After Recording Return to:
Georgia Atlantic Port LLC
Timothy C. Biggs
1515 Des Peres Rd., Suite 300
St. Louis, MO 63131

CROSS-REFERENCE:
County: Chatham
Deed Book: _____
Page(s): _____

Environmental Covenant

This instrument is an Environmental Covenant executed pursuant to the Georgia Uniform Environmental Covenants Act, O.C.G.A. § 44-16-1 *et seq.*, as may be amended from time to time (hereinafter "Act"). This Environmental Covenant is entered into by the entities executing this Environmental Covenant and subjects the property identified below to the activity and/or use limitations and other requirements. This Environmental Covenant further grants such other rights in favor of the Georgia Environmental Protection Division ("EPD") and Georgia Atlantic Port LLC as set forth herein.

Fee Simple Owner(s)/Grantor(s):
Georgia Atlantic Port, LLC
1515 Des Peres Rd., Suite 300
St. Louis, MO 63131

Grantee/Holder with the power to enforce:
Georgia Atlantic Port, LLC
1515 Des Peres Rd., Suite 300
St. Louis, MO 63131

Grantee/Entity with express power to enforce:
State of Georgia
Department of Natural Resources
Environmental Protection Division
2 Martin Luther King Jr. Drive, SE
Suite 1456 East Tower
Atlanta, GA 30334

Property Subject

The property subject to this Environmental Covenant is a tract of approximately 57.75 acres of real property located at 202 Oxnard Dr., Port Wentworth, Chatham County, Georgia, which is further identified by the tax parcel ID number(s) below (hereinafter "Property"). The Property was conveyed on October 15, 2014 to Georgia Atlantic Port LLC and such conveyance is recorded in Deed Book 399W, Page 56, of the Chatham County deed records. The Property is located in the 8th G.M. district of Chatham County, Georgia.

The tax Parcel of the Property is ID Number 1-0728-01-001, Chatham County, Georgia.

The Restricted Use Zone ("RUZ") at the Property, as further discussed in the activity and use limitations described herein, is an approximately 2.37-acre portion lying entirely within the Property. The RUZ is a connector road footprint approximate measuring 1236 feet in length and 100 feet in width.

A legal description of the Property is attached as Exhibit A and a plat map of the Property is attached as Exhibit B. A survey performed by a licensed surveyor showing the Property and identifying the RUZ is attached as Exhibit C.

Environmental Covenant Runs with the Land and is Perpetual

Pursuant to the Act, this Environmental Covenant shall run with the land and shall be perpetual unless terminated or amended pursuant to terms herein or in accordance with provisions of the Act. This Environmental Covenant shall be binding upon Georgia Atlantic Port LLC and all successors, assigns and transferees of any interest in the Property or any portion thereof.

Administrative Records

This Environmental Covenant imposes activity and/or use limitations and other requirements on the Property that arise under corrective action performed and/or being performed at the Former Atlantic Wood Industries site (HSI # 10018). Records pertaining to this corrective action are available at the following EPD location(s):

Georgia Environmental Protection Division
Hazardous Waste Corrective Action Program
2 MLK Jr. Drive, SE, Suite 1054 East Tower
Atlanta, GA 300334
Monday-Friday 8:00 AM to 4:30 PM, excluding state holidays

Notice: This Property has been listed on the State's Hazardous Site Inventory at HSI # 10018 and has been designated as needing corrective action due to the presence of hazardous wastes, hazardous constituents, or hazardous substances regulated under state law. Contact the Property owner or the Georgia Environmental Protection Division for further information concerning this Property. This notice is provided in compliance with the Georgia Hazardous Site Response Act.

Activity and Use Limitations.

The Property is subject to the following activity and/or use limitations:

A. Groundwater. Groundwater in water-bearing zones from 0 to 100 feet below ground surface at the Property shall not be used for any purpose; provided, however, that this restriction does not apply to the collection of groundwater samples and the installation and use of groundwater monitoring, recovery, injection, or extraction wells and similar devices used for or related to the performance of groundwater assessment or remediation.

B. Real Property. The Property shall be used only as non-residential property as defined in Rule 391-3-19-.02(2)(i). Use of the Property as residential property, as defined in Rule 391-3-10-.02(2)(r), is prohibited.

The RUZ at the Property is subject to the following activity and/or use limitations:

A. Potential Vapor Intrusion. No enclosed structures exist on the road footprint nor are any enclosed structures planned. Therefore, there is no current potential for vapor intrusion within interior spaces due to the VOCs identified in groundwater beneath the roadway and a vapor pathway evaluation is not warranted based on the intended use. If necessary, the Monitoring and Maintenance Plan (MMP) described in item D below will be amended to include vapor intrusion mitigation requirements.

B. Monitoring and Maintenance Plan (MMP). An MMP, as amended and approved by EPD, shall be performed as specified therein. This includes monitoring to ensure integrity of the roadway and annual reporting regarding Activity and Use Limitation compliance for a specified period. The MMP is attached as Exhibit D.

Other Requirements. The Property is subject to the following additional requirements:

A. Notice of Limitations and Requirements in Future Conveyances. Each instrument hereafter conveying any interest in the Property or any portion thereof that may affect the activity and use limitations described herein shall include a statement that the Property is subject to this Environmental Covenant (and any amendments thereto), the location (County, Deed Book and Page) in the deed records where this Environmental Covenant (and any amendments thereto) is recorded and a copy of this Environmental Covenant (and any amendments thereto).

B. Notice to EPD of Future Conveyances. Within thirty (30) days after each conveyance of a fee simple interest in the Property or any portion thereof, a notice shall be sent to EPD and Georgia Atlantic Port LLC. The notice shall include the new owner's name, address, telephone number and other pertinent contact information, the date of the conveyance and the location (County, Deed Book and Page) where the conveyance is recorded, and, if the conveyance is a portion of the Property, a survey map showing the boundaries of the real property conveyed.

C. Notice of Change of Use. If such activity will materially affect any required monitoring or maintenance of any institutional or engineering controls described herein, the owner of the Property must provide to EPD thirty (30) days' advance written notice of the owner's intent to change the use of the Property, to apply for a building permit for construction at the Property, or to perform any site work.

D. Annual Certification of Compliance. Annually, but not later than January 30 beginning the first January following the effective date of this Environmental Covenant, the owner of the Property must submit a certification stating that the activity and use limitations in this Environmental Covenant are being abided by,

accompanied by a site inspection checklist(s) and Annual Property Evaluation Form. These forms are included in the MMP as Exhibit D.

E. Notification of Noncompliance. Written notice to EPD is required within ten (10) days of discovery of noncompliance with the activity and/or use limitations and/or other requirements herein, including the steps taken or to be taken to correct.

F. Semi-annual or annual reporting. Semi-annually, but not later than the fifteenth (15th) of April, and October, the owner shall submit to EPD a Semi-annual Report as specified in the EPD approved Post-Closure Care Plan that includes the following information for the previous calendar half: groundwater detection-monitoring report results and maintenance and inspection activities.

Environmental Covenant Does Not Authorize Use Otherwise Prohibited

Pursuant to the Act, this Environmental Covenant shall not be construed to authorize a use of the Property that is otherwise prohibited by zoning, ordinance, local law or general law, or by a recorded instrument that has priority over this Environmental Covenant.

Rights of Access and Enforcement

Authorized representatives of EPD and Georgia Atlantic Port LLC shall have the right to enter the Property at reasonable times in connection with implementation, compliance, or enforcement of this Environmental Covenant, including but not limited to the right to conduct inspections, examine related records, or to take samples.

This Environmental Covenant shall be enforceable by EPD, Georgia Atlantic Port LLC, and other parties as provided in the Act. Such rights of access and enforcement herein shall not limit EPD's authority under other applicable law.

No Interest in Real Property in EPD

EPD's rights under this Environmental Covenant and the Act shall not be considered an interest in real property.

Recording of Environmental Covenant and Service on Other Persons

Within thirty (30) days after execution of this Environmental Covenant by the Director of EPD, Georgia Atlantic Port LLC shall record the Environmental Covenant in every county in which any portion of the Property is located in accordance with the law governing the recording and priority of interests in real property. Upon recording of the Environmental Covenant, Georgia Atlantic Port LLC shall provide in a manner deemed acceptable by EPD a copy of the executed, recorded Environmental Covenant to each of the persons or entities identified in O.C.G.A. § 44-16-7.

Representations and Warranties by Grantor(s). Georgia Atlantic Port LLC represents and warrants that all of the following are true and correct:

A. Georgia Atlantic Port LLC holds fee simple title to the Property.

B. Georgia Atlantic Port LLC has the authority to enter into this Environmental Covenant, has the authority to grant any rights granted by it within, has the ability to carry out the obligations described within and, based upon information and belief after reasonable inquiry, does not know of any anticipated material change in the practices, ownership, or authority of Georgia Atlantic Port LLC that will alter this representation and warranty.

C. The execution and delivery of this Environmental Covenant and carrying out the obligations described within will not conflict with any of the provisions of the organizational documents, operating agreement of Georgia Atlantic Port LLC nor will it violate, contravene and/or constitute a breach or default under any agreement, contract, order or instrument to which Georgia Atlantic Port LLC is a party or by which Georgia Atlantic Port LLC may be bound.

D. Georgia Atlantic Port LLC has identified all persons with existing interests other than fee simple in the Property and has determined the type and status of their interests; for those interests where the type and/or status make it necessary, the person's agreement to and signature on this Environmental Covenant or subordination of the interest has been obtained; and the aforementioned information regarding all interests other than fee simple in the Property has been provided to EPD.

E. This Environmental Covenant does not authorize a use of the Property that is otherwise prohibited by zoning, ordinance, local law or general law, or by a recorded instrument that has priority over this Environmental Covenant.

F. At least thirty (30) days prior to presenting this Environmental Covenant to EPD for execution, Georgia Atlantic Port LLC served a copy of the proposed final text of this Environmental Covenant on all persons or entities required to be noticed in accordance with O.C.G.A. § 44-16-7.

Submission of Required Documents and Communications

Documents and communications required by this Environmental Covenant shall be submitted to:

Georgia Environmental Protection Division
Branch Chief
Land Protection Branch
2 Martin Luther King Jr. Drive SE
Suite 1054 East Tower
Atlanta, GA 30334

With a copy to:

Georgia Atlantic Port LLC

1515 Des Peres Rd., Suite 300
St. Louis, MO 63131

EPD's Environmental Covenants Registry

This Environmental Covenant and any amendment thereto or termination thereof may be included in EPD's registry for environmental covenants.

Severability

Should any provision of this Environmental Covenant be found by a court of competent jurisdiction to be invalid and/or unenforceable in any respect, the remaining provisions shall continue in full force and effect.

Effective Date

This Environmental Covenant shall be effective on the date the fully executed Environmental Covenant is recorded in accordance with O.C.G.A. § 44-16-8(a).

Grantor has caused this Environmental Covenant to be executed pursuant to the Georgia Uniform Environmental Covenants Act, on the 12 day of December 2022.

Signed, sealed, and delivered in the presence of:

Unofficial Witness (*Signature*)

CHRISTOPHER T. BRAUSCH

Unofficial Witness Name (*Print*)

1515 DES PERES AVE, 3RD FLOOR, ST. LOUIS, MISSOURI 63131

Unofficial Witness Address (*Print*)

Rebecca Lydon

Notary Public (*Signature*)

My Commission Expires:

11-1-25

For the Grantor/Grantee/Holder:

Georgia Atlantic Port LLC

Name of Grantor (*Print*)

Grantor's Authorized Representative (*Signature*)

Michael J. Roberts

Authorized Representative Name (*Print*)

Member

Title of Authorized Representative (*Print*)

Dated: 11/2/22

(NOTARY SEAL)

REBECCA LYDON
NOTARY PUBLIC - NOTARY SEAL
STATE OF MISSOURI
MY COMMISSION EXPIRES NOVEMBER 1, 2025
ST. LOUIS COUNTY
COMMISSION #13540330

Signed, sealed, and delivered in the presence of:

Unofficial Witness (*Signature*)

MAURI CENTIS
Unofficial Witness Name (*Print*)

2 MLK Jr. Drive, ATLANTA, GA 30334
Unofficial Witness Address (*Print*)

Notary Public (*Signature*)

My Commission Expires:
April 27, 2025

For the State of Georgia
Environmental Protection Division:

(*Signature*)

Richard E. Dunn
Director

Dated: December 12, 2022

(NOTARY SEAL)

NAWANNA LAVEE PATTERSON
NOTARY PUBLIC
CLAYTON COUNTY, GEORGIA
MY COMMISSION EXPIRES
APRIL 27, 2025

Exhibit A
Legal Description of Property

CI #: 1644040
FILED FOR RECORD

10/23/2014 10:06am

PAID: 20.00

Daniel W. Massey, Clerk
Superior Court of Chatham County
Chatham County, Georgia

Real Estate Transfer Tax

PAID $*6500.00

For Clerk of Superior Court

399 M 056 PAGE

After recording, please return to:

When Recorded Return To:
Heather Townsend
National Commercial Services
First American Title Insurance Company
Six Concourse Parkway, Ste. 2000
Atlanta, GA 30328 680008

LIMITED WARRANTY DEED

This limited warranty deed is made as of October 15, 2014 by Atlantic Wood Industries, Inc., a Georgia corporation, party of the first part, in favor of Georgia Atlantic Port LLC, a Missouri limited liability company, party of the second part.

The party of the first part, for and in consideration of the sum of ten dollars in hand paid by the party of the second part, the receipt whereof is hereby acknowledged, by these presents does grant, bargain, sell, remise, alien, convey and confirm its and their heirs, successors, and assigns, forever, the all of that real estate (the "Real Estate") situated in Chatham County, Georgia and described with particularity on Exhibit "A" which is attached to and made a part of this deed.

To have and to hold the Real Estate, with all and singular the rights, members and appurtenances thereof, to the same being, belonging, or in anywise appertaining, to the only proper use, benefit and behoof of the party of the second part, its and their heirs, successors, and assigns forever in fee simple.

And the party of the first part, for itself, and its successors, will warrant and forever defend the right and title to the Real Estate unto the part of the second part, its successors and assigns, against the claims of all persons and entities whomsoever claiming by, through or under the party of the first part, subject, however, to the matters described on Exhibit "B" (the "Permitted Title Matters").

Lemmo

BOOK 399 H PAGE 057

In witness whereof, the undersigned has executed this limited warranty deed, evidenced as follows.

Atlantic Wood Industries, Inc.,
a Georgia corporation

By: _____
Name: William L. Crossman
Title: President

Attest: _____
Name: Bruce D. Fina
Title: Secretary

Signed, sealed and delivered in by
the above-referenced persons in
the presence of:

_____
Unofficial Witness

_____
Notary Public

Notary Seal/Commission expiration:

JAMES AUSTIN NOTARY PUBLIC CHATHAM COUNTY, GA My Comm. Exp. Feb. 22, 2015

EXHIBIT "A"

Legal Description

Parcel No. 1

All that certain tract or parcel of land situate, lying and being in the County of Chatham, State of Georgia, at or near Port Wentworth, about six (6) miles up the Savannah River from the City of Savannah, containing twenty one and forty three hundredths (21.43) acres, more or less, and bounded by and described as follows: Beginning at the northeasterly corner of the tract of land now or formerly owned by the Savannah Sugar Refining Corporation where the northerly boundary thereof terminates at the low water line of the westerly bank of the Savannah River; and running along the following courses and distances:

(1) South, seventy eight (78) degrees west, along the northerly boundary line of Savannah Sugar Refining Corporation, two thousand eight hundred and eighty (2,880) feet to the northeasterly boundary of a railroad right of way fifty (50) feet in width which crosses said land of the Savannah Sugar Refining Corporation in a southeasterly direction;

(2) Thence northwesterly, along said northeasterly boundary of said railroad right of way on a curve to the right three hundred and fifty eight (358) feet;

(3) Thence north seventy eight (78) degrees east, three thousand three hundred and twenty five (3325) feet parallel to and three hundred (300) feet distance from the said Northern boundary of land of Savannah Sugar Refining Corporation to the low water line of the westerly bank of the Savannah River;

(4) Thence southwesterly along the said low water line to the point of beginning;

Said tract being shown on the map herein entitled Port Wentworth Terminal Corporation Map showing location of Creosoting Plant Port Wentworth Georgia, Feb. 1920, Office of Chief Engineer, Savannah, Georgia, recorded at Map book 1, page 156 in the Office of the Clerk of the Superior Court of Chatham County;

BEING THE SAME PROPERTY described in a deed from Port Wentworth Terminal Corporation dated February 13, 1920 recorded at Deed Book 14-Z, page 221 in the records of the Clerk of the Superior Court of Chatham County, Georgia.

Parcel No. 2

All that certain tract of land, situate in Chatham County, Georgia, about seven and one-half miles North of the City of Savannah, on the west side of the Savannah River, bounded as

follows; beginning at a point on the north line of The Savannah Creosoting Company's property, said point being eight hundred and forty (840) feet east measuring along the said north line of The Savannah Creosoting Company's property from the center line of the tracts of Savannah & Atlanta Railway, thence in an northwesterly direction and parallel to the center line of the said tract for a distance of eleven hundred thirty-eight and three-tenths (1138.3) feet, more or less, to a point on the south boundary line of the property leased to Port Wentworth Lumber Company, thence north, 78 degrees, east, parallel to and 1110 feet distance measured at right angles from the said north line of The Savannah Creosoting Company's property part of the way along the said south boundary line of the property leased to Port Wentworth Lumber Company, to the bulkhead of the Savannah River, thence in the southerly direction and along the bulk head line of the Savannah River to the point of intersection of the north line of The Savannah Creosoting Company's property and the said bulkhead line, thence South 78 degrees west for a distance of Twenty-five hundred and twenty-five (2525) feet along the said north line of The Savannah Creosoting Company's property to the point of beginning; containing seventy-five (75) acres, more or less, subject, however to a right of way in favor of Port Wentworth Terminal Corporation along the northerly boundary of the tract above described, such right of way being one hundred (100) feet wide, along the south side of said northerly boundary and extending from the westerly boundary of said tract to a point one hundred (100) feet, beyond the point of intersection of said northerly boundary with easterly boundary of said land leased to Port Wentworth Lumber Company.

EXCEPTING THEREFROM that certain lot, tract or parcel of land lying and being in the County of Chatham, State of Georgia containing 45.689 acres, more or less, which property was conveyed to Port Wentworth Corp. by a deed dated September 30, 1935 recorded at Deed Book 30-Y, Page 444 in the records of the Clerk of the Superior Court of Chatham County, Georgia, said tract being the north portion of the 75 acre tract described in a deed from Imbrie Securities Company, Ltd. recorded at Deed Book 27E, Folio 139, aforesaid records.

Parcel No. 3

All that certain lot, tract or parcel of land situate, laying and being in the 8th G.M. District of Chatham County, Georgia, fronting on the channel cut-off of the Savannah River at Port Wentworth, Georgia containing 5.14 acres, more or less, described in and conveyed in a deed from Port Wentworth Corporation dated February 9, 1949 recorded in the Office of the Clerk of the Superior Court of Chatham County, Georgia at Deed Book 48-S, page 314; SUBJECT TO the easement described in said deed.

Parcel No. 4

All those certain lots, tracts or parcels of land in Chatham County, Georgia underlying the fifty (50) foot wide roadway easement which was described in and conveyed by Port Wentworth Corporation in a deed dated September 30, 1935, recorded in Chatham County Records in Deed Book 31-B, Folio 159, and also underlying the roadway easement averaging approximately twenty-eight (28) feet in width described in and conveyed by Port Wentworth Corporation in a deed dated October 27, 1962, recorded in Chatham County Records in Deed Book 81-V, Folio 329, and as described in the plat made by Sewell & Associated, dated October

22, 1962, recorded in the Chatham County Records in Plat Book O, Folio 10; being the same properties described in and conveyed in a deed form Port Wentworth Corporation dated September 30, 1968 recorded in aforesaid records at Deed Book 94-T, page 301. This description expressly includes the fee underlying the gas line easement referred to in said latter deed.

Parcel No. 5

All those certain tracts of land lying, situate, and being in Chatham County, Georgia, in the industrial development known as Port Wentworth, on the Savannah River, containing 7.694 acres, described in a deed dated September 30, 1945 from Port Wentworth Corporation recorded in the Office of the Clerk of the Superior Court of Chatham County, Georgia at Deed Book 31-B, page 159, said descriptions being incorporated herein by reference.

Excepting from all of the foregoing five (5) parcels the parcels or rights of way in Chatham County, Georgia described and conveyed by first party in the following deeds recorded in the Office of the Clerk of Chatham county, Georgia:

(1) To the Mayor and Aldermen of the City of Savannah, dated July 1, 1946, recorded in Deed Book 45-R, Page 99, aforesaid records.

(2) To the United States, dated September 2, 1947, recorded in Deed Book 46-E, Page 366, aforesaid records.

(3) To City of Port Wentworth, dated November 14, 1966, recorded in Deed Book 91-C, Page 120, aforesaid records.

(4) To City of Port Wentworth, dated in August, 1962, recorded in Deed Book 81-V, Page 582 aforesaid records.

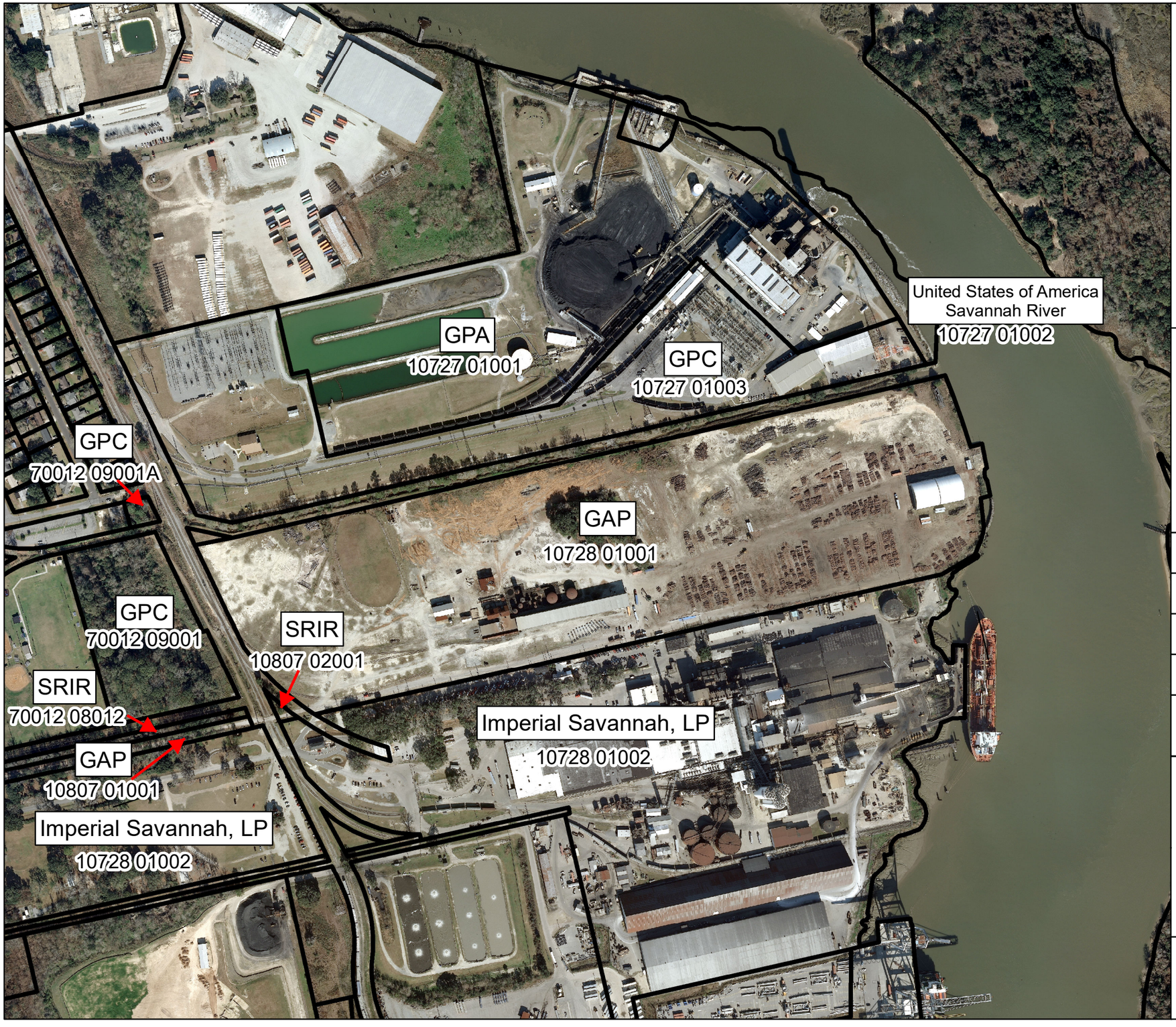
And subject to that certain License Agreement by and between first party and Colonial Oil Industries, Inc. dated October 29, 1973 recorded in the records of the Clerk of the Superior Court of Chatham County, Georgia at Deed Book 102-Z, Page 293.

