# CLOSURE DRAWINGS GEORGIA POWER COMPANY PLANT MCINTOSH ASH POND 1 (AP-1) EXISTING COAL COMBUSTION RESIDUALS (CCR) SURFACE IMPOUNDMENT EFFINGHAM, GEORGIA

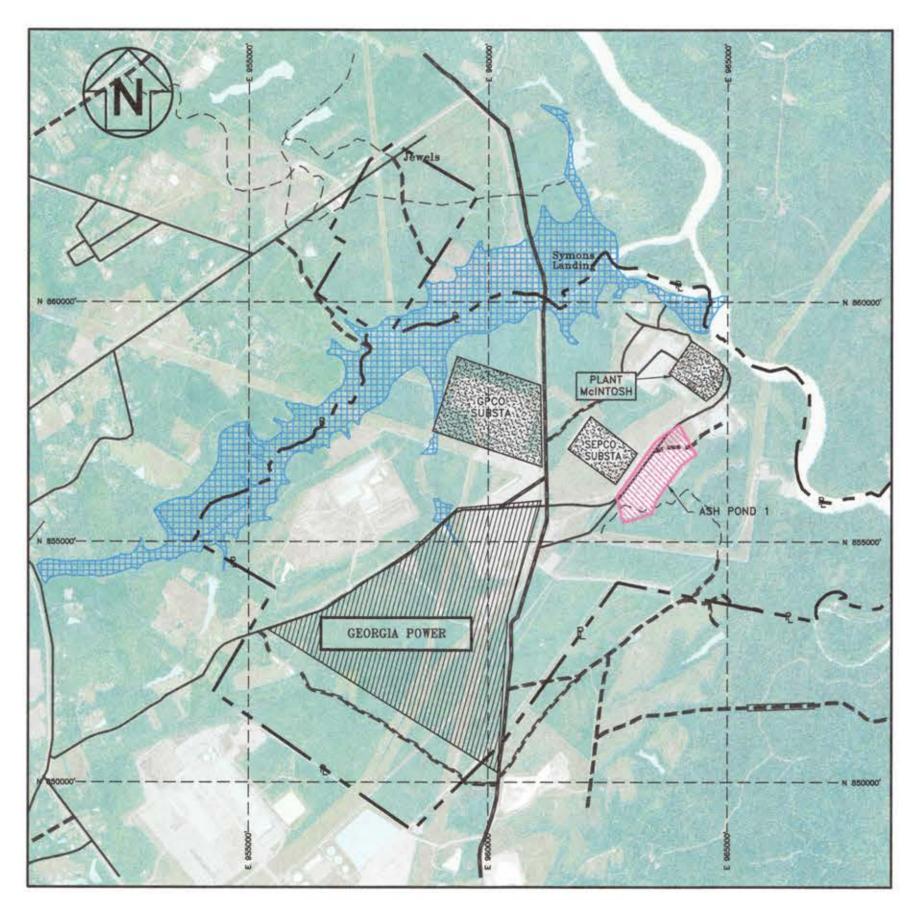
**NOVEMBER 2018** 

# OWNER/OPERATOR

GEORGIA POWER COMPANY 241 RALPH MCGILL BLVD. ATLANTA, GEORGIA 30308

# RESPONSIBLE OFFICIAL

GENERAL MANAGER-ENVIRONMENTAL AFFAIRS GEORGIA POWER COMPANY 241 RALPH MCGILL BLVD. ATLANTA, GEORGIA 30308 (404) 506-6505 gpcenv@southernco.com



PROJECT SITE LOCATION





# REVISION HISTORY

DATE	SHEETS	REQUESTED BY





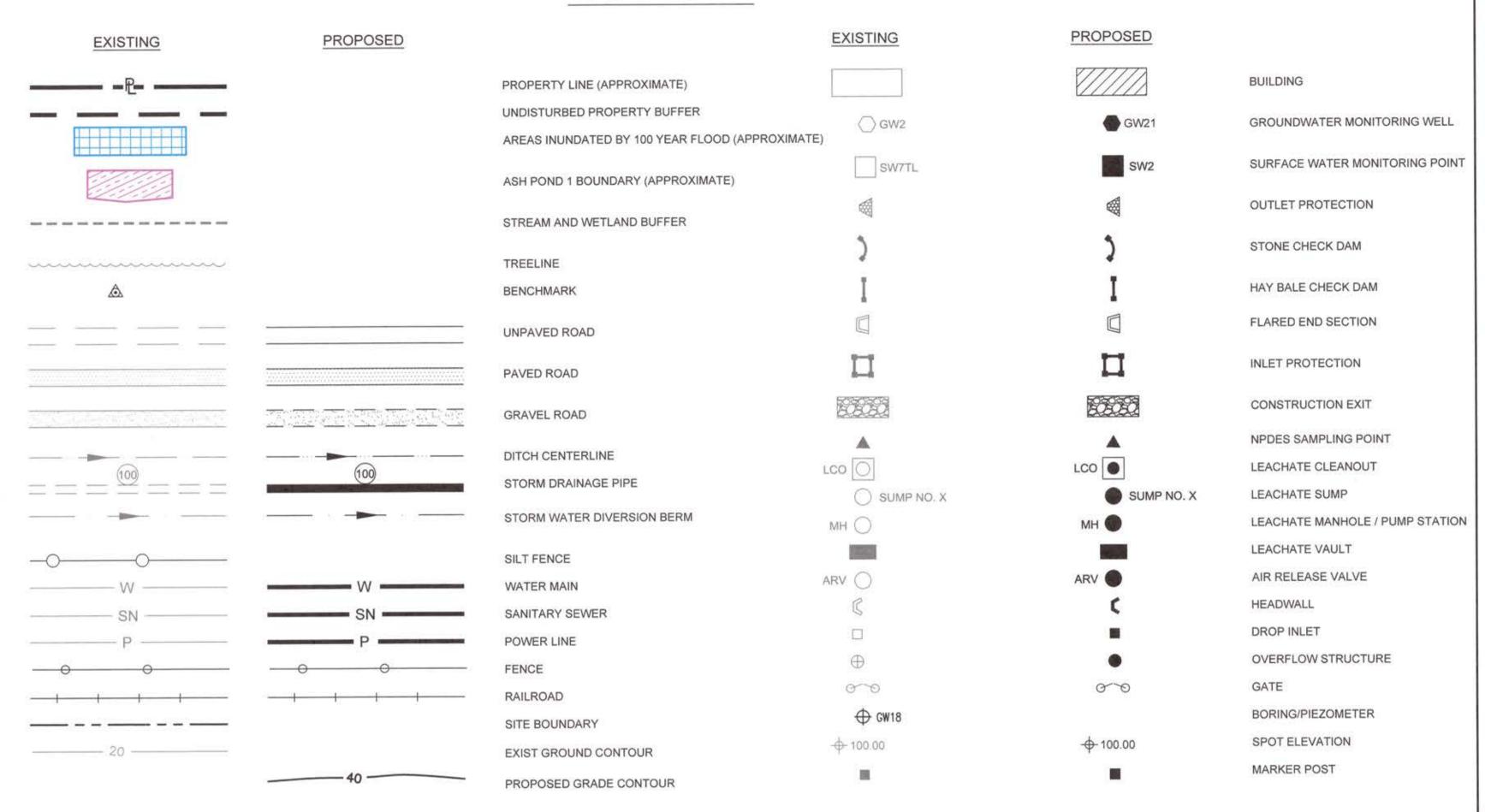
# INDEX TO DRAWINGS

SHEET NO.	DESCRIPTION
	COVER
1	INDEX AND LEGEND
2	EXISTING SITE CONDITIONS
3	ORIGINAL BASE GRADES
4	APPROXIMATE BOTTOM OF EXCAVATION GRADES
5	PROPOSED RESTORATION GRADES
6	CROSS-SECTIONS A-A', B-B' & C-C'
7	CROSS-SECTION D-D
8	PLAT & LEGAL DESCRIPTION
9	COMPLIANCE MONITORING NETWORK
10	DETAILS
11	DETAILS

# **GENERAL NOTES:**

- PROPERTY LINE IS APPROXIMATE.
- 2. GRID IS STATE PLANE GRID, NAD83, EAST ZONE. (APPROXIMATE).
- 3. AERIAL WAS DEVELOPED FROM 2017 NAIP USDA-FSA-APFO AERIAL PHOTOGRAPHY.
- 4. GEORGIA POWER COMPANY PROPERTY LINE DATA OBTAINED FROM ESRI, DIGITALGLOBE, GEOEYE, EARTHSTAR GRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRID, IGN, AND THE GIS USER
- 5. SOUTHERN COMPANY SERVICES, EPS-7017-4 SITE SA-1, LAYOUT.
- SAVANNAH ELECTRIC, P121 MCINTOSH PLANT SITE.
- 7. FLOOD INSURANCE RATE MAP, EFFINGHAM COUNTY, GEORGIA, PANEL 100 OF 175, MARCH, 1987.
- 8. SEE SHEET 2 FOR GENERAL NOTES AND REFERENCES.

