COLORADO DIVISION OF RECLAMATION, MINING AND SAFETY
1313 Sherman Street, Room 215, Denver, Colorado 80203 ph(303) 866-3567

REQUEST FOR TECHNICAL REVISION (TR) COVER SHEET

File No.: M- 410-1977 Site Name: Cross Gold Mine

County Boulder TR# 12 *(DRMS Use only)*

Permittee: Grand Island Resources, LLC

Operator (If Other than Permittee): _____

Permittee Representative: Daniel Takami

Please provide a brief description of the proposed revision:

Technical Revision #12 (TR12) Grand Island Resources, LLC (GIR) proposes changes to the Cross Mine site, including replacing the Cross Mine Snowshed and relocating the Water Treatment System, . The mine site is near Nederland, Colorado. The changes involve constructing a new snowshed of similar dimensions as the previous one and moving existing facilities into new connexes. Safety and environmental stewardship are emphasized in these proposed changes, with adherence to MSHA standards and commitment to minimize environmental impact.

As defined by the Minerals Rules, a Technical Revision (TR) is: "a change in the permit or application which does not have more than a minor effect upon the approved or proposed Reclamation or Environmental Protection Plan." The Division is charged with determining if the revision as submitted meets this definition. If the Division determines that the proposed revision is beyond the scope of a TR, the Division may require the submittal of a permit amendment to make the required or desired changes to the permit.

The request for a TR is not considered "filed for review" until the appropriate fee is received by the Division (as listed below by permit type). Please submit the appropriate fee with your request to expedite the review process. After the TR is submitted with the appropriate fee, the Division will determine if it is approvable within 30 days. If the Division requires additional information to approve a TR, you will be notified of specific deficiencies that will need to be addressed. If at the end of the 30 day review period there are still outstanding deficiencies, the Division must deny the TR unless the permittee requests additional time, in writing, to provide the required information.

There is no pre-defined format for the submittal of a TR; however, it is up to the permittee to provide sufficient information to the Division to approve the TR request, including updated mining and reclamation plan maps that accurately depict the changes proposed in the requested TR.

Required Fees for Technical Revision by Permit Type - Please mark the correct fee and submit it with your request for a Technical Revision.

Permit Type	**Required TR Fee**	**Submitted** (mark only one)
110c, 111, 112 construction materials, and 112 quarries	$216	☐
112 hard rock (not DMO)	$175	☐
110d, 112d(1, 2 or 3)	$1006	☐

Contents

Section 1: Introduction and Description of the Site

This document, known as Technical Revision #12 (TR12), is an official submission from Grand Island Resources, LLC (GIR), detailing the proposed alterations to the Cross Mine site. These changes encompass the replacement of the Cross Mine Snowshed, a crucial surface facility, and the relocation of the Water Treatment System, Laboratory, and Compressor Housing.

On December 29, 2021, under item 1.1.5, DRMS sanctioned certain activities designed to comply with the Cease-and-Desist hearing held on December 15, 2022; and the subsequent Order issued by the Board on February 18, 2022. The endorsed activities involved the installation of ground support across all areas of Cross Mine leading to the mine pumping sites. These areas needed to be adequately secured, bolted, and aligned with the guidelines set by MSHA for safe personnel access.

The construction activities related to this approved ground support necessitated the removal of the existing snowshed that connected the Cross Shop Building with the Cross Mine Portal. As a response to this, GIR intends to install a replacement snowshed.

Site Location

The Cross-Caribou mine site, owned by GIR, is situated approximately four miles northwest of Nederland, Colorado, and adjoins the Roosevelt National Forest. The site is positioned at an elevation of approximately 9,700 feet above mean sea level (MSL). The location is specifically described as being in Section 9, Township 1 South, Range 73 West of the 6th Principal Meridian, County of Boulder, State of Colorado. As of now, the property is not engaged in active mining operations. The latest revision to the mine permit M-1977-410 occurred through Amendment No. 2 (AM-2), which was approved in February 2022.

Section 2: Installation of the Replacement Snowshed and Relocation of the Water Treatment System, Laboratory and Compressor Housing (Connexes)

Overview

The primary focus of this phase involves the installation of the replacement snowshed, alongside the strategic relocation of the existing water treatment system and the housing for both laboratory equipment and the compressor within new connexes. The replacement snowshed, mirroring the dimensions of its predecessor, will be installed along the same alignment as the previous structure, maintaining a length of 79 feet.

