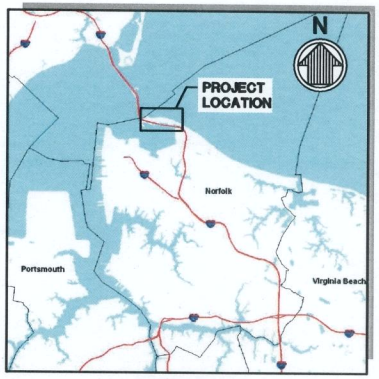
LOCATION MAP
NTS

# City of Norfolk
Department of Public Works




VICINITY MAP
NTS

# WILLOUGHBY SPIT
# SHORELINE IMPROVEMENTS

## CITY OF NORFOLK, VIRGINIA

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| 4 | C-102 | SITE PLAN – SHEET 1 OF 6 |
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| 15 | C-501 | BREAKWATER DETAILS & TYPICAL SECTIONS |
| 16 | C-502 | TIMBER GROIN DEMOLITION DETAILS |

BEFORE YOU DIG,
CALL
"MISS UTILITY"
OF VIRGINIA
1-800-552-7001
(TOLL FREE)

DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

WILLOUGHBY SPIT
SHORELINE IMPROVEMENTS

TITLE SHEET & INDEX OF DRAWINGS

Designed by: BJ
Drawn by: BJ
Reviewed by: MR
Submitted by: MOFFATT & NICHOL
Date: JUNE 2012
Last by: JM
M&N Project No.: 6998-18
Drawing scale:
Drawing Size: Plot scale: 1:1 (D SHEET)

800 WORLD TRADE CENTER
NORFOLK, VA 23510
757-628-8222
moffatt & nichol

PREPARED FOR:
CITY OF NORFOLK DEPARTMENT
OF PUBLIC WORKS

COMMONWEALTH OF VIRGINIA
MICHAEL RIEGER
Lic. No.042862
PROFESSIONAL ENGINEER
SEAL
6/7/12

Sheet Reference Number:
G-001
SHEET 1 OF 16

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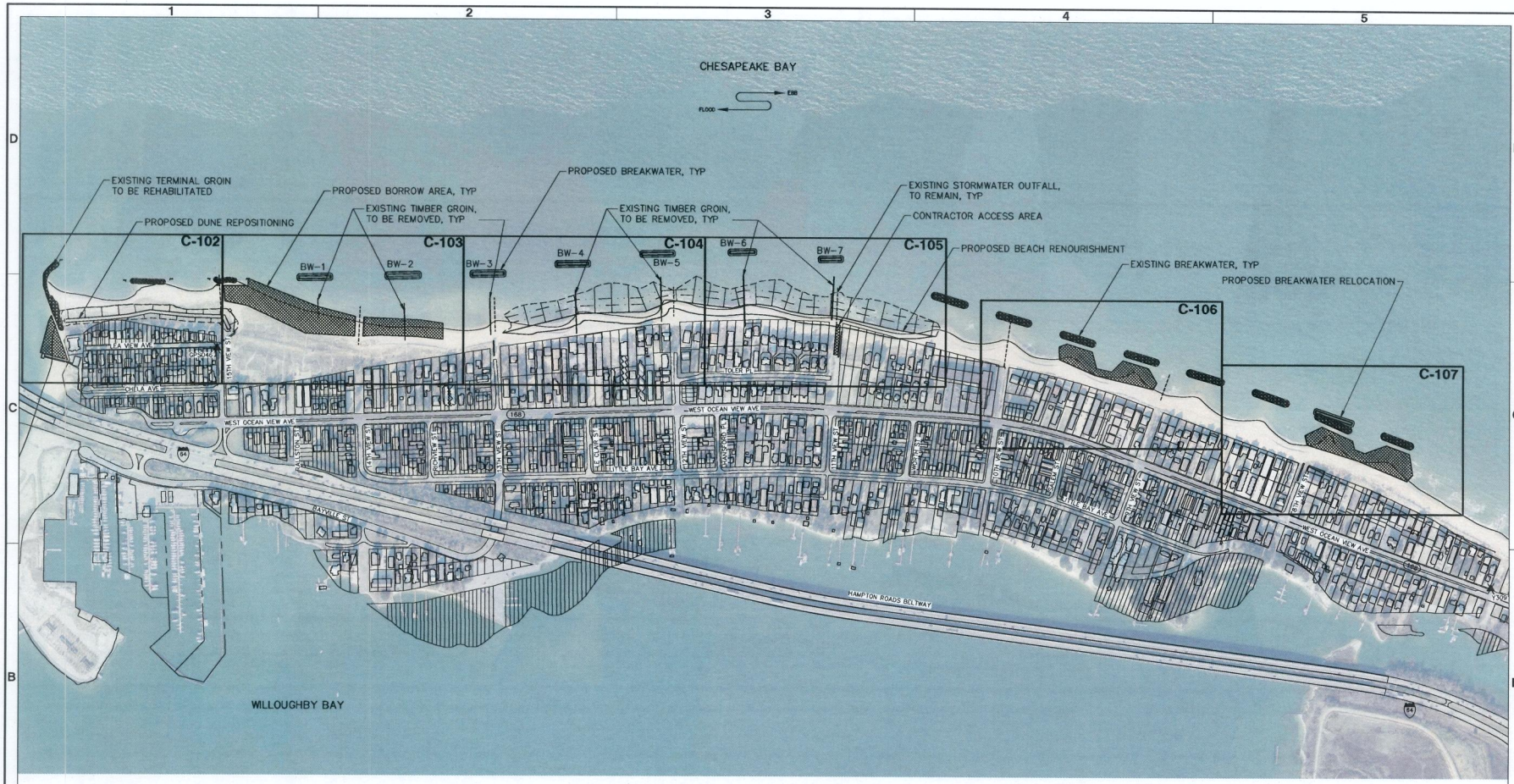


