



COLORADO
Division of Reclamation,
Mining and Safety
Department of Natural Resources

1313 Sherman Street, Room 215
Denver, CO 80203

August 7, 2018

Mr. Ben Langenfeld
Greg Lewicki and Associates
3375 W. Powers Circle
Littleton, CO 80123

**Re: Empire Aggregate, Inc.; Douglas Mountain Mine; M-2018-016;
112c Permit Application Adequacy Review**

Mr. Langenfeld,

The Division of Reclamation, Mining and Safety (Division/DRMS) reviewed the content of the Empire Aggregate, Inc. 112c permit application for the Douglas Mountain Mine, File No. M-2018-016 and submits the following comments. The Division is required to make an approval or denial decision no later than August 31, 2018 therefore; a response to the following adequacy review concerns should be submitted to the Division as soon as possible.

The review consisted of comparing the application content with specific requirements of Rules 1, 3, 6.1, 6.2, 6.3 and 6.5 of the Minerals Rules and Regulations of the Colorado Mined Land Reclamation Board for the Extraction of Construction Materials. Any inadequacies are identified under the respective exhibit heading along with suggested actions to correct them.

Application Form

1. The Division requires the Applicant to provide documentation giving the signer, Christophe Townsend, the authority to sign on behalf of the company, Empire Aggregate, Inc. The authorization document may be in the form of by-laws, resolution, affidavit signed by corporate secretary, certified secretary statement or a notarized statement on company letterhead.
2. Please provide documentation authorizing Greg Lewicki and Associates to act on behalf of Empire Aggregate, Inc. for the Douglas Mountain Mine permit application. A signed and notarized letter on company letterhead is adequate documentation.
3. On Page 4, Item #11 - Primary future (Post-Mining) land use section, the Applicant selected "Rangeland". The Clear Creek County Planned Development Application, dated



July 2018, indicates the primary post-mining land use as reservoir (developed water resource). Please explain this discrepancy and update the permit application accordingly.

Comments and Objections

4. The Division received comments from the Division of Water Resources, the Office of Archaeology and Historic Preservation, the Army Corps of Engineers and Clear Creek County. The letters are attached for review. Please address the comments noted in the letters and revise the application accordingly.
5. The Division sent the Applicant copies of all timely objections and comments received for the application. Please inform the Division of how the Applicant intends to address the jurisdictional issues raised by Objectors.

1.6 Public Notice

6. As required by Rule 1.6.2(d) and 1.6.5(2), please submit proof of publication in a newspaper of general circulation in the locality of the proposed mining operation.
7. As required by Rule 1.6.2(e), please submit proof of the notice to all owners of record of surface and mineral rights of the affected land and the owners of record of all land surface within 200 feet of the boundary of the affected land including all easement holders located on the affected land and within 200 feet of the boundary of the affected land. Proof of notice may be return receipts of a Certified Mailing or by proof of personal service.

6.4 Specific Exhibit Requirements - Regular 112 Operations

The following items must be addressed by the Applicant in order to satisfy the requirements of C.R.S. 34-32.5-101 et seq. and the Mineral Rules and Regulations of the Mined Land Reclamation Board:

6.4.1 Exhibit A - Legal Description

8. On Page A-1, the Applicant indicates the total permit area is 91.5 acres. On Page 1, Item #3 on the Application Form the Applicant indicates the permitted acreage as 91.6 acres. Please explain this discrepancy and revise the application form and/or Exhibit A accordingly.
9. Pursuant to Rule 6.4.1(2), the main entrance to the mine site shall be located based on a USGS topographic map showing latitude and longitude or Universal Transverse Mercator (UTM). The operator will need to specify coordinates of latitude and longitude in degrees, minutes and seconds or in decimal degrees to an accuracy of at least five (5) decimal places. Please provide the main entrance location pursuant to Rule 6.4.1(2) in Exhibit A.

6.4.2 Exhibit B - Index Map

10. On Page B-1, the Applicant indicates the mine entry location as 39.7578 N, -105.6694 W. The longitude and latitude location provided by the Applicant indicates the center of the proposed mine site, not the mine entry location. Please revised Exhibit B - Index Map to indicate the mine entrance location.

