

August 27, 2020

Mr. Daniel Cunningham  
Environmental Protection Specialist  
Colorado Division of Reclamation, Mining, and Safety  
1313 Sherman St., Room 215  
Denver, CO 80203

RE: Kiewit Carr Sand & Gravel (M-2020-029) Response to Adequacy Review Comments

Dear Daniel:

The purpose of this letter is to respond to the comments you provided in your August 6, 2020 Adequacy Review for the Kiewit Carr Sand & Gravel 112c Construction Material Conversion Application, designated M-2020-029. The responses are formatted to match the order of the comments received.

In addition, this letter provides a response to issues noted during the August 12, 2020 pre-operation inspection. These responses are provided in the last section of the letter.

**Rule 6.4.1 Exhibit A – Legal Description**

1. Kiewit's intent with this 112c application is to permit the entire section (consisting of 640 acres) within the permit boundary. The area listed in paragraph 3 of the application form, being 541 acres, is the original estimate of the area to be mined after deducting for the buffers around Lone Tree Creek and the various cultural resources found on site. However, Kiewit desires that the entire 640 acres be included in the permit boundary as it may be potentially affected by mining operations. In order to clarify this, a new page 1 of the application form listing the correct permitted acreage amount of 640 acres is attached.
2. An updated Exhibit A specifying the parcel number for the proposed permit area is attached. There is no address for the property.
3. An updated Exhibit A specifying the coordinates of the main entrance to the site is attached.

**Rule 6.4.2 Exhibit B – Index Map**

4. An updated Exhibit B more clearly labeling the adjacent roads is attached.

**Rule 6.4.3 Exhibit C – Pre-Mining and Mining Plan Map(s) of Affected Land**

5. Updated Exhibit C maps that include the name of the applicant and are signed by the PE who prepared the maps are attached.
6. The attached Exhibit C-1 map more clearly labels County Road 23.

7. As outlined in the response to item #1, it is Kiewit's intent that the permit boundary encompasses all 640 acres within Section 36.
8. The owner of the fence along the property boundary is the State of Colorado; this information has been added to the Exhibit C-1 map.
9. The rail line loop adjacent to Cell 1 is owned by L.G. Everist and is now labeled on the Exhibit C-1 map. As discussed during the pre-operation inspection on August 12, 2020, in our opinion the unimproved two track road designated as County Road 124 should not be considered a "significant, valuable and permanent man-made structure" for the purposes of this mining application and so it has been left off the map.

#### **Rule 6.4.4 Exhibit D – Mining Plan**

10. The attached Exhibit C-1 map more clearly labels the buffer around cultural resources on the site.
11. The proposed creek crossing is shown and labeled on the attached Exhibit C-1 map. As discussed previously, it is Kiewit's intent that the entire 640-acre section be included in the permit boundary and thus this proposed creek crossing would be included.
12. Kiewit acknowledges that any new roads built to access or haul mined material will be considered affected land. Note that the proposed north haul route to County Road 126 through land owned by the Lazy D Grazing Association has been removed from Exhibit C-1. Kiewit no longer anticipates using this proposed road as an access point.
13. Kiewit estimates that each cell will be mined for a duration of approximately 2 years (depending on market conditions).
14. Kiewit will not be using explosives on this mining operation.
15. The proposed culvert will likely be an arched corrugated metal pipe with a minimum width of 5 feet, or a culvert of a different shape with an equivalent flow area. This same sized culvert is used to pass Lone Tree Creek flows beneath Weld County Road 120 located just downstream of the site.

#### **Rule 6.4.5 Exhibit E – Reclamation Plan**

16. Kiewit has found that compacting topsoil to 90% of standard proctor reduces the potential for erosional loss and have not noted a negative impact on vegetation establishment. However, for the purposes of this permit, Kiewit will agree not to conduct such compaction.
17. As discussed previously, it is Kiewit's intent that the entire 640-acre section be included in the permit boundary, which will therefore encompass the affected area associated with the proposed creek crossing.
18. An updated Exhibit E stating the type of reclamation that the applicant proposes to achieve and why it was chosen is attached.
19. The proposed reclaimed land use of rangeland will be compatible with the surrounding land uses, which include industrial and rangeland. It is also compatible with local land use plans given that this area of Weld County is zoned agricultural.

