HINESVILLE BUSINESS INCUBATOR

HINESVILLE, GEORGIA 31313
FOR
HINESVILLE INCUBATOR FACILITY
EDA PROJECT NO 04-79-07284
CONSTRUCTION DOCUMENTS

CIVIL ENGINEERS: LANDSCAPE ARCHITECT:



COASTLINE CONSULTING SERVICES MANDEL DESIGN, LLC

SITE BIDDING CONSULTANT -- SIMONTON ENGINEERING, LLC

SCHEDULE OF DRAWINGS:

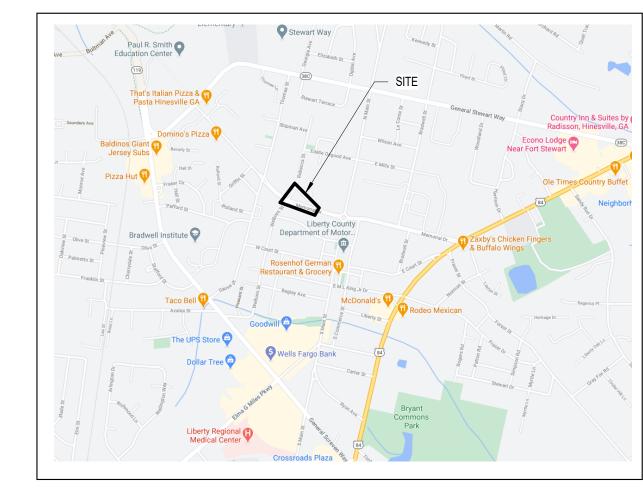
LIST OF DRAWINGS - CIVIL

- C-1 GENERAL NOTES AND LEGEND
- C-2 EXISTING CONDITIONS & DEMOLITION PLAN
 C-3 STAKING & UTILITY PLAN
- C-4 PAVING, GRADING & DRAINAGE PLAN
- C-6 EROSION CONTROL PLAN
- C-7 EROSION CONTROL NOTES
 C-8 CONSTRUCTION DETAILS
- C-9 CONSTRUCTION DETAILS
- C-11 CONSTRUCTION DETAILS C-12 CONSTRUCTION DETAILS

LIST OF DRAWINGS - LANDSCAPE

L-1 LANDSCAPE PLAN

LOCATION MAP:



SET NO. 1

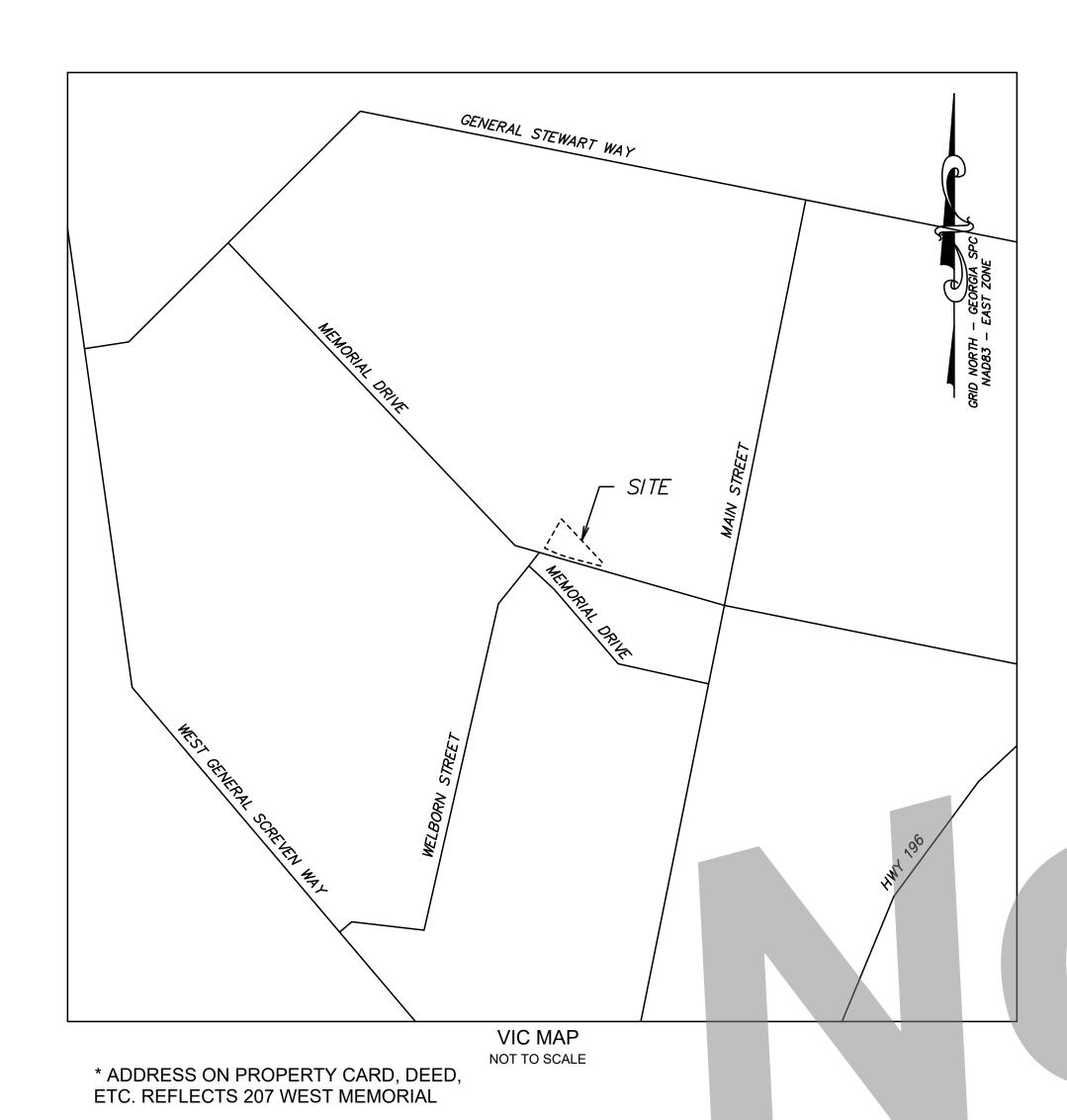
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GENERAL NOTES

- 1. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSURE THAT ALL REQUIRED PERMITS ARE OBTAINED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
- 2. ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF HINESVILLE SPECIFICATIONS, LATEST EDITION
- 3. PRIOR TO INSTALLATION OF ANY UTILITY LINES, THE CONTRACTOR SHALL GIVE THE UTILITY COMPANIES THREE (3) WORKING DAYS NOTICE TO ALLOW TIME FOR EXISTING UTILITIES TO BE STAKED. BEFORE CALLING (811) THE CONTRACTOR SHALL HAVE THE FOLLOWING INFORMATION READY: COUNTY, TOWN, LOCATION, NEAREST STREET INTERSECTIONS, TYPE OF WORK (SEWER, WATER, PAVING, ETC.) YOUR COMPANY NAME, TELEPHONE NUMBER, OWNER'S NAME, DATE AND TIME YOU EXPECT TO COMMENCE CONSTRUCTION, AND WHERE AND HOW YOU CAN BE REACHED AND THE BEST TIME TO CONTACT YOU. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN CROSSING AN UNDERGROUND UTILITY, WHETHER SHOWN ON THE PLAN OR LOCATED BY THE UTILITY COMPANY. ALL UTILITIES WHICH INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE RELOCATED BY THE RESPECTIVE UTILITY COMPANIES, AND THE CONTRACTOR SHALL COOPERATE WITH THEM DURING RELOCATION OPERATIONS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY VARIANCES PRIOR TO COMMENCEMENT OF WORK OR PURCHASING ANY MATERIALS.
- 4. ALL KNOWN UTILITY FACILITIES ARE SHOWN SCHEMATICALLY ON THE PLANS AND ARE NOT NECESSARILY ACCURATE AS TO PLAN OR ELEVATION. UTILITY FACILITIES SUCH AS SERVICE LINES OR UNKNOWN FACILITIES NOT SHOWN ON THE PLANS WILL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITIES, EXCEPT AS NOTED BELOW. THE CONTRACTOR WILL NOT BE RESPONSIBLE FOR THE COST OF REPAIRS TO DAMAGED UTILITY FACILITIES OTHER THAN SERVICE LINES FROM STREET MAINS TO ABUTTING PROPERTY WHEN SUCH FACILITIES ARE NOT SHOWN ON THE PLANS AND THEIR EXISTENCE IS UNKNOWN TO THE CONTRACTOR PRIOR TO THE DAMAGES OCCURRING PROVIDING THE ENGINEER DETERMINES THE CONTRACTOR HAS OTHERWISE FULLY COMPLIED WITH THE SPECIFICATIONS.
- 5. IT IS THE OBLIGATION OF THE CONTRACTOR TO MAKE HIS OWN INTERPRETATION OF ALL SURFACE AND SUBSURFACE DATA AS TO THE NATURE AND EXTENT OF THE MATERIALS TO BE EXCAVATED. THE INFORMATION SHOWN ON THESE PLANS AND SPECIFICATIONS DOES NOT IN ANY WAY GUARANTEE THE AMOUNT OR NATURE OF THE MATERIAL WHICH MAY BE ENCOUNTERED.
- 6. FILL MATERIAL SHALL BE CLEAN AND FREE OF ALL DEBRIS AND ORGANIC MATERIAL.
- 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION AND FURNISHING THE BORROW MATERIAL NECESSARY FOR THE CONSTRUCTION OF THIS PROJECT.
- 8. ALL ITEMS REMOVED FROM THE PROJECT WHICH ARE NOT TO BE REUSED SHALL BE MOVED TO A LOCATION APPROVED BY THE OWNER.
- 9. ALL SIGNING AND PAVEMENT MARKINGS IN CITY OF HINESVILLE RIGHT-OF-WAY SHALL BE THERMOPLASTIC PER GDOT STANDARDS AND M.U.T.C.D.
- 10. THIS PROPERTY IS LOCATED IN ZONE X, NOT A SPECIAL FLOOD HAZARD AREA, AS DETERMINED BY HUD, COMMUNITY MAP NO. 13179C, PANEL 0226E, DATED MAY 5, 2014.
- 11. TOPOGRAPHIC INFORMATION BASED ON SURVEY PREFORMED BY COASTLINE CONSULTING SERVICES, INC. IN NOVEMBER 2020. HORIZONTAL DATUM IS BASED ON GEORGIA STATE PLANE NAD83 AND VERTICAL DATUM IS BASED ON NAVD 88.
- 12. CITY SHALL HAVE THE RIGHT TO ACCESS PROPERTY TO INSPECT STORMWATER FACILITIES.
- 13. A COPY OF THE VIDEO TAPE OF THE DRAINAGE SYSTEM(S) TO BE MAINTAINED BY THE CITY OR DIRECTLY CONNECTED TO CITY PIPE/INLET/MANHOLE IS REQUIRED. BOTH THE VIDEO TAPE AND THE ACCOMPANYING WRITTEN REPORT MUST BE GIVEN TO THE CITY ONE WEEK (7 DAYS) PRIOR TO THE FINAL INSPECTION.



SURVEY CONTROL		
	<u>FOUND</u>	SET
CONTROL NAIL	NF	NS
IRON PIPE	IPF •	IPS ●
IRON REBAR	(RF	IRS
HUB & TACK	HTF •	HTS ●
CONCRETE MONUMENT	<i>CMF</i> ⊡	CMS ■
RIGHT-OF-WAY MARKER	<i>RWMF</i> ⊞	RWMS ■
BENCHMARK	⊕ ^{BMF}	⊕ BMS

	FENCE LIN	IE
	EXISTING	<u>PROPOSED</u>
CHAIN LINK	o	o
BARBED WIRE	x	х
HOG WIRE		
WROUGHT IRON		
WOODEN		
SILT FENCE (SINC	GLE) ————————————————————————————————————	X
SILT FENCE (DOU	JBLE) ————————————————————————————————————	——XX——

BUILDING			
	EXISTING	PROPOSED	
BUILDING LINE		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	
BUILDING OVERHANG			
FINISHED FLOOR ELEVATION	•	FF 15.00	
GROUND/DITCH			

GROUND/DITCH			
	EXISTING	PROPOSED	
SPOT ELEVATION	X12.00	+12.00	
CONTOURS		12	
CENTERLINE OF DITCH			
WATERS EDGE			

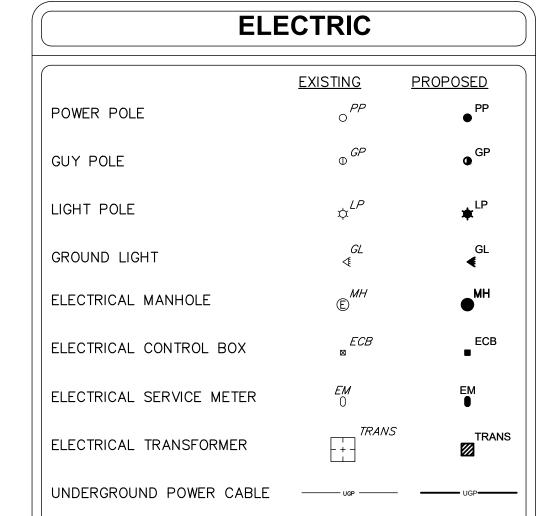
	WATER	
	EXISTING	PROPOSED
WATERMAIN LINE	w ————————————————————————————————————	12"W
BACKFLOW PREVENTER	₩ ^{BFP}	BFP ⋈
BLOW-OFF	<i>BO</i> ▷	B O ▶
FIRE HYDRANT		***
HOSE BIBB (SPIGOT)	HB O	нв О
WELL	(1)	\circ
WATER METER	<i>шм</i> О	● WM
WATER MANHOLE	W ^{MH}	● MH
WATER VALVE	₩V ⊠	•

SANITAR	Y SEWE	R
	EXISTING	PROPOSED
CLEANOUT	0	co
CENTER SANITARY MANHOLE	S	•
GREASE TRAP	© ^{GT}	GT
SANITARY SEWER LINE	– ss– – – ss– –	ss
FORCEMAIN LINE	— FM — — — FM — —	

STORM		
PIPES	<u>EXISTING</u> —— st ——	PROPOSED
DRAINAGE MANHOLE		•
FLARED END SECTION		
INVERT ELEVATION	IE 12.00	IE=12.00
CURB INLET TYPE A	0	0
CURB INLET TYPE B		10
CURB INLET TYPE C		
ROOF INLET		
GRATE INLET		
RIP RAP		*************************************

SHEET INDEX

- C-1 GENERAL NOTES AND LEGEND
- C-2 EXISTING CONDITIONS AND DEMOLITION PLAN
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- C-5 LANDSCAPE PLAN
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- C-11 CONSTRUCTION DETAILS



GAS

GAS LINE

GAS METER

GAS VALVE

GAS MANHOLE

OVERHEAD POWER CABLE

<u>EXISTING</u>

<u>PROPOSED</u>

EXISTING TB	PROPOSED TB
	TB
TELE PED	TP
MH ①	MH
	т-
	TELE PED MH

ROADWAY			
CENTERLINE OF ROAD	EXISTING	PROPOSED	
EDGE OF ASPHALT			
CURB & GUTTER			
EDGE OF CONCRETE			
EDGE OF GRAVEL			
EDGE OF DIRT			
EDGE OF DRIVEWAY			
GUARDRAIL	a <u> </u>		



517 EAST CONGRESS STREET SAVANNAH, GEORGIA 31401 tel 912.234.6318 fax 912.236.8414 cogdellmendrala.com

COGDELL & MENDRALA ARCHITECTS, PC



PROJECT CONSULTANTS: M.E.P. ENGINEERS: METHOD ENGINEERING

2 E. BRYANT STREET SUITE 1500C SAVANNAH, GA 31401

STRUCTURAL ENGINEERS: SAUSSY ENGINEERING 400 E. JOHNNY MERCER BOULEVARD

SAVANNAH, GA 31410

CIVIL ENGINEERS: COASTLINE CONSULTING 138 CANAL STEET #307 POOLER, GA 31322 LANDSCAPE ARCHITECT: MANDEL DESIGN, LLC

> 7 BAKER DRIVE SAVANNAH, GA 31410

KEY PLAN:

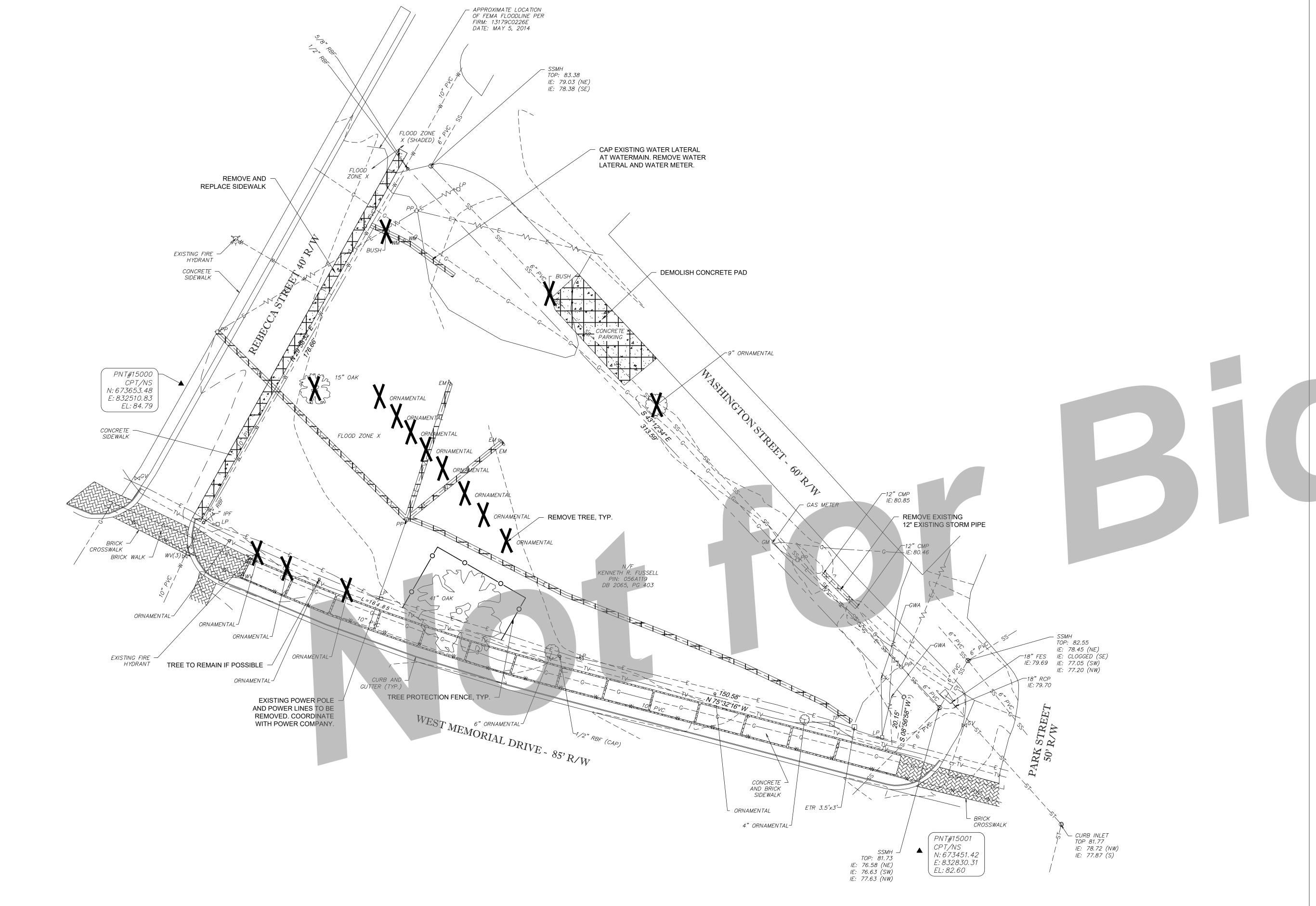
SHEET TITLE: GENERAL NOTES AND LEGEND

REVISION SCHEDULE DATE DESCRIPTION

EDA PROJECT NO: 04-79-07284 **PROJECT NO:** 2010 **DATE:** MAY 2021 **DRAWN BY**:

2010 MAY 2021 CCS **SCALE: C-1** SHEET:

COASTLINE CONSULTING SERVICES, INC. 138 CANAL STREET, UNIT 307 POOLER, GEORGIA 31322 PH: (912) 330-8550 FX: (912) 330-8568 CIVIL SITE SERVICES



- 1. CLEARING SHALL INCLUDE THE REMOVAL AND DISPOSAL OF ALL TREES AND VEGETATION OCCURRING WITHIN THE LIMITS OF DISTURBANCE.
- LESS THAN 24 INCHES BELOW THE ORIGINAL SURFACE LEVEL OF THE GROUND. DEPRESSIONS MADE BY GRUBBING SHALL BE FILLED WITH SUITABLE MATERIAL AND COMPACTED TO MAKE THE SURFACE CONFORM TO THE ORIGINAL ADJACENT SURFACE OF THE GROUND.
- ALL ITEMS RESULTING FROM THE CLEARING AND GRUBBING SHALL BE DISPOSED OF BY BURNING ON-SITE OR HAULING FROM THE SITE. CONTRACTOR TO OBTAIN A PROPER PERMIT FROM THE CITY IF BURNING ON-SITE. ANY DEBRIS OR TRASH RESULTING FROM DEMOLITION SHALL
- 4. ALL TREE PROTECTION FENCING AND INITIAL E,S, & P CONTROL BMPS SHALL BE IN PLACE PRIOR TO ANY CLEARING AND GRUBBING.
- FORESTRY PERMITS.

CLEARING AND GRUBBING AND DEMOLITION NOTES:

CLEARING OPERATIONS SHALL BE CONDUCTED SO AS TO PREVENT DAMAGE BY FALLEN TREES TO TREES LEFT STANDING. 2. GRUBBING SHALL BE PERFORMED AND SHALL CONSIST OF THE REMOVAL AND DISPOSAL OF STUMPS, ROOTS LARGER THAN 1/2 INCH IN DIAMETER, AND MATTED ROOTS FROM THE CLEARED AREAS. THIS MATERIAL SHALL BE EXCAVATED AND REMOVED TO A DEPTH OF NOT

BE HAULED OFF SITE TO A LANDFILL AND SHALL NOT BE BURNED ON

5. IF CLEARING AND GRADING LEADS TO ON-SITE BURNING, A COMMERCIAL BURN PERMIT WILL NEED TO BE APPLIED FOR AND ISSUED BY THE CITY OF HINESVILLE FIRE MARSHAL'S OFFICE IN ADDITION TO ANY GEORGIA

HINESVILLE

Cogdell Mendrala Architects COGDELL & MENDRALA ARCHITECTS, PC 517 EAST CONGRESS STREET SAVANNAH, GEORGIA 31401 tel 912.234.6318 fax 912.236.8414 cogdellmendrala.com

Development Authority



PROJECT CONSULTANTS: M.E.P. ENGINEERS:

METHOD ENGINEERING 2 E. BRYANT STREET SUITE 1500C

SAVANNAH, GA 31401

STRUCTURAL ENGINEERS: SAUSSY ENGINEERING

400 E. JOHNNY MERCER BOULEVARD SAVANNAH, GA 31410 CIVIL ENGINEERS: COASTLINE CONSULTING

138 CANAL STEET #307 POOLER, GA 31322 LANDSCAPE ARCHITECT: MANDEL DESIGN, LLC 7 BAKER DRIVE SAVANNAH, GA 31410

KEY PLAN:

SHEET TITLE: EXISTING CONDITIONS & DEMOLITION PLAN

REVISION SCHEDULE DATE DESCRIPTION

EDA PROJECT NO: 04-79-07284 **PROJECT NO:** 2010 **DATE:** MAY 2021 **DRAWN BY**: **SCALE:**

2010 MAY 2021 CCS 1" = 20' **C-2**

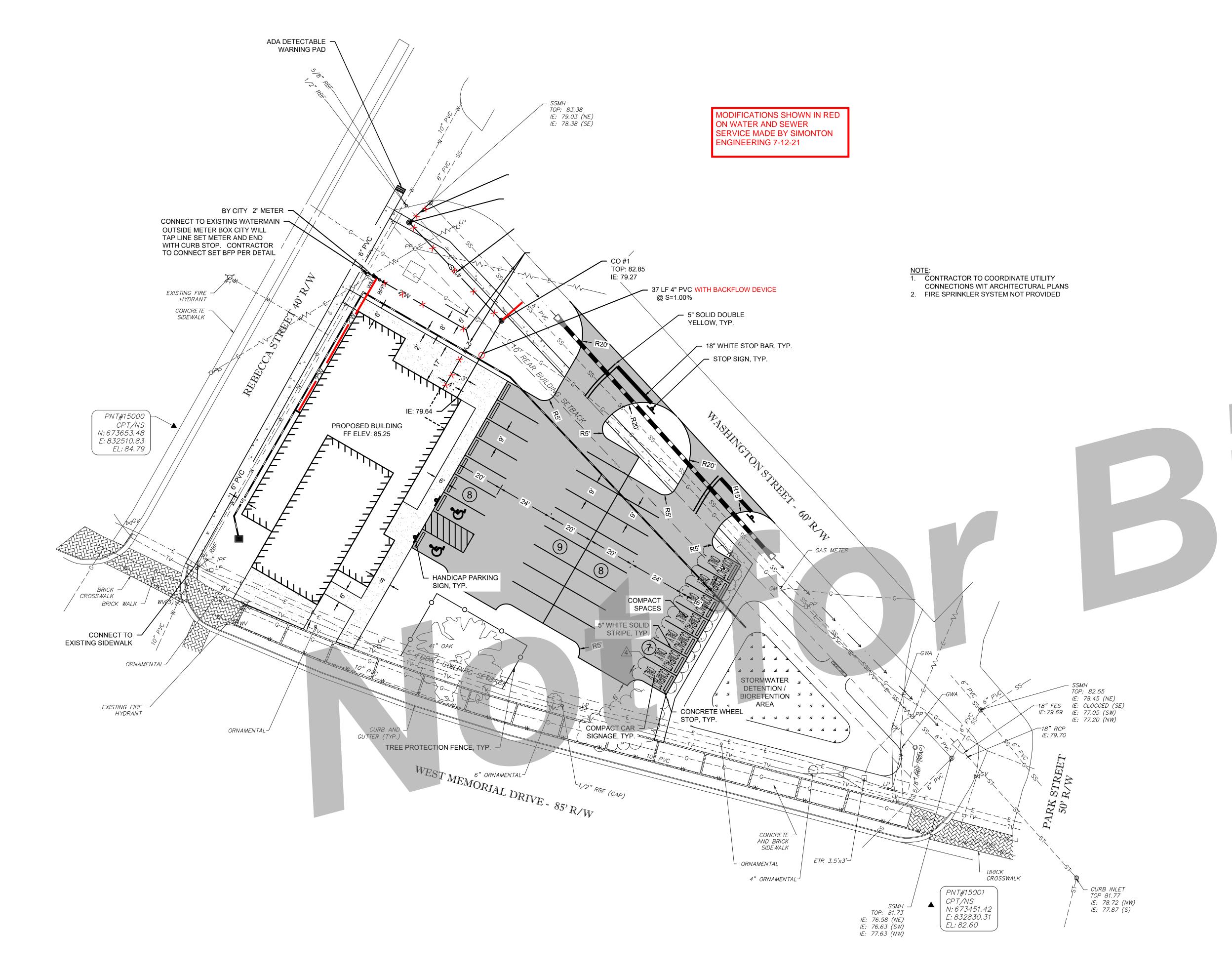
◆ TRANSPORTATION SERVICES ◆ ENVIRONMENTAL SERVICES

COASTLINE CONSULTING SERVICES, INC.

