### GENERAL NOTES

1. **NOTE:** All work performed under this contract shall be in accordance with the City of Ann Arbor’s Standard Specifications for Public Improvements, unless otherwise specified.

2. All work must be performed in accordance with the City of Ann Arbor’s Right-of-Way, Grading, and Soil Erosion and Sedimentation Control requirements.

3. All work shall be performed in accordance with the City of Ann Arbor’s No Parking, Signs, and Grading Permit requirements.

4. All work shall be performed in accordance with the City of Ann Arbor’s Lane Closure Permit requirements.

5. All work shall be performed in accordance with the City of Ann Arbor’s Right-of-Way Permit requirements.

6. All work shall be performed in accordance with the City of Ann Arbor’s Existing Electrical and Mechanical Systems Permit requirements.

7. All work shall be performed in accordance with the City of Ann Arbor’s Water Main Replacement Permit requirements.

8. All work shall be performed in accordance with the City of Ann Arbor’s Stormwater Management Permit requirements.

9. All work shall be performed in accordance with the City of Ann Arbor’s Environmental, Stormwater, and Drainage Permit requirements.

10. All work shall be performed in accordance with the City of Ann Arbor’s Construction Access Permit requirements.

11. All work shall be performed in accordance with the City of Ann Arbor’s Stormwater Management Permit requirements.

12. All work shall be performed in accordance with the City of Ann Arbor’s Construction Access Permit requirements.

13. All work shall be performed in accordance with the City of Ann Arbor’s Stormwater Management Permit requirements.

14. All work shall be performed in accordance with the City of Ann Arbor’s Construction Access Permit requirements.

15. All work shall be performed in accordance with the City of Ann Arbor’s Stormwater Management Permit requirements.

### PROJECT NAME BENCHMARKS

<table>
<thead>
<tr>
<th>BM #</th>
<th>ELEV</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>841.580</td>
<td>NORTHWEST BOLT OF LIGHT POLE BASE AT S MAIN AND WILLIAM</td>
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<tr>
<td>2</td>
<td>840.110</td>
<td>PAINTED BOX ON CROSSWALK BASE SOUTHWEST CORNER S MAIN AND LIBERTY</td>
</tr>
<tr>
<td>3</td>
<td>838.210</td>
<td>PAINTED BOX ON CROSSWALK BASE NORTHWEST CORNER S MAIN AND WASHINGTON</td>
</tr>
<tr>
<td>4</td>
<td>837.190</td>
<td>&quot;X&quot; ON NORTHWEST BOLT, LIGHT POLE BASE, SOUTHEAST CORNER S MAIN AND HURON</td>
</tr>
</tbody>
</table>

### CONTACT INFORMATION

**PUBLIC UTILITIES**

- **Owner:** City of Ann Arbor
- **Contact:** Public Service

**PRIVATE UTILITIES**

- **Owner:** Private Utility
- **Contact:** Private Utility

### REPAIRS TO BE PERFORMED BY THE CONTRACTOR PRIOR TO THE BEGINNING OF CONSTRUCTION.

- **Permit:** Lane Closure Permit
- **Issuing Authority:** City of Ann Arbor

### PERMITS REQUIRED TO BE OBTAINED BY THE CONTRACTOR PRIOR TO THE BEGINNING OF CONSTRUCTION.

- **Permit:** No Parking/Signs Permit
- **Issuing Authority:** City of Ann Arbor

- **Permit:** Grading/Soil Erosion and Sedimentation Control Permit
- **Issuing Authority:** City of Ann Arbor

- **Permit:** Right-of-Way Permit
- **Issuing Authority:** City of Ann Arbor

**NOTICE TO CONTRACTOR:**

- **No Cost to Contractor:** No Permit Issued

### NOTES

- **Permits Required to Be Obtained by the City of Ann Arbor Prior to the Beginning of Construction:**
  - **Permit:** Full Permit at Multiplier Construction
  - **Issuing Authority:** City of Ann Arbor

- **Full Permit at Multiplier Construction:**
  - **Permit:** Environmental, Stormwater, and Drainage Permit

### CONTACT INFORMATION

- **City of Ann Arbor - Public Services - Engineering**
  - **Contact:** 734-794-6410
  - **Website:** www.a2gov.org

- **2020-038 S. MAIN STREET WATER MAIN REPLACEMENT & RESURFACE PROJECT**
  - **Owner:** City of Ann Arbor
  - **Contact:** Public Service
Know what’s below. Call before you dig.
PLAN:

Know what's below. Call before you dig.

CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING
CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
P.O. BOX 8647
ANN ARBOR, MI 48107-8647
734-794-6410
www.a2gov.org

2020-038
S. MAIN STREET WATER MAIN REPLACEMENT & RESURFACE PROJECT

6 OF 80

REVISED 4-10-19
REVISED 2-19-20
REVISED 1-10-18
REVISED 3-10-19
REVISED 6-15-20
REVISED 6-15-20
REVISED 6-15-20
REVISED 6-15-20
REVISED 6-15-20
REVISED 6-15-20
REVISED 6-15-20
REVISED 6-15-20
REVISED 6-15-20
NOTE - CONSULT WITH UTILITY CONTRACTOR, CITY DPW, AND ENGINEER TO DETERMINE EXACT LOCATION AND ORIENTATION OF METER PIT. FINAL LOCATION SHALL BE AS CLOSE TO PLANTER BOX AS POSSIBLE. WHILE SUPPORTING PLANTER BOX DURING INSTALLATION, LOCATION OF METER PIT MAY BE MOVED TO OPPOSITE SIDE OF PLANTER BOX WITHOUT REMOVING PLANTER BOX AND WITHOUT ALTERING CONSTRUCTABILITY AT THE APPROVAL OF THE ENGINEER.

SIDEWALK GRADE
CAPMED BALL VALVE FOR WINTERIZATION AIR COMPRESSOR ATTACHMENT PER CITY SPECIFICATIONS
EAST JORDAN IRON WORKS
900-426-4653
A1790C-16 RECTANGULAR SERIES METER BOX WITH 1790 COVER
21-1/4" X 34-1/8" X 18"BCF
HATCH MUST BE CENTERED OVER QUICK COUPLER FOR ACCESS
1" Type K Copper Pipe
1.5" PVC Sleeve
1" Type L Hard Copper Pipe
Watts LF7 1-1/4" Dual Check Valve Assembly

NOTE - CONSULT WITH UTILITY CONTRACTOR, CITY DPW, AND ENGINEER TO DETERMINE EXACT LOCATION AND ORIENTATION OF WATER FOUNTAIN WINTERIZATION BOX.

SIDEWALK GRADE
CAPMED BALL VALVE FOR WINTERIZATION AIR COMPRESSOR ATTACHMENT PER CITY SPECIFICATIONS
EAST JORDAN IRON WORKS
900-426-4653
A1118D-12 RECTANGULAR SERIES METER BOX WITH 1118 COVER
11-7/16" X 16-1/8" X 12"BCF
1" Type K Copper Pipe
1.5" PVC Sleeve
1" Type L Hard Copper Pipe
Watts LF7 1-1/4" Dual Check Valve Assembly

UNISTRUT PIPE SUPPORT. SECURE PIPE ASSEMBLY TO SUPPORT.
RAINBIRD 33DNP 3/4-INCH QUICK COUPLER WITH 33-DK KEY AND SH-O MALE HOSE SWIVEL.
1" Ball Valve
QUICK COUPLER MUST BE SET AND ALIGNED WITH VALVE BOX LID OPENING. VALVE BOX LID IS NOT TO BE REMOVED TO ALLOW ACCESS TO QUICK COUPLER.
PLANTER INSTALLATIONS ONLY - (IF DESIRED), SECURE RAINBIRD 33DNP QUICK COUPLER TO INSIDE EDGE AND BELOW TOP OF PLANTER WITH METHOD APPROVED BY CITY DPW.
POLYETHYLENE PIPE FROM METER PIT TO ADDITIONAL QUICK COUPLERS IF DESIRED.
DOUBLE CLAMP PIPE TO FITTINGS WITH WORMGEAR CLAMPS
PLANTER BOX
ABANDON AND REMOVE EXISTING ABOVE-GRADE IRRIGATION COMPONENTS IN PLANTER

CONCRETE UTILITY SADDLE

STANDARD DETAILS 3
CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING
301 EAST HURON STREET
P.O. BOX 8647
ANN ARBOR, MI 48107-8647
734-794-6410
www.a2gov.org

S. MAIN STREET WATER MAIN REPLACEMENT & RESURFACE PROJECT

MOUNTABLE CURB & GUTTER FOR ASPHALT STREETS SD-H-2

UNISTRUT PIPE SUPPORT. SECURE PIPE ASSEMBLY TO SUPPORT.
RAINBIRD 33DNP 3/4-INCH QUICK COUPLER WITH 33-DK KEY AND SH-O MALE HOSE SWIVEL.
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CONCRETE UTILITY SADDLE

