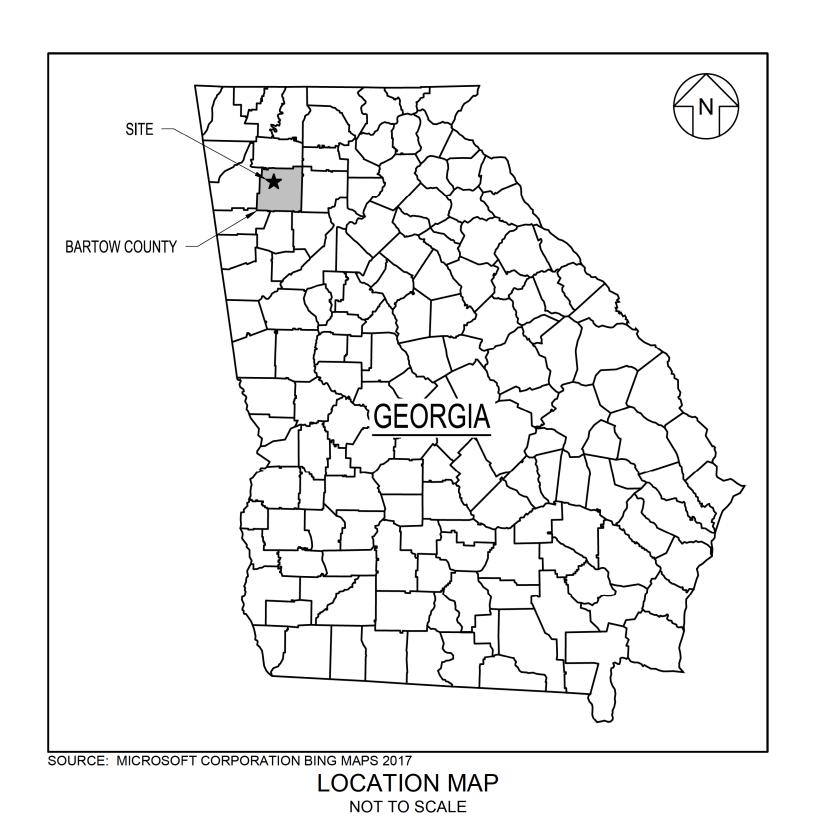
PLANT BOWEN ASH POND 1 (AP-1) CLOSURE CLOSURE DRAWINGS BARTOW COUNTY, GEORGIA

AUGUST 2021



PREPARED FOR:



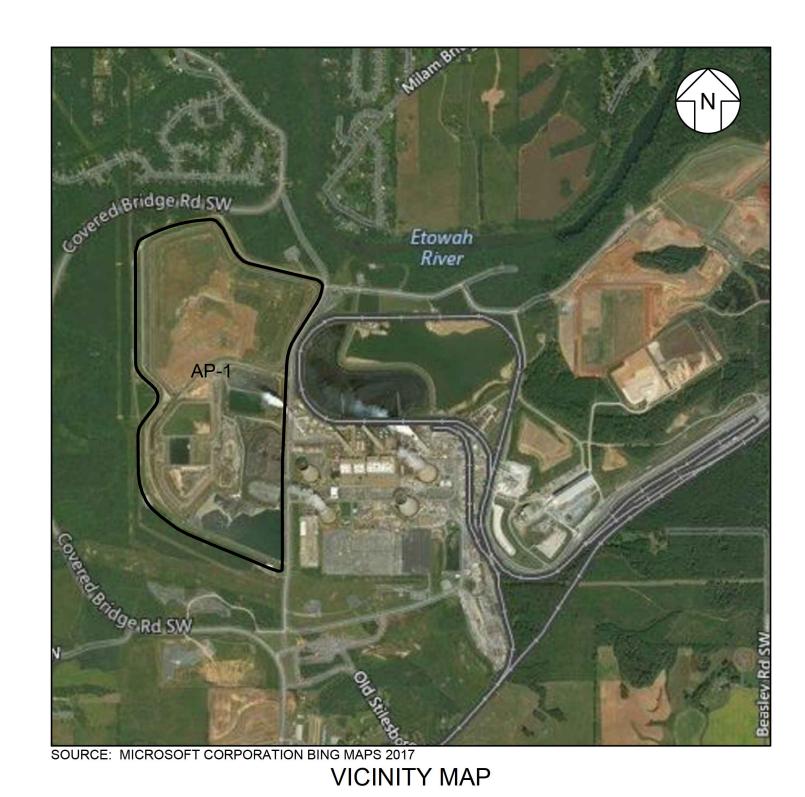
GEORGIA POWER ENVIRONMENTAL AFFAIRS 241 RALPH MCGILL BOULEVARD NE ATLANTA, GEORGIA 30308 CONTACT: GENERAL MANAGER TELEPHONE: 404.506.6505

PREPARED BY:

consultants

1255 ROBERTS BOULEVARD NW, SUITE 200 KENNESAW, GEORGIA 30144-3694 TELEPHONE: 678.202.9500

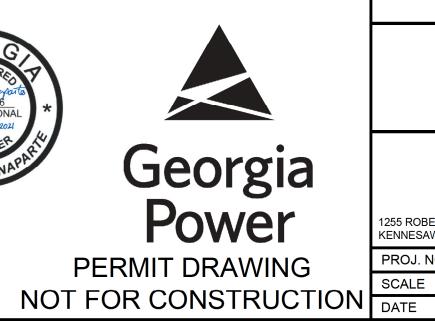
RAWING NO.	DRAWING TITLE	REVISION	DATE
1	COVER SHEET	0	AUGUST 2021
2	LEGENDS, ABBREVIATIONS, AND REFERENCE NOTES	0	AUGUST 2021
3	PERMIT BOUNDARY SURVEY AND LEGAL DESCRIPTION	0	AUGUST 2021
4	SITE PLAN	0	AUGUST 2021
5	EXISTING SITE CONDITIONS AND TOPOGRAPHY	0	AUGUST 2021
6	APPROXIMATE BOTTOM OF AP-1 GRADES	0	AUGUST 2021
7	FOUNDATION IMPROVEMENT PLAN	0	AUGUST 2021
8	EXCAVATION PLAN - OVERALL	0	AUGUST 2021
9	EXCAVATION PLAN - SOUTH AP-1	0	AUGUST 2021
10	EXCAVATION PLAN - NORTH AP-1	0	AUGUST 2021
11	TOP OF LINER GRADING PLAN - OVERALL	0	AUGUST 2021
12	TOP OF LINER GRADING PLAN - SOUTH AP-1	0	AUGUST 2021
13	TOP OF LINER GRADING PLAN - NORTH AP-1	0	AUGUST 2021
14	TOP OF CCR GRADING PLAN - OVERALL	0	AUGUST 2021
15	TOP OF CCR GRADING PLAN - SOUTH AP-1	0	AUGUST 2021
16	TOP OF CCR GRADING PLAN - NORTH AP-1	0	AUGUST 2021
17	FINAL CLOSURE GRADING PLAN - OVERALL	0	AUGUST 2021
18	FINAL CLOSURE GRADING PLAN - SOUTH AP-1	0	AUGUST 2021
19	FINAL CLOSURE GRADING PLAN - NORTH AP-1	0	AUGUST 2021
20	CLOSURE PHASING PLANS I	0	AUGUST 2021
21	CLOSURE PHASING PLANS II	0	AUGUST 2021
22	CLOSURE PHASING PLANS III	0	AUGUST 2021
23	CLOSURE PHASING PLANS IV	0	AUGUST 2021
24	SITE CROSS SECTIONS I	0	AUGUST 2021
25	SITE CROSS SECTIONS II	0	AUGUST 2021
26	SITE CROSS SECTIONS III	0	AUGUST 2021
27	LINER SYSTEM DETAILS I	0	AUGUST 2021
28	LINER SYSTEM DETAILS II	0	AUGUST 2021
29	FINAL COVER SYSTEM DETAILS	0	AUGUST 2021
30	PERIMETER DETAILS	0	AUGUST 2021
31	PERIMETER BERM CROSS SECTIONS I	0	AUGUST 2021
32	PERIMETER BERM CROSS SECTIONS II	0	AUGUST 2021
33	LEACHATE MANAGEMENT PLAN	0	AUGUST 2021
34	LEACHATE MANAGEMENT SYSTEM DETAILS I	0	AUGUST 2021
35	LEACHATE MANAGEMENT SYSTEM DETAILS II	0	AUGUST 2021
36	LEACHATE MANAGEMENT SYSTEM DETAILS III	0	AUGUST 2021
37	LEACHATE MANAGEMENT SYSTEM DETAILS IV	0	AUGUST 2021
38	STORMWATER MANAGEMENT SYSTEM PLAN - OVERVIEW	0	AUGUST 2021
39	STORMWATER MANAGEMENT SYSTEM PLAN - SOUTH AP-1	0	AUGUST 2021
40	STORMWATER MANAGEMENT SYSTEM PLAN - NORTH AP-1	0	AUGUST 2021
41	STORMWATER MANAGEMENT SYSTEM DETAILS I	0	AUGUST 2021
42	STORMWATER MANAGEMENT SYSTEM DETAILS II	0	AUGUST 2021
43	STORMWATER MANAGEMENT SYSTEM DETAILS III	0	AUGUST 2021
44	STORMWATER MANAGEMENT SYSTEM DETAILS IV	0	AUGUST 2021
45	STORMWATER MANAGEMENT SYSTEM DETAILS V	0	AUGUST 2021
46	STORMWATER MANAGEMENT SYSTEM DETAILS VI	0	AUGUST 2021
47	EROSION AND SEDIMENT CONTROL DETAILS I	0	AUGUST 2021
48	EROSION AND SEDIMENT CONTROL DETAILS II	0	AUGUST 2021
49	EROSION AND SEDIMENT CONTROL DETAILS III	0	AUGUST 2021



PHYSICAL SITE ADDRESS: PLANT BOWEN 317 COVERED BRIDGE ROAD SW CARTERSVILLE, GEORGIA 30120







PLANT BOWEN ASH POND 1 (AP-1)