138 CANAL STREET, UNIT 307 POOLER, GEORGIA 31322

PH: (912) 330-8550

MARINE SERVICES



SITE INFORMATION

PROPERTY AREA: 0.72 AC

CURRENT ZONING:

CORRIDOR)

PARKING SPACE CALCULATION

ADDRESS: 207 W WASHINGTON AVE, 1. PARKING REQUIRED: 30 SPACES HINESVILLE, LIBERTY COUNTY, GEORGIA 31313

1 SPACE PER 200 SF OF GROSS AREA

5,850 SF / 200 SF = 30 SPACES

2. PARKING PROVIDED: 32 SPACES R-A-1 (HINESVILLE DOWNTOWN REDEVELOPMENT / MIXED USE 30 REGULAR SPACES 2 VAN ACCESSIBLE SPACE

BUILDING SETBACKS: FRONT: 5 FEET SIDE: 0 FEET REAR: 10 FEET

- 1. IF THE PLANS ARE NOT CLEAR OR DISCREPANCIES OCCUR, THE 912-330-8550 FOR CLARIFICATION IMMEDIATELY.
- 2. CONTRACTOR SHALL CAREFULLY EXAMINE ALL DOCUMENTS AND THE CONSTRUCTION SITE TO OBTAIN FIRST HAND KNOWLEDGE OF EXISTING
- ENTIRE SITE SHALL BE DRESSED TO UNIFORM, WELL DRAINED AND VISUALLY APPEALING SURFACE WITH A MINIMUM TOPSOIL LAYER OF FOUR
- 4. ALL STRIPING AND SIGNS SHALL CONFORM WITH THE GEORGIA DEPARTMENT OF TRANSPORTATION AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) LATEST EDITION. PARKING STALL
- ALL HANDICAP PARKING SPACES AND ACCESSIBLE ROUTE SHALL CONFORM WITH THE AMERICAN WITH DISABILITY ACT DESIGN GUIDELINES AND SPECIFICATIONS LATEST EDITION.
- DIMENSIONS AND CURVE RADII ARE GIVEN TO THE EDGE OF PAVEMENT.
- EACH BUILDING AND ITS RELATIVE LOCATION TO PROPERTY LINES AND OTHER STRUCTURES SHALL COMPLY WITH THE 2018 INTERNATIONAL BUILDING CODE (IBC) WITH GEORGIA SATES AMENDMENTS WITH REGARDS TO THE HEIGHT AND AREA REQUIREMENTS OF IBC TABLES 601 AND 602.

UTILITY NOTES

- THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES AS SHOWN HEREON ARE BASED ON ABOVE-GROUND STRUCTURES AND IS APPROXIMATE AND SHOWN FOR INFORMATIONAL PURPOSES ONLY. NO CERTIFICATION IS MADE AS TO THE ACCURACY OR COMPLETENESS OF THE
- ADDITIONAL BURIED UTILITIES / STRUCTURES MAY BE ENCOUNTERED. NO EXCAVATIONS WERE MADE DURING THE PROGRESS OF THIS SURVEY TO LOCATE BURIED UTILITIES / STRUCTURES.
- 3. BEFORE EXCAVATIONS ARE BEGUN, GIVE THREE WORKING DAYS NOTICE TO THE UTILITIES PROTECTION CENTER AT 811 PRIOR TO ANY EXCAVATION IN ORDER THAT UNDERGROUND UTILITIES MAY BE LOCATED AND PROTECTED.
- 4. A 10 FOOT HORIZONTAL AND 18 INCH VERTICAL CLEARANCE SHALL BE MAINTAINED BETWEEN SANITARY SEWER LINES AND ANY WATER OR STORM LINES. WATER OR STORM LINES SHALL BE ABOVE ANY SANITARY
- MAINTAIN A MINIMUM OF 3' OF COVER ABOVE WATER LINES. 6. ALL SANITARY SEWER LINES SHALL HAVE A MINIMUM OF 1% SLOPE UNLESS
- OTHERWISE NOTED
- FOR ANY WORK IN DOT RIGHT-OF-WAY, AN ENCROACHMENT AND/OR UTILITY PERMIT MAY BE REQUIRED.
- ALL METERS, VALVES, AND BACKFLOW PREVENTORS ARE TO BE IN COMPLIANCE WITH THE CITY OF HINESVILLE REQUIREMENTS. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL.
- ADJUST ALL TOP OF STRUCTURES ELEVATIONS (MANHOLES, CLEANOUTS, VALVE BOXES) TO FINISH GRADE ELEVATIONS.
- HINESVILLE WATER AND SEWER DEVELOPMENT STANDARDS JUNE 2003
- 11. LOCATOR WIRE AND DETECTOR TAPE ARE REQUIRED ON ALL SEWER LINES. 12. NOTIFY HINESVILLE WATER & SEWER DEPARTMENT 48 HOURS BEFORE

STAKING NOTES

- CONTRACTOR IS TO CONTACT COASTLINE CONSULTING SERVICES, INC AT
- CONDITIONS.
- STRIPPING TO BE WHITE WITH BLUE HANDICAPPED STRIPPING
- CONTRACTOR IS TO COORDINATE WITH THE ARCHITECTURAL PLANS AS TO THE BUILDING LAYOUT AND DIMENSIONS
- 8. SIGNS, LOCATION, NUMBER, AND SIZE ARE NOT APPROVED UNDER THIS

BUILDING PERMIT. A SEPARATE PERMIT IS REQUIRED FOR EACH SIGN.

- THIS INFORMATION.

- 10. ALL SANITARY SEWER WORK MUST BE IN ACCORDANCE WITH THE CITY OF
- BEGINNING EVERY PHASE OF CONSTRUCTION OR PRESSURE TESTING.

HINESVILLE Development Authority

Cogdell Mendrala Architects **COGDELL & MENDRALA ARCHITECTS, PC** 517 EAST CONGRESS STREET SAVANNAH, GEORGIA 31401 tel 912.234.6318 fax 912.236.8414 cogdellmendrala.com



PROJECT CONSULTANTS:

M.E.P. ENGINEERS: METHOD ENGINEERING GROUP

> 2 E. BRYANT STREET SUITE 1500C SAVANNAH, GA 31401

STRUCTURAL ENGINEERS: SAUSSY ENGINEERING

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138 CANAL STEET #307 POOLER, GA 31322 LANDSCAPE ARCHITECT: MANDEL DESIGN, LLC

KEY PLAN:

7 BAKER DRIVE

SAVANNAH, GA 31410

SHEET TITLE: STAKING & UTILITY PLAN

REVISION SCHEDULE DATE DESCRIPTION 5-12-2021 UPDATED NOTE #7 5-26-2021 ADD. No. 01

EDA PROJECT NO: 04-79-07284 PROJECT NO: **DRAWN BY**:

SCALE:

MAY 2021 CCS 1" = 20'

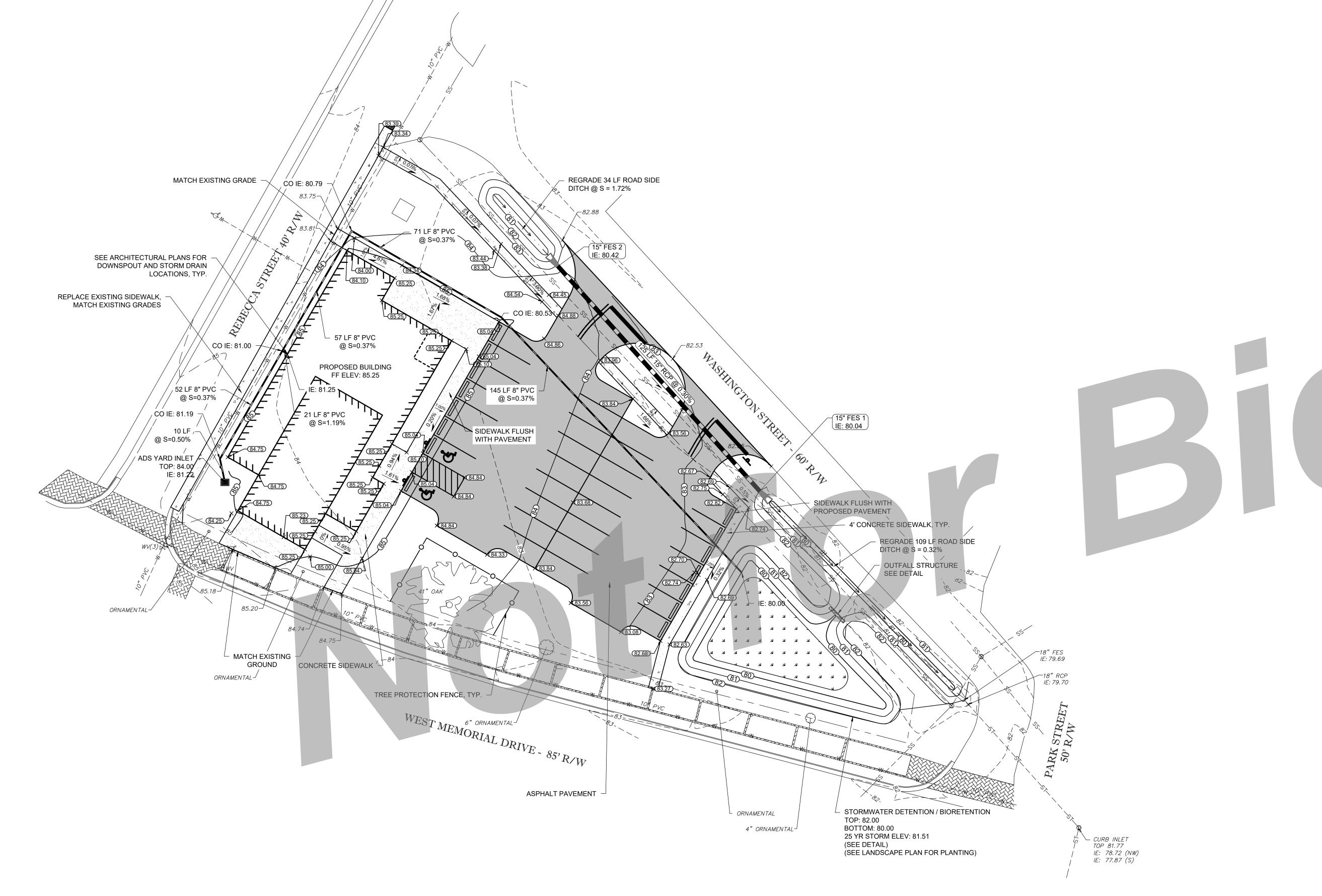
◆ TRANSPORTATION SERVICES ◆ ENVIRONMENTAL SERVICES

COASTLINE CONSULTING SERVICES, INC.

> 138 CANAL STREET, UNIT 307 POOLER, GEORGIA 31322

PH: (912) 330-8550 FX: (912) 330-8568

MARINE SERVICES



PAVING, GRADING, AND DRAINAGE NOTES

- ENTIRE SITE SHALL BE DRESSED TO UNIFORM, WELL DRAINED AND VISUALLY APPEALING SURFACE WITH A MINIMUM TOPSOIL LAYER OF FOUR
- MAXIMUM LONGITUDINAL SLOPE ON ALL ACCESSIBLE SIDEWALK SHALL BE
- 3. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THE SITE IS ADA ACCESSIBLE AS REQUIRED BY FEDERAL, STATE AND LOCAL
- 4. FINISH GRADE ELEVATIONS INDICATE TOP OF PAVEMENT / FACE OF CURB
- SLOPE ARROWS.

UTILITY NOTES

- . THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES AS SHOWN HEREON ARE BASED ON ABOVE-GROUND STRUCTURES AND IS APPROXIMATE AND SHOWN FOR INFORMATIONAL PURPOSES ONLY. NO CERTIFICATION IS MADE AS TO THE ACCURACY OR COMPLETENESS OF THE
- ADDITIONAL BURIED UTILITIES / STRUCTURES MAY BE ENCOUNTERED. NO EXCAVATIONS WERE MADE DURING THE PROGRESS OF THIS SURVEY TO LOCATE BURIED UTILITIES / STRUCTURES.
- 3. BEFORE EXCAVATIONS ARE BEGUN, GIVE THREE WORKING DAYS NOTICE TO THE UTILITIES PROTECTION CENTER AT 1-800-282-7411 PRIOR TO ANY EXCAVATION IN ORDER THAT UNDERGROUND UTILITIES MAY BE LOCATED AND PROTECTED.
- 4. STORM PIPE SHALL BE HIGH PERFORMANCE POLYPROPYLENE PIPE (HP) OR EQUIVALENT.

1. CONTRACTOR TO COORDINATE ROOF DRAIN CONNECTIONS WITH DESIGN

RUNNING SLOPES AND CROSS ~ SLOPES HAVE BEEN ADDED.

- UNLESS OTHERWISE NOTED.
- 5. REFER TO DETAILS FOR PAVEMENT TYPICAL SECTION.
- 6. SITE SHALL BE GRADED UNIFORMLY FOR POSITIVE DRAINAGE AS SHOWN FROM THE ELEVATIONS, PROPOSED CONTOURS, AND THE DRAINAGE
- MAXIMUM SIDEWALK CROSS SLOPE IS 2%. MAXIMUM SIDEWALK LONGITUDINAL SLOPE IS 5%. MAXIMUM PAVEMENT SLOPE IN HANDICAP PARKING AREA AND AISLE IS 2%. MAXIMUM HANDICAMP RAMP SLOPE IS

- THIS INFORMATION.

GENERAL NOTE

ALTERNATES PER ARCHITECTURAL AND PLUMBING DRAWINGS.

HINESVILLE Development Authority

Cogdell Mendrala Architects COGDELL & MENDRALA ARCHITECTS, PC 517 EAST CONGRESS STREET SAVANNAH, GEORGIA 31401 tel 912.234.6318 fax 912.236.8414 cogdellmendrala.com



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SAVANNAH, GA 31410

CIVIL ENGINEERS: COASTLINE CONSULTING 138 CANAL STEET #307 POOLER, GA 31322

LANDSCAPE ARCHITECT: MANDEL DESIGN, LLC 7 BAKER DRIVE SAVANNAH, GA 31410

KEY PLAN:

SHEET TITLE: PAVING, **GRADING &** DRAINAGE PLAN

REVISION SCHEDULE DESCRIPTION 2 RUNNING AND CROSS SLOPES

EDA PROJECT NO: 04-79-07284 **PROJECT NO:** 2010 **DATE:** MAY 2021 **DRAWN BY**:

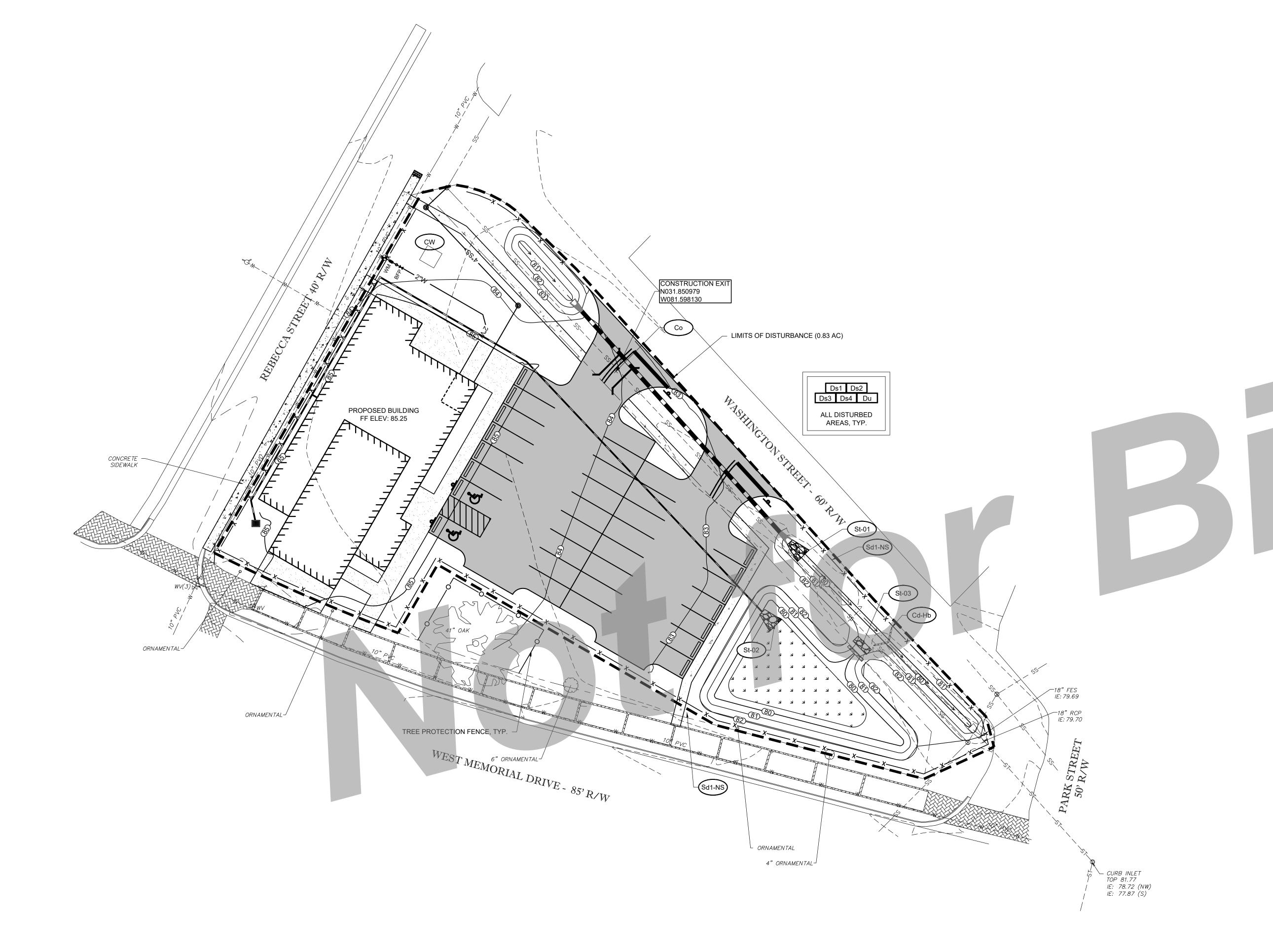
COASTLINE CONSULTING SERVICES, INC.

138 CANAL STREET, UNIT 307

MARINE SERVICES

◆ TRANSPORTATION SERVICES ◆ ENVIRONMENTAL SERVICES

2010 MAY 2021 CCS 1" = 20'



- EROSION CONTROL PROGRAM: CLEARING WILL BE KEPT TO AN ABSOLUTE MINIMUM. VEGETATION AND MULCH WILL BE APPLIED TO APPLICABLE AREAS IMMEDIATELY AFTER EXCAVATION IS COMPLETED. LAND-DISTURBING WILL BE SCHEDULED TO LIMIT EXPOSURE OF BARE SOILS TO EROSION ELEMENTS. STORM WATER MANAGEMENT STRUCTURES WILL BE EMPLOYED TO PREVENT EROSION IN AREAS OF CONCENTRATED WATER FLOWS.
- SEDIMENT CONTROL PROGRAM: SEDIMENT CONTROL WILL BE ACCOMPLISHED BY INSTALLING BEST MANAGEMENT PRACTICES THAT ARE CONSISTENT WITH AND NO LESS STRINGENT THAN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA. PLANS HAVE BEEN PHASED INTO INITIAL SEDIMENT STORAGE AND PERIMETER CONTROL BMP'S, INTERMEDIATE GRADING AND DRAINAGE BMP'S AND FINAL BMP'S. ALL BMP'S HAVE BEEN LABELED ON PLANS USING THE UNIFORM CODING SYMBOLS FROM THE MANUAL. (SEE LEGEND)
- OR TREAT THE SEDIMENT SOURCE.
- THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO LAND DISTURBING ACTIVITIES.

SOIL EROSION AND SEDIMENT CONTROL NOTES

- THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION CONTROL MEASURES AND PRACTICES PRIOR TO LAND DISTURBING ACTIVITIES.
- 2. THE INSTALLATION OF EROSION CONTROL AND SEDIMENT CONTROL MEASURES AND PRACTICES SHALL RUN PRIOR TO LAND-DISTURBING **ACTIVITIES**
- 4. ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.

THE SEDIMENT SOURCE.

- 5. ANY AMENDMENTS/REVISIONS TO THE ES&PC PLAN WHICH HAVE A SIGNIFICANT EFFECT ON BMP'S WITH A HYDRAULIC COMPONENT MUST BE CERTIFIED BY THE DESIGN PROFESSIONAL.
- 6. NON-EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 25 OR 50-FOOT UNDISTURBED STREAM BUFFERS AS MEASURED FROM THE POINT OF WRESTED VEGETATION OR WITHIN 25-FEET OF THE COASTAL MARSHLAND BUFFER AS MEASURED FROM THE JURISDICTIONAL DETERMINATION LINE WITHOUT FIRST ACQUIRING THE NECESSARY
- WASTE MATERIALS SHALL NOT BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.
- 8. THE DESIGN PROFESSIONAL WHO PREPARED THE ES&PC PLAN IS TO INSPECT THE INSTALLATION OF THE INITIAL SEDIMENT STORAGE REQUIREMENTS AND PERIMETER CONTROL BMPS WITHIN 7 DAYS AFTER INSTALLATION.

GSWCC GEORGIA SOIL AND WATER CONSERVATION COMMISSION

COASTLINE CONSULTING SERVICES, INC.

> 138 CANAL STREET, UNIT 307 POOLER, GEORGIA 31322

PH: (912) 330-8550 FX: (912) 330-8568

MARINE SERVICES

◆ TRANSPORTATION SERVICES ◆ ENVIRONMENTAL SERVICES

BRISTAL C HOLLOWAY Level II Certified Design Professional

ISSUED: 04/11/2014 EXPIRES: 04/11/2023

CERTIFICATION NUMBER ____

- STANDARDS AND SPECIFICATIONS: ALL DESIGNS WILL CONFORM TO AND ALL WORK WILL BE PERFORMED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE PUBLICATION ENTITLED, "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, 6TH EDITION".

