NOTES:
1. MINIMUM OVERLAND SLOPE FOR CAP SUBGRADE IS 2.5%.
2. MINIMUM CHANNEL SLOPE FOR CAP SUBGRADE IS 1.5%, UNLESS OTHERWISE NOTED.
3. CCR LOCATED OUTSIDE OF LIMITS OF GEOSYNTHETIC CAP SYSTEM TO BE EXCAVATED, HAULED AND PLACED WITHIN LIMITS OF GEOSYNTHETIC CAP SYSTEM.
4. PHASE 1 GRADES SHOWN REPRESENT THE PREPARED SUBGRADE.
5. EXCAVATION AND SUBGRADE PREPARATION SHALL BE COMPLETED IN A MANNER SUCH THAT POSITIVE DRAINAGE IS MAINTAINED TOWARDS THE SOUTHWEST CORNER OF POND D. EXCAVATION OF THE POND D EMBANKMENT SHALL BE COMPLETED IN A MANNER THAT MAINTAINS POSITIVE DRAINAGE TOWARDS THE INSIDE OF POND D.

SEE PHASE 1 GRADING PLAN ENLARGEMENT – POND D (SHEET 7 of 7)

SEE PHASE 1 GRADING PLAN ENLARGEMENT – POND D (SHEET 5 of 7)

SEE PHASE 1 GRADING PLAN ENLARGEMENT – POND D (SHEET 6 of 7)

SEE PHASE 1 GRADING PLAN ENLARGEMENT – POND D (SHEET/3 of 7)

SEE PHASE 1 GRADING PLAN ENLARGEMENT – POND D (SHEET 4 of 7)

SEE PHASE 1 GRADING PLAN ENLARGEMENT – POND D (SHEET 1 of 7)

SEE PHASE 1 GRADING PLAN ENLARGEMENT – POND D (SHEET 2 of 7)

PROP. POND D SECTION C–C (SEE SHEET 48)

PROP. POND D SECTION B–B (SEE SHEET 48)

PROP. POND D SECTION A–A (SEE SHEET 47)

PROP. LIMITS OF GEOSYNTHETIC CAP AREA = 70.39 AC

PROP. LIMITS OF POND D EMBANKMENT CUT

EX. EMERGENCY SPILLWAY

EX. EAGLE NEST

EX. EAGLE NEST BUFFER ZONE

EX. CONCRETE LINED CHANNEL

EX. POND D OUTFALL

POSSUM POINT ROAD

QUANTICO CREEK

SCALE: 1" = 200'
200 0 200 400

MAPPING REFERENCE:

EXISTING TOPOGRAPHY PREPARED BY KEDDAL AERIAL MAPPING. PHOTOGRAPHY DATED 02–13–2015. VA–N NAD83 (2011) NAVD88 (GEOID 12A) 1 FT. CONTOUR INTERVALS

SUPPLEMENTED BY GROUND SURVEY PERFORMED BY GAI CONSULTANTS, INC. AND FROM INFORMATION PROVIDED BY DOMINION.

ROW AND BOUNDARY SURVEY INFORMATION SHOWN BY GAI CONSULTANTS DATED, 7–27–2015

NO.:	DATE:	DWN:	CHK:	APV:	DESCRIPTION:

REVISION RECORD

This drawing was produced with computer aided drafting technology and is supported by electronic drawing files. Do not revise this drawing via manual drafting methods.

DRAWING TITLE
OVERALL PHASE 1 GRADING PLAN - POND D CLOSURE

CLIENT
VIRGINIA ELECTRIC AND POWER COMPANY
GLEN ALLEN, VA

PROJECT
POSSUM POINT POWER STATION
COAL COMBUSTION RESIDUAL SURFACE IMPOUNDMENT CLOSURES
DUMFRIES, VA

gai consultants

ISSUING OFFICE: Richmond | 4198 Cox Road, Suite 114, Glen Allen, VA 23060

CAI CAD FILE PATH: Z:\Closeup\2015\C150132-00--PDM -- Possum Point PS (CCR)\CAD\Production Drawings\C150132-00--000--C-D1-013.dwg PLOTTED ON: 11/17/2015, 3:51:47 PM PLOTTED BY: Michael Doyle PLOT FILE: ctb.ctb

COMMONWEALTH OF VIRGINIA
JOHN R. KLAMUT
Lic. No. 048859
12/7/2015
PROFESSIONAL ENGINEER

DRAWN BY:	CHECKED BY:	APPROVED BY:
CUMMIRM	KUZMKMW	KLAMUJR
DWG TYPE:	SCALE:	ISSUE DATE:
	AS SHOWN	12/7/2015

SHEET NO.: 13 OF 65

REVISION

GAI FILE NUMBER: C150132-00-000-C-D1-013

ALT./CLIENT DRAWING NUMBER:

GAI DRAWING NUMBER: 013

PERMIT

SEE POND E GRADING PLAN (SHEET 37) FOR PROPOSED GRADING IN POND E

PROP. SPOT ELEVATION (TYP.)

EL:119.45

EL:118.90

EL:118.81

EL:118.85

EL:118.91

EL:118.79

EL:118.57

EL:118.62

EL:118.77

EL:118.99

PROPOSED PHASE 1 LIMITS OF EMBANKMENT CUT (MIN. ELEV.=119)

4/50 PROP. LIMITS OF GEOSYNTHETIC CAP AREA = 70.39 AC

PROP. PREPARED SUBGRADE ELEVATION (TYP.)

PROPOSED PHASE 1 LIMITS OF EMBANKMENT CUT (ELEV.=117)

7/56 EXISTING OBSERVATION WELLS ARE TO BE LOWERED AND PROTECTED

EX. OUTFALL RISER

EX. WALKWAY

EX. OUTLET PIPE

MATCHLINE – SEE SHEET 16

MATCHLINE – SEE SHEET 17

MATCHLINE – SEE SHEET 15

EX. GRAVEL ACCESS ROAD

EX. CONCRETE LINED CHANNEL

POND E LAYDOWN AREA

EX. POND D OUTFALL RISER, OUTLET PIPE, AND WALKWAY. CONTRACTOR SHALL REMOVE WALKWAY AND REMOVE TOP OF RISER STRUCTURE. CONTRACTOR TO PLUG OUTLET PIPE WITH A WATERTIGHT SEAL BY FILLING WITH GROUT ALONG THE ENTIRE LENGTH IN ACCORDANCE WITH THE SPECIFICATIONS. TOP OF RISER STRUCTURE TO BE REMOVED TO AN ELEVATION 5 FEET BELOW PROPOSED PHASE 3 SUBGRADE AND REMAINING RISER STRUCTURE TO BE FILLED WITH GROUT.

POND ABC ACCESS ROAD. SEE PLAN SPR2015-20301 FOR E&S CONTROLS ASSOCIATED WITH POND ABC ACCESS ROAD

POSSUM POINT ROAD

W-1 W-4 ED1 SSF

SCALE: 1" = 50'

50 0 50 100

MAPPING REFERENCE:

EXISTING TOPOGRAPHY PREPARED BY KEDDAL AERIAL MAPPING. PHOTOGRAPHY DATED 02-13-2015. VA-N NAD83 (2011) NAVD88 (GEOID 12A) 1 FT. CONTOUR INTERVALS

SUPPLEMENTED BY GROUND SURVEY PERFORMED BY GAI CONSULTANTS, INC. AND FROM INFORMATION PROVIDED BY DOMINION.

ROW AND BOUNDARY SURVEY INFORMATION SHOWN BY GAI CONSULTANTS DATED, 7-27-2015

NO.:	DATE:	DWN:	CHK:	APV:	DESCRIPTION:

REVISION RECORD

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DRAWING TITLE

PHASE 1 GRADING PLAN ENLARGEMENT - POND D CLOSURE (SHEET 1 OF 7)

CLIENT

VIRGINIA ELECTRIC AND POWER COMPANY
GLEN ALLEN, VA

PROJECT

POSSUM POINT POWER STATION
COAL COMBUSTION RESIDUAL SURFACE IMPOUNDMENT CLOSURES
DUMFRIES, VA

gai consultants

ISSUING OFFICE: Richmond | 4198 Cox Road, Suite 114, Glen Allen, VA 23060

GAI CAD FILE PATH: Z:\Esrarg\Arch\150132-00--000--C-D1-014.dwg PLOTTED ON: 11/18/2015 12:52:05 PM PLOTTED BY: Michael Doyle PLOT FILE: GAI.stb

COMMONWEALTH OF VIRGINIA
JOHN R. KLAMUT
Lic. No. 048859
12/7/2015
PROFESSIONAL ENGINEER

DRAWN BY:	CHECKED BY:	APPROVED BY:
CUMMIRM	KUZMKMW	KLAMUJR
DWG TYPE:	SCALE:	ISSUE DATE:
	AS SHOWN	12/7/2015

SHEET NO.: **14** OF **65**

REVISION

GAI FILE NUMBER: **C150132-00-000-C-D1-014**

ALT./CLIENT DRAWING NUMBER:

GAI DRAWING NUMBER: **014**

PERMIT

CONTRACTOR SHALL PUMP DRAINAGE THAT COLLECTS AT LOW POINT TO VPDES TREATMENT FACILITY (PERMIT VA0002071) AND OR SANITARY SEWER AS DIRECTED BY OWNER'S REPRESENTATIVE

2/51 PROP. CHANNEL AR-1

2/51 PROP. CHANNEL D-1

CUT SLOPES 5H:1V

PROPOSED 6" VALVE (OPEN).

6/56 PERFORATED TO SOLID PIPE TRANSITION AT CCR LIMITS.

PROPOSED TEMPORARY CAP OR PLUG

PROPOSED 6" VALVE (CLOSED)

MATCHLINE - SEE SHEET 16

MATCHLINE - SEE SHEET 17

2/51 PROP. CHANNEL D-2

1/56 PROP. CLEANOUT (TYP.)

PROP. PREPARED SUBGRADE ELEVATION (TYP.)

EX. EAGLE NEST BUFFER ZONE 660'R

1/56 PROP. CLEANOUT (TYP.)

3/50 PROP. UNDERDRAIN

2/51 PROP. CHANNEL D-3

PROP. CHANNEL AR-17 2/51

PROP. CHANNEL AR-18 2/51

MATCHLINE - SEE SHEET 16

MATCHLINE - SEE SHEET 17

PROP. SPOT ELEVATION (TYP.)

W-1

2/51 PROP. CHANNEL D-4B

EXISTING OBSERVATION WELLS ARE TO BE LOWERED AND PROTECTED 7/56

W-2

EL:118.99

PROPOSED PHASE 1 LIMITS OF EMBANKMENT CUT (ELEV.=117)

PROP. LIMITS OF GEOSYNTHETIC CAP AREA = 70.39 AC 4/50

W-3

MATCHLINE - SEE SHEET 14

SSF

3/56 EXISTING APPROX. PIEZOMETERS ARE TO BE LOWERED AND PROTECTED

PROPOSED LIMITS OF EMBANKMENT CUT (MIN. ELEV.=119)

REMOVE AND SALVAGE GUARDRAIL, UNUSED GUARDRAIL SHALL BE STOCKPILED AT A LOCATION SPECIFIED BY THE OWNER'S REPRESENTATIVE

W-4

EX. GRAVEL ACCESS ROAD

CUT SLOPE 3H:1V

EX. EAGLE NEST LOCATION

EX. EAGLE NEST BUFFER ZONE 330'R

SCALE: 1" = 50'

50 0 50 100

MAPPING REFERENCE:

EXISTING TOPOGRAPHY PREPARED BY KEDDAL AERIAL MAPPING. PHOTOGRAPHY DATED 02-13-2015. VA-N NAD83 (2011) NAVD88 (GEOID 12A) 1 FT. CONTOUR INTERVALS

SUPPLEMENTED BY GROUND SURVEY PERFORMED BY GAI CONSULTANTS, INC. AND FROM INFORMATION PROVIDED BY DOMINION.

ROW AND BOUNDARY SURVEY INFORMATION SHOWN BY GAI CONSULTANTS DATED, 7-27-2015

NO.:	DATE:	DWN:	CHK:	APV:	REVISION RECORD DESCRIPTION:

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DRAWING TITLE
PHASE 1 GRADING PLAN ENLARGEMENT - POND D CLOSURE (SHEET 2 OF 7)

CLIENT
VIRGINIA ELECTRIC AND POWER COMPANY
GLEN ALLEN, VA

PROJECT
POSSUM POINT POWER STATION
COAL COMBUSTION RESIDUAL SURFACE IMPOUNDMENT CLOSURES
DUMFRIES, VA

gai consultants

ISSUING OFFICE: Richmond | 4198 Cox Road, Suite 114, Glen Allen, VA 23060

Gai CAD FILE PATH: Z:\Energy\C\C150132-00\C150132-00 — POM — Possum Point PS_CCR\CAD\Production Drawings\C150132-00-000-C-D1-014.dwg PLOTTED: 11/17/2015 3:55:50 PM PLOTTED BY: Michael Doyle Plot Style: gai.stb

COMMONWEALTH OF VIRGINIA
JOHN R. KLAMUT
Lic. No. 048859
12/7/2015
PROFESSIONAL ENGINEER

DRAWN BY:	CHECKED BY:	APPROVED BY:
CUMMIRM	KUZMKMW	KLAMUJR
DWG TYPE:	SCALE:	ISSUE DATE:
	AS SHOWN	12/7/2015
SHEET NO.: 15 OF 65		REVISION
GAI FILE NUMBER: C150132-00-000-C-D1-014		
ALT./CLIENT DRAWING NUMBER:		
GAI DRAWING NUMBER: 015		

PERMIT

CONTRACTOR TO MAINTAIN EXISTING ACCESS ROAD AS NECESSARY TO PREVENT RUTTING

6/51 PROP. ACCESS ROAD 25 FEET WIDTH

CUT SLOPE 10H:1V

CUT SLOPE 3H:1V

MATCHLINE – SEE SHEET 18

2/51 PROP. CHANNEL AR-3

PROPOSED LIMIT OF CUT

PROP. PREPARED SUBGRADE ELEVATION (TYP.)

