THE CITY OF MARQUETTE

EAST BARAGA AVENUE EXTENSION

MQ13-028

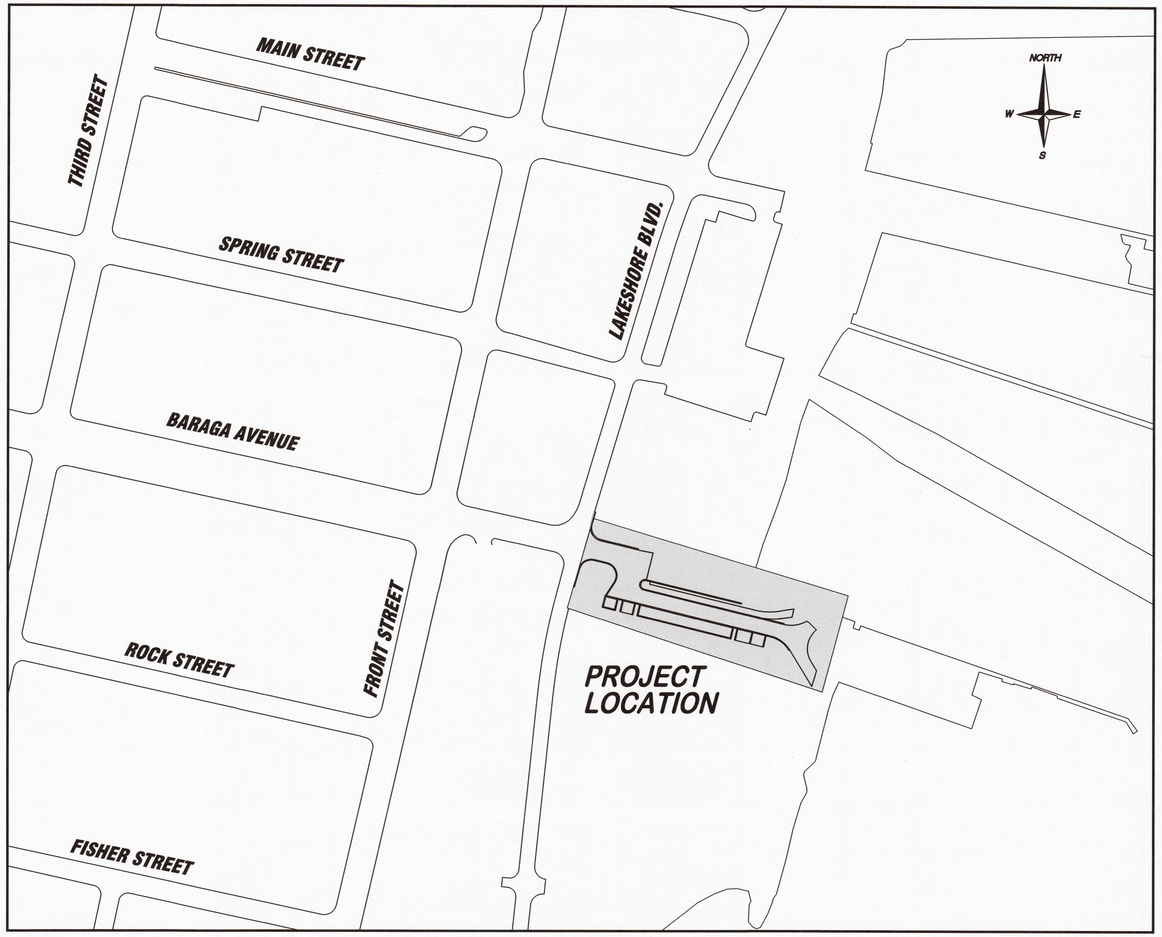
STANDARDS:

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.

DESIGN STANDARD

THE PROPOSED IMPROVEMENTS COVERED BY THESE PLANS ARE IN ACCORDANCE WITH THE AASHTO; A POLICY ON GEOMETRIC DESIGN OF ROADS AND STREETS, 2011.

LOCATION MAP



INDEX OF SHEETS

1 COVER SHEET
2 SITE PLAN, PAVEMENT MARKING PLAN, AND GRADING PLAN
3 SITE PLAN AND GRADING PLAN – EAST END
4 TRAFFIC CONTROL PLAN
5 SESC PLAN

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–1–G	DRAINAGE STRUCTURES
	R–7–F	COVER B
*	R–28–J	SIDEWALK RAMP AND DETECTABLE WARNING DETAILS
	R–29–I	DRIVEWAY OPENINGS & APPROACHES, AND CONC. SIDEWALKS
	R–30–G	CONCRETE CURB AND CONCRETE CURB & GUTTER
	R–96–E	SOIL EROSION & SEDIMENTATION CONTROL MEASURES
	R–105–D	GRADING CROSS–SECTIONS

TRAFFIC AND SAFETY STANDARD PLANS

*	WZD–100–A	GROUND DRIVEN SIGN SUPPORTS FOR TEMP SIGNS
*	WZD–125–E	TEMPORARY TRAFFIC CONTROL DEVICES
	00–TRAFFIC CONTROL TYPICALS – COMPLETE SET	

* 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
GAS MAIN AND SERVICES
UNDERGROUND TELEPHONE
OVERHEAD ELECTRICAL AND CABLE
UNDERGROUND ELECTRICAL
UNDERGROUND FIBER OPTICS

