

September 6, 2022

Mr. Eric Scott  
Division of Reclamation, Mining and Safety  
1313 Sherman Street, Room 215  
Denver, CO 80203

**RE: Specification Aggregates Quarry, M-1974-004  
Response to Second Adequacy Review of Amendment Application AM04**

Dear Mr. Scott:

Martin Marietta Materials Inc., received a copy of the Division of Reclamation, Mining and Safety's ("DRMS") second adequacy review of the 112 construction materials reclamation permit amendment application (AM04), for the Specification Aggregates Quarry, permit M-1974-004, dated August 18, 2022. Please see the following responses, and the referenced supporting documentation.

**EXHIBIT E - Reclamation Plan (Rule 6.4.5):**

*The final in-lake slopes proposed are steeper, in some parts significantly, than what is recommended by Rule 3.1.5(7) which states: "... In all cases where a lake or pond is produced as a portion of the Reclamation Plan, all slopes, unless otherwise approved by the Board or Office, shall be no steeper than a ratio of 2:1 (horizontal to vertical ratio), except from 5 feet above to 10 feet below the expected water line where slopes shall be not steeper than 3:1. If a swimming area is proposed as a portion of the Reclamation Plan, the slope, unless otherwise approved by the Board or Office, shall be no steeper than 5:1 throughout the area proposed for swimming, and a slope no steeper than 2:1 elsewhere in the pond." Please provide a rationale for the steeper final slopes proposed in the current submittal.*

*DRMS acknowledges that many final reclamation slopes, as well as slopes more than 10 feet below water level, within the proposed reservoir may be steeper than 2H:1V (up to the proposed maximum of 0.5H:1V within the reservoir if the geotechnical data supports this as a stable configuration). However, Rule 3.1.5(7) requires that from 5 feet above to 10 feet below the expected water level slopes shall not be steeper than 3H:1V. Please modify the mining and reclamation plans and associated maps as needed to comply with this requirement.*

Response: Revised Exhibits C1-C3, F1, F2 are attached, showing revised mining and reclamation plans. Reclaimed slopes will be no steeper than 3H:1V from 5 feet above to 10 feet below the expected water level for 77% of the perimeter at elevation 6,405 feet above mean sea level in areas not already reclaimed, as shown in Exhibits F1 & F2.

We acknowledge that 23% of the perimeter of the final in-lake slopes proposed are steeper than what is recommended by Rule 3.1.5(7) at the expected water level. Slopes within the reservoir will consist of currently reclaimed and newly quarried rock faces which modeling presented in the Rule 6.5 Geotechnical Stability Report indicates will be stable at the design slope angles under the anticipated reservoir operational conditions.

West Division

1627 Cole Blvd, Suite 200, Lakewood, CO 80401  
t. (720) 612-6232 f. (303) 657-4212  
[www.martinmarietta.com](http://www.martinmarietta.com)

In the areas where a steeper slope is shown in the northeast and northwest walls, mining and reclamation is already completed at the anticipated water level. The reclaimed slopes are nearly 1H:1V in this area and the vegetation is well established in these areas. These slopes were mined and reclaimed prior to submittal of this amendment application (AM-04).

There are safety concerns regarding access to the already reclaimed areas without extensive new disturbance, and concerns with potential adverse impacts to slope stability for already reclaimed areas if it were necessary to re-enter these areas to create 3H:1V slopes at the expected water level. Please see the excerpt below from pages 5 & 6 of, "2022 Annual Report, Structural Geology Evaluation" prepared by Lachel & Associates on January 26, 2022 and submitted to DRMS with the annual report,

*"After planar failure along foliation planes in 1998 and 1999, the overall effective angle of the last three benches of the Northeast Wall 1 and the Northwest Wall were reduced to an overall angle of 35°, which is consistent with the 2003 Lachel geotechnical evaluation (Lachel, 2003). The failure surfaces (i.e., the surfaces along which movement has occurred) remain at a "residual strength" and therefore are less resistant to additional loading. Based on visual inspection from the access road and bottom of the pit, these slopes did not appear to show signs of additional movement during the site visits for this study (Photo 5). Although the slope configuration is currently stable, the failure mechanism could potentially be reactivated, resulting in movement of additional material. The Northwest Wall, Northeast Wall 1, and Northeast Wall 3 (Figure 2) should continue to be visually monitored for indications of instability."*

Since the slope configuration in the northeast and northwest walls is currently stable, and has been since 1999, re-entering this area could potentially reactivate a potential failure mechanism in the slope. At the current slope, we are not able to devise a safe access plan for equipment to enter and rework these areas to create a shallower slope without extensive new disturbance, possibly impacting areas outside the current and proposed permit boundaries. We emphasize that the modeling and long-term observations demonstrate that the reclaimed slopes within the reservoir, including slopes that are steeper than what is recommended by Rule 3.1.5(7), meet or exceed stability criteria as presented in the Rule 6.5 Geotechnical Stability Report submitted with the original amendment application. Per Lachel's recommendation, we will continue to visually monitor all slopes in the quarry for indications of instability, with particular attention on the northeast and northwest walls mentioned above.

To help protect health and human safety during mining and reclamation, wildlife friendly fencing will be in place along the property boundary, along with no trespassing signs to deter access by the public.

**EXHIBIT L - Reclamation Costs (Rule 6.4.12):** All information necessary to calculate the costs of reclamation must be submitted and broken down into the various major phases of reclamation. You must provide sufficient information to calculate the cost of reclamation that would be incurred by the state.

On August 11, 2022 DRMS met with Mr. Courtney of Martin Marietta. This primary focus of this meeting was to discuss the scope of the required site reclamation cost estimate for AM04, as well as how reclamation tasks and costs may best be broken down in a "task by area" approach for all affected areas of the permit and provided to DRMS so that the state's cost may be calculated utilizing the CIRCES software. It was determined that in order for reclamation costs to be accurately estimated for this permit, MMM would need to provide a revised and comprehensive reclamation estimate for the site.

The revised estimate should provide a list of existing and proposed reclamation items for each area of the permit that will need to be addressed for final reclamation. These items should correlate with a detailed description of each reclamation task/item and what will be required

for each reclamation task/item (such as: identification of portable equipment for removal from site, removal of fixed features such as retaining walls, demolition and removal of existing structures such as buildings and scales, dozing and grading various process areas to final grade, replacement of overburden and topsoil, ripping reclaimed roads, acres of final revegetation, etc.). All tasks and areas should be correlated to a reclamation task map or maps, and the reclamation plan modified if needed to fully address and describe the final site configuration proposed.

Response: Please see attached revised Exhibits F1, L, L1-L4. Exhibit L contains additional detail regarding the reclamation tasks.

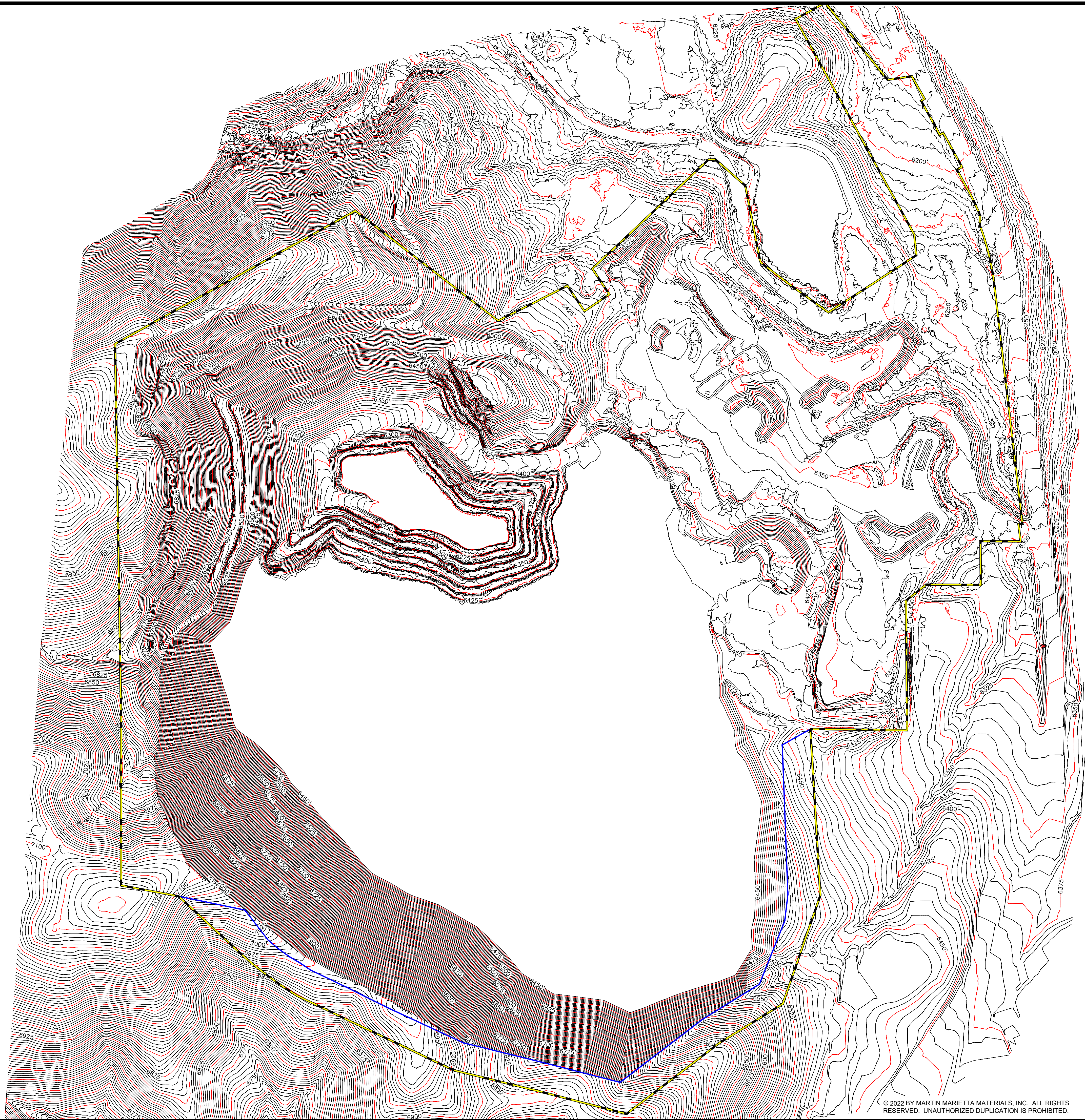
Should you have additional questions please contact me at 720-612-6232 or [phillip.courtney@martinmarietta.com](mailto:phillip.courtney@martinmarietta.com).

