

## Billings City Administration Weekly Report

November 15, 2019

- 1) **Laredo Rock Slide Update** – Monday, Debi Meling and I will be providing an update on the rock scaling and right of way clean up. The meeting will be onsite at 1:00 PM immediately east of the rock slide area. Unfortunately, Apex has delayed their start. They were scheduled to begin work Monday, November 18. Since we have not met with the neighbors in several weeks, this will give us a good opportunity to share where we are in the process. We are working diligently to get this project completed as soon as possible. As an FYI - see the attached Apex Rockfall Mitigation Method Statement.
- 2) **Round Table Committee Conversations** – Leadership MT alumni met to discuss public safety Wednesday evening. I participated in the panel discussion with city, county and service providers in the community. Lenette Kosovich, CEO Rimrock Foundation and I teamed up for the roundtable discussions.
- 3) **City/County/School Meeting** – SD2 hosted our quarterly joint meeting. The agenda included conversations around Safe Routes to Schools Update, Public Safety Mill Levy, School Levy, Status of the Yellowstone County Interdisciplinary Child Info School Safety Team, How SD2 and the City are working together on Active Shooter Protocols, Training and Responses, and the BUILD Grant.
- 4) **Next Week's Meetings/Task Forces/Presentations etc.**
  - a. Pioneer Park Task Force, Tuesday, November 19<sup>th</sup> 7:00 PM at McKinley School.
  - b. West End Task Force, Tuesday, November 19<sup>th</sup> 7:00 PM at Faith Evangelical Church.
  - c. Southside Task Force, Thursday, November 21<sup>st</sup> 6:30 PM at Northern Plains Resource Council.
  - d. Terry Park Task Force, Thursday, November 21<sup>st</sup> 7:00 PM at Bethlehem Lutheran.

Have a good weekend!



**Project:**

Laredo Place Rock  
Stabilization

**Contract Number #:**

WO 20-17

**Apex Project Number:**

888-19152

**Project Location-**

Billings Montana

**Project Manager-**

Timothy Bockelman

**Scaling Foreman-**

Andrew Whitmore

Scaling is the action of removing/dislodging loose rocks from a slope in order to make it safe. It is usually the first approach on a rock stabilization job. After scaling has been performed the other operations of the job may take place.

Rock Remediation Techs: Personnel may be rotated but 4-5 persons will always be dedicated to scaling

Andrew Whitmore-Foreman	
TBD	
TBD	
TBD	
TBD	

**Start Date for Scaling:**

Start Date- November 18, 2019

**Anticipated Production Rates**

40 Crew hours a week

**Appendix A:**

- Scaling Personnel Resumes

The Following "procedure" will be conducted for Slope Scaling:



1. Begin by finding a secure feasible tie off point- Being a rock anchor or tree. Tie off rope using secure knot (preferable a bowline, figure eight, or clove hitch all followed by double fisherman's). Check rope for any excessive wear (cuts or frays) each time and replace as needed.
  - Trees used as anchors will have a 10,000lb strap wrapped at base to keep bark from being damaged and no harm is done to tree.
  - Hilti Anchor
2. Check all gear thoroughly, wear proper PPE. (To include safety glasses, climbing hard hat, geared harness, ear protection as needed)
3. As a team set up approx. 15 ft. Spacing across the brow of the slope. (A min. of two men for scaling operations on slope) with a working foreman. In the event a member of the crew needs to leave this person will be replaced immediately by a qualified person for the position being replace
4. Identified trees and shrubs will be removed prior to area being scaled; however, at no point will a scaler go below an un-scaled rock area to remove a tree or shrub. Rather a Scaler will first remove any trees within an area this debris will then be separated prior to scaling of rock materials. Lower trees and shrubs will be worked to and removed in the same fashion so that there is not a mix of materials. Trees and shrubs will be cut using chain saws, hand saws and pruners as needed. They will be cut in such a fashion to be very close to ground level while leaving the root wad intact.
5. Begin Scaling from the **top down**- Start at the top and work your way down. Scaling the brow is of the utmost importance, this is where most injuries arise from. As approach is made over brow be sure to use rope protector.
  - a. Rope Maintenance is very important, using rope protectors and setting length of rope to slope height is critical for the life of the rope.
  - b. A Two Rope system will be utilized during all rope access activities.
  - c. As a rule, all technicians will be tied off within 10 ft. of Brow.
6. Using a scaling bar (a four-foot pry bar with a spade end at both ends), pry and remove all loose rocks and debris which can be moved by man power (the force created by a worker), If a rock feature is too large to be moved by man power, but has movement and an obvious appearance of needing to be removed or a danger, the use of an air bag may be needed.
  - a. To use an air bag- Begin by cleaning a cracked portion so the bag can be installed as deeply as possible for the most effective push. Insert bag into crack and connect a short control hose from the bag to controller (air valve), a safe distance away from the fall area. Connect controller to main feed from compressor and make ready to push.
7. Work from one side of the slope completing the hang clear to the bottom toe of slope, then move back to the top and continue the next hang till the slope is complete.
8. Excellent communication between all involved parties (traffic control, ground personnel, Project Superintendent, and Scalers) is of the utmost important. Radio communication will be



established with an all clear before scaling is to begin.

9. All scaling operations hours will be kept daily and agreed to by Apex Foreman onsite Project Manager/Engineer, and Project Supervisor.
10. If apprentice scalers are needed for use, they will at all times be directly assisted by and approved qualified scaler.

Tools/Equipment to be used for scaling:

Scale Bar	PPE
Air Bags	Radios
Air Hose	Roadway Protection, Dirt, MRB, K rail
Climbing Harness Complete	Sat Phone
Controls for air bags	Air Horn
Air Compressor (low pressure)-185	Boulder Buster

#### **Loading/Hauling of Scaled Debris**

Scaled debris will be dropped to the base of the slope. Removal/Downsizing and off haul by others.

#### **Completion of Scaling operations**

Once Project Superintendent and Scaling Foreman are in agreement scaling operations are complete, the Project Engineer will verify. Upon Project Engineers verification, the slope will be considered finished and operations will be moved to next area to be scaled. Process will follow as above for all slopes to be scaled.

#### **Roadway Protection**

A dirt berm in conjunction with a mobile rockfall barrier will be placed on or near the closest lane of road near the location scaling will be performed. A K rail barrier will be placed in conjunction if slope conditions or roadway conditions dictate.



**APEX**  
Rockfall Mitigation LLC

# Apex Rockfall Mitigation Method Statement: Rock Scaling

2019

This Statement has been read and acknowledged by the following:

**Project Foreman** \_\_\_\_\_ **DATE** \_\_\_\_\_

Project Engineer \_\_\_\_\_ Date \_\_\_\_\_



## Appendix A: Follows