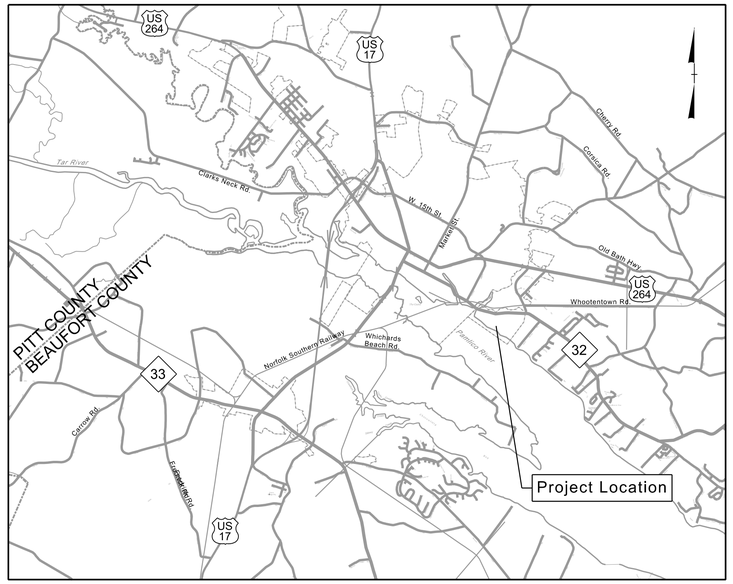
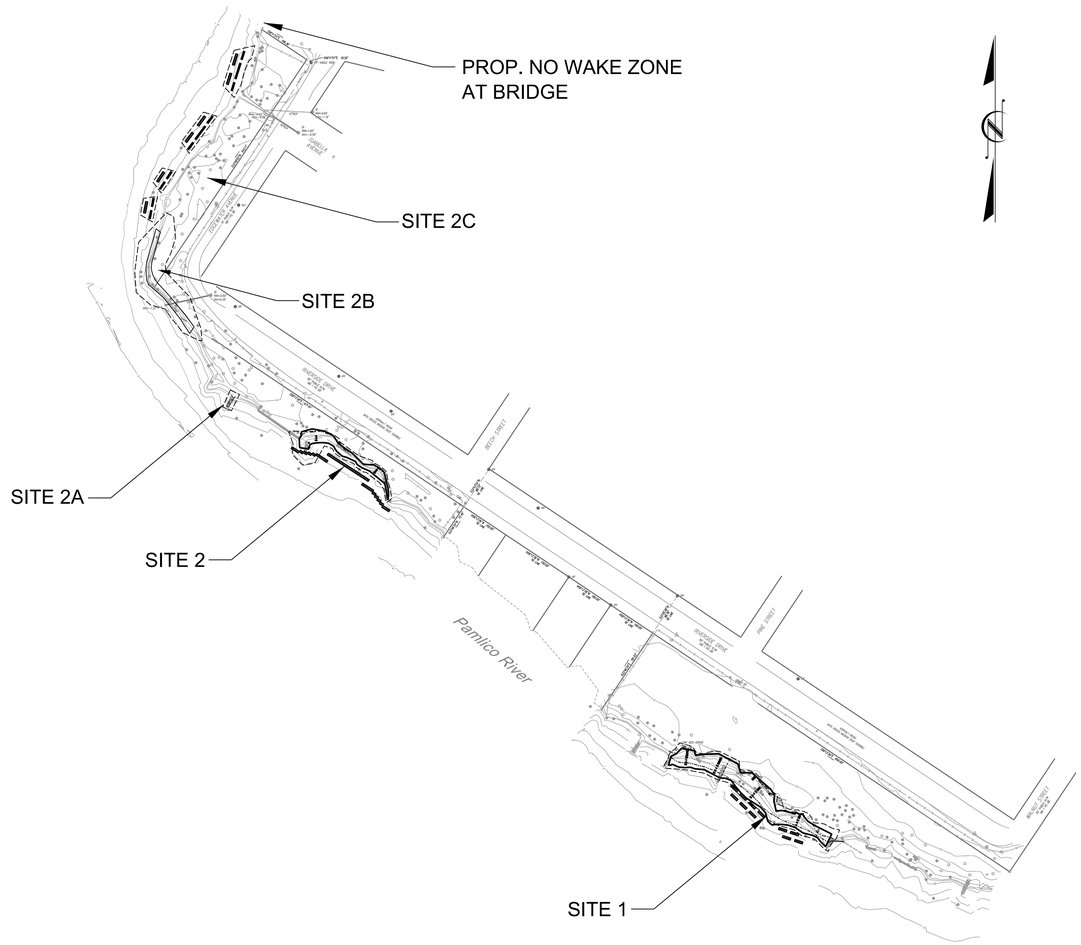
BEAUFORT COUNTY, NC
TOWN OF WASHINGTON PARK
LIVING SHORELINE



VICINITY MAP N.T.S.



SHEET NUMBER	SHEET
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1C	CONVENTIONAL SYMBOLS
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D-1 THRU D-5	SITE PLANS & DETAILS
L-1 THRU L-4	PLANTING PLANS & DETAILS

PLANS PREPARED BY:
RK&K
8601 SIX FORKS ROAD, FORUM 1, SUITE 700
RALEIGH, NORTH CAROLINA 27615
(919) 878-9560, NC LICENSE NO. F-0112

PLANS PREPARED FOR:
WASHINGTON PARK

TOWN OF WASHINGTON PARK
LIVING SHORELINE
BEAUFORT COUNTY, NC

REVISIONS

DRAWN BY:	CHECKED BY:
GSM	DMK

TITLE SHEET

1

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

GENERAL NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE FOLLOWING STANDARDS: NORTH CAROLINA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES" DATED JANUARY 2024, AND ANY SUPPLEMENTS THERETO ISSUED PRIOR TO THE RECEIPT OF BIDS.

2. ELEVATIONS ARE BASED ON NAVD-88 (NORTH AMERICAN VERTICAL DATUM). BENCHMARKS ARE SHOWN ON SHEET 1C-1.

3. SHOULD THE CONTRACTOR DISCOVER DISCREPANCIES BETWEEN THE PLANS AND THE ACTUAL FIELD CONDITIONS ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY TO ARRIVE AT AN ACCEPTABLE SOLUTION.

4. SUBMITTALS ON MATERIALS FOR THIS PROJECT SHALL BE APPROVED BY THE ENGINEER PRIOR TO BEGINNING CONSTRUCTION.

5. EVERY EFFORT SHALL BE TAKEN TO MINIMIZE DISTURBANCE IN THE PROJECT AREA AND IN GAINING ACCESS TO/FROM THE WORK AREA.

6. THE GRADE LINE ELEVATIONS SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED OR FUTURE SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTION. GRADE LINES MAY BE ADJUSTED AT THEIR BEGINNING, ENDING AND AT STRUCTURES AS DIRECTED BY THE ENGINEER IN ORDER TO SECURE A PROPER TIE-IN OR TO CREATE A MORE "NATURAL APPEARANCE".

7. SILLS SHALL BE PLACED ONCE FILL HAS BEEN STABILIZED AND TURBIDITY CURTAIN HAS BEEN REMOVED.

9. ALL EXCESS MATERIAL MUST BE TRANSPORTED OFF SITE TO AN APPROPRIATE DISPOSAL AREA.

10. STOCKPILE AREAS, NOT DEFINED ON G&EC-1, SHALL BE APPROVED BY THE ENGINEER.

11. LIMIT OF DISTURBANCE DEFINED ON G&EC-1 REPRESENTS THE OFFSHORE LIMIT. THE CONTRACTOR SHALL PROPOSE A STABILIZED CONSTRUCTION ENTRANCE AND RESTORE ACCESS ROUTE TO PRE-CONSTRUCTION CONDITIONS PRIOR TO CLOSEOUT.

12. MARINE SAND SHALL BE PLACED IN AREAS OF FILL, UNLESS OTHERWISE REQUIRED IN THE PLANS. NO AREA SHALL BE CUT.

13. UNACCEPTABLE PLANTS AND REPLACEMENT PLANTS REFER TO 1060-10. CONTRACTOR SHALL PROMPTLY REMOVE AND REPLACE PLANTS THAT HAVE BECOME UNACCEPTABLE DURING THE ESTABLISHMENT PHASE AS NEEDED OR AS DIRECTED. SEE SPECIAL PROVISION 4.

14. ALL WORK WHERE PRACTICAL SHALL BE PERFORMED FROM THE WATER. SILLS SHALL BE PLACED BY BARGE. WHERE LAND ACCESS IS REQUIRED THE CONTRACTOR SHALL PROVIDE TREE PROTECTION PLANS FOR APPROVAL BY THE ENGINEER AND THE OWNER.

15. NO HEAVY EQUIPMENT AS DETERMINED BY THE ENGINEER THAT COULD DISTURB AQUATIC SUBSTRATE IS PERMITTED BELOW MEAN HIGH WATER (ELEV. 1.26' NAVD88). IF NECESSARY, CONTRACTOR SHALL ESTABLISH TEMPORARY ACCESS AREAS THAT SHALL BE APPROVED BY THE ENGINEER. TEMPORARY ACCESS AREAS SHALL NOT EXCEED A CUMULATIVE AREA OF 0.10 ACRES. NO TEMPORARY ACCESS SHALL BE APPROVED WITHIN THE EXISTING AREA OF WETLAND OR SAV.

16. HEAVY EQUIPMENT AS DETERMINED BY THE ENGINEER AND, IF USED, ANY CONSTRUCTION MATTING SHALL BE POWER-WASHED PRIOR TO ARRIVAL ON SITE TO AVOID AND MINIMIZE THE INTRODUCTION OF INVASIVE SPECIES.

17. A GEOTECHNICAL REPORT HAS BEEN PREPARED FOR THIS PROJECT BY RK&K. THIS REPORT IS FOR INFORMATIONAL PURPOSES ONLY AND SHALL NOT BE CONSIDERED TO BE PART OF THE CONTRACT DOCUMENTS. THE OPINIONS AND CONCLUSIONS OF RK&K REPRESENT RK&K'S INTERPRETATION OF THE SUBSURFACE CONDITIONS AND THE PLANNED CONSTRUCTION AT THE TIME THAT SUCH REPORT WAS PREPARED. IN ADDITION, THE DATA IN SUCH REPORT MAY NOT BE ADEQUATE FOR ANY ESTIMATING PURPOSES OF ANY CONTRACTOR, SUBCONTRACTOR, CONSULTANT, OR SUBCONSULTANT. FURTHERMORE, ANY CONTRACTOR, SUBCONTRACTOR, CONSULTANT, OR SUBCONSULTANT THAT MAKES USE OF THIS GEOTECHNICAL REPORT OR ANY INFORMATION SET FORTH THEREIN SHALL BE DEEMED TO RELEASE, DISCHARGE, AND RELINQUISH ANY CLAIMS OF ANY KIND THAT IT MAY HAVE NOW OR IN THE FUTURE AGAINST RK&K ARISING OUT OF OR OWING TO SUCH USE BY CONTRACTOR, SUBCONTRACTOR, CONSULTANT, OR SUBCONSULTANT.

18. ALL CONSTRUCTION ACTIVITIES CONDUCTED WITHIN THE CRITICAL ROOT ZONES OF TREES TO REMAIN SHALL BE UNDER THE DIRECT SUPERVISION OF AN ISA CERTIFIED ARBORIST PROVIDED BY THE CONTRACTOR.

CONSTRUCTION SEQUENCE

1. THE SURVEYOR SHALL ESTABLISH CONTROL BASED OFF SURVEY SHEETS AND SET/STAKE STATIONING IN THE FIELD PER THE DRAWINGS. AN ELECTRONIC COPY OF THE DRAWING WILL BE PROVIDED BY THE ENGINEER.

2. THE CONTRACTOR SHALL PROPOSE ANY LAYDOWN AREAS, CONSTRUCTION ENTRANCE ROUTES, AND TEMPORARY ACCESS RAMPS NEEDED FOR CONSTRUCTION. UPLAND IMPACTS SHALL NOT EXCEED 1.0 ACRE. ALL IMPACTS SHALL BE ON PUBLIC PROPERTY. PROPOSAL SHALL BE PROVIDED TO AND APPROVED BY THE ENGINEER.

3. THE CONTRACTOR SHALL SET UP A PRE-CONSTRUCTION MEETING WITH THE LOCAL EROSION CONTROL INSPECTOR AND THE PROJECT ENGINEER/DESIGNER. THE CONTRACTOR SHALL SCHEDULE THIS MEETING A MINIMUM OF 48 HOURS PRIOR TO ANY LAND DISTURBANCE.

4. THE CONTRACTOR SHALL INSTALL ALL EROSION CONTROL DEVICES AS SHOWN IN PLAN SET.

5. THE CONTRACTOR SHALL INSTALL TEMPORARY ACCESS ROUTES AND STAGING AREAS AS APPROVED BY THE ENGINEER.

6. SITES 1, 2, 2B, AND 2C SHALL BE CONSTRUCTED SIMULTANEOUSLY AT THE DISCRETION OF THE CONTRACTOR. ORDER OF CONSTRUCTION IS AT THE DISCRETION OF THE CONTRACTOR.

7. FOR SITES 1 AND 2, THE CONTRACTOR SHALL REMOVE ANY UNDERWATER STRUCTURE/DEBRIS THAT IMPEDES ON PLACEMENT OF PROPOSED STRUCTURE OR FILL PRIOR TO GRADING. COIR FIBER LOGS SHALL BE PLACED AT THE EDGE OF THE SAV BED PRIOR TO MARINE SAND FILL BEING PLACED.

8. SALVAGED AND SUPPLEMENTAL ROCK MATERIAL WITH SAND SLURRY MIX (SEE SPECIAL PROVISION___) SHALL BE USED TO FILL UNDERCUT TREE ROOTS ALONG THE BANK. THE ENGINEER OR INSPECTOR SHALL BE PRESENT ON-SITE DURING THIS TIME TO ENSURE VOIDS ARE FILLED AND COMPACTION IS TO SPEC.

9. THE CONTRACTOR SHALL IMPLEMENT AN AS-BUILT SURVEY STOP POINT. THE CONTRACTOR SHALL COMPLETE AS-BUILT SURVEY AND SUBMIT TO THE ENGINEER. THE ENGINEER SHALL REVIEW WUTH COMMENTS WITHIN 1 WEEK OF SUBMITTAL.

10. THE CONTRACTOR SHALL STABILIZE THE BANKS AND SET UP A GRADING INSPECTION WITHIN 48HRS OF FINISHED GRADE. AREAS DETERMINED TO BE OFF PLAN SPECIFICATIONS SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE PRIOR TO PLANTING.

11. FOR SITES 1, 2, AND 2C, PRIOR TO SILL INSTALLATION, DESIGN SHALL BE STAKED OUT ACCORDING TO PLAN SHEETS AND APPROVED BY THE ENGINEER OR INSPECTOR.

12. TURBIDITY CURTAIN SHALL BE REMOVED ONCE GRADING IS APPROVED BY THE ENGINEER OR INSPECTOR.

13. WATERFOWL EXCLUSION FENCE SHALL BE INSTALLED IMMEDIATELY AFTER MARSH PLANT INSTALLATION IS COMPLETE.

14. THE CONTRACTOR SHALL SET UP A PLANTING INSPECTION WITHIN 24HR OF PLANT INSTALLATION.

15. FOR SITES 1 AND 2, THE SILL SHALL NOT BE INSTALLED UNTIL GRADING IS COMPLETE AND TURBIDITY CURTAIN IS REMOVED.

16. RESTORATION OF GROIN AT -LSL2- STA.19+33.45 SHALL BE COMPLETED ACCORDING TO PLANS.

17. FOR SITE 2B, RESTORATION OF "THE POINT" REVETMENT, CONSTRUCTION SHALL BE COMPLETED ACCORDING TO PLANS.

18. FOR THE GROIN AND REVETMENT, THE CONTRACTOR SHALL SET UP A GRADING INSPECTION WITHIN 48HR OF FINISHED GRADE. AREAS DETERMINED TO BE OUTSIDE THE ACCEPTABLE GRADING TOLERANCE OF +/- 0.1FT. IN REFERENCE TO PLAN SPECIFICATIONS SHALL BE CORRECTED BY THE CONTRACTOR WITH 72HRS.

19. TO COMPLETE PROJECT FOR FINAL INVOICE THE CONTRACTOR SHALL OBTAIN FINAL APPROVAL FROM WASHINGTON PARK, THE ENGINEER, AND RELEVANT REGULATORY AGENCIES.