LEGEND

- EXISTING STORM SEWER
- EXISTING SANITARY SEWER
- EXISTING WATER MAIN
- EXISTING GAS MAIN/SERVICE
- EXISTING TELECOMMUNICATION CABLE
- EXISTING ELECTRIC CABLE
- EXISTING LIGHT POLE
- EXISTING SANITARY/STORM SEWER MANHOLE
- EXISTING POWER POLE
- GUY ANCHOR
- EXISTING CATCH BASIN
- EXISTING TRAFFIC SIGN
- EXISTING WATER VALVE
- EXISTING FIRE HYDRANT
- SOIL BORING LOCATION AND NUMBER
- EXISTING WATER SHUT OFF
- PROPOSED SANITARY SEWER
- PROPOSED WATER MAIN
- PROPOSED STORM SEWER
- RIGHT OF WAY
- PROPERTY LINE, APPROXIMATE
- PROPOSED CATCH BASIN
- PROPOSED MANHOLE
- PROPOSED WATER VALVE
- PROPOSED FIRE HYDRANT
- PROPOSED 6" SIDEWALK
- PROPOSED 4" SIDEWALK
- PROPOSED ADA RAMP (6")
- PROPOSED DETECTABLE SURFACE
- HMA, 13A

PUBLIC UTILITIES

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

CHARTER COMMUNICATIONS
359 US–41 EAST
NEGAUNEE, MICHIGAN 49866
PH. (906) 228–2900

MARQUETTE WATER AND SEWER DEPARTMENT
850 WEST BARAGA AVENUE
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

CONTRACT FOR:
EAST BARAGA AVENUE EXTENSION PROJECT

MUNICIPAL APPROVAL:

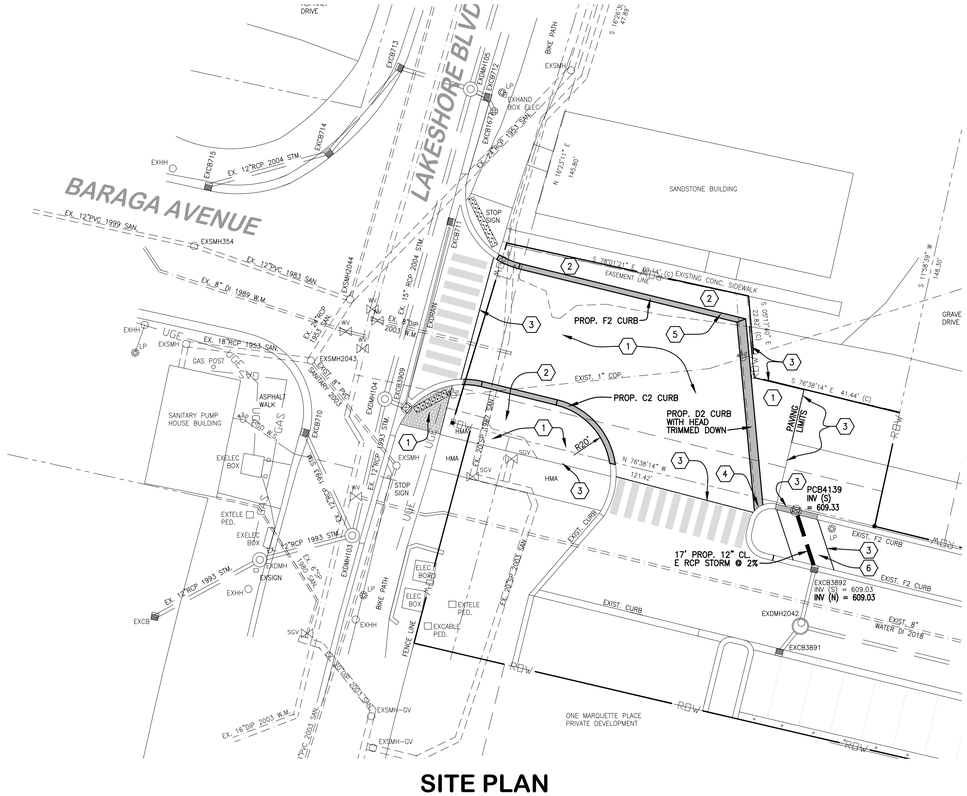
Karen Kovacs 1/10/2023
KAREN KOVACS, CITY MANAGER DATE

PREPARED UNDER THE SUPERVISION OF:

Mikael Kilpela 1/3/23
MIKAEL H. KILPELA, CITY ENGINEER DATE
P.E. NO. 6201056591

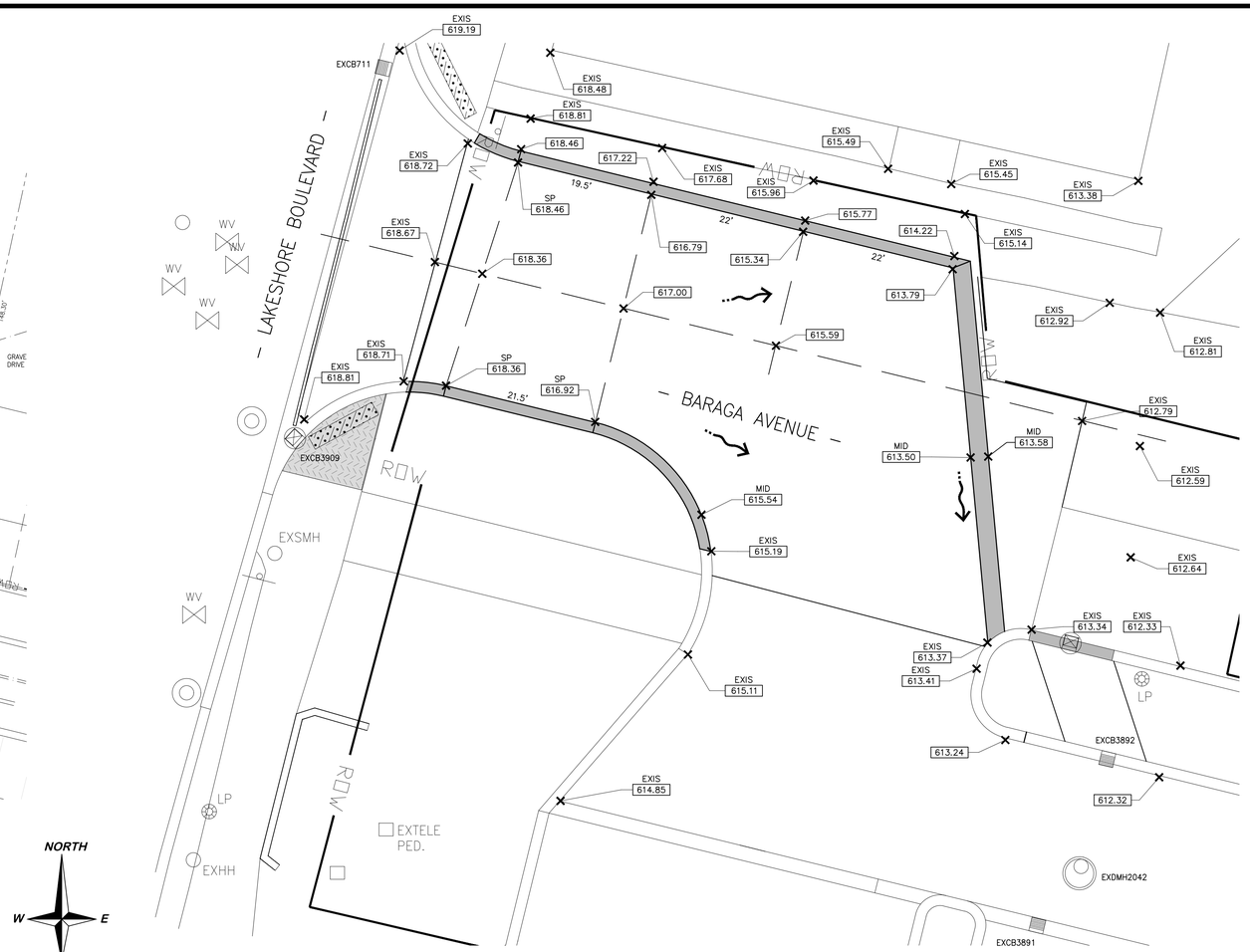
STATE OF MICHIGAN
MIKAEL HENRIK KILPELA
ENGINEER
50591
LICENSED PROFESSIONAL ENGINEER

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



SITE PLAN

SCALE: 1" = 20'



GRADING PLAN

SCALE: 1" = 10'

NORTH
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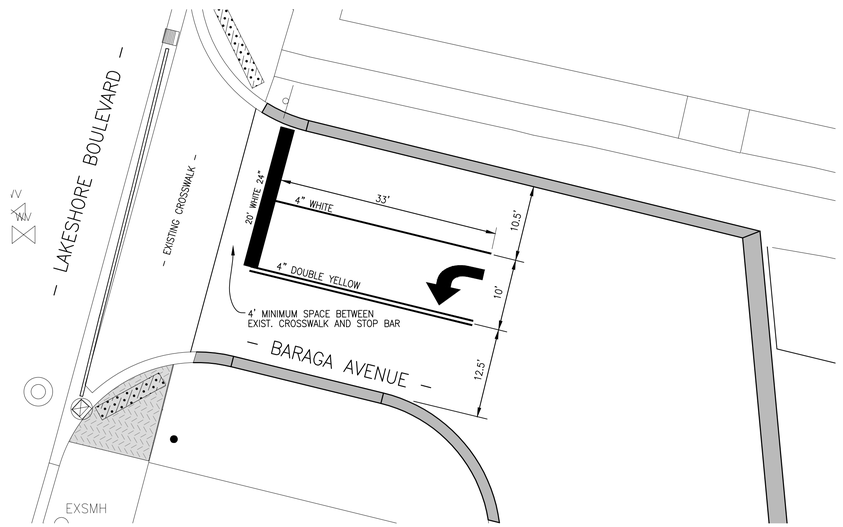


PAVEMENT STRIPING PLAN

SCALE: 1" = 10'

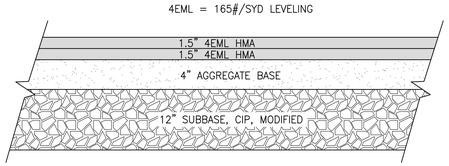
KEYNOTES

1. REMOVE ALL EXISTING ASPHALT HERE, PAID AS "HMA SURFACE, REM" AND EXCAVATE FOR PROPOSED GRADING, PAID AS "EXCAVATION, EARTH"
2. PLACE 4" TOPSOIL AND SOD.
3. SAWCUT ALONG EXISTING PATH OR AS SHOWN.
4. TRANSITION FLOW LINE AS TO CONTINUE RUN OFF INTO THE EXISTING CURB FLOWLINE.
5. TAPER CURB HEAD DOWN OVER 10'.
6. REMOVE EXISTING ASPHALT HERE, PAID AS "HMA SURFACE, REM" AND PAVE WITH 3" OF 4EML, TWO LIFTS WITH 4" AGGREGATE BASE.