20. Topsoil stockpiles will be stabilized by seeding and mulching. Unless the DRMS has specific guidance to offer at this time, the quantity of seeding and mulching will be in line with Weld County standards and will be established during the Weld County Use by Special Review (USR) permitting process.
21. Mulch will be crimped into place. Unless the DRMS has specific guidance to offer at this time, the quantity of mulch per acre will be in line with Weld County standards and will be established during the Weld County USR permitting process.

#### **Rule 6.4.6 Exhibit F – Reclamation Plan Map**

22. An updated Exhibit F with revised contours is attached.
23. The updated Exhibit F depicts the proposed final land use for the site (rangeland).
24. The updated Exhibit F includes the name of the applicant and is signed by the PE who prepared the maps.

#### **Rule 6.4.7 Exhibit G – Water Information**

25. Kiewit does not expect to directly affect surface or groundwater surfaces during this mine operation. There are no perennial or ephemeral surface streams within the areas to be mined, and all material to be mined is above the groundwater table. The potential culvert to be installed across Lone Tree Creek will be removed during final reclamation. Kiewit's best management practices to protect the groundwater system from potential spills of fuel, oil, lubricant etc. are included in the updated Exhibit G attached.
26. An updated Exhibit G with an additional narrative on the BMP's to be implemented is attached.
27. Kiewit will not be conducting dewatering operations at this mine.
28. At this time, the likely source of water to supply the 20,000 gallons per day for dust control is a contract with the Triton Water Depot at 20660 Niobrara Blvd, LaSalle, CO 80645. This water will be trucked to the site. It is possible that an alternative source of water will be secured; this water will also be trucked to the site.

#### **Rule 6.4.8 Exhibit H – Wildlife Information**

29. If the initial site disturbance occurs before red-tailed hawk nesting season (February 15-July 15), a single site visit should be sufficient to confirm that the nest is inactive. If initial site disturbance occurs after July 15, two to three site visits separated by several days would be needed to determine presence or absence

#### **Rule 6.4.13 Exhibit M – Other Permit and Licenses**

30. Kiewit has implemented a Spill Prevention Control and Countermeasures (SPCC) program for this site as further explained in the revised Exhibit G attached.

### **Pre-Operation Inspection Issues**

During the August 12, 2020 pre-operation inspection, the following issues were noted:

- Two small ponds located within mining cells 9 and 12 were found. According to data available from the Colorado Division of Water Resources, there are no water rights or well permits associated with these ponds.<sup>1</sup> Additionally, these ponds are not present in the National Wetlands Inventory.<sup>2</sup> Review of historical aerial imagery reveal that water appears in these ponds only intermittently, and their removal will have a negligible impact on the prevailing hydrological balance of the area. In an abundance of caution, however, Kiewit will obtain permission from the landowner (the State of Colorado) before draining these ponds and mining the surrounding area. This information has been added to the revised Exhibit G, attached.
- A USGS benchmark located on the east side of Lone Tree Creek was found. Kiewit will coordinate with the USGS on removal and/or relocation of this benchmark before mining begins on the east side of Lone Tree Creek.
- It was noted that Kiewit has agreements for all structures within 200 feet of the mine except the unimproved two-track road 124. As described in our above response to item 9 of the adequacy review, in our opinion this unimproved two-track road does not qualify as a “significant, valuable, and permanent man-made structure” and therefore a structure agreement with the road owner is not necessary.

### **Conclusion**

This concludes our response to your adequacy review from August 6, 2020, as well as the issues noted during the August 12, 2020 pre-operation inspection. If you have any questions regarding the contents of this response, feel free to contact me at (303)452-6611 or at [jareddains@applegategroup.com](mailto:jareddains@applegategroup.com).

Cordially,  
**Applegate Group, Inc.**



Jared Dains, P.E.  
Water Resource Engineer

cc: Stephen Ceresa (Kiewit Infrastructure Company)  
AG File No. 19-131

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<sup>1</sup> Colorado Decision Support System Map Viewer (<https://gis.colorado.gov/dnrviewer/Index.html?viewer=mapviewer>), accessed August 27, 2020.

