

# THE CITY OF MARQUETTE

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

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

### DREDGING AND BENEFICIAL REUSE

MQ13-504

#### 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.

#### 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

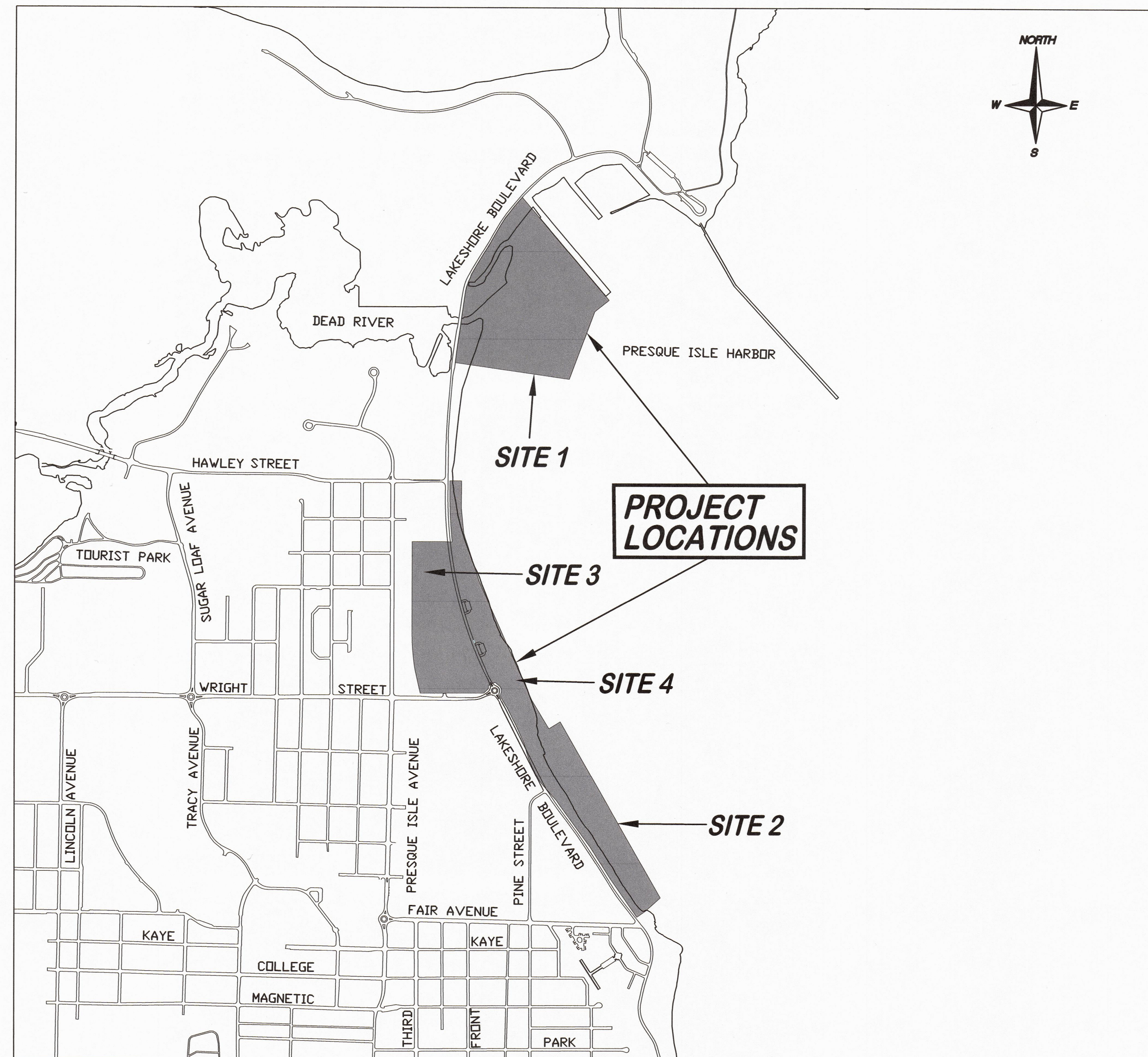
#### UTILITIES

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



#### 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
UGT UGT UGT EXISTING TELECOMMUNICATION CABLE	PROPERTY LINE, APPROXIMATE
UGE UGE UGE EXISTING ELECTRIC CABLE	EXISTING CABLE TV CABLE
EXISTING LIGHT POLE	PROPOSED CATCH BASIN
WH/O 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
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

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

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

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

#### INDEX OF SHEETS

- COVER SHEET
- SITE 1 PLAN
- SITE 1 CROSS SECTIONS
- SITE 2 PLAN AND CROSS SECTIONS
- SITE 3 PLAN AND CROSS SECTION
- TRAFFIC CONTROL PLAN
- SOIL EROSION AND SEDIMENTATION CONTROL AND SITE ACCESS PLAN
- SOIL EROSION AND SEDIMENTATION CONTROL DETAILS

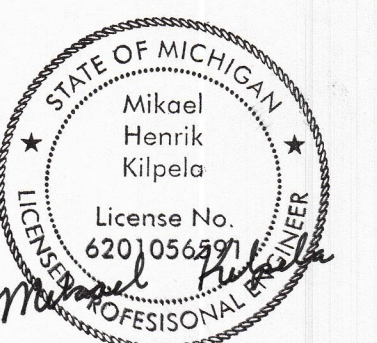
#### CONTRACT FOR: PIDP - CITY OF MARQUETTE - PROTECTING CRITICAL INFRASTRUCTURE AND IMPROVING EFFICIENCY PROJECT

##### MUNICIPAL APPROVAL:

*Karen Kovacs* 12/19/2023  
KAREN KOVACS, CITY MANAGER DATE

##### PREPARED UNDER THE SUPERVISION OF:

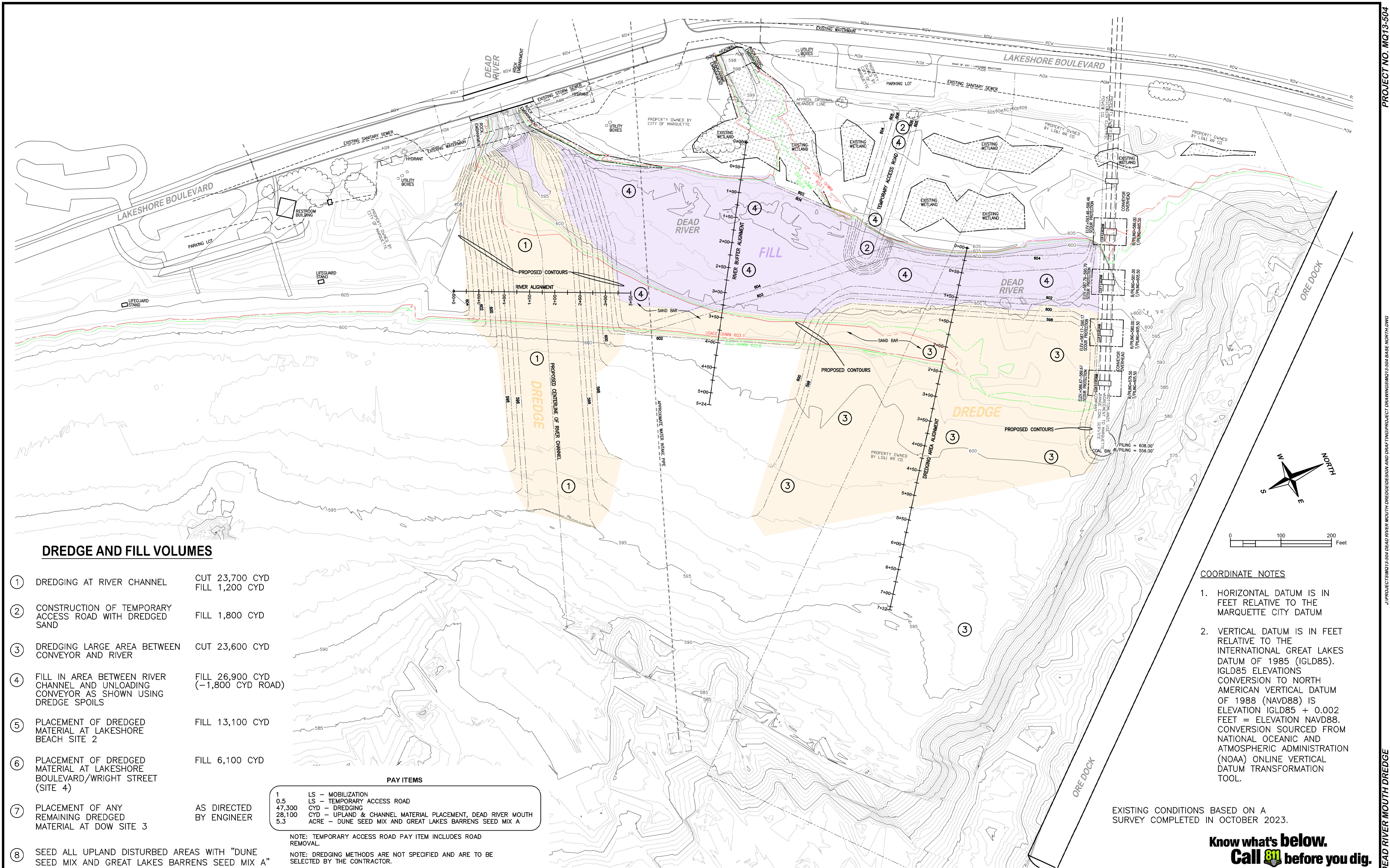
*Mikael H. Kilpela* 12/19/23  
MIKAEL H. KILPELA, CITY ENGINEER DATE  
P.E. NO. 6201056591