# LEGEND







## INDEX AND LEGEND

**CLOSURE DRAWINGS** GEORGIA POWER COMPANY PLANT MCINTOSH ASH POND 1 (AP-1) EXISTING COAL COMBUSTION RESIDUALS (CCR) SURFACE IMPOUNDMENT EFFINGHAM, GEORGIA

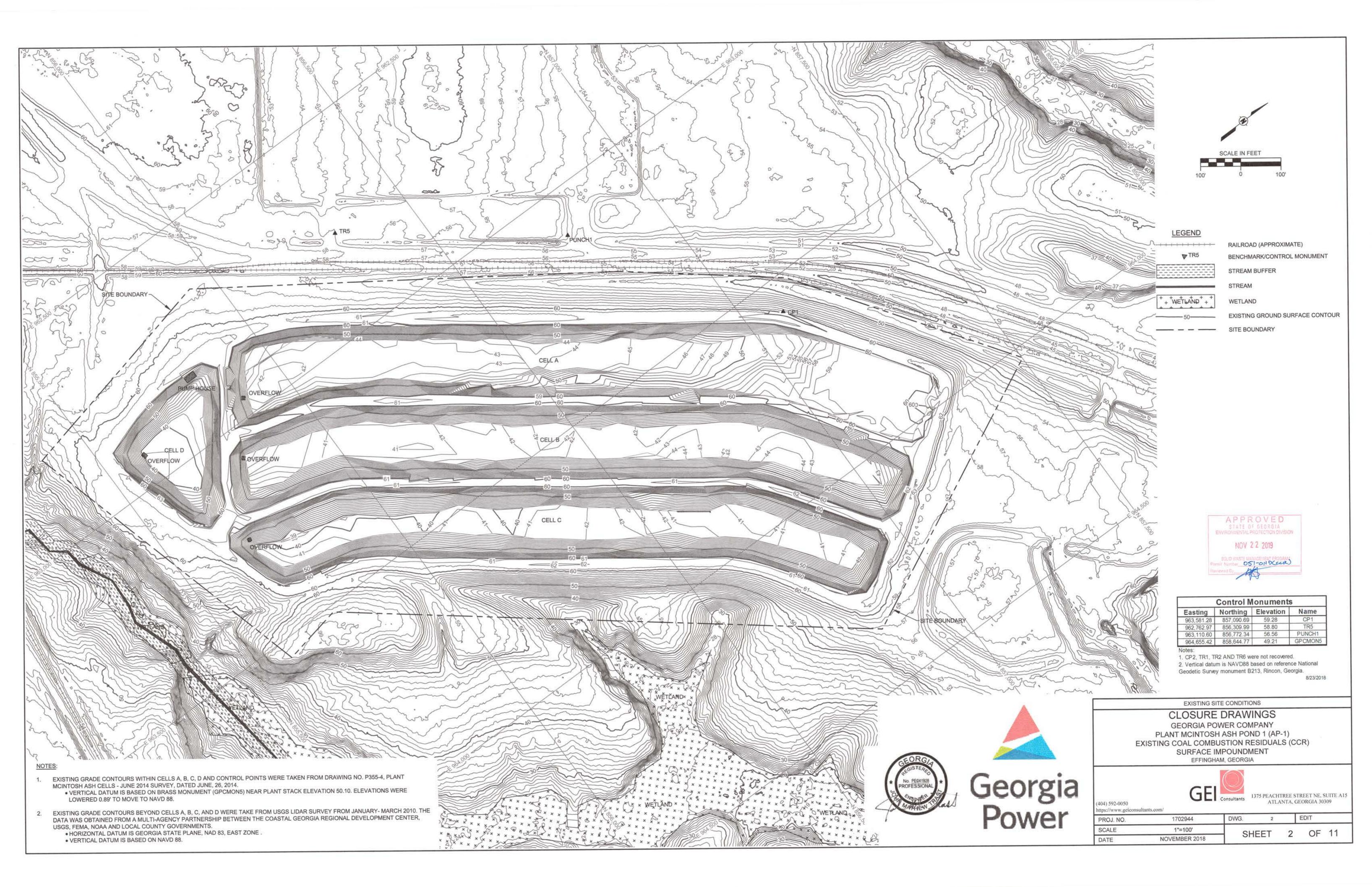


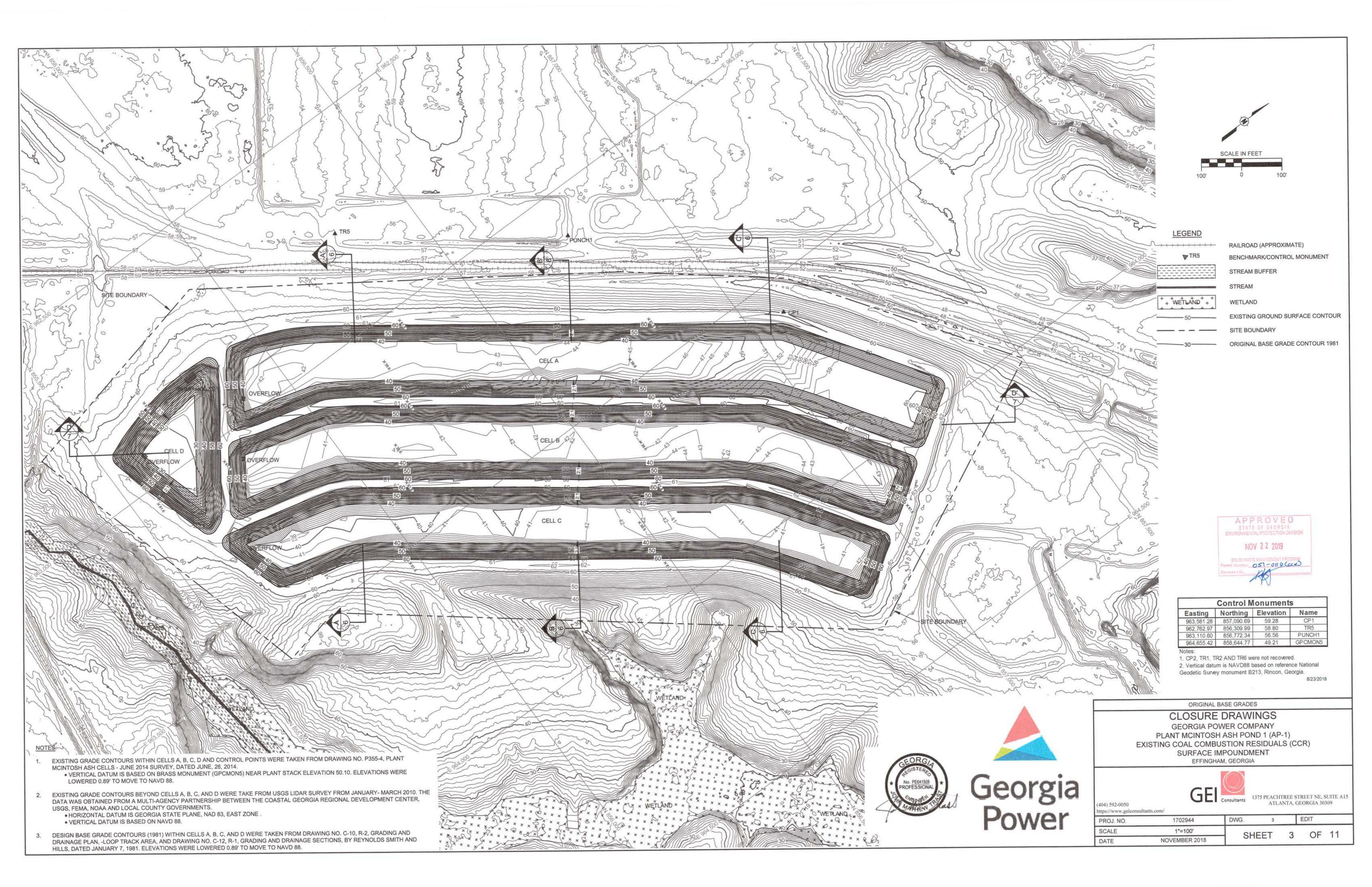
1375 PEACHTREE STREET NE, SUITE A15

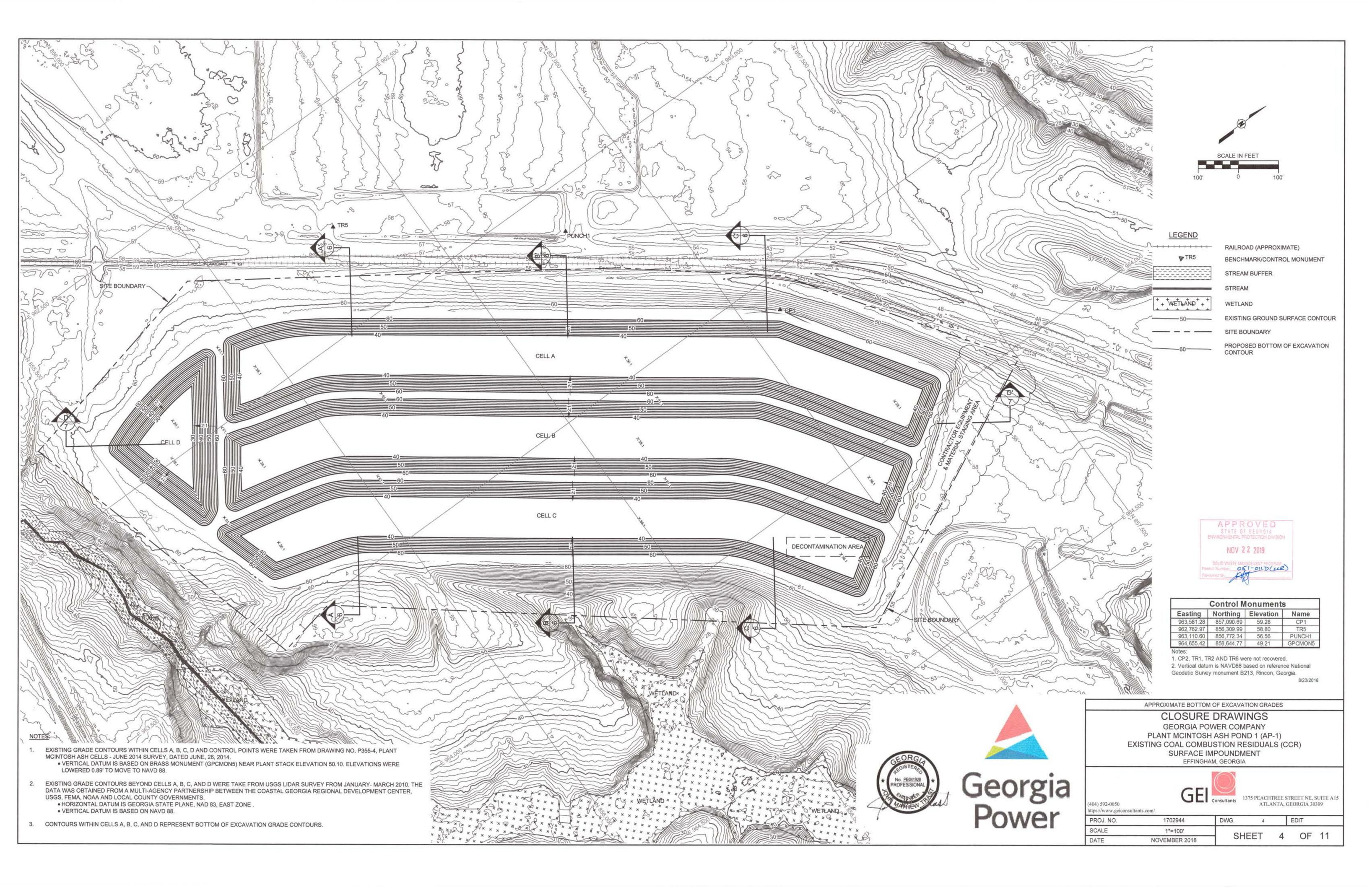
ATLANTA, GEORGIA 30309 (404) 592-0050 https://www.geiconsultants.com/ EDIT 1702944 DWG.

