

Scope of Work – Roadside Ditch Drainage Improvements

1. Project Overview

The Contractor shall provide all labor, supervision, equipment, materials, transportation, traffic control, and incidentals necessary to excavate, shape, stabilize, and improve the existing drainage ditch in a mountain environment. The completed work shall safely collect and convey runoff, snowmelt, and off-road drainage without ponding, uncontrolled erosion, roadway undermining, or discharge that damages adjacent property or natural resources. Note: Multiple contractors **may** be selected and will be required to work together to adhere to project scope.

Project Location:	BLM property at base of community, Park View, selected areas on Rockport Blvd. selected areas on Crestview/Ridge-top. Map will be provided but is subject to change.
Approximate Ditch Length	Up to 1 mile; as permitted by budget
Culverts	Approximately 3 to 4, 18" culverts across roadways; clean out present culverts
Riprap Rock / Rock	Up to 1 mile; up to 4 to 6 inches deep
LREBOT Owner:	Paul Strader / Mountain Operations
Anticipated Schedule:	Work through end of year; weather permitting and Spring 2027.

2. Preconstruction and Site Preparation

- Inspect the full work area and verify existing drainage paths, ditch outlets, culverts, utilities, property limits, access constraints, unstable slopes, vegetation, and sensitive areas before disturbing the site.
- Confirm the proposed ditch alignment, invert elevations, cross section, rock limits, outlet locations, and tie-in points with the Owner before construction.
- Obtain required permits, utility locates, and agency approvals. Coordinate work affecting public roads, waterways, wetlands, or rights-of-way with the authority having jurisdiction.
- Install temporary erosion, sediment, and water-control measures before excavation. Maintain access for residents, emergency vehicles, and authorized users.
- Photograph existing conditions and protect improvements, survey markers, utilities, fences, trees designated to remain, and adjacent property from damage.
- Make appropriate on-going recommendations to the LREBOT for proper water flows and drainage. Able to anticipate design problems and make recommendations when needed.

3. Excavation, Shaping, and Material Management

- Clear only the vegetation, debris, loose rock, sediment, and obstructions necessary to perform the work. Ability to excavate additional drainage ditches as necessary. Minimize disturbance outside the approved limits.
- Excavate unsuitable, unstable, organic, saturated, or excess material to the lines and grades needed for a continuous, stable drainage channel. Avoid over-excavation and undercutting the roadway, shoulder, cut slope, or embankment.
- Shape the ditch with a uniform bottom and stable side slopes suitable for the soil, anticipated flows, snowmelt, maintenance access, and mountain freeze-thaw conditions. Provide smooth transitions at grade changes, culverts, turnouts, and outlets.
- Maintain positive drainage throughout the ditch. Remove isolated low points, reverse grades, abrupt constrictions, and other conditions that could cause ponding, overtopping, erosion, or ice buildup.

- Stockpile reusable material in an approved location protected from runoff. Haul excess or unsuitable material to a lawful disposal site. Do not side-cast material into drainageways, onto unstable slopes, or beyond the approved disturbance limits.
- Where fill is required, place approved material in controlled lifts, moisture-condition as needed, and compact to produce a firm, nonyielding surface.

4. Ditch Bedding and Rock Lining

- Prepare a firm, smooth subgrade free of loose soil, protrusions, snow, ice, standing water, and debris before installing lining materials.
- Finish the ditch on Rockport Blvd with riprap. Approximately 1 truck load.
- May place clean, durable, angular, well-graded rock or riprap sized for the anticipated flow velocity, ditch slope, and drainage area. Rock containing excessive fines, clay, organic matter, shale, or weathered material is not acceptable.
- May place rock to the specified thickness and limits, with larger pieces keyed into the bed and banks. Choke open voids with smaller rock where needed while maintaining an interlocked, free-draining surface.
- Extend rock protection around bends, concentrated inflow points, culvert ends, grade breaks, and outlets. Key the upstream and downstream ends and outside edges into the soil to reduce undermining and flanking.
- Place rock carefully to avoid road damage.

