

**APPENDIX A**  
**SPECIFICATIONS**

## **GOLDEN BUTTE AND EASY JUNIOR MINE CLOSURE**

### **S.1 SITE WORK**

#### **S.1.1 Mobilization and Demobilization**

All vehicles, equipment and supplies required for the reclamation of these sites are the responsibility of the subcontractor. All vehicles, equipment and supplies will be inspected by MWH for safety, compliance with noxious and invasive weed requirements and cleanliness prior to use. All equipment and vehicles will be cleaned prior to demobilization.

##### **S.1.1.1 Vehicle and Equipment Cleanliness Requirements**

To eliminate the transport of vehicle-borne weed seeds, roots, or rhizomes, all vehicles and heavy equipment used for the completion, maintenance, inspection, or monitoring of ground disturbing activities; for emergency fire suppression; or for authorized off-road driving will be free of soil and debris capable of transporting weed propagules. All such vehicles and equipment will be cleaned with power or high pressure equipment prior to entering or leaving the work site or project area. Vehicles used for emergency fire suppression will be cleaned as a part of check-in and demobilization procedures. Cleaning efforts will concentrate on tracks, feet or tires, and on the undercarriage. Special emphasis will be applied to axles, frames, cross members, motor mounts, on and underneath steps, running boards, and front bumper/brush guard assemblies. Vehicle cabs will be swept out and refuse will be disposed of in waste receptacles. Cleaning sites will be recorded using GPS or other mutually acceptable equipment and provided to the BLM Weed Coordinator or designated contact person.

##### **S.1.1.2 Equipment Used in Areas Impacted by Noxious and Invasive Weeds**

All vehicles and heavy equipment used for the completion, maintenance, inspection, or monitoring of ground disturbing activities; for emergency fire suppression; or for authorized off-road driving that are used to drive through, mow, harvest, scrape, or otherwise contact plant species listed on the Nevada Noxious Weed list or specifically identified by the Ely Field Office will be cleaned prior to continued use in weed free areas. Cleaning requirements are described in S.1.1.1.

##### **S.1.2 Haul/Access Road Improvement**

Haul/access roads in Golden Butte and Easy Junior shall be maintained to allow construction traffic to travel safely and efficiently for the duration of the project. Haul/access road improvements shall consist of general grading (clearing/stripping/cutting/filling), applying locally available road base as required, fine grading and compacting to provide an even road surface suitable for haul trucks and construction equipment. The roads shall be maintained for the duration of the project.

##### **S.1.3 Clearing and Grubbing**

The extent of clearing trees and underbrush to make room for new construction shall be kept to the minimum required to perform the work. The area to be cleared shall be clearly marked with flagging and approved by the Resident Engineer before any clearing takes place. Brush shall be piled in designated areas, mixed with surface soils, crushed by track walking, and revegetated. Topsoil collected as part of clearing and grubbing shall be stockpiled for use during revegetation activities.

To eliminate the introduction of noxious weed seeds, roots, or rhizomes, all source sites such as borrow pits, fill sources, or gravel pits used to supply inorganic materials used for construction, maintenance or reclamation should be inspected and found to be free of plant species listed on the

Nevada Noxious Weed list or specifically identified by the Ely Field Office. Inspections will be conducted by a weed scientist or qualified biologist.

#### **S.1.4 Facility Decommissioning and Demolition**

Piping and other materials that can be used as part of the reclamation activities will be recycled as necessary.

Site debris, including but not limited to, concrete, masonry, wood, non-economic metals, glass, plastic, and other trash will be broken up as necessary and placed in the Fresh Water Pond Class III landfill. Concrete pads shall be broken up in place and covered with soil. Following placement of all debris and trash in the pond, the liner will be cut and folded over the top of the wastes. Material from the berm and from borrow sources, as necessary, will be used to cover the facility. The cover will have a minimum thickness of three feet and will be mounded to promote runoff.