#### 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<br>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<br>(-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" | AS DIRECTED BY ENGINEER              |

### 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

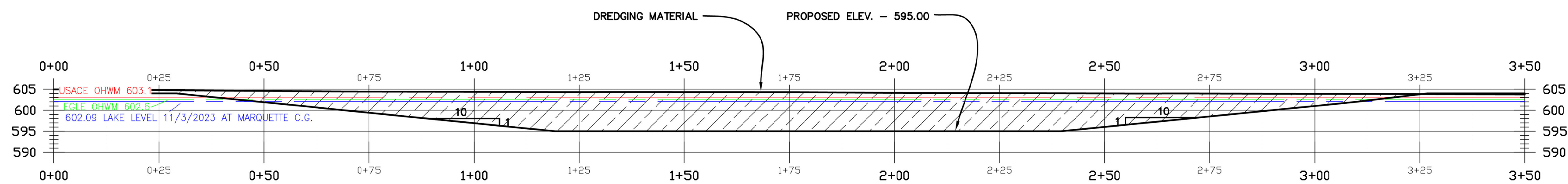
DESIGN BY: M. KILPELA P.E., CITY ENGINEER  
DRAWN BY: D. SALMON  
DATE: MARCH 27, 2023  
FILE NAME: MQ13-504 BASE NORTH.dwg

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

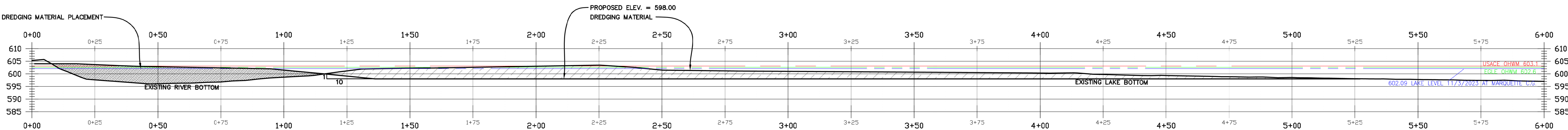
**DEAD RIVER MOUTH DREDGING PROJECT**  
**SITE 1**

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

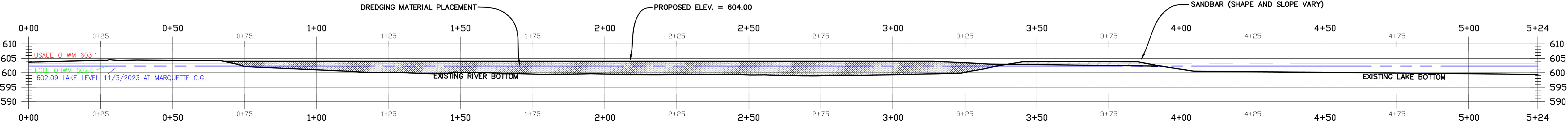




RIVER ALIGNMENT PROFILE  
SCALE: 1" = 20'



DREDGING AREA ALIGNMENT PROFILE  
SCALE: 1" = 20'



RIVER BUFFER ALIGNMENT PROFILE  
SCALE: 1" = 20'



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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

