

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL RESOURCES  
OFFICE OF RESOURCES MANAGEMENT  
**ABATEMENT OF ACID MINE DRAINAGE  
RACCOON CREEK WATERSHED  
STATE GAME LANDS NO. 117**

SMITH TOWNSHIP  
WASHINGTON COUNTY, PENNSYLVANIA  
CONTRACT NO. SL130-1-101.1

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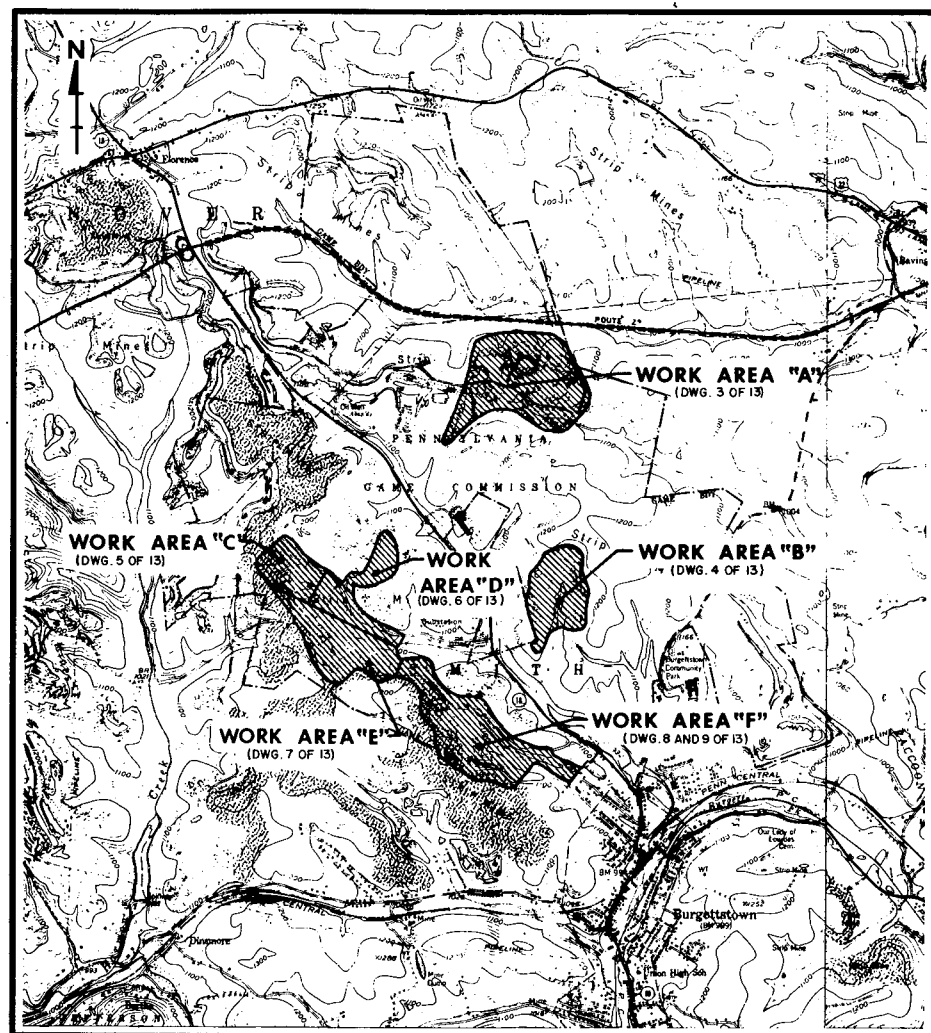
AS BUILT  
JAN. 4, 1978

Prepared By  
**E. D'APPOLONIA CONSULTING ENGINEERS, INC.**  
10 Duff Road, Pittsburgh, Pennsylvania

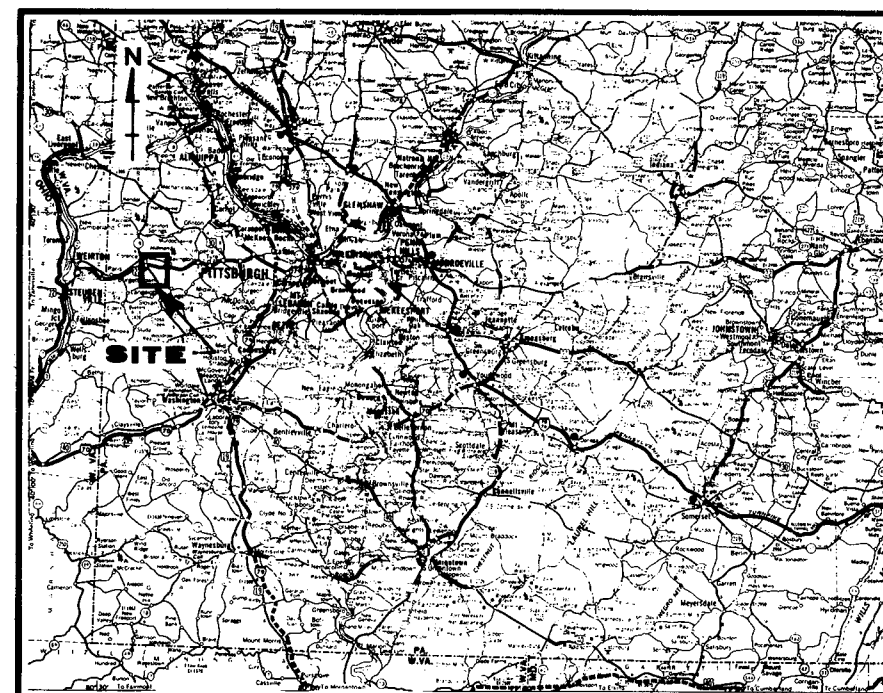
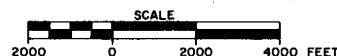
**MILTON J. SHAPP**  
GOVERNOR

**MAURICE K. GODDARD**  
SECRETARY OF ENVIRONMENTAL RESOURCES

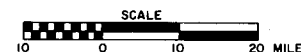
APPROVED  
*C. H. McConnell* May 19, 1975  
C. H. McCONNELL, DEPUTY SECRETARY DATE  
FOR RESOURCES MANAGEMENT



**SITE LOCATION PLAN**



**VICINITY MAP**



- REFERENCES:
1. U.S.G.S. 7.5 MINUTE SERIES (TOPOGRAPHIC) BURGETTSTOWN QUADRANGLE, PENNSYLVANIA, 1954. PHOTOREVISED, 1969.
  2. U.S.G.S. 7.5 MINUTE SERIES (TOPOGRAPHIC) CLINTON QUADRANGLE, PENNSYLVANIA, 1954. PHOTOREVISED 1969.
  3. ROAD MAP OF PENNSYLVANIA, SCALE APPROXIMATELY 1" = 100 MILES.

I-478 As built			
NO.	DATE	REVISION	APPR.
SUBMITTED		<i>James H. Poellot</i>	
APPROVED		<i>Robert A. Ramini</i>	
APPROVED		<i>Andrew...</i>	
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES OFFICE OF RESOURCES MANAGEMENT			
CONTRACT NO. SL130-1-101.1			
ABATEMENT OF ACID MINE DRAINAGE RACCOON CREEK WATERSHED STATE GAME LANDS NO. 117			
E. D'APPOLONIA CONSULTING ENGINEERS, INC. 10. Duff Road Pittsburgh, Pennsylvania			
<b>SITE LOCATION PLAN AND VICINITY MAP</b>			
DESIGNED BY	DATE	DRAWING NO.	
J. G. S.	2-28-75	2 of 13	
ENGINEER	SCALE		
J. G. S.	AS SHOWN		

**LEGEND**

- EXISTING UNIMPROVED ROAD
- ==== IMPROVED ROAD TO BE CONSTRUCTED UNDER THIS CONTRACT
- 1170 FINAL GRADED CONTOUR
- LIMIT OF GRADING
- LIMIT OF REVEGETATION
- FINAL GRADED WATERCOURSE
- LIMIT OF STRIP MINING
- ▨ POND TO BE DEWATERED
- ▨ SWAMP TO BE DRAINED
- ▨ POND
- ▨ SWAMP
- EXISTING WATERCOURSE
- ▨ APPROXIMATE AREA OF EXCAVATION
- UTILITY POLE
- ▨ IMPROVED DRAINAGE CHANNEL
- ▨ DRAINAGE SWALE
- GAME LANDS PROPERTY LINE
- BENCHMARK



APPROXIMATE LIMIT OF GRADING

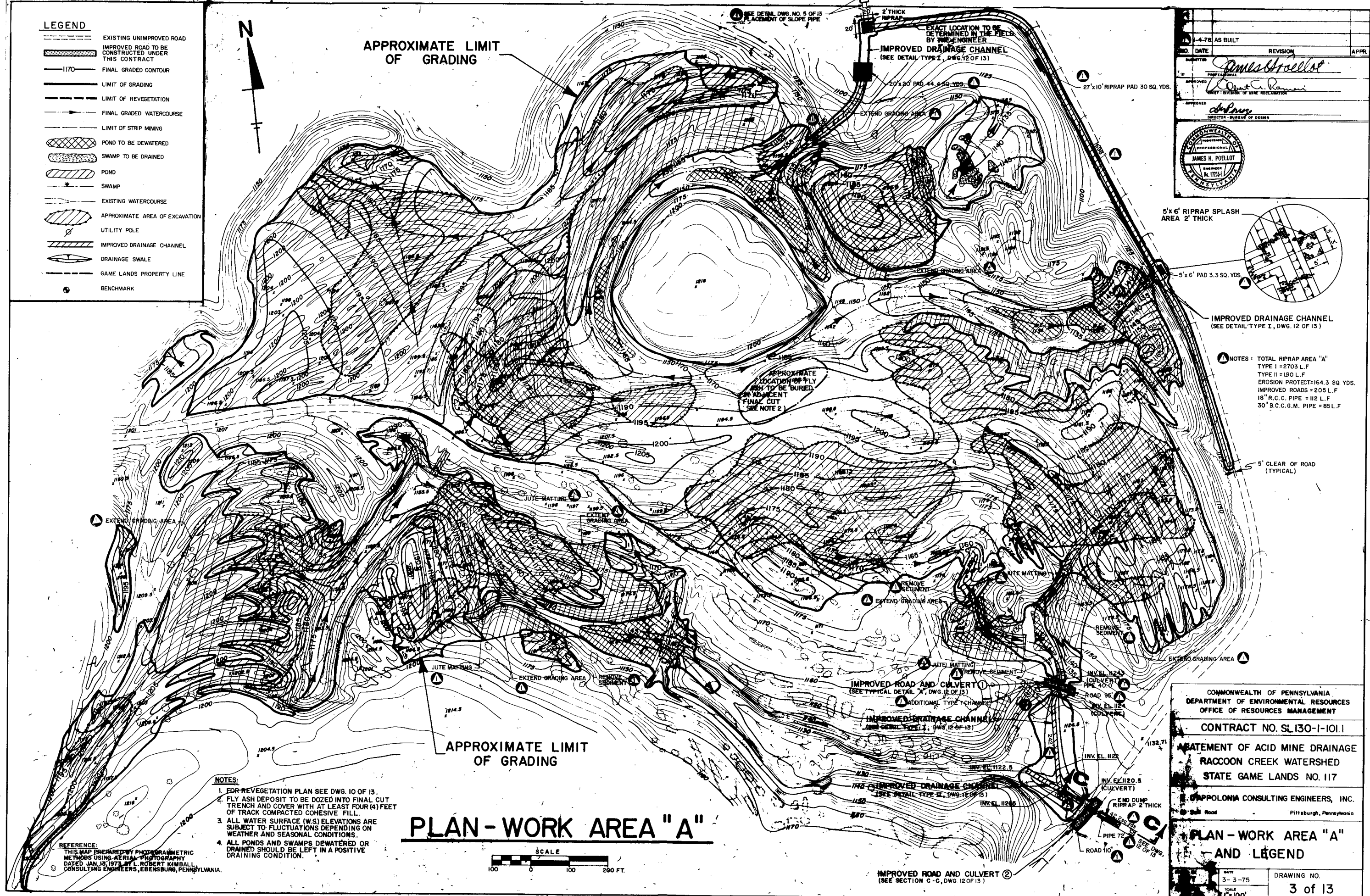
APPROXIMATE LIMIT OF GRADING

**PLAN - WORK AREA "A"**

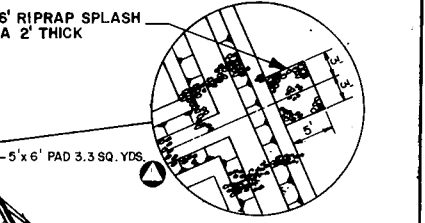


- NOTES:**
1. FOR REVEGETATION PLAN SEE DWG. 10 OF 13.
  2. FLY ASH DEPOSIT TO BE DOZED INTO FINAL CUT TRENCH AND COVER WITH AT LEAST FOUR (4) FEET OF TRACK COMPACTED COHESIVE FILL.
  3. ALL WATER SURFACE (W.S.) ELEVATIONS ARE SUBJECT TO FLUCTUATIONS DEPENDING ON WEATHER AND SEASONAL CONDITIONS.
  4. ALL PONDS AND SWAMPS DEWATERED OR DRAINED SHOULD BE LEFT IN A POSITIVE DRAINING CONDITION.