HMA APPLICATION RATE

4EML = 165#/SYD TOP

4EML = 165#/SYD LEVELING



PAVING CROSS SECTION

SCALE: NTS

PAY ITEMS (THIS SHEET)

1	LS	MOBILIZATION, MAX.
1	LS	PROJECT CLEANUP
1	LS	RESIDENT NOTIFICATION
1	LS	PEDESTRIAN TRAFFIC MAINTENANCE
529	SYD	HMA SURFACE, REM
231	CYD	EXCAVATION, EARTH
7	CYD	EMBANKMENT, CIP
416	SYD	AGGREGATE BASE, 4 INCH
150	CYD	SUBBASE, CIP, MODIFIED
53	FT	CURB AND GUTTER, CONC, DET C2
84	FT	CURB AND GUTTER, CONC, DET F2
54	FT	CURB AND GUTTER, CONC, DET D2
87	TON	HMA, 4EML
106	SFT	SIDEWALK, CONC, 6 INCH
10	FT	DETECTABLE WARNING SURFACE
120	SYD	SODDING, CLASS A
120	SYD	TOPSOIL SURFACE, FURN, 4 INCH
1	EA	WATER SHUTOFF, ADJ, CASE 1
1	EA	WATER SHUTOFF, ADJ, CASE 2
12	FT	CURB AND GUTTER, REM
17	FT	SEWER, CL E, 12 INCH, TR DET B
1	EA	DR STRUCTURE, 24 INCH DIA
1	EA	DR STRUCTURE COVER, TYPE K, MODIFIED
1	EA	DR STRUCTURE, TAP, 12 INCH
20	FT	PAVT MRKG, POLYUREA, 24 INCH, STOP BAR, WHITE
33	FT	PAVT MRKG, POLYUREA, 4 INCH, WHITE
66	FT	PAVT MRKG, POLYUREA, 4 INCH, YELLOW
1	EA	PAVT MRKG, POLYUREA, LT TURN ARROW SYM

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

PROJECT NO. MQ13-028

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EAST BARAGA AVENUE EXTENSION PROJECT

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

REVISIONS:

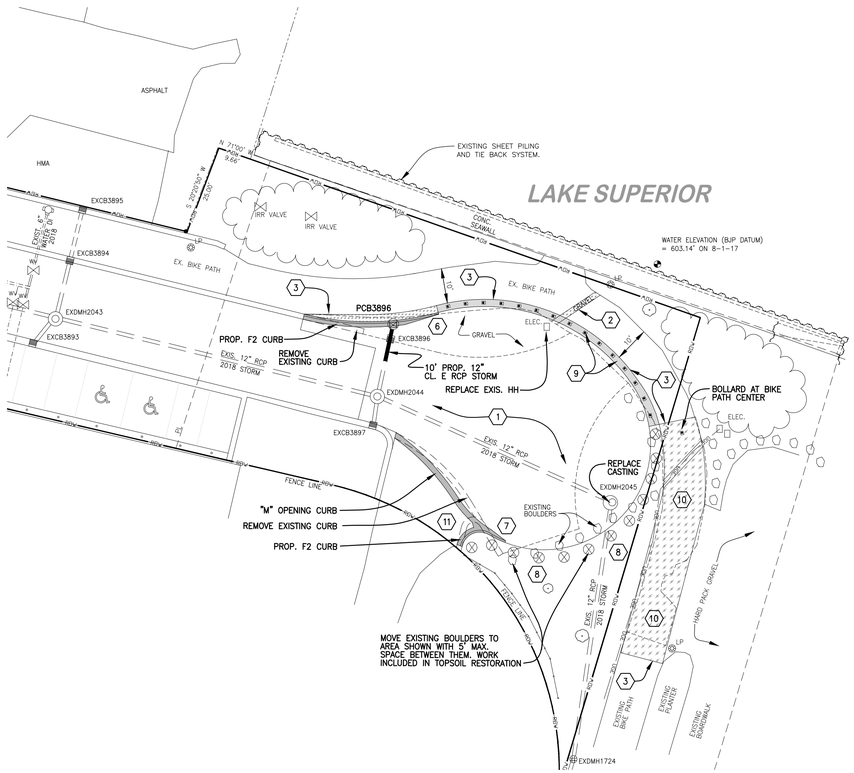
PRELIMINARY	02-14-22
BID READY	03-29-22
INTERNAL REVIEW	12-12-22
BID READY	12-22-22

DESIGN BY: M. KILPELA, CITY ENGINEER
DRAWN BY: D. SALMON
DATE: DECEMBER 22, 2022
FILE NAME: 13-028 EAST BARAGA BASE 2022.dwg