MATCHLINE – SEE SHEET 17

4/50 PROP. LIMIT OF GEOSYNTHETIC CAP AREA = 70.39 AC

2/51 PROP. CHANNEL AR-2

SSF

EL:119.45

PROP. SPOT ELEVATION (TYP.)

EL:118.90

2/51 PROP. CHANNEL D-1

PROP. CLEANOUT (TYP.) 1/56

2/51 PROP. CHANNEL AR-1

3/50 PROP. UNDERDRAIN

PROP. POND D UNDERDRAIN DISCHARGE SHALL BE PUMPED TO VPDES TREATMENT FACILITY (PERMIT VA0002071) AND OR SANITARY SEWER AS DIRECTED BY OWNER'S REPRESENTATIVE

PROPOSED PHASE 1 LIMITS OF EMBANKMENT CUT (ELEV.=117)

EL:118.81

PROPOSED PHASE 1 LIMITS OF CUT (MIN. ELEV.=119)

EL:118.85

CUT SLOPES 5H:1V

EL:118.91

EX. GRAVEL ACCESS ROAD

PERFORATED TO SOLID PIPE TRANSITION AT CCR LIMITS. 6/56

PROPOSED 6" VALVE (OPEN).

PROPOSED TEMPORARY CAP OR PLUG

PROPOSED 6" VALVE (CLOSED).

EL:118.79

2/51 PROP. CHANNEL D-2

REMOVE AND SALVAGE GUARDRAIL, UNUSED GUARDRAIL SHALL BE STOCKPILED AT A LOCATION SPECIFIED BY THE OWNER'S REPRESENTATIVE

EL:118.57

2/51 PROP. CHANNEL D-4B

MATCHLINE – SEE SHEET 14

EL:118.62

SCALE: 1" = 50'

50 0 50 100

MAPPING REFERENCE:

EXISTING TOPOGRAPHY PREPARED BY KEDDAL AERIAL MAPPING. PHOTOGRAPHY DATED 02-13-2015. VA-N NAD83 (2011) NAVD88 (GEOID 12A) 1 FT. CONTOUR INTERVALS

SUPPLEMENTED BY GROUND SURVEY PERFORMED BY GAI CONSULTANTS, INC. AND FROM INFORMATION PROVIDED BY DOMINION.

ROW AND BOUNDARY SURVEY INFORMATION SHOWN BY GAI CONSULTANTS DATED, 7-27-2015

NO.:	DATE:	DWN:	CHK:	APV:	REVISION RECORD DESCRIPTION:

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DRAWING TITLE

PHASE 1 GRADING PLAN ENLARGEMENT - POND D CLOSURE (SHEET 3 OF 7)

CLIENT

VIRGINIA ELECTRIC AND POWER COMPANY GLEN ALLEN, VA

gai consultants

PROJECT

POSSUM POINT POWER STATION COAL COMBUSTION RESIDUAL SURFACE IMPOUNDMENT CLOSURES DUMFRIES, VA

ISSUING OFFICE: Richmond | 4198 Cox Road, Suite 114, Glen Allen, VA 23060

COMMONWEALTH OF VIRGINIA
JOHN R. KLAMUT
Lic. No. 048859
12/7/2015
PROFESSIONAL ENGINEER

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CUMMIRM	KUZMKMW	KLAMUJR
DWG TYPE:	SCALE:	ISSUE DATE:
	AS SHOWN	12/7/2015
SHEET NO.:		REVISION
16 OF 65		△

GAI FILE NUMBER:

C150132-00-000-C-D1-014

ALT./CLIENT DRAWING NUMBER:

GAI DRAWING NUMBER:

016

PERMIT

MATCHLINE – SEE SHEET 16

MATCHLINE – SEE SHEET 18

MATCHLINE – SEE SHEET 19

MATCHLINE – SEE SHEET 15

PROP. CHANNEL AR-3 (2/51)

PROP. CHANNEL AR-2 (2/51)

PROP. CHANNEL D-1 (2/51)

PROP. CHANNEL D-2 (2/51)

PROP. CHANNEL D-3 (2/51)

PROP. CHANNEL D-4B (2/51)

PROP. CHANNEL AR-15 (2/51)

PROP. CHANNEL AR-16 (2/51)

PROP. CHANNEL AR-17 (2/51)

PROP. CHANNEL AR-18 (2/51)

PROP. CLEANOUT (1/54)

PROP. CLEANOUT (TYP.) (1/56)

PROP. CLEANOUT (TYP.) (1/56)

PROP. PREPARED SUBGRADE ELEVATION (TYP.)

PROP. LIMIT OF GEOSYNTHETIC CAP AREA = 70.39 AC (4/50)

PROP. UNDERDRAIN (3/50)

EX. EAGLE NEST BUFFER ZONE 660'R

EX. EAGLE NEST BUFFER ZONE 330'R

EX. EAGLE NEST LOCATION

MAPPING REFERENCE:

EXISTING TOPOGRAPHY PREPARED BY KEDDAL AERIAL MAPPING. PHOTOGRAPHY DATED 02-13-2015. VA-N NAD83 (2011) NAVD88 (GEOID 12A) 1 FT. CONTOUR INTERVALS

SUPPLEMENTED BY GROUND SURVEY PERFORMED BY GAI CONSULTANTS, INC. AND FROM INFORMATION PROVIDED BY DOMINION.

ROW AND BOUNDARY SURVEY INFORMATION SHOWN BY GAI CONSULTANTS DATED, 7-27-2015

SCALE: 1" = 50'

50 0 50 100

NO.:	DATE:	DWN:	CHK:	APV:	DESCRIPTION:

REVISION RECORD

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GAI CAD FILE PATH: Z:\Energy\2013\C150132-00-000 — Possum Point EC Cells\CAD\Production Drawings\C150132-00-000-C-D1-014.dwg PLOTTED ON: 11/17/2015 3:58:44 PM PLOTTED BY: Michael Doyle PLOT FILE: gai.stb

ISSUING OFFICE: Richmond | 4198 Cox Road, Suite 114, Glen Allen, VA 23060

gai consultants

CLIENT

VIRGINIA ELECTRIC AND POWER COMPANY
GLEN ALLEN, VA

PROJECT

POSSUM POINT POWER STATION
COAL COMBUSTION RESIDUAL SURFACE IMPOUNDMENT CLOSURES
DUMFRIES, VA

DRAWING TITLE

PHASE 1 GRADING PLAN ENLARGEMENT - POND D CLOSURE (SHEET 4 OF 7)

COMMONWEALTH OF VIRGINIA
JOHN R. KLAMUT
Lic. No. 048859
12/7/2015
PROFESSIONAL ENGINEER

DRAWN BY:	CHECKED BY:	APPROVED BY:
CUMMIRM	KUZMKMW	KLAMUJR
DWG TYPE:	SCALE:	ISSUE DATE:
	AS SHOWN	12/7/2015

SHEET NO.: 17 OF 65

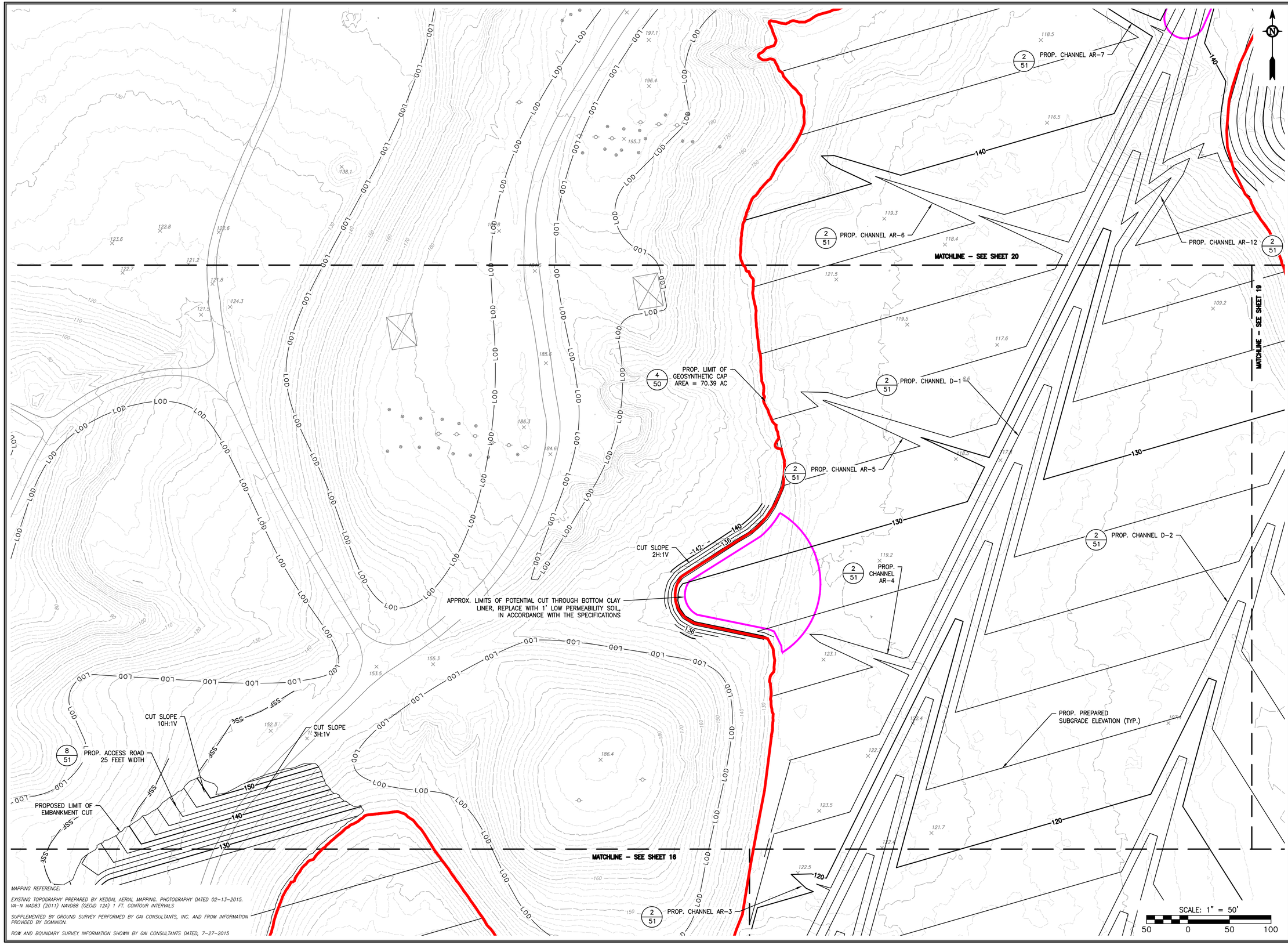
REVISION

GAI FILE NUMBER: C150132-00-000-C-D1-014

ALT./CLIENT DRAWING NUMBER:

GAI DRAWING NUMBER: 017

PERMIT



MAPPING REFERENCE:

EXISTING TOPOGRAPHY PREPARED BY KEDDAL AERIAL MAPPING. PHOTOGRAPHY DATED 02-13-2015. VA-N NAD83 (2011) NAVD88 (GEOID 12A) 1 FT. CONTOUR INTERVALS

SUPPLEMENTED BY GROUND SURVEY PERFORMED BY GAI CONSULTANTS, INC. AND FROM INFORMATION PROVIDED BY DOMINION.

