



June 3, 2021

Re: Responses to the following comments, EA Number EA1881, File Number AL2014:

• **DRMS Approved Mining Plan Approval:**

- The permit application approval includes the mine plan as well as all included and associated documents, i.e., maps, notices, exhibits and attachments:



November 6, 2019

Perry Hastings  
Ellicott Sand & Gravel LLC  
235 Franceville Coal Mine Road  
Colorado Springs, CO 80929

Re: **File No. M-2018-063, Schubert Ranch Sand Resource, 112c Decision Letter - Financial and Performance Warranty Request - Construction Material Operation**

Perry Hastings:

On November 6, 2019, the Division of Reclamation, Mining and Safety approved your 112c mining permit application.

The amount of financial warranty set by the Division for this operation is \$138,200.00. You must submit a financial warranty in this amount and a performance warranty in order for us to issue a permit. In the event you have requested a financial warranty form, we have enclosed it in this letter. If you have not, please select a type of financial warranty from Rule 4.3. Then contact us so that we can provide you with the appropriate warranty form. We have enclosed a performance warranty form with this letter for your use.

Conditions of Approval:

No mining is allowed within 200 feet of any structure until the required geotechnical stability exhibit is submitted via a technical revision (including the requisite \$216 fee) and approved by the DRMS.

**PLEASE NOTE THAT MINING OPERATIONS MAY NOT COMMENCE UNTIL A PERMIT HAS BEEN ISSUED BY THE DIVISION AFTER RECEIPT OF YOUR FINANCIAL WARRANTY AND PERFORMANCE WARRANTY. A PERMIT WILL NOT BE ISSUED UNTIL WE VERIFY THE ADEQUACY OF BOTH YOUR FINANCIAL WARRANTY AND PERFORMANCE WARRANTY.**





RPM, Inc., 25049 E. Alder Dr., Aurora, CO 80016 Phone: (303) 854-7499 Email: [hlumphries2@comcast.net](mailto:hlumphries2@comcast.net)

Mr. Perry Hastings  
November 6, 2019  
Page 2

If you have any questions, please contact me.

Sincerely,

Timothy A. Cazier  
Environmental Protection Specialist

Enclosure

cc: Steve O'Brian, Environment, Inc.

36-AP-18



## **Mining Operation Plan:**

From Exhibit D, Schubert Ranch Sand Pit, DRMS Mine Permit Application, as submitted:

### **EXHIBIT D**

#### **MINING PLAN AND TIMETABLE**

##### *LOCATION*

This is an open pit mine located approximately 2.5 miles southeast of Ellicott, Colorado. From Ellicott Colorado, follow SHW 94 east two (2) miles to South Baggett Road, then south (right) 1.7 miles to the northeast corner of the mine. The Entrance to Stage I is west of the intersection of South Baggett Road and Sanborn Road (coordinates 38°47'43.58"N, 104°21'17.60"W). The entrance will change as each new mining Stage is opened. The exact entrance locations for each stage are unknown at this time. The private roads on the mine site will be used also. Periodic grading will be necessary to keep the roads in their present condition. Each Stage entrance will remain after mining is complete for landowner access to that area. Please refer to **EXHIBIT B - VICINITY MAP** for the property configuration and the relationships to surrounding geological features.

##### *CURRENT CONDITIONS*

Map Exhibit C shows the outline of the Affected Lands; the touching landowners; the 200 foot ownership; structures; current topography, and hydrologic features of the property. Also, all permanent manmade structures are shown on this map exhibit. Surrounding property uses include rangeland or irrigate agriculture and rural residential. Portions of the mine area used as irrigated sod grass area or irrigated agriculture fields. These area are generally associated with the irrigation pivots on the north and south side of the permit area. The Schubert Ranch (owners) office and main yard is located on South Baggett Road approximately midway along the east permit line. All of the buildings shown on the permit area are owned by Schubert Ranch or the ranches owners. At this time the building in the mined area will remain so we plan to establish a mining setback from the main structures as shown on the Reclamation Plan Map.

Bisecting the permit area from north to south is an ephemeral drainage labeled Black Squirrel Creek and a secondary area that is where Big Springs Creek merges with the Black Squirrel. Mining will not take place in the primary erosion channels where water has run down the dry creek bed. The landowners have built flow direction berms along the dry creek



**MINING PLAN**

**EXHIBIT D (CONT)**

beds and done some armoring to protect the fields and building from past flooding. The Floodplain line is shown on the map. This line is located from the Pikes Peak Regional Floodplain Map. Run off down these dry creek beds will not be impaired by mining or reclamation.

