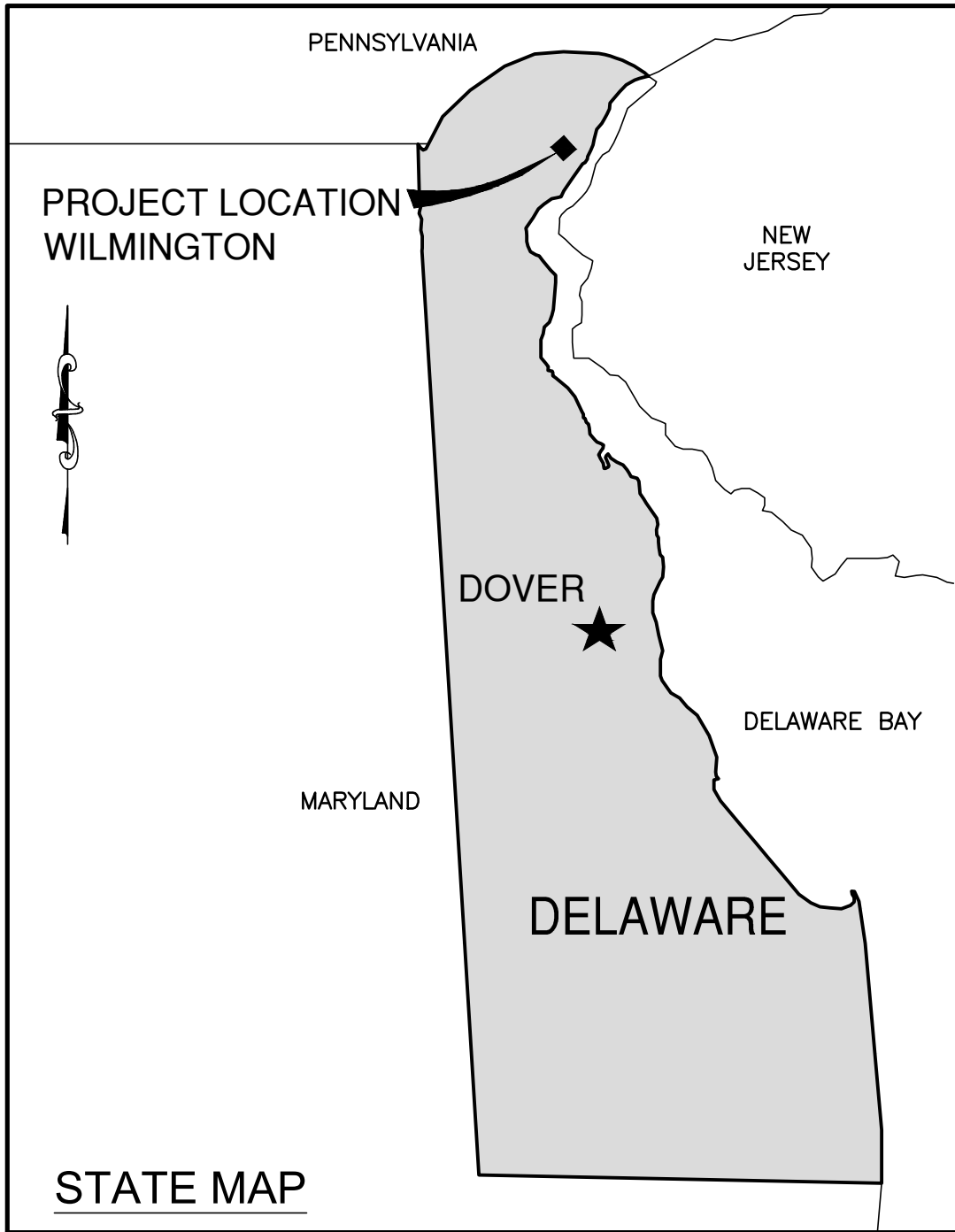


24x36 = FULL SCALE 0 1" 2" 3"

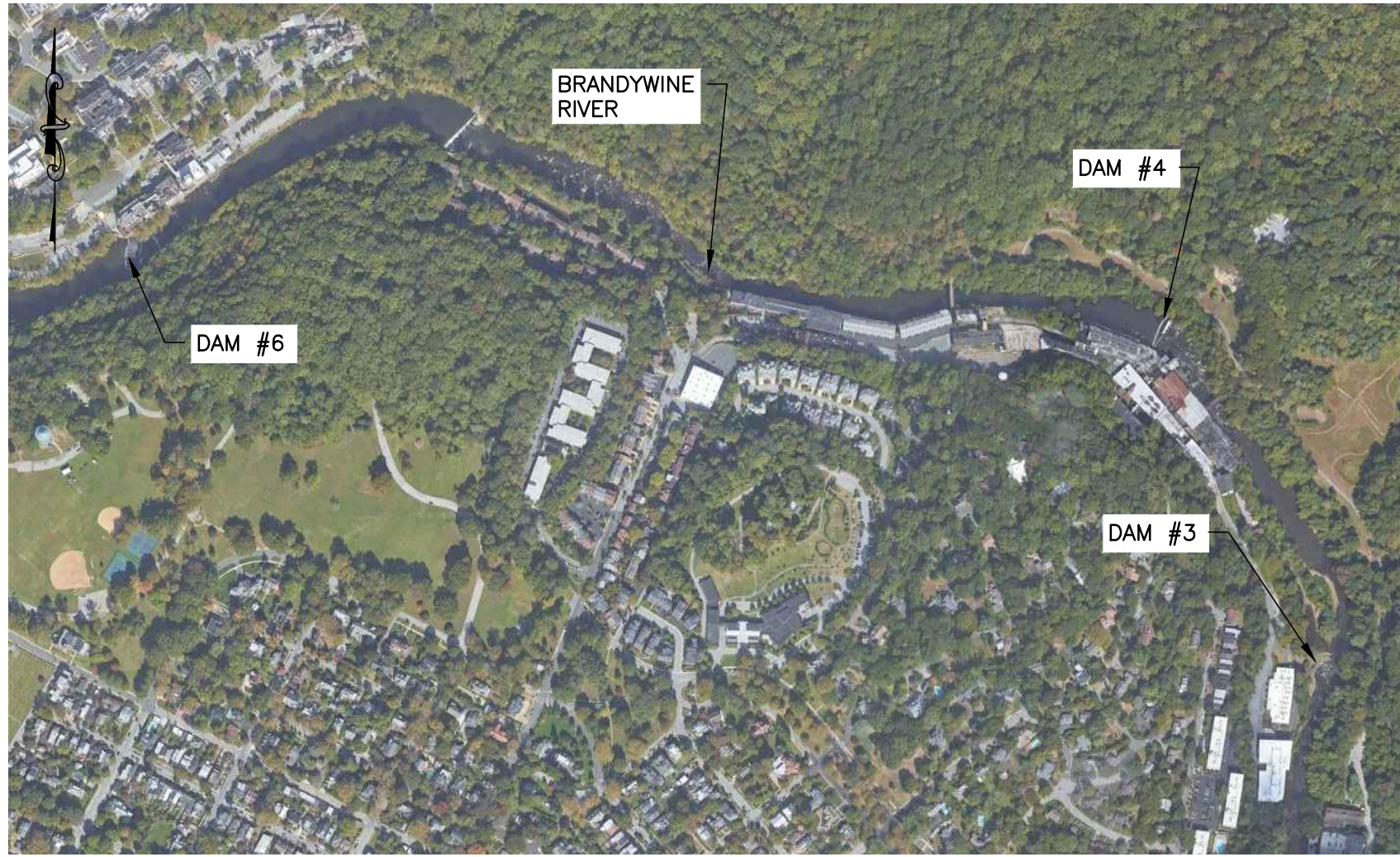
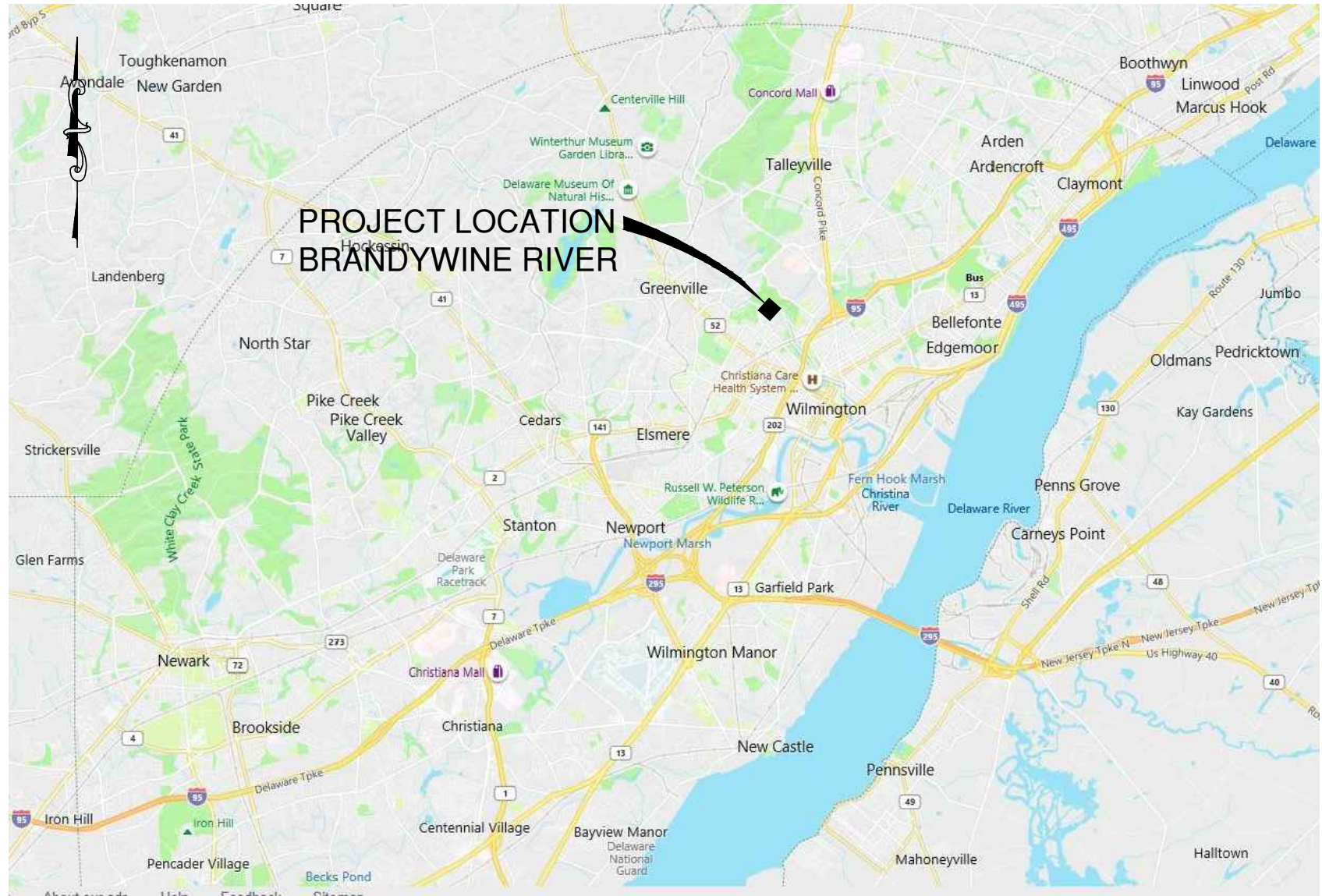
BRANDYWINE SHAD 2020

