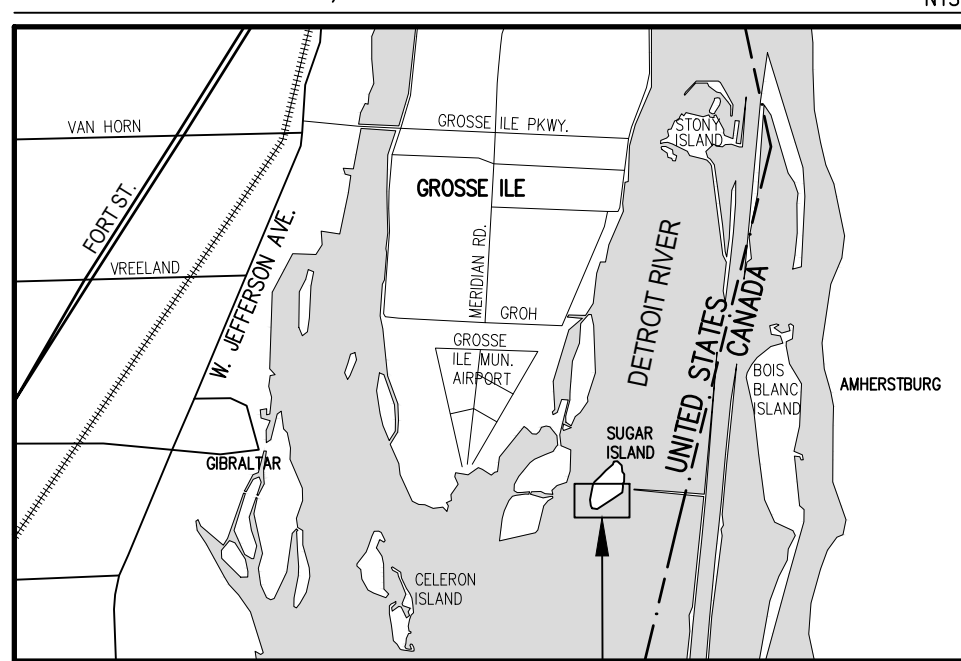


VICINITY SKETCH -
GROSSE ILE TOWNSHIP, MICHIGAN

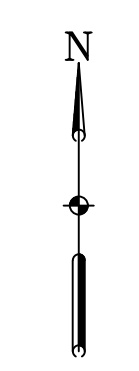


PROJECT SITE

TOPOGRAPHIC SURVEY

OF SHORELINE OF SOUTHERN PORTION OF SUGAR ISLAND, IN THE
DETROIT RIVER, GROSSE ILE TOWNSHIP, WAYNE COUNTY, MICHIGAN

BM 1
587.00'



SCALE 1" = 60'

BENCHMARK

SITE BENCHMARK
CUT "X" IN TOP NORTHWEST CORNER OF CONCRETE STEP.

NORTHING = 217,941.79
EASTING = 13,454,802.69
ELEVATION = 587.00 FEET (NAVD88)

CONTROL POINT TABLE

Point No.	Northing	Easting	Elevation	Description
202	217625.46	13454678.46	580.31	CP SGJR CAP REBAR
208	217348.68	13454647.67	578.56	CP SGJR CAP REBAR
222	217533.00	13455429.40	586.84	CP SGJR CAP REBAR
226	217755.47	13455629.83	584.65	CP SGJR CAP REBAR