ROW AND BOUNDARY SURVEY INFORMATION SHOWN BY GAI CONSULTANTS DATED, 7-27-2015

NO.:	DATE:	DWN:	CHK:	APV:	REVISION RECORD DESCRIPTION:

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DRAWING TITLE

PHASE 1 GRADING PLAN ENLARGEMENT - POND D CLOSURE (SHEET 5 OF 7)

CLIENT

VIRGINIA ELECTRIC AND POWER COMPANY
GLEN ALLEN, VA

PROJECT

POSSUM POINT POWER STATION
COAL COMBUSTION RESIDUAL SURFACE IMPOUNDMENT CLOSURES
DUMFRIES, VA

ISSUING OFFICE: Richmond | 4198 Cox Road, Suite 114, Glen Allen, VA 23060 (804) 346-7900 | FAX (804) 346-7932

gai consultants

COMMONWEALTH OF VIRGINIA
JOHN R. KLAMUT
Lic. No. 048859
12/7/2015
PROFESSIONAL ENGINEER

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SHEET NO.:		REVISION
18 OF 65		

GAI FILE NUMBER:
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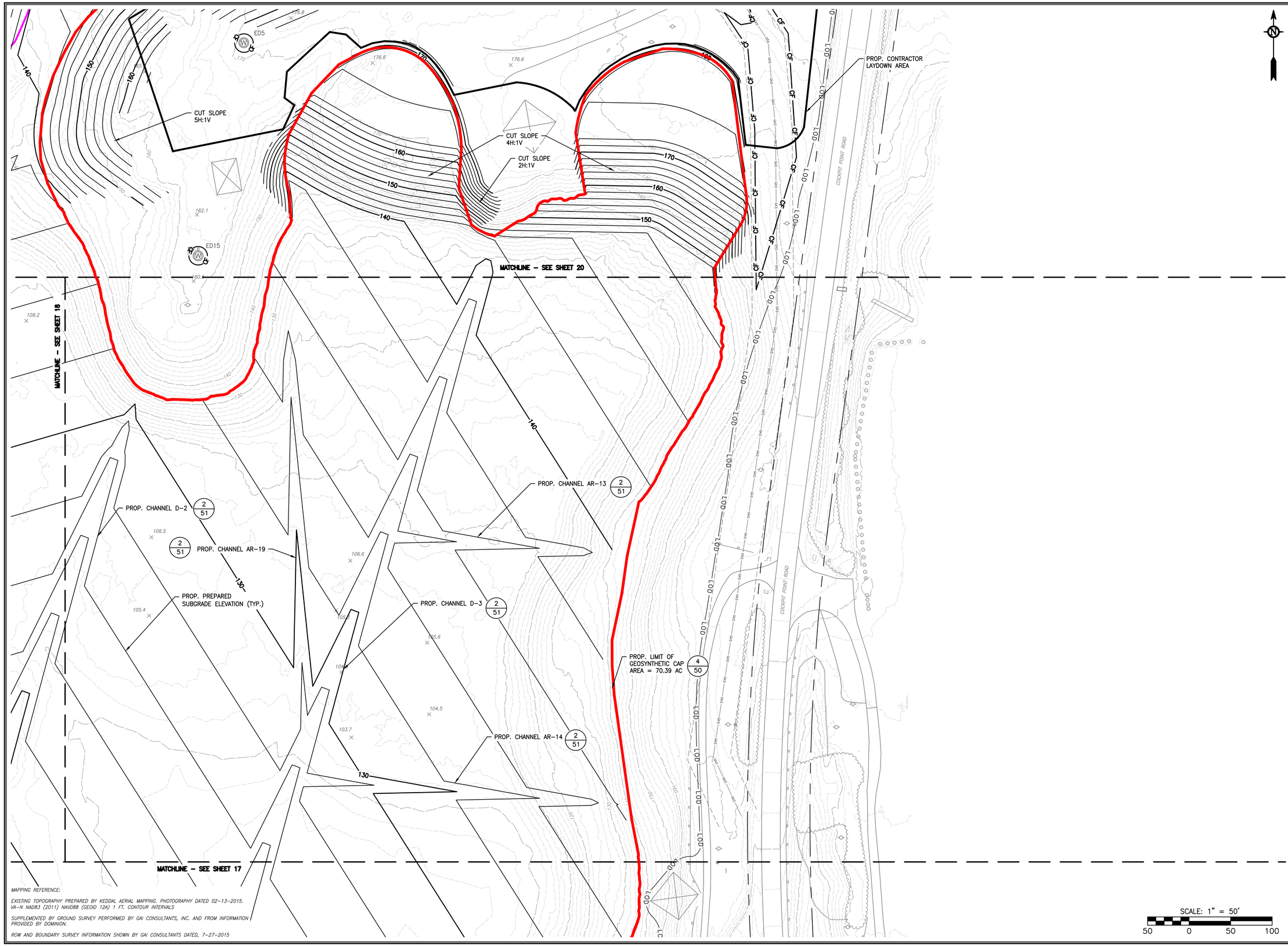
GAI DRAWING NUMBER:
018

PERMIT



MAPPING REFERENCE:

EXISTING TOPOGRAPHY PREPARED BY KEDDAL AERIAL MAPPING. PHOTOGRAPHY DATED 02-13-2015. VA-N NAD83 (2011) NAVD88 (GEOID 12A) 1 FT. CONTOUR INTERVALS

SUPPLEMENTED BY GROUND SURVEY PERFORMED BY GAI CONSULTANTS, INC. AND FROM INFORMATION PROVIDED BY DOMINION.

ROW AND BOUNDARY SURVEY INFORMATION SHOWN BY GAI CONSULTANTS DATED, 7-27-2015

NO.:	DATE:	DWN:	CHK:	APV:	DESCRIPTION:
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DRAWING TITLE
PHASE 1 GRADING PLAN ENLARGEMENT - POND D CLOSURE (SHEET 6 OF 7)

CLIENT
VIRGINIA ELECTRIC AND POWER COMPANY
GLEN ALLEN, VA

PROJECT
POSSUM POINT POWER STATION
COAL COMBUSTION RESIDUAL SURFACE IMPOUNDMENT CLOSURES
DUMFRIES, VA

gai consultants

ISSUING OFFICE: Richmond | 4198 Cox Road, Suite 114, Glen Allen, VA 23060 — 804 — Possum Point ES CAD\Production Drawings\C150132-00-000-C-D1-014.dwg

COMMONWEALTH OF VIRGINIA
JOHN R. KLAMUT
Lic. No. 048859
12/7/2015
PROFESSIONAL ENGINEER

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DWG TYPE:	SCALE:	ISSUE DATE:
	AS SHOWN	12/7/2015
SHEET NO.:		REVISION
19 OF 65		△

GAI FILE NUMBER:
C150132-00-000-C-D1-014

ALT./CLIENT DRAWING NUMBER:

GAI DRAWING NUMBER:
019

PERMIT

APPROX. LIMITS OF POTENTIAL CUT THROUGH BOTTOM CLAY LINER, REPLACE WITH 1' LOW PERMEABILITY SOIL, IN ACCORDANCE WITH THE SPECIFICATIONS

EXCAVATE AND MOVE CCR FROM AROUND GAS LINE UNDER SUPERVISION OF DOMINION TRANSMISSION AND QC TEAM. BACKFILL WITH COMMON FILL.

EX. EMERGENCY SPILLWAY

PROP. CHANNEL AR-9 (2/51)

PROP. CHANNEL AR-8 (2/51)

PROP. CHANNEL AR-10 (2/51)

PROP. CHANNEL AR-11 (2/51)

PROP. CHANNEL AR-7 (2/51)

PROP. CHANNEL AR-6 (2/51)

PROP. CHANNEL AR-12 (2/51)

PROP. CHANNEL D-1 (2/51)

PROP. CHANNEL D-3 (2/51)

PROP. PREPARED SUBGRADE ELEVATION (TYP.)

DO NOT DISTURB WETLAND

PROP. LIMIT OF GEOSYNTHETIC CAP AREA = 70.39 AC (4/50)

WASH RACK TO BE INSTALLED IF REQUIRED BY COUNTY INSPECTOR

DESIGNATED GAS LINE CROSSING, PROTECT PER REQUIREMENTS OF OWNER

CUT SLOPE 5H:1V

CUT SLOPE 4H:1V

CUT SLOPE 2H:1V

PROPOSED POND D LAYDOWN AREA

PROP. TREE CLEARING

ED5

ED15

SAF

CE

SSF

COCKRIT POINT ROAD

MATCHLINE - SEE SHEET 18

MATCHLINE - SEE SHEET 19

SCALE: 1" = 50'

50 0 50 100

MAPPING REFERENCE:

EXISTING TOPOGRAPHY PREPARED BY KEDDAL AERIAL MAPPING. PHOTOGRAPHY DATED 02-13-2015. VA-N NAD83 (2011) NAVD88 (GEOID 12A) 1 FT. CONTOUR INTERVALS

SUPPLEMENTED BY GROUND SURVEY PERFORMED BY GAI CONSULTANTS, INC. AND FROM INFORMATION PROVIDED BY DOMINION.

ROW AND BOUNDARY SURVEY INFORMATION SHOWN BY GAI CONSULTANTS DATED, 7-27-2015

NO.:	DATE:	DWN:	CHK:	APV:	DESCRIPTION:

REVISION RECORD

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DRAWING TITLE
PHASE 1 GRADING PLAN ENLARGEMENT - POND D CLOSURE (SHEET 7 OF 7)

CLIENT
VIRGINIA ELECTRIC AND POWER COMPANY
GLEN ALLEN, VA

gai consultants

PROJECT
POSSUM POINT POWER STATION
COAL COMBUSTION RESIDUAL SURFACE IMPOUNDMENT CLOSURES
DUMFRIES, VA

ISSUING OFFICE: Richmond | 4198 Cox Road, Suite 114, Glen Allen, VA 23060

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COMMONWEALTH OF VIRGINIA
JOHN R. KLAMUT
Lic. No. 048859
12/7/2015
PROFESSIONAL ENGINEER

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CUMMIRM	KUZMKMW	KLAMUJR
DWG TYPE:	SCALE:	ISSUE DATE:
	AS SHOWN	12/7/2015
SHEET NO.: 20 OF 65		REVISION
GAI FILE NUMBER: C150132-00-000-C-D1-014		
ALT./CLIENT DRAWING NUMBER:		
GAI DRAWING NUMBER: 020		

PERMIT

NOTES:
1. MINIMUM OVERLAND SLOPE FOR PHASE 2 GRADE IS 2.5%.
2. MINIMUM CHANNEL SLOPE FOR PHASE 2 GRADE IS 1.5%, UNLESS OTHERWISE NOTED.
3. CCR LOCATED OUTSIDE OF LIMITS OF GEOSYNTHETIC CAP SYSTEM TO BE EXCAVATED, HAULED AND PLACED WITHIN LIMITS OF GEOSYNTHETIC CAP.
4. PHASE 2 GRADES SHOWN REPRESENT THE PROPOSED FINAL GRADE (PHASE 3) CONTOURS SHOWN IN BLACK, COMBINED WITH THE EXISTING PREPARED SUBGRADE (PHASE 1) CONTOURS SHOWN IN GRAY.
5. ENTIRE LLDPE GEOMEMBRANE COMPONENT OF THE GEOSYNTHETIC CAP SYSTEM TO BE COMPLETED AS PART OF PHASE 2. FINAL GRADE TO BE COMPLETED IN AREAS SHOWN.

SEE PHASE 2 GRADING PLAN ENLARGEMENT – POND D (SHEET 7 of 7)
SEE PHASE 2 GRADING PLAN ENLARGEMENT – POND D (SHEET 5 of 7)
SEE PHASE 2 GRADING PLAN ENLARGEMENT – POND D (SHEET 6 of 7)
SEE PHASE 2 GRADING PLAN ENLARGEMENT – POND D (SHEET 3 of 7)
SEE PHASE 2 GRADING PLAN ENLARGEMENT – POND D (SHEET 4 of 7)
SEE PHASE 2 GRADING PLAN ENLARGEMENT – POND D (SHEET 1 of 7)
SEE PHASE 2 GRADING PLAN ENLARGEMENT – POND D (SHEET 2 of 7)

PROP. POND D SECTION C–C (SEE SHEET 48)
PROP. POND D SECTION B–B (SEE SHEET 48)
PROP. POND D SECTION A–A (SEE SHEET 47)
PROP. LIMITS OF GEOSYNTHETIC CAP AREA = 70.39 AC (4/50)

EX. EMERGENCY SPILLWAY
EX. EAGLE NEST
EX. EAGLE NEST BUFFER ZONE
EX. CONCRETE LINED CHANNEL
POSSUM POINT ROAD
QUANTICO CREEK

MAPPING REFERENCE:

EXISTING TOPOGRAPHY PREPARED BY KEDDAL AERIAL MAPPING. PHOTOGRAPHY DATED 02–13–2015. VA–N NAD83 (2011) NAVD88 (GEOID 12A) 1 FT. CONTOUR INTERVALS

SUPPLEMENTED BY GROUND SURVEY PERFORMED BY GAI CONSULTANTS, INC. AND FROM INFORMATION PROVIDED BY DOMINION.

ROW AND BOUNDARY SURVEY INFORMATION SHOWN BY GAI CONSULTANTS DATED, 7–27–2015

SCALE: 1" = 200'
200 0 200 400

NO.:	DATE:	DWN:	CHK:	APV:	DESCRIPTION:

REVISION RECORD

This drawing was produced with computer aided drafting technology and is supported by electronic drawing files. Do not revise this drawing via manual drafting methods.