6.4.3 Exhibit C - Pre-mining and Mining Plan Maps of Affected Lands

11. Pursuant to Rule 1.1(3), affected lands include but shall not be limited to private ways, roads, except those roads which existed prior to the date on which notice was given or the permit application was made to the office and which were constructed for purposes unrelated to the proposed mining operation and which will not be substantially upgraded to support the mining operation.

Please clarify if the section of the access road from CR 257 to the permit boundary is included in the proposed 91.6 permitted acreage and if improvements are necessary on the road section to support the proposed mining activity. New and improved roads must be included as part of the permitted acreage. Please update the permit application and exhibit acreage amounts accordingly.

12. During the Pre-Operational Inspection, the Applicant stated the access road would be improved, paved and acceleration / deceleration lanes would be constructed on CR 257. Please provide construction details for the access road and the acceleration / deceleration lanes. Please state if the Applicant intends to reclaim the road or leave the road after final reclamation.
13. Pursuant to Rule 6.4.3(b), the name and location of all creeks, roads, building, oil and gas wells and lines, and power and communication lines on the area of affected land and within two hundred (200) feet of all boundaries of such area must be legibly portrayed on the Exhibit C maps. The owner of the powerlines within the proposed permit area is not labeled on Map C-1 Pre Mining Conditions. Please revise the map to indicate the owner of the powerlines.
14. On Page S-1, the Applicant states an Xcel gas line is located within the permit boundary. Please update the Exhibit C maps to indicate the location and owner of the gas line, pursuant to Rule 6.4.3(b).
15. Pursuant to Rule 6.4.3(d), the Exhibit C maps must legibly portray the total area to be involved in the operation, including the area to be mined and the area of affected lands.
 - a. Please revise the Exhibit C maps to indicate the total proposed affected acreage.

- b. On Map C-2 Mining Plan, the edge of the initial mining area extends past the Disturbed Area Limit (Affected Lands). Please explain this discrepancy and revised Map C-2 Mining Plan accordingly.
16. Please update the Exhibit C maps to indicate the type of present vegetation covering the affected lands pursuant to Rule 6.4.3(e).
17. Please update the Exhibit C maps to show the owner's name, type of structures, and location of all significant, valuable, and permanent man-made structures contained on the area of affected land and within two hundred (200) feet of the affected land pursuant to Rule 6.4.3(g).
18. Due to the complexity of the parcel ownership within the proposed permit boundary and within two hundred feet of the permit boundary, please provide a table with the names and owners of all permanent man-made structures within two hundred (200) feet of the proposed permit boundary.
19. The proposed permit boundary appears to be adjacent to the bank of the West Fork of Clear Creek. Please specify and label the offsets from the West Fork of Clear Creek from the permit and affected lands boundaries.
20. On Map C-1, the label for the west groundwater well on the property owned by the Dalpes Trust is covered up and illegible. Please revise the C-1 map to indicate the well number.
21. On Map C-1, the Applicant labeled a parcel of land west of the Joyce Tanner property as owned by Emily Lu Croke Estate and Douglas Mountain Ranch and Preserve. Please revise the map to indicate the correct landowner for this parcel.
22. The C-2 Map indicates the powerlines transecting the site will be removed to allow mining activities. Please confirm the powerlines and poles will be removed and provide the Division's with a signed agreement with the owner of the powerline.
23. The C-2 Map does not indicate the 100-year floodplain south of the West Fork of Clear Creek through the proposed permit area. Please update the Exhibit C-2 map to indicate the floodplain location during mining operations.
24. On Map C-3 Cross Sections, the Applicant indicates a Development Boundary. Please clarify if the development boundary is the permit, affected or other boundary and revised the map accordingly.

6.4.4 Exhibit D - Mining Plan

25. On Page D-1, the Applicant states this application does not anticipate mining below the ground water horizon that is over 200 feet below the current surface. The cross sections provided by the Applicant on Map C-3 - Cross Sections indicates the operation will mine below the channel elevation of the West Fork of Clear Creek. Please state whether the Operator expects surface water from the West Fork of Clear Creek to infiltrate the pit and describe how the hydrologic balance of the West Fork of Clear Creek will be maintained through the life of the mining operation and final reclamation.
26. On Page D-1, the Applicant states mining will be conducted from the southeast end of the site northwards and westwards. Pursuant to Rule 6.4.4(a), (b) and (d), please provide a description of the method(s) of mining to be employed in each stage of the operation as related to any surface disturbance on affected lands, the earthmoving and the size of area(s) to be worked at any one time.
27. On Page D-1, the Applicant states once mining in an area reaches full depth, reclamation of the mined out portions of the slope will begin. The crest of each cut will be knocked down with a dozer to create the final 3H:1V reclamation slope. Later in the Mining Plan the Applicant states processing fines, overburden and imported fill may be used to backfill all mining slopes to the 3H:1V reclamation slopes. The Applicant's statements contradict each other. Please clarify how the Applicant intends to create the final 3H:1V reclamation slope; crest cut or backfill method.

