

### LEGEND

- 395 --- EXISTING 5' CONTOUR
- 400 --- EXISTING 25' CONTOUR
- PIERSON-RHEEMS LLC PROPERTY LINE
- ADJOINER PROPERTY LINE
- SETBACK
- TOWNSHIP LINE
- ZONING LINE
- RAILWAY
- FENCELINE
- UTILITY POLE
- LIGHT POLE
- 1,000 FOOT PERIMETER
- LIMIT OF MINING AS OF 01/01/72
- PROPOSED LIMIT OF MINING AND BONDING
- PROPOSED SURFACE MINE PERMIT
- EXISTING SURFACE MINE PERMIT
- EXISTING TREE LINE
- EXISTING EDGE OF WATER
- 165 --- PROPOSED 5' CONTOUR
- PROPOSED 25' CONTOUR
- PROPOSED 25' RECLAMATION CONTOUR

**PROPOSED BONDED AREA (115.04 ACRES)**

- AREA BONDED FOR MINERAL REMOVAL (70.66 ACRES)
- AREA BONDED FOR SUPPORT (44.38 ACRES)

--- STRUCTURES TO BE DEMOLISHED

--- PRIME FARMLAND STOCKPILE

**Akens Engineering Associates, Inc.**  
 219 E. Main St. Shermantown, Pa. 17011  
 (P) 717-975-9833 (F) 717-975-5507  
 www.akensengineering.com

"Providing Quality Engineering & Surveying Services since 1983."

### LOCATION MAP

SCALE: 1" = 2000'

I hereby certify that this plan is correct and accurate to the best of my knowledge.

*Scott W. Akens*  
**SCOTT W. AKENS**  
 Professional Engineer, PE073141  
 Submitted on this 8th day of May, 2024.

SCALE: 1" = 200'

REVISIONS:	
	ADDRESS PAGE# 41224 COMMENT LETTER - 052824

### EXHIBIT 18 LAND USE, RECLAMATION, AND BONDING MAP

SURFACE MINE PERMIT NO. 36080301  
 NPDES PERMIT NO. PA 0224651  
 AUTHORIZATION TO MINE  
 PERMIT NO. 6980-36080301-01

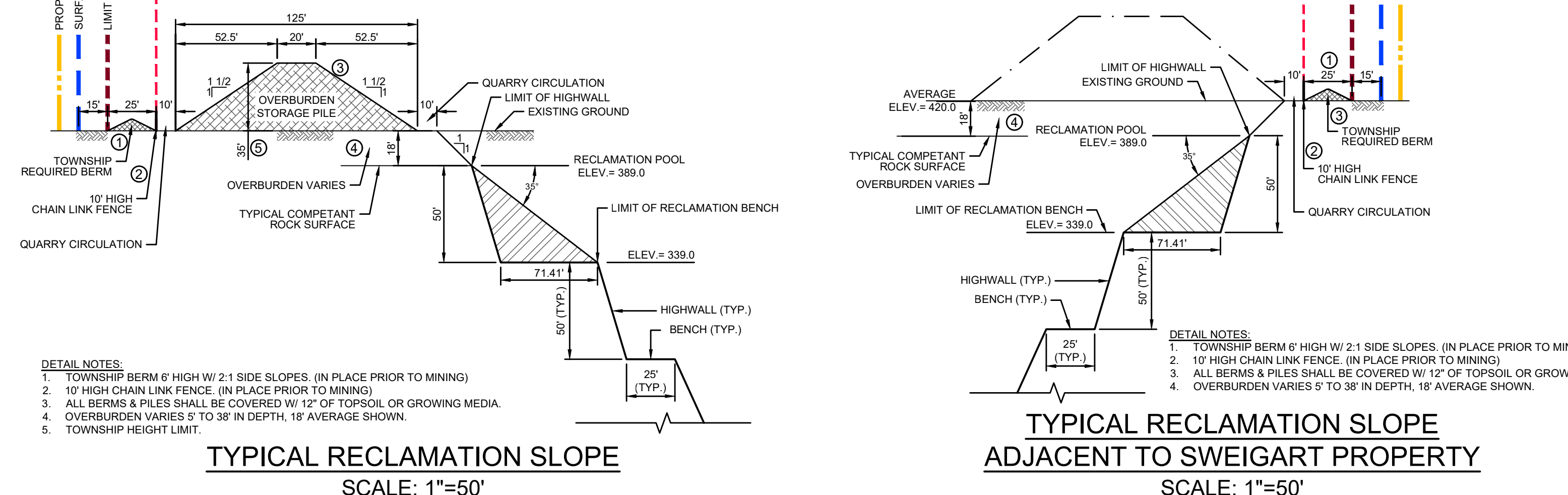
**PIERSON RHEEMS LLC  
 QUARRY OPERATION**  
 115.95 ACRES

WEST DONEGAL & MT. JOY TOWNSHIPS  
 LANCASTER COUNTY, PA

SCALE:	SHEET NUMBER:
1" = 200'	5 of 6
PLAN DATE:	APRIL 24, 2024
FILE NAME:	X:\240-1-51 Expansion\Drawing\240-1-51 Base.dwg

**NOTE:**  
 THE PROPOSED WAREHOUSE, PARKING AREAS, DRIVEWAY, BASINS, AND SINKHOLE LOCATION ARE ALL AS SHOWN FROM THE 2023 LAND DEVELOPMENT PLAN 2023-0252-J BY RETTEV ASSOCIATES.

