30800 Telegraph Rd #4900
Bingham Farms, Michigan 48025
Tel +248.633.1440
www.jacobs.com

| | | | |
|---|---|---|---|
| **Subject** | **Rochester Hills Historic Districts Commission Submittal - East Avon Road/Dequindre Road Improvements** | **Project Name** | 96-inch Water Transmission Main Relocation Project |
| **Attention** | Rochester Hills Historic Districts Commission | **Project Number** | GLWA-1900741 |
| **From** | Jacobs | | |
| **Date** | April 28, 2021 | | |

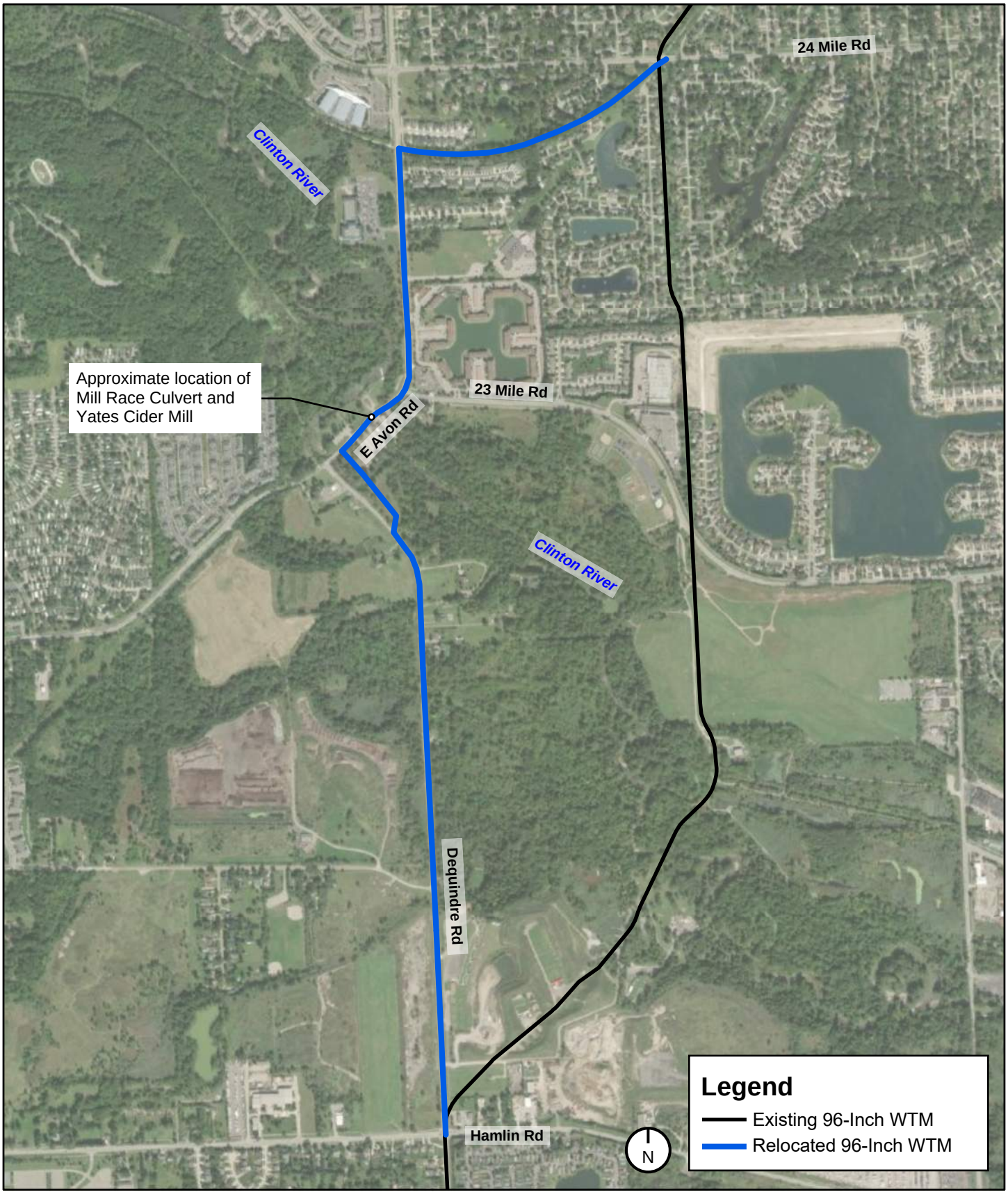
## GLWA Project Objectives and Background

The Great Lakes Water Authority (GLWA) will be relocating a portion of their 96-inch diameter water transmission main (WTM) around the closed G&H Industrial Landfill (Landfill). The relocated portion of the WTM will be approximately 2.5 miles long and will connect to the existing system near the intersection of 24 Mile Road and the Macomb Orchard Trail on the north and near the intersection of Dequindre Road and Hamlin Road on the south. The location of the existing and proposed relocated drinking water main and associated road improvements are shown in Figure 1.

This project also includes roadway improvements in East Avon Road and Dequindre Road along the route of the 96-inch WTM. Roadway construction in the interest area extends in East Avon Road from approximately 100-feet east of the Clinton River to the intersection of East Avon Road and 23 Mile Road. In the last several months, the GLWA/Jacobs project team has been collaborating with the Road Commission for Oakland County (RCOC) and the Macomb County Department of Roads (MCDR) to identify scope elements and prepare design documents for these roadway enhancements that include replacement of the entire roadway cross-section, changes to roadway alignment, addition of retaining walls, grade changes, and a new roundabout at the East Avon Road and 23 Mile Road intersection.

This project previously received a Certificate of Appropriateness on January 14, 2021 for construction of the 96-inch water transmission main in East Avon Road and replacement of a portion of the culvert pipe conveying the millrace flow as proposed at 1950 East Avon Road. This memorandum and attached exhibits are intended to present the roadway improvements and revised millrace culvert replacement plan for a separate Certificate of Appropriateness for this work.