Please comply with the requirements of Rule 3.1.5(2) and (4) - Reclamation Measures - Material Handling regarding the backfilling and grading of the final reclamation slopes.
28. On Page D-1, the Applicant states imported fill may be used to backfill all mining slopes to the 3H:1V reclamation slopes. Please commit to complying with the requirements of Rule 3.1.5(9) regarding the importation of material to the site.
29. On Page D-2, the Applicant commits to retaining enough topsoil and overburden for preferential onsite reclamation use. Please explain how the Applicant intends to comply with the requirements of Rule 3.1.9 - Topsoiling. Please update the Exhibit C - Mining Plan maps to indicate the topsoil and overburden stockpile locations and dimensions.
30. On Page D-2, the Applicant states quantities of topsoil and overburden will be sold as secondary commodities. On Page 1, Item 5.1 on the Application Form, the Applicant did not indicate any incidental commodities(s) to be mined. Please explain this discrepancy and update the Mining Plan and/or Application Form accordingly.

31. On Page D-3, the Applicant provided Table D-1 Mining Timetable. Please update the table to include an estimate of the periods of time which will be required for the various stages or phases of the operation, a description of the size and location of each area to be worked during each phase and outlining the sequence in which each stage or phase of the operation will be carried out, pursuant to Rule 6.4.4(e)(i)(ii)(iii). Please update the Exhibit C - Mining Plan maps to indicate the mine phases.
32. On Page D-3, the Applicant indicates portable concrete and asphalt batch plants with associated tanks will be located within the permit boundary. Please provide the Division with proof of the appropriate Clear Creek County zoning or special use permit allowing the asphalt and/or concrete plants, the required Air Pollutant Emission Notice (APEN) permit from the Colorado Department of Public Health and Environment and all other applicable permits to operate the asphalt and/or concrete plants at the site or commit to submitting a technical revision to the permit pursuant to Rule 1.9 prior to operating the asphalt and/or concrete plants.
33. On Page D-3, the Applicant indicates a portable wash plant recycle pond will be utilized at the site. The Applicant did not discuss the use of a wash plant in the Mine Plan. Please update the Mine Plan to explain the use of a wash plant, provide the legal source of water and provide construction and maintenance details for the recycle pond. Please update the Exhibit C - Mining Plan maps to indicate the location of the wash plant and recycle pond.
34. On Page D-4, the Applicant indicates a 10,000 gallon fuel tank in secondary containment will be utilized at the site. Please provide details on the construction and maintenance of the secondary containment. Please update the Exhibit C - Mining Plan maps to indicate the location of the fuel tank.
35. On Page D-4, the Applicant states all fuel tanks will have secondary containment. Some are double walled while others will be located within bermed or lined areas that have over 110% of the volume of the largest tank. Please provide details on the construction and maintenance of the secondary containment. Please commit to providing 110% containment of all tanks in the area, not just the largest tank. Please update the Exhibit C - Mining Plan maps to indicate the location of the fuel tanks.
36. On Page D-4, the Applicant states portable mining equipment such as loaders, dozers, trucks and excavators will be serviced on an as-needed basis onsite. Please provide details on how servicing will be conducted to prevent site contamination of petroleum and other hazardous materials.