- NOTES:**
1. THE TOWNSHIP BERM AND ASSOCIATED PLANTINGS SHALL BE IN PLACE PRIOR TO BEGINNING MINING ACTIVITIES.
  2. THE 30-ACRE QUARRY EXPANSION AREA IS CLASSIFIED AS PRIMARY AGRICULTURAL LAND.



**OVERBURDEN AVAILABLE TO RECLAIM THE PIERSON RHEEMS LLC QUARRY OPERATION - FEBRUARY, 2022**  
 SURFACE MINE PERMIT NO. 36080301C5  
 NPDES PERMIT NO. PA0224651  
 AUTHORIZATION TO MINE PERMIT NO. 22847-36080301-01  
 WEST DONEGAL AND MT. JOY TOWNSHIPS - LANCASTER CO.

EXPANSION AREA OVERBURDEN  
 20 acres x 43,560 x 18' (AVERAGE OVERBURDEN DEPTH ESTABLISHED BY 8 BOREHOLES) = 580,800 C.Y.

OVERBURDEN REMOVED FROM THE REMAINDER OF THE QUARRY AREA AND CURRENTLY LOCATED ON THE PERMIT AREA "TAIL" = 281,830 C.Y.

**TOTAL OVERBURDEN AVAILABLE FOR RECLAMATION AND TO CONSTRUCT BERMS = 862,630 CUBIC YARDS**

OVERBURDEN REQUIRED TO CONSTRUCT THE 6' HIGH WEST DONEGAL TOWNSHIP PERMANENT BERM AROUND THE MINING SITE = 25,300 C.Y.

OVERBURDEN REQUIRED TO RECLAIM 102.65 ACRES OF THE PENNSYLVANIA GROWERS PROPERTY IS A 2' x 4' C.M.P. ARCH

OVERBURDEN REQUIRED TO CONSTRUCT THE 35' HIGH MINING BERM AROUND THE 30-ACRE EXPANSION AREA = 291,350 C.Y.

OVERBURDEN REQUIRED TO BACKFILL THE PERIMETER OF THE MINING SITE TO ACHIEVE 30 DEGREE POST MINING SLOPES  
 EXPANSION AREA 4053 L.F. @ 1245 C.Y./27' = 185,966 C.Y.  
 EXISTING WEST WALL = 2470 L.F. X 1145 27' = 104,746 C.Y.  
 EXISTING SOUTH WALL 807 X 1235 = 965,031 27' = 96,653 C.Y.  
 TOTAL = 327,565 C.Y.

**SUMMARY:**  
 OVERBURDEN AVAILABLE FOR RECLAMATION = 862,630 C.Y. - 25,300 C.Y. = 837,330 C.Y.  
 OVERBURDEN REQUIRED TO RECLAIM TOP LIFT = 327,565 C.Y.  
 REMAINING OVERBURDEN FOR SALE OR RECLAMATION BACKFILL = 509,765 C.Y.

**MINING PERMIT SURFACE AREA**  
 EXISTING SMP = 102.65 ACRES  
 PROPOSED SMP = 132.22 ACRES  
 PROPOSED LIMIT OF MINING AREA = 70.66 ACRES  
 PROPOSED SUPPORT AREA = 44.38 ACRES

**AREA BONDED FOR MINERAL REMOVAL**  
 TOTAL LIMIT OF MINING 70.66 - AREA BELOW 339 MSL 25.61 ACRES  
 TOTAL BONDED FOR MINING = 45.05 ACRES

**NOTES:**

1. THE DRAINAGE STRUCTURE UNDER W. HARRISBURG AVE. AT ENTRY TO THE QUARRY IS A CONCRETE BOX 8' WIDE x 4'-6" HIGH (WATERWAY OPENING). THE DRAINAGE STRUCTURE UNDER THE DRIVEWAY CONNECTING THE QUARRY & THE PENNSYLVANIA GROWERS PROPERTY IS A 2' x 4' C.M.P. ARCH.
2. THE PERMITTEE IS HEREBY GRANTED A WAIVER, PER TITLE 25 SECTION 77.504(D), TO CONDUCT SUPPORT ACTIVITIES ONLY WITHIN 300 FEET OF COMMERCIAL BUILDINGS OWNED BY PENNSYLVANIA GROWERS, LLC, AS EXISTED UNDER PREVIOUS MOP NO. 627886.
3. THE AERIAL PHOTOGRAPHY AND CONTOURS ARE ACQUIRED FROM A DRONE FLIGHT TAKEN ON AUGUST 22, 2024 CONTROLLED BY RTK GPS NAVI 89 (2011) ON THE NAD83 PENNSYLVANIA STATE PLANES SOUTH ZONE COORDINATE SYSTEM.
4. OUTSIDE THE FLIGHT, THE IMAGE IS ACQUIRED FROM A 2018 PEMA ORTHOMOGRAPHY FILE AND THE CONTOURS ARE ACQUIRED FROM 2008 PAMAP PROGRAM 3.2 FT DIGITAL ELEVATION MODEL OF PENNSYLVANIA.

**DETAIL NOTES:**

1. TOWNSHIP BERM 6' HIGH W/ 2:1 SIDE SLOPES. (IN PLACE PRIOR TO MINING)
2. 10' HIGH CHAIN LINK FENCE. (IN PLACE PRIOR TO MINING)
3. ALL BERMS & PILES SHALL BE COVERED W/ 12" OF TOPSOIL OR GROWING MEDIA.
4. OVERBURDEN VARIES 5' TO 38" IN DEPTH, 18' AVERAGE SHOWN.
5. TOWNSHIP HEIGHT LIMIT