WILMINGTON, DE.

DAMS 3, 4, AND 6 REMOVAL



DRAWING LIST				
SHEET NO.	SHEET DESCRIPTION	DATE	REVISION	STATUS
D3-01	DAM #3, OVERALL EXISTING CONDITIONS	5-26-20	-	CLIENT REVIEW
D3-02	DAM #3, OVERALL PROPOSED CONDITIONS	5-26-20	-	CLIENT REVIEW
D3-03	DAM #3, PROFILES AND SECTIONS	5-26-20	-	CLIENT REVIEW
D4-01	DAM #4, OVERALL EXISTING CONDITIONS	5-26-20	-	CLIENT REVIEW
D4-02	DAM #4, OVERALL PROPOSED CONDITIONS	5-26-20	-	CLIENT REVIEW
D4-03	DAM #4, PROFILES AND SECTIONS	5-26-20	-	CLIENT REVIEW
D6-01	DAM #6, OVERALL EXISTING CONDITIONS	5-26-20	-	CLIENT REVIEW
D6-02	DAM #6, OVERALL PROPOSED CONDITIONS	5-26-20	-	CLIENT REVIEW
D6-03	DAM #6, PROFILES AND SECTIONS	5-26-20	-	CLIENT REVIEW



CLIENT REVIEW
NOT FOR CONSTRUCTION
5-26-20



24x36 = FULL SCALE
0 1" 2" 3"
J:\3452\001\Drawings\CAD\3452001 DAM 3 SHT 01.dwg
PRINTED: May 26, 2020 - 8:38 PM



- NOTES:
1. TOPOGRAPHY FROM PUBLICLY SOURCED LIDAR FROM THE STATE OF DELAWARE DOWNLOADED ON MARCH 31, 2020, WITH 1 SQUARE METER RESOLUTION.
 2. BATHYMETRY INTERPOLATED FROM FEMA HEC-RAS MODEL CROSS SECTIONS RECEIVED FROM THE UNIVERSITY OF DELAWARE IN MARCH 2020. CONTRACTOR TO VERIFY GRADES PRIOR TO CONSTRUCTION.
 3. ALL ELEVATIONS IN NAVD88 DATUM.
 4. UTILITIES, WETLANDS, AND INFRASTRUCTURE LOCATED BASED ON PUBLICLY AVAILABLE INFORMATION. ADDITIONAL FIELD SURVEY WILL BE REQUIRED TO CONFIRM LOCATIONS PRIOR TO CONSTRUCTION.

PRELIMINARY DESIGN
NOT FOR CONSTRUCTION

BRANDYWINE SHAD 2020
WILMINGTON, DE

DAMS, 3, 4, AND 6 REMOVAL

BRANDYWINE DAM #3 PLAN
OVERALL EXISTING CONDITIONS

Kleinschmidt
888-224-5942
KleinschmidtGroup.com

No.	Revision	Date	Drawn	Checked
-	-	-	-	-
Designed	Drawn	Checked	Project No.	Date Revised
TAK	CRS	TAK	3452001	05-26-20

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D3-01

PRINTED: May 26, 2020 - 9:21 PM J:\3452\001\Drawings\CAD\3452001 DAM 3 SHT 02.dwg

24x36 = FULL SCALE

0 1" 2" 3"



LEGEND

ROAD

APPRX. EDGE OF WATER

PROPERTY LINE

CONTOUR M.J.R.

CONTOUR M.N.R.

KNOWN UTILITIES

WETLAND (FROM NWI DATABASE)



DEMOLISH DAM CREST TO APPRX. EL. 26, SLOPING FROM PORTIONS TO REMAIN AT 3:1 SLOPE. SLOPE FROM DOWNSTREAM INVERT TO TOP OF SEDIMENT UPSTREAM IN CONTINUOUS SLOPE WITH PASSAGE FOR TARGET SPECIES PER ENGINEER FIELD DIRECTION

EAST EXTENT OF REMOVAL/FILL

WEST EXTENT OF REMOVAL/FILL

EXISTING BRANDYWINE DAM #3 CREST EL. 31.9'

EXISTING STONE WALL TO REMAIN

EXISTING STONE WALL TO REMAIN

PLACE BOULDERS AGAINST WALL TO PROTECT TOE FROM EROSION, SLOPING DAM DEMO AT 3:1 ANGLE FROM WALL TO FINAL INVERT

FILL SCOUR HOLE WITH DAM RUBBLE IN SMOOTH SLOPE FROM DOWNSTREAM NATIVE GRADE (~EL. 23') TO FORMER DAM



- NOTES:
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 3. ALL ELEVATIONS IN NAVD88 DATUM.
 4. UTILITIES, WETLANDS, AND INFRASTRUCTURE LOCATED BASED ON PUBLICLY AVAILABLE INFORMATION. ADDITIONAL FIELD SURVEY WILL BE REQUIRED TO CONFIRM LOCATIONS PRIOR TO CONSTRUCTION.
 5. EXTRA RUBBLE NOT PLACED IN ON-SITE FILL AREAS SHALL BE DISPOSED OF AT AN APPROVED OFF-SITE LOCATION.

