

VICINITY MAP
Not To Scale

CAROLINA MARINE TERMINAL TERMINAL EXPANSION

3330 RIVER ROAD WILMINGTON, NORTH CAROLINA

ISSUED FOR CONSTRUCTION RELEASE

MAY 18, 2015

OWNER / DEVELOPER:

ALTAMAR, INC.
3330 RIVER ROAD
WILMINGTON, NC 28412

OWNER'S DESIGNATED REPRESENTATIVE:

MICHAEL MCCARLEY, PRESIDENT
ALTAMAR, INC.
mike@admci.com
(910) 395-4777

PROJECT ENGINEER / REPRESENTATIVE:

J. BRANCH SMITH, PE
McKIM & CREED, INC.
243 NORTH FRONT STREET
WILMINGTON, NORTH CAROLINA 28401
brsmith@mckimcreed.com
(910) 343-1048

PROJECT ADDRESS:

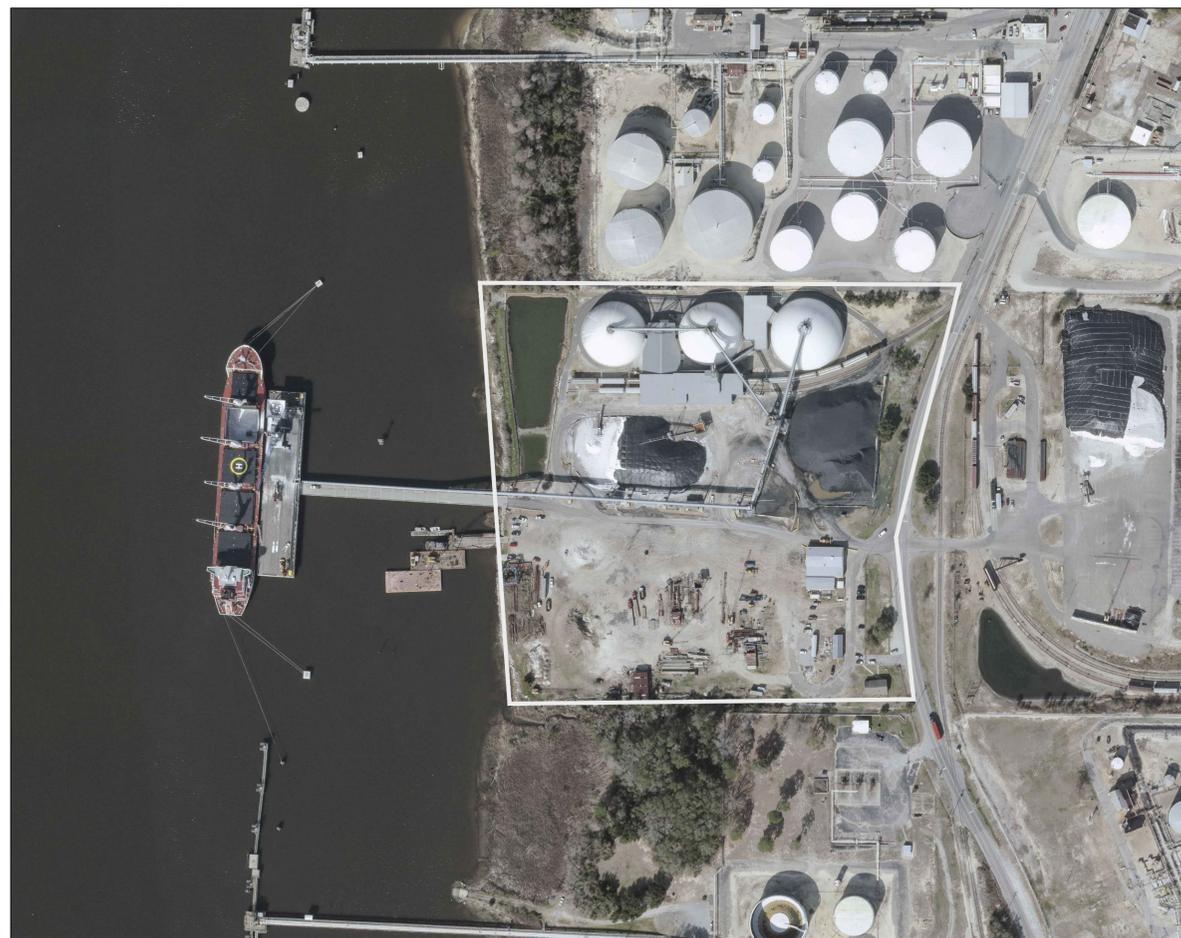
3330 RIVER ROAD
WILMINGTON, NC 28412

TAX PARCEL IDENTIFICATION NUMBER:

R06400-001-004-000

PROPERTY ZONING:

IND - INDUSTRIAL



PROJECT AERIAL
SCALE: 1" = 200'

REF. NCONE MAP AERIAL 2012

NORTH

SHEET INDEX

SHEET #	FILE #	DESCRIPTION
G-0		COVER SHEET
G-1	CP101	OVERALL SITE INVENTORY PLAN
G-2	CP102	DOMES #8 - #10 SITE PLAN
C-1	CG101	GRADING, DRAINAGE, & EROSION CONTROL PLAN
C-2	CE501	EROSION CONTROL DETAILS
C-3	CL101	LANDSCAPE PLAN

CITY OF WILMINGTON STANDARD NOTES

- PRIOR TO ANY CLEARING, GRADING OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES AND NO CONSTRUCTION WORKERS, TOOLS, MATERIALS, OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING.
- ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY AND/OR NCDOT STANDARDS.
- ONCE PUBLIC STREETS ARE OPEN TO TRAFFIC, THE DEVELOPER SHALL CONTACT TRAFFIC ENGINEERING TO REQUEST INSTALLATION OF TRAFFIC AND STREET NAME SIGNS. PROPOSED STREET NAMES MUST BE APPROVED PRIOR TO INSTALLATION OF STREET NAME SIGNS.
- TRAFFIC CONTROL DEVICES (INCLUDING SIGNS AND PAVEMENT MARKINGS) IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) STANDARDS.
- ANY BROKEN OR MISSING SIDEWALK PANELS, DRIVEWAY PANELS, AND CURBING SHALL BE REPLACED.
- CONTACT TRAFFIC ENGINEERING AT (910) 341-7888 TO DISCUSS STREET LIGHTING OPTIONS.
- IF THE CONTRACTOR DESIRES WATER FOR CONSTRUCTION HE SHALL APPLY WITH THE CPFA IN ADVANCE FOR THIS SERVICE AND MUST PROVIDE A REDUCED PRESSURE ZONE (RPZ) BACKFLOW PREVENTION DEVICE ON THE DEVELOPER'S SIDE OF THE WATER METER BOX.
- CONTACT TRAFFIC ENGINEERING AT (910) 341-7888 TO ENSURE THAT ALL TRAFFIC SIGNAL FACILITIES AND EQUIPMENT ARE SHOWN ON THE PLAN. CALL TRAFFIC ENGINEERING FORTY-EIGHT HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT-OF-WAY. TRAFFIC ENGINEERING MUST APPROVE OF PAVEMENT MARKING PRIOR TO ACTUAL STRIPING.
- TACTILE WARNING MATS ARE TO BE INSTALLED ON ALL WHEELCHAIR RAMPS.
- ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN THE PARKING AREAS SHALL BE WHITE.
- ALL TRAFFIC CONTROL SIGNS AND MARKINGS OUTSIDE THE PUBLIC RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER.
- STOP SIGNS AND STREET SIGNS TO REMAIN IN PLACE DURING CONSTRUCTION.
- A UTILITY CUT PERMIT IS REQUIRED FOR EACH OPEN CUT OF A CITY UTILITY.
- NO OBSTRUCTIONS ARE PERMITTED IN THE SPACE BETWEEN THIRTY (30) INCHES AND TEN (10) FEET ABOVE THE GROUND WITHIN THE TRIANGULAR SIGHT DISTANCE.
- PERMITTING OF BUSINESS IDENTIFICATION SIGNAGE IS A SEPARATE PROCESS. NCDOT/CITY OF WILMINGTON WILL NOT ALLOW THESE OBSTRUCTIONS WITHIN THE RIGHT-OF-WAY.

STORMWATER MANAGEMENT PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE _____ PERMIT # _____
SIGNED _____

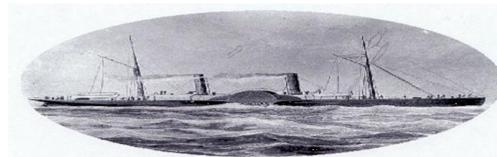
Approved Construction Plan
Name _____ Date _____
Planning _____
Traffic _____
Fire _____

1 inch

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.