EXHIBIT "B"

Permitted Title Matters

1. All matters set forth in Schedule B, Section II of that Commitment for ATLA Owners Policy (06-17-06) of title insurance issued by First American Title Insurance Company bearing File No. NCS-680008-STLO and with a Commitment Date of July 18, 2014 at 8:00 a.m. Said commitment is incorporated herein by this reference to provide such matters.

Exhibit B
Plat Map of Property



Legend

Parcel Boundaries

10727 01003 Tax Pin Number

NOTES:
AERIAL IMAGERY IS DERIVED FROM USGS ONLINE GIS DATABASE IN 2012.
RESIDENTIAL ZONING AND PROPERTY LOCATIONS ARE BASED ON PROPERTY INFORMATION DERIVED FROM THE SAVANNAH SAGIS DATABASE.

GPA - Georgia Ports Authority
GPC - Georgia Power Company
GAP - Georgia Atlantic Ports, LLC
SRIR - Southern Regional Industrial Realty, Inc.

DESIGNED BY: A.G.	REVISIONS NO.	REVISIONS DATE	DATE: 7/14/2022
DRAWN BY: C.C.			SCALE: SEE BAR SCALE
			SHEET NO.: 1 OF 1
CHECKED BY: A.S.			
APPROVED BY: R.M.			

N

520 260 0 520

Feet

EIC

GEORGIA ATLANTIC PORT
PORT WENTWORTH, GEORGIA 31047

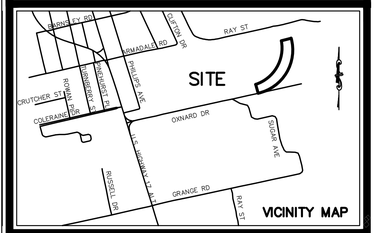
ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD
ALPHARETTA, GEORGIA 30009

FIGURE 1: SITE LAYOUT MAP

Exhibit C
Survey of RUZ

THE RESTRICTED USE ZONE IS NOT A PARCEL OF RECORD AND THIS PLAT CAN NOT BE RECORDED

THIS BLOCK RESERVED FOR THE CLERK OF THE SUPERIOR COURT.



NOTES:
1. THE COORDINATES AND BEARING, AS SHOWN HEREON, ARE IN ACCORDANCE WITH THE GEORGIA STATE PLANE GRID COORDINATE SYSTEM, EAST ZONE NAD'83.
2. THE AREA DEFINED ON THIS PLAT AND LABELED RESTRICTED USE ZONE IS NOT A PARCEL OF RECORD. THIS PLAT IS ONLY TO DEFINE THE AREA OF RESTRICTED USE AND SHALL BE USED AS A REFERENCE DOCUMENT.

LEGEND

- GI = GRATE INLET
- SSMH = SANITARY SEWER MANHOLE
- SIGN
- PP = POWER POLE
- AC = AIR CONDITIONER
- T = TELEPHONE PEDESTAL
- STMH = STORM MANHOLE
- WATM = WATER METER
- GASV = GAS VALVE
- IPS =5/8" IRON PIN SET
- CMF = CONCRETE MONUMENT FOUND
- FH = FIRE HYDRANT
- WATER VALVE
- LP = LIGHT POLE
- TV = TELEVISION BOX
- E = ELECTRIC BOX
- TSB = TRAFFIC SIGNAL BOX
- T = TRANS = TRANSFORMER BOX

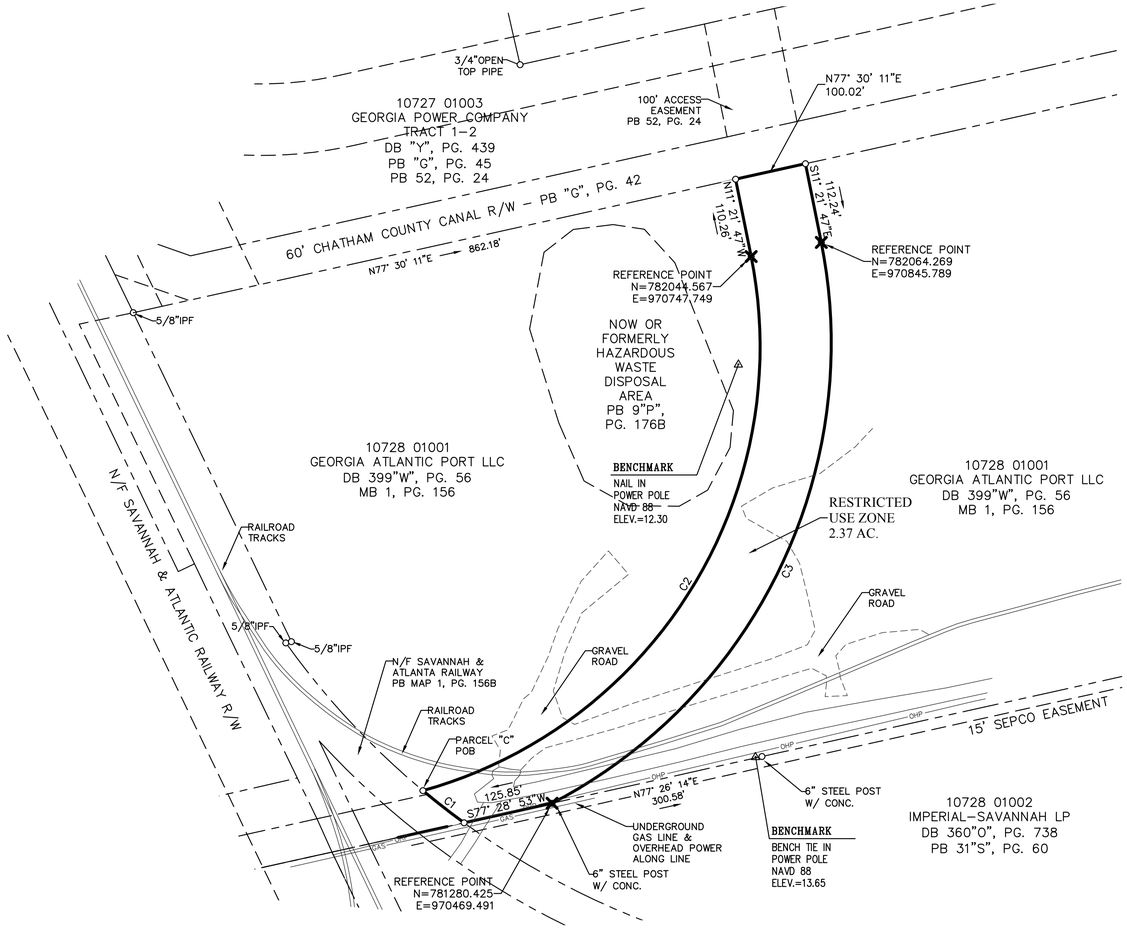
LINE TYPES

- OVERHEAD POWER LINE — OHP
- SANITARY — SAN
- STORM
- WATER — W
- PROPERTY
- FENCE — X X X X X X X X X X
- GAS — GAS
- OVERHEAD TELEPHONE LINE — OHT
- UNDERGROUND ELECTRIC — UGE
- UNDERGROUND TELEPHONE — UGT
- WOODS LINE
- FORCE MAIN LINE — FM

RESTRICTED USE ZONE LEGAL DESCRIPTION
ALL THOSE CERTAIN LOTS, TRACTS, OR PARCELS OF LAND, SITUATE, LYING AND BEING IN CHATHAM COUNTY, GEORGIA, DESCRIBED AS A RESTRICTED USE ZONE, BEGINNING AT A 6" STEEL POST HAVING GEORGIA STATE PLANE COORDINATES OF NORTH–781280.425 AND EAST–970469.491

THENCE, S 77° 28' 53" W FOR A DISTANCE OF 125.85 FEET TO A POINT;
THENCE, ALONG A CURVE TURNING TO THE RIGHT THROUGH 03° 43' 35", HAVING A RADIUS OF 1123.51 FEET, AND WHOSE LONG CHORD BEARS N 52° 02' 53" W FOR A DISTANCE OF 73.06 FEET TO A POINT;
THENCE, ALONG A CURVE TURNING TO THE LEFT THROUGH AN ANGLE OF 85° 46' 19", HAVING A RADIUS OF 643.73 FEET, AND WHOSE LONG CHORD BEARS N 31° 34' 15" E FOR A DISTANCE OF 876.17 FEET TO A POINT;
THENCE, N 11° 21' 47" W FOR A DISTANCE OF 110.26 FEET TO A POINT;
THENCE, N 77° 30' 11" E FOR A DISTANCE OF 100.02 FEET TO A POINT;
THENCE, S 11° 21' 47" E FOR A DISTANCE OF 112.24 FEET TO A POINT;
THENCE, ALONG A CURVE TURNING TO THE RIGHT THROUGH 73° 48' 05", HAVING A RADIUS OF 724.06 FEET, AND WHOSE LONG CHORD BEARS S 25° 38' 39" W FOR A DISTANCE OF 869.49 FEET TO THE POINT OF BEGINNING.

CURVE TABLE						
CURVE NO.	DELTA	ARC	RADIUS	TANGENT	CHORD DIR.	CHORD
C1	3°43'35"	73.07'	1123.51'	36.55'	N52°02'53"W	73.06'
C2	85°46'19"	963.66'	643.73'	597.90'	S31°34'15"W	876.17'
C3	73°48'05"	932.64'	724.06'	543.65'	N25°38'39"E	869.49'



GRID NORTH – GA. EAST ZONE – NAD 83

NOTES:
1. IN MY OPINION, IN ACCORDANCE WITH F.I.R.M. MAP NO.13051C 0134G, EFFECTIVE DATE AUGUST 16, 2018, THIS PROPERTY DOES NOT LIE WITHIN THE 100 YEAR FLOOD PLAIN.
2. NO GUARANTEE, EITHER STATED OR IMPLIED IS MADE THAT THIS PROPERTY IS NOT SUBJECT TO EASEMENTS, CLAIMS, PRESCRIPTIONS, RESTRICTIONS, SUB–SURFACE CONDITIONS, OR ANY OTHER MATTERS OF TITLE THAT ARE NOT VISIBLE, NOT DISCLOSED, OR NOT DISCOVERED BY THE TITLE EXAMINATION.
3. THIS SURVEY DOES NOT ADDRESS ANY WETLAND OR ENVIRONMENTAL ISSUES. WETLANDS ARE UNDER THE JURISDICTION OF THE U.S. ARMY CORPS OF ENGINEERS AND/OR THE GEORGIA STATE DEPARTMENT OF NATURAL RESOURCES AND ANY DISTURBANCE OF THESE PROTECTED AREAS, WITOUT PROPER PERMIT AND APPROVAL IS SUBJECT TO PENALTY BY LAW.
4. THE COORDINATES AND BEARING, AS SHOWN HEREON, ARE IN ACCORDANCE WITH THE GEORGIA STATE PLANE GRID COORDINATE SYSTEM, EAST ZONE NAD'83.

RESTRICTED USE ZONE

BEING AN AREA DEFINED AS SHOWN HEREON AND BEING LANDS OF GEORGIA ATLANTIC PORT, LLC., CHATHAM COUNTY, GEORGIA

PLAT DATE: OCTOBER 6, 2022
FIELD DATE: JUNE 2022
REVISED:
JOB NO.
SCALE: 1" = 100'

ERROR OF CLOSURE: FIELD – N/A FOR EXHIBIT
ERROR OF CLOSURE: PLAT – N/A FOR EXHIBIT
EQUIPMENT USED: TOTAL STATION
0 100 200 300 400

HUSSEY GAY BELL
Established 1958
329 COMMERCIAL DRIVE, SAVANNAH, GA 31406 / T:912.354.4626

HUSSEY, GAY, BELL & DEYOUNG, INC. CERTIFICATE OF AUTHORIZATION: LSF300

GEORGIA REGISTERED 10-6-22 No. 2185 PROFESSIONAL LAND SURVEYOR NATHAN BROWN

Exhibit D
Monitoring and Maintenance Plan

MONITORING AND MAINTENANCE PLAN
GEORGIA PORTS AUTHORITY
CONNECTOR ROAD

GEORGIA ATLANTIC PORT LLC
(FORMER ATLANTIC WOOD INDUSTRIES, INC.)

202 Oxnard Drive
Port Wentworth, Georgia 31407
Chatham County

EPA ID# GAD084914787
Hazardous Waste Facility Permit No. EPA-HW-055(D)

Prepared for:

Georgia Atlantic Port LLC
1515 Des Peres Rd, Suite 300
St. Louis, MO 63131

Prepared by:

EnviroAnalytics Group, LLC
1515 Des Peres Road, Suite 300
St. Louis, MO 63131

October 2022

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ACRONYMS AND ABBREVIATIONS

bgs	below ground surface
BRA	Baseline Risk Assessment
BTV	background threshold value
CAP	Corrective Action Plan
COPC	chemical of potential concern
EAG	EnviroAnalytics Group, LLC
EPD	Environmental Protection Division
FSRA	focused screening risk assessment
ft	feet or foot
GAP	Georgia Atlantic Port LLC
GPA	Georgia Ports Authority
HASP	health and safety plan
I-H	Heavy Industrial
MMP	Monitoring and Maintenance Plan
O&M	Operations and Maintenance
OSHA	Occupational Safety and Health Administration
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl
RCRA	Resource Conservation and Recovery Act
RFI	RCRA Facility Investigation
SVOC	semi-volatile organic compound
VOC	volatile organic compound

1 INTRODUCTION

EnviroAnalytics Group, LLC (EAG) has prepared this *Monitoring and Maintenance Plan* document on behalf of Georgia Atlantic Port LLC (GAP). The Monitoring and Maintenance Plan (MMP) is presented as Exhibit D of the Environmental Covenant that GAP has prepared for a connector road that the Georgia Ports Authority (GPA) is planning to construct upon the 202 Oxnard Drive, Port Wentworth, Georgia property owned by GAP.

The connector road will extend from the west at the south end of Philips Avenue of the GAP site to the GPA's property to the east and north (**Figures 1 and 2**) of the GAP site to accommodate development of this industrial site to support GPA's cargo shipping and storage operations. Associated gravel roads will also be constructed to accommodate GAP's access to its groundwater treatment plant, landfill, and the former process area. A gravel access road will also be constructed near the County Canal so that Chatham County can have access to their canal. The connector road construction comprises Stage 1 of GPA's Steamship Terminal Redevelopment. GPA has coordinated the design and construction details of the roadway with GAP and the Georgia Environmental Protection Division (EPD).

The connector road is intended to provide engineering controls via installation of low permeability construction materials to eliminate direct contact with chemically-impacted soils that may be present within the footprint of the road and to eliminate breathing soil dust/vapors. The gravel access roads will be constructed atop the existing site soils and will also serve as barriers to reduce the possibility of direct contact with soil and help minimize the generation of soil dust/vapors.

Regular inspections and monitoring will be performed for the connector road and the groundwater monitoring well network. Repairs will be made as necessary to maintain the integrity of the connector road and well network. Institutional controls will also be established to further restrict contact with and exposure to the impacted soil and to restrict future residential groundwater use. The institutional controls are in the form of an Environmental Covenant with land use restrictions. The MMP describes the requirements for inspecting, repairing and reporting the conditions of the connector road.

1.1 Purpose

The purpose of preparing this plan is to document the monitoring, inspection, and repair activities to be completed to ensure the integrity of the roadway is maintained and the associated reporting requirements related to activity and use limitation compliance.

1.2 Background

EAG has prepared a *Corrective Action Plan for Georgia Ports Authority Connector Road Construction* (EAG, 2022). The Corrective Action Plan (CAP) serves as the basis for design and

implementation of corrective measures at this Resource Conservation and Recovery Act (RCRA) hazardous waste management facility. The CAP addresses corrective measures to be implemented to mitigate potential risks to human health evaluated via a focused screening risk assessment (FSRA) of soil analytical results from a June 2022 soil investigation of the connector road. The CAP is intended to address only the area of the future connector road footprint and surrounding area. A future CAP will be prepared to address potential risks at other parts of the GAP site that are identified during a future site-wide baseline risk assessment (BRA).

The connector road will consist of two segments: Segment 1 (**Figure 1**) extends from Philips Avenue on the west to the existing Norfolk Southern rail crossing on the east for an approximate distance of 1,400 linear feet; and Segment 2 (**Figure 2**) extends from the existing Norfolk Southern rail crossing to the east and north for approximately 1,236 feet (ft).

Connector road Segment 1 consists of “Parcel A” (**Figure 3**) which has an area of 1.91 acres. Connector road Segment 2 consists of “Parcel B” and “Parcel C” (**Figure 3**) which have areas of 0.07 acres and 2.37 acres, respectively. It is noted that the entire GAP property is subject to the Environmental Covenant. In addition, the 2.37-acre connector road parcel is identified as a Restricted Use Zone (RUZ) since this parcel is subject to the proposed corrective action.

1.2.1 Constituents of Potential Concern

Numerous investigations have been completed since the 1990s. Hundreds of soil samples have been collected for laboratory analyses throughout the site. More than 70 groundwater monitoring wells have been installed and sampled. The soil and groundwater samples have been analyzed for a variety of chemicals of potential concern (COPCs).

Background threshold value concentrations (BTVs) were determined through statistical analyses of analytical results for surface and subsurface soil, sediment, surface water, and groundwater samples collected from background areas. Site-wide analytical results were then compared to the BTVs established for each media. The constituents with analytical results exceeding their respective BTVs are considered to be COPCs and require further evaluation via risk assessment screening.

Semi-volatile organic compounds (SVOCs), particularly polycyclic aromatic hydrocarbons (PAHs), were the COPC group for soil that most commonly exceeded their respective BTVs. Several metals and a few volatile organic compounds (VOCs), pesticides, and polychlorinated biphenyls (PCBs) exceeded their respective BTVs for soil. SVOCs in groundwater had the most exceedances of their BTVs. Several metals, a few VOCs and one pesticide exceeded their respective BTVs for groundwater. Twelve PAHs, five metals and two VOCs exceeded their respective BTVs for surface water.

GAP completed a soil investigation within the footprint of Segment 2 of the future connector road in June 2022 to assess the presence and concentrations of COPCs. Segment 2 was investigated due to the presence of known chemically-impacted soil in the area. The potential health risks to a road worker exposed to soil and its dust/vapors during road construction were evaluated during the FSRA.

The FSRA results indicate that at 30 days of road worker exposure (i.e., the estimated timeframe a worker may be in close contact with surface soil), the estimated risk is below Georgia EPD's acceptable limit of 1 x 10^{-5} for cancer risk and a Hazard Index of 1 for non-cancer risk.

2 CONTROL MEASURES

2.1 Institutional Controls

Institutional controls included in the Environmental Covenant consist of a deed notification restricting the GAP property to non-residential land use, preparing a facility soil management plan to assure adequate worker protection and proper material management during any future excavation activities, and restricting the use of shallow site groundwater for any residential purposes.

2.1.1 Property Use Limitations

The site is located in a Heavy Industrial (I-H) zoning district of unincorporated Chatham County. The current land use is for industrial purposes only. No residential land use is allowed as described in the Environmental Covenant.

2.1.2 Property Access Limitations

An 8-foot high chain-link fence is present along the southern boundary of the GAP site. The County Canal is present along the northern boundary of the site. A chain-link fence is present along the entire southern boundary of the Georgia Power property just north of the County Canal. The Savannah River is present along the eastern boundary of the site. A railway and wooded area are present along the western boundary of the site. Entrance to the site is controlled by locked security gates present along both the unnamed site road that emanates from Phillips Avenue and Oxnard Drive.

GAP's contractor, Arrowood Environmental Group, Inc. (Arrowood) of Savannah, Georgia regularly inspects and performs operations and maintenance-related activities for the landfill, groundwater treatment system, and potable water well.

2.1.3 Safety Training and Permitting

GPA or its contractor AECOM will provide the proper safety training required for constructing and maintaining the connector road. GPA or its contractor AECOM will procure the necessary permits required by the Chatham County Department of Engineering.

AECOM will prepare a health and safety plan (HASP) and abide by its content. The HASP will be prepared in compliance with the requirements of the Occupational Safety and Health Administration (OSHA) Hazardous Waste Operation and Emergency Response Standards (29 CFR 1910.120) and other applicable OSHA regulations. The HASP will be bound along with other pertinent information as a field reference manual for safety, health and emergency responses and will be discussed with site personnel and on-site visitors prior to beginning work. The HASP will be available for review so that there will be sufficient awareness of potentially hazardous conditions and safety procedures on the site. Personnel who enter the Site, including workers, inspectors, subcontractors, and approved visitors must be briefed on the contents and adhere to the requirements of this HASP.

GAP will provide the proper safety training required for the other non-connector road related activities. GAP will prepare a HASP and GAP and its contractors will abide by its content.

2.1.4 Land Disturbance

Land disturbances that are planned to occur within the footprint of the constructed connector road must first be coordinated with and approved by GAP and Georgia EPD. The connector road is planned to be constructed with a maximum soil disturbance depth of 8 inches below ground surface (bgs), with the exception of the area in connector road Segment 2 near where the existing gravel road intersects the railroad tracks. The soil in this area is planned to be disturbed to a maximum depth of 3 ft bgs. The gravel access roads will be constructed atop the existing site soils with minimal soil disturbance anticipated. The concrete and steel bridge over the County Canal will be constructed atop the existing site soils with minimal soil disturbance anticipated.

2.1.5 Groundwater Use Restrictions

There is no current potable groundwater use at the site. Per the site's Environmental Covenant there is a groundwater use restriction for future residential groundwater use. The use or extraction of groundwater beneath the Property for drinking water or for any other non-remedial or monitoring purposes is prohibited.

2.2 Engineering Controls

The connector road pavement and associated road materials will serve as engineering controls to prevent exposure to soil COPCs by direct contact, inhalation of soil dust or vapors, or other exposure pathways. The connector road will serve as an engineered barrier to eliminate the soil pathway (i.e., direct contact with soil and breathing its dust/vapors).

GPA's contractor AECOM has prepared the construction design plans for the connector road, gravel access roads, and bridge over the County Canal (**Appendix A**). The connector road is planned to be constructed with a maximum soil disturbance depth of 8 inches bgs, with the exception of the area near the southwest corner of the site entrance where the existing gravel road intersects the railroad tracks. The soil in this area is planned to be disturbed to a maximum depth of 3 ft bgs. The gravel access roads will be constructed atop the existing site soils with minimal soil disturbance anticipated. The concrete and steel bridge over the County Canal will be constructed atop the existing site soils with minimal soil disturbance anticipated. No waste materials are planned to be generated during the connector road or gravel access roads construction.

The design plan specifications are included in **Appendix A**. The design drawings show the proposed paved Segment 2 1236-foot connector road travel way (i.e., roadway), edge of the road shoulder, and the connector road area's surface topography. There will be two travel ways constructed (north-bound to GPA's Steamship Terminal and south-bound GPA's Garden City Terminal), with each travel way being between 12 and 14 ft wide with a 2% sloped crown that divides the two travel ways for drainage purposes. A six-ft wide paved shoulder will extend outward from the edges of each travel way at a 6% slope away from the travel way. A two-ft wide unpaved shoulder will extend outward from the edges of each paved shoulder at a 4:1 slope. The unpaved shoulder will be covered with 12-inch thick cement-modified soil that extends to the limits of the roadway disturbance area. The total width of the connector road right-of-way is about 100 ft.

The paved travel ways and paved shoulder will consist of the following layers of construction materials from top to bottom: eight inches of concrete, 19 millimeters of recycled asphalt (including bituminous material and hydrated lime), eight inches of graded aggregate base (drainage layer), and 12 inches of Portland cement-modified soil. The unpaved shoulder will consist of 12 inches of Portland cement-modified soil. The cement-modified soil specifications are provided in **Appendix B** and include: mix design and sampling, quality control, products and equipment used, construction methods, and testing. Part 3 includes the specification that core samples of the cement-modified soil must have a maximum permeability value of $1x10^{-5}$ centimeters/second.

Gravel access roads will also be constructed atop the existing site soils to accommodate GAP's access to its groundwater treatment plant, landfill, and the former process area. A gravel access road will also be constructed near the County Canal so that Chatham County can have access to their canal. The gravel placed upon the access roads will act as a barrier to reduce the possibility of direct contact with soil and will help minimize the generation of soil dust/vapors.

A concrete and steel bridge will be constructed over the County Canal to allow access to the former Plant Kraft facility. The bridge will be approximately 59 ft long and about 39 ft wide.

3 PLANNED USE OF THE PROPERTY

The planned use of the property is to construct a connector road on the west side of the GAP site that will provide GPA access to their property located north of the GAP site to accommodate GPA's cargo shipping and storage operations.

Should GPA desire to alter the design or reduce the extent of Segment 2 of the connector road, an amendment to GAP's CAP shall be developed and submitted to Georgia EPD for approval of such activities.

