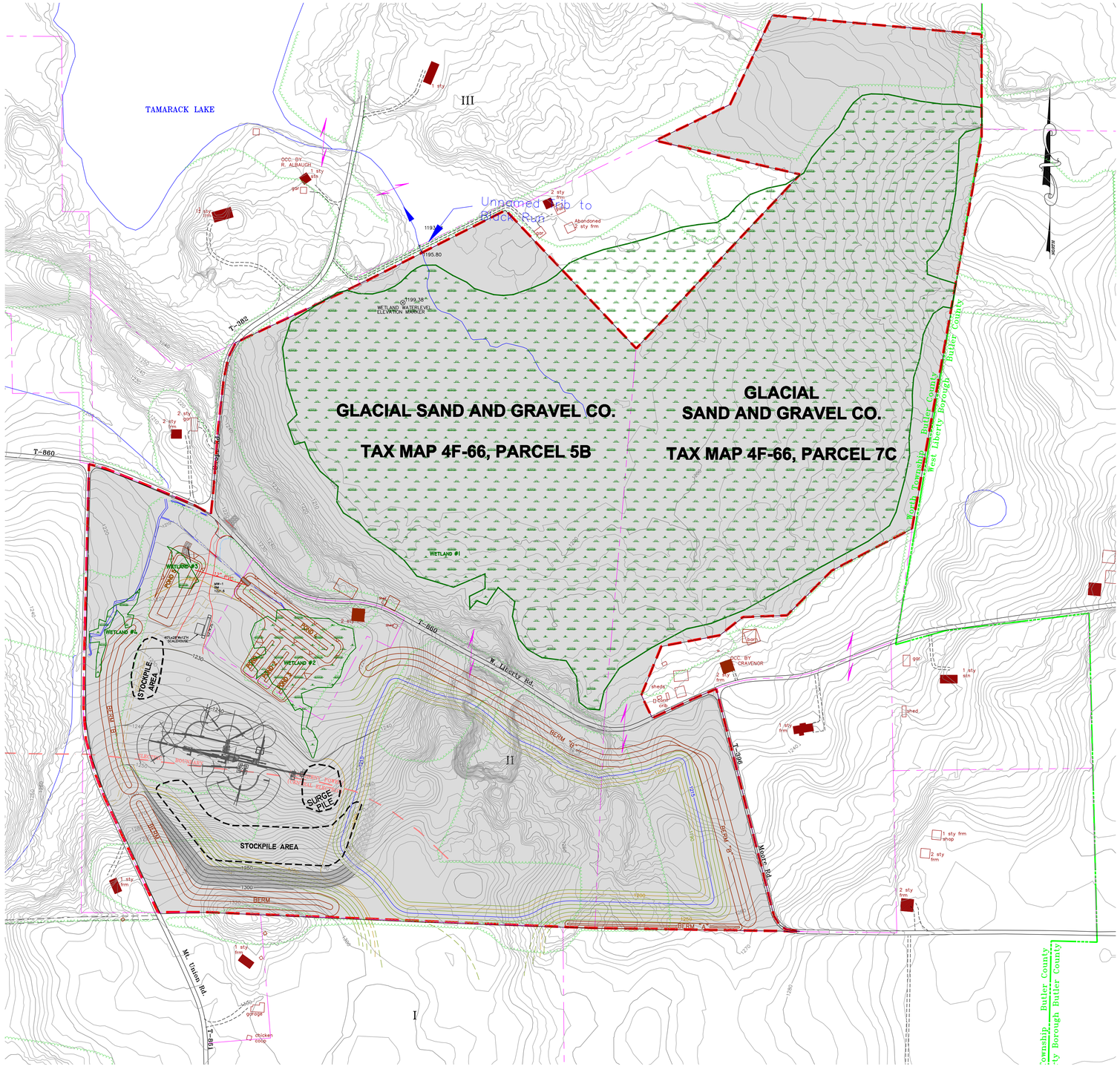

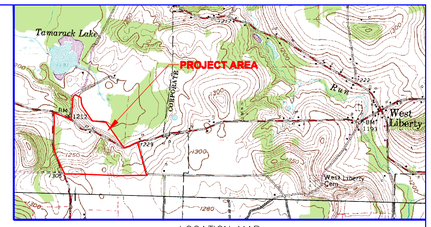

LOCATION MAP
SCALE: 1"=2000' MILE
USGS 7.5' QUADS – SLIPPERY ROCK & PROSPECT, PENNSYLVANIA

AQUATIC RESOURCES WITHIN SMP AREA (161.8 AC.)