The site is currently used as irrigated agriculture and rangeland and consists of a deep sand deposit that parallels both side of Black Squirrel Creek. The usable material on this site is greater then 70 feet deep as evidenced by the well drilling logs reviewed. The salvageable soil depths vary from 4 to 15 inches but many of the 8 soils types have 8 inches or less so the average works out to be 5.5 inches. However, Most of Stage VI is area covered by irrigation sprinklers is used for sod farming so little or no actual soil remains on those. The mine floor will be sand since the deposit averages 100 plus feet deep.

**MINING PLAN**

Of the 733.7 acres ± in the permit area a maximum of 561.7 acres ± will be disturbed by the mining operation over the life of the mine. The area is broken into 6 mining stages for sake of discussion. When a stage is opened the 25 foot mining setbacks will be delineated along the permit/affected lands line and 50 feet from the top of the bank along Black Squirrel Creek.

Mining will begin in Stage I west of Black Squirrel Creek and north of Sanborn Road. A 30 acre area will be stripped within the setbacks explained above that will be used as the active mining area, plant site and stockpile area. Mining will move south to north in this stage once a working face that trends east-west across the stage. We expect to mine approximately 35 feet deep in the stripped area creating the first level. Once enough area is open a second 35 foot deep cut will be made to reach the final floor of the mine. This will create two 35 foot benches that extend from east to west across the stage as shown on the **MINING PLAN MAP - EXHIBIT C-1**. The typical layout of the bench is show on **Figure D-1** following the Mining Timetable. Eventually, an additional 10 acres of partially reclaimed area will be present since reclamation will run concurrent with mining, so the total bonded disturbance allowed will be 40 acres.



**MINING PLAN**

**EXHIBIT D (CONT)**

There will be a 25-foot or wider digline setback maintained from the permit boundary so there is adequate space on the level above the slope for property line access, setback maintenance, grading and shaping. In Stage VI the setback from the northern house will be between 210 and 215 feet and on the southern ranch complex it will vary from 50 to 130 feet.

As mining progresses across a stage the exterior slope will be mined  $\frac{1}{2}$  to 1 until it is within 55 feet of a stage perimeter then shaped to the final 3:1 rate from the surface to the top of the first bench. Once that slope toe of that slope is established another 55 foot wide vertical mining setback will be established to leave enough material to create the bottom of the 3:1 cut/fill slope along the outer limits of a Stage.

The Plant Site/stockpile area will start on the surface, but once the initial level is reached it will be moved below grade so it is screened below the surrounding areas. MAP EXHIBIT C-1 shows how the site would look when the mine reaches full production.

On the Mining Plan Map the processing/stockpile and partially reclaimed areas covers approximately 22.0 acres, there is 15.0 ac. of bench and working face area and 3.0 acres stripped. The highwall is 500 feet long with approximately 4100 feet being temporary graded to 2h to 1v. As the mining face extends across the property, we will maintain a 500 foot long, near vertical, working face. The remaining highwall will be kept at an interim grade of 2h to 1v. The working face will move from the top bench to the mine floor as it progresses across a given Stage. The plan is to continue to mine into the sand deposit at the mining face until the permit limits are reached.

Typically mining will be done in cycles. These cycles involve moving a crushing plant into a mine and beginning to process material until there is a six month to 1 year supply of material stockpiled. Once an adequate supply is processed, the processing plant and equipment is moved to another mine. The stockpiles will be used throughout the year by the company. As mining ends on a section of the working face it is temporally graded to 2:1 so it is stable when there are no activities in the mine. Any resoiling and revegetation needed will be completed when the area where material is removed will not be redisturbed. This cycle continues until the mine is played out.



**MINING PLAN**

**EXHIBIT D (cont)**

Each time the mine is re-entered, mining begins by setting up the plant and if needed an area is stripped. The salvaged topsoil will be stockpiled along the mine perimeter setbacks or on the mine floor, i.e., in places where it will not be disturbed until needed. Much of the permit area will continue to be used by the owners for their ranching purposes throughout the life of the mine. The approximate location of the soil piles are shown on the **MINING PLAN MAP**.