GAP will provide 30 days advance written notice to Georgia EPD if there is an intent to change the planned use of the area within the footprint of Segment 2 of the connector road, apply for building permit(s), or perform site work that may negatively affect or modify the effectiveness of the engineered controls or any required monitoring or maintenance of any institutional or engineering controls. In the case of an emergency situation requiring immediate action, GAP shall provide notice to Georgia EPD as soon as possible.

4 INSPECTIONS, REPAIRS AND MONITORING

Per Georgia EPD requirements, Segment 2 of the connector road must be maintained as an impermeable barrier consistent with the approved design. Regular inspections and monitoring will be performed for the connector road and the groundwater monitoring well network. Repairs will be made as necessary to maintain the integrity of the connector road and well network.

4.1 Connector Road Inspections

GPA's contractor AECOM has prepared an Operations and Maintenance (O&M) Plan (Appendix D of *Corrective Action Plan for Georgia Ports Authority Connector Road Construction* (EAG, 2022)) that identifies the inspection items to be completed for the connector road. The roadway will be inspected on a regular basis by GPA employees or consultants and any cracking 0.25 inches or greater that penetrates the roadway structure will be noted on drawings showing the location and approximate length of any cracks. A summary sheet indicating the date of the inspection, inspector(s) name(s) and affiliation, relevant climatological information, and additional notes will be included with the inspection drawing. A connector road inspection checklist is provided as **Appendix C.**

4.2 Connector Road Repairs

AECOM's O&M Plan also identifies the maintenance and repair items to be implemented to ensure the connector road continues to meet its design specifications and is serving as risk mitigation for contamination remaining in place. The O&M plan identifies contingency procedures to be implemented to achieve the corrective action goals if the site monitoring and performance

evaluation demonstrates that the corrective actions are incapable of achieving corrective action goals within a reasonable timeframe.

Repairs are to be made to the connector road within 30 days of the inspection date by either GPA personnel or selected vendors. Sealing of cracks will be performed in accordance with Georgia Department of Transportation Standard Specification Section 407 – Asphalt-Rubber Joint and Crack Seal (**Appendix D**).

4.3 Groundwater Monitoring Well Network Modifications

Modifications to the current groundwater monitoring well network are necessary to accommodate the connector road construction. Six monitoring wells will be plugged and abandoned as shown on **Figure 4**. Well MW16 will be abandoned and replaced with well MW16R located just east of the connector road.

4.4 Groundwater Monitoring Well Network Repairs

Groundwater samples will continue to be collected and analyzed on a semi-annual basis from the required wells per GAP's RCRA Post Closure Care Permit renewed by Georgia EPD in September 2019. The groundwater monitoring well network will be inspected and maintained during each semi-annual groundwater sampling event conducted during the post-closure care period. Items that will be inspected include groundwater monitoring wells, monitoring well covers, locks, and integrity of surface seal.

Surface grout around the monitoring wells will be replaced or repaired if significant cracks or voids are observed. Monitoring wells will be resurveyed if there are noticeable changes in the well, such as subsidence, moved protector pipe, etc. The monitoring wells will be kept locked when not in use. Missing or broken locks or caps will be replaced as needed. The result of the inspections will be recorded on an inspection form template which is provided as **Appendix E**. The inspection form will also provide for reporting any variances noted and remedial action taken. Wells that cannot be repaired will be properly plugged and abandoned and replacement wells will be installed near the plugged and abandoned wells.

5 REPORTING

Connector road inspection reports will be provided to the GPA Facilities Maintenance Group. A separate summary sheet will be attached to the original inspection report indicating the date of repairs, individuals or contractor performing the repairs, source of sealant utilized, relevant climatological information, any pertinent notes/information regarding the repairs, and completion date of the repairs. All report forms will be kept on file by the GPA Facilities Maintenance Group with copies provided to GAP and Georgia EPD. Written notice to EPD is required within 10 days of discovery of noncompliance with the activity and/or use limitations and/or other requirements, including the actions taken or to be taken to mitigate the noncompliance issue.

Semi-annually, but not later than the fifteenth (15th) of April and October, GAP will submit to EPD a semi-annual report as specified in the EPD approved Post-Closure Care Plan that includes the following information for the previous calendar half: groundwater detection-monitoring report results and maintenance and inspection activities.

Annually, but not later than January 30 beginning the first January following the effective date of the Environmental Covenant, GAP will submit a certification of compliance stating that the activity and use limitations in the Environmental Covenant are being abided by, accompanied by the Roadway Inspection Checklist (**Appendix C**), the Annual Property Evaluation Form (**Appendix F**), and the Annual Inspection and Certification Report Template (**Appendix G**).

FIGURES

DRAFT

Rev	Description	By	Appv'd	Date

TRANSPORTATION

AECOM

AECOM
22 Barnard St, Suite 240
Savannah, GA 31401
www.aecom.com

Drawn By

Approved By

Date

GEORGIA PORTS

STEAMSHIP TERMINAL
GARDEN CITY, GEORGIA

Sheet Title Figure 1. Segment 1
CONNECTOR ROAD FROM PHILLIPS ROAD TO NORFOLK SOUTHERN

Project Number

Sheet Number 1 of 1

DRAFT

Rev	Description	By	Appv'd	Date

TRANSPORTATION

AECOM

AECOM
22 Barnard St, Suite 240
Savannah, GA 31401
www.aecom.com

Drawn By

Approved By

Date

GEORGIA PORTS

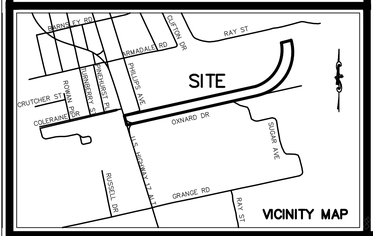
STEAMSHIP TERMINAL
GARDEN CITY, GEORGIA

Sheet Title Figure 2. Segment 2
CONNECTOR ROAD FROM NORFOLK SOUTHERN TO PROPOSED BRIDGE

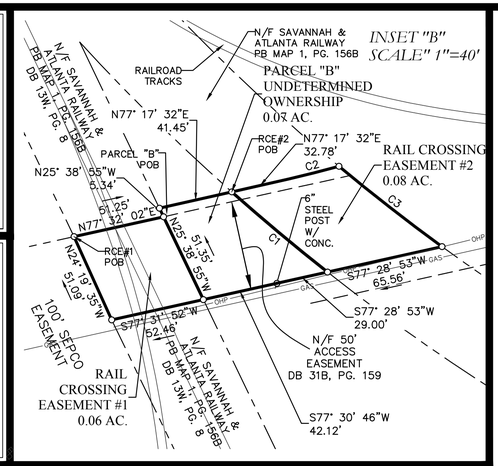
Project Number

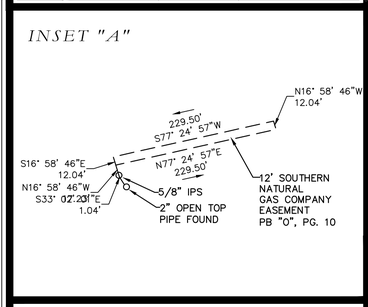
Sheet Number 1 of 1

THIS BLOCK RESERVED FOR THE CLERK OF THE SUPERIOR COURT.



VICINITY MAP





NOTES:
1. IN MY OPINION, IN ACCORDANCE WITH F.I.R.M. MAP NO. 13051C0045G, EFFECTIVE DATE AUGUST 16, 2018, THIS PROPERTY DOES NOT LIE WITHIN THE 100 YEAR FLOOD PLAIN.
2. NO GUARANTEE, EITHER STATED OR IMPLIED IS MADE THAT THIS PROPERTY IS NOT SUBJECT TO EASEMENTS, CLAIMS, PRESCRIPTIONS, RESTRICTIONS, SUB-SURFACE CONDITIONS, OR ANY OTHER MATTERS OF TITLE THAT ARE NOT VISIBLE, NOT DISCLOSED, OR NOT DISCOVERED BY THE TITLE EXAMINATION.
3. THIS SURVEY DOES NOT ADDRESS ANY WETLAND OR ENVIRONMENTAL ISSUES. WETLANDS ARE UNDER THE JURISDICTION OF THE U.S. ARMY CORPS OF ENGINEERS AND/OR THE GEORGIA STATE DEPARTMENT OF NATURAL RESOURCES AND ANY DISTURBANCE OF THESE PROTECTED AREAS, WITOUT PROPER PERMIT AND APPROVAL IS SUBJECT TO PENALTY BY LAW.
4. THE COORDINATES AND BEARING, AS SHOWN HEREON, ARE IN ACCORDANCE WITH THE GEORGIA STATE PLANE GRID COORDINATE SYSTEM, EAST ZONE NAD'83.
5. ALL CORNERS NOT DESCRIBED ARE 5/8" IRON PINS SET.

CURVE TABLE						
CURVE NO.	DELTA	ARC	RADIUS	TANGENT	CHORD DIR.	CHORD
C1	3°24'58"	69.84'	1171.30'	34.93'	S50°03'43"E	69.83'
C2	2°33'56"	28.82'	643.73'	14.41'	N75°44'23"E	28.82'
C3	3°47'15"	73.09'	1105.62'	36.56'	S52°03'40"E	73.07'
C4	85°46'19"	963.66'	643.73'	597.90'	S31°34'15"W	876.17'
C5	73°48'05"	932.64'	724.06'	543.65'	N25°38'39"E	869.49'

PARCEL 'A' LEGAL DESCRIPTION
ALL THOSE CERTAIN LOTS, TRACTS, OR PARCELS OF LAND, SITUATE, LYING AND BEING IN CHATHAM COUNTY, GEORGIA, DESCRIBED AS PARCEL 'A', LANDS OF GEORGIA ATLANTIC PORT LLC, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
COMMENCING AT A 5/8" IRON PIN FOUND AT THE INTERSECTION OF THE NORTH LIMITS OF PHILLIPS AVENUE, DESCRIBED AS BEING A STRIP APPROXIMATELY 27' FEET WIDE AND THE EASTERN RIGHT OF WAY OF GEORGIA STATE ROUTE 25;
THENCE, S 16° 58' 46" E FOR A DISTANCE OF 27.69 FEET TO THE POINT OF BEGINNING;
THENCE, N 77° 31' 26" E FOR A DISTANCE OF 1659.03 FEET TO A POINT;
THENCE, S 24° 19' 55" E FOR A DISTANCE OF 51.09 FEET TO A POINT;
THENCE S 77° 30' 15" W A DISTANCE OF 100.61 FEET A POINT;
THENCE, S 77° 31' 26" W FOR A DISTANCE OF 183.93 FEET TO A POINT;
THENCE, S 77° 31' 28" W FOR A DISTANCE OF 1381.05 FEET TO A POINT;
THENCE, N 16° 58' 46" W FOR A DISTANCE OF 50.18 FEET TO THE POINT OF BEGINNING.

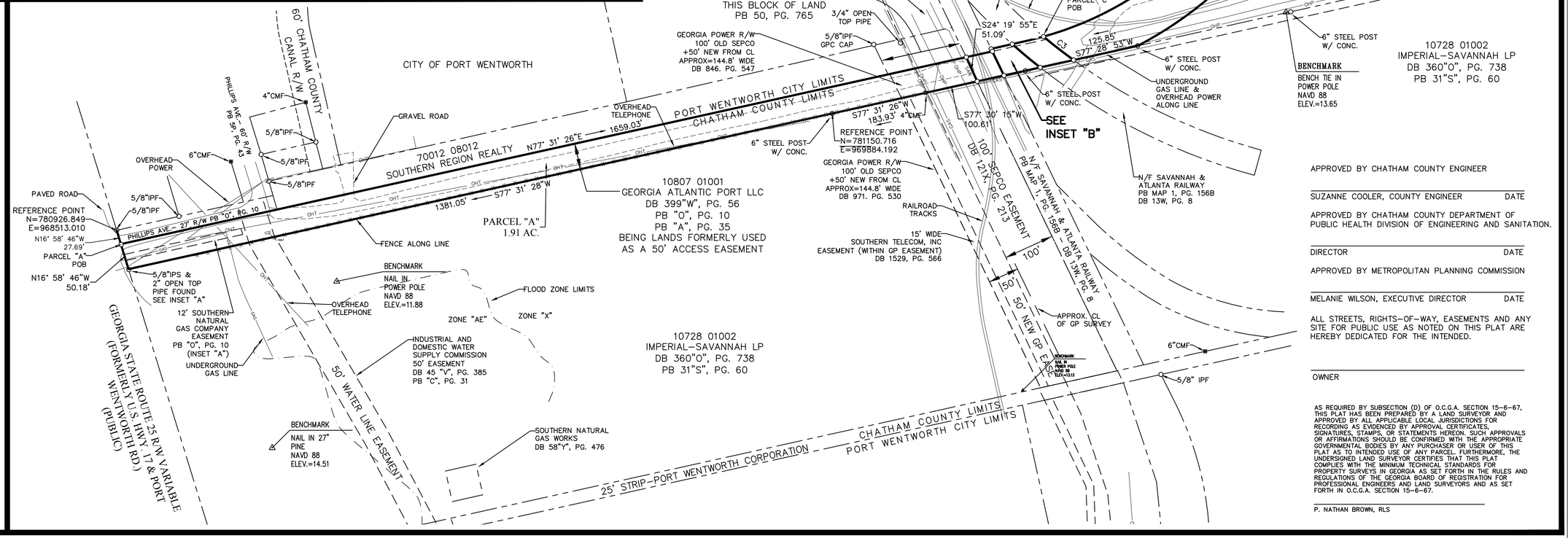
PARCEL 'B' LEGAL DESCRIPTION
ALL THOSE CERTAIN LOTS, TRACTS, OR PARCELS OF LAND, SITUATE, LYING AND BEING IN CHATHAM COUNTY, GEORGIA, DESCRIBED AS PARCEL 'B', BEING OF UNKNOWN OWNERSHIP, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
COMMENCING AT A 5/8" IRON PIN FOUND AT THE INTERSECTION OF THE NORTH LIMITS OF PHILLIPS AVENUE, DESCRIBED AS BEING A STRIP APPROXIMATELY 27' FEET WIDE AND THE EASTERN RIGHT OF WAY OF GEORGIA STATE ROUTE 25;
THENCE, S 16° 58' 46" E FOR A DISTANCE OF 27.69 FEET TO A POINT;
THENCE, N 77° 31' 26" E FOR A DISTANCE OF 1659.03 FEET TO A POINT;
THENCE N 77° 31' 26" E FOR A DISTANCE OF 51.25 FEET TO THE POINT OF BEGINNING;
THENCE, N 25° 38' 55" W FOR A DISTANCE OF 5.34 FEET TO A POINT;
THENCE, N 77° 17' 32" E FOR A DISTANCE OF 41.45 FEET TO A POINT;
THENCE, ALONG A CURVE TURNING TO THE LEFT THROUGH 03° 24' 58", HAVING A RADIUS OF 1171.30 FEET, AND WHOSE LONG CHORD BEARS S 50° 03' 43" E FOR A DISTANCE OF 69.83 FEET TO A POINT;
THENCE, S 77° 28' 53" W FOR A DISTANCE OF 29.00 FEET TO A POINT;
THENCE, S 77° 30' 46" W FOR A DISTANCE OF 42.12 FEET TO A POINT;
THENCE, N 25° 38' 55" W FOR A DISTANCE OF 51.35 FEET TO THE POINT OF BEGINNING.

PARCEL 'C' LEGAL DESCRIPTION
ALL THOSE CERTAIN LOTS, TRACTS, OR PARCELS OF LAND, SITUATE, LYING AND BEING IN CHATHAM COUNTY, GEORGIA, DESCRIBED AS PARCEL 'C', BEING OF UNKNOWN OWNERSHIP, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
COMMENCING AT A 5/8" IRON PIN FOUND AT THE INTERSECTION OF THE NORTH LIMITS OF PHILLIPS AVENUE, DESCRIBED AS BEING A STRIP APPROXIMATELY 27' FEET WIDE AND THE EASTERN RIGHT OF WAY OF GEORGIA STATE ROUTE 25;
THENCE, S 16° 58' 46" E FOR A DISTANCE OF 27.69 FEET TO A POINT;
THENCE, N 77° 31' 26" E FOR A DISTANCE OF 1659.03 FEET TO A POINT;
THENCE, N 25° 38' 55" W FOR A DISTANCE OF 5.34 FEET TO A POINT;
THENCE, N 77° 17' 32" E FOR A DISTANCE OF 41.45 FEET TO A POINT;
THENCE, N 77° 17' 32" E FOR A DISTANCE OF 32.78 FEET TO A POINT;
THENCE, ALONG A CURVE TURNING TO THE LEFT THROUGH 02° 33' 56", HAVING A RADIUS OF 643.73 FEET, AND WHOSE LONG CHORD BEARS N 75° 44' 23" E FOR A DISTANCE OF 28.82 FEET TO THE POINT OF BEGINNING;

THENCE, ALONG A CURVE TURNING TO THE LEFT THROUGH AN ANGLE OF 85° 46' 19", HAVING A RADIUS OF 643.73 FEET, AND WHOSE LONG CHORD BEARS N 31° 34' 15" E FOR A DISTANCE OF 876.17 FEET TO A POINT;
THENCE, N 11° 21' 47" W FOR A DISTANCE OF 110.26 FEET TO A POINT;
THENCE, N 77° 30' 11" E FOR A DISTANCE OF 100.02 FEET TO A POINT;
THENCE, S 11° 21' 47" E FOR A DISTANCE OF 112.24' FEET TO A POINT;
THENCE, ALONG A CURVE TURNING TO THE RIGHT THROUGH 73° 48' 05", HAVING A RADIUS OF 724.06 FEET, AND WHOSE LONG CHORD BEARS S 25° 38' 39" W FOR A DISTANCE OF 869.49 FEET TO A POINT;
THENCE, S 77° 28' 53" W FOR A DISTANCE OF 125.85 FEET TO A POINT;
THENCE, ALONG A CURVE TURNING TO THE RIGHT THROUGH 03° 43' 35", HAVING A RADIUS 1123.51 FEET, AND WHOSE LONG CHORD BEARS N 52° 02' 53" W FOR A DISTANCE OF 73.06 FEET TO THE POINT OF BEGINNING.

RAIL CROSSING EASEMENT #1 LEGAL DESCRIPTION
ALL THOSE CERTAIN LOTS, TRACTS, OR PARCELS OF LAND, SITUATE, LYING AND BEING IN CHATHAM COUNTY, GEORGIA, DESCRIBED AS RAIL CROSSING EASEMENT #1, NOW OR FORMERLY LANDS OF SAVANNAH & ATLANTA RAILWAY, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
COMMENCING AT A 5/8" IRON PIN FOUND AT THE INTERSECTION OF THE NORTH LIMITS OF PHILLIPS AVENUE, DESCRIBED AS BEING A STRIP APPROXIMATELY 27' FEET WIDE AND THE EASTERN RIGHT OF WAY OF GEORGIA STATE ROUTE 25;
THENCE, S 16° 58' 46" E FOR A DISTANCE OF 27.69 FEET TO A POINT;
THENCE, N 77° 31' 26" E FOR A DISTANCE OF 1659.03 FEET TO THE POINT OF BEGINNING;
THENCE N 77° 32' 02" E FOR A DISTANCE OF 51.25 FEET TO A POINT;
THENCE, S 25° 38' 55" E FOR A DISTANCE OF 51.35 FEET TO A POINT;
THENCE, S 77° 31' 52" W FOR A DISTANCE OF 52.46 FEET TO A POINT;
THENCE, N 24° 19' 35" W FOR A DISTANCE OF 51.09 FEET TO A POINT;
THENCE N 77° 32' 02" E A DISTANCE OF 51.25 FEET TO THE POINT OF BEGINNING.

RAIL CROSSING EASEMENT #2 LEGAL DESCRIPTION
ALL THOSE CERTAIN LOTS, TRACTS, OR PARCELS OF LAND, SITUATE, LYING AND BEING IN CHATHAM COUNTY, GEORGIA, DESCRIBED AS RAIL CROSSING EASEMENT #2, NOW OR FORMERLY LANDS OF SAVANNAH & ATLANTA RAILWAY, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
COMMENCING AT A 5/8" IRON PIN FOUND AT THE INTERSECTION OF THE NORTH LIMITS OF PHILLIPS AVENUE, DESCRIBED AS BEING A STRIP APPROXIMATELY 27' FEET WIDE AND THE EASTERN RIGHT OF WAY OF GEORGIA STATE ROUTE 25;
THENCE, S 16° 58' 46" E FOR A DISTANCE OF 27.69 FEET TO A POINT;
THENCE, N 77° 31' 26" E FOR A DISTANCE OF 1659.03 FEET TO A POINT;
THENCE, N 25° 38' 55" W FOR A DISTANCE OF 5.34 FEET TO A POINT;
THENCE, N 77° 17' 32" E FOR A DISTANCE OF 41.45 FEET TO THE POINT OF BEGINNING;
THENCE, N 77° 17' 32" E FOR A DISTANCE OF 32.78 FEET TO A POINT;
THENCE, ALONG A CURVE TURNING TO THE LEFT THROUGH 02° 33' 56", HAVING A RADIUS OF 643.73 FEET, AND WHOSE LONG CHORD BEARS N 75° 44' 23" E FOR A DISTANCE OF 28.82 FEET TO A POINT;
THENCE, ALONG A CURVE TURNING TO THE LEFT THROUGH 03° 47' 15", HAVING A RADIUS OF 1105.62 FEET, AND WHOSE LONG CHORD BEARS S 52° 03' 40" E FOR A DISTANCE OF 73.07 FEET TO A POINT;
THENCE, S 77° 28' 53" W FOR A DISTANCE OF 65.56 FEET TO A POINT;
THENCE, ALONG A CURVE TURNING TO THE RIGHT THROUGH AN ANGLE OF 03° 24' 58", HAVING A RADIUS OF 1171.30 FEET, AND WHOSE LONG CHORD BEARS N 50° 03' 43" W FOR A DISTANCE OF 69.83 FEET TO THE POINT OF BEGINNING.



LEGEND

- GI = GRATE INLET
- SSMH = SANITARY SEWER MANHOLE
- SIGN
- PP = POWER POLE
- AC = AC AIR CONDITIONER
- T = TELEPHONE PEDESTAL
- STMH = STORM MANHOLE
- WATM = WATER METER
- GASV = GAS VALVE
- IPS =5/8" IRON PIN SET
- CMF = CONCRETE MONUMENT FOUND
- FH = FIRE HYDRANT
- WATER VALVE
- LP = LIGHT POLE
- TV = TELEVISION BOX
- E = ELECTRIC BOX
- TSB = TRAFFIC SIGNAL BOX
- TRANS = TRANSFORMER BOX

LINE TYPES

- OVERHEAD POWER LINE — OHP
- SANITARY — SAN
- STORM
- WATER — W
- PROPERTY
- FENCE — X X X X X X X X X
- GAS — GAS
- OVERHEAD TELEPHONE LINE — OHT
- UNDERGROUND ELECTRIC — UGE
- UNDERGROUND TELEPHONE — UGT
- WOODS LINE
- FORCE MAIN LINE — FM

APPROVED BY CHATHAM COUNTY ENGINEER

SUZANNE COOLER, COUNTY ENGINEER DATE

APPROVED BY CHATHAM COUNTY DEPARTMENT OF PUBLIC HEALTH DIVISION OF ENGINEERING AND SANITATION.

DIRECTOR DATE

APPROVED BY METROPOLITAN PLANNING COMMISSION

MELANIE WILSON, EXECUTIVE DIRECTOR DATE

ALL STREETS, RIGHTS-OF-WAY, EASEMENTS AND ANY SITE FOR PUBLIC USE AS NOTED ON THIS PLAT ARE HEREBY DEDICATED FOR THE INTENDED.

OWNER

AS REQUIRED BY SUBSECTION (D) OF O.C.G.A. SECTION 15-6-67, THIS PLAT HAS BEEN PREPARED BY A LAND SURVEYOR AND APPROVED BY ALL APPLICABLE LOCAL JURISDICTIONS FOR RECORDING AS EVIDENCED BY APPROVAL CERTIFICATES, SIGNATURES, STAMPS, OR STATEMENTS HEREON. SUCH APPROVALS OR AFFIRMATIONS 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.

