



CALM WATER LEVEL

EVENT	NGVD ELEV. (FT)
1-31-08	576.7
AVERAGE (2000-2007)	577.6
ORDINARY HIGH WATER MARK	583
HISTORIC LOW	576.6
HISTORIC AVERAGE	579.5
HISTORIC HIGH	582.9

- GENERAL NOTES**
- DIMENSIONS TAKE PRECEDENCE OVER SCALE. CONTRACTOR TO VERIFY ALL DIMENSIONS IN FIELD.
 - PRIOR TO CONSTRUCTION OF ANY IMPROVEMENTS, THE CONTRACTOR MUST CALL DIGGERS HOTLINE SERVICE AND THE TOWN OF BAILEYS HARBOR AND THE DOOR COUNTY PARKS DEPARTMENT FOR THE LOCATION AND STAKING OF ALL EXISTING UNDERGROUND UTILITIES.
 - ALL CONSTRUCTION SIGNING AND TRAFFIC CONTROL TO BE IN ACCORDANCE WITH TOWN OF BAILEYS HARBOR AND WISCONSIN DEPARTMENT OF TRANSPORTATION REQUIREMENTS.
 - THE PROPOSED IMPROVEMENTS SHALL BE CONSTRUCTED ACCORDING TO THE ORDINANCES AND REQUIREMENTS OF THE TOWN OF BAILEYS HARBOR AND THE STATE OF WISCONSIN DOT, DDOCM, AND DNR REQUIREMENTS.
 - THE PROPOSED IMPROVEMENTS MUST BE CONSTRUCTED IN ACCORDANCE WITH ENGINEERING PLANS APPROVED BY THE TOWN OF BAILEYS HARBOR. PROPER CONSTRUCTION TECHNIQUES MUST BE FOLLOWED IN CONSTRUCTING THE IMPROVEMENTS INDICATED ON THE ENGINEERING PLANS.
 - THE CONTRACTOR IS RESPONSIBLE FOR EXAMINING ALL SITE CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION AND IS TO ENGINEERING DEPARTMENTS. ANY DISCREPANCIES ARE TO BE REPORTED TO THE ENGINEER AND RESOLVED PRIOR TO THE START OF CONSTRUCTION.
 - THE CONTRACTOR SHALL NOTIFY THE MUNICIPALITY AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION TO ARRANGE FOR APPROPRIATE CONSTRUCTION INSPECTION.
 - THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE OWNER WITH AS-BUILT INFORMATION OF THE DESIGNED IMPROVEMENTS. ANY CHANGES TO THE DESIGN OR ADDITIONAL ITEMS MUST HAVE PRIOR APPROVAL FROM THE MUNICIPALITY.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS, PERMIT COSTS, BONDS, AND ALL OTHER FEES REQUIRED FOR THE PROPOSED WORK.
 - THE PRIME CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL CONSTRUCTION WITH OTHER CONTRACTORS INVOLVED WITH CONSTRUCTION AND FOR REPORTING ANY ERRORS OR DISCREPANCIES BETWEEN THESE PLANS AND PLANS PREPARED BY OTHERS.
 - CONTRACTOR IS RESPONSIBLE FOR SITE SAFETY DURING CONSTRUCTION OF IMPROVEMENTS.
 - THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING ALL OF THE UTILITIES PRIOR TO THE INSTALLATION OF ANY UNDERGROUND IMPROVEMENTS.
 - ANY UTILITIES WHICH ARE DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AND AT THE CONTRACTOR'S EXPENSE.
 - RIDGES ROAD SHALL BE THE CONSTRUCTION ACCESS POINT TO THE SITE. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE SURFACE OF THE ROAD FOR USE BY THE PUBLIC DURING CONSTRUCTION. RIDGES ROAD SHALL REMAIN IN SERVICE DURING AND AFTER CONSTRUCTION AND WITH THE APPROVAL OF THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES.