**Figure 1:** Proposed Location of New 96-inch Water Transmission Main




GLWA Great Lakes Water Authority

0 0.25 0.5 1 Mile

Jacobs

Jacobs and its subconsultant Fishbeck are currently developing the final design of the road improvements in East Avon Road and Dequindre Road. Jacobs, on behalf of GLWA, respectfully requests a Certificate of Appropriateness by the Rochester Hills Historic Districts Commission for the proposed project work along East Avon Road near the Yates Cider Mill, Mill Race Culvert, and Historic Clinton-Kalamazoo Canal.

## Existing Conditions in East Avon Road Corridor

In the last 25 years, there have been two underground water/wastewater utilities constructed along East Avon Road adjacent to the Yates Cider Mill. These existing utilities also cross the Mill Race Culvert. In 1997, a 36-inch diameter ductile iron drinking water main was constructed in East Avon Road and adjacent to the Yates Cider Mill using open cut construction methods. In 2002, a 2-inch diameter HDPE sewer force main was constructed in East Avon Road approximately 6 feet south of the 36-inch water main and crosses 5 feet above the Mill Race culvert.

### Existing Mill Race Culvert

The existing millrace consists of an approximately 100-foot-wide canal that begins upstream of a dam on the Clinton River. As the canal approaches East Avon Road, the millrace continues as a 61-inch-high x 84-inch-wide corrugated metal pipe (CMP) structural plate arch. The culvert runs south approximately 60 feet, where it bends to the east and continues for approximately 83 feet before discharging into an open top concrete chamber adjacent to the cider mill. The entrance to the culvert consists of a concrete headwall with a custom wood trash rack at the entrance. The original culvert was installed to convey water from the Clinton River on the north side of East Avon Road to the cider mill to power the mill wheel.

In July 2020, Great Lakes Engineering Group, LLC completed a culvert condition assessment inspection of the Mill Race Culvert for the RCOC. The Mill Race Culvert Condition Assessment, included as Attachment A, found the concrete headwalls to be in generally good condition, but the corrugated metal pipe was generally described as being in poor condition, with heavy rust and scale along the sides for the full length of the pipe. The assessment report states no leakage was visible nor any holes observed in the existing corrugated metal pipe. A photo of the existing millrace culvert inlet and headwall is presented in Figure 2.

**Figure 2: Existing millrace culvert inlet and headwall**

**Existing Clinton-Kalamazoo Canal**

A map showing the location of the completed portion of the canal, extracted from the Clinton-Kalamazoo Canal National Register of Historic Places Nomination package, is presented in Attachment B. The historic Clinton-Kalamazoo Canal was planned to connect Lake St. Clair and Lake Michigan by providing a waterway between the Clinton River in Mt. Clemens and the Kalamazoo River. Construction began at the Clinton River east of Rochester and continued west before funds ran out and construction ceased. Ultimately, only 16 miles of the intended 216-mile canal were completed.

The Clinton-Kalamazoo Canal was nominated for inclusion in the National Register of Historic Places in 1971 and was inducted in 1972. Though much of the canal has been destroyed, portions of the Clinton-Kalamazoo Canal can still be seen in Southeast Michigan, including near the Yates Cider Mill in Rochester Hills. A photo of the canal remnants taken on December 11, 2020 is presented in Figure 3.


**Figure 3: Historic Clinton-Kalamazoo Canal as seen from East Avon Road across from the Yates Cider Mill**

### Existing Yates Cider Mill Building

The Yates Cider Mill building is located on the south side of East Avon Road in Rochester Hills along the Clinton-Kalamazoo Canal. It was originally constructed in 1863 as a grist mill, but by 1876, a cider mill was installed. The mill is still in operation today and experiences increased visitors from August through October each year.

## Proposed East Avon Road Corridor Roadway Improvements

### General

It is expected East Avon Road will be closed to through traffic during installation of the water transmission main and construction of roadway restoration and improvements in East Avon Road, which will only take place from November through July and outside of cider season (August through October) to allow for visitor access to Yates Cider Mill during the cider season. Plan view exhibits of the proposed East Avon Road corridor roadway improvements are included in Attachment C. Road cross-section view exhibits of the proposed roadway improvements are included in Attachment D.

### Roadway Widening

The RCOC and Rochester Hills have requested that East Avon Road be widened to a continuous three-lane section from the proposed roundabout west of the Clinton River to the proposed roundabout at 23 Mile Road in accordance with the City's long range plans. The existing roadway section adjacent to the Cider Mill is two-lanes wide with a paved and gravel shoulder. The total approximate width is 30 feet. The proposed roadway will consist of two 12-feet-wide lanes and an 11-feet-wide center lane, with curb and gutter adjacent to each side and storm sewer. The total proposed width from back-of-curb to back-of-curb is 39 feet.

The roadway will be constructed in stages following the installation of the 96-inch water transmission main. Limited access to the Cider Mill and adjacent homes will be provided adjacent to the work area.

**Pedestrian Safety Improvements**

In addition to the roadway improvements, the City requested that a paved ADA-compliant pathway be provided on both sides of East Avon Road. The pathway is a minimum of 8-feet wide when separated from the curb, or 10-feet-wide when directly behind the curb. The additional width when the path is tied to the curb is to account for this area being too close to the roadway for user comfort. The proposed material for the pathway is hot-mix asphalt.