DRAWING TITLE
OVERALL PHASE 2 GRADING PLAN - POND D CLOSURE

CLIENT
VIRGINIA ELECTRIC AND POWER COMPANY
GLEN ALLEN, VA

PROJECT
POSSUM POINT POWER STATION
COAL COMBUSTION RESIDUAL SURFACE IMPOUNDMENT CLOSURES
DUMFRIES, VA

gai consultants

ISSUING OFFICE: Richmond | 4198 Cox Road, Suite 114, Glen Allen, VA 23060

CAI CAD FILE PATH: J:\Energy\2015\C150132.00 — PDM — Possum Point PS_CCR\CAD\Production Drawings\C150132-00-000-C-D1-021.dwg — PLOTTED ON: 11/17/2015, 4:03:20 PM — PLOTTED BY: Michael Doyle — PLOT FILE: CAI.ctb

COMMONWEALTH OF VIRGINIA
JOHN R. KLAMUT
Lic. No. 048859
12/7/2015
PROFESSIONAL ENGINEER

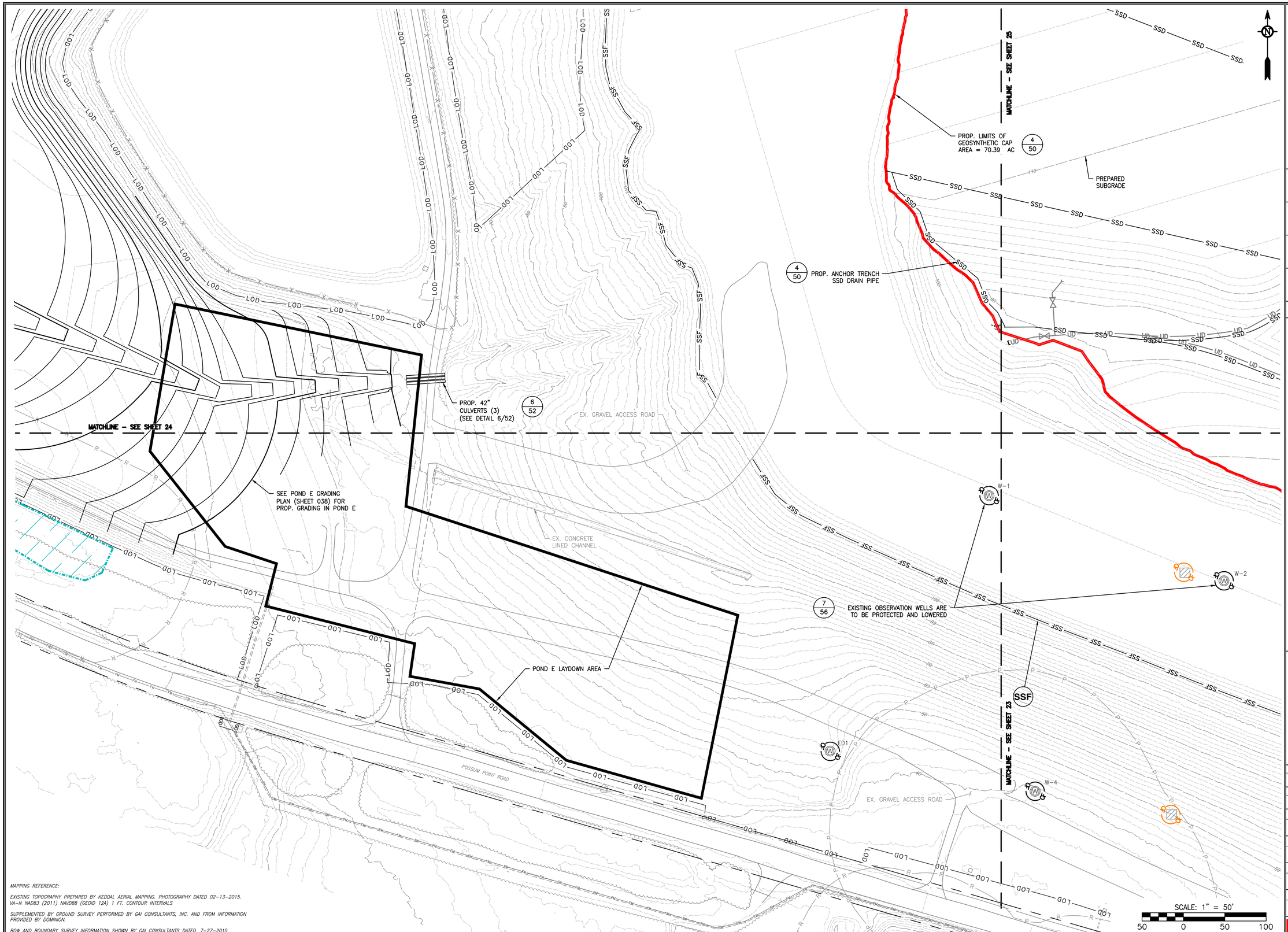
DRAWN BY:	CHECKED BY:	APPROVED BY:
CUMMIRM	KUZMKMW	KLAMUJR
DWG TYPE:	SCALE:	ISSUE DATE:
	AS SHOWN	12/7/2015
SHEET NO.: 21 OF 65		REVISION

GAI FILE NUMBER: C150132-00-000-C-D1-021

ALT./CLIENT DRAWING NUMBER:

GAI DRAWING NUMBER: 021

PERMIT



MAPPING REFERENCE:

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ROW AND BOUNDARY SURVEY INFORMATION SHOWN BY GAI CONSULTANTS DATED, 7-27-2015

REVISION RECORD

NO.:	DATE:	DWN:	CHK:	APV:	DESCRIPTION:

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DRAWING TITLE
PHASE 2 GRADING PLAN ENLARGEMENT - POND D CLOSURE (SHEET 1 OF 7)

CLIENT
VIRGINIA ELECTRIC AND POWER COMPANY
GLEN ALLEN, VA

PROJECT
POSSUM POINT POWER STATION
COAL COMBUSTION RESIDUAL SURFACE IMPOUNDMENT CLOSURES
DUMFRIES, VA

gai consultants

ISSUING OFFICE: Richmond | 4198 Cox Road, Suite 114, Glen Allen, VA 23060

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COMMONWEALTH OF VIRGINIA
JOHN R. KLAMUT
Lic. No. 048859
12/7/2015
PROFESSIONAL ENGINEER

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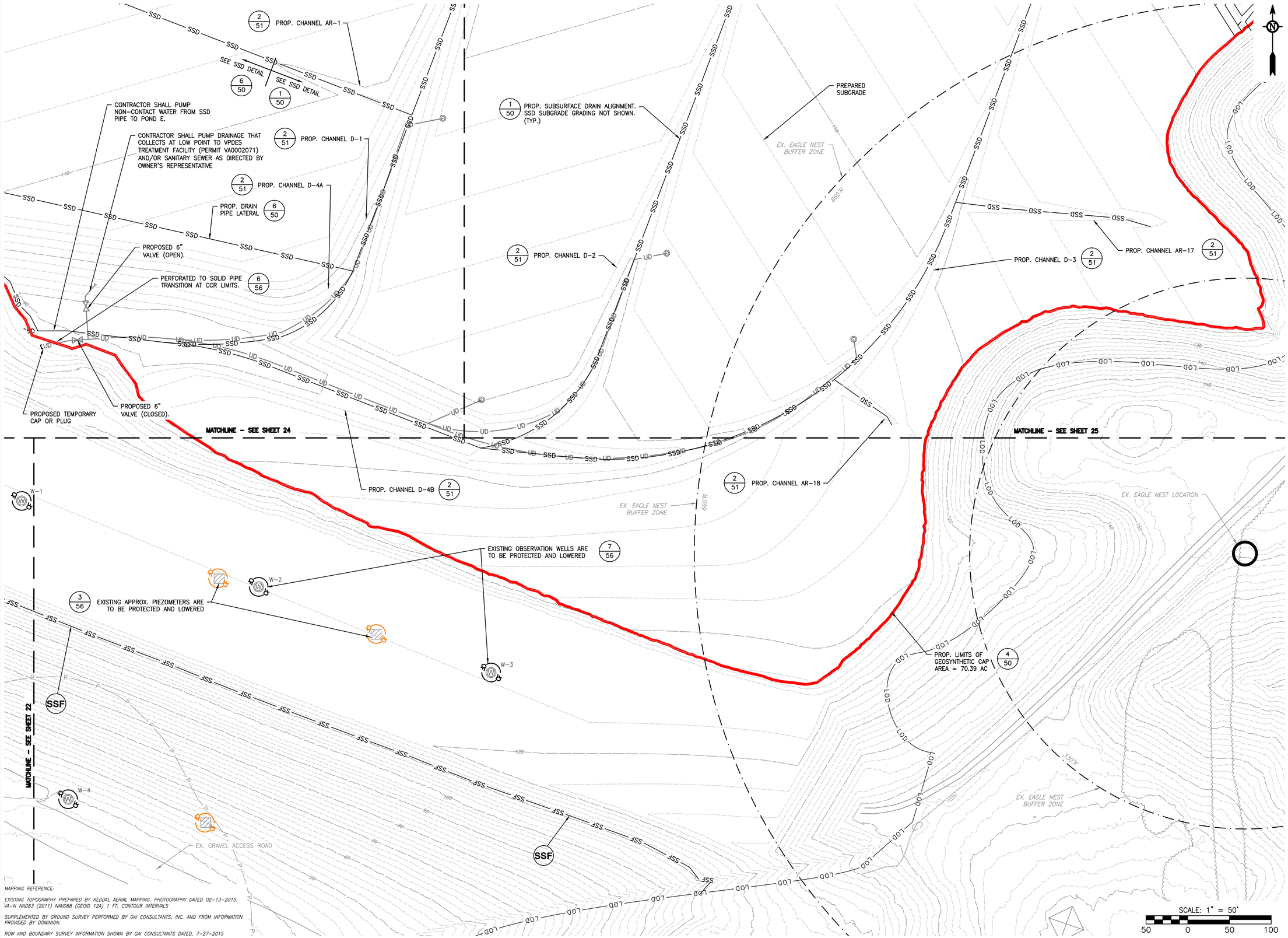
CUMMIRM	KUZMKMW	KLAMUJR
DWG TYPE:	SCALE:	ISSUE DATE:
	AS SHOWN	12/7/2015
SHEET NO.: 22 OF 65		REVISION

GAI FILE NUMBER:
C150132-00-000-C-D1-022

ALT./CLIENT DRAWING NUMBER:

GAI DRAWING NUMBER:
022

PERMIT



MAPPING REFERENCE:

EXISTING TOPOGRAPHY PREPARED BY KEDDAL AERIAL MAPPING. PHOTOGRAPHY DATED 02-13-2015. VA-N NAD83 (2011) NAVD88 (GEOID 12A) 1 FT. CONTOUR INTERVALS

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ROW AND BOUNDARY SURVEY INFORMATION SHOWN BY GAI CONSULTANTS DATED, 7-27-2015

NO.:	DATE:	DWN:	CHK:	APV:	DESCRIPTION:

REVISION RECORD

This drawing was produced with computer aided drafting technology and is supported by electronic drawing files. Do not revise this drawing via manual drafting methods.

DRAWING TITLE
PHASE 2 GRADING PLAN ENLARGEMENT - POND D CLOSURE (SHEET 2 OF 7)

CLIENT
VIRGINIA ELECTRIC AND POWER COMPANY
GLEN ALLEN, VA

PROJECT
POSSUM POINT POWER STATION
COAL COMBUSTION RESIDUAL SURFACE IMPOUNDMENT CLOSURES
DUMFRIES, VA

gai consultants

ISSUING OFFICE: Richmond | 4198 Cox Road, Suite 114, Glen Allen, VA 23060

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COMMONWEALTH OF VIRGINIA
JOHN R. KLAMUT
Lic. No. 048859
12/7/2015
PROFESSIONAL ENGINEER

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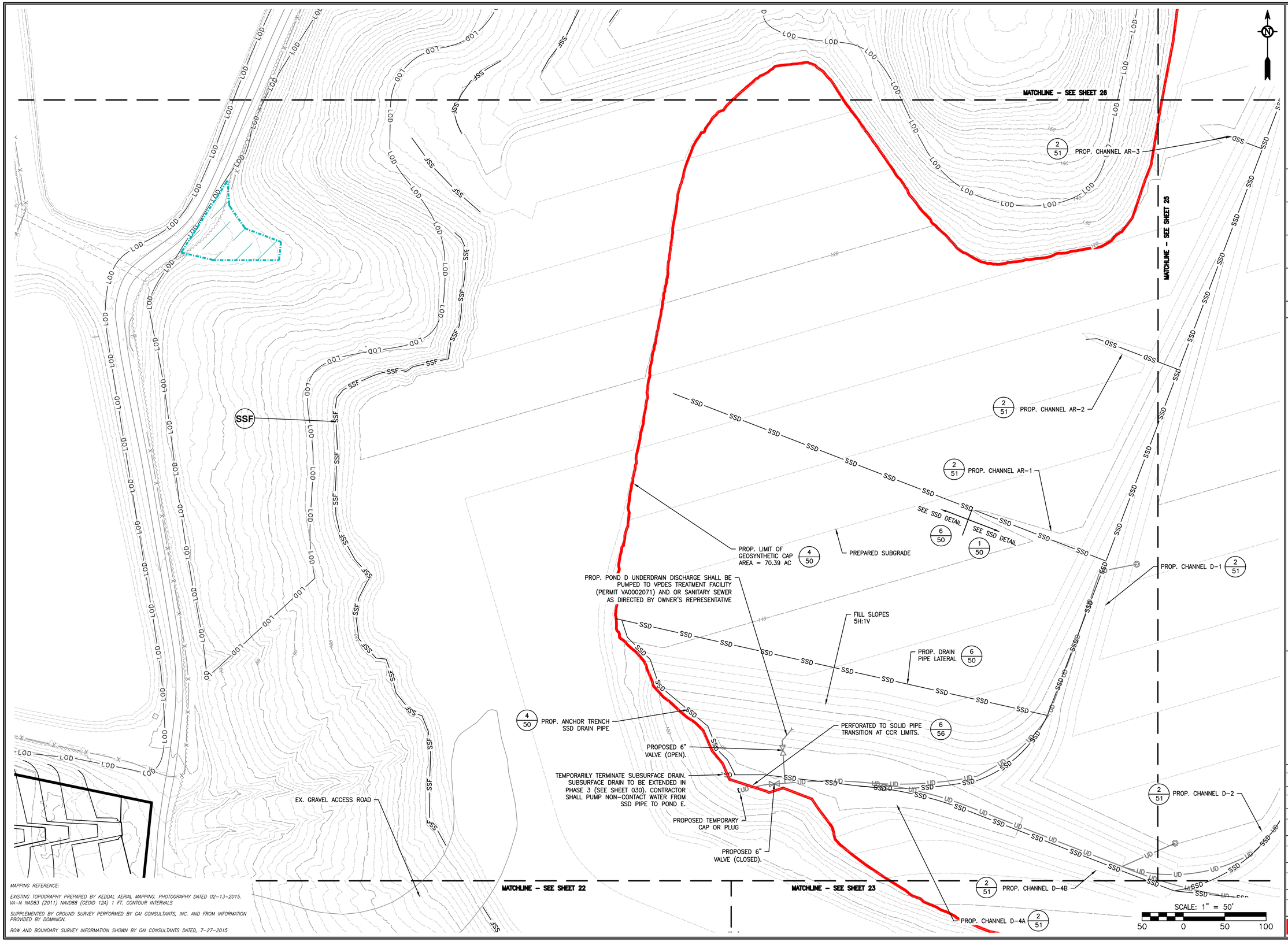
DWG TYPE:	SCALE:	ISSUE DATE:
	AS SHOWN	12/7/2015
SHEET NO.:		REVISION
23 OF 65		