#### **S.1.5 Erosion Control**

##### **S.1.5.1 Materials Description**

###### S.1.5.1.1 Erosion Control Bales

Erosion control bales, if used, shall be composed of weed free straw or hay. Each bale shall be tightly bound with baling twine. Weed free certification documents shall be provided to the Resident Engineer.

###### S.1.5.1.2 Silt Fencing

The silt fencing used for sediment control shall be Mirafi Silt Fence or an approved equivalent. The filter cloth shall be at least 30 inches high. The fence posts shall consist of either 2-inch square hardwood, or T- or U- type steel. The posts shall be a minimum of 48 inches in length.

##### **S.1.5.2 Work Description**

All erosion control will be installed and maintained in accordance with the Storm Water Management Plan (SWMP).

###### S.1.5.2.1 Erosion Control Bales

Erosion control bales, if used, shall be placed as shown on Drawing E-3. The bales shall be anchored in place with two stakes driven through each bale into the underlying soils. Bales shall be installed in the diversion ditches downstream from construction activities. Where installed to direct flow parallel to the bale line the bales will be shingled as shown on the Design Drawings.

###### S.1.5.2.2 Silt Fencing

Silt fencing shall be installed using posts driven a minimum of one foot into the ground and spaced a maximum of 10 feet apart. The bottom of the fabric will be secured by placing the fabric in a shallow trench excavated adjacent to the fence installation. The trench shall then be backfilled and tamped to prevent fabric pullout. During construction, the silt fencing shall be continuously maintained. Silt fencing shall be installed in areas where there is a possibility of erosion from construction activities. Construction details are shown on Drawing E-3.

## **S.1.6 Material Storage and Laydown**

Materials purchased for use at the site should be organized and stored in a neat and orderly way until they are installed. The storage area should be out of the flood plain and on a clean, level surface or liner until needed.

## **S.2 HEAP LEACH REGRADE**

This section describes work related to regrading and preparing the subgrade for placing the cover system. The heap leach pad surfaces shall be regraded to the general configuration shown on the Design Drawings.

### **S.2.1 Materials Description**

#### **S.2.1.1 Dust Control**

Non-potable water may be used for dust suppression during construction as approved by the Resident Engineer.

#### **S.2.1.2 Heap Leach Material**

Heap leach material shall be regraded to the approximate slopes shown on the Design Drawings. Existing distribution pipes and hoses on the heaps shall be consolidated into the regraded pile.

### **S.2.2 Work Description**

#### **S.2.2.1 Dust Control**

Dust control measures shall be sufficient to maintain an environment free from dust hazards, including but not limited to hazards related to inhalation and reduced visibility. The reclamation contractor should assume that water will have to be purchased or trucked in from an outside source at his cost to the sites.

#### **S.2.2.2 Heap Leach Surface Regrade**

The top of the heap leach pads shall be regraded to the approximate slopes shown on the Design Drawings. Fill material shall be spread in lifts not thicker than 24 inches. All exposed foreign material shall be removed from the surface and buried in the heap leach pad. The final surface shall be compacted by track-walking with a dozer to provide a firm subgrade for cover placement. Depressions and rutting following track-walking of the surface shall be filled with borrow material or heap leach material and recompact to leave a smooth surface. The regraded surface shall be free of vegetation, construction debris, and other foreign material.

#### **S.2.2.3 Side Slope Regrading**

The heap leach pile side slopes shall be regraded to a slope of 3:1 (horizontal:vertical) as shown on the Design Drawings. All exposed foreign material shall be removed from the surface and buried in the heap leach pad. The final surface shall be compacted by track-walking with a dozer to provide a firm subgrade for cover placement. Depressions and rutting following track-walking of the surface shall be filled with borrow material or heap leach material and recompact to leave a smooth surface. The regraded surface shall be free of vegetation, construction debris, and other foreign material.

### **S.3 HEAP LEACH COVER PLACEMENT**

This section describes work related to construction and placement of the cover systems.