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SIDEWALK GRADE
CAPMED BALL VALVE FOR WINTERIZATION AIR COMPRESSOR ATTACHMENT PER CITY SPECIFICATIONS
EAST JORDAN IRON WORKS
900-426-4653
A1790C-16 RECTANGULAR SERIES METER BOX WITH 1790 COVER
21-1/4" X 34-1/8" X 18"BCF
HATCH MUST BE CENTERED OVER QUICK COUPLER FOR ACCESS
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1.5" PVC Sleeve
1" Type L Hard Copper Pipe
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SIDEWALK GRADE
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900-426-4653
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Watts LF7 1-1/4" Dual Check Valve Assembly

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EAST JORDAN IRON WORKS
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PLANTER BOX
ABANDON AND REMOVE EXISTING ABOVE-GRADE IRRIGATION COMPONENTS IN PLANTER

CONCRETE UTILITY SADDLE
S. MAIN STREET WATER MAIN REPLACEMENT & RESURFACE PROJECT

EXISTING STORM SEWER STRUCTURE TABLE

<table>
<thead>
<tr>
<th>STRUCTURE</th>
<th>STATION</th>
<th>INVERT ELEVATION (Feet)</th>
<th>SIZE</th>
<th>DIRECTION</th>
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<tbody>
<tr>
<td>89-60670</td>
<td>0+10</td>
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<td>SW</td>
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<tr>
<td>89-60670</td>
<td>0+10</td>
<td>837.85</td>
<td>10&quot;</td>
<td>NE</td>
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<tr>
<td>92-60090</td>
<td>2+45</td>
<td>837.53</td>
<td>12&quot;</td>
<td>NW</td>
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<tr>
<td>92-60090</td>
<td>2+45</td>
<td>832.53</td>
<td>24&quot;</td>
<td>W</td>
</tr>
<tr>
<td>92-60090</td>
<td>2+45</td>
<td>832.83</td>
<td>24&quot;</td>
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<td>2+45</td>
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EXISTING SANITARY SEWER STRUCTURE TABLE

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<th>DIRECTION</th>
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<td>71-70662</td>
<td>24.76.57</td>
<td>833.57</td>
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</table>
**S. MAIN STREET**

**EXISTING TYPICAL CROSS SECTION 33' FACE TO FACE**

<table>
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<tr>
<th>Station</th>
<th>Elevation</th>
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<tr>
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<tr>
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<tr>
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<td>0.00</td>
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<tr>
<td>40</td>
<td>0.00</td>
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**EXISTING TYPICAL CROSS SECTION 54' FACE TO FACE**

<table>
<thead>
<tr>
<th>Station</th>
<th>Elevation</th>
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<tr>
<td>30</td>
<td>0.00</td>
</tr>
<tr>
<td>40</td>
<td>0.00</td>
</tr>
</tbody>
</table>

**NOT TO SCALE**

---

**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**

**CITY OF ANN ARBOR PUBLIC SERVICES**

**301 EAST HURON STREET**

**P.O. BOX 8647**

**ANN ARBOR, MI 48107-8647**

**734-794-6410**

**www.a2gov.org**

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**2020-038**

**S. MAIN STREET WATER MAIN REPLACEMENT & RESURFACE PROJECT**

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**EXISTING TYPICAL CROSS SECTION 33' FACE TO FACE**

**EXISTING TYPICAL CROSS SECTION 54' FACE TO FACE**

---

**CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING**

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**301 EAST HURON STREET**

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**S. MAIN STREET WATER MAIN REPLACEMENT & RESURFACE PROJECT**
S. MAIN STREET WATER MAIN REPLACEMENT & RESURFACE PROJECT

REMoval Key

<table>
<thead>
<tr>
<th>Key</th>
<th>Description</th>
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<tbody>
<tr>
<td>1</td>
<td>Curb and gutter, any type on side, new</td>
</tr>
<tr>
<td>2</td>
<td>Storm control, half pipe</td>
</tr>
<tr>
<td>3</td>
<td>Storm pipe, new</td>
</tr>
<tr>
<td>4</td>
<td>Fire's eyes</td>
</tr>
<tr>
<td>5</td>
<td>Fire main, special</td>
</tr>
<tr>
<td>6</td>
<td>Valley main, special</td>
</tr>
<tr>
<td>7</td>
<td>Open main, addition by temporary fill</td>
</tr>
<tr>
<td>8</td>
<td>Concrete culvert, Type B, special</td>
</tr>
<tr>
<td>9</td>
<td>Concrete culvert, Type C, special</td>
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<tr>
<td>10</td>
<td>Fire hydrant frame</td>
</tr>
<tr>
<td>11</td>
<td>Gate valve, 8&quot;-4&quot;-8&quot; valve</td>
</tr>
<tr>
<td>12</td>
<td>Gate valve, 6&quot;-6&quot;-6&quot; valve</td>
</tr>
<tr>
<td>13</td>
<td>Epoxy, any size on street, new</td>
</tr>
<tr>
<td>14</td>
<td>New street access</td>
</tr>
<tr>
<td>15</td>
<td>MLM, DUG</td>
</tr>
<tr>
<td>16</td>
<td>Ditch dump, any type and size</td>
</tr>
<tr>
<td>17</td>
<td>Water main, daily new</td>
</tr>
</tbody>
</table>

