CITY OF ANN ARBOR
ENGINEERING

MADISON ST & MADISON PL
WATERMAIN REPLACEMENT

RFP No. 23-08, FILE No. 2022026
Know what's below. Call before you dig.

**Standard Notes**

Permits required to be obtained by the City of Ann Arbor prior to the beginning of construction.

**Permit Issuing Authority**

* No cost to contractor

**Construction Notes**

Soil Erosion and Sedimentation Control Notes:

**MADISON ST & MADISON PL BENCHMARKS**

<table>
<thead>
<tr>
<th>BM #</th>
<th>Elev</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>897.912</td>
<td>Set nail in east side of light pole, on west side of Soile, in front of house #714</td>
</tr>
<tr>
<td>6</td>
<td>903.357</td>
<td>Set nail in northerly side of light pole, on south side of Madison, in front of house #1303</td>
</tr>
<tr>
<td>7</td>
<td>896.450</td>
<td>Set boat spike in northerly side of light pole, on the south side of Madison, between house #s 1301 &amp; 1207</td>
</tr>
<tr>
<td>9</td>
<td>871.341</td>
<td>Set RR spike in south side of light pole, at the NE corner of Madison &amp; Madison Place</td>
</tr>
<tr>
<td>10</td>
<td>873.728</td>
<td>Top of westerly bonnet bolt on fire hydrant, on the west side of Madison Place, in front of house #626</td>
</tr>
<tr>
<td>11</td>
<td>884.361</td>
<td>Set RR spike in west side of light pole, on east side of Madison Place, between house #s 717 &amp; 721</td>
</tr>
</tbody>
</table>
GENERAL NOTES
- Furrows or other indentations prepared in the walkway shall be a maximum of 4 inches deep and 18 inches wide, except when located within 21 inches from the edge of the walkway.
- Any pedestrian devices used to provide positive protection for pedestrians or workers shall meet the positive safety requirements appropriate for the barrier's application.
- Pedestrian devices shall be placed continuously across the entire width of the walkway surface being crossed.

SPECIFIC NOTES
- Any temporary barriers in the walkway need a detectable edge. Ballast shall be located outside or external to the device. Any support on the front of the device shall not extend into the 48-inch minimum walkway clear space and shall not exceed 0.5 inches in height above the walkway surface.
- The temporary barrier shall be continuous and a minimum of 4 inches in height above the walkway surface.
- Devices shall not block water drainage from the walkway. A lap joint or overlap from the walkway surface to its undersides of 2 inches is allowed. The lap joint or overlap means the base of the device shall extend into the adjacent passageway to a depth of 2 inches or there shall be a 1:10 flare on both sides of the ramp. (Note: If the ramp is exposed to traffic, a 2.5-inch minimum height above the ramp surface or a 1:10 flare on both sides of the ramp is required.)
- Devices shall be free of sharp or rough edges, and fasteners (bolts) shall be rounded to prevent harm to hands, arms or clothing of pedestrians.
- Devices used to channelize pedestrian flow should interlock such that gaps do not allow pedestrians to step from the intended channelized path.
- A walkway surface shall be firm, stable, and slip resistant. Concrete is preferred, although asphalt or sawed asphalt are not allowed.
- Commerical channeling devices for pedestrians shall be 12 inches high for both sides.

NOTES:
- No construction shall be started until a minimum of 20 days' notice is given to all affected utilities.
- All temporary barriers shall be removed prior to the resumption of normal operations.
- Any pedestrian devices used to provide positive protection for pedestrians or workers shall meet the positive safety requirements appropriate for the barrier's application.

RAILINGS OR OTHER OBJECTS MAY PROTRUDE A MAXIMUM OF 4 INCHES INTO THE WALKWAY CLEAR SPACE WHEN LOCATED A MINIMUM OF 27 INCHES ABOVE THE WALKWAY SURFACE. ALL DEVICES USED TO CHANNELIZE PEDESTRIAN FLOW SHOULD INTERLOCK SUCH THAT GAPS DO NOT ALLOW PEDESTRIANS TO STRAY FROM THE INTENDED CHANNELIZED PATH.

A WALKWAY SURFACE SHALL BE FIRM, STABLE, AND SLIP RESISTANT. COMPACTED GRAVEL, AGGREGATE, OR SLAG MATERIALS ARE NOT ALLOWED.

LONGITUDINAL CHANNELIZING DEVICES FOR PEDESTRIANS SHALL BE 32 INCHES IN HEIGHT OR GREATER.

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PUBLIC SERVICES
301 EAST HURON STREET
P.O. BOX 8647
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734-794-6410
www.a2gov.org
SPECIFIC NOTES

CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.

PROTECTIVE EDGING WITH A 2.5" MIN. HEIGHT ABOVE THE RAMP SHALL BE PLACED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAVE SIDE APRON SLOPE STEEPER THAN 1:3. PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.

