

# MUSKEGON LAKE

DREDGE  
BOUNDARY

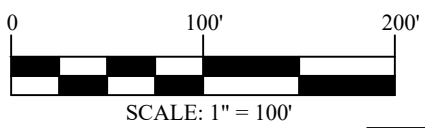


**NOTES:**

- HYDROGRAPHIC SURVEY AND SEDIMENT SAMPLES ON 7/31/2025
- HORIZONTAL CONTROL NAD88, MI STATE PLANE, SOUTH ZONE
- WATER LEVEL AT TIME OF SURVEY 579.59' NAVD88 & 570.18' IGLD85
- DEPTHS ARE BELOW LAKE SURFACE ELEVATION

**LEGEND**

- LAKE BATHYMETRY (NAVD88)
- SEDIMENT SAMPLE POINT

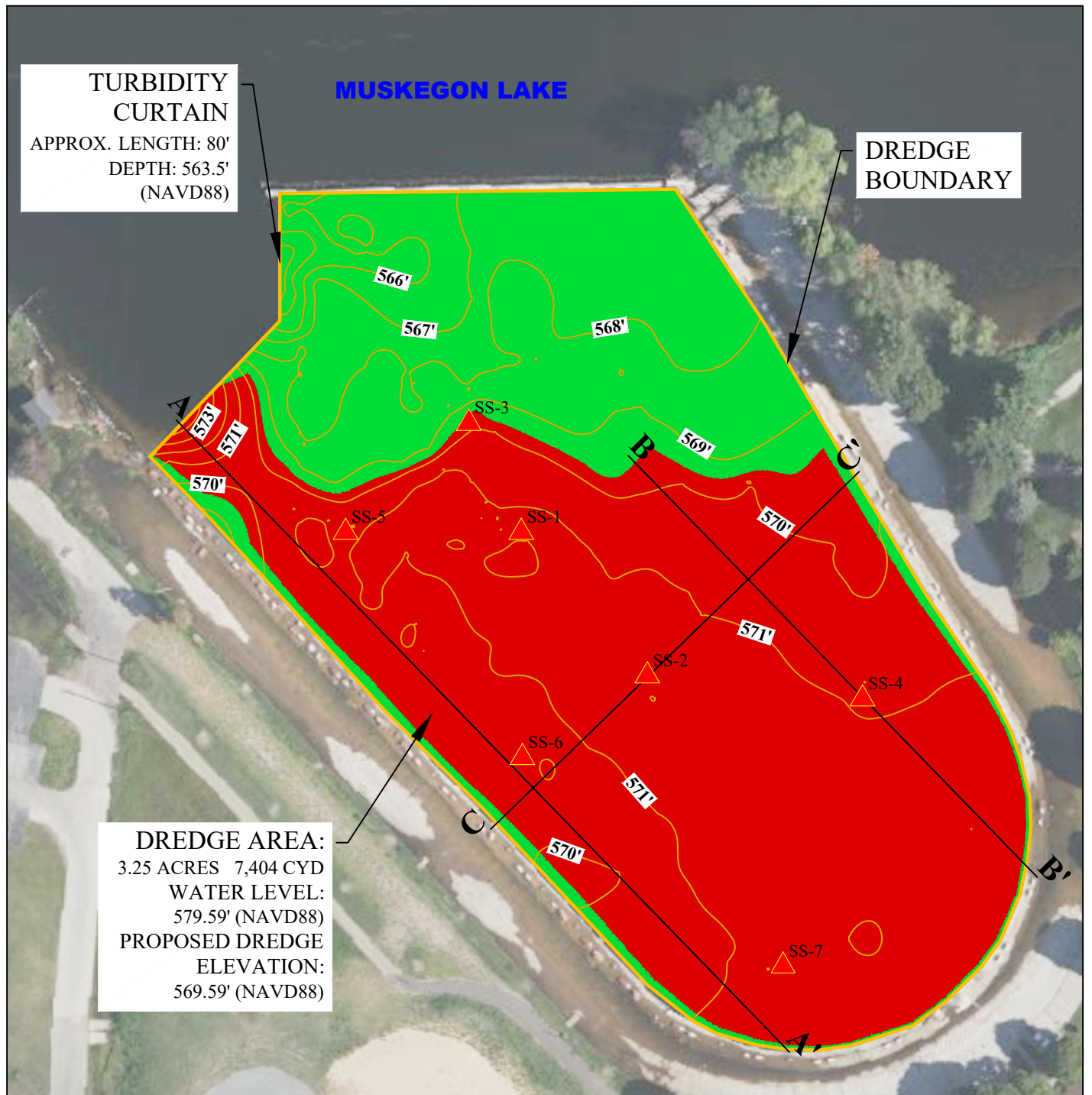