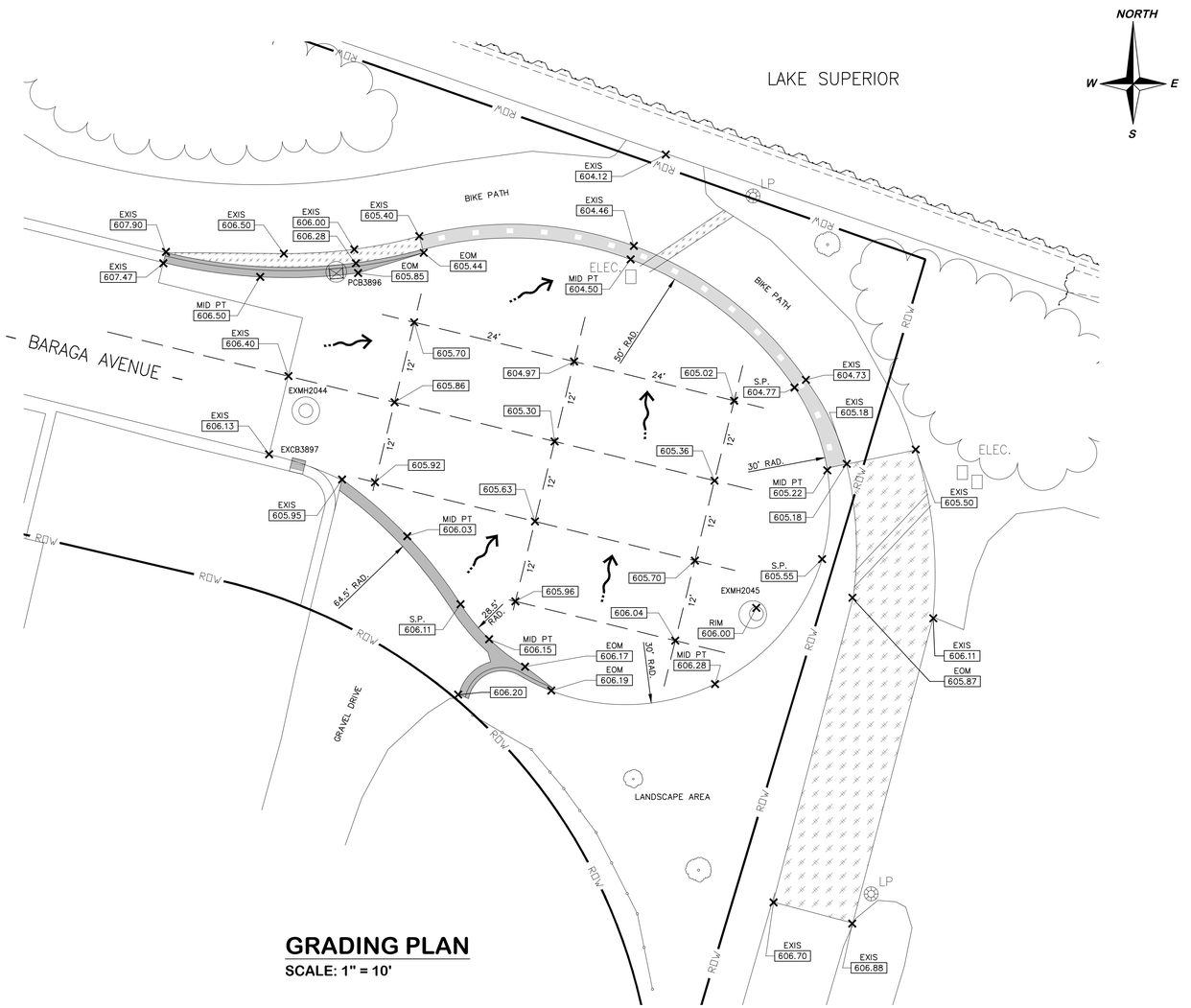
HOR. SCALE: AS SHOWN
VERT. SCALE: N.A.

EAST BARAGA AVENUE EXTENSION PROJECT
LAKESHORE BOULEVARD WEST TO BOARD WALK
SITE, GRADING, AND PAVEMENT MARKING PLANS

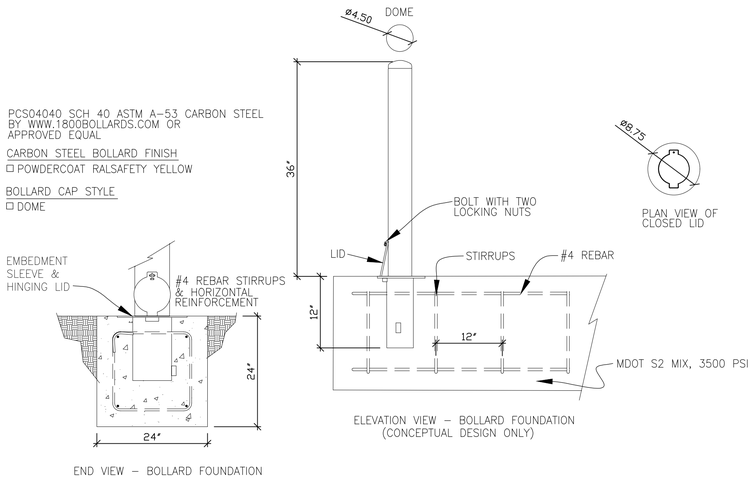
PROJECT MQ13-028
SHEET 2 OF 5



SITE PLAN
SCALE: 1" = 20'



GRADING PLAN
SCALE: 1" = 10'



BOLLARD DETAIL
SCALE: N.T.S.

KEYNOTES

1. REMOVE ALL EXISTING ASPHALT HERE, PAID AS "HMA SURFACE, REM" AND EXCAVATE FOR PROPOSED GRADING, PAID AS "EXCAVATION, EARTH"
2. PREP AND PAVE UTILITY STRIP AT BIKE PATH. PAID AS "AGGREGATE BASE, CONDITIONING" AND "HMA, 4EML".
3. SAWCUT ALONG EXISTING PATH OR AS SHOWN.
4. .
5. .
6. TAPER CURB HEAD DOWN AND PAN OVER 10'.
7. TAPER CURB HEAD DOWN AND PAN OVER 5'.
8. RE-GRADE AREA BEHIND CURB AND ADD TOPSOIL AS NEEDED, RESTORE MULCH, PAID AS "TOPSOIL SURFACE, FURN, 4 INCH".
9. 2' WIDE CONCRETE PAD WITH BOLLARDS AT 5' O.C. – SEE ATTACHED DETAIL. PAID AS "POST, REMOVABLE BOLLARD" AND "BOLLARD FOUNDATION".
10. REMOVE EXISTING ASPHALT HERE, PAID AS "HMA SURFACE, REM" AND REGRADE AGGREGATE BASE TO PROPOSED GRADES, PAID AS "AGGREGATE BASE, CONDITIONING". PAVE WITH 3" OF 4EML, TWO LIFTS.
11. RE-SHAPE AND ADD GRAVEL AS NEEDED, PAID AS "AGGREGATE BASE, 4 INCH".

