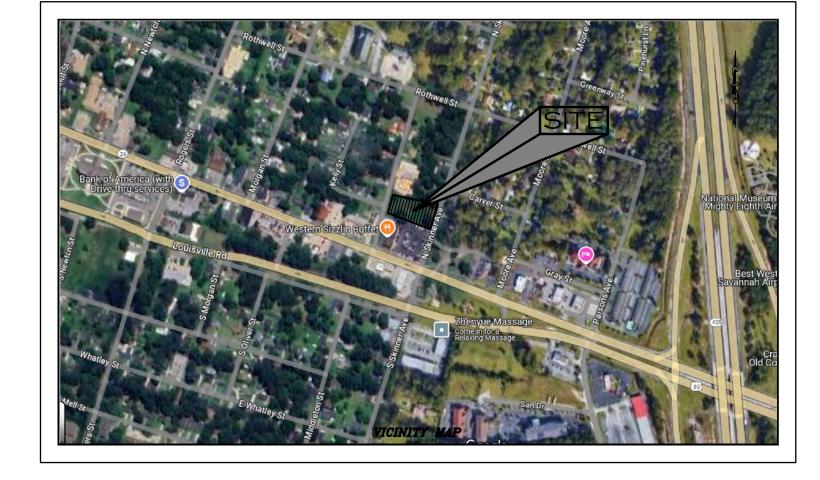
Site Work Plans

FOR THE NEW

Medical Center 115 N Skinner Ave Pooler, Georgia 31322

FOR

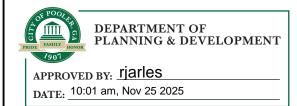
SKH Pooler, LLC Contact: Pop Seniwong 2 Tidewater Way Savannah, GA 31411



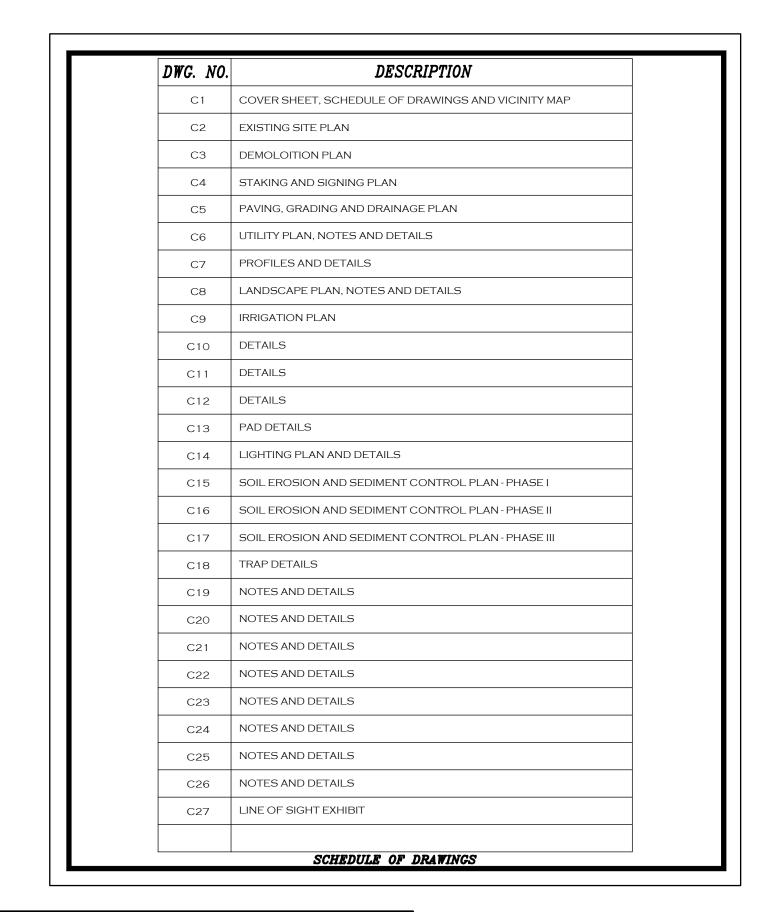
September, 2025







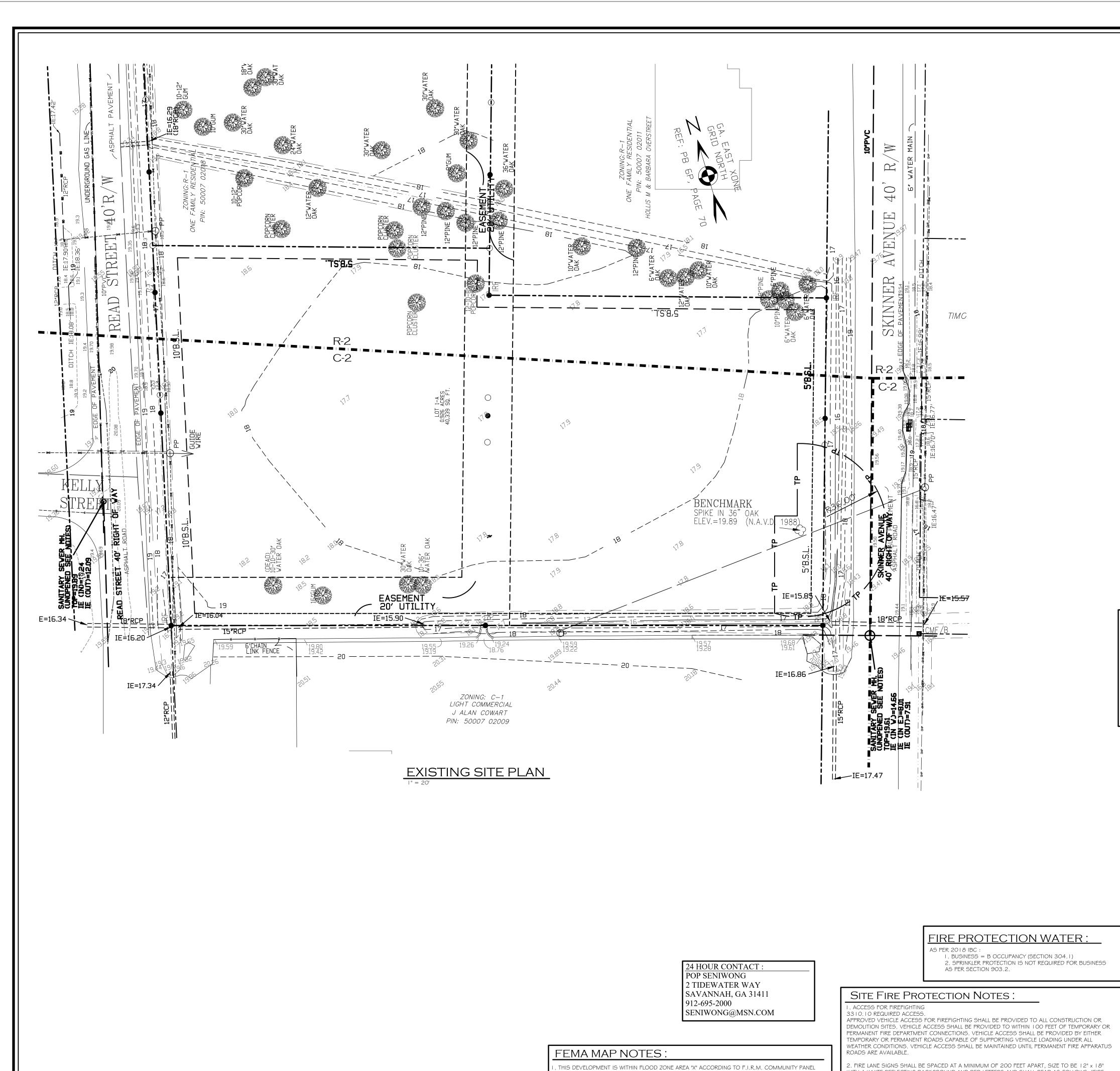
24 HOUR CONTACT:
POP SENIWONG
2 TIDEWATER WAY
SAVANNAH, GA 31411
912-695-2000
SENIWONG@MSN.COM



SPECIAL ORDINANCE NOTE:

I . IN CASE OF CONFLICT BETWEEN THESE PLANS AND THE CITY OF POOLER'S ORDINANCES STANDARDS, SPECIFICATIONS OR DETAILS, THE CITY OF POOLER, STANDARDS ARE TO TAKE PRECEDENCE.





IUMBER 13051C0126H, MAP REVISED AUGUST 16, 2018 (NAVD 88).

2. THIS SITE IS IN ZONE "X" AND IS NOT LOCATED WITHIN THE 100 YEAR FLOOD ZONE.

. CONTRACTOR IS TO VERIFY FEMA ELEVATIONS PRIOR TO ANY CONSTRUCTION ACTIVITIES.

DEVELOPMENT IS WITHIN THE MAIN STREET OVERLAY DISTRICT

LEGEND NEW EXISTING DESCRIPTION BUILDING RESURFACE ASPHALT PAVEMENT ASPHALT PAVEMENT TYPE I ASPHALT PAVEMENT TYPE I I CONCRETE PAVEMENT CONCRETE SIDEWALK STORM DRAIN LINE — SS — SANITARY SEWER LINE WATER LINE SANITARY SEWER MANHOLE GAS VALVE WATER VALVE WATER METER FIRE HYDRANT FLARED END SECTION SPOT ELEVATION CONTOUR INVERT ELEVATION CHAIN LINK FENCE DITCH INVERT PROPERTY LINE IRON PIN FOUND TW 16.83 TOP OF WALK TP 14.65 TOP OF PAVEMENT FG 16.1 FINISHED GRADE TS 16.10 TOP OF STONE TG 16.10 TOP OF GUTTER TOP OF CURB TC 16.10

. NEW STRUCTURES ON THIS PROJECT DO NOT ENCROACH IN THE 25 OR 50 FOOT STREAM BUFFER.

STREAM BUFFER ENCROACHMENT NOTES:

. 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 VARIANCES AND PERMITS.

FRAFFIC / RIGHT-OF-WAY AND DISCHARGE NOTES:

. ALL ROAD CLOSINGS, DETOURS AND ETC. ARE TO BE COORDINATED WITH THE CITY

. ANY AND ALL NECESSARY PERMITS MUST BE OBTAINED FROM THE CITY OF POOLER PRIOR TO COMMENCEMENT OF ANY WORK. 3. CONTRACTOR IS TO OBTAIN A R.O.W. PERMIT PRIOR TO PERFORMING ANY WORK

WITHIN CITY OF POOLER RIGHT-OF-WAY.

4. CHLORINATED DISINFECTED WATER SHALL NOT BE DISCHARGED INTO THE STORMWATER SYSTEM.

SPECIAL ORDINANCE NOTE:

. IN CASE OF CONFLICT BETWEEN THESE PLANS AND THE CITY OF POOLER'S ORDINANCES STANDARDS, SPECIFICATIONS OR DETAILS, THE CITY OF POOLER, STANDARDS ARE TO TAKE PRECEDENCE.

POOLER ORDINANCE NOTES:

CONTRACTOR IS TO VERIFY ALL BSL'S, BUFFERS, ETC. WTIH THE POOLER ANNING AND ZONING DEPARTMENT PRIOR TO CONSTRUCTION ACTIVITIES

SPECIAL F.F. NOTES

. CONTRACTOR TO VERIFY FEMA ELEVATIONS PRIOR TO ANY CONSTRUCTION ACTIVITIES AND COORDINATE WITH GOVERNING AGENCY REQUIREMENTS.

2. CONTRACTOR TO COORDINATE FINISH FLOOR ELEVATIONS WITH STRUCTURAL, ARCHITECTURAL AND M.E.P. PLANS.

WITH A WHITE REFLECTING BACKGROUND AND RED LETTERS AND SHALL READ AS FOLLOWS: "FIRE

3. AS PER FIRE CODE, FIRE FIGHTING APPARATUS MUST BE ABLE TO ACCESS TO WITHIN 150' OF ANY

LANE - NO PARKING - TOW-AWAY ZONE".

PART OF BUILDING.

. CONTRACTOR IS TO COORDINATE ALL GAS, LIGHTING, ELECTRICAL, PHONE, CABLE AND ANY OTHER REQUIRED UTILITIES WITH THE APPROPRIATE UTILITY AGENCIES.

2. CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES PRIOR TO COMMENCING OF CONSTRUCTION ACTIVITIES AND FOR AVOIDIN CONFLICT WITH SAME. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR.

3. CONTRACTOR IS TO COORDINATE ALL DEMOLITION WORK WITH THE OWNER. ALL ITEMS NOT TO BE RELOCATED OR GIVEN TO THE OWNER WILL BECOME THE PROPERTY OF THE CONTRACTOR.

4. REMOVE ALL TREES AS NECESSARY FOR PROPOSED CONSTRUCTION.

. Survey information: Vincent Helmly (supplied by owner) 2. Date of Original Survey : May, 2022 3. Datum : NAVD 88

PROJECT INFORMATION: 2.I.N.: 50007 02020

PROJECT ADDRESS: 115 N SKINNER AVE Pooler, Georgia 31322

SITE SIZE: 0.92 ACRES

CURRENT ZONING : C-I

STIMATED DISTURBED AREA: 0.69 ACRES MAINSTREET OVERLAY DISTRICT SETBACKS:

FRONT = 5'REAR = 10'SIDE = 5'

BUILDING HEIGHT = 40'

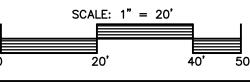
OWNER : SKH POOLER, LLC

PRIMARY PERMITTEE EMAIL : SENIWONG@MSN.COM

PHONE: 912-695-2000

IOTE: THIS PROJECT IS WITHIN THE MAINSTREET OVERLAY ISTRICT.

IF THE CONTRACTOR KNOWS OR CAN REASONABLY BE EXPECTED TO HAVE KNOWN OF AN ERROR. DISCREPANCY OR CONFLICT IN THE PLANS, SPECIFICATIONS OR CONSTRUCTION STAKING AND FAILS TO REPORT THE PROBLEM PRIOR TO CONSTRUCTION. HE SHALL NOT BE ENTITLED TO COMPENSATION FOR ANY WORK OR EXPENSE INCURRED BY HIM FOR WORK REQUIRED TO BE RE-CONSTRUCTED BECAUSE C SAID ERROR, DISCREPANCY OR CONFLICT.



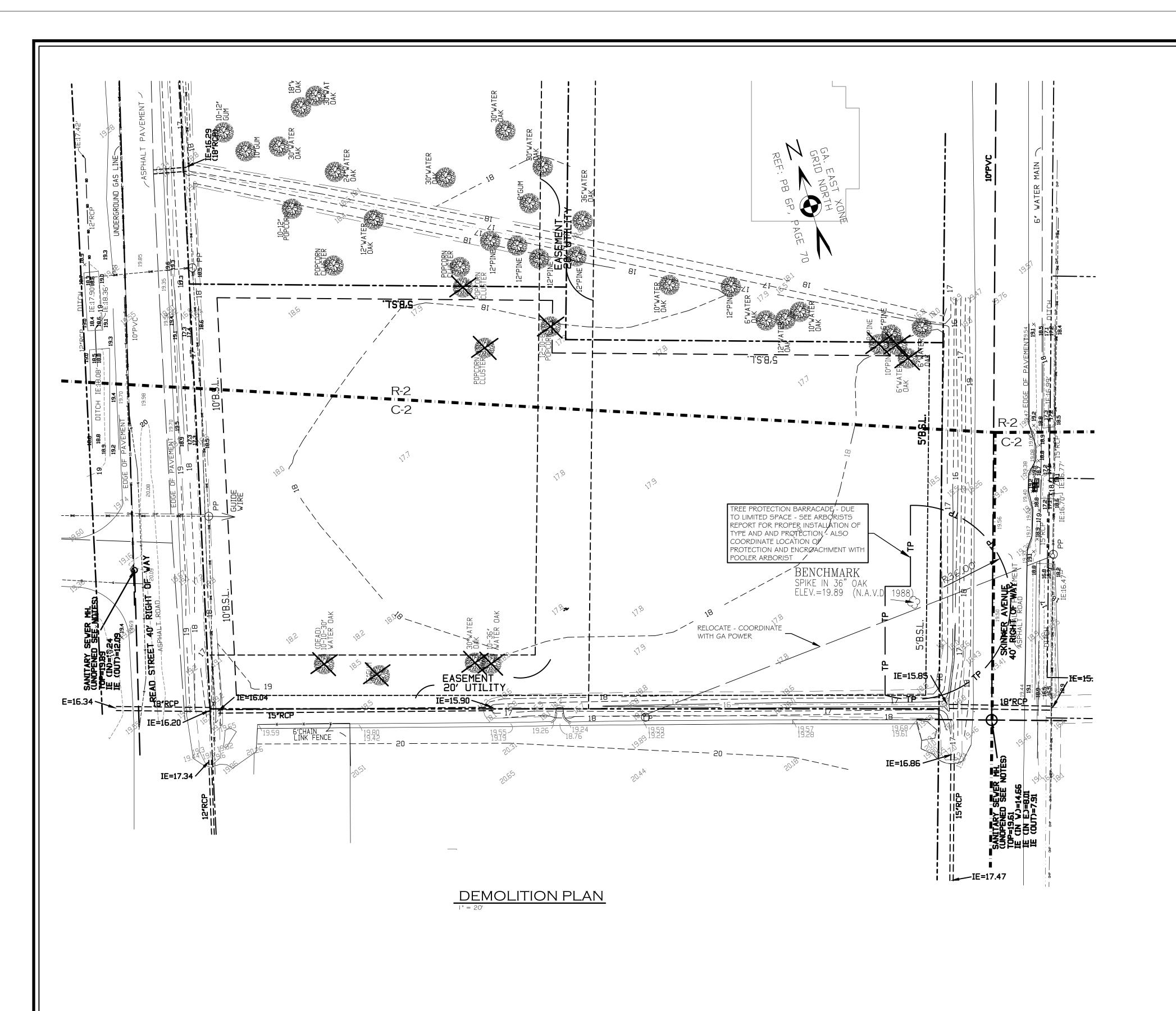
SPECIAL CONSTRUCTION NOTE:

ENTER VER AVE SIA 313

PRIOR TO DIGGING

CEORGIA REGISTA No. 28372 PROFESSIONAL 2 11-25

Drawing Number



— GALVANIZED METAL POST SUNK A MINIMUM 1'-0" BELOW GRADE. 4' TEMPORARY CHAIN LINK FENCE TREE PROTECTION BARRIER (TYP). -BARRIER CONSTRUCTED TO PROTECT TREE TRUNK, CROWN, AND ROOT SYSTEM FROM INJURY. BARRIERS SYSIEM FROM INJURY. BARRIERS
SHALL BE LOCATED AT THE LIMITS
OF THE TREE'S CRITICAL ROOT ZONE
(A RADIUS OF ONE FOOT PER INCH
OF THE TREE'S DIAMETER AT BREAST
HEIGHT). BARRIER SHALL BE KEPT IN
GOOD CONDITION FOR THE DURATION
OF THE PROJECT AND IS TO REMAIN
IN PLACE UNTIL REMOVAL IS
APPROVED BY PARK AND TREE. FOR ADDED PROTECTION - PROVIDE 4" DEEP WOOD CHIP MULCH OVER ANY UNPROTECTED ROOT ZONE. - MAKE CLEAN CUTS ON ROOTS EXPOSED BY GRADING AND BACKFILL IMMEDIATELY. - PROVIDE TEMPORARY IRRIGATION WHERE PRACTICAL AND FEASIBLE. TREE PROTECTION DETAIL

SPECIAL ORDINANCE NOTE:

ORDINANCES STANDARDS, SPECIFICATIONS OR DETAILS, THE CITY OF POOLER, STANDARDS ARE TO TAKE PRECEDENCE.

FEMA MAP NOTES:

THIS DEVELOPMENT IS WITHIN FLOOD ZONE AREA "X" ACCORDING TO F.I.R.M. COMMUNITY PANEL NUMBER 13051C0126H, MAP REVISED AUGUST 16, 2018 (NAVD 88).

2. THIS SITE IS IN ZONE "X" AND IS NOT LOCATED WITHIN THE 100 YEAR FLOOD ZONE.

. CONTRACTOR IS TO VERIFY FEMA ELEVATIONS PRIOR TO ANY CONSTRUCTION ACTIVITIES.

TRAFFIC / RIGHT-OF-WAY AND DISCHARGE NOTES:

WITHIN CITY OF POOLER RIGHT-OF-WAY.

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OF POOLER, GEORGIA. 2. ANY AND ALL NECESSARY PERMITS MUST BE OBTAINED FROM THE CITY OF POOLER

PRIOR TO COMMENCEMENT OF ANY WORK. 3. CONTRACTOR IS TO OBTAIN A R.O.W. PERMIT PRIOR TO PERFORMING ANY WORK

4. CHLORINATED DISINFECTED WATER SHALL NOT BE DISCHARGED INTO THE

24 HOUR CONTACT: POP SENIWONG 2 TIDEWATER WAY SAVANNAH, GA 31411 912-695-2000 SENIWONG@MSN.COM

I. CONTRACTOR IS TO COORDINATE ALL GAS, LIGHTING, ELECTRICAL, PHONE, CABLE AND ANY OTHER REQUIRED UTILITIES WITH THE APPROPRIATE UTILITY AGENCIES.

2. CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES PRIOR TO COMMENCING OF CONSTRUCTION ACTIVITIES AND FOR AVOIDING CONFLICT WITH SAME. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR.

3. CONTRACTOR IS TO COORDINATE ALL DEMOLITION WORK WITH THE OWNER. ALL ITEMS NOT TO BE RELOCATED OR GIVEN TO THE OWNER WILL BECOME THE PROPERTY OF THE CONTRACTOR.

4. REMOVE ALL TREES AS NECESSARY FOR PROPOSED CONSTRUCTION.

STREAM BUFFER ENCROACHMENT NOTES:

. NEW STRUCTURES ON THIS PROJECT DO NOT ENCROACH IN THE 25 OR 50 FOOT STREAM BUFFER.

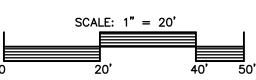
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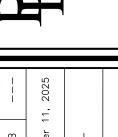
. Survey information: Vincent Helmly (supplied by owner)

2. Date of Original Survey : May, 2022 3. Datum : NAVD 88

SPECIAL CONSTRUCTION NOTE:

THE CONTRACTOR KNOWS OR CAN REASONABLY BE EXPECTED TO HAVE KNOWN OF AN ERROR, DISCREPANCY OR CONFLICT IN THE PLANS, SPECIFICATIONS OR CONSTRUCTION STAKING AND FAILS TO REPORT THE PROBLEM PRIOR O CONSTRUCTION, HE SHALL NOT BE ENTITLED TO COMPENSATION FOR ANY WORK OR EXPENSE INCURRED BY HIM FOR WORK REQUIRED TO BE RE-CONSTRUCTED BECAUSE OF SAID ERROR, DISCREPANCY OR CONFLICT.

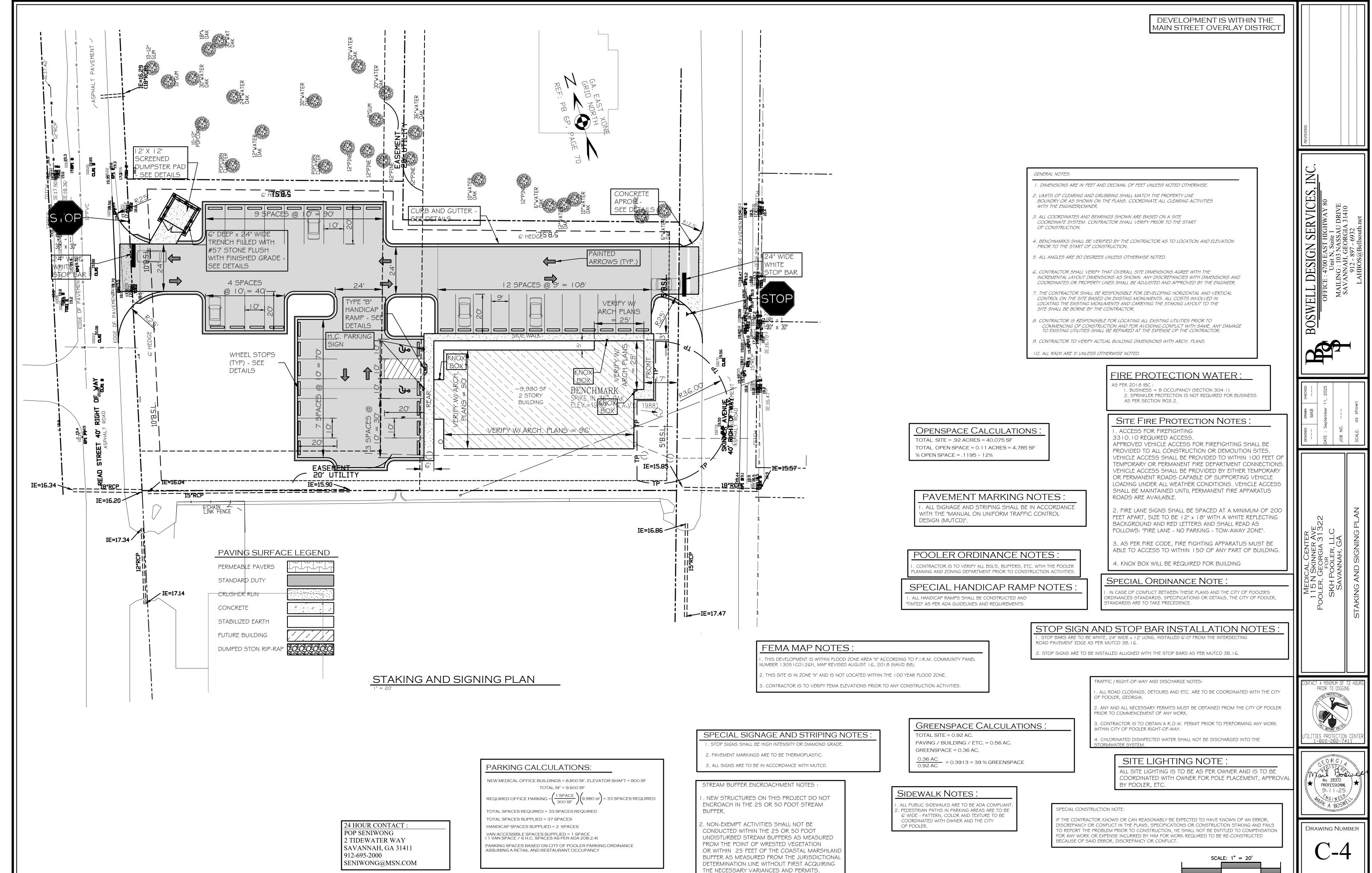


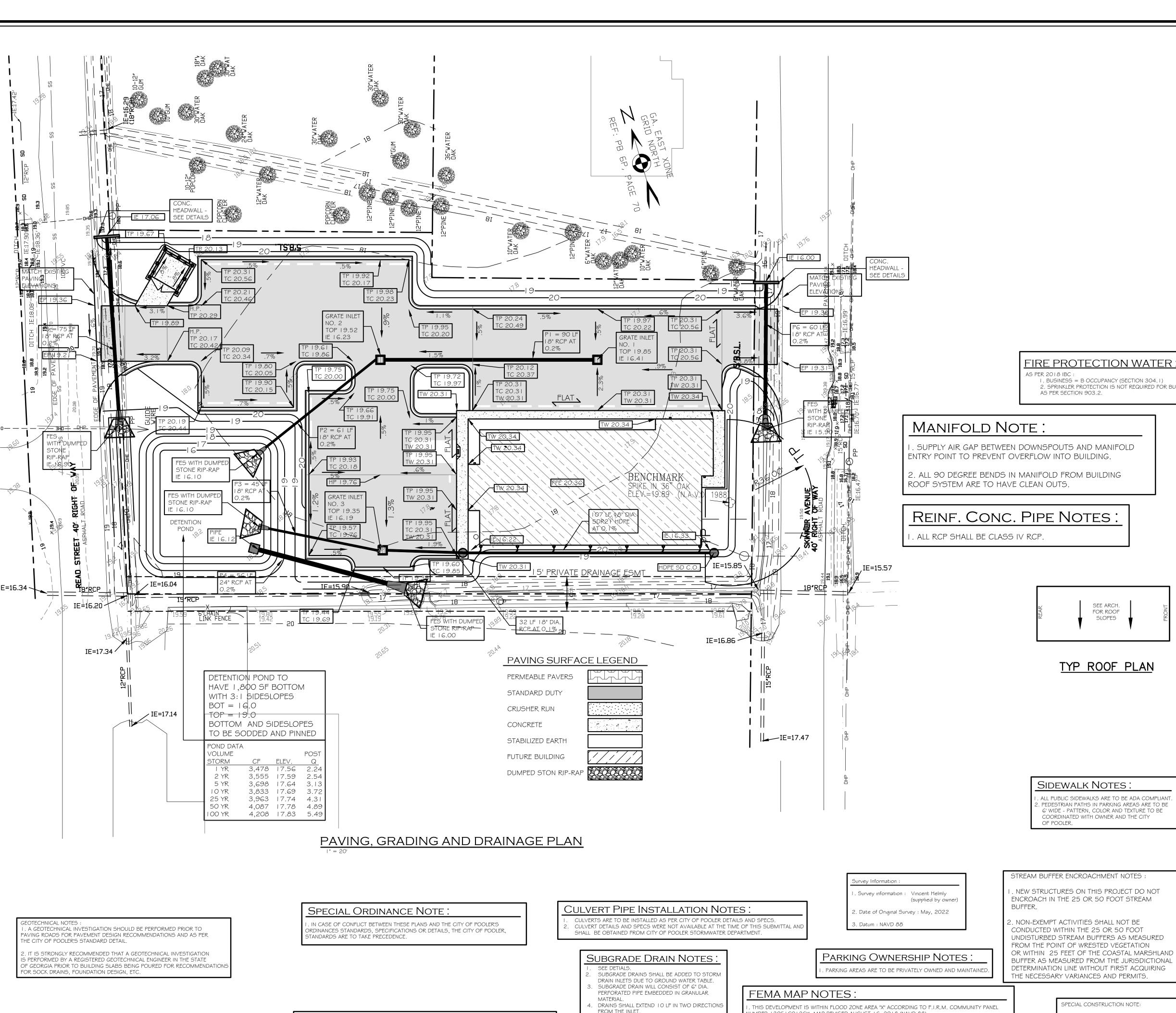


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DEVELOPMENT IS WITHIN THE MAIN STREET OVERLAY DISTRIC

24 HOUR CONTACT: POP SENIWONG 2 TIDEWATER WAY SAVANNAH, GA 31411 912-695-2000 SENIWONG@MSN.COM

CONTRACTOR IS TO COORDINATE ALL GAS, LIGHTING, ELECTRICAL, PHONE, CABLE AND ANY OTHER REQUIRED UTILITIES WITH THE APPROPRIATE UTILITY AGENCIES.

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. REMOVE ALL TREES AS NECESSARY FOR PROPOSED CONSTRUCTION.

SPECIAL F.F. NOTES

. CONTRACTOR TO VERIFY FEMA ELEVATIONS PRIOR TO ANY CONSTRUCTION ACTIVITIES AND COORDINATE WITH GOVERNING AGENCY REQUIREMENTS.

2. CONTRACTOR TO COORDINATE FINISH FLOOR ELEVATIONS WITH STRUCTURAL, ARCHITECTURAL AND M.E.P. PLANS.

SITE FIRE PROTECTION NOTES:

FIRE PROTECTION WATER:

I. BUSINESS = B OCCUPANCY (SECTION 304.1)

SEE ARCH.

FOR ROOF

SLOPES

TYP ROOF PLAN

SIDEWALK NOTES

OF POOLER.

ALL PUBLIC SIDEWALKS ARE TO BE ADA COMPLIANT

PEDESTRIAN PATHS IN PARKING AREAS ARE TO BE

6' WIDE - PATTERN, COLOR AND TEXTURE TO BE

COORDINATED WITH OWNER AND THE CITY

NEW STRUCTURES ON THIS PROJECT DO NOT

2. SPRINKLER PROTECTION IS NOT REQUIRED FOR BUSINESS

AS PER 2018 IBC

AS PER SECTION 903.2.

. ACCESS FOR FIREFIGHTING

3310.10 REQUIRED ACCESS

APPROVED VEHICLE ACCESS FOR FIREFIGHTING SHALL BE PROVIDED TO ALL CONSTRUCTION OR DEMOLITION SITES. VEHICLE ACCESS SHALL BE PROVIDED TO WITHIN 100 FEET OF TEMPORARY OR PERMANENT FIRE DEPARTMENT CONNECTIONS. VEHICLE ACCESS SHALL BE PROVIDED BY EITHER TEMPORARY OR PERMANENT ROADS CAPABLE OF SUPPORTING VEHICLE LOADING UNDER ALL WEATHER CONDITIONS. VEHICLE ACCESS SHALL BE MAINTAINED UNTIL PERMANENT FIRE APPARATUS ROADS ARE AVAILABLE.

2. FIRE LANE SIGNS SHALL BE SPACED AT A MINIMUM OF 200 FEET APART, SIZE TO BE 12" x 18" $^{\circ}$ WITH A WHITE REFLECTING BACKGROUND AND RED LETTERS AND SHALL READ AS FOLLOWS: "FIRE LANE - NO PARKING - TOW-AWAY ZONE".

3. AS PER FIRE CODE, FIRE FIGHTING APPARATUS MUST BE ABLE TO ACCESS TO WITHIN 150' OF ANY PART OF BUILDING.

SPECIAL CONSTRUCTION NOTES

ACTOR IS TO OBTAIN, REVIEW AND FOLLOW THE RECCOMMENDATIONS SET FORTH BY TH GOETECHNICAL REPORT.

I. GROUNDWATER MUST BE LOWERED DURING CONSTRUCTION BY ANY MEANS APPROVED BY THE GEOTECHNICAL ENGINEER 3. DE-WATERING MAY BE ACCOMPLISHED BY WELLPOINTS AND / OR DITCHES WITH SUMPS AND PUMPS.

F. STIPPING OF PROJECT SITE DEPTHS MAY BE FROM 2 TO IN EXCESS OF 5 FEET BELOW THE GROUND SURFACE. 5. FILL AND / OR BACKFILL SHALL CONSIST OF COARSE-GRAINED SOILS CLASSIFIED AS SW, SP, SM OR SP-SM WITH A MAXIMUM OF 15% PASSING A #200 SIEVE.