243 North Front Street
Wilmington, North Carolina 28401
Phone: (910)343-1048 , Fax: (910)251-8282
NC LICENSE NO. F-1222
www.mckimcreed.com

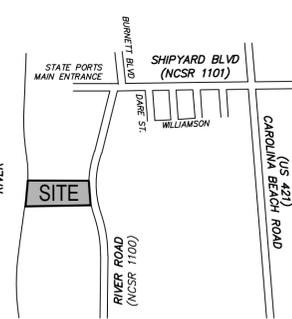


CAROLINA MARINE TERMINAL



Know what's below.
Call before you dig.





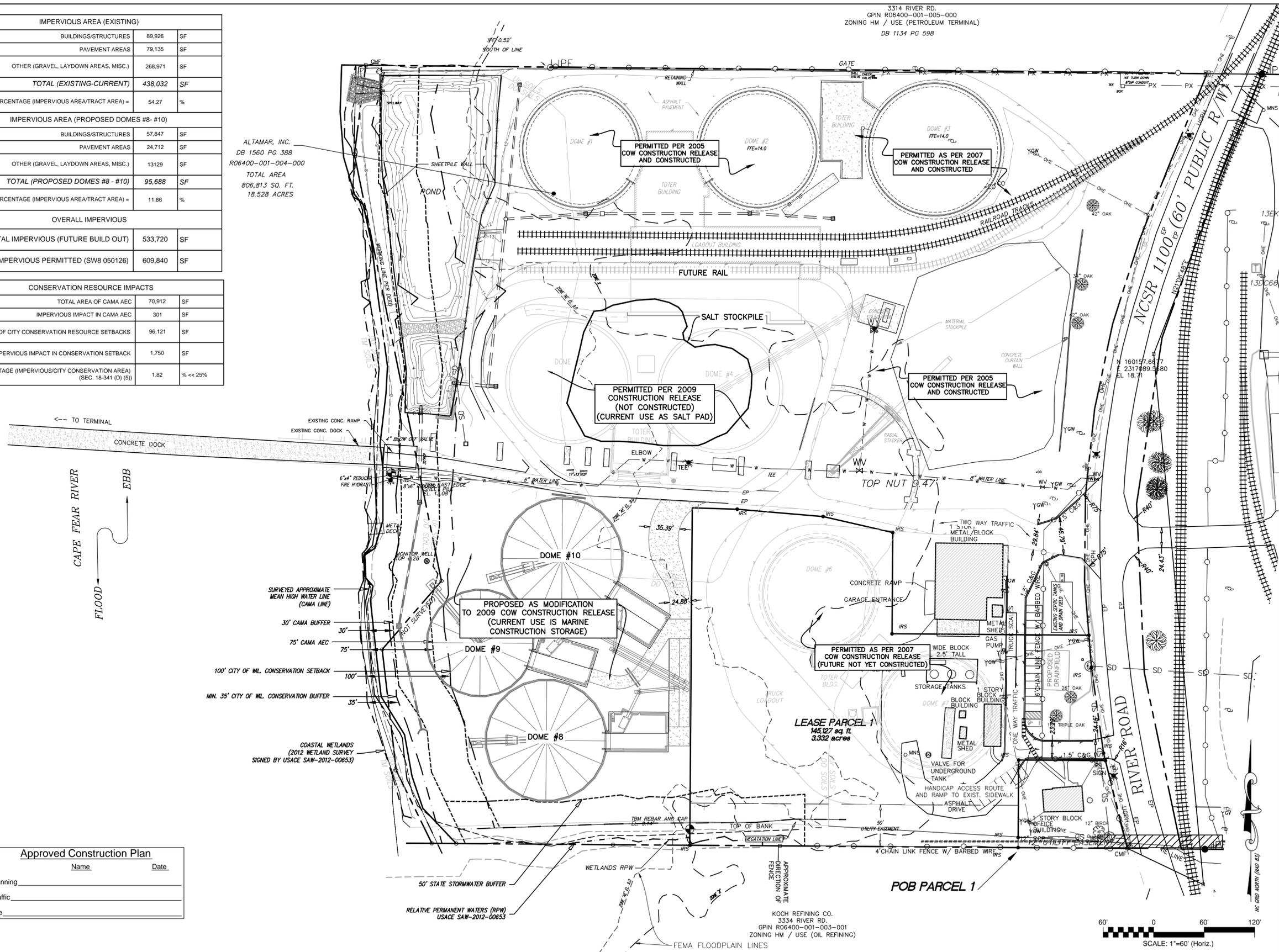
VICINITY MAP
Not To Scale
SITE INVENTORY GENERAL INFORMATION

- 1. Applicant name: ALTAMAR, INC.
2. Site address of the development: 3330 RIVER ROAD, WILMINGTON, NORTH CAROLINA
3. Property owner: ALTAMAR, INC.
4. Name of developer: CAROLINA MARINE TERMINAL, INC.
5. Property boundary. Indicate minimum Tax Parcel information or boundary survey, or deed composite: INDICATED ON THIS DRAWING / PARCEL ID R06400-001-004-000
6. Indicate the zoning of the property: PROPERTY ZONED IND
7. Adjacent property information, including owner and zoning: OWNERS INDICATED ON THIS DRAWING, ZONING IS IND
8. Vicinity map in relation to the site: INDICATED ON THIS DRAWING
9. Topography of the site in one (1) foot intervals: MCKIM & CREED FIELD SURVEYS (2005-2015)
10. Approximate location of 100-year flood plain boundary. Note areas with a history of flooding: INDICATED ON THIS DRAWING
11. Locate existing ditches, creeks, and streams and their classification (i.e. intermittent, perennial, C (SW), ORW, etc): INDICATED ON THIS DRAWING; CAPE FEAR RIVER and FRESH WATER STREAM (Sc Classification)
12. Indicate the types of soils as referenced in the most recent book of Soil Survey of New Hanover County, North Carolina by the US Department of Agriculture and Natural Resource Conservation Service: URBAN LAND (Ur), DOROVAN (Do), AND TIDAL MARSH (Tm).
13. Locate any CAMA areas of concern (AEC) and associated setbacks: INDICATED ON THIS DRAWING
14. Identify the CAMA land classification from the Wilmington-New Hanover County Comprehensive Plan: CONSERVATION & URBAN
15. Indicate the presence or non-presence of Conservation Resources: 100' SETBACK (CITY) AS INDICATED ON THIS DRAWING
16. Indicate whether or not the site is recognized as a local, state or federally historic or archaeological site: NONE
17. Indicate the location of cemeteries, burial sites, or burial grounds: NONE
18. Delineate aerial extent of forested areas, indicated areas in square feet or acres, and note habitat and dominant species within stands: NONE
19. Delineate the approximate location of U.S. Army Corps of Engineers Section 404 wetlands and Section 10 waters: INDICATED ON THIS DRAWING
20. Indicate the presence of protected species or habitat information available from the U.S. Fish and Wildlife Service and N.C. natural heritage inventory: NO PROTECTED SPECIES OR HABITAT ON SITE
21. Indicate the presence or non-presence of existing or proposed thoroughfares, bike routes, pedestrian sidewalks or trails and transit facilities: INDICATED ON THIS DRAWING
22. FLOOD_ZONE INFO: Property lies in ZONE 'AE' EL 9 (base flood elevation determined), ZONE 'X OTHER' (areas of 0.2% ANNUAL CHANCE FLOODPLAIN), and ZONE 'X' (areas determined to be outside the 0.2% ANNUAL CHANCE FLOODPLAIN) as scaled from FIRM MAP Number 3720311500k and 3720311600k Dated June 02, 2006. Vertical Datum is NAVD 88 (to convert from NGVD 29 to NAVD 88, subtract 0.95').
23. Plats and Documents shall be recorded to provide perpetual protections for conservation resources and associated setbacks in accordance to the City of Wilmington Code of Ordinances, Section 18-341 Conservation Resource Regulations.

Table with 3 columns: Category, Value, Unit. Rows include IMPERVIOUS AREA (EXISTING), IMPERVIOUS AREA (PROPOSED DOMES #8-#10), and OVERALL IMPERVIOUS.

Table with 3 columns: Category, Value, Unit. Rows include CONSERVATION RESOURCE IMPACTS, TOTAL AREA OF CAMA AEC, IMPERVIOUS IMPACT IN CAMA AEC, etc.

ALTAMAR, INC.
DB 1560 PG 388
R06400-001-004-000
TOTAL AREA
806,813 SQ. FT.
18.528 ACRES



3314 RIVER RD.
GPIN R06400-001-005-000
ZONING HM / USE (PETROLEUM TERMINAL)
DB 1134 PG 598

KOCH REFINING CO.
3334 RIVER RD.
GPIN R06400-001-003-001
ZONING HM / USE (OIL REFINING)

STORMWATER MANAGEMENT PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE PERMIT #
SIGNED

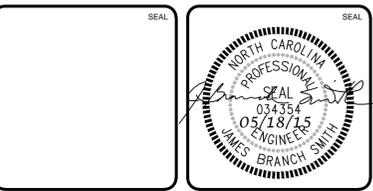
Approved Construction Plan
Name Date
Planning
Traffic
Fire

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

1 inch

SCALE: 1"=60' (Horiz.)