GAI FILE NUMBER:
C150132-00-000-C-D1-022

ALT./CLIENT DRAWING NUMBER:

GAI DRAWING NUMBER:
023

PERMIT



MAPPING REFERENCE:

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DRAWING TITLE
PHASE 2 GRADING PLAN ENLARGEMENT - POND D CLOSURE (SHEET 3 OF 7)

CLIENT
VIRGINIA ELECTRIC AND POWER COMPANY
GLEN ALLEN, VA

PROJECT
POSSUM POINT POWER STATION
COAL COMBUSTION RESIDUAL SURFACE IMPOUNDMENT CLOSURES
DUMFRIES, VA

gai consultants

ISSUING OFFICE: Richmond | 4198 Cox Road, Suite 114, Glen Allen, VA 23060

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COMMONWEALTH OF VIRGINIA
JOHN R. KLAMUT
Lic. No. 048859
12/7/2015
PROFESSIONAL ENGINEER

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SHEET NO.: **24** OF **65**

REVISION

GAI FILE NUMBER: **C150132-00-000-C-D1-022**

ALT./CLIENT DRAWING NUMBER:

GAI DRAWING NUMBER: **024**

PERMIT

MATCHLINE – SEE SHEET 24

MATCHLINE – SEE SHEET 26

MATCHLINE – SEE SHEET 27

MATCHLINE – SEE SHEET 23

2/51 PROP. CHANNEL AR–3

2/51 PROP. CHANNEL AR–2

2/51 PROP. CHANNEL D–1

1/50 PROP. SUBSURFACE DRAIN ALIGNMENT. SSD SUBGRADE GRADING NOT SHOWN.

2/51 PROP. CHANNEL D–3

2/51 PROP. CHANNEL D–2

2/51 PROP. CHANNEL D–4B

2/51 PROP. CHANNEL AR–18

2/51 PROP. CHANNEL AR–17

2/51 PROP. CHANNEL AR–16

2/51 PROP. CHANNEL AR–15

5/50 PROP. FINAL GRADE

1% SLOPE IN CHANNEL

PROP. CLEANOUT 1/56

CONTRACTOR SHALL PROTECT EDGE OF GEOSYNTHETIC CAP SYSTEM DURING INSTALLATION. A TEMPORARY COVER AND/OR SACRIFICIAL GEOTEXTILE MAY BE REQUIRED TO PROTECT GEOSYNTHETICS FROM EXTENDED UV EXPOSURE AND SILTATION. PROVIDE TEMPORARY STORMWATER CONTROLS TO PREVENT EROSION OF FINAL COVER AND SUBGRADE (TYP.). CONTRACTOR TO PROVIDE PHASING PLAN AND INTERIM TERMINATION DETAIL FOR APPROVAL.

PREPARED SUBGRADE

PROP. LIMIT OF GEOSYNTHETIC CAP AREA = 70.39 AC 4/50

EX. EAGLE NEST BUFFER ZONE

660'R

EX. EAGLE NEST LOCATION

ED17

SCALE: 1" = 50'

50 0 50 100

MAPPING REFERENCE:

EXISTING TOPOGRAPHY PREPARED BY KEDDAL AERIAL MAPPING. PHOTOGRAPHY DATED 02–13–2015. VA–N NAD83 (2011) NAVD88 (GEOID 12A) 1 FT. CONTOUR INTERVALS

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ROW AND BOUNDARY SURVEY INFORMATION SHOWN BY GAI CONSULTANTS DATED, 7–27–2015

NO.:	DATE:	DWN:	CHK:	APV:	DESCRIPTION:

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DRAWING TITLE

PHASE 2 GRADING PLAN ENLARGEMENT - POND D CLOSURE (SHEET 4 OF 7)

CLIENT

VIRGINIA ELECTRIC AND POWER COMPANY
GLEN ALLEN, VA

gai consultants

PROJECT

POSSUM POINT POWER STATION
COAL COMBUSTION RESIDUAL SURFACE IMPOUNDMENT CLOSURES
DUMFRIES, VA

ISSUING OFFICE: Richmond | 4198 Cox Road, Suite 114, Glen Allen, VA 23060

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COMMONWEALTH OF VIRGINIA
JOHN R. KLAMUT
Lic. No. 048859
12/7/2015
PROFESSIONAL ENGINEER

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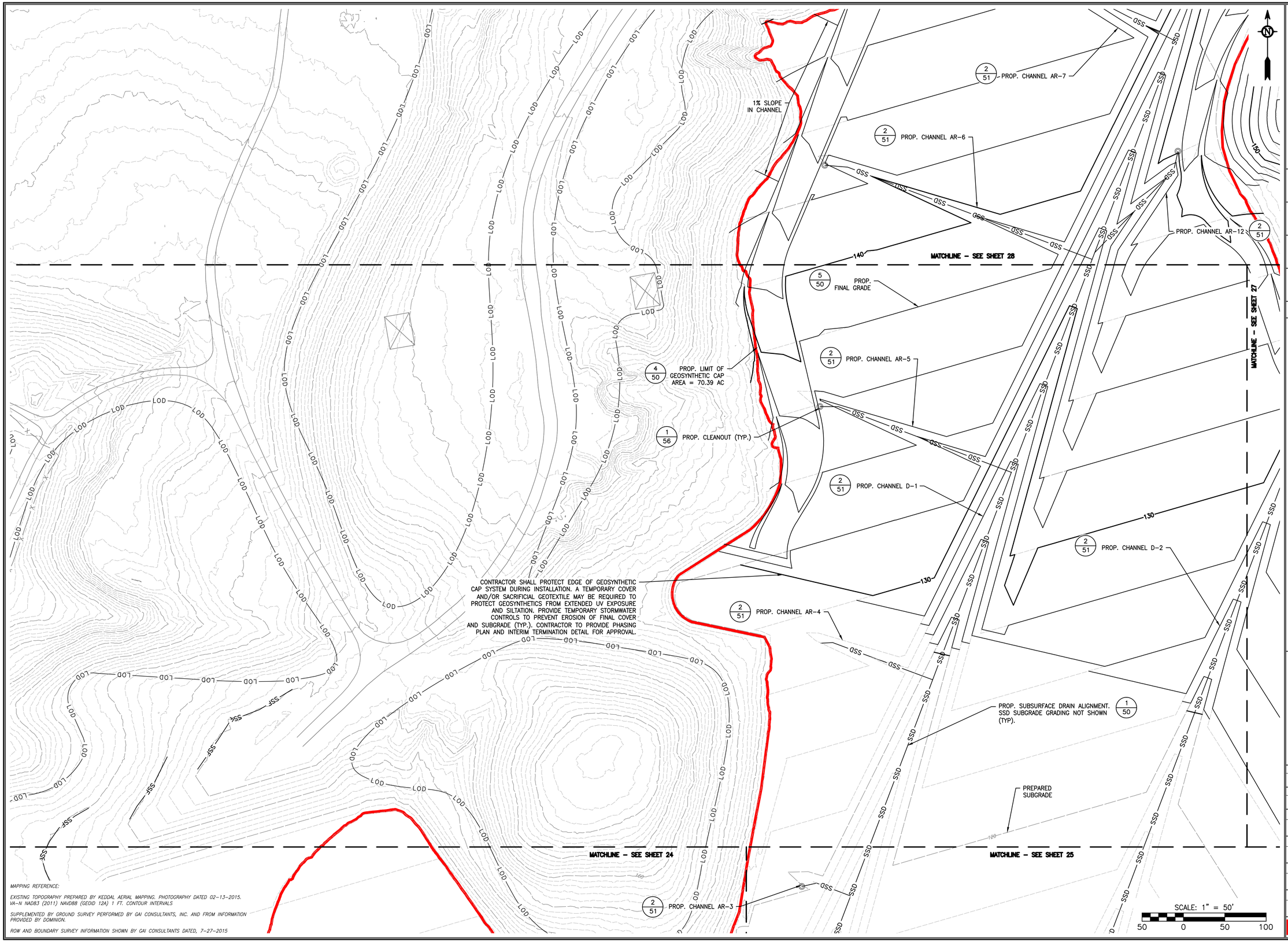
DWG TYPE:	SCALE:	ISSUE DATE:
	AS SHOWN	12/7/2015
SHEET NO.: 25 OF 65		REVISION
GAI FILE NUMBER: C150132-00-000-C-D1-022		
ALT./CLIENT DRAWING NUMBER:		
GAI DRAWING NUMBER: 025		

PERMIT



MAPPING REFERENCE:

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ROW AND BOUNDARY SURVEY INFORMATION SHOWN BY GAI CONSULTANTS DATED, 7-27-2015

NO.:	DATE:	DWN:	CHK:	APV:	DESCRIPTION:

REVISION RECORD

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DRAWING TITLE

PHASE 2 GRADING PLAN ENLARGEMENT - POND D CLOSURE (SHEET 5 OF 7)

CLIENT

VIRGINIA ELECTRIC AND POWER COMPANY
GLEN ALLEN, VA

gai consultants

PROJECT

POSSUM POINT POWER STATION
COAL COMBUSTION RESIDUAL SURFACE IMPOUNDMENT CLOSURES
DUMFRIES, VA

ISSUING OFFICE: Richmond | 4198 Cox Road, Suite 114, Glen Allen, VA 23060

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JOHN R. KLAMUT
Lic. No. 048859
12/7/2015
COMMONWEALTH OF VIRGINIA
PROFESSIONAL ENGINEER

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DWG TYPE:	SCALE:	ISSUE DATE:
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SHEET NO.: **26** OF **65**

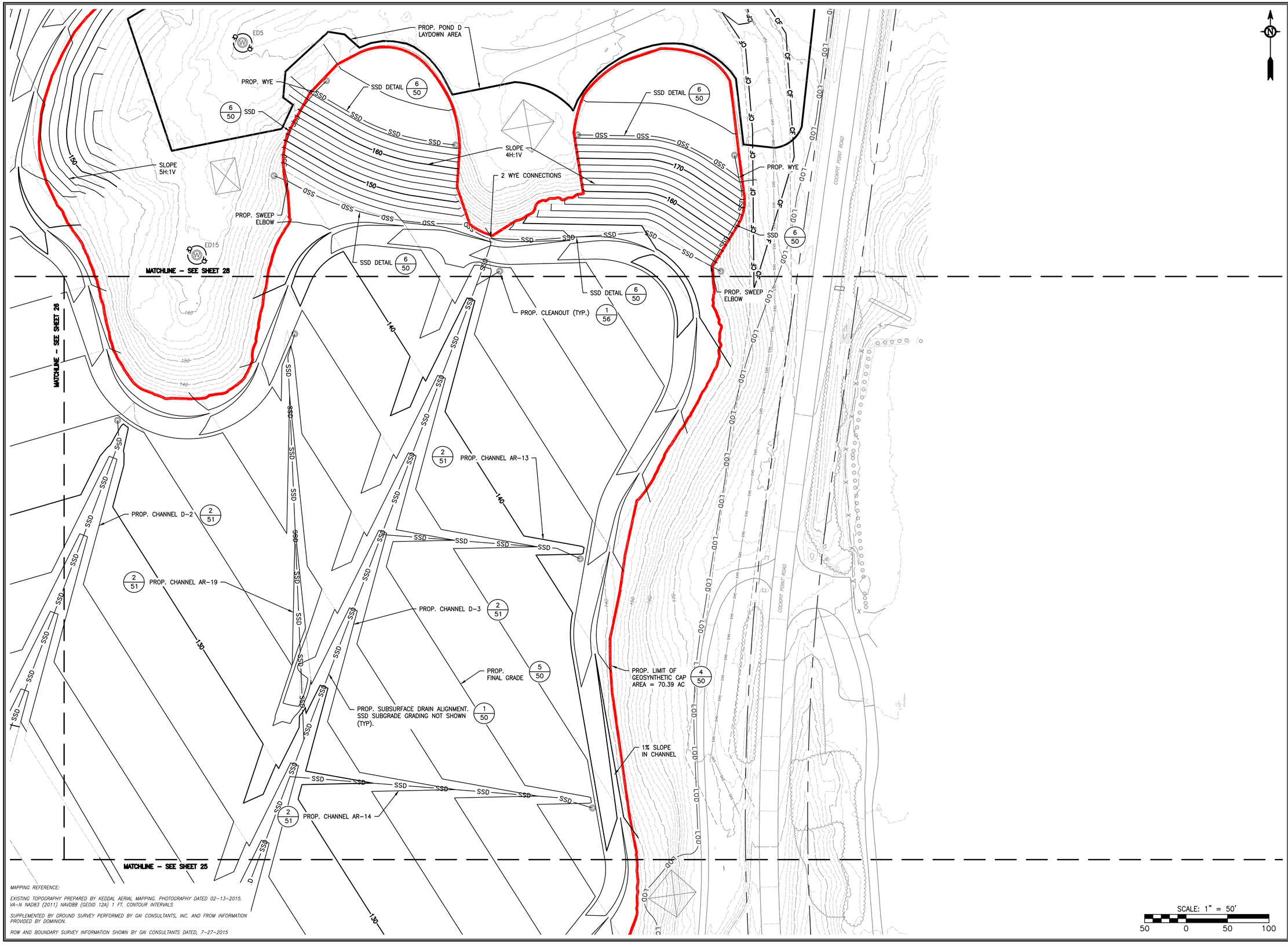
REVISION

GAI FILE NUMBER: **C150132-00-000-C-D1-022**

ALT./CLIENT DRAWING NUMBER:

GAI DRAWING NUMBER: **026**

PERMIT



MAPPING REFERENCE:

EXISTING TOPOGRAPHY PREPARED BY KEDDAL AERIAL MAPPING. PHOTOGRAPHY DATED 02-13-2015. VA-N NAD83 (2011) NAVD88 (GEOID 12A) 1 FT. CONTOUR INTERVALS

SUPPLEMENTED BY GROUND SURVEY PERFORMED BY GAI CONSULTANTS, INC. AND FROM INFORMATION PROVIDED BY DOMINION.