Sincerely,

A handwritten signature in black ink, appearing to read 'Phillip J. Courtney', written in a cursive style.

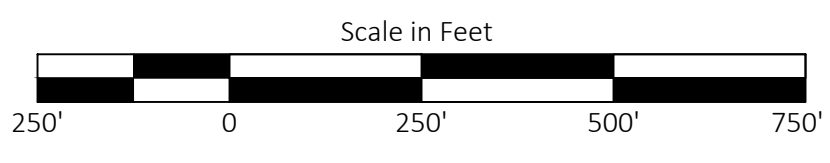
Phillip J. Courtney  
Land Manager





**LEGEND:**

- TOPOGRAPHIC CONTOURS (5')
- PROPOSED PERMIT LIMIT
- PROPOSED BUFFER ZONE

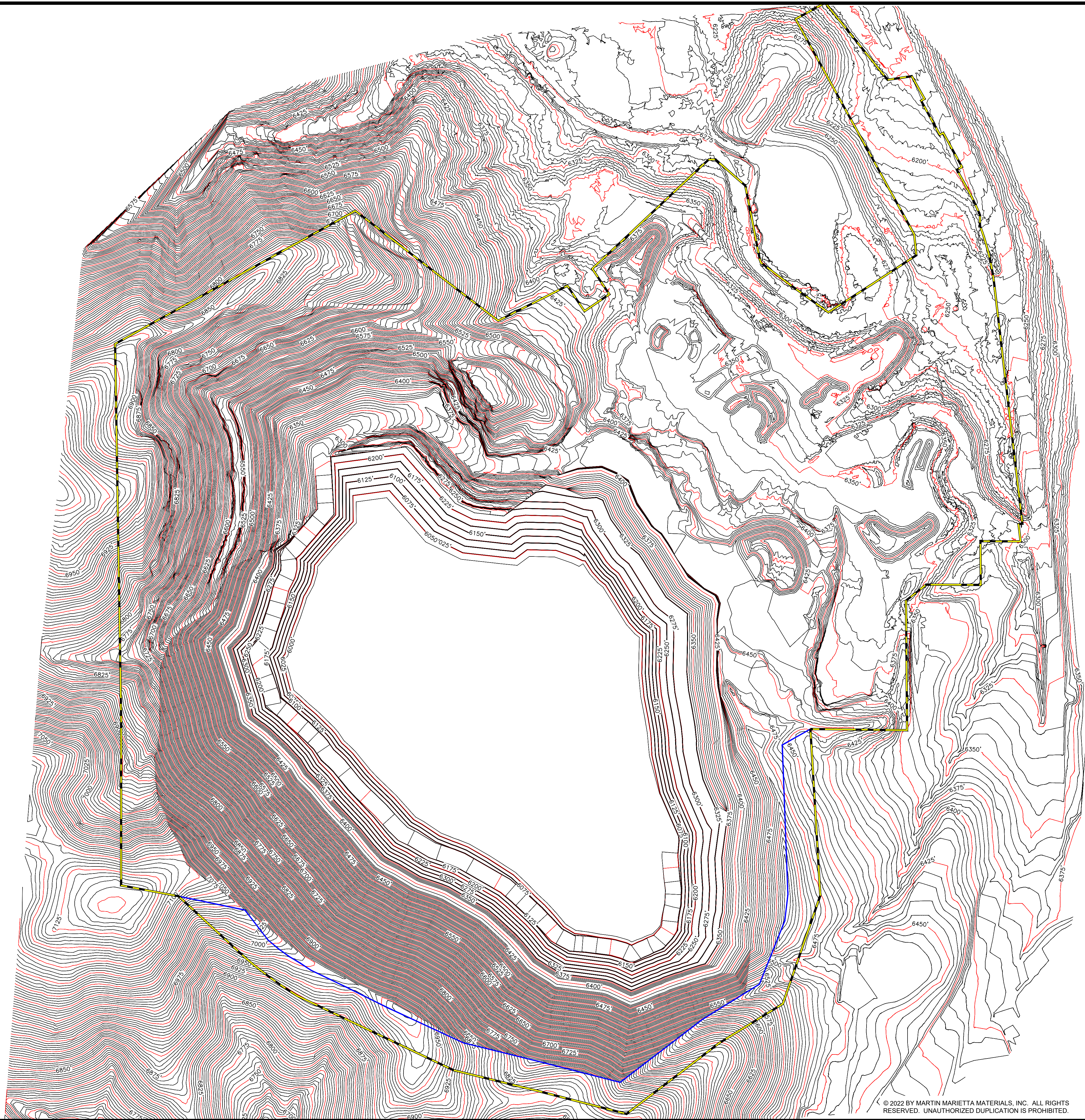


**Exhibit C1 - Mine Plan Map**  
**Specification Aggregate Quarry**  
**Jefferson County, CO**

DEPARTMENT: Natural Resources - 1627 Cole Blvd. Ste 200, Lakewood, CO 80401		
COORD. SYS.: Colorado State Plane (1983, US feet)		
DATE: 09/02/2022	PERMIT NO.: M-1974-004	MAP NO.: Ex C1
PREPARED BY: Christopher Overlay		QUALIFIED PERSON: Phillip Courtney

© 2022 BY MARTIN MARIETTA MATERIALS, INC. ALL RIGHTS RESERVED. UNAUTHORIZED DUPLICATION IS PROHIBITED.





**LEGEND:**

- TOPOGRAPHIC CONTOURS (5')
- PROPOSED PERMIT LIMIT
- PROPOSED BUFFER ZONE

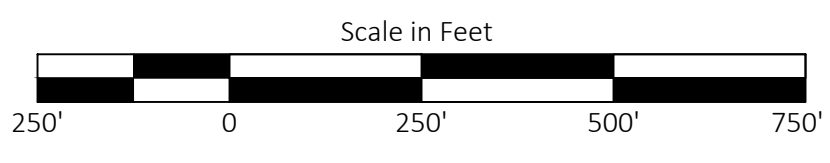


Exhibit C2 - Phase 2 - Mine Plan Map

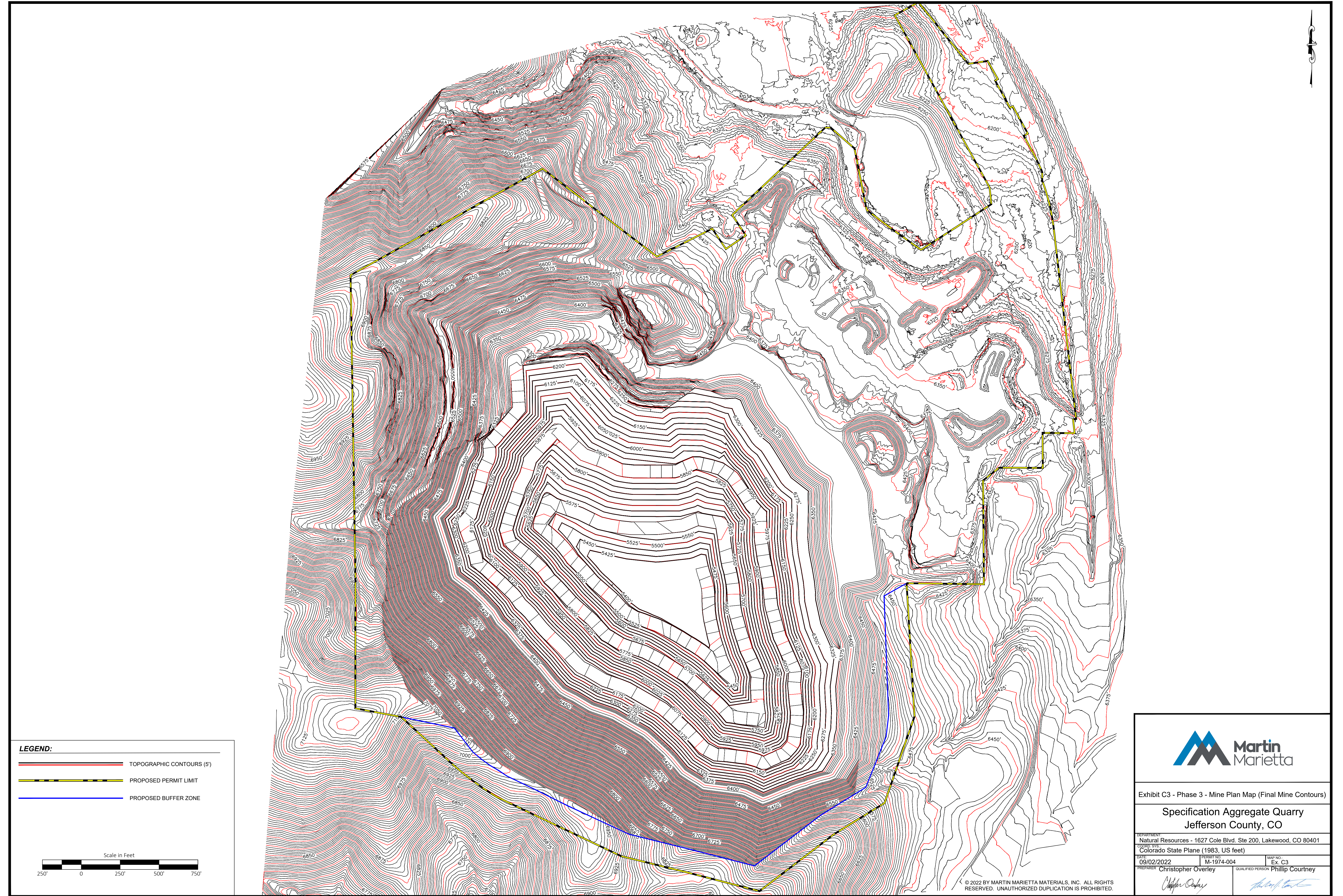
Specification Aggregate Quarry

Jefferson County, CO

DEPARTMENT Natural Resources - 1627 Cole Blvd. Ste 200, Lakewood, CO 80401		
COLORADO STATE PLANE (1983, US feet)		
DATE 09/02/2022	PERMIT NO. M-1974-004	MAP NO. EX C2
PREPARED BY Christopher Overlay		QUALIFIED PERSON Phillip Courtney

© 2022 BY MARTIN MARIETTA MATERIALS, INC. ALL RIGHTS RESERVED. UNAUTHORIZED DUPLICATION IS PROHIBITED.





