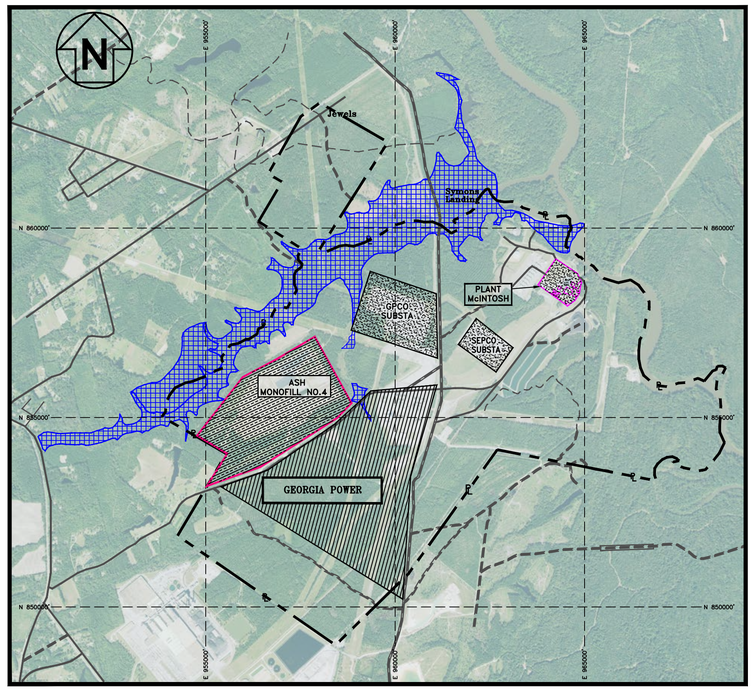
PERMIT DRAWINGS
GEORGIA POWER COMPANY
PLANT MCINTOSH COAL COMBUSTION RESIDUALS (CCR)
EXISTING LANDFILL NO. 4
EFFINGHAM, GEORGIA
NOVEMBER 2018

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



PROJECT SITE LOCATION
NOT TO SCALE

REVISION HISTORY

DATE	SHEETS	REQUESTED BY

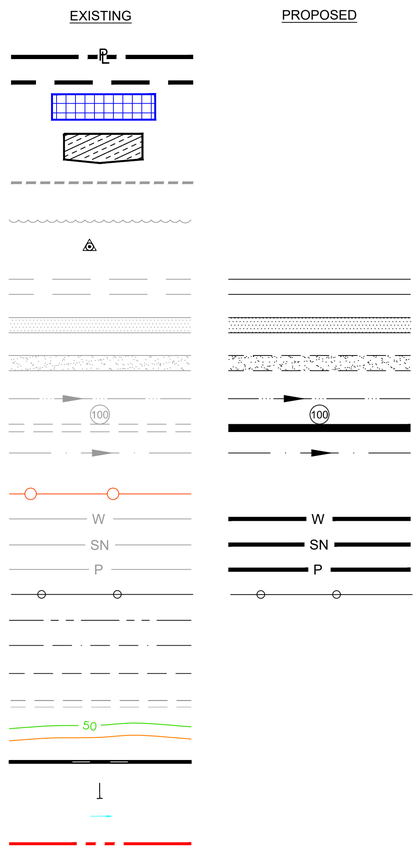
GEI Consultants
1375 PEACHTREE STREET NE, SUITE A15
ATLANTA, GEORGIA 30309
(404) 592-0050

GEORGIA REGISTERED No. PE041928 PROFESSIONAL ENGINEER JOHN MATTHEW TRAST

Georgia Power

INDEX TO DRAWINGS

LEGEND



	EXISTING	PROPOSED	
PROPERTY LINE (APPROXIMATE)			BUILDING
UNDISTURBED PROPERTY BUFFER			
AREAS INUNDATED BY 100 YEAR FLOOD (APPROXIMATE)	GWC-2	GWC-21	GROUNDWATER MONITORING WELL
ASH DISPOSAL SITE No.4 BOUNDARY (APPROXIMATE)	SWC-7TL	SWC-2	SURFACE WATER MONITORING POINT
STREAM AND WETLAND BUFFER			OUTLET PROTECTION
TREELINE			STONE CHECK DAM
BENCHMARK			HAY BALE CHECK DAM
UNPAVED ROAD			FLARED END SECTION
PAVED ROAD			INLET PROTECTION
GRAVEL ROAD			CONSTRUCTION EXIT
DITCH CENTERLINE			NPDES SAMPLING POINT
STORM DRAINAGE PIPE	LCO	LCO	LEACHATE CLEANOUT
STORM WATER DIVERSION BERM	SUMP NO. X	SUMP NO. X	LEACHATE SUMP
SILT FENCE	MH	MH	LEACHATE MANHOLE / PUMP STATION
WATER MAIN			LEACHATE VAULT
SANITARY SEWER	ARV	ARV	AIR RELEASE VALVE
POWER LINE			HEADWALL
FENCE			DROP INLET
SITE BOUNDARY			OVERFLOW STRUCTURE
200' BUFFER			GATE
50' WETLAND BUFFER	GWC-18		BORING/PIEZOMETER
EXIST GROUND CONTOURS	100.00	100.00	SPOT ELEVATION
FINAL GRADE CONTOURS			MARKER POST
UNDERDRAIN		INLET EL. 500 ② INLET EL. 480 ①	DOWNDRAIN PIPE AND SLOPED PAVED HEADWALL
DOWNDRAIN			SEDIMENT TRAP
SURFACE RUNOFF DIRECTION			EXCELSIOR SLOPE MATTING
LIMITS OF WASTE			

GENERAL NOTES:

1. 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 COMMUNITY.
5. SOUTHERN COMPANY SERVICES, EPS-7017-4 SITE SA-1, LAYOUT.
6. SAVANNAH ELECTRIC, P121 MCINTOSH PLANT SITE.
7. FLOOD INSURANCE RATE MAP, EFFINGHAM COUNTY, GEORGIA, PANEL 100 OF 175, MARCH, 1987.
8. SEE SHEET 3 FOR GENERAL NOTES AND REFERENCES.

Georgia Power

INDEX AND LEGEND

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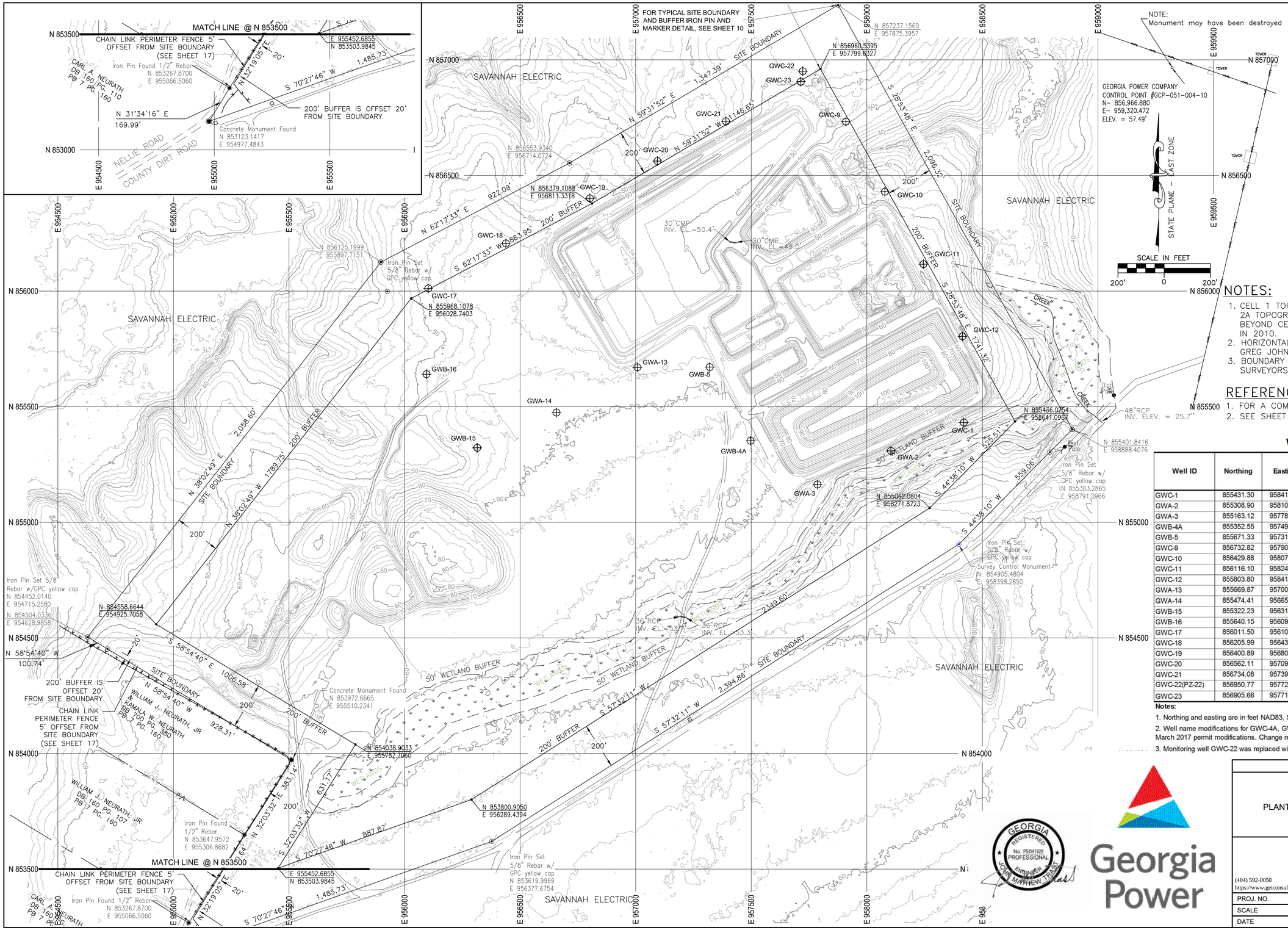
https://www.geiconsultants.com/

PROJ. NO.	1702944	DWG. 1	EDIT
SCALE	NONE	SHEET 1 OF 29	
DATE	NOVEMBER 2018		



LEGEND

GWC-18 — BORING/PIEZOMETER LOCATION

NOTE:
BORINGS M16 THROUGH M20 WERE DRILLED MAY 2003 DURING THE PROCESS OF DEVELOPING THE GROUNDWATER MONITORING PLAN FOR THE SITE. TEMPORARY PIEZOMETERS WERE INSTALLED FOR THE PURPOSE OF OBTAINING ADDITIONAL GROUNDWATER LEVEL READINGS.

PROJECT CONTROL

ALL COORDINATES ARE GEORGIA STATE PLANE – EAST ZONE NAD83(94)
ALL ELEVATIONS SHOWN ARE NAVD88
STATE PLANE COORDS. – NAD83(94) – GEORGIA EAST ZONE

GPC–MACK12	N: 855201.8250	E: 961020.2460	ELEV.: 61.572
GPC–MACK15	N: 855830.6352	E: 962265.4434	ELEV.: 59.306

NOTES:

1. CELL 1 TOPOGRAPHIC SURVEY COMPLETED MAY 2, 2017. CELL 2A TOPOGRAPHIC SURVEY COMPLETED AUGUST 2016. AREAS BEYOND CELLS 1 AND 2A WERE FROM LIDAR DATA COMPLETED IN 2010.
2. HORIZONTAL AND VERTICAL CONTROL PROVIDED BY GREG JOHNSON @ GEORGIA POWER.
3. BOUNDARY SURVEY PERFORMED BY BARKER AND ASSOCIATES SURVEYORS, JANUARY 2003

REFERENCES:

1. FOR A COMPLETE DRAWING LIST SEE SHEET 1.
2. SEE SHEET 3 FOR GENERAL NOTES AND REFERENCES.

Well Construction Data

Well ID	Northing	Easting	Ground Surface Elevation (feet)	Top of Casing Elevation (feet)	Bottom of Well Elevation (feet)	Top of Screen Elevation (feet)	Installation Date
GWC-1	855431.30	958419.36	44.06	47.06	18.56	29.06	08/17/2004
GWA-2	855308.90	958103.93	50.64	53.64	25.14	35.64	08/17/2004
GWA-3	855163.12	957786.21	54.93	57.93	19.43	29.93	08/17/2004
GWB-4A	855352.55	957496.51	62.20	64.98	29.98	39.98	08/4/2016
GWB-5	855671.33	957319.99	59.29	62.29	20.79	31.29	08/18/2004
GWC-9	856732.82	957909.70	50.56	53.56	15.06	25.56	08/16/2004
GWC-10	856429.88	958077.92	46.55	49.55	16.05	26.55	08/19/2004
GWC-11	856116.10	958244.61	54.97	57.97	14.47	24.97	08/18/2004
GWC-12	855803.80	958413.62	54.26	57.26	15.76	26.26	08/18/2004
GWA-13	855669.87	957006.97	57.74	60.85	20.74	30.74	10/23/2015
GWA-14	855474.41	956656.96	58.50	61.40	11.50	21.50	10/27/2015
GWB-15	855322.23	956314.50	53.42	56.72	16.42	26.52	10/27/2015
GWB-16	855640.15	956094.66	51.33	54.60	14.33	24.33	10/27/2015
GWC-17	856011.50	956102.41	51.14	54.19	14.14	24.14	10/28/2015
GWC-18	856205.99	956438.21	56.48	59.68	17.48	27.48	10/29/2015
GWC-19	856400.89	956801.55	50.67	53.62	16.67	26.67	10/29/2015
GWC-20	856562.11	957093.85	44.10	47.23	17.10	27.10	10/30/2015
GWC-21	856734.08	957390.27	42.00	45.16	18.00	28.00	11/4/2015
GWC-22(PZ-22)	856950.77	957722.65	47.42	51.07	19.42	29.42	11/4/2015
GWC-23	856905.66	957714.42	-	52.16	18.46	32.46	05/26/2016

Notes:

1. Northing and easting are in feet NAD83, State Plane Georgia East Zone. Elevations are in feet relative to NAVD88
2. Well name modifications for GWC-4A, GWC-5, GWC-15, and GWA-16 were submitted with the October 2015 and March 2017 permit modifications. Change requested as a part of March 2017 D&O Modification
3. Monitoring well GWC-22 was replaced with GWC-23 in May 2016

EXISTING SITE TOPOGRAPHIC MAP

PERMIT DRAWINGS

GEORGIA POWER COMPANY
PLANT MCINTOSH COAL COMBUSTION RESIDUALS (CCR)
EXISTING LANDFILL NO. 4
EFFINGHAM, GEORGIA

GEORGIA REGISTERED No. PED41928 PROFESSIONAL ENGINEER JOHN MATTHEW TRASK

Georgia Power

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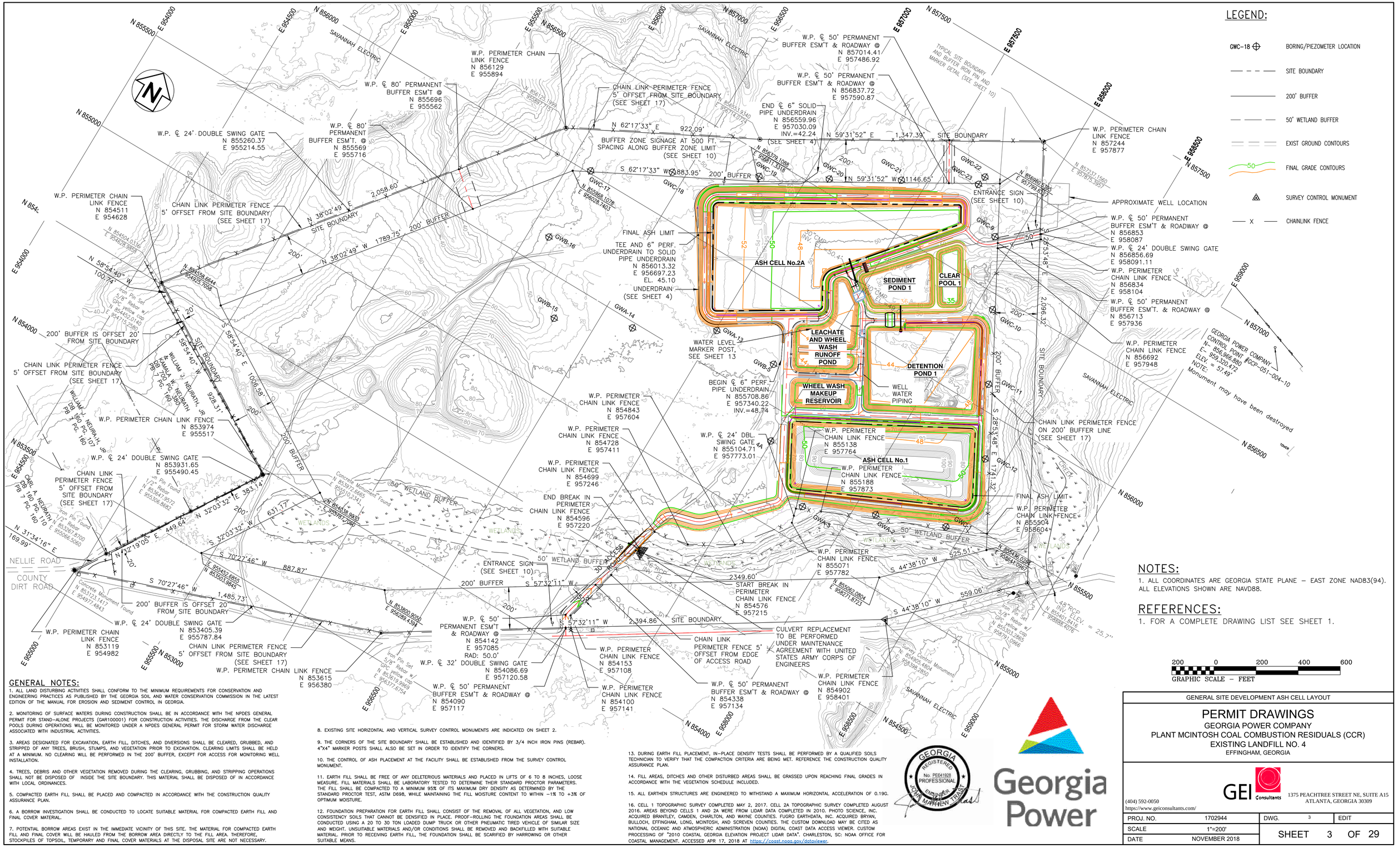
PROJ. NO.	1702944	DWG. 2	EDIT
SCALE	1"=200'	SHEET 2	OF 29
DATE	NOVEMBER 2018		



NOTES:

1. ALL COORDINATES ARE GEORGIA STATE PLANE – EAST ZONE NAD83(94). ALL ELEVATIONS SHOWN ARE NAVD88.

REFERENCES:

1. FOR A COMPLETE DRAWING LIST SEE SHEET 1.

200 0 200 400 600
GRAPHIC SCALE – FEET

GENERAL NOTES:

1. ALL LAND DISTURBING ACTIVITIES SHALL CONFORM TO THE MINIMUM REQUIREMENTS FOR CONSERVATION AND ENGINEERING PRACTICES AS PUBLISHED BY THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION IN THE LATEST EDITION OF THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA.

2. MONITORING OF SURFACE WATERS DURING CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE NPDES GENERAL PERMIT FOR STAND–ALONE PROJECTS (GAR100001) FOR CONSTRUCTION ACTIVITIES. THE DISCHARGE FROM THE CLEAR POOLS DURING OPERATIONS WILL BE MONITORED UNDER A NPDES GENERAL PERMIT FOR STORM WATER DISCHARGE ASSOCIATED WITH INDUSTRIAL ACTIVITIES.

3. AREAS DESIGNATED FOR EXCAVATION, EARTH FILL, DITCHES, AND DIVERSIONS SHALL BE CLEARED, GRUBBED, AND STRIPPED OF ANY TREES, BRUSH, STUMPS, AND VEGETATION PRIOR TO EXCAVATION. CLEARING LIMITS SHALL BE HELD AT A MINIMUM. NO CLEARING WILL BE PERFORMED IN THE 200' BUFFER, EXCEPT FOR ACCESS FOR MONITORING WELL INSTALLATION.

4. TREES, DEBRIS AND OTHER VEGETATION REMOVED DURING THE CLEARING, GRUBBING, AND STRIPPING OPERATIONS SHALL NOT BE DISPOSED OF INSIDE THE SITE BOUNDARY. THIS MATERIAL SHALL BE DISPOSED OF IN ACCORDANCE WITH LOCAL ORDINANCES.

5. COMPACTED EARTH FILL SHALL BE PLACED AND COMPACTED IN ACCORDANCE WITH THE CONSTRUCTION QUALITY ASSURANCE PLAN.

6. A BORROW INVESTIGATION SHALL BE CONDUCTED TO LOCATE SUITABLE MATERIAL FOR COMPACTED EARTH FILL AND FINAL COVER MATERIAL.

7. POTENTIAL BORROW AREAS EXIST IN THE IMMEDIATE VICINITY OF THIS SITE. THE MATERIAL FOR COMPACTED EARTH FILL AND FINAL COVER WILL BE HAULED FROM THE BORROW AREA DIRECTLY TO THE FILL AREA. THEREFORE, STOCKPILES OF TOPSOIL, TEMPORARY AND FINAL COVER MATERIALS AT THE DISPOSAL SITE ARE NOT NECESSARY.

8. EXISTING SITE HORIZONTAL AND VERTICAL SURVEY CONTROL MONUMENTS ARE INDICATED ON SHEET 2.

9. THE CORNERS OF THE SITE BOUNDARY SHALL BE ESTABLISHED AND IDENTIFIED BY 3/4 INCH IRON PINS (REBAR). 4"X4" MARKER POSTS SHALL ALSO BE SET IN ORDER TO IDENTIFY THE CORNERS.

10. THE CONTROL OF ASH PLACEMENT AT THE FACILITY SHALL BE ESTABLISHED FROM THE SURVEY CONTROL MONUMENT.

11. EARTH FILL SHALL BE FREE OF ANY DELETERIOUS MATERIALS AND PLACED IN LIFTS OF 6 TO 8 INCHES, LOOSE MEASURE. FILL MATERIALS SHALL BE LABORATORY TESTED TO DETERMINE THEIR STANDARD PROCTOR PARAMETERS. THE FILL SHALL BE COMPACTED TO A MINIMUM 95% OF ITS MAXIMUM DRY DENSITY AS DETERMINED BY THE STANDARD PROCTOR TEST, ASTM D698, WHILE MAINTAINING THE FILL MOISTURE CONTENT TO WITHIN –1% TO +3% OF OPTIMUM MOISTURE.

12. FOUNDATION PREPARATION FOR EARTH FILL SHALL CONSIST OF THE REMOVAL OF ALL VEGETATION, AND LOW CONSISTENCY SOILS THAT CANNOT BE DENSIFIED IN PLACE. PROOF–ROLLING THE FOUNDATION AREAS SHALL BE CONDUCTED USING A 20 TO 30 TON LOADED DUMP TRUCK OR OTHER PNEUMATIC TIRED VEHICLE OF SIMILAR SIZE AND WEIGHT. UNSUITABLE MATERIALS AND/OR CONDITIONS SHALL BE REMOVED AND BACKFILLED WITH SUITABLE MATERIAL. PRIOR TO RECEIVING EARTH FILL, THE FOUNDATION SHALL BE SCARIFIED BY HARROWING OR OTHER SUITABLE MEANS.

13. DURING EARTH FILL PLACEMENT, IN–PLACE DENSITY TESTS SHALL BE PERFORMED BY A QUALIFIED SOILS TECHNICIAN TO VERIFY THAT THE COMPACTION CRITERIA ARE BEING MET. REFERENCE THE CONSTRUCTION QUALITY ASSURANCE PLAN.

14. FILL AREAS, DITCHES AND OTHER DISTURBED AREAS SHALL BE GRASSED UPON REACHING FINAL GRADES IN ACCORDANCE WITH THE VEGETATION SCHEDULE INCLUDED.

15. ALL EARTHEN STRUCTURES ARE ENGINEERED TO WITHSTAND A MAXIMUM HORIZONTAL ACCELERATION OF 0.19G.

16. CELL 1 TOPOGRAPHIC SURVEY COMPLETED MAY 2, 2017. CELL 2A TOPOGRAPHIC SURVEY COMPLETED AUGUST 2016. AREAS BEYOND CELLS 1 AND 2A WERE FROM LIDAR DATA COMPLETED IN 2010. PHOTO SCIENCE, INC. ACQUIRED BRANTLEY, CAMDEN, CHARLTON, AND WAYNE COUNTIES. FUGRO EARTHDATA, INC. ACQUIRED BRYAN, BULLOCH, EFFINGHAM, LONG, MCINTOSH, AND SCREVEN COUNTIES. THE CUSTOM DOWNLOAD MAY BE CITED AS NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) DIGITAL COAST DATA ACCESS VIEWER. CUSTOM PROCESSING OF "2010 COASTAL GEORGIA ELEVATION PROJECT LIDAR DATA". CHARLESTON, SC: NOAA OFFICE FOR COASTAL MANAGEMENT. ACCESSED APR 17, 2018 AT https://coast.noaa.gov/dataviewer.

GEORGIA REGISTERED No. PE041928 PROFESSIONAL ENGINEER JOHN MATTHEW TRAST

Georgia Power

GENERAL SITE DEVELOPMENT ASH CELL LAYOUT

PERMIT DRAWINGS

GEORGIA POWER COMPANY
PLANT MCINTOSH COAL COMBUSTION RESIDUALS (CCR)
EXISTING LANDFILL NO. 4
EFFINGHAM, GEORGIA

GEI Consultants
1375 PEACHTREE STREET NE, SUITE A15
ATLANTA, GEORGIA 30309
(404) 592-0050
https://www.geiconsultants.com/

PROJ. NO.	1702944	DWG. 3	EDIT
SCALE	1"=200'	SHEET 3 OF 29	
DATE	NOVEMBER 2018		

N 62°17'33" E 922.09'

N 856553.9340
E 956714.0724

END DITCH/BEGIN LEVEL SPREADER @ EL. 48.66

N 856379.1085
E 956811.3318

FINAL ASH LIMITS

S 62°17'33" W 883.95'

200' BUFFER

50' PERMANENT BUFFER ESM'T (SEE SHEET 3 FOR COORDINATES)

N 59°31'52" E 1,347.39'
SITE BOUNDARY

END ℄ 6" SOLID PIPE UNDERDRAIN
N 856559.96
E 957030.09
INV.=42.24
(SEE DETAIL, THIS SHEET)

N 59°31'52" W 1146.65'

N 857237.1560
E 957875.3957

N 856960.5395
E 957799.6327

APPROXIMATE WELL LOCATION

TEE AND 6" PERF. UNDERDRAIN TO SOLID PIPE UNDERDRAIN
N 856013.32
E 956697.23
EL. 45.10

FOR CELL LINER DETAIL (SEE SHEETS 11 & 12)

18" PIPE @
N 855741
E 956916
INV. EL. 54.50

38 L.F. 18" HDPE PIPE @ 2.66% GR., (SEE SHEET 20 TABLE 2 FOR OUTLET EROSION PROTECTION)

18" PIPE @
N 855719
E 956947
INV. EL. 53.49

ASH CELL No. 2A (PHASE 1)

LCRS PIPE TRENCH, (SEE SHEET 12)

10" PERF. HDPE PIPE

CELL SPILLWAY WITH ENERGY DISSIPATORS (SEE SHEET 15)

EMERGENCY OVERFLOW SPILLWAY, (SEE SHEET 11)

EXISTING SEDIMENT POND 1

LEACHATE SUMP (SEE SHEET 16) AND DBL. CONTAINED LEACHATE INLET PIPES (SEE SHEET 15)

EMERGENCY SPILLWAY, (SEE SHEET 11)

EXISTING CLEAR POOL 1

LCRS CAPPED HEADER SECTION(SEE SHEET 113)

W.P. ℄ 24' DBL. SWING GATE
N 856856.69
E 958091.11

50' PERMANENT BUFFER ESM'T (SEE SHEET 3 FOR COORDINATES)

S 28°53'48" E 2,096.32'
SITE BOUNDARY

N 855958
E 957338
INV. OUT=49.97
(SEE SHEET 21 TABLE 2 FOR OUTLET EROSION CONTROL)

LEACHATE POND 1

WATER LEVEL MARKER POST, (SEE SHEET 13)

WHEEL WASH RUNOFF POND

24"ø RCP CULVERT
50' LONG, MITERED
N 855984
E 957381
INV. IN=49.67

DETENTION POND 1

END OF 6" PERF. PIPE
N 855708.86
E 957340.22
INV. EL. 48.74

30' ACCESS ROAD

WHEEL WASH MAKEUP RESERVOIR

ASH CELL NO. 1

FOR FINAL COVER DETAIL (SEE SHEET 10)

FINAL ASH LIMITS

W.P. ℄ 24' DBL. SWING GATE
N 855104.71
E 957773.01

50' BUFFER

200' BUFFER

WETLANDS

36"RCP INV. EL.=53.3'

36"RCP INV. EL.=53.3'

50' PERMANENT BUFFER ESM'T (SEE SHEET 3 FOR COORDINATES)

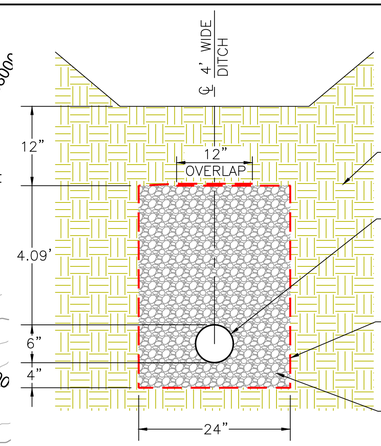
W.P. ℄ 32' DOUBLE SWING GATE
N 854086.69
E 957120.58

S 57°32'11" W 2,394.86'
SITE BOUNDARY

MATCH LINE @ N 854750 (SEE SHEET 10)

MATCH LINE @ N 854750 (SEE SHEET 10)

GRAPHIC SCALE – FEET
100 0 100 200 300



6" UNDERDRAIN DETAIL
NOT TO SCALE

LEGEND:

- GWC-18 ⊕ BORING/PIEZOMETER LOCATION
- SITE BOUNDARY
- 200' BUFFER
- 50' WETLAND BUFFER
- 60 EXIST GROUND CONTOURS
- SURVEY CONTROL MONUMENT
- CHAINLINK FENCE
- UNDERDRAIN

EROSION CONTROL LEGEND

- LV LEVEL SPREADER
- Sd1–S SILT FENCE
- Ds2 AREA STABILIZATION (TEMPORARY VEGETATION)
- Ds3 AREA STABILIZATION (PERMANENT VEGETATION)

ASH CELL No. 2 (PHASE 1) OUTLET DETAIL
NOT TO SCALE

NOTE: DASHED CONTOURS INDICATE CLOSURE OF OUTLET CHANNEL. THE CHANNEL SHALL BE CLOSED AS ASH IS PLACED AGAINST BERM INTERIOR SLOPE IN CHANNEL AREA.

NOTES:

1. ALL EARTHEN STRUCTURES ARE ENGINEERED TO WITHSTAND A MAXIMUM HORIZONTAL ACCELERATION OF 0.19g.
2. CELL 1 TOPOGRAPHIC SURVEY COMPLETED MAY 2, 2017. CELL 2A TOPOGRAPHIC SURVEY COMPLETED AUGUST 2016. AREAS BEYOND CELLS 1 AND 2A WERE FROM LIDAR DATA COMPLETED IN 2010.