- MAINTENANCE PROGRAM: SEDIMENT AND EROSION CONTROL MEASURES WILL BE INSPECTED DAILY. ANY DAMAGES OBSERVED WILL BE REPAIRED BY THE END OF THAT DAY. CLEANOUT OF SEDIMENT CONTROL STRUCTURES WILL BE ACCOMPLISHED IN ACCORDANCE WITH THE SPECIFICATIONS AND SEDIMENT DISPOSAL ACCOMPLISHED BY SPREADING ON THE SITE. SEDIMENT BARRIERS WILL REMAIN IN PLACE UNTIL SEDIMENT CONTRIBUTING AREAS ARE STABILIZED. THE SEDIMENT BARRIERS WILL THEN BE REMOVED AND THE AREAS OCCUPIED BY THESE AREAS WILL THEN BE VEGETATED. MAINTENANCE OF ALL SOIL EROSION AND SEDIMENTATION CONTROL PRACTICES, WHETHER TEMPORARY OR PERMANENT, SHALL BE AT ALL TIMES THE RESPONSIBILITY OF THE OWNER.
- EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL

- 3. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT

- VARIANCES AND PERMITS.

EROSION AND SEDIMENTATION CONTROL NOTES

HINESVILLE Development Authority

COGDELL & MENDRALA ARCHITECTS, PC 517 EAST CONGRESS STREET SAVANNAH, GEORGIA 31401 tel 912.234.6318 fax 912.236.8414 cogdellmendrala.com

Cogdell Mendrala Architects

SEAL:



PROJECT CONSULTANTS: M.E.P. ENGINEERS:

METHOD ENGINEERING

SAVANNAH, GA 31401 STRUCTURAL ENGINEERS:

2 E. BRYANT STREET SUITE 1500C

SAUSSY ENGINEERING 400 E. JOHNNY MERCER BOULEVARD SAVANNAH, GA 31410

CIVIL ENGINEERS: COASTLINE CONSULTING 138 CANAL STEET #307 POOLER, GA 31322

LANDSCAPE ARCHITECT: MANDEL DESIGN, LLC 7 BAKER DRIVE SAVANNAH, GA 31410

KEY PLAN:

SHEET TITLE: **EROSION** CONTROL PLAN

REVISION SCHEDULE

DATE DESCRIPTION

EDA PROJECT NO: 04-79-07284 PROJECT NO:

MAY 2021 CCS **DRAWN BY**: 1" = 20' SCALE: **C-6**

6 EROSION CONTROL PLAN

C-6 1" = 20'

SOIL EROSION AND SEDIMENTATION NARRATIVE NOTES

NO CONSTRUCTION ACTIVITIES SHALL BE CONDUCTED WITHIN A 25 FOOT BUFFER AS MEASURED HORIZONTALLY FROM THE POINT WHERE VEGETATION HAS BEEN WRESTED BY NORMAL STREAM FLOW OR WAVE ACTION, ALONG THE BANKS OF ANY STATE WATERS CLASSIFIED AS "WARM WATER", EXCEPT WHEN APPROVAL IS GRANTED BY THE DIRECTOR FOR ALTERNATE BUFFER REQUIREMENTS IN ACCORDANCE WITH THE PROVISIONS OF O.C.G.A. 12-7-6, OR WHERE A DRAINAGE STRUCTURE OR A ROADWAY DRAINAGE STRUCTURE MUST BE CONSTRUCTED: PROVIDED, HOWEVER, THAT ADEQUATE EROSION CONTROL MEASURES ARE INCORPORATED IN THE PROJECT PLANS AND SPECIFICATIONS AND ARE IMPLEMENTED. THE BUFFER SHALL NOT APPLY TO THE FOLLOWING LAND-DISTURBING ACTIVITIES, PROVIDED THAT THEY OCCUR AT AN ANGLE, AS MEASURED FROM THE POINT OF CROSSING, WITHIN 25 DEGREES OF PERPENDICULAR TO THE STREAM; CAUSE A WIDTH OF DISTURBANCE OF NOT MORE THAN 50 FEET WITHIN THE BUFFER; AND ADEQUATE EROSION CONTROL MEASURES ARE INCORPORATED INTO THE PROJECT PLANS AND SPECIFICATIONS AND ARE IMPLEMENTED: (1) STREAM CROSSINGS FOR WATER LINES OR (2) STREAM CROSSINGS FOR SEWER LINES.

NO CONSTRUCTION ACTIVITIES SHALL BE CONDUCTED WITHIN A 50 FOOT BUFFER, AS MEASURED HORIZONTALLY FROM THE POINT WHERE VEGETATION HAS BEEN WRESTED BY NORMAL STREAM FLOW OR WAVE ACTION, ALONG THE BANKS OF ANY STATE WATERS CLASSIFIED AS "TROUT STREAMS", EXCEPT WHEN APPROVAL IS GRANTED BY THE DIRECTOR FOR ALTERNATE BUFFER REQUIREMENTS IN ACCORDANCE WITH THE PROVISIONS OF O.C.G.A. 12-7-6, OR WHERE A DRAINAGE STRUCTURE OR A ROADWAY DRAINAGE STRUCTURE MUST BE CONSTRUCTED; PROVIDED, HOWEVER, THAT SMALL SPRINGS AND STREAMS CLASSIFIED AS 'TROUT STREAMS' WHICH DISCHARGE AN AVERAGE ANNUAL FLOW OF 25 GALLONS PER MINUTE OR LESS SHALL HAVE A 25 FOOT BUFFER OR THEY MAY BE PIPED, AT THE DISCRETION OF THE PERMITTEE, PURSUANT TO THE TERMS OF A RULE PROVIDING FOR A GENERAL VARIANCE PROMULGATED BY THE BOARD OF NATURAL RESOURCES INCLUDING NOTIFICATION OF SUCH TO EPD AND THE LOCAL ISSUING AUTHORITY OF THE LOCATION AND EXTENT OF THE PIPING AND PRESCRIBED METHODOLOGY FOR MINIMIZING THE IMPACT OF SUCH PIPING AND FOR MEASURING THE VOLUME OF WATER DISCHARGED BY THE STREAM. ANY SUCH PIPE MUST STOP SHORT OF THE DOWNSTREAM PERMITTEE'S PROPERTY, AND THE PERMITTEE MUST COMPLY WITH THE BUFFER REQUIREMENT FOR ANY ADJACENT TROUT STREAMS. THE BUFFER SHALL NOT APPLY TO THE FOLLOWING LAND-DISTURBING ACTIVITIES, PROVIDED THAT THEY OCCUR AT AN ANGLE, AS MEASURED FROM THE POINT OF CROSSING, WITHIN 25 DEGREES OF PERPENDICULAR TO THE STREAM; CAUSE A WIDTH OF DISTURBANCE OF NOT MORE THAN 50 FEET WITHIN THE BUFFER; AND ADEQUATE EROSION CONTROL MEASURES ARE INCORPORATED INTO THE PROJECT PLANS AND SPECIFICATIONS AND ARE IMPLEMENTED: (1) STREAM CROSSINGS FOR WATER LINES OR (2) STREAM

- EXCEPT AS PROVIDED ABOVE, NO CONSTRUCTION ACTIVITIES SHALL BE CONDUCTED WITHIN A BUFFER AND A BUFFER SHALL REMAIN IN ITS NATURAL, UNDISTURBED, STATE OF VEGETATION UNTIL ALL LAND DISTURBING ACTIVITIES ON THE CONSTRUCTION SITE ARE COMPLETED. BETWEEN THE TIME FINAL STABILIZATION OF THE SITE IS ACHIEVED AND UPON THE SUBMITTAL OF A NOTICE OF TERMINATION, A BUFFER MAY BE THINNED OR TRIMMED OF VEGETATION AS LONG AS A PROTECTIVE VEGETATIVE COVER REMAINS TO PROTECT WATER QUALITY AND AQUATIC HABITAT AND A NATURAL CANOPY IS LEFT IN SUFFICIENT QUANTITY TO KEEP SHADE ON THE STREAM BED.
- MAINTENANCE OF ALL SOIL EROSION AND SEDIMENTATION CONTROL PRACTICES, WHETHER TEMPORARY OR PERMANENT, SHALL BE THE RESPONSIBILITY OF THE OWNER.

MAINTENANCE PROGRAM: SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSPECTED DAILY. ANY DAMAGES OBSERVED SHALL BE REPAIRED BY THE END OF THAT DAY. CLEAN OUT OF SEDIMENT CONTROL STRUCTURES SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE SPECIFICATIONS AND SEDIMENT DISPOSAL ACCOMPLISHED BY SPREADING ON THE SITE. SEDIMENT BARRIERS SHALL REMAIN IN PLACE UNTIL SEDIMENT CONTRIBUTING AREAS ARE STABILIZED. THE SEDIMENT BARRIERS SHALL THEN BE REMOVED AND THE AREAS OCCUPIED BY THESE AREAS SHALL THEN BE VEGETATED.

- THE DESIGN PROFESSIONAL MUST BE RETAINED BY THE PRIMARY PERMITEE TO CONDUCT A SITE INSPECTION WITHIN SEVEN (7) DAYS AFTER INITIAL CONSTRUCTION BEGINS IN ORDER TO DETERMINE IF THE BMP'S HAVE BEEN INSTALLED AS DESIGNED AND ARE BEING MAINTAINED AS REQUIRED BY THE PLAN AND THE GREEN BOOK. THE DESIGN PROFESSIONAL MUST REPORT THE RESULTS OF THE INSPECTION TO THE PRIMARY PERMITEE WITHIN SEVEN (7) DAYS AND THE PRIMARY MUST CORRECT ALL DEFICIENCIES IDENTIFIED IN THE REPORT WITHIN TWO 92) BUSINESS DAYS AFTER RECEIVING THE REPORT (UNLESS ADDITIONAL TIME IS NEEDED DUE TO ADVERSE WEATHER). THE PRIMARY PERMITEE MAY USE AN ALTERNATE DESIGN PROFESSIONAL TO CONDUCT THE BMP INSPECTION, PROVIDED THAT THEY MAKE WRITTEN REQUEST TO EPD TO CHANGE FROM THE DESIGN PROFESSIONAL WHO DEVELOPED
- ANY AMENDMENTS/REVISIONS TO THE ES&PC PLAN WHICH HAVE A SIGNIFICANT EFFECT ON BMP'S WITH A HYDRAULIC COMPONENT MUST BE CERTIFIED BY THE DESIGN PROFESSIONAL AND SHOULD BE SUBMITTED TO THE REVIEWING AGENCY
- NO WASTE SHALL BE DISPOSED OF INTO STORM WATER INLETS OR WATERS OF THE STATE.
- EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
- ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GRATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.

WASTE MATERIALS- ALL WASTE MATERIALS SHALL BE COLLECTED AND STORED IN A SECURELY LIDDED METAL DUMPSTER. THE DUMPSTER SHALL MEET ALL SOLID WASTE MANAGEMENT REGULATIONS. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE SHALL BE DEPOSITED IN THE DUMPSTER. THE DUMPSTER SHALL BE EMPTIED A MINIMUM OF ONCE PER WEEK OR MORE OFTEN IF NECESSARY AND TRASH SHALL BE HAULED AS REQUIRED BY LOCAL REGULATIONS. NO CONSTRUCTION WASTE SHALL BE BURIED ONSITE.

ALL PERSONNEL SHALL BE INSTRUCTED ON PROPER PROCEDURES FOR WASTE DISPOSAL. A NOTICE STATING THESE PRACTICES SHALL BE POSTED AT THE JOBSITE AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED.

HAZARDOUS WASTES- ALL HAZARDOUS WASTE MATERIALS SHALL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL, STATE, AND/OR FEDERAL REGULATIONS AND BY THE MANUFACTURER OF SUCH PRODUCTS. THE JOB SITE SUPERINTENDENT, WHO WILL ALSO BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED, SHALL INSTRUCT SITE PERSONNEL IN THESE PRACTICES. MATERIAL SAFETY DATA SHEET (MSDS) FOR EACH SUBSTANCE WITH HAZARDOUS PROPERTIES THAT IS USED ON THE JOB SITE SHALL BE OBTAINED AND USED FOR THE PROPER MANAGEMENT OF POTENTIAL WASTES THAT MAY RESULT FROM THESE PRODUCTS. ALL MATERIAL SAFETY DATA SHEETS SHALL BE POSTED IN THE IMMEDIATE AREA WHERE SUCH PRODUCT IS STORED AND/OR USED AND ANOTHER COPY OF EACH MATERIAL SAFETY DATA SHEETS SHALL BE MAINTAINED IN THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN FILE AT THE JOB SITE CONSTRUCTION TRAILER OFFICE. EACH EMPLOYEE WHO MUST HANDLE A SUBSTANCE WITH HAZARDOUS PROPERTIES SHALL BE INSTRUCTED ON THE USE OF THE MATERIAL SAFETY DATA SHEETS SHEETS AND THE SPECIFIC INFORMATION IN THE APPLICABLE MATERIAL SAFETY DATA SHEETS FOR THE PRODUCT HE/SHE IS USING, PARTICULARLY REGARDING SPILL CONTROL TECHNIQUES.

SANITARY WASTES- A MINIMUM OF ONE PORTABLE SANITARY UNIT SHALL BE PROVIDED FOR EVERY TEN (10) WORKERS ON THE SITE. ALL SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF ONE TIME PER WEEK BY A LICENSED PORTABLE FACILITY PROVIDER IN COMPLETE COMPLIANCE WITH LOCAL AND STATE REGULATIONS.

ALL SANITARY WASTE UNITS SHALL BE LOCATED IN AN AREA WHERE THE LIKELIHOOD OF THE UNIT CONTRIBUTING TO STORM WATER DISCHARGE IS NEGLIGIBLE. ADDITIONAL CONTAINMENT BMP'S MUST BE IMPLEMENTED, SUCH AS GRAVEL BAGS OR SPECIALLY DESIGNED PLASTIC SKID CONTAINERS AROUND THE BASE, TO PREVENT WASTES FROM CONTRIBUTING TO STORM WATER DISCHARGES. THE LOCATION OF SANITARY WASTE UNITS MUST BE IDENTIFIED ON THE EROSION CONTROL PLAN GRADING PHASE, ONCE THE LOCATIONS HAVE BEEN DETERMINED.

- PETROLEUM BASED PRODUCTS- CONTAINERS FOR PRODUCTS SUCH AS FUELS, LUBRICANTS, AND TARS SHALL BE INSPECTED DAILY FOR LEAKS AND SPILLS. THIS INCLUDES ON-SITE VEHICLE AND MACHINERY DAILY INSPECTIONS AND REGULAR PREVENTATIVE MAINTENANCE OF SUCH EQUIPMENT. EQUIPMENT MAINTENANCE AREAS SHALL BE LOCATED AWAY FROM ALL STATE WATERS, NATURAL DRAINS, AND STORM WATER DRAINAGE INLETS. IN ADDITION, TEMPORARY FUELING TANKS SHALL HAVE A SECONDARY CONTAINMENT LINER TO PREVENT/ MINIMIZE SITE CONTAMINATION. DISCHARGE OF OILS, FUELS, AND LUBRICANTS IS PROHIBITED. PROPER DISPOSAL METHODS SHALL INCLUDE COLLECTION IN A SUITABLE CONTAINER AND DISPOSAL AS REQUIRED BY LOCAL AND STATE REGULATIONS.
- PAINTS/ FINISHES/ SOLVENTS- ALL PRODUCTS SHALL BE STORED IN TIGHTLY SEALED ORIGINAL CONTAINERS WHEN NOT IN USE. EXCESS PRODUCT SHALL NOT BE DISCHARGED INTO THE STORM WATER COLLECTION SYSTEM. EXCESS PRODUCT MATERIALS USED WITH THESE PRODUCTS AND PRODUCT CONTAINERS SHALL BE DISPOSED OF ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
- FERTILIZER/ HERBICIDES- THESE PRODUCTS SHALL BE APPLIED AT RATES THAT DO NOT EXCEED THE MANUFACTURER'S SPECIFICATIONS OR ABOVE THE GUIDELINES SET FORTH IN THE CROP ESTABLISHMENT OR IN THE GSWCC MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA. ANY STORAGE OF THESE MATERIALS SHALL BE UNDER ROOF IN SEALED CONTAINERS.
- BUILDING MATERIALS- NO BUILDING OR CONSTRUCTION MATERIALS SHALL BE BURIED OR DISPOSED OF ONSITE. ALL SUCH MATERIAL SHALL BE DISPOSED

CONCRETE TRUCK WASHING- NO CONCRETE TRUCKS SHALL BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER

SOIL CLEANUP AND CONTROL PRACTICES- LOCAL, STATE, AND MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP SHALL BE CLEARLY POSTED AND PROCEDURES WILL BE MADE AVAILABLE TO SITE PERSONNEL. MATERIAL AND EQUIPMENT NECESSARY FOR SPILL CLEANUP SHALL BE KEPT IN THE MATERIAL STORAGE AREAS. TYPICAL MATERIALS AND EQUIPMENT INCLUDES, BUT IS NOT LIMITED TO, BROOMS, DUSTPANS, MOPS, RAGS, GLOVES, GOGGLES, CAT LITTER, SAND, SAWDUST, AND PROPERLY LABELED PLASTIC AND METAL WASTE CONTAINERS. SPILL PREVENTION PRACTICES AND PROCEDURES SHALL BE REVIEWED AFTER A SPILL AND ADJUSTED AS NECESSARY TO PREVENT FUTURE SPILLS. ALL SPILLS SHALL BE CLEANED UP IMMEDIATELY UPON DISCOVERY. ALL SPILLS SHALL BE REPORTED AS REQUIRED BY LOCAL, STATE, AND FEDERAL REGULATIONS. FOR SPILLS THAT IMPACT SURFACE WATER (LEAVE A SHEEN ON SURFACE WATER), THE NATIONAL RESPONSE CENTER (NRC) SHALL BE CONTACTED WITHIN 24 HOURS AT 1-800-426-2675. FOR SPILLS OF AN UNKNOWN AMOUNT, THE NATIONAL RESPONSE CENTER (NRC) SHALL BE CONTACTED WITHIN 24 HOURS AT 1-800-426-2675. FOR SPILLS GREATER THAN 25 GALLONS AND NO SURFACE WATER IMPACTS, THE GEORGIA EPD SHALL BE CONTACTED WITHIN 24 HOURS. FOR SPILLS LESS THAN 25 GALLONS AND NO SURFACE WATER IMPACTS, THE SPILL SHALL BE CLEANED UP AND LOCAL AGENCIES SHALL BE CONTACTED AS REQUIRED.

THE CONTRACTOR SHALL NOTIFY THE LICENSED PROFESSIONAL WHO PREPARED THIS PLAN IF MORE THAN 1,320 GALLONS OF PETROLEUM IS STORED ONSITE (THIS INCLUDES CAPACITIES OF EQUIPMENT) OR IF ANY ONE PIECE OF EQUIPMENT HAS A CAPACITY GREATER THAN 560 GALLONS. THE CONTRACTOR WILL NEED A SPILL PREVENTION CONTAINMENT AND COUNTERMEASURES PLAN PREPARED BY THAT LICENSED PROFESSIONAL.

A COPY OF THE ENTIRE ES&PCP MUST BE RETAINED ON-SITE OR AT A REASONABLE ALTERNATIVE LOCATION SUCH AS A LOCAL OFFICE. EVERY PERMITEE ASSOCIATED WITH THE PROJECT MUST BE PROVIDED A COPY OF THE ES&PCP, AND IT IS IMPORTANT THAT THE PRIMARY PERMITEE OBTAIN WRITTEN ACKNOWLEDGMENT THAT A COPY OF THE ES&PCP HAS BEEN OBTAINED BY A PERMITTEE(S).

SPILL CLEANUP AND CONTROL PRACTICES

- LOCAL, STATE AND MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND PROCEDURES WILL BE MADE AVAILABLE TO SITE PERSONNEL.
- MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIALS STORAGE AREAS. TYPICAL MATERIALS AND EQUIPMENT INCLUDES, BUT IS NOT LIMITED TO: BROOMS, MOPS, RAGS, GLOVES, GOGGLES, CLAY CAT LITTER, SAND, SAWDUST AND PROPERLY LABELED PLASTIC AND METAL WASTE CONTAINERS.
- SPILL PREVENTION PRACTICES AND PROCEDURES WILL BE REVIEWED AFTER A SPILL AND ADJUSTED AS NECESSARY TO PREVENT FUTURE SPILLS.
- 4. ALL SPILLS WILL BE CLEANED UP IMMEDIATELY UPON DISCOVERY. CONTRACTOR IS RESPONSIBLE TO COORDINATE ALL EMERGENCY RESPONSE ACTIONS AT THE SITE, TO INCLUDE REMOVAL AND DISPOSAL OF CONTAMINATED MATERIALS. FOR EMERGENCY ASSISTANCE FROM THE FIRE DEPARTMENT CONTACT 911. ALL SPILLS WILL BE REPORTED AS REQUIRED BY LOCAL, STATE AND FEDERAL REGULATIONS.
- FOR SPILLS THAT IMPACT SURFACE WATER (LEAVE A SHEEN ON SURFACE WATER). THE NATIONAL RESPONSE CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT 1-800-426-2675,
- 6. FOR SPILLS OF AN UNKNOWN AMOUNT, THE NATIONAL RESPONSE CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT 1-800-426-2675.
- 7. FOR SPILLS GREATER THAN 25 GALLONS AND NO SURFACE WATER IMPACTS, THE GAEPD WILL BE CONTACTED WITHIN 24 HOURS.
- 8. FOR SPILLS LESS THAN 25 GALLONS AND NO SURFACE WATER IMPACTS, THE SPILL WILL BE CLEANED UP AND LOCAL AGENCIES WILL BE CONTACTED AS REQUIRED.
- 9. IF ABOVE GROUND STORAGE OF PETROLEUM PRODUCTS EXCEEDS 1,320 GALLONS, COUNTING CONTAINER 55 GALLONS OR LARGER; AN SPCC PLAN AT THE STATE LEVEL WILL BE REQUIRED. THIS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR WHO IS ACTUALLY CONDUCTING THE CONSTRUCTION PHASE. CONTRACTOR IS RESPONSIBLE TO HAVE THE SITE SPECIFIC SPCC PREPARED AND SIGNED BY A PROFESSIONAL ENGINEER IN ACCORDANCE TO 40 CFR 112. OTHERWISE, LOCAL SPCC REQUIREMENTS WILL BE REQUIRED AS DESCRIBED ABOVE.
- 10. TO ENSURE BEST MANAGEMENT PRACTICES FOR THE REMEDIATION OF ALL PETROLEUM SPILLS AND LEAKS ARE SUITABLE. THE OPERATOR (OPERATOR/CONTRACTOR) SHALL MEET THE REQUIREMENTS SET FORTH IN THE GEORGIA HANDBOOK FOR EROSION CONTROL, SEDIMENT CONTROL AND STORMWATER MANAGEMENT ON CONSTRUCTION SITES AND URBAN AREAS.
- 11. SPILL PREVENTION, CONTROL AND COUNTERMEASURE (SPCC) REQUIREMENTS: DURING THE IMPLEMENTATION (CONSTRUCTION/OPERATION) PHASE(S) OF THIS PROJECT, THE CONTRACTOR AND/OR PROPONENT MUST HAVE A SPCC PLAN, AND DEPARTMENT OF TRANSPORTATION (DOT) REGULATIONS ASSOCIATED WITH TRANSPORTATION OF ANY HAZARDOUS MATERIALS INCLUDING SECONDARY CONTAINMENT AS REQUIRED. A HAZARDOUS MATERIAL INVENTORY AND MSDS SHOULD BE KEPT ON RECORD AT ALL TIMES. THE INVENTORY MUST INCLUDE ALL PETROLEUM PRODUCTS, CHEMICAL, HERBICIDES, PESTICIDES, FERTILIZERS, DETERGENTS, PAINTS AND ANY OTHER HAZARDOUS SUBSTANCES USED AND/OR STORED BY THE CONTRACTOR/PROPONENT ON SITE. DRIP PANS SHOULD BE AVAILABLE FOR VEHICLES AND EQUIPMENT TO PREVENT OIL AND OTHER PETROLEUM PRODUCTS FROM SPILLING ONTO THE SOIL OR WATER. SECONDARY CONTAINMENT IS REQUIRED FOR ANY REFUELING/TRANSFERRING ACTIVITIES.
- 12. THE LOCATION OF HAZARDOUS MATERIALS INCLUDING STORAGE AREAS, TANKS AND FUELING OPERATIONS SHOULD BE SHOWN. STORAGE AREAS FOR HAZARDOUS MATERIALS/CHEMICALS/WASTE SHOULD BE DESIGNED TO ALLOW FOR SECURE PRODUCT STORAGE, TO PROVIDE SECONDARY CONTAINMENT, AND COVERED. SEE ATTACHED GENERAL PREVENTION MEASUREMENTS CHECKLIST TO MEET SPCC REQUIREMENTS AND INSPECTION REQUIREMENTS. CONTRACTOR TO IMPLEMENT CHECKLIST OR SIMILAR PLAN TO MEET THE SPCC REQUIREMENTS.
- 13. POLLUTANT SOURCES (EXISTING AND PROPOSED) A. VEHICLE AND/OR EQUIPMENT LEAKS, AS WELL AS FROM ANY UNEXPECTED ACCIDENTS.
- B. STORAGE, HANDLING AND/OR TRANSPORTATION OF HAZARDOUS MATERIALS/ CHEMICALS.
- LOADING/UNLOADING AND/OR REFUELING/TRANSFERRING OPERATIONS OF HEAVY EQUIPMENT AND ANY OTHER FUEL OPERATED EQUIPMENT (GENERATORS, PUMPS, CHAINSAWS, ETC.) TO INCLUDE THE USE OF FUEL TANKS AND ANY OTHER TYPE OF DISPENSERS (AS APPLICABLE).
- D. ASPHALT, CONCRETE AND ROCK CRUSHER OPERATIONS.