**LEGEND:**

- TOPOGRAPHIC CONTOURS (5')
- PROPOSED PERMIT LIMIT
- PROPOSED BUFFER ZONE

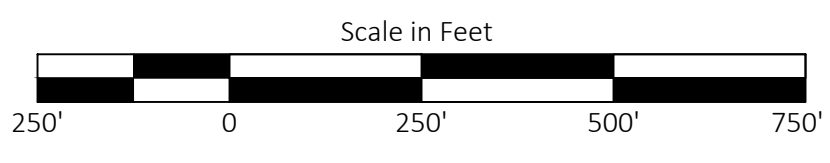


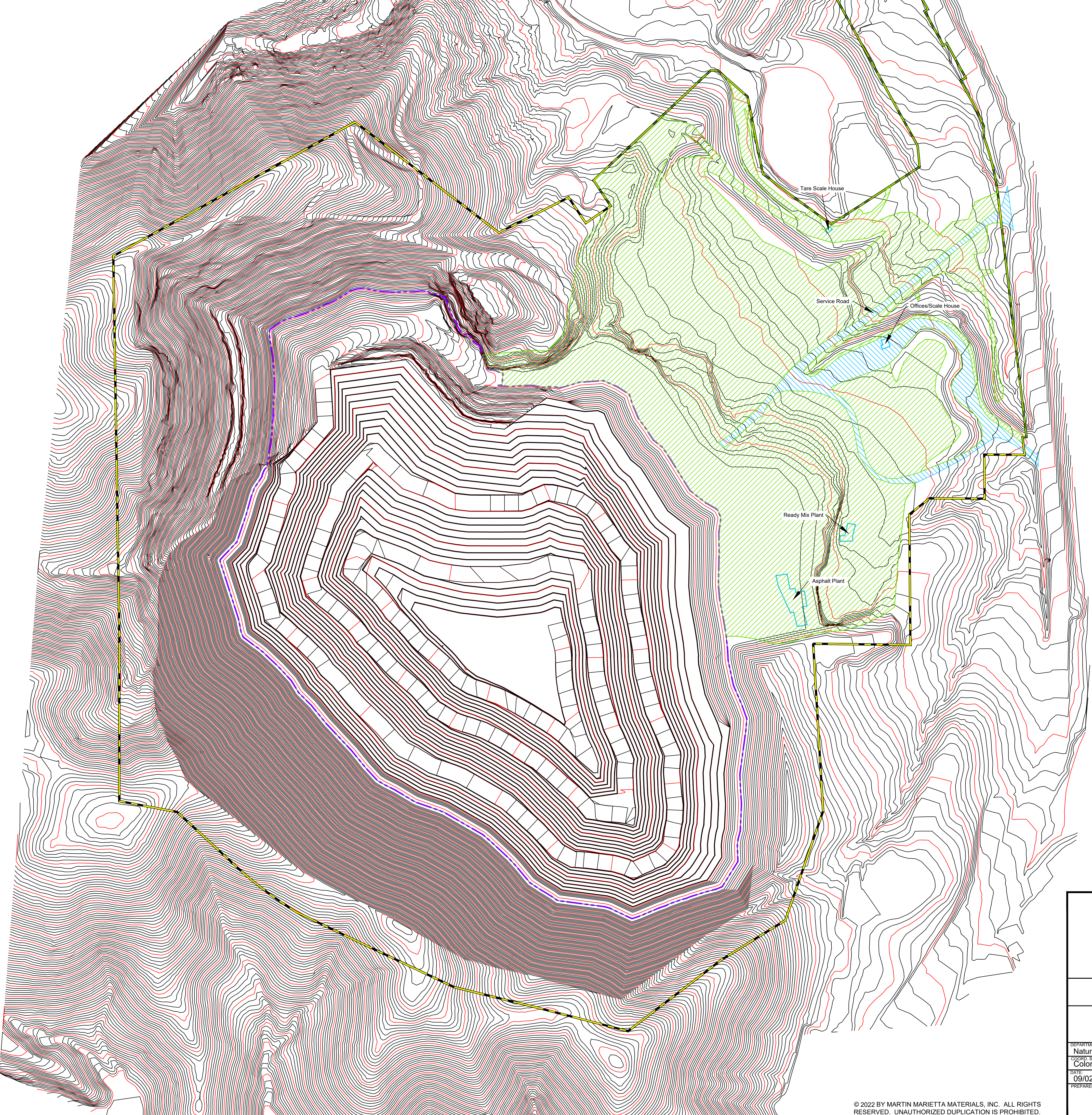
Exhibit C3 - Phase 3 - Mine Plan Map (Final Mine Contours)

**Specification Aggregate Quarry**  
**Jefferson County, CO**

DEPARTMENT: Natural Resources - 1627 Cole Blvd. Ste 200, Lakewood, CO 80401  
COLORADO STATE PLANE (1983, US FEET)  
DATE: 09/02/2022 PERMIT NO.: M-1974-004 MAP NO.: Ex C3  
PREPARED BY: Christopher Overlay QUALIFIED PERSON: Phillip Courtney

© 2022 BY MARTIN MARIETTA MATERIALS, INC. ALL RIGHTS RESERVED. UNAUTHORIZED DUPLICATION IS PROHIBITED.





- LEGEND:**
- RECLAMATION CONTOURS (5')
  - PROPOSED PERMIT LIMIT
  - APPROXIMATE WATER LEVEL
  - STRUCTURES AND ACCESS ROAD
  - REVEGETATED AREA

Notes

1h:1v Backfilled Slopes above water (Elevation 6405')

2:1 on the north east side for the first three benches below 6405 level, then 1:1 for the next two levels and 0.5:1 slopes to pit floor.

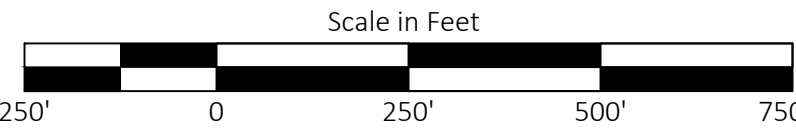
2:1 on the south east side for the first bench below 6405 level, then 1:1 for the next four levels and 0.5:1 slopes to pit floor.

1:1 for the first bench below 6405 level and then move to a 0.5:1 on the south and west sides

1:1 on the north side

Road - 80' wide, 7% grade for ~3200 feet of haul road, then decrease grade to 3% for ~1200 feet

Pit Floor at Elevation 5390'



© 2022 BY MARTIN MARIETTA MATERIALS, INC. ALL RIGHTS RESERVED. UNAUTHORIZED DUPLICATION IS PROHIBITED.