REFERENCES:

1. FOR A COMPLETE DRAWING LIST SEE SHEET 1.
2. SEE SHEET 3 FOR GENERAL NOTES AND REFERENCES.

GEORGIA REGISTERED No. PE041928 PROFESSIONAL ENGINEER JOHN MATTHEW TRAST

Georgia Power

CELL 2A SITE DEVELOPMENT PLAN

PERMIT DRAWINGS

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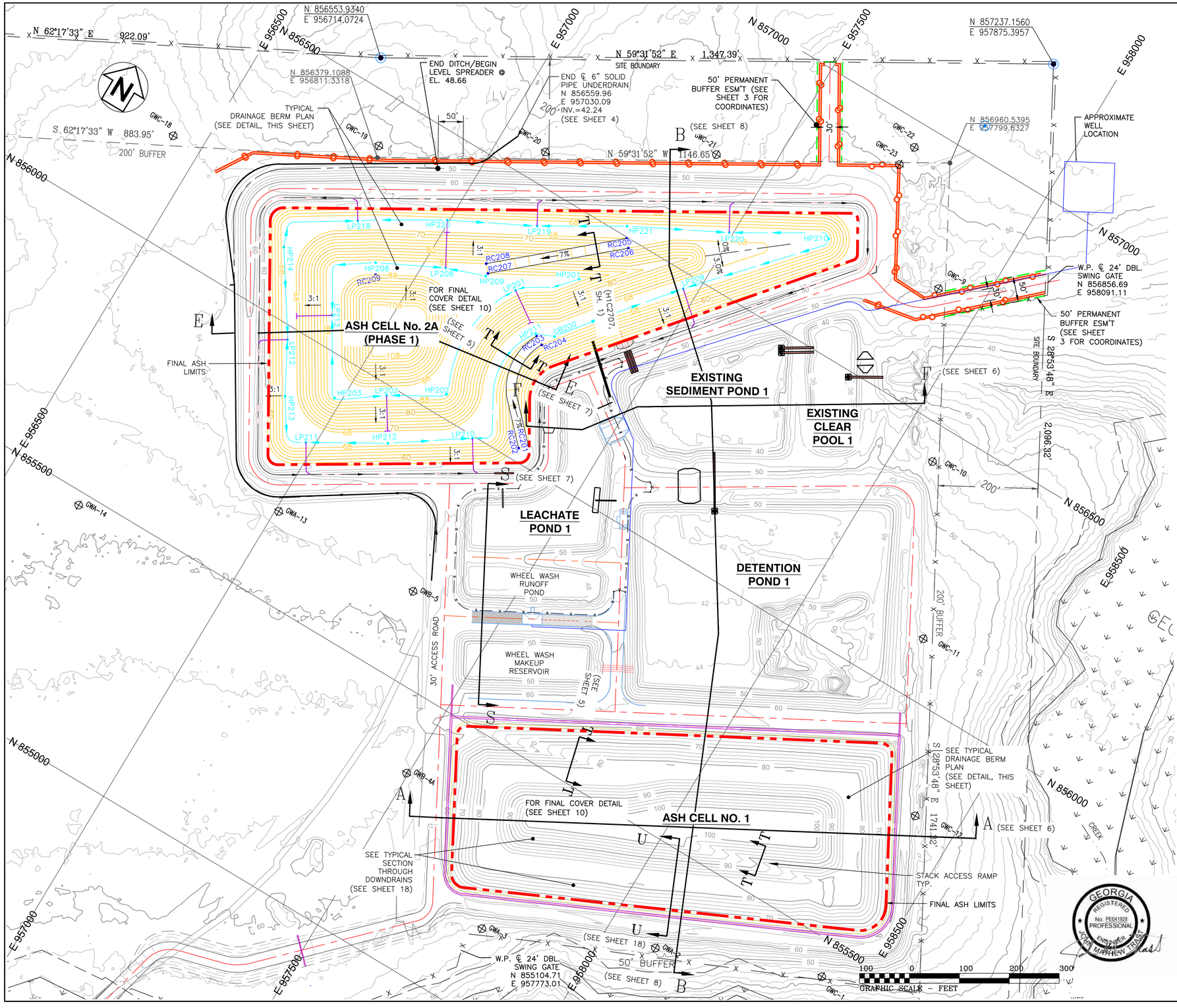
PROJ. NO.	1702944	DWG. 4	EDIT
SCALE	1"=100'	SHEET 4 OF 29	
DATE	NOVEMBER 2018		



CELL 2 – HIGH POINTS, LOW POINTS & GRADE BREAKS

High Point	Northing	Easting	Elev.
HP201	856378.40	957283.00	87.5
HP202	856043.82	957174.07	87.5
HP203	855922.05	956985.86	87.5
HP208	856197.14	956916.52	87.5
HP209	856287.44	957119.29	87.5
HP210	856705.59	957669.26	67.5
HP211	856240.11	957264.57	67.5
HP212	855899.47	957123.84	67.5
HP213	855874.03	956898.93	67.5
HP214	856128.86	956742.98	67.5
HP220	856344.05	956995.60	67.5
HP221	856519.00	957310.47	67.5
GB200	856254.58	957299.81	67.25

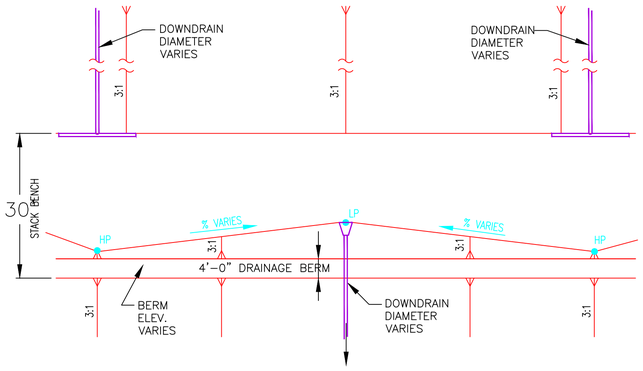
Low Point	Northing	Easting	Elev.
LP201	856293.98	957185.10	85.5
LP202	855980.47	957072.31	85.5
LP203	855811.19	956799.89	85.5
LP204	855667.45	956531.78	85.5
LP205	855681.08	956319.78	85.5
LP206	855870.52	956408.17	85.5
LP207	856078.34	956738.78	85.5
LP208	856260.13	957042.23	85.5
LP209	856469.63	957471.39	65.5
LP210	855995.69	957263.90	65.5
LP211	855816.50	956982.25	65.5
LP212	855973.98	956844.79	65.5
LP213	856061.87	956896.52	85.5
LP218	856250.07	956842.87	65.5
LP219	856426.28	957155.95	65.5
LP220	856613.28	957492.50	65.5

CELL 2 - STACK ACCESS RAMPS

Ramp Corner	Northing	Easting	Elev.
RC201	856039.98	957367.73	54.0
RC202	856026.06	957353.38	54.0
RC203	856236.94	957269.13	68.0
RC204	856227.21	957286.60	68.0
RC205	856497.58	957322.37	68.0
RC206	856482.54	957335.54	68.0
RC207	856294.41	957120.50	88.0
RC208	856309.46	957107.33	88.0

LEGEND:

- DOWNDRAIN (FOR DIAMETER SEE TABLE 3, SHEET 18)
- SURFACE RUNOFF DIRECTION
- HP423 HIGH POINT
- LP423 LOW POINT
- GB424 GRADE BREAK
- RC211 ACCESS RAMP



TYPICAL DRAINAGE BERM PLAN ON 30' STACK BENCH N.T.S.

NOTES:

1. ALL EARTHEN STRUCTURES ARE ENGINEERED TO WITHSTAND A MAXIMUM HORIZONTAL ACCELERATION OF 0.19g.
2. GRADE ELEVATIONS SHOWN ON THE DRAWINGS ARE THE FINISHED GRADE ELEVATIONS TO TOP OF CLAY LINER (CELLS AND LEACHATE PONDS), TO TOP OF GAB (ROADS), TO TOP OF 6" SOIL COVER (CELL STACKS), TO TOP OF CONCRETE (SPILLWAYS) OR STRUCTURAL FILL.
3. CELL 1 TOPOGRAPHIC SURVEY COMPLETED MAY 2, 2017. CELL 2A TOPOGRAPHIC SURVEY COMPLETED AUGUST 2016. AREAS BEYOND CELLS 1 AND 2A WERE FROM LIDAR DATA COMPLETED IN 2010.

REFERENCES:

1. FOR A COMPLETE DRAWING LIST SEE SHEET 1.
2. SEE SHEET 3 FOR GENERAL NOTES AND REFERENCES.

GEORGIA REGISTERED No. PE041928 PROFESSIONAL ENGINEER JOHN MATTHEW TRAST

Georgia Power

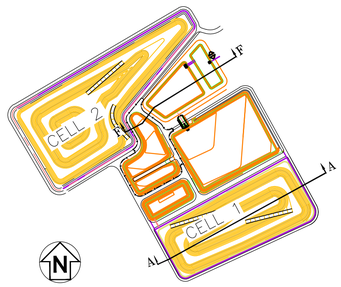
FINAL GRADING PLAN

PERMIT DRAWINGS

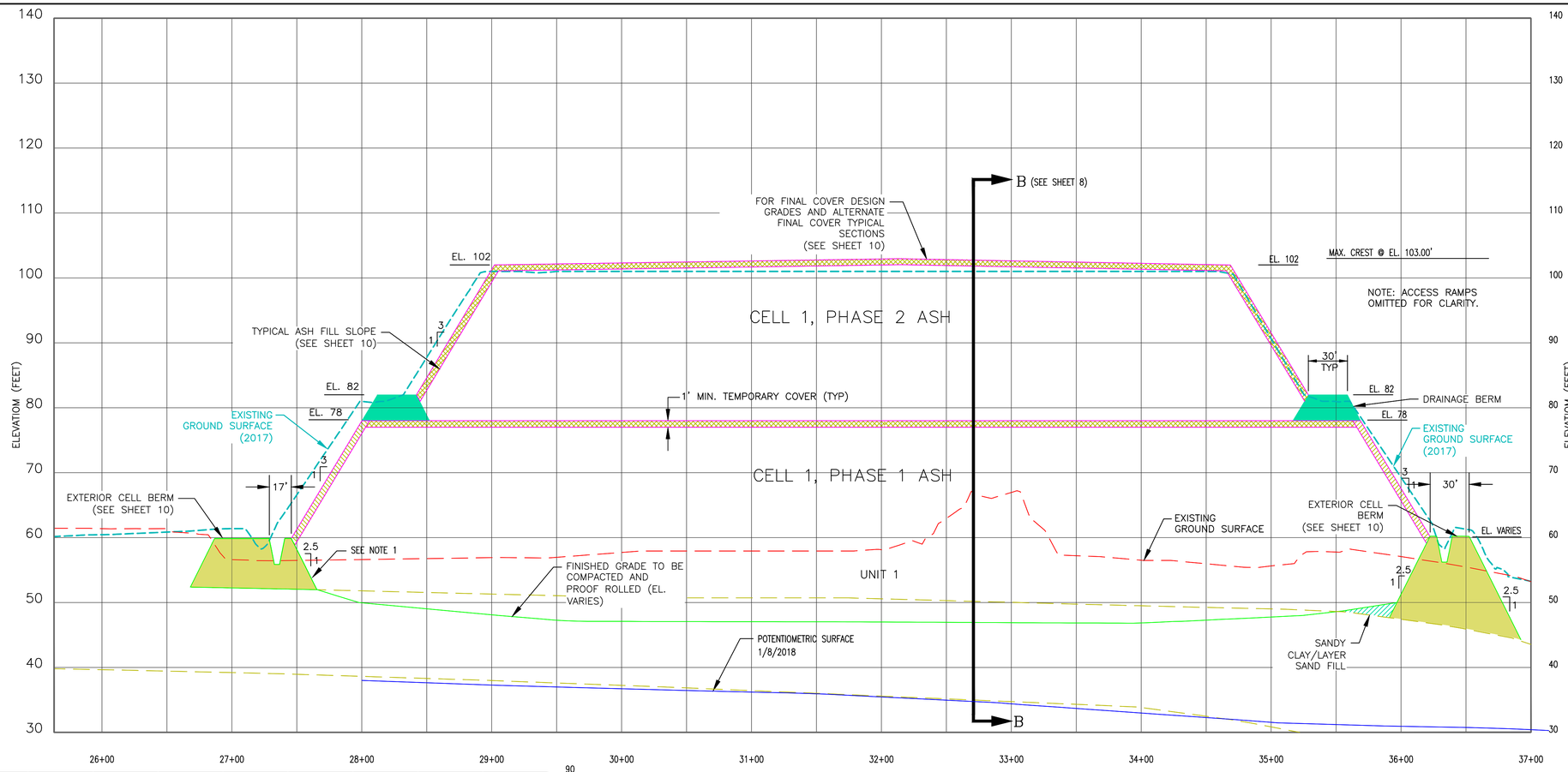
GEORGIA POWER COMPANY
PLANT MCINTOSH COAL COMBUSTION RESIDUALS (CCR)
EXISTING LANDFILL NO. 4
EFFINGHAM, GEORGIA

GEI Consultants
1375 PEACHTREE STREET NE, SUITE A15
ATLANTA, GEORGIA 30309
(404) 592-0050
https://www.geiconsultants.com/

PROJ. NO.	1702944	DWG. 5	EDIT
SCALE	1"=100'	SHEET 5 OF 29	
DATE	NOVEMBER 2018		

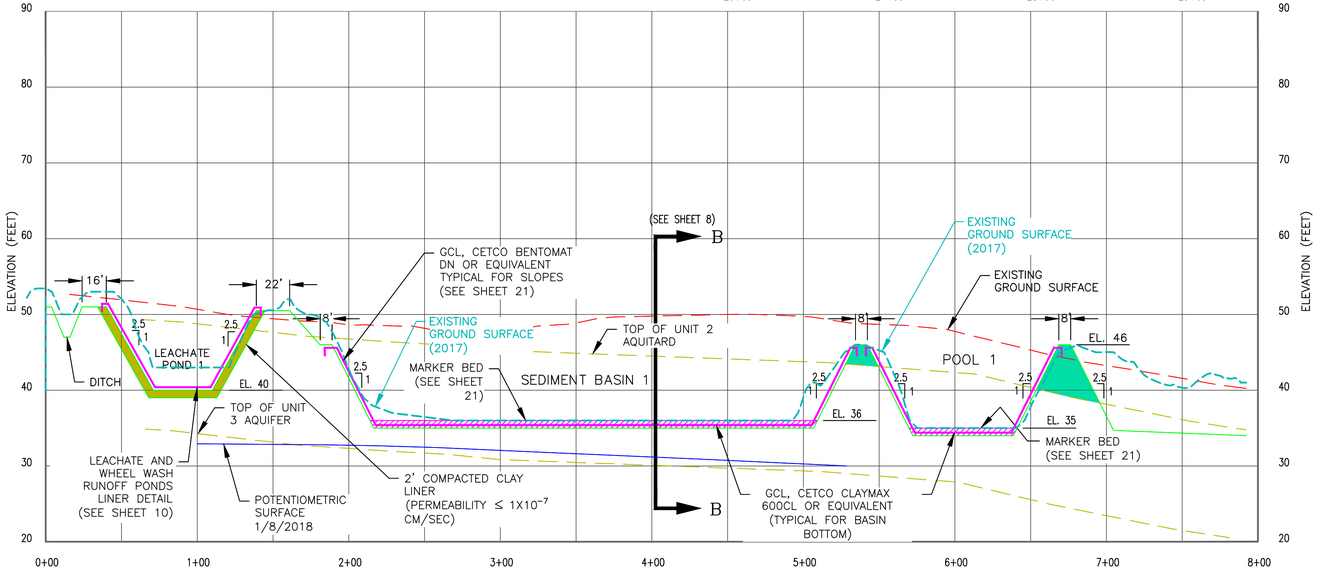


KEY PLAN
NOT TO SCALE



LONGITUDINAL SECTION A–A

SCALE H: 1"=50' V: 1"=10'



LONGITUDINAL SECTION F–F

SCALE H: 1"=50' V: 1"=10'

NOTES:

1. ALL PERIMETER DITCHES AND BERMS SHALL BE CONSTRUCTED OF APPROVED SANDY CLAY/CLAYEY SAND FILL OR NATURAL, IN–PLACE SOILS.
2. ALL EARTHEN STRUCTURES ARE ENGINEERED TO WITHSTAND A MAXIMUM HORIZONTAL ACCELERATION OF 0.19g.
3. CELL 1 TOPOGRAPHIC SURVEY COMPLETED MAY 2, 2017. CELL 2A TOPOGRAPHIC SURVEY COMPLETED AUGUST 2016. AREAS BEYOND CELLS 1 AND 2A WERE FROM LIDAR DATA COMPLETED IN 2010.

REFERENCES:

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2. SEE SHEET 3 FOR GENERAL NOTES AND REFERENCES.

GEORGIA REGISTERED No. PE041928 PROFESSIONAL ENGINEER JOHN MATHENY TRAST

Georgia Power

LONGITUDINAL & TRAVERSE SECTIONS

PERMIT DRAWINGS

GEORGIA POWER COMPANY
PLANT MCINTOSH COAL COMBUSTION RESIDUALS (CCR)
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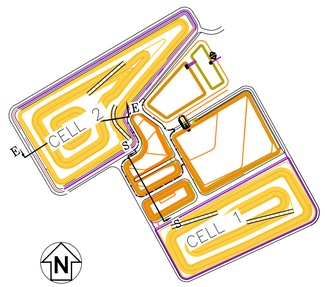
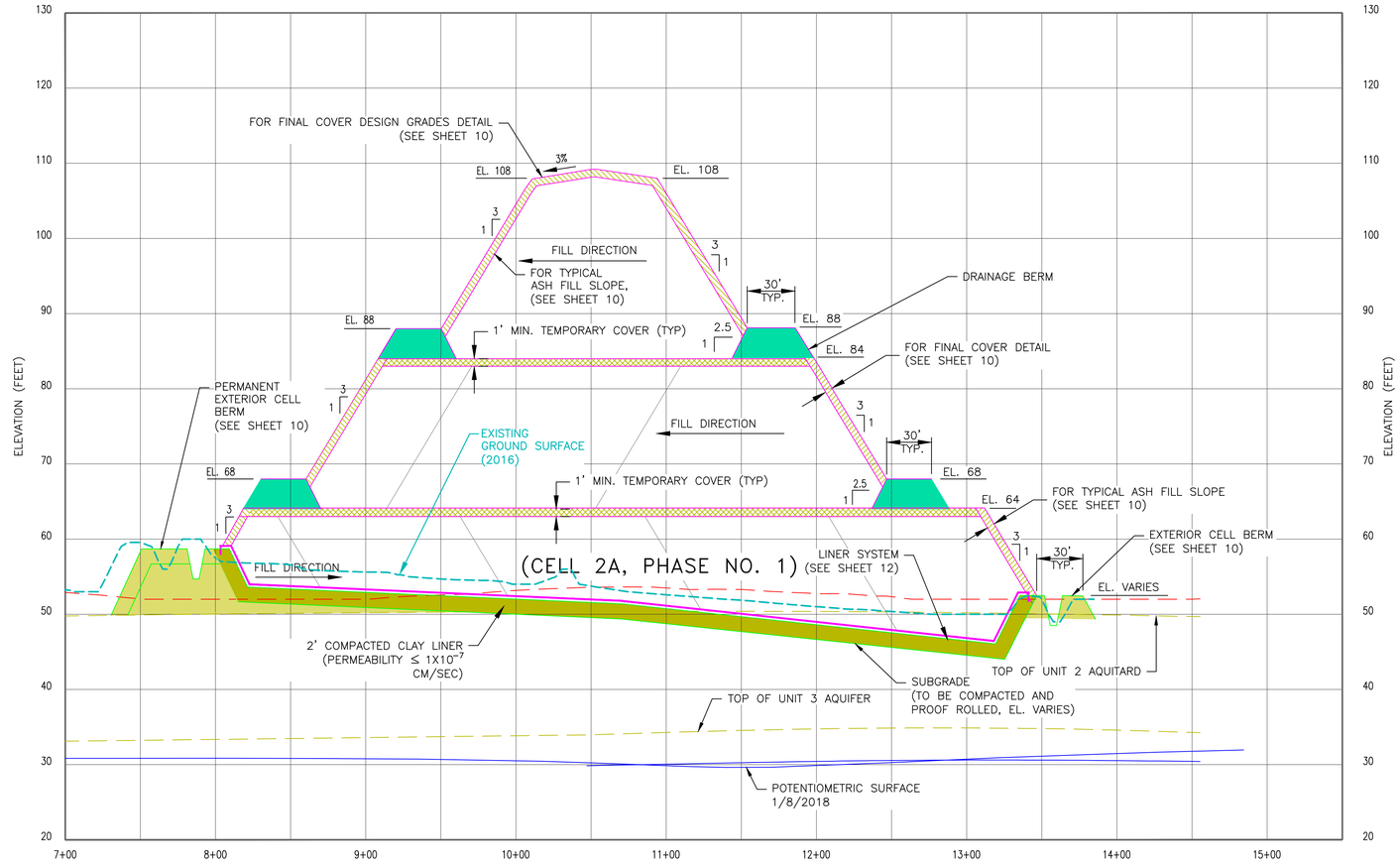
PROJ. NO.	1702944	DWG. 6	EDIT
SCALE	SEE ABOVE	SHEET 6 OF 29	
DATE	NOVEMBER 2018		



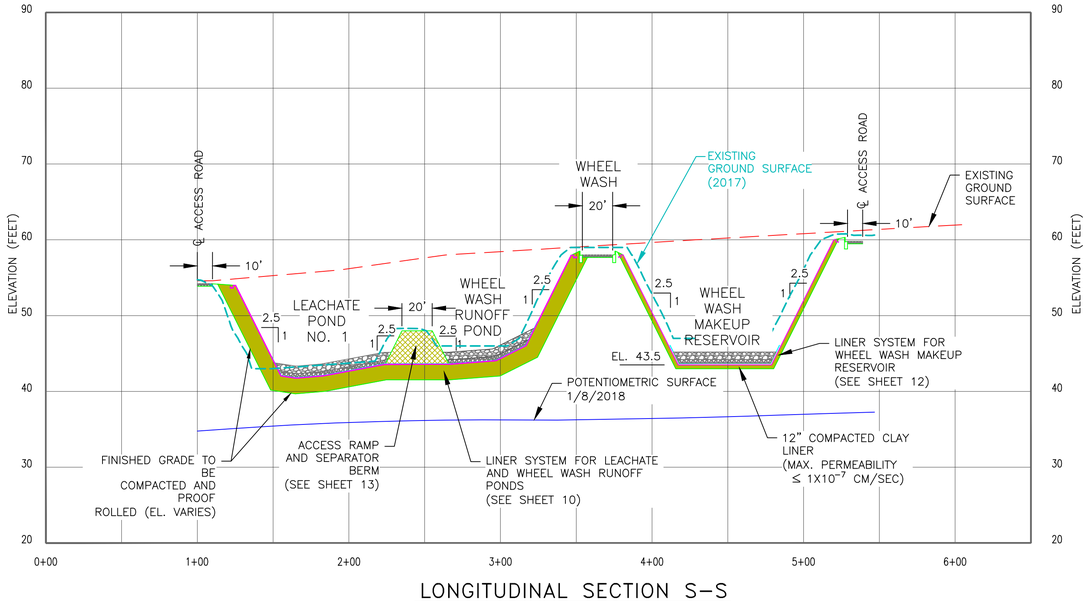
KEY PLAN

NOT TO SCALE



LONGITUDINAL SECTION E–E

SCALE H: 1"=50' V: 1"=10'



LONGITUDINAL SECTION S–S

SCALE H: 1"=50' V: 1"=10'

NOTES:

1. ALL PERIMETER DITCHES AND BERMS SHALL BE CONSTRUCTED OF APPROVED SANDY CLAY/CLAYEY SAND FILL OR NATURAL, IN–PLACE SOILS.
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REFERENCES:

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GEORGIA REGISTERED No. PE041928 PROFESSIONAL ENGINEER JOHN MATTHEW TRAST

Georgia Power

LONGITUDINAL & TRAVERSE SECTIONS

PERMIT DRAWINGS

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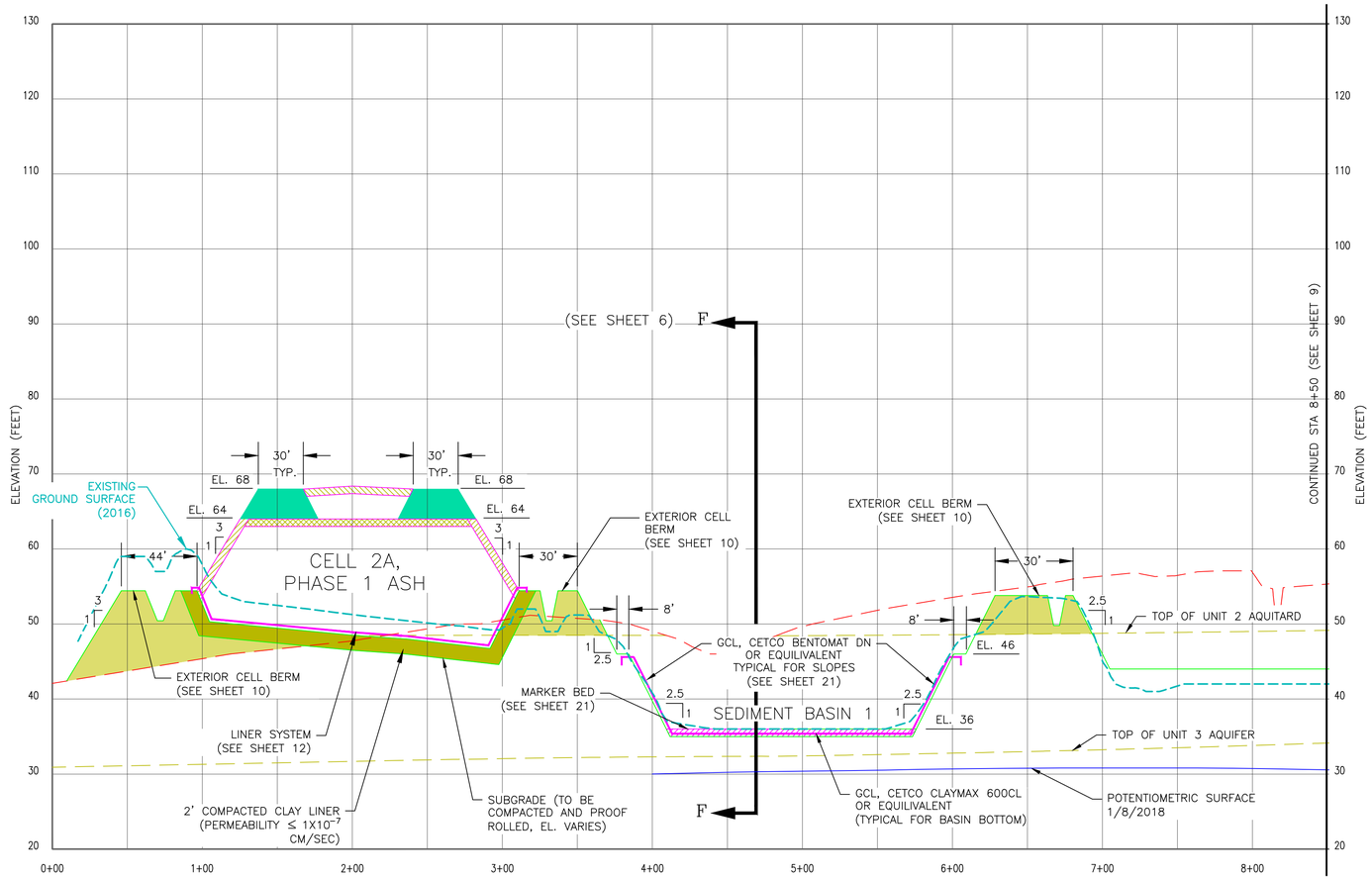
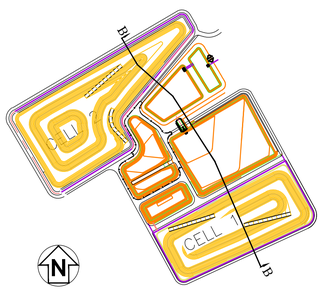
PROJ. NO.	1702944	DWG. 7	EDIT
SCALE	SEE ABOVE	SHEET 7 OF 29	
DATE	NOVEMBER 2018		



TRANSVERSE SECTION B–B

SCALE H: 1"=50' V: 1"=10'



KEY PLAN

NOT TO SCALE

NOTES:

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GEORGIA REGISTERED No. PE041928 PROFESSIONAL ENGINEER JOHN MATTHEW TRART

Georgia Power

LONGITUDINAL & TRAVERSE SECTIONS

PERMIT DRAWINGS

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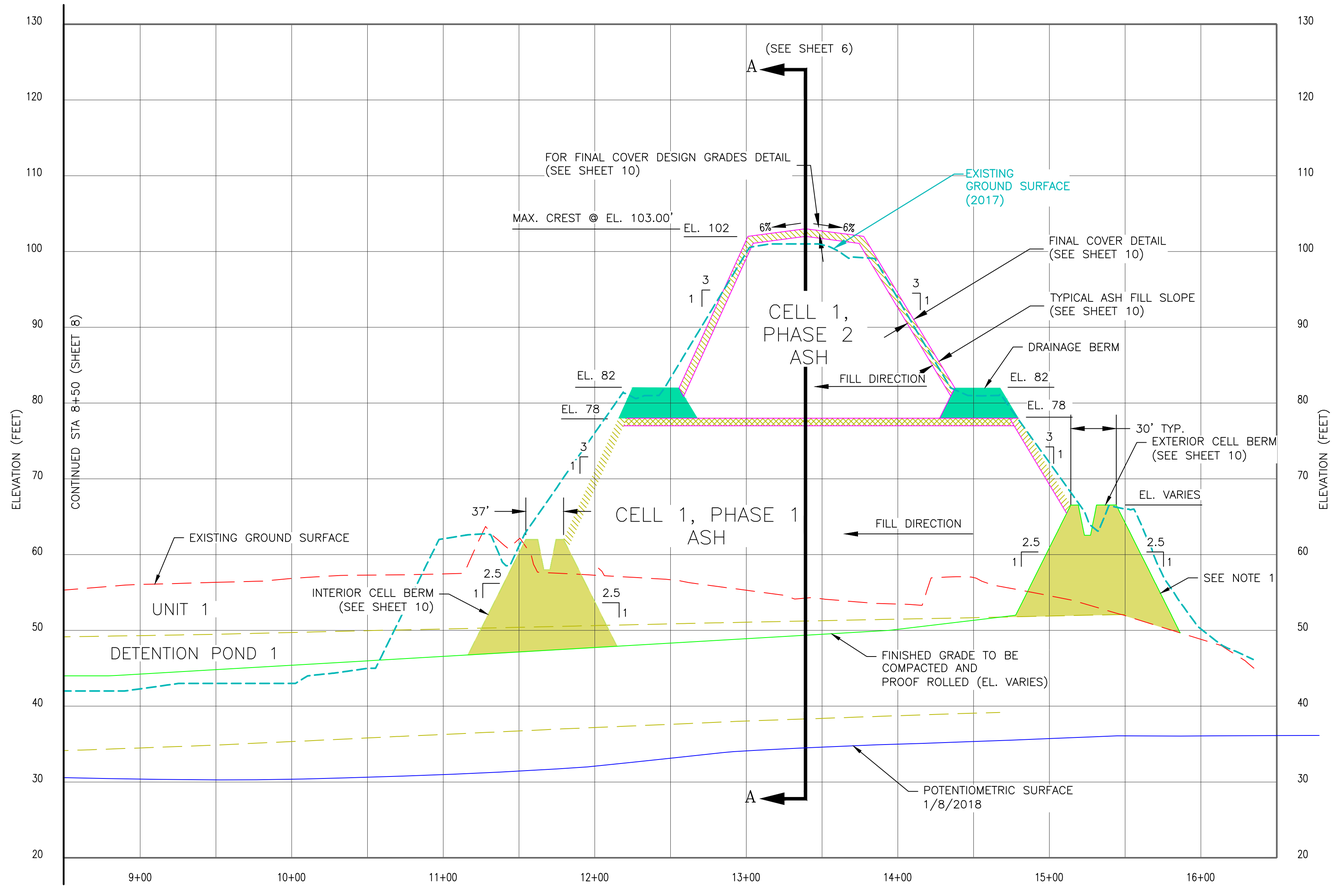
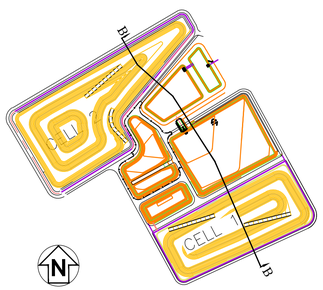
PROJ. NO.	1702944	DWG. 8	EDIT
SCALE	SEE ABOVE	SHEET 8 OF 29	
DATE	NOVEMBER 2018		



TRANSVERSE SECTION B–B

SCALE H: 1"=50' V: 1"=10'



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Georgia Power

LONGITUDINAL & TRAVERSE SECTIONS

PERMIT DRAWINGS

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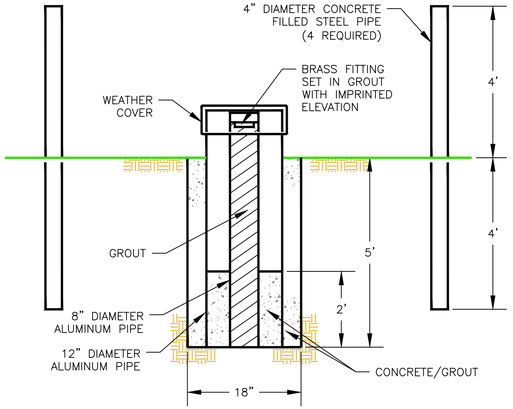
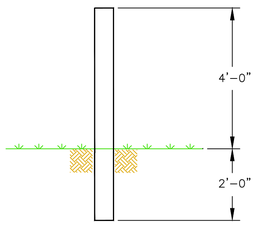
PROJ. NO.	1702944	DWG. 9	EDIT
SCALE	SEE ABOVE	SHEET 9 OF 29	
DATE	NOVEMBER 2018		



SURVEY CONTROL MONUMENT

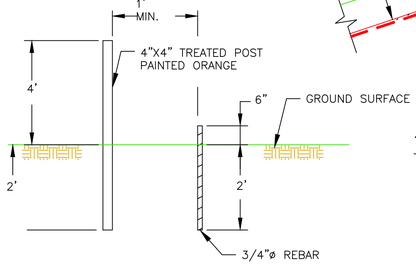
(SEE SHEET 2)
NOT TO SCALE



4"X4" TREATED POST PAINTED ORANGE WITH IDENTIFYING LABEL IN BLACK LETTERS.