**REFERENCE:**  
THIS MAP PREPARED BY PHOTOGRAMMETRIC METHODS USING AERIAL PHOTOGRAPHY DATED JAN. 25, 1973 BY L. ROBERT KIMBALL CONSULTING ENGINEERS, EBENSBURG, PENNSYLVANIA.



NO.	DATE	REVISION	APPR.
1-4-78	AS BUILT		



IMPROVED DRAINAGE CHANNEL (SEE DETAIL TYPE I, DWG. 12 OF 13)

**NOTES:** TOTAL RIPRAP AREA "A"  
TYPE I = 2703 L.F.  
TYPE II = 190 L.F.  
EROSION PROTECT = 164.3 SQ. YDS.  
IMPROVED ROADS = 205 L.F.  
18" R.C.C. PIPE = 112 L.F.  
30" B.C.C.G.M. PIPE = 85 L.F.

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL RESOURCES  
OFFICE OF RESOURCES MANAGEMENT

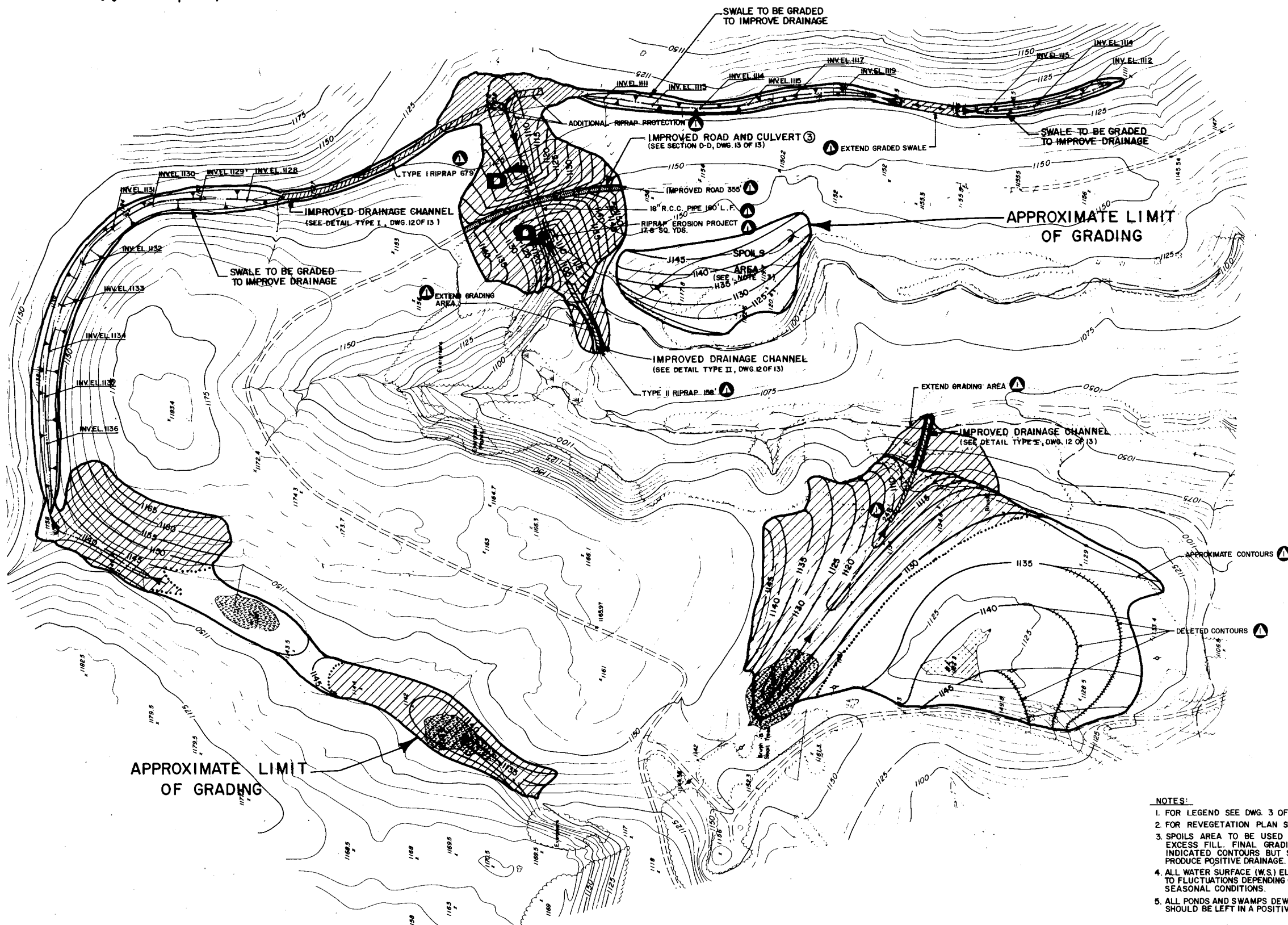
CONTRACT NO. SL130-1-101.1

STATEMENT OF ACID MINE DRAINAGE  
RACCOON CREEK WATERSHED  
STATE GAME LANDS NO. 117

APPOLONIA CONSULTING ENGINEERS, INC.  
Pittsburgh, Pennsylvania

**PLAN - WORK AREA "A"  
AND LEGEND**

DATE	DRAWING NO.
3-3-75	3 of 13
SCALE	
1" = 100'	

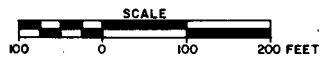


▲ NOTES: TOTAL RIPRAP  
 TYPE I = 927'  
 TYPE II = 158'  
 IMPROVED ROAD = 355'  
 18" R.C.C. PIPE = 160'  
 RIPRAP EROSION PROTECT = 17.8 SQ. YDS.

- NOTES:
1. FOR LEGEND SEE DWG. 3 OF 13.
  2. FOR REVEGETATION PLAN SEE DWG. 10 OF 13.
  3. SPOILS AREA TO BE USED FOR DISPOSAL OF EXCESS FILL. FINAL GRADING MAY NOT ATTAIN INDICATED CONTOURS BUT SHOULD BE SLOPED TO PRODUCE POSITIVE DRAINAGE.
  4. ALL WATER SURFACE (W.S.) ELEVATIONS ARE SUBJECT TO FLUCTUATIONS DEPENDING ON WEATHER AND SEASONAL CONDITIONS.
  5. ALL PONDS AND SWAMPS DEWATERED OR DRAINED SHOULD BE LEFT IN A POSITIVE DRAINING CONDITION.

REFERENCE:  
 THIS MAP PREPARED BY PHOTOGRAMMETRIC METHODS USING AERIAL PHOTOGRAPHY DATED JAN. 13, 1975 BY L. ROBERT KIMBALL, CONSULTING ENGINEERS, EBENSBURG, PENNSYLVANIA

## PLAN - WORK AREA "B"



NO.	DATE	REVISION	APPR.
1-4-78		AS BUILT	
SUBMITTED		<i>James H. Poellot</i>	
APPROVED		<i>Robert C. Rammer</i>	
APPROVED		<i>John Long</i>	
		DIRECTOR - BUREAU OF DESIGN	



COMMONWEALTH OF PENNSYLVANIA  
 DEPARTMENT OF ENVIRONMENTAL RESOURCES  
 OFFICE OF RESOURCES MANAGEMENT

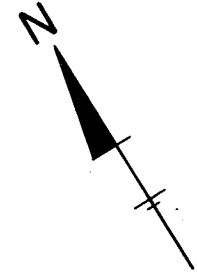
CONTRACT NO. SL 130-1-101.1

ABATEMENT OF ACID MINE DRAINAGE  
 RACCOON CREEK WATERSHED  
 STATE GAME LANDS NO. 117

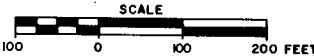
E. D'APPOLONIA CONSULTING ENGINEERS, INC.  
 10 Duff Road Pittsburgh, Pennsylvania

PLAN - WORK AREA "B"

DESIGNED BY	DATE	DRAWING NO.
dam	4-23-75	4 of 13
CHECKED BY	SCALE	
JEB	1" = 100'	

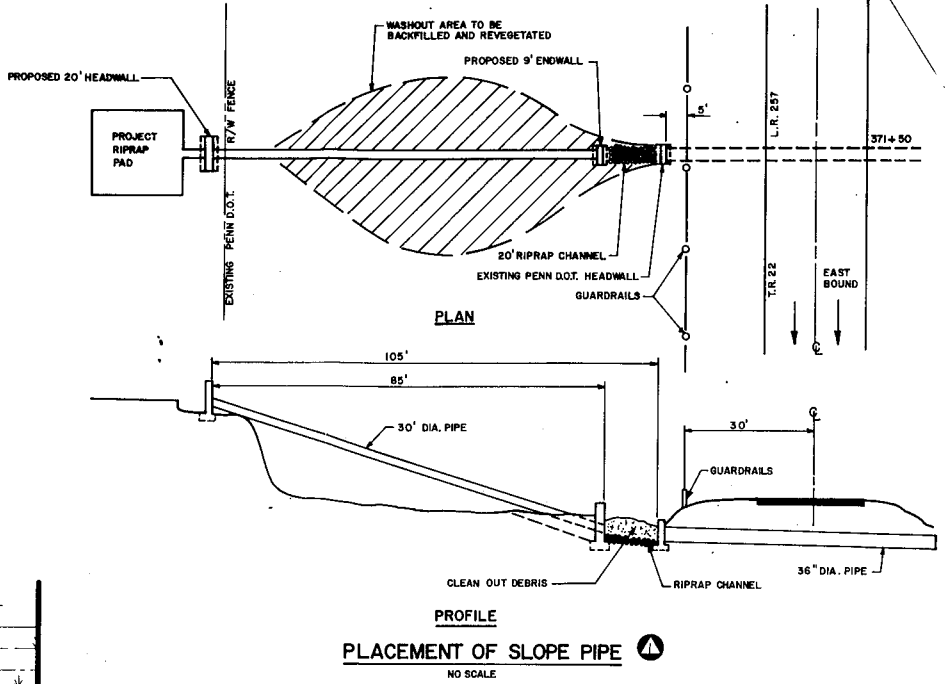


**PLAN - WORK AREA "C" MATCH LINE DWG. 7 OF 13**



REFERENCE:  
THIS MAP PREPARED BY PHOTOGRAMMETRIC  
METHODS USING AERIAL PHOTOGRAPHY  
DATED JAN. 13, 1973 BY L. ROBERT KIMBALL  
CONSULTING ENGINEERS, EBENSBURG, PENNSYLVANIA

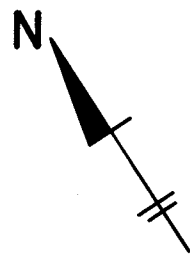
MATCH LINE DWG. 6 OF 13



NOTE: TYPE I RIPRAP = 440 L.F. PLACED

- NOTES:
1. FOR LEGEND SEE DWG. 3 OF 13.
  2. FOR REVEGETATION PLAN SEE DWG. 10 OF 13.
  3. IF ADDITIONAL FILL IS REQUIRED FOR PROPER DRAINAGE, IT MAY BE REMOVED FROM THE INDICATED "BORROW AREA" PROVIDED POSITIVE DRAINAGE CONDITIONS ARE RESTORED UPON FINAL GRADING.
  4. ALL WATER SURFACE (W.S.) ELEVATIONS ARE SUBJECT TO FLUCTUATIONS DEPENDING ON WEATHER AND SEASONAL CONDITIONS.
  5. ALL PONDS AND SWAMPS DEWATERED OR DRAINED SHOULD BE LEFT IN A POSITIVE DRAINING CONDITION.