Currently there is an unsignalized mid-block crossing of Avon Road adjacent to the Cider Mill along the Yates Trail which is the former railroad bed. There are no sidewalks or improved pathways accessing the crosswalk on the north side. A pedestrian crossing at this same location is proposed with the roadway improvements and will be linked by pathway on both sides of Avon Road. A High-Intensity Activated Crosswalk (HAWK) signal is proposed to be installed for this crossing. The signal will be activated on-demand by pedestrians waiting to cross. When the signal is activated, a flashing yellow light indicates to motorists to prepare to stop, then solid red lights activate to indicate stopping is required. Pedestrian signals (walk/don't walk) will inform pedestrians when the signal is fully activated. When not in use, the signal will be dark. This signal design is in use on several RCOC roads throughout the county, primarily at roundabouts.

**Roundabout Construction at East Avon Road/23 Mile Road/Dequindre Road**

The RCOC and the City requested that a roundabout be constructed at the intersection of East Avon and 23 Mile Road which will function in coordination with the roundabout proposed to be constructed at East Avon and the south leg of Dequindre. Following an alternatives study in coordination with the RCOC and MCDR, a configuration was agreed to that will meet current and forecast demands at the intersection. The roundabout will be constructed in stages following the water main installation, with limited local access provided at all times.

**Retaining Walls**

In order to reduce impacts to adjacent areas from fill or cut slopes, retaining walls are required in three primary locations: adjacent to the pond to the millrace culvert, along the proposed pathway next to the home at 1990 East Avon Road, and along the parking lot of the Shelby Urgent Care center plaza. The walls are proposed to be a segmental block gravity wall. This type of wall consists of large blocks that resist the retained earth due to their mass and interlocking connections, and not tie-backs or stabilized earth. The proposed blocks can be cast with a wide array of relief patterns and colors.

Attachment E includes elevation views of renderings and textures of the two proposed retaining walls adjacent to the Historic District features.

Attachment F includes rock wall examples, relief pattern options, RCOC wall examples, and the RCOC roundabout proposed color palette.

**Utility Relocation/Tree Trimming**

A primary utility consideration for the roadway improvements project is aerial DTE electric lines and poles. Several DTE poles are in direct conflict with the proposed road or pathway work and will require relocation. The project team is working in coordination with DTE to determine proposed relocation options that move

the poles away from the proposed construction activities and still allow access for maintenance. In order to facilitate the preferred routing for the lines, the trees in the vicinity of the millrace pond will require trimming and limb removal. Specifically, the tree that is in contact with the historic canal wall adjacent to the millrace will need to be trimmed. Removal of trees to facilitate the DTE lines is not proposed for this project.

## Proposed Mill Race Culvert Replacement

The extents of Mill Race Culvert replacement and construction activities, shown in Attachments C and D, will not adversely affect the Yates Cider Mill structure or operations.

Initially the prior application and presentation to the Historic Districts Commission included millrace culvert replacement limits that coincided with roadway widening construction limits for a total length of 63-feet. However, during recent coordination meetings with RCOC, a determination was made to replace the culvert pipe up to and including the headwall located at the millrace and adjacent to the proposed road improvements.

A majority of the Mill Race Culvert and existing headwall will be removed and replaced in kind. The total proposed replacement length is 128 feet. The existing culvert will be replaced with a new 61-inch-high x 84-inch-wide CMP structural plate arch to match the existing. A custom trash and debris rack will be installed at the entrance to the culvert. The new culvert will follow the same alignment, will be set at the same inverts, and have the same slope as the existing culvert.

The last 15 feet of the existing culvert will remain in place to protect the existing concrete chamber from being damaged during construction. This remaining section of culvert will be sprayed with a polymer liner due to the culvert's age and condition. The spray-on polymer liner will also be applied to the new culvert to increase its life expectancy.

The removal and replacement of the existing culvert will take place outside the normal operating season of the cider mill in order to allow for complete blockage of flow for construction. Previous coordination with the cider mill operators by the RCOC indicates flow blockage for cleaning and inspection to be a normal wintertime practice.

The replaced section of culvert will be connected to the existing culvert by a concrete collar at the south end. The connection point will match the existing invert with a consistent slope to provide the same flow capacity that exists prior to construction.

## Anticipated Impacts to Clinton-Kalamazoo Canal

No impacts are expected to the remnants of the Clinton-Kalamazoo Canal. Sections of the existing millrace concrete headwall may include remnants of the Clinton-Kalamazoo Canal. Attachment C includes an elevation view of the proposed culvert headwall and wingwall construction. Existing sections of the concrete headwall are planned to be left undisturbed by construction activities.

## Anticipated Impacts to Yates Cider Mill

No impacts are expected to the Yates Cider Mill building. Road construction activities will remain within the East Avon Road right-of-way, and no work will be done within the Yates Cider Mill property lines at 1950 East Avon Road. The limits of road and pathway construction will remain north of the existing split rail fence adjacent to the cider mill shown in Figure 4.


**Figure 4: Yates Cider Mill frontage along East Avon Road**

This split rail fence will be temporarily removed during road and pathway construction and reinstalled at the conclusion of construction. A temporary construction fence will be installed during road and pathway construction at this location to act as a barrier from construction activities. In addition, sensors will be installed to monitor building vibration in and around the Yates Cider Mill structure during construction.

## Attachments

A – Mill Race Culvert Condition Assessment prepared by the Road Commission for Oakland County

B – Map of Historic Clinton-Kalamazoo Canal

C – Overall Plan View Exhibits – East Avon Road and Dequindre Road Improvements

D – Cross Section Exhibits – East Avon Road and Millrace Culvert Cross Sections

E – Retaining Wall Exhibits – Elevation View Renderings

F – Retaining Wall Exhibits – Aesthetics and Color Options

G – Existing Site Photos

Attachment A: Mill Race Culvert Condition Assessment prepared by the Road Commission for Oakland County