0 AUG. 2021

REV DATE

Geosyntec •

SUBMITTAL TO GA EPD

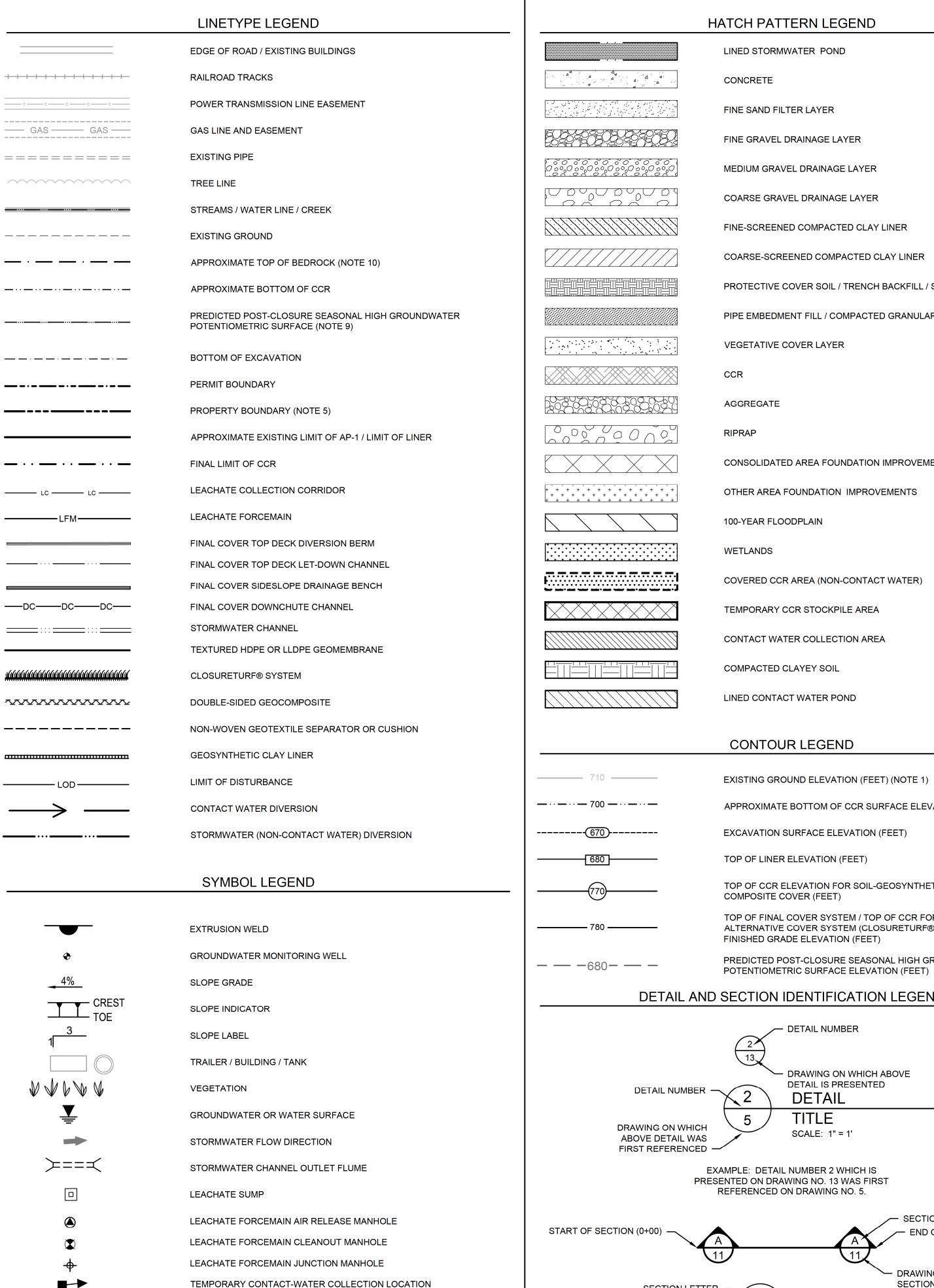
COVER SHEET

CLOSURE DRAWINGS BARTOW COUNTY, GEORGIA

consultants

	PHONE: 678.202.950 WWW.GEOSYNTEC.CO O. GR6601 DWG. GR6601-001 EDIT 8.16.202 AS SHOWN DRAWING 1 OF 50						
. NO.	GR6601	DWG.	GR6601-001	ED)IT 8. <i>*</i>	16.2021	
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PROTECTIVE COVER SOIL / TRENCH BACKFILL / STRUCTURAL FILL PIPE EMBEDMENT FILL / COMPACTED GRANULAR SUBBASE CONSOLIDATED AREA FOUNDATION IMPROVEMENTS APPROXIMATE BOTTOM OF CCR SURFACE ELEVATION (FEET) TOP OF CCR ELEVATION FOR SOIL-GEOSYNTHETIC TOP OF FINAL COVER SYSTEM / TOP OF CCR FOR ALTERNATIVE COVER SYSTEM (CLOSURETURF® COVER) / PREDICTED POST-CLOSURE SEASONAL HIGH GROUNDWATER DETAIL AND SECTION IDENTIFICATION LEGEND SECTION LETTER END OF SECTION DRAWING ON WHICH ABOVE SECTION IS PRESENTED SECTION LETTER SECTION TITLE DRAWING ON WHICH SCALE: 1" = 100' (HORIZONTAL); 1" = 20' (VERTICAL) ABOVE SECTION WAS FIRST REFERENCED

EXAMPLE: SECTION LETTER "A" WHICH IS

PRESENTED ON DRAWING NO. 11 WAS FIRST

REFERENCED ON DRAWING NO. 5.

	ABBREVIATIONS
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
AC	ACRES
APP	APPROVED BY
CAD	COMPUTER-AIDED DRAFTING
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
C-TRM	COMPOSITE TURF REINFORCEMENT MAT
CCR	COAL COMBUSTION RESIDUALS
¢	CENTERLINE
CQA	CONSTRUCTION QUALITY ASSURANCE
DIA	DIAMETER
DRN	DRAWN BY
DWG	DRAWING
E	EAST OR EASTING
ΞL	ELEVATION
ΞPA	ENVIRONMENTAL PROTECTION AGENCY
FEMA	FEDERAL EMERGENCY MANAGEMENT AGENCY
FT	FEET
GDOT	GEORGIA DEPARTMENT OF TRANSPORTATION
GPC	GEORGIA POWER COMPANY
GSWCC	GEORGIA SOIL AND WATER CONSERVATION COMMISSION
GSWP	GENERAL SERVICE WATER POND
H:V	HORIZONTAL TO VERTICAL LENGTH RATIO FOR A SLOPE
HDPE	HIGH DENSITY POLYETHYLENE
HECP	HYDRAULIC EROSION CONTROL PRODUCTS
HPTRM	HIGH PERFORMANCE TURF REINFORCEMENT MAT
HWY	HIGHWAY
N	INCH
NV	INVERT
LBS	POUNDS
LF	LINEAR FOOT
LLDPE	LINEAR LOW DENSITY POLYETHYLENE
LOD	LIMITS OF DISTURBANCE
MAX	MAXIMUM
MIN	MINIMUM
MSL	MEAN SEA LEVEL
N	NORTH / NORTHING
NAD	NORTH AMERICAN DATUM
NAVD88	NORTH AMERICAN VERTICAL DATUM OF 1988
NF	NORTHEAST

NORTHEAST

NOT TO SCALE

NORTHWEST

ON CENTER

PERIMETER CHANNEL

REINFORCED CONCRETE PIPE

ROLLED EROSION CONTROL PRODUCTS

SOUTHERN COMPANY SERVICES

OUNCE

PROJECT

ROAD

REVISION

SOUTH

SILT FENCE

TYPICAL

ULTRAVIOLET

WEST OR WIDTH

WATER SURFACE

STORMWATER PIPE

TURF REINFORCEMENT MAT

WASTEWATER TREATMENT SYSTEM

PERCENT OR PERCENTILE

RECYCLE POND

NATIONAL STONE ASSOCIATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

NUMBER

NPDES

N.S.A.

PROJ

RD

TYP

CCR IN THE FIELD.

CONDITIONS.

APPLICATION).

5 OF THIS PERMIT APPLICATION).

CONTACT WATER AND "CLEAN" (I.E., NON-CONTACT) STORMWATER - WILL BE CONDUCTED IN ACCORDANCE WITH THE STORMWATER AND CONTACT WATER MANAGEMENT PROCEDURES DESCRIBED IN THE "CLOSURE PLAN" (PART A, SECTION 7 OF THIS PERMIT APPLICATION). IN SUMMARY: CONTACT WATER WILL BE PUMPED OR CONVEYED BY GRAVITY TO DESIGNATED STORAGE AREAS IN AP-1, WHERE IT WILL BE PUMPED TO AN ON-SITE WASTEWATER TREATMENT SYSTEM (WWTS) OR OTHERWISE PROPERLY MANAGED IN ACCORDANCE WITH THE PLANT'S NPDES PERMIT REQUIREMENTS AND THEN DISCHARGED OFF-SITE VIA NPDES OUTFALL NO. 01A. NON-CONTACT STORMWATER WILL BE DISCHARGED TO RECEIVING WATER BODIES WITHOUT

16. INTERIM STORM WATER MANAGEMENT DURING CLOSURE CONSTRUCTION - INCLUDING MANAGEMENT OF

GENERAL SITE NOTES

1. IN THE VICINITY OF AP-1, TOPOGRAPHY, UTILITIES, EXISTING ROADS, STREAMS, AND TREELINES SHOWN ON THIS DRAWING SET IS FROM A LIDAR TOPOGRAPHIC SURVEY DATED 4/1/2017, PROVIDED AS AN ELECTRONIC

TOPOGRAPHY IS FROM UNITED STATES GEOLOGIC SURVEY (USGS) DIGITAL MAPPING FILE, "NED 1 N35W085

3. ELEVATIONS ARE SHOWN IN FEET ABOVE MEAN SEA LEVEL (FT, MSL), THE NORTH AMERICAN VERTICAL DATUM

4. GRID COORDINATE SYSTEM CORRESPONDS TO NORTH AMERICAN DATUM OF 1983 (NAD83), GEORGIA STATE

5. PROPERTY BOUNDARY IS APPROXIMATE AND WAS PROVIDED AS AN ELECTRONIC CAD DRAWING FILE BY

6. MONITORING WELL COORDINATES, GROUND SURFACE ELEVATIONS, AND SCREENED INTERVALS WERE OBTAINED FROM THE "SEPTEMBER 2020 WELL INSTALLATION ADDENDUM MEMORANDUM" DATED 29

INTERPRETATION, EXAMINATION OF AS-BUILT PLANS OF CONTAINMENT DIKES, AND AIRPHOTO

EXISTING LIMITS OF AP-1 AS PRESENTED IN THIS DRAWING SET ARE APPROXIMATE AND REPRESENT THE

INTERPRETATION. FROM THIS INFORMATION, AN ESTIMATE WAS MADE OF THE LATERAL LOCATION AND

8. BOTTOM OF CCR SURFACE IS APPROXIMATE AND IS BASED ON AN ELECTRONIC CAD DRAWING PROVIDED BY

9. PREDICTED POST-CLOSURE SEASONAL HIGH GROUNDWATER POTENTIOMETRIC SURFACE OBTAINED FROM

GROUNDWATER FLOW MODELING RESULTS AS DOCUMENTED IN THE "HYDROGEOLOGIC ASSESSMENT

10. TOP OF BEDROCK SURFACE IS APPROXIMATE AND WAS DEVELOPED BY GEOSYNTEC USING AVAILABLE

11. DURING CLOSURE CONSTRUCTION, CONTRACTOR WILL VERIFY BOTH LATERAL AND VERTICAL EXTENT OF

12. EXCAVATION SURFACE IS APPROXIMATE AND WAS DEVELOPED BASED ON THE ESTIMATED BOTTOM OF CCR

FOOTPRINT (CLOSURE-BY-REMOVAL AREAS) AS NEEDED TO GRADE TO DRAIN UNDER FINAL CLOSED

13. EXCAVATION GRADES WILL BE ADJUSTED AS NECESSARY DURING CLOSURE CONSTRUCTION BASED ON

14. MATERIAL PROPERTIES FOR THE FILL SOIL, LINER SYSTEM, LEACHATE COLLECTION SYSTEM, AND FINAL

IMPROVEMENT PLAN" (INCLUDED IN THE "CLOSURE PLAN" IN PART A, SECTION 7 OF THIS PERMIT

15. DEWATERING OF CCR DURING CLOSURE CONSTRUCTION WILL BE PERFORMED AS NEEDED.

APPLYING THE ABOVE CRITERIA TO THE ACTUAL FIELD-LOCATED BOTTOM OF CCR. AS WELL AS BASED ON

COVER SYSTEM ARE PROVIDED IN THE "CONSTRUCTION QUALITY ASSURANCE (CQA) PLAN" (PART A, SECTION

FOUNDATION EVALUATIONS AND IMPROVEMENTS CONDUCTED IN ACCORDANCE WITH THE "FOUNDATION

AND TO MEET THE FOLLOWING CRITERIA: (I) EXCAVATE AT LEAST SIX INCHES BELOW THE BOTTOM OF CCR

SURFACE IN ALL AREAS OF AP-1; (II) CONDUCT ADDITIONAL EXCAVATION AS NEEDED BENEATH THE FLOOR

AREAS OF THE CONSOLIDATED LINED FOOTPRINT AND BENEATH THE BASE OF THE NEW NORTH AND SOUTH

CONTAINMENT DIKES TO PROVIDE AN 8-FT (MIN) COMPACTED SOIL BUFFER ZONE BELOW THE LINER SYSTEM;

AND (III) CONDUCT ADDITIONAL EXCAVATION IN THE AREAS SOUTH AND NORTH OF THE CONSOLIDATED LINED

IN AP-1. ON INTERIOR DIKE SIDESLOPES, BOTTOM OF CCR SURFACE WAS CREATED USING A TWO

SOUTHERN COMPANY SERVICES OF THE AS-CONSTRUCTED (PRE-ASH) BOTTOM OF AP-1 FROM TOPOGRAPHY DATED 10/30/1969, WITH UPDATES TO THE SURFACE MADE BY GEOSYNTEC USING ELEVATION DATA OF THE

CCR-RESIDUUM INTERFACE AS ESTIMATED FROM BORINGS DURING RECENT SUBSURFACE INVESTIGATIONS

INTERIOR CREST OF THE CONTAINMENT DIKES. LIMITS ARE BASED ON A COMBINATION OF TOPOGRAPHIC MAP

COMPUTER-AIDED DRAFTING DRAWING FILE BY SOUTHERN COMPANY SERVICES.

SEPTEMBER 2020, PREPARED BY GEOSYNTEC CONSULTANTS, INC.

REPORT (REVISION 3)" (PART B, SECTION 2 OF THIS PERMIT APPLICATION).

SUBSURFACE INFORMATION FROM PREVIOUS SITE INVESTIGATIONS.

ARCGRID GEORGIA".

OF 1988 (NAVD88).

PLANE, WEST ZONE, US FOOT.

SOUTHERN COMPANY SERVICES.

VERTICAL PROFILE OF THE AP-1 LIMITS.

HORIZONTAL TO ONE VERTICAL (2H:1V) SLOPE.

2. BEYOND THE AP-1 AREA MAPPED WITH LIDAR TOPOGRAPHY AS DELINEATED ON THE DRAWINGS,

- 17. DUST CONTROL DURING CLOSURE CONSTRUCTION WILL BE MANAGED AS DESCRIBED IN THE "CLOSURE PLAN" (PART A, SECTION 7 OF THIS PERMIT APPLICATION).
- 18. INTERNAL HAUL ROADS, ACCESS RAMPS, AND INTERIM STORMWATER FEATURE LOCATIONS WILL BE EVALUATED AS PART OF THE DETAILED DESIGN. ADDITIONAL BERMS AND EXTERIOR DIVERSIONS WILL BE CONSTRUCTED, AS NEEDED, TO ADEQUATELY MANAGE STORMWATER RUNOFF.
- 19. VOLUME OF IN-PLACE CCR TO BE REMOVED FROM AP-1 IS ESTIMATED TO DECREASE (SHRINK) BY APPROXIMATELY 10 PERCENT UPON DEWATERING, PLACEMENT, AND COMPACTION WITHIN THE CONSOLIDATED LINED FOOTPRINT. AS PHASED CLOSURE CONSTRUCTION PROGRESSES, ACTUAL CCR QUANTITIES AND SHRINKAGE FACTORS WILL BE TRACKED AND COMPARED TO THE REMAINING CAPACITY, AND THE SIZE OF THE CONSOLIDATED LINED FOOTPRINT AND/OR ELEVATIONS OF THE FINAL COVER GRADES WILL BE REVISED ACCORDINGLY TO ACCOMMODATE THE ACTUAL SITE-SPECIFIC CCR VOLUME, WHILE MAINTAINING COMPLIANCE WITH APPLICABLE DESIGN CRITERIA.