P. NATHAN BROWN, RLS

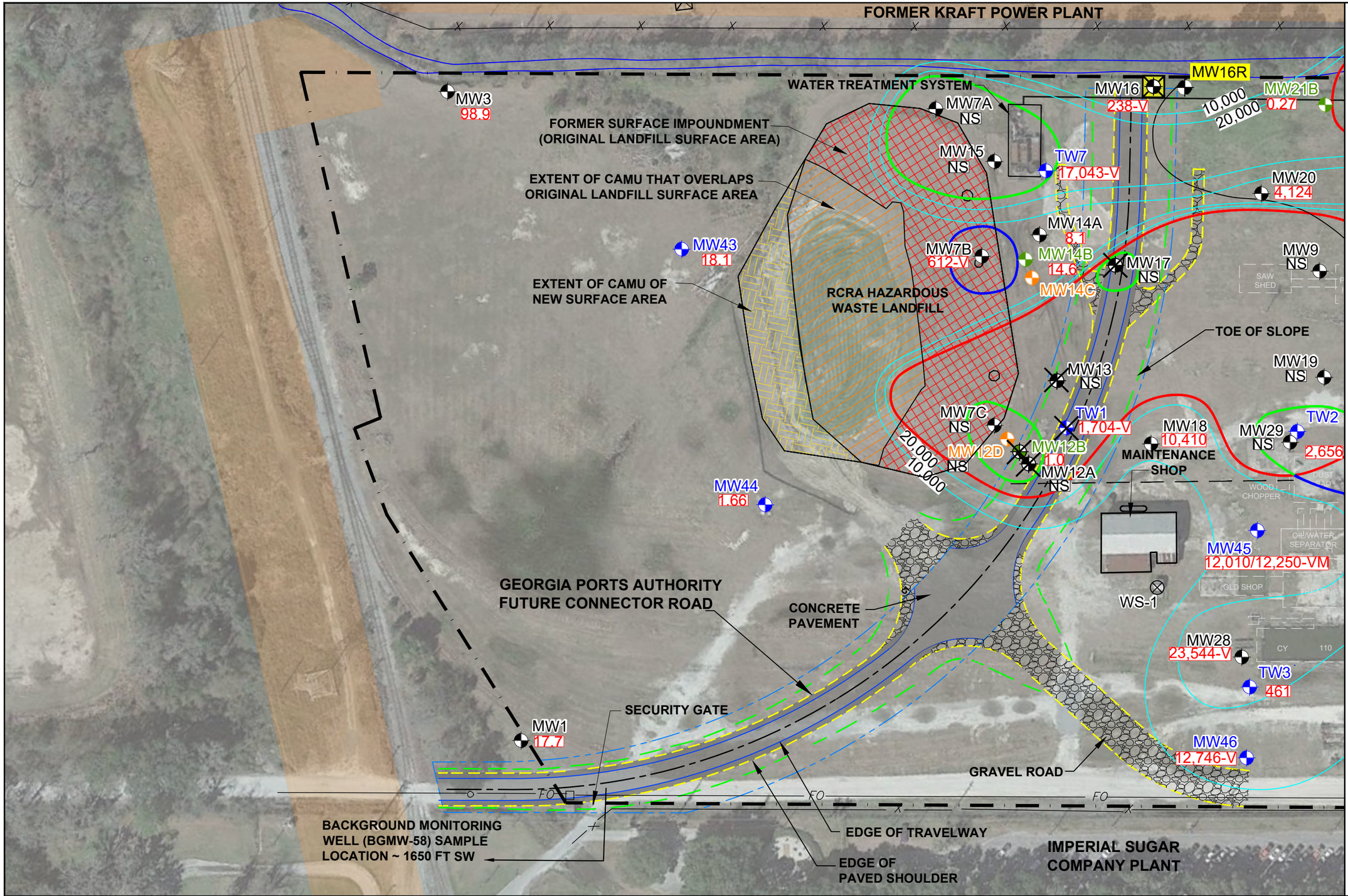
FIGURE 3. BOUNDARY AND MINOR SUBDIVISION

LANDS OF GEORGIA ATLANTIC PORT LLC, CHATHAM COUNTY, GEORGIA
FOR: GEORGIA PORTS AUTHORITY

PLAT DATE: JUNE 3, 2022	
FIELD DATE: OCTOBER 2021	
REVISED:	
JOB NO.	
SCALE: 1" = 100'	

ERROR OF CLOSURE: FIELD – 1/74,857	
ERROR OF CLOSURE: PLAT – 1/402,958	
ANGULAR ERROR: 1" PER POINT	
EQUIPMENT USED: TRIMBLE TOTAL STATION & CHAMPION GPS	
0 100 200 300 ?	

HUSSEY GAY BELL
Established 1958
329 COMMERCIAL DRIVE, SAVANNAH, GA 31406 / T:912.354.4626
HUSSEY, GAY, BELL & DEYOUNG, INC. CERTIFICATE OF AUTHORIZATION: LSF 500



LEGEND

- PLEISTOCENE WELLS (0-33' BGS)
- MIOCENE WELLS (35'-55' BGS)
- MIOCENE WELLS (81'-94' BGS)
- SUPPLEMENTAL RFI WELLS (0-55' BGS)
- WELLS TO BE PLUGGED AND ABANDONED (MW12A, MW12B, MW13, MW17, AND TW1)
- WELLS TO BE PLUGGED AND REPLACED (MW16)
- MW-16R — LOCATION OF REPLACEMENT WELL
- WATER SUPPLY WELL
- GEORGIA POWER CO EASEMENT
- FORMER SURFACE IMPOUNDMENT (ORIGINAL LANDFILL SURFACE AREA)
- EXTENT OF CAMU THAT OVERLAPS ORIGINAL LANDFILL SURFACE AREA
- EXTENT OF NEW CAMU SURFACE AREA
- INFERRED AREAL EXTENT OF DNAPL ACCUMULATION IN PLEISTOCENE
- INFERRED AREAL EXTENT OF LNAPL ACCUMULATION IN PLEISTOCENE
- INFERRED AREAL EXTENT OF DNAPL & LNAPL ACCUMULATION IN PLEISTOCENE
- 10,000 — TOTAL SVOCs ISOPLETH
- FORMER INFRASTRUCTURE
- FENCE
- PROPERTY BOUNDARY

NOTES:

1. ALL TOTAL SVOC RESULTS SHOWN ARE IN MICROGRAMS PER LITER (µg/L)
   WATER SAMPLES = 0.03 µg/L
2. AVERAGE TOTAL SVOCS FOR BACKGROUND GROUNDWATER SAMPLES = NON-DETECT
3. RED VALUE INDICATES SVOC(s) > BACKGROUND THRESHOLD VALUES
4. GREEN VALUE INDICATES SVOC(s) < BACKGROUND THRESHOLD VALUES
5. NS=NOT SAMPLED; ND=NON-DETECT
6. M = METAL CONSTITUENT(S) > BACKGROUND THRESHOLD VALUES
   V = VOC CONSTITUENT(S) > BACKGROUND THRESHOLD VALUES
   P = PESTICIDE CONSTITUENT(S) > BACKGROUND THRESHOLD VALUES
   * = MW27R & MW37R INSTALLED JUNE 2018 TO REPLACE DAMAGED MW27 & MW37 TOTAL SVOC RESULTS LISTED ARE FOR MW27 (43 FT SOUTH OF MW27R) & MW37 (35 FT EAST OF MW37R)
7. IMAGE SOURCE: GOOGLE EARTH IMAGERY 3/8/2021

N

0 45 90 180
FEET

EnviroAnalytics Group

DRAWN BY: MN	REVISION NUMBER:	DATE OF REVISION:	BY:	DESCRIPTION:
APPROVED BY: TB	#1	NA	NA	NA
DATE: 09/26/2022	#2	NA	NA	NA
SCALE: AS SHOWN	#3	NA	NA	NA

PROPOSED MONITORING WELL NETWORK MODIFICATIONS

Georgia Atlantic Port LLC
Port Wentworth, Georgia

PROJECT NUMBER:	SHEET NUMBER:
NA	1 OF 1
DRAWING DATE:	FIGURE NUMBER:
09/26/2022	4

APPENDICES

APPENDIX A – CONSTRUCTION DESIGN PLANS

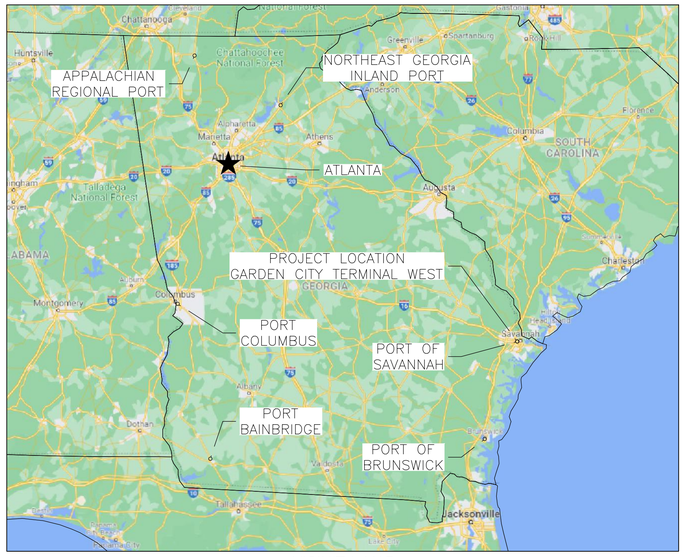
GEORGIA PORTS AUTHORITY
GEORGIA STEAMSHIP TERMINAL
REGIONAL REDEVELOPMENT
CONNECTOR ROAD - GAP PROPERTIES

GPA PROJECT No. 2101-1054

A/E PROJECT No. 2101-039

1

ISSUED FOR CONSTRUCTION
OCTOBER 2022



VICINITY MAP
NOT TO SCALE

LOCATION MAP
NOT TO SCALE

Mark	Description	Date	Appr.
1	AMENDMENT NO. 1 - IFC	10/7/22	DCP
0	ISSUE FOR BID	2/1/22	TSM

GEORGIA PORTS AUTHORITY
GEORGIA STEAMSHIP TERMINAL
REGIONAL REDEVELOPMENT
CONNECTOR ROAD - GAP PROPERTIES

COVER SHEET

Designed by: DCP
Drawn by: TO/JL
Cad by: MDJ
Approved by: DCP
Submitted by: AECOM
Date: 02-01-2022
Project No. 2101-039
GPA Project No.: 2101-1054
Drawing Scale: AS NOTED
Plot scale:1:1 (0 SHEET) c/o

AECOM
22 BARNARD STREET
SUITE 240
SAVANNAH, GA 31401
Telephone (912) 436-6426
www.AECOM.com

GEORGIA REGISTERED No. 046006 PROFESSIONAL ENGINEERS DUSTIN POFF 10/7/22

SEAL

Sheet Reference No.
1-0001

GEORGIA811 Utilities Protection Center, Inc. Know what's below. Call before you dig.

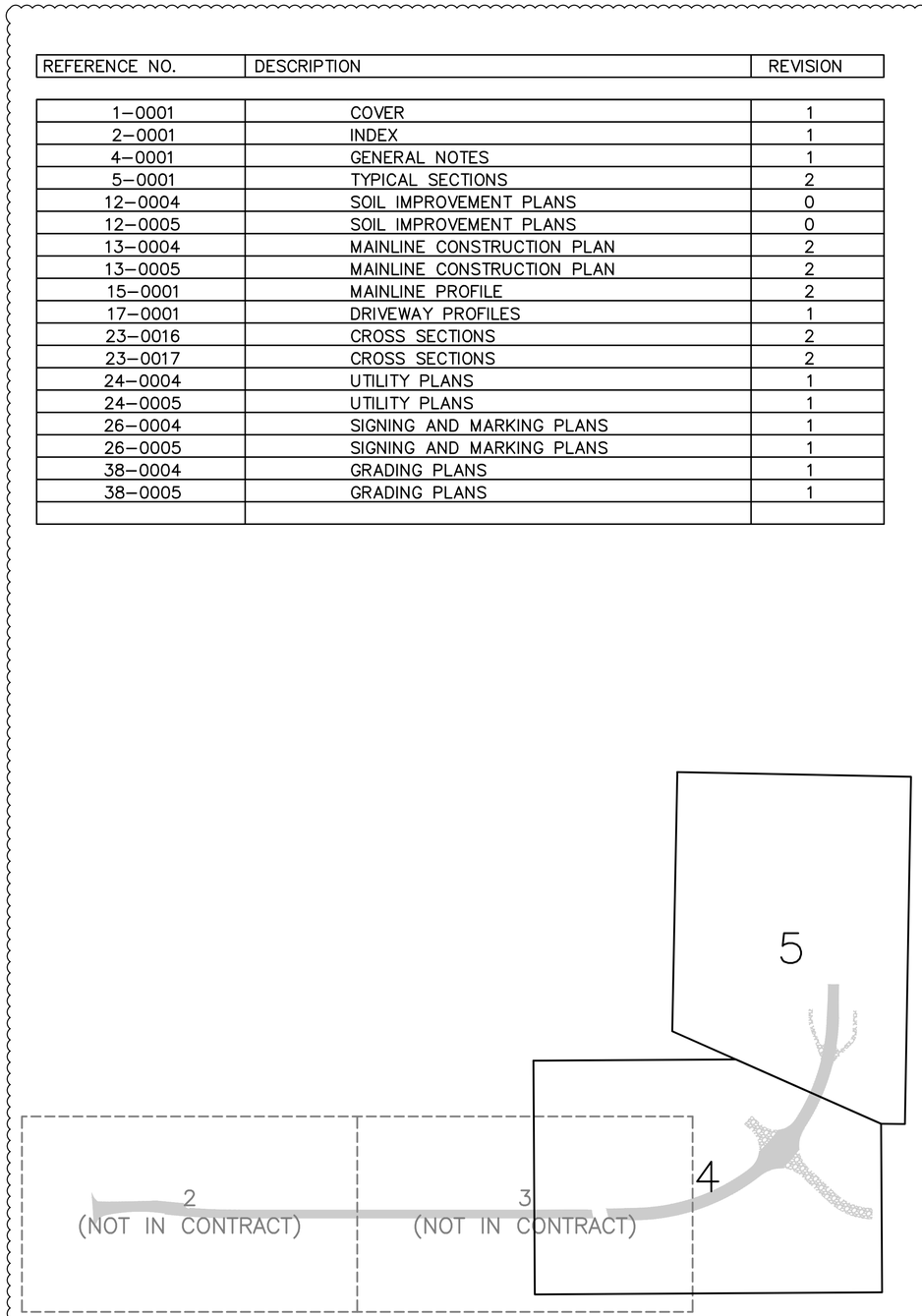
ISSUED FOR CONSTRUCTION

DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

File: Z:\Shared\60592424_GPA ON-CALL\500_TASK ORDERS\TO#7-875 GST-GCT CONNECTOR ROAD\Task 1 - GST2GCT Connector Road\900_CAD_GIS\GST-GCT Connector Road\Concept B_Lee\01_0001 - Plotted: 10/8/2022 4:37 PM

REFERENCE NO.	DESCRIPTION	REVISION
1–0001	COVER	1
2–0001	INDEX	1
4–0001	GENERAL NOTES	1
5–0001	TYPICAL SECTIONS	2
12–0004	SOIL IMPROVEMENT PLANS	0
12–0005	SOIL IMPROVEMENT PLANS	0
13–0004	MAINLINE CONSTRUCTION PLAN	2
13–0005	MAINLINE CONSTRUCTION PLAN	2
15–0001	MAINLINE PROFILE	2
17–0001	DRIVEWAY PROFILES	1
23–0016	CROSS SECTIONS	2
23–0017	CROSS SECTIONS	2
24–0004	UTILITY PLANS	1
24–0005	UTILITY PLANS	1
26–0004	SIGNING AND MARKING PLANS	1
26–0005	SIGNING AND MARKING PLANS	1
38–0004	GRADING PLANS	1
38–0005	GRADING PLANS	1

DRAWING NO.	DESCRIPTION		
	GDOT CONSTRUCTION STANDARDS		REV. DATE
	5046H	JOINT DETAILS FOR PLAIN PORTLAND CEMENT CONCRETE PAVING	1/2018
	4380	STANDARD "W" BEAM GUARDRAIL, 31 INCH GUARDRAIL HEIGHT	8/2022
	9100	TRAFFIC CONTROL GENERAL NOTES, STANDARD LEGEND, AND MISCELLANEOUS DETAILS	3/2006
	GDOT CONSTRUCTION DETAILS		
	P–7	PAVEMENT EDGE TREATMENT ASPHALT AND CONCRETE PAVEMENT	11/2011
	T–01	SIGN PLATES	1/2000
	T–02	DETAILS FOR TYPICAL FRAMING	3/2000
	T–03A	TYPE 7, 8, 9 SQUARE TUBE POST INSTALLATION DETAIL	7/2002
	T–05A	DETAILS OF REGULATORY SIGNS (1 OF 2)	1/2003
	T–05B	DETAILS OF REGULATORY SIGNS (2 OF 2)	1/2000
	T–05C	DETAILS OF WARNING SIGNS	1/2000
	T–11A	DETAILS OF PAVEMENT MARKING PLACEMENT ON NON–LIMITED ACCESS ROADWAY	9/2016
	T–14	DETAILS OF PAVEMENT MARKING HATCHING	11/2008
	T–15A	DETAILS OF PAVEMENT MARKER LOCATION NON–LIMITED ACCESS ROADWAY	9/2016
	T–15C	DETAILS OF RAISED PAVEMENT MARKERS	9/2011
	GDOT EROSION CONTROL DETAILS		
	D–20	SILT CONTROL GATES FOR STRUCTURES TYPE – 1, 2, AND 3	4/2016
	D–24A	TEMPORARY SILT FENCE (1 OF 4)	1/2011
	D–24B	TEMPORARY SILT FENCE BERM DITCH, INSTALLATION, BRUSH BARRIER (2 OF 4)	1/2011
	D–24C	TEMPORARY SILT FENCE J HOOKS, INLET SEDIMENT TRAPS (3 OF 4)	1/2011
	D–24D	TEMPORARY SILT FENCE CHECK DAM (4 OF 4)	7/2015
	D–41	CONSTRUCTION EXIT	11/2020
	D–54	SOD INSTALLATION	4/2016
	GDOT STANDARDS AND DETAILS REFERENCED WERE OBTAINED FROM THE		
	GDOT 2022 CONSTRUCTION STANDARDS AND DETAILS, ISSUED 01/2022.		
	EROSION AND SEDIMENT CONTROL MEASURES FOR THIS PROJECT ARE INCLUDED IN THE FOLLOWING PLAN SET:		
	"CLEARING, PAVING, GRADING, STORM DRAINAGE, WATER DISTRIBUTION, & SANITARY SEWER		
	GEORGIA PORTS AUTHORITY		
	GEORGIA STEAMSHIP TERMINAL DEVELOPMENT"		
	WITH LATEST REVISION DATED 09–15–2022		
	AS PREPARED BY HUSSEY GAY BELL		
	SEE PLAN SHEETS EC0.1 THROUGH EC4.1		



KEY MAP

GEORGIA PORTS

Mark	Description	Date	Appr.
1	AMENDMENT NO. 1 – IFC	10/7/22	DCP
0	ISSUE FOR BID	2/1/22	TSM

GEORGIA PORTS AUTHORITY
GEORGIA STEAMSHIP TERMINAL
REGIONAL REDEVELOPMENT
CONNECTOR ROAD - GAP PROPERTIES

INDEX

Designed by: DCP
Drawn by: TO/AL
Cad by: MDJ
Approved by: DCP
Submitted by: AECOM
Date: 02–01–2022
Project No. 2101–039
GPA Project No.: 2101–1054
Drawing Scale: AS NOTED
Plot scale:1:1 (0 SHEET)
c/o

AECOM
22 BARNARD STREET
SUITE 240
SAVANNAH, GA 31401
Telephone (912) 436-0426
www.AECOM.com

GEORGIA REGISTERED No. 046006 PROFESSIONAL ENGINEER DUSTIN POFF 10/7/22

SEAL

Sheet Reference No.
2–0001

GEORGIA811 Utilities Protection Center, Inc. Know what's below. Call before you dig.

ISSUED FOR CONSTRUCTION

DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

File: Z:\Shared\60392424_GPA ON-CALL\500_TASK ORDERS\TM7-875 GST-GCT CONNECTOR ROAD\Task 1 - GST2GCT Connector Road\900_CAD_GIS\GST-GCT Connector Road Concept B_Lee\02_0001 - Plotted: 10/8/2022 4:27 PM

1. ALL BORROW SITES FOR THIS PROJECT MUST BE ENVIRONMENTALLY APPROVED PRIOR TO CONSTRUCTION ACTIVITIES. NO EXCESS MATERIAL MAY BE DISPOSED OF OUTSIDE THE PROJECT RIGHT OF WAY AND MUST BE PLACED AS FILL ON SITE. SEE SECTION 201 OF THE STANDARD SPECIFICATIONS AND SUPPLEMENTS THERETO FOR ADDITIONAL INFORMATION.

2. PRIOR TO ANY CONSTRUCTION ACTIVITIES BEGINNING, CONTRACTOR TO LOCATE, AND MARK, ABANDONED COLONIAL PIPELINE WITHIN PROJECT AREA. A COLONIAL REPRESENTATIVE MUST INSPECT AND VERIFY PIPE IS EMPTY PRIOR TO ANY DEMOLITION WORK IS TO TAKE PLACE. A COLONIAL REPRESENTATIVE MUST BE ON SITE FOR ANY WORK BEING DONE WITHIN 100 FEET OF THE ABANDONED COLONIAL PIPELINE PRIOR TO DEMOLITION.A COLONIAL SPILL RESPONSE TEAM MUST MUST BE ON SITE DURING DEMOLITION OF COLONIAL PIPELINE.

3. THIS PROJECT CROSSES LOW WET AREAS WHICH MAY BE INUNDATED AT THE TIME OF CONSTRUCTION. BECAUSE OF THE RELATIVELY FLAT TERRAIN ON THIS PROJECT, IT APPEARS THAT THE AREA MAY DRAIN POORLY. IT IS RECOMMENDED THAT ONE LAYER OF LOW-STRENGTH FILTER FABRIC BE PLACED ON TOP OF THE EXISTING GROUND PRIOR TO PLACING THE FILLS TO PROVIDE STABILITY OVER LOOSE OR SOFT SOILS.

4. PRIOR TO ANY CONSTRUCTION CONTRACTOR MUST PREPARE THE SUBGRADE, INCLUDING ALL SAMPLING AND TESTING, IN ACCORDANCE WITH TECHNICAL SPECIFICATION 312000.50 CEMENT MODIFIED SOIL. ALL SAMPLING, TESTING, AND MIXING OPERATIONS MUST BE COORDINATED WITH THE OWNER'S TESTING INSPECTION AGENCY.