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**HARTSHORN MARINA  
SITE OVERVIEW**

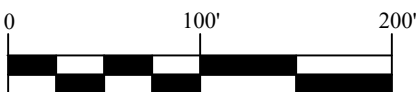
920 W WESTERN AVE  
MUSKEGON, MICHIGAN 49441

*DWN BY: SRM*



**NOTES:**

- HYDROGRAPHIC SURVEY AND SEDIMENT SAMPLES ON 7/31/2025
- HORIZONTAL CONTROL NAD88, MI STATE PLANE, SOUTH ZONE
- WATER LEVEL AT TIME OF SURVEY 579.59' NAVD88 & 570.18' IGLD85
- DEPTHS ARE BELOW LAKE SURFACE ELEVATION
- DREDGING PROPOSED TO REACH A MINIMUM DEPTH OF 10' BELOW THE LAKE'S ELEVATION OF 579.59' NAVD88.



SCALE: 1" = 100'



**LEGEND**

- LAKE BATHYMETRY (NAVD88)
- PROPOSED UNDISTURBED AREA (1.57 ACRES)
- PROPOSED DREDGE AREA (3.25 ACRES; 7,404 CYD)
- ▲ SEDIMENT SAMPLE POINT

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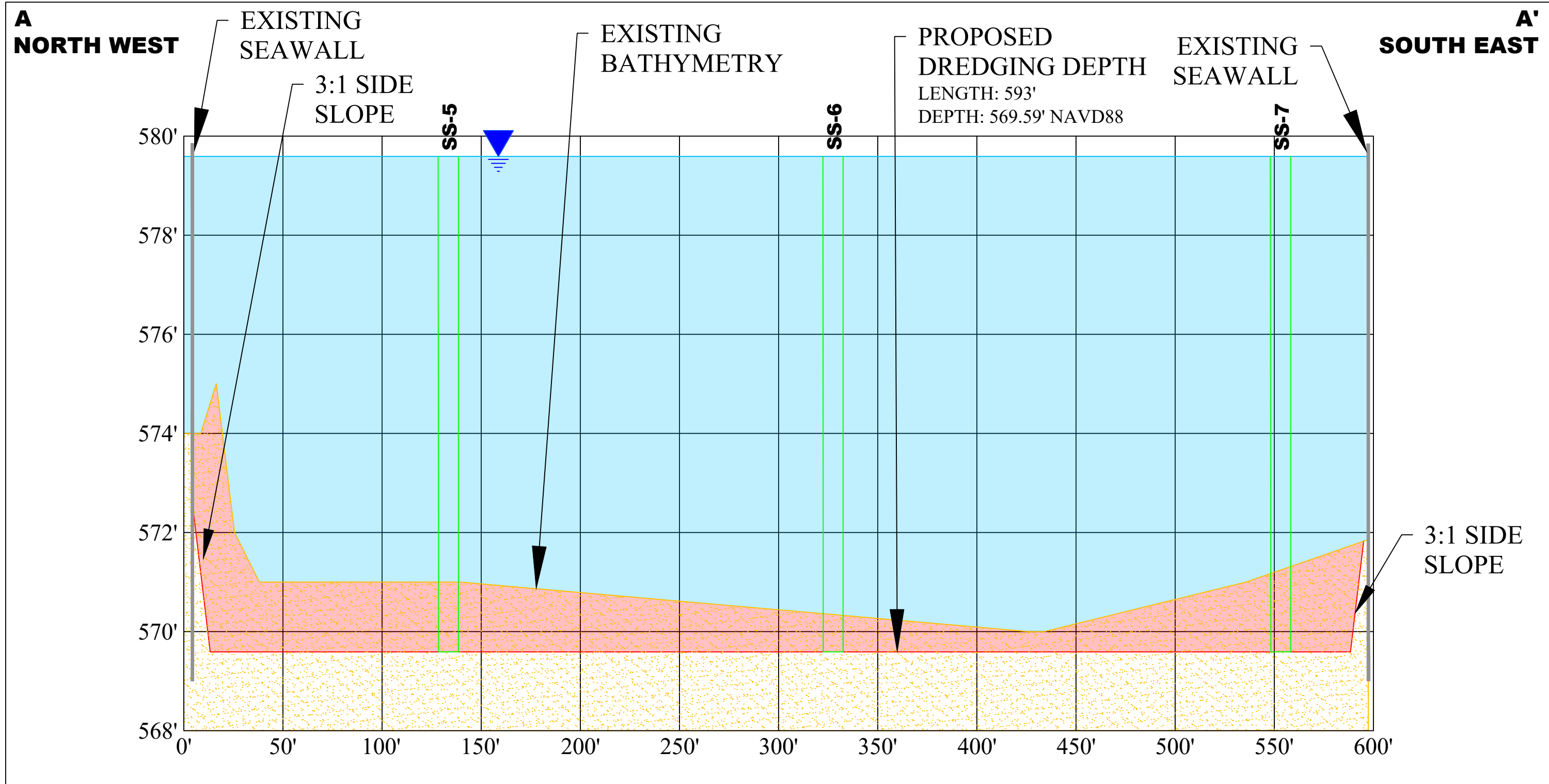
**HARTSHORN MARINA  
CROSS SECTION MAP**