37. On Page D-4, the Applicant states all mining structures onsite are shown on Map C-2. Please clarify if the scale and office are portable or permanent structures. If the structures are permanent, please provide foundation details for the structures.
38. On Page D-5, the Applicant states topsoil from initial stripping of an area will be stored in berms and stockpiles as seen on Map C-2. The location of the topsoil berms and stockpiles are not indicated on Map C-2. Please update Exhibit C – Mining Plan Map with the location of the topsoil berms and stockpiles for each mining area.
39. On Page D-5, the Applicant states any topsoil and overburden stockpile that is in place longer than 180 days will be vegetated to prevent wind erosion. Please update the Mining Plan to indicate the seed mixture, in pure live seed (PLS), per acre for the topsoil stockpile stabilization.
40. On Page D-6, the Applicant states the operation will be covered by a CDPHE Fugitive Dust permit. Please commit to providing the Division with a copy of the approved permit when available.
41. On Page D-6, the Applicant states topsoil and overburden may be imported to the site to be used in reclamation. Please commit to complying with the requirements of Rule 3.1.5(9) regarding the importation of material to the site. The Applicant provided a blank affidavit in the permit application. Please note Rule 3.1.5(9)(c) requires an affidavit certifying that the material is clean and inert from the Operator, not the individual or company delivering the material to the site.
42. During the pre-operational inspection, the Applicant informed the Division mining activity was not allowed on the southern portion of the site due to a deed restriction in a parcel owned by Douglas Mountain Ranch and Preserve. Please revise the Mining Plan and the permit application exhibits accordingly.
43. During the pre-operational inspection, the Applicant stated exploratory drilling was conducted for the proposed mine site. Please submit copies of the drill logs for Division review.

6.4.5 Exhibit E - Reclamation Plan

44. Pursuant to Rule 6.4.5(2)(b), please provide a comparison of the proposed post-mining land use, rangeland, to the other land uses in the vicinity and to adopted state and local land use plans and programs.
45. On Page E-1, the Applicant states generation of fines, potential overburden and possible imported fill will be used to backfill slopes to their final $\leq 3H:1V$ condition. As noted in

Item #27, the mining plan states the crest of each cut will be knocked down with a dozer to create the final 3H:1V reclamation slope. The Applicant's statements contradict each other. Please clarify how the Applicant intends to create the final 3H:1V reclamation slope; crest cut or backfill method.

46. On Page E-1, the Applicant states significant amounts of imported fill and potential waste fines will be used as backfill. For the purposes of this DRMS permit, it is assumed that the import fill will be zero. The Applicant's statements contradict each other. Please clarify if the Applicant intends to utilize imported material to backfill the site as part of reclamation. If importation of fill material is planned, please commit to complying with the requirements of Rule 3.1.5(9).
47. On Page E-1, the Applicant states the total disturbed area to be reclaimed is 77.5 acres. In Table E-1 Reclamation Areas, the Applicant indicates 77.2 acres will be reclaimed as rangeland. Please explain this discrepancy and update the permit application accordingly.
48. On Page E-2, Table E-2 Reclamation Timetable the Applicant indicates two reclamation phases, the initial pit and the areas to the north and west of the initial pit. Pursuant to Rule 6.4.5(2)(a)(ii), please provide a description of the size and location of each area to be reclaimed during each phase.
49. On Page E-2, the Applicant states due to the mild grade, seed can be drilled in both regions. Please clarify what regions the Applicant is referring to in the Reclamation Plan.
50. On Page E-2, the Applicant states due to the mild grade, seed can be drilled in both regions; broadcast seeding will be utilized where reclaimed perimeter slopes do not allow drilling. The Applicant's statements contradict each other. Please clarify if the Applicant intends to drill seed the entire site or specify which areas will require broadcast seeding. Please provide acreage values for both types of seeding, if applicable.
51. On Page E-2, the Applicant states the seed mixes listed below will be used to revegetate the site. Only one (1) seed mixture was provided on Page E-3 of the permit application. Please explain this discrepancy and update the Reclamation Plan accordingly.
52. On Page E-2, the Applicant states certified weed free mulch will be crimped into the surface at 2000 lbs. per acre. Based on the Division's experience with mulching rates, please commit to utilizing two (2) tons of mulch per acre.

53. On Page E-2, the Applicant states fertilizer may be added as determined by a soil test at the time of seeding. Please commit to providing the Division with a copy of the soil test(s) when available.
54. Please provide the variety information for each plant species list in Section 3.1 Rangeland Seed Mix on Page E-3 of the permit application to allow the Division to accurately calculate the required Reclamation Cost.
55. On Page E-4, the Applicant states if minor changes or modifications to the seeding and reclamation plan are needed, revision plans will be submitted to the Division, as required. Please commit to providing minor changes to the Reclamation Plan as a technical revision, pursuant to Rule 1.9.
56. Page E-5 of the permit application was blank. Please confirm the Applicant intended the page to be blank.