<sup>2</sup> Fish and Wildlife Service National Wetlands Inventory (<https://www.fws.gov/wetlands/data/mapper.html>), accessed August 27, 2020.

# STATE OF COLORADO

DIVISION OF RECLAMATION, MINING AND SAFETY  
Department of Natural Resources

1313 Sherman St., Room 215  
Denver, Colorado 80203  
Phone: (303) 866-3567  
FAX: (303) 832-8106



## CONSTRUCTION MATERIALS REGULAR (112) OPERATION RECLAMATION PERMIT APPLICATION FORM

CHECK ONE: ☐ There is a File Number Already Assigned to this Operation

Permit # M - - - - - (Please reference the file number currently assigned to this operation)



New Application (Rule 1.4.5)



Amendment Application (Rule 1.10)



Conversion Application (Rule 1.11)

Permit # M - - - - - (provide for Amendments and Conversions of existing permits)

The application for a Construction Materials Regular 112 Operation Reclamation Permit contains three major parts: (1) the application form; (2) Exhibits A-S, Addendum 1, any sections of Exhibit 6.5 (Geotechnical Stability Exhibit; and (3) the application fee. When you submit your application, be sure to include one (1) complete signed and notarized ORIGINAL and one (1) copy of the completed application form, two (2) copies of Exhibits A-S, Addendum 1, appropriate sections of 6.5 (Geotechnical Stability Exhibit, and a check for the application fee described under Section (4) below. Exhibits should **NOT** be bound or in a 3-ring binder; maps should be folded to 8 1/2" X 11" or 8 1/2" X 14" size. To expedite processing, please provide the information in the format and order described in this form.

### GENERAL OPERATION INFORMATION

Type or print clearly, in the space provided, **ALL** information requested below.

1. **Applicant/operator or company name (name to be used on permit):** Kiewit Infrastructure Co
  - 1.1 Type of organization (corporation, partnership, etc.): \_\_\_\_\_
2. **Operation name (pit, mine or site name):** Kiewit Carr Sand & Gravel
3. **Permitted acreage (new or existing site):** 640 permitted acres
  - 3.1 Change in acreage (+) \_\_\_\_\_ acres
  - 3.2 Total acreage in Permit area \_\_\_\_\_ acres
4. **Fees:**

4.1 New Application	<u>\$2,696.00</u>	application fee
4.2 New Quarry Application	<u>\$3,342.00</u>	quarry application
4.4 Amendment Fee	<u>\$2,229.00</u>	amendment fee
4.5 Conversion to 112 operation (set by statute)	<u>\$2,696.00</u>	conversion fee
5. **Primary commoditie(s) to be mined:** Sand Gravel
  - 5.1 Incidental commoditie(s) to be mined: 1. \_\_\_\_\_ lbs/Tons/yr 2. \_\_\_\_\_ / \_\_\_\_\_ lbs/Tons/yr
  3. \_\_\_\_\_ / \_\_\_\_\_ lbs/Tons/yr 4. \_\_\_\_\_ / \_\_\_\_\_ lbs/Tons/yr 5. \_\_\_\_\_ / \_\_\_\_\_ lbs/Tons/yr
  - 5.2 Anticipated end use of primary commoditie(s) to be mined: Hot mix asphalt
  - 5.3 Anticipated end use of incidental commoditie(s) to be mined: \_\_\_\_\_