920 W WESTERN AVE  
MUSKEGON, MICHIGAN 49441

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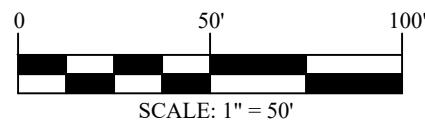
FIGURE 2



NOTES:  
HYDROGRAPHIC SURVEY CONDUCTED ON 7/31/2025.  
WATER LEVEL AT TIME OF SURVEY 579.59' NAVD88  
& 570.18' IGLD85 (07/31/2025).  
SEAWALLS AND SEDIMENT SAMPLE PLUGS NOT  
DRAWN TO SCALE.

**LEGEND**

- MUSKEGON LAKE
- PROPOSED DREDGE MATERIAL
- FINE SAND (SP)



VERTICAL EXAGGERATION = 25X



**A-A' CROSS SECTION  
HARTSHORN MARINA**

920 W WESTERN AVE  
MUSKEGON, MICHIGAN 49441

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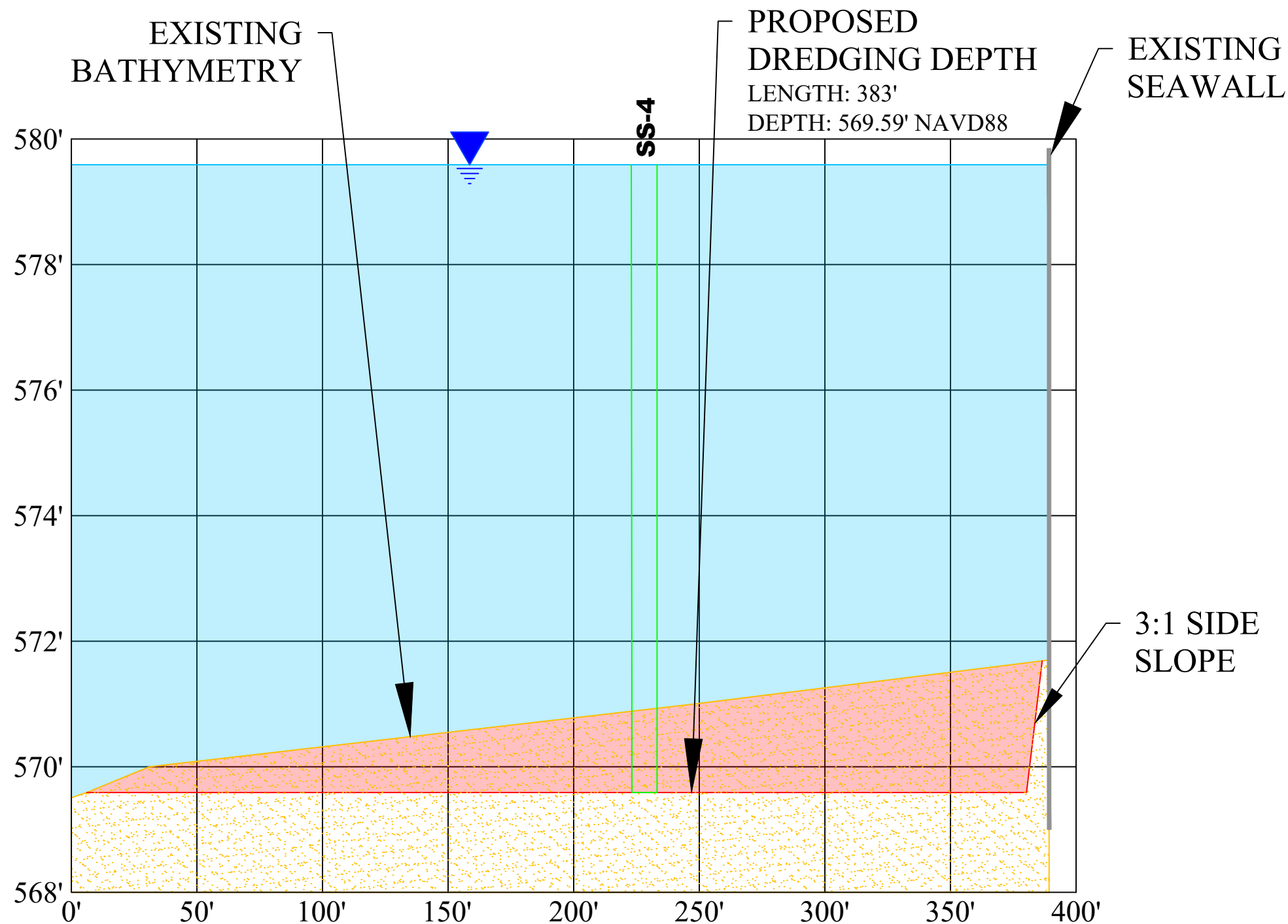
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FIGURE 3

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


**B**  
**NORTH WEST**

**B'**  
**SOUTH EAST**



NOTES:  
HYDROGRAPHIC SURVEY CONDUCTED ON 7/31/2025.  
WATER LEVEL AT TIME OF SURVEY 579.59' NAVD88  
& 570.18' IGLD85 (07/31/2025).  
SEAWALL AND SEDIMENT SAMPLE PLUGS NOT  
DRAWN TO SCALE.

**LEGEND**

-  MUSKEGON LAKE
-  PROPOSED DREDGE MATERIAL
-  FINE SAND (SP)



