SPECIAL PROVISIONS: PAGE

CITY OF KALAMAZOO

SPECIAL PROVISION
FOR
PROGRESS CLAUSE

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Contractor shall start work on or before the date shown in the table below, or on a date agreed upon with the Engineer. In no case, shall any work be commenced prior to receipt of formal notice to proceed by the City. The project shall be substantially completed and ready for final inspection in accordance with the following table.

Milestone	Date
Estimated Award – City Council	April 20, 2026
Commence Work	May 11, 2026
Substantial Completion - Final Inspection	November 13, 2026
Final Completion - Restoration Punchlist	May 28, 2027

The approved low bidder(s) for the work covered by this proposal shall be required to participate in a pre-construction meeting with the City and the Engineer to work out a detailed progress schedule. The schedule of this meeting will be set within a week of contract award.

The Progress Schedule shall include, at a minimum, the controlling work items for the completion of the project and the planned dates (or work day for a work day project) that these work items will be controlling operations. When specified in the Bidding Proposal, the date the project is to be opened to traffic as well as the final project completion date specified shall also be included in the Project Schedule.

If the Bidding Proposal specifies other controlling dates, these shall also be included in the Progress Schedule. See Maintaining Traffic Special Provision.

Liquidated damages shall be assessed in accordance with Special Provision for Schedule of Liquidated Damages for Oversight.

Failure on the part of the Contractor to carry out the provisions of the Progress Schedule, as establish, may be considered sufficient cause to prevent bidding future projects until a satisfactory rate of progress is again established.

Work of a similar nature may be added to this contract if agreed to by the City and the Contractor. In the event that work is added, the progress schedule for the work will remain unchanged. Any contract time added for additional work will be applied to that additional work only, and cannot be added to items in the original contract. Any work done on the items in the original contract past the number of working days stated herein will be subject to liquidated damages regardless of any work that may be added at a later date.

CITY OF KALAMAZOO

SPECIAL PROVISION
FOR
MAINTAINING TRAFFIC

a. Description. This work shall consist of all labor, materials, and equipment required to maintain traffic in accordance with this special provision for all work on Burdick Street, VanderSalm Court, and any affected side streets as described and as directed by the Engineer.

b. General. Maintain traffic throughout the project according to Sections 104.11, 812 and 922 of the Michigan Department of Transportation *2020 Standard Specifications for Construction*, the Michigan Manual of Uniform Traffic Control Devices (MMUTCD), including any Supplemental Specifications, and as specified herein.

1. The Contractor shall notify the Engineer, the City of Kalamazoo, Metro Transit, local police department, local fire department, and other emergency response units a ***minimum of 10 business days*** prior to the implementation of any detours, road closures, or lane closures, major traffic shifts, and changes between each.

2. Coordinate operations with Contractors performing work on other projects within or adjacent to the Construction Influence Area (CIA) as described below. The Contract Maintenance Agency will coordinate their operations with the Engineer to minimize the interference with the Contractor. No additional payment will be made to the Contractor for the joint use of the traffic control items.

3. During all times of construction, access to local businesses and drives for emergency vehicles shall be maintained by the Contractor until the project is completed unless a temporary closure is approved in writing by the Engineer.

4. The Contractor shall conduct their work in such a manner so no excavations are left open overnight. If this is not possible, the Contractor shall provide and install a temporary fence to protect the excavation at their own expense. Whenever possible, the Contractor shall use a trench box and backfill all excavations and/or trenches and cover or protect the trench box at the end of each workday. No excavations and/or trenches are to be left open overnight unless a full closure is in place.

5. Coordinate all lane or road closures with Kalamazoo Metro Transit to maintain access or provide alternate access for any bus stops within the CIA.

6. The Contractor shall maintain and coordinate daily waste pickup and deliveries to all business buildings affected by driveway, alley, and road closures for this project.

7. The Contractor shall coordinate all signal modifications, temporary signals, signal bagging and un-bagging and traffic shifts with the City of Kalamazoo Traffic Engineer so that appropriate signal timing and camera adjustments can be completed. The Contractor shall notify the City of Kalamazoo a ***minimum of 7 business days*** prior to implementing traffic shifts requiring traffic signal modifications.

8. Streets and curbline within the CIA shall be swept daily, or as directed by the Engineer.

c. Relations and Responsibility to the Public.

1. Door hanger notifications shall be provided to residents/businesses directly affected by proposed work no less than 72 hours before the portion of road adjacent to their property is planned to receive work. The Contractor will provide a pre-printed door hanger with the Contractor's message to the residents/businesses. Message content must be approved by the Engineer prior to printing and distribution. The Contractor is responsible for filling out and distributing the door hangers. No work shall be performed in any section of the project prior to the affected residents/businesses being notified via distribution of door hangers.

2. 24-hour notification shall be provided to residents/businesses before every construction operation that will substantially affect a resident/business adjacent to the project site, (such as driveway closures, water service installations, etc.) The Contractor shall assist the Engineer and/or Owner in coordinating work and mitigating impacts to the extent possible while maintaining construction schedules.

3. Contractor shall participate in weekly community outreach meetings and provide supplemental information to the City of Kalamazoo's community outreach coordinator. The community outreach coordinator will be responsible for updating the public on the project status via social media.

d. Construction Influence Area (CIA). The CIA includes the right-of-way of the following roadways, within the approximate limits described below:

1. Burdick Street from East Emerson Ave to Vine Street.

2. VanderSalm Court from Burdick Street to west end.

3. The right-of-way of any intersecting roadways and sidewalks adjacent to the work zone for a distance of approximately 500 feet including East and West Emerson Street, Richard Avenue, Balch Street, Stockbridge Avenue, Lake Street, Crosstown Parkway, Wall Street, Upjohn Drive, Burr Oak Street, Fellows Avenue, and Vine Street.

4. The rights-of-way of any signed detour routes.

e. Traffic Restrictions.

1. No work shall be performed during the Memorial Day (May 25th), Independence Day (July 4th), and Labor Day (September 7th) holiday periods as defined in the following table:

Memorial Day	*Independence Day*	*Labor Day*
3:00 pm May 23rd to 6:00 am May 26th	3:00 pm July 2nd to 6:00 am July 6th	3:00 pm September 5th to 6:00 am September 8th

2. The City of Kalamazoo observes additional internal holidays as defined in the table below. The Contractor may perform work on these Holidays but is advised that City Staff will be unavailable. An extension of time or additional payment will not be granted for delays due to being unable to contact City staff on these days.

Good Friday	*Juneteenth*	*Veterans' Day*
April 3rd	June 19th	November 11th

3. All work shall be done between the hours of 7 am to 7 pm (Monday – Saturday) unless otherwise specified herein. Work done outside of the times specified herein will be at the discretion of the Engineer and any additional cost for maintaining traffic shall be borne by the Contractor.

4. No work shall be done on Sunday unless otherwise specified herein or approved by the Engineer in writing. The Contractor shall request permission to work no later than 12:00 pm the Wednesday prior to the weekend they are requesting to work.

5. The arrow board, signs, and channelizing tapers for any flag control operations shall be placed at locations approved by the Engineer for adequate visibility to oncoming traffic.

6. The minimum lane width throughout the CIA shall be 10 feet.

7. Maintain access to commercial and residential properties at all times and assist business patrons and residents with navigating the CIA as needed. Part-width driveway construction may be required. All driveway closures must be approved by the Engineer. Where a driveway is closed or partially closed, the adjacent driveway must remain open to traffic. The Contractor shall coordinate their work with the impacted property owners and give a minimum of 3 days' notice prior to closing a driveway.

8. Utilize intermediate traffic regulators during the reconstruction of driveways with commercial traffic.

9. Maintain access for pedestrians to all commercial and residential properties.

10. Cover all existing regulatory, warning, and construction signs that are not applicable during construction.

11. The Contractor must submit a work zone traffic control plan to the Engineer in accordance with section 104 of the 2020 MDOT Standard Specifications for Construction and a haul route plan. The Engineer will have seven (7) calendar days to review the plan for acceptance or provide comments for plan revisions required to obtain acceptance. At a minimum, the work zone traffic control plan shall include the proposed ingress/egress locations for construction equipment and vehicles, traffic control devices that will be utilized to warn the motoring public of ingress/egress locations, and measures that will be taken to ensure compliance with the plan as specified herein. The haul route plan shall indicate routes to be utilized during construction for the purposes of transporting equipment, materials, and removed spoils within City of Kalamazoo limits to and from the site for each phase. Once approved, the contractor shall communicate the work zone traffic control plan and haul route plan for each phase to all drivers and subcontractors and enforce compliance. The Engineer may suspend work if compliance with the approved work zone traffic control plan and haul route plan is not maintained. No work shall begin prior to acceptance of the work zone traffic control plan and haul route plan.

Additional time required to obtain an accepted work zone traffic control plan and haul route plan shall not be cause for delay or impact claims. All costs associated with obtaining an acceptable plan, providing and executing all parts of the accepted plan including required traffic control devices, or resolving an incomplete or unacceptable plan shall be borne by the Contractor.

12. The Contractor shall comply with local noise ordinances, which are available on the City of Kalamazoo's website, except for any night work specified herein.

f. Traffic Control. The traffic control required by this Special Provision for work on Burdick Street, VanderSalm Court, and adjacent roadways is to erect and maintain signs for detoured traffic while maintaining local traffic as provided herein. An alternate traffic control plan may be used by the Contractor, subject to review and approval by both the Engineer and the City. The Contractor shall provide access to all properties within the Construction Zone for the duration of the project.

This is Phase 1 of a two (2) phase project that will be built with different contracts. Phase 1 consists of six (6) sub-phases with the general sequencing detailed below with concurrent work to be completed as required. Deviations shall not be allowed without written approval from the Engineer and City.

Prior to beginning any work on any sub-phase, door hangers will be provided, detour routes will be implemented, and any other required traffic control devices will be installed.

Sub-Phase 1.1: This phase is for contract work between West Emerson Street and Stockbridge Avenue. This section of Burdick Street will be closed to thru traffic with a detour route that will utilize East Alcott Street, Portage Street, and Stockbridge Avenue as detailed on the Traffic Control Plan sheets. The sequencing for this phase shall be:

Start project with work at Central: cut-in 30-inch valve; add 24x24-inch tee and (2) 24-inch valves - put main back in service within 10 days.
Install and test water main from Stockbridge to Balch including side street build-out to Richard hydrant and Stockbridge hydrant - put water main in service
Put water main from Balch to Central in service and connect all west side services to main
Abandon 10-inch main from W Emerson to Stockbridge (10-inch LS required at Stockbridge)
Install and test water main between Emerson and Balch including side street build out to W Emerson hydrant - put water main in service (test against existing valve at Balch)
Finish connecting all water services to new main between Emerson and Stockbridge
Connect side streets at Richard (BWA), W Emerson (6-inch LS required), and Stockbridge (BWA)
Make connection to Burdick 12-inch main at Emerson (BWA if not enough room for LS)
Make connection to Balch 24-inch main
Abandon 12-inch main from Emerson to Stockbridge
complete all other work except for top course paving - temporary pavement markings required

Note: Burdick Street must be accessible to local traffic from either West Emerson Street or Balch Street at all times.

