/SY	1.06	
02612-0009	SY	Tack Coat, 0.1 Gallon/SY	0.59	
02612-0010		Bituminous Surface Treatment For Roadways (02612) Note: 0.25 Gal bitumen per SY and 30 lb of gravel/SY.		
02612-0011	SY	Single Course Bituminous Treatment, Prepare And Clean Surface Roadway	2.31	
02612-0012	SY	Double Course Bituminous Treatment, Prepare And Clean Surface Roadway	4.15	

02000 Site Construction**02600 Paving And Surfacing****02612 Bituminous Paving**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

02612-0013 Miscellaneous <small>(02612)</small>	
02612-0014	SF Soil Sterilant 1000-5000 SF 0.12
02612-0015	SF Soil Sterilant 5001-10000 SF..... 0.08
02612-0016	SF Soil Sterilant 10001-20000 SF..... 0.07
02612-0017	HR Power Sweeper (Broom Or Vacuum) 202.95

02613 Cold Milling Of Pavement (02600)

Note: Excludes hauling of material. See CSI section 02119-0011 for hauling.

02613-0001 Removal Of Asphalt Surface Course <small>(02613)</small>	
Note: Includes direct loading into truck.	
02613-0002 Production Cold Milling Of Roads And Parking Areas <small>(02613-0001)</small>	
Note: For removal of entire lanes of roads or parking areas. Includes work around man holes, scuppers, drainage structures, catch basins, etc.	
02613-0003	SY Production Cold Milling Of Asphalt Up To 2" Depth..... 1.95
	02MOD-0161 For > 10000 To 25000, Deduct -0.10
	02MOD-0162 For > 25000, Deduct -0.20
02613-0004	SY Production Cold Milling Of Asphalt > 2" To 6" Depth..... 3.04
	02MOD-0161 For > 10000 To 25000, Deduct -0.15
	02MOD-0162 For > 25000, Deduct -0.30
02613-0005	SY Production Cold Milling Of Asphalt > 6" To 12" Depth..... 4.24
	02MOD-0161 For > 10000 To 25000, Deduct -0.21
	02MOD-0162 For > 25000, Deduct -0.42
02613-0006	SY Production Cold Milling Of Concrete Per Inch..... 4.35

02614 Concrete Paving (02600)

Note: The following section includes spreading and placing delivered Portland cement concrete mix. See CSI section 02630-0000 for sidewalks, 03311-0000 for other concrete.

02614-0001 Concrete Paving Assemblies <small>(02614)</small>	
Note: Includes forms, wire mesh (where necessary), #3-#6 reinforcing rods at 12" on center with chairs (where necessary), vapor barrier, concrete, curing, latex or hot asphalt expansion joints, control joints, screed, float and finish. Excludes excavation, base and earthwork. Includes concrete paving machine. To be used for roadways, driveways, parking areas, or other areas of vehicular traffic. See CSI section 03302-0001 for color additive.	
02614-0002 Material Cost Includes Concrete At Spreader <small>(02614-0001)</small>	
02614-0003	SY 4" Concrete Pavement, 4500 PSI Assembly 36.89
	02MOD-0163 For 2500 PSI Concrete, Deduct -1.85
	02MOD-0164 For 3000 PSI Concrete, Deduct -1.21
	02MOD-0165 For 3500 PSI Concrete, Deduct -0.97
	02MOD-0166 For 4000 PSI Concrete, Deduct -0.42
02614-0004	SY 6" Concrete Pavement, 4500 PSI Assembly 46.35
	02MOD-0163 For 2500 PSI Concrete, Deduct -2.45
	02MOD-0164 For 3000 PSI Concrete, Deduct -1.60
	02MOD-0165 For 3500 PSI Concrete, Deduct -1.28
	02MOD-0166 For 4000 PSI Concrete, Deduct -0.55
02614-0005	SY 8" Concrete Pavement, 4500 PSI Assembly 62.78
	02MOD-0163 For 2500 PSI Concrete, Deduct -3.40
	02MOD-0164 For 3000 PSI Concrete, Deduct -2.21
	02MOD-0165 For 3500 PSI Concrete, Deduct -1.77
	02MOD-0166 For 4000 PSI Concrete, Deduct -0.77

02616 Repair And Resurfacing (02600)

See CSI section 02612-0000 for large area resurfacing.

02616-0001 Pavement Repair <small>(02616)</small>	
02616-0002 Permanent Pot Hole Repair <small>(02616-0001)</small>	
Note: Includes removal of loose material and moisture, saw cutting, chipping, squaring off, bonding agent, compaction and hauling up to 15 miles. Tasks do not include signage, barricades, flagmen, field survey or marking. See CSI section 02119-0011 for hauling greater than 15 miles.	
02616-0003	EA Permanent Pot Hole Repairs With Cold Mix, Up To 3 Tons 1,281.53
02616-0004	TON Permanent Pot Hole Repairs With Cold Mix..... 416.79
Note: Use for each ton over 3 tons.	
02616-0005	EA Permanent Pot Hole Repairs With Hot Mix Modified, Up To 3 Tons 1,252.79
02616-0006	TON Permanent Pot Hole Repairs With Hot Mix Modified..... 407.21
Note: Use for each ton over 3 tons.	
02616-0007	EA Permanent Pot Hole Repairs With Hot Mix, Up To 3 Tons..... 1,224.05
02616-0008	TON Permanent Pot Hole Repairs With Hot Mix 397.63
Note: Use for each ton over 3 tons.	
02616-0009 Asphalt Placement For Small Repairs <small>(02616-0001)</small>	
Note: This section is used for placing up to 100 tons of asphalt after a small area of existing asphalt is removed to allow work such as trenching across or in a road, excavating a drainage structure, uncovering a utility line, etc. Includes mobilization of paving equipment such as a roller, placing the asphalt, and compaction. Excludes saw cutting, demolition of existing pavement, and new subbase material. Use approximately 0.055 tons per square yard per inch of depth. See CSI section 02612-0000 for areas requiring more than 100 tons.	
02616-0010	TON Asphalt Placement For Small Repair Areas, Hot Mix Modified..... 201.20



MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02617 Pavement Sealing (02600)				
02617-0001 Concrete Pavement Joint And Crack Repair (02617)				
Note: Includes cutting joint, removal of existing material, sweeping and cleaning area.				
02617-0002	LF	Pavement Sealing, Roads Resealing Joints In Concrete Pavements For Roads.....	6.54	
02617-0003	LF	Joint Sealing, Concrete Pavement Preformed Elastomeric.....	9.71	
02617-0004 Asphalt Seal Coating, For Roads And Parking Lot (02617)				
Note: Includes sweeping and cleaning of area.				
02617-0005	SY	Type I Slurry Seal Asphalt Coating	1.57	
Note: 1/8" thick.				
02MOD-0354 For Rubberized Emulsion Aggregate Slurry (REAS), Add			0.51	
02MOD-0355 For Rubberized Polymer Modified Emulsion (RPME), Add			0.65	
02617-0006	SY	Type O Asphalt Seal Coating, No Aggregate.....	0.99	
02617-0007	SY	Type II Slurry Seal Asphalt Coating, Up To 500 SY	5.50	
Note: 1/4" thick, 14 to 18 Lbs/SY.				
02MOD-0349 For Rubberized Emulsion Aggregate Slurry (REAS), Add			0.41	
02MOD-0350 For Latex Modified Asphalt Emulsion, Add			0.41	
02617-0008	SY	Type II Slurry Seal Asphalt Coating, >500 To 1000 SY.....	4.44	
Note: 1/4" thick, 14 to 18 Lbs/SY.				
02MOD-0349 For Rubberized Emulsion Aggregate Slurry (REAS), Add			0.36	
02MOD-0350 For Latex Modified Asphalt Emulsion, Add			0.36	
02617-0009	SY	Type II Slurry Seal Asphalt Coating, >1000 To 5000 SY.....	3.56	
Note: 1/4" thick, 14 to 18 Lbs/SY.				
02MOD-0349 For Rubberized Emulsion Aggregate Slurry (REAS), Add			0.30	
02MOD-0350 For Latex Modified Asphalt Emulsion, Add			0.30	
02617-0010	SY	Type II Slurry Seal Asphalt Coating, >5000 To 20000 SY.....	2.87	
Note: 1/4" thick, 14 to 18 Lbs/SY.				
02MOD-0349 For Rubberized Emulsion Aggregate Slurry (REAS), Add			0.25	
02MOD-0350 For Latex Modified Asphalt Emulsion, Add			0.25	
02617-0011	SY	Type II Slurry Seal Asphalt Coating, > 20000 SY.....	2.42	
Note: 1/4" thick, 14 to 18 Lbs/SY.				
02MOD-0349 For Rubberized Emulsion Aggregate Slurry (REAS), Add			0.22	
02MOD-0350 For Latex Modified Asphalt Emulsion, Add			0.22	
02617-0012	SY	Type III Slurry Seal Asphalt Coating, Up To 500 SY	6.34	
Note: 3/8" thick, 25 to 30 Lbs/SY.				
02MOD-0349 For Rubberized Emulsion Aggregate Slurry (REAS), Add			0.48	
02MOD-0350 For Latex Modified Asphalt Emulsion, Add			0.48	
02617-0013	SY	Type III Slurry Seal Asphalt Coating, >500 To 1000 SY.....	5.24	
Note: 3/8" thick, 25 to 30 Lbs/SY.				
02MOD-0349 For Rubberized Emulsion Aggregate Slurry (REAS), Add			0.42	
02MOD-0350 For Latex Modified Asphalt Emulsion, Add			0.42	
02617-0014	SY	Type III Slurry Seal Asphalt Coating, > 1000 To 5000 SY.....	4.14	
Note: 3/8" thick, 25 to 30 Lbs/SY.				
02MOD-0349 For Rubberized Emulsion Aggregate Slurry (REAS), Add			0.35	
02MOD-0350 For Latex Modified Asphalt Emulsion, Add			0.35	
02617-0015	SY	Type III Slurry Seal Asphalt Coating, > 5000 To 20000 SY.....	3.35	
Note: 3/8" thick, 25 to 30 Lbs/SY.				
02MOD-0349 For Rubberized Emulsion Aggregate Slurry (REAS), Add			0.30	
02MOD-0350 For Latex Modified Asphalt Emulsion, Add			0.30	
02617-0016	SY	Type III Slurry Seal Asphalt Coating, > 20000 SY.....	2.82	
Note: 3/8" thick, 25 to 30 Lbs/SY.				
02MOD-0349 For Rubberized Emulsion Aggregate Slurry (REAS), Add			0.26	
02MOD-0350 For Latex Modified Asphalt Emulsion, Add			0.26	
02617-0017 Asphalt Pavement Crack And Sealing Repair (02617)				
Note: Includes sweeping and cleaning of area.				
02617-0018	LF	Up To 200 LF Fill Cracks Up To 1/2" x 1/2" With Hot Asphalt Crack Filler.....	1.09	
Note: Includes air cleaning of cracks. Excludes backer rod where required and routing of crack.				
02MOD-0338 For 3/4" x 1/2" Fill, Add			0.29	
02MOD-0339 For 1" x 1/2" Fill, Add			0.54	
02MOD-0340 For Backer Rod, Add			0.63	
02617-0019	LF	> 200 To 500 LF Fill Cracks Up To 1/2" x 1/2" With Hot Asphalt Crack Filler	0.88	
Note: Includes air cleaning of cracks. Excludes backer rod where required and routing of crack.				
02MOD-0338 For 3/4" x 1/2" Fill, Add			0.23	
02MOD-0339 For 1" x 1/2" Fill, Add			0.44	
02MOD-0340 For Backer Rod, Add			0.57	
02617-0020	LF	> 500 To 2000 LF Fill Cracks Up To 1/2" x 1/2" With Hot Asphalt Crack Filler	0.70	
Note: Includes air cleaning of cracks. Excludes backer rod where required and routing of crack.				
02MOD-0338 For 3/4" x 1/2" Fill, Add			0.19	
02MOD-0339 For 1" x 1/2" Fill, Add			0.36	
02MOD-0340 For Backer Rod, Add			0.52	
02617-0021	LF	> 2000 To 5000 LF Fill Cracks Up To 1/2" x 1/2" With Hot Asphalt Crack Filler	0.60	
Note: Includes air cleaning of cracks. Excludes backer rod where required and routing of crack.				
02MOD-0338 For 3/4" x 1/2" Fill, Add			0.17	
02MOD-0339 For 1" x 1/2" Fill, Add			0.32	
02MOD-0340 For Backer Rod, Add			0.50	
02617-0022	LF	> 5000 To 10000 LF Fill Cracks Up To 1/2" x 1/2" With Hot Asphalt Crack Filler.....	0.53	
Note: Includes air cleaning of cracks. Excludes backer rod where required and routing of crack.				
02MOD-0338 For 3/4" x 1/2" Fill, Add			0.15	
02MOD-0339 For 1" x 1/2" Fill, Add			0.28	
02MOD-0340 For Backer Rod, Add			0.47	

02000 Site Construction**02600 Paving And Surfacing****02617 Pavement Sealing**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02617-0023	LF	> 10000 LF Fill Cracks Up To 1/2" x 1/2" With Hot Asphalt Crack Filler.....	0.50	
		Note: Includes air cleaning of cracks. Excludes backer rod where required and routing of crack.		
	02MOD-0338	For 3/4" x 1/2" Fill, Add	0.13	
	02MOD-0339	For 1" x 1/2" Fill, Add	0.25	
	02MOD-0340	For Backer Rod, Add	0.45	
02617-0024	LF	Up To 200 LF Fill Cracks Up To 1/4" x 1/4" With Cold Pour Rubberized Asphalt Crack Filler.....	2.12	
	02MOD-0341	For 3/8" x 1/4" Fill, Add	0.45	
	02MOD-0342	For 1/2" x 1/4" Fill, Add	0.82	
	02MOD-0343	For 1/2" x 1/2" Fill, Add	1.84	
02617-0025	LF	> 200 To 500 LF Fill Cracks Up To 1/4" x 1/4" With Cold Pour Rubberized Asphalt Crack Filler.....	1.70	
	02MOD-0341	For 3/8" x 1/4" Fill, Add	0.37	
	02MOD-0342	For 1/2" x 1/4" Fill, Add	0.67	
	02MOD-0343	For 1/2" x 1/2" Fill, Add	1.51	
02617-0026	LF	>500 To 2000 LF Fill Cracks Up To 1/4" x 1/4" With Cold Pour Rubberized Asphalt Crack Filler.....	1.30	
	02MOD-0341	For 3/8" x 1/4" Fill, Add	0.29	
	02MOD-0342	For 1/2" x 1/4" Fill, Add	0.52	
	02MOD-0343	For 1/2" x 1/2" Fill, Add	1.20	
02617-0027	LF	>2000 To 5000 LF Fill Cracks Up To 1/4" x 1/4" With Cold Pour Rubberized Asphalt Crack Filler.....	1.15	
	02MOD-0341	For 3/8" x 1/4" Fill, Add	0.26	
	02MOD-0342	For 1/2" x 1/4" Fill, Add	0.47	
	02MOD-0343	For 1/2" x 1/2" Fill, Add	1.08	
02617-0028	LF	> 5000 To 10000 LF Fill Cracks Up To 1/4" x 1/4" With Cold Pour Rubberized Asphalt Crack Filler.....	1.04	
	02MOD-0341	For 3/8" x 1/4" Fill, Add	0.23	
	02MOD-0342	For 1/2" x 1/4" Fill, Add	0.42	
	02MOD-0343	For 1/2" x 1/2" Fill, Add	0.96	
02617-0029	LF	> 10000 LF Fill Cracks Up To 1/4" x 1/4" With Cold Pour Rubberized Asphalt Crack Filler.....	0.97	
	02MOD-0341	For 3/8" x 1/4" Fill, Add	0.21	
	02MOD-0342	For 1/2" x 1/4" Fill, Add	0.39	
	02MOD-0343	For 1/2" x 1/2" Fill, Add	0.88	
02617-0030	LF	For Routing And Cleaning Of Crack, Add Per 1/2" Depth.....	0.37	
02617-0031	LF	Crack Fill Backer Material, Up To 1" Diameter, As Required.....	1.20	
02617-0032		Fog Sealer (02617)		
02617-0033	SY	Up To 200 SY Fog Seal, SS-1H.....	1.98	
02617-0034	SY	> 200 To 500 SY Fog Seal, SS-1H.....	1.43	
02617-0035	SY	> 500 To 1100 SY Fog Seal, SS-1.....	1.25	
02617-0036	SY	>1100 To 4400 SY Fog Seal, SS-1H.....	0.88	
02617-0037	SY	> 4400 To 7800 SY Fog Seal, SS-1H.....	0.78	
02617-0038	SY	> 7800 To 16700 SY Fog Seal, SS-1H.....	0.70	
02617-0039	SY	> 16700 SY Fog Seal, SS-1H.....	0.62	
02617-0040		Asphalt Rubber Aggregate Membrane (02617)		
		Note: Includes cleaning and preparing existing surface, spreading asphalt rubber and cover aggregate, rolling and sweeping.		
02617-0041	SY	Up To 200 SY 3/8" Asphalt Rubber Aggregate Membrane.....	5.46	
02617-0042	SY	>200 To 500 SY 3/8" Asphalt Rubber Aggregate Membrane.....	4.39	
02617-0043	SY	>500 To 1100 SY 3/8" Asphalt Rubber Aggregate Membrane.....	4.01	
02617-0044	SY	>1100 To 4400 SY 3/8" Asphalt Rubber Aggregate Membrane.....	3.42	
02617-0045	SY	>4400 To 7800 SY 3/8" Asphalt Rubber Aggregate Membrane.....	3.20	
02617-0046	SY	>7800 To 16700 SY 3/8" Asphalt Rubber Aggregate Membrane.....	3.04	
02617-0047	SY	> 16700 SY 3/8" Asphalt Rubber Aggregate Membrane.....	2.86	
02617-0048		Polymer-Modified Emulsified Asphalt (Microsurfacing) (02617)		
		Note: Use a blend of emulsified quick-set polymer-modified CSS-1H asphalt and latex-based polymer.		
02617-0049	SY	Up To 200 SY 3/8" Polymer-Modified Emulsified Asphalt.....	5.98	
02617-0050	SY	>200 To 500 SY 3/8" Polymer-Modified Emulsified Asphalt.....	4.84	
02617-0051	SY	>500 To 1100 SY 3/8" Polymer-Modified Emulsified Asphalt.....	4.44	
02617-0052	SY	>1100 To 4400 SY 3/8" Polymer-Modified Emulsified Asphalt.....	3.83	
02617-0053	SY	>4400 To 7800 SY 3/8" Polymer-Modified Emulsified Asphalt.....	3.60	
02617-0054	SY	>7800 To 16700 SY 3/8" Polymer-Modified Emulsified Asphalt.....	3.42	
02617-0055	SY	> 16700 SY 3/8" Polymer-Modified Emulsified Asphalt.....	3.24	
02618		Pavement Marking (02600)		
		Note: Includes layout, sweeping and cleaning of area. See CSI section 01550-0000 for temporary markings and removable line mask tape.		
02618-0001		Mobilize Pavement Marking Crew And Equipment At New Location (02618)		
02618-0002	EA	Mobilize Pavement Marking Crew And Equipment At New Location.....	300.68	
02618-0003		Pavement Striping, Letters, Symbols And Markers For Roads (02618)		
		Note: Includes primers, adhesive and glass beads where required. For broken line modifier quantity use total lane length.		
02618-0004		Thermoplastic Reflective Pavement Marking (02618-0003)		
02618-0005		Thermoplastic Reflective Pavement Marking (02618-0004)		
02618-0006	LF	Single 4" Wide Solid Line, Thermoplastic Reflective Pavement Striping.....	0.86	
	02MOD-0171	For < 1 Mile, Add	0.17	
	02MOD-0172	For > 5 Miles, Deduct	-0.13	
	02MOD-0320	For Broken Line, Deduct	-0.50	



MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02618-0007	LF	Single 6" Wide Solid Line, Thermoplastic Reflective Pavement Striping.....	1.22	
	02MOD-0171	For < 1 Mile, Add	0.24	
	02MOD-0172	For > 5 Miles, Deduct	-0.18	
	02MOD-0320	For Broken Line, Deduct	-0.74	
02618-0008	LF	Single 8" Wide Solid Line, Thermoplastic Reflective Pavement Striping.....	1.63	
	02MOD-0171	For < 1 Mile, Add	0.33	
	02MOD-0172	For > 5 Miles, Deduct	-0.24	
	02MOD-0320	For Broken Line, Deduct	-0.98	
02618-0009	LF	Single 12" Wide Solid Line, Thermoplastic Reflective Pavement Striping.....	2.37	
	02MOD-0171	For < 1 Mile, Add	0.47	
	02MOD-0172	For > 5 Miles, Deduct	-0.36	
	02MOD-0320	For Broken Line, Deduct	-1.48	
02618-0010	SF	>12" Wide, Thermoplastic Reflective Pavement Striping	2.64	
02618-0011	LF	Double 4" Wide Solid Lines, Thermoplastic Reflective Pavement Striping.....	1.51	
	02MOD-0171	For < 1 Mile, Add	0.30	
	02MOD-0172	For > 5 Miles, Deduct	-0.23	
	02MOD-0321	For Broken Line On One Side, Deduct	-0.49	
	02MOD-0322	For Double Broken Line, Deduct	-0.98	
02618-0012	LF	Double 6" Wide Solid Lines, Thermoplastic Reflective Pavement Striping.....	2.21	
	02MOD-0171	For < 1 Mile, Add	0.44	
	02MOD-0172	For > 5 Miles, Deduct	-0.33	
	02MOD-0321	For Broken Line On One Side, Deduct	-0.74	
	02MOD-0322	For Double Broken Line, Deduct	-1.48	
02618-0013	EA	6" High, Letter/Number, Thermoplastic Reflective Pavement Marking.....	3.15	
	02MOD-0167	For < 10, Add	0.33	
	02MOD-0168	For > 50 To 100, Deduct	-0.16	
	02MOD-0169	For > 100 To 200, Deduct	-0.22	
	02MOD-0170	For > 200, Deduct	-0.44	
02618-0014	EA	12" High, Letter/Number, Thermoplastic Reflective Pavement Marking.....	6.78	
	02MOD-0167	For < 10, Add	0.50	
	02MOD-0168	For > 50 To 100, Deduct	-0.25	
	02MOD-0169	For > 100 To 200, Deduct	-0.33	
	02MOD-0170	For > 200, Deduct	-0.66	
02618-0015	EA	24" High, Letter/Number, Thermoplastic Reflective Pavement Marking.....	11.57	
	02MOD-0167	For < 10, Add	0.83	
	02MOD-0168	For > 50 To 100, Deduct	-0.41	
	02MOD-0169	For > 100 To 200, Deduct	-0.55	
	02MOD-0170	For > 200, Deduct	-1.10	
02618-0016	EA	36" High, Letter/Number, Thermoplastic Reflective Pavement Marking.....	21.72	
	02MOD-0167	For < 10, Add	1.66	
	02MOD-0168	For > 50 To 100, Deduct	-0.83	
	02MOD-0169	For > 100 To 200, Deduct	-1.11	
	02MOD-0170	For > 200, Deduct	-2.21	
02618-0017	EA	48" High, Letter/Number, Thermoplastic Reflective Pavement Marking.....	26.23	
	02MOD-0167	For < 10, Add	1.86	
	02MOD-0168	For > 50 To 100, Deduct	-0.93	
	02MOD-0169	For > 100 To 200, Deduct	-1.24	
	02MOD-0170	For > 200, Deduct	-2.48	
02618-0018	EA	72" High, Letter/Number, Thermoplastic Reflective Pavement Marking.....	47.34	
	02MOD-0167	For < 10, Add	3.30	
	02MOD-0168	For > 50 To 100, Deduct	-1.65	
	02MOD-0169	For > 100 To 200, Deduct	-2.20	
	02MOD-0170	For > 200, Deduct	-4.41	
02618-0019	EA	96" High, Letter/Number, Thermoplastic Reflective Pavement Marking.....	62.88	
	02MOD-0167	For < 10, Add	4.44	
	02MOD-0168	For > 50 To 100, Deduct	-2.22	
	02MOD-0169	For > 100 To 200, Deduct	-2.96	
	02MOD-0170	For > 200, Deduct	-5.92	
02618-0020	EA	120" High, Letter/Number, Thermoplastic Reflective Pavement Marking.....	110.98	
	02MOD-0167	For < 10, Add	5.50	
	02MOD-0168	For > 50 To 100, Deduct	-2.75	
	02MOD-0169	For > 100 To 200, Deduct	-3.67	
	02MOD-0170	For > 200, Deduct	-7.33	
02618-0021	SF	Letter/Number, Thermoplastic Reflective Pavement Marking	5.72	
02618-0022	SY	Cross Hatch, Thermoplastic Reflective Pavement Marking.....	39.56	
02618-0023	EA	Handicap Symbol, Thermoplastic Reflective Pavement Marking	148.19	
02618-0024	SY	Solid Area, Thermoplastic Reflective Pavement Marking.....	47.26	
02618-0025	EA	Railroad Symbol, Thermoplastic Reflective Pavement Marking	440.77	
02618-0026	EA	Bike Lane Symbol, Thermoplastic Reflective Pavement Marking	95.43	
		Note: Approximate overall dimensions: 4' width x 8' height.		
02618-0027	EA	Diamond Symbol, Thermoplastic Reflective Pavement Marking	70.87	
02618-0028	SF	Symbols, Thermoplastic Reflective Pavement Marking	6.44	
		Note: Handicap, railroad, diamond, arrows, etc.		
02618-0029	EA	10' Arrow, Type I, Thermoplastic Reflective Pavement Marking	90.20	
02618-0030	EA	18' Arrow, Type I, Thermoplastic Reflective Pavement Marking	161.06	
02618-0031	EA	24' Arrow, Type I, Thermoplastic Reflective Pavement Marking	199.73	
02618-0032	EA	24' Arrow With Single (L or R) Turn Arrow, Type II, Thermoplastic Reflective Pavement Marking	289.93	
02618-0033	EA	24' Arrow With Both (L and R) Turn Arrows, Type II, Thermoplastic Reflective Pavement Marking.....	380.13	
02618-0034	EA	24' Arrow Single (L or R) Turn Arrow, Type III, Thermoplastic Reflective Pavement Marking.....	270.59	
02618-0035	EA	24' Arrow Both (L and R) Turn Arrows, Type III, Thermoplastic Reflective Pavement Marking.....	470.32	
02618-0036	EA	8' Turn Arrow (L or R), Type IV, Thermoplastic Reflective Pavement Marking	96.64	
02618-0037	EA	24' Arrow, Type V, Thermoplastic Reflective Pavement Marking.....	212.61	
02618-0038	EA	18' Arrow, Type VI, Thermoplastic Reflective Pavement Marking.....	270.59	
02618-0039	EA	13' Arrow With Single (L or R) Turn Arrow, Type VII, Thermoplastic Reflective Pavement Marking	173.96	
02618-0040	EA	15' Arrow With Both (L and R) Turn Arrows, Type VIII, Thermoplastic Reflective Pavement Marking	231.94	
02618-0041	EA	5' Arrow, Bike Lane, Thermoplastic Reflective Pavement Marking	45.10	

02000 Site Construction**02600 Paving And Surfacing****02618 Pavement Marking**
 MINOR
CSI UOM DESCRIPTION

 TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST
02618-0042 Thermoplastic Reflective Pavement Striping By Hand For Repairs (02618-0004)

02618-0043	LF	Single 4" Wide Solid Line, Thermoplastic Reflective Pavement Striping By Hand For Repairs.....	1.69
02618-0044	LF	Single 6" Wide Solid Line, Thermoplastic Reflective Pavement Striping By Hand For Repairs.....	2.15
02618-0045	LF	Single 8" Wide Solid Line, Thermoplastic Reflective Pavement Striping By Hand For Repairs.....	2.68
02618-0046	LF	Single 12" Wide Solid Line, Thermoplastic Reflective Pavement Striping By Hand For Repairs.....	3.86
02618-0047	LF	Single 24" Wide Solid Line, Thermoplastic Reflective Pavement Striping By Hand For Repairs.....	7.02

02618-0048 Preformed, Patterned Thermoplastic Reflective Pavement Marking Tape (02618-0004)

Note: Applied with pressure sensitive adhesive. Includes adhesive. 60 mil thickness. (3M Stamark 380 Series).

02618-0049	LF	Single 4" Wide Solid Line, Preformed Tape, Patterned Thermoplastic Reflective Pavement Striping.....	1.82
		02MOD-0190 For < 1 Mile, Add	0.36
		02MOD-0191 For > 5 Miles, Deduct	-0.27
02618-0050	LF	Single 6" Wide Solid Line, Preformed Tape, Patterned Thermoplastic Reflective Pavement Striping.....	2.68
		02MOD-0190 For < 1 Mile, Add	0.54
		02MOD-0191 For > 5 Miles, Deduct	-0.40
02618-0051	LF	Single 8" Wide Solid Line, Preformed Tape, Patterned Thermoplastic Reflective Pavement Striping.....	3.58
		02MOD-0190 For < 1 Mile, Add	0.72
		02MOD-0191 For > 5 Miles, Deduct	-0.54
02618-0052	LF	Single 12" Wide Solid Line, Preformed Tape, Patterned Thermoplastic Reflective Pavement Striping.....	5.28
		02MOD-0190 For < 1 Mile, Add	1.06
		02MOD-0191 For > 5 Miles, Deduct	-0.79
02618-0053	SF	Preformed Solid Area, Patterned Thermoplastic Reflective Pavement Marking Tape.....	14.13
		Note: Use task for lines > 12" wide, stop bars, transverse lines, diagonal lines, crossing lanes, etc.	
02618-0054	EA	6" High, Preformed Letter/Number, Patterned Thermoplastic Reflective Pavement Marking Tape.....	21.05
		02MOD-0186 For < 10, Add	0.60
		02MOD-0187 For > 50 To 100, Deduct	-0.30
		02MOD-0188 For > 100 To 200, Deduct	-0.40
		02MOD-0189 For > 200, Deduct	-0.80
02618-0055	EA	12" High, Preformed Letter/Number, Patterned Thermoplastic Reflective Pavement Marking Tape.....	37.52
		02MOD-0186 For < 10, Add	0.76
		02MOD-0187 For > 50 To 100, Deduct	-0.38
		02MOD-0188 For > 100 To 200, Deduct	-0.51
		02MOD-0189 For > 200, Deduct	-1.01
02618-0056	EA	24" High, Preformed Letter/Number, Patterned Thermoplastic Reflective Pavement Marking Tape.....	64.22
		02MOD-0186 For < 10, Add	1.51
		02MOD-0187 For > 50 To 100, Deduct	-0.75
		02MOD-0188 For > 100 To 200, Deduct	-1.00
		02MOD-0189 For > 200, Deduct	-2.01
02618-0057	EA	36" High, Preformed Letter/Number, Patterned Thermoplastic Reflective Pavement Marking Tape.....	91.69
		02MOD-0186 For < 10, Add	3.01
		02MOD-0187 For > 50 To 100, Deduct	-1.51
		02MOD-0188 For > 100 To 200, Deduct	-2.01
		02MOD-0189 For > 200, Deduct	-4.02
02618-0058	EA	48" High, Preformed Letter/Number, Patterned Thermoplastic Reflective Pavement Marking Tape.....	107.66
		02MOD-0186 For < 10, Add	3.38
		02MOD-0187 For > 50 To 100, Deduct	-1.69
		02MOD-0188 For > 100 To 200, Deduct	-2.25
		02MOD-0189 For > 200, Deduct	-4.50
02618-0059	EA	72" High, Preformed Letter/Number, Patterned Thermoplastic Reflective Pavement Marking Tape.....	135.76
		02MOD-0186 For < 10, Add	6.01
		02MOD-0187 For > 50 To 100, Deduct	-3.00
		02MOD-0188 For > 100 To 200, Deduct	-4.01
		02MOD-0189 For > 200, Deduct	-8.01
02618-0060	EA	96" High, Preformed Letter/Number, Patterned Thermoplastic Reflective Pavement Marking Tape.....	172.60
		02MOD-0186 For < 10, Add	8.07
		02MOD-0187 For > 50 To 100, Deduct	-4.04
		02MOD-0188 For > 100 To 200, Deduct	-5.38
		02MOD-0189 For > 200, Deduct	-10.76
02618-0061	EA	120" High, Preformed Letter/Number, Patterned Thermoplastic Reflective Pavement Marking Tape.....	216.49
		02MOD-0186 For < 10, Add	10.00
		02MOD-0187 For > 50 To 100, Deduct	-5.00
		02MOD-0188 For > 100 To 200, Deduct	-6.67
		02MOD-0189 For > 200, Deduct	-13.33
02618-0062	SF	Preformed Arrow, Patterned Thermoplastic Reflective Pavement Marking Tape.....	14.53
02618-0063	SF	Preformed Symbol, Patterned Thermoplastic Reflective Pavement Marking Tape.....	15.25
		Note: Handicap, railroad, diamond symbol, etc.	

02618-0064 Preformed, Thermoplastic Reflective Pavement Marking Tape (02618-0004)

Note: Heat applied. 125 mil thickness (90 mil for bicycle symbols). (Flint PreMark or HotTape Series).

02618-0065	EA	Preformed Bike Lane Symbol, Thermoplastic Reflective Pavement Marking Tape.....	113.16
		Note: Approximate overall dimensions: 4' width x 8' height.	
02618-0066	EA	Preformed Railroad Crossing Symbol, Thermoplastic Reflective Pavement Marking Tape.....	289.20
		Note: Approximate overall dimensions: 8' width x 20' height. Excludes transverse lines.	
02618-0067	EA	Preformed Preferential Lane Symbol (Diamond), Thermoplastic Reflective Pavement Marking Tape.....	63.94
		Note: Approximate overall dimensions: 3-1/4' width x 13' height.	
02618-0068	EA	6' Height, Preformed Through Lane Arrow, Thermoplastic Reflective Pavement Marking Tape.....	56.70
		Note: Approximate overall dimensions: 2' width x 6' height.	
02618-0069	EA	9-1/2' Height, Preformed Through Lane Arrow, Thermoplastic Reflective Pavement Marking Tape.....	99.83
		Note: Approximate overall dimensions: 3-1/4' width x 9-1/2' height.	
02618-0070	EA	4' Height, Preformed Turn Lane Arrow, Thermoplastic Reflective Pavement Marking Tape.....	63.68
		Note: Approximate overall dimensions: 3' width x 4' height.	
02618-0071	EA	8' Height, Preformed Turn Lane Arrow, Thermoplastic Reflective Pavement Marking Tape.....	109.72
		Note: Approximate overall dimensions: 6' width x 8' height.	
02618-0072	EA	Preformed Turn And Through Lane Arrow, Thermoplastic Reflective Pavement Marking Tape.....	179.57
		Note: Approximate overall dimensions: 7-1/4' width x 12-3/4' height.	



