

THE CITY OF MARQUETTE

IN COOPERATION WITH THE U.S. DEPARTMENT OF TRANSPORTATION MARITIME ADMINISTRATION

STANDARDS:

EXCEPT WHERE OTHERWISE INDICATED ON THESE PLANS OR IN THE PROPOSAL AND SUPPLEMENTAL SPECIFICATIONS CONTAINED THEREIN, ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION, 2020 VERSION, AND THE 2011 MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

PIDP 2021 - CITY OF MARQUETTE - PROTECTING CRITICAL INFRASTRUCTURE AND IMPROVING EFFICIENCY PROJECT

DREDGING AND BENEFICIAL REUSE

MQ13-504

MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD PLANS

WHERE THE FOLLOWING ITEMS ARE CALLED OUT ON THE PLANS, THEY ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARD PLAN GIVEN BELOW OPPOSITE EACH ITEM UNLESS OTHERWISE INDICATED.

R-96-E SOIL EROSION & SEDIMENTATION CONTROL MEASURES

TRAFFIC AND SAFETY STANDARD PLANS

- * WZD-125-E TEMPORARY TRAFFIC CONTROL DEVICES
- 0-MT-ALL-NONFWY FULL SET OF NON-FREEWAY MAINTAIN. TRAFFIC TYP.
- * SPECIAL DETAIL

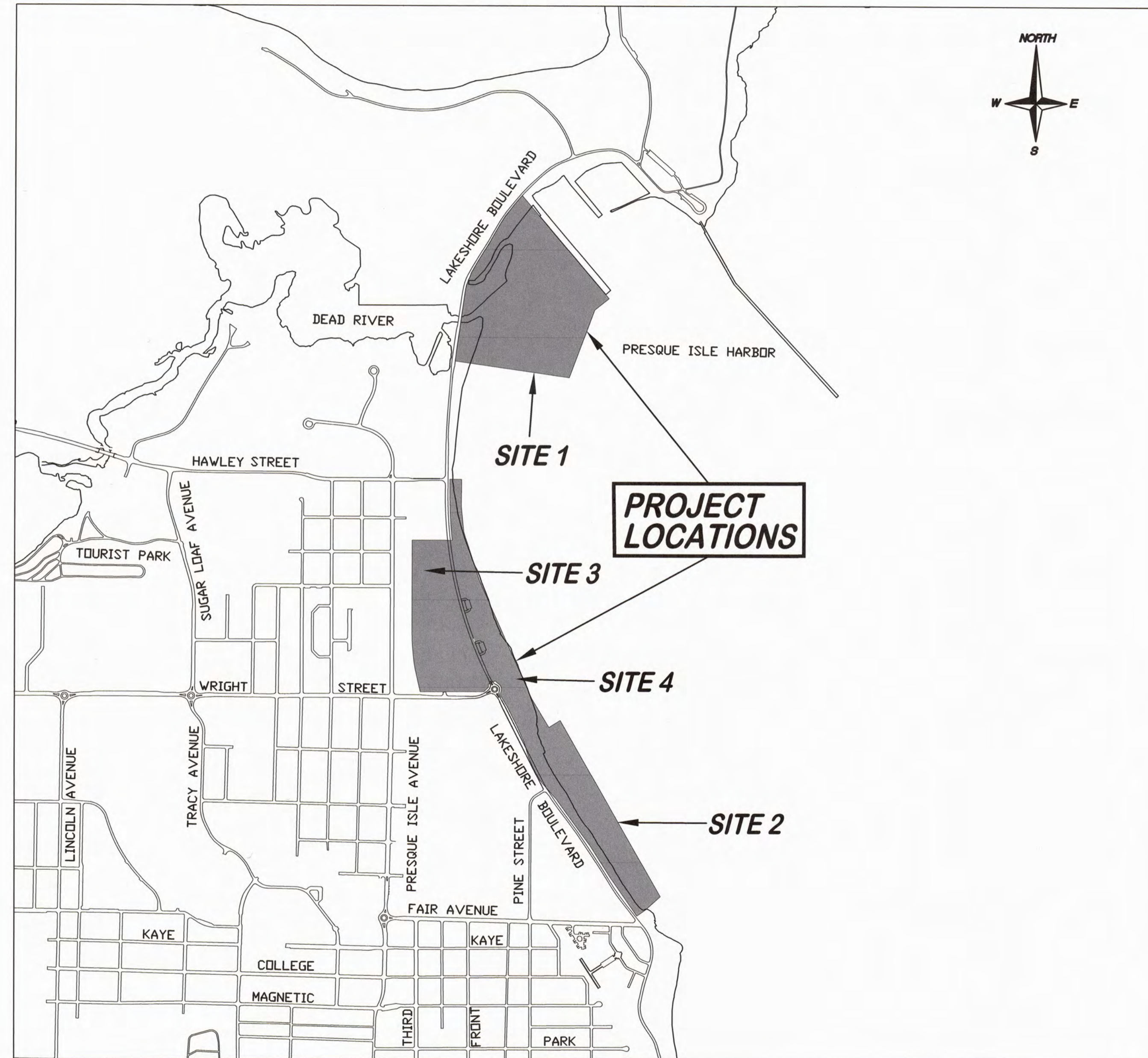
UTILITIES

FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 53, THE CONTRACTOR SHALL CALL MISS DIG AT 1-800-482-7171 A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED.

THE FOLLOWING UTILITIES ARE LOCATED IN OR NEAR THE RIGHT-OF-WAY FOR THIS PROJECT:

- SANITARY SEWER MAIN AND LATERALS
- WATERMAIN AND WATER SERVICES
- STORM SEWER MAIN
- GAS MAIN AND SERVICES
- UNDERGROUND TELEPHONE, ELECTRICAL, CABLE TV, AND FIBER OPTICS
- OVERHEAD TELEPHONE, ELECTRICAL, CABLE TV, AND FIBER OPTICS

LOCATION MAP



INDEX OF SHEETS

- 1 COVER SHEET
- 2 SITE 1 PLAN
- 3 SITE 1 CROSS SECTIONS
- 4 SITE 2 PLAN AND CROSS SECTIONS
- 5 SITE 3 PLAN AND CROSS SECTION
- 6 TRAFFIC CONTROL PLAN
- 7 SOIL EROSION AND SEDIMENTATION CONTROL AND SITE ACCESS PLAN
- 8 SOIL EROSION AND SEDIMENTATION CONTROL DETAILS

LEGEND

— — — — — EXISTING STORM SEWER	— — — — — PROPOSED SANITARY SEWER
— — — — — EXISTING SANITARY SEWER	— — — — — PROPOSED WATER MAIN
— — — — — EXISTING WATER MAIN	— — — — — PROPOSED STORM SEWER
— GAS — GAS — GAS — EXISTING GAS MAIN/SERVICE	— — — — — RIGHT OF WAY
— UFT — UFT — UFT — EXISTING TELECOMMUNICATION CABLE	— — — — — PROPERTY LINE, APPROXIMATE
— USE — USE — USE — EXISTING ELECTRIC CABLE	— — — — — EXISTING CABLE TV CABLE
☆ EXISTING LIGHT POLE	⊙ PROPOSED CATCH BASIN
⊙ EXISTING SANITARY/STORM SEWER MANHOLE	⊙ PROPOSED MANHOLE
⊙ EXISTING POWER POLE	⊙ PROPOSED WATER VALVE
— GUY ANCHOR	⊙ PROPOSED FIRE HYDRANT
⊙ EXISTING CATCH BASIN	▭ PROPOSED 6" SIDEWALK
— EXISTING TRAFFIC SIGN	▭ PROPOSED 4" SIDEWALK
⊙ EXISTING WATER VALVE	▭ PROPOSED ADA RAMP (6")
⊙ EXISTING FIRE HYDRANT	▭ PROPOSED 4" STAMPED CONCRETE
SB-4 SOIL BORING LOCATION AND NUMBER	▭ PROPOSED DETECTABLE SURFACE
⊙ EXISTING WATER SHUT OFF	▭ HMA, 13A OR LVSP
⊙ EXISTING CLEAN OUT	

PUBLIC UTILITIES

MARQUETTE BOARD OF LIGHT AND POWER
2200 WRIGHT STREET
MARQUETTE, MICHIGAN 49855
PH. (906) 228-0300

AT&T
3255 US-41 WEST
MARQUETTE, MICHIGAN 49855
PH. (906) 221-2121

SPECTRUM MID-AMERICA, LLC
359 US-41 EAST
NEGAUNEE, MICHIGAN 49866
PH. (906) 228-2900

MARQUETTE WATER AND SEWER DEPARTMENT
1100 WRIGHT STREET
MARQUETTE, MICHIGAN 49855
PH. (906) 228-0444

SEMCO ENERGY
34 US-41 EAST
NEGAUNEE, MICHIGAN 49866
PH. (906) 475-9901

PENINSULA FIBER NETWORK
1901 WEST RIDGE STREET #2
MARQUETTE, MICHIGAN 49855
PH. (906) 226-7102

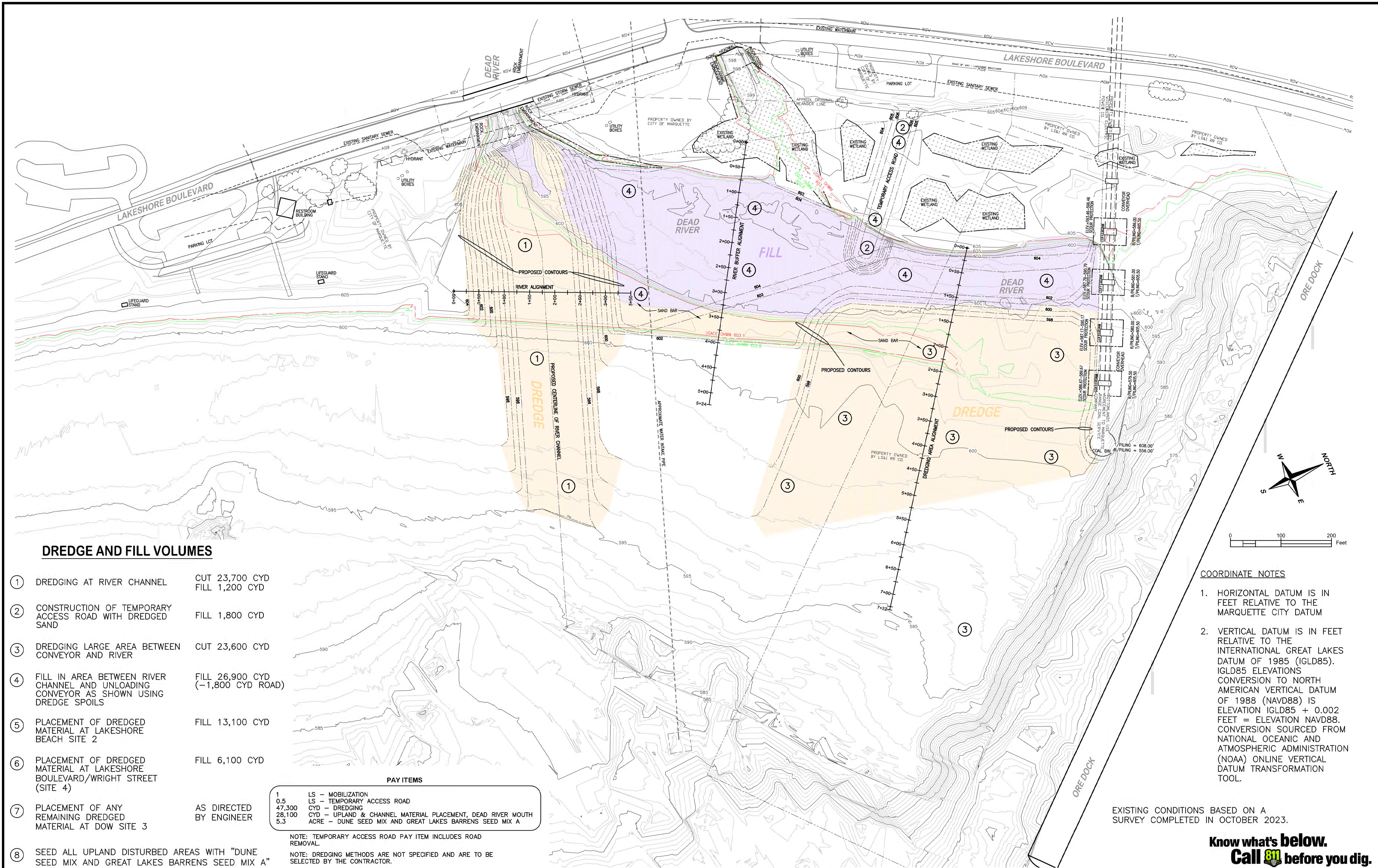
CONTRACT FOR: PIDP - CITY OF MARQUETTE - PROTECTING CRITICAL INFRASTRUCTURE AND IMPROVING EFFICIENCY PROJECT