PRELIMINARY DESIGN
NOT FOR CONSTRUCTION

BRANDYWINE SHAD 2020
WILMINGTON, DE

DAMS, 3, 4, AND 6 REMOVAL

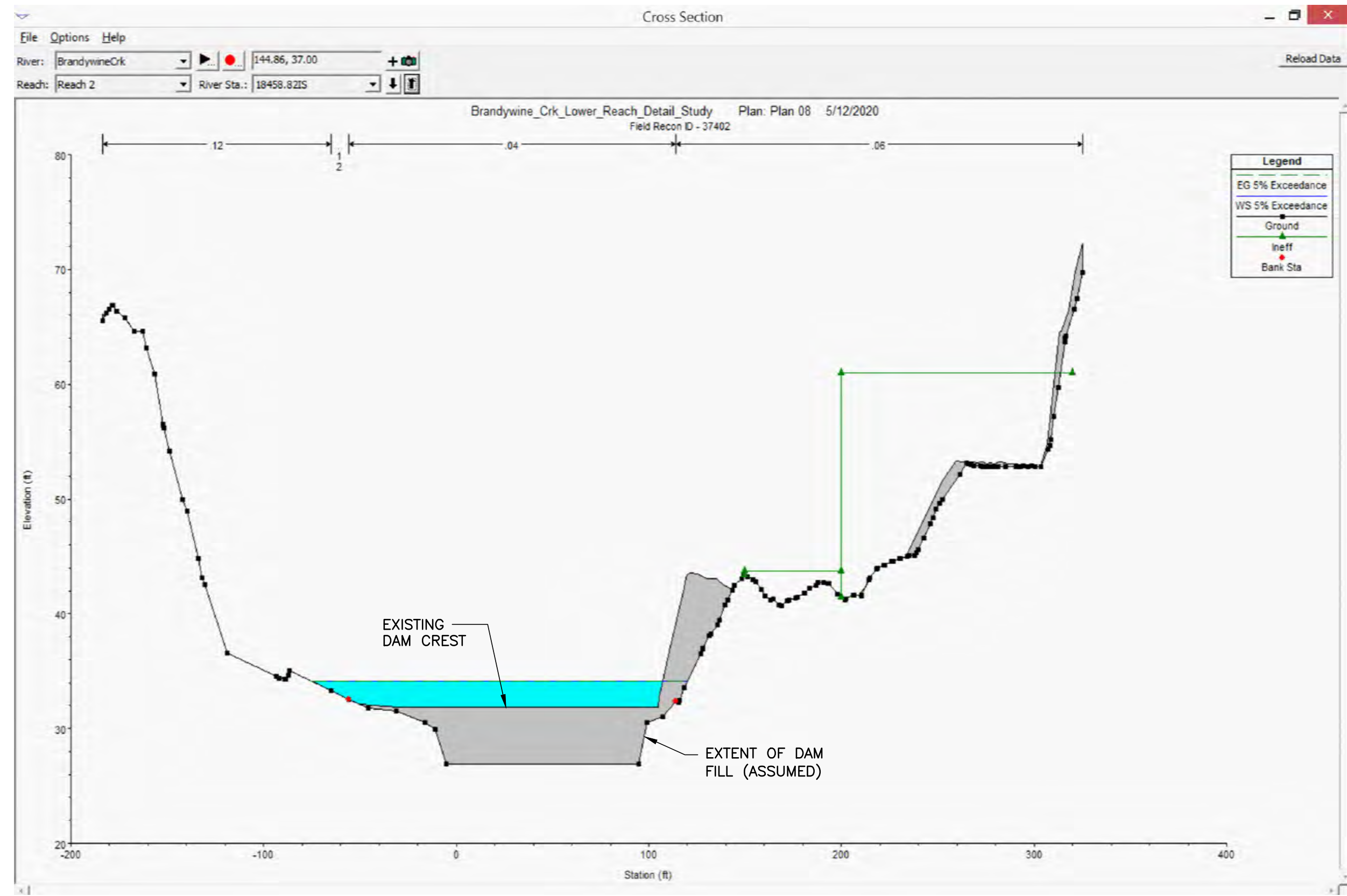
BRANDYWINE DAM #3 PLAN
OVERALL PROPOSED CONDITIONS

Kleinschmidt

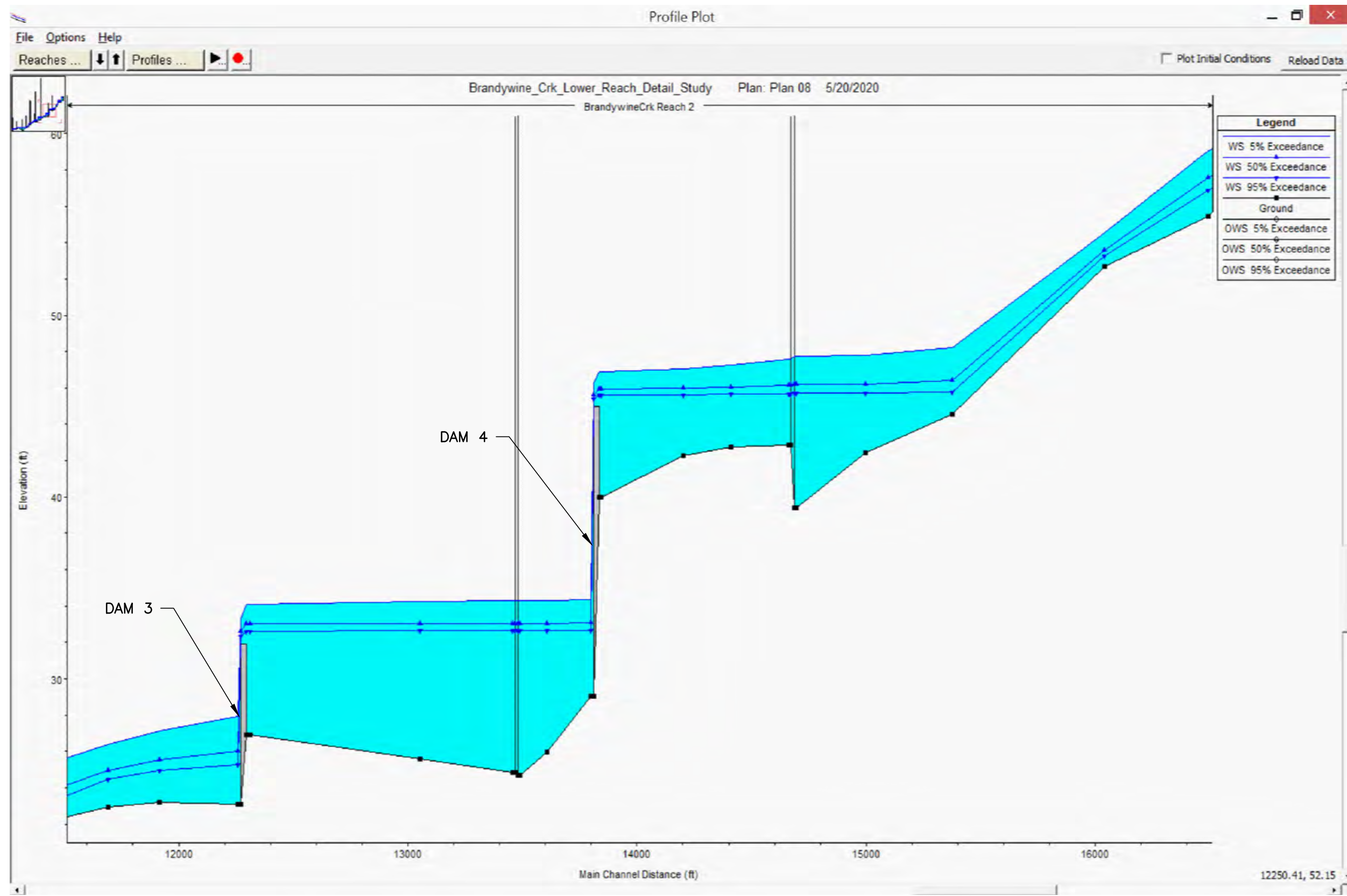
888-224-5942
KleinschmidtGroup.com

No.	Revision	Date	Drawn	Checked
-	-	-	-	-
Designed	Drawn	Checked	Project No.	Date Revised
TAK	CRS	TAK	3452001	05-26-20
Drawing No.			D3-02	