Legend:

- Storm and drain pipe, any type on side, new
- Storm pump, special
- Fire main, special
- signage, new

Legend for Soil Erosion Notes:

- Storm and drain pipe, any type on side, new
- Storm pump, special
- Fire main, special
- signage, new

PLAN: 1" = 20'

Removing existing underground features may require locating existing underground facilities and verifying if necessary. Removal of an existing feature shall be excavated to a depth of 2 feet, if possible, and be marked with signs to prevent accidental removal.

NOTE: This drawing is for information only, it is not intended to show the sequence of construction. The contractor shall not be responsible for any damage caused to existing underground facilities and is responsible for any damage caused to existing underground facilities not shown.

NOTE: The contractor shall protect existing underground facilities and coordinate with other utilities. The contractor shall be responsible for ensuring that the design of the project is compatible with existing underground facilities and is responsible for any damage caused to existing underground facilities.

NOTE: This drawing shows the location of existing underground facilities and is not intended to show the sequence of construction. The contractor shall be responsible for ensuring that the design of the project is compatible with existing underground facilities and is responsible for any damage caused to existing underground facilities.

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WATER MAIN STRUCTURE TABLE

<table>
<thead>
<tr>
<th>STRUCTURE TYPE</th>
<th>STATION</th>
<th>O/B</th>
<th>E/TM</th>
<th>V/H</th>
</tr>
</thead>
<tbody>
<tr>
<td>300</td>
<td>13-00</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>300</td>
<td>14+00</td>
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</tr>
<tr>
<td>300</td>
<td>15+00</td>
<td>0</td>
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</tr>
</tbody>
</table>

Legend:
- Concrete sidewalk
- Concrete through main corrective plug
- Concrete through main corrective cap

NOTES:
1. During the project construction, the contractor shall:
   a. Ensure that all areas are covered and protected as required.
   b. Maintain the site and ensure that all materials are stored appropriately.
   c. Follow the specified construction procedures and guidelines.

2. The contractor shall:
   a. Ensure that all materials are stored appropriately.
   b. Follow the specified construction procedures and guidelines.
   c. Ensure that all areas are covered and protected as required.

3. The contractor shall ensure that all materials are stored appropriately.

WATER MAIN REPLACEMENT & RESURFACE PROJECT
S MAIN ST PROPOSED WATER MAIN STA 13+00 TO STA 14+10
CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING

S. MAIN STREET WATER MAIN REPLACEMENT & RESURFACE PROJECT

NOTE

1. DURING THE PROGRESS OF CONSTRUCTION OF THE CONTRACTOR, KNOW WHAT'S BELOW. CALL BEFORE YOU DIG.

2. THE CONTRACTOR SHALL BE SURE THAT THE CONSTRUCTION WORK IS IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES AND PROPERTIES IN THE WORK AREA.

WATER MAIN STRUCTURE TABLE

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<th>Station</th>
<th>Depth</th>
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<tbody>
<tr>
<td>M</td>
<td>MG</td>
<td>845.70</td>
</tr>
<tr>
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LEGEND

- Existing Building Walls
- Existing Water Main Foundation Walls
- Existing Other Feature Walls

WATER MAIN STRUCTURE TABLE

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</thead>
<tbody>
<tr>
<td>C1</td>
<td>65</td>
<td>845.60</td>
</tr>
<tr>
<td>C2</td>
<td>65</td>
<td>845.60</td>
</tr>
<tr>
<td>C3</td>
<td>65</td>
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</tr>
</tbody>
</table>
Know what's below. Call before you dig.
S. MAIN STREET WATER MAIN REPLACEMENT & RESURFACE PROJECT

Legend:
- existing pipeline material
- existing main material
- existing service tap area

Notes:
1. During the project construction, if the contractor encounters an abnormal condition, the contractor shall cease work and notify the City of Ann Arbor, Public Services, Engineering. The City must approve any changes to the conditions found before any work may proceed. The City of Ann Arbor, Public Services, Engineering, is responsible for coordinating and approving any design changes.