VERTICAL EXAGGERATION = 25X



B-B' CROSS SECTION  
HARTSHORN MARINA

920 W WESTERN AVE  
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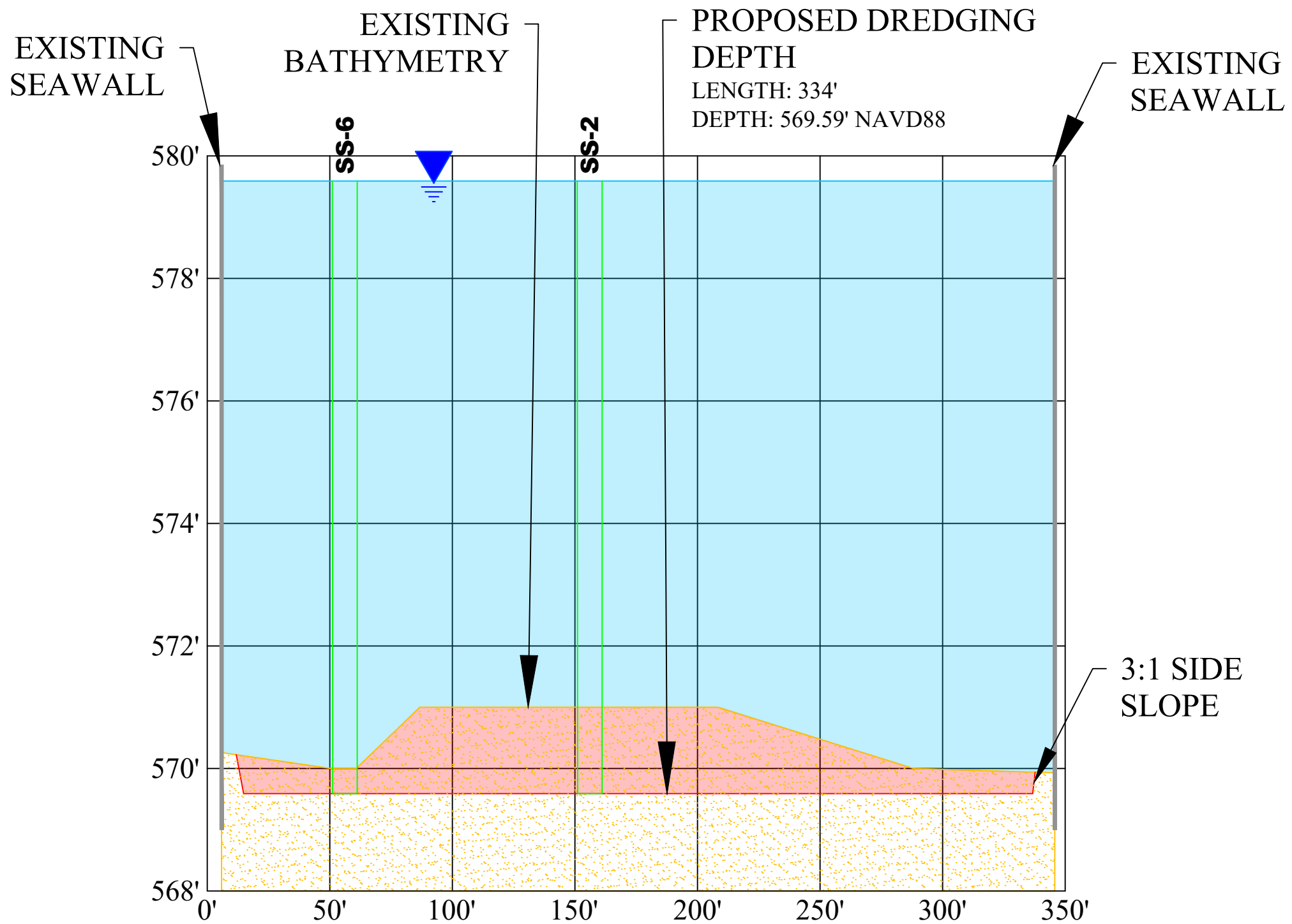
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FIGURE 4

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**C**  
**WEST SOUTH**

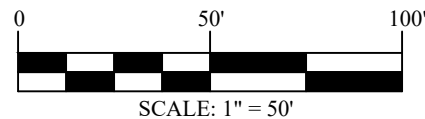
**C'**  
**EAST NORTH**



NOTES:  
HYDROGRAPHIC SURVEY CONDUCTED ON 7/31/2025.  
WATER LEVEL AT TIME OF SURVEY 579.59' NAVD88  
& 570.18' IGLD85 (07/31/2025).  
SEAWALLS AND SEDIMENT SAMPLE PLUGS NOT  
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**LEGEND**

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-  PROPOSED DREDGE MATERIAL
-  FINE SAND (SP)



VERTICAL EXAGGERATION = 25X



C-C' CROSS SECTION  
HARTSHORN MARINA

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MUSKEGON, MICHIGAN 49441

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FIGURE 5

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