

Section 2418. Temporary Stream Diversion

2418.01 DESCRIPTION.

Construct, maintain, and remove temporary stream diversion according to the contract documents. Temporary stream diversion involves diverting flow of a perennial stream around the construction site by use of either a diversion channel, pipe, or hose. Temporary stream diversion applies to projects involving installation or extensions of reinforced box culverts 6 feet by 6 feet (1800 mm by 1800 mm) or larger, precast box culverts 6 feet by 6 feet (1800 mm by 1800 mm) or larger, or arch pipe culverts 102 inches by 62 inches (2590 mm by 1575 mm) or larger.

2418.02 MATERIALS.

A. Impervious Dike.

- Use one of the following:
- Impervious fabric with earth, stone, or other fill material,
- Revetment stone meeting the requirements of [Section 4130](#) with impervious soil or fabric behind the dike,
- Sandbags,
- Sheet piles, or
- Other as approved by the Engineer.

B. Temporary Energy Dissipation.

Revetment stone meeting the requirements of [Section 4130](#).

C. Sediment Control.

Meet the requirements of [Section 2602](#) for silt fence or perimeter and slope sediment control devices.

2418.03 CONSTRUCTION.

A. Temporary Stream Diversion by use of a Pipe or Hose.

This method may include bypass pumping.

1. Set up bypass pump (if used) and temporary pipe or hose. Provide temporary energy dissipation measures at discharge point of temporary outlet pipe or hose. Firmly anchor bypass pump and pipe or hose.
2. Construct impervious dike upstream of work area. When constructing dike, place revetment or impervious fabric prior to placing soil or earth.
3. Construct impervious dike or sediment control device downstream to isolate work area.
4. Routinely inspect bypass pump and temporary pipe or hose to ensure proper operation. Inspect impervious dike(s) for leaks and repair damage. Inspect discharge point for erosion. Install additional temporary energy dissipation material as needed. Ensure flow is adequately diverted through pipe or hose and maintain all elements of the temporary stream diversion throughout period of construction.

5. Immediately after completion of construction in the work area, remove impervious dike(s), bypass pump, temporary pipe or hose, temporary energy dissipation material, and sediment control materials in the stream.

B. Temporary Stream Diversion by use of a Diversion Channel

1. Excavate diversion channel without disturbing existing channel. Install sediment control along top of diversion channel.
2. Connect downstream diversion channel into downstream existing channel. Install temporary energy dissipation measures at discharge point into existing channel.
3. Connect upstream diversion channel into existing channel at upstream side to divert flow into diversion channel.
4. Construct impervious diversion dike in existing channel at upstream side to divert flow into diversion channel. When constructing dike, place revetment or impervious fabric prior to placing soil or earth.
5. Construct impervious dike or other sediment control in existing channel at downstream side to isolate work area.
6. Routinely inspect diversion channel for scour/erosion and sediment loss at channel discharge location. Install rock checks in channel and additional temporary energy dissipation material at outlet as needed. Inspect impervious dikes for leaks and repair damage. Ensure flow is adequately diverted through diversion channel and maintain all elements of temporary stream diversion throughout the period of construction.
7. Immediately after completion of construction in the work area, remove impervious dike(s), temporary energy dissipation material, and sediment control materials in the stream. Divert channel back into existing channel. Backfill and compact diversion channel in accordance with [Article 2107.03, E.](#)

2418.04 METHOD OF MEASUREMENT.

- A. Each Temporary Stream Diversion will be counted.
- B. Sediment control and sediment control removal will be measured according to Article 2602.04 for type of device used.

2418.05 BASIS OF PAYMENT.

- A. Payment will be at contract unit price for each Temporary Stream Diversion. If there is no bid item for temporary stream diversion, it will be paid for according to [Article 1109.03, B.](#) Payment is full compensation for labor, equipment, and materials necessary to construct and remove Temporary Stream Diversion. Payment of 50% of item will be made upon completion of

installation of temporary stream diversion and remaining 50% will be paid upon completion of removal of temporary stream diversion and restoration of work site.

- B.** Sediment control and sediment control removal will be paid for according to [Article 2602.05](#) for type of device used.