



# Castle Aggregate

549 East Cucharras, Street Colorado Springs, CO 80919 Ph:719-598-0215 Fax:719-598-3053

March 3, 2021

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

Re: Amendment 5, Permit Number M1986-015 Response to the Adequacy Review No. 2,  
February 22, 2021

Dear Mr. Lennberg,

Attached for your review are our responses to your Adequacy Review Comments, No.2. The Division of Reclamation, Mining and Safety (DRMS) Adequacy Review Comments are in italic font, followed by our responses in non-italic font.

*RE: Adequacy Review No. 2; 112c Construction Materials Amendment Application (AM-05), Pueblo East, Permit No. M-1986-015*

*On November 9, 2020, the Division of Reclamation, Mining and Safety (Division) deemed the above referenced application complete for the purposes of filing. Pursuant to Rule 1.4 the 90-day decision date for the application was set for February 8, 2021. On January 20, 2021 the Division approved an extension request to extend the decision date to March 10, 2021. Please be advised on March 10, 2021, the*

*application may be deemed inadequate and may be denied unless the following adequacy items are addressed to the Division's satisfaction. On February 9, 2021 the Operator responded to the Division's Preliminary Adequacy Review dated December 22, 2020. After review of the responses the Division has additional items that need to be addressed or clarified. If you are unable to satisfactorily address any concerns identified in this review before the decision date, it will be your responsibility to request an extension of the review period. If there are outstanding issues that have not been adequately addressed prior to the end of the review period, and no extension has been requested, the Division will deny this application. Subsequent to receipt and review of the Operator's response to these items the Division may identify additional adequacy items. Please respond to this Adequacy Review No. 2 with the requested additional/updated information on permit replacement pages and summarize each response in a cover letter titled "Adequacy Review No. 2 Response; M-1986-015".*

#### APPLICATION PAGE

*1. Permitted Acreage. On page one, question #3, the permit acreage needs to be revised to reflect the permit acreage approved with AM-04 in 2011 to be 466.16 acres.*

**Response:**

**The corrected Page 1 is enclosed.  
Question 3 acreage is increased to 466.16**

*EXHIBIT B - Index Map (Rule 6.4.2)*

*2. Please provide an updated Index Map that depicts the current approved permit boundary along with acreage. The map provided does not reflect acreage that was added to the permit in AM-01 to the southeast and the 28 acres that was added with the approval of AM-04 south of the Arkansas River. Attached to this review are the permit boundary maps from the four Amendments to help the operator.*

**Response:**

**Index Map has been corrected to include the Property Boundary lands south of the Arkansas River. Total Acres are now 466.16 acres.**

*EXHIBIT C - Pre-mining and Mining Plan Map(s) of Affected Lands (Rule 6.4.3)*

*3. The Division agrees that no Mining Plan Map needs to be included with this amendment. The operator has stated that no mining is going to occur at the site and only activities associated with reclamation will occur.*

**Response:**

This is a reclamation only amendment. No further mining is anticipated at the site.

Added sentence page 1 paragraph 1

"The amendment is strictly a reclamation only application. No further mining is intended for this site."

*4. All maps must meet the minimum requirements of Rules 6.2.1(2), 6.4.3, 6.4.4, and 6.4.6. Including but limited to: date map was prepared, signed by qualified person, and scale no larger than 1 inch = 50 feet and no smaller than 1 inch = 660 feet. Please note the Pre-Mining Plan Map/Current*

*Conditions Map will need to reflect the entire permit boundary. If needed, additional sheets can be used to show more detail.*

**Response:**

Map Scales have been reset to 1:350 Signed Hard copies are to be delivered

3-4-2021

**EXHIBIT E - Reclamation Plan**

*5. The operator states that there is a table that was to be included with one of the maps that gives a schedule as to when a particular structure not to remain on site was due to be removed, the Division was not able to find the table. Please provide the table.*

**Response:**

All pre-existing structures scheduled to be removed have been removed prior to Amending the Permit. Remaining structures are limited to:

1. Quonset Building in Phase 1
2. Power lines in Phase 1 and Phase 7.

These structures will remain and be utilized in the operation of the water storage project. No schedule for removal at this time.

6. Please clarify that it is the intent of the operator to use concrete and other inert material for backfill.

Due to the shallow groundwater elevation at the site metal material may not be used for backfill in areas where it may come into contact with groundwater. The operator is reminded that TR-04 approved in November 2017 detailed using concrete as backfill.

**Response:**

The operation will back fill Phase 7 using concrete waste from the site and the continued disposal of concrete waste from the adjoining concrete batch plant. All concrete waste materials will be free of any rebar. No construction debris will be imported from offsite. This removes the chance of metal or other contaminants being disposed of in this reclamation fill.

7. In Phase 2 the operator states that there will be some grading and top soiling of various areas, mainly the open area north and west of Phase 1, totaling 19 acres. On the reclamation map it indicates 13,200 cy of material is needed. The Division estimates that 15,300 cys would be needed to cover 19 acres with 6-inches of material. Please address this difference.

**Response:**

The correct volume is 15,300 cubic yards. The areas of Phase two that require topsoil have already been top soiled and seeded prior to this amendment. Some of the sloped areas have slumped after the water was filled in the pit and the soils were saturated. The topsoil required for this is already in place and requires rework and reseeding. Topsoil will be conserved and reused in this phase 2 reclamation.

8. Please confirm that the Phase 2 material needed for grading and top soiling would be sourced from the Phase 2 area.

**Response:** Any topsoil required in Phase 2 rework will be sourced from the stockpiles located in Phase 2 north along the highway or the stockpile along the north east boundary of phase 2.

9. The operator states that 9 acres will be regraded and reseeded, is that area included in the previously mentioned 19 acres or in addition to the 19 acres?

**Response:**

The phase two rework falls into two area. The first 19 acres are the slopes surrounding the excavated and lined pit. These areas will require soils to be excavated and compacted to repair slumped areas in the slope. The other 9 acres are the flat area in the north east corner of Phase 2. This area only requires reseeding of the surface. The combined total area of rework or reseeding is 28 acres.

10. On the Reclamation Plan Map it is noted that there are spillways, both in Phase 2 and Phase 1 areas, which are going to be installed. Please commit to submitting a Technical Revision for the spillways once the design engineering has been completed. Additionally, will the SEO or DWR approval be needed for these structures?

**Response:**

CWPDA commits to submit a technical revision detailing the engineering design of all spillway structures once the water storage project and expected water flows are determined

11. Where does the operator plan on using the 16,200 cy of concrete debris located in Phase 1 area?

**Response:**

Concrete Debris will be used in one of the following uses:

1. Concrete onsite will be loaded and hauled to a fill area already excavated onsite and buried as part of the reclamation process. Once in place it will be covered with soils compacted and finally topsoiled and seed per the reclamation permit.

2. Concrete can be crushed by the means of a portable crushing plant brought on site. The material will be reduced to a base course product and placed on operation roads to allow vehicular travel during construction and operation of the water storage project.

3. Large existing pieces of hardened concrete can be salvaged and used as rip rap for erosion control along the water storage slopes.

12. Please clearly show on the Reclamation Plan Map the location of the Quonset hut to remain after reclamation is complete.

**Response:**

The map has been adjusted to include the location of the Quonset Hut in Phase 1. Coordinates of each corner:

1. Latitude 38 degrees-16'-17.71"  
Longitude 104 degrees-32'-06.17"
2. Latitude 38 degrees-16'-17.70"  
Longitude 104 degrees-32'-06.53"
3. Latitude 38 degrees-16'-17.32"  
Longitude 104 degrees-32'-06.17"
4. Latitude 38 degrees-16'-17.34"  
Longitude 104 degrees-32'-06.54"

13. Please clearly show on the Reclamation Plan Map the 12 acre area that will be excavated for the ~660,000 cys of material.

**Response:**

Map F-1 has been modified to show the 12 acre site that will be used for the primary fill in Phase 1.