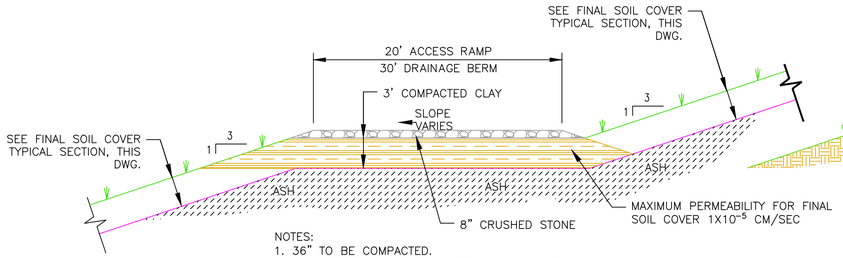
TYPICAL MONITORING WELL MARKER

(SEE SHEET 2)
NOT TO SCALE



TYPICAL WASTE MANAGEMENT BOUNDARY AND BUFFER ZONE PIN AND MARKER DETAIL

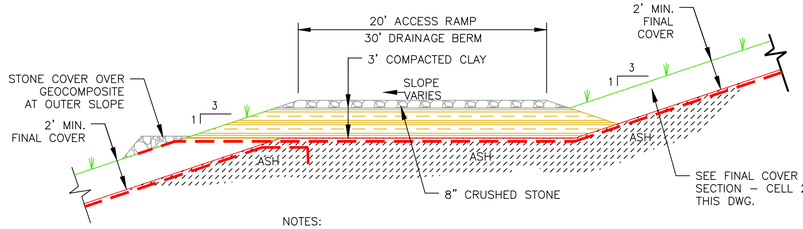
(SEE SHEET 2)
NOT TO SCALE



NOTES:
1. 36" TO BE COMPACTED.
2. FOR VEGETATION SCHEDULE (SEE SHEET 24)

SECTION T-T
TYPICAL FINAL ACCESS RAMP & DRAINAGE BERM

(SEE SHEET 5) – CELL 1
NOT TO SCALE



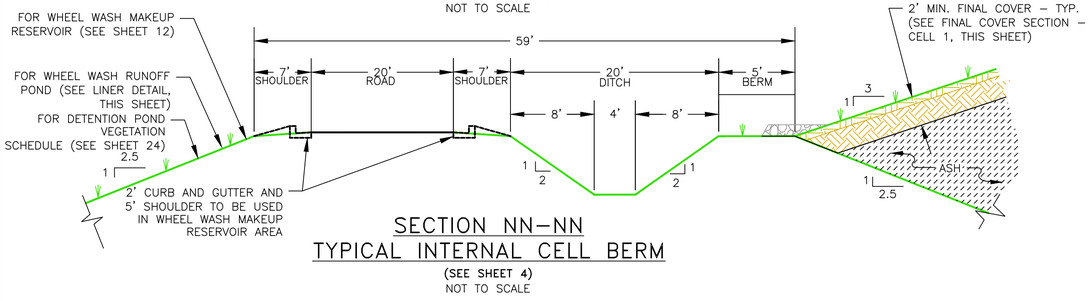
NOTES:
1. FIRST 6" OF CLAY TO BE PLACED CAREFULLY TO PROTECT GCL. TOP 30" TO BE COMPACTED.
2. FOR VEGETATION SCHEDULE (SEE SHEET 24)

SECTION T-T
TYPICAL FINAL ACCESS RAMP & DRAINAGE BERM

(SEE SHEET 5) – CELL 2
NOT TO SCALE

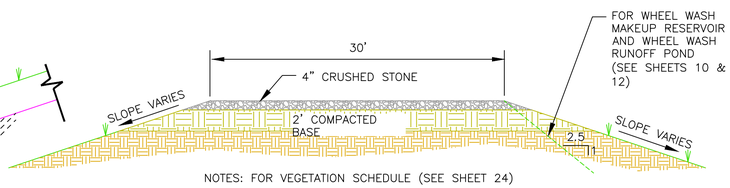
SECTION N-N
TYPICAL EXTERNAL CELL BERM

(SEE SHEETS 4 & 5)
NOT TO SCALE



SECTION NN-NN
TYPICAL INTERNAL CELL BERM

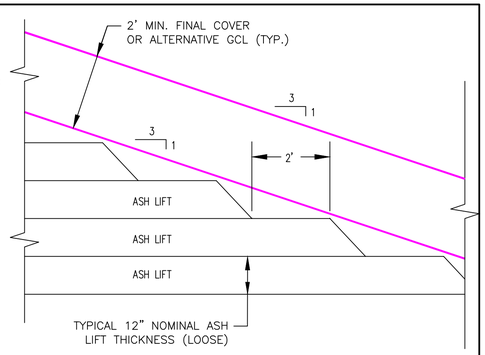
(SEE SHEET 4)
NOT TO SCALE



NOTES: FOR VEGETATION SCHEDULE (SEE SHEET 24)

SECTION M-M
TYPICAL ACCESS ROAD

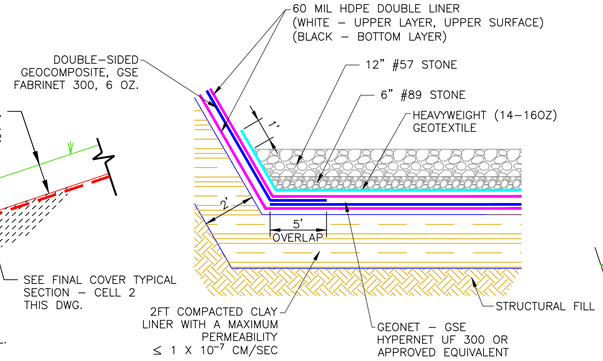
(SEE SHEET 4)
NOT TO SCALE



NOTE: ASH SLOPE SURFACE TO BE STEPPED AS SHOWN OR SURFACE ROUGHENED TO MINIMIZE EROSION

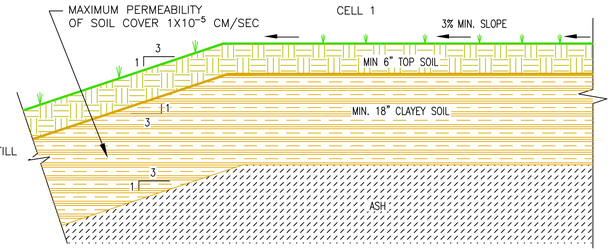
TYPICAL ASH FILL SLOPE

(SEE SHEETS 5 & 6)
NOT TO SCALE



LEACHATE AND WHEEL WASH RUNOFF PONDS LINER DETAIL

NOT TO SCALE

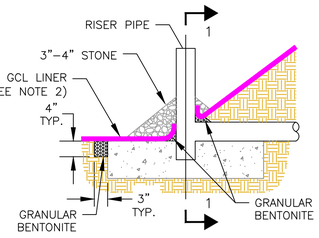


NOTES: 1. REFERENCE SHEET 24 FOR VEGETATION SCHEDULE.
2. REFERENCE FINAL COVER TECHNICAL SPECIFICATIONS.

FINAL SOIL COVER TYPICAL SECTION

(SEES SHEETS 5, 6, & 9) – CELL 1
NOT TO SCALE

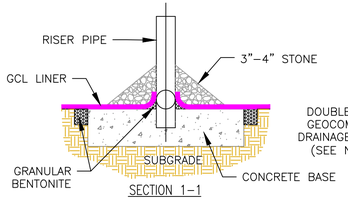
NOTES:
1. DRAINAGE LAYER TO CONSIST OF DOUBLE-SIDED GEOCOMPOSITE AND EXTEND 12 INCHES PAST THE SIDE SLOPE.
2. WHEN THE GCL IS PLACED OVER A VERTICAL PIPE PENETRATION OR STRUCTURE, A 4"X3" NOTCH SHOULD BE EXCAVATED INTO THE SUBGRADE AROUND THE PENETRATION. THE NOTCH SHOULD THEN BE BACKFILLED WITH GRANULAR BENTONITE, AND THE GCL SHOULD BE PLACED OVER THE NOTCH AND UP AGAINST THE STRUCTURE. THE CONNECTION TO THE STRUCTURE CAN BE ACCOMPLISHED BY PLACEMENT OF SOIL OR STONE BACKFILL IN THIS AREA.



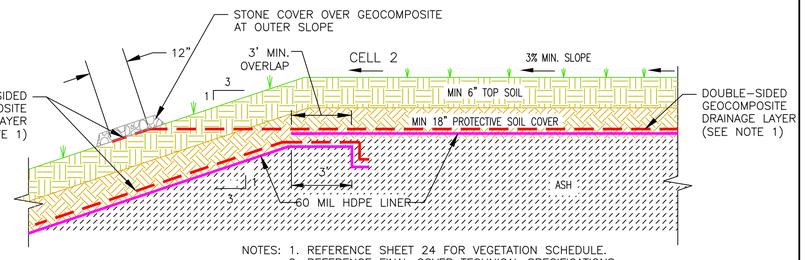
SEALING AROUND RISER PIPE BASE

NOT TO SCALE

NOTE: GCL WILL BE USED FOR SEDIMENT POND 1 AND CLEAR POOL 1 ONLY



SECTION 1-1



NOTES: 1. REFERENCE SHEET 24 FOR VEGETATION SCHEDULE.
2. REFERENCE FINAL COVER TECHNICAL SPECIFICATIONS.

FINAL COVER TYPICAL SECTION

(SEE SHEET 5) – CELL 2
NOT TO SCALE

GROUND WATER MONITORING WELL
XX-X

SURFACE WATER MONITORING POINT
XX-X

GROUND WATER & SURFACE WATER MONITORING POINT SIGNAGE
YELLOW BACKGROUND WITH BLACK LETTERING 18" X 24"

BUFFER ZONE
THE BUFFER ZONE SHALL NOT BE DISTURBED EXCEPT FOR DIRECT SITE INGRESS/EGRESS AND FOR GROUNDWATER MONITORING WELL INSTALLATION

BUFFER ZONE SIG
YELLOW BACKGRC
WITH BLACK LETTE
18" X 24"

PLANT McINTOSH ASH MONOFILL NO. 4
THIS DISPOSAL FACILITY WILL ACCEPT ONLY COAL COMBUSTION BYPRODUCTS CONSISTING OF FLY ASH AND BOTTOM ASH. ANY OTHER WASTE IS PROHIBITED.

ENTRANCE SIGNAGE
WHITE BACKGROUND
WITH BLACK LETTERING
4'X 6'

SIGNAGE

NOT TO SCALE

REFERENCES:

1. MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA.
2. FOR A COMPLETE DRAWING LIST SEE SHEET 1.
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GEORGIA REGISTERED No. PE041928 PROFESSIONAL ENGINEER JOHN MATTHEW TRAST

Georgia Power

MISC. SECTIONS & DETAILS

PERMIT DRAWINGS

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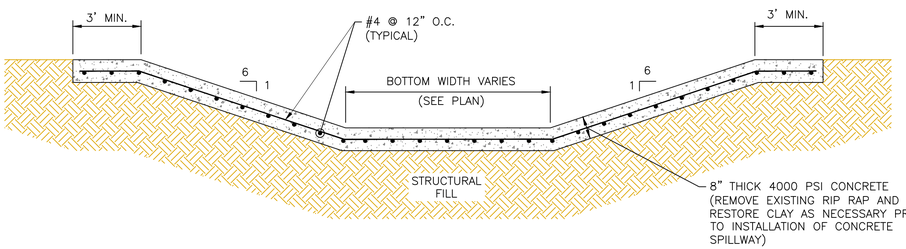
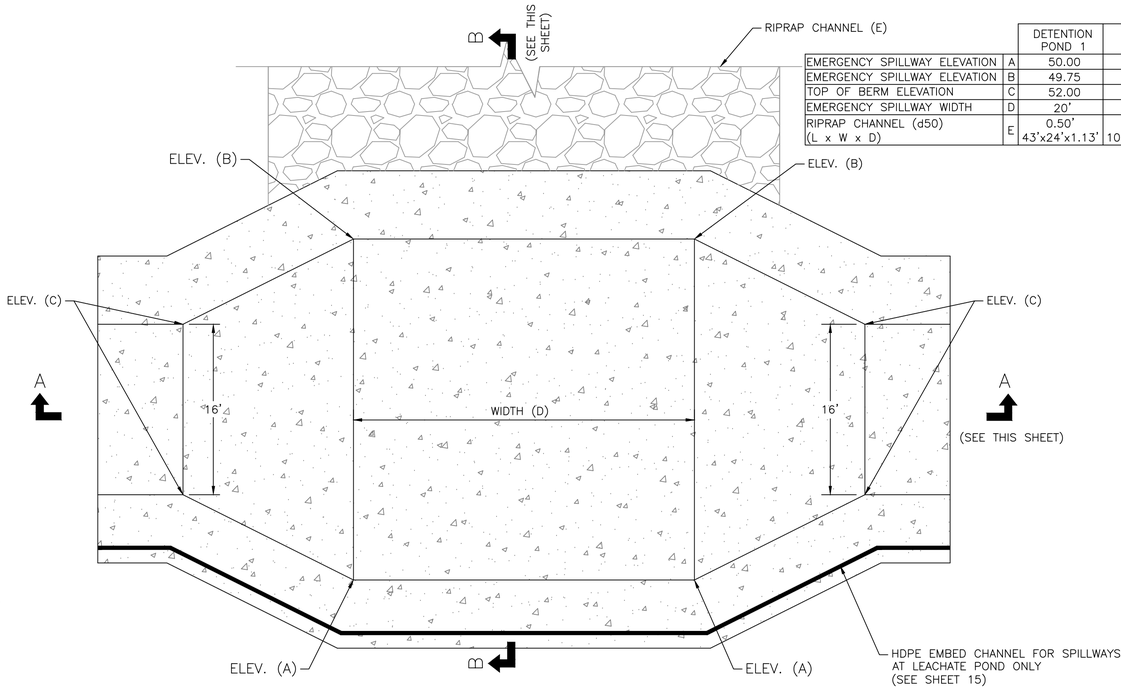
PROJ. NO.	1702944	DWG. 10	EDIT
SCALE	NONE	SHEET 10 OF 29	
DATE	NOVEMBER 2018		

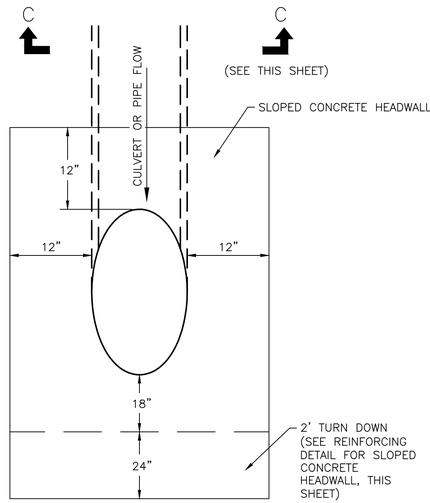


SECTION A–A
N.T.S.

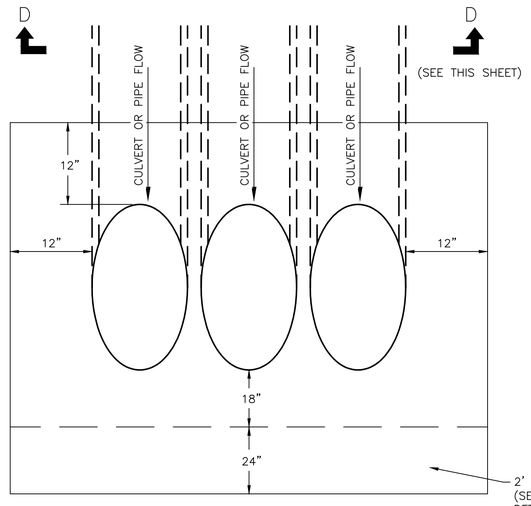


		DETENTION POND 1	CLEAR POOL 1	LEACHATE POND 1	SEDIMENT BASIN
EMERGENCY SPILLWAY ELEVATION	A	50.00	41.00	49.00	42.50
EMERGENCY SPILLWAY ELEVATION	B	49.75	40.75	48.75	41.25
TOP OF BERM ELEVATION	C	52.00	46.00	50.00	46.00
EMERGENCY SPILLWAY WIDTH	D	20'	20'	20'	20'
RIPRAP CHANNEL (d50) (L x W x D)	E	0.50' 43'x24'x1.13'	0.25' 10'x24'x0.56'	0.25' 4'x22'x0.56'	1.0' 11'x24'x2.25'

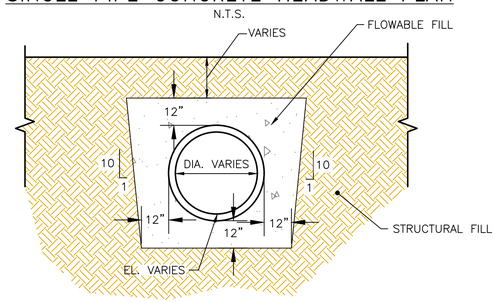
SPILLWAY DETAIL PLAN
N.T.S.



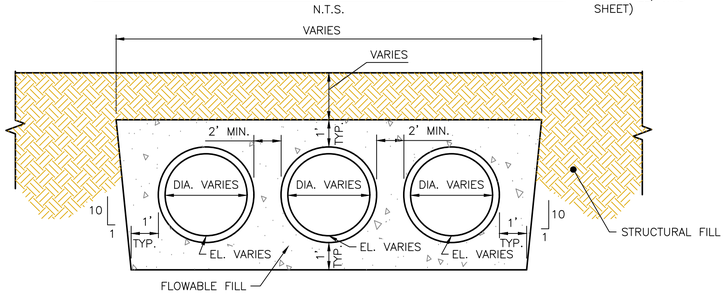
SINGLE PIPE CONCRETE HEADWALL PLAN
N.T.S.



MULTIPLE PIPE CONCRETE HEADWALL PLAN
N.T.S.

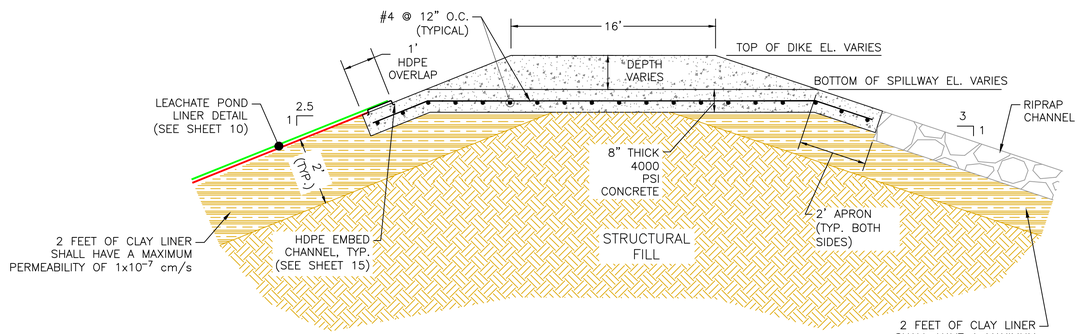


TYPICAL SINGLE PIPE SECTION C–C
N.T.S.



TYPICAL MULTIPLE PIPE SECTION D–D
N.T.S.

PIPE SECTIONS INSTALLED IN UNLINED PONDS
N.T.S.



SECTION B–B
N.T.S.

REFERENCES:

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2. FOR A COMPLETE DRAWING LIST SEE SHEET 1.
3. SEE SHEET 3 FOR GENERAL NOTES AND REFERENCES.

GEORGIA REGISTERED No. PE041928 PROFESSIONAL ENGINEER JOHN MATHEW TERASE

Georgia Power

MISC. SECTIONS & DETAILS

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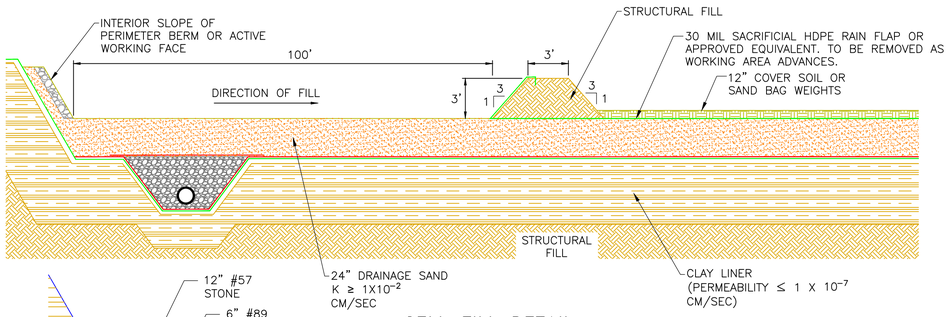
GEORGIA POWER COMPANY
PLANT MCINTOSH COAL COMBUSTION RESIDUALS (CCR)
EXISTING LANDFILL NO. 4
EFFINGHAM, GEORGIA

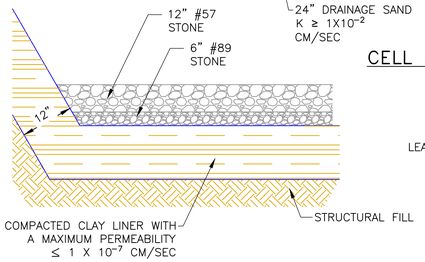
GEI Consultants
1375 PEACHTREE STREET NE, SUITE A15
ATLANTA, GEORGIA 30309
(404) 592-0050
https://www.geiconsultants.com/

PROJ. NO.	1702944	DWG. 11	EDIT
SCALE	NONE	SHEET 11	OF 29
DATE	NOVEMBER 2018		



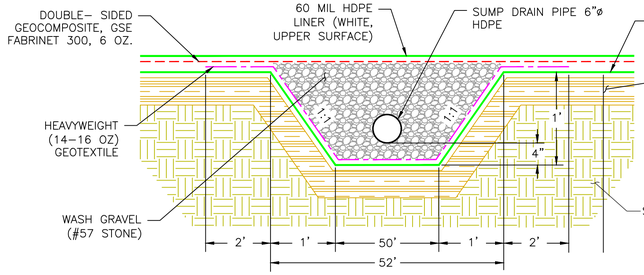
CELL FILL DETAIL

N.T.S.



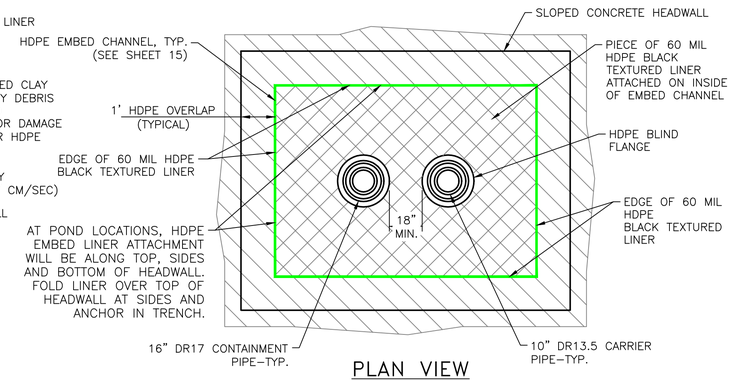
WHEEL WASH MAKEUP RESERVOIR LINER SYSTEM

N.T.S.

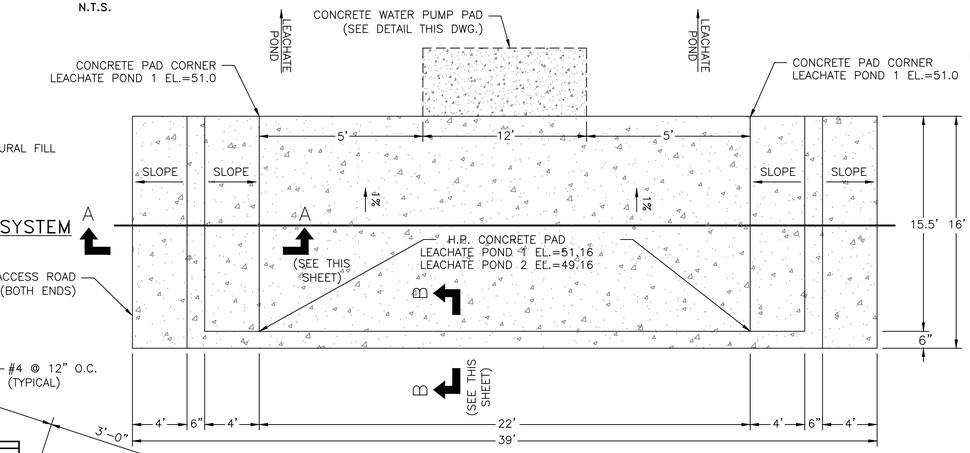


LEAK DETECTION SUMP DETAIL

NOT TO SCALE

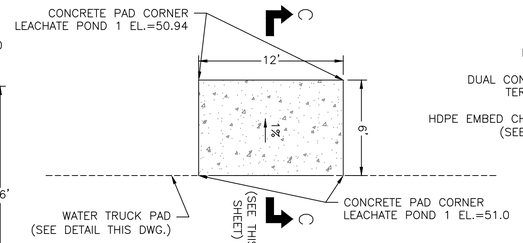


PLAN VIEW



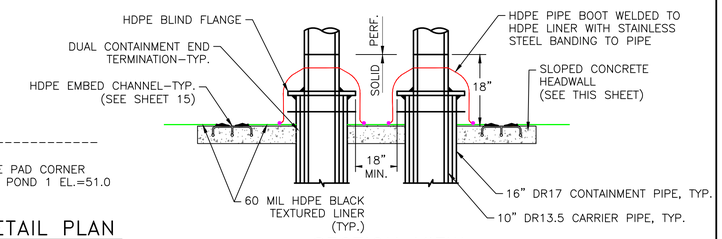
WATER TRUCK PAD DETAIL PLAN

NOT TO SCALE



CONCRETE WATER PUMP PAD DETAIL PLAN

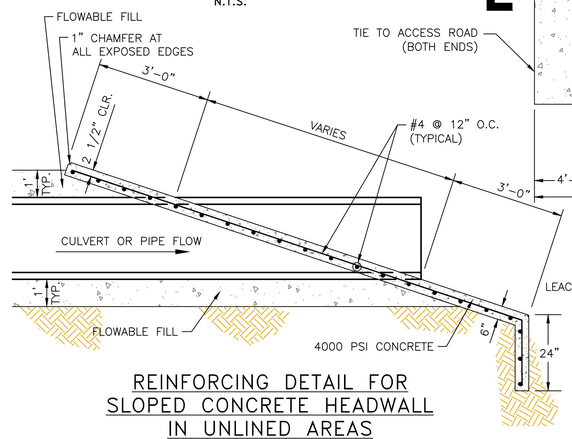
NOT TO SCALE



SECTION VIEW

LEACHATE COLLECTION PIPE HEADWALL DETAIL

N.T.S.

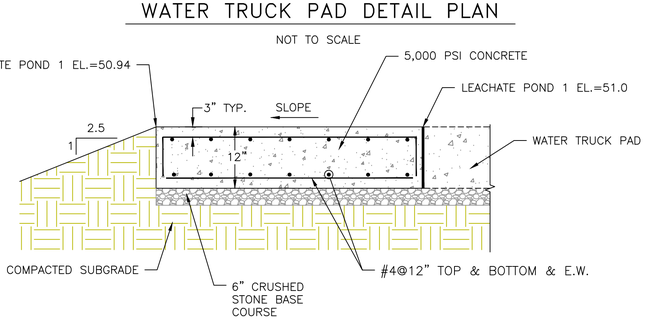


REINFORCING DETAIL FOR SLOPED CONCRETE HEADWALL IN UNLINED AREAS

N.T.S.

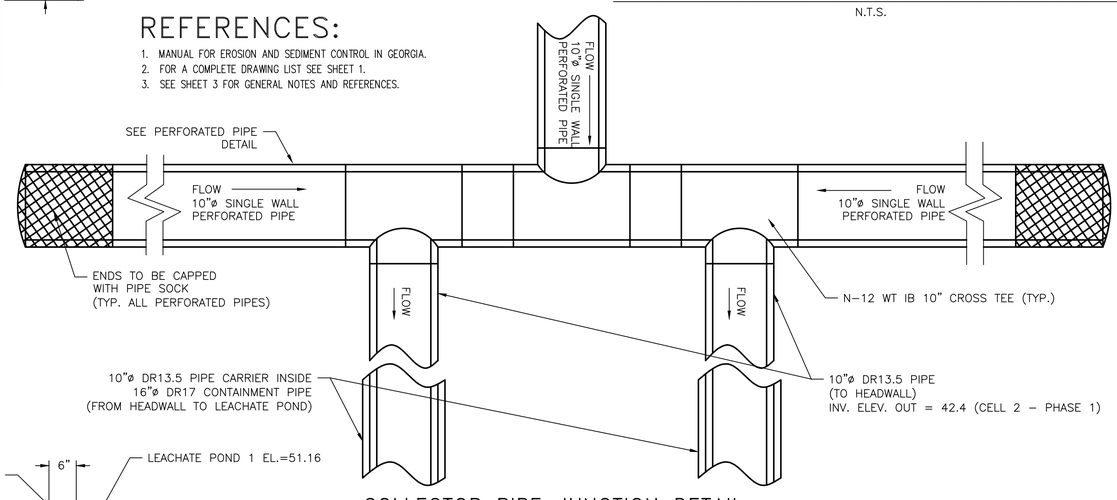
REFERENCES:

1. MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA.
2. FOR A COMPLETE DRAWING LIST SEE SHEET 1.
3. SEE SHEET 3 FOR GENERAL NOTES AND REFERENCES.



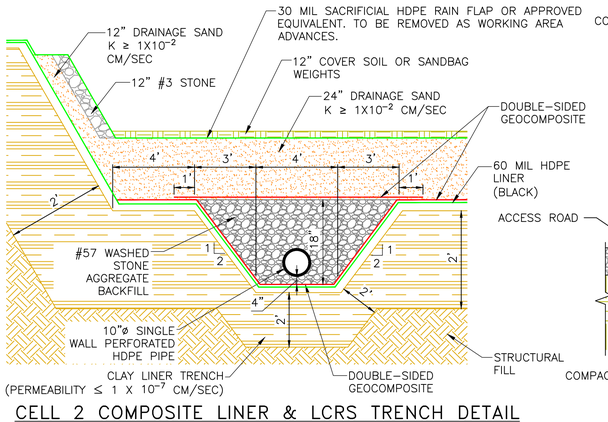
SECTION C–C

NOT TO SCALE



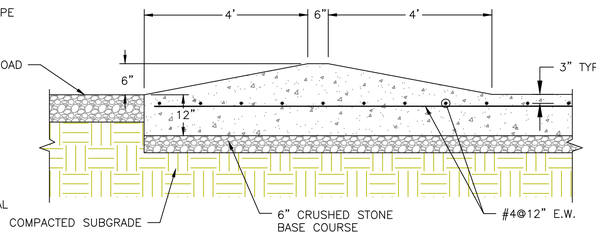
COLLECTOR PIPE JUNCTION DETAIL

NOT TO SCALE



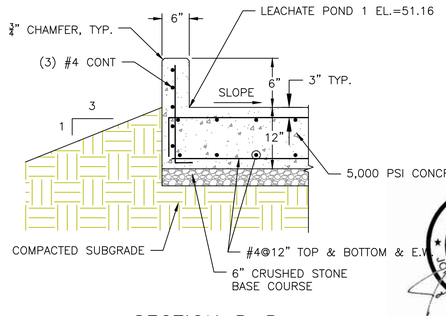
CELL 2 COMPOSITE LINER & LCRS TRENCH DETAIL

N.T.S.



SECTION A–A

NOT TO SCALE



SECTION B–B

NOT TO SCALE

GEORGIA REGISTERED No. PE041923 PROFESSIONAL ENGINEER JOHN MATHEW TRASK

Georgia Power

MISC. SECTIONS & DETAILS

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SCALE	NONE	SHEET	12 OF 29
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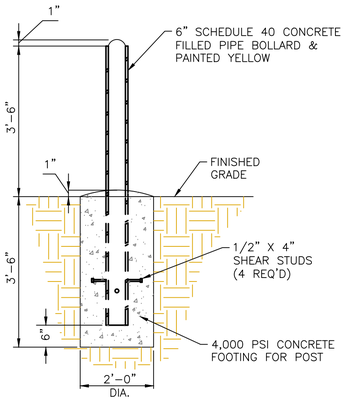
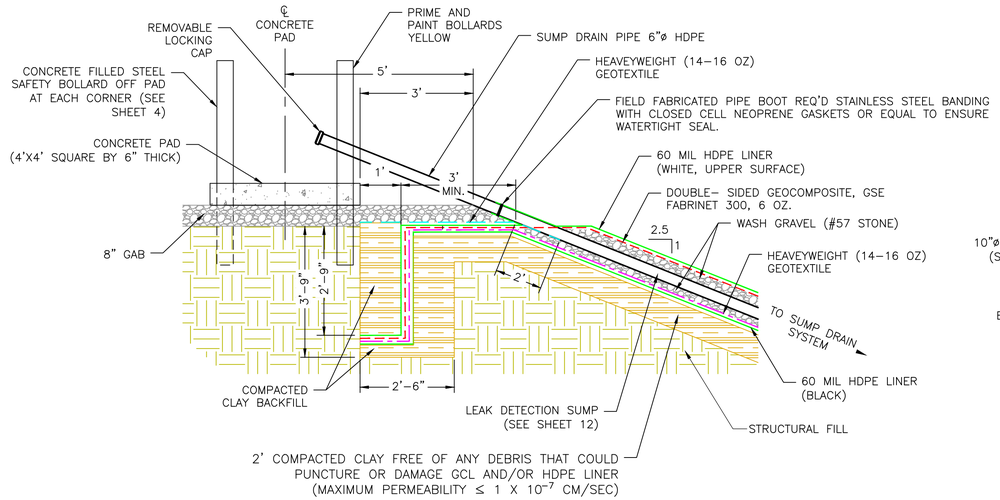


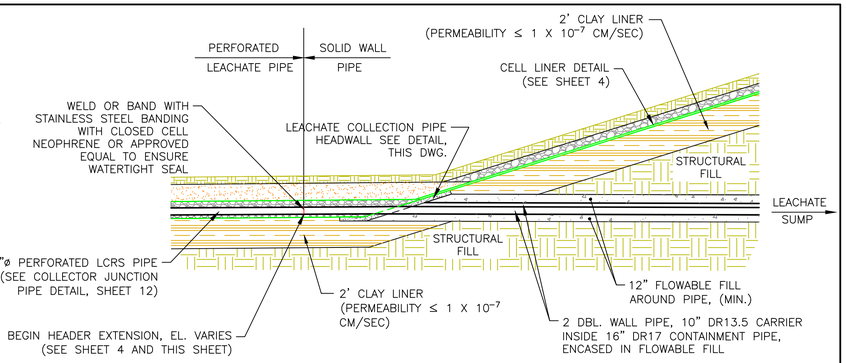
BOLLARD DETAIL

N.T.S.



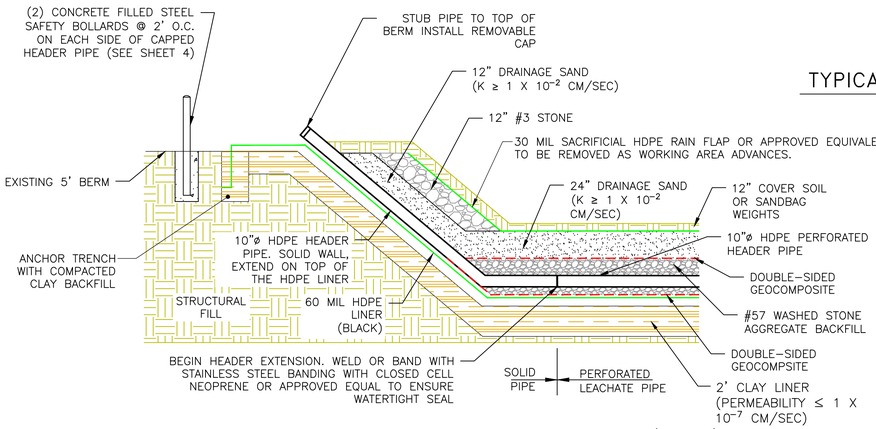
TYPICAL POND ANCHOR TRENCH WITH SUMP RISER PIPE DETAIL

NOT TO SCALE



LEACHATE COLLECTION AND REMOVAL SYSTEM (LCRS) OUTLET PIPE SECTION

N.T.S.

