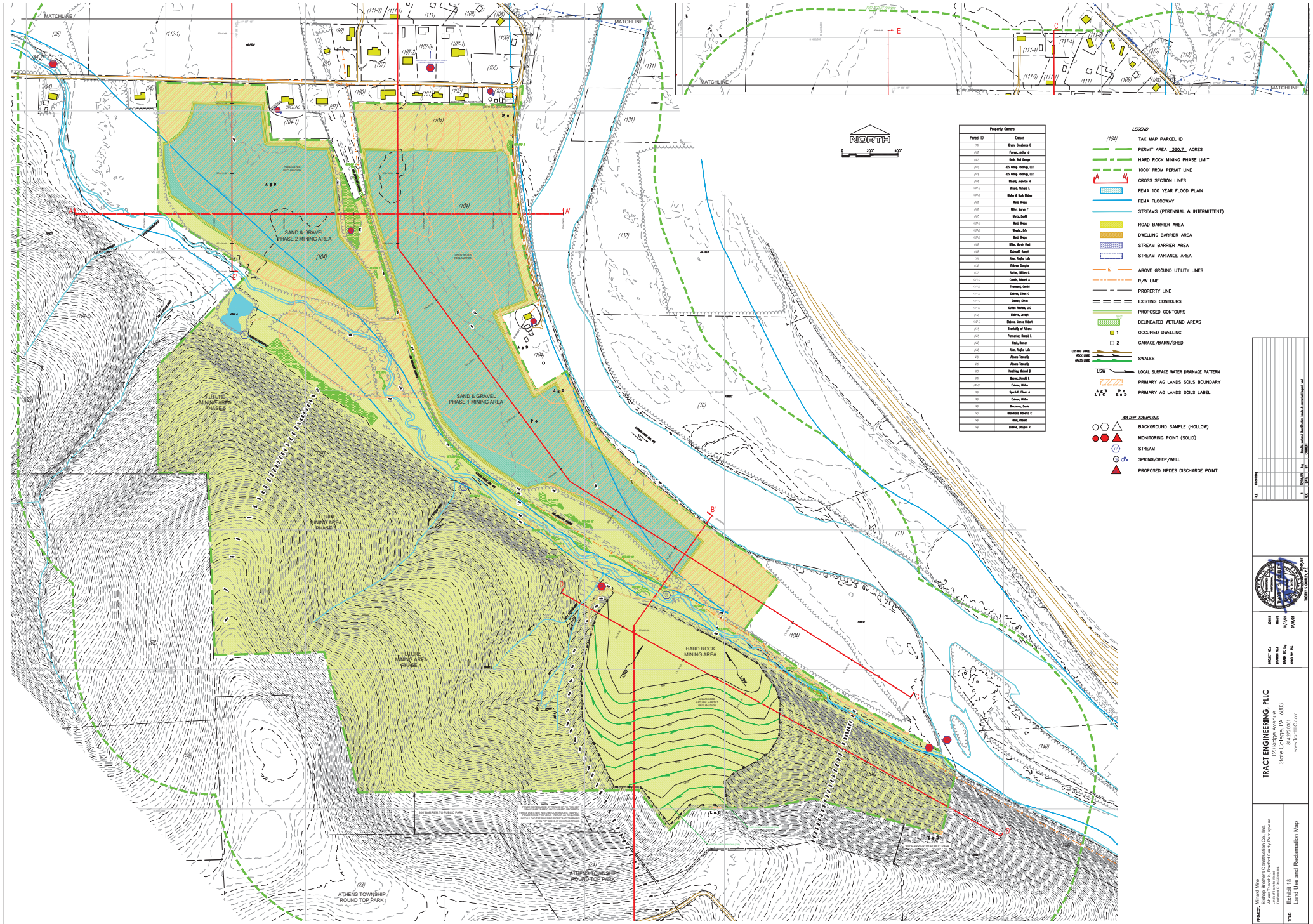

Property Owners	
Parcel ID	Owner
(1)	Bryan, Constance C
(100)	Forrest, Arthur Jr
(101)	Rock, Raf Savoy
(102)	JSI Group Holdings, LLC
(102)	JSI Group Holdings, LLC
(103)	Rhoads, Jeanette H
(104-1)	Rhoads, Richard L
(104-2)	Blake & Rock Claims
(105)	Rock, Gregg
(106)	Miller, Marsh F
(107)	Martz, Zedd
(107-1)	Rock, Gregg
(107-2)	Rhoades, Kim
(107-3)	Rock, Gregg
(108)	Miller, Marsh Fred
(109)	Schmidt, Joseph
(11)	Allen, Regina Lois
(110)	Chilsons, Douglas
(111)	Sutton, William C
(111-1)	Corelli, Edward A
(111-2)	Townsend, Gerald
(111-3)	Chilsons, Ethan C
(111-4)	Chilsons, Ethan
(111-5)	Sutton Rentals, LLC
(112)	Chilsons, Joseph
(112-1)	Chilsons, James Robert
(114)	Township of Athens
(12)	Pomeroy, Ronald L
(120)	Rock, Ramon
(140)	Allen, Regina Lois
(2)	Athens Township
(3)	Athens Township
(61)	Keeling, Michael D
(63)	Vernon, Donald L
(64)	Chilsons, Blaine
(66)	Sporsdal, Ellen A
(67)	Chilsons, Blaine
(68)	Mackerson, Daniel
(87)	Blanchard, Roberto C
(88)	Rhoads, Robert
(89)	Chilsons, Douglas R