Table with 4 columns: REV NO., DESCRIPTIONS, DATE, REVISIONS.

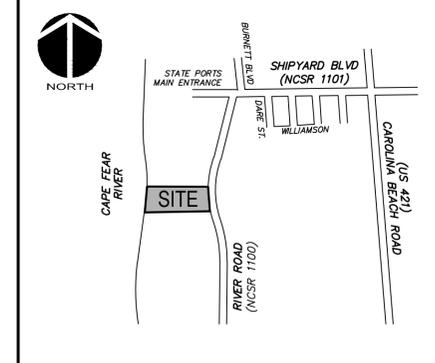


MCKIM & CREED logo and contact information: 243 North Front Street, Wilmington, North Carolina 28401.

Carolina Marine Terminal logo and address: 3330 River Road, Wilmington, NC 28412.

CAROLINA MARINE TERMINAL TERMINAL EXPANSION (2015)
Wilmington, NC
OVERALL SITE INVENTORY PLAN

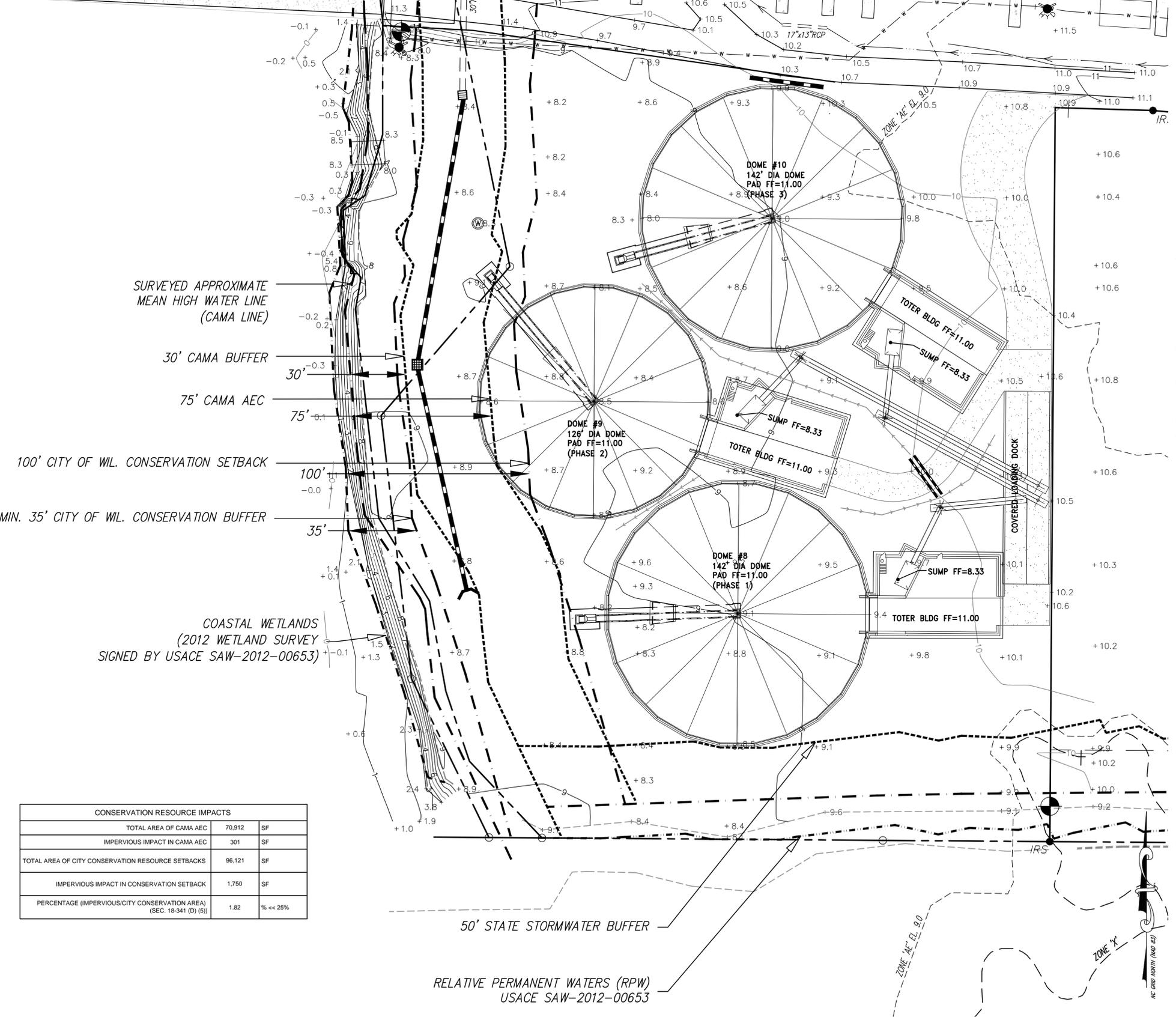
Table with project details: DATE (4/2/2015), MCE PROJ. # (3057-0014), DRAWN (JBS), DESIGNED (JBS), CHECKED (RMC), PROJ. MGR. (RMC), SCALE (1"=60'), DRAWING NUMBER (G-1), STATUS (ISSUED FOR COW TRC).



VICINITY MAP
Not To Scale

SITE INVENTORY GENERAL INFORMATION

1. Applicant name: ALTAMAR, INC.
2. Site address of the development: 3330 RIVER ROAD, WILMINGTON, NORTH CAROLINA
3. Property owner: ALTAMAR, INC.
4. Name of developer: CAROLINA MARINE TERMINAL, INC.
5. Property boundary. Indicate minimum Tax Parcel information or boundary survey, or deed composite: INDICATED ON THIS DRAWING / PARCEL ID R06400-001-004-000
6. Indicate the zoning of the property: PROPERTY ZONED IND
7. Adjacent property information, including owner and zoning: OWNERS INDICATED ON THIS DRAWING, ZONING IS IND
8. Vicinity map in relation to the site: INDICATED ON THIS DRAWING
9. Topography of the site in one (1) foot intervals: MCKIM & CREED FIELD SURVEYS (2005-2015)
10. Approximate location of 100-year flood plain boundary. Note areas with a history of flooding: INDICATED ON THIS DRAWING
11. Locate existing ditches, creeks, and streams and their classification (i.e. intermittent, perennial, C (SW), ORW, etc): INDICATED ON THIS DRAWING; CAPE FEAR RIVER and FRESH WATER STREAM (Sc Classification)
12. Indicate the types of soils as referenced in the most recent book of Soil Survey of New Hanover County, North Carolina by the US Department of Agriculture and Natural Resource Conservation Service: URBAN LAND (Ur), DOROVAN (Do), AND TIDAL MARSH (Tm).
13. Locate any CAMA areas of concern (AEC) and associated setbacks: INDICATED ON THIS DRAWING
14. Identify the CAMA land classification from the Wilmington-New Hanover County Comprehensive Plan: CONSERVATION & URBAN
15. Indicate the presence or non-presence of Conservation Resources: 100' SETBACK (CITY) AS INDICATED ON THIS DRAWING
16. Indicate whether or not the site is recognized as a local, state or federally historic or archaeological site: NONE
17. Indicate the location of cemeteries, burial sites, or burial grounds: NONE
18. Delineate aerial extent of forested areas, indicated areas in square feet or acres, and note habitat and dominant species within stands: NONE
19. Delineate the approximate location of U.S. Army Corps of Engineers Section 404 wetlands and Section 10 waters: INDICATED ON THIS DRAWING
20. Indicate the presence of protected species or habitat information available from the U.S. Fish and Wildlife Service and N.C. natural heritage inventory: NO PROTECTED SPECIES OR HABITAT ON SITE
21. Indicate the presence or non-presence of existing or proposed thoroughfares, bike routes, pedestrian sidewalks or trails and transit facilities: INDICATED ON THIS DRAWING
22. FLOOD ZONE INFO: Property lies in ZONE 'AE' EL 9 (base flood elevation determined), ZONE 'X OTHER' (areas of 0.2% ANNUAL CHANCE FLOODPLAIN), and ZONE 'X' (areas determined to be outside the 0.2% ANNUAL CHANCE FLOODPLAIN) as scaled from FIRM MAP Number 3720311500k and 3720311600k Dated June 02, 2006. Vertical Datum is NAVD 88 (to convert from NGVD 29 to NAVD 88, subtract 0.95').
23. Plats and Documents shall be recorded to provide perpetual protections for conservation resources and associated setbacks in accordance to the City of Wilmington Code of Ordinances, Section 18-341 Conservation Resource Regulations.