- IMPLEMENTATION OF EROSION CONTROL METHODS**
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE WISCONSIN DNR CONSTRUCTION, SITE EROSION, AND SEDIMENT CONTROL TECHNICAL STANDARDS, AND THE TOWN OF BAILEYS HARBOR REQUIREMENTS.
 - MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE D.O.T. EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.
 - ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL AT A MINIMUM BE INSPECTED WEEKLY AND WITHIN 24 HOURS AFTER EVERY PRECIPITATION EVENT THAT PRODUCES 0.5 INCHES OF RAIN OR MORE DURING A 24 HOUR PERIOD. MAINTENANCE SHALL BE COMPLETED AS SOON AS POSSIBLE WITH CONSIDERATION GIVEN TO SITE CONDITIONS.
 - ALL SEDIMENT CONTROL MEASURES SHALL BE ADJUSTED TO MEET FIELD CONDITIONS AT THE TIME OF CONSTRUCTION AND INSTALLED BEFORE ANY GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL.
 - ALL TEMPORARY SOIL EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL THE DISTURBED AREAS ARE PERMANENTLY STABILIZED AND NO LONGER SUSCEPTIBLE TO EROSION.
 - TRAFFIC LEAVING THE SITE, AT ALL CONSTRUCTION SITE EXITS TO PREVENT TRACKING OF SOIL OFF THE SITE. ALL OFF SITE TRACKED SOIL ON PAVED SURFACES SHALL BE REMOVED AT THE END OF EACH WORK DAY.
 - OVERLAP AND FLOW SHALL BE PREVENTED FROM LEAVING THE WORK SITE BY INSTALLING STRAW BALES OR SILT FENCE PARALLEL TO THE CONTOURS LOCATED DOWNHILL FROM THE WORK AREA.
 - IF THERE ARE DISCREPANCIES BETWEEN THESE DETAILS AND THE DNR TECHNICAL STANDARDS FOR SEDIMENT AND SOIL EROSION CONTROL, THE MORE RESTRICTIVE REQUIREMENT SHALL BE FOLLOWED.

- BEACH NOURISHMENT SAND SPECIFICATIONS**
- ALL VEGETATION AND TOPSOIL SHOULD BE REMOVED FROM THE AREA OF THE PROPOSED BEACH NOURISHMENT PRIOR TO PLACING THE SAND. SPECIAL PRECAUTIONS SHOULD BE TAKEN TO PREVENT DISTURBANCE OF EXISTING VEGETATION. DO NOT PLACE BEACH NOURISHMENT SAND OVER EXISTING VEGETATION.
 - BEACH NOURISHMENT SAND SHALL BE NATURAL MINERAL MANUFACTURED, OR MIXTURE THEREOF. PARTICLE SIZE SHALL CONFORM TO TABLE 3. THE AMOUNT OF MATERIAL PASSING THE #200 SIEVE SHALL NOT EXCEED 5.0%.
- TABLE 3 - BEACH SAND PARTICLE SIZE DISTRIBUTION
- | SIZE SIZE | PERCENT PASSING (BY WT.) |
|-----------|--------------------------|
| #10 | 100 |
| #20 | 100-90 |
| #40 | 100-60 |
| #60 | 100-30 |
| #70 | 100-0 |
| #100 | 45-0 |
| #200 | 5-5 |
- PERCENT PASSING (BY WT.)
- | GRAIN SIZE DIAMETER (MM) | PERCENT PASSING (BY WT.) |
|--------------------------|--------------------------|
| D100 | 0.2-0 |
| D60 | 0.12-0.3 |
| D30 | 0.08-0.26 |
| D10 | |