ROW AND BOUNDARY SURVEY INFORMATION SHOWN BY GAI CONSULTANTS DATED, 7-27-2015

NO.:	DATE:	DWN:	CHK:	APV:	DESCRIPTION:
					REVISION RECORD

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DRAWING TITLE
PHASE 2 GRADING PLAN ENLARGEMENT - POND D CLOSURE (SHEET 6 OF 7)

CLIENT
VIRGINIA ELECTRIC AND POWER COMPANY
GLEN ALLEN, VA

PROJECT
POSSUM POINT POWER STATION
COAL COMBUSTION RESIDUAL SURFACE IMPOUNDMENT CLOSURES
DUMFRIES, VA

gai consultants

ISSUING OFFICE: Richmond | 4198 Cox Road, Suite 114, Glen Allen, VA 23060

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JOHN R. KLAMUT
Lic. No. 048859
12/7/2015
COMMONWEALTH OF VIRGINIA
PROFESSIONAL ENGINEER

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DWG TYPE:	SCALE:	ISSUE DATE:
	AS SHOWN	12/7/2015
SHEET NO.: 27 OF 65		REVISION

GAI FILE NUMBER: **C150132-00-000-C-D1-022**

ALT./CLIENT DRAWING NUMBER:

GAI DRAWING NUMBER: **027**

PERMIT

PROP. CLEANOUT (TYP.) 1/56

PROP. CHANNEL AR-9 2/51

PROP. CHANNEL AR-10 2/51

PROP. CHANNEL AR-8 2/51

PROP. CHANNEL AR-11 2/51

PROP. CHANNEL AR-7 2/51

PROP. FINAL GRADE 5/50

PROP. CHANNEL AR-6 2/51

PROP. SUBSURFACE DRAIN ALIGNMENT. SSD SUBGRADE GRADING NOT SHOWN. 1/50

PROP. CHANNEL AR-12 2/51

PROP. CHANNEL D-1 2/51

1% SLOPE IN CHANNEL

SLOPE 5H:1V

SLOPE 4H:1V

PROP. LIMIT OF GEOSYNTHETIC CAP AREA = 70.39 AC 4/50

DO NOT DISTURB WETLAND

WASH RACK TO BE INSTALLED IF REQUIRED BY COUNTY INSPECTOR

DESIGNATED GAS LINE CROSSING, PROTECT PER REQUIREMENTS OF OWNER

PROP. POND D LAYDOWN AREA

PROP. CLEANOUT (TYP.) 1/56

PROP. CHANNEL D-3 2/51

ED5

ED15

SAF

CE

SSF

COCKPIT POINT ROAD

MATCHLINE - SEE SHEET 26

MATCHLINE - SEE SHEET 27

SCALE: 1" = 50'

50 0 50 100

MAPPING REFERENCE:

EXISTING TOPOGRAPHY PREPARED BY KEDDAL AERIAL MAPPING. PHOTOGRAPHY DATED 02-13-2015. VA-N NAD83 (2011) NAVD88 (GEOID 12A) 1 FT. CONTOUR INTERVALS

SUPPLEMENTED BY GROUND SURVEY PERFORMED BY GAI CONSULTANTS, INC. AND FROM INFORMATION PROVIDED BY DOMINION.

ROW AND BOUNDARY SURVEY INFORMATION SHOWN BY GAI CONSULTANTS DATED, 7-27-2015

NO.:	DATE:	DWN:	CHK:	APV:	DESCRIPTION:

REVISION RECORD

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DRAWING TITLE
PHASE 2 GRADING PLAN ENLARGEMENT - POND D CLOSURE (SHEET 7 OF 7)

CLIENT
VIRGINIA ELECTRIC AND POWER COMPANY
GLEN ALLEN, VA

PROJECT
POSSUM POINT POWER STATION
COAL COMBUSTION RESIDUAL SURFACE IMPOUNDMENT CLOSURES
DUMFRIES, VA

gai consultants

ISSUING OFFICE: Richmond | 4198 Cox Road, Suite 114, Glen Allen, VA 23060

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COMMONWEALTH OF VIRGINIA
JOHN R. KLAMUT
Lic. No. 048859
12/7/2015
PROFESSIONAL ENGINEER

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CUMMIRM	KUZMKMW	KLAMUJR
DWG TYPE:	SCALE:	ISSUE DATE:
	AS SHOWN	12/7/2015
SHEET NO.:		REVISION
28 OF 65		
GAI FILE NUMBER:		
C150132-00-000-C-D1-022		
ALT./CLIENT DRAWING NUMBER:		
GAI DRAWING NUMBER:		
028		

PERMIT

NOTES:
1. MINIMUM OVERLAND SLOPE FOR GEOSYNTHETIC CAP SYSTEM FINAL GRADE IS 2.5%.
2. MINIMUM CHANNEL SLOPE FOR GEOSYNTHETIC CAP SYSTEM FINAL GRADE IS 1.5%, UNLESS OTHERWISE NOTED.
3. CCR LOCATED OUTSIDE OF LIMITS OF GEOSYNTHETIC CAP SYSTEM TO BE EXCAVATED, HAULED AND PLACED WITHIN LIMITS OF GEOSYNTHETIC CAP SYSTEM.
4. PHASE 3 GRADES SHOWN REPRESENT THE PROPOSED FINAL GRADE.
5. CHECK DAMS ARE PERMANENT AND NOT TO BE REMOVED.

PROP. POND D CLEANOUT (TYP.) 1/55

EX. EMERGENCY SPILLWAY

SEE PHASE 3 GRADING PLAN ENLARGEMENT – POND D (SHEET 7 of 7)

PROP. ACCESS ROAD

PROP. POND D SECTION C–C (SEE SHEET 48)

SEE PHASE 3 GRADING PLAN ENLARGEMENT – POND D (SHEET 5 of 7)

SEE PHASE 3 GRADING PLAN ENLARGEMENT – POND D (SHEET 6 of 7)

PROP. POND D SECTION B–B (SEE SHEET 48) 1/50

SEE PHASE 3 GRADING PLAN ENLARGEMENT – POND D (SHEET 3 of 7)

SEE PHASE 3 GRADING PLAN ENLARGEMENT – POND D (SHEET 4 of 7)

SEE PHASE 3 GRADING PLAN ENLARGEMENT – POND D (SHEET 2 of 7)

SEE PHASE 3 GRADING PLAN ENLARGEMENT – POND D (SHEET 1 of 7)

EX. EAGLE NEST

EX. CONCRETE LINED CHANNEL

POSSUM POINT ROAD

EX. EAGLE NEST BUFFER ZONE

QUANTICO CREEK

PROP. POND D SECTION A–A (SEE SHEET 47) 1/50

PROP. LIMITS OF GEOSYNTHETIC CAP AREA = 70.39 AC

SCALE: 1" = 200'
200 0 200 400

MAPPING REFERENCE:

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SUPPLEMENTED BY GROUND SURVEY PERFORMED BY GAI CONSULTANTS, INC. AND FROM INFORMATION PROVIDED BY DOMINION.

ROW AND BOUNDARY SURVEY INFORMATION SHOWN BY GAI CONSULTANTS DATED, 7–27–2015

NO.:	DATE:	DWN:	CHK:	APV:	DESCRIPTION:
					REVISION RECORD

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DRAWING TITLE
OVERALL PHASE 3 GRADING PLAN - POND D CLOSURE

CLIENT
VIRGINIA ELECTRIC AND POWER COMPANY
GLEN ALLEN, VA

PROJECT
POSSUM POINT POWER STATION
COAL COMBUSTION RESIDUAL SURFACE IMPOUNDMENT CLOSURES
DUMFRIES, VA

gai consultants

ISSUING OFFICE: Richmond | 4198 Cox Road, Suite 114, Glen Allen, VA 23060

COMMONWEALTH OF VIRGINIA
JOHN R. KLAMUT
Lic. No. 048859
12/7/2015
PROFESSIONAL ENGINEER

DRAWN BY:	CHECKED BY:	APPROVED BY:
CUMMIRM	KUZMKMW	KLAMUJR
DWG TYPE:	SCALE:	ISSUE DATE:
	AS SHOWN	12/7/2015

SHEET NO.: 29 OF 65

REVISION

GAI FILE NUMBER: C150132-00-000-C-D1-029

ALT./CLIENT DRAWING NUMBER:

GAI DRAWING NUMBER: 029

PERMIT

PROP. FINAL GRADE (5/50)

PHASE 1 GRADING

SLOPE 5H:1V

PROP. SUBSURFACE DRAIN ALIGNMENT. (6/52)

SUBSURFACE DRAIN DAYLIGHTS TO PROP. CHANNEL D-4A (5/55)

PROP. 42" CULVERTS (3) WITH VDOT ENDWALLS EW-7 (6/56)

PROP. LIMITS OF CELLULAR CONCRETE MATTRESS (8/51)

PROP. LIMITS OF GEOSYNTHETIC CAP AREA = 70.39 AC (4/50)

STABILIZE FLOWLINE WITH SC-250 TRM

Lat:N038° 32' 57"
Long:W077° 17' 19"

Lat:N038° 32' 57"
Long:W077° 17' 08"

4' OFF THE EDGE OF CHANNEL CCM.

SEE POND E GRADING PLAN (SHEET 042) FOR PROPOSED GRADING IN POND E

MATCHLINE – SEE SHEET 32

MATCHLINE – SEE SHEET 33

MATCHLINE – SEE SHEET 31

PROP. INVERT ELEV. 50'

Lat:N038° 32' 56"
Long:W077° 17' 19"

PROPOSED 6" DIA. SDR 11 HDPE (SOLID WALL) IPS PIPE.

PROPOSED PUMP STATION

PROPOSED 4" DIA. SDR 11 HDPE DIPS UNDERDRAIN FORCEMAIN

UNDERDRAIN FORCEMAIN PIPING TO BE INSTALLED THROUGH EXISTING CULVERT

PROPOSED 4" UNDERDRAIN FORCEMAIN TO TIE-IN TO EXISTING SANITARY FORCEMAIN. SEE TAPPING SLEEVE AND VALVE DETAIL.

EX. CONCRETE LINED CHANNEL

PROP. CHANNEL D-4A (8/51)

POND E LAYDOWN AREA

POSSUM POINT ROAD

PROP. DIVERSION DIKE

30'

STABILIZE FLOWLINE WITH SC-250 TRM

PROP. POND D INTERNAL ACCESS ROAD (6/51)

EXISTING OBSERVATION WELLS TO BE LOWERED AND PROTECTED (7/56)

W-1 W-2 W-4 ED1

MAPPING REFERENCE:

EXISTING TOPOGRAPHY PREPARED BY KEDDAL AERIAL MAPPING. PHOTOGRAPHY DATED 02-13-2015. VA-N NAD83 (2011) NAVD88 (GEOID 12A) 1 FT. CONTOUR INTERVALS

SUPPLEMENTED BY GROUND SURVEY PERFORMED BY GAI CONSULTANTS, INC. AND FROM INFORMATION PROVIDED BY DOMINION.