Mining will begin on a section of the slopes created at the end of the last mining cycle until a near vertical face is open. This face will be worked to the east and west until it extends across the property and at that time mining will progress to the south or north depending on the Stage mining is taking place. As mining progresses thru the site the processing plant will be set near the open face to reduce the haul distance from the mine face.

This pit will be operated year-around by Ellicott Sand & Gravel LLC, weather permitting. There may be periods when the demands for material are slow and no mining will take place at which time the mine will become an **Intermediate Operation**. Stockpiles of material will be maintained on the site and as the need arises, it will be hauled to our project sites or sold to the public.

This will be a six stage operation, starting in Stage I and working counter clock wise around the permit area so mining ends in the northeast corner. Generally, mining will be to the north and south depending on what stage is being mined with the mining face extended across each stage from east to west.

Review of **MAP EXHIBIT C-1** shows how we expect the site to look when mining is approximately 20% done. Note, the floor of the excavation is flat and the exterior slopes into the mined area are graded 3:1 where reclaimed, 2:1 when temporary grading is done and near vertical where mining is taking place. Material will be left along the mine perimeter to do a cut/fill sloping operations for the final slopes.

Mining equipment may include but is not limited to, front-end loaders, scrapers, bulldozers, dump trucks and a water truck. Processing equipment may include but is not limited to conveyors, crushers and screen plants. A scale and scale house as well as a



**MINING PLAN**

**EXHIBIT D (cont)**

shop and maintenance building may also be built at the mine during its life. No blasting will take place at this mine.

As much as possible, the surface drainage will be maintained in the same direction as it now exists. The proposed sloping plan for the excavated area should eliminate any concerns of erosion occurring on the site. The ephemeral drainages will not be disturbed by mining.

On a typical operation of this type we may use up to 3 ac-ft of water per year. Most of the water used for dust control will be used on haul roads. Please refer to EXHIBIT G-WATER for the discussion of how water will be used at the site and the source of said water.

There are no ditches crossing the site and no surface or subsurface water will be impacted by the mining operation. All interior pit slopes will be maintained with a pit-ward attitude so that historic drainage patterns can be maintained. This same slope management plan will prevent any offsite slides or other disruptions. Isolation berms or ditches will be constructed around the active mining area to prevent off site stormwater from contacting the disturbed area. All stormwater contacting the disturbed area will be retained on site and allowed to evaporate or soak into the underlying sand. No stormwater will be retained in the mine area for more than 72 hours. No dewatering will take place as this is a dry mine. A CDPS and stormwater permit will be obtained if needed. No U.S. Army Corps of Engineers 404 permit is necessary, as there are no water bodies on the site nor are there any wetland areas that will be disturbed by mining or reclamation. No mining will take place within the ephemeral drains of Black Squirrel Creek or Big Springs Creek.

***MINING TIMETABLE***

This estimated mining timetable is based on an average year and Ellicott Sand & Gravel LLC expects a specific year to vary widely from the average. If there are changes in the mining timetable we will discuss the reasons for the changes in the annual report that follows the change and modify it at that time.