Sub-Phase 1.2: This phase is for contract work between Stockbridge Avenue and Crosstown Avenue. This section of Burdick Street will be closed to thru traffic with a detour route that will utilize East Alcott Street, Portage Street, and Vine Street as detailed on the Traffic Control Plan sheets when the Stockbridge intersection is closed. Once the Stockbridge intersection is open to

traffic, the detour route will be adjusted to utilize Stockbridge Avenue and Crosstown Parkway. The sequencing for this phase shall be:

Limit closure of Stockbridge intersection to 3 weeks.
Install and test water main in Stockbridge intersection - put water main in service
Cut out obsolete fittings on existing 24-inch main near station 15+00 and 19+00 (24-inch LS may be required)
Install and test water main from station 13+50 to 20+00 including side street build out to Lake Street hydrant and all hydrant leads - put main in service
Connect all water services to new main
Make connection to Lake Street (72 hr. BWA notification)
Install and test water main from Station 20+00 to Bore Pit at Crosstown
Abandon 10-inch water main from Stockbridge to 2-inch service at VanderSalm Flower Shop (10-inch LS required) utilizing a lane/shoulder closure - new VanderSalm Ct main must be in service (see sub-phase 1.5).
Abandon 12-inch water main from Stockbridge to HYD 0233 (north of Crosstown) utilizing a lane/shoulder closure.
complete all other work except for top course paving - temporary pavement markings required

Note: The closure of the Stockbridge Avenue intersection is limited to twenty-one (21) calendar days. The Contractor must provide 10-day advanced notice of the closure. The water main trench must be paved and open to traffic by the end of day 21 of the closure. For every calendar day over the allowable twenty-one (21) day closure, the Contractor shall be assessed liquidated damages in accordance with Section 108.10.C.1 of the MDOT Standard Specifications with an additional assessed amount of $12,000 per day, or fraction thereof calculated in fifteen (15) minute increments, in accordance with section 108.10.C.2.

Sub-Phase 1.3: This phase is for contract work between Crosstown Parkway and Wall Street. This section of Burdick Street will be closed to thru traffic with a detour route that will utilize Stockbridge Avenue, Rose Street, and Vine Street as detailed on the Traffic Control Plan sheets. The sequencing for this phase shall be:

Install and test water main from bore pit to Wall Street hydrant and all hydrant leads (verify elevation of existing 24-inch and 20-inch mains) - put main in service
Abandon 10-inch main up to Burr Oak.
Connect all water services to new main
Connect proposed 24-inch to 20-inch main on Wall - (2) 20-inch LS required
Connect existing 24-inch main to proposed 24-inch main at Wall - (2) 24-inch LS required: near station 25+00 and 33+00
Cut and Cap existing 24-inch main near station 33+00
complete all other work except for top course paving - temporary pavement markings required

Sub-Phase 1.4: This phase is for contract work between Wall Street and Vine Street. This section of Burdick Street will be closed to thru traffic with a detour route that will utilize Stockbridge Avenue, Rose Street, and Vine Street as detailed on the Traffic Control Plan sheets. When the Vine Street intersection is closed, the detour route will be adjusted to utilize Stockbridge Avenue, Rose Street and Cedar Street. The sequencing for this phase shall be:

Install and test water main up to station 36+00 including all hydrants and side street build outs
Connect all water services to new main
Connect side streets at Upjohn (6-inch LS required), Burr Oak (BWA), and Fellows
Cut and Cap existing 24-inch main near station 37+50 - install 24-inch valve, 90° Bend, and thrust block
Limit closure of Vine intersection to 5 weeks.
Install and test water main from station 36+00 to POE
Make connections to Vine Street
Connect to existing 24-inch main and 16-inch main north of Vine
Cut out section of existing 24-inch main near station 25+00 utilizing a lane closure
complete all other work except for top course paving - temporary pavement markings required

Note: The closure of the Vine Street intersection is limited to thirty-five (35) calendar days. The Contractor must provide 10-day advanced notice of the closure. The intersection must be paved up to leveling course and open to traffic by the end of day 35 of the closure. For every calendar day over the allowable thirty-five (35) day closure, the Contractor shall be assessed liquidated damages in accordance with section 108.10.C.1 of the MDOT Standard Specifications with an additional assessed amount of $12,000 per day, or fraction thereof calculated in fifteen (15) minute increments, in accordance with section 108.10.C.2.

Sub-Phase 1.5: This phase is for contract work on VanderSalm Court between Rose Street and Burdick Street. VanderSalm Court will be closed with no posted detour. The sequencing for this phase shall be:

Must be completed prior to abandoning 10-inch main as detailed in sub-phase 1.2
Start main construction with 12x6-inch tap at Rose Street
Install and test water main from Rose Street to Burdick Street
Connect all water services to new main
Cut and Cap 2-inch main near Burdick Street
Complete all other work

Sub-Phase 1.6: This phase is for top course paving from Emerson to Vine and includes permanent pavement markings and any required permanent signs. This work shall be performed under traffic with flag control as required. The sequencing for this phase shall be:

Mill butt joints as required by Engineer
Complete top course paving under traffic - use flagging as needed
Final pavement markings
Permanent signs as needed

g. Pedestrian or Non-Motorized Facilities.

1. Maintain all facilities in accordance with *The Americans with Disability Act* (ADA) requirements. Provide facilities equivalent to, or better than, the route a person would have encountered prior to construction activities.

2. Close and detour any sidewalk ramps and crosswalk areas to pedestrian traffic that are impacted by the work. Cover/Bag pedestrian signal heads when the crosswalk or

ramp is affected. Close sidewalks with Pedestrian Type II barricades and 'Sidewalk Closed' signs.

3. Keep sidewalk areas clear of any equipment or materials at all times the sidewalks are open to pedestrian traffic.

4. At signalized intersections a minimum of one crossing shall be maintained in each direction of travel at all times.

5. Pedestrian access routes shall be kept clear of all material, equipment, and debris except for when work is actively occurring to remove and reconstruct sidewalk or install utility crossings at that specific location. Once direct work ceases at a specific location the pedestrian route shall be cleaned and re-opened using either temporary or permanent measures.

6. Contractor shall submit pedestrian detour routes to the engineer prior to closing sidewalks.

h. Traffic Control Devices

1. *General.* Conform all traffic control devices and their usage to Part 6 of the Michigan Manual on Uniform Traffic Control Devices (MMUTCD). This document can be found at the following website:

   http://mdotjboss.state.mi.us/TSSD/tssdHome.htm

   a. Temporary traffic control devices shall be delivered to the site no earlier than 96 hours prior to being placed in use and shall be removed from the site immediately upon deactivation unless directed otherwise by the Engineer. Traffic control devices shall not be placed in use until necessary for each phase of work.

   b. At a minimum, temporary traffic control devices within the CIA and detour routes shall have their location confirmed or corrected and be inspected, cleaned, and/or repaired by the Contractor at the end of each workday or as directed by the Engineer.

2. Temporary Signs

   a. Place temporary signs at the spacing and taper lengths as shown on the attached Typical 101-GEN-SPACING-CHARTS.

   b. Utilize MDOT Typical 102-GEN_NOTES if called for on the MDOT Maintaining Traffic Typicals.

   c. Utilize signs identified in the MDOT Maintaining Traffic Typical 103-GEN_SIGN unless otherwise specified on the plans or in this Special Provision.

   d. Place temporary advance signing treatment and signing for lane closures and lane shifts on the project as shown on the attached MDOT Typicals: 123-NFW-1-LC-(L) and 140-CLT_PARK_LANE

e. Fabricate all temporary signs with legends and symbols flush to the sign's face and do not extend beyond the sign borders or edges.

f. Mount all temporary signs that will be in place for more than 14 days on driven posts.

g. When a portable construction sign is no longer applicable, remove it or lay the sign down with legs pointed in the same direction as traffic flow, with its feet off and laid flat.

h. Temporary neighborhood business signage shall be used to direct the public to the various businesses within the Construction area. The Contractor shall be responsible for the installation, maintenance, and relocation of these signs as necessary to coincide with the various phases of the project.

3. Temporary Pavement Markings

a. Temporary pavement markings consist of the following
Pavt Mrkg, Type NR, Paint, 24 inch, Stop Bar
Pavt Mrkg, Type NR, Paint, 12 inch, Crosswalk
Pavt Mrkg, Type NR, Paint, Lt Turn Arrow
Pavt Mrkg, Type NR, Paint, Rt Turn Arrow
Pavt Mrkg, Type NR, Paint, Thru Arrow
Pavt Mrkg, Wet Reflective, Type NR, Paint, 6 inch, White, Temp
Pavt Mrkg, Wet Reflective, Type NR, Paint, 6 inch, Yellow, Temp

b. **Pavt, Mrkg, Wet Reflective, Type NR,___** shall be placed on pavement areas that will be removed or covered during construction for interim traffic control at locations specified by the Engineer.

4. Channelizing Devices

a. Channelizing devices required shall be **Channelizing Device, 42 inch, Fluorescent**.

5. Plastic Drums

a. Plastic drums required shall be **Plastic Drum, Fluorescent**.

6. Lighted Arrows

a. **Lighted Arrow, Type C** shall be used whenever shifting a traffic lane, closing a traffic lane or shoulder, and as called for on the traffic control plans.

7. NTCIP-Compliant Portable Changeable Message Sign (PCMS)

a. NTCIP-Compliant PCMS shall be furnished to the site 2 weeks prior to commencement of construction at locations agreed upon by the Engineer.

b. Contractor shall verify the message with the Engineer and change as directed per current operations in a timely manner.

8. Permanent Pavement Markings
    a. Permanent pavement markings consist of the following:
    Pavt Mrkg, Ovly Cold Plastic, Bike
    Pavt Mrkg, Ovly Cold Plastic, Lt Turn Arrow
    Pavt Mrkg, Ovly Cold Plastic, Rt Turn Arrow
    Pavt Mrkg, Ovly Cold Plastic, Thru Arrow
    Pavt Mrkg, Ovly Cold Plastic, Sharrow Sym
    Pavt Mrkg, Polyurea, 12 inch, Crosswalk
    Pavt Mrkg, Polyurea, 6 inch, White
    Pavt Mrkg, Polyurea, 6 inch, Yellow
    Pavt Mrkg, Polyurea, 24 inch, Stop Bar
    Pavt Mrkg, Polyurea, 4 inch, White (to delineate on street parking)

    b. Fabricate all pavement markings per MDOT Pavement Marking Standards and Special Details PAVE-900 through PAVE-985.