ROW AND BOUNDARY SURVEY INFORMATION SHOWN BY GAI CONSULTANTS DATED, 7-27-2015

SCALE: 1" = 50'

50 0 50 100

NO.:	DATE:	DWN:	CHK:	APV:	DESCRIPTION:
					REVISION RECORD

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DRAWING TITLE

PHASE 3 GRADING PLAN ENLARGEMENT - POND D CLOSURE (1 OF 7)

CLIENT

VIRGINIA ELECTRIC AND POWER COMPANY
GLEN ALLEN, VA

PROJECT

POSSUM POINT POWER STATION
COAL COMBUSTION RESIDUAL SURFACE IMPOUNDMENT CLOSURES
DUMFRIES, VA

gai consultants

ISSUING OFFICE: Richmond | 4198 Cox Road, Suite 114, Glen Allen, VA 23060

COMMONWEALTH OF VIRGINIA
JOHN R. KLAMUT
Lic. No. 048859
12/7/2015
PROFESSIONAL ENGINEER

DRAWN BY:	CHECKED BY:	APPROVED BY:
CUMMIRM	KUZMKMW	KLAMUJR
DWG TYPE:	SCALE:	ISSUE DATE:
	AS SHOWN	12/7/2015

SHEET NO.: 30 OF 65

REVISION

GAI FILE NUMBER: C150132-00-000-C-D1-030

ALT./CLIENT DRAWING NUMBER:

GAI DRAWING NUMBER: 030

PERMIT

BEGIN PROP. CHANNEL AR-1 (2/51, 1/50)
END PROP. CHANNEL AR-1 (2/51)
5/51 PROP. ACCESS ROAD CULVERT AR-1
SSD TRANSITION (6/50, 1/50)
PROP. CHANNEL D-1 (2/51)
STABILIZE FLOWLINE WITH SC-250 TRM
PROP. LIMITS OF CELLULAR CONCRETE MATTRESS 9/51
PROPOSED CAP OR PLUG
PROPOSED 6" VALVE (CLOSED)
Lat:N038° 32' 57" Long:W077° 17' 08"
BEGIN CHANNELD-4A/ END CHANNEL D-4B
REMOVE VALVE PRIOR TO CCM CONSTRUCTION
REMOVE TEMPORARY CAP OR PLUG AND EXTEND UNDERDRAIN PIPING. TRANSITION UD FROM PERFORATED TO SOLID PIPE AT CCR LIMITS.
STABILIZE FLOWLINE WITH SC-250 TRM
PROP. CHANNEL D-4B (2/51, 1/50)
RIPRAP SLOPE PROTECTION
SSD JUNCTION (TYP.) 2/50
PROP. POND D INTERNAL ACCESS ROAD 6/51
PROP. CHANNEL D-2 (2/51, 1/50)
PROP. CLEANOUT (TYP.) BOOT UNDERDRAIN PIPE THROUGH LINER (TYP. OF 4 CLEANOUTS) 1/56
BEGIN CHANNEL D-4B
PROP. CHANNEL AR-18 (1/50, 5/51)
PROP. ACCESS ROAD CULVERT AR-18 2/51
PROP. FINAL GRADE 5/50
PHASE 1 GRADING
EXISTING OBSERVATION WELLS TO BE LOWERED AND PROTECTED 7/56
EXISTING PEIZOMETERS TO BE PROTECTED AND LOWERED 3/56
INSTALL SALVAGED GUARDRAIL ALONG THE EDGE, REPLACE DAMAGED GUARDRAIL WITH NEW GUARDRAIL AS NEEDED.
7/50 PROP. SETTLEMENT MONUMENT (TYP.)
PROP. POND D INTERNAL ACCESS ROAD 6/51
EX. EAGLE NEST BUFFER ZONE 660'R
PROP. CHANNEL AR-17 (2/51, 1/50)
PROP. ACCESS ROAD CULVERT AR-3 5/51
PROP. CHANNEL D-3 (2/51, 1/50)
MATCHLINE - SEE SHEET 32
MATCHLINE - SEE SHEET 33
MATCHLINE - SEE SHEET 30
EX. EAGLE NEST LOCATION 330'R
PROP. POND D INTERNAL ACCESS ROAD 6/51
PROP. LIMITS OF GEOSYNTHETIC CAP AREA = 70.39 AC 4/50
EX. EAGLE NEST BUFFER ZONE
PS, RR, DD, CD, SSF, W-1, W-2, W-3, W-4
30', 110, 120, 100, 130, 140, 150, 160, 70, 60, 50

MAPPING REFERENCE:

EXISTING TOPOGRAPHY PREPARED BY KEDDAL AERIAL MAPPING. PHOTOGRAPHY DATED 02-13-2015. VA-N NAD83 (2011) NAVD88 (GEOID 12A) 1 FT. CONTOUR INTERVALS

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ROW AND BOUNDARY SURVEY INFORMATION SHOWN BY GAI CONSULTANTS DATED, 7-27-2015

SCALE: 1" = 50'
50 0 50 100

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DRAWING TITLE
PHASE 3 GRADING PLAN ENLARGEMENT - POND D CLOSURE (2 OF 7)

CLIENT
VIRGINIA ELECTRIC AND POWER COMPANY
GLEN ALLEN, VA

gai consultants

PROJECT
POSSUM POINT POWER STATION
COAL COMBUSTION RESIDUAL SURFACE IMPOUNDMENT CLOSURES
DUMFRIES, VA

ISSUING OFFICE: Richmond | 4198 Cox Road, Suite 114, Glen Allen, VA 23060

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COMMONWEALTH OF VIRGINIA
JOHN R. KLAMUT
Lic. No. 048859
12/7/2015
PROFESSIONAL ENGINEER

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CUMMIRM	KUZMKMW	KLAMUJR
DWG TYPE:	SCALE:	ISSUE DATE:
	AS SHOWN	12/7/2015
SHEET NO.: 31 OF 65		REVISION
GAI FILE NUMBER: C150132-00-000-C-D1-030		
ALT./CLIENT DRAWING NUMBER:		
GAI DRAWING NUMBER: 031		

PERMIT

PROP. ACCESS ROAD (6/51)
CUT SLOPE 3H:1V
CUT SLOPE 10H:1V
MATCHLINE – SEE SHEET 34
PROP. CHANNEL AR-3 (2/51)
PROP. ACCESS ROAD CULVERT AR-2 (5/51)
STABALIZE FLOWLINE WITH SC-250 TRM
PROP. DIVERSION DIKE
PROP. SETTLEMENT MONUMENT (TYP.) (7/50)
PROP. CLEANOUT (TYP.) (1/56)
PROP. POND D INTERNAL ACCESS ROAD (6/51)
PROP. ACCESS ROAD CULVERT AR-1 (5/51)
PROP. CHANNEL AR-2 (2/51, 1/50)
PROP. CHANNEL D-1 (2/51, 1/50)
BEGIN PROP. CHANNEL AR-1 (2/51, 1/50)
END PROP. CHANNEL AR-1 (2/51, 1/50)
SSD JUNCTION (TYP.) (2/50)
PROP. FINAL GRADE
FINAL GRADE OUTSIDE OF CAP SYSTEM
CAP SYSTEM (5/50)
PROP. DRAIN PIPE LATERAL (6/50)
PROP. LIMIT OF GEOSYNTHETIC CAP AREA = 70.39 AC (4/50)
SSD TRANSITION (6/50, 1/50)
EX. GRAVEL ACCESS ROAD TO BE REMOVED DURING FINAL GRADING (PHASE 3)
PHASE 1 GRADING
TEE/WYE FOR DRAIN PIPE CONNECTION
PROP. CCM ANCHOR TRENCH DRAIN PIPE (9/51)
PROP. DIVERSION DIKE
PROP. SUBSURFACE DRAIN ALIGNMENT. (6/50)
SUBSURFACE DRAIN DAYLIGHTS TO PROP. CHANNEL D-4A (5/56)
PROP. CHANNEL D-4A (8/51)
Lat:N038° 32' 57" Long:W077° 17' 19"
Lat:N038° 32' 57" Long:W077° 17' 08"
PROP. 42" CULVERTS (3) (6/52)
SEE POND E GRADING PLAN ENLARGEMENTS BEYOND THE LIMITS OF THIS SHEET
PROP. INVERT ELEV. 50'
STABALIZE FLOWLINE WITH SC-250 TRM (9/51)
MATCHLINE – SEE SHEET 30
MATCHLINE – SEE SHEET 31
MATCHLINE – SEE SHEET 33
PROP. CHANNEL D-2 (2/51)
PROP. CHANNEL D-4B (2/51)
BEGIN CHANNEL D-4A/ END CHANNEL D-4B (6/56)
SCALE: 1" = 50'
50 0 50 100

MAPPING REFERENCE:

EXISTING TOPOGRAPHY PREPARED BY KEDDAL AERIAL MAPPING. PHOTOGRAPHY DATED 02-13-2015. VA-N NAD83 (2011) NAVD88 (GEOID 12A) 1 FT. CONTOUR INTERVALS

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ROW AND BOUNDARY SURVEY INFORMATION SHOWN BY GAI CONSULTANTS DATED, 7-27-2015

9"

DRAWING TITLE
PHASE 3 GRADING PLAN ENLARGEMENT - POND D CLOSURE (3 OF 7)

CLIENT
VIRGINIA ELECTRIC AND POWER COMPANY
GLEN ALLEN, VA

PROJECT
POSSUM POINT POWER STATION
COAL COMBUSTION RESIDUAL SURFACE IMPOUNDMENT CLOSURES
DUMFRIES, VA

ISSUING OFFICE: Richmond | 4198 Cox Road, Suite 114, Glen Allen, VA 23060

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JOHN R. KLAMUT
Lic. No. 048859
12/7/2015
COMMONWEALTH OF VIRGINIA
PROFESSIONAL ENGINEER

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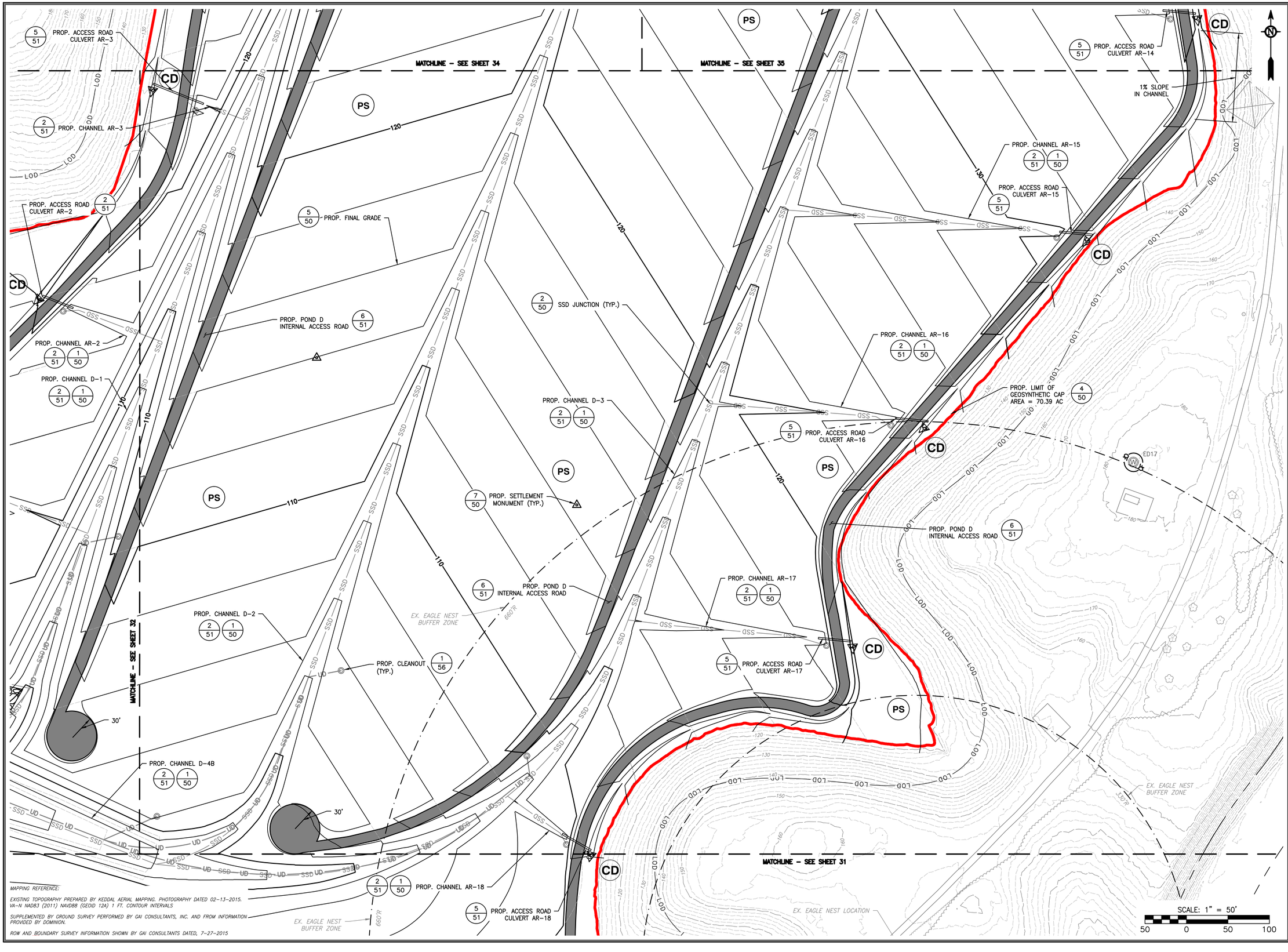
CUMMIRM	KUZMKMW	KLAMUJR
DWG TYPE:	SCALE:	ISSUE DATE:
	AS SHOWN	12/7/2015
SHEET NO.: 32 OF 65		REVISION
GAI FILE NUMBER: C150132-00-000-C-D1-030		
ALT./CLIENT DRAWING NUMBER:		
GAI DRAWING NUMBER: 032		

PERMIT



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ROW AND BOUNDARY SURVEY INFORMATION SHOWN BY GAI CONSULTANTS DATED, 7–27–2015