G. BACKFILL FOR PAVING SHALL BE PLACED IN 6 INCH LIFTS AND COMPACTED TO 95% DENSITY IN ACCORDANCE WITH

'. ANT TRENCH LEFT VACANT (from relocate) UTILITIES, STUMP HOLES, ETC. SHALL BE BACKFILLED WITH APPROVED SOIL, PLACED IN 6 INCH LIFTS AND COMPACTED TO 95% DENSITY IN ACCORDANCE WITH ASTM D-1557.

8, SUBGRADE SHALL BE PROOF ROLLEN WITH A LOADED DUMP TRUCK, ANY "PUMPING" OR UNSTABLE AREAS SHALL BE EMOVED AND REPLACED AS PER SPECIAL CONSTRUCTION NOTE #6. IN THE CASE OF EXCESSIVE MOISTURE, THE AREA

MAY BE ALLOWED TO DRY AND RE-PROOF ROLLED.

9. ALL FILL SOILS FOR THIS PROJECT SHALL BE AS PER SPECIAL CONSTRUCTION NOTE #5.

O. SOILS CLASSIFIED AS MH, CH, CC OR SC WILL NOT BE ACCEPTABLE.

I . ALL FOOTING EXCAVATIONS AND SLAB SUBGRADES SHALL BE COMPACTED TO A MINIMUM OF 95% IN ACCORDANCE 2. SLABS ON GRADE SHOULD BE SUPPORTED BY A MINIMUM OF 4 INCHES OF GRANULAR FREE DRAINING GRAVEL OR

COARSE SAND TO REMOVE MOISTURE. I 3. A VAPOR RETARDING MEMBRANE SHALL BE PLACED BETWEEN GRANULAR BASE AND CONCRETE TO PREVENT MIGRATIO

SEE SHEET C2 FOR LEGEND.

BEGINNING CONSTRUCTION.

GENERAL NOTES:

. LIMITS OF GRADING AND GRASSING ARE INDICATED ON THE SOIL EROSION AND SEDIMENT CONTROL PLANS AS "LIMITS OF DISTURBANCE".

CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES PRIOR TO COMMENCING OF CONSTRUCTION AND FOR AVOIDING CONFLICT WITH SAME. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR.

4. ALL DISTURBED AREAS FROM NEW CONSTRUCTION ACTIVITIES WILL BE SEEDED, MULCHED, FERTILIZED AND WATERED TO PROMOTE A SUFFICIENT GROUND COVER THAT WILL PREVENT SOIL EROSION. 5. DRAINAGE: ALL EXCAVATION SHALL BE PERFORMED SO THAT THE SITE AND THE AREA IMMEDIATELY SURROUNDING THE SITE WHICH EFFECTS THE OPERATIONS WILL BE CONTINUALLY AND EFFECTIVELY DRAINED. SURFACE WATER, GROUNDWATER, OR ANY PERCHED WATER WHICH MIGHT BE ENCOUNTERED DURING EXCAVATIONS SHALL BE

REMOVED BY ANY ACCEPTABLE MEANS APPROVED BY THE ENGINEER. 6. ELEVATIONS ARE BASED ON NAVD 88 DATUM. SEE C2 FOR ELEVATION DATUM.

7. CONTRACTOR TO VERIFY ALL EXISTING AND PROPOSED STRUCTURE LOCATIONS (drainage, sanitary, etc.) TOPS AND DEPTHS PRIOR TO ORDERING MATERIALS OR

8. DETENTION BASIN MAY BE ENLARGED (not deepened) TO GAIN FILL FOR CONSTRUCTION IF THE MATERIAL IS SATISFACTORY.

9. DETENTION BASIN IS TO BE CONSTRUCTED WITH 3:1 SIDESLOPES.

IO. DETENTION BASIN IS TO BE SODDED TO PREVENT EROSION.

11. 18" CURB AND GUTTER (if required) TO BE CONCRETE. 12. #12 GA. WIRE SHALL BE INSTALLED ABOVE ALL STORM PIPES AT 1 TO 2 FEET

3. ALL STORM PIPE JOINTS SHALL BE WRAPPED WITH FILTER FABRIC.

14. SEE UTILITY PLAN FOR PIPE SEPARATION NOTES.

5. PARKING AREA IS TO BE PRIVATELY OWNED AND MAINTAINED.

SCALE: 1" = 20'

PRIOR TO DIGGING

AVE 313

No. 28372
POFESSION Professional

Drawing Number

5 of 27 sheets

FROM THE INLET DRAINS MAY BE EXTENDED MORE THAN 10 LF IF INSTRUCTED BY OWNER OR HIS/HER

REPRESENTITIVE AS CONDITIONS DICTATE.

SLOPE TOWARDS THE INLET.

DRAINS SHALL BE INSTALLED AT A UNIFORM

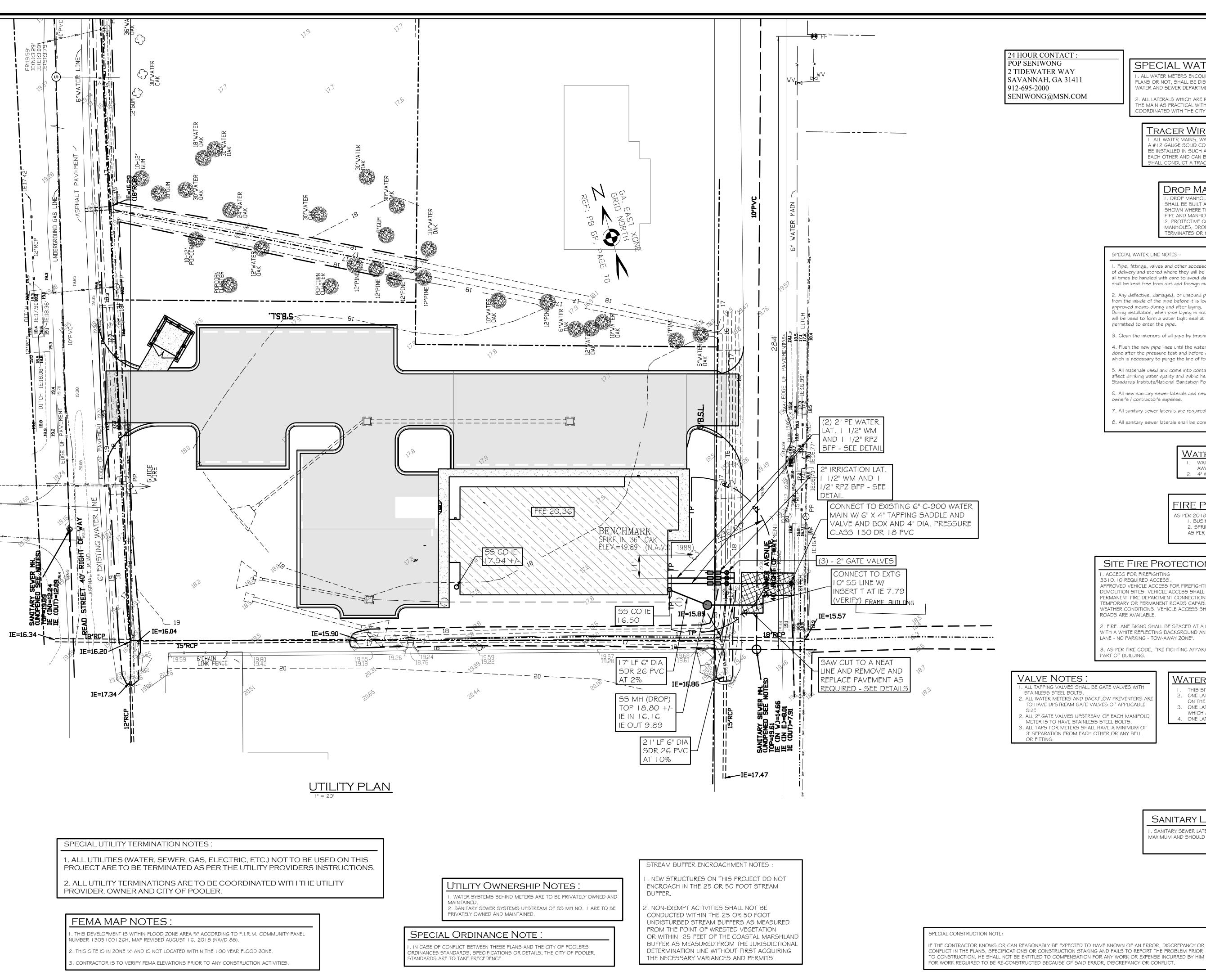
NUMBER 13051C0126H, MAP REVISED AUGUST 16, 2018 (NAVD 88).

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STORM AND UTILITIES MANHOLE AND BOX NOTES: INVERT ELEVATIONS ARE TO BE CONSIDERED AS PIPE INVERTS AND NOT AS THE INVERT OF THE MANHOLE, BOX, ETC

2. THIS SITE IS IN ZONE "X" AND IS NOT LOCATED WITHIN THE 100 YEAR FLOOD ZONE. CONTRACTOR IS TO VERIFY FEMA ELEVATIONS PRIOR TO ANY CONSTRUCTION ACTIVITIES.

SPECIAL CONSTRUCTION NOTE:



DEVELOPMENT IS WITHIN THE MAIN STREET OVERLAY DISTRIC

SPECIAL WATER LINE NOTES

I . ALL WATER METERS ENCOUNTERED ON THE PROJECT SITE, WHETHER SHOWN ON TH PLANS OR NOT, SHALL BE DISCONNECTED AND RETURNED TO THE CITY OF POOLER WATER AND SEWER DEPARTMENT.

2. ALL LATERALS WHICH ARE REMOVED FROM SERVICE SHALL BE CAPPED AS CLOSE TO THE MAIN AS PRACTICAL WITHOUT REMOVING ROADWAY. THIS WORK IS TO BE COORDINATED WITH THE CITY OF POOLER WATER AND SEWER DEPARTMENT.

Tracer Wire Notes:

ALL WATER MAINS, WATER LATERALS AND FIRE HYDRANTS ARE TO HAVE A #12 GAUGE SOLID COPPER WIRE INSTALLED WITH EACH UTILITY. IT SHAI BE INSTALLED IN SUCH A MANNER THAT THE WIRES ARE CONNECTED TO EACH OTHER AND CAN BE CONTINUOUSLY TRACED. THE WATER DEPARTMEN SHALL CONDUCT A TRACING TEST TO ENSURE COMPLIANCE.

Drop Manhole Notes:

PIPE AND MANHOLE IE IS MORE THAN 2 FEE

SHALL BE BUILT AT THE LOCATIONS AND IN CONFORMANCE WITH THE DETAILS SHOWN WHERE THE DIFFERENCE IN IE ELEVATION BETWEEN THE INCOMING

2. PROTECTIVE COATINGS ARE REQUIRED FOR ALL WET WELLS, RECEIVING

MANHOLES, DROP MANHOLES, ANY STRUCTURE WHERE A FORCE MAIN TERMINATES OR HIGH LEVELS OF CORROSION ARE ANTICIPATED.

SPECIAL WATER LINE NOTES :

I. Pipe, fittings, valves and other accessories shall, unless otherwise directed, be unloaded at the point of delivery and stored where they will be protected and will not be hazordous to traffic. They shall at all times be handled with care to avoid damage. The interior of all pipe, fittings and other accessories shall be kept free from dirt and foreign matter at all times.

2. Any defective, damaged, or unsound pipe shall be rejected. All foreign matter or dirt shall be removed from the inside of the pipe before it is lowered into it's position in the trench and shall be kept clean by approved means during and after laying. Care shall be taken to prevent dirt from entering the joint space. During installation, when pipe laying is not in progress, a mechanical joint plug or cap, or approved equal, will be used to form a water tight seal at both ends of the line being laid and no trench water shall be permitted to enter the pipe.

3. Clean the interiors of all pipe by brushing, swabbing or washing out all dirt before placement.

4. Flush the new pipe lines until the water runs clear at the end of all mains and laterals. This should be done after the pressure test and before disinfection. Minimum flush time and velocity are to be 2.5 fps which is necessary to purge the line of foreign material.

5. All materials used and come into contact with drinking water during its distribution shall not adversely affect drinking water quality and public health and must be certified for conformance with American National Standards Institute/National Sanitation Foundation Standard 61 (ANSI/NSF Standard 61).

6. All new sanitary sewer laterals and new mains are required to be televised at the owner's / contractor's expense.

7. All sanitary sewer laterals are required to be capped.

8. All sanitary sewer laterals shall be connected to the sewer main at a 90 degree angle.

WATER LINE SPECIFICATION NOTE WATER LATERAL PIPE MATERIAL IS TO BE PE 3408 DR 1 I AS PE AWWA C90 | AS DIRECTED BY THE CITY OF POOLER, GEORGIA.

4" WATER LINE IS TO BE PRESSURE CLASS 150 DR 18 PVC.

FIRE PROTECTION WATER:

AS PER 2018 IBC : 2. SPRINKLER PROTECTION IS NOT REQUIRED FOR BUSINESS AS PER SECTION 903.2.

SITE FIRE PROTECTION NOTES:

. ACCESS FOR FIREFIGHTING

3310.10 REQUIRED ACCESS. APPROVED VEHICLE ACCESS FOR FIREFIGHTING SHALL BE PROVIDED TO ALL CONSTRUCTION OR DEMOLITION SITES. VEHICLE ACCESS SHALL BE PROVIDED TO WITHIN 100 FEET OF TEMPORARY OR PERMANENT FIRE DEPARTMENT CONNECTIONS. VEHICLE ACCESS SHALL BE PROVIDED BY EITHER TEMPORARY OR PERMANENT ROADS CAPABLE OF SUPPORTING VEHICLE LOADING UNDER ALL WEATHER CONDITIONS. VEHICLE ACCESS SHALL BE MAINTAINED UNTIL PERMANENT FIRE APPARATUS ROADS ARE AVAILABLE.

2. FIRE LANE SIGNS SHALL BE SPACED AT A MINIMUM OF 200 FEET APART, SIZE TO BE | 2" x | 8" WITH A WHITE REFLECTING BACKGROUND AND RED LETTERS AND SHALL READ AS FOLLOWS: "FIRE LANE - NO PARKING - TOW-AWAY ZONE".

3. AS PER FIRE CODE, FIRE FIGHTING APPARATUS MUST BE ABLE TO ACCESS TO WITHIN 150' OF ANY PART OF BUILDING.

- ALL TAPPING VALVES SHALL BE GATE VALVES WITH
- . ALL WATER METERS AND BACKFLOW PREVENTERS ARE
- . ALL 2" GATE VALVES UPSTREAM OF EACH MANIFOLD
- METER IS TO HAVE STAINLESS STEEL BOLTS. . ALL TAPS FOR METERS SHALL HAVE A MINIMUM OF

WATER SERVICE NOTES

- THIS SITE CONTAINS THREE WATER LATERALS. ONE LATERAL IS FOR THE PROPERTY OWNER'S MEDICAL OFFICE ON THE FIRST FLOOR.
- ONE LATERAL IS FOR THE LEASABLE UNIT MEDICAL OFFICE WHICH AT THIS TIME IS A VASCULAR MEDICAL OFFICE. ONE LATERAL IS FOR SITE IRRIGATION.

. Survey information: Vincent Helmly (supplied by owner)

2. Date of Original Survey : May, 2022

3. Datum : NAVD 88

SANITARY LATERAL CLEAN OUT NOTE:

. SANITARY SEWER LATERAL CLEAN OUTS SHALL BE PLACED AT 100' O.C. MAXIMUM AND SHOULD INCLUDE A CLEAN OUT AT THE PROPERTY LINE.



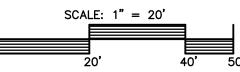
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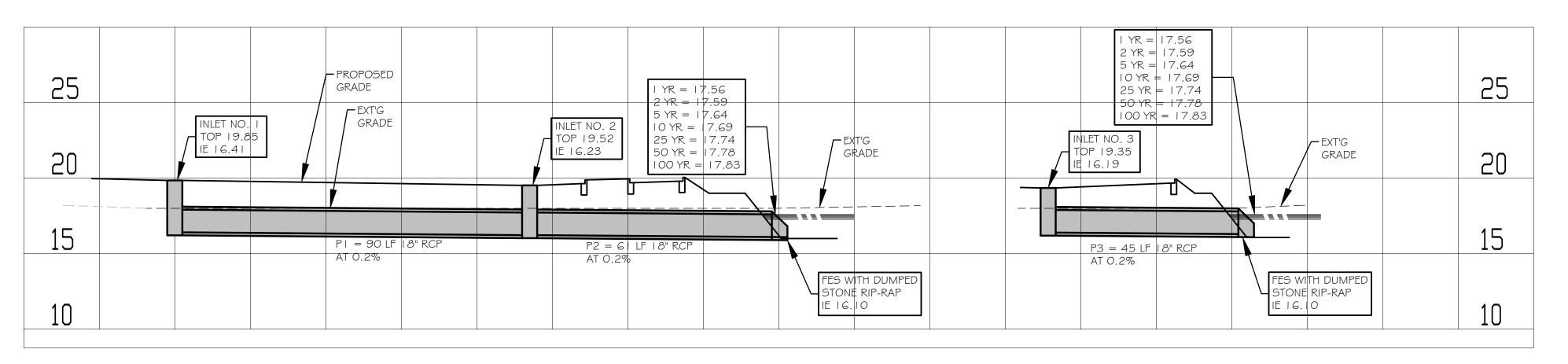
6 of 27 sheets

Drawing Number

CONFLICT IN THE PLANS, SPECIFICATIONS OR CONSTRUCTION STAKING AND FAILS TO REPORT THE PROBLEM PRIOR O CONSTRUCTION, HE SHALL NOT BE ENTITLED TO COMPENSATION FOR ANY WORK OR EXPENSE INCURRED BY HIM OR WORK REQUIRED TO BE RE-CONSTRUCTED BECAUSE OF SAID ERROR, DISCREPANCY OR CONFLICT.

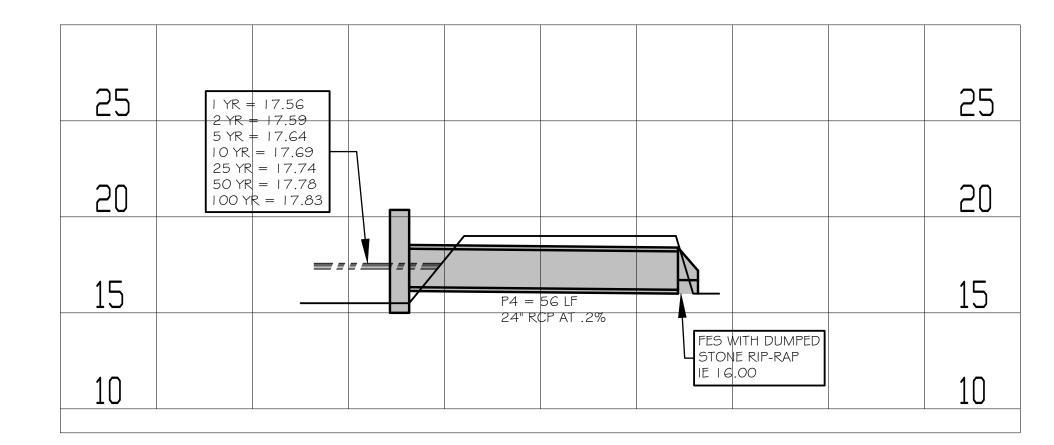


DEVELOPMENT IS WITHIN THE MAIN STREET OVERLAY DISTRICT



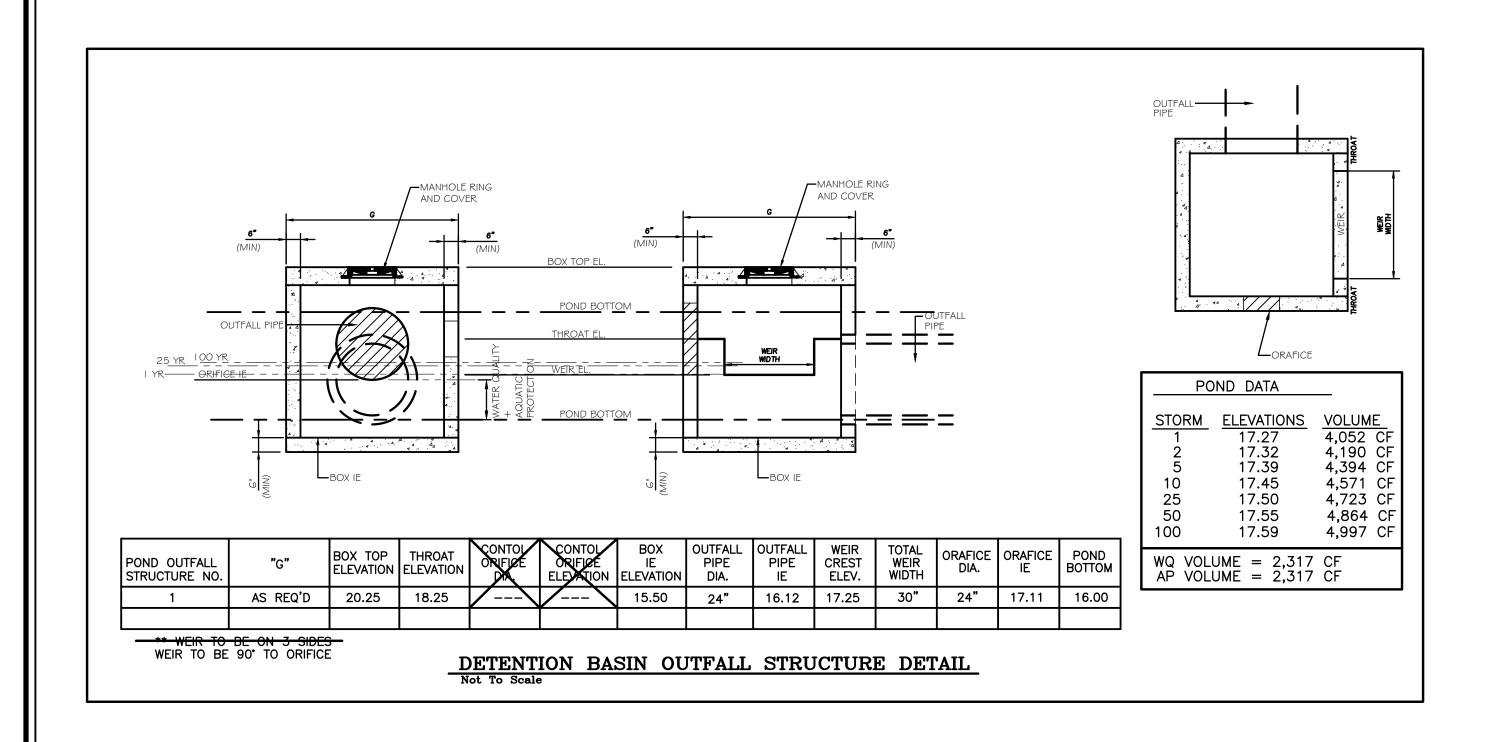
STORM PIPE PROFILES

H: I" = 20' V: I" = 5'



STORM PIPE PROFILES

H: I" = 20' V: I" = 5'



REINF. CONC. PIPE NOTES:

I. ALL RCP SHALL BE CLASS IV RCP.

GENERAL UTILITY NOTES:

I . CONTRACTOR IS TO COORDINATE ALL GAS, LIGHTING, ELECTRICAL, PHONE, CABLE AND ANY OTHER REQUIRED UTILITIES WITH THE APPROPRIATE UTILITY AGENCIES.

2. CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES PRIOR TO COMMENCING OF CONSTRUCTION ACTIVITIES AND FOR AVOIDING CONFLICT WITH SAME. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR.

3. WATER USAGE FOR THE SITE (not including irrigation) WILL BE APPROXIMATELY 60 GPM AVG. DAILY FLOW. THIS FLOW IS CALCULATED AS PER GA EPD STANDARDS AS PER IPC FIXTURE UNITS AND CONVERTED TO GPM WATER DEMAND.

4. WATER MAINS TO HAVE RESTRAINED JOINTS.

5. ALL WATER MAINS ARE TO BE C-900 PVC.

G. ALL SANITARY SEWER LINES ARE TO UTILIZE RUBBER GASKETED JOINTS AND CONFORM TO ASTM 3034 FOR PIPE 15" AND SMALLER.

7. SANITARY SEWER MAY BE CONNECTED TO EXISTING STUB OUT IF PROVIDED.8. WATER LATERAL FROM MAIN TO METER IS TO BE INSTALLED BY CONTRACTOR. CITY OF POOLER WILL ONLY PROVIDE THE WET TAP AT THE MAIN.

9. CONSTRUCTION WATER IS TO BE METERED THROUGH AN APPROVED BACKFLOW PREVENTION DEVICE AND FIRE HYDRANT METER OBTAINED FROM CITY OF POOLER CONVEYANCE AND DISTRIBUTION DEPT.

I O. ALL CONSTRUCTION MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE CITY OF POOLER'S LATEST CONSTRUCTION SPECIFICATIONS AND DETAILS.

I. AN APPROVED WATER SUPPLY FOR FIRE PROTECTION, EITHER TEMPORARY OR PERMANENT, SHALL BE AVAILABLE AS SOON AS COMBUSTIBLE MATERIALS ARRIVES ON SITE.

- 12. A MINIMUM OF 10' SEPARATION MUST BE MAINTAINED BETWEEN WATER AND SEWER MAINS.
- 13. #12 GA. WIRE SHALL BE INSTALLED WITH ALL WATER/SEWER LINES.
- 14. ALL UTILITIES ARE TO BE WRAPPED WITH TRACER WIRE AND TERMINATE AT PROPERTY LINE.
- 15. A MINIMUM SEPARATION OF 2 FEET IS REQUIRED BETWEEN ALL WATER TAPS AND SEWER CONNECTIONS.

 16. SANITARY SEWER LATERALS SHALL BE SDR 26 PVC AND HAVE A MINIMUM SLOPE OF 1%.
- 17. NEW 1" WATER LATERALS CONNECTION TO 6" MAIN SHALL BE A 6" x 1" TAPPING SADDLE.
- 18. ALL WATER LATERALS ARE TO BE POLYETHYLENE OR APPROVED EQUAL.
- 19. CONTRACTOR TO VERIFY ALL STRUCTURE LOCATIONS (drainage, sanitary, etc), TOPS AND DEPTHS PRIOR TO ORDERING MATERIALS OR BEGINNING CONSTRUCTION.
- 20. WATER LINES WHICH ARE TO BE INSTALLED BENEATH STORM OR SANITARY LINES ARE TO BE OF A FULL LENGTH OF DUCTILE IRON PIPE WHICH IS TO BE CENTERED UNDER THE CROSSING PIPE AS NEARLY AS POSSIBLE.
- 2 I . SEWER MAINS WHICH ARE TO BE INSTALLED BENEATH STORM LINES ARE TO BE OF A FULL LENGTH OF DUCTILE IRON PIPE WHICH IS TO BE
- CENTERED UNDER THE CROSSING PIPE AS NEARLY AS POSSIBLE.

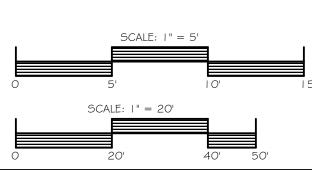
 22. POLYETHYLENE SHALL BE USED BETWEEN TEE AND WATER METER FOR
- DOMESTIC LATERALS.

 23. WATER SYSTEMS BEHIND METERS ARE TO BE PRIVATELY OWNED AND MAINTAINED.
- 24. SANITARY SEWER SYSTEMS UPSTREAM OF SS MH NO. I ARE TO BE PRIVATELY OWNED AND MAINTAINED.

24 HOUR CONTACT:
POP SENIWONG
2 TIDEWATER WAY
SAVANNAH, GA 31411
912-695-2000
SENIWONG@MSN.COM

SPECIAL ORDINANCE NOTE:

. IN CASE OF CONFLICT BETWEEN THESE PLANS AND THE CITY OF POOLER'S ORDINANCES STANDARDS, SPECIFICATIONS OR DETAILS, THE CITY OF POOLER, STANDARDS ARE TO TAKE PRECEDENCE.



REVISIONS

EFICE: 4700 EAST HIGHWAY 80

Unit N, Suite 1

AAILING: 103 NASSAU DRIVE
SAVANNAH, GEORGIA 31410

DATE: September 11, 2025
JOB NO. --SCALE: as shown

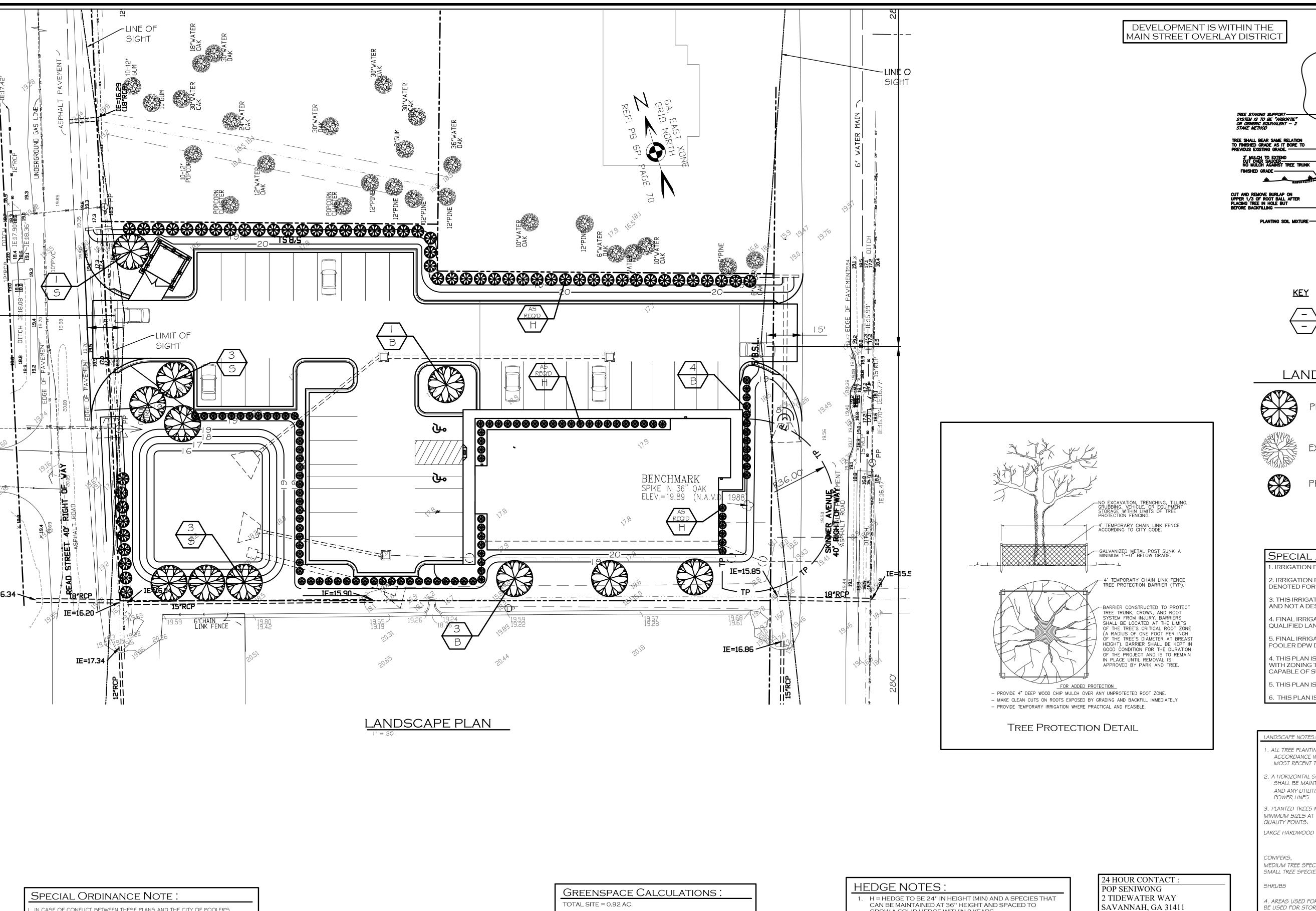
DATE

MEDICAL CENTER 115 N SKINNER AVE OLER, GEORGIA 3132 FOR SKH POOLER, LLC SAVANNAH, GA

CONTACT A MINIMUM OF 72 HOUR PRIOR TO DIGGING



Drawing Number



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STREAM BUFFER ENCROACHMENT NOTES:

. NEW STRUCTURES ON THIS PROJECT DO NOT ENCROACH IN THE 25 OR 50 FOOT STREAM

2. 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 VARIANCES AND PERMITS.

PAVING / BUILDING / ETC. = 0.56 AC. GREENSPACE = 0.36 AC.

LANDSCAPE NOTES:

TREE PLANTING REQUIREMENTS TREES REQUIRED = 15 TREES PER ACREAGE REQUIRED = 0.92 x 15 = 14 TREES REQUIRED TREES TO REMAIN = 1 TREES TO BE PLANTED = 13 1 + 13 = 14 TREES

GROW A SOLID HEDGE WITHIN 2 YEARS. 2. H = HEDGE SPECIES TO BE COORDINATED WITH OWNER AND

13 PLANTED + 1 RETAINED = 14 SUPPPLIED = 14 REQUIRED

912-695-2000 SENIWONG@MSN.COM THE CITY OF POOLER.

PLANTED TREES AND SHRUBS

SYMBOL	NUMBER	NAME	SIZE	MATURE SIZE	QUALITY
	6	Line Oak	O" CAL		DDEEEDDED
	•	LIVE OUR	Z OAL	Dartor	I ILLI LINILD
S	7	AMERICAN SYCAMORE	2" CAL.	LARGE	PREFERRED
B	6	AMERICAN BEECH	2" CAL.	LARGE	PREFERRED
	4	Cucamone	O" CAL		
<u> </u>	7	Sycumore	2 0/1:	Daitor	I KLI LKKLD
	13	TOTAL TREES PLANTED			

SCIENTIFIC & COMMON NAME PLANT QUANTITY

PLANT KEY

PLANT LEGEND

TREE PLANTING

LANDSCAPE LEGEND



PROPOSED TREE OR SHRUB



EXISTING TREE OR SHRUB



PROPOSED ACCENT PLANT

SPECIAL / GENERAL IRRIGATION NOTES

IRRIGATION PIPE SHALL BE PURPLE PIPE.

2. IRRIGATION PIPING, VALVES AND SPRAY HEADS SHALL BE DENOTED FOR FUTURE REUSE WATER.

3. THIS IRRIGATION SYSTEM IS TO BE CONSIDERED A GUIDE ONLY AND NOT A DESIGN.

4. FINAL IRRIGATION SYSTEM AND WELL IS TO BE DESIGNED BY A

QUALIFIED LANDSCAPER OR LANDSCAPE ARCHITECT. 5. FINAL IRRIGATION SYSTEM IS TO BE APPROVED BY THE CITY OF

POOLER DPW DEPARTMENT.