#### **S.3.1 Materials Description**

##### **S.3.1.1 Cover Material**

The cover material for the heap leach pads shall come from the borrow sources identified on the Design Drawings. Cover material shall not include vegetation, construction debris or other foreign material.

##### **S.3.1.2 Lysimeter**

Geomembrane material for the lysimeter shall be a 60 mil Linear Low Density Polyethylene (LLDPE) (GSE Ultraflex VFPE or approved equivalent).

Geocomposite for the drainage layer shall have a polyethylene geonet with a non-woven geotextile heat bonded to both sides. The geotextile shall have a minimum unit weight of 6 oz/yd<sup>2</sup>. The geocomposite shall be GSE Fabrinet or approved equivalent.

Geosynthetic root barrier shall be Biobarrier® as manufactured by Reemay or approved equivalent.

Discharge piping shall be Schedule 40 PVC or approved equivalent.

#### **S.3.2 Work Description**

##### **S.3.2.1 Easy Junior**

Cover material shall be placed to a compacted depth of 12-inches. On the side slopes, cover material shall be spread from the bottom of the slope by pushing upslope or along the slope as approved by the Resident Engineer. The final surface shall be track-walked with a dozer. Depressions and rutting following track-walking, and any areas determined by the Resident Engineer not to have the required cover depth shall be filled with borrow material and recompact.

##### **S.3.2.2 Golden Butte**

Cover material shall be placed to a compacted depth of 18-inches. On the side slopes, cover material shall be spread from the bottom of the slope by pushing upslope or along the slope as approved by the Resident Engineer. The final surface shall be track-walked with a dozer. Depressions and rutting following track-walking, and any areas determined by the Resident Engineer not to have the required cover depth shall be filled with borrow material and recompact.

##### **S.3.2.3 Lysimeter**

The lysimeter shall be installed as shown in the Design Drawings. The location may be field fit during construction. Discharge piping will daylight on the side slope of the Crushed Ore Heap Leach Pad. The geomembrane shall be placed flat on a smooth subgrade that has been approved by the Resident Engineer. The geomembrane shall not have any creases, bubbles or folds. Geomembrane seams shall be welded together using fusion welds. Extrusion welds may only be used when fusion welds are not possible. All welds shall be tested as described in Section S.4.2.2.

The sump area shall be leak tested prior to placement of higher layers of the lysimeter. The leak test shall be conducted by plugging the end of the discharge pipe and filling the sump area with a minimum of 0.5 foot of water as measured at the weld connecting the boot to the geomembrane. The sump is considered leak free if the water level drops less than 0.01 foot in 45 minutes.

The geocomposite drainage layer shall be placed over the geomembrane. Sections of geocomposite shall overlap a minimum of one foot. Where the geocomposite overlaps between one and two feet, plastic cable ties shall be used to join the sections. Cable ties shall be installed on three-foot centers with pull strips oriented upwards to minimize potential for puncturing the liner.

The first lift of crushed ore material shall be placed over the geocomposite in lifts not less than 1.5 feet thick. Material shall be placed from the outside perimeter of the geomembrane farthest away from the sump, working towards the sump. At no time shall mechanical equipment contact the geosynthetics at the base of the lysimeter. Following lifts of material shall be placed in lifts not thicker than 1.5 feet before compaction. All lifts shall be compacted by tack walking.

The biobarrier shall be placed with a approximately 0.1 foot of overlap between sections. No gaps are permitted between sections. The biobarrier shall be placed with herbicidal nodules oriented upwards.

Cover material shall be placed in accordance with Section S.3.2.2 of these specifications.

## **S.4 EVAPORATION BASIN CONSTRUCTION**

This section describes the work items related to the construction of the Evaporation Basins.