NO.	DATE	REVISION	APPR.
1-4-78	AS BUILT		
SUBMITTED			
APPROVED			
APPROVED			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES OFFICE OF RESOURCES MANAGEMENT			
CONTRACT NO. SL130-I-101.1			
ABATEMENT OF ACID MINE DRAINAGE RACCOON CREEK WATERSHED STATE GAME LANDS NO. 117			
E. D'APPOLONIA CONSULTING ENGINEERS, INC. 10 Duff Road Pittsburgh, Pennsylvania			
<b>PLAN - WORK AREA "C"</b>			
DRAWN BY	DATE	DRAWING NO.	
dam	4-25-75	5 of 13	
CHECKED BY	SCALE		
EB	1"=100'		



**REFERENCE:**  
 THIS MAP PREPARED BY PHOTOGRAMMETRIC  
 METHODS USING AERIAL PHOTOGRAPHY.  
 DATED JAN. 13, 1973 BY L. ROBERT KIMBALL,  
 CONSULTING ENGINEERS, EBENSBURG, PENNSYLVANIA.

MATCH LINE BELOW RIGHT

IMPROVED DRAINAGE CHANNEL  
 (SEE DETAIL TYPE I, DWG. 12 OF 13)

APPROXIMATE  
 LIMIT OF  
 GRADING

IMPROVED ROAD  
 (SEE TYPICAL DETAIL "B", DWG. 12 OF 13)

SPOILS AREA  
 (SEE NOTE 4)

IMPROVED DRAINAGE CHANNEL  
 (SEE DETAIL TYPE I, DWG. 12 OF 13)

SWALE TO BE GRADED TO IMPROVE DRAINAGE  
 (SEE TYPICAL DETAIL "C", DWG. 12 OF 13)

SWALE TO BE GRADED TO IMPROVE DRAINAGE  
 (SEE TYPICAL DETAIL "C", DWG. 12 OF 13)

**NOTES:**

1. FOR LEGEND SEE DWG. 3 OF 13.
2. FOR REVEGETATION PLAN SEE DWG. 11 OF 13.
3. INDICATED INVERT ELEVATIONS ARE APPROXIMATE ONLY. FIELD ADJUSTMENT MAY BE REQUIRED TO ASSURE COMPLETE DRAINAGE OF THE POND OR SWAMP AREA.
4. EXCESS MATERIAL REMAINING AFTER GRADED CONTOURS ARE ATTAINED SHOULD BE PLACED IN THE AREA MARKED "SPOILS AREA" AND GRADED TO PROVIDE POSITIVE DRAINAGE.
5. ALL WATER SURFACE (WS.) ELEVATIONS ARE SUBJECT TO FLUCTUATIONS DEPENDING ON WEATHER AND SEASONAL CONDITIONS.
6. ALL PONDS AND SWAMPS DEWATERED OR DRAINED SHOULD BE LEFT IN A POSITIVE DRAINING CONDITION.

EXTEND GRADING AREA

IMPROVED DRAINAGE CHANNEL  
 (SEE DETAIL TYPE I, DWG. 12 OF 13)

18" R.C.C. PIPE 40' E

RIPRAP EROSION PROTECT 8.9 SQ. YDS.

INVERT (CULVERT)

IMPROVED ROAD AND CULVERT 5

(SEE TYPICAL DETAIL "A", DWG. 12 OF 13)

INVERT #108

INVERT #108

INVERT #108

INVERT #108

INVERT #108

INVERT #108

INVERT #108

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INVERT #108

INVERT #108

IMPROVED DRAINAGE CHANNEL  
 (SEE DETAIL TYPE I, DWG. 12 OF 13)

**PLAN - WORK AREA "D"**



NOTES: RIPRAP  
 TYPE I = 1311 L.F.  
 TYPE II = 3  
 EROSION PROTECT = 8.9 SQ. YDS.  
 IMPROVED ROAD = 780'  
 18" R.C.C. PIPE = 80'

MATCH LINE ABOVE LEFT

IMPROVED DRAINAGE CHANNEL  
 (SEE DETAIL TYPE III, DWG. 12 OF 13)

30' x 30' RIPRAP  
 STILLING APRON  
 2' THICK

SPOILS AREA

EXISTING EXPLOSIVES  
 STORAGE BUILDING

TRENCH EXCAVATION  
 FOR DRAINAGE FROM  
 PIPE

EXTEND GRADING AREA

INVERT SLOPE ALTERED

POND TO REMAIN

INVERT #108

INVERT #108

INVERT #108

INVERT #108

MATCH LINE DWG. 5 OF 13

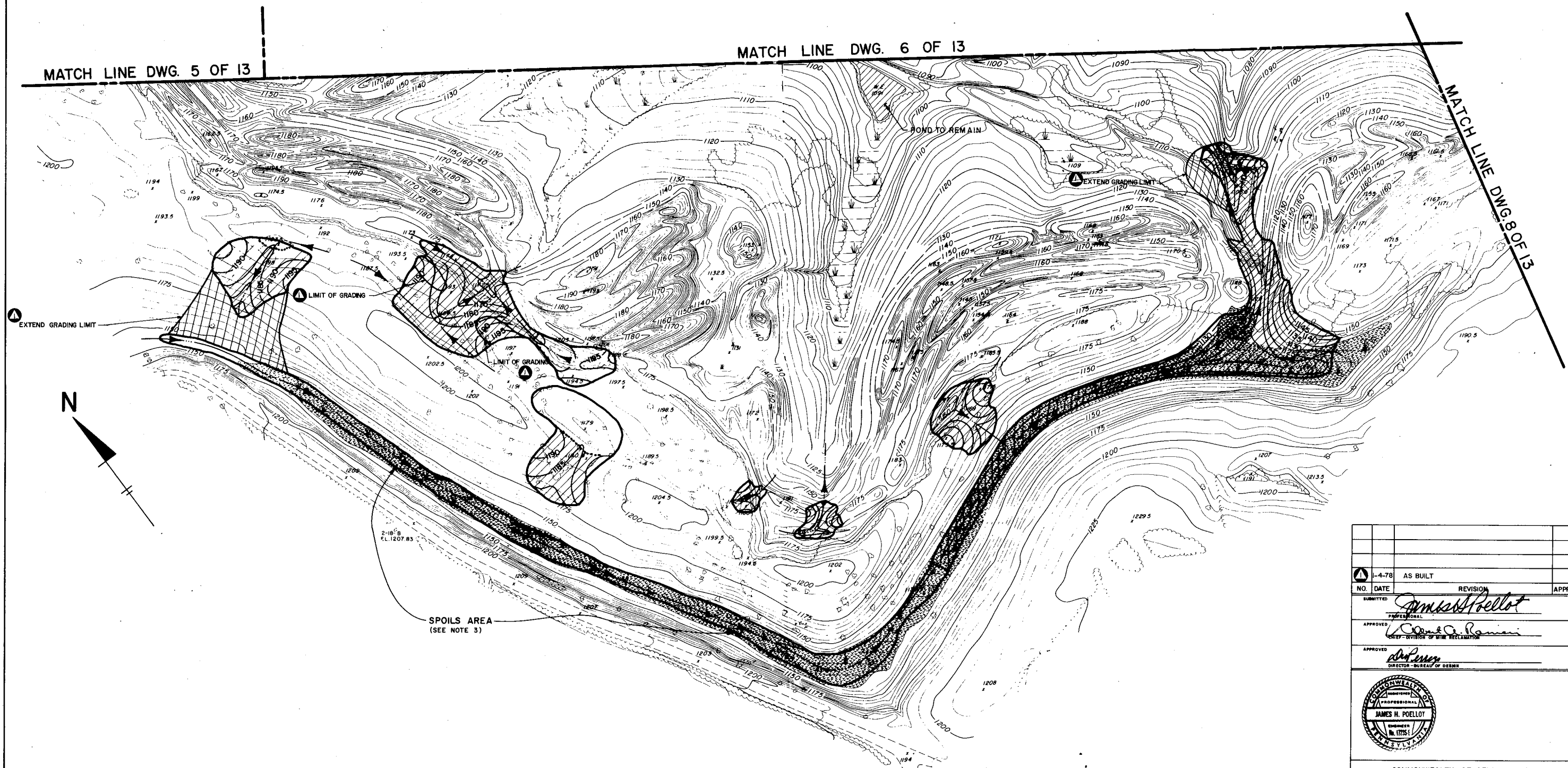
MATCH LINE DWG. 7 OF 13

1-4-78 AS BUILT			
NO.	DATE	REVISION	APPR.
SUBMITTED: <i>James H. Poellot</i>			
APPROVED: <i>Robert A. Ramini</i>			
DIRECTOR - BUREAU OF DESIGN			
APPROVED: <i>D. J. ...</i>			
DIRECTOR - BUREAU OF DESIGN			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES OFFICE OF RESOURCES MANAGEMENT			
CONTRACT NO. SL130-I-101.1			
ABATEMENT OF ACID MINE DRAINAGE RACCOON CREEK WATERSHED STATE GAME LANDS NO. 117			
E. D'APPOLONIA CONSULTING ENGINEERS, INC. 10 Duff Road Pittsburgh, Pennsylvania			
PLAN - WORK AREA "D"			
DRAWN BY culligan	DATE 4-24-75	DRAWING NO. 6 of 13	
CHECKED BY JEB	SCALE 1" = 100'		