# Culvert Safety Inspection Report

| Facility | Federal Structure ID | Inspector Name | Agency/Consultant | Inspection Date |
|---|---|---|---|---|
| Avon Rd | N/A | Eric Rickert | GLEG | 7/31/2020 |

| Feature | Latitude | Longitude | Struc Num | Insp Freq | Insp Key |
|---|---|---|---|---|---|
| Yates Mill Race | 42.6732 | -83.0948 | 0225B | 24 | N/A |

| Location | Section | Length | Width | Year Built | Spans | Structure Type (43) | | Maint Dist |
|---|---|---|---|---|---|---|---|---|
| Rochester Hills | 13 | 7' | 120' | ?? | 1 | 3 | 19 | 3 |

| LEGEND | |
|---|---|
| 9 | New |
| 7-8 | Good |
| 5-6 | Fair |
| 3-4 | Poor |
| 2 or less | Critical |

NBI INSPECTION

| | | |
|---|---|---|
| 1. Pavement | 5 | HMA with heavy cracking and HMA patches in EB lane. Scattered cracks in WB lane. |
| 2. Sidewalks or curbs | N | |
| 3. Headers / Rails | 6 | Concrete headwalls at both ends |
| 4. Approach GD Rail | N | Guardrail along north side only |
| 5. Shoulder | 5 | HMA shoulders with scattered cracks. |
| 6. Deck | N | |
| 7. Deck Soffit | N | |
| 8. Joints | 5 | Rust and corrosion along joints. |
| 9. Leakage | 7 | No leakage visible. |
| 10. Stringers | N | |

# Culvert Safety Inspection Report

| Facility | Federal Structure ID | Inspector Name | Agency/Consultant | Inspection Date |
|---|---|---|---|---|
| Avon Rd | N/A | Eric Rickert | GLEG | 7/31/2020 |

| Feature | Latitude | Longitude | Struc Num | Insp Freq | Insp Key |
|---|---|---|---|---|---|
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| Location | Section | Length | Width | Year Built | Spans | Structure Type (43) | | Maint Dist |
|---|---|---|---|---|---|---|---|---|
| Rochester Hills | 13 | 7' | 120' | ?? | 1 | 3 | 19 | 3 |

| LEGEND | |
|---|---|
| 9 | New |
| 7-8 | Good |
| 5-6 | Fair |
| 3-4 | Poor |
| 2 or less | Critical |

NBI INSPECTION

| | | |
|---|---|---|
| 11. Pipe | 4 | 7' diameter CMP pipe arch with 6"x2" corrugations. Bend in culvert near inlet. 12"-18" of very soft muck in bottom of culvert, difficult to inspect. CMP has heavy rust and scale at the mudline along both sides for the full length of the CMP. No holes through CMP. |
| 12. Abutments | N | |
| 13. Piers | N | |
| 14. Slope | N | |
| 15. Scour | 7 | None noted. |
| 16. Channel<br>SIA-61 | 5 | Evidence that culvert goes into pressure flow. No flow during inspection. Very soft mucky bottom. New concrete apron with flow control at inlet. Concrete pit for cider mill at outlet. |
| 17. Culvert rtg<br>SIA-62 | 4 | 7' diameter CMP pipe arch with 6"x2" corrugations. Bend in culvert near inlet. 12"-18" of very soft muck in bottom of culvert, difficult to inspect. CMP has heavy rust and scale at the mudline along both sides for the full length of the CMP. No holes through CMP. |

| Guard Rail | | | | |
|---|---|---|---|---|
| 36A | N | Water Adeq | 8 | |
| 36B | N | Appr Align | 8 | |
| 36C | N | Special Insp Equip. | 2 | |
| 36D | N | UW Inspect Method | 1 | |

| Repairs/Maintenance | |
|---|---|
| L | Budget replacement |
| H | Clean muck out of culvert bottom |

| General Notes |
|---|
| Poor |

| Load Restriction | Structure Type |
|---|---|
| None | Corrugated Metal Pipe |

***Culvert outlet***

***View through culvert facing north***

***Rust and scale on CMP***

***Rust and scale on CMP***

***Heavy rust and scale on CMP***

***Heavy rust and scale on CMP***

***Heavy rust and scale on CMP***

Attachment B: Map of the Historic Clinton-Kalamazoo Canal

**ATTACHMENT B: Map of Historic Clinton-Kalamazoo Canal**

Clinton - Kalamazoo Canal
PH0007331

DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

# UTICA QUADRANGLE
MICHIGAN
7.5 MINUTE SERIES (TOPOGRAPHIC)

UTM Ref'ns
4-1-77

Ⓐ 17/328400 4726410
Ⓑ 17/328680 4726340
Ⓒ 17/329000 4726230
Ⓓ 17/329220 4725900
Ⓔ 17/329260 4726390
Ⓕ 17/329420 4725280
Ⓖ 17/330000 4725120
Ⓗ 17/331000 4724860
Ⓘ 17/331420 4724720
Ⓙ 17/331720 4724340
Ⓚ 17/331860 4723820
Ⓛ 17/332000 4723460
Ⓜ 17/332280 4722400
Ⓝ 17/332660 4722000
Ⓞ 17/332920 4721620

Mapped, edited, and published by the Geological Survey in cooperation with State of Michigan agencies

Control by USGS and USC&GS

Planimetry by photogrammetric methods from aerial photographs
Topography by planetable surveys 1944. Revised from aerial photographs taken 1967. Field checked 1968

Polyconic projection. 1927 North American datum
10,000-foot grid based on Michigan coordinate system, south zone
1000-meter Universal Transverse Mercator grid ticks, zone 17, shown in blue

Fine red dashed lines indicate selected fence and field lines where generally visible on aerial photographs. This information is unchecked

UTM GRID AND 1968 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24000

CONTOUR INTERVAL 10 FEET
DOTTED LINES REPRESENT 5-FOOT CONTOURS
DATUM IS MEAN SEA LEVEL

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, WASHINGTON, D. C. 20242
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

ROAD CLASSIFICATION

- Primary highway, all weather, hard surface
- Secondary highway, all weather, hard surface
- Light-duty road, all weather, improved surface
- Unimproved road, fair or dry weather
- State Route