9. Permanent Signs

    a. Fabricate and place permanent signs according to current editions of the Michigan Manual on Uniform Traffic Control Devices (MMUTCD) and the MDOT Standard Highway Signs manual and sign support typicals.

    b. Mount all permanent signs at a 7-foot bottom height.

    c. Fabricate all new permanent signs with high intensity reflective sheeting.

    d. Install all permanent signs as shown on the signing plans or as directed by the Engineer prior to opening roadways to traffic.

    e. Replace signs requiring relocation for Contractor convenience or due to Contractor damage as determined by the Engineer at the Contractor's expense.

j. Measurement and Payment. The estimated quantities listed on the plan sheets for maintaining traffic on this project are based on the suggested sequence of operations contained in the staging plans and described in this special provision.

Pay Item	**Pay Unit**
Maintaining Traffic	Lump Sum

Payment for **Maintaining Traffic** includes the cost for:

1. Furnishing all materials and labor for the detouring and construction signing for all phases of this project.
2. Covering any existing signs that are not applicable during construction.
3. Modifying traffic signals as necessary/required by the Engineer.
4. The fabrication, installation, maintenance, and relocation of temporary neighborhood business signs
5. Resident and business notifications.
6. Traffic regulator control, including directing traffic to business entrances.
7. Any channelizing devices required for use with a Lighted Arrow or PCMS.

8. Any additional signing or maintaining traffic devices required to expedite the construction shall be at the Contractor's expense. Additional compensation will not be made for unused traffic control and/or signing.

Temporary Pavement Markings shall be paid per the MDOT 2020 Standard Specifications

Permanent Pavement Markings shall be paid per the MDOT 2020 Standard Specifications

Permanent Signs shall be paid per the MDOT 2020 Standard Specifications

CITY OF KALAMAZOO

SPECIAL PROVISION
FOR
UTILITY COORDINATION CLAUSE

H&S:ARP 1 of 2 11/1/2025

The Contractor shall cooperate and coordinate construction activities with the owner of utilities as stated in Section 104.08 of the MDOT 2020 Standard Specifications for Construction. In addition, for the protection of underground utilities, the contractor shall follow the requirements in Section 107.12 of the MDOT 2020 Standard Specifications for Construction. Contractor delay claims, resulting from a utility, will be determined based upon Section 109.05E of the MDOT 2020 Standard Specifications for Construction.

The following Utility Owners have facilities located within the right-of-way.

Cable: Charter Communications,
4176 Commercial Avenue
Portage, MI 49002
(269) 459-8746
Bryan.Longcore2@Charter.com

Electric: Consumers Energy,
2500 East Cork Street
Kalamazoo, MI 49001
(269) 337-2245, Mr. Andre Taylor
andre.taylor@cmsenergy.com

Gas: Consumers Energy,
2500 East Cork Street
Kalamazoo, MI 49001
(269) 337-2366, Mr. Kyle Oak
kyle.oak@cmsenergy.com

Telephone: AT&T,
2919 Millcork Street
Kalamazoo, MI 49001
(269) 384-4475, Mr. Todd Berghuis
tb1973@att.com

Fiber Optic: City of Kalamazoo,
415 Stockbridge Avenue
Kalamazoo, MI 49001
(269) 337-8601, Mr. Ron Ridenour
ridenourr@kalamazoocity.org

Q3 Technologies, LLC,
1005 Foster Avenue
Kalamazoo, MI 49048
(269) 377-1308, Troy Quakenbush
tquakenbush@q3-tech.com

CTS Telecom,
13800 East Michigan Avenue
Galesburg, MI 49053
(269) 746-3232, Mr. Tom Cady
tcady@ctstelecom.com

Water: City of Kalamazoo,
415 Stockbridge Avenue
Kalamazoo, MI 49001
(269) 337-8558, Ms. Debbie Jung
jungd@kalamazoocity.org

Sewer: City of Kalamazoo,
1415 North Harrison Street
Kalamazoo, MI 49007
(269) 337-8551, Mr. Ryan Stoughton
stoughtonr@kalamazoocity.org

The Contractor shall call "Miss Dig" a minimum of 3 working days prior to beginning construction operations. Saturday, Sundays and Holidays shall not be included as a working day. On all projects:

"3 Days before you Dig - Call Miss Dig - Toll Free" 811.

The owners of existing service facilities that are within grading or structure limits will move them to locations designated by the Engineer or will remove them entirely from the highway right-of-way. Owners of Public Utilities will not be required by the City to move additional poles or structures in order to facilitate the operation of construction equipment unless it is determined by the Engineer that such poles or structures constitute a hazard to the public or are extraordinarily dangerous to the Contractor's operations.

CITY OF KALAMAZOO

SPECIAL PROVISION
FOR
CONSTRUCTION COORDINATION CLAUSE

H&S:ARP 1 of 1 11/1/2025

In addition to the Burdick St Municipal Improvements, Burdick St – Reed to Lovell project there are other projects located in the immediate area.

1. CoK Central Expansion: Improvements to the Kalamazoo water main central pumping station. The Kalamazoo central pumping station will have the installation of additional water main and several businesses will be taken down to increase the green space in the area. All water main work shall be performed in accordance with the city of Kalamazoo standard specifications for water main and service installation, 2021.
2. Fellows Avenue Sanitary Sewer and Water Main: Construction of a new sanitary sewer and water main along Fellows Avenue from Rose Street to Burdick Street including related pavement, driveway, sidewalk, and curb replacement. Contractor shall coordinate the connection to the Fellows 8-inch water main to the Burdick 24-inch water main and all work within the Burdick Street Right-of-Way.
3. DWSRF Contract 4 Non-Copper Service Line Replacement: Non-copper water service replacements. Replacement of non-copper water services within the City of Kalamazoo. Contractor shall coordinate all lead and water service replacements associated with the Burdick Street project with the lead services contractor. All water main and service work shall be performed in accordance with the City of Kalamazoo standard specifications for water main and service installation, 2021.

The contractor shall contact the engineer to coordinate work between projects.

<u>Cooperation by CONTRACTOR</u>

The City of Kalamazoo and/or Contract Agencies may perform maintenance work within or adjacent to the Construction Influence Area (CIA). This work will be coordinated with the Contractor through the engineer for the local agency to minimize interference. No additional payment will be made to the Contractor for the joint use of traffic control items.

The contractor shall conduct the operations so as to interfere as little as possible with those of other contractors, utilities, or any public authority on or near the work as shown on the plans or in the proposal. The owner reserves the right to perform other work by contract or otherwise, and to permit public utility companies and others to do work on or near the project during progress of the work. The contractor shall conduct the work and shall cooperate with such other parties to cause as little interference as possible with their operations and as the engineer may direct. No additional compensation will be paid to the contractor for any reasonable delay or inconvenience due to material shortages or reasonable delays due to the operations of such other parties doing the work indicated or shown on the plans or in the proposal, or for any reasonable delays on construction due to the encountering of existing utilities that are shown on the plans.

CITY OF KALAMAZOO

SPECIAL PROVISION
FOR
WATER MAIN LINE STOP, __ INCH, MODIFIED

H&S:ARP 1 of 2 11/1/2025

a. **Description.** This work consists of providing, installing and operating a water main line stop (Hydra-Stop) to isolate a section of existing live water main as shown on the plans and described herein.

Work Included Under Other Contract Items:

Water Main and Fittings
Valves and Boxes
Connect to Existing Main

b. **Materials.** Provide materials in accordance with section 823 of the 2020 MDOT Standard Specifications for Construction and with the City of Kalamazoo 2021 Standard Specifications for Water Main and Service Installation. Submit catalog cuts to the Engineer for approval prior to ordering line stop materials.

c. **Construction.** Complete all work in accordance with the standard specifications and the City of Kalamazoo 2021 Standard Specifications for Water Main and Service Installation. Verify the material, size, ovality, and condition of the existing water main prior to ordering the line stop materials.

Verify the pressure in the existing main is below the line stop manufacturer's recommendation before installation of the line stop.

Do not attempt to force, reshape, or bend saddle plates by excessive tightening of saddle studs.

Utilize concrete supports and reaction blocking for the line stop fitting per the City of Kalamazoo 2021 Standard Specifications for Water Main and Service Installation.

Complete a pressure test after assembly of the line stop saddle, drain nozzle and fitting.

Install a completion plug, blind flange and check for water tightness prior to abandonment of the line stop fitting. Coat the whole assembly with a coal tar epoxy to a final minimum cured thickness of 0.020 inches.

d. **Measurement and Payment.** The completed work, as described, will be measured and paid for at the contract unit price using the following pay item.

Pay Item	**Pay Unit**
Water Main Line Stop, __inch, Modified.....	Each

Water Main Line Stop, __inch, Modified includes payment in full for furnishing all material, labor and equipment necessary to perform the work specified herein and shown on the plans.

Perform all work required in conjunction with dewatering operations, without separate payment, and consider it is included in the Water Main Line Stop, __inch, Modified pay item.

Furnish all labor, equipment and materials for trench excavation, disposal, and backfill and consider it is included in the Water Main Line Stop, __inch, Modified pay item.

Removal and replacement of pavement, curb, curb and gutter, and sidewalk will be paid for separately, based on actual quantities.

Cutting and capping of the water main in conjunction with the line stop shall be paid separately, under Water Main Cut and Plug, ___ inch pay item.

CITY OF KALAMAZOO

SPECIAL PROVISION
FOR
COMPACT DUCTILE IRON WATER MAIN FITTINGS, MODIFIED

H&S:ARP 1 of 2 11/1/2025

a. **Description.** For the unit price per pound bid for the miscellaneous water main fittings, the Contractor shall furnish all materials and install at the following locations shown on the plans. All work shall be done in accordance with section 823 of the MDOT Standard Specifications for Construction and with the City of Kalamazoo 2021 Standard Specifications for Water Main and Service Installation unless otherwise specified herein.

Work Included Under Other Contract Items

Valves and Boxes
Fire Hydrants
Water Services

b. **Materials.** Provide materials in accordance with section 823 of the 2020 MDOT Standard Specifications for Construction and with the City of Kalamazoo 2021 Standard Specifications for Water Main and Service Installation.

c. **Construction.** Complete all work in accordance with the Standard Specifications, the City of Kalamazoo 2021 Standard Specifications for Water Main and Service Installation.

d. **Measurement and Payment.** Payment for Water Main Fittings with the exception of any plugs, caps or sleeves will be based on the weights of fittings as provided in the table below and paid for by the Pound.

Pay Item	**Pay Unit**
Compact Ductile Iron Water Main Fittings, Modified	Pound

Compact Ductile Iron Water Main Fittings, Modified includes payment in full for furnishing all material, labor and equipment necessary to perform the work specified herein and shown on the plans. Engineered thrust blocks shall be incidental to the installation of compact Ductile Iron Water Main Fittings, Modified.

Payment for Compact Ductile Iron Water Main Fittings, Modified shall be made on the basis of the following tables of weights for mechanical joint ductile iron compact fittings. Joint accessories are not included in the following weights and will not be measured separately for payment.