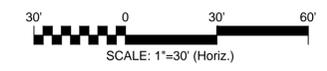
SURVEYED APPROXIMATE MEAN HIGH WATER LINE (CAMA LINE)
30' CAMA BUFFER
75' CAMA AEC
100' CITY OF WIL. CONSERVATION SETBACK
MIN. 35' CITY OF WIL. CONSERVATION BUFFER

COASTAL WETLANDS
(2012 WETLAND SURVEY SIGNED BY USACE SAW-2012-00653)

CONSERVATION RESOURCE IMPACTS		
TOTAL AREA OF CAMA AEC	70,912	SF
IMPERVIOUS IMPACT IN CAMA AEC	301	SF
TOTAL AREA OF CITY CONSERVATION RESOURCE SETBACKS	96,121	SF
IMPERVIOUS IMPACT IN CONSERVATION SETBACK	1,750	SF
PERCENTAGE (IMPERVIOUS/CITY CONSERVATION AREA) (SEC. 18-341 (D) (5))	1.82	% << 25%

50' STATE STORMWATER BUFFER
RELATIVE PERMANENT WATERS (RPW)
USACE SAW-2012-00653

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.



STORMWATER MANAGEMENT PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE _____ PERMIT # _____
SIGNED _____

Approved Construction Plan

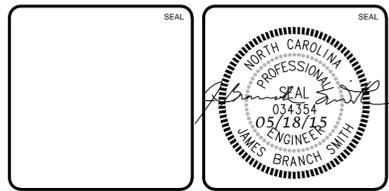
Name _____ Date _____

Planning _____

Traffic _____

Fire _____

REV NO.	DESCRIPTIONS	DATE
C	TRC SUBMITTAL NO. 2	05/19/15
B	ISSUED FOR COW TRC	4/28/15
A	ISSUED FOR CAMA MINOR MODIFICATION REVIEW	4/22/15



MCKIM & CREED
243 North Front Street
Wilmington, North Carolina 28401
Phone: (910)343-1048, Fax: (910)251-8282
License: F-1222
www.mckimcreed.com

Carolina Marine Terminal
3330 River Road
Wilmington, NC 28412

CAROLINA MARINE TERMINAL
TERMINAL EXPANSION (2015)
Wilmington, NC
DOMES #8 - #10 SITE PLAN

DATE:	4/2/2015	SCALE:	1"=30'	MAC FILE NUMBER:	CP102
MCE PROJ. #	3057-0014	HORIZONTAL:	1"=30'	DRAWING NUMBER:	G-2
DRAWN:	JBS	VERTICAL:	NA		3 of 6
DESIGNED:	JBS				
CHECKED:	RMC				
PROJ. MGR.:	RMC				
STATUS:		ISSUED FOR COW TRC		REVISION: C	

LIMITS OF DISTURBANCE = 3.27 AC

- STAGE 1 & 2 CONSTRUCTION SEQUENCE**
1. ESTABLISH LIMITS OF DISTURBANCE AS SHOWN.
 2. A PRECONSTRUCTION CONFERENCE MUST BE HELD 48 HOURS PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES. THE EROSION CONTROL INSPECTOR, ENGINEER, AND CONTRACTOR SHALL MEET AT THE NEW HANOVER COUNTY EROSION CONTROL INSPECTOR'S OFFICE.
 3. INSTALL TEMPORARY GRAVEL CONSTRUCTION ENTRANCE AS SHOWN. CONTRACTOR SHALL MAINTAIN A SUFFICIENT GRAVEL ENTRANCE UNTIL FINAL SUBGRADE IS ESTABLISHED. IF DIRT/MUD GETS ON THE STREET, THEN A WASH RACK WILL NEED TO BE INSTALLED.
 4. INSTALL SILT FENCING AS NOTED ON PLANS BEFORE COMMENCING ANY LAND DISTURBANCE ACTIVITY.
 5. INSTALL INLET PROTECTION AS SHOWN ON PLANS.
 6. COMMENCE GRUBBING AND ROUGH GRADING WITHIN THE LIMITS OF CONSTRUCTION.
 7. COMMENCE NEW STORM PIPE INSTALLATION.
 8. COORDINATE DISCONNECTION OF EXISTING UTILITIES WITH THE PROPER AUTHORITIES.
 9. PROVIDE TEMPORARY STABILIZATION AND SEEDING AS NECESSARY TO PREVENT EROSION. REFER TO SHEET CE501 FOR GROUND STABILIZATION CRITERIA AND SEEDING SCHEDULE.
 10. REMOVE ACCUMULATED SEDIMENT FROM SEDIMENT CONTROL MEASURES AS REQUIRED ON THE PLANS AND PERMIT.
 11. CONSTRUCT TANK PADS AND OTHER STRUCTURAL SUBGRADES AND FOUNDATIONS.
 12. CONTRACTOR SHALL CONTINUOUSLY MAINTAIN EROSION CONTROL MEASURES AND CLEAN AND REPAIR TEMPORARY SEDIMENT MEASURES TO MEET NEW HANOVER COUNTY APPROVAL.
 13. UPON COMPLETION OF CONSTRUCTION, CONTRACTOR TO REQUEST FINAL INSPECTION FROM NEW HANOVER COUNTY EROSION CONTROL INSPECTOR TO ALLOW REMOVAL OF ALL TEMPORARY EROSION CONTROL DEVICES.
 14. INSTALL LANDSCAPING AND ESTABLISH FINAL GRADES.
 15. INSTALL PERMANENT SEEDING. REFER TO GROUND STABILIZATION CRITERIA TABLE FOR AREAS THAT REQUIRE 7-DAY STABILIZATION. ALL OTHER AREAS NOT REQUIRING 7-DAY STABILIZATION SHALL BE STABILIZED WITHIN 14-DAYS.
 16. REMOVE ALL SEDIMENT FROM ALL STORM DRAIN PIPES.
 17. SILT FENCE MUST REMAIN INSTALLED AND FUNCTIONING PROPERLY UNTIL THE LIMITS OF CONSTRUCTION HAVE BEEN PERMANENTLY STABILIZED.

LEGEND

TOB	=	TOP OF BANK	●	=	SANITARY SEWER MANHOLE
EP	=	EDGE OF PAVEMENT	○	=	POWER POLE
CL	=	CENTERLINE	Y	=	GUY WIRE
EOB	=	EDGE OF BUILDING AT NATURAL GRADE	□	=	CABLE PEDESTAL
△ RBC	=	REBAR & CAP	⊞	=	TELEPHONE PEDESTAL
● IFF	=	IRON PIPE FOUND	⊕	=	TELEPHONE MANHOLE
INV.	=	INVERT	⊞	=	GAS VALVE
EL	=	ELEVATION	▨	=	ASPHALT PAVEMENT
⊞	=	WELL	⊞	=	TEMP. ROCK PIPE INLET PROTECTION
⊞	=	WATER METER	⊞	=	TEMPORARY INLET PROTECTION
⊞	=	FIRE HYDRANT	⊞	=	LIMITS OF DISTURBANCE LINE
⊞	=	WATER VALVE	---	=	SILT FENCE LINE
⊞	=	GRADED INLET	---	=	UNDERGROUND STORM LINE
⊞	=	YARD INLET	---	=	UNDERGROUND SANITARY LINE
⊞	=	STORM DRAIN MANHOLE	---	=	UNDERGROUND WATER LINE
---	=	LOD	---	=	W

STORMWATER MANAGEMENT PLAN APPROVED

CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE _____ PERMIT # _____
SIGNED _____