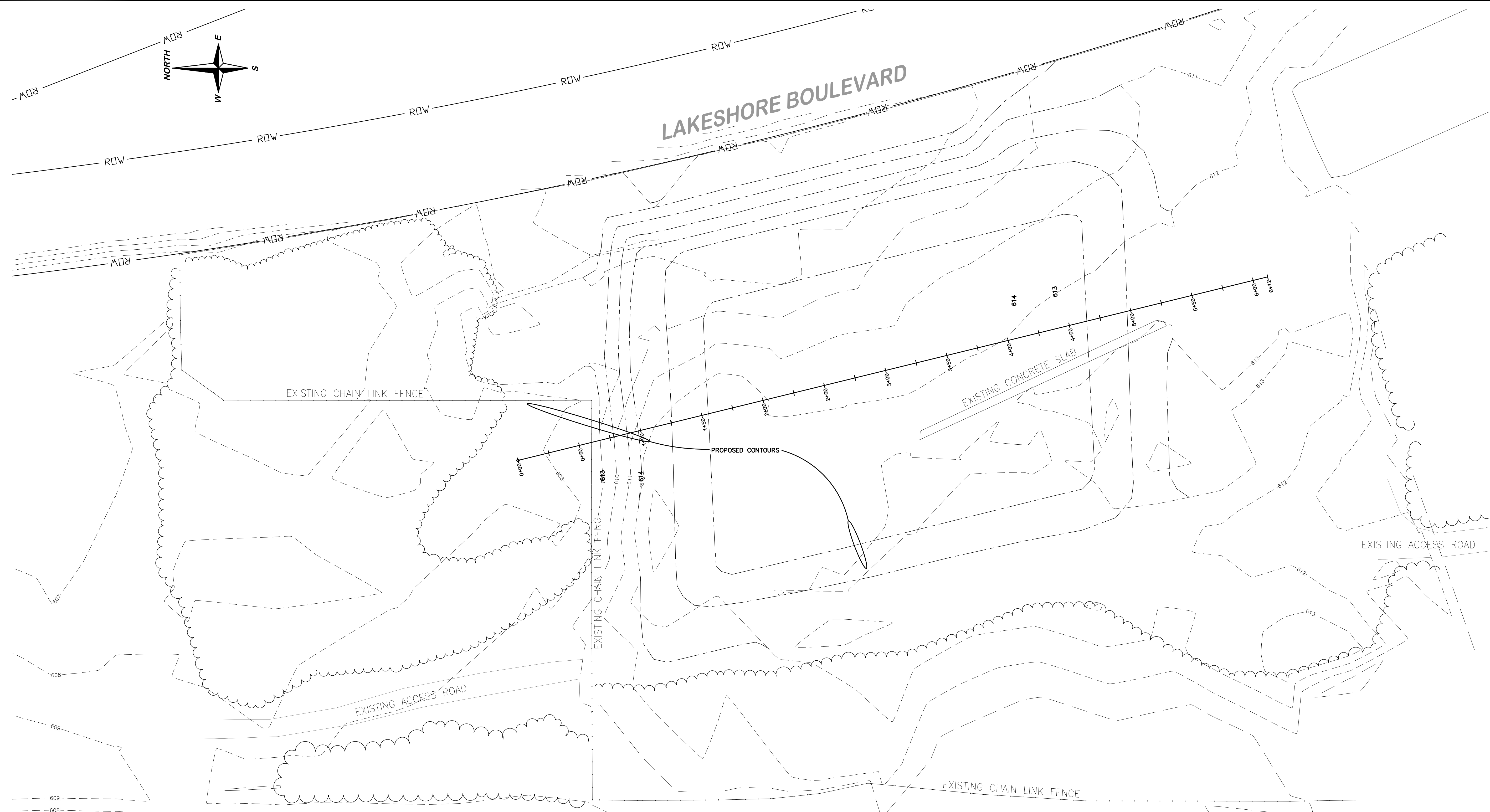
PROJECT MQ13-504  
SHEET 3 OF 8

Know what's below.  
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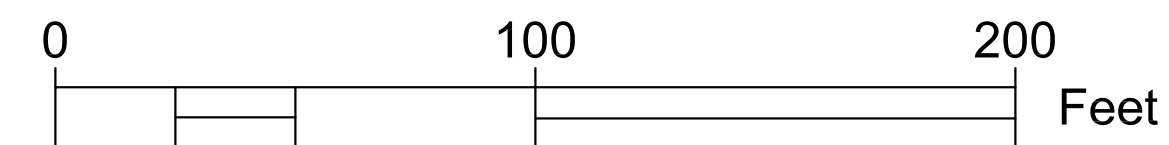




**COORDINATE NOTES**

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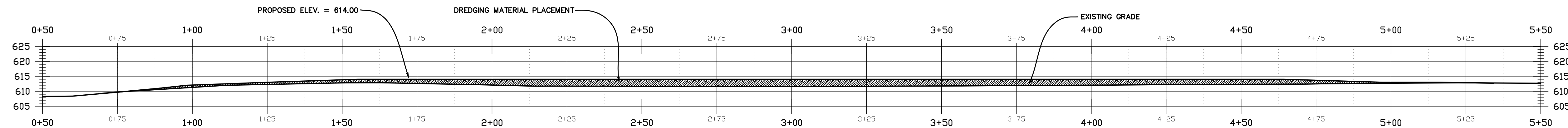
**SITE 3**  
SCALE: 1" = 40'



**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.  
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PRELIMINARY	03-25-22
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PERMITTING	01-16-23
PERMITTING REVISION	03-27-23
UPDATED SURVEY	11-08-23

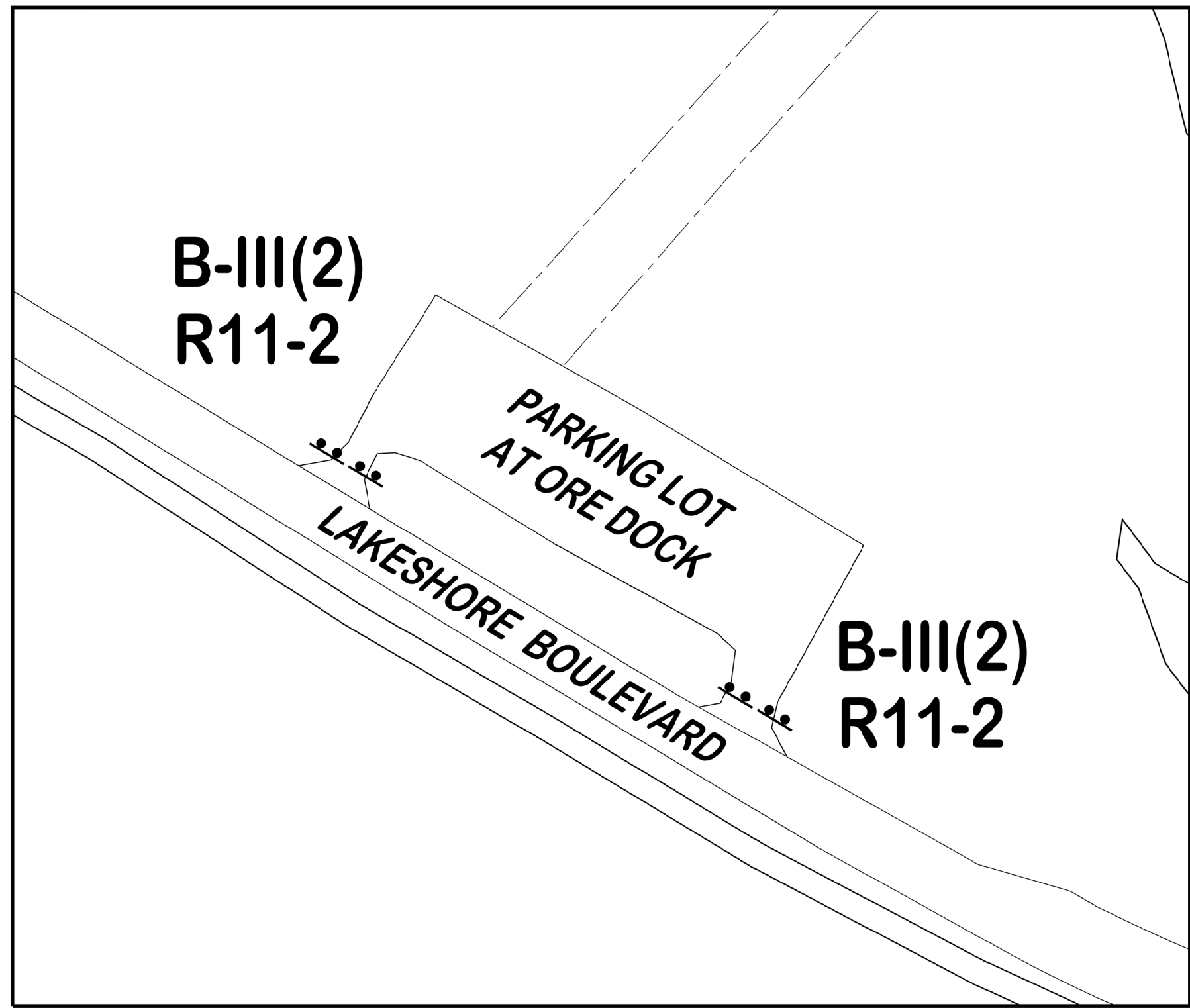
**DESIGN BY: M. KILPELA P.E., CITY ENGINEER**  
**DRAWN BY: D. SALMON**  
**DATE: MARCH 27, 2023**  
**FILE NAME: MQ13-504 BASE SOUTH.dwg**

