

Practice: 558 - Roof Runoff Structure

Scenario # 1 Concrete Curb

Scenario Description:

Louisiana

A roof runoff structure, consisting of a concrete curb or parabolic channel installed on existing impervious surface or the ground with appropriate outlet facilities. Environmental/design considerations, for example – snow loads, or a building without proper structural support needed for gutters dictate the use of an on-ground concrete curb. Used to keep roof clean water runoff uncontaminated and provide a stable outlet to ground surface. Facilitates waste management and protects the environment by minimizing clean water additions to waste systems and addresses water quality concerns.

Associated practices include Waste Storage Facility (313), Composting Facility (317), Heavy Use Area Protection (561), Underground Outlet (620), and Diversion (362).

Before Practice Situation:

Applicable where: (1) a roof runoff management facility is included in an overall plan for an overall plan for a waste management system; (2) roof runoff needs to be diverted away from structures or contaminated areas; (3) there is a need to collect, control, and transport runoff from roofs to a stable outlet.

After Practice Situation:

A concrete curb or parabolic channel and outlet system servicing the portion of the building roof that would otherwise drain into a waste management system or create erosion. Concrete curb (6" high - 2' wide) extending the length of a 200' roof with additional length (5') for stable outlet.

Scenario Feature Measure:

Linear Length of Roof to be Curbed

Scenario Typical Size:	200	Linear Feet	Unit Cost	\$9.09
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Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Aggregate, Gravel, Graded	7	Cubic yard	\$24.23	\$169.61
Materials	Aggregate, Sand, Graded, Washed	7	Cubic yard	\$23.31	\$163.17
Equip./Install.	Geotextile, woven	16	Square Yard	\$2.13	\$34.08
Equip./Install.	Excavation, Common Earth, side cast, small equipment	30	Cubic yard	\$1.80	\$54.00
Equip./Install.	Hauling, bulk, highway truck	60	Cubic Yard Mile	\$0.25	\$15.00
Equip./Install.	Demolition, concrete	6	Cubic Yard	\$14.12	\$84.72
Equip./Install.	Concrete, CIP, formless, non reinforced	10	Cubic yard	\$102.99	\$1,029.90
Mobilization	Mobilization, medium equipment	2	Each	\$133.51	\$267.02
				Total Cost:	\$1,817.50

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Scenario # 2 Trench Drain

Scenario Description:

Louisiana

A roof runoff structure, consisting of a trench filled with rock, with a polyethylene, corrugated, perforated drain tile installed in trench bottom. Used to keep roof clean water runoff uncontaminated and provide a stable outlet to ground surface. Environmental/design considerations, for example – snow loads, or a building without proper structural support needed for gutters dictate the use of a trench drain. Facilitates waste management and protects the environment by minimizing clean water additions to waste systems and addresses water quality concerns. Associated practices include Waste Storage Facility (313), Composting Facility (317), Heavy Use Area Protection (561), Underground Outlet (620), and Diversion (362).

Before Practice Situation:

Applicable where: (1) a roof runoff management facility is included in an overall plan for an overall plan for a waste management system; (2) roof runoff needs to be diverted away from structures or contaminated areas; (3) there is a need to collect, control, and transport runoff from roofs to a stable outlet.

After Practice Situation:

A 2' deep by 3' wide by 200 long deep rock filled, tile drained trench and outlet system servicing the portion of the building roof that would otherwise drain into a waste management system or create erosion.

Scenario Feature Measure:

Linear Length of Roof to be Drained

Scenario Typical Size:	200	Linear Feet	Unit Cost	\$10.87
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Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Aggregate, Gravel, Graded	40	Cubic yard	\$24.23	\$48.46
Materials	Pipe, PVC, 8", SDR 41	220	Foot	\$5.34	\$1,174.80
Equip./Install.	Geotextile, woven	400	Square Yard	\$2.13	\$852.00
Equip./Install.	Excavation, Common Earth, side cast, small equipment	55	Cubic yard	\$1.80	\$99.00
Mobilization	Mobilization, small equipment	2	Each	\$91.12	\$0.00
				Total Cost:	\$2,174.26

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Scenario # 3 Roof Gutter

Scenario Description:

Louisiana

A roof runoff structure, consisting of gutter(s), downspout(s), and appropriate outlet facilities. Used to keep roof clean water runoff uncontaminated and provide a stable outlet to ground surface. Facilitates waste management and protects environment by minimizing clean water additions to waste systems and addresses water quality concerns.

Associated practices include Waste Storage Facility (313), Composting Facility (317), Heavy Use Area Protection (561), Watering Facility (614), Underground Outlet (620), Diversion (362), and any relevant irrigation practices.

Before Practice Situation:

Applicable where: (1) a roof runoff management facility is included in an overall plan for an overall plan for a waste management system; (2) roof runoff needs to be diverted away from structures or contaminated areas; (3) there is a need to collect, control, and transport runoff from roofs to a stable outlet.

After Practice Situation:

A gutter, downspout, and outlet system servicing the portion of the building roof that would otherwise drain into a waste management system or create erosion. Roof line of 200 ft serviced with gutter, downspouts, and appurtances.

Scenario Feature Measure:

Linear Length of Roof to be Guttered

Scenario Typical Size:	200	Linear Feet	Unit Cost	\$19.36
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Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Materials	Gutter, Galvanized Steel, Medium	200	Foot	\$9.51	\$1,902.00
Materials	Pipe, PVC, 8", SCH 40	100	Foot	\$8.08	\$808.00
Materials	Pipe, PVC, 8", SDR 41	100	Foot	\$5.34	\$534.00
Labor	General Labor	24	Hour	\$18.57	\$445.68
Mobilization	Mobilization, small equipment	2	Each	\$91.12	\$182.24
				Total Cost:	\$3,871.92