## **EXHIBIT A**

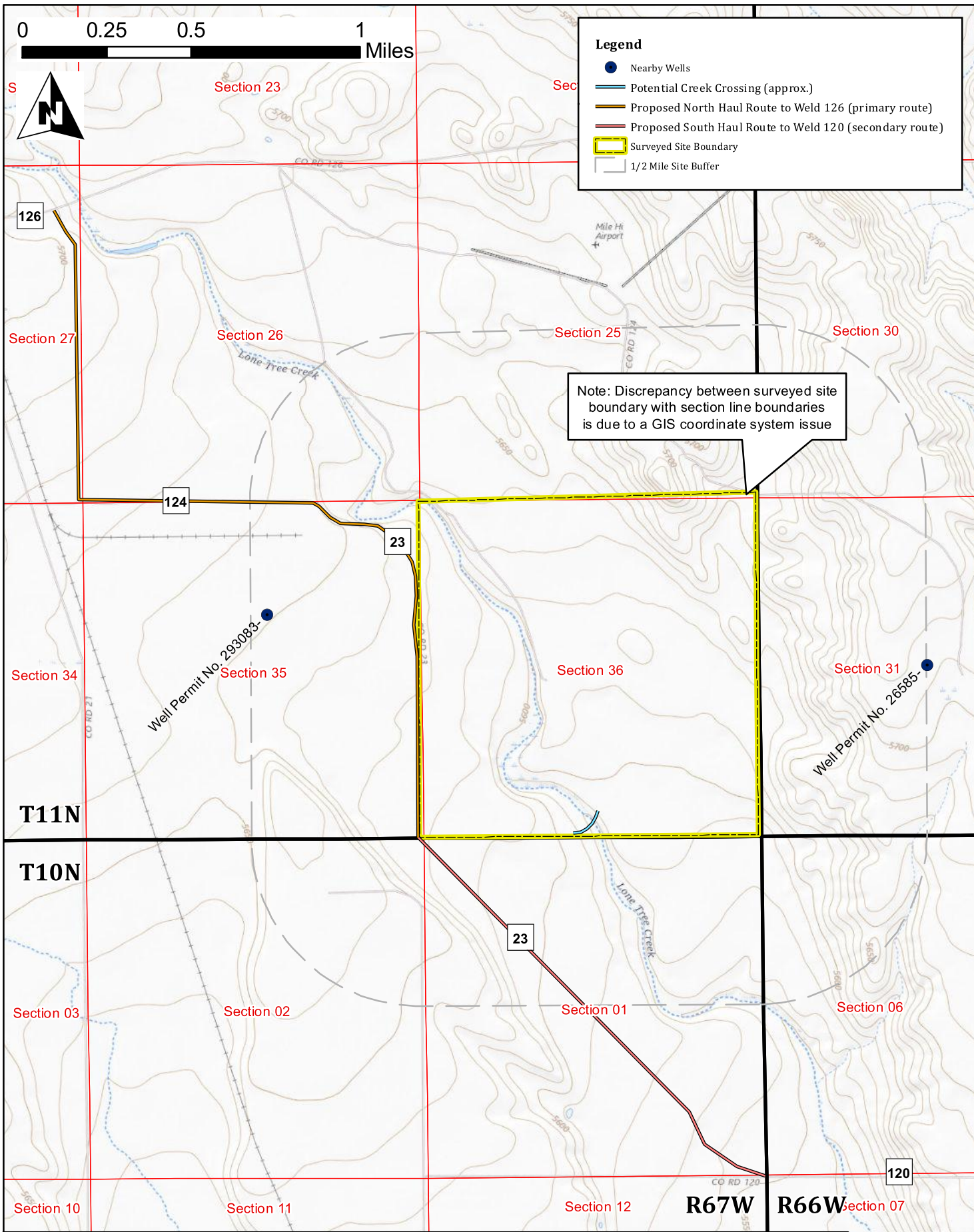
### **LEGAL DESCRIPTION**

This sand and gravel operation, containing 640 acres, encompasses all of Section 36 of Township 11 North, Range 67 West of the 6<sup>th</sup> P.M. in Weld County, Colorado.

The property is designated as Weld County Parcel No. 020136000001.

The main entrance to the site is located at 40.870467° / -104.848812°.





**Applegate Group, Inc.**  
 Water Resource Advisors for the West  
 1490 West 121st Ave., Ste 100 Phone: (303) 452-6611  
 Denver, CO 80234-2728 Fax: (303) 452-2759  
 www.ApplegateGroup.com e-mail: info@applegategroup.com