4. THIS PLAN IS ASSUMING A ZONED SYSTEM OF 15 GPM PER ZONE WITH ZONING TIMERS AND CONTROLLERS, A SYSTEM WHICH IS CAPABLE OF SUPPLYING 25 PSI AT THE MAIN.

5. THIS PLAN IS ASSUMING A LOOPED MAIN OF 1 1/2" DIA. 5. THIS PLAN IS ASSUMING INDIVIDUAL WATER LAT'S OF 1" DIA.

ANDSCAPE NOTES:

. ALL TREE PLANTING PRACTICES ARE TO BE IN ACCORDANCE WITH THE CITY OF POOLER'S MOST RECENT TREE ORDINANCE.

2. A HORIZONTAL SEPARATION OF 10 FEET (min.) SHALL BE MAINTAINED BETWEEN PROPOSED TREES AND ANY UTILITIES(existing or proposed) OR UNDER

3. PLANTED TREES MUST MEET OR EXCEED THE MINIMUM SIZES AT PLANTING IN ORDER FOR TREE QUALITY POINTS:

LARGE HARDWOOD TREE SPECIES

3" CALIPER (diameter of stem measured six inches above the ground)

I " CALIPER

MEDIUM TREE SPECIES,

SMALL TREE SPECIES,

4. AREAS USED FOR TREE PLANTING AREAS SHALL NOT BE USED FOR STORAGE, PARKING, ETC.

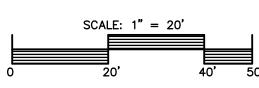
6. ALL DISTURBED AREAS NOT COVERED BY STRUCTURES,

PAVING OR LANDSCAPING SHALL BE GRASSED.

7. ALL PLANT BEDS AND TREE RINGS SHALL BE MULCHED WITH 3" OF PINE STRAW, SHREDDED WOOD CHIPS OR PINE

8. IRRIGATION NOTES :

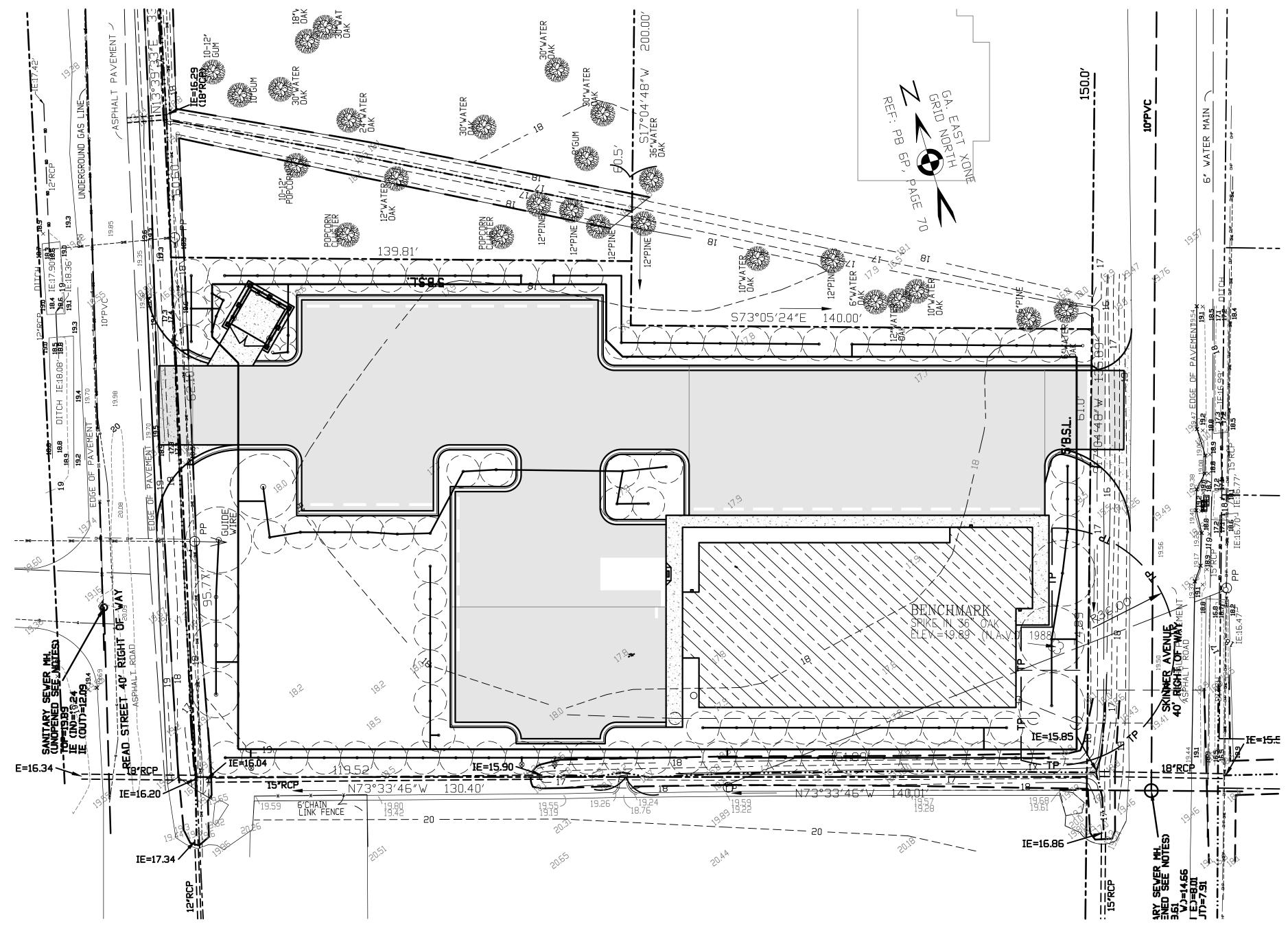
A. A HOSE BIBB FOR WATERING PLANTS IS TO BE LOCATED WITHIN 100' OF EACH PLANT. SEE PLANS FOR LOCATIONS.



PRIOR TO DIGGING

No. 28372
PROFESSIONAL
PROFESSIONAL

Drawing Number



IRRIGATION PLAN

SPECIAL / GENERAL IRRIGATION NOTES: 1. IRRIGATION PIPE SHALL BE PURPLE PIPE.

2. IRRIGATION PIPING, VALVES AND SPRAY HEADS SHALL BE DENOTED FOR FUTURE REUSE WATER.

3. THIS IRRIGATION SYSTEM IS TO BE CONSIDERED A GUIDE ONLY AND NOT A DESIGN.

4. FINAL IRRIGATION SYSTEM AND WELL IS TO BE DESIGNED BY A QUALIFIED LANDSCAPER OR LANDSCAPE ARCHITECT. 5. FINAL IRRIGATION SYSTEM IS TO BE APPROVED BY THE CITY OF POOLER ENGINEERING DEPARTMENT.

4. THIS PLAN IS ASSUMING A ZONED SYSTEM OF 50 GPM PER ZONE WITH ZONING TIMERS AND CONTROLLERS.

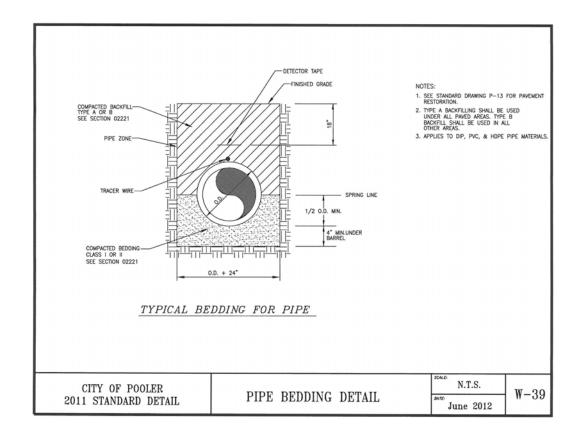
5. THIS PLAN IS ASSUMING INDIVIDUAL WATER LAT'S OF 1" DIA.

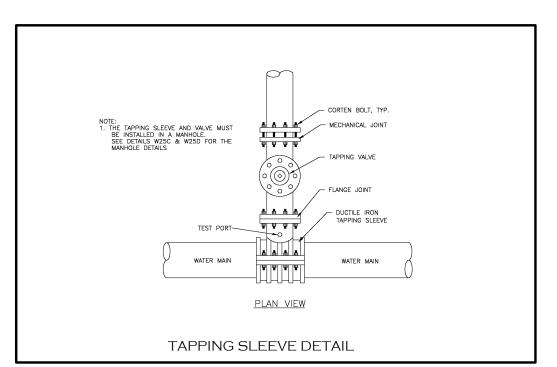
24 HOUR CONTACT: POP SENIWONG 2 TIDEWATER WAY SAVANNAH, GA 31411 912-695-2000 SENIWONG@MSN.COM

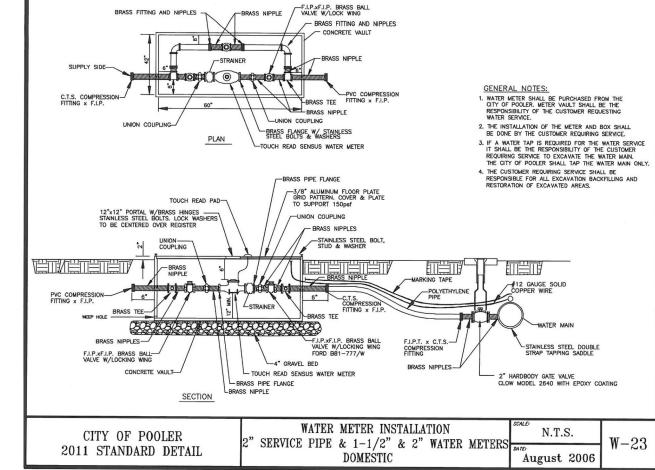
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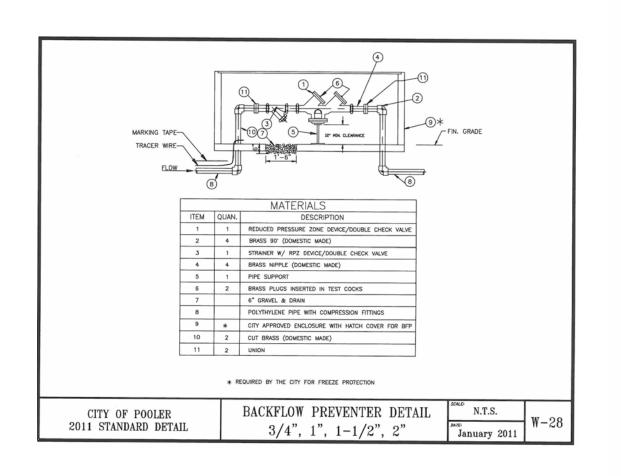
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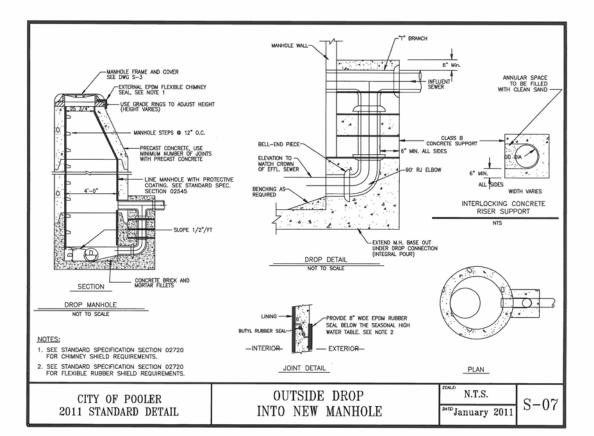
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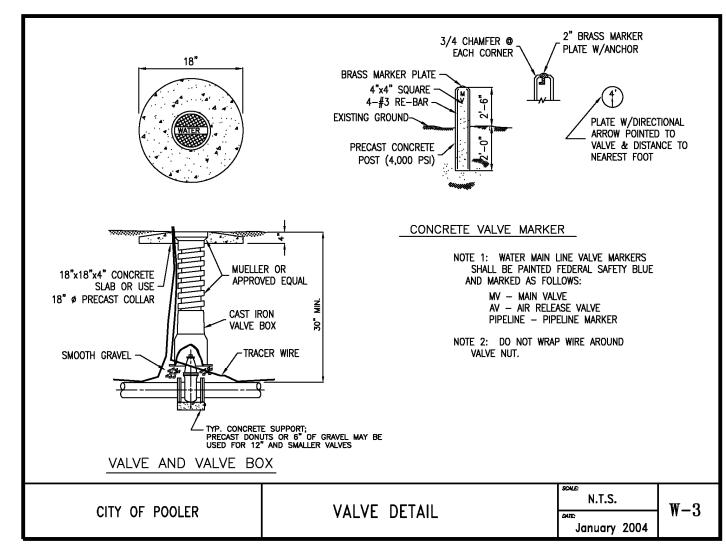


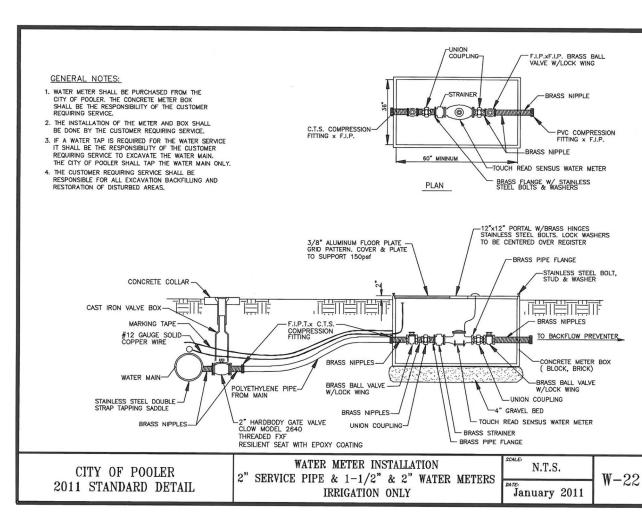


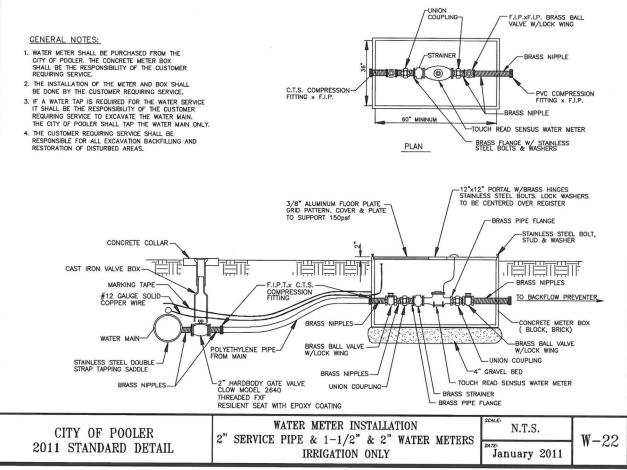




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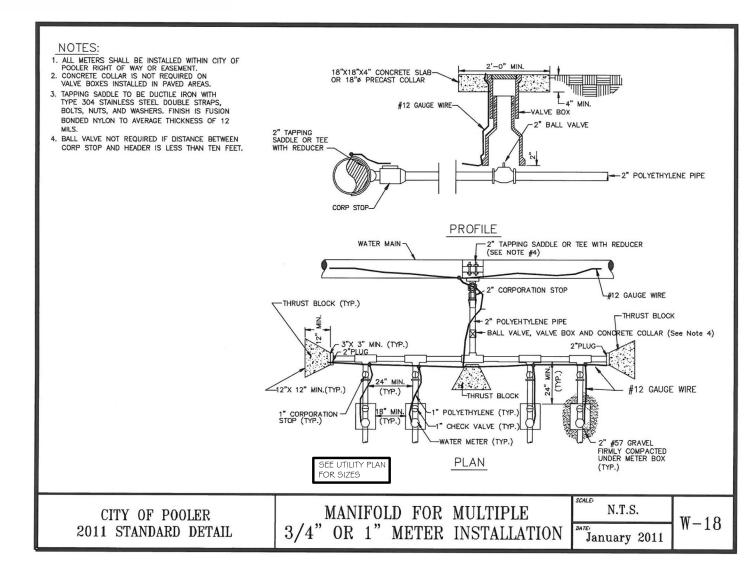


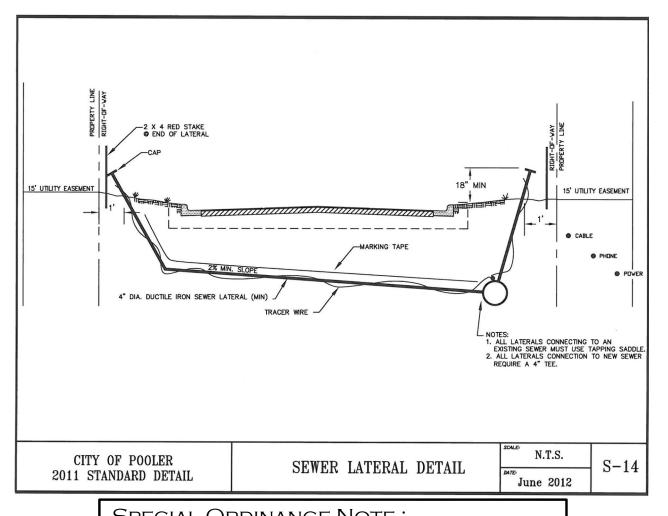




TRACER WIRE NOTES:

. ALL WATER MAINS, WATER LATERALS AND FIRE HYDRANTS ARE TO HAVE A #12 GAUGE SOLID COPPER WIRE INSTALLED WITH EACH UTILITY. IT SHALL BE INSTALLED IN SUCH A MANNER THAT THE WIRES ARE CONNECTED TO EACH OTHER AND CAN BE CONTINUOUSLY TRACED. THE WATER DEPARTMENT SHALL CONDUCT A TRACING TEST TO ENSURE COMPLIANCE.





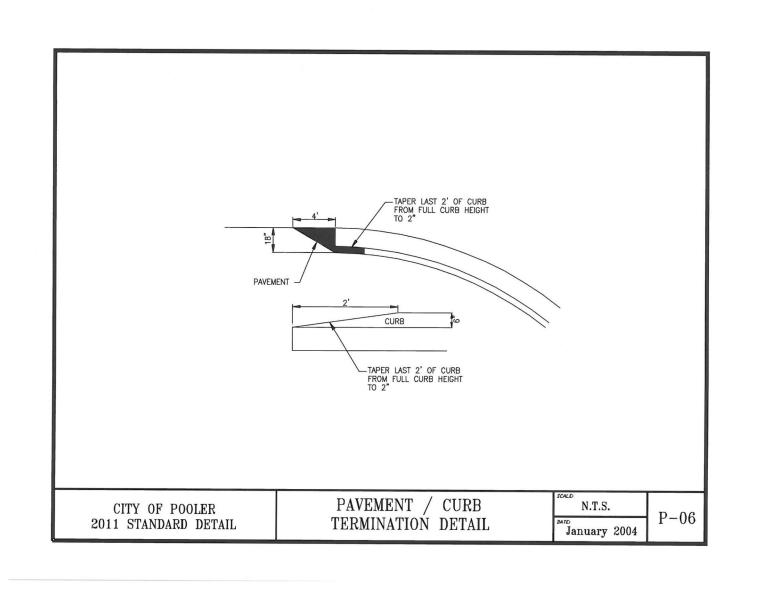
SPECIAL ORDINANCE NOTE: . IN CASE OF CONFLICT BETWEEN THESE PLANS AND THE CITY OF POOLER'S ORDINANCES STANDARDS, SPECIFICATIONS OR DETAILS, THE CITY OF POOLER, STANDARDS ARE TO TAKE PRECEDENCE.

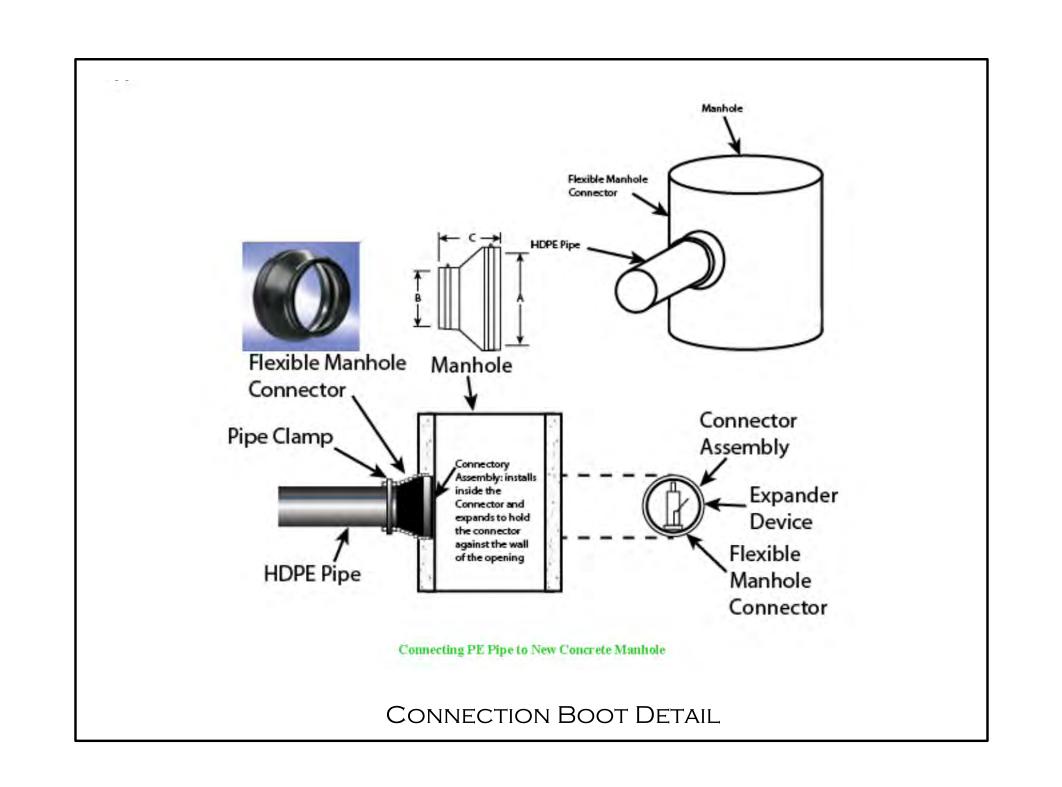
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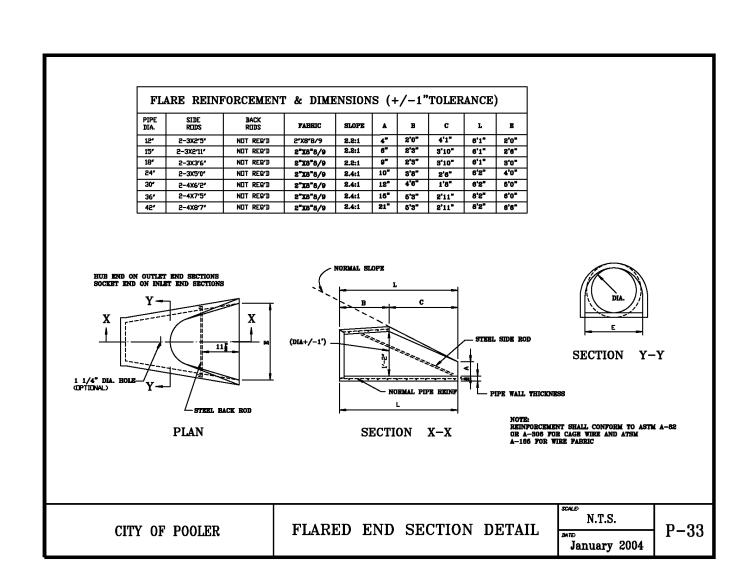
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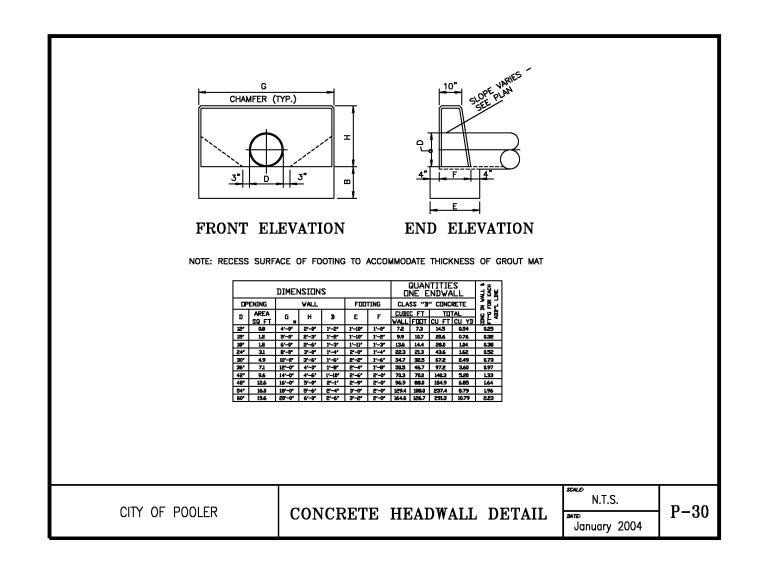
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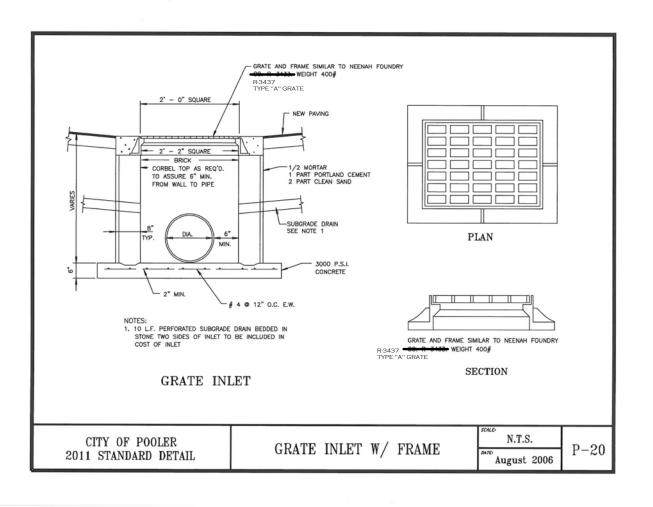


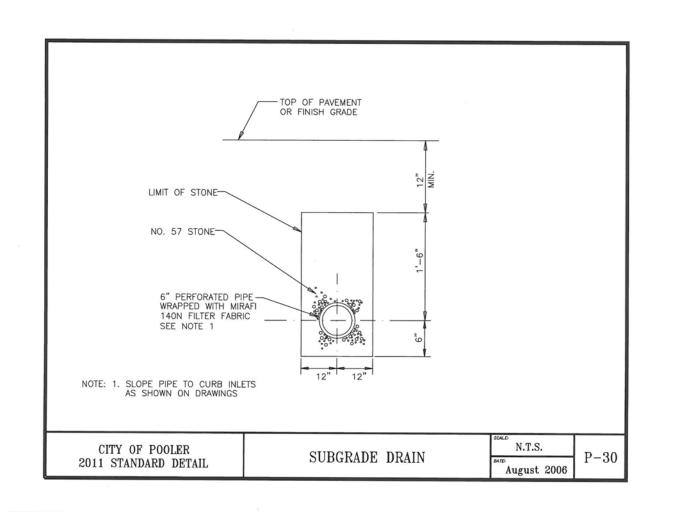


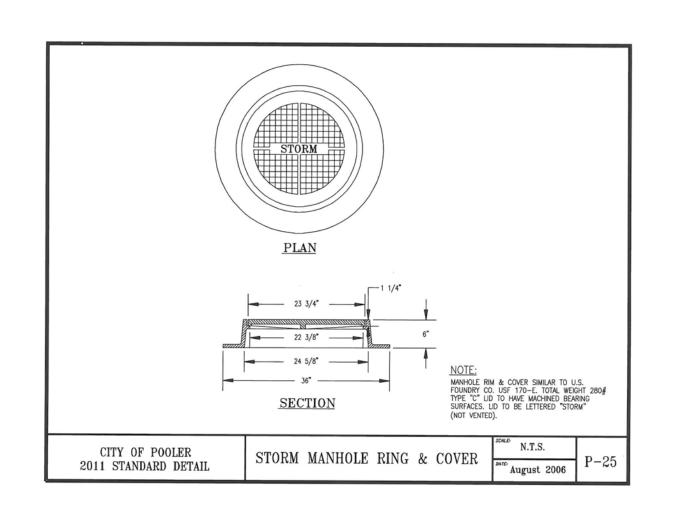




24 HOUR CONTACT: POP SENIWONG 2 TIDEWATER WAY SAVANNAH, GA 31411 912-695-2000 SENIWONG@MSN.COM

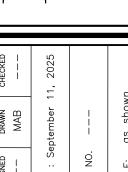






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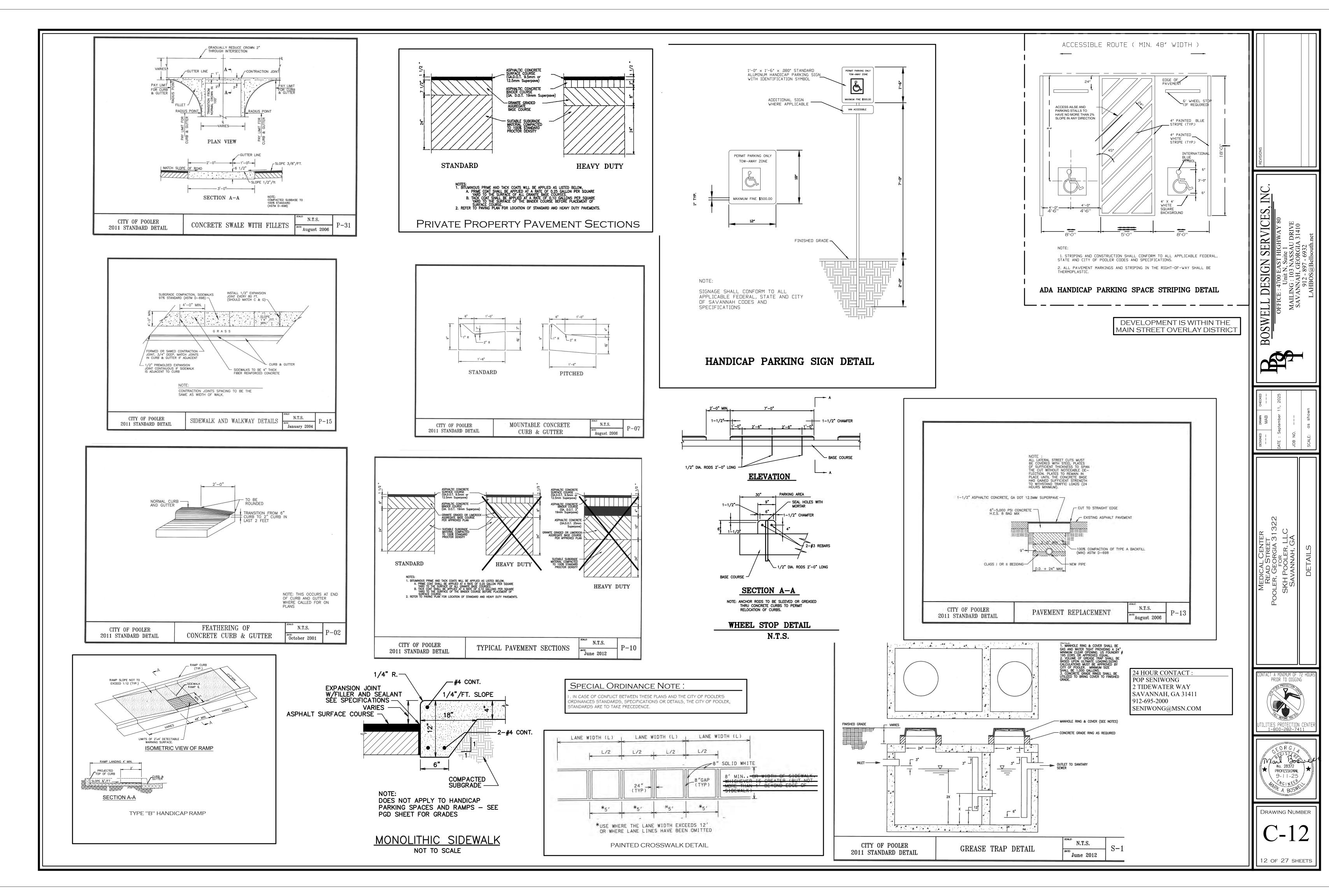
I. IN CASE OF CONFLICT BETWEEN THESE PLANS AND THE CITY OF POOLER'S ORDINANCES STANDARDS, SPECIFICATIONS OR DETAILS, THE CITY OF POOLER, TANDARDS ARE TO TAKE PRECEDENCE.