	Site Construction	02000	02
	Paving And Surfacing	02600	
	Pavement Marking	02618	

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02618-0073	EA	Preformed Dual Turn And Through Lane Arrow, Thermoplastic Reflective Pavement Marking Tape.....188.09 Note: Approximate overall dimensions: 13-1/2' width x 12-3/4' height.		
02618-0074	EA	Preformed Elongated Through Lane Arrow, Thermoplastic Reflective Pavement Marking Tape.....104.61 Note: Approximate overall dimensions: 1-2/3' width x 12' height.		
02618-0075	EA	Preformed Elongated Turn Lane Arrow, Thermoplastic Reflective Pavement Marking Tape.....114.50 Note: Approximate overall dimensions: 3' width x 12' height.		
02618-0076	EA	Preformed Elongated Dual Turn Lane Arrow, Thermoplastic Reflective Pavement Marking Tape224.60 Note: Approximate overall dimensions: 5-1/2' width x 20' height.		
02618-0077	EA	Preformed Elongated Turn And Through Lane Arrow, Thermoplastic Reflective Pavement Marking Tape184.94 Note: Approximate overall dimensions: 3-1/2' width x 20' height.		
02618-0078	EA	Preformed Elongated Dual Turn And Through Lane Arrow, Thermoplastic Reflective Pavement Marking Tape.....193.93 Note: Approximate overall dimensions: 5-1/2' width x 20' height.		
02618-0079	EA	Preformed Lane-Reduction Arrow, Thermoplastic Reflective Pavement Marking Tape.....248.33 Note: Approximate overall dimensions: 5-1/2' width x 18' height.		
02618-0080		Epoxy Reflective Pavement Marking (02618-0003) Note: 15 mil thickness.		
02618-0081	LF	Single 4" Wide Solid Line, Epoxy Reflective Pavement Striping0.34 02MOD-0173 For 20 Mil Thickness, Add 0.10 02MOD-0178 For < 1 Mile, Add 0.07 02MOD-0179 For > 5 Miles, Deduct -0.05 02MOD-0320 For Broken Line, Deduct -0.14		
02618-0082	LF	Single 6" Wide Solid Line, Epoxy Reflective Pavement Striping0.47 02MOD-0173 For 20 Mil Thickness, Add 0.14 02MOD-0178 For < 1 Mile, Add 0.09 02MOD-0179 For > 5 Miles, Deduct -0.07 02MOD-0320 For Broken Line, Deduct -0.21		
02618-0083	LF	Single 8" Wide Solid Line, Epoxy Reflective Pavement Striping0.57 02MOD-0173 For 20 Mil Thickness, Add 0.17 02MOD-0178 For < 1 Mile, Add 0.11 02MOD-0179 For > 5 Miles, Deduct -0.09 02MOD-0320 For Broken Line, Deduct -0.26		
02618-0084	LF	Single 12" Wide Solid Line, Epoxy Reflective Pavement Striping0.85 02MOD-0173 For 20 Mil Thickness, Add 0.26 02MOD-0178 For < 1 Mile, Add 0.17 02MOD-0179 For > 5 Miles, Deduct -0.13 02MOD-0320 For Broken Line, Deduct -0.41		
02618-0085	LF	Double 4" Wide Solid Lines, Epoxy Reflective Pavement Striping0.52 02MOD-0173 For 20 Mil Thickness, Add 0.16 02MOD-0178 For < 1 Mile, Add 0.10 02MOD-0179 For > 5 Miles, Deduct -0.08 02MOD-0321 For Broken Line On One Side, Deduct -0.14 02MOD-0322 For Double Broken Line, Deduct -0.28		
02618-0086	LF	Double 6" Wide Solid Lines, Epoxy Reflective Pavement Striping0.75 02MOD-0173 For 20 Mil Thickness, Add 0.24 02MOD-0178 For < 1 Mile, Add 0.15 02MOD-0179 For > 5 Miles, Deduct -0.11 02MOD-0321 For Broken Line On One Side, Deduct -0.21 02MOD-0322 For Double Broken Line, Deduct -0.42		
02618-0087	EA	6" High, Letter/Number, Epoxy Reflective Pavement Marking2.40 02MOD-0173 For 20 Mil Thickness, Add 0.25 02MOD-0174 For < 10, Add 0.30 02MOD-0175 For > 50 To 100, Deduct -0.15 02MOD-0176 For > 100 To 200, Deduct -0.20 02MOD-0177 For > 200, Deduct -0.40		
02618-0088	EA	12" High, Letter/Number, Epoxy Reflective Pavement Marking4.46 02MOD-0173 For 20 Mil Thickness, Add 0.65 02MOD-0174 For < 10, Add 0.45 02MOD-0175 For > 50 To 100, Deduct -0.23 02MOD-0176 For > 100 To 200, Deduct -0.30 02MOD-0177 For > 200, Deduct -0.60		
02618-0089	EA	24" High, Letter/Number, Epoxy Reflective Pavement Marking7.54 02MOD-0173 For 20 Mil Thickness, Add 1.13 02MOD-0174 For < 10, Add 0.75 02MOD-0175 For > 50 To 100, Deduct -0.38 02MOD-0176 For > 100 To 200, Deduct -0.50 02MOD-0177 For > 200, Deduct -1.00		
02618-0090	EA	36" High, Letter/Number, Epoxy Reflective Pavement Marking14.46 02MOD-0173 For 20 Mil Thickness, Add 2.06 02MOD-0174 For < 10, Add 1.51 02MOD-0175 For > 50 To 100, Deduct -0.75 02MOD-0176 For > 100 To 200, Deduct -1.00 02MOD-0177 For > 200, Deduct -2.01		
02618-0091	EA	48" High, Letter/Number, Epoxy Reflective Pavement Marking17.01 02MOD-0173 For 20 Mil Thickness, Add 2.57 02MOD-0174 For < 10, Add 1.69 02MOD-0175 For > 50 To 100, Deduct -0.84 02MOD-0176 For > 100 To 200, Deduct -1.13 02MOD-0177 For > 200, Deduct -2.25		
02618-0092	EA	72" High, Letter/Number, Epoxy Reflective Pavement Marking30.54 02MOD-0173 For 20 Mil Thickness, Add 4.66 02MOD-0174 For < 10, Add 3.00 02MOD-0175 For > 50 To 100, Deduct -1.50 02MOD-0176 For > 100 To 200, Deduct -2.00 02MOD-0177 For > 200, Deduct -4.01		

02000 Site Construction**02600 Paving And Surfacing****02618 Pavement Marking**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02618-0093	EA	96" High, Letter/Number, Epoxy Reflective Pavement Marking	40.73	
	02MOD-0173	For 20 Mil Thickness, Add	6.17	
	02MOD-0174	For < 10, Add	4.04	
	02MOD-0175	For > 50 To 100, Deduct	-2.02	
	02MOD-0176	For > 100 To 200, Deduct	-2.69	
	02MOD-0177	For > 200, Deduct	-5.38	
02618-0094	EA	120" High, Letter/Number, Epoxy Reflective Pavement Marking	64.19	
	02MOD-0173	For 20 Mil Thickness, Add	12.21	
	02MOD-0174	For < 10, Add	5.00	
	02MOD-0175	For > 50 To 100, Deduct	-2.50	
	02MOD-0176	For > 100 To 200, Deduct	-3.33	
	02MOD-0177	For > 200, Deduct	-6.67	
02618-0095 Painted Reflective Pavement Marking (02618-0003)				
Note: 15 mil thickness.				
02618-0096	LF	Single 4" Wide Solid Line, Painted Reflective Pavement Striping	0.20	
	02MOD-0184	For < 1 Mile, Add	0.04	
	02MOD-0185	For > 5 Miles, Deduct	-0.03	
	02MOD-0320	For Broken Line, Deduct	-0.04	
02618-0097	LF	Single 6" Wide Solid Line, Painted Reflective Pavement Striping	0.26	
	02MOD-0184	For < 1 Mile, Add	0.05	
	02MOD-0185	For > 5 Miles, Deduct	-0.04	
	02MOD-0320	For Broken Line, Deduct	-0.05	
02618-0098	LF	Single 8" Wide Solid Line, Painted Reflective Pavement Striping	0.32	
	02MOD-0184	For < 1 Mile, Add	0.06	
	02MOD-0185	For > 5 Miles, Deduct	-0.05	
	02MOD-0320	For Broken Line, Deduct	-0.07	
02618-0099	LF	Single 12" Wide Solid Line, Painted Reflective Pavement Striping	0.44	
	02MOD-0184	For < 1 Mile, Add	0.09	
	02MOD-0185	For > 5 Miles, Deduct	-0.07	
	02MOD-0320	For Broken Line, Deduct	-0.11	
02618-0100	LF	Double 4" Wide Solid Lines, Painted Reflective Pavement Striping	0.24	
	02MOD-0184	For < 1 Mile, Add	0.05	
	02MOD-0185	For > 5 Miles, Deduct	-0.04	
	02MOD-0321	For Broken Line On One Side, Deduct	-0.03	
	02MOD-0322	For Double Broken Line, Deduct	-0.07	
02618-0101	LF	Double 6" Wide Solid Lines, Painted Reflective Pavement Striping	0.33	
	02MOD-0184	For < 1 Mile, Add	0.07	
	02MOD-0185	For > 5 Miles, Deduct	-0.05	
	02MOD-0321	For Broken Line On One Side, Deduct	-0.05	
	02MOD-0322	For Double Broken Line, Deduct	-0.11	
02618-0102	EA	6" High, Letter/Number, Painted Reflective Pavement Marking	2.23	
	02MOD-0180	For < 10, Add	0.30	
	02MOD-0181	For > 50 To 100, Deduct	-0.15	
	02MOD-0182	For > 100 To 200, Deduct	-0.20	
	02MOD-0183	For > 200, Deduct	-0.40	
02618-0103	EA	12" High, Letter/Number, Painted Reflective Pavement Marking	3.85	
	02MOD-0180	For < 10, Add	0.45	
	02MOD-0181	For > 50 To 100, Deduct	-0.23	
	02MOD-0182	For > 100 To 200, Deduct	-0.30	
	02MOD-0183	For > 200, Deduct	-0.60	
02618-0104	EA	24" High, Letter/Number, Painted Reflective Pavement Marking	6.48	
	02MOD-0180	For < 10, Add	0.75	
	02MOD-0181	For > 50 To 100, Deduct	-0.38	
	02MOD-0182	For > 100 To 200, Deduct	-0.50	
	02MOD-0183	For > 200, Deduct	-1.00	
02618-0105	EA	36" High, Letter/Number, Painted Reflective Pavement Marking	12.60	
	02MOD-0180	For < 10, Add	1.51	
	02MOD-0181	For > 50 To 100, Deduct	-0.75	
	02MOD-0182	For > 100 To 200, Deduct	-1.00	
	02MOD-0183	For > 200, Deduct	-2.01	
02618-0106	EA	48" High, Letter/Number, Painted Reflective Pavement Marking	14.59	
	02MOD-0180	For < 10, Add	1.69	
	02MOD-0181	For > 50 To 100, Deduct	-0.84	
	02MOD-0182	For > 100 To 200, Deduct	-1.13	
	02MOD-0183	For > 200, Deduct	-2.25	
02618-0107	EA	72" High, Letter/Number, Painted Reflective Pavement Marking	26.12	
	02MOD-0180	For < 10, Add	3.00	
	02MOD-0181	For > 50 To 100, Deduct	-1.50	
	02MOD-0182	For > 100 To 200, Deduct	-2.00	
	02MOD-0183	For > 200, Deduct	-4.01	
02618-0108	EA	96" High, Letter/Number, Painted Reflective Pavement Marking	34.91	
	02MOD-0180	For < 10, Add	4.04	
	02MOD-0181	For > 50 To 100, Deduct	-2.02	
	02MOD-0182	For > 100 To 200, Deduct	-2.69	
	02MOD-0183	For > 200, Deduct	-5.38	
02618-0109	EA	120" High, Letter/Number, Painted Reflective Pavement Marking	51.22	
	02MOD-0180	For < 10, Add	5.00	
	02MOD-0181	For > 50 To 100, Deduct	-2.50	
	02MOD-0182	For > 100 To 200, Deduct	-3.33	
	02MOD-0183	For > 200, Deduct	-6.67	

02618-0110 Pavement Marking (CALTRAN) (02618-0003)

Note: Per LF of detail.



	Site Construction	02000	02
	Paving And Surfacing	02600	
	Pavement Marking	02618	

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02618-0111	LF	CALTRAN Detail 1 Centerline, Painted Reflective Pavement Striping	0.17	
	02MOD-0171	For < 1 Mile, Add	0.03	
	02MOD-0172	For > 5 Miles, Deduct	-0.03	
02618-0112	LF	CALTRAN Detail 2 Centerline, Painted Reflective Pavement Striping	0.22	
	02MOD-0171	For < 1 Mile, Add	0.04	
	02MOD-0172	For > 5 Miles, Deduct	-0.03	
02618-0113	LF	CALTRAN Detail 4 Centerline	0.45	
	02MOD-0171	For < 1 Mile, Add	0.09	
	02MOD-0172	For > 5 Miles, Deduct	-0.07	
02618-0114	LF	CALTRAN Detail 5 Centerline, Painted Reflective Pavement Striping	0.16	
	02MOD-0171	For < 1 Mile, Add	0.03	
	02MOD-0172	For > 5 Miles, Deduct	-0.02	
02618-0115	LF	CALTRAN Detail 6 Centerline, Painted Reflective Pavement Striping	17.17	
	02MOD-0171	For < 1 Mile, Add	3.43	
	02MOD-0172	For > 5 Miles, Deduct	-2.58	
02618-0116	LF	CALTRAN Detail 7 Centerline	0.31	
	02MOD-0171	For < 1 Mile, Add	0.06	
	02MOD-0172	For > 5 Miles, Deduct	-0.05	
02618-0117	LF	CALTRAN Detail 8 Lanelines, Painted Reflective Pavement Striping	0.17	
	02MOD-0171	For < 1 Mile, Add	0.03	
	02MOD-0172	For > 5 Miles, Deduct	-0.03	
02618-0118	LF	CALTRAN Detail 9 Lanelines, Painted Reflective Pavement Striping	0.22	
	02MOD-0171	For < 1 Mile, Add	0.04	
	02MOD-0172	For > 5 Miles, Deduct	-0.03	
02618-0119	LF	CALTRAN Detail 10 Lanelines	0.45	
	02MOD-0171	For < 1 Mile, Add	0.09	
	02MOD-0172	For > 5 Miles, Deduct	-0.07	
02618-0120	LF	CALTRAN Detail 11 Lanelines, Painted Reflective Pavement Striping	0.16	
	02MOD-0171	For < 1 Mile, Add	0.03	
	02MOD-0172	For > 5 Miles, Deduct	-0.02	
02618-0121	LF	CALTRAN Detail 12 Lanelines, Painted Reflective Pavement Striping	0.22	
	02MOD-0171	For < 1 Mile, Add	0.04	
	02MOD-0172	For > 5 Miles, Deduct	-0.03	
02618-0122	LF	CALTRAN Detail 13 Lanelines	0.31	
	02MOD-0171	For < 1 Mile, Add	0.06	
	02MOD-0172	For > 5 Miles, Deduct	-0.05	
02618-0123	LF	CALTRAN Detail 14 Lanelines	0.31	
	02MOD-0171	For < 1 Mile, Add	0.06	
	02MOD-0172	For > 5 Miles, Deduct	-0.05	
02618-0124	LF	CALTRAN Detail 14A Lanelines, Painted Reflective Pavement Striping	0.22	
	02MOD-0171	For < 1 Mile, Add	0.04	
	02MOD-0172	For > 5 Miles, Deduct	-0.03	
02618-0125	LF	CALTRAN Detail 15 No Passing Zones-One Direction Lanelines, Painted Reflective Pavement Striping	0.22	
	02MOD-0171	For < 1 Mile, Add	0.04	
	02MOD-0172	For > 5 Miles, Deduct	-0.03	
	02MOD-0321	For Broken Line On One Side, Deduct	-0.03	
	02MOD-0322	For Double Broken Line, Deduct	-0.05	
02618-0126	LF	CALTRAN Detail 16 No Passing Zones-One Direction Lanelines, Painted Reflective Pavement Striping	0.44	
	02MOD-0171	For < 1 Mile, Add	0.09	
	02MOD-0172	For > 5 Miles, Deduct	-0.07	
02618-0127	LF	CALTRAN Detail 17 No Passing Zones-One Direction Lanelines	1.26	
	02MOD-0171	For < 1 Mile, Add	0.25	
	02MOD-0172	For > 5 Miles, Deduct	-0.19	
02618-0128	LF	CALTRAN Detail 18 No Passing Zones-One Direction Lanelines, Painted Reflective Pavement Striping	0.22	
	02MOD-0171	For < 1 Mile, Add	0.04	
	02MOD-0172	For > 5 Miles, Deduct	-0.03	
	02MOD-0321	For Broken Line On One Side, Deduct	-0.03	
	02MOD-0322	For Double Broken Line, Deduct	-0.05	
02618-0129	LF	CALTRAN Detail 19 No Passing Zones-One Direction Lanelines, Painted Reflective Pavement Striping	0.38	
	02MOD-0171	For < 1 Mile, Add	0.08	
	02MOD-0172	For > 5 Miles, Deduct	-0.06	
02618-0130	LF	CALTRAN Detail 20 No Passing Zones-One Direction Lanelines	1.08	
	02MOD-0171	For < 1 Mile, Add	0.22	
	02MOD-0172	For > 5 Miles, Deduct	-0.16	
02618-0131	LF	CALTRAN Detail 21 No Passing Zones-Two Direction Lanelines, Painted Reflective Pavement Striping	0.26	
	02MOD-0171	For < 1 Mile, Add	0.05	
	02MOD-0172	For > 5 Miles, Deduct	-0.04	
	02MOD-0321	For Broken Line On One Side, Deduct	-0.04	
	02MOD-0322	For Double Broken Line, Deduct	-0.08	
02618-0132	LF	CALTRAN Detail 22 No Passing Zones-Two Direction Lanelines, Painted Reflective Pavement Striping	0.47	
	02MOD-0171	For < 1 Mile, Add	0.09	
	02MOD-0172	For > 5 Miles, Deduct	-0.07	
02618-0133	LF	CALTRAN Detail 23 No Passing Zones-Two Direction Lanelines	1.51	
	02MOD-0171	For < 1 Mile, Add	0.30	
	02MOD-0172	For > 5 Miles, Deduct	-0.23	
02618-0134	LF	CALTRAN Detail 24 Left Edgelines, Painted Reflective Pavement Striping	0.20	
	02MOD-0171	For < 1 Mile, Add	0.04	
	02MOD-0172	For > 5 Miles, Deduct	-0.03	
02618-0135	LF	CALTRAN Detail 25 Left Edgelines, Painted Reflective Pavement Striping	0.26	
	02MOD-0171	For < 1 Mile, Add	0.05	
	02MOD-0172	For > 5 Miles, Deduct	-0.04	
02618-0136	LF	CALTRAN Detail 25A Left Edgelines, Painted Reflective Pavement Striping	0.32	
	02MOD-0171	For < 1 Mile, Add	0.06	
	02MOD-0172	For > 5 Miles, Deduct	-0.05	
02618-0137	LF	CALTRAN Detail 26 Left Edgelines	0.06	
	02MOD-0171	For < 1 Mile, Add	0.01	
	02MOD-0172	For > 5 Miles, Deduct	-0.01	

02000 Site Construction**02600 Paving And Surfacing****02618 Pavement Marking**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02618-0138	LF	CALTRAN Detail 27 Left Edgelines, Painted Reflective Pavement Striping.....	0.31	
	02MOD-0171	For < 1 Mile, Add	0.06	
	02MOD-0172	For > 5 Miles, Deduct	-0.05	
02618-0139	LF	CALTRAN Detail 27B Right Edgelines, Painted Reflective Pavement Striping.....	0.20	
	02MOD-0171	For < 1 Mile, Add	0.04	
	02MOD-0172	For > 5 Miles, Deduct	-0.03	
02618-0140	LF	CALTRAN Detail 27C Right Edgeline Extension Through Intersections, Painted Reflective Pavement Striping	0.16	
	02MOD-0171	For < 1 Mile, Add	0.03	
	02MOD-0172	For > 5 Miles, Deduct	-0.02	
02618-0141	LF	CALTRAN Detail 28 Median Islands, Painted Reflective Pavement Striping	0.52	
	02MOD-0171	For < 1 Mile, Add	0.10	
	02MOD-0172	For > 5 Miles, Deduct	-0.08	
	02MOD-0321	For Broken Line On One Side, Deduct	-0.08	
	02MOD-0322	For Double Broken Line, Deduct	-0.17	
02618-0142	LF	CALTRAN Detail 29 Median Islands, Painted Reflective Pavement Striping	0.73	
	02MOD-0171	For < 1 Mile, Add	0.15	
	02MOD-0172	For > 5 Miles, Deduct	-0.11	
02618-0143	LF	CALTRAN Detail 30 Median Islands	3.04	
	02MOD-0171	For < 1 Mile, Add	0.61	
	02MOD-0172	For > 5 Miles, Deduct	-0.46	
02618-0144	LF	CALTRAN Detail 31 Two-Way Left Turn Lanes, Painted Reflective Pavement Striping	0.44	
	02MOD-0171	For < 1 Mile, Add	0.09	
	02MOD-0172	For > 5 Miles, Deduct	-0.07	
	02MOD-0321	For Broken Line On One Side, Deduct	-0.05	
	02MOD-0322	For Double Broken Line, Deduct	-0.11	
02618-0145	LF	CALTRAN Detail 32 Two-Way Left Turn Lanes, Painted Reflective Pavement Striping	0.71	
	02MOD-0171	For < 1 Mile, Add	0.14	
	02MOD-0172	For > 5 Miles, Deduct	-0.11	
02618-0146	LF	CALTRAN Detail 33 Two-Way Left Turn Lanes	2.08	
	02MOD-0171	For < 1 Mile, Add	0.42	
	02MOD-0172	For > 5 Miles, Deduct	-0.31	
02618-0147	LF	CALTRAN Detail 34 Intersection Treatments, Painted Reflective Pavement Striping.....	0.38	
	02MOD-0171	For < 1 Mile, Add	0.08	
	02MOD-0172	For > 5 Miles, Deduct	-0.06	
02618-0148	LF	CALTRAN Detail 34A Intersection Treatments, Painted Reflective Pavement Striping.....	0.22	
	02MOD-0171	For < 1 Mile, Add	0.04	
	02MOD-0172	For > 5 Miles, Deduct	-0.03	
02618-0149	LF	CALTRAN Detail 35 Intersection Treatments, Painted Reflective Pavement Striping.....	0.44	
	02MOD-0171	For < 1 Mile, Add	0.09	
	02MOD-0172	For > 5 Miles, Deduct	-0.07	
02618-0150	LF	CALTRAN Detail 35A Intersection Treatments, Painted Reflective Pavement Striping.....	0.22	
	02MOD-0171	For < 1 Mile, Add	0.04	
	02MOD-0172	For > 5 Miles, Deduct	-0.03	
02618-0151	LF	CALTRAN Detail 36 Exit Ramp Neutral Area (Gore) Treatment, Painted Reflective Pavement Striping	0.87	
	02MOD-0184	For < 1 Mile, Add	0.17	
	02MOD-0185	For > 5 Miles, Deduct	-0.13	
02618-0152	LF	CALTRAN Detail 36A Entrance Ramp Neutral Area (Merge) Treatment, Painted Reflective Pavement Striping	0.58	
	02MOD-0184	For < 1 Mile, Add	0.12	
	02MOD-0185	For > 5 Miles, Deduct	-0.09	
02618-0153	LF	CALTRAN Detail 36B Entrance Ramp Neutral Area (Acceleration Lane) Treatment, Painted Reflective Pavement Striping.....	0.63	
	02MOD-0184	For < 1 Mile, Add	0.13	
	02MOD-0185	For > 5 Miles, Deduct	-0.09	
02618-0154	LF	CALTRAN Detail 37 Lane Drop At Exit Ramps, Painted Reflective Pavement Striping	0.51	
	02MOD-0184	For < 1 Mile, Add	0.10	
	02MOD-0185	For > 5 Miles, Deduct	-0.08	
02618-0155	LF	CALTRAN Detail 37A Lane Drop At Exit Ramps.....	1.01	
	02MOD-0171	For < 1 Mile, Add	0.20	
	02MOD-0172	For > 5 Miles, Deduct	-0.15	
02618-0156	LF	CALTRAN Detail 37B Lane Drop At Intersections, Painted Reflective Pavement Striping.....	0.51	
	02MOD-0184	For < 1 Mile, Add	0.10	
	02MOD-0185	For > 5 Miles, Deduct	-0.08	
02618-0157	LF	CALTRAN Detail 37C Lane Drop At Intersections.....	1.01	
	02MOD-0171	For < 1 Mile, Add	0.20	
	02MOD-0172	For > 5 Miles, Deduct	-0.15	
02618-0158	LF	CALTRAN Detail 38 Channelizing Line, Painted Reflective Pavement Striping	0.52	
	02MOD-0184	For < 1 Mile, Add	0.10	
	02MOD-0185	For > 5 Miles, Deduct	-0.08	
02618-0159	LF	CALTRAN Detail 38A Channelizing Line, Painted Reflective Pavement Striping.....	0.41	
	02MOD-0184	For < 1 Mile, Add	0.08	
	02MOD-0185	For > 5 Miles, Deduct	-0.06	
02618-0160	LF	CALTRAN Detail 38B Channelizing Line, Painted Reflective Pavement Striping.....	0.64	
	02MOD-0184	For < 1 Mile, Add	0.13	
	02MOD-0185	For > 5 Miles, Deduct	-0.10	
02618-0161	LF	CALTRAN Detail 38C Channelizing Line	1.51	
	02MOD-0171	For < 1 Mile, Add	0.30	
	02MOD-0172	For > 5 Miles, Deduct	-0.23	
02618-0162	LF	CALTRAN Detail 39 Bike Lane Line, Painted Reflective Pavement Striping.....	0.26	
	02MOD-0184	For < 1 Mile, Add	0.05	
	02MOD-0185	For > 5 Miles, Deduct	-0.04	
02618-0163	LF	CALTRAN Detail 39A Intersection Line Bike Lane, Painted Reflective Pavement Striping	0.21	
	02MOD-0184	For < 1 Mile, Add	0.04	
	02MOD-0185	For > 5 Miles, Deduct	-0.03	
02618-0164	LF	CALTRAN Detail 40 Lane Line Extensions Through Intersections, Painted Reflective Pavement Striping.....	0.16	
	02MOD-0171	For < 1 Mile, Add	0.03	
	02MOD-0172	For > 5 Miles, Deduct	-0.02	



MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02618-0165	LF	CALTRAN Detail 40A Lane Line Extensions Through Intersections	0.78	
	02MOD-0171	For < 1 Mile, Add	0.16	
	02MOD-0172	For > 5 Miles, Deduct	-0.12	
02618-0166	LF	CALTRAN Detail 41 Center Line Extensions Through Intersections, Painted Reflective Pavement Striping	0.16	
	02MOD-0171	For < 1 Mile, Add	0.03	
	02MOD-0172	For > 5 Miles, Deduct	-0.02	
02618-0167	LF	CALTRAN Detail 41A Center Line Extensions Through Intersections	0.78	
	02MOD-0171	For < 1 Mile, Add	0.16	
	02MOD-0172	For > 5 Miles, Deduct	-0.12	
02618-0168	EA	CALTRAN 10' Arrow, Type I, Painted Reflective Pavement Marking	57.15	
	02MOD-0192	For < 10, Add	7.31	
	02MOD-0193	For > 50 To 100, Deduct	-3.65	
	02MOD-0194	For > 100 To 200, Deduct	-4.87	
	02MOD-0195	For > 200, Deduct	-9.75	
02618-0169	EA	CALTRAN 18' Arrow, Type I, Painted Reflective Pavement Marking	100.33	
	02MOD-0192	For < 10, Add	12.79	
	02MOD-0193	For > 50 To 100, Deduct	-6.40	
	02MOD-0194	For > 100 To 200, Deduct	-8.53	
	02MOD-0195	For > 200, Deduct	-17.06	
02618-0170	EA	CALTRAN 24' Arrow, Type I, Painted Reflective Pavement Marking	125.87	
	02MOD-0192	For < 10, Add	16.08	
	02MOD-0193	For > 50 To 100, Deduct	-8.04	
	02MOD-0194	For > 100 To 200, Deduct	-10.72	
	02MOD-0195	For > 200, Deduct	-21.44	
02618-0171	EA	CALTRAN 24' Arrow With Single (L or R) Turn Arrow, Type II, Painted Reflective Pavement Marking	183.03	
	02MOD-0192	For < 10, Add	23.39	
	02MOD-0193	For > 50 To 100, Deduct	-11.70	
	02MOD-0194	For > 100 To 200, Deduct	-15.60	
	02MOD-0195	For > 200, Deduct	-31.19	
02618-0172	EA	CALTRAN 24' Arrow With Both (L and R) Turn Arrows, Type II, Painted Reflective Pavement Marking	240.18	
	02MOD-0192	For < 10, Add	30.70	
	02MOD-0193	For > 50 To 100, Deduct	-15.35	
	02MOD-0194	For > 100 To 200, Deduct	-20.47	
	02MOD-0195	For > 200, Deduct	-40.94	
02618-0173	EA	CALTRAN 24' Arrow Single (L or R) Turn Arrow, Type III, Painted Reflective Pavement Marking	169.03	
	02MOD-0192	For < 10, Add	21.57	
	02MOD-0193	For > 50 To 100, Deduct	-10.78	
	02MOD-0194	For > 100 To 200, Deduct	-14.38	
	02MOD-0195	For > 200, Deduct	-28.75	
02618-0174	EA	CALTRAN 24' Arrow Both (L and R) Turn Arrows, Type III, Painted Reflective Pavement Marking	294.90	
	02MOD-0192	For < 10, Add	37.65	
	02MOD-0193	For > 50 To 100, Deduct	-18.62	
	02MOD-0194	For > 100 To 200, Deduct	-25.10	
	02MOD-0195	For > 200, Deduct	-50.20	
02618-0175	EA	CALTRAN 8' Turn Arrow (L or R), Type IV, Painted Reflective Pavement Marking	60.20	
	02MOD-0192	For < 10, Add	7.68	
	02MOD-0193	For > 50 To 100, Deduct	-3.84	
	02MOD-0194	For > 100 To 200, Deduct	-5.12	
	02MOD-0195	For > 200, Deduct	-10.24	
02618-0176	EA	CALTRAN 24' Arrow, Type V, Painted Reflective Pavement Marking	131.95	
	02MOD-0192	For < 10, Add	16.82	
	02MOD-0193	For > 50 To 100, Deduct	-8.41	
	02MOD-0194	For > 100 To 200, Deduct	-11.21	
	02MOD-0195	For > 200, Deduct	-22.42	
02618-0177	EA	CALTRAN 18' Arrow, Type VI, Painted Reflective Pavement Marking	169.03	
	02MOD-0192	For < 10, Add	21.57	
	02MOD-0193	For > 50 To 100, Deduct	-10.78	
	02MOD-0194	For > 100 To 200, Deduct	-14.38	
	02MOD-0195	For > 200, Deduct	-28.75	
02618-0178	EA	CALTRAN 13' Arrow With Single (L or R) Turn Arrow, Type VII, Painted Reflective Pavement Marking	108.95	
	02MOD-0192	For < 10, Add	13.89	
	02MOD-0193	For > 50 To 100, Deduct	-6.94	
	02MOD-0194	For > 100 To 200, Deduct	-9.26	
	02MOD-0195	For > 200, Deduct	-18.52	
02618-0179	EA	CALTRAN 15' Arrow With Both (L and R) Turn Arrows, Type VIII, Painted Reflective Pavement Marking	143.50	
	02MOD-0192	For < 10, Add	18.28	
	02MOD-0193	For > 50 To 100, Deduct	-9.14	
	02MOD-0194	For > 100 To 200, Deduct	-12.18	
	02MOD-0195	For > 200, Deduct	-24.37	
02618-0180	EA	CALTRAN 5' Arrow, Bike Lane, Painted Reflective Pavement Marking	28.58	
	02MOD-0192	For < 10, Add	3.66	
	02MOD-0193	For > 50 To 100, Deduct	-1.83	
	02MOD-0194	For > 100 To 200, Deduct	-2.44	
	02MOD-0195	For > 200, Deduct	-4.87	
02618-0181	EA	CALTRAN Railroad Crossing Symbol, Painted Reflective Pavement Marking	273.61	
		Note: Excludes variable width transverse lines.		
	02MOD-0192	For < 10, Add	34.73	
	02MOD-0193	For > 50 To 100, Deduct	-17.36	
	02MOD-0194	For > 100 To 200, Deduct	-23.15	
	02MOD-0195	For > 200, Deduct	-46.30	
02618-0182	SF	CALTRAN Solid Area, Painted Reflective Pavement Marking	3.57	
02618-0183	EA	CALTRAN Bike Lane Symbol Without Person, Painted Reflective Pavement Marking	27.47	
		Note: Approximate overall dimensions: 4' width x 8' height.		
	02MOD-0192	For < 10, Add	2.63	
	02MOD-0193	For > 50 To 100, Deduct	-1.32	
	02MOD-0194	For > 100 To 200, Deduct	-1.76	
	02MOD-0195	For > 200, Deduct	-3.51	

02000 Site Construction**02600 Paving And Surfacing****02618 Pavement Marking**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02618-0184	EA	CALTRAN Bike Lane Symbol With Person, Painted Reflective Pavement Marking.....	29.08	
		Note: Approximate overall dimensions: 4' width x 8' height.		
	02MOD-0192	For < 10, Add	2.78	
	02MOD-0193	For > 50 To 100, Deduct	-1.39	
	02MOD-0194	For > 100 To 200, Deduct	-1.85	
	02MOD-0195	For > 200, Deduct	-3.70	
02618-0185	EA	CALTRAN Diamond Symbol, Painted Reflective Pavement Marking.....	45.61	
	02MOD-0192	For < 10, Add	5.85	
	02MOD-0193	For > 50 To 100, Deduct	-2.92	
	02MOD-0194	For > 100 To 200, Deduct	-3.90	
	02MOD-0195	For > 200, Deduct	-7.80	
02618-0186	EA	CALTRAN International Symbol Of Accessibility (ISA) Marking, Painted Reflective Pavement Marking	92.79	
	02MOD-0192	For < 10, Add	11.84	
	02MOD-0193	For > 50 To 100, Deduct	-5.92	
	02MOD-0194	For > 100 To 200, Deduct	-7.90	
	02MOD-0195	For > 200, Deduct	-15.79	
02618-0187	EA	CALTRAN Bike Loop Detector Symbol, Painted Reflective Pavement Marking.....	19.66	
		Note: Approximate overall dimensions: 4' width x 8' height.		
	02MOD-0192	For < 10, Add	2.78	
	02MOD-0193	For > 50 To 100, Deduct	-1.39	
	02MOD-0194	For > 100 To 200, Deduct	-1.85	
	02MOD-0195	For > 200, Deduct	-3.70	
02618-0188	SF	CALTRAN Letter/Number, Painted Reflective Pavement Marking.....	3.62	
02618-0189	SF	CALTRAN Symbols, Painted Reflective Pavement Marking	4.01	
		Note: Handicap, railroad, diamond, arrows, etc.		
02618-0190		Recessed (Plowable) Pavement Markers (02618-0003)		
02618-0191	EA	One-Way Reflective, Recessed (Plowable) Pavement Marker With Center Rail.....	60.62	
02618-0192	EA	Two-Way Reflective, Recessed (Plowable) Pavement Marker With Center Rail.....	61.40	
02618-0193	EA	Remove And Replace Reflector For One-Way Reflective, Recessed (Plowable) Pavement Marker	15.73	
02618-0194	EA	Remove And Replace Reflectors For Two-Way Reflective, Recessed (Plowable) Pavement Marker	19.85	
02618-0195		Raised Pavement Markers (RPMs) (02618-0003)		
02618-0196	EA	One-Way Reflective, Raised Pavement Marker (RPM).....	2.63	
	02MOD-0196	For > 100, Deduct	-0.26	
02618-0197	EA	Two-Way Reflective, Raised Pavement Marker (RPM).....	2.63	
	02MOD-0196	For > 100, Deduct	-0.26	
02618-0198	EA	Round Reflective, Raised Pavement Marker.....	3.12	
	02MOD-0196	For > 100, Deduct	-0.31	
02618-0199		Painted Curbs (02618)		
02618-0200	LF	Reflective Painted Curb.....	1.36	
02618-0201	LF	Reflective Painted Curb And Gutter	2.47	
02618-0202	LF	Painted Curb, Any Color.....	1.10	
02618-0203	LF	Painted Curb And Gutter, Any Color	2.18	
02618-0204		Remove Pavement Markings (02618)		
		Note: Includes vacuuming of removed striped area and containment of debris.		
02618-0205	LF	Remove 4" Wide Painted Or Epoxy Pavement Striping	2.24	
02618-0206	LF	Remove 6" Wide Painted Or Epoxy Pavement Striping	2.75	
02618-0207	LF	Remove 8" Wide Painted Or Epoxy Pavement Striping	3.34	
02618-0208	LF	Remove 12" Wide Painted Or Epoxy Pavement Striping	4.11	
02618-0209	SF	Remove Painted Or Epoxy Pavement Marking Letters Or Symbols.....	4.11	
02618-0210	LF	Remove 4" Wide Thermoplastic Pavement Striping.....	3.26	
02618-0211	LF	Remove 6" Wide Thermoplastic Pavement Striping.....	3.96	
02618-0212	LF	Remove 8" Wide Thermoplastic Pavement Striping.....	4.82	
02618-0213	LF	Remove 12" Wide Thermoplastic Pavement Striping.....	5.88	
02618-0214	SF	Remove Thermoplastic Pavement Marking Letters Or Symbols.....	5.88	
02620 Curbs And Gutters		(02620)		
02620-0001		Curbs (02620)		
		Note: Includes transitions. Demolition Includes two saw cuts (each end) of curbs and gutters for lengths up to 100'.		
02620-0002		Curbs, Machine Formed, Slip Form (02620-0001)		
		Note: Includes delivered concrete, steel, expansion joints and finish.		
02620-0003	LF	6" x 12" Straight Curb, Machine Formed.....	8.21	
02620-0004	LF	6" x 12" Curved Curb, Machine Formed.....	11.30	
02620-0005	LF	6" x 18" Straight Curb, Machine Formed.....	10.83	
02620-0006	LF	6" x 18" Curved Curb, Machine Formed.....	14.50	
02620-0007		Curb And Gutter Combined, Cast In Place (02620)		
		Note: Includes concrete, forms, rebar, chairs (where necessary), transitions, expansion joints, finish and curing.		