NOTES:

1. THE CONTRACTOR SHALL TAKE ALL MEASURES NECESSARY TO PROTECT EXISTING STRUCTURES (GROINS THAT REMAIN, STORMWATER OUTFALLS, BEACH ACCESS STRUCTURES, ETC.) AND DUNE VEGETATION ALONG ACCESS ROUTES. THE CONTRACTOR SHALL REPAIR AND/OR REPLACE DAMAGED STRUCTURES AND VEGETATION AS REQUIRED BY THE CONSTRUCTION ENGINEER. CONTRACTOR SHALL USE MATS OR TEMPORARY SAND FILL, AS DEEMED NECESSARY, TO PROTECT THE STRUCTURES. AS DIRECTED BY THE CONSTRUCTION ENGINEER, ALL FILL AND MATS SHALL BE REMOVED UPON COMPLETION OF THE PROJECT.

2. PROPOSED BREAKWATER AVERAGE LENGTH = 170 L.F.±
PROPOSED BREAKWATER AVERAGE FOOTPRINT BOTTOM AREA = 7820 S.F.±
PROPOSED BREAKWATERS TOTAL FOOTPRINT BOTTOM AREA = 54,720 S.F.±

BENCH MARK MONUMENT COORDINATE AND ELEVATION DATA

| DESIGNATION | NORTHING | EASTING | ELEVATION (NAVD 88) |
|---|---|---|---|
| BW BASE | 3511017.535 | 12145428.259 | 12.215 |
| Y309 | 3518170.834 | 12134917.899 | 4.600 |
| H310 | 3506882.750 | 12155093.800 | 5.663 |
| GPS046 | 3519549 | 12127412 | 2.38 |

N

300' 0' 300' 600'

SCALE: 1"=300'

DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

WILLOUGHBY SPIT SHORELINE IMPROVEMENTS

OVERVIEW PLAN

Designed by: BJ
Dwn by: DK
Ckd by: JM
Reviewed by: MR
Submitted by: MOFFATT & NICHOL
Date: JUNE 2012
Rev. -
M&N Project No. 6998-18
Drawing Scale:
Plot scale: 1:1 (D SHEET)

moffatt & nichol
800 WORLD TRADE CENTER
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PREPARED FOR:
CITY OF NORFOLK DEPARTMENT OF PUBLIC WORKS

COMMONWEALTH OF VIRGINIA
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6/7/12
PROFESSIONAL ENGINEER
SEAL

Sheet Reference Number:
C-101
SHEET 3 OF 16

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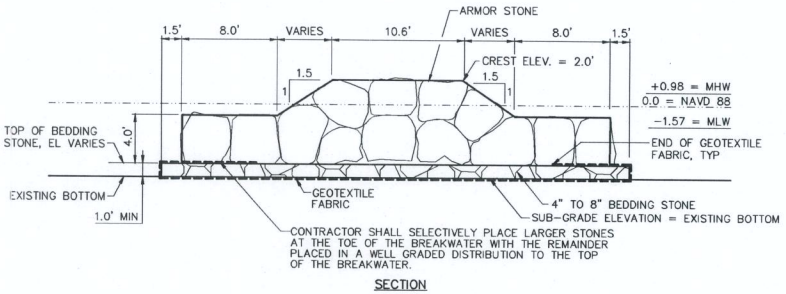
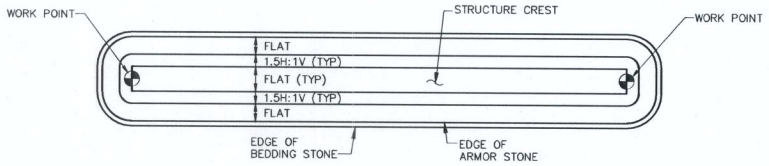