The existing water treatment system, housed within connexes, will undergo a relocation process, and will be strategically positioned between the replacement snowshed and the existing Pond #1. Importantly, the process will occur without any modifications to the current water treatment operations. The new connexes, designed to house the laboratory equipment and the current compressor, will be placed as illustrated in the oblique view Figure 2.1.

Before the replacement snowshed installation commences, GIR will ensure that the necessary treatment plant enclosures (connexes) are properly installed. In tandem, the requisite water treatment utilities will also be installed prior to the snowshed replacement. A detailed schematic of the water treatment plant piping layout can be found in Figure 2.5.

GIR is committed to maintaining the existing water treatment system in its original state, fully operational, throughout the duration of the construction project. There will be no premature shutdown of the system. This policy is in place to mitigate any potential disruptions to the site's water outfall. Therefore, the current water treatment system will continue to operate as normal until the new construction is completed and comprehensively tested.

To facilitate a smooth transition from the existing water treatment system to the new location, GIR will strategically install and prepare the necessary infrastructure, including plumbing, in advance. This ensures that the system's commissioning will be efficient and virtually seamless. GIR's goal is to manage this transition within a minimal timeframe, ideally spanning just a few hours to a couple of days at most. This approach is designed to ensure service continuity and minimize any potential inconvenience.

Dimensions and Materials for the Replacement Snowshed

The proposed dimensions and materials for the replacement snowshed are presented in Figures 2.2, 2.3, and 2.4, which illustrate the Snowshed alignment, Cross section and Longitudinal section, respectively.

The replacement snowshed will have external dimensions of 79 feet in length and 11.5 feet in width at the base. The total external height from the ground to the top of the galvanized roof will be 8 feet - 11 inches.

The construction materials have been selected based on their approval for the underground ground support. These materials consist of timber sets (8”x8”) for the primary supporting structure, top and side lagging (12”x 3”), and ledgers, collars, and knee braces (8”x3”). The roof and siding will be comprised of corrugated metal.

Dimensions and Materials for the Water Treatment Enclosure

The relocated Water Treatment System will be housed within 40-foot-long connexes, identical to the current system. The proposed location of the connexes is depicted in Figure 2.1.

Finally, Figure 2.5 presents a detailed schematic of the piping layout for the relocated water treatment system.