Bends				
Size	90° Bend Weight (LBS)	45° Bend Weight (LBS)	22.5° Bend Weight (LBS)	22.5° Bend Weight (LBS)
4"	23	19	17	16
6"	44	37	33	31
8"	61	49	44	40
10"	94	74	64	57
12"	124	101	85	73
16"	264	202	179	162
20"	505	348	364	227
24"	586	475	385	345

Tee, Reducer, and Cross			
Size	Tee Weight (LBS)	Reducer Weight (LBS)	Cross Weight (LBS)
6"	63	-	72
6"x4"	51	32	68
8"	87	-	108
8"x4"	61	43	99
8"x6"	75	54	108
12"x6"	113	85	140
12"x10"	137	82	190
16"	323	-	385
16"x6"	229	136	250
16"x8"	248	132	289
16"x12"	281	125	397
24"	720	-	830
24"x6"	415	-	403
24"x8"	445	-	431
24"x12"	500	310	494
24"x16"	580	324	714
24"x20"	660	315	809

CITY OF KALAMAZOO

SPECIAL PROVISION
FOR
WATER MAIN FIRE HYDRANT EXTENSION

H&S:ARP 1 of 1 11/1/2025

a. **Description.** This work consists of providing and installing extension kits for water main fire hydrants. The contractor shall furnish all materials and do all work necessary to install standpipe and rod extension kit for fire hydrants, except for work which is specifically included in other contract items. All work shall be done in accordance with section 823 of the 2020 MDOT Standard Specifications for Construction and with the City of Kalamazoo 2021 Standard Specifications for Water Main and Service Installation unless otherwise specified herein.

Work Included Under Other Contract Items
Valves and Boxes
Fire Hydrants
Fire Hydrant, Rem

b. **Materials.** Provide materials in accordance with section 823 of the 2020 MDOT Standard Specifications for Construction and with the City of Kalamazoo 2021 Standard Specifications for Water Main and Service Installation.

Standpipe and rod extension kit used must be approved by the hydrant manufacturer for use on the hydrant installed and must meet the same requirements/specifications as the hydrant installed. Provide product submittal to Engineer for approval.

c. **Construction.** Complete all work in accordance with the 2020 MDOT Standard specifications for Construction, the City of Kalamazoo 2021 Standard Specifications for Water Main and Service Installation. Install standpipe and rod extension kit in strict accordance with manufacturers recommendation. Install Water Main Fire Hydrant Extension at locations as directed by the ENGINEER.

d. **Measurement and Payment.** The completed work, as described, will not be paid and measured by a separate pay item. Cost shall be included with Fire Hydrant pay item.

Pay Item	**Pay Unit**
Water Main Fire Hydrant Extension……	Cost shall be included with Fire Hydrant pay item. No additional payment will be allowed for hydrant extensions.

Fire Hydrant, Modified includes furnishing all material, labor, and equipment necessary to perform the work specified herein and shown on the plans.

Perform all work required in conjunction with dewatering operations, without separate payment, and consider it is included in the Fire Hydrant pay item.

Furnish all labor, equipment and materials for trench excavation, disposal, and backfill and consider it is included in the Fire Hydrant pay item.

CITY OF KALAMAZOO

SPECIAL PROVISION

FOR

CONNECT TO EXISTING MAIN, _ INCH, MODIFIED

COK 1 of 2 02/14/2025

a. Description

For the unit prices bid for the various connections to existing mains as defined below under the heading "Measurement and Payment", the Contractor shall furnish all materials and do all work necessary to connect the proposed mains to the existing mains as shown on the plans and as herein specified.

Work Included Under Other Contract Items
Water Main and Fittings
Valves and Boxes

b. Materials

Provide materials in accordance with section 823 of the MDOT Standard Specifications for Construction and the 2021 City of Kalamazoo Standard Specifications for Water Main and Service Installation.

c. Construction

The work under the various connection items shall include all work required to connect the proposed main to the existing main (ductile iron, cast iron, over-sized cast iron, extra-over-sized cast iron) as shown on the plans. Included shall be removing any existing plugs or fittings, furnishing and installing any required fittings, including but not limited to cut-in-tees, cut-in-sleeves, and any other work and materials required to connect over to the new main. The installation of all valves and fittings other than those required to connect to the existing main shall be paid for under their respective bid items.

The existing and required fittings shown on the plans are based upon available information. The Contractor shall expose the existing main and fittings at the proposed connection and shall determine the actual fittings required. The Contractor shall be responsible with the aid of the City of Kalamazoo and the Engineer for determining the location of any existing valves necessary to isolate and shut down the existing main for the connections. The Contractor shall have all required fittings and equipment ready for installation prior to shutting off the existing main to minimize the shutdown period. The Contractor shall coordinate with the City and the Engineer to determine the timing for the connections.

1. The plans show the locations of existing utilities in accordance with available data. If the work requires precise information on the location of existing utilities, the Contractor shall expose existing utilities to determine the actual locations.

2. Coordinate scheduling of water main connections with the City a minimum of 3 working days in advance and secure approval of the schedule before beginning the work. Do not disturb or cut into existing in-service water mains without the City and/or Engineer present.

3. If the operation of valves on existing water mains is required and/or water service disruptions to customers (shutdowns) are necessary, notify the City a minimum of 3 working days in advance. City of Kalamazoo will operate in-service valves. The Contractor shall not operate existing valves without the City's approval

4. Any water main connection that requires a shutdown shall be performed between 8:00 AM and 4:00 PM Monday through Friday unless approved by the City. Minimize the shutdown of existing water mains to a maximum of 4 hours. Verify each water main shutdown is sufficient prior to cutting into existing main by tapping the water main within a section of water main to be removed or by operating a hydrant in the area of the shutdown. If the shutdown is not sufficient, a line stop may need to be scheduled to perform the connection.

5. Disinfect all pipe and fittings with 1% chlorine solution prior to installation.

6. If required and directed by the City, install one corporation stop and copper tubing to facilitate flushing and sampling when placing the water main back into service. Upon receipt of acceptable sample results, the copper tubing shall be removed and a copper disc shall be installed in the corporation stop.

d. Measurement and Payment

The Contractor will be paid the unit price for each proposed water main connected to existing water main, regardless of main material, as shown on the plans.

The Contract Items included under this category of "Connection to Existing Mains", are defined as follows:

Pay Item	**Pay Unit**
Connect to Existing Main, 24 inch, Modified	Each
Connect to Existing Main, 20 inch, Modified	Each
Connect to Existing Main, 16 inch, Modified	Each
Connect to Existing Main, 12 inch, Modified	Each
Connect to Existing Main, 10 inch, Modified	Each
Connect to Existing Main, 8 inch, Modified	Each
Connect to Existing Main, 6 inch, Modified	Each
Connect to Existing Main, 4 inch, Modified	Each

The item for **Connect to Existing Main, __ inch, Modified** shall include furnishing and installing caps, plugs, fittings, sleeves and mechanical joints required to connect the proposed main to the existing main. It also includes all labor, equipment and materials required to connect the proposed main to the existing main (including thrust blocks and/or stab sheets) and any excavation, dewatering, backfill, compaction and testing required to complete work as described herein.

CITY OF KALAMAZOO

SPECIAL PROVISION
FOR
AIR RELEASE VALVE

COK 1 of 4 02/14/2025

a. Description. For the unit price bid for Air Release Valve, the Contractor shall provide and install valve vault, air release valve, fittings, vent piping, protective bollards, and sign as shown on the plans and as specified herein, except for work which is specifically included under other contract items. All work shall be done in accordance with section 823 of the MDOT Standard Specifications for Construction unless otherwise specified herein.

b. Materials. The Contractor shall supply all materials. No second hand or salvaged material shall be allowed or supplied. All supplied products shall be **"Buy American"** unless otherwise specified and shall comply with the conditions of this section.

Air Release Valves

1. Air Release Valves – All air release valves shall be manufactured per ANSI/AWWA C512-04. Cla-Val Series 36 Combination Air Valves, or approved equal. The valves shall be of the size listed in the plans.

    a. The combination air valve shall combine the operating features of both an air and vacuum valve and an air release valve in one housing. The air and vacuum valve portion shall automatically exhaust large quantities of air during the filling of the pipeline and automatically allow air to reenter the pipeline when the internal pressure of the pipeline approaches a negative value due to column separation, and draining of the pipeline, or other emergencies. The air release valve portion shall automatically release small amounts of air from the pipeline while it is under pressure.

    b. The inlet and outlet of the valve shall have the same cross-section area.

    c. The float shall be guided by a stainless steel guide shaft and seat drip tight against a synthetic rubber seal. 4 inch and larger valves shall have dual guided shafts of hexagonal cross section and a protective discharge hood.

    d. The float shall be all stainless steel and capable of withstanding maximum system surge pressure. The body and cover shall be concentrically located and of ductile iron, the valve internal parts shall be stainless steel or Buna-N rubber.

    e. All 1-inch and 2-inch valves shall be NPT. All valves 4 inches and larger shall be flanged.

2. Vent piping shall be 2-inch diameter, with type k copper piping (or NSF-61 certified SDR 9 HDPE piping with tracer wire) below grade and galvanized piping meeting the requirements of ASTM A53 above grade.

3. Air vent screens shall be black PVC, with NPT threaded to match the size of the

connection pipe. Screen shall be one-piece 304 Stainless, mesh size 100. Silver reflective tape shall be placed on the vent pipe.

4. An air release valve sign shall be installed on a galvanized 2-pound sign post.

5. The valve sign shall be aluminum 8 inch x 18 inch (MDOT type III-A) with valve symbol and down arrow of a reflective material. The sign shall be blue with "Water Valve" in white.

Ductile Iron Pipe Fittings

1. Fittings, plugs, and gaskets must meet the requirements of ANSI/AWWA C111/A21.11, and AWWA/ANSI C110/A21.10 or ANSI/AWWA C153/A21.53. Cement mortar linings for fittings must meet the requirements of ANSI/AWWA C104/A21.4.

2. Mechanical joints shall be EBAA Iron Megalug series 1100, Romac Romagrip, or approved equal.

3. Restrained flange adapters shall be EBAA Iron Megaflange series 2100 or approved equal.

Air Release Manhole

Valve vaults used in conjunction with Air Release Valves shall be constructed with materials as detailed in current WA-5 Series of the City of Kalamazoo Standard Specifications (attached). They shall be of the diameter specified and in accordance with subsection 403 and 909 of the Michigan Department of Transportation Standard Specifications for Construction for Gate Wells.

All 24 inch structure covers shall be a malleable iron casting conforming to subsection 908.03 of the 2020 Michigan Department of Transportation Standard Specifications for Construction. The structure cover shall be series 1040 manufactured by EJ, inscribed with the word "water".