14. In reply to question #21 of the Preliminary Adequacy Review (PAR) the operator stated there are 6 topsoil stockpiles across the site. However only 5 stockpiles are identified, 2 piles in Phase 1, 2 piles in Phase 2 and 1 pile in Phase 7. A review of the Reclamation Plan Map shows there are 3 piles in Phase 2 with quantities noted, none called out in Phase 1, and 1 pile identified but missing volume estimate. Please clearly identify all topsoil stockpiles at the site along with the estimate volumes of the piles.

**Response:**

Correction: There are only 5 stockpiles of topsoil.

TMOP Summary of Stockpile Volumes		
Location		Volume, CY
Phase 2	North along Hyghway 50	51,000
Phase 2	North East Boundary	3,348
Phase 1	North West Corner	3,496
Phase 1	North Central Area	4,372
Phase7	North East corner	4,125
	Total	66,341

15. In response to PAR question #23 the operator states that the settling basins may not be backfilled if it determined they are now considered jurisdictional wetlands. What is the timing of having a wetland delineation completed at the site? Please commit to providing the Division with a copy of the completed report. Note in order to become a jurisdiction wetland the US Army Corps of Engineers will have to provide an official letter stating it is a jurisdictional wetland. However, if it is found that the ponds constitute a wetland and there is no exposed groundwater the operator may submit a Technical Revision to update the Reclamation Plan for the basins and backfilling will not need to occur.

**Response:**

The new location of the future spillway will flow water back to the Arkansas River in a location west of the settling basins. This will eliminate the need for settling basins as currently located. These basins will be reclaimed by backfilling to a level consistent with phase 7. The restored elevation will be above the high water level and reseeded as part of the revegetation process for the site. No wetlands or standing water will be present after reclamation of this area.

16. In response to PAR question #26, the topsoil volume for covering 50.6 acres is incorrect. Please revise the volume as needed.

**Volume of topsoil for 50.5 acres will be revised top 40,900 cys.  
Costs in the amendment will be adjusted accordingly**

17. The Table for Phase 7 Reclamation is missing a line item for grading out the high walls to a 3:1 slope or shallower, please update the table or provide an explanation of where this items cost is covered.

**Table for Phase 7 will be adjusted to include 2300 lf of high wall to be sloped.**

18. The Reclamation Plan Map indicates there is 4300 linear feet of high wall at an average height of 10 feet that needs reclaiming. The response to PAR question #27 indicates different values, please clarify to correct numbers and update accordingly.

**Response:**

2000 lf of high wall will be sloped during the backfill operation and costs are included in the backfill line item for phase 7.

2300 lf of high wall will be reshaped as part of the back fill in phase 7 and costs are included in the back fill line item.

\* 2300 lf x 10 feet x 30 x  $\frac{1}{2}$  slope = 345,000 cubic feet

\* 345,000 cubic feet / 27 = 12,778 cubic yards

12,778 cys of earthwork has been added to the estimate for phase 7.

19. Please submit a summary of the Reclamation Plan that captures what the operator is planning for each phase. Please include at the end of the summary the tables that reflect volumes and cost estimates. Any minor maps can be included in Exhibit F along with any other maps.

**Response:**

Pages in the cost of reclamation have been updated and reflect the changes to the reclamation plans. The estimated cost of reclamation has been increased from \$3,607,680.00 to \$3,643,203.

*EXHIBIT L – Reclamation Cost Estimate (Rule 6.4.12):*

20. Please provide updated cost estimate tables for each phase and summary table for the permit, the Division will use these table and quantities to calculate a reclamation cost estimate.

**Response:**

Pages in the cost of reclamation have been updated and reflect the changes to the reclamation plans. The estimated cost of reclamation has been increased from \$3,607,680.00 to \$3,643,203.

*EXHIBIT S – Permanent Man-made Structures (Rule 6.4.19):*

21. Pursuant to Rule 1.6.2(1)(e)(ii) the operator shall send a copy of the notice immediately after the first publication to the Owners of Record of all land surface within 200 feet of the boundary of the affected lands. The Division counted approximately 31 land owners adjoining the permit boundary but only 24 certified mail receipts. Please demonstrate that all Owners of Record were notified. Updates to the permit maps may require additional notifications of Owners of Record.

**Response:**

Three Adjacent owners are the owner of record on more than one adjoining Parcel:

Adjacent Parcels		31
Multiple Parcels Owned by:	Parcels	Net
MRAOVICH GEORGE ALLEN JR	2	-1
314 25TH LN	E9. Schedule: 434002007	
PUEBLO CO 81006-6002	E10. Schedule: 434002057	
MOUNTAIN STATES SHEET METAL CO or MSSM Corp	5	-4
27350 E STATE HIGHWAY 96	E19. Schedule: 435000014	
PUEBLO CO 81001-6063	E20. Schedule: 435000013	
	E21. Schedule: 435005001	
	E22. Schedule: 435005002	
	E23. Schedule: 435005003	
ORTEGA LOUIE H + RICKY R	3	-2
1833 E 16TH ST	E26. Schedule: 435001004	
PUEBLO CO 81001-2708	E27. Schedule: 435001005	
	E28. Schedule: 435001006	
Number of Landowners without Duplication of Owners		24
landowners were notified by certified mail		24

Other Permits and Licenses (Rule 6.3.6):

22. Pursuant to Rule 1.6.2(2), please demonstrate that the Operator's response to these adequacy issues have been placed with the application materials previously placed with the County Clerk or Recorders Office, and made available for public review. Demonstration shall be in the form of a Certified Mail Receipt, signed affidavit, or other mail tracking receipt.

**Response:**

**A signed affidavit from the Pueblo County Clerk is included.**

Please respond to these adequacy issues no later than one week before the decision deadline, to ensure ample time for the Division to complete its review prior to its decision deadline. The decision deadline on this application is March 10, 2021. If additional time is required to respond to these adequacy issues please submit a written request for extension of the review period. The Division reserves the right to further supplement this document with additional adequacy issues and details as necessary.

If you need additional information or have any questions, please contact me at Division of Reclamation, Mining and Safety, 1313 Sherman Street, Room 215, Denver, CO 80203, by telephone at 303-866-3567 x8114, or by email at [patrick.lennberg@state.co.us](mailto:patrick.lennberg@state.co.us).

Sincerely,

*Jerald Schnabel*

Jerald Schnabel, Castle Aggregates,  
[Jerald\\_Schnabel@castleaggregate.com](mailto:Jerald_Schnabel@castleaggregate.com)  
Dan Tucker, CWPDA, [dan@cwpda.org](mailto:dan@cwpda.org)

Attachments: AM-01, 2002, Site Map

AM-02, 2004, Site Map

AM-03, 2007, Site Map

AM-04, 2011, Site Map

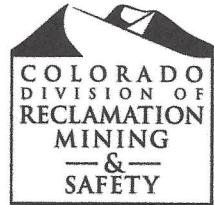
cc: Jared Ebert; Division of Reclamation, Mining & Safety



# 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 # M19 86 015 (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 19 86 Q15 (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): Continental Materials Corporation

1.1 Type of organization (corporation, partnership, etc.): Corporation

2. Operation name (pit, mine or site name): Pueblo East Pit

3. Permitted acreage (new or existing site): +- 466.16 permitted acres  
 3.1 Change in acreage (+) 0.0 acres  
 3.2 Total acreage in Permit area +- 466.16 acres

4. Fees:  
 4.1 New Application \$2,696.00 application fee  
 4.2 New Quarry Application \$3,342.00 quarry application fee  
 4.4 Amendment Fee \$2,229.00 amendment fee  
 4.5 Conversion to 112 operation (set by statute) \$2,696.00 conversion fee

5. Primary commodity(s) to be mined: N/A -----  
 5.1 Incidental commodity(s) to be mined: 1. N/A - N/A lbs/Tons/yr 2. N/A / N/A lbs/Tons/yr  
 3. N/A / N/A lbs/Tons/yr 4. N/A / N/A lbs/Tons/yr 5. N/A / N/A lbs/Tons/yr  
 5.2 Anticipated end use of primary commodity(s) to be mined: No mining shall occur - Reclamation Only  
 5.3 Anticipated end use of incidental commodity(s) to be mined: No mining shall occur - Reclamation Only

6. Name of owner of subsurface rights of affected land: Continental Materials Corporation

If 2 or more owners, "refer to Exhibit O".