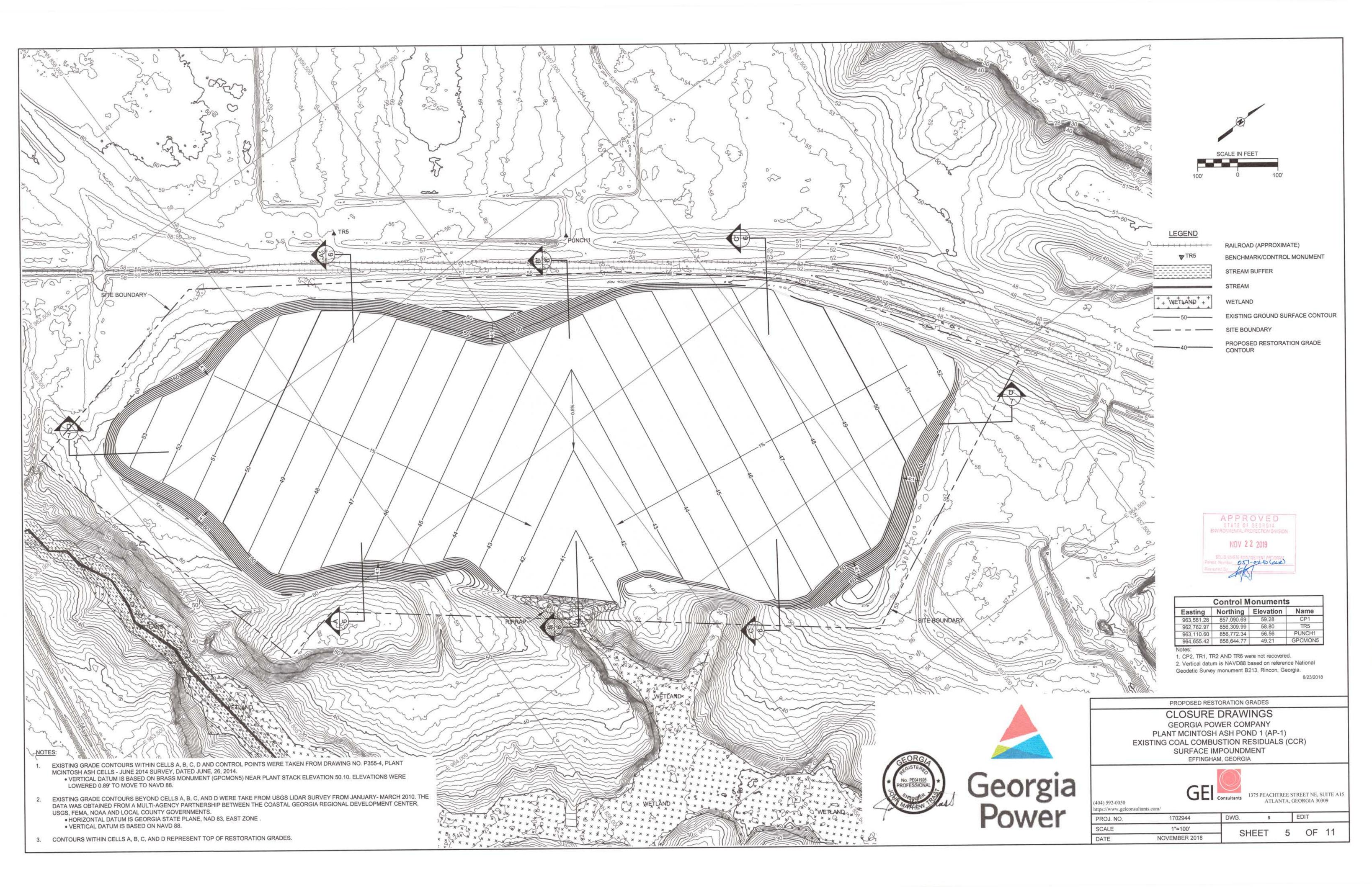
PROJ. NO. SCALE NONE NOVEMBER 2018

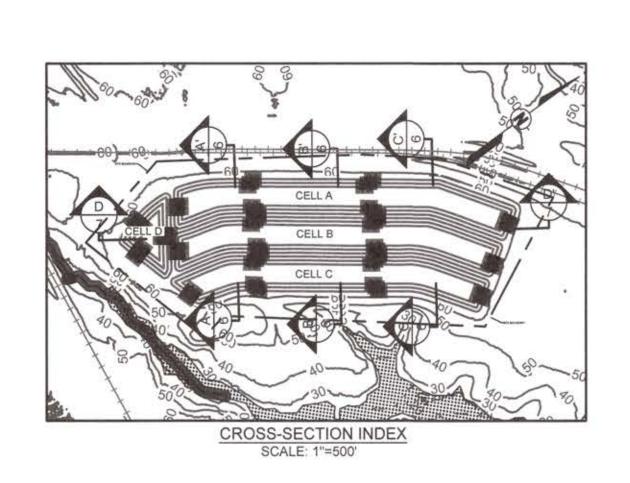
SHEET 1 OF 11

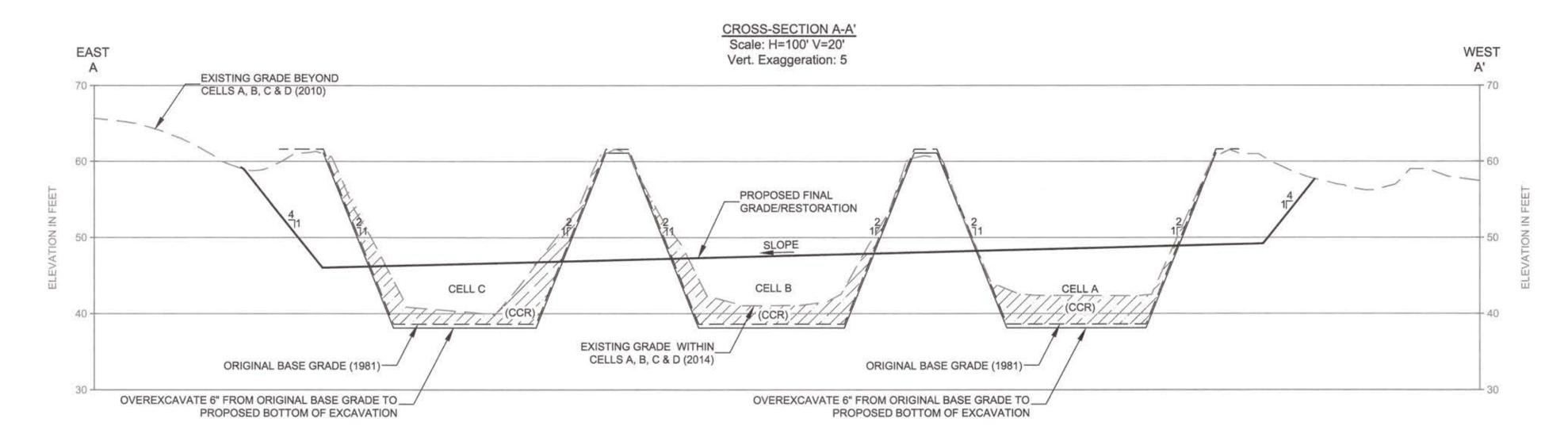


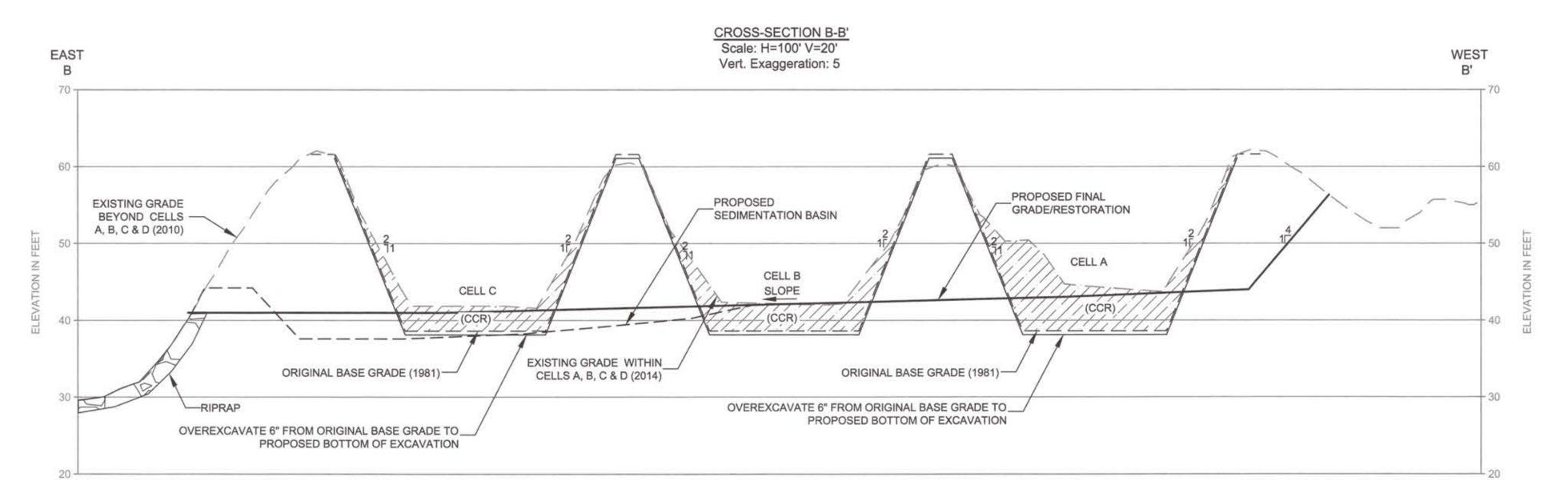


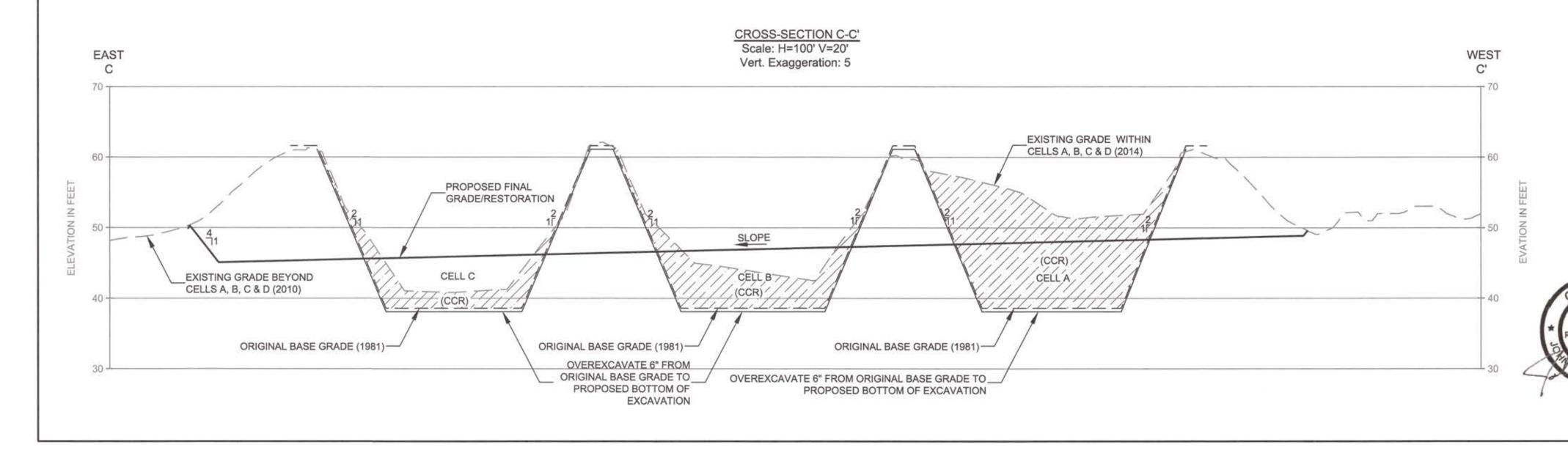


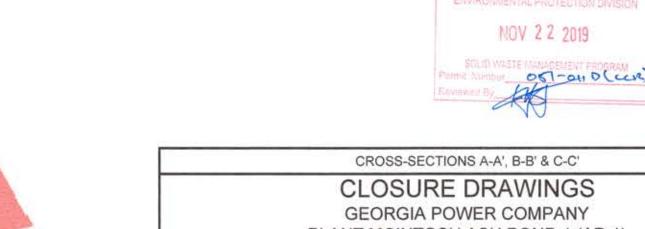