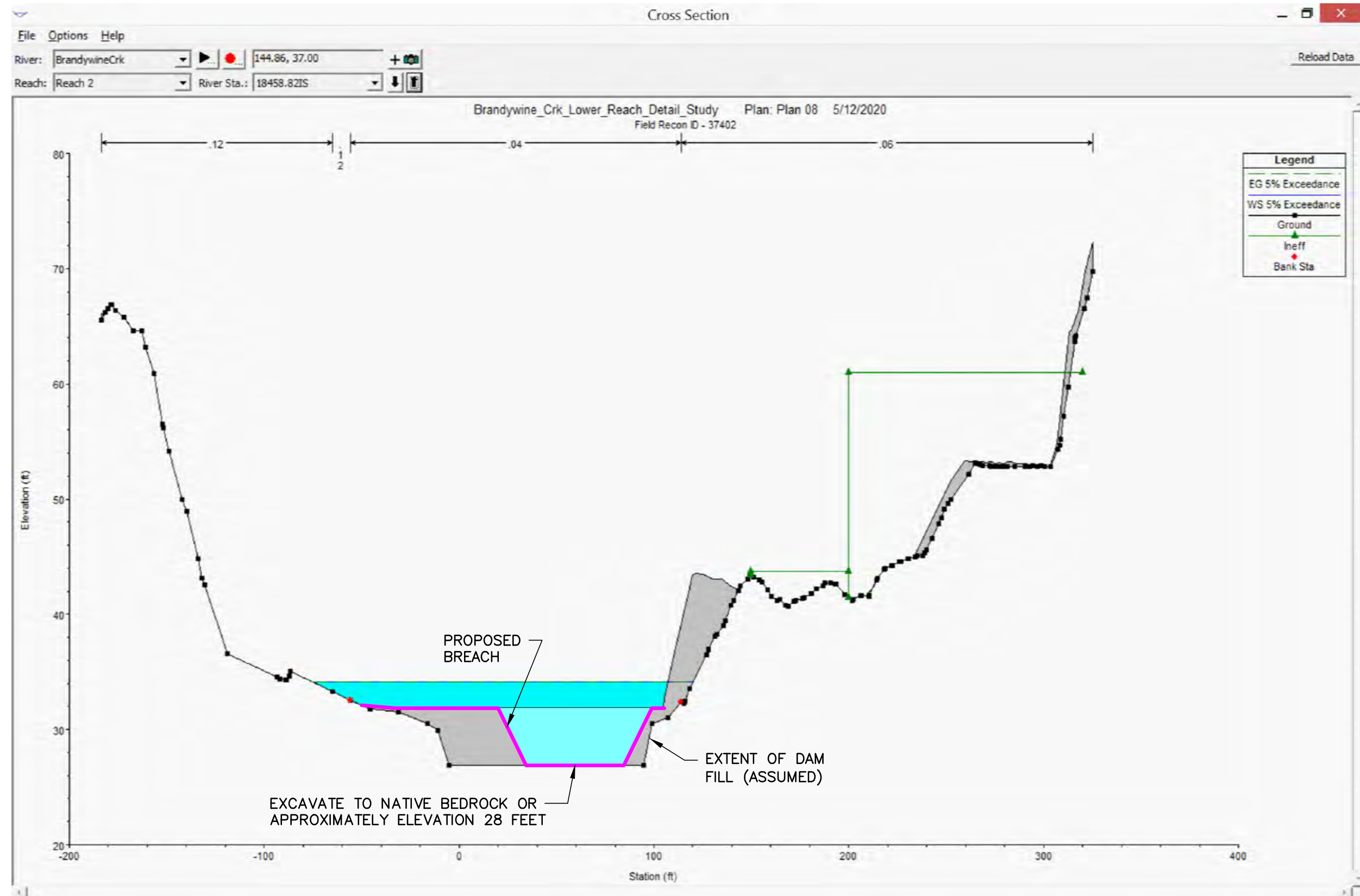
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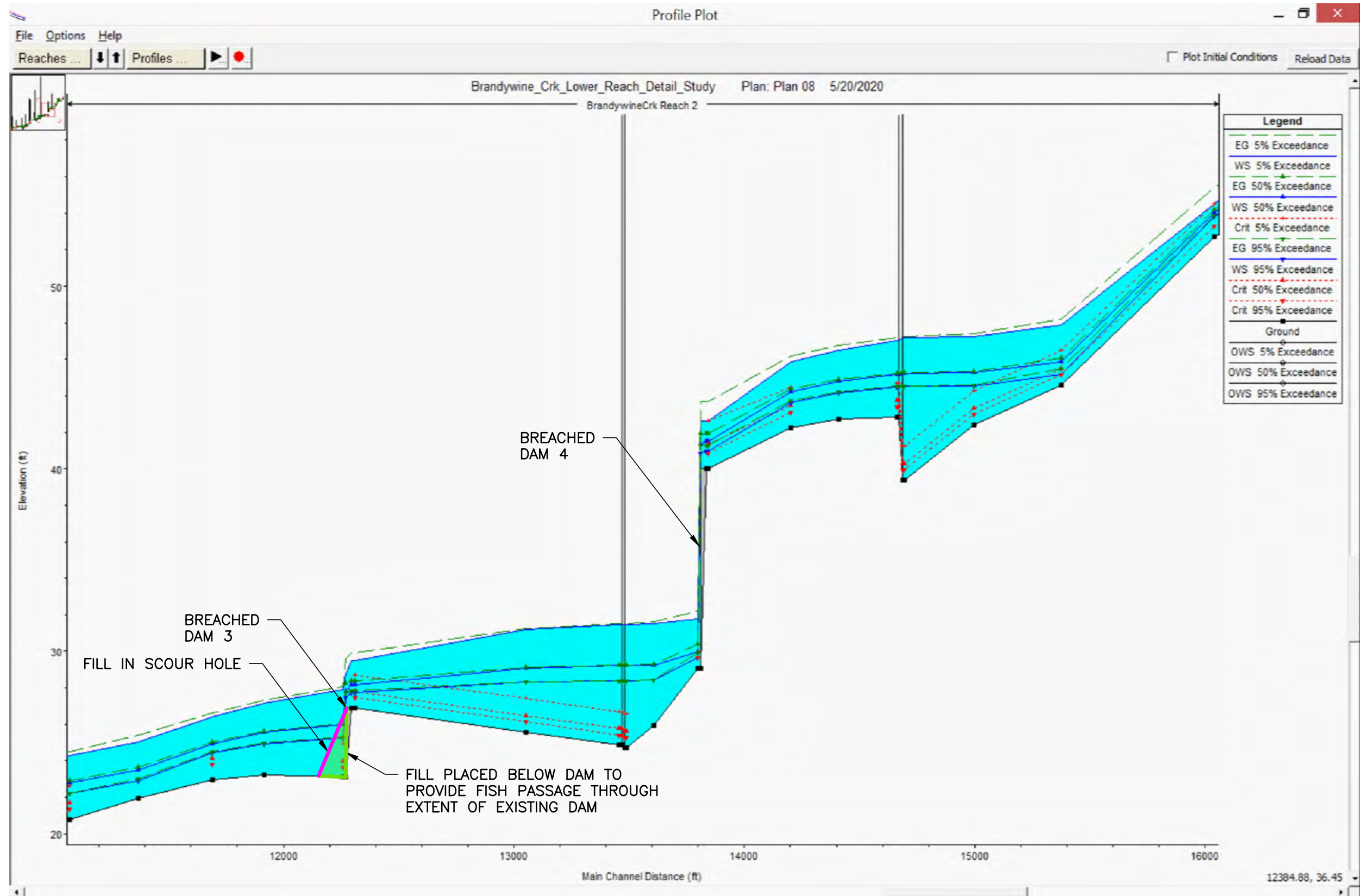
EXISTING DAM 3 CROSS SECTION



EXISTING DAM 3 & 4 PROFILE



PROPOSED DAM 3 CROSS SECTION



PROPOSED DAM 3 & 4 PROFILE

- NOTES:
1. BREACH SIDE SLOPES TO BE 3:1 OR PER ENGINEER FIELD DIRECTION.
 2. ESTIMATED MINIMUM BREACH WIDTH AT BREACH INVERT: 51 FEET

NOTES:

1. CROSS SECTION AND PROFILE IMAGES WERE PROVIDED BY THE UNIVERSITY OF DELAWARE.

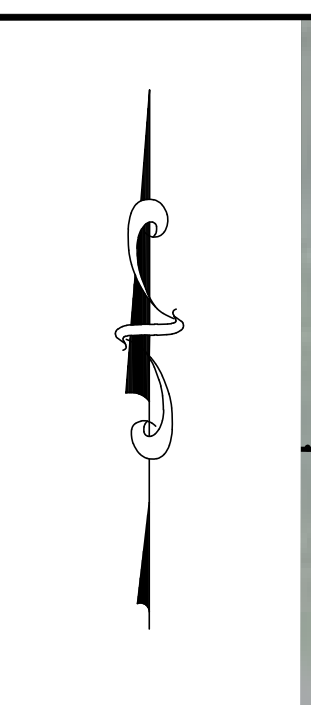


PRELIMINARY DESIGN
NOT FOR CONSTRUCTION

					BRANDYWINE SHAD 2020 WILMINGTON, DE		
					DAM 3, 4, AND 6 REMOVAL		
					BRANDYWINE DAM #3 PROFILES AND SECTIONS		
					Kleinschmidt 888-224-5942 KleinschmidtGroup.com		
No.	Revision	Date	Drawn	Checked	Project No.	Date Revised	Drawing No.
-	-	-	-	-	3452001	05-26-20	D3-03
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24x36 = FULL SCALE

3"
2"
1"
0



- NOTES:
1. TOPOGRAPHY FROM PUBLICLY SOURCED LIDAR FROM THE STATE OF DELAWARE DOWNLOADED ON MARCH 31, 2020, WITH 1 SQUARE METER RESOLUTION.
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PRELIMINARY DESIGN
NOT FOR CONSTRUCTION

