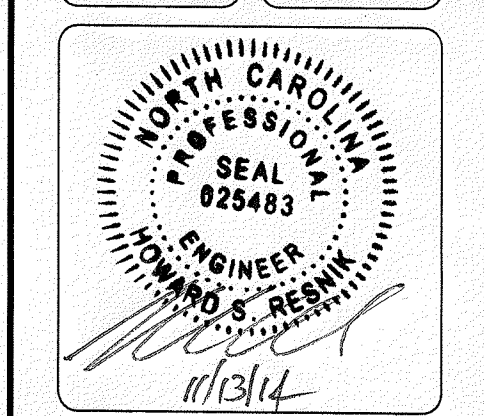


GSD
LICENSE # C-2710
COASTAL SITE DESIGN, PC
ENGINEERING
LAND PLANNING
COMMERCIAL / RESIDENTIAL
P.O. Box 4041
Wilmington, NC 28406
(910) 791-4441

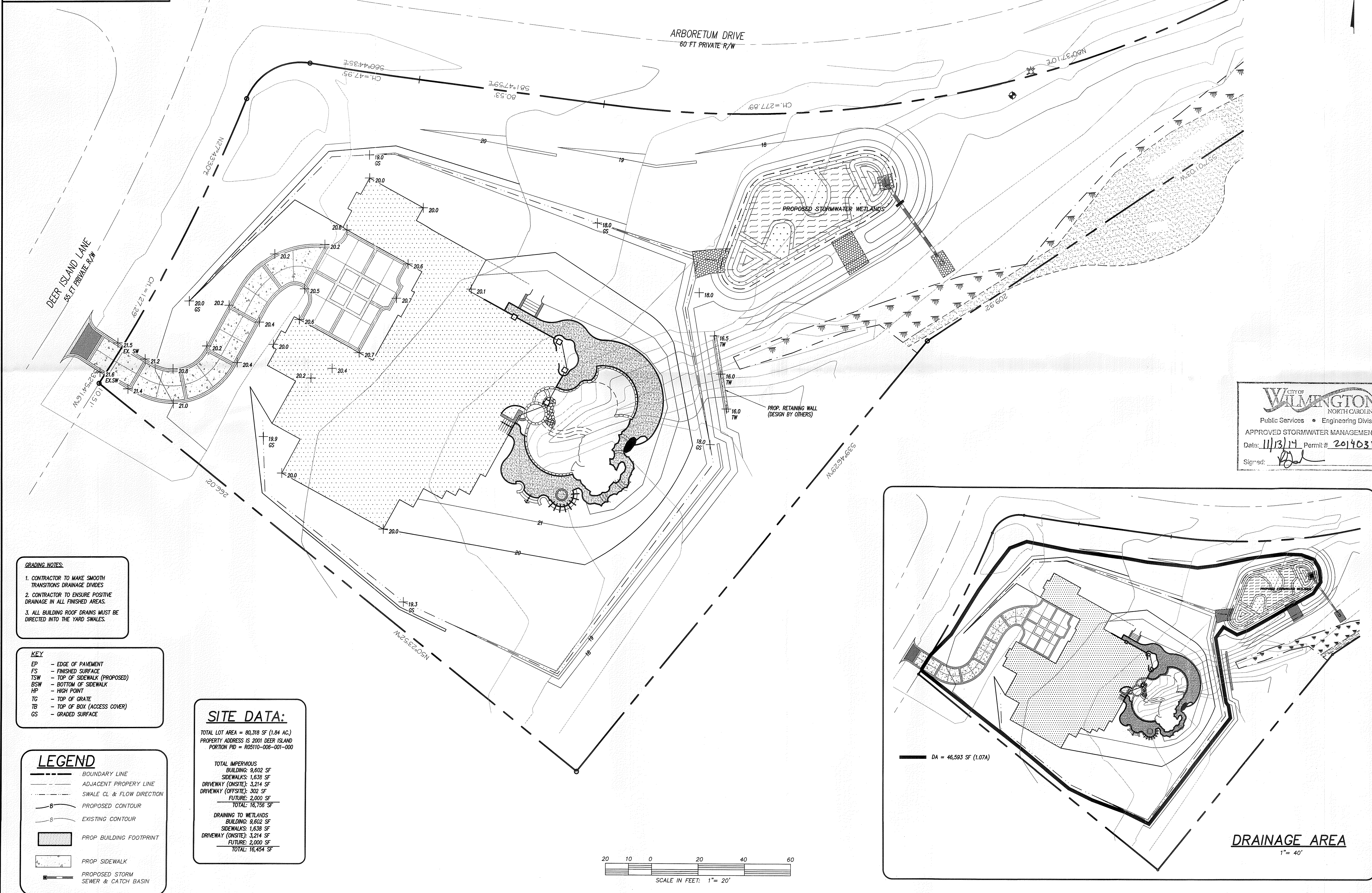
GRADING PLAN for
BAKER RESIDENCE

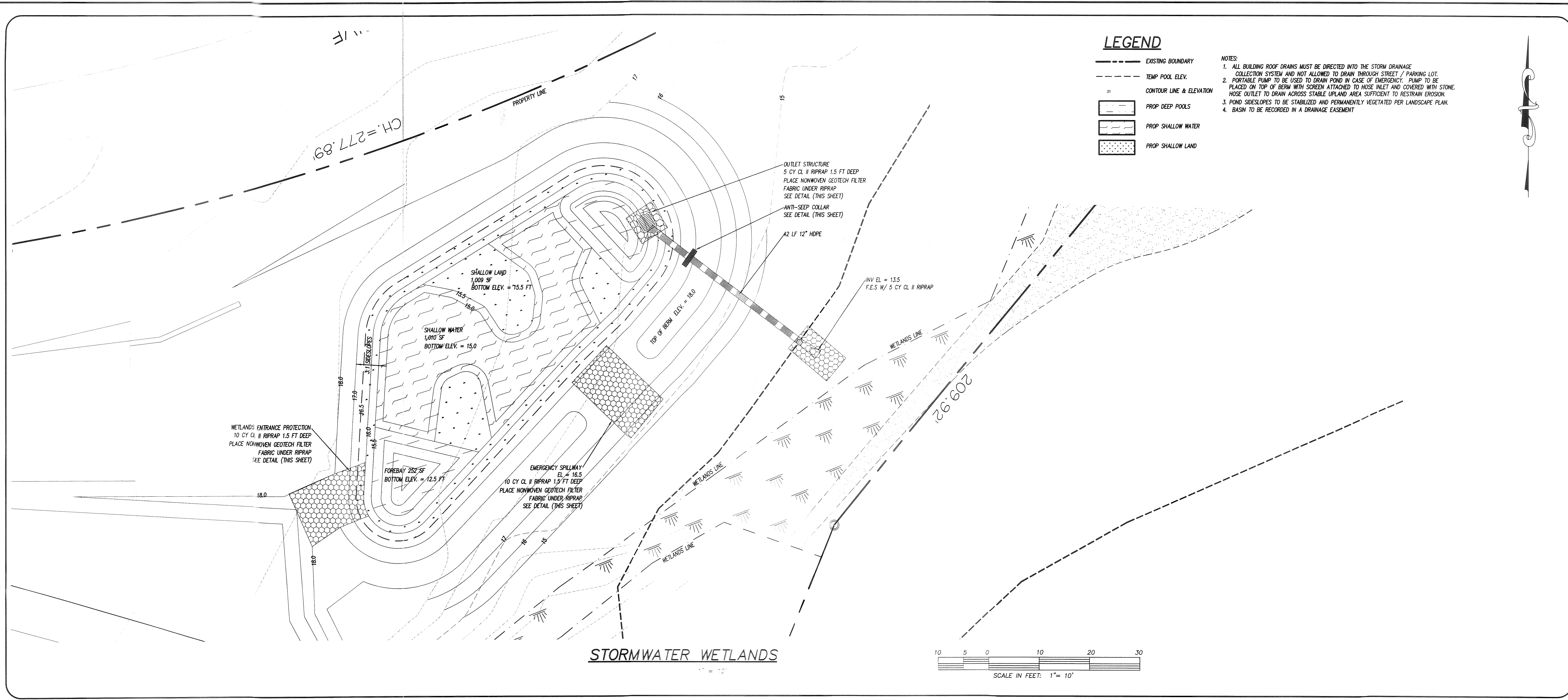
GRADING PLAN for
BAKER RESIDENCE
LOCATED IN HARNETT TOWNSHIP
NEW HANOVER COUNTY, NORTH CAROLINA
OWNER: MICHAEL R. BAKER
2001 DEER ISLAND LANE
WILMINGTON, NC 28409



REV.	NO.	DATE	BY	REMARKS
1	1	11/13/14	RLW	ADDRESSING COW SW COMMENTS
2	1	10/24/14	RLW	ADDRESSING COW SW COMMENTS

DATE: 9-3-14
HORZ. SCALE: 1" = 20'
VERT. SCALE: N/A
DRAWN BY: RLW
CHECKED BY: HSR
PROJECT NO.: 14-0320
Sheet No. **SW1** of **SW2**