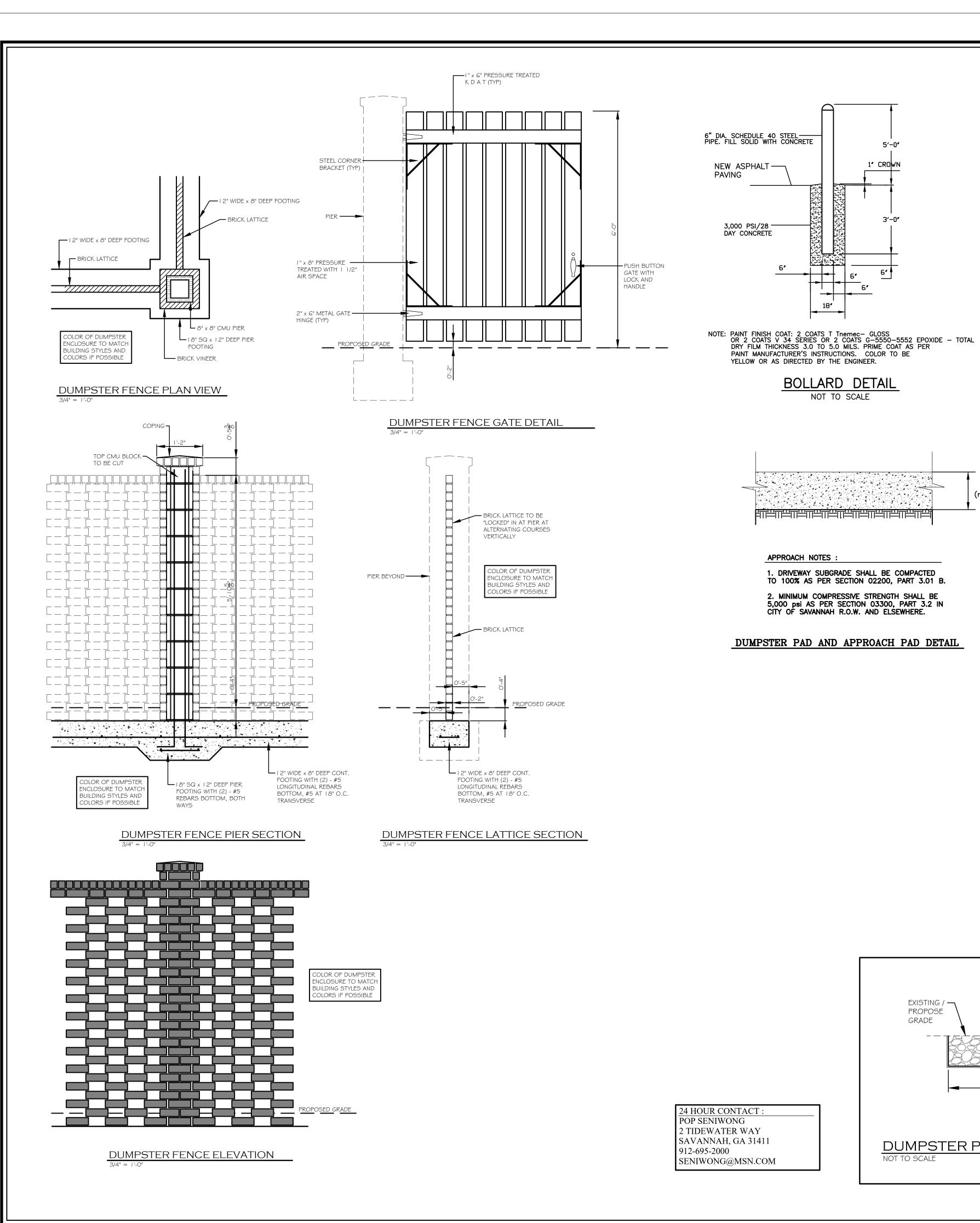


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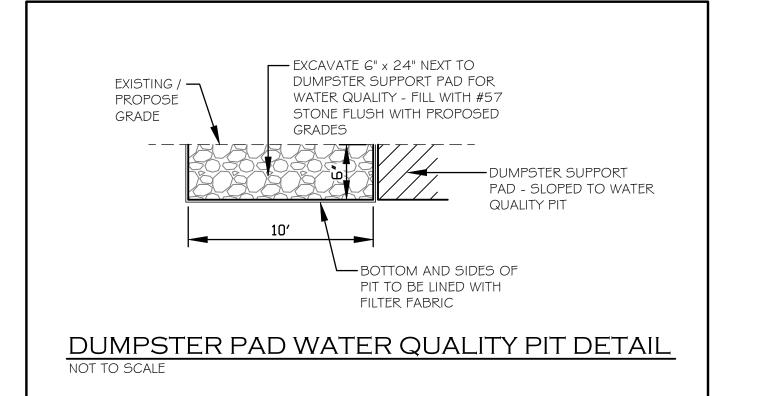




VARIES - SEE PLAN (TYP) SEE DETAILS \triangleleft \triangleleft

DUMPSTER AREA PLAN

3/4" = 1'-0"



NOT TO SCALE

DEVELOPMENT IS WITHIN THE MAIN STREET OVERLAY DISTRICT

SPECIAL ORDINANCE NOTE:

. IN CASE OF CONFLICT BETWEEN THESE PLANS AND THE CITY OF POOLER'S ORDINANCES STANDARDS, SPECIFICATIONS OR DETAILS, THE CITY OF POOLER, TANDARDS ARE TO TAKE PRECEDENCE.

SPECIAL CONSTRUCTION NOTE:

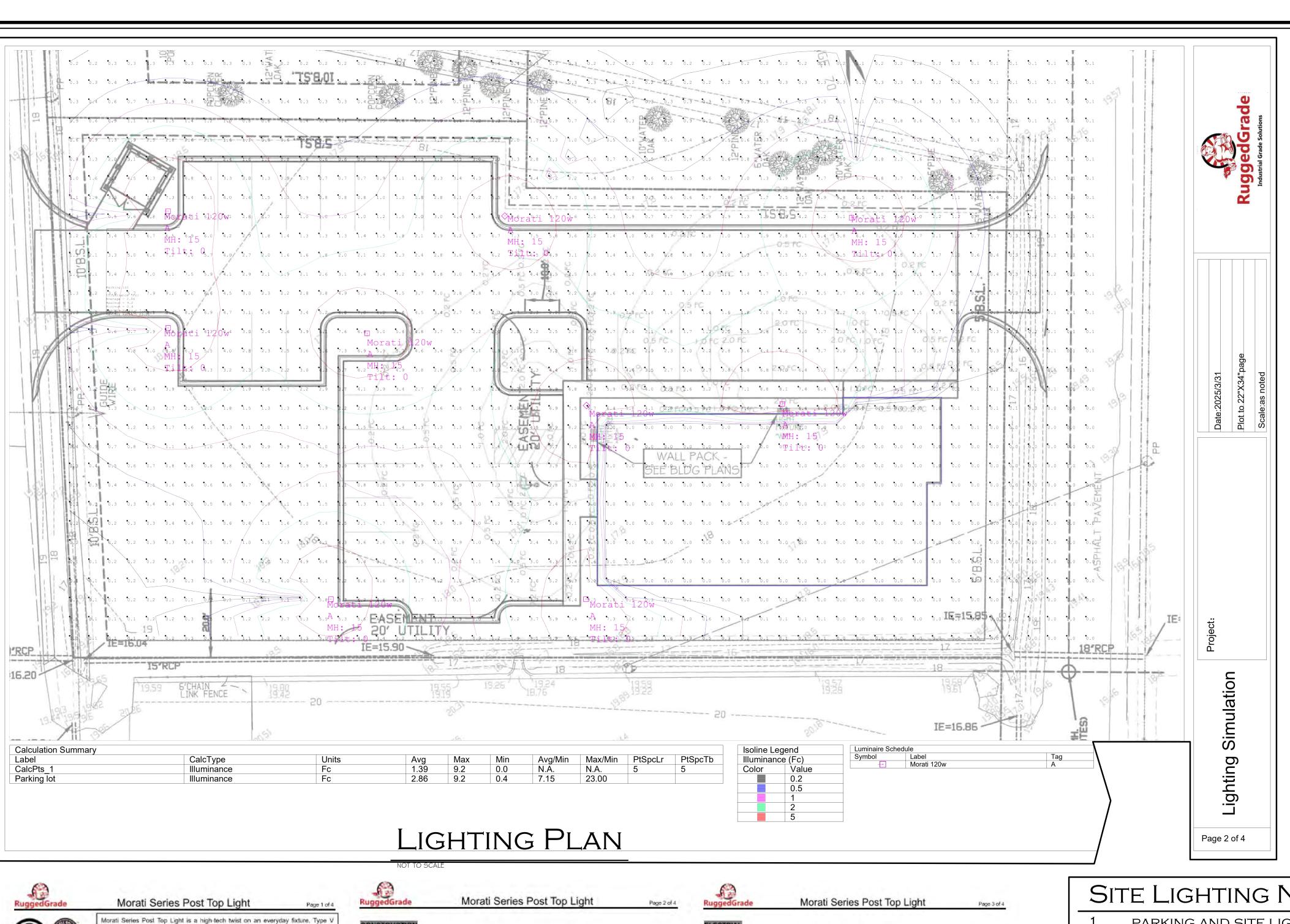
F THE CONTRACTOR KNOWS OR CAN REASONABLY BE EXPECTED TO HAVE KNOWN OF AN ERROR, DISCREPANCY OR CONFLICT IN THE PLANS, SPECIFICATIONS OR CONSTRUCTION STAKING AND FAILS TO REPORT THE PROBLEM PRIOR TO CONSTRUCTION, HE SHALL NOT BE ENTITLED TO COMPENSATION FOR ANY WORK OR EXPENSE INCURRED BY HIM FOR WORK REQUIRED TO BE RE-CONSTRUCTED BECAUSE OF SAID ERROR, DISCREPANCY OR CONFLICT.

PROFESSIONAL

DRAWING NUMBER

13 of 27 sheets

PRIOR TO DIGGING



> Drivers:

100-277V, 50-60Hz

> NEMA Receptacle

3-prong twist lock receptacle with short-cap optional; compatible with 3-pring Photocell

Sensors. 7-prong twist lock receptacle with short-cap optional; compatible with 7-pring

Photocell Assembly (Optional)

Daylight britisent light threshold and expensive filters / 30ser / 50ser / 450ser / 450ser / 200ser / 300ser / Diseable

YR-TP360-W120-MTCP 126-277Ves: 40W-60W-60W-100W-126W turable 36K-40K-50K turable mix 13/200km

optics (Type III optional) produce a round distribution which is perfect for parking lots

and pathways. Cutting edge LED technology provides maintenance-free operation

combined with significant reduction in energy consumption. Add all that to a

> ETL Listed:4009701

Suitable for Wet Locations

IESNALM-79 and LM-80

> DLC Qualification:

- IESNA LM79 & LM-80 Testing

LED luminaires have been tested to

With IES classification Type V (Type III optional)

this led area light distributes light in a wide and

uniform 360" pattern that is perfect for large outdoor areas such as parking lots, corporate parks, and

independent laboratory in accordance with

standard tenon top pole and you've got a simple and effective lighting solution.

JALIFICATIONS

Ingress Protection rating of IP65 for dust and water

Suitable for up to 122° F (50° C) ambient temperature

Mercury and UV free, and RoHS compliant. Polyester powder coat finish formulated without the use of VOC or

Light shied, Bird cone and ladder rest are NOT included as a standard structure. Please contact a sale

Our environmentally friendly polyester powder coating is formulated from high-durability and long-lasting color, and

LED color temperature is warrantied to shift no more than 200K in CCT over a 5-year period.

Range of CCT follows the guidelines of the American National Standards for the Specifications for

The minimum starting temperature is -4°F /-20°C

Frosted or transparent GLASS lens optional

Multi-chip, high-output, long-life LEDs Color

3000K (Warm white), 4000K (Natural white), 5000K (Daylight)

the Chromaticity of Solid-SalsLighting (SSL) Products, ANCIc78.377.2011

contains no VOC or toxic heavy metals.

Color Rendering Index:

> Ambient Temperature:

- Cold Weather Starting:

Bronze or Black Aluminum

Mounting Methods:

2" lo pole top mount

➤ Gaskets: Silicon Gaskets

> Lens:

> LEDs:

Green Technolog

SITE LIGHTING NOTES: PARKING AND SITE LIGHTING IS TO BE INSTALLED UTILIZING CUT OFF FIXTURES

2. FINAL LIGHTING PLAN IS TO BE COORDINATED. AND SUPPLIED BY THE OWNER.

"SPILL OVER" ONTO ADJACENT PROPERTIES.

SO AS TO NOT CAUSE NEW LIGHT TO

3. FINAL LIGHTING IS TO BE APPROVED BY THE CITY OF POOLER.

SCOTT SALK LED LIGHT EXPERT 800-674-9420 x1 SALES@LEDLIGHTEXPERT.COM

LIGHTING MANF. CONTACT

SITE LIGHTING ORDINANCE NOTES:

- 1. ALL SITE LIGHTING SHALL MEET IESNA (ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA STANDARDS.
- 2. MAXIMUM LIGHT LEVELS PERMITTED AT PROPERTY INE SHALL BE AS FOLLOWS:
 - A. 0.5 FC AT ANY PROPERTY LINE ADJACENT TO A CONSERVATION OR RESIDENTIAL ZONING DISTRICT OR A CONFORMING RESIDENTIAL USE
 - B. 1.0 FC AT ANY PROPERTY LINE ABUTTING ANY MIXED-USE OR NON-RESIDENTIAL ZONING DISTRICT
 - C. 3.0 FC AT ANY PROPERTY LINE ALONG ANY STREET RIGHTS OF WAY

FINAL LIGHTING PLAN IS TO BE COORDINATED, DESIGNED AND APPROVED BY GEORGIA POWER

SPECIAL ORDINANCE NOTE:

IN CASE OF CONFLICT BETWEEN THESE PLANS AND THE CITY OF POOLER'S RDINANCES STANDARDS, SPECIFICATIONS OR DETAILS, THE CITY OF POOLER, ANDARDS ARE TO TAKE PRECEDENCE

> 24 HOUR CONTACT POP SENIWONG 2 TIDEWATER WAY SAVANNAH, GA 31411 912-695-2000 SENIWONG@MSN.COM

DEVELOPMENT IS WITHIN THE

MAIN STREET OVERLAY DISTRIC

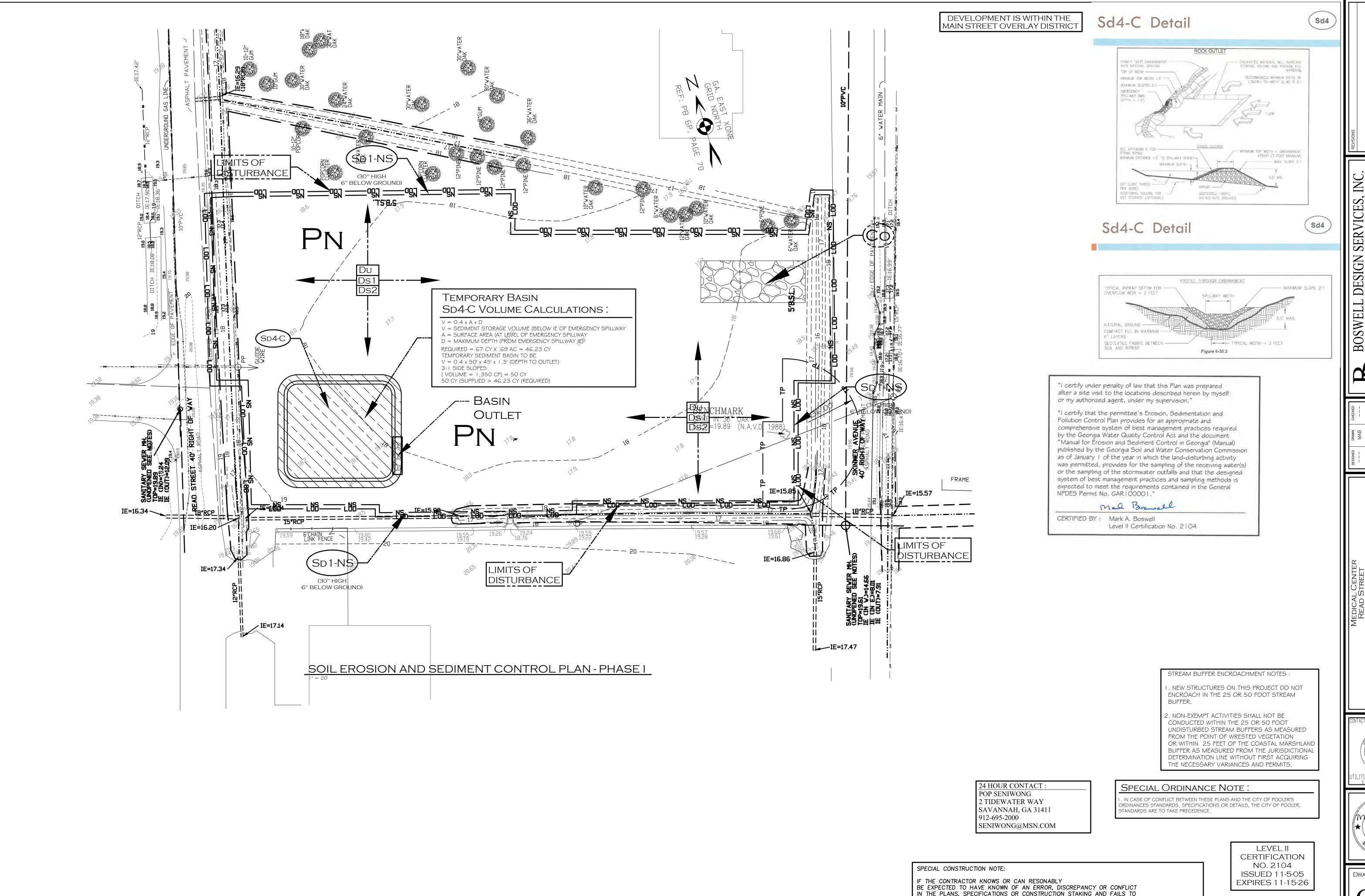
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Drawing Number

4 OF 27 SHEETS

PRIOR TO DIGGING

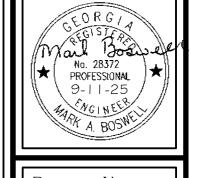
SEORGA SEGISTA No. 28372 PROFESSION





PRIOR TO DIGGING





DRAWING NUMBER

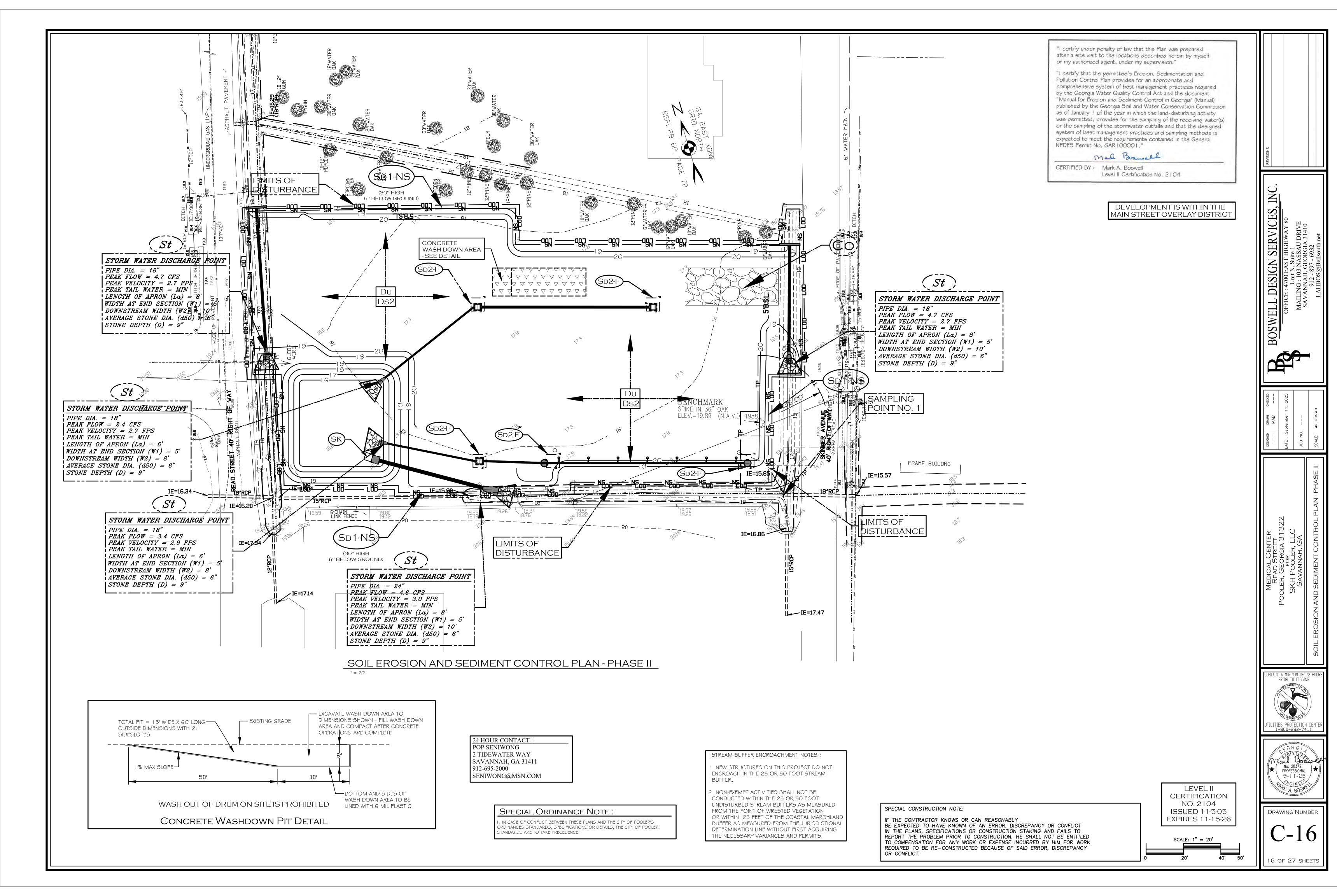
15 of 27 sheets

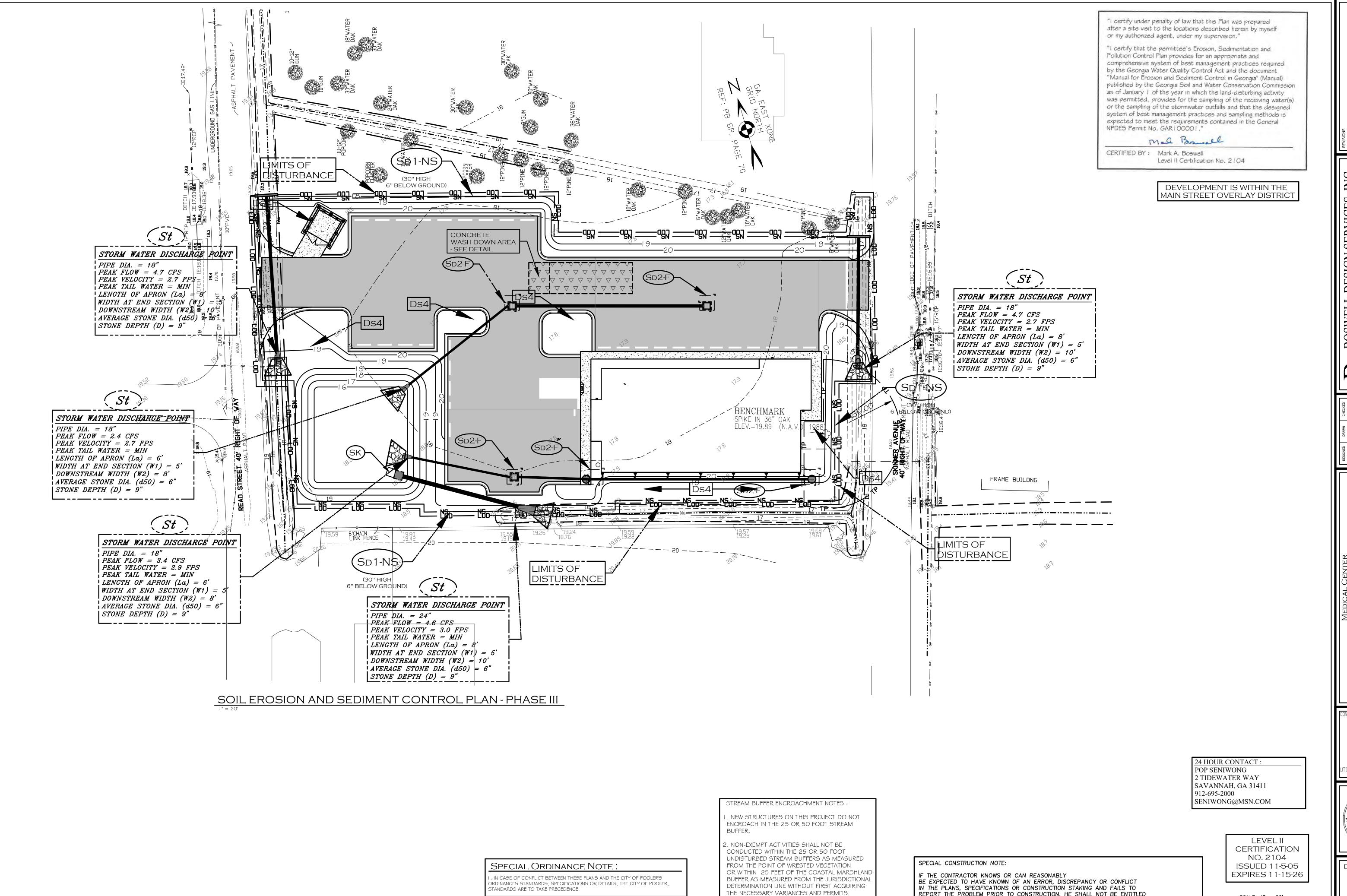
SCALE: 1" = 20'

REPORT THE PROBLEM PRIOR TO CONSTRUCTION, HE SHALL NOT BE ENTITLED

TO COMPENSATION FOR ANY WORK OR EXPENSE INCURRED BY HIM FOR WORK REQUIRED TO BE RE-CONSTRUCTED BECAUSE OF SAID ERROR, DISCREPANCY

OR CONFLICT.





PRIOR TO DIGGING



DRAWING NUMBER

SCALE: 1" = 20'

REPORT THE PROBLEM PRIOR TO CONSTRUCTION, HE SHALL NOT BE ENTITLED

TO COMPENSATION FOR ANY WORK OR EXPENSE INCURRED BY HIM FOR WORK REQUIRED TO BE RE-CONSTRUCTED BECAUSE OF SAID ERROR, DISCREPANCY

OR CONFLICT.

el from the riser. Floating Skimmers that have footed design that prevents the device from odging in accumulated sediment do not require a skimmer pit.

CONSTRUCTION SPECIFICATIONS Use floating surface skimmers made of P\ Schedule 40 or greater) or other appropriate

If the skimmer becomes stuck in the mud at ne bottom of the basin it must be freed to allow r normal operation. This can typically be done Quality Assurance y use of the maintenance rope. Each skimmer must have documented ide ication, including but not limited to the following

Remove sediment deposits from the basin. en approximately one-third of the storage Manufacturer's name and location dume has been lost to sediment accumulation or when the floating skimmer cannot settle low · Manufacturer's telephone number and fax rough to drain the entire basin. Remove or pull the skimmer to a side embankment using the aintenance rope and remove sediment from

· Manufacturer's e-mail and web address. he skimmer pit.

· Skimmer dimensions. . Certification that the skimmer meets the physical and performance criteria of this

· Skimmer name, model, and/or serial number

specification.

Install the device according to the manufacturer's instructions. A shut-off valve to facilitate skimmer main

trash guard and maintenance rope in order prevent and remove blockage from floating tenance or emergency regulation of the flow lebris. Trash guards prevent larger debris from discharge rate, installed at the discharge end entering the skimmer that may cause internal the barrel as it exits the embankment is recon blockage. The maintenance rope is used to mended. (Normal skimmer operation is to be remove trash and debris that accumulates on the based on the "full open" valve setting.) A storm drain outlet protection device shall be installed outside of the trash guard. Ensure the maintenance rope is floatable. the barrel discharge point.

loatation Requirements

design during flow testing.

Trash Guard & Maintenance Rope

Floating surface skimmers that sink or com-

letely suspend under the water surface are not

acceptable. A portion of the skimmer must be

sible above the water surface at all times. The

location of the floating "headworks" relative to the

water surface, and the size and location of vents

and inlets, must be the same as when the prod-

ict was tested for flow rates. This should be veri

fied and documented as inherent to the product

All Floating surface skimmer designs include

Excavate a shallow pit filled with riprap

minimum, the pit has dimensions of 4ft x 4ft with

a minimum depth of 2 ft. Ensure the bottom of

under the floating surface skimmer to account or sediment that accumulates on the sediment asin bottom around the skimmer. The pit allows the skimmer to completely drain the basin. At a

Inspect Floating Skimmers together with the Sediment Basin inspections. Inspect the tion as well as quality assurance to determine floating surface skimmer for any structural damage, clogging, or excessive sediment accumula While draining the basin, the trash guard of

the skimmer may clog with debris. Typically, a

Depth increments for Calcs, in. = 2.4 Flow Rate Plow Rate. Flow Rate. Flow Rate. Flow Rate. Flow Rate.

Incr. Dis- Dis- charge, Dis- Flow Rate, Drain Flow Rate,

charge, ft3 charge, ft3 gai charged gal/min Time, hrs. gal/min Time, h

Skimmer Sizing Table

Example Shown: 125 ft x 125 ft x 4 ft deep pand; Drainage Time < 72 hours

1 3.6 2.4 | 7 78 78 1240 39670 296735 97.2% 5 506 7 255 26 113 57 62 44 59 142 24 123 12 2.4 75 75 1163 4083 305433 100.0% 4 542 4 292 20 120 47 65 30 64 114 25 70

Skimmer / Orifice Combinations with Sufficient Flow: no no no Type 3: 3.0 / 0.00 Type 1: 4.0 / 0.00 Type 1: 6.0 / 0.00 Type 3: 6.0 / 0.00

TO BE SHOWN ON THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN When a FLOATING SURFACE SKIMMER is used, show the following information along with each sediment pond, trap or basin being used on the site:

1. Pond, trap or basin size, length* (top and bottom) width* (top and bottom) and depth = 1800 SF BOTTOM x 3 DEEP 2. Time to Drain (hrs) = < 24 HOURS 3. Skimmer Dimensions (orifice and head size)** SEE DETAIL

4. Manufacturer's name FAIRCLOTH (WWW.FAIRCLOTHSKIMMER.COM)

Addendum A: Procedure for Measurement of Floating Pond Skimmer Flow Rate This procedure is for evaluating the flow rate ii. The basin shall be at least 40-ft long x

of a floating pond skimmer vs. pond depth. cluding details for setting up a performance product conformance to project specifications. a. Apparatus/Facility

i. Testing is performed in a calibrated basin

ew jerks on the maintenance rope will clear the

mmer of debris and restore flow. If jerking the

intenance rope does not work, pull the skim-

mer to the embankment with the maintenance

rope and manually remove all debris from the

rash guard. An internal clog or blockage may

quire the device to be disassembled and re-

(i.e. it has a known surface area at any

6-ft wide x 4-ft deep.

Flexible Coupling

Figure 6-31.2. Skimmer Components

Test Set-Up

headworks/inlet.

during filling.

i. The test basin shall be waterlight with at

i. The skimmer is attached to the discharge

pipe prior to pond filling using reducers/

connectors as directed by the client. The

connection must be watertight so that all

drainage is through the floating skimmer

Test Operation and Data Collection:

. With the valve on the discharge pipe

closed, and the skimmer to be tested in

place, fill the test basin with water to the

ceed slowly enough to allow all air within

the skimmer assembly to bleed completely

Once the basin is filled to the desired

still and record the depth on the ruler

depth, allow the water surface to become

iii. Simultaneously open the discharge pipe

least one discharge pipe at least as

large as the pipe that connects to the

floating skimmer head. The discharge

pipe shall have an accessible valve to

iii. The basin shall be outfitted with discharge pipe having a diameter no smaller than that of the pipe joining to the floating skimmer head. The discharge pipe shall have a valve that can be controlled from the outside of the basin to initiate

also recommended to have a second i. Record and tabulate water surface eleva valved discharge pipe to enable lower-

tion as a function of time. ing of the water surface within the basin time, compute the flow rate and report it at the average of the associated elevations. ments at various depths without waiting for drainage exclusively through the Addendum B: Selecting a Skimmer

It is a straight forward process to choose the iv. A water supply along with an associated skimmer that best matches the required "timeto-drain" specified for a project. The volume (or pump and piping is needed to fill the cali -brated basin. A calibrated ruler shall be dimensions) of the sediment pond, trap, or basis must be known, as well as, the number of days low depth to be read. This calibrated to drain the basin. With this information, a drawdown rate calculation is made for each product ruler must not be moved, repositioned jarred, or tampered with once the first and sized using the product-specific flow rates reading of each replicate has been taken. determined in accordance with Addendum A.

Figure 6-31.3, shows a typical spreadshee set up to make this calculation. This spreadsheet lets the user input the pond dimensions and depth, as well as the time-to-drain require ment, and then calculates the time in hours that it would take for each skimmer size (and orifice size) to completely drain the pond.

As different style skimmers are made from a wide variety of parts, including different diameter pipe components in the same device, it is generally agreed that the skimmer size is defined by the "rigid tube" diameter connecting the floating/ intake components to the (larger) flexible coupling and outlet pipe.

v As the water is discharged from the test basin through the floating skimmer, periodi cally record depth and associated time.

SKIMMER PERSPECTIVE TYPICAL. THE DESIGNER/ENGINEER MAY SUBMIT AN ALTERNATE SKIMMER ETAIL FOR REVIEW. KIMMER FRONTAL SECTION VIEW IN UNDERSIDE. Figure 6-31.4

GENERAL NOTES:

1. PROPER DESIGN MUST BE COMPLETED TO MINIMIZE PIPING AROUND DISCHARGE PIPE.

PROPER ORIFICE OPENING MUST BE SELECTED TO ENSURE POND DRAINS IN CORRECT AMOUNT OF TIME. MODIFICATIONS MAY BE REQUIRED IF FIELD CONDITIONS WARRANT A CHANGE.

BUBANKMENT MUST BE COMPACTED TO DESIGN SPECIFICATIONS.

EMBERGENCY SPILLWAY MUST BE CORRECTLY SIZED AND EROSION PROTECTION INSTALLED. INSTALLED.

EROSION PROTECTION MUST BE INSTALLED ALONG THE EMBANKMENT AND AT THE DISCHARGE END OF THE PIPE.

INSPECT SYSTEM REGULARLY TO ENSURE IT IS FUNCTIONING IN A CORRECT MANUELY. HORIZONTAL TUBE WITH A CONSTANT HYDRAULIC HEAD CHEQULE 40 PVC PIPE BARREL OR ARM) TOPENINGS EXIST
(MAJOR STORM EVENT) -FLEXIBLE HOSE FLOAT-TOP VIEW THE WATER QUALITY DISCHARGE OPENING TO THE OVERFLOW SCHEDULE 40 PVC PIF END VIEW SIDE VIEW (NO SCALE) FAIRCLOTH SKIMMER® DISCHARGE SYSTEM WITH OUTLET

'I certify under penalty of law that this Plan was prepared after a site visit to the locations described herein by myself or my authorized agent, under my supervision."

"I certify that the permittee's Erosion, Sedimentation and Pollution Control Plan provides for an appropriate and comprehensive system of best management practices required by the Georgia Water Quality Control Act and the document "Manual for Erosion and Sediment Control in Georgia" (Manual) published by the Georgia Soil and Water Conservation Commission as of January 1 of the year in which the land-disturbing activity was permitted, provides for the sampling of the receiving water(s) or the sampling of the stormwater outfalls and that the designed system of best management practices and sampling methods is expected to meet the requirements contained in the General NPDES Permit No. GAR | 0000 | ."