DETECTABLE EDGING ANYTIME A HANDRAIL IS REQUIRED, AND ANYTIME THE PATH CHANGES DIRECTION. THIS INCLUDES A TURN INTO THE RAMP FROM THE PATH. DETECTABLE EDGING MUST BEGIN A MAXIMUM OF 2.5" ABOVE THE RAMP SURFACE, AND EXTEND AT LEAST 6" ABOVE THE RAMP SURFACE. CONTRASTING COLOR SHALL BE PLACED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURN).

CURB RAMPS AND LANDINGS SHALL HAVE A 2% MAX. CROSS SLOPE.

CLEAR SPACE OF 48" x 48" MIN. SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.

THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A CONTRASTING COLOR, 2" TO 4" WIDE EDGE MARKING. THE MARKING IS OPTIONAL WHERE COLOR CONTRASTING EDGING IS USED.

WATER FLOW IN THE GUTTER SYSTEM SHALL NOT BE IMPeded.

LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.

CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES SHOULD BE VERTICAL UP TO 1/4" HIGH, AND BEVELED AT 1:2 BETWEEN 1/4" AND 1/2" HEIGHT.

EDGE TREATMENT

DIAGRAMS SHOWED WITH PROTECTIVE EDGE
**GENERAL NOTES**

When closing or detouring roadways or sidewalks, the contractor shall provide effective traffic control devices and signage. All construction work shall be completed during non-peak traffic hours as shown on the project plans.

Temporary traffic control devices used for pedestrian are shown. Other devices may be necessary to control vehicle traffic. Where necessary, a qualified traffic control expert shall be utilized.

Provide an alternate pedestrian route (APR) at all times. For roadways with no available detours, maintain one open sidewalk at all times. When closing or relocating crosswalks or sidewalks, the contractor shall coordinate this work with the engineer a minimum of 72 hours (not including weekends & holidays) prior to the beginning of work that requires a sidewalk closure.

When the engineer determines that the contractor’s operations or placement of temporary traffic control devices has caused a situation that the visibility of a traffic control device is reduced enough to create a hazard, the traffic control device shall be relocated. The reason for the non-compliance shall be posted and an alternate route shall be posted when the primary temporary pedestrian detour is in use. The reason for the non-compliance shall be posted and an alternate route shall be posted when the primary temporary pedestrian detour is in use. The reason for the non-compliance shall be posted and an alternate route shall be posted when the primary temporary pedestrian detour is in use. The reason for the non-compliance shall be posted and an alternate route shall be posted when the primary temporary pedestrian detour is in use.

Specific notes:

1. Temporary curb ramps with detectable warning strips are required.
2. When possible, temporary curb ramps should be located where the closed area is used as an intersection. Traffic lane or bypass lane. Street markings shall be provided for.
3. An approved audible message device or tactile message should be provided for sight-impaired pedestrians.
4. The international symbol of accessibility shall be displayed when any walkway on the worksite is used for pedestrian access.
5. Signage must be provided in accordance with the Americans with Disabilities Act.
6. Temporary sidewalks (if feasible) should be used to provide accessibility for pedestrians.
7. Temporary work area barriers shall be installed at all work zones.

**LEGEND**

- PEDESTRIAN CHANNELIZERS
- PEDESTRIAN BARRIERS
- CHANNELIZERS
- SIGNS
- WORK AREA
- BARRIERS
- SIDEWALK BARRICADE
- TRAFFIC CONTROL DEVICES
- DIRECTION OF TRAFFIC
**GENERAL NOTES**

When constructing pedestrian or bicycle pathways, the contractor shall provide approved temporary facilities and/or access features in accordance with existing pedestrian facilities.

Temporary traffic control devices for performing work are shown. Other devices may be necessary to control vehicular traffic, such as work zones. To provide safe access, temporary pedestrian routes shall be provided at all times. Where possible, an added sidewalk shall be constructed throughout the length of the area. Where possible, a temporary sidewalk shall be provided at one end of the area. Where a final, stable, and safe sidewalk of adequate surface area is not possible, a temporary sidewalk shall be provided and maintained to be consistent with existing pedestrian facilities.

**Specific Notes**

- Temporary signs and signals shall be used with detectable warnings.
- Temporary traffic control devices for pedestrians shall be posted to control pedestrian traffic. The primary temporary devices shall be used to control pedestrian traffic, including channelizing devices, signs, and barricades. The primary temporary devices shall be consistent with existing pedestrian facilities.
- Temporary signs, including signs for temporary sign messages, shall be posted at the side of the street as shown in Figure 1. Temporary signs shall be used where possible to control pedestrian traffic.
- Temporary pedestrian channelization devices shall be provided to control pedestrian traffic. The primary temporary devices shall be used to control pedestrian traffic, including channelizing devices, signs, and barricades. The primary temporary devices shall be consistent with existing pedestrian facilities.