BRANDYWINE SHAD 2020
WILMINGTON, DE

DAMS, 3, 4, AND 6 REMOVAL

BRANDYWINE DAM #4 PLAN
OVERALL EXISTING CONDITIONS

Kleinschmidt

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KleinschmidtGroup.com

D4-01

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LEGEND

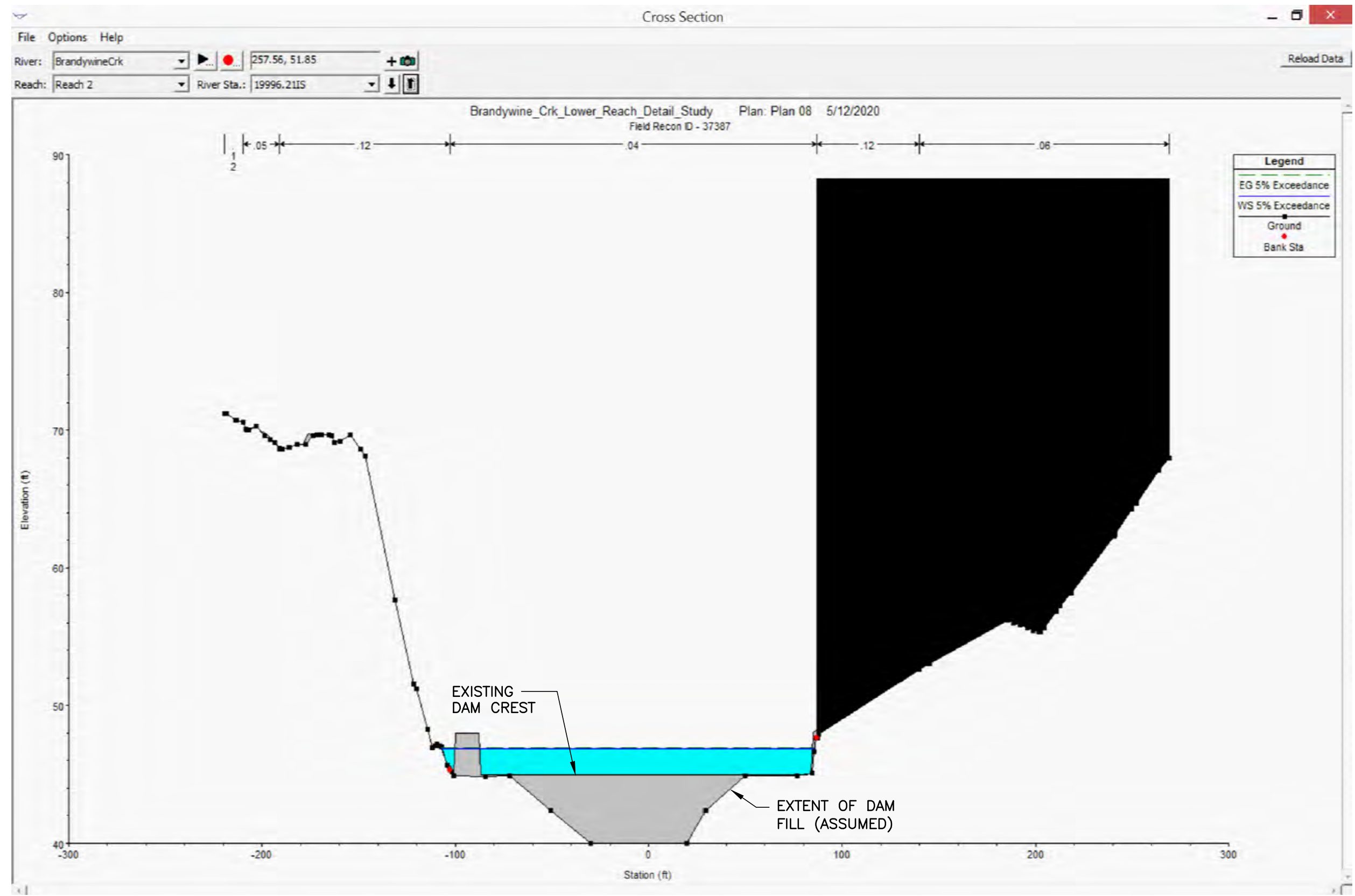
- ROAD
- APPRX. EDGE OF WATER
- PROPERTY LINE
- CONTOUR MJR.
- CONTOUR MNR.
- KNOWN UTILITIES
- WETLAND (FROM NWI DATABASE)

30 0 30 60
SCALE IN FEET

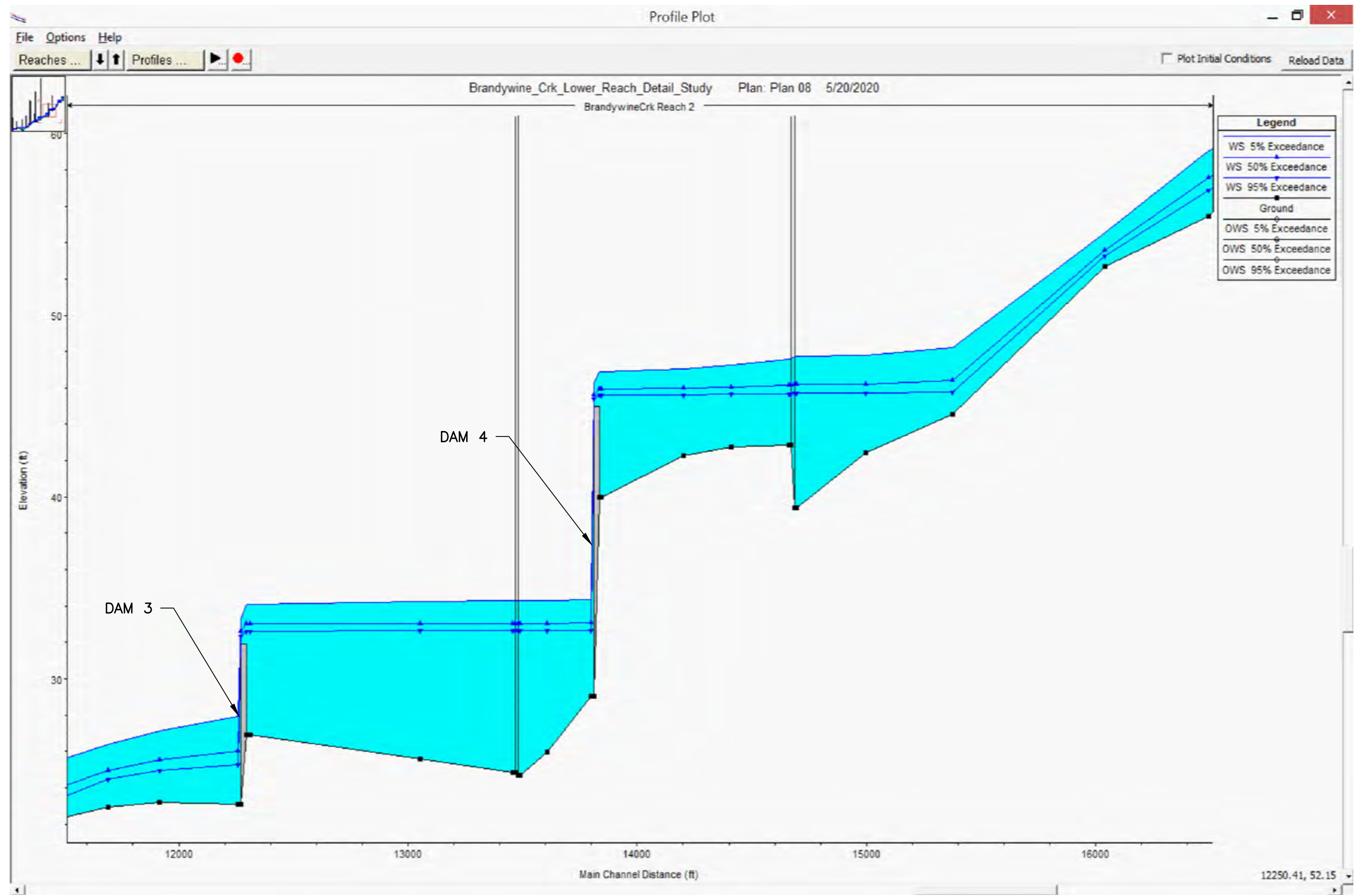
No.	Revision	Date	Drawn	Checked
-	-	-	-	-
Designed	Drawn	Checked	Project No.	Date Revised
TAK	CRS	TAK	3452001	05-26-20