PLANT MCINTOSH ASH POND 1 (AP-1) EXISTING COAL COMBUSTION RESIDUALS (CCR) SURFACE IMPOUNDMENT EFFINGHAM, GEORGIA



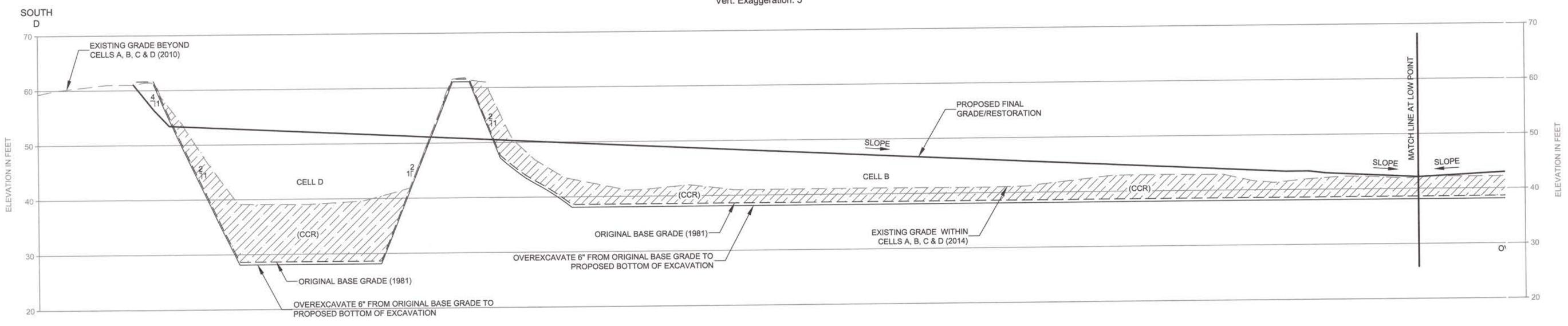
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	Consultants	1375 PEACHTREE STREET NE, SUITE A15 ATLANTA, GEORGIA 30309