Exhibit F1 - Reclamation Plan Map

Specification Aggregate Quarry

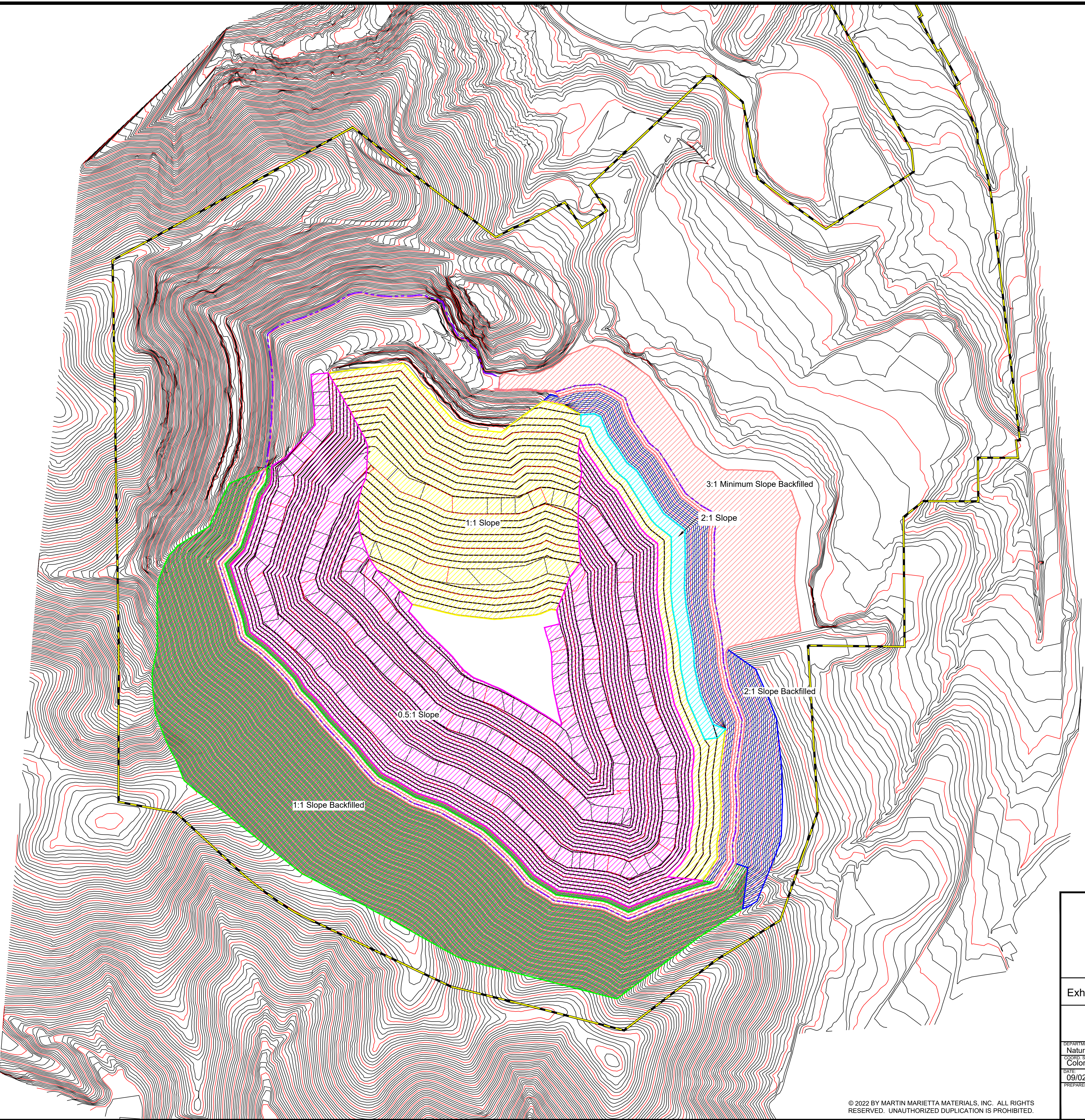
Jefferson County, CO

DEPARTMENT Natural Resources - 1627 Cole Blvd. Ste 200, Lakewood, CO 80401		
COORD. SYS. Colorado State Plane (1983, US feet)		
DATE 09/02/2022	PERMIT NO. M-1974-004	MAP NO. Ex. F1
PREPARED BY Christopher Overlay		QUALIFIED PERSON Phillip Courtney

*Christopher Overlay*

*Phillip Courtney*





**LEGEND:**

RECLAMATION CONTOURS (5')

PROPOSED PERMIT LIMIT

APPROXIMATE WATER LEVEL

Notes

1h:1v Backfilled Slopes above water (Elevation 6405')

2:1 on the north east side for the first three benches below 6405 level, then 1:1 for the next two levels and 0.5:1 slopes to pit floor.

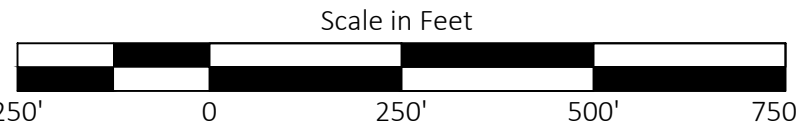
2:1 on the south east side for the first bench below 6405 level, then 1:1 for the next four levels and 0.5:1 slopes to pit floor.

1:1 for the first bench below 6405 level and then move to a 0.5:1 on the south and west sides

1:1 on the north side

Road - 80' wide, 7% grade for ~3200 feet of haul road, then decrease grade to 3% for ~1200 feet

Pit Floor at Elevation 5390'



© 2022 BY MARTIN MARIETTA MATERIALS, INC. ALL RIGHTS RESERVED. UNAUTHORIZED DUPLICATION IS PROHIBITED.



Exhibit F2 - Reclamation Plan Map (Slope Group)

Specification Aggregate Quarry  
Jefferson County, CO

DEPARTMENT Natural Resources - 1627 Cole Blvd. Ste 200, Lakewood, CO 80401		
COORD. SYS. Colorado State Plane (1983, US feet)		
DATE 09/02/2022	PERMIT NO. M-1974-004	MAP NO. Ex. F2
PREPARED BY Christopher Overlay		QUALIFIED PERSON Phillip Courtney



**Specification Aggregates Quarry Amendment**  
**Exhibit L (Rule 6.4.12) – Reclamation Costs**

Attached is a detailed estimate of reclamation costs to achieve the final reclamation plan for the amended permit as described in Exhibit E. This cost estimate includes engineering and surveying, removal of stockpiles, plant removal, site cleanup, fill placement, slope grading, finish grading, soil amendment, revegetation and reclamation monitoring.

For each task, costs detailed include labor, equipment and subcontractors.

**Task - Engineering and Surveying**

Engineering and surveying is estimated at \$79,200. This task includes design and layout as required to accomplish the reclamation plan, along with oversight of leak testing that may be required by the State Engineer Office when mining is completed.

**Task - Removal of Stockpiles**

This work includes removing all stockpiles in the stockpile areas that are shown on Exhibit C Pre-Mining Map. This involves loading existing stockpiles of aggregate material into trucks and hauling the material off-site. Total cost for this task is estimated at \$202,321.

**Task - Plant Removal**

Removal of the plant includes removal of all screens, crushers and conveyors. These are depicted and listed in the attached Exhibits L1-L4. This equipment will be loaded and hauled from the site for use elsewhere, or to be sold. This task includes labor and the use of cranes, loaders, excavators and service truck as detailed in attached cost estimate sheet. This task also includes disposal of 500 tons of debris that may result from plant disassembly. Any portable equipment, including a portable recycled asphalt plant near the asphalt plant, will be moved for use at another location. The estimated cost for this task is \$205,052.

**Task - Site Cleanup**

This task includes cleanup of the site, including removal of buildings and concrete foundations. The plant equipment and buildings are depicted on the attached Exhibits L1-L4, along with their respective sizes. Concrete foundations are located beneath buildings, crushers, screens, scales, ready mix and asphalt plants. It is estimated that 6,000 cubic yards of concrete will need to be removed and disposed, using an excavator & breaker, along with additional equipment as listed in the attached cost estimate. Concrete pads beneath buildings and equipment are assumed to be 1 foot in thickness. Removal of concrete blocks and concrete footers used for conveyors is also included in this task. Portable buildings including construction trailers and conex boxes will be moved off-site. Debris generated during this task will be disposed in a dumpster as detailed in the cost estimate. Total cost for this task is estimated at \$345,333.



**Task - Fill Placement**

This task includes blasting existing benches to the required slope and backfilling to reclaim the slopes per the reclamation plan. As mining progresses, existing exposed benches will be mined out, so the amount of blasting and fill required for this task will decrease over time. The area where this work is required is currently estimated to be about 59 acres.

As the mine exists currently, blasting would be needed to create a 1:1 slope on the benches that are currently exposed inside the pit. It is estimated that over 2,500,000 tons would need to be blasted to create the 1:1 slopes. The amount of material required to backfill a 35-foot bench is about 23 cubic yards/linear foot of bench. This will require about 632,500 cubic yards of fill material or 1,400,000 tons of blasted material.

The attached cost estimate assumes blasting of material and backfilling of the existing exposed benches, which includes 15 benches that are 1,600 linear feet each in the original pit, along with up to 3,500 linear feet of working benches in the current pit.

Additional fill placement within this task includes placing up to 12 inches in the plant area that includes 70 acres. This area is shown in revised Exhibit F1 – Reclamation Plan Map. This area will require about 113,000 cubic yards of fill material. We have estimated that total fill placement will include up to 750,000 cubic yards of material combined in the pit and plant area. The entrance and exit roads will remain following completion of mining and reclamation.

Total cost for this task is estimated at \$1,871,810.

**Task - Slope Grading**

This task includes grading material in the pit area, once the “Fill Placement” task is completed to backfill the benches. This includes grading up to 59 acres of area in the existing excavation using dozers. The area includes existing exposed benches along with an estimate of the area that includes the working benches. Material will be moved varying distances ranging from 10 – 1,000 feet. As mining progresses, the area requiring grading is expected to decrease due to concurrent reclamation. The total cost for this task is estimated at \$595,390.

**Task - Finish Grading**

This task includes grading the plant area outside of the pit excavation. This task will be completed using a grader after fill is placed on 70 acres of area as described in the fill placement task. This area is shown on revised Exhibit F1 – Reclamation Map. The total cost for finish grading is estimated to be \$209,370.

**Task - Soil Amendment**

The 70-acre area outside of the pit is expected to require soil amendment prior to revegetation. The specific type of amendment will be determined based on soil chemistry at the time of reclamation. We have assumed a generic fertilizer for this cost estimate. This task includes purchase of the soil amendment and placement using a tractor with disc at a cost of \$188,197.



**Task - Revegetation**

This task includes seeding of 70 acres in the plant area using drill seeding, and 59 acres in the pit area using hydroseeding. The seed mix used is included in Exhibit E – Reclamation Plan. The cost for this task is \$218,640.

**Task - Reclamation Monitoring**

Oversight of the reclamation will be provided by an engineer, estimated at \$48,000 (320 hours at \$150 per hour).

The total reclamation cost is estimated at \$3,963,313. The addition of a regulatory oversight cost of 5% results in a total bond estimate of \$4,161,479. This is an increase from the current bond of \$1,453,291.