**Vicinity Map**  
 M-2020-029  
 Applicant: Kiewit Infrastructure Co.  
 Site: Kiewit Carr Sand and Gravel

Date: 24 Aug 2020  
 Job #: 19-131  
 Drawn By: JMD

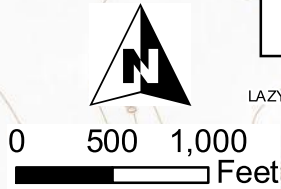
Exhibit:  
**B**

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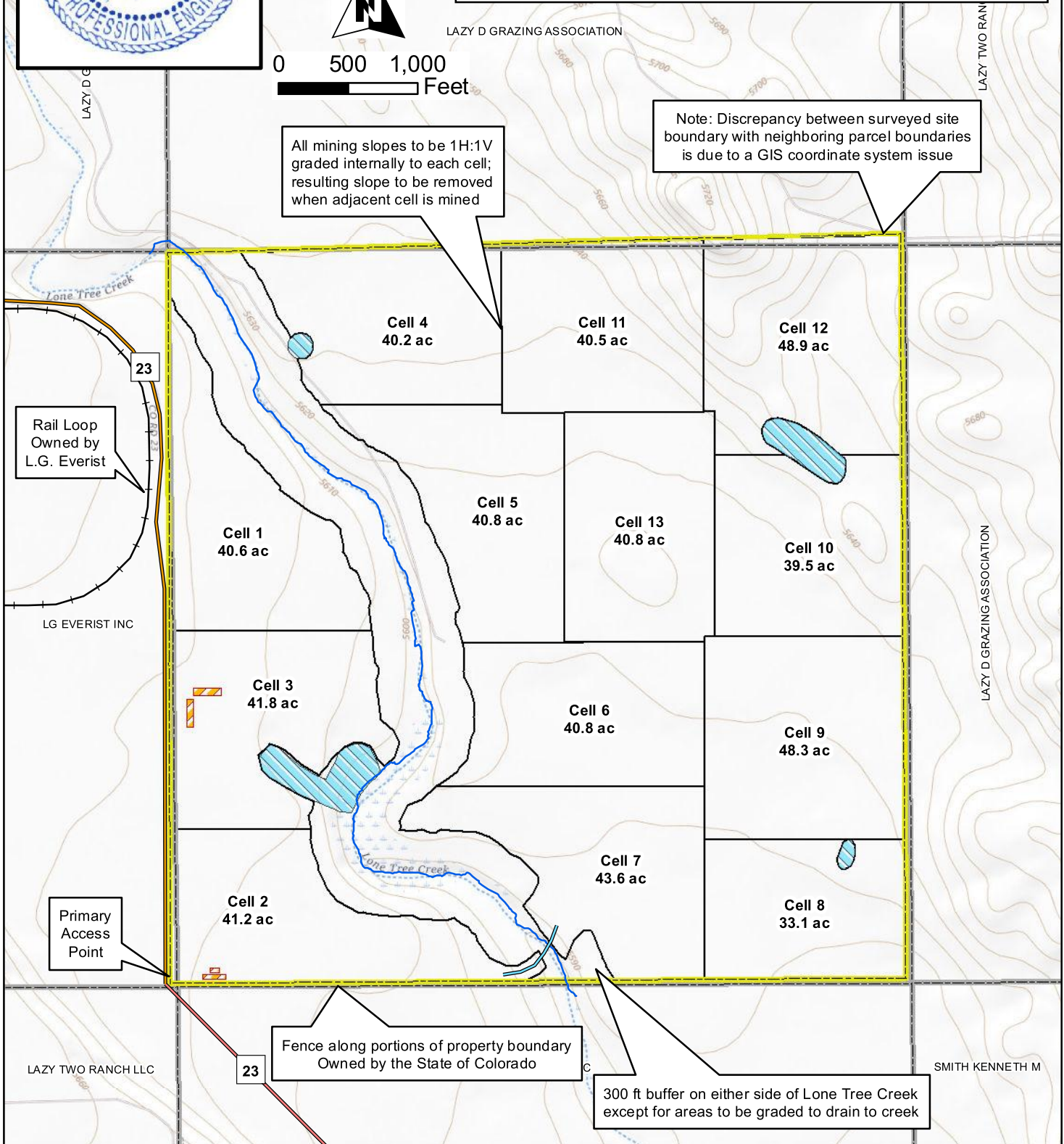
### Legend