SANITARY WASTES

- 1. A MINIMUM OF ONE PORTABLE SANITARY UNIT WILL BE PROVIDED FOR EVERY TEN (10) WORKERS ON THE SITE. ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF ONE TIME A WEEK BY A LICENSED PORTABLE FACILITY PROVIDER IN COMPLETE COMPLIANCE WITH LOCAL AND STATE REGULATIONS.
- ALL SANITARY WASTE UNITS WILL BE LOCATED IN AN AREA WHERE THE LIKELIHOOD OF THE UNIT CONTRIBUTING TO STORM WATER DISCHARGE IN NEGLIGIBLE. ADDITIONAL CONTAINMENT BMP'S MUST BE IMPLEMENTED. SUCH AS GRAVEL BAGS OR SPECIALLY DESIGNED PLASTIC SKID CONTAINERS AROUND THE BASE. TO PREVENT WASTES FROM CONTRIBUTING TO STORM WATER DISCHARGES. THE LOCATION OF SANITARY WASTE UNITS MUST BE IDENTIFIED ON THE EROSION AND SEDIMENT CONTROL PLAN SHEET BY THE CONTRACTOR ONCE THE LOCATIONS HAVE BEEN DETERMINED.
- 3. LATRINE PUMPING (AS APPROPRIATE IF USED): IF DURING CONSTRUCTION, CONTRACTOR IS TO DISPOSE OF WASTE WITHIN THE HINESVILLE LIMITS, THE CONTRACTOR IS REQUIRED TO OBTAIN A PERMIT ISSUED BY HINESVILLE PUBLIC WORKS PRIOR TO ANY DISCHARGE INTO THEIR SYSTEM. CONTRACTOR MUST COORDINATE WITH HINESVILLE PUBLIC WORKS FOR SANITARY SEWER AND SEWAGE DISPOSAL ORDINANCE REQUIREMENTS, PARTICULARLY TO MEET THE ORDINANCE FOR PRIVATE SEWAGE DISPOSAL.
- 4. PRIMARY PERMITTEE (OPERATOR/CONTRACTOR) SHALL ENSURE AND DEMONSTRATE THAT THEIR ESPCP IS IN COMPLIANCE WITH APPLICABLE STATE AND LOCAL WASTE DISPOSAL, SANITARY SEWER OR SEPTIC SYSTEM REGULATIONS. THE OPERATOR WILL FOLLOW HINESVILLE SPECIFICATIONS AND REQUIREMENTS.
- SANITARY SEWER WILL TIE INTO THE EXISTING HINESVILLE SANITARY SEWER SYSTEM AT THE COMPLETION OF THIS PROJECT.
- 6. ENSURE THAT ALL WASTEWATER FROM CONSTRUCTION ACTIVITIES AND/OR CLEANING OPERATIONS ARE DISCHARGED INTO THE SANITARY SEWER SYSTEM, NOT THE STORM WATER SYSTEM. DO NOT DISCHARGE ANY WASTEWATER INTO THE STORM DRAINS. COLLECT WASTE WATERS FOR PROPER DISPOSAL, AND/OR COORDINATE WITH APPROPRIATE SEWER FACILITIES TO ENSURE CLEANING OPERATIONS WOULD NOT AFFECT PLANT OPERATIONS IF WASTE WATERS WERE DISCHARGED INTO SEWER LINES.
- NO WASTE WILL BE DISPOSED OF INTO STORM WATER INLETS OR WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.

WASTE MATERIALS

- 1. ALL WASTE MATERIALS WILL BE COLLECTED AND STORED IN A SECURELY LIDDED METAL DUMPSTER. THE DUMPSTER WILL MEET ALL SOLID WASTE MANAGEMENT REGULATIONS. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE WILL BE DEPOSITED IN THE DUMPSTER. THE DUMPSTER WILL BE EMPTIED A MINIMUM OF ONCE PER WEEK OR MORE OFTEN IF NECESSARY AND TRASH WILL BE HAULED AS REQUIRED BY LOCAL REGULATIONS. NO CONSTRUCTION WASTE WILL BE BURIED ONSITE.
- 2. ALL PERSONNEL WILL BE INSTRUCTED ON PROPER PROCEDURES FOR WASTE DISPOSAL. A NOTICE STATING THESE PRACTICES WILL BE POSTED AT THE JOB SITE AND THE CONTRACTOR WILL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED.

HAZARDOUS WASTES:

- 1. ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL, STATE, AND/OR FEDERAL REGULATIONS AND BY THE MANUFACTURER OF SUCH PRODUCTS. THE JOB SITE SUPERINTENDENT, WHO WILL ALSO BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED, WILL INSTRUCT SITE PERSONNEL IN THESE PRACTICES MATERIAL SAFETY DATA SHEETS (MSDS'S) FOR EACH SUBSTANCE WITH HAZARDOUS PROPERTIES THAT IS USED ON THE JOB SITE WILL BE OBTAINED AND USED FOR THE PROPER MANAGEMENT OF POTENTIAL WASTES THAT MAY RESULT FROM THESE PRODUCTS. AN MSDS WILL BE POSTED IN THE IMMEDIATE AREA WHERE SUCH PRODUCT IS STORED AND/OR USED AND ANOTHER COPY OF EACH MSDS WILL BE MAINTAINED IN THE ESPCP FILE AT THE JOB SITE CONSTRUCTION TRAILER OFFICE. EACH EMPLOYEE WHO MUST HANDLE A SUBSTANCE WITH HAZARDOUS PROPERTIES WILL BE INSTRUCTED ON THE USE OF THE MSDS SHEETS AND THE SPECIFIC INFORMATION IN THE APPLICABLE MSDS FOR THE PRODUCT HE/SHE IS USING. PARTICULARLY REGARDING SPILL CONTROL TECHNIQUES.
- 2. THE CONTRACTOR WILL IMPLEMENT THE SPILL PREVENTION CONTROL AND COUNTERMEASURES (SPCC) PLAN FOUND WITHIN THE ESPCP AND WILL TRAIN ALL PERSONNEL IN THE PROPER CLEANUP AND HANDLING OF SPILLED MATERIALS. NO SPILLED HAZARDOUS MATERIALS OR HAZARDOUS WASTES WILL BE ALLOWED TO COME IN CONTACT WITH STORMWATER DISCHARGES. IF SUCH CONTACT OCCURS, THE STORMWATER DISCHARGE WILL BE CONTAINED ON SITE UNTIL APPROPRIATE MEASURES IN COMPLIANCE WITH STATE AND FEDERAL REGULATIONS ARE TAKEN TO DISPOSE OF SUCH CONTAMINATED STORMWATER. IF SHALL BE THE RESPONSIBILITY OF THE JOB SITE SUPERINTENDENT TO PROPERLY TRAIN ALL PERSONNEL IN THE USE OF THE SPCC PLAN.

NARRATIVE AND NOTES - EROSION AND SEDIMENTATION CONTROL

LOCATION:

THE PROPOSED PROJECT IS LOCATED IN THE CITY OF HINESVILLE GA THE CONSTRUCTION EXIT IS LOCATED AT: [CHECKLIST #7] LATITUDE: 31.850979° N

LONGITUDE: -81.598130° W

EXISTING LAND USE: THE PROPERTY IS CURRENTLY AN UNDEVELOPED LOT, CONSISTING OF ONE BUILDING AND VARIOUS VEGETATION. THE CURRENT ZONING OF THE PROPERTY IS R-A-1.

PROPOSED PROJECT DESCRIPTION: [CHECKLIST #9] THE PROPERTY WILL BE A BUSINESS INCUBATOR.

STATE WATERS AND OTHER CRITICAL AREAS: THERE ARE NO STATE WATERS PRESENTLY ON SITE, THERE ARE NO WETLANDS PRESENTLY

ACREAGE: [CHECKLIST #6]

ON SITE.

THE TOTAL PROJECT PROPERTY INCLUDES 0.72 ACRES. APPROXIMATELY 0.83 ACRES WILL BE DISTURBED BY CONSTRUCTION ACTIVITIES.

RECEIVING WATERS AND WETLAND AREA(S) IF APPLICABLE: [CHECKLIST #11] THE RECEIVING WATER FEATURE IS A DRAINAGE SYSTEM THAT WILL OUTFALL INTO AN UNNAMED TRIBUTARY OF MELVIN SWAMP.

[CHECKLIST #26 & 27] ALL DISTURBED AREAS WITHIN THE CONSTRUCTION SITE WILL HAVE EITHER RIP RAP OR PERMANENT VEGETATION INSTALLED.



[CHECKLIST #2] LEVEL II CERTIFICATION GSWCC GEORGIA SOIL AND WATER CONSERVATION COMMISSION

BRISTAL C HOLLOWAY Level II Certified Design Professional CERTIFICATION NUMBER





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24 HOUR CONTACT CHACE HOLLOWAY (912) 665-0079

CIVIL SITE SERVICES

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COASTLINE CONSULTING SERVICES, INC.

SCALE: SHEET:

PROJECT NO:

DRAWN BY:

evelopment Authority

Cogdell Mendrala Architects

COGDELL & MENDRALA ARCHITECTS, PC

517 EAST CONGRESS STREET

SAVANNAH, GEORGIA 31401

tel 912.234.6318

fax 912.236.8414

cogdellmendrala.com

PROJECT CONSULTANTS:

SAVANNAH, GA 31401

STRUCTURAL ENGINEERS:

SAVANNAH, GA 31410

138 CANAL STEET #307

POOLER, GA 31322

LANDSCAPE ARCHITECT:

SAVANNAH, GA 31410

7 BAKER DRIVE

KEY PLAN:

SHEET TITLE:

EROSION

REVISION SCHEDULE

DESCRIPTION

CIVIL ENGINEERS:

METHOD ENGINEERING

2 E. BRYANT STREET SUITE 1500C

SAUSSY ENGINEERING

400 E. JOHNNY MERCER BOULEVARD

COASTLINE CONSULTING

MANDEL DESIGN, LLC

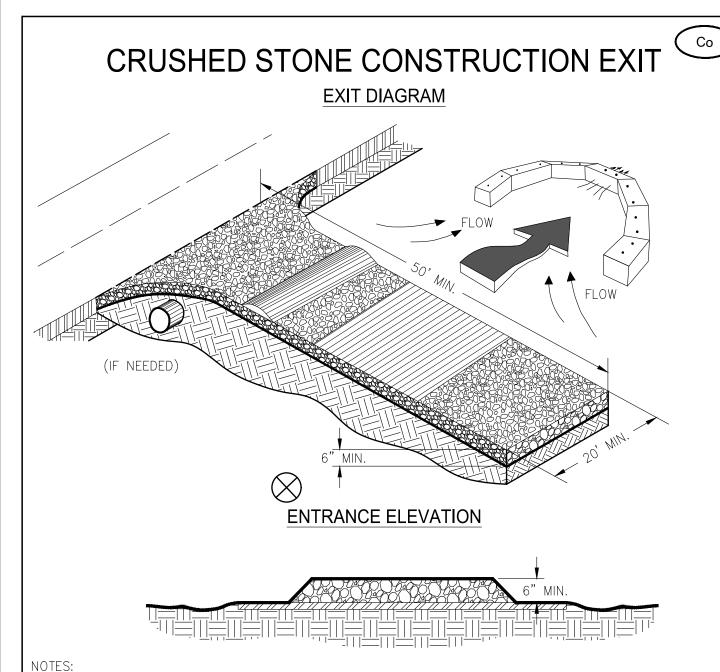
M.E.P. ENGINEERS:

C-7

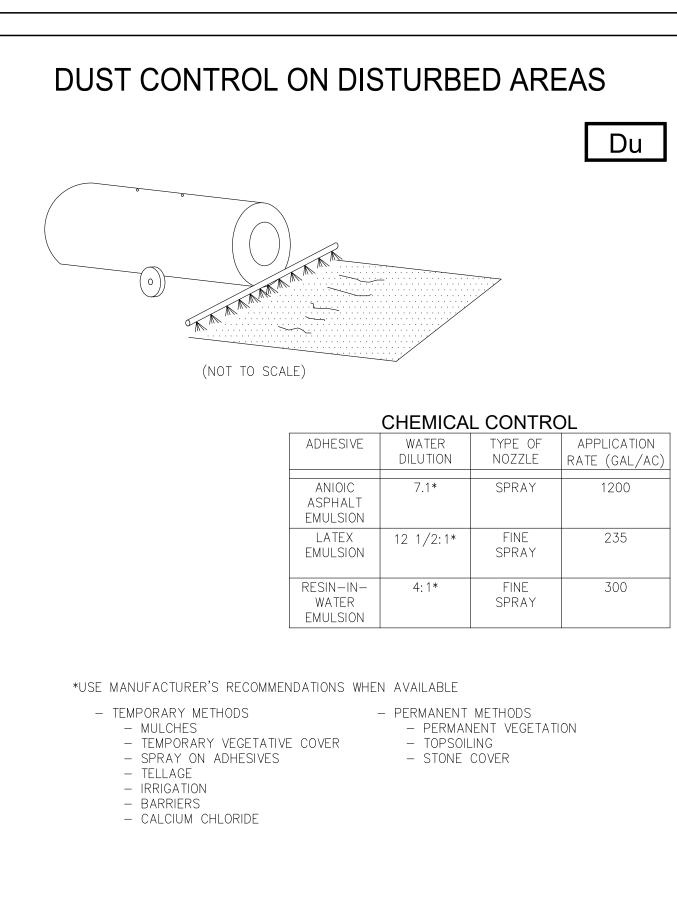
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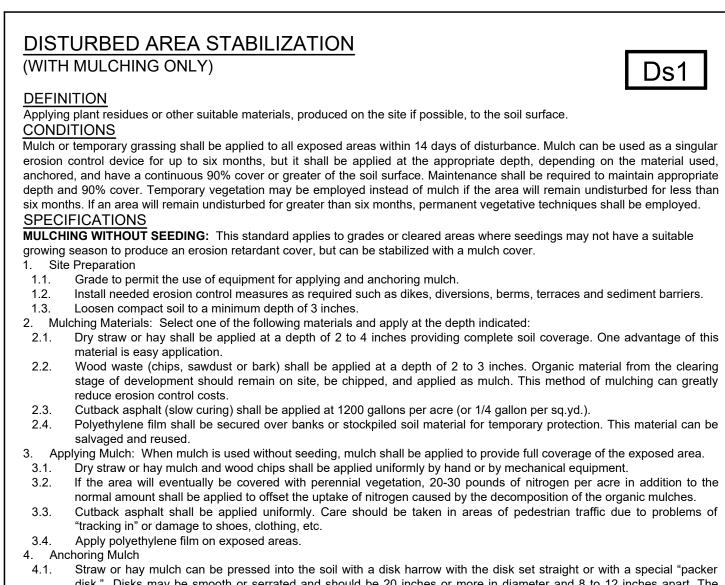
EDA PROJECT NO: 04-79-07284

EROSION CONTROL NOTES



. AVOID LOCATING ON STEEP SLOPES OR AT CURVES ON PUBLIC ROADS. - TEMPORARY METHODS . REMOVE ALL VEGETATION AND OTHER UNSUITABLE MATERIAL FROM THE FOUNDATION AREA, GRADE, AND CROWN FOR POSITIVE DRAINAGE. MULCHES 3. AGGREGATE SIZE SHALL BE IN ACCORDANCE WITH NATIONAL STONE ASSOCIATION R-2 (1.5"-3.5" STONE). 4. GRAVEL PAD SHALL HAVE A MINIMUM THICKNESS OF 6". TELLAGE 5. PAD WIDTH SHALL BE EQUAL FULL WIDTH AT ALL POINTS OF VEHICULAR EGRESS, BUT NO LESS THAN 20' IRRIGATION 6. A DIVERSION RIDGE SHOULD BE CONSTRUCTED WHEN GRADE TOWARD PAVED AREA IS GREATER THAN 2%.. - BARRIERS . INSTALL PIPE UNDER THE ENTRANCE IF NEEDED TO MAINTAIN DRAINAGE DITCHES. 8. WHEN WASHING IS REQUIRED, IT SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN (DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE ENTRANCE TO A SEDIMENT CONTROL DEVICE).). WASHRACKS AND/OR TIRE WASHERS MAY BE REQUIRED DEPENDING ON SCALE AND CIRCUMSTANCE. IF NECESSARY, WASHRACK DESIGN MAY CONSIST OF ANY MATERIAL <u>SUITABLE</u> FOR TRUCK TRAFFIC THAT 10.MAINTAIN AREA IN A WAY THAT PREVENTS TRACKING AND/OR FLOW OF MUD ONTO PUBLIC





according to manufacturer's specifications.

average size of the wood waste chips.

MULCHING APPLICATION REQUIREMENTS

STRAW OR HAY

SAWDUST, BARK

WOOD WASTE, CHIPS,

POLYETHYLENE FILM

GEOTEXTILES, JUTE.

MATTING, NETTING

Ds1 (WITH TEMPORARY SEEDING) WHEN USING CONVENTIONAL OR HAND SEEDING, SEEDBED PREPARATION IS NOT REQUIRED IF THE SOIL MATERIAL IS LOOSE AND NOT SEALED BY RAINFALL. WHEN SOIL HAS BEEN SEALED BY RAINFALL OR CONSISTS disk." Disks may be smooth or serrated and should be 20 inches or more in diameter and 8 to 12 inches apart. The edges of the disk should be dull enough not to cut the mulch but to press it into the soil leaving much of it in an erect position. Straw or hay mulch shall be anchored immediately after application. Straw or hay mulch spread with special blower-type equipment may be anchored with emulsified asphalt (Grade AE-5 or SS-1). The asphalt emulsion shall be sprayed onto the mulch as it is ejected from the machine. Use 100 gallons of emulsified asphalt and 100 gallons of

DISTURBED AREA STABILIZATION

Ds2

DEFINITION
THE ESTABLISHMENT OF TEMPORARY VEGETATIVE COVER WITH FAST GROWING SEEDLINGS FOR SEASONAL

GRASSING, INSTEAD OF MULCH, CAN BE APPLIED TO ROUGH GRADED AREAS THAT WILL BE EXPOSED FOR LESS THAN SIX (6) MONTHS. TEMPORARY VEGETATIVE MEASURES SHOULD BE COORDINATED WITH PERMANENT MEASURES TO ASSURE ECONOMICAL AND EFFECTIVE STABILIZATION. MOST TYPES OF TEMPORARY VEGETATION ARE IDEAL TO USE A COMPANION COPS UNTIL THE PERMANENT VEGETATION IS

GRADING AND SHAPING: EXCESSIVE WATER RUN-OFF SHALL BE REDUCED BY PROPERLY DESIGNED AND INSTALLED EROSION CONTROL PRACTICES SUCH AS CLOSED DRAINS, DITCHES, DIKES, DIVERSIONS, SEDIMENT BARRIERS AND OTHERS. NO SHAPING OR GRADING IS REQUIRED IF SLOPES CAN BE STABILIZED BY HAND-SEEDED VEGETATION OR IF HYDRAULIC SEEDING EQUIPMENT IS TO BE USED. SEEDBED PREPARATION: WHEN A HYDRAULIC SEEDER IS USED, SEEDBED PREPARATION IS NOT REQUIRED.

OF SMOOTH CUT SLOPES, THE SOIL SHALL BE PITTED, TRENCHED OR OTHERWISE SCARIFIED TO PROVIDE A PLACE FOR SEED TO LODGE AND GERMINATE. LIME AND FERTILIZER: AGRICULTURAL LIME IS NOT REQUIRED UNLESS SOIL TESTS INDICATE OTHERWISE. APPLY AGRICULTURAL LIME AT A RATE OF ONE TON PER ACRE. GRADED AREAS REQUIRE LIME APPLICATION. SOILS CAN BE TESTED TO DETERMINE IF FERTILIZER IS NEEDED. ON REASONABLY FERTILE SOILS OR SOIL MATERIAL, FERTILIZER IS NOT REQUIRED. FOR SOILS WITH VERY LOW FERTILITY, 500 TO 700 POUNDS OF 10-10-10 FERTILIZER OR THE EQUIVALENT PER ACRE (12-16 LBS./1,000 SQ. FT.) SHALL BE APPLIED. FERTILIZER SHOULD BE APPLIED BEFORE LAND PREPARATION AND INCORPORATED WITH A DISK, RIPPER OR CHISEL. SEEDING: SELECT A GRASS OR GRASS-LEGUME MIXTURE SUITABLE TO THE AREA AND SEASON OF THE YEAR. SEED SHALL BE APPLIED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL, CULTIPACKER SEEDER, OR HYDRAULIC SEEDER (SLURRY INCLUDING SEED AND FERTILIZER). DRILL OR CULTIPACKER SEEDERS SHOULD NORMALLY PLACE SEED ONE-QUARTER TO ONE-HALF INCH DEEP. APPROPRIATE DEPTH OF PLANTING IS TEN TIMES THE SEED DIAMETER. SOIL SHOULD BE "RAKED" LIGHTLY TO COVER SEED WITH SOIL IF SEEDED BY HAND. MULCHING: TEMPORARY VEGETATION CAN, IN MOST CASES, BE ESTABLISHED WITHOUT THE USE OF MULCH. MULCH WITHOUT SEEDING SHOULD BE CONSIDERED FOR SHORT TERM PROTECTION. REFER TO DS1 -DISTURBED AREA STABILIZATION (WITH MULCHING ONLY).

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

LESPEDEZA. ANNUAL 03/01-03/31 0.9 LBS 03/01-03/31 02/01-02/28 LOVEGRASS, WEEPING 0.1 LBS 4-6 LBS 03/15-08/01 03/01-08/15 02/15-08/15 MILLET, BROWNTOP 0.9 LBS 40 LBS 4/15-06/15 04/15-06/30 04/15-06/30 05/15-07/15 05/01-07/31 MILLET, PEARL 1.1 LBS 50 LBS 04/15-08/15 2.99 LBS 4 BU 09/15-11/15 09/15-11/15 08/15-10/31 3.9 LBS 3 BU 09/15-11/30 10/01-12/31 **RYEGRASS** 0.9 LBS 40 LBS 08/15-11/15 09/01-12/15 09/15-12/31

60 LBS

1.4 LBS

3.3 LBS 3 BU

4.1 LBS 3 BU

SUDANGRASS

TRITICALE

WITH SOIL TESTS OR TABLE 6-6.3.

*ALL SEEDING NUMBERS ARE ALONE. FOR MIXTURE NUMBERS SEE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA (LATEST EDITION), TABLE 6-4.1-TEMPORARY COVER OR COMPANION COVER CROPS. **UNUSUAL SITE CONDITIONS MAY REQUIRE HEAVIER SEEDING RATES.

***SEEDING DATES MAY NEED TO BE ALTERED TO FIT TEMPERATURE VARIATIONS AND LOCAL CONDITIONS.

05/01-07/31

09/15-11/30 10/01-12/15

N/A

05/01-07/31

04/01-07/31

10/15-11/30

10/15-12/31

DISTURBED AREA STABILIZATION (WITH PERMANENT SEEDING)

RIGHTS-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES

USED TO TRAP SEDIMENT.

3. PLANTING:

<u>DEFINITION:</u> THE PLANTING OF PERENNIAL VEGETATION SUCH AS TREES, SHRUBS, VINES, GRASSES, OR LEGUMES ON EXPOSED AREAS FOR FINAL PERMANENT STABILIZATION. PERMANENT PERENNIAL VEGETATION SHALL BE USED TO ACHIEVE FINAL STABILIZATION. <u>CONDITIONS</u>: PERMANENT PERENNIAL VEGETATION IS USED TO PROVIDE A PROTECTIVE COVER FOR EXPOSED AREAS INCLUDING CUTS, FILLS, DAMS, AND OTHER DENUDED AREAS.