	ACRES
WETLAND #1	66.90
WETLAND #2	2.14
WETLAND #3	0.19
WETLAND #4	0.11
TOTAL	69.34

	LENGTH (L.F.)
UNT. #1	180
UNT. #2	996
UNT. #3	580
TOTAL	1756

LEGEND

- EXISTING ROADS
- PROPERTY LINES
- 1200 EXISTING MAJOR CONTOURS
- 1210 EXISTING MINOR CONTOURS
- DELINEATED WETLAND AREAS
- EXISTING CULVERTS
- EXISTING STREAMS
- STREAM BARRIER AREA
- HOUSE BARRIER AREA
- STREAM VARIANCE AREA
- HOUSE VARIANCE AREA
- ROAD VARIANCE AREA
- ABOVE GROUND UTILITY LINES
  ELEC. = ALLEGHENY POWER
  TELE. = SPRINT
- A A' GEOLOGICAL CROSS SECTIONS LOCATIONS
- PREVIOUSLY MINED SITES
- UNOCCUPIED BUILDING
- OCCUPIED DWELLING
- TP-21 TEST PIT ID & LOCATION
- LGW LOCAL GROUNDWATER FLOW DIRECTION
- RGW REGIONAL GROUNDWATER FLOW DIRECTION
- MW-4 MONITORING WELL LOCATIONS
- TREELINE
- STOCKPILE/SURGE AREA
- PROPOSED SMP AREA= 161.80 ACRES

GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)
1 inch = 200 ft.