6.4.7 Exhibit G - Water Information

57. The proposed mine site is within the 100-year flood plain of the West Fork of Clear Creek. In the event of a significant flood event (100-year flood) it is likely the proposed pit will be captured by the West Fork of Clear Creek. Wherever mining will occur within 400 feet of the river channel, a flood analysis and flood control plan must be evaluated and submitted for Division review and acceptance.

The flood analysis should quantify the velocity and volume of flows expected on site from a 100-year flood event, as well as the elevation of the 100-year base flood event and its relation to the elevation of any proposed spillways and embankments. The flood control plan should address mitigation measures including pit side armoring, river side armoring, inflow and outflow channels, or other appropriate measures.

The Applicant shall provide the flood elevations to be expected under a “worst case” flooding scenario and specific mitigation measures to be implemented to minimize the potential for any offsite impacts.

Riverside berms are proposed in the Douglas Mountain Mine application, which may be prone to erosion during a flood event. The potential for “berms” around gravel pits to be damaged during flooding is discussed in detail in the 1987 Urban Drainage and Flood Control District (UDFCD) Publication “Technical Review Guidelines for Gravel Mining Activities within or Adjacent to 100-year Floodplains.” Strips of native ground or constructed fill between the stream and the gravel pit, and generally aligned with the flow direction of the river are referred to in the UDFCD document as riverside berms.

Engineered inflow and outflow structures are intended to mitigate possible slope failure during flood events for these berms. The Douglas Mountain Mine is outside of the political boundaries of the UDFCD, but the technical floodplain factors which led to the formation of the UDFCD guidance publication still apply and will be used to review the adequacy of the flood mitigation structures proposed for the site.

Please provide a flood analysis and flood control plan satisfying the requirements of the UDFCD for the expected 100-year flood event during the life of the operation and after final reclamation for the Douglas Mountain Mine.

58. On Page H-1, the Applicant states during mining, runoff that occurs within the disturbed area will be routed to the active mining pit. Please provide a plan describing how water from runoff from disturbed areas, piled material and operating surfaces will be managed to protect against pollution of either surface or groundwater both during the after the operation pursuant to Rule 6.4.7(2)(b).
59. On Page H-1, the Applicant states surface and sediment laden water flow barriers include the pit highwall and topsoil berms and windrows along the pit perimeter. Please provide construction details for the stormwater control berms and windrows. Please explain how topsoil berms used as stormwater control structures will be protected from erosion from the stormwater flow pursuant to Rule 3.1.9(1).
60. On Page H-1, the Applicant states waters to be found within the disturbed area include stormwater runoff and water hauled to the mining area to be used for processing and dust control. Please provide the legal source for the water hauled to the site and a water right decree to allow stormwater to be diverted for the mining use.
61. On Page H-1, the Applicant states there are 7 wells within 600 feet of the Douglas Mountain Mine. Please state if the Applicant is pursuing well agreements with the existing well owners within 600 feet of the site. Please provide signed copies of the agreements, if available or provide evidence the appropriate notice was provided to the well owners.
62. On Page H-1, the Applicant states all wells in the area are dug to depths that are below the 200 foot pit bottom and thus will not be affected by mining operations. The Division's review of the Division of Water Resources database indicated several shallow, 22 to 68 feet deep, wells within 600 feet of the proposed mine. Please provide the Division with a list and completion reports for all groundwater wells within 600 feet of the proposed mine site.

Additionally, the Applicant shall provide a geologic cross-section(s) illustrating the relative depths of the surrounding wells, the elevation of the West Fork of Clear Creek and the pit floor elevation.

63. On Page H-1, the Applicant states no groundwater is anticipated to be encountered during any phase of the operation. Please commit to backfilling any exposure of groundwater a minimum of two (2) feet above the groundwater elevation, if exposed, and notifying the Division immediately.
64. On Page H-2, the Applicant states water will be supplied via either ditch rights or onsite wells. The Applicant's statement contradicts the statement on Page H-1, the source of water will be stormwater runoff and hauled water. Please explain this discrepancy and revise the permit application accordingly. Please provide the legal source allowing the ditch rights or groundwater well to be used for mining/industrial use.
65. During the pre-operational inspection, two piezometers were observed in the eastern portion of the plateau. Please provide construction details and all water level data available for Division review.