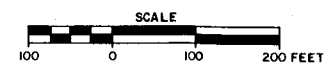
MATCH LINE DWG. 5 OF 13

MATCH LINE DWG. 6 OF 13

MATCH LINE DWG. 8 OF 13



# PLAN - WORK AREA "E"

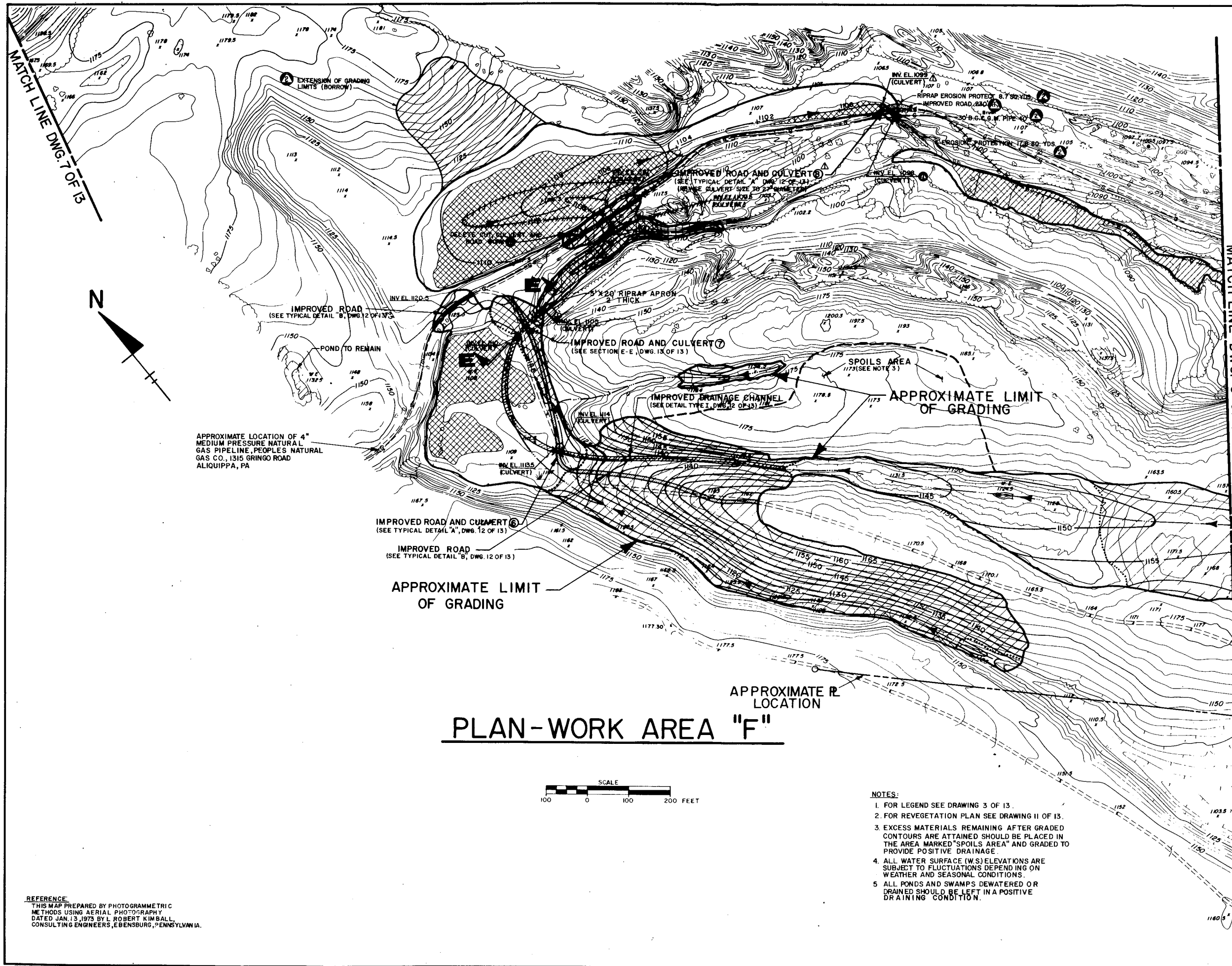


### NOTES

- FOR LEGEND SEE DWG. 3 OF 13.
- FOR REVEGETATION PLAN SEE DWG. 11 OF 13.
- THE AREA DENOTED "SPOILS AREA" IS TO BE BUILT UP TO PROMOTE DRAINAGE USING EXCESS EXCAVATION FROM OTHER LOCATIONS WITHIN THE WORK AREA. THE MINIMUM SLOPE AFTER FINAL GRADING SHALL BE 0.5%.
- ALL WATER SURFACE (W.S.) ELEVATIONS ARE SUBJECT TO FLUCTUATIONS DEPENDING ON WEATHER AND SEASONAL CONDITIONS.
- ALL PONDS AND SWAMPS DEWATERED OR DRAINED SHOULD BE LEFT IN A POSITIVE DRAINING CONDITION.

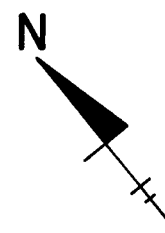
REFERENCE:  
 THIS MAP PREPARED BY PHOTOGRAMMETRIC METHODS USING AERIAL PHOTOGRAPHY DATED JAN. 13, 1973 BY L. ROBERT KIMBALL, CONSULTING ENGINEERS, EBENSBURG, PENNSYLVANIA.

NO.	DATE	REVISION	APPR.
1-4-78		AS BUILT	
SUBMITTED		<i>James H. Poellot</i>	
APPROVED		<i>Charles E. Rammer</i>	
APPROVED		<i>John J. ...</i>	
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES OFFICE OF RESOURCES MANAGEMENT			
CONTRACT NO. SL130-1-101.1 ABATEMENT OF ACID MINE DRAINAGE RACCOON CREEK WATERSHED STATE GAME LANDS NO. 117			
E. D'APPOLONIA CONSULTING ENGINEERS, INC. 10 Duff Road Pittsburgh, Pennsylvania			
<b>PLAN - WORK AREA "E"</b>			
MADE BY	DATE	DRAWING NO.	
dam	4-24-75	7 of 13	
CHECKED BY	SCALE		
JEB	1" = 100'		

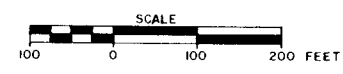


MATCH LINE DWG. 7 OF 13

MATCH LINE DWG. 9 OF 13



**PLAN-WORK AREA "F"**

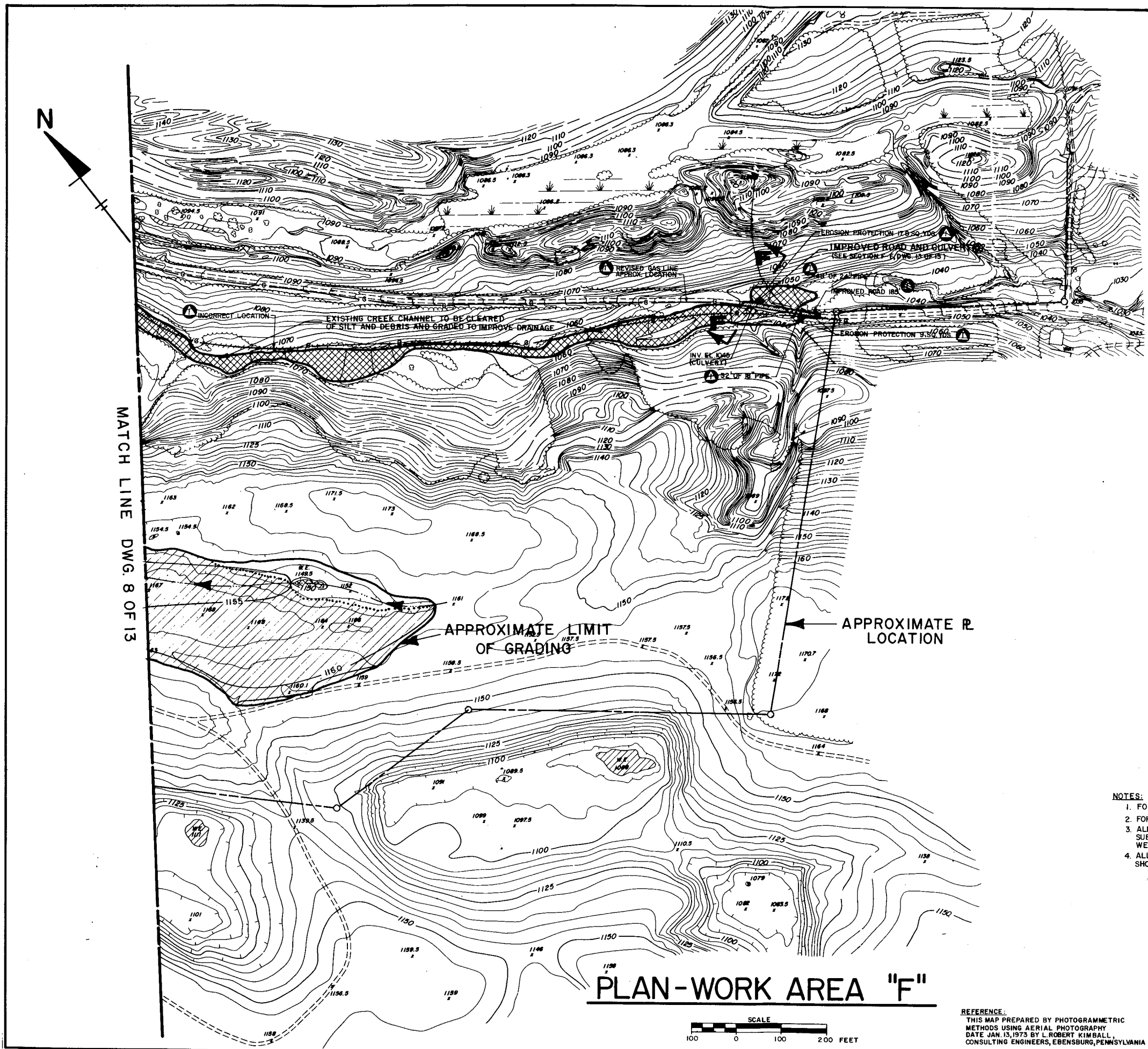


- NOTES:**
1. FOR LEGEND SEE DRAWING 3 OF 13.
  2. FOR REVEGETATION PLAN SEE DRAWING 11 OF 13.
  3. EXCESS MATERIALS REMAINING AFTER GRADED CONTOURS ARE ATTAINED SHOULD BE PLACED IN THE AREA MARKED "SPOILS AREA" AND GRADED TO PROVIDE POSITIVE DRAINAGE.
  4. ALL WATER SURFACE (W.S.) ELEVATIONS ARE SUBJECT TO FLUCTUATIONS DEPENDING ON WEATHER AND SEASONAL CONDITIONS.
  5. ALL PONDS AND SWAMPS DEWATERED OR DRAINED SHOULD BE LEFT IN A POSITIVE DRAINING CONDITION.

**REFERENCE:**  
THIS MAP PREPARED BY PHOTOGRAMMETRIC METHODS USING AERIAL PHOTOGRAPHY DATED JAN. 13, 1973 BY L. ROBERT KIMBALL, CONSULTING ENGINEERS, EBENSBURG, PENNSYLVANIA.

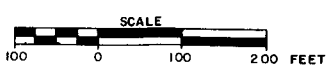
NO.	DATE	REVISION	APPR.
1-4-76		AS BUILT	
5-18-76		REVISE LOCATION AND SIZE, CULVERT (6) AND REVISE ASSOCIATED GRADING	HR
SUBMITTED		<i>J. J. H. [Signature]</i>	
APPROVED		[Signature]	
ENGINEER - DIVISION OF MINE RECLAMATION			
DIRECTOR - BUREAU OF DESIGN			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES OFFICE OF RESOURCES MANAGEMENT			
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ABATEMENT OF ACID MINE DRAINAGE RACCOON CREEK WATERSHED STATE GAME LANDS NO. 117			
E. D'APPOLONIA CONSULTING ENGINEERS, INC. 10 Duff Road Pittsburgh, Pennsylvania			
<b>PLAN-WORK AREA "F"</b>			
DRAWN BY	DATE	DRAWING NO.	
dam	5-8-75	8 of 13	
CHECKED BY	SCALE		
JEB	1" = 100'		