REV.	DATE	DESCRIPTION	BY

SEAL

SEAL

THE EADS GROUP
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CLARION, PA 16214
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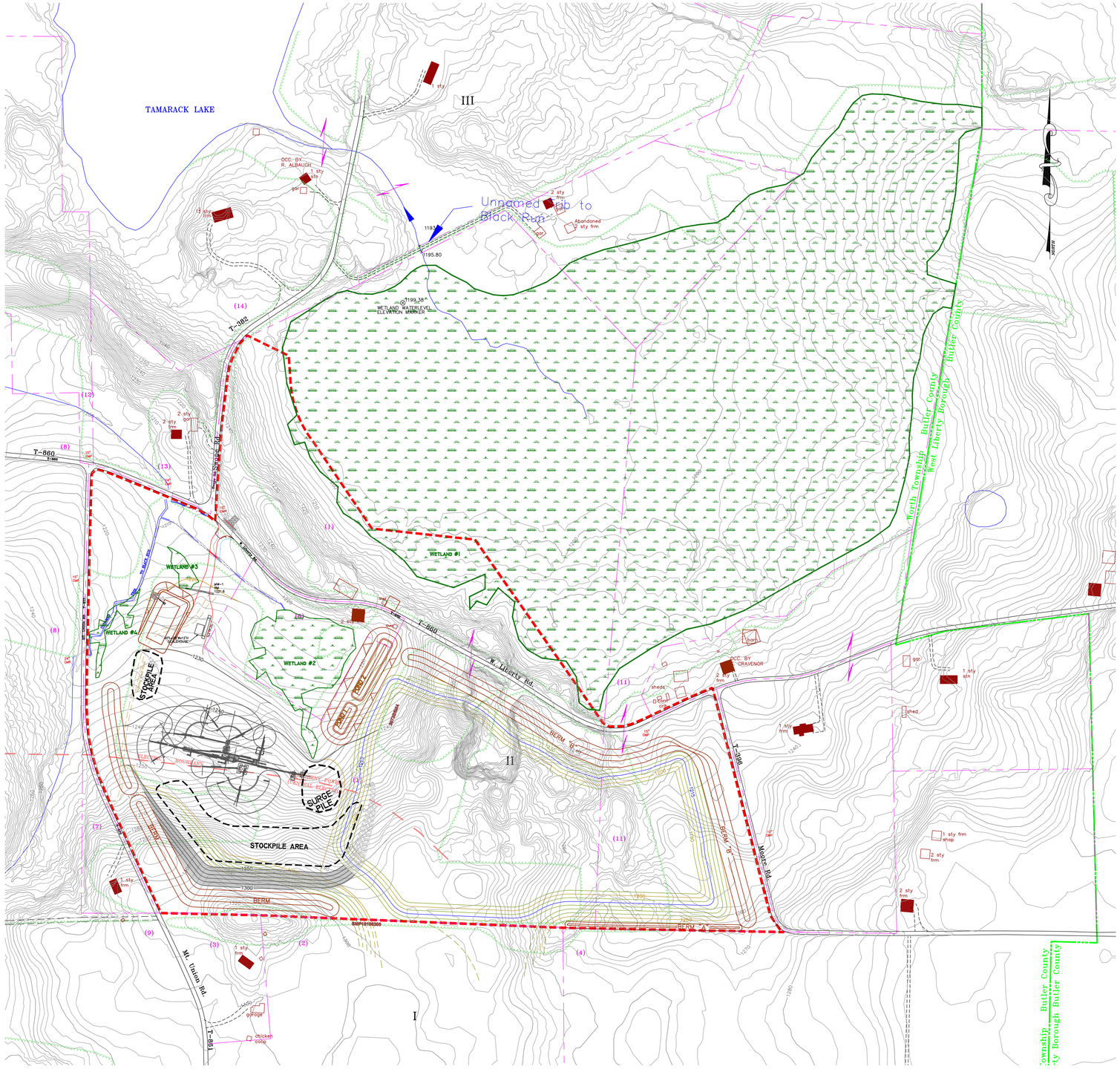
GLACIAL SAND & GRAVEL CO.

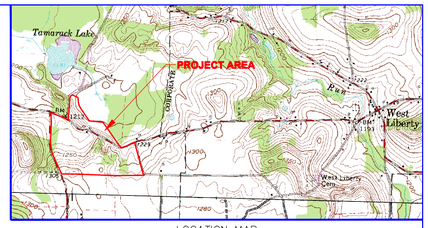
MINE 47

WORTH TOWNSHIP BUTLER COUNTY

ORIGINAL MINING PLAN

DRAWN BY:	DAW
PERMIT NO:	10070304
DATE: 12/09	SCALE: 1"=200'
PROJECT NO.	0270-06-169-01
DRAWING NAME:	Mine31-47_CORP.dwg
SHEET NO.	A-1





LOCATION MAP
SCALE: 1"=2000' MILE
USGS 7.5' QUADS – SLIPPERY ROCK & PROSPECT, PENNSYLVANIA

AQUATIC RESOURCES WITHIN SMP AREA (76.6 AC.)