**Project Name:** Spec Agg Reclamation  
**Project Location:** Jefferson County, Colorado  
**Estimate Date:** March 3, 2022

Task Number	Task Description	Labor Cost	Equipment Cost	Material Cost	Laboratory Cost	Subcontractor Cost	Item Total
1	Engineering and Surveying	\$ 50,400.00	\$ -	\$ -	\$ -	\$ 28,800.00	\$ 79,200.00
2	Removal of Stockpiles	\$ 38,400.00	\$ 38,746.00	\$ 3,575.00	\$ -	\$ 121,600.00	\$ 202,321.00
3	Plant Removal	\$ 64,000.00	\$ 37,792.00	\$ 3,520.00	\$ -	\$ 99,740.00	\$ 205,052.00
4	Site Cleanup	\$ 160,000.00	\$ 111,773.00	\$ 6,600.00	\$ -	\$ 66,960.00	\$ 345,333.00
5	Fill Placement	\$ 208,000.00	\$ 366,560.00	\$ 24,750.00	\$ -	\$ 1,272,500.00	\$ 1,871,810.00
6	Slope Grading	\$ 208,000.00	\$ 362,640.00	\$ 24,750.00	\$ -	\$ -	\$ 595,390.00
7	Finish Grading	\$ 86,400.00	\$ 118,570.00	\$ 4,400.00	\$ -	\$ -	\$ 209,370.00
8	Soil Amendment	\$ 21,600.00	\$ 50,800.00	\$ 115,797.00	\$ -	\$ -	\$ 188,197.00
9	Revegetation	\$ 38,400.00	\$ 6,800.00	\$ 11,440.00	\$ -	\$ 162,000.00	\$ 218,640.00
10	Reclamation Monitoring	\$ -	\$ -	\$ -	\$ -	\$ 48,000.00	\$ 48,000.00
11	Miscellaneous 2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTALS		\$ 875,200.00	\$ 1,093,681.00	\$ 194,832.00	\$ -	\$ 1,799,600.00	\$ 3,963,313.00

Regulatory Oversight \$ 198,165.65  
 Total Reclamation Costs \$ 4,161,478.65



**Project Name:** Spec Agg Reclamation  
**Project Location:** Jefferson County, Colorado  
**Estimate Date:** March 3, 2022

**Task Number:** 1 **Task Description:** Engineering and Surveying

**Labor**

Labor Category	Individual	Rate (Regular)	Rate (O.T.)	Hours (Regular)	Hours (O.T.)	Total
Supervisor	TBD	\$ 105.00		480		\$ 50,400.00
						\$ -
						\$ -
						\$ -
TOTAL LABOR COST						\$ 50,400.00

**Equipment**

Equipment Type	Supplier	Unit Rate	Units	Quantity	Transportion and Delivery	Total
						\$ -
						\$ -
						\$ -
						\$ -
						\$ -
						\$ -
TOTAL EQUIPMENT COST						\$ -

**Materials**

Description	Supplier	Unit Cost	Units	Quantity	Sales Tax (Enter as a decimal)	Shipping and Handling	Total
							\$ -
							\$ -
							\$ -
							\$ -
TOTAL MATERIAL COST							\$ -

**Laboratory Services**

Test	Laboratory	Unit Cost	No. of Tests	Subtotal	Turnaround Time	% Premium Expedited TAT (Enter as a decimal)	Total
				\$ -			\$ -
				\$ -			\$ -
				\$ -			\$ -
				\$ -			\$ -
				\$ -			\$ -
				\$ -			\$ -
TOTAL LABORATORY SERVICES COST							\$ -

**Subcontractors**

Service	Supplier	Unit Cost	Units	Quantity	Total
Engineering Design	TBD	\$ 150.00	Hour	80	\$ 12,000.00
Surveying	TBD	\$ 105.00	hour	160	\$ 16,800.00
					\$ -
					\$ -
TOTAL SUBCONTRACTOR COST					\$ 28,800.00

TOTAL COST FOR Engineering and Surveying \$ 79,200.00

Includes design of Leak test required by State Engineer Office



<b>Task Number:</b>	2	<b>Task Description:</b>	Removal of Stockpiles
---------------------	---	--------------------------	-----------------------

Labor Category	Individual	Rate (Regular)	Rate (O.T.)	Hours (Regular)	Hours (O.T.)	Total
Operator - Loader		\$ 55.00		320		\$ 17,600.00
						\$ -
						\$ -
Foreman		\$ 65.00		320		\$ 20,800.00
TOTAL LABOR COST						\$ 38,400.00

Equipment Type	Supplier	Unit Rate	Units	Quantity	Transportion and Delivery	Total
Volvo 250H Loader	PECO	\$ 13,900.00	Month	2	\$ 946.00	\$ 28,746.00
Service Truck	TBD	\$ 850.00	Week	8		\$ 6,800.00
Pickup	TBD	\$ 400.00	Week	8		\$ 3,200.00
						\$ -
						\$ -
TOTAL EQUIPMENT COST						\$ 38,746.00

[illegible][illegible]

Service	Supplier	Unit Cost	Units	Quantity	Total
Trucking - Aggregate		\$ 95.00	Hour	1280	\$ 121,600.00
					\$ -
					\$ -
					\$ -
TOTAL SUBCONTRACTOR COST					\$ 121,600.00

<b>TOTAL COST FOR</b>	<b>Removal of Stockpiles</b>	<b>\$ 202,321.00</b>
-----------------------	------------------------------	----------------------



<b>Task Number:</b>	3	<b>Task Description:</b>	Plant Removal
---------------------	---	--------------------------	---------------

Labor Category	Individual	Rate (Regular)	Rate (O.T.)	Hours (Regular)	Hours (O.T.)	Total
Laborer		\$ 45.00		160		\$ 7,200.00
Laborer		\$ 45.00		160		\$ 7,200.00
Laborer		\$ 45.00		160		\$ 7,200.00
Laborer		\$ 45.00		160		\$ 7,200.00
Laborer		\$ 45.00		160		\$ 7,200.00
Operator - Loader		\$ 55.00		160		\$ 8,800.00
Operator - Excavator		\$ 55.00		160		\$ 8,800.00
Foreman		\$ 65.00		160		\$ 10,400.00
TOTAL LABOR COST						\$ 64,000.00

Equipment Type	Supplier	Unit Rate	Units	Quantity	Transportion and Delivery	Total
329 Excavator with Breaker	Wagner Cat	\$ 17,330.00	Month	1	946	\$ 18,276.00
966 Wheel Loader	Wagner Cat	\$ 13,570.00	Month	1	946	\$ 14,516.00
Service Truck		\$ 850.00	Week	4		\$ 3,400.00
Pickup		\$ 400.00	Week	4		\$ 1,600.00
						\$ -
						\$ -
TOTAL EQUIPMENT COST						\$ 37,792.00

[illegible][illegible]

Service	Supplier	Unit Cost	Units	Quantity	Total
Crane - 190 Ton	SOCO	\$ 380.00	Hours	160	\$ 60,800.00
Crane Mob/Demob	SOCO	\$ 380.00	Hours	16	\$ 6,080.00
Debris Disposal		\$ 35.00	Ton	500	\$ 17,500.00
Trucking		\$ 96.00	Hours	160	\$ 15,360.00
<b>TOTAL SUBCONTRACTOR COST</b>					<b>\$ 99,740.00</b>

<b>TOTAL COST FOR</b>	<b>Plant Removal</b>	<b>\$ 205,052.00</b>
-----------------------	----------------------	----------------------



<b>Task Number:</b>	4	<b>Task Description:</b>	Site Cleanup
---------------------	---	--------------------------	--------------

Labor Category	Individual	Rate (Regular)	Rate (O.T.)	Hours (Regular)	Hours (O.T.)	Total
Laborer		\$ 45.00		320		\$ 14,400.00
Laborer		\$ 45.00		320		\$ 14,400.00
Laborer		\$ 45.00		320		\$ 14,400.00
Laborer		\$ 45.00		320		\$ 14,400.00
Laborer		\$ 45.00		320		\$ 14,400.00
Laborer		\$ 45.00		320		\$ 14,400.00
Operator - Loader		\$ 55.00		320		\$ 17,600.00
Operator - Excavator		\$ 55.00		320		\$ 17,600.00
Operator - Excavator		\$ 55.00		320		\$ 17,600.00
Foreman		\$ 65.00		320		\$ 20,800.00
TOTAL LABOR COST						\$ 160,000.00

Equipment Type	Supplier	Unit Rate	Units	Quantity	Transportion and Delivery	Total
966 Wheel Loader	Wagner Cat	\$ 13,570.00	Month	2		\$ 27,140.00
Service Truck		\$ 850.00	Week	8		\$ 6,800.00
Pickup		\$ 400.00	Week	8		\$ 3,200.00
329 Excavator	Wagner Cat	\$ 11,320.00	Month	2		\$ 22,640.00
330 Excavator & Breaker	Wagner Cat	\$ 17,331.00	Month	3		\$ 51,993.00
						\$ -
TOTAL EQUIPMENT COST						\$ 111,773.00

[illegible][illegible]

Service	Supplier	Unit Cost	Units	Quantity	Total
Concrete Disposal		\$ 8.56	Cubic Yard	6000	\$ 51,360.00
Dumpster Rental - 30 CY	Waste Management	\$ 600.00	Each/week	26	\$ 15,600.00
					\$ -
					\$ -
<b>TOTAL SUBCONTRACTOR COST</b>					<b>\$ 66,960.00</b>

\* assumes two - 4 person crews - 3 months onsite



<b>Task Number:</b>	5	<b>Task Description:</b>	Fill Placement	750,000	Cubic Yards
---------------------	---	--------------------------	----------------	---------	-------------

Labor Category	Individual	Rate (Regular)	Rate (O.T.)	Hours (Regular)	Hours (O.T.)	Total
Operator - Loader		\$ 55.00		640		\$ 35,200.00
Operator - Dozer		\$ 55.00		640		\$ 35,200.00
Teamster - Water Truck		\$ 50.00		640		\$ 32,000.00
Teamster- Haul Truck X 2		\$ 50.00		1280		\$ 64,000.00
Foreman		\$ 65.00		640		\$ 41,600.00
TOTAL LABOR COST						\$ 208,000.00

[illegible][illegible][illegible]

Service	Supplier	Unit Cost	Units	Quantity	Total
Blasting	Buckley Powder	\$ 0.50	Tons	2,545,000	\$ 1,272,500.00
					\$ -
					\$ -
					\$ -
TOTAL SUBCONTRACTOR COST					\$ 1,272,500.00

<b>TOTAL COST FOR</b>	<b>Fill Placement</b>	<b>\$ 1,871,810.00</b>
-----------------------	-----------------------	------------------------

\*assumes 15 benches 1600 long at 1:1 slope for final reclamation  
material needed to fill slopes = 632,500 yards or 1,400,000 tons (material to be blasted)  
2.2 yds/ton conversion  
70 acres filled with 12-18 inches of material in the plant area (113,000 yards of material)



<b>Task Number:</b>	6	<b>Task Description:</b>	Slope Grading	59 Acres
---------------------	---	--------------------------	---------------	----------