1. GRADING AND SHAPING: GRADING AND SHAPING MAY NOT BE REQUIRED WHERE HYDRAULIC SEEDING AND FERTILIZING EQUIPMENT IS

TO BE USED. VERTICAL BANKS SHALL BE SLOPED TO ENABLE PLANT ESTABLISHMENT. WHEN CONVENTIONAL SEEDING AND FERTILIZING

ARE TO BE DONE, GRADE AND SHAPE WHERE FEASIBLE AND PRACTICAL, SO THAT EQUIPMENT CAN BE USED SAFELY AND EFFICIENTLY DURING SEEDRED PREPARATION, SEEDING, MULICHING AND MAINTENANCE OF THE VEGETATION, CONCENTRATIONS OF WATER THAT WILL CAUSE EXCESSIVE SOIL EROSION SHALL BE DIVERTED TO A SAFE OUTLET. DIVERSIONS AND OTHER TREATMENT PRACTICES SHALL CONFORM WITH THE APPROPRIATE STANDARDS AND SPECIFICATIONS. SEEDBED PREPARATION: SEEDBED PREPARATION MAY NOT BE REQUIRED WHERE HYDRAULIC SEEDING AND FERTILIZING EQUIPMENT IS TO BE USED. WHEN CONVENTIONAL SEEDING IS TO BE USED, SEEDBED PREPARATION WILL BE DONE AS FOLLOWS: 2.1. BROADCAST PLANTINGS: TILLAGE AT A MINIMUM, SHALL ADEQUATELY LOOSEN THE SOIL TO A DEPTH OF 4 TO 6 INCHES; ALLEVIATE COMPACTION;

INCORPORATE LIME AND FERTILIZER; SMOOTH AND FIRM THE SOIL; ALLOW FOR THE PROPER PLACEMENT OF SEED, SPRIGS, OR PLANTS; AND ALLOW FOR THE ANCHORING OF STRAW OR HAY MULCH IF A DISK IS TO BE USED. TILLAGE MAY BE DONE WITH ANY SUITABLE EQUIPMENT. TILLAGE SHOULD BE DONE ON THE CONTOUR WHERE FEASIBLE ON SLOPES TOO STEEP FOR THE SAFE OPERATION OF TILLAGE EQUIPMENT, THE SOIL SURFACE SHALL BE PITTED OR

TRENCHED ACROSS THE SLOPE WITH APPROPRIATE HAND TOOLS TO PROVIDE TWO PLACES 6 TO 8-IN APART IN WHICH SEED MAY LODGE AND GERMINATE. HYDRAULIC SEEDING MAY ALSO BE USED. INDIVIDUAL PLANTS WHERE INDIVIDUAL PLANTS ARE TO BE SET, THE SOIL SHALL BE PREPARED BY EXCAVATING HOLES, OPENING FURROWS, OR

NURSERY PLANTS: HOLES SHALL BE LARGE ENOUGH TO ACCOMMODATE ROOTS WITHOUT CROWDING. WHERE PINE SEEDLINGS ARE TO BE PLANTED, SUBSOIL UNDER THE ROW 36 INCHES DEEP ON THE CONTOUR FOUR TO SIX MONTHS PRIOR TO PLANTING. SUBSOILING SHOULD BE DONE WHEN THE SOIL IS DRY, PREFERABLY IN AUG OR SEPT.

HYDRAULIC SEEDING: MIX THE SEED (INOCULATED IF NEEDED), FERTILIZER, AND WOOD CELLULOSE OR WOOD PULP FIBER MULCH

WITH WATER AND APPLY IN A SLURRY UNIFORMLY OVER THE AREA TO BE TREATED. APPLY WITHIN ONE HOUR AFTER THE MIXTURE IS CONVENTIONAL SEEDING: SEEDING WILL BE DONE ON A FRESHLY PREPARED AND FIRMED SEEDBED. FOR BROADCAST PLANTING, USE A CULTIPACKER SEEDER, DRILL, ROTARY SEEDER, OTHER MECHANICAL SEEDER, OR HAND SEEDING TO DISTRIBUTE THE SEED UNIFORMLY OVER THE AREA TO BE TREATED. COVER THE SEED LIGHTLY WITH 1/8 TO 1/4 INCH OF SOIL FOR SMALL SEED AND 1/2 TO 1 INCH FOR LARGE SEED WHEN USING A CULTIPACKER OR OTHER SUITABLE EQUIPMENT NO-TILL SEEDING: NO-TILL SEEDING IS PERMISSIBLE INTO ANNUAL COVER CROPS WHEN PLANTING IS DONE FOLLOWING MATURITY OF THE COVER CROP OR IF THE TEMPORARY COVER STAND IS SPARSE ENOUGH TO ALLOW ADEQUATE GROWTH OF THE PERMANENT (PERENNIAL) SPECIES. NO-TILL SEEDING SHALL BE DONE WITH APPROPRIATE NO-TILL SEEDING EQUIPMENT. THE SEED MUST BE

UNIFORMLY DISTRIBUTED AND PLANTED AT THE PROPER DEPTH. INDIVIDUAL PLANTS: SHRUBS, VINES AND SPRIGS MAY BE PLANTED WITH APPROPRIATE PLANTERS OR HAND TOOLS. PINE TREES HALL BE PLANTED MANUALLY IN THE SUBSOIL FURROW. EACH PLANT SHALL BE SET IN A MANNER TO AVOID ROOT CROWDING. NURSERY STOCK PLANTS SHALL BE PLANTED AT THE SAME DEPTH OR SLIGHTLY DEEPER THAN THEY GREW AT THE NURSERY. THE TIPS OF VINES AND SPRIGS MUST BE AT OR SLIGHTLY ABOVE GROUND SURFACE. WHERE INDIVIDUAL HOLES ARE DUG, FERTILIZER SHALL BE PLACED IN THE BOTTOM OF THE HOLE, 2-IN OF SOIL SHALL BE ADDED AND THE PLANT SHALL BE SET IN THE HOLI 4. MULCHING: MULCH IS REQUIRED FOR ALL PERMANENT VEGETATION APPLICATIONS. MULCH APPLIED TO SEEDED AREAS SHALL ACHIEVE 75% SOIL COVER. SELECT THE MULCHING MATERIAL FROM THE FOLLOWING AND APPLY AS INDICATED:

4.0.1. DRY STRAW OR DRY HAY OF GOOD QUALITY AND FREE OF WEED SEEDS CAN BE USED. DRY STRAW SHALL BE APPLIED AT THE RATE OF 2 TONS / ACRE. DRY HAY SHALL BE APPLIED AT A RATE OF 2.5 TONS / ACRE. WOOD CELLULOSE MULCH OR WOOD PULP FIBER SHALL BE USED WITH HYDRAULIC SEEDING. IT SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE. DRYSTRAW OR DRY HAY SHALL BE APPLIED (AT THE RATE INDICATED ABOVE) AFTER HYDRAULIC

4.0.3. ONE THOUSAND POUNDS OF WOOD CELLULOSE OR WOOD PULP FIBER, WHICH INCLUDES A TACKIFIER, SHALL BE USED WITH HYDRAULIC SEEDING ON SLOPES 3/4:1 OR STEEPER. SERICEA LESPEDEZA HAY CONTAINING MATURE SEED SHALL BE APPLIED AT A RATE OF 3 TONS PER ACRE.

PINE STRAW OR PINE BARK SHALL BE APPLIED AT A THICKNESS OF 3 INCHES FOR BEDDING PURPOSES. OTHER SUITABLE MATERIALS IN SUFFICIENT QUANTITY MAY BE USED WHERE ORNAMENTALS OR OTHER GROUND COVERS ARE PLANTED. THIS IS NOT APPROPRIATE FOR SEEDED AREAS WHEN USING TEMPORARY EROSION CONTROL BLANKETS OR BLOCK SOD, MULCH IS NOT REQUIRED. BITUMINOUS TREATED ROVING MAY BE APPLIED ON PLANTED AREAS ON SLOPES, IN DITCHES OR DRY WATERWAYS TO

PREVENT EROSION, BITUMINOUS TREATED ROVING SHALL BE APPLIED WITHIN 24 HOURS AFTER AN AREA HAS BEEN PLANTED. APPLICATION RATES AND MATERIALS MUST MEET GEORGIA DOT SPECIFICATIONS. WOOD CELLULOSE AND WOOD PULP FIBERS SHALL NOT CONTAIN GERMINATION OR GROWTH INHIBITING FACTORS. THEY SHALL BE EVENLY DISPERSED WHEN AGITATED IN WATER. THE FIBERS SHALL CONTAIN A DYE TO ALLOW VISUAL METERING AND AID IN APPLYING MULCH: STRAW OR HAY MULCH WILL BE SPREAD UNIFORMLY WITHIN 24 HOURS AFTER SEEDING AND/OR PLANTING. THE MULCH MAY BE SPREAD BY BLOWER-TYPE SPREADING EQUIPMENT, OTHER SPREADING EQUIPMENT OR BY HAND. MULCH SHALL BE APPLIED TO COVER 75% OF THE SOIL SURFACE. WOOD CELLULOSE OR WOOD FIBER MULCH SHALL BE APPLIED UNIFORMLY WITH

HYDRAULIC SEEDING EQUIPMENT ANCHORING MULCH: ANCHOR STRAW OR HAY MULCH IMMEDIATELY AFTER APPLICATION BY ONE OF THE FOLLOWING METHODS: EMULSIFIED ASPHALT CAN BE (A) SPRAYED UNIFORMLY ONTO THE MULCH AS IT IS EJECTED FROM THE BLOWER MACHINE OR (B)

SPRAYED ON THE MULCH IMMEDIATELY FOLLOWING MULCH APPLICATION WHEN STRAW OR HAY IS SPREAD BY METHODS OTHER THAN SPECIAL BLOWER EQUIPMENT. THE COMBINATION OF ASPHALT EMULSION AND WATER SHALL CONSIST OF A HOMOGENEOUS MIXTURE SATISFACTORY FOR SPRAYING. THE MIXTURE SHALL CONSIST OF 100 GALLONS OF GRADE SS-1H OR CSS-1H EMULSIFIED ASPHALT AND 100 GALLONS OF WATER PER TON OF MULCH. CARE SHALL BE TAKEN AT ALL TIMES TO PROTECT STATE WATERS, THE PUBLIC, ADJACENT PROPERTY, PAVEMENTS, CURBS, SIDEWALKS, AND ALL OTHER STRUCTURES 4.2.2. HAY AND STRAW MULCH SHALL BE PRESSED INTO THE SOIL IMMEDIATELY AFTER THE "PACKER DISK"OR DISK HARROW WITH

THE DISKS SET STRAIGHT MAY BE USED. THE DISKS MAY BE SMOOTH OR SERRATED AND SHOULD BE 20 INCHES OR MORE IN DIAMETER AND 8 TO 12 INCHES APART. THE EDGES OF THE DISKS SHALL BE DULL ENOUGH TO PRESS THE MULCH INTO THE GROUND WITHOUT CUTTING IT, LEAVING MUCH OF IT IN AN ERECT POSITION. MULCH SHALL NOT BE PLOWED INTO THE SOIL. SYNTHETIC TACKIFIERS OR BINDERS APPROVED BY GDOT SHALL BE APPLIED IN CONJUNCTION WITH OR IMMEDIATELY AFTER THE MULCH IS SPREAD. SYNTHETIC TACKIFIERS SHALL BE MIXED AND APPLIED ACCORDING TO MANUFACTURER'S

SPECIFICATIONS. REFER TO TB - TACKIFIERS AND BINDERS. RYE OR WHEAT CAN BE INCLUDED WITH FALL AND WINTER PLANTINGS TO STABILIZE THE MULCH. THEY SHALL BE APPLIED AT A RATE OF ONE-QUARTER TO ONE HALF BUSHEL PER ACRE. PLASTIC MESH OR NETTING WITH MESH NO LARGER THAN ONE INCH BY ONE INCH MAY BE NEEDED TO ANCHOR STRAW OR HAY MULCH ON UNSTABLE SOILS AND CONCENTRATED FLOW AREAS. THESE MATERIALS SHALL BE INSTALLED AND ANCHORED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.

5. IRRIGATION: IRRIGATION SHALL BE APPLIED AT A RATE THAT WILL NOT CAUSE RUNOFF 6.1. AGRICULTURAL LIME IS REQUIRED AT THE RATE OF ONE TO TWO TONS PER ACRE UNLESS SOIL TESTS INDICATE OTHERWISE. GRADED AREAS REQUIRE LIME APPLICATION. IF LIME IS APPLIED WITHIN SIX MONTHS OF PLANNING PERMANENT PERENNIAL VEGETATION, ADDITIONAL LIME IS NOT REQUIRED. AGRICULTURAL LIME SHALL BE WITHIN THE SPECIFICATIONS OF THE GEORGIA DEPARTMENT OF AGRICULTURE. LIME SPREAD BY CONVENTIONAL EQUIPMENT SHALL BE GROUND LIMESTONE. GROUND LIMESTONE IS CALCITIC OR DOLOMITIC

LIMESTONE GROUND SO THAT 90 PERCENT OF THE MATERIAL WILL PASS THROUGH A 10-MESH SIEVE AND NOT LESS THAN 25 PERCENT WILL PASS THROUGH A 100-MESH SIEVE. FAST-ACTING LIME SPREAD BY HYDRAULIC SEEDING EQUIPMENT SHOULD BE FINELY GROUND LIMESTONE SPANNING FROM THE 180 MICRON SIZE TO THE 5 MICRON SIZE. FINELY GROUND LIMESTONE IS CALCITIC OR DOLOMITIC LIMESTONE GROUND SO THAT 95 PERCENT OF THE MATERIAL WILL PASS THROUGH A 100-MESH SIEVE. IT IS DESIRABLE TO USE DOLOMITIC LIMESTONE IN THE SAND HILLS, SOUTHERN COASTAL PLAIN AND ATLANTIC COAST FLAT WOODS

AGRICULTURAL LIME IS GENERALLY NOT REQUIRED WHERE ONLY TREES ARE PLANTED. FERTILIZER REQUIREMENTS: 1/ APPLY IN SPRING 1500 LBS/AC FOLLOWING SECOND 6-12-12 1000 LBS/AC SEEDING MAINT 10-10-10 400 LBS/AC 1500 LBS/AC 2/ APPLY IN SPLIT 0-50 LBS/AC 1/ SECOND 0-10-10 **APPLICATIONS** GRASSES AND 1000 LBS/AC MAINT 0-10-10 WHEN HIGH RATES LEGUMES 400 LBS/AC FIRST 10-10-10 1300 LBS/AC 3/ GROUND ARE USED SECOND 10-10-10 1300 LBS/AC 3/ 3/ APPLY IN 3 SPLIT 10-10-10 1100 LBS/AC PINE SEEDLINGS FIRST 20-10-5 (1) 21-GRAM PELLET/SEEDLING APPLICATIONS SHRUB FIRST 0-10-10 700 LBS/AC MAINT 4/ APPLY WHEN LESPEDEZA 0-10-10 700 LBS/AC 4 TEMP. CV. CROPS FIRST 10-10-10 500 LBS/AC PLNTS ARE PRUNED 30 LBS/AC 5/ FIRST 6-12-12 1500 LBS/AC 50-100 LBS/AC 2/6 SECOND 6-12-1 2 5/ APPLY TO GRASS 50-100 LBS/AC 2/ MAINT 10-10-10 400 LBS/AC 30 LBS/AC SPECIES ONLY WARM SEASON FIRST 6-12-12 1500 LBS/AC 50 LBS/AC 6/ 6/ APPLY WHEN GRASSES AND SECOND 0-10-10 1000 LBS/AC LEGUMES MAINT 0-10-10 400 LBS/AC PLNTS ARE 2-4-IN

SEEDING RATES FOR PERMANENT SEEDING: RATE PER RATE PER PLANTING DATES SPECIES BAHIA. PENSACOLA BAHIA. WILMINGTON 1.4 LBS 03/15-05/31 03/01-05/31 60 LBS N/A BERMUDA. (HULLED) 0.2 LBS 10 LBS 04/01-05/31 03/15-05/31 BERMUDA, (UNHULLED) 0.2 LBS 10 LBS 10/01-02/28 11/01-01/31 BLOCK SOD ONLY 11/01-05/31 11/01-05/31 CROWN VETCH 0.3 LBS 15 LBS 09/01-10/15 N/A FESCUE, TALL 1.1 LBS 09/01-10/15 50 LBS 03/01-05/15 1.4 LBS LESPEDEZA, SCARIFIED 03/15-05/31 03/01-05/15 60 LBS 04/01-05/31 LESPEDEZA, UN-SCARIFIED 1 7 I BS 75 LBS 09/01-02/28 09/01-02/28 09/1-02/28 0.1 LBS 4 LBS 04/01-05-31 03/15-05/31 03/01-05/31

***SEEDING DATES MAY NEED TO BE ALTERED TO FIT TEMPERATURE VARIATIONS AND LOCAL CONDITIONS.

LOVEGRASS, WEEPING 'ALL SEEDING NUMBERS ARE ALONE. FOR MIXTURE NUMBERS SEE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA (LATEST EDITION). TABLE 6-5.2- PERMANENT COVER CROPS **UNUSUAL SITE CONDITIONS MAY REQUIRE HEAVIER SEEDING RATES.

SOD MAINTENANCE AND INSTALLATION SOD LAYOUT AND PREPARATION

water per ton of mulch. Tackifers and binders can be substituted for emulsified asphalt. Please refer to specification Tb

-Tackifers and Binders. Plastic mesh or netting with mesh no larger than one inch by one inch shall be installed

2-IN TO 4-IN

2-IN TO 3-IN

4.2. Netting of the appropriate size shall be used to anchor wood waste. Openings of the netting shall not be larger than the

4.3. Polyethylene film shall be anchor trenched at the top as well as incrementally as necessary.

SECURE WITH SOIL,

ANCHORS, WEIGHTS

SEE MANUFACTURE'S

RECOMMENDATIONS

LAY SOD IN A STAGGERED PATTERN. BUTT THE STRIPS TIGHTLY AGAINST EACH OTHER. DO NOT LEAVE SPACES AND DO NOT OVERLAP. A SHARPENED MASON'S TROWEL IS A HANDY TOOL FOR TUCKING DOWN THI ENDS AND TRIMMING PIECES.

BUTTING: ANGLED ENDS CAUSED BY THE AUTOMATIC CUTTER MUST BE MATCHED CORRECTLY

DIRECTIONS FOR INITIAL MAINTENANCE

WATER TO A DEPTH OF 4" AS NEEDED. WATER WELL AS SOON AS THE SOD

SOD IMMEDIATELY TO ACHIEVE FIRM CONTACT WITH THE SOIL

7 MOW WHEN THE SOD IS ESTABLISHED -- IN 2-3 WEEKS. SET THE MOWER Step 5. MUW WHEN ITE HIGH (2"-3").

APPEARANCE OF GOOD SOD

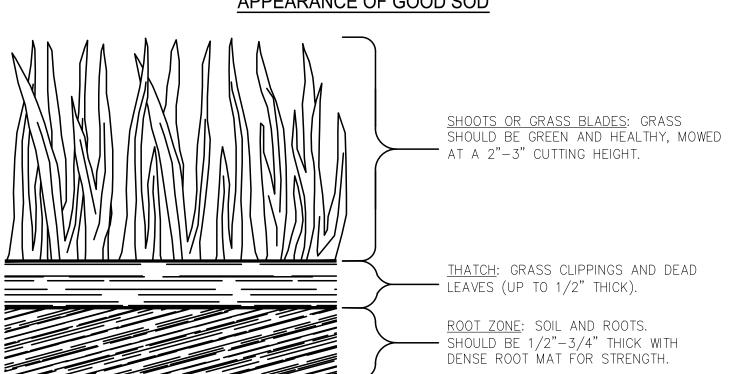


TABLE 6-6.1 **TABLE 6-6.2** FERTILIZER REQUIREMENTS SOD PLANTING REQUIREMENTS FOR SOIL SURFACE GRASS VARIETIES RESOURSE GROWING **APPLICATION** AREA SEASON FERTILIZER | FERTILIZER COMMON M-L,P,C FERTILIZER RATE RATE SEASON FALL BERMUDAGRASS IFGREEN LBS/ACRE) (LBS/SQ FT TIFLAWN BAHIAGRASS PANSACOLA P,C 0.0250 WEATHER WARM CENTIPEDE P,C WEATHER MIX FERTILIZER INTO SOIL SURFACE. FERTILIZE BASED ON SOIL TESTS OR TABLE 6-6.1. T. AUGUSTINE | BITTERBLUE WEATHER RALEIGH AGRICULTURAL LIME SHOULD BE APPLIED BASED ON EMERALD WARM SOIL TESTS AT A RATE OF 1 TO 2 TONS PER ACRE. WEATHER MYER COOL TLL FESCUE KENTUCKY M-L,P WEATHER

CONSTRUCTION SPECIFICATIONS
BRING SOIL SURFACE TO FINAL GRADE. CLEAR SURFACE OF TRASH, WOODY DEBRIS, STONES, AND CLODS LARGER THAN 1". APPLY SOD TO SOIL SURFACES ONLY AND NOT FROZEN SURFACES, OR GRAVEL TYPE SOILS. TOPSOIL PROPERLY APPLIED WILL HELP GUARANTEE A STAND. DON'T USE TOPSOIL RECENTLY TREATED WITH HERBICIDES OR SOIL

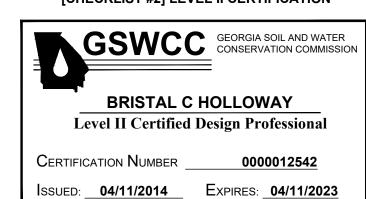
INSTALLATION
LAY SOD WITH TIGHT JOINTS AND IN STRAIGHT LINES. DON'T OVERLAP JOINTS. STAGGER JOINTS AND DO NOT STRETCH SOD. ON SLOPES STEEPER THAN 3:1. SOD SHOULD BE ANCHORED WITH PINS OR OTHER APPROVED METHODS. INSTALLED SOD SHOULD BE ROLLED OR TAMPED TO PROVIDE COOD CONTACT BETWEEN SOD AND SOIL.

<u>MATERIALS</u> SOD SELECTED SHOULD BE CERTIFIED. SOD GROWN IN THE GENERAL AREA OF THE PROJECT IS DESIREABLE. 1. SOD SHOULD BE MACHINE CUT AND CONTAIN $\frac{2}{3}$ " (+ OR - $\frac{1}{2}$ ") OF SOIL, NOT INCLUDING SHOOTS OR THATCH. 2. SOD SHGOULD BE CUT TO DESIRED SIZE WITHIN + OR - 5%. TORN OR UNEVEN PADS SHOULD BE REJECTED. 3. SOD SHOULD BE CUT AND INSTALLED WITHIN 36 HOURS OF DIGGING 4. AVOID PLANTING WHEN SUBJECT TO FROST HEAVE OR HOT WEATHER, IF IRRIGATION IS NOT AVAILABLE. 5. THE SOD TYPE SHOULD BE SHOWN ON THE PLANS OR INSTALLED ACCORDING TO TABLE 6-6.2.