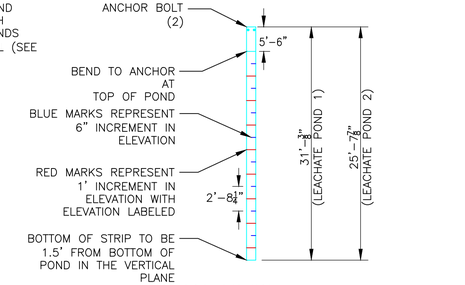


LEACHATE COLLECTION AND REMOVAL SYSTEM (LCRS) CAPPED HEADER SECTION DETAIL

NOT TO SCALE

ACCESS RAMP AND SEPARATOR BERM DETAIL

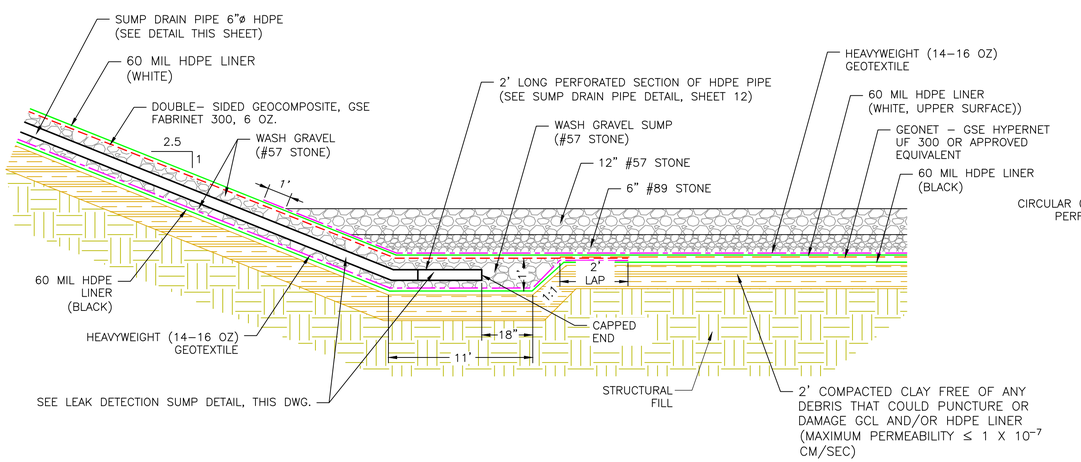
NOT TO SCALE



PLAN VIEW

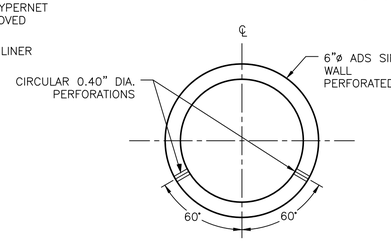
WATER LEVEL MARKER POST DETAIL

NOT TO SCALE



TYPICAL LEACHATE POND LEAKAGE DETECTION SUMP DETAIL

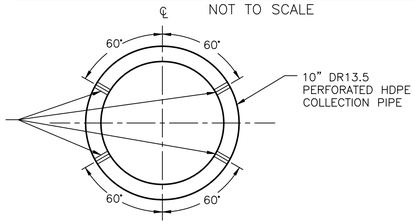
NOT TO SCALE



NOTE:
AASHTO CLASS I PERFORATION FOR 6"ø PIPE–6 ROWS OF PERFORATIONS REQ'D. PER FT–OF–PIPE (TOTAL 24 PER FT OF PIPE. EACH PERFORATION 0.4"ø CIRCULAR.)

SUMP DRAIN PIPE DETAIL

NOT TO SCALE



NOTE:
AASHTO CLASS I PERFORATION FOR 10"ø PIPE–6 ROWS OF PERFORATIONS REQ'D. PER FT–OF–PIPE (TOTAL 24 PER FT OF PIPE. EACH PERFORATION 0.4"ø CIRCULAR.)

PERFORATED PIPE DETAIL

NOT TO SCALE

REFERENCES:

1. MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA.
2. FOR A COMPLETE DRAWING LIST SEE SHEET 1.
3. SEE SHEET 3 FOR GENERAL NOTES AND REFERENCES.

GEORGIA REGISTERED No. PEG41928 PROFESSIONAL ENGINEER JOHN MATHEW TEAGUE

Georgia Power

MISC. SECTIONS & DETAILS

PERMIT DRAWINGS

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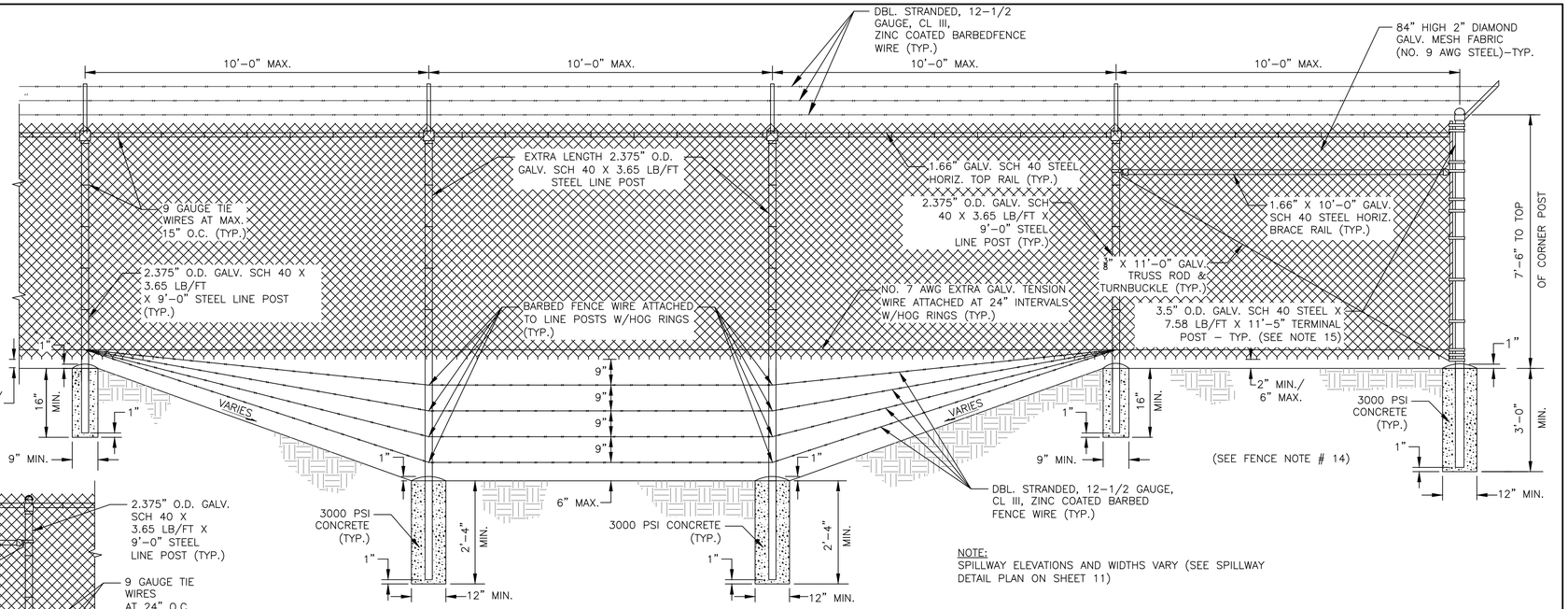
DATE	NOVEMBER 2018		

FENCE

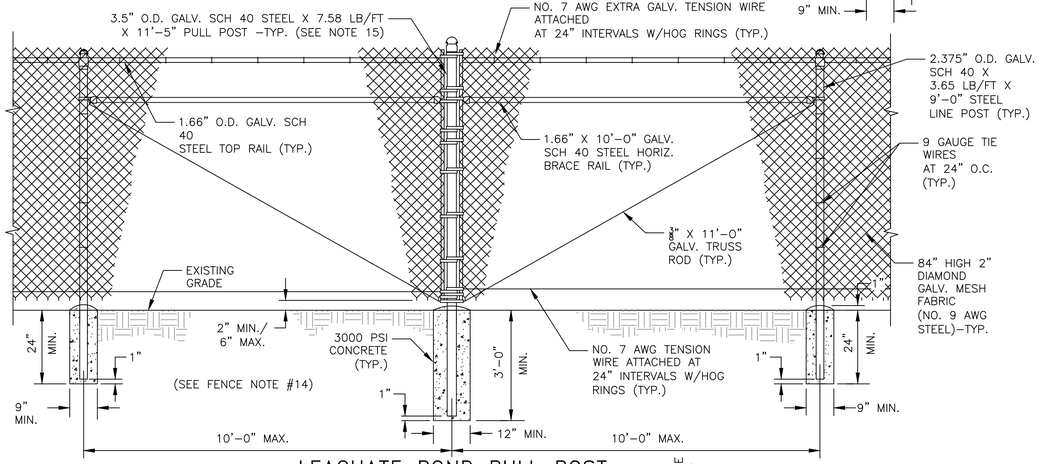
1. FENCE MATERIALS AND ERECTION SHALL BE IN ACCORDANCE WITH THE SOUTHERN COMPANY GENERAL PROVISIONS FOR CHAIN LINK FENCE SPECIFICATIONS 32 31 13.
2. TIE FENCE FABRIC TO SPIRALED TENSION WIRE BETWEEN POSTS WITH GALVANIZED STEEL HOG RINGS TOP AND BOTTOM AT INTERVALS OF TWO FEET.
3. LIMIT TENSION IN FABRIC AND WIRE TO PREVENT BENDING OF GATE POSTS AND CORNER POSTS.
4. WHEN GATE PANEL IS INSTALLED ON A CORNER POST, THE LATCH SHOULD BE INSTALLED ON THE OPPOSITE PANEL.
5. PULL POSTS WILL BE INSTALLED AT APPROXIMATELY MID-SPAN WHERE SPACING BETWEEN CORNER POSTS OR TERMINAL POSTS EXCEEDS 100 FEET TO PROVIDE FENCE GROUNDING POINT PER NESC, OR WHERE IT IS NECESSARY TO TERMINATE THE FENCE DUE TO A CHANGE IN GRADE. MATERIAL FOR PULL POSTS TO BE SAME AS CORNER POSTS.
6. HINGE TO BE INSTALLED WITH GALVANIZED STEEL BOLT WITH TWO NUTS OR PREFERRED SELF-LOCKING TYPE NUT TO LOCK BOLT IN PLACE.
7. CHAIN FOR GATE TO BE ONE PIECE: ¼" GALVANIZED STEEL, WELDED, SIZE 5/0, INSERTED BETWEEN GATE FRAME AND TENSION BAR, SUCH THAT A TIGHT FIT IS OBTAINED WITH LOCK INSTALLED FROM OUTSIDE GATE, EXCESS LINKS SHOULD BE REMOVED.
8. FENCE FABRIC TO BE INSTALLED WITH TWIST SELVAGES AT BOTTOM.
9. GATE HINGE TO BE INSTALLED FOR ½" OR LESS GAP BETWEEN GATE POST AND FRAME TO PREVENT ACCESS WHEN CLOSED AND TO ALLOW APPROX. 180-DEGREES INWARD OPENING.
10. GATE KEEPER TO BE INSTALLED FOR EACH PANEL OF DOUBLE GATES AT MAXIMUM OPEN POSITION.
11. TRUSS RODS ARE NOT REQUIRED WHEN ONLY ONE LINE POST IS IN A CONTINUOUS SPAN OF FABRIC.
12. BOTTOM OF CHAIN LINK FABRIC TO BE INSTALLED A MINIMUM OF 2" TO A MAXIMUM OF 6" ABOVE FINISHED GRADE.
13. USE 3½" O.D. X 11'-5" POST FOR CORNER AND PULL POSTS REQUIRING BARBED WIRE TO BE HELD BY 45-DEGREE ARMS, CUT 12" OFF POST FOR A HEIGHT OF 10'-5".
14. DOUBLE DRIVE GATES TO BE INSTALL TO MINIMIZE OPENING TO 2" MAXIMUM. (CHAIN SHOULD NOT BE SLACK.)
15. CONCRETE TO BE POURED WITH A 1" DOME TO PREVENT PUDDLILNG NEAR POST.



PERIMETER SECURITY FENCE DITCH CROSSING

N.T.S.

NOTE:
SPILLWAY ELEVATIONS AND WIDTHS VARY (SEE SPILLWAY DETAIL PLAN ON SHEET 11)

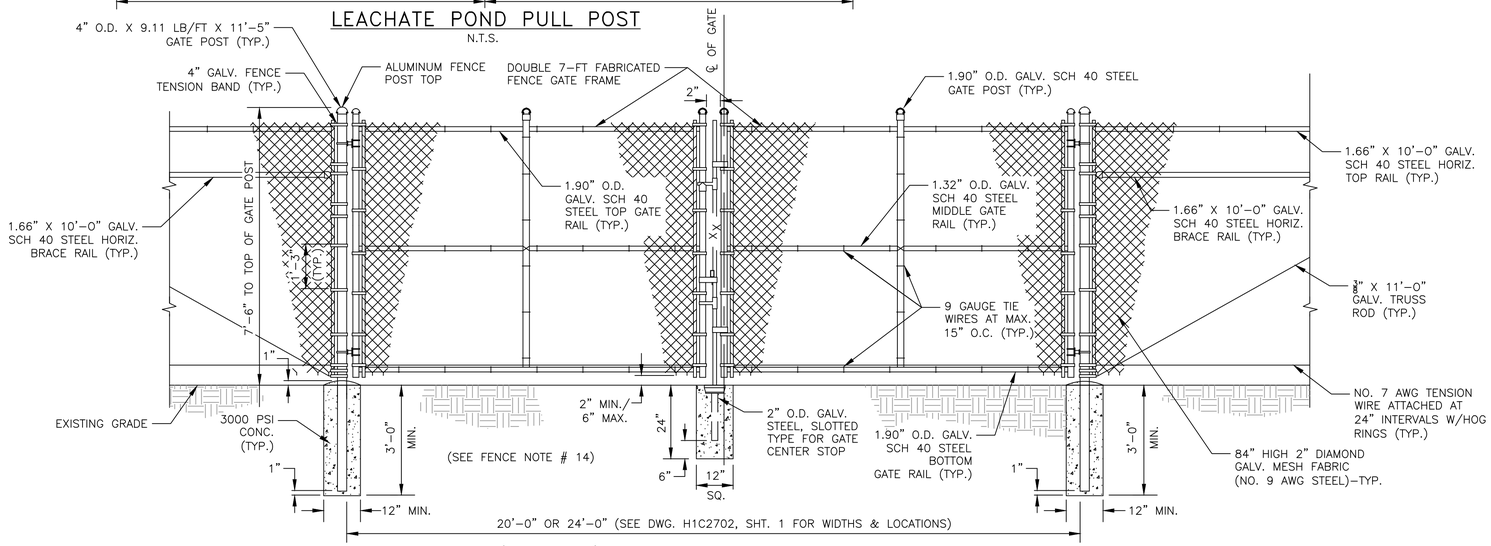


LEACHATE POND PULL POST

N.T.S.

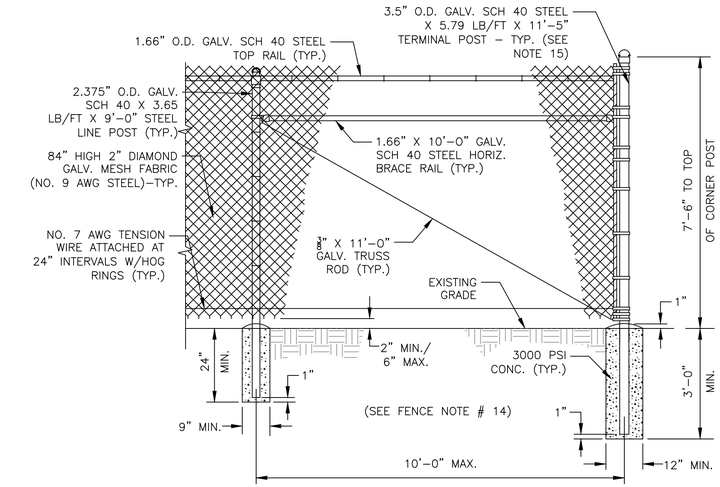
REFERENCES:

1. MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA.
2. FOR A COMPLETE DRAWING LIST SEE SHEET 1.
3. SEE SHEET 3 FOR GENERAL NOTES AND REFERENCES.



LEACHATE POND 20' OR 24' WIDE CHAIN LINK DOUBLE SWING SECURITY GATE

N.T.S.



LEACHATE POND TYPICAL CORNER

N.T.S.

GEORGIA REGISTERED No. PE041928 PROFESSIONAL ENGINEER JOHN MATTHEW TRAST

Georgia Power

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SCALE	NONE	SHEET 14 OF 29	
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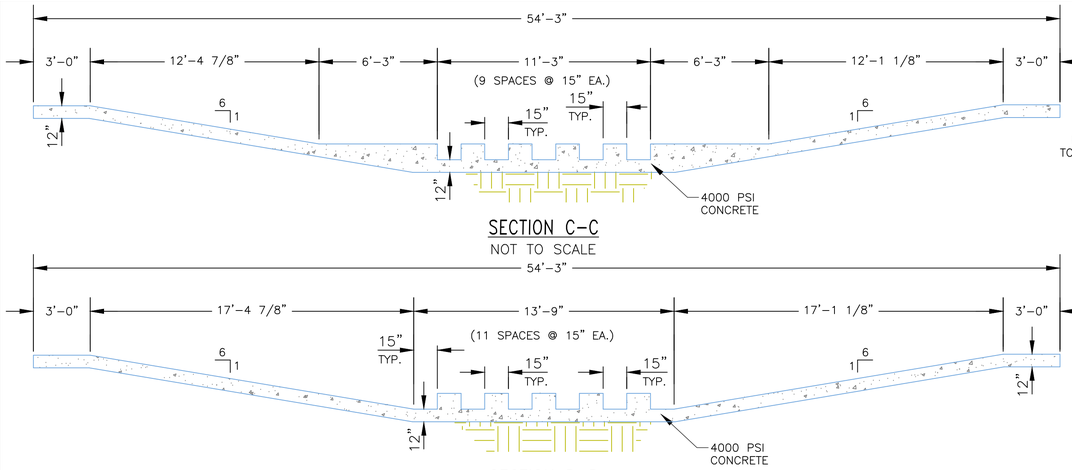
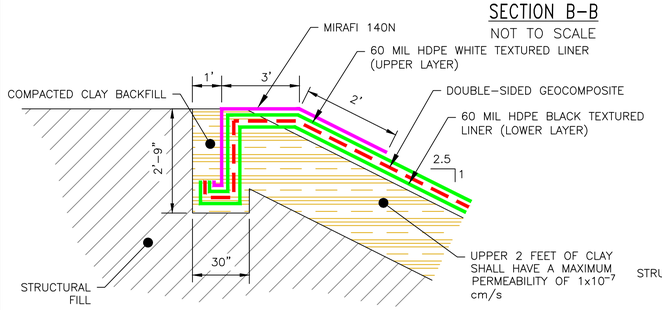
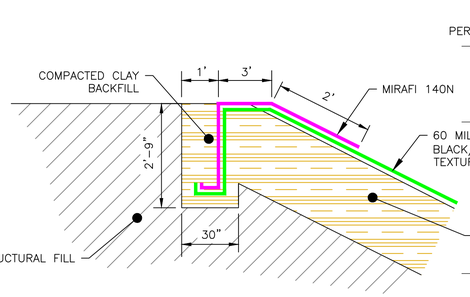


SECTION C-C
NOT TO SCALE

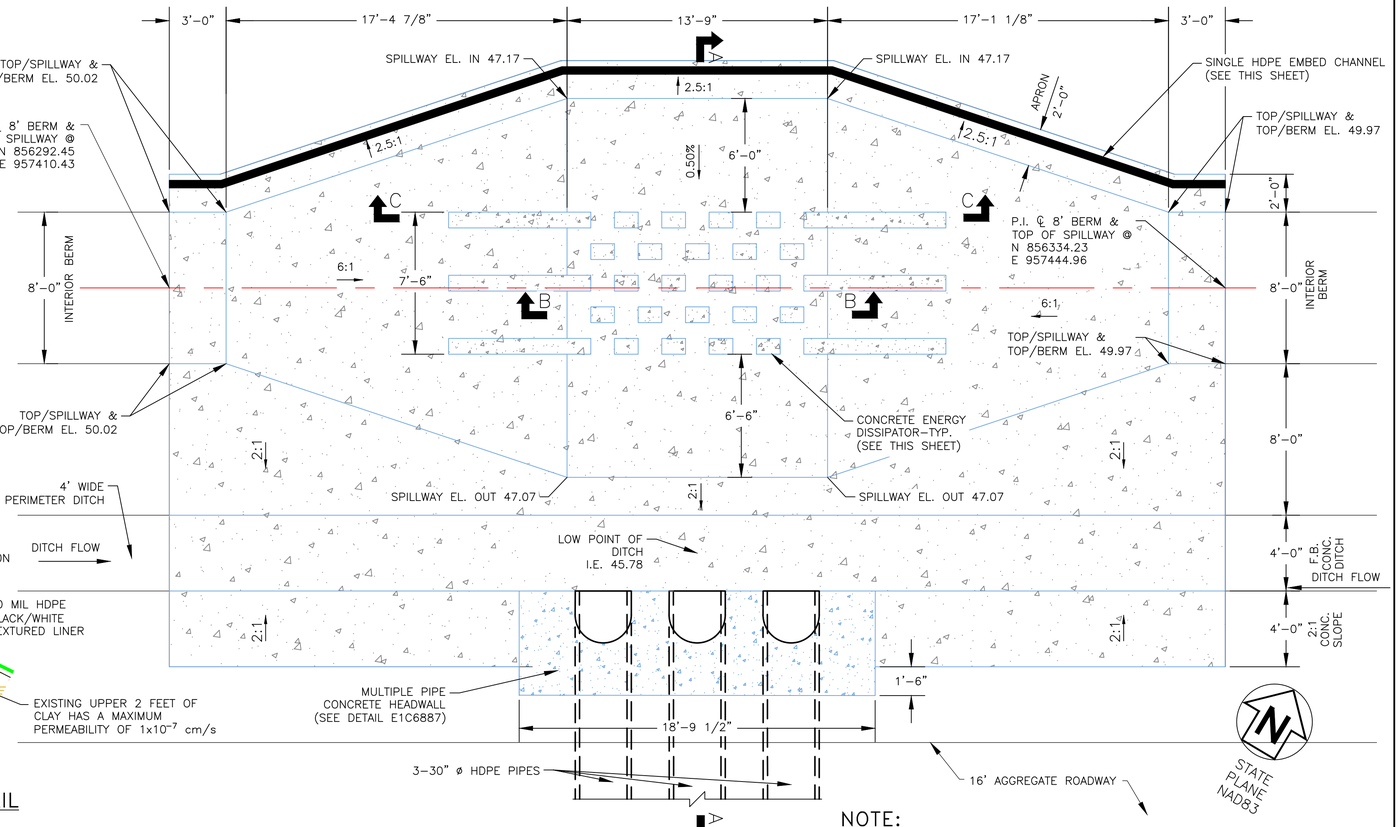
SECTION B-B
NOT TO SCALE



DOUBLE LINER ANCHOR TRENCH DETAIL
N.T.S.

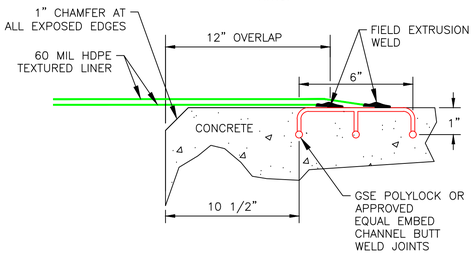


SINGLE LINER ANCHOR TRENCH DETAIL
N.T.S.

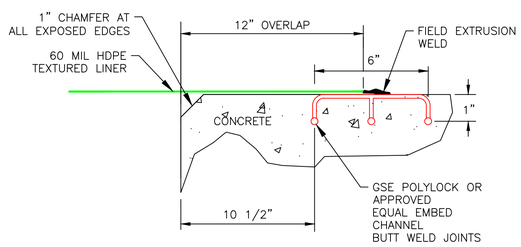


PLAN

NOTE:
REFERENCE REINFORCING TECHNICAL SPECIFATIONS.

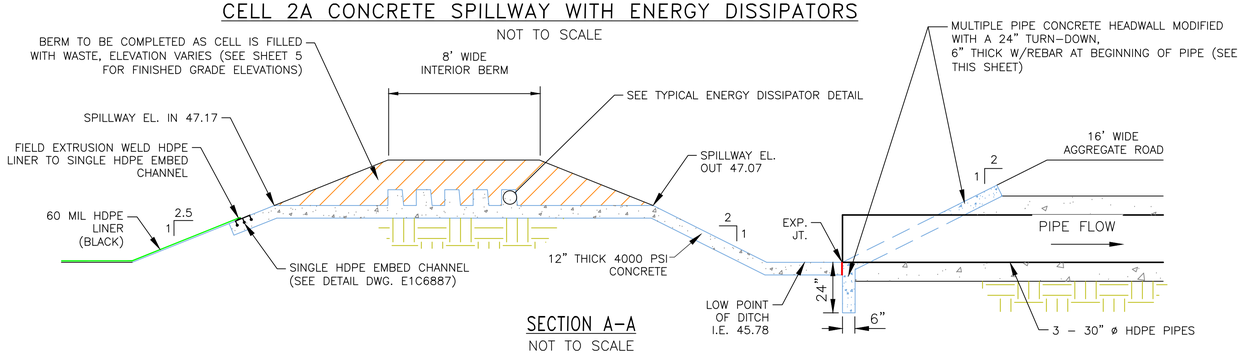


DOUBLE HDPE LINER EMBED CHANNEL
N.T.S.

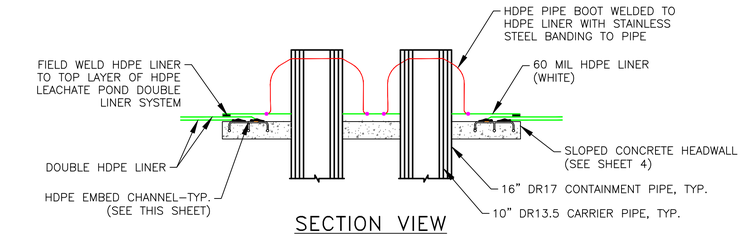


SINGLE HDPE LINER EMBED CHANNEL
N.T.S.

CELL 2A CONCRETE SPILLWAY WITH ENERGY DISSIPATORS
NOT TO SCALE



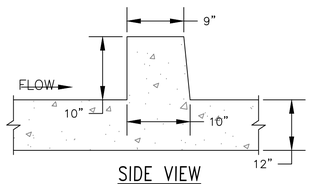
SECTION A-A
NOT TO SCALE



SECTION VIEW

LEACHATE PIPE HEADWALL AT LEACHATE POND DETAIL
N.T.S.

NOTE:
REFERENCE REINFORCING TECHNICAL SPECIFICATIONS.



SIDE VIEW

TYPICAL CONCRETE ENERGY DISSIPATOR DETAIL
NOT TO SCALE

REFERENCES:
1. MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA.
2. FOR A COMPLETE DRAWING LIST SEE SHEET 1.
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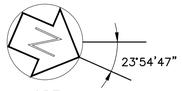
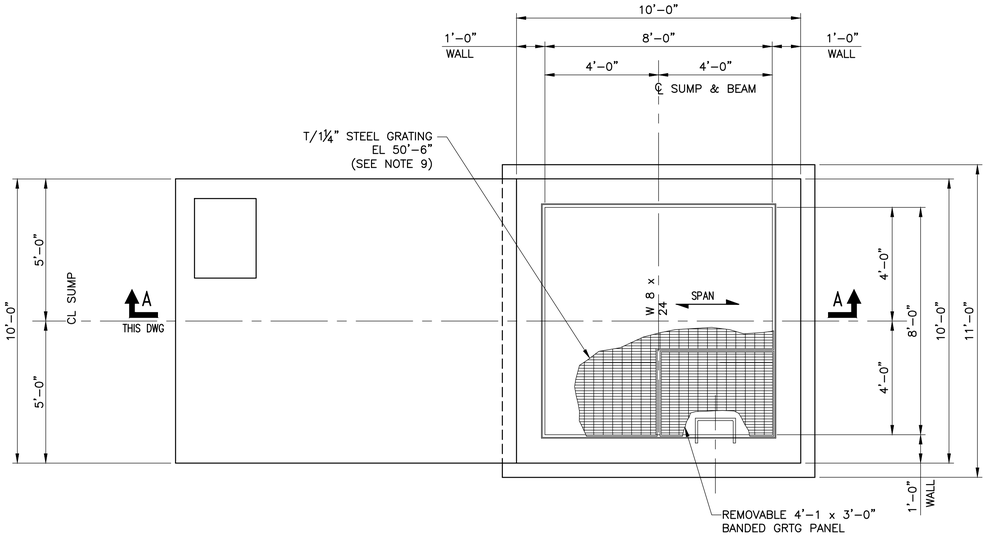


NOTE: EXPOSED CONCRETE & METAL SURFACES SHALL BE COATED WITH SAUERISEN LINING SYSTEM.

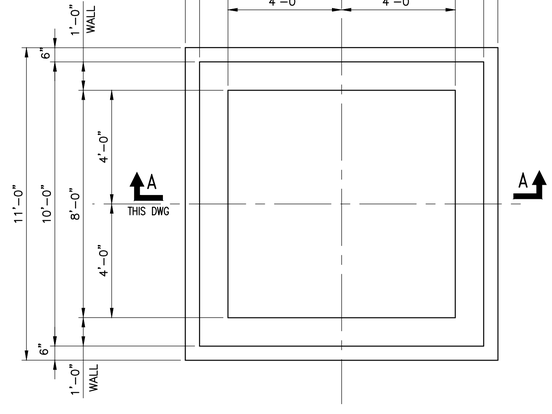
PLAN – SUMP TOP

SCALE: 3/8" = 1'-0"
(FOR SUMP LOCATION & ORIENTATION, SEE SHEET 4)



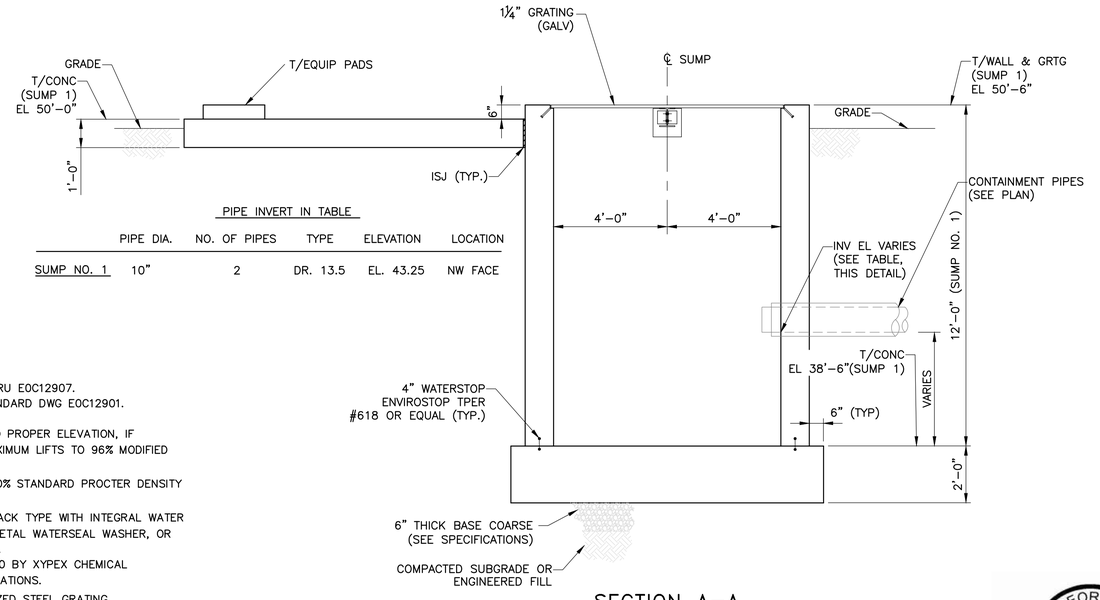
PLAN – STRUCTURAL STEEL

SCALE: 3/8" = 1'-0"



PLAN – SUMP BOTTOM

SCALE: 3/8" = 1'-0"



PIPE INVERT IN TABLE

	PIPE DIA.	NO. OF PIPES	TYPE	ELEVATION	LOCATION
SUMP NO. 1	10"	2	DR. 13.5	EL. 43.25	NW FACE

SECTION A–A

SCALE: 3/8" = 1'-0"

NOTES:

1. FOR GENERAL CONCRETE NOTES SEE SCS STANDARD DWG E0C12901.
2. FOR STANDARD CONCRETE DETAILS SEE SCS STANDARD DWGS E0C12901 THRU E0C12907.
3. FOR STANDARD ANCHOR BOLT DETAILS AND MATERIAL NOTES SEE SCS STANDARD DWG E0C12901.
4. REFERENCE SHEET 4 FOR AREA LAYOUT AND GRADING.
5. EXISTING SOIL SHALL BE EXCAVATED TO SOUND MATERIAL AND BROUGHT TO PROPER ELEVATION, IF REQUIRED, WITH COARSE AGGREGATE BASE MATERIAL COMPACTED IN 8" MAXIMUM LIFTS TO 96% MODIFIED PROCTER DENSITY (ASTM D1557).
6. BACKFILL AROUND SUMP SHALL BE COMPACTED IN 8" MAXIMUM LIFTS TO 90% STANDARD PROCTER DENSITY (ASTM D698).
7. SUMP WALL FORM–TIES SHALL BE PREFABRICATED 1" DEEP CONE BREAK–BACK TYPE WITH INTEGRAL WATER BARRIER PLATE: DAYTON A–4 TIES WITH A–2 PLASTIC CONES AND A–8 METAL WATERSEAL WASHER, OR EQUAL. TIE HOLES SHALL BE PLUGGED IMMEDIATELY AFTER FORM REMOVAL.
8. CONCRETE FOR SUMP WALLS AND BOTTOM SHALL HAVE XYPEX ADMIN C–500 BY XYPEX CHEMICAL CORPORATION. DOSAGE RATE SHALL BE PER MANUFACTURER'S RECOMMENDATIONS.
9. STEEL BAR GRATING SHALL BE W–19–4 (1¼"x3/16" BEARING BARS) GALVANIZED STEEL GRATING.
10. ALL EXPOSED CONCRETE & METAL SURFACES SHALL BE COATED WIT SAUERISEN LINING SYSTEM.