NOTES

- HORIZONTAL DATUM IS ACCORDING TO MICHIGAN STATE PLANE GRID COORDINATES, SOUTH ZONE (2113), GEOID 2012A, INTERNATIONAL FEET AS LINEAR UNIT OF MEASURE.
- VERTICAL DATUM IS ACCORDING TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), WITH BENCHMARKS LISTED HEREON. TO CONVERT FROM NAVD88 TO INTERNATIONAL GREAT LAKES DATUM OF 1985 (IGLD85) USE THE FOLLOWING CONVERSION:
NAVD88 - 0.27 FEET = IGLD85
- SMITHGROUPJJR PERFORMED A TOPOGRAPHIC SURVEY UTILIZING DATA COLLECTED WITH GLOBAL POSITIONING RECEIVERS REFERENCING THE MICHIGAN CONTINUOUSLY OPERATING REFERENCE NETWORK FOR SITE CONTROL. ELECTRONIC TOTAL STATIONS WERE ALSO USED FOR SURVEY DATA COLLECTION.
- LIMNOTECH PERFORMED A BATHYMETRIC SURVEY ON MAY 16, 2018. EQUIPMENT UTILIZED INCLUDED A RESON NAVSOUND 110 ECHOSOUNDER WITH 200 KHZ TRANSDUCER, TRIMBLE DOP'S AGPS 132 (SUBMETER) FOR POSITIONING AND HONEYWELL HMR 3000 MOTION REFERENCE UNIT. CONTOURS PROVIDED FROM LIMNOTECH WERE MERGED WITH SMITHGROUPJJR UPLAND SURVEY IN PREPARATION OF THIS COMBINED SURVEY.
- THIS SURVEY DOES NOT CONSTITUTE A TITLE SEARCH BY THE SURVEYOR. ALL INFORMATION REGARDING LAND BOUNDARY, EASEMENTS, RIGHTS-OF-WAY, AND OTHER INFORMATION THAT MAY AFFECT TITLE WAS GAINED FROM AVAILABLE TAX RECORDS AND/OR RECORDED LEGAL DOCUMENTS FOR ADJOINING PARCELS.
- MISS-DIG DESIGN TICKET B081791810 WAS ISSUED FOR THIS PROJECT. AS OF THE DATE OF THIS SURVEY, THE FOLLOWING ENTITIES WERE LISTED AS POSSIBLE UTILITY OWNERS AND MAPS HAVE BEEN REQUESTED ACCORDINGLY:
- AT&T (TELECOM) - [RESPONSE CONCLUDED 'NO UTILITIES IN WORK AREA']
- DETROIT EDISON (ELECTRIC) - [MAP RECEIVED]
- CHARTER COMMUNICATIONS (TELECOM) - [NO RESPONSE]
- UNDERGROUND UTILITY LOCATIONS WERE DERIVED FROM ACTUAL MEASUREMENTS ON VISIBLE UTILITIES, MISS DIG FLAGS/MARKINGS, AND/OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS, NOR SHOULD THEY BE ASSUMED THAT THEY ARE THE ONLY UNDERGROUND UTILITIES IN THE AREA.
- SUBSURFACE AND ENVIRONMENTAL CONDITIONS WERE NOT EXAMINED AND ARE NOT CONSIDERED A PART OF THIS SURVEY. NO STATEMENT IS MADE CONCERNING THE EXISTENCE OF UNDERGROUND OR OVERHEAD CONTAINERS OR FACILITIES THAT MAY AFFECT THE USE AND OR DEVELOPMENT OF THIS SITE.
- ADDITIONAL SPOT ELEVATIONS MAY BE CONTAINED IN THE PROJECT DATABASE, AND ALTHOUGH NOT APPEARING IN THE RECORD PLAN DOCUMENT DUE TO SCALE AND VISIBILITY, WERE UTILIZED IN THE DIGITAL TERRAIN MODEL FOR CREATION OF THE ONE-FOOT CONTOURS. THE ADDITIONAL SPOT ELEVATION DATA IS AVAILABLE FOR FUTURE DESIGN ANALYSIS, BEING LOCATED ON A FROZEN LAYER WITHIN THE PROJECT DATABASE.