Labor Category	Individual	Rate (Regular)	Rate (O.T.)	Hours (Regular)	Hours (O.T.)	Total
Operator - Loader		\$ 55.00		640		\$ 35,200.00
Operator - Dozer		\$ 55.00		640		\$ 35,200.00
Teamster- Water Truck		\$ 50.00		640		\$ 32,000.00
Teamster- Haul Truck X 2		\$ 50.00		1280		\$ 64,000.00
Foreman		\$ 65.00		640		\$ 41,600.00
TOTAL LABOR COST						\$ 208,000.00

Equipment Type	Supplier	Unit Rate	Units	Quantity	Transportion and Delivery	Total
D9 Dozer	Wagner	\$ 31,720.00	Month	4		\$ 126,880.00
966 Loader	Wagner	\$ 13,570.00	Month	4		\$ 54,280.00
Service Truck		\$ 850.00	Week	16		\$ 13,600.00
Pickup		\$ 400.00	Week	16		\$ 6,400.00
Water Truck - 8,000 gallon	Wagner	\$ 2,890.00	Month	4		\$ 11,560.00
Volvo A45G Haul Truck x 2	PECO	\$ 18,500.00	Month	8	\$ 1,920.00	\$ 149,920.00
TOTAL EQUIPMENT COST						\$ 362,640.00

[illegible][illegible]

Service	Supplier	Unit Cost	Units	Quantity	Total
					\$ -
					\$ -
					\$ -
					\$ -
TOTAL SUBCONTRACTOR COST					\$ -

<b>TOTAL COST FOR</b>	<b>Slope Grading</b>	<b>\$ 595,390.00</b>
-----------------------	----------------------	----------------------

Assumes 59 acres is graded with dozer  
Assumes dozer on average pushed 1.0 foot of material  
Blasted Yards pushed                      104,000 yards



**Project Name:** Spec Agg Reclamation  
**Project Location:** Jefferson County, Colorado  
**Estimate Date:** March 3, 2022

**Task Number:** 7      **Task Description:** Finish Grading      70 Acres

**Labor**

Labor Category	Individual	Rate (Regular)	Rate (O.T.)	Hours (Regular)	Hours (O.T.)	Total
Operator - Grader		\$ 55.00		320		\$ 17,600.00
Teamster - Water Truck		\$ 50.00		320		\$ 16,000.00
Teamster- Haul Truck X 2		\$ 50.00		640		\$ 32,000.00
Foreman		\$ 65.00		320		\$ 20,800.00
TOTAL LABOR COST						\$ 86,400.00

**Equipment**

Equipment Type	Supplier	Unit Rate	Units	Quantity	Transportion and Delivery	Total
Grader - Cat 140		\$ 10,810.00	Month	2	\$ 3,860.00	\$ 25,480.00
Water Truck - 5,000 gallon	Wagner	\$ 8,100.00	Month	2	\$ 2,890.00	\$ 19,090.00
Volvo A45G Haul Truck x 2	PECO	\$ 18,500.00	Month	4		\$ 74,000.00
TOTAL EQUIPMENT COST						\$ 118,570.00

**Materials**

Description	Supplier	Unit Cost	Units	Quantity	Sales Tax (Enter as a decimal)	Shipping and Handling	Total
Diesel Fuel		\$ 2.75	Gallon	1600			\$ 4,400.00
							\$ -
							\$ -
							\$ -
TOTAL MATERIAL COST							\$ 4,400.00

**Laboratory Services**

Test	Laboratory	Unit Cost	No. of Tests	Subtotal	Turnaround Time	% Premium Expedited TAT (Enter as a decimal)	Total
				\$ -			\$ -
				\$ -			\$ -
				\$ -			\$ -
				\$ -			\$ -
				\$ -			\$ -
				\$ -			\$ -
TOTAL LABORATORY SERVICES COST							\$ -

**Subcontractors**

Service	Supplier	Unit Cost	Units	Quantity	Total
					\$ -
					\$ -
					\$ -
					\$ -
TOTAL SUBCONTRACTOR COST					\$ -

TOTAL COST FOR Finish Grading \$ 209,370.00

top slope material 100,000 yards



<b>Task Number:</b>	8	<b>Task Description:</b>	Soil Amendment	70 Acres
---------------------	---	--------------------------	----------------	----------

[illegible]

Equipment Type	Supplier	Unit Rate	Units	Quantity	Transportion and Delivery	Total
Tractor with Disc		\$ 9,010.00	Week	2	\$ 500.00	\$ 18,520.00
Water Truck - 5,000 gallon	Wagner	\$ 2,890.00	Week	2	\$ 500.00	\$ 6,280.00
						\$ -
						\$ -
						\$ -
Volvo A45G Haul Truck x 2	PECO	\$ 6,500.00	Week	4		\$ 26,000.00
TOTAL EQUIPMENT COST						\$ 50,800.00

Description	Supplier	Unit Cost	Units	Quantity	Sales Tax (Enter as a decimal)	Shipping and Handling	Total
Soil Amendment		\$ 55.00	Ton	1,900		\$ 10,472.00	\$ 114,972.00
Diesel Fuel		\$ 2.75	Gallon	300			\$ 825.00
							\$ -
							\$ -
<b>TOTAL MATERIAL COST</b>							<b>\$ 115,797.00</b>

[illegible]

Service	Supplier	Unit Cost	Units	Quantity	Total
					\$ -
					\$ -
					\$ -
					\$ -
TOTAL SUBCONTRACTOR COST					\$ -

<b>TOTAL COST FOR</b>	<b>Soil Amendment</b>	<b>\$ 188,197.00</b>
-----------------------	-----------------------	----------------------



<b>Task Number:</b>	9	<b>Task Description:</b>	Revegetation	130 Acres
---------------------	---	--------------------------	--------------	-----------

Labor Category	Individual	Rate (Regular)	Rate (O.T.)	Hours (Regular)	Hours (O.T.)	Total
Operator - Seeder		\$ 55.00		320		\$ 17,600.00
						\$ -
Foreman		\$ 65.00		320		\$ 20,800.00
						\$ -
TOTAL LABOR COST						\$ 38,400.00

Equipment Type	Supplier	Unit Rate	Units	Quantity	Transportion and Delivery	Total
Tractor with Seeder		\$ 1,575.00	Week	4	\$ 500.00	\$ 6,800.00
						\$ -
						\$ -
						\$ -
						\$ -
						\$ -
TOTAL EQUIPMENT COST						\$ 6,800.00

[illegible][illegible]

Service	Supplier	Unit Cost	Units	Quantity	Total
Hydroseed Slopes		\$ 2,700.00	Acre	60	\$ 162,000.00
					\$ -
					\$ -
					\$ -
TOTAL SUBCONTRACTOR COST					\$ 162,000.00

Assumes 60 acres of hydroseeding  
70 acres of drill seeding



<b>Task Number:</b>	10	<b>Task Description:</b>	Reclamation Monitoring
---------------------	----	--------------------------	------------------------

Labor Category	Individual	Rate (Regular)	Rate (O.T.)	Hours (Regular)	Hours (O.T.)	Total
						\$ -
						\$ -
						\$ -
						\$ -
TOTAL LABOR COST						\$ -

Equipment Type	Supplier	Unit Rate	Units	Quantity	Transportation and Delivery	Total
						\$ -
						\$ -
						\$ -
						\$ -
						\$ -
						\$ -
TOTAL EQUIPMENT COST						\$ -

[illegible][illegible]

Service	Supplier	Unit Cost	Units	Quantity	Total
Engineer		\$ 150.00	Hours	320	\$ 48,000.00
					\$ -
					\$ -
					\$ -
TOTAL SUBCONTRACTOR COST					\$ 48,000.00

<b>TOTAL COST FOR</b>	<b>Reclamation Monitoring</b>	<b>\$ 48,000.00</b>
-----------------------	-------------------------------	---------------------



<b>Task Number:</b>	11	<b>Task Description:</b>	Miscellaneous 2
---------------------	----	--------------------------	-----------------

Labor Category	Individual	Rate (Regular)	Rate (O.T.)	Hours (Regular)	Hours (O.T.)	Total
						\$ -
						\$ -
						\$ -
						\$ -
TOTAL LABOR COST						\$ -


Equipment Type	Supplier	Unit Rate	Units	Quantity	Transportion and Delivery	Total
						\$ -
						\$ -
						\$ -
						\$ -
						\$ -
						\$ -
TOTAL EQUIPMENT COST						\$ -

[illegible][illegible]

Service	Supplier	Unit Cost	Units	Quantity	Total
					\$ -
					\$ -
					\$ -
					\$ -
TOTAL SUBCONTRACTOR COST					\$ -

<b>TOTAL COST FOR</b>	<b>Miscellaneous 2</b>	<b>\$</b>	<b>-</b>
-----------------------	------------------------	-----------	----------





West Division  
1627 Cole Blvd., Ste 200  
Lakewood, CO 80401

EXHIBIT L1

RECLAMATION COSTS MAP

Specifications Aggregates Quarry  
Jefferson County, CO

COORD. SYS:  
Colorado State Plane Central (1983, US Feet)

DATE: 9/6/2022

PREPARED BY: Alex Hanko


MAP NO: MAP 1

APPROVED BY: Phillip Courtney


©2021 BY MARTIN MARIETTA MATERIALS, INC. ALL RIGHTS RESERVED. UNAUTHORIZED DUPLICATION IS PROHIBITED.