**PEDESTRIAN DETOUR USING OPPOSITE SIDE OF STREET**

1. **Aluminum Temporary Plan**
2. **Temporary Sign Message**
3. **Temporary Sign Message**
4. **Temporary Sign Message**
5. **Temporary Sign Message**
6. **Temporary Sign Message**
7. **Temporary Sign Message**
8. **Temporary Sign Message**
9. **Temporary Sign Message**
10. **Temporary Sign Message**

**PEDESTRIAN TEMPORARY TRAFFIC CONTROL NOTES**

1. The contractor shall maintain temporary pedestrian facilities and signs and shall provide a temporary pedestrian access route (TPAR) at the roadway. The TPAR shall be provided at all times. The TPAR shall be provided in accordance with the TPAR standards.
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**OTHER SIDE OF STREET DETOUR OR DETOUR WITH TRAILBLAZING SIGNS**

(FOR CORNER SIDEWALK CLOSURE WITH OPTIONAL TEMPORARY CROSSWALK)

- The contractor shall maintain temporary pedestrian facilities and signs and shall provide a temporary pedestrian access route (TPAR) at the roadway. The TPAR shall be provided at all times. The TPAR shall be provided in accordance with the TPAR standards.
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**Legend**

- **Detour**
- **Pedestrian Channelization Device**
- **Intersection Barrier**
- **Direction of Traffic**
- **Traffic Control Device**
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1. Small lots of pavement removal for utility installation will be as directed by the engineer.
2. Underlying existing and protective covers within work zone to be followed open trenches as directed by the engineer.
3. Maintain pedestrian access during construction.
4. Cover connecting seams as needed or as directed by the engineer.
5. Ensure completing pavement markings as directed by the engineer.
6. Contractor shall place temporary, comprehensive traffic signs in accordance of the traffic plans prior to the start of construction as determined required by engineering. Warning to be posted by the engineer.

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Know what's below. Call before you dig.
CAUTION HAZARDOUS OR FLAMMABLE MATERIAL

WATER MAIN STRUCTURE TABLE

<table>
<thead>
<tr>
<th>STRUCTURE</th>
<th>TYPE</th>
<th>STATION</th>
<th>H/A</th>
<th>G/C/TH</th>
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<tr>
<td>V1</td>
<td>8 w</td>
<td>0+00</td>
<td>880</td>
<td>1.34</td>
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<tr>
<td>V2</td>
<td>8 w</td>
<td>0+10</td>
<td>875</td>
<td>1.34</td>
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<tr>
<td>V3</td>
<td>8 w</td>
<td>0+15</td>
<td>870</td>
<td>1.34</td>
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PLAN: 1" = 20'
PROFILE: 1" = 2'

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WATER MAIN REPLACEMENT
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A. PLANT SCHEDULE

<table>
<thead>
<tr>
<th>Material Name</th>
<th>Common Name</th>
<th>Size</th>
<th>Spacing</th>
<th>Condition</th>
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<tbody>
<tr>
<td>18 CAREX HASSACKI</td>
<td>FOR GEORGE</td>
<td>PLUGS</td>
<td>24&quot; S.G.</td>
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<tr>
<td>20 SEQUINIA PURPLE</td>
<td>PURPLE CONIFLUEVER</td>
<td>PLUGS</td>
<td>36&quot; S.G.</td>
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<td>21 SPRINGFLOWER</td>
<td>BONI</td>
<td>PLUGS</td>
<td>36&quot; S.G.</td>
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<tr>
<td>22 LILAC</td>
<td>LILAC</td>
<td>PLUGS</td>
<td>36&quot; S.G.</td>
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<td>PLUGS</td>
<td>36&quot; S.G.</td>
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<tr>
<td>24 LAWSY SIBERICA</td>
<td>SIBERICA LAWSY</td>
<td>PLUGS</td>
<td>36&quot; S.G.</td>
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<tr>
<td>25 PRAIRIE GRASS</td>
<td>GRASS</td>
<td>PLUGS</td>
<td>36&quot; S.G.</td>
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</tr>
<tr>
<td>26 INDIAN WIGGLE</td>
<td>WIGGLE</td>
<td>PLUGS</td>
<td>36&quot; S.G.</td>
<td></td>
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<tr>
<td>27 LAVENDER</td>
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<td>PLUGS</td>
<td>36&quot; S.G.</td>
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<tr>
<td>28 SAGE</td>
<td>SAGE</td>
<td>PLUGS</td>
<td>36&quot; S.G.</td>
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<tr>
<td>29 SHAMROCK</td>
<td>SHAMROCK</td>
<td>PLUGS</td>
<td>36&quot; S.G.</td>
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<tr>
<td>30 STANDARDS (HOBBY)</td>
<td>STANDARDS</td>
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<td>PLUGS</td>
<td>36&quot; S.G.</td>
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B. LOW FRICTION BEE MIX

MATERIAL NAME: 22 GALLON BAGS

<table>
<thead>
<tr>
<th>Material Name</th>
<th>Common Name</th>
<th>Mix</th>
<th>Proportion</th>
<th>Mix</th>
<th>Proportion</th>
<th>Mix</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.25 22</td>
<td>22 GALLON BAGS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2022 02-25
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INfiltration Trench Detail

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2022026-27

MADISON ST & MADISON PL
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MT PLEASANT AVE
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