2. The contractor shall be liable for the protection of all existing utilities and structures for the duration of the project and for one year following completion of the project. The contractor shall be responsible for providing enough strength and stability to the trench to prevent damage to adjacent utility and structures. The contractor shall be responsible for any damage caused by their work and any liability that may arise.

Water Main Structure Table:

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Location</th>
<th>Depth</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>08/05</td>
<td>07:30</td>
<td>S1: 329 MAIN ST</td>
<td>830</td>
<td>PVC</td>
</tr>
<tr>
<td>08/06</td>
<td>08:30</td>
<td>S2: 316 MAIN ST</td>
<td>835</td>
<td>PVC</td>
</tr>
<tr>
<td>08/07</td>
<td>09:30</td>
<td>S3: 317 MAIN ST</td>
<td>835</td>
<td>PVC</td>
</tr>
</tbody>
</table>

Know what's below. Call before you dig.

CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
P.O. BOX 8647
ANN ARBOR, MI 48107-8647
734-794-6410
www.a2gov.org

2020-038

S. MAIN STREET WATER MAIN REPLACEMENT & RESURFACE PROJECT

LEGEND

S1: 329 MAIN ST
S2: 316 MAIN ST
S3: 317 MAIN ST
STORM R-3 TO 92-60080

STORM R-3 TO 92-60080
CONTRACTOR SHALL PERFORM EXPLORATORY EXCAVATION AT STRUCTURE 92-60974 AND EXISTING BLIND TAP TO VERIFY CONFIGURATION OF EXISTING STORM SEWER TO BE REPLACED. CONTRACTOR SHALL REPLACE STORM SEWER IN KIND AT THE APPROVAL OF THE ENGINEER.

CONTRACTOR TO CONFIRM IF SE PIPE IS CONNECTED TO BURIED MANHOLE AND RECONSTRUCT MANHOLE/RAISE TO GRADE IF CONNECTIONS ARE ACTIVE.

REPLACE EXISTING STORM SEWER IN KIND FROM 92-60095 TO 92-60094

RECONSTRUCT BURIED MANHOLE/RAISE TO GRADE

WE DEMAND THE USE OF ELEVATED TRANSMISSION AND DISTRIBUTION LINES AND CONFORM TO ALL THE CODES OF ANY MUNICIPALITY AND COUNTRY THAT WILL BE CONSTRUCTED OR REPLACED IN THE WORK AREA. THE WORK WILL BE PERFORMED IN ACCORDANCE WITH ALL THE LAWS, ORDINANCES AND RULES OF THE MUNICIPALITY OR COUNTRY AND THE CONTRACTOR WILL BEAR ALL THE COSTS ASSOCIATED WITH THE WORK.

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S. MAIN STREET WATER MAIN REPLACEMENT & RESURFACE PROJECT
PROPOSED STORM PLAN AND PROFILE - S MAIN STREET

PLAN: 1" = 20'
PROFILE: 1" = 5'
PLAN:  1"=20'

CONSTRUCTION KEY

KEY DESCRIPTION

S MAIN ST
WILLIAM ST
S. MAIN STREET WATER MAIN REPLACEMENT & RESURFACE PROJECT
PROPOSED ROAD CONSTRUCTION PLAN STA 0+00 TO STA 4+00

Know what's below. Call before you dig.
See Sheet 55 for detailed ada grading.

Construction Key:

<table>
<thead>
<tr>
<th>KEY</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
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<td></td>
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City of Ann Arbor - Public Services - Engineering

CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING

CITY OF ANN ARBOR

PUBLIC SERVICES

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ANN ARBOR, MI 48107-8647

734-794-6410

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2020-038

S. MAIN STREET WATER MAIN REPLACEMENT & RESURFACE PROJECT

PROPOSED ROAD CONSTRUCTION PLAN STA 14+00 TO STA 14+75.95

Know what's below. Call before you dig.
S MAIN ST
(82.5' R.O.W.)

PLAN: 1"=20'
PROFILE: 1" = 5'

S. MAIN STREET WATER MAIN REPLACEMENT & RESURFACE PROJECT
PROPOSED PAVING PLAN & PROFILE STA 14+00 TO STA 14+75.95

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LEGEND
- existing condition
- paving material
- new condition
-ometrics
- pavement edge
- miscellaneous

know what's below. call before you dig.
Know what's below. Call before you dig.
S MAIN ST
(82.5 R.O.W.)