1. OWNER:
   WASHINGTON PARK
   PO BOX 632
   WASHINGTON, NC 27899

2. CONSULTANT:
   RK&K
   8601 SIX FORKS RD.
   RALEIGH, NC 27615
   FORUM 1, SUITE 700
   POC: DOUG KELLER, P.E.

3. THE SUBJECT PROPERTIES ARE KNOWN AS
   PARCEL IDS GPIN:5685-44-4058 AND GPIN:5685-34-5765

		MLLW DATUM	NAVD88 DATUM
MHHW	=	2.34	1.41
MHW	=	2.18	1.26
MTL	=	1.82	0.89
DTL	=	1.81	0.87
MSL	=	1.78	0.86
MLW	=	1.45	0.53
MLLW	=	1.28	0.34
DHQ	=	0.16	0.15
DLQ	=	0.18	0.19
MN	=	0.73	0.73
GT	=	1.07	1.06
HWL	=	2.9	1.98
LWL	=	-0.29	-1.21

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PLANS PREPARED FOR:
WASHINGTON PARK

TOWN OF WASHINGTON PARK
LIVING SHORELINE
BEAUFORT COUNTY, NC

REVISIONS

DRAWN BY:	CHECKED BY:
GSM	DMK

GENERAL NOTES

1A

PROJECT AREA

1. TOTAL AREA WITHIN LOD IS _____.
2. TOTAL LOD BELOW NORMAL WATER IS ____.
3. TOTAL AREA DISTURBED WITHIN ZONE 1 IS ____.
4. TOTAL AREA DISTURBED WITHIN ZONE 2 IS ____.
5. TOTAL AREA OF GROUND DISTURBANCE WITHIN BUFFER ZONE IS ____.
6. TOTAL AREA OF TEMPORARY DISTURBANCE BELOW MEAN SEA LEVEL IS ____.
7. TOTAL AREA OF PERMANENT DISTURBANCE BELOW MEAN SEA LEVEL IS ____.
8. SAND FILL BELOW MEAN SEA LEVEL (ELEV. 0.86 NAVD88) IS ____.
9. TOTAL AREA OF SILL IMPACT IS ____.
10. TOTAL AREA OF GROIN IMPACTS IS ____.
11. TOTAL AREA OF GROIN IMPACTS BELOW NORMAL WATER IS ____.
12. TOTAL AREA OF REVETMENT IMPACT IS ____.
13. TOTAL AREA OF REVETMENT BELOW NORMAL WATER IS ____.
14. TOTAL AREA OF DREDGING BELOW NORMAL WATER IS ____.
15. TOTAL TEMPORARY SAV IMPACTS IS ____.
16. TOTAL PERMANENT SAV IMPACTS IS ____

SITE 1

1. TOTAL AREA WITHIN LOD IS _____.
2. TOTAL AREA DISTURBED WITHIN ZONE 1 IS ____.
3. TOTAL AREA DISTURBED WITHIN ZONE 2 IS ____.
4. TOTAL AREA OF GROUND DISTURBANCE WITHIN BUFFER ZONE IS ____.
5. LOD BELOW NORMAL WATER IS ____.
6. TOTAL AREA OF TEMPORARY DISTURBANCE BELOW MEAN SEA LEVEL IS ____.
7. TOTAL AREA OF PERMANENT DISTURBANCE BELOW MEAN SEA LEVEL IS ____.
8. SAND FILL BELOW MEAN SEA LEVEL (ELEV. 0.86 NAVD88) IS ____.
9. TOTAL AREA OF DREDGING BELOW NORMAL WATER IS ____.
10. TOTAL AREA OF SILL IMPACT IS ____.
11. TOTAL TEMPORARY SAV IMPACTS IS ____.
12. TOTAL PERMANENT SAV IMPACTS IS ____

SITE 2

1. TOTAL AREA WITHIN LOD IS _____.
2. TOTAL AREA DISTURBED WITHIN ZONE 1 IS ____.
3. TOTAL AREA DISTURBED WITHIN ZONE 2 IS ____.
4. TOTAL AREA OF GROUND DISTURBANCE WITHIN BUFFER ZONE IS ____.
5. LOD BELOW NORMAL WATER IS ____.
6. TOTAL AREA OF TEMPORARY DISTURBANCE BELOW MEAN SEA LEVEL IS ____.
7. TOTAL AREA OF PERMANENT DISTURBANCE BELOW MEAN SEA LEVEL IS ____.
8. SAND FILL BELOW MEAN SEA LEVEL (ELEV. 0.86 NAVD88) IS ____.
9. TOTAL AREA OF DREDGING BELOW NORMAL WATER IS ____.
10. TOTAL AREA OF SILL IMPACT IS ____.
11. TOTAL TEMPORARY SAV IMPACTS IS ____.
12. TOTAL PERMANENT SAV IMPACTS IS ____

SITE 2A

1. TOTAL AREA WITHIN LOD IS _____.
2. TOTAL AREA DISTURBED WITHIN ZONE 1 IS ____.
3. TOTAL AREA DISTURBED WITHIN ZONE 2 IS ____.
4. TOTAL AREA OF GROUND DISTURBANCE WITHIN BUFFER ZONE IS ____.
5. LOD BELOW NORMAL WATER IS ____.
6. TOTAL AREA OF TEMPORARY DISTURBANCE BELOW MEAN SEA LEVEL IS ____.
7. TOTAL AREA OF PERMANENT DISTURBANCE BELOW MEAN SEA LEVEL IS ____.
8. SAND FILL BELOW MEAN SEA LEVEL (ELEV. 0.86 NAVD88) IS ____.
9. TOTAL AREA OF DREDGING BELOW NORMAL WATER IS ____.
10. TOTAL AREA OF SILL IMPACT IS ____.
11. TOTAL TEMPORARY SAV IMPACTS IS ____.
12. TOTAL PERMANENT SAV IMPACTS IS ____

SITE 2B

1. TOTAL AREA WITHIN LOD IS _____.
2. TOTAL AREA DISTURBED WITHIN ZONE 1 IS ____.
3. TOTAL AREA DISTURBED WITHIN ZONE 2 IS ____.
4. TOTAL AREA OF GROUND DISTURBANCE WITHIN BUFFER ZONE IS ____.
5. LOD BELOW NORMAL WATER IS ____.
6. TOTAL AREA OF TEMPORARY DISTURBANCE BELOW MEAN SEA LEVEL IS ____.
7. TOTAL AREA OF PERMANENT DISTURBANCE BELOW MEAN SEA LEVEL IS ____.
8. SAND FILL BELOW MEAN SEA LEVEL (ELEV. 0.86 NAVD88) IS ____.
9. TOTAL AREA OF DREDGING BELOW NORMAL WATER IS ____.
10. TOTAL AREA OF SILL IMPACT IS ____.
11. TOTAL TEMPORARY SAV IMPACTS IS ____.
12. TOTAL PERMANENT SAV IMPACTS IS ____

SITE 2C

1. TOTAL AREA WITHIN LOD IS _____.
2. TOTAL AREA DISTURBED WITHIN ZONE 1 IS ____.
3. TOTAL AREA DISTURBED WITHIN ZONE 2 IS ____.
4. TOTAL AREA OF GROUND DISTURBANCE WITHIN BUFFER ZONE IS ____.
5. LOD BELOW NORMAL WATER IS ____.
6. TOTAL AREA OF TEMPORARY DISTURBANCE BELOW MEAN SEA LEVEL IS ____.
7. TOTAL AREA OF PERMANENT DISTURBANCE BELOW MEAN SEA LEVEL IS ____.
8. SAND FILL BELOW MEAN SEA LEVEL (ELEV. 0.86 NAVD88) IS ____.
9. TOTAL AREA OF DREDGING BELOW NORMAL WATER IS ____.
10. TOTAL AREA OF SILL IMPACT IS ____.
11. TOTAL TEMPORARY SAV IMPACTS IS ____.
12. TOTAL PERMANENT SAV IMPACTS IS ____

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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RALEIGH, NORTH CAROLINA 27615
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PLANS PREPARED FOR:
WASHINGTON PARK

TOWN OF WASHINGTON PARK
LIVING SHORELINE
BEAUFORT COUNTY, NC

REVISIONS

DRAWN BY:	CHECKED BY:
GSM	DMK

IMPACT SUMMARY

1B

Note: Not to Scale

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS
CONVENTIONAL PLAN SHEET SYMBOLS

BOUNDARIES AND PROPERTY:
- State Line
- County Line
- Township Line
- City Line
- Reservation Line
- Property Line
- Existing Iron Pin (EIP)
- Computed Property Corner
- Existing Concrete Monument (ECM)
- Parcel / Sequence Number
- Existing Fence Line
- Proposed Woven Wire Fence
- Proposed Chain Link Fence
- Proposed Barbed Wire Fence
- Existing Wetland Boundary
- Proposed Wetland Boundary
- Existing Endangered Animal Boundary
- Existing Endangered Plant Boundary
- Existing Historic Property Boundary
- Known Contamination Area: Soil
- Potential Contamination Area: Soil
- Known Contamination Area: Water
- Potential Contamination Area: Water
- Contaminated Site: Known or Potential

BUILDINGS AND OTHER CULTURE:
- Gas Pump Vent or U/G Tank Cap
- Sign
- Well
- Small Mine
- Foundation
- Area Outline
- Cemetery
- Building
- School
- Church
- Dam

HYDROLOGY:
- Stream or Body of Water
- Hydro, Pool or Reservoir
- Jurisdictional Stream
- Buffer Zone 1
- Buffer Zone 2
- Flow Arrow
- Disappearing Stream
- Spring
- Wetland
- Proposed Lateral, Tail, Head Ditch
- False Sump

RAILROADS:
- Standard Gauge
- RR Signal Milepost
- Switch
- RR Abandoned
- RR Dismantled

RIGHT OF WAY & PROJECT CONTROL:
- Primary Horiz Control Point
- Primary Horiz and Vert Control Point
- Secondary Horiz and Vert Control Point
- Vertical Benchmark
- Existing Right of Way Monument
- Proposed Right of Way Monument (Rebar and Cap)
- Proposed Right of Way Monument (Concrete)
- Existing Permanent Easement Monument
- Proposed Permanent Easement Monument (Rebar and Cap)
- Existing C/A Monument
- Proposed C/A Monument (Rebar and Cap)
- Proposed C/A Monument (Concrete)
- Existing Right of Way Line
- Proposed Right of Way Line
- Existing Control of Access Line
- Proposed Control of Access Line
- Proposed ROW and CA Line
- Existing Easement Line
- Proposed Temporary Construction Easement
- Proposed Temporary Drainage Easement
- Proposed Permanent Drainage Easement
- Proposed Permanent Drainage/Utility Easement
- Proposed Permanent Utility Easement
- Proposed Temporary Utility Easement
- Proposed Aerial Utility Easement

ROADS AND RELATED FEATURES:
- Existing Edge of Pavement
- Existing Curb
- Proposed Slope Stakes Cut
- Proposed Slope Stakes Fill
- Proposed Curb Ramp
- Existing Metal Guardrail
- Proposed Guardrail
- Existing Cable Guiderail
- Proposed Cable Guiderail
- Equality Symbol
- Pavement Removal

VEGETATION:
- Single Tree
- Single Shrub
- Hedge
- Woods Line
- Orchard
- Vineyard

EXISTING STRUCTURES:
MAJOR:
- Bridge, Tunnel or Box Culvert
- Bridge Wing Wall, Head Wall and End Wall

MINOR:
- Head and End Wall
- Pipe Culvert
- Footbridge
- Drainage Box: Catch Basin, DI or JB
- Paved Ditch Gutter
- Storm Sewer Manhole
- Storm Sewer

UTILITIES:
** SUE - Subsurface Utility Engineering*
LOS - Level of Service - A,B,C or D (Accuracy)

POWER:
- Existing Power Pole
- Proposed Power Pole
- Existing Joint Use Pole
- Proposed Joint Use Pole
- Power Manhole
- Power Line Tower
- Power Transformer
- U/G Power Cable Hand Hole
- H-Frame Pole
- U/G Power Line Test Hole (SUE - LOS A)*
- U/G Power Line (SUE - LOS B)*
- U/G Power Line (SUE - LOS C)*
- U/G Power Line (SUE - LOS D)*

TELEPHONE:
- Existing Telephone Pole
- Proposed Telephone Pole
- Telephone Manhole
- Telephone Pedestal
- Telephone Cell Tower
- U/G Telephone Cable Hand Hole
- U/G Telephone Test Hole (SUE - LOS A)*
- U/G Telephone Cable (SUE - LOS B)*
- U/G Telephone Cable (SUE - LOS C)*
- U/G Telephone Cable (SUE - LOS D)*
- U/G Telephone Conduit (SUE - LOS B)*
- U/G Telephone Conduit (SUE - LOS C)*
- U/G Telephone Conduit (SUE - LOS D)*
- U/G Fiber Optics Cable (SUE - LOS B)*
- U/G Fiber Optics Cable (SUE - LOS C)*
- U/G Fiber Optics Cable (SUE - LOS D)*

WATER:
- Water Manhole
- Water Meter
- Water Valve
- Water Hydrant
- U/G Water Line Test Hole (SUE - LOS A)*
- U/G Water Line (SUE - LOS B)*
- U/G Water Line (SUE - LOS C)*
- U/G Water Line (SUE - LOS D)*
- Above Ground Water Line

TV:
- TV Pedestal
- TV Tower
- U/G TV Cable Hand Hole
- U/G TV Test Hole (SUE - LOS A)*
- U/G TV Cable (SUE - LOS B)*
- U/G TV Cable (SUE - LOS C)*
- U/G TV Cable (SUE - LOS D)*
- U/G Fiber Optic Cable (SUE - LOS B)*
- U/G Fiber Optic Cable (SUE - LOS C)*
- U/G Fiber Optic Cable (SUE - LOS D)*

GAS:
- Gas Valve
- Gas Meter
- U/G Gas Line Test Hole (SUE - LOS A)*
- U/G Gas Line (SUE - LOS B)*
- U/G Gas Line (SUE - LOS C)*
- U/G Gas Line (SUE - LOS D)*
- Above Ground Gas Line

SANITARY SEWER:
- Sanitary Sewer Manhole
- Sanitary Sewer Cleanout
- U/G Sanitary Sewer Line
- Above Ground Sanitary Sewer
- SS Force Main Line Test Hole (SUE - LOS A)*
- SS Force Main Line (SUE - LOS B)*
- SS Force Main Line (SUE - LOS C)*
- SS Force Main Line (SUE - LOS D)*

MISCELLANEOUS:
- Utility Pole
- Utility Pole with Base
- Utility Located Object
- Utility Traffic Signal Box
- Utility Unknown U/G Line (SUE - LOS B)*
- U/G Tank; Water, Gas, Oil
- Underground Storage Tank, Approx. Loc.
- A/G Tank; Water, Gas, Oil
- Geoenvironmental Boring
- Abandoned According to Utility Records — AATUR
- End of Information — E.O.I.

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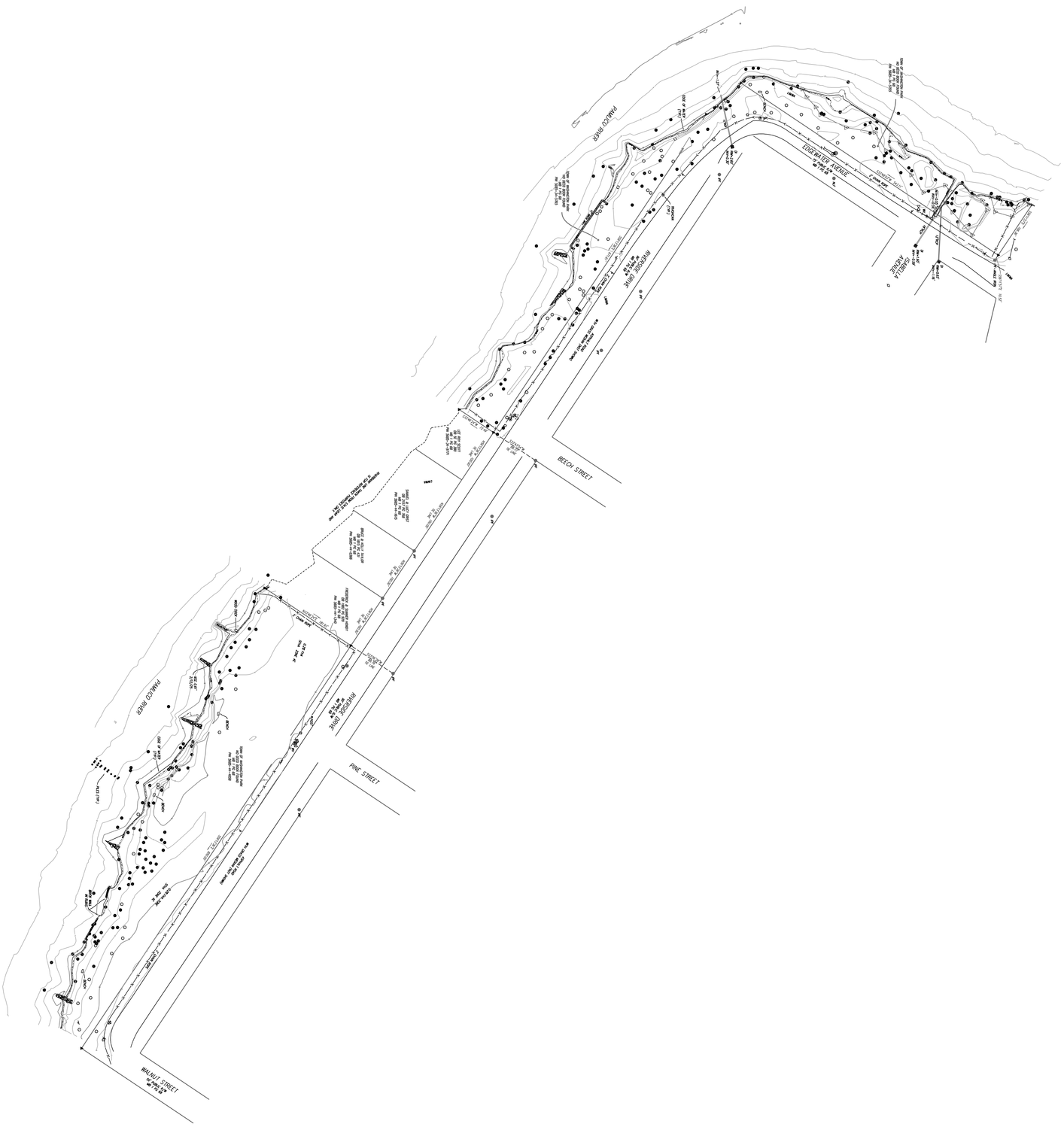
REVISIONS

DRAWN BY:	CHECKED BY:
GSM	DMK

CONVENTIONAL SYMBOLS

1C



1D

OVERALL EXISTING CONDITIONS

DRAWN BY: GSM

CHECKED BY: DMK

REVISIONS

TOWN OF WASHINGTON PARK

LIVING SHORELINE

BEAUFORT COUNTY, NC

WASHINGTON PARK

PLANS PREPARED FOR:

PLANS PREPARED BY :

RK&K

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RALEIGH, NORTH CAROLINA 27615

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SUMMARY OF QUANTITIES SHEET

PLANS PREPARED BY :
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RALEIGH, NORTH CAROLINA 27615
(919) 878-9560, NC LICENSE NO. F-0112

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LIVING SHORELINE
BEAUFORT COUNTY, NC

REVISIONS

DRAWN BY:	CHECKED BY:
GSM	DMK

SUMMARY OF QUANTITIES

2

EROSION CONTROL NOTES

1. ERECTION OF SEDIMENTATION AND EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH STATE EROSION CONTROL REGULATIONS.