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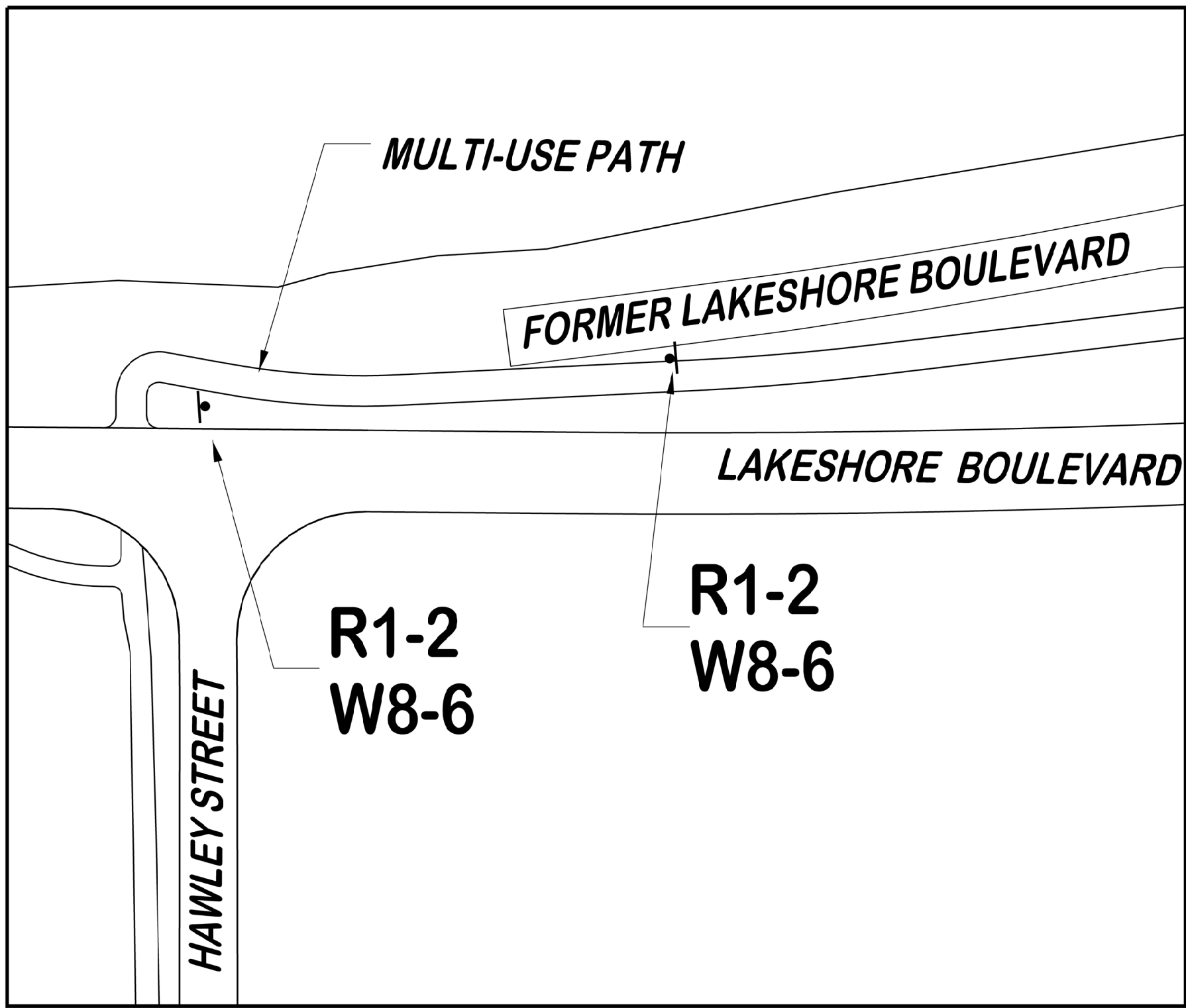
**DEAD RIVER MOUTH DREDGING PROJECT**  
**SITE 3**

**PROJECT MQ13-504**  
**SHEET 5 OF 8**



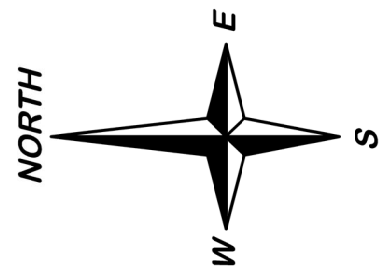


DREDGING AREA  
PARKING LOT CLOSURE  
SCALE 1" = 50'

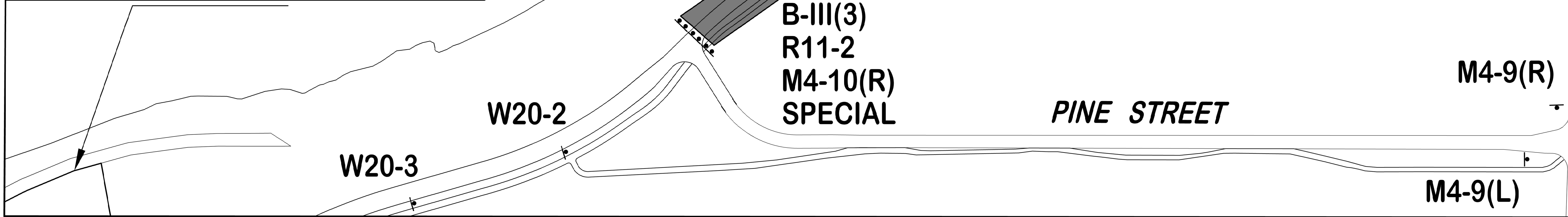


MULTI-USE PATH CROSSING TO FORMER  
LAKESHORE BOULEVARD  
SCALE 1" = 50'

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



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'



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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

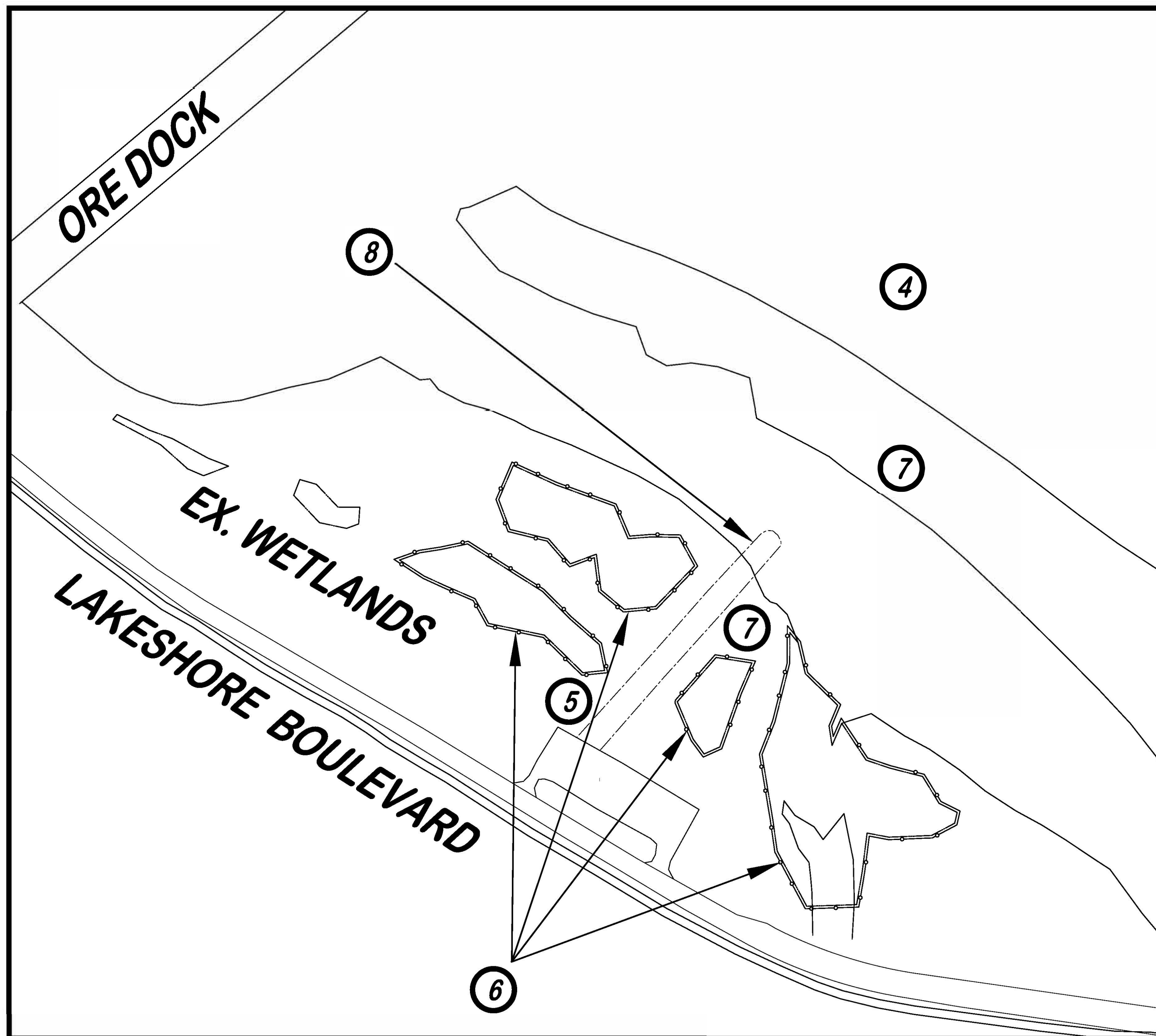
HOR. SCALE: VARIES  
VERT. SCALE: N.A.

