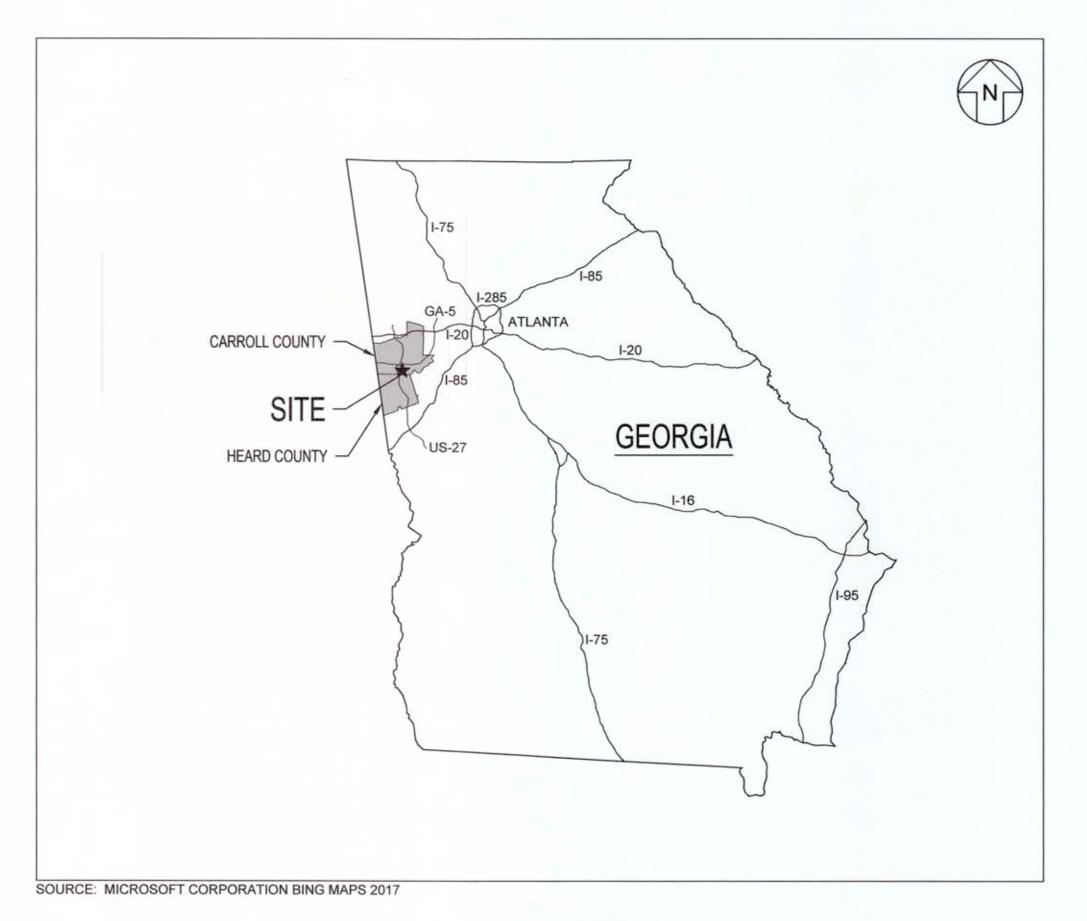
PLANT WANSLEY ASH POND 1 (AP-1) CLOSURE DRAWINGS HEARD AND CARROLL COUNTIES, GEORGIA

NOVEMBER 2018



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PREPARED FOR:

LOCATION MAP

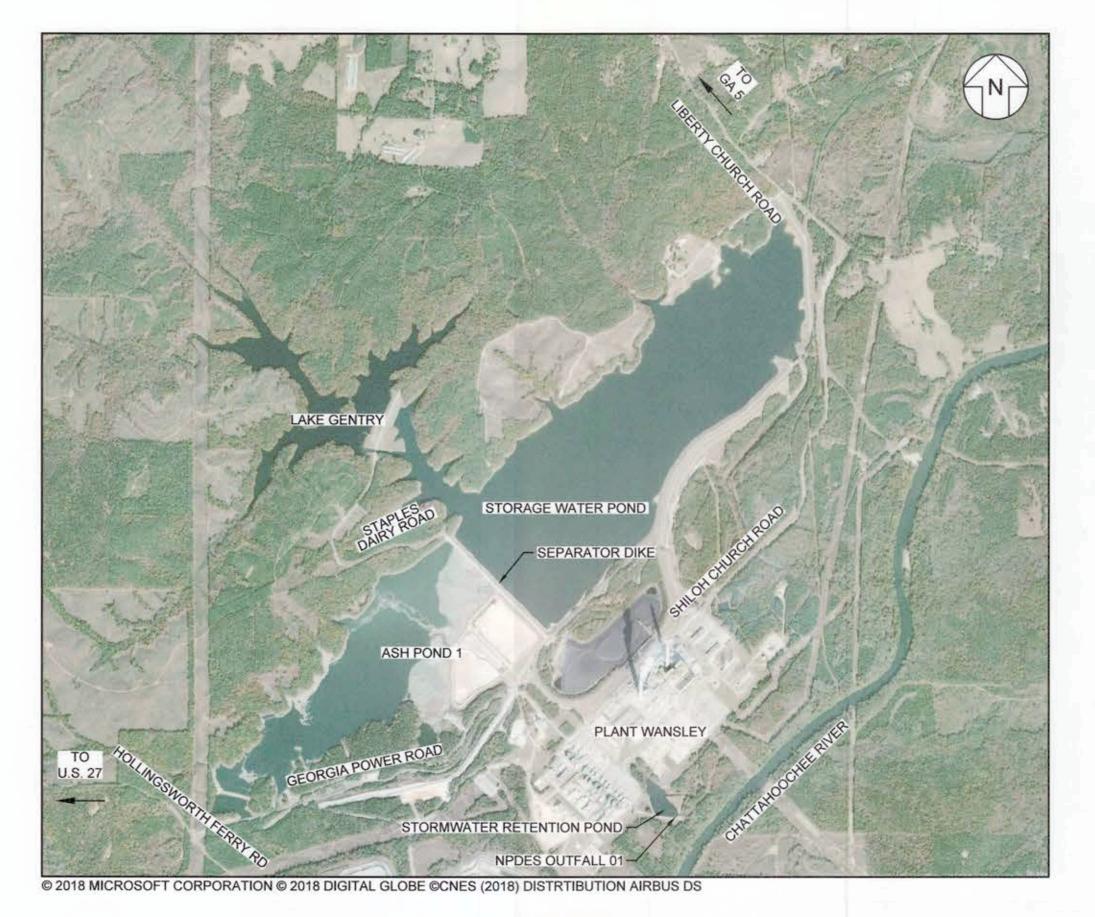


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VICINITY MAP SCALE: 1" = 3,000'



PHYSICAL SITE ADDRESS: PLANT WANSLEY 1371 LIBERTY CHURCH ROAD CARROLLTON, GA 30116





PLANT WANSLEY ASH POND 1 (AP-1)
CONSOLIDATION AND IN-PLACE CLOSURE
HEARD AND CARROLL COUNTIES, GEORGIA

COVER SHEET

11.14.18 INITIAL SUBMITTAL TO GA EPD

Geosyntec^o

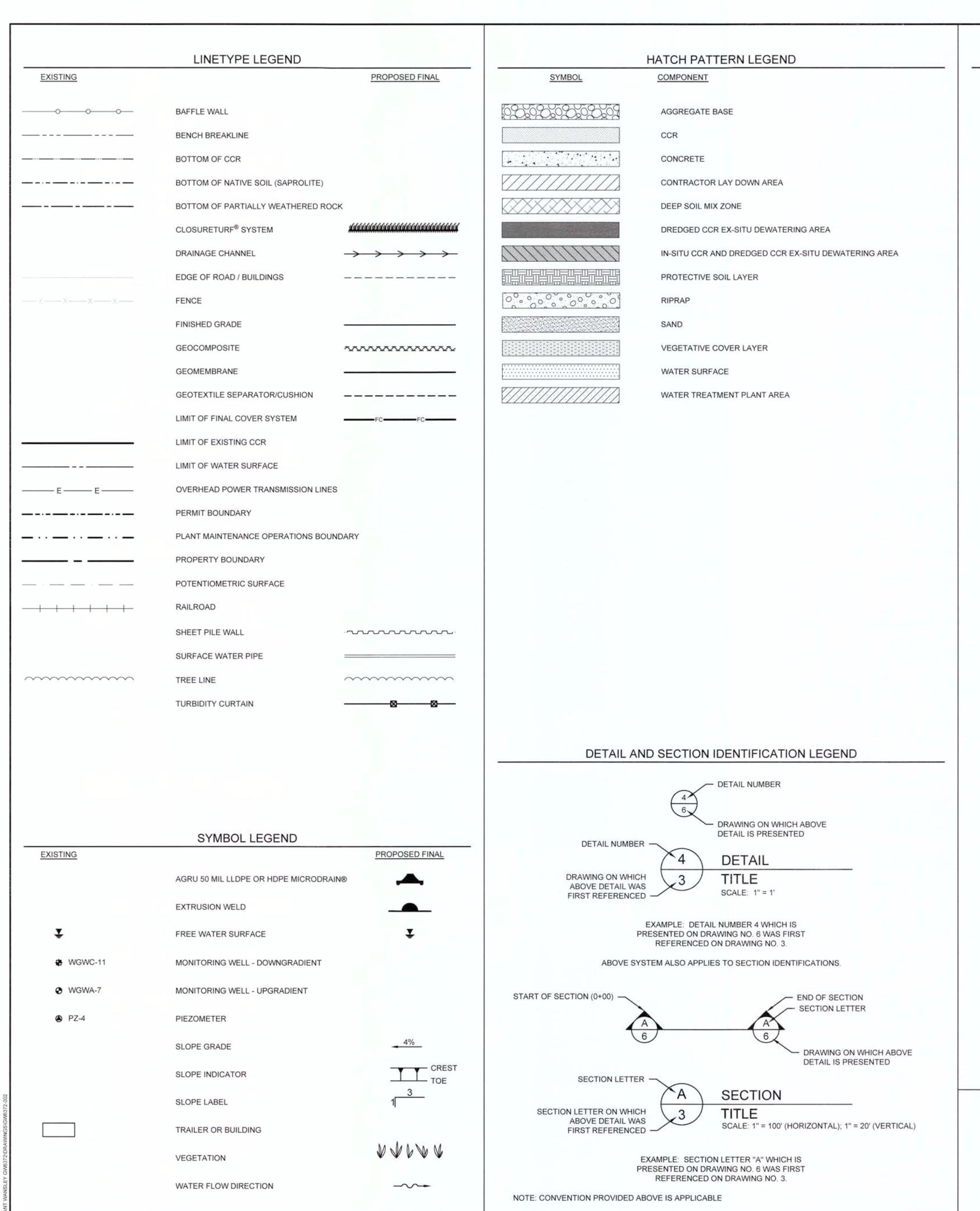
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PROJ. NO. GW6372 DWG. GW6372-001 EDIT 11.13.18

SCALE AS SHOWN
DATE NOVEMBER 2018 DRAWING 1 OF 33

PERMIT DRAWINGS PROJ. NO. SCALE DATE



ABBREVIATIONS PERCENT OR PERCENTILE AASHTO AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS ACRES ASH POND 1 APPROVED BY APPROX APPROXIMATE AMERICAN SOCIETY FOR TESTING AND MATERIALS BEST MANAGEMENT PRACTICE COAL COMBUSTION RESIDUALS CONSTRUCTION QUALITY ASSURANCE CENTERLINE DIA DIAMETER DRN DRAWN BY DEEP SOIL MIXING DSM DWG DRAWING **EASTING** E.G. FOR EXAMPLE **ELEVATION** ETC ET CETERA FT FEET GA EPD GEORGIA ENVIRONMENTAL PROTECTION DIVISION GEORGIA DEPARTMENT OF TRANSPORTATION GEORGIA POWER COMPANY GSWCC GEORGIA SOIL AND WATER CONSERVATION COMMISSION

HORIZONTAL TO VERTICAL LENGTH RATIO FOR A SLOPE

HIGH DENSITY POLYETHYLENE

HYDRAULIC EROSION CONTROL PRODUCTS

THAT IS **IDENTIFIER**

INCH INVERT

POUNDS

LBS

LINEAR LOW DENSITY POLYETHYLENE

LIMITS OF DISTURBANCE

MAXIMUM

ONE-THOUSANDTH OF AN INCH

MINIMUM

NITROGEN / NORTH / NORTHING

NORTH AMERICAN DATUM OF 1983

NPDES NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

N-P-K NITROGEN-PHOSPHORUS-POTASSIUM

NAVD88 NORTH AMERICAN VERTICAL DATUM OF 1988

NATIONAL STONE ASSOCIATION NOT TO SCALE

NORTHWEST ON CENTER

PERIMETER CHANNEL

PARTS PER MILLION

PROJ PROJECT

PARTIALLY WEATHERED ROCK

PIEZOMETER

ROLLED EROSION CONTROL PRODUCTS

SOUTHERN COMPANY SERVICES

SILT FENCE

SQUARE FEET

STA STATION

TYP TYPICAL

WATER SURFACE W.S.

REFERENCE NOTES

GENERAL NOTES:

- GRID COORDINATE SYSTEM CORRESPONDS TO NAD83, GEORGIA WEST ZONE.
- ELEVATIONS PRESENTED ARE IN FEET, NAVD88.
- TOPOGRAPHY (I.E. EXISTING GROUND CONTOURS) WAS OBTAINED BY LIDAR SURVEY. BATHYMETRY (I.E. BOTTOM OF POND CONTOURS) WAS OBTAINED BY MULTIBEAM HYDROGRAPHIC SURVEY COMPLETED IN AUGUST 2017. BOTH SURVEYS WERE OBTAINED FROM ELECTRONIC FILES PROVIDED BY GPC ON AUGUST 30.
- 4. BATHYMETRY REFLECTS THE CONDITIONS AT THE TIME OF THE SURVEY AND MAY NOT REFLECT CURRENT
- 5. PLANIMETRIC FEATURES AND PROPERTY BOUNDARY ARE APPROXIMATE AND WERE OBTAINED FROM ELECTRONIC FILES PROVIDED BY SCS ON NOVEMBER 11, 2016.
- 6. THE LATERAL LIMIT OF CCR IS APPROXIMATE BASED ON DRAWINGS PROVIDED BY SCS AND FIELD DISCUSSIONS WITH PLANT WANSLEY STAFF. FIELD VERIFICATION OF THE ACTUAL LIMIT OF CCR DURING CONSTRUCTION WILL BE REQUIRED.
- THE LATERAL LIMIT OF WATER SURFACE WITHIN AP-1 IS BASED ON A POOL ELEVATION OF 781.5 FT, WHICH MAY FLUCTUATE WITH SEASONAL VARIATIONS OR PLANT OPERATIONS.
- 8. THE BOTTOM OF CCR SURFACE WAS APPROXIMATED BASED ON A TOPOGRAPHIC SURVEY, PERFORMED FOLLOWING THE CONSTRUCTION OF THE SEPARATOR DIKE AND PRIOR TO RECEIPT OF CCR IN THE SURFACE IMPOUNDMENT (SHEET G-10023, DATED 01 MARCH 1976, PROVIDED BY SCS). IN AREAS WHERE THE POST-CONSTRUCTION TOPOGRAPHIC SURFACE IS ABOVE THE 2017 BATHYMETRIC SURFACE, THE BOTTOM OF CCR SURFACE WAS ASSUMED TO BE THE ELEVATION OF THE BATHYMETRIC SURFACE. GEOTECHNICAL DATA FROM 24 BORINGS COLLECTED BY GEOSYNTEC IN SPRING 2017 ALONG THE PROPOSED CONTAINMENT STRUCTURE ALIGNMENT WERE INTEGRATED INTO THE BOTTOM OF CCR SURFACE. BOTTOM OF CCR IS TO BE FIELD VERIFIED WITHIN THE CLOSURE BY REMOVAL AREA.
- 9. TOP OF EXISTING CCR WAS ASSUMED AS THE BATHYMETRIC SURFACE IN AREAS COVERED BY WATER AND AS EXISTING GROUND IN DRY AREAS.
- 10. SUBGRADE SURFACES (NATIVE SOIL, PWR, AND ROCK) WERE DEVELOPED FROM HISTORICAL BORINGS AND SITE DATA: (I) COLLECTED BY GEOSYNTEC CONSULTANTS IN 2016 AND 2017; AND (II) PROVIDED BY SCS IN 2016.
- 11. NO EARTHWORK WILL DISTURB THE EXISTING SEPARATOR DIKE BETWEEN AP-1 AND THE STORAGE WATER
- 12. ACCESS ROADS TO THE CONTAINMENT STRUCTURE, INTERIM HAUL ROADS, ACCESS RAMPS, INTERIM STORMWATER FEATURES LOCATIONS, AND CONTRACTOR LAYDOWN AREA WILL BE EVALUATED AS PART OF THE DETAILED DESIGN.
- 13. DEWATERING OF CCR DURING CLOSURE CONSTRUCTION WILL BE PERFORMED AS NEEDED AND IN ACCORDANCE WITH THE ASH POND DEWATERING PLAN (SECTION 3 OF PART B WITHIN THIS PERMIT APPLICATION).
- 14. CONTACT WATER FROM AP-1 DURING CLOSURE CONSTRUCTION WILL BE TREATED PRIOR TO DISCHARGE THROUGH THE NPDES OUTFALL TO MEET SPECIFICATIONS PROVIDED IN THE WATER TREATMENT PLAN DEVELOPED BY GPC.
- 15. DUST CONTROL WILL BE MANAGED AS SPECIFIED IN THE FUGITIVE DUST CONTROL PLAN SECTION OF THE CLOSURE PLAN (SECTION 7 OF PART A WITHIN THIS PERMIT APPLICATION).
- 16. MATERIAL PROPERTIES FOR FINAL COVER SYSTEM ARE PROVIDED IN THE CQA PLAN (SECTION 5 OF PART A WITHIN THIS PERMIT APPLICATION). A FULL SET OF TECHNICAL SPECIFICATIONS WILL BE PREPARED AS PART OF THE DETAILED DESIGN.
- 17. VOLUME OF IN-PLACE CCR TO BE DREDGED IS ESTIMATED TO REDUCE 10 TO 20 PERCENT UPON REMOVAL. DEWATERING, PLACEMENT, AND COMPACTION WITHIN THE FINAL CONSOLIDATED FOOTPRINT BASED ON LIMITED DATA OBTAINED FROM UNDISTURBED SHELBY TUBE CCR SAMPLES AND PROCTOR TESTS CONDUCTED BY GEOSYNTEC CONSULTANTS IN 2016 AND 2017. ACTUAL VOLUME REDUCTION FACTORS OBSERVED IN THE FIELD WILL BE EVALUATED AS PART OF THE INITIAL PHASES OF CONSTRUCTION. DESIGN ADJUSTMENTS WILL BE MADE TO REMAINING CONSTRUCTION PHASES AS NEEDED TO ACHIEVE THE OPTIMUM MATERIAL BALANCE AND FINAL GRADES AT CLOSURE.
- 18. PLANT OPERATIONS MAINTENANCE AREA WILL BE WITHIN THE PERMIT BOUNDARY BUT OUTSIDE THE LIMITS OF THE CONSOLIDATION AREA. ACTIVITIES TO CONSTRUCT, MAINTAIN, REPLACE, OR REPAIR SYSTEMS NECESSARY FOR PLANT OPERATIONS, SUCH AS RAIL LINES, SUBSURFACE PIPING, ETC., MAY BE CONDUCTED WITHOUT APPROVAL OR NOTIFICATION OF GA EPD. SUCH ACTIVITIES WILL NOT AFFECT THE CCR CONSOLIDATION AREA OR FINAL COVER SYSTEM.
- 19. PERMIT BOUNDARY WAS DEVELOPED BY ESTABLISHING A 200 FOOT (MINIMUM) OFFSET UPGRADIENT OF AP-1, INCORPORATES ALL DOWNGRADIENT MONITORING WELLS, AND GENERALLY FOLLOWS THE PLANT ROAD ALONG THE SOUTH SIDE OF AP-1.
- 20. LATERAL MINIMUM 2 FT LIMIT OF CCR WILL BE REDUCED TO THE CONSOLIDATION AREA. THE FINAL COVER SYSTEM WILL EXTEND BEYOND THE LIMIT OF CCR WITHIN THE CONSOLIDATION AREA.
- 21. MONITORING WELL AND PIEZOMETER COORDINATES WERE OBTAINED FROM THE GROUNDWATER MONITORING PLAN (SECTION 6 OF PART A WITHIN THIS PERMIT APPLICATION).

CONTOUR LEGEND

| | PROPOSED |
|--|---|
| BATHYMETRIC ELEVATION (FEET) | |
| DREDGE SURFACE ELEVATION (FEET) | 410 |
| EXISTING GROUND ELEVATION (FEET) | |
| TOP OF FINAL COVER / FINISHED GRADE ELEVATION (FEET) | 430 — |
| GROUNDWATER POTENTIOMETRIC ELEVATION (FEET) | |
| BOTTOM OF CCR ELEVATION (FEET) | 710 — |
| | DREDGE SURFACE ELEVATION (FEET) EXISTING GROUND ELEVATION (FEET) TOP OF FINAL COVER / FINISHED GRADE ELEVATION (FEET) GROUNDWATER POTENTIOMETRIC ELEVATION (FEET) BOTTOM OF CCR ELEVATION |

11.14.18 INITIAL SUBMITTAL TO GA EPD WSA CG REV DATE DESCRIPTION DRN APP

LEGENDS, SYMBOLS, AND ABBREVIATIONS

PLANT WANSLEY ASH POND 1 (AP-1) CONSOLIDATION AND IN-PLACE CLOSURE HEARD AND CARROLL COUNTIES, GEORGIA

Geosyntec*

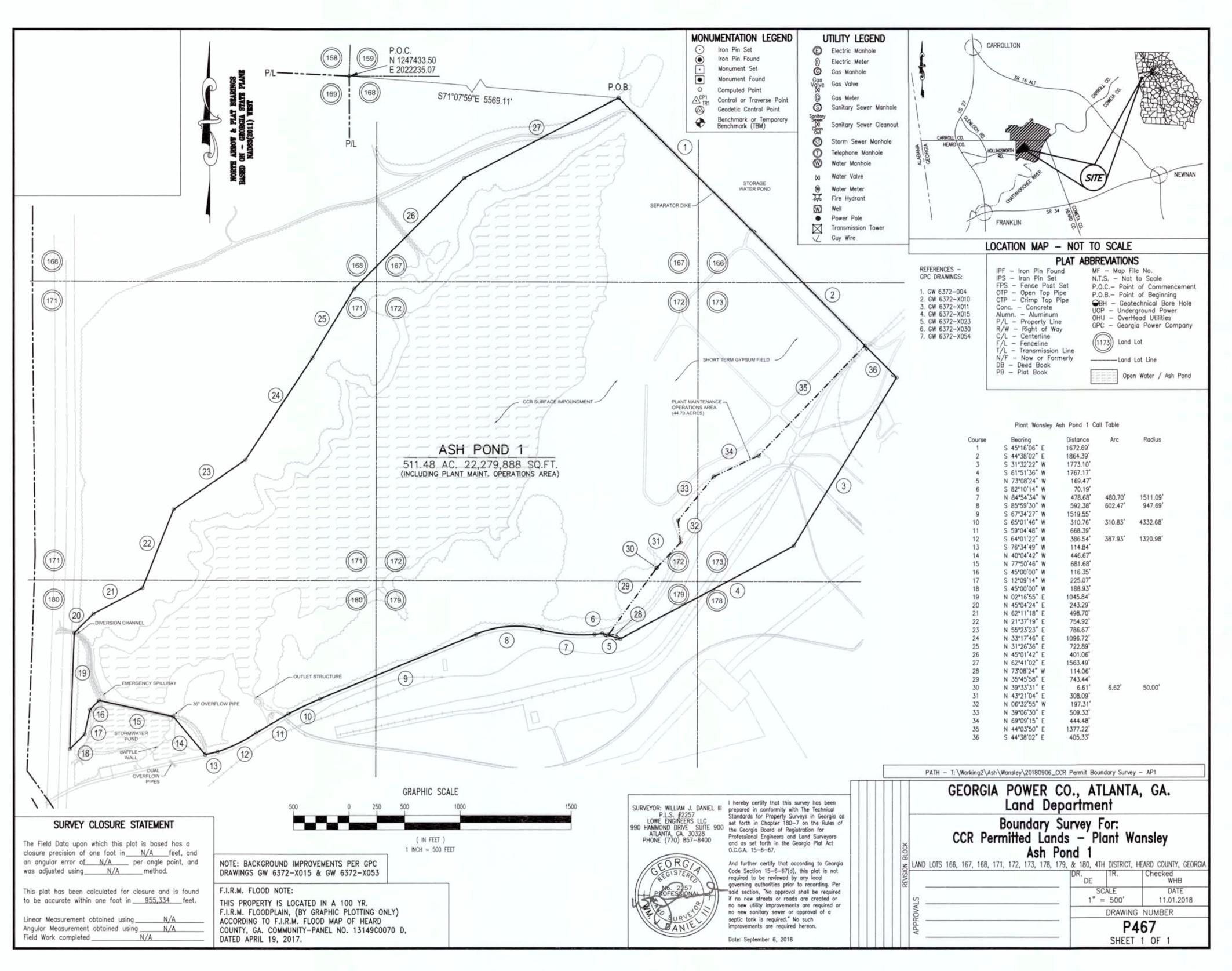
consultants PHONE: 678.202.950 WWW.GEOSYNTEC.COM

PERMIT DRAWINGS PROJ. NO. DWG. GW6372-002 EDIT 11.09.18 GW6372 NTS NOT FOR CONSTRUCTION DATE DRAWING 2 OF 33 **NOVEMBER 2018**

1255 ROBERTS BOULEVARD, NW, SUITE 200 KENNESAW, GEORGIA 30144 USA







LEGAL DESCRIPTION

PLANT WANSLEY - CCR PERMITTED LANDS - MAINTENANCE AREA

ALL THAT PARCEL OR TRACT OF LAND LYING AND BEING IN LAND LOTS 172, 173, 178, AND 179 OF THE 4TH/DISTRICT, HEARD COUNTY, GEORGIA AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

TO FIND THE POINT OF BEGINNING, COMMENCE AT A POINT, HAVING GEORGIA STATE PLANE, WEST ZONE, NAD83 COORDINATES OF: N 1245632.61 AND E 2027504.96; THENCE RUNNING SOUTH 45 DEGREES 16 MINUTES 06 SECONDS EAST A DISTANCE OF 1672.69; THENCE SOUTH 44 DEGREES 38 MINUTES 02 SECONDS A DISTANCE OF 1864.39 FEET TO A POINT AND THE POINT OF BEGINNING;

THENCE SOUTH 31 DEGREES 32 MINUTES 22 SECONDS WEST A DISTANCE OF 1773.10 FEET TO A POINT; THENCE SOUTH 61 DEGREES 51 MINUTES 36 SECONDS WEST A DISTANCE OF 1767.17 FEET TO A POINT; THENCE NORTH 73 DEGREES 08 MINUTES 24 SECONDS WEST A DISTANCE OF 114.06 FEET TO A POINT; THENCE NORTH 35 DEGREES 45 MINUTES 58 SECONDS EAST A DISTANCE OF 743.44 FEET TO A POINT; THENCE RUNNING ALONG A CURVE TO THE RIGHT AN ARC DISTANCE OF 6.62 FEET (SAID ARC HAVING A RADIUS OF 50.00 FEET AND BEING SUBTENDED BY A CHORD 6.61 FEET IN LENGTH WITH A BEARING OF NORTH 39 DEGREES 33 MINUTES 31 SECONDS EAST TO A POINT;

THENCE NORTH 43 DEGREES 21 MINUTES 04 SECONDS EAST A DISTANCE OF 308.09 FEET TO A POINT;
THENCE NORTH 06 DEGREES 32 MINUTES 55 SECONDS WEST A DISTANCE OF 197.31 FEET TO A POINT;
THENCE NORTH 39 DEGREES 06 MINUTES 30 SECONDS EAST A DISTANCE OF 509.33 FEET TO A POINT;
THENCE NORTH 69 DEGREES 09 MINUTES 15 SECONDS EAST A DISTANCE OF 444.48 FEET TO A POINT;
THENCE NORTH 44 DEGREES 03 MINUTES 50 SECONDS EAST A DISTANCE OF 1377.22 FEET TO A POINT;
THENCE SOUTH 44 DEGREES 38 MINUTES 02 SECONDS EAST A DISTANCE OF 405.33 FEET TO A POINT AND THE POINT OF BEGINNING:

SAID TRACT CONTAINS 44.70 ACRES (1,947,155 SQUARE FEET).

EGAL DESCRIPTION

PLANT WANSLEY - CCR PERMITTED LANDS - ASH POND 1

ALL THAT PARCEL OR TRACT OF LAND LYING AND BEING IN LAND LOTS 166, 167, 168, 171, 172, 173, 178, 179

AND 180 OF THE 4th DISTRICT, HEARD COUNTY, GEORGIA AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

TO FIND THE POINT OF BEGINNING, COMMENCE AT THE CORNER COMMON TO LAND LOTS 158, 159, 168
AND 169, HAVING GEORGIA STATE PLANE, WEST ZONE, NAD83 COORDINATES OF: N 1247433.50 AND E
2022235.07; THENCE RUNNING SOUTH 71 DEGREES 07 MINUTES 59 SECONDS EAST A DISTANCE OF 5569.11
FEET TO A POINT AND THE POINT OF BEGINNING;

THENCE RUNNING SOUTH 45 DEGREES 16 MINUTES 06 SECONDS EAST A DISTANCE OF 1672.69 FEET TO A POINT; THENCE RUNNING SOUTH 44 DEGREES 38 MINUTES 02 SECONDS EAST A DISTANCE OF 1864.39 FEET TO A POINT; THENCE RUNNING SOUTH 31 DEGREES 32 MINUTES 22 SECONDS WEST A DISTANCE OF 1773.10 FEET TO A POINT; THENCE RUNNING SOUTH 61 DEGREES 51 MINUTES 36 SECONDS WEST A DISTANCE OF 1767.17 FEET TO A POINT; THENCE RUNNING NORTH 73 DEGREES 08 MINUTES 24 SECONDS WEST A DISTANCE OF 169.47 FEET TO A POINT; THENCE RUNNING SOUTH 82 DEGREES 10 MINUTES 14 SECONDS WEST A DISTANCE OF 70.19 FEET TO A POINT; THENCE RUNNING ALONG A CURVE TO THE RIGHT AN ARC DISTANCE OF 480.70 FEET (SAID ARC HAVING A RADIUS OF 1511.09 FEET AND BEING SUBTENDED BY A CHORD 478.68 FEET IN LENGTH LYING TO THE NORTH OF SAID ARC AND BEARING NORTH 84 DEGREES 54 MINUTES 34 SECONDS WEST) TO A POINT; THENCE RUNNING ALONG A CURVE TO THE LEFT AN ARC DISTANCE OF 602.47 FEET (SAID ARC HAVING A RADIUS OF 947.69 FEET AND BEING SUBTENDED BY A CHORD 592.38 FEET IN LENGTH LYING TO THE SOUTH OF SAID ARC AND BEARING SOUTH 85 DEGREES 59 MINUTES 30 SECONDS WEST) TO A POINT; THENCE RUNNING SOUTH 67 DEGREES 34 MINUTES 27 SECONDS WEST A DISTANCE OF 1519.55 FEET TO A POINT; THENCE RUNNING ALONG A CURVE TO THE LEFT AN ARC DISTANCE OF 310.83 FEET (SAID ARC HAVING A RADIUS OF 4332.68 FEET AND BEING SUBTENDED BY A CHORD 310.76 FEET IN LENGTH LYING TO THE SOUTHEAST OF SAID ARC AND BEARING SOUTH 65 DEGREES 01 MINUTES 46 SECONDS WEST) TO A POINT; THENCE RUNNING SOUTH 59 DEGREES 04 MINUTES 48 SECONDS WEST A DISTANCE OF 668.39 FEET TO A POINT; THENCE RUNNING ALONG A CURVE TO THE RIGHT AN ARC DISTANCE OF 387.93 FEET (SAID ARC HAVING A RADIUS OF 1320.98 FEET AND BEING SUBTENDED BY A CHORD 386.54 FEET IN LENGTH LYING TO THE NORTHWEST OF SAID ARC AND BEARING SOUTH 64 DEGREES 01 MINUTES 22 SECONDS WEST) TO A POINT; THENCE RUNNING SOUTH 76 DEGREES 34 MINUTES 49 SECONDS WEST A DISTANCE OF 114.84 FEET TO A POINT; THENCE RUNNING NORTH 40 DEGREES 04 MINUTES 42 SECONDS WEST A DISTANCE OF 446.67 FEET TO A POINT; THENCE RUNNING NORTH 77 DEGREES 50 MINUTES 46 SECONDS WEST A DISTANCE OF 681.68 FEET TO A POINT: THENCE RUNNING SOUTH 45 DEGREES 00 MINUTES 00 SECONDS WEST A DISTANCE OF 116.35 FEET TO A POINT; THENCE RUNNING SOUTH 12 DEGREES 09 MINUTES 14 SECONDS WEST A DISTANCE OF 225.07 FEET TO A POINT; THENCE RUNNING SOUTH 45 DEGREES 00 MINUTES 00 SECONDS WEST A DISTANCE OF 188.93 FEET TO A POINT; THENCE RUNNING NORTH 02 DEGREES 16 MINUTES 55 SECONDS EAST A DISTANCE OF 1045.84 FEET TO A POINT; THENCE RUNNING NORTH 45 DEGREES 04 MINUTES 24 SECONDS EAST A DISTANCE OF 243.29 FEET TO A POINT; THENCE RUNNING NORTH 62 DEGREES 11 MINUTES 18 SECONDS EAST A DISTANCE OF 498.70 FEET TO A POINT; THENCE RUNNING NORTH 21 DEGREES 37 MINUTES 19 SECONDS EAST A DISTANCE OF 754.92 FEET TO A POINT; THENCE RUNNING NORTH 55 DEGREES 23 MINUTES 23 SECONDS EAST A DISTANCE OF 786.67 FEET TO A POINT; THENCE RUNNING NORTH 33 DEGREES 17 MINUTES 46 SECONDS EAST A DISTANCE OF 1096.72 FEET TO A POINT THENCE RUNNING NORTH 31 DEGREES 26 MINUTES 36 SECONDS EAST A DISTANCE OF 722.89 FEET TO A POINT; THENCE RUNNING NORTH 45 DEGREES 01 MINUTES 42 SECONDS EAST A DISTANCE OF 1401.06 FEET TO A POINT; THENCE RUNNING NORTH 62 DEGREES 41 MINUTES 02 SECONDS EAST A DISTANCE OF 1563.49 FEET TO A POINT AND THE POINT OF BEGINNING;

SAID TRACT CONTAINS 511.48 ACRES (22,279,888 SQUARE FEET).