2. THE CONTRACTOR SHALL INSTALL AND MAINTAIN THROUGHOUT THE PROJECT CONSTRUCTION ALL EROSION CONTROL MEASURES SHOWN WITHIN THESE PLANS AND IN ACCORDANCE WITH APPLICABLE NCDEQ EROSION AND SEDIMENT CONTROL REGULATIONS. THE CONTRACTOR MAY ADJUST LOCATION OF MEASURES AS NECESSARY PROVIDED CHANGES HAVE BEEN APPROVED BY THE ENGINEER.

3. ALL CONTROL MEASURES SHALL BE CHECKED, AND REPAIRED AS NECESSARY, MONTHLY IN DRY PERIODS, AND WITHIN 24 HOURS AFTER RAINFALL AT THE SITE OF 0.75 INCHES OR GREATER WITHIN A 24 HOUR PERIOD. THE PERMITTEE SHALL MAINTAIN WRITTEN RECORDS OF SUCH CHECKS AND REPAIRS ON SITE AT ALL TIMES.

4. WHEN EARTHWORK IS PERFORMED, A TURBIDITY CURTAIN SHOULD BE LOCATED BETWEEN THE PROJECT WORK AREA AND WATERWAY.

5. ALL DISTURBED AREAS THAT ARE NOT OTHERWISE STABILIZED SHALL BE TEMPORARILY OR PERMANENTLY SEEDED IN ACCORDANCE WITH THE NORTH CAROLINA SEDIMENT CONTROL REGULATIONS. PERMANENT SEEDING AND VEGETATION ESTABLISHMENT IS REQUIRED PRIOR TO PROJECT COMPLETION AND ACCEPTANCE.

6. CONSTRUCTION ENTRANCES INSTALLED AT ACCESS LOCATIONS SHALL BE MAINTAINED AS REQUIRED TO PREVENT SILT/SEDIMENT FROM LEAVING THE SITE. THIS INCLUDES, BUT IS NOT LIMITED TO, WASH DOWN OF THE CONSTRUCTION ENTRANCE, INSTALLING AND UTILIZING A VEHICLE WASH DOWN AREA, INSTALLING ADDITIONAL STONE, ETC.

7. DURING CONSTRUCTION OF THE PROJECT, SOIL STOCKPILES SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE CONTRACTOR IS RESPONSIBLE FOR TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.

8. THE CONTRACTOR IS RESPONSIBLE FOR KEEPING MUD AND DEBRIS OFF CITY/STATE STREETS AND ROW. CLEANUP IS REQUIRED DAILY.

9. ALL TEMPORARY MEASURES SHALL BE REMOVED ONCE ACCEPTABLE PERMANENT STABILIZATION IS ACHIEVED. THE ENGINEER SHALL DETERMINE IF THE PERMANENT STABILIZATION IS ACCEPTABLE.

LEGEND

- TURBIDITY CURTAIN
- LIMITS OF DISTURBANCE (LOD)
- TREE PLANKING
- ROCK PACKING

PLANS PREPARED BY:
RK&K
8601 SIX FORKS ROAD, FORUM 1, SUITE 700
RALEIGH, NORTH CAROLINA 27615
(919) 878-9560, NC LICENSE NO. F-0112

PLANS PREPARED FOR:
WASHINGTON PARK

TOWN OF WASHINGTON PARK
LIVING SHORELINE
BEAUFORT COUNTY, NC

REVISIONS

DRAWN BY:	CHECKED BY:
GSM	DMK

EROSION CONTROL NOTES

G&EC-1

NOTES:
1. TURBIDITY CURTAIN SHALL BE PLACED TO MINIMIZE EFFECTS TO SUB-AQUATIC VEGETATION.
2. TREE ROOTS WITHIN THE FILL AREA SHALL BE SUPPORTED BY ROCK MATERIAL AND FILLED WITH SAND SOIL SLURRY MIX. SEE SPECIAL PROVISION ____.
3. REVIEW TREES AND SHRUBS TO BE REMOVED WITH ENGINEER IN THE FIELD PRIOR TO CLEARING AND GRUBBING.
4. ALL CONSTRUCTION ACTIVITIES CONDUCTED WITHIN THE CRITICAL ROOT ZONES OF TREES TO REMAIN SHALL BE UNDER THE DIRECT SUPERVISION OF AN ISA CERTIFIED ARBORIST PROVIDED BY THE CONTRACTOR.

RIVERSIDE DRIVE
90' PUBLIC R/W
MB 1 PG 68

ASPHALT ROAD
WITH GRASS MEDIAN (NOT SHOWN)

2' CHAIN ROPE

S56°13'36"E 850.00'

0.2% SFHA ZONE
SFHA ZONE AE

TOWN OF WASHINGTON PARK
NO DEED BOOK FOUND
MB 1 PG 68
PIN 5685-44-4058

END BEACH ACCESS GRADING
N 654,094.94
E 2,584,398.28

BEGIN BEACH ACCESS GRADING
N 653,959.18
E 2,584,575.54

END BEACH ACCESS GRADING
N 654,094.94
E 2,584,398.28

BZ 1
BZ 2

BENCH

BEGIN FILL AT TOP OF BANK

TREE PLANKING (TYP.)

PROP. CONTOURS

BEGIN GRADING
N 654,105.50
E 2,584,284.98

BEGIN BEACH ACCESS GRADING
N 654,100.94
E 2,584,282.46

END GRADING
N 653,941.13
E 2,584,605.35

PROP. MSL (ELEV. 0.86')

EXIST. GROIN TO REMAIN.

BRICK WALL IN RUINS

END TURBIDITY CURTAIN
N 653,920.49
E 2,584,591.15

BEGIN TURBIDITY CURTAIN
N 654,081.59
E 2,584,272.48

EXIST. GROIN TO REMAIN.

EXIST. GROIN TO REMAIN.
TIE FILL TO EXIST. GROIN.
N 654,049.12
E 2,584,374.36

EDGE OF MARSH

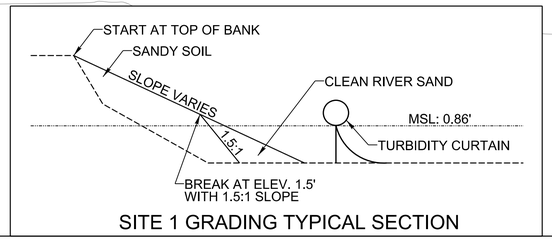
SUB-AQUATIC VEGETATION

PILES (TYP.)

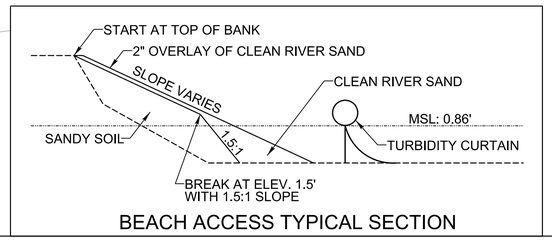
PAMLICO RIVER

TURBIDITY CURTAIN
(SEE DETAIL 1 ON SHEET G&EC-6)

0 10 20 40
SCALE 1"=20'



SITE 1 GRADING TYPICAL SECTION



BEACH ACCESS TYPICAL SECTION

LEGEND

- TURBIDITY CURTAIN
- LIMITS OF DISTURBANCE (LOD)
- TREE PLANKING
- ROCK PACKING

SITE 1

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

PLANS PREPARED BY:
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8601 SIX FORKS ROAD, FORUM 1, SUITE 700
RALEIGH, NORTH CAROLINA 27615
(919) 878-9560, NC LICENSE NO. F-0112

PLANS PREPARED FOR:
WASHINGTON PARK

TOWN OF WASHINGTON PARK
LIVING SHORELINE
BEAUFORT COUNTY, NC

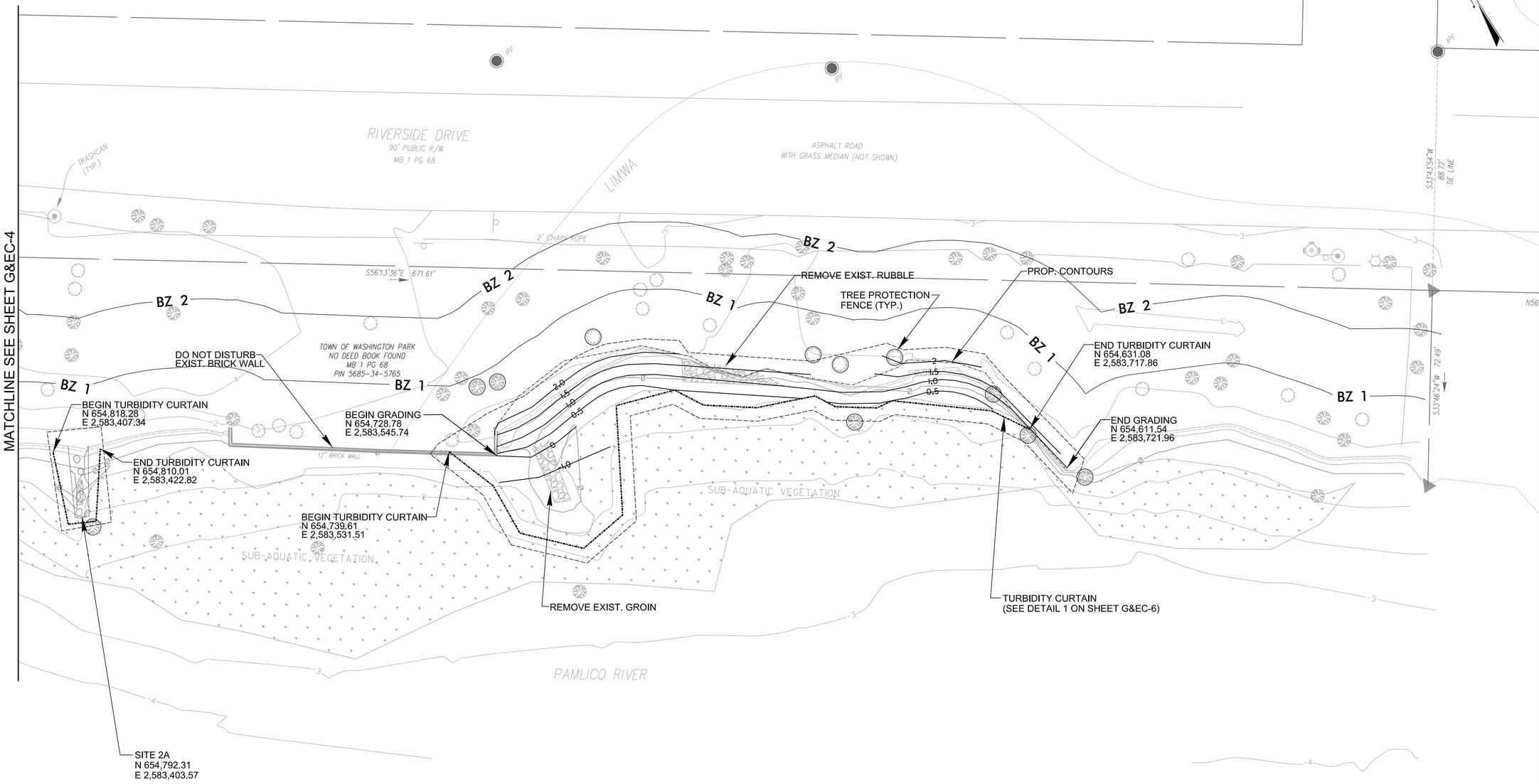
REVISIONS

DRAWN BY:	CHECKED BY:
GSM	DMK

GRADING & EROSION CONTROL PLAN

G&EC-2

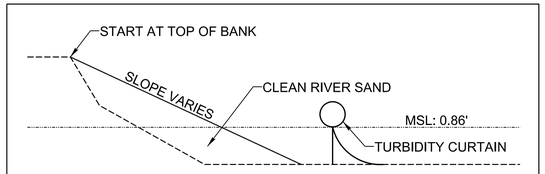
NOTES:
1. TURBIDITY CURTAIN SHALL BE PLACED TO MINIMIZE EFFECTS TO SUB-AQUATIC VEGETATION.
2. EXISTING ROCK MATERIAL MAT BE USED FOR TREE SUPPORT ON SITE 1.
3. REVIEW TREES AND SHRUBS TO BE REMOVED WITH ENGINEER IN THE FIELD PRIOR TO CLEARING AND GRUBBING.



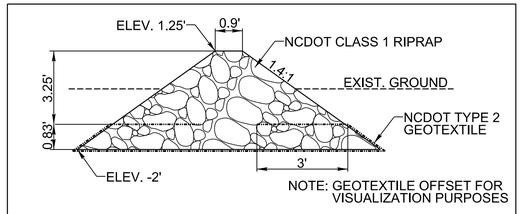
LEGEND

- TURBIDITY CURTAIN
- LIMITS OF DISTURBANCE (LOD)
- TREE PLANKING

0 10 20 40
SCALE 1"=20'



SITE 2 GRADING TYPICAL SECTION



SITE 2A GROIN RESTORATION TYPICAL SECTION

SITES 2 & 2A

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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PLANS PREPARED FOR:
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BEAUFORT COUNTY, NC

REVISIONS

DRAWN BY:	CHECKED BY:
GSM	DMK

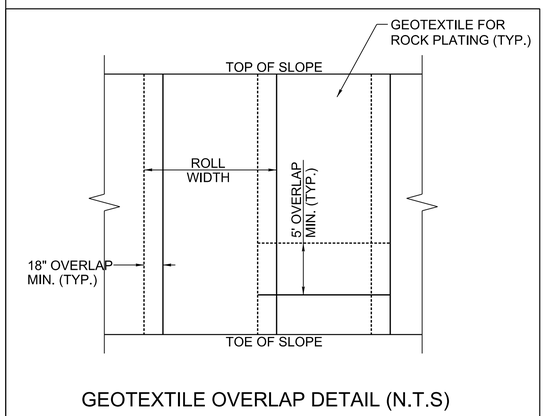
GRADING & EROSION CONTROL PLAN

G&EC-3

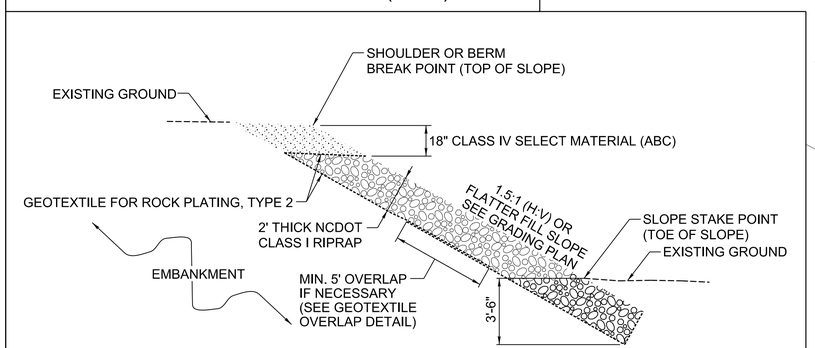
NOTES:
1. TREES AND ROOTS TO BE REMOVED AS MARKED.
2. EXISTING ROCK MATERIAL MAY BE USED FOR TREE SUPPORT ON SITE 1.
3. EXISTING RCP TO BE REPLACED AT THE EXTENT OF THE PROPOSED REVETMENT. EXIST. PIPE INVERT OF -1.27' SHALL BE MAINTAINED.
4. EXISTING REVETMENT TO BE REMOVED PRIOR TO INSTALLATION OF PROPOSED REVETMENT.