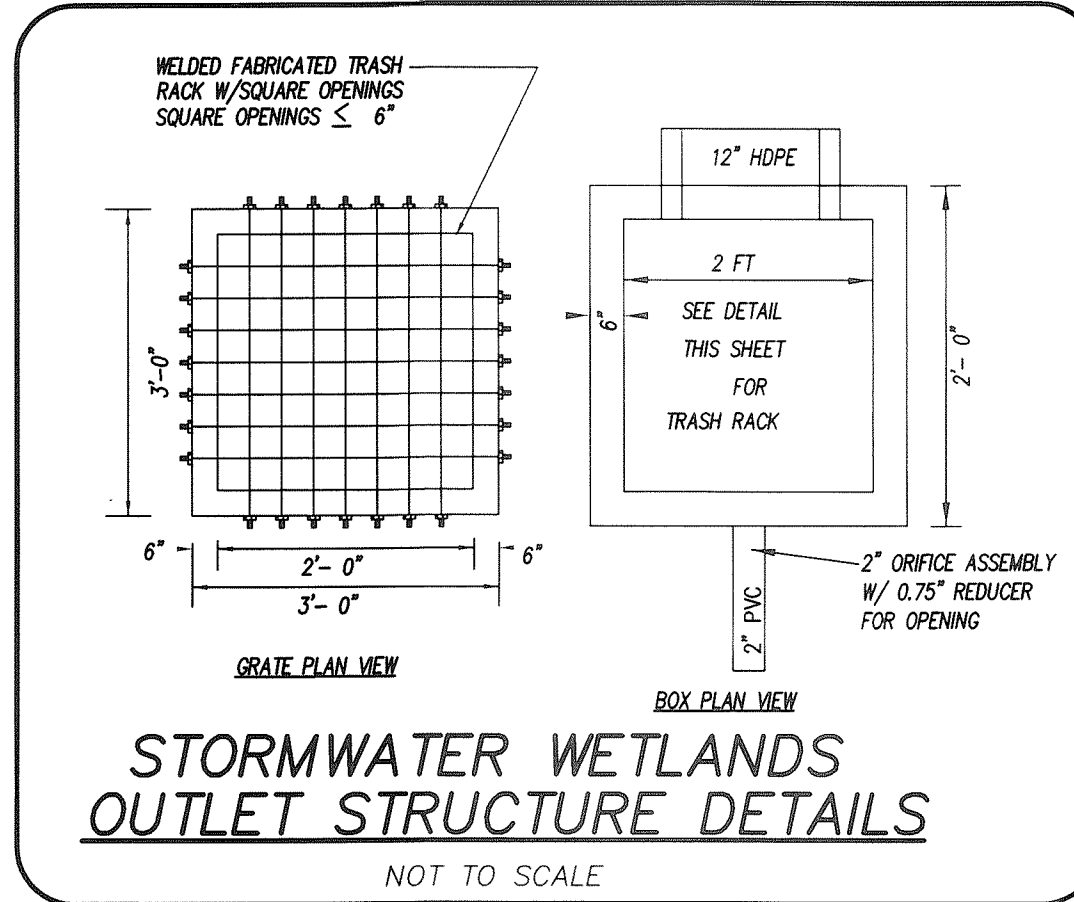
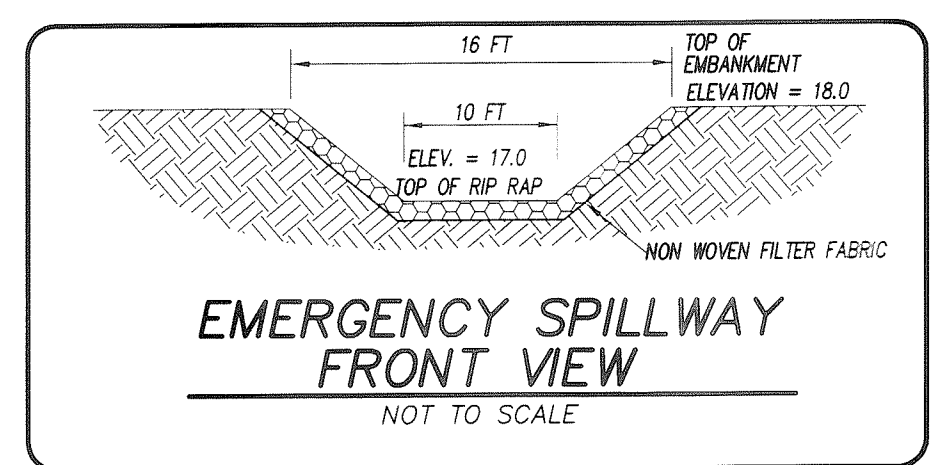
COASTAL SITE DESIGN, PC
ENGINEERING
LAND PLANNING
COMMERCIAL / RESIDENTIAL
P.O. Box 4041
Wilmington, NC 28406
(910) 791-4441