	ACRES
WETLAND #1	2.49
WETLAND #2	2.14
WETLAND #3	0.19
WETLAND #4	0.11
TOTAL	4.93

	LENGTH (L.F.)
UNT. #1	180
UNT. #2	0
UNT. #3	580
TOTAL	760

LEGEND

- EXISTING ROADS
- PROPERTY LINES
- 1200 EXISTING MAJOR CONTOURS
- 1210 EXISTING MINOR CONTOURS
- DELINEATED WETLAND AREAS
- EXISTING CULVERTS
- EXISTING STREAMS
- STREAM BARRIER AREA
- HOUSE BARRIER AREA
- STREAM VARIANCE AREA
- HOUSE VARIANCE AREA
- ROAD VARIANCE AREA
- ABOVE GROUND UTILITY LINES ELEC. = ALLEGHENY POWER TELE. = SPRINT
- A A' GEOLOGICAL CROSS SECTIONS LOCATIONS
- PREVIOUSLY MINED SITES
- UNOCCUPIED BUILDING
- OCCUPIED DWELLING
- TP-21 TEST PIT ID & LOCATION
- LGW LOCAL GROUNDWATER FLOW DIRECTION
- RGW REGIONAL GROUNDWATER FLOW DIRECTION
- MW-4 MONITORING WELL LOCATIONS
- TREELINE
- STOCKPILE/SURGE AREA
- PROPOSED SMP AREA= 76.6 ACRES
- NO DEVELOPMENT – SLOPES > 16%

GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)
1 inch = 200 ft.

REV.	DATE	DESCRIPTION	BY

SEAL

SEAL

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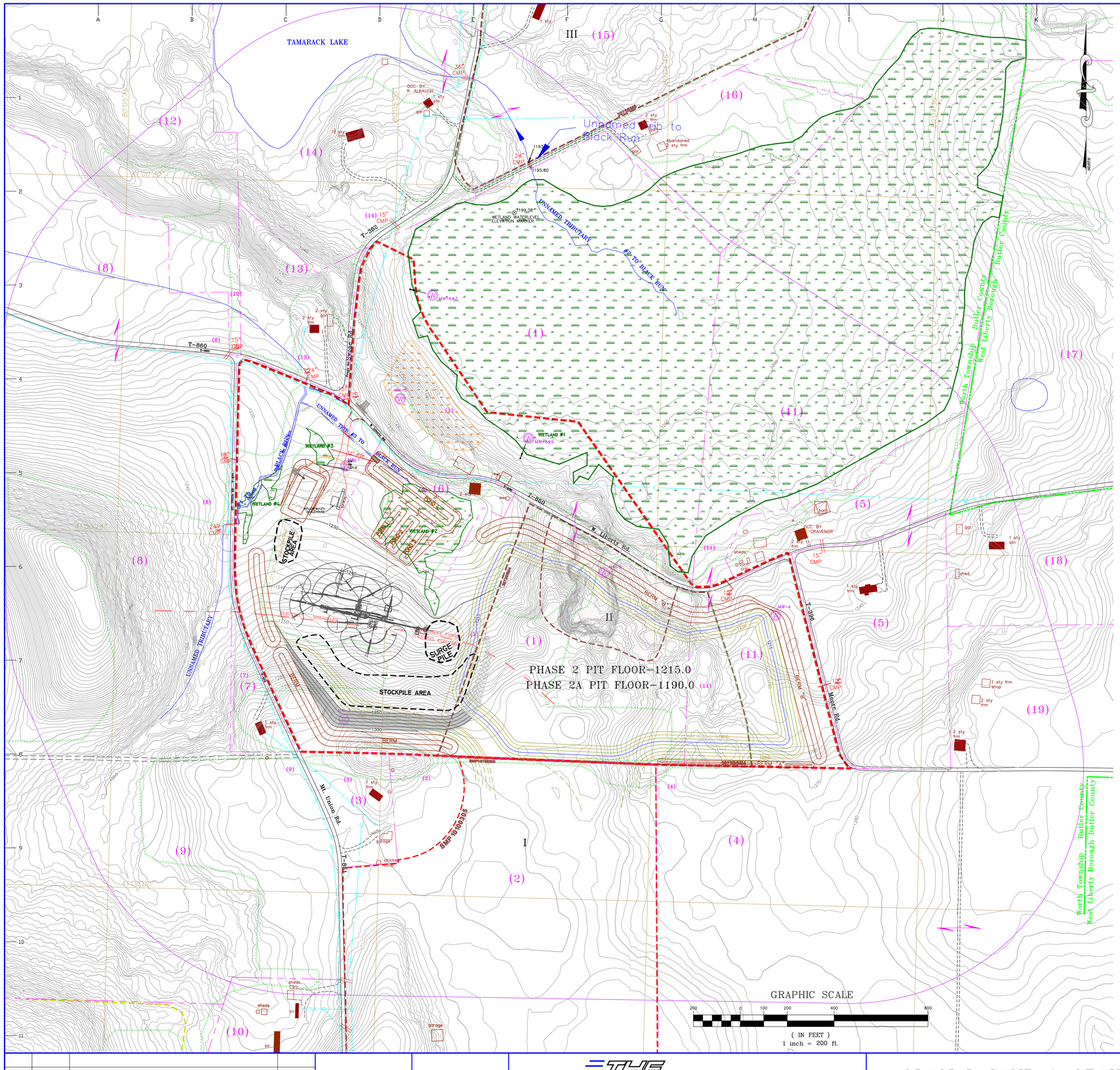
GLACIAL SAND & GRAVEL CO.