LEGEND

- TURBIDITY CURTAIN
- LIMITS OF DISTURBANCE (LOD)
- TREE PLANKING

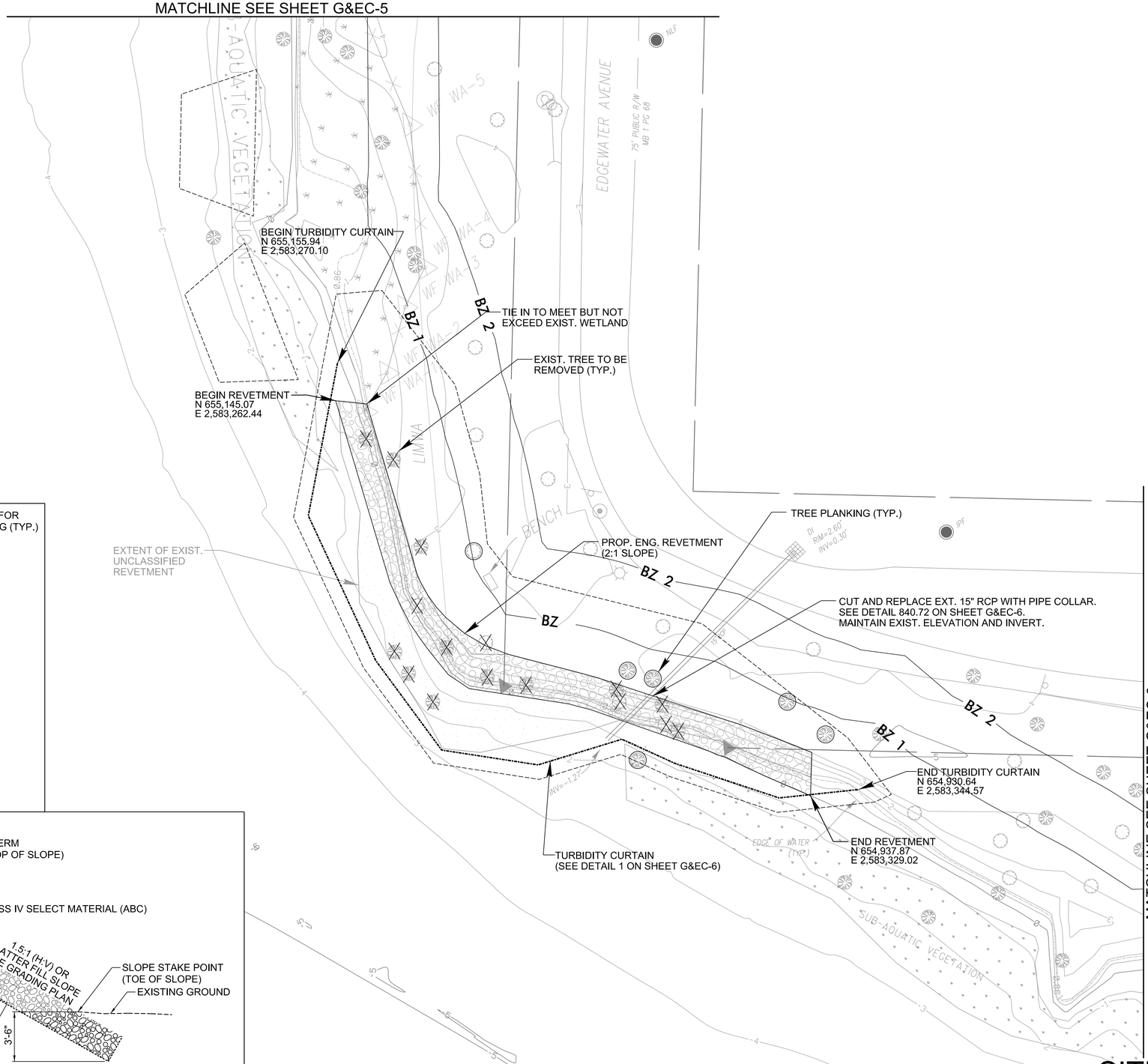


GEOTEXTILE OVERLAP DETAIL (N.T.S)



SITE 2B REVETMENT TYPICAL SECTION

MATCHLINE SEE SHEET G&EC-5



MATCHLINE SEE SHEET G&EC-3

0 10 20 40
SCALE 1"=20'

SITE 2B & 2C

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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REVISIONS

DRAWN BY:	CHECKED BY:
GSM	DMK

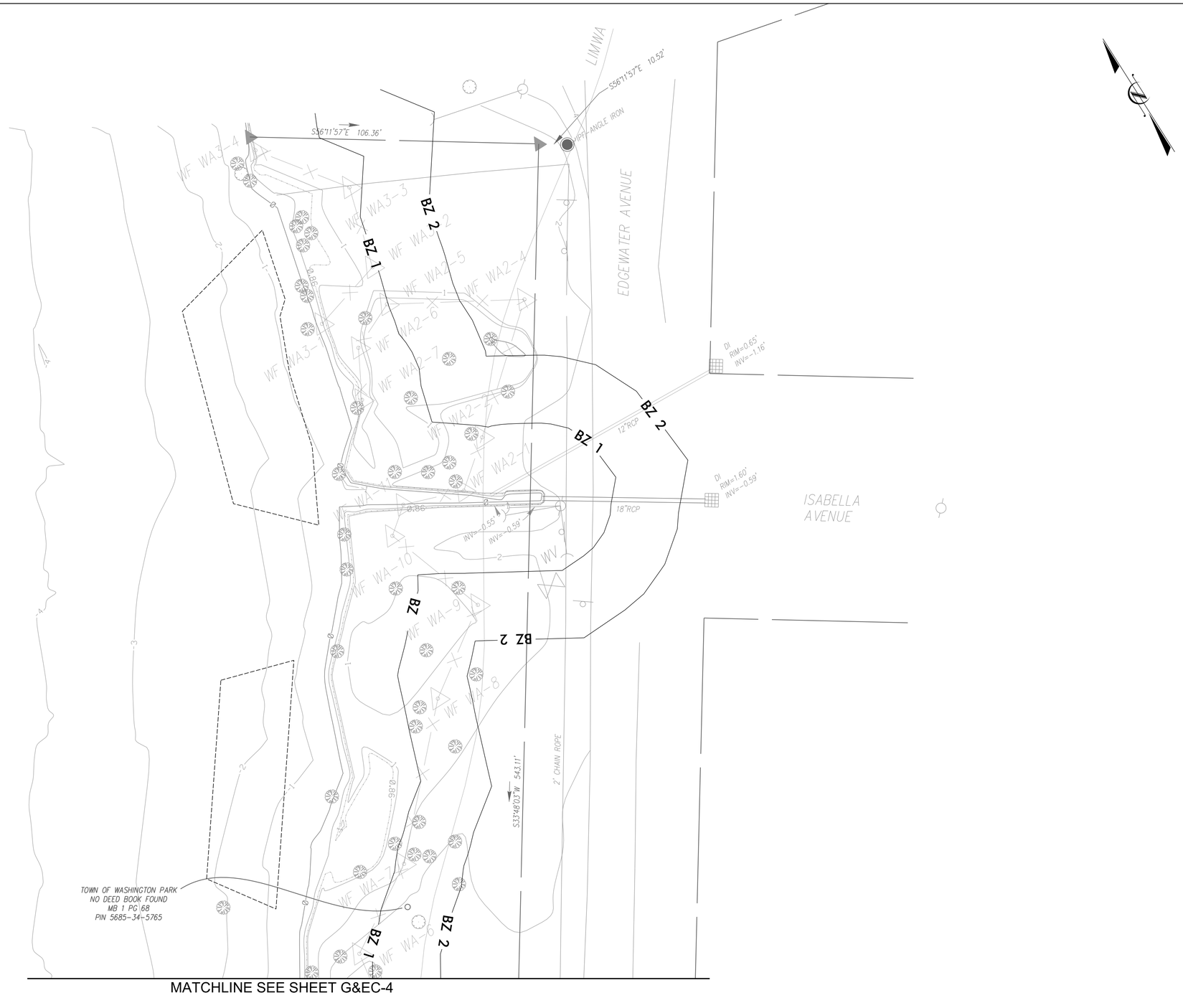
GRADING & EROSION CONTROL PLAN

G&EC-4

NOTE:
NO EROSION CONTROL REQUIRED FOR SHEET G&EC-4.

LEGEND

---------- LIMITS OF DISTURBANCE (LOD)



MATCHLINE SEE SHEET G&EC-4

0 10 20 40
SCALE 1"=20'

SITE 2C

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

PLANS PREPARED BY :
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BEAUFORT COUNTY, NC

REVISIONS

DRAWN BY:	CHECKED BY:
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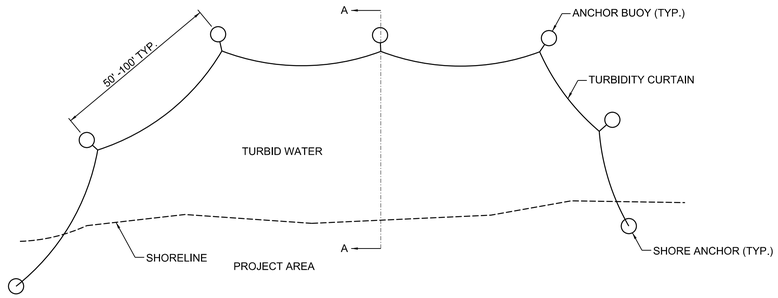
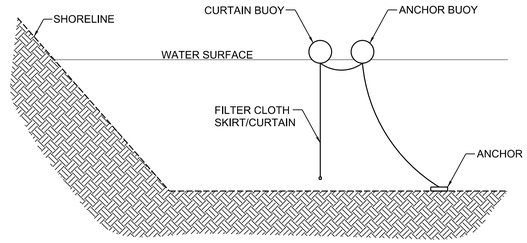
GRADING & EROSION CONTROL PLAN

G&EC-5



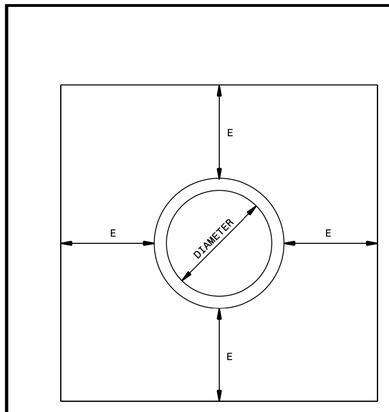
PLAN VIEW



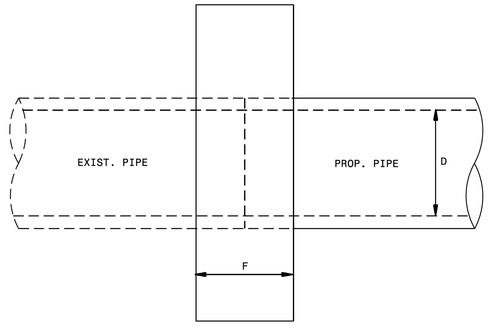
SECTION A-A

NOTES:
1. THE TURBIDITY CURTAIN SHALL BE ANCHORED TO PREVENT DRIFT SHOREWARD. ANCHORS SHALL BE OF SUFFICIENT SIZE AND SPACING TO STABILIZE BARRIER PER MANUFACTURER'S RECOMMENDATIONS FOR WATER VELOCITIES. TURBIDITY CURTAIN AND ANCHORS SHALL BE PLACED TO MINIMIZE EFFECTS TO SUB-AQUATIC VEGETATION.
2. CURTAIN SHALL BE BRIGHT IN COLOR AND MADE OF A NON-DETERIORATING MATERIAL (PLASTIC OR NYLON) WHICH WILL ALLOW WATER TO PASS WHILE RETAINING SEDIMENT.
3. THE TURBIDITY CURTAIN AND ADJACENT WORK AREA SHALL NOT BE DISTURBED FOR 12 HOURS PRIOR TO REMOVAL. CONTRACTOR SHALL REMOVE CURTAIN AT COMPLETION OF WORK. DURING REMOVAL, EXTREME CARE SHOULD BE TAKEN TO PREVENT SILTATION AND AVOID ANY SEDIMENT DEPOSITS.
4. WHEN INSTALLED IN A NAVIGABLE WATERWAY, BUOYS SHOULD BE LIT ACCORDING TO REGULATORY AGENCY STANDARDS.
5. THE MAXIMUM DEPTH OF THE CURTAIN SHALL BE 12 FEET IN WAVE ACTION SETTINGS.

1 TURBIDITY CURTAIN
NOT TO SCALE



ELEVATION



SIDE ELEVATION

D	E	F	CU. YD.
12″	12″	12″	0.3528
15″	12″	12″	0.3990
18″	12″	12″	0.4465
24″	12″	12″	0.5526
30″	12″	12″	0.6560
36″	12″	12″	0.7640
42″	12″	12″	0.8856
48″	12″	12″	1.0126
54″	18″	18″	2.5793
60″	18″	18″	2.8506
66″	18″	18″	3.1307
72″	18″	18″	3.4176

GENERAL NOTES:

USE PIPE COLLAR FOR EXTENDING EXISTING CONCRETE PIPE CULVERTS AT LOCATIONS SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER. THIS INCLUDES EXTENDING EXISTING PIPES WITH PIPES OF DIFFERENT MATERIALS.

CONSTRUCT THE PIPE COLLAR WITH CLASS "B" OR BETTER CONCRETE.

OBSERVE ALL REQUIREMENTS OF SECTION 840 OF THE STANDARD SPECIFICATIONS.

* USE 12 INCH DIAMETER VALUES FOR PIPE DIAMETERS LESS THAN 12 INCH.

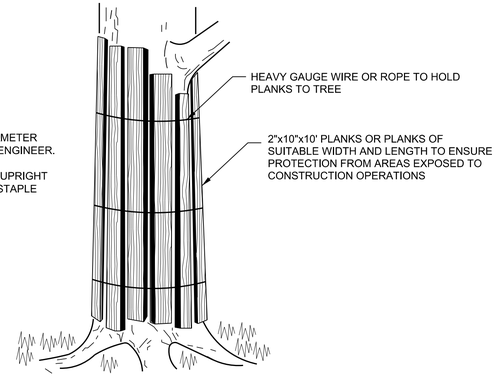
1-24 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR **PIPE COLLAR**

SHEET 1 OF 1

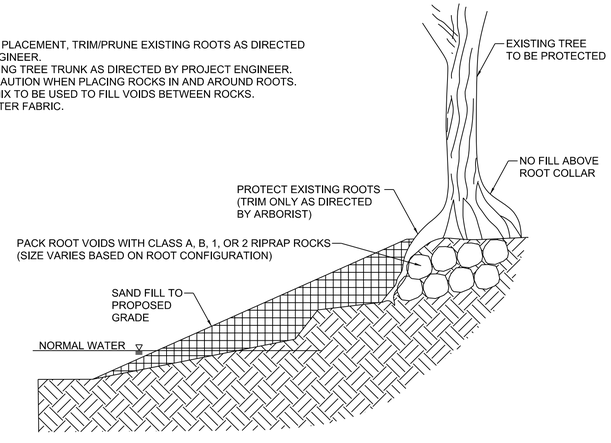
840.72

NOTES:
1. TREE PLANKING TO BE PROVIDED FOR TREES 12" IN DIAMETER AND GREATER ALONG ACCESS ROAD AS DIRECTED BY ENGINEER.
2. BOARDS OR POLES LASHED WITH ROPE OR WIRE IN AN UPRIGHT POSITION AGAINST THE TREE TRUNK. DO NOT NAIL OR STAPLE ANY PROTECTION DEVICES TO THE TREE.



TREE PLANKING
HEAVY TREE PROTECTION
2 NOT TO SCALE

NOTES:
1. PRIOR TO ROCK PLACEMENT, TRIM/PRUNE EXISTING ROOTS AS DIRECTED BY PROJECT ENGINEER.
2. PROTECT EXISTING TREE TRUNK AS DIRECTED BY PROJECT ENGINEER.
3. USE EXTREME CAUTION WHEN PLACING ROCKS IN AND AROUND ROOTS.
4. SAND SLURRY MIX TO BE USED TO FILL VOIDS BETWEEN ROCKS.
5. DO NOT USE FILTER FABRIC.