RE-SOD AREAS WHERE AN ADEQUATE STAND OF SOD IS NOT OBTAINED. NEW SOD SHOULD BE MOWED SPARINGLY. GRASS HEIGHT SHOULD NOT BE CUT LESS THAN 2"-3" OR AS SPECIFIED. APPLY ONE TON OF AGRICULTURAL LIME AS INDICATED BY SOIL TEST OR EVERY 4-6 YEARS. FERTILIZE GRASSES IN ACCORDANCE

TABLE 6-6.3 FERTILIZER REQUIREMENTS FOR SOD				
TYPE OF SPECIES	PLANTING YEAR	FERTILIZER (N-P-K)	RATE (LBS/ACRE)	NITROGEN TOP DRESSING RATE
COOL SEASON GRASSES	FIRST SECOND MAINTENANCE	6-12-12 6-12-12 10-10-10	1500 1000 400	50-100 - 30
WARM SEASON GRASSSES	FIRST SECOND MAINTENANCE	6-12-12 6-12-12 10-10-10	1500 800 400	50-100 50-100 30

[CHECKLIST #2] LEVEL II CERTIFICATION



Signature: ____ One Halloway ____



CONSTRUCTION **DETAILS**

REVIS	REVISION SCHEDULE		
DATE	DESCRIPTION		

PROJECT NO: DRAWN BY:

SHEET:

evelopment Authority

Cogdell Mendrala Architects

COGDELL & MENDRALA ARCHITECTS, PC

517 EAST CONGRESS STREET

SAVANNAH, GEORGIA 31401

tel 912.234.6318

fax 912.236.8414

cogdellmendrala.com

PROJECT CONSULTANTS: M.E.P. ENGINEERS: METHOD ENGINEERING 2 E. BRYANT STREET SUITE 1500C

SAVANNAH, GA 31401 STRUCTURAL ENGINEERS: SAUSSY ENGINEERING 400 E. JOHNNY MERCER BOULEVARD SAVANNAH, GA 31410 CIVIL ENGINEERS:

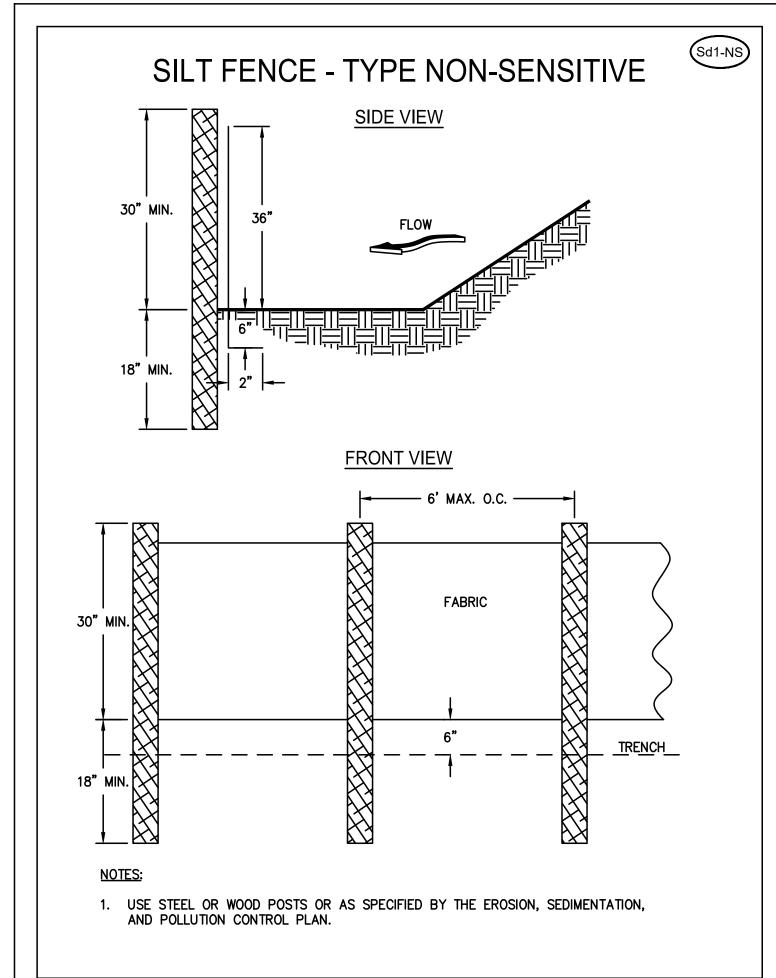
> COASTLINE CONSULTING 138 CANAL STEET #307 POOLER, GA 31322 LANDSCAPE ARCHITECT: MANDEL DESIGN, LLC 7 BAKER DRIVE SAVANNAH, GA 31410

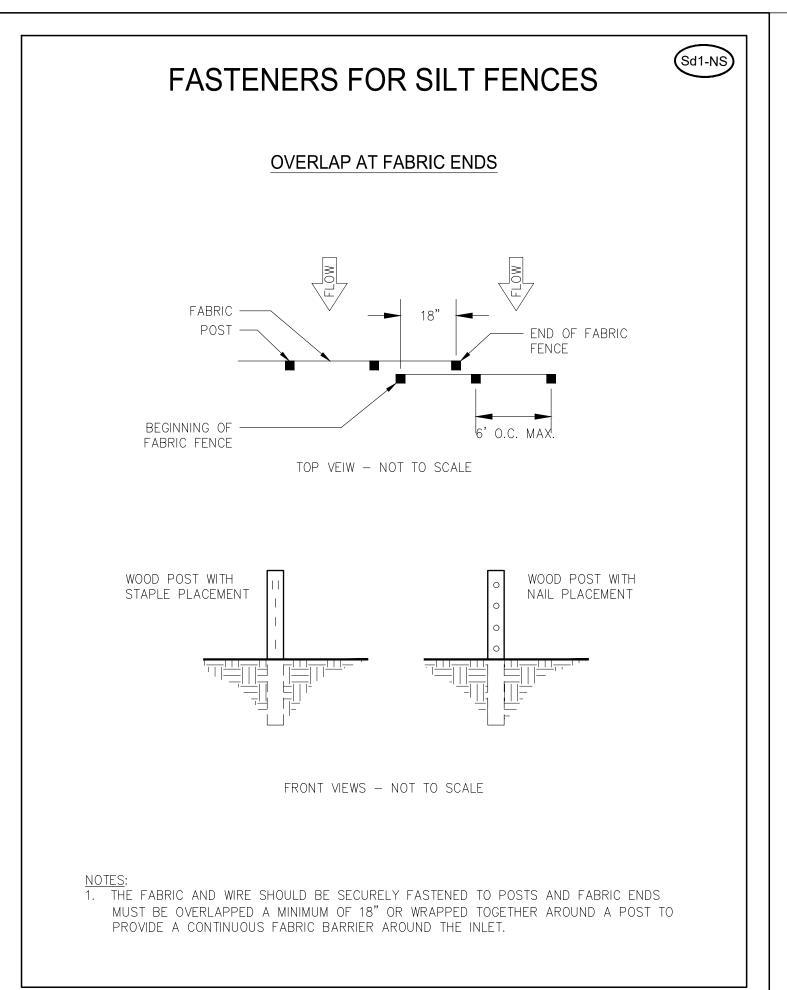
KEY PLAN:

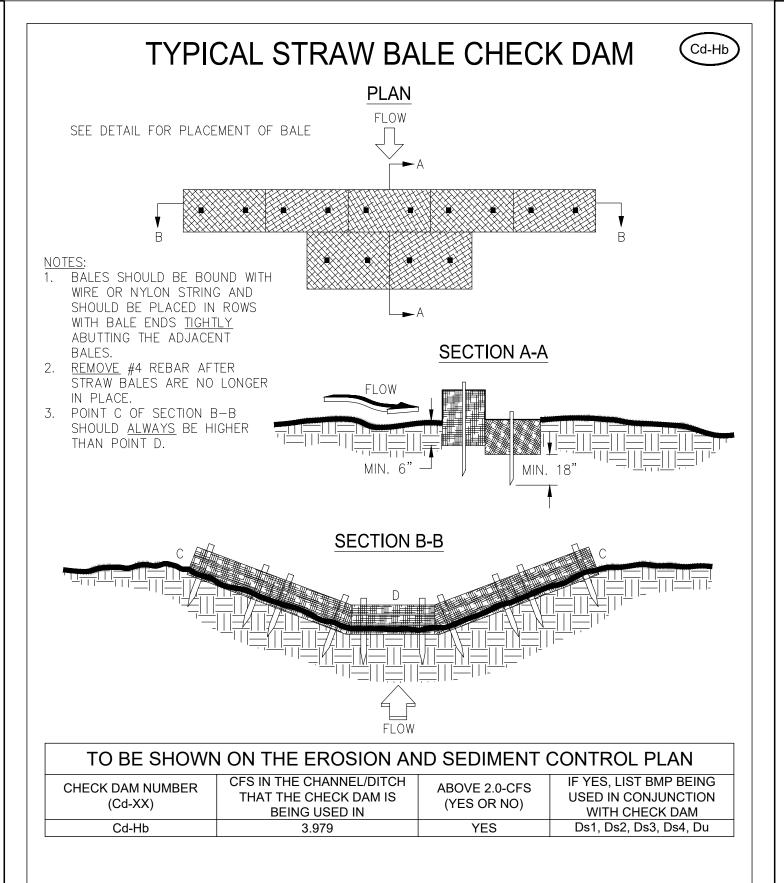
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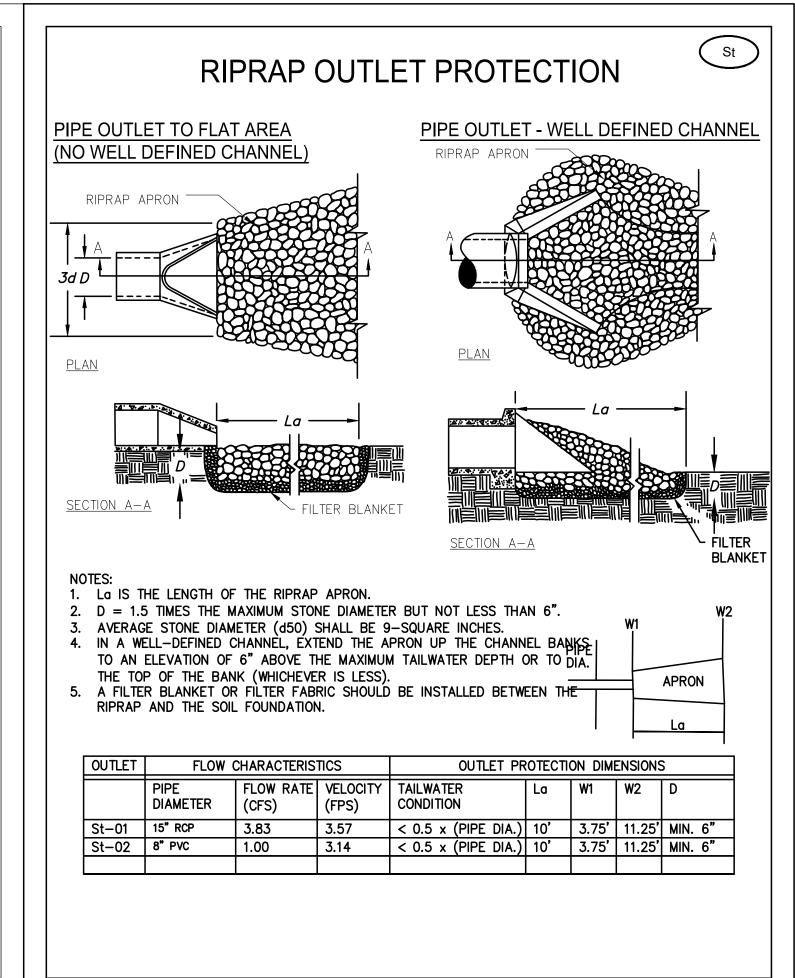
EDA PROJECT NO: 04-79-07284 MAY 2021 CCS **SCALE:**

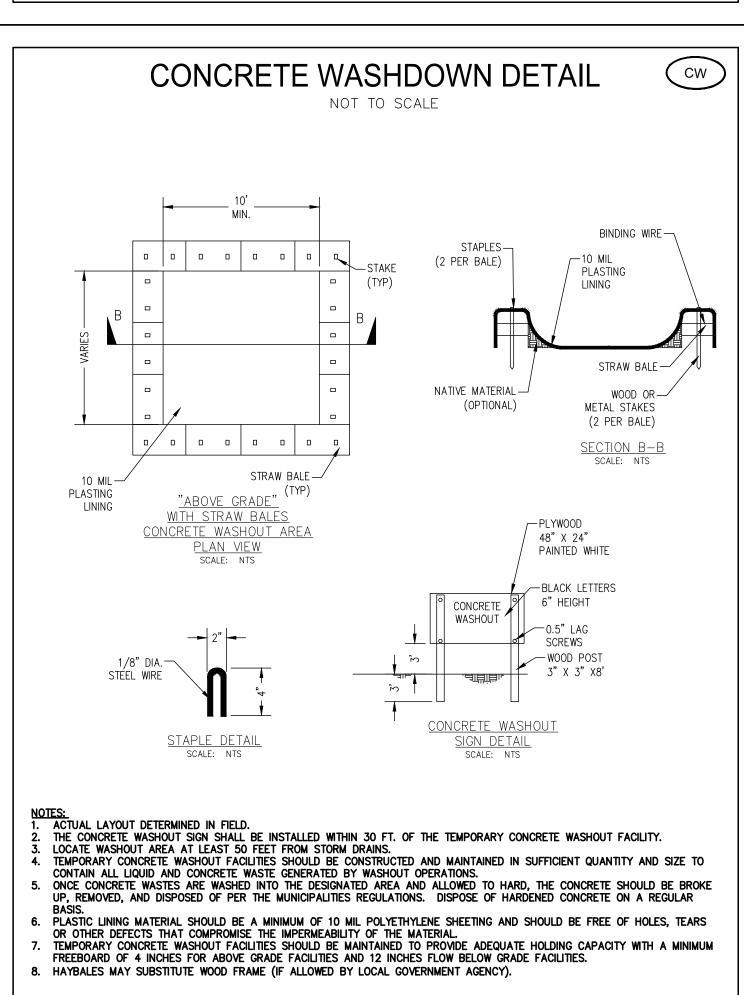
C-8

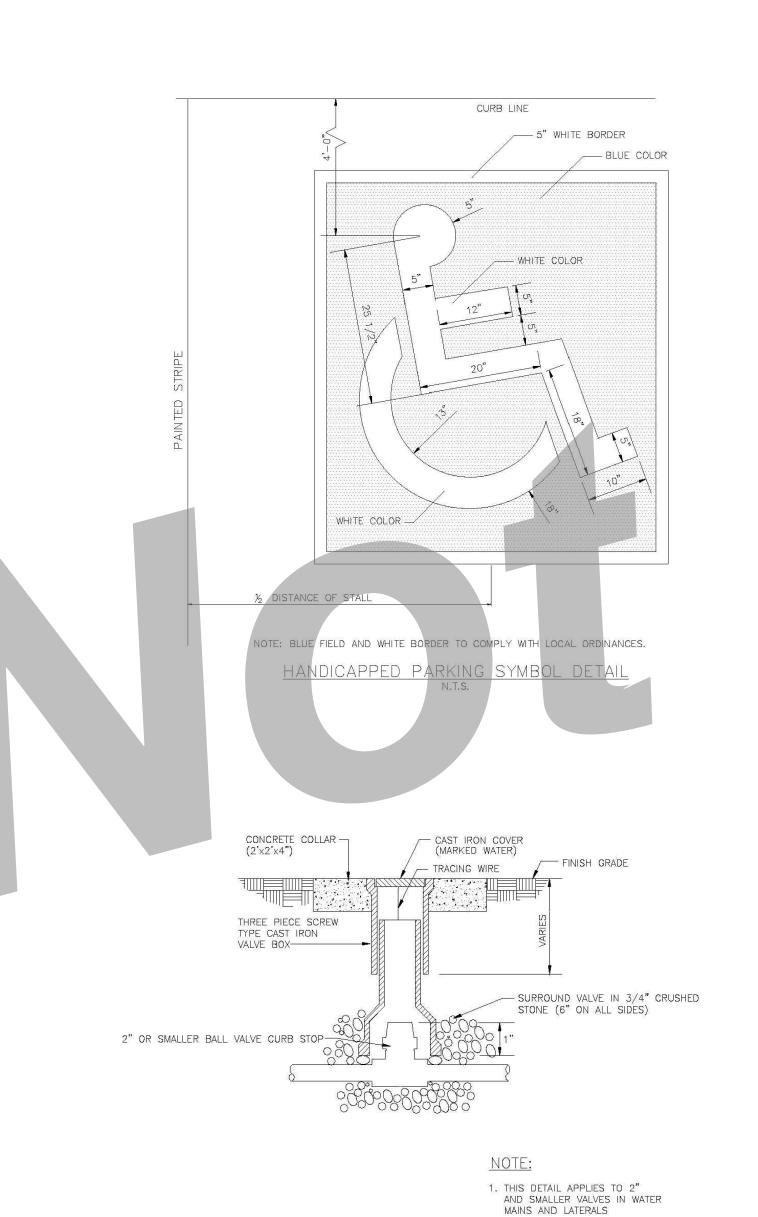


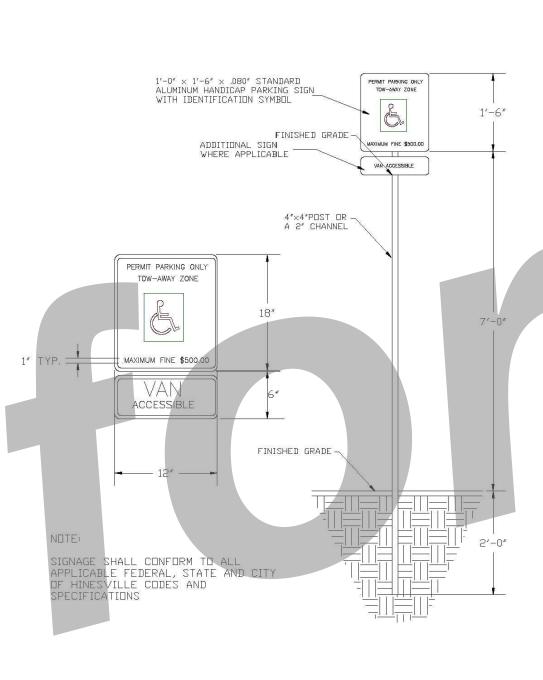




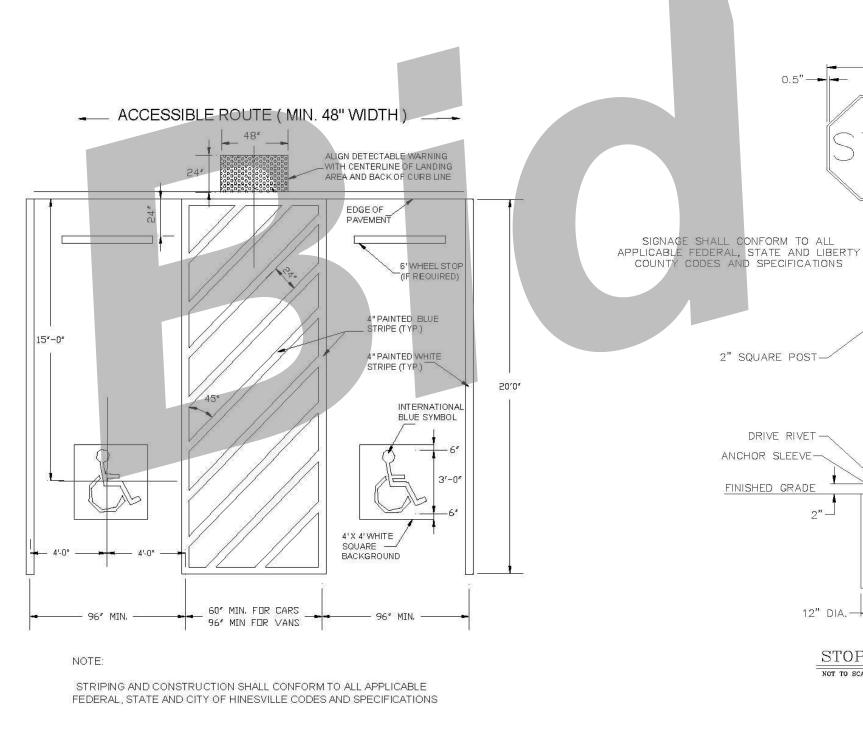












STANDARD CONSTRUCTION ADA HANDICAP PARKING SPACE STRIPING DETAIL

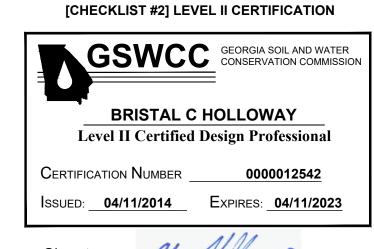


STANDARD CONSTRUCTION DETAILS 2" OR SMALLER WATER VALVE DETAIL

2. IN UNPAVED AREAS, SET TOP OF CONC. COLLAR 1" ABOVE

3. VALVE BOX SHALL NOT REST ON THE VALVE

AREAS SET TOP OF BOX FLUSH W/ PAVEMENT. NO CONC. COLLAR REQUIRED.



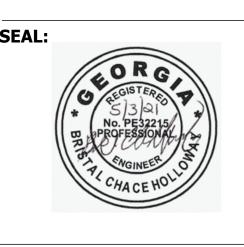


2.5'

STOP SIGN

HINESVILLE Development Authority

Cogdell Mendrala Architects **COGDELL & MENDRALA ARCHITECTS, PC** 517 EAST CONGRESS STREET SAVANNAH, GEORGIA 31401 tel 912.234.6318 fax 912.236.8414 cogdellmendrala.com



PROJECT CONSULTANTS: M.E.P. ENGINEERS: **METHOD ENGINEERING** 2 E. BRYANT STREET SUITE 1500C SAVANNAH, GA 31401 STRUCTURAL ENGINEERS: SAUSSY ENGINEERING 400 E. JOHNNY MERCER BOULEVARD SAVANNAH, GA 31410 CIVIL ENGINEERS: COASTLINE CONSULTING 138 CANAL STEET #307 POOLER, GA 31322 LANDSCAPE ARCHITECT: MANDEL DESIGN, LLC 7 BAKER DRIVE SAVANNAH, GA 31410

KEY PLAN:

SHEET TITLE: CONSTRUCTION DETAILS

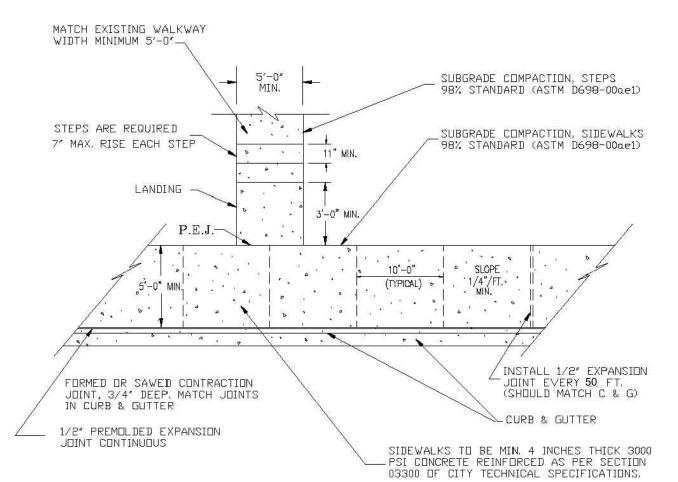
REVISION SCHEDULE		
DATE	DESC	RIPTION
DA PRO	JECT NO:	04-79-07284

2010 MAY 2021 CCS N/A PROJECT NO: DATE: **DRAWN BY**: SCALE:

SHEET:

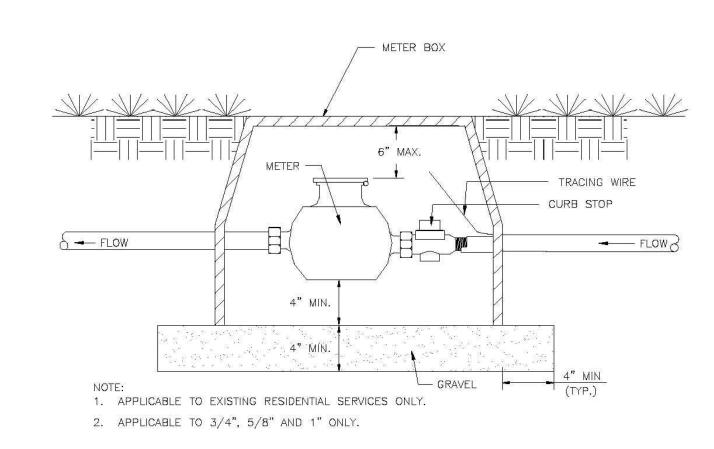
C-9

NOT TO SCALE

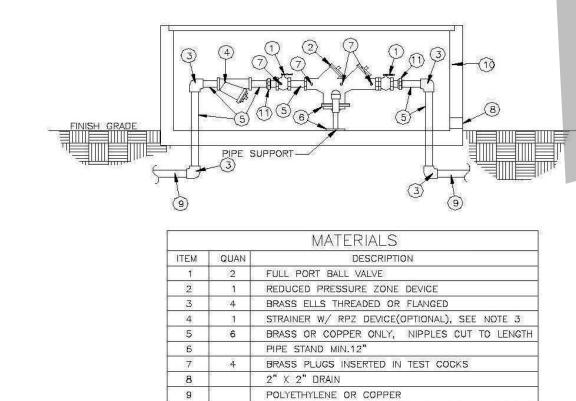


- 1. ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF HINESVILLE DEVELOPMENT GUIDELINES AND TECHNICAL SPECIFICATIONS INCLUDING, BUT NOT LIMITED TO, SECTION 02200 EARTHWORK AND SECTION 03300 CAST—IN—PLACE CONCRETE. 2. CONTRACTION JOINTS SHOULD BE FORMED OR SAVED COINCIDENT WITH THE 10' JOINTS IN
- 4. ADA COMPLIANT WHEELCHAIR RAMPS SHALL BE INSTALLED AT EACH INTERSECTION OR DESIGNATED CROSSWALK LOCATION AND MUST MEET THE MOST CURRENT ADA STANDARDS AND CITY OF HINESVILLE SPECIFICATIONS AT THE TIME OF CONSTRUCTION.

STANDARD CONSTRUCTION DETAILS SIDEWALK AND WALKWAY DETAILS



STANDARD CONSTRUCTION DETAILS WATER METER W/O BACKFLOW PREV.

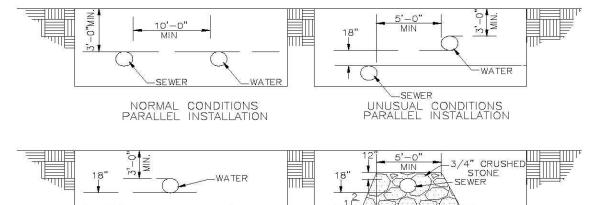


- 11 2 UNION, SEE NOTE 3 1. FOR FINAL APPROVAL, ASSEMBLY MUST BE CENTERED IN ENCLOSURE. UNDER NO CONDITION WILL ANY CONNECTION BE ALLOWED BETWEEN THE SERVICE METER AND A BACKFLOW PREVENTER. BACKFLOW PREVENTER SHALL ALWAYS BE INSTALLED IMMEDIATELY DOWNSTREAM
- UNDER NO CIRCUMSTANCE SHALL TEST PORTS BE MODIFIED OR UTILIZED FOR ANY USE OTHER THAN BACKFLOW DEVICE TESTING.