Figure 2.1 – Oblique View of Proposed Facilities

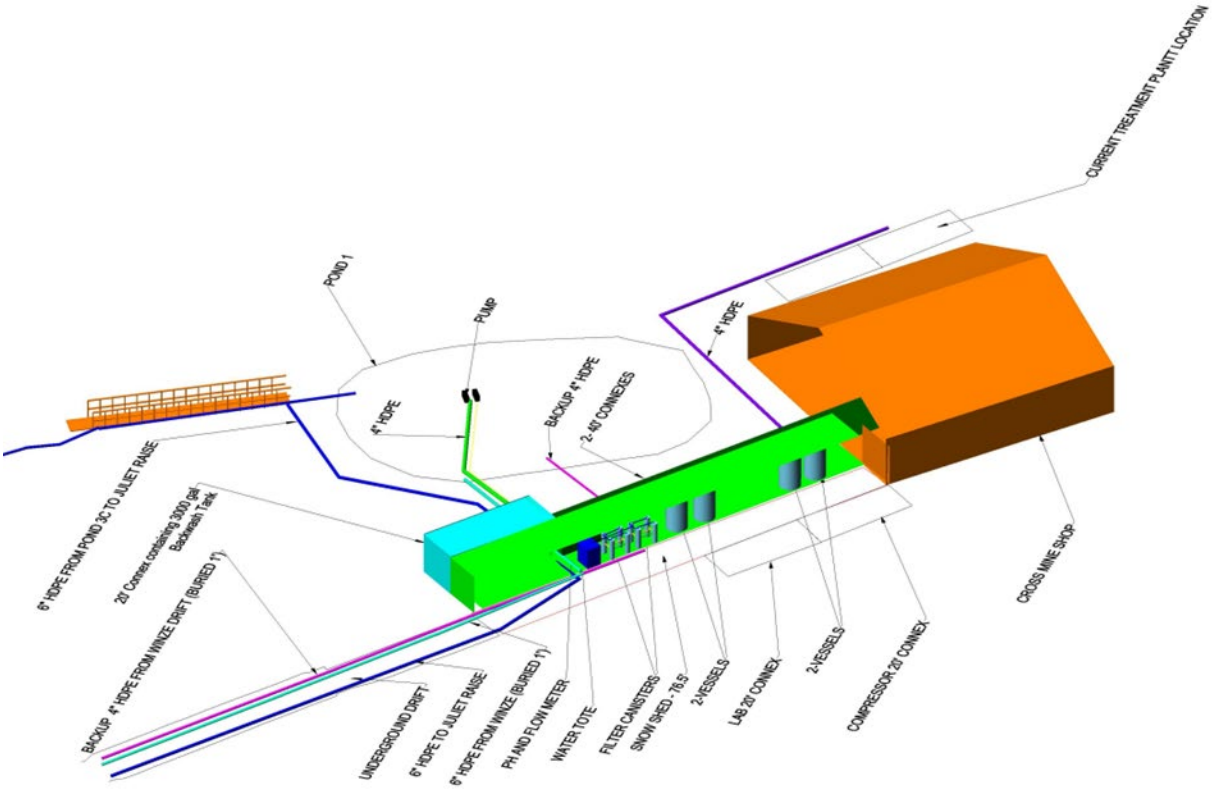


Figure 2.2 – Replacement Snowshed and Proposed Treatment Plant Location

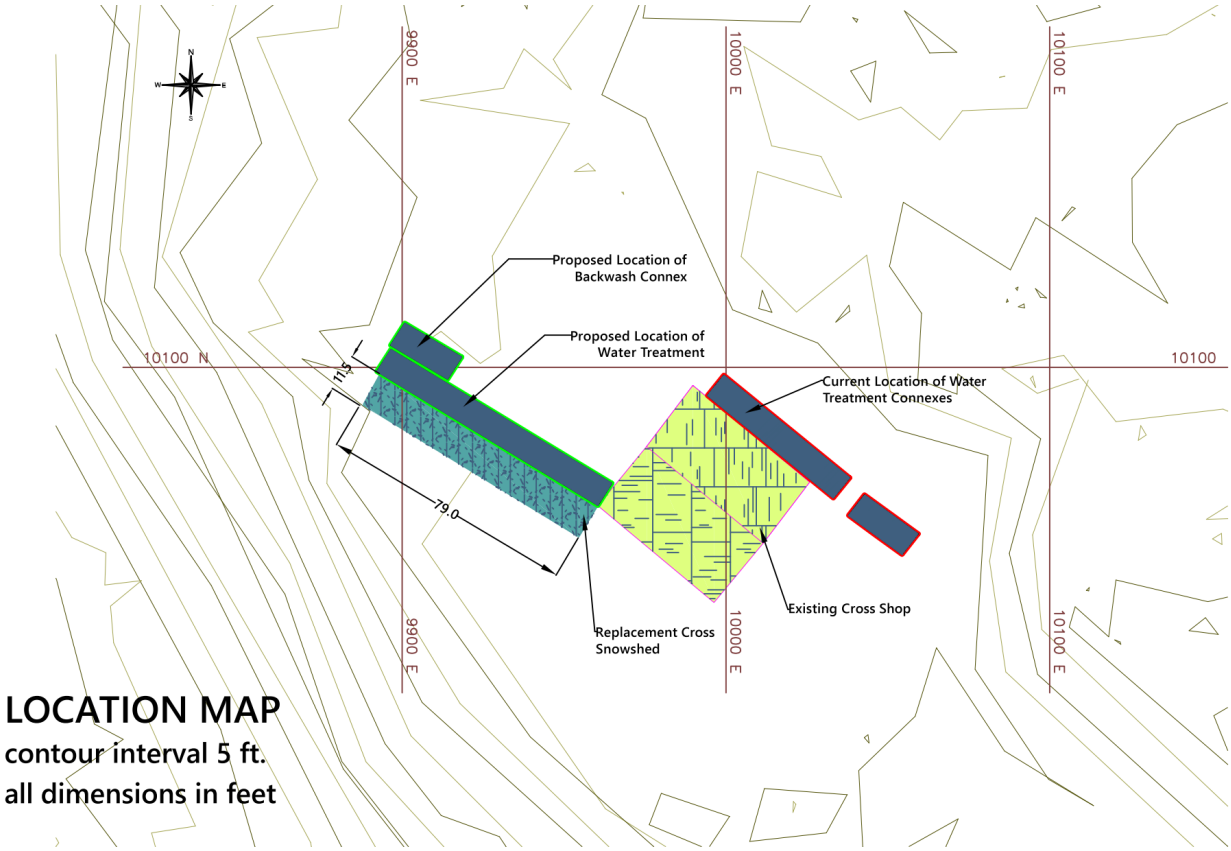
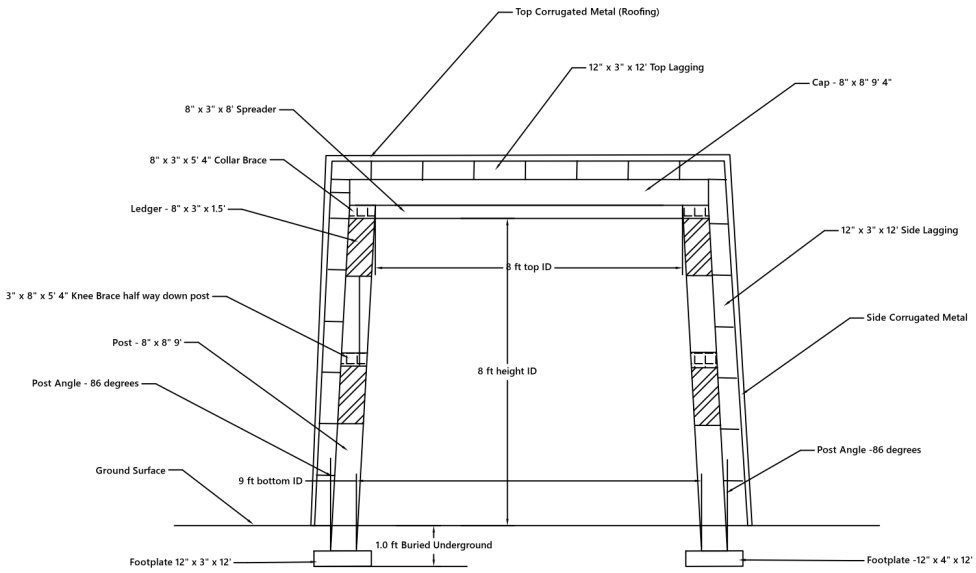