MICHIGAN
QUADRANGLE LOCATION

UTICA, MICH.
N4237.5—W8300/7.5

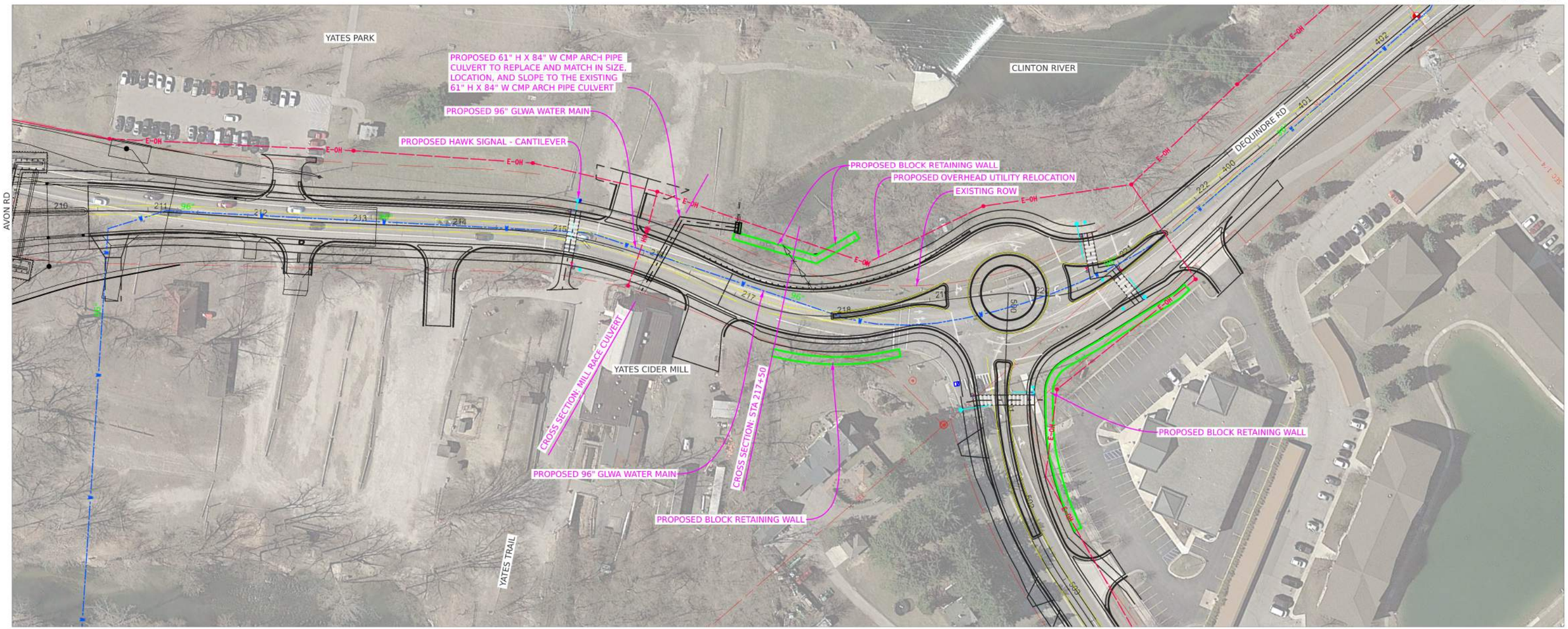
1968

AMS 4369 II NE—SERIES V862

Attachment C: Overall Plan View Exhibits – East Avon Road and Dequindre Road Improvements

## ATTACHMENT C: Overall Plan View Exhibits – East Avon Road and Dequindre Road Improvements

FULL SIZE (22" X 34") 1" = 50'
REDUCED SIZE (11"X17") 1" = 100'




| No. | DESCRIPTIONS / REVISIONS | CHK'D | APPR | DATE |
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DESIGNED BY:
DRAWN BY: KGH
CHECKED BY:
APPROVED BY:

SEAL / STAMP

FACILITY
PROJECT TITLE
EAST AVON ROAD CORRIDOR ROADWAY EXHIBIT
OVERALL PLAN VIEW EXHIBIT
50 SCALE
DATE

FIRM NAME
fishbeck
Engineers | Architects | Scientists | Constructors
1515 ARBORETUM DR SE
GRAND RAPIDS, MI 49546