Mal Boswell

CERTIFIED BY: Mark A. Boswell Level II Certification No. 2104 DEVELOPMENT IS WITHIN THE MAIN STREET OVERLAY DISTRICT

STREAM BUFFER ENCROACHMENT NOTES

NEW STRUCTURES ON THIS PROJECT DO NOT ENCROACH IN THE 25 OR 50 FOOT STREAM BUFFER.

. 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 VARIANCES AND PERMITS.

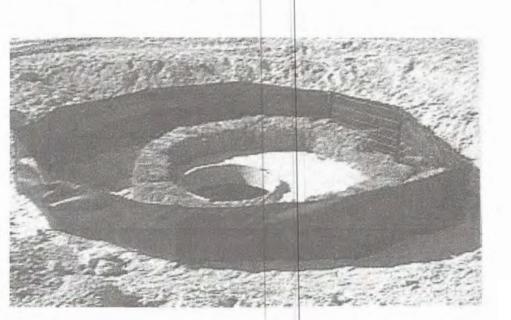
> LEVEL II CERTIFICATION NO. 2104 ISSUED 11-5-05 **EXPIRES 11-15-26**

24 HOUR CONTACT POP SENIWONG 2 TIDEWATER WAY SAVANNAH, GA 31411 912-695-2000 SENIWONG@MSN.COM



INLET SEDIMENT TRAP

A temporary sediment barrier placed around a storm drain drop inlet.



PURPOSE

Prevent sediment from entering storm drainage systems.

INSTALLATION

- Install according to approved plan, if shown.
- Do not install where vehicular traffic will be affected.
- · Install at or around all storm drain drop inlets that receive runoff from disturbed ar-
- · Construct on natural ground surface, excavated surface, or on machine compacted fill.

Excavated Sediment Traps

- Minimum of 1.5 feet of sediment storage in excavated sediment traps.
- · Must be self-draining unless otherwise protected.

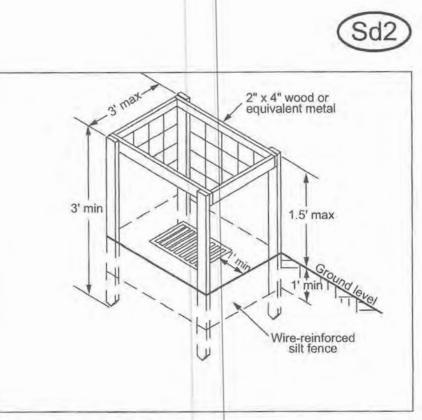
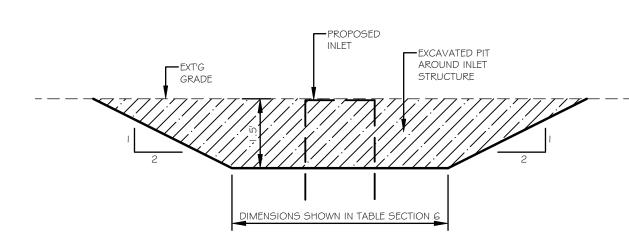


Figure 1. Fabric and supporting Frame for Inlet Protection (Sd2-F)





SPECIAL ORDINANCE NOTE:

. IN CASE OF CONFLICT BETWEEN THESE PLANS AND THE CITY OF POOLER'S DRDINANCES STANDARDS, SPECIFICATIONS OR DETAILS, THE CITY OF POOLER, ANDARDS ARE TO TAKE PRECEDENCE.

SPECIAL CONSTRUCTION NOTE:

THE CONTRACTOR KNOWS OR CAN REASONABLY BE EXPECTED TO HAVE KNOWN OF AN ERROR. DISCREPANCY OR CONFLICT IN THE PLANS, SPECIFICATIONS OR CONSTRUCTION STAKING AND FAILS TO REPORT THE PROBLEM PRIOR TO CONSTRUCTION, HE SHALL NOT BE ENTITLED TO COMPENSATION FOR ANY WORK OR EXPENSE INCURRED BY HIM FOR WORK REQUIRED TO BE RE-CONSTRUCTED BECAUSE OI SAID ERROR, DISCREPANCY OR CONFLICT.









Drawing Number

1. NARRATIVE: THE EXISTING SITE IS VACANT AND THE GROUND IS GENERALLY FLAT WITH SLOPES BETWEEN 0 AND FOUR PERCENT WITH FEW TREES. THE PROPOSED DEVELOPMENT WILL BE A NEW MEDICAL BUILDING AND WILL HAVE PAVING, GRADING, DRAINAGE AND UTILTIES. DETENTION WILL BE ACHIEVED BY DETENTION POND. THE TOTAL SITE IS APPROXIMATELY 0.92 ACRES WITH THE DISTURBED AREA BEING APPROXIMATELY 0.69 ACRES.

2. DEVELOPER / OWNER : SKH POOLER, LLC CONTACT: POP SENIWONG

2 TIDEWATER WAY SAVANNAH, GA 31411

PRIMARY PERMITTEE EMAIL: SENIWONG@MSN.COM

3. 24 HOUR CONTACT: 912-695-2000

4. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN CONFORMANCE WITH THE CURRENT STATE SOIL AND WATER CONSERVATION COMMITTEE OF GEORGIA "MANUAL FOR EROSION CONTROL IN GEORGIA.

5. PRIOR TO ANY OTHER CONSTRUCTION, STABILIZED CONSTRUCTION EXITS SHALL BE CONSTRUCTED AT EACH POINT OF ENTRY TO OR EXIT FROM THE SITE. ALL ENTRANCES TO THE SITE WHICH ARE NOT PROTECTED SHALL BE BARRICADED.

6. IMMEDIATELY AFTER THE ESTABLISHMENT OF CONSTRUCTION EXITS, ALL PERIMETER EROSION CONTROL DEVICES AND STORM WATER MANAGEMENT DEVICES SHALL BE INSTALLED PRIOR TO ANY OTHER CONSTRUCTION.

7. ADDITIONAL EROSION CONTROL DEVICES SHALL BE INSTALLED IMMEDIATELY AFTER GROUND DISTURBANCE OCCURS. THE LOCATION OF SOME OF THE EROSION CONTROL DEVICES MAY HAVE TO BE ALTERED FROM THAT SHOWN ON THE PLANS IF DRAINAGE PATTERNS DURING CONSTRUCTION ARE DIFFERENT FROM THE FINAL PROPOSED DRAINAGE PATTERNS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCOMPLISH EROSION CONTROL FOR ALL DRAINAGE PATTERNS CREATED AT VARIOUS STAGES DURING ANY PHASE OF CONSTRUCTION. ANY DIFFICULTY IN CONTROLLING EROSION DURING ANY PHASE OF CONSTRUCTION SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY!

8. THE LOCATIONS OF EROSION CONTROL DEVICES SHALL BE ADJUSTED AS CONSTRUCTION PROGRESSES IN ORDER TO MAINTAIN A FUNCTIONING EROSION CONTROL SYSTEM.

9. THE FAILURE OF ANY EROSION CONTROL DEVICE TO FUNCTION AS INTENDED, FOR ANY REASON, SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY!

10. EROSION CONTROL DEVICES SHALL BE INSPECTED AFTER EACH RAINFALL EVENT AND AT LEAST DAILY DURING PROLONGED PERIODS OF CONTINUOUS RAINFALLS.

11. EROSION CONTROL DEVICES SHALL BE CLEANED WHEN THEY BECOME HALF FILLED WITH SEDIMENT.

12. EROSION CONTROL DEVICES SHALL BE REPAIRED AS NECESSARY TO MAINTAIN A FUNCTIONING EROSION CONTROL SYSTEM.

13. EROSION CONTROL DEVICES SHALL BE MAINTAINED UNTIL PERMANENT COVER IS ESTABLISHED AND THEN REMOVED SO THAT DRAINAGE FROM THE SITE IS NOT IMPAIRED.

14. STORM WATER DETENTION DEVICES SHALL BE CLEANED AS SPECIFIED ABOVE AND AFTER

PERMANENT GROUND COVER HAS BEEN ESTABLISHED. 15. ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE

16. ANY DISTURBED AREAS WITH SLOPES 2:1 OR FLATTER WHICH ARE NOT STABILIZED BY ANY OTHER MEASURES SHALL BE SEEDED AS SPECIFIED IN "PERMANENT SEEDING".

17. VEGETATIVE METHODS:

STABILIZED WITH TEMPORARY SEEDING.

A VEGETATIVE COVER SHALL BE ESTABLISHED AND MAINTAINED OVER ALL FINAL GRADING AND OTHER DISTURBED AREAS OF THE SITE. SEE COASTAL PLAIN VEGETATIVE COVERS FOR AN OUTLINE OF THE ESTABLISHMENT OF VEGETATIVE COVERS.

WEEKLY INSPECTION OF THE GRASS COVER SHALL BE PERFORMED TO IDENTIFY AREAS REQUIRING RE-ESTABLISHMENT OF GRASS.

LIME RATE: 1 TO 2 TONS PER ACRE FERTILIZER: 1500 POUNDS OF 6-12-12 PER ACRE

MULCH SHALL BE UNCHOPPED, UNROTTED, SMALL GRAIN DRY STRAW APPLIED AT A RATE OF 2 TONS PER ACRE. MULCH MATERIAL SHALL BE RELATIVELY FREE FROM ALL KINDS OF WEEDS AND SHALL BE FREE OF PROHIBITED NOXIOUS WEEDS WHICH ARE AS FOLLOWS: CANADA THISTLE, JOHNSONGRASS AND QUACKGRASS. SPREAD MULCH MECHANICALLY OR UNIFORMLY BY HAND. MULCH ANCHORING SHALL BE ACCOMPLISHED IMMEDPLACEMENTPIATELY AFTER MULCH PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY PEG AND TWINE METHOD, MULCH ANCHORING TOOL, NETTING OR LIQUID MULCH BINDERS.

19. SOIL TYPE: THE SOILS IN THIS AREA HAVE BEEN CLASSIFIED BY THE SOIL CONSERVATION SERVICE AS: Pn (Pooler Fine Sandy Loam)...

20. THIS DEVELOPMENT IS WITHIN MINIMAL ZONING AREA "X" ACCORDING TO F.I.R.M. COMMUNITY PANEL NUMBER 13051C0126H, MAP REVISED 8-16-18.

21. THIS SITE IS IN FLOOD ZONE "X" AND IS NOT LOCATED WITHIN THE 100 YEAR FLOOD

SPECIAL NOTES:

DESIGN ENGINEER.

1. THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTEDED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO OR CONCURRENT WITH LAND DISTURBING ACTIVITIES.

2. THE INSTALLATION OF EROSION CONTROL MEASURES AND PRACTICES SHALL BE INSTALLED PRIOR TO OR CONCURRENT WITH LAND DISTURBING ACTIVITIES.

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 THE SEDIMENT SOURCE.

4. CITY OF POOLER PERSONNEL SHALL HAVE THE RIGHT TO INSPECT STORMWATER FACILITIES AT ALL TIMES.

5. STATE WATERS DO NOT EXIST ON THIS PROPERTY OR WITHIN 200'.

6. FRESH WATER WETLANDS DO NOT EXIST ON THIS PROPERTY.

7. THE EROSION AND SEDIMENT CONTROL PLAN DESIGNER HAS VISITED THE SITE PRIOR TO DESIGN OF THE E & SC PLANS.

8. THE RECEIVING WATERS FOR THIS PROJECT IS THE EXISTING POOLER DRAINAGE SYSTEM. PARK POND. SEVERAL UN-NAMED CONVEYANCES. OGEECHEE RIVER AND ULTIMATELY THE ATLANTIC OCEAN.

9. ANY DISTURBANCE AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABALIZED WITH TEMPORARY SEEDING. 10. AMENDMENTS OR REVISIONS TO THE ES & PC PLAN WHICH HAVE A HYDRAULIC EFFECT ON THE PROJECT MUST BE APPROVED BY THE

CLEARING NOTES:

1. ALL ELEVATIONS ARE BASED ON 88 NAVD DATUM.

2. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING UNDERGROUND UTILITIES PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES AND FOR AVOIDING ALL CONFLICTS WITH SAME. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR.

3. ALL WORK SHALL BE IN COMPLIANCE WITH THE STATE SOIL AND WATER CONSERVATION COMMITTEE'S "MANUAL FOR EROSION AND SEDIMENTATION CONTROL IN GEORGIA. ALL SEDIMENT CONTROL FEATURES SHALL BE MAINTAINED ON A REGULAR BASIS AND SHALL BE REMOVED BY THE CONTRACTOR UPON ACCEPTANCE OF THE SITE BY THE OWNER. SEE LAND DISTURBING PLAN.

4. ALL DISTURBED AREAS AND PROPOSED EARTH GRADING NOT TO BE COVERED BY OTHER SURFACES SHALL BE GRASSED AS DESCRIBED ON THE LAND DISTURBING ACTIVITY PLAN.

5. EGRESS FROM THE SITE WILL BE SUCH THAT ALL VEHICLES MUST TRAVERSE CONSTRUCTION EXITS TO REMOVE MUD FROM TIRES BEFORE ENTERING ANY PAVED

6. BALES OF HAY, STRAW OR SILT FENCE SHALL BE PLACED AROUND ALL STORM INLETS TO PREVENT SEDIMENT FROM ENTERING NEW PIPE OR DRAINAGE WAYS DURING CONSTRUCTION. THESE MEASURES ARE TEMPORARY.

7. THE SITE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING POSITIVE DRAINAGE OF ALL AREAS WITHIN THE PROJECT SITE INCLUDING RIGHTS-OF-WAYS, EASEMENTS AND LOTS. THE CONTRACTOR SHALL PROVIDE THE NECESSARY FILL AND OR GRADING TO MEET THE FINISHED PLAN GRADES AND ELIMINATE ANY AND ALL AREAS WHICH ARE LOW AND DO NOT DRAIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING PROPER DRAINAGE OF ANY AREAS WHICH ARE CHANGED AS A RESULT OF FIELD ADJUSTMENTS TO THE CONSTRUCTION PLANS.

8. THE CONTRACTOR WILL NOT BEGIN CLEARING OR ANY CONSTRUCTION ACTIVITY UNTIL THE APPROPRIATE PERMITS HAVE BEEN ISSUED.

9. IF REQUIRED, TREE PROTECTION BARRICADES SHALL BE INSTALLED PRIOR TO ANY CLEARING ACTIVITY AND MAINTAINED UNTIL INSTRUCTED BY OWNER OR ENGINEER TO REMOVE THEM.

10. THE CONTRACTOR SHALL TAKE SPECIAL CARE TO AVOID DAMAGE TO TREES AND ROOT SYSTEMS WHILE WORKING WITHIN TREE PROTECTION BARRICADES. THE CONTRACTOR SHALL NOT WORK WITHIN TREE PROTECTION BARRICADES WITHOUT A REPRESENTATIVE FROM THE OWNER OR ENGINEER PRESENT.

11. PRUNING OF TREE LIMBS, BRANCHES AND ROOTS OF TREES WHICH ARE WITHIN TREE PROTECTION BARRICADES SHALL BE DONE IN CONFORMANCE WITH SPECIFICATIONS AND RECOMMENDATIONS OF THE "NATIONAL ARBORIST ASSOCIATION" (N.A.A.) IN "PRUNING STANDARDS FOR SHADE TREES". ANY VARIATION FROM THE RECOMMENDATION OF THE N.A.A. SHALL BE APPROVED BY THE OWNER IN WRITING PRIOR TO ANY PRUNING.

12. LIMITS OF GRADING AND GRASSING ARE INDICATED ON PLANS AS "LIMITS OF DISTURBANCE".

13. ALL DISTURBED AREAS FROM NEW CONSTRUCTION ACTIVITIES WILL BE SEEDED, MULCHED, FERTILIZED AND WATERED TO PROMOTE A SUFFICIENT GROUND COVER THAT WILL PREVENT SOIL EROSION. SUFFICIENT COVERAGE SHALL BE AS SPECIFIED IN "EROSION CONTROL GRASSING".

14. DRAINAGE: ALL EXCAVATION SHALL BE PERFORMED SO THAT THE SITE AND THE AREA IMMEDIATELY SURROUNDING THE SITE WHICH EFFECTS THE OPERATIONS WILL BE CONTINUALLY AND EFFECTIVELY DRAINED. SURFACE WATER, GROUNDWATER, OR ANY PERCHED WATER WHICH MIGHT BE ENCOUNTERED DURING EXCAVATIONS SHALL BE REMOVED BY ANY ACCEPTABLE MEANS APPROVED BY THE ENGINEER.

TENTATIVE ACTIVITY SCHEDULE

	2025						
	AUG SEF		AUG SEP OCT		DEC	JAN	
EMOLITION, CLEARING, GRUBBING							
NSTALLATION OF SEDIMENT CONTROLS ND TREE PROTECTION BARRICADES							
EMPORARY GRASSING							
ITE GRADING							
TILITY INSTALLATION							
BUILDING CONSTRUCTION							
PERMANENT GRASSING							
PAVING							
MAINTENANCE OF SEDIMENT CONTROL							
REMOVAL OF SEDIMENT CONTROL							

SITE DATA

TOTAL ACREAGE...0.92 ACRES (PARENT) DISTURBED ACREAGE... 0.69 ACRES S.C.S. SOIL SURVEY MAP AS PER WEB SOIL SURVEY

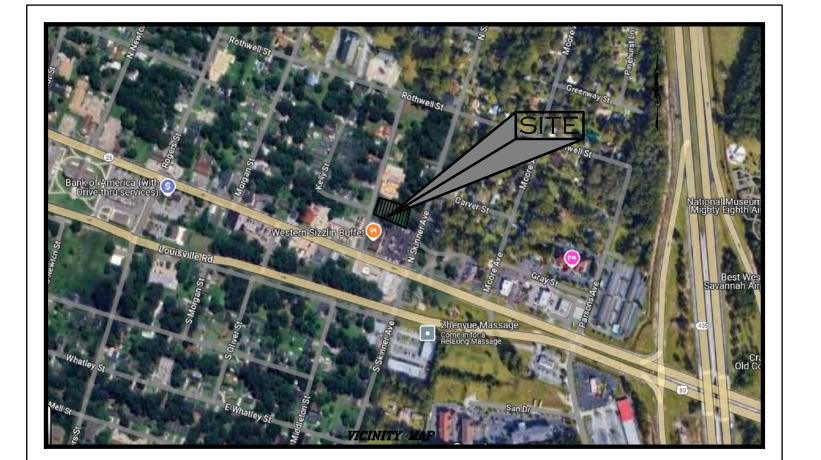


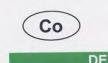


Figure 1. Crushed Stone Construction Exit Installation Requirements

Figure 2. Geotextile Underliner MAINTENANCE

· Periodically dress with 1.5"-3.5" stone. Maintain in a condition that will prevent tracking or flow of mud onto public rights-of way. Immediately remove mud and debris tracked or

spilled onto roadways.



CONSTRUCTION EXIT

DEFINITION A stone-stabilized pad located at any point where traffic will be leaving a construction site to a public right-of-way, street, alley, sidewalk, or parking



· Reduce or eliminate the transport of mud from the construction area onto public right-of-ways.

INSTALLATION

· Install according to the approved plan.

width of the entrance.

Use 1.5"-3.5" stone.

· Minimum pad thickness of 6". · Minimum pad width of 20 ft.

· Minimum pad length of 50 ft. When the construction is less than 50 ft from the paved access, the length shall be from the

edge of the existing pavement to the permitted

building being constructed. When washing is required, conduct on an area an approved sediment trap or sediment basin. · Place the geotextile liner the full length and

24 HOUR CONTACT POP SENIWONG 2 TIDEWATER WAY SAVANNAH, GA 31411 912-695-2000

DEVELOPMENT IS WITHIN THE

"I certify under penalty of law that this Plan was prepared after a site visit to the locations described herein by myself or my authorized agent, under my supervision."

"I certify that the permittee's Erosion, Sedimentation and Pollution Control Plan provides for an appropriate and comprehensive system of best management practices required by the Georgia Water Quality Control Act and the document "Manual for Erosion and Sediment Control in Georgia" (Manual) published by the Georgia Soil and Water Conservation Commission as of January I of the year in which the land-disturbing activity was permitted, provides for the sampling of the receiving water(s) or the sampling of the stormwater outfalls and that the designed system of best management practices and sampling methods is expected to meet the requirements contained in the General NPDES Permit No. GAR 100001."

Level II Certification No. 2104

mal Bowell CERTIFIED BY: Mark A. Boswell

SPECIAL ORDINANCE NOTE

TANDARDS ARE TO TAKE PRECEDENCE.

IN CASE OF CONFLICT BETWEEN THESE PLANS AND THE CITY OF POOLER'S

RDINANCES STANDARDS, SPECIFICATIONS OR DETAILS, THE CITY OF POOLER,

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 VARIANCES AND PERMITS.

. NON-EXEMPT ACTIVITIES SHALL NOT BE

STREAM BUFFER ENCROACHMENT NOTES:

NEW STRUCTURES ON THIS PROJECT DO NOT

ENCROACH IN THE 25 OR 50 FOOT STREAM

WEIGHTED RUN-OFF COEFFICIENTS

PRE-DEVELOPED = 84 Post-Developed = 93

SENIWONG@MSN.COM MAIN STREET OVERLAY DISTRICT







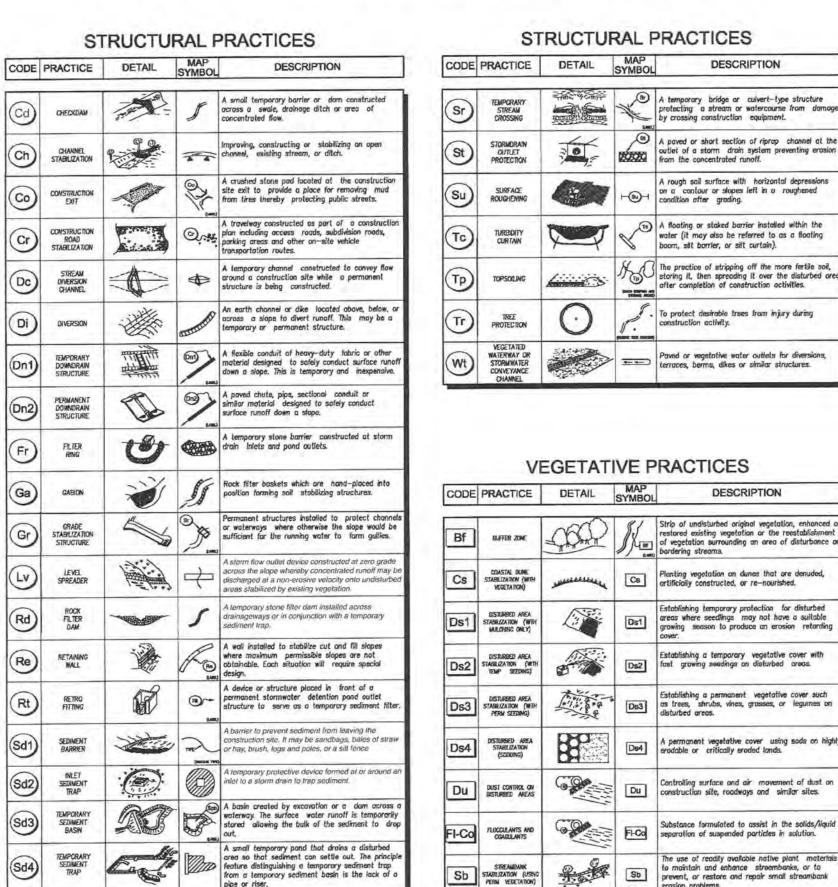
Drawing Number

LEVEL II CERTIFICATION NO. 2104 ISSUED 11-5-05 EXPIRES 11-15-26

GEORGIA UNIFORM CODING SYSTEM

FOR SOIL EROSION AND SEDIMENTATION CONTROL PRACTICES

GEORGIA SOIL AND WATER CONSERVATION COMMISSION



pipe or riser. the surface of sediment ponds, traps, or basins at a controlled rate of flow. SS SLOPE STABILIZATION A linear control device constructed as a diversion perpendicular to the direction of the runoff to enhance dissipation and infiltration of runoff, while creating multiple sedimentation chambers with the employment of intermediate dikes.

Substance used to anchor surve or may consider the organic material to bind together.

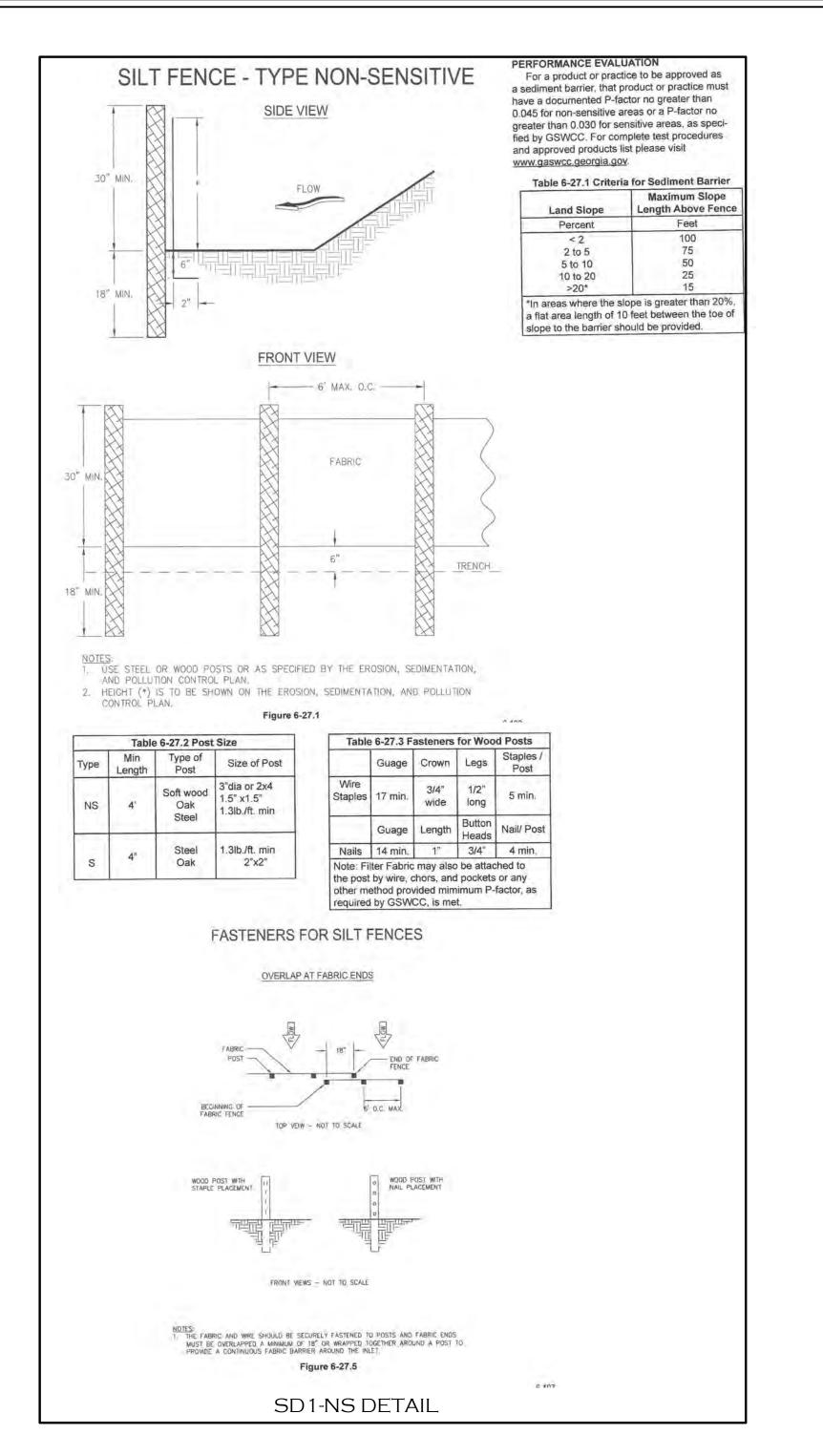
A protective covering used to prevent erasion and establish temporary or permanent vegetation on steep slopes, shore lines, or channels.

PRIOR TO DIGGING



Drawing Number

20 of 27 sheets



STORM AND UTILITIES MANHOLE AND BOX NOTES: . INVERT ELEVATIONS ARE TO BE CONSIDERED AS PIPE INVERTS AND NOT AS THE INVERT OF THE MANHOLE, BOX, ETC

"I certify under penalty of law that this Plan was prepared after a site visit to the locations described herein by myself or my authorized agent, under my supervision."

'I certify that the permittee's Erosion, Sedimentation and Pollution Control Plan provides for an appropriate and comprehensive system of best management practices required by the Georgia Water Quality Control Act and the document "Manual for Erosion and Sediment Control in Georgia" (Manual) published by the Georgia Soil and Water Conservation Commission as of January 1 of the year in which the land-disturbing activity was permitted, provides for the sampling of the receiving water(s) or the sampling of the stormwater outfalls and that the designed system of best management practices and sampling methods is expected to meet the requirements contained in the General NPDES Permit No. GAR 100001."

Mal Bosmell

CERTIFIED BY: Mark A. Boswell Level II Certification No. 2104

> 24 HOUR CONTACT POP SENIWONG 2 TIDEWATER WAY SAVANNAH, GA 31411 912-695-2000

NEW STRUCTURES ON THIS PROJECT DO NOT

ENCROACH IN THE 25 OR 50 FOOT STREAM

. 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 VARIANCES AND PERMITS.

REQUIRED TEMPORARY SEDIMENT STORAGE

REQUIRED SEDIMENT STORAGE TEMPORARY BASIN 1: $\frac{67 \text{ C.Y.}}{\text{ACRE}} \times 0.69 \text{ ACRES DISTURBED} = 46.23 \text{ C.Y. REQUIRED}$

Phase II and Phase III

REQUIRED SEDIMENT STORAGE CALCULATIONS SEDIMENT STORAGE WILL BE ACHIEVED WITHIN SEDIMENT TRAPS -SEE C-17 FOR DETAILS

OTAL SEDIMENT STORAGE = 50 CY 50 CY (supplied) > 46.23 CY (required)

SEDIMENT STORAGE WILL BE ACHIEVED IN BOTTOM OF TEMPORARY POND

EMPORARY BASIN = 50 CY50 CY (supplied) > 46.23 CY (required)

 $\frac{67 \text{ C.Y.}}{\text{ACRE}} \times 0.69 \text{ ACRES DISTURBED} = 46.23 \text{ C.Y. REQUIRED}$

SENIWONG@MSN.COM

DESCRIPTION OF STORM WATER POLLUTION

DISCHARGE PREVENTION PRACTICES

THE FOLLOWING IS A DESCRIPTION OF THE PRACTICES TO BE USED BUT NOT LIMITED TO:

A. CONSTRUCTION EXIT

B. SILT FENCING

C. TEMPORY SEDIMENT BASINS

F. STORM OUTLET PROTECTION G. GRASSING

H. DETENTION POND

I. SKIMMER

J. DUST CONTROL K. CONCRETE WASHDOWN PIT

SPECIAL ORDINANCE NOTE:

IN CASE OF CONFLICT BETWEEN THESE PLANS AND THE CITY OF POOLER'S ORDINANCES STANDARDS, SPECIFICATIONS OR DETAILS, THE CITY OF POOLER, TANDARDS ARE TO TAKE PRECEDENCE.

GSWCC 2016 Edition

I. The state of Georgia requires that the initial soil erosion prevention measures shall be inspected by the designer within 7 days after installation.

2. It is the responsibility of the contractor to notify the soil erosion prevention plan designer within 7 days after the initial soil erosion measures are in place for inspection.

3. Soil erosion prevention plans shall be kept current and on site or readily accessible at all times during the duration of the project until after final stabilization has occurred.

5. Contractor is to keep a record of his inspections of the soil erosion control measures to include at

least the following: a. date and scope of the inspection

b. name of person performing inspection

SPECIAL SOIL EROSION PREVENTION NOTES

c. major observations (including noncompliance incidents)

Inspection reports are to be kept current and on site or readily accessible at all times during the duration of the project until after final stabilization has occurred.

6. Sampling of the outfall is the responsibility of the primary permittee and sampling requirements are to be as per the NPDES general permit.

7. Silt fencing is to remain in place until final stabilization.

8. Waste materials shall not be discharged to state waters except as

authorized by a section 404 permit.

9. These ES & PC plans are in compliance with waste disposal, sanitary sewer and septic tank regulations.

10. Great care shall be taken to prevent oil spills and leaks. In the event that a spill shall occur, stop the spill source immediately and implement BMP's and clean-up for the spill.

LEVEL II CERTIFICATION NO. 2104 ISSUED 11-5-05 EXPIRES 11-15-26

SPECIAL CONSTRUCTION NOTE:

F THE CONTRACTOR KNOWS OR CAN REASONABLY BE EXPECTED TO HAVE KNOWN OF AN ERROR, DISCREPANCY OR CONFLICT IN THE PLANS, SPECIFICATIONS OR CONSTRUCTION STAKING AND FAILS TO REPORT THE PROBLEM PRIOR O CONSTRUCTION, HE SHALL NOT BE ENTITLED TO COMPENSATION FOR ANY WORK OR EXPENSE INCURRED BY HIM FOR WORK REQUIRED TO BE RE-CONSTRUCTED BECAUSE OF SAID ERROR, DISCREPANCY OR CONFLICT.

STREAM BUFFER ENCROACHMENT NOTES:

RETROFITS, PERIMETER SILT FENCE AND ONSTRUCTION EXIT TO BE LEFT IN PLACE

BMP REMOVAL NOTE :

ONCE THE SITE IS PAVED THE CONSTRUCTION

NTIL FINAL STABILIZATION HAS OCCURED. XIT IS NO LONGER NEEDED

Erosion and Sediment Control Phasing

I. This phase shall include Silt fencing and construction exits and sediment and detention ponds to be installed prior to any land disturbing activities to prevent sediment from leaving the site.

. This phase shall include construction of any outlet structures, retrofits, check

. This phase shall include outfall protection, any revised inlet protection and any

Intermediate Phase (Phase II)

other permanent devices.

dams, inlets protection and temporary grassing. Final Phase (Phase III)

The design professional is to inspect the installation of the initial sediment storage requirements and perimeter control BMP's. The design professional must be retained by the primary permittee to conduct a site inspection within seven (7) days after the the installation of the initial sediment storage requirements and perimeter control BMP's. The design professional must report the results of the inspection to the primary permittee within seven (7) days and the primary must correct all deficiencies identified in the report within two (2) business days after receiving the report (unless additional time is needed due to adverse weather). The primary permittee may use an alternate design professional to conduct the BMP inspection, provided that they make a written request to EPD to change from the design professional who developed the plan and EPD has agreed.