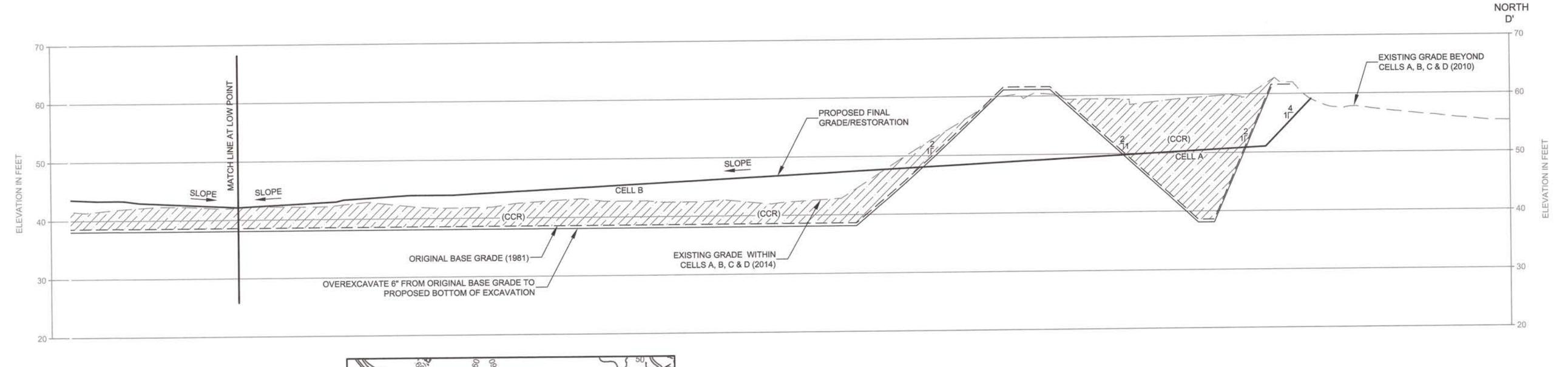
APPROVED STATE OF GEORGIA

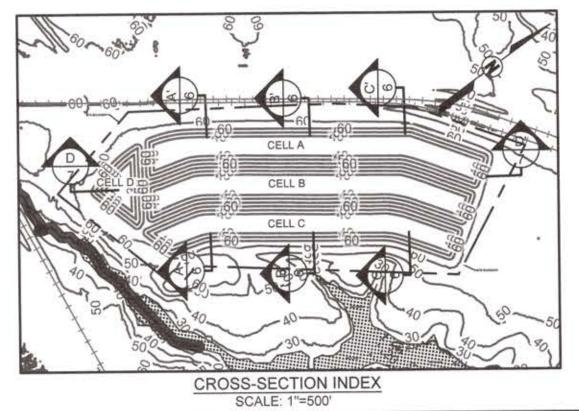
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Georgia	(404) 592-0050 https://www.geicor	Consultants 1375 PEACHTREE STREET NE, SUITE AL ATLANTA, GEORGIA 30309					
Power	PROJ. NO.	1702944	DWG.	6		EDIT	
1 01101	SCALE	HORIZ. 1"=100', VERT. 1"=20'		UEET	-	OF	11
	DATE	NOVEMBER 2018	5	HEET	6	OF	1.1

CROSS-SECTION D-D' Scale: H=100' V=20' Vert. Exaggeration: 5









## CROSS-SECTION D-D' **CLOSURE DRAWINGS** GEORGIA POWER COMPANY PLANT MCINTOSH ASH POND 1 (AP-1)

EXISTING COAL COMBUSTION RESIDUALS (CCR) SURFACE IMPOUNDMENT EFFINGHAM, GEORGIA

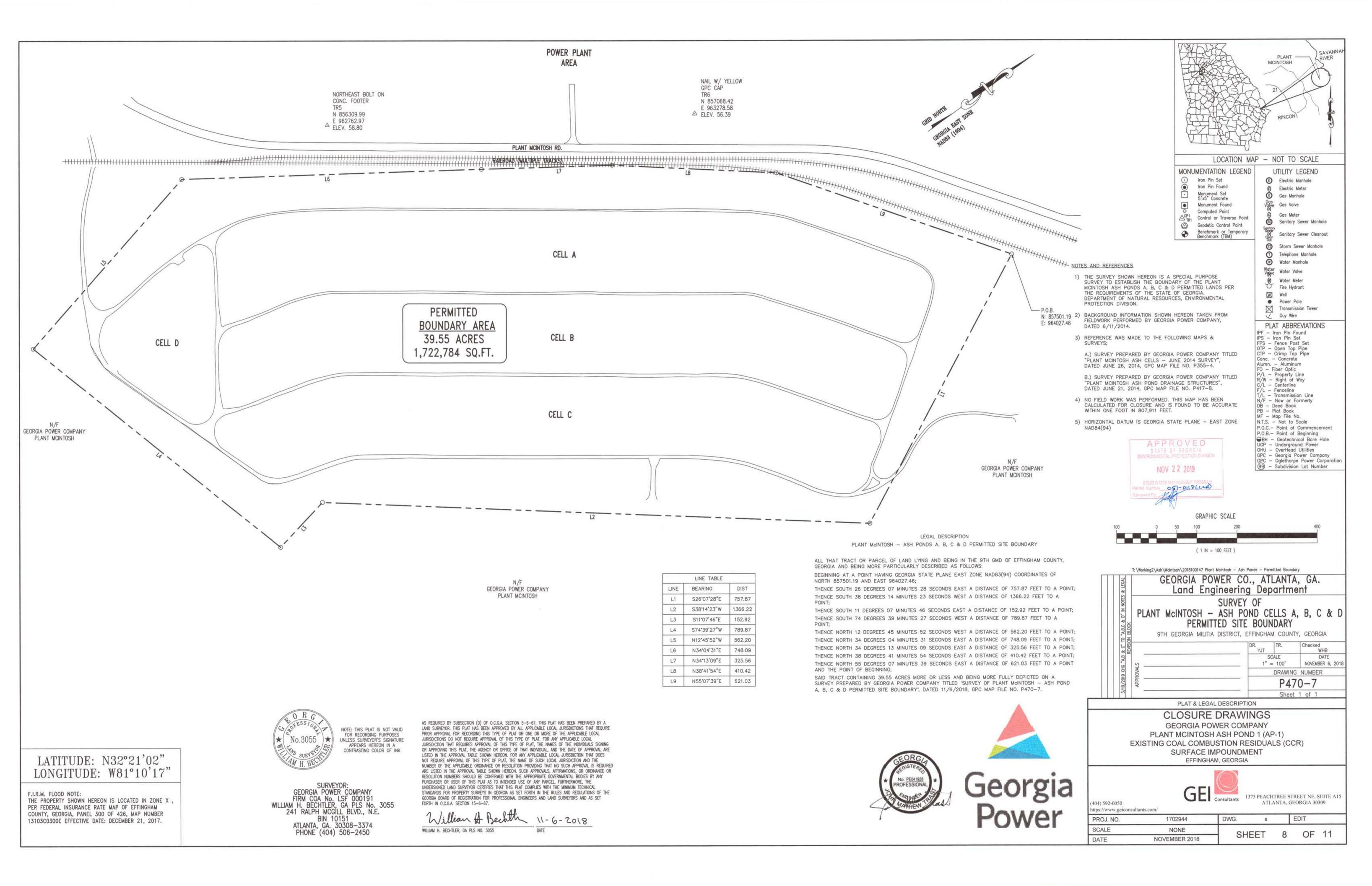
1375 PEACHTREE STREET NE, SUITE A15 ATLANTA, GEORGIA 30309