Pipe Bollards

Pipe bollards installed to protect above ground vent shall consist of 4" diameter schedule 80 steel pipe. Fill pipe with concrete grade 3500. Apply one coat of a low-voc metal primer to exterior of bollard. Cover bollards with ULINE H-6425 Reflective Bollard Sleeve – 4x52", Yellow with Red Tape, or approved equal. Top of bollard with sleeve installed shall extend approximately 42" above grade.

Backfill Materials

Use materials meeting the requirements of section 902 of the 2020 Michigan Department of Transportation *Standard Specifications for Construction.*

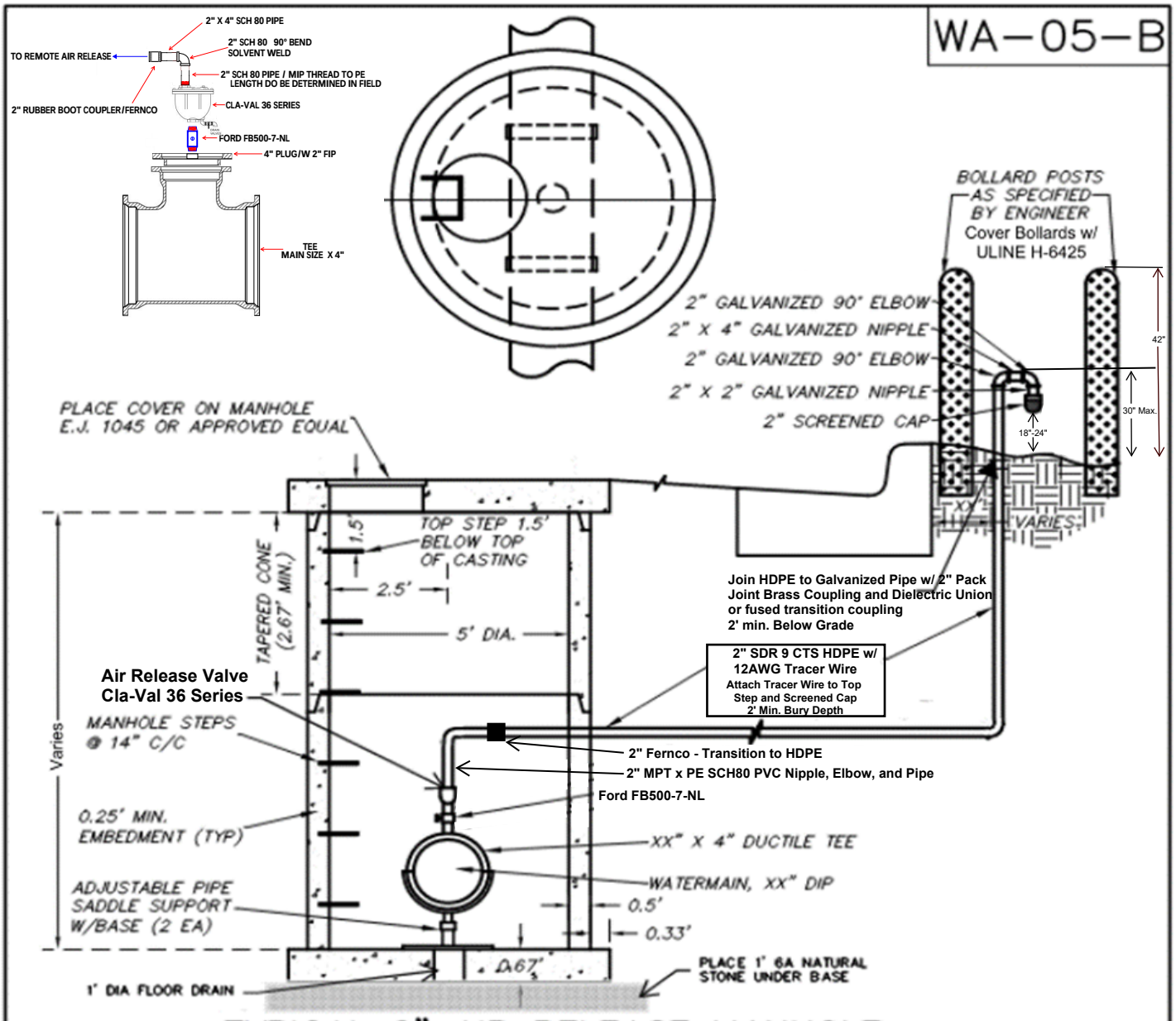
c. Construction. Complete all work in accordance with the 2020 Michigan Department of Transportation Standard Specifications for Construction. Construct air release valves and vaults in accordance with the current WA-5 series City of Kalamazoo Standard Specifications (attached). When installing the air release valves in conjunction with new water main construction, the contractor shall use ductile iron fittings. Air release valves shall be installed in accordance with manufacturer recommendations and shall include a 0.5" ball valve mounted to the top and bottom of the air release valve to allow the valve to be flushed and drained without removal.

d. Measurement and Payment. The completed work, as described, will be measured and paid for at the contract unit price using the following pay item.

Contract Item (Pay Item)	Unit
Air Release Valve	Each

The unit price for **Air Release Valve** shall include all labor and equipment necessary to perform the work specified herein including excavation, dewatering, ductile iron fittings, joints restraints, air release valve, ball valves, vent pipe, bollards, valve sign and post, valve structure cover, disposal, and backfill.

WA–05–B



TYPICAL 2" AIR RELEASE MANHOLE

PRECAST REINFORCED CONCRETE SHOWN (OTHER OPTIONS INCLUDE CONCRETE BLOCK, BRICK OR CAST IN PLACE WALL SECTIONS)

NOTE:
LIFT HOLES AND PIPE PENETRATIONS/VOIDS SHALL BE FILLED WITH NON-SHRINK MORTAR

SCHEDULE OF FITTINGS

ITEM DESCRIPTION	QUANTITY
AIR RELEASE VALVE, 2"	1
COPPER TUBE 2" X XX"	1
GALVANIZED NIPPLE, 2" X 4"	1
GALVANIZED NIPPLE, 2" X 2"	1
GALVANIZED 90° ELBOW, 2"	2
PIPE SUPPORT BASE	2

ITEM DESCRIPTION	QUANTITY
BRASS BALL VALVE, 2"	1
BRASS NIPPLE, 2" X 4"	2

CITY OF KALAMAZOO
Department Of Public Services

AIR RELEASE MANHOLE IN ROADWAY

RECOMMENDED BY _____ DATE
APPROVED BY _____
APPROVED BY _____
ACCEPTED BY _____

CITY OF KALAMAZOO

SPECIAL PROVISION
FOR
WATER SERVICES

H&S:ARP 1 of 4 11/1/2025

a. **Description.** This work consists of constructing proposed water services, 2-inch and smaller, from the distribution main to the curb shut off valve, or as directed by the Engineer. The intent of this special provision is to replace all street side water services and connections between the proposed water main and the existing curb stop locations and temporary water service connections as required.

Non-Copper Water Service Replacement Requirements: Under the Michigan Lead Copper Rule, partial lead service line replacements are not allowed. Once the service line is taken out of service for replacement, all non-copper or non-plastic portions of that service line, including the water meter, shall be replaced prior to the service being reconnected and the water turned back on to reduce particulate lead release. This includes replacing any non-copper or non-plastic private water lines from meter pits to the inside of the house. All water services with a meter pit must have the service line material from the meter pit to the house verified. Any non-copper water services that need temporary relocation must be replaced at the time of relocation. All lead water service replacements shall be coordinated with the contractor for the City's "DWSRF Contract 4" non-copper water service replacement project.

Work Included Under Other Contract Items
Water Main and Fittings
Valves and Boxes

b. **Materials.** Materials shall meet the requirements of the City of Kalamazoo 2021 Standard Specifications for Water Main and Service Installation.

1. Copper Service Lines

   i. Copper pipe shall be used for service lines which are 2 inches and 1 ¼ inch. All copper services shall conform to AWWA C800. Water service pipe shall be copper meeting the requirements of ASTM B88, type K.
   ii. All appurtenances on copper service lines shall be flare copper connections. Other connections may be used in lieu of flare copper connections if approved by the Engineer prior to installation.

2. PE Temporary Service Lines

   i. PE AWWA C906, DR No. 7.3, 9, or 9.3; with PE compound number required to give pressure rating not less than 160 psig.
   ii. PE, AWWA Fittings: AWWA C906, socket- or butt-fusion type, with DR number matching pipe and PE compound number required to give pressure rating not less than 160 psig.

3. When replacing a street service that is ¾ inch, the new street service will be 1 ¼ inch from the main to the curb stop and reduced down after the curb stop.

c. **Construction Methods.** This work shall be in accordance with the City of Kalamazoo 2021 Standard Specifications for Water Main and Service Installation and the 2020 MDOT Standard Specifications for Construction. The Contractor shall notify the City of Kalamazoo's Public Services Department before this work is to begin and follow all City procedures for notifying the residents.

1. The replacement of the street service for any water service that has a portion of the service identified as non-copper and/or non-plastic shall be coordinated with the contractor for the City's DWSRF Contract 4 Project.

2. Water Services shall not be connected to the water main until approved by the Engineer or authorized representative.

3. Water Service, 1 ¼ inch

    i. The minimum size for all new services shall be 1 ¼ inch. The property owner/developer may request a larger size if needed.
    ii. When replacing a street service that is ¾ inch, the new street service shall be 1 ¼ inch from the main to the curb stop and reduced down after the curb stop.
    iii. Services shall be installed via trenchless installation methods where feasible to minimize pavement removal and open-cut trenches.
    iv. Make all service connections and transfers. Maintain and protect, at no additional cost, existing service connections requiring transfer but not shown on the plans, until reconnection or disposal.
    v. If relocating a portion of a water service, shut down the water service by method approved by the engineer or authorized representative.
    vi. Install new street service from the main to the curb stop, replace the curb stop valve and box, and connect to existing yard service as shown on the plans or directed by engineer.
    vii. Existing curb boxes shall be completely removed.

4. Water Service, 2 inch

    i. Service shall be installed via trenchless installation methods where feasible to minimize pavement removal and open-cut trenches
    ii. New service shall be reconnected to the existing service with a splice in the area between the curb and sidewalk or as directed by the engineer.

5. Temporary Service Line
    i. Shall be used when water service cannot be maintained due to the installation of new water main.
    ii. Shall be tapped to a main that will be abandoned.
    iii. Shall match the size of the existing service line.

d. **Measurement and Payment.** The completed work, as measured, shall be paid for at the contract unit price for the following contract pay items.

Pay Item	Unit
Water Serv, 1 ¼ inch, Modified	Each
Water Serv, 2 inch, Modified	Each
Water Serv, Temp, Modified	Each
PE Water Service Pipe, Temp, 2 inch, Modified	Foot
PE Water Service Pipe, Temp, 1 ¼ inch, Modified	Each
Copper Water Service Pipe, 1 ¼ inch, Modified	Foot
Copper Water Service Pipe, 2 inch, Modified	Foot

Water Service, 1 ¼ inch, Modified is payment in full for each water service installed on the proposed water main and reconnected to the existing yard service. The item shall include any excavation, trenchless installation methods, tapping the main, installing the service saddle and corporation stop, installing a new curb stop and box, connecting the street service to the existing yard service including any other required fittings, removing and disposing any portion of the old water service and curb stop box. Providing, placing, and compacting backfill and any other miscellaneous materials, equipment, and work necessary for the installation of the service as described is also included.