DESIGN PROFESSIONAL 7 DAY VISIT CERTIFICATION

Date of Inspection

certify the site was in compliance with the ES&PC Plan on the date of inspection.

Mark Boswell

SSWC LEVEL II DESIGN PROFESSIONAL

CERTIFICATION 3

Inspection revealed the following discrepancies from the ES&PC Plan.

proceed on the site until design Professional Certification is obtained.

These deficiencies must be addressed immediately and a re—inspection scheduled. Work shall not

PRODUCT SPECIFIC PRACTICES

Petroleum Based Products - Containers for products such as fuels, lubricants and tars vill be inspected daily for leaks and spills. This includes on—site vehicle and machinery daily inspections and regular preventative maintenance of such equipment. Equipment naintenance areas will be located away from state water, 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 will include collection in a suitable container and disposal as required by local and State

Points / Finishes / Solvents — All products will be stored in tightly sealed original containers when not in use. Excess product will not be discharged to the storm water collection system. Excess product, materials used with these products and product containers will be disposed of according to manufacturer's specifications

Concrete Truck Washing

and recommendations.

- Coordinate with site superintendent to excavate a pit deep enough to contain the wash down water.
- Back equipment into pit.
- Wash down only the chute hopper and rear of the vehicle. DO NOT WASH OUT DRUM.
- Make sure wash down water goes into and stays in the pit.
- Coordinate with site superintendent to fill in pit and smooth out ground.
- Never allow wash down to enter a storm system.
- Fertilizer / Herbicides These products will be applied at rates that do not exceed the nanufactuer'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 hese materials will be under roof in sealed containers.
- . Building Materials No building materials will be buried or disposed on—site. All such materials will be disposed of in proper waste disposal procedures.

DESCRIPTION OF STORM WATER POLLUTION

THE FOLLOWING IS A DESCRIPTION OF THE PRACTICES TO BE USED BUT

DISCHARGE PREVENTION PRACTICES

NOT LIMITED TO

G. GRASSING

I. SKIMMER

H. DETENTION POND

J. DUST CONTROL

B. SILT FENCING

A. CONSTRUCTION EXIT

C. TEMPORY SEDIMENT BASINS

F. STORM OUTLET PROTECTION

K. CONCRETE WASHDOWN PIT

APPENDIX B Nephelometric Turbidity Unit (NTU) Tables

Cold Water (Trout Stream)

	Surface Water Drainage Area, square miles								
		0-4.99	5-9.99	10-24.99	25-49.99	50-99.99	100-249.99	250-499.99	500+
	1.00-10	25	50	75	150	300	500	500	500
SITE SIZE	10.01-25	25	25	50	75	150	200	500	500
ACRES	25.01-50	25	25	25	50	75	100	300	500
	50.01-100	20	25	25	35	50	75	150	300
	100.01+	20	20	25	25	25	50	60	100

Warm Water (Supporting Warm Water Fisheries) Surface Water Drainage Area, square miles

		0-4.99	5-9.99	10-24.99	25-49.99	50-99.99	100-249.99	250-499.99	500+
	1.00–10	75	150	200	400	750	750	750	750
	10.01-25	50	100	100	200	300	500	750	750
E SIZE CRES	25.01-50	50	50	100	100	200	300	750	750
	50.01-100	50	50	50	100	100	150	300	600
	100.01+	50	50	50	50	50	100	200	100
	J								

Soil 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.
- . Material and equipment necessary for spill cleanup will 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, saw dust and properly labeled plastic and metal waste containers.
- 3. Spill prevention practices and procedures will be reveiwed after a spill and adjusted as necessary to prevent future
- 4. All spills wil be cleaned up immediately upon discovery. All spills will be reported as required by local, State and Federal
- 5. FOR SPILLS THAT IMPACT SURFACE WATER (LEAVE A SHEEN ON SURFACE WATER). THE NATIONAL RESPONSE CENTER (NRC) WILL BE CONTACTED
- 6. FOR SPILLS OF AN UNKNOWN AMOUNT, THE NATIONAL CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT 1-800-424-8802.
- 7. FOR SPILLS GREATER THAN 25 GALLONS AND NO SURFACE WATER IMPACTS, THE GEORGIA EPD 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

9. 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 660 gallons. The Contactor will need a Spill Prevention Containment and Countermeasures Plan prepared by that licenseed

SANITARY WASTES

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 per week by a licensed portable facility provider in complete compliance with local and state regulations

2. 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 dischages. The location of sanitary waste units must be identified on the Erosion Control Plan Grading Phase Sheet by the contractor once the locations have been determined.

3. Sanitary Sewer will be provided by Municipal Authority/Septic System at the

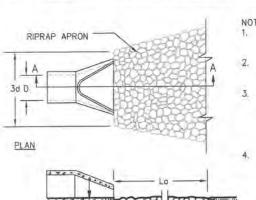
HAZARDOUS WASTES

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 jobsite superintendent, who will also be responsible for seeing that these practices are followed, will instruct site personnel in these practices. Material Saftey Data Sheets (MSDS's) for each substance with hazradous 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 the MSDS will be maintained in the ESPCP file at the jobsite construction trailer office. Each employee who must handle a substance with hazrdous properties will be instructed on the use of MSDS sheets and the specific information in the applicable MSDS for the product he/she is using, particularly regarding spill control

2. The contractor will implement the Spill Prevention Control and Countermeasures (SPCC) Plan found within this ESPCP and will train all personnel in the proper cleanup and handling of spilled materials. No spilled , hazardous materials or hazardoud wastes will be allowed to come in contact with storm water discharges. If such contact occurs, the storm water discharge will be continued on site until appropriate measures in compliance with state and federal regulations are taken to dispose of such contaminated storm water. It shall be the responsibility of the job site superintendent to properly train all personnel in the use of the SPCC plan.

RIPRAP OUTLET PROTECTION

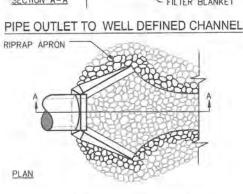
PIPE OUTLET TO FLAT AREA - NO WELL DEFINED CHANNEL



D = 1.5 TIMES THE MAXIMUM STONE IN A WELL-DEFINED CHANNEL, EXTEND THE APRON UP THE CHANNEL BANKS TO AN ELEVATION OF 6" ABOVE THE AXIMUM TAILWATER DEPTH OR TO THE TOP OF THE BANK (WHICHEVER IS LESS)

> A FILTER REANKET OR FILTER FARRIC RIPRAP AND THE SOIL FOUNDATION

La IS THE LENGTH OF THE RIPRAP



SECTION A-A

Figure 6-34.3 - Riprap Outlet Protection (Modified From Va SWCC)

RIP-RAP OUTLET PROTECTION

24 HOUR CONTACT: POP SENIWONG 2 TIDEWATER WAY SAVANNAH, GA 31411 912-695-2000

SENIWONG@MSN.COM

WASTE MATERIALS:

. 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 on—site.

. All personnel will be instructed on proper procedures for waste disposal. A notice stating these practices will be posted at the jobsite and the Contractor will be responsible for seeing that these

WASTE MATERIALS SHALL NOT BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.

EROSION, SEDIMENT AND POLUTION CONTROL NOTES:

4. Inspections.

Permittee requirements.

(1). Each day when any type of construction activity has taken place at a primary permittee's site, certified personnel provided by the primary permittee shall inspect: (a) all areas at the primary permittee's site where petroleum products are stored, used, or handled for spills and leaks from vehicles and equipment and (b) all locations at the primary permittee's site where vehicles enter or exit the site for evidence of off-site sediment tracking. These inspections must be conducted until a Notice of Termination is submitted.

(2). Measure and record rainfall within disturbed areas of the site that have not met final stabilization once every 24 hours except any non-working Saturday, non-working Sunday and non-working Federal holiday. The data collected for the purpose of compliance with this permit shall be representative of the monitored activity. Measurement of rainfall may be suspended if all areas of the site have undergone final stabilization or established a crop of annual vegetation and a seeding of target perennials appropriate for the region.

(3). Certified personnel (provided by the primary permittee) shall inspect the following at least once every seven (7) calendar days and within 24 hours of the end of a storm that is 0.5 inches rainfall or greater (unless such storm ends after 5:00 PM on any Friday or on any non-working Saturday, non-working Sunday or any non-working Federal holiday in which case the inspection shall be completed by the end of the next business day and/or working day, whichever occurs first): (a) disturbed areas of the primary permittee's construction site; (b) areas used by the primary permittee for storage of materials that are exposed to precipitation; and (c) structural control measures. Erosion and sediment control measures identified in the Plan applicable to the primary permittee's site shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving water(s). For areas of a site that have undergone final stabilization or established a crop of annual vegetation and a seeding of target perennials appropriate for the region, the permittee must comply with Part IV.D.4.a.(4). These inspections must be conducted until a Notice of Termination is submitted.

(4). Certified personnel (provided by the primary permittee) shall inspect at least once per month during the term of this permit (i.e., until a Notice of Termination has been submitted) the areas of the site that have undergone final stabilization or established a crop of annual vegetation and a seeding of target perennials appropriate for the region. These areas shall be inspected for evidence of, or the potential for, pollutants entering the drainage system and the receiving water(s). Erosion and sediment control measures identified in the Plan shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving water(s),

(5). Based on the results of each inspection, the site description and the pollution prevention and control measures identified in the Erosion, Sedimentation and Pollution Control Plan, the Plan shall be revised as appropriate not later than seven (7) calendar days following each inspection. Implementation of such changes shall be made as soon as practical but in no case later than seven (7) calendar days following each inspection.

(6). A report of each inspection that includes the name(s) of certified personnel making each inspection, the date(s) of each inspection, construction phase (i.e., initial, intermediate or final), major observations relating to the implementation of the Erosion, Sedimentation and Pollution Control Plan, and actions taken in accordance with Part IV.D.4.a.(5). of the permit shall be made and retained at the site or be readily available at a designated alternate location until the entire site or that portion of a construction site that has been phased has undergone final stabilization and a Notice of Termination is submitted to EPD. Such reports shall be readily available by end of the second business day and/or working day and shall identify all incidents of best management practices that have not been properly installed and/or maintained as described in the Plan. Where the report does not identify any incidents, the inspection report shall contain a certification that the best management practices are in compliance with the Erosion,

Sedimentation and Pollution Control Plan. The report shall be signed in accordance with Part V.G.2. of this permit.

Page 26 of 33

Permit No. GAR100001

5. Maintenance. The Plan shall include a description of procedures to ensure the timely

GAR100001 PART IV.F (RETENTION OF RECORDS)

1. The primary permittee shall retain the following records at the construction site or the records shall be readily

vailable at a designated alternate location from commencement of construction until such time as a NOT is

a. A copy of all Notices of Intent submitted to EPD;
b. A copy of the Erosion, Sedimentation and Pollution Control Plan required by this permit;
c. The design professional's report of the results of the inspection conducted in accordance with Part IV.A.5.

e. A copy of all inspection reports generated in accordance with Part IV.D.4.a. of this permit, f. A copy of all violation summaries and violation summary reports generated in accordance with Part

2. Copies of all Notices of Intent, Notices of Termination, reports, plans, monitoring reports, monitoring

nformation, including all calibration and maintenance records and all original strip chart recordings for continuous nonitoring instrumentation, Erosion, Sedimentation and Pollution Control Plans, records of all data used to

complete the Notice of Intent to be covered by this permit and all other records required by this permit shall be

retained by the permittee who either produced or used it for a period of at least three years from the date that the NOT is submitted in accordance with Part VI of this permit. These records must be maintained at the permittee's

primary place of business or at a designated alternative location once the construction activity has ceased at the permitted site. This period may be extended by request of the EPD at any time upon written notification to the

d. A copy of all monitoring information, results, and reports required by this permit;

Daily rainfall information collected in accordance with Part IV.D.4.a.(1)(c) of this permit.

Department of Natural Resources

F. Retention of Records

nvironmental Protection Division

maintenance of vegetation, erosion and sediment control measures and other protective measures

6. Sampling Requirements. This permit requires the monitoring of nephelometric turbidity in receiving water(s) or outfalls in accordance with this permit. This paragraph shall not apply to any land disturbance associated with the construction of single-family homes which are not part of a subdivision or planned common development unless five (5) acres or more will be disturbed. The following procedures constitute EPD's guidelines for sampling turbidity.

a. Sampling Requirements shall include the following:

- (1). A USGS topographic map, a topographic map or a drawing (referred to as a topographic map) that is a scale equal to or more detailed than a 1;24000 map showing the location of the site or the stand alone construction; (a) the location of all perennial and intermittent streams and other water bodies as shown on a USGS topographic map, and all other perennial and intermittent streams and other water bodies located during mandatory field verification, into which the stormwater is discharged and (b) the receiving water and/or outfall sampling locations. When the permittee has chosen to use a USGS topographic map and the receiving water(s) is not shown on the USGS topographic map, the location of the receiving water(s) must be hand-drawn on the USGS topographic map from where the stormwater(s) enters the receiving water(s) to the point where the receiving water(s) combines with the first blue line stream shown on the USGS topographic
- (2). A written narrative of site specific analytical methods used to collect, handle and analyze the samples including quality control/quality assurance procedures. This narrative must include precise sampling methodology for each sampling
- (3). When the permittee has determined that some or all outfalls will be sampled, a rationale must be included on the Plan for the NTU limit(s) selected from Appendix B. This rationale must include the size of the construction site, the calculation of the size of the surface water drainage area, and the type of receiving water(s) (i.e., trout stream or supporting warm water fisheries); and
- (4). Any additional information EPD determines necessary to be part of the Plan. EPD will provide written notice to the permittee of the information necessary and the time line for submittal.
- b. Sample Type. All sampling shall be collected by "grab samples" and the analysis of these samples must be conducted in accordance with methodology and test procedures established by 40 CFR Part 136 (unless other test procedures have been approved); the guidance document titled "NPDES Storm Water Sampling Guidance Document, EPA 833-B-92-001" and guidance documents that may be prepared by the EPD.
 - (1). Sample containers should be labeled prior to collecting the samples.
 - (2). Samples should be well mixed before transferring to a secondary container.
 - (3). Large mouth, well cleaned and rinsed glass or plastic jars should be used for collecting samples. The jars should be cleaned thoroughly to avoid contamination.

(4). Manual, automatic or rising stage sampling may be utilized. Samples required by this permit should be analyzed immediately, but in no case later than 48 hours after collection. However, samples from automatic samplers must be collected no later than the next business day after their accumulation, unless flow through automated analysis is utilized. If automatic sampling is utilized and the automatic sampler is not activated during the qualifying event, the permittee must utilize manual sampling or rising stage sampling during the next qualifying event. Dilution of samples is not required. Samples may be analyzed directly with a properly calibrated turbidimeter. Samples are not required to be cooled.

(5). Sampling and analysis of the receiving water(s) or outfalls beyond the minimum frequency stated in this permit must be reported to EPD as specified in Part IV.E.

c. Sampling Points.

(1). For construction activities the primary permittee must sample all receiving water(s), or all outfall(s), or a combination of receiving water(s) and outfall(s). Samples taken for the purpose of compliance with this permit shall be representative of the monitored activity and representative of the water quality of the receiving water(s) and/or the stormwater outfalls using the following minimum guidelines:

(a). The upstream sample for each receiving water(s) must be taken immediately upstream of the confluence of the first stormwater discharge from the permitted activity (i.e., the discharge farthest upstream at the site) but downstream of any other stormwater discharges not associated with the permitted activity. Where appropriate, several upstream samples from across the receiving water(s) may need to be taken and the arithmetic average of the turbidity of these samples used for the upstream turbidity

DEVELOPMENT IS WITHIN THE

MAIN STREET OVERLAY DISTRICT

I certify under penalty of law that this Plan was prepared

or my authorized agent, under my supervision."

NPDES Permit No. GAR 100001."

CERTIFIED BY: Mark A. Boswell

after a site visit to the locations described herein by myself

'I certify that the permittee's Erosion, Sedimentation and

comprehensive system of best management practices required

published by the Georgia Soil and Water Conservation Commission

was permitted, provides for the sampling of the receiving water(s)

Level II Certification No. 2104

STREAM BUFFER ENCROACHMENT NOTES:

. NEW STRUCTURES ON THIS PROJECT DO NOT

UNDISTURBED STREAM BUFFERS AS MEASURED

OR WITHIN 25 FEET OF THE COASTAL MARSHLAND

BUFFER AS MEASURED FROM THE JURISDICTIONAL

DETERMINATION LINE WITHOUT FIRST ACQUIRING

ENCROACH IN THE 25 OR 50 FOOT STREAM

. NON-EXEMPT ACTIVITIES SHALL NOT BE

CONDUCTED WITHIN THE 25 OR 50 FOOT

FROM THE POINT OF WRESTED VEGETATION

THE NECESSARY VARIANCES AND PERMITS.

or the sampling of the stormwater outfalls and that the designed

system of best management practices and sampling methods is

expected to meet the requirements contained in the General

Mal Boswell

as of January 1 of the year in which the land-disturbing activity

by the Georgia Water Quality Control Act and the document "Manual for Erosion and Sediment Control in Georgia" (Manual)

Pollution Control Plan provides for an appropriate and

Sedimentation and Pollution Control Plan. The report shall be signed in accordance with Part V.G.2. of this permit.

5. Maintenance. The Plan shall include a description of procedures to ensure the timely maintenance of vegetation, erosion and sediment control measures and other protective measures

6. Sampling Requirements. This permit requires the monitoring of nephelometric turbidity in receiving water(s) or outfalls in accordance with this permit. This paragraph shall not apply to any land disturbance associated with the construction of single-family homes which are not part of a subdivision or planned common development unless five (5) acres or more will be disturbed. The following procedures constitute EPD's guidelines for sampling turbidity.

a. Sampling Requirements shall include the following:

(1). A USGS topographic map, a topographic map or a drawing (referred to as a topographic map) that is a scale equal to or more detailed than a 1:24000 map showing the location of the site or the stand alone construction; (a) the location of all perennial and intermittent streams and other water bodies as shown on a USGS topographic map, and all other perennial and intermittent streams and other water bodies located during mandatory field verification, into which the stormwater is discharged and (b) the receiving water and/or outfall sampling locations. When the permittee has chosen to use a USGS topographic map and the receiving water(s) is not shown on the USGS topographic map, the location of the receiving water(s) must be hand-drawn on the USGS topographic map from where the stormwater(s) enters the receiving water(s) to the point where the receiving water(s) combines with the first blue line stream shown on the USGS topographic

(2). A written narrative of site specific analytical methods used to collect, handle and analyze the samples including quality control/quality assurance procedures. This narrative must include precise sampling methodology for each sampling

(3). When the permittee has determined that some or all outfalls will be sampled, a rationale must be included on the Plan for the NTU limit(s) selected from Appendix B. This rationale must include the size of the construction site, the valur lealemation or the size of the surface water dramage area, and the type of receiving water(s) (i.e., trout stream or supporting warm water fisheries); and

(4). Any additional information EPD determines necessary to be part of the Plan. EPD will provide written notice to the permittee of the information necessary and the time line for submittal.

(2). However, where manual and automatic sampling are impossible (as defined in this permit), or are beyond the permittee's control, the permittee shall take samples as soon as possible, but in no case more than twelve (12) hours after the beginning of the stormwater discharge.

(3). Sampling by the permittee shall occur for the following qualifying events:

(a). For each area of the site that discharges to a receiving water or from an outfall, the first rain event that reaches or exceeds 0.5 inch with a stormwater discharge that occurs during normal business hours as defined in this permit after all clearing and grubbing operations have been completed, but prior to completion of mass grading operations, in the drainage area of the location selected as the sampling location;

(b). In addition to (a) above, for each area of the site that discharges to a receiving water or from an outfall, the first rain event that reaches or exceeds 0.5 inch with a stormwater discharge that occurs during normal business hours as defined in this permit either 90 days after the first sampling event or after all mass grading operations have been completed, but prior to submittal of a NOT, in the drainage area of the location selected as the sampling location, whichever comes first;

(c). At the time of sampling performed pursuant to (a) and (b) above, if BMPs in any area of the site that discharges to a receiving water or from an outfall are not properly designed, installed and maintained, corrective action shall be defined and implemented within two (2) business days, and turbidity samples shall be taken from discharges from that area of the site for each subsequent rain event that reaches or exceeds 0.5 inch during normal business hours* until the selected turbidity standard is attained, or until post-storm event inspections determine that BMPs are proper designed, installed and maintained;

(d). Where sampling pursuant to (a), (b) or (c) above is required but not possible (or not required because there was no discharge), the permittee, in accordance with Part IV.D.4.a.(6), must include a written justification in the inspection report of why sampling was not performed. Providing this justification does not relieve the permittee of any subsequent sampling obligations under (a), (b) or (c) above; and

(e). Existing construction activities, i.e., those that are occurring on or before the effective date of this permit, that have met the sampling required by (a) above shall sample in accordance with (b). Those existing construction activities that have met the sampling required by (b) above shall not be required to conduct additional sampling other than as required by (c) above.

*Note that the permittee may choose to meet the requirements of (a) and (b) above by collecting turbidity samples from any rain event that reaches or exceeds 0.5 inch and allows for sampling at any time of the day or

7. Non-stormwater discharges. Except for flows from fire fighting activities, sources of nonstormwater listed in Part III.A.2, of this permit that are combined with stormwater discharges associated with construction activity must be identified in the Plan. The Plan shall identify and ensure the implementation of appropriate pollution prevention measures for the non-stormwater

1. The applicable permittees are required to submit the sampling results to the EPD at the address shown in Part II.C. by the fifteenth day of the month following the reporting period. Reporting periods are months during which samples are taken in accordance with this permit. Sampling results shall be in a clearly legible format. Upon written notification, EPD may require the applicable permittee to submit the sampling results on a more frequent basis. Sampling and analysis of any stormwater discharge(s) or the receiving water(s) beyond the minimum frequency stated in this permit must be reported in a similar manner to the EPD. The sampling reports must be signed in accordance with Part V.G.2. Sampling reports must be submitted to EPD using the electronic submittal service provided by EPD. Sampling reports must be submitted to EPD until such time as a NOT is submitted in accordance with Part VI.

2. All sampling reports shall include the following information:

- a. The rainfall amount, date, exact place and time of sampling or measurements; b. The name(s) of the certified personnel who performed the sampling and
- c. The date(s) analyses were performed;
- d. The time(s) analyses were initiated; c. The name(s) of the certified personnel who performed the analyses: f. References and written procedures, when available, for the analytical techniques or
- g. The results of such analyses, including the bench sheets, instrument readouts, computer
- disks or tapes, etc., used to determine these results; h. Results which exceed 1000 NTU shall be reported as "exceeds 1000 NTU;" and i. Certification statement that sampling was conducted as per the Plan.
- 3. All written correspondence required by this permit shall be submitted by return receipt certified mail (or similar service) to the appropriate District Office of the EPD according to the schedule in Appendix A of this permit. The permittee shall retain a copy of the proof of submittal at the construction site or the proof of submittal shall be readily available at a designated location from commencement of construction until such time as a NOT is submitted in accordance with

LEVEL II **CERTIFICATION** NO. 2104 ISSUED 11-5-05 EXPIRES 11-15-26

DRIVE 31410

PRIOR TO DIGGING



Drawing Number



Controlling surface and air movement of dust n construction sites, roads, and demolition sites

•To prevent surface and air movement of dust from exposed soil surfaces.

•To reduce the presence of airborne substances that may be harmful or injurious to human health, welfare, or safety,

or to animals or plant life.

CONDITIONS This practice is applicable to areas subject to surface and air movement of dust where on and off-site damage may occur without treatment.

METHOD AND MATERIALS

A. Temporary Methods

Mulches, See standard Ds1 - Disturbed Area Stabilization (With Mulching Only). Synthetic esins may be used instead of asphalt to bind mulch material. Refer to specification Tac - Tackifiers. Resins should be used according to manufacturer's

Vegetative Cover. See specification Ds2 -

Spray-on Adhesives. These are used on mineral soils (not effective on muck soils). Keep traffic off

measure that should be used before wind erosion starts. Begin plowing on windward side of site. Chisel-type plows spaced about 12 inches apart, spring-toothed harrows, and similar plows are examples of equipment that may produce the desired effect.

Irrigation. This is generally done as an emerjency treatment. Site is sprinkled with water until the surface is wet. Repeat as needed.

Barriers. Solid board fences, snowfences

burlap fences, crate walls, bales of hay and similar

material can be used to control air currents and soil blowing. Barriers placed at right angles to prevailing currents at intervals of about 15 times their height are effective in controlling wind erosion Calcium Chloride. Apply at rate that will keep

surface moist. May need retreatment. B. Permanent Methods

Permanent Vegetation. See specification Ds3 -Disturbed Area Stabilization (With Permanent Vegetation). Existing trees and large shrubs may afford valuable protection if left in place.

Topsoiling. This entails covering the surface with less erosive soil material. See specification

Stone. Cover surface with crushed stone or coarse gravel. See specification Cr-Construction

TYPICAL STRAW BALE CHECK DAM

第2000年

SECTION A-A

BOUND WITH WIRE OR NYLON STRING AND SHOULD BE PI

Figure 6-12.3

(CD-HB

BALE CHECK DAMS SHALL NOT BE USED WHERE THE DRAINAGE AREA EXCEEDS ONE ACRE.

ITTING THE ADJACENT BALES:

ECTION B-B SHOULD ALWAYS BE HIGHER THAN POINT D

BALE PLACED FLAT SIDE DOWN

- ORIGINAL GROUNI

PREVIOUSLY LAID BALL

LEAST 6 INCHES DEE

LACKD IN ROWS WITH

OR PLACEMENT OF BALE

" x 2" STAKE OR #4 --

REBAR (2 PER BALE)

Disturbed Area Stabilization (With Temporary

hese areas. Refer to specification Tac - Tackifiers. Tillage. This practice is designed to roughen and bring clods to the surface. It is an emergency

Cd Check Dam A temporary grade con constructed across a swale, drainage ditch, or area of concentrated flow. PURPOSE velocity of the storm water in areas of conce trated flow. CONDITIONS This practice is applicable for use in small open channels and is not to be used in a live stream. Specific applications include: 1. Temporary or permanent swales or dito in need of protection during establis of grass linings. 2. Temporary or permanent swales or other reasons, cannot receive a permanent non-erodible thing for an extended period of tin

3.Other locations

erosion and re

measured to the center of the check

lems exist.

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the same elevation as the top of the downstream dam. (See Figure le should be used as a separator graded stone and the soil base and The geotextile will prevent the migra To minimize the erosion rate by reducing the tion of soil particles from the subgrade into the wed stone. The geotextile shall be selected/ cified in accordance with AASHTO M288-06 ction 7.3, Separation Requirements, Table Geotextiles shall be "set" into the subgrade soils. The geotextile shall be placed immediate adjacent to the subgrade without any voids and xtend five feet beyond the downstream toe of dam to prevent scour. NSTRUCTION SPECIFICATIONS (Cd-S that, due to their short length of service Stone check dams should be constructed of graded size 2-10 inch stone. Mechanical or hand placement shall be required to insure compete

Drainage Area

For stone check dams, the drainage area

shall not exceed two acres. For straw-bale che

Two or more check dams in a series shall be

used for drainage areas greater than one (1)

acre. Maximum spacing between dams should

be such that the toe of the upstream dam is at

dams and compost filter socks, the drainage

area shall not exceed one acre.

Side slopes shall be 2:1 or flatte

coverage of the entire width of the ditch or swale ere small localized and that the center of the dam is lower than the sedimentation prob edges. The center of the check dam must be at least 9 inches lower than the outer edges. (See Figure 6-12.2) Straw-bale Check Dams Check dayns should be designed using 2.0 cfs. For any flows exceeding 2.0 cfs, check dams Staked and embedded straw-bales may be may be used in conjunction with other BMPs in used as temporary check dams in concentrated the channel. Dam height should be 24 inches

flow areas while vegetation is becoming estab lished. They shall not be used where the age area exceeds one acre. Straw-bales be installed per Figure 6-12.3.

Bales should be bound with wire or nylon ing. Twine bound bales are less durable. The s should be placed in rows with bale ends the abutting the adjacent bales.

Downstream Row (Refer to Figure 6-12.3) Dig a tranch across the small channel, wide enough and keep enough so that the top of the row of bales placed on their long, wide side is level with the ground. The tops of bales across the center of the channel should all be level and set at the same elevation. Place the bales in position and stake them according to the instructions below.

Upstream Row Dig another trench across the small channel, upstream and immediately adjacent to the first row of bales. The trench should be wide enough to accommodate a row of bales set vertically on their long edge. The trench should be deep enough so that at least 6 inches of each below ground starting with the bale in the cl nel bottom. The trench should be as level as possible so that the tops of the bales across the center of the channel are level and water can flow evenly across them. Continue this trench u the side slopes of the small channel to a point

channel (Point "D", Figure 6-12.3). Drive standard 2 x 2 stakes or #4 rebar through the bales and into the ground 1 1/2 to 2 feet for anchorage. The first stake in each bale should be driven toward a previously laid bale to force the bales together (See Figure 6-12.3). Reference: Colorado NF.CS Straw Bale Check

where the unburied bottom line of the highes

bale (Point "C", Figure 6-12.3) is higher than

the top of the bales that are in the center

Compost Filter So k should be staked in the center. If the compost filter sock is to be left as a permaor part of the natural landscape, it may be seezed at time of installation for establishrmanent vegetation. impost filter media used for compost filter sock

filler material shall be weed free and derived from

a well-decomposed source of organic matter. Department of Natural Resources Permit No. GAR100001 The compost shall be produced using an aer composting process meeting CFR 503 regi (b). The downstream sample for each receiving water(s) must be take tions including time and temperature da downstream of the confluence of the last stormwater discharge from permitted activity (i.e., the discharge farthest downstream at the site The compost shall be free of any refuse apstream of any other stormwater discharge not associated w inants or other materials toxic to plant growth. permitted activity. Where appropriate, several downstream samples from Non-composted products will not be accepted. across the receiving water(s) may need to be taken and the a average of the turbidity of these samples used for the d Test methods for the items brow should follow US Composting Council Test Methods for the Examination of Composting and Compost guide-. Ideally the samples should be taken from the horizontal and vertical lines for laboratory pro iter of the receiving water(s) or the stormwater outfall channel(s). accordance with TMECC ectrometric pH Determinations e should be taken to avoid stirring t ottom sediments in the ater(s) or in the outfall stormwater ticle size - 99% passing a 2-inch (50 sampling container should be neld so that the opening faces) sieve and a maximum of 40% passng a 3/8-inch (~ 9.5 mm) sieve, in acordance with TMECC 02.02-B, "Sample (f). The samples build be kept fre rom floating debris. Sieving for Aggregate Size Classification" (Note - In the field, product commonly is (g). Permittées d sample sheet flow that flows onto between 1/2 and 2 inches (12.5 and 50 mm) undisturbed natural are reas stabilized by the project. For purposes of this section, stabilized shall mean, for unpayed areas and areas not covered by permanent ures and areas located outside the waste C. Moisture content of less than 60% in acdisposal limits of a landfill cell that has been certified by EPD for waste cordance with standardized test methods disposal, 100% of the soil surface is uniformly covered in permanent r moisture determination. vegetation with a density of 70% or greater, or landscaped according to laterial shall be relatively free (<1% by nly covered with landscaping materials in planned weight) of inert or foreign manmade landscaped greas), or equivalent permanent stabilization measures as

d, Sampling

E. Sock containment system for compost filter media shall be a photodegradable of itted mesh material and biodegradal should have 1/8 to 3/8 inch (3.2 to 9.5 mm) MAINTENANCE Periodic inspection and required maintenance must be provided. Sediment shall be removed when it reaches a depth of one-half the original dam height or before. If the area is to be mowed,

check dams shall be removed once final stabilization has occurred. Otherwise check dams may remain in place permanently. After the area beneath the dam shall be seeded

STONE CHECK DAM CROSS SECTION OP OF EXISTING BANK TOP OF EXISTING BANK MINIMUM 9" GEOTEXTILE STONE CHECK DAM -(2"-10" STONE) 24" MAXIMUM FLOW the Manual (excluding a crop of annual vegetation and a target crop perennials appropriate for the region). sampling pursuant to this permit must be done in such a way ding generally accepted sampling methods, locations, timing, and equency) as to accurately reflect whether stormwater runoff from the CHECK DAMS AR BE USED ONLY IN SMALL OPEN CHANNELS (THEY ARE NOT TO instruction site is in compliance with the standard set forth in Parts III.D.3. or III.D.4., whichever is applicable. FOR STONE CHECK DAMS SHALL NOT EXCEED TWO ACE HE CHECK DAM MUST BE AT LEAST 9 INCHES LOWER THAN T SHOULD BE A MAXIMUM OF 2 FEET FROM CENTER TO RIM EDG SLOPES OF THE CHECK DAM SHALL NOT EXCEED A 2:1 SLOPE. E SHALL BE USED TO PREVENT THE MITIGATION OF SUBGRADE SOIL (1). The primary permittee must sample in accordance with the Plan at least of for each rainfall event described below. For a qualifying event, the permittee CLES INTO THE STONES (REFER TO AASHTO M288-96, SECTION 7.3, TABLE 3). sample at the beginning of any stormwater discharge to a monitored reco Figure 6-12.2 water and/or from a monitored outfall location within in forty-five (45) mir as soon as possible. GSWCC 2016 Edition

City of Knoxville BMP Manual Best Management

Temporary Sediment Trap DEFINITION A small temporary pond that drains a disturbed area so that sediment can settle out. The principle feature distinguishing a temporary sedi ment trap from a temporary sediment basin is the lack of a pipe or riser To collect and store sediment from uphill ntended for use on small tributary areas with no unusual drainage features. Effective against coarse sediment, but not against silt or clay par-

mulched immediately.

ticles that remain suspended.

CONDITIONS Temporary sediment traps are constructed early in the construction process at locations that will require minimal clearing and grading. Natural draws or swells are favorable locations to build the traps. They should be easily accessible for frequent maintenance and inspections. Temporary sediment traps shall never be placed in live streams.

DESIGN CRITERIA Design and construction shall comply with laws, ordinances, rules and regulations on the local, state and federal level The total drainage area of a temporary sediment trap is up to 5 acres, depending on type of

The height of a temporary sediment trap embankment shall not exceed 5.5 feet as measured the berm. Top width of an embankment shall be GSWCC 2016 Edition

at least as wide as the height of the sediment trap embankment, with a minimum width of 3

Maximum pond depth of a sediment trap is 4 feet as measured from the bottom of the trap to the invert of the emergency spillway. Slopes shall not exceed 2:1 (H:V) for excavated areas and for compacted embankments. Side slopes should be (3:1) or flatter allowing people and equipment to safely negotiate slopes or to enter the sediment trap.