7. Name of owner of surface of affected land: Continental Materials Corporation

8. Type of mining operation:  Surface  Underground

9. Location Information: The center of the area where the majority of mining will occur:

COUNTY: Pueblo

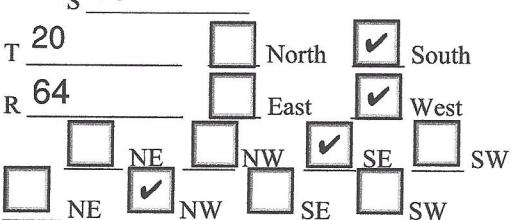
PRINCIPAL MERIDIAN (check one):  6th (Colorado)  10th (New Mexico)  Ute

SECTION (write number): S 35

TOWNSHIP (write number and check direction): T 20  North  South

RANGE (write number and check direction): R 64  East  West

QUARTER SECTION (check one):



QUARTER/QUARTER SECTION (check one):  NE  NW  SE  SW

GENERAL DESCRIPTION: (the number of miles and direction from the nearest town and the approximate elevation):  
2 miles east of Pueblo, CO off US Highway 50, 4600 feet MSL.

10. Primary Mine Entrance Location (report in either Latitude/Longitude OR UTM):

Latitude/Longitude:

Example: (N) 39° 44' 12.98"  
(W) 104° 59' 3.87"

Latitude (N): deg 38 min 16 sec 26 . 20 (2 decimal places)

Longitude (W): deg 104 min 32 sec 9 . 10 (2 decimal places)

OR

Example: (N) 39.73691°  
(W) -104.98449°

Latitude (N) -----. ----- (5 decimal places)

Longitude(W) -----. ----- (5 decimal places)

OR

Universal Tranverse Mercator (UTM)

Example: 201336.3 E NAD27 Zone 13  
4398351.2 N

UTM Datum (specify NAD27, NAD83 or WGS 84) Nad 83 Zone 13

Easting -----

Northing -----

## **Cost Estimates Amendment 5 M-1986-015**

**March 3, 2021**

**Amendment 5 Request to change the current approved reclamation plan to reflect the Water Storage Project as proposed by Continental Materials Corp with Colorado Water Protective and Development Association for Pueblo East Pit, File No. M-1986-015. The amendment is strictly a reclamation only application. No further mining is intended for this site.”**

### **1. Sand and Gravel Processing Footprint: No cost to reclamation**

- Equipment - The sand and gravel processing area (conveyor(s), stackers and screens have been sold and moved off-site..
- All slabs, foundations and footers have been broken up and buried in a dry portion of the property, at least two feet above the historic ground water elevation.
- Exposed rebar will be cut off and hauled to an approved landfill for disposal.
- The footprint area will then be used to construct +/- 7000 lf of 3:1 slope at the perimeter of the water storage area, seeded to the approved seed mix.

### **2. Waste and concrete washout area: Cost incorporated with slope backfill.**

- The waste and concrete washout material will be broken up with a dozer or trackhoe by traversing across the material. The broken material will either be further crushed using a portable crusher and used for road material around the perimeter of the site, or buried on the site.

Concrete Debris will be used in one of the following uses:

1. Concrete onsite will be loaded and hauled to a fill area already excavated onsite and buried as part of the reclamation process. Once in place it will be covered with soils compacted and finally topsoiled and seed per the reclamation permit.
2. Concrete can be crushed by the means of a portable crushing plant brought on site. The material will be reduced to a base course product and placed on operation roads to allow vehicular travel during construction and operation of the water storage project.
3. Large existing pieces of hardened concrete can be salvaged and used as rip rap for erosion control along the water storage slopes.

### **3. Concrete Batch Plant: No cost to reclamation**

- The concrete batch plant was sold to Aggregate Industries – US. It is not clear if the sale area was removed from the current permit area. A document dated June 8, 2006, from Transit Mix of Pueblo, and date stamped as received by the DRMS on June 13, 2006, suggests the release process was initiated but never concluded. Therefore, the following steps are proposed to address this issue:
- Review the Division of Reclamation, Mining and Safety (DRMS) records to determine if the batch plan area was released from the Pueblo East permit area.
- With this amendment, we propose a new post mining land use, industrial site. Once the amendment is approved, we will then submit a release request to the DRMS for the batch plant area. We will also provide a revised permit boundary map (Reclamation Plan Map) which shows the revised permit boundary.

### **Phase 1 Reclamation Cost Estimate**

Following is an estimate of the amount of material necessary to construct 3:1 slopes in Phase 1. In calculating the amount of backfill material needed, certain assumptions are necessary:

- Assumptions:
- The average depth of the pit is 34 feet (Taken from 1-31-2007, Exhibit F-2 Reclamation Final Land Use Map), equals an verticle fill of 34 feet with a horizontal leg of 102 feet.
- The average elevation across Phase 1 pit is 4604 MSL.
- The slope around the perimeter of the pit represents  $\frac{1}{2} (34 \times 102) = 1,734$  square feet per lineal foot of perimeter.
- Calculating the estimated volume is  $(1734 \text{ sf} \times 7000 \text{ lf}) = 449,555 \text{ cys}$   
27 cf/cy



- Estimated slope fill needed is 450,000 cys
- Estimated backfill available in Phase 1:
- In the north east portion of the Phase 1 Pit are wash fines from the sand and gravel processing area. An estimate of the volume of cut material available for backfill is: 12 acres x 43,560 x 34 feet deep = 658,240 cys available.

27 cf/cy

### Phase 1 Reclamation

ITEM	Quantity	Estimated Quantity	Units	Unit Cost (1)	Total
Ripping Compacted Areas	19 acres 3.8 hours	3.8	Crew Hours	\$227.47	\$864.39
Construct 3:1 earth berm at the perimeter of pit 1	7,000 Lineal Ft	450,000	Cys	\$2.91	\$1,309,500.00
Topsoil Replacement: 6.7, Acres, 6 Inches Deep (Used as a top dressing for Phase 7)	6.7 Acres 15357 cys	15,357	Cys	\$1.59	\$24,417.63
Seedbed Preparation (2)	19.0 Acres	19	Acres	\$138.00	\$2,622.00
Drill Seeding (Includes Seed Cost) (3)	19.0 Acres	19	Acres	\$387.51	\$7,362.69
Amendments (4) (Includes Amendment cost)	19.0 Acres	19	Acres	\$180.00	\$3,420.00
Mulch and Crimp (5) (Includes Straw)	19.0 acres	19	Acres	\$1,207.14	\$22,935.66
Weed Control (1 <sup>st</sup> Year)	105.1	19	Acres	\$249.37	\$4,738.03
Slurry Wall Construction	7000 lf	7000	Lineal Feet	\$210.00	\$1,470,000.00
<b>Sub-total</b>					<b>\$2,845,860.40</b>

Footnotes:

1. Assumes all material to backfill Phase 1 will be obtained on-site.
2. From Grisenti Farms 2019 seedbed preparation costs inflated 2.3%.
3. Seed cost from Grisenti Farms 2019 per acres seeding cost inflated 2.3%.
4. From Grisenti Farms Pit per acre costs, 2019 inflated 2.3%.
5. From 2019 Grisenti Farms per acre mulching costs inflated 2.3%.

## **Phase 2 Scope of Work:**

- Remove trash and debris.
- Repair slumped areas within the Phase 2 reservoir structure and regrade 19 acres of slope areas in phase 2.
- Regrade and prepare the 9 acres of flat ground in the north east corner of Phase 2.
- A long narrow topsoil pile in the north east portion adjacent to the Phase 2 reservoir will be used as a top dressing prior to seedbed preparation on all reclaimed slopes.
- Once the topsoil and grade are prepared 28 acres will be seeded and mulched per the seeding specs.
- For all Phases, weed control will be done annually, according to the approved weed control plan.