REV DATE

PLANT WANSLEY ASH POND 1 (AP-1)
CONSOLIDATION AND IN-PLACE CLOSURE
HEARD AND CARROLL COUNTIES, GEORGIA

DESCRIPTION

PROPERTY BOUNDARY SURVEY AND

LEGAL DESCRIPTION

Geosyntec'

consultants

1255 ROBERTS BOULEVARD, NW, SUITE 200 KENNESAW, GEORGIA 30144 USA PROJ. NO. GW6372

1" = 500'

NOVEMBER 2018

11.14.18 INITIAL SUBMITTAL TO GA EPD

PHONE: 678.202.9500 WWW.GEOSYNTEC.COM DWG. GW6372-003 EDIT 11/13/18

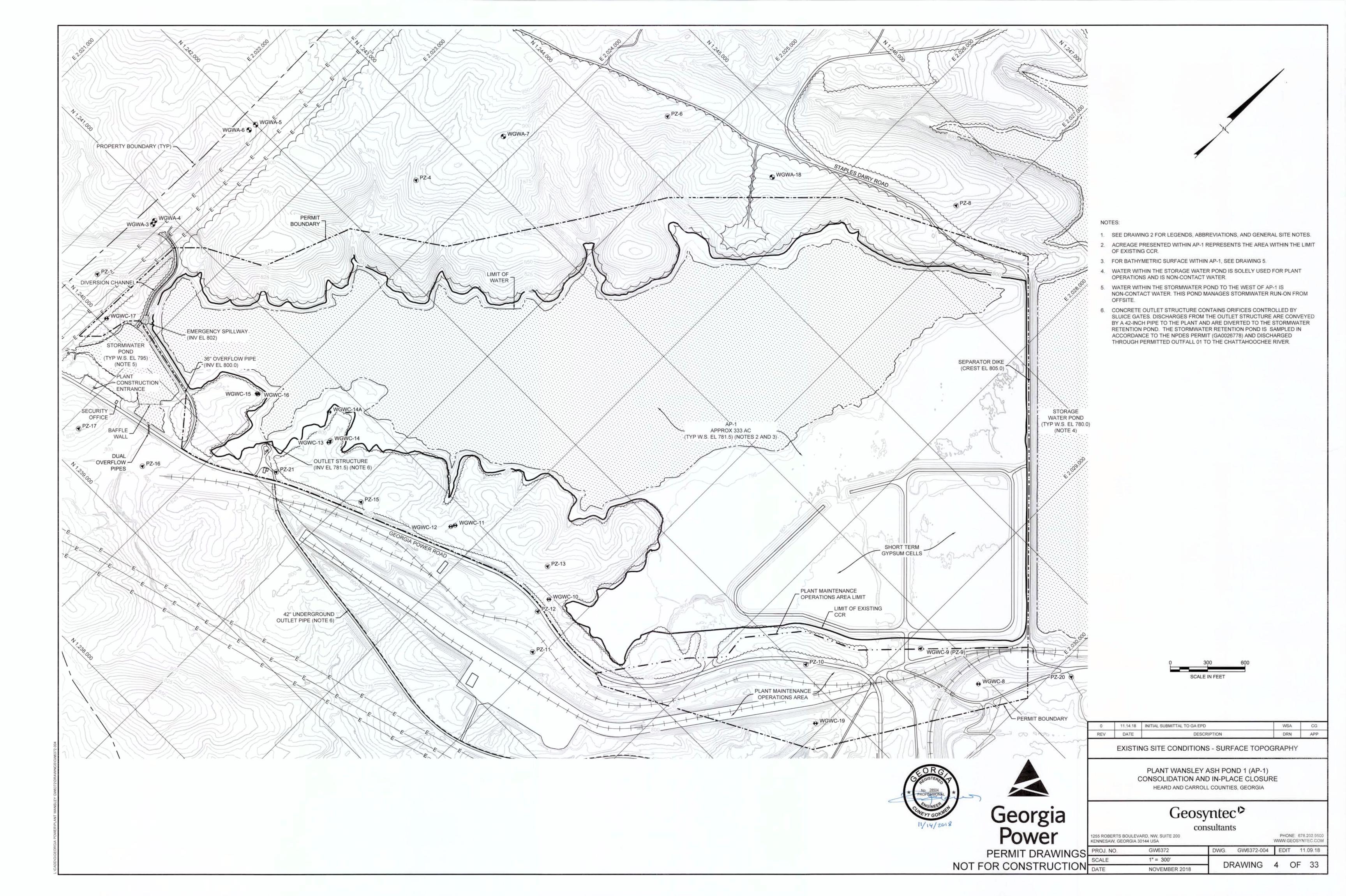
DRAWING 3 OF 33

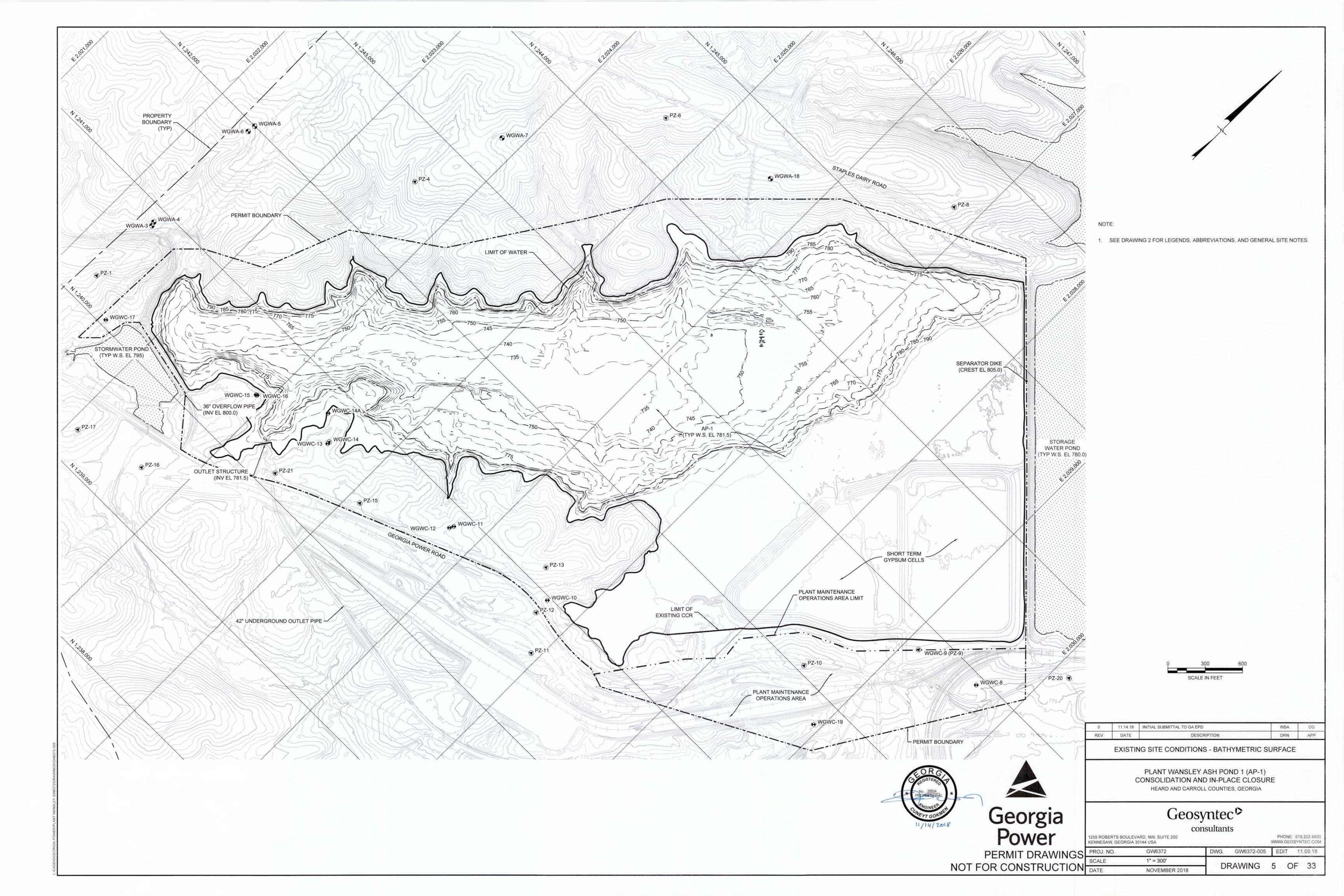
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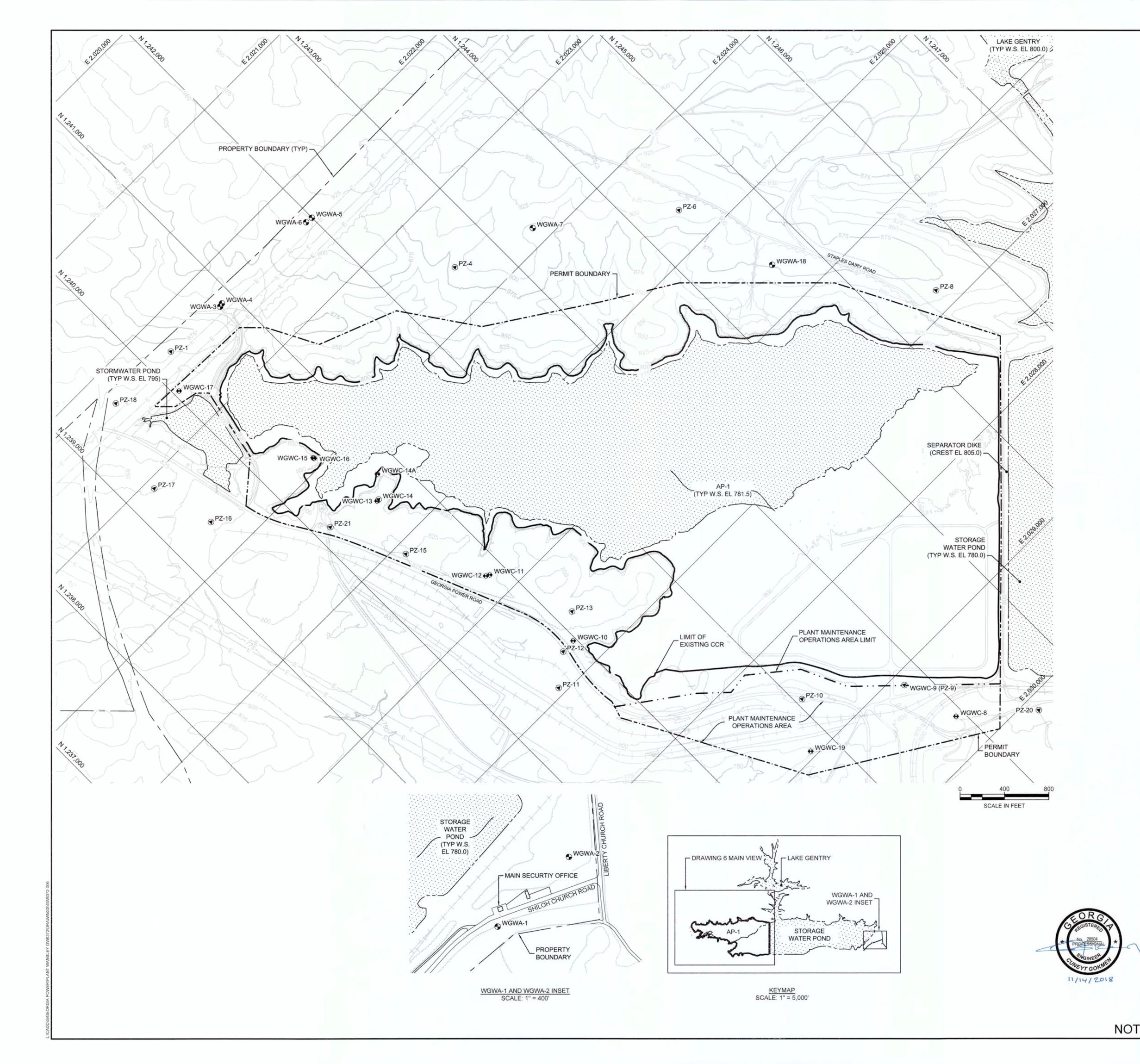
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Georgia
Power
PERMIT DRAWINGS
1255 ROBERTS
KENNESAW, G.
PROJ. NO.

NOT FOR CONSTRUCTION DATE





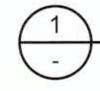




NOTES:

- SEE DRAWING 2 FOR LEGENDS, ABBREVIATIONS, AND GENERAL SITE NOTES.
- 2. THE TABLE DETAILING THE GROUNDWATER WELL LOCATIONS WAS DEVELOPED BY GEOSYNTEC CONSULTANTS WITH DATA PROVIDED BY SCS.
- 3. PIEZOMETER LOCATIONS ARE FOR WATER LEVEL MEASUREMENTS ONLY.
- 4. WGWC-14 IS NO LONGER USED AS MONITORING WELL AND HAS BEEN REPLACED WITH WGWC-14A.

| WELL ID | NORTHING | EASTING | WELL TYPE (NOTE 3) |
|---------------|--------------|--------------|-----------------------|
| PZ-1 | 1,240,250.08 | 2,022,320.48 | PIEZOMETER |
| PZ-4 | 1,242,593.21 | 2,023,596.61 | PIEZOMETER |
| PZ-6 | 1,244,383.87 | 2,024,661.72 | PIEZOMETER |
| PZ-8 | 1,245,513.57 | 2,026,807.03 | PIEZOMETER |
| PZ-10 | 1,242,059.14 | 2,028,553.63 | PIEZOMETER |
| PZ-11 | 1,240,579.71 | 2,026,932.62 | PIEZOMETER |
| PZ-12 | 1,240,838.55 | 2,026,731.04 | PIEZOMETER |
| PZ-13 | 1,241,151.09 | 2,026,530.44 | PIEZOMETER |
| PZ-15 | 1,240,457.00 | 2,025,105.50 | PIEZOMETER |
| PZ-16 | 1,239,419.34 | 2,023,661.25 | PIEZOMETER |
| PZ-17 | 1,239,269.85 | 2,023,086.36 | PIEZOMETER |
| PZ-18 | 1,239,569.64 | 2,022,299.77 | PIEZOMETER |
| PZ-20 | 1,243,495.71 | 2,030,132.09 | PIEZOMETER |
| PZ-21 | 1,240,147.24 | 2,024,454.06 | PIEZOMETER |
| WGWC-14 | 1,240,629.75 | 2,024,586.07 | PIEZOMETER |
| WGWA-1 | 1,250,656.42 | 2,035,580.22 | UPGRADIENT |
| WGWA-2 | 1,251,556.43 | 2,035,589.54 | UPGRADIENT |
| WGWA-3 | 1,240,848.13 | 2,022,350.61 | UPGRADIENT |
| WGWA-4 | 1,240,879.84 | 2,022,340.79 | UPGRADIENT |
| WGWA-5 | 1,241,998.09 | 2,022,369.49 | UPGRADIENT |
| WGWA-6 | 1,241,932.00 | 2,022,361.53 | UPGRADIENT |
| WGWA-7 | 1,243,338.48 | 2,023,843.71 | UPGRADIENT |
| WGWA-18 | 1,244,631.83 | 2,025,601.65 | UPGRADIENT |
| WGWC-8 | 1,242,929.00 | 2,029,644.30 | DOWNGRADIENT |
| WGWC-9 (PZ-9) | 1,242,800.47 | 2,029,116.37 | DOWNGRADIENT |
| WGWC-10 | 1,240,971.57 | 2,026,725.18 | DOWNGRADIENT |
| WGWC-11 | 1,240,859.59 | 2,025,772.89 | DOWNGRADIENT |
| WGWC-12 | 1,240,827.35 | 2,025,755.28 | DOWNGRADIENT |
| WGWC-13 | 1,240,610.64 | 2,024,586.07 | DOWNGRADIENT |
| WGWC-14A | 1,240,785.65 | 2,024,415.93 | DOWNGRADIENT |
| WGWC-15 | 1,240,480.41 | 2,023,903.14 | DOWNGRADIENT |
| WGWC-16 | 1,240,483.24 | 2,023,912.32 | DOWNGRADIENT |
| WGWC-17 | 1,240,051.84 | 2,022,623.12 | DOWNGRADIENT |
| WGWC-19 | 1,241,781.44 | 2,028,941.61 | DOWNGRADIENT |



TABLE

GROUNDWATER MONITORING WELL LOCATIONS

| 0 | 11,14.18 | INITIAL SUBMITTAL TO GA EPD | WSA | CG |
|-----|----------|-----------------------------|-----|-----|
| REV | DATE | DESCRIPTION | DRN | APP |

GROUNDWATER MONITORING WELL AND PIEZOMETER LOCATIONS

PLANT WANSLEY ASH POND 1 (AP-1) CONSOLIDATION AND IN-PLACE CLOSURE HEARD AND CARROLL COUNTIES, GEORGIA

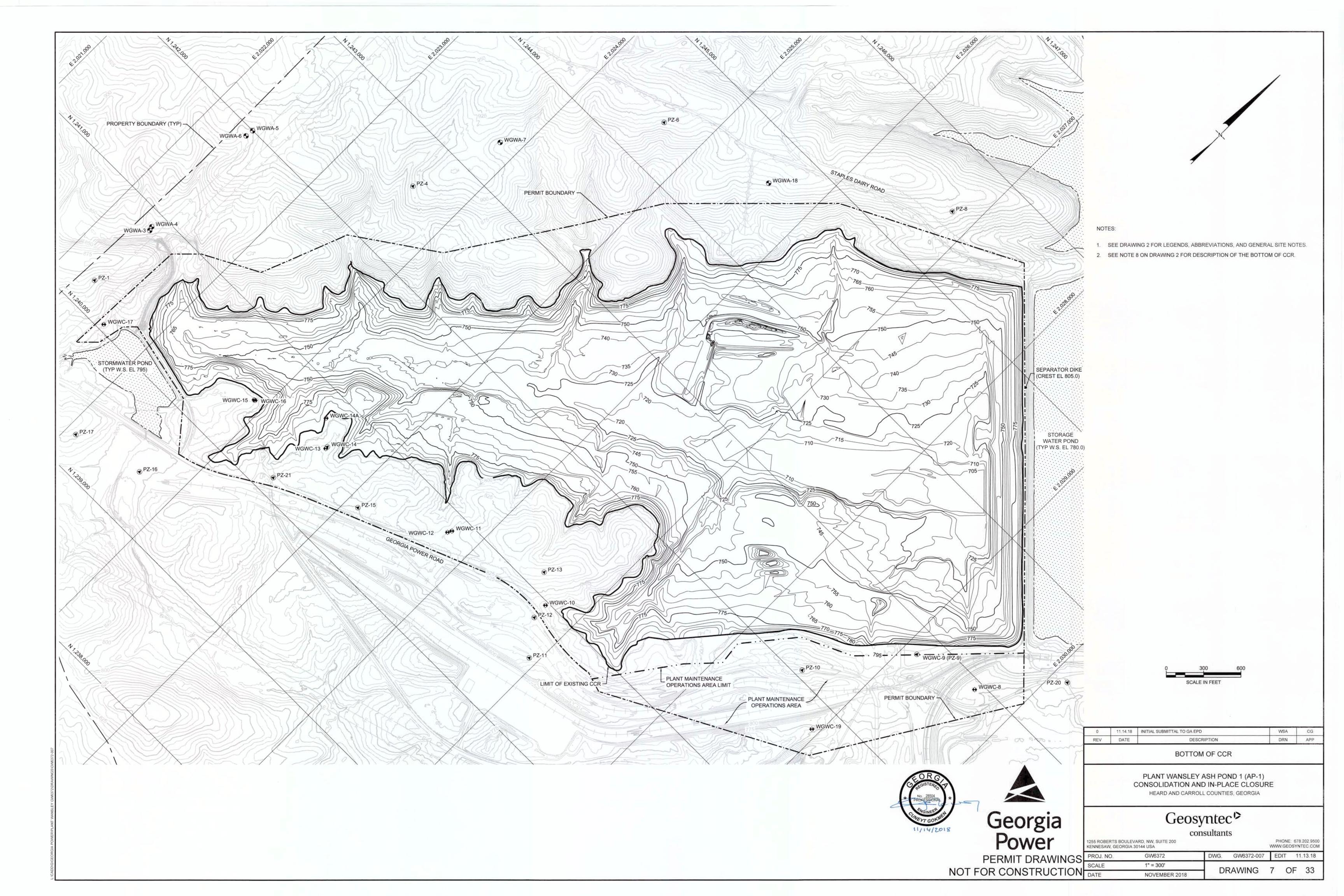
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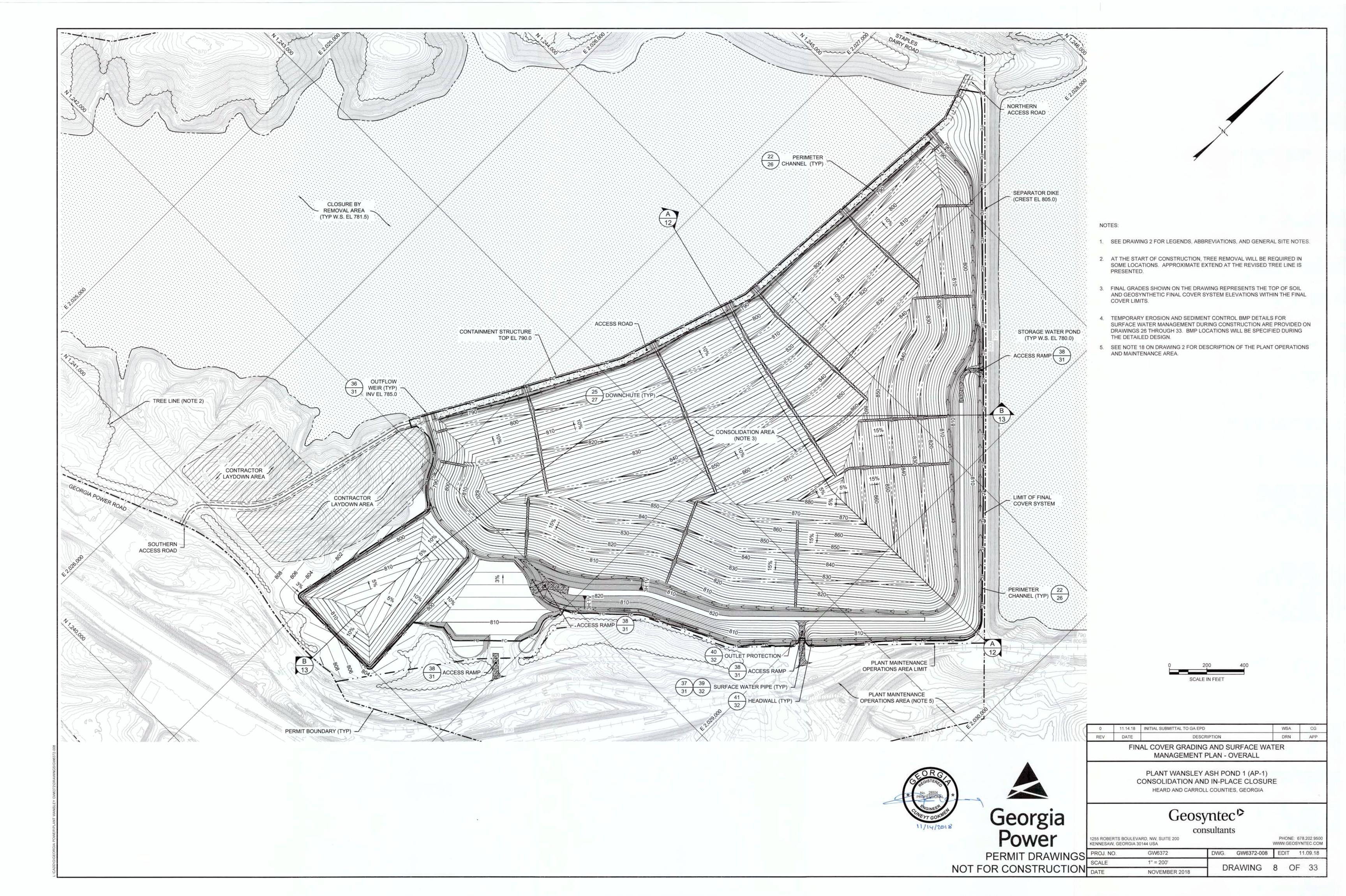
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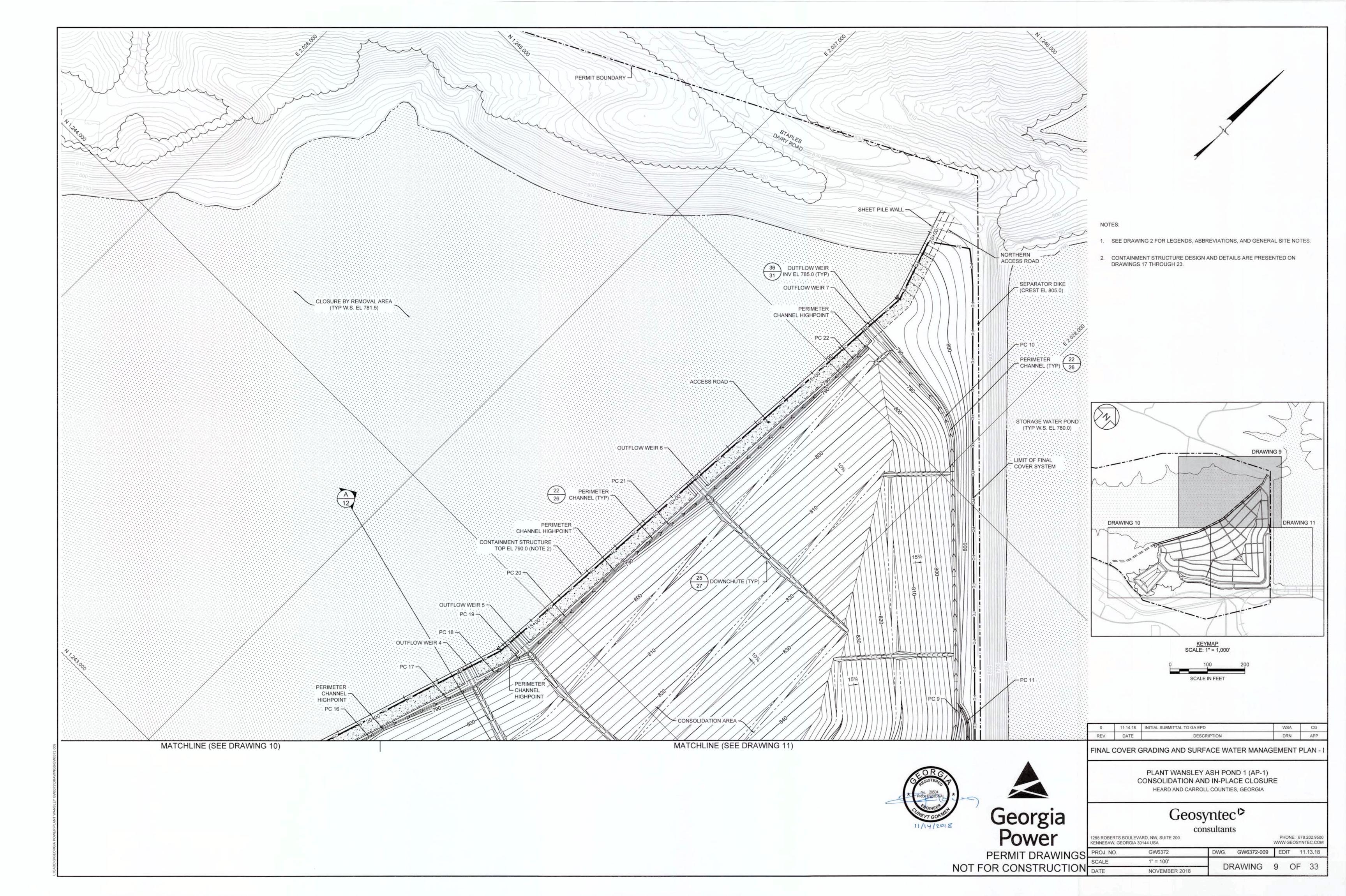
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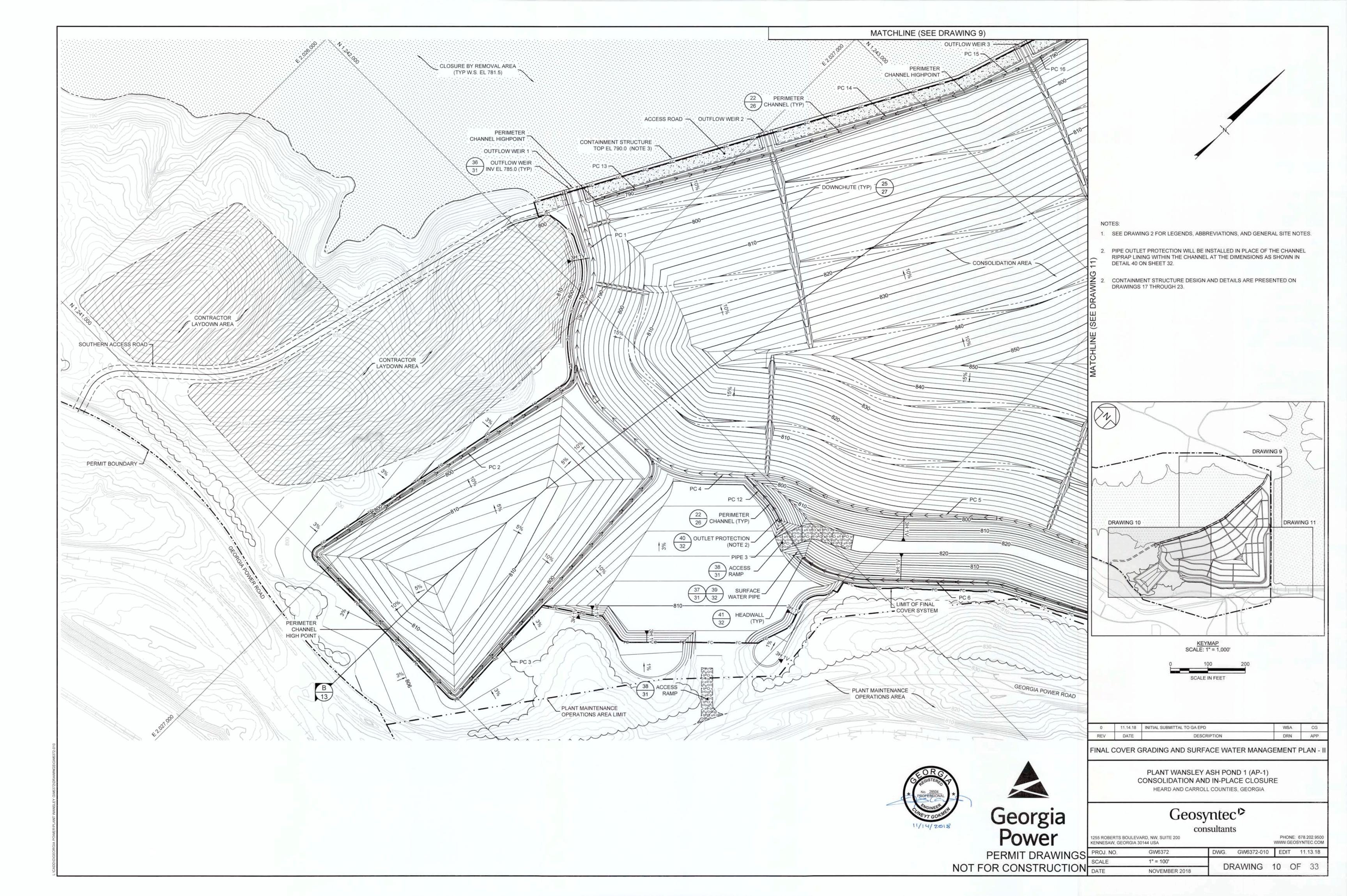
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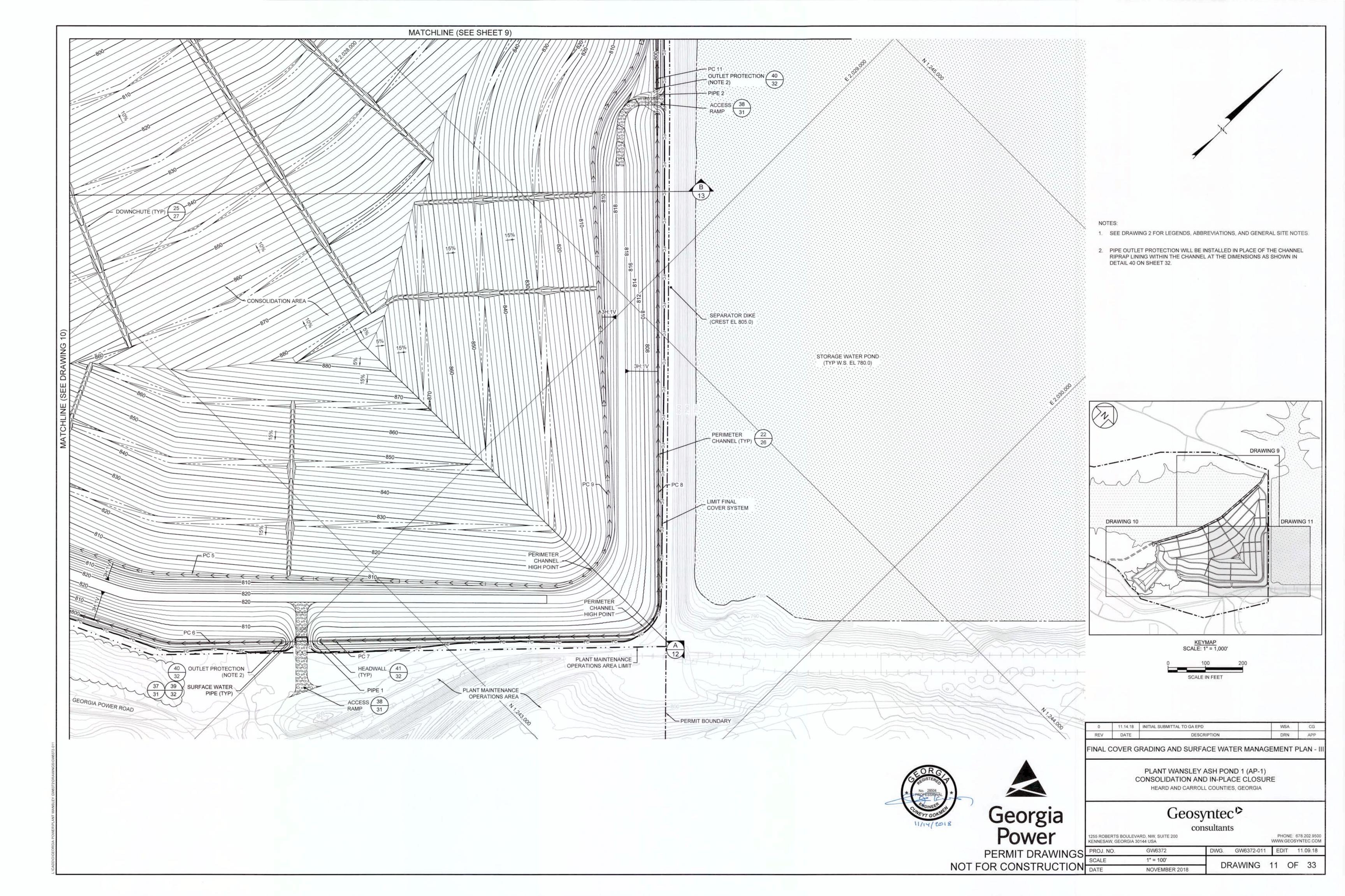
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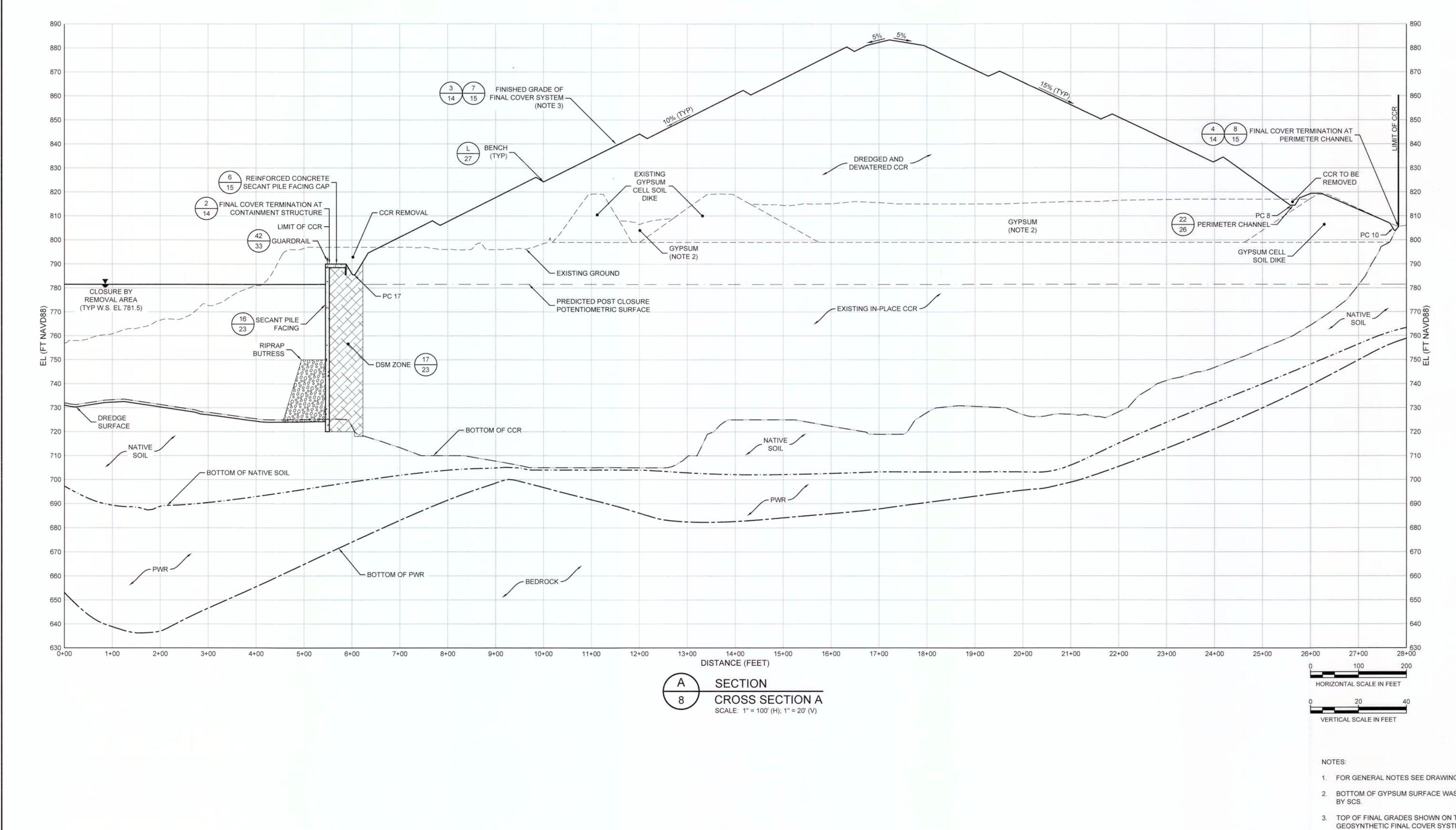