6.4.8 Exhibit H - Wildlife Information

66. All aspects of the mining and reclamation plan shall take into account the safety and protection of wildlife on the mine site, at processing sites, and along all access roads to the mine site with special attention given to critical periods in the life cycle of those species which require special consideration (e.g., elk caving, migration routes, peregrine falcon nesting, grouse strutting grounds) pursuant to Rule 3.1.8(1).

The Colorado Parks and Wildlife objection letter dated June 18, 2018, lists three (3) biological concerns regarding this project; the bighorn sheep herd in the vicinity of the proposed mine and truck routes, an active peregrine falcon nest buffer and the elk winter range at the proposed mine location.

Please revise Exhibit H to include the mitigation measure required by CPW to address their biological concerns at the proposed mine site.

67. On Page I-1, the Applicant states fencing around the site will be used to minimize the potential for vehicle-animal collisions. Please confirm the fencing will be wildlife fence constructed in compliance with the fencing standards set by Colorado Parks and Wildlife (CPW) and provide the construction plans for Division review.

6.4.10 Exhibit J - Vegetation Information

68. Please provide descriptions of present vegetation types, which include quantitative estimates of cover and height for the principal species in each life-form represented (i.e., trees, tall shrubs, low shrubs, grasses and forbs) pursuant to Rule 6.4.10(1)(a).
69. Please provide the relationship of present vegetation types to soil types, or alternatively, the information may be presented on a map pursuant to Rule 6.4.10(1)(b).

6.4.12 Exhibit L - Reclamation Costs

70. The Division is reviewing and verifying the financial warranty estimate provided by the Applicant. The Division will provide the Applicant a copy of the calculation when available under separate cover.

6.4.13 Exhibit R - Other Permits and Licenses

71. The Applicant states the following permits are required for the operation of the proposed mine site; County Special Use, CDPHE APEN and CDOT access permit. Please commit to providing the Division with approved copies of the permits prior to initiating mining activities at the site.

6.4.14 Exhibit N - Source of Legal Right to Enter

72. The Applicant provided a statement of ownership and grant of right of entry from Clear Creek County, however Clear Creek County is not identified as a surface owner on Page N-1. Please revise Exhibit N to indicate Clear Creek County as a surface owner of the proposed mine site.
73. The Right of Entry document for the Emily Lu Croke Estate states a condition of the right of entry is for Douglas Mountain Ranch and Preserve to complete the purchase of the Croke Estate Property (Record 1837-284-00-010). Please provide documentation the purchase of the Croke Estate Property is complete.
74. The Right of Entry document for the Emily Lu Croke Estate states a copy for the purchase contract for the Croke Estate Property (Record 1837-284-00-010) was attached. The Division did not receive a copy of the purchase agreement. Please provide the Division a copy of the purchase agreement for the Croke Estate Property (Record 1837-284-00-010) and the transferred deed to the property, when available.
75. Please provide documentation authorizing Matthew D. Skeen to sign on behalf of the Emily Lu Croke Estate.
76. Please provide documentation authorizing Harlan W. Pals to sign on behalf of the Douglas Mountain Ranch and Preserve.

77. The Right of Entry document for the Douglas Mountain Ranch and Preserve indicates Record No. 1837-284-00-010. The owner of this record number is Emily Lu Croke Estate as indicated by the Applicant and the Clear Creek County Assessor. Please explain this discrepancy and revised the right of entry document for the Douglas Mountain Ranch and Preserve accordingly.
78. The Map C-1 Pre Mining Conditions map indicates the proposed access road will cross the property owned by the Norsemen of the Rockies, Record No. 19374-273-00-021. Please provide a description of the basis for legal right of entry on the Norsemen of the Rockies property pursuant to Rule 6.4.14.
79. During the pre-operational inspection, the Applicant informed the Division the Emily Lu Croke Estate properties was sold to another individual, instead of Douglas Mountain Ranch and Preserve. Please provide the source of legal right to enter the former Croke parcels with the new landowner pursuant to Rule 6.4.14.