1

ISSUED FOR CONSTRUCTION

DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

GEORGIA PORTS

Mark	Description	Date	Appr.
0	ISSUE FOR BID	2/1/22	TSM
1	AMENDMENT NO. 1 – IFC	10/7/22	DCP

GEORGIA PORTS AUTHORITY
GEORGIA STEAMSHIP TERMINAL
REGIONAL REDEVELOPMENT
CONNECTOR ROAD - GAP PROPERTIES

GENERAL NOTES

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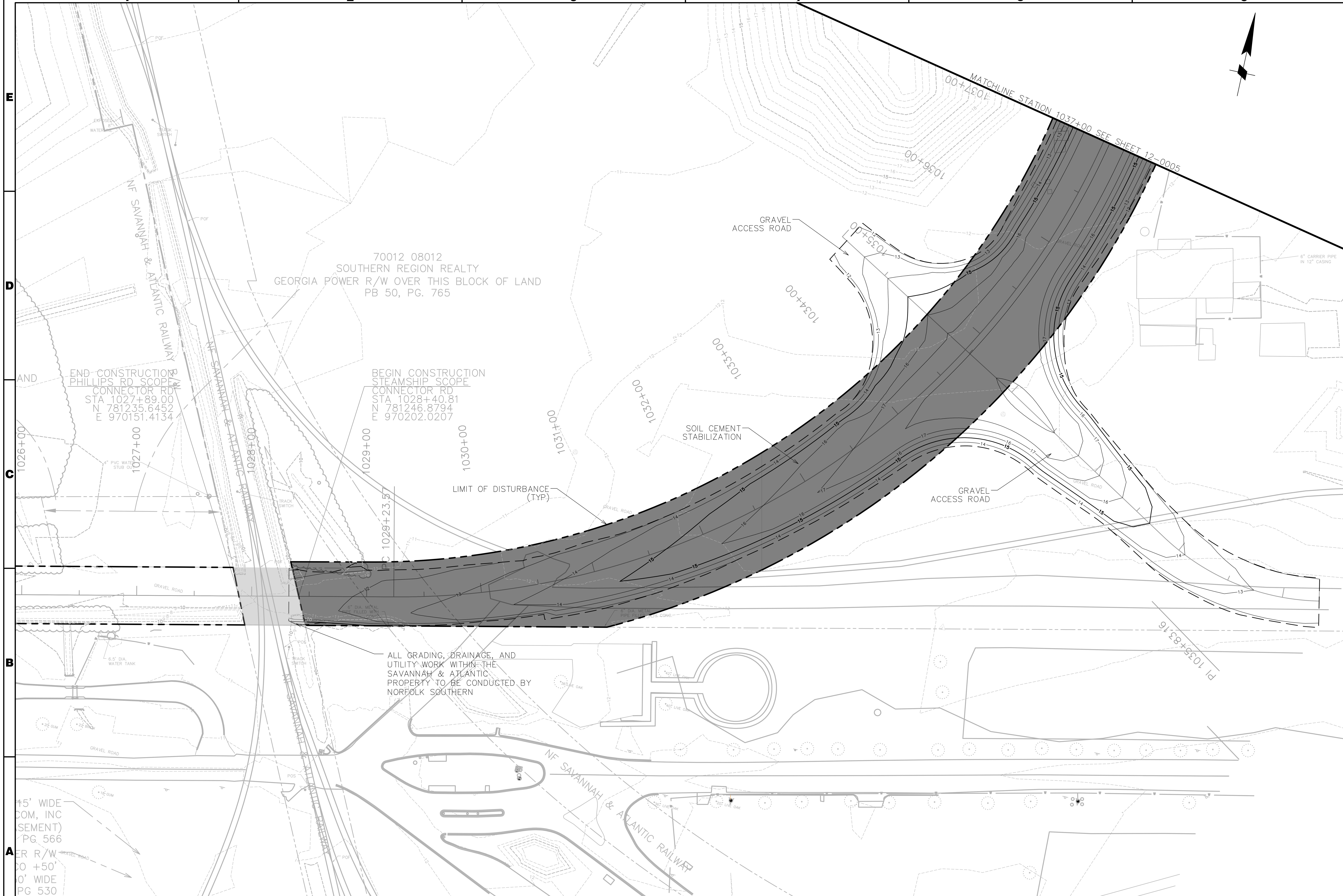
Designed by: DCP
Drawn by: TO/AL
Cad by: MDJ
Approved by: DCP
Submitted by: AECOM
Date: 02-01-2022
C/O
Project No. 2101-039
GPA Project No.: 2101-1054
Drawing Scale: AS NOTED
Plot scale:1:1 (0 SHEET)

GEORGIA REGISTERED No. 046006 PROFESSIONAL ENGINEER DUSTIN POFF 10/7/22

SEAL

Sheet Reference No.
4-0001



SCALE: 1"=40' (IN FEET)

0 20' 40' 80'

GEORGIA811

ISSUED FOR CONSTRUCTION

DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

GEORGIA PORTS

Mark	Description	Date	Appr.
0	AMENDMENT NO. 1 - IFC	10/7/22	DCP

GEORGIA PORTS AUTHORITY
GEORGIA STEAMSHIP TERMINAL
REGIONAL REDEVELOPMENT
CONNECTOR ROAD - GAP PROPERTIES

SOIL IMPROVEMENT PLANS

Designed by: DCP	Date: 10-07-2022
Dwn by: TO/JL	Ckd by: MDJ
Project No. 2101-039	C/O
Approved by: DCP	GPA Project No.: 2101-1054
Submitted by: AECOM	Drawing Scale: AS NOTED Plot scale:1:1 (D SHEET)

AECOM
22 BARNARD STREET
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Telephone (912) 436-6426
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SEAL: GEORGIA REGISTERED No. 046006 PROFESSIONAL ENGINEER DUSTIN POFF 10/7/22

Sheet Reference No.
12-0004

File: Z:\Shared\60592424_GPA ON-CALL\500_TASK ORDERS\T047-075 GST-GCT CONNECTOR ROAD\Task 1 - GST2GCT Connector Road\900_CAD_GIS\GST-GCT Connector Road\Concept B_JLee\12_0001 ; Plotted: 10/6/2022 4:45 PM

MATCHLINE STATION 1037+00 SEE SHEET 12-0004

1037+00

1038+00

1039+00

1040+00

1041+00

1042+00

1043+00

GRAVEL ACCESS ROAD

BEGIN BRIDGE STA 1040+70.50

N 11°21'47.1" W

LIMIT OF DISTURBANCE (TYP)

SOIL CEMENT STABILIZATION

GRAVEL ACCESS ROAD

END CONSTRUCTION CONNECTOR RD
STA 1040+40.50
N 782126.3049
E 970782.3224
SEE MOFFATT AND NICHOL DESIGN FOR FURTHER INFORMATION

1" PIPE CAPPED T&H

SCALE: 1"=40' (IN FEET)
0 20' 40' 80'

GEORGIA811 Utilities Protection Center, Inc. Know what's below. Call before you dig.

ISSUED FOR CONSTRUCTION

DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

GEORGIA PORTS

Mark	Description	Date	Appr.
0	AMENDMENT NO. 1 – IFC	10/7/22	DCP

GEORGIA PORTS AUTHORITY
GEORGIA STEAMSHIP TERMINAL
REGIONAL REDEVELOPMENT
CONNECTOR ROAD - GAP PROPERTIES

SOIL IMPROVEMENT PLANS

Designed by:	DCP
Drn by:	TO/JL
Chd by:	MDJ
Approved by:	DCP
Submitted by:	AECOM
Date:	10-07-2022
Project No.	2101-039
GPA Project No.:	2101-1054
Drawing Scale:	AS NOTED
Plot scale:1:1 (D SHEET)	6/0

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GEORGIA REGISTERED No. 046006 PROFESSIONAL ENGINEER DUSTIN POFF
10/7/22
SEAL

Sheet Reference No.
12-0005

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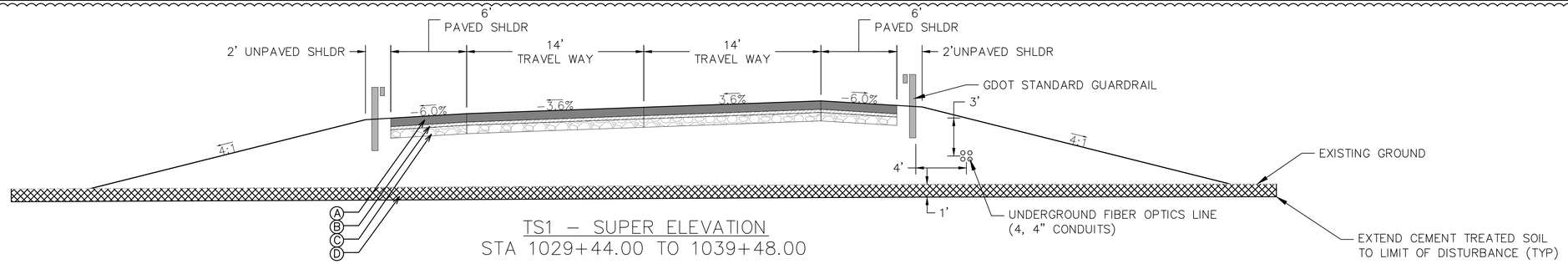
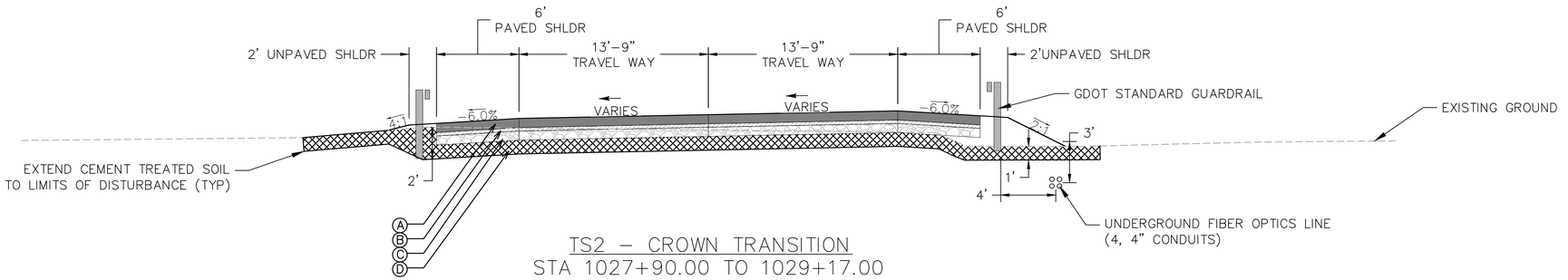
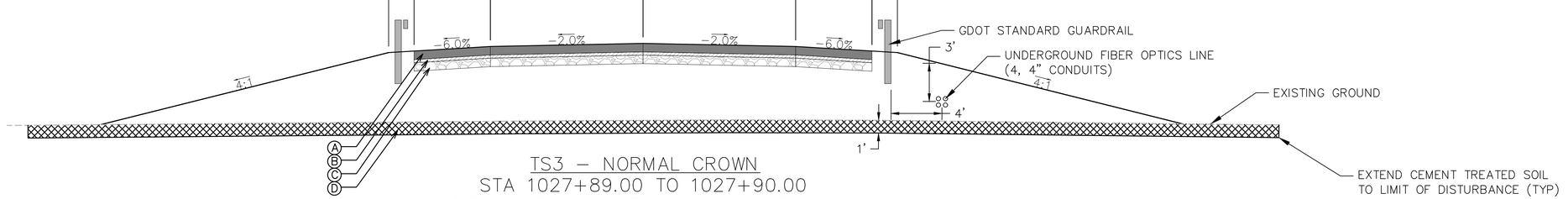


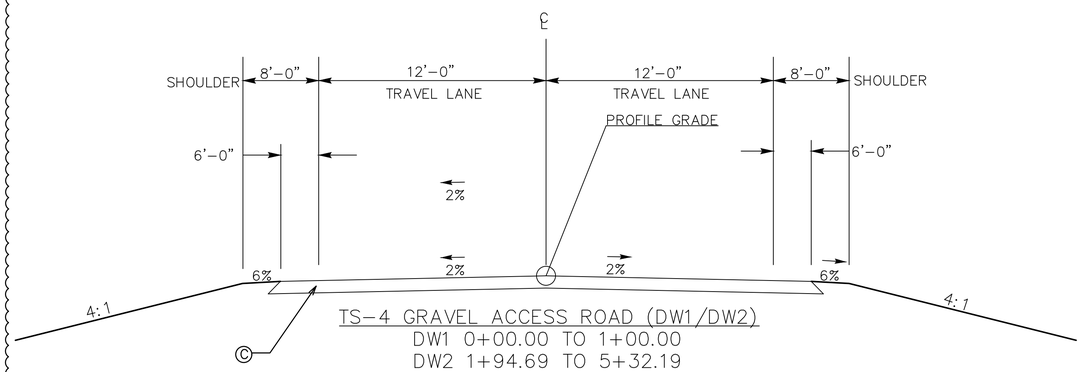
TS1 – SUPER ELEVATION
STA 1029+44.00 TO 1039+48.00



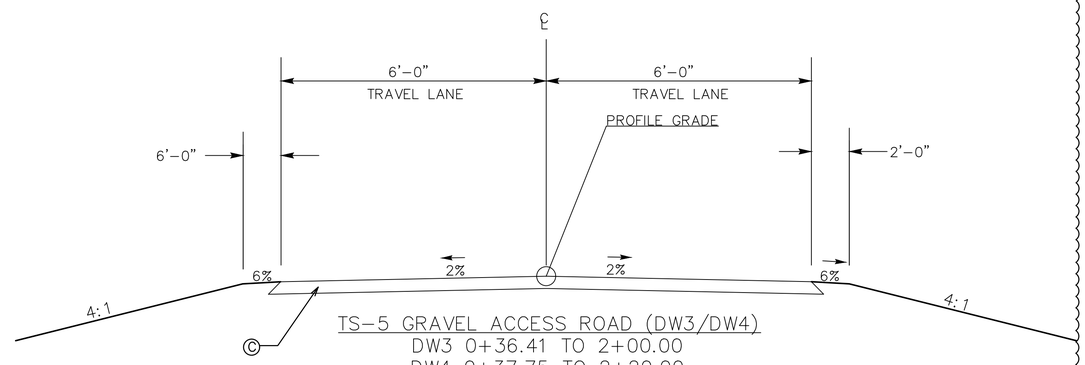
TS2 – CROWN TRANSITION
STA 1027+90.00 TO 1029+17.00
STA 1039+48.00 TO 1040+40.00



TS3 – NORMAL CROWN
STA 1027+89.00 TO 1027+90.00
STA 1040+40.00 TO 1040+1040.50.00



TS-4 GRAVEL ACCESS ROAD (DW1/DW2)
DW1 0+00.00 TO 1+00.00
DW2 1+94.69 TO 5+32.19



TS-5 GRAVEL ACCESS ROAD (DW3/DW4)
DW3 0+36.41 TO 2+00.00
DW4 0+37.75 TO 2+20.00

Ⓐ PLAIN PRECAST CONCRETE PAVEMENT, CL 1 CONCRETE, 8 INCH THICK
Ⓑ RECYCLED ASPHALT CONCRETE 19 MM SUPERPAVE, GP1 OR 2, INCLUDE BITUM MATERIAL & HYDRATED LIME (330 LB/SY)
Ⓒ GRADED AGGREGATE BASE COURSE, 8", INCLUDING MATERIAL
Ⓓ CEMENT TREATED SOIL, 12 INCH THICK MIN. BELOW SUBGRADE OR EXISTING GRADE, WHICH EVER IS DEEPER, TYP TS-1, TS-2, TS-3

GEORGIA811 Utilities Protection Center, Inc. Know what's below. Call before you dig.

ISSUED FOR CONSTRUCTION

DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

GEORGIA PORTS

Mark	Description	Date	Appr.
2	AMENDMENT NO. 1 – IFC	10/7/22	DCP
1	REVISION ISSUED FOR CONTRACTOR	3/9/22	TSM
0	ISSUE FOR BID	2/1/22	TSM

GEORGIA PORTS AUTHORITY
GEORGIA STEAMSHIP TERMINAL
REGIONAL REDEVELOPMENT
CONNECTOR ROAD - GAP PROPERTIES

TYPICAL SECTIONS

Designed by: DCP
Drawn by: TO/JL
Checked by: MDJ
Approved by: DCP
Submitted by: AECOM
Date: 02-01-2022
Project No. 2101-039
GPA Project No.: 2101-1054
Drawing Scale: AS NOTED
Plot scale:1:1 (D SHEET)
6/0

AECOM
22 BARNARD STREET
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Telephone (912) 436-6426
www.AECOM.com

GEORGIA REGISTERED No. 046006 PROFESSIONAL ENGINEER DUSTIN POFF
10/7/22
SEAL

Sheet Reference No.
5-0001

File: Z:\Shared\60592424_GPA ON-CALL\500_TASK ORDERS\1047-875 GST-GCT CONNECTOR ROAD\Task 1 - GST2GCT Connector Road\902_CAD_GIS\GST-GCT Connector Road\Concept B_Lee\05_0001 - Protect 10/6/2022 4:28 PM

CURVE TABLE									
CURVE	PI STATION	PI COORDINATES	DELTA	D	T	L	R	E	D.S.
CURVE #3	1035+83.16	N = 781407.7556 E = 970926.7256	88°50'49.3"	8°31'16.82"	659.59'	942.14'	673.0'	269.33'	25 MPH

MATCHLINE STATION 1037+00 SEE SHEET 13-0005

RELOCATE WELL (BY OTHERS)

MW12D

MW12B

MW12A

+91.92
14.00' LT

RELOCATE WELL (BY OTHERS)

0+00
0.00'

+18.53
46.02' LT

R 83'

END CONCRETE PAVEMENT

1+00
0.00'

EXISTING WATER TANK

+84.82
14.00' RT

R 111'

+34.08
44.37' LT

+12.75
49.39' RT

R 91'

END CONCRETE PAVEMENT

+57.61
14.00' LT

1+94.69
0.00'

CURVE #3

R 111'

+48.56
49.36' RT

+16.51
14.00' RT

LIMIT OF DISTURBANCE (TYP)

40'

EDGE OF PAVED TRAVEL WAY (TYP.)

(4)- 4"C [C006, (3) SPARE]

EDGE OF 6' PAVED/GRAVEL SHOULDER (TYP.)

EDGE OF 2' UNPAVED SHOULDER (TYP.)

28'

36'

3+82.81
0.00'

5+32.19
0.00'

R 202'

PI 1035+83.16

GDOT GUARDRAIL (TYP.)

DEMOLISH RAILS AND TIES TO LIMITS OF GPA PROPERTY

6" STEEL POST W/ CONC.

RELOCATE GUARD BUILDING TO END OF DRIVEWAY 1

+63.57
END 12' LANE

+23.57
START 14' LANE

ALL GRADING, DRAINAGE, AND UTILITY WORK WITHIN THE SAVANNAH & ATLANTIC PROPERTY TO BE CONDUCTED BY NORFOLK SOUTHERN

INSTALL NEW 18" PIPE AND FLARED END SECTIONS (BY NORFOLK SOUTHERN)

LOWER AND EXTEND EXISTING 24" RCP PIPE AND INSTALL NEW FLARED END SECTIONS (BY NORFOLK SOUTHERN)

NF SAVANNAH & ATLANTIC RAILWAY

END CONSTRUCTION PHILLIPS RD SCOPE
CONNECTOR RD
STA 1027+89.00
N 781235.6452
E 970151.4134

BEGIN CONSTRUCTION STEAMSHIP SCOPE
CONNECTOR RD
STA 1028+40.81
N 781246.8794
E 970202.0207

PC 1029+23.57

1026+00 1027+00 1028+00 1029+00 1030+00 1031+00 1032+00 1033+00 1034+00 1035+00 1036+00 1037+00

SCALE: 1"=40' (IN FEET)
0 20' 40' 80'

GEORGIA811 Utilities Protection Center, Inc
Know what's below. Call before you dig.

ISSUED FOR CONSTRUCTION

DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

GEORGIA PORTS

Mark	Description	Date	Appr.
2	AMENDMENT NO. 1 - IFC	10/7/22	DCP
1	REVISION ISSUED FOR CONTRACTOR	3/9/22	TSM
0	ISSUE FOR BID	2/1/22	TSM

GEORGIA PORTS AUTHORITY
GEORGIA STEAMSHIP TERMINAL
REGIONAL REDEVELOPMENT
CONNECTOR ROAD - GAP PROPERTIES

MAINLINE CONSTRUCTION PLAN

AECOM
22 BARNARD STREET
SUITE 240
SAVANNAH, GA 31401
Telephone (912) 436-6426
www.AECOM.com

Designed by:	DCP
Drn by:	TO/JL
Ckd by:	MDJ
Approved by:	DCP
Submitted by:	AECOM
Date:	02-01-2022
Project No.	2101-039
GPA Project No.:	2101-1054
Drawing Scale:	AS NOTED
Plot scale:1:1 (D SHEET)	

SEAL

GEORGIA REGISTERED No. 046006 PROFESSIONAL ENGINEER DUSTIN POFF 10/7/22

Sheet Reference No.
13-0004

File: Z:\Shared\60592424_GPA ON-CALL\60_TASK ORDERS\TO47-875 GST-GCT CONNECTOR ROAD\Task 1 - GST2101CT Connector Road\900_CAD_GIS\GST-GCT Connector Road\Concept B_Lee\13_0001 - Plotted: 10/6/2022 4:29 PM

MATCHLINE STATION 1037+00 SEE SHEET 13-0004

MATCHLINE STATION 1037+00

1037+00

1038+00

1039+00

1040+00

1041+00

1042+00

1043+00

0+84.46
6.00' RT

0+42.11
6.00' LT

0+36.41
0.00'

+04.29
20.00' LT

R 50'

RELOCATE WELL
(BY OTHERS)

1+60.70
0.00'

1+44.04
0.00'

R 50'

12'

2+00.00
0.00'

2+60.29
0.00'

BEGIN BRIDGE
STA 1040+70.50

1039+67.18

R 10'

+83.51
20.00' LT

PT

MW13

MW17

MW16

+08.48
20.00' RT

R 50'

R 10'

+67.18
END 14' LANE

+27.18
START 12' LANE

N 11°21'47.1" W

EDGE OF PAVED
TRAVEL WAY (TYP.)

EDGE OF 2' UNPAVED
SHOULDER (TYP.)

GDOT GUARDRAIL (TYP.)

(4)- 4"C [C006, (3) SPARE]

EDGE OF 6' PAVED/GRAVEL
SHOULDER (TYP.)

0+77.95
6.00' LT

+73.19
20.00' RT

RELOCATE WELL (BY OTHERS)

0+42.72
6.00' RT

R 50'

0+37.75
0.00'

1+13.99
0.00'

1+52.42
0.00'

2+20.00
0.00'

(4)- 4"C [C006, (3) SPARE]
MOUNTED ON BRIDGE

RELOCATE WELL (BY OTHERS)

LIMIT OF DISTURBANCE
(TYP)

END CONSTRUCTION
CONNECTOR RD
STA 1040+40.50
N 782126.3049
E 970782.3224
SEE MOFFATT AND
NICHOL DESIGN FOR
FURTHER INFORMATION

100' ACCESS
EASEMENT
PB 52, PG. 24

3/4" OPEN
TOP PIPE

3X4" OPEN
TOP PIPE

RELOCATABLE 100' INGRESS-EGRESS AN
UTILITY EASEMENT PB 52, PG. 24

60' CHATHAM COUNTY CANAL R/W
PB "G", PG. 42

SCALE: 1"=40' (IN FEET)
0 20' 40' 80'

GEORGIA811
Utilities Protection Center, Inc
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ISSUED FOR CONSTRUCTION

DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

GEORGIA PORTS

Mark	Description	Date	Appr.
2	AMENDMENT NO. 1 - IFC	10/7/22	DCP
1	REVISION ISSUED FOR CONTRACTOR	3/9/22	TSM
0	ISSUE FOR BID	2/1/22	TSM

GEORGIA PORTS AUTHORITY
GEORGIA STEAMSHIP TERMINAL
REGIONAL REDEVELOPMENT
CONNECTOR ROAD - GAP PROPERTIES

MAINLINE
CONSTRUCTION PLAN

Designed by: DCP
Drawn by: TO/JL
Checked by: MDJ
Approved by: DCP
Submitted by: AECOM
Date: 02-01-2022 6/0
Project No. 2101-039
GPA Project No.: 2101-1054
Drawing Scale: AS NOTED
Plot scale:1:1 (0 SHEET)

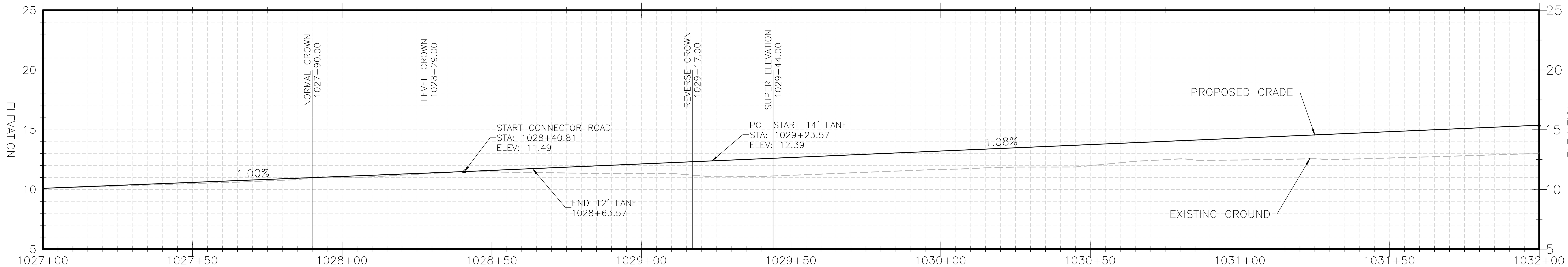
AECOM
22 BARNARD STREET
SUITE 240
SAVANNAH, GA 31401
Telephone (912) 436-6426
www.AECOM.com