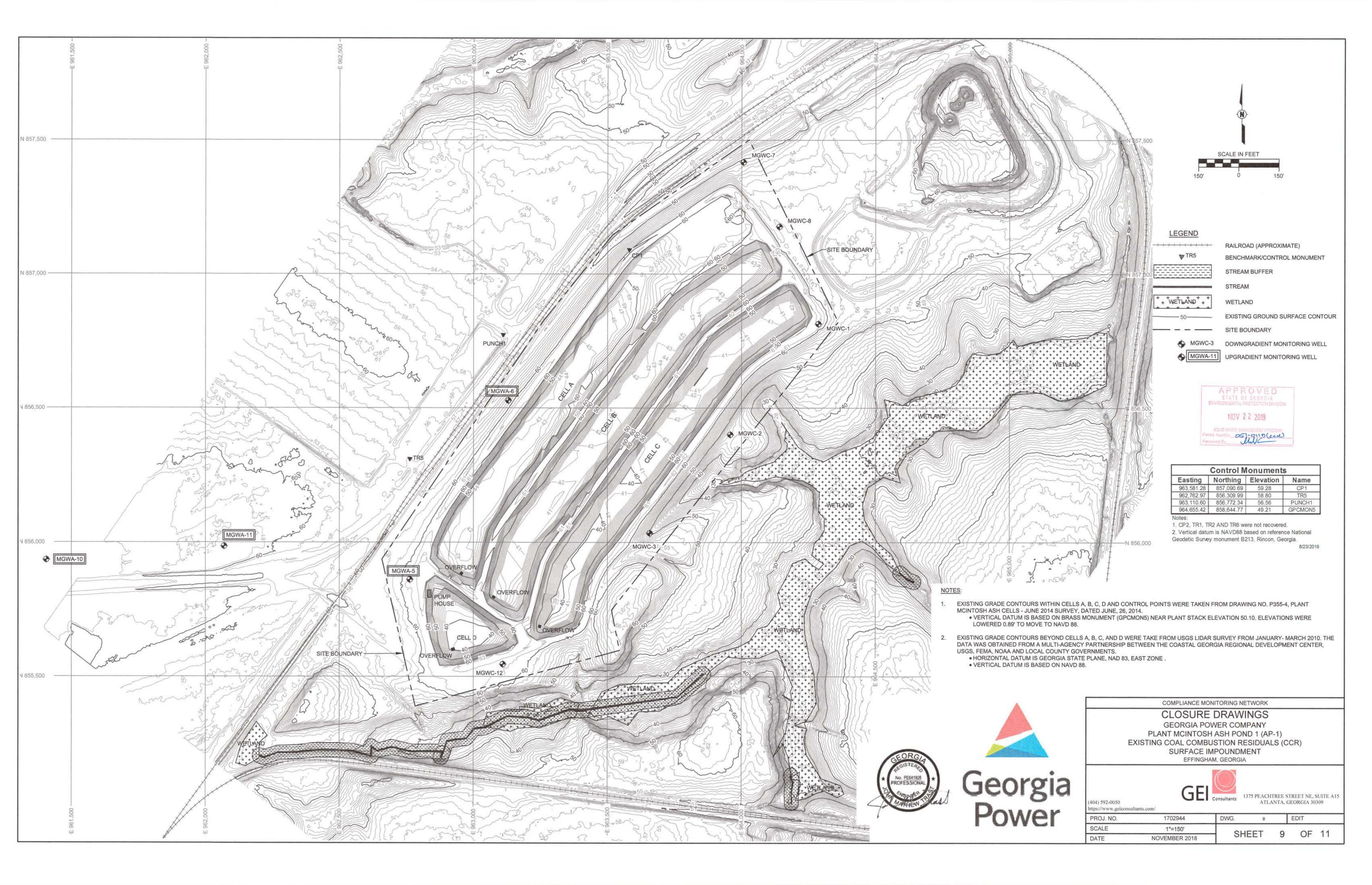
OF 11

APPROVED
STATE OF GEORGIA
ENVIRONMENTAL PROTECTION DIVISION

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# **GEORGIA** UNIFORM CODING SYSTEM

## FOR SOIL EROSION AND SEDIMENT CONTROL PRACTICES

GEORGIA SOIL AND WATER CONSERVATION COMMISSION

(Lv)

(Rd)

(Re)

ROCK FILTER DAM

RETRO

INLET SEDIMENT TRAP

FLOATING SURFACE SKIMMER

(Sk)

	ST	RUCTU	RAL F	PRACTICES		
CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION	CODE	PR
Cd	CHECKDAM		5	A small temporary barrier or darn constructed across a swale, drainage ditch or area of concentrated flow.	Sr	TE
Ch	CHANNEL STABILIZATION		74	Improving, constructing or stabilizing an open channel existing stream, or ditch.	St	ST
©	CONSTRUCTION		84	A crushed stone pad located at the construction site exit to provide a place for removing mud from tires thereby protecting public streets.	Su	RO
Cr	CONSTRUCTION ROAD STABILIZATION		O.	A travelway constructed as part of a construction plan including access roads, subdivision roads, parking areas and other on-site vehicle transportation routes.	То	Ţ
Dc	STREAM DIVERSION CHANNEL	= 1	<b>*</b>	A temporary channel constructed to convey flow around a construction site while a permanent structure is being constructed.	Тр	TC
Di	DIVERSION	:W/K	armin's	An earth channel or dike located above, below, or across a slope to divert runoff. This may be a temporary or permanent structure.	Tr	PR
Dn1)	TEMPORARY DOWNDRAIN STRUCTURE		9	A flexible conduit of heavy-duty fabric or other material designed to safely conduct surface runoff down a slope. This is temporary and inexpensive.	Wt	W STO
Dn2	PERMANENT DOWNDRAIN STRUCTURE	The same	9	A paved chute, pipe, sectional conduit or similar material designed to safely conduct surface runoff down a slope.		
Fr	FILTER RING	3		A temporary stone barrier constructed at storm drain inlets and pond outlets.		
Ga	GABION	THE STATE OF THE S	1	Rock filter baskets which are hand-placed into position forming soil stabilizing structures.	CODE	PR
(Gr)	GRADE STABILIZATION STRUCTURE	4	© \$	Permanent structures installed to protect channels or waterways where otherwise the slope would be sufficient for the running water to form guilles.	Bf	BU

A structure to convert concentrated flow of water in less erosive sheet flow. This should be constructed

A permanent or temporary stone filter dam instal

A wall installed to stabilize cut and fill slopes where maximum permissible slopes are not obtainable

A device or structure placed in front of a permanent

A barrier to prevent sediment from leaving the construction site. It may be sandbags, bales of straor hay, brush, logs and poles, gravel, or a silt fence.

An impounding area created by excavating around a

storm drain drop inlet. The excavated area will be filled and stabilized on completion of construction

stored allowing the bulk of the sediment to drop out A small temporary pond that drains a disturbed an

so that sediment can settle out. The principle feature

A buoyant device that releases/drains water from th

surface of sediment ponds, traps, or basins at a

perpendicular to the direction of runoff to enhance

dissipation and infiltration, while creating multiple sedimentation chambers with the employment of

controlled rate of flow.

distinguishing a temporary sediment trap from a temporary sediment basin is the lack of a pipe or

A basin created by excavation or a dam across a waterway. The surface water runoff is temporarily

across small streams or drainageways.

Each situation will require special design.

as a temporary sediment filter.

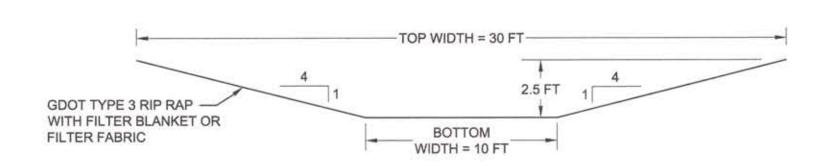
only on undisturbed soils.

## STRUCTURAL PRACTICES

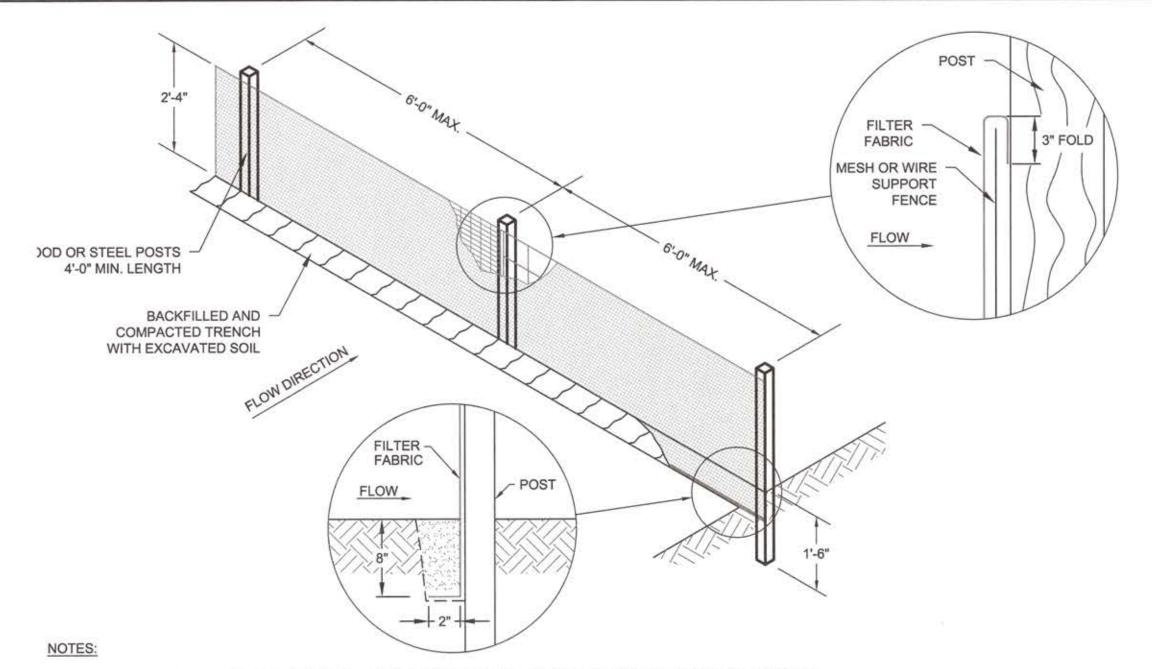
CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Sr	TEMPORARY STREAM CROSSING		(a)	A temporary bridge or culvert-type structure protecting a stream or watercourse from damage by crossing construction equipment.
St	STORMDRAIN OUTLET PROTECTION		© 2022	A paved or short section of riprap channel at the outlet of a storm drain system preventing erosion from the concentrated runoff.
Su	SURFACE ROUGHENING	/推了	<b>⊢</b> ⊚⊣	A rough soil surface with horizontal depressions on a contour or slopes left in a roughened condition after grading.
To	TURBIDITY CURTAIN		0	A floating or staked barrier installed within the water (it may also be referred to as a floating boom, silt barrier, or silt curtain).
Тр	TOPSOILING	40000	160	The practice of stripping off the more fertile soil, storing it, then spreading it over the disturbed area after completion of construction activities.
Tr	TREE PROTECTION	0	f.	To protect desirable trees from injury during construction activity.
Wt	VEGETATED WATERWAY OR STORMWATER CONVEYANCE		==>	Paved or vegetative water outlets for diversions, terraces, berms, dikes or similar structures.