DEAD RIVER MOUTH DREDGING PROJECT  
MARQUETTE UPPER HARBOR  
TRAFFIC CONTROL PLAN

PROJECT MQ13-504  
SHEET 6 OF 8

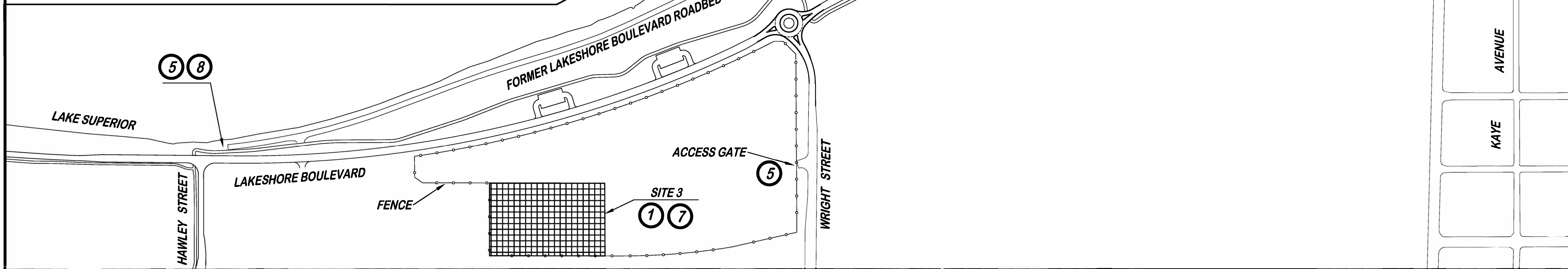
Know what's below.  
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**SITE 1 DREDGING AREA**  
SCALE 1" = 100'

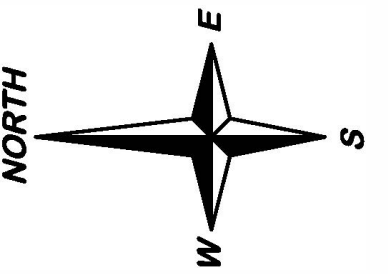
**BENEFICIAL REUSE AREAS**  
SCALE 1" = 200'



- 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



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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.

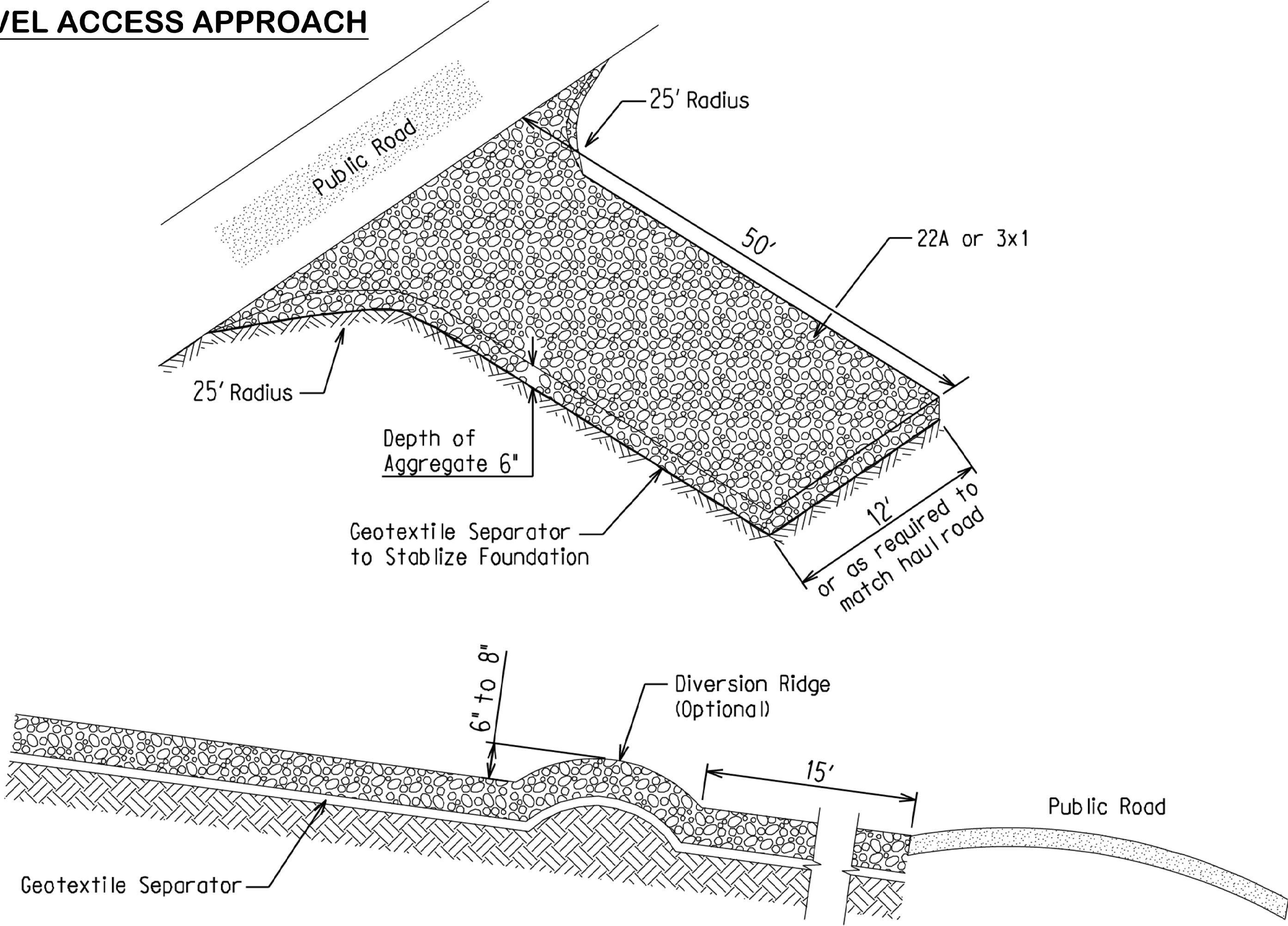
**DEAD RIVER MOUTH DREDGING PROJECT**  
**MARQUETTE UPPER HARBOR**  
SOIL EROSION AND SEDIMENTATION CONTROL AND SITE ACCESS PLAN

**PROJECT MQ13-504**  
**SHEET 7 OF 8**

PROJECT NO. MQ13-504  
J:\PROJECTS\MQ13-504 DEAD RIVER MOUTH DREDGING AND DRAFTING\PROJECT DRAWINGS\MQ13-504 TRAFFIC - SESC - SITE.DWG  
DEAD RIVER MOUTH DREDGING PROJECT



