

(208) 265-2431
204 Spokane Ave
Kootenai, ID. 83840

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

Applicant Name _____ Contact Phone# _____

Email Address _____

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

Pursuant to the provisions of Ordinance No. 165 of the City of Kootenai, Bonner County, Idaho, and the above Application and Agreement APPROVAL is granted subject to the provisions, conditions and regulations of this permit application of the City of Kootenai for the proposed project, and subject to the Agreement of the Applicant to the terms and conditions set forth in the above Application and Agreement.

CONDITIONS OF APPROVAL:

- 1.) Grading/depth of the culvert shall be determined by the City Engineer.
- 2.) Culvert material shall be Corrugated Metal Pipe (CMP).
- 3.) Culvert diameter shall be 12-inch minimum unless a larger size is determined by the City Engineer.
- 4.) Culverts shall be bedded in washed drain rock, pea gravel or approved shot rock. Backfill of culvert shall be course gravel and/or approved shot rock
- 5.) Flared end sections shall be installed on the inlet and outlet of pipe.
- 6.) No culvert will be more than 20' in length without written approval of the City Engineer.
- 7.) New cut and fill slopes shall be no steeper than 3' horizontal to 1 foot vertical without written approval from the City Engineer.
- 8.) Culvert installations not constructed in accordance with City standards shall be removed and replaced by the applicant within 14 days of notice by the City at the expense of the property owner.

Sewer Lateral requirements _____

Kootenai-Ponderay Sewer District

Date

Approved by City Engineer

Date

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 maintain.

Detriments of Culvert Aprons

- They cost a little more money to install.

Culvert Supply Information

Cost Estimates for the following: 16 Gauge /12" Corrugated metal culvert materials.
Typically, any size larger than 10ft and 20ft lengths will need to be special ordered.

Consolidated Supply Co. – Ponderay (208) 263-8561

1802 Industrial Way

Sandpoint, Idaho 83864

12" @ \$14.837ft / Flared Ends @ \$124.76 ea.

Contech Construction Suppliers (509) 244-3693

2823 S. Craig Rd.

Airway Heights, WA 99001

12" @ \$11.41 ft / Flared Ends @ \$62.38 ea.

Sandpoint Building Supply – Ponderay (208) 263-5119

477421 Hwy 95 North

Sandpoint, Idaho 83864

12" x 10' = \$144.34 / Flared Ends @ \$90.00 ea.

12" x 20' = \$288.78 / Coupler @ \$32.91 (current price for all lengths in 2ft increments @ \$14.43 per ft)

Arrow Construction Supply (208) 265-2434

477227 Hwy 95 Hwy 95 North

Ponderay, Idaho 83852

12" @ 13.50ft / Flared Ends @ \$85.00 ea. / Coupler @ \$25.00 ea.

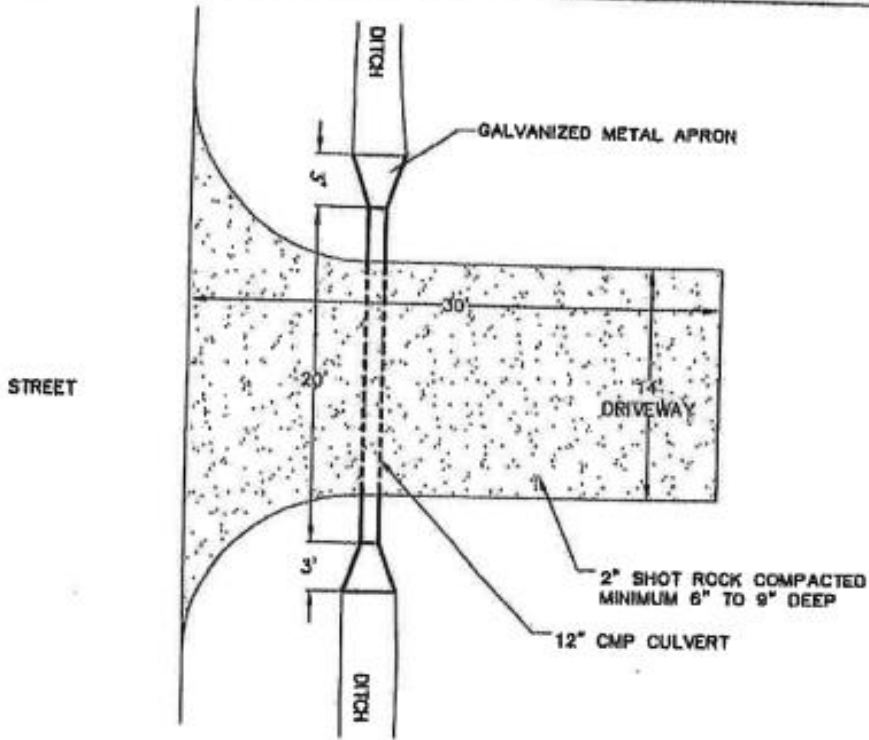
(current price for all lengths in 2ft increments @ \$14.43 per ft)

Pacific Steel Recycling (208) 263-2584 (NO current pricing available)

1000 Triangle Drive.

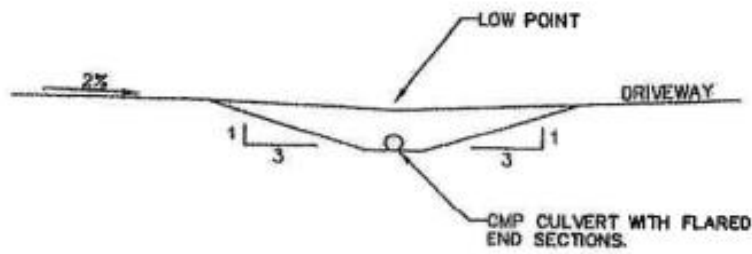
Ponderay, Idaho 83852

NOTE: Prices are subject to change. CALL to confirm updated current pricing and availability.



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		TYPICAL CULVERT INSTALLATION
			CITY ENGINEER DATE
			DWG NO. CULVERT.DWG