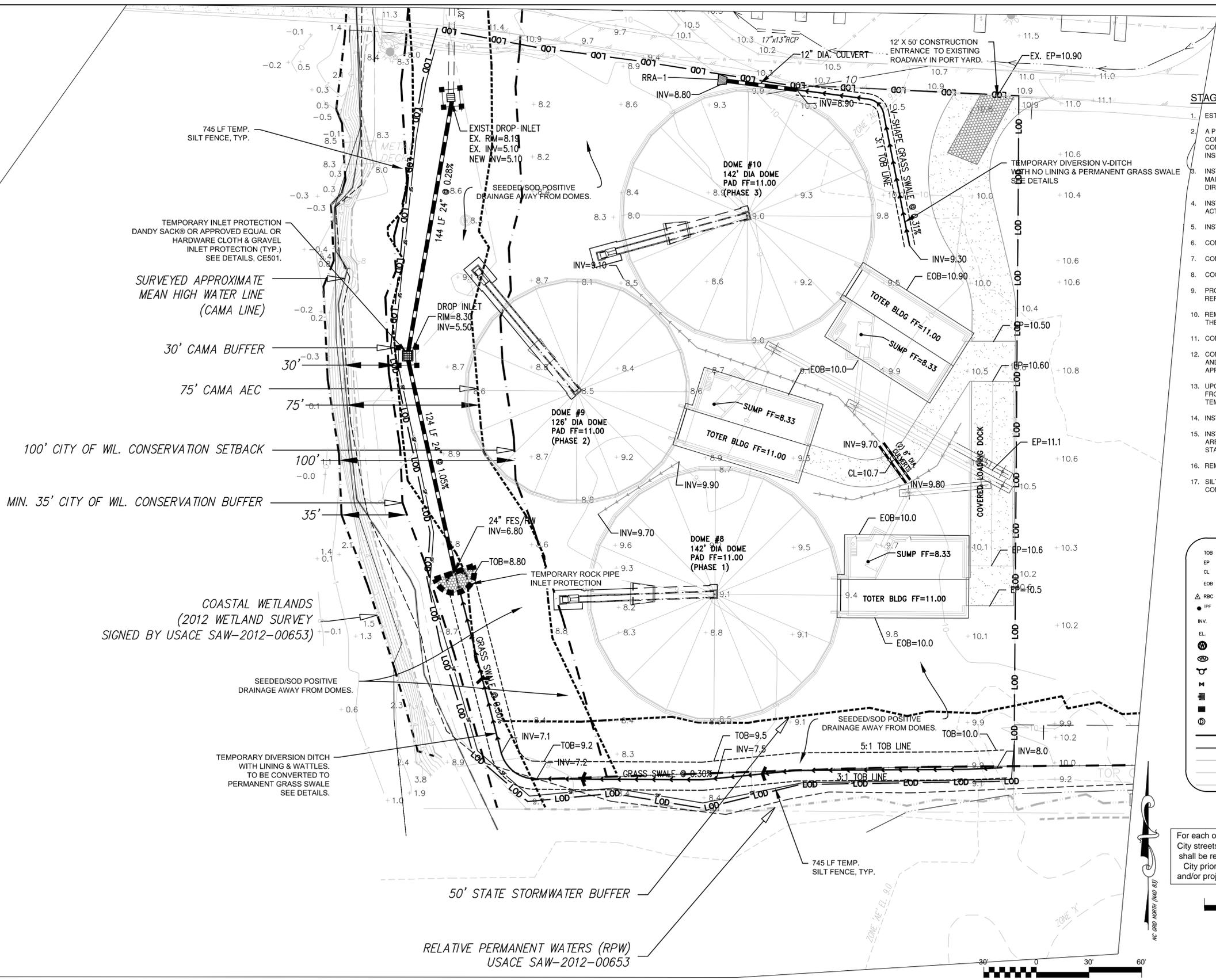
Approved Construction Plan

Name _____ Date _____

Planning _____
Traffic _____
Fire _____

1 inch

SCALE: 1"=30' (Horiz.)



745 LF TEMP. SILT FENCE, TYP.

EXIST. DROP INLET
EX. RIM=8.19
EX. INV=5.10
NEW INV=5.10

SEEDED/SOD POSITIVE DRAINAGE AWAY FROM DOMES.

TEMPORARY INLET PROTECTION DANDY SACK® OR APPROVED EQUAL OR HARDWARE CLOTH & GRAVEL INLET PROTECTION (TYP.) SEE DETAILS, CE501.

SURVEYED APPROXIMATE MEAN HIGH WATER LINE (CAMA LINE)

30' CAMA BUFFER

75' CAMA AEC

100' CITY OF WL. CONSERVATION SETBACK

MIN. 35' CITY OF WL. CONSERVATION BUFFER

COASTAL WETLANDS (2012 WETLAND SURVEY SIGNED BY USACE SAW-2012-00653)

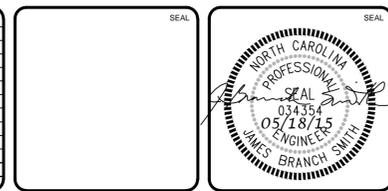
SEEDED/SOD POSITIVE DRAINAGE AWAY FROM DOMES.

TEMPORARY DIVERSION DITCH WITH LINING & WATTLES. TO BE CONVERTED TO PERMANENT GRASS SWALE SEE DETAILS.

50' STATE STORMWATER BUFFER

RELATIVE PERMANENT WATERS (RPW) USACE SAW-2012-00653

REV. NO.	DESCRIPTIONS	DATE
C	TRC SUBMITTAL No. 2	05/15/15
B	ISSUED FOR COW TRC	4/29/15
A	ISSUED FOR CAMA MINOR MODIFICATION REVIEW	4/22/15



MCKIM & CREED

243 North Front Street
Wilmington, North Carolina 28401
Phone: (910)343-1048, Fax: (910)251-8282
License: F-1222
www.mckimcreed.com

Carolina Marine Terminal
3330 River Road
Wilmington, NC 28412

CAROLINA MARINE TERMINAL
TERMINAL EXPANSION (2015)
Wilmington, NC

GRADING, DRAINAGE, & EROSION CONTROL PLAN

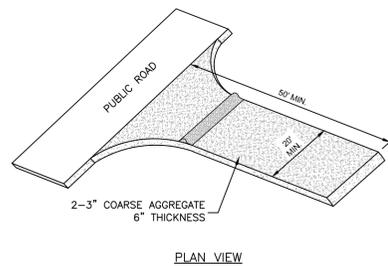
DATE:	4/2/2015	SCALE:	1"=30'	M&E FILE NUMBER:	CG101
M&E PROJ. #:	3057-0014	HORIZONTAL:	1"=30'	DRAWING NUMBER:	C-1
DRAWN:	JBS	VERTICAL:	NA		4 of 6
DESIGNED:	JBS				
CHECKED:	RMC				
PROJ. MGR.:	RMC				
STATUS:	ISSUED FOR COW TRC				
					REVISION: C

EROSION CONTROL NOTES

- CLEAR AND REMOVE FROM SITE ALL TREES, SHRUBS, ROOTS, ROOT MAT, ETC. FROM THE AREA WITHIN DESIGNATED CLEARING LIMITS. DO NOT DISTURB INSIDE TREE PROTECTION FENCING.
- CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING AND RESTORING TO PRE-CONSTRUCTION CONDITIONS ANY AREAS OUTSIDE THE PROJECT LIMITS THAT MAY INADVERTENTLY BE DAMAGED DUE TO THE FAILURE OF THE EROSION MEASURES DURING GRADING AND AFTER GRADING HAS BEEN COMPLETED.
- CONTRACTOR SHALL CONTINUE TO MAINTAIN PERMANENT AND TEMPORARY EROSION CONTROL MEASURES UNTIL FINAL INSPECTION AND APPROVAL BY THE ENGINEER OR NEW HANOVER COUNTY INSPECTOR, IF REQUIRED.
- PRIOR TO ANY CLEARING, GRADING OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING SHALL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES AND NO TOOLS, STOCKPILES, MATERIALS, OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING.
- IF THE SAME PERSON CONDUCTS THE LAND-DISTURBING ACTIVITY & ANY RELATED BORROW OR WASTE ACTIVITY, THE RELATED BORROW OR WASTE ACTIVITY SHALL CONSTITUTE PART OF THE LAND-DISTURBING ACTIVITY UNLESS THE BORROW OR WASTE ACTIVITY IS REGULATED UNDER THE MINING ACT OF 1971, OR IS A LANDFILL REGULATED BY THE DIVISION OF WASTE MANAGEMENT. IF THE LAND-DISTURBING ACTIVITY AND ANY RELATED BORROW OR WASTE ACTIVITY ARE NOT CONDUCTED BY THE SAME PERSON, THEY SHALL BE CONSIDERED SEPARATE LAND-DISTURBING ACTIVITIES AND MUST BE PERMITTED EITHER THROUGH THE SEDIMENTATION POLLUTION CONTROL ACT AS A ONE-USE BORROW SITE OR THROUGH THE MINING ACT.
- CONTACT PERSON SHOULD ISSUES ARISE DURING EROSION AND SEDIMENT CONTROL OPERATION:
ANDY TOMLIN @ 910-395-4777