Figure 2.3 – Replacement Snowshed Materials and Dimensions Cross Section



SNOWSHED CROSS SECTION

all dimensions in feet

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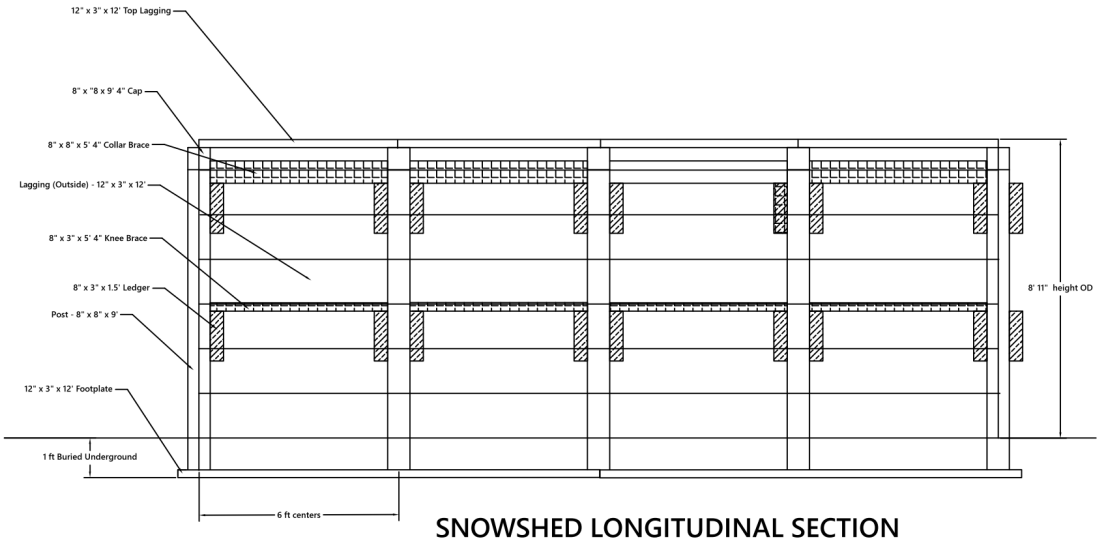
Figure 2.4 – Replacement Snowshed Materials and Dimensions Longitudinal Section



SNOWSHED LONGITUDINAL SECTION

all dimensions in feet

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Figure 2.5 – Relocated Water Treatment System Piping Schematic