6.4.15 Exhibit O - Owners of Record of Affected Land (Surface Area) and Owners of Substance to be Mined

80. Please revise Exhibit O to indicate the Norsemen of the Rockies as owners of affected land for the proposed mine site.

6.4.18 Exhibit R - Proof of Filing with County Clerk and Recorder

81. Please provide an affidavit or receipt indicating the date on which the revised application information required to address this adequacy letter was placed with the Clear Creek County Clerk and Recorder for public review, pursuant to Subparagraph 1.6.2(1)(c).

6.4.19 Exhibit S - Permanent Man-made Structures

Where the mining operation will adversely affect the stability of any significant, valuable and permanent man-made structure located within two hundred (200) feet of the affected land, the Applicant may either:

- a. provide a notarized agreement between the Applicant and the person(s) having an interest in the structure, that the Applicant is to provide compensation for any damage to the structure; or
- b. where such an agreement cannot be reached, the Applicant shall provide an appropriate engineering evaluation that demonstrates that such structure shall not be damaged by activities occurring at the mining operation; or

- c. where such structure is a utility, the Applicant may supply a notarized letter, on utility letterhead, from the owner(s) of the utility that the mining and reclamation activities, as proposed, will have "no negative effect" on their utility.
82. On Page S-1, the Applicant states structure agreements are attached to Exhibit S. The Division did not receive structure agreements with the permit application package. Please submit copies of the signed structure agreements.
 83. On Page S-1, the Applicant states in the event a structure agreement was unobtainable see the Geotechnical Stability Exhibit. The Division will require the Applicant to demonstrate they attempted to obtain notarized structure agreements with all owners of the structures on and within 200 feet of the affected area of the proposed mine site, pursuant to Rule 6.4.19, prior to the Division's consideration of the stability analysis.
 84. On Page S-1, the Applicant lists the following permanent man-made structure; building near the site entrance on the property immediate east. Based on review of Map C-1, there are several structures located east of the site access road. Please revise Exhibit S to indicate the owners of the structures.
 85. On Page S-1, the Applicant indicates the Xcel power line and gas line will be rerouted. Please provide the Division with an approved agreement with Xcel to reroute the lines and indicate the rerouted lines on Exhibit C.
 86. Please revise Exhibit S and provide structure agreements for the following permanent man-made structures within 200 feet of the affected land:
 - a. US-40
 - b. West Mountain Ave
 - c. CR-257
 - d. Junction Loop Road

6.5 Geotechnical Stability Exhibit

87. The Applicant submitted a Factor of Safety calculation based on assumed soil properties to demonstrate the geotechnical stability of the final 3H:1V slope. The Division will require the Applicant to provide an engineering stability analysis for the proposed final reclaimed slopes, highwalls, waste piles and embankments. The stability analysis model must assume the worst-case scenario for the final reclaimed slopes. The model must be performed using stability analysis software to allow verification of the models by the Division.

A copy of the Mined Land Reclamation Board approved policy regarding accepted factors of safety for geotechnical stability analyses associated with mining operations is

available

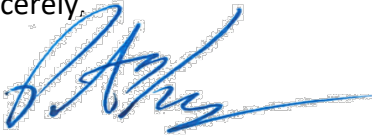
at: <http://mining.state.co.us/SiteCollectionDocuments/MLRB%20Policies%20Revised%20May%202018.pdf>.

88. During the pre-operational inspection, the Applicant stated exploratory drilling was conducted for the proposed mine site. Please state if laboratory soil data is available based on the drilling exploration. Please include the site specific soil data into the stability analysis models if available.

Please be advised the Douglas Mountain Mine application may be deemed inadequate, and the application may be denied on August 31, 2018, unless the above mentioned adequacy review items are addressed to the satisfaction of the Division. If more time is needed to complete the reply, the Division can grant an extension to the decision date. This will be done upon receipt of a written waiver of the Applicant's right to a decision by August 31, 2018 and request for additional time. This must be received no later than the deadline date.

If you have any questions, please contact me at peter.hays@state.co.us or (303) 866-3567 Ext. 8124.

Sincerely,



Peter S. Hays
Environmental Protection Specialist

Enclosures – Division of Water Resources, Office of Archaeology and Historic Preservation,
Army Corps of Engineers and Clear Creek County letters

Ec: Michael Cunningham; Division of Reclamation, Mining & Safety
Chris Townsend; Empire Aggregate, Inc.