REFERENCES:

1. MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA.
2. FOR A COMPLETE DRAWING LIST SEE SHEET 1.
3. SEE SHEET 2 FOR GENERAL NOTES AND REFERENCES.

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Georgia Power

MISC. SECTIONS & DETAILS

PERMIT DRAWINGS

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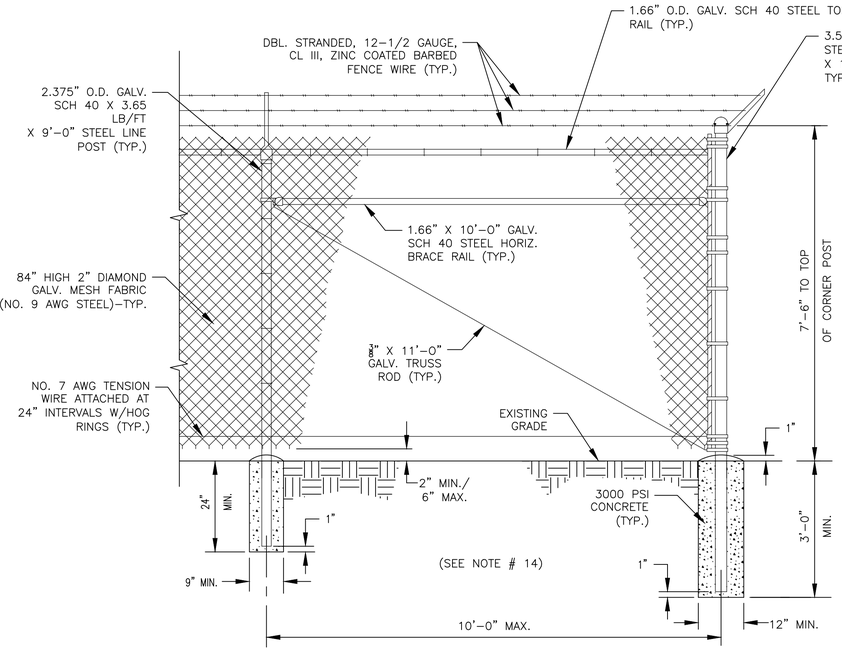
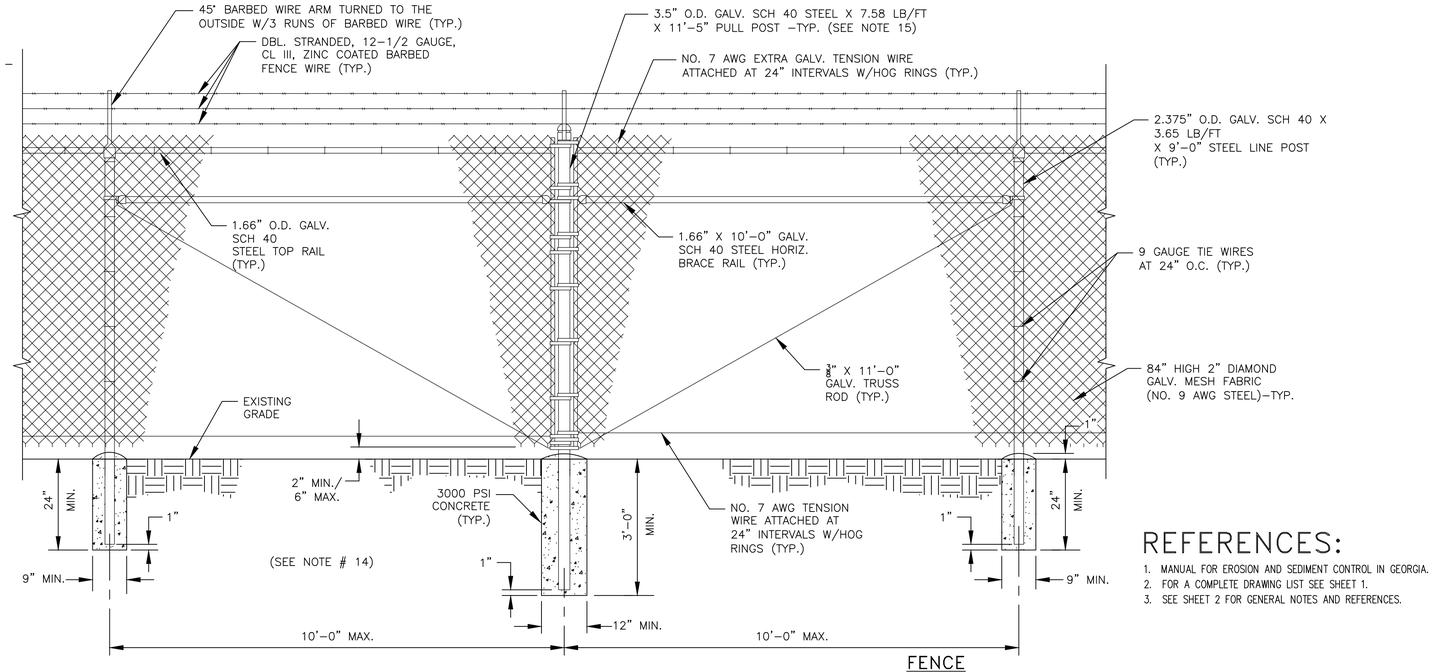


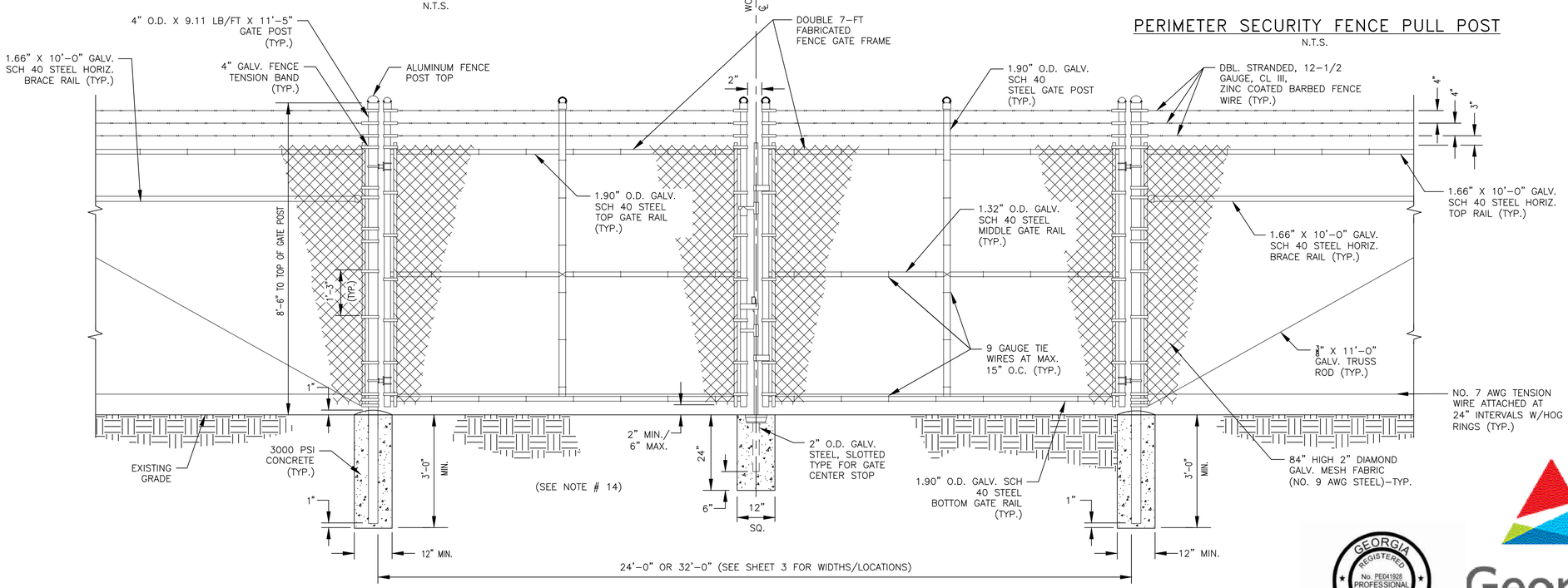
PERIMETER SECURITY FENCE TYPICAL CORNER

N.T.S.



PERIMETER SECURITY FENCE PULL POST

N.T.S.



PERIMETER SECURITY FENCE 24' & 32' WIDE CHAINLINK DOUBLE SWING SECURITY GATE

N.T.S.

REFERENCES:

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2. FOR A COMPLETE DRAWING LIST SEE SHEET 1.
3. SEE SHEET 2 FOR GENERAL NOTES AND REFERENCES.

FENCE

1. FENCE MATERIALS AND ERECTION SHALL BE IN ACCORDANCE WITH THE SOUTHERN COMPANY GENERAL PROVISIONS FOR CHAIN LINK FENCE SPECIFICATIONS 32 31 13.
2. TIE FENCE FABRIC TO SPIRALED TENSION WIRE BETWEEN POSTS WITH GALVANIZED STEEL HOG RINGS TOP AND BOTTOM AT INTERVALS OF TWO FEET.
3. LIMIT TENSION IN FABRIC AND WIRE TO PREVENT BENDING OF GATE POSTS AND CORNER POSTS.
4. WHEN GATE PANEL IS INSTALLED ON A CORNER POST, THE LATCH SHOULD BE INSTALLED ON THE OPPOSITE PANEL.
5. PULL POSTS WILL BE INSTALLED AT APPROXIMATELY MID-SPAN WHERE SPACING BETWEEN CORNER POSTS OR TERMINAL POSTS EXCEEDS 100 FEET TO PROVIDE FENCE GROUNDING POINT PER NESC, OR WHERE IT IS NECESSARY TO TERMINATE THE FENCE DUE TO A CHANGE IN GRADE. MATERIAL FOR PULL POSTS TO BE SAME AS CORNER POSTS.
6. HINGE TO BE INSTALLED WITH GALVANIZED STEEL BOLT WITH TWO NUTS OR PREFERRED SELF-LOCKING TYPE NUT TO LOCK BOLT IN PLACE.
7. CHAIN FOR GATE TO BE ONE PIECE: ¼" GALVANIZED STEEL, WELDED, SIZE 5/0, INSERTED BETWEEN GATE FRAME AND TENSION BAR, SUCH THAT A TIGHT FIT IS OBTAINED WITH LOCK INSTALLED FROM OUTSIDE GATE, EXCESS LINKS SHOULD BE REMOVED.
8. FENCE FABRIC TO BE INSTALLED WITH TWIST SELVAGES AT BOTTOM.
9. GATE HINGE TO BE INSTALLED FOR ¼" OR LESS GAP BETWEEN GATE POST AND FRAME TO PREVENT ACCESS WHEN CLOSED AND TO ALLOW APPROX. 180-DEGREES INWARD OPENING.
10. GATE KEEPER TO BE INSTALLED FOR EACH PANEL OF DOUBLE GATES AT MAXIMUM OPEN POSITION.
11. TRUSS RODS ARE NOT REQUIRED WHEN ONLY ONE LINE POST IS IN A CONTINUOUS SPAN OF FABRIC.
12. BOTTOM OF CHAIN LINK FABRIC TO BE INSTALLED A MINIMUM OF 2" TO A MAXIMUM OF 6" ABOVE FINISHED GRADE.
13. USE 3½" O.D. X 11'-5" POST FOR CORNER AND PULL POSTS REQUIRING BARBED WIRE TO BE HELD BY 45-DEGREE ARMS, CUT 12" OFF POST FOR A HEIGHT OF 10'-5".
14. DOUBLE DRIVE GATES TO BE INSTALL TO MINIMIZE OPENING TO 2" MAXIMUM. (CHAIN SHOULD NOT BE SLACK.)
15. CONCRETE TO BE POURED WITH A 1" DOME TO PREVENT PUDDLILNG NEAR POST.

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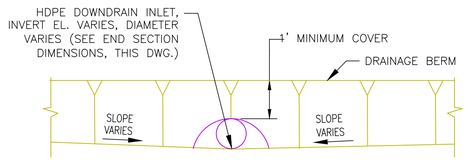
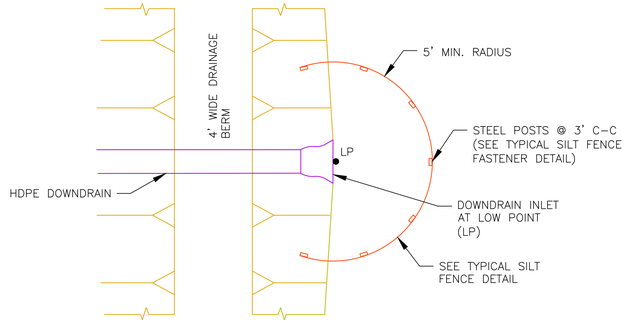


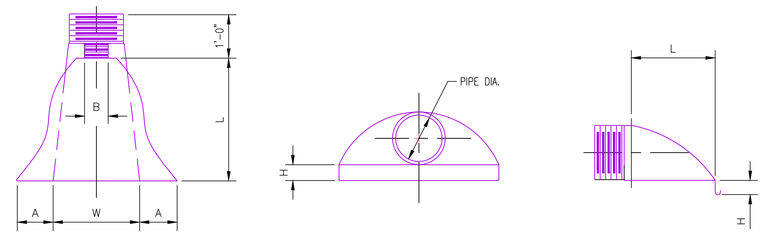
SECTION A–A

NOT TO SCALE



DETAIL "C" TYPICAL DOWNDRAIN INLET PROTECTION

NOT TO SCALE

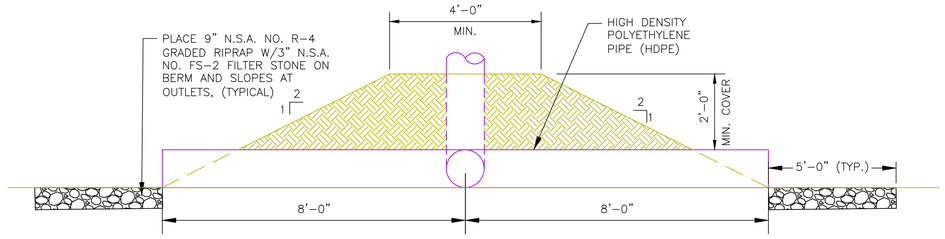


PIPE DIAMETER	A (1±)	B MAX	H (1±)	L (1/2±)	W (2±)
12"	6.5	10	6.5	25	29
15"	6.5	10	6.5	25	29

ALL DIMENSION ARE IN INCHES

END SECTION DIMENSIONS

NOT TO SCALE



SECTION B–B

NOT TO SCALE

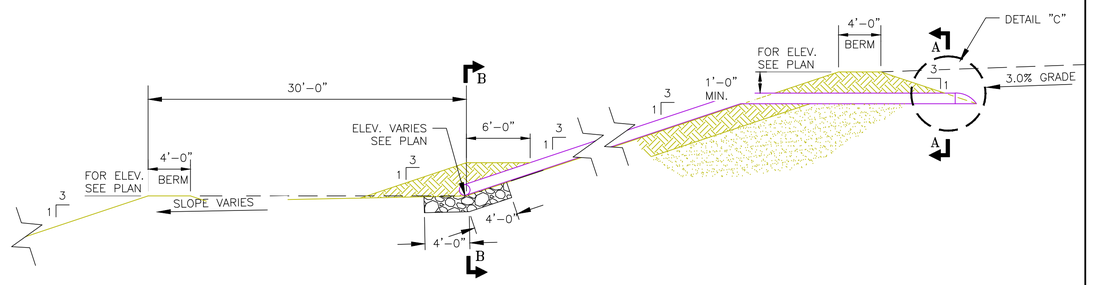


TABLE 3 – DOWNDRAINS

CELL	LIFT	DIAMETER (IN.)
1	SECOND	N/A
	FIRST	15
2	THIRD	N/A
	SECOND	12
	FIRST	15

SECTION U–U

TYPICAL SECTION THROUGH DOWNDRAINS AND PERIMETER DRAINAGE DITCH

NOT TO SCALE

(SEE SHEET 5)

REFERENCES:

1. MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA.
2. FOR A COMPLETE DRAWING LIST SEE SHEET 1.
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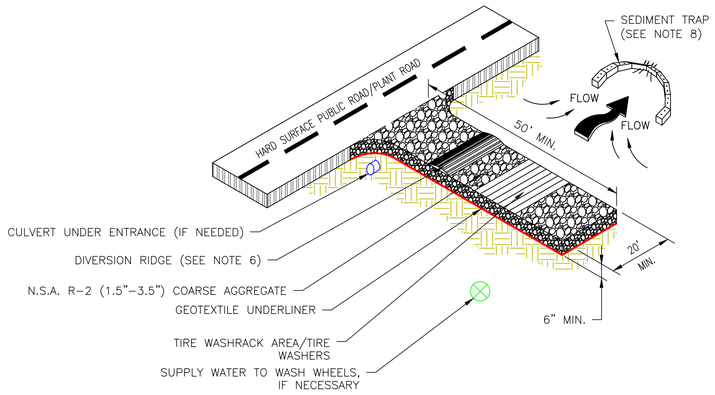
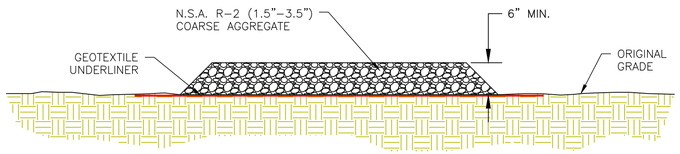
NOTES:
1. AVOID LOCATING ON STEEP SLOPES OR AT CURVES ON PUBLIC ROADS.
2. REMOVE ALL VEGETATION AND OTHER UNSUITABLE MATERIAL FROM THE FOUNDATION AREA, GRADE, AND CROWN FOR POSITIVE DRAINAGE.
3. AGGREGATE SIZE SHALL BE IN ACCORDANCE WITH NATIONAL STONE ASSOCIATION R-2 (1.5"-3.5" STONE).
4. GRAVEL PAD SHALL HAVE A MINIMUM THICKNESS OF 6".
5. PAD WIDTH SHALL BE EQUAL FULL WIDTH AT ALL POINTS OF VEHICULAR EGRESS, BUT NO LESS THAN 20'.
6. A DIVERSION RIDGE SHOULD BE CONSTRUCTED WHEN GRADE TOWARD PAVED AREA IS GREATER THAN 2%.
7. INSTALL PIPE UNDER THE ENTRANCE IF NEEDED TO MAINTAIN DRAINAGE DITCHES.
8. WHEN WASHING IS REQUIRED, IT SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN (DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE ENTRANCE TO A SEDIMENT CONTROL DEVICE).
9. WASHRACKS AND/OR TIRE WASHERS MAY BE REQUIRED DEPENDING ON SCALE AND CIRCUMSTANCE. IF NECESSARY, WASHRACK DESIGN MAY CONSIST OF ANY MATERIAL SUITABLE FOR TRUCK TRAFFIC THAT REMOVES MUD AND DIRT.
10. MAINTAIN AREA IN A WAY THAT PREVENTS TRACKING AND/OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.



EXIT DIAGRAM



ENTRANCE ELEVATION

CRUSHED STONE CONSTRUCTION EXIT (Co)
N.T.S.

DEFINITION
A TEMPORARY GRADE CONTROL STRUCTURE, OR DAM CONSTRUCTED ACROSS A SWALE, DRAINAGE DITCH, OR AREA OF CONCENTRATED FLOW.

CONDITIONS
THIS PRACTICE IS APPLICABLE FOR USE IN SMALL OPEN CHANNELS AND IS NOT TO BE USED IN A LIVE STREAM. SPECIFIC APPLICATIONS INCLUDE:
1. TEMPORARY OR PERMANENT SWALES OR DITCHES IN NEED OF PROTECTION DURING ESTABLISHMENT OF GRASS LININGS.
2. TEMPORARY OR PERMANENT SWALES OR DITCHES WHICH, DUE TO THEIR SHORT LENGTH OF SERVICE OR OTHER REASONS, CANNOT RECEIVE A PERMANENT NON-ERODIBLE LINING, FOR AN EXTENDED PERIOD OF TIME.
3. OTHER LOCATIONS WHERE SMALL LOCALIZED EROSION AND RESULTING SEDIMENTATION PROBLEMS EXIST.

SPECIFICATIONS:
THE FOLLOWING TYPES OF CHECK DAMS ARE USED FOR THIS STANDARD:

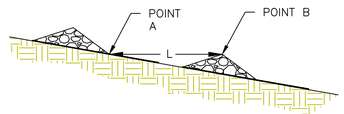
STONE CHECK DAM
STONE CHECK DAMS SHOULD BE CONSTRUCTED OF GRADED SIZE 2-10 INCH STONE. MECHANICAL OR HAND PLACEMENT SHALL BE REQUIRED TO ENSURE COMPLETE COVERAGE OF THE ENTIRE WIDTH OF DITCH OR SWALE AND THAT CENTER OF THE DAM IS LOWER THAN THE EDGES. THE CENTER OF THE CHECK DAM MUST BE AT LEAST 9 INCHES LOWER THAN THE OUTER EDGES.

SPACING:
TWO OR MORE CHECK DAMS IN A SERIES SHALL BE USED FOR DRAINAGE AREAS GREATER THAN ONE (1) ACRE. MAXIMUM SPACING BETWEEN DAMS SHOULD BE SUCH THAT THE TOE OF THE UPSTREAM DAM IS AT THE SAME ELEVATION AS THE TOP OF THE DOWNSTREAM DAM.

GEOTEXTILES:
A GEOTEXTILE SHOULD BE USED AS A SEPARATOR BETWEEN THE GRADED STONE AND THE SOIL BASE AND ABUTMENTS. THE GEOTEXTILE WILL PREVENT THE MIGRATION OF SOIL PARTICLES FROM THE SUBGRADE INTO THE GRADED STONE. THE GEOTEXTILE SHALL BE SELECTED/SPECIFIED IN ACCORDANCE WITH AASHTO M288-96 SECTION 7.3, *SEPARATION REQUIREMENTS*, TABLE 3. GEOTEXTILES SHALL BE "SET" INTO THE SUBGRADE SOILS. THE GEOTEXTILE SHALL BE PLACED IMMEDIATELY ADJACENT TO THE SUBGRADE WITHOUT ANY VOIDS AND EXTEND FIVE FEET BEYOND THE DOWNSTREAM TOE OF THE DAM TO PREVENT SCOUR.

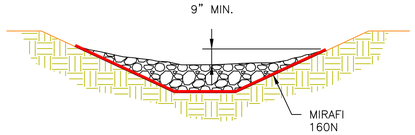
MAINTENANCE:
PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED. SEDIMENT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF ONE-HALF THE ORIGINAL DAM HEIGHT OR BEFORE. IF THE AREA IS TO BE MOWED, CHECK DAMS SHALL BE REMOVED ONCE FINAL STABILIZATION HAS OCCURRED. OTHERWISE, CHECK DAMS MAY REMAIN IN PLACE PERMANENTLY. AFTER REMOVAL, THE AREA BENEATH THE DAM SHALL BE SEEDED AND MULCHED IMMEDIATELY.

A = THE TOE OF THE UPSTREAM CHECK DAM.
B = TOP OF THE DOWNSTREAM CHECK DAM.
L = THE DISTANCE SUCH THAT POINTS A AND B ARE OF EQUAL ELEVATION.

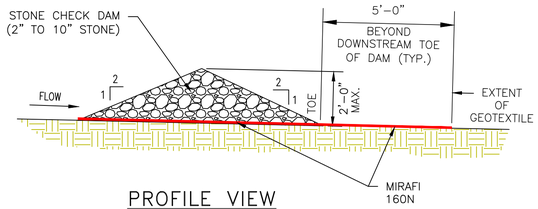


SPACING BETWEEN CHECK DAMS
N.T.S.

NOTES:
1. CHECK DAMS ARE TO BE USED ONLY IN SMALL OPEN CHANNELS (THEY ARE NOT TO BE USED IN LIVE STREAMS).
2. THE DRAINAGE AREA FOR STONE CHECK DAMS SHALL NOT EXCEED TWO ACRES.
3. THE CENTER OF THE CHECK DAM MUST BE AT LEAST 9 INCHES LOWER THAN THE OUTER EDGES.
4. THE DAM HEIGHT SHOULD BE A MAXIMUM OF 2 FEET FROM CENTER TO RIM EDGE.
5. THE SIDE SLOPES OF THE CHECK DAM SHALL NOT EXCEED A 2:1 SLOPE.
6. GEOTEXTILE SHALL BE USED TO PREVENT THE MITIGATION OF SUBGRADE SOIL PARTICLES INTO THE STONES (REFER TO AASHTO M288-96, SECTION 7.3, TABLE 3).



CROSS SECTION
N.T.S.



PROFILE VIEW
N.T.S.

CHECK DAM - STONE CHECK DAM (Cd-S)
N.T.S.

REFERENCES:
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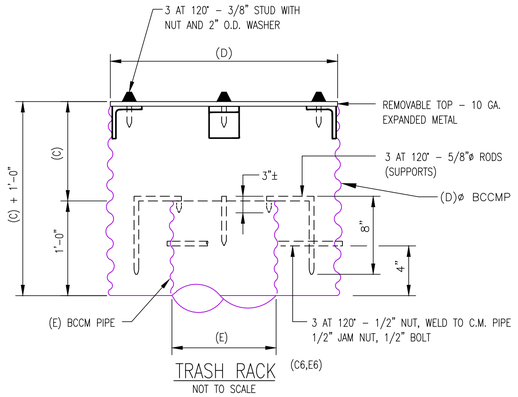
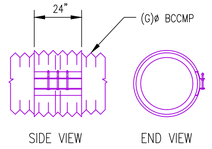


TRASH RACK (C6,E6)

NOT TO SCALE



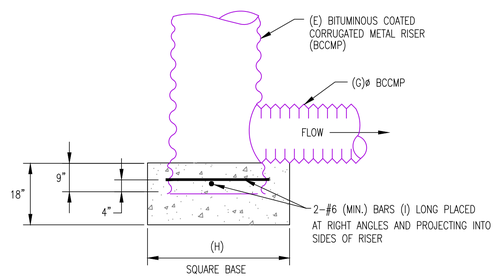
24" ONE PIECE LAP-TYPE COUPLING

COUPLING DETAIL

NOT TO SCALE

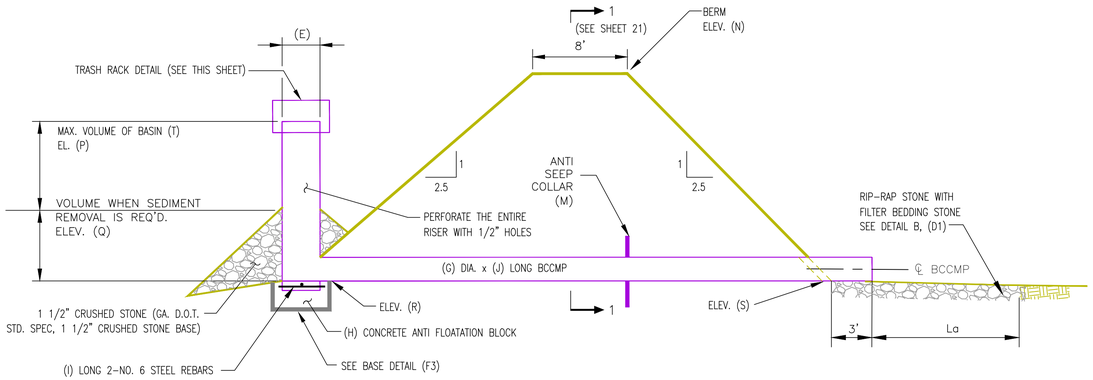
TABLE 1 – SEDIMENTATION POND AND CLEAR POOL DETAILS

		Sediment Pond 1	Clear Pool 1	Detention Pond 1
Top Width of Berm	A	8'	8'	70'
Emergency Spillway Flow Depth	B	NA	1.0'	1.0'
Storage Level – Difference Between Riser and Emer. Spillway	C	NA	2.0'	2.0'
Trash Rack Diameter	D	96"	96"	72"
Riser Diameter	E	66"	66"	48"
Riser Length (Includes 9" into antifloatation block)	F	4'–9"	4'–9"	4'–9"
Principal Spillway Pipe Diameter	G	2–42"	42"	30"
Concrete Antiflotation Block	H	90' x 90' x 18"	90' x 90' x 18"	80' x 80' x 18"
Length of Riser Anchoring Bars (rebar)	I	84"	84"	74"
Length of Principal Spillway Pipe	J	61.8'	66.8'	115.0'
Emergency Spillway Bottom Width	K	NA	20'	20'
Emergency Spillway Top Width	L	NA	80'	44'
Antiseep Collar	M	78" x 78"	78" x 78"	18" x 18"
Elevation of Top of Berm, ft msl	N	46.0 ft msl	46.0 ft msl	52.0 ft msl
Elevation of Emergency Spillway Crest, ft msl	O	NA	41.0 ft msl	50.0 ft msl
Elevation of Top of Riser, ft msl	P	40.0 ft msl	39.0 ft msl	46.0 ft msl
Elevation of Clean Out, ft msl	Q	37.0 ft msl	36.0 ft msl	42.5 ft msl
Elevation of Principal Spillway at Inlet, ft msl (Bottom Pond El.)	R	36.0 ft msl	35.0 ft msl	42.0 ft msl
Elevation of Principal Spillway at Outlet, ft msl	S	35.7 ft msl	34.7 ft msl	41.0 ft msl
Maximum Volume of Basin, cubic feet	T	7969	2986	1233
Clean Out Volume, cubic feet	U	1861	658	405
Freeboard	V	6'	4'	1'



CONCRETE RISER BASE DETAIL (B6,D6)

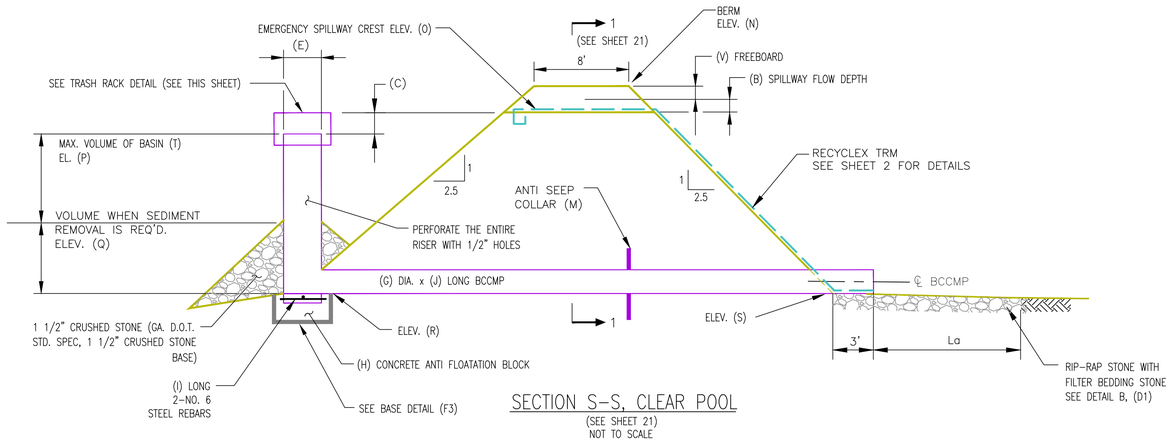
NOT TO SCALE



SECTION R–R, MAIN BASIN

(SEE SHEET 21)

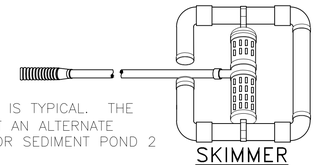
NOT TO SCALE



SECTION S–S, CLEAR POOL

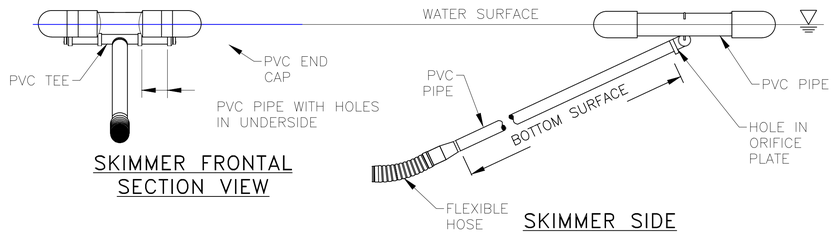
(SEE SHEET 21)

NOT TO SCALE



NOTE:
SKIMMER CONFIGURATION SHOWN IS TYPICAL. THE DESIGNER/ENGINEER MAY SUBMIT AN ALTERNATE SKIMMER DETAIL FOR REVIEW. FOR SEDIMENT POND 2 ONLY.