Site Construction 02000
Paving And Surfacing 02600
Curbs And Gutters 02620

02

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02620-0008	LF	6" x 12" Concrete Gutter With 6" Curb And Face - Straight	17.27	7.92
	02MOD-0197	For Up To 20, Add	11.75	
	02MOD-0198	For > 20 To 50, Add	6.57	
	02MOD-0199	For > 50 To 100, Add	2.59	
	02MOD-0200	For > 500 To 1000, Deduct	-2.25	
	02MOD-0201	For > 1000, Deduct	-3.81	
	02MOD-0202	For Rolled Curb And Gutter	1.20	
	02MOD-0203	For Integral Colors, Add	0.08	
	Note: Modifier quantity = task quantity x LB/CY color added.			
02620-0009	LF	6" x 12" Concrete Gutter With 6" Curb And Face - Radius.....	18.85	10.57
	02MOD-0197	For Up To 20, Add	12.83	
	02MOD-0198	For > 20 To 50, Add	7.18	
	02MOD-0199	For > 50 To 100, Add	2.83	
	02MOD-0200	For > 500 To 1000, Deduct	-2.46	
	02MOD-0201	For > 1000, Deduct	-4.17	
	02MOD-0202	For Rolled Curb And Gutter	1.32	
	02MOD-0203	For Integral Colors, Add	0.09	
	Note: Modifier quantity = task quantity x LB/CY color added.			
02620-0010	LF	6" x 18" Concrete Gutter With 6" Curb And Face - Straight	21.96	8.78
	02MOD-0197	For Up To 20, Add	14.93	
	02MOD-0198	For > 20 To 50, Add	8.34	
	02MOD-0199	For > 50 To 100, Add	3.29	
	02MOD-0200	For > 500 To 1000, Deduct	-2.85	
	02MOD-0201	For > 1000, Deduct	-4.82	
	02MOD-0202	For Rolled Curb And Gutter	1.50	
	02MOD-0203	For Integral Colors, Add	0.11	
	Note: Modifier quantity = task quantity x LB/CY color added.			
02620-0011	LF	6" x 18" Concrete Gutter With 6" Curb And Face - Radius.....	24.29	9.78
	02MOD-0197	For Up To 20, Add	16.52	
	02MOD-0198	For > 20 To 50, Add	9.24	
	02MOD-0199	For > 50 To 100, Add	3.64	
	02MOD-0200	For > 500 To 1000, Deduct	-3.16	
	02MOD-0201	For > 1000, Deduct	-5.35	
	02MOD-0202	For Rolled Curb And Gutter	1.69	
	02MOD-0203	For Integral Colors, Add	0.12	
	Note: Modifier quantity = task quantity x LB/CY color added.			
02620-0012	LF	6" x 24" Concrete Gutter With 6" Curb And Face - Straight	26.66	10.57
	02MOD-0197	For Up To 20, Add	18.11	
	02MOD-0198	For > 20 To 50, Add	10.11	
	02MOD-0199	For > 50 To 100, Add	4.00	
	02MOD-0200	For > 500 To 1000, Deduct	-3.45	
	02MOD-0201	For > 1000, Deduct	-5.84	
	02MOD-0202	For Rolled Curb And Gutter	1.81	
	02MOD-0203	For Integral Colors, Add	0.13	
	Note: Modifier quantity = task quantity x LB/CY color added.			
02620-0013		6" Valley Gutter, Cast In Place (02620)		
		Note: Includes concrete, forms, rebar, expansion joints, finish and curing.		
02620-0014	LF	3' Wide Valley Gutter, 6" Thick.....	26.77	
	02MOD-0204	For Up To 20, Add	13.66	
	02MOD-0205	For > 20 To 50, Add	7.66	
	02MOD-0206	For > 50 To 100, Add	3.00	
	02MOD-0207	For > 500 To 1000, Deduct	-3.00	
	02MOD-0208	For > 1000, Deduct	-5.17	
02620-0015	LF	4' Wide Valley Gutter, 6" Thick.....	34.86	
	02MOD-0204	For Up To 20, Add	17.64	
	02MOD-0205	For > 20 To 50, Add	9.89	
	02MOD-0206	For > 50 To 100, Add	3.88	
	02MOD-0207	For > 500 To 1000, Deduct	-3.88	
	02MOD-0208	For > 1000, Deduct	-6.69	
02620-0016		Miscellaneous Curbs (02620)		
02620-0017	LF	12" Tall Planter Curb, 1-50LF.....	29.65	
02620-0018	LF	12" Tall Planter Curb, 51-100LF.....	23.78	
02620-0019	LF	12" Tall Planter Curb, 101-300LF.....	18.45	
02620-0020	LF	12" Tall Planter Curb, 301-1000LF.....	16.38	
02620-0021	LF	12" Tall Planter Curb, 1001+ LF.....	15.37	
02620-0022	LF	18" Tall Planter Curb, 1-50LF.....	32.83	
02620-0023	LF	18" Tall Planter Curb, 51-100LF.....	26.11	
02620-0024	LF	18" Tall Planter Curb, 101-300LF.....	20.23	
02620-0025	LF	18" Tall Planter Curb, 301-1000LF.....	17.13	
02620-0026	LF	18" Tall Planter Curb, 1001+ LF.....	16.23	
02620-0027	LF	6" x 18" Curb And Gutter, 1-50LF.....	39.16	
02620-0028	LF	6" x 18" Curb And Gutter, 51-100LF.....	27.51	
02620-0029	LF	6" x 18" Curb And Gutter, 101-300LF.....	23.87	
02620-0030	LF	6" x 18" Curb And Gutter, 301-1000LF.....	18.06	
02620-0031	LF	6" x 18" Curb And Gutter, 1001+ LF.....	17.31	
02620-0032	LF	6" x 24" Curb And Gutter, 1-50LF.....	42.89	
02620-0033	LF	6" x 24" Curb And Gutter, 51-100LF.....	29.84	
02620-0034	LF	6" x 24" Curb And Gutter, 101-300LF.....	26.04	
02620-0035	LF	6" x 24" Curb And Gutter, 301-1000LF.....	18.87	
02620-0036	LF	6" x 24" Curb And Gutter, 1001+ LF.....	17.89	
02620-0037	LF	3' W x 7" Thick Swale, 1-50 LF.....	29.84	
02620-0038	LF	3' W x 7" Thick Swale, 51-100LF.....	22.39	
02620-0039	LF	3' W x 7" Thick Swale, 101-300LF.....	18.83	

02000 Site Construction**02600 Paving And Surfacing****02620 Curbs And Gutters**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02620-0040 LF 3' W x 7" Thick Swale, 301-1000LF.....	17.35	
02620-0041 LF 3' W x 7" Thick Swale, 1001+ LF.....	16.79	
02620-0042 LF 4' W x 7" Thick Swale, 1-50 LF.....	37.30	
02620-0043 LF 4' W x 7" Thick Swale, 51-100LF.....	26.11	
02620-0044 LF 4' W x 7" Thick Swale, 101-300LF.....	24.62	
02620-0045 LF 4' W x 7" Thick Swale, 301-1000LF.....	22.39	
02620-0046 LF 4' W x 7" Thick Swale, 1001+ LF.....	22.10	

02630 Sidewalk (02600)**02630-0001 Cast In Place Concrete Sidewalk With Wire Mesh** (02630)

Note: Includes finish grading, delivered concrete (up to 3500 PSI) by chute, formwork, 1/4" radius joints and edges, control joints, expansion joints, screed, float, broom finish, and curing. Excludes excavation, base, and base compaction. For reinforcing bar, use the modifier "For sidewalk without wire mesh" and add reinforcing bar. See CSI section 02200-0000 for excavation, 02611-0007 for base course, 03311-0023 for pumping with boom truck, 03311-0032 for buggies, 03311-0039 for short loads.

02630-0002 SF 4" Cast In Place Concrete Sidewalk With Wire Mesh.....	6.54	
02MOD-0209 For Up To 100, Add	2.82	
02MOD-0210 For > 100 To 500, Add	0.80	
02MOD-0211 For > 1000 To 5000, Deduct	-0.47	
02MOD-0212 For > 5000, Deduct	-1.04	
02MOD-0213 For Sidewalk Without Wire Mesh, Deduct	-0.51	

02660 Paving Specialties (02600)**02660-0001 Modular Rubber Speed Tables** (02660)

Note: 3" high flat topped speed humps, 18" x 42" modular rubber construction. Trafficlogix.

02660-0002 SF Up To 24' Road Width x 7' Run Modular Rubber Speed Table	33.94	
Note: Includes drilling in pavement, lag bolts and 3" x 18" x 42" compression molded recycled synthetic and natural rubber composite modular panels.		
02660-0003 SF Up To 24' Road Width x 14' Run Modular Rubber Speed Table	29.64	
Note: Includes drilling in pavement, lag bolts and 3" x 18" x 42" compression molded recycled synthetic and natural rubber composite modular panels.		
02660-0004 SF Up To 24' Road Width x 21' Run Modular Rubber Speed Table	27.78	
Note: Includes drilling in pavement, lag bolts and 3" x 18" x 42" compression molded recycled synthetic and natural rubber composite modular panels.		
02660-0005 SF > 24' To 30' Road Width x 7' Run Modular Rubber Speed Table	32.46	
Note: Includes drilling in pavement, lag bolts and 3" x 18" x 42" compression molded recycled synthetic and natural rubber composite modular panels.		
02660-0006 SF > 24' To 30' Road Width x 14' Run Modular Rubber Speed Table	28.51	
Note: Includes drilling in pavement, lag bolts and 3" x 18" x 42" compression molded recycled synthetic and natural rubber composite modular panels.		
02660-0007 SF > 24' To 30' Road Width x 21' Run Modular Rubber Speed Table	26.86	
Note: Includes drilling in pavement, lag bolts and 3" x 18" x 42" compression molded recycled synthetic and natural rubber composite modular panels.		
02660-0008 SF > 30' To 40' Road Width x 7' Run Modular Rubber Speed Table	30.98	
Note: Includes drilling in pavement, lag bolts and 3" x 18" x 42" compression molded recycled synthetic and natural rubber composite modular panels.		
02660-0009 SF > 30' To 40' Road Width x 14' Run Modular Rubber Speed Table	27.62	
Note: Includes drilling in pavement, lag bolts and 3" x 18" x 42" compression molded recycled synthetic and natural rubber composite modular panels.		
02660-0010 SF > 30' To 40' Road Width x 21' Run Modular Rubber Speed Table	26.10	
Note: Includes drilling in pavement, lag bolts and 3" x 18" x 42" compression molded recycled synthetic and natural rubber composite modular panels.		

02660-0011 Asphalt Speed Table (02660)

Note: Excludes pavement markings or reflectors.

02660-0012 LF Up to 36" Wide Asphalt Speed Table With 3" Center Crown.....	26.83	
Note: Tapered on edges to roadway.		
02660-0013 LF > 36" To 48" Wide Asphalt Speed Table With 3" Center Crown.....	31.67	
Note: Tapered on edges to roadway.		
02660-0014 LF Up to 36" Wide Asphalt Speed Table With 4" Center Crown.....	33.72	
Note: Tapered on edges to roadway.		
02660-0015 LF > 36" To 48" Wide Asphalt Speed Table With 4" Center Crown.....	39.83	
Note: Tapered on edges to roadway.		
02660-0016 LF Up to 36" Wide Asphalt Speed Table With 6" Center Crown.....	41.19	
Note: Tapered on edges to roadway.		
02660-0017 LF > 36" To 48" Wide Asphalt Speed Table With 6" Center Crown.....	46.03	
Note: Tapered on edges to roadway.		

02695 Porous Pavement (02600)**02695-0001 Turf Block** (02695)

Note: Grass grid, open-cell unit paver, geoblock.

02695-0002 SF 3-1/8" Thick, Precast Concrete Turf Block.....	6.67	1.78
02MOD-0214 For Up To 100, Add	2.56	
02MOD-0215 For > 100 To 500, Add	0.69	
02MOD-0216 For > 1000 To 5000, Deduct	-0.36	
02MOD-0217 For > 5000, Deduct	-0.63	



MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02695-0003	SF	4" Thick Recycled PVC Plastic Turf Block.....	9.73	1.78
	02MOD-0214	For Up To 100, Add	3.33	
	02MOD-0215	For > 100 To 500, Add	0.84	
	02MOD-0216	For > 1000 To 5000, Deduct	-0.36	
	02MOD-0217	For > 5000, Deduct	-0.72	
02695-0004		Flexible Recycled Plastic Porous Grid (02695)		
		Note: Includes sand fill in rings. Excludes base, earth work and grass or sod.		
02695-0005	SF	1" Thick, Recycled Plastic Flexible Pavement With Sand Fill.....	2.21	1.78
		Note: Includes sand fill in rings. Excludes base, earth work and grass or sod. Invisible Structures, Inc.; Grasspave2.		
	02MOD-0214	For Up To 100, Add	0.77	
	02MOD-0215	For > 100 To 500, Add	0.20	
	02MOD-0216	For > 1000 To 5000, Deduct	-0.09	
	02MOD-0217	For > 5000, Deduct	-0.17	
02700 Site Improvements (02700)				
02711 Chain Link Fences (02711)				
02711-0001		Post Holes (02711)		
		Note: Excludes spreading of excess material on site or loading and removal of excavated material from site. See CSI section 02112-0043 for core drilling in concrete, 02112-0084 for core drilling in asphalt.		
02711-0002		Drilling Post Hole In Soil (02711-0001)		
		Note: Auger by machine unless otherwise notified by owner.		
02711-0003	VLF	Up To 2-1/2" Diameter Hole, Auger By Machine Fence Post Hole In Soil.....	7.18	
02711-0004	VLF	2-1/2" Diameter Hole, Auger By Machine Fence Post Hole In Soil	8.08	
02711-0005	VLF	3" Diameter Hole, Auger By Machine Fence Post Hole In Soil	9.57	
02711-0006	VLF	4" Diameter Hole, Auger By Machine Fence Post Hole In Soil	10.77	
02711-0007	VLF	6" Diameter Hole, Auger By Machine Fence Post Hole In Soil	11.75	
02711-0008	VLF	8" Diameter Hole, Auger By Machine Fence Post Hole In Soil	12.92	
02711-0009	VLF	10" Diameter Hole, Auger By Machine Fence Post Hole In Soil	14.36	
02711-0010	VLF	12" Diameter Hole, Auger By Machine Fence Post Hole In Soil	16.15	
02711-0011	VLF	18" Diameter Hole, Auger By Machine Fence Post Hole In Soil	18.46	
02711-0012	VLF	24" Diameter Hole, Auger By Machine Fence Post Hole In Soil	21.54	
02711-0013	VLF	30" Diameter Hole, Auger By Machine Fence Post Hole In Soil	25.84	
02711-0014	VLF	36" Diameter Hole, Auger By Machine Fence Post Hole In Soil	32.31	
02711-0015		Drilling Post Hole In Rock (02711-0001)		
02711-0016	CF	Jackhammer Post Hole, Rock.....	52.57	
02711-0017	CF	Rock Drill Post Hole, Rock	16.48	
02711-0018		Post Hole Fill (02711-0001)		
		See CSI section 03210-0000 for reinforcing bars.		
02711-0019		Concrete Fill (02711-0018)		
02711-0020	VLF	Concrete Fill, Up To 2-1/2" Diameter Hole	4.08	
02711-0021	VLF	Concrete Fill, 2-1/2" Diameter Hole.....	5.25	
02711-0022	VLF	Concrete Fill, 3" Diameter Hole.....	5.75	
02711-0023	VLF	Concrete Fill, 4" Diameter Hole	6.56	
02711-0024	VLF	Concrete Fill, 6" Diameter Hole	9.23	
02711-0025	VLF	Concrete Fill, 8" Diameter Hole.....	12.31	
02711-0026	VLF	Concrete Fill, 10" Diameter Hole.....	15.05	
02711-0027	VLF	Concrete Fill, 12" Diameter Hole.....	17.52	
02711-0028	VLF	Concrete Fill, 18" Diameter Hole	23.72	
02711-0029	VLF	Concrete Fill, 24" Diameter Hole	29.27	
02711-0030	VLF	Concrete Fill, 30" Diameter Hole	34.67	
02711-0031	VLF	Concrete Fill, 36" Diameter Hole	40.27	
02711-0032		Grout Fill (02711-0018)		
02711-0033	VLF	Grout Fill, Up To 2-1/2" Diameter Hole.....	4.87	
02711-0034	VLF	Grout Fill, 2-1/2" Diameter Hole	6.30	
02711-0035	VLF	Grout Fill, 3" Diameter Hole	6.84	
02711-0036	VLF	Grout Fill, 4" Diameter Hole	7.63	
02711-0037	VLF	Grout Fill, 6" Diameter Hole	10.61	
02711-0038	VLF	Grout Fill, 8" Diameter Hole	14.17	
02711-0039	VLF	Grout Fill, 10" Diameter Hole.....	17.24	
02711-0040	VLF	Grout Fill, 12" Diameter Hole.....	19.99	
02711-0041	VLF	Grout Fill, 18" Diameter Hole.....	26.56	
02711-0042	VLF	Grout Fill, 24" Diameter Hole.....	32.28	
02711-0043	VLF	Grout Fill, 30" Diameter Hole.....	37.80	
02711-0044	VLF	Grout Fill, 36" Diameter Hole.....	43.44	
02711-0045		Earth Fill, Compacted (02711-0018)		
02711-0046	VLF	Earth Fill, Up To 2-1/2" Diameter Hole	3.57	
02711-0047	VLF	Earth Fill, 2-1/2" Diameter Hole.....	4.67	
02711-0048	VLF	Earth Fill, 3" Diameter Hole.....	4.88	

02000 Site Construction**02700 Site Improvements****02711 Chain Link Fences**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02711-0049	VLF	Earth Fill, 4" Diameter Hole	5.02	
02711-0050	VLF	Earth Fill, 6" Diameter Hole	6.70	
02711-0051	VLF	Earth Fill, 8" Diameter Hole	8.94	
02711-0052	VLF	Earth Fill, 10" Diameter Hole	10.72	
02711-0053	VLF	Earth Fill, 12" Diameter Hole	12.16	
02711-0054	VLF	Earth Fill, 18" Diameter Hole	14.82	
02711-0055	VLF	Earth Fill, 24" Diameter Hole	16.62	
02711-0056	VLF	Earth Fill, 30" Diameter Hole	18.23	
02711-0057	VLF	Earth Fill, 36" Diameter Hole	19.66	
02711-0058		Fence Posts (02711)		
		Note: Demolition excludes concrete footing removal on posts and excavation. See CSI section 02711-0001 for drilling for augering holes.		
02711-0059		Fence Posts (02711-0058)		
02711-0060		1-7/8" H-Beam Post Without Top Rail Fitting, Galvanized Steel (02711-0059)		
		Note: Includes cap and accessories.		
02711-0061	LF	1-7/8" Galvanized H-beam Post, Up To 6' In Length.....	8.94	1.89
	02MOD-0218	For Each Top Rail Fitting, Add	0.85	
02711-0062	LF	1-7/8" Galvanized H-beam Post, 7' To 10' In Length.....	8.40	1.62
	02MOD-0218	For Each Top Rail Fitting, Add	0.85	
02711-0063	LF	1-7/8" Galvanized H-beam Post, 11' To 15' In Length.....	7.74	1.33
	02MOD-0218	For Each Top Rail Fitting, Add	0.85	
02711-0064	LF	1-7/8" Galvanized H-beam Post, 16' To 20' In Length.....	7.22	1.05
	02MOD-0218	For Each Top Rail Fitting, Add	0.85	
02711-0065	LF	1-7/8" Galvanized H-beam Post, 21' To 24' In Length.....	6.86	0.92
	02MOD-0218	For Each Top Rail Fitting, Add	0.85	
02711-0066	LF	1-7/8" Galvanized H-beam Post, > 24' In Length	6.31	0.63
	02MOD-0218	For Each Top Rail Fitting, Add	0.85	
02711-0067		Post Without Top Rail Fitting, Galvanized Steel, (1.66" Nominal) (02711-0059)		
		Note: 1-5/8" outside diameter, Schedule 40. Includes cap and accessories.		
02711-0068	LF	1-5/8" Outside Diameter Galvanized Steel Post, Up To 6' In Length.....	6.37	1.75
	02MOD-0218	For Each Top Rail Fitting, Add	0.85	
	02MOD-0219	For Each Single Barbed Wire Arm, Add	1.90	
	02MOD-0220	For Each Double Barbed Wire Arm, Add	3.40	
	02MOD-0236	For SS40 (Hot-Dip Galvanized And Chromated), Add	0.72	
	02MOD-0237	For Vinyl Coated, Add	1.72	
	02MOD-0238	For Powder Coated, Add	2.29	
	02MOD-0239	For Aluminum Coated, Add	3.58	
	02MOD-0240	For Schedule 20, Deduct	-0.57	
	02MOD-0241	For Schedule 80, Add	1.72	
02711-0069	LF	1-5/8" Outside Diameter Galvanized Steel Post, 7' To 10' In Length	5.82	1.47
	02MOD-0218	For Each Top Rail Fitting, Add	0.85	
	02MOD-0219	For Each Single Barbed Wire Arm, Add	1.90	
	02MOD-0220	For Each Double Barbed Wire Arm, Add	3.40	
	02MOD-0236	For SS40 (Hot-Dip Galvanized And Chromated), Add	0.72	
	02MOD-0237	For Vinyl Coated, Add	1.72	
	02MOD-0238	For Powder Coated, Add	2.29	
	02MOD-0239	For Aluminum Coated, Add	3.58	
	02MOD-0240	For Schedule 20, Deduct	-0.57	
	02MOD-0241	For Schedule 80, Add	1.67	
02711-0070	LF	1-5/8" Outside Diameter Galvanized Steel Post, 11' To 15' In Length	5.22	1.19
	02MOD-0218	For Each Top Rail Fitting, Add	0.85	
	02MOD-0219	For Each Single Barbed Wire Arm, Add	1.90	
	02MOD-0220	For Each Double Barbed Wire Arm, Add	3.40	
	02MOD-0236	For SS40 (Hot-Dip Galvanized And Chromated), Add	0.72	
	02MOD-0237	For Vinyl Coated, Add	1.72	
	02MOD-0238	For Powder Coated, Add	2.29	
	02MOD-0239	For Aluminum Coated, Add	3.58	
	02MOD-0240	For Schedule 20, Deduct	-0.57	
	02MOD-0241	For Schedule 80, Add	1.61	
02711-0071	LF	1-5/8" Outside Diameter Galvanized Steel Post, 16' To 20' In Length	4.75	0.92
	02MOD-0218	For Each Top Rail Fitting, Add	0.85	
	02MOD-0219	For Each Single Barbed Wire Arm, Add	1.90	
	02MOD-0220	For Each Double Barbed Wire Arm, Add	3.40	
	02MOD-0236	For SS40 (Hot-Dip Galvanized And Chromated), Add	0.72	
	02MOD-0237	For Vinyl Coated, Add	1.72	
	02MOD-0238	For Powder Coated, Add	2.29	
	02MOD-0239	For Aluminum Coated, Add	3.58	
	02MOD-0240	For Schedule 20, Deduct	-0.57	
	02MOD-0241	For Schedule 80, Add	1.56	
02711-0072	LF	1-5/8" Outside Diameter Galvanized Steel Post, 21' To 24' In Length	4.44	0.77
	02MOD-0218	For Each Top Rail Fitting, Add	0.85	
	02MOD-0219	For Each Single Barbed Wire Arm, Add	1.90	
	02MOD-0220	For Each Double Barbed Wire Arm, Add	3.40	
	02MOD-0236	For SS40 (Hot-Dip Galvanized And Chromated), Add	0.72	
	02MOD-0237	For Vinyl Coated, Add	1.72	
	02MOD-0238	For Powder Coated, Add	2.29	
	02MOD-0239	For Aluminum Coated, Add	3.58	
	02MOD-0240	For Schedule 20, Deduct	-0.57	
	02MOD-0241	For Schedule 80, Add	1.53	

**Site Construction 02000****Site Improvements 02700****Chain Link Fences 02711****02**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02711-0073	LF	1-5/8" Outside Diameter Galvanized Steel Post, > 24' In Length.....	4.10	0.63
	02MOD-0218	For Each Top Rail Fitting, Add	0.85	
	02MOD-0219	For Each Single Barbed Wire Arm, Add	1.90	
	02MOD-0220	For Each Double Barbed Wire Arm, Add	3.40	
	02MOD-0236	For SS40 (Hot-Dip Galvanized And Chromated), Add	0.72	
	02MOD-0237	For Vinyl Coated, Add	1.72	
	02MOD-0238	For Powder Coated, Add	2.29	
	02MOD-0239	For Aluminum Coated, Add	3.58	
	02MOD-0240	For Schedule 20, Deduct	-0.57	
	02MOD-0241	For Schedule 80, Add	1.50	
02711-0074		Post Without Top Rail Fitting, Galvanized Steel, (1.90" Nominal) (02711-0059) Note: 2" outside diameter, Schedule 40. Includes cap and accessories.		
02711-0075	LF	2" Outside Diameter Galvanized Steel Post, Up To 6' In Length.....	7.11	1.82
	02MOD-0221	For Each Top Rail Fitting, Add	1.35	
	02MOD-0222	For Each Single Barbed Wire Arm, Add	2.65	
	02MOD-0223	For Each Double Barbed Wire Arm, Add	4.88	
	02MOD-0236	For SS40 (Hot-Dip Galvanized And Chromated), Add	0.87	
	02MOD-0237	For Vinyl Coated, Add	2.09	
	02MOD-0238	For Powder Coated, Add	2.79	
	02MOD-0239	For Aluminum Coated, Add	4.36	
	02MOD-0240	For Schedule 20, Deduct	-0.70	
	02MOD-0241	For Schedule 80, Add	2.04	
02711-0076	LF	2" Outside Diameter Galvanized Steel Post, 7' To 10' In Length.....	6.63	1.55
	02MOD-0221	For Each Top Rail Fitting, Add	1.35	
	02MOD-0222	For Each Single Barbed Wire Arm, Add	2.65	
	02MOD-0223	For Each Double Barbed Wire Arm, Add	4.88	
	02MOD-0236	For SS40 (Hot-Dip Galvanized And Chromated), Add	0.87	
	02MOD-0237	For Vinyl Coated, Add	2.09	
	02MOD-0238	For Powder Coated, Add	2.79	
	02MOD-0239	For Aluminum Coated, Add	4.36	
	02MOD-0240	For Schedule 20, Deduct	-0.70	
	02MOD-0241	For Schedule 80, Add	1.99	
02711-0077	LF	2" Outside Diameter Galvanized Steel Post, 11' To 15' In Length.....	5.99	1.26
	02MOD-0221	For Each Top Rail Fitting, Add	1.35	
	02MOD-0222	For Each Single Barbed Wire Arm, Add	2.65	
	02MOD-0223	For Each Double Barbed Wire Arm, Add	4.88	
	02MOD-0236	For SS40 (Hot-Dip Galvanized And Chromated), Add	0.87	
	02MOD-0237	For Vinyl Coated, Add	2.09	
	02MOD-0238	For Powder Coated, Add	2.79	
	02MOD-0239	For Aluminum Coated, Add	4.36	
	02MOD-0240	For Schedule 20, Deduct	-0.70	
	02MOD-0241	For Schedule 80, Add	1.93	
02711-0078	LF	2" Outside Diameter Galvanized Steel Post, 16' To 20' In Length.....	5.50	0.99
	02MOD-0221	For Each Top Rail Fitting, Add	1.35	
	02MOD-0222	For Each Single Barbed Wire Arm, Add	2.65	
	02MOD-0223	For Each Double Barbed Wire Arm, Add	4.88	
	02MOD-0236	For SS40 (Hot-Dip Galvanized And Chromated), Add	0.87	
	02MOD-0237	For Vinyl Coated, Add	2.09	
	02MOD-0238	For Powder Coated, Add	2.79	
	02MOD-0239	For Aluminum Coated, Add	4.36	
	02MOD-0240	For Schedule 20, Deduct	-0.70	
	02MOD-0241	For Schedule 80, Add	1.88	
02711-0079	LF	2" Outside Diameter Galvanized Steel Post, 21' To 24' In Length.....	5.16	0.84
	02MOD-0221	For Each Top Rail Fitting, Add	1.35	
	02MOD-0222	For Each Single Barbed Wire Arm, Add	2.65	
	02MOD-0223	For Each Double Barbed Wire Arm, Add	4.88	
	02MOD-0236	For SS40 (Hot-Dip Galvanized And Chromated), Add	0.87	
	02MOD-0237	For Vinyl Coated, Add	2.09	
	02MOD-0238	For Powder Coated, Add	2.79	
	02MOD-0239	For Aluminum Coated, Add	4.36	
	02MOD-0240	For Schedule 20, Deduct	-0.70	
	02MOD-0241	For Schedule 80, Add	1.84	
02711-0080	LF	2" Outside Diameter Galvanized Steel Post, > 24' In Length.....	4.84	0.70
	02MOD-0221	For Each Top Rail Fitting, Add	1.35	
	02MOD-0222	For Each Single Barbed Wire Arm, Add	2.65	
	02MOD-0223	For Each Double Barbed Wire Arm, Add	4.88	
	02MOD-0236	For SS40 (Hot-Dip Galvanized And Chromated), Add	0.87	
	02MOD-0237	For Vinyl Coated, Add	2.09	
	02MOD-0238	For Powder Coated, Add	2.79	
	02MOD-0239	For Aluminum Coated, Add	4.36	
	02MOD-0240	For Schedule 20, Deduct	-0.70	
	02MOD-0241	For Schedule 80, Add	1.81	
02711-0081		Post Without Top Rail Fitting, Galvanized Steel, (2.375" Nominal) (02711-0059) Note: 2-1/2" outside diameter, Schedule 40. Includes cap and accessories.		
02711-0082	LF	2-1/2" Outside Diameter Galvanized Steel Post, Up To 6' In Length.....	8.47	1.96
	02MOD-0221	For Each Top Rail Fitting, Add	1.35	
	02MOD-0222	For Each Single Barbed Wire Arm, Add	2.65	
	02MOD-0223	For Each Double Barbed Wire Arm, Add	4.88	
	02MOD-0236	For SS40 (Hot-Dip Galvanized And Chromated), Add	1.16	
	02MOD-0237	For Vinyl Coated, Add	2.78	
	02MOD-0238	For Powder Coated, Add	3.71	
	02MOD-0239	For Aluminum Coated, Add	5.80	
	02MOD-0240	For Schedule 20, Deduct	-0.93	
	02MOD-0241	For Schedule 80, Add	2.61	