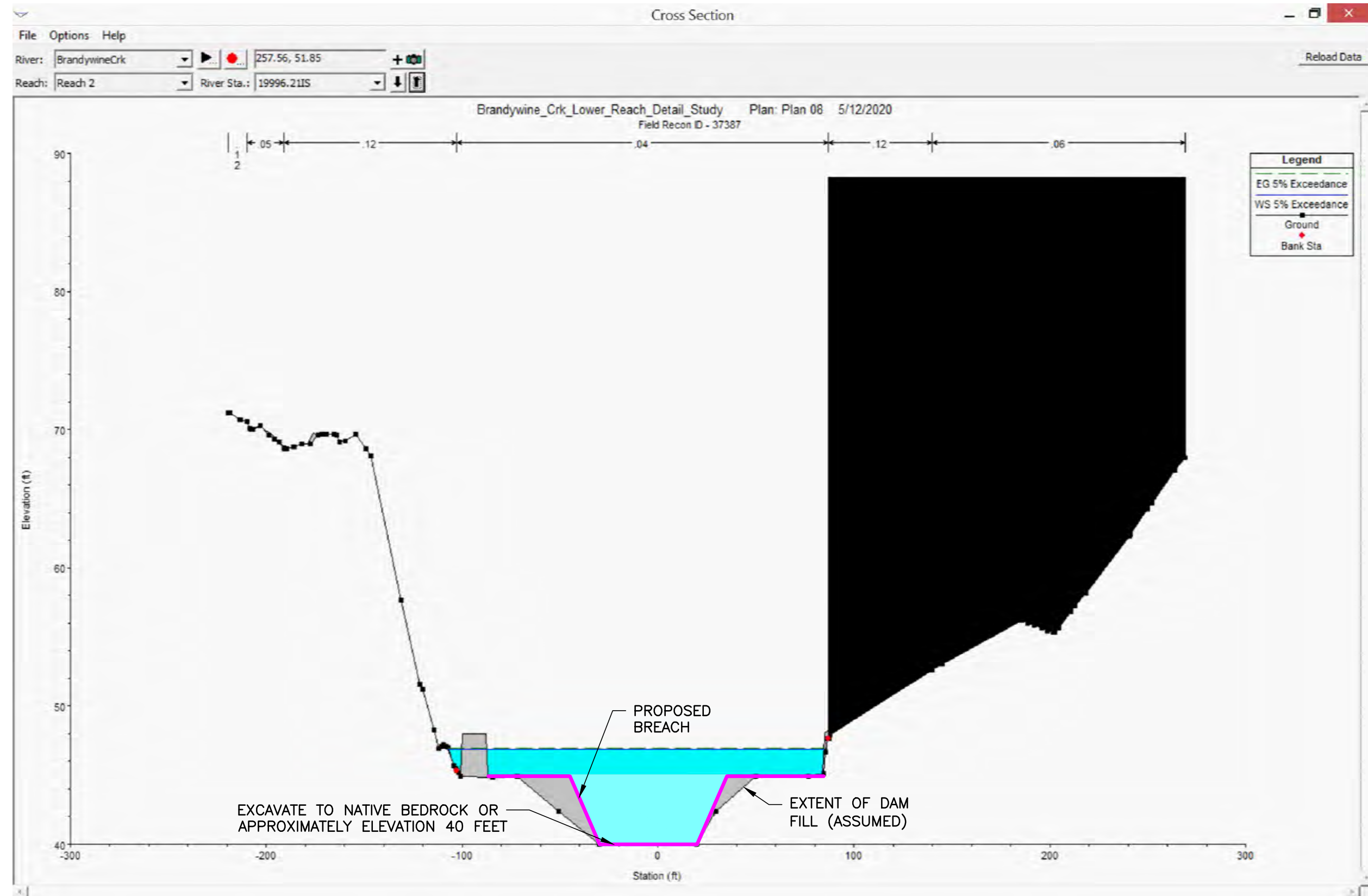
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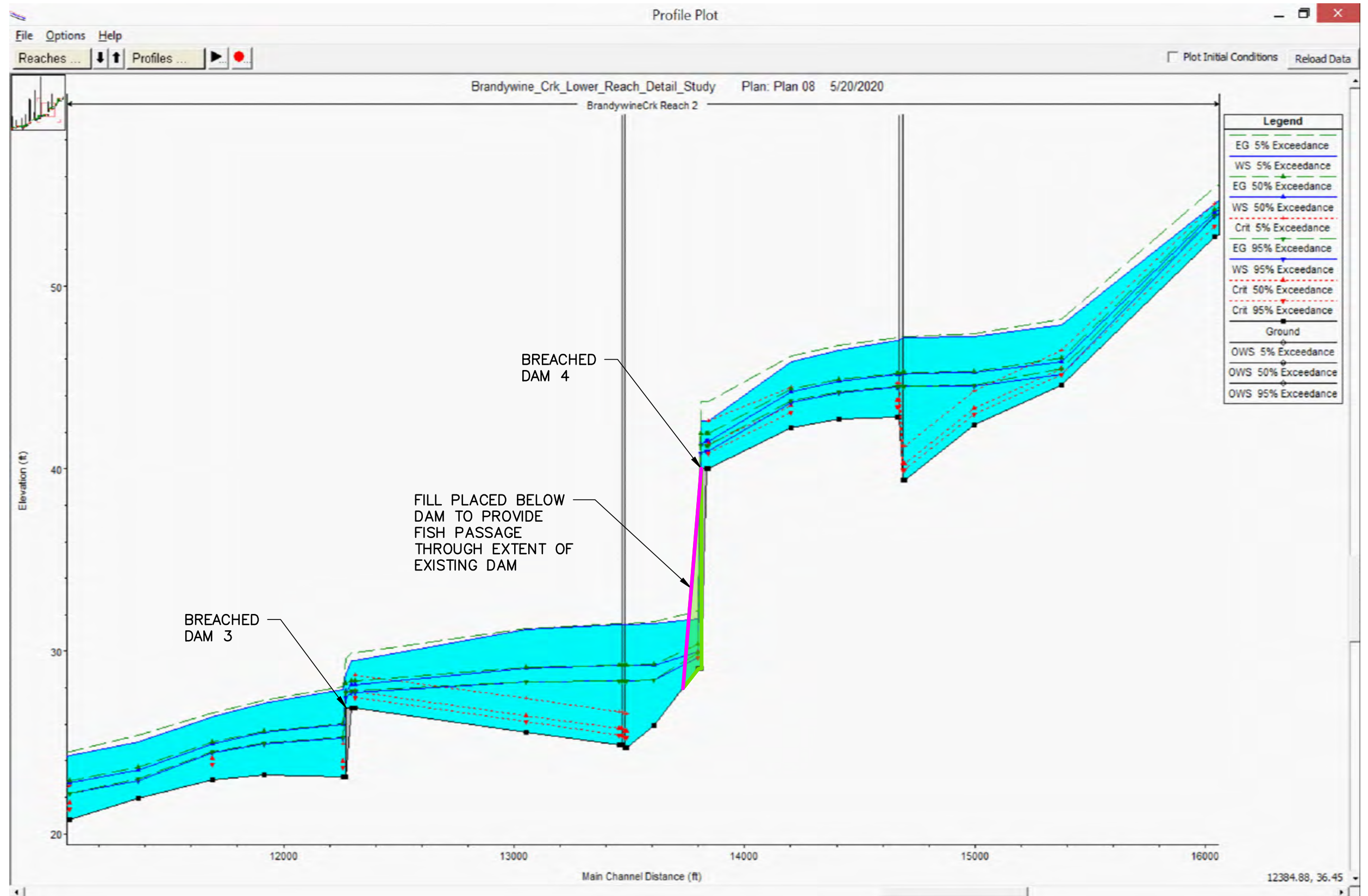
EXISTING DAM 4 CROSS SECTION



EXISTING DAM 3 & 4 PROFILE



PROPOSED DAM 4 CROSS SECTION

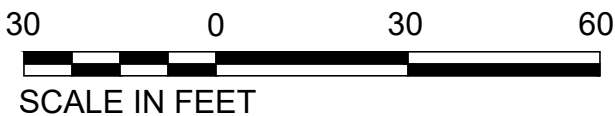


PROPOSED DAM 3 & 4 PROFILE

- NOTES:
1. BREACH SIDE SLOPES TO BE 3:1 OR PER ENGINEER FIELD DIRECTION.
 2. ESTIMATED MINIMUM BREACH WIDTH AT BREACH INVERT: 50 FEET

NOTES:

1. CROSS SECTION AND PROFILE IMAGES WERE PROVIDED BY THE UNIVERSITY OF DELAWARE.



PRELIMINARY DESIGN
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					BRANDYWINE SHAD 2020 WILMINGTON, DE		
					DAMS 3, 4, AND 6 REMOVAL		
					BRANDYWINE DAM #4 PROFILES AND SECTIONS		
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No.	Revision	Date	Drawn	Checked	Project No.	Date Revised	Drawing No.
-	-	-	-	-	3452001	05-26-20	D4-03
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24x36 = FULL SCALE
3"
2"
1"
0
J:\3452\001\Drawings\CAD\3452001 DAM #6 SHT 01.dwg
PRINTED: May 26, 2020 - 9:19 PM



LEGEND

ROAD

APPRX. EDGE OF WATER

PROPERTY LINE

CONTOUR M.J.R.