MATCH LINE DWG. 8 OF 13

## PLAN-WORK AREA "F"



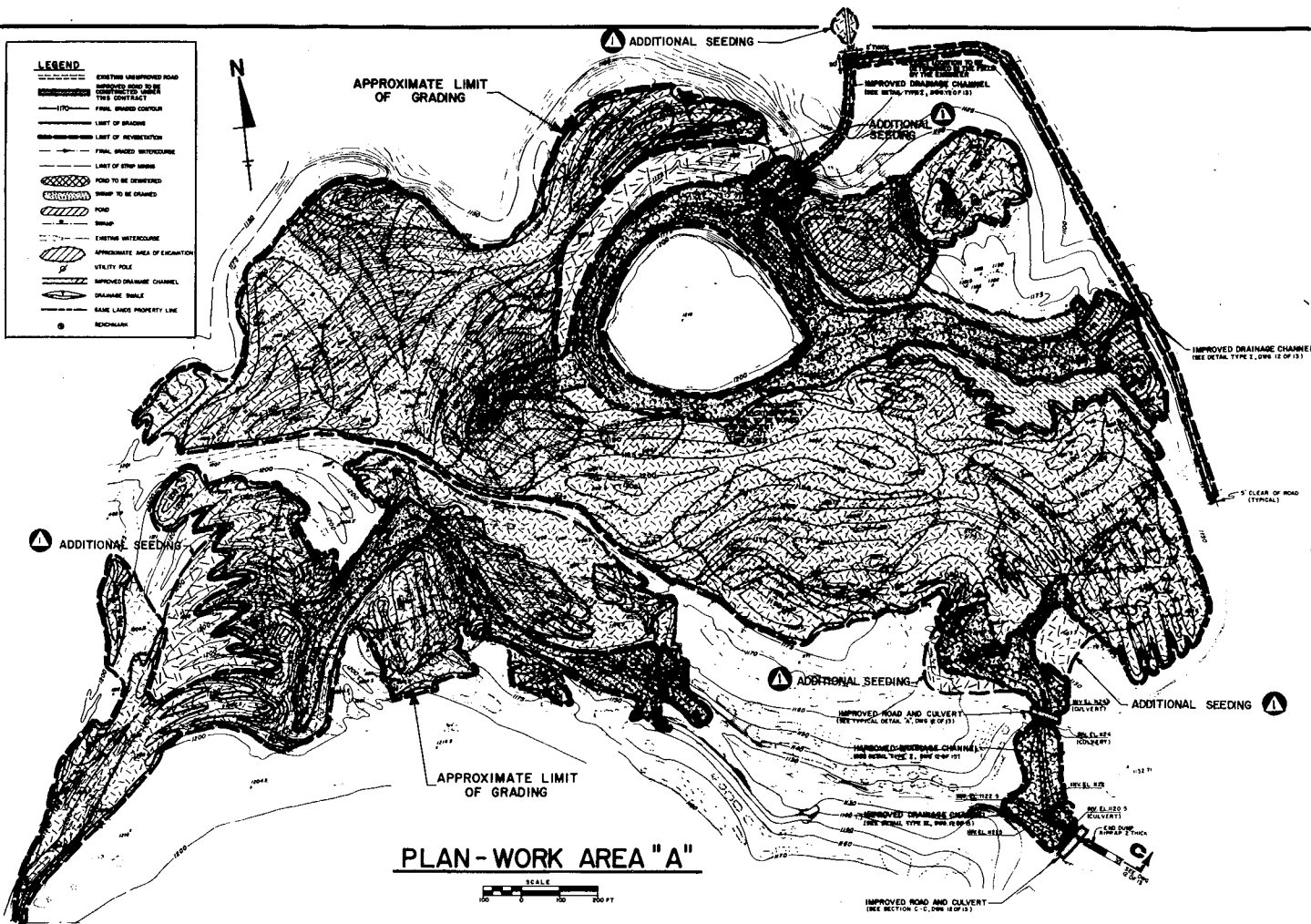
**REFERENCE:**  
 THIS MAP PREPARED BY PHOTOGRAMMETRIC METHODS USING AERIAL PHOTOGRAPHY DATE JAN. 13, 1973 BY L. ROBERT KIMBALL, CONSULTING ENGINEERS, EBESBURG, PENNSYLVANIA

- NOTES:**
1. FOR LEGEND SEE DRAWING 3 OF 13.
  2. FOR REVEGETATION PLAN SEE DRAWING 11 OF 13.
  3. ALL WATER SURFACE (W.S.) ELEVATIONS ARE SUBJECT TO FLUCTUATIONS DEPENDING ON WEATHER AND SEASONAL CONDITIONS.
  4. ALL PONDS AND SWAMPS DEWATERED OR DRAINED SHOULD BE LEFT IN A POSITIVE DRAINING CONDITION.

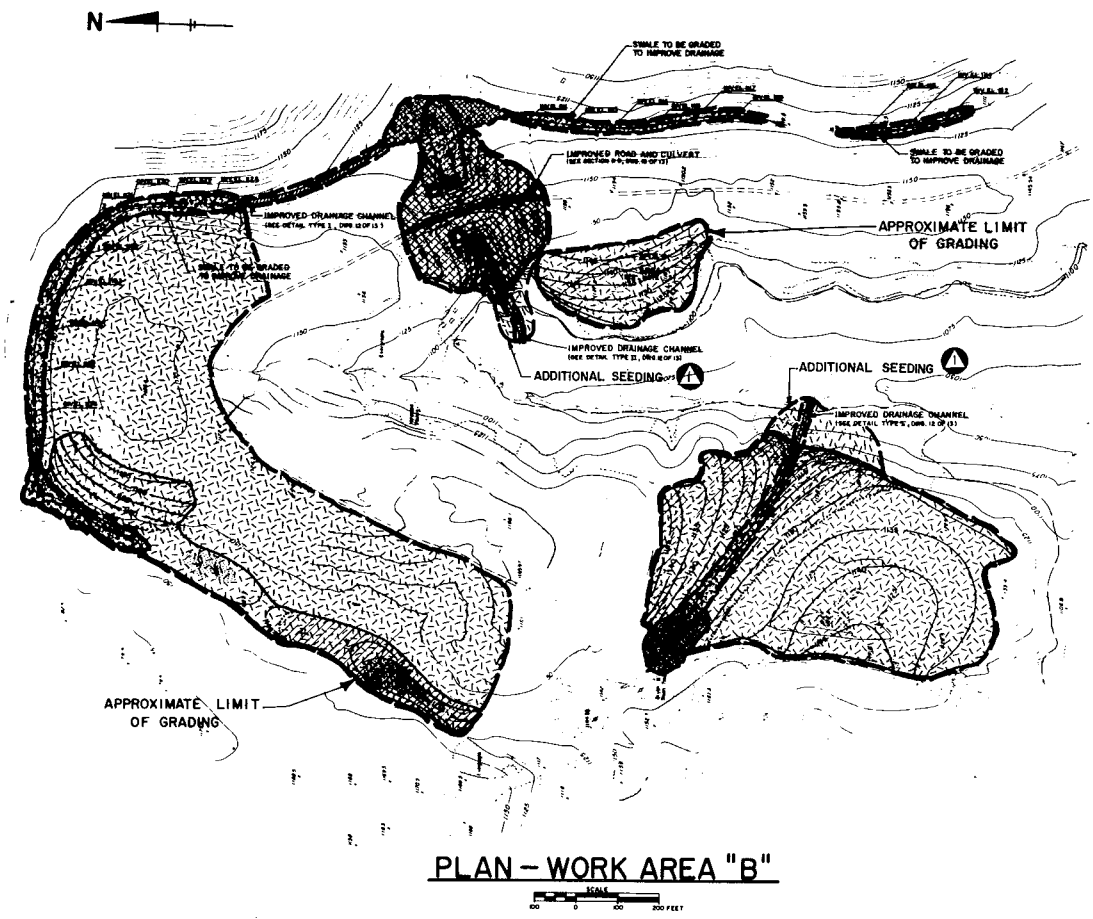
▲	1-4-78 AS BUILT				
NO.	DATE	REVISION	APPR.		
SUBMITTED		<i>James H. Poellot</i>			
APPROVED		<i>James H. Poellot</i>			
APPROVED		<i>James H. Poellot</i>			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES OFFICE OF RESOURCES MANAGEMENT					
<b>CONTRACT NO. SL130-1-101J</b>					
ABATEMENT OF ACID MINE DRAINAGE RACCOON CREEK WATERSHED STATE GAME LANDS NO. 117					
E. D'APPOLONIA CONSULTING ENGINEERS, INC. 10 Duff Road Pittsburgh, Pennsylvania					
<b>PLAN - WORK AREA "F"</b>					
DRAWN BY	DATE	DRAWING NO.			
dam	5-8-75	9 of 13			
CHECKED BY	SCALE				
<i>CEB</i>	1" = 100'				

**LEGEND**

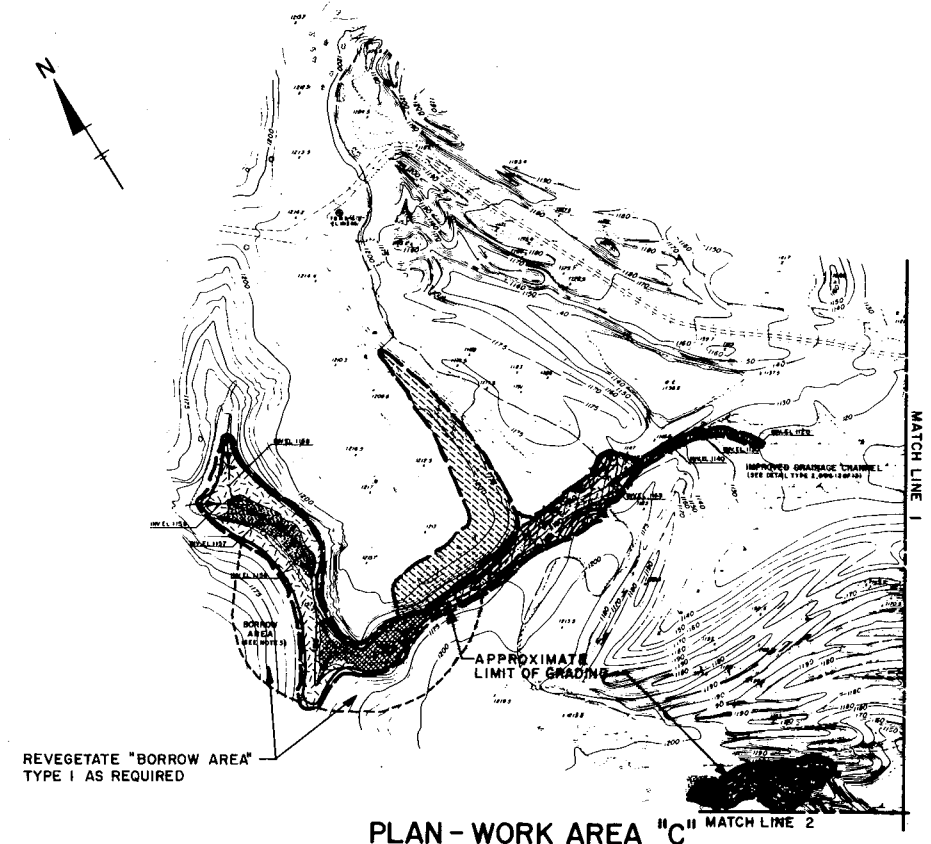
	EXISTING IMPROVED ROAD
	PROPOSED ROAD
	FINAL GRADE CONTOUR
	LIMIT OF GRADING
	MINIMUM LIMIT OF RECONTOURING
	FINAL BASED RECONTOURING
	LIMIT OF STRIP MINING
	POND TO BE DEWATERED
	POND
	BORROW AREA
	APPROXIMATE AREA OF VEGETATION
	UTILITY POLE
	IMPROVED DRAINAGE CHANNEL
	DRAINAGE SWALE
	SAME LAND PROPERTY LINE
	BENCHMARK