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DRAWING TITLE

PHASE 3 GRADING PLAN ENLARGEMENT - POND D CLOSURE (4 OF 7)

PROJECT

POSSUM POINT POWER STATION
COAL COMBUSTION RESIDUAL SURFACE IMPOUNDMENT CLOSURES
DUMFRIES, VA

CLIENT

VIRGINIA ELECTRIC AND POWER COMPANY
GLEN ALLEN, VA

gai consultants

ISSUING OFFICE: Richmond | 4198 Cox Road, Suite 114, Glen Allen, VA 23060

COMMONWEALTH OF VIRGINIA
JOHN R. KLAMUT
Lic. No. 048859
12/7/2015
PROFESSIONAL ENGINEER

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DWG TYPE:	SCALE:	ISSUE DATE:
	AS SHOWN	12/7/2015
SHEET NO.:		REVISION
33 OF 65		

GAI FILE NUMBER:

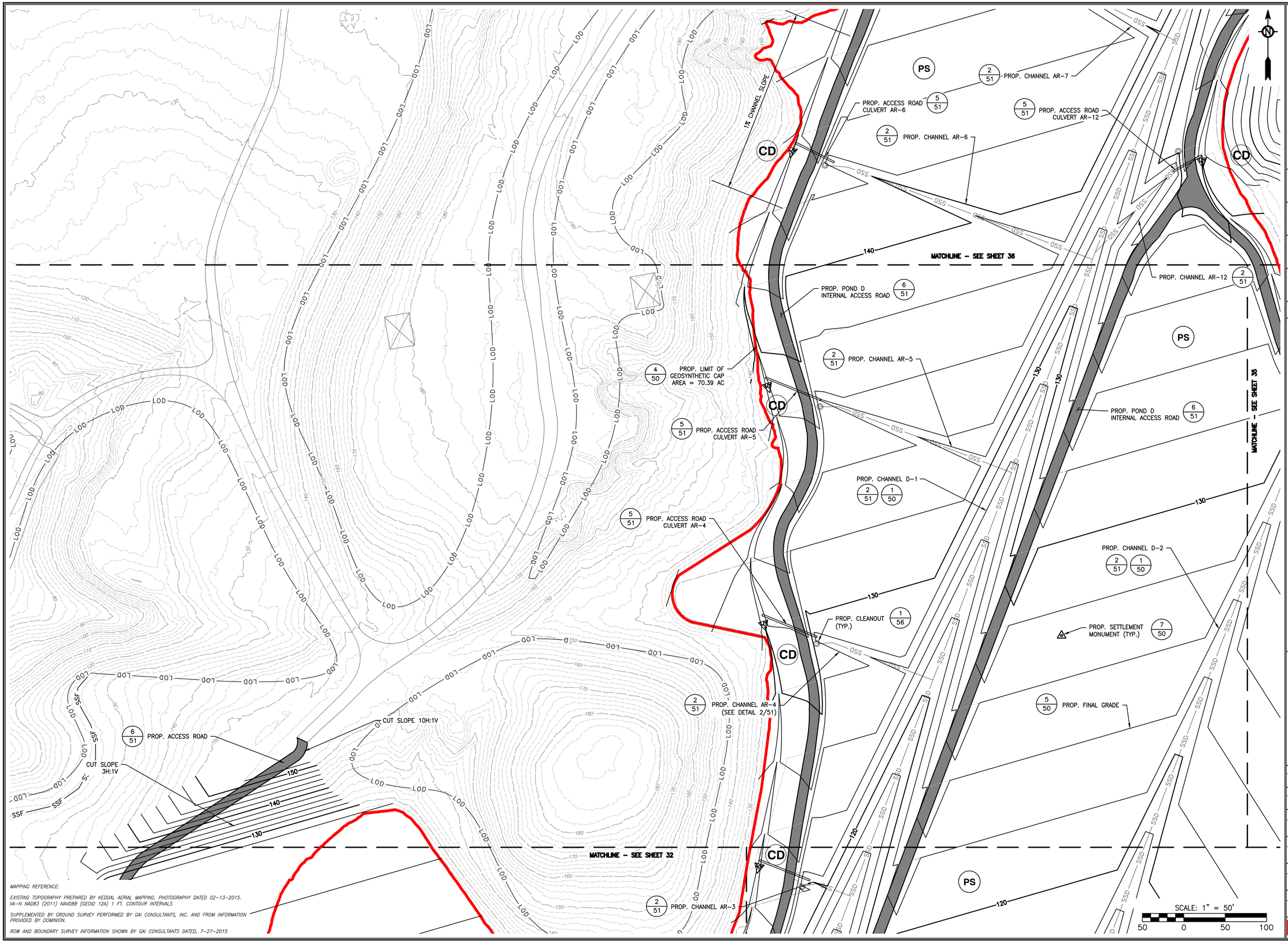
C150132-00-000-C-D1-030

ALT./CLIENT DRAWING NUMBER:

GAI DRAWING NUMBER:

033

PERMIT



MAPPING REFERENCE:

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ROW AND BOUNDARY SURVEY INFORMATION SHOWN BY GAI CONSULTANTS DATED, 7-27-2015

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DRAWING TITLE
PHASE 3 GRADING PLAN ENLARGEMENT - POND D CLOSURE (5 OF 7)

CLIENT
VIRGINIA ELECTRIC AND POWER COMPANY
GLEN ALLEN, VA

gai consultants

PROJECT
POSSUM POINT POWER STATION
COAL COMBUSTION RESIDUAL SURFACE IMPOUNDMENT CLOSURES
DUMFRIES, VA

ISSUING OFFICE: Richmond | 4198 Cox Road, Suite 114, Glen Allen, VA 23060

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JOHN R. KLAMUT
Lic. No. 048859
12/7/2015
COMMONWEALTH OF VIRGINIA
PROFESSIONAL ENGINEER

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34 OF 65		

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C150132-00-000-C-D1-030

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GAI DRAWING NUMBER:
034

PERMIT

PROP. POND D LAYDOWN AREA

ED5

ED15

SLOPE 5H:1V

SLOPE 4H:1V

CD

MATCHLINE – SEE SHEET 34

MATCHLINE – SEE SHEET 36

MATCHLINE – SEE SHEET 33

PROP. ACCESS ROAD CULVERT AR–22 (5/51)

PROP. ACCESS ROAD CULVERT AR–19 (5/51)

PROP. ACCESS ROAD CULVERT AR–21 (5/51)

PROP. ACCESS ROAD CULVERT AR–13 (5/51)

PROP. CLEANOUT (TYP.) (1/56)

PROP. CHANNEL AR–13 (2/51, 1/50)

PROP. CHANNEL D–2 (2/51, 1/50)

PROP. CHANNEL AR–19 (2/51, 1/50)

PROP. CHANNEL D–3 (2/51, 1/50)

PROP. POND D INTERNAL ACCESS ROAD (6/51)

PROP. FINAL GRADE (5/50)

PROP. SETTLEMENT MONUMENT (TYP.) (7/50)

PROP. CLEANOUT (TYP.) (1/56)

PROP. LIMIT OF GEOSYNTHETIC CAP AREA = 70.39 AC (4/50)

PROP. POND D INTERNAL ACCESS ROAD (6/51)

PROP. ACCESS ROAD CULVERT AR–14 (5/51)

PROP. CHANNEL AR–14 (2/51, 1/50)

1% SLOPE IN CHANNEL

PS

COCKPIT POINT ROAD

MAPPING REFERENCE:

EXISTING TOPOGRAPHY PREPARED BY KEDDAL AERIAL MAPPING. PHOTOGRAPHY DATED 02–13–2015. VA–N NAD83 (2011) NAVD88 (GEOID 12A) 1 FT. CONTOUR INTERVALS

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ROW AND BOUNDARY SURVEY INFORMATION SHOWN BY GAI CONSULTANTS DATED, 7–27–2015

SCALE: 1" = 50'

50 0 50 100

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DRAWING TITLE

PHASE 3 GRADING PLAN ENLARGEMENT - POND D CLOSURE (6 OF 7)

CLIENT

VIRGINIA ELECTRIC AND POWER COMPANY
GLEN ALLEN, VA

PROJECT

POSSUM POINT POWER STATION
COAL COMBUSTION RESIDUAL SURFACE IMPOUNDMENT CLOSURES
DUMFRIES, VA

gai consultants

ISSUING OFFICE: Richmond | 4198 Cox Road, Suite 114, Glen Allen, VA 23060

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COMMONWEALTH OF VIRGINIA
JOHN R. KLAMUT
Lic. No. 048859
12/7/2015
PROFESSIONAL ENGINEER

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DWG TYPE:	SCALE:	ISSUE DATE:
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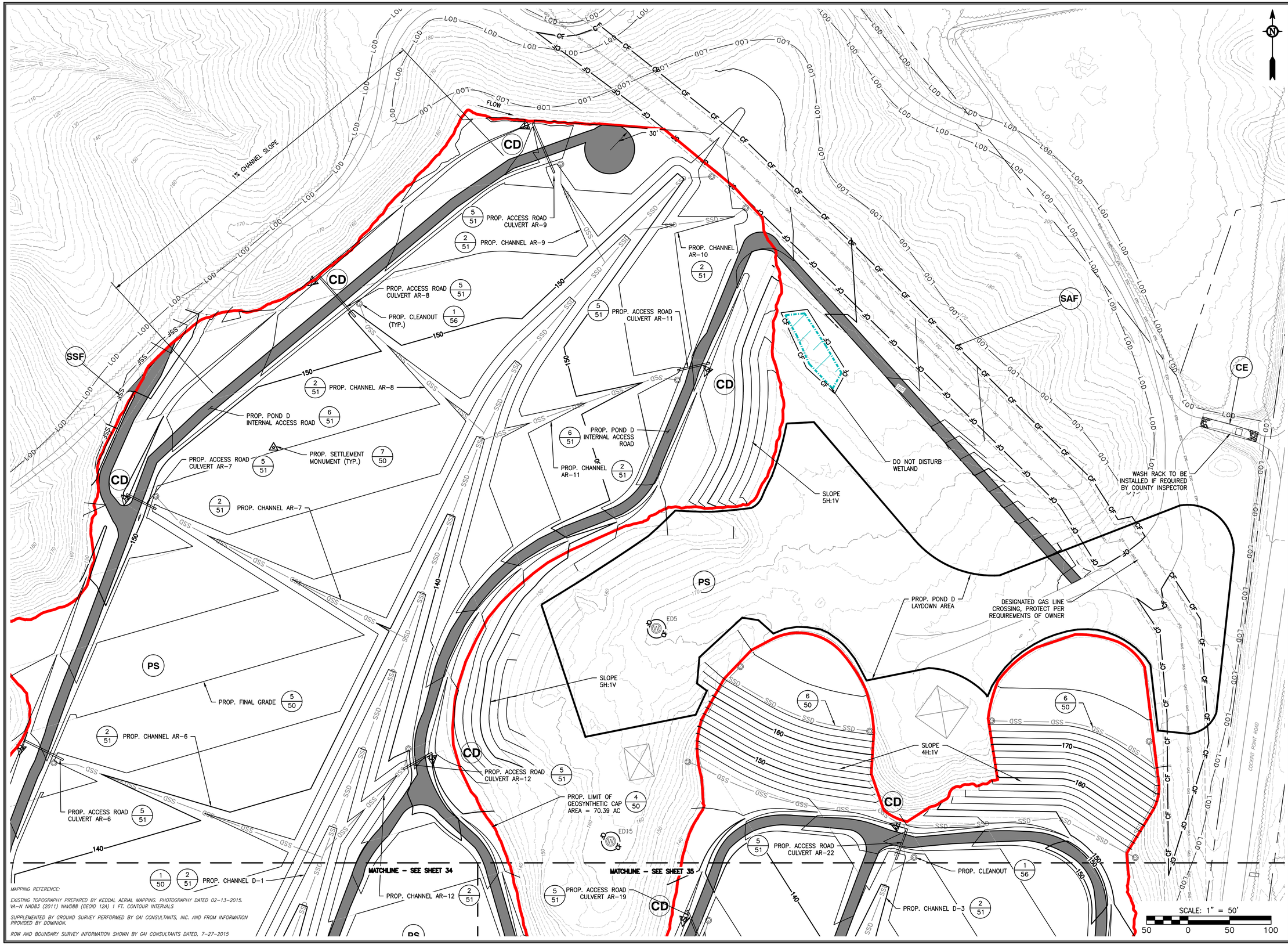
GAI FILE NUMBER:		
C150132-00-000-C-D1-030		
ALT./CLIENT DRAWING NUMBER:		
GAI DRAWING NUMBER:		
035		

PERMIT



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PROJECT
POSSUM POINT POWER STATION
COAL COMBUSTION RESIDUAL
SURFACE IMPOUNDMENT
CLOSURES
DUMFRIES, VA

DRAWING TITLE
PHASE 3 GRADING PLAN ENLARGEMENT - POND D CLOSURE (7 OF 7)

CLIENT
VIRGINIA ELECTRIC AND
POWER COMPANY
GLEN ALLEN, VA

gai consultants

COMMONWEALTH OF VIRGINIA
JOHN R. KLAMUT
Lic. No. 048859
12/7/2015
PROFESSIONAL ENGINEER

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DWG TYPE:	SCALE:	ISSUE DATE:
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SHEET NO.:		REVISION
36 OF 65		
GAI FILE NUMBER:		
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GAI DRAWING NUMBER:		
036		

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