## **Pueblo East, Phase 2**

ITEM	Quantity	Estimated Quantity	Units	Unit Cost (1)	Total
Phase 2 Slumped Slope Repairs (2)(3)	-	1	Lump Sum	-	\$51,864.00
All Phases, Ripping Rds & Compacted Areas	28.0 Acres	6.6	6.6 Hrs	\$227.47	\$1,501.30
Topsoil Replacement: Current roads to remain	0.0 Acres	0	Lcy	\$1.59	\$0.00
Seedbed Preparation	28.0 Acres	28	Acre	\$138.00	\$3,864.00
Drill Seeding	28.0 Acres	28	Acre	\$387.51	\$10,850.28
Amendments (5)	0.0 Acres	0	Acre	\$984.58	\$0.00
Mulch and Crimp	28.0 Acres	28	Acre	\$1,207.14	\$33,799.92
Weed Control	28.0 Acres	28	Acre	\$249.37	\$6,982.36
<b>Total</b>					<b>\$108,861.86</b>

### **Footnotes:**

1. Estimated area to reclaim, 28.0 acres.
2. Estimate per Castle Concrete.
3. Phases 2 will not have a backfill reclamation liability since it was completed as a reservoir and now is holding water. However, some internal reservoir slope repair will be needed as shown in the above table. We consider this to be a maintenance item and is not included in the reclamation liability cost analysis.
4. Expected noxious weed control is 100% of the total area being reclaimed for all Phases the first growing season.
5. Entire 19.0 acres will have 6 inches of topsoil replaced. The other 9.0 acres is the area beneath an existing overburden/topsoil stockpile. Therefore, once the material is removed, we will prepare the area for seeding, drill seed and mulch.

## **Phase 7 Scope of Work:**

- The historic ground water elevations vary from west to east, from 4597 MSL to 4591MSL.
- The proposed backfill elevations were to vary from 4590 on the west and 4588 on the east, as stated above. Therefore, the final elevation would be below the historic ground water elevation. The backfilled area would likely fill with ground water. Any exposed ground water will be removed or accounted for in CWPDA monthly records and replaced in the Arkansas River accounting.
- The backfill procedure will be followed for Phase 7 as:
- Backfill with fine sand, clay, and other clean fill to an elevation that was present prior to mining.
- Filling two feet above the historic ground water elevation may result in negative impacts to the 100-flood plain. Therefore, areas of phase 7 in regulated flood plain will be backfilled to no greater than the pre-mine topographic elevation plus 6 inches.
- The six-inch backfill above the pre-mine topographic elevation is to meet the Office of the State Engineer's (SEO) requirement not expose tributary ground water. The SEO indicated in an email to the DRMS that we should place what depth of backfill we could to prevent ground water exposure directly to the atmosphere.
- If any slopes remain after backfilling Phase 7, they shall be no steeper than 3H:1V. The only slopes which should occur would be along the north and east sides of Phase 7. 2300 lf of slope to be constructed along the north boundary and 2000 lf of slope to be constructed as part of the back fill operations in Phase 7 in the north east corner.
- The Surface will be graded at a .05% to a 1.5% slope. The backfilled pit should result in a topography which would slope toward the River.
- We do not anticipate the three channels shown in the existing plan will be needed. However, three drainages cross the site and may need erosion protection. These designs, if needed, will be supplied in a separate TR.
- Volume calculations for backfill were completed by water depth survey by Bishop and Brogden Water Consultants combined with drone survey by Mangini Surveying. Contour calculations were 193,000 cys to complete backfill of Phase 7.

- Seed to the approved dry land seed mix on all reclaimed slopes. As stated above, the floor of backfilled Phases 1 and 7 will be allowed to fill in through invasion of natural plant species. Noxious weeds will be treated according to the approved weed control plan. If seeding is necessary at a future date, the approved seed mix will be drill seed, and the areas mulched and crimped as discussed above.

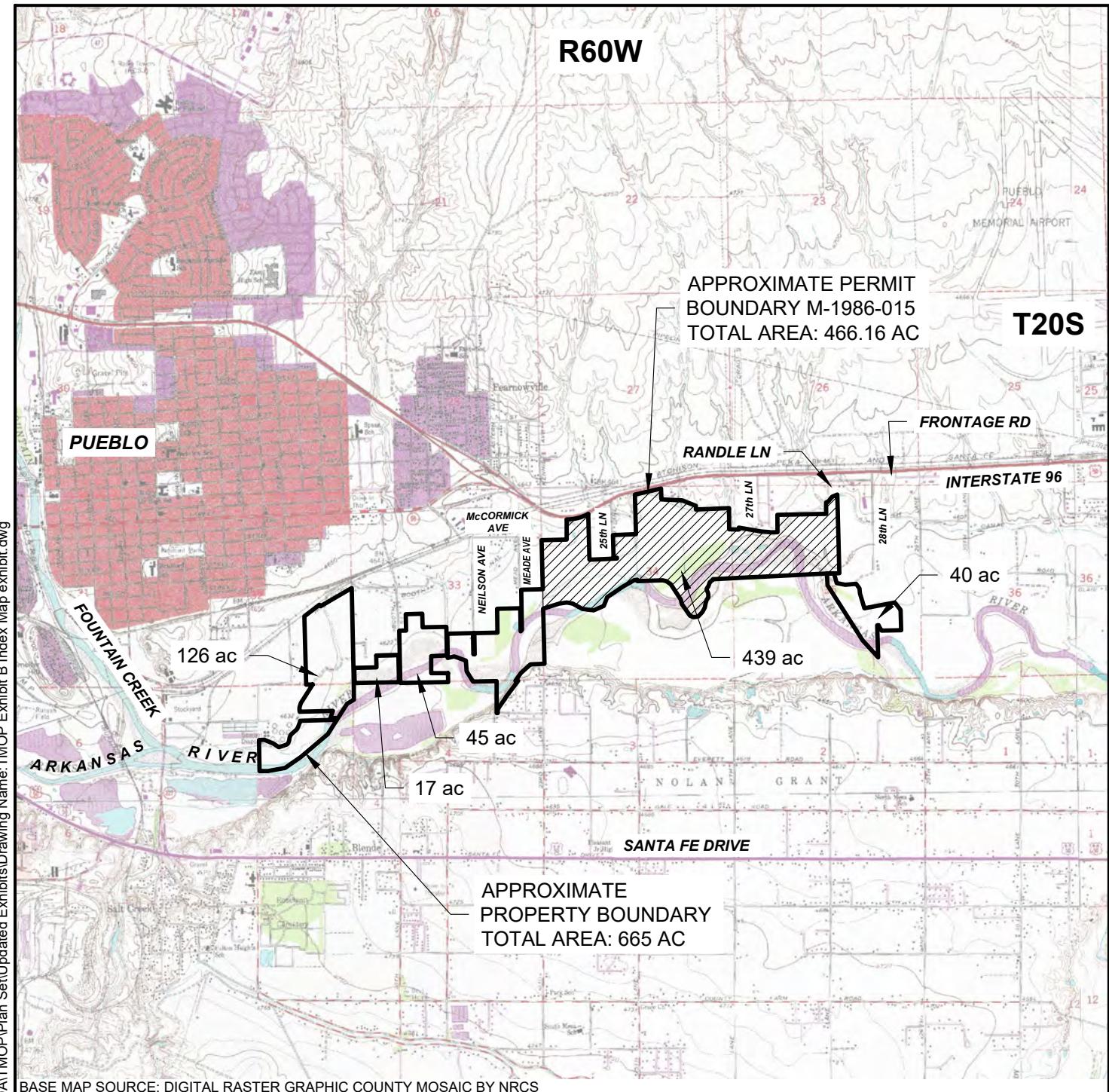
### Phase 7 Reclamation

ITEM	Quantity	Units	Units	Unit Cost (1)	Total
Ripping Compacted Areas	8.6 Acres	1.7	hours	\$227.47	\$386.70
Backfill, Assume All Material Will Be Obtained On-site.	200,000 Cyds	200,000	Cy	\$2.83	\$566,000.00
Slope construction along the north boundary with neighbors to Phase 7	2000 lf of 3:1 slope	12,778	Cy	\$2.83	\$36,161.74
Topsoil Replacement: 50.6, Acres, 6 Inches Deep (Replace as a top dressing)	40,900 cys	40,900	Lcy	\$1.59	\$65,031.00
Seedbed Preparation (1)	50.6 Acres	50.6	Acre	\$138.00	\$6,982.80
Drill Seeding (Includes Seed Cost) (2)	50.6 Acres	50.6	Acre	\$387.51	\$19,608.01
Amendments (3) (Includes Amendment cost)	50.6 Acres	50.6	Acre	\$180.00	\$9,108.00
Mulch and Crimp (4) (Includes Straw)	50.6 Acres	50.6	Acre	\$1,207.14	\$61,081.28
Weed Control (1 <sup>st</sup> Year)	50.6 Acres	50.6	Acre	\$249.37	\$12,618.12
<b>Total</b>					<b>\$776,977.65</b>