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

PROJ
SHEET of

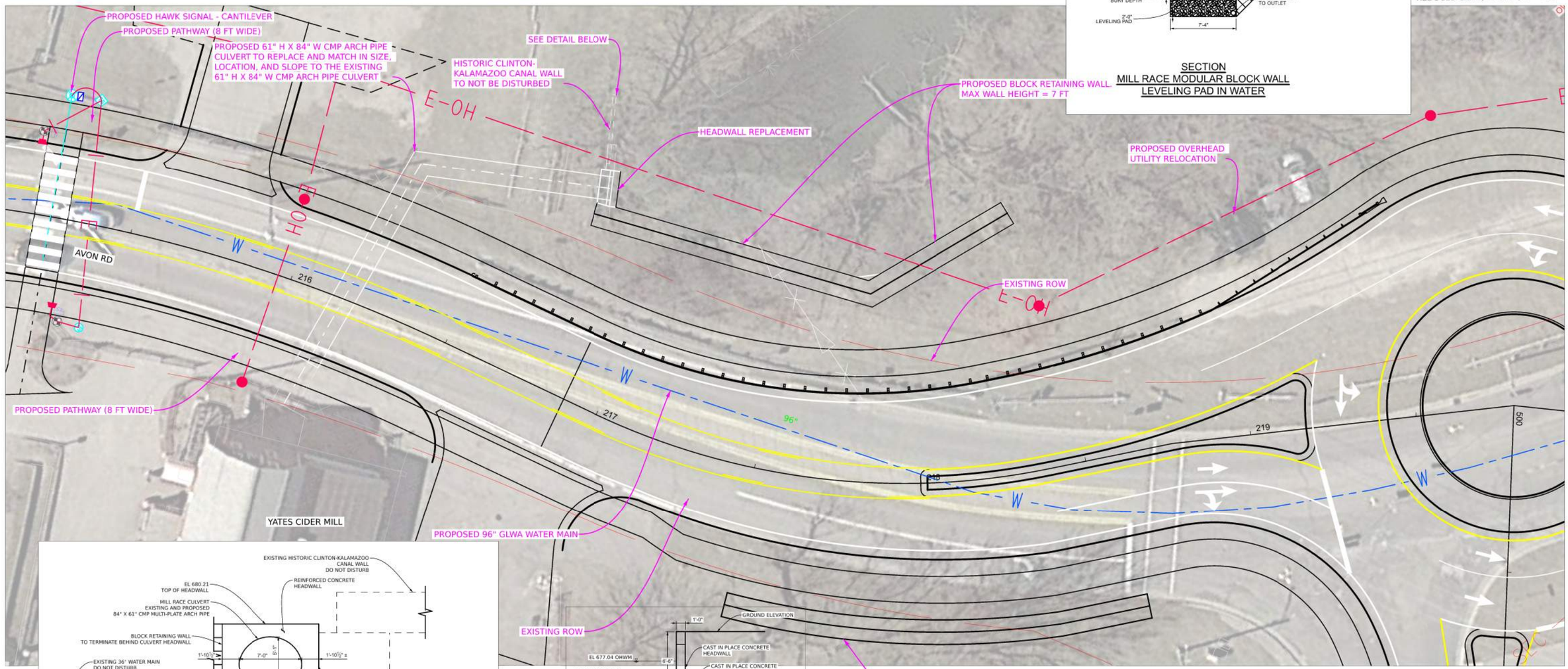
GLWA
Great Lakes Water Authority

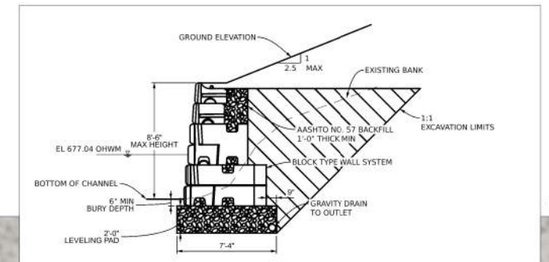
| SECTION MAP | TOWN | RANGE | SECTION | Q | QQ |
|---|---|---|---|---|---|
| | | | | | |

MDEQ PERMIT No.
GLWA CONTRACT No.
GLWA CIP No.
DRAWING No.

FILENAME:
PLOT DATE:
PLOT TIME:

## ATTACHMENT C: Overall Plan View Exhibits – East Avon Road and Dequindre Road Improvements

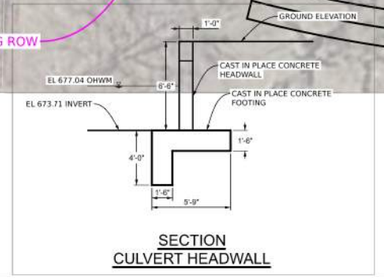



SECTION
MILL RACE MODULAR BLOCK WALL
LEVELING PAD IN WATER




ELEVATION
CULVERT HEADWALL AND WINGWALL




SECTION
CULVERT HEADWALL

FULL SIZE (22" X 34") 1" = 15'
REDUCED SIZE (11"X17") 1" = 30'

| No. | DESCRIPTIONS / REVISIONS | CHK'D | APPR | DATE |
|---|---|---|---|---|

DESIGNED BY:
DRAWN BY: KGH
CHECKED BY:
APPROVED BY:

SEAL / STAMP

FACILITY
PROJECT TITLE
EAST AVON ROAD CORRIDOR ROADWAY EXHIBIT
OVERALL PLAN VIEW EXHIBIT - DETAILED
.50 SCALE
DATE

FIRM NAME
fishbeck
Engineers | Architects | Scientists | Constructors
1515 ARBORETUM DR SE
GRAND RAPIDS, MI 49546

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"
PROJ
SHEET of

GLWA
Great Lakes Water Authority

| SECTION MAP | TOWN | RANGE | SECTION | Q | QQ |
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MDEQ PERMIT No.
GLWA CONTRACT No.
GLWA CIP No.
DRAWING No.

FILENAME:
PLOT DATE:
PLOT TIME:

Attachment D: Cross Section Exhibits – East Avon Road and Millrace Culvert Cross Sections