**Legend**


**Mining Boundaries**

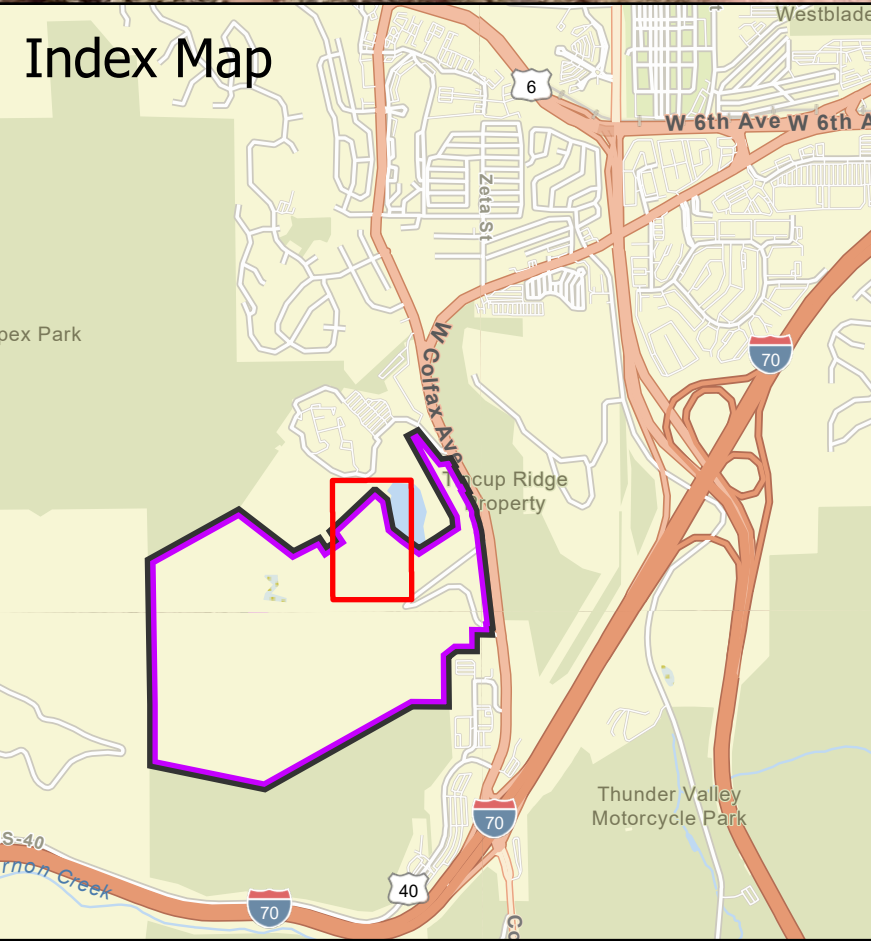
 Current Mining Permit Boundary

**Structures**

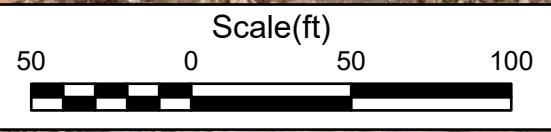
 Roads

 Stockpile Area

 Structure



Measurement	Description	Type	Location	Size
1	6x20 feed conveyor	Conveyor	Primary Plant	36" X 125'
3	MAIN CONV	Conveyor	Primary Plant	54" X 135'
4	S.F. STACKER	Conveyor	Primary Plant	30" X 80'
6	6X20 RETURN CONV	Conveyor	Primary Plant	36" X 50'
7	RD BASE STEP CONV	Conveyor	Primary Plant	30" X 450'
8	6X20 FINES CONV	Conveyor	Primary Plant	36" X 50'
9	RD BASE STACKER	Conveyor	Primary Plant	36" X 140'
10	1st s.f. step conveyor	Conveyor	Primary Plant	24" X 35'
11	2nd s.f. step conveyor	Conveyor	Primary Plant	24" X 100'
12	Dump Hopper	Hopper	Primary Plant	
13	Storage Barn	Structure	Quarry	150' x 32'
19	30 X 42 PIONEER JAW	Crusher	Primary Plant	30' x 42'
20	50 X 62 LIPPMAN JAW	Crusher	Primary Plant	50' x 62'
21	8X20 DEISTER	Screen	Primary Plant	8' x 20'
22	6 X 20 CEDARRAPIDS	Screen	Primary Plant	6' x 20'
23	#1 64" X 23' HEWITT	Grizzly	Primary Plant	64" x 23'
24	#2 72" X 18' HEWITT	Grizzly	Primary Plant	72" x 18'
29	1ST S.F. STEP CONV	Conveyor	Primary Plant	30" X 180'
30	S.F. STACKER	Conveyor	Primary Plant	24" X 100'
31	2ND S.F. STEP CONV	Conveyor	Primary Plant	30" X 190'
32	3RD S.F. STEP CONV	Conveyor	Primary Plant	30" X 20'
33	S.F. BLENDING HOPPER	Hopper	Primary Plant	
35	S.F. SIDE (18") FH-22-C-DT	Conveyor	Primary Plant	18"
36	RD BASE SIDE (18") FH-22-C-DT	Conveyor	Primary Plant	18"
40	RETURN CONV	Conveyor	Secondary Plant	36" X 225'
41	#1 8X20 FINES CONV	Conveyor	Secondary Plant	24" X 25'
42	#2 8X20 FINES CONV	Conveyor	Secondary Plant	24" X 40'
43	CROSSOVER CONV	Conveyor	Secondary Plant	36" X 40'
47	1ST FINES STEP CONV	Conveyor	Secondary Plant	30" X 225'
53	CHIP STACKER	Conveyor	Secondary Plant	24" X 125'
56	CON ROCK STACKER	Conveyor	Secondary Plant	36" X 140'
68	# 4 Sandv H6800	Crusher	Secondary Plant	
71	#1 8x20 Svedala TD	Screen	Secondary Plant	8' x 20'
72	#2 8x20 Svedala TD	Screen	Secondary Plant	8' x 20'
80	Feed Conveyor	Conveyor	Wash Plant	36" X 695'
81	Shuttle Conveyor	Conveyor	Wash Plant	36" X 77'



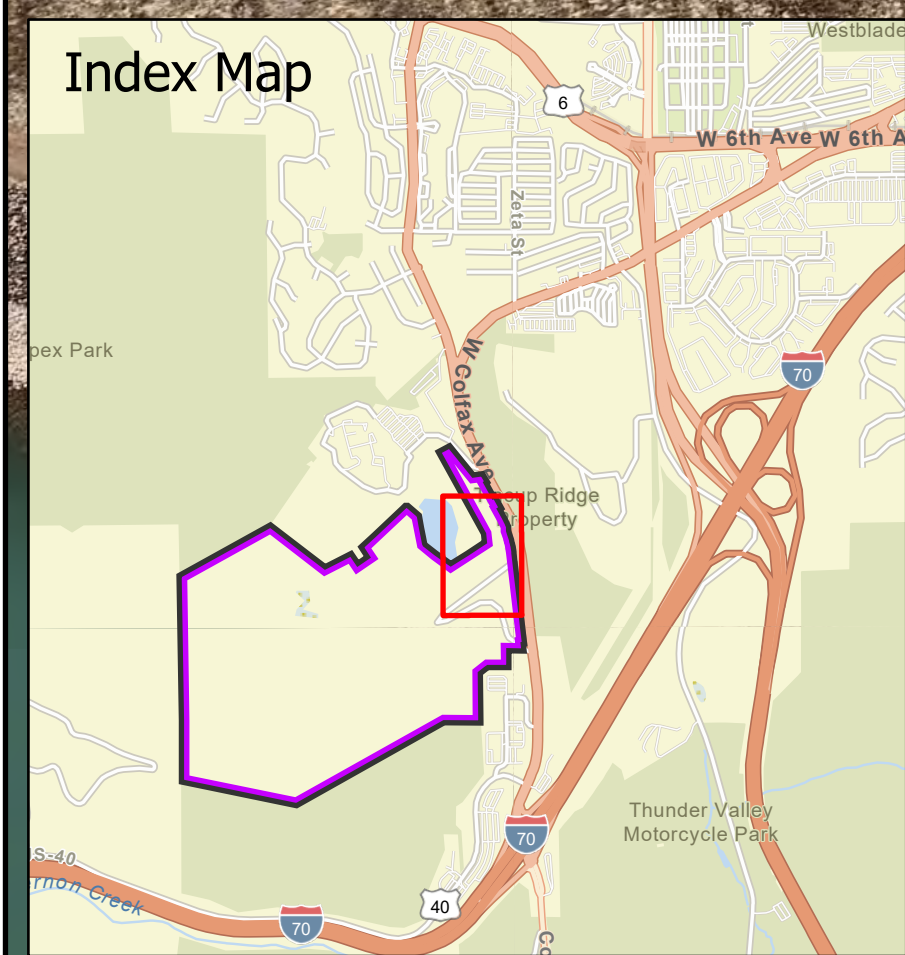
Stockpile Area

Stockpile Area

Primary Plant

Secondary Plant





Measurement	Description	Type	Location	Size
14	Tare Scale	Structure	Quarry	110' x 12'
15	Tare Scale House	Structure	Quarry	18' x 30'
16	Offices/Scale House	Structure	Quarry	45' x 48'
82	57/67 Conveyor	Conveyor	Wash Plant	36" X 154
83	1-1/2" Stacker	Conveyor	Wash Plant	36" X 100
84	57/67 Stacker	Conveyor	Wash Plant	36" X 100
85	Deister 8x20	Screen	Wash Plant	8' x 20'
89	Flock Tank	Tank	Wash Plant	
95	Wheel Wash Slurry	Tank	Wash Plant	28' x 8'
99	Freshwater Tank	Tank	Wash Plant	
100	Flock Tank	Tank	Wash Plant	
110	Wheel Wash Water Tank	Tank	Quarry	32' x 10'
111	Wheel Wash	Structure	Quarry	29' x 20'
114	Storage Shed	Structure	Quarry	16' x 10'