**Footnotes:**

1. Assumes all material to backfill Phase 7 will be obtained on-site.
2. From Grisenti Farms 2019 seedbed preparation costs, inflated 2.3%.
3. Seed cost from Grisenti Farms 2019 per acres seeding cost, inflated 2.3%.
4. Soil amendment costs from Grisenti Farms Pit per acre costs, inflated 2.3%.
5. From 2019 Grisenti Farms per acre mulching costs, inflated 2.3%.

<b>Total Cost of reclamation for the Water Storage option</b>	
<b>Mobilization</b>	<b>\$20,000</b>
<b>Concrete Overflow Structures</b>	<b>\$6,400</b>
<b>Phase 1</b>	<b>\$2,845,860</b>
<b>Phase 2</b>	<b>\$108,862</b>
<b>Phase 7</b>	<b>\$776,978</b>
<b>Total Reclamation Costs</b>	<b>\$3,758,100</b>



BASE MAP SOURCE: DIGITAL RASTER GRAPHIC COUNTY MOSAIC BY NRCS

OWNER: CONTINENTAL MATERIALS CORPORATION  
NOAH MINEO  
440 S. LaSALLE, SUITE 3100  
CHICAGO, IL 60805-0605



0 2,000 4,000 8,000  
SCALE IN FEET

**EXHIBIT B-1**

**TMOP EAST**

**DRMS AMENDMENT 5**

**INDEX MAP**

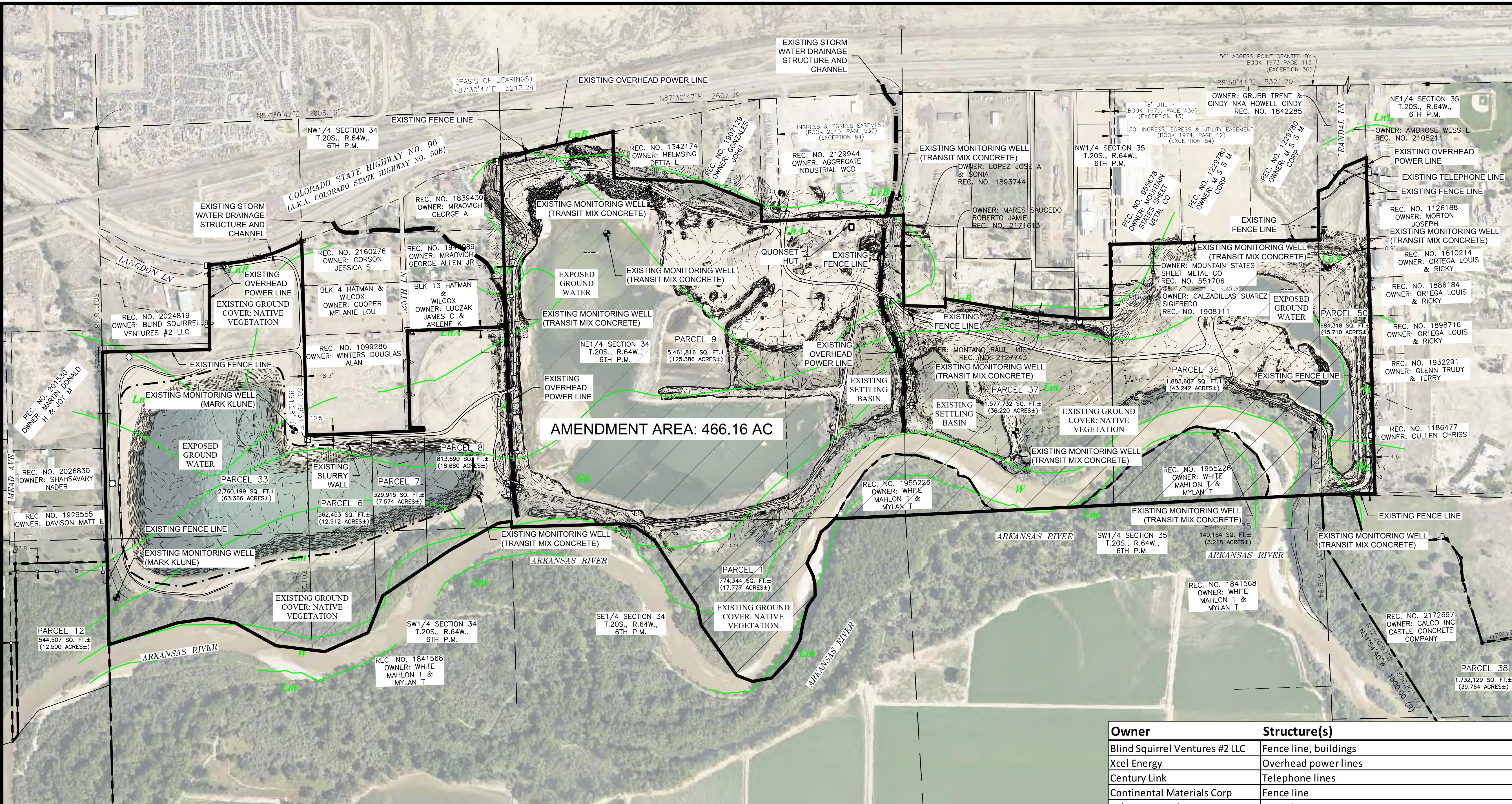
Date:	02/MAR/21
Job No:	728
Drawn:	LD
Design:	DT
Checked:	
File:	Exhibit B-1
Scale:	1" = 4,000'

Firm Name and Address  
CONTINENTAL MATERIALS CORP.  
440 S. LASALLE,  
STE. 3100  
CHICAGO, IL, 60605-5020

**CMC** | CONTINENTAL MATERIALS CORPORATION

# EXHIBIT C-1 EXISTING CONDITIONS / PRE-RECLAMATION PLAN

EXISTING CONDITIONS



## SURVEY LEGEND:

■	FOUND MONUMENT (ALIQUOT)	CULVERT
●	FOUND MONUMENT (AS NOTED)	ELECTRIC LINE (OVERHEAD)
1	1.5" ALUMINUM CAP STAMPED, "PLS 16128" FLUSH WITH GRADE	CHAIN LINK FENCE
○	SET MONUMENT (AS NOTED)	BARBWIKE FENCE
1	NO 5 REBAR W/ 1 1/4" RED PLASTIC CAP STAMPED "PLS 38160" FLUSH WITH GRADE	IRON FENCE
ICV	IRRIGATION CONTROL VALVE	PICKET FENCE
A	ELECTRIC METER	STRAND FENCE
EB	ELECTRIC BOX	GUARD RAIL
↓	GUYWIRE	CONCRETE AREA
□	UTILITY POLE	RIP-RAP AREA
■	TELEPHONE PEDESTAL	
○	TELEPHONE MARKER	
●	MONITOR WELL	
BOLLARD		
SIGN		
FENCE POST		