SKIMMER PERSPECTIVE



SKIMMER FRONTAL SECTION VIEW

SKIMMER SIDE SECTION VIEW

FLOATING SURFACE SKIMMER

NOT TO SCALE

Sk

REFERENCES:

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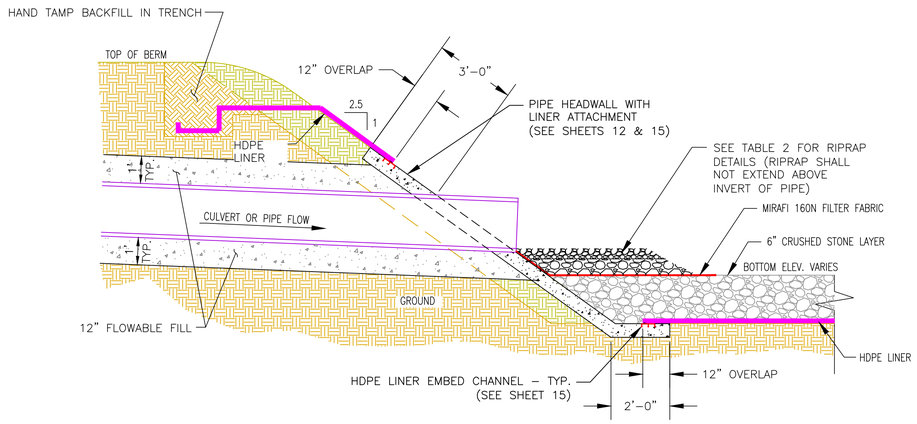
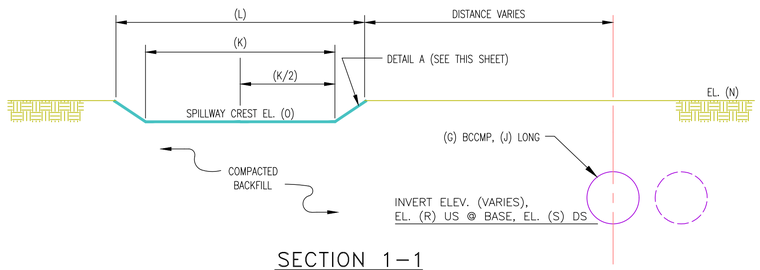
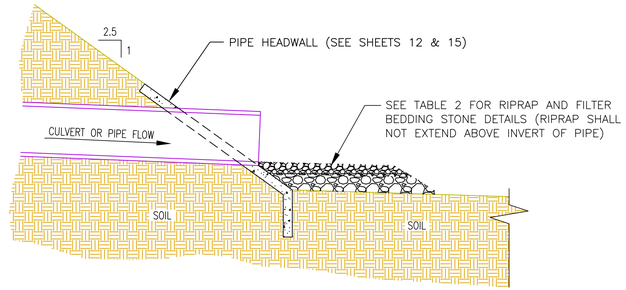


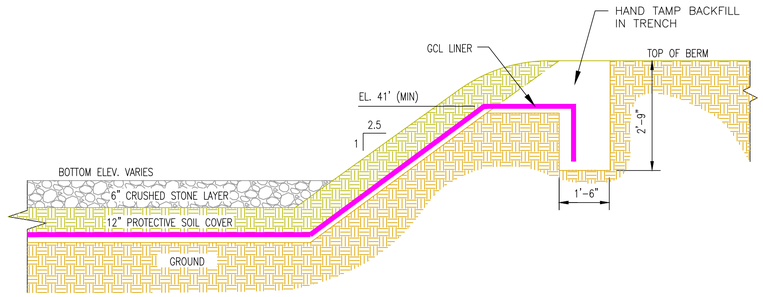
RIPRAP PLACEMENT
PIPE HEADWALL WITH LINER ATTACHMENT
SIDE VIEW
NOT TO SCALE



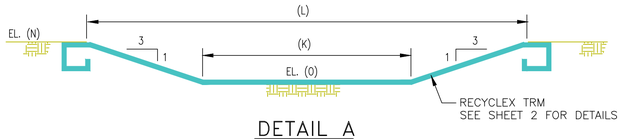
SECTION 1-1
(SEE SHEET 20)
NOT TO SCALE



RIPRAP PLACEMENT IN UNLINED AREA
SIDE VIEW
NOT TO SCALE

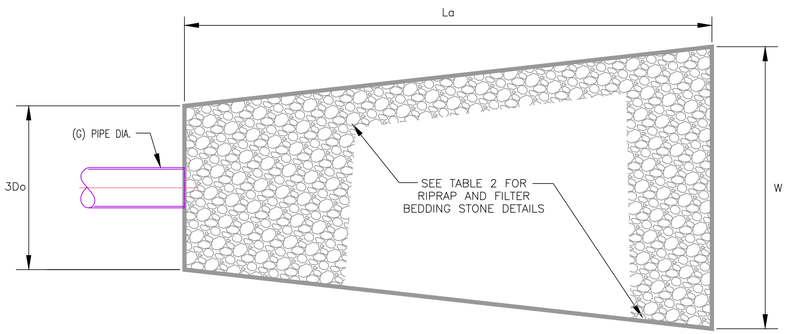


SEDIMENTATION POND 1 AND CLEAR POOL 1
MARKER BED DETAIL
NOT TO SCALE
REFERENCE LINED POND 1



DETAIL A
NOT TO SCALE

FOR EROSION PROTECTION SEE SHEET 23



DETAIL B, SECTION R-R, S-S
NOT TO SCALE

TABLE 2 - DETENTION POND, SEDIMENTATION POND AND CLEAR POOL RIPRAP DETAILS

	Pipe Dia.	La	3Do	W	Thickness	Riprap	Filter Bedding Stone
Detention Pond 1	30"	16'	7.5'	18.5'	13.6"	N.S.A. #R-4	N.S.A. #FS-2
Sediment Pond 1	2-42"	32'	10.5'	35.5'	45"	N.S.A. #R-7	N.S.A. #FS-3
Clear Pool 1	42"	23'	10.5'	26.5'	27"	N.S.A. #R-5	N.S.A. #FS-2
Wheel Wash Makeup Reservoir	4-24"	26'	16'	24'	27"	N.S.A. #R-5	N.S.A. #FS-2

CULVERT OUTLET RIPRAP DETAILS

Location	Pipe Dia.	Pipe Type	Inlet Invert El.	Outlet Invert El.	Pipe Length	La	3Do	W	Riprap	*Depth	Filter Bedding Stone
Access Rd Culv	24"	ADS N-12	61.00'	60.36'	64'	13'	6'	15'	N.S.A. #R-4	10.8"	N.S.A #FS-2
Cell 1 Berm West Culv	24"	RCP	56.35'	55.81'	54'	13'	4'	7.2'	N.S.A. #R-2	9.6	N.S.A #FS-1
Cell 1 Berm East Culv	30"	RCP	56.33'	55.99'	46'	14'	4'	4'	N.S.A. #R-4	4.2"	N.S.A #FS-2
Cell 2 (Phase 1) Perimeter Ditch to Sed. Pond	3-30"	ADS N-12	45.85'	45.63'	44'	16'	22.5'	26.7'	N.S.A. #R-3	13.6"	N.S.A #FS-2
Cell 2 (Phase 2) Perimeter Ditch to Exterior Ditch	2-30"	ADS N-12	44.00'	43.51'	49'	16'	8'	8'	N.S.A. #R-3	13.6"	N.S.A #FS-2
Cell 2 (Phase 2) Exterior Ditch to Sed. Pond	2-30"	ADS N-12	42.95'	42.00'	95'	16'	15'	17.8'	N.S.A. #R-4	13.6"	N.S.A #FS-2
Cell 1 Stack Access Culvert	24"	RCP	56.77'	56.94'	28'	13'	4'	4'	N.S.A. #R-4	10.8"	N.S.A #FS-2
Cell 2 Stack Access Culvert	24"	RCP	49.97'	49.67'	50'	13'	4'	4'	N.S.A. #R-4	10.8"	N.S.A #FS-2

GENERAL NOTES:

1. THE AREA TO RECEIVE THE PIPE SHALL BE HAND COMPACTED AND ANY SOFT OR UNSUITABLE MATERIAL REMOVED, THE AREA BACKFILLED, AND COMPACTED.
2. THE PIPE AND RISER SHALL BE PLACED ON FIRM, SMOOTH FOUNDATION.
3. THE BACKFILL MATERIAL SHALL BE CLEAN SOIL, FREE OF ROOTS, VEGETATION, OVERSIZED ROCKS, STONES OR OTHER OBJECTIONABLE MATERIAL.
4. AREAS ON WHICH FILL IS TO PLACED SHALL BE SCARIFIED PRIOR TO FILL PLACEMENT.
5. FILL MATERIAL SHALL BE CONDITIONED, PLACED AND COMPACTED IN ACCORDANCE WITH THE CONSTRUCTION QUALITY CONTROL/QUALITY ASSURANCE PLAN AND THE SPECIFICATIONS FOR EARTH FILL ON DRAWING H1C2700.
6. THE RISER SHALL BE SECURELY ATTACHED TO THE PIPE OR STUB BY WELDING THE FULL CIRCUMFERENCE MAKING A WATERTIGHT STRUCTURAL CONNECTION.
7. THE CONNECTION BETWEEN THE RISER AND THE RISER BASE SHALL BE WATERTIGHT.
8. ALL CONNECTIONS BETWEEN PIPE SECTIONS SHALL BE WATERTIGHT, ACHIEVED BY APPROVED WATERTIGHT BAND ASSEMBLIES.
9. THE FILL MATERIAL AROUND THE PIPE SHALL BE PLACED IN 4 INCH LAYERS AND HAND COMPACTED UNDER AND AROUND THE PIPE TO AT LEAST THE SAME DENSITY AS THE ADJACENT FILL MATERIAL.
10. CARE MUST BE TAKEN TO NOT RAISE THE PIPE FROM FIRM CONTACT WITH ITS FOUNDATION WHEN COMPACTING UNDER THE PIPE HAUNCHES.
11. A MINIMUM DEPTH OF 2 FT. OF HAND COMPACTED FILL SHALL BE PLACE DOVER THE PIPE BEFORE PLACING AND COMPACTING FILL WITH CONSTRUCTION EQUIPMENT.
12. TRASH RACK NUTS, BOLTS, THREADS AND RODS SHALL BE BITUMINOUS COATED AFTER INSTALLATION.
13. ALL DISTURBED SOIL AREAS SHALL BE GRASSED UPON REACHING FINAL GRADE IN ACCORDANCE WITH THE VEGETATION SCHEDULE, DRAWING H1C2709.

REFERENCES:

1. MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA.
2. FOR A COMPLETE DRAWING LIST SEE SHEET 1.
3. SEE SHEET 3 FOR GENERAL NOTES AND REFERENCES.

GEORGIA REGISTERED No. PE041928 PROFESSIONAL ENGINEER JOHN MATHEW TRAST

Georgia Power

EROSION CONTROL SECTIONS & DETAILS

PERMIT DRAWINGS
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PLANT MCINTOSH COAL COMBUSTION RESIDUALS (CCR)
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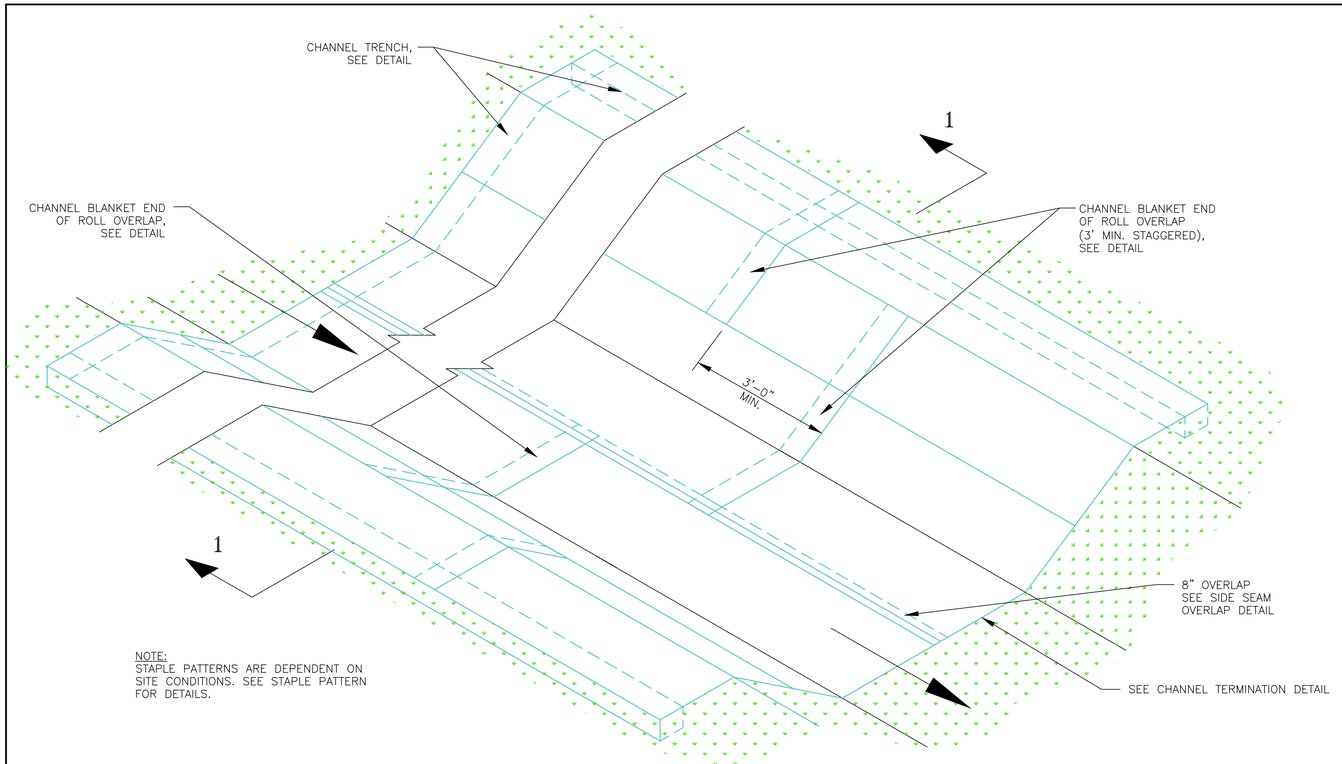
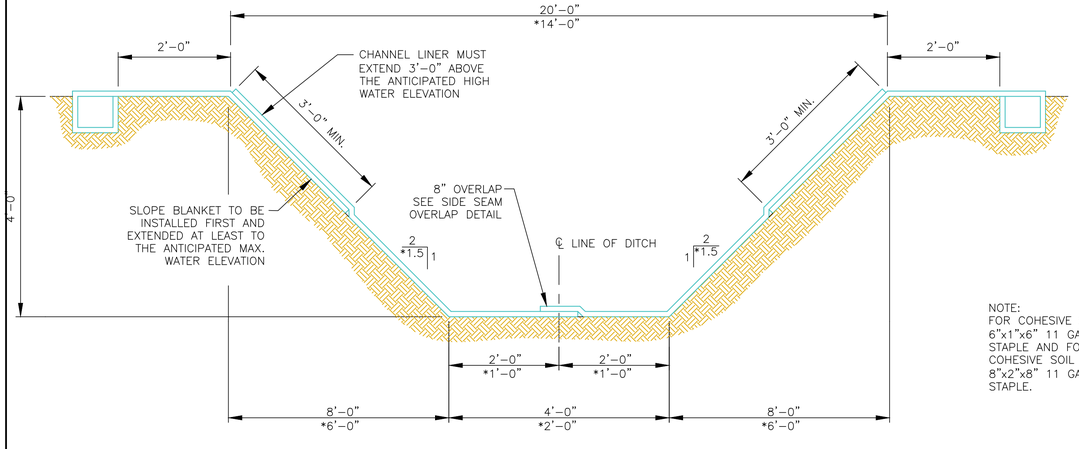
SCALE	NONE	SHEET 21 OF 29	
DATE	NOVEMBER 2018		

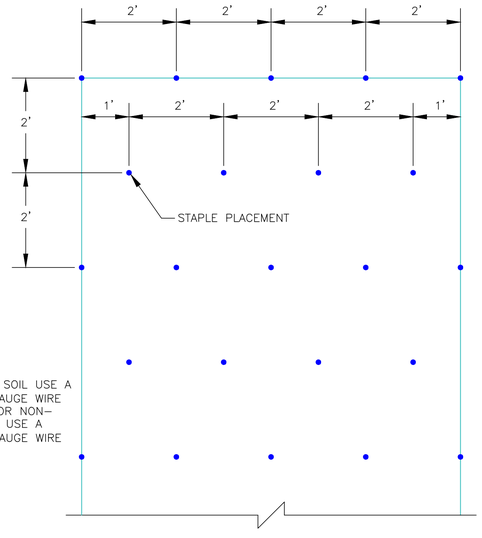


PERIMETER DITCH LINER DETAIL
NOT TO SCALE



SECTION 1-1
NOT TO SCALE

*DIMENSIONS FOR CELL 1 PERIMETER DITCH



BLANKET STAPLE PATTERN
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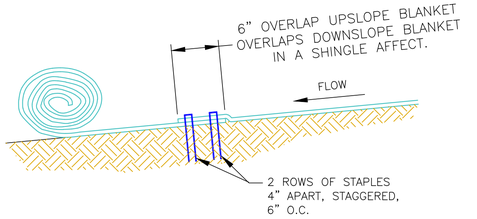
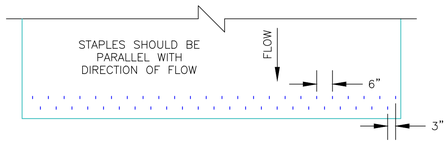
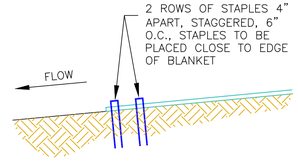


CHANNEL BLANKET END OF ROLL OVERLAP
NOT TO SCALE



CHANNEL TERMINATION PLAN
NOT TO SCALE



CHANNEL TERMINATION
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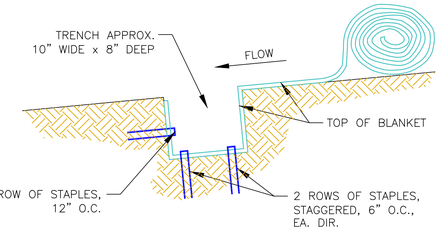
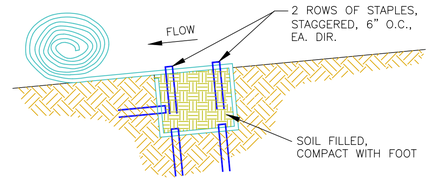


STEP 1



STEP 2

CHANNEL TRENCH
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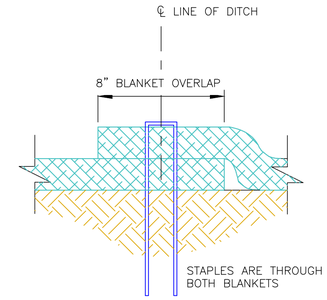

SIDE SEAM OVERLAP STAPLE DETAIL
NOT TO SCALE

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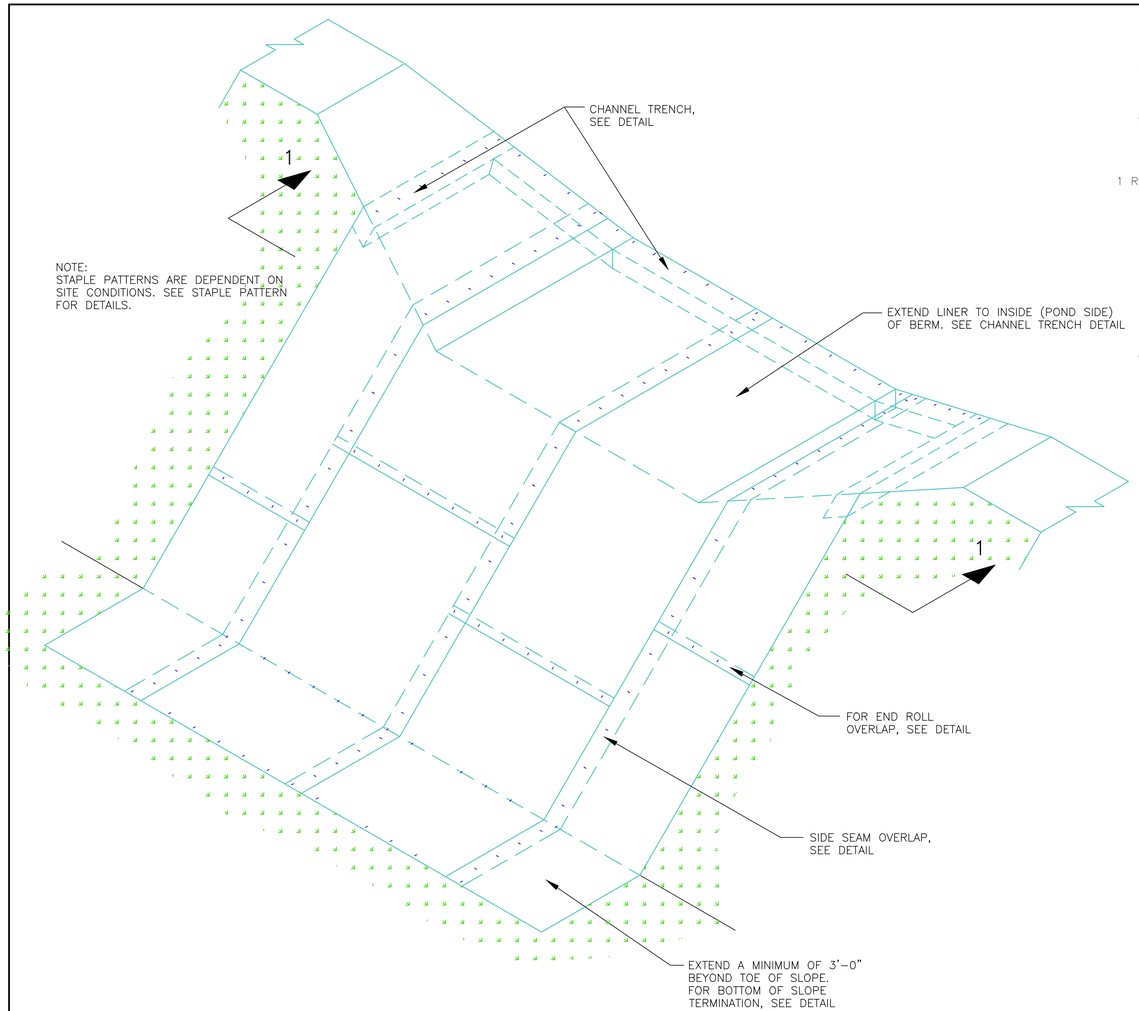
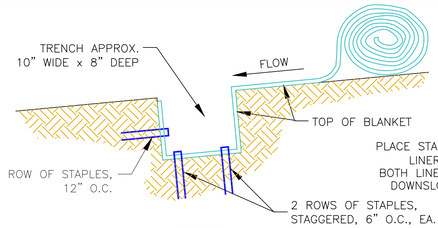
PROJ. NO.	1702944	DWG. 22	EDIT
SCALE	NONE	SHEET 22 OF 29	
DATE	NOVEMBER 2018		

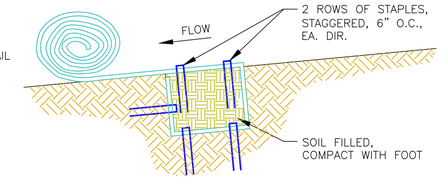


EMERGENCY SPILLWAY LINER DETAIL

NOT TO SCALE



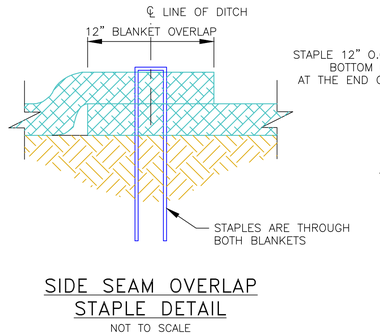
STEP 1



STEP 2

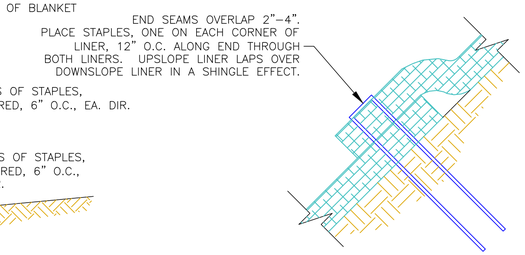
SLOPE TRENCH

NOT TO SCALE



SIDE SEAM OVERLAP STAPLE DETAIL

NOT TO SCALE



END OF ROLL OVERLAP

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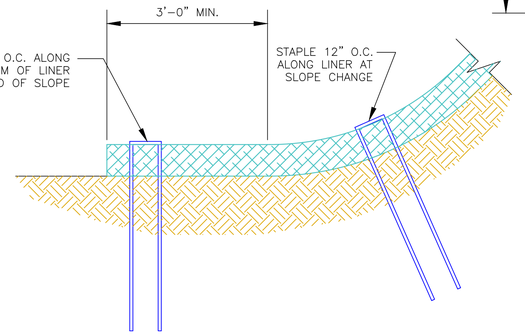
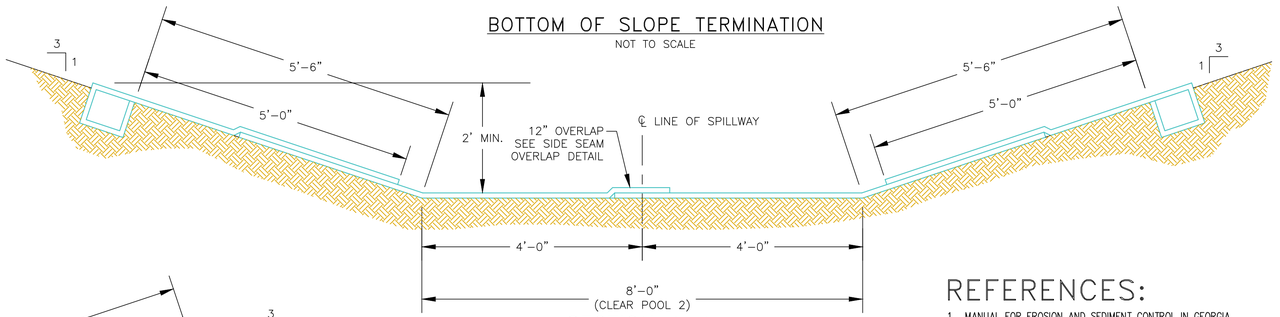


BOTTOM OF SLOPE TERMINATION

NOT TO SCALE

STAPLE PATTERN

NOT TO SCALE



SECTION 1–1

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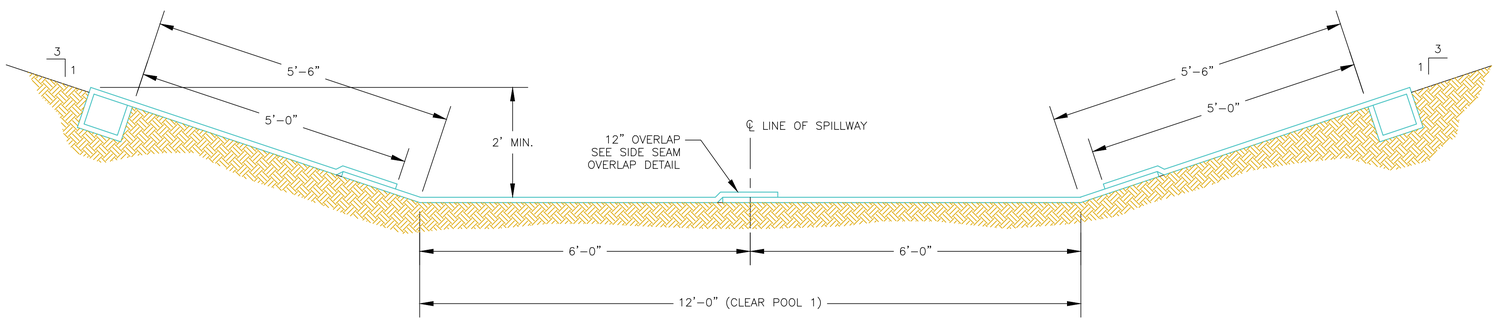

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PLANT, PLANTING RATE & PLANTING DATE FOR PERMANENT COVER

SPECIES	BROADCAST RATES	PLANTING DATES J F M A M J J A S O N D	REMARKS
Pensacola Bahia alone or with temporary cover	60 lbs./ac	..——————.....	Low growing. Sod forming. Slow to establish. Plant with a companion crop. will spread into bermuda pastures and lawns. Mix with Sericea Lespedeza.
Wilmington Bahia with other perennials	30 lbs./ac	..——————.....	
Tall Fescue alone	50 lbs./ac	..——.....	Use alone only on better sites. Mix with perennial lespedeza or Crownvetch. Apply top dressing in spring following fall plantings. Nor for heavy use areas or athletic fields.
Tall Fescue with other perennials	30 lbs./ac	..——.....	
Reed Canary Grass alone	50 lbs./ac	..——.....	
Reed Canary Grass with other perennials	30 lbs./ac	..——.....	Grows similar to Tall Fescue.
Common Bermuda unhulled seed with temporary cover	10 lbs./ac	——.....——	Plant with winter annuals
Common Bermuda unhulled seed w/other perennials	6 lbs./ac	——.....——	Plant with Tall Fescue.

Solid lines indicate optimum dates, dotted lines indicate permissible but marginal dates.

FERTILIZER REQUIREMENTS

WARM SEASON GRASSES			
YEAR	EQUIVALENT N-P-K	ANALYSIS OR RATE	N TOP DRESSING RATE
First	6-12-12	1500 lbs./ac.	50-100 lbs./ac. 2/6/
Second	6-12-12	800 lbs./ac.	50-100 lbs./ac. 2/
Maintenance	10-10-10	400 lbs./ac.	30 lbs./ac.

COOL SEASON GRASSES			
YEAR	EQUIVALENT N-P-K	ANALYSIS OR RATE	N TOP DRESSING RATE
First	6-12-12	1500 lbs./ac.	50 lbs./ac./6/
Second	0-10-10	1000 lbs./ac.	------
Maintenance	0-10-10	400 lbs./ac.	------

DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION) Ds3

DEFINITION
THE PLANTING OF PERENNIAL VEGETATION SUCH AS TREES, SHRUBS, VINES, GRASSES, OR LEGUMES ON EXPOSED AREAS FOR FINAL PERMANENT STABILIZATION. PERMANENT PERENNIAL VEGETATION SHALL BE USED TO ACHIEVE FINAL STABILIZATION.

CONDITIONS
PERMANENT PERENNIAL VEGETATION IS USED TO PROVIDE A PROTECTIVE COVER FOR EXPOSED AREAS INCLUDING CUTS, FILLS, DAMS, AND OTHER DENUDED AREAS.

SPECIFICATIONS
GRADING AND SHAPING
GRADING AND SHAPING MAY NOT BE REQUIRED WHERE HYDRAULIC SEEDING AND FERTILIZING EQUIPMENT IS TO BE USED. VERTICAL BANKS SHALL BE SLOPED TO ENABLE PLANT ESTABLISHMENT. WHEN CONVENTIONAL SEEDING AND FERTILIZING ARE TO BE DONE, GRADE AND SHAPE WHERE FEASIBLE AND PRACTICAL, SO THAT EQUIPMENT CAN BE USED SAFELY AND EFFICIENTLY DURING SEEDBED PREPARATION, SEEDING, MULCHING AND MAINTENANCE OF THE VEGETATION. CONCENTRATIONS OF WATER THAT WILL CAUSE EXCESSIVE SOIL EROSION SHALL BE DIVERTED TO A SAFE OUTLET. DIVERSIONS AND OTHER TREATMENT PRACTICES SHALL CONFORM WITH THE APPROPRIATE STANDARDS AND SPECIFICATIONS.

SEEDBED PREPARATION
SEEDBED PREPARATION MAY NOT BE REQUIRED WHERE HYDRAULIC SEEDING AND FERTILIZING EQUIPMENT IS TO BE USED (BUT IS STRONGLY RECOMMENDED FOR ANY SEEDING PROCESS, WHEN POSSIBLE). WHEN CONVENTIONAL SEEDING IS TO BE USED, SEEDBED PREPARATION WILL BE DONE AS FOLLOWS:

BROADCAST PLANTINGS
1. TILLAGE, AT A MINIMUM, SHALL ADEQUATELY LOOSEN THE SOIL TO A DEPTH OF 4 TO 6 INCHES; ALLEVIATE COMPACTION; INCORPORATE LIME AND FERTILIZER; SMOOTH AND FIRM THE SOIL; ALLOW FOR THE PROPER PLACEMENT OF SEED, SPRIGS, OR PLANTS; AND ALLOW FOR THE ANCHORING OF STRAW OR HAY MULCH IF A DISK IS TO BE USED.
2. TILLAGE MAY BE DONE WITH ANY SUITABLE EQUIPMENT.
3. TILLAGE SHOULD BE DONE ON THE CONTOUR WHERE FEASIBLE.
4. ON SLOPES TOO STEEP FOR THE SAFE OPERATION OF TILLAGE EQUIPMENT, THE SOIL SURFACE SHALL BE PITTED OR TRENCHED ACROSS THE SLOPE WITH APPROPRIATE HAND TOOLS TO PROVIDE TWO PLACES 6 TO 8 INCHES APART IN WHICH SEED MAY LODGE AND GERMINATE. HYDRAULIC SEEDING MAY ALSO BE USED.

INDIVIDUAL PLANTS
1. WHERE INDIVIDUAL PLANTS ARE TO BE SET, THE SOIL SHALL BE PREPARED BY EXCAVATING HOLES, OPENING FURROWS, OR DIBBLE PLANTING.
2. FOR NURSERY STOCK PLANTS, HOLES SHALL BE LARGE ENOUGH TO ACCOMMODATE ROOTS WITHOUT CROWDING.
3. WHERE PINE SEEDLINGS ARE TO BE PLANTED, SUBSOIL UNDER THE ROW 36 INCHES DEEP ON THE CONTOUR FOUR TO SIX MONTHS PRIOR TO PLANTING. SUBSOILING SHOULD BE DONE WHEN THE SOIL IS DRY, PREFERABLY IN AUGUST OR SEPTEMBER.

PLANTING
HYDRAULIC SEEDING
MIX THE SEED (INNOCULATED IF NEEDED), FERTILIZER, AND WOOD CELLULOSE OR WOOD PULP FIBER MULCH WITH WATER AND APPLY IN A SLURRY UNIFORMLY OVER THE AREA TO BE TREATED. APPLY WITHIN ONE HOUR AFTER THE MIXTURE IS MADE.