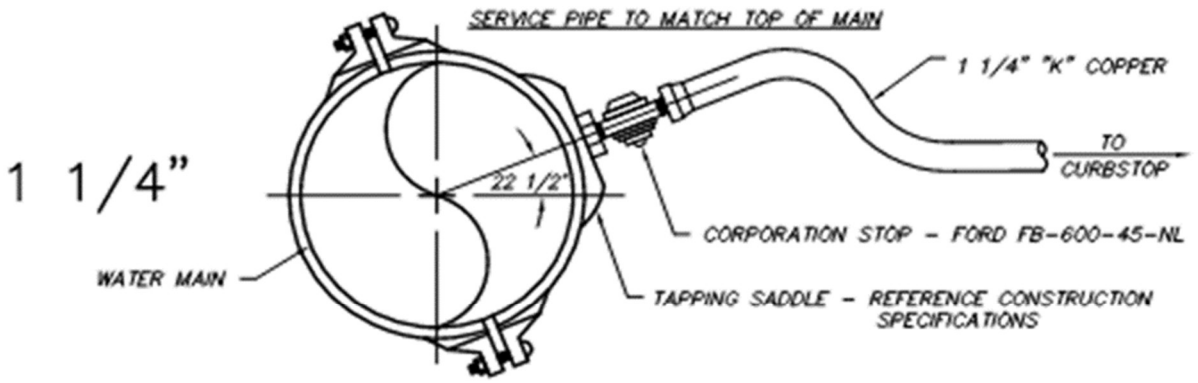
Water Service, 2 inch, Modified is payment in full for each water service installed on the proposed water main and reconnected to the existing yard service. The item shall include any excavation, trenchless installation methods, tapping the main, installing the service saddle and tapping valve and valve box, connecting the new service to the existing service including any other required fittings, and removing and disposing any portion of the old water service and valve box. Providing, placing, and compacting backfill and any other miscellaneous materials, equipment, and work necessary for the installation of the service as described is also included.

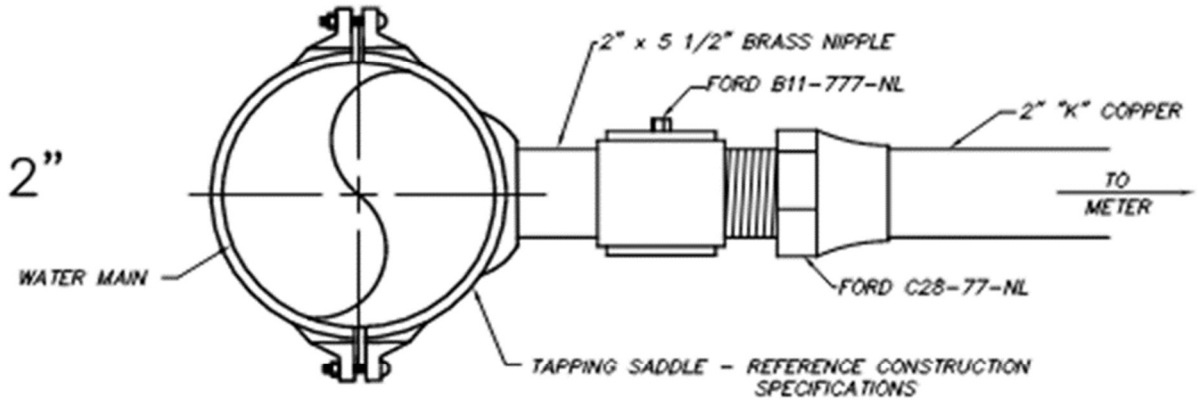
Water Service, Temp, Modified is payment in full for each temporary water service installed regardless of size. The item shall include any excavation, trenchless installation methods, tapping the main, installing the service saddle and tapping valve, connecting the temp service to the existing service including any other required fittings, removing and disposing any portion of the temp water service when the permanent service is installed. Providing, placing, and compacting backfill and any other miscellaneous materials, equipment, and work necessary for the installation of the service as described is also included.

Copper Water Service Pipe, _inch, Modified is payment in full for each linear foot actually installed.

PE Water Service Pipe, Temp, _inch, Modified is payment in full for each linear foot actually installed.

WS–9–D





	CITY OF KALAMAZOO Department Of Public Services		DATE
THE CITY OF Kalamazoo	WATER SERVICE TAPPING SLEEVE	RECOMMENDED BY	
		APPROVED BY	
		APPROVED BY	
		ACCEPTED BY	

CITY OF KALAMAZOO

SPECIAL PROVISION
FOR
POLYETHYLENE ENCASEMENT, MODIFIED

H&S:ARP 1 of 1 11/1/2025

a. **Description.** For the unit price per linear foot bid for polyethylene encasement, the Contractor shall furnish all materials and install per the City of Kalamazoo 2021 Standard specifications for Water Main and Service Installation unless otherwise specified herein.

b. **Materials.** Provide materials in accordance with the City of Kalamazoo 2021 Standard Specifications for Water Main and Service Installation.

I. All water main must be encased by 8 mil thick V-Bio polyethylene wrap.
II. Provide the tube size recommended by the manufacturer to protect the pipe and fitting sizes.
III. Provide adhesive tape for V-Bio as recommended by the manufacturer. Tape for repairing damage to V-Bio must have a life expectancy equal to or greater than the life expectancy of V-Bio.
IV. V-Bio shall be overlapped one foot in either direction at joints and secured in place around the pipe.
V. V-Bio shall be oversized for fittings and valves to allow for encasement without cutting the polyethylene laterally or otherwise.
VI. V-Bio shall be color code: Blue.

c. **Construction.** Complete all work in accordance with the Standard Specifications, the City of Kalamazoo 2021 Standard Specifications for Water Main and Service Installation.

d. **Measurement and Payment.** The completed work, as described, will be measured and paid for at the contract unit price using the following pay item. Payment for Water Main Encasement shall be measured along the centerline of the pipe, with no deductions for fittings.

Pay Item	**Pay Unit**
Polyethylene Encasement, Modified……..	Foot

Polyethylene Encasement, Modified includes payment in full for furnishing all material, labor and equipment necessary to perform the work specified herein and shown on the plans.

CITY OF KALAMAZOO

SPECIAL PROVISION
FOR
LIVE TAP, __ inch by __ inch, Modified

H&S:IJV 1 of 1 2/17/2026

a. Description. This work consists of providing and installing the tapping sleeve, valve, all necessary restraints, and valve box complete and ready for use. This work includes the complete live tapping procedure.

b. Materials. Provide materials in accordance with section 823 of the 2020 MDOT Standard Specifications for Construction and with the City of Kalamazoo 2021 Standard Specifications for Water Main and Service Installation. Submit catalog cuts to the Engineer for approval prior to ordering tapping sleeve materials.

c. Construction. Complete all work in accordance with section 823 of the 2020 MDOT Standard Specifications for Construction and with the City of Kalamazoo 2021 Standard Specifications for Water Main and Service Installation. Verify the material, size, ovality, and condition of the existing water main prior to ordering the tapping sleeve materials.

Verify the pressure in the existing main is below the tapping sleeve manufacturer's recommendation before installation of the tapping sleeve.

Do not attempt to force, reshape, or bend saddle plates by excessive tightening of saddle studs.

d. Measurement and Payment. The completed work, as described, will be measured and paid for at the contract unit price using the following pay item.

Pay Item	**Pay Unit**
Live Tap, __inch by __ inch, Modified..……	Each

Live Tap, __inch by __ inch, Modified includes payment in full for furnishing all material, labor and equipment necessary to perform the work specified herein and shown on the plans.

Perform all work required in conjunction with dewatering operations, without separate payment, and consider it is included in the **Live Tap, __inch by __ inch, Modified** pay item.

Furnish all labor, equipment and materials for trench excavation, disposal, and backfill and consider it is included in the **Live Tap, __inch by __ inch, Modified** pay item.

Removal and replacement of pavement, curb, curb and gutter, and sidewalk will be paid for separately, based on actual quantities.

CITY OF KALAMAZOO

SPECIAL PROVISION
FOR
WATER MAIN, DI, _ INCH, TR DET G, MODIFIED

H&S:ARP 1 of 1 11/1/2025

a. Description. This work consists of constructing ductile iron water main pipe with an integral restrained joint system.

b. Materials. Provide materials in accordance with section 823 of the 2020 MDOT Standard Specifications for Construction and with the City of Kalamazoo 2021 Standard Specifications for Water Main and Service Installation.

1. The restrained joint pipe shall be McWane “TR Flex”, American “Flex-Ring”, or approved equal.

c. Construction Methods. This work shall be in accordance with this special provision and the 2020 MDOT Standard Specifications for Construction and with the City of Kalamazoo 2020 Standard Specifications for Water Main and Service Installation and manufacturer’s installation requirements.

d. Measurement and Payment. The completed work, as measured, shall be paid for at the contract unit price for the following contract pay items.

Pay Item	**Unit**
Water Main, DI, 24 inch, Tr Det G, Modified	Foot
Water Main, DI, 16 inch, Tr Det G, Modified	Foot

Water Main, DI, _ inch, Tr Det G, Modified includes payment in full for furnishing all materials, labor, and equipment necessary to perform the work as specified.

CITY OF KALAMAZOO

SPECIAL PROVISION
FOR
INSULATION BOARD

TAS:ARP 1 of 1 11/1/2025

a. Description. This work consists of insulating the proposed water main or proposed service lines at locations shown on the plans, or determined at the time of construction, to protect against the penetration of frost.

This work includes furnishing and placing insulation board to the prepared grade. It also includes excavating, backfilling, shaping and compaction necessary to install the insulation board.

b. Materials. The insulation must be rigid, extruded polystyrene board meeting *ASTM C 578, Type V*, having a nominal board thickness of 2 inches, minimum compressive strength of 100 psi and a minimum R-Value of 10. Furnish the board in minimum 4 foot by 8 foot sheets unless otherwise approved by the Engineer, and of the cumulative thickness indicated on the plans or determined at the time of construction and approved by the Engineer. Trim the edges square and must have not more than 1/4 inch bow measured against a straightedge.

c. Construction. It is necessary to insulate the water main or service lines wherever indicated on the plans or determined at the time of construction. Place the insulation board on a prepared grade 6 to 12 inches above or below the top or bottom of the pipe, where possible and fasten with skewers or other means approved by the Engineer, so that backfill compaction requirements of the trench can be met. Where necessary to place more than one layer of insulation board, ensure the joints are staggered.

Install the insulation board using methods and means that will not cause damage. Remove damaged insulation board and replaced at no cost to the City.