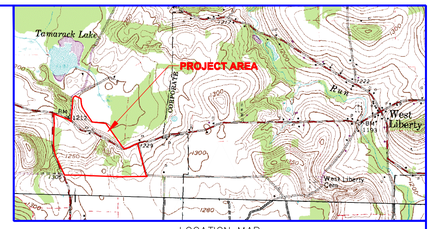
MINE 47

WORTH TOWNSHIP BUTLER COUNTY

MINIMUM IMPACT MINING PLAN

DRAWN BY:	DAW
PERMIT NO:	10070304
DATE: 12/09	SCALE: 1"=200'
PROJECT NO.	0270-06-169-01
DRAWING NAME:	Mine31-47_CORP.dwg
SHEET NO.	A-2





LOCATION MAP
SCALE: 1"=2000' MILE
USGS 7.5' QUADS – SLIPPERY ROCK & PROSPECT, PENNSYLVANIA

AQUATIC RESOURCES WITHIN SMP AREA (76.6 AC.)

	ACRES
WETLAND #1	2.49
WETLAND #2	2.14
WETLAND #3	0.19
WETLAND #4	0.11
TOTAL	4.93

	LENGTH (L.F.)
UNT. #1	180
UNT. #2	0
UNT. #3	580
TOTAL	760

LEGEND

- TOWNSHIP BOUNDARIES
- EXISTING ROADS
- PROPERTY LINES
- 1200 EXISTING MAJOR CONTOURS
- 1210 EXISTING MINOR CONTOURS
- DELINEATED WETLAND AREAS
- EXISTING CULVERTS
- EXISTING STREAMS
- STREAM BARRIER AREA
- HOUSE BARRIER AREA
- STREAM VARIANCE AREA
- HOUSE VARIANCE AREA
- ROAD VARIANCE AREA
- ABOVE GROUND UTILITY LINES ELEC. = ALLEGHENY POWER TELE. = SPRINT
- PREVIOUSLY MINED SITES
- UNOCCUPIED BUILDING
- OCCUPIED DWELLING
- ACCESS ENTRANCE
- TOP SOIL STORAGE BERMS
- FILTER FABRIC FENCE
- PRINCIPAL SPILLWAY / EMERGENCY SPILLWAY — SEDIMENT PONDS
- TREATMENT PONDS
- MINING LIMITS
- FINAL WORKING FACE LIMITS
- 1215 WATER IMPOUNDMENT
- NPDES DISCHARGE POINTS
- FIRST CUT & DIRECTION
- MW-4 MONITORING WELL LOCATIONS
- TREELINE
- STOCKPILE/SURGE AREA
- PROPOSED SMP AREA 76.6 ACRES

REV.	DATE	DESCRIPTION	BY

SEAL

SEAL

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GLACIAL SAND & GRAVEL CO.

MINE 47

WORTH TOWNSHIP BUTLER COUNTY

PREFERED MINING PLAN

DRAWN BY:	DAW
PERMIT NO:	10070304
DATE: 12/09	SCALE: 1"=200'
PROJECT NO.	0270-06-169-01
DRAWING NAME:	Mine47base.dwg
SHEET NO.	A-3