### **S.4.1 Materials Description**

#### **S.4.1.1 Pond Dewatering**

Waters contained in the Crushed Ore Pregnant Pond at the start of construction will be transferred by the reclamation contractor to the ROM Pregnant Pond and/or the Barren Pond prior to the start of construction. Upon completion of construction of the Crushed Ore Pond Evaporation Basin, the water contained in the ROM Pregnant Pond will be pumped back to the Crushed Ore Pond Evaporation Basin. Waters contained in the ROM Pregnant Pond at the start of construction will be transferred by the reclamation contractor to the Crushed Ore Pregnant Pond and/or the Barren Pond prior to the start of construction. Waters contained in the Barren Pond at the start of construction will be transferred by the reclamation contractor to the ROM Pregnant Pond and/or the Crushed Ore Pregnant Pond prior to the start of construction.

#### **S.4.1.2 Liner Repair**

Material for liner repair shall be an HDPE geomembrane with a minimum thickness of 60-mils. The geomembrane may be new or salvaged. Salvaged materials shall be approved by MWH as being free from visual defects prior to installation.

#### **S.4.1.3 Soils**

The material for the protective layer shall consist of soils finer than 3/8-inch diameter from any of the borrow sources shown on the Design Drawings.

Random fill material shall consist of run of mine material from any of the borrow sources shown on the Design Drawings and waste materials as approved by the Resident Engineer.

Coarse rock material shall consist of material from the heap leach pads or borrow sources shown on the Design Drawings with a diameter not less than two-inches and not greater than 12-inches.

Clean gravel shall consist of material from the heap leach pads or borrow sources shown on the Design Drawings with a diameter not less than 3/8-inch and not greater than 3/4-inch.

Crushed Ore Heap Leach material shall consist of material excavated from the Crushed Ore Heap Leach Pad.

Fines shall consist of material from the borrow sources shown on the Design drawings.

TABLE S.1 GEOTECHNICAL DATA SUMMARY GOLDEN BUTTE CLOSURE PLAN									
Sample #	USCS Soil Classification	Moisture Content %	Atterburg Limits			Grain Size Distribution			Specific Gravity (g/cm <sup>3</sup> )
			LL	PL	PI	% Gravel	% Sand	% Fines	
071102-BS-01	GM	6.0	NP	NP	NP	36.21	29.30	34.48	2.73
071102-BS-02	GC	11.7	34	22	12	41.33	24.55	34.11	2.83
071102-BS-03	GC	8.5	31	22	9	27.95	30.72	41.33	2.81
071102-LP-CO	GC	4.3	22	14	8	46.16	29.00	24.85	2.69
071102-LP-ROM	GC	8.6	30	17	13	56.35	25.37	18.28	2.77
<b>Notes:</b> NP - Nonplastic GM - Silty Gravel GC - Clayey Gravel									

#### S.4.1.4 Piping and Vents

Water pipes will have minimum inner diameter (ID) of 2.5-inches. Pipes may be new or salvaged. All salvaged materials shall be approved by MWH as being free from visual defects prior to installation.

The inflow distribution pipe for the ROM Evaporation Pond will have a minimum ID of 2.5-inches and an outer diameter (OD) not greater than four-inches. Pipe will be slotted along the centerline of one side of the pipe with slots between 1/8-inch and 1/4-inch in width.

Vent pipes through the coarse rock layer of the ROM pregnant pond will be slotted to allow maximum air transfer between the pipe and the surrounding rock fill. The pipes will have an OD between eight and twelve inches. Solid, non-slotted, pipes will connect the vent pipes to the surface as shown on the Design Drawings and shall be of the same size as the vent pipes.

Ventilation pipes will be covered on the surface as shown on the Design Drawings. The intake cover will be of a type that will allow unhindered airflow into the intake pipe while preventing precipitation from entering the pipe. The exhaust vent shall be of a wind turbine type or as approved by the Resident Engineer. Both intake and exhaust vents shall be sized to fit the solid riser pipes.