WETLANDS DETAIL
for
BAKER RESIDENCE

STORMWATER MANAGEMENT, EROSION CONTROL, AND
WETLANDS DETAIL FOR
BAKER RESIDENCE
LOCATED IN HARRETT TOWNSHIP
NEW HANOVER COUNTY, NORTH CAROLINA
OWNER: MICHAEL R. BAKER
2001 DEER ISLAND LANE
WILMINGTON, NC 28409

NORTH CAROLINA
PROFESSIONAL
SEAL
025483
ENGINEER
HOWARD S. RESNIK

REV.	NO.	DATE	REMARKS
1	1	11/13/14	DATE
2	2	10/24/14	BY
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RECD STORMWATER WETLAND FEATURES:

TOTAL WETLANDS SURFACE AREA PROVIDED = 2,522 SF	
DEEP POOL (FOREBAY, 18-36\"/>	
SHALLOW WATER (3-6\"/>	
SHALLOW LAND (PPE EL.)	
DEEP POOL (OUTLET) (18-36\"/>	

THE FOLLOWING SPECIES OF WETLANDS VEGETATION ARE SUITABLE FOR PLANTING WITHIN THE PROPOSED STORMWATER WETLANDS:

PLANTS SUITED FOR SHALLOW WATER

- SAGITTARIA LANIFOLIA (BULL TONGUE)
- SAGITTARIA LATIFOLIA (DUCK POTATO)
- SAGITTARIA ARIFOLIA (BULL TONGUE)
- SAGITTARIA ARIFOLIA (BULL TONGUE)
- SAGITTARIA ARIFOLIA (BULL TONGUE)

PLANTS SUITED FOR SHALLOW LAND

- ASCLEPIAS INCARNATA (SWAMP MILKWEED)
- CAREX TENAX (TURTLEHEAD)
- OENOTHERA LANCEOLATA (WIDE-MOUTHED FLORIST'S PINK)

PLANTS SUITED FOR DEEP POOLS (NOT TO OBSTRUCT OUTLET)

FLOATING AQUATIC PLANTS

- NELUMBO LUTEA (AMERICAN LOTUS)
- NUPHAR LUTEA (ROCKY MOUNTAIN POND-LILY)
- NUPHAR LUTEA (YELLOW POND-LILY)

SUBMERGED AQUATIC PLANTS

- ECHINOCYRUS AQUIFOLIUS (NEEDLE SPINERUSH)
- ECHINOCYRUS AQUIFOLIUS (NEEDLE SPINERUSH)
- ECHINOCYRUS AQUIFOLIUS (NEEDLE SPINERUSH)
- ECHINOCYRUS AQUIFOLIUS (NEEDLE SPINERUSH)

TO PROMOTE BIO-DIVERSITY IN DEEP POOLS CHOOSE MANY DIFFERENT SPECIES OF EMERGENT SPECIES, NO MORE THAN 30% OF A SINGLE SPECIES.

SF OF SHALLOW WATER = 1,009 SF / 200 = 5.0 X 50 = 252 PLANTS REQUIRED
252 / 3 = 84 PLANTS OF EACH OF THE THREE LISTED ABOVE MUST BE PLANTED
SF OF SHALLOW LAND = 1,009 SF / 200 = 5.0 X 50 = 252 PLANTS REQUIRED
252 / 3 = 84 PLANTS OF EACH OF THE THREE LISTED ABOVE MUST BE PLANTED

IF ONE OR MORE OF THE SUGGESTED SPECIES IS UNAVAILABLE, APPROPRIATE WETLANDS VEGETATION COMMON TO THE COASTAL NORTH CAROLINA REGION MAY BE SUBSTITUTED. SEE TABLE 9.1 OF CHAPTER 9 OF STATE STORMWATER BMP MANUAL FOR LIST OF OTHER RECOMMENDED WETLANDS PLANTS.

MINIMUM PLANT SIZE FOR HERBACEOUS PLANTS IS 4 CUBIC IN. CONTAINERS
MINIMUM PLANT SIZE FOR SHRUBS IS 1 GALLON CONTAINERS