PAY ITEMS

411	SYD	HMA SURFACE, REM
217	CYD	EXCAVATION, EARTH
73	FT	CURB AND GUTTER, REM
10	FT	SEWER, CL E, 12 INCH, TR DET B
1	EA	DR STRUCTURE, 24" DIA
1	EA	DR STRUCTURE COVER, TYPE K, MODIFIED
1	EA	CONNECT TO EX STORM SEWER
1	EA	DR STRUCTURE COVER, TYPE B, MODIFIED (LOW PROFILE)
1	EA	HH, HEAVY DUTY COVER
89	SYD	AGGREGATE BASE, CONDITIONING
465	SYD	AGGREGATE BASE, 4 INCH
153	CYD	SUBBASE, MODIFIED
53	FT	CURB AND GUTTER, CONC, DET F2
38.5	FT	DRIVE OPENING, CONC, DET M
3	CYD	EMBANKMENT, CIP
101	TON	HMA, 4EML
76	FT	BOLLARD FOUNDATION
16	EA	POST, REMOVABLE BOLLARD
60	SYD	TOPSOIL SURFACE, FURN, 4 INCH

NOTE: 27 SYD GRAVEL USED FOR RESTORATION OF DRIVE.

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

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EAST BARAGA AVENUE EXTENSION PROJECT

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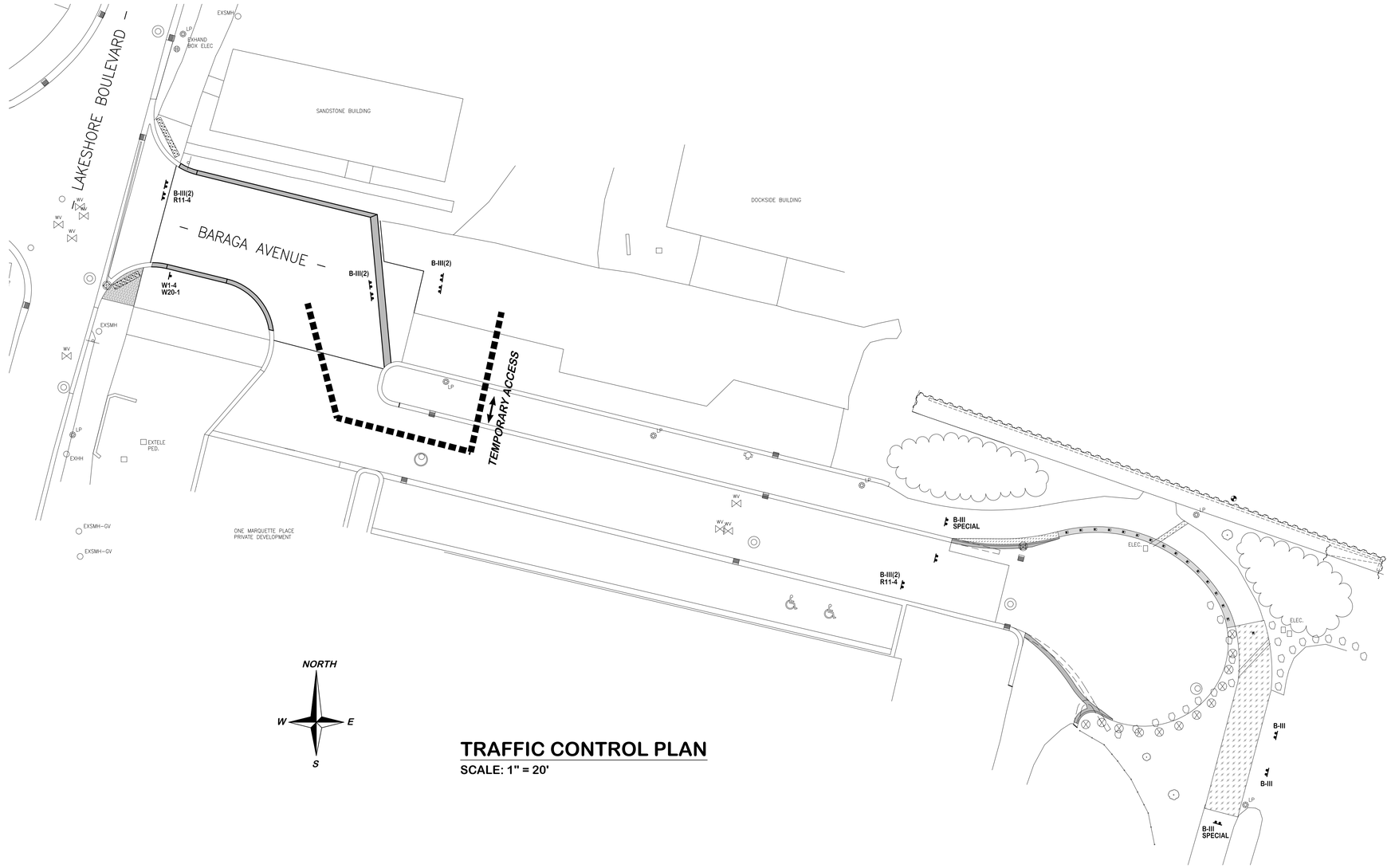
EAST BARAGA AVENUE EXTENSION PROJECT
LAKESHORE BOULEVARD WEST TO BOARD WALK
SITE AND GRADING PLANS

PROJECT MQ13-028
SHEET 3 OF 5



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TRAFFIC CONTROL PLAN

SCALE: 1" = 20'

NOTES:

CONTRACTOR TO MAINTAIN TRAFFIC AT ALL TIMES. COORDINATE LANE SHIFTS, DRIVE CLOSURES, AND TEMPORARY ACCESS WITH ALL ADJOINING PROPERTIES.