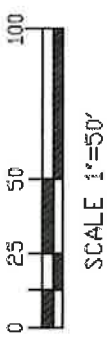
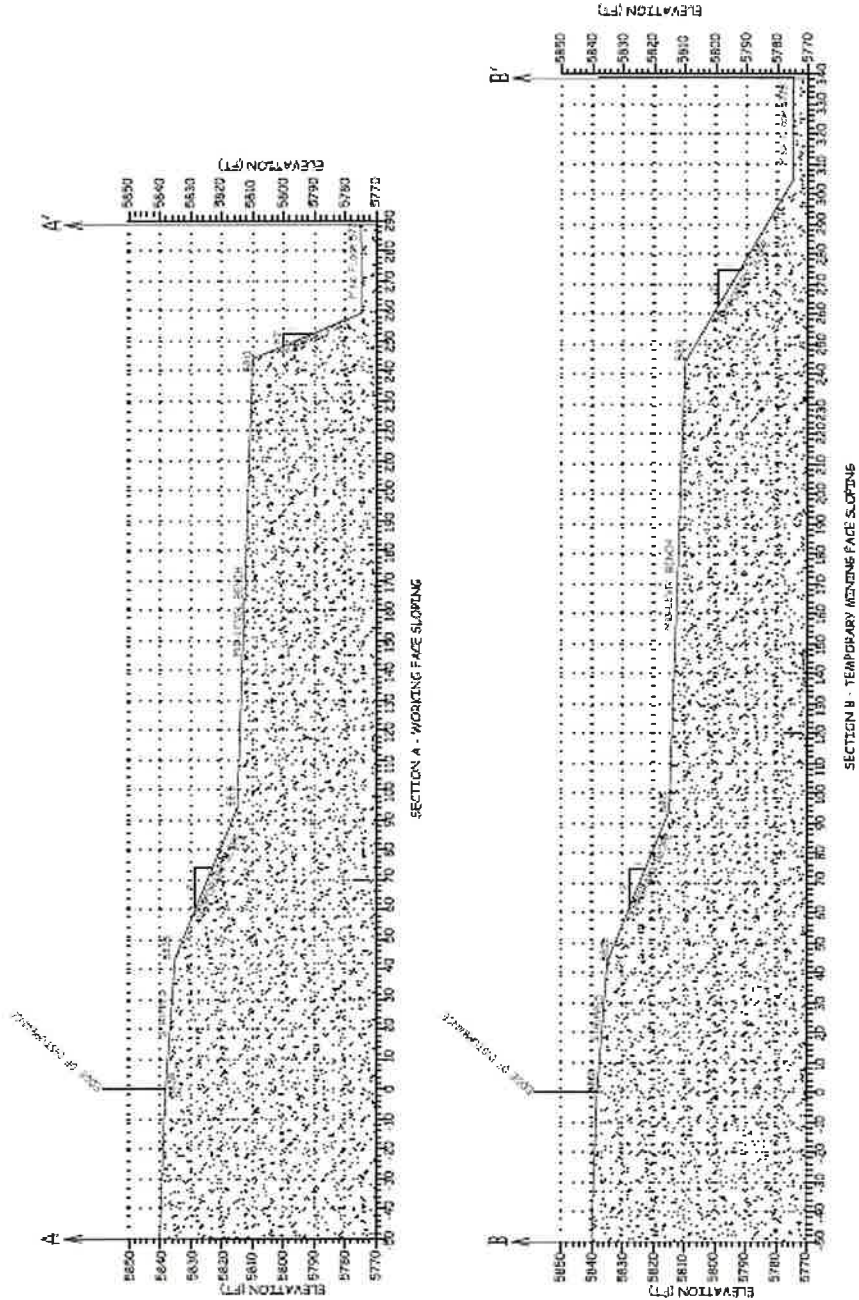
**ESTIMATED MINING TIMETABLE**

Stage	ESTIMATED YEARS	ACRES ±			
		TOTAL AREA	TOTAL MINED	MINED 100%	MINED SLOPES
I	10-15	68.94	60.05	28.22	31.83
II	15-20	214.00	181.14	129.68	51.46
III	4-6	54.39	47.30	14.26	33.04
IV	2-5	24.32	19.00	4.20	14.80
V	2-4	20.81	17.46	3.32	14.15
VI	20-30	268.60	236.70	159.64	77.07
Drainage	LOM	82.81	0.00	0.00	0.00
Totals	52-80	733.87	561.65	339.32	222.35





**ELLCOTT SAND AND GRAVEL, LLC.**  
**SCHUBERT RANCH SAND RESOURCE**  
**CROSS SECTION FIGURE D-1**



*A. K. B.*  
 PREPARED BY **ENVIRONMENT, INC.**  
 7985 VANCE DR. # 205A  
 ARVADA, CO 80003  
 (303) 423-7297

DATE: MAR 17, 2009 - 15:09:13



## **Revision to the submitted Mine Plan, September 9, 2019:**

### **6.4.4 EXHIBIT D – Mining Plan**

4. **Mining Setbacks:** The mining plan (pp. 5 – 6) states there will be setbacks of various distances from structures, ephemeral drainages, and boundaries. These setbacks, if approved by the DRMS, will be critical to preventing offsite impacts. Please provide details as to how these setbacks will be marked such that they are visible to mine equipment operators.

Initially the setback lines be staked along the closest mining boundary or from the ephemeral drainage bank and then a ditch will be cut along the line to replace the stakes. The dirt from the ditch will be piled on the outside of the ditch.

5. **Setbacks and Grading:** The end of the second paragraph on page 6 describes a 55-foot wide vertical mining setback to leave enough material to create the 3:1 cut/fill slope. Is the intent to push material down or push material up to create this 3H:1V slope?