#### S.4.1.5 Distribution Boxes and Monitoring Equipment

Distribution boxes and monitoring equipment will be provided by others under separate contract.

#### S.4.1.6 Piezometers

Piezometers shall be constructed from flush threaded Schedule 80 PVC or similar as approved by the Resident Engineer. The piezometer shall be fitted with a bottom cap held firmly in place by threading

or glue. The portion of the piezometer from the bottom to one foot above the top of the random fill shall be slotted by machine or by hand. The slotted portion of the piezometer shall be wrapped in a filter fabric meeting the specification given in S.4.1.7.

#### S.4.1.7 Filter Fabric

Filter fabric placed in the ROM Pregnant Pond and around the piezometers shall be a non-woven synthetic having a minimum fabric weight of 8 ounces per square yard. The fabric shall be a Class A material and meet the requirements shown in Table S.2.

TABLE S.2 FILTER FABRIC REQUIREMENTS		
Test	Requirement	ASTM Designation
Mass per Unit Area	8 oz/yd <sup>2</sup>	D 5261
Apparent Opening Size	095 ≤ 0.40mm	D 4751
Water Flow Rate	25 gpm/ft <sup>2</sup>	D 4491
Grab Strength	180 lb	D 4632
Puncture Strength	80 lb	D 4833
Mullen Burst Strength	290 lb/in <sup>2</sup>	D 3786
Trapezoidal Tear Strength	50 lb	D 4533

#### S.4.2 Work Description

##### S.4.2.1 Pond Dewatering

Prior to construction, water in the pond under construction will be transferred by the reclamation contractor to either of the other process ponds prior to construction. Water from the freshwater pond will be used for dust control or will be land applied using a method approved by the Resident Engineer that will minimize erosion.

##### S.4.2.2 Liner Repair

Areas requiring repair include damaged areas identified by visual inspection by the Resident Engineer and areas damaged during installation of piping through the liner. Areas requiring repair and patching shall be repaired using fusion welding. Extrusion welding may only be used when fusion welding is not possible. Areas to be welded shall be clean of all dust and foreign materials.

All repair welds shall be tested nondestructively using the vacuum test (primarily for extrusion seams), or air pressure test (for double fusion seams only) methods. For the vacuum test, the seam shall be wetted with a soapy solution. The vacuum box shall be charged to a vacuum of 5 psi and the seam observed for a minimum of 10 second. All areas where soap bubbles appear shall be repaired. For the air pressure test, both ends of the seam shall be sealed and the seam charged to a pressure between 25 and 30 psi. The seam shall not loose more than 2 psi over a five-minute period. Any seam not maintaining the required pressure shall be repaired.

##### S.4.2.3 Soils

All soil placement over liner will be done using a drop height of less than three-feet. Equipment working over the liner will work with not less than 1.5 feet of material between the equipment tires or tracks and the liner. All materials placed over liner will be placed in a manner so as not to damage the liner.



The protective layer shall be material from BS-01, or approved equivalent, and will be placed to a depth of not less than 0.5-feet over all areas of the liner to be covered with material or driven over by equipment. The protective layer will be covered by one-foot of Crushed Ore heap leach gravel.

Random fill material shall be placed in the bottom of the evaporative basins to the depth shown on the design drawings. Random fill will be placed using a technique that will not displace the protective layer or damage the liner. No compaction is required for the random fill material.

Coarse rock will be placed over the random fill layer to the elevation shown on the design drawings. Coarse rock will be placed using a technique that will not displace the protective layer or damage the liner. Equipment traffic over the coarse rock will be minimized in order to minimize compaction and maximize void space within the coarse fill layer.

Fines will be placed over the coarse rock layer and a geotextile in the ROM Pregnant Pond to the elevation shown on the Design Drawings. The fines will be placed using a technique that will not displace the protective layer or damage the liner or the filter fabric. The fines will be placed in lifts not less than nine inches thick. The final surface will be smoothed and graded as shown on the Design Drawings.