ALL REMOVED PERMANENT SIGNAGE AND POSTS ARE TO BE TURNED OVER TO THE CITY OF MARQUETTE PUBLIC WORKS DEPARTMENT.

ALL PROPOSED PERMANENT SIGNAGE WILL BE PROVIDED AND PLACED BY THE CITY OF MARQUETTE PUBLIC WORKS DEPARTMENT.

THE CONTRACTOR SHALL COORDINATE WITH PUBLIC WORKS TO ENSURE ALL SIGNAGE IS PLACED PRIOR TO STREET BEING OPENED TO TRAFFIC.

THE CONTRACTOR SHALL PLACE CLEAN GRAVEL AT EACH CURB FOR THE TEMPORARY ACCESS INTO DOCKSIDE MARINE PROPERTY. COST INCLUDED IN SESC PAY ITEMS AND ALSO INCLUDES REMOVAL AND CLEAN UP.

TEMPORARY SIGNING FOR ENTIRE PROJECT

SIGN	TYPE	DESCRIPTION	MAX. NO. EACH	DIMENSIONS (INCHES)
		PLASTIC DRUM, LIGHTED	25	
B-III		BARRICADE, TYPE III, LIGHTED	12	
R11-4	IIB	STREET CLOSED TO THRU TRAFFIC	2	60x30
SPECIAL	IIB	PATH CLOSED	2	24x24
W1-4	IIB	ARROW TO RIGHT	1	48x48
W20-1	IIB	ROAD WORK AHEAD	1	48x48

TEMPORARY SIGNING PAY ITEMS FOR ENTIRE PROJECT

25	EA – PLASTIC DRUM, FLUORESCENT, FURN
25	EA – PLASTIC DRUM, FLUORESCENT, OPER
66	SFT – SIGN, TYPE B, TEMP, PRISMATIC, FURN
66	SFT – SIGN, TYPE B, TEMP, PRISMATIC, OPER
12	EA – BARRICADE, TYPE 3, HIGH INTENSITY, DOUBLE SIDED, LIGHTED, FURN
12	EA – BARRICADE, TYPE 3, HIGH INTENSITY, DOUBLE SIDED, LIGHTED, OPER

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DESIGN BY: M. KILPELA, CITY ENGINEER
DRAWN BY: D. SALMON
DATE: DECEMBER 22, 2022
FILE NAME: 13-028 EAST BARAGA BASE 2022.dwg

HOR. SCALE: AS SHOWN
VERT. SCALE: N.A.

EAST BARAGA AVENUE EXTENSION PROJECT
LAKESHORE BOULEVARD WEST TO BOARD WALK
TRAFFIC CONTROL PLAN

PROJECT MQ13-028
SHEET 4 OF 5

PROJECT NO. MQ13-028

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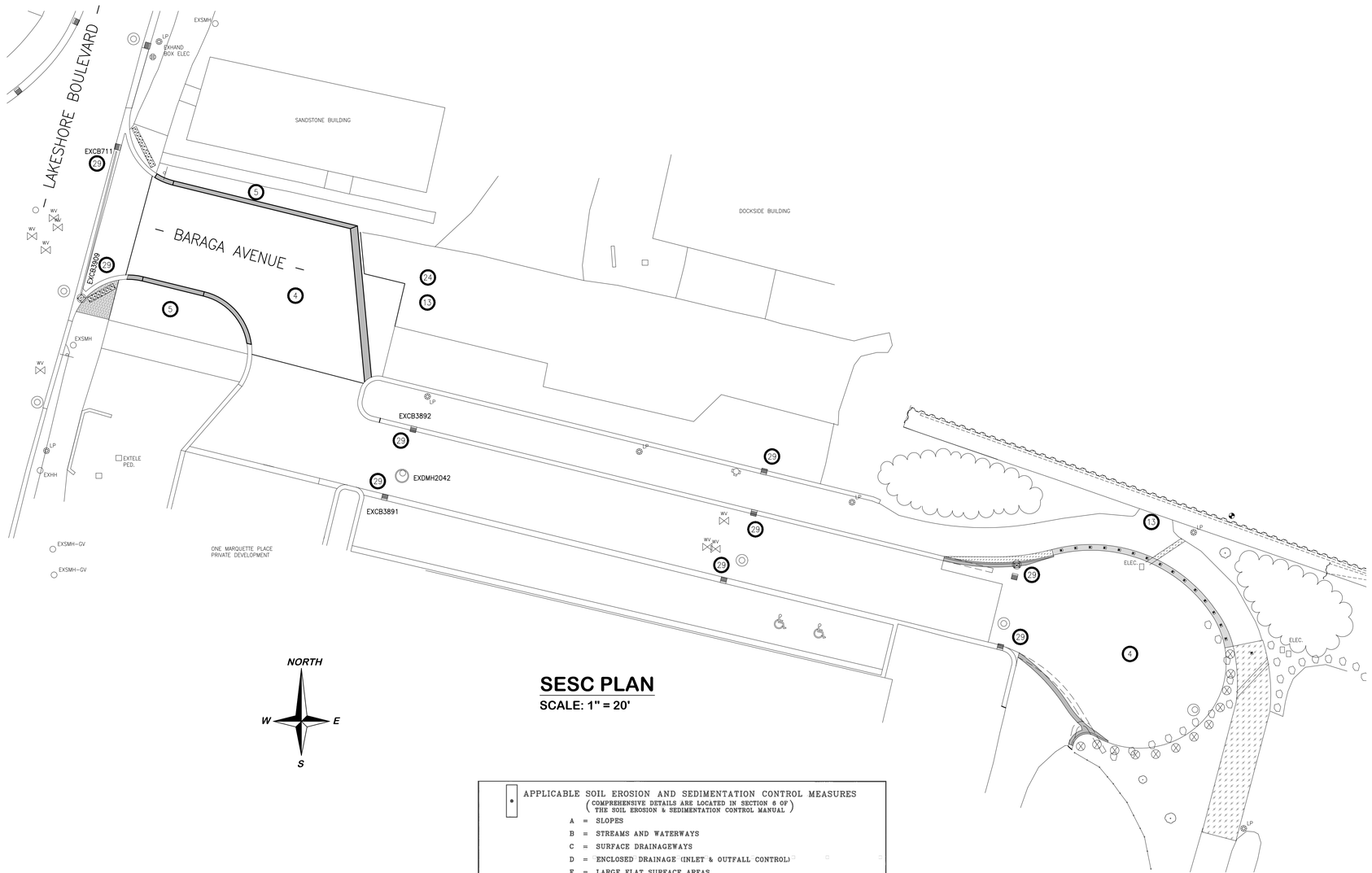
EAST BARAGA AVENUE EXTENSION PROJECT