MUNICIPAL APPROVAL:
Karen Kovacs 12/19/2023
KAREN KOVACS, CITY MANAGER DATE

PREPARED UNDER THE SUPERVISION OF:
Mikael Kilpela 12/19/23
MIKAEL H. KILPELA, CITY ENGINEER DATE
P.E. NO. 8201056591



CITY OF MARQUETTE
CITY ENGINEER'S OFFICE
1100 WRIGHT STREET
MARQUETTE, MICHIGAN 49855
PH. (906) 228-0440



DREDGE AND FILL VOLUMES

- ① DREDGING AT RIVER CHANNEL CUT 23,700 CYD
FILL 1,200 CYD
- ② CONSTRUCTION OF TEMPORARY ACCESS ROAD WITH DREDGED SAND FILL 1,800 CYD
- ③ DREDGING LARGE AREA BETWEEN CONVEYOR AND RIVER CUT 23,600 CYD
- ④ FILL IN AREA BETWEEN RIVER CHANNEL AND UNLOADING CONVEYOR AS SHOWN USING DREDGE SPOILS FILL 26,900 CYD
(-1,800 CYD ROAD)
- ⑤ PLACEMENT OF DREDGED MATERIAL AT LAKESHORE BEACH SITE 2 FILL 13,100 CYD
- ⑥ PLACEMENT OF DREDGED MATERIAL AT LAKESHORE BOULEVARD/WRIGHT STREET (SITE 4) FILL 6,100 CYD
- ⑦ PLACEMENT OF ANY REMAINING DREDGED MATERIAL AT DOW SITE 3 AS DIRECTED BY ENGINEER
- ⑧ SEED ALL UPLAND DISTURBED AREAS WITH "DUNE SEED MIX AND GREAT LAKES BARRENS SEED MIX A"

PAY ITEMS

1	LS - MOBILIZATION
0.5	LS - TEMPORARY ACCESS ROAD
47,300	CYD - DREDGING
28,100	CYD - UPLAND & CHANNEL MATERIAL PLACEMENT, DEAD RIVER MOUTH
5.3	ACRE - DUNE SEED MIX AND GREAT LAKES BARRENS SEED MIX A

NOTE: TEMPORARY ACCESS ROAD PAY ITEM INCLUDES ROAD REMOVAL.

NOTE: DREDGING METHODS ARE NOT SPECIFIED AND ARE TO BE SELECTED BY THE CONTRACTOR.

COORDINATE NOTES

- HORIZONTAL DATUM IS IN FEET RELATIVE TO THE MARQUETTE CITY DATUM
- VERTICAL DATUM IS IN FEET RELATIVE TO THE INTERNATIONAL GREAT LAKES DATUM OF 1985 (IGLD85). IGLD85 ELEVATIONS CONVERSION TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) IS ELEVATION IGLD85 + 0.002 FEET = ELEVATION NAVD88. CONVERSION SOURCED FROM NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) ONLINE VERTICAL DATUM TRANSFORMATION TOOL.

EXISTING CONDITIONS BASED ON A SURVEY COMPLETED IN OCTOBER 2023.

**Know what's below.
Call 811 before you dig.**



**CITY ENGINEER'S OFFICE
MARQUETTE, MICHIGAN**
1100 WRIGHT STREET, MARQUETTE, MI 49855
PHONE (906)228-0440

REVISIONS:	
PRELIMINARY	03-25-22
PERMIT REVIEW	11-28-22
PERMITTING	01-16-23
PERMITTING REVISION	03-27-23
UPDATED SURVEY	11-08-23

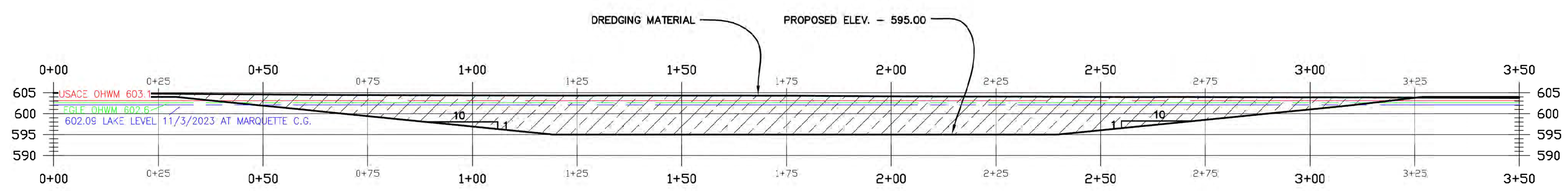
DESIGN BY: M. KILPELA P.E., CITY ENGINEER
DRAWN BY: D. SALMON
DATE: MARCH 27, 2023
FILE NAME: MQ13-504 BASE NORTH.dwg

HOR. SCALE: 1" = 80'
VERT. SCALE: N.A.

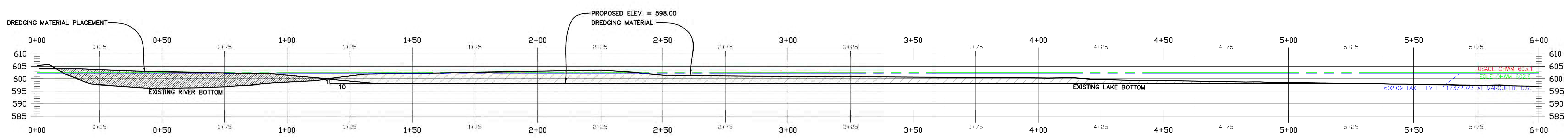
**DEAD RIVER MOUTH DREDGING PROJECT
SITE 1**

**PROJECT MQ13-504
SHEET 2 OF 8**

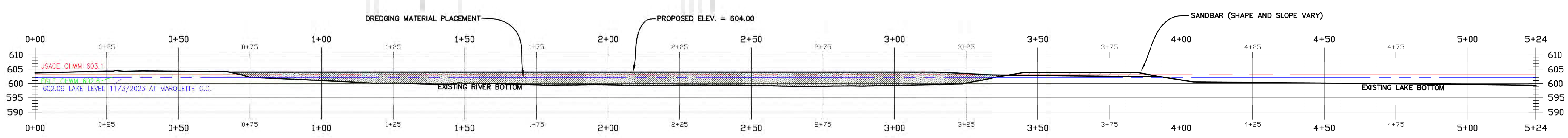
PROJECT NO. MQ13-504 DEAD RIVER MOUTH DREDGING AND DRAINAGE PROJECT DRAWINGS MQ13-504 BASE NORTH.DWG



RIVER ALIGNMENT PROFILE
SCALE: 1" = 20'



DREDGING AREA ALIGNMENT PROFILE
SCALE: 1" = 20'



RIVER BUFFER ALIGNMENT PROFILE
SCALE: 1" = 20'

Know what's below.
Call 811 before you dig.



CITY ENGINEER'S OFFICE
MARQUETTE, MICHIGAN
1100 WRIGHT STREET, MARQUETTE, MI 49855
PHONE (906)228-0440

REVISIONS:

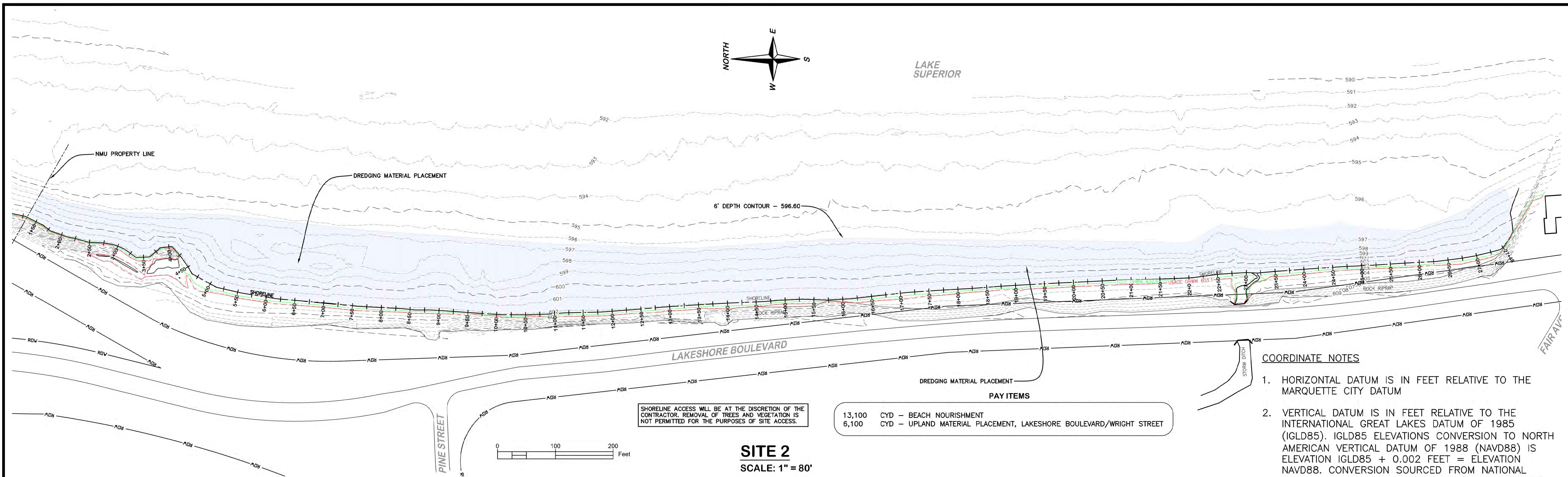
PRELIMINARY	03-25-22
PERMIT REVIEW	11-17-22
PERMITTING	01-16-23
PERMITTING REVISION	04-13-23
UPDATED SURVEY	11-08-23