**PLAN - WORK AREA "A"**



**PLAN - WORK AREA "B"**



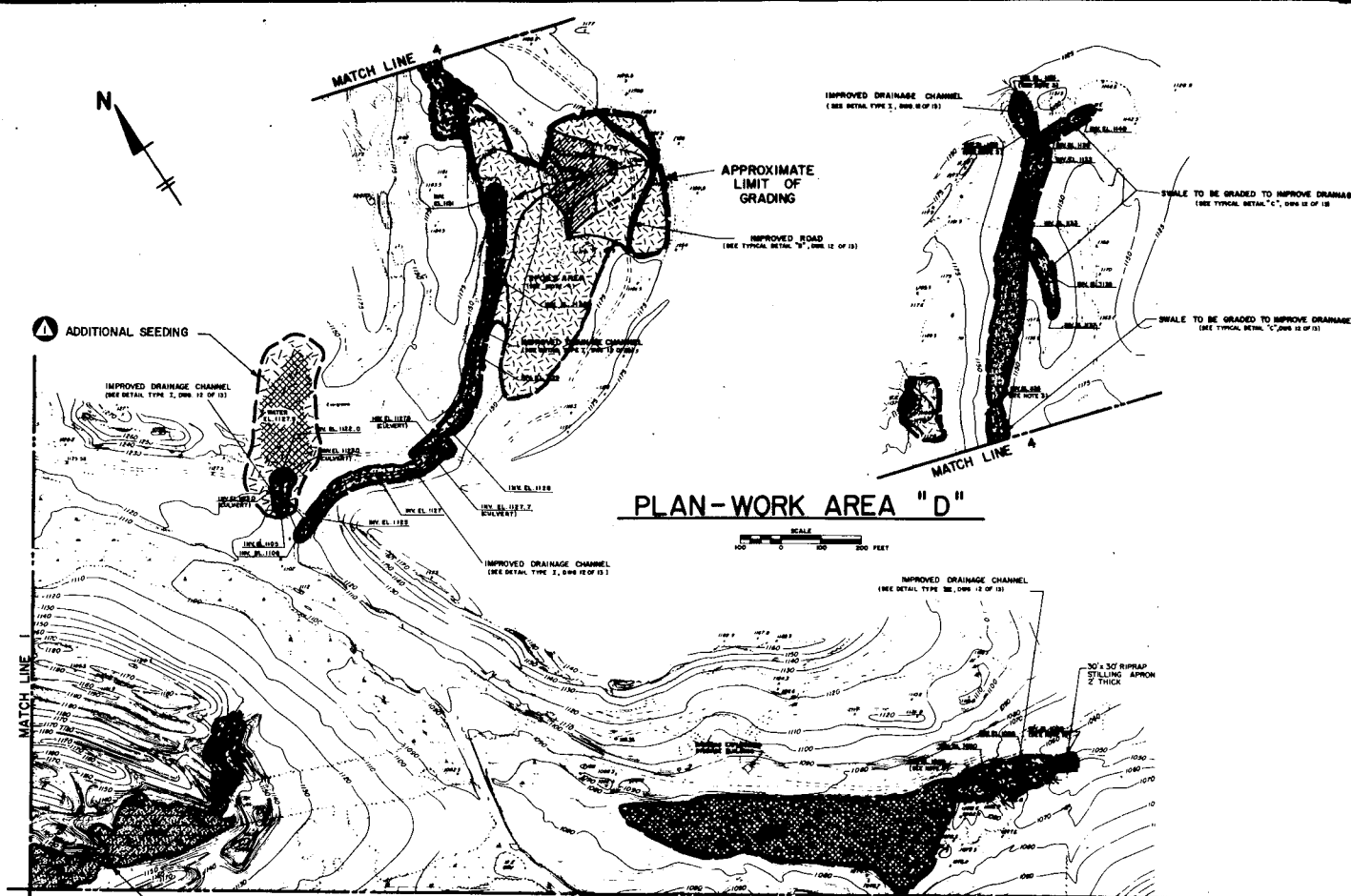
**PLAN - WORK AREA "C" MATCH LINE 2**

**NOTES:**

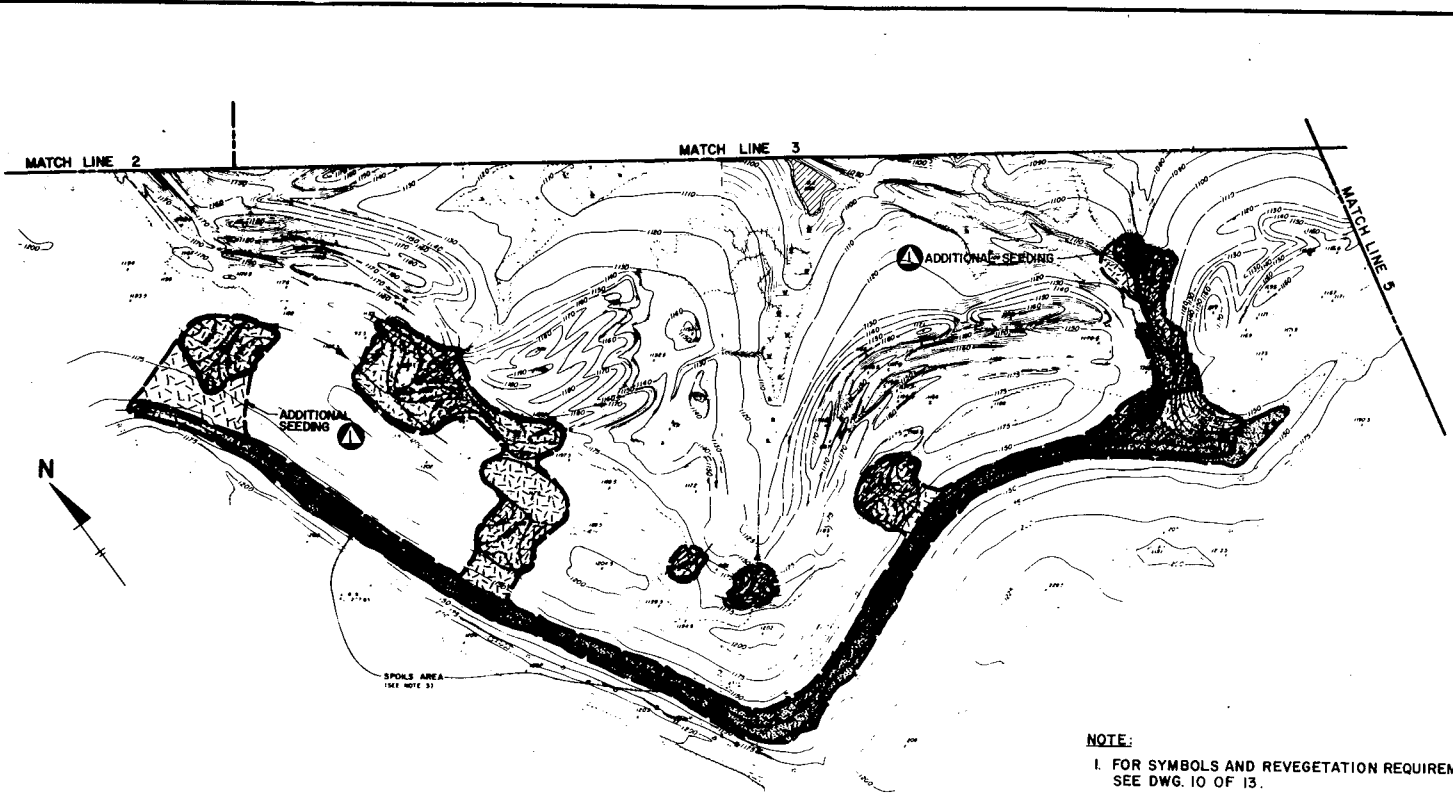
- REVEGETATION SEED REQUIREMENTS:
  - TYPE 1 - NORMAL REVEGETATION
    - TALL FESCUE 30 lb/acre
    - RED TOP 5 lb/acre
    - BIRDSFOOT TREFLOIL 10 lb/acre
  - TYPE 2 - DRAINAGE COURSES AND SWALES
    - TALL FESCUE 40 lb/acre
    - ANNUAL RYEGRASS 20 lb/acre
  - TYPE 3 - STEEP SLOPED AREAS
    - CROWN VETCH 20 lb/acre
    - ANNUAL RYEGRASS 25 lb/acre
- GROUND LIMESTONE REQUIREMENTS:
  - AREAS "A", "B", "C", "D", "E" 12,000 lb/acre
  - AREA "F" 40,000 lb/acre
- SOIL SUPPLEMENT REQUIREMENTS:
  - NITROGEN 120 lb/acre
  - PHOSPHATE 200 lb/acre
  - POTASH 200 lb/acre

- SYMBOL**
- - 
  -

1-4-78 AS BUILT			
NO.	DATE	REVISION	APPR.
SUBMITTED: <i>James H. Poellot</i>			
APPROVED: <i>Robert A. Roman</i>			
APPROVED: <i>John P. ...</i>			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES OFFICE OF RESOURCES MANAGEMENT			
CONTRACT NO. SL130-1-1011			
ABATEMENT OF ACID MINE DRAINAGE RACCOON CREEK WATERSHED STATE GAME LANDS NO. 117			
E. D'APPOLONIA CONSULTING ENGINEERS, INC. 10 Duff Road Pittsburgh, Pennsylvania			
<b>REVEGETATION PLAN - WORK AREAS "A", "B" AND "C"</b>			
DRAWN BY	DATE	DRAWING NO.	
dam	5-15-75	10 of 13	
CHECKED BY	SCALE		
JEG	1" = 200'		

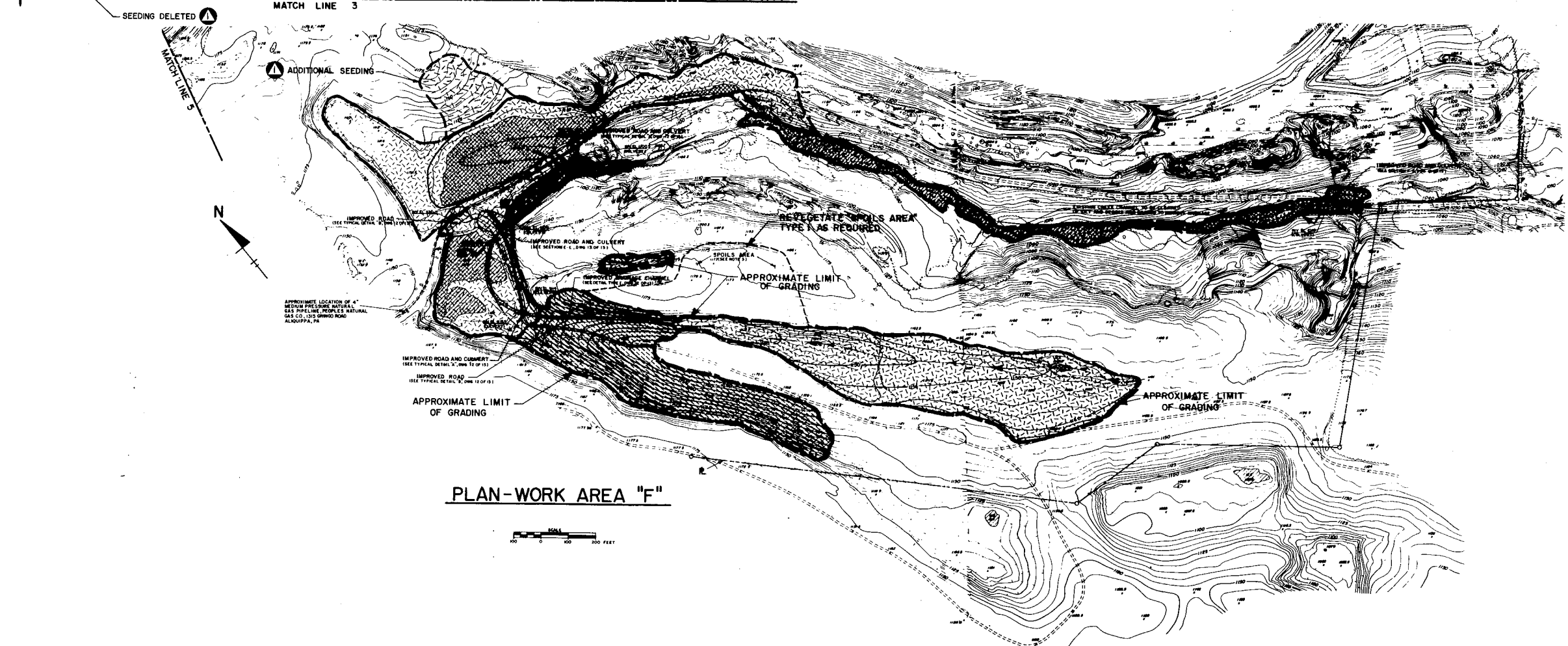


PLAN-WORK AREA "D"