FLOODPLAIN NOTE

PORTIONS OF THE SUGAR ISLAND SHORELINE LIE IN THE FOLLOWING FLOOD ZONES:

- SPECIAL FLOOD HAZARD AREA ZONE AE: AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD - BASE FLOOD ELEVATIONS DETERMINED.
BASE FLOOD ELEVATION = 577.0 FEET (NAVD 1988 DATUM)
- OTHER FLOOD AREA ZONE X (SHADED): AREAS OF 0.2% ANNUAL CHANCE FLOOD.
BASE FLOOD ELEVATION = 577.6 (NAVD 1988 DATUM)

FLOOD ZONES AND BASE FLOOD ELEVATIONS FOR THE DETROIT RIVER WERE DERIVED FROM FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) NO. 26163C, PANEL 535, FOR WAYNE COUNTY, MICHIGAN, EFFECTIVE DATE FEBRUARY 2, 2012 AND FEMA FLOOD INSURANCE STUDY FOR WAYNE COUNTY, MICHIGAN, VOLUMES 26163C001A & 261610V003A, EFFECTIVE DATE FEBRUARY 2, 2012.

THE ABOVE BASE FLOOD ELEVATIONS HAVE NOT BEEN PLOTTED ON THIS SURVEY DUE TO SCALE LIMITATIONS. UN-SURVEYED PORTIONS OF THE SUGAR ISLAND MAY LIE IN OTHER FLOOD ZONES.

ADDITIONAL WATER INFORMATION

ACCORDING TO THE US ARMY CORPS OF ENGINEERS, THE FOLLOWING WATER DATUMS/ELEVATIONS APPLY FOR THE DETROIT RIVER AT GIBRALTAR, MICHIGAN:

DATUM/ELEVATION	IGLD 1985	NAVD 1988
LOW-WATER DATUM (LWD)	569.4 FT.	569.67 FT.
ORDINARY HIGH-WATER MARK (OHWM)	573.5 FT.	573.77 FT.

SOURCE:

https://www.ire.usace.army.mil/Missions/Great-Lakes-Information/Links/
Ordinary-High-Water-Mark-and-Low-Water-Datum/
(SEE CONVERSION IN NOTE 2 ABOVE FOR NAVD 1988 INFORMATION)

SURVEY LEGEND

BM 1	BENCHMARK	TREE - DECIDUOUS
CP 202	CONTROL POINT	STORM PIPE (END OF PIPE UNKNOWN)
○	FOUND IRON BAR OR PIPE	SIGN
+ 580.00	SPOT ELEVATION	TOPOGRAPHIC CONTOUR
PT. DESC.	MISC. POINT	BRUSHLINE/WOODED LIMITS
---	CENTERLINE OF SWALE	EDGE OF WATER



SUGAR ISLAND

CERTIFICATE

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH LOCAL AND STATE JURISDICTIONAL REQUIREMENTS REGULATING MAPPING STANDARDS. THE UNDERSIGNED STATES THAT PROPER FIELD PROCEDURES, INSTRUMENTATION AND ADEQUATE STAFF WERE EMPLOYED TO ACHIEVE THE RESULTS INDICATED HEREIN.

SMITHGROUPJJR, INC.

CHARLES A. LANGOLF, PS 56210
PROFESSIONAL SURVEYOR
STATE OF MICHIGAN
charles.langolf@smithgroupjir.com



SUGAR ISLAND
HABITAT
RESTORATION
GROSSE ILE TOWNSHIP, MI

Owner:

FRIENDS OF THE
DETROIT RIVER

SMITHGROUPJJR

201 DEPOT STREET
SECOND FLOOR
ANN ARBOR, MI 48104
734.662.4457
www.smithgroupjir.com

LIMNOTECH
BATHYMETRIC SURVEYING
501 AVIS DRIVE, #1
ANN ARBOR, MI 48108
734.332.1200

ISSUED FOR REV DATE

CLIENT ISSUE	0	7/17/2018
CLIENT ISSUE	1	7/19/2018

SEALS AND SIGNATURES

NOT FOR CONSTRUCTION

KEY PLAN

DRAWING TITLE

TOPOGRAPHIC SURVEY

SCALE 1" = 60'

PROJECT NUMBER 10626

DRAWING NUMBER

V.1.0