EROSION CONTROL MAINTENANCE

- ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF-PRODUCING RAINFALL, BUT IN NO CASE, LESS THAN ONCE EVERY WEEK AND WITHIN 24 HOURS OF EVERY HALF INCH RAINFALL.
- ALL POINTS OF EGRESS WILL HAVE CONSTRUCTION ENTRANCES/EXITS THAT WILL BE PERIODICALLY TOP-DRESSED WITH 2-3" COARSE STONE TO MAINTAIN 6" THICKNESS. ENTRANCES/EXITS WILL BE MAINTAINED IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE SITE. IMMEDIATELY REMOVE OBJECTIONABLE MATERIAL SPILLED, WASHED, OR TRACKED ONTO THE CONSTRUCTION ENTRANCE/EXIT OR PUBLIC ROADWAYS. (NCDENR PRACTICE 6.06)
- SEDIMENT WILL BE REMOVED FROM BEHIND THE SEDIMENT FENCE WHEN IT BECOMES HALF-FILLED. THE SEDIMENT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER. STAKES MUST BE STEEL. STAKE SPACING WILL BE 6 FEET MAX. WITH THE USE OF EXTRA STRENGTH FABRIC, WITHOUT WIRE BACKING. STAKE SPACING WILL BE 8 FEET MAX. WHEN STANDARD STRENGTH FABRIC AND WIRE BACKING ARE USED. IF ROCK FILTERS ARE DESIGNED AT LOW POINTS IN THE SEDIMENT FENCE THE ROCK WILL BE REPAIRED OR REPLACED IF IT BECOMES HALF FULL OF SEDIMENT, NO LONGER DRAINS AS DESIGNED OR IS DAMAGED. (NCDENR PRACTICE 6.62)
- SEDIMENT WILL BE REMOVED FROM HARDWARE CLOTH AND GRAVEL INLET PROTECTIONS WHEN THE SEDIMENT REACHES HALF OF THE DEPTH TO THE TOP OF THE ROCK. ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT CONTROL MEASURE NO LONGER DRAINS AS INTENDED. REMOVE DEBRIS FROM THE ROCK AS NECESSARY TO ALLOW FOR PROPER DRAINAGE. (NCDENR PRACTICES 6.51)
- ALL SEEDED AREAS WILL BE FERTILIZED, RE-SEED AS NECESSARY AND MULCHED ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER. THE ANGLE FOR GRADED SLOPES AND FILLS SHALL BE NO GREATER THAN THE ANGLE THAT CAN BE RETAINED BY VEGETATIVE COVER OR OTHER ADEQUATE EROSION CONTROL DEVICES OR STRUCTURES. IN ANY EVENT, SHORT, FLAT SLOPES (FLATTER THAN 3:1 AND LESS THAN 50') LEFT EXPOSED WILL, WITHIN 14 CALENDAR DAYS OF COMPLETION OF ANY GRADING, BE PLANTED OR OTHERWISE PROVIDED WITH TEMPORARY OR PERMANENT GROUND COVER, DEVICES, OR STRUCTURES SUFFICIENT TO RESTRAIN EROSION. ALL OTHER AREAS SHOULD BE STABILIZED WITHIN 7 DAYS AFTER ANY PHASE OF ACTIVITY.
- INSPECT DIVERSION DITCHES AND MAKE REPAIRS IF NECESSARY. REMOVE SEDIMENT ACCUMULATION DURING CONSTRUCTION. IF ROLLED EROSION CONTROL BLANKETS OR OTHER LININGS ARE SPECIFIED FOR THE DIVERSION DITCHES AND SWALES, MAINTAIN LINING FOR TEMPORARY MEASURES. INSPECT WATTLES AND REMOVE SEDIMENT ACCUMULATION OR DEBRIS BEHIND WATTLES. REGRADE DITCHES IF WATER WASHES OUT AROUND WATTLES AND REPLACE WATTLES AS NECESSARY (NCDENR PRACTICES 6.17, 6.20, 6.21, AND 6.30).
- INSPECT CHECK DAMS AND MAINTAIN DESIGN DIMENSIONS AS NECESSARY. REMOVE SEDIMENT ACCUMULATION OR DEBRIS BEHIND CHECK DAMS AND REGRADE DITCHES IF WATER WASHES OUT AROUND CHECK DAMS. REPLACE SEDIMENT CLOGGED FILTER GRAVEL ON CHECK DAMS AND ROCK INLET PROTECTIONS. MAINTAIN DESIGN DIMENSIONS FOR ROCK INLET PIPE PROTECTION AND OUTLET PROTECTIONS. (NC PRACTICES 6.87, 6.55, AND 6.41)



TEMPORARY CONSTRUCTION ENTRANCE

NOT TO SCALE
NCDENR PRACTICE STD. 6.06

VEGETATION PLAN SPECIFICATIONS

- ALL DISTURBED AREAS SHALL BE DRESSED TO THE EXISTING TYPICAL SECTION AND TILLED OR RIPPED TO A MIN. DEPTH OF 4-INCHES. THE TOP 2 INCHES SHALL BE PULVERIZED TO PROVIDE A UNIFORM SEEDBED.
- LIME AND FERTILIZER SHOULD BE INCORPORATED INTO THE SOIL PRIOR TO SEEDING OR SOD. FOLLOW SOIL TESTS OR AS FOLLOWS:
AGRICULTURAL LIMESTONE - 2 TONS/ACRE
FERTILIZER - 1000 LBS/ACRE (10-10-10)
SUPERPHOSPHATE - 500 LBS/ACRE (20R)
MULCH - 2 TONS/ACRE (SMALL GRAIN STRAW)
ANCHOR - ASPHALT EMULSION AT 450 GAL/ACRE
- FOR OPEN AREAS, USE STRAW MULCH AS A MINIMUM FOR STABILIZATION IF THE AREAS CANNOT BE SEEDING ACCORDING TO THE PLANTING DATES. OTHER MULCHING PRACTICES ARE LISTED IN SECTION 6.14 OF THE EROSION CONTROL MANUAL FOR MULCHING.
- FOR DITCHES AND SLOPES, USE EXCELSIOR MATTING AS A MINIMUM FOR STABILIZATION IF THE AREAS CANNOT BE SEEDING ACCORDING TO THE PLANTING DATES. OTHER MATTING PRACTICES ARE LISTED IN SECTION 6.14 OF THE EROSION CONTROL MANUAL FOR MULCHING.
- CHEMICAL STABILIZERS MAY BE USED, BUT IT IS NOT RECOMMENDED FOR VEGETATION GROWTH. REFER TO THE EROSION CONTROL MANUAL FOR A LIST OF STABILIZERS AND FOLLOW MANUFACTURER'S SPECIFICATIONS.
- THE FOLLOWING TABLES ARE REFERENCED FROM NC EROSION CONTROL MANUAL SEC. 6.10 AND 6.11, AND THE STABILIZATION TABLE IS REFERENCED FROM NPDES NCG 010000.

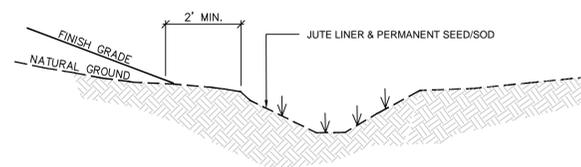
TEMPORARY SEEDING			
GRASS TYPE	AMOUNT/ 1000 S.F.	TIME OF SEEDING	INITIAL
RYE GRAIN	1-2 LBS.	APRIL - JUNE	25 LBS. 10-10-10
BROWNTOP MILLET	1-2 LBS	JUNE - AUGUST	25 LBS 10-10-10

PERMANENT SEEDING			
GRASS TYPE	AMOUNT/ 1000 S.F.	TIME OF SEEDING	INITIAL
BERMUDA COMMON	1-2 LBS.	APRIL - JUNE	25 LBS. 10-10-10
FESCUE, TALL (KENTUCKY 31)	5-7 LBS	JUNE - AUGUST FEB. - OCT.	25 LBS 10-10-10
SERICEA LESPEDEZA (SLOPES)	1-2 LBS	MARCH - APRIL	25 LBS 10-10-10

NPDES PERMIT NCG 010000 PLAN NOTES:

- ACCORDING TO NPDES NCG 010000 EFFECTIVE AUGUST 3, 2011: THE PLANS SHALL CONFORM TO GROUND STABILIZATION REQUIREMENTS OF SECTION II.B.2 GROUND STABILIZATION.
- ACCORDING TO NPDES NCG 010000 EFFECTIVE AUGUST 3, 2011: THE SEDIMENT BASINS SHALL CONFORM TO SURFACE WITHDRAWAL REQUIREMENTS OF SECTION II.B.4 SEDIMENT BASINS.

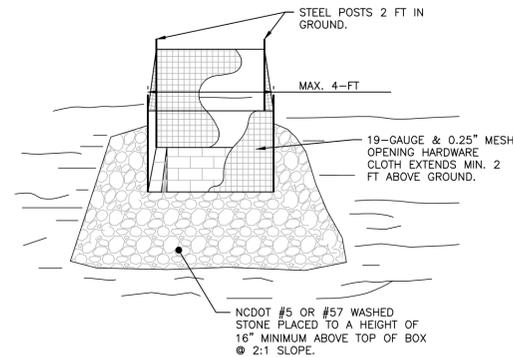
GROUND STABILIZATION CRITERIA		
SITE AREA DESCRIPTION	STABILIZATION TIMEFRAME	STABILIZATION TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10 FT OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50 FT IN LENGTH
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE (EXCEPT FOR PERIMETERS AND HQW ZONES)



- NOTES:
- TEMP. DIVERSION DITCHES SHALL BE CONVERTED INTO PERMANENT CONVEYANCE SWALES THEREFORE LOCATE AS INDICATED THE FIRST TIME.
 - LINING SHALL BE JUTE OR BIODEGRADABLE MATTING AND INSTALLED ACCORDING TO NCDENR STD. EROSION CONTROL PRACTICES.