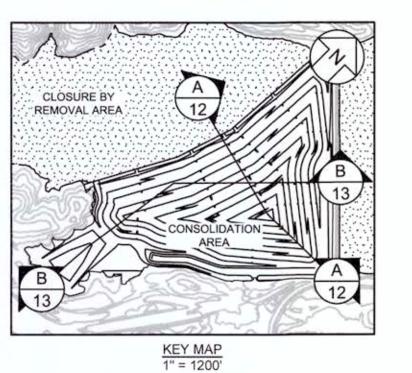


FOR GENERAL NOTES SEE DRAWING 2.

REV DATE

11.14.18 INITIAL SUBMITTAL TO GA EPD

- 2. BOTTOM OF GYPSUM SURFACE WAS ESTIMATED BASED ON INFORMATION PROVIDED
- 3. TOP OF FINAL GRADES SHOWN ON THE DRAWING REPRESENTS THE TOP OF SOIL AND GEOSYNTHETIC FINAL COVER SYSTEM ELEVATIONS WITHIN THE FINAL COVER LIMITS.







| Geo | rgia |
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PLANT WANSLEY ASH POND 1 (AP-1) CONSOLIDATION AND IN-PLACE CLOSURE HEARD AND CARROLL COUNTIES, GEORGIA

SITE CROSS SECTIONS I

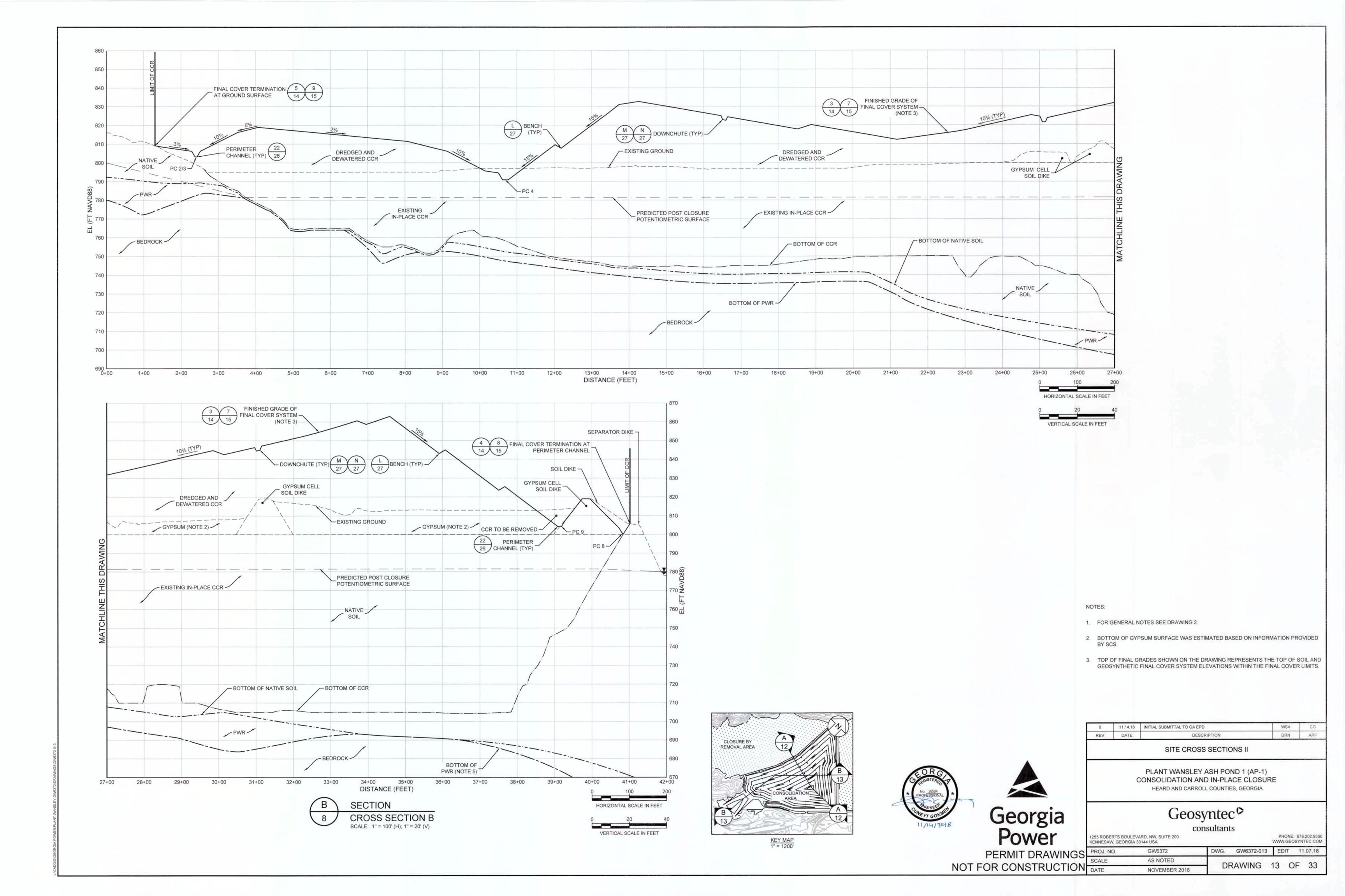
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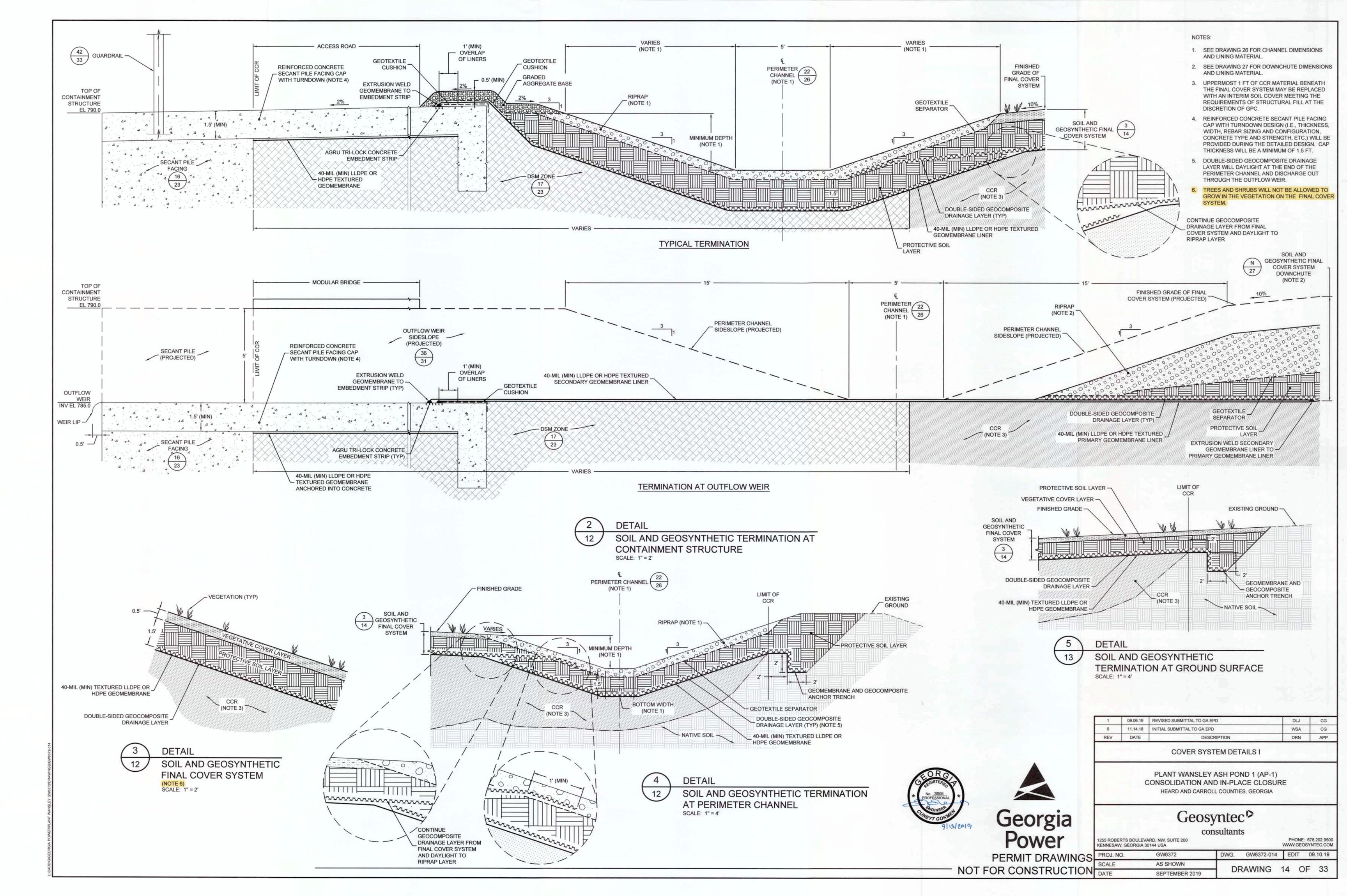
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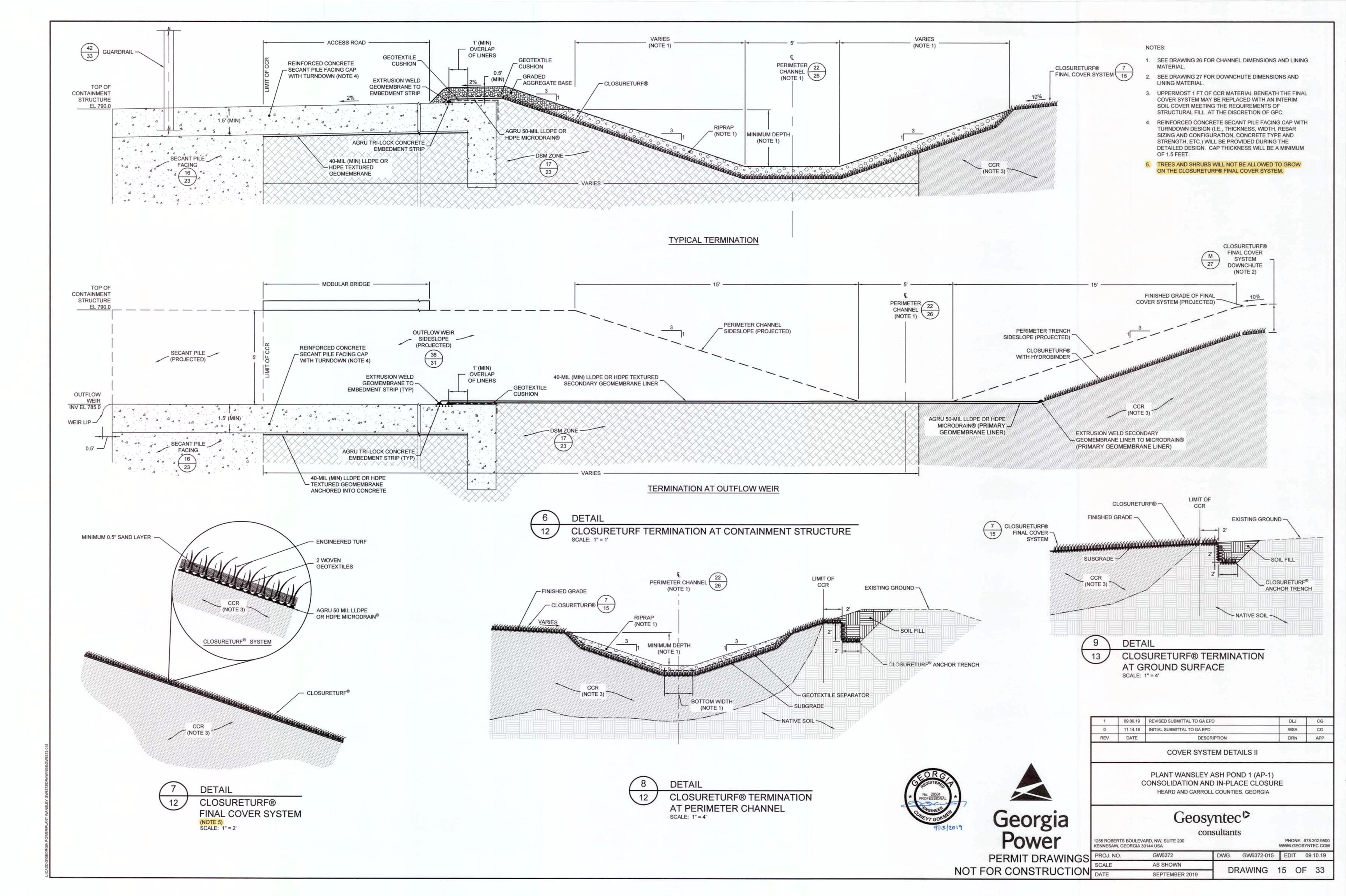
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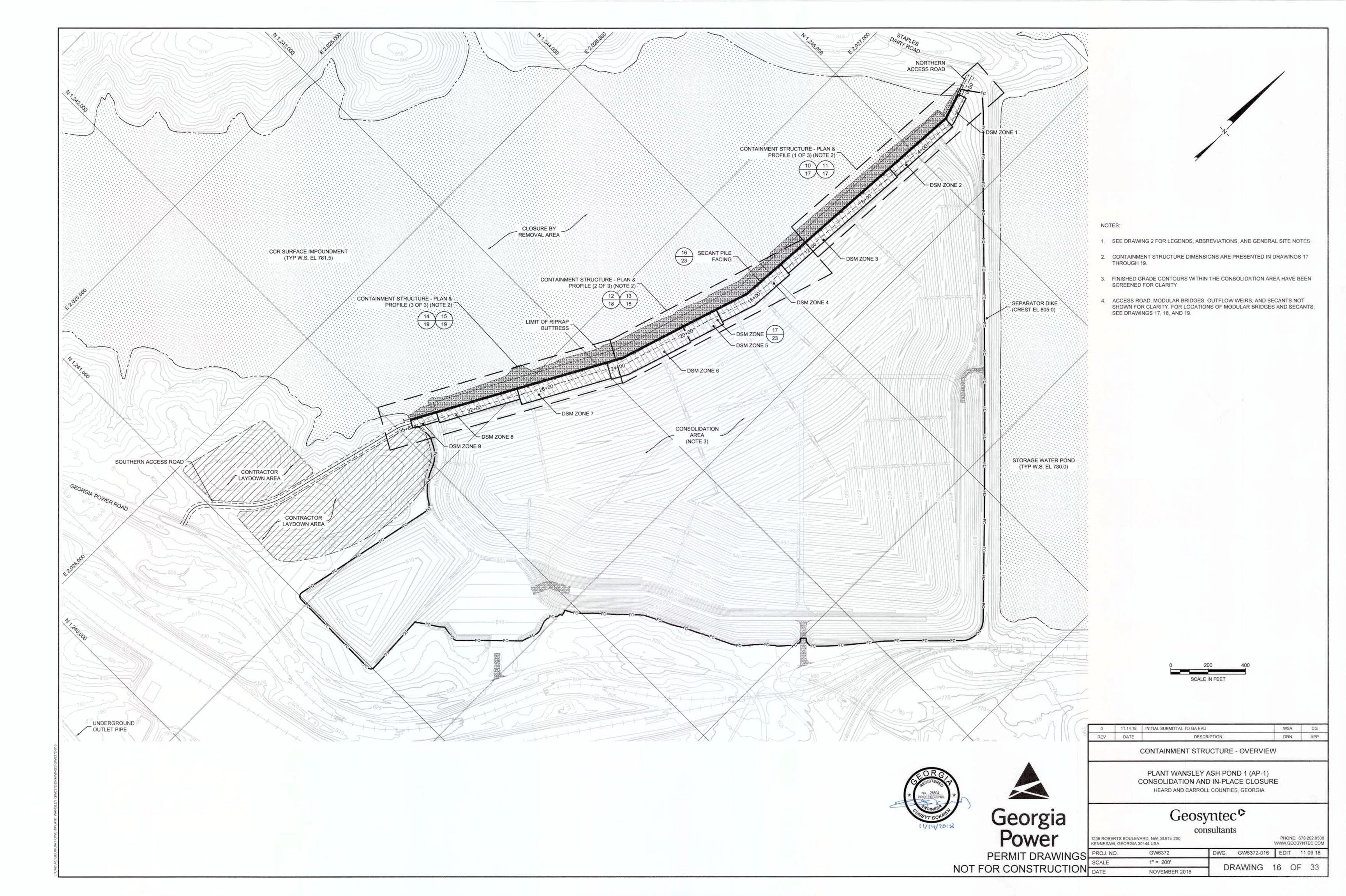
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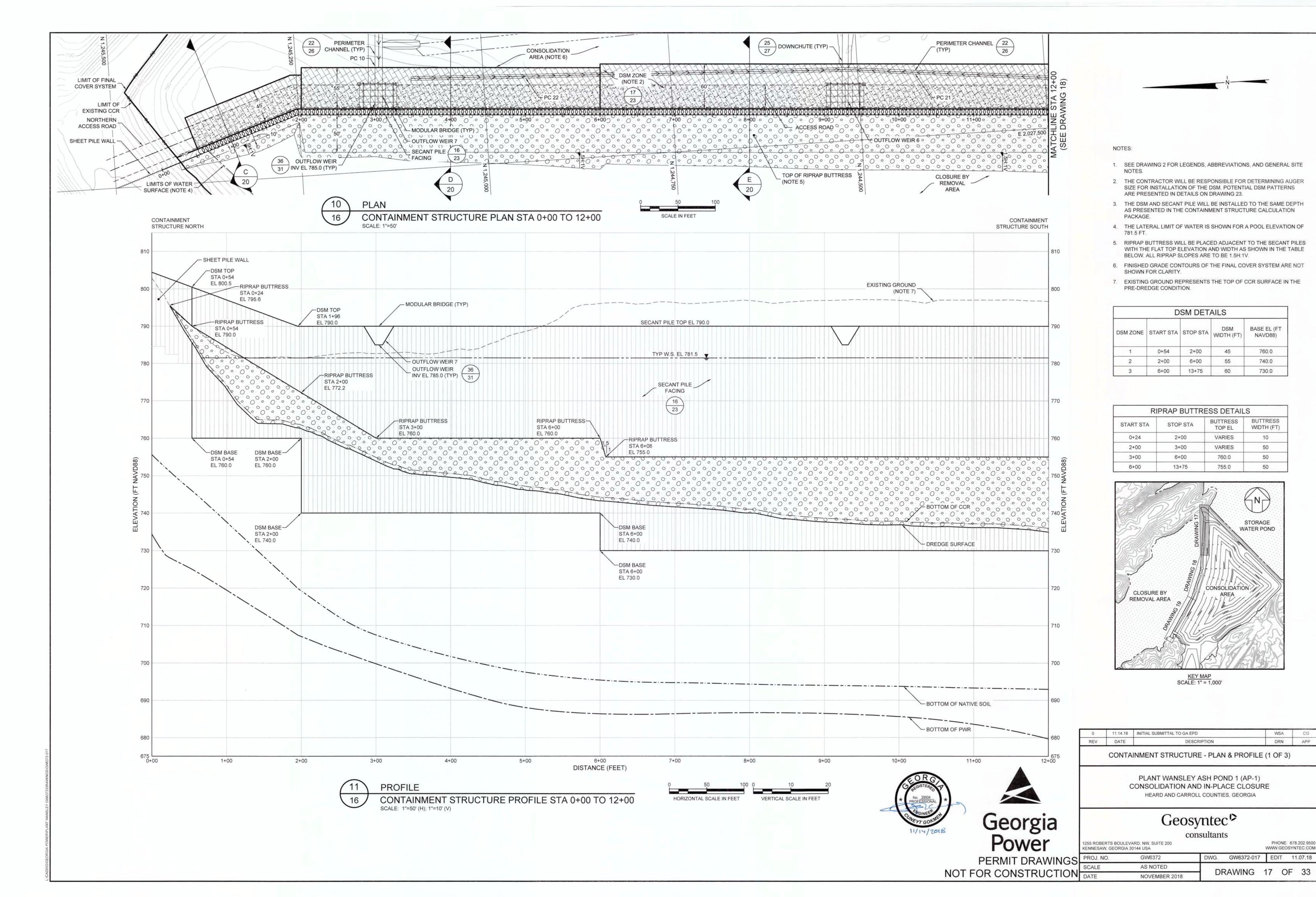
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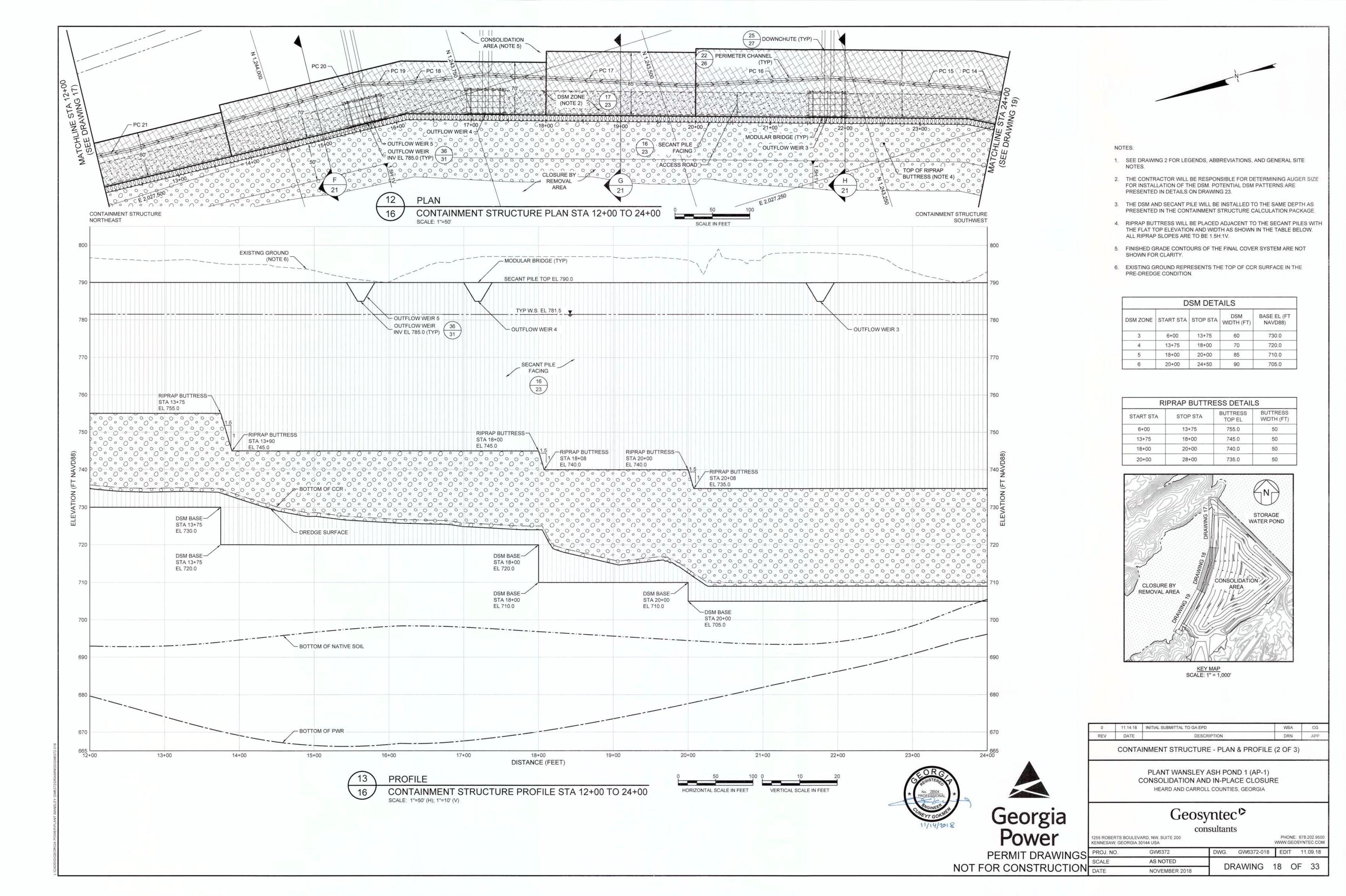


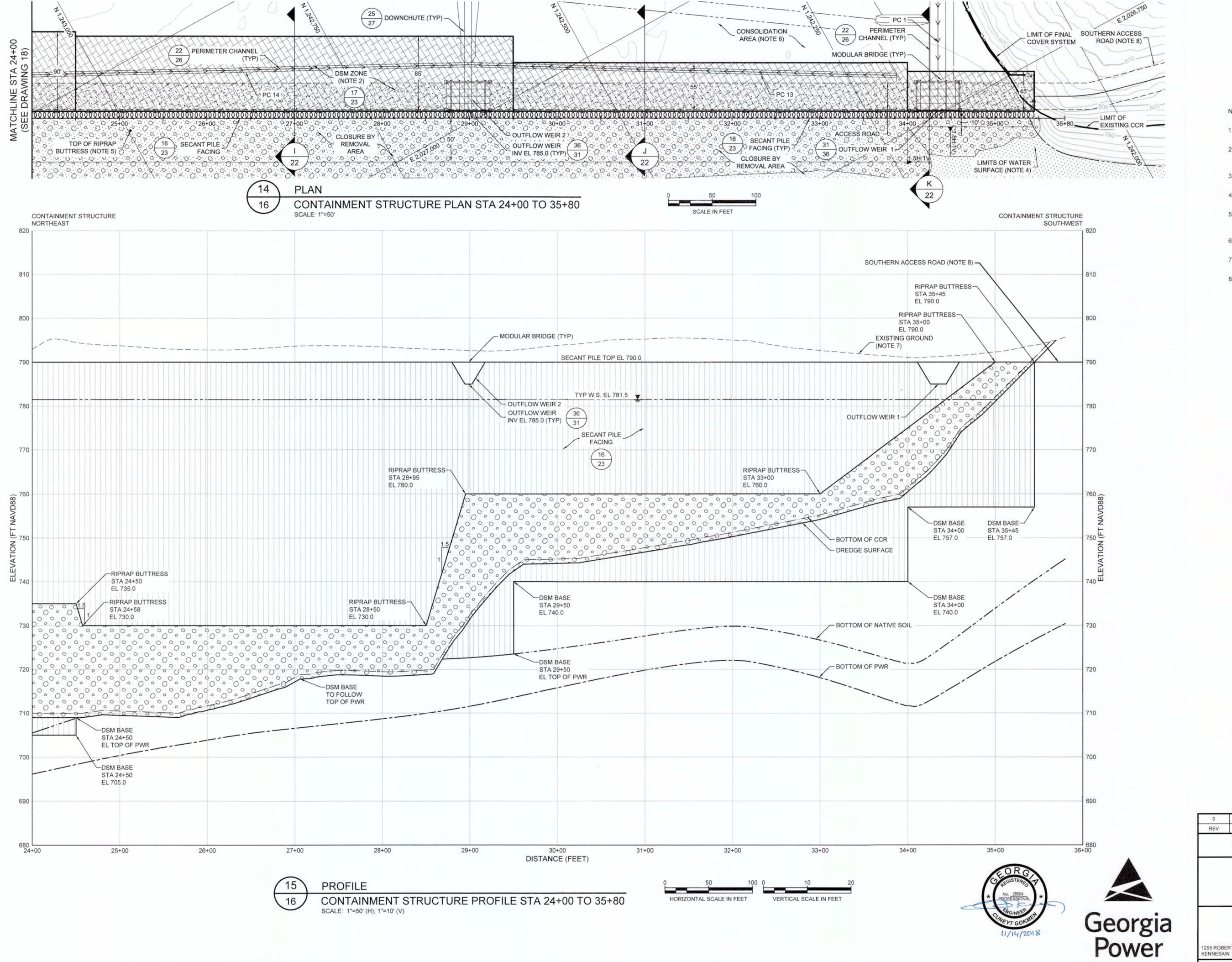












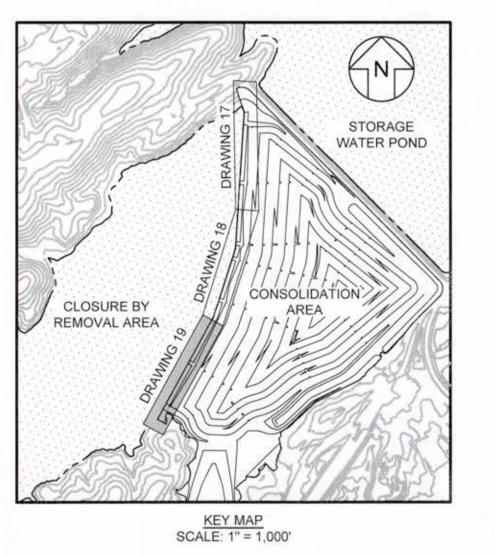


NOTES:

- 1. SEE DRAWING 2 FOR LEGENDS, ABBREVIATIONS, AND GENERAL SITE
- THE CONTRACTOR WILL BE RESPONSIBLE FOR DETERMINING AUGER SIZE FOR INSTALLATION OF THE DSM. POTENTIAL DSM PATTERNS ARE PRESENTED IN DETAILS ON DRAWING 23.
- THE DSM AND SECANT PILE WILL BE INSTALLED TO THE SAME DEPTH AS PRESENTED IN THE CONTAINMENT STRUCTURE CALCULATION PACKAGE.
- 4. THE LATERAL LIMIT OF WATER IS SHOWN FOR A POOL ELEVATION OF 781.5
- RIPRAP BUTTRESS WILL BE PLACED ADJACENT TO THE SECANT PILES WITH THE FLAT TOP ELEVATION AND WIDTH AS SHOWN IN THE TABLE BELOW. ALL RIPRAP SLOPES ARE TO BE 1.5H:1V.
- FINISHED GRADE CONTOURS OF THE FINAL COVER SYSTEM ARE NOT SHOWN FOR CLARITY.
- EXISTING GROUND REPRESENTS THE TOP OF CCR SURFACE IN THE PRE-DREDGE CONDITION.
- GRADING FOR THE SOUTHERN ACCESS ROAD WILL CONNECT WITH THE CONTAINMENT STRUCTURE AND BE PROVIDED IN THE DETAILED DESIGN.

| DSM DETAILS | | | | | |
|-------------|-----------|----------|-------------------|------------------------|--|
| DSM ZONE | START STA | STOP STA | DSM WIDTH (FT) | BASE EL (FT NAVD88) | |
| 6 | 20+00 | 24+50 | 90 | 705.0 | |
| 7 | 24+50 | 29+50 | 85 | TOP OF PWR | |
| 8 | 29+50 | 34+00 | 55 | 740.0 | |
| 9 | 34+00 | 35+45 | 45 | 757.0 | |

| RI | PRAP BUTTF | KESS DETAIL | .5 |
|-----------|------------|--------------------|------------------------|
| START STA | STOP STA | BUTTRESS TOP EL | BUTTRESS WIDTH (FT) |
| 20+00 | 24+50 | 735.0 | 50 |
| 24+50 | 28+50 | 730.0 | 50 |
| 28+50 | 33+00 | 760.0 | 50 |
| 33+00 | 34+00 | VARIES | 50 |
| 34+00 | 35+45 | VARIES | 10 |



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CONTAINMENT STRUCTURE - PLAN & PROFILE (3 OF 3)

PLANT WANSLEY ASH POND 1 (AP-1)
CONSOLIDATION AND IN-PLACE CLOSURE
HEARD AND CARROLL COUNTIES, GEORGIA

Geosyntec[>]

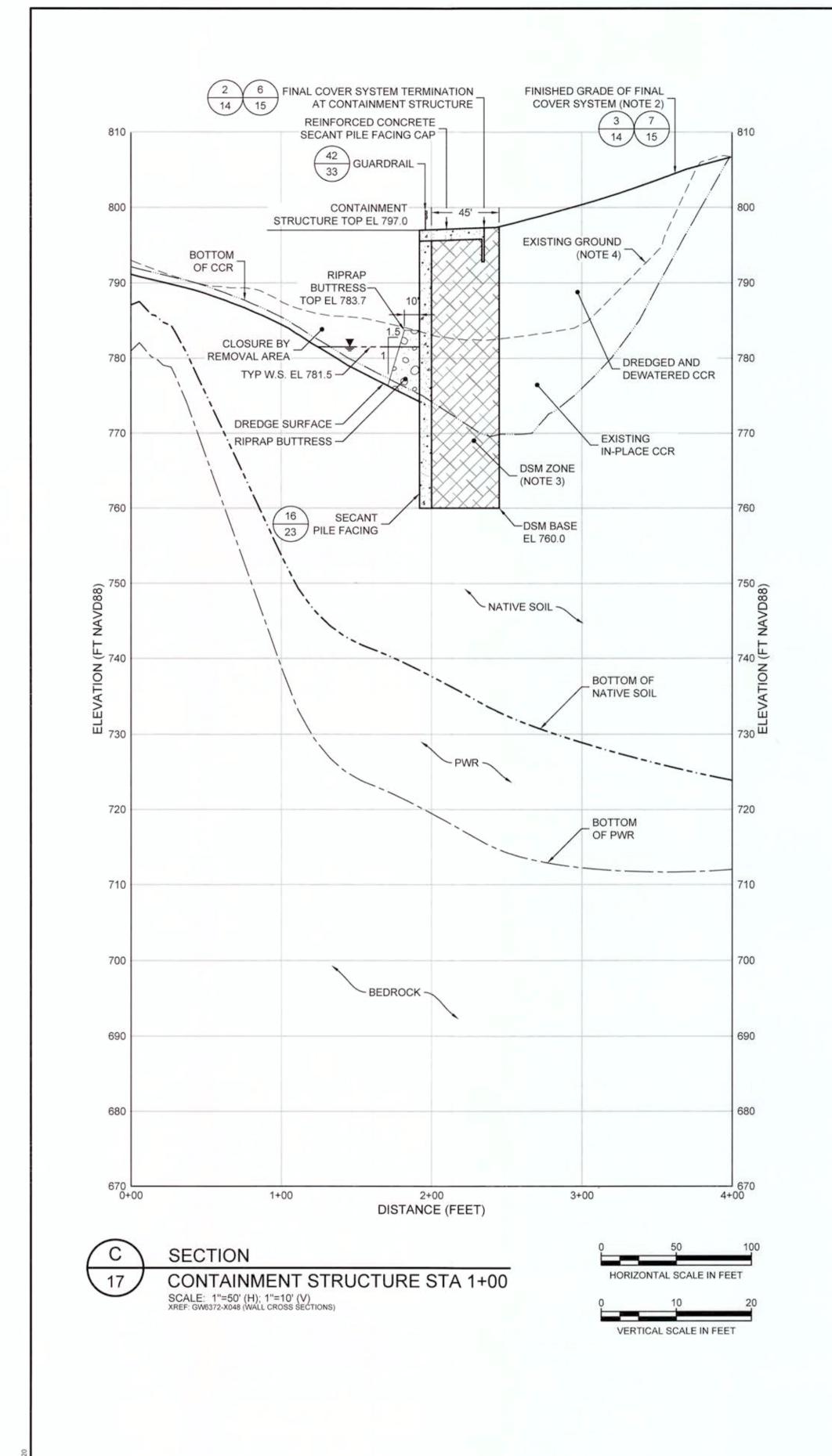
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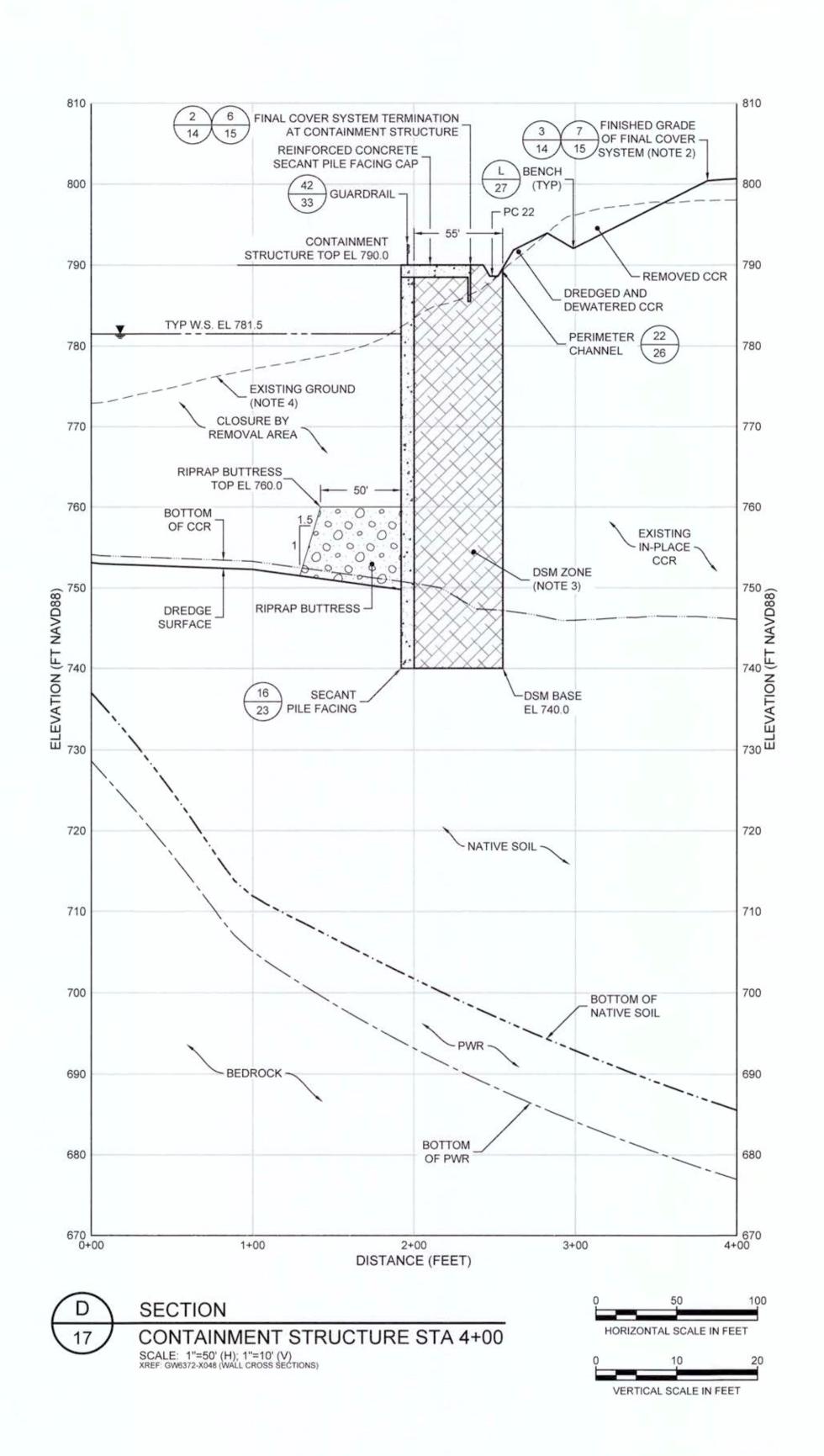
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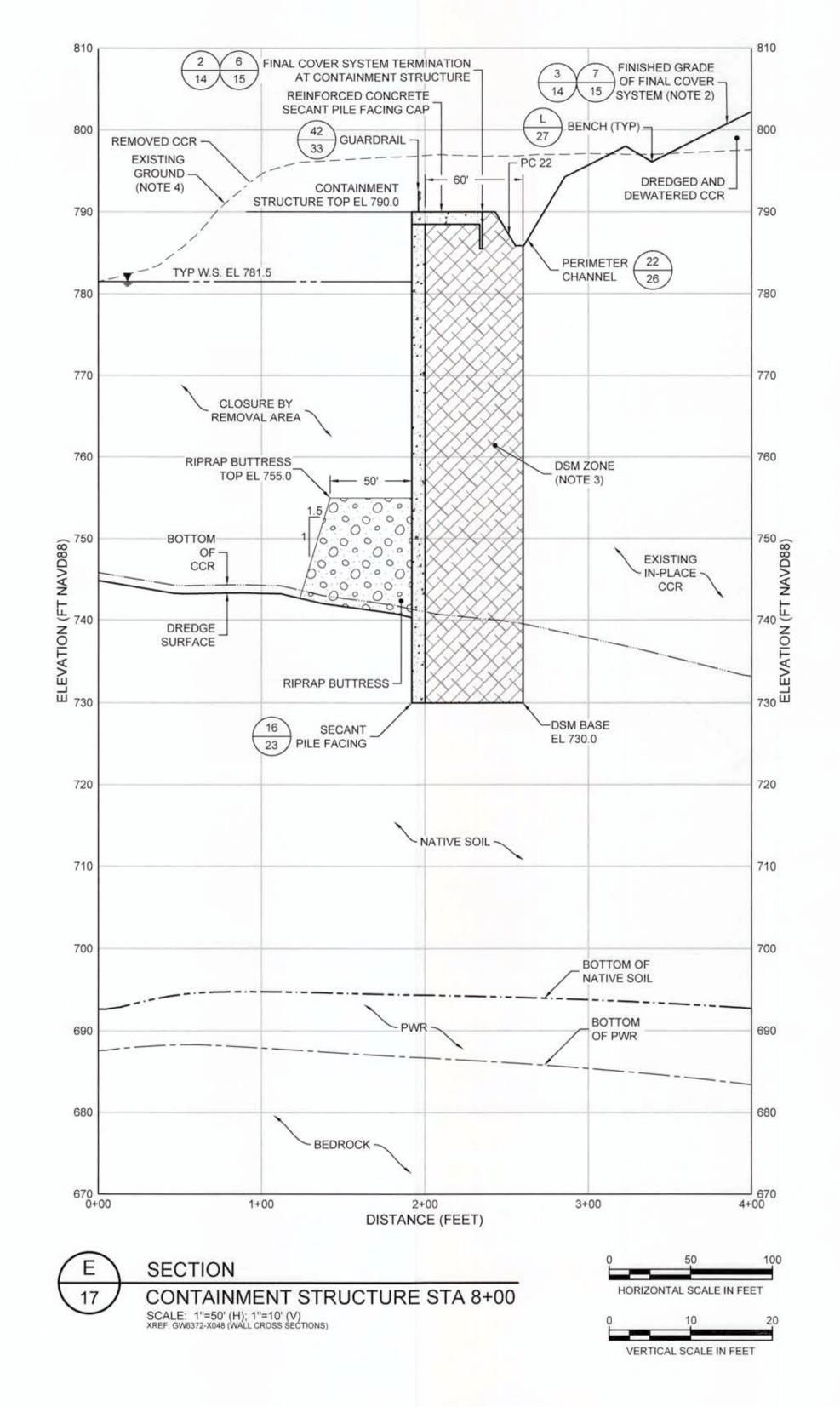
1255 ROBERTS BOULEVARD, NW, SUITE 200
KENNESAW, GEORGIA 30144 USA

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 33









- FOR GENERAL NOTES SEE DRAWING 2.
- 2. FINISHED GRADE OF THE FINAL COVER SYSTEM REPRESENTS THE MAXIMUM GRADES REQUIRED TO
- 3. THE DSM AND SECANT PILE FACING WILL BE FURTHER OPTIMIZED DURING DETAILED DESIGN. PRESENTED DIMENSIONS CORRESPOND TO THE PERMIT CALCULATION PACKAGE AND ARE SUBJECT TO CHANGE.
- 4. EXISTING GROUND REPRESENTS THE TOP OF CCR SURFACE IN THE PRE-DREDGE CONDITION.





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PLANT WANSLEY ASH POND 1 (AP-1) CONSOLIDATION AND IN-PLACE CLOSURE HEARD AND CARROLL COUNTIES, GEORGIA

Geosyntec[>]

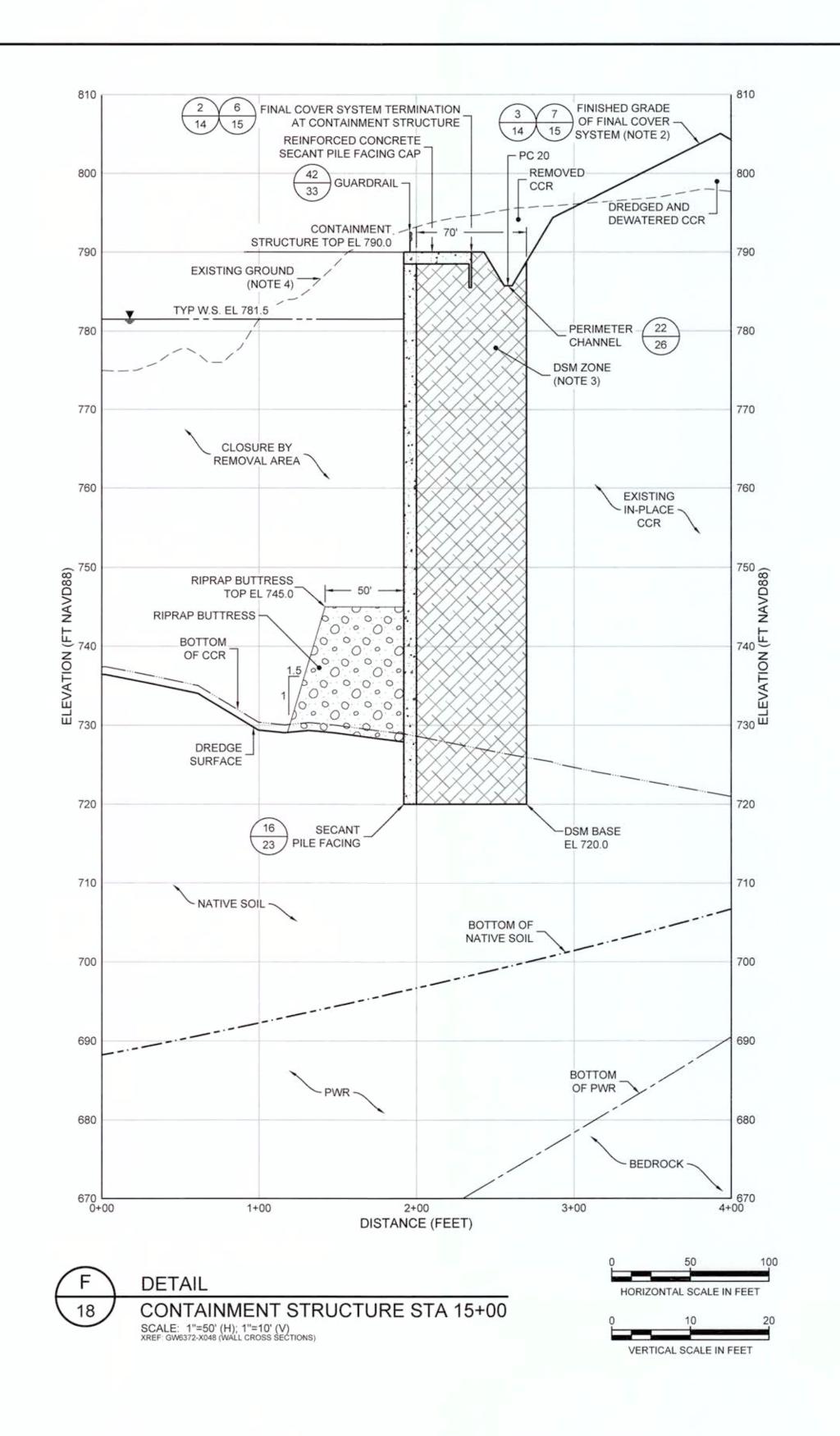
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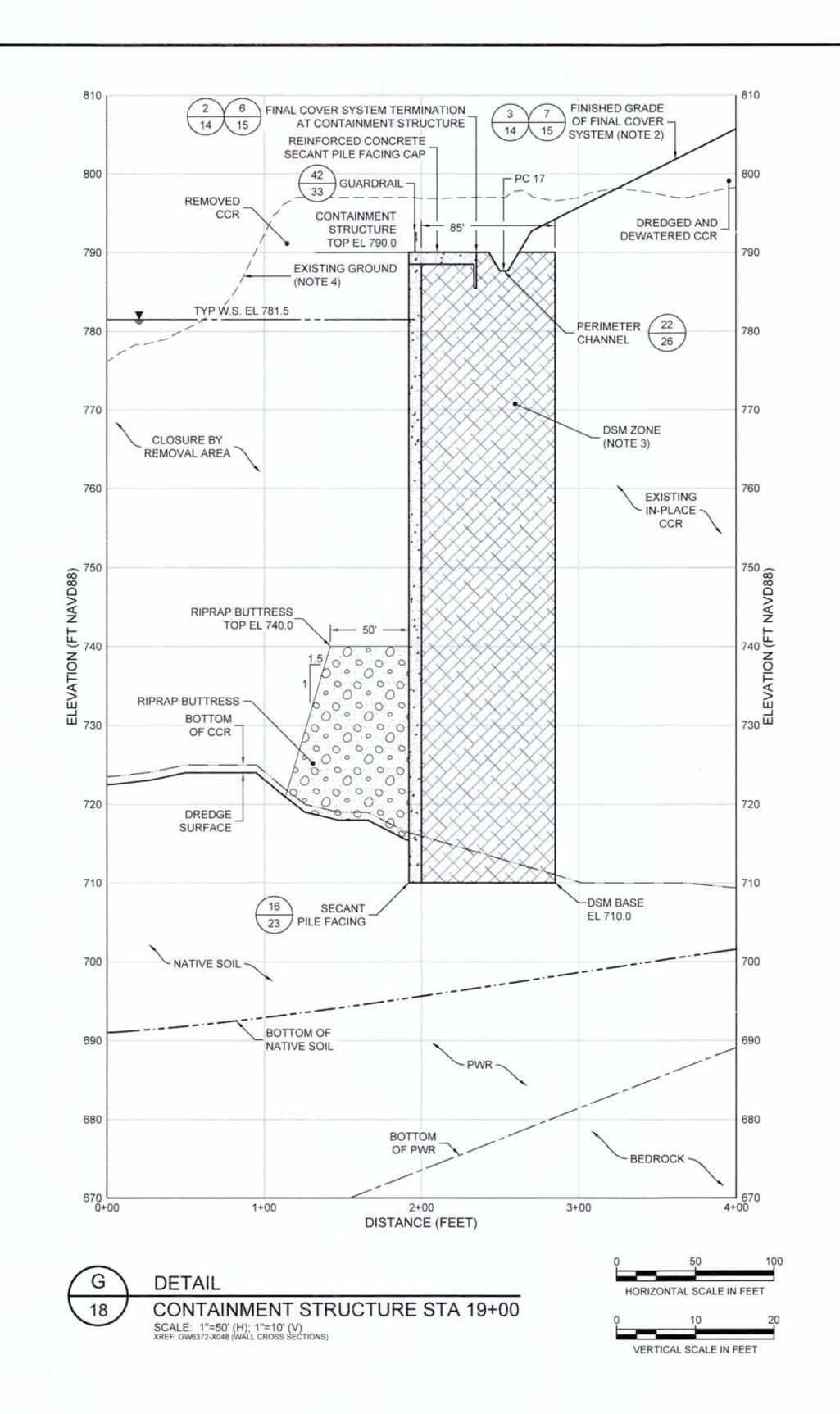
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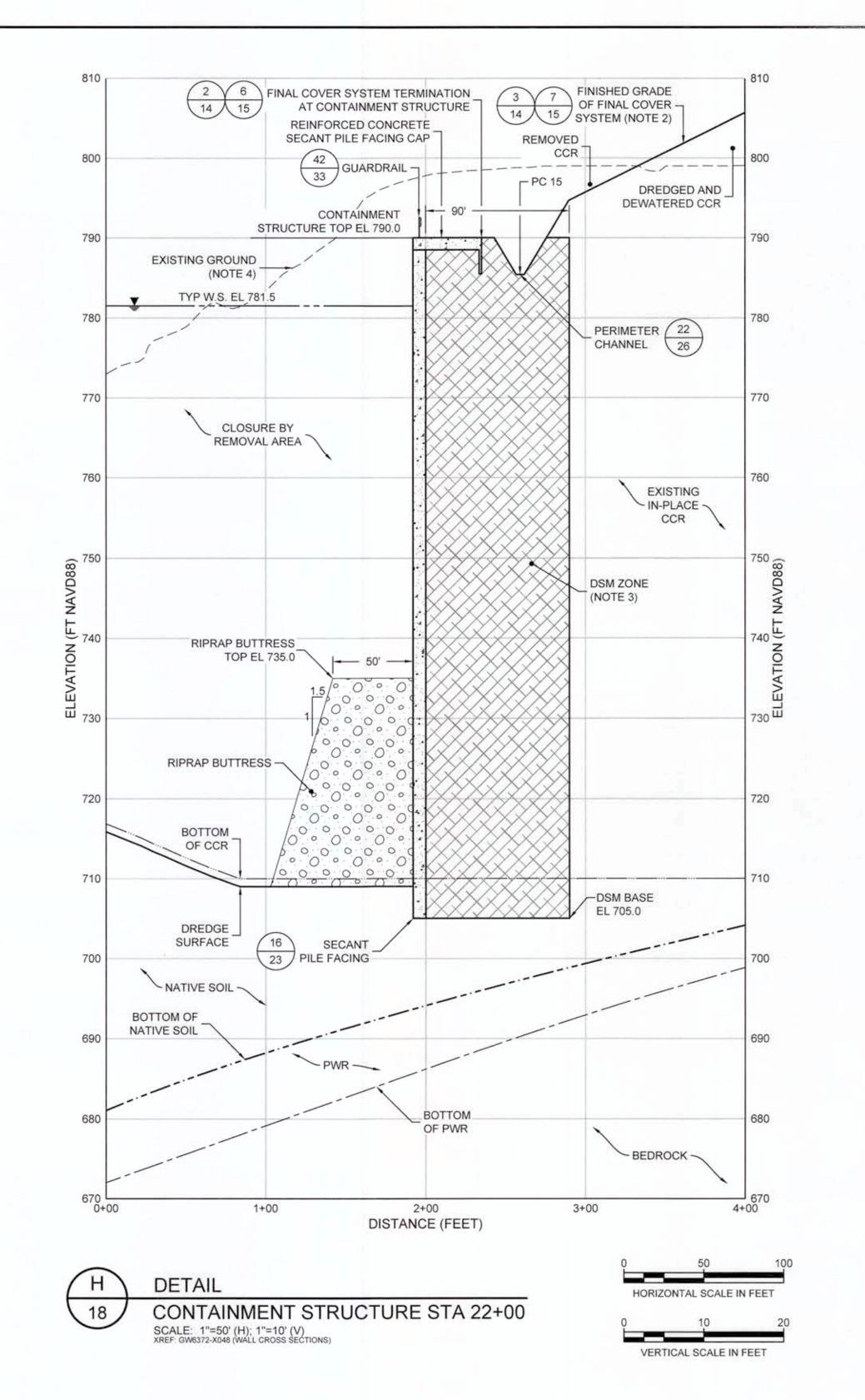
255 ROBERTS BOULEVARD, NW, SUITE 200

KENNESAW, GEORGIA 30144 USA

CONTAIN THE CCR MATERIAL USING THE THICKER SOIL AND GEOSYNTHETIC FINAL COVER SYSTEM.









1. FOR GENERAL NOTES SEE DRAWING 2.

2. FINISHED GRADE OF THE FINAL COVER SYSTEM REPRESENTS THE MAXIMUM GRADES REQUIRED TO CONTAIN THE CCR MATERIAL USING THE THICKER SOIL AND GEOSYNTHETIC FINAL COVER SYSTEM.

3. THE DSM AND SECANT PILE FACING WILL BE FURTHER OPTIMIZED DURING DETAILED DESIGN. PRESENTED DIMENSIONS CORRESPOND TO THE PERMIT CALCULATION PACKAGE AND ARE SUBJECT TO CHANGE.

4. EXISTING GROUND REPRESENTS THE TOP OF CCR SURFACE IN THE PRE-DREDGE CONDITION.





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PLANT WANSLEY ASH POND 1 (AP-1)

CONSOLIDATION AND IN-PLACE CLOSURE HEARD AND CARROLL COUNTIES, GEORGIA

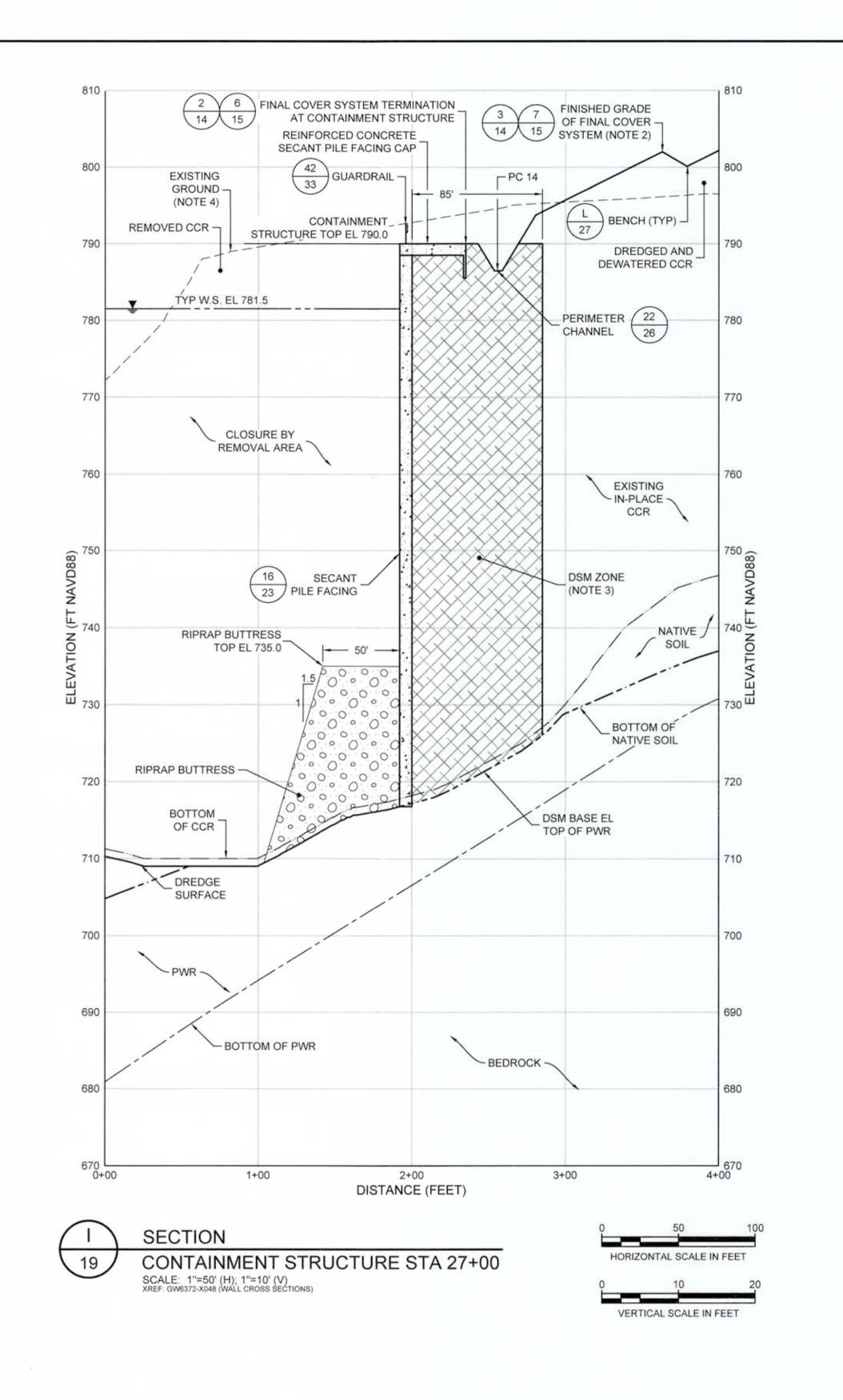
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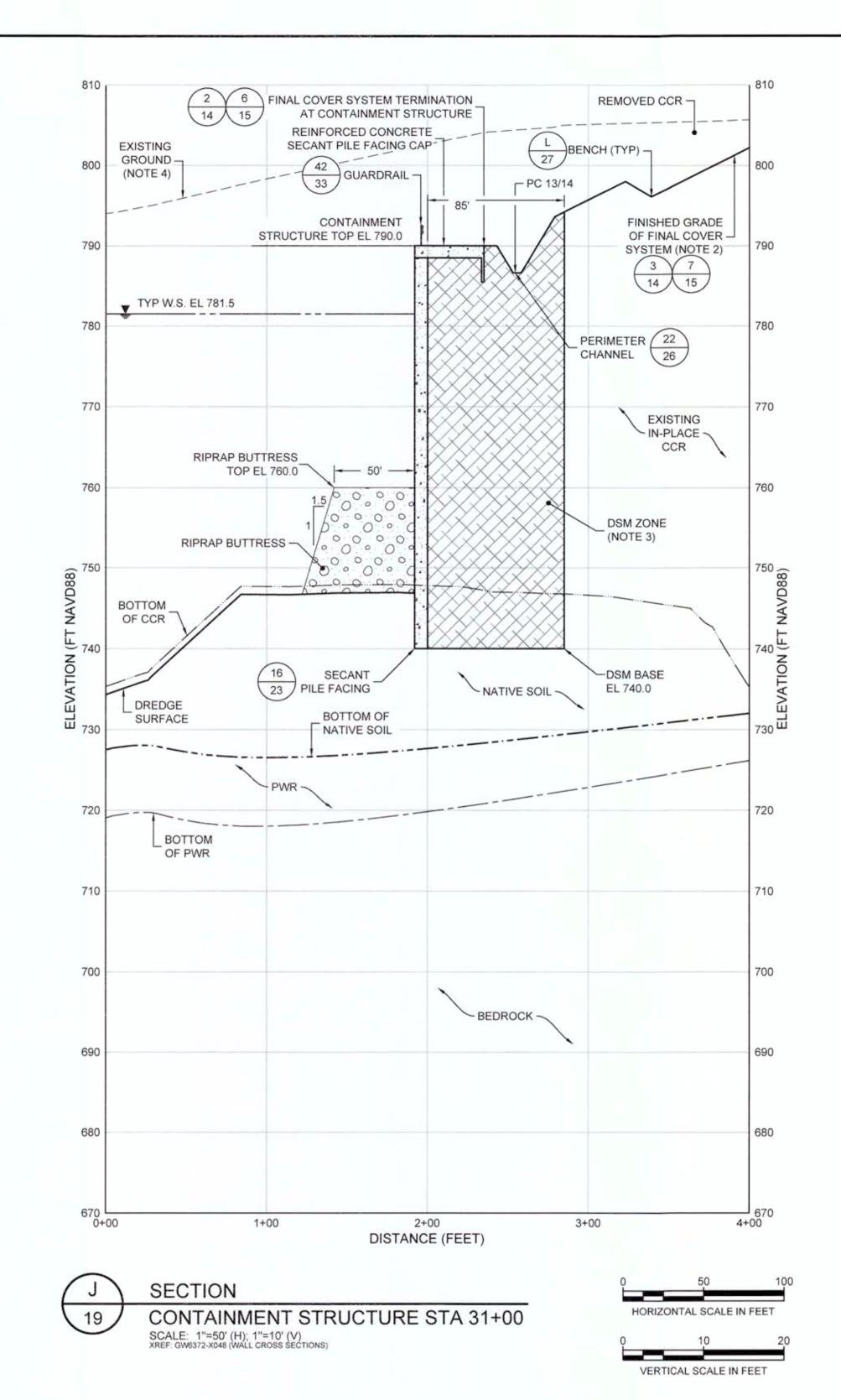
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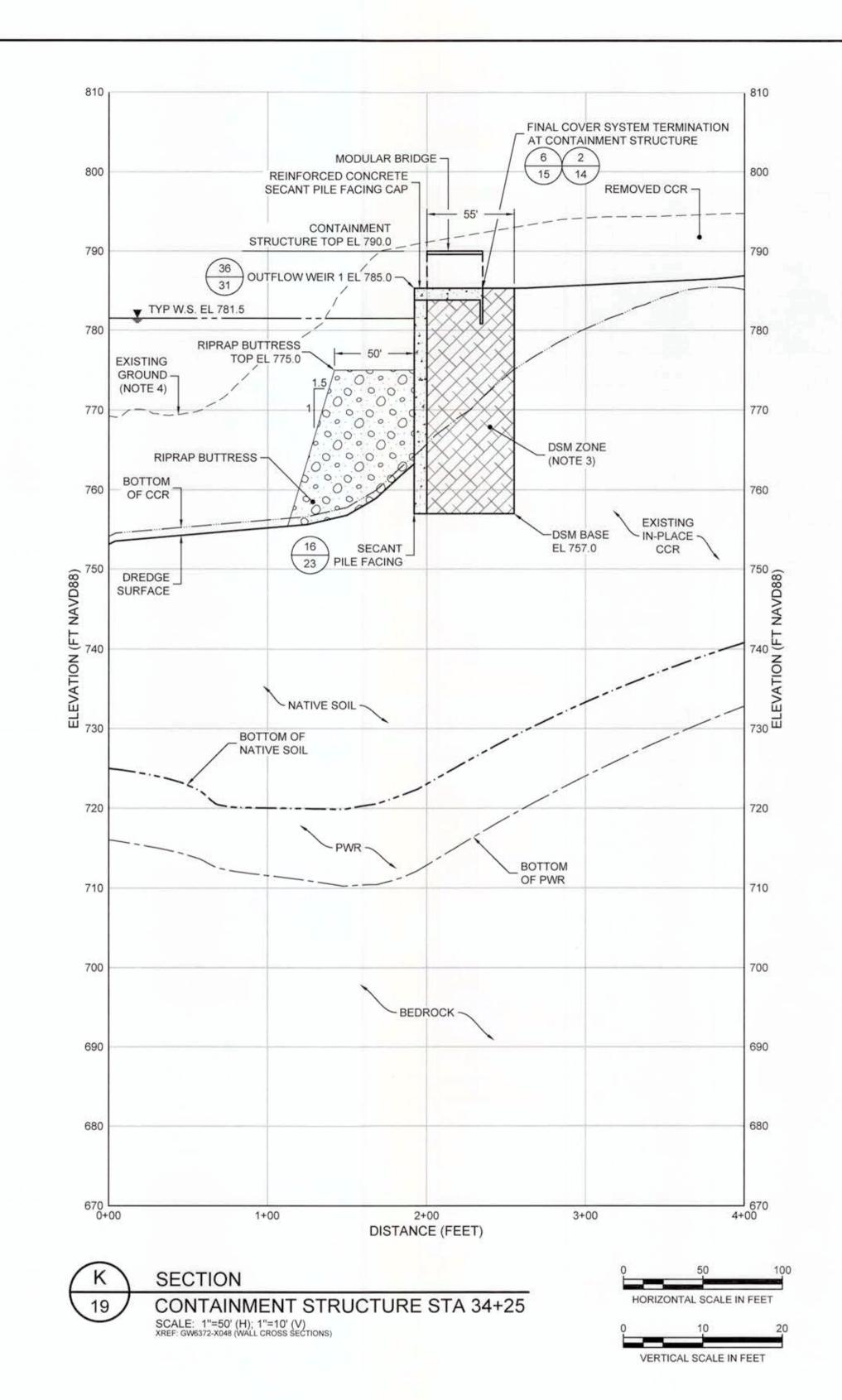
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PERMIT DRAWINGS PROJ. NO. NOT FOR CONSTRUCTION DATE









- 1. FOR GENERAL NOTES SEE DRAWING 2.
- 2. FINISHED GRADE OF THE FINAL COVER SYSTEM REPRESENTS THE MAXIMUM GRADES REQUIRED TO CONTAIN THE CCR MATERIAL USING THE THICKER SOIL AND GEOSYNTHETIC FINAL COVER SYSTEM.
- THE DSM AND SECANT PILE FACING WILL BE FURTHER OPTIMIZED DURING DETAILED DESIGN. PRESENTED DIMENSIONS CORRESPOND TO THE PERMIT CALCULATION PACKAGE AND ARE SUBJECT TO CHANGE.
- EXISTING GROUND REPRESENTS THE TOP OF CCR SURFACE IN THE PRE-DREDGE CONDITION.