SESC PLAN

SCALE: 1" = 20'

NORTH
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NOTES:

ALL CATCH BASINS AND STORMWATER INLETS WITHIN THE PROJECT LIMITS AS WELL AS DOWNSTREAM CATCH BASINS, SHALL HAVE SILT SACKS PLACED IN THEM. CURB HEAD OPENINGS ARE TO BE BLOCKED SUCH THAT WATER IS DEFLECTED INTO THE SILT SACK. SILT SACKS SHALL BE CLEANED OR REPLACED WHEN 1/3 FULL OF SEDIMENT. CATCH BASINS OUTSIDE OF PROJECT LIMITS THAT RECEIVE FABRIC SHALL HAVE THE CURB HEAD OPENINGS COVERED IN FABRIC AS WELL. (29)

STOCKPILE 100 READY TO USE SAND BAGS TO BE USED TO DIRECT STORM WATER AS DEEMED NECESSARY BY THE ENGINEER. (24)

CONTRACTOR IS RESPONSIBLE FOR SWEEPING SAND AND DEBRIS THAT IS TRACKED ONTO ALL ADJOINING STREETS AT THE END OF EACH WORKDAY, BEFORE RAIN EVENTS, AND AS DIRECTED BY ENGINEER. COST INCLUDED IN "EROSION CONTROL, GRAVEL ACCESS APPROACH"

ALL DISTURBED LANDSCAPE AREA'S BEHIND PROPOSED SIDEWALK SHALL RECEIVE 4" TOPSOIL AND SOD.

SOIL EROSION PAY ITEMS SHALL COVER THE COST OF PLACING AND REMOVING THEM, MAINTAINING THEM AND ANY RE-INSTALLATION REQUIRED DUE TO CONSTRUCTION ACTIVITY.

APPLICABLE SOIL EROSION AND SEDIMENTATION CONTROL MEASURES
(COMPREHENSIVE DETAILS ARE LOCATED IN SECTION 6 OF THE SOIL EROSION & SEDIMENTATION CONTROL MANUAL)

- A = SLOPES
- B = STREAMS AND WATERWAYS
- C = SURFACE DRAINAGEWAYS
- D = ENCLOSED DRAINAGE (INLET & OUTFALL CONTROL)
- E = LARGE FLAT SURFACE AREAS
- F = BORROW AND STOCKPILE AREAS
- G = DNRE PERMIT MAY BE REQUIRED

KEY	DETAIL	CHARACTERISTICS	A	B	C	D	E	F	G
(4)	4 DUST CONTROL	Dust control can be accomplished by watering, and/or applying calcium chloride. The disturbed areas should be kept to a minimum. PERMANENT/TEMPORARY SEEDING (KEY 3) should be applied as soon as possible.	•				•	•	
(5)	5 SODDING	Provides immediate vegetative cover such as at spillways and ditch bottoms. Proper preparation of the topsoil, placement of the sod, and watering is critical to its success.	•				•	•	
(13)	13 GRAVEL FILTER BERM	Useful in filtering flow prior to its reentry into a lake, stream or wetland. Works well with SEDIMENT TRAP (KEY 20) and TEMPORARY BYPASS CHANNEL (KEY 39). Not to be used in lieu of a CHECK DAM (KEY 37) in a ditch.	•		•			•	
(24)	24 SAND AND STONE BAGS	Sand and stone bags are a useful tool in the prevention of erosion. Can be used to divert water around a construction site by creating a DIVERSION DIKE (KEY 10). Works well for creating a CONSTRUCTION DAM (KEY 36) and temporary culvert end fill.	•	•	•	•	•	•	•
(29)	29 INLET PROTECTION FABRIC DROP	Provides settling and filtering of silt laden water prior to its entry into the drainage system. Can be used in median and side ditches where vegetation will be disturbed. Allows for early use of drainage systems prior to project completion.			•		•		

SOIL EROSION AND SEDIMENTATION CONTROL QUANTITIES

80	FT	– EROSION CONTROL, GRAVEL FILTER BERM
100	EA	– EROSION CONTROL, SAND BAG
9	EA	– EROSION CONTROL, SILT SACK
2	TON	– DUST PALLIATIVE, APPLIED

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EAST BARAGA AVENUE EXTENSION PROJECT
LAKESHORE BOULEVARD WEST TO BOARD WALK
SESC PLAN

PROJECT MQ13-028
SHEET 5 OF 5

PROJECT NO. MQ13-028

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