TYPICAL OUTSIDE INSTALLATION REDUCED PRESSURE TYPE BACKFLOW PREVENTION DEVICE (3/4", 1", 1 1/2", 2", & 2 1/2" SIZES)

PREFABRICATED ENCLOSURE BY HOT BOX OR EQUAL

STANDARD CONSTRUCTION DETAILS REDUCED PRESSURE ZONE (RPZ) BACKFLOW PREVENTER FOR DOMESTIC SYSTEM



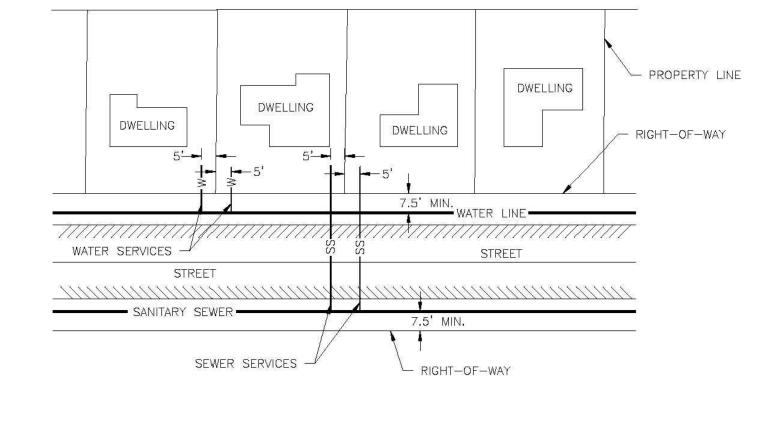
SEWER UNUSUAL CONDITIONS CROSSINGS

THE SEPARATION OF WATER MAINS AND SEWERS SHALL COMPLY WITH THE GEORGIA ENVIROMENTAL PROTECTION DIVISION MINIMUM STANDARDS FOR PUBLIC WATER SYSTEMS, WHICH ARE GENERALLY AS FOLLOWS:

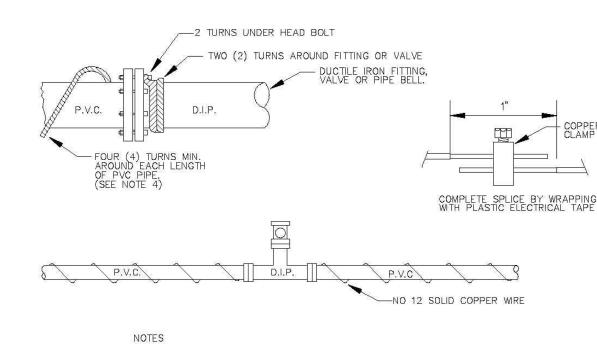
- A. PARALLEL INSTALLATION: 1. NORMAL CONDITIONS: THE INSIDE EDGE OF A WATER LINE SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM THE INSIDE EDGE OF ANY SANITARY SEWER, STORM SEWER OR SEWER MANHOLE.
- 2. UNUSUAL CONDITIONS: WHEN LOCAL CONDITIONS PREVENT A HORIZONTAL SEPARATION OF 10 FEET, AND WHEN APPROVED BY THE ENGINEER, THE INSIDE EDGE OF A WATER MAIN MAY BE LAID A MINIMUM OF 5 FEET FROM THE INSIDE EDGE OF A SEWER PROVIDED THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES HIGHER THAN THE TOP OF THE SEWER (SEE DETAIL), AND THE WATER MAIN IS LAID IN A SEPARATE TRENCH OR ON AN UNDISTURBED EARTH SHELF.
- B. CROSSINGS: 1. NORMAL CONDITIONS: WHENEVER POSSIBLE, THE BOTTOM OF THE WATER MAIN SHALL BE AT LEAST 18 INCHES HIGHER THAN THE TOP OF THE SEWER.
- 2. UNUSUAL CONDITIONS: IF A WATER MAIN MUST CROSS UNDER A SEWER, THE TOP OF THE WATER MAIN SHALL BE AT LEAST 18 INCHES LOWER THAN THE BOTTOM OF THE SEWER, THE WATER MAIN PIPE SHALL BE CENTERED AT THE CROSSING SO THAT THE JOINTS ARE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE SEWER, AND ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER TO PREVENT EXCESSIVE DEFLECTION OF THE SEWER AT THE CROSSING, ADEQUATE STRUCTURAL SUPPORT SHALL BICKLUDE BACKELLING THE ENTIRE LITTLY CROSSING APEA WITH 3 // " CRUSSING STRUCTURAL SUPPORT SHALL BICKLUDE BACKELLING THE ENTIRE LITTLY CROSSING APEA WITH 3 // " CRUSSING STRUCTURAL SUPPORT SHALL BICKLUDE BACKELLING THE ENTIRE LITTLY CROSSING APEA WITH 3 // " CRUSSING STRUCTURAL SUPPORT SHALL BICKLUDE BACKELLING THE ENTIRE LITTLY CROSSING APEA WITH 3 // " CRUSSING STRUCTURED STONE INCLUDE BACKFILLING THE ENTIRE UTILITY CROSSING AREA WITH 3/4" CRUSHED STONE AS SHOWN IN THE DETAIL.

STANDARD CONSTRUCTION DETAILS MINIMUM WATER AND SEWER PIPE SEPARATION REQUIREMENTS

METER BY-PASS TO BE INSTALLED ON \neg ALL 2" AND LARGER METER.

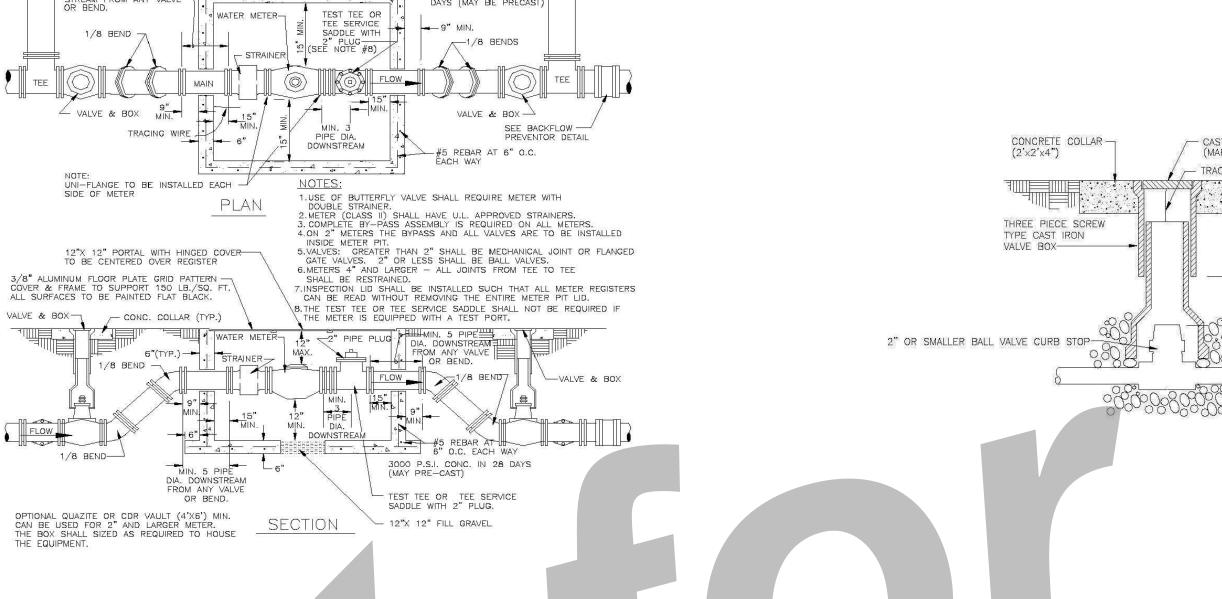


STANDARD CONSTRUCTION DETAILS WATER & S.S. LATERAL



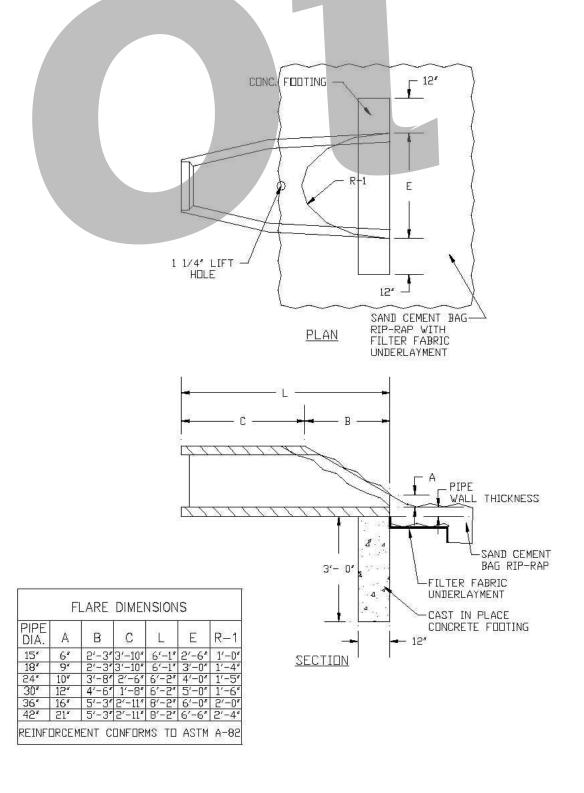
1. USE NO 12 AWG SOLID PLASTIC COATED COPPER WIRE. 4.IN LIEU OF WRAPPING TRACER WIRE AROUND PVC PIPE, WIRE MAY BE STRUNG ALONG TOP OF PIPE PROVIDED IT IS TAPED TO THE PIPE EVERY FIVE (5) FEET TO INSURE POSITION DURING BACKFILL.

NOT TO SCALE FOR PVC PIPE

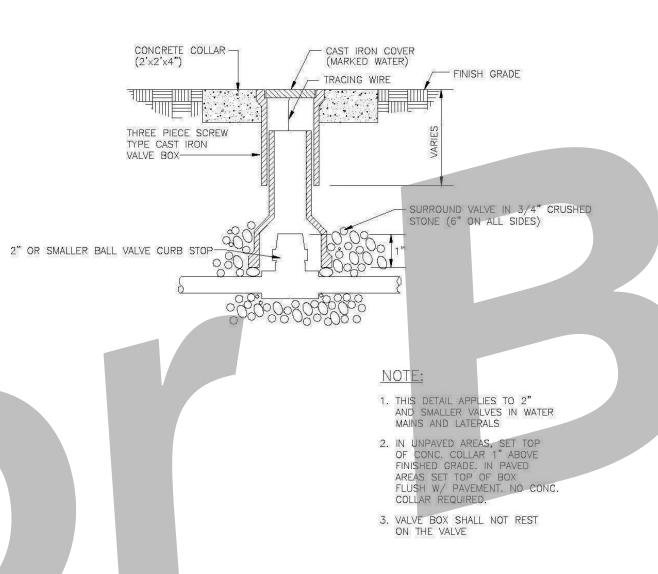


STANDARD CONSTRUCTION DETAILS WATER METER INST. 2" AND LARGER

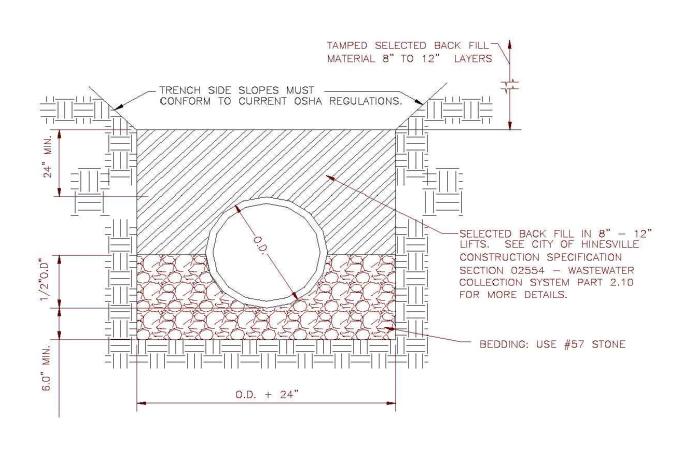
/- VALVE, BOX, & CONC. COLLAR (TYP.)



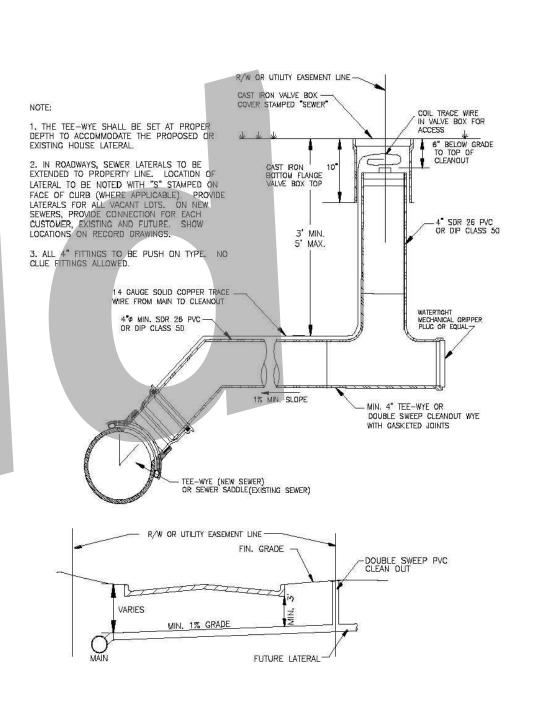
STANDARD CONSTRUCTION DETAILS FLARED END SECTION



STANDARD CONSTRUCTION DETAILS 2" OR SMALLER WATER VALVE DETAIL



STANDARD CONSTRUCTION DETAILS STANDARD PIPE BEDDING DETAIL



STANDARD CONSTRUCTION DETAILS SANITARY SEWER SERVICE CONNECTION DETAIL



◆ TRANSPORTATION SERVICES ◆ ENVIRONMENTAL SERVICES

LANDSCAPE ARCHITECT: MANDEL DESIGN, LLC 7 BAKER DRIVE SAVANNAH, GA 31410 **KEY PLAN:**

PROJECT CONSULTANTS:

SAVANNAH, GA 31401

STRUCTURAL ENGINEERS:

SAVANNAH, GA 31410

138 CANAL STEET #307

POOLER, GA 31322

CIVIL ENGINEERS:

METHOD ENGINEERING

2 E. BRYANT STREET SUITE 1500C

SAUSSY ENGINEERING

400 E. JOHNNY MERCER BOULEVARD

COASTLINE CONSULTING

M.E.P. ENGINEERS:

HINESVILLE

Cogdell Mendrala Architects

COGDELL & MENDRALA ARCHITECTS, PC 517 EAST CONGRESS STREET SAVANNAH, GEORGIA 31401 tel 912.234.6318 fax 912.236.8414 cogdellmendrala.com

Development Authority

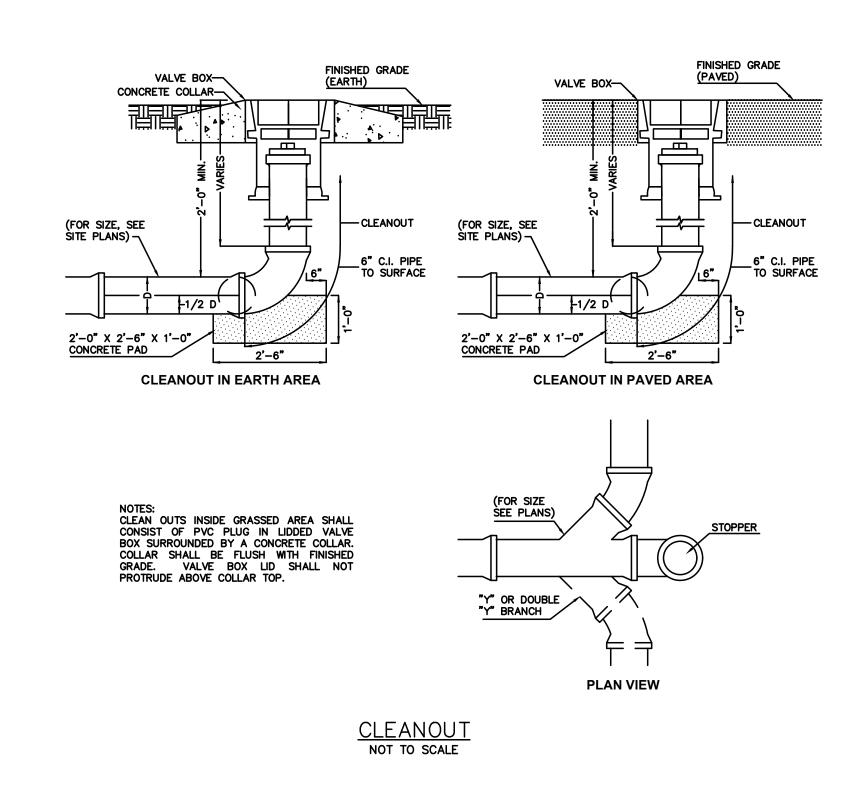
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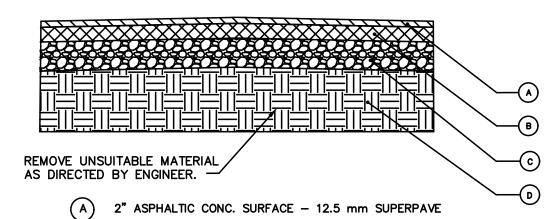
SHEET TITLE: CONSTRUCTION DETAILS

REVISION SCHEDULE DATE DESCRIPTION

EDA PROJECT NO: 04-79-07284 PROJECT NO: MAY 2021 CCS **DRAWN BY**: **SCALE:**

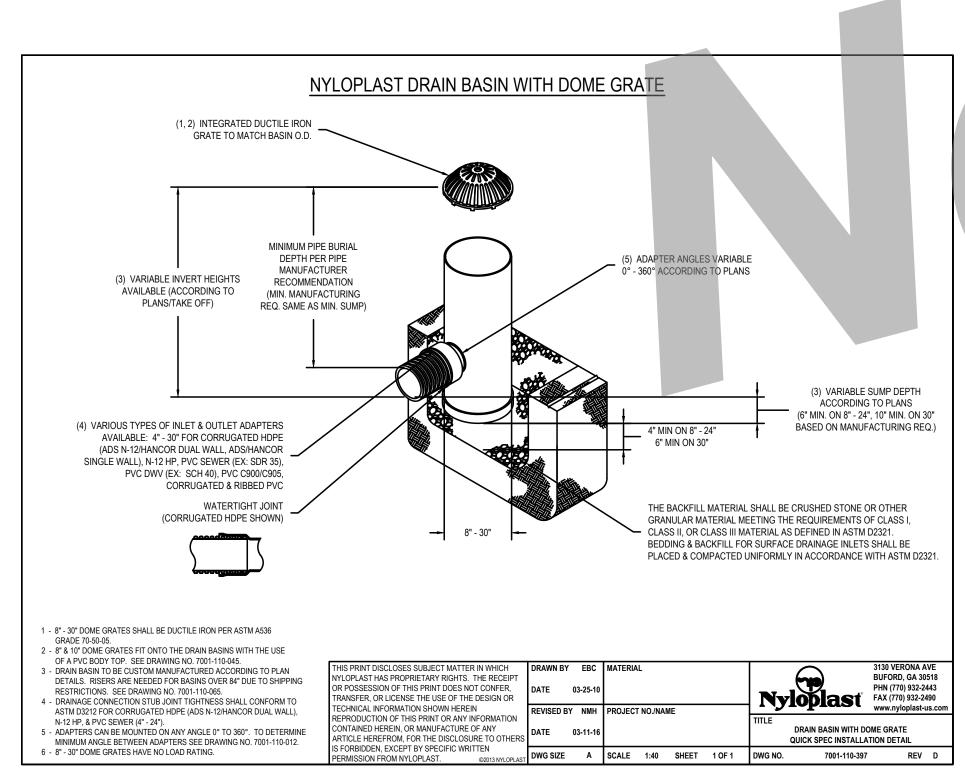
10 CONSTRUCTION DETAILS





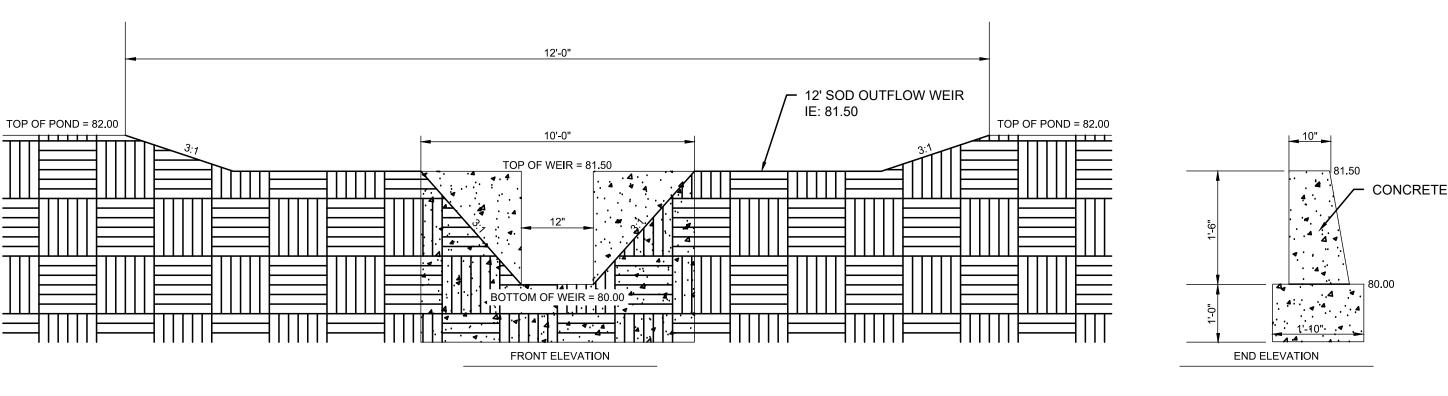
- B 6" GRADED AGGREGATE BASE COMPACTED 100% (ASTM D698)
- C) 24" MIN. COMPACTED SUB-BASE TO 100% STD. (ASTM D-698) **HEAVY DUTY ASPHALT PAVEMENT**

(INTERNAL ROADWAYS) NOT TO SCALE

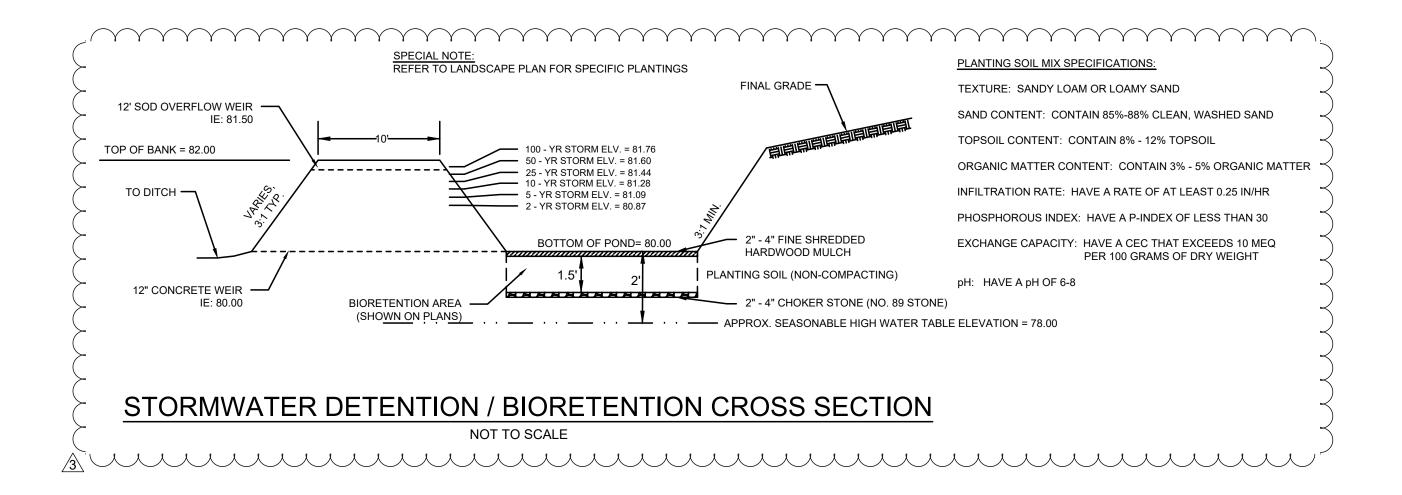


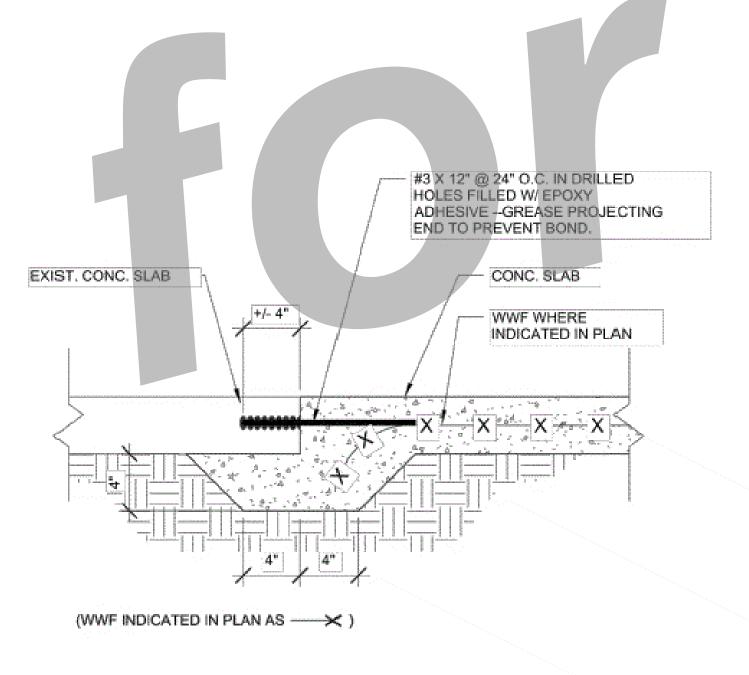
NYLOPLAST DRAIN BASIN DETAIL

NOT TO SCALE



STORMWATER DETENTION / BIORETENTION OUTFALL STRUCTURE NOT TO SCALE





SIDEWALK TO EXISTING SIDEWALK

NOT TO SCALE



HINESVILLE Development Authority

Cogdell Mendrala Architects **COGDELL & MENDRALA ARCHITECTS, PC** 517 EAST CONGRESS STREET SAVANNAH, GEORGIA 31401 tel 912.234.6318 fax 912.236.8414 cogdellmendrala.com