The plan is to push the material down the slope when doing all cut/fill sloping.

6. **Topsoil Stockpile Location:** The third paragraph on page 6 indicates topsoil may be stockpiled below grade such that it is screened below the surrounding areas. Should the pit flood during a 100-year event, the DRMS is concerned the flood waters might disperse the topsoil throughout the pit, making redistribution of this material for reclamation impractical



Environment, Inc.  
Ellicott Sand & Gravel LLC - M-2017-063  
Adequacy response 01

Page 4

to impossible. Pursuant to Rule 3.1.9(1) please discuss why a below grade stockpile is preferred under these circumstances.

Initially that was to avoid placing an impediment to flood water flows across the surface and place them close to where they were needed for reclamation. But it never occurred to me that it might be a problem. I have revised the Map Exhibit C-1 - Mining Plan Map to show the soil piles will be placed around the perimeter of the excavated area. If they are located in the 100 year flood plane it will be on a temporary basis when the plan is to respread the soil on areas that are ready for resoiling in the near future and the piles will be aligned parallel to the ephemeral drainage.

7. Buildings: The first paragraph on page 8 discusses a shop and maintenance building. No mention of demolition/removal of these buildings is included in either the reclamation plan (Exhibit E, Rule 6.4.5(2)©) or the reclamation cost estimate (Exhibit L). If these buildings are to remain, please provide justification; otherwise include their demolition/removal in both Exhibits E and L (Rules 3.1.11 and 6.4.12).

No buildings are planned at this time. A temporary portable scale house and scale will be installed on the entrance but no additional buildings will be needed at this time. That option was added in case at sometime in the future they were needed or desired, they could be installed. Should this occur, a Technical Revision will be filed prior to constructing them to show their temporary or permanent location and then deal with the bond increase to remove them if that is appropriate.

8. Ephemeral Drainages: The second paragraph on page 8 states the ephemeral drainages will not be disturbed by mining. Map C-1 shows mining to extend very near the Black Squirrel Creek and Big Spring Creek drainages. Furthermore, most of the mining is planned to be within the delineated 100-year floodplains. The DRMS is concerned that a 100-year flood event would erode the highwall next to the stream and as the pit is deeper than the stream invert, the stream would be captured by the pit and have not way to drain back into the drainage system. Pursuant to Rule 3.1.6, please describe how stream capture, considered disturbance to the drainage and the hydrologic balance, is to be avoided.

It can't be avoided, only minimized during an unusual condition flood event. Under normal conditions there is no impact. As discussed in question 2, the propose mitigation is to install armoring along both side of the 150 foot wide berm adjacent to channel to protect the integrity of that bank. This is done so when the 100 year event ends the stream bed will remain intact and the location of the channel will not be diverted into the excavated area. The holes will drain naturally due to the nature of the sand strata along the creek and the fact that the water table is below the bottom of the mined area.

9. Area Discrepancy: The total area at the bottom of the third column in the "Estimated Mining Timetable" (p. 9) is listed as 733.87 acres, 0.17 acres greater than the 733.7 acres used



Environment, Inc.  
Ellicott Sand & Gravel LLC - M-2017-063  
Adequacy response 01

Page 5

throughout the application and other discussions in the Exhibits. Please correct this table to present consistent acreages in order to prevent future confusion.

Thank you for catching this. I have attached a copy of a revised page 9. This timetable was totally revised to reflect the new proposed setbacks along Black Squirrel & Big Spring Creeks.

10. Figure D-1: Some clarification is required for Figure D-1 (p. 10): These cross sections appear specific, given the elevations, yet the DRMS could not find locations in Exhibits C or F to indicate where these sections are taken. Please indicate where these sections on Figure D-1 are on the appropriate map(s) in Exhibits C and/or F. Also, the date on Figure D-1 is 2009. Given the dates on 2018 Exhibits C and F are 2018, is there a newer version of Figure D-1?

Both cross section locations are shown on Map Exhibit C-1 in Stage 2 on the south face of the mining area on the western side. I have bolded them so they show better and revised page 10 by noting where they are located. No, I missed getting the date coordination on the maps and have fixed Figure D-1 to show the date as 2019.