CONVENTIONAL SEEDING
SEEDING WILL BE DONE ON A FRESHLY PREPARED AND FIRMED SEEDBED. FOR BROADCAST PLANTING, USE A CULTI-PACKER-SEEDER, DRILL ROTARY SEEDER, OTHER MECHANICAL SEEDER, OR HAND SEEDING TO DISTRIBUTE THE SEED UNIFORMLY OVER THE AREA TO BE TREATED. COVER THE SEED LIGHTLY WITH 1/8 TO 1/4 INCH OF SOIL FOR SMALL SEED AND 1/2 TO 1 INCH FOR LARGE SEED WHEN USING A CULTIPACKER OR OTHER SUITABLE EQUIPMENT.

NO-TILLING SEEDING
NO-TILL SEEDING IS PERMISSIBLE INTO ANNUAL COVER CROPS WHEN PLANTING IS DONE FOLLOWING MATURITY OF THE COVER CROP OR IF THE TEMPORARY COVER STAND IS SPARSE ENOUGH TO ALLOW ADEQUATE GROWTH OF THE PERMANENT (PERENNIAL) SPECIES. NO-TILL SEEDING SHALL BE DONE WITH APPROPRIATE NO-TILL SEEDING EQUIPMENT. THE SEED MUST BE UNIFORMLY DISTRIBUTED AND PLANTED AT THE PROPER DEPTH.

INDIVIDUAL PLANTS
SHRUBS, VINES AND SPRIGS MAY BE PLANTED WITH APPROPRIATE PLANTERS OR HAND TOOLS. PINE TREES SHALL BE PLANTED MANUALLY IN THE SUBSOIL FURROW. EACH PLANT SHALL BE SET IN A MANNER THAT WILL AVOID CROWDING THE ROOTS.

NURSERY STOCK PLANTS SHALL BE PLANTED AT THE SAME DEPTH OR SLIGHTLY DEEPER THAN THEY GREW AT THE NURSERY. THE TIPS OF VINES AND SPRIGS MUST BE AT OR SLIGHTLY ABOVE THE GROUND SURFACE.

WHERE INDIVIDUAL HOLES ARE DUG, FERTILIZER SHALL BE PLACED IN THE BOTTOM OF THE HOLE, TWO INCHES OF SOIL SHALL BE ADDED AND THE PLANT SHALL BE SET IN THE HOLE.

MULCHING
MULCH IS REQUIRED FOR ALL PERMANENT VEGETATION APPLICATIONS. MULCH APPLIED TO SEEDED AREAS SHALL RECEIVE 75% TO 100% SOIL COVER. WHEN SELECTING A MULCH, DESIGN PROFESSIONALS SHOULD CONSIDER THE MULCH'S FUNCTIONAL LONGEVITY, VEGETATION ESTABLISHMENT ENHANCEMENT, AND EROSION CONTROL EFFECTIVENESS. SELECT THE MULCHING MATERIAL FROM THE FOLLOWING AND APPLY AS INDICATED:
1. *DRY STRAW OR DRY HAY* OF GOOD QUALITY AND FREE OF WEED SEEDS CAN BE USED. DRY STRAW SHALL BE APPLIED AT THE RATE OF 2 TONS PER ACRE. DRY HAY SHALL BE APPLIED AT A RATE OF 2 1/2 TONS PER ACRE.
2. *WOOD CELLULOSE MULCH* OR *WOOD PULP FIBER* SHALL BE USED WITH HYDRAULIC SEEDING. IT SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE. DRY STRAW OR DRY HAY SHALL BE APPLIED (AT THE RATE INDICATED ABOVE) AFTER HYDRAULIC SEEDING.
3. ONE THOUSAND POUNDS OF *WOOD CELLULOSE* OR *WOOD PULP FIBER*, WHICH INCLUDES A TACKIFIER, SHALL BE USED WITH HYDRAULIC SEEDING ON SLOPES 1/4:1 OR STEEPER.
4. *SERICEA LESPEDEZA* HAY CONTAINING MATURE SEED SHALL BE APPLIED AT A RATE OF THREE TONS PER ACRE.
5. *PINE STRAW* OR *PINE BARK* SHALL BE APPLIED AT A THICKNESS OF 3 INCHES FOR BEDDING PURPOSES. OTHER SUITABLE MATERIALS IN SUFFICIENT QUANTITY MAY BE USED WHERE ORNAMENTALS OR OTHER GROUND COVERS ARE PLANTED. THIS IS NOT APPROPRIATE FOR SEEDED AREAS.
6. WHEN USING TEMPORARY EROSION CONTROL BLANKETS OR BLOCK SOD, MULCH IS NOT REQUIRED.
7. *BITUMINOUS TREATED ROVING* MAY BE APPLIED ON PLANTED AREAS, SLOPES, IN DITCHES OR DRY WATERWAYS TO PREVENT EROSION. BITUMINOUS TREATED RIVING SHALL BE APPLIED WITHIN 24 HOURS AFTER AN AREA HAS BEEN PLANTED. APPLICATION RATES AND MATERIALS MUST MEET GEORGIA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.
WOOD CELLULOSE AND WOOD PULP FIBERS SHALL NOT CONTAIN GERMINATION OR GROWTH INHIBITING FACTORS. THEY SHALL BE EVENLY DISPERSED WHEN AGITATED IN WATER. THE FIBERS SHALL CONTAIN A DYE TO ALLOW VISUAL METERING AND AID IN UNIFORM APPLICATION DURING SEEDING.

APPLYING MULCH
STRAW OR *HAY MULCH* WILL BE SPREAD UNIFORMLY WITHIN 24 HOURS AFTER SEEDING AND/OR PLANTING. THE MULCH MAY BE SPREAD BY BLOWER-TYPE SPREADING EQUIPMENT, OTHER SPREADING EQUIPMENT OR BY HAND. MULCH SHALL BE APPLIED TO COVER 75% OF THE SOIL SURFACE.
WOOD CELLULOSE OR *WOOD FIBER MULCH* SHALL BE APPLIED UNIFORMLY WITH HYDRAULIC SEEDING EQUIPMENT.

ANCHORING MULCH
ANCHOR STRAW OR HAY MULCH IMMEDIATELY AFTER APPLICATION BY ONE OF THE FOLLOWING METHODS:
1. *HAY AND STRAW MULCH* SHALL BE PRESSED INTO THE SOIL IMMEDIATELY AFTER THE MULCH IS SPREAD. A SPECIAL "PACKER DISK" OR DISK HARROW WITH THE DISKS SET STRAIGHT MAY BE USED. THE DISKS MAY BE SMOOTH OR SERRATED AND SHOULD BE 20 INCHES OR MORE IN DIAMETER AND 8 TO 12 INCHES APART. THE EDGES OF THE DISKS SHALL BE DULL ENOUGH TO PRESS THE MULCH INTO THE GROUND WITHOUT CUTTING IT, LEAVING MUCH OF IT IN AN ERECT POSITION. MULCH SHALL NOT BE PLOWED INTO THE SOIL.
2. *SYNTHETIC TACKIFIERS, FINDERS OR HYDRAULIC MULCH SPECIFICALLY* DESIGNED TO TACK STRAW, SHALL BE APPLIED IN CONJUNCTION WITH OR IMMEDIATELY AFTER THE MULCH IS SPREAD. SYNTHETIC TACKIFIERS SHALL BE MIXED AND APPLIED ACCORDING TO MANUFACTURER'S SPECIFICATIONS. ALL TACKIFIERS, FINDERS OR HYDRAULIC MULCH SPECIFICALLY DESIGNED TO TACK STRAW SHOULD BE VERIFIED NONTOXIC THROUGH EPA 2021.0 TESTING. REFER TO TACKIFIERS-TAC IN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, SIXTH EDITION.
3. *RYE OR WHEAT* CAN BE INCLUDED WITH FALL AND WINTER PLANTINGS TO STABILIZE THE MULCH. THEY SHALL BE APPLIED AT A RATE OF ONE-QUARTER TO ONE-HALF BUSHED PER ACRE.
4. *PLASTIC MESH OR NETTING* WITH MESH NO LARGER THAN ONE INCH BY ONE INCH MAY BE NEEDED TO ANCHOR STRAW OR HAY MULCH ON UNSTABLE SOILS AND CONCENTRATED FLOW AREAS. THESE MATERIALS SHALL BE INSTALLED AND ANCHORED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.

IRRIGATION
IRRIGATION WILL BE APPLIED AT A RATE THAT WILL NOT CAUSE RUNOFF.

DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING) Ds2

DEFINITION
THE ESTABLISHMENT OF TEMPORARY VEGETATION COVER WITH FAST GROWING SEEDINGS FOR SEASONAL PROTECTION ON DISTURBED OR DENUDED AREAS.

CONDITIONS
TEMPORARY VEGETATIVE MEASURES SHOULD BE COORDINATED WITH PERMANENT MEASURES TO ASSURE ECONOMICAL AND EFFECTIVE STABILIZATION. MOST TYPES OF TEMPORARY VEGETATION ARE IDEAL TO USE AS COMPANION CROPS UNTIL THE PERMANENT VEGETATION IS ESTABLISHED. NOTE: SOME SPECIES OF TEMPORARY VEGETATION ARE NOT APPROPRIATE FOR COMPANION CROP PLANTINGS BECAUSE OF THEIR POTENTIAL TO OUT-COMPETE THE DESIRED SPECIES. (E.G. ANNUAL RYEGRASS). CONTACT NRCS OR THE LOCAL SWCD FOR MORE INFORMATION.

SPECIFICATIONS
GRADING AND SHAPING
EXCESSIVE WATER RUN-OFF SHALL BE REDUCED BY PROPERLY DESIGNED AND INSTALLED EROSION CONTROL PRACTICES SUCH AS CLOSED DRAINS, DITCHES, DIKES, DIVERSIONS, SEDIMENT BARRIERS AND OTHERS. NO SHAPING OR GRADING IS REQUIRED IF SLOPES CAN BE STABILIZED BY HAND-SEEDED VEGETATION OR IF HYDRAULIC SEEDING EQUIPMENT IS TO BE USED.

SEEDBED PREPARATION
WHEN A HYDRAULIC SEEDER IS USED, SEEDBED PREPARATION IS NOT REQUIRED. WHEN USING CONVENTIONAL OR HAND-SEEDING, SEEDBED PREPARATION IS NOT REQUIRED IF THE SOIL MATERIAL IS LOOSE AND NOT SEALED BY RAINFALL. WHEN SOIL HAS BEEN SEALED BY RAINFALL OR CONSISTS OF SMOOTH CUT SLOPES, THE SOIL SHALL BE PITTED, TRENCHED OR OTHERWISE SCARIFIED TO PROVIDE A PLACE FOR SEED TO LEDGE AND GERMINATE.

LIME AND FERTILIZER
AGRICULTURAL LIME IS REQUIRED UNLESS SOIL TESTS INDICATE OTHERWISE. APPLY AGRICULTURAL LIME AT A RATE DETERMINED BY SOIL TEST FOR pH. QUICK ACTING LIME SHOULD BE INCORPORATED TO MODIFY pH DURING THE GERMINATION PERIOD. BIO STIMULANTS SHOULD ALSO BE CONSIDERED WHEN THERE IS LESS THAN 3% ORGANIC MATTER IN THE SOIL. GRADED AREAS REQUIRE LIME APPLICATION. SOILS MUST BE TESTED TO DETERMINE REQUIRED AMOUNTS OF FERTILIZER AND AMENDMENTS. FERTILIZER SHOULD BE APPLIED BEFORE LAND PREPARATION AND INCORPORATED WITH A DISK, RIPPER, OR CHISEL. ON SLOPES TOO STEEP FOR, OR INACCESSIBLE TO EQUIPMENT, FERTILIZER SHALL BE HYDRAULICALLY APPLIED, PREFERABLY IN THE FIRST PASS WITH SEED AND SOME HYDRAULIC MULCH, THEN TOPPED WITH THE REMAINING REQUIRED APPLICATION RATE.

SEEDING SELECT A GRASS OR GRASS-LEGUME MIXTURE SUITABLE TO THE AREA AND SEASON OF THE YEAR. SEED SHALL BE APPLIED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL, SULTI-PACKER-SEEDER, OR HYDRAULIC SEEDER (SLURRY INCLUDING SEED AND FERTILIZER). DRILL OR CULTIPACKER SEEDERS SHOULD NORMALLY PLACE SEED ONE-QUARTER TO ONE-HALF INCH DEEP. APPROPRIATE DEPTH OF PLANTING IS TEN TIMES THE SEED DIAMETER. SOIL SHOULD BE "RAKED" LIGHTLY TO COVER SEED WITH SOIL IF SEEDED BY HAND. SE TABLE 6-4.1 IN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, SIXTH EDITION, 2014.

MULCHING
TEMPORARY VEGETATION CAN, IN MOST CASES, BE ESTABLISHED WITHOUT THE USE OF MULCH, PROVIDED THERE IS LITTLE TO NO EROSION POTENTIAL. HOWEVER, THE USE OF MULCH CAN OFTEN ACCELERATE AND ENHANCE GERMINATION AND VEGETATION ESTABLISHMENT. MULCH WITHOUT SEEDING SHOULD BE CONSIDERED FOR SHORT TERM PROTECTION. REFER TO Ds1-DISTURBED AREA STABILIZATION (WITH MULCHING ONLY) IN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, SIXTH EDITION, 2014.

IRRIGATION
DURING TIMES OF DROUGHT, WATER SHALL BE APPLIED AT A RATE NOT CAUSING RUNOFF AND EROSION. THE SOIL SHALL BE THOROUGHLY WETTED TO A DEPTH THAT WILL INSURE GERMINATION OF THE SEED. SUBSEQUENT APPLICATIONS SHOULD BE MADE WHEN NEEDED.

SEEDING RATES FOR TEMPORARY SEEDING

BROADCAST SPECIES	RATES	PLANTING DATES J F M A M J J A S O N D	COMMENTS
Barley alone	144 lbs./ac	..——.....	Winter hardy, use on productive soils
Barley in mixture	24 lbs./ac	..——.....	
Lespedeza, Annual alone	40 lbs./ac	...——.....	May volunteer for several years. Use inoculant EL.
Lespedeza, Annual in mixture	10 lbs./ac	...——.....	
Lovegrass, Weeping alone	4 lbs./ac	....———.....	May last for several years. Mix with Sericea Lespedeza.
Lovegrass, Weeping in mixture	2 lbs./ac	....———.....	
Millet, Browntop alone	40 lbs./ac	...———....	Quick dense cover. Will provide too much competition in mixtures if seeded at high rates.
Millet, Browntop in mixture	10 lbs./ac	...———....	
Millet, Pearl alone	50 lbs./ac	...———.....	Quick dense cover. May reach 5 feet in height. NOT recommended for mixtures.
Oats alone	128 lbs./ac	..——.....	Use on productive soils. Not as winter hardy as rye or barley.
Oats in mixture	32 lbs./ac	..——.....	
Rye alone	168 lbs./ac	..——.....	Quick cover. Drought tolerant and winter hardy.
Rye in mixture	28 lbs./ac	..——.....	
Ryegrass, Annual alone	40 lbs./ac	..——.....	Dense cover. Very competitive and NOT to be used in mixtures.
Sudangrass alone	60 lbs./ac	...———.....	Good on droughty sites. NOT recommended for mixtures.
Triticale alone	144 lbs./ac	..——.....	Use on lower part of Southern Coastal Plain and in Atlantic Coastal Flatwoods only.
Triticale in mixture	24 lbs./ac	..——.....	
Wheat alone	180 lbs./ac	..——.....	Winter hardy.
Wheat w/other perennials	30 lbs./ac	..——.....	

Solid lines indicate optimum dates, dotted lines indicate permissible but marginal dates.

REFERENCES:

1. MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA.
2. FOR A COMPLETE DRAWING LIST SEE SHEET 1.
3. SEE SHEET 3 FOR GENERAL NOTES AND REFERENCES.

GEORGIA REGISTERED No. PE041928 PROFESSIONAL ENGINEER JOHN MATTHEW TRAST

Georgia Power

EROSION CONTROL SECTIONS & DETAILS

PERMIT DRAWINGS

GEORGIA POWER COMPANY
PLANT MCINTOSH COAL COMBUSTION RESIDUALS (CCR)
EXISTING LANDFILL NO. 4
EFFINGHAM, GEORGIA

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PROJ. NO.	1702944	DWG. 24	EDIT
SCALE	NONE	SHEET 24 OF 29	
DATE	NOVEMBER 2018		

PURPOSE
TO MINIMIZE AND PREVENT SEDIMENT CARRIED BY SHEET FLOW FROM LEAVING THE SITE AND ENTERING NATURAL DRAINAGE WAYS OR STORM DRAINAGE SYSTEMS BY SLOWING STORM WATER RUNOFF AND CAUSING THE DEPOSITION AND/OR FILTRATION OF SEDIMENT AT THE STRUCTURE. THE BARRIERS RETAIN THE SOIL ON THE DISTURBED LAND UNTIL THE ACTIVITIES DISTURBING THE LAND ARE COMPLETED AND VEGETATION IS ESTABLISHED.

PERFORMANCE EVALUATION
FOR A PRODUCT OR PRACTICE TO BE APPROVED AS A SEDIMENT BARRIER, THAT PRODUCT OR PRACTICE MUST HAVE A DOCUMENTED P–FACTOR NO GREATER THAN 0.045 FOR NON–SENSITIVE AREAS OR A P–FACTOR NO GREATER THAN 0.030 FOR SENSITIVE AREAS, AS SPECIFIED BY GSWCC. FOR COMPLETE TEST PROCEDURES AND APPROVED PRODUCTS LIST PLEASE VISIT WWW.GASWCC.GEORGIA.GOV.

DESIGN CRITERIA
SEDIMENT BARRIERS ARE DESIGNED TO RETAIN SEDIMENT TRANSPORTED BY SHEET FLOW FROM DISTURBED AREAS. IT IS IMPORTANT FOR THE DESIGN PROFESSIONAL TO TAKE INTO ACCOUNT THE PROFILE OF THE PRODUCT FOR USE ON THE SITE.
ALL SEDIMENT BARRIERS SHALL MEET THE REQUIRED P–FACTOR PERFORMANCE LEVEL. SUPPORTING INFORMATION ON TESTING CAN BE FOUND AT WWW.GASWCC.GEORGIA.GOV, UNDER, DOCUMENTS.
SEDIMENT BARRIERS SHOULD ALSO PROVIDE A RIPRAP SPLASH PAD OR OTHER OUTLET PROTECTION DEVICE FOR ANY POINT WHERE FLOW MAY OVERTOP THE SEDIMENT BARRIER. ENSURE THAT THE MAXIMUM HEIGHT OF THE BARRIER AT A PROTECTED, REINFORCED OUTLET DOES NOT EXCEED 1 FOOT AND THAT THE SUPPORT SPACING DOES NOT EXCEED 4 FEET.
WHERE ALL RUNOFF IS TO BE STORED BEHIND THE SEDIMENT BARRIER (WHERE NO STORM WATER DISPOSAL SYSTEM IS PRESENT), MAXIMUM CONTINUOUS SLOPE LENGTH BEHIND A SEDIMENT BARRIER SHALL NOT EXCEED THOSE SHOWN IN CRITERIA FOR SEDIMENT BARRIER TABLE. FOR LONGER SLOPE LENGTHS, SLOPE INTERRUPTERS MUST BE USED. THE DRAINAGE AREA SHALL NOT EXCEED 1/4 ACRE FOR EVERY 100 FEET OF SEDIMENT BARRIER.

PLACEMENT
WHEN USING A SEDIMENT BARRIER THE DESIGN PROFESSIONAL MUST DETERMINE TYPE NS OR TYPE S. SENSITIVE AREAS CAN BE DEFINED AS ANY AREA THAT NEEDS ADDITIONAL PROTECTION, THESE AREAS INCLUDE BUT ARE NOT LIMITED TO, STATE WATERS, WETLANDS, OR ANY AREA THE DESIGN PROFESSIONAL DESIGNATES AS SENSITIVE.
WHEN USING MULTIPLE TYPES OF SEDIMENT BARRIERS ON A SITE IN A SINGLE RUN THE BARRIERS MUST BE OVERLAPPED 18 INCHES OR AS SPECIFIED BY DESIGN PROFESSIONAL. SEE OVERLAP AT FABRIC ENDS DETAIL.

CONSTRUCTION SPECIFICATIONS

TYPE S SEDIMENT BARRIER Sd1–S
SENSITIVE AREAS
SEDIMENT BARRIERS BEING USED AS TYPE S SHALL HAVE A SUPPORT SPACING OF NO GREATER THAN 4 FEET ON CENTER, WITH EACH DRIVEN INTO THE GROUND 18 INCHES. TYPE S SEDIMENT BARRIERS SHALL HAVE A P–FACTOR NO GREATER THAN 0.030.

INSTALLATION
SEDIMENT BARRIERS SHOULD BE INSTALLED ALONG THE CONTOUR.
TEMPORARY SEDIMENT BARRIERS SHALL BE INSTALLED ACCORDING TO THE FOLLOWING SPECIFICATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE DESIGN PROFESSIONAL.
FOR INSTALLATION OF THE BARRIERS, SEE DETAILS. IT IS IMPORTANT TO REMEMBER THAT NOT ALL SEDIMENT BARRIERS NEED TO BE TRENCHED INTO THE GROUND BUT MOST TALLER SEDIMENT BARRIERS DO.
POST INSTALLATION SHALL START AT THE CENTER OF A LOW POINT (IF APPLICABLE) WITH THE REMAINING POSTS SPACED NO GREATER THAN 6 FEET APART FOR TYPE NS SEDIMENT BARRIERS AND NO GREATER THAN 4 FEET APART FOR TYPE S SEDIMENT BARRIERS. FOR POST SIZE REQUIREMENT, SEE POST SIZE TABLE. FASTENERS FOR WOOD POSTS ARE LISTED IN FASTENERS FOR WOOD POSTS TABLE.

TRENCHING METHOD
TRENCHING MACHINES HAVE BEEN USED FOR OVER TWENTY–FIVE YEARS TO DIG A TRENCH FOR BURYING PART OF THE FILTER FABRIC UNDERGROUND. USUALLY THE TRENCH IS ABOUT 2"–6" WIDE WITH A 6" EXCAVATION. POST SETTING AND FABRIC INSTALLATION OFTEN PRECEDE COMPACTION, WHICH MAKE EFFECTIVE COMPACTION MORE DIFFICULT TO ACHIEVE. EPA SUPPORTED AN INDEPENDENT TECHNOLOGY EVALUATION (ASCE 2001), WHICH COMPARED THREE PROGRESSIVELY BETTER VARIATIONS OF THE TRENCHING METHOD WITH STATIC SLICING METHOD. THE STATIC SLICING METHOD PERFORMED BETTER THAN TWO LOWER PERFORMANCE LEVELS OF THE TRENCHING METHOD, AND WAS AS GOOD AS OR BETTER THAN THE TRENCHING METHOD'S HIGHEST PERFORMANCE LEVEL. THE BEST TRENCHING METHOD TYPICALLY REQUIRED NEARLY TRIPLE THE TIME AND EFFORT TO ACHIEVE RESULTS COMPARABLE TO THE STATIC SLICING METHOD.
ALONG ALL STATE WATERS AND OTHER SENSITIVE AREAS, TWO ROWS OF TYPE S SEDIMENT BARRIERS SHALL BE USED. THE TWO ROWS TYPE S SHOULD BE PLACED A MINIMUM OF 36 INCHES APART.

MAINTENANCE
SEDIMENT SHALL BE REMOVED ONCE IT HAS ACCUMULATED TO ONE–HALF THE ORIGINAL HEIGHT OF THE BARRIER. THIS IS EXTREMELY IMPORTANT WHEN SELECTING BMPs WITH A LOWER PROFILE.
SEDIMENT BARRIERS SHALL BE REPLACED WHENEVER THEY HAVE DETERIORATED TO SUCH AN EXTENT THAT THE EFFECTIVENESS OF THE PRODUCT IS REDUCED (APPROXIMATELY SIX MONTHS) OR THE HEIGHT OF THE PRODUCT IS NOT MAINTAINING 80% OF ITS PROPERLY INSTALLED HEIGHT.
TEMPORARY SEDIMENT BARRIERS SHALL REMAIN IN PLACE UNTIL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED. ALL SEDIMENT ACCUMULATED AT THE BARRIER SHALL BE REMOVED AND PROPERLY DISPOSED OF BEFORE THE BARRIER IS REMOVED.

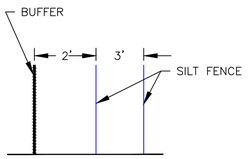
FASTENERS FOR WOOD POSTS TABLE				
	GAUGE	CROWN	LEGS	STAPLES/POST
WIRE STAPLES	17 MIN.	3/4" WIDE	1/2" LONG	5 MIN.
	GAUGE	LENGTH	BUTTON HEADS	NAIL/POST
NAILS	14 MIN.	1"	3/4"	4 MIN.
NOTE: FILTER FABRIC MAY ALSO BE ATTACHED TO THE POST BY WIRE, CHORDS, AND POCKETS OR ANY OTHER METHOD PROVIDED MINIMUM P–FACTOR, AS REQUIRED BY GSWCC, IS MET.				

POST SIZE TABLE			
TYPE	MIN. LENGTH	TYPE OF POST	SIZE OF POST
NS	4'	SOFT WOOD OAK STEEL	3" DIA. OR 2X4 1.5" X 1.5" 1.3 LB./FT. MIN.
S	4'	STEEL OAK	1.3 LB./FT. MIN. 2" X 2"

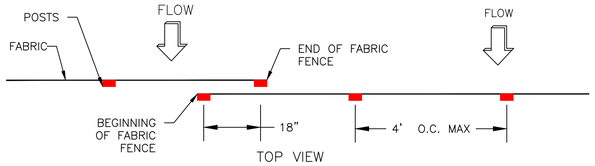
NOTE:
THE FABRIC AND WIRE SHOULD BE SECURELY FASTENED TO POSTS, AND FABRIC ENDS MUST BE OVERLAPPED A MINIMUM OF 18" OR WRAPPED TOGETHER AROUND A POST TO PROVIDE A CONTINUOUS FABRIC BARRIER AROUND THE INLET.

CRITERIA FOR SEDIMENT BARRIER

LAND SLOPE	MAXIMUM SLOPE LENGTH ABOVE FENCE
PERCENT	FEET
<2	100
2 TO 5	75
5 TO 10	50
10 TO 20	25
>20*	15
*IN AREAS WHERE THE SLOPE IS GREATER THAN 20%, A FLAT AREA LENGTH OF 10 FEET BETWEEN THE TOE OF SLOPE TO THE BARRIER SHOULD BE PROVIDED.	

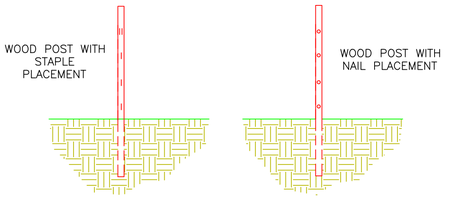


DOUBLE TYPE S SEDIMENT BARRIER SPACING
N.T.S.



TOP VIEW

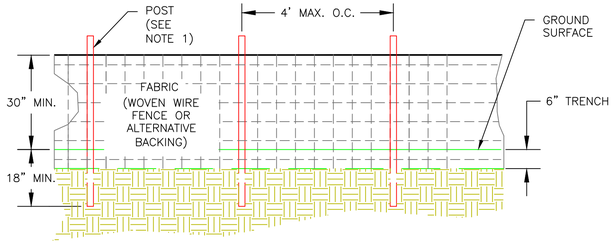
OVERLAP AT FABRIC ENDS



FRONT VIEWS

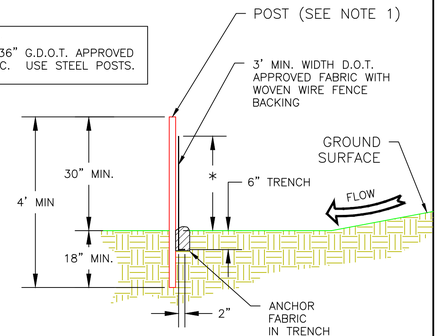
FASTERNERS FOR SILT FENCES
N.T.S.

NOTES:
1. USE STEEL OR WOOD POSTS OR AS SPECIFIED BY THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
2. HEIGHT (*) IS TO BE SHOWN ON THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.



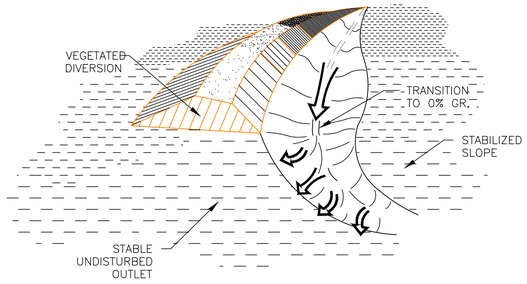
FRONT VIEW

NOTE:
USE 36" G.D.O.T. APPROVED FABRIC. USE STEEL POSTS.

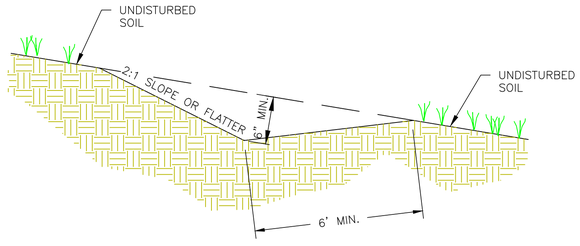


SIDE VIEW

TYPE S SEDIMENT BARRIER Sd1–S
N.T.S.



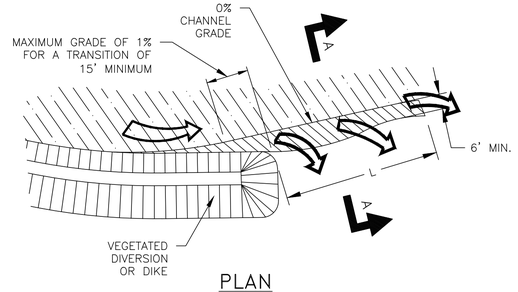
ISOMETRIC VIEW
N.T.S.



SECTION A–A

NOTES:
1. FINAL DISCHARGE WILL BE OVER THE LEVEL LIP ONTO AN UNDISTURBED, STABILIZED AREA. THE OUTLET SHALL BE GENERALLY SMOOTH TO CREATE UNIFORM SHEET FLOW.
2. GRADE OF CHANNEL FOR LAST 15 FEET OF THE DIKE OR DIVERSION ENTERING THE LEVEL SPREADER SHALL BE LESS THAN OR EQUAL TO 1%.
3. LEVEL SPREADERS MUST BE CONSTRUCTED ON UNDISTURBED SOIL (NOT ON FILL).
4. STORM RUNOFF CONVERTED TO SHEET FLOW MUST DISCHARGE ONTO UNDISTURBED STABILIZED AREAS.

DESIGNED Q10/24 (cfs)	MINIMUM LENGTH "L" (feet)
UP TO 10	10
11 TO 20	20
21 TO 30	30
31 TO 40	40
41 TO 50	50



PLAN

TYPICAL LEVEL SPREADER Lv
N.T.S.

REFERENCES:
1. MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA.
2. FOR A COMPLETE DRAWING LIST SEE SHEET 1.
3. SEE SHEET 3 FOR GENERAL NOTES AND REFERENCES.