- LANDSCAPING NOTES**
- A FIBER BLANKET SHALL BE PLACED OVER ZONE 1 AFTER FINAL GRADING IS COMPLETED. THE FIBER BLANKET SHALL BE A NORTH AMERICAN GREEN STYREN OR APPROVED EQUIVALENT. LANDSCAPE CONTRACTOR SHALL FOLLOW MANUFACTURER'S INSTRUCTIONS FOR THE INSTALLATION AND STAKING OF ALL FIBER BLANKETS. ALL FIBER BLANKETS AND STAKES SHALL BE BIODEGRADABLE PER PROJECT SPECIFICATIONS.
 - ZONE 1 PLANTING - LANDSCAPE CONTRACTOR SHALL FOLLOW SUPPLIER'S RECOMMENDATIONS FOR PLANTING THE GRASSES. THE GRASSES SHALL BE PLANTED AS LIVE PLANTS OR BARE ROOT STOCK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE INTEGRITY OF THE FIBER BLANKET DURING THE PLANTING PROCESS. GRASSES PLANTED IN ZONE 1 SHOULD BE TWO OR MORE SPECIES CHOSEN FROM THE LIST OF APPROPRIATE SPECIES PROVIDED.
 - FENCING - PLASTIC TYPE TEMPORARY FENCING SHALL BE PLACED ALONG MARGINS OF PATHWAYS AND CORD WALKS AND ZONE 1 AREAS AFTER PLANTING.
 - WARRANTY AND MAINTENANCE - ALL GRASSES SHALL BE WATERED AND MAINTAINED DURING THE 12 MONTH WARRANTY PERIOD. FIBER BLANKET STAKING SHALL ALSO BE MAINTAINED AS DESIGNATED DURING THE 12 MONTH WARRANTY PERIOD. TEMPORARY FENCING MUST BE MAINTAINED FOR TWO GROWING SEASONS AFTER PLANTING. SEE MAINTENANCE PLAN FOR SPECIFICATIONS.
 - TRANSPLANTED NATIVE HERB SPECIES FROM ON-SITE MAY BE PLANTED ALONG WITH THE GRASSES OR AFTER GRASSES HAVE BEEN ESTABLISHED. HERB SPECIES SELECTION AND TRANSPLANTING SHOULD BE DONE UNDER SUPERVISION OF A QUALIFIED NATURALIST, BOTANIST, OR ECOLOGIST.

Common Name	Species Name	Plant Height	Color	Bloom Time Spacing
Zone 1 - Dune Grasses				
Marram Grass	<i>Ammophila brevigulata</i>	1' - 3'	yellow	July-Sept 1'
Prairie Sand-reed	<i>Calamovilfa longifolia</i>	2' - 6'	yellow	July-Aug 1'
Canada Wild Rye	<i>Elymus canadensis</i>	4' - 5'	straw	July-Aug 1'
Junegrass	<i>Koeleria macrantha</i>	2' - 3'	gold	May-June 1'
Little Bluestem	<i>Schizachyrium scoparium</i>	1' - 3'	cinnamon-red	Aug-Oct 1'
Indiangrass	<i>Sorghastrum nutans</i>	5' - 7'	gold	Aug-Sept 1' - 2'

BAILEYS HARBOR LAKE MICHIGAN

APPROX. JAN. 31, 2008 LAKE ELEVATION = 576.7

EXISTING CONTOUR, TYP.

CALL DIGGERS HOTLINE
1-800-242-8911

TELEPHONE: 920-9947
1500 WISCONSIN ST. WISCONSIN DEPT. OF NATURAL RESOURCES
WIS. STATE 182.073 (1974)
REGULATORY DIVISION, 3 WORK DAYS
MILWAUKEE, WI 53233

LANDSCAPING & GRADING PLAN

SCALE: HOR. 1"=40'

DATE: 2/28/08

BY: SCJ

CK: PGP

SHEET 2 OF 2

DOOR COUNTY
BEACH STORM WATER MANAGEMENT
BAILEYS HARBOR RIDGES COUNTY PARK BEACH
2302 RIDGES ROAD, BAILEYS HARBOR, WISCONSIN

5308 S. 12th Street
Sheboygan, WI 53081-8099
Phone 920-458-6164
Fax 920-458-0369
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MILLER ENGINEERS SCIENTISTS
An Employee Owned Company

NO.	DATE	DESCRIPTION	BY
3	6-10-2008	UPDATED PER WDNR COMMENTS	SMW
2	5-1-2008	UPDATED PER SWCD COMMENTS	SMW
1	3-17-08	ISSUED FOR SWCD REVIEW	SCJ