The length to width ratio must be greater than (2:1) (L:W) for the principal flowpaths in order to maximize residence time of stormwater within the sediment trap. Baffles may be required to

prevent short-circuiting of the flow. A typical baffle design uses 4'x8' sheets of exterior grade plywood 1/2 inch thick, mounted

on 4"x4" hardwood posts. Minimum volume of a temporary sediment drainage area. The volume shall be measured at an elevation equivalent to the spillway invert.

Volume of a temporary sediment trap in heavily disturbed areas should be 134 cubic yards per acre for the total drainage area. This includes an upper area with a minimum of 67 cubic yards per acre drained, which is dewatered using one of the outlet design methods provided, and a lower wet zone for sediment storage and settling.

The volume should be calculated from existing and proposed contours, or by measured cross sections. An approximate method for calculating the volume of traps using a natural draw is:

V = Sediment storage volume (below invert of emergency spillway) A = Surface area (at level of emerency D = Maximum depth (from emergency

spillway invert) The cleanout volume for a temporary sediment trap is 1/3 of the total storage volume. Cleanout volume shall be calculated and marked with a stake at the outlet of the trap.

CONSTRUCTION SPECIFICATIONS The basic design guidlines are applicable to the type of temporary sediment trap constructed. he main differences are with regards to the type of outlet structures. The following types of con

struction are acceptable under the designated

erflow (Sd4-A) overflow temporary sediment trap is small areas less than 1 acre, typi pes (1 or 2 percent) and wit w velocities, the water will barriers or gra the overflow v

wire backing n the silt fence are esist 1 foot or n ed to 1 acre total drains span of less than 1 year. T quires frequent maintenance an s to ensure the released stormwater n sediment. See Figure 6-30.2

Rock Outlet (Sd4-C) The rock outlet relies on filtering through layers of aggregate, rock or riprap material to dewater the sediment trap. It is the sturdiest of the sediment trap designs and generally requires less maintenance. It can be used for drainage area up to 5 acres and has a life span of 1 year

Emergency Spillway The emergency overflow outlet of a temporary sediment trap must be stabilized with rock, geotextile, vegetation, or another suitable material that is resistant to erosion. It must be installed to safely convey stormwater runoff for the 10-year storm event.

FIRMLY "KEY" EMBANKMEN TOP OF BERM -RECOMMENDED MINIMUM RATIO OF MINIMUM TOP WIDTH ~5' -MAXIMUM SLOPES 2:1 -SPILLWAY (MIN. DEPTH = 1.5") MINIMUM TOP WIDTH = EMBANKMENT HEIGHT (3 FOOT MINIMUM) MINIMUM DISTANCE 1.5' TO SPILLWAY INVERT MAX. SLOPE 2:1 MAXIMUM DEPTH -PER ACRE') ADDITIONAL VOLUME FOR -SILT STORAGE (OPTIONAL) (KEYED INTO GROUND) PROFILE THROUGH EMBANKMENT MAXIMUM SLOPE 2:1

TEMPORARY SEDIMENT TRAP

ROCK OUTLET

NATURAL GROUND COMPACT FILL IN MAXIMUM -6" LAYERS TYPICAL WIDTH = 3 FEET Figure 6-30.3 GSWCC 2016 Edition

DEVELOPMENT IS WITHIN THE

MAIN STREET OVERLAY DISTRICT

SD4-C

24 HOUR CONTACT POP SENIWONG 2 TIDEWATER WAY SAVANNAH, GA 31411 912-695-2000 SENIWONG@MSN.COM

STREAM BUFFER ENCROACHMENT NOTES:

. NEW STRUCTURES ON THIS PROJECT DO NOT ENCROACH IN THE 25 OR 50 FOOT STREAM BUFFER.

2. 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 VARIANCES AND PERMITS.

"I certify under penalty of law that this Plan was prepared after a site visit to the locations described herein by myself or my authorized agent, under my supervision."

"I certify that the permittee's Erosion, Sedimentation and Pollution Control Plan provides for an appropriate and comprehensive system of best management practices required by the Georgia Water Quality Control Act and the document "Manual for Erosion and Sediment Control in Georgia" (Manual) published by the Georgia Soil and Water Conservation Commission as of January I of the year in which the land-disturbing activity was permitted, provides for the sampling of the receiving water(s) or the sampling of the stormwater outfalls and that the designed system of best management practices and sampling methods is expected to meet the requirements contained in the General NPDES Permit No. GAR 100001."

Mal Bowell CERTIFIED BY: Mark A. Boswell

WETLAND AREA NOTE: I. CONTRACTOR IS TO VERIFY WETLAND PERMITS WITH OWNER PRIOR ANY LAND DISTURBANCE IN WETLAND OR WETLAND BUFFER AREAS.

Level II Certification No. 2104

DESCRIPTION OF STORM WATER POLLUTION DISCHARGE PREVENTION PRACTICES

. THE FOLLOWING IS A DESCRIPTION OF THE PRACTICES TO BE USED BUT NOT LIMITED TO : A. CONSTRUCTION EXIT

B. SILT FENCING C. TEMPORY SEDIMENT BASINS D. HAY BALE CHECK DAMS

F. STORM OUTLET PROTECTION G. GRASSING H. DETENTION POND

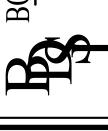
I. SKIMMER J. DUST CONTROL K. CONCRETE WASHDOWN PIT

LEVEL II CERTIFICATION NO. 2104 ISSUED 11-5-05

EXPIRES 11-15-26

SPECIAL CONSTRUCTION NOTE:

THE CONTRACTOR KNOWS OR CAN REASONABLY BE EXPECTED TO HAVE KNOWN OF AN ERROR, DISCREPANCY OR CONFLICT IN THE PLANS, SPECIFICATIONS OR CONSTRUCTION STAKING AND FAILS O REPORT THE PROBLEM PRIOR TO CONSTRUCTION, HE SHALL NOT BE ENTITLED TO COMPENSATION FOR ANY WORK OR EXPENSE INCURRED BY HIM FOR WORK REQUIRED TO BE RE-CONSTRUCTED BECAUSE OF SAID ERROR, DISCREPANCY OR CONFLICT.



PRIOR TO DIGGING



Drawing Number

A temporary protective device formed at or

PURPOSE To prevent sediment from entering a storm drainage systems prior to permanent stabilization of the disturbed area draining to the inlet.

around an inlet to a storm drain to trap sediment.

CONDITIONS All storm drain drop inlets that receive runoff from disturbed areas.

DESIGN CRITERIA Through testing there are two different categories (high retention and high flow) supported. In areas where BMPs are being used on paved surfaces, or safety is a concern, the potentially negative effects of ponding should be taken into account. In such cases, a high flow BMP is preferred.

On unpaved areas where ponding will not cause a safety hazard, high retention shall be taken into account. If high retention is not used in this situation a rationale shall be given on the plan and an unpaved application should apply.

Sediment traps must be self-draining unless they are otherwise protected in an approved fashion that will not present a safety hazard. The drainage area entering the inlet sediment trap shall be no greater than one acre.

If runoff may bypass the protected inlet, a temporary dike should be constructed on the down slope side of the structure. Also, a stone

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filter ring may be used on the up slope side of the inlet to slow runoff and filter larger soil particles. Refer to Fr-Stone Filter Ring.

CONSTRUCTION SPECIFICATIONS

Excavated Inlet Sediment Trap An excavation may be created around the inlet sediment trap to provide additional sediment storage. The trap shall be sized to provide a minimum storage capacity calculated at the rate of 67 cubic yards per acre of drainage area. A minimum depth of 1.5 feet for sediment storage should be provided. Side slopes shall not be

Sediment traps may be constructed on natural ground surface, on an excavated surface, or on machine compacted fill, provided they have a non-erodible outlet.

Filter Fabric with Supporting Frame



This method of inlet protection is applicable where the inlet drains a relatively flat area (slope no greater than 5%) and shall not apply to inlets receiving concentrated flows, such as in street or highway medians. As shown in Figure 6-28.1, Type S silt fence supported by steel posts should be used. The stakes shall be spaced evenly around the perimeter of the inlet a maximum of 3 feet apart, and securely driven into the ground, approximately 18 inches deep. The fabric shall be 36 inches tall and entrenched 12 inches and backfilled with crushed stone or compacted soil. Fabric and wire shall be securely fastened to the posts, and fabric ends must be overlapped a minimum of 18 inches or wrapped together around a post to provide a continuous fabric barrier around the inlet.

(Sd2 -B) of inlets receiving runoff with a higher volume or velocity, a baffle box inlet sediment trap should be used. As shown in Figure 6-28.2 A baffle box shall be constructed of 2" x 4" boards spaced a maximum of 1 inch apart or of plywood with weep holes 2 inches in diameter. The weep holes shall be placed app ately 6 inches on center vertically and horize

placed outside the box, all around the inlet, to a

depth of 2 to 4 inches. The entire box is wrapped

lv. Gravel shall be

Type C filter fabric that shall be entrenched 12 hes and backfilled.

Block and Gravel Sd2 -Bg

This method of inlet protection is applicable where heavy flows are expected and where an overflow capacity is necessary to prevent excessive ponding around the structure. As shown in Figure 6-28.3, one block is placed on each side of the structure on its side in the bottom row to allow pool drainage. The foundation should be excavated at least 2 inches below the crest of the storm drain. The bottom row of blocks is placed

against the edge of the storm drain for lateral support and to avoid washouts when overflow occurs. If needed, lateral support may be given to subsequent rows by placing 2" x 4" wood studs through block openings. Hardware clot or comparable wire mesh with 1/2 inch openings shall be fitted over all block openings to hold gravel in place. Clean gravel should be placed inches below the top of the block on a 2:1 slope or flatter and smoothed to an even grade. DOT #57 washed stone is recommended.

Gravel drop Inlet Protection (Sd2-G) This method of inlet protection is applicable where heavy concentrated flows are expected. As shown in Figure 6-28.4, stone and gravel are used to trap sediment. The slope toward the inlet shall be no steeper than 3:1. A minimum I foot wide level stone area shall be left between the structure and around the inlet to prevent gravel from entering the inlet. On the slope toward the inlet, stone 3 inches in diameter and larger should be used. On the slope away from the inlet, 1/2 to 3/4 inch gravel (#57 washed stone) should be used at a minimum thickness of 1 foot.

Sod Inlet Protection Sd2-S

CONCRETE BLOCK ---

DEWATERING -

WIRE SCREEN -

This method of mlet protection is applicable only at the time of permanent seeding, to protect the inlet from sediment and mulch material until etation has become established. As shown in Figure 6-28.5, the sod shall be placed to form a turf mat covering the soil for

a distance of 4 feet from each side of the inlet structure. Sod strips shall be staggered so that

adjacent strip ends are not aligned. **Curb Inlet Protection**

Once pavement has been installed, a ou inlet filter shall be installed on inlets receiving runoff from disturbed areas. This method of inlet protection shall be removed if a safety hazard is

One method of curb inlet protection uses "pigs-in-a-blanket"- 8-inch concrete blocks wrapped in filter fabric. See Figure 6-28.6. Another method uses gray el bags constructed by wrapping DOT #57 sone with filter fabric, wire, plastic mesh, or equivalent material.

A gap of approximately 4 inches shall be left between the inlet filter and the inlet to allow for overflow and prevent hazardous ponding in the roadway Proper installation and maintenance are crucial due to possible ponding in the roadway resulting in a hazardous condition. Several other methods are available to prevent e entry of sediment into storm drain in-

ure 6-28.7 shows one of these alternative

The trap shall be inspected daily and after each rain, and repairs made as needed. Sediment shall be removed when the sediment has accumulated to one half the height of the trap. Sediment shall be removed from curb inlet protection immediately. For excavated inlet sediment traps, sediment shall be removed when one-half of the sediment storage capacity has been lost to sediment accumulation. Sold inlet protection shall be maintained as specified in Ds4 - Disturbed Area Stabilization (With Sodding).

Sediment shall not be washed into the inlet. It shall be removed from the sediment trap, disposed of and stabilized so that it will not en

When the contributing drainage area has been permanently stabilized, all materials and any sediment shall be removed, and either

BLOCK AND GRAVEL PERSPECTIVE

BLOCK AND GRAVEL SECTION

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- DROP INLET GRATE

GRAVEL FILTER SHOULD

HAVE SLOPE OF 2:1

TEMPORARY

GRAVEL

SEDIMENT POOL

WIRE SCREEN

DEWATERING

salvaged or disposed of properly. The disturbed area shall be brought to proper grade, then smoothed and compacted. Appropriately stabilize all disturbed areas around the inlet.

FABRIC AND SUPPORTING FRAME FOR INLET PROTECTION

STEEL FRAME AND TYPE C SILT FENCE INSTALLATION

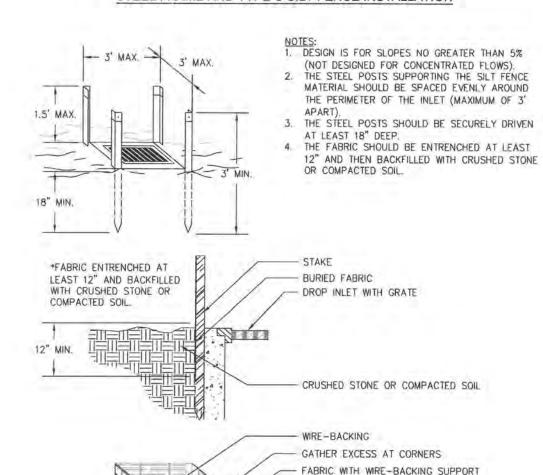


Figure 6-28.1 - Fabric and Supporting Frame For Inlet Projection

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CURB INLET FILTER "PIGS IN BLANKET"

FLOW

PAVEMENT -

8" CONCRETE -

BLOCK WRAPPED

IN FILTER FABRIC

CATCH BASIN -

GUTTER -

6-150

8" CONCRETE BLOCK

WRAPPED IN FILTER

TALL FILTER AFTER ANY

FACE OPENINGS IN BLOCKS

HAZARDOUS PONDING.
INSTALL OUTLET PROTECTION

CONCRETE BLOCKS

IN FILTER FABRIC

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CATCH BASIN

- PAVEMENT

BELOW STORM DRAIN OUTLETS.

LEAVE A GAP OF APPROXIMATELY

AND THE FILTERS TO ALLOW FOR OVERFLOW TO PREVENT

CATCH BASIN INLET.

ASPHALT PAVEMENT INSTALLATION. WRAP 8" CONCRETE BLOCKS IN

- CATCH BASIN - CURBING

- GUTTER

- PAVEMENT

TO BE SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN

"I certify under penalty of law that this Plan was prepared

"I certify that the permittee's Erosion, Sedimentation and

comprehensive system of best management practices required

"Manual for Erosion and Sediment Control in Georgia" (Manual)

as of January 1 of the year in which the land-disturbing activity

published by the Georgia Soil and Water Conservation Commission

was permitted, provides for the sampling of the receiving water(s)

or the sampling of the stormwater outfalls and that the designed

Level II Certification No. 2104

system of best management practices and sampling methods is

expected to meet the requirements contained in the General

Mal Brancel

by the Georgia Water Quality Control Act and the document

Pollution Control Plan provides for an appropriate and

or my authorized agent, under my supervision."

NPDES Permit No. GAR 100001."

CERTIFIED BY: Mark A. Boswell

after a site visit to the locations described herein by myself

If the EXCAVATED INLET SEDIMENT TRAP is used, show the following information:

Drainage area = _____ ac
 Required sediment storage = 67 cy/ac * drainage area

Required sediment storage = 67 cy/ac * ____ ac Required sediment storage = ___ cy = ___ 3. Assume excavation depth (minimum of 1.5 ft.) = ___

. Assume slope of sides (shall not be steeper than 2:1) = __: . Determine required surface area SA_{min} = Required sediment storage / excavation depth

6. Assume shape of excavation and determine dimensions.

(A rectangular shape with 2:1 length to width ratio is recommended.) Dimensions: I = _____ ft w = ____ ft diameter (if applicable) = _____ ft

Provide a detail showing the depth, length and width, or diameter (if applicable), and side slopes of the



Figure 6-28.7 Equivalent Inlet Sediment Trap

all times after construction has been completed.

the water course are maintained and protected.

funtional at all times after construction has been completed.

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- 2"-4" GRAVEL - 2" WEEP HOLES - SILT FENCE MATERIAL ATTACHED - INTERIOR BRACING 2X4 OR 4X4 POSTS

SIDE 2" WEEP HOLES - SILT FENCE MATERIAL

6-151 GSWCC 2016 Edition

Figure 6-28.2 Baffle Box

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FOUNDATION SET 2" BELOW -CREST OF STORM DRAIN

HARDWARE CLOTH OR COMPARABLE WIRE MESH WITH 1/2 INCH OPENINGS SHALL BE FITTED OVER ALL BLOCK OPENINGS TO HOLD GRAVEL IN PLACE.

THE FOUNDATION SHOULD BE EXCAVATED AT LEAST 2 INCHES BELOW THE CREST OF THE STORM DRAIN. THE FIRST ROW OF BLOCKS WILL BE PLACED HERE FOR LATERAL SUPPORT. 3. ONE BLOCK (AS SHOWN) IS TO BE PLACED ON EACH SIDE OF THE STRUCTURE ON ITS SIDE IN THE BOTTOM ROW TO ALLOW FOR POOL DRAINAGE.

Figure 6-28.3 Block and Gravel Drop Inlet Protections

DROP INLET W/ GRATE

6-153

6-149

DESCRIPTION OF STORM WATER POLLUTION DISCHARGE PREVENTION PRACTICES

I. THE FOLLOWING IS A DESCRIPTION OF THE PRACTICES TO BE USED BUT

NOT LIMITED TO: A. CONSTRUCTION EXIT

B. SILT FENCING C. TEMPORY SEDIMENT BASINS

D. HAY BALE CHECK DAMS F. STORM OUTLET PROTECTION

G. GRASSING H. DETENTION POND I. SKIMMER

J. DUST CONTROL K. CONCRETE WASHDOWN PIT WASTE DISPOSAL

Locate waste collection areas away from streets, gutters, watercourses and storm drains. Waste collection areas, such as dumpsters, are often best located near construction site entrances to minimize traffic on disturbed soils. The plan should include secondary containment around liquid waste collection areas to further minimize the likelihood of contaminated discharges. Solid materials, including building materials, shall not be discharged to waters of the State, except as authorized by a Section 404 permit.

24 HOUR CONTACT: POP SENIWONG 2 TIDEWATER WAY

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Figure 6-28.4 Gravel Drop Inlet Protection

SOD STRIPS PROTECT INLET AREA FROM EROSION

(SOURCE: VA SWCC)

Figure 6-28.5 Sod Inlet Protection

SAVANNAH, GA 31411 912-695-2000 SENIWONG@MSN.COM

STORMWATER SAMPLING SAMPLE ANALYSIS Storm water samples are to be analyzed in accordance with methodology and test procedures established by 40 CFR Port 136 and the guidance document titled "NPDES Storm Water Sampling Guidance Document, EPA 833-8-92-001."

. Storm water is to be for nephelometric turbidity units (NTU) at the outfall location. A discharge of storm water runoff from disturbed areas where best management practices have not been properly designed, installed, and maintained shall constitute a separate violation for each day on which such conditions results in the turbidity of the discharge exceeding 75, the value that was selected from Appendix B in Permit No. GAR 100001. The NTU is based pon the disturbed acreage of 0.69 acres for the project site, the surface water drainage area of < 5.0 square miles and receiving water which supports warm water fisheries. BUILDING MATERIALS COVER NOTES :

Figure 6-28.6 Curb Inlet Filter "Pigs in Blanket"

. Building materials and building products which are stored outside on site are to be covered as soon as they arrive on site if not used the same day they arrive on site. Cover shall include but not be limited to tarps, heavy plastic or any other impervious materal which will not allow run—off from the materials from rain events. 2. Building materials and building products may be stored inside building if building has been "dried in" in lieu of storing and covering outside.

> OLUTANTS POTENTIALLY FOUND ON SITI DUE TO CONSTRUCTION ACTIVITIES)

Gasoline 2. Diesel fuel

3. Motor Oil 4. Hydraulic Fluid 5. Paints 6. Solvents

. Concrete

LEVEL II CERTIFICATION NO. 2104 ISSUED 11-5-05

EXPIRES 11-15-26

Federal Clean Water Act. 6. The primary permittee is only responsible for the installation and maintenance of storm water management devices prior to final stabilization of the site and not the operation and maintenance of such structures after construction activities have been completed.

swales,etc.).

DEVELOPMENT IS WITHIN THE MAIN STREET OVERLAY DISTRICT

INSTALLED MEASURES TO CONTROL POLLUTANTS AFTER CONSTRUCTION COMPLETION:

2. The storm water pipes and outfall swales shall remian in place, stabilzed and

3. Rip—rap used at outlets which are used for velocity disipation are to remain

in place and funtional at all times. These measures are to provide non-erosive

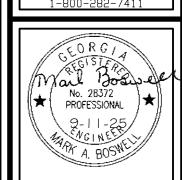
flow so that the natural physical and biological characteristics and funtions of

4. Final stabilization shall remain in place (permanent vegetation, sod, vegetated

5. Installation of these devices may be subject to section 404 of the

l. The storm water detention pond shall remain in place, stabilized and functional at

PRIOR TO DIGGING



Drawing Number



Applying plant residues or other suitable naterials, produced on the site if possible, to the soil surface.

To reduce runoff and erosion

To conserve moisture

 To prevent surface compaction or crusting To control undesirable vegetation

To modify soil temperature

 To increase biological activity in the soil REQUIREMENT FOR REGULATORY

COMPLIANCE Mulch or temporary grassing shall be applied all exposed areas within 14 days of disturnance. Mulch can be used as a singular erosion ontrol device for up to six months, but it shall be applied at the appropriate depth, depending on the material used, anchored and have a continuous 90% cover or greater of the soil surface.

Maintenance shall be required to maintain appropriate depth and 90% cover. Temporary etation may be employed instead of mulch if he area will remain undisturbed for less than six

If any area will remain undisturbed for greater

an six months, permanent vegetative tech-

niques shall be employed. Refer to Ds2 -Dis-

turbed Area Stabilization (With Temporary seeding), Ds3 - Disturbed Area Stabilization (With Permanent Seeding), and Ds4 - Disurbed Area Stabilization (With Sodding).

SPECIFICATIONS Mulching Without Seeding This standard applies to graded or cleared areas where seedings may not have a suitable growing season to produce an erosion retardant

3. Loosen compact soil to a minimum depth of

Select one of the following materials and

1. Dry straw or hay shall be applied at a depth

2. Wood waste (chips, sawdust or bark) shall b

applied at a depth of 2 to 3 inches. Organ

material from the clearing stage of develo

ment should remain on site, be chipped, ar

applied as mulch. This method of mulchi

can greatly reduce erosion control costs.

3. Polyethylene film shall be secured over

banks or stockpiled soil material for tem

porary protection. This material can be sa

When mulch is used without seeding, mulch

1. Dry straw or hay mulch and wood chips

shall be applied uniformly by hand or b

shall be applied to provide full coverage of the

mechanical equipment.

2 to 4 inches providing complete soil cover

age. One advantage of this material is easy

Mulching Materials

apply at the depth indicated:

vaged and re-used.

Applying Mulch

cover, but can be stabilized with a mulch cover.

set straight or with a special "packer disk." Disks may be smooth or serrated 1. Grade to permit the use of equipment for and should be 20 inches or more in applying and anchoring mulch. diameter and 8 to 12 inches apart. The edges of the disk should be dull enough 2. Install needed erosion control measures a not to cut the mulch but to press it into the required such as dikes, diversions, berm soil leaving much of it in an erect position. terraces and sediment barriers. Straw or hay mulch shall be anchored immediately after application.

> Straw or hay mulch spread with special blower-type equipment may be anchored. Tackifers, binders and hydraulic mulch with tackifier specifically desgined for tacking straw can be substituted for emulsified asphalt. Please refer to specification Tac-Tackifers. Plastic mesh or netting with mesh no larger than one inch by one inch shall be

If the area will eventually be covered with

trogen per acre in addition to the normal

amount shall be applied to offset the uptake

of nitrogen caused by the decomposition of

3. Apply polyethylene film on exposed areas.

1. Straw or hay mulch can be pressed into

the soil with a disk harrow with the disk

the organic mulches.

Anchoring Mulch

nnial vegetation, 20-30 pounds of ni-

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

installed according to manufacturer's speci-

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

Disturbed Area Stabilization (With Temporary Seeding)



DEFINITION The establishment of temporary vegetative over with fast growing seedings for seasonal otection on disturbed or denuded areas.

·To reduce runoff and sediment damage of down stream resources

·To protect the soil surface from erosion

· To improve wildlife habitat

To improve aesthetics

*To improve tilth, infiltration and aeration as well as organic matter for permanent plantings

REQUIREMENT FOR REGULATORY

Mulch or temporary grassing shall be applied o all exposed areas within 14 days of disturbance. Temporary grassing, instead of mulch, an be applied to rough graded areas that will exposed for less than six months. If an area s expected to be undisturbed for longer than six onths, permanent perennial vegetation shall be ised. If optimum planting conditions for tempory grassing is lacking, mulch can be used as singular erosion control device for up to six onths but it shall be applied at the appropriate epth, anchored, and have a continuous 90% over or greater of the soil surface. Refer to ecification Ds1-Disturbed Area Stabilization With Temporary Seeding).

also be considered when there is less than 3% organic matter in the soil. Graded areas require lime application. Soils must be tested to determine required amounts of fertilizer and amend ments. Fertilizer should be applied before land preparation and incorporated with a disk, ripper or chisel. On slopes too steep for, or inaccesapplied, preferably in the first pass with seed and some hydraulic mulch, then topped with the

remaining required application rate.

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, culti-packer-seeder, or hydraulic seeder (slurry including seed and fertilizer). Drill or cultipacker seeders should normally place seed one-quarter to one-half inch deep. Appropriate depth of planting is ten times the eed diameter. Soil should be "raked" lightly cover seed with soil if seeded by hand. ee Table 6-4.1

Temporary vegetation can, in most cases, be established without the use of mulch, provided here is little to no erosion potential. However, the use of mulch can often accelerate and enhance germination and vegetation establishment. Mulch without seeding should be considered for short erm protection, Refer to Ds1 - Disturbed Area Stabilization (With Mulching Only).

During times of drought, water shall be applied at a rate not causing runoff and rosion. The soil shall be thoroughly wetted to depth that will insure germination of the seed. ubsequent applications should be made when Temporary vegetative measures should Table 6-4.1 - Temporary Cover or Companion Cover Crops

in mixture

LESPEDEZA, ANNUAL

OVEGRASS, WEEPING

espedeza striata

Eragrostis curvula

Panicum fasciculatum

DESCRIPTION OF STORM WATER POLLUTION

. THE FOLLOWING IS A DESCRIPTION OF THE PRACTICES TO BE USED BUT

DISCHARGE PREVENTION PRACTICES

NOT LIMITED TO:

G. GRASSING

I. SKIMMER

H. DETENTION POND

J. DUST CONTROL

B. SILT FENCING

A. CONSTRUCTION EXIT

D. HAY BALE CHECK DAMS

C. TEMPORY SEDIMENT BASINS

F. STORM OUTLET PROTECTION

K. CONCRETE WASHDOWN PIT

mixture

PLANT, PLANTING RATE, AND PLANTING DATE FOR TEMPORARY COVER OR COMPANION CROPS

Planting Dates by Resource Area

Solid lines indicate optimum dates, dotted lines indicate

eral years. Use inoculant EL

vears. Mix with Sericea lespedeza.

seeded at high rate.

137,000 seed per pound. Quick dense cover

/ill provide excessive competion in mixtures i

Broadcast Rates

Rate Per Acre² sqft

bu. (144 lbs) 3.3 lbs

0.9 lb

0.2 lb

4 lbs 0.1 lb

2 lbs 0.05 lb

40 lbs 0.9 lb

10 lbs 0.2 lb

1/2 bu. (24lbs) 0.6 lb

40 lbs

10 lbs

be coordinated with permanent measures to assure economical and effective stabilization. Most types of temporary vegetation are ideal to use as companion crops until the permaner vegetation is established. Note: Some species of temporary vegetation are not appropriate for companion crop plantings because of their potential to out-compete the desired species (e.g. annual ryegrass). Contact NRCS or the local SWCD for more information

SPECIFICATIONS Grading and Shaping

CONDITIONS

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.

draulic seeding equipment is to be used.

No shaping or grading is required if slopes can be stabilized by hand-seeded vegetation or if hy-

Seedbed Preparation When a hydraulic seeder is used, seedbed preparation is not required. When using conver tional or hand-seeding, seedbed preparation is

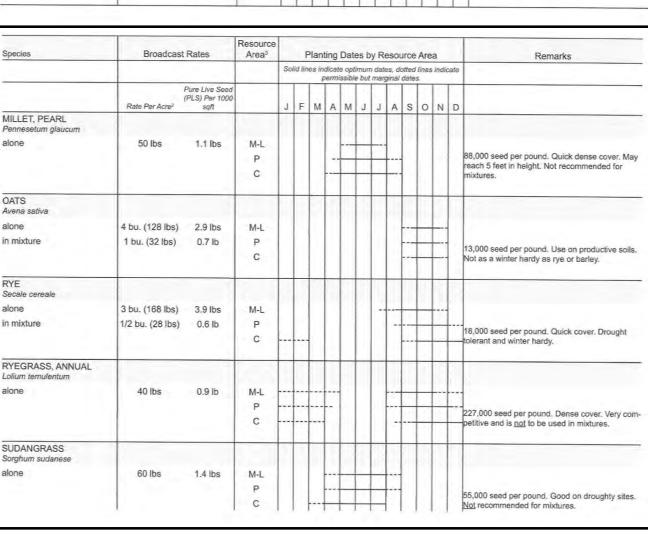
When soil has been sealed by rainfall or consists of smooth cut slopes, the soil shall be pitted trenched or otherwise scarified to provide a place

not required if the soil material is loose and not

for seed to lodge and germinate. Lime and Fertilizer

sealed by rainfall.

Agricultural lime is required unless soil tests indicate otherwise. Apply agricultural lime at a rate determined by soil test for pH. Quick acting lime should be incorporated to modify pH durin the germination period. Bio stimulants should sible to equipment, fertilizer shall be hydraulically



Broadcast Rates Area³ Planting Dates by Resource Area Solid lines indicate optimum dates, dotted lines indicate TICALE riticosecale 3 bu. (144 lbs) 3.3 lbs Use on lower part of Southern Coastal Plain an mixture 1/2 bu. (24 lbs) 0.6 lb in Atlantic Coastal Flatwoods only. ticum aestivum 3 bu. (180 lbs) 4.1 lbs 1/2 bu. (30 lbs) 0.7 lb 15,000 seed per pound. Winter hardy.

²Reduce seeding rates by 50% when drilled.

P represents the Southern Piedmont MLRA

(see Figure 6-4.1, p. 8-40)

¹Temporary cover crops are very competitive and will crowd out perennials if seeded too heavily

C represents Southern Coastal Plan; Sand Hills; Black Lands; and Atlantic Coast Flatwoods MLRAs

³M-L represents the Mountain; Blue Ridge; and Ridges and Valleys MLRAs

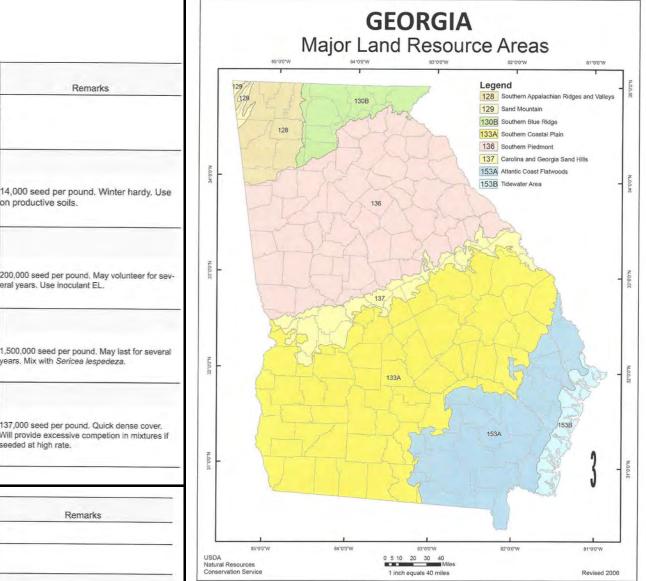


Figure 6-4.1

"I certify under penalty of law that this Plan was prepared after a site visit to the locations described herein by myself or my authorized agent, under my supervision."

"I certify that the permittee's Erosion, Sedimentation and Pollution Control Plan provides for an appropriate and comprehensive system of best management practices required by the Georgia Water Quality Control Act and the document "Manual for Erosion and Sediment Control in Georgia" (Manual) published by the Georgia Soil and Water Conservation Commission as of January 1 of the year in which the land-disturbing activity was permitted, provides for the sampling of the receiving water(s) or the sampling of the stormwater outfalls and that the designed system of best management practices and sampling methods is expected to meet the requirements contained in the General NPDES Permit No. GAR 100001."

Mad Bowell

CERTIFIED BY: Mark A. Boswell Level II Certification No. 2104

> DEVELOPMENT IS WITHIN THE MAIN STREET OVERLAY DISTRICT

> > 24 HOUR CONTACT: POP SENIWONG 2 TIDEWATER WAY SAVANNAH, GA 31411 912-695-2000 SENIWONG@MSN.COM

LEVEL II CERTIFICATION NO. 2104 ISSUED 11-5-05 EXPIRES 11-15-26 STREAM BUFFER ENCROACHMENT NOTES :

NEW STRUCTURES ON THIS PROJECT DO NOT ENCROACH IN THE 25 OR 50 FOOT STREAM

. 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 VARIANCES AND PERMITS

SPECIAL CONSTRUCTION NOTE:

IF THE CONTRACTOR KNOWS OR CAN REASONABLY BE EXPECTED TO HAVE KNOWN OF AN ERROR, DISCREPANCY OR CONFLICT IN THE PLANS, SPECIFICATIONS OR CONSTRUCTION STAKING AND FAILS O REPORT THE PROBLEM PRIOR TO CONSTRUCTION, HE SHALL NOT BE ENTITLED TO COMPENSATIC FOR ANY WORK OR EXPENSE INCURRED BY HIM FOR WORK REQUIRED TO BE RE-CONSTRUCTED BECAUSE OF SAID ERROR. DISCREPANCY OR CONFLICT.