**Revision to the submitted Mine Plan, October 31, 2019:**

***MINING PLAN***

Of the 733.7 acres ± in the permit area a maximum of 561.7 acres ± will be disturbed by the mining operation over the life of the mine. The area is broken into 6 mining stages for sake of discussion. When a stage is opened the 25 foot mining setbacks will be delineated along the permit/affected lands line and 150 feet from the top of the bank along Black Squirrel Creek. If mining will take place near a structure not covered by a Structure agreement a 200 foot setback will be established from the closest structure where on agreement is in place. This setback is Shown on the Mining Plan and Reclamation Plan maps. When a Geotechnical Stability Analysis is approved mining will return to a setback distance consistent with the factors of safety determined by that analysis.

Mining will begin in Stage I west of Black Squirrel Creek and north of Sanborn Road. A 30 acre area will be stripped within the setbacks explained above that will be used as the active mining area, plant site and stockpile area. Mining will move south to north in this stage once a working face that trends east-west across the stage. We expect to mine approximately 35 feet deep in the stripped area creating the first level. Once enough area is open a second 35 foot deep cut will be made to reach the final floor of the mine. This will create two 35 foot

5 (revised 10.31/19)



**MINING PLAN**

**EXHIBIT D (cont)**

benches that extend from east to west across the stage as shown on the **MINING PLAN MAP - EXHIBIT C-1**. The typical layout of the bench is show on **Figure D-1** following the Mining Timetable. Eventually, an additional 10 acres of partially reclaimed area will be present since reclamation will run concurrent with mining, so the total bonded disturbance allowed will be 40 acres.

There will be a 25-foot or wider digline setback maintained from the permit boundary so there is adequate space on the level above the slope for property line access, setback maintenance, grading and shaping. In Stage VI the setback from the northern house will be between 210 and 215 feet and on the southern ranch complex it will vary from 50 to 130 feet.

As mining progresses across a stage the exterior slope will be mined  $\frac{1}{2}$  to 1 until it is within 55 feet of a stage perimeter then shaped to the final 3:1 rate from the surface to the top of the first bench. Once that slope toe of that slope is established another 55 foot wide vertical mining setback will be established to leave enough material to create the bottom of the 3:1 cut/fill slope along the outer limits of a Stage.

The Plant Site/stockpile area will start on the surface, but once the initial level is reached it will be moved below grade so it is screened below the surrounding areas. **MAP EXHIBIT C-1** shows how the site would look when the mine reaches full production.

On the **Mining Plan Map** the processing/stockpile and partially reclaimed areas covers approximately 22.0 acres, there is 15.0 ac. of bench and working face area and 3.0 acres stripped. The highwall is 500 feet long with approximately 4100 feet being temporary graded to 2h to 1v. As the mining face extends across the property, we will maintain a 500 foot long, near vertical, working face. The remaining highwall will be kept at an interim grade of 2h to 1v. The working face will move from the top bench to the mine floor as it progresses across a given Stage. The plan is to continue to mine into the sand deposit at the mining face until the permit limits are reached.

Typically mining will be done in cycles. These cycles involve moving a crushing plant into a mine and beginning to process material until there is a six month to 1 year supply of material stockpiled. Once an adequate supply is processed, the processing plant and equipment is moved to another mine. The



**MINING PLAN**

**EXHIBIT D (CONT)**

stockpiles will be used throughout the year by the company. As mining ends on a section of the working face it is temporally graded to 2:1 so it is stable when there are no activities in the mine. Any resoiling and revegetation needed will be completed when the area where material is removed will not be redisturbed. This cycle continues until the mine is played out.

Each time the mine is re-entered, mining begins by setting up the plant and if needed an area is stripped. The salvaged topsoil will be stockpiled along the mine perimeter setbacks or on the mine floor, i.e., in places where it will not be disturbed until needed. Much of the permit area will continue to be used by the owners for their ranching purposes throughout the life of the mine. The approximate location of the soil piles are shown on the **MINING PLAN MAP**.

Mining will begin on a section of the slopes created at the end of the last mining cycle until a near vertical face is open. This face will be worked to the east and west until it extends across the property and at that time mining will progress to the south or north depending on the Stage mining is taking place. As mining progresses thru the site the processing plant will be set near the open face to reduce the haul distance from the mine face.