TEMPORARY DIVERSION DITCH

NOT TO SCALE
NCDENR PRACTICE STD. 6.22



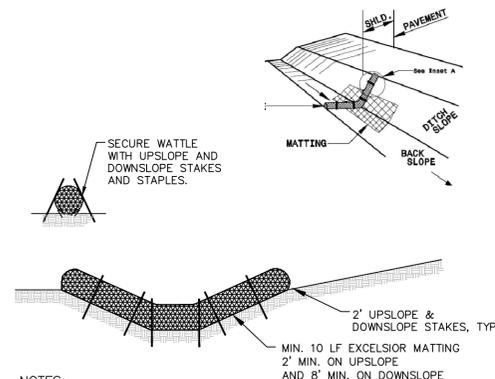
NOTES:

- DRIVE 5-FOOT STEEL POSTS (1.25 lb/ft steel) 2 FEET INTO THE GROUND SURROUNDING THE INLET. SPACE POSTS EVENLY AROUND THE PERIMETER OF THE INLET, A MAXIMUM OF 4 FEET APART.
- SURROUND THE POSTS WITH AT LEAST 19-GAUGE HARDWARE CLOTH WITH A 1/4-INCH MESH OPENING. SECURE THE WIRE MESH TO THE STEEL POSTS AT THE TOP, MIDDLE, AND BOTTOM FOR A MIN. 2 FEET ABOVE THE GROUND. PLACING A 2-FOOT FLAP OF THE WIRE MESH UNDER THE GRAVEL FOR ANCHORING AND REMOVAL IS RECOMMENDED.
- UNIFORMLY GRADE A SHALLOW DEPRESSION APPROACHING THE INLET. THE TOP ELEVATION OF THE STRUCTURE MUST BE AT LEAST 12-INCHES LOWER THAN THE SURROUNDING GROUND ELEVATION DOWNSLOPE FROM THE INLET TO ENSURE THAT STORM FLOWS GET INTO THE INTENDED INLET; UNLESS OTHER SEDIMENT-CONTROL DEVICES ARE INSTALLED TO PREVENT OFF-SITE SEDIMENT-RUNOFF.

ALTERNATE MEASURE:
THE USE OF INLET SACK BAGS OR PYRAMID SHAPED STEEL STRUCTURES MAY BE USED AS AN ALTERNATE MEASURE DEVICE. CONTACT TRIANGLE STORMWATER SOLUTIONS OR OTHER MANUFACTURERS.

TEMPORARY INLET PROTECTION

NOT TO SCALE
NCDENR PRACTICE STD. 6.51

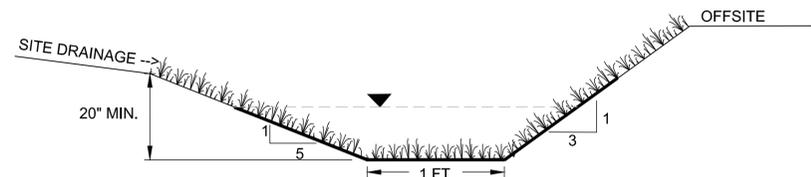


NOTES:

- USE MINIMUM 12" DIA. EXCELSIOR WATTLE.
- USE 2"x2" WOODEN STAKES 2-FT IN LENGTH ON THE UPSLOPE AND DOWNSLOPE AT AN ANGLE TO WEDGE THE WATTLE TO THE BOTTOM OF THE SWALE.
- STAPLE EVERY 1 LF ON BOTH SIDES OF THE WATTLE TO SECURE IT TO THE BOTTOM OF THE SWALE.

TEMPORARY WATTLE (CHECK DAM)

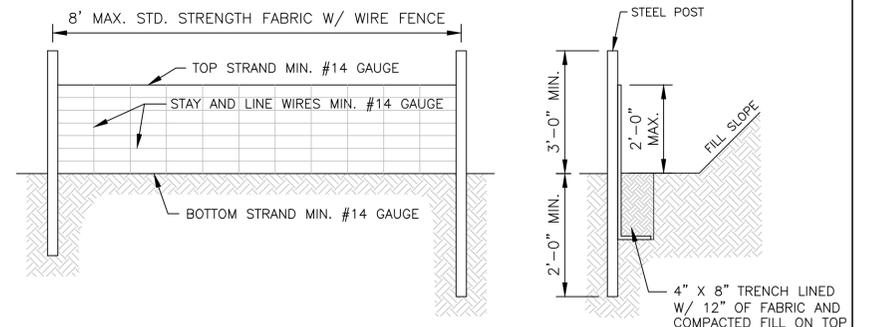
NOT TO SCALE
NCDOT PRACTICE



- NOTES:
- BOTTOM WIDTH MAY BE 0-FT; THEREFORE NOTED AS A V-DITCH.

PERMANENT GRASS SWALE

NOT TO SCALE

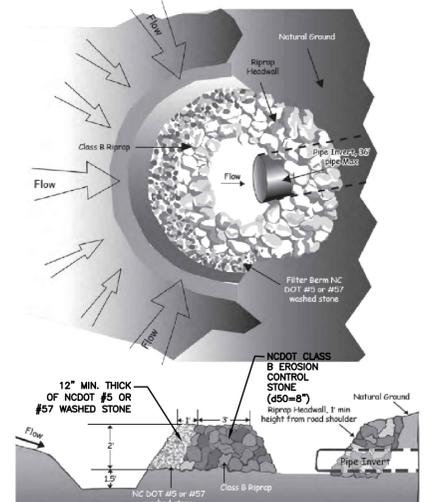


NOTES:

- WIRE FENCE (IF USED) SHALL BE MINIMUM 14 GAUGE WITH A MAXIMUM MESH OPENING OF 6-INCHES.
- SYNTHETIC FILTER FABRIC OF AT LEAST 95% BY WEIGHT OF POLYOLEFIN'S OR POLYESTER, WHICH IS CERTIFIED BY THE MANUFACTURER OR SUPPLIER AS CONFORMING TO THE REQUIREMENTS IN ASTM D 6461 AND ALSO SHOULD CONTAIN ULTRAVIOLET RAY INHIBITORS AND STABILIZERS ACCORDING TO ASTM D 4355.
- SEE THE NC EROSION CONTROL MANUAL FOR SPECIFICATIONS INSTALLING SEDIMENT FENCE USING THE SLICING METHOD MACHINERY.

TEMPORARY SILT FENCE

NOT TO SCALE
NCDENR PRACTICE STD. 6.62



TEMPORARY ROCK PIPE INLET PROTECTION

NOT TO SCALE
NCDENR PRACTICE STD. 6.55

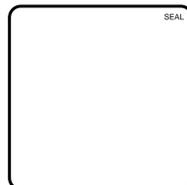
For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

STORMWATER MANAGEMENT PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE _____ PERMIT # _____
SIGNED _____

Approved Construction Plan

Name _____	Date _____
Planning _____	
Traffic _____	
Fire _____	

REV. NO.	DESCRIPTIONS	DATE
C	TRC SUBMITTAL NO. 2	05/19/15
B	ISSUED FOR CON'TRC.	02/26/15
A	ISSUED FOR CANA MINOR MODIFICATION REVIEW	02/26/15



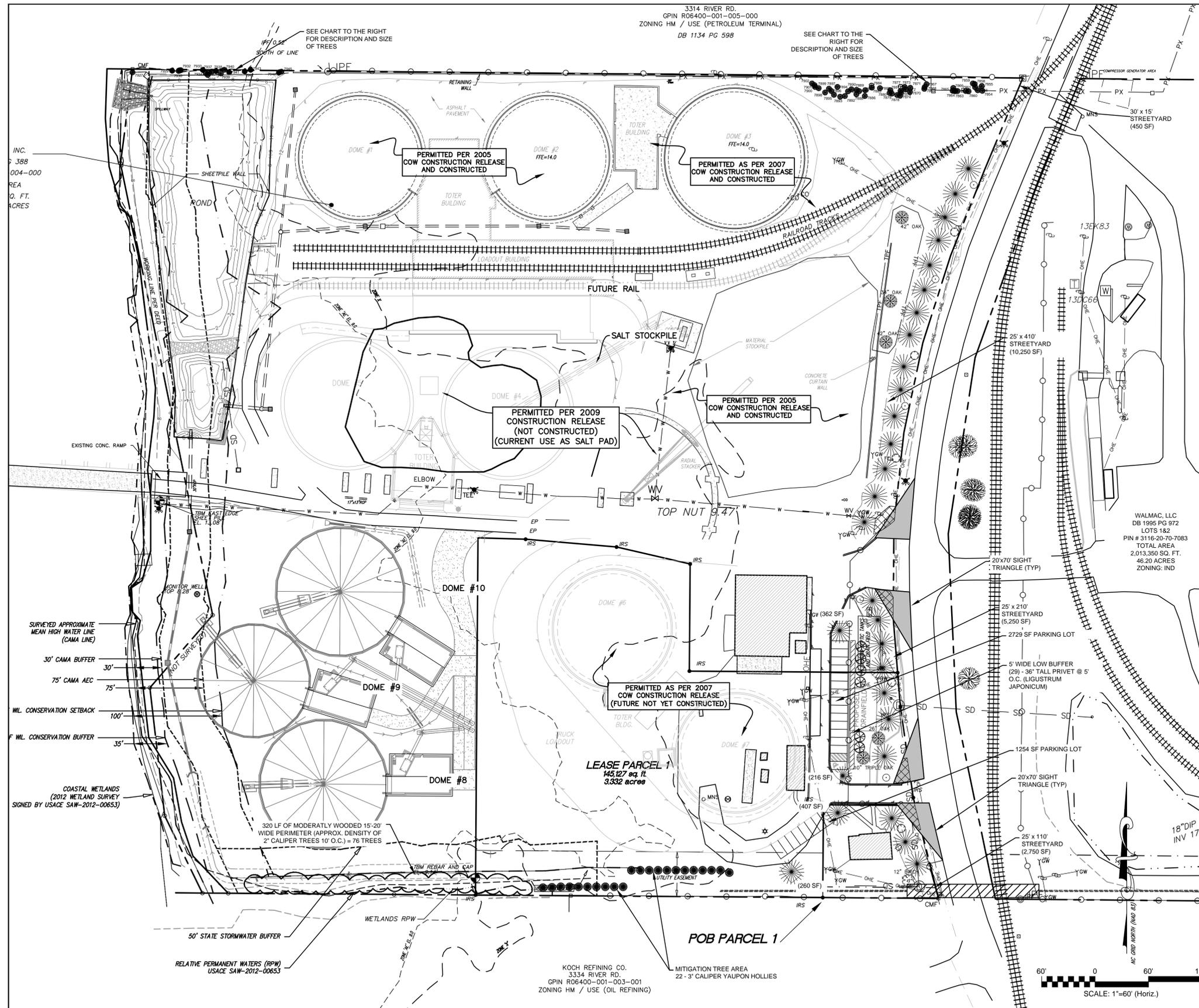
MCKIM & CREED
243 North Front Street
Wilmington, North Carolina 28401
Phone: (910)343-1048, Fax: (910)251-8282
License: F-1222
www.mckimcreed.com