3 UNDERCUTTING ROCK PACK DETAIL
NOT TO SCALE

PLANS PREPARED BY:
RK&K
8601 SIX FORKS ROAD, FORUM 1, SUITE 700
RALEIGH, NORTH CAROLINA 27615
(919) 878-9560, NC LICENSE NO. F-0112

PLANS PREPARED FOR:
WASHINGTON PARK

TOWN OF WASHINGTON PARK
LIVING SHORELINE
BEAUFORT COUNTY, NC

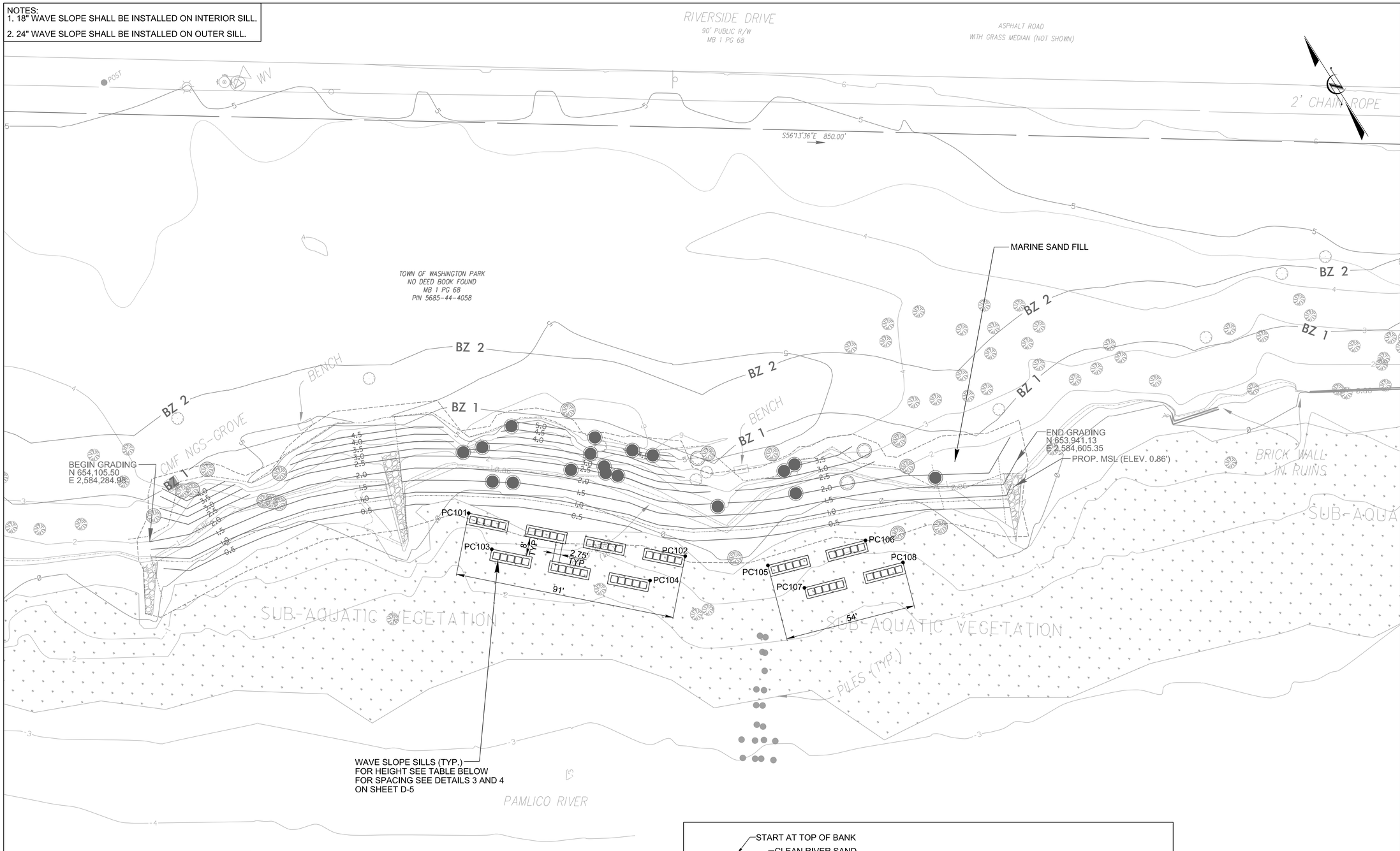
REVISIONS

DRAWN BY:	CHECKED BY:
GSM	DMK

EROSION CONTROL DETAILS

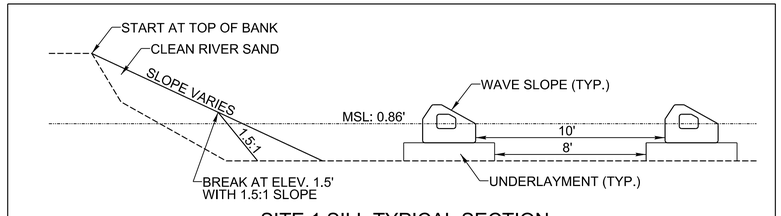
G&EC-6

NOTES:
1. 18" WAVE SLOPE SHALL BE INSTALLED ON INTERIOR SILL.
2. 24" WAVE SLOPE SHALL BE INSTALLED ON OUTER SILL.



WAVE SLOPE SILL BEGIN POINT COORDINATES			
POINT NO.	NORTHING	EASTING	BEARING
PC101	654,044.68	2,584,402.79	PC101 TO PC102
PC102	653,981.59	2,584,468.95	S46°21'27"E
PC103	654,026.95	2,584,402.91	PC103 TO PC104
PC104	653,980.87	2,584,451.23	S46°21'26.9"E
PC105	653,959.99	2,584,495.75	PC105 TO PC106
PC106	653,947.09	2,584,535.42	S71°59'19"E
PC107	653,944.06	2,584,503.54	PC107 TO PC108
PC108	653,931.05	2,584,543.62	S72°01'22.9"E

0 10 20 40
SCALE 1"=20'



SITE 1 SILL TYPICAL SECTION

SITE 1
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

PLANS PREPARED BY:
RK&K
8601 SIX FORKS ROAD, FORUM 1, SUITE 700
RALEIGH, NORTH CAROLINA 27615
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WASHINGTON PARK

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LIVING SHORELINE
BEAUFORT COUNTY, NC

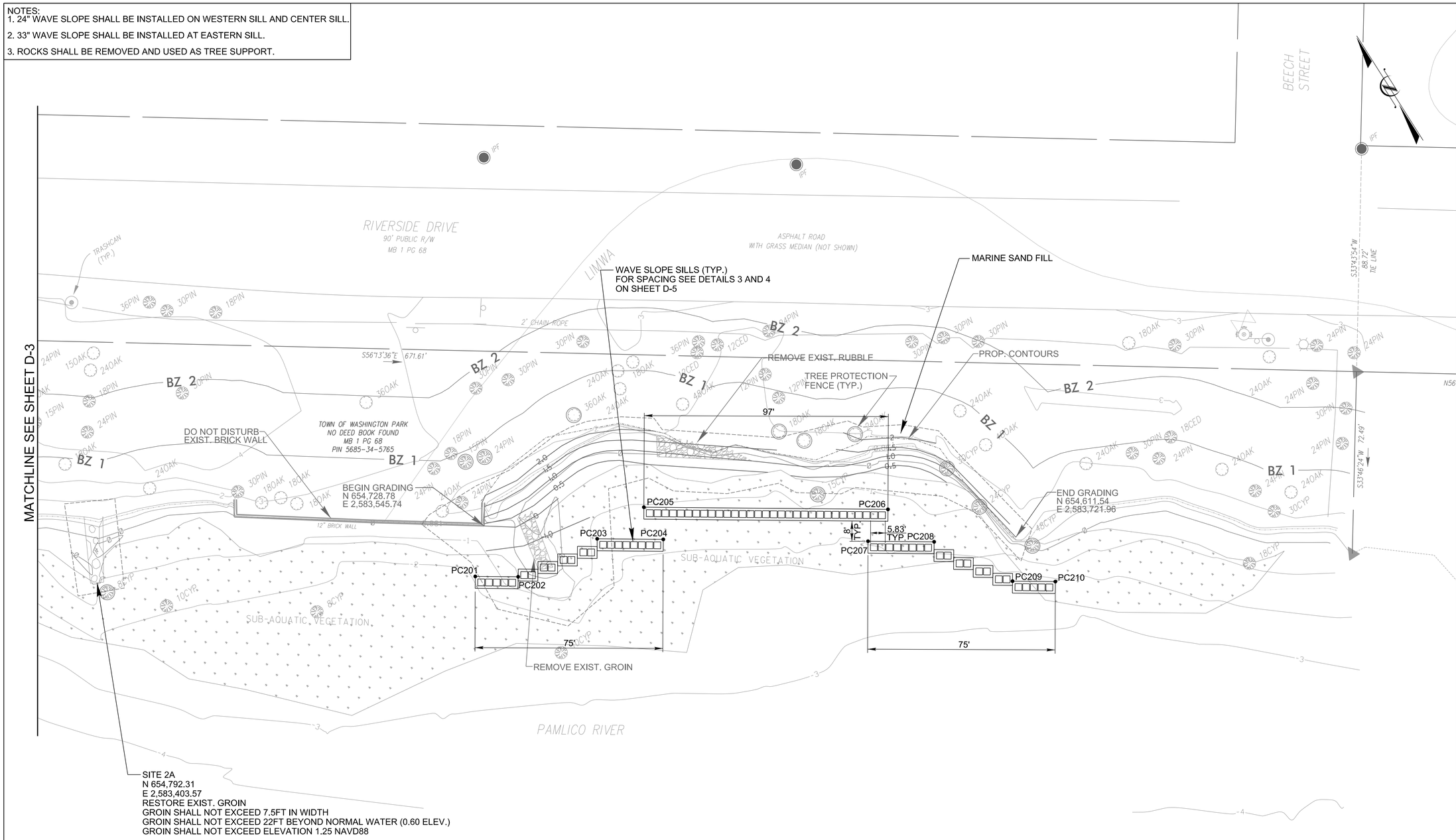
REVISIONS

DRAWN BY:	CHECKED BY:
GSM	DMK

SITE PLAN

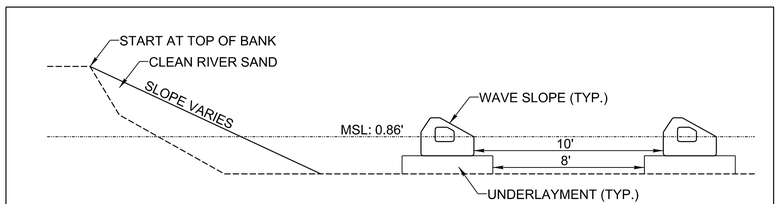
D-1

NOTES:
1. 24" WAVE SLOPE SHALL BE INSTALLED ON WESTERN SILL AND CENTER SILL.
2. 33" WAVE SLOPE SHALL BE INSTALLED AT EASTERN SILL.
3. ROCKS SHALL BE REMOVED AND USED AS TREE SUPPORT.

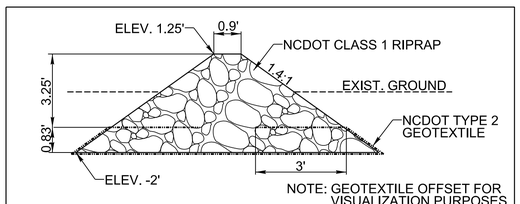


WAVE SLOPE SILL BEGIN POINT COORDINATES			
POINT NO.	NORTHING	EASTING	BEARING
PC201	654,713.73	2,583,531.99	PC201 TO PC202
PC202	654,704.45	2,583,546.31	S57°03'55.6"E
PC203	654,700.34	2,583,580.97	PC203 TO PC204
PC204	654,686.04	2,583,603.06	S57°03'55.6"E
PC205	654,701.00	2,583,603.42	PC205 TO PC206
PC206	654,648.18	2,583,684.95	S57°03'55.6"E
PC207	654,641.72	2,583,671.45	PC207 TO PC208
PC208	654,627.42	2,583,693.53	S57°03'55.6"E
PC209	654,597.46	2,583,711.44	PC209 TO PC210
PC210	654,588.18	2,583,725.77	S57°03'55.6"E

0 10 20 40
SCALE 1"=20'



SITE 2 SILL TYPICAL SECTION



SITE 2A GROIN RESTORATION TYPICAL SECTION

SITES 2 & 2A

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

PLANS PREPARED BY:
RK&K
8601 SIX FORKS ROAD, FORUM 1, SUITE 700
RALEIGH, NORTH CAROLINA 27615
(919) 878-9560, NC LICENSE NO. F-0112

PLANS PREPARED FOR:
WASHINGTON PARK

TOWN OF WASHINGTON PARK
LIVING SHORELINE
BEAUFORT COUNTY, NC

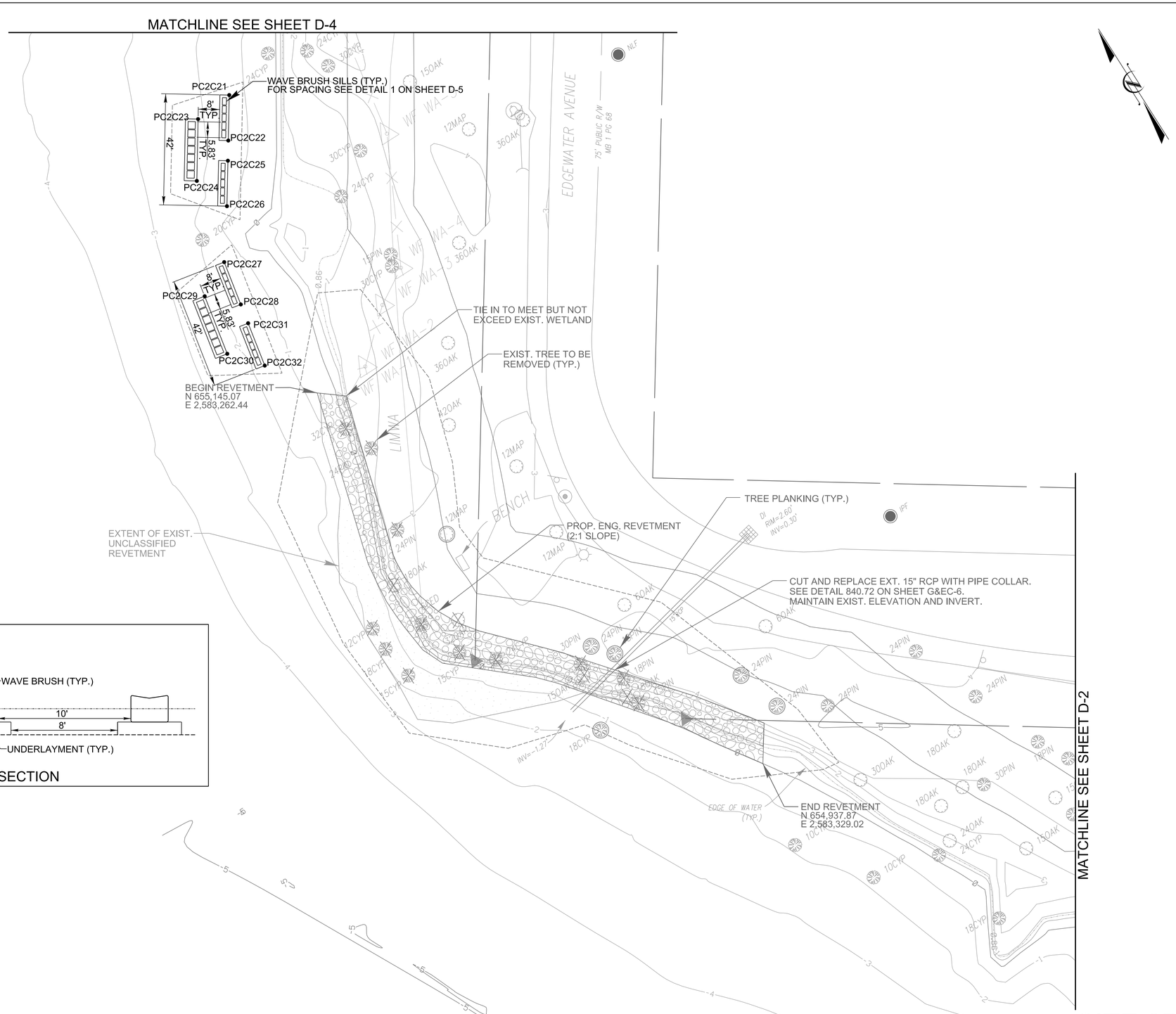
REVISIONS

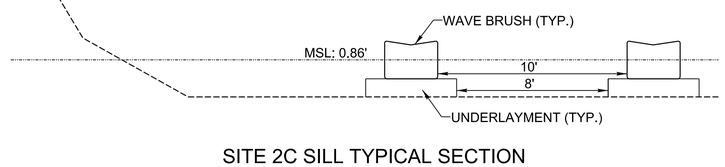
DRAWN BY:	CHECKED BY:
GSM	DMK

SITE PLAN

D-2

NOTES:
1. 24" WAVE BRUSH SHALL BE INSTALLED ALONG BANK.
2. 33" WAVE BRUSH SHALL BE INSTALLED AT CLOSURE SILL.
3. RE-USE EXISTING RIP RAP AND CONCRETE MATERIAL FOR ROCK PACKING TO THE EXTENT POSSIBLE.