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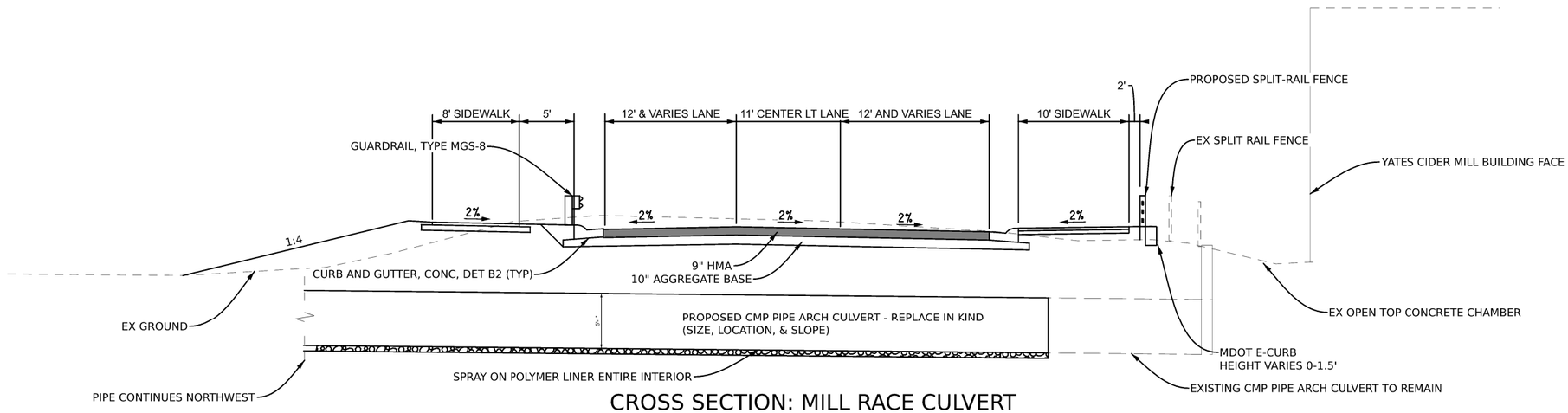
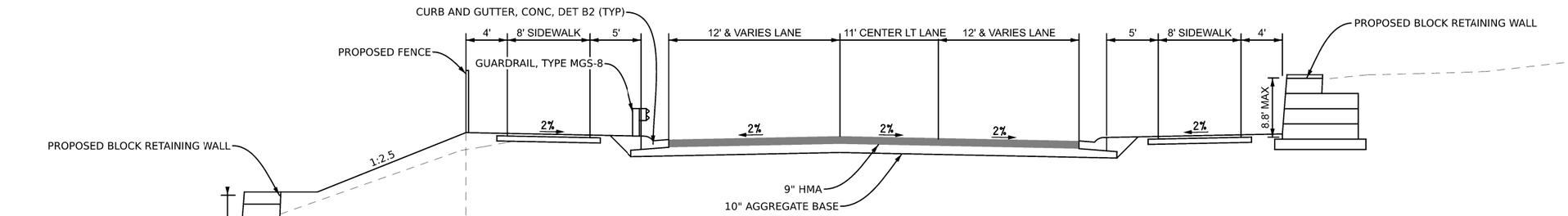
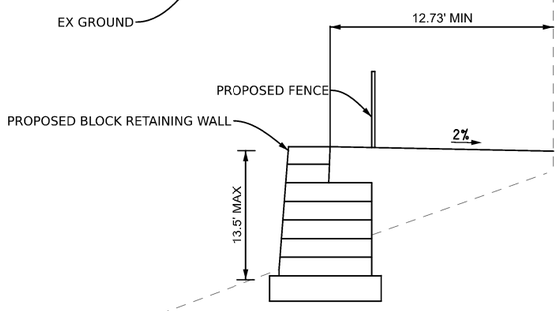



CROSS SECTION: MILL RACE CULVERT




CROSS SECTION: STA 217+50




ALTERNATE CROSS SECTION: STA 217+50

| No. | DESCRIPTIONS / REVISIONS | CHK'D | APPR | DATE |
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CHECKED BY:
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SEAL / STAMP
FACILITY
PROJECT TITLE
EAST AVON ROAD CORRIDOR ROADWAY EXHIBIT
CROSS SECTION
12 SCALE
DATE
FIRM NAME
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Engineers | Architects | Scientists | Constructors
1515 ARBORETUM DR SE
GRAND RAPIDS, MI 49546
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"
PROJ
SHEET of
GLWA
Great Lakes Water Authority
SECTION MAP | TOWN | RANGE | SECTION | Q | QQ
MDEQ PERMIT No.
GLWA CONTRACT No.
GLWA CIP No.
DRAWING No.

FILENAME:
PLOT DATE:
PLOT TIME:

Attachment E: Retaining Wall Exhibits – Elevation View Renderings


## ATTACHMENT E: Retaining Wall Exhibits – Elevation View Renderings

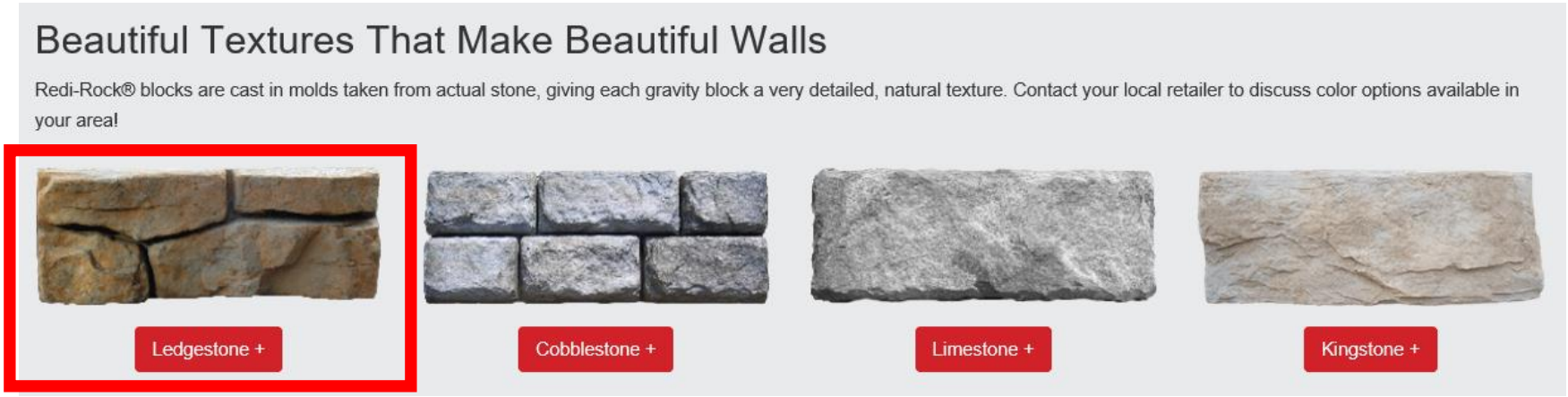

**ATTACHMENT E: Retaining Wall Exhibits – Elevation View Renderings**


**ATTACHMENT E: Retaining Wall Exhibits – Elevation View Renderings**


**ATTACHMENT E: Retaining Wall Exhibits – Elevation View Renderings**

Attachment F: Retaining Wall Exhibits – Aesthetics and Color Options

# Rock Wall Examples



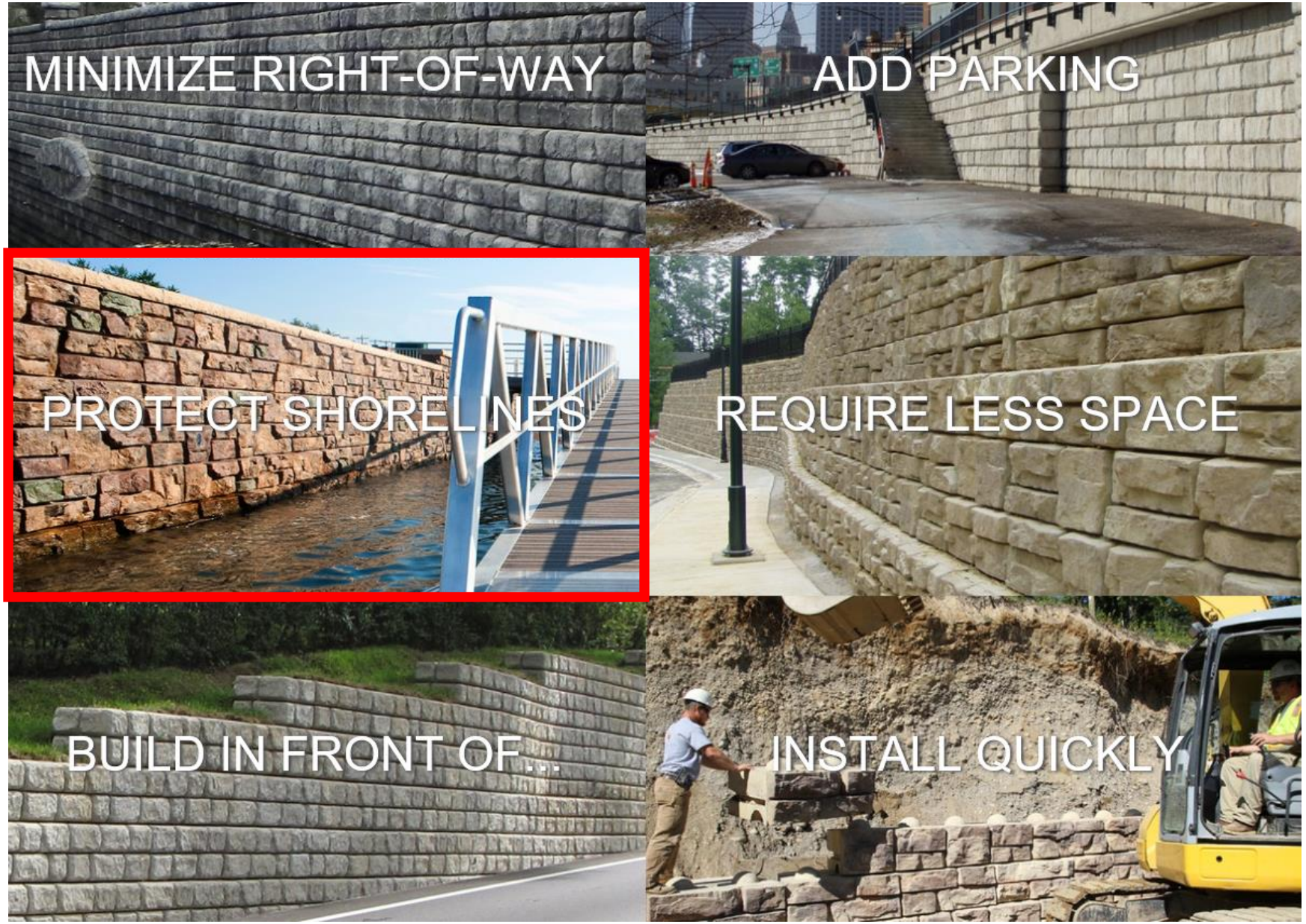
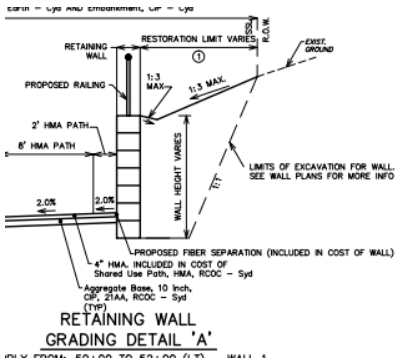

MINIMIZE RIGHT-OF-WAY
ADD PARKING
PROTECT SHORELINES
REQUIRE LESS SPACE
BUILD IN FRONT OF . . .
INSTALL QUICKLY

EXHIBIT F

# RCOC Wall Examples

Modular Concrete Block Retaining Wall, RCOC

Aluminum Rail Fence Direct Bury, RCOC



RETAINING WALL
GRADING DETAIL 'A'

# RCOC Proposed Color Palette

RCOC proposed color theme for adjacent RCOC roundabout project is pewter as shown below.

Attachment G: Existing Site Photos

## Attachment G: Existing Site Photos

East Avon Road Upper Retaining Wall – Existing Site Photo Looking South

East Avon Road Upper Retaining Wall – Existing Site Photo Looking Southeast

East Avon Road Lower Retaining Wall – Existing Site Photo Looking Northeast

East Avon Road Lower Retaining Wall – Existing Site Photo Looking Southeast

East Avon Road Lower Retaining Wall – Existing Site Photo Looking Southeast

East Avon Road Lower Retaining Wall – Existing Site Photo Looking Southeast