## SOILS DESIGNATIONS:

- Ap Apishapa clay loam, 0 to 2 percent slopes, occasionally flooded
- Gh Glenberg-Haversid complex, 0 to 2 percent slopes, occasionally flooded
- Lm Las Animas fine sandy loam, 0 to 2 percent slopes, frequently flooded
- LnA Limon silty clay loam, 0 to 2 percent slopes
- LnB Limon silty clay loam, 2 to 5 percent slopes
- LvB Limon silty clay, 0 to 5 percent slopes, gullied
- Rg Rocky Ford silty clay loam, wet
- W Water

## MAP LEGEND:

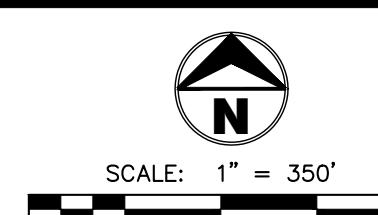
—	SOILS BOUNDARY
- - -	EXISTING CONTOURS
— — —	EXISTING PROPERTY BOUNDARY
— — — —	PERMIT BOUNDARY (M-1986-015)
— · — · —	EXISTING SLURRY WALL

## Quonset Hut Corner Locations

N	W
38° 16'	104° 32'
17.71"	6.17"
38° 16'	104° 32'
17.70"	6.53"
38° 16'	104° 32'
17.32"	6.17"
38° 16'	104° 32'
17.34"	6.54"

## Owner Structure(s)

Blind Squirrel Ventures #2 LLC	Fence line, buildings
Xcel Energy	Overhead power lines
Century Link	Telephone lines
Continental Materials Corp	Fence line
Calco Inc., Castle Concrete Comp	Fence line
Chriss Cullen	Fence line, small building, various concrete structures
Trudy and Terry Glenn	Fence line
Louis and Ricky Ortega	Fence line, workshop, various small out-buildings
Joseph Morton	Fence line, several buildings of various nature
Wess L. Ambrose	Fence line, small out-buildings
Trent and Cindy Grubb	Fence line, small out-buildings
MSSM Corp	Fence line
Mountain States Sheet Metal Co.	Fence line
Suarez Sigifredo Calzadillas	Fence line, Storage Buildings, animal fence
Raul Luis Montano	Fence line, buildings
Saucedo Mares	Fence line, buildings
Jose A Lopez	Fence line
Aggregate Industrial WCD	Buildings
John Gonzales	Buildings
Detta L. Helmsing	Fence line, buildings
State of Colorado	Fence line, drainage structures
George A. Mraovich	Fence line, buildings
George Allen Mraovich, Jr	Fence line, buildings
James C. and Arlene K. Luczak	Fence line, buildings
Douglas Alan Winters	Fence line, buildings
Melanie Lou Cooper	Fence line
Jessica S. Corson	Fence line



SCALE: 1" = 350'

0 175 350 525 700

No. Revision/Issue Date

Firm Name and Address  
CONTINENTAL MATERIALS CORP.  
440 S. LASALLE,  
STE. 3100  
CHICAGO, IL, 60605-5020

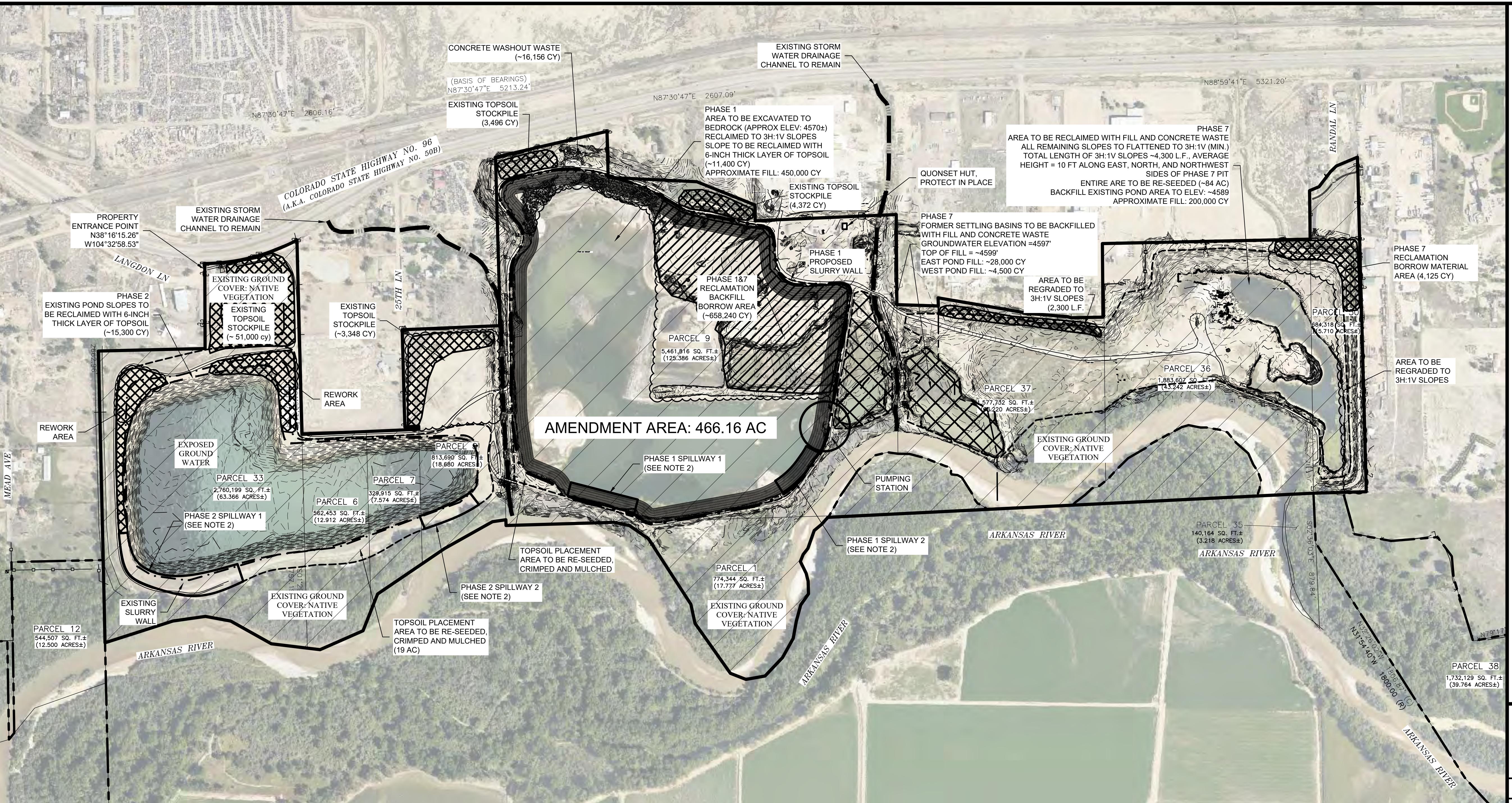
CMC CONTINENTAL MATERIALS CORPORATION

Project Name and Address  
TMOP EAST PITS 2596  
CO-96 PUEBLO,  
COLORADO 81001

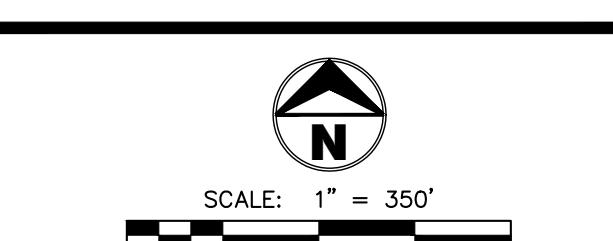
Project M-1984-015  
Date 02/MAR/21  
Scale As Noted  
Sheet C-1

**PROPOSED CONDITIONS**

**EXHIBIT F-1  
RECLAMATION PLAN**



- GENERAL NOTE:**
- ADDITIONAL BACKFILL MATERIAL FOR PHASE 7 TO BE GENERATED AT ADJACENT CONCRETE BATCH PLANT.
  - SPILLWAY DESIGN SPECIFICATIONS AND DETAILS TO BE DETERMINED IN FUTURE TECHNICAL REVISIONS.