SUBMITTAL TO GA EPD AUG. 2021 JJV/KH REV DESCRIPTION DRN

PLANT BOWEN ASH POND 1 (AP-1) **CLOSURE DRAWINGS** BARTOW COUNTY, GEORGIA

PHONE: 678.202.950

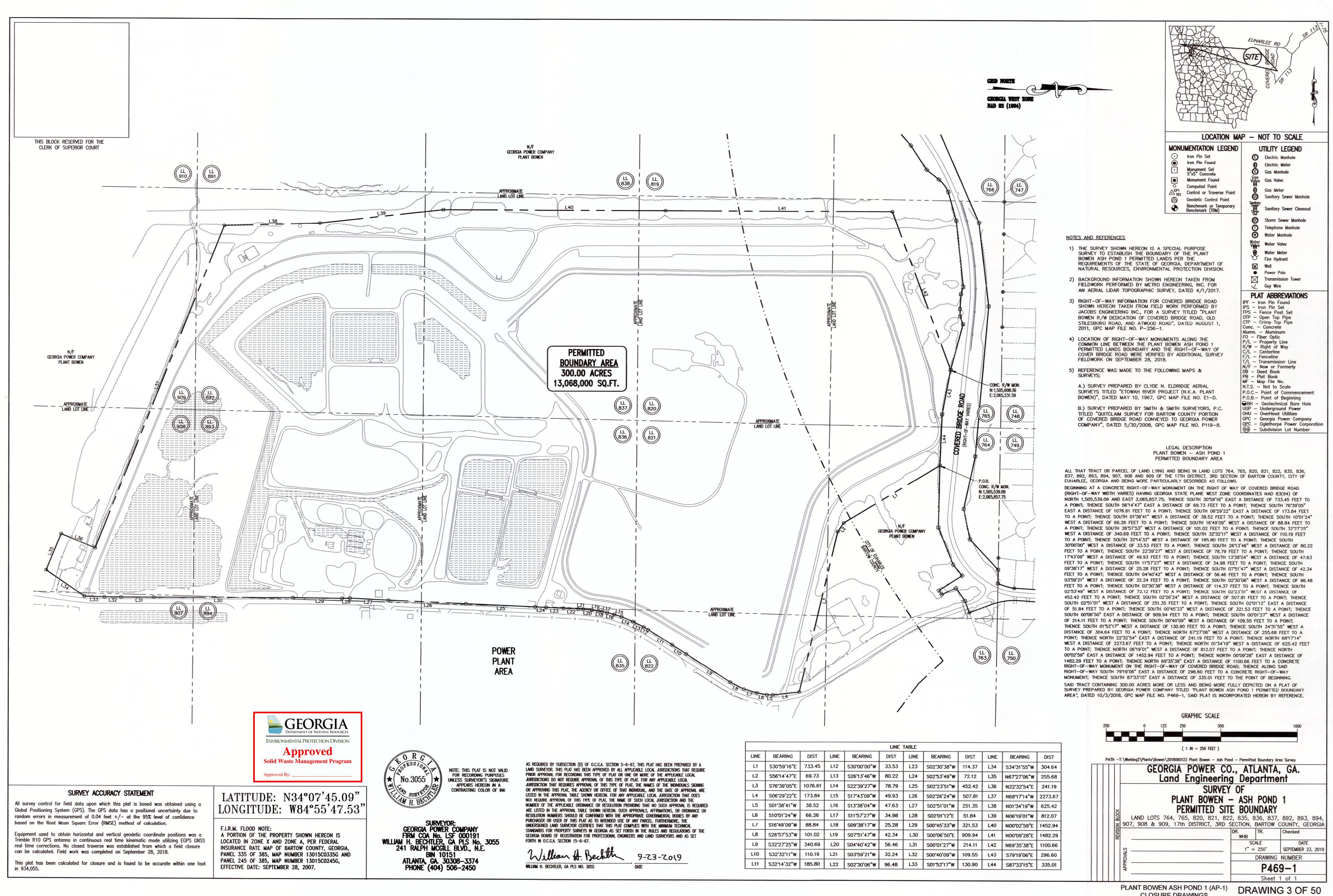
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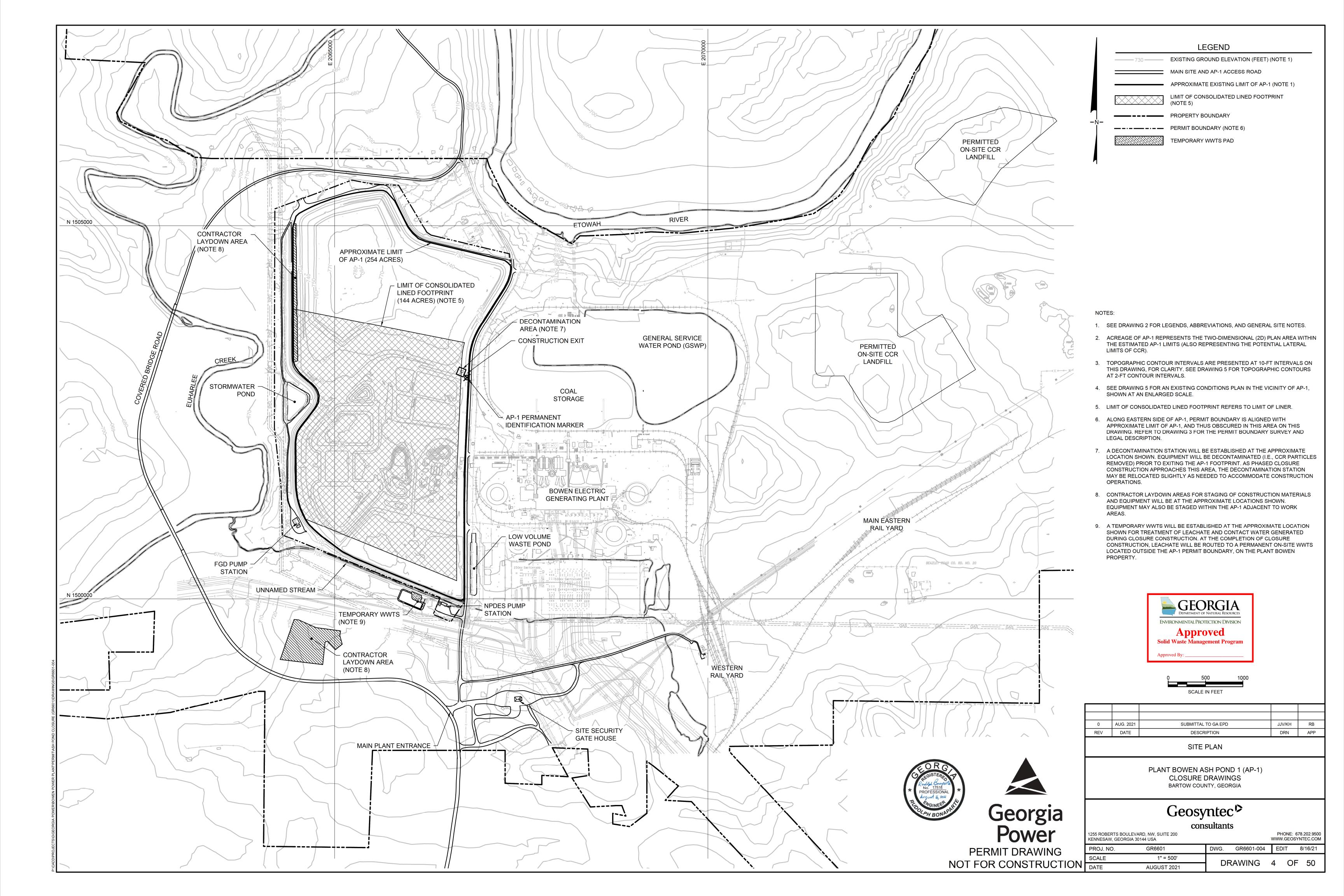
LEGENDS, ABBREVIATIONS, AND REFERENCE NOTES