SITE 2C SILL TYPICAL SECTION

WAVE SLOPE SILL BEGIN POINT COORDINATES			
POINT NO.	NORTHING	EASTING	BEARING
PC2C21	655,257.16	2,583,294.56	PC2C21 TO PC2C22
PC2C22	655,242.95	2,583,285.11	S33°37'31.9"W
PC2C23	655,255.83	2,583,279.87	PC2C23 TO PC2C24
PC2C24	655,236.49	2,583,267.00	S33°37'31.9"W
PC2C25	655,236.64	2,583,280.91	PC2C25 TO PC2C26
PC2C26	655,222.43	2,583,271.46	S33°37'31.9"W
PC2C27	655,205.25	2,583,259.33	PC2C27 TO PC2C28
PC2C28	655,188.50	2,583,256.06	S11°01'38.9"W
PC2C29	655,198.38	2,583,246.27	PC2C29 TO PC2C30
PC2C30	655,175.58	2,583,241.83	S11°01'38.9"W
PC2C31	655,181.07	2,583,254.61	PC2C31 TO PC2C32
PC2C32	655,164.31	2,583,251.35	S11°01'38.9"W

0 10 20 40
SCALE 1"=20'

SITE 2B

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

PLANS PREPARED BY:
RK&K
8601 SIX FORKS ROAD, FORUM 1, SUITE 700
RALEIGH, NORTH CAROLINA 27615
(919) 878-9560, NC LICENSE NO. F-0112

PLANS PREPARED FOR:
WASHINGTON PARK

TOWN OF WASHINGTON PARK
LIVING SHORELINE
BEAUFORT COUNTY, NC

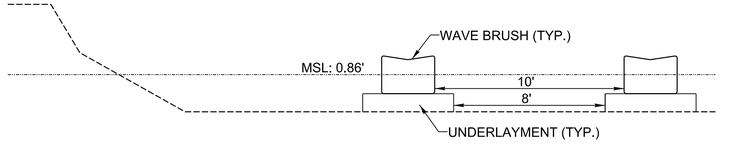
REVISIONS

DRAWN BY:	CHECKED BY:
GSM	DMK

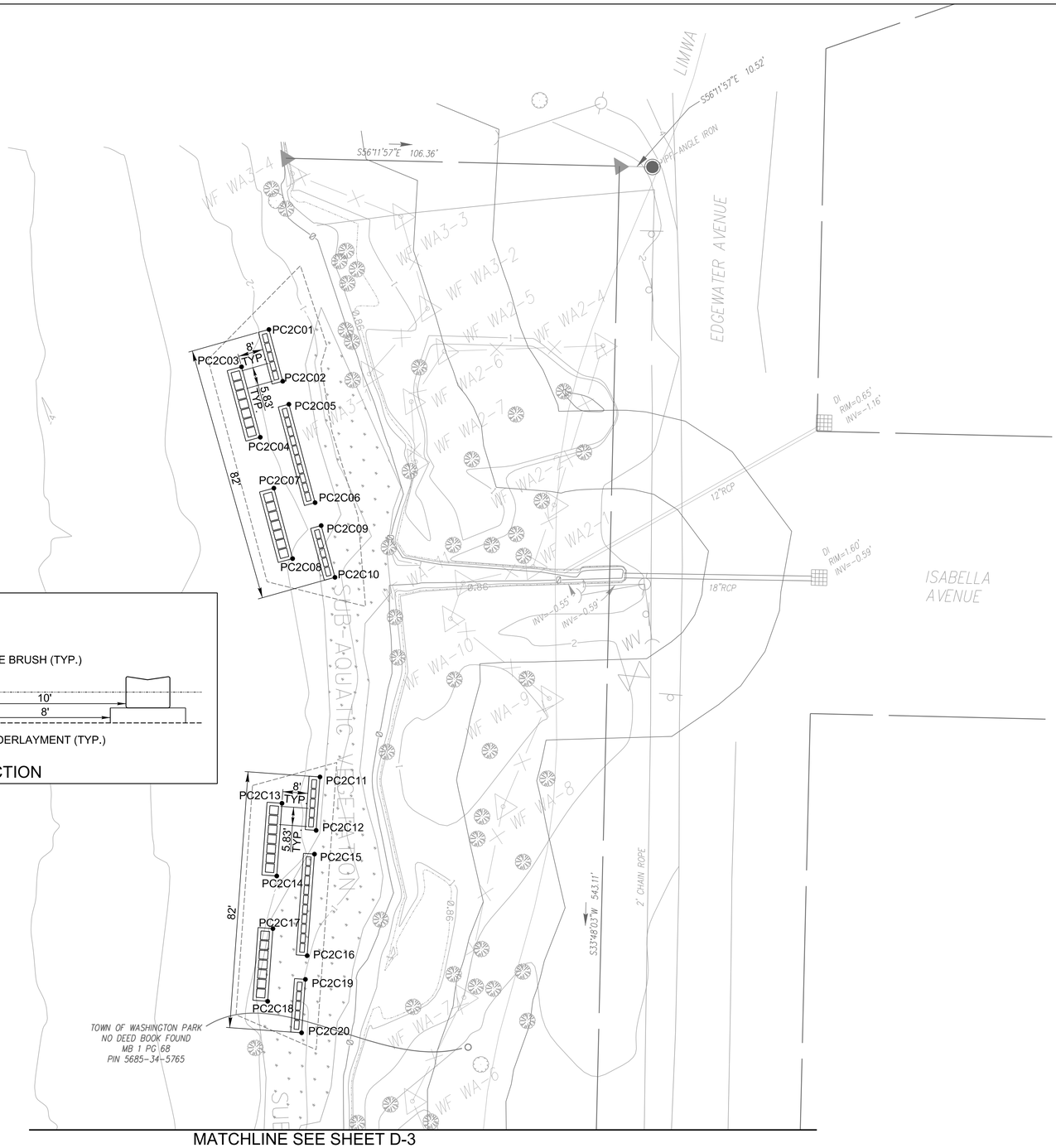
SITE PLAN

D-3

NOTES:
1. 24" WAVE BRUSH SHALL BE INSTALLED ALONG BANK.
2. 33" WAVE BRUSH SHALL BE INSTALLED AT CLOSURE SILL.



SITE 2C SILL TYPICAL SECTION



MATCHLINE SEE SHEET D-3

WAVE SLOPE SILL BEGIN POINT COORDINATES			
POINT NO.	NORTHING	EASTING	BEARING
PC2C01	655,495.75	2,583,438.51	PC2C01 TO PC2C02
PC2C02	655,479.48	2,583,433.37	S17°30'49.4"W
PC2C03	655,490.40	2,583,424.76	PC2C03 TO PC2C04
PC2C04	655,468.25	2,583,417.77	S17°30'49.4"W
PC2C05	655,472.26	2,583,431.09	PC2C05 TO PC2C06
PC2C06	655,441.29	2,583,421.32	S17°30'49.4"W
PC2C07	655,452.22	2,583,412.71	PC2C07 TO PC2C08
PC2C08	655,430.07	2,583,405.72	S17°30'49.4"W
PC2C09	655,434.07	2,583,419.04	PC2C09 TO PC2C10
PC2C10	655,417.79	2,583,413.91	S17°30'49.4"W
PC2C11	655,366.65	2,583,375.77	PC2C11 TO PC2C12
PC2C12	655,352.93	2,583,365.61	S36°32'25.5"W
PC2C13	655,366.07	2,583,361.03	PC2C13 TO PC2C14
PC2C14	655,347.41	2,583,347.20	S36°32'25.5"W
PC2C15	655,346.85	2,583,361.10	PC2C15 TO PC2C16
PC2C16	655,320.76	2,583,341.77	S36°32'25.5"W
PC2C17	655,333.90	2,583,337.19	PC2C17 TO PC2C18
PC2C18	655,315.24	2,583,323.36	S36°32'25.5"W
PC2C19	655,314.68	2,583,337.26	PC2C19 TO PC2C20
PC2C20	655,300.97	2,583,327.10	S36°32'25.5"W

0 10 20 40
SCALE 1"=20'

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LIVING SHORELINE
BEAUFORT COUNTY, NC

REVISIONS

DRAWN BY:	CHECKED BY:
GSM	DMK

SITE PLAN

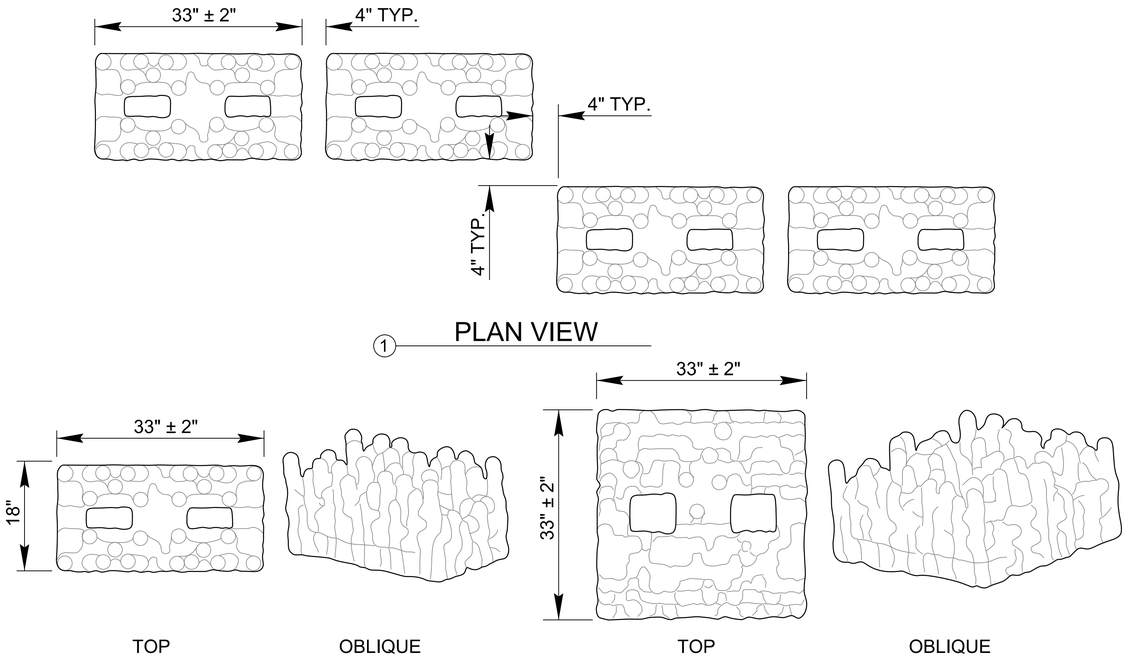
SITE 2C

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

D-4

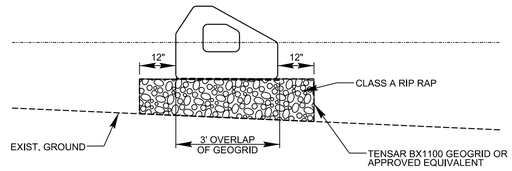
NOTES:

1. NATRX WAVE SLOPES/BRUSHES OR EQUIVALENT ARE TO BE PLACED 4 INCHES APART AT LOCATION SPECIFIED WITHIN THE DESIGN AND ACCORDING TO SPECIAL PROVISION.
2. REFER TO SILL DESIGN SHEET FOR SILL LENGTH.
3. NO DREDGE OF FILL SHALL OCCUR DURING INSTALLATION OF WAVE SLOPES.
4. SHORT WAVE SLOPE OR WAVE BRUSH SILLS SHALL BE INSTALLED PER DESIGN.

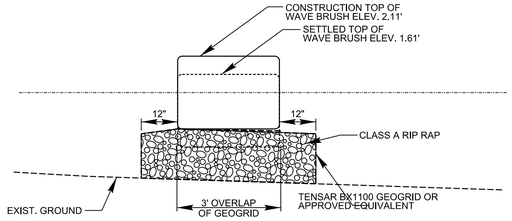


1 PLAN VIEW

2 WAVE BRUSH DETAIL



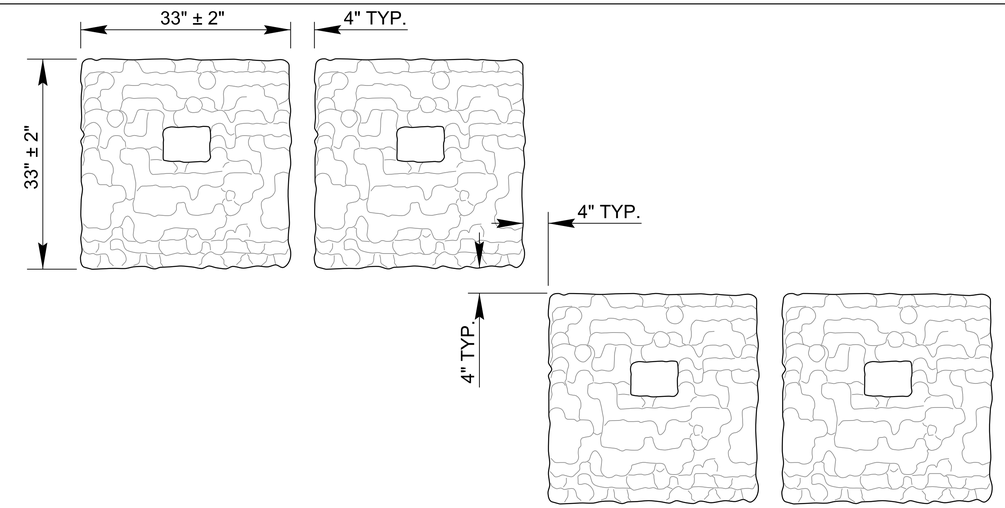
TYPICAL SECTION
(SITES 1 AND 2)



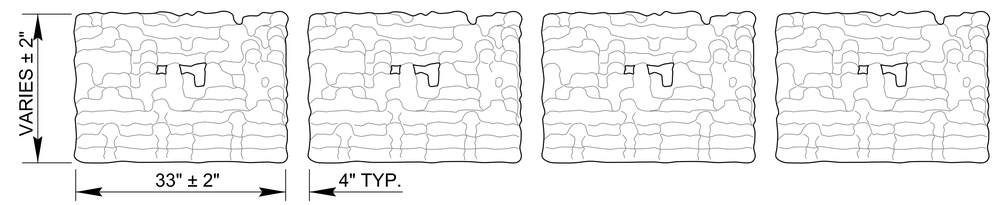
TYPICAL SECTION
(SITE 2C)

NOTES:
1. REMOVE SURFICAL DEBRIS FROM THE FOOTPRINTS OF THE RIPRAP UNDERLAYMENT. DO NOT REMOVE BURIED OBJECTS WHICH COULD DESTABILIZE THE UNDERLYING MATERIAL.
2. PLACE GEOGRID IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. OVERLAP BY 3 FT AT ROLL EDGES AND ENDS.
3. PLACE RIPRAP STONE ON THE GEOGRID TO PRODUCE AN EVEN DISTRIBUTION OF PIECES, WITH A MINIMUM OF VOIDS, AND WITHOUT DAMAGING THE GEOGRID.
4. RIPRAP SHALL BE PLACED IN A MANNER THAT PREVENTS SEGREGATION OF STONE SIZES AND PREVENTS DISPLACEMENT OF UNDERLYING MATERIALS.
   A. ARRANGE INDIVIDUAL STONES TO ENSURE A UNIFORM DISTRIBUTION
   B. SORT, FIT, AND TIGHTLY KEY IN EACH ROCK TO ENSURE STABILITY OF FACES.
   C. PLACEMENT NOT DEEMED ACCEPTABLE BY THE CITY OR ITS REPRESENTATIVES MUST BE REMOVED AND REPLACED.
5. GRADE TOLERANCE FOR THE RIP RAP UNDERLAYMENT AT THE TIME OF CONSTRUCTION SHALL BE +/- 3", UNDERSTANDING THAT THE NATURE OF RIPRAP WILL CAUSE MINOR VARIATION ALONG THE CREST, TAKE SHOTS AT LEAST EVERY 5 FT ALONG THE CREST TO ESTABLISH AN AVERAGE ELEVATION.
6. RIPRAP FOR THE WAVE BRUSH AND WAVE SLOPE WILL BE PAID FOR AT THE CONTRACT PRICE PER CUBIC YARD OF RIPRAP.