GEORGIA REGISTERED No. 046006 PROFESSIONAL ENGINEER DUSTIN POFF
10-7-22

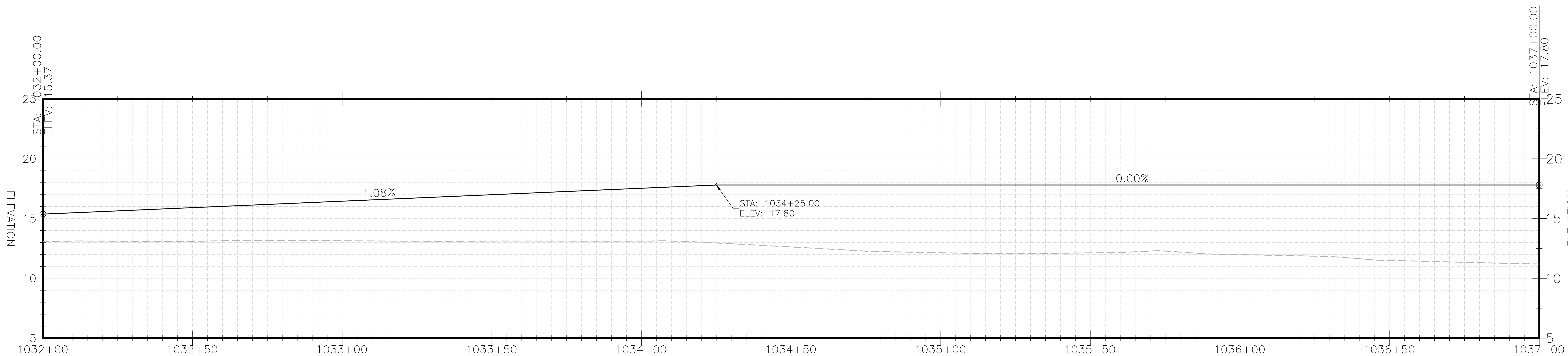
SEAL

Sheet
Reference No.
13-0005

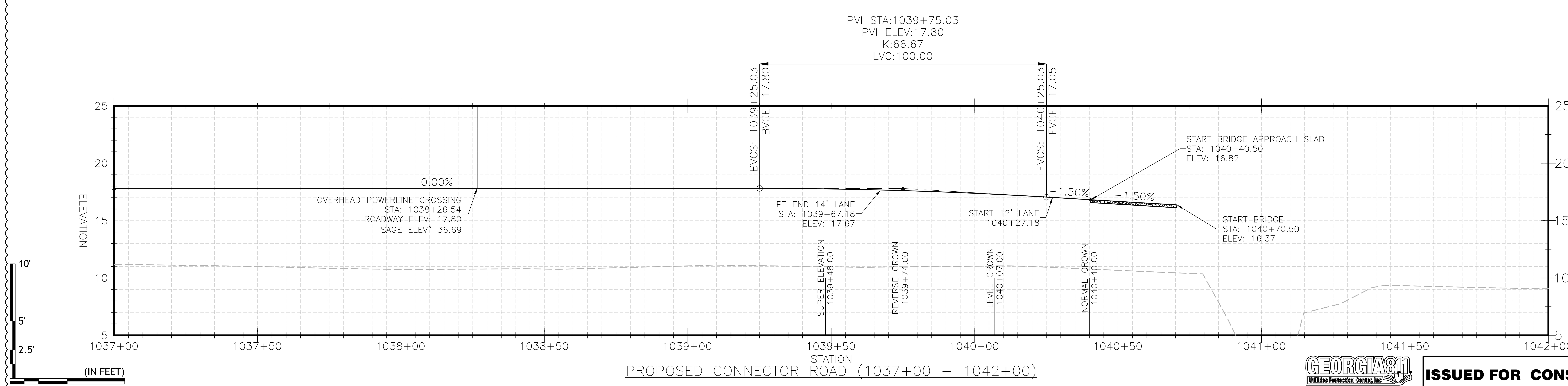
File: Z:\Shared\80592424_GPA ON-CALL\500_TASK ORDERS\7047-873 GST-GCT CONNECTOR ROAD\Task 1 - GST2GCT Connector Road\900_CAD_GIS\GST-GCT Connector Road_Concept B_Lee\13_0002 - Plotted: 10/6/2022 4:30 PM



PROPOSED CONNECTOR ROAD (1027+00 – 1032+00)



PROPOSED CONNECTOR ROAD (1032+00 – 1037+00)



PROPOSED CONNECTOR ROAD (1037+00 – 1042+00)

GEORGIA 811

ISSUED FOR CONSTRUCTION

DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

GEORGIA PORTS

Mark	Description	Date	Appr.
2	AMENDMENT NO. 1 – IFC	10/7/22	DCP
1	REVISION ISSUED FOR CONTRACTOR	5/9/22	TSM
0	ISSUE FOR BID	2/7/22	TSM

GEORGIA PORTS AUTHORITY
GEORGIA STEAMSHIP TERMINAL
REGIONAL REDEVELOPMENT
CONNECTOR ROAD - GAP PROPERTIES

MAINLINE PROFILE

Designed by: DCP | Dwn by: TO/JL | Ckd by: MDJ | Date: 02-01-2022 | C/O
Approved by: DCP | Project No. 2101-039 | GPA Project No.: 2101-1054
Submitted by: AECOM | Drawing Scale: AS NOTED | Plot scale: 1:1 (D SHEET)

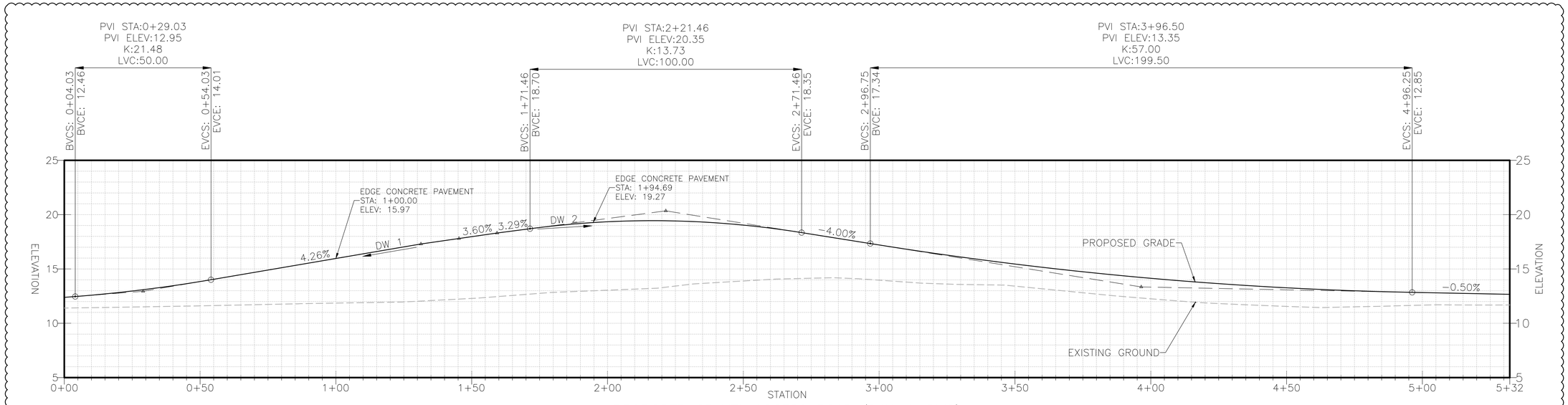
AECOM
22 BARNARD STREET
SUITE 240
SAVANNAH, GA 31401

GEORGIA REGISTERED PROFESSIONAL ENGINEER No. 046006 DUSTIN POFF 10/7/22

SEAL

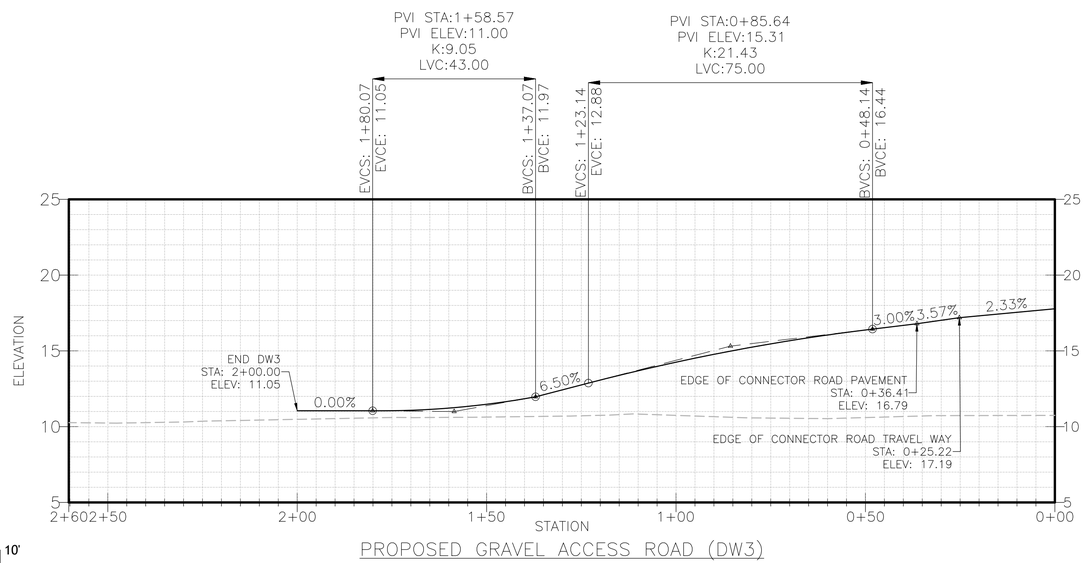
Sheet Reference No.
15-0001

File: Z:\Shared\60692424_GPA ON-CALL\900_TASK ORDERS\TO47-875 GST-GCT CONNECTOR ROAD\Task 1 - GST-GCT Connector Road\900_CAD_GIS\GST-GCT Connector Road\Concept B_JL\sel15_0001; Plotted: 10/6/2022 4:30 PM

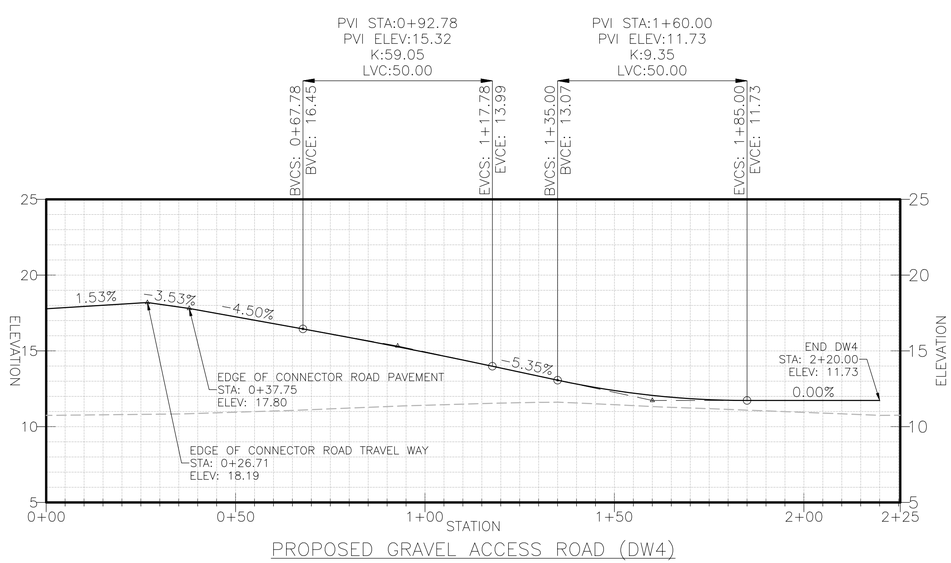


PROPOSED GRAVEL ACCESS ROAD (DW1 & DW2)

10'
5'
2.5'
(IN FEET)
0 10' 20' 40'



PROPOSED GRAVEL ACCESS ROAD (DW3)



PROPOSED GRAVEL ACCESS ROAD (DW4)

10'
5'
2.5'
(IN FEET)
0 10' 20' 40'

GEORGIA811 Utilities Protection Center, Inc. Know what's below. Call before you dig.

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DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

GEORGIA PORTS

Mark	Description	Date	Appr.
1	AMENDMENT NO. 1 – IFC	10/7/22	DCP
0	ISSUE FOR BID	2/1/22	TSM

GEORGIA PORTS AUTHORITY
GEORGIA STEAMSHIP TERMINAL
REGIONAL REDEVELOPMENT
CONNECTOR ROAD - GAP PROPERTIES

DRIVEWAY PROFILES

Designed by: DCP
Drawn by: TO/JL
Checked by: MDJ
Approved by: DCP
Submitted by: AECOM
Date: 02-01-2022 c/o
Project No. 2101-039
GPA Project No.: 2101-1054
Drawing Scale: AS NOTED
Plot scale:1:1 (D SHEET)

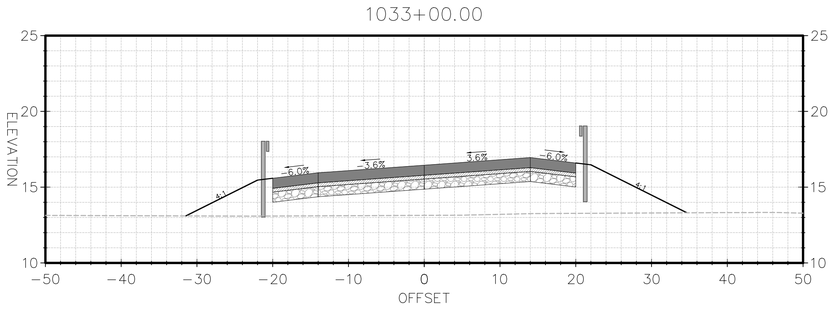
AECOM
22 BARNARD STREET
SUITE 240
SAVANNAH, GA 31401
Telephone (912) 436-6426
www.AECOM.com

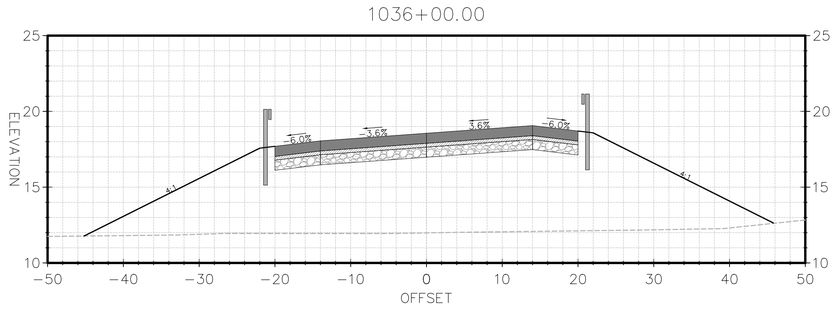
GEORGIA REGISTERED No. 046006 PROFESSIONAL ENGINEER DUSTIN POFF 10/7/22

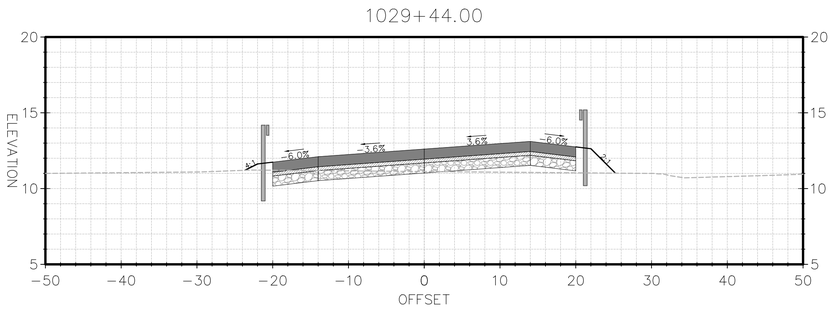
SEAL

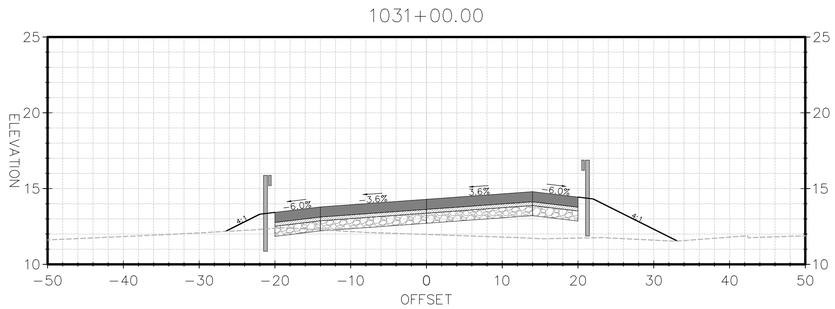
Sheet Reference No.
17–0001

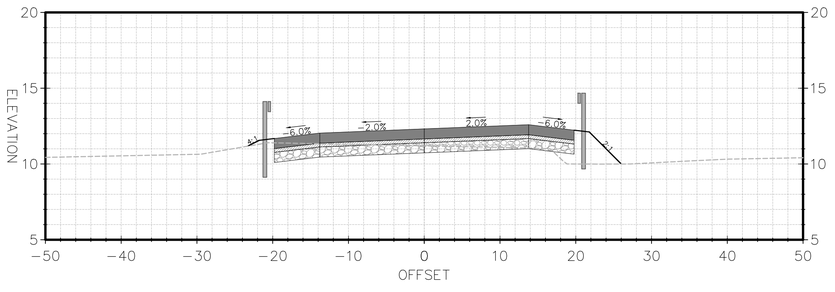
File: Z:\Shared\60392424_GPA ON-CALL\600_TASK ORDERS\TO#1-870 GST-GCT CONNECTOR ROAD\Task 1 - GST2GCT Connector Road\300_CAD_GIS\GST-GCT Connector Road\Concept B_Lee\17_0001 - Protect 10/6/2022 4:30 PM

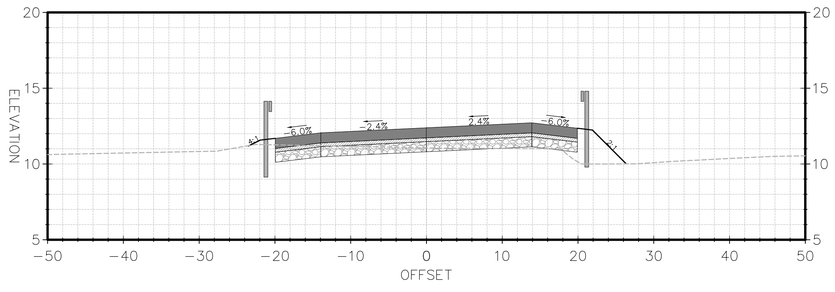


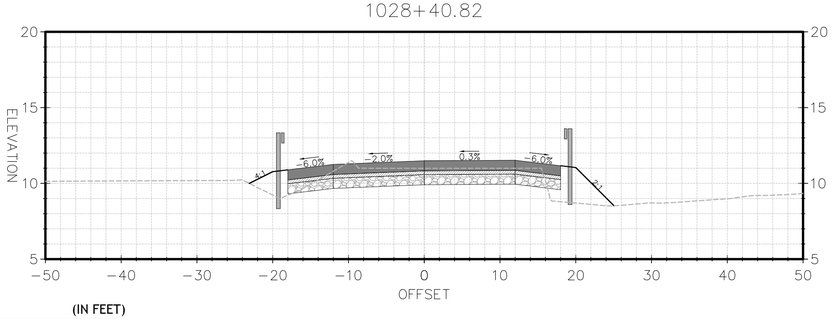


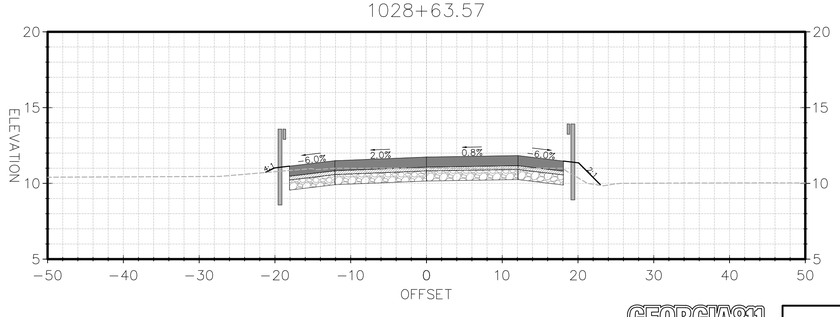


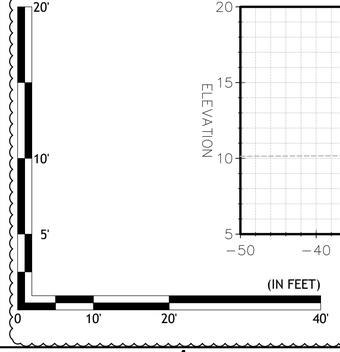












GEORGIA811 Utilities Protection Center, Inc. Know what's below. Call before you dig.

ISSUED FOR CONSTRUCTION

DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

Mark	Description	Date	Appr.
2	AMENDMENT NO. 1 - IFC	10/7/22	DCP
1	REVISION ISSUED FOR CONTRACTOR	3/9/22	TSM
0	ISSUE FOR BID	2/1/22	TSM

GEORGIA PORTS

GEORGIA PORTS AUTHORITY
GEORGIA STEAMSHIP TERMINAL
REGIONAL REDEVELOPMENT
CONNECTOR ROAD - GAP PROPERTIES

CROSS SECTIONS

Designed by: DCP
Drawn by: TO/JL
Checked by: MDJ
Approved by: DCP
Submitted by: AECOM
Date: 02-01-2022
Project No. 2101-039
GPA Project No.: 2101-1054
Drawing Scale: AS NOTED
Plot scale:1:1 (0 SHEET)

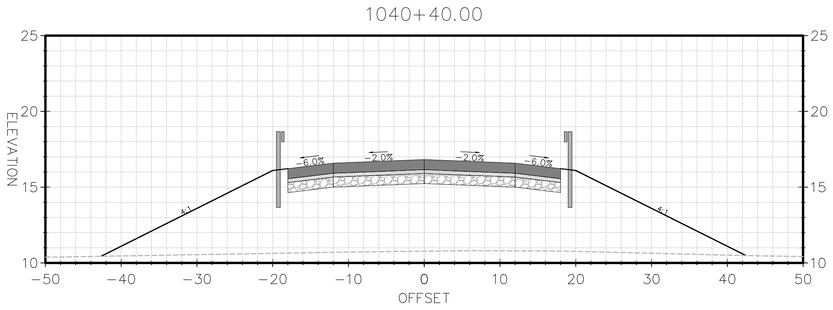
AECOM
22 BARNARD STREET
SUITE 240
SAVANNAH, GA 31401
Telephone (912) 436-6426
www.AECOM.com

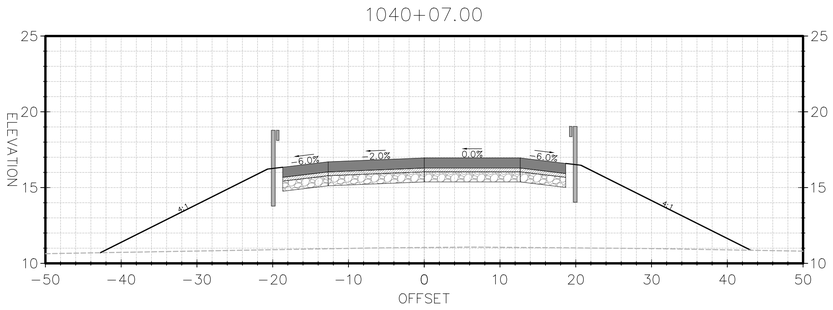
GEORGIA REGISTERED No. 046006 PROFESSIONAL ENGINEER DUSTIN POFF 10/7/22

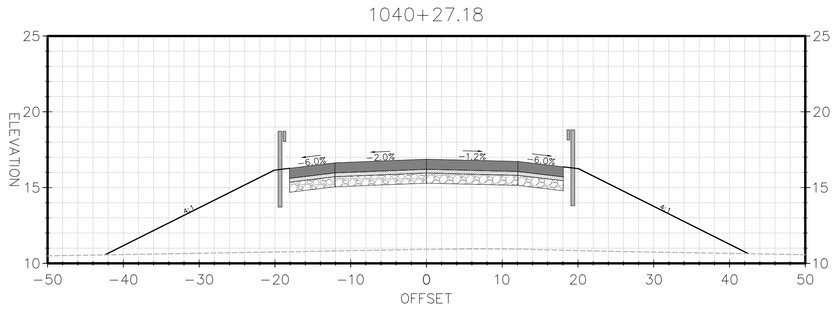
SEAL

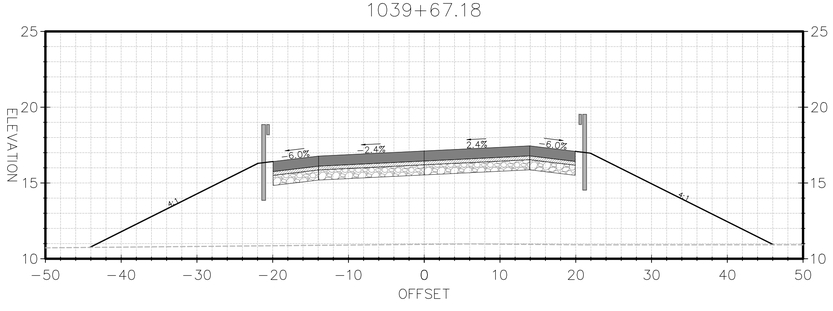
Sheet Reference No.
23-0001

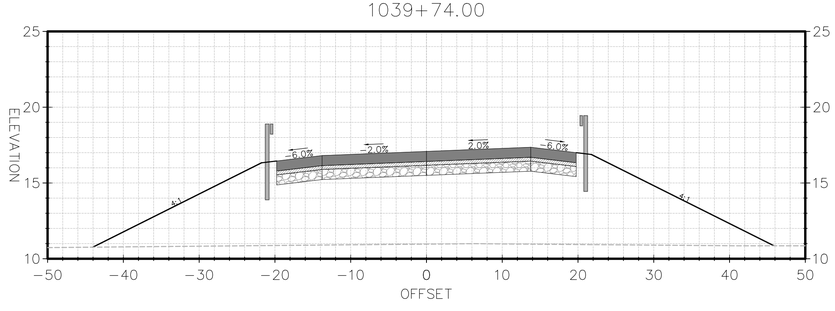
File: Z:\Shared\60392424_GPA ON-CALL\500_TASK ORDERS\1047-873 GST-GCT CONNECTOR ROAD\Task 1 - GST2GCT Connector Road\0902_CAD_GIS\GST-GCT Connector Road\Concept B_Lee\J2_0002 - Plotted: 10/6/2022 4:30 PM

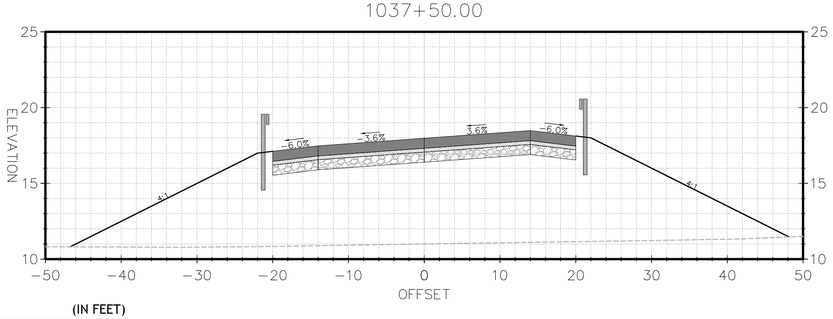


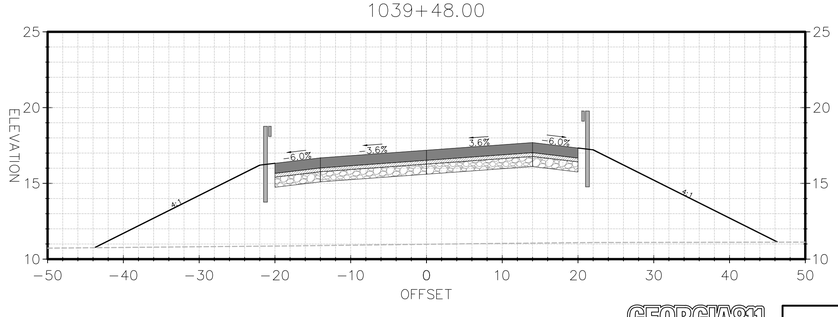


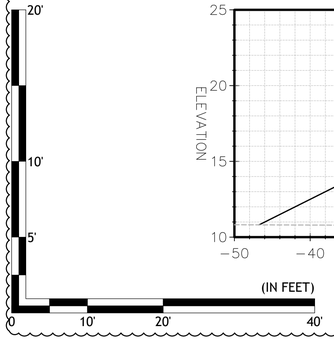












GEORGIA PORTS

Mark	Description	Date	Appr.
2	AMENDMENT NO. 1 – IFC	10/7/22	DCP
1	REVISION ISSUED FOR CONTRACTOR	3/9/22	TSM
0	ISSUE FOR BID	2/1/22	TSM

GEORGIA PORTS AUTHORITY
GEORGIA STEAMSHIP TERMINAL
REGIONAL REDEVELOPMENT
CONNECTOR ROAD - GAP PROPERTIES

CROSS SECTIONS

Date: 02-01-2022
6/0

Project No. 2101-039

GPA Project No.: 2101-1054

Drawing Scale: AS NOTED

Plot scale:1:1 (0 SHEET)

Designed by: DCP
Drn by: TO/JL
Chd by: MDJ
Approved by: DCP
Submitted by: AECOM

AECOM
22 BARNARD STREET
SUITE 240
SAVANNAH, GA 31401
Telephone (912) 436-6426
www.AECOM.com

GEORGIA REGISTERED No. 046006 PROFESSIONAL ENGINEER DUSTIN POFF
10/7/22

SEAL

Sheet Reference No.
23-0002

GEORGIA811 Utilities Protection Center, Inc. Know what's below. Call before you dig.