GRAVEL ACCESS APPROACH



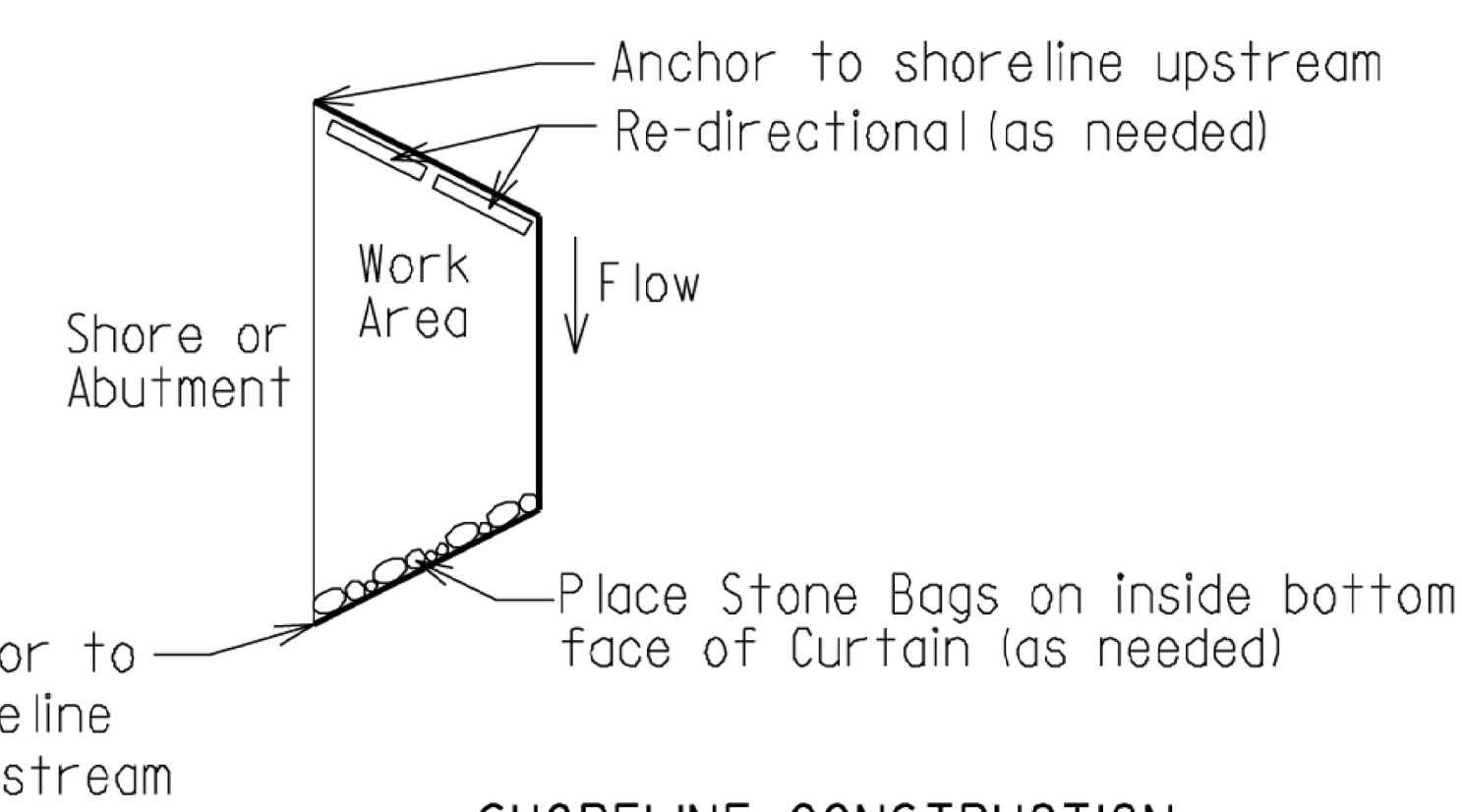
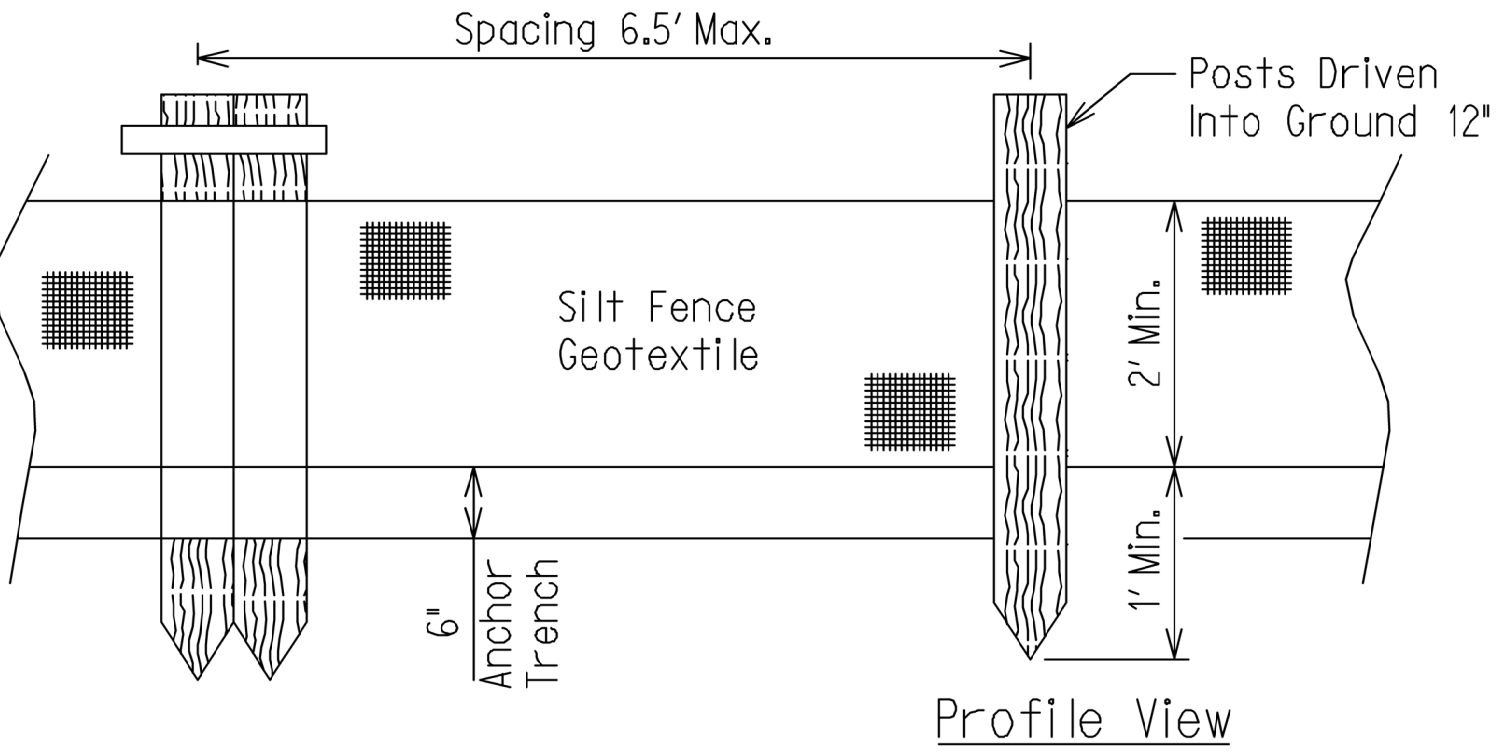
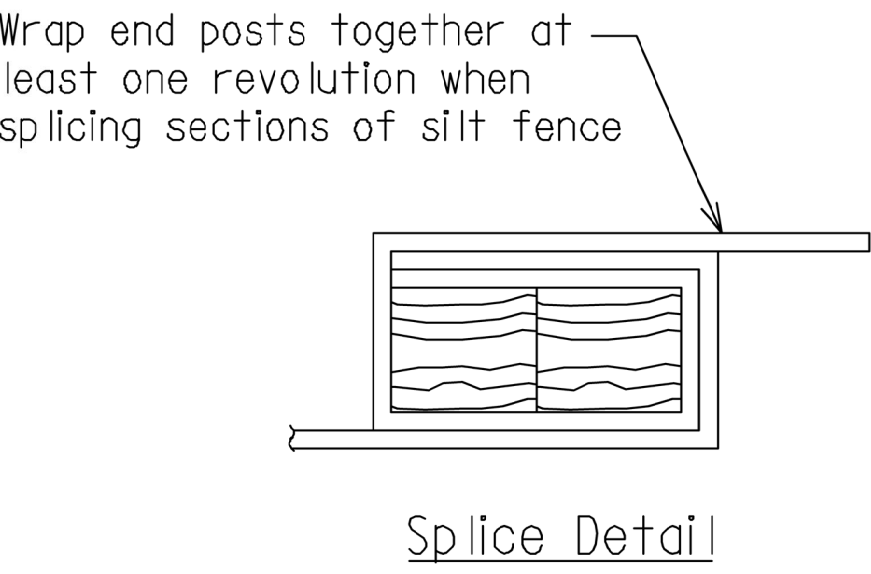
**Use:**  
Providing a stable Gravel Access Approach, minimizes the tracking of loose materials from the construction site onto public roadways. Coarser aggregate is more effective in reducing tracking. Any materials tracked onto public roadways shall be removed as specified in the Standard Specifications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