DESIGN BY: M. KILPELA P.E., CITY ENGINEER
DRAWN BY: D. SALMON
DATE: APRIL 13, 2023
FILE NAME: MQ13-504 BASE NORTH.dwg

HOR. SCALE: 1" = 20'
VERT. SCALE: 1" = 20'

DEAD RIVER MOUTH DREDGING PROJECT
SITE 1 CROSS SECTIONS

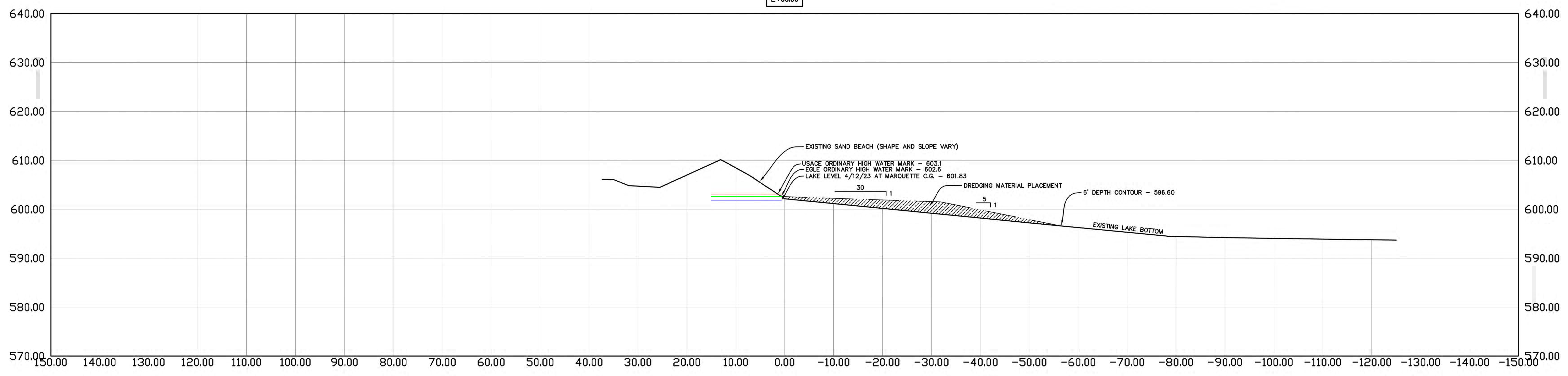
PROJECT MQ13-504
SHEET 3 OF 8



SITE 2
SCALE: 1" = 80'

DREDGING PLACEMENT

DREDGE FROM SITE 1 FILL 13,100 CYD



TYPICAL CROSS SECTION
SCALE: 1" = 10'

Know what's below.
Call 811 before you dig.



CITY ENGINEER'S OFFICE
MARQUETTE, MICHIGAN
1100 WRIGHT STREET, MARQUETTE, MI 49855
PHONE (906)228-0440

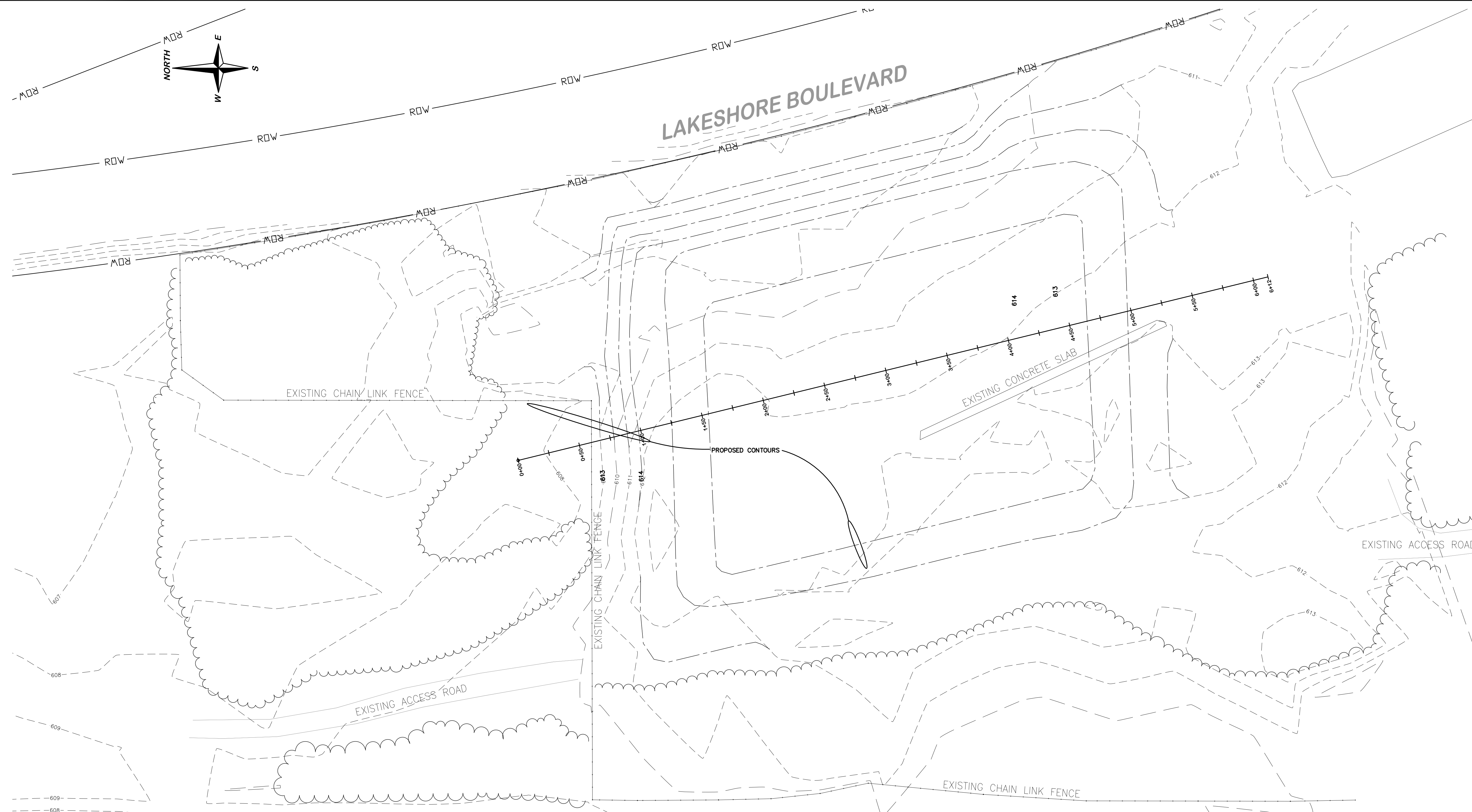
REVISIONS:	
PRELIMINARY	03-25-22
PERMIT REVIEW	11-17-22
PERMITTING	01-16-23
PERMITTING REVISION	04-13-23
UPDATED SURVEY	11-08-23

DESIGN BY: M. KILPELA P.E., CITY ENGINEER
DRAWN BY: D. SALMON
DATE: APRIL 13, 2023
FILE NAME: MQ13-504 BASE SOUTH.dwg

HOR. SCALE: N.A.
VERT. SCALE: N.A.

DEAD RIVER MOUTH DREDGING PROJECT
SITE 2 PLAN AND CROSS SECTIONS

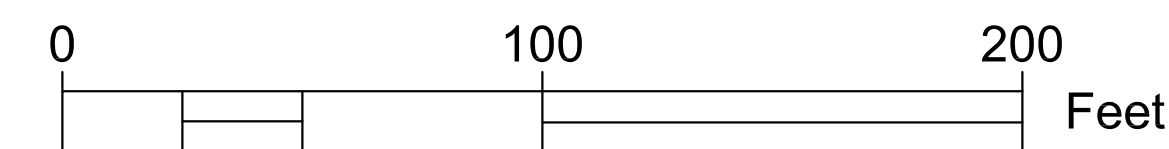
PROJECT MQ13-504
SHEET 4 OF 8



COORDINATE NOTES

1. HORIZONTAL DATUM IS IN FEET RELATIVE TO THE MARQUETTE CITY DATUM
2. VERTICAL DATUM IS IN FEET RELATIVE TO THE INTERNATIONAL GREAT LAKES DATUM OF 1985 (IGLD85). IGLD85 ELEVATIONS CONVERSION TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) IS ELEVATION IGLD85 + 0.002 FEET = ELEVATION NAVD88. CONVERSION SOURCED FROM NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) ONLINE VERTICAL DATUM TRANSFORMATION TOOL.

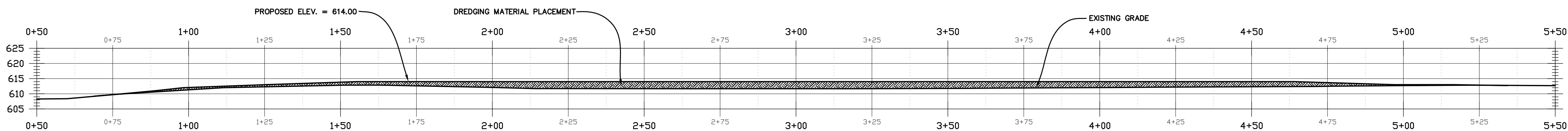
SITE 3
SCALE: 1" = 40'



PAY ITEMS

500 CYD* -- UPLAND MATERIAL PLACEMENT, CLIFFS DOW SITE

*UNANTICIPATED



SITE 3 PROFILE
SCALE: 1" = 20'

DREDGING PLACEMENT

SITE 3

FILL AS DIRECTED BY ENGINEER

Know what's below.
Call **811** before you dig.