CONTOUR M.N.R.

KNOWN UTILITIES

WETLAND (FROM NWI DATABASE)

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PRELIMINARY DESIGN
NOT FOR CONSTRUCTION

BRANDYWINE SHAD 2020
WILMINGTON, DE

DAMS, 3, 4, AND 6 REMOVAL

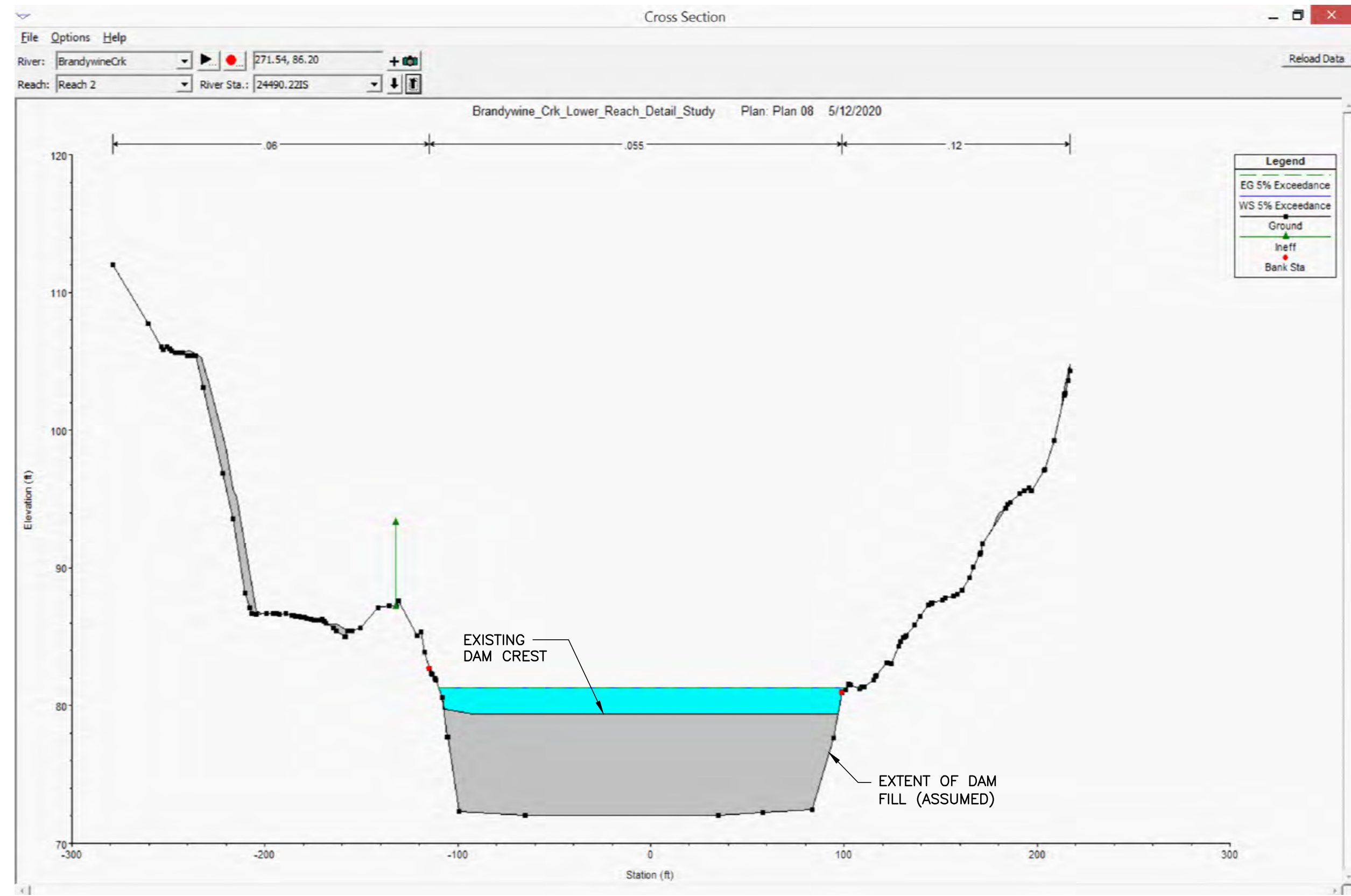
BRANDYWINE DAM #6 PLAN
OVERALL EXISTING CONDITIONS

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KleinschmidtGroup.com

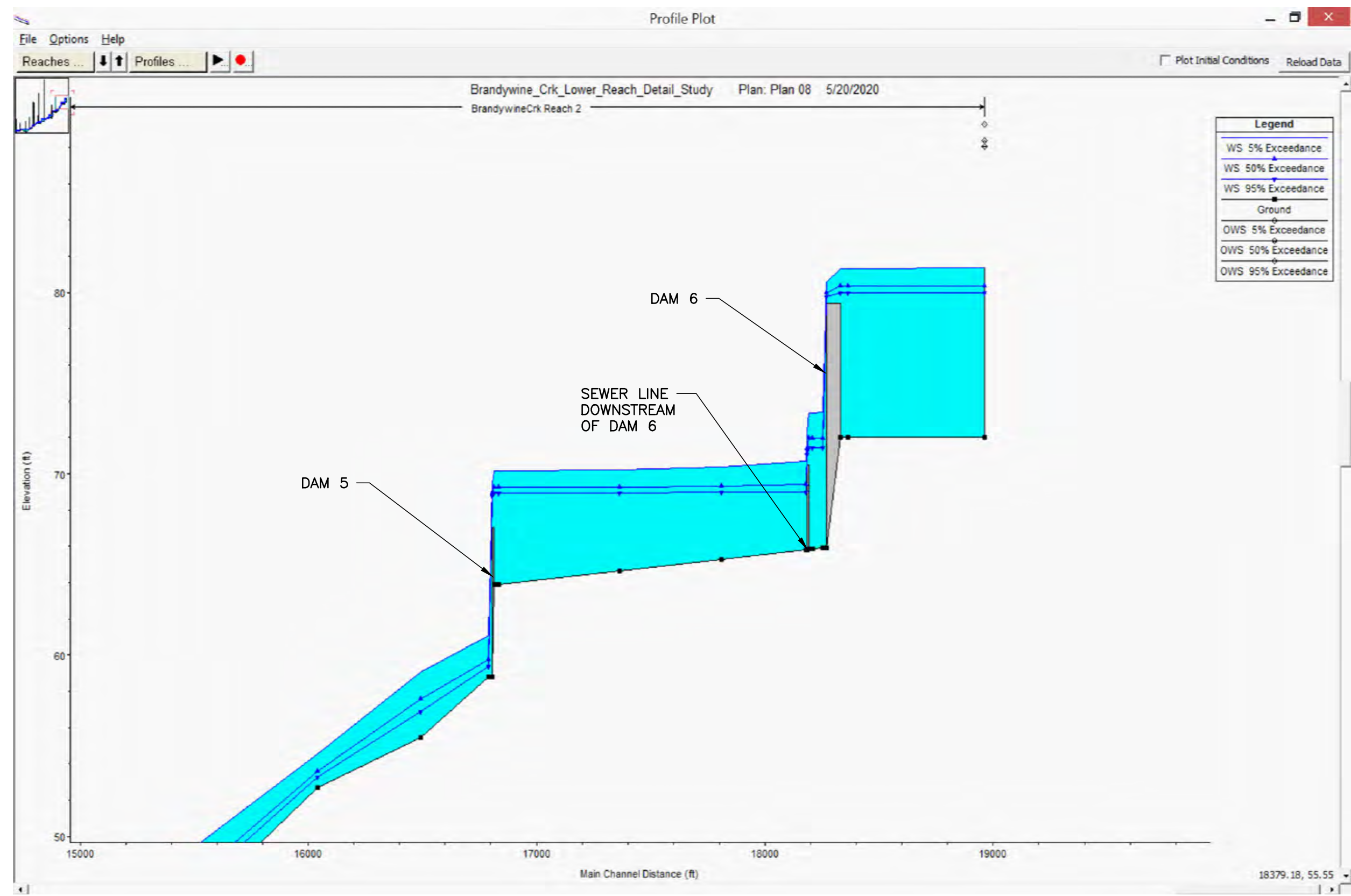
No.	Revision	Date	Drawn	Checked
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Designed TAK		Drawn CRS		Checked TAK