2 **ISSUED FOR CONSTRUCTION**

DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

File: Z:\Shared\60392424_GPA ON-CALL\500_TASK ORDERS\1047-879 GST-GCT CONNECTOR ROAD\Task 1 - GST2GCT Connector Road\900_CAD_GIS\GST-GCT Connector Road\Concept B_Lee\32_0002 - Plotted: 10/8/2022 4:30 PM

MATCHLINE STATION 1037+00 SEE SHEET 24-0005

RELOCATE WELL (BY OTHERS)

MW12D

MW12B

MW12A

NF SAVANNAH & ATLANTIC RAILWAY R/W

NF SAVANNAH & ATLANTIC RAILWAY

ALL GRADING, DRAINAGE, AND UTILITY WORK WITHIN THE SAVANNAH & ATLANTIC PROPERTY TO BE CONDUCTED BY NORFOLK SOUTHERN

(4)- 4"C [C006, (3) SPARE]

6" CARRIER PIPE IN 12" CASING

1' WIDE ELEC. PANEL

MONUMENT PARK

5.6' DIA. BRICK WELL

METAL POST & CABLE FENCE

METAL POST & PIPE FENCE

6" DIA. METAL POST(TYP.)

STMH TOP=12.61 I.E.=11.41 TOP OF 2" PIPE

POWER POLE LINES UG

GENERATOR ON SLAB

ENTRANCE GATE

SCAN CARD BOX

GATE ARM

CARD SCANNER & BARCODE READER

SCAN CARD ENTRY

ELEC. CONTROL BOX

6' CLF GATE

6.5' DIA. WATER TANK

SPRAY DOWN AREA

ELEC. BOX

4' WOOD & BRICK FENCE

10' CLF

4" SQ. CONC. PIPELINE MARKER

4" PVC WATER STUB OUT

EXPOSED 8" WATERLINE

TRASK SWITCH

TRACK SWITCH

0.7' WIDE BRICK HW

0.5' WIDE CONC. HW

SCALE: 1"=40' (IN FEET)

0 20' 40' 80'

GEORGIA811 Utilities Protection Center, Inc

Know what's below. Call before you dig.

ISSUED FOR CONSTRUCTION

DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

GEORGIA PORTS

Mark	Description	Date	Appr.
1	AMENDMENT NO. 1 – IFC	10/7/22	DCP
0	ISSUE FOR BID	2/1/22	TSM

GEORGIA PORTS AUTHORITY
GEORGIA STEAMSHIP TERMINAL
REGIONAL REDEVELOPMENT
CONNECTOR ROAD - GAP PROPERTIES

UTILITY PLAN

Designed by: DCP
Drawn by: TO/JL
Checked by: MDJ
Approved by: DCP
Submitted by: AECOM
Date: 02-01-2022
Project No. 2101-039
GPA Project No.: 2101-1054
Drawing Scale: AS NOTED
Plot scale:1:1 (0 SHEET)
c/o

AECOM
22 BARNARD STREET
SUITE 240
SAVANNAH, GA 31401
Telephone (912) 436-6426
www.AECOM.com

GEORGIA REGISTERED No. 046006 PROFESSIONAL ENGINEER DUSTIN POFF 10/7/22

SEAL

Sheet Reference No.
24-0004

File: Z:\Shared\60592424_GPA ON-CALL\60_TASK ORDERS\TO47-875 GST-GCT CONNECTOR ROAD\Task 1 - GST2101CT Connector Road\900_CAD_GIS\GST-GCT Connector Road/Concept B_Lee\24_0001 - Protect 10/6/2022 4:31 PM

MATCHLINE STATION 1037+00 SEE SHEET 24-0004

STATION 1037+00

1038+00

1039+00

1040+00

1041+00

1042+00

1043+00

RELOCATE WELL (BY OTHERS)

MW1

MW13

MW17

MW16

BEGIN BRIDGE STA 1040+70.50

N 11°21'47.1" W

RELOCATE WELL (BY OTHERS)

RELOCATE WELL (BY OTHERS)

6" CARRIER PIPE IN 12" CASING

(4)– 4"C [C006, (3) SPARE]

(4)– 4"C [C006, (3) SPARE] MOUNTED ON BRIDGE

UGE

POS

POF

SEPTIC TANK ALARM BOX

15" CPP I.E.=10.88

15" CPP I.E.=10.93

1" PIPE CAPPED T&H

8" WIDE CONC. HW

24"X38" ERCP I.E.=9.10

GRATE INLET TOP=9.47 I.E.=2.67 42"RCP N I.E.=2.52 42"RCP S PIPE OFFSET TO E

8" WIDE CONC. HW

42" RCP I.E.=5.94

12" CMP I.E.=6.

1" PIPE CAPPED T&H

12" RCP I.E.=0.54

ELEV.=38.76 POINT OF SAG

ELEV.=28.04 POINT OF SAG

ELEV.=42.85 POINT OF SAG

ELEV.=22.40 POINT OF SAG

ELEV.=33.45 POINT OF SAG

ELEV.=45.91 POINT OF SAG

ELEV.=45.62 POINT OF SAG

ELEV.=37.10 POINT OF SAG

ELEV.=42.13 POINT OF SAG

ELEV.=25.42 POINT OF SAG

ELEV.=36.69 POINT OF SAG

4" DIA METAL POST

3" DIA METAL POST

GRATE INLET TOP=9.77 I.E.=6.77± 4"CPP W

SCALE: 1"=40' (IN FEET)

0 20' 40' 80'

GEORGIA811 Utilities Protection Center, Inc. Know what's below. Call before you dig.

ISSUED FOR CONSTRUCTION

DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

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0	ISSUE FOR BID	2/1/22	TSM

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GEORGIA STEAMSHIP TERMINAL
REGIONAL REDEVELOPMENT
CONNECTOR ROAD - GAP PROPERTIES

UTILITY PLAN

c/o

Date: 02-01-2022	Project No. 2101-039
Designed by: DCP	Drawn by: TO/JL
Checked by: MDJ	Approved by: DCP
GPA Project No.: 2101-1054	Submitted by: AECOM
Drawing Scale: AS NOTED	Plot scale:1:1 (0 SHEET)

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SUITE 240
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Telephone (912) 436-6426
www.AECOM.com

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SEAL

Sheet Reference No. 24-0005

File: Z:\Shared\60392424_GPA ON-CALL\600_TASK ORDERS\TO47-875 GST-GCT CONNECTOR ROAD\Task 1 - GST2GCT Connector Road\900_CAD_GIS\GST-GCT Connector Road_Concept B_Lee\24_0002 - Protect: 10/6/2022 4:31 PM

NF SAVANNAH & ATLANTIC RAILWAY R/W

END CONSTRUCTION PHILLIPS RD SCOPE
CONNECTOR RD
STA 1027+89.00
N 781235.6452
E 970151.4134

BEGIN CONSTRUCTION STEAMSHIP SCOPE
CONNECTOR RD
STA 1028+40.81
N 781246.8794
E 970202.0207

NF SAVANNAH & ATLANTIC RAILWAY

1026+00
1027+00
1028+00
1029+00
1030+00
1031+00
1032+00
1033+00
1034+00
1035+00
1036+00
1037+00

MATCHLINE STATION 1037+00 SEE SHEET 26-0005

W2-1
30"X30"

W2-1
30"X30"

W1-8L
18"X24"
(2 EA)

R1-1
30"X30"

STOP

W4-4P
30"x15"
CROSS TRAFFIC DOES NOT STOP

R1-1
30"X30"

STOP

W4-4P
30"x15"
CROSS TRAFFIC DOES NOT STOP

5" SOLID WHITE (TYP.)

5" SOLID DOUBLE YELLOW (TYP.)

END GAURDRAIL AT GPA PROPERTY (TYP.)

W10-1
30"X30"

PC 1029+23.57

W1-8L
18"X24"
(2 EA)

W2-1
30"X30"

W1-8L
18"X24"
(2 EA)

W1-2L
30"X30"

W1-8L
18"X24"
(2 EA)

PI 1035+83.16

NF SAVANNAH & ATLANTIC RAILWAY

NF SAVANNAH & ATLANTIC RAILWAY

SCALE: 1"=40' (IN FEET)
0 20' 40' 80'

GEORGIA811 Utilities Protection Center, Inc

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DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

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0	ISSUE FOR BID	2/1/22	TSM

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GEORGIA STEAMSHIP TERMINAL
REGIONAL REDEVELOPMENT
CONNECTOR ROAD - GAP PROPERTIES

SIGNING AND MARKING PLANS

AECOM
22 BARNARD STREET
SUITE 240
SAVANNAH, GA 31401
Telephone (912) 436-6426
www.AECOM.com

Designed by: DCP
Drawn by: TO/JL
Checked by: MDJ
Approved by: DCP
Submitted by: AECOM
Date: 02-01-2022
Project No. 2101-039
GPA Project No.: 2101-1054
Drawing Scale: AS NOTED
Plot scale:1:1 (0 SHEET)
c/o

GEORGIA REGISTERED No. 046006 PROFESSIONAL ENGINEER DUSTIN POFF 10/7/22

SEAL

Sheet Reference No.
26-0004

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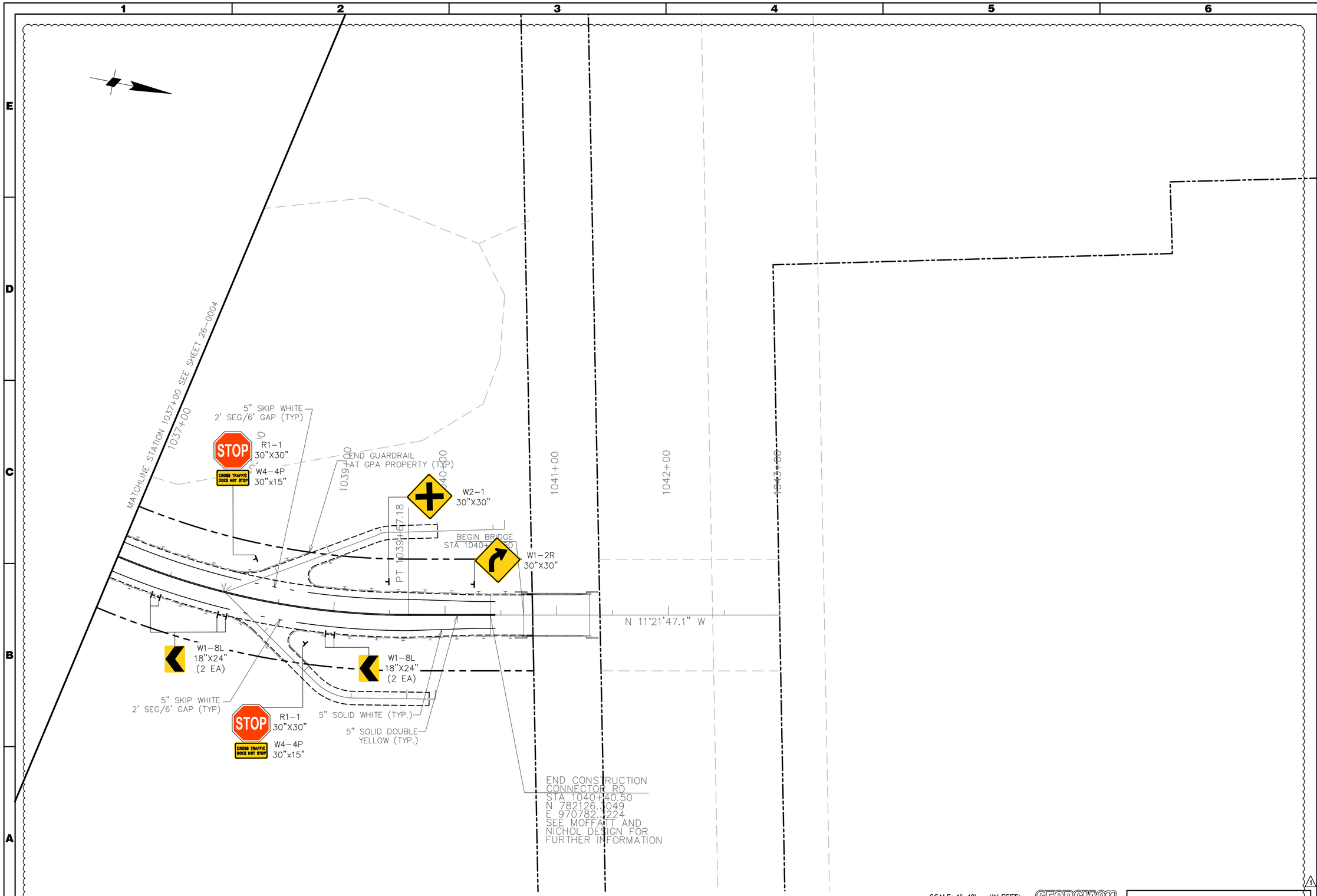

SCALE: 1"=40' (IN FEET)
0 20' 40' 80'

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ISSUED FOR CONSTRUCTION

DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

GEORGIA PORTS

Mark	Description	Date	Appr.
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0	ISSUE FOR BID	2/1/22	TSM

GEORGIA PORTS AUTHORITY
GEORGIA STEAMSHIP TERMINAL
REGIONAL REDEVELOPMENT
CONNECTOR ROAD - GAP PROPERTIES

SIGNING AND MARKING PLANS

AECOM
22 BARNARD STREET
SUITE 240
SAVANNAH, GA 31401
Telephone (912) 436-6426
www.AECOM.com

Designed by: DCP
Drawn by: TO/JL
Checked by: MDJ
Approved by: DCP
Submitted by: AECOM
Date: 02-01-2022
Project No. 2101-039
GPA Project No: 2101-1054
Drawing Scale: AS NOTED
Plot scale:1:1 (0 SHEET)

GEORGIA REGISTERED No. 046006 PROFESSIONAL ENGINEER DUSTIN POFF 10/7/22

SEAL

Sheet Reference No.
26-0005

File: Z:\Shared\60352424_GPA ON-CALL\830_TASK ORDERS\TO47-875 GST-GCT CONNECTOR ROAD\Task 1 - GST2GCT Connector Road\900_CAD_GIS\GST-GCT Connector Road\Concept B_Lee\26_0002 - Plotted: 10/6/2022 4:31 PM

END CONSTRUCTION
PHILLIPS RD SCOPE /
CONNECTOR RD
STA 1027+89.00
N 781235.6452
E 970151.4134

BEGIN CONSTRUCTION
STEAMSHIP SCOPE
CONNECTOR RD
STA 1028+40.81
N 781246.8794
E 970202.0207

MATCHLINE STATION 1037+00 SEE SHEET 38-0005

SILT FENCE (TYP.)

ALL GRADING, DRAINAGE, AND UTILITY WORK WITHIN THE SAVANNAH & ATLANTIC PROPERTY TO BE CONDUCTED BY NORFOLK SOUTHERN

NF SAVANNAH & ATLANTIC RAILWAY

SCALE: 1"=40' (IN FEET)
0 20' 40' 80'

DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

ISSUED FOR CONSTRUCTION

GEORGIA811 Utilities Protection Center, Inc.

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GEORGIA PORTS AUTHORITY
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REGIONAL REDEVELOPMENT
CONNECTOR ROAD - GAP PROPERTIES

GRADING PLANS

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SUITE 240
SAVANNAH, GA 31401
Telephone (912) 436-6426
www.AECOM.com

GEORGIA REGISTERED No. 046006 PROFESSIONAL ENGINEER DUSTIN POFF 10/7/22

SEAL

Sheet Reference No.
38-0004

Designed by:	Date:
DCP	02-01-2022
Drawn by: TO/AL	**Chkd by:** MDJ
Approved by: DCP	**GPA Project No:** 2101-1054
Submitted by: AECOM	**Drawing Scale:** AS NOTED
	Plot scale: 1:1 (0 SHEET)

c/o
Project No. 2101-039

File: Z:\Shared\60592424_GPA CM-CAL\800_TASK ORDERS\TO#7-875 GST-GCT CONNECTOR ROAD\Task 1 - GST2GCT Connector Road\800_CAD_GIS\GST-GCT Connector Road/Concept B_Lee\38_0001 - Plotted: 10/6/2022 4:32 PM

MATCHLINE STATION 1037+00 SEE SHEET 38-0004

BEGIN BRIDGE
STA 1040+70.50

N 11°21'47.1" W

SILT FENCE (TYP.)

END CONSTRUCTION
CONNECTOR RD
STA 1040+40.50
N 782126.3049
E 970782.3224
SEE MOFFAITT AND
NICHOLS DESIGN FOR
FURTHER INFORMATION

SCALE: 1"=40' (IN FEET)
0 20' 40' 80'

DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

ISSUED FOR CONSTRUCTION

GEORGIA PORTS

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GEORGIA PORTS AUTHORITY
GEORGIA STEAMSHIP TERMINAL
REGIONAL REDEVELOPMENT
CONNECTOR ROAD - G&P PROPERTIES

GRADING PLANS

AECOM
22 BARNARD STREET
SUITE 240
SAVANNAH, GA 31401
Telephone (912) 436-6426
www.AECOM.com

Designed by: DCP	Date: 02-01-2022
Drn by: TO/JL	Chd by: MDJ
Approved by: DCP	Project No. 2101-039
Submitted by: AECOM	GPA Project No.: 2101-1054
Drawing Scale: AS NOTED	Plot scale:1:1 (D SHEET)

GEORGIA REGISTERED No. 046006 PROFESSIONAL ENGINEER DUSTIN POFF
10/7/22
SEAL

Sheet Reference No.
38-0005

File: Z:\Shared\60592424_GPA ON-CALL\500_TASK ORDERS\1047-873 GST-GCT CONNECTOR ROAD\Task 1 - GST2GCT Connector Road\0902_CAD_GIS\GST-GCT Connector Road\Concept B_Lee\38_0002 - Plotted: 10/6/2022 4:32 PM

APPENDIX B – CEMENT-MODIFIED SOIL SPECIFICATIONS

CEMENT-MODIFIED SOIL

PART 1 - GENERAL

1.1. DESCRIPTION

A. This work includes constructing a subgrade mixture of existing soils and Portland cement. Construct according to these Specifications and conform to the lines, grades, and typical sections shown on the plans.

1.2. REFERENCES

A. The following is a list of standards which may be referenced in this section.

B. ASTM C150, Specification for Portland Cement (AASHTO M 85).

C. ASTM D1557, Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lb/ft^3).

D. ASTM 2487, Classification of Soil for Engineering Purposes (USCS).

E. ASTM D6938, Standard Test Methods for In-Place Density and Water Content of Soil and Soil Aggregate by Nuclear Methods (Shallow Depth).

F. AASHTO T272-10, Standard Method of Test for Family of Curves – One Point Method (Modified Proctor).

G. When density is determined by nuclear method, the equipment shall be calibrated on soils from site. Take all safety precautions and obey all regulations governing the use of radioactive materials.

1.3. DEFINITIONS

A. Suitable Material: Material meeting the Unified Soil Classification soil types SM, SC, and CL with percent fines passing the No. 200 sieve greater than 25 and plasticity index (PI) more than 10. The soil/aggregate shall not contain roots, topsoil, or any material deleterious to its reaction with cement. Also, soils designated as suitable for their intended use by the Engineer.

B. The water used in construction must be from a potable source.

1.4. MIX DESIGN AND SAMPLING

A. The Mix Design must be completed by an accredited materials laboratory approved by the A/E Construction Manager.

1. All sampling, testing, proportioning and documentation shall be completed by the approved laboratory.

2. All samples mut be taken from previously undeveloped soils.

3. The Portland cement used in the design process must be submitted to, and approved by, the A/E Construction Manager prior to beginning the design process.

4. The Contractor shall submit a mix design package indicating the proposed mix design meets the requirements of this specification to the A/E Construction Manager at least three weeks prior to construction.

B. In-place samples of the road structure shall be taken as follows:

1. At a minimum frequency of 400 feet per lane.
2. Lane sample locations must alternate to achieve a sample every 200 lane-feet.
3. Each sample shall contain at least 20 lbs. (14kg) of proportionally blended material from the roadway.
4. Additional samples may be needed to represent material changes and/or problem areas. Additional samples shall be taken at the Contractor's discretion or as directed by the A/E Construction Manager.

1.5. QUALITY CONTROL

A. Test strip

1. Contractor shall construct a continuous test strip of no less than 2,000 sf within the project area.
   a. Test strip must be tested in accordance with this specification in no less than 4 locations to confirm the density and permeability of the test strip.
   b. If the average of the 4 test locations does not meet the requirements for density and or permeability the Contractor must adjust the mix proportions accordingly.