LEGEND

- (104) TAX MAP PARCEL ID
- PERMIT AREA 360.7 ACRES
- HARD ROCK MINING PHASE LIMIT
- 1000' FROM PERMIT LINE
- A A' CROSS SECTION LINES
- FEMA 100 YEAR FLOOD PLAIN
- FEMA FLOODWAY
- STREAMS (PERENNIAL & INTERMITTENT)
- ROAD BARRIER AREA
- DWELLING BARRIER AREA
- STREAM BARRIER AREA
- STREAM VARIANCE AREA
- E ABOVE GROUND UTILITY LINES
- R/W LINE
- PROPERTY LINE
- EXISTING CONTOURS
- PROPOSED CONTOURS
- DELINEATED WETLAND AREAS
- 1 OCCUPIED DWELLING
- 2 GARAGE/BARN/SHED
- EXISTING SWALE / ROCK LINED / GRASS LINED SWALES
- LSW LOCAL SURFACE WATER DRAINAGE PATTERN
- PRIMARY AG LANDS SOILS BOUNDARY
- LaB LoB PRIMARY AG LANDS SOILS LABEL

WATER SAMPLING

- BACKGROUND SAMPLE (HOLLOW)
- MONITORING POINT (SOLID)
- STREAM
- SPRING/SEEP/WELL
- PROPOSED NPDES DISCHARGE POINT

PERIMETER E&S CONTROLS:
ASPCT approved perimeter controls shall be utilized for disturbed areas that drain away from the operation. Silt sock or silt sock sediment trap are acceptable controls. Controls shall be installed prior to earth disturbance and remain in place until the disturbed area is stabilized.

MAPPING NOTES:
Coordinate system: PA State Plane North, NAD 83, US Feet
Contours obtained from PASDA website December 2019. Contour data circa 2005.
Property line information obtained from tax map data from Bradford County Planning Office in December 2019 and landowner information from the Bradford County parcel viewer website on October 19, 2020.

Sediment & Treatment Basins:
All sediment and treatment basins will be reclaimed once vegetation has established.

Haul Roads:
Haul roads authorized by the landowner shall remain post-mining.

Stream Crossings:
Stream crossings shall be removed post-mining.

Land Use:

Existing:	Cropland	130.0 acres
	Forest	230.7 acres
	Total	360.7 acres
Proposed:	Unmanaged Natural Habitat	283.6 acres
	Unmanaged Water Impoundment	77.1 acres
	Total	360.7 acres

Vegetative Cover:
Norlea Crop with Seed Mixture 1, 2, 3, or 5 as detailed in Module 23 will be planted for Unmanaged Natural Habitat.
Norlea Crop with Seed Mixture 4 and Woody Plant Mixture 1 as detailed in Module 23 will be planted for the riparian buffer area associated with the stream crossings.

Topsoil:
Existing topsoil (A horizon) depth ranges from 6-12" s in the sand and gravel areas.
Existing topsoil (A horizon) depth ranges from 0-4"s in the consolidated hard rock area.
Stockpiled topsoil and overburden B & C horizon soils shall be utilized for reclamation.
Due the variability of topsoil thickness across the site, an average of 12" of topsoil and unconsolidated material will be placed to achieve reclamation goals.

Primary Agricultural Lands: *Executive Order 1999-1*
AgB, Pc, LoC, & LoD are Primary Agricultural Lands

Land Use Legend - Inset Maps
- Unmanaged Natural Habitat
- Unmanaged Water Impoundment

RESTRICTED AREAS/VARIANCE AREAS:
Restricted areas and variance areas not shown on Exhibit 18 for clarity.
Refer to Exhibits 8.2 and Exhibit 9 for restricted areas or variance areas.

No.	Revision	By	Date
1	Added permit boundaries, lease & corrected legend text	MW	10/4/23

PROJECT NO: 20513
DRAWN BY: Ward
DRAWN ON: 8/1/23
LAST EDIT: 10/4/23

TRACT ENGINEERING, PLLC
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State College, PA 16803
814.272.0301
www.TractLLC.com

PROJECT: Mineral Mine
Bradford Construction Co., Inc.
Athens Township, Bradford County, Pennsylvania
Lat/Long 41.9 80.8

TITLE: Exhibit 18
Land Use and Reclamation Map

Date: 05/05/23
Rev No: 1
Sheet No: 1 of 1