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| \mathbf{A} | | | PLANT WANSLEY ASH POND 1 (AP-1 |) | |

CONSOLIDATION AND IN-PLACE CLOSURE
HEARD AND CARROLL COUNTIES, GEORGIA

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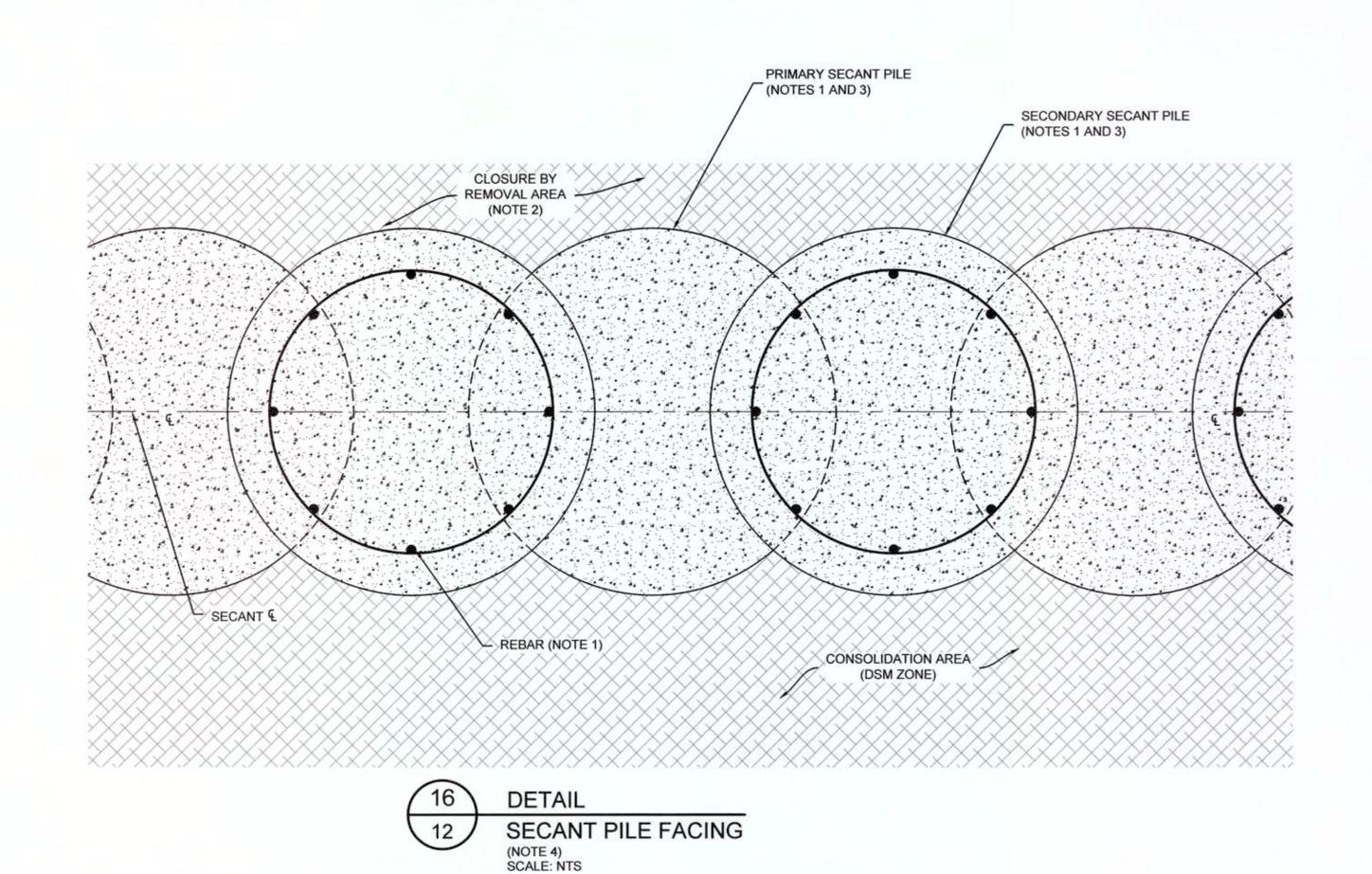
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KENNESAW, GEORGIA 30144 USA

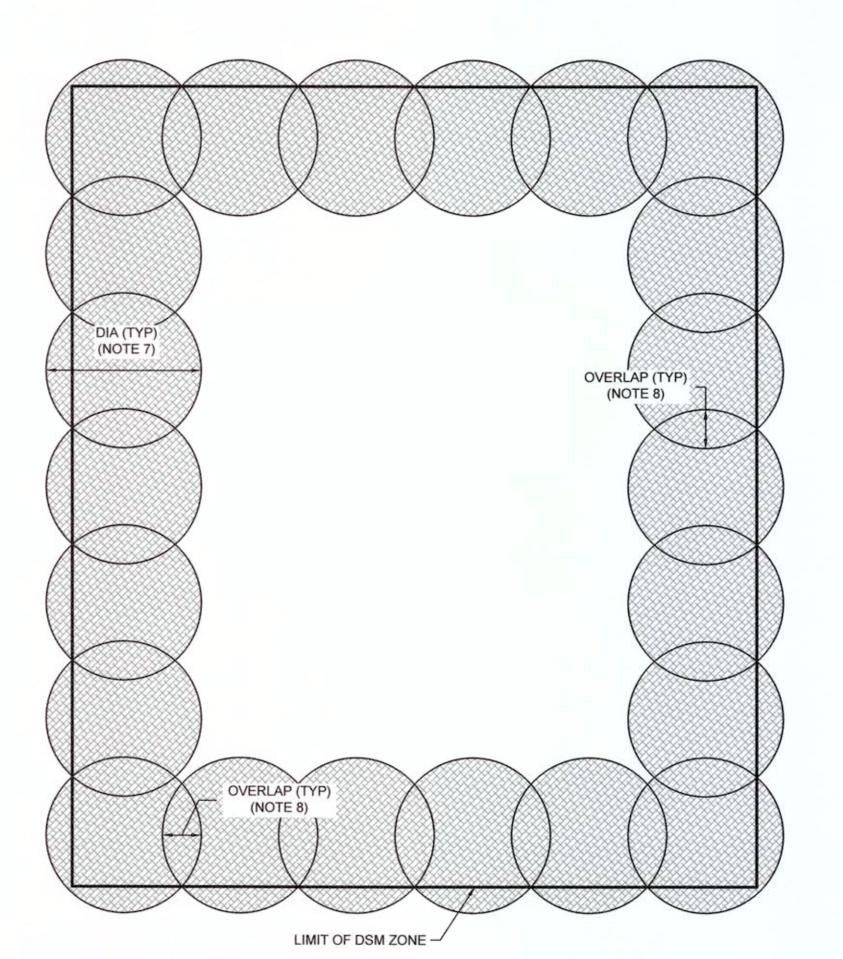
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DWG. GW6372-022 EDIT 11.07.18

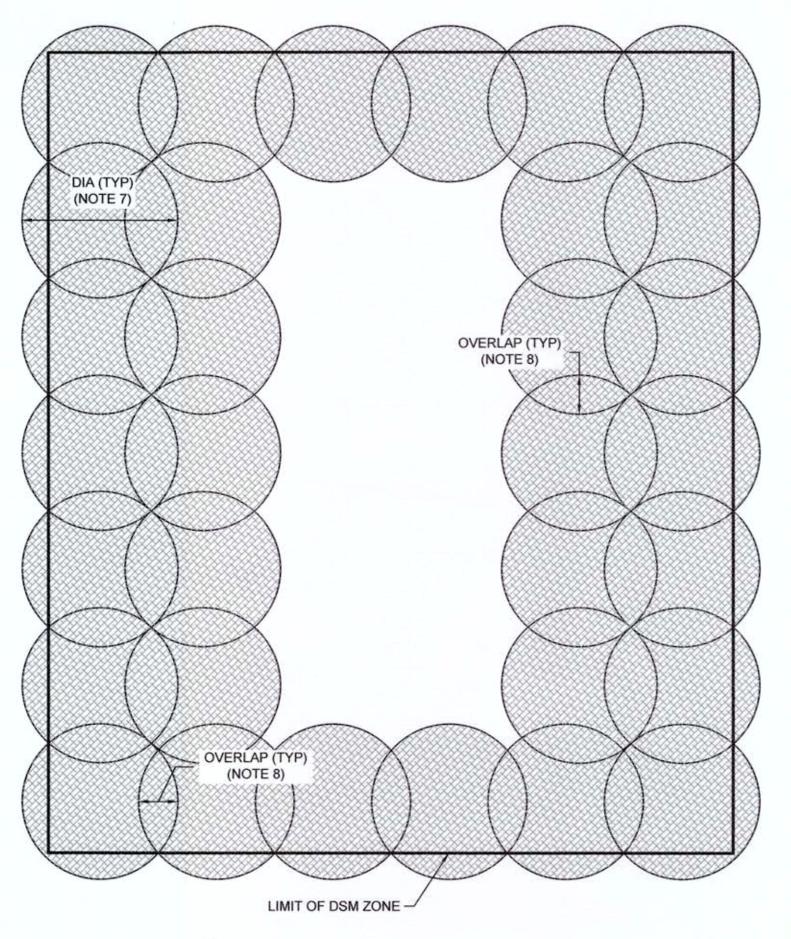
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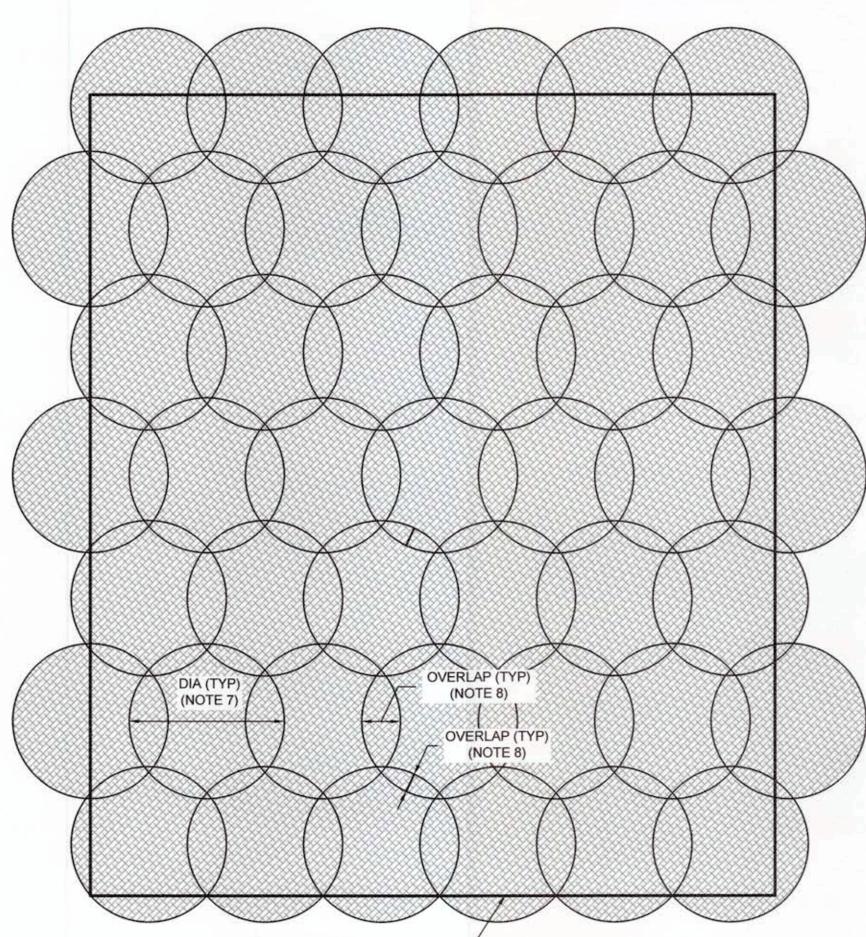


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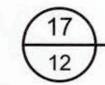
DETAIL

DSM PATTERN - ALTERNATE II

(NOTE 6)
SCALE: NTS



LIMIT OF DSM ZONE (NOTE 3) -



DETAIL

DSM PATTERN (NOTE 5) SCALE: NTS

NOTES:

- CONTRACTOR WILL INSTALL SECANT PILES IN A PRIMARY AND SECONDARY MANNER. REBAR WILL BE INSTALLED IN SECONDARY PILES.
- A SMALL PORTION OF THE DSM BLOCK MAY REMAIN ON THE CLOSURE BY REMOVAL SIDE OF THE SECANT PILES DURING THE INSTALLATION. FOLLOWING COMPLETION OF THE CONTAINMENT STRUCTURE, DSM ON THE CLOSURE BY REMOVAL SIDE OF THE SECANT PILES WILL BE REMOVED AND PLACED WITHIN THE CONSOLIDATION AREA.
- SECANT PILE DESIGN (I.E., DIAMETER, OVERLAP, REBAR SIZING AND CONFIGURATION, CONCRETE TYPE AND STRENGTH, ETC.) WILL BE PROVIDED DURING THE DETAILED DESIGN. SECANT PILE DIAMETER WILL BE A MINIMUM OF 4 FEET.
- GUARDRAIL SYSTEM AND CONCRETE ROADWAY WILL BE COORDINATED WITH THE SECANT PILE SIZING AND OVERLAP DURING THE DETAILED DESIGN.
- CALCULATIONS PROVIDED ASSUME THAT THE DSM ZONE CONSISTS OF 100% REPLACEMENT.
- 6. THE REPLACEMENT RATIO FOR THE DSM ZONE WILL BE FURTHER EVALUATED DURING THE DETAILED DESIGN PROCESS. DETAILS 18 AND 19 ARE TWO POSSIBLE DSM PATTERNS WITH A LESS THAN 100% REPLACEMENT RATIO. FINAL LAYOUT OF DSM ZONES AND COLUMNS, AS WELL AS SUPPORTING ENGINEERING ANALYSIS WILL BE INCLUDED AS PART OF THE FINAL DESIGN DESIGN PACKAGE ISSUED FOR CONSTRUCTION. ANY CHANGES WILL MEET THE ESTABLISHED PROJECT SPECIFICATIONS FOR STRENGTH AND PERFORMANCE. CONSTRUCTED DSM ZONE DESIGNS WILL BE SHOWN IN THE FINAL CONSTRUCTION CERTIFICATION DOCUMENTATION PROVIDED TO TO GA EPD AT THE CONCLUSION OF THE PROJECT.
- AUGER DIAMETER FOR THE DSM WILL BE SPECIFIED BY THE CONTRACTOR.
- DSM COLUMN OVERLAP DISTANCE WILL BE DETERMINED ONCE AUGER DIAMETER IS SPECIFIED.



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PLANT WANSLEY ASH POND 1 (AP-1)
CONSOLIDATION AND IN-PLACE CLOSURE

09.06.19 REVISED SUBMITTAL TO GA EPD

Geosyntec

HEARD AND CARROLL COUNTIES, GEORGIA

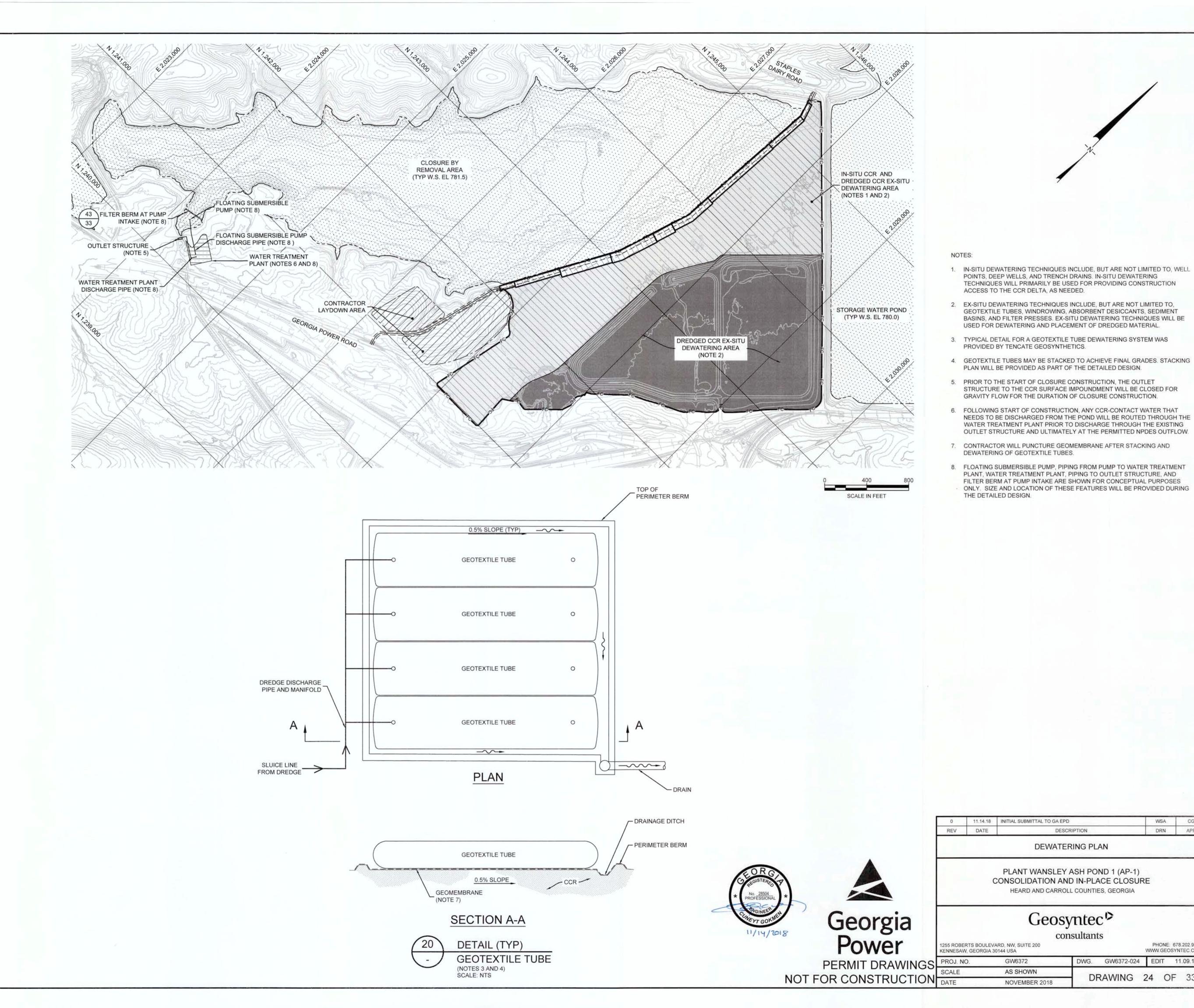
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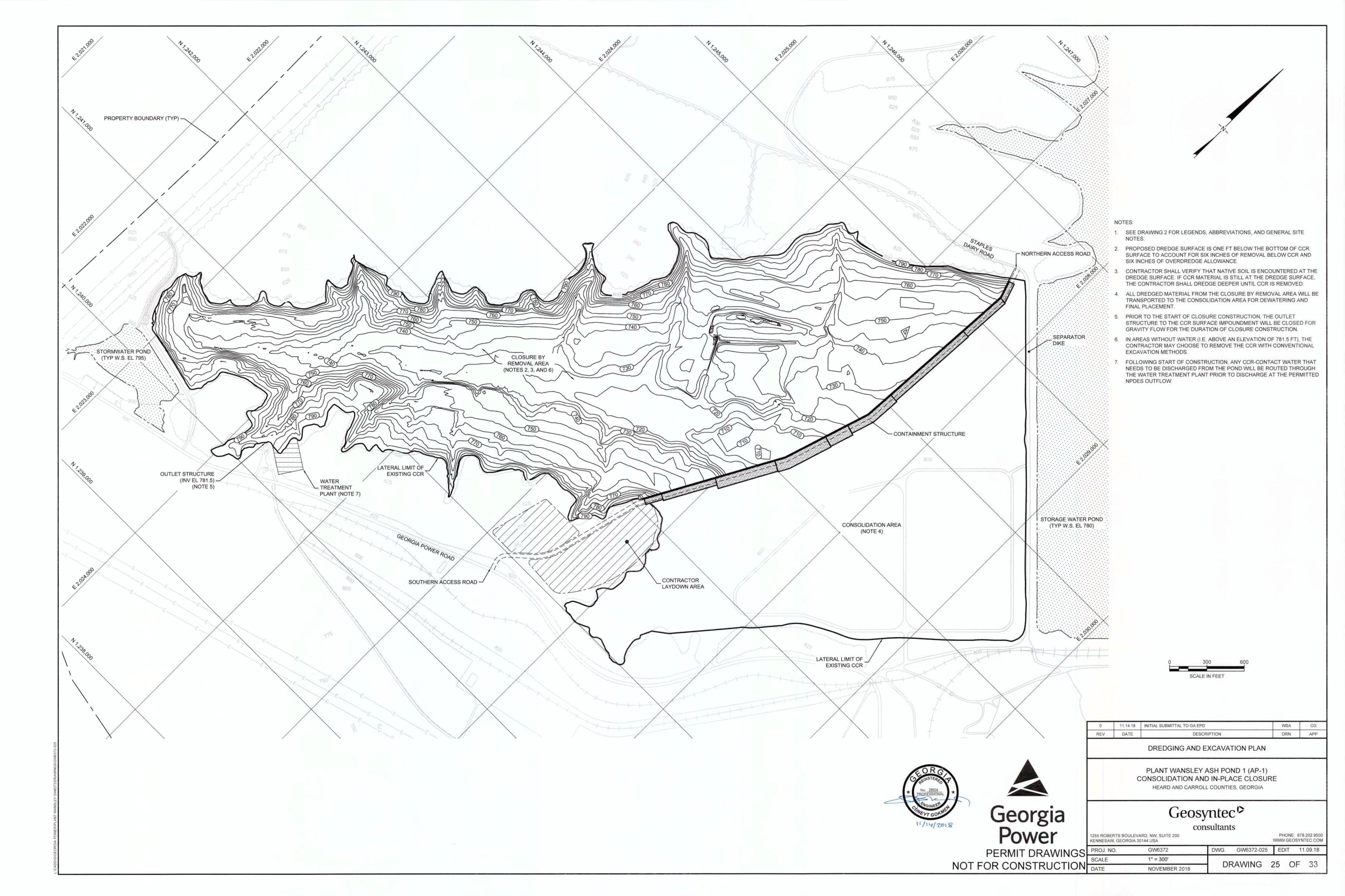
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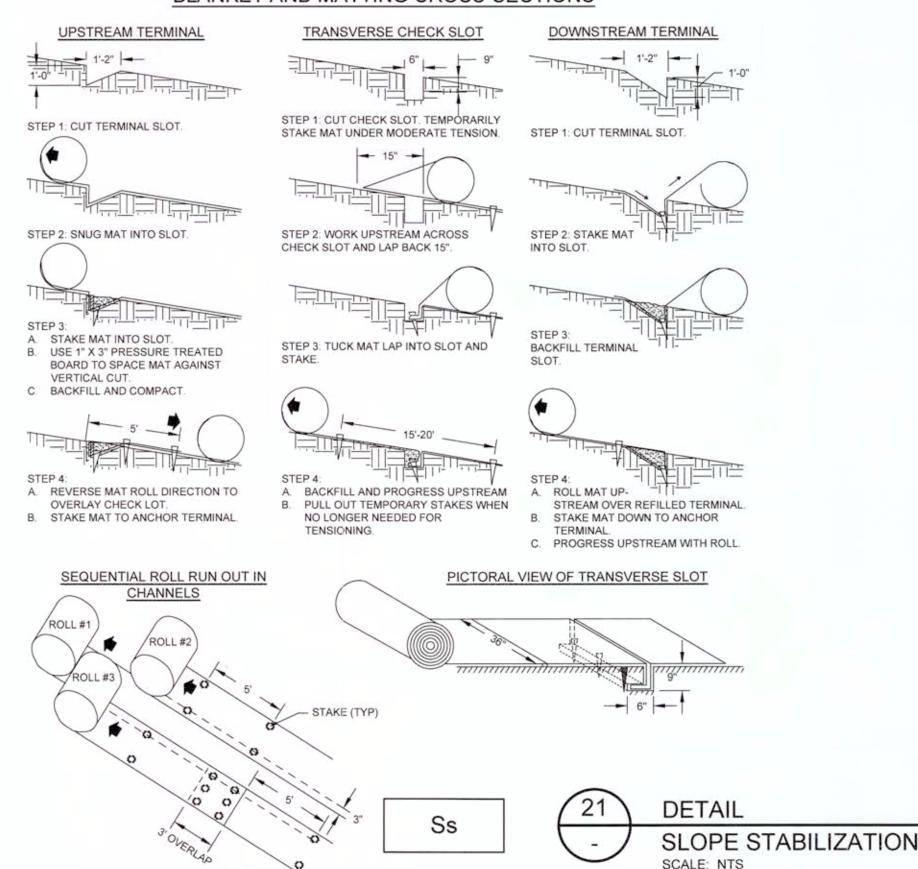
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DEWATERING PLAN



TYPICAL INSTALLATION GUIDELINES FOR RECP

BLANKET AND MATTING CROSS-SECTIONS



SLOPE STABILIZATION CAN BE APPLIED TO FLAT AREAS OR SLOPES WHERE THE EROSION HAZARD IS HIGH AND SLOPE PROTECTION IS NEEDED DURING THE ESTABLISHMENT OF VEGETATION.

FOR A PRODUCT OR PRACTICE TO BE APPROVED AS SLOPE STABILIZATION, THAT PRODUCT OR PRACTICE MUST HAVE A DOCUMENTED C-FACTOR OF 0.080, AS SPECIFIED BY GSWCC. FOR COMPLETE TEST PROCEDURES AND APPROVED PRODUCTS LIST PLEASE VISIT WWW.GASWCC.GEORGIA.GOV.

CARE MUST BE TAKEN TO CHOOSE THE TYPE OF SLOPE STABILIZATION PRODUCT WHICH IS MOST APPROPRIATE FOR THE SPECIFIC NEEDS OF A PROJECT. TWO GENERAL TYPES OF SLOPE STABILIZATION PRODUCTS ARE DISCUSSED WITHIN THIS SPECIFICATION.

A NATURAL FIBER BLANKET WITH SINGLE OR DOUBLE PHOTODEGRADABLE OR BIODEGRADABLE NETS.

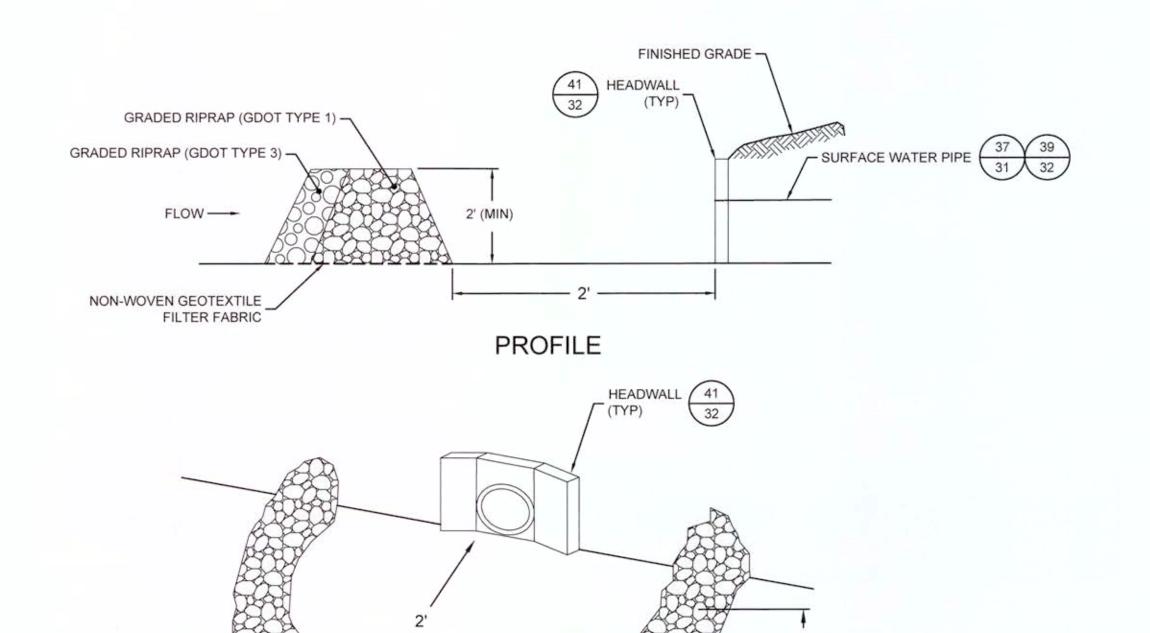
HCEP SHALL UTILIZE STRAW, COTTON, WOOD OR OTHER NATURAL BASED FIBERS HELD TOGETHER BY A SOIL BINDING AGENT WHICH WORKS TO STABILIZE SOIL PARTICLES. PAPER MULCH SHOULD NOT BE USED FOR EROSION CONTROL.

CRITERIA RECP AND HCEP:

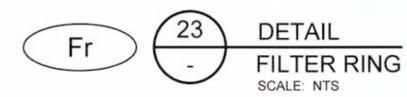
- INSTALLATION AND STAPLING OF RECP AND APPLICATION RATES FOR THE HECP SHALL CONFORM TO MANUFACTURER'S GUIDELINES FOR APPLICATION
- PRODUCTS SHALL HAVE A MAXIMUM C-FACTOR (ASTM D6459) FOR THE FOLLOWING GRADE:
- C-FACTOR (MAX) SLOPE (H:V) 3:1 OR GREATER

AFTER THE SITE HAS BEEN SHAPED AND GRADED TO THE APPROVED DESIGN, PREPARE A FRIABLE SEEDBED RELATIVELY FREE FROM CLODS AND ROCKS MORE THAN ONE IN. IN DIAMETER, AND ANY FOREIGN MATERIAL THAT WILL PREVENT CONTACT OF THE SOIL STABILIZATION MAT WITH THE SOIL SURFACE. SURFACE MUST BE SMOOTH TO ENSURE PROPER CONTACT OF BLANKETS OR MATTING TO THE SOIL SURFACE. IF NECESSARY, REDIRECT ANY RUNOFF FROM THE DITCH OR SLOPE DURING INSTALLATION.