Project No.	Date Revised	Drawing No.
3452001	05-26-20	D6-01

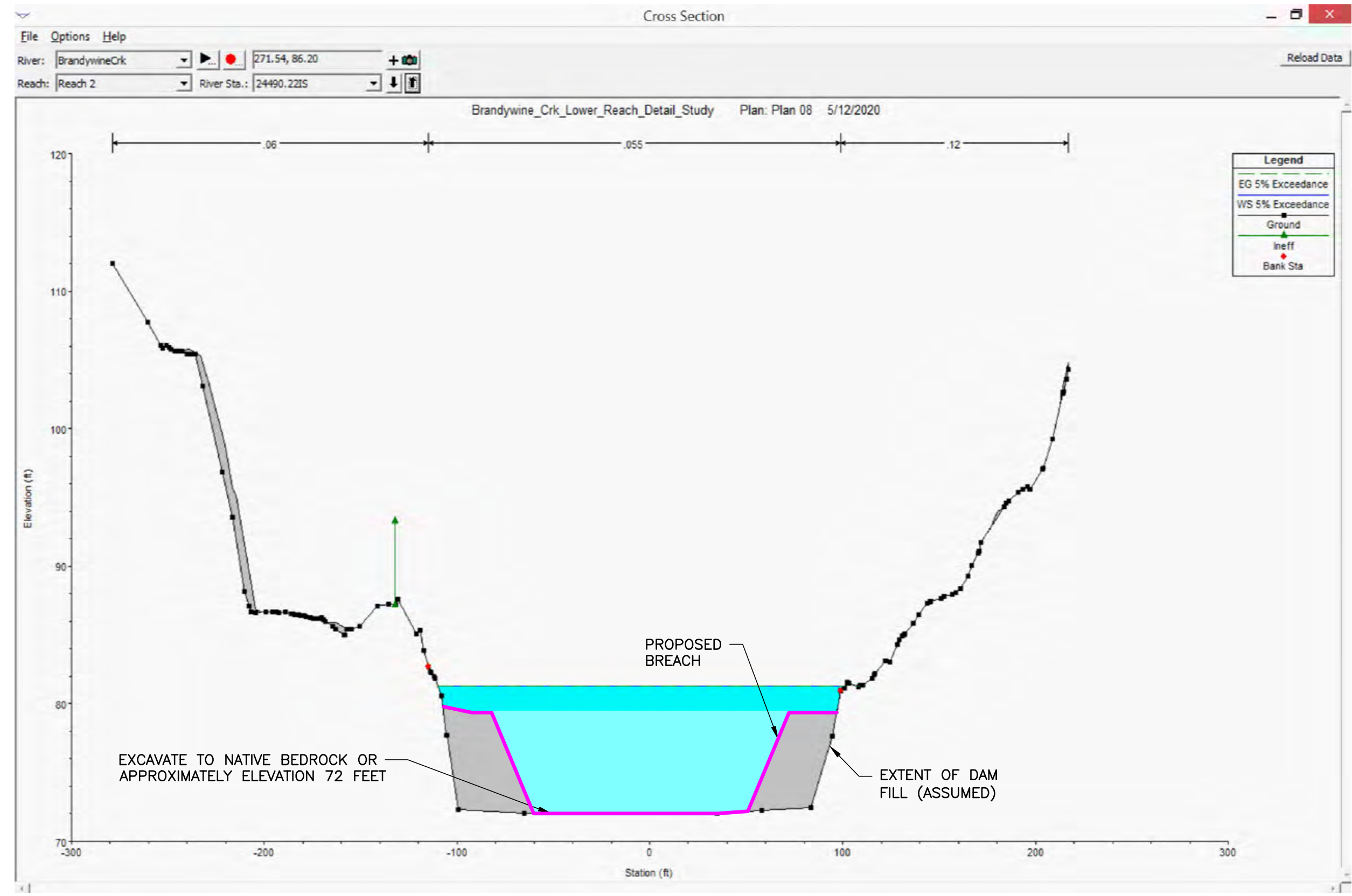
24x36 = FULL SCALE



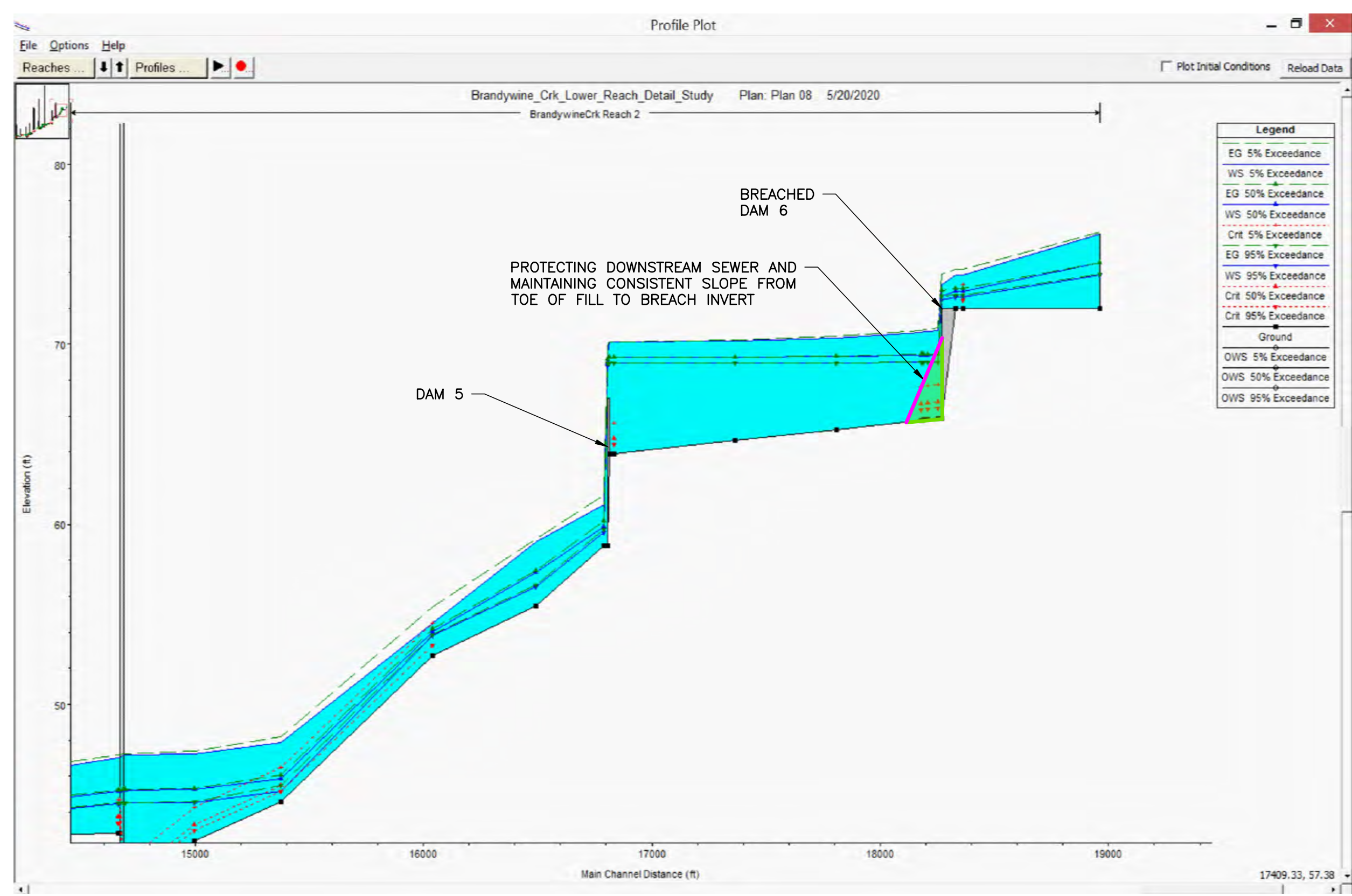
EXISTING DAM 6 CROSS SECTION



EXISTING DAM 6 PROFILE



PROPOSED DAM 6 CROSS SECTION



PROPOSED DAM 6 PROFILE

- NOTES:
1. BREACH SIDE SLOPES TO BE 3:1 OR PER ENGINEER FIELD DIRECTION.
 2. ESTIMATED MINIMUM BREACH WIDTH AT BREACH INVERT: 96 FEET

PRELIMINARY DESIGN
NOT FOR CONSTRUCTION

					BRANDYWINE SHAD 2020 WILMINGTON, DE		
					DAMS 3, 4, AND 6 REMOVAL		
					BRANDYWINE DAM #6 PROFILES AND SECTIONS		
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No.	Revision	Date	Drawn	Checked	Project No.	Date Revised	Drawing No.
-	-	-	-	-	3452001	05-26-20	D6-03
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