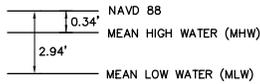


### GENERAL NOTES:

1. ALL BEACH FILL WORK SHALL CONFORM TO THE REQUIREMENTS OF THIS PLAN.
2. THE PLANE COORDINATES AND BEARINGS SHOWN FOR THE BEACH FILL SURVEYS ARE BASED ON THE VIRGINIA STATE PLANE COORDINATE SYSTEM, NORTH AMERICAN DATUM 83 WITH THE 1993 HARN ADJUSTMENT - NAD 83 (93) VIRGINIA SOUTH ZONE.
3. ALL ELEVATIONS SHOWN ON THE BEACH FILL DRAWINGS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM (NAVD 88).
4. THE BATHYMETRY/TOPOGRAPHY PRESENTED ON THE PLANS AND SECTIONS IS BASED ON A SURVEY COMPLETED IN OCTOBER 2003 BY WATERWAY SURVEYS AND CAN ONLY BE CONSIDERED AS INDICATING THE CONDITIONS AT THAT TIME.
5. THE MEAN HIGH WATER ELEVATION AND MEAN LOW WATER ELEVATION SHOWN ON THE BEACH FILL DRAWINGS AND BELOW WERE PROVIDED BY THE CITY OF NORFOLK.



6. HORIZONTAL AND VERTICAL CONTROL FOR THE BEACH FILL SURVEY WAS BASED ON RANGE MONUMENTS AS FOUND BY WATERWAY SURVEYS AND ARE SHOWN ON SHEETS 4-8.
7. BUILDING, ROAD AND CADASTRAL INFORMATION PROVIDED BY THE CITY OF NORFOLK.
8. SHORELINE SHOWN ON DRAWINGS IS FOR GENERAL REFERENCE ONLY. APPROXIMATE MHW SHORELINE AND MLW LINE WERE DIGITIZED USING AERIAL PHOTOGRAPHY DATED 2000 AND SURVEYS PERFORMED BY WATERWAY SURVEYS & ENGINEERING, LTD. DATED SPRING 2002 AND FALL 2003.
9. BREAKWATERS AND GROINS SHOWN ON DRAWINGS WERE DIGITIZED FROM AERIAL PHOTOGRAPHY DATED 2000 AND ARE FOR GENERAL REFERENCE ONLY.
10. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS BEFORE STARTING WORK. NOTIFY OWNER OF DISCREPANCIES.
11. ANY EXISTING SIGNS, FENCES, OR OTHER STRUCTURES WITHIN THE WORK LIMITS SHALL BE PROTECTED AND/OR REMOVED AND LATER REPLACED.
12. AUTHORIZATION BY WAY OF A RIGHT-OF-ENTRY AGREEMENT WILL BE REQUIRED FROM LANDOWNERS PRIOR TO THE PLACEMENT OF SAND OR GRADING OF ANY SAND DUNES ON PRIVATE PROPERTY.

### BEACH FILL

1. EXISTING BEACH SECTIONS SHOWN HEREIN REFLECT THE CONDITION OF THE BEACH AND OFFSHORE ON THE DATE THEY WERE SURVEYED. CONDITIONS MAY VARY FROM THOSE SHOWN HEREIN.
2. ALL SAND EXCAVATED FROM THE BORROW AREAS SHALL BE TRANSPORTED TO, AND DEPOSITED ON, THE BEACH BETWEEN THE LINES, GRADES, AND CROSS-SECTIONS SHOWN ON THE DRAWINGS.
3. SAND SHALL BE PLACED WITHIN THE LIMITS AND GRADE LINES AS SHOWN IN THE PLANS. TOLERANCE SHALL BE WITHIN 0.5 FOOT FOR DUNE HEIGHTS AND WIDTHS. ANY MATERIAL PLACED ABOVE THE PRESCRIBED TEMPLATE WILL NOT BE INCLUDED IN THE PAY QUANTITIES.
4. GRADE THE DUNE SO THAT PONDING LANDWARD OF THE CRESTS IS NOT A PROBLEM.

### QUANTITIES

1. THE FOLLOWING ESTIMATES OF SAND QUANTITIES REQUIRED FOR THE PROJECT ARE:

BEACH AND DUNE FILL	534,000 CY
SEAWARD OF MHW	283,500 CY 46.1 ACRES
SEAWARD OF MLW	176,500 CY 33.3 ACRES

### SURVEY

1. PRE- AND POST-CONSTRUCTION SURVEYS OF THE BEACH AREA SHALL BE MADE. TRANSECTS SHALL BE AT 100-FOOT INTERVALS. ADDITIONAL ELEVATIONS SHALL BE TAKEN AS NECESSARY TO ACCURATELY REPRESENT TOPOGRAPHY OF THE BEACH AREA.

### ABBREVIATIONS

APPROX = APPROXIMATE	MLLW = MEAN LOWER LOW WATER
ASTM = AMERICAN SOCIETY FOR TESTING MATERIALS	MLW = MEAN LOW WATER
BLDG = BUILDING	MSL = MEAN SEA LEVEL
BOTT = BOTTOM	N = NORTH
CF = CUBIC FEET	NTS = NOT TO SCALE
CONST = CONSTRUCTION	NO. = NUMBER
CONT = CONTINUOUS	O.C. = ON CENTER
CY = CUBIC YARDS	QTY = QUANTITY
DBL = DOUBLE	REQ'D = REQUIRED
DET = DETAIL	S = SOUTH
DIA = DIAMETER	SF = SQUARE FOOT
E = EAST	SH = SHEET
EA = EACH	STA = STATION
EL = ELEVATION	STD = STANDARD
ELEV = ELEVATION	T = TON
EQ = EQUAL	TYP = TYPICAL
EXIST = EXISTING	V. VERT = VERTICAL
FFE = FINISHED FLOOR ELEVATION	W = WEST
FT = FEET	WP = WORK POINTS
GRND = GROUND	WWF = WELDED WIRE FABRIC
H, HORIZ = HORIZONTAL	" = SECONDS OR INCH
IN = INCHES	' = MINUTES OR FEET
INFO = INFORMATION	* = ASTERISK
LB = POUND	⊠ = SQUARE
LF = LINEAR FEET	# = NUMBER OR POUNDS
MAX = MAXIMUM	& = AND
BM = BENCH MARK	⊙ = AT
CP = CONTROL POINT	⊙ = CENTERLINE
MHW = MEAN HIGH WATER	⊙ = DIAMETER OR PHASE
MIN = MINIMUM	° = DEGREES
MISC = MISCELLANEOUS	Ⓟ = PLATE

**PERMIT DRAWINGS**

NOT TO BE USED FOR CONSTRUCTION

DATUM: HORIZONTAL DATUM REFERENCED TO NAD83(93), STATE PLANE COORDINATE SYSTEM, VIRGINIA SOUTH, FEET. VERTICAL DATUM REFERENCED TO NAVD88. ELEVATIONS SHOWN IN FEET.

WILLOUGHBY TO CENTRAL OCEAN VIEW BEACH NOURISHMENT AND DUNE RESTORATION

CITY OF NORFOLK, VIRGINIA



APPLICATION BY:



CITY OF NORFOLK  
810 UNION STREET  
NORFOLK, VIRGINIA 23510

SHEET 2 OF 11

DATE: MARCH 3, 2004