02000 Site Construction**02700 Site Improvements****02711 Chain Link Fences**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02711-0083	LF	2-1/2" Outside Diameter Galvanized Steel Post, 7' To 10' In Length	7.93	1.68
	02MOD-0221	For Each Top Rail Fitting, Add	1.35	
	02MOD-0222	For Each Single Barbed Wire Arm, Add	2.65	
	02MOD-0223	For Each Double Barbed Wire Arm, Add	4.88	
	02MOD-0236	For SS40 (Hot-Dip Galvanized And Chromated), Add	1.16	
	02MOD-0237	For Vinyl Coated, Add	2.78	
	02MOD-0238	For Powder Coated, Add	3.71	
	02MOD-0239	For Aluminum Coated, Add	5.80	
	02MOD-0240	For Schedule 20, Deduct	-0.93	
	02MOD-0241	For Schedule 80, Add	2.56	
02711-0084	LF	2-1/2" Outside Diameter Galvanized Steel Post, 11' To 15' In Length	7.27	1.33
	02MOD-0221	For Each Top Rail Fitting, Add	1.35	
	02MOD-0222	For Each Single Barbed Wire Arm, Add	2.65	
	02MOD-0223	For Each Double Barbed Wire Arm, Add	4.88	
	02MOD-0236	For SS40 (Hot-Dip Galvanized And Chromated), Add	1.16	
	02MOD-0237	For Vinyl Coated, Add	2.78	
	02MOD-0238	For Powder Coated, Add	3.71	
	02MOD-0239	For Aluminum Coated, Add	5.80	
	02MOD-0240	For Schedule 20, Deduct	-0.93	
	02MOD-0241	For Schedule 80, Add	2.49	
02711-0085	LF	2-1/2" Outside Diameter Galvanized Steel Post, 16' To 20' In Length	6.75	1.05
	02MOD-0221	For Each Top Rail Fitting, Add	1.35	
	02MOD-0222	For Each Single Barbed Wire Arm, Add	2.65	
	02MOD-0223	For Each Double Barbed Wire Arm, Add	4.88	
	02MOD-0236	For SS40 (Hot-Dip Galvanized And Chromated), Add	1.16	
	02MOD-0237	For Vinyl Coated, Add	2.78	
	02MOD-0238	For Powder Coated, Add	3.71	
	02MOD-0239	For Aluminum Coated, Add	5.80	
	02MOD-0240	For Schedule 20, Deduct	-0.93	
	02MOD-0241	For Schedule 80, Add	2.44	
02711-0086	LF	2-1/2" Outside Diameter Galvanized Steel Post, 21 To 24' In Length	6.39	0.92
	02MOD-0221	For Each Top Rail Fitting, Add	1.35	
	02MOD-0222	For Each Single Barbed Wire Arm, Add	2.65	
	02MOD-0223	For Each Double Barbed Wire Arm, Add	4.88	
	02MOD-0236	For SS40 (Hot-Dip Galvanized And Chromated), Add	1.16	
	02MOD-0237	For Vinyl Coated, Add	2.78	
	02MOD-0238	For Powder Coated, Add	3.71	
	02MOD-0239	For Aluminum Coated, Add	5.80	
	02MOD-0240	For Schedule 20, Deduct	-0.93	
	02MOD-0241	For Schedule 80, Add	2.40	
02711-0087	LF	2-1/2" Outside Diameter Galvanized Steel Post, > 24' In	6.06	0.70
	02MOD-0221	For Each Top Rail Fitting, Add	1.35	
	02MOD-0222	For Each Single Barbed Wire Arm, Add	2.65	
	02MOD-0223	For Each Double Barbed Wire Arm, Add	4.88	
	02MOD-0236	For SS40 (Hot-Dip Galvanized And Chromated), Add	1.16	
	02MOD-0237	For Vinyl Coated, Add	2.78	
	02MOD-0238	For Powder Coated, Add	3.71	
	02MOD-0239	For Aluminum Coated, Add	5.80	
	02MOD-0240	For Schedule 20, Deduct	-0.93	
	02MOD-0241	For Schedule 80, Add	2.37	
02711-0088		Post Without Top Rail Fitting, Galvanized Steel, (2.875" Nominal) (02711-0059)		
		Note: 3" outside diameter, Schedule 40. Includes cap and accessories.		
02711-0089	LF	3" Outside Diameter Galvanized Steel Post, Up To 6' In Length	11.14	2.11
	02MOD-0224	For Each Top Rail Fitting, Add	1.85	
	02MOD-0225	For Each Single Barbed Wire Arm, Add	3.85	
	02MOD-0226	For Each Double Barbed Wire Arm, Add	7.05	
	02MOD-0236	For SS40 (Hot-Dip Galvanized And Chromated), Add	1.73	
	02MOD-0237	For Vinyl Coated, Add	4.16	
	02MOD-0238	For Powder Coated, Add	5.54	
	02MOD-0239	For Aluminum Coated, Add	8.66	
	02MOD-0240	For Schedule 20, Deduct	-1.39	
	02MOD-0241	For Schedule 80, Add	3.75	
02711-0090	LF	3" Outside Diameter Galvanized Steel Post, 7' To 10' In Length	10.55	1.82
	02MOD-0224	For Each Top Rail Fitting, Add	1.85	
	02MOD-0225	For Each Single Barbed Wire Arm, Add	3.85	
	02MOD-0226	For Each Double Barbed Wire Arm, Add	7.05	
	02MOD-0236	For SS40 (Hot-Dip Galvanized And Chromated), Add	1.73	
	02MOD-0237	For Vinyl Coated, Add	4.16	
	02MOD-0238	For Powder Coated, Add	5.54	
	02MOD-0239	For Aluminum Coated, Add	8.66	
	02MOD-0240	For Schedule 20, Deduct	-1.39	
	02MOD-0241	For Schedule 80, Add	3.69	
02711-0091	LF	3" Outside Diameter Galvanized Steel Post, 11' To 15' In Length	9.85	1.47
	02MOD-0224	For Each Top Rail Fitting, Add	1.85	
	02MOD-0225	For Each Single Barbed Wire Arm, Add	3.85	
	02MOD-0226	For Each Double Barbed Wire Arm, Add	7.05	
	02MOD-0236	For SS40 (Hot-Dip Galvanized And Chromated), Add	1.73	
	02MOD-0237	For Vinyl Coated, Add	4.16	
	02MOD-0238	For Powder Coated, Add	5.54	
	02MOD-0239	For Aluminum Coated, Add	8.66	
	02MOD-0240	For Schedule 20, Deduct	-1.39	
	02MOD-0241	For Schedule 80, Add	3.62	

**Site Construction 02000****Site Improvements 02700****Chain Link Fences 02711****02**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02711-0092	LF	3" Outside Diameter Galvanized Steel Post, 16' To 20' In Length.....	9.27	1.19
02MOD-0224		For Each Top Rail Fitting, Add	1.85	
02MOD-0225		For Each Single Barbed Wire Arm, Add	3.85	
02MOD-0226		For Each Double Barbed Wire Arm, Add	7.05	
02MOD-0236		For SS40 (Hot-Dip Galvanized And Chromated), Add	1.73	
02MOD-0237		For Vinyl Coated, Add	4.16	
02MOD-0238		For Powder Coated, Add	5.54	
02MOD-0239		For Aluminum Coated, Add	8.66	
02MOD-0240		For Schedule 20, Deduct	-1.39	
02MOD-0241		For Schedule 80, Add	3.56	
02711-0093	LF	3" Outside Diameter Galvanized Steel Post, 21' To 24' In Length.....	8.88	0.99
02MOD-0224		For Each Top Rail Fitting, Add	1.85	
02MOD-0225		For Each Single Barbed Wire Arm, Add	3.85	
02MOD-0226		For Each Double Barbed Wire Arm, Add	7.05	
02MOD-0236		For SS40 (Hot-Dip Galvanized And Chromated), Add	1.73	
02MOD-0237		For Vinyl Coated, Add	4.16	
02MOD-0238		For Powder Coated, Add	5.54	
02MOD-0239		For Aluminum Coated, Add	8.66	
02MOD-0240		For Schedule 20, Deduct	-1.39	
02MOD-0241		For Schedule 80, Add	3.52	
02711-0094	LF	3" Outside Diameter Galvanized Steel Post, > 24' In Length	8.51	0.77
02MOD-0224		For Each Top Rail Fitting, Add	1.85	
02MOD-0225		For Each Single Barbed Wire Arm, Add	3.85	
02MOD-0226		For Each Double Barbed Wire Arm, Add	7.05	
02MOD-0236		For SS40 (Hot-Dip Galvanized And Chromated), Add	1.73	
02MOD-0237		For Vinyl Coated, Add	4.16	
02MOD-0238		For Powder Coated, Add	5.54	
02MOD-0239		For Aluminum Coated, Add	8.66	
02MOD-0240		For Schedule 20, Deduct	-1.39	
02MOD-0241		For Schedule 80, Add	3.48	
02711-0095		Post Without Top Rail Fitting, Galvanized Steel, (4" Nominal) (02711-0095)		
		Note: 4" outside diameter, Schedule 40. Includes cap and accessories.		
02711-0096	LF	4" Outside Diameter Galvanized Steel Post, Up To 6' In Length.....	15.68	2.25
02MOD-0227		For Each Top Rail Fitting, Add	2.60	
02MOD-0228		For Each Single Barbed Wire Arm, Add	5.10	
02MOD-0229		For Each Double Barbed Wire Arm, Add	11.25	
02MOD-0236		For SS40 (Hot-Dip Galvanized And Chromated), Add	2.82	
02MOD-0237		For Vinyl Coated, Add	6.76	
02MOD-0238		For Powder Coated, Add	9.01	
02MOD-0239		For Aluminum Coated, Add	14.08	
02MOD-0240		For Schedule 20, Deduct	-2.25	
02MOD-0241		For Schedule 80, Add	5.85	
02711-0097	LF	4" Outside Diameter Galvanized Steel Post, 7' To 10' In Length	14.95	1.82
02MOD-0227		For Each Top Rail Fitting, Add	2.60	
02MOD-0228		For Each Single Barbed Wire Arm, Add	5.10	
02MOD-0229		For Each Double Barbed Wire Arm, Add	11.25	
02MOD-0236		For SS40 (Hot-Dip Galvanized And Chromated), Add	2.82	
02MOD-0237		For Vinyl Coated, Add	6.76	
02MOD-0238		For Powder Coated, Add	9.01	
02MOD-0239		For Aluminum Coated, Add	14.08	
02MOD-0240		For Schedule 20, Deduct	-2.25	
02MOD-0241		For Schedule 80, Add	5.77	
02711-0098	LF	4" Outside Diameter Galvanized Steel Post, 11' To 15' In Length.....	14.33	1.55
02MOD-0227		For Each Top Rail Fitting, Add	2.60	
02MOD-0228		For Each Single Barbed Wire Arm, Add	5.10	
02MOD-0229		For Each Double Barbed Wire Arm, Add	11.25	
02MOD-0236		For SS40 (Hot-Dip Galvanized And Chromated), Add	2.82	
02MOD-0237		For Vinyl Coated, Add	6.76	
02MOD-0238		For Powder Coated, Add	9.01	
02MOD-0239		For Aluminum Coated, Add	14.08	
02MOD-0240		For Schedule 20, Deduct	-2.25	
02MOD-0241		For Schedule 80, Add	5.71	
02711-0099	LF	4" Outside Diameter Galvanized Steel Post, 16' To 20' In Length.....	13.72	1.26
02MOD-0227		For Each Top Rail Fitting, Add	2.60	
02MOD-0228		For Each Single Barbed Wire Arm, Add	5.10	
02MOD-0229		For Each Double Barbed Wire Arm, Add	11.25	
02MOD-0236		For SS40 (Hot-Dip Galvanized And Chromated), Add	2.82	
02MOD-0237		For Vinyl Coated, Add	6.76	
02MOD-0238		For Powder Coated, Add	9.01	
02MOD-0239		For Aluminum Coated, Add	14.08	
02MOD-0240		For Schedule 20, Deduct	-2.25	
02MOD-0241		For Schedule 80, Add	5.65	
02711-0100	LF	4" Outside Diameter Galvanized Steel Post, 21' To 24' In Length.....	13.72	1.26
02MOD-0227		For Each Top Rail Fitting, Add	2.60	
02MOD-0228		For Each Single Barbed Wire Arm, Add	5.10	
02MOD-0229		For Each Double Barbed Wire Arm, Add	11.25	
02MOD-0236		For SS40 (Hot-Dip Galvanized And Chromated), Add	2.82	
02MOD-0237		For Vinyl Coated, Add	6.76	
02MOD-0238		For Powder Coated, Add	9.01	
02MOD-0239		For Aluminum Coated, Add	14.08	
02MOD-0240		For Schedule 20, Deduct	-2.25	
02MOD-0241		For Schedule 80, Add	5.65	

02000 Site Construction**02700 Site Improvements****02711 Chain Link Fences**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02711-0101 LF 4" Outside Diameter Galvanized Steel Post, > 24' In Length	13.01	0.92
02MOD-0227 For Each Top Rail Fitting, Add	2.60	
02MOD-0228 For Each Single Barbed Wire Arm, Add	5.10	
02MOD-0229 For Each Double Barbed Wire Arm, Add	11.25	
02MOD-0236 For SS40 (Hot-Dip Galvanized And Chromated), Add	2.82	
02MOD-0237 For Vinyl Coated, Add	6.76	
02MOD-0238 For Powder Coated, Add	9.01	
02MOD-0239 For Aluminum Coated, Add	14.08	
02MOD-0240 For Schedule 20, Deduct	-2.25	
02MOD-0241 For Schedule 80, Add	5.58	
02711-0102 Post Without Top Rail Fitting, Galvanized Steel, (6.625" Nominal) (02711-0059)		
Note: 6-5/8" outside diameter, Schedule 40. Includes cap and accessories.		
02711-0103 LF 6-5/8" Outside Diameter Galvanized Steel Post, Up To 6' In Length.....	28.81	2.45
02MOD-0230 For Each Top Rail Fitting, Add	4.55	
02MOD-0231 For Each Single Barbed Wire Arm, Add	7.15	
02MOD-0232 For Each Double Barbed Wire Arm, Add	14.95	
02MOD-0236 For SS40 (Hot-Dip Galvanized And Chromated), Add	5.97	
02MOD-0237 For Vinyl Coated, Add	14.33	
02MOD-0238 For Powder Coated, Add	19.11	
02MOD-0239 For Aluminum Coated, Add	29.86	
02MOD-0240 For Schedule 20, Deduct	-4.78	
02MOD-0241 For Schedule 80, Add	11.96	
02711-0104 LF 6-5/8" Outside Diameter Galvanized Steel Post, 7' To 10' In Length	28.02	2.03
02MOD-0230 For Each Top Rail Fitting, Add	4.55	
02MOD-0231 For Each Single Barbed Wire Arm, Add	7.15	
02MOD-0232 For Each Double Barbed Wire Arm, Add	14.95	
02MOD-0236 For SS40 (Hot-Dip Galvanized And Chromated), Add	5.97	
02MOD-0237 For Vinyl Coated, Add	14.33	
02MOD-0238 For Powder Coated, Add	19.11	
02MOD-0239 For Aluminum Coated, Add	29.86	
02MOD-0240 For Schedule 20, Deduct	-4.78	
02MOD-0241 For Schedule 80, Add	11.88	
02711-0105 LF 6-5/8" Outside Diameter Galvanized Steel Post, 11' To 15' In Length	27.31	1.68
02MOD-0230 For Each Top Rail Fitting, Add	4.55	
02MOD-0231 For Each Single Barbed Wire Arm, Add	7.15	
02MOD-0232 For Each Double Barbed Wire Arm, Add	14.95	
02MOD-0236 For SS40 (Hot-Dip Galvanized And Chromated), Add	5.97	
02MOD-0237 For Vinyl Coated, Add	14.33	
02MOD-0238 For Powder Coated, Add	19.11	
02MOD-0239 For Aluminum Coated, Add	29.86	
02MOD-0240 For Schedule 20, Deduct	-4.78	
02MOD-0241 For Schedule 80, Add	11.81	
02711-0106 LF 6-5/8" Outside Diameter Galvanized Steel Post, 16' To 20' In Length	26.62	1.33
02MOD-0230 For Each Top Rail Fitting, Add	4.55	
02MOD-0231 For Each Single Barbed Wire Arm, Add	7.15	
02MOD-0232 For Each Double Barbed Wire Arm, Add	14.95	
02MOD-0236 For SS40 (Hot-Dip Galvanized And Chromated), Add	5.97	
02MOD-0237 For Vinyl Coated, Add	14.33	
02MOD-0238 For Powder Coated, Add	19.11	
02MOD-0239 For Aluminum Coated, Add	29.86	
02MOD-0240 For Schedule 20, Deduct	-4.78	
02MOD-0241 For Schedule 80, Add	11.74	
02711-0107 LF 6-5/8" Outside Diameter Galvanized Steel Post, 21' To 24' In Length	26.23	1.19
02MOD-0230 For Each Top Rail Fitting, Add	4.55	
02MOD-0231 For Each Single Barbed Wire Arm, Add	7.15	
02MOD-0232 For Each Double Barbed Wire Arm, Add	14.95	
02MOD-0236 For SS40 (Hot-Dip Galvanized And Chromated), Add	5.97	
02MOD-0237 For Vinyl Coated, Add	14.33	
02MOD-0238 For Powder Coated, Add	19.11	
02MOD-0239 For Aluminum Coated, Add	29.86	
02MOD-0240 For Schedule 20, Deduct	-4.78	
02MOD-0241 For Schedule 80, Add	11.70	
02711-0108 LF 6-5/8" Outside Diameter Galvanized Steel Post, > 24' In Length	25.84	0.99
02MOD-0230 For Each Top Rail Fitting, Add	4.55	
02MOD-0231 For Each Single Barbed Wire Arm, Add	7.15	
02MOD-0232 For Each Double Barbed Wire Arm, Add	14.95	
02MOD-0236 For SS40 (Hot-Dip Galvanized And Chromated), Add	5.97	
02MOD-0237 For Vinyl Coated, Add	14.33	
02MOD-0238 For Powder Coated, Add	19.11	
02MOD-0239 For Aluminum Coated, Add	29.86	
02MOD-0240 For Schedule 20, Deduct	-4.78	
02MOD-0241 For Schedule 80, Add	11.66	
02711-0109 Post Without Top Rail Fitting, Galvanized Steel, (8.625" Nominal) (02711-0059)		
Note: 8-5/8" outside diameter, Schedule 40. Includes cap and accessories.		
02711-0110 LF 8-5/8" Outside Diameter Galvanized Steel Post, Up To 6' In Length.....	54.42	2.74
02MOD-0233 For Each Top Rail Fitting, Add	7.50	
02MOD-0234 For Each Single Barbed Wire Arm, Add	9.15	
02MOD-0235 For Each Double Barbed Wire Arm, Add	18.95	
02MOD-0236 For SS40 (Hot-Dip Galvanized And Chromated), Add	12.24	
02MOD-0237 For Vinyl Coated, Add	29.37	
02MOD-0238 For Powder Coated, Add	39.16	
02MOD-0239 For Aluminum Coated, Add	61.19	
02MOD-0240 For Schedule 20, Deduct	-9.79	
02MOD-0241 For Schedule 80, Add	24.04	

**Site Construction 02000****Site Improvements 02700****Chain Link Fences 02711****02**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02711-0111	LF	8-5/8" Outside Diameter Galvanized Steel Post, 7' To 10' In Length	53.52	2.31
02MOD-0233		For Each Top Rail Fitting, Add	7.50	
02MOD-0234		For Each Single Barbed Wire Arm, Add	9.15	
02MOD-0235		For Each Double Barbed Wire Arm, Add	18.95	
02MOD-0236		For SS40 (Hot-Dip Galvanized And Chromated), Add	12.24	
02MOD-0237		For Vinyl Coated, Add	29.37	
02MOD-0238		For Powder Coated, Add	39.16	
02MOD-0239		For Aluminum Coated, Add	61.19	
02MOD-0240		For Schedule 20, Deduct	-9.79	
02MOD-0241		For Schedule 80, Add	23.95	
02711-0112	LF	8-5/8" Outside Diameter Galvanized Steel Post, 11' To 15' In Length	52.74	1.89
02MOD-0233		For Each Top Rail Fitting, Add	7.50	
02MOD-0234		For Each Single Barbed Wire Arm, Add	9.15	
02MOD-0235		For Each Double Barbed Wire Arm, Add	18.95	
02MOD-0236		For SS40 (Hot-Dip Galvanized And Chromated), Add	12.24	
02MOD-0237		For Vinyl Coated, Add	29.37	
02MOD-0238		For Powder Coated, Add	39.16	
02MOD-0239		For Aluminum Coated, Add	61.19	
02MOD-0240		For Schedule 20, Deduct	-9.79	
02MOD-0241		For Schedule 80, Add	23.88	
02711-0113	LF	8-5/8" Outside Diameter Galvanized Steel Post, 16' To 20' In Length	51.95	1.47
02MOD-0233		For Each Top Rail Fitting, Add	7.50	
02MOD-0234		For Each Single Barbed Wire Arm, Add	9.15	
02MOD-0235		For Each Double Barbed Wire Arm, Add	18.95	
02MOD-0236		For SS40 (Hot-Dip Galvanized And Chromated), Add	12.24	
02MOD-0237		For Vinyl Coated, Add	29.37	
02MOD-0238		For Powder Coated, Add	39.16	
02MOD-0239		For Aluminum Coated, Add	61.19	
02MOD-0240		For Schedule 20, Deduct	-9.79	
02MOD-0241		For Schedule 80, Add	23.80	
02711-0114	LF	8-5/8" Outside Diameter Galvanized Steel Post, 21' To 24' In Length	51.55	1.26
02MOD-0233		For Each Top Rail Fitting, Add	7.50	
02MOD-0234		For Each Single Barbed Wire Arm, Add	9.15	
02MOD-0235		For Each Double Barbed Wire Arm, Add	18.95	
02MOD-0236		For SS40 (Hot-Dip Galvanized And Chromated), Add	12.24	
02MOD-0237		For Vinyl Coated, Add	29.37	
02MOD-0238		For Powder Coated, Add	39.16	
02MOD-0239		For Aluminum Coated, Add	61.19	
02MOD-0240		For Schedule 20, Deduct	-9.79	
02MOD-0241		For Schedule 80, Add	23.76	
02711-0115	LF	8-5/8" Outside Diameter Galvanized Steel Post, > 24' In Length	51.12	1.05
02MOD-0233		For Each Top Rail Fitting, Add	7.50	
02MOD-0234		For Each Single Barbed Wire Arm, Add	9.15	
02MOD-0235		For Each Double Barbed Wire Arm, Add	18.95	
02MOD-0236		For SS40 (Hot-Dip Galvanized And Chromated), Add	12.24	
02MOD-0237		For Vinyl Coated, Add	29.37	
02MOD-0238		For Powder Coated, Add	39.16	
02MOD-0239		For Aluminum Coated, Add	61.19	
02MOD-0240		For Schedule 20, Deduct	-9.79	
02MOD-0241		For Schedule 80, Add	23.71	
02711-0116		Chain Link Fence Assemblies (02711)		
02711-0117		Chain Link Fence Assembly With 2-1/2" Line Post And 3" Corner Posts (02711-0116)		
Note: Includes 2" 9 gauge coiled spring mesh (knuckled selvedge), 1-5/8" top rail, 1-5/8" bottom rail, 2-1/2" line post and 3" corner posts. Posts exclude drilling or augering in soil or rock, concrete or soil fill. Heights indicated are from ground to top of installed pole. Minimum 2' bury with up to one third of exposed post height to be buried in ground. For use on 50 lf or more. Demolition excludes concrete footing removal on posts and excavation. See CSI section 02711-0133 for mid rails (where necessary).				
02711-0118		Galvanized (02711-0117)		
02711-0119	LF	3' Galvanized Chain Link Fence, 9 Gauge Coiled Spring Mesh, Top And Bottom Rails, 2-1/2" Line Post At 10' O.C., 3" Corner Post	17.94	2.38
02MOD-0243		For Installation In Concrete (Excludes Drilling), Add	0.93	
02MOD-0244		For 13 Gauge Fabric, Deduct	-2.99	
02MOD-0245		For 11 Gauge Fabric, Deduct	-1.75	
02MOD-0246		For 6 Gauge Fabric, Add	2.74	
02MOD-0247		For 1" Mesh Fabric, Add	3.74	
02MOD-0248		For 1-3/4" Mesh Fabric, Add	1.50	
02MOD-0249		For 2-1/8" Mesh Fabric, Deduct	-0.75	
02MOD-0250		For 2-3/8" Mesh Fabric, Deduct	-1.00	
02MOD-0251		For Posts 8' On Centers, Add	1.01	
02MOD-0252		For Posts 5' On Centers, Add	3.84	
02MOD-0253		For Up To 100, Add	3.63	
02MOD-0254		For > 100 To 250, Add	1.36	
02711-0120	LF	3'-6" Galvanized Chain Link Fence, 9 Gauge Coiled Spring Mesh, Top And Bottom Rails, 2-1/2" Line Post At 10' O.C., 3" Corner Post	18.73	2.38
02MOD-0243		For Installation In Concrete (Excludes Drilling), Add	0.95	
02MOD-0244		For 13 Gauge Fabric, Deduct	-3.21	
02MOD-0245		For 11 Gauge Fabric, Deduct	-1.88	
02MOD-0246		For 6 Gauge Fabric, Add	2.95	
02MOD-0247		For 1" Mesh Fabric, Add	4.02	
02MOD-0248		For 1-3/4" Mesh Fabric, Add	1.61	
02MOD-0249		For 2-1/8" Mesh Fabric, Deduct	-0.80	
02MOD-0250		For 2-3/8" Mesh Fabric, Deduct	-1.07	
02MOD-0251		For Posts 8' On Centers, Add	1.05	
02MOD-0252		For Posts 5' On Centers, Add	3.99	
02MOD-0253		For Up To 100, Add	3.76	
02MOD-0254		For > 100 To 250, Add	1.41	

02000 Site Construction**02700 Site Improvements****02711 Chain Link Fences**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02711-0121	LF	4' Galvanized Chain Link Fence, 9 Gauge Coiled Spring Mesh, Top And Bottom Rails, 2-1/2" Line Post At 10' O.C., 3" Corner Post	19.40	2.38
	02MOD-0243	For Installation In Concrete (Excludes Drilling), Add	0.96	
	02MOD-0244	For 13 Gauge Fabric, Deduct	-3.40	
	02MOD-0245	For 11 Gauge Fabric, Deduct	-1.98	
	02MOD-0246	For 6 Gauge Fabric, Add	3.12	
	02MOD-0247	For 1" Mesh Fabric, Add	4.25	
	02MOD-0248	For 1-3/4" Mesh Fabric, Add	1.70	
	02MOD-0249	For 2-1/8" Mesh Fabric, Deduct	-0.85	
	02MOD-0250	For 2-3/8" Mesh Fabric, Deduct	-1.13	
	02MOD-0251	For Posts 8' On Centers, Add	1.09	
	02MOD-0252	For Posts 5' On Centers, Add	4.12	
	02MOD-0253	For Up To 100, Add	3.87	
	02MOD-0254	For > 100 To 250, Add	1.45	
02711-0122	LF	5' Galvanized Chain Link Fence, 9 Gauge Coiled Spring Mesh, Top And Bottom Rails, 2-1/2" Line Post At 10' O.C., 3" Corner Post	21.01	2.38
	02MOD-0243	For Installation In Concrete (Excludes Drilling), Add	0.99	
	02MOD-0244	For 13 Gauge Fabric, Deduct	-3.85	
	02MOD-0245	For 11 Gauge Fabric, Deduct	-2.25	
	02MOD-0246	For 6 Gauge Fabric, Add	3.53	
	02MOD-0247	For 1" Mesh Fabric, Add	4.82	
	02MOD-0248	For 1-3/4" Mesh Fabric, Add	1.93	
	02MOD-0249	For 2-1/8" Mesh Fabric, Deduct	-0.96	
	02MOD-0250	For 2-3/8" Mesh Fabric, Deduct	-1.28	
	02MOD-0251	For Posts 8' On Centers, Add	1.17	
	02MOD-0252	For Posts 5' On Centers, Add	4.43	
	02MOD-0253	For Up To 100, Add	4.15	
	02MOD-0254	For > 100 To 250, Add	1.55	
02711-0123	LF	6' Galvanized Chain Link Fence, 9 Gauge Coiled Spring Mesh, Top And Bottom Rails, 2-1/2" Line Post At 10' O.C., 3" Corner Post	22.96	2.38
	02MOD-0243	For Installation In Concrete (Excludes Drilling), Add	1.06	
	02MOD-0244	For 13 Gauge Fabric, Deduct	-4.30	
	02MOD-0245	For 11 Gauge Fabric, Deduct	-2.51	
	02MOD-0246	For 6 Gauge Fabric, Add	3.95	
	02MOD-0247	For 1" Mesh Fabric, Add	5.38	
	02MOD-0248	For 1-3/4" Mesh Fabric, Add	2.15	
	02MOD-0249	For 2-1/8" Mesh Fabric, Deduct	-1.08	
	02MOD-0250	For 2-3/8" Mesh Fabric, Deduct	-1.43	
	02MOD-0251	For Posts 8' On Centers, Add	1.28	
	02MOD-0252	For Posts 5' On Centers, Add	4.82	
	02MOD-0253	For Up To 100, Add	4.50	
	02MOD-0254	For > 100 To 250, Add	1.68	
02711-0124	LF	7' Galvanized Chain Link Fence, 9 Gauge Coiled Spring Mesh, Top And Bottom Rails, 2-1/2" Line Post At 10' O.C., 3" Corner Post	24.10	3.58
	02MOD-0243	For Installation In Concrete (Excludes Drilling), Add	1.10	
	02MOD-0244	For 13 Gauge Fabric, Deduct	-4.56	
	02MOD-0245	For 11 Gauge Fabric, Deduct	-2.66	
	02MOD-0246	For 6 Gauge Fabric, Add	4.18	
	02MOD-0247	For 1" Mesh Fabric, Add	5.70	
	02MOD-0248	For 1-3/4" Mesh Fabric, Add	2.28	
	02MOD-0249	For 2-1/8" Mesh Fabric, Deduct	-1.14	
	02MOD-0250	For 2-3/8" Mesh Fabric, Deduct	-1.52	
	02MOD-0251	For Posts 8' On Centers, Add	1.34	
	02MOD-0252	For Posts 5' On Centers, Add	5.05	
	02MOD-0253	For Up To 100, Add	4.71	
	02MOD-0254	For > 100 To 250, Add	1.75	
02711-0125	LF	8' Galvanized Chain Link Fence, 9 Gauge Coiled Spring Mesh, Top And Bottom Rails, 2-1/2" Line Post At 10' O.C., 3" Corner Post	27.23	4.17
	02MOD-0243	For Installation In Concrete (Excludes Drilling), Add	1.17	
	02MOD-0244	For 13 Gauge Fabric, Deduct	-5.40	
	02MOD-0245	For 11 Gauge Fabric, Deduct	-3.15	
	02MOD-0246	For 6 Gauge Fabric, Add	4.95	
	02MOD-0247	For 1" Mesh Fabric, Add	6.76	
	02MOD-0248	For 1-3/4" Mesh Fabric, Add	2.70	
	02MOD-0249	For 2-1/8" Mesh Fabric, Deduct	-1.35	
	02MOD-0250	For 2-3/8" Mesh Fabric, Deduct	-1.80	
	02MOD-0251	For Posts 8' On Centers, Add	1.50	
	02MOD-0252	For Posts 5' On Centers, Add	5.66	
	02MOD-0253	For Up To 100, Add	5.25	
	02MOD-0254	For > 100 To 250, Add	1.95	
02711-0126	LF	9' Galvanized Chain Link Fence, 9 Gauge Coiled Spring Mesh, Top And Bottom Rails, 2-1/2" Line Post At 10' O.C., 3" Corner Post	29.23	5.36
	02MOD-0243	For Installation In Concrete (Excludes Drilling), Add	1.23	
	02MOD-0244	For 13 Gauge Fabric, Deduct	-5.90	
	02MOD-0245	For 11 Gauge Fabric, Deduct	-3.45	
	02MOD-0246	For 6 Gauge Fabric, Add	5.42	
	02MOD-0247	For 1" Mesh Fabric, Add	7.39	
	02MOD-0248	For 1-3/4" Mesh Fabric, Add	2.95	
	02MOD-0249	For 2-1/8" Mesh Fabric, Deduct	-1.48	
	02MOD-0250	For 2-3/8" Mesh Fabric, Deduct	-1.97	
	02MOD-0251	For Posts 8' On Centers, Add	1.61	
	02MOD-0252	For Posts 5' On Centers, Add	6.06	
	02MOD-0253	For Up To 100, Add	5.61	
	02MOD-0254	For > 100 To 250, Add	2.07	

**Site Construction 02000****Site Improvements 02700****Chain Link Fences 02711****02**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02711-0127	LF	10' Galvanized Chain Link Fence, 9 Gauge Coiled Spring Mesh, Top And Bottom Rails, 2-1/2" Line Post At 10' O.C., 3" Corner Post	31.24	5.96
	02MOD-0243	For Installation In Concrete (Excludes Drilling), Add	1.28	
	02MOD-0244	For 13 Gauge Fabric, Deduct	-6.40	
	02MOD-0245	For 11 Gauge Fabric, Deduct	-3.74	
	02MOD-0246	For 6 Gauge Fabric, Add	5.88	
	02MOD-0247	For 1" Mesh Fabric, Add	8.02	
	02MOD-0248	For 1-3/4" Mesh Fabric, Add	3.21	
	02MOD-0249	For 2-1/8" Mesh Fabric, Deduct	-1.60	
	02MOD-0250	For 2-3/8" Mesh Fabric, Deduct	-2.14	
	02MOD-0251	For Posts 8' On Centers, Add	1.72	
	02MOD-0252	For Posts 5' On Centers, Add	6.46	
	02MOD-0253	For Up To 100, Add	5.97	
	02MOD-0254	For > 100 To 250, Add	2.20	
02711-0128	LF	12' Galvanized Chain Link Fence, 9 Gauge Coiled Spring Mesh, Top And Bottom Rails, 2-1/2" Line Post At 10' O.C., 3" Corner Post	34.97	7.15
	02MOD-0242	For Each Additional Foot > 12, Add	3.14	
	02MOD-0243	For Installation In Concrete (Excludes Drilling), Add	1.39	
	02MOD-0244	For 13 Gauge Fabric, Deduct	-7.33	
	02MOD-0245	For 11 Gauge Fabric, Deduct	-4.28	
	02MOD-0246	For 6 Gauge Fabric, Add	6.72	
	02MOD-0247	For 1" Mesh Fabric, Add	9.17	
	02MOD-0248	For 1-3/4" Mesh Fabric, Add	3.67	
	02MOD-0249	For 2-1/8" Mesh Fabric, Deduct	-1.83	
	02MOD-0250	For 2-3/8" Mesh Fabric, Deduct	-2.45	
	02MOD-0251	For Posts 8' On Centers, Add	1.92	
	02MOD-0252	For Posts 5' On Centers, Add	7.20	
	02MOD-0253	For Up To 100, Add	6.63	
	02MOD-0254	For > 100 To 250, Add	2.44	
02711-0129		Rails (02711) Note: Includes rail end fittings.		
02711-0130		SS-20 Top Rail Including Tie Wires (1.66" Nominal) (02711-0129)		
02711-0131	LF	1-5/8" Galvanized Steel Top Rail, Tie Wires And Fittings	3.48	0.77
	02MOD-0255	For SS40, Add	0.43	
02711-0132	LF	1-5/8" Vinyl Coated Top Rail, Tie Wires And Fittings	4.42	0.77
	02MOD-0256	For SS40, Add	0.27	
	02MOD-0259	For Powder Coated, Add	0.53	
	02MOD-0261	For Aluminum Coated, Add	1.07	
02711-0133		SS-20 Middle/Bottom Rail With Tie Wire (1.66" Nominal) (02711-0129)		
02711-0134	LF	1-5/8" Galvanized Steel Fence Rail, Tie Wire And Fittings	3.47	0.77
	02MOD-0257	For SS40, Add	0.43	
02711-0135	LF	1-5/8" Vinyl Coated Fence Rail, Tie Wires And Fittings	4.42	0.77
	02MOD-0258	For SS40, Add	0.27	
	02MOD-0260	For Powder Coated, Add	0.53	
	02MOD-0262	For Aluminum Coated, Add	1.07	
02711-0136		Fabric (02711)		
02711-0137		Fabric, Galvanized Chain Link 2" Mesh (02711-0136)		
		Note: # 9 Gauge, galvanized 1.2 ounce coating.		
02711-0138	LF	3' Full Height Fabric Chain Link #9 Gauge, 1.2 Oz Coating, 2" Mesh	6.89	1.40
	02MOD-0263	For 2 Oz Galvanized Coating, Add	0.70	
	02MOD-0264	For 13 Gauge Fabric, Deduct	-1.40	
	02MOD-0265	For 11 Gauge Fabric, Deduct	-0.82	
	02MOD-0266	For 6 Gauge Fabric, Add	1.28	
	02MOD-0267	For 1" Mesh Fabric, Add	1.75	
	02MOD-0268	For 1-3/4" Mesh Fabric, Add	0.70	
	02MOD-0269	For 2-1/8" Mesh Fabric, Deduct	-0.35	
	02MOD-0270	For 2-3/8" Mesh Fabric, Deduct	-0.47	
02711-0139	LF	3'-6" Full Height Fabric Chain Link #9 Gauge, 1.2 Oz Coating, 2" Mesh	7.63	1.58
	02MOD-0263	For 2 Oz Galvanized Coating, Add	0.82	
	02MOD-0264	For 13 Gauge Fabric, Deduct	-1.63	
	02MOD-0265	For 11 Gauge Fabric, Deduct	-0.95	
	02MOD-0266	For 6 Gauge Fabric, Add	1.50	
	02MOD-0267	For 1" Mesh Fabric, Add	2.04	
	02MOD-0268	For 1-3/4" Mesh Fabric, Add	0.82	
	02MOD-0269	For 2-1/8" Mesh Fabric, Deduct	-0.41	
	02MOD-0270	For 2-3/8" Mesh Fabric, Deduct	-0.54	
02711-0140	LF	4' Full Height Fabric Chain Link #9 Gauge, 1.2 Oz Coating, 2" Mesh	8.25	1.75
	02MOD-0263	For 2 Oz Galvanized Coating, Add	0.90	
	02MOD-0264	For 13 Gauge Fabric, Deduct	-1.79	
	02MOD-0265	For 11 Gauge Fabric, Deduct	-1.05	
	02MOD-0266	For 6 Gauge Fabric, Add	1.64	
	02MOD-0267	For 1" Mesh Fabric, Add	2.24	
	02MOD-0268	For 1-3/4" Mesh Fabric, Add	0.90	
	02MOD-0269	For 2-1/8" Mesh Fabric, Deduct	-0.45	
	02MOD-0270	For 2-3/8" Mesh Fabric, Deduct	-0.60	