- Potential Creek Crossing (approx.)
- Proposed North Haul Route to Weld 126 (primary route)
- Proposed South Haul Route to Weld 120 (secondary route)
- Rail loop
- Surveyed Site Boundary
- Proposed Structures
- Neighboring Parcels
- Limits of Mining
- Cultural Resources Protection Area



All mining slopes to be 1H:1V graded internally to each cell; resulting slope to be removed when adjacent cell is mined

Note: Discrepancy between surveyed site boundary with neighboring parcel boundaries is due to a GIS coordinate system issue



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## Pre-Mining Map

M-2020-029

Applicant: Kiewit Infrastructure Co.  
 Site: Kiewit Carr Sand and Gravel

Date: 20 Aug 2020

Job #: 19-131

Drawn By: JMD

Exhibit:

# C-1





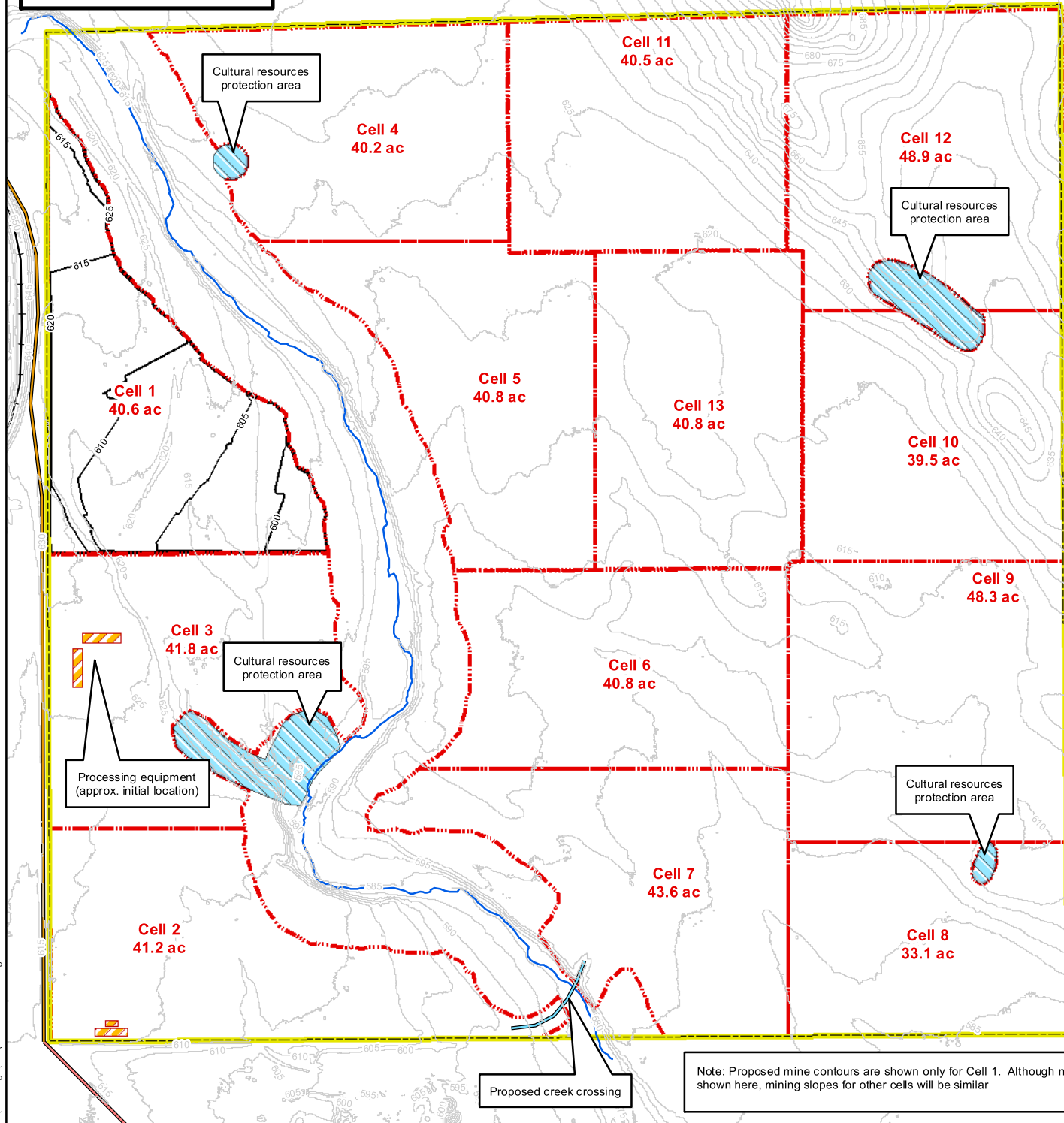
Note: All mining slopes graded to a maximum steepness of 1:1