B. The Owner's Testing and Inspection Agency shall check work as it progresses. When material furnished or work performed by the Contractor fails to conform to specifications, the must promptly notify the Contractor and the A/E Construction Manager. The Owner's Testing and Inspection Agency will, as a minimum perform the following:

1. Perform one-point proctors in sufficient quantity to verify testing.
2. Conduct density Owner's Testing and Inspecting Agency and permeability tests in sufficient quantity to ascertain the work being performed complies with these specifications. The following minimum schedule shall be adhered to for fill conditions:
   a. One every 4,000 square feet, or fraction thereof, plus
   b. Areas where degree of compaction or permeability are in question.
3. The Owner's Testing and Inspecting Agency shall submit formal reports of all density and permeability tests and retests to the A/E Construction Manager. The reports shall be furnished to the A/E Construction Manager within one working day of completion of the required tests. Such tests and submittals shall not relieve the Contractor from any of his contractual obligations and he shall be responsible for ensuring that his work is maintained to the required quality.
   a. Date of the test and date submitted.

b. Location and sketch of test by station, coordinate and elevation.

c. Wet weight, moisture content and dry weight of field sample.

d. One-point proctor data.

e. Permeability at sample location.

f. Maximum dry density and moisture content of the lab sample that best match the field samples in color, texture, grain size and maximum dry density.

g. Ratio of field dry density to maximum lab dry density expressed as a percent.

h. Permeability.

i. Comments concerning the field density or permeability passing or failing the specified requirements.

j. Comments about re-compaction or mix adjustments if required.

4. Moisture Control: Perform moisture sampling in soils being worked to ascertain compliance with these specifications.

5. Observations: Make observations of the work on each site visit and record observations in formal report.

C. Report Test Results: All test results shall be submitted to the A/E Construction Manager. Work sheets reflecting the days testing activities with calculations shall be delivered to the A/E Construction Manager by the beginning of the next workday. Formal typed reports shall then be submitted to the A/E Construction Manager.

D. Maintain Records: Complete records of test observations shall be maintained. Records will include, but not limited to, proof-rolling, detailed locations and results of tests, observations, and undercuts. These records shall be submitted to the A/E Construction Manager with accompanying as-builts at the end of the project.

E. Upon completion of project, submit drawings detailing locations of all density tests including pertinent supporting data such as proof-rolling, undercuts, one-point Proctor verifications, and any other data relating to soils work performed on the project site.

PART 2 – PRODUCTS

2.1. GENERAL:

A. Material meeting the Unified Soil Classification soil types SM, SC, and CL with percent fines passing the No. 200 sieve greater than 25 and plasticity index (PI) more than 10. The soil/aggregate shall not contain roots and other organic matter, topsoil, or any material deleterious to its reaction with cement. Also, soils designated as suitable for their intended use by the Engineer.

2.2. WATER

A. Water to be used in construction must be from a potable source.

2.3. PORTLAND CEMENT

A. Portland Cement shall meet the requirements on AASHTO M 85.

B. Portland cement shall be Types I or II.

C. Ensure that the Portland cement concrete meets the low alkali and false set requirements of AASHTO M 85.

D. Do not use cement that is damaged, partially set, lumpy, or caked.

E. Do not mix or store different brands or types of cement together. Do not mix or store the same brand of cement from different mills together.

PART 3 - EXECUTION

3.1. GENERAL

A. Weather Limitations

1. Mix and place cement only when the weather permits the course/layer to be finished without interruption in the time specified.

2. Begin mixing only when the air temperature is above 40°F in the shade and rising.

3. Ensure that the temperature of the soil to be used in the mixture is above 50°F.

4. Interruption of Work: If the work is interrupted for more than two hours after cement has been added, or if a completed lift is rained upon within 24 hours of completion, remove and replace the affected portion at no additional cost to the Owner.

3.2. EQUIPMENT

A. In-Place Mixing

1. Use a cyclone-type spreader or its equivalent to spread the cement uniformly across the coverage area and capable of metering the spread rate being placed.

2. Use a rotary type mixer with sufficient tines which produces a uniform and homogenous blend of materials. The use of disk harrows will not be allowed for the mixed-in-place soil-cement base construction method. Mixer shall be inspected by the Engineer daily and tines with more than 25% wear must be replaced.

3.3. CONSTRUCTION

A. In-Place Mixing

1. The addition of Portland cement to modified existing soil conditions is in addition to dewatering requirements specified elsewhere within the Project Manual.

2. Soil: Move and spread the soil uniformly to the proper depth to obtain the specified thickness.

3. Pulverization

a. Loosen and pulverize roadbed materials to the width and depth to be stabilized without disturbing or damaging the underlying subgrade.

b. Continue pulverizing until 100 percent of material can pass through a 1-1/2 in. sieve, and until at least 80 percent of the soil, excluding any stone or gravel, can pass through a No. 4 sieve.

c. Remove all roots, sod, and rocks that exceed 3 in. (75 mm) in diameter.

d. Remove all other harmful materials.

4. Cement:

a. Portland cement shall be applied at the rate specified in the approved mix design.

b. Uniformly spread the required amount of Portland cement with a cyclone-type mechanical spreader or its equivalent.

c. Apply the Portland cement at a rate that ensures the pounds spread are within ±10 percent of the amount specified. Furnish a square-yard cloth, scales and personnel for checking the spread rate of cement placed.

d. Apply cement on days when wind will not interfere with spreading.

e. If the cement content is below the 10 percent limit in the mixing area, add additional cement to bring the affected area within the tolerance specified and recalibrate the mechanical spreader's spread rate.

f. Regulate operations to limit the application of cement to sections small enough so that all of the compacting and finishing operations can be completed within the required time limits.

g. Pass only spreading and mixing equipment over the spread cement. Operate this equipment so that it does not displace cement.

h. Replace damaged cement at no additional cost to the Owner when damage is caused by:

1) Hydration due to rain, before or during mixing operations.

2) Spreading procedures contrary to the requirements mentioned above.

3) Displacement by the Contractor's equipment or other traffic.

5. Mixing

a. Begin mixing as soon as practical after the cement is spread and continue until a homogeneous and uniform mixture is produced. Make multiple passes as required. If the equipment does not produce a homogeneous and uniform mixture meeting these specifications, make any necessary changes to the satisfaction of the A/E Construction Manager.

6. Spreading

a. Use an approved mixture spreader to obtain the specified thickness. Spread the mixture the full width of the area to be covered.

b. Ensure that trucks and other construction equipment, including motor graders, do not travel over the material until compaction equipment has made initial passes over the mixture.

c. Ensure that less than 30 minutes elapse between the placement of cement-treated material in adjacent lanes at any location, unless longitudinal joints are specified.

7. Thickness of Course:

a. Compact the cement-modified soil in maximum lifts (thickness) of 12-inches unless otherwise directed by the A/E Construction Manager

8. Compacting

a. Limits

1) Compact stabilized soil to a minimum of 98 percent of the specified theoretical density.

2) Complete compaction within 2 hours.

3) Complete all operations in four hours, from adding cement to finishing the surface.

b. Additional Compaction Requirements

1) Do not perform vibratory compaction on materials more than 1-1/2 hours old, measured from the time the cement was added to the mixture.

2) Loosened material accumulated during this process is considered waste and is to be removed from the Project.

3) Use a pneumatic-tired roller to roll the finished surface until the surface is smooth, closely knit, free from cracks, and in conformance with the proper line, grade, and cross-section.

4) At any place inaccessible to the roller, secure the required compaction with mechanical tampers approved by the Engineer. The same compaction requirements stated in the above subsection apply.

9. Open to Traffic

a. Correct any failures caused by construction traffic at no additional cost to the Owner.

10. Protection of Courses

a. Maintain the work until it has sufficiently cured and is ready to resume following courses or the next pavement course. This preservation action does not relieve the Contractor of his responsibility to maintain the work until final acceptance.

3.4. TESTING

A. Allow mixture to cure a minimum of three days (or as directed by the A/E Construction Manager) before testing.

B. Compact to a minimum 98 percent maximum dry density (Modified Proctor) in accordance with ASTM D1557.

C. Core samples must have a maximum permeability of $1x10^{-5}$ cm/second.

D. Areas failing to pass the minimum density requirement shall be remixed with additional cement, as directed by the A/E Construction Manager, reconstructed, and tested in accordance with this specification.

E. Areas failing to pass the maximum permeability requirement shall be remixed with additional cement and/or clayey soils, as directed by the A/E Construction Manager, reconstructed, and tested in accordance with this specification.

PART 4 – MEASUREMENT AND PAYMENT

4.1. MEASUREMENT AND PAYMENT

A. No separate payment will be made for work described in this Section. Work described herein is considered subsidiary to each applicable bid item.

END OF SECTION

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APPENDIX C –ROADWAY INSPECTION CHECKLIST

Jan-Jun	Jul-Dec

Roadway Inspection Checklist

Operation and Maintenance (O&M) - Georgia Ports Authority

Date/Time:	Location: Port Wentworth
Inspector Name:	Street name: Steamship Connector Road
Inspector Affiliation:	Weather:
Project Name:	Client: Georgia Ports Authority
Project number (if applicable):	Other:

Yes	No	Condition	Description
☐	☐	**1. Are the exposed cement-stabilized soil areas exhibiting cracking, erosion, or other deficiency?**	
		a. Location & Severity	
		b. Location & Severity	
☐	☐	**2. Are there any cracks in the surface of the roadway pavement 1/4" or greater in width that penetrate the roadway structure?**	
		a. Crack location, length, width	
		b. Crack location, length, width	
		c. Crack location, length, width	
☐	☐	**3. Are there any signs of rutting?**	
		c. Location & Severity	
		d. Location & Severity	
☐	☐	**4. Are there any signs of other surface delamination?**	
		a. Location & Severity	
		b. Location & Severity	
☐	☐	**5. Are there any potholes?**	
		a. Location, depth, length, width	
		b. Location, depth, length, width	
		6. Any settlement at joints?	
		a. Location, depth, seal condition	
		b. Location, depth, seal condition	
☐	☐	**7. Any ponding of water?**	
		a. Location & Severity	
		b. Location & Severity	
☐	☐	**8. Are there any signs of alligator cracking?**	
		a. Location & Severity	
		b. Location & Severity	

Jan-Jun	Jul-Dec

Roadway Inspection Checklist

Operation and Maintenance (O&M) - Georgia Ports Authority

☐	☐	**9. Are there any signs of raveling?**	
		a. Location & Severity	
		b. Location & Severity	
☐	☐	**10. Are there any signs of shoulder washouts?**	
		a. Location & Severity	
		b. Location & Severity	
☐	☐	**11. Any erosion of the soil slope?**	
		a. Location & Severity	
		b. Location & Severity	
☐	☐	**12. Any defects at bridge approaches or abutment?**	
		13. Condition of gravel driveway turnouts.	
☐	☐	**14. Any guardrail damages?**	
		a. Location & Severity	
		b. Location & Severity	
☐	☐	**15. Are all streetlights operational?**	
		a. Assigned ID of streetlights not operational:	
☐	☐	**16. Any street light pole damage?**	
		a. Assigned ID, Location & Severity	
		b. Assigned ID, Location & Severity	
☐	☐	**17. Prior pavement repairs?**	
		a. Location, type, condition, stable/growing?	
		b. Location, type, condition, stable/growing?	
☐	☐	**18. Any other remarks or defects observed?**	

_____

Inspectors Signature, Date, and GA PE Seal

Note: See next pages for photos.

Jan-Jun	Jul-Dec

Photos

Please include photos showing dimensions and locations that correlate with the details completed in the Roadway Inspection Checklist:

APPENDIX D – GDOT STANDARD SPECIFICATION SECTION 407 - ASPHALT-RUBBER JOINT AND CRACK SEAL

Section 407—Asphalt-Rubber Joint and Crack Seal

407.1 General Description

This work includes filling (Type M) or sealing (Type S) joints and cracks in existing pavements with rubber asphalt mixtures. A polymer-modified asphalt rubber (PMAR) blend may be used in lieu of both Type M and Type S.

407.1.01 Definitions

Type M: Used to fill joints and cracks in Portland cement concrete or asphaltic concrete pavements when required by the plans before placing an overlay.

Type S: Used to seal joints and cracks in Portland cement concrete and asphaltic concrete pavements and shoulders when not placing an overlay.

407.1.02 Related References

A. Standard Specifications

Section 820—Asphalt Cement

B. Referenced Documents

AASHTO T51

ASTM D 4

ASTM D 36

ASTM D 5329

ASTM D 7173

GDT-2

SOP 22

QPL 92

407.1.03 Submittals

Provide a Certificate of Analysis certifying each lot of premixed material meets the requirements of this specification and submit the test results of each lot for each project. Ensure each sealant lot is delivered in containers with the manufacturer's name or trademark and lot number plainly marked.

When instructed by the Engineer, furnish premixed samples and samples of the individual components of premixed material as follows:

- At least 20 lbs. (10 kg) of rubber representative of each lot
- At least 5 gal (18 L) of asphalt containing additives as proportioned
- Proportional quantities of mixing aids or additives not included above
- Packaged premixed sealant material weighing no more than 30 lbs. (14 kg)

407.2 Materials

Ensure the sealant material is a premixed, asphalt-rubber sealant mixture evaluated in accordance with SOP 22 and listed on QPLs 92-A, 92-B and/or 92-C. Ensure the mixture is a blend of asphalt cement, aromatic extender oil(s), and recycled or reclaimed tire crumb rubber with rubber contents meeting the requirements specified in Table 2. The blending will be conducted in a closely controlled manufacturing process as detailed in the manufacturer's submitted Quality Control Plan. Produce a mixture with the following properties:

A. Workability

The mixture pours readily and penetrates a 1/4 in. (6 mm) pavement joint or crack to a depth of at least 1 in. (25 mm) when the application temperature of the fully reacted mixture is 350 ºF (177 ºC) and the air temperature is 35 ºF (2 ºC) or higher.

The mixture, when placed in conventional field installation equipment, readily melts to a pumping consistency after being heated to 400 °F (204 °C) for 2 hours maximum. The mixture remains in a pumping consistency when the temperature of the field installation equipment is reduced to the normal operating temperature range of 300 ºF to 350 ºF (149 ºC to 177 ºC).

B. Curing

The mixture contains no water or volatile solvents and cures immediately when cooled to a sufficient viscosity to prevent tracking caused by traffic.

C. Softening Point, Flexibility and Rubber Content.

When a fully reacted mixture sample of asphalt-rubber has been heated at 350 ºF (177 ºC) for one hour, or when a PMAR blend has been heated at 380 ºF (194 ºC) for one hour, ensure it passes the following laboratory tests:

1. Softening Point

   The minimum softening point by ring and ball described in ASTM D 36 is as follows:

TABLE 1 – MINIMUM SOFTENING POINT

PMAR	185 ºF (85 ºC)
Type S	135 ºF (57 ºC)
Type M	150 ºF (65 ºC)

2. Flexibility

   Bend a 1/8 in. (3 mm) thick x 1 in. (25 mm) wide x 6 in. (150 mm) long mixture specimen after conditioning to 10 ºF (-12 ºC) at a minimum bending rate of 9 degrees per second (10 seconds maximum for a 90º bend) over a 1 in. (25 mm) diameter mandrel without cracking.

3. Rubber Content %

   Type M and Type S minimum rubber content %.

TABLE 2 – TYPE S AND TYPE M MINIMUM RUBBER CONTENT

Type S	15% minimum
Type M	15% minimum

D. Separation

Test the PMAR blend for phase separation by pouring two representative samples of the mixture into aluminum tubes measuring 1 in. (25 mm) in diameter and 5-1/2 in. (140 mm) long as described in ASTM D 7173. Cure the samples at 325 ºF (163 ºC) for 48 hours. Take samples from the top and bottom of each tube and determine softening point as described in ASTM D 36. Average the test results from the top and bottom samples. If there is 4 percent or more difference between the average test result and either of the top or bottom test results, reject the mixture due to separation.

E. Adhesion

When cooled, the mixture bonds strongly to both asphalt and concrete pavement surfaces. The mixture contains no materials chemically reactive with these surfaces to reduce the short-term and long-term adhesion bonds.

F. Acceptable Recycled or Reclaimed Tire Crumb Rubber

Before the rubber is added, ensure the asphalt cement used in the mixture conforms to the requirements of Section 820.2.01, PG 58-22 or PG 64-22.

Ensure the recycled, reclaimed tire crumb rubber used in the mixture meets the following requirements:

- Obtained from used pneumatic tires (such as automobile, truck, bus, etc.)—not solid tires and non-tire rubber sources
- Produced from an ambient or cryogenic grinding process (crushes, tears, factures or grinds, the used rubber tires and produces rubber particles with a ragged, sponge-like surface). Tire buffings are prohibited.
- Contains recycled, vulcanized crumb rubber and/or reclaimed (devulcanized) rubber
- Contains at least 25 percent natural rubber by weight of the total rubber portion of the mixture
- Contains no more than 0.1 percent fabric
- Free of wire and other contaminating materials, except up to four percent calcium carbonate or talc to prevent rubber particles from sticking
- Contains no rubber particles greater than 1/4 in. (6 mm) long
- Meets the following gradation requirements:

TABLE 3 – RECYCLED OR RECLAIMED TIRE CRUMB RUBBER GRADATION

Sieve Size	Percent Passing
No. 10 (2.0 mm)	100%
No. 16 (1.18 mm)	95 to 100%
No. 30 (600 µm)	40 to 80%
No. 80 (180 µm)	0 to 5%

G. Polymer-modified Asphalt Rubber

If a PMAR blend is used, ensure it meets the following additional requirements:

TABLE 4 – POLYMER-MODIFIED ASPHALT RUBBER PROPERTIES (PMAR)

PROPERTY	SPECIFICATION LIMITS
Cone Penetration, 77 °F (25 °C) (ASTM D 5329)	30 - 60 dmm
Resilience, 77 °F (25 °C), % Recovery (ASTM D 5329)	30% minimum
Ductility, 77 °F (25 °C), 50 mm/minute (ASSHTO T-51)	300 mm minimum
Asphalt Compatibility (ASTM D 5329)	Pass
Bitumen Content (ASTM D 4)	60 – 70 %
Tensile Adhesion (ASTM D 5329)	350 % minimum
Rotational Viscosity (Brookfield), No. 5 spindle, 20 RPM, 400 °F (205 °C)	3,000 – 15,000 cp
Rubber Content % (GDT-2)	12% minimum

407.2.01 Delivery, Storage, and Handling

Package the premixed sealant material in units weighing no more than 30 lbs. (14 kg) with a maximum of two 30 lb. (14 kg) units per shipping container. Ensure the plastic film used to package the units melts at normal application temperatures when placed in the installation equipment.

407.3 Construction Requirements

407.3.01 Personnel

General Provisions 101 through 150.

407.3.02 Equipment

A. Field Installation Equipment

Use field installation equipment that produces or maintains specified temperatures, even if filled to capacity.

Ensure the equipment produces or maintains a homogenous mixture of asphalt and rubber at a uniform temperature without hot or cool spots or rubber and asphalt segregation in the mixture.

B. Crack Filling Equipment

Ensure the equipment for filling the joints and cracks directs the sealant into the crack. Seal large cracks from the bottom up. Provide squeegees as necessary.

C. Air Compressor(s)

Ensure the air compressors are satisfactory to the Engineer.

407.3.03 Preparation

A. Joint and Crack Preparation

Use compressed air to thoroughly clean the joints and cracks to be sealed.

Clean the pavement surface and check the joints and cracks to ensure they are free of vegetation, dirt, dust, moisture, and other foreign material.

407.3.04 Fabrication

General Provisions 101 through 150.

407.3.05 Construction

A. Restrictions

Do not seal joints and cracks if:

- The joint or crack surface to be treated is not thoroughly dry.
- Rain is imminent.
- The air temperature is below 35 °F (2 °C).

B. Procedure

Follow this procedure to seal joints and cracks:

1. Place the prepackaged sealant mixture in the field installation equipment.
2. Heat the sealant mixture for the proper time and temperature to provide a full reaction between the asphalt and rubber.
3. Apply the mixture at the specified application temperature according to the manufacturer's recommendations or the laboratory's approval.
4. Carefully fill the joint or cracks, slightly overfull. Strike off the excess with a V-shaped squeegee to feather the sealant out to a width of approximately 2 in. (50 mm).

407.3.06 Quality Acceptance

If the packaged units are bonded or stuck together or to the shipping container, or if packaging staples or fasteners cause sealant contamination, the material may be rejected as determined by the Engineer.

The manufacturer must meet the requirements of this Specification and furnish evidence of successful field installation and performance under similar environmental and project conditions.

407.3.07 Contractor Warranty and Maintenance

General Provisions 101 through 150.

407.4 Measurement

Joints and cracks will be measured by the linear foot (meter) by surface measure.

407.4.01 Limits

General Provisions 101 through 150.

407.5 Payment

Joints and cracks sealed according to the plans and this specification will be paid for at the Contract Unit Price bid.

Payment is full compensation for furnishing all materials and performing the work.

Payment will be made under:

Item No. 407	Polymer-modified asphalt–rubber joint and crack seal	Per linear foot (meter)
Item No. 407	Asphalt-rubber joint and crack seal, type “S”	Per linear foot (meter)
Item No. 407	Asphalt-rubber joint and crack seal, type “M”	Per linear foot (meter)

407.5.01 Adjustments

General Provisions 101 through 150.

APPENDIX E – WELL INSPECTION FORM TEMPLATE

GAP Well Inspection Form

Well ID: _____

Well Inspection Item	Yes	No	N/A	Remarks / Repairs Needed	Repairs Completed (Date)
Well Identification Label Present and Clearly Legible?					
Protective Casing?					
Protective Casing Cap?					
Well Cap?					
Ponded Water?					
Locked?					
Concrete Pad?					
Visual Damage?					
Concrete Pad Clearly Visible and Free of Any Debris or Overgrown Vegetation?					
Measuring Point Marked on the Top-of-Casing?					
Vent Hole in Well Casing?					
Weep Hole in Protective Casing?					
Flush Mount Cover - Missing Bolts?					
Flush Mount Cover - Missing Seal?					

Miscellaneous Information	
Protective / Well Casing Material	
Protective / Well Casing Diameter	
Well Inspection Conducted by: (Print Name)	
Date and Time of the Inspection	

APPENDIX F – ANNUAL PROPERTY EVALUATION FORM

ANNUAL PROPERTY EVALUATION FORM

Georgia Atlantic Port LLC Site

Port Wentworth, Chatham County, Georgia

TYPE	No.	CRITERIA RESPONSE	YES	NO
Land Use	1	Does this Property meet the definition of non-residential property as defined in HSRA Rule 391-3-19.02(2)(r)?		
	1a	Has the use of the property changed or has construction occurred on the property?		
	1b	If no to 1 or yes to 1a, provide a written explanation to Georgia EPD with the subject Evaluation form.		
Exposure Controls	2	Has there been any evidence of soil disturbance in the vicinity of the connector road?		
	2a	If yes, are corrective measures being taken? Provide a written explanation to Georgia EPD with the subject Evaluation Form.		
Engineering Controls	3	Does the connector road, inclusive of all constructed pavement materials, remain intact and in good condition and continue to operate as an engineered barrier as designed?		
	3a	If no, are corrective measures being taken? Provide a written explanation to Georgia EPD with the subject Evaluation Form.		
Groundwater Use	4	Has there been any extraction of shallow groundwater other than for non-remedial purposes on the property?		
	4a	If yes to 4, are corrective measures being taken? Provide a written explanation to Georgia EPD with the subject Evaluation Form.		
Property Instruments	5a	Do all leases or other property instruments for the site have the applicable deed notice language inserted into them? (i.e. HSRA Rule 391-3-19-8 and O.C.G.A. 44.5-48.)		
	5b	If no to 5a provide a written explanation (attached) to Georgia EPD with the subject Evaluation Form.		
Inspection	6	Date of inspection:		
	6a	Name of inspector:		
	6b	Photographs with explanation showing current land use (attached):		

Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

_____ _____

Name (Please print or type) Title

_____ _____

Signature Date

APPENDIX G – ANNUAL INSPECTION AND CERTIFICATION REPORT TEMPLATE

Annual Inspection and Certification Report Template

[Date]

Georgia Department of Natural Resources
Environmental Protection Division – Land Protection Branch
2 Martin Luther King, Jr Dr., SE, Suite 1054 East
Atlanta, Georgia 30334-9000

Re: Annual Inspection and Certification Report
Georgia Atlantic Port Site
202 Oxnard Drive, Port Wentworth, GA 31407
EPA ID# GAD084914787
RCRA Permit No. EPA-HW-055(D)

This document, with attachments, serves as the Annual Inspection and Certification Report for the Georgia Atlantic Port LLC property located at 202 Oxnard Drive in Port Wentworth, Chatham County, Georgia (Subject Property).

The Subject Property is in compliance, as follows:

- The Georgia Ports Authority connector road, inclusive of all pavement materials constructed at the Subject Property, remains intact and in good condition and continues to operate as an engineered barrier as designed.
- There continues to be no residential groundwater use and there has been no extraction of shallow groundwater other than for non-remedial purposes.
- There has been no evidence of soil disturbances in the vicinity of the connector road.
- The land use continues to be for non-residential purposes only.

Certification

I certify under the law that this document and all attachments were prepared under my direction and supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the site, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that it is illegal and there are significant penalties for submitting false information to a State agency of Georgia.

_____
Authorized Signature

If you have any questions, please contact me.

Sincerely,
[Name and title]
[Address]
[Phone]
[Email Address]

Attachments: Annual Site Inspection Checklist and Annual Property Evaluation Form