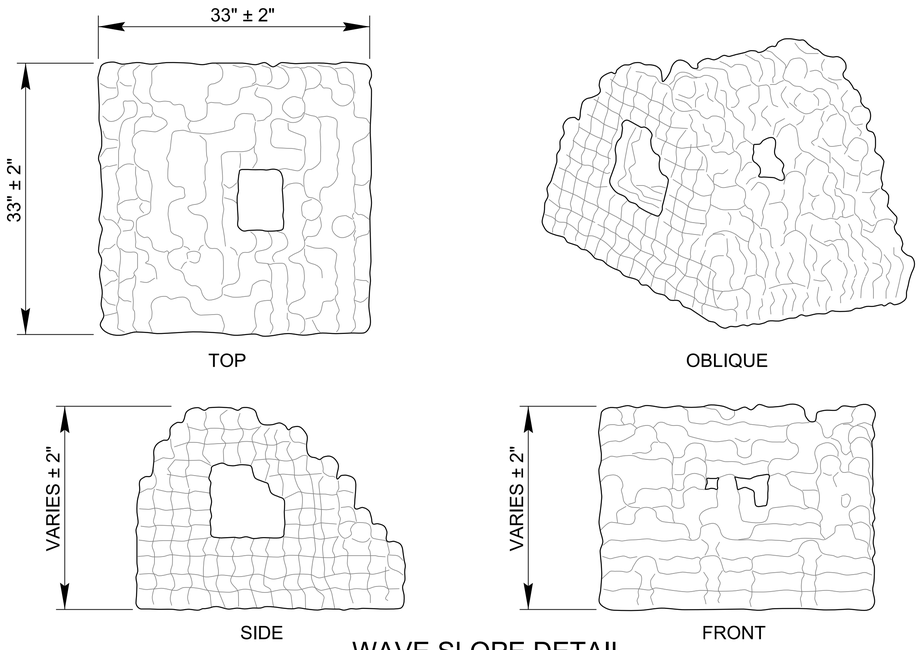
6 UNDERLAYMENT DETAIL



3 PLAN VIEW



4 PROFILE VIEW



5 WAVE SLOPE DETAIL

PLANS PREPARED BY:
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PLANS PREPARED FOR:
WASHINGTON PARK

TOWN OF WASHINGTON PARK
LIVING SHORELINE
BEAUFORT COUNTY, NC

REVISIONS

DRAWN BY:	CHECKED BY:
GSM	DMK

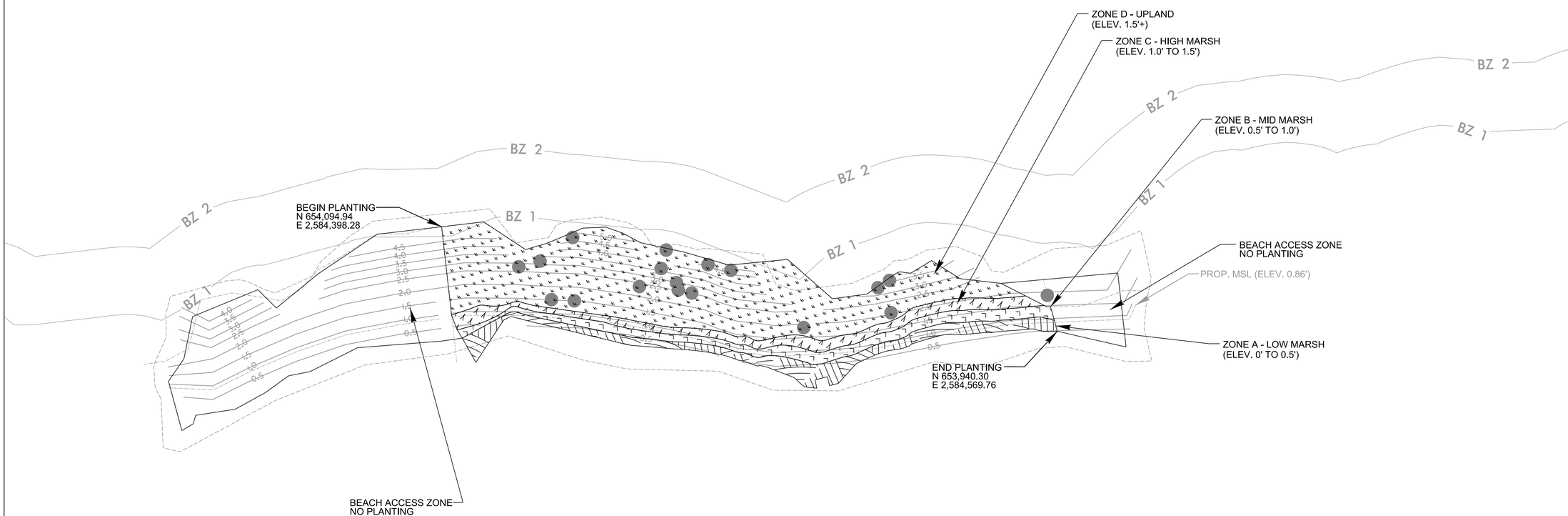
DETAIL SHEET

D-5

PLANTING ZONE	COMMON NAME	BOTANICAL NAME	ELEVATION (ft NAVD88)	SPACING	TYPE	QUANTITY	NOTES
A - LOW MARSH	BULLTONGUE ARROWHEAD	*Sagittaria lancifolia*	0.0 to 0.5	18" O.C.	4" PLUG	193	EVEN DISTRIBUTION
B - MID MARSH	GULF SPIKERUSH / MARSH HIBISCUS	*Sagittaria lancifolia*	0.5 to 1.0	18" O.C. / CLUSTERS OF 6 EVERY 20 FT.	4" PLUG	157	EVEN DISTRIBUTION
C - HIGH MARSH	SHORELINE CAREX	*Carex hyalinolepis*	1.0 to 1.5	24" O.C.	2" PLUG	188	
D - UPLAND/TRANSITION			1.5+		SEED (AC.)	0.11	

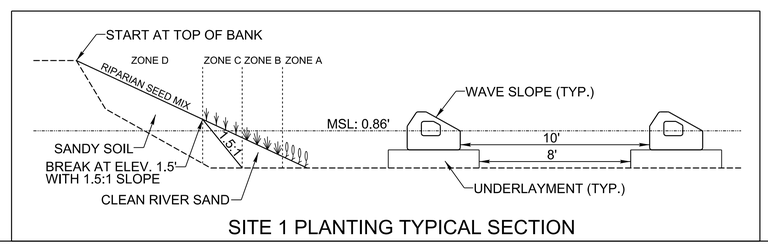
WATERING SCHEDULE

PLANTING ZONE	PLANT TYPES	WEEKS 1-2	WEEKS 3-6	WEEKS 6-10	AFTER WEEK 10	NOTES
A - LOW MARSH	Sagittaria lancifolia	Only if dry; natural wetting usually enough	Once weekly if dry	None typically needed	Only during severe drought	Avoid watering if tidally saturated
B - MID MARSH	Eleocharis cellulosa / Kosteletzkya virginica	2-3x per week; ~1 gal per 4-5 plugs	Once weekly during dry periods	Every 10-14 days if dry	Only during extended drought	Clusters need same moisture as plugs
C - HIGH MARSH	Carex hyalinolepis	3x per week; 1 gal per 3-4 plugs	Once weekly	Every 10-14 days	Only during drought	High marsh dries fastest
D - UPLAND/TRANSITION	Coastal Plain Riparian Seed Mix	Daily; keep soil moist (not saturated)	3x per week	Once weekly if no rain	Only during drought	Critical germination period first 3 weeks



NOTE:
1. WATERFOWL EXCLUSION FENCE SHALL BE PLACED OVER ZONES A, B, AND C. SEE PLANTING DETAIL.

- ZONE A - LOW-MID MARSH (ELEV. 0' TO 0.5')
- ZONE B - MID MARSH (ELEV. 0.5' TO 1.0')
- ZONE C - HIGH MARSH (ELEV. 1.0' TO 1.5')
- ZONE D - UPLAND (ELEV. 1.5'+)



SITE 1 PLANTING TYPICAL SECTION

0 10 20 40
SCALE 1"=20'

SITE 1

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

PLANS PREPARED BY:
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RALEIGH, NORTH CAROLINA 27615
(919) 878-9560, NC LICENSE NO. F-0112

PLANS PREPARED FOR:
WASHINGTON PARK

TOWN OF WASHINGTON PARK
LIVING SHORELINE
BEAUFORT COUNTY, NC

REVISIONS

DRAWN BY:	CHECKED BY:
GSM	DMK

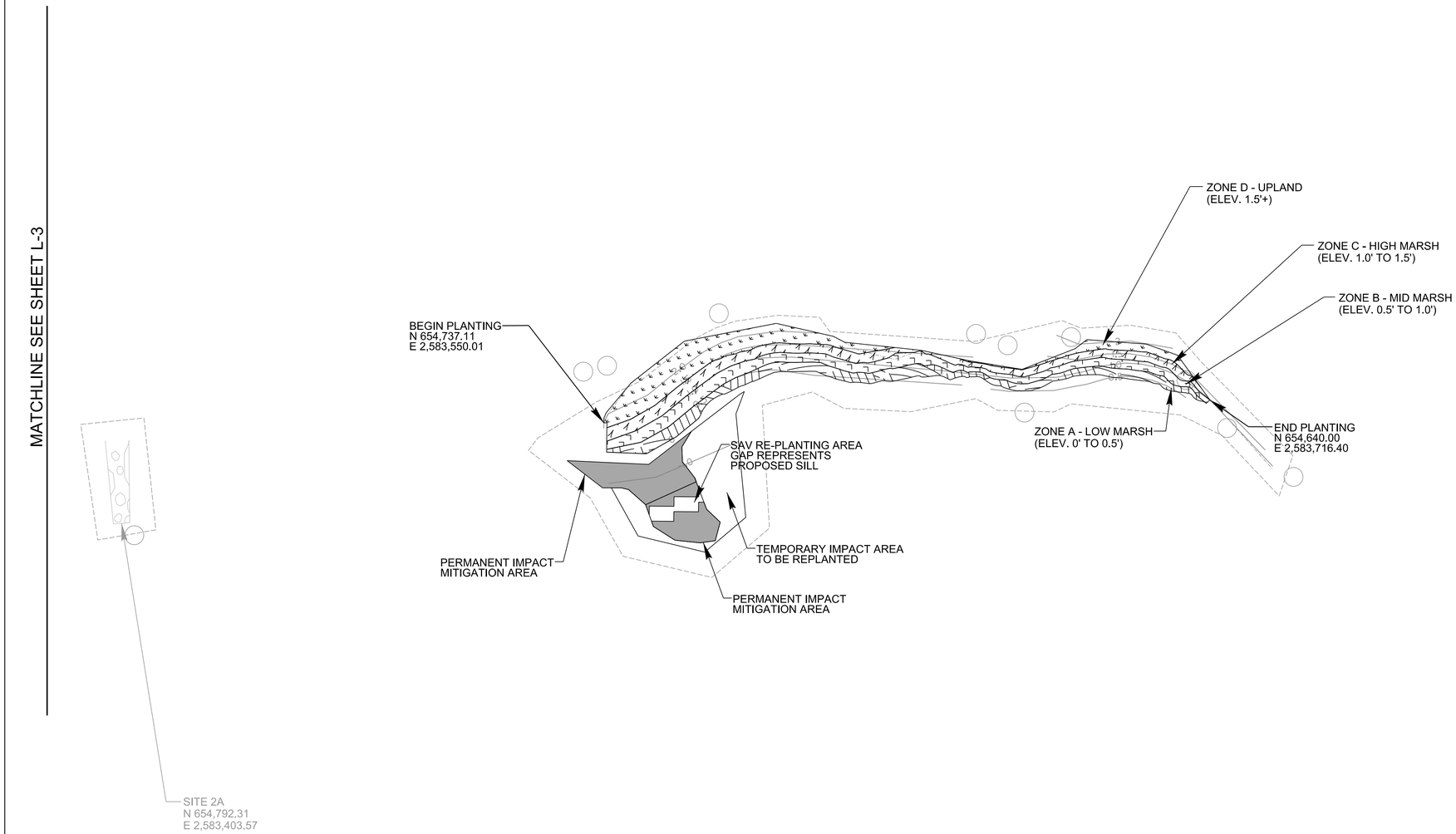
PLANTING PLAN

L-1

PLANTING ZONE	COMMON NAME	BOTANICAL NAME	ELEVATION (ft NAVD88)	SPACING	TYPE	QUANTITY	NOTES
A - LOW MARSH	BULLTONGUE ARROWHEAD	*Sagittaria lancifolia*	0.0 to 0.5	18" O.C.	4" PLUG	142	EVEN DISTRIBUTION
B - MID MARSH	GULF SPIKERUSH / MARSH HIBISCUS	*Sagittaria lancifolia*	0.5 to 1.0	18" O.C. / CLUSTERS OF 6 EVERY 20 FT.	4" PLUG	153	EVEN DISTRIBUTION
C - HIGH MARSH	SHORELINE CAREX	*Carex hyalinolepis*	1.0 to 1.5	24" O.C.	2" PLUG	137	
D - UPLAND/TRANSITION	NC COASTAL PLAIN RIPARIAN MIX		1.5+		SEED (AC.)	0.02	

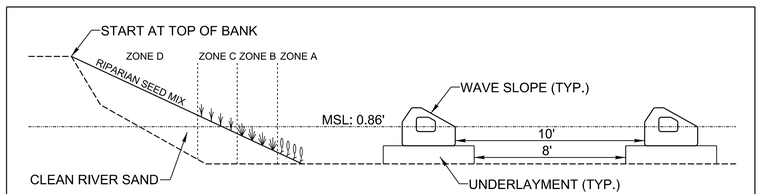
WATERING SCHEDULE

PLANTING ZONE	PLANT TYPES	WEEKS 1-2	WEEKS 3-6	WEEKS 6-10	AFTER WEEK 10	NOTES
A - LOW MARSH	Sagittaria lancifolia	Only if dry; natural wetting usually enough	Once weekly if dry	None typically needed	Only during severe drought	Avoid watering if tidally saturated
B - MID MARSH	Eleocharis cellulosa / Kosteletzkya virginica	2-3x per week; ~1 gal per 4-5 plugs	Once weekly during dry periods	Every 10-14 days if dry	Only during extended drought	Clusters need same moisture as plugs
C - HIGH MARSH	Carex hyalinolepis	3x per week; 1 gal per 3-4 plugs	Once weekly	Every 10-14 days	Only during drought	High marsh dries fastest
D - UPLAND/TRANSITION	Coastal Plain Riparian Seed Mix	Daily; keep soil moist (not saturated)	3x per week	Once weekly if no rain	Only during drought	Critical germination period first 3 weeks



NOTE:
1. WATERFOWL EXCLUSION FENCE SHALL BE PLACED OVER ZONES A, B, AND C. SEE PLANTING DETAIL.