### VEGETATIVE PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Bf	BUFFER ZONE	4600	No.	Strip of undisturbed original vegetation, enhanced or restored existing vegetation or the reestablishment of vegetation surrounding an area of disturbance or bordering streams.
Cs	COASTAL DUNE STABILIZATION (WITH VEGETATION)	manned	Cs	Planting vegetation on dunes that are denuded, artificially constructed, or re-nourished.
Ds1	DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)		Ds1	Establishing temporary protection for disturbed areas where seedlings may not have a suitable growing season to produce an erosion retarding cover.
Ds2	DISTURBED AREA STABILIZATION (WITH TEMP SEEDING)		Ds2	Establishing a temporary vegetative cover with fast growing seedings on disturbed areas.
Ds3	DISTURBED AREA STABILIZATION (WITH PERM SEEDING)	1000	Ds3	Establishing a permanent vegetative cover such as trees, shrubs, vines, grasses, or legumes on disturbed areas.
Ds4	DISTURBED AREA STABILIZATION (SODDING)	#	Ds4	A permanent vegetative cover using sods on highly erodable or critically eroded lands.
Du	DUST CONTROL ON DISTURBED AREAS	G.	Du	Controlling surface and air movement of dust on construction site, roadways and similar sites.
FI-Co	FLOCCULANTS AND COAGULANTS	G.	FI-Co	Substance formulated to assist in the solids/liquid separation of suspended particles in solution.
Sb	STREAMBANK STABILIZATION (USING PERM VEGETATION)	200	Sb	The use of readily available native plant materials to maintain and enhance streambanks, or to prevent, or restore and repair small streambank erosion problem
Ss	SLOPE STABILIZATION	T	Ss	A protective covering used to prevent erosion and establish temporary or permanent vegetation on steep slopes, shore lines, or channels.
Tac	TACKIFIERS AND BINDERS		Tac	Substance used to anchor straw or hay mulch by causing the organic material to bind together.



ARMORED STORMWATER CONVEYANCE CHANNEL



- 1. SILT FENCE TO BE INSTALLED PRIOR TO LAND DISTURBANCE AND MAINTAINED THROUGHOUT CONSTRUCTION.
- 2. FILTER FABRIC SHALL BE SECURELY ATTACHED TO POSTS WITH STAPLES, WIRES OR NAILS.
- MINIMUM SPLICE OVERLAP SHALL BE 2'-0" WITH A POST AT EACH END. USE OF MESH OR WIRE SUPPORT FENCE TO BE DETERMINED BY CONTRACTOR.
- 5. SILT FENCE INSTALLATION SHALL COMPLY WITH STANDARD GDOT DETAILS ON SHEET NOS. D-24A TO D.



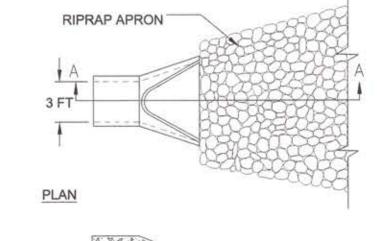
USE 6 INCH ANCHOR

SLOT AND STAPLES

FOR BLANKET ON

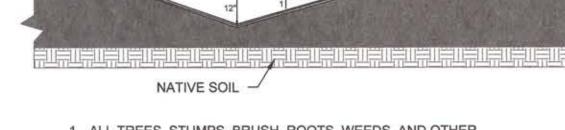
THIS SIDE

# PIPE OUTLET TO FLAT AREA -- NO WELL DEFINED CHANNEL



1. La IS THE LENGTH OF THE RIPRAP 2. D = 1.5 TIMES THE MAXIMUM STONE

- DIAMETERBUT NOT LESS THAN 6".
- 3. IN A WELL-DEFINED CHANNEL, EXTEND THE APRON UP THE CHANNEL BANKS TO AN ELEVATION OF 6" ABOVE THE MAXIMUM TAILWATER DEPTH OR TO THE TOP OF THE BANK (WHICHEVER IS LESS).
- 4. A FILTER BLANKET OR FILTER FABRIC SHOULD BE INSTALLED BETWEEN THE RIPRAP AND THE SOIL FOUNDATION.



PREPARE SOIL AND -

SEED WITH PERMANENT

MIX PRIOR TO COVERING

WITH CURLEX BLANKET

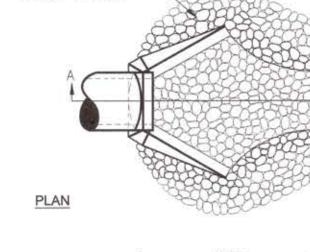
- 1. ALL TREES, STUMPS, BRUSH, ROOTS, WEEDS, AND OTHER OBJECTIONABLE MATERIALS SHOULD BE REMOVED FROM THE WORK
- 2. FOR NON-BACKFILL AREAS, THE DIVERSION SHOULD BE EXCAVATED AND SHAPED TO LINE GRADE, AND CROSS SECTION AS DESIGNED TO MEET THE CRITERIA SPECIFIED HEREIN. DIVERSIONS SHOULD BE EVENLY GRADED AND BE FREE OF IRREGULARITIES SUCH AS RISES OR DIPS THAT WOULD CAUSE NORMAL FLOW TO BE IMPEDED.
- 3. BERMS SHOULD BE MACHINE COMPACTED TO PREVENT UNEQUAL SETTLEMENT THAT WOULD CAUSE DAMAGE IN THE COMPLETED DIVERSION.
- 4. CHANNELS AND BERMS WITHIN DIVERSION SHALL BE COVERED WITH A P P R O V E D EROSION CONTROL MATTING AS SHOWN AND SPECIFIED. STATE OF BEORGIA

GRADE CLEAN

BERM AND VEE CHANNEL

BACKFILL TO FORM

# ENVIRONMENTAL PROTECTION SINISION NOV 2 2 2019 Permit Number 05, T-011 D(cere) TYPICAL DIVERSION BERM



Georgia Power

10

EXISTING COAL COMBUSTION RESIDUALS (CCR) SURFACE IMPOUNDMENT EFFINGHAM, GEORGIA



SCALE: NTS



DETAILS **CLOSURE DRAWINGS** 

GEORGIA POWER COMPANY PLANT MCINTOSH ASH POND 1 (AP-1)

> 1375 PEACHTREE STREET NE, SUITE A15 ATLANTA, GEORGIA 30309

SOIL STAPLES OR

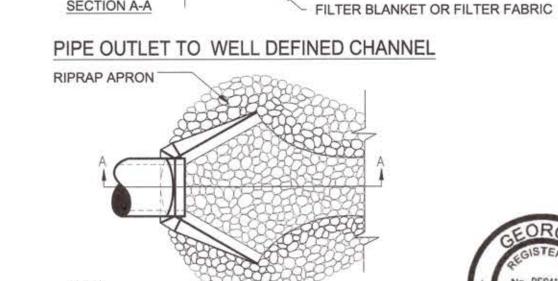
STAKES PLACED PER

RECOMMENDATIONS

MANUFACTURER'S

INTO BERM

1702944 DWG. EDIT PROJ. NO. SCALE NONE SHEET 10 OF 11 DATE NOVEMBER 2018



FILTER BLANKET OR SECTION A-A FILTER FABRIC

RIPRAP OUTLET PROTECTION

SCALE: NTS

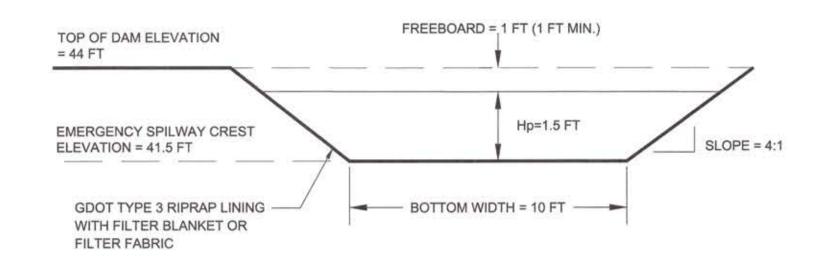
TYPICAL STRAW BALE CHECK DAM

POINT C OF SECTION B-B SHOULD ALWAYS BE HIGHER THAN POINT D.