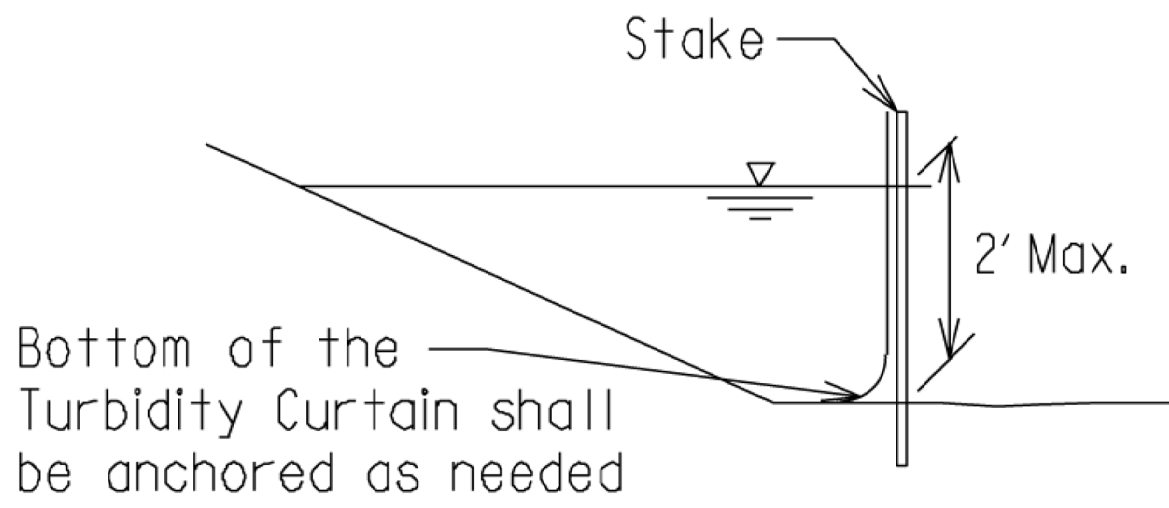
**Installation and Maintenance:**  
The Gravel Access Approach should be located in accordance with the plans or as directed by the Engineer. All vegetation and other objectionable material shall be removed from the foundation area. Geotextile Separator must be placed beneath the aggregate to stabilize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

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

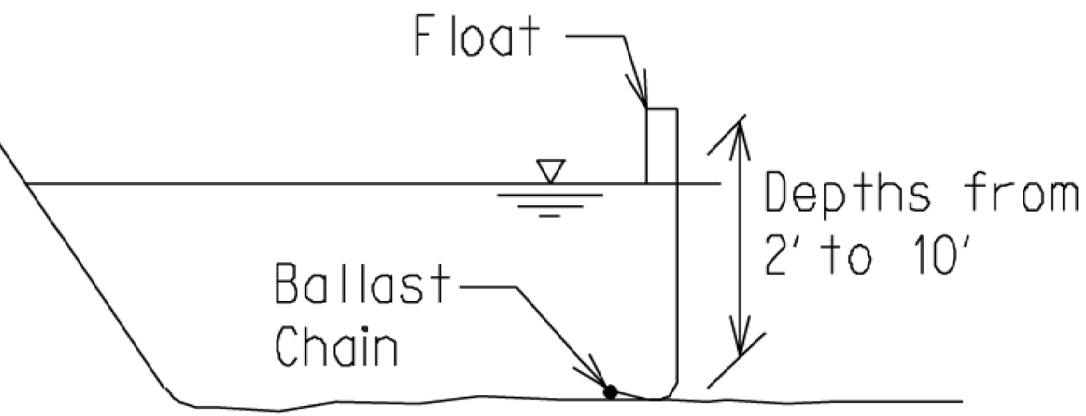
SILT FENCE



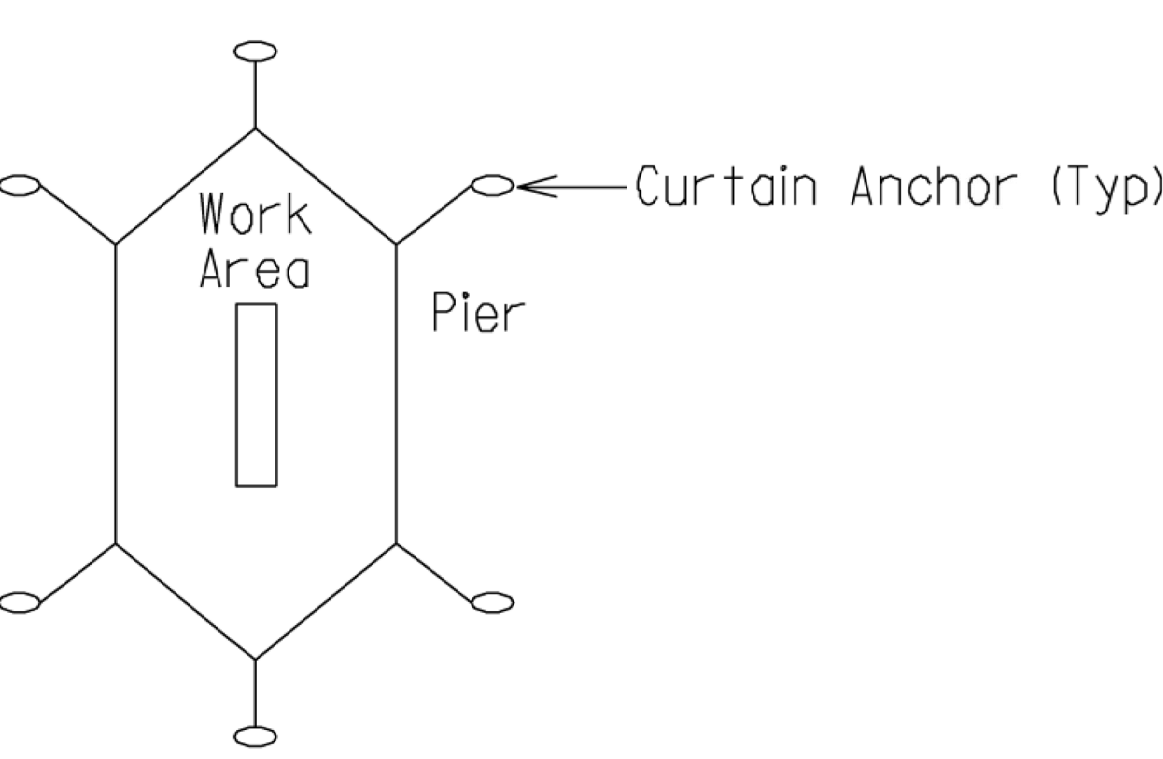
SHORELINE CONSTRUCTION



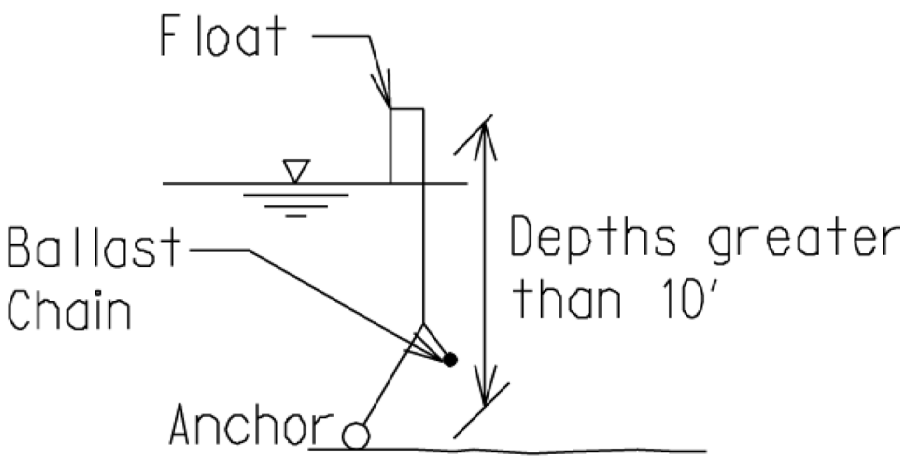
TURBIDITY CURTAIN (SHALLOW)