Asphalt or other material having a temperature exceeding 150 degrees Fahrenheit must not be placed in direct contact with the insulation board.

d. Measurement and Payment. The completed work, as described, will be measured and paid for at the contract unit price using the following pay item:

Pay Item	**Pay Unit**
Insulation Board, 2 inch	Square Foot

Insulation Board, 2 inch includes furnishing and installing the insulation board complete including fasteners and any required granular material Class II.

CITY OF KALAMAZOO

SPECIAL PROVISION
FOR
BUTTERFLY VALVE AND BOX, 30 INCH, MODIFIED

COK:ARP 1 of 1 2/16/2026

a. **Description.** This work consists of installing a valve supplied by the City of Kalamazoo and providing and installing all other materials and products required for the installation of the valve.

b. **Materials.** The valve shall be supplied new by the City of Kalamazoo from their selected supplier at no cost to the Contractor. The Contractor shall be responsible for coordinating with the City to pick up the valve from the City of Kalamazoo Stockbridge Facility located at 415 E Stockbridge Avenue. The Contractor shall take care when handling the valve and protect it from damage, vandalism, and theft. The City shall not be responsible for providing additional valves due to theft or mishandling by the Contractor. The Contractor shall supply all other materials and products required for the installation of the valve. All Contractor supplied products shall be in accordance with the 2021 City of Kalamazoo Standard Specifications for Water Main and Service Installation.

c. **Construction Methods.** Shall be in accordance with the 2021 City of Kalamazoo Standard Specifications for Water Main and Service Installation. The Contractor shall wash the inside of the valve with chlorinated water (maximum 200ppm chlorine solution) immediately prior to valve installation. Water pressure and velocity during washing shall not exceed manufacturer's recommendations or cause damage to the valve. Contractor shall cut out a section of the existing water main at the location shown on plans and as directed by Engineer. Contractor to install the valve, water main, and all fittings necessary to put the water main back in service.

d. **Measurement and Payment.** The completed work, as measured, shall be paid for at the contract unit price for the following contract pay items.

Pay Item	**Unit**
Butterfly Valve and Box, 30 inch, Modified	Each

Butterfly Valve and Box, 30 inch Modified includes payment in full for furnishing all materials, labor, and equipment necessary to perform the work as specified; transporting the valve to the site; and sales and use tax per the Michigan Department of Treasury RAB 2016-18 based on the cost of the valve procurement.

CITY OF KALAMAZOO

SPECIAL PROVISION
FOR
Steel Casing Pipe, _Inch, Jacked In Place, MODIFIED

H&S:ARP 1 of 1 02/26/26

a. Description. This work consists of installing a steel carrier pipe by utilizing the non-traditional Horizontal Auger Bore methodology. All work shall be done in accordance with section 401 of the 2020 MDOT Standard Specifications for Construction and with the City of Kalamazoo 2021 Standard Specifications for Water Main and Service Installation unless otherwise specified herein.

b. Materials. Furnish materials in accordance with subsection 401.02 of the 2020 MDOT Standard Specifications for Construction and with subsection 2.19 of the City of Kalamazoo 2021 Standard Specifications for Water Main and Service Installation.

c. Construction. Install steel carrier pipe accordance with subsection 401.03 (H) of the 2020 MDOT Standard Specifications for Construction, subsection 3.25 of the City of Kalamazoo 2021 Standard Specifications for Water Main and Service Installation, and SME Geotechnical Report #093008.00.

d. Measurement and Payment. The completed work, as described, will be measured and paid for at the contract unit price using the following pay item:

Pay Item	**Pay Unit**
Steel Casing Pipe, _Inch, Jacked In Place, Modified	Foot

Steel Casing Pipe, _Inch, Jacked In Place, MODIFIED of the size required will be paid for by the length installed. The unit price for Steel Casing Pipe, Jacked in Place includes the cost of excavating the pits, providing and installing sheeting, bracing, and any other safety devices, providing jacking equipment: drainage and dewatering; bulkheading and sealing the casing, providing and installing vents, grouting the annular space between the casing and native soil and any other items associated with the operation.

City of Kalamazoo

SPECIAL PROVISION
FOR
WATER MAIN, REMOVE

H&S:ARP 1 of 1 03/03/2026

a. Description. This work consists of removing and disposing of existing out-of-service water main where shown on the plans or as approved by the Engineer. All work shall be done in accordance with section 823 of the MDOT Standard Specifications for Construction and with the City of Kalamazoo 2021 Standard Specifications for Water Main and Service Installation unless otherwise specified herein.

b. Materials. Within the influence of existing and proposed roadways or sidewalks use Class II granular material as backfill in accordance with section 902 of the MDOT Standard Specifications for Construction.

In all other areas use sound earth as backfill in accordance with section 205 of the Standard Specifications for Construction.

c. Construction. Cut and remove water main including thrust blocks, bends, fittings, and all associated appurtenances that are located within the removal limits shown on the plans or directed by the Engineer. Cut and plug the adjacent water mains, where required, in accordance with subsection 823.03.M of the MDOT Standard Specifications for Construction.

Backfill excavations within a 1:1 (horizontal:vertical) influence of the roadbed utilizing Class II granular material as backfill. Place material in maximum 12-inch lifts and compact to at least 95 percent of its maximum unit weight or as otherwise approved by the Engineer. Backfill all other areas using sound earth backfill and compacted in accordance with the standard specifications.

d. Measurement and Payment. The completed work, as described, will be measured and paid for at the contract unit price for the following pay item:

Pay Item	**Pay Unit**
Water Main, Rem	Foot

Water Main, Rem includes excavating and backfilling; sheeting, bracing, and shoring of excavations; dewatering of the water main and trench; chipping thrust blocks from pipe; and removing and disposing of unsuitable soils and debris from the water main trench. The removal of water main parallel to and withing the excavation limits of the proposed water main shall be incidental to **Water Main, DI, __ Inch, Tr Det__.**

CITY OF KALAMAZOO

SPECIAL PROVISION
FOR
GATE WELL, ABANDON, MODIFIED

H&S: ARP 1 of 1 02/17/26

a. Description. This work consists of abandoning gate well(s) as shown on the plans or as directed by the Engineer. Unless otherwise noted below, ensure all work, materials, construction requirements, and methods of measurement and payment are in accordance with the 2020 MDOT Standard Specifications for Construction.

b. Materials. Furnish the materials in accordance with section 203 of the Standard Specifications for Construction.

c. Construction. Abandon the existing gate well in accordance with section 823 and subsections 203.03.A and 204.03.A of the Standard Specifications for Construction. Salvage the valve if requested by the City of Kalamazoo.

d. Measurement and Payment. The completed work, as described, will be measured and paid for at the contract unit price in accordance with subsection 823.04 of the Standard Specifications for Construction.

Pay Item	**Pay Unit**
Gate Well, Abandon, Modified	Each

Gate Well, Abandon, Modified includes the cost of abandoning the structure and salvaging the valve if requested by the City of Kalamazoo.

CITY OF KALAMAZOO

SPECIAL PROVISION
FOR
VALVE BOX REMOVAL

H&S:ARP 1 of 1 02/18/26

a. Description. This work consists of removing valve boxes from abandoned water main. This work includes excavation, pavement removal, and backfilling as shown on the plans and specified herein.

b. Materials. Furnish all materials in accordance with section 902 and other applicable sections of the MDOT Standard Specifications for Construction.

c. Construction. Perform all construction in accordance with the MDOT Standard Specifications. Remove all portions of the gate box to at least 3 feet below the pavement surface and to at least 1 foot below the planned grade if outside the road and fill with concrete.

d. Measurement and Payment. The completed work, as described, will be measured and paid for at the contract unit price using the following pay item:

Pay Item	**Pay Unit**
Valve Box, Rem	Each

Valve Box, Rem includes saw cutting, removing and replacing existing pavement, excavating, backfilling, removal and disposal of the valve box, and filling of valve box with concrete.

CITY OF KALAMAZOO

SPECIAL PROVISION
FOR
DEWATERING SYSTEM, EXCAVATION

a. Description. This work consists of lowering the groundwater table to facilitate construction in the area of the excavation. The lowered groundwater elevation must be maintained until construction activities no longer require dewatering and the installed pipe has sufficient soil cover to prevent pipe heave from buoyancy. Dewatering work may require the use of pumps for trench dewatering or well points, deep wells, or other measures that are utilized to control groundwater to facilitate installation of underground utilities.

The groundwater removed during the dewatering process shall be discharged to the adjacent stormwater system as permitted under NPDES discharge permit (# MIG080000). The permit was obtained for this project to treat and discharge groundwater generated from dewatering wells to the existing stormwater system. The permit requires activated carbon treatment of groundwater and meeting effluent limits for specific parameters. The contractor will be responsible for the removal, treatment, and discharge of water to the storm sewer system following the requirements of the permit. The Owner's representative will be responsible for the sampling, analytical testing, and reporting of effluent water samples.

b. Contaminated Groundwater. Groundwater contamination has been identified in the vicinity of the monitoring wells completed as part of the geotechnical evaluation report for the project. Specifically, groundwater analytical testing identified concentrations of cyanide, lead, ammonia, and PFOS exceeding laboratory reporting limits with the above contaminates also exceeding permitted effluent concentrations. The source of the contamination is currently unknown. Groundwater laboratory reports, provided to EGLE as part of the permit application process, are included as part of this special provision.

The flow required must adequately dewater the trench, as specified above, and yield an effluent concentration that meets the requirements of the NPDES permit (attached). Given the presence of contaminants, pumping rates may need to be adjusted to meet permitted effluent concentrations. The system shall be approved by the Engineer prior to starting the work.

c. Well Points, Deep Wells, and Trench. Should groundwater control be performed by deep well, well points, and/or trench pumping systems, ensure it is done without damage to property or structures, and without interference with the rights of the public, owners of private property, pedestrians, vehicular traffic, or the work of other contractors. Any pumping methods used for dewatering and control of groundwater and seepage must have properly designed filters. This is to ensure that adjacent soil will not be pumped with the water creating voids underground and around the face of the excavation or under existing structures. Ensure the filter design is reviewed and approved by the Engineer prior to placement.

Perform the dewatering operations in an approved and predetermined sequence with the excavation operation such that the perimeter and face of the excavation is stable. Dewatering well diameter, pumping rate and well spacing must provide adequate drawdown of the water level. Set wells to intercept groundwater that, otherwise, would enter the excavation and interfere with

the work. Submit a plan showing the location of proposed wells or wellpoints, header pipes, power supplies, vacuum pumps, treatment equipment, effluent sampling locations, and discharge points. System components should be positioned to minimize interference with roads, streets, walks, and other occupied and used facilities, unless approved by the City of Kalamazoo.

Install observation wells at key locations for observation of groundwater levels during the excavation. Submit a plan for locations and monitoring frequency of the observation wells to the Engineer a minimum of 7 calendar days in advance of placement of the dewatering system. Add additional wells as needed to lower the groundwater to the elevation required.