Carolina Marine Terminal
3330 River Road
Wilmington, NC 28412

CAROLINA MARINE TERMINAL
TERMINAL EXPANSION (2015)
Wilmington, NC
EROSION CONTROL DETAILS

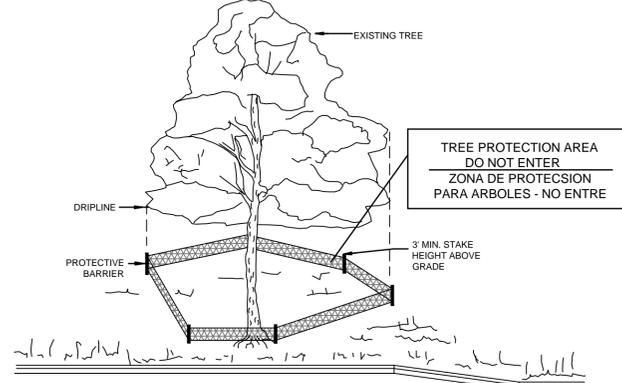
DATE: 4/2/2015	SCALE	MAC FILE NUMBER
MCE PROJ. # 3057-0014	HORIZONTAL: NA	CE501
DRAWN: JBS	VERTICAL: NA	DRAWING NUMBER
DESIGNED: JBS		C-2
CHECKED: RMC		5 of 6
PROJ. MGR. RMC		

STATUS: ISSUED FOR COW TRC
REVISION: C



LANDSCAPE NOTES

- TREES REQUIRED
A. SEE 2009 APPROVED SITE-LANDSCAPE PLAN
- SIGNIFICANT TREES
A. TREE DBH REMOVED = NONE
- REGULATED TREES
A. TREE CALIPER REMOVED = 12"
B. NO REPLACEMENT - ESSENTIAL SITE IMPROVEMENT/RAILROAD DESIGN CRITERIA
- STREET YARD
A. STREET YARD REQUIRED = 17,500 SF
B. STREET YARD PROVIDED = 18,250 SF (700 LF x 25'(MIN WIDTH 12.5', MAX WIDTH 37.5'))
C. TREES PROVIDED = 25 PLANTED, 4 PRESERVED SHRUBS PROVIDED = 177
- VEHICULAR USE AREAS
A. EXISTING IMPERVIOUS = 23,255 SF
B. PROPOSED IMPERVIOUS = 47,630 SF
C. TOTAL = 70,885 x 8% = 5,671 SF
D. 5,671 SF / 144 = 39 TREES W/ GROUND COVER LOCATED ALONG RIVER
- SETBACKS
FRONT = 50'
SIDE = 0'
REAR = 0'
- PERIMETER AND SIGNIFICANT TREES REMOVED FOR ESSENTIAL SITE IMPROVEMENTS AND RAIL DESIGN CRITERIA.
- THE CREATIVE LANDSCAPE STANDARD IS BEING USED TO MEET THE STREETYARD REQUIREMENTS AND 50% OF THE REQUIRED STREETYARD AREA WILL BE COVERED WITH TREES AND SHRUBS.
- PRIOR TO ANY CLEARING, GRADING, OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES. NO CONSTRUCTION WORKERS, TOOLS, MATERIALS, OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING.
- NO LAND DISTURBANCE INCLUDING TREE REMOVAL IS TO OCCUR OUTSIDE THE LIMITS OF DISTURBANCE SHOWN ON PLANS. NO LAND DISTURBANCE IS PERMITTED ON SITE UNTIL A TREE PERMIT IS ISSUED IN CONJUNCTION WITH A COUNTY LAND CLEARING PERMIT, CITY GRADING AND CLEARING PERMIT, AND ANY REQUIRED STATE AND FEDERAL PERMITS.
- NO EQUIPMENT IS ALLOWED ON THE SITE UNTIL ALL TREE PROTECTION FENCING AND SILT FENCING HAS BEEN INSTALLED AND APPROVED.
- TREE PROTECTION FENCING IS TO BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT AND LAND CLEARING AND CONSTRUCTION CONTRACTORS SHALL RECEIVE ADEQUATE INSTRUCTION ON TREE PROTECTION REQUIREMENTS AND METHODS.



NOTE
TREES TO BE SAVED WILL BE CLEARLY MARKED PRIOR TO CONSTRUCTION AND A PROTECTIVE BARRIER IS TO BE INSTALLED AT THE DRILINE. DRIP LINE - THE AREA OF SOIL DIRECTLY BENEATH THE TREE EXTENDING OUT TO THE TIPS OF THE OUTERMOST BRANCHES.

METHOD OF TREE PROTECTION DURING CONSTRUCTION

SD 15-08
NOT TO SCALE

LEGEND

- EXISTING TREE TO BE PRESERVED
- EXISTING TREE TO BE REMOVED
- PROPOSED HIGH RISE LIVE OAK - 25' 3" CALIPER STREET TREE, 4" 3" CALIPER INTERIOR TREE (QUERCUS VIRGINIANA "HIGH RISE")
- YALPON HOLLY - 22' 3" CALIPER MITIGATION TREE (ILEX VOMITORIA)
- PROPOSED CRAPE MYRTLE - 6' 7" G.L. (LAGERSTROEMIA INDICA "ACOMA")
- PROPOSED EVERGREEN EUONYMUS 5 @ 18' HT (EUONYMUS JAPONICA)
- PROPOSED GLOSSY ABELIA 13 SHRUBS / GROUPING = 5 GROUPINGS OF 13 = 65 @ 18' HT (ABELIA GRANDIFLORA)
- PROPOSED SHORE JUNIPER 13 SHRUBS / GROUPING = 4 GROUPINGS OF 13 = 52 (JUNIPERUS CONFERTA)

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

STORMWATER MANAGEMENT PLAN APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE _____ PERMIT # _____
SIGNED _____

Approved Construction Plan

Name	Date
Planning	
Traffic	
Fire	

REV. NO.	DESCRIPTIONS	DATE
C	TRC SUBMITTAL NO. 2	05/19/15
B	ISSUED FOR CON'TRC.	02/09/15
A	ISSUED FOR CAMA MINOR MODIFICATION REVIEW	02/27/15

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER
034354
05/18/15
JAMES BRANCH SMITH

MCKIM & CREED
243 North Front Street
Wilmington, North Carolina 28401
Phone: (910)343-1048, Fax: (910)251-8282
License: F-1222
www.mckimcreed.com

Carolina Marine Terminal
3330 River Road
Wilmington, NC 28412

CAROLINA MARINE TERMINAL
TERMINAL EXPANSION (2015)
Wilmington, NC
OVERALL LANDSCAPE PLAN

DATE:	4/2/2015	SCALE:	MAC FILE NUMBER:
MCE PROJ. #:	3057-0014	HORIZONTAL:	CL101
DRAWN:	JBS	VERTICAL:	DRAWING NUMBER:
DESIGNED:	JBS	1"=60'	C-3
CHECKED:	RMC	NA	6 of 6
PROJ. MGR.:	RMC		

STATUS: ISSUED FOR COW TRC
REVISION: C