SIDEWALK RAMPS
322 AND 327 S. MAIN ST

LEGEND

NOTES

IF THE CONSTRUCTION DEVICES ARE MOVED TO PROVIDE THE BUILDING OR STREET ACCESS TO THE STREET, THE DEVICES MUST BE MOVED AND REPLACED AT THE EXPENSE OF THE CONTRACTOR.

THE CONSTRUCTION SHALL PROTECT ALL UNDERGROUND SERVICES TO DEVICES AND SIDEWALK RAMPS.
GENERAL NOTES:
1. This is a partial drawing which has been designed to include important work items for the S. Main Street Water Main Replacement & Resurface Project.
2. The drawings are subject to change and are intended for general information only.
3. The drawings have been prepared to the best of our knowledge and are subject to change.

ELECTRICAL NOTES:
1. All electrical work shall be performed in accordance with the National Electric Code and local electrical codes.
2. All electrical fixtures shall be equipped with a ground fault circuit interrupter (GFCI) and shall be installed in accordance with the National Electric Code.
3. All electrical wiring shall be protected against physical damage.

SECTION 1: ANCHOR PLATE/BOLT DETAIL
ANCHOR PLATE PROJECTION
ANCHOR PLATE/BOLT DETAIL

SECTION 2: LIGHTING DETAILS
FIVE-HEADED FIXTURE MEA 3
SINGLE-HEADED FIXTURE MEA 1
Light Pole Foundation

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JJR
Johnson & Johnstone
Planning/Urban Design
Civil Engineering
331 S MAIN STREET
ANN ARBOR, MI 48104
734-692-4000

Elizabeth R. Dean
Main Street
Phenomenal Lighting

988-074-17

Ann Arbor, Michigan

Lighting Details

DRAWN BY:

CHECKED BY:

APPROVED BY:

REV.

DATE:

CERTIFIED FOR CONSTRUCTION:

860 OF 82
PLAN:

Know what's below. Call before you dig.
Plan:
Know what's below. Call before you dig.

City of Ann Arbor - Public Services - Engineering

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2020-038 - 60 S. MAIN STREET WATER MAIN REPLACEMENT & RESURFACE PROJECT

Detail 4
PLAN:

PROFILE: 1" = x'

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S. MAIN ST WATER MAIN REPLACEMENT & RESURFACE PROJECT
SIGNAGE PLAN STA 0+00 TO STA 8+00

MATCH LINE STA 4+00

MATCH LINE STA 10+00
PLAN:

PROFILE: 1" = x'

CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING

S. MAIN STREET WATER MAIN REPLACEMENT & RESURFACE PROJECT

SIGNAGE PLAN STA 8+00 TO P.O.E.

ORDINANCE 10:149

SKATEBOARDS NO

KNOW WHAT'S BELOW.
CALL BEFORE YOU DIG.
PLAN:

1:10

Know what's below. Call before you dig.
PLAN:

1:10

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

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2020-038

S. MAIN STREET WATER MAIN REPLACEMENT & RESURFACE PROJECT
SIGNAL PLANS CONSTRUCTION - S MAIN @ LIBERTY
Know what's below. Call before you dig.
S. MAIN STREET WATER MAIN REPLACEMENT & RESURFACE PROJECT

LEGEND

- TEMPORARY ROAD ZONE
- PROPOSED NEW ROAD OF CONSTRUCTION
- PROPOSED NEW CURB
- PROPOSED NEW CURB MOW
- PROPOSED NEW PERIMETER ACCESS

1. Main Street will always be closed to vehicular traffic.
2. Pedestrian paths shall be provided and maintained as required for access during construction.
3. No vehicles will be provided as a temporary adjacent on the right of way.
4. The use of temporary pedestrian access shall be coordinated to accommodate the needs of pedestrians.
5. In the event of closure areas, temporary pedestrian access shall be provided to the public.
PEDESTRIAN CHANNELIZERS

BYPASS ON ADJACENT AVAILABLE
RIGHT OF WAY
DETAIL A

SIDEWALK BYPASS USING PARKING OR
SHOULDER ON LOW SPEED ROADWAY
DETAIL B

SIDEWALK BYPASS USING
SHOULDER ON OR PARKING LANE
HIGH SPEED ROADWAY
DETAIL C

NOTE: MAY ONLY BE USED ON ROADWAY WITH POSTED
SPEED OF 45 MPH OR LESS.