- START AT DOWNSTREAM TERMINAL AND PROGRESS UPSTREAM.
- 2. FIRST ROLL IS CENTERED LONGITUDINALLY IN MID-CHANNEL AND PINNED WITH TEMPORARY STAKES TO MAINTAIN ALIGNMENT.
- SUBSEQUENT ROLLS FOLLOW IN STAGGERED SEQUENCE BEHIND THE FIRST ROLL. USE THE CENTER ROLL FOR ALIGNMENT TO THE CHANNEL CENTER.
- 4. WORK OUTWARDS FROM THE CHANNEL CENTER TO THE EDGE.
- USE 3 IN. OVERLAPS AND STAKE AT 5 FT INTERVALS ALONG THE SEAMS.
- 6. USE 3 IN. OVERLAPS AND SHINGLE DOWNSTREAM TO CONNECT THE LINING AT THE ROLL ENDS.
- 7. IT IS THE INTENTION OF THIS SECTION TO ALLOW INTERCHANGEABLE USE OF RECP AND HCEP FOR EROSION PROTECTION ON SLOPES. THE PROJECT ENGINEER SHOULD SELECT THE TYPE OF EROSION CONTROL PRODUCT THAT BEST FITS THE NEED OF THE PARTICULAR SITE.



PERSPECTIVE





NOTE: PERIMETER CHANNELS 13 THROUGH 22 WILL RANGE IN DEPTH FROM 1 FT TO 5 FT ALONG THE CONTAINMENT STRUCTURE AS SHOWN IN THE FINAL

VEGETATIVE COVER LAYER -

DOUBLE-SIDED GEOCOMPOSITE

DRAINAGE LAYER (TYP)

40-MIL (MIN) TEXTURED LLDPE

RIPRAP

THICKNESS (IN.)

18

9

9

18

18

9

6

6

9

18

6

9

6

6

6

6

6

6

6

6

WSA CG

PHONE: 678.202.950

OR HDPE GEOMEMBRANE)

PROTECTIVE SOIL LAYER -

CHANNEL LINING

THICKNESS (D)

GEOTEXTILE SEPARATOR FINISHED GRADE

BOTTOM WIDTH

(FT)

18.0

5.0

5.0

15.0

10.0

3.0

3.0

3.0

10.0

10.0

3.0

3.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

NSA RIPRAP

GRADATION

R-4

R-3

R-3

R-4

R-4

R-3

R-1

R-2

R-3

R-4

R-2

R-3

R-2

GRADED RIPRAP (C) -

MINIMUM DEPTH (A)

BOTTOM WIDTH (B)

(SEE TABLE)

MIN DEPTH

(FT)

3.0

3.0

3.0

3.0

3.0

3.0

3.0

3.0

3.0

3.0

3.0

3.0

NOTE 1

CRUSHED STONE (1/2" TO 3/4") -FLOW HEIGHT (VARIES) SUBGRADE ` - NON-WOVEN GEOTEXTILE FILTER FABRIC

SCALE: 1" = 4'

provident T

LENGTH

(FT)

419

1,178

1,115

596

2,368

1,369

873

1,388

1,569

1,046

241

156

490

540

192

188

SLOPE (FT/FT)

0.009

0.012

0.010

0.009

0.009

0.005

0.001

0.003

0.010

0.013

0.003

0.006

0.008

0.007

0.021

0.021

PERIMETER CHANNEL

NOTE:

 SUBGRADE PREPARATION IN AREAS WHERE GEOMEMBRANE LINER WILL BE INSTALLED WILL CONSIST OF MOISTURE CONDITIONING, COMPACTION, AND SMOOTH ROLLING AS NEEDED.

GEOSYNTHETIC

FINAL COVER SYSTEM

/www.www.

PERIMETER

CHANNEL ID

PC 1

PC 2

PC 3

PC 4

PC 5

PC 6

PC 7

PC 8

PC 9

PC 10

PC 11

PC 12

PC 13

PC 14

PC 15

PC 16

CONTINUE GEOCOMPOSITE

DRAINAGE LAYER FROM

DOWNSTREAM

INVERT EL (FT)

785.0

788.8

791.6

788.8

794.0

795.7

803.2

799.8

798.8

785.0

798.8

794.0

785.0

785.0

785.0

785.0

FINAL COVER SYSTEM

AND DAYLIGHT TO

RIPRAP LAYER

UPSTREAM

INVERT EL (FT)

788.8

803.2

803.2

794.0

814.5

802.7

804.0

804.0

814.5

798.8

799.6

794.9

789.0

789.0

789.0

789.0







PLANT WANSLEY ASH POND 1 (AP-1) CONSOLIDATION AND IN-PLACE CLOSURE HEARD AND CARROLL COUNTIES, GEORGIA

SURFACE WATER MANAGEMENT SYSTEM AND E&SC DETAILS

0 11.14.18 INITIAL SUBMITTAL TO GA EPD

Geosyntec >

1255 ROBERTS BOULEVARD, NW, SUITE 200 KENNESAW, GEORGIA 30144 USA

REV DATE

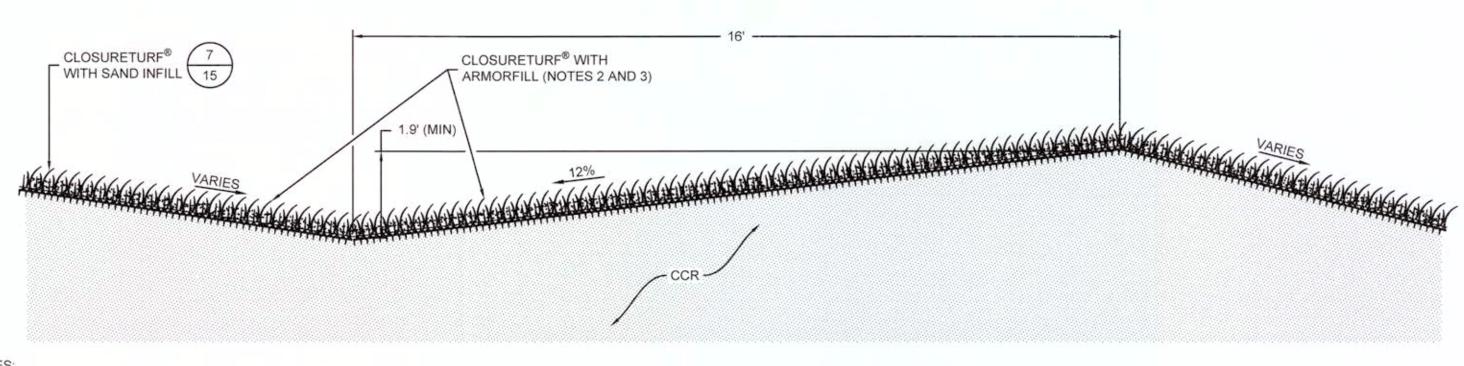
WWW.GEOSYNTEC.COM DWG. GW6372-026 EDIT 11.01.18 GW6372 AS SHOWN DRAWING 26 OF 33 NOVEMBER 2018



Georgia Power

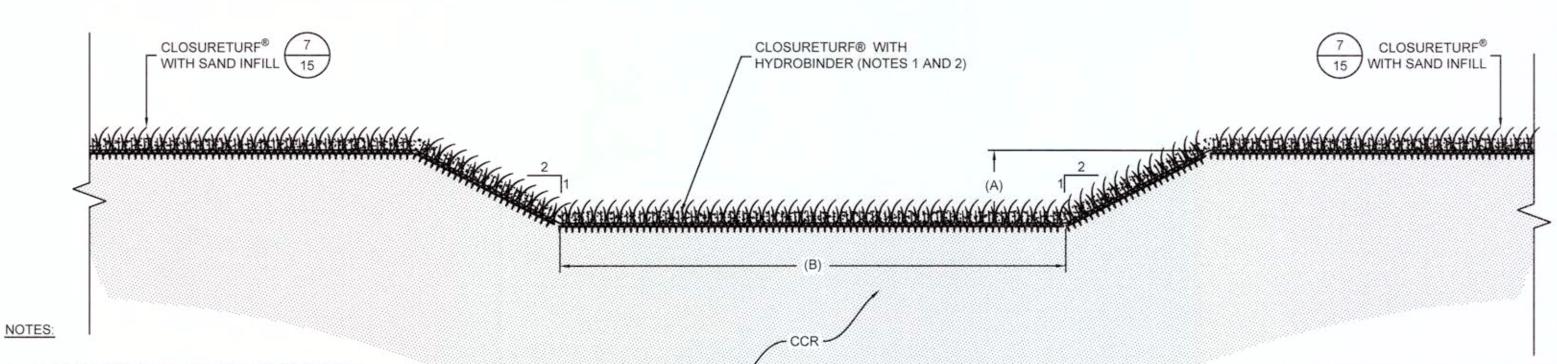
NOT FOR CONSTRUCTION DATE

PERMIT DRAWINGS PROJ. NO. SCALE



- 1. BENCH DESIGN ASSOCIATED WITH THE CLOSURETURF® FINAL COVER SYSTEM IS SHOWN FOR CLARITY. THE SOIL AND GEOSYNTHETIC COVER SYSTEM (AS SHOWN IN DETAIL 3 ON DRAWING 14) WILL BE USED IF THIS OPTION IS SELECTED.
- ARMORFILL SHALL BE INSTALLED TO THE TOP OF BENCH AND ALONG 10% OR 15% SIDESLOPE TO THE FULL DEPTH OF THE BENCH.
- 3. SURFACING OF CLOSURETURF® BENCHES AND DOWNCHUTES MY BE SUBSTITUTED WITH AGGREGATE AND RIPRAP, RESPECTIVELY.





 HYDROBINDER SHALL BE INSTALLED TO THE TOP OF THE DOWNCHUTE SIDESLOPE.

 SURFACING OF CLOSURETURF® BENCHES AND DOWNCHUTES MY BE SUBSTITUTED WITH AGGREGATE AND RIPRAP, RESPECTIVELY.

DOWNCHUTES WILL DISCHARGE INTO RIPRAP LINED PERIMETER CHANNELS WITH STONE SIZES EQUAL TO OR GREATER THAN THE REQUIRED OUTLET PROTECTION OR TO OUTFLOW WEIRS THROUGH THE CONTAINMENT STRUCTURE.

SECTION

SCALE: 1" = 2'

CLOSURETURF® FINAL COVER SYSTEM DOWNCHUTE (NOTE 3) SCALE: 1" = 2"

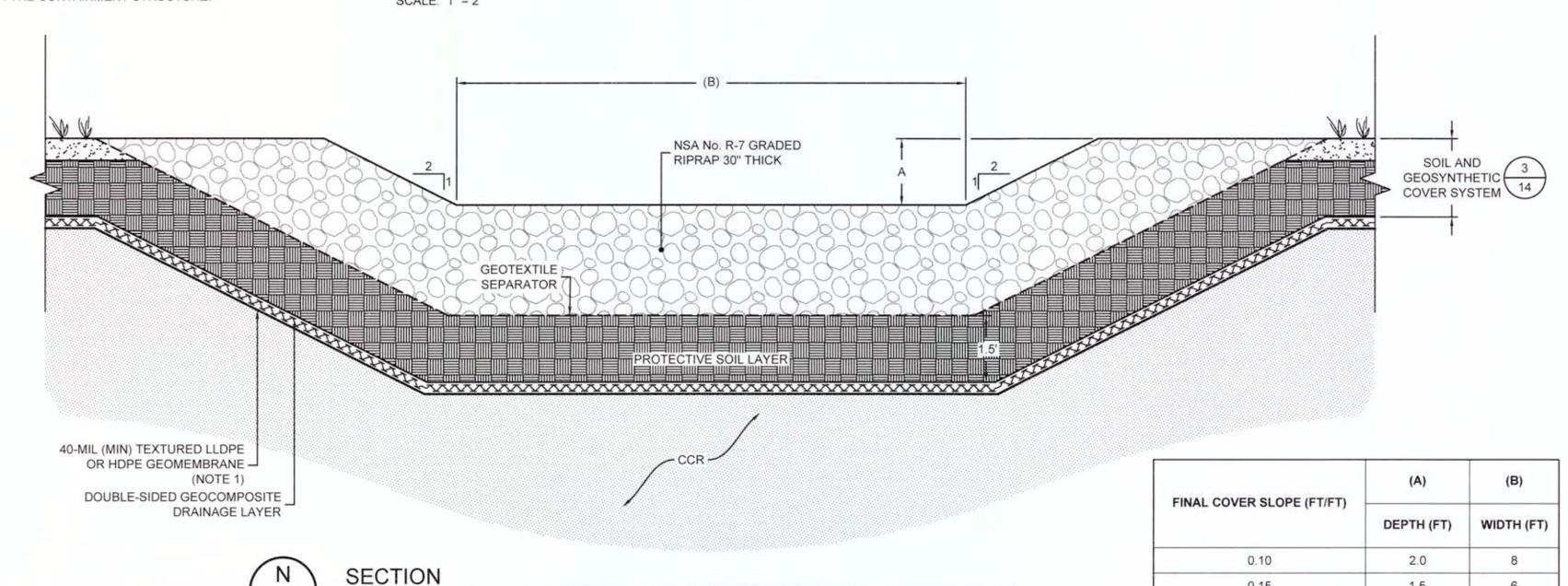
SOIL AND GEOSYNTHETIC FINAL COVER SYSTEM DOWNCHUTE

AND SMOOTH ROLLING AS NEEDED.

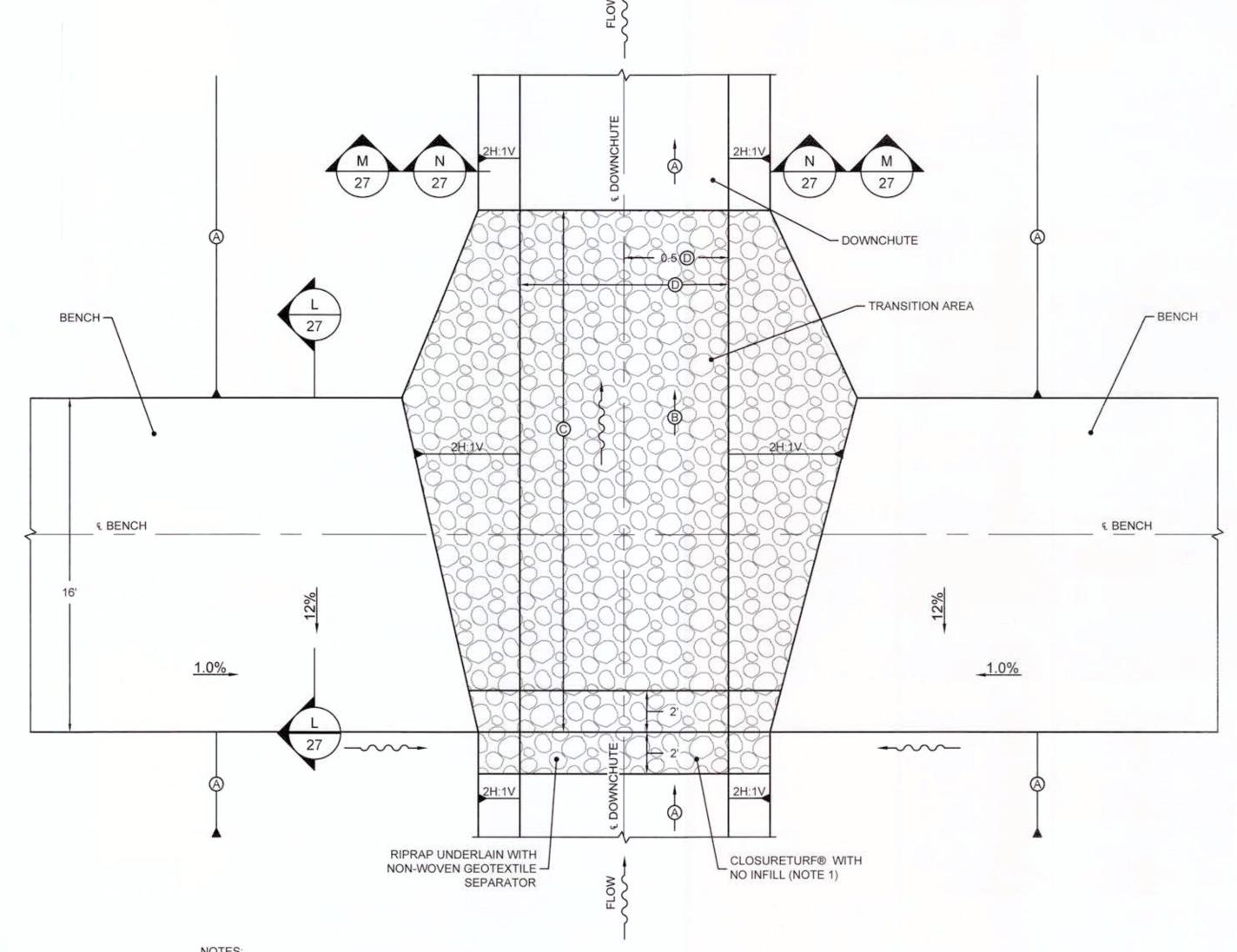
| FINAL COVER OF ORE (ET/ET) | (A) | (B) |
|----------------------------|------------|------------|
| FINAL COVER SLOPE (FT/FT) | DEPTH (FT) | WIDTH (FT) |
| 0.10 | 2.0 | 8 |
| 0.15 | 1.5 | 6 |

0.15

1.5



 SUBGRADE PREPARATION IN AREAS WHERE GEOMEMBRANE LINER WILL BE INSTALLED WILL CONSIST OF MOISTURE CONDITIONING, COMPACTION,



NOTES:

- 1. AT DOWNCHUTE CROSSINGS OF BENCHES, RIPRAP SHALL BE INSTALLED ON THE TOP OF THE CLOSURETURF® AND THE CLOSURETURF® SHALL HAVE NO INFILL (E.G. HYDROBINDER OR ARMORFILL).
- NSA RIPRAP GRADATION R-6 IS EQUIVALENT TO GDOT TYPE 1 RIPRAP.
- 3. DOWNCHUTE TRANSITIONS THAT BEGIN AT A BENCH AT THE TOP OF THE FINAL COVER SLOPE ARE CONSIDERED TO HAVE AN "INITIATING" BENCH CONFIGURATION. DOWNCHUTE TRANSITIONS THAT OCCUR ACROSS BENCHES THROUGHOUT THE REMAINDER OF FINAL COVER SLOPE ARE CONSIDERED TO HAVE A "CROSSING" BENCH CONFIGURATION.

| (A) | | (B) | (C) | (D) | | |
|------------------------------|------------------------------------|-----------------------------|-------------|------------|-------------------------------------|---------------------------|
| FINAL COVER SLOPE (FT/FT) | BENCH CONFIGURATION (NOTE 3) | TRANSITION SLOPE (FT/FT) | LENGTH (FT) | WIDTH (FT) | NSA RIPRAP GRADATION (NOTE 2) | RIPRAP THICKNESS (IN.) |
| 0.10 | INITIATING | 0.025 | 20 | 8 | R-6 | 36 |
| 0.10 | CROSSING | 0.050 | 71 | 8 | R-5 | 27 |
| 0.15 | INITIATING | 0.025 | 23 | 6 | R-6 | 36 |
| 0.15 | CROSSING | 0.075 | 58 | 6 | R-5 | 27 |

DETAIL DOWNCHUTE WITH BENCH TRANSITION





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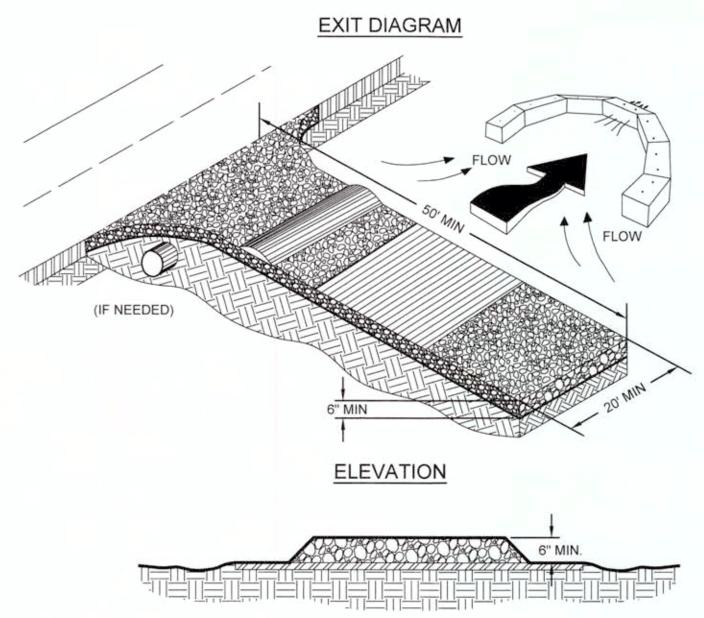
PLANT WANSLEY ASH POND 1 (AP-1) CONSOLIDATION AND IN-PLACE CLOSURE HEARD AND CARROLL COUNTIES, GEORGIA

| Geosyn | TACY |
|---------|------|
| OCOSYLL | |
| 2 | |

consultants

| 1255 ROBERTS BOUL KENNESAW, GEORG | LEVARD, NW, SUITE 200 IA 30144 USA | | | | 678.202.9500 SYNTEC.COM |
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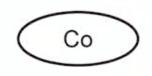
PERMIT DRAWINGS PROJ. NO. AS SHOWN NOT FOR CONSTRUCTION DATE DRAWING 27 OF 33 NOVEMBER 2018



- 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 NSA R-2 (1.5 IN. 3.5 IN. STONE).
- 4. GRAVEL PAD SHALL HAVE A MINIMUM THICKNESS OF 6 IN.
- 5. PAD WIDTH SHALL EQUAL FULL WIDTH AT ALL POINTS OF VEHICULAR EGRESS, BUT NO LESS THAN 20 FT.
- 6. A DIVERSION RIDGE SHOULD BE CONSTRUCTED WHEN GRADE TOWARD PAVED AREA IS GREATER THAN 2%.
- 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





DETAIL

CONSTRUCTION EXIT SCALE: NTS SOURCE: GSWCC

METHODS AND MATERIALS

TEMPORARY METHODS

MULCHES. SEE STANDARD Ds1 - DISTURBED AREA STABILIZATION (WITH MULCHING ONLY). SYNTHETIC RESINS MAY BE USED INSTEAD OF ASPHALT TO BIND MULCH MATERIAL. REFER TO SPECIFICATION TAC-TACKIFIERS IN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, LATEST EDITION. RESINS SUCH AS CURASOL OR TERRATACK SHOULD BE USED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

VEGETATIVE COVER. REFER TO Ds2 - DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING).

B. PERMANENT METHODS

PERMANENT VEGETATION. SEE SPECIFICATION Ds3 - DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION) IN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, LATEST EDITION. EXISTING TREES AND LARGE SHRUBS MAY AFFORD VALUABLE PROTECTION IF LEFT IN PLACE.

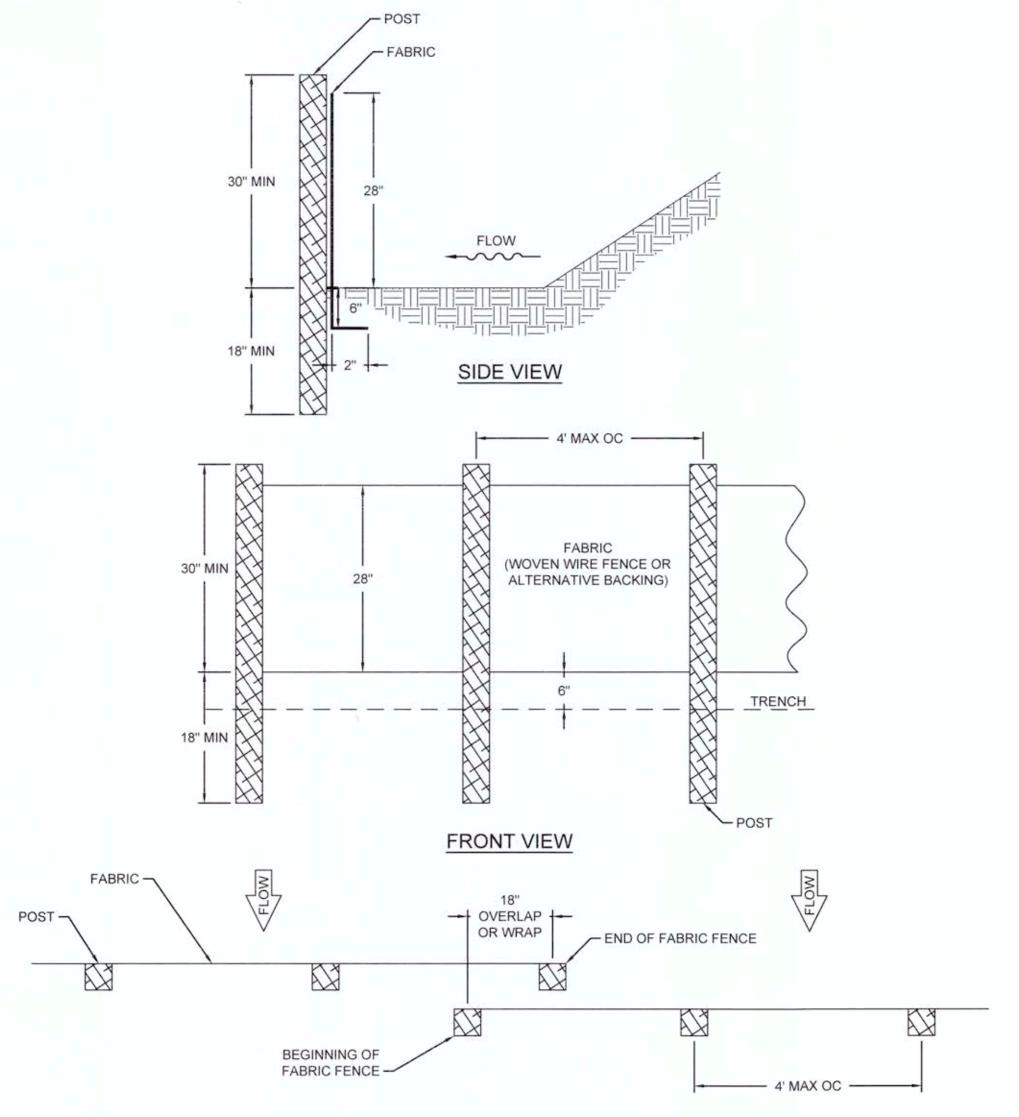
TOPSOILING. THIS ENTAILS COVERING THE SURFACE WITH LESS EROSIVE SOIL MATERIAL. SEE SPECIFICATION TP - TOPSOILING IN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, LATEST EDITION.

THIS PRACTICE IS APPLICABLE TO AREAS SUBJECT TO SURFACE AND AIR MOVEMENT OF DUST WHERE ON AND OFF-SITE DAMAGE MAY OCCUR WITHOUT TREATMENT.

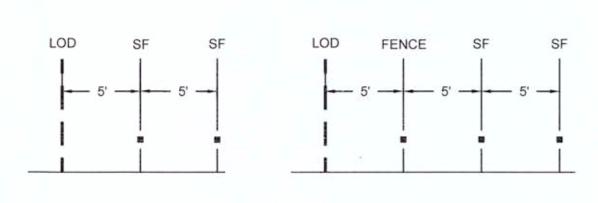




DUST CONTROL ON DISTURBED AREAS



TOP VIEW



| CRITERIA FOR SI | LT FENCE PLACEMENT |
|-------------------------|--|
| LAND SLOPE (PERCENT) | MAXIMUM LENGTH OF SLOPE ABOVE FENCE (FT) |
| <2 | 100 |
| 2 TO 5 | 75 |
| 5 TO 10 | 50 |
| 10 TO 20 | 25 |
| >20 | 15 |

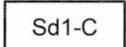
SILT FENCE SPACING

SILT FENCE NOTES:

- 1. ALL SILT FENCE IS TO BE DOUBLE ROW TYPE "C" BARRIER. CONTRACTOR SHALL MAINTAIN FENCE AT THESE LOCATIONS DURING CONSTRUCTION UNTIL FINAL SURFACE TREATMENTS HAVE BEEN APPLIED AND A SUFFICIENT STAND OF GRASS HAS BEEN ESTABLISHED AS DETERMINED BY THE SITE ENGINEER.
- 2. ADDITIONAL SILT FENCE SHALL BE REQUIRED IN AREAS WHICH ARE CLEARED OR GRADED AND DO NOT HAVE STORMWATER RUNOFF DIVERTED TO SEDIMENT BASINS MEETING THE CRITERIA LISTED IN THE TABLES. THE DRAINAGE AREA SHALL NOT EXCEED 1/4 AC FOR EVERY 100 FT OF SILT FENCE.

INSTALLATION:

- 1. WHERE NO SEDIMENT TRAP/STORMWATER DISPOSAL SYSTEM IS PRESENT, MAXIMUM SLOPE LENGTH SHALL NOT EXCEED THAT IN THE TABLE. ALSO, THE DRAINAGE AREA IS NOT TO EXCEED 1/4 AC PER 100 FT OF SILT FENCE.
- INSTALL ALONG CONTOURS WITH ENDS POINTING UPHILL.
- DO NOT PLACE IN WATERWAYS OR AREAS OF CONCENTRATED FLOW.
- 4. PROVIDE A RIPRAP SPLASH PAD OR OTHER OUTLET PROTECTION DEVICE FOR ANY POINT WHERE FLOW MAY TOP THE SEDIMENT FENCE. ENSURE THAT THE MAXIMUM HEIGHT OF THE FENCE AT A PROTECTED, REINFORCED OUTLET DOES NOT EXCEED 1 FT, AND THAT SUPPORT POST SPACING DOES NOT EXCEED 4 FT FOR TYPE "C".
- 5. SAFETY CAPS ARE REQUIRED FOR ALL STEEL POSTS.
- 6. POSTS SHALL BE STEEL AND HAVE A MINIMUM LENGTH OF 4 FT. POSTS SHALL BE "U", "T", OR "C" SHAPED AND HAVE A MINIMUM WEIGHT OF 1.3 LBS PER FT. THE POSTS SHALL HAVE PROJECTIONS FOR FASTENING THE WOVEN WIRE AND FILTER FABRIC. MAXIMUM POSTS SPACING SHALL BE 4 FT FOR TYPE "C". A WOVEN WIRE SUPPORT FENCE SHALL BE USED WITH TYPE "C" FENCE. THE WIRE FENCE FABRIC SHALL BE AT LEAST 36 IN. HIGH AND SHALL HAVE AT LEAST 6 HORIZONTAL WIRES. VERTICAL WIRES SHALL HAVE A MAXIMUM SPACING OF 12 INCHES. THE TOP AND BOTTOM WIRES SHALL BE AT LEAST 10 GAUGE AND ALL OTHER WIRES SHALL BE AT LEAST 12 1/2 GAUGE.
- 7. APPROVED SILT FENCE FABRICS ARE LISTED IN THE GDOT QUALIFIED PRODUCTS LIST #36 (QPL-36).









11.14.18 INITIAL SUBMITTAL TO GA EPD WSA CG REV DATE APP DRN SURFACE WATER MANAGEMENT SYSTEM AND E&SC DETAILS III

> PLANT WANSLEY ASH POND 1 (AP-1) CONSOLIDATION AND IN-PLACE CLOSURE HEARD AND CARROLL COUNTIES, GEORGIA

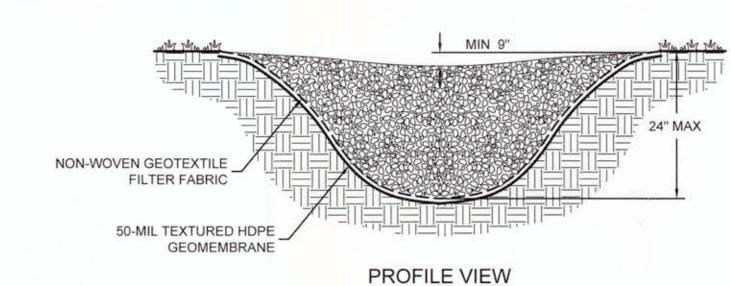
PHONE: 678.202.9500

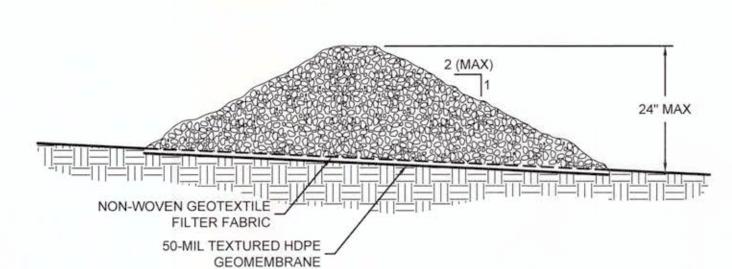
consultants 1255 ROBERTS BOULEVARD, NW, SUITE 200

KENNESAW, GEORGIA 30144 USA WWW.GEOSYNTEC.COM DWG. GW6372-028 EDIT 11.01.18 AS SHOWN DRAWING 28 OF 33

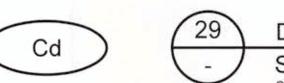
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- 1. CHECK DAMS ARE TO BE USED ONLY IN SMALL OPEN CHANNELS (THEY ARE NOT TO BE USED IN LIVE STREAMS)
- 2. THE DRAINAGE AREA FOR STONE CHECK DAMS SHALL NOT EXCEED TWO AC.
- 3. THE CENTER OF THE CHECK DAM MUST BE AT LEAST 9 IN. LOWER THAN THE OUTER
- THE DAM HEIGHT SHOULD BE A MAXIMUM OF 2 FT FROM CENTER TO RIM EDGE.
- THE SIDE SLOPES OF THE CHECK DAM SHALL NOT EXCEED A 2:1 SLOPE.
- 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).



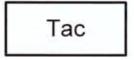


TACKIFIERS ARE USED AS A TIE-DOWN FOR SOIL, COMPOST, SEED, STRAW, HAY OR MULCH. TACKIFIERS HYDRATE IN WATER AND READILY BLEND WITH OTHER SLURRY MATERIALS TO FORM A HOMOGENOUS SLURRY.

TO REDUCE SOIL EROSION FROM WIND AND WATER ON CONSTRUCTION SITES. OTHER BENEFITS INCLUDE SOIL INFILTRATION, SOIL FERTILITY, ENHANCED SEED GERMINATION, INCREASED SOIL COHESION, ENHANCED SOIL STABILIZATION, REDUCED STORMWATER RUNOFF TURBIDITY, AND REDUCTION IN LOSS OF TOPSOIL.