No.	Revision/Issue	Date
-----	----------------	------

Firm Name and Address

CONTINENTAL MATERIALS CORP.  
440 S. LASALLE,  
STE. 3100  
CHICAGO, IL, 60605-5020

Project Name and Address

TMOP EAST PITS 2596  
CO-96 PUEBLO,  
COLORADO 81001

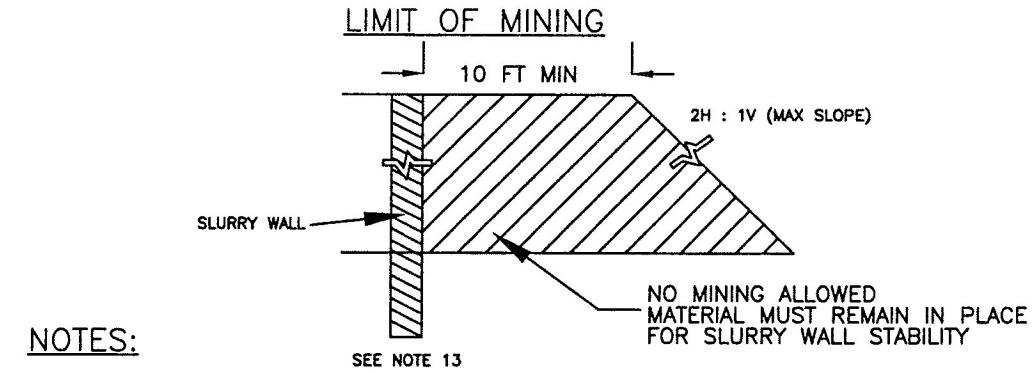
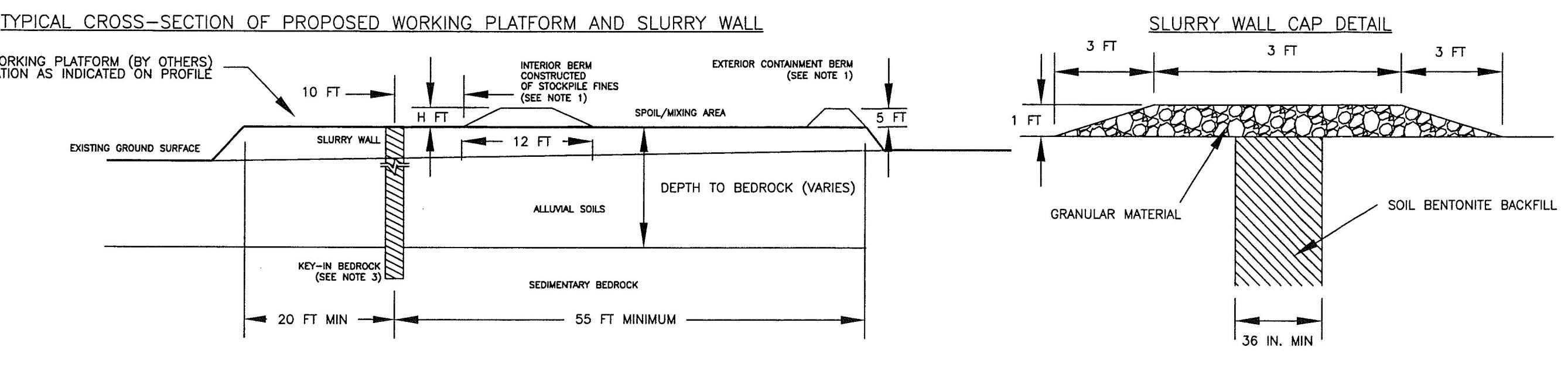
Project	M-1984-015	Sheet
Date	02/MAR/21	
Scale	As Noted	

**F-1**

TMOP Summary of Stockpile Volumes	
Location	Volume, CY
Phase 2	51000
Phase 2	3348
Phase 1	3496
Phase 1	4372
Phase 7	4125