Clean gravel will be placed to a depth of six-inches over the fines in the ROM Pregnant Pond. The gravel will be placed using a technique that will not displace the protective layer or damage the liner.

#### **S.4.2.4 Piping and Vents**

Water pipes shall be located approximately as shown on the Design Drawings. Buried pipes will be buried a minimum of four-feet below ground surface with the exception of the pipe from the Barren Pond to the leach field which will be buried three feet below ground surface. All pipes shall be laid at a smooth grade without bellies or humps in the line. Area surrounding pipes shall be backfilled by hand to ensure that pipes are not damaged during the backfill process.

Vent pipes will be placed in the coarse fill material of the ROM Pregnant Pond as shown on the Design Drawings. Backfill shall be hand placed around vent pipes to ensure that the pipes are not damaged during the backfill operation.

#### **S.4.2.5 Distribution Boxes**

Distribution boxes shall be installed level and on a stable foundation. Boxes shall be buried to a depth where the top of the box is level with the surrounding ground.

### **S.5 REVEGETATION**

Revegetation shall occur on the regraded and covered heap leach pads, closed process ponds, borrow areas and all other areas disturbed during construction activities. All areas disturbed during a construction season shall be revegetated at the end of the same construction season, including areas that will be disturbed again in future construction seasons.

To eliminate the introduction of noxious weed seeds, roots, or rhizomes all straw, hay, straw/hay, or other organic products used for reclamation or stabilization activities will be certified free of plant species listed on the Nevada Noxious Weed list or specifically identified by the Ely Field Office.

## S.5.1 Materials Description

### S.5.1.1 Seeding

The seed mixes and application rates in Tables S.3 and S.4 will be used at Golden Butte and Easy Junior, respectively. All seed must be in compliance with State seed laws for the state of Nevada. Documentation of seed mix used and compliance with State seed laws shall be provided to MWH.

<b>TABLE S.3 RECOMMENDED SEED LIST FOR GOLDEN BUTTE MINE AREA</b>			
<b>Species</b>	<b>Seeds/Lb</b>	<b>Seed rate lbs/acre</b>	<b>Seeds/sqft</b>
Thickspike wheatgrass (Agropyron dasystachyum)	154,000	1.5	5.0
Elymus cinerous (Magnar Great Basin Wildrye )	95,000	2.5	5.5
Pseudoroegneria spicata spp. spicata (Bluebunch wheatgrass)	140,000	2.0	6.5
Oryzopsis hymenoides (Indian ricegrass)	141,000	1.0	3.0
Sitanion hystrix (Squirrel tail)	192,000	0.5	2.0
Penstemon palmeri (Palmer penstemon)	610,000	0.13	1.5
Linum lewisii (Appar Blue Flax)	293,000	0.25	1.5
Achillea millefolium (White Yarrow)	2,770,000	0.05	3.0
Crysothamnus nauseosus (Rubber Rabbitbrush)	400,000	0.25	2.0
Atriplex canescens (Four wing saltbush)	52,000	1.0	1.0
<b>TOTAL</b>		<b>9.18 lbs/ac</b>	<b>31 seeds/sq ft</b>
Notes: Seeds should be planted between October 1 and March 15. Substitutions can be made depending on seed price and availability. Contact the BLM if substitutions are required. * Seed rate - Adjust listed pounds/acre for pure live seed. Pure Live Seed pounds/acre = $\frac{\text{Seed rate (listed above lbs/acre)}}{(\% \text{germination}) (\% \text{purity})}$			

<b>TABLE S.4 RECOMMENDED SEED LIST FOR EASY JR. MINE AREA</b>			
<b>Species</b>	<b>Seeds/Lb</b>	<b>Seed rate lbs/acre</b>	<b>Seeds/sqft</b>
Thickspike wheatgrass (Agropyron dasystachyum)	154,000	1.0	3.5
Elymus cinerous (Magnar Great Basin Wildrye )	95,000	1.5	3
Pseudoroegneria spicata spp. spicata (Bluebunch wheatgrass)	140,000	1.5	5