THIS PRACTICE IS INTENDED FOR DIRECT SOIL SURFACE APPLICATION TO SITES WHERE THE TIMELY ESTABLISHMENT OF VEGETATION MAY NOT BE FEASIBLE OR WHERE VEGETATION COVER IS ABSENT OR INADEQUATE. SUCH AREAS INCLUDE CONSTRUCTION AREAS, WHERE PLANT RESIDUES ARE INADEQUATE TO PROTECT THE SOIL SURFACE, AND WHERE LAND DISTURBING ACTIVITIES PREVENT THE ESTABLISHMENT OR MAINTENANCE OF A VEGETATIVE COVER.

TACKIFIER



APPLYING PLANT RESIDUES OR OTHER SUITABLE MATERIALS, PRODUCED ON THE SITE IF POSSIBLE, TO THE SOIL

MULCH OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 14 DAYS OF DISTURBANCE. MULCH CAN BE USED AS A SINGULAR EROSION CONTROL DEVICE FOR UP TO SIX MONTHS, BUT IT SHALL BE APPLIED AT THE APPROPRIATE DEPTH (DEPENDING ON THE MATERIAL USED), ANCHORED, AND HAVE A CONTINUOUS 90% COVER OR GREATER OF THE SOIL SURFACE.

MAINTENANCE SHALL BE REQUIRED TO MAINTAIN APPROPRIATE DEPTH AND 90% COVER. TEMPORARY VEGETATION MAY BE EMPLOYED INSTEAD OF MULCH IF THE AREA WILL REMAIN UNDISTURBED FOR LESS THAN SIX MONTHS.

IF ANY AREA WILL REMAIN UNDISTURBED FOR GREATER THAN SIX MONTHS. PERMANENT VEGETATIVE TECHNIQUES SHALL BE EMPLOYED. REFER TO Ds2-DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING), AND Ds3 -DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION).

MULCHING WITHOUT SEEDING:

THIS STANDARD APPLIES TO GRADED OR CLEARED AREAS WHERE SEEDINGS MAY NOT HAVE A SUITABLE GROWING SEASON TO PRODUCE AN EROSION RETARDANT COVER, BUT CAN BE STABILIZED WITH A MULCH COVER.

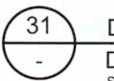
SITE PREPARATION

- 1. GRADE TO PERMIT THE USE OF EQUIPMENT FOR APPLYING AND ANCHORING MULCH. INSTALL NEEDED EROSION CONTROL MEASURES AS REQUIRED SUCH AS DIKES, DIVERSIONS, BERMS, TERRACES,
- AND SEDIMENT BARRIERS. LOOSEN COMPACT SOIL TO A MINIMUM DEPTH OF 3 INCHES.

MULCHING MATERIALS

SELECT ONE OF THE FOLLOWING MATERIALS AND APPLY AT THE DEPTH INDICATED:

 DRY STRAW OR HAY SHALL BE APPLIED AT A DEPTH OF 2 TO 4 INCHES PROVIDING COMPLETE SOIL COVERAGE. ONE ADVANTAGE OF THIS MATERIAL IS EASY APPLICATION.



DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)

WOOD WASTE (CHIPS, SAWDUST OR BARK) SHALL BE APPLIED AT A DEPTH OF 2 TO 3 INCHES. ORGANIC MATERIAL FROM THE CLEARING STAGE OF DEVELOPMENT REMAINING ON SITE CAN BE CHIPPED AND APPLIED AS MULCH. THIS METHOD OF MULCHING CAN GREATLY REDUCE EROSION CONTROL COSTS.

3. POLYETHYLENE FILM SHALL BE SECURED OVER BANKS OR STOCKPILED SOIL MATERIAL FOR TEMPORARY PROTECTION. THIS MATERIAL CAN BE SALVAGED AND RE-USED.

WHEN MULCH IS USED WITHOUT SEEDING, MULCH SHALL BE APPLIED TO PROVIDE FULL COVERAGE OF THE EXPOSED

1. DRY STRAW OR HAY MULCH AND WOOD CHIPS SHALL BE APPLIED UNIFORMLY BY HAND OR BY MECHANICAL EQUIPMENT.

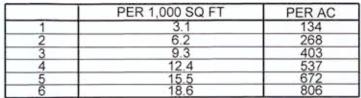
2. IF THE AREA WILL EVENTUALLY BE COVERED WITH PERENNIAL VEGETATION, 20-30 POUNDS OF NITROGEN PER ACRE, IN ADDITION TO THE NORMAL AMOUNT, SHALL BE APPLIED TO OFFSET THE UPTAKE OF NITROGEN CAUSED BY THE DECOMPOSITION OF THE ORGANIC MULCHES.

ANCHORING MULCH

 STRAW OR HAY MULCH CAN BE PRESSED INTO THE SOIL WITH A DISK HARROW WITH THE DISK SET STRAIGHT OR WITH A SPECIAL "PACKER DISK." 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 DISK SHOULD BE DULL ENOUGH NOT TO CUT THE MULCH BUT TO PRESS IT INTO THE SOIL LEAVING MUCH OF IT IN AN ERECT POSITION. STRAW OR HAY MULCH SHALL BE ANCHORED IMMEDIATELY AFTER APPLICATION. STRAW OR HAY MULCH SPREAD WITH SPECIAL BLOWER-TYPE EQUIPMENT MAY BE ANCHORED. TACKIFIERS, BINDERS, AND HYDRAULIC MULCH WITH TACKIFIER SPECIFICALLY DESIGNED FOR TACKING STRAW CAN BE SUBSTITUTED FOR EMULSIFIED ASPHALT. REFER TO MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, LATEST EDITION, SPECIFICATION TAC-TACKIFIERS. PLASTIC MESH OF NETTING WITH MESH NO LARGER THAN ONE INCH BY ONE INCH SHALL BE

INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS. 2. NETTING OF THE APPROPRIATE SIZE SHALL BE USED TO ANCHOR WOOD WASTE. OPENINGS OF THE NETTING SHALL NOT BE LARGER THAN THE AVERAGE SIZE OF THE WOOD WASTE CHIPS.

CUBIC YARDS OF TOPSOIL REQUIRED FOR APPLICATION TO VARIOUS DEPTHS



THIS PRACTICE IS RECOMMENDED FOR SITES OF 2:1 OR FLATTER SLOPES WHERE:

THE TEXTURE OF THE EXPOSED SUBSOIL OR PARENT MATERIAL IS NOT SUITABLE TO PRODUCE ADEQUATE

2. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS WITH CONTINUING SUPPLIES OF MOISTURE AND FOOD.

THE SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.

TOPSOIL SHOULD BE FRIABLE AND LOAMY, FREE OF DEBRIS, OBJECTIONABLE WEEDS AND STONES, AND CONTAIN NO TOXIC SUBSTANCE THAT MAY BE HARMFUL TO PLANT GROWTH. A pH RANGE OF 5.0-7.5 IS ACCEPTABLE. SOLUBLE SALTS SHOULD NOT EXCEED 500 PPM.

FIELD EXPLORATION SHOULD BE MADE TO DETERMINE WHETHER THE QUANTITY AND QUALITY OF SURFACE SOIL JUSTIFIES STRIPPING.

STRIPPING SHOULD BE CONFINED TO THE IMMEDIATE CONSTRUCTION AREA. A 4 TO 6 INCH STRIPPING DEPTH IS COMMON, BUT MAY VARY DEPENDING ON THE PARTICULAR SOIL.

MAINTAINED.

IF pH VALUE IS LESS THAN 6.0, LIME SHALL BE APPLIED AND INCORPORATED WITH THE TOPSOIL TO ADJUST THE pH TO 6.5 OR HIGHER. TOPSOILS CONTAINING SOLUBLE SALTS GREATER THAN 500 PARTS PER MILLION SHALL NOT BE USED.

SITE PREPARATION (WHERE TOPSOIL IS TO BE ADDED)

TOPSOILING - WHEN TOPSOILING, MAINTAIN NEEDED EROSION CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, BERMS, DIKES, LEVEL SPREADERS, WATERWAYS, SEDIMENT BASINS, ETC.

GRADING - GRADES ON THE AREAS TO BE TOPSOILED WHICH HAVE BEEN PREVIOUSLY ESTABLISHED SHALL BE

LIMING - SOIL TESTS SHOULD BE USED TO DETERMINE THE pH OF THE SOIL. WHERE THE pH OF THE SUBSOIL IS 5.0 OR LESS OR COMPOSED OF HEAVY CLAYS, AGRICULTURAL LIMESTONE SHALL BE SPREAD AT THE RATE OF 100 POUNDS PER 1,000 SQUARE FEET. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURE.

BONDING - USE ONE OF THE FOLLOWING METHODS TO INSURE BONDING OF TOPSOIL AND SUBSOIL: 1. TILLING. AFTER THE AREAS TO BE TOPSOILED HAVE BEEN BROUGHT TO GRADE, AND IMMEDIATELY PRIOR TO

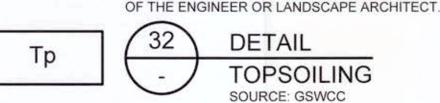
DUMPING AND SPREADING THE TOPSOIL, THE SUBGRADE SHALL BE LOOSENED BY DISCING OR SCARIFYING TO A DEPTH OF AT LEAST 3 INCHES TO PERMIT BONDING OF THE TOPSOIL TO THE SUBSOIL. 2. TRACKING. PASSING A BULLDOZER OVER THE ENTIRE SURFACE AREA OF THE SLOPE TO LEAVE HORIZONTAL

APPLYING TOPSOIL

DEPRESSIONS.

TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING THE SOIL

STRUCTURE. 2. A UNIFORM APPLICATION OF 6 INCHES (UNSETTLED) IS RECOMMENDED, BUT MAY BE ADJUSTED AT THE DISCRETION



PLANT, PLANTING RATE & PLANTING DATE FOR TEMPORARY SEEDING

| BROADCAST | | | | | | | | | | | | | | | |
|--|----------------------|----------------|---|---|---|---|---|---|----------|---|---|---|---|--|--|
| SPECIES | RATES | PLANTING DATES | | | | | | | COMMENTS | | | | | | |
| | | J | F | М | Α | М | J | J | Α | S | 0 | N | D | | |
| BARLEY ALONE | 144 LBS/AC | | | | | | | | | | | | | WINTER HARDY, USE ON | |
| BARLEY IN MIXTURE | 24 LBS/AC | | | | | | | | | | | | | PRODUCTIVE SOILS | |
| LESPEDEZA, ANNUAL ALONE | 40 LBS/AC | | | - | | | | | | | | | | MAY VOLUNTEER FOR SEVERAL | |
| LESPEDEZA, ANNUAL IN MIXTURE | 10 LBS/AC | | | | | | | | | | | | | YEARS. USE INOCULANT TYPE EL. | |
| LOVEGRASS, WEEPING ALONE LOVEGRASS, WEEPING IN MIXTURE | 4 LBS/AC 2 LBS/AC | | | | | | | | | | | | | MAY LAST FOR SEVERAL YEARS. MIX WITH SERICEA LESPEDEZA. | |
| MILLET, BROWNTOP ALONE | 40 LBS/AC | | | | | | | | | | | | | QUICK DENSE COVER. WILL PROVIDE TOO MUCH COMPETITION IN MIXTURES IF SEEDED AT HIGH | |
| MILLET, BROWNTOP IN MIXTURE | 10 LBS/AC | | | | | | | | | | | | | RATES. | |
| 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 | |
| OATS IN MIXTURE | 32 LBS/AC | | | | | | | | | | | | | WINTER HARDY AS RYE OR BARLEY. | |
| RYE ALONE | 168 LBS/AC | | | | | | | | | | | | | QUICK COVER. DROUGHT | |
| RYE IN MIXTURE | 28 LBS/AC | | | | | | | | | | | | | TOLERANT AND WINTER HARDY. | |
| 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 SOUTHER | |
| TRITICALE IN MIXTURE | 24 LBS/AC | | | | | | | | | | | | | COASTAL PLAIN AND IN ATLANTIC COASTAL FLATWOODS ONLY. | |
| WHEAT ALONE | 180 LBS/AC | | | | | | | | | | | | | WINTER HARDY. | |
| WHEAT WITH OTHER PERENNIALS | 30 LBS/AC | | | | | | | | | | | | | WINTER HOLD I | |

SOLID LINES INDICATE OPTIMUM DATES, DOTTED LINES INDICATE PERMISSIBLE BUT MARGINAL DATES.

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

TEMPORARY VEGETATIVE MEASURES SHOULD BE COORDINATED WITH

PERMANENT MEASURES TO ASSURE ECONOMICAL AND EFFECTIVE STABILIZATION. MOST TYPES OF TEMPORARY VEGETATION ARE IDEAL TO USE THE FIRST PASS WITH SEED AND SOME HYDRAULIC MULCH, THEN TOPPED AS COMPANION CROPS UNTIL THE PERMANENT VEGETATION IS ESTABLISHED. WITH THE REMAINING REQUIRED APPLICATION RATE: 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 NATURAL RESOURCE CONSERVATION SERVICE OR THE LOCAL SOIL WATER CONSERVATION DISTRICT FOR MORE INFORMATION.

GRADING AND SHAPING

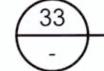
EXCESSIVE WATER RUNOFF SHALL BE REDUCED BY PROPERLY DESIGNED AND INSTALLED EROSION CONTROL PRACTICES SUCH AS CLOSED DRAINS, DITCHES, DIKES, DIVERSIONS, SEDIMENT BARRIERS AND OTHERS. NO SHAPING OR GRADING IS REQUIRED IF SLOPES CAN BE STABILIZED BY HAND-SEEDED VEGETATION OR IF HYDRAULIC SEEDING EQUIPMENT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

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.

AGRICULTURAL LIME IS REQUIRED UNLESS SOIL TESTS INDICATE OTHERWISE. TO A DEPTH THAT WILL ENSURE GERMINATION OF THE SEED. SUBSEQUENT APPLY AGRICULTURAL LIME AT A RATE DETERMINED BY SOIL TEST FOR ph.

Ds2



DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING)

LATEST EDITION, FOR MORE INFORMATION.

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

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, CULTIPACKER-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. SEE THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA

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, LATEST EDITION, FOR

MORE INFORMATION.

DURING TIMES OF DROUGHT, WATER SHALL BE APPLIED AT A RATE NOT CAUSING RUNOFF AND EROSION. THE SOIL SHALL BE THOROUGHLY WETTED APPLICATIONS SHOULD BE MADE WHEN NEEDED.

OF 4 TO 6 INCHES; ALLEVIATE COMPACTION; INCORPORATE LIME AND FERTILIZER; SMOOTH AND FIRM THE SOIL; ALLOW FOR THE PROPER

OF STRAW OR HAY MULCH IF A DISK IS TO BE USED.

TILLAGE SHOULD BE DONE ON THE CONTOUR WHERE FEASIBLE. ON SLOPES TOO STEEP FOR THE SAFE OPERATION OF TILLAGE EQUIPMENT, WHERE INDIVIDUAL HOLES ARE DUG, FERTILIZER SHALL BE PLACED IN THE

THE SOIL SURFACE SHALL BE PITTED OR TRENCHED ACROSS THE SLOPE WITH BOTTOM OF THE HOLE, TWO INCHES OF SOIL SHALL BE ADDED, AND THE PLANT APPROPRIATE HAND TOOLS TO PROVIDE TWO PLACES 6 TO 8 INCHES APART IN SHALL BE SET IN THE HOLE.

 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

FERTILIZER REQUIREMENTS

| | WAF | RM SEASON GRASSES | | NOTE | ES: |
|----------|------------------|-------------------|-------------------------------|------|----------------|
| AR | EQUIVALENT N-P-K | ANALYSIS OR RATE | N TOP DRESSING | 1. | APPLY IN SPLIT |
| ST | 6-12-12 | 1500 LBS/AC | 50-100 LBS/AC (NOTES 1 AND 2) | | APPLICATIONS W |
| COND | 6-12-12 | | 50-100 LBS/AC (NOTE 2) | | HIGH RATES ARE |
| NTENANCE | 10-10-10 | 400 LBS/AC | 30 LBS/AC | 2 | APPLY WHEN PLA |
| | COO | OL SEASON GRASSES | | - | GROW TO A HEIG |
| AR | EQUIVALENT N-P-K | ANALYSIS OR RATE | N TOP DRESSING | | TO 4 INCHES. |
| ST | 6-12-12 | 1500 LBS/AC | 50 LBS/AC (NOTE 2) | | |
| COND | 0-10-10 | 1000 LBS/AC | | | |
| NTENANCE | 0-10-10 | 400 LBS/AC | | | |

PLANT, PLANTING RATE & PLANTING DATE FOR PERMANENT COVER

| SPECIES | BROADCAST | | | | | PL | ANTIN | G DAT | TES | | | | | PLANTING DATE REMARKS | |
|--|-----------|---|---|---|---|----|---------|-------|-----|---|----------|---|-------|--|--|
| SPECIES | RATES | J | F | M | Α | M | J | J | А | S | 0 | N | D | PLANTING DATE REWARKS | |
| LESPEDEZA SERICEA SCARIFIED | 60 LBS/AC | | | | | | | | | | | | | WIDELY ADAPTED. LOW MAINTENENCE. MIX WITH COMMON BERMUDA OR TALL FESCUE. INOCULATE SEED WITH EL INOCULANT. | |
| LESPEDEZA SERICEA UNSCARIFIED | 75 LBS/AC | | | | | | | | | | | | | MIX WITH TALL FESCUE. | |
| 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 | | | | | | | | | | _ | | e e e | USE ALONE ONLY ON BETTER SITES. MIX WITH PERENNIAL LESPEDEZA OR | |
| TALL FESCUE WITH OTHER PERENNIALS | 30 LBS/AC | | | | | | | | | | | | | CROWNVETCH. APPLY TOP DRESSING IN SPRING FOLLOWING FALL PLANTINGS. NOT FOR HEAVY USE AREAS OR ATHLETIC FIELDS. | |
| REED CANARY GRASS ALONE | 50 LBS/AC | | | | | | | | | | | | | | |
| REED CANARY GRASS WITH OTHER PERENNIALS | 30 LBS/AC | | | | | | | | | | <u> </u> | | | GROWS SIMILAR TO TALL FESCUE. | |
| COMMON BERMUDA UNHULLED SEED WITH TEMPORARY COVER | 10 LBS/AC | - | | | | | | | | | | | | PLANT WITH WINTER ANNUALS. | |
| COMMON BERMUDA UNHULLED SEED WITH OTHER PERENNIALS | 6 LBS/AC | | | | | | | | | | | | | PLANT WITH TALL FESCUE. | |

SOLID LINES INDICATE OPTIMUM DATES, DOTTED LINES INDICATE PERMISSIBLE BUT MARGINAL DATES

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.

PERMANENT PERENNIAL VEGETATION IS USED TO PROVIDE A PROTECTIVE COVER MIX THE SEED (INOCULATED IF NEEDED), FERTILIZER, AND WOOD CELLULOSE OR 2. SYNTHETIC TACKIFIERS, FINDERS, OR HYDRAULIC MULCH SPECIFICALLY FOR EXPOSED AREAS INCLUDING CUTS, FILLS, DAMS, AND OTHER DENUDED

GRADING AND SHAPING

GRADING AND SHAPING MAY NOT BE REQUIRED WHERE HYDRAULIC SEEDING AND SEEDING WILL BE DONE ON A FRESHLY PREPARED AND FIRMED SEEDISED. FOR 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 TO 1/4 INCH OF SOIL FOR SMALL SEED AND 1/2 TO 1 INCH FOR LARGE SEED WHEN 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 NO-TILL SEEDING EQUIPMENT. THE SEED MUST BE UNIFORMLY DISTRIBUTED AND

FERTILIZING EQUIPMENT IS TO BE USED (BUT IS STRONGLY RECOMMENDED FOR PLANTED AT THE PROPER DEPTH. 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 PLACEMENT OF SEED, SPRIGS, OR PLANTS; AND ALLOW FOR THE ANCHORING NURSERY STOCK PLANTS SHALL BE PLANTED AT THE SAME DEPTH OR SLIGHTLY

TILLAGE MAY BE DONE WITH ANY SUITABLE EQUIPMENT.

ACCOMMODATE ROOTS WITHOUT CROWDING.

WHICH SEED MAY LODGE AND GERMINATE. HYDRAULIC SEEDING MAY ALSO BE USED.

INDIVIDUAL PLANTS

HIGH RATES ARE USED. APPLY WHEN PLANTS TO 4 INCHES.

WHERE PINE SEEDLINGS ARE TO BE PLANTED, SUBSOIL UNDER THE ROW 36

SUBSOILING SHOULD BE DONE WHEN THE SOIL IS DRY, PREFERABLY IN

WOOD PULP FIBER MULCH WITH WATER AND APPLY IN A SLURRY UNIFORMLY

BROADCAST PLANTING, USE A CULTIPACKER-SEEDER, DRILL ROTARY SEEDER,

UNIFORMLY OVER THE AREA TO BE TREATED. COVER THE SEED LIGHTLY WITH 1/8

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

SHRUBS, VINES AND SPRIGS MAY BE PLANTED WITH APPROPRIATE PLANTERS

FURROW. EACH PLANT SHALL BE SET IN A MANNER THAT WILL AVOID

DEEPER THAN THEY GREW AT THE NURSERY. THE TIPS OF VINES AND SPRIGS

OR HAND TOOLS. PINE TREES SHALL BE PLANTED MANUALLY IN THE SUBSOIL

OTHER MECHANICAL SEEDER, OR HAND SEEDING TO DISTRIBUTE THE SEED

USING A CULTIPACKER OR OTHER SUITABLE EQUIPMENT.

MUST BE AT OR SLIGHTLY ABOVE THE GROUND SURFACE.

OVER THE AREA TO BE TREATED. APPLY WITHIN ONE HOUR AFTER THE MIXTURE

AUGUST OR SEPTEMBER.

HYDRAULIC SEEDING

CONVENTIONAL SEEDING

INDIVIDUAL PLANTS

CROWDING THE ROOTS.

IS MADE.

INCHES DEEP ON THE CONTOUR FOUR TO SIX MONTHS PRIOR TO PLANTING.

SELECT THE MULCHING MATERIAL FROM THE FOLLOWING AND APPLY AS APPLICATIONS WHEN INDICATED: DRY STRAW OR DRY HAY OF GOOD QUALITY AND FREE OF WEED SEEDS GROW TO A HEIGHT OF 2

PER ACRE. DRY HAY SHALL BE APPLIED AT A RATE OF 2 1/2 TONS PER 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

> 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. SERICEA LESPEDEZA HAY CONTAINING MATURE SEED SHALL BE

THE RATE INDICATED ABOVE) AFTER HYDRAULIC SEEDING.

APPLIED AT A RATE OF THREE TONS PER ACRE. 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

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

ESTABLISHMENT ENHANCEMENT, AND EROSION CONTROL EFFECTIVENESS.

CAN BE USED. DRY STRAW SHALL BE APPLIED AT THE RATE OF 2 TONS

CONSIDER THE MULCH'S FUNCTIONAL LONGEVITY, VEGETATION

SEEDED AREAS. WHEN USING TEMPORARY EROSION CONTROL BLANKETS OR BLOCK SOD. MULCH IS NOT REQUIRED.

BITUMINOUS TREATED ROVING MAY BE APPLIED ON PLANTED AREAS. SLOPES, IN DITCHES, OR DRY WATERWAYS TO PREVENT EROSION. BITUMINOUS TREATED ROVING SHALL BE APPLIED WITHIN 24 HOURS AFTER AN AREA HAS BEEN PLANTED. APPLICATION RATES AND MATERIALS MUST MEET GOOT 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.

PPLYING MULCH

MULCHING

FRAW OR HAY MULCH WILL BE SPREAD UNIFORMLY WITHIN 24 HOURS FTER SEEDING AND/OR PLANTING. THE MULCH MAY BE SPREAD BY OWER-TYPE SPREADING EQUIPMENT, OTHER SPREADING EQUIPMENT, OR HAND. MULCH SHALL BE APPLIED TO COVER 75% OF THE SOIL SURFACE. OOD CELLULOSE OR WOOD FIBER MULCH SHALL BE APPLIED UNIFORMLY ITH HYDRAULIC SEEDING EQUIPMENT.

NCHORING MULCH

NCHOR STRAW OR HAY MULCH IMMEDIATELY AFTER APPLICATION BY ONE F THE FOLLOWING METHODS:

 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 2 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. 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, LATEST 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 BUSHELS PER ACRE.

 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.

LIME AND FERTILIZER APPLICATION

WHEN HYDRAULIC SEEDING EQUIPMENT IS USED, THE INITIAL FERTILIZER SHALL BE MIXED WITH SEED, INNOCULANT (IF NEEDED), AND WOOD CELLULOSE OR WOOD PULP FIBER MULCH AND APPLIED IN A SLURRY. THE INNOCULANT, IF NEEDED, SHALL BE MIXED WITH THE SEED PRIOR TO BEING PLACED INTO THE HYDRAULIC SEEDER. THE SLURRY MIXTURE WILL BE AGITATED DURING APPLICATION TO KEEP THE INGREDIENTS THOROUGHLY MIXED. THE MIXTURE WILL BE SPREAD UNIFORMLY OVER THE AREA WITHIN ONE HOUR AFTER BEING PLACED IN THE HYDROSEEDER. FINELY GROUND LIMESTONE CAN BE APPLIED IN THE MULCH SLURRY OR IN COMBINATION WITH THE TOP DRESSING. WHEN CONVENTIONAL PLANTING IS TO BE DONE, LIME AND FERTILIZER SHALL BE APPLIED UNIFORMLY IN ONE OF THE FOLLOWING WAYS:

 APPLY BEFORE LAND PREPARATION SO THAT IT WILL BE MIXED WITH THE SOIL DURING SEEDBED REPARATION.

MIX WITH THE SOIL USED TO FILL THE HOLES, DISTRIBUTE IN FURROWS. BROADCAST AFTER STEEP SURFACES ARE SCARIFIED, PITTED, OR

4. A FERTILIZER PELLET SHALL BE PLACED AT ROOT DEPTH IN THE CLOSING HOLE BESIDE EACH PINE TREE SEEDLING.

REFER TO THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, LATEST EDITION, FOR APPROVED SPECIES. SPECIES NOT LISTED SHALL BE APPROVED BY THE STATE RESOURCE CONSERVATIONIST OF THE NATURAL RESOURCES CONSERVATION SERVICE BEFORE THEY ARE USED. PLANTS SHALL BE SELECTED ON THE BASIS OF SPECIES CHARACTERISTICS; SITE AND SOIL CONDITIONS; PLANNED USE AND MAINTENANCE OF THE AREA: TIME OF YEAR OF PLANTING; METHOD OF PLANTING; AND THE NEEDS AND DESIRES OF THE LAND USER. SOME PERENNIAL SPECIES ARE EASILY ESTABLISHED AND CAN BE PLANTED ALONE. EXAMPLES OF THESE ARE COMMON BERMUDA, TALL FESCUE, AND WEEPING LOVEGRASS. OTHER PERENNIALS, SUCH AS BAHIA GRASS AND SERICEA LESPEDEZA, ARE SLOW TO BECOME ESTABLISHED AND SHOULD BE PLANTED WITH ANOTHER PERENNIAL SPECIES. THE ADDITIONAL SPECIES WILL PROVIDE QUICK COVER AND AMPLE SOIL PROTECTION UNTIL THE TARGET PERENNIAL SPECIES BECOME ESTABLISHED. FOR EXAMPLE, COMMON SEEDING COMBINATIONS ARE 1) WEEPING LOVEGRASS WITH SERICEA LESPEDEZA (SCARIFIED) AND 2) TALL FESCUE WITH SERICEA LESPEDEZA (UNSPECIFIED). PLANT SELECTION MAY ALSO INCLUDE ANNUAL COMPANION CROPS. ANNUAL COMPANION CROPS SHOULD BE USED ONLY WHEN THE PERENNIAL SPECIES ARE NOT PLANTED DURING THEIR OPTIMUM PLANTING PERIOD. A COMMON MIXTURE IS BROWN TOP MILLET WITH COMMON BERMUDA IN MID SUMMER. CARE SHOULD BE TAKEN IN SELECTING COMPANION CROP SPECIES AND SEEDING RATES BECAUSE ANNUAL CROPS WILL COMPETE WITH PERENNIAL SPECIES FOR WATER, NUTRIENTS, AND GROWING SPACE. A HIGH SEEDING RATE OF THE COMPANION CROP MAY PREVENT THE ESTABLISHMENT OF PERENNIAL SPECIES. RYEGRASS SHALL NOT BE USED IN ANY SEEDING MIXTURES CONTAINING PERENNIAL SPECIES DUE TO ITS ABILITY TO OUT-COMPETE DESIRED SPECIES CHOSEN FOR PERMANENT PERENNIAL COVER.

Ds3

DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION)

SURFACE WATER MANAGEMENT SYSTEM AND E&SC DETAILS IV PLANT WANSLEY ASH POND 1 (AP-1) CONSOLIDATION AND IN-PLACE CLOSURE

HEARD AND CARROLL COUNTIES, GEORGIA

1255 ROBERTS BOULEVARD, NW, SUITE 200 KENNESAW, GEORGIA 30144 USA

11.14.18 INITIAL SUBMITTAL TO GA EPD

PHONE: 678.202.9500 WWW.GEOSYNTEC.COM DWG. GW6372-029 EDIT 11.01.18

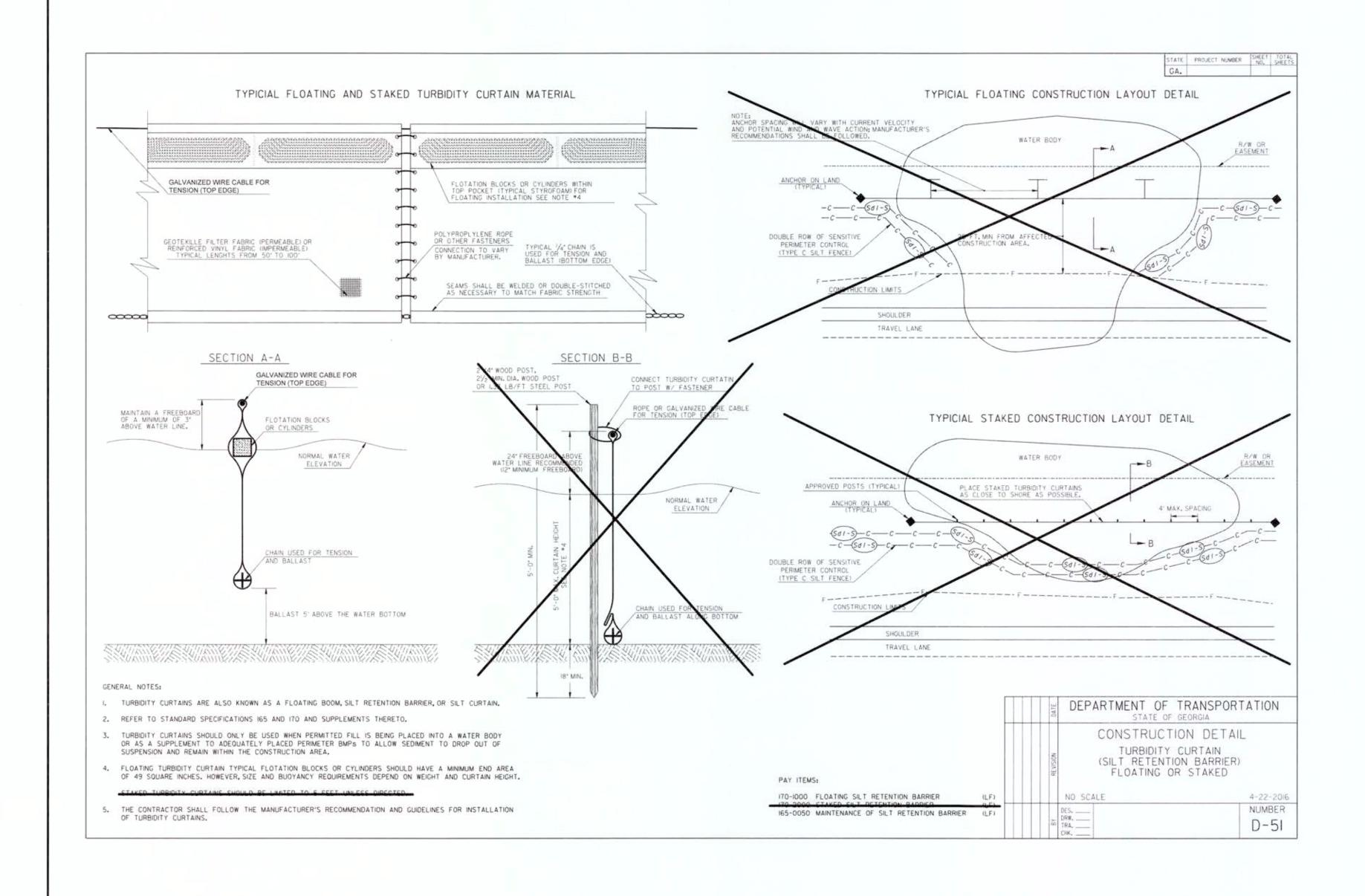
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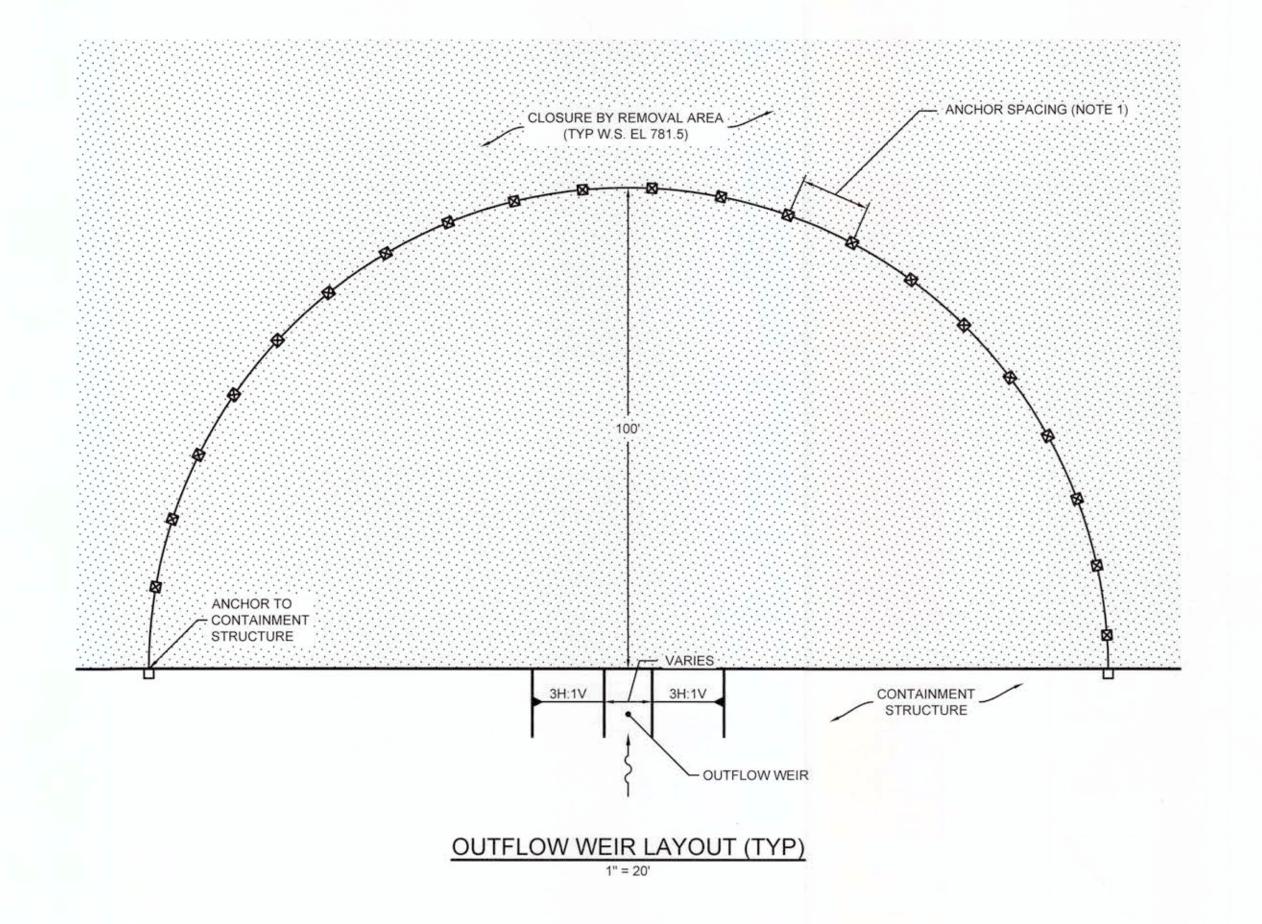
PERMIT DRAWINGS

NOT FOR CONSTRUCTION DATE

AS SHOWN NOVEMBER 2018

DRAWING 29 OF 33







NOTE:

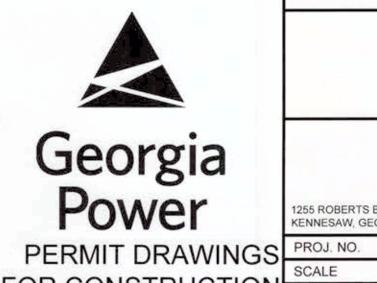
 ANCHOR SPACING WILL VARY WITH CURRENT VELOCITY AND POTENTIAL WIND AND WAVE ACTION. CONTRACTOR SHALL FOLLOW MANUFACTURER'S RECOMMENDATIONS.