CITY ENGINEER'S OFFICE
MARQUETTE, MICHIGAN
 1100 WRIGHT STREET, MARQUETTE, MI 49855
 PHONE (906)228-0440

REVISIONS:

PRELIMINARY	03-25-22
PERMIT REVIEW	11-17-22
PERMITTING	01-16-23
PERMITTING REVISION	03-27-23
UPDATED SURVEY	11-08-23

DESIGN BY: M. KILPELA P.E., CITY ENGINEER
 DRAWN BY: D. SALMON
 DATE: MARCH 27, 2023
 FILE NAME: MQ13-504 BASE SOUTH.dwg

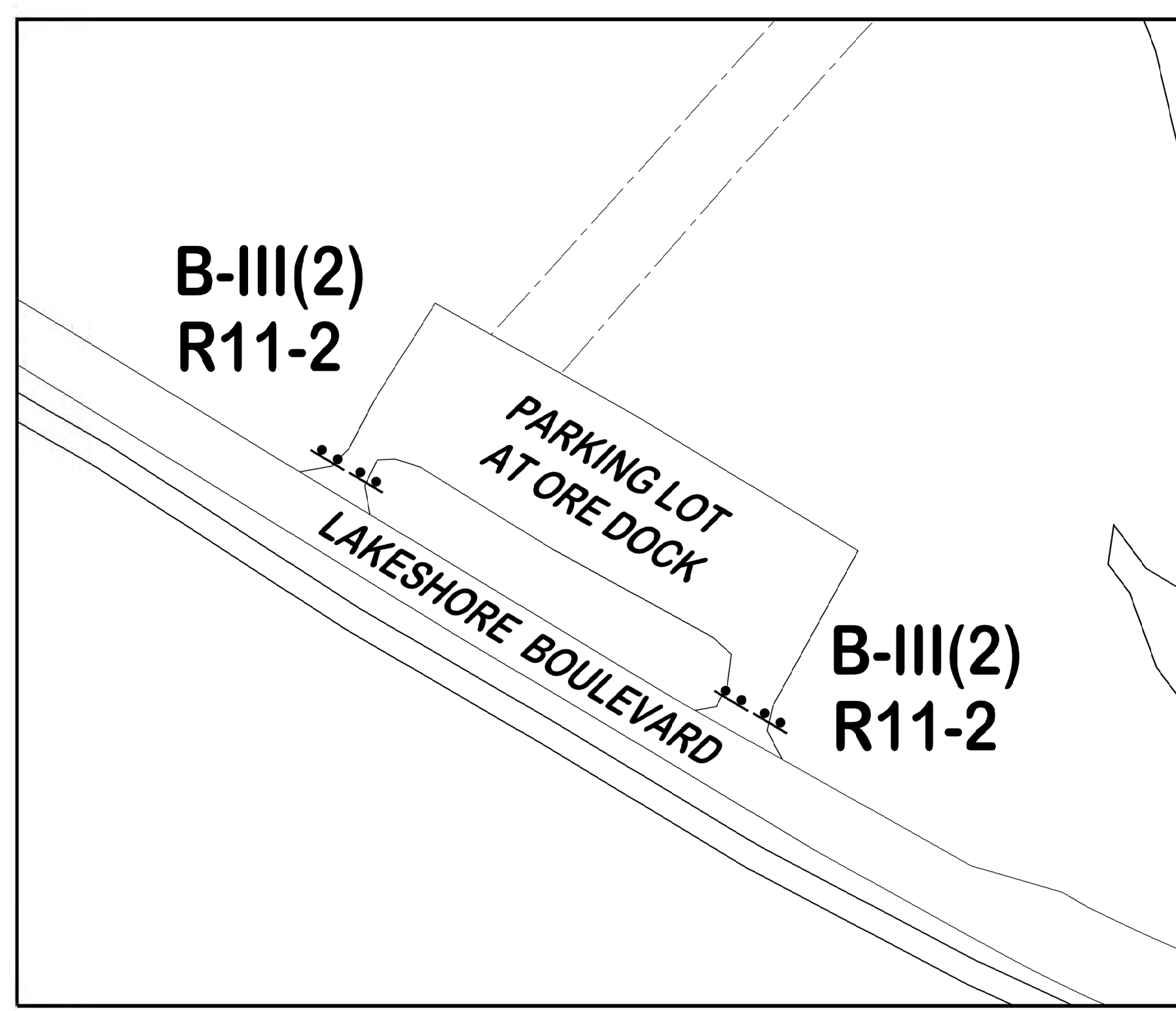
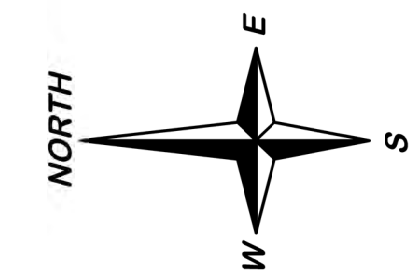
HOR. SCALE: N.A.
 VERT. SCALE: N.A.

DEAD RIVER MOUTH DREDGING PROJECT
SITE 3

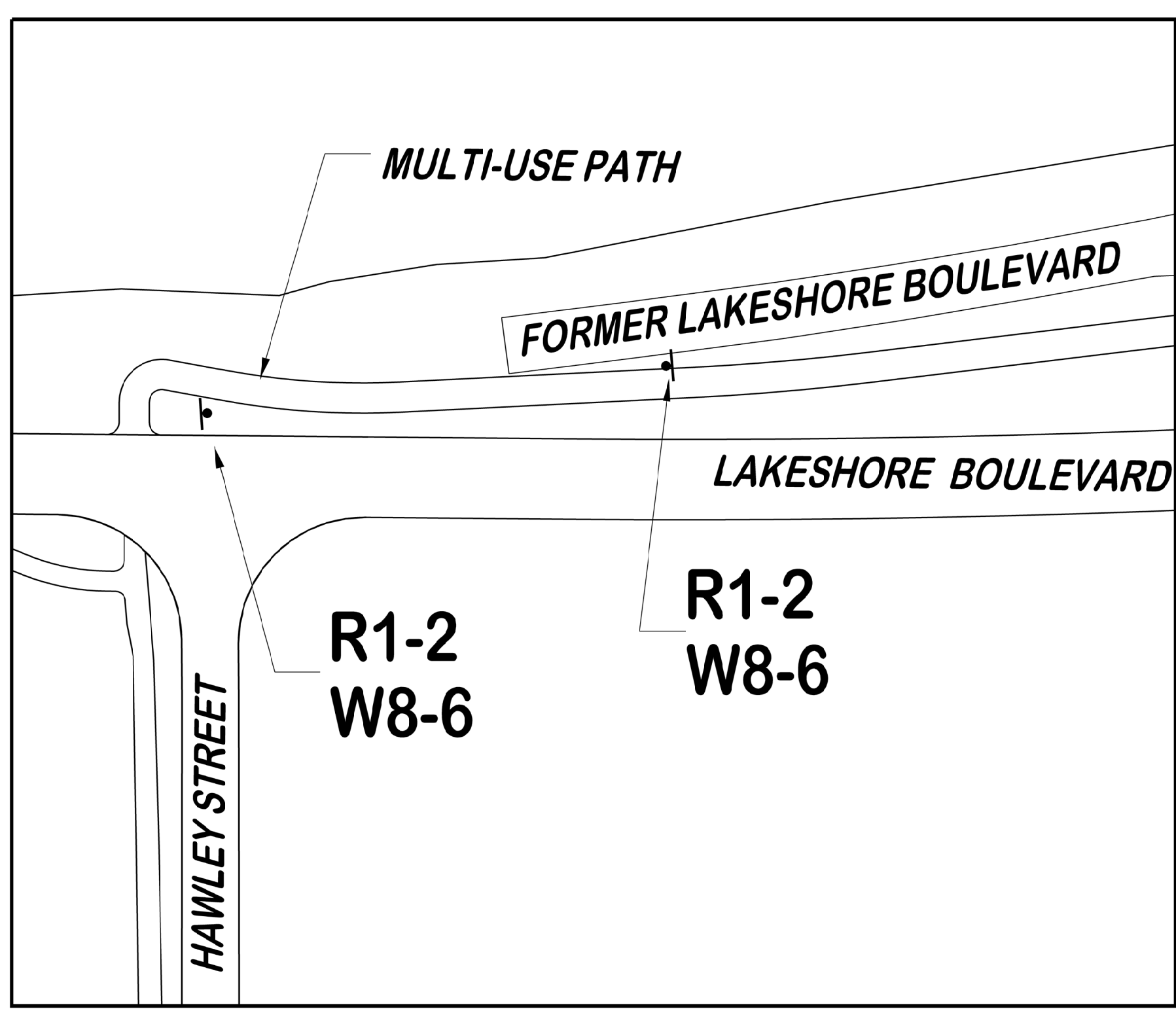
PROJECT MQ13-504
SHEET 5 OF 8

TEMPORARY SIGNING FOR ENTIRE PROJECT

SIGN	TYPE	DESCRIPTION	MAX. NO. EACH	DIMENSIONS (INCHES)
B-III		BARRICADE, TYPE III, LIGHTED	10	
M4-9(L)	IIIB	DETOUR (ARROW TO LEFT)	1	30x24
M4-9(R)	IIIB	DETOUR (ARROW TO RIGHT)	1	30x24
M4-10(L)	IIIB	DETOUR IN ARROW LEFT	1	48x18
M4-10(R)	IIIB	DETOUR IN ARROW RIGHT	1	48x18
R11-2	IIIB	ROAD CLOSED	4	48x30
W20-2	IIIB	DETOUR AHEAD	2	48x48
W20-3	IIIB	STREET CLOSED AHEAD	2	48x48
R1-2	IIIB	YIELD	2	36x36x36
W8-6	IIIB	TRUCK CROSSING	2	36x36
SPECIAL	IIIB	PATH CLOSED	2	24x24



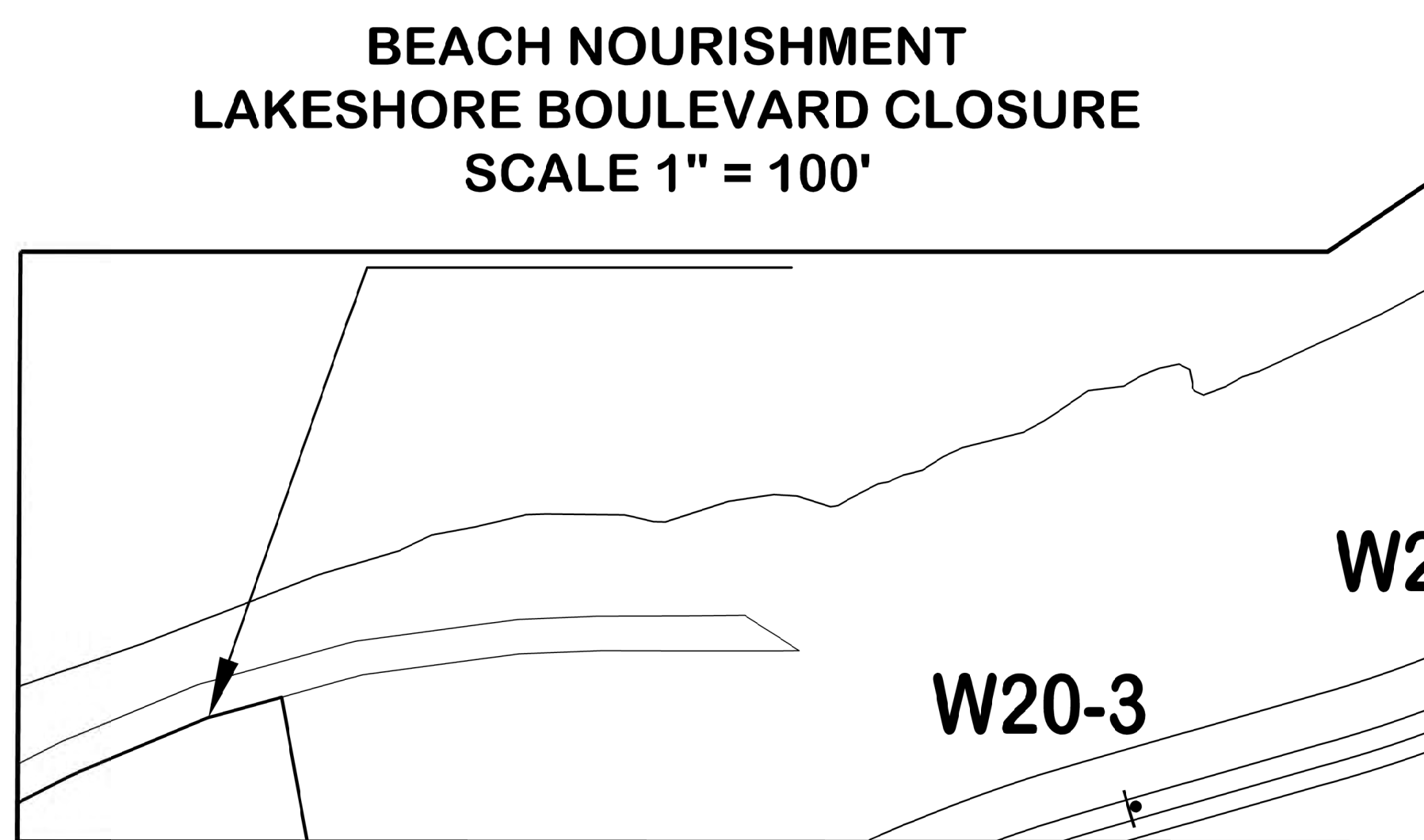
**DREDGING AREA
PARKING LOT CLOSURE
SCALE 1" = 50'**



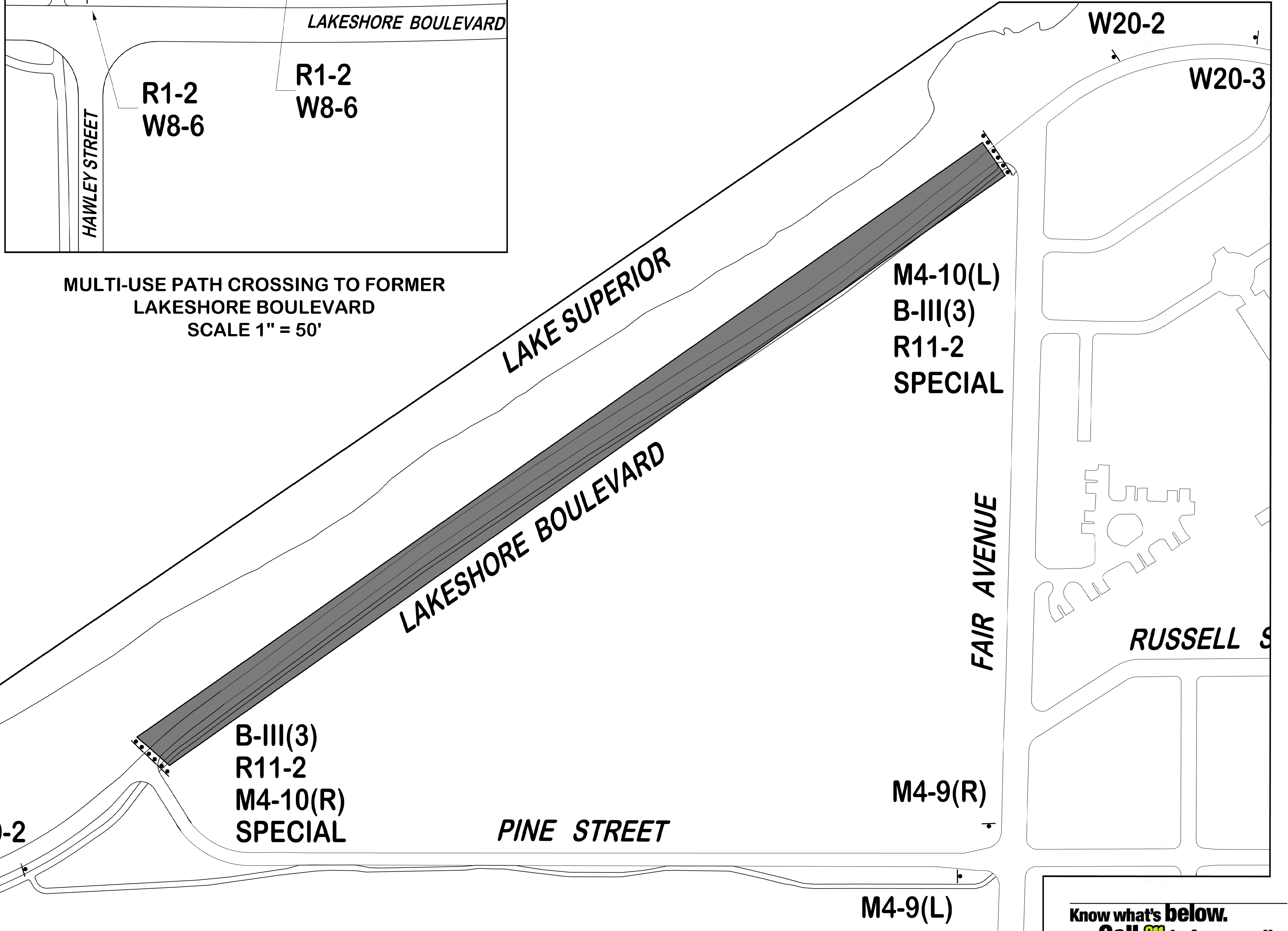
**MULTI-USE PATH CROSSING TO FORMER
LAKESHORE BOULEVARD
SCALE 1" = 50'**

TEMPORARY SIGNING PAY ITEMS FOR ENTIRE PROJECT

161	SFT - SIGN, TYPE B, TEMP, PRISMATIC, FURN
161	SFT - SIGN, TYPE B, TEMP, PRISMATIC, OPER
10	EA - BARRICADE, TYPE III, HIGH INTENSITY, DOUBLE SIDED, LIGHTED, FURN
10	EA - BARRICADE, TYPE III, HIGH INTENSITY, DOUBLE SIDED, LIGHTED, OPER



**BEACH NOURISHMENT
LAKESHORE BOULEVARD CLOSURE
SCALE 1" = 100'**



Know what's below.
Call 811 before you dig.



**CITY ENGINEER'S OFFICE
MARQUETTE, MICHIGAN**
1100 WRIGHT STREET, MARQUETTE, MI 49855
PHONE (906)228-0440

REVISIONS:

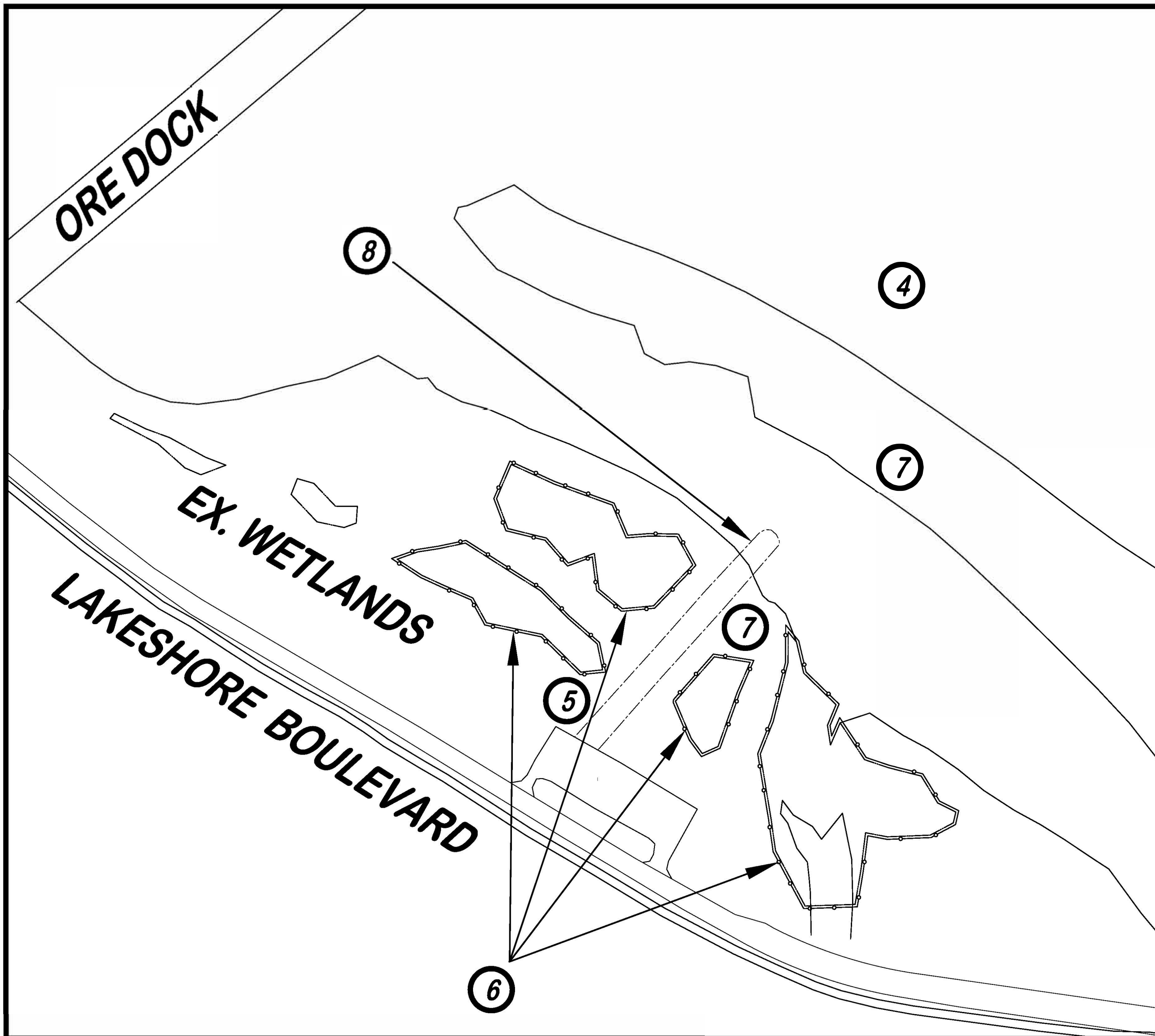
INTERNAL REVIEW	11-18-2022
PERMITTING	01-16-2023

DESIGN BY: K. WESSELS
DRAWN BY: K. WESSELS
DATE: JANUARY 16, 2023
FILE NAME: MQ13-504 Traffic - SESC - Access.dwg

HOR. SCALE: VARIES
VERT. SCALE: N.A.

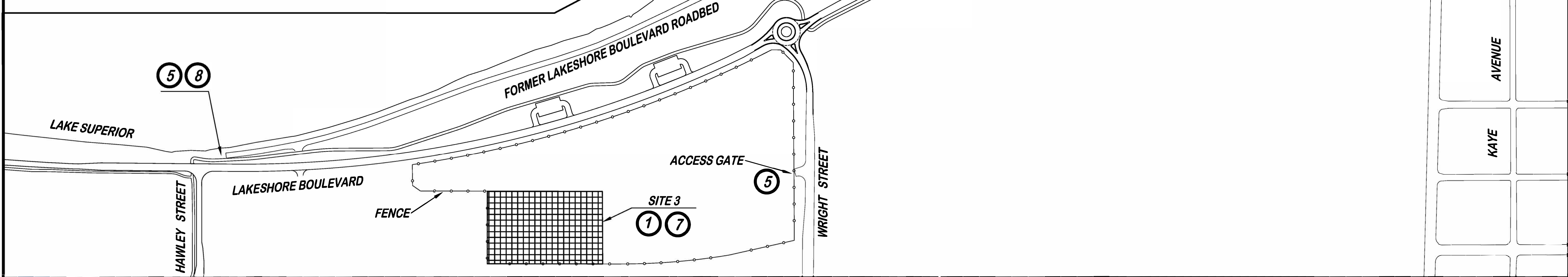
DEAD RIVER MOUTH DREDGING PROJECT
MARQUETTE UPPER HARBOR
TRAFFIC CONTROL PLAN

**PROJECT MQ13-504
SHEET 6 OF 8**



SITE 1 DREDGING AREA
SCALE 1" = 100'

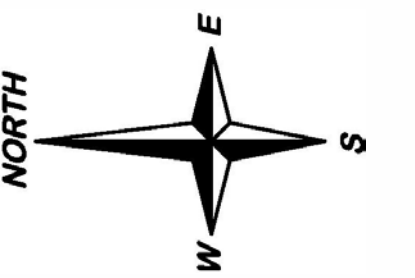
BENEFICIAL REUSE AREAS
SCALE 1" = 200'



- ① CLIFFS DOW SITE DREDGED MATERIAL UPLAND PLACEMENT SITE TO BE ACCESS VIA GATE ON WRIGHT STREET. PLACEMENT TO BE PER SHEET 5. TRANSPORT FROM FROM DREDGING LOCATION, AND PLACEMENT TO BE PAID AS "UPLAND MATERIAL PLACEMENT, CLIFFS DOW SITE"
- ② LAKESHORE BOULEVARD DREDGED MATERIAL PLACEMENT SITE TO BE ACCESS VIA FORMER LAKESHORE BOULEVARD AT HAWLEY STREET. EXACT SAND PLACEMENT TO BE DIRECTED BY ENGINEER. TRANSPORT FROM FROM DREDGING LOCATION, AND PLACEMENT TO BE PAID AS "UPLAND MATERIAL PLACEMENT, LAKESHORE BOULEVARD/WRIGHT STREET". MAX PLACEMENT HEIGHT OF 7 FT. FINAL UPLAND PLACEMENT BY OTHERS.
- ③ BEACH NOURISHMENT SITE TO BE ACCESSED VIA LAKESHORE BOULEVARD. TRANSPORT FROM DREDGING SITE AND PLACEMENT PER THE PLAN TO BE PAID AS "BEACH NOURISHMENT"
- ④ TURBIDITY CURTAIN TO BE USED DURING DREDGING AND BEACH NOURISHMENT. SEE DETAIL ON SHEET 8. MAXIMUM LENGTH OF CURTAIN USED AT ONE TIME TO BE PAID ONCE AND REUSED AS NEEDED. MATERIALS, PLACEMENT, MAINTENANCE, AND REUSE TO BE PAID AS " EROSION CONTROL, TURBIDITY CURTAIN, DEEP".
- ⑤ GRAVEL CONSTRUCTION ENTRANCE PER DETAIL ON SHEET 8. DUST CONTROL AND SWEEPING OF STREETS WILL BE INCIDENTAL TO MATERIAL PLACEMENT PAY ITEMS.
- ⑥ INSTALL SILT FENCE AROUND EXISTING WETLANDS.
- ⑦ SEED AREAS WITH MDOT SEED MIX TSM 6/24
- ⑧ TEMPORARY ACCESS ROAD PAID AS "TEMPORARY ACCESS ROAD". PAY ITEM INCLUDES MATERIALS, PLACEMENT, REMOVAL AND RESTORATION

SOIL EROSION AN SEDIMENTATION CONTROL ITEMS FOR ENTIRE PROJECT

3	EA	-	EROSION CONTROL, GRAVEL ACCESS APPROACH
3,000	FT	-	EROSION CONTROL, TURBIDITY CURTAIN, DEEP
2,700	FT	-	EROSION CONTROL, SILT FENCE
0.5	LS	-	TEMPORARY ACCESS ROAD
480	LB	-	SEEDING, MIXTURE TSM



CITY ENGINEER'S OFFICE
MARQUETTE, MICHIGAN
1100 WRIGHT STREET, MARQUETTE, MI 49855
PHONE (906)228-0440

REVISIONS:

INTERNAL REVIEW	11-18-2022

DESIGN BY: K. Wessels
DRAWN BY: K. Wessels
DATE: DECEMBER 8, 2022
FILE NAME: MQ13-504 Traffic - SESC - Access.dwg

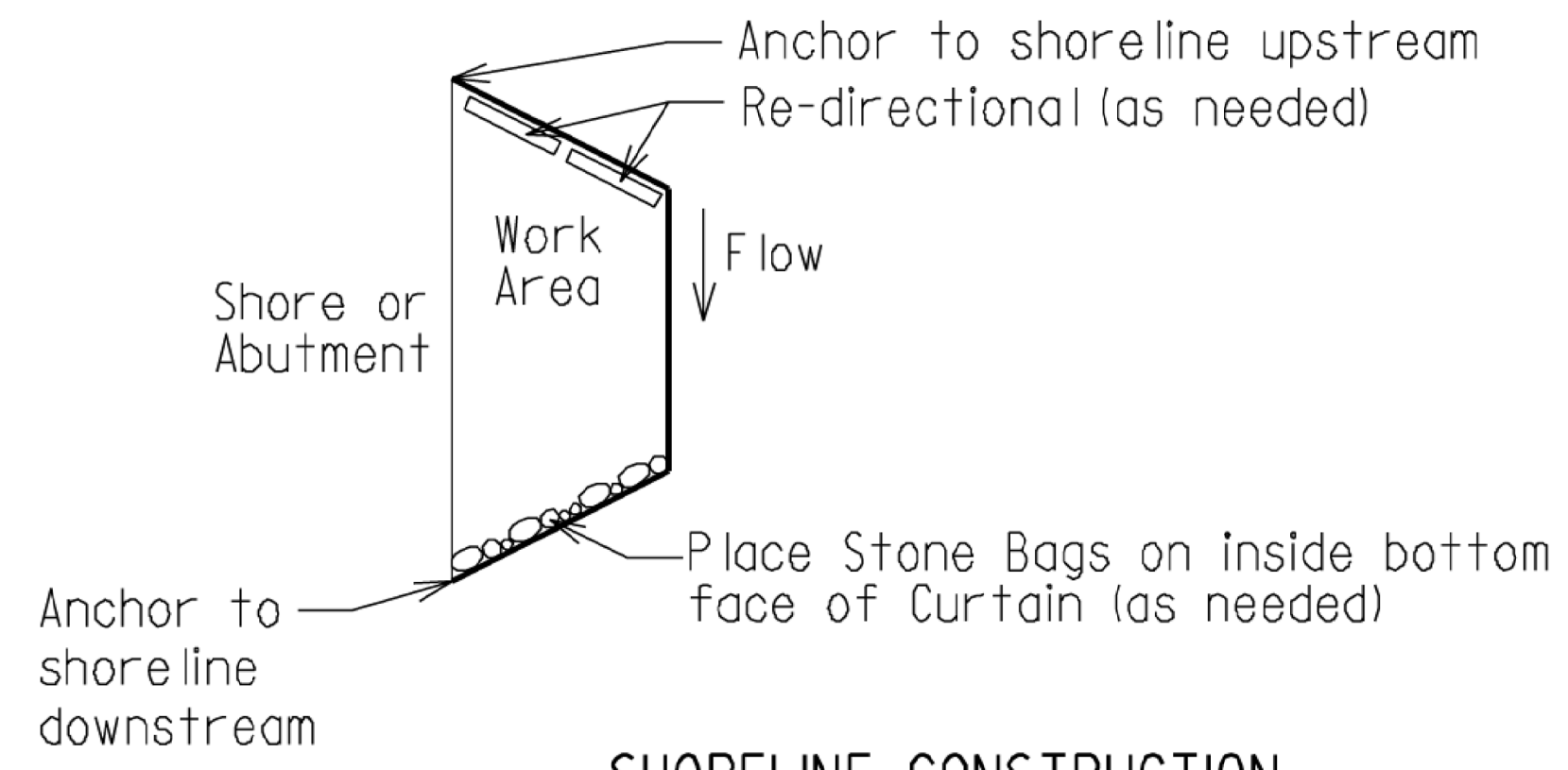
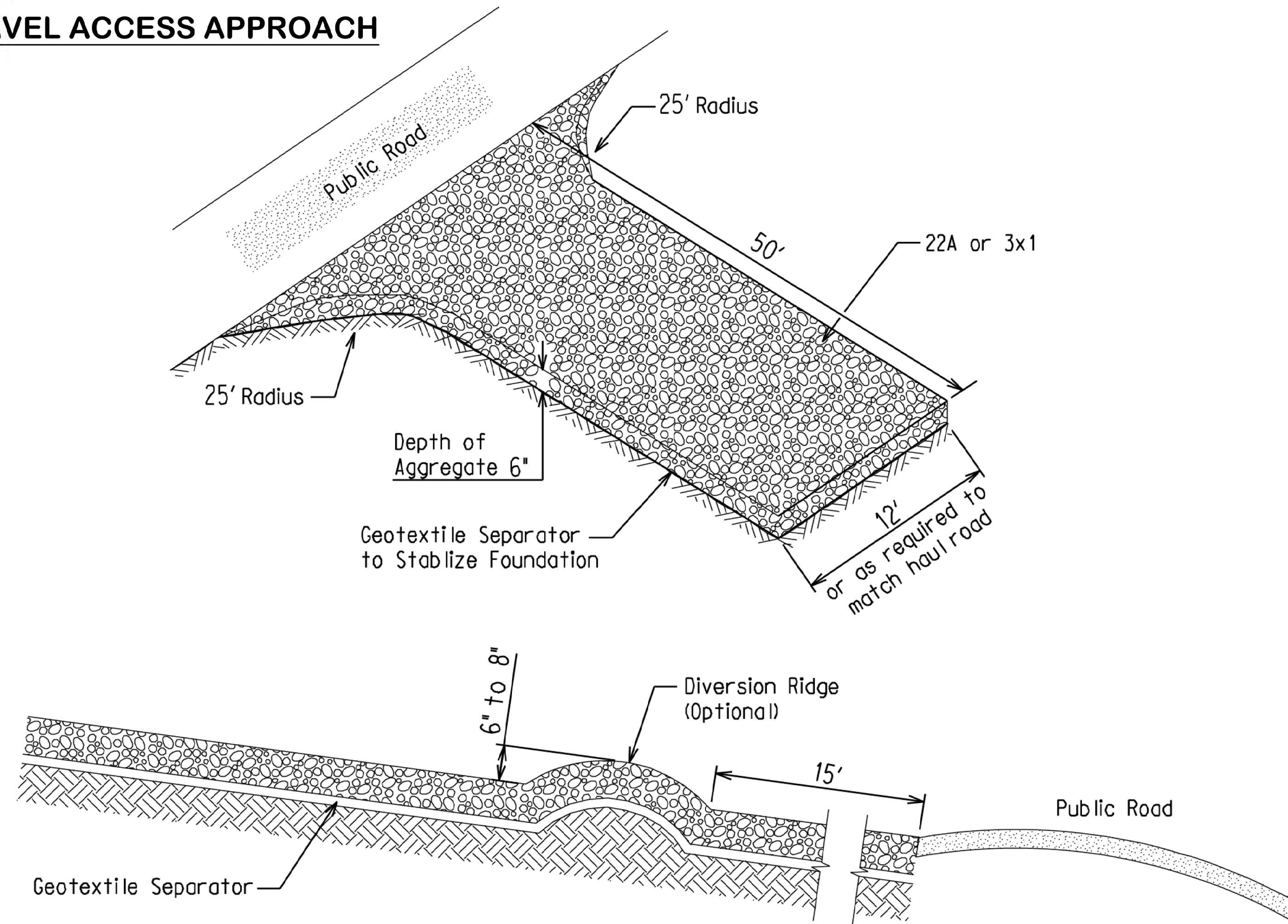
HOR. SCALE: VARIES
VERT. SCALE: N.A.

DEAD RIVER MOUTH DREDGING PROJECT
MARQUETTE UPPER HARBOR
SOIL EROSION AND SEDIMENTATION CONTROL AND SITE ACCESS PLAN

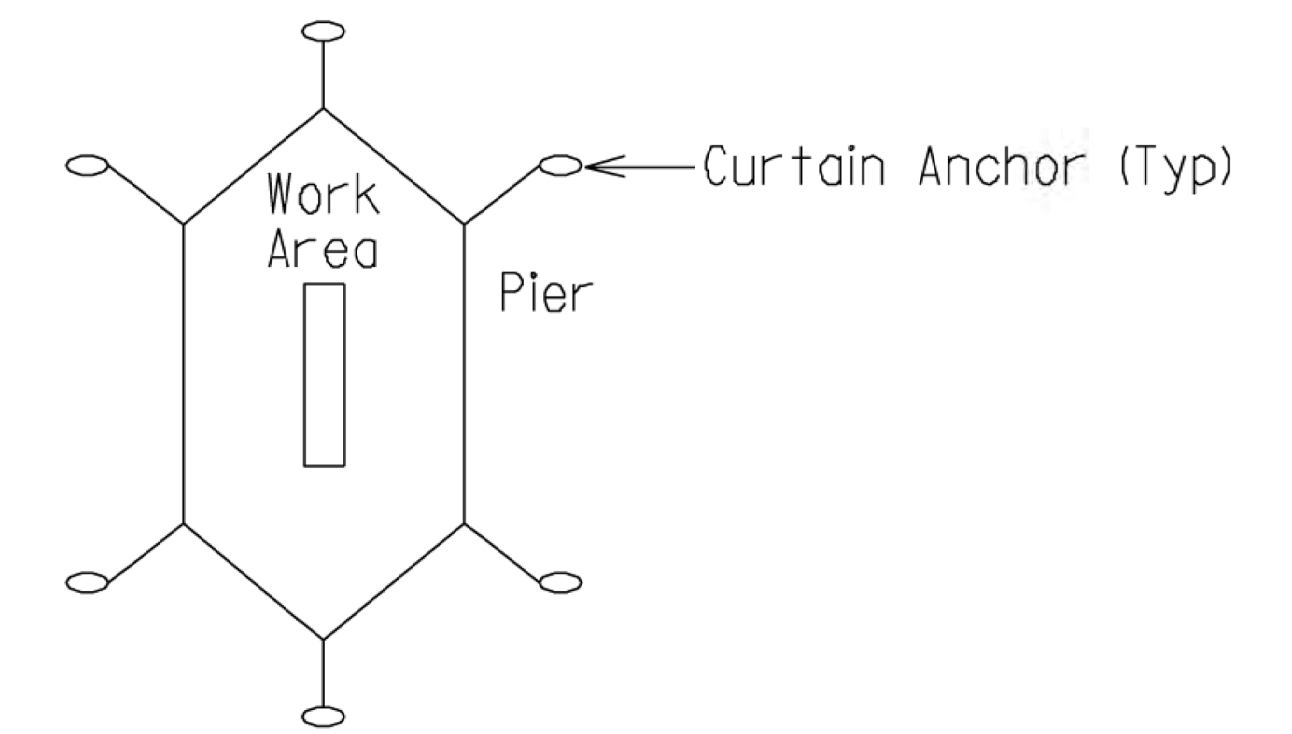
PROJECT MQ13-504
SHEET 7 OF 8

PROJECT NO. MQ13-504
DRAWING PROJECT DRAWING MQ13-504 TRAFFIC - SESC - SITE.DWG
DEAD RIVER MOUTH DREDGING PROJECT

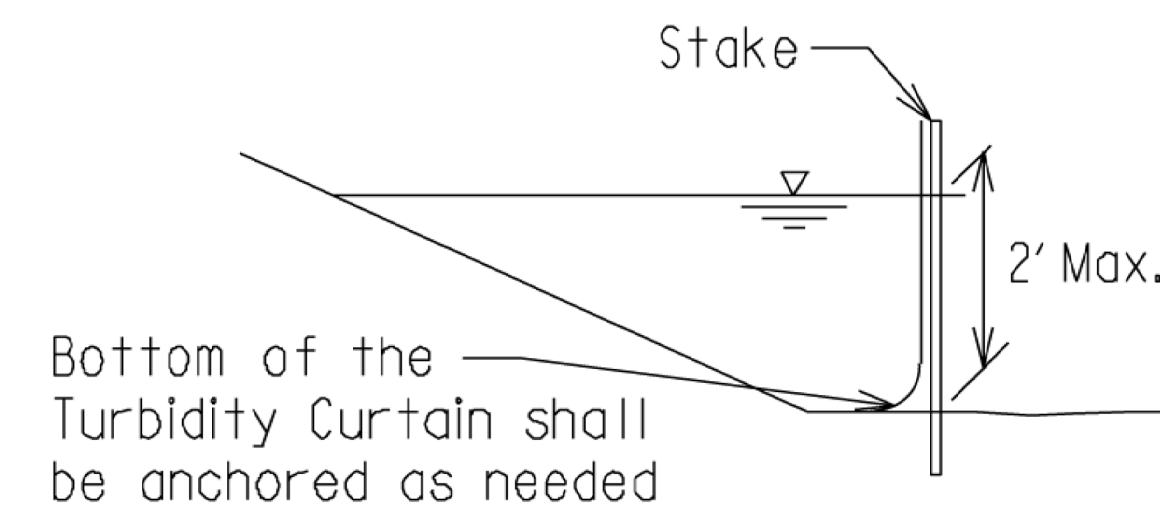
GRAVEL ACCESS APPROACH



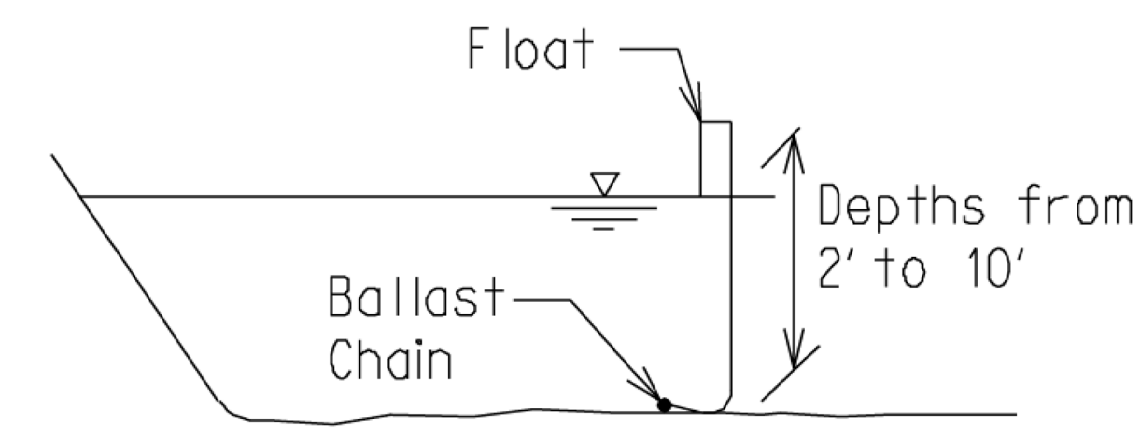
SHORELINE CONSTRUCTION



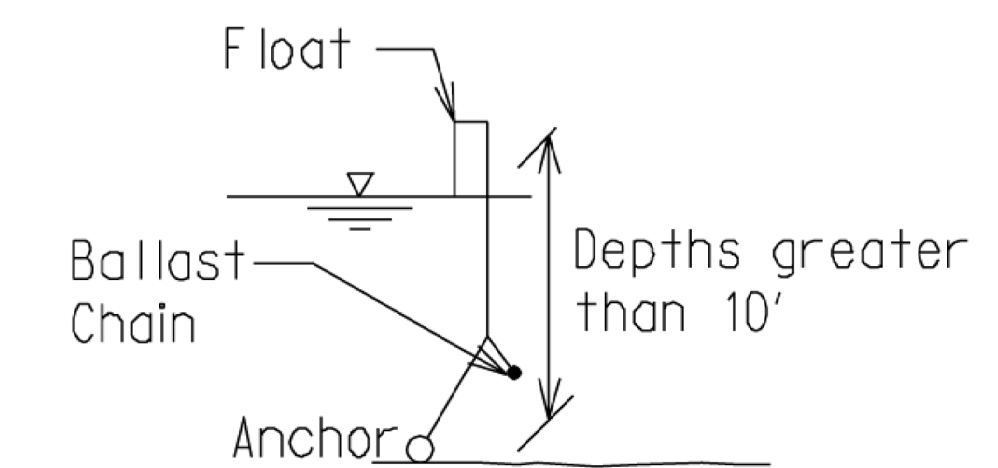
IN-STREAM CONSTRUCTION



TURBIDITY CURTAIN (SHALLOW)



TURBIDITY CURTAIN (DEEP)



TURBIDITY CURTAIN

Use:

Providing a stable Gravel Access Approach, minimizes the tracking of loose materials from the construction site onto public roadways. Coarser aggregate is more effective in reducing tracking. Any materials tracked onto public roadways shall be removed as specified in the Standard Specifications for Construction, or as directed by the Engineer.

Installation and maintenance of Gravel Access Approach is effective in reducing sediment loading to inlet protection devices.

Installation and Maintenance:

The Gravel Access Approach should be located in accordance with the plans or as directed by the Engineer. All vegetation and other objectionable material shall be removed from the foundation area. Geotextile Separator must be placed beneath the aggregate to stabilize the foundation.

Replace or replenish aggregate if it is no longer preventing tracking.

Use:

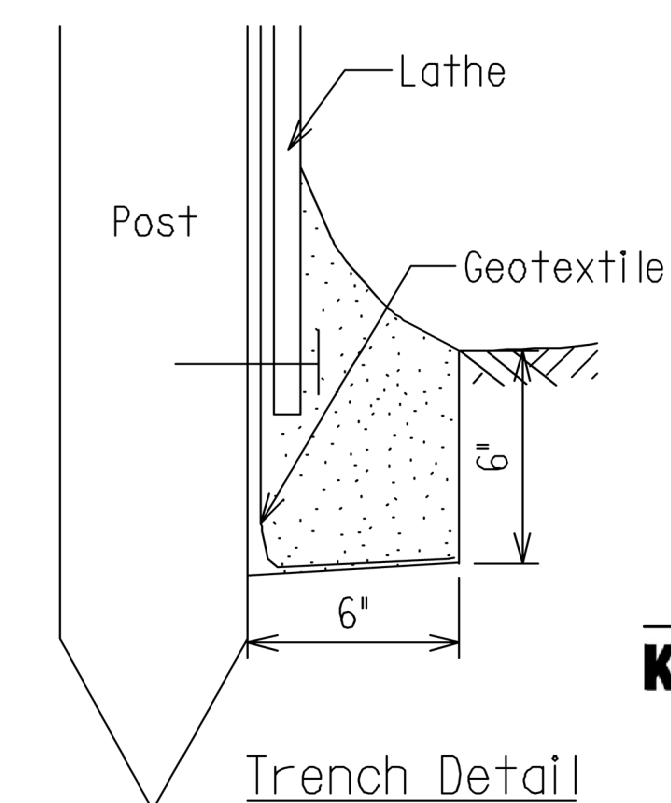
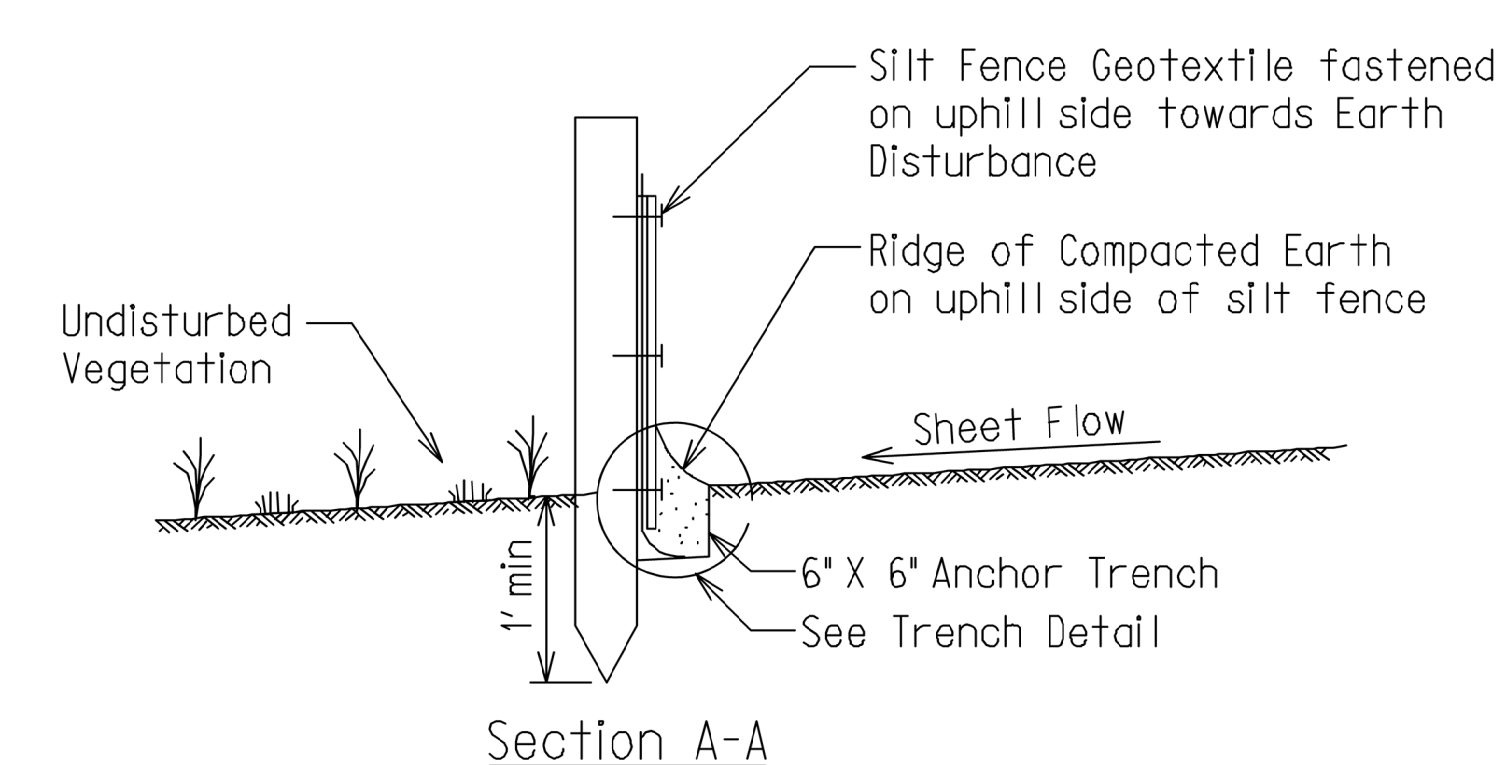
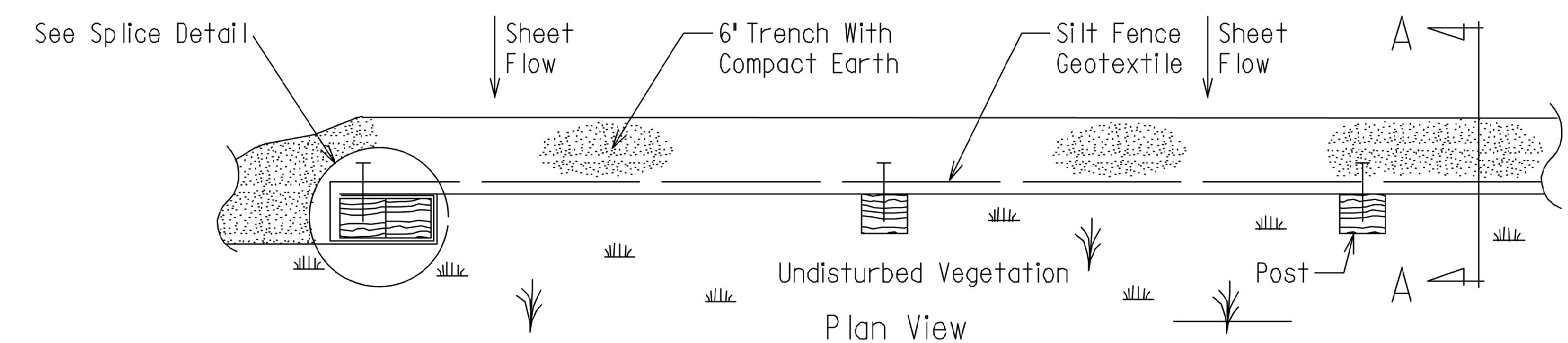
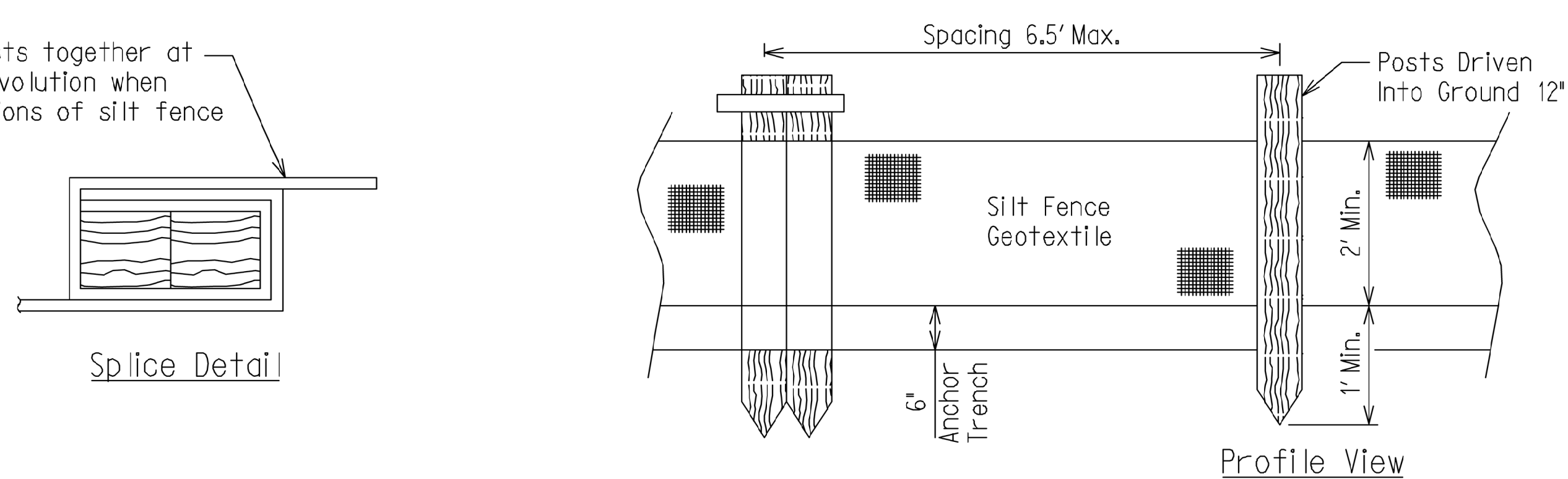
A Turbidity Curtain is used when slack water area is necessary to isolate construction activities from the watercourse.

The Turbidity Curtain system shall be designed to handle site specific drainage or flow patterns.

When water is less than 2 feet deep and has low flow, Turbidity Curtain (Shallow) may be used. Curtain shall be securely fastened to stakes. Water greater than 2 feet deep or where high flow exists requires the use of Turbidity Curtain (Deep).

SILT FENCE

Wrap end posts together at least one revolution when splicing sections of silt fence



Know what's below.
Call 811 before you dig.



CITY ENGINEER'S OFFICE
MARQUETTE, MICHIGAN
1100 WRIGHT STREET, MARQUETTE, MI 49855
PHONE (906)228-0440

REVISIONS:	
INTERNAL REVIEW	11-18-2022

DESIGN BY: K. WESSELS
DRAWN BY: K. WESSELS
DATE: DECEMBER 8, 2022
FILE NAME: MQ13-504 Traffic - SESC - Access.dwg

HOR. SCALE: N.A.
VERT. SCALE: N.A.

DEAD RIVER MOUTH DREDGING PROJECT
MARQUETTE UPPER HARBOR
SOIL EROSION AND SEDIMENTATION CONTROL DETAILS

PROJECT MQ13-504
SHEET 8 OF 8

PROJECT NO. MQ13-504
DEAD RIVER MOUTH DREDGING PROJECT
DRAWING NO. MQ13-504 TRAFFIC - SESC - SITE DWG