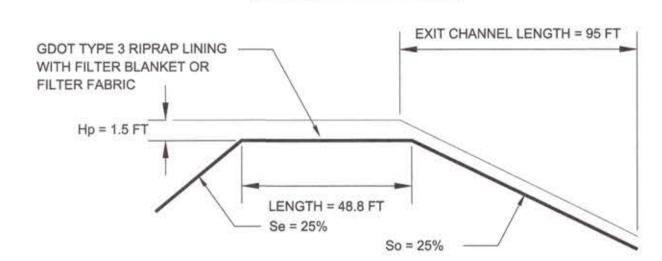
SECTION A-A

1. BALES SHOULD BE BOUND WITH WIRE OR NYLON STRING AND SHOULD BE PLACED IN ROWS WITH
BALE ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. REMOVE #4 REBAR AFTER STRAW BALES ARE NO LONGER IN PLACE.

## PROFILE ALONG CENTERLINE



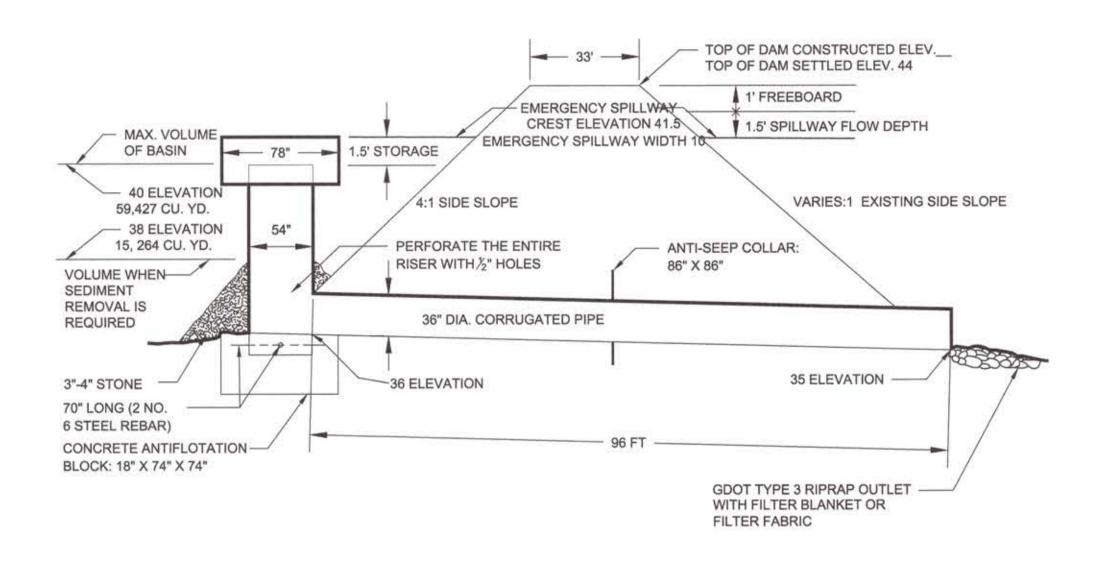
## **EMERGENCY SPILLWAY**



CROSS SECTIONAL DETAIL OF EMERGENCY SPILLWAY

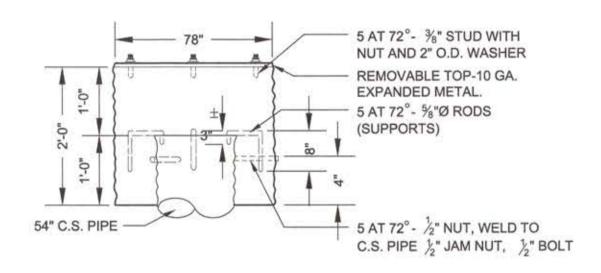
SCALE: NTS

## CROSS-SECTIONAL DETAIL



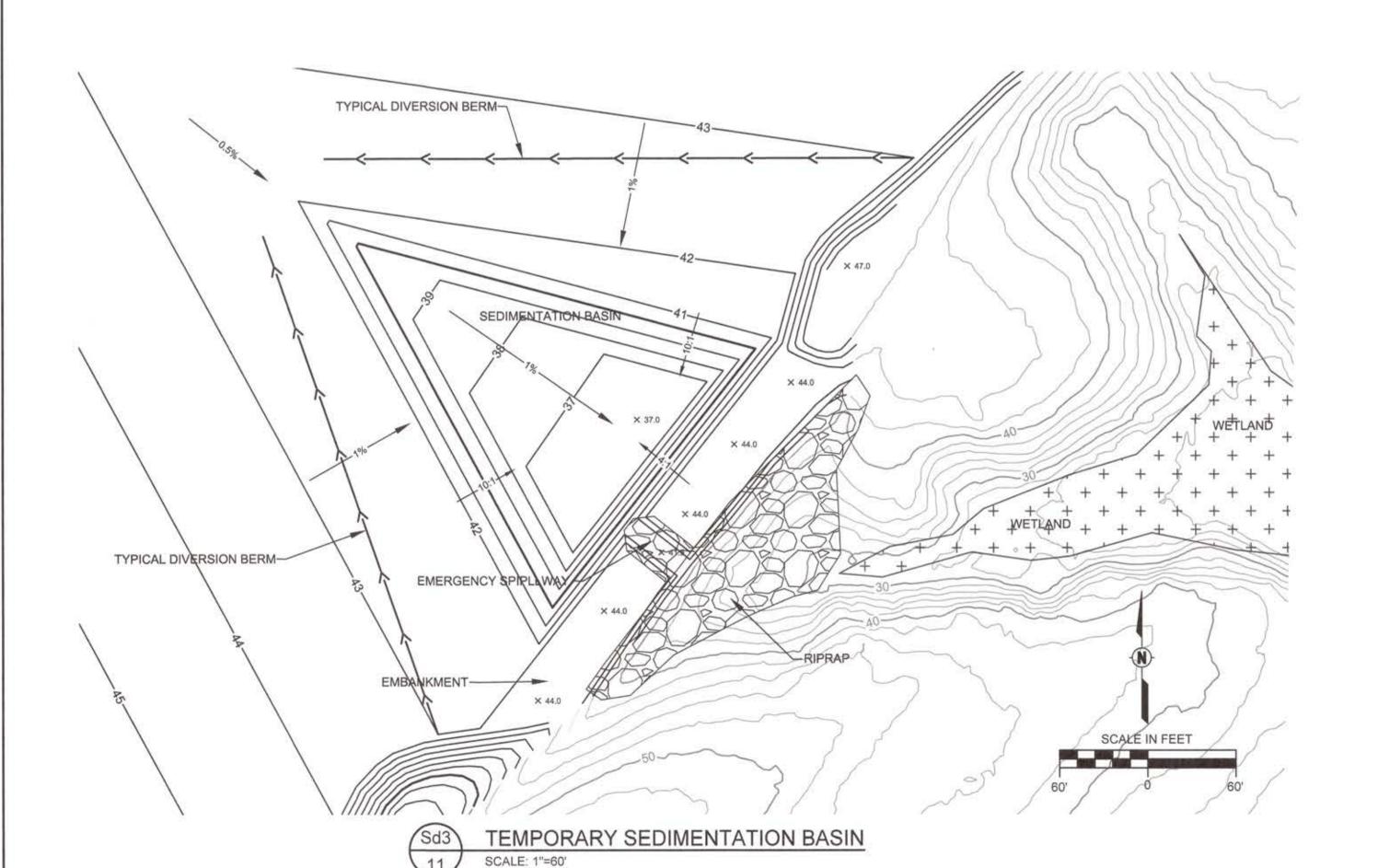
TEMPORARY SEDIMENTATION BASIN EMBANKMENT

SCALE: NTS



Sd3 TYPICAL TRASHRACK

11 SCALE: NTS







# CLOSURE DRAWINGS GEORGIA POWER COMPANY

GEORGIA POWER COMPANY
PLANT MCINTOSH ASH POND 1 (AP-1)
EXISTING COAL COMBUSTION RESIDUALS (CCR)
SURFACE IMPOUNDMENT
EFFINGHAM, GEORGIA





1375 PEACHTREE STREET NE, SUITE A15 ATLANTA, GEORGIA 30309

 PROJ. NO.
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