WSA

APP

PHONE: 678.202.9500 WWW.GEOSYNTEC.COM





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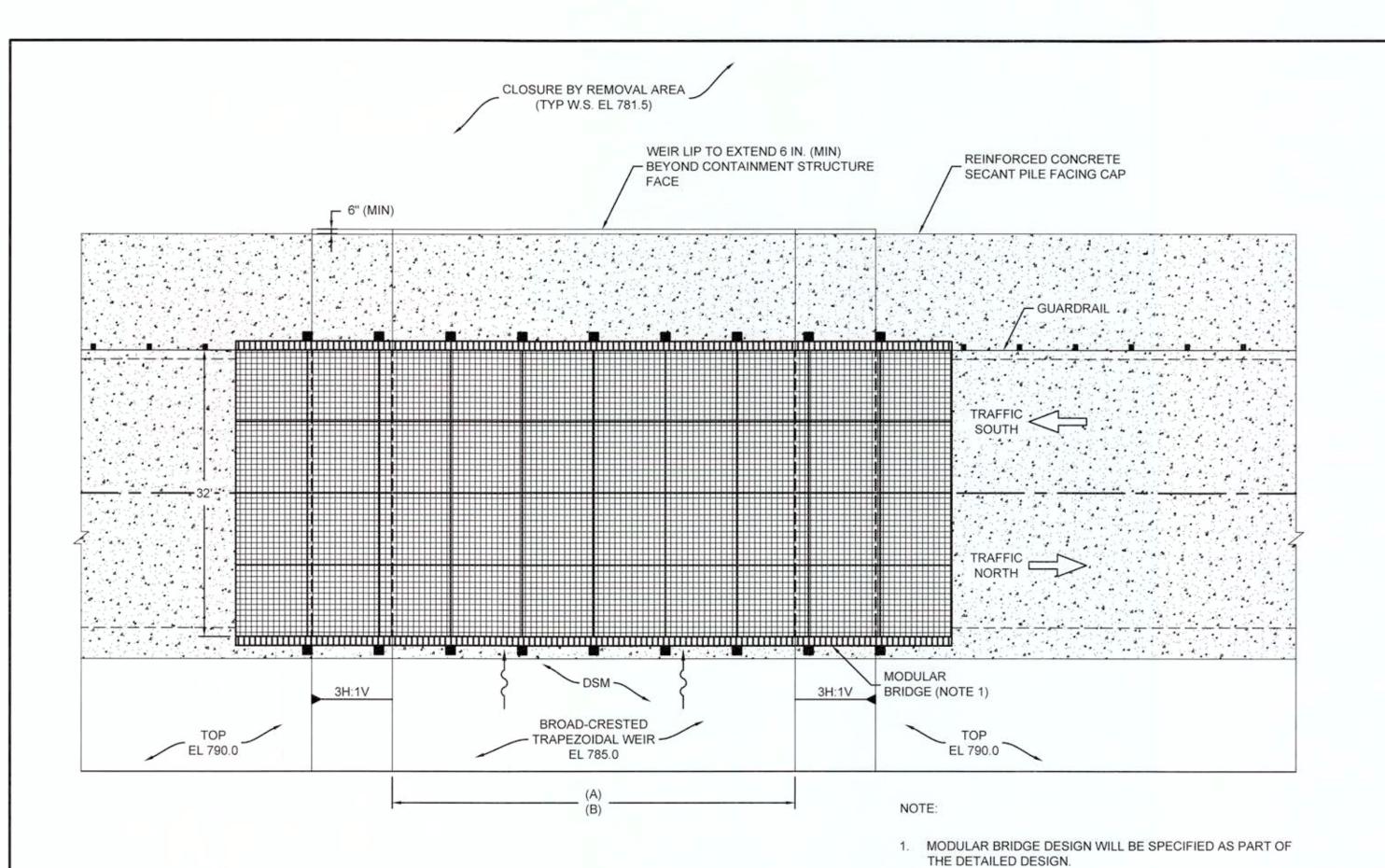
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HEARD AND CARROLL COUNTIES, GEORGIA

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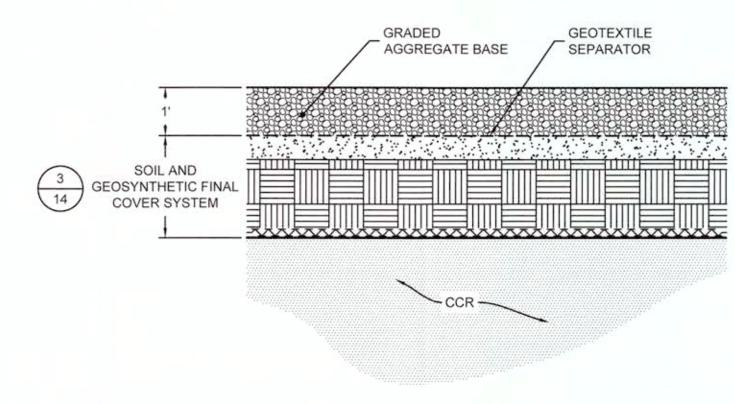
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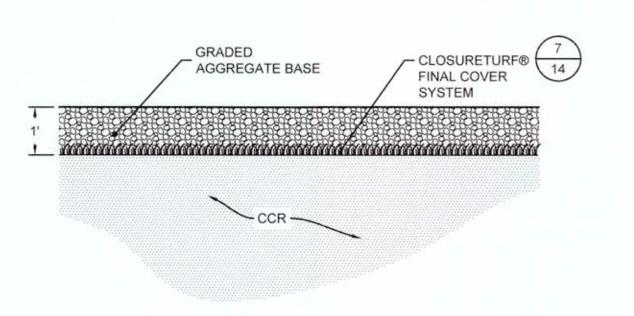
GW6372 DWG. GW6372-030 EDIT 11.01.18 AS SHOWN NOT FOR CONSTRUCTION DATE DRAWING 30 OF 33 NOVEMBER 2018



| DESIGNATION | (A) | (B) |
|-------------|----------------------|------------------|
| WEIR | BOTTOM WIDTH (FT) | UPSTREAM FEATURE |
| 1 | 18 | PC 1 |
| 2 | 8 | PC 13 AND PC 14 |
| 3 | 8 | PC 15 AND PC 16 |
| 4 | 8 | PC 17 AND PC 18 |
| 5 | 8 | PC 19 AND PC 20 |
| 6 | 8 | PC 21 AND PC 22 |
| 7 | 10 | PC 10 |



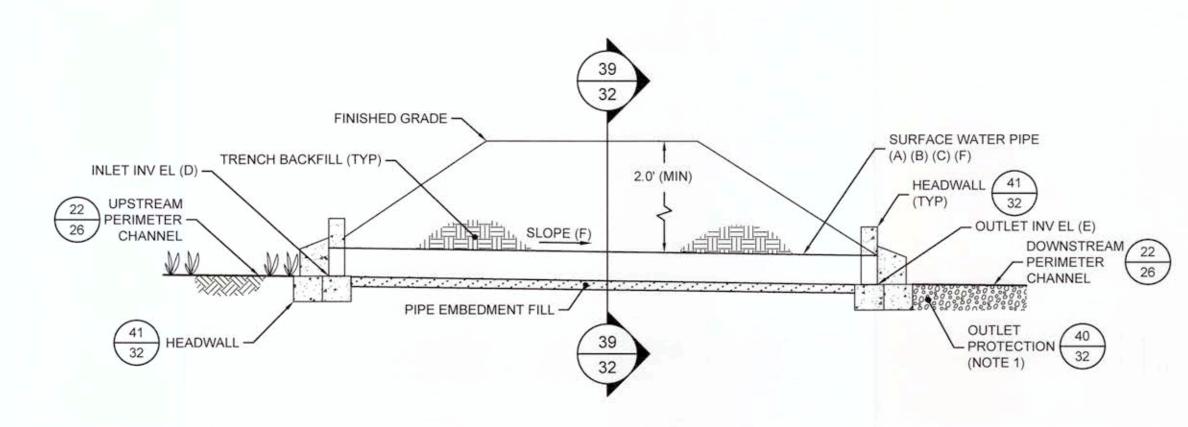




WITH CLOSURETURF® FINAL COVER SYSTEM

WITH SOIL AND GEOSYNTHETIC FINAL COVER SYSTEM





| DESIGNATION | (A) | (B) | (C) | (D) | (E) | (F) |
|-------------|---------------|---|-------------|-------------------|--------------------|---------------|
| PIPE ID | MATERIAL TYPE | (NUMBER OF SURFACE WATER PIPE) - DIAMETER | LENGTH (FT) | INLET INV EL (FT) | OUTLET INV EL (FT) | SLOPE (FT/FT) |
| PIPE 1 | HDPE | (1) - 36 IN. | 102 | 803.2 | 802.7 | 0.005 |
| PIPE 2 | HDPE | (1) - 36 IN. | 65 | 799.8 | 799.6 | 0.003 |
| PIPE 3 | HDPE | (1) - 36 IN. | 110 | 795.7 | 794.9 | 0.007 |

NOTE:

SURFACE WATER PIPE PROFILE

 PIPE OUTLET PROTECTION SHALL BE INSTALLED IN PLACE OF THE CHANNEL RIPRAP LINING WITHIN THE CHANNEL AT THE DIMENSIONS AS SHOWN IN DETAIL 40 ON SHEET 32.





| 0 | 11.14.18 | INITIAL SUBMITTAL TO GA EPD | WSA | CG |
|-----|----------|-----------------------------|-----|-----|
| REV | DATE | DESCRIPTION | DRN | APP |

PLANT WANSLEY ASH POND 1 (AP-1) CONSOLIDATION AND IN-PLACE CLOSURE HEARD AND CARROLL COUNTIES, GEORGIA

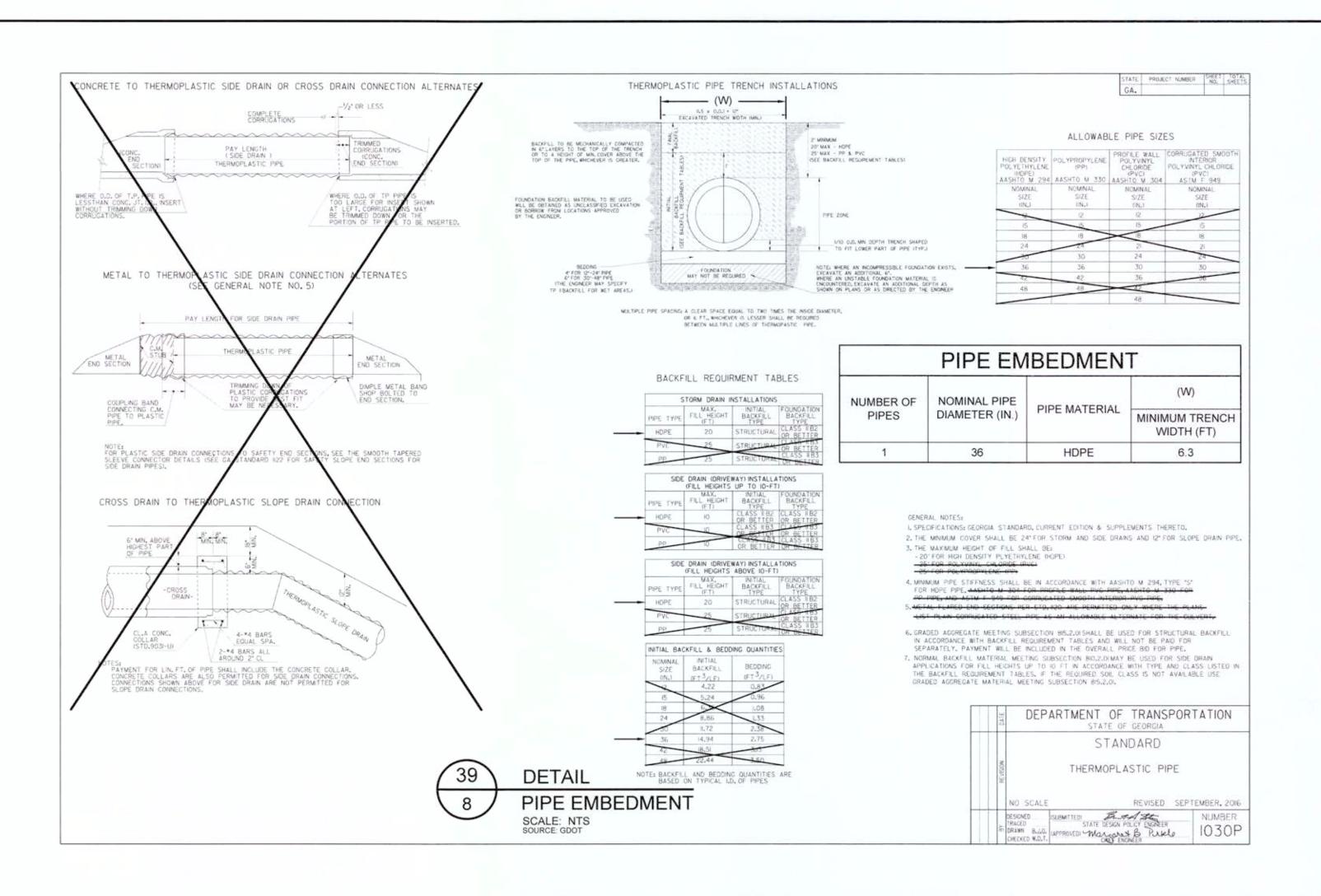
Geosyntec >

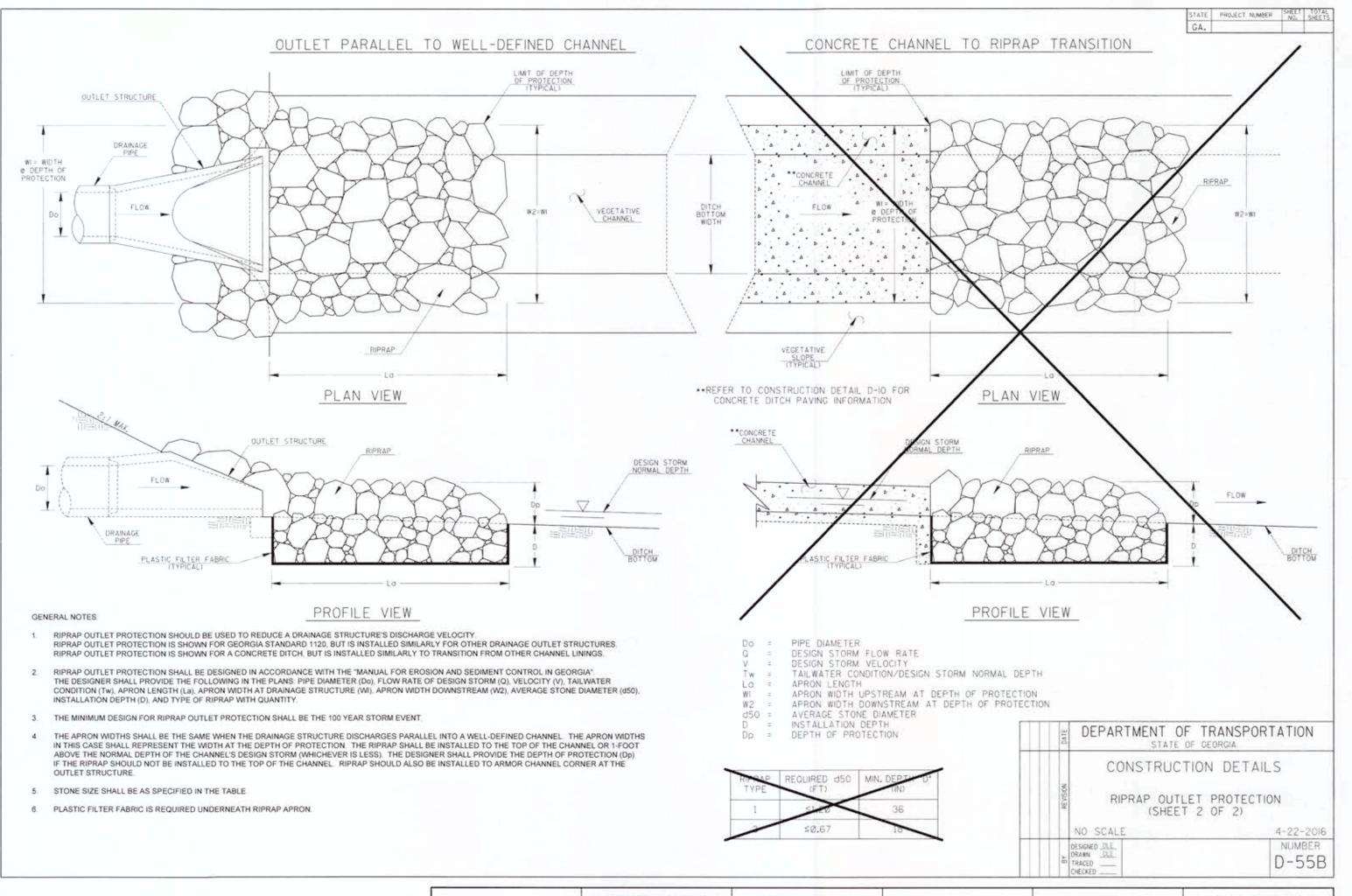
PHONE: 678.202.9500

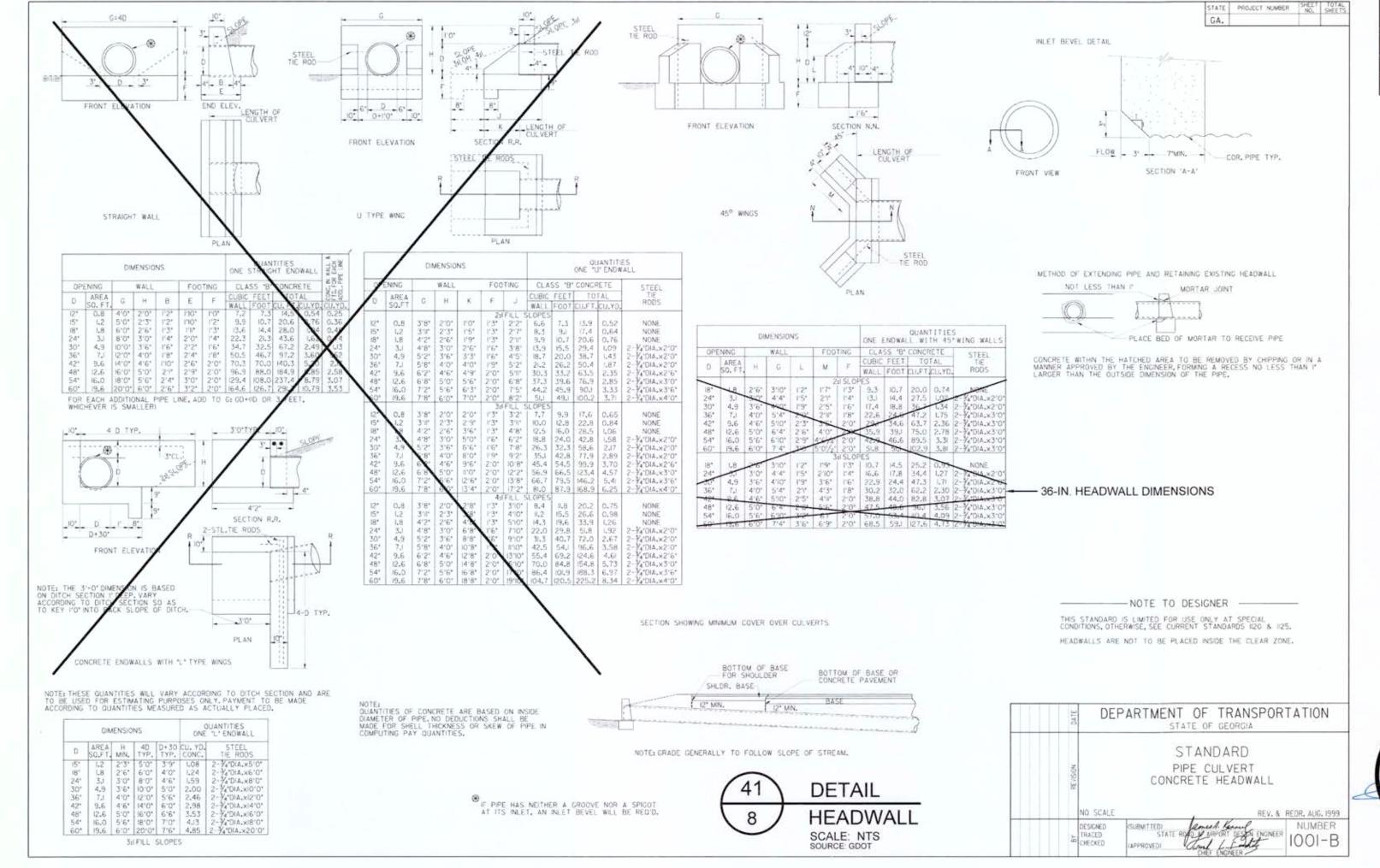
1255 ROBERTS BOULEVARD, NW, SUITE 200 KENNESAW, GEORGIA 30144 USA

| | | | | | 1049004 | | |
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| PERMIT DRAWINGS | PROJ. NO. | GW6372 | DWG. | GW6372-031 | E | OIT 1 | 1.06.1 |
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| NOT FOR CONSTRUCTION | DATE | NOVEMBER 2018 | יוט די | RAWING | 31 | OF | 33 |











NOTE:



 PIPE OUTLET PROTECTION SHALL BE INSTALLED IN PLACE OF THE CHANNEL RIPRAP LINING AT THE DIMENSIONS SHOWN.





| | 0 REV | 11.14.18 DATE | INITIAL SUBMITTAL TO GA EPD DESCRIPTION | WSA DRN | CG |
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| | | | MISCELLANEOUS DETAILS II | | |
| A | | | PLANT WANSLEY ASH POND 1 (AP-1) | | |

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PLANT WANSLEY ASH POND 1 (AP-1)
CONSOLIDATION AND IN-PLACE CLOSURE
HEARD AND CARROLL COUNTIES, GEORGIA

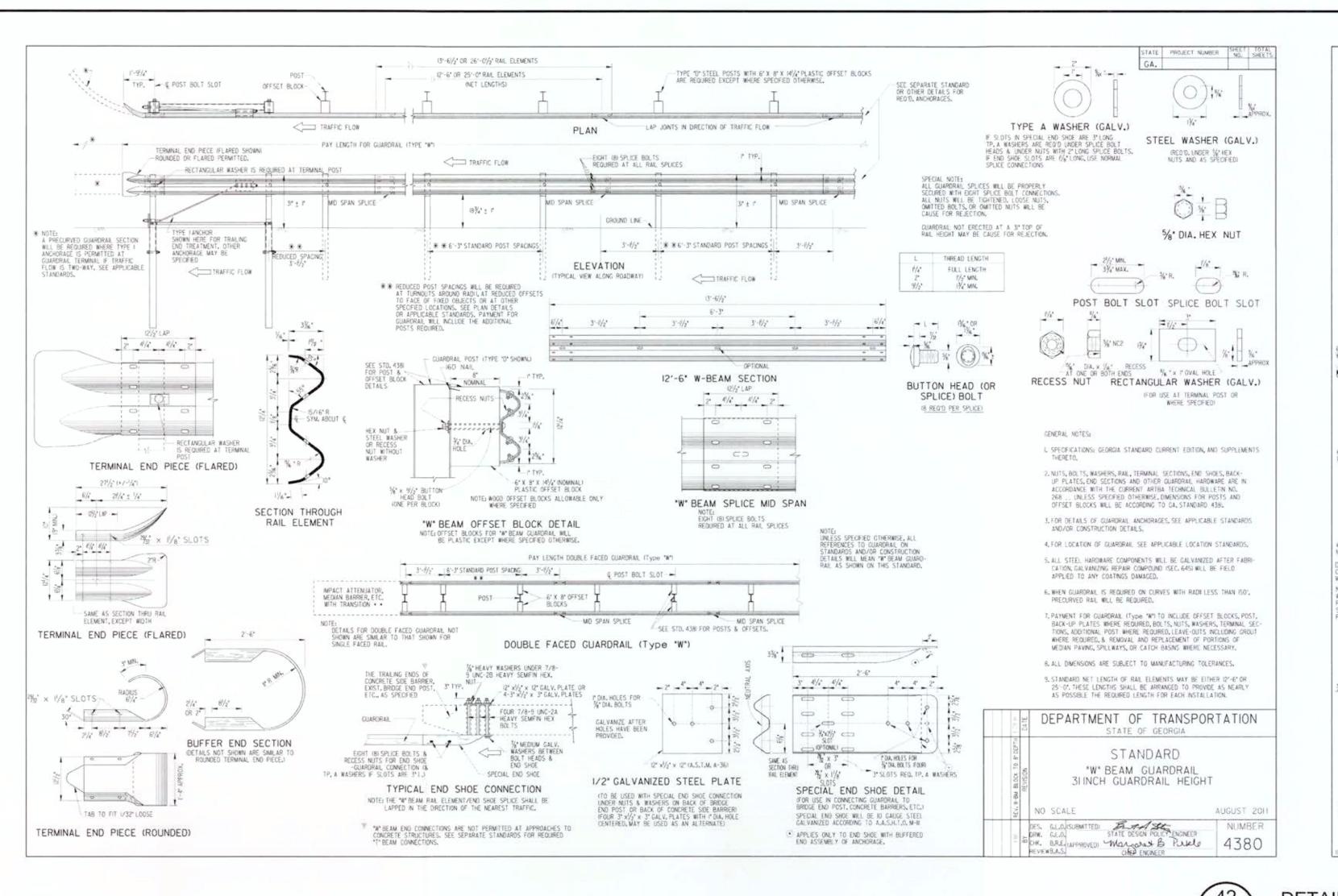
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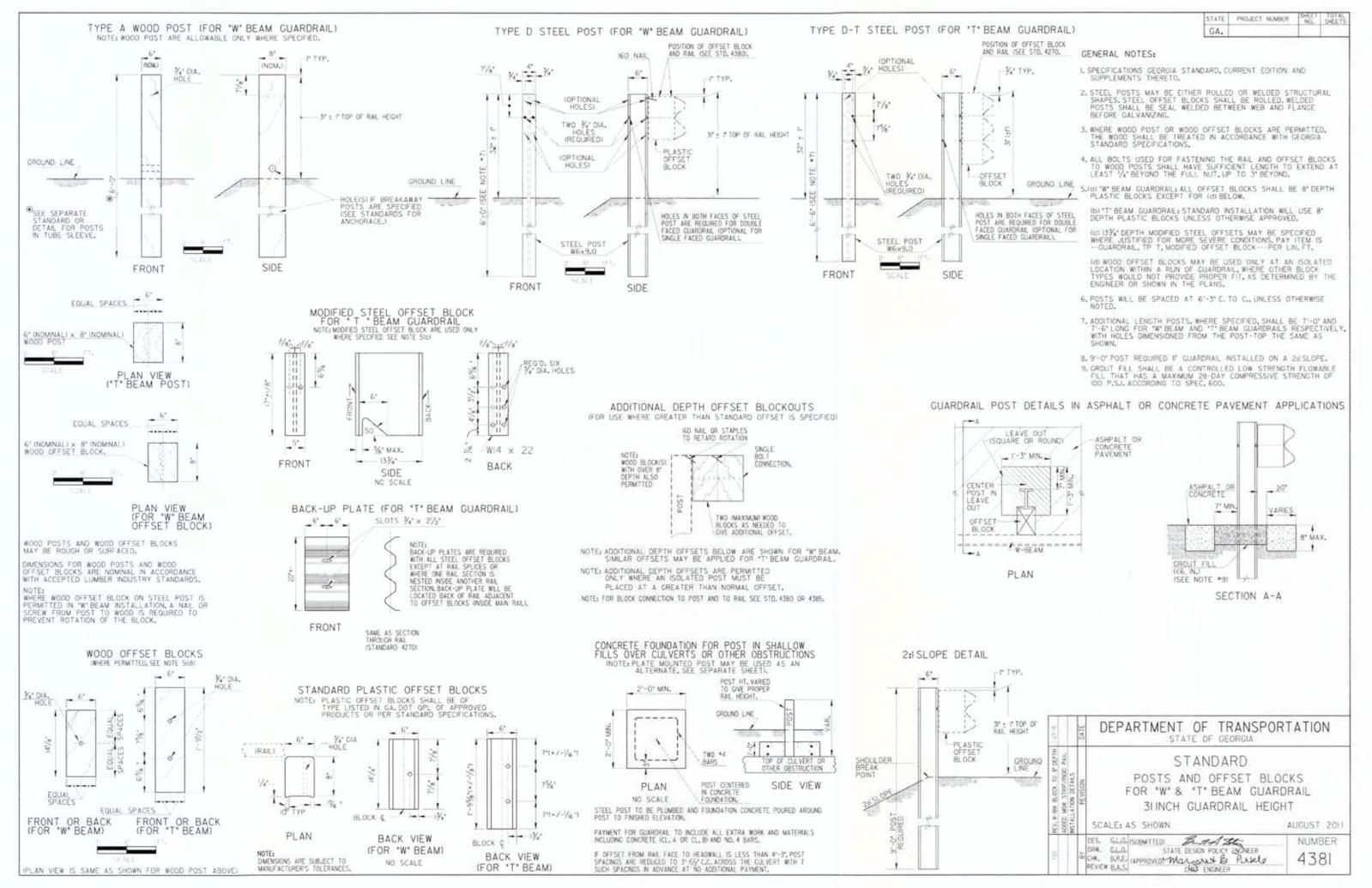
consultants

PHONE: 678.202.9500

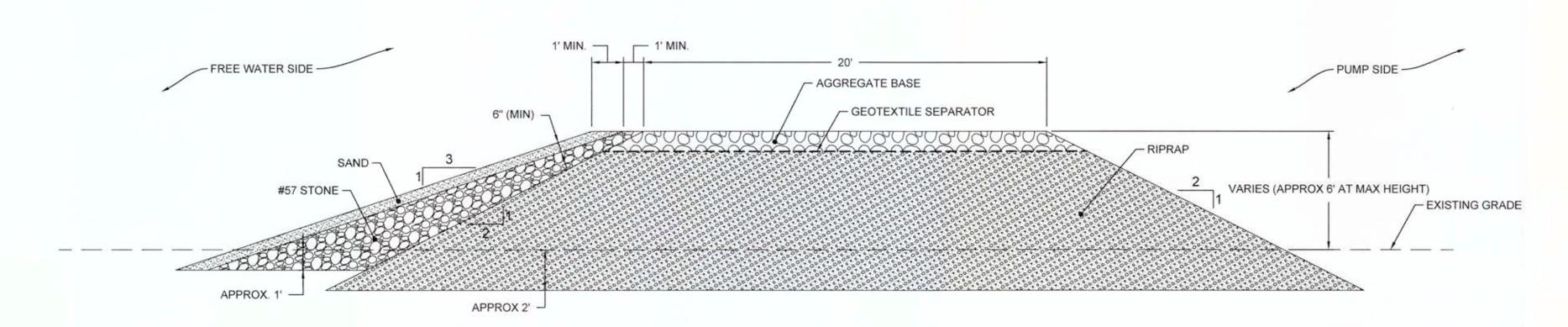
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PLANT WANSLEY ASH POND 1 (AP-1)
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| Power | 1255 ROBERTS BOUL KENNESAW, GEORG | | PHONE: 678.202.9500 WWW.GEOSYNTEC.COM | | | | | |
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| PERMIT DRAWINGS | PROJ. NO. | GW6372 | DWG. | GW6372-033 | ED | IT 11 | 1.01.18 | |
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| NOT FOR CONSTRUCTION | DATE | NOVEMBER 2018 | DI | RAWING | 33 | OF | 33 | |