02000 Site Construction**02700 Site Improvements****02711 Chain Link Fences**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02711-0141 LF 5' Full Height Fabric Chain Link #9 Gauge, 1.2 Oz Coating, 2" Mesh	9.33	2.11
02MOD-0263 For 2 Oz Galvanized Coating, Add	1.12	
02MOD-0264 For 13 Gauge Fabric, Deduct	-2.24	
02MOD-0265 For 11 Gauge Fabric, Deduct	-1.31	
02MOD-0266 For 6 Gauge Fabric, Add	2.05	
02MOD-0267 For 1" Mesh Fabric, Add	2.80	
02MOD-0268 For 1-3/4" Mesh Fabric, Add	1.12	
02MOD-0269 For 2-1/8" Mesh Fabric, Deduct	-0.56	
02MOD-0270 For 2-3/8" Mesh Fabric, Deduct	-0.75	
02711-0142 LF 6' Full Height Fabric Chain Link #9 Gauge, 1.2 Oz Coating, 2" Mesh	10.49	2.45
02MOD-0263 For 2 Oz Galvanized Coating, Add	1.34	
02MOD-0264 For 13 Gauge Fabric, Deduct	-2.69	
02MOD-0265 For 11 Gauge Fabric, Deduct	-1.57	
02MOD-0266 For 6 Gauge Fabric, Add	2.46	
02MOD-0267 For 1" Mesh Fabric, Add	3.36	
02MOD-0268 For 1-3/4" Mesh Fabric, Add	1.34	
02MOD-0269 For 2-1/8" Mesh Fabric, Deduct	-0.67	
02MOD-0270 For 2-3/8" Mesh Fabric, Deduct	-0.90	
02711-0143 LF 7' Full Height Fabric Chain Link #9 Gauge, 1.2 Oz Coating, 2" Mesh	11.69	2.81
02MOD-0263 For 2 Oz Galvanized Coating, Add	1.57	
02MOD-0264 For 13 Gauge Fabric, Deduct	-3.13	
02MOD-0265 For 11 Gauge Fabric, Deduct	-1.83	
02MOD-0266 For 6 Gauge Fabric, Add	2.87	
02MOD-0267 For 1" Mesh Fabric, Add	3.92	
02MOD-0268 For 1-3/4" Mesh Fabric, Add	1.57	
02MOD-0269 For 2-1/8" Mesh Fabric, Deduct	-0.78	
02MOD-0270 For 2-3/8" Mesh Fabric, Deduct	-1.04	
02711-0144 LF 8' Full Height Fabric Chain Link #9 Gauge, 1.2 Oz Coating, 2" Mesh	12.99	3.51
02MOD-0263 For 2 Oz Galvanized Coating, Add	1.79	
02MOD-0264 For 13 Gauge Fabric, Deduct	-3.59	
02MOD-0265 For 11 Gauge Fabric, Deduct	-2.09	
02MOD-0266 For 6 Gauge Fabric, Add	3.29	
02MOD-0267 For 1" Mesh Fabric, Add	4.49	
02MOD-0268 For 1-3/4" Mesh Fabric, Add	1.79	
02MOD-0269 For 2-1/8" Mesh Fabric, Deduct	-0.90	
02MOD-0270 For 2-3/8" Mesh Fabric, Deduct	-1.20	
02711-0145 LF 10' Full Height Fabric Chain Link #9 Gauge, 1.2 Oz Coating, 2" Mesh	15.50	3.85
02MOD-0263 For 2 Oz Galvanized Coating, Add	2.33	
02MOD-0264 For 13 Gauge Fabric, Deduct	-4.66	
02MOD-0265 For 11 Gauge Fabric, Deduct	-2.72	
02MOD-0266 For 6 Gauge Fabric, Add	4.27	
02MOD-0267 For 1" Mesh Fabric, Add	5.82	
02MOD-0268 For 1-3/4" Mesh Fabric, Add	2.33	
02MOD-0269 For 2-1/8" Mesh Fabric, Deduct	-1.16	
02MOD-0270 For 2-3/8" Mesh Fabric, Deduct	-1.55	
02711-0146 LF 12' Full Height Fabric Chain Link #9 Gauge, 1.2 Oz Coating, 2" Mesh	17.71	4.21
02MOD-0263 For 2 Oz Galvanized Coating, Add	2.79	
02MOD-0264 For 13 Gauge Fabric, Deduct	-5.58	
02MOD-0265 For 11 Gauge Fabric, Deduct	-3.26	
02MOD-0266 For 6 Gauge Fabric, Add	5.12	
02MOD-0267 For 1" Mesh Fabric, Add	6.98	
02MOD-0268 For 1-3/4" Mesh Fabric, Add	2.79	
02MOD-0269 For 2-1/8" Mesh Fabric, Deduct	-1.40	
02MOD-0270 For 2-3/8" Mesh Fabric, Deduct	-1.86	
02711-0147 LF 14' Full Height Fabric Chain Link #9 Gauge, 1.2 Oz Coating, 2" Mesh	19.80	4.91
02MOD-0263 For 2 Oz Galvanized Coating, Add	3.00	
02MOD-0264 For 13 Gauge Fabric, Deduct	-5.99	
02MOD-0265 For 11 Gauge Fabric, Deduct	-3.50	
02MOD-0266 For 6 Gauge Fabric, Add	5.49	
02MOD-0267 For 1" Mesh Fabric, Add	7.49	
02MOD-0268 For 1-3/4" Mesh Fabric, Add	3.00	
02MOD-0269 For 2-1/8" Mesh Fabric, Deduct	-1.50	
02MOD-0270 For 2-3/8" Mesh Fabric, Deduct	-2.00	
02711-0148 LF 16' Full Height Fabric Chain Link #9 Gauge, 1.2 Oz Coating, 2" Mesh	21.90	5.60
02MOD-0263 For 2 Oz Galvanized Coating, Add	3.20	
02MOD-0264 For 13 Gauge Fabric, Deduct	-6.41	
02MOD-0265 For 11 Gauge Fabric, Deduct	-3.74	
02MOD-0266 For 6 Gauge Fabric, Add	5.87	
02MOD-0267 For 1" Mesh Fabric, Add	8.01	
02MOD-0268 For 1-3/4" Mesh Fabric, Add	3.20	
02MOD-0269 For 2-1/8" Mesh Fabric, Deduct	-1.60	
02MOD-0270 For 2-3/8" Mesh Fabric, Deduct	-2.14	
02711-0149 Fence Windscreen Fabric (02711-0136)		
Note: Attached to fence with plastic wire clips.		
02711-0150 SF Vinyl Coated Polyester Windscreen For Fence, 7 Oz Per SY	1.68	
02MOD-0351 For Sewn Boxed Vent (Each), Add	13.11	
02MOD-0352 For Welded Boxed Vent (Each), Add	6.55	
02MOD-0353 For 4' x 4' One Color Logo (Each), Add	273.10	

02711-0151**Gates** (02711)

Note: Posts exclude drilling or augering in soil or rock. For barbed wire attached directly to posts and gates, select gates and posts sizes for full finished height of gate above grade (top rail to be at lower height, includes barb wire at top area where mesh would be).

**Site Construction 02000****Site Improvements 02700****Chain Link Fences 02711****02**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02711-0152		Galvanized Steel Without Barbed Wire (02711-0151) Note: Industrial swing gate. Includes posts (3" diameter posts for up to 6' wide gate, 4" diameter to 13' wide, 6-5/8" diameter for 18' wide, 8-5/8" diameter for over 18' wide), 2" diameter schedule pipe frame, offset hinges, cap and hardware (drop rod, center locking device, gate keeper, catch and tension bands). Fabric: galvanized chain link 2" mesh # 9 gauge, galvanized 1.2 ounce coating.		
02711-0153		6' Fence Height (02711-0152)		
02711-0154	EA	3' Wide x 6' High Single Gate Galvanized Steel Without Barbed Wire.....	179.64	20.85
02MOD-0271		For Gate With Single Barb Wire Arm, Add	12.86	
02MOD-0272		For Gate With Double Barb Wire Arm, Add	18.71	
02MOD-0273		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-21.93	
02MOD-0274		For Aluminized Steel Gate And Post, Add	56.13	
02MOD-0275		For Powder Coated Gate And Post, Add	30.40	
02711-0155	EA	4' Wide x 6' High Single Gate Galvanized Steel Without Barbed Wire.....	218.38	20.85
02MOD-0271		For Gate With Single Barb Wire Arm, Add	17.12	
02MOD-0272		For Gate With Double Barb Wire Arm, Add	24.91	
02MOD-0273		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-29.19	
02MOD-0274		For Aluminized Steel Gate And Post, Add	74.73	
02MOD-0275		For Powder Coated Gate And Post, Add	40.48	
02711-0156	EA	5' Wide x 6' High Single Gate Galvanized Steel Without Barbed Wire.....	251.87	22.17
02MOD-0271		For Gate With Single Barb Wire Arm, Add	20.38	
02MOD-0272		For Gate With Double Barb Wire Arm, Add	29.65	
02MOD-0273		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-34.74	
02MOD-0274		For Aluminized Steel Gate And Post, Add	88.94	
02MOD-0275		For Powder Coated Gate And Post, Add	48.18	
02711-0157	EA	6' Wide x 6' High Single Gate Galvanized Steel Without Barbed Wire.....	294.25	26.77
02MOD-0271		For Gate With Single Barb Wire Arm, Add	23.52	
02MOD-0272		For Gate With Double Barb Wire Arm, Add	34.21	
02MOD-0273		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-40.09	
02MOD-0274		For Aluminized Steel Gate And Post, Add	102.62	
02MOD-0275		For Powder Coated Gate And Post, Add	55.59	
02711-0158	EA	7' Wide x 6' High Single Gate Galvanized Steel Without Barbed Wire.....	338.27	31.45
02MOD-0271		For Gate With Single Barb Wire Arm, Add	26.83	
02MOD-0272		For Gate With Double Barb Wire Arm, Add	39.03	
02MOD-0273		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-45.74	
02MOD-0274		For Aluminized Steel Gate And Post, Add	117.08	
02MOD-0275		For Powder Coated Gate And Post, Add	63.42	
02711-0159	EA	8' Wide x 6' High Single Gate Galvanized Steel Without Barbed Wire.....	380.12	35.84
02MOD-0271		For Gate With Single Barb Wire Arm, Add	29.99	
02MOD-0272		For Gate With Double Barb Wire Arm, Add	43.62	
02MOD-0273		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-51.11	
02MOD-0274		For Aluminized Steel Gate And Post, Add	130.85	
02MOD-0275		For Powder Coated Gate And Post, Add	70.88	
02711-0160	EA	9' Wide x 6' High Single Gate Galvanized Steel Without Barbed Wire.....	422.73	40.45
02MOD-0271		For Gate With Single Barb Wire Arm, Add	33.14	
02MOD-0272		For Gate With Double Barb Wire Arm, Add	48.21	
02MOD-0273		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-56.50	
02MOD-0274		For Aluminized Steel Gate And Post, Add	144.63	
02MOD-0275		For Powder Coated Gate And Post, Add	78.34	
02711-0161	EA	10' Wide x 6' High Single Gate Galvanized Steel Without Barbed Wire.....	452.40	45.05
02MOD-0271		For Gate With Single Barb Wire Arm, Add	34.88	
02MOD-0272		For Gate With Double Barb Wire Arm, Add	50.73	
02MOD-0273		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-59.45	
02MOD-0274		For Aluminized Steel Gate And Post, Add	152.20	
02MOD-0275		For Powder Coated Gate And Post, Add	82.44	
02711-0162	EA	10' Wide x 6' High Double Gate Galvanized Steel Without Barbed Wire	601.63	44.98
02MOD-0271		For Gate With Single Barb Wire Arm, Add	51.33	
02MOD-0272		For Gate With Double Barb Wire Arm, Add	74.66	
02MOD-0273		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-87.49	
02MOD-0274		For Aluminized Steel Gate And Post, Add	223.97	
02MOD-0275		For Powder Coated Gate And Post, Add	121.32	
02711-0163	EA	12' Wide x 6' High Double Gate Galvanized Steel Without Barbed Wire	705.86	48.71
02MOD-0271		For Gate With Single Barb Wire Arm, Add	61.55	
02MOD-0272		For Gate With Double Barb Wire Arm, Add	89.53	
02MOD-0273		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-104.92	
02MOD-0274		For Aluminized Steel Gate And Post, Add	268.59	
02MOD-0275		For Powder Coated Gate And Post, Add	145.49	
02711-0164	EA	14' Wide x 6' High Double Gate Galvanized Steel Without Barbed Wire	846.90	64.14
02MOD-0271		For Gate With Single Barb Wire Arm, Add	71.97	
02MOD-0272		For Gate With Double Barb Wire Arm, Add	104.68	
02MOD-0273		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-122.68	
02MOD-0274		For Aluminized Steel Gate And Post, Add	314.05	
02MOD-0275		For Powder Coated Gate And Post, Add	170.11	
02711-0165	EA	16' Wide x 6' High Double Gate Galvanized Steel Without Barbed Wire	954.68	69.10
02MOD-0271		For Gate With Single Barb Wire Arm, Add	82.20	
02MOD-0272		For Gate With Double Barb Wire Arm, Add	119.56	
02MOD-0273		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-140.11	
02MOD-0274		For Aluminized Steel Gate And Post, Add	358.68	
02MOD-0275		For Powder Coated Gate And Post, Add	194.28	
02711-0166	EA	18' Wide x 6' High Double Gate Galvanized Steel Without Barbed Wire	1,066.67	74.83
02MOD-0271		For Gate With Single Barb Wire Arm, Add	92.61	
02MOD-0272		For Gate With Double Barb Wire Arm, Add	134.71	
02MOD-0273		For 1-5/8" Schedule 40 Pipe Frame, Deduct	-157.86	
02MOD-0274		For Aluminized Steel Gate And Post, Add	404.13	
02MOD-0275		For Powder Coated Gate And Post, Add	218.90	

02000 Site Construction**02700 Site Improvements****02711 Chain Link Fences**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02711-0167	EA	20' Wide x 6' High Double Gate Galvanized Steel Without Barbed Wire.....	1,181.80	81.67
	02MOD-0271	For Gate With Single Barb Wire Arm, Add	103.03	
	02MOD-0272	For Gate With Double Barb Wire Arm, Add	149.86	
	02MOD-0273	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-175.62	
	02MOD-0274	For Aluminized Steel Gate And Post, Add	449.59	
	02MOD-0275	For Powder Coated Gate And Post, Add	243.53	
02711-0168	EA	22' Wide x 6' High Double Gate Galvanized Steel Without Barbed Wire.....	1,299.29	89.83
	02MOD-0271	For Gate With Single Barb Wire Arm, Add	113.26	
	02MOD-0272	For Gate With Double Barb Wire Arm, Add	164.74	
	02MOD-0273	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-193.05	
	02MOD-0274	For Aluminized Steel Gate And Post, Add	494.21	
	02MOD-0275	For Powder Coated Gate And Post, Add	267.70	
02711-0169	EA	24' Wide x 6' High Double Gate Galvanized Steel Without Barbed Wire.....	1,423.09	99.78
	02MOD-0271	For Gate With Single Barb Wire Arm, Add	123.58	
	02MOD-0272	For Gate With Double Barb Wire Arm, Add	179.75	
	02MOD-0273	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-210.65	
	02MOD-0274	For Aluminized Steel Gate And Post, Add	539.26	
	02MOD-0275	For Powder Coated Gate And Post, Add	292.10	
02711-0170	EA	26' Wide x 6' High Double Gate Galvanized Steel Without Barbed Wire.....	1,553.35	112.25
	02MOD-0271	For Gate With Single Barb Wire Arm, Add	133.79	
	02MOD-0272	For Gate With Double Barb Wire Arm, Add	194.60	
	02MOD-0273	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-228.05	
	02MOD-0274	For Aluminized Steel Gate And Post, Add	583.80	
	02MOD-0275	For Powder Coated Gate And Post, Add	316.23	
02711-0171	EA	28' Wide x 6' High Double Gate Galvanized Steel Without Barbed Wire.....	1,695.51	128.26
	02MOD-0271	For Gate With Single Barb Wire Arm, Add	144.13	
	02MOD-0272	For Gate With Double Barb Wire Arm, Add	209.64	
	02MOD-0273	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-245.67	
	02MOD-0274	For Aluminized Steel Gate And Post, Add	628.92	
	02MOD-0275	For Powder Coated Gate And Post, Add	340.67	
02711-0172	EA	30' Wide x 6' High Double Gate Galvanized Steel Without Barbed Wire.....	1,853.90	149.67
	02MOD-0271	For Gate With Single Barb Wire Arm, Add	154.49	
	02MOD-0272	For Gate With Double Barb Wire Arm, Add	224.71	
	02MOD-0273	For 1-5/8" Schedule 40 Pipe Frame, Deduct	-263.33	
	02MOD-0274	For Aluminized Steel Gate And Post, Add	674.13	
	02MOD-0275	For Powder Coated Gate And Post, Add	365.15	

02711-0173 Gate Accessories (02711-0151)

02711-0174	LF	3/8" Cross Bracing Rods	0.59	
02711-0175	LF	1-5/8" Pipe Bracing, Diagonal	1.68	
02711-0176	LF	2-3/8" Diameter Cast Steel Gate Hinge With Bolts.....	14.32	
02711-0177	LF	3" Diameter Cast Steel Gate Hinge With Bolts.....	16.03	
02711-0178	LF	4" Diameter Cast Steel Gate Hinge With Bolts.....	17.86	
02711-0179	LF	6-5/8" Diameter Cast Steel Gate Hinge With Bolts.....	35.64	
02711-0180	LF	8-5/8" Diameter Cast Steel Gate Hinge With Bolts.....	43.28	
02711-0181	EA	Gate Center Stop, Cast Steel, Ground.....	20.76	
02711-0182	EA	Gate Latch, Malleable Galvanized Steel	31.69	
02711-0183	EA	Gate Keeper, Full Length, Galvanized Steel	141.32	
02711-0184	EA	Heavy Duty Gate Latch, Malleable Galvanized Steel	39.22	
02711-0185	EA	Gate Keeper, Full Length, Stainless Steel, Internal Locking Device With 3/4" Stainless Steel Rod For 3' To 5' High Gate	691.37	
02711-0186	EA	Gate Keeper, Full Length, Stainless Steel, Internal Locking Device With 3/4" Stainless Steel Rod For >5' To 8' High Gate	741.40	
02711-0187	EA	Gate Keeper, Full Length, Stainless Steel, Internal Locking Device With 3/4" Stainless Steel Rod For >8' To 12' High Gate.....	791.43	

02711-0188 Accessories (02711)**02711-0189 Mounting Plate With Anchors Or Bolts** (02711-0188)

Note: For drilling for anchor or bolts, installing post on or against flat surface.

02711-0190	EA	Mounting Plate For 1-5/8" Diameter Post	26.18	
02711-0191	EA	Mounting Plate For 2" Diameter Post	26.54	
02711-0192	EA	Mounting Plate For 2-1/2" Diameter Post	27.38	
02711-0193	EA	Mounting Plate For 3" Diameter Post	32.52	
02711-0194	EA	Mounting Plate For 4" Diameter Post	37.10	
02711-0195	EA	Mounting Plate For 6-5/8" Diameter Post	42.59	
02711-0196	EA	Mounting Plate For 8-5/8" Diameter Post	49.83	

02711-0197 Fence Parts For Repair And Replacement (02711)**02711-0198 Gate Attachments** (02711-0197)

02711-0199	EA	Cantilever Roller Assembly, Ball Bearing With Fittings	85.01	19.39
02711-0200	EA	Sliding Gate Roller Assembly	71.43	17.19
02711-0201	LF	Galvanized Diagonal Brace Rod With Tightener	6.22	2.63
02711-0202	EA	Rod And Lock Gate Keeper	78.76	13.90
02711-0203	EA	Gate Center Stop	27.48	7.68
02711-0204	EA	Gate Keeper Hold-Open For Cantilever Gate.....	69.58	13.90
02711-0205	EA	Gate Keeper, Full Length, Stainless Steel Rod, Internal Locking Device For 3' To 5' High Gate	816.50	
02711-0206	EA	Gate Keeper, Full Length, Stainless Steel Rod, Internal Locking Device For 6' To 8' High Gate	878.26	
02711-0207	EA	Gate Keeper, Full Length, Stainless Steel Rod, Internal Locking Device For 10' To 12' High Gate	940.01	
02711-0208	EA	Galvanized Gate Holdback.....	19.33	
02711-0209	EA	2-1/2" x 2" Off Set Hinge	17.72	
02711-0210	EA	3" x 2" Off Set Hinge	18.51	

**Site Construction 02000****Site Improvements 02700****Chain Link Fences 02711****02**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02711-0211	EA	4" x 2" Off Set Hinge	19.76	
02711-0212	EA	6-5/8" x 2" Off Set Hinge	31.47	
02711-0213	EA	8-5/8" x 2" Off Set Hinge	48.73	
02711-0214	EA	1-5/8" Aluminum Die-Cast Post Cap	3.71	
02711-0215	EA	2" Aluminum Die-Cast Post Cap	4.06	
02711-0216	EA	2-1/2" Aluminum Die-Cast Post Cap	4.60	
02711-0217	EA	3" Aluminum Die-Cast Post Cap	5.21	
02711-0218	EA	2" Galvanized Post Cap	4.56	
02711-0219	EA	2-1/2" Galvanized Post Cap	4.95	
02711-0220	EA	3" Galvanized Post Cap	5.64	
02711-0221	EA	4" Galvanized Post Cap	8.17	
02711-0222	EA	6-5/8" Galvanized Post Cap	14.80	
02711-0223	EA	8-5/8" Galvanized Post Cap	24.04	
02711-0224	EA	1-5/8" Boulevard Clamp	7.68	
02711-0225	EA	2" Boulevard Clamp	9.35	
02711-0226	EA	2-1/2" Boulevard Clamp	10.97	
02711-0227	EA	3" Boulevard Clamp	13.31	
02711-0228	EA	1-5/8" Gate Brace Or End Rail Clamp	7.54	
02711-0229	EA	2" Gate Brace Or End Rail Clamp	9.17	
02711-0230	EA	2-1/2" Gate Brace Or End Rail Clamp	10.78	
02711-0231	EA	3" Gate Brace Or End Rail Clamp	13.11	
02711-0232		Fence Parts (02711-0197)		
02711-0233	EA	2" Heavy Duty Band, Galvanized	2.42	1.09
02711-0234	EA	2-1/2" Heavy Duty Band, Galvanized	2.45	1.09
02711-0235	EA	3" Heavy Duty Band, Galvanized	2.51	1.09
02711-0236	EA	3-1/2" Heavy Duty Band, Galvanized	2.62	1.09
02711-0237	EA	4" Heavy Duty Band, Galvanized	2.64	1.09
02711-0238		Remove And Reinstall Chain Link Fences (02711)		
		Note: Includes removal, storage, cleaning and reinstallation of fence fabric, rails and other components. Excludes post work.		
02711-0239	LF	Removal And Reinstallation Of Chain Link Fence Up To 5' Height	14.63	
02711-0240	LF	Removal And Reinstallation Of Chain Link Fence 6' To 12' Height	21.94	
02712		Other Metal Fences (02700)		
02712-0001		Chicken Wire (02712)		
		Note: Posts at 4'.		
02712-0002	LF	1" Mesh, 4' High Chicken Wire Posts At 4'	5.91	1.29
02712-0003	LF	2" Mesh, 6' High Chicken Wire Posts At 4'	6.49	1.29
02712-0004		Galvanized Steel (02712)		
02712-0005		12 Gauge, 2" x 4" Welded Mesh (02712-0004)		
		Note: Posts 5' on center.		
02712-0006	LF	3' High 12 Gauge Galvanized Steel Fence 2" x 4" Mesh, Posts At 5'	7.00	1.29
02712-0007	LF	5' High 12 Gauge Galvanized Steel Fence 2" x 4" Mesh, Posts At 5'	7.48	1.29
02712-0008		14 Gauge, 1" x 2" Welded Mesh (02712-0004)		
		Note: Posts 5' on center.		
02712-0009	LF	3' High 14 Gauge Galvanized Steel Fence 1" x 2" Mesh, Posts At 5'	6.90	1.29
02712-0010	LF	5' High 14 Gauge Galvanized Steel Fence 1" x 2" Mesh, Posts At 5'	7.33	1.29
02712-0011		Barbed Wire Fences (02712)		
		See CSI section 02711-0001 for drilling augering.		
02712-0012		Fence Posts (02712-0011)		
02712-0013		Fence Post Soil, Set In Concrete (02712-0012)		
02712-0014	EA	Barbed Wire Fence Post, Galvanized Set In Concrete In Soil	66.50	5.85
		02MOD-0276 For Bracing On Corner Post, End Post And Pull Post, Add	106.91	
02712-0015	EA	Barbed Wire Fence Post, Vinyl Coated Set In Concrete In Soil	88.41	5.85
		02MOD-0276 For Bracing On Corner Post, End Post And Pull Post, Add	143.50	
02712-0016		Post In Rock (02712-0012)		
02712-0017	EA	Barbed Wire Fence Post, Galvanized Grouted In Rock	65.22	5.85
		02MOD-0276 For Bracing On Corner Post, End Post And Pull Post, Add	104.99	
02712-0018	EA	Barbed Wire Fence Post, Vinyl Coated Grouted In Rock	87.13	5.85
		02MOD-0276 For Bracing On Corner Post, End Post And Pull Post, Add	141.58	
02712-0019		Post Driven Into Dirt (02712-0012)		
		Note: Posts for barb wire, chain link or welded wire mesh.		
02712-0020	EA	3' Metal Posts, Driven Into Earth	18.23	
02712-0021	EA	4' Metal Posts, Driven Into Earth	19.97	
02712-0022	EA	5' Metal Posts, Driven Into Earth	22.26	

02000 Site Construction**02700 Site Improvements****02712 Other Metal Fences**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02712-0023	EA	6' Metal Posts, Driven Into Earth	24.01	
02712-0024		Barbed Wire (02712-0011) Note: Per strand.		
02712-0025	LF	Barbed Wire, Galvanized Per Strand	0.63	0.30
02712-0026	LF	Barbed Wire, Vinyl Coated Per Strand	0.66	0.30
02712-0027		Barbed Wire Fence, Farm Style, With Wood Posts (02712-0011) Note: Based on post at 10' centers, two corner post and two pull post per 300 lf.		
02712-0028	LF	Barbed Wire, Standard 3 Strand Fence With Posts	7.68	1.46
02712-0029		Wire And Screen (02712)		
02712-0030		Wire And Screen For Partitions And Fences (02712-0029) Note: Excludes framing and post.		
02712-0031		Screen Wire (02712-0030)		
02712-0032	SF	Screen Wire, 48" Wide Rolls	1.84	0.65
02712-0033		Hog Wire (02712-0030)		
02712-0034	SF	4" x 4" Hog Wire For Fencing	1.31	0.52
02712-0035	SF	6" x 6" Hog Wire For Fencing	1.37	0.58
02712-0036		Screen For Partitions And Ceilings (02712-0029) Note: Can be used to support insulation on walls and ceilings.		
02712-0037	SF	1" Mesh Chicken Wire	1.19	
02712-0038		Snow Fencing (02712)		
02712-0039		Snow Fence On Steel Posts (02712-0038)		
02712-0040	LF	Steel Fence Post, 10' On Center With 4' Snow Fence	5.38	1.55
02712-0041		Wicket Fence (02712)		
02712-0042	LF	Steel Wicket Fence, Painted	40.37	3.76
02719 Retaining Wall Systems (02700)				
02719-0001		Modular Retaining Wall Systems (02719) Note: Includes installation, material and manufacture's wall design. Includes stone wall, cap stones, #57 stone backing, Geo-Grid (2/3 height of wall), miradrain and fill with earth, and compaction. Includes cap at top, pins, and installation. Excludes initial site grading, subbase preparation or finish grading.		
02719-0002		"Amastone" Type Modular Retaining Wall Systems (02719-0001)		
02719-0003	SF	Up To 4' Height "Amastone" Type Modular Retaining Wall System	42.06	5.49
	02MOD-0277	For > 1:3 Sloped Soil At Top, Add	2.64	
02719-0004	SF	4 To 8' Height "Amastone" Type Modular Retaining Wall System	44.37	5.77
	02MOD-0277	For > 1:3 Sloped Soil At Top, Add	2.79	
02719-0005	SF	8 To 12' Height "Amastone" Type Modular Retaining Wall System	46.27	6.35
	02MOD-0277	For > 1:3 Sloped Soil At Top, Add	2.85	
02719-0006	SF	12 To 16' Height "Amastone" Type Modular Retaining Wall System	48.28	6.93
	02MOD-0277	For > 1:3 Sloped Soil At Top, Add	2.93	
02719-0007		"Diamond" Type Modular Retaining Wall Systems (02719-0001)		
02719-0008	SF	Up To 4' Height "Diamond" Type Modular Retaining Wall System	43.68	5.49
	02MOD-0277	For > 1:3 Sloped Soil At Top, Add	2.78	
02719-0009	SF	4 To 8' Height "Diamond" Type Modular Retaining Wall System	46.00	5.77
	02MOD-0277	For > 1:3 Sloped Soil At Top, Add	2.93	
02719-0010	SF	8 To 12' Height "Diamond" Type Modular Retaining Wall System	47.90	6.35
	02MOD-0277	For > 1:3 Sloped Soil At Top, Add	2.99	
02719-0011	SF	12 To 16' Height "Diamond" Type Modular Retaining Wall System	49.90	6.93
	02MOD-0277	For > 1:3 Sloped Soil At Top, Add	3.06	
02719-0012		"Keystone" Type Modular Retaining Wall Systems (02719-0001)		
02719-0013	SF	Up To 4' Height "Keystone" Type Modular Retaining Wall System	47.56	5.49
	02MOD-0277	For > 1:3 Sloped Soil At Top, Add	3.11	
02719-0014	SF	4 To 8' Height "Keystone" Type Modular Retaining Wall System	49.88	5.77
	02MOD-0277	For > 1:3 Sloped Soil At Top, Add	3.26	
02719-0015	SF	8 To 12' Height "Keystone" Type Modular Retaining Wall System	51.78	6.35
	02MOD-0277	For > 1:3 Sloped Soil At Top, Add	3.32	
02719-0016	SF	12 To 16' Height "Keystone" Type Modular Retaining Wall System	53.78	6.93
	02MOD-0277	For > 1:3 Sloped Soil At Top, Add	3.39	
02719-0017		"Criblock" Type Modular Retaining Wall Systems (02719-0001)		



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	Site Improvements	02700	
	Retaining Wall Systems	02719	

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02719-0018	SF	Up To 4' Height "Criblock" Type Modular Retaining Wall System	42.06	5.49
	02MOD-0277	For > 1:3 Sloped Soil At Top, Add	2.64	
	02MOD-0278	For Gravel Backfill Instead Of Earth, Add	0.25	
02719-0019	SF	4 To 8' Height "Criblock" Type Modular Retaining Wall System	44.37	5.77
	02MOD-0277	For > 1:3 Sloped Soil At Top, Add	2.79	
	02MOD-0278	For Gravel Backfill Instead Of Earth, Add	0.25	
02719-0020	SF	8 To 12' Height "Criblock" Type Modular Retaining Wall System	46.27	6.35
	02MOD-0277	For > 1:3 Sloped Soil At Top, Add	2.85	
	02MOD-0278	For Gravel Backfill Instead Of Earth, Add	0.25	
02719-0021	SF	12 To 16' Height "Criblock" Type Modular Retaining Wall System	48.28	6.93
	02MOD-0277	For > 1:3 Sloped Soil At Top, Add	2.93	
	02MOD-0278	For Gravel Backfill Instead Of Earth, Add	0.25	
02719-0022		"Versa-Lok" Type Modular Retaining Wall Systems (02719-0001)		
02719-0023	SF	Up To 4' Height "Versa-Lok" Type Modular Retaining Wall System	37.13	5.49
	02MOD-0277	For > 1:3 Sloped Soil At Top, Add	2.22	
02719-0024	SF	4 To 8' Height "Versa-Lok" Type Modular Retaining Wall System	41.07	5.77
	02MOD-0277	For > 1:3 Sloped Soil At Top, Add	2.51	
02719-0025	SF	8 To 12' Height "Versa-Lok" Type Modular Retaining Wall System	43.00	6.35
	02MOD-0277	For > 1:3 Sloped Soil At Top, Add	2.57	
02719-0026	SF	12 To 16' Height "Versa-Lok" Type Modular Retaining Wall System	44.70	6.93
	02MOD-0277	For > 1:3 Sloped Soil At Top, Add	2.62	
02719-0027		Cap Block Restoration (02719-0001)		
		Note: Includes removal of existing cap block and installation of new cap block to match.		
02719-0028	LF	Removal And Reinstall Cap Block And Pins	19.80	
	02MOD-0277	For > 1:3 Sloped Soil At Top, Add	1.00	
02719-0029		Concrete Retaining Walls (02719)		
		Note: System elements include all necessary forms (4 uses), 3000 PSI concrete with an 8" chute, all necessary reinforcing steel, and underdrain. Exposed concrete is patched and rubbed. Excludes initial site grading, subbase preparation or finish grading.		
02719-0030	LF	4' High With Base, 10" Thick Reinforced	248.42	92.95
	02MOD-0277	For > 1:3 Sloped Soil At Top, Add	5.32	
02719-0031	LF	6' High With Base, 10" Thick Reinforced	309.62	114.38
	02MOD-0277	For > 1:3 Sloped Soil At Top, Add	6.87	
02719-0032	LF	8' High With Base, 10" Thick Reinforced	337.04	123.38
	02MOD-0277	For > 1:3 Sloped Soil At Top, Add	7.67	
02719-0033	LF	10' High With Base, 13" Thick Reinforced	428.53	152.55
	02MOD-0277	For > 1:3 Sloped Soil At Top, Add	10.50	
02719-0034	LF	12' High With Base, 14" Thick Reinforced	493.78	175.23
	02MOD-0277	For > 1:3 Sloped Soil At Top, Add	12.18	
02719-0035	LF	16' High With Base, 16" Thick Reinforced	714.95	257.07
	02MOD-0277	For > 1:3 Sloped Soil At Top, Add	17.07	
02719-0036	LF	20' High With Base, 18" Thick Reinforced	981.85	354.90
	02MOD-0277	For > 1:3 Sloped Soil At Top, Add	23.12	
02719-0037	LF	4' High With Base, 12" Thick Reinforced	272.88	101.51
	02MOD-0277	For > 1:3 Sloped Soil At Top, Add	5.94	
02719-0038	LF	6' High With Base, 12" Thick Reinforced	333.68	122.32
	02MOD-0277	For > 1:3 Sloped Soil At Top, Add	7.57	
02719-0039	LF	8' High With Base, 12" Thick Reinforced	352.99	127.63
	02MOD-0277	For > 1:3 Sloped Soil At Top, Add	8.31	
02719-0040	LF	10' High With Base, 16" Thick Reinforced	484.83	171.05
	02MOD-0277	For > 1:3 Sloped Soil At Top, Add	12.13	
02719-0041	LF	12' High With Base, 18" Thick Reinforced	615.22	219.71
	02MOD-0277	For > 1:3 Sloped Soil At Top, Add	14.94	
02719-0042	LF	16' High With Base, 21" Thick Reinforced	923.13	333.03
	02MOD-0277	For > 1:3 Sloped Soil At Top, Add	21.86	
02719-0043	LF	20' High With Base, 24" Thick Reinforced	1,302.84	470.09
	02MOD-0277	For > 1:3 Sloped Soil At Top, Add	30.83	
02719-0044		Pressure Treated Landscape Timbers (02719)		
02719-0045	LF	6" x 6" Pressure Treated Landscape Timbers	6.70	2.34
	02MOD-0277	For > 1:3 Sloped Soil At Top, Add	0.17	
02720		Road And Parking Appurtenances (02700)		
02720-0001		Metal Pipe Bollards (02720)		
		Note: For bollards by the LF, the quantity is the total length, including the buried portion, if any. See CSI section 02711-0001 for augering and filling holes for bollards, 02711-0018 for concrete fill for post and post holes.		
02720-0002		Steel Pipe Bollard, Schedule 40 Pipe, Painted Or Powder Coated (02720-0001)		
02720-0003	LF	4" Steel Pipe Bollard, Schedule 40, Painted Or Powder Coated	37.30	8.40
	02MOD-0279	For Galvanized Steel, Add	3.49	
	02MOD-0280	For 304 Stainless Steel, Add	27.68	
	02MOD-0281	For Each Surface Mounted Bollard (Includes Base Plate And Anchor Bolts), Add	91.20	
	02MOD-0284	For Each Sleeve For Removable, Lockable Bollard (Includes Tamper Proof Screw), Add	71.52	
	02MOD-0287	For Schedule 80, Add	4.76	