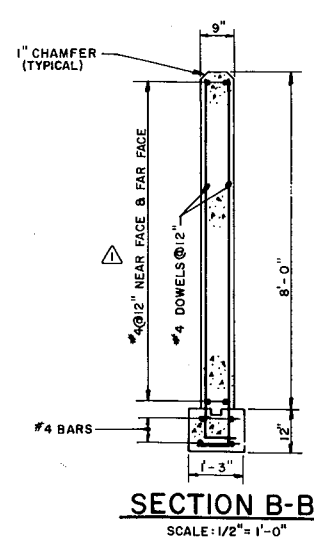
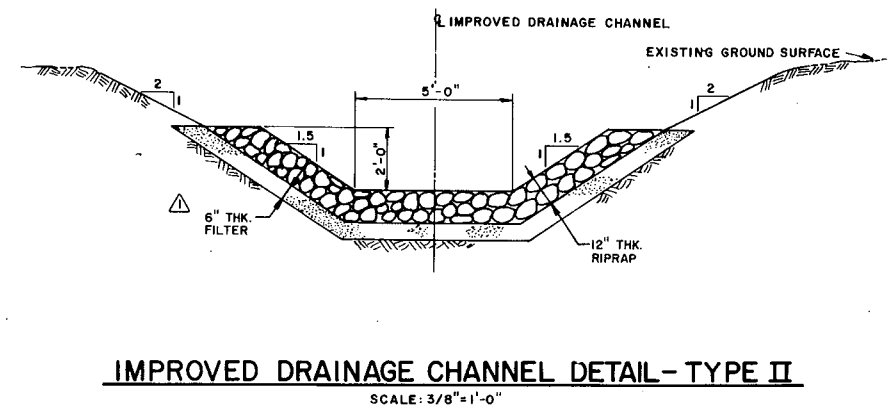
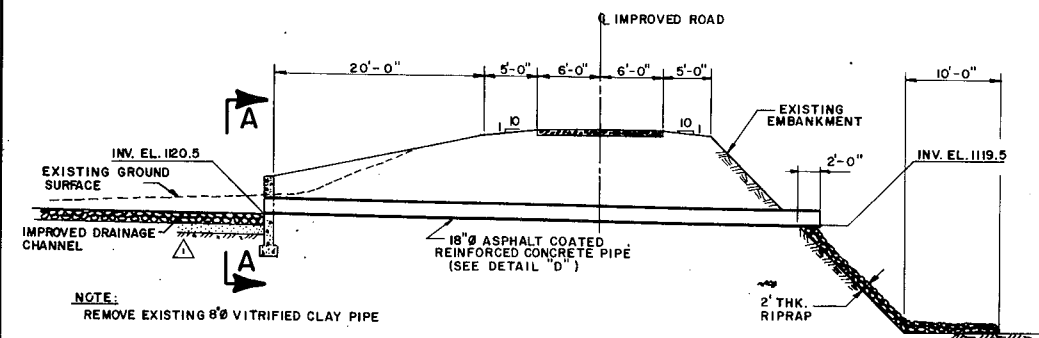
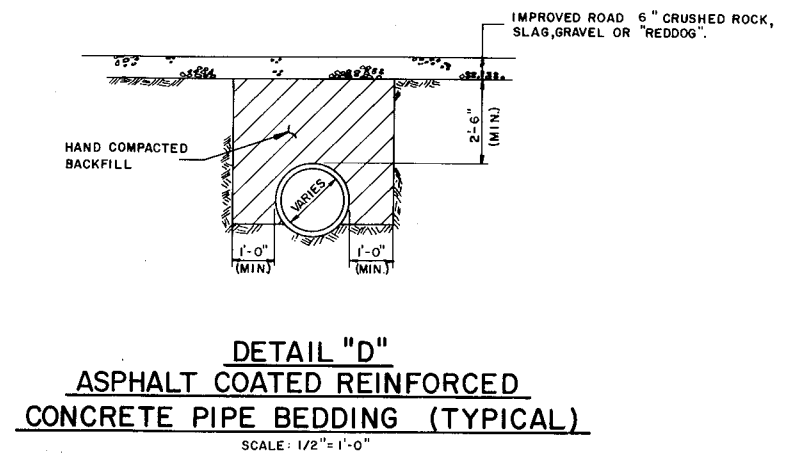
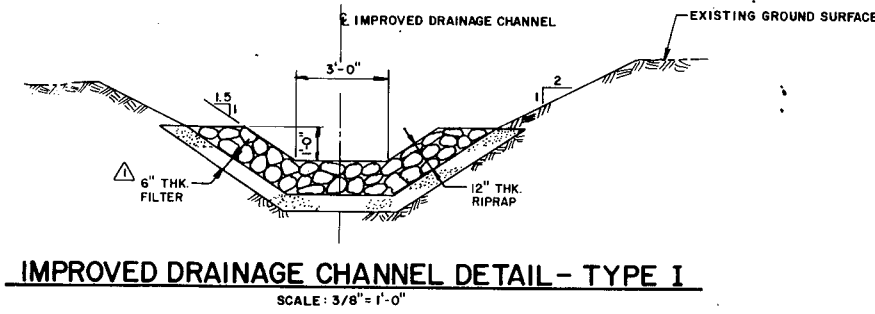
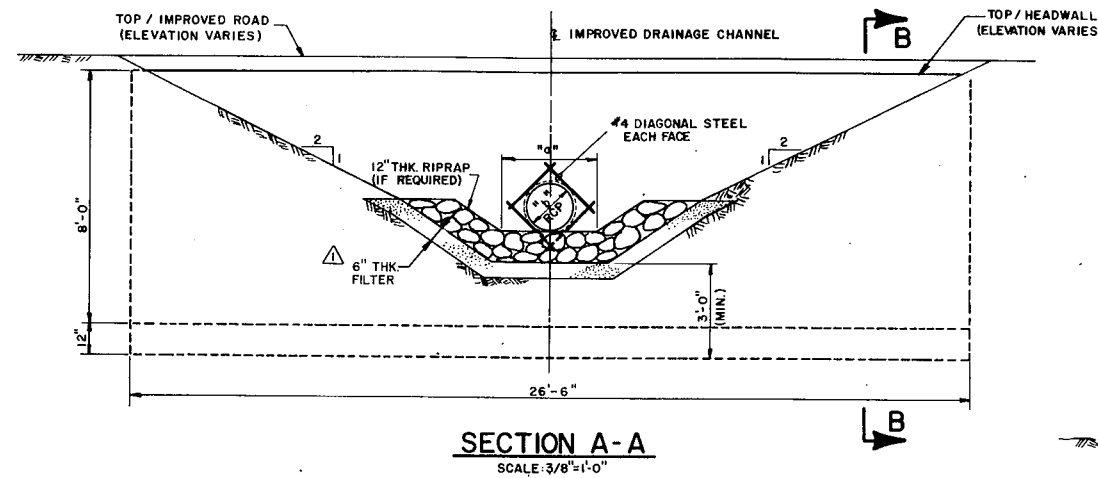
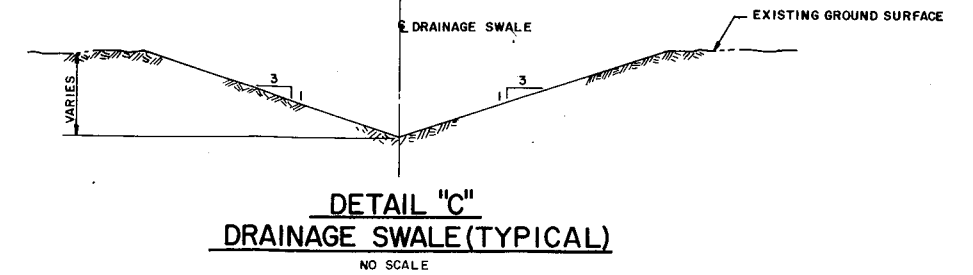
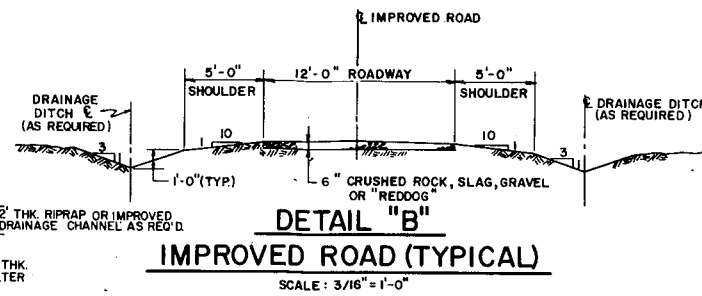
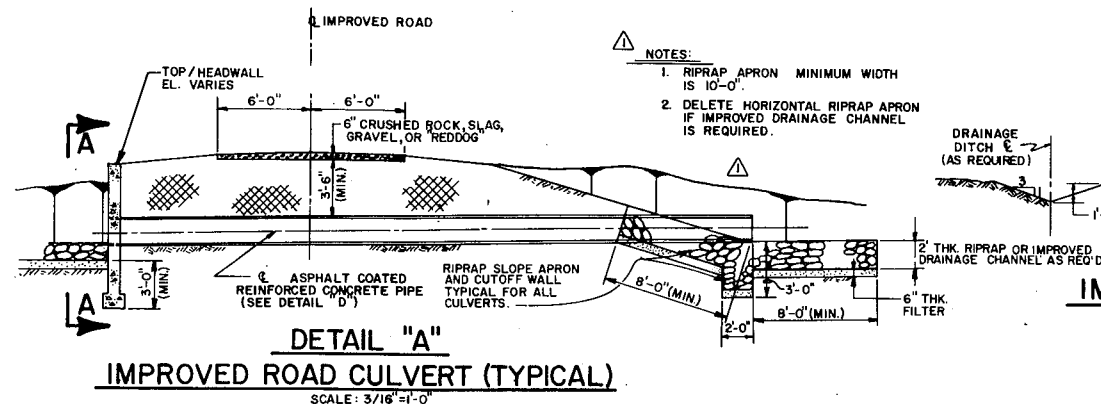
PLAN - WORK AREA "E"

NOTE:  
1. FOR SYMBOLS AND REVEGETATION REQUIREMENTS  
SEE DWG. 10 OF 13.