PROVIDE TEMPORARY WALKWAY SURFACE

BYPASS ON ADJACENT AVAILABLE
RIGHT OF WAY

GENERAL NOTES

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, THE CONTRACTOR SHALL
PROVIDE DETECTABLE FACILITIES AND INCLUDE ACCESSIBILITY FEATURES
CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

THE PEDESTRIAN TRAFFIC SIGNALS CONTROLLING CLOSED PEDESTRIAN SIGNALS SHALL BE COVERED
OR DEACTIVATED BY THE CITY OF ANN ARBOR. THE CONTRACTOR SHALL SCHEDULE AND
COORDINATE THE WORK WITH THE ENGINEER A MINIMUM OF 72 HOURS IN ADVANCE
WHICH WILL INCLUDE NOTICING PEDESTRIANS. PRIOR TO THE BEGINNING OF WORK THAT REQUIRES A PEDESTRIAN
CHANNELIZER, THE CONTRACTOR SHALL PROVIDE A TEMPORARY PEDESTRIAN CHANNELIZER, A TEMPORARY CURB RAMP WITH DETECTABLE WARNINGS.

THE PEDESTRIAN TRAFFIC SIGNALS CONTROLLING CLOSED PEDESTRIAN SIGNALS SHALL BE COVERED
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CHANNELIZER, THE CONTRACTOR SHALL PROVIDE A TEMPORARY PEDESTRIAN CHANNELIZER, A TEMPORARY CURB RAMP WITH DETECTABLE WARNINGS.

WHERE THE ENGINEER DETERMINES THAT THE CONTRACTOR'S OPERATIONS OR PLACEMENT
OF 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
DEVICES SHALL BE DELINEATED WITH FLAGS OR OTHER ENGINEER-APPROVED DEVICES AT NO
ADDITIONAL COST TO THE PROJECT.

SPECIFIC NOTES

1. TEMPORARY CURB RAMPS WITH DETECTABLE WARNINGS.
2. SERVICE TAPS IN FIRE LINES, RECOMMENDED WHEN THE CLOSED AREA WILL USE AS AN
   INTERMITTENT TRAFFIC LANE OR BYPASS LANE. STREET PARKING SHALL BE PROHIBITED FOR
   AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.
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
   THROUGH A WORK ZONE HAS BEEN DETERMINED TO BE TPAR COMPLIANT. THE SYMBOL OF
   ACCESSIBILITY SHALL NOT BE DISPLAYED IF PERSONS WITH DISABILITIES SHOULD NOT USE THE
   PRIMARY TEMPORARY PEDESTRIAN DETOUR. THE REASON FOR THE NON-COMPLIANCE SHALL
   BE POSTED AND AN ALTERNATE ROUTE SHALL BE POSTED WHEN THE PRIMARY TEMPORARY
   PEDESTRIAN DETOUR IS NON-COMPLIANT TO TPAR STANDARDS.
5. TYPICAL SIGN MESSAGE FOR A TEMPORARY PEDESTRIAN DETOUR SHALL INCLUDE
   INFORMATION SUCH AS THE DURATION OF THE WALKWAY RESTRICTIONS (BEGINNING
   AND/OR END DATES) AND A PROJECT CONTACT NUMBER FOR 24 / 7 QUESTIONS OR
   REPORTING HAZARDS.
6. SEE MMUTCD FOR GUIDANCE ON PLACEMENT AND USAGE OF BARRIER.

Legend:
- Work Area
- Pedestrian Channelization Device
- Barrier
- Sidewalk Barrierclosure
- Detection of Traffic
- Traffic Control Device

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S. MAIN STREET WATER MAIN REPLACEMENT & RESURFACE PROJECT
PRINCIPAL PEDESTRIAN DETAILS 1
DEVICES SHALL BE DELINEATED WITH FLAGS OR OTHER ENGINEER-APPROVED DEVICES AT NO POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM PROVIDE DETECTABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES

GENERAL NOTES
1. PEDESTRIANS WITH DISABILITIES SHOULD NOT USE THE PEDESTRIAN TRAFFIC SIGNALS CONTROLLING CLOSED CROSSWALKS. THE PEDESTRIAN TRAFFIC CHANNELIZATION DEVICE IS REDUCED ENOUGH TO CREATE A HAZARD, THE TRAFFIC CONTROL


3. REQUESTED PERMITS TO CLOSE OR DEACTIVATE BY THE CITY OF ANN ARBOR. THE CONTRACTOR SHALL SCHEDULE AND

4. PEDESTRIAN ACCESS SHALL BE PROVIDED TO ALL ADJACENT PROPERTIES, BUILDINGS, RESIDENCES AND COMMERCIAL PROPERTIES AT ALL TIMES. THIS MAY REQUIRE PROPER PROTECTION AND A TPAR HAVE BEEN PROVIDED.