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EROSION CONTROL SECTIONS & DETAILS

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EXISTING LANDFILL NO. 4
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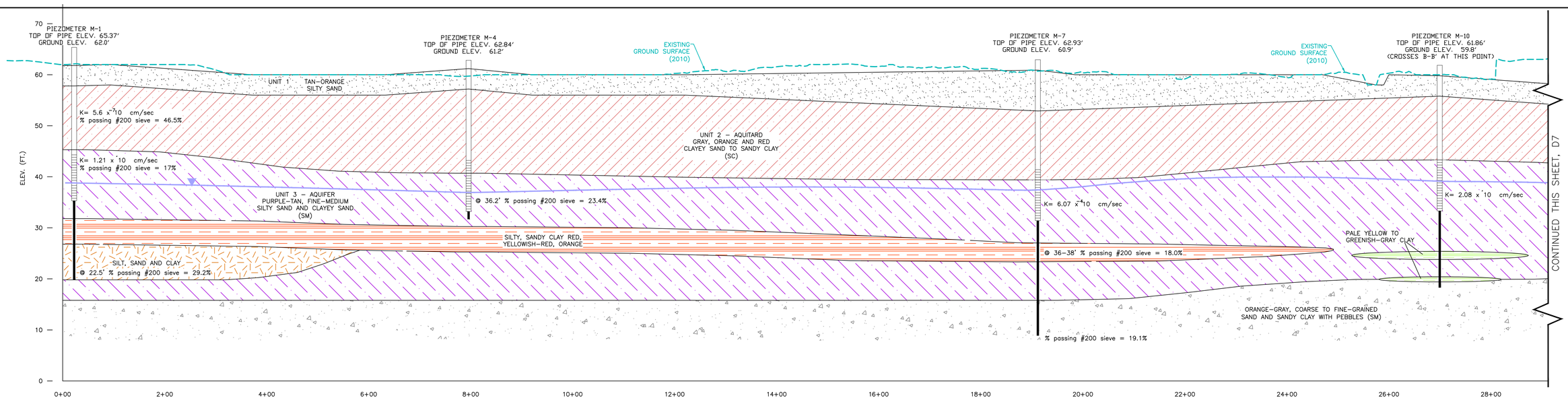
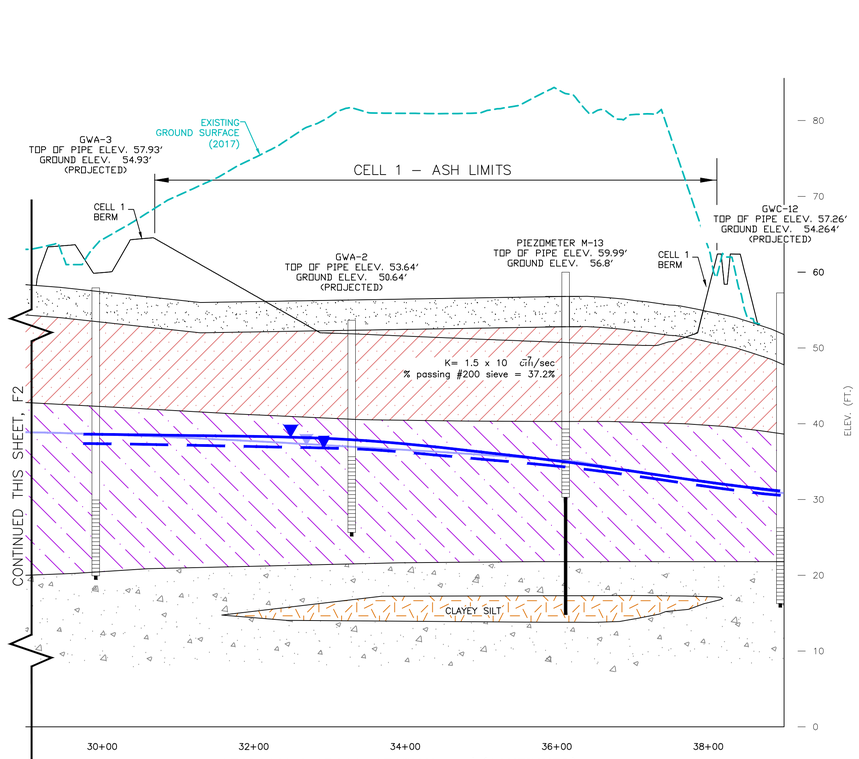
PROJ. NO.	1702944	DWG. 25	EDIT
SCALE	NONE	SHEET 25 OF 29	
DATE	NOVEMBER 2018		



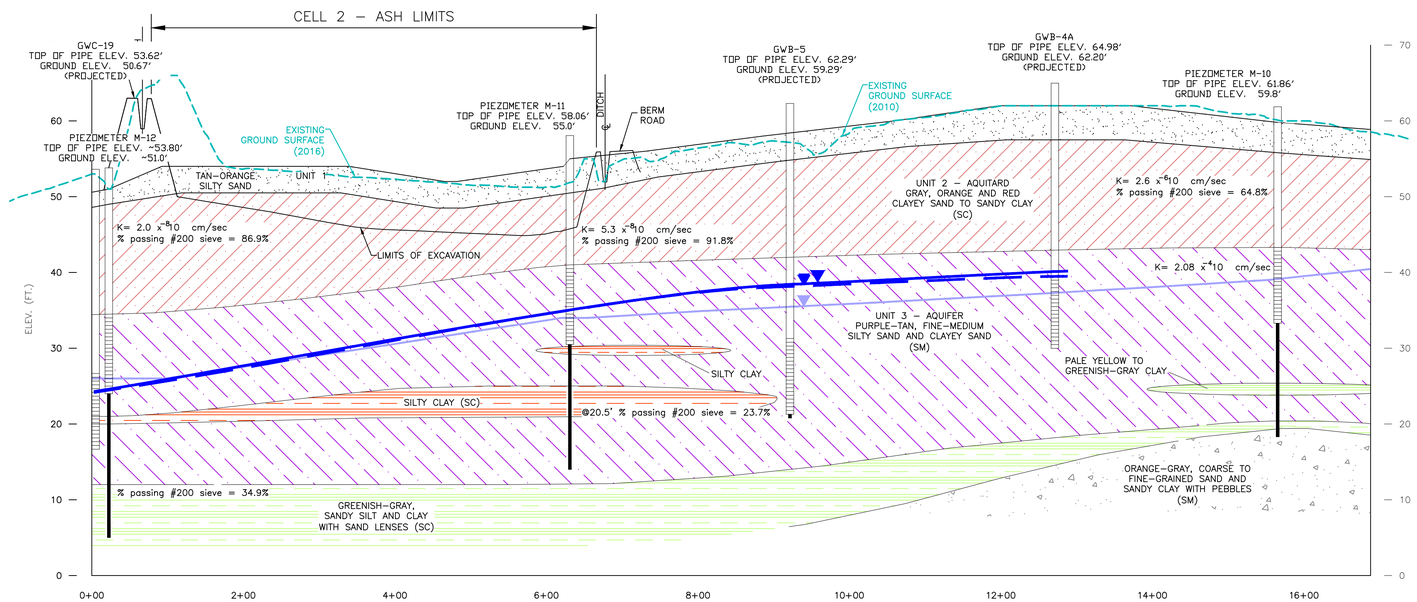
GEOLOGICAL CROSS-SECTION A-A'

SCALE H: 1"=100' V: 1"=10'



GEOLOGICAL CROSS-SECTION A-A' (CONTINUED)

SCALE H: 1"=100' V: 1"=10'



GEOLOGICAL CROSS-SECTION B-B'

SCALE H: 1"=100' V: 1"=10'

LEGEND:

WATER TABLE (2003)

LOW WATER TABLE (1/8/2018)

HIGH WATER TABLE (7/17/2017)

NOTES:

1. WATER LEVELS TAKEN FROM MAY, 2003 SAMPLING EVENT. (WELLS INSTALLED PRIOR TO 2004)
2. LOW GROUNDWATER ELEVATIONS WERE RECORDED 7/17/2017. (WELLS INSTALLED IN OR AFTER 2004)
2. HIGH GROUNDWATER ELEVATIONS WERE RECORDED BY GEI CONSULTANTS, INC., 1/8/2018. (WELLS INSTALLED IN OR AFTER 2004)

REFERENCES:

1. FOR A COMPLETE DRAWING LIST SEE SHEET 1.
2. SEE SHEET 3 FOR GENERAL NOTES AND REFERENCES.

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GEOLOGICAL CROSS-SECTION

PERMIT DRAWINGS

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PROJ. NO.	1702944	DWG. 26	EDIT
SCALE	SEE ABOVE	SHEET 26 OF 29	
DATE	NOVEMBER 2018		

LEGEND:

WATER TABLE (2003)

LOW WATER TABLE (1/8/2018)

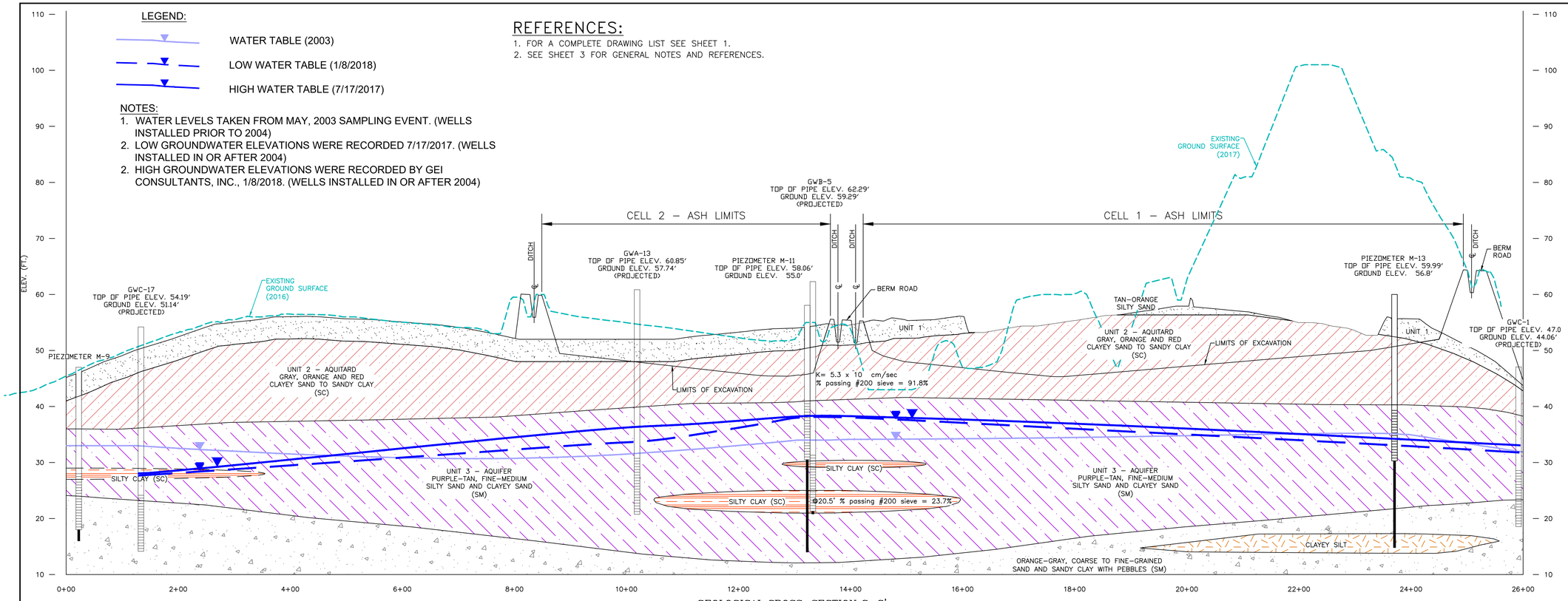
HIGH WATER TABLE (7/17/2017)

NOTES:

1. WATER LEVELS TAKEN FROM MAY, 2003 SAMPLING EVENT. (WELLS INSTALLED PRIOR TO 2004)
2. LOW GROUNDWATER ELEVATIONS WERE RECORDED 7/17/2017. (WELLS INSTALLED IN OR AFTER 2004)
2. HIGH GROUNDWATER ELEVATIONS WERE RECORDED BY GEI CONSULTANTS, INC., 1/8/2018. (WELLS INSTALLED IN OR AFTER 2004)

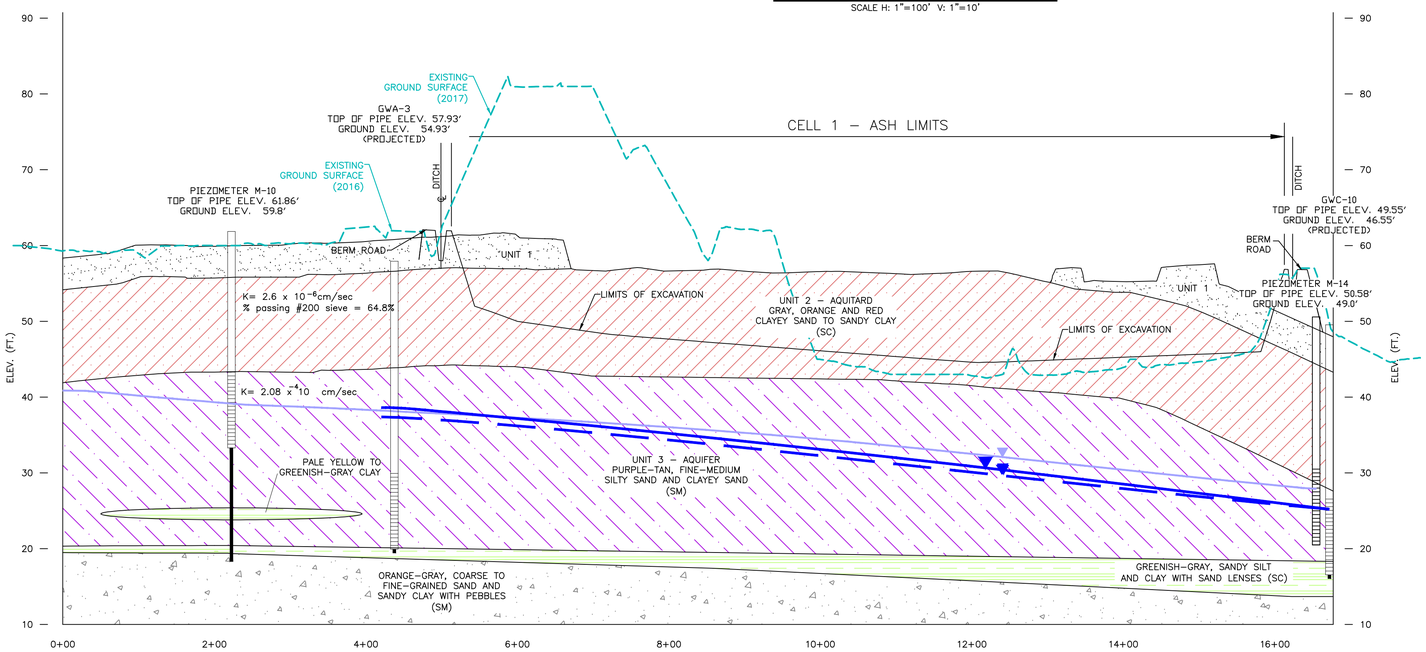
REFERENCES:

1. FOR A COMPLETE DRAWING LIST SEE SHEET 1.
2. SEE SHEET 3 FOR GENERAL NOTES AND REFERENCES.



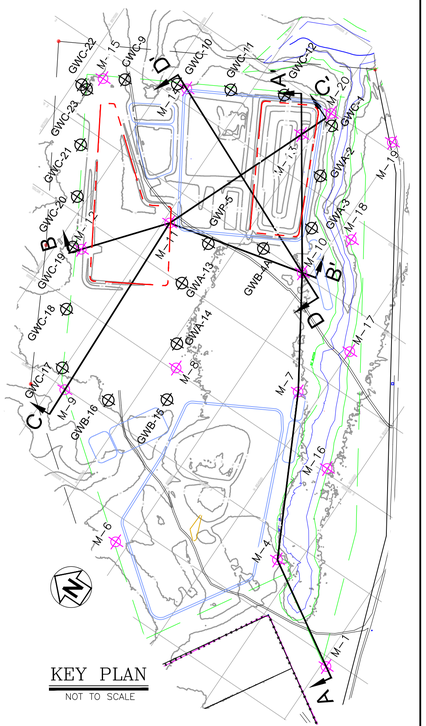
GEOLOGICAL CROSS–SECTION C–C'

SCALE H: 1"=100' V: 1"=10'



GEOLOGICAL CROSS–SECTION D–D'

SCALE H: 1"=100' V: 1"=10'



KEY PLAN

NOT TO SCALE

GEOLOGICAL CROSS-SECTION

PERMIT DRAWINGS

GEORGIA POWER COMPANY

PLANT MCINTOSH COAL COMBUSTION RESIDUALS (CCR)

EXISTING LANDFILL NO. 4

EFFINGHAM, GEORGIA

GEORGIA REGISTERED No. PEG41928 PROFESSIONAL ENGINEER JOHN MATHEW TRAST

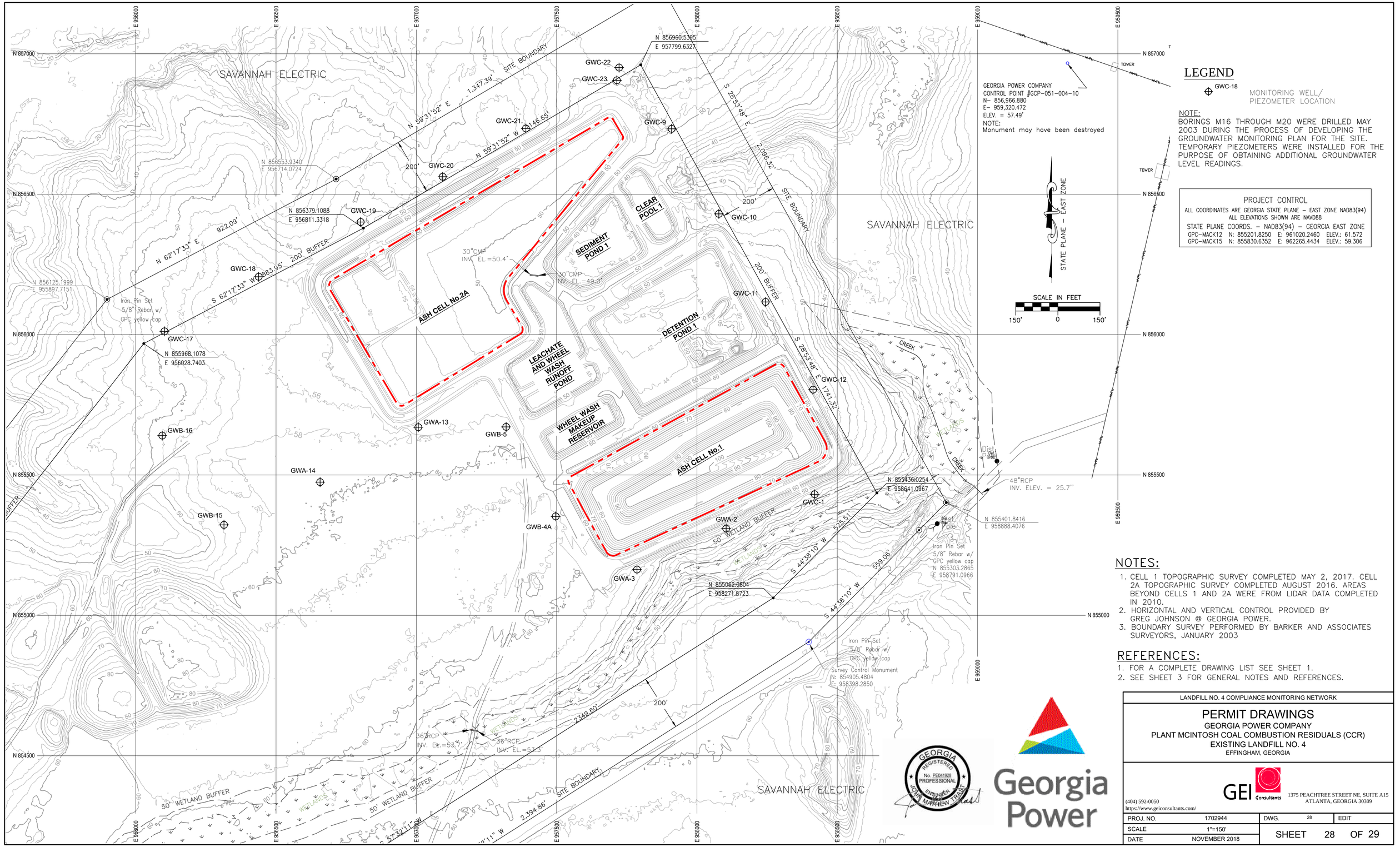
Georgia Power

GEI Consultants

1375 PEACHTREE STREET NE, SUITE A15
ATLANTA, GEORGIA 30309

(404) 592-0050
https://www.geiconsultants.com/

PROJ. NO.	1702944	DWG. 27	EDIT
SCALE	SEE ABOVE	SHEET 27 OF 29	
DATE	NOVEMBER 2018		



LEGEND

GWC-18 — MONITORING WELL/ PIEZOMETER LOCATION

NOTE:
BORINGS M16 THROUGH M20 WERE DRILLED MAY 2003 DURING THE PROCESS OF DEVELOPING THE GROUNDWATER MONITORING PLAN FOR THE SITE. TEMPORARY PIEZOMETERS WERE INSTALLED FOR THE PURPOSE OF OBTAINING ADDITIONAL GROUNDWATER LEVEL READINGS.

PROJECT CONTROL

ALL COORDINATES ARE GEORGIA STATE PLANE – EAST ZONE NAD83(94)
ALL ELEVATIONS SHOWN ARE NAVD88

STATE PLANE COORDS. – NAD83(94) – GEORGIA EAST ZONE

GPC–MACK12	N: 855201.8250	E: 961020.2460	ELEV.: 61.572
GPC–MACK15	N: 855830.6352	E: 962265.4434	ELEV.: 59.306

NOTES:

1. CELL 1 TOPOGRAPHIC SURVEY COMPLETED MAY 2, 2017. CELL 2A TOPOGRAPHIC SURVEY COMPLETED AUGUST 2016. AREAS BEYOND CELLS 1 AND 2A WERE FROM LIDAR DATA COMPLETED IN 2010.
2. HORIZONTAL AND VERTICAL CONTROL PROVIDED BY GREG JOHNSON @ GEORGIA POWER.
3. BOUNDARY SURVEY PERFORMED BY BARKER AND ASSOCIATES SURVEYORS, JANUARY 2003

REFERENCES:

1. FOR A COMPLETE DRAWING LIST SEE SHEET 1.
2. SEE SHEET 3 FOR GENERAL NOTES AND REFERENCES.

GEORGIA REGISTERED No. PE041928 PROFESSIONAL ENGINEER JOHN MATHEW TEASLEY

Georgia Power

LANDFILL NO. 4 COMPLIANCE MONITORING NETWORK

PERMIT DRAWINGS

GEORGIA POWER COMPANY
PLANT MCINTOSH COAL COMBUSTION RESIDUALS (CCR)
EXISTING LANDFILL NO. 4
EFFINGHAM, GEORGIA

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1375 PEACHTREE STREET NE, SUITE A15
ATLANTA, GEORGIA 30309
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https://www.geiconsultants.com/

PROJ. NO.	1702944	DWG. 28	EDIT
SCALE	1"=150'	SHEET	28 OF 29
DATE	NOVEMBER 2018		

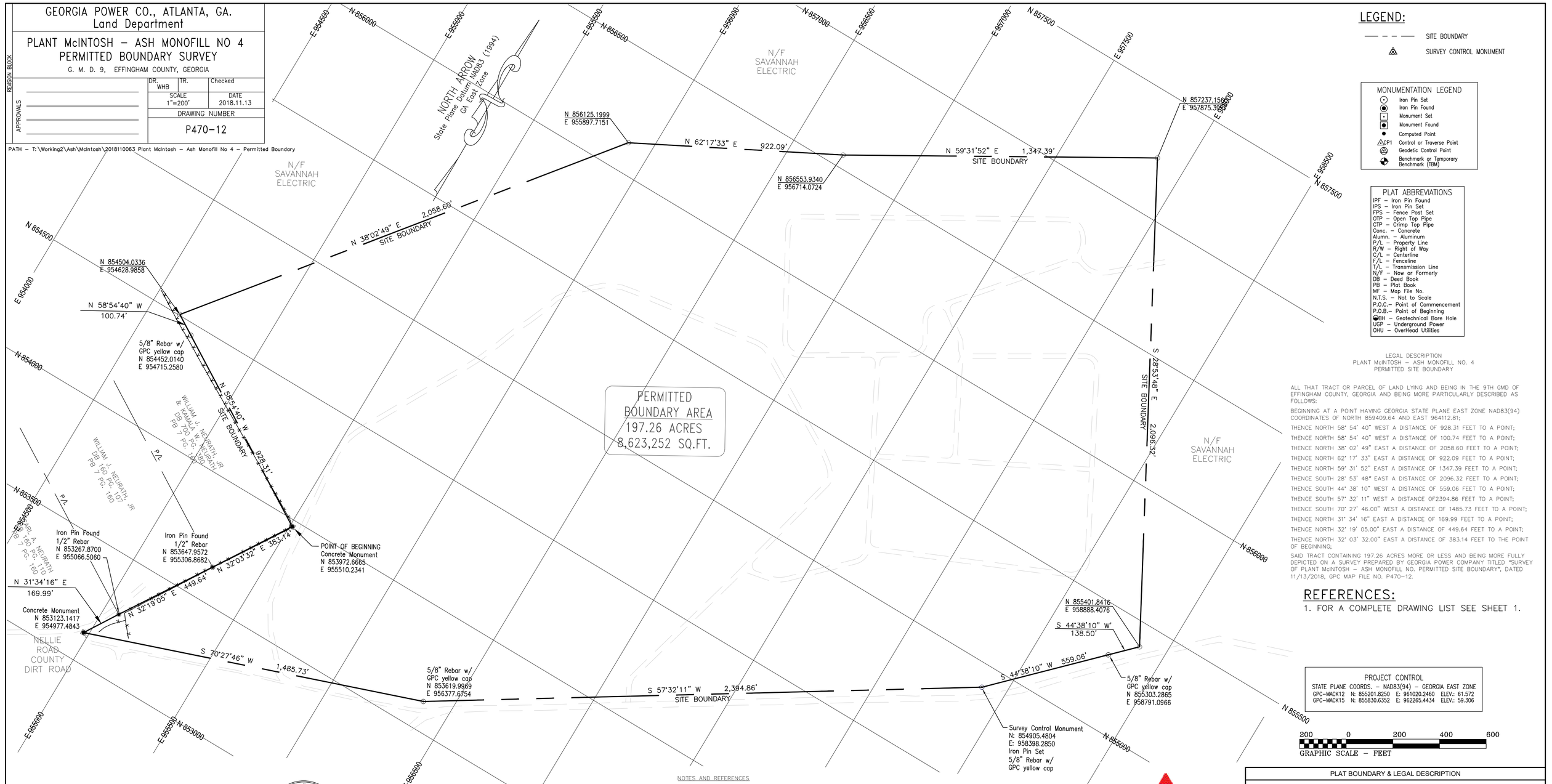
GEORGIA POWER CO., ATLANTA, GA.
Land Department

PLANT McINTOSH – ASH MONOFILL NO 4
PERMITTED BOUNDARY SURVEY
G. M. D. 9, EFFINGHAM COUNTY, GEORGIA

REVISION BLOCK / APPROVALS

DR. WHB	TR.	Checked
SCALE 1"=200'		DATE 2018.11.13
DRAWING NUMBER P470-12		

PATH – T:\Working2\Ash\McIntosh\2018110063 Plant McIntosh – Ash Monofill No 4 – Permitted Boundary



LEGEND:

SITE BOUNDARY

SURVEY CONTROL MONUMENT

MONUMENTATION LEGEND
- Iron Pin Set
- Iron Pin Found
- Monument Set
- Monument Found
- Computed Point
- △CP1 Control or Traverse Point
- Geodetic Control Point
- Benchmark or Temporary Benchmark (TBM)

PLAT ABBREVIATIONS
IPF – Iron Pin Found
IPS – Iron Pin Set
FPS – Fence Post Set
OTP – Open Top Pipe
CTP – Crimp Top Pipe
Conc. – Concrete
Alumn. – Aluminum
P/L – Property Line
R/W – Right of Way
C/L – Centerline
F/L – Fenceline
T/L – Transmission Line
N/F – Now or Formerly
DB – Deed Book
PB – Plat Book
MF – Map File No.
N.T.S. – Not to Scale
P.O.C.– Point of Commencement
P.O.B.– Point of Beginning
GBH – Geotechnical Bore Hole
UGP – Underground Power
OHU – OverHead Utilities

LEGAL DESCRIPTION
PLANT McINTOSH – ASH MONOFILL NO. 4
PERMITTED SITE BOUNDARY

ALL THAT TRACT OR PARCEL OF LAND LYING AND BEING IN THE 9TH GMD OF EFFINGHAM COUNTY, GEORGIA AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT HAVING GEORGIA STATE PLANE EAST ZONE NAD83(94) COORDINATES OF NORTH 859409.64 AND EAST 964112.81;
THENCE NORTH 58° 54' 40" WEST A DISTANCE OF 928.31 FEET TO A POINT;
THENCE NORTH 58° 54' 40" WEST A DISTANCE OF 100.74 FEET TO A POINT;
THENCE NORTH 38° 02' 49" EAST A DISTANCE OF 2058.60 FEET TO A POINT;
THENCE NORTH 62° 17' 33" EAST A DISTANCE OF 922.09 FEET TO A POINT;
THENCE NORTH 59° 31' 52" EAST A DISTANCE OF 1347.39 FEET TO A POINT;
THENCE SOUTH 28° 53' 48" EAST A DISTANCE OF 2096.32 FEET TO A POINT;
THENCE SOUTH 44° 38' 10" WEST A DISTANCE OF 559.06 FEET TO A POINT;
THENCE SOUTH 57° 32' 11" WEST A DISTANCE OF2394.86 FEET TO A POINT;
THENCE SOUTH 70° 27' 46.00" WEST A DISTANCE OF 1485.73 FEET TO A POINT;
THENCE NORTH 31° 34' 16" EAST A DISTANCE OF 169.99 FEET TO A POINT;
THENCE NORTH 32° 19' 05.00" EAST A DISTANCE OF 449.64 FEET TO A POINT;
THENCE NORTH 32° 03' 32.00" EAST A DISTANCE OF 383.14 FEET TO THE POINT OF BEGINNING;

SAID TRACT CONTAINING 197.26 ACRES MORE OR LESS AND BEING MORE FULLY DEPICTED ON A SURVEY PREPARED BY GEORGIA POWER COMPANY TITLED "SURVEY OF PLANT McINTOSH – ASH MONOFILL NO. PERMITTED SITE BOUNDARY", DATED 11/13/2018, GPC MAP FILE NO. P470–12.

REFERENCES:
1. FOR A COMPLETE DRAWING LIST SEE SHEET 1.

PROJECT CONTROL
STATE PLANE COORDS. – NAD83(94) – GEORGIA EAST ZONE
GPC–MACK12 N: 855201.8250 E: 961020.2460 ELEV.: 61.572
GPC–MACK15 N: 855830.6352 E: 962265.4434 ELEV.: 59.306

200 0 200 400 600
GRAPHIC SCALE – FEET

LATITUDE: N32°20'50.5"
LONGITUDE: W81°11'33.7"

F.I.R.M. FLOOD NOTE:
THE PROPERTY SHOWN HEREON IS LOCATED IN ZONE X , PER FEDERAL INSURANCE RATE MAP OF EFFINGHAM COUNTY, GEORGIA, PANEL 280 OF 426, MAP NUMBER 13103C0280E EFFECTIVE DATE: MARCH 16, 2015.

GEORGIA PROFESSIONAL No.3055 WILLIAM H. BECHTLER LAND SURVEYOR

NOTE: THIS PLAT IS NOT VALID FOR RECORDING PURPOSES UNLESS SURVEYOR'S SIGNATURE APPEARS HEREON IN A CONTRASTING COLOR OF INK

SURVEYOR:
GEORGIA POWER COMPANY
FIRM COA No. LSF 000191
WILLIAM H. BECHTLER, GA PLS No. 3055
241 RALPH MCGILL BLVD., N.E.
BIN 10151
ATLANTA, GA. 30308–3374
PHONE (404) 506–2450

AS REQUIRED BY SUBSECTION (D) OF O.C.G.A. SECTION 5–6–67, THIS PLAT HAS BEEN PREPARED BY A LAND SURVEYOR. THIS PLAT HAS BEEN APPROVED BY ALL APPLICABLE LOCAL JURISDICTIONS THAT REQUIRE PRIOR APPROVAL FOR RECORDING THIS TYPE OF PLAT OR ONE OR MORE OF THE APPLICABLE LOCAL JURISDICTIONS DO NOT REQUIRE APPROVAL OF THIS TYPE OF PLAT. FOR ANY APPLICABLE LOCAL JURISDICTION THAT REQUIRES APPROVAL OF THIS TYPE OF PLAT, THE NAMES OF THE INDIVIDUALS SIGNING OR APPROVING THIS PLAT, THE AGENCY OR OFFICE OF THAT INDIVIDUAL, AND THE DATE OF APPROVAL ARE LISTED IN THE APPROVAL TABLE SHOWN HEREON. FOR ANY APPLICABLE LOCAL JURISDICTION THAT DOES NOT REQUIRE APPROVAL OF THIS TYPE OF PLAT, THE NAME OF SUCH LOCAL JURISDICTION AND THE NUMBER OF THE APPLICABLE ORDINANCE OR RESOLUTION PROVIDING THAT NO SUCH APPROVAL IS REQUIRED ARE LISTED IN THE APPROVAL TABLE SHOWN HEREON. SUCH APPROVALS, AFFIRMATIONS, OR ORDINANCE OR RESOLUTION NUMBERS SHOULD BE CONFIRMED WITH THE APPROPRIATE GOVERNMENTAL BODIES BY ANY PURCHASER OR USER OF THIS PLAT AS TO INTENDED USE OF ANY PARCEL. FURTHERMORE, THE UNDERSIGNED LAND SURVEYOR CERTIFIES THAT THIS PLAT COMPLIES WITH THE MINIMUM TECHNICAL STANDARDS FOR PROPERTY SURVEYS IN GEORGIA AS SET FORTH IN THE RULES AND REGULATIONS OF THE GEORGIA BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS AND AS SET FORTH IN O.C.G.A. SECTION 15–6–67.

William H Bechtler 11-13-2018
WILLIAM H. BECHTLER, GA PLS NO. 3055 — DATE

NOTES AND REFERENCES

1) THE SURVEY SHOWN HEREON IS A SPECIAL PURPOSE SURVEY TO ESTABLISH THE BOUNDARY OF THE PLANT MCINTOSH ASH MONOFILL NO. 4 PERMITTED LANDS PER THE REQUIREMENTS OF THE STATE OF GEORGIA, DEPARTMENT OF NATURAL RESOURCES, ENVIRONMENTAL PROTECTION DIVISION.

2) BACKGROUND INFORMATION SHOWN HEREON TAKEN FROM FIELDWORK PERFORMED BY GEORGIA POWER COMPANY, DATED 1/9/2003.

3) REFERENCE WAS MADE TO THE FOLLOWING MAPS & SURVEYS;

A.) SURVEY PREPARED BY GEORGIA POWER COMPANY TITLED "PLANT MCINTOSH – PROPOSED ASH MONOFILL SITE", DATED JANUARY 9, 2003, GPC MAP FILE NO. H–762–2.

B.) SURVEY PREPARED BY SOUTHERN COMPANY GENERATION ENGINEERING AND CONSTRUCTION SERVICES TITLED "PLANT MCINTOSH CCB LANDFILL NO. 4 EXISTING SITE TOPOGRAPHIC MAP AND BORING/PIEZOMETER LOCATIONS", LAST REVISED NOVEMBER 10, 2014, DRAWING NO. H1C1303.

4) NO FIELD WORK WAS PERFORMED. THIS MAP HAS BEEN CALCULATED FOR CLOSURE AND IS FOUND TO BE ACCURATE WITHIN ONE FOOT IN 1,737,916 FEET.

5) HORIZONTAL DATUM IS GEORGIA STATE PLANE – EAST ZONE NAD84(94)

GEORGIA REGISTERED No. PE041928 PROFESSIONAL ENGINEER JOHN MATTHEW TRANT

Georgia Power

PLAT BOUNDARY & LEGAL DESCRIPTION

PERMIT DRAWINGS
GEORGIA POWER COMPANY
PLANT MCINTOSH COAL COMBUSTION RESIDUALS (CCR)
EXISTING LANDFILL NO. 4
EFFINGHAM, GEORGIA

GEI Consultants
1375 PEACHTREE STREET NE, SUITE A15
ATLANTA, GEORGIA 30309
(404) 592-0050
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PROJ. NO.	1702944	DWG. 29	EDIT
SCALE	1"=200'	SHEET 29 OF 29	
DATE	NOVEMBER 2018		