## EXHIBIT F-2 RECLAMATION PLAN

SLURRY WALL DETAIL



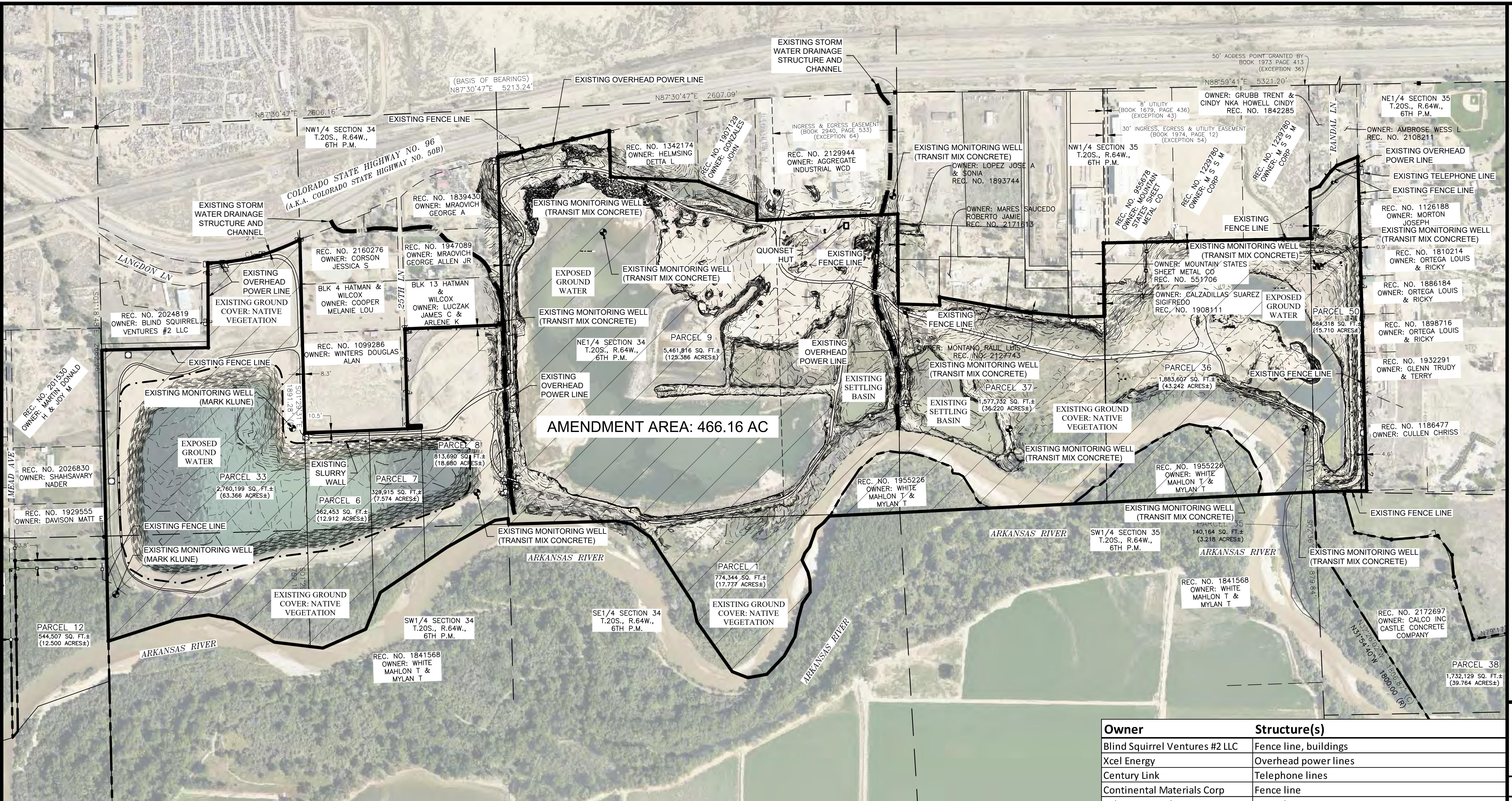
**NOTES:**

1. WORKPAD SHALL BE CONSTRUCTED AT 0.5% MAXIMUM GRADE AND SHALL CONSIST OF ON-SITE OVERTBURDEN SOILS. WORKPAD AND WORKPAD FILL SUBGRADE WITHIN 10 FT OF SLURRY WALL ALIGNMENT SHALL BE FREE FROM ROOTS OR OTHER ORGANIC MATERIAL. INTERIOR BERM SHALL BE CONSTRUCTED OF SOILS WITH MINIMUM 80% FINES (SEE TABLE 2). EXTERIOR CONTAINMENT BERM, IF NOT INCORPORATED INTO THE BACKFILL, CAN BE CONSTRUCTED OF ANY MATERIAL. IF THE EXTERIOR BERM WILL BE INCORPORATED INTO BACKFILL MIX, IT SHALL CONSIST OF OVERTBURDEN SOILS WITH MINIMUM 80% FINES.
2. THE PROPOSED SLURRY WALL WIDTH SHALL BE A MINIMUM OF 36 INCHES.
3. THE PROPOSED SLURRY WALL SHALL EXTEND FROM THE WORKING PLATFORM AND EXTEND INTO THE COMPETENT UNWEATHERED SEDIMENTARY BEDROCK THE MINIMUM SHOWN ON TABLE 1, OR AS DIRECTED BY THE ENGINEER TO OBTAIN AN ADEQUATE "KEY-IN".
4. THE PROPOSED SLURRY WALL LEAD-IN SLOPES SHALL BE NO STEEPER THAN 1:1 (HORIZONTAL: VERTICAL). BACKFILL SHALL BE PLACED USING THE LEAD-IN SLOPES. BACKFILL SHALL NOT FREE-FALL INTO THE TRENCH.
5. THE PROPOSED SLURRY WALL BACKFILL SHALL CONSIST OF A MIXTURE OF EXCAVATED SOILS (WORKING PLATFORM, OVERTBURDEN, SAND AND GRAVEL), BENTONITE SLURRY, ADDITIONAL DRY BENTONITE, AND SOILS FROM THE INTERIOR BERM WHICH HAVE BEEN OBTAINED FROM THE ON-SITE STOCKPILE OF FINE-GRAINED SOILS. BACKFILL SHALL HAVE A MINIMUM 30% BY WEIGHT PASSING THE #200 SIEVE AND SLUMP OF 4 TO 6 INCHES.
6. ANY FROZEN BACKFILL MATERIAL SHALL BE REWORKED AND ACCEPTED BY THE ENGINEER PRIOR TO PLACING INTO THE TRENCH.
7. DRY BENTONITE SHALL BE ADDED TO THE BACKFILL MIXTURE, 0.5 PERCENT BY WEIGHT AND THOROUGHLY MIXED TO FORM A HOMOGENOUS MIX OF ALL BACKFILL MATERIALS PRIOR TO ANY BACKFILL PLACEMENT.
8. BEDROCK SHALL NOT BE USED IN BACKFILL.
9. BENTONITE SLURRY SHALL HAVE A MINIMUM MARSH FUNNEL VISCOSITY OF 40 SECONDS.
10. THE BACKFILL MIXTURE SHALL HAVE A UNIT WEIGHT WHICH IS A MINIMUM OF 15 POUNDS PER CUBIC FOOT GREATER THAN THAT OF THE BENTONITE SLURRY.
11. THE BACKFILL MIXTURE SHALL HAVE A PERMEABILITY OF LESS THAN  $1.0 \times 10^{-7}$  CENTIMETERS PER SECOND.
12. THE SLURRY WALL TRENCH DEPTH, INCLUDING THE BACKFILL SLOPE, SHALL BE PROFILED AT MINIMUM 20-FT INTERVALS AT THE BEGINNING AND END OF EACH WORK DAY TO MONITOR FOR CAVE-IN OR SEDIMENTATION IN THE BOTTOM OF THE TRENCH. IF NECESSARY THE BACKFILL SLOPE AND THE BOTTOM OF THE TRENCH SHALL BE CLEANED OUT PRIOR TO THE PLACEMENT OF BACKFILL.
13. AFTER SLURRY WALL CONSTRUCTION, THE CRESTS OF ANY PROPOSED TEMPORARY EXCAVATION SLOPES SHALL BE OFFSET A MINIMUM OF 10 FEET FROM THE SLURRY WALL. TEMPORARY EXCAVATION SLOPES ADJACENT TO THE SLURRY WALL SHOULD BE 2:1 (HORIZONTAL: VERTICAL) OR FLATTER.

No.	Revision/Issue	Date
Firm Name and Address		
CONTINENTAL MATERIALS CORP. 440 S. LASALLE, STE. 3100 CHICAGO, IL, 60605-5020		
CMC CONTINENTAL MATERIALS CORPORATION		
Project Name and Address		
TMOP EAST PITS 2596 CO-96 PUEBLO, COLORADO 81001		
Project M-1984-015		Sheet
Date 02/MAR/21		
Scale As Noted		
<b>F-2</b>		

# EXHIBIT 3-1 PERMANENT MAN-MADE STRUCTURES

## EXISTING CONDITIONS



## SURVEY LEGEND:

	FOUND MONUMENT (ALIQUOT)		CULVERT
	FOUND MONUMENT (AS NOTED)		ELECTRIC LINE (OVERHEAD)
1	1.5" ALUMINUM CAP STAMPED, "PLS 16128" FLUSH WITH GRADE		CHAIN LINK FENCE
○	SET MONUMENT (AS NOTED)		BARBWIRE FENCE
1	NO 5 REBAR W/ 1 1/4" RED PLASTIC CAP STAMPED "PLS 38160" FLUSH WITH GRADE		IRON FENCE
	IRRIGATION CONTROL VALVE		PICKET FENCE
	ELECTRIC METER		STRAND FENCE
	ELECTRIC BOX		GUARD RAIL
	GUYWIRE		CONCRETE AREA
	UTILITY POLE		RIP-RAP AREA
	TELEPHONE PEDESTAL		
	TELEPHONE MARKER		
	MONITOR WELL		
	BOLLARD		
	SIGN		
	FENCE POST		

MAP LEGEND:

The legend consists of four entries, each with a sample line segment followed by a text label. The first entry shows a dashed line segment with the label 'EXISTING CONTOURS'. The second entry shows a thin solid line segment with the label 'EXISTING PROPERTY BOUNDARY'. The third entry shows a thick solid line segment with the label 'PERMIT BOUNDARY (M-1986-015)'. The fourth entry shows a dash-dot line segment with the label 'EXISTING SLURRY WALL'.

Quonset Hut Co.  
Locations

Locations	
N	W
38° 16'	104°
17.71"	6.1
38° 16'	104°
17.70"	6.5
38° 16'	104°
17.32"	6.1
38° 16'	104°
17.34"	6.5

Owner	Structure(s)			
No.	Revision/Issue	Date		
Blind Squirrel Ventures #2 LLC	Fence line, buildings			
Xcel Energy	Overhead power lines			
Century Link	Telephone lines			
Continental Materials Corp	Fence line			
Calco Inc., Castle Concrete Comp	Fence line			
Chriss Cullen	Fence line, small building, various concrete structures			
Trudy and Terry Glenn	Fence line			
Louis and Ricky Ortega	Fence line, workshop, various small out-buildings			
Joseph Morton	Fence line, several buildings of various nature			
Wess L. Ambrose	Fence line, small out-buildings			
Trent and Cindy Grubb	Fence line, small out-buildings			
MSSM Corp	Fence line			
Mountain States Sheet Metal Co.	Fence line			
Suarez Sigifredo Calzadillas	Fence line, Storage Buildings, animal fence			
Raul Luis Montano	Fence line, buildings			
Saucedo Mares	Fence line, buildings			
Jose A Lopez	Fence line			
Aggregate Industial WCD	Buildings			
John Gonzales	Buildings			
Detta L. Helmsing	Fence line, buildings			
State of Colorado	Fence line, drainage structures			
George A. Mraovich	Fence line, buildings			
George Allen Mraovich, Jr	Fence line, buildings			
James C. and Arleve K. Luczak	Fence line, buildings			
Douglas Alan Winters	Fence line, buildings			
Melanie Lou Cooper	Fence line			
Jessica S. Corson	Fence line			

S-1