SPECIFIC NOTES
1. PROVIDE DETECTABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES

2. PROVIDE DETECTABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES

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PEDESTRIAN TEMPORARY TRAFFIC CONTROL NOTES
1. PROVIDE DETECTABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES

2. PROVIDE DETECTABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES

3. PROVIDE DETECTABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES

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LEGEND
- ELECTRIC PEDESTRIAN signaling device
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- ROADWAY BARRIERS
- DIRECTION OF TRAFFIC
- TRAFFIC COUNTER/SERVICE

DETAIL D

DETAIL E
### SPECIFIC NOTES

**Curb Ramps** shall be 48" min. width with a firm, stable, and slip resistant surface.

**Protective Edging** with a 2' min. height shall be placed when a curb ramp or landing platform has a vertical drop of 6" or greater or when the side apron slope is steeper than 1:3. Protective edging should be considered when curb ramps or landing platforms have a critical drop of 6" or more.

**Detectable Edging** with 6" min. height and contrasting color shall be placed on all curb ramp landings where the walkway changes direction (turns).

**Clear Space** of 48" x 48" min. shall be provided above and below the curb ramp.

- **2" to 4" wide edge marking**
- **Non-slip surface**
- **Curb face**
- **Drainage**
- **Clear space**
- **Edge treatment**
- **Joint gap treatment**
- **Detachable edging 6" min. height**
- **Protective edging 2" min. height above ramp surface**

**Temporary Curb Ramp**

- **Parallel to Curb**
  - Leading edge
  - 0.25 inch maximum
  - Edge treatment

- **Perpendicular to Curb**
  - Clear space
  - Joint gap treatment
  - Edge treatment
  - Protective edging 2" min. height above ramp surface
  - Non-slip surface
  - Curb face
  - Drainage
  - Clear space
  - Edge treatment

**Shown with Protective Edge**

**Shown with Side Apron**

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2020-036 - S. MAIN STREET WATER MAIN REPLACEMENT - PEDESTRIAN DETAILS 3

CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING

CITY OF ANN ARBOR
PUBLIC SERVICES
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P.O. BOX 8647
ANN ARBOR, MI 48107-8647
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GENERAL NOTES

Raised or other objects may project a maximum of 8 inches into the walkway clear space when located a minimum of 27 inches above the walkway surface.

Any pedestrian devices used to provide positive protection for pedestrians or workers shall meet crashworthiness requirements appropriate for the barrier application.

BARRIERS SHALL BE PLACED ACROSS THE ENTIRE WIDTH OF THE WALKWAY SURFACE.

SPECIFIC NOTES

Any tripping hazard in the walkway needs a detectable edge. Ballast shall be located behind or internal 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.

Detectable edges shall be continuous and a minimum of 6 inches high above the walkway surface.

When hand guidance is required, the top rail or top surface shall:
- Be in a vertical plane perpendicular to the walkway above the detectable edge,
- Be continuous at a height of 34 to 38 inches above the walkway surface, and
- Be supported with minimal interference to the pedestrian’s hands or fingers.

All 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.

All devices used to channelize pedestrian flow should interlock such that gaps do not allow pedestrians to stray from the channelized path.

A walkway surface shall be firm, stable, and slip resistant.

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

PDF of image is available from City of Ann Arbor - Public Services - Engineering.

2020-038

S. MAIN STREET WATER MAIN REPLACEMENT & RESURFACE PROJECT

PEDESTRIAN DETAILS

PEDESTRIAN CHANNELIZER (MINIMUM REQUIREMENTS)

DETECTABLE EDGE SHALL BE CONTINUOUS AND A MINIMUM OF 6 INCHES HIGH ABOVE THE WALKWAY SURFACE

SIDEWALK BARRICADE

200 MAX. SPACING FROM LAST PASSING SPACE

200 MAX. SPACING FROM LAST PASSING SPACE

NARROW TEMPORARY PEDESTRIAN ACCESS ROUTE PASSING DETAIL

PEDESTRIAN CHANNELIZER USING A BARRIER (MINIMUM REQUIREMENTS)

DETECTABLE EDGE SHALL BE CONTINUOUS AND A MINIMUM OF 6 INCHES HIGH ABOVE THE WALKWAY SURFACE

2" MAX.

1 1/2" MAXIMUM

2 1/2" MAXIMUM

32" MIN.

2" MAX.

32" MIN.

32" MIN.

2" MAX.

32" MIN.

32" MIN.

2" MAX.

32" MIN.

32" MIN.

2" MAX.

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32" MIN.

2" MAX.

32" MIN.