SECTION



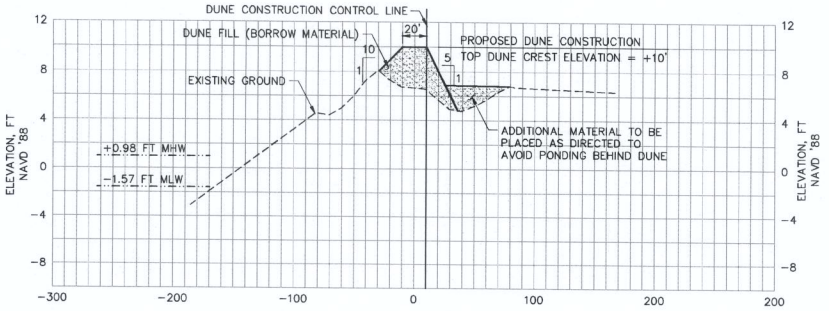

PLAN

NOTE:

1. NO CHINKING IS ALLOWED WITHIN THE ARMOR STONE.

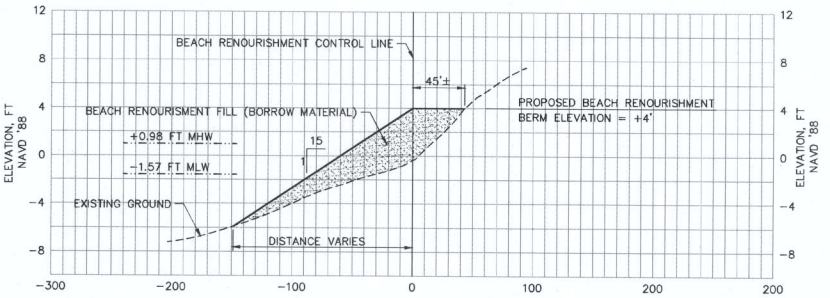
## C1 TYPICAL BREAKWATER DETAIL

C-301 1"=50'



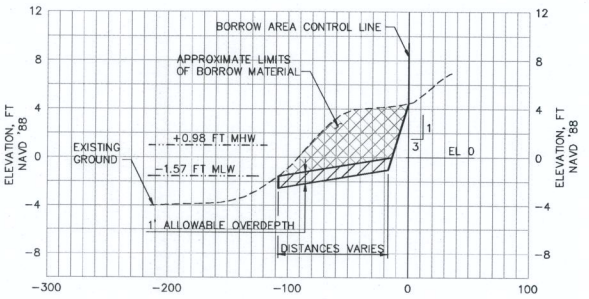

## C3 DUNE CONSTRUCTION TYPICAL SECTION

C-302 C-102 HORIZ: 1"=50' VERT: 1"=5'



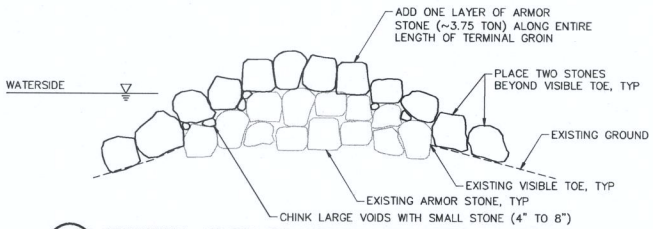

## B3 BEACH RENOURISHMENT TYPICAL SECTION

C-105, C-303, C-304 C-104 HORIZ: 1"=50' VERT: 1"=5'




## A1 BORROW AREA TYPICAL SECTION

C-103, C-106, C-107 C-102 HORIZ: 1"=50' VERT: 1"=5'




## A3 TERMINAL GROIN REHABILITATION TYPICAL SECTION

C-305 C-102 NOT TO SCALE

DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

WILLOUGHBY SPIT SHORELINE IMPROVEMENTS

DETAILS & TYPICAL SECTIONS

Designed by: BJ | Date: JUNE 2012 | Rev. -
Dwn by: DK | Ckd by: JM | M&N Project No. 6998-18
Reviewed by: MR | Drawing code:
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SEAL

Sheet Reference Number:
C-501
SHEET 15 OF 16

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