02000 Site Construction**02700 Site Improvements****02720 Road And Parking Appurtenances**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02720-0004	LF	6" Steel Pipe Bollard, Schedule 40, Painted Or Powder Coated.....	49.13	8.40
	02MOD-0279	For Galvanized Steel, Add	5.50	
	02MOD-0280	For 304 Stainless Steel, Add	43.65	
	02MOD-0281	For Each Surface Mounted Bollard (Includes Base Plate And Anchor Bolts), Add	91.20	
	02MOD-0284	For Each Sleeve For Removable, Lockable Bollard (Includes Tamper Proof Screw), Add	71.52	
	02MOD-0287	For Schedule 80, Add	6.53	
02720-0005	LF	8" Steel Pipe Bollard, Schedule 40, Painted Or Powder Coated.....	68.96	10.51
	02MOD-0279	For Galvanized Steel, Add	8.15	
	02MOD-0280	For 304 Stainless Steel, Add	64.73	
	02MOD-0282	For Each Surface Mounted Bollard (Includes Base Plate And Anchor Bolts), Add	122.04	
	02MOD-0285	For Each Sleeve For Removable, Lockable Bollard, Add	110.18	
	02MOD-0287	For Schedule 80, Add	9.29	
02720-0006	LF	10" Steel Pipe Bollard, Schedule 40, Painted Or Powder Coated.....	90.82	12.60
	02MOD-0279	For Galvanized Steel, Add	11.15	
	02MOD-0280	For 304 Stainless Steel, Add	88.57	
	02MOD-0282	For Each Surface Mounted Bollard (Includes Base Plate And Anchor Bolts), Add	138.84	
	02MOD-0285	For Each Sleeve For Removable, Lockable Bollard, Add	118.58	
	02MOD-0287	For Schedule 80, Add	12.36	
02720-0007	LF	12" Steel Pipe Bollard, Schedule 40, Painted Or Powder Coated.....	115.03	16.80
	02MOD-0279	For Galvanized Steel, Add	13.84	
	02MOD-0280	For 304 Stainless Steel, Add	109.92	
	02MOD-0283	For Each Surface Mounted Bollard (Includes Base Plate And Anchor Bolts), Add	193.44	
	02MOD-0286	For Each Sleeve For Removable, Lockable Bollard, Add	164.09	
	02MOD-0287	For Schedule 80, Add	15.57	
02720-0008		Speed Bumps (02720)		
02720-0009	LF	10-1/2" x 2-1/4" Asphalt Speed Bump With Thermoplastic.....	27.12	1.32
02720-0010	LF	12" x 2-1/4" Recycled Rubber Speed Bump.....	25.86	0.89
02720-0011	LF	12" x 2-5/8" Recycled Plastic Speed Bump.....	44.85	0.89
02721		Guide Rails (02700)		
02721-0001		Corrugated Beam Guide Rail (02721)		
02721-0002	LF	Corrugated Steel Guard Rail, Galvanized Posts 6'-3" On Center.....	30.56	7.74
	02MOD-0288	For Radius Bends, Add	1.50	
02721-0003	LF	Corrugated Steel Guard Rail, Galvanized Posts 12'-6" On Center.....	22.02	5.15
	02MOD-0288	For Radius Bends, Add	1.50	
02721-0004	LF	Corrugated Steel Guard Rail, Wood Posts 6'-3" On Center.....	62.45	11.58
	02MOD-0288	For Radius Bends, Add	1.50	
02721-0005	LF	Corrugated Steel Guard Rail, Wood Posts 12'-6" On Center.....	36.04	11.58
	02MOD-0288	For Radius Bends, Add	1.50	
02721-0006	EA	Corrugated Steel Galvanized End Section, Flared.....	111.03	8.38
02721-0007	EA	Corrugated Steel Wrap-Around End Section.....	150.01	8.38
02721-0008	LF	Self Weathering Corrugated Steel Guard Rail Post 12' 6" On Center.....	79.18	5.15
	02MOD-0289	For Radius Bends, Add	1.50	
02721-0009	EA	Self Weathering Corrugated Steel End Section Flared.....	155.51	8.38
02721-0010	EA	Self Weathering Corrugated Steel Wrap Around End Section.....	202.67	8.38
02721-0011	EA	Guard Rail Anchorage Unit.....	649.97	43.19
02721-0012		Resilient Guard Fence And Light Shield (02721)		
02721-0013	LF	Resilient Guard Fence And Light Shield, Up To 6' High.....	48.81	5.15
02721-0014		Individual Concrete Posts (02721)		
02721-0015	EA	6'-5" Concrete Posts, Round.....	59.16	5.15
02721-0016	EA	6'-5" Concrete Posts, Square.....	66.20	5.80
02721-0017	EA	6'-5" Concrete Posts, Triangular.....	64.53	5.80
02721-0018		Concrete Median Barrier (02721)		
02721-0019	LF	Median Barrier, Precast, 42" High Single Face.....	43.99	2.96
02721-0020	LF	Median Barrier, Precast, 32" High, 2' Wide Base, Double Face.....	46.67	2.96
02721-0021	LF	Median Barrier, Precast, 42" High, 2' Wide Base, Double Face.....	50.62	2.96
02721-0022	LF	Median Barrier, Cast In Place With Steel Forms.....	29.16	3.73
02721-0023	LF	Median Barrier, Slipformed Concrete.....	26.00	2.39
02722		Traffic Signage (02700)		
02722-0001		Traffic Signs (02722)		
02722-0002		Reflectorized Stop Signs And Other Traffic Signs (02722-0001)		
		Note: Excludes posts.		
02722-0003		Aluminum Engineer Grade Stop Signs (02722-0002)		
02722-0004	EA	18" x 18" Aluminum Engineer Grade Stop Sign.....	50.41	14.48
	02MOD-0309	For Hi-Intensity Grade, Add	6.44	
	02MOD-0314	For Diamond Grade, Add	12.23	
02722-0005	EA	18" x 24" Aluminum Engineer Grade Stop Sign.....	58.62	15.32
	02MOD-0310	For Hi-Intensity Grade, Add	8.42	
	02MOD-0315	For Diamond Grade, Add	15.99	

**Site Construction 02000****Site Improvements 02700****Traffic Signage 02722****02**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02722-0006	EA	24" x 24" Aluminum Engineer Grade Stop Sign	63.53	16.09
	02MOD-0311	For Hi-Intensity Grade, Add	12.85	
	02MOD-0316	For Diamond Grade, Add	20.38	
02722-0007	EA	30" x 30" Aluminum Engineer Grade Stop Sign	73.93	16.93
	02MOD-0312	For Hi-Intensity Grade, Add	4.82	
	02MOD-0317	For Diamond Grade, Add	26.10	
02722-0008	EA	36" x 36" Aluminum Engineer Grade Stop Sign	99.75	17.70
	02MOD-0313	For Hi-Intensity Grade, Add	14.16	
	02MOD-0318	For Diamond Grade, Add	44.40	
02722-0009		Other Reflectorized Traffic Signs (02722-0002)		
		Note: Other traffic signs includes reserve, handicap, visitor, no parking, property, speed limit, tow away, ADA, parking time limit, parking exclusive area, school, traffic/caution, etc. Excludes posts.		
02722-0010		Aluminum Engineer Grade Traffic Signs (02722-0009)		
02722-0011	EA	6" x 12" Aluminum Engineer Grade Traffic Sign	31.06	12.87
	02MOD-0323	For Hi-Intensity Grade, Add	1.59	
02722-0012	EA	6" x 18" Aluminum Engineer Grade Traffic Sign	33.72	12.87
	02MOD-0323	For Hi-Intensity Grade, Add	2.39	
02722-0013	EA	9" x 12" Aluminum Engineer Grade Traffic Sign	33.72	12.87
	02MOD-0323	For Hi-Intensity Grade, Add	2.39	
02722-0014	EA	9" x 15" Aluminum Engineer Grade Traffic Sign	35.71	12.87
	02MOD-0323	For Hi-Intensity Grade, Add	2.99	
02722-0015	EA	9" x 18" Aluminum Engineer Grade Traffic Sign	37.71	12.87
	02MOD-0323	For Hi-Intensity Grade, Add	3.59	
02722-0016	EA	9" x 24" Aluminum Engineer Grade Traffic Sign	43.29	13.68
	02MOD-0323	For Hi-Intensity Grade, Add	4.78	
02722-0017	EA	9" x 48" Aluminum Engineer Grade Traffic Sign	59.23	13.68
	02MOD-0323	For Hi-Intensity Grade, Add	9.56	
02722-0018	EA	12" x 12" Aluminum Engineer Grade Traffic Sign	36.38	12.87
	02MOD-0323	For Hi-Intensity Grade, Add	3.19	
02722-0019	EA	12" x 18" Aluminum Engineer Grade Traffic Sign	43.29	13.68
	02MOD-0323	For Hi-Intensity Grade, Add	4.78	
02722-0020	EA	12" x 24" Aluminum Engineer Grade Traffic Sign	48.60	13.68
	02MOD-0323	For Hi-Intensity Grade, Add	6.38	
02722-0021	EA	12" x 30" Aluminum Engineer Grade Traffic Sign	53.92	13.68
	02MOD-0323	For Hi-Intensity Grade, Add	7.97	
02722-0022	EA	12" x 36" Aluminum Engineer Grade Traffic Sign	59.23	13.68
	02MOD-0323	For Hi-Intensity Grade, Add	9.56	
02722-0023	EA	18" x 18" Aluminum Engineer Grade Traffic Sign	51.26	13.68
	02MOD-0323	For Hi-Intensity Grade, Add	7.17	
02722-0024	EA	18" x 24" Aluminum Engineer Grade Traffic Sign	59.23	13.68
	02MOD-0323	For Hi-Intensity Grade, Add	9.56	
02722-0025	EA	18" x 30" Aluminum Engineer Grade Traffic Sign	68.81	14.48
	02MOD-0323	For Hi-Intensity Grade, Add	11.96	
02722-0026	EA	18" x 36" Aluminum Engineer Grade Traffic Sign	76.78	14.48
	02MOD-0323	For Hi-Intensity Grade, Add	14.35	
02722-0027	EA	18" x 54" Aluminum Engineer Grade Traffic Sign	107.13	17.70
	02MOD-0323	For Hi-Intensity Grade, Add	21.52	
02722-0028	EA	24" x 24" Aluminum Engineer Grade Traffic Sign	71.47	14.48
	02MOD-0323	For Hi-Intensity Grade, Add	12.75	
02722-0029	EA	24" x 30" Aluminum Engineer Grade Traffic Sign	82.10	14.48
	02MOD-0323	For Hi-Intensity Grade, Add	15.94	
02722-0030	EA	24" x 36" Aluminum Engineer Grade Traffic Sign	92.72	14.48
	02MOD-0323	For Hi-Intensity Grade, Add	19.13	
02722-0031	EA	24" x 42" Aluminum Engineer Grade Traffic Sign	109.79	17.70
	02MOD-0323	For Hi-Intensity Grade, Add	22.32	
02722-0032	EA	24" x 48" Aluminum Engineer Grade Traffic Sign	120.42	17.70
	02MOD-0323	For Hi-Intensity Grade, Add	25.51	
02722-0033	EA	24" x 54" Aluminum Engineer Grade Traffic Sign	131.04	17.70
	02MOD-0323	For Hi-Intensity Grade, Add	28.69	
02722-0034	EA	30" x 30" Aluminum Engineer Grade Traffic Sign	95.38	14.48
	02MOD-0323	For Hi-Intensity Grade, Add	19.93	
02722-0035	EA	30" x 36" Aluminum Engineer Grade Traffic Sign	115.10	17.70
	02MOD-0323	For Hi-Intensity Grade, Add	23.91	
02722-0036	EA	30" x 42" Aluminum Engineer Grade Traffic Sign	128.39	17.70
	02MOD-0323	For Hi-Intensity Grade, Add	27.90	
02722-0037	EA	30" x 48" Aluminum Engineer Grade Traffic Sign	148.10	20.92
	02MOD-0323	For Hi-Intensity Grade, Add	31.88	
02722-0038	EA	30" x 60" Aluminum Engineer Grade Traffic Sign	181.11	24.13
	02MOD-0323	For Hi-Intensity Grade, Add	39.85	
02722-0039	EA	36" x 36" Aluminum Engineer Grade Traffic Sign	131.04	17.70
	02MOD-0323	For Hi-Intensity Grade, Add	28.69	
02722-0040	EA	36" x 42" Aluminum Engineer Grade Traffic Sign	153.42	20.92
	02MOD-0323	For Hi-Intensity Grade, Add	33.48	
02722-0041	EA	36" x 48" Aluminum Engineer Grade Traffic Sign	175.80	24.13
	02MOD-0323	For Hi-Intensity Grade, Add	38.26	
02722-0042	EA	36" x 54" Aluminum Engineer Grade Traffic Sign	191.74	24.13
	02MOD-0323	For Hi-Intensity Grade, Add	43.04	
02722-0043	EA	36" x 60" Aluminum Engineer Grade Traffic Sign	214.12	27.35
	02MOD-0323	For Hi-Intensity Grade, Add	47.82	
02722-0044	EA	36" x 73" Aluminum Engineer Grade Traffic Sign	255.10	30.57
	02MOD-0323	For Hi-Intensity Grade, Add	58.19	
02722-0045	EA	36" x 78" Aluminum Engineer Grade Traffic Sign	268.38	30.57
	02MOD-0323	For Hi-Intensity Grade, Add	62.17	

02000 Site Construction**02700 Site Improvements****02722 Traffic Signage**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02722-0046	EA	36" x 108" Aluminum Engineer Grade Traffic Sign.....	357.73	35.40
		02MOD-0323 For Hi-Intensity Grade, Add	86.08	
02722-0047	EA	42" x 42" Aluminum Engineer Grade Traffic Sign.....	178.45	24.13
		02MOD-0323 For Hi-Intensity Grade, Add	39.05	
02722-0048	EA	48" x 48" Aluminum Engineer Grade Traffic Sign.....	224.75	27.35
		02MOD-0323 For Hi-Intensity Grade, Add	51.01	
02722-0049	EA	48" x 54" Aluminum Engineer Grade Traffic Sign.....	252.44	30.57
		02MOD-0323 For Hi-Intensity Grade, Add	57.39	
02722-0050	EA	48" x 60" Aluminum Engineer Grade Traffic Sign.....	273.69	30.57
		02MOD-0323 For Hi-Intensity Grade, Add	63.76	
02722-0051	EA	48" x 66" Aluminum Engineer Grade Traffic Sign.....	304.60	35.40
		02MOD-0323 For Hi-Intensity Grade, Add	70.14	
02722-0052	EA	48" x 72" Aluminum Engineer Grade Traffic Sign.....	325.85	35.40
		02MOD-0323 For Hi-Intensity Grade, Add	76.52	
02722-0053	EA	48" x 84" Aluminum Engineer Grade Traffic Sign.....	374.79	38.62
		02MOD-0323 For Hi-Intensity Grade, Add	89.27	
02722-0054	EA	48" x 96" Aluminum Engineer Grade Traffic Sign.....	417.30	38.62
		02MOD-0323 For Hi-Intensity Grade, Add	102.02	
02722-0055	EA	48" x 102" Aluminum Engineer Grade Traffic Sign.....	438.55	38.62
		02MOD-0323 For Hi-Intensity Grade, Add	108.40	
02722-0056	EA	48" x 108" Aluminum Engineer Grade Traffic Sign.....	463.03	40.23
		02MOD-0323 For Hi-Intensity Grade, Add	114.77	
02722-0057	EA	60" x 72" Aluminum Engineer Grade Traffic Sign.....	396.05	38.62
		02MOD-0323 For Hi-Intensity Grade, Add	95.65	
02722-0058	EA	78" x 96" Aluminum Engineer Grade Traffic Sign.....	633.06	40.23
		02MOD-0323 For Hi-Intensity Grade, Add	165.78	

02722-0059**Non-Reflectorized Traffic Signs (02722-0001)**

Note: Includes reserved parking, handicap parking, visitor parking, no parking, tow away zones, etc. Excludes posts.

02722-0060**Steel Non-Reflectorized Traffic Signs (02722-0059)**

02722-0061	EA	6" x 12" Steel Non-Reflectorized Traffic Sign	30.34	12.87
02722-0062	EA	6" x 18" Steel Non-Reflectorized Traffic Sign	32.64	12.87
02722-0063	EA	9" x 12" Steel Non-Reflectorized Traffic Sign	32.64	12.87
02722-0064	EA	9" x 15" Steel Non-Reflectorized Traffic Sign	34.36	12.87
02722-0065	EA	9" x 18" Steel Non-Reflectorized Traffic Sign	36.09	12.87
02722-0066	EA	9" x 24" Steel Non-Reflectorized Traffic Sign	41.13	13.68
02722-0067	EA	9" x 48" Steel Non-Reflectorized Traffic Sign	54.91	13.68
02722-0068	EA	12" x 12" Steel Non-Reflectorized Traffic Sign	34.94	12.87
02722-0069	EA	12" x 18" Steel Non-Reflectorized Traffic Sign	41.13	13.68
02722-0070	EA	12" x 24" Steel Non-Reflectorized Traffic Sign	45.72	13.68
02722-0071	EA	12" x 30" Steel Non-Reflectorized Traffic Sign	50.32	13.68
02722-0072	EA	12" x 36" Steel Non-Reflectorized Traffic Sign	54.91	13.68
02722-0073	EA	18" x 18" Steel Non-Reflectorized Traffic Sign	48.02	13.68
02722-0074	EA	18" x 24" Steel Non-Reflectorized Traffic Sign	54.91	13.68
02722-0075	EA	18" x 30" Steel Non-Reflectorized Traffic Sign	63.41	14.48
02722-0076	EA	18" x 36" Steel Non-Reflectorized Traffic Sign	70.30	14.48
02722-0077	EA	18" x 54" Steel Non-Reflectorized Traffic Sign	97.41	17.70
02722-0078	EA	24" x 24" Steel Non-Reflectorized Traffic Sign	65.71	14.48
02722-0079	EA	24" x 30" Steel Non-Reflectorized Traffic Sign	74.90	14.48
02722-0080	EA	24" x 36" Steel Non-Reflectorized Traffic Sign	84.08	14.48
02722-0081	EA	24" x 42" Steel Non-Reflectorized Traffic Sign	99.71	17.70
02722-0082	EA	24" x 48" Steel Non-Reflectorized Traffic Sign	108.90	17.70
02722-0083	EA	24" x 54" Steel Non-Reflectorized Traffic Sign	118.08	17.70
02722-0084	EA	30" x 30" Steel Non-Reflectorized Traffic Sign	86.38	14.48
02722-0085	EA	30" x 36" Steel Non-Reflectorized Traffic Sign	104.30	17.70
02722-0086	EA	30" x 42" Steel Non-Reflectorized Traffic Sign	115.79	17.70
02722-0087	EA	30" x 48" Steel Non-Reflectorized Traffic Sign	133.70	20.92
02722-0088	EA	30" x 60" Steel Non-Reflectorized Traffic Sign	163.11	24.13
02722-0089	EA	36" x 36" Steel Non-Reflectorized Traffic Sign	118.08	17.70
02722-0090	EA	36" x 42" Steel Non-Reflectorized Traffic Sign	138.30	20.92
02722-0091	EA	36" x 48" Steel Non-Reflectorized Traffic Sign	158.52	24.13
02722-0092	EA	36" x 54" Steel Non-Reflectorized Traffic Sign	172.30	24.13
02722-0093	EA	36" x 60" Steel Non-Reflectorized Traffic Sign	192.52	27.35
02722-0094	EA	36" x 73" Steel Non-Reflectorized Traffic Sign	228.82	30.57
02722-0095	EA	36" x 78" Steel Non-Reflectorized Traffic Sign	240.30	30.57
02722-0096	EA	36" x 108" Steel Non-Reflectorized Traffic Sign	318.85	35.40
02722-0097	EA	42" x 42" Steel Non-Reflectorized Traffic Sign	160.81	24.13
02722-0098	EA	48" x 48" Steel Non-Reflectorized Traffic Sign	201.71	27.35
02722-0099	EA	48" x 54" Steel Non-Reflectorized Traffic Sign	226.52	30.57
02722-0100	EA	48" x 60" Steel Non-Reflectorized Traffic Sign	244.89	30.57
02722-0101	EA	48" x 66" Steel Non-Reflectorized Traffic Sign	272.92	35.40
02722-0102	EA	48" x 72" Steel Non-Reflectorized Traffic Sign	291.29	35.40
02722-0103	EA	48" x 84" Steel Non-Reflectorized Traffic Sign	334.47	38.62
02722-0104	EA	48" x 96" Steel Non-Reflectorized Traffic Sign	371.22	38.62
02722-0105	EA	48" x 102" Steel Non-Reflectorized Traffic Sign	389.59	38.62
02722-0106	EA	48" x 108" Steel Non-Reflectorized Traffic Sign	411.19	40.23
02722-0107	EA	60" x 72" Steel Non-Reflectorized Traffic Sign	352.85	38.62
02722-0108	EA	78" x 96" Steel Non-Reflectorized Traffic Sign	558.18	40.23

02722-0109**Aluminum Non-Reflectorized Traffic Signs (02722-0059)**

02722-0110	EA	6" x 12" Aluminum Non-Reflectorized Traffic Sign	30.53	12.87
02722-0111	EA	6" x 18" Aluminum Non-Reflectorized Traffic Sign	32.92	12.87

**Site Construction 02000****Site Improvements 02700****Traffic Signage 02722****02**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02722-0112	EA	9" x 12" Aluminum Non-Reflectorized Traffic Sign	32.92	12.87
02722-0113	EA	9" x 15" Aluminum Non-Reflectorized Traffic Sign	34.71	12.87
02722-0114	EA	9" x 18" Aluminum Non-Reflectorized Traffic Sign	36.51	12.87
02722-0115	EA	9" x 24" Aluminum Non-Reflectorized Traffic Sign	41.69	13.68
02722-0116	EA	9" x 48" Aluminum Non-Reflectorized Traffic Sign	56.03	13.68
02722-0117	EA	12" x 12" Aluminum Non-Reflectorized Traffic Sign	35.31	12.87
02722-0118	EA	12" x 18" Aluminum Non-Reflectorized Traffic Sign	41.69	13.68
02722-0119	EA	12" x 24" Aluminum Non-Reflectorized Traffic Sign	46.47	13.68
02722-0120	EA	12" x 30" Aluminum Non-Reflectorized Traffic Sign	51.25	13.68
02722-0121	EA	12" x 36" Aluminum Non-Reflectorized Traffic Sign	56.03	13.68
02722-0122	EA	18" x 18" Aluminum Non-Reflectorized Traffic Sign	48.86	13.68
02722-0123	EA	18" x 24" Aluminum Non-Reflectorized Traffic Sign	56.03	13.68
02722-0124	EA	18" x 30" Aluminum Non-Reflectorized Traffic Sign	64.82	14.48
02722-0125	EA	18" x 36" Aluminum Non-Reflectorized Traffic Sign	71.99	14.48
02722-0126	EA	18" x 54" Aluminum Non-Reflectorized Traffic Sign	99.94	17.70
02722-0127	EA	24" x 24" Aluminum Non-Reflectorized Traffic Sign	67.21	14.48
02722-0128	EA	24" x 30" Aluminum Non-Reflectorized Traffic Sign	76.77	14.48
02722-0129	EA	24" x 36" Aluminum Non-Reflectorized Traffic Sign	86.33	14.48
02722-0130	EA	24" x 42" Aluminum Non-Reflectorized Traffic Sign	102.33	17.70
02722-0131	EA	24" x 48" Aluminum Non-Reflectorized Traffic Sign	111.89	17.70
02722-0132	EA	24" x 54" Aluminum Non-Reflectorized Traffic Sign	121.45	17.70
02722-0133	EA	30" x 30" Aluminum Non-Reflectorized Traffic Sign	88.72	14.48
02722-0134	EA	30" x 36" Aluminum Non-Reflectorized Traffic Sign	107.11	17.70
02722-0135	EA	30" x 42" Aluminum Non-Reflectorized Traffic Sign	119.06	17.70
02722-0136	EA	30" x 48" Aluminum Non-Reflectorized Traffic Sign	137.45	20.92
02722-0137	EA	30" x 60" Aluminum Non-Reflectorized Traffic Sign	167.79	24.13
02722-0138	EA	36" x 36" Aluminum Non-Reflectorized Traffic Sign	121.45	17.70
02722-0139	EA	36" x 42" Aluminum Non-Reflectorized Traffic Sign	142.23	20.92
02722-0140	EA	36" x 48" Aluminum Non-Reflectorized Traffic Sign	163.01	24.13
02722-0141	EA	36" x 54" Aluminum Non-Reflectorized Traffic Sign	177.35	24.13
02722-0142	EA	36" x 60" Aluminum Non-Reflectorized Traffic Sign	198.13	27.35
02722-0143	EA	36" x 73" Aluminum Non-Reflectorized Traffic Sign	235.65	30.57
02722-0144	EA	36" x 78" Aluminum Non-Reflectorized Traffic Sign	247.60	30.57
02722-0145	EA	36" x 108" Aluminum Non-Reflectorized Traffic Sign	328.96	35.40
02722-0146	EA	42" x 42" Aluminum Non-Reflectorized Traffic Sign	165.40	24.13
02722-0147	EA	48" x 48" Aluminum Non-Reflectorized Traffic Sign	207.70	27.35
02722-0148	EA	48" x 54" Aluminum Non-Reflectorized Traffic Sign	233.26	30.57
02722-0149	EA	48" x 60" Aluminum Non-Reflectorized Traffic Sign	252.38	30.57
02722-0150	EA	48" x 66" Aluminum Non-Reflectorized Traffic Sign	281.16	35.40
02722-0151	EA	48" x 72" Aluminum Non-Reflectorized Traffic Sign	300.28	35.40
02722-0152	EA	48" x 84" Aluminum Non-Reflectorized Traffic Sign	344.95	38.62
02722-0153	EA	48" x 96" Aluminum Non-Reflectorized Traffic Sign	383.20	38.62
02722-0154	EA	48" x 102" Aluminum Non-Reflectorized Traffic Sign	402.32	38.62
02722-0155	EA	48" x 108" Aluminum Non-Reflectorized Traffic Sign	424.67	40.23
02722-0156	EA	60" x 72" Aluminum Non-Reflectorized Traffic Sign	364.08	38.62
02722-0157	EA	78" x 96" Aluminum Non-Reflectorized Traffic Sign	577.65	40.23
02722-0158		Aluminum Street Signs (02722-0001)		
		Note: Excludes posts.		
02722-0159		Aluminum Engineer Grade Street Signs (02722-0158)		
02722-0160	EA	6" High, Aluminum Engineer Grade Street Sign.....	56.81	6.43
	02MOD-0323	For Hi-Intensity Grade, Add	13.18	
02722-0161	EA	8" High, Aluminum Engineer Grade Street Sign.....	64.57	6.43
	02MOD-0323	For Hi-Intensity Grade, Add	15.51	
02722-0162	EA	9" High, Aluminum Engineer Grade Street Sign.....	70.35	6.43
	02MOD-0323	For Hi-Intensity Grade, Add	17.24	
02722-0163		Street Sign Accessories (02722-0158)		
02722-0164	EA	Post Cap And Single Bracket For Street Sign.....	17.00	3.22
02722-0165	EA	Post Cap And Double Bracket For Street Sign.....	17.00	3.22
02722-0166		Sign Posts (02722-0001)		
		Note: Excludes sign. See CSI section 02711-0001 for auguring of holes and backfill.		
02722-0167		U-Channel Sign Posts (02722-0166)		
		Note: Excludes digging and concrete.		
02722-0168		Baked Enamel U-Channel Sign Posts (02722-0167)		
02722-0169	EA	3' To 4' Baked Enamel U-Channel Sign Post Base.....	44.63	13.14
02722-0170	EA	6' Baked Enamel U-Channel Sign Post.....	58.65	16.43
02722-0171	EA	7' Baked Enamel U-Channel Sign Post.....	70.02	19.71
02722-0172	EA	8' Baked Enamel U-Channel Sign Post.....	81.99	23.00
02722-0173	EA	10' Baked Enamel U-Channel Sign Post.....	98.92	27.93
02722-0174	EA	12' Baked Enamel U-Channel Sign Post.....	101.86	27.93
02722-0175		Galvanized Steel U-Channel Sign Posts (02722-0167)		
02722-0176	EA	3' To 4' Galvanized Steel U-Channel Sign Post Base	48.41	13.14
02722-0177	EA	6' Galvanized Steel U-Channel Sign Post.....	64.65	16.43
02722-0178	EA	7' Galvanized Steel U-Channel Sign Post.....	83.59	19.71

02000 Site Construction**02700 Site Improvements****02722 Traffic Signage**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02722-0179	EA	8' Galvanized Steel U-Channel Sign Post	96.99	23.00
02722-0180	EA	10' Galvanized Steel U-Channel Sign Post	109.84	27.93
02722-0181	EA	12' Galvanized Steel U-Channel Sign Post	111.36	27.93
02722-0182		Fiberglass Or Composite Plastic U-Channel Sign Posts (02722-0167)		
02722-0183	EA	3' To 4' Fiberglass Or Composite Plastic U-Channel Sign Post Base	43.74	13.14
02722-0184	EA	6' Fiberglass Or Composite Plastic U-Channel Sign Post	56.71	16.43
02722-0185	EA	7' Fiberglass Or Composite Plastic U-Channel Sign Post	67.68	19.71
02722-0186	EA	8' Fiberglass Or Composite Plastic U-Channel Sign Post	79.20	23.00
02722-0187	EA	10' Fiberglass Or Composite Plastic U-Channel Sign Post	93.86	27.93
02722-0188	EA	12' Fiberglass Or Composite Plastic U-Channel Sign Post	98.86	27.93
02722-0189		Tubular Sign Posts (02722-0166)		
		Note: Excludes digging and concrete.		
02722-0190		2-3/8" Diameter, Galvanized Steel Tubular Sign Post (02722-0189)		
02722-0191	EA	6', 2-3/8" Diameter, Galvanized Steel Tubular Sign Post	65.27	16.43
02722-0192	EA	7', 2-3/8" Diameter, Galvanized Steel Tubular Sign Post	77.43	19.71
02722-0193	EA	8', 2-3/8" Diameter, Galvanized Steel Tubular Sign Post	91.49	23.00
02722-0194	EA	10', 2-3/8" Diameter, Galvanized Steel Tubular Sign Post	118.05	27.93
02722-0195	EA	12', 2-3/8" Diameter, Galvanized Steel Tubular Sign Post	128.35	27.93
02722-0196		Square Sign Posts (02722-0166)		
		Note: Excludes digging and concrete.		
02722-0197		Galvanized Steel Square Sign Posts (02722-0196)		
02722-0198	EA	3' To 4' Galvanized Steel Square Sign Post Base	49.25	13.14
02722-0199	EA	6' Galvanized Steel Square Sign Post	78.86	16.43
02722-0200	EA	7' Galvanized Steel Square Sign Post	92.43	19.71
02722-0201	EA	8' Galvanized Steel Square Sign Post	107.81	23.00
02722-0202	EA	10' Galvanized Steel Square Sign Post	131.67	27.93
02722-0203	EA	12' Galvanized Steel Square Sign Post	138.86	27.93
02722-0204		Sign Post Accessories (02722-0001)		
02722-0205		Sign Post Brackets (02722-0204)		
02722-0206	EA	2-3/8" Outside Diameter, Single Sign Bracket Set	22.34	4.83
02722-0207	EA	2-3/8" Outside Diameter, Double Sign Bracket Set	40.38	8.05
02722-0208	EA	10 cm - 37 cm Diameter, Buckle Bracket Set	34.86	6.43
02722-0209		Sign Post Caps (02722-0204)		
02722-0210	EA	Traffic Sign Post Cap	12.32	3.22
02722-0211		Sign Post Replacement Bolts (02722-0204)		
02722-0212	EA	Signage Fasteners, 2 Bolts, 2 Nuts And 4 Washers	8.42	
02722-0213		Removal Of Signs (02722)		
		Note: Includes structural supports.		
02722-0214	EA	>4 SF To 10 SF Sign Area, Sign Removal	128.72	
02722-0215	EA	>10 SF To 20 SF Sign Area, Sign Removal	308.93	
02722-0216	EA	>20 SF To 40 SF Sign Area, Sign Removal	463.39	
02722-0217	EA	>40 SF To 100 SF Sign Area, Sign Removal	758.46	
02722-0218		Remove And Reinstall Signs (02722)		
		Note: Includes structural supports.		
02722-0219	EA	>4 SF To 10 SF Sign Area, Remove And Reinstall Sign	196.38	
02722-0220	EA	>10 SF To 20 SF Sign Area, Remove And Reinstall Sign	465.74	
02722-0221	EA	>20 SF To 40 SF Sign Area, Remove And Reinstall Sign	697.09	
02722-0222	EA	>40 SF To 100 SF Sign Area, Remove And Reinstall Sign	1,139.56	
02722-0223	EA	Remove And Reinstall Street Sign On Post	74.01	
02722-0224	EA	Remove And Relocate Traffic Light	258.98	
		Note: Excludes electrical hookup.		
02723 Traffic Signals (02700)				
02723-0001		Traffic Signals (02723)		
02723-0002	EA	Single Traffic Signal Head, 4 Way Pattern	4,322.31	418.16
02723-0003	EA	Traffic Signal Loops, Per Loop	328.26	
		Note: Includes saw cutting, sealing and splicing into leads in street.		
02723-0004		Overhead Traffic Signals (02723)		
02723-0005	EA	Signal Head, Polycarbonate/LED, 1-F/5-S, Plumb Mounted	1,211.61	
02723-0006	EA	Signal Head, Polycarbonate/LED, 1-F/3-S, Bracket Mounted	1,038.01	



MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02723-0007	EA	Signal Head, Polycarbonate/LED, 1-F/4-S, Bracket Mounted.....	1,348.35	
02723-0008	EA	Signal Head, Polycarbonate/LED, 1-F/5-S, Bracket Mounted.....	1,464.74	
02723-0009	EA	Optically Programmed Signal Head, 1-F/3-S, Bracket Mounted.....	2,578.83	
02723-0010	EA	Optically Programmed Signal Head, 1-F/4-S, Bracket Mounted.....	3,964.63	
02723-0011	EA	Optically Programmed Signal Head, 1-F/5-S, Bracket Mounted.....	4,500.76	
02723-0012	EA	Signal Head, Polycarbonate/LED, 1-F/3-S, Mast Arm Mounted.....	1,217.31	
02723-0013	EA	Signal Head, Polycarbonate/LED, 1-F/4-S, Mast Arm Mounted.....	1,609.21	
02723-0014	EA	Signal Head, Polycarbonate/LED, 1-F/5-S, Mast Arm Mounted.....	1,664.20	
02723-0015	EA	Optically Programmed Signal Head, 1-F/3-S, Mast Arm Mounted.....	2,845.94	
02723-0016	EA	Optically Programmed Signal Head, 1-F/4-S, Mast Arm Mounted.....	4,097.41	
02723-0017	EA	Optically Programmed Signal Head, 1-F/5-S, Mast Arm Mounted.....	4,590.82	
02723-0018	EA	Pedestrian Signal Head, Polycarbonate/LED, 1-F/ 2-S, Bracket Mounted.....	767.46	
02723-0019	EA	Audible Pedestrian Signal.....	763.18	
02723-0020	EA	Junction Box, Pole Or Post Mounted.....	325.71	
02723-0021	EA	Pedestrian Push Button.....	289.77	
02723-0022	EA	Illuminated Sign, Bracket Mounted, Symbolic.....	2,351.88	
02723-0023	EA	Illuminated Sign, Mast Arm Mounted, Symbolic.....	2,450.11	
02723-0024	EA	Sign, Message, "BLANK OUT", Bracket Mounted.....	2,596.28	
02723-0025	EA	Sign, Message, "BLANK OUT", Mast Arm Mounted.....	2,757.17	
02723-0026	EA	Sign, Fiber Optic, Bracket Mounted.....	2,967.17	
02723-0027	EA	Sign, Fiber Optic, Mast Arm Mounted.....	3,131.39	
02723-0028	EA	15' Steel Straight Mast Arm, MONOTUBE.....	1,748.97	
02723-0029	EA	20' Steel Straight Mast Arm, MONOTUBE.....	1,834.86	
02723-0030	EA	25' Steel Straight Mast Arm, MONOTUBE.....	1,969.96	
02723-0031	EA	30' Steel Straight Mast Arm, MONOTUBE.....	2,697.72	
02723-0032	EA	35' Steel Straight Mast Arm, MONOTUBE.....	3,265.15	
02723-0033	EA	40' Steel Straight Mast Arm, MONOTUBE.....	3,510.51	
02723-0034	EA	45' Steel Straight Mast Arm, MONOTUBE.....	3,853.16	
02723-0035	EA	4' Steel Curved Luminaire Mast Arm.....	592.34	
02723-0036	EA	6' Steel Curved Luminaire Mast Arm.....	772.49	
02MOD-0319		For High Rise Arm, Add.....	71.97	
02723-0037	EA	8' Steel Curved Luminaire Mast Arm.....	966.57	
02723-0038	EA	10' Steel Curved Luminaire Mast Arm.....	1,303.74	
02MOD-0319		For High Rise Arm, Add.....	105.93	
02723-0039	EA	12' Steel Curved Luminaire Mast Arm.....	1,449.68	
02MOD-0319		For High Rise Arm, Add.....	124.93	
02723-0040	EA	15' Steel Curved Luminaire Mast Arm.....	1,526.35	
02MOD-0319		For High Rise Arm, Add.....	139.33	
02723-0041	EA	15' Tubular Aluminum Post.....	621.04	
02723-0042	EA	17' Tubular Aluminum Post.....	659.06	
02723-0043	EA	20' Tubular Aluminum Post.....	730.40	
02723-0044	EA	CUT-OFF POLE AND CAPPED.....	105.33	
02723-0045	EA	PAINT EXISTING SL/TS CONTROLLER COMPLETE.....	31.79	
02723-0046	EA	PAINT EXISTING TS POST COMPLETE.....	149.26	
02723-0047	EA	1 Channel Loop Detector Amp.....	1,016.64	
02723-0048	EA	4 Channel Loop Detector Amp.....	1,933.07	
02723-0049	LF	Detector Loop.....	17.12	
		Note: Includes Saw Cutting, Sealing And Splicing Into Leads In Street.		
02723-0050	EA	FLASHING BEACON WITH DOWNLIGHT.....	1,359.15	
02723-0051	EA	Flashing Beacon, Bracket Mounted.....	433.07	
02723-0052	EA	Flashing Beacon, Mast Arm Mounted.....	433.07	
02723-0053	EA	Flashing Beacon, Solar Powered, Bracket Mounted.....	12,504.12	
02723-0054	EA	ACCUWAVE DETECTOR.....	2,672.65	
02723-0055	EA	RTMS DETECTOR.....	8,478.89	
02723-0056	LF	LEAD-IN CABEL: ACCUWAVE/RTMS DET.....	5.43	
02723-0057	LF	CABLE IN CONDUIT, #14, 2/C SHIELDED.....	3.92	
02723-0058	LF	CABLE IN CONDUIT, #4, 2/C.....	6.16	
02723-0059	LF	CABLE IN CONDUIT, #12, 7/C.....	5.86	
02723-0060	LF	CABLE IN CONDUIT, #12, 10/C.....	7.05	
02723-0061	LF	CABLE IN CONDUIT, #12, 19/C.....	9.74	
02723-0062	EA	TERMINATIONS #12, 7/C.....	101.18	
02723-0063	EA	SPLICE CABLES IN MH, #12, 7/C.....	274.22	
02723-0064	EA	CONTROLLER/SL/POLE MTD/1-PHASE/100A.....	6,192.27	
02723-0065	EA	CONTROLLER/SL/ON EMB POLE 1-PH/100A.....	6,247.77	
02723-0066	EA	CONTROLLER, SL, 3-PHASE, 100A, BASE MTD.....	7,674.89	
02723-0067	EA	CONTROLLER, SL, 3-PHASE, 200A, BASE MTD.....	9,116.15	
02723-0068	EA	CIRCUIT BREAKER - 2P, 240V.....	232.49	
02723-0069	LF	HARNESS CABLE, #16, 8/C.....	4.41	
02723-0070	LF	CABLE, T.S., AERIAL, TEMP.....	5.61	
02723-0071	EA	CONTROLLER/SL/BASE MTD/1-PHASE/100A.....	7,612.61	
02723-0072	EA	CONTROLLER/SL/BASE MTD/1-PHASE/200A.....	8,442.62	
02723-0073	EA	CONTROLLER, TS, 12-BAY, "M" CABINET.....	13,920.80	
02723-0074	EA	CONTROLLER, TS, 12-BAY, "P" CABINET.....	14,803.43	
02723-0075	EA	CONTROLLER, TS, 12-BAY "P" CABINET With FO MASTER.....	21,282.82	
02723-0076	EA	CONTROLLER, TS, 16-BAY, "P" CABINET.....	16,799.19	
02723-0077	EA	7-WIRE MASTER INTERCONNECT.....	915.38	
02723-0078	EA	7-WIRE SLAVE INTERCONNECT.....	877.00	
02723-0079	EA	CONTROLLER, TS, POST-MTD, TEMP.....	2,643.56	
02723-0080	EA	CONTROLLER, PEDESTRIAN CROSSING, ADD-IN.....	463.92	
02723-0081	EA	CONCRETE BLOCK PEDESTAL.....	440.00	
02723-0082	WK	MAINTAIN EXIST TS INSTALLATION.....	184.37	
02723-0083	EA	INST SIGN BOARDS, ST. NAME.....	313.99	
02723-0084	EA	F.O. ADD-IN FOR LOCAL CONTROLLER.....	7,131.50	
02723-0085	EA	F.O. ADD-IN FOR MASTER CONTROLLER.....	17,319.07	

02000 Site Construction**02700 Site Improvements****02723 Traffic Signals**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02723-0086	EA	F.O. STAR MODEM	5,885.41	
02723-0087	LF	F.O. HYBRID CABLE, IN CONDUIT	6.85	
02723-0088	LF	INNERDUCT IN CONDUIT, 1-1/4"	4.26	
		02MOD-0307 For 2 Pulled At Same Time, Deduct	-1.36	
		02MOD-0308 For > 2 Pulled At Same Time, Deduct	-1.82	
02723-0089	EA	CABLE IN CONDUIT, With STEEL CONNECTION	9.43	

02726 Impact Barrier And Rails (02700)**02726-0001 Impact Barrier And Rails** (02726)**02726-0002 Impact Barrier, Non-Redirective** (02726-0001)**02726-0003 Sand Barrel Impact Attenuator** (02726-0002)

Note: Includes containers, inserts, and lid. Excludes sand.

02726-0004	EA	200, 400 Or 700 lb Sand Barrel	469.91	37.06
		Note: Includes containers, inserts, and lid.		

02726-0005 Guard Rail Energy Absorbing Terminals (02726-0001)

Note: Crushable foam cartridges surrounded by steel guardrail for narrow hazards. QuadGuard System as manufactured by Energy Absorption Systems, Inc.

02726-0006 24" Wide Guard Rail Energy Absorbing Terminals (02726-0005)

02726-0007	EA	24" Wide, 3 Cartridge Bays, Energy Absorbing Crash Attenuator	16,912.97	2,528.22
02726-0008	EA	24" Wide, 5 Cartridge, Bays Energy Absorbing Crash Attenuator	23,183.83	3,370.95
02726-0009	EA	24" Wide, 7 Cartridge, Bays Energy Absorbing Crash Attenuator	31,257.17	4,424.38
02726-0010	EA	24" Wide, 9 Cartridge, Bays Energy Absorbing Crash Attenuator	35,960.68	5,477.81

02726-0011 30" Wide Guard Rail Energy Absorbing Terminals (02726-0005)

02726-0012	EA	30" Wide, 3 Cartridge Bays, Energy Absorbing Crash Attenuator	18,476.84	2,844.24
02726-0013	EA	30" Wide, 5 Cartridge Bays, Energy Absorbing Crash Attenuator	25,369.46	3,792.33
02726-0014	EA	30" Wide, 7 Cartridge Bays, Energy Absorbing Crash Attenuator	34,495.34	5,056.44
02726-0015	EA	30" Wide, 9 Cartridge Bays, Energy Absorbing Crash Attenuator	40,199.63	6,109.86

02726-0016 36" Wide Guard Rail Energy Absorbing Terminals (02726-0005)

02726-0017	EA	36" Wide, 3 Cartridge Bays, Energy Absorbing Crash Attenuator	20,050.94	3,160.27
02726-0018	EA	36" Wide, 5 Cartridge Bays, Energy Absorbing Crash Attenuator	27,564.78	4,213.70
02726-0019	EA	36" Wide, 7 Cartridge Bays, Energy Absorbing Crash Attenuator	37,303.10	5,583.15
02726-0020	EA	36" Wide, 9 Cartridge Bays, Energy Absorbing Crash Attenuator	44,427.66	6,741.92

02726-0021 69" Wide Guard Rail Energy Absorbing Terminals (02726-0005)

02726-0022	EA	69" Wide, 3 Cartridge Bays, Energy Absorbing Crash Attenuator	21,830.44	3,476.30
02726-0023	EA	69" Wide, 5 Cartridge Bays, Energy Absorbing Crash Attenuator	29,840.08	4,635.06
02726-0024	EA	69" Wide, 7 Cartridge Bays, Energy Absorbing Crash Attenuator	40,429.63	6,109.86
02726-0025	EA	69" Wide, 9 Cartridge Bays, Energy Absorbing Crash Attenuator	47,994.78	7,373.97

02726-0026 90" Wide Guard Rail Energy Absorbing Terminals (02726-0005)

02726-0027	EA	90" Wide, 3 Cartridge Bays, Energy Absorbing Crash Attenuator	23,639.46	3,792.33
02726-0028	EA	90" Wide, 5 Cartridge Bays, Energy Absorbing Crash Attenuator	32,150.34	5,056.44
02726-0029	EA	90" Wide, 7 Cartridge Bays, Energy Absorbing Crash Attenuator	44,047.66	6,741.92
02726-0030	EA	90" Wide, 9 Cartridge Bays, Energy Absorbing Crash Attenuator	51,625.06	8,006.03

02950 Site Restoration And Rehabilitation (02000)**02953 Pipe Line And Structure Cleaning And Flushing** (02950)

Note: Includes flushing. Owner provided water.

02953-0001 Pipe Line Cleaning (02953)

Note: Includes removal of all debris/waste.

02953-0002 Hydro Jet Set-up And Reinsertion (02953-0001)

02953-0003	EA	Initial Set Up And Final Equipment Removal For Jet Cleaning	1,877.51	
02953-0004	EA	Move And Reset Up At Different Access/Location For Jet Cleaning	469.38	

02953-0005 Flushing Of Storm Water Pipelines (02953-0001)

Note: To remove silt and small debris from storm drainage pipes.

02953-0006	LF	12" To 16" Diameter Pipe Line Flushing	1.03	
		02MOD-0290 For > 250 To 500, Deduct	-0.05	
		02MOD-0291 For > 500 To 1000, Deduct	-0.10	
		02MOD-0292 For > 1000 To 2000, Deduct	-0.15	
		02MOD-0293 For > 2000 To 5000, Deduct	-0.21	
		02MOD-0294 For > 5000, Deduct	-0.26	



Site Construction		02000	02
Site Restoration And Rehabilitation		02950	
Pipe Line And Structure Cleaning And Flushing		02953	

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
02953-0007	LF	>16" To 24" Diameter Pipe Line Flushing	1.19	
	02MOD-0290	For > 250 To 500, Deduct	-0.06	
	02MOD-0291	For > 500 To 1000, Deduct	-0.12	
	02MOD-0292	For > 1000 To 2000, Deduct	-0.18	
	02MOD-0293	For > 2000 To 5000, Deduct	-0.24	
	02MOD-0294	For > 5000, Deduct	-0.30	
02953-0008	LF	>24" To 30" Diameter Pipe Line Flushing	1.39	
	02MOD-0290	For > 250 To 500, Deduct	-0.07	
	02MOD-0291	For > 500 To 1000, Deduct	-0.14	
	02MOD-0292	For > 1000 To 2000, Deduct	-0.21	
	02MOD-0293	For > 2000 To 5000, Deduct	-0.28	
	02MOD-0294	For > 5000, Deduct	-0.35	
02953-0009	LF	>30" To 42" Diameter Pipe Line Flushing	1.61	
	02MOD-0290	For > 250 To 500, Deduct	-0.08	
	02MOD-0291	For > 500 To 1000, Deduct	-0.16	
	02MOD-0292	For > 1000 To 2000, Deduct	-0.24	
	02MOD-0293	For > 2000 To 5000, Deduct	-0.32	
	02MOD-0294	For > 5000, Deduct	-0.40	
02953-0010	LF	>42" To 60" Diameter Pipe Line Flushing	2.15	
	02MOD-0290	For > 250 To 500, Deduct	-0.11	
	02MOD-0291	For > 500 To 1000, Deduct	-0.22	
	02MOD-0292	For > 1000 To 2000, Deduct	-0.32	
	02MOD-0293	For > 2000 To 5000, Deduct	-0.43	
	02MOD-0294	For > 5000, Deduct	-0.54	
02953-0011		Hydro Jet Cleaning Of Culverts (02953-0001)		
02953-0012	LF	Jet Cleaning Of Culvert, 0-250 LF	11.67	
	02MOD-0295	For > 250 To 500, Deduct	-0.58	
	02MOD-0296	For > 500 To 1000, Deduct	-1.17	
	02MOD-0297	For > 1000 To 2000, Deduct	-1.75	
	02MOD-0298	For > 2000 To 5000, Deduct	-2.33	
	02MOD-0299	For > 5000, Deduct	-2.92	
02953-0013		Pipe Line Cleaning, Mechanical Method (02953)		
		Note: Power winching buckets, scrapers, scooters, porcupines, brushes and other debris removing equipment. Includes removal of all debris/waste.		
02953-0014	EA	Initial Set Up And Final Equipment Removal For Mechanical Cleaning	872.83	
02953-0015	EA	Move And Reset Up At Different Access/Location	290.94	
02953-0016	LF	12" Diameter Pipe Line Cleaning, Mechanical Method	9.58	
	02MOD-0300	For > 250 To 500, Deduct	-0.45	
	02MOD-0301	For > 500 To 1000, Deduct	-0.91	
	02MOD-0302	For > 1000 To 2000, Deduct	-1.36	
	02MOD-0303	For > 2000 To 5000, Deduct	-1.82	
	02MOD-0304	For > 5000, Deduct	-2.27	
02953-0017	LF	>12" To 16" Diameter Pipe Line Cleaning, Mechanical Method	11.02	
	02MOD-0300	For > 250 To 500, Deduct	-0.52	
	02MOD-0301	For > 500 To 1000, Deduct	-1.04	
	02MOD-0302	For > 1000 To 2000, Deduct	-1.56	
	02MOD-0303	For > 2000 To 5000, Deduct	-2.08	
	02MOD-0304	For > 5000, Deduct	-2.60	
02953-0018	LF	>16" To 24" Diameter Pipe Line Cleaning, Mechanical Method	13.81	
	02MOD-0300	For > 250 To 500, Deduct	-0.64	
	02MOD-0301	For > 500 To 1000, Deduct	-1.28	
	02MOD-0302	For > 1000 To 2000, Deduct	-1.92	
	02MOD-0303	For > 2000 To 5000, Deduct	-2.57	
	02MOD-0304	For > 5000, Deduct	-3.21	
02953-0019	LF	>24" To 30" Diameter Pipe Line Cleaning, Mechanical Method	15.71	
	02MOD-0300	For > 250 To 500, Deduct	-0.72	
	02MOD-0301	For > 500 To 1000, Deduct	-1.43	
	02MOD-0302	For > 1000 To 2000, Deduct	-2.15	
	02MOD-0303	For > 2000 To 5000, Deduct	-2.86	
	02MOD-0304	For > 5000, Deduct	-3.58	
02953-0020	LF	>30" To 42" Diameter Pipe Line Cleaning, Mechanical Method	18.22	
	02MOD-0300	For > 250 To 500, Deduct	-0.82	
	02MOD-0301	For > 500 To 1000, Deduct	-1.65	
	02MOD-0302	For > 1000 To 2000, Deduct	-2.47	
	02MOD-0303	For > 2000 To 5000, Deduct	-3.29	
	02MOD-0304	For > 5000, Deduct	-4.12	
02953-0021	LF	>42 To 60" Diameter Pipe Line Cleaning, Mechanical Method	23.93	
	02MOD-0300	For > 250 To 500, Deduct	-1.09	
	02MOD-0301	For > 500 To 1000, Deduct	-2.18	
	02MOD-0302	For > 1000 To 2000, Deduct	-3.27	
	02MOD-0303	For > 2000 To 5000, Deduct	-4.37	
	02MOD-0304	For > 5000, Deduct	-5.46	
02953-0022	LF	>60" Diameter Pipe Line Cleaning, Mechanical Method	27.05	
	02MOD-0300	For > 250 To 500, Deduct	-1.21	
	02MOD-0301	For > 500 To 1000, Deduct	-2.43	
	02MOD-0302	For > 1000 To 2000, Deduct	-3.64	
	02MOD-0303	For > 2000 To 5000, Deduct	-4.85	
	02MOD-0304	For > 5000, Deduct	-6.06	
02953-0023		Rod Out Structures And Other Hand Operations (02953)		
02953-0024	EA	Rod Out Sewer Catch Basin	66.37	
02953-0025	EA	Clean Out Debris From Entrance To Inlet Structure	165.93	
02953-0026	EA	Clean Out Blocked Manhole By Hand, 3' To 4' Diameter	643.60	

02000 Site Construction**02950 Site Restoration And Rehabilitation****02953 Pipe Line And Structure Cleaning And Flushing**

MINOR				TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION				UNIT COST	UNIT COST
02953-0027	EA	Clean Out Blocked Manhole By Hand, 5' To 6' Diameter		772.32	
02953-0028	EA	Clean Out Catch Basin By Hand		482.70	
02953-0029 Cleaning Manholes And Drainage Structures (02953)					
Note: Includes removal of debris.					
02953-0030	VLF	Waterblast Cleaning For 3' To 4' Diameter Manhole		78.23	
02953-0031	VLF	Waterblast Cleaning For 5' To 6' Diameter Manhole		97.79	
02953-0032	EA	Vacuum Out 1 To 2 Catch Basins Or Manholes		1,094.43	
Note: Includes vacuum pump equipment.					
02953-0033	EA	Vacuum Out 3 To 10 Catch Basins Or Manholes		820.83	
Note: Includes vacuum pump equipment.					
02953-0034	EA	Vacuum Out 11 To 25 Catch Basins Or Manholes		547.22	
Note: Includes vacuum pump equipment.					
02953-0035	EA	Vacuum Out > 25 Catch Basins Or Manholes		410.41	
Note: Includes vacuum pump equipment.					

END OF SECTION 02



Concrete 03000			CS
Concrete Forms And Accessories 03100			
Structural Cast-In-Place Concrete Formwork 03110			

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
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03000 Concrete

03100 Concrete Forms And Accessories (03000)

03110 Structural Cast-In-Place Concrete Formwork (03100)

Note: Per square foot of formwork.

03110-0001	Wood Formwork <small>(03110)</small>	
Note: For job built wood and/or plywood form systems where metal framed formwork cannot be used. Includes erecting, stripping, stacking, plywood, framing lumber, oiling, walers, strongbacks, deadmen, supporting braces, turnbuckles, ties, and clips.		
03110-0002	Foundation Wood Formwork <small>(03110-0001)</small>	
Note: For foundation work below or at grade.		
03110-0003	SF Continuous Footings Foundation Wood Formwork	5.02
03MOD-0001	For < 1000, Add	0.93
03MOD-0002	For Foundations > 8' Below Grade, Add	0.89
03MOD-0003	For Curved Formwork, Add	1.78
03110-0004	SF Pile Cap, Pier Or Spread Footings Foundation Wood Formwork	5.97
03MOD-0001	For < 1000, Add	1.12
03MOD-0002	For Foundations > 8' Below Grade, Add	1.08
03MOD-0003	For Curved Formwork, Add	2.15
03110-0005	SF Mat Foundation Wood Formwork	6.85
03MOD-0001	For < 1000, Add	1.30
03MOD-0002	For Foundations > 8' Below Grade, Add	1.27
03MOD-0003	For Curved Formwork, Add	2.53
03110-0006	SF Grade Beams Or Duct Bank Foundation Wood Formwork	5.67
03MOD-0001	For < 1000, Add	1.07
03MOD-0002	For Foundations > 8' Below Grade, Add	1.03
03MOD-0003	For Curved Formwork, Add	2.06
03110-0007	SF Below Grade Walls Foundation Wood Formwork	8.06
Note: Excludes footing		
03MOD-0001	For < 1000, Add	1.51
03MOD-0002	For Foundations > 8' Below Grade, Add	1.46
03MOD-0003	For Curved Formwork, Add	2.92

03125 Concrete Form Liners (03100)

03125-0001	Concrete Form Liners <small>(03125)</small>	
03125-0002	SF Concrete Form Liner, Various Patterns And Textures, Add To Formwork	3.43

03200 Concrete Reinforcement (03000)

Note: Includes cutting or torching to size, bending where necessary and tie wires.

03210 Deformed Steel Reinforcing Rebar (03200)

Note: Includes cutting, bending, tie wire, tying, bar chairs and all non-mechanical splicing. The weights of reinforcing steel shall be used as follows: #2 - 0.167 Lbs./LF, #3 - 0.376 Lbs./LF, #4 - 0.668 Lbs./LF, #5 - 1.043 Lbs./LF, #6 - 1.502 Lbs./LF, #7 - 2.044 Lbs./LF, #8 - 2.670 Lbs./LF, #9 - 3.400 Lbs./LF, #10 - 4.303 Lbs./LF, #11 - 5.313 Lbs./LF, #14 - 7.650 Lbs./LF, #18 - 13.600 Lbs./LF.

03210-0001	Footings And Slabs <small>(03210)</small>	
03210-0002	TON Grade 40 Reinforcing Steel, Footings And Slabs, #3-#6	2,242.34
03MOD-0004	For Epoxy Coated, Add	656.67
03MOD-0005	For Stainless Steel, Add	1,959.57
03MOD-0006	For Galvanized, Add	348.37
03210-0003	TON Grade 40 Reinforcing Steel, Footings And Slabs, #7-Up	2,030.53
03MOD-0004	For Epoxy Coated, Add	606.71
03MOD-0005	For Stainless Steel, Add	1,810.46
03MOD-0006	For Galvanized, Add	321.86
03210-0004	TON Grade 50 Reinforcing Steel, Footings And Slabs, #3-#6	2,280.20
03MOD-0004	For Epoxy Coated, Add	685.22
03MOD-0005	For Stainless Steel, Add	2,044.76
03MOD-0006	For Galvanized, Add	363.51
03210-0005	TON Grade 50 Reinforcing Steel, Footings And Slabs, #7-Up	2,074.08
03MOD-0004	For Epoxy Coated, Add	639.54
03MOD-0005	For Stainless Steel, Add	1,908.45
03MOD-0006	For Galvanized, Add	339.28
03210-0006	TON Grade 60 Reinforcing Steel, Footings And Slabs, #3-#6	2,314.28
03MOD-0004	For Epoxy Coated, Add	710.92
03MOD-0005	For Stainless Steel, Add	2,121.44
03MOD-0006	For Galvanized, Add	377.14
03210-0007	TON Grade 60 Reinforcing Steel, Footings And Slabs, #7-Up	2,134.66
03MOD-0004	For Epoxy Coated, Add	685.22
03MOD-0005	For Stainless Steel, Add	2,044.76
03MOD-0006	For Galvanized, Add	363.51
03210-0008	TON Grade 70 Reinforcing Steel, Footings And Slabs, #3-#6	2,346.47
03MOD-0004	For Epoxy Coated, Add	735.19
03MOD-0005	For Stainless Steel, Add	2,193.86
03MOD-0006	For Galvanized, Add	390.02
03210-0009	TON Grade 70 Reinforcing Steel, Footings And Slabs, #7-Up	2,144.13
03MOD-0004	For Epoxy Coated, Add	692.36
03MOD-0005	For Stainless Steel, Add	2,066.06
03MOD-0006	For Galvanized, Add	367.30

03000 Concrete**03200 Concrete Reinforcement****03210 Deformed Steel Reinforcing Rebar**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

03220 Welded Wire Reinforcement (03200)

Note: Includes cutting, tie wire, tying, overlap, bar chairs and all non-mechanical splicing.

03220-0001 Welded Wire Reinforcement Placed In Floors Or Slabs (03220)

Note: Includes bar chairs. Under 5 tons.

03220-0002	SF	6 x 6 x #10, 21 LB/CSF, Welded Wire Reinforcement In Slabs, (W 1.4 x W 1.4)	0.59
	03MOD-0007	For Welded Wire Fabric > 5 Ton, Deduct	-0.09
	03MOD-0008	For Galvanized, Add	0.06
	03MOD-0009	For Epoxy Coated, Add	0.13
03220-0003	SF	6 x 6 x #8, 30 LB/CSF, Welded Wire Reinforcement In Slabs, (W 2.0 x W 2.0)	0.74
	03MOD-0007	For Welded Wire Fabric > 5 Ton, Deduct	-0.11
	03MOD-0008	For Galvanized, Add	0.10
	03MOD-0009	For Epoxy Coated, Add	0.21
03220-0004	SF	6 x 6 x #6, 42 LB/CSF, Welded Wire Reinforcement In Slabs, (W 2.9 x W 2.9)	0.86
	03MOD-0007	For Welded Wire Fabric > 5 Ton, Deduct	-0.12
	03MOD-0008	For Galvanized, Add	0.14
	03MOD-0009	For Epoxy Coated, Add	0.27
03220-0005	SF	6 x 6 x #4, 58 LB/CSF, Welded Wire Reinforcement In Slabs, (W 4.0 x W 4.0)	1.03
	03MOD-0007	For Welded Wire Fabric > 5 Ton, Deduct	-0.14
	03MOD-0008	For Galvanized, Add	0.19
	03MOD-0009	For Epoxy Coated, Add	0.38
03220-0006	SF	4 x 4 x #10, 31 LB/CSF, Welded Wire Reinforcement In Slabs, (W 1.4 x W 1.4)	0.81
	03MOD-0007	For Welded Wire Fabric > 5 Ton, Deduct	-0.11
	03MOD-0008	For Galvanized, Add	0.13
	03MOD-0009	For Epoxy Coated, Add	0.26
03220-0007	SF	4 x 4 x #8, 44 LB/CSF, Welded Wire Reinforcement In Slabs, (W 2.0 x W 2.0)	0.93
	03MOD-0007	For Welded Wire Fabric > 5 Ton, Deduct	-0.13
	03MOD-0008	For Galvanized, Add	0.16
	03MOD-0009	For Epoxy Coated, Add	0.33
03220-0008	SF	4 x 4 x #6, 61 LB/CSF, Welded Wire Reinforcement In Slabs, (W 3.0 x W 3.0)	1.06
	03MOD-0007	For Welded Wire Fabric > 5 Ton, Deduct	-0.14
	03MOD-0008	For Galvanized, Add	0.20
	03MOD-0009	For Epoxy Coated, Add	0.41
03220-0009	SF	4 x 4 x #4, 85 LB/CSF, Welded Wire Reinforcement In Slabs, (W 4.0 x W 4.0)	1.25
	03MOD-0007	For Welded Wire Fabric > 5 Ton, Deduct	-0.17
	03MOD-0008	For Galvanized, Add	0.26
	03MOD-0009	For Epoxy Coated, Add	0.52
03220-0010	SF	2 x 2 x #12, 21 LB/CSF, Welded Wire Reinforcement In Slabs, (W 0.9 x W 0.9)	1.44
	03MOD-0007	For Welded Wire Fabric > 5 Ton, Deduct	-0.18
	03MOD-0008	For Galvanized, Add	0.38
	03MOD-0009	For Epoxy Coated, Add	0.77

03220-0011 Stainless Steel Welded Wire Fabric (03220)

03220-0012	SF	Stainless Steel Welded Wire Fabric In Slabs, 6 x 6 x #10	0.77
03220-0013	SF	Stainless Steel Welded Wire Fabric In Slabs, 4 x 4 x #10	1.04

03290 Accessories For Reinforcing Steel (03200)**03290-0001 Accessories For Reinforcing Steel** (03290)

03290-0002	EA	Reinforcing Bar Weld Splicing, #3 To #6	29.74
03290-0003	EA	Reinforcing Bar Weld Splicing, #7 And Up	43.04
03290-0004	EA	#4 (1/2") Reinforcing Bar Clip Splicing, Sleeve And Wedge	22.15
03290-0005	EA	#5 (5/8") Reinforcing Bar Clip Splicing, Sleeve And Wedge	32.40
03290-0006	EA	#6 (3/4") Reinforcing Bar Clip Splicing, Sleeve And Wedge	46.81

03300 Cast-In-Place Concrete (03000)**03302 Concrete Admixtures** (03300)**03302-0001 Concrete Admixtures** (03302)

03302-0002	CY	Steel Fibers Add At Batch Plant For Flexural Strength Per Each 25# Per CY	19.19
03302-0003	CY	1.5 LB/CY Poly Fibers Reinforcing Concrete Mix	7.22
03302-0004	CY	Water Reducing, Medium Range, Super Plasticizer (20 Minute)	3.65
03302-0005	CY	Water Reducing, High Range, Super Plasticizer (45 Minute)	7.29
03302-0006	CY	Winter Concrete, Antifreeze Agent	5.47
03302-0007	GAL	Air Entraining Agent, .7 - 1.5 Oz Per Bag, 55 Gallon Lots	6.01
03302-0008	GAL	Air Entraining Agent, .7 - 1.5 Oz Per Bag, 5 Gallon Lots	7.42
03302-0009	CY	Corrosion Inhibitor	9.48
03302-0010	LB	2 To 4 LB/CY Concrete Admixture Color, Light (Subtle)	5.03
03302-0011	LB	6 To 12 LB/CY Concrete Admixture Colors, Standard	4.96
03302-0012	LB	18 To 25 LB/CY Concrete Admixture Colors, Premium	4.96
03302-0013	GAL	Concrete Admixture, Set Accelerator, For Below Freezing, 1 To 1.5 Gallon Per CY	6.01
03302-0014	GAL	Concrete Admixture, Set Retarder, 2 To 4 Fluid Oz Per Bag Of Cement	19.00
03302-0015	LB	Waterproofing, Integral 1 LB/Bag Of Cement	1.19
03302-0016	LB	Concrete Admixture, Set Retarder, Powdered Metallic, 40 LB Per 100 SF	1.16
03302-0017	CY	Water Reducer And Retarder - Low Range	1.82
03302-0018	CY	Water Reducer And Retarder - High Range	3.65
03302-0019	CY	Micro Silica (Synergized Pozzolanic) Admixture, ASTM C 1240	87.50
03302-0020	LB	Carbon Black, Liquid, 2 To 8 LB/Bag	3.56



Concrete 03000		03
Cast-In-Place Concrete 03300		
Concrete Admixtures 03302		

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
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03303 Concrete Surface Treatments (03300)

03303-0001 Concrete Surface Treatments (03303)

03303-0002	LB	Abrasives, Aluminum Oxide	1.29
03303-0003	LB	Abrasives, Silicon Carbide, Black.....	1.68
03303-0004	SF	Concrete Sealer	0.25
03303-0005	GAL	Bonding Agent, Acrylic Latex, 250 SF Per Gallon.....	119.09
03303-0006	GAL	Bonding Agent, Epoxy Resin, 80 SF Per Gallon.....	154.82
03303-0007	TON	Calcium Chloride, 100 LB Bags	576.41
03303-0008	BAG	Calcium Chloride, 100 LB Bags	32.03
03303-0009	GAL	Sealer, Hardener And Dustproof, Clear, 400 SF Per Gallon.....	97.22
03303-0010	GAL	Sealer, Hardener And Dustproof, Colors, 400 SF Per Gallon	122.45

03311 Normal Weight Structural Concrete (03300)

Note: Includes delivery and placement of material. Excludes forms, reinforcement, accessories, admixtures, finishing, and curing.
See CSI section 02112-0000 for demolition of concrete, 03100-0000 for forms, 03200-0000 for reinforcement, 03290-0000 for accessories, 03302-0000 for admixtures, 03390-0000 for curing.

03311-0001 Concrete Delivery And Placement (03311)

Note: Includes normal concrete placement tests.

03311-0002 Place Concrete By Method Indicated (03311-0001)

Note: "Concrete Pump" concrete tasks from appropriate section excludes concrete pump truck, use appropriate pump truck tasks with placement tasks. See CSI section 03311-0023 for concrete pump truck.

03311-0003 Place Concrete Continuous Footings (03311-0002)

03311-0004	CY	Crane And Bucket, Place 3000 PSI Concrete Continuous Footings	184.73
03MOD-0010		For 2000 PSI Concrete, Deduct	-5.67
03MOD-0011		For 2500 PSI Concrete, Deduct	-2.84
03MOD-0012		For 3500 PSI Concrete, Add	5.25
03MOD-0013		For 3750 PSI Concrete, Add	7.14
03MOD-0014		For 4000 PSI Concrete, Add	9.03
03MOD-0015		For 4500 PSI Concrete, Add	10.50
03MOD-0016		For 5000 PSI Concrete, Add	11.97
03MOD-0017		For 6000 PSI Concrete, Add	28.35
03MOD-0018		For 7500 PSI Concrete, Add	70.40
03MOD-0019		For White Cement Concrete, Add	12.60
03MOD-0020		For High Sulfate Resistance, Type 5 Cement Concrete ASTM C150, Add	13.65
03MOD-0021		For High Early Strength, Type 3 ASTM C150, Add	10.50
03MOD-0022		For Lightweight Aggregate, ASTM C330, Add	31.50
03MOD-0023		For Up To 20, Add	31.89
03MOD-0024		For > 20 To 50, Add	11.96
03MOD-0025		For > 100 To 200, Deduct	-3.69
03MOD-0026		For > 200 To 400, Deduct	-7.39
03MOD-0027		For > 400, Deduct	-11.08
03311-0005	CY	Direct Chute, Place 3000 PSI Concrete Continuous Footings	141.11
03MOD-0010		For 2000 PSI Concrete, Deduct	-5.67
03MOD-0011		For 2500 PSI Concrete, Deduct	-2.84
03MOD-0012		For 3500 PSI Concrete, Add	5.25
03MOD-0013		For 3750 PSI Concrete, Add	7.14
03MOD-0014		For 4000 PSI Concrete, Add	9.03
03MOD-0015		For 4500 PSI Concrete, Add	10.50
03MOD-0016		For 5000 PSI Concrete, Add	11.97
03MOD-0017		For 6000 PSI Concrete, Add	28.35
03MOD-0018		For 7500 PSI Concrete, Add	70.40
03MOD-0019		For White Cement Concrete, Add	12.60
03MOD-0020		For High Sulfate Resistance, Type 5 Cement Concrete ASTM C150, Add	13.65
03MOD-0021		For High Early Strength, Type 3 ASTM C150, Add	10.50
03MOD-0022		For Lightweight Aggregate, ASTM C330, Add	31.50
03MOD-0023		For Up To 20, Add	14.44
03MOD-0024		For > 20 To 50, Add	5.42
03MOD-0025		For > 100 To 200, Deduct	-2.82
03MOD-0026		For > 200 To 400, Deduct	-5.64
03MOD-0027		For > 400, Deduct	-8.47
03311-0006	CY	Concrete Pump, Place 3000 PSI Concrete Continuous Footings	148.14
		Note: Excludes pumping equipment.	
03MOD-0010		For 2000 PSI Concrete, Deduct	-6.14
03MOD-0011		For 2500 PSI Concrete, Deduct	-3.07
03MOD-0012		For 3500 PSI Concrete, Add	5.69
03MOD-0013		For 3750 PSI Concrete, Add	7.74
03MOD-0014		For 4000 PSI Concrete, Add	9.78
03MOD-0015		For 4500 PSI Concrete, Add	11.38
03MOD-0016		For 5000 PSI Concrete, Add	12.97
03MOD-0017		For 6000 PSI Concrete, Add	30.71
03MOD-0018		For 7500 PSI Concrete, Add	76.27
03MOD-0019		For White Cement Concrete, Add	13.65
03MOD-0020		For High Sulfate Resistance, Type 5 Cement Concrete ASTM C150, Add	14.79
03MOD-0021		For High Early Strength, Type 3 ASTM C150, Add	11.38
03MOD-0022		For Lightweight Aggregate, ASTM C330, Add	34.13
03MOD-0023		For Up To 20, Add	13.76
03MOD-0024		For > 20 To 50, Add	5.16
03MOD-0025		For > 100 To 200, Deduct	-2.96
03MOD-0026		For > 200 To 400, Deduct	-5.93
03MOD-0027		For > 400, Deduct	-8.89

03000 Concrete**03300 Cast-In-Place Concrete****03311 Normal Weight Structural Concrete**

MINOR			TOTAL DIRECT	DEMOLITION
CSI	UOM	DESCRIPTION	UNIT COST	UNIT COST
03311-0007		Place Concrete Spread Footings (03311-0002)		
03311-0008	CY	Crane And Bucket, Place 3000 PSI Concrete Spread Footings.....	239.54	
	03MOD-0010	For 2000 PSI Concrete, Deduct	-5.67	
	03MOD-0011	For 2500 PSI Concrete, Deduct	-2.84	
	03MOD-0012	For 3500 PSI Concrete, Add	5.25	
	03MOD-0013	For 3750 PSI Concrete, Add	7.14	
	03MOD-0014	For 4000 PSI Concrete, Add	9.03	
	03MOD-0015	For 4500 PSI Concrete, Add	10.50	
	03MOD-0016	For 5000 PSI Concrete, Add	11.97	
	03MOD-0017	For 6000 PSI Concrete, Add	28.35	
	03MOD-0018	For 7500 PSI Concrete, Add	70.40	
	03MOD-0019	For White Cement Concrete, Add	12.60	
	03MOD-0020	For High Sulfate Resistance, Type 5 Cement Concrete ASTM C150, Add	13.65	
	03MOD-0021	For High Early Strength, Type 3 ASTM C150, Add	10.50	
	03MOD-0022	For Lightweight Aggregate, ASTM C330, Add	31.50	
	03MOD-0023	For Up To 20, Add	53.82	
	03MOD-0024	For > 20 To 50, Add	20.18	
	03MOD-0025	For > 100 To 200, Deduct	-4.79	
	03MOD-0026	For > 200 To 400, Deduct	-9.58	
	03MOD-0027	For > 400, Deduct	-14.37	
03311-0009	CY	Direct Chute, Place 3000 PSI Concrete Spread Footings.....	165.94	
	03MOD-0010	For 2000 PSI Concrete, Deduct	-5.67	
	03MOD-0011	For 2500 PSI Concrete, Deduct	-2.84	
	03MOD-0012	For 3500 PSI Concrete, Add	5.25	
	03MOD-0013	For 3750 PSI Concrete, Add	7.14	
	03MOD-0014	For 4000 PSI Concrete, Add	9.03	
	03MOD-0015	For 4500 PSI Concrete, Add	10.50	
	03MOD-0016	For 5000 PSI Concrete, Add	11.97	
	03MOD-0017	For 6000 PSI Concrete, Add	28.35	
	03MOD-0018	For 7500 PSI Concrete, Add	70.40	
	03MOD-0019	For White Cement Concrete, Add	12.60	
	03MOD-0020	For High Sulfate Resistance, Type 5 Cement Concrete ASTM C150, Add	13.65	
	03MOD-0021	For High Early Strength, Type 3 ASTM C150, Add	10.50	
	03MOD-0022	For Lightweight Aggregate, ASTM C330, Add	31.50	
	03MOD-0023	For Up To 20, Add	24.38	
	03MOD-0024	For > 20 To 50, Add	9.14	
	03MOD-0025	For > 100 To 200, Deduct	-3.32	
	03MOD-0026	For > 200 To 400, Deduct	-6.64	
	03MOD-0027	For > 400, Deduct	-9.96	
03311-0010	CY	Concrete Pump, Place 3000 PSI Concrete Spread Footings.....	171.80	
		Note: Excludes pumping equipment.		
	03MOD-0010	For 2000 PSI Concrete, Deduct	-6.14	
	03MOD-0011	For 2500 PSI Concrete, Deduct	-3.07	
	03MOD-0012	For 3500 PSI Concrete, Add	5.69	
	03MOD-0013	For 3750 PSI Concrete, Add	7.74	
	03MOD-0014	For 4000 PSI Concrete, Add	9.78	
	03MOD-0015	For 4500 PSI Concrete, Add	11.38	
	03MOD-0016	For 5000 PSI Concrete, Add	12.97	
	03MOD-0017	For 6000 PSI Concrete, Add	30.71	
	03MOD-0018	For 7500 PSI Concrete, Add	76.27	
	03MOD-0019	For White Cement Concrete, Add	13.65	
	03MOD-0020	For High Sulfate Resistance, Type 5 Cement Concrete ASTM C150, Add	14.79	
	03MOD-0021	For High Early Strength, Type 3 ASTM C150, Add	11.38	
	03MOD-0022	For Lightweight Aggregate, ASTM C330, Add	34.13	
	03MOD-0023	For Up To 20, Add	23.22	
	03MOD-0024	For > 20 To 50, Add	8.71	
	03MOD-0025	For > 100 To 200, Deduct	-3.44	
	03MOD-0026	For > 200 To 400, Deduct	-6.87	
	03MOD-0027	For > 400, Deduct	-10.31	
03311-0011		Place Concrete Slab On Grade (03311-0002)		
03311-0012	CY	Up To 6", By Crane And Bucket, Place 3000 PSI Concrete Slab On Grade.....	170.28	
	03MOD-0010	For 2000 PSI Concrete, Deduct	-5.67	
	03MOD-0011	For 2500 PSI Concrete, Deduct	-2.84	
	03MOD-0012	For 3500 PSI Concrete, Add	5.25	
	03MOD-0013	For 3750 PSI Concrete, Add	7.14	
	03MOD-0014	For 4000 PSI Concrete, Add	9.03	
	03MOD-0015	For 4500 PSI Concrete, Add	10.50	
	03MOD-0016	For 5000 PSI Concrete, Add	11.97	
	03MOD-0017	For 6000 PSI Concrete, Add	28.35	
	03MOD-0018	For 7500 PSI Concrete, Add	70.40	
	03MOD-0019	For White Cement Concrete, Add	12.60	
	03MOD-0020	For High Sulfate Resistance, Type 5 Cement Concrete ASTM C150, Add	13.65	
	03MOD-0021	For High Early Strength, Type 3 ASTM C150, Add	10.50	
	03MOD-0022	For Lightweight Aggregate, ASTM C330, Add	31.50	
	03MOD-0023	For Up To 20, Add	26.11	
	03MOD-0024	For > 20 To 50, Add	9.79	
	03MOD-0025	For > 100 To 200, Deduct	-3.41	
	03MOD-0026	For > 200 To 400, Deduct	-6.81	
	03MOD-0027	For > 400, Deduct	-10.22	



Concrete 03000			03
Cast-In-Place Concrete 03300			
Normal Weight Structural Concrete 03311			

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
03311-0013	CY	>6", By Crane And Bucket, Place 3000 PSI Concrete Slab On Grade.....	154.53	
	03MOD-0010	For 2000 PSI Concrete, Deduct	-5.67	
	03MOD-0011	For 2500 PSI Concrete, Deduct	-2.84	
	03MOD-0012	For 3500 PSI Concrete, Add	5.25	
	03MOD-0013	For 3750 PSI Concrete, Add	7.14	
	03MOD-0014	For 4000 PSI Concrete, Add	9.03	
	03MOD-0015	For 4500 PSI Concrete, Add	10.50	
	03MOD-0016	For 5000 PSI Concrete, Add	11.97	
	03MOD-0017	For 6000 PSI Concrete, Add	28.35	
	03MOD-0018	For 7500 PSI Concrete, Add	70.40	
	03MOD-0019	For White Cement Concrete, Add	12.60	
	03MOD-0020	For High Sulfate Resistance, Type 5 Cement Concrete ASTM C150, Add	13.65	
	03MOD-0021	For High Early Strength, Type 3 ASTM C150, Add	10.50	
	03MOD-0022	For Lightweight Aggregate, ASTM C330, Add	31.50	
	03MOD-0023	For Up To 20, Add	19.81	
	03MOD-0024	For > 20 To 50, Add	7.43	
	03MOD-0025	For > 100 To 200, Deduct	-3.09	
	03MOD-0026	For > 200 To 400, Deduct	-6.18	
	03MOD-0027	For > 400, Deduct	-9.27	
03311-0014	CY	Up To 6", By Direct Chute, Place 3000 PSI Concrete Slab On Grade	134.57	
	03MOD-0010	For 2000 PSI Concrete, Deduct	-5.67	
	03MOD-0011	For 2500 PSI Concrete, Deduct	-2.84	
	03MOD-0012	For 3500 PSI Concrete, Add	5.25	
	03MOD-0013	For 3750 PSI Concrete, Add	7.14	
	03MOD-0014	For 4000 PSI Concrete, Add	9.03	
	03MOD-0015	For 4500 PSI Concrete, Add	10.50	
	03MOD-0016	For 5000 PSI Concrete, Add	11.97	
	03MOD-0017	For 6000 PSI Concrete, Add	28.35	
	03MOD-0018	For 7500 PSI Concrete, Add	70.40	
	03MOD-0019	For White Cement Concrete, Add	12.60	
	03MOD-0020	For High Sulfate Resistance, Type 5 Cement Concrete ASTM C150, Add	13.65	
	03MOD-0021	For High Early Strength, Type 3 ASTM C150, Add	10.50	
	03MOD-0022	For Lightweight Aggregate, ASTM C330, Add	31.50	
	03MOD-0023	For Up To 20, Add	11.83	
	03MOD-0024	For > 20 To 50, Add	4.44	
	03MOD-0025	For > 100 To 200, Deduct	-2.69	
	03MOD-0026	For > 200 To 400, Deduct	-5.38	
	03MOD-0027	For > 400, Deduct	-8.07	
03311-0015	CY	>6", By Direct Chute, Place 3000 PSI Concrete Slab On Grade	127.44	
	03MOD-0010	For 2000 PSI Concrete, Deduct	-5.67	
	03MOD-0011	For 2500 PSI Concrete, Deduct	-2.84	
	03MOD-0012	For 3500 PSI Concrete, Add	5.25	
	03MOD-0013	For 3750 PSI Concrete, Add	7.14	
	03MOD-0014	For 4000 PSI Concrete, Add	9.03	
	03MOD-0015	For 4500 PSI Concrete, Add	10.50	
	03MOD-0016	For 5000 PSI Concrete, Add	11.97	
	03MOD-0017	For 6000 PSI Concrete, Add	28.35	
	03MOD-0018	For 7500 PSI Concrete, Add	70.40	
	03MOD-0019	For White Cement Concrete, Add	12.60	
	03MOD-0020	For High Sulfate Resistance, Type 5 Cement Concrete ASTM C150, Add	13.65	
	03MOD-0021	For High Early Strength, Type 3 ASTM C150, Add	10.50	
	03MOD-0022	For Lightweight Aggregate, ASTM C330, Add	31.50	
	03MOD-0023	For Up To 20, Add	8.98	
	03MOD-0024	For > 20 To 50, Add	3.37	
	03MOD-0025	For > 100 To 200, Deduct	-2.55	
	03MOD-0026	For > 200 To 400, Deduct	-5.10	
	03MOD-0027	For > 400, Deduct	-7.65	
03311-0016	CY	Up To 6", By Concrete Pump, Place 3000 PSI Concrete Slab On Grade	138.39	
		Note: Excludes pumping equipment.		
	03MOD-0010	For 2000 PSI Concrete, Deduct	-6.14	
	03MOD-0011	For 2500 PSI Concrete, Deduct	-3.07	
	03MOD-0012	For 3500 PSI Concrete, Add	5.69	
	03MOD-0013	For 3750 PSI Concrete, Add	7.74	
	03MOD-0014	For 4000 PSI Concrete, Add	9.78	
	03MOD-0015	For 4500 PSI Concrete, Add	11.38	
	03MOD-0016	For 5000 PSI Concrete, Add	12.97	
	03MOD-0017	For 6000 PSI Concrete, Add	30.71	
	03MOD-0018	For 7500 PSI Concrete, Add	76.27	
	03MOD-0019	For White Cement Concrete, Add	13.65	
	03MOD-0020	For High Sulfate Resistance, Type 5 Cement Concrete ASTM C150, Add	14.79	
	03MOD-0021	For High Early Strength, Type 3 ASTM C150, Add	11.38	
	03MOD-0022	For Lightweight Aggregate, ASTM C330, Add	34.13	
	03MOD-0023	For Up To 20, Add	9.86	
	03MOD-0024	For > 20 To 50, Add	3.70	
	03MOD-0025	For > 100 To 200, Deduct	-2.77	
	03MOD-0026	For > 200 To 400, Deduct	-5.54	
	03MOD-0027	For > 400, Deduct	-8.30	

03000 Concrete**03300 Cast-In-Place Concrete****03311 Normal Weight Structural Concrete**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
03311-0017 CY >6", By Concrete Pump, Place 3000 PSI Concrete Slab On Grade Note: Excludes pumping equipment.	132.45	
03MOD-0010 For 2000 PSI Concrete, Deduct	-6.14	
03MOD-0011 For 2500 PSI Concrete, Deduct	-3.07	
03MOD-0012 For 3500 PSI Concrete, Add	5.69	
03MOD-0013 For 3750 PSI Concrete, Add	7.74	
03MOD-0014 For 4000 PSI Concrete, Add	9.78	
03MOD-0015 For 4500 PSI Concrete, Add	11.38	
03MOD-0016 For 5000 PSI Concrete, Add	12.97	
03MOD-0017 For 6000 PSI Concrete, Add	30.71	
03MOD-0018 For 7500 PSI Concrete, Add	76.27	
03MOD-0019 For White Cement Concrete, Add	13.65	
03MOD-0020 For High Sulfate Resistance, Type 5 Cement Concrete ASTM C150, Add	14.79	
03MOD-0021 For High Early Strength, Type 3 ASTM C150, Add	11.38	
03MOD-0022 For Lightweight Aggregate, ASTM C330, Add	34.13	
03MOD-0023 For Up To 20, Add	7.48	
03MOD-0024 For > 20 To 50, Add	2.81	
03MOD-0025 For > 100 To 200, Deduct	-2.65	
03MOD-0026 For > 200 To 400, Deduct	-5.30	
03MOD-0027 For > 400, Deduct	-7.95	
03311-0018 Place Concrete Slurry (03311-0002)		
Note: 2 bag cement per CY.		
03311-0019 CY Direct Chute, Place 1200 PSI Concrete Slurry	156.88	
03311-0020 CY Concrete Pump, Place 1200 PSI Concrete Slurry	146.03	
Note: Excludes pumping equipment.		
03311-0021 Hand Mix And Place Concrete (03311-0002)		
03311-0022 CF Hand Mix And Place Concrete	23.96	
Note: For use where conventional equipment access is limited or when directed by the owner.		
03MOD-0010 For 2000 PSI Concrete, Deduct	-0.24	
03MOD-0011 For 2500 PSI Concrete, Deduct	-0.12	
03MOD-0012 For 3500 PSI Concrete, Add	0.22	
03MOD-0013 For 3750 PSI Concrete, Add	0.31	
03MOD-0014 For 4000 PSI Concrete, Add	0.39	
03MOD-0015 For 4500 PSI Concrete, Add	0.45	
03MOD-0016 For 5000 PSI Concrete, Add	0.51	
03MOD-0017 For 6000 PSI Concrete, Add	1.21	
03MOD-0018 For 7500 PSI Concrete, Add	3.01	
03MOD-0019 For White Cement Concrete, Add	0.54	
03MOD-0020 For High Sulfate Resistance, Type 5 Cement Concrete ASTM C150, Add	0.58	
03MOD-0021 For High Early Strength, Type 3 ASTM C150, Add	0.45	
03MOD-0022 For Lightweight Aggregate, ASTM C330, Add	1.35	
03311-0023 Concrete Pumping With Boom Truck (03311-0001)		
Note: Includes truck rental, operator, and local travel delivery. For set-up of equipment add one hour, for clean-up of equipment add one hour. Use four hours as the minimum cost including set-up and clean-up. Excludes concrete, use "Concrete Pump" concrete tasks from appropriate section to place into pump hopper and place concrete. Sizes are measured at a 30 degree vertical reach.		
03311-0024 HR 75' Boom Truck For Concrete Placement (70 CY Per Hour Rating)	155.59	
03311-0025 HR 92' Boom Truck For Concrete Placement (70 CY Per Hour Rating)	177.27	
03311-0026 HR 105' Boom Truck For Concrete Placement (90 CY Per Hour Rating)	198.95	
03311-0027 HR 120' Boom Truck For Concrete Placement (90 CY Per Hour Rating)	240.96	
03311-0028 HR 138' Boom Truck For Concrete Placement (100 CY Per Hour Rating)	303.29	
03311-0029 HR 150' Boom Truck For Concrete Placement (100 CY Per Hour Rating)	329.71	
03311-0030 HR 170' Boom Truck For Concrete Placement (100 CY Per Hour Rating)	356.14	
03311-0031 HR Trailer Mounted Concrete Pump	132.44	
Note: Includes hoses		
03311-0032 Concrete Carts (03311-0001)		
Note: Used to place concrete were necessary.		
03311-0033 CY 50' Haul, Non-Motorized, Concrete Buggy	18.02	
03311-0034 CY 150' Haul, Non-Motorized, Concrete Buggy	24.13	
03311-0035 CY 250' Haul, Non-Motorized, Concrete Buggy	32.18	
03311-0036 CY 50' Haul, Motorized, Concrete Buggy	8.76	
03311-0037 CY 150' Haul, Motorized, Concrete Buggy	11.73	
03311-0038 CY 250' Haul, Motorized, Concrete Buggy	15.64	
03311-0039 Delivery Fee For Small Purchases (03311)		
03311-0040 CY Delivery Fee For Concrete Purchases Per CY For Each CY Less Than 9 CY	15.47	
Note: The task quantity is (9 minus the number of CY's delivered) times the number CY's delivered. For example, the delivery fee for 2CY's is: (9-2) x 2 = 14.		
03311-0041 Equipment Pads (03311)		
03311-0042 Small Concrete Equipment Housekeeping Pad Assemblies (03311-0041)		
Note: Includes forms, hand mix concrete, finish, curing and reinforcing. For up to 50 SF per pad and up to 5 pads per project.		
03311-0043 SF 4" Equipment Pad With Wire Mesh	12.22	
03311-0044 SF 4" Equipment Pad With Rebar	15.12	



Concrete		03000	CS
Cast-In-Place Concrete		03300	
Normal Weight Structural Concrete		03311	

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
03311-0045	SF	6" Equipment Pad With Rebar.....	19.03	
03311-0046	SF	8" Equipment Pad With Rebar.....	23.93	
03311-0047 Floor Hardeners (03311)				
03311-0048	SF	Floor Hardener, Metallic, Light Duty 0.3 LB/SF.....	0.82	
03311-0049	SF	Floor Hardener, Metallic, Heavy Duty 0.65 LB/SF.....	1.25	
03311-0050	SF	Floor Hardener, Non-Metallic, Light Duty 0.3 LB/SF.....	0.78	
03311-0051	SF	Floor Hardener, Non-Metallic, Heavy Duty 0.65 LB/SF.....	0.93	
03360 Special Concrete Finishes (03360)				
03360-0001 Exposed Aggregate Concrete Finish (03360)				
03360-0002	SF	Exposed Aggregate Concrete Floor Finish.....	2.25	
03360-0003 Rusticated Concrete Finish (03360)				
03360-0004	SF	Rusticated Concrete Finish, Beveled Edge, 1 Use, Add To Formwork.....	4.48	
03360-0005	SF	Rusticated Concrete Finish, Square Edge, 1 Use, Add To Formwork.....	5.88	
03360-0006 Solid Board Concrete Finish (03360)				
03360-0007	SF	Solid Board Concrete, Non-Uniform Finish, 1 Use, Add To Formwork.....	9.76	
03360-0008 Grooved Concrete Surface (03360)				
03360-0009 Handicapped Ramps (03360-0008)				
03360-0010	SF	Concrete Grooving For Handicapped Ramps.....	3.11	
03360-0011 Marblecrete Finishes (03360)				
03360-0012	SF	2" Thick Marblecrete And Finish.....	25.54	
03360-0013	SF	4" Thick Marblecrete And Finish.....	34.26	
03370 Specially Placed Concrete (03370)				
Note: Includes gun finish. Not to be used for pumping concrete tasks.				
03370-0001 Gunite (Dry Mix Shotcrete), Sprayed (03370)				
See CSI section 03220-0001 for wire mesh reinforcing.				
03370-0002	SF	1" Thick Gunite.....	3.32	
	03MOD-0028	For Radius Or Irregular Surface, Add	0.78	
	03MOD-0029	For Up To 25 SF, Add	0.62	
	03MOD-0030	For > 25 To 50 SF, Add	0.36	
	03MOD-0031	For > 50 To 150 SF, Add	0.15	
03370-0003	SF	2" Thick Gunite.....	6.63	
	03MOD-0028	For Radius Or Irregular Surface, Add	1.56	
	03MOD-0029	For Up To 25 SF, Add	1.25	
	03MOD-0030	For > 25 To 50 SF, Add	0.72	
	03MOD-0031	For > 50 To 150 SF, Add	0.29	
03370-0004	SF	3" Thick Gunite.....	9.98	
	03MOD-0028	For Radius Or Irregular Surface, Add	2.35	
	03MOD-0029	For Up To 25 SF, Add	1.88	
	03MOD-0030	For > 25 To 50 SF, Add	1.09	
	03MOD-0031	For > 50 To 150 SF, Add	0.44	
03370-0005	SF	4" Thick Gunite.....	13.26	
	03MOD-0028	For Radius Or Irregular Surface, Add	3.11	
	03MOD-0029	For Up To 25 SF, Add	2.49	
	03MOD-0030	For > 25 To 50 SF, Add	1.44	
	03MOD-0031	For > 50 To 150 SF, Add	0.58	
03390 Concrete Curing (03390)				
03390-0001 Curing Materials And Compounds (03390)				
03390-0002	CSF	Concrete Curing, 7.5 Oz Burlap, 4 Uses.....	27.80	
03390-0003	CSF	Concrete Curing, 9 Oz Burlap, 4 Uses.....	27.92	
03390-0004	CSF	Concrete Curing, 12 Oz Burlap, 4 Uses.....	29.64	
03390-0005	CSF	Concrete Curing, Waterproof Paper, 2 Ply Reinforced.....	26.55	
03390-0006	CSF	Concrete Curing, Sprayed Membrane Curing Compound.....	20.27	
03390-0007	CSF	Curing Paper.....	8.55	
03390-0008	GAL	Curing Compound, 200 To 400 SF/Gallon, 55 Gallon lots.....	9.54	
03390-0009	GAL	Curing Compound, 200 To 400 SF /Gallon, 5 Gallon lots.....	10.69	
03390-0010	GAL	Curing Compound, Premium Grade, 450 SF/Gallon, 55 Gallon Lots.....	16.08	
03390-0011	GAL	Curing Compound, Premium Grade, 450 SF/Gallon, 5 Gallon Lots.....	17.78	
03390-0012	GAL	Dustproof Compound, 200 To 600 SF/Gallon, 55 Gallon Lots.....	9.74	
03390-0013	GAL	Dustproof Compound, 200 To 600 SF/Gallon, 5 Gallon Lots.....	11.17	
03390-0014	GAL	Epoxy Dustproof, Clear, 300 To 400 SF/Coat, Or Transparent, 400 To 600 SF/Coat.....	70.16	

03600 Grout (03600)

03000 Concrete**03600 Grout****03610 Grouting For Bases**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

03610 Grouting For Bases (03600)**03610-0001 Nonshrink, Metallic Grout** (03610)

03610-0002	SF	1" Deep Nonshrink Metallic Grout, For Grouting Bases	22.13
03610-0003	SF	2" Deep Nonshrink Metallic Grout, For Grouting Bases	33.96

03610-0004 Fluid Type, Nonmetallic (03610)

03610-0005	SF	1" Deep Fluid Type Nonmetal Grout, For Grouting Bases.....	16.98
03610-0006	SF	2" Deep Fluid Type Nonmetal Grout, For Grouting Bases.....	24.94

03610-0007 Nonshrink, Nonmetallic Grout (03610)

03610-0008	SF	1" Deep Nonshrink Nonmetallic Grout, For Grouting Bases.....	25.92
03610-0009	SF	2" Deep Nonshrink Nonmetallic Grout, For Grouting Bases.....	41.31

03620 Grouting For Joints (03600)**03620-0001 Nonshrink, Metallic Grout For Joints** (03620)**03620-0002 1/2" (13 mm) Joint Thickness** (03620-0001)

03620-0003	LF	1/2" x 4" Wide Nonshrink Metallic Joint For Grouting Joints.....	1.19
03620-0004	LF	1/2" x 6" Wide Nonshrink Metallic Joint For Grouting Joints.....	1.51
03620-0005	LF	1/2" x 8" Wide Nonshrink Metallic Joint For Grouting Joints.....	2.00

03620-0006 1" (25 mm) Joint Thickness (03620-0001)

03620-0007	LF	1" x 4" Wide Nonshrink Metallic Joint For Grouting Joints.....	1.63
03620-0008	LF	1" x 6" Wide Nonshrink Metallic Joint For Grouting Joints.....	2.05
03620-0009	LF	1" x 8" Wide Nonshrink Metallic Joint For Grouting Joints.....	2.74

03620-0010 Nonshrink, Nonmetallic Grout For Joints (03620)**03620-0011 1/2" (13 mm) Joint Thickness** (03620-0010)

03620-0012	LF	1/2" x 4" Wide Nonshrink Non-Metallic Joint For Grouting Joints.....	1.43
03620-0013	LF	1/2" x 6" Wide Nonshrink Non-Metallic Joint For Grouting Joints.....	1.87
03620-0014	LF	1/2" x 8" Wide Nonshrink Non-Metallic Joint For Grouting Joints.....	2.46

03620-0015 1" (25 mm) Joint Thickness (03620-0010)

03620-0016	LF	1" x 4" Wide Nonshrink Non-Metallic Joint For Grouting Joints.....	2.09
03620-0017	LF	1" x 6" Wide Nonshrink Non-Metallic Joint For Grouting Joints.....	2.76
03620-0018	LF	1" x 8" Wide Nonshrink Non-Metallic Joint For Grouting Joints.....	3.68

03630 Flowable Grout (03600)**03630-0001 Flowable Grout** (03630)

03630-0002	CY	Flowable Grout.....	291.22
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03640 Pressure Grouting Voids (03600)**03640-0001 Pressure Injected Grouting** (03640)

Note: By volume of void filled. Includes injection ports.

03640-0002	CF	Pressure Injected Epoxy Grout.....	733.18
03640-0003	CF	Pressure Injected Cementitious Grout.....	102.19

03900 Concrete Restoration And Cleaning (03000)**03911 Concrete Abrasive Blasting By Mechanical Methods** (03900)**03911-0001 Abrasive Blasting** (03911)

Note: Includes containment and clean-up of all material.

03911-0002	SF	Mechanical Concrete Sand Blasting, Heavy Penetration, Walls, Various Finish Textures.....	8.00
03911-0003	SF	Mechanical Concrete Sand Blasting, Heavy Penetration, Floors, Various Finish Textures.....	4.89
03911-0004	SF	Machine Concrete Shot Blasting (Beads, Steel Balls, Etcetera) Floors, Various Finish Textures.....	3.62

03911-0005 Water Blasting (03911)

03911-0006	SF	Water Blast Concrete, Up To 5,000 PSI.....	0.35
03911-0007	SF	Water Blast Concrete, 10,000 - 12,000 PSI	1.03
03911-0008	SF	Water Blast Concrete, 30,000 - 40,000 PSI	1.73

03920 Concrete Resurfacing/Repair (03900)**03920-0001 High Strength Shotcrete Repair For Small Areas** (03920)



		Concrete 03000	CS
		Concrete Restoration And Cleaning 03900	
		Concrete Resurfacing/Repair 03920	

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
Note: For isolated, small area repairs of underside of bridge decks, bridge columns, and other concrete members. Includes troweled finish. Excludes chipping, sandblasting, and protection of existing surfaces.				
03920-0002		High Strength Shotcrete Repair For Small Areas (03920-0001)		
03920-0003	EA	Mobilize Small Area High Strength Shotcrete Repair Crew.....	557.14	
	03MOD-0032	For Up To 25 SF, Add.....	278.57	
	03MOD-0033	For > 25 To 50 SF, Add.....	139.29	
	03MOD-0034	For > 50 To 150 SF, Add.....	55.71	
03920-0004	SF	Small Area High Strength Shotcrete Repair, Up to 2" Thick.....	42.76	
	03MOD-0032	For Up To 25 SF, Add.....	20.90	
	03MOD-0033	For > 25 To 50 SF, Add.....	10.45	
	03MOD-0034	For > 50 To 150 SF, Add.....	4.18	
03920-0005	SF	Small Area High Strength Shotcrete Repair, Up to 4" Thick.....	50.70	
	03MOD-0032	For Up To 25 SF, Add.....	24.38	
	03MOD-0033	For > 25 To 50 SF, Add.....	12.19	
	03MOD-0034	For > 50 To 150 SF, Add.....	4.88	
03920-0006	SF	Small Area High Strength Shotcrete Repair, Up to 6" Thick.....	58.64	
	03MOD-0032	For Up To 25 SF, Add.....	27.86	
	03MOD-0033	For > 25 To 50 SF, Add.....	13.93	
	03MOD-0034	For > 50 To 150 SF, Add.....	5.57	
03920-0007		Concrete Repair (03920)		
03920-0008		Decks Or Floors (03920-0007)		
Note: Includes bonding agent and sealant. Excludes saw cutting, sand blasting and forming.				
03920-0009	SF	Patch Floors, 1/8" To 1/4", Cementitious Patching Mortar.....	4.25	
03920-0010	SF	Patch Floors, 1/8" To 1/4", Epoxy Cementitious Patching Mortar.....	13.38	
03920-0011	SF	Patch Floors, White Aluminum Oxide Grit (Non-Slip Aggregate).....	0.38	
03920-0012	SF	WABO HSC Gravity Fed Crack Filler - Horizontal Surfaces.....	4.16	
03920-0013		Verticals Or Overheads (03920-0007)		
Note: Includes bonding agent and sealant. Excludes saw cutting, sand blasting and forming.				
03920-0014	SF	Patch With 1/8" To 1/4" Cementitious Patching Mortar.....	6.39	
03920-0015	SF	Patch With 1/8" To 1/4" Epoxy Cementitious Patching Mortar.....	18.36	
03920-0016	SF	Patch With 1/8" To 1/4" Latex Cementitious Patching Mortar.....	20.66	
03920-0017	SF	Patch Verticals Or Overheads With 1/8" To 1/4" Elastomeric Patching Compound.....	5.03	
03920-0018	SF	Patch Verticals Or Overheads With 1/8" To 1/4" Copolymer Cementitious Compound.....	7.11	
Note: Rapid Set - Wunderfixx				
03920-0019		Bridge Deck Treatment (03920-0007)		
03920-0020	SF	Sweep Bridge Deck.....	0.01	
03920-0021	SF	Clean Bridge Deck.....	0.01	
03920-0022	SF	Treat Bridge Deck With Methacrylate Resin Sealant.....	1.19	
03930		Concrete Rehabilitation (03900)		
03930-0001		Crack Repair For Concrete (03930)		
Note: Includes chipping, injection ports, sand blasting, cleaning and debris removal.				
03930-0002	LF	Epoxy Injection, Up To 1/4" Wide.....	38.48	
03930-0003	LF	Epoxy Injection, Over 1/4" Wide.....	51.50	
03930-0004	LF	Latex Injection, Up To 1/4" Wide.....	30.73	
03930-0005	LF	Latex Injection, Over 1/4" Wide.....	41.00	
03930-0006	LF	Urethane Grout Injection Including Oakum Rope.....	51.78	
03930-0007	SF	Repair Cracks And Seals On Concrete, Includes Removal Of Concrete To 1/2" Depth, Surface Preparation And Cleaning, Repair Of Surface, Grout And Finish.....	83.48	
Note: Includes removal of concrete to 1/2" depth, surface preparation, cleaning, repair of surface, grout and finish.				
03930-0008		Corrosive Inhibitor (03930)		
03930-0009	SF	Corrosive Inhibitor.....	2.80	

END OF SECTION 03

03	03000	Concrete
	03900	Concrete Restoration And Cleaning
	03930	Concrete Rehabilitation



MINOR			TOTAL DIRECT	DEMOLITION
CSI	UOM	DESCRIPTION	UNIT COST	UNIT COST

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