0 500 1,000 Feet

### Legend

- Potential Creek Crossing (approx.)
- Proposed North Haul Route to Weld 126 (primary route)
- Proposed South Haul Route to Weld 120 (secondary route)
- Rail loop
- Proposed Mining Contours (5 ft)
- Surveyed Site Boundary
- Proposed Structures
- Limits of Mining
- Cultural Resources Protection Area
- Existing Contours (5 ft)



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**Mining Plan Map**  
M-2020-029  
Applicant: Kiewit Infrastructure Co.  
Site: Kiewit Carr Sand and Gravel

Date: 20 Aug 2020

Job #: 19-131

Drawn By: JMD

Exhibit:

**C-2**

## **EXHIBIT E**

### **RECLAMATION PLAN**

Upon completion of the mining in any cell, that cell bottom will be graded to prevent ponding of storm runoff. The headwalls will be reclaimed to a slope of no steeper than 3H:1V. The topsoil from the next cell will be stripped and placed in the previous exhausted cell. The topsoil material will be compacted to 90% standard proctor. Upon completion of the placement and compaction of the topsoil the cell will be seeded with native grasses suitable for the area (per the vegetation and soils reports, the seed mixture shall be approximately 1.05 PLS per acre prairie sandreed, 0.84 PLS per acre little bluestem, 1.26 PLS per acre sideoats grama, 0.56 PLS per acre sand bluestem, and 0.88 PLS per acre western wheatgrass). Drilled seeding will be implemented and straw mulch will be applied to site. Finally, weed control to prevent noxious weeds will be sprayed at the time of seeding. Erosion control measures including silt fencing along both sides of the creek as well as the mulch and weed control will continue to be maintained until the grasses are established over 60% of the ground surface. This process will be repeated for each cell as they are depleted and the next cell opened. Upon depletion of the last cell the topsoil that was removed and stockpiled in the first cell will be used to cover the final cell in the same manner outlined above.

Upon completion of the reclamation of the final cell, or if it becomes financially infeasible to continue mining this property, Kiewit will remove the creek crossing used during the mining operations and reclaim that area in similar methods to cell reclamation. The culvert will be removed from the site and the fill material used at the crossing will be used for reclamation elsewhere on site. The stream bed in the area where the culvert was installed will be restored to native preinstallation condition. All construction and crushing equipment will be removed from the site. Kiewit or its successors will remain legally and financially responsible for final decommissioning of the site. Once vegetation is established, the BMP's will be removed and all security held by the County and or the DRMS will be released back to Kiewit.

See Sheet F-1 for the reclamation plan map with the anticipated topography following reclamation. Contours for Cells 1 through 3 were derived based on the depth of the resource as determined in the Terracon report. Contours for Cells 4 through 13 were derived assuming the cells would be mined to a depth of 12' BSG; the actual depth of mining will vary depending on the depth of the resource encountered in these cells. All headwalls will be sloped to 3H:1V upon reclamation as specified in this reclamation plan.

Kiewit will reclaim the site to rangeland in order to be consistent with the current use of the land and surrounding land uses.