As mining progresses the plan is to begin to armor both sides of the embankment along the creek channel. The plan entails building the channel side as mining progresses when mining gets within 400 feet of the channel bank. When mining reaches the final dig line on the excavation side that section will be armored. In general, the toe of the armoring will be below the thalweg of the channel, so on the outside it will be 5 ft below and in the inside it will be 3 feet below. The material will be placed a minimum of two (2) feet thick.

The armoring material to be used will be recycled concrete with all exposed rebar removed, that conforms to the definition of Inert Material, available to the Ellicott Sand & Gravel, the exterior slopes will be graded 2.5:1 and the inside slopes will be 3:1. The size of the material will fall in the range of 12 to 36 24 inches with some larger pieces and intermixed with fines and will be placed below grade and on the inside it will be covered with material from onsite. Adequate quantities will be stored onsite, to complete the necessary armoring on any give



**MINING PLAN**

**EXHIBIT D (CONT)**

section. It will then be seeded when the area is reclaimed. The Typical Armoring Cross Section show on Figure D-2 provides details.

This pit will be operated year-around by Ellicott Sand & Gravel LLC, weather permitting. There may be periods when the demands for material are slow and no mining will take place at **which time the mine will become an *Intermediate Operation***. Stockpiles of material will be maintained on the site and as the need arises, it will be hauled to our project sites or sold to the public.

This will be a six stage operation, starting in Stage I and working counter clock wise around the permit area so mining ends in the northeast corner. Generally, mining will be to the north and south depending on what stage is being mined with the mining face extended across each stage from east to west.

Review of **MAP EXHIBIT C-1** shows how we expect the site to look when mining is approximately 20% done. Note, the floor of the excavation is flat and the exterior slopes into the mined area are graded 3:1 where reclaimed, 2:1 when temporary grading is done and near vertical where mining is taking place. Material will be left along the mine perimeter to do a cut/fill sloping operations for the final slopes.

Mining equipment may include but is not limited to, front-end loaders, scrapers, bulldozers, dump trucks and a water truck. Processing equipment may include but is not limited to conveyors, crushers and screen plants. A scale and scale house as well as a shop and maintenance building may also be built at the mine during its life. No blasting will take place at this mine.

As much as possible, the surface drainage will be maintained in the same direction as it now exists. The proposed sloping plan for the excavated area should eliminate any concerns of erosion occurring on the site. The ephemeral drainages will not be disturbed by mining.

On a typical operation of this type we may use up to 3 ac-ft of water per year. Most of the water used for dust control will be used on haul roads. Please refer to **EXHIBIT G - WATER** for the discussion of how water will be used at the site and the source of said water.





**MINING PLAN**

**EXHIBIT D (CONT)**

There are no ditches crossing the site and no surface or subsurface water will be impacted by the mining operation. All interior pit slopes will be maintained with a pit-ward attitude so that historic drainage patterns can be maintained. This same slope management plan will prevent any offsite slides or other disruptions. Isolation berms or ditches will be constructed around the active mining area to prevent off site stormwater from contacting the disturbed area. All stormwater contacting the disturbed area will be retained on site and allowed to evaporate or soak into the underlying sand. No stormwater will be retained in the mine area for more than 72 hours. No dewatering will take place as this is a dry mine. A CDPS and stormwater permit will be obtained if needed. No U.S. Army Corps of Engineers 404 permit is necessary, as there are no water bodies on the site nor are there any wetland areas that will be disturbed by mining or reclamation. No mining will take place within the ephemeral drains of Black Squirrel Creek or Big Springs Creek.

**MINING TIMETABLE**

This estimated mining timetable is based on an average year and Ellicott Sand & Gravel LLC expects a specific year to vary widely from the average. If there are changes in the mining timetable we will discuss the reasons for the changes in the annual report that follows the change and modify it at that time.

**ESTIMATED MINING TIMETABLE (REVISED 7/2019)**

Stage	ESTIMATED YEARS	ACRES ±			
		TOTAL AREA	TOTAL MINED	MINED 100%	MINED SLOPES
I	10-15	66.1	49.9	22.3	27.6
II	15-20	213.7	173.0	124.7	48.3
III	4-6	54.2	39.2	9.7	29.5
IV	2-5	24.3	14.9	2.8	12.1
V	2-4	20.8	14.2	2.3	11.9
VI	20-30	268.4	222.3	151.5	70.8
Drainage	LOM	86.2	0.0	0.0	0.0
Totals	52-80	733.7	513.5	313.3	200.2