- ZONE A - LOW-MID MARSH (ELEV. 0.5' TO 1.5')
- ZONE B - MID MARSH (ELEV. 1.5' TO 2.0')
- ZONE C - HIGH MARSH (ELEV. 2.0' TO 3.0')
- ZONE D - UPLAND (ELEV. 1.5'+)
- SUB-AQUATIC VEGETATION PLANTING AREA



SITE 2 PLANTING TYPICAL SECTION

0 10 20 40
SCALE 1"=20'

SITE 2

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

PLANS PREPARED BY:
RK&K
8601 SIX FORKS ROAD, FORUM 1, SUITE 700
RALEIGH, NORTH CAROLINA 27615
(919) 878-9560, NC LICENSE NO. F-0112

PLANS PREPARED FOR:
WASHINGTON PARK

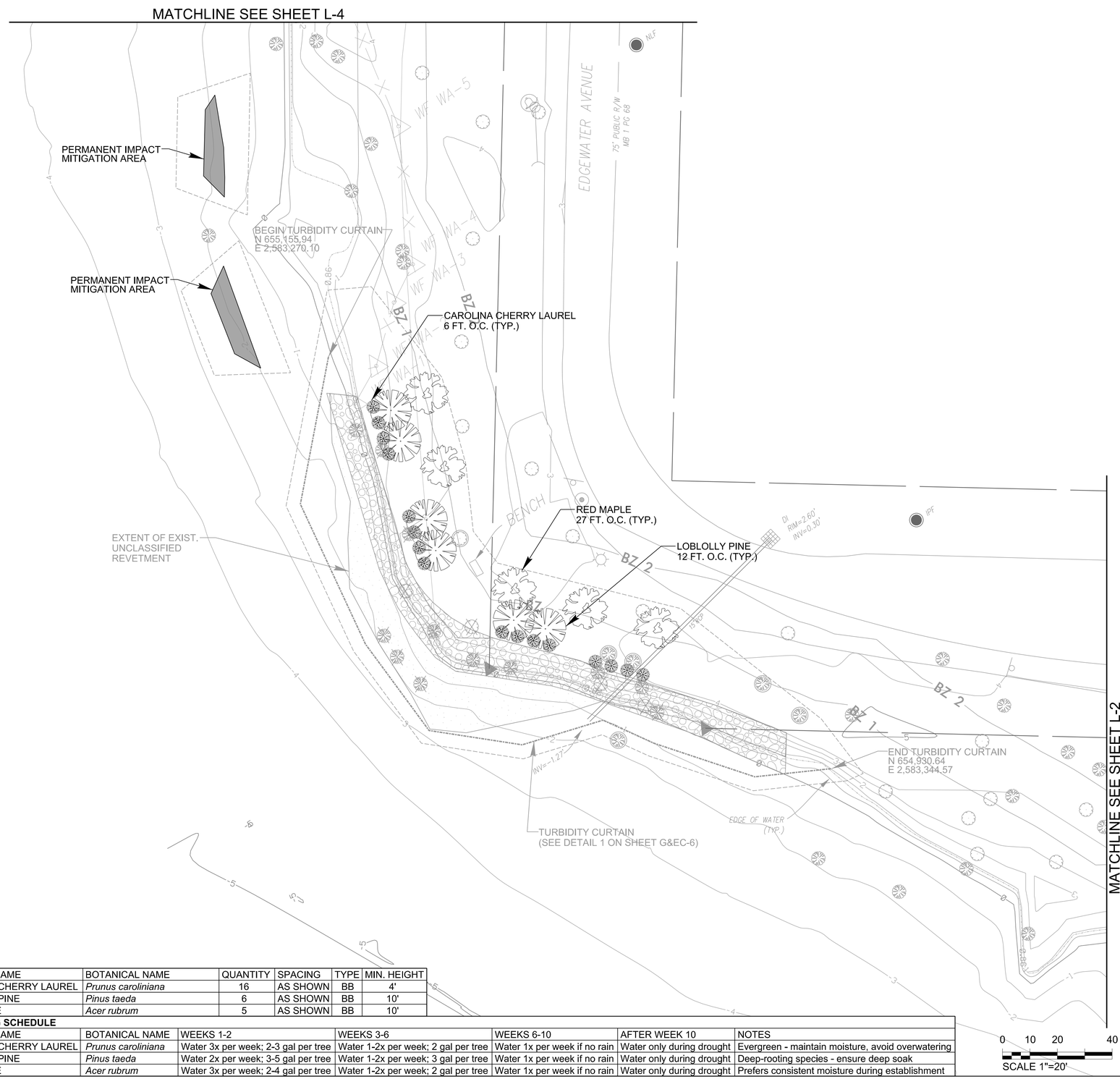
TOWN OF WASHINGTON PARK
LIVING SHORELINE
BEAUFORT COUNTY, NC

REVISIONS

DRAWN BY:	CHECKED BY:
GSM	DMK

PLANTING PLAN

L-2



CAROLINA CHERRY LAUREL

LOBLOLLY PINE

RED MAPLE

COMMON NAME	BOTANICAL NAME	QUANTITY	SPACING	TYPE	MIN. HEIGHT
CAROLINA CHERRY LAUREL	*Prunus caroliniana*	16	AS SHOWN	BB	4'
LOBLOLLY PINE	*Pinus taeda*	6	AS SHOWN	BB	10'
RED MAPLE	*Acer rubrum*	5	AS SHOWN	BB	10'

WATERING SCHEDULE

COMMON NAME	BOTANICAL NAME	WEEKS 1-2	WEEKS 3-6	WEEKS 6-10	AFTER WEEK 10	NOTES
CAROLINA CHERRY LAUREL	*Prunus caroliniana*	Water 3x per week; 2-3 gal per tree	Water 1-2x per week; 2 gal per tree	Water 1x per week if no rain	Water only during drought	Evergreen - maintain moisture, avoid overwatering
LOBLOLLY PINE	*Pinus taeda*	Water 2x per week; 3-5 gal per tree	Water 1-2x per week; 3 gal per tree	Water 1x per week if no rain	Water only during drought	Deep-rooting species - ensure deep soak
RED MAPLE	*Acer rubrum*	Water 3x per week; 2-4 gal per tree	Water 1-2x per week; 2 gal per tree	Water 1x per week if no rain	Water only during drought	Prefers consistent moisture during establishment

0 10 20 40

SCALE 1"=20'

SITE 2B & 2C

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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(919) 878-9560, NC LICENSE NO. F-0112

PLANS PREPARED FOR:
WASHINGTON PARK

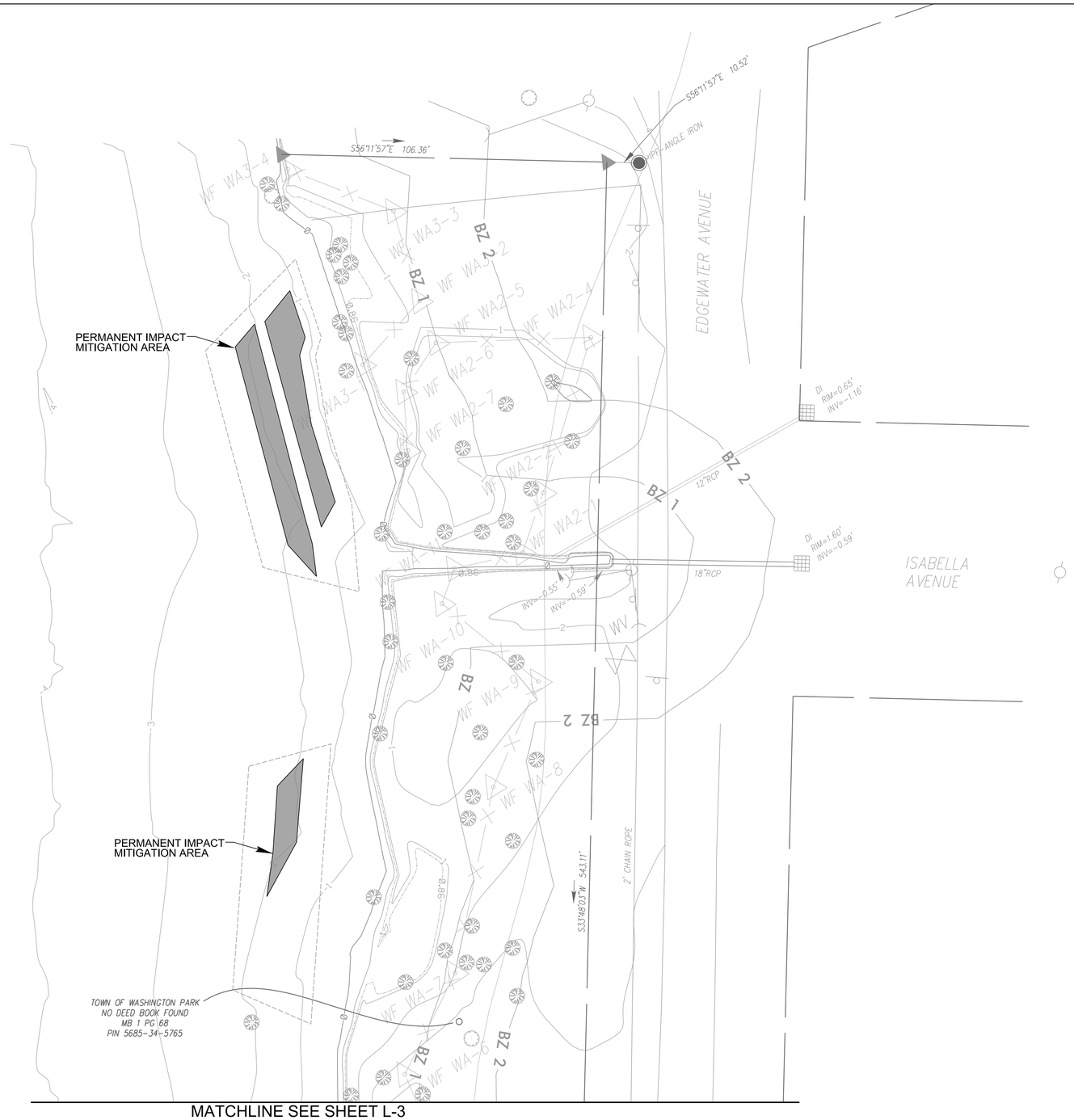
TOWN OF WASHINGTON PARK
LIVING SHORELINE
BEAUFORT COUNTY, NC

REVISIONS

DRAWN BY:	CHECKED BY:
GSM	DMK

PLANTING PLAN

L-3



MATCHLINE SEE SHEET L-3

CAROLINA CHERRY LAUREL

LOBLOLLY PINE

RED MAPLE

0 10 20 40

SCALE 1"=20'

SITE 2C

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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PLANS PREPARED FOR:

WASHINGTON PARK

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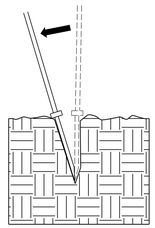
LIVING SHORELINE
BEAUFORT COUNTY, NC

REVISIONS

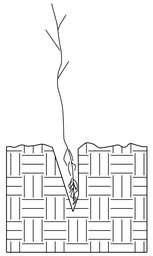
DRAWN BY:	CHECKED BY:
GSM	DMK

PLANTING PLAN

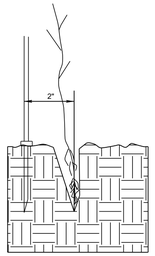
L-4



1. INSERT PLANTING BAR AS SHOWN AND PULL HANDLE TOWARD PLANTER.

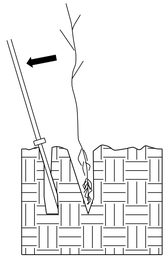


2. REMOVE PLANTING BAR AND PLACE PLANT PLUG AT CORRECT DEPTH.

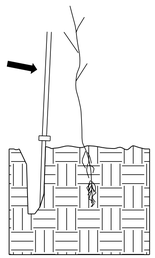


3. INSERT PLANTING BAR 2" TOWARD PLANTER FROM PLANT PLUG.

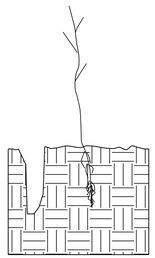
PLANTING BAG
DURING PLANTING, PLANT PLUGS SHALL BE KEPT IN A MOIST CANVAS BAG OR SIMILAR CONTAINER TO PREVENT THE ROOT SYSTEMS FROM DRYING.



4. PULL HANDLE OF BAR TOWARD PLANTER, FIRMING SOIL AT BOTTOM.



5. PUSH HANDLE FORWARD FIRMING SOIL AT TOP.

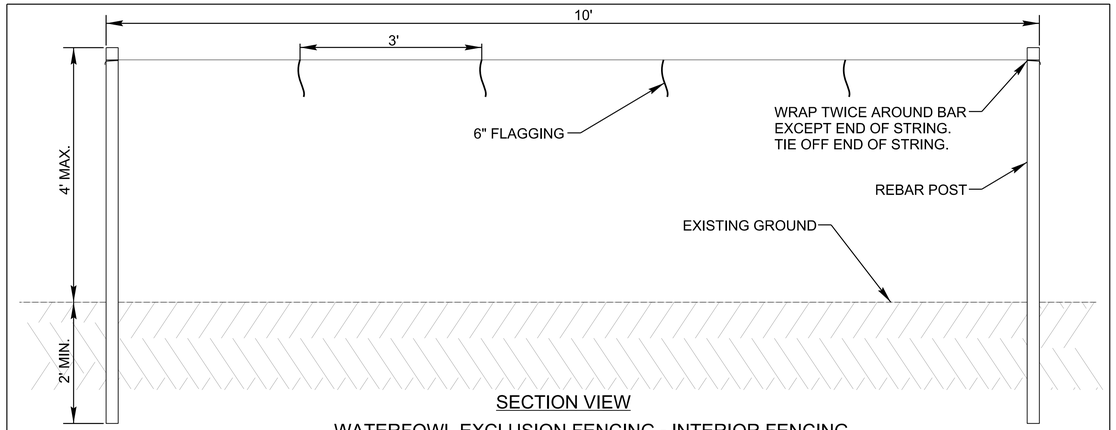


6. LEAVE COMPACTION HOLE OPEN. WATER THOROUGHLY.

KBC PLANTING BAR
PLANTING BAR SHALL HAVE A BLADE WITH A TRIANGULAR CROSS SECTION, AND SHALL BE 12" LONG, 4" WIDE AND 1" THICK AT CENTER.

HERBACEOUS PLANTING DETAILS

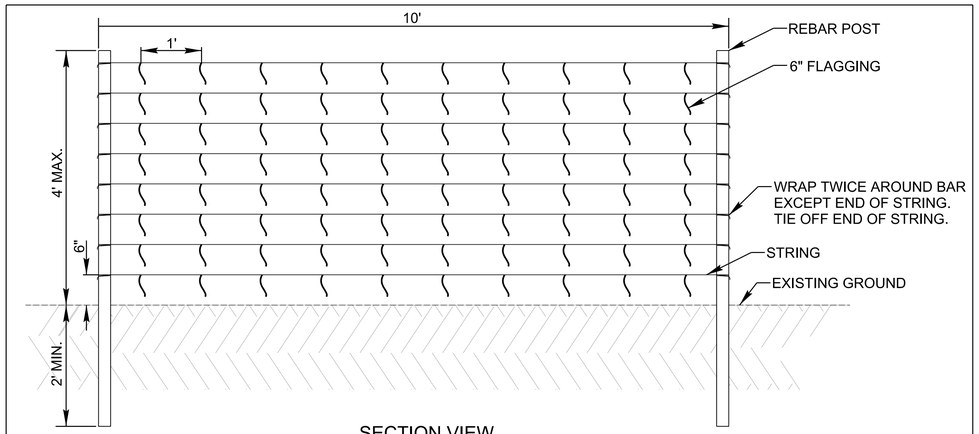
DIBBLE PLANTING METHOD
USING THE KBC PLANTING BAR



SECTION VIEW

WATERFOWL EXCLUSION FENCING - INTERIOR FENCING

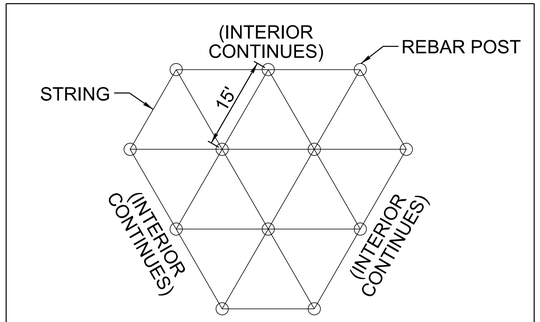
NOT TO SCALE



SECTION VIEW

WATERFOWL EXCLUSION FENCING - PERIMIETER FENCE

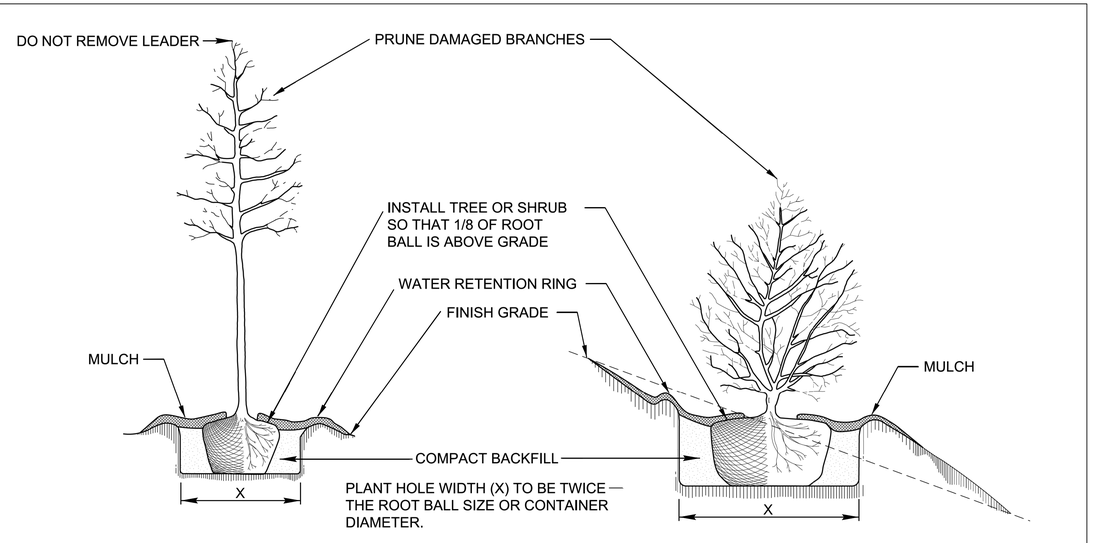
NOT TO SCALE



PLAN VIEW

WATERFOWL EXCLUSION FENCING

NOT TO SCALE



TREE OR SHRUB PLANTING DETAIL
(LEVEL GROUND)

TREE OR SHRUB PLANTING DETAIL
(SLOPING GROUND)

PLANS PREPARED BY:
RK&K
8601 SIX FORKS ROAD, FORUM 1, SUITE 700
RALEIGH, NORTH CAROLINA 27615
(919) 878-9560, NC LICENSE NO. F-0112

PLANS PREPARED FOR:
WASHINGTON PARK

TOWN OF WASHINGTON PARK
LIVING SHORELINE
BEAUFORT COUNTY, NC

REVISIONS

DRAWN BY:	CHECKED BY:
GSM	DMK

PLANTING DETAILS

L-5