Note: All reclaimed slopes graded to a maximum steepness of 3:1



0 500 1,000 Feet

## Legend

- Potential Creek Crossing (approx.)
- Proposed North Haul Route to Weld 126 (primary route)
- Proposed South Haul Route to Weld 120 (secondary route)
- Rail loop
- Surveyed Site Boundary
- Proposed Structures
- Cultural Resources Protection Area
- Proposed Reclamation Contours (5 ft)
- Existing Contours (5 ft)

Cultural resources protection area; max slopes of 3:1 to surrounding reclaimed area

Cultural resources protection area; max slopes of 3:1 to surrounding reclaimed area

**Reclaimed East Cell (rangeland)**

**Reclaimed West Cell (rangeland)**

Cultural resources protection area; max slopes of 3:1 to surrounding reclaimed area

Cultural resources protection area; max slopes of 3:1 to surrounding reclaimed area

Structures to be removed and area to be reclaimed

Proposed creek crossing culvert to be removed and area to be reclaimed

Note: Reclaimed pit elevation contours are approximate. Final elevation contours will depend on depth of resource encountered



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## Reclamation Plan Map

M-2020-029

Applicant: Kiewit Infrastructure Co.  
Site: Kiewit Carr Sand and Gravel

Date: 20 Aug 2020

Job #: 19-131

Drawn By: JMD

Exhibit:

**F**

## EXHIBIT G

### WATER INFORMATION

Based on the geotechnical report prepared by Terracon on 2/25/2020, groundwater occurs at an average elevation of 5,543 feet. The actual depth to groundwater varies throughout the site and, as outlined in the mining plan, the bottom depth of the mine will stay at least 2' above the groundwater elevation at all times. In the event that groundwater rises enough during the wet season to be exposed, the exposed areas will immediately be buried to 2' of coverage and mining in those locations will cease immediately. Therefore, no groundwater will be exposed at the site.

Water usage for this site will consist of 20,000 gallons per day for dust control. This water will be trucked from offsite as needed. Additional water needed will be drinking water for mine workers that will be brought in from offsite as bottled water.

A National Pollution Discharge Elimination System (NPDES) permit is not required for this site as there are no chemicals in use and there is no discharge of water or other fluids to the environment. The mined area will be graded such that all stormwater discharge will be contained to the pit where it will seep back into the ground.

When it comes to protecting the groundwater system from potential spills of fuel, oil, lubricants, etc., Kiewit takes environmental compliance very seriously on all of its jobs and fixed facilities. Kiewit commits to fully comply with the EPA Spill Prevention Control and Countermeasure (SPCC) regulations (40 CFR 112) for this mine. In addition to compliance with these requirements, Kiewit has a written Environmental Policy and Program and requires all to follow this program. As part of our commitment to the environmental compliance, we will comply with all applicable environmental permits and regulations.

Some of the Best Management Practices (BMPs) in the site-specific SPCC plan and Kiewit Environmental Policy and Program include:

- The onsite lube truck will be stored in a large concrete pan that has curbs on all sides when not in use to contain possible spills.
- On site fuel tanks shall be double walled tanks or have secondary containment around them.
- The facility would have spill kits located near where equipment would be working or maintained.
- The equipment used on site will be kept in good working order. Daily equipment checks are completed by operators and the equipment is maintained regularly by Kiewit's own fleet mechanics.
- Regular environmental inspections of the site by the mine manager and Kiewit environmental staff to ensure environmental compliance is adhered to by all workers.

During mining, all cells will be internally graded in order to ensure run-off from the disturbed area, stockpiles, and operating surfaces do not enter the surface stream system. During final reclamation of the site, the mined areas will be graded and sloped to drain naturally to Lone Tree Creek as shown in Exhibit F.

The groundwater system will not be impacted by the mining operation. No dewatering will occur.

Two small ponds exist within mining cell 9 and mining cell 12. According to data available from the Colorado Division of Water Resources, there are no water rights or well permits associated with these



ponds.<sup>1</sup> Additionally, these ponds are not present in the National Wetlands Inventory.<sup>2</sup> Review of historical aerial imagery reveal that water appears in these ponds only intermittently, and their removal will have a negligible impact on the prevailing hydrological balance of the area. In an abundance of caution, however, Kiewit will obtain permission from the landowner (the State of Colorado) before draining these ponds and mining the surrounding area.

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<sup>1</sup> Colorado Decision Support System Map Viewer

(<https://gis.colorado.gov/dnrviewer/Index.html?viewer=mapviewer>), accessed August 27, 2020.

<sup>2</sup> Fish and Wildlife Service National Wetlands Inventory (<https://www.fws.gov/wetlands/data/mapper.html>), accessed August 27, 2020.