Filters or settling devices may be required before discharge to ensure that storm sewers, sanitary sewer systems, or surface waters are not adversely affected by construction debris or increased sediment load.

Continue dewatering operations until the pipe is installed and the trench is backfilled sufficiently to prevent the pipe from heaving from buoyancy. Obtain the Engineer's approval before ceasing dewatering activities.

Operate system continuously until infrastructure below the design groundwater elevation have been constructed and the Engineer has given approval to cease dewatering.

d. Storm Sewer System Discharge. Monitor the volume of flow being treated and discharged to the storm sewer system and document daily by reading the register on the flow meter. Furnish this information to the Engineer daily or as otherwise approved. The discharge shall be tested at the discharge point (before mixing with receiving waters occurs) as required by the NPDES permit by the owner's representative.

If the water being discharged into the storm sewer system exhibits evidence of contamination, or monitoring results are non-compliant with the NPDES Permit, dewatering operations shall cease and the Engineer notified immediately.

e. Construction. Lower the groundwater to the elevation required. Determine the methods and materials required to accomplish this work, subject to approval by the Engineer before initiation or installation of the dewatering system.

Ensure the dewatering system for contaminated groundwater is independent of other dewatering operations by a separate installation. Utilize the system for the entirety of the project as determined necessary by the Engineer. Take all appropriate precautions to prevent exacerbation of contamination.

The Engineer may order corrective actions to the dewatering or treatment system at any time to meet NPDES permit requirements. Any additional costs shall be borne by the contractor.

Remove dewatering system and all associated appurtenances when no longer needed, properly dispose of system consumables and decontaminate the system as necessary, and restore the area as directed by the Engineer.

Abandon deep wells and observation wells in accordance with current EGLE requirements when no longer needed.

f. Measurement and Payment. The completed work, as described, will be measured and

paid for at the contract unit price using the following pay items:

Pay Item	Pay Unit
Dewatering System for Contaminated Groundwater	Lump Sum

Dewatering System for Contaminated Groundwater includes the initial setup and subsequent reconfiguration of all wells, piping, supplies, power, and fuel necessary for the installation, removal and disposal at each dewatering location. Fuel for the system shall not be stored onsite. Daily operation and maintenance of all wells, piping, supplies, power, and fuel necessary for the dewatering operation shall be included.

Installation and removal of the treatment system, including but not limited to: frac tanks, bag filters, activated carbon treatment vessels, granular activated carbon, piping, and sampling ports shall be included. Replacement of the activated carbon utilized within the treatment system, if needed as determined by the environmental contractor and/or laboratory test results shall be included. This shall include, but is not limited to: removal, transport, storage testing and disposal/regeneration of spent carbon and purchase, delivery and installation of virgin carbon. Include fee for all decontamination and disposal at the conclusion of the project.

Payment of this item will be made on a time and material basis. The Contractor shall submit detailed supporting documentation for costs for payment including supporting invoices, receipts, subcontractor agreements, time records, and proof of payment. An allowable markup of up to 25% will be allowed for sub-contract work. The markup percentage will be established on the bid tab and will be held for the length of the contract.

Contractor may request reimbursement for documented, actual, and reasonable costs incurred in excess of the pay item provided that:

1. The overrun results solely from unforeseeable conditions not reasonably discoverable prior to execution of this agreement and not caused by Contractor's negligence, error, omission, mismanagement, or failure to properly estimate costs;
2. Contractor provides written notice to the Engineer immediately upon becoming aware of any circumstance likely to increase costs and, in any event, no later than when eighty percent (80%) of the pay item has been expended;
3. The Engineer provides written approval before Contractor incurs any cost that would cause the pay item to be exceeded.

No overrun costs shall be due or payable unless and until approved in writing by the Engineer.

Disposal of contaminated soil or sediment, excavated or displaced during the installation of this system, will be included in the pay item of **Non-hazardous Contaminated Material Handling and Disposal (LM)**.

CITY OF KALAMAZOO

SPECIAL PROVISION FOR
NON-HAZARDOUS CONTAMINATED MATERIAL HANDLING AND DISPOSAL, MODIFIED

H&S: ARP 1 of 2 09/22/2025

a. Description. This work consists of handling, transporting, and disposing of non-hazardous contaminated material, including all laboratory testing required for the proper disposal of the material and site restoration of temporary storage locations. Ensure this special provision is not employed without authorization by the Engineer. The laboratory testing will be used to solicit landfill approval and is not intended to determine whether or not the material is contaminated. Soil delineated on the plans and classified as non-hazardous contaminated cannot be used elsewhere on the project regardless of the laboratory test results unless otherwise directed by the Engineer.

b. Materials. None specified.

c. Construction Complete this work in accordance with sections 204 and 205 of the Standard Specifications for Construction, except as modified herein or as directed by the Engineer.

1. Excavation of Non-hazardous Contaminated Material. Excavate non-hazardous contaminated material as shown on the plans or as directed by the Engineer.

2. Temporary Storage of Non-hazardous Contaminated Material. Place excavated non-hazardous contaminated material which is to be temporarily stockpiled on plastic sheeting or tarps having a minimum thickness of 6 mils or in trucks, roll off boxes, or other containers, such that no liquid may escape from the containment. Cover the non-hazardous contaminated material securely with plastic sheeting of 6 mils thickness or greater at the end of each work day.

Dispose of excavated non-hazardous contaminated material as soon as approval is received from the disposal site. This material cannot be stockpiled for longer than 30 days prior to disposal.

Restore temporary storage locations to the condition prior to conducting the work.

3. Sampling and Analysis of Non-hazardous Contaminated Material. Sample and analyze non-hazardous contaminated material prior to disposal. The analysis required is dictated by the disposal facility to be utilized for disposal. Should the results of the analysis show the material to be hazardous waste, as defined by the 1994 PA 451, Part 111, of the Natural Resources and Environmental Protection Act, notify the Engineer immediately. The material must then be disposed of as directed by the Engineer.

4. Disposal of Non-hazardous Contaminated Material. Dispose of non-hazardous contaminated material at a licensed sanitary landfill. Submit at the preconstruction meeting the name of the landfill to be used for disposal, the sampling and analysis requirements of that landfill, and verification that use of the proposed landfill will meet the requirements of the county solid waste plan.

Ensure the proposed landfill is acceptable to the City and approval is obtained from the Engineer prior to commencing disposal operations. Provide a copy of the laboratory analysis to the Engineer as a requirement of approval for disposal. Following disposal and prior to approval for payment, provide landfill receipts for all non-hazardous contaminated material disposed.

d. Measurement and Payment. The completed work, as described, will be measured and paid for at the contract unit price using the following pay item:

Pay Item	**Pay Unit**
Non Haz Contaminated Material handling and disposal, LM, Modified …..	Cubic Yard

Non Haz Contaminated Material Handling and Disposal, LM, Modified includes payment for all costs for materials, labor and equipment needed for storage, loading, transportation, testing, restoration of temporary storage locations and disposal of the non-hazardous contaminated material. Disposal costs will include all documentation required by the landfill. Provide Engineer receipts from the disposal facility for the number of cubic yards disposed at that facility prior to payment.

Payment for excavation of non-hazardous contaminated material will be included with the related items of work.

Delays in testing and disposal of non-hazardous contaminated material that are not the fault of the Contractor may be considered valid reasons for extension of time. However, these delays and the resultant extensions of time will not be considered valid reasons for additional payment.

Should the analysis of the material document that it is hazardous waste, then payment for disposal of hazardous waste will be measured and paid for as extra work. Disposal includes hauling by a licensed hazardous waste hauler and disposal at an appropriate licensed disposal facility. Prequalification is waived.

CITY OF KALAMAZOO

SPECIAL PROVISION
FOR
FLOWABLE FILL, PIPE, MODIFIED

H&S: ARP 1 of 2 11/1/2025

a. Description. Flowable fill will be placed for 12-inch water main and larger as indicated on the plans or as directed by the Engineer. All requirements for Flowable Fill and related work will be according to the Standard Specifications for Construction and as specified herein.

This work shall include the abandonment in place, in whole or in part, of existing sewer, and existing water main as shown on plans and/or as directed by the Engineer.

b. Materials. Flowable fill will consist of a mixture of Portland cement, ground granulated blast furnace slag (optional), granular material (fine aggregate), fly ash, water, air entraining admixture (optional) and performance enhancing admixture (optional).

Granular material will meet the requirements of Class II material as specified in Section 902 of the Standard Specifications for Construction except that 100 percent will pass the 13 mm sieve. Fine aggregate will meet the requirements of 2NS material as specified in Section 902 of the Standard Specifications for Construction.

The compressive strength of the flowable fill must be a minimum of 25 psi at seven days, and between 75 psi and 150 psi at 28 days. If an air entraining admixture or performance enhancing admixture is used, the air content of the flowable fill must not exceed 35 percent by volume.

The temperature of the flowable fill mixture as manufactured and delivered shall be at least 50 degrees F. No placement of flowable fill will be allowed if the anticipated air temperature will be 36 degrees F or less in the 24-hour period following proposed placement.

The batching equipment shall have devices designed to measure the specified quantities of each component material, and mixing will be of sufficient duration to ensure uniform consistency of the mixture. No water will be added to the flowable fill mixture after batching. Water content shall be maintained such that compressive strengths are achieved and a uniform, flowable mixture is developed that is essentially self-leveling when placed.

c. Construction. The contractor shall remove all standing water and debris within pipes and all adjacent structures as shown on the plan, or directed by the Engineer, to be abandoned.

Upon obtaining approval by the Engineer for abandonment, construct sewer bulkhead(s) at the outlet ends of the laterals to be abandoned. Non-structural flowable fill shall be pumped by a method approved by the Engineer into the lateral from the upstream side of the bulkhead such that the entire lateral to be abandoned is completely filled. Add temporary vent pipe to push any air out of pipe that is to be flowable filled. If available, water main can be filled through a hydrant that will be removed.

d. Measurement and Payment. The completed work, as described, will be measured and paid for at the contract unit price using the following pay item:

Pay Item	Pay Unit
Flowable Fill, Pipe, Modified…	Ft

Flowable Fill, Pipe, Modified shall be measured along the centerline of the filled pipe with no deductions for fittings or manholes. Payment includes all preliminary testing; excavations and cutting and capping of pipe to be abandoned for injecting flowable fill; any materials necessary to inject flowable fill into the sewer or water main (risers, bends, stand pipes, etc); furnishing mix design; trenching; disposal of unsuitable or excess excavated materials, temporary sheeting, bracing and shoring of excavations; support, relocation, replacement, connection or reconnection of existing pipe lines, building leads and utilities; pacing and compacting, to a minimum of 95% of the maximum unit weight, suitable backfill (MDOT Class II granular material, as indicated on the plans); bracing and supporting of utility poles (as necessary); and all materials, equipment and labor necