

**APPLICATION AND AGREEMENT FOR RIGHT OF WAY ENCROACHMENT
for CULVERT INSTALLATION**

Applicant Name _____ Contact Phone# _____

Address/Location of Property to Proposed Project: _____

Name and Mailing Address of Person, Contractor or Entity Performing Work:

Name of Property Owner(s): _____ Phone # _____

Mailing Address of Property Owner(s): _____

Please describe and **provide a detailed drawing of the type of work to be performed** (whether it be construction, installation, excavation, modification, improvement, extension or repair of culvert) and generally describe the manner in which the work is to be done:

A non-refundable permit fee of \$50 (fifty dollars) shall be collected at the time of application. A \$500 deposit will be required and retained for Engineering costs and inspections and shall be paid at the time of the application.

The applicant hereby acknowledges that the permittee has the duty to keep the site safe at all times and to perform work in a manner required by City ordinances and other applicable laws. All repairs to and restoration of property within the right-of-way shall be done by permittee.

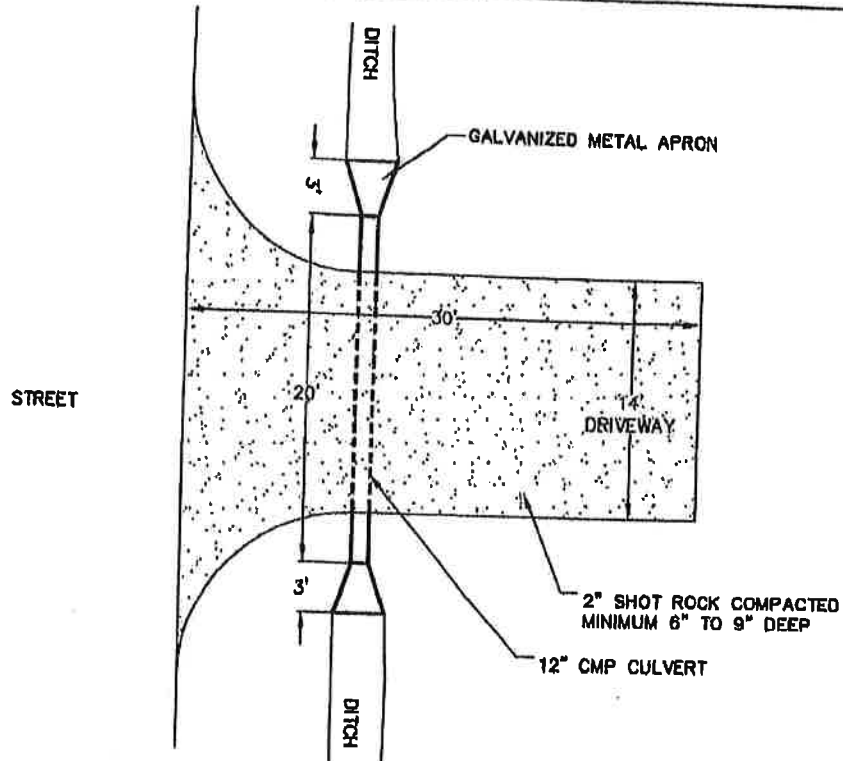
Applicant/permittee hereby covenants to protect the City and save the City harmless from all claims, actions or damages of every kind and description which may accrue to or be suffered by any person or persons, corporation, or property by reason of the performance of any work done under this permit, character of materials used, or manner of installation, maintenance and operation, or by the improper occupancy of right-of-way or public place or public structure, and in case any suit or action is brought against said City for damages arising out of, or by reason of any of the work or construction done under this permit, the applicant/permittee, its successors or assigns will, upon notice to it of commencement of such action defend the City, its employees, officers and agents, at applicant/permitted sole cost and expense and will satisfy any judgment after said permit or action shall have been finally determined, if adverse to the City.

BEFORE PROCEEDING WITH ANY UNDERGROUND EXCAVATION, YOU ARE REQUIRED BY STATE LAW TO PROVIDE 48 HOURS NOTICE TO ALL AGENCIES WHICH OWN OR OPERATE UNDERGROUND UTILITIES (I.C. § 55-2203). CALL BEFORE YOU DIG 811

APPLICANT AGREES TO COMPLY WITH ALL CONDITIONS.

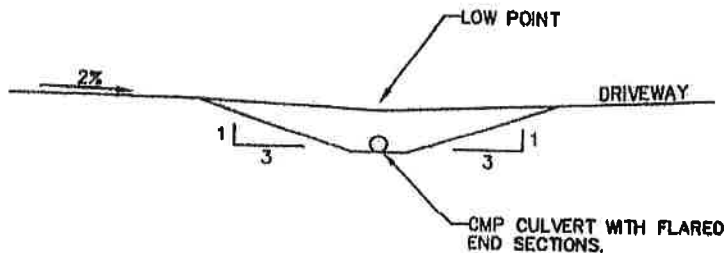
Applicant Signature

Date



PLAN VIEW

SCALE: 1" = 10'



SECTION VIEW

SCALE: 1" = 10'

NOTES:

1. GRADING / DEPTH OF THE CULVERT SHALL MATCH THE DITCH BOTTOM UNLESS DIRECTED OTHERWISE BY THE CITY ENGINEER.
2. CULVERT MATERIAL SHALL BE CORRUGATED METAL PIPE.
3. CULVERT DIAMETER SHALL BE 12-INCH UNLESS A LARGER SIZE IS DETERMINED BY THE CITY ENGINEER.
4. CULVERT SHALL BE BEDDED IN WASHED DRAIN ROCK, PEA GRAVEL OR APPROVED SHOT ROCK. BACKFILL SHALL BE COURSE GRAVEL OR APPROVED SHOT ROCK.
5. FLARED END SECTIONS SHALL BE INSTALLED ON THE INLET AND OUTLET OF THE PIPE.
6. NO CULVERT SHALL BE MORE THAN 20- FEET IN LENGTH WITH WRITTEN APPROVAL OF THE CITY.

REVISION	DATE	CITY OF KOOTENAI	APPROVED BY	
ORIGINAL	4/20/2011		<i>[Signature]</i>	
		TYPICAL CULVERT INSTALLATION	9/7/2011	
			CITY ENGINEER	DATE
			DWG NO.	CULVERT.DWG

Benefits of Culvert Aprons

Aprons are a structural reinforcement of the pipe to protect the inlet and outlet from damage and distortion so that it can perform at peak capacity.

Improves flow capacity of the culvert by increasing the area of the inlet, and reduces friction at the inlet. More water is conveyed through the culvert before the culvert fills. Aprons increase the upstream storage capacity of the entrance pool to absorb larger peak flow.

Aprons reduce the entrance and exit velocity to reduce the erosive force of storm water flowing through a culvert.

Traffic safety is enhanced as the entrance of the shoulder fill and pipe are sloped to reduce the impact of a vehicle so it doesn't come to a sudden and forceful stop. Aprons minimize the sharp protruding end of pipes.

Aprons tend to keep the ends of the pipe from being overgrown with vegetation, thereby reducing clogging and lowering maintenance.

As with vegetation, aprons keep sediment and other coarse material away from the pipe inlet reducing plugging and maintenance.

Culverts with aprons are easier to view and to maintain.

Detriments of Culvert Aprons

They cost a little more money to install

Culvert Supply Information

The following contains information for suppliers and current cost estimates for 16 gauge, 12" corrugated metal culvert materials. Typically any size other than 10ft and 20ft lengths will need to be special ordered.

Consolidated Supply Co. – Ponderay 12" @ \$14.837ft / Flared Ends @ \$124.76 ea
1802 Industrial Way (current price for all lengths in 2ft increments)
Sandpoint, ID 83864 Coupler @ 35.08 ea

208-263-8561

Contech Construction Suppliers 12" @ \$11.41ft / Flared Ends @ \$62.38 ea
2823 S. Craig Rd. (current price for all lengths in 2' increments)
Airway Heights, WA 99001 Coupler @ \$22.82
509-244-3693

Sandpoint Building Supply - Ponderay
477421 Hwy 95 North 12" X 10' = \$144.34 / Flared Ends @ \$90.00 ea
Sandpoint, ID 83864 12" X 20' = \$288.78 Coupler @ 32.91
208-263-5119 (current price for all lengths in 2ft increments @ \$14.43 per ft)

Arrow Construction Supply 12" @ 13.50ft / Flared Ends @ \$85.00 ea
477227 Hwy 95 North (current price for all lengths in 2ft increments)
Ponderay ID 83852 Coupler @ 25.00 ea
208-265-2434

Pacific Steel Recycling No Data Available
1000 Triangle Dr.
Ponderay, ID 83852
208-263-2584

NOTE:

Prices are subject to change. Call to confirm price and availability.