PRIOR TO DIGGING

AU DRIVE GIA 31410



Drawing Number



The planting of perennial vegetation such s trees, shrubs, vines, grasses, or legumes on xposed areas for final permanent stabilization Permanent perennial vegetation shall be used to achieve final stabilization.

PURPOSE To protect the soil surface from erosion To reduce damage from sediment and

runoff to down-stream areas To improve wildlife habitat and visual resources

 To improve aesthetics REQUIREMENT FOR REGULATORY

COMPLIANCE This practice shall be applied immediately to rough graded areas that will be undisturbed for onger than six months. This practice or sodding hall be applied immediately to all areas at fina grade. Final Stabilization means that all soil isturbing activities at the site have been completed, and that for unpaved areas and areas ot covered by permanent structures and areas ocated outside the waste disposal limits of a

landfill cell that has been certified by the GA PD for waste disposal, 100% of the soil surface s uniformlycovered in permanent vegetation with density of 70% or greater, or landscaped according to the Plan (uniformly covered with land scaping materials in planned landscaped areas) or equivalent permanent stabilization measures.

YEAR

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TYPE OF SPECIES

grasses and

4. Pine seedlings

5. Shrub Lespedeza

cover crops eeded alone

. Warm season

grasses and

/ Apply in spring following seeding.

Apply when plants grow to a height of 2 to 4 inches.

Apply when plants are pruned Apply to grass species only.

Table 6-5.1. Fertilizer Requirements

EQUIVALENT

0-10-10

10-10-10

10-10-10

20-10-5

10-10-10

10-10-10

0-10-10

trees, shrubs, perennial vines; or a crop of peren nial vegetation appropriate for the region, such that within the growing season a 70% coverage by perennial vegetation shall be achieved. Final stabilization applies to each phase of construction. For linear construction projects on land used for agricultural or silvicultural purposes. nal stabilization may be accomplished by stabilizing the disturbed land for its agricultural or silvicultural use. Until this standard is satisfied and permanent control measures and facilities are operational, interim stabilization measures

Permanent perennial vegetation is used to

1. Use conventional planting methods where

2. When mixed plantings are done during mar-

3. No-till planting is effective when planting is

4. Block sod provides immediate cover. It is

Area Stabilization (With Sodding).

or when summer plantings are done.

6. Low maintenance plants, as well as natives.

7. Mowing should not be performed during the

8. Wildlife plantings should be included in

critical area plantings.

RATE

1000 lbs./ac. 400 lbs./ac.

400 lbs./ac.

1100 lbs./ac.

1300 lbs./ac. 3/

one 21-gram pellet

in the closing hole

700 lbs./ac. 4/

500 lbs./ac.

1500 lbs./ac.

800 lbs./ac.

400 lbs./ac.

1500 lbs./ac.

1000 lbs./ac.

400 lbs./ac.

quail nesting season (May to September).

6-35

TOP DRESSING

0-50 lbs./ac. 1

30 lbs./ac. 5/

30 lbs./ac.

50 lbs./ac./6/

50-100 lbs./ac. 2/6/

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RATE

50-100 lbs./ac. 1/2/

should be used to ensure long-lasting ero-

done following a summer or winter annual

into stands of rye is an excellent procedure.

especially effective in controlling erosion

ginal planting periods, companion crops shall

rovide a protective cover for exposed areas

including cuts, fills, dams, and other denuded

neasures shall not be removed.

PLANNING CONSIDERATIONS

CONDITIONS

be used.

Permanent vegetation shall consist of, planted

All trees that produce nuts or fruits are favored by many game species. Hickory provides nuts used mainly by squirrels and bear. and temporary erosion and sedimentation control Shrubs and Small Trees

Wildlife Plantings

Mast Bearing Trees

Bayberry, Bicolor Lespedeza, Crabapple, Dogwood, Huckleberry or Native Blueberry, Mountain Laurel, Native Holly, Red Cedar, Red Mulberry, Sumac, Wax Myrtle, Wild Plum and Blackberry.

Plant in patches without tall trees to develop stable shrub communities. All produce fruits used by many kinds of wildlife, except for lespedeza that produces seeds used by quail and songbirds. Grasses, Legumes, Vines and Temporary Cover

Commercially available plants beneficial to

Beech, Black Cherry, Blackgum, Chestnut,

Chinkapin, Hackberry, Hickory, Honey Locust,

Native Oak, Persimmon, Sawtooth Oak and

wildlife species include the following:

Bahiagrass, Bermudagrass, Grass-Legume mixtures, Partridge Pea, Annual Lespedeza, Orchardgrass (for mountains), Browntop Millet (for temporary cover), and Native grapes. Provides herbaceous cover in clearings for a

game bird brood-rearing habitat. Appropriate legumes such as vetches, clovers, and lespedezas may be mixed with grass, but they may die out after a few years.

djacent to concrete flumes and other structures. Refer to Specification Ds4-Disturbed CONSTRUCTION SPECIFICATIONS Grading and Shaping Grading and shaping may not be required Irrigation should be used when the soil is dry where hydraulic seeding and fertilizing equip-

Table 6-5.2- Permanent Cover Crops

BAHIA, PENSACOLA

Paspalum notatum

alone or with temporary

with other perennials

BAHIA. WILMINGTON

alone or with temporary

ERMUDA, COMMON

Cynodon dactylon

Cynodon dactylon

with temporary cover

with other perennials

Cynodon dactylon

CENTIPEDE

CROWNVETECH

with winter annuals or cool

Table 6-5.2- Permanent Cover Crops

Coronilla varia

FESCUE, TALL

with other perennials

Pueraria thumbergiana

LESPEDEZA SERICE

unscarified

Eremochloa ophuiroides

oastal, Common, Midland,

Coastal, Common, of Tift 44

Table 6-5.2- Permanent Cover Crops

Unhulled seed

Paspalum notatum

ment is to be used. Vertical banks shall be sloped to enable plant establishment. When conventional seeding and fertilizing are to be done, grade and shape where feasible and practical, so that equipment can be used safely and efficiently during seedbed preparation, seedng, mulching and maintenance of the vegetation.

Concentrations of water that will cause excessive

PLANT, PLANTING RATE, AND PLANTING DATE FOR PERMANENT COVER

60 lbs

60 lbs

10 lbs

10 lbs

6 lbs

PLANT, PLANTING RATE, AND PLANTING DATE FOR PERMANENT COVER

0.2 lb

0.1 lb

Seed (PLS)

ate Per Acre2 Per 1000 sqft

40 cu ft 0.9 cu ft

sod plugs 3' x3'

Block sod only

PLANT, PLANTING RATE, AND PLANTING DATE FOR PERMANENT COVER 1

ate Per Acre2 Per 1000 sat

50 lbs 1.1 lb

75 lbs

Seed (PLS)

soil erosion shall be diverted to a safe outlet. Diversions and other treatment practices shall conform with the appropriate standards and specifications.

Lime and Fertilizer Rates and Analysis Agricultural lime is required at the rate of one to two tons per acre unless soil tests indicate therwise. Graded areas require lime application If lime is applied within six months of planting ermanent perennial vegetation, additional lime is not required. Agricultural lime shall be within the specifications of the Georgia Department of

Lime spread by conventional equipment shall be nd limestone." Ground limestone is calcitic or dolomitic limestone ground so that 90 percent of the material will pass through a 10-mesh sieve, not less than 50 percent will pass through a 50-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

It is desirable to use dolomitic limestone in the Sand Hills, Southern Coastal Plain and Atlantic Coast Flatwoods MLRAs. (See Figure 6-4.1) Agricultural lime is generally not required where

will pass through a 100-mesh sieve.

only trees are planted. Initial fertilization, nitrogen, topdressing, and maintenance fertilizer requirements for each species or combination of species are listed in Table

Lime and Fertilizer Application When hydraulic seeding equipment is used the initial fertilizer shall be mixed with seed. innoculant (if needed), and wood cellulose or wood pulp fiber mulch and applied in a slurry. The innoculant, if needed, shall be mixed will the seed prior to being placed into the hydraulic seeder. The slurry mixture will be agitated during application to keep the ingredients thoroughly mixed. The mixture will be spread uniformly over

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the area within one hour after being placed in the

Planting Dates by Resource Area

Plant selection may also include annual companion crops. Annual companion crops should be used only when the perennial species are not planted during their optimum planting period. A common GSWCC 2016 Edition

the following ways:

ute in furrows.

seedling.

desires of the land user.

Lovegrass.

66,000 seed per pound. Low growing.

deza or weeping lovegrass.

Sod forming. Slow to establish. Plant with a

astures and awns. Mix with Sericea lespe-

ompanion crop. Will spread nto bermuda

,787,000 seed per pound. Quick cover.

ow growing and sod forming. Full sun.

cubic foot contains approximately 650

approximately 800 springs.

sprigs. A bushel contains 1.25 cubic feet or

ought tolerant. Full sun or partial shade. Effective adjacent to concrete and in con-

rought tolerant and fire resistant. Attractive

all. Mix with 30 pounds of Tall fescue or 15

ounds of rye. Inoculate see with M inocu-

lant. Use from North Atlanta and Northward.

227,000 seed per pound. Use alone only on

or Crownvetch. Apply topdressing in spring allowing fall plantings. Not for heavy use

Rapid and vigorous growth. Excellent in ully erosion control. Will climb. Good

350,000 seed per pound. Widely adapted.

Low maintenace. Mix with Weeping lovegrass, Common bermuda, bahia, or tall

fescue. Takes 2 to 3 years to become fully

Mix with Tall fesue or winter annuals.

Cut when seed mixture is mature, but be-

fore, it shatters. Add Tall fescue or winter

established. Excellent on roadbanks. Inocu-

reas or athletic fields

late seed with EL inoculant.

Planting Dates by Resource Area

ntil fully established. Do not plant near

astures. Winterhardy as far as north

Good for athletic fileds.

-Plant with winter annuals.

Plant with Tall Fescue

pitted or trenched.

. Apply before land preparation so that it will be

mixed with the soil during seedbed prepara-

Mix with the soil used to fill the holes, distrib-

3. Broadcast after steep surfaces are scarified,

4. A fertilizer pellet shall be placed at root depth

Refer to Tables 6-4.1, 6-5.2, 6-5.3 and 6-5.4

for approved species. Species not listed shall be

approved by the State Resource Conservationist

of the Natural Resources Conservation Service

Plants shall be selected on the basis of species

characteristics, site and soil conditions, planned

use and maintenance of the area; time of year of

planting, method of planting; and the needs and

Some perennial species are easily established

and can be planted alone. Examples of these are

Common Bermuda, Tall Fescue, and Weeping

Other perennials, such as Bahia Grass and Seri-

cea Lespedeza, are slow to become established

and should be planted with another perennial spe-

and ample soil protection until the target perennial

species become established. For example, Com-

rass with Sericea Lespedeza (scarifled) and 2) Tall

mon seeding combinations are 1) Weeping Loven-

Fescue with Sericea Lespedeza (unscarified).

cies. The additional species will provide quick cover

in the closing hole beside each pine tree

mixture is Brown Top Millet with Common Bermuda in mid-summer. Care should be taken in select-Finely ground limestone can be applied in the ing companion crop species and seeding rates mulch slurry or in combination with the top dressing. because annual crops will compete with perennial acies for water, nutrients, and growing space. When conventional planting is to be done, lime A high seeding rate of the companion crop may and fertilizer shall be applied uniformly in one of

10 lbs/acre of pure live seed.

Seedbed preparation may not be required

ment is to be used (but is strongly recommended

1. Tillage, at a minimum, shall adequately

for any seeding process, when possible). When

conventional seeding is to be used, seedbed

preparation will be done as follows:

Broadcast plantings

PLANT, PLANTING RATE, AND PLANTING DATE FOR PERMANENT COVER

60 lbs

0.1 lb

0.2 lb

C represents the Souther Coastal Plain; Sand Hills; Black Lands; and Atlantic Coast Flatwoods MLRAs. See Figure 6-4.1

DESCRIPTION OF STORM WATER POLLUTION

. THE FOLLOWING IS A DESCRIPTION OF THE PRACTICES TO BE USED BUT

DISCHARGE PREVENTION PRACTICES

2 PLS is an abbreviation for Pure Live Seed. Refer to Section V.E. of these specifications.

3 M-L represents to Mountain; Blue Ridge; and Ridges and Valleys MLRAs

PLANT, PLANTING RATE, AND PLANTING DATE FOR PERMANENT COVER

Table 6-5.2- Permanent Cover Crops

LESPEDEZA

Lespedeza virgata Do

(Dumont) G. Don)

Lespedeza bicolor

Lespedeza thumbergii

LOVEGRASS, WEEPING

sprigs PANICGRASS, ATLANTIC

REED CANARY GRASS

SUNFLOWER, 'AZTEC'

Reduce seeding rates by 50% when drilled

P represents the Southern Piedmont MLRA

NOT LIMITED TO:

G. GRASSING

I. SKIMMER

H. DETENTION POND

J. DUST CONTROL

B. SILT FENCING

A. CONSTRUCTION EXIT

C. TEMPORY SEDIMENT BASINS

F. STORM OUTLET PROTECTION

K. CONCRETE WASHDOWN PIT

Helianthus maximiliani

with other perrenial

COASTAL Panicum amarum var

Table 6-5.2- Permanent Cover Crops

Eragrostis curvula

where hydraulic seeding and fertilizing equip-

prevent the establishment of perennial species. Ryegrass shall not be used in any seeding mixtures containing perennial species due to its

ability to out-compete desired species chosen Tillage should be done on the contour where for permanent perennial cover. 4. On slopes too steep for the safe operation The term "pure live seed" is used to express of tillage equipment, the soil surface shall the quality of seed and is not shown on the label be pitted or trenched across the slope with Pure live seed, PLS, is expressed as a percentage of the seeds that are pure and will germi-

appropriate hand tools to provide two places 6 to 8 inches apart in which seed may lodge nate. Information on percent germination and and germinate. Hydraulic seeding may also purity can be found on seed tags. PLS is deterbe used. mined by multiplying the percent of pure seed Individual Plants with the percent of germination; i.e., 1. Where individual plants are to be set, the (PLS = % germination x % purity)

EXAMPLE: opening furrows, or dibble planting. Common Bermuda seed 2. For nursery stock plants, holes shall be 70% germination, 80% purity large enough to accommodate roots without PLS = 70% germination x 80% purity crowding. 3. Where pine seedlings are to be planted,

subsoil under the row 36 inches deep on the The percent of PLS helps you determine the contour four to six months prior to planting. amount of seed you need. If the seeding rate is 10 Subsoiling should be done when the soil is pounds PLS and the bulk seed is 56 % PLS, the dry, preferably in August or September. bulk seeding rate is: 10 lbs. PLS/acre = 17.9 lbs/acre

6-37 6-38

Planting Dates by Resource Are

Planting Dates by Resource Area

All legume seed shall be inoculated with appropriate nitrogen-fixing bacteria. The inoculant You would need to plant 17.9 lbs/acre to provide shall be a pure culture prepared specifically for the seed species and used within the dates on the container.

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

2. Tillage may be done with any suitable

soil shall be prepared by excavating holes,

or hay mulch if a disk is to be used.

facturer shall be used to bond the inoculant to the seed. For conventional seeding, use twice the amount of inoculant recommended by the nanufacturer. For hydraulic seeding, four times the amount of inoculant recommended by the manufacturer shall be used. All inoculated seed shall be protected from the sun and high temperatures and shall be planted

0,000 seed per pound. Height of growth is

s. Spreading-type growth. New growth has

18 to 24 inches. Advantageous in urban a

s, common bermuda, bahia, tall fescue

edeza. Slow to develop solid stands.

very wet sites. May clog channels. Dig

sprigs from local sources. Use along rive

areas, and gravel pits. Provides winter cover

227,000 seed per pound. Mix with Weeping lovegrass or other low-grwoing grasses or

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or wildlife. Mix with Sericea lespedeza except

or winter annuals. Do not mix with Serice

onze coloration. Mix with weepi

oculate seed with EL inoculant.

equipment. The seed must be uniformly distributed and planted at the proper depth. Shrubs, vines and sprigs may be planted with appropriate planters or hand tools. Pine trees shall be planted manually in the subsoil furrow.

avoid crowding the roots.

same depth or slightly deeper than they grew at the nursery. The tips of vines and sprigs must be at or slightly above the ground surface. Where individual holes are dug, fertilizer shall be placed in the bottom of the hole, two inches of soil shall be added and the plant shall be set in the hole.

Nursery stock plants shall be planted at the

the same day inoculated. No inoculated seed shall

remain in the hydroseeder longer than one hour.

Mix the seed (inoculated if needed), fertilize

and wood cellulose or wood pulp fiber mulch with

Seeding will be done on a freshly prepared

and firmed seedbed. For broadcast planting, use

a culti-packer-seeder, drill, rotary seeder, other

mechanical seeder, or hand seeding to distribute

the seed uniformly over the area to be treated.

for small seed and 1/2 to 1 inch for large seed

Cover the seed lightly with 1/8 to 1/4 inch of soil

when using a cultipacker or other suitable equip-

No-till seeding is permissible into annual co-

er 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

ing shall be done with appropriate no-till seeding

Each plant shall be set in a manner that will

water and apply in a slurry uniformly over the

area to be treated. Apply within one hour after

Hydraulic Seeding

the mixture is made.

Conventional Seeding

Mulch is required for all permanent vegetation applications. Mulch applied to seeded areas shall achieve 75% to 100% soil cover. When selecting a mulch, design professionals should consider the mulch's functional longevity, vegeta-

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ing. The mulch may be spread by blower-type tion establishment enhancement, and erosion control effectiveness. Select the mulching matespreading equipment, other spreading equipment rial from the following and apply as indicated:

seed shall be applied at a rate of three tons

6. When using temporary erosion control blan-

kets or block sod, mulch is not required.

7. Bituminous treated roving may be applied on

planted areas, slopes, in ditches or dry water-

ways 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 Depart-

ment of Transportation specifications.

Wood cellulose and wood pulp fibers shall not

contain germination or growth inhibiting factors.

They shall be evenly dispersed when agitated in

water. The fibers shall contain a dye to allow visual

metering and aid in uniform application during

Straw or hav mulch will be spread uniformly

within 24 hours after seeding and/or plant-

Mature Height Plant Spacing Comments

Also a prostrate form

semi-shade, Semi

Vine. Yellow, trumpet

Native to Georgia

partial shade. Blue or white flowers

White flowers, red

Red in fall. Vine

Shade only. Climbs

Very durable, sun

LEVEL II

CERTIFICATION

NO. 2104

ISSUED 11-5-05

EXPIRES 11-15-26

fruit. Sun. Evergreen

Evergreen

Needs good drainage

like flowers. Hardy, one

evergreen.

Applying Mulch

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Table 6-5.3.

Durable Shrubs and Ground Covers for Permanent Cover

especially the first year. Maintenance is needed to insure survival. These ground covers will not be used unless

Fall planting is encouraged because the need for constant watering is reduced and plants have time to

proper maintenance is planned. Maintain mulch at three-inch thickness until plants provide adequate cover-

Ground covers include a wide range of low-growing plants planted together in considerable numbers to cover large areas of the landscape. Ground covers grow slower than grasses. Weeds are likely to compete,

per acre.

or by hand. Mulch shall be applied to cover 75% 1. Dry straw or dry hay of good quality and free of weed seeds can be used. Dry straw shall Wood cellulose or wood fiber mulch shall be apbe applied at the rate of 2 tons per acre. Dry plied uniformly with hydraulic seeding equipment. hay shall be applied at a rate of 2 1/2 tons

Anchoring Mulch Anchor straw or hay mulch immediately after 2. Wood cellulose mulch or wood pulp fiber application by one of the following methods: shall be used with hydraulic seeding. It shall

be applied at the rate of 500 pounds per acre. 1. Hay and straw mulch shall be pressed Dry straw or dry hay shall be applied (at the rate indicated above) after hydraulic seeding. row with the disks set straight may be used. 3. One thousand pounds of wood cellulose or The disks may be smooth or serrated and wood pulp fiber, which includes a tackifier, should be 20 inches or more in diameter and shall be used with hydraulic seeding on slopes 3/4:1 or steeper. shall be dull enough to press the mulch into 4. Sericea Lespedeza hay containing mature of it in an erect position. Mulch shall not be

plowed into the soil. per acre. 2. Synthetic tackifiers, binders or hydraulic 5. Pine straw or pine bark shall be applied at a mulch specifically designed to tack straw, thickness of 3 inches for bedding purposes. Other suitable materials in sufficient quantity shall be applied in conjunction with or immediately after the mulch is spread. Synmay be used where ornamentals or other thetic tackifiers shall be mixed and applied ground covers are planted. This is not apaccording to manufacturer's specifications. propriate for seeded areas. All tackifiers, binders or hydraulic mulch

> rified nontoxic through EPA 2021.0 testing. Refer to Tackifiers-Tac 3. Rye or wheat can be included with Fall and tablishment. Winter plantings to stabilize the mulch. They shall be applied at a rate of one-quarter to

specifically designed to tack straw should be

one-half bushel per acre. 4. Plastic mesh or netting with mesh no larger than one inch by one inch may be needed to anchor straw or hav mulch on unstable soils and concentrated flow areas. These materials shall be installed and anchored

according to manufacturer's specifications.

Bedding Material Mulch is used as a bedding material to conserve moisture and control weeds in nurseries, omamental beds, around shrubs, and on bare areas on lawns.

DEVELOPMENT IS WITHIN THE MAIN STREET OVERLAY DISTRIC

4" to 6" Grain straw Pine needles Wood waste 4" to 6"

Irrigation will be applied at a rate that will not

Topdressing will be applied on all temporary and permanent (perennial) species planted alone into the soil immediately after the mulch is or in mixtures with other species. Recommended spread. A special "packer disk" or disk har- rates of application are listed in Table 6-5.1.

Second Year and Maintenance Fertilization

Second year fertilizer rates and maintenance 8 to 12 inches apart. The edges of the disks fertilizer rates are listed in Table 6-5.1. he ground without cutting it, leaving much Lime Maintenance Application Apply one ton of agricultural lime every 4 to 6 years or as indicated by soil tests. Soil tests can be conducted to determine more accurate.

requirements, if desired. Mow Sericea Lespedeza only after frost to ensure that the seeds are mature. Mow between

Bermudagrass, Bahiagrass and Tall Fescue may be moved as desired. Maintain at least 6 inches of top growth under any use and management. Moderate use of top growth is beneficial after es-

Exclude traffic until the plants are well established. Because of the quail nesting season, mowing should not take place between May and

November and March.

Common Name Scientific Name Mature Height Plant Spacing Comments

Table 6-5.3. Durable Shrubs and Ground Covers for Permanent Cover

Repandens Holly	llex crenata 'Repandens'	2-3 ft	5 ft.	Sun, semi-shade.
Andorra Juniper	Juniperus norizontalis 'Plumosa'	2-3 ft.	5 ft.	Excellent for slopes, Sun.
Andorra Compacta Juniper	Juniperus horizontalis 'Plumosa com- pacta'	†-2 ft.	5 ft.	More compact than andora.
Blue Chip Juniper	Juniperus horizontalis "Blue Chip"	B-10 in.	4.0	
Blue Rug Juniper	Juniperus horizontalis 'Wiltonii'	4-6 in.	3 ft.	Very low, Sun,
Parsons Juniper	Juniperus davurica 'Expansa' (Squamata Parsoni)	18-24 in.	5 ft.	One of the best, good winter cover.
Pfilzer Juniper	Juniperus chinensis 'Pfitzerana'	6-8 ft.	6 ft.	Needs room.
Prince of Wales Junipe	Juniperus horizontalis 'Prince of Wales'	8-10 in	4 ft.	Feathery appearance.
Sargent Juniper	Juniperus chinensis 'Sargentii'	1-2 ft.	5 ft.	Full sun. Needs good drainage, Good winter color.
Shore Juniper	Juniperus conferta	2-3 п.	5 ft.	Emerald Sea of Blue Pacific cultivars are good.
Linope	Liriope muscari	8-10 m.	3 п.	

Table 6-5.3. Durable Shrubs and Ground Covers for Permanent Cover Common Name Scientific Name Mature Height Plant Spacing Comment

Creeping Liriope	Liriope spicata	10-12 in.	t tt.	Spreads by runners
Big Leaf Periwinkle	Vinca major	12-15 in.	4 ft.	Lilac flowers in spring. Semi-shade,
Common Periwinkle	Vinca minor	5-6 in.	4.ft.	Lavender-blue flowers in spring. Semi-shade
Cherokee Rose	Rosa laevigata	2 ft.	5 tt.	Rampant grower. Not for restricted spaces. State flower.
Memoria Rose	Rosa weuchuriana	2 fl.	5 ft.	Rampant grower
St. Johnswort	Hypericum calycenum	8-12 in	3 ft.	Semi-shade.
Anthony Waterer Spirea	Spirea bumalda	3-4 ft.	5 ft.	Sun.
Thunberg	Spirea thinbergii	3-4 ft.	5 ft.	Sun.

Table 6-5.4. Transfer Continu Control

SITE	SOIL MATERIAL	COMMON	PLANTING TREE SPECIES ¹	SPACING	PLANTING DATES ¹
Borrow areas, graded areas, and spoil material	Sandy	Lakeland, Troup	Loblolly pine (Pinus taeda) Longleaf pine (Pinus palustris)	1	M-L,P 12/1-3/15 C 12/1-3/1
	Loamy	Orangeburg, Tifton	Loblolly pine Slash pine Loblolly pine	à	M-L,P 12/1-3/15 C 12/1-3/1
	Clay	Cecil, Facevillle	Slash pine Virginia pine (Pinus virginiana)	*	M-L,P 12/1-3/15 C 12/1-3/1
Streambanks			Willows ⁴ (Salix speciecs)	2ft x 2ft	ALL

Other trees and shrubs listed on Table 6-25.3 may be interplanted with the pines for improved

Type of Planting Tree Spacing No. of Trees Per Acre Trees alone 4ft x4ft Trees in combination with grasses and/or other plants 6 ft. x 6 ft.

M-L represents the Mountains; Blue Ridge; and Ridges and Vallevs MLRAs P represents the Southern Piedmont MLRA C represents the Southern Coastal Plain; Sand Hills; Black Lands; and Atlantic Coast Flatwoods ML RAs (See Figure 6-4.1).

BECAUSE OF SAID ERROR, DISCREPANCY OR CONFLICT.

Fertilization of companion crop is ample for this species

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SPECIAL CONSTRUCTION NOTE:

THE CONTRACTOR KNOWS OR CAN REASONABLY BE EXPECTED TO HAVE KNOWN OF AN ERROR, SCREPANCY OR CONFLICT IN THE PLANS. SPECIFICATIONS OR CONSTRUCTION STAKING AND FAILS

'I certify under penalty of law that this Plan was prepared after a site visit to the locations described herein by myself or my authorized agent, under my supervision."

912-695-2000

4 HOUR CONTACT: POP SENIWONG

2 TIDEWATER WAY

SAVANNAH, GA 31411

SENIWONG@MSN.COM

'I certify that the permittee's Erosion, Sedimentation and Pollution Control Plan provides for an appropriate and comprehensive system of best management practices required by the Georgia Water Quality Control Act and the document "Manual for Erosion and Sediment Control in Georgia" (Manual) published by the Georgia Soil and Water Conservation Commission as of January I of the year in which the land-disturbing activity was permitted, provides for the sampling of the receiving water(s) or the sampling of the stormwater outfalls and that the designed system of best management practices and sampling methods is expected to meet the requirements contained in the General NPDES Permit No. GAR 100001."

Mal Bowell CERTIFIED BY: Mark A. Boswell

STREAM BUFFER ENCROACHMENT NOTES:

Level II Certification No. 2104

. NEW STRUCTURES ON THIS PROJECT DO NOT ENCROACH IN THE 25 OR 50 FOOT STREAM

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 MARSHLANI BUFFER AS MEASURED FROM THE JURISDICTIONA DETERMINATION LINE WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS

D REPORT THE PROBLEM PRIOR TO CONSTRUCTION, HE SHALL NOT BE ENTITLED TO COMPENSATIO FOR ANY WORK OR EXPENSE INCURRED BY HIM FOR WORK REQUIRED TO BE RE-CONSTRUCTED

Drawing Number

25 of 27 sheets

PRIOR TO DIGGING

Wall Bosh

PROFESSIONAL

DEVELOPMENT IS WITHIN THE MAIN STREET OVERLAY DISTRICT

"I certify that the permittee's Erosion, Sedimentation and Pollution Control Plan provides for an appropriate and

DESCRIPTION OF STORM WATER POLLUTION

I. THE FOLLOWING IS A DESCRIPTION OF THE PRACTICES TO BE USED BUT

24 HOUR CONTACT

2 TIDEWATER WAY

SAVANNAH, GA 31411

SENIWONG@MSN.COM

POP SENIWONG

912-695-2000

DISCHARGE PREVENTION PRACTICES

NOT LIMITED TO:

G. GRASSING

I. SKIMMER

H. DETENTION POND

J. DUST CONTROL

B. SILT FENCING

A. CONSTRUCTION EXIT

D. HAY BALE CHECK DAMS

C. TEMPORY SEDIMENT BASINS

F. STORM OUTLET PROTECTION

K. CONCRETE WASHDOWN PIT

comprehensive system of best management practices required by the Georgia Water Quality Control Act and the document "Manual for Erosion and Sediment Control in Georgia" (Manual) published by the Georgia Soil and Water Conservation Commission as of January 1 of the year in which the land-disturbing activity was permitted, provides for the sampling of the receiving water(s) or the sampling of the stormwater outfalls and that the designed system of best management practices and sampling methods is expected to meet the requirements contained in the General NPDES Permit No. GAR | 0000 | ."

"I certify under penalty of law that this Plan was prepared after a site visit to the locations described herein by myself

or my authorized agent, under my supervision."

Mal Barnell

CERTIFIED BY: Mark A. Boswell Level II Certification No. 2104

STREAM BUFFER ENCROACHMENT NOTES:

. NEW STRUCTURES ON THIS PROJECT DO NOT ENCROACH IN THE 25 OR 50 FOOT STREAM

. 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 VARIANCES AND PERMITS.

SPECIAL CONSTRUCTION NOTE:

IF THE CONTRACTOR KNOWS OR CAN REASONABLY BE EXPECTED TO HAVE KNOWN OF AN ERROR, DISCREPANCY OR CONFLICT IN THE PLANS, SPECIFICATIONS OR CONSTRUCTION STAKING AND FAILS O REPORT THE PROBLEM PRIOR TO CONSTRUCTION, HE SHALL NOT BE ENTITLED TO COMPENSATIO FOR ANY WORK OR EXPENSE INCURRED BY HIM FOR WORK REQUIRED TO BE RE-CONSTRUCTED BECAUSE OF SAID ERROR, DISCREPANCY OR CONFLICT.

CERTIFICATION NO. 2104 ISSUED 11-5-05 EXPIRES 11-15-26

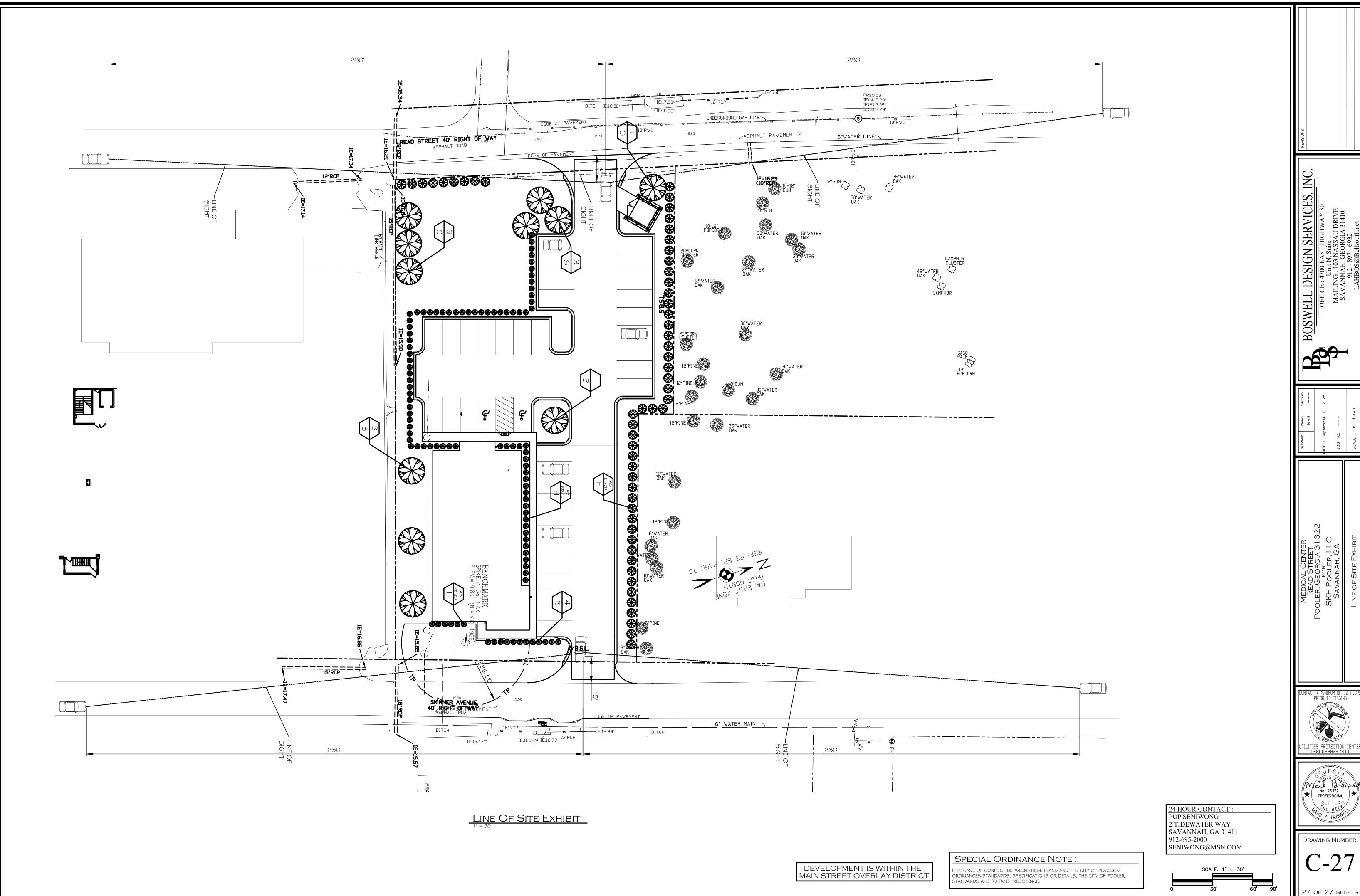
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