PROJECT CONSULTANTS: M.E.P. ENGINEERS: **METHOD ENGINEERING**

GROUP 2 E. BRYANT STREET SUITE 1500C SAVANNAH, GA 31401

STRUCTURAL ENGINEERS: SAUSSY ENGINEERING 400 E. JOHNNY MERCER BOULEVARD

SAVANNAH, GA 31410 CIVIL ENGINEERS: COASTLINE CONSULTING 138 CANAL STEET #307 POOLER, GA 31322

LANDSCAPE ARCHITECT: MANDEL DESIGN, LLC 7 BAKER DRIVE SAVANNAH, GA 31410

KEY PLAN:

SHEET TITLE: CONSTRUCTION DETAILS

REVISION SCHEDULE DATE DESCRIPTION 5-12-2021 3 UPDATED DETAIL

EDA PROJECT NO: 04-79-07284 **PROJECT NO:** 2010 MAY 2021 CCS N/A **DRAWN BY**: **SCALE:**

PLANT SCHEDULE* TQP COMMON SIZE SPA CING NOTES LQP 2.5" Caliper/12' Min. 270 Bald Cypress Taxodium distichum as shown 2.5" Caliper/12' Min. 270 Ulmus americana 'Drake' Drake Elm as shown Muskogee Crape Myrtle 1.5" Caliper/9' Min. Single Trunk Lagerstroemia indica 'Muskogee' as shown East Palatka Holly 1.5" Caliper/9' Min. Single Trunk as shown PROPOSED LANDSCAPE QUALITY POINTS 7 Gallon/24" Min. Sunshine Ligustrum as shown Ligustrum sinense 'Sunshine' Loropetalum chinense 'Crimson Fire' Crimson Fire Loropetalum 7 Gallon/24" Min. as shown 7 Gallon/24" Min. Juniperus chinensis 'Sea Green' Sea Green Juniper as shown llex vomitoria 'Nana' Dwarf Yaupon Holly 1 Gallon as shown 3 Gallon llex cornuta 'Carissa' Carissa Holly as shown Spartina bakeri Sand Cordgrass 1 Gallon 36" on center SOD/SEED Species to be determined based on existing site species and soil test. Chosen species to be submitted to landscape architect for approval. EXISTING TREE/LANDSCAPE QUALITY POINTS SIZE Live Oak 2521.5 \times .5 (Half of tree is on property) TOTAL 1260.75 TOTAL (INCLUDING EXISTING PRESERVED) 1850.75 584 REQUIRED TREE AND LANDSCAPE QUALITY POINTS .72 TOTAL SITE A CREAGE $.72 \times 1600 = 1,152$ TREE QUALITY POINTS .72 X 400 = 288 REQUIRED LANDSCAPE QUALITY POINTS 1200 X .22 A CRES OF PARKING AREA = 264 REQUIRED PARKING AREA TREE QUALITY POINTS (3 LARGE TREES PROVIDED) *Photographic submittal to be provided to landscape architect including photos of typical plant of each species (at nursery prior to purchase or delivery) for approval by project landscape architect. \sim LC (5) POSITIONED TO SCREEN BACKFLOW PREVENTER ASSEMBLY SHRUB POSITIONS MAY BE ADJUSTED IN THE FIELD BASED ON FINAL LOCATION OF UTILITIES. ∠APPROX. BACKFLOW PREVENTER LOCATION APPROX. TRANSFORMER LOCATION - CANNOT BE SCREENED DUE TO REQUIRED ACCESS S CAN SHIFT SLIGHTLY ACCOMODATE GAS METER A A (1)* SEE NOTE THIS SHEET EXISTING CRAPE MYRTLES TO REMAIN IF-POSSIBLE EXISTING OAK TO REMAIN EXISTING SMALL TREE

PLANTING NOTES

1. CONTRACTOR SHALL BE KNOWLEDGABLE OF ALL OTHER SITE IMPROVEMENTS PRIOR TO STARTING LANDSCAPE WORK. CONTRACTOR SHALL USE CAUTION WHILE EXCAVATING TO AVOID DISTURBING ANY EXISTING UTILITIES. IF ANY ARE ENCOUNTERED, CONTRACTOR IS TO PROMPTLY ADVISE THE GENERAL CONTRACTOR, LANDSCAPE ARCHITECT, AND OWNER. 3. GENERAL SITE CONTRACTOR SHALL PROVIDE SUBGRADE TO WITHIN $\frac{1}{10}$ " OF FINISH GRADE.

PLANT QUALITY:

4. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL TREES, SHRUBS, GROUNDCOVER, AND SOD AS SHOWN ON LANDSCAPE PLAN. ALL PLANT MATERIALS SHALL CONFORM TO THE STANDARDS SET FORTH IN THE CURRENT EDITION OF CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL TREES, SHRUBS, GROUNDCOVER, AND SOD AS SHOWN ON LANDSCAPE PLAN. ALL PLANT MATERIALS SHALL CONFORM TO THE STANDARDS SET FORTH IN THE CURRENT EDITION OF CONTRACTOR BY C "AMERICAN STANDARD FOR NURSERY STOCK", PUBLISHED BY THE ASSOCIATION OF NURSERYMEN, 1250 I STREET, N.W. SUITE 500, WASHINGTON, D.C. 20005, (202) 789-2900.

ALL PLANT MATERIAL SHALL HAVE A ONE-YEAR WARRANTY UPON ACCEPTANCE BY THE OWNER. PLANTS SHALL BE TYPICAL OF THEIR SPECIES AND VARIETY, AND HAVE A NORMAL WELL-DEVELOPED BRANCHING STRUCTURE AND A VIGOROUS FIBROUS ROOT SYSTEM. PLANTS SHALL BE HEALTHY, VIGOROUS, AND FREE FROM INSECTS AND DISEASE. TREE TRUNKS SHALL BE STRAIGHT AND EXHIBIT GOOD TRUNK TAPER WITH LIMBS NOT LOWER THAN FOUR FEET ABOVE THE GROUND, DEPENDENT ON THE SPECIES. TRUNKS AND STEMS SHALL BE FIRM WITH NO INDICATION OF FUNGAL CANKERS, GALLS, INSECT BORERS, DIE BACK, FROST CRACKS, SUN SCALD, OR OTHER DEFECTS THAT WOULD CAUSE THE TREE TO DECLINE OR BECOME STRUCTURALLY UNSOUND. TREES SHALL BE DENSELY FOLIATED WHEN IN LEAF

7. ALL PLANTS SHALL BE COMMERCIALLY GROWN UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE OF CHATHAM COUNTY (A.H.S. PLANT ZONE 8). ALL PLANTS SHALL EQUAL OR EXCEED THE MINIMUM SIZE AS SHOWN IN THE PLANT LIST, AND ALL METHODS OF PLANT MEASUREMENT SHALL CONFORM TO THE "AMERICAN STANDARD FOR NURSERY STOCK".

9. CALIPER OF MULTI-TRUNK TREES SHALL BE DETERMINED BY MEASURING THE LARGEST TRUNK ONLY. 10. PLANTS SHALL BE SUBJECT TO INSPECTION FOR CONFORMITY TO SPECIFICATIONS, REQUIREMENTS, AND APPROVAL BY THE PROJECT LANDSCAPE ARCHITECT. SUCH APPROVAL SHALL NOT IMPAIR THE RIGHT OF INSPECTION AND REJECTION DURING PROGRESS OF THE WORK. ACCEPTANCE AT THE NURSERY, IN WHICH THE PLANT IS GROWING PRIOR TO TRANSPLANTING, DOES NOT PRECLUDE REJECTION AT THE SITE FOR JUST CAUSE.

11. ALL TREES SHALL BE BALLED AND BURLAPPED (B&B) OR CONTAINER GROWN. NO BARE ROOT TREES SHALL BE ACCEPTABLE. 12. ALL SHRUBS SHALL BE BALLED AND BURLAPPED (B&B) OR CONTAINER GROWN. NO BARE ROOT SHRUBS SHALL BE ACCEPTABLE.

13. THE MINIMUM SIZE OF BALLS, BALL DEPTHS, AND BALL DIAMETER SHALL CONFORM TO BALLING AND BURLAPPING SPECIFICATIONS AS SET FORTH IN THE "AMERICAN STANDARD FOR NURSERY STOCK". 14. ALL BALLED AND BURLAPPED PLANTS SHALL HAVE THE TOP \(\frac{1}{3} \) OF THE BURLAP REMOVED FROM THE BALL AFTER THE POSITION OF THE PLANT IS STABILIZED. NO BURLAP SHALL BE REMOVED FROM UNDER THE BALL, AND ALL WIRE AND SURPLUS FROM THE TOP OF THE BALL SHALL BE REMOVED.

5. ALL EXTERIOR GROUND AREAS NOT OCCUPIED BY BUILDINGS, STRUCTURES, PAVEMENT, PLANT MATERIAL, AND MULCH SHALL BE SODDED IN AN ACCEPTABLE MANNER IN ACCORDANCE WITH LOCAL NURSERY STANDARDS, UNLESS OTHERWISE

16. ALL SOD SHALL BE COMMERCIALLY GROWN IN GEORGIA OR NEIGHBORING AREAS, STRONGLY ROOTED AND FREE FROM WEEDS. 17. ALL SOD SHALL BE LAYED WITHIN 48 HOURS AFTER BEING CUT AT THE NURSERY.

18. SOD SHALL BE LAYED OUT SO THAT NO VOIDS OCCUR AND IN SUCH A MANNER THAT THE END JOINTS BETWEEN INDIVIDUAL SOD PIECES OF ADJOINING ROWS DO NOT COINCIDE. SOD SHALL BE LAID ON TOPSOIL AT THE REQUIRED FINISH GRADE AND SHALL BE FLUSH WITH ADJACENT PAVEMENT, CURBS, AND PLANTING BED EDGES.

19. CONTRACTOR SHALL PROVIDE A MINIMUM 3" DEPTH OF TOPSOIL IN ALL PLANTING AREAS.

20. ALL TOPSOIL SHALL BE FREE FROM ROCKS, DEBRIS, NOXIOUS WEEDS, EXCESSIVE WEEDS, PLANT WASTE, SUBSOIL, HEAVY CLAY, ROOTS, STUMPS, AND ANY OTHER MATERIAL HARMFUL TO PLANT GROWTH. 21. TOPSOIL SHALL BE A NATURAL, FERTILE, SANDY LOAM POSSESSING CHARACTERISTICS COMMON TO PRODUCTIVE SOILS IN THE SOUTHEASTERN COASTAL REGION, AND IT SHALL NOT CONTAIN ANY TOXIC SUBSTANCES.

22. GROUNDCOVER SHALL BE PLANTED AS SPECIFIED BELOW: 22.1. GROUNDCOVER SHALL BE PLANTED IN AN EQUILATERAL TRIANGULAR SPACING PATTERN AT THE ON-CENTER DISTANCES SHOWN ON THE PLANT LIST.

22.2. WHERE GROUNDCOVER ABUTS CURBS, PAVEMENT, SIGNS AND POLES, MINIMUM PLANTING DISTANCE SHALL BE 12" FROM CENTER OF PLANT TO SAID OBJECT. 22.3. GROUNDCOVER SHALL BE PLANTED A MINIMUM OF 14" FROM CENTER OF ALL TREES. 23. SHRUBS AND GRASSES SHALL BE PLANTED A MINIMUM OF 4' FROM THE CENTER OF ALL LARGE TREES.

24. SHRUBS AND TREES SHALL BE PLANTED A MINIMUM OF 36" FROM CURBS AT CAR PARKING AREAS TO ALLOW FOR OVERHANG UNLESS WHEEL STOPS ARE PROVIDED. 25. NO LARGE OR MEDIUM TREE SPECIES SHALL BE PLANTED WITHIN TEN (10) FEET OF ANY UNDERGROUND UTILITY LINE OR UNDERNEATH ANY OVERHEAD POWER LINES. SMALL TREE SPECIES MUST MAINTAIN A (3) FOOT SEPARATION FROM

26. TREES SHALL BE PLANTED AT PROPER DEPTH OR SHALL BE REJECTED AT TIME OF INSPECTION. 27. STAKE TREES ONLY WHEN NECESSARY.

28. CONTRACTOR SHALL PERFORM A SOIL TEST ON ALL PROPOSED LANDSCAPE AREAS BEFORE INSTALLING ANY PROPOSED PLANT MATERIAL. TEST LOCATIONS AND RESULTS SHALL BE PROVIDED TO LANDSCAPE ARCHITECT. 29. IF A SOIL TEST DETERMINES THAT ADDITIONAL SOIL AMENDMENTS ARE REQUIRED, CONTRACTOR SHALL APPLY AN APPROPRIATE FERTILIZER IN CONFORMANCE WITH INSTRUCTIONS ON THE SOIL TEST.

30. ALL TREES AND SHRUBS SHALL BE MULCHED IMMEDIATELY FOLLOWING INSTALLATION WITH A MINIMUM 3" LAYER OF ACCEPTABLE MATERIAL.

31. ALL GROUNDCOVERS SHALL BE MULCHED IMMEDIATELY FOLLOWING INSTALLATION WITH A MINIMUM 1" LAYER OF ACCEPTABLE MATERIAL.

32. ACCEPTABLE MULCHING MATERIAL INCLUDES PINE NEEDLES, SHREDDED BARK, AND WOOD CHIPS.

— 3X CONTAINER DIA. —

SHRUB PLANTING DETAIL

SECTION - NOT TO SCALE

33. ALL AREAS TO BE PLANTED, SEEDED, AND SODDED SHALL BE PROVIDED WITH AN AUTOMATIC IRRIGATION SYSTEM.

34. ALL PLANTS INCLUDING TREES, SHRUBS, AND GROUNDCOVER SHALL BE THOROUGHLY WATERED IMMEDIATELY FOLLOWING INSTALLATION. 35. ALL SEEDED AND SODDED AREAS SHALL BE THOROUGHLY WATERED IMMEDIATELY FOLLOWING INSTALLATION.

36. CONTRACTOR SHALL INSPECT PLANTS ON A WEEKLY BASIS; MAINTAIN AND WATER ALL SODDED AREAS AND PLANT MATERIALS; AND WEED, PRUNE, AND RE-MULCH PLANTING BEDS AS NECESSARY TO MAINTIAN HEALTHY GROWING CONDITIONS

UNTIL LANDSCAPE INSTALLATION IS COMPLETE. 37. OWNER IS RESPONSIBLE FOR ON-GOING MAINTENANCE OF ALL PLANT MATERIAL UPON COMPLETION OF LANDSCAPE INSTALLATION.

38. GUYING AND STAKING SHALL BE REMOVED NO LATER THAN 6 MONTHS AFTER INSTALLATION.

39. ANY CHANGE IN PLANT QUANTITY, PLANT SPECIES, PLANT SIZE, OR PLANT LOCATION IS UNACCEPTABLE WITHOUT SPECIFIC APPROVAL OF THE PROJECT LANDSCAPE ARCHITECT. PROJECT LANDSCAPE ARCHITECT WILL ASSIST IN LOCATING PLANTS AS NECESSARY

IRRIGATION NOTES

IF PRESENT, CUT &

EARTH SAUCER

TAMP 6" MIN. DEF TO MINIMIZE SETTLEMENT

REMOVE BURLAP FROM UPPER 1/3 OF ROOT BALL -

CONTRACTOR SHALL PROVIDE AN AUTOMATIC IRRIGATION SYSTEM FOR ALL NEW PLANTING MATERIAL. CONTRACTOR SHALL PROVIDE IRRIGATION DESIGN, ASSOCIATED AGENCY APPROVALS, LABOR, MATERIALS, EQUIPMENT, AND SERVICES TO COMPLETE THE IRRIGATION WORK. THE WORK SHALL INCLUDE, BUT IS NOT LIMITED TO: VERIFICATION OF ALL UNDERGROUND UTILITY LOCATIONS.

COORDINATION OF IRRIGATION WORK WITH THE WORK OF ALL RELATED TRADES AND SUBCONTRACTORS TO ASSURE SMOOTH PROGRESSION OF PROJECT. PROTECTION AND/OR RESTORATION OF ALL EXISTING IMPROVEMENTS.

TRENCHING AND BACK FILLING FOR ALL PIPES, VALVES, AND DRAIN PITS SPECIFIED. FURNISHING AND INSTALLING ALL MAIN LINES, RISERS, FITTINGS, SPRAY HEADS, ROTOR HEADS, QUICK-COUPLING VALVES, CONTROL VALVES, CONTROLLERS, ELECTRIC WIRE, AND ALL NECESSARY SPECIALTY ITEMS

FURNISHING AND INSTALLING ALL SLEEVES BENEATH WALKWAYS, ROADS, AND DRIVEWAYS WHERE REQUIRED. REGULATING AND ADJUSTING ALL SPRAY HEADS, ROTOR HEADS, DRIP LINES, TIME SEQUENCE CONTROL DEVICES, AND SECTION VALVES.

TESTING OF IRRIGATION SYSTEM PROVIDING A WARRANTY ON THE IRRIGATION SYSTEM FOR ONE (1) YEAR AFTER ACCEPTANCE BY THE OWNER.
PROVIDING THAT WORK AND MATERIALS SHALL BE IN FULL ACCORDANCE WITH THE LATEST RULES AND REGULATIONS OF STATE AND LOCAL AGENCIES, INCLUDING LOCAL HEALTH CODES, PLUMBING CODES, AND ELECTRICAL CODES.

CONTRACTOR SHALL PROVIDE THE FOLLOWING SUBMITTALS:

DIAGRAMMATIC PLANS OF IRRIGATION SYSTEM TO LANDSCAPE ARCHITECT FOR INCLUSION IN AS-BUILT SET OF DRAWINGS.

PROPOSED IRRIGATION PLANS TO APPROPRIATE JURISDICTION FOR APPROVAL IF REQUIRED, AND TO LANDSCAPE ARCHITECT FOR REVIEW PRIOR TO INSTALLATION.

CLEANLY PRUNE ONLY DAMAGED, DISEASED, AND/OR WEAK BRANCHES IF NECESSARY. 1. CLEANLY PRUNE ONLY CROSSOVER LIMBS, CO-DOMINANT LEADERS, AND BROKEN OR DEAD BRANCHES. DO NOT FINISH GRADE AROUND PLANT TO BE THE SAME AS ORIGINAL GRADE OF PLANT WHEN REMOVE THE JERMINAL BUDS OF BRANCHES THAT EXTEND TO THE CROWN. 2. STAKE TREES ONLY UPON THE APPROVAL OF THE LANDSCAPE ARCHITECT.

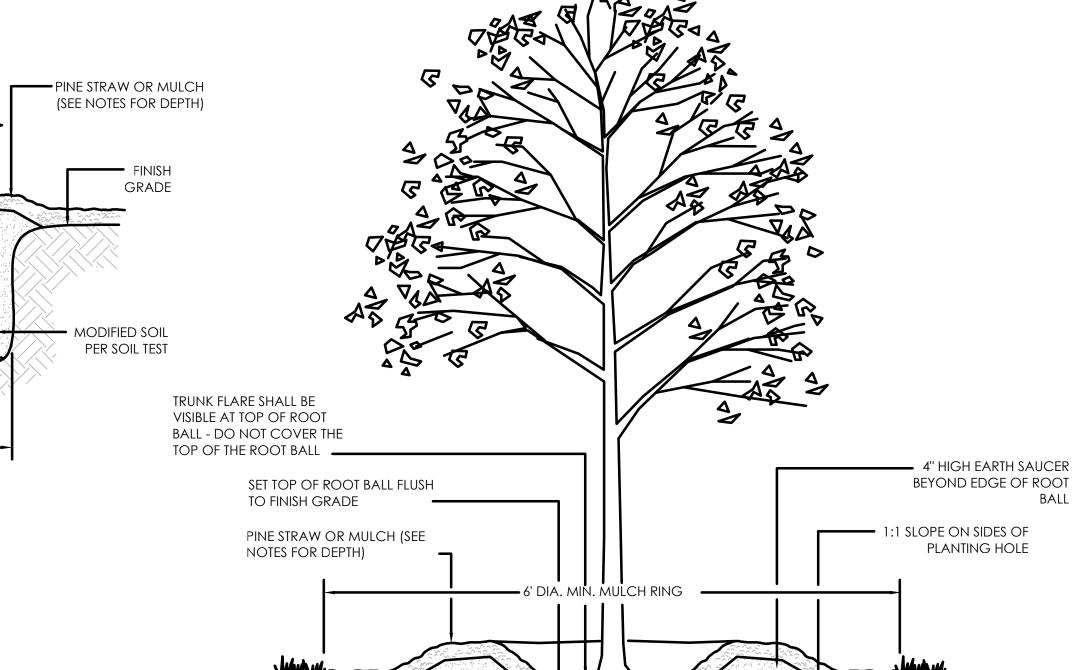
TAMP SOIL ——

AROUND ROOT

BALL BASE FIRMLY WITH FOOT

PRESSURE SO THAT ROOT BALL DOES

NOT SHIFT



MODIFIED SOIL PER SOIL TEST EMOVE ALL TWINE, ROPE, WIRE AND BURLAP FROM TOP HALF OF ROOT BALL.

> TREE PLANTING DETAIL SECTION - NOT TO SCALE

2X ROOT BALL DIA.

EDA PROJECT NO: 04-79-07284 PROJECT NO: DATE: MAY 2021 **DRAWN BY:** SCALE: As indicated

1 | 5/26/2021 | ADD. No. 01

IF PRESENT, CUT THE WIRE

OF THE ROOTBALL

BASKET 8" BACK FROM TOP

S

HINESVILLE

Development Authority

Cogdell Mendrala Architects

COGDELL & MENDRALA ARCHITECTS, PC

517 EAST CONGRESS STREET

SAVANNAH, GEORGIA 31401

tel 912.234.6318 fax 912.236.8414

cogdellmendrala.com

PROJECT CONSULTANTS:

SAVANNAH, GA 31401

STRUCTURAL ENGINEERS:

SAVANNAH, GA 31410

138 CANAL STEET #307 POOLER, GA 31322 LANDSCAPE ARCHITECT:

CIVIL ENGINEERS:

7 BAKER DRIVE SAVANNAH, GA 31410

KEY PLAN:

SHEET TITLE:

PLAN

LANDSCAPE

REVISION SCHEDULE

DESCRIPTION

METHOD ENGINEERING

2 E. BRYANT STREET SUITE 1500C

SAUSSY ENGINEERING

400 E. JOHNNY MERCER BOULEVARD

COASTLINE CONSULTING

MANDEL DESIGN, LLC

M.E.P. ENGINEERS:

SHEET

L-1

LANDSCAPE PLAN

TO REMAIN * NOTE: TREE MAY NEED TO BE RELOCATED ON SITE BASED ON

ACTUAL HABIT AND DRIP LINE OF EXISTING OAK

EXISTING SMALL TREES -

TO REMAIN