**Legend**

**Mining Boundaries**

Current Mining Permit Boundary

**Structures**

Roads

Stockpile Area

Structure

West Division  
1627 Cole Blvd., Ste 200  
Lakewood, CO 80401

EXHIBIT L2

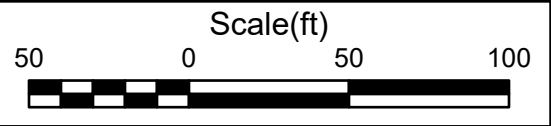
RECLAMATION COSTS MAP

Specifications Aggregates Quarry  
Jefferson County, CO

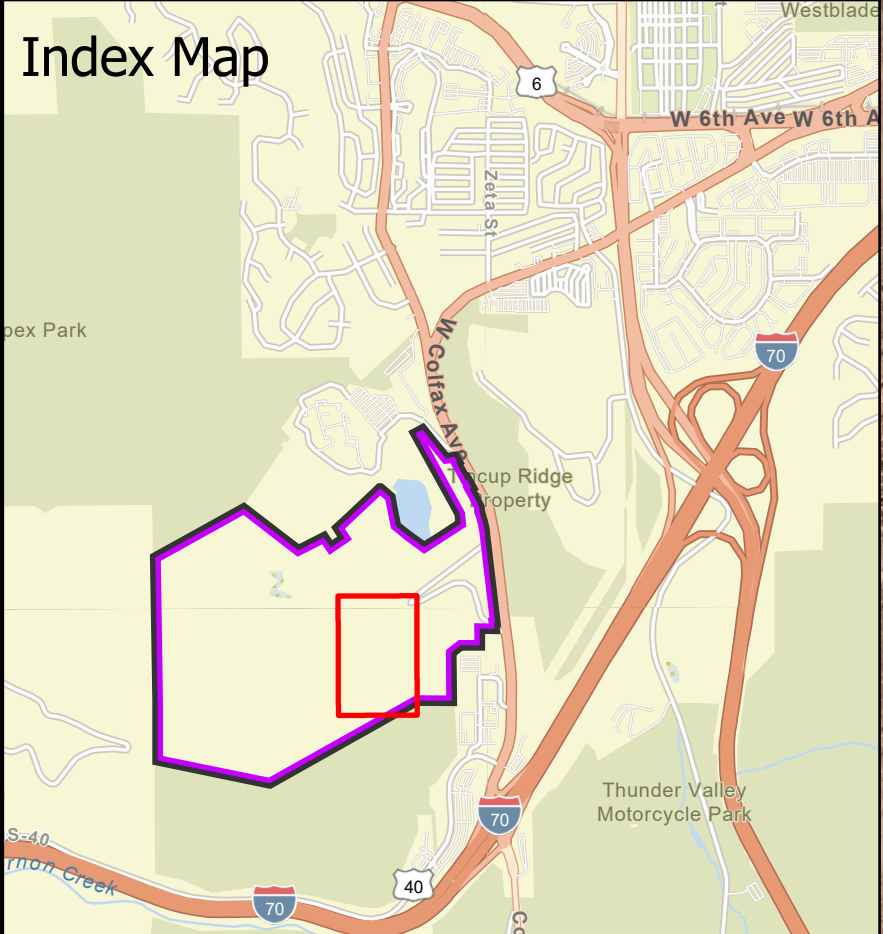
COORD. SYS:  
Colorado State Plane Central (1983, US Feet)

DATE: 9/6/2022  
PREPARED BY: Alex Hanko

MAP NO: MAP 2  
APPROVED BY: Phillip Courtney








Measurement	Description	Type	Location	Size
2	Employee Building	Structure	Quarry	55' x 35'
5	SURGE CONV	Conveyor	Primary Plant	48" X 300'
18	Maintenance Shop	Structure	Quarry	70' x 12'
25	Weld Shop	Structure	Quarry	50' x 40'
26	SCREEN FEED CONV	Conveyor	Primary Plant	30" X 150'
27	CROSSOVER CONV	Conveyor	Primary Plant	30" X 25'
28	UNDERSCREEN CONV	Conveyor	Primary Plant	72" X 40'
34	8X20 BIVITEC	Screen	Primary Plant	8' x 20'
37	Offices	Structure	Quarry	30' x 10'
38	TUNNEL CONV	Conveyor	Secondary Plant	42" X 175'
39	#1/#2 8X20 FEED CONV	Conveyor	Secondary Plant	42" X 250'
44	1ST 1 1/2" STEP CONV	Conveyor	Secondary Plant	42" X 10'
45	2ND 1 1/2" STEP CONV	Conveyor	Secondary Plant	30" X 80'
46	1 1/2" STACKER	Conveyor	Secondary Plant	30" X 100'
48	2ND FINES STEP CONV	Conveyor	Secondary Plant	30" X 600'
49	3RD FINES STEP CONV	Conveyor	Secondary Plant	30" X 100'
50	FINES STACKER	Conveyor	Secondary Plant	30" X 110'
51	#3 8X20 FINES CONV	Conveyor	Secondary Plant	42" X 25'
52	CHIP STEP CONV	Conveyor	Secondary Plant	24" X 175'
54	1ST CON ROCK STEP CONV	Conveyor	Secondary Plant	36" X 36'
55	2ND CON ROCK STEP CONV	Conveyor	Secondary Plant	30" X 300'
57	Aggregate Bins	Structure	Asphalt Plant	125' x 15'
58	1ST #4 CONE FEED CONV	Conveyor	Secondary Plant	30" X 27'
59	2ND #4 CONE FEED CONV	Conveyor	Secondary Plant	36" X 45'
60	3rd #4 cone feed conveyor	Conveyor	Secondary Plant	48" X 105'
61	#4 8x20 fines conveyor	Conveyor	Secondary Plant	42" X 25'

Measurement	Description	Type	Location	Size
62	#3/#4 8x20 feed conveyor	Conveyor	Secondary Plant	42" X 146'
63	Lime Silo	Structure	Asphalt Plant	55' x 10'
65	AC Storage Tanks	Structure	Asphalt Plant	60' x 40'
66	#2/#3 Cone Surge Bin	Bin	Secondary Plant	
67	#1 Sandv S6800	Crusher	Secondary Plant	
69	#3 HP400	Crusher	Secondary Plant	
70	#2 HP500	Crusher	Secondary Plant	
73	#4 8x20 CONN WELD	Screen	Secondary Plant	8' x 20'
74	#8x20 Svedala T.D.	Screen	Secondary Plant	8' x 20'
75	30" FMC Syntron (1 1/2")	Conveyor	Secondary Plant	30"
76	30" FMC Syntron (#2 Cone)	Conveyor	Secondary Plant	30"
77	36" Jeffery fdr (Frt tunnel)	Conveyor	Secondary Plant	36"
78	36" FMC Syntron (bk tunnel)	Conveyor	Secondary Plant	36"
79	30" FMC Syntron (#3 cone)	Conveyor	Secondary Plant	30"
90	Control Room	Structure	Asphalt Plant	30' x 45'
90	Maintenance Building	Structure	Asphalt Plant	50' x 50'
91	Break Room	Structure	Asphalt Plant	35' x 15'
93	Aggregate Bin Conveyor	Conveyor	Asphalt Plant	185' x 3'
94	Lime Silo Conveyor	Conveyor	Asphalt Plant	105' x 3'
96	Plant Feed Conveyor	Conveyor	Asphalt Plant	155' x 3'
97	Hot Asphalt Drum	Conveyor	Asphalt Plant	60' x 18'
106	Recycled Asphalt Bins	Structure	Asphalt Plant	35' x 10'
107	1st Recycled Asphalt Conveyor	Conveyor	Asphalt Plant	36" x 95'
108	2nd Recycled Asphalt Conveyor	Conveyor	Asphalt Plant	36" x 83'
112	Diesel Tank	Tank	Quarry	32' x 8'
113	Gasoline Tank	Tank	Quarry	18' x 5'



West Division  
1627 Cole Blvd., Ste 200  
Lakewood, CO 80401

EXHIBIT L3

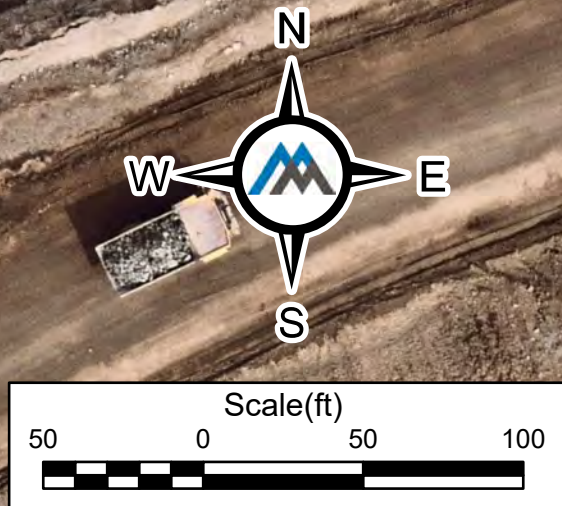
RECLAMATION COSTS MAP

Specifications Aggregates Quarry  
Jefferson County, CO

COORD. SYS:  
Colorado State Plane Central (1983, US Feet)


DATE: 9/6/2022  
PREPARED BY: Alex Hanks

MAP NO: MAP 3  
APPROVED BY: Phillip Courtney





**Legend**


**Mining Boundaries**

 Current Mining Permit Boundary

**Structures**

 Roads

 Stockpile Area

 Structure





Measurement	Description	Type	Location	Size
17	Scales	Structure	Quarry	85' x 12'
64	Scale House	Structure	Asphalt Plant	20' x 25'
86	Storage Silos	Structure	Asphalt Plant	70' x 40'
87	QC Building	Structure	Asphalt Plant	45' x 18'
88	QC Storage Shed	Structure	Asphalt Plant	18' x 16'
98	Cross Drag Conveyor	Conveyor	Asphalt Plant	140' x 6'
101	Ready Mix Washout	Concrete Bays	Ready Mix Plant	90' x 50'
102	Ready Mix Plant	Structure	Ready Mix Plant	40' x 40'
103	Control Room	Structure	Ready Mix Plant	48' x 40'
104	Aggregate Hopper	Hopper	Ready Mix Plant	11' x 7'
105	Aggregate Feeder Conveyor	Conveyor	Ready Mix Plant	36" x 90'
109	Retaining Wall	Structure	Asphalt Plant	240'

**Legend**

**Mining Boundaries**  
Current Mining Permit Boundary

**Structures**  
Roads  
Stockpile Area  
Structure

**Martin Marietta**

West Division  
1627 Cole Blvd., Ste 200  
Lakewood, CO 80401

EXHIBIT L4

RECLAMATION COSTS MAP

Specifications Aggregates Quarry  
Jefferson County, CO

COORD. SYS:  
Colorado State Plane Central (1983, US Feet)

DATE: 9/6/2022 MAP NO: MAP 4

PREPARED BY: Alex Hanko APPROVED BY: Phillip Courtney