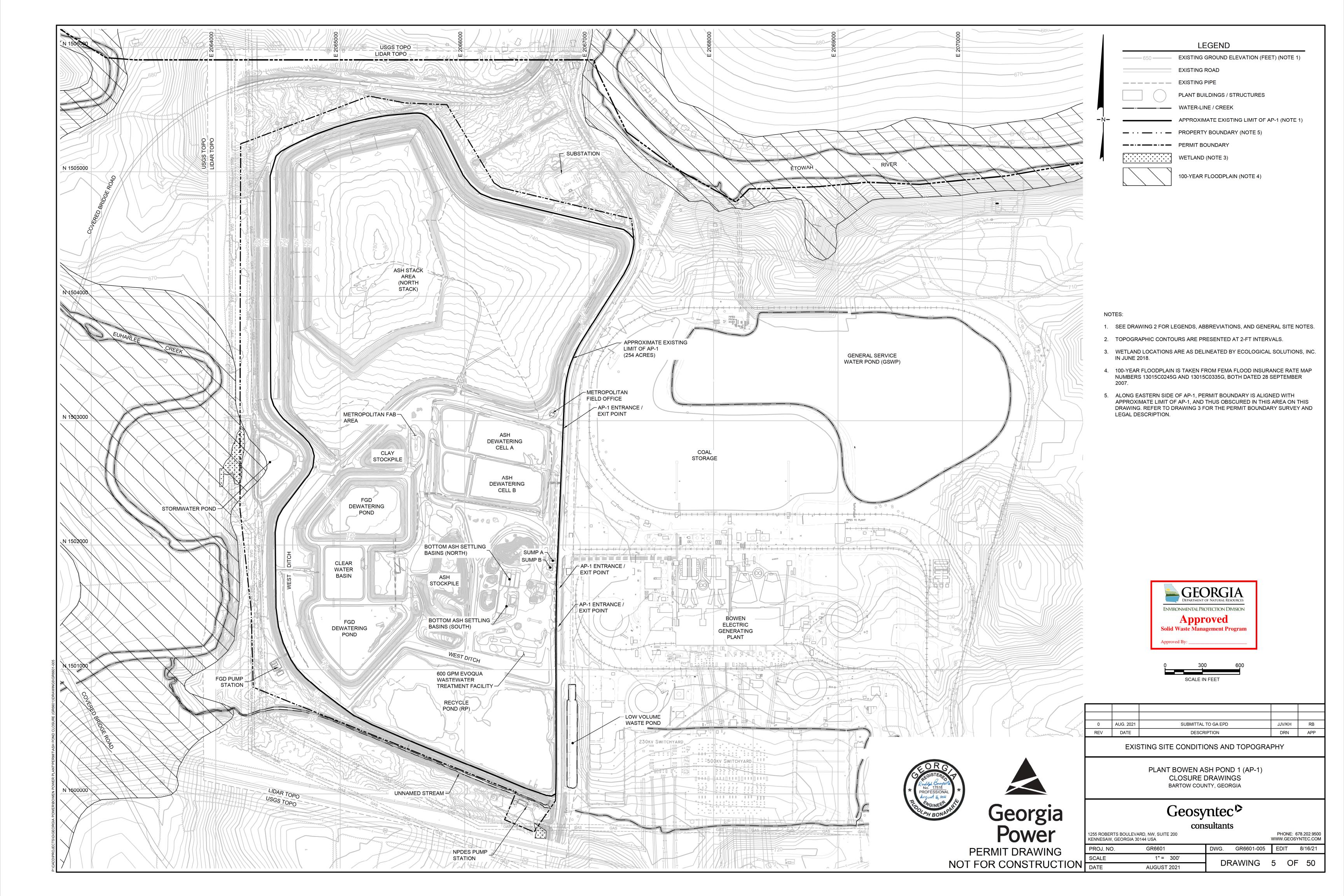
Geosyntec >

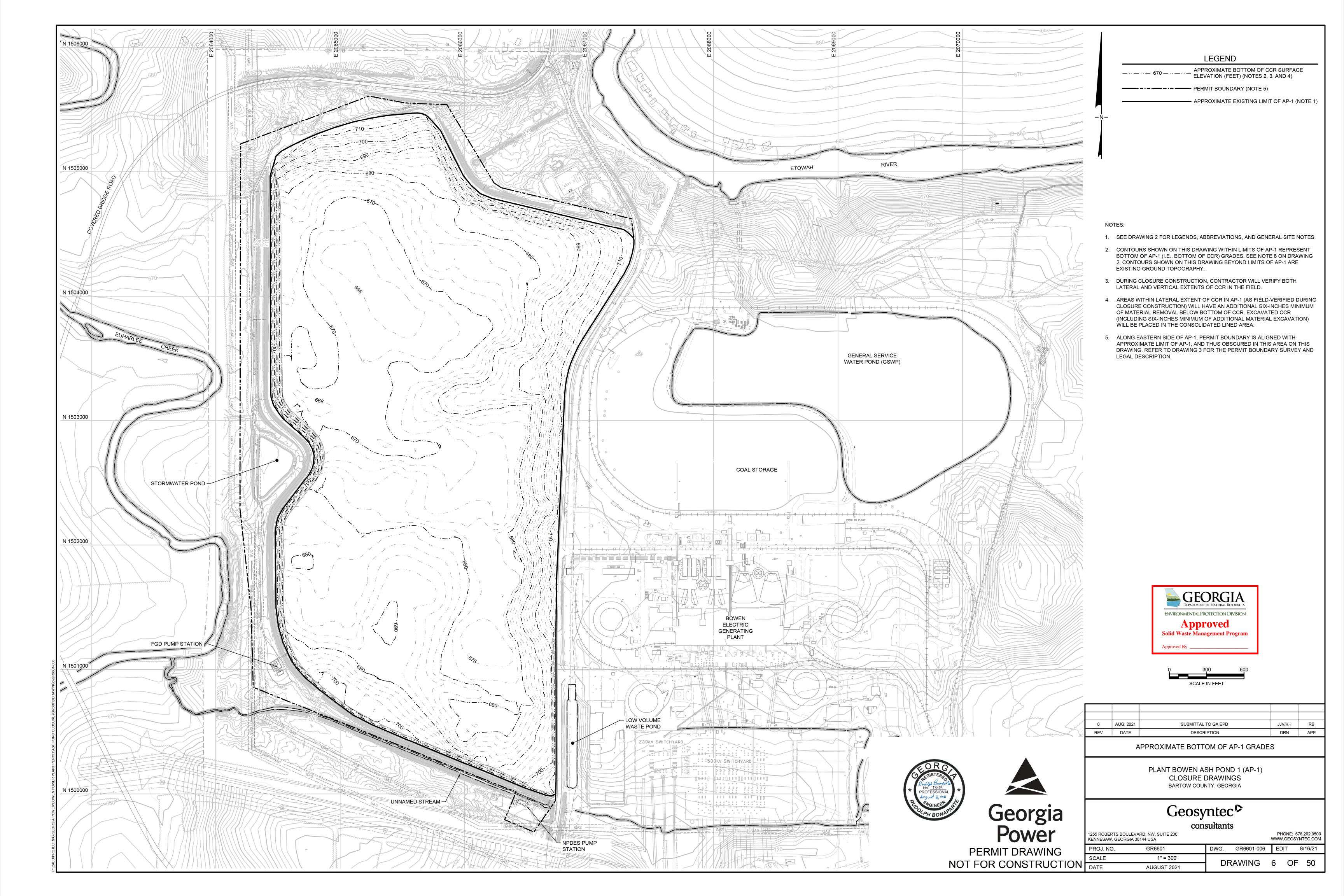
consultants 255 ROBERTS BOULEVARD, NW, SUITE 200

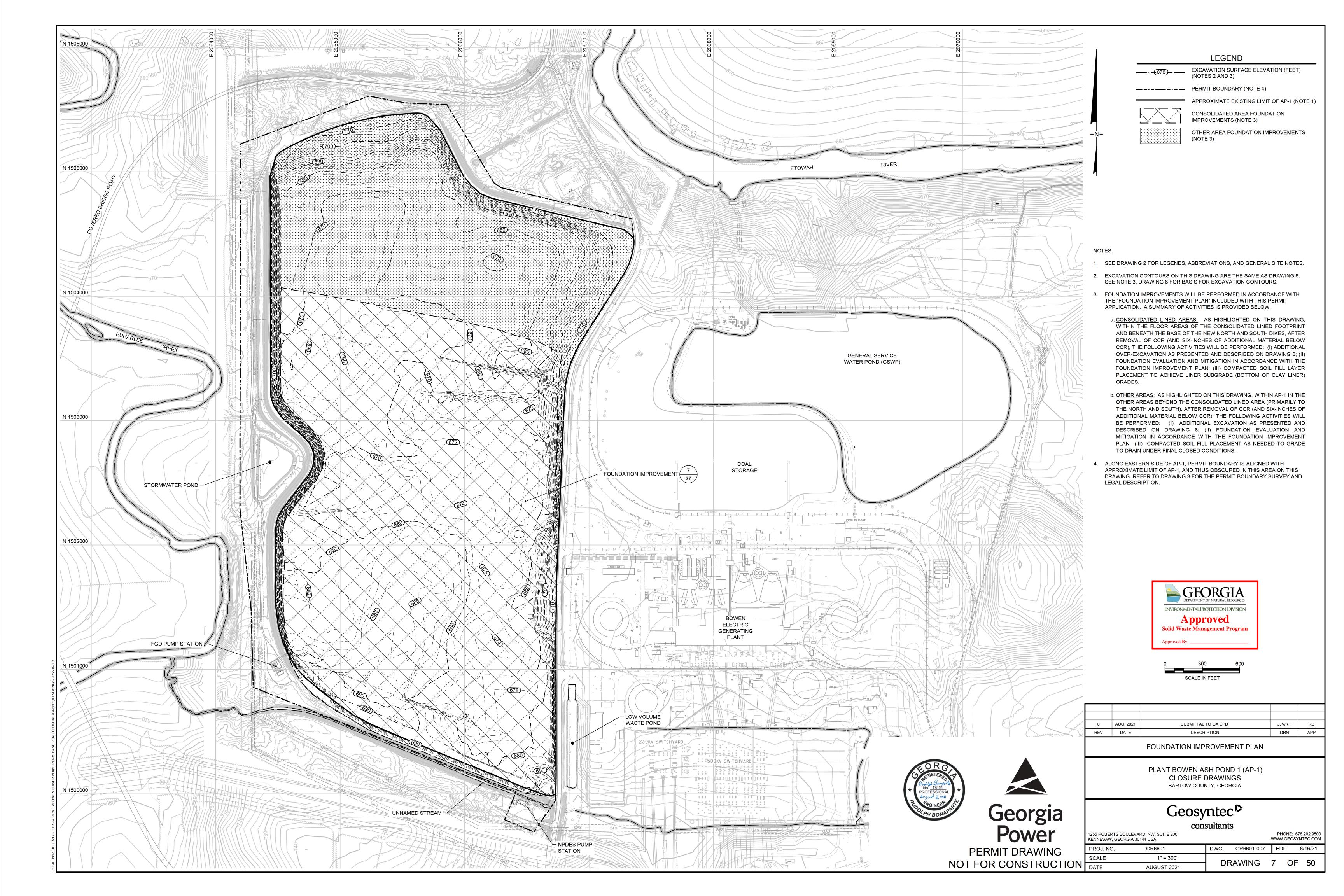
KENNESAW GEORGIA 30144 USA WWW.GEOSYNTEC.COM PROJ. NO. PERMIT DRAWING SCALE NOT FOR CONSTRUCTION

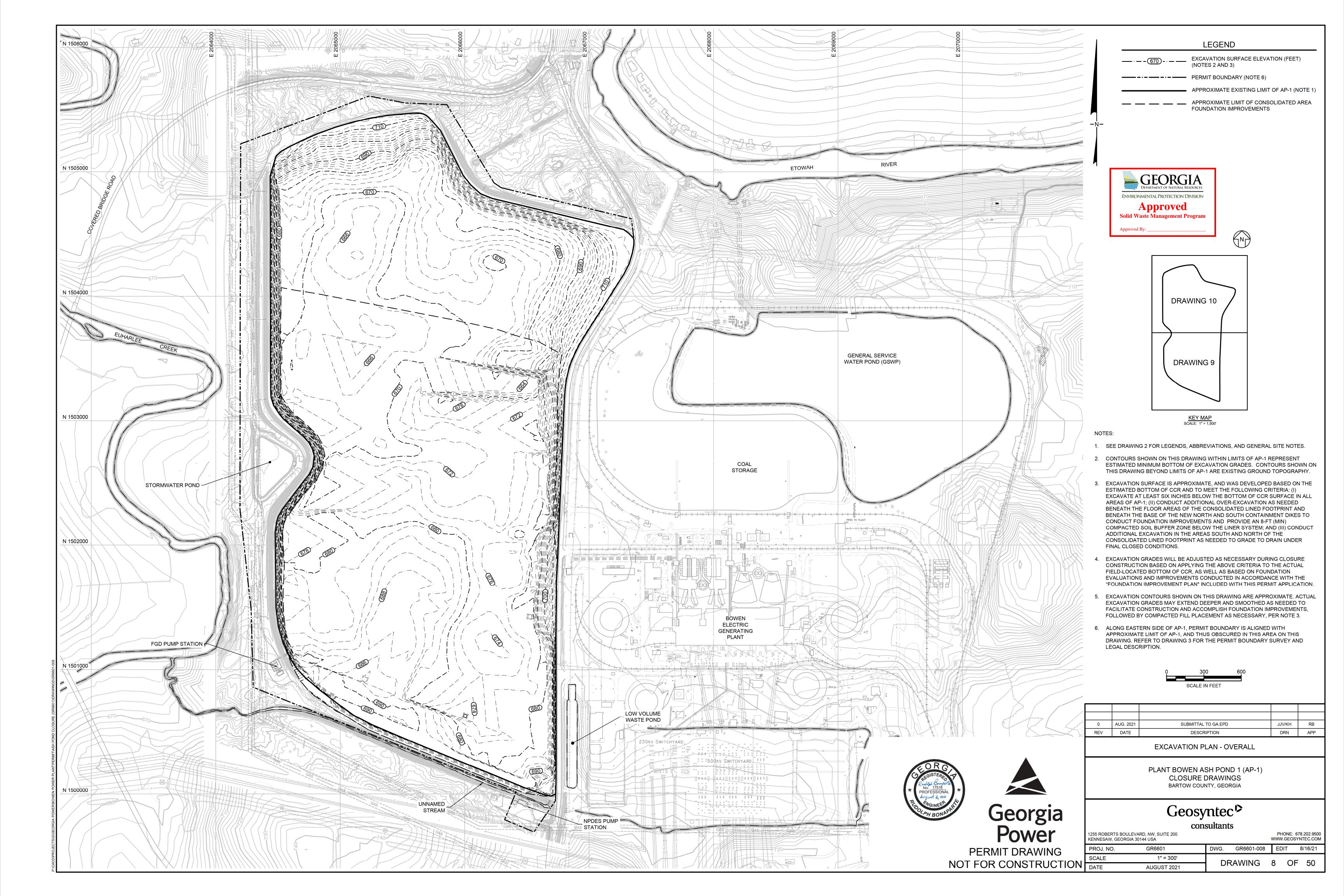


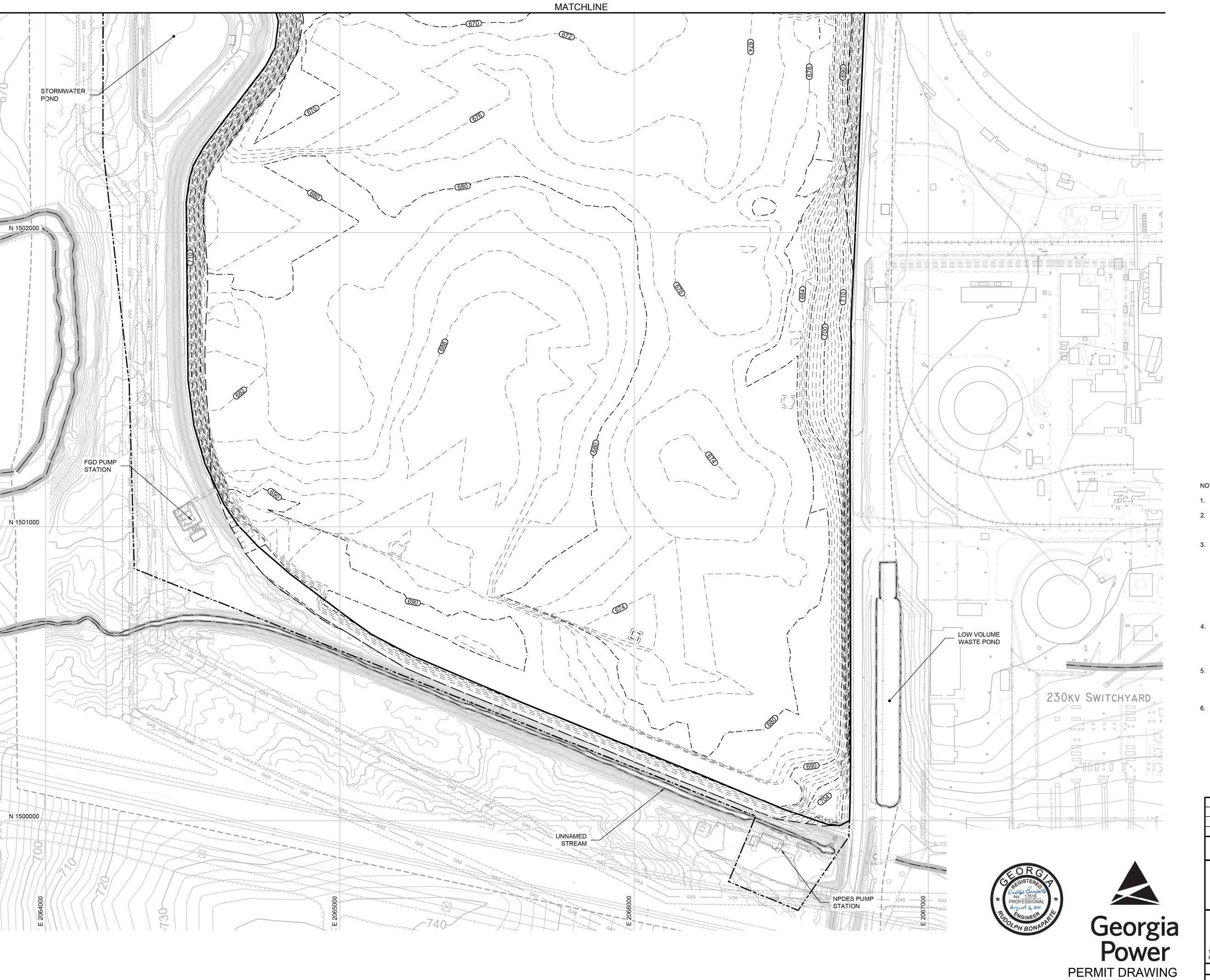


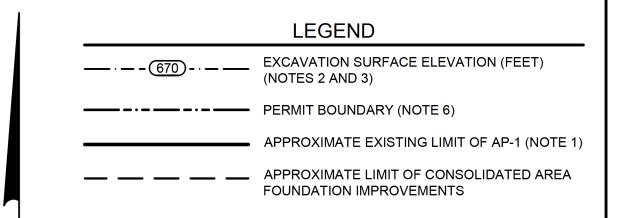




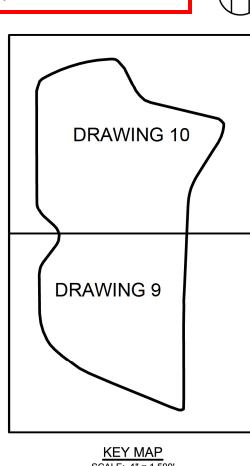












NOTES:

- 1. SEE DRAWING 2 FOR LEGENDS, ABBREVIATIONS, AND GENERAL SITE NOTES.
- 2. CONTOURS SHOWN ON THIS DRAWING WITHIN LIMITS OF AP-1 REPRESENT ESTIMATED MINIMUM BOTTOM OF EXCAVATION GRADES. CONTOURS SHOWN ON THIS DRAWING BEYOND LIMITS OF AP-1 ARE EXISTING GROUND TOPOGRAPHY.
- 3. EXCAVATION SURFACE IS APPROXIMATE, AND WAS DEVELOPED BASED ON THE ESTIMATED BOTTOM OF CCR AND TO MEET THE FOLLOWING CRITERIA: (I) EXCAVATE AT LEAST SIX INCHES BELOW THE BOTTOM OF CCR SURFACE IN ALL AREAS OF AP-1; (II) CONDUCT ADDITIONAL OVER-EXCAVATION AS NEEDED BENEATH THE FLOOR AREAS OF THE CONSOLIDATED LINED FOOTPRINT AND BENEATH THE BASE OF THE NEW NORTH AND SOUTH CONTAINMENT DIKES TO CONDUCT FOUNDATION IMPROVEMENTS AND PROVIDE AN 8-FT (MIN) COMPACTED SOIL BUFFER ZONE BELOW THE LINER SYSTEM; AND (III) CONDUCT ADDITIONAL EXCAVATION IN THE AREAS SOUTH AND NORTH OF THE CONSOLIDATED LINED FOOTPRINT AS NEEDED TO GRADE TO DRAIN UNDER FINAL CLOSED CONDITIONS.
- EXCAVATION GRADES WILL BE ADJUSTED AS NECESSARY DURING CLOSURE CONSTRUCTION BASED ON APPLYING THE ABOVE CRITERIA TO THE ACTUAL FIELD-LOCATED BOTTOM OF CCR, AS WELL AS BASED ON FOUNDATION EVALUATIONS AND IMPROVEMENTS CONDUCTED IN ACCORDANCE WITH THE "FOUNDATION IMPROVEMENT PLAN" INCLUDED WITH THIS PERMIT APPLICATION.
- EXCAVATION CONTOURS SHOWN ON THIS DRAWING ARE APPROXIMATE. ACTUAL EXCAVATION GRADES MAY EXTEND DEEPER AND BE SMOOTHED AS NEEDED TO FACILITATE CONSTRUCTION AND ACCOMPLISH FOUNDATION IMPROVEMENTS, FOLLOWED BY COMPACTED FILL PLACEMENT AS NECESSARY, PER NOTE 3.
- ALONG EASTERN SIDE OF AP-1, PERMIT BOUNDARY IS ALIGNED WITH APPROXIMATE LIMIT OF AP-1, AND THUS OBSCURED IN THIS AREA ON THIS DRAWING. REFER TO DRAWING 3 FOR THE PERMIT BOUNDARY SURVEY AND LEGAL DESCRIPTION.



0	AUG. 2021	SUBMITTAL TO GA EPD	JJV/KH	RB
REV	DATE	DESCRIPTION	DRN	APP

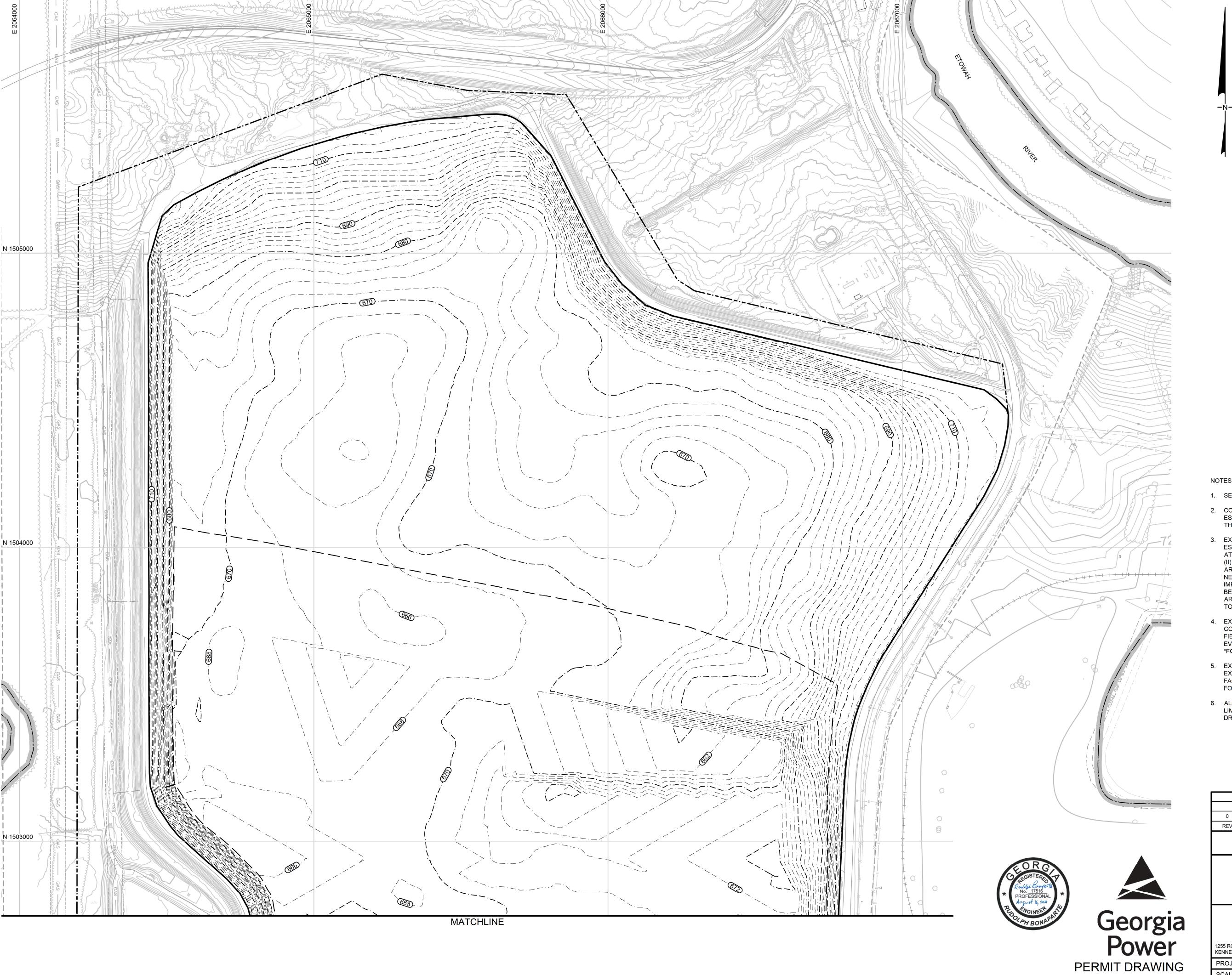
EXCAVATION PLAN - SOUTH AP-1

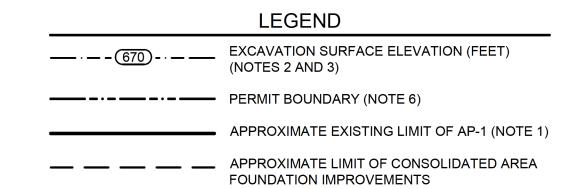
PLANT BOWEN ASH POND 1 (AP-1) CLOSURE DRAWINGS BARTOW COUNTY, GEORGIA

Geosyntec consultants

PHONE: 678.202.9500 WWW.GEOSYNTEC.COM

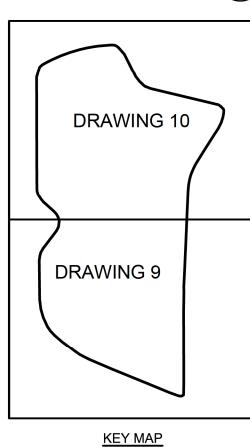
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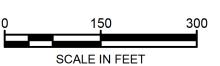








- 1. SEE DRAWING 2 FOR LEGENDS, ABBREVIATIONS, AND GENERAL SITE NOTES.
- ESTIMATED MINIMUM BOTTOM OF EXCAVATION GRADES. CONTOURS SHOWN ON THIS DRAWING BEYOND LIMITS OF AP-1 ARE EXISTING GROUND TOPOGRAPHY.
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- 4. EXCAVATION GRADES WILL BE ADJUSTED AS NECESSARY DURING CLOSURE CONSTRUCTION BASED ON APPLYING THE ABOVE CRITERIA TO THE ACTUAL FIELD-LOCATED BOTTOM OF CCR, AS WELL AS BASED ON FOUNDATION EVALUATIONS AND IMPROVEMENTS CONDUCTED IN ACCORDANCE WITH THE "FOUNDATION IMPROVEMENT PLAN" INCLUDED WITH THIS PERMIT APPLICATION.
- 5. EXCAVATION CONTOURS SHOWN ON THIS DRAWING ARE APPROXIMATE. ACTUAL EXCAVATION GRADES MAY EXTEND DEEPER AND BE SMOOTHED AS NEEDED TO FACILITATE CONSTRUCTION AND ACCOMPLISH FOUNDATION IMPROVEMENTS, FOLLOWED BY COMPACTED FILL PLACEMENT AS NECESSARY, PER NOTE 3.
- 6. ALONG EASTERN SIDE OF AP-1, PERMIT BOUNDARY IS ALIGNED WITH APPROXIMATE LIMIT OF AP-1, AND THUS OBSCURED IN THIS AREA ON THIS DRAWING. REFER TO DRAWING 3 FOR THE PERMIT BOUNDARY SURVEY AND LEGAL DESCRIPTION.



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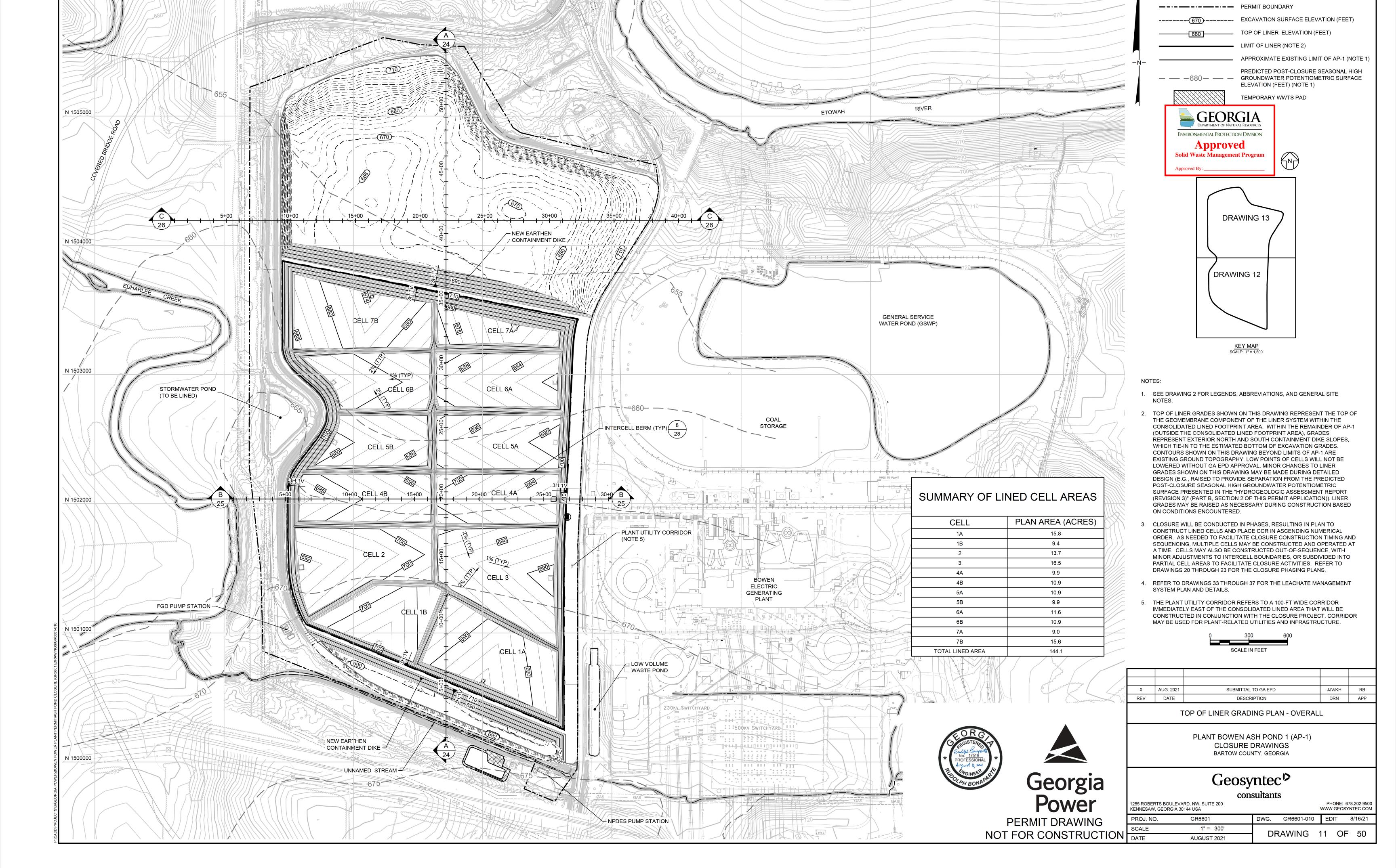
EXCAVATION PLAN - NORTH AP-1

PLANT BOWEN ASH POND 1 (AP-1) CLOSURE DRAWINGS BARTOW COUNTY, GEORGIA

Geosyntec consultants

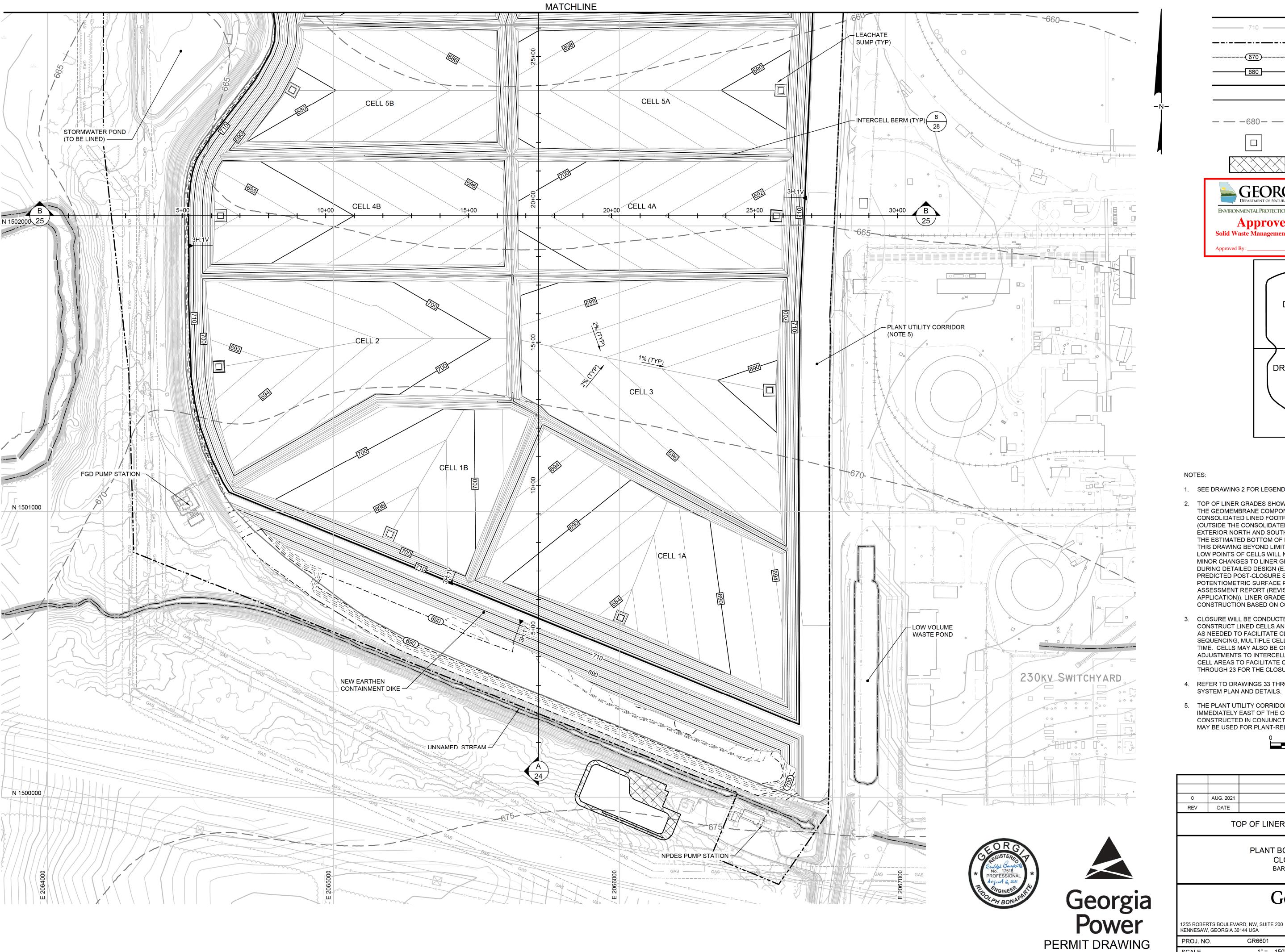
PHONE: 678.202.9500 WWW.GEOSYNTEC.COM

1255 ROBERTS BOULEVARD, NW, SUITE 200 KENNESAW, GEORGIA 30144 USA PROJ. NO. GR6601 DWG. GR6601-009A EDIT 8/16/21 NOT FOR CONSTRUCTION DATE 1" = 150' DRAWING 10 OF 50 AUGUST 2021



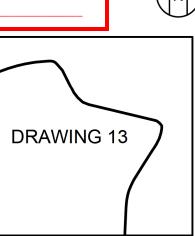
LEGEND

EXISTING GROUND ELEVATION (FEET) (NOTE 1)



LEGEND EXISTING GROUND ELEVATION (FEET) (NOTE 1) PERMIT BOUNDARY ----- EXCAVATION SURFACE ELEVATION (FEET) TOP OF LINER ELEVATION (FEET) LIMIT OF LINER (NOTE 2) APPROXIMATE EXISTING LIMIT OF AP-1 (NOTE 1 PREDICTED POST-CLOSURE SEASONAL HIGH — — −680— — GROUNDWATER POTENTIOMETRIC SURFACE ELEVATION (FEET) (NOTE 1) LEACHATE SUMP TEMPORARY WWTS PAD





DRAWING 12

- 1. SEE DRAWING 2 FOR LEGENDS, ABBREVIATIONS, AND GENERAL SITE NOTES.
- 2. TOP OF LINER GRADES SHOWN ON THIS DRAWING REPRESENT THE TOP OF THE GEOMEMBRANE COMPONENT OF THE LINER SYSTEM WITHIN THE CONSOLIDATED LINED FOOTPRINT AREA. WITHIN THE REMAINDER OF AP-1 (OUTSIDE THE CONSOLIDATED LINED FOOTPRINT AREA), GRADES REPRESENT EXTERIOR NORTH AND SOUTH CONTAINMENT DIKE SLOPES, WHICH TIE-IN TO THE ESTIMATED BOTTOM OF EXCAVATION GRADES. CONTOURS SHOWN ON THIS DRAWING BEYOND LIMITS OF AP-1 ARE EXISTING GROUND TOPOGRAPHY. LOW POINTS OF CELLS WILL NOT BE LOWERED WITHOUT GA EPD APPROVAL. MINOR CHANGES TO LINER GRADES SHOWN ON THIS DRAWING MAY BE MADE DURING DETAILED DESIGN (E.G., RAISED TO PROVIDE SEPARATION FROM THE PREDICTED POST-CLOSURE SEASONAL HIGH GROUNDWATER POTENTIOMETRIC SURFACE PRESENTED IN THE "HYDROGEOLOGIC ASSESSMENT REPORT (REVISION 3)" (PART B, SECTION 2 OF THIS PERMIT APPLICATION)). LINER GRADES MAY BE RAISED AS NECESSARY DURING CONSTRUCTION BASED ON CONDITIONS ENCOUNTERED.
- 3. CLOSURE WILL BE CONDUCTED IN PHASES, RESULTING IN PLAN TO CONSTRUCT LINED CELLS AND PLACE CCR IN ASCENDING NUMERICAL ORDER. AS NEEDED TO FACILITATE CLOSURE CONSTRUCTION TIMING AND SEQUENCING, MULTIPLE CELLS MAY BE CONSTRUCTED AND OPERATED AT A TIME. CELLS MAY ALSO BE CONSTRUCTED OUT-OF-SEQUENCE, WITH MINOR ADJUSTMENTS TO INTERCELL BOUNDARIES, OR SUBDIVIDED INTO PARTIAL CELL AREAS TO FACILITATE CLOSURE ACTIVITIES. REFER TO DRAWINGS 20 THROUGH 23 FOR THE CLOSURE PHASING PLANS.
- 4. REFER TO DRAWINGS 33 THROUGH 37 FOR THE LEACHATE MANAGEMENT SYSTEM PLAN AND DETAILS.
- 5. THE PLANT UTILITY CORRIDOR REFERS TO A 100-FT WIDE CORRIDOR IMMEDIATELY EAST OF THE CONSOLIDATED LINED AREA THAT WILL BE CONSTRUCTED IN CONJUNCTION WITH THE CLOSURE PROJECT. CORRIDOR MAY BE USED FOR PLANT-RELATED UTILITIES AND INFRASTRUCTURE.



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TOP OF LINER GRADING PLAN - SOUTH AP-1

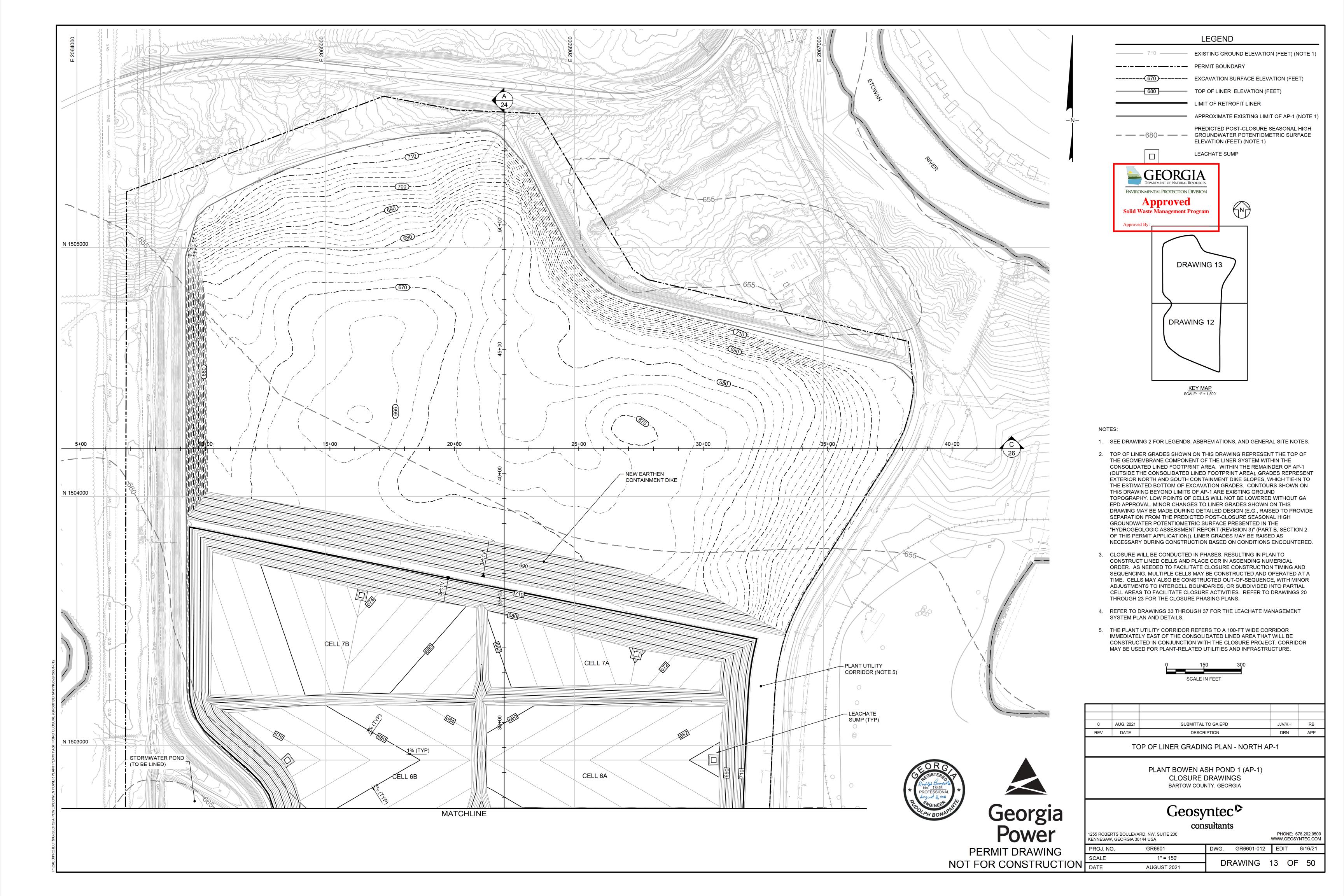
PLANT BOWEN ASH POND 1 (AP-1) **CLOSURE DRAWINGS** BARTOW COUNTY, GEORGIA

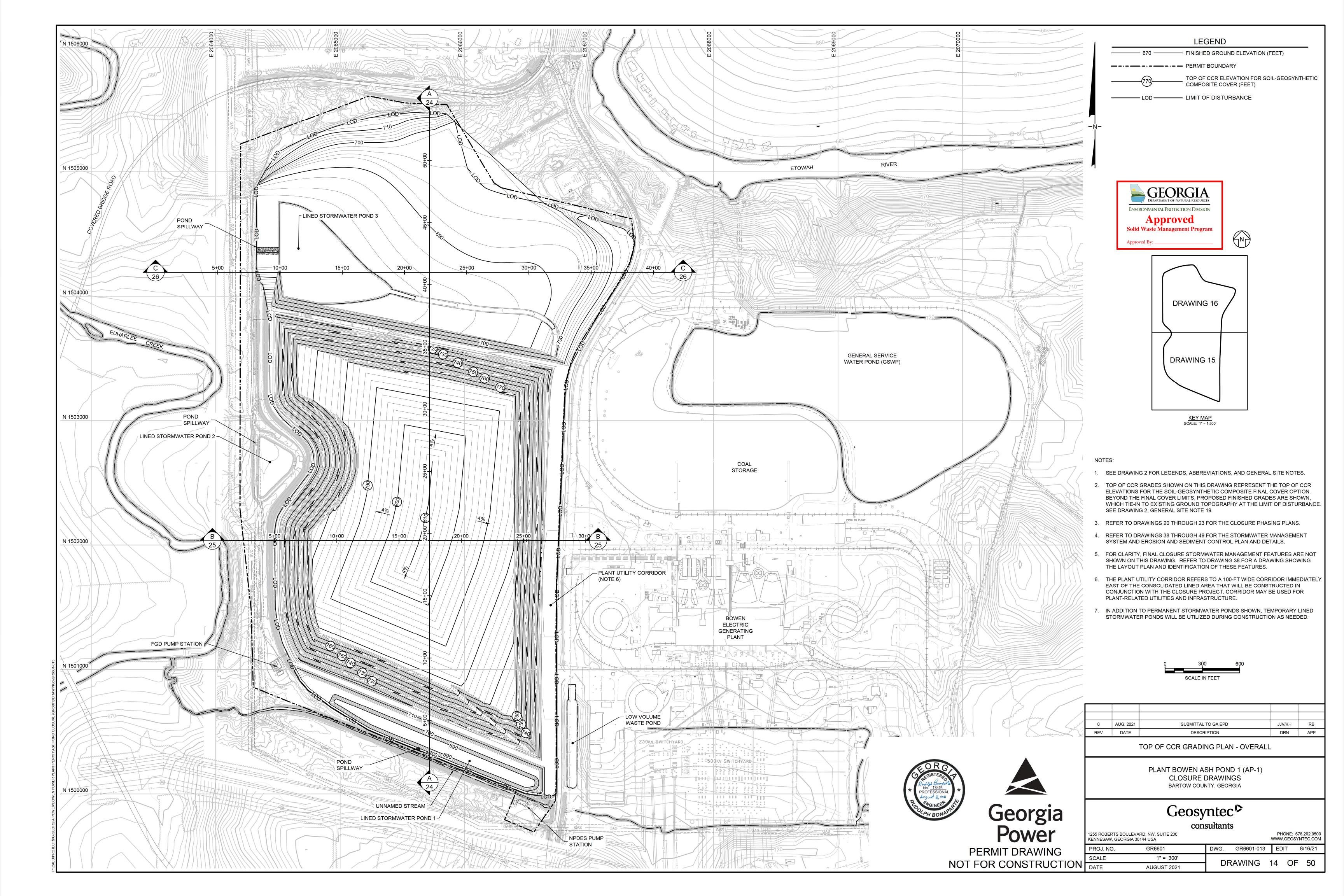
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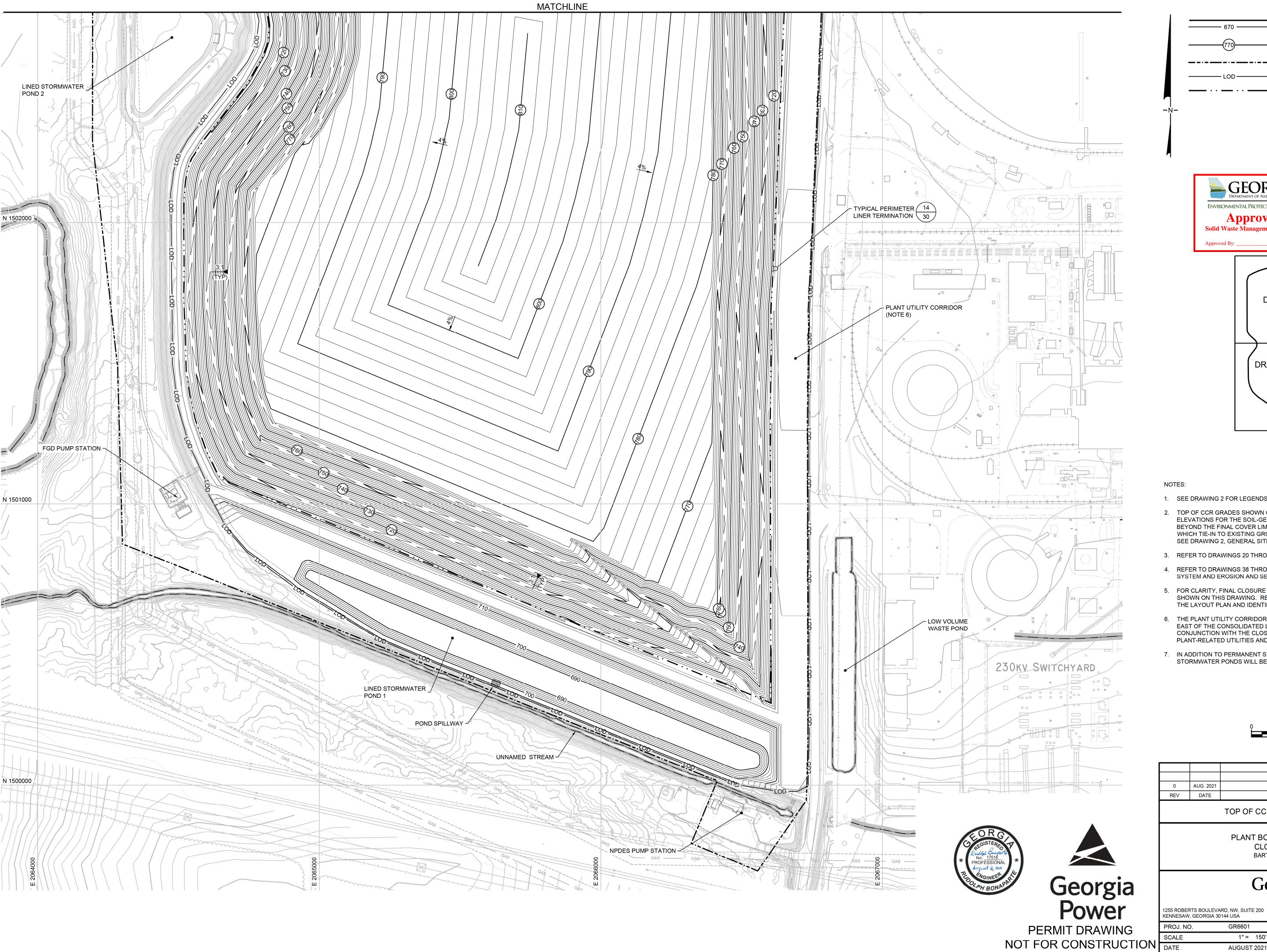
consultants

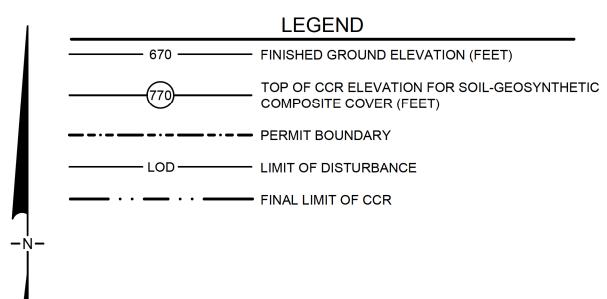
PHONE: 678.202.9500 WWW.GEOSYNTEC.COM

DWG. GR6601-011 EDIT 8/16/21 PROJ. NO. GR6601 NOT FOR CONSTRUCTION DATE 1" = 150' DRAWING 12 OF 50 AUGUST 2021

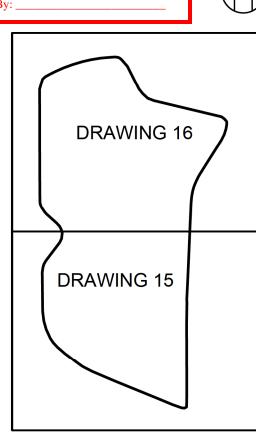












- 1. SEE DRAWING 2 FOR LEGENDS, ABBREVIATIONS, AND GENERAL SITE NOTES.
- 2. TOP OF CCR GRADES SHOWN ON THIS DRAWING REPRESENT THE TOP OF CCR ELEVATIONS FOR THE SOIL-GEOSYNTHETIC COMPOSITE FINAL COVER OPTION. BEYOND THE FINAL COVER LIMITS, PROPOSED FINISHED GRADES ARE SHOWN, WHICH TIE-IN TO EXISTING GROUND TOPOGRAPHY AT THE LIMIT OF DISTURBANCE. SEE DRAWING 2, GENERAL SITE NOTE 19.
- 3. REFER TO DRAWINGS 20 THROUGH 23 FOR THE CLOSURE PHASING PLANS.
- 4. REFER TO DRAWINGS 38 THROUGH 49 FOR THE STORMWATER MANAGEMENT SYSTEM AND EROSION AND SEDIMENT CONTROL PLAN AND DETAILS.
- 5. FOR CLARITY, FINAL CLOSURE STORMWATER MANAGEMENT FEATURES ARE NOT SHOWN ON THIS DRAWING. REFER TO DRAWING 38 FOR A DRAWING SHOWING THE LAYOUT PLAN AND IDENTIFICATION OF THESE FEATURES.
- 6. THE PLANT UTILITY CORRIDOR REFERS TO A 100-FT WIDE CORRIDOR IMMEDIATELY EAST OF THE CONSOLIDATED LINED AREA THAT WILL BE CONSTRUCTED IN CONJUNCTION WITH THE CLOSURE PROJECT. CORRIDOR MAY BE USED FOR PLANT-RELATED UTILITIES AND INFRASTRUCTURE.
- 7. IN ADDITION TO PERMANENT STORMWATER PONDS SHOWN, TEMPORARY LINED STORMWATER PONDS WILL BE UTILIZED DURING CONSTRUCTION AS NEEDED.



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TOP OF CCR GRADING PLAN - SOUTH

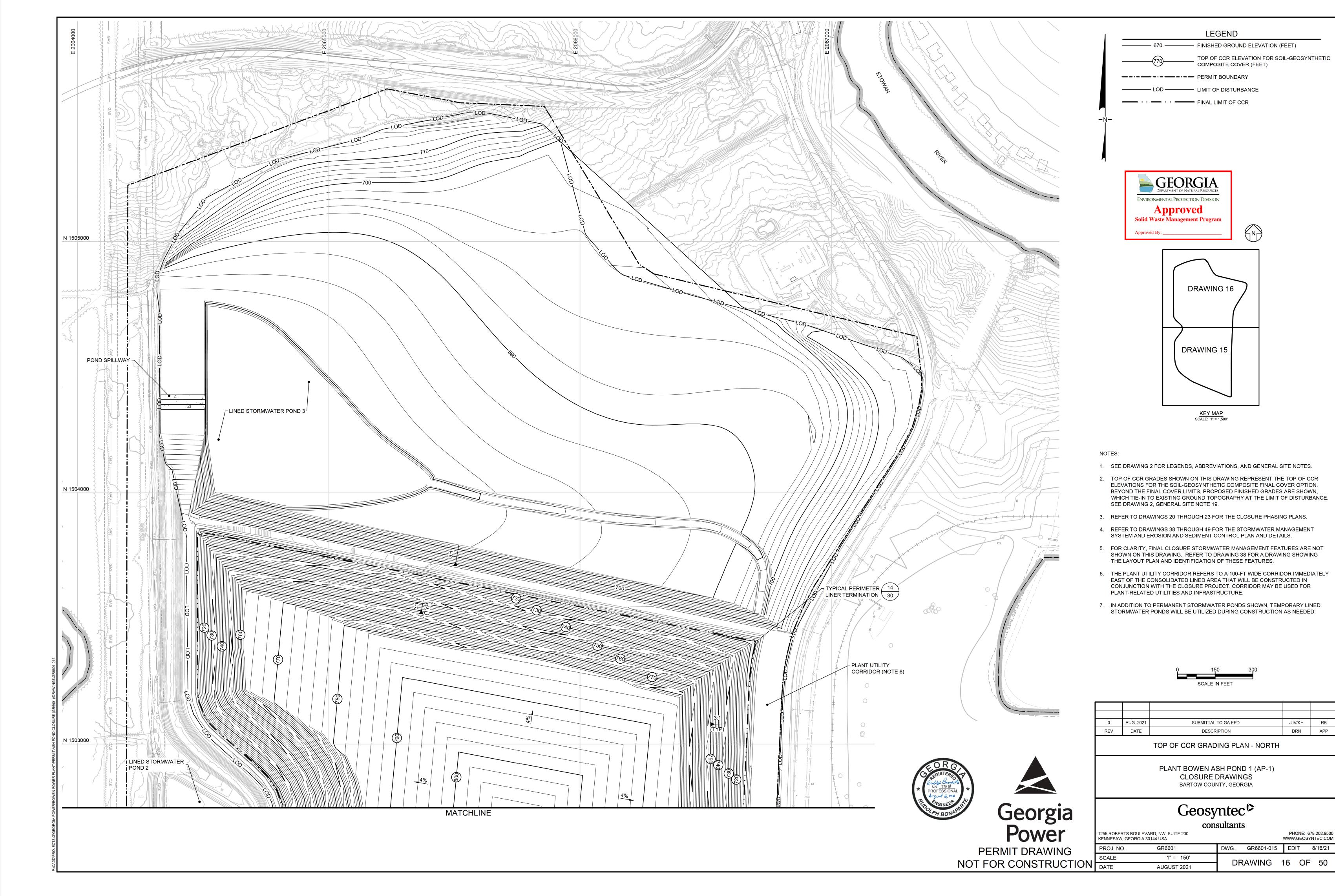
PLANT BOWEN ASH POND 1 (AP-1) CLOSURE DRAWINGS BARTOW COUNTY, GEORGIA

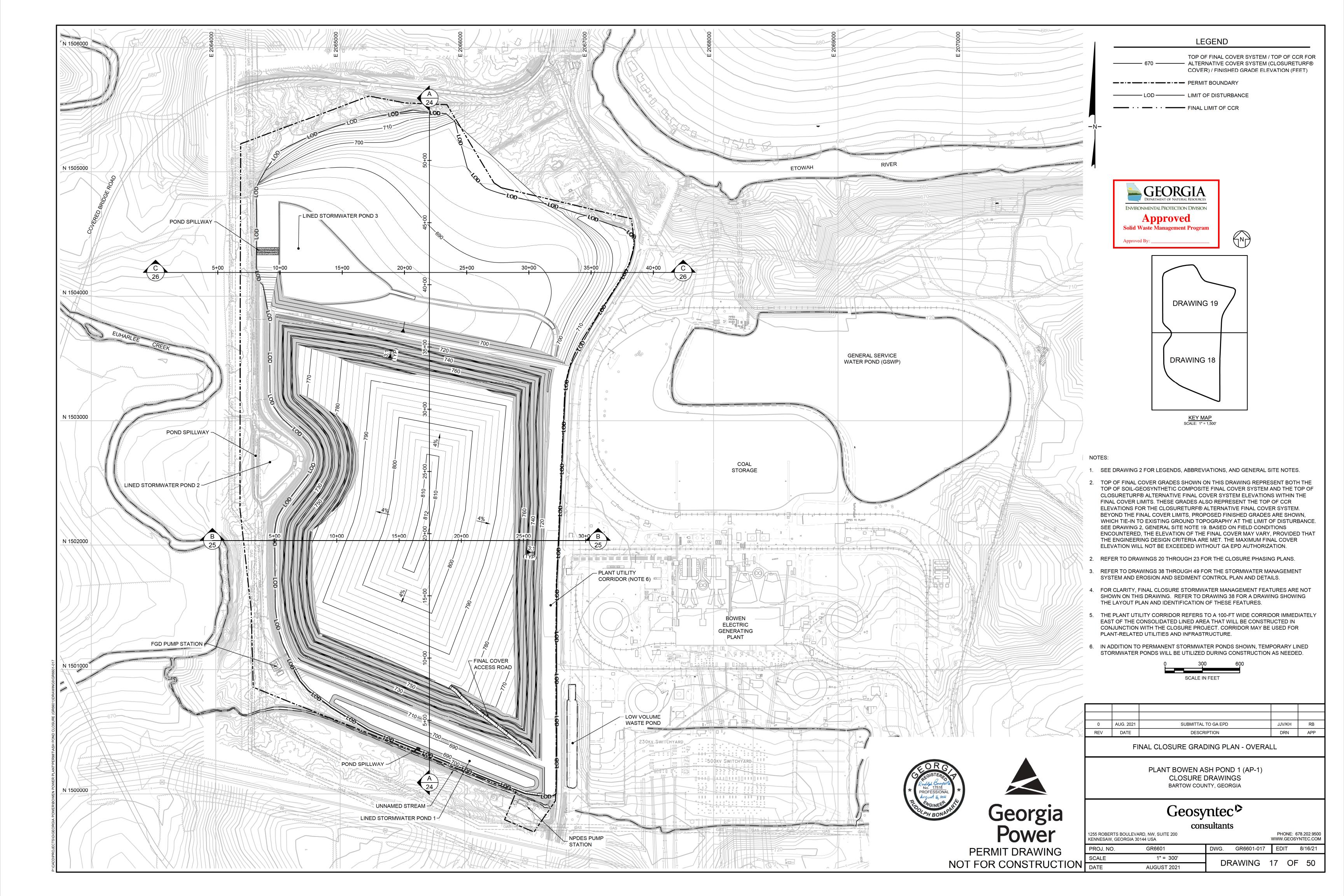
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GR6601 DWG. GR6601-014 EDIT 8/16/21 1" = 150' DRAWING 15 OF 50 AUGUST 2021



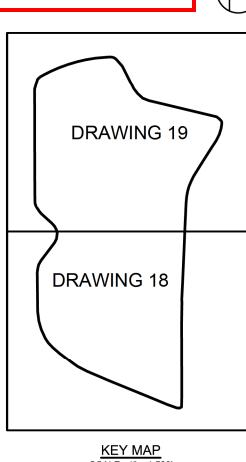




TOP OF FINAL COVER SYSTEM / TOP OF CCR FOR — 670 — ALTERNATIVE COVER SYSTEM (CLOSURETURF® COVER) / FINISHED GRADE ELEVATION (FEET) ——————— PERMIT BOUNDARY — LOD — LIMIT OF DISTURBANCE · — · · — FINAL LIMIT OF CCR

LEGEND

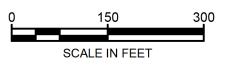




PERMIT DRAWING

- 1. SEE DRAWING 2 FOR LEGENDS, ABBREVIATIONS, AND GENERAL SITE NOTES.
- 2. TOP OF FINAL COVER GRADES SHOWN ON THIS DRAWING REPRESENT BOTH THE TOP OF SOIL-GEOSYNTHETIC COMPOSITE FINAL COVER SYSTEM AND THE TOP OF CLOSURETURF® ALTERNATIVE FINAL COVER SYSTEM ELEVATIONS WITHIN THE FINAL COVER LIMITS. THESE GRADES ALSO REPRESENT THE TOP OF CCR ELEVATIONS FOR THE CLOSURETURF® ALTERNATIVE FINAL COVER SYSTEM BEYOND THE FINAL COVER LIMITS, PROPOSED FINISHED GRADES ARE SHOWN, WHICH TIE-IN TO EXISTING GROUND TOPOGRAPHY AT THE LIMIT OF DISTURBANCE. SEE DRAWING 2, GENERAL SITE NOTE 19. BASED ON FIELD CONDITIONS ENCOUNTERED, THE ELEVATION OF THE FINAL COVER MAY VARY, PROVIDED THAT THE ENGINEERING DESIGN CRITERIA ARE MET. THE MAXIMUM FINAL COVER ELEVATION WILL NOT BE EXCEEDED WITHOUT GA EPD AUTHORIZATION.
- 3. REFER TO DRAWINGS 20 THROUGH 23 FOR THE CLOSURE PHASING PLANS.
- 4. REFER TO DRAWINGS 38 THROUGH 49 FOR THE STORMWATER MANAGEMENT SYSTEM AND EROSION AND SEDIMENT CONTROL PLAN AND DETAILS.
- 5. FOR CLARITY, FINAL CLOSURE STORMWATER MANAGEMENT FEATURES ARE NOT SHOWN ON THIS DRAWING. REFER TO DRAWING 38 FOR A DRAWING SHOWING THE LAYOUT PLAN AND IDENTIFICATION OF THESE FEATURES.
- 6. THE PLANT UTILITY CORRIDOR REFERS TO A 100-FT WIDE CORRIDOR IMMEDIATELY EAST OF THE CONSOLIDATED LINED AREA THAT WILL BE CONSTRUCTED IN CONJUNCTION WITH THE CLOSURE PROJECT. CORRIDOR MAY BE USED FOR
- 7. IN ADDITION TO PERMANENT STORMWATER PONDS SHOWN, TEMPORARY LINED STORMWATER PONDS WILL BE UTILIZED DURING CONSTRUCTION AS NEEDED.

PLANT-RELATED UTILITIES AND INFRASTRUCTURE.



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FINAL CLOSURE GRADING PLAN - SOUTH AP-1

PLANT BOWEN ASH POND 1 (AP-1) CLOSURE DRAWINGS BARTOW COUNTY, GEORGIA

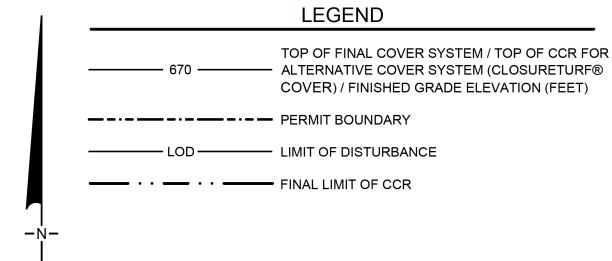
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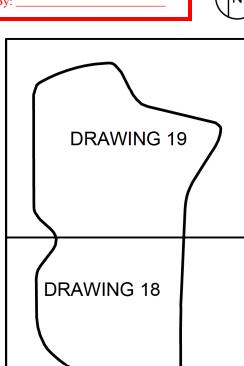
PHONE: 678.202.9500 WWW.GEOSYNTEC.COM

1255 ROBERTS BOULEVARD, NW, SUITE 200 KENNESAW, GEORGIA 30144 USA PROJ. NO. GR6601 DWG. GR6601-018 EDIT 8/16/21 NOT FOR CONSTRUCTION DATE 1" = 150' DRAWING 18 OF 50 AUGUST 2021









- 1. SEE DRAWING 2 FOR LEGENDS, ABBREVIATIONS, AND GENERAL SITE NOTES.
- 2. TOP OF FINAL COVER GRADES SHOWN ON THIS DRAWING REPRESENT BOTH THE TOP OF SOIL-GEOSYNTHETIC COMPOSITE FINAL COVER SYSTEM AND THE TOP OF CLOSURETURF® ALTERNATIVE FINAL COVER SYSTEM ELEVATIONS WITHIN THE FINAL COVER LIMITS. THESE GRADES ALSO REPRESENT THE TOP OF CCR ELEVATIONS FOR THE CLOSURETURF® ALTERNATIVE FINAL COVER SYSTEM BEYOND THE FINAL COVER LIMITS, PROPOSED FINISHED GRADES ARE SHOWN, WHICH TIE-IN TO EXISTING GROUND TOPOGRAPHY AT THE LIMIT OF DISTURBANCE. SEE DRAWING 2, GENERAL SITE NOTE 19. BASED ON FIELD CONDITIONS ENCOUNTERED, THE ELEVATION OF THE FINAL COVER MAY VARY, PROVIDED THAT THE ENGINEERING DESIGN CRITERIA ARE MET. THE MAXIMUM FINAL COVER ELEVATION WILL NOT BE EXCEEDED WITHOUT GA EPD AUTHORIZATION.
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FINAL CLOSURE GRADING PLAN - NORTH

AP-1

PLANT BOWEN ASH POND 1 (AP-1) **CLOSURE DRAWINGS** BARTOW COUNTY, GEORGIA

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1255 ROBERTS BOULEVARD, NW, SUITE 200 KENNESAW, GEORGIA 30144 USA PROJ. NO. GR6601 DWG. GR6601-019 EDIT 8/16/21 NOT FOR CONSTRUCTION DATE 1" = 150' DRAWING 19 OF 50 AUGUST 2021