5. Water Flow, Off-Road Drainage, and Cross-Drainage

- Intercept and direct runoff from uphill slopes, road surfaces, driveways, trails, and other off-road sources into the ditch at stabilized entry points.
- Prevent concentrated inflows from striking bare soil or the ditch bank. Provide rock aprons, energy dissipation, check structures, slope drains, or other approved stabilization where necessary.
- Clean, reset, repair, or replace POA owned culverts and cross-drains identified for the project. Establish positive inlet and outlet flow, adequate cover, stable bedding, sealed joints, and erosion-resistant end treatment. No work should be conducted on privately owned culverts.
- Coordinate ditch grades with culvert inverts. Remove sediment and obstructions that reduce capacity, while avoiding excavation below a stable outlet elevation.
- Provide turnouts, relief drains, or cross-drains where needed to limit flow concentration and prevent ditch overtopping. Discharge water only to stable, approved locations capable of receiving the flow.
- Do not direct runoff onto the travel surface, neighboring property, unstable slopes, septic areas, structures, or unprotected channels. Avoid creating new erosion paths or altering drainage beyond the approved work.
- Maintain existing natural drainage patterns unless a change is shown in the approved design. Keep all conveyances functional during construction and protect the work from forecast storms and snowmelt.

6. Erosion Control and Site Stabilization

- Stabilize disturbed soil promptly using approved seed, mulch, erosion-control blanket, soil binder, rock, or other treatment appropriate to the elevation, season, exposure, and local requirements.
- Use native or Owner-approved seed mixes where revegetation is required. Protect seeded areas from traffic and repair erosion until vegetation is established or the warranty period ends.
- Install straw bales with stakes to reduce future erosion and reduce future maintenance costs; stake into the banks and construct them so flow remains centered and cannot bypass the ditch.
- Remove temporary controls after the contributing area is permanently stabilized, unless the Owner directs otherwise. Repair any resulting disturbance.

7. Mountain Environment, Safety, and Personnel

- Plan operations for steep terrain, limited access, falling-rock hazards, unstable ground, wildlife, sudden weather changes, snow, ice, and seasonal runoff. Use equipment suited to the site and operate within manufacturer limits.

- Provide competent supervision and comply with applicable safety, environmental, fire-prevention, and traffic-control requirements. Keep excavations, stockpiles, and equipment clear of public travel routes where practicable.
- Stop work and notify the Owner if unknown utilities, contaminated materials, cultural resources, unstable slopes, unexpected groundwater, or materially different site conditions are encountered.
- Do not perform earthwork on saturated or frozen subgrade when satisfactory compaction and stabilization cannot be achieved.
- Repair at the Contractor's expense, any damage caused by the work to roads, shoulders, utilities, drainage features, fences, vegetation designated to remain, or adjacent property.
- No personal excavation, driveway, or culvert work for lot owners.

8. Inspection, Testing, and Acceptance

- Work with property management company to notify the Owner before any lot access issues occur.
- Demonstrate continuous drainage by visual inspection and, when requested, a controlled water test. Correct ponding, bypass, erosion, unstable rock, blocked flow, inadequate transitions, or improper discharge.
- Final acceptance requires that the ditch and associated drainage features are complete, stable, free of construction debris and excess sediment, and functioning as intended.
- Provide delivery tickets, material certifications, disposal receipts, permit closeout documents, and marked-up field information if requested.

9. Cleanup and Warranty

Remove surplus material, waste, temporary facilities, and equipment. Restore access routes and disturbed areas to an equal or better condition than before construction. Unless the contract states otherwise, warrant the work for one year after final acceptance and promptly correct settlement, displaced rock, erosion, blocked flow, failed stabilization, or other defects attributable to materials or workmanship.

10. Measurement and Payment

Payment shall be based on bi-weekly draws after project begins and shall include all labor, equipment, mobilization, excavation, handling and disposal, imported fill, rock, culvert work, drainage connections, erosion control, testing, cleanup, and incidental work necessary for a complete and functional installation. Changes in quantity, alignment, materials, or site conditions require written authorization before additional work proceeds.