<b>TABLE S.4 RECOMMENDED SEED LIST FOR EASY JR. MINE AREA</b>			
<b>Species</b>	<b>Seeds/Lb</b>	<b>Seed rate lbs/acre</b>	<b>Seeds/sqft</b>
Oryzopsis hymenoides (Indian ricegrass)	141,000	1.0	3
Sitanion hystrix (Squirrel tail)	192,000	0.5	2
Penstemon palmeri (Palmer penstemon)	610,000	0.13	1.5
Linum lewisii (Appar Blue Flax)	293,000	0.25	1.5
Achillea millefolium (White Yarrow)	2,770,000	0.05	3
Ephedra nevadensis (Nevada Mormon tea)	19,900	0.5	0.25
Crysothamnus nauseosus (Rubber Rabbitbrush)	400,000	0.25	2
Atriplex canescens (Four wing saltbush)	52,000	1.0	1
Total		15.35 lbs/ac	25.75 seeds/sq ft
Notes: Seeds should be planted between October 1 and March 15. Substitutions can be made depending on seed price and availability. Contact the BLM if substitutions are required. * Seed rate - Adjust listed pounds/acre for pure live seed. Pure Live Seed pounds/acre = $\frac{\text{Seed rate (listed above lbs/acre)}}{(\% \text{germination}) (\% \text{purity})}$			

### S.5.1.2 Soil Amendments

No amendments are required on areas disturbed during the reclamation of the heap leach pads.

Barren areas of the Golden Butte Waste Rock pile will be amended with two tons per acre of hydrated lime.

### S.5.1.3 Straw Mulch

No straw mulch is required.

## S.5.2 Work Description

### S.5.2.1 Seeding

The surface of all areas to be seeded shall be scarified or shallowly ripped with closely spaced short rippers or equivalent prior to seeding. Seed shall be broadcast or drilled at the rate specified in Section S. 5.1.1 within 24 hours after the surface has been scarified or ripped.

Seeding shall be performed either by broadcasting or by drill seeding. If broadcast, seed mixtures shall be broadcast over the site with a centrifugal broadcast seeder. The seeded area shall then be dragged with a harrow or similar implement to lightly cover the seed with soil. If drill seeded, seed mixtures shall be implanted into the plant growth media with a conventional drill seeder.

No vehicles or equipment will be allowed on areas where seeding has been completed.

### **S.5.2.2 Soil Amendments**

Amendments shall be applied to the barren areas of the waste rock pile before the placement of the cover material at the rate specified in Section S.5.1.2. Following application, amendments will be mixed with the top 12 inches of soil by discing or ripping or other method as approved by the Resident Engineer.

## **S.6 INFILTRATION FIELD SPECIFICATION**

### **S.6.1 Materials**

The infiltration field will be constructed using the Standard Infiltrator Chamber as manufactured by Infiltrator Systems, Inc, or approved alternative. Area covered by infiltration chambers will not be less than 6000 square feet.

The distribution box shall be either metal or polyethylene. The box shall be fitted with a cover that will prevent wildlife from gaining access to the water in the box and debris from entering the box. Piping material will be as recommended by the manufacturer and not less than two-inch inner diameter.

### **S.6.2 Work Description**

Layout: Infiltration chambers will be installed in a series of parallel lines with each line constructed from multiple chamber sections. Each line of infiltration chambers will be fitted with end caps at both ends. Each line of infiltration chambers will be connected to the inflow distribution box in parallel. Outflow from one line of chambers as inflow into a second line of chambers is not authorized.

Excavation: The base of the infiltration chambers will be a minimum of three feet below ground surface. Each line of infiltration chambers will be installed on a base that is level and flat.

The top of the distribution box shall be installed flush with the ground surface. The distribution box will be installed on a level base.

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