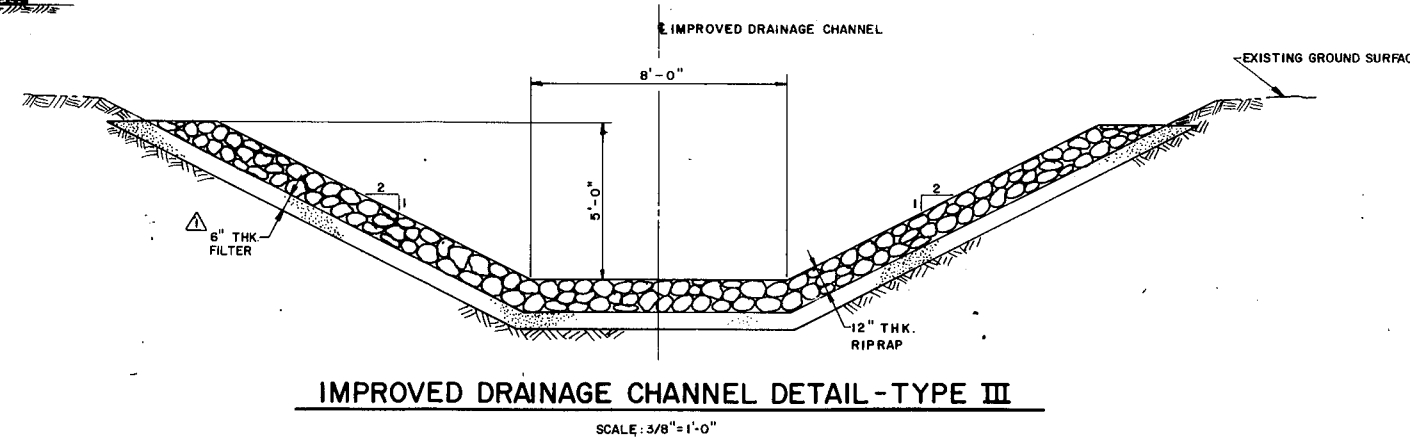


PLAN-WORK AREA "F"

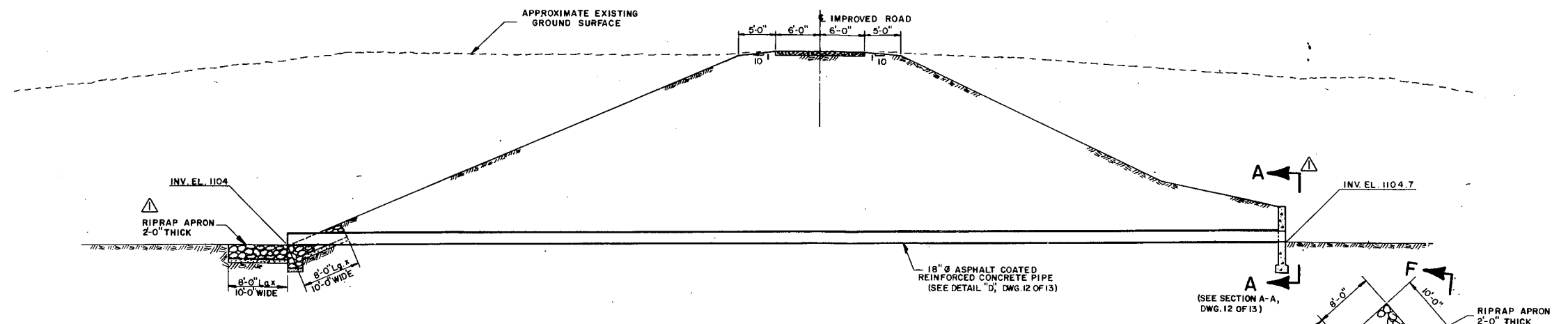
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES OFFICE OF RESOURCES MANAGEMENT		
CONTRACT NO. SL130-1-10.1		
ABATEMENT OF ACID MINE DRAINAGE RACCOON CREEK WATERSHED STATE GAME LANDS NO. 117		
E. D'APPOLONIA CONSULTING ENGINEERS, INC. 10 DuF Road Pittsburgh, Pennsylvania		
<b>REVEGETATION PLAN -          WORK AREAS "D", "E" AND "F"</b>		
DRAWN BY dam	DATE 5-15-75	DRAWING NO. 11 of 13
CHECKED BY JEB	SCALE 1" = 200'	



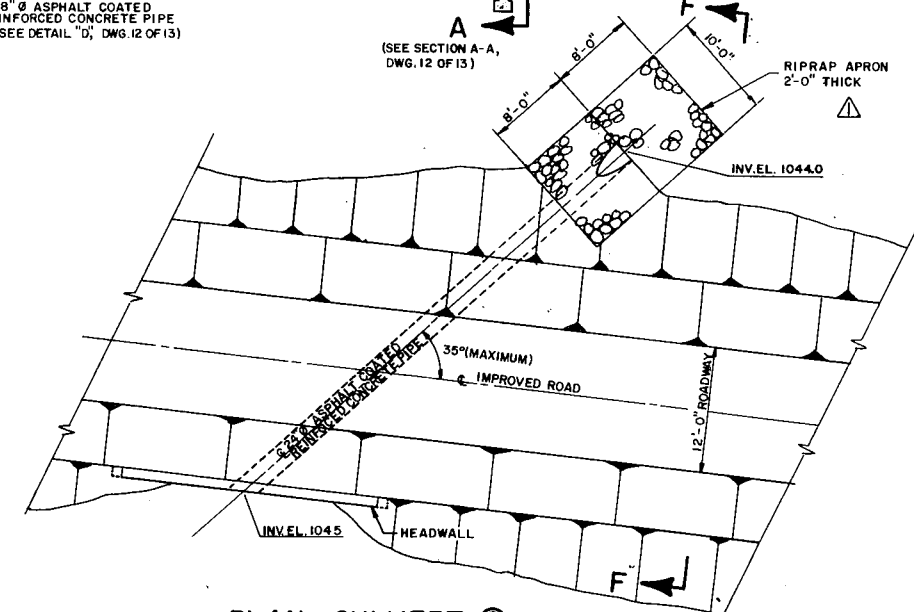
CULVERT & HEADWALL CHART					
CULVERT NO.	WORK AREA	APPROX. PIPE LENGTH	"a"	"b"	NO. REQ'D
①	"A"	40'-0"	3'-0"	18'0"	1
②	"A"	53'-0"	5'-0"	18'0"	1
③	"B"	136'-0"	—	18'0"	1
④	"B"	40'-0"	3'-0"	18'0"	1
⑤	"D"	40'-0"	3'-0"	18'0"	1
⑥	"F"	40'-0"	3'-0"	18'0"	1
⑦	"F"	88'-0"	3'-0"	12'0"	1
⑧	"F"	56'-0"	—	18'0"	1
⑨	"F"	48'-0"	—	24'0"	1



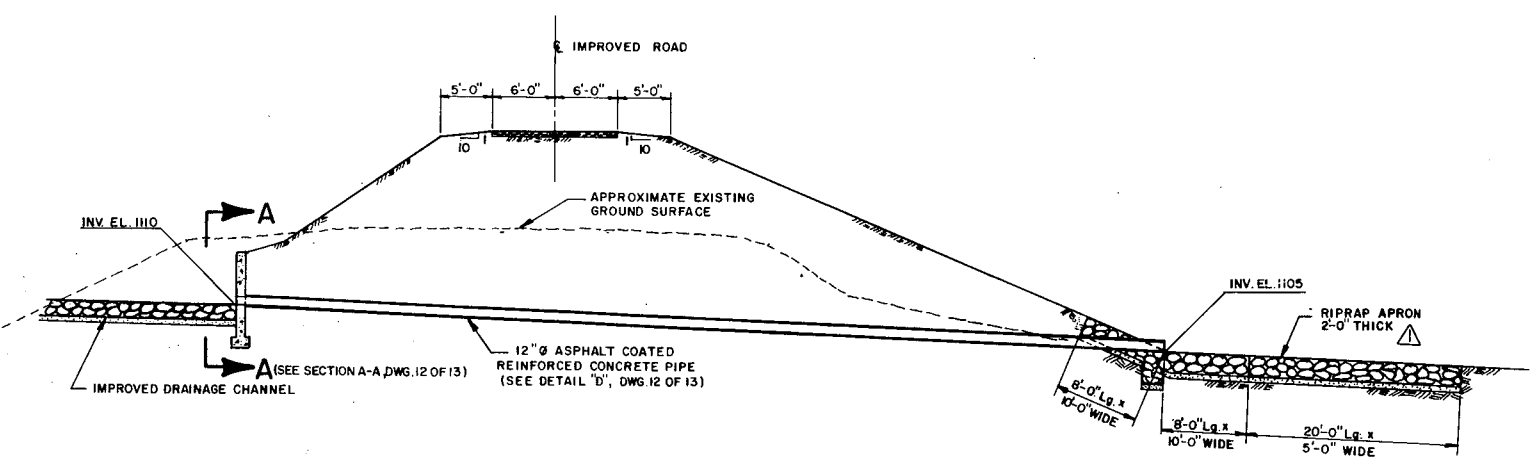
1-4-78	AS BUILT		
5-27-78	HEADWALL REMOVED, PIPE EXTENDED, RIPRAP AND FILTER ADDED.	JEB	APPR
NO.	DATE	REVISION	APPR
SUBMITTED: <i>James H. Pollock</i>			
APPROVED: <i>Robert C. Remick</i>			
APPROVED: <i>Chapman</i>			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES OFFICE OF RESOURCES MANAGEMENT			
CONTRACT NO. SL130-1-101.1			
ABATEMENT OF ACID MINE DRAINAGE RACCOON CREEK WATERSHED STATE GAME LANDS NO. 117			
E. D'APPOLONIA CONSULTING ENGINEERS, INC. 10 Duff Road Pittsburgh, Pennsylvania			
<b>DETAILS</b>			
DRWN BY: dam	DATE: 3-4-75	DRAWING NO. 12 of 13	
CHECKED BY: JEB	SCALE: AS SHOWN		



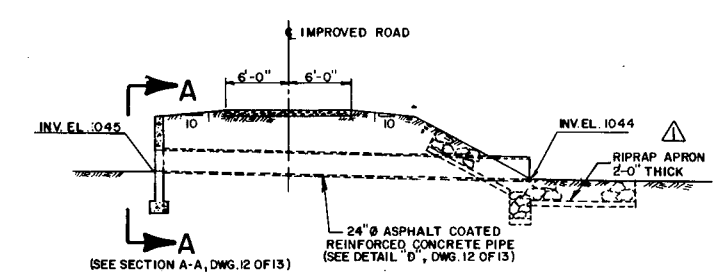
**SECTION D-D**  
 (SEE PLAN-AREA "B", DWG. 4 OF 13)  
 SCALE: 1/8" = 1'-0"



**PLAN-CULVERT**  
 (SEE PLAN-AREA "F", DWG. 9 OF 13)  
 SCALE: 1/8" = 1'-0"

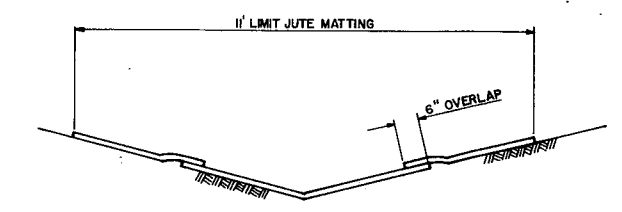


**SECTION E-E**  
 (SEE PLAN-AREA "F", DWG. 8 OF 13)  
 SCALE: 1/8" = 1'-0"



**SECTION F-F**  
 (SEE PLAN-AREA "F", DWG. 9 OF 13)  
 SCALE: 1/8" = 1'-0"

**NOTE:**  
 REMOVE EXISTING CULVERT NEAR SECTION F-F.



**DETAIL "E"**  
 TYPICAL JUTE MATTING  
 NO SCALE

1-4-78	AS BUILT		
5-27-75	HEADWALL REMOVED, PIPE EXTENDED, RIPRAP AND FILTER ADDED	JEB	
NO.	DATE	REVISION	APPR.
SUBMITTED <i>James H. Poellot</i>			
APPROVED <i>James H. Poellot</i> PROFESSIONAL ENGINEER			
APPROVED <i>John S. ...</i> DIRECTOR - BUREAU OF DESIGN			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES OFFICE OF RESOURCES MANAGEMENT			
CONTRACT NO. SL130-1-101.1			
ABATEMENT OF ACID MINE DRAINAGE RACCOON CREEK WATERSHED STATE GAME LANDS NO. 117			
E. D'APPOLONIA CONSULTING ENGINEERS, INC. 10 Duff Road Pittsburgh, Pennsylvania			
<b>DETAILS</b>			
DRAWN BY	DATE	DRAWING NO.	
dem	5-13-75	13 of 13	
CHECKED BY	SCALE		
JEB	AS SHOWN		