TURBIDITY CURTAIN (DEEP)

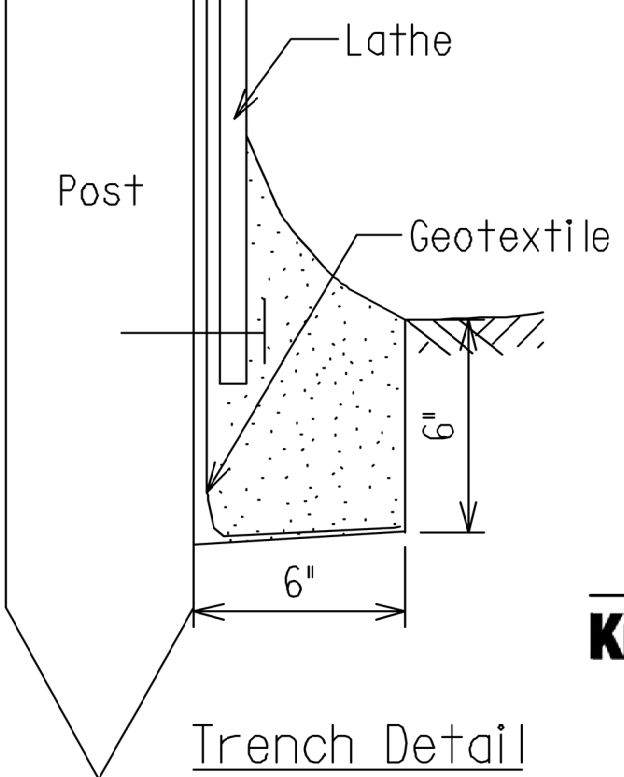
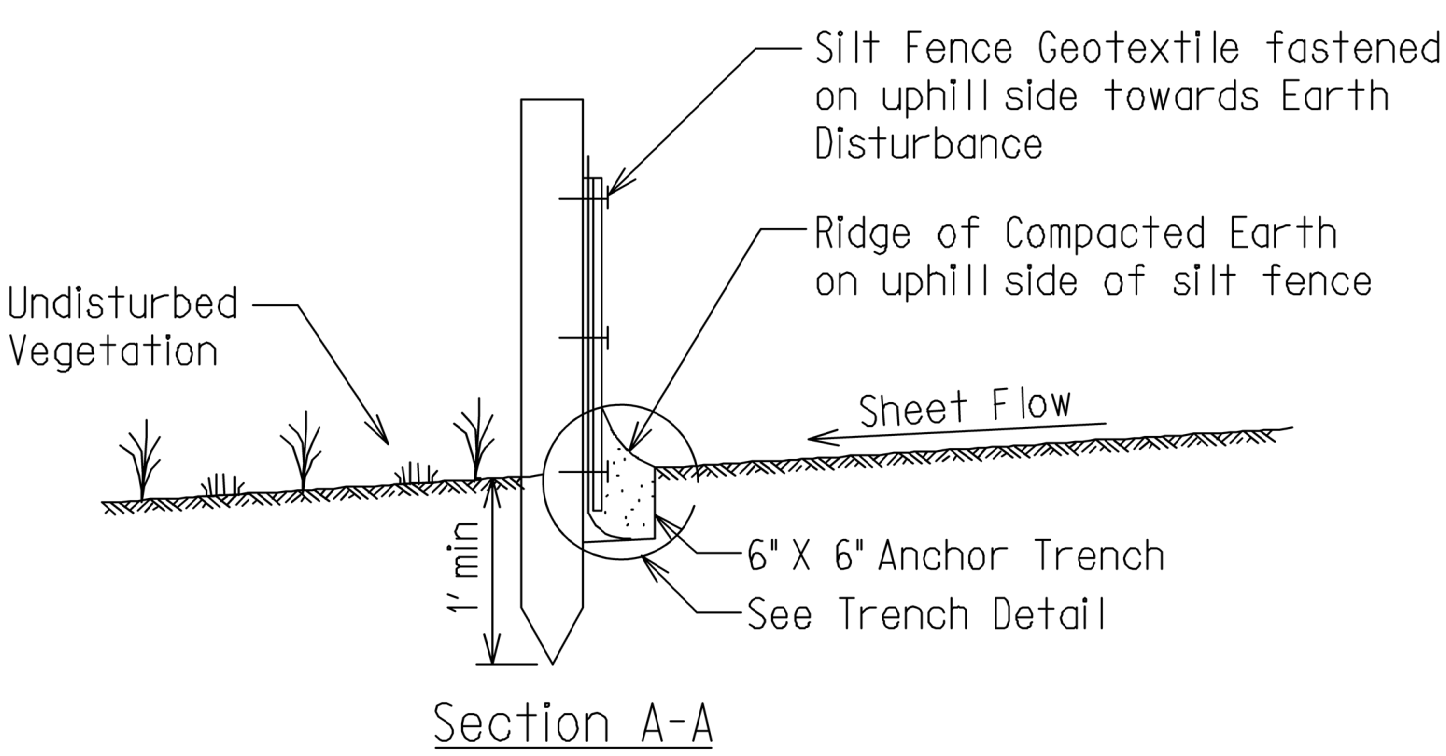
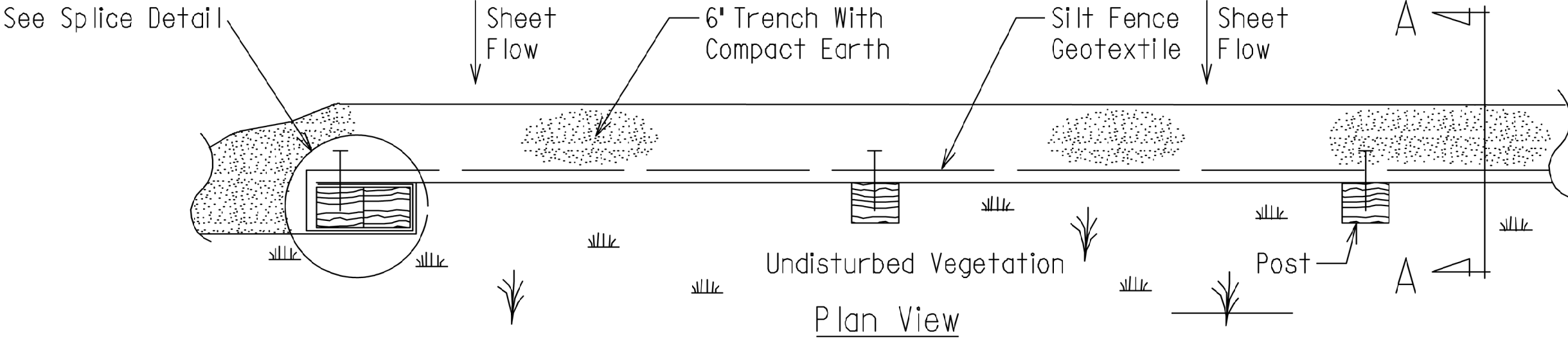


IN-STREAM CONSTRUCTION



TURBIDITY CURTAIN

**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).



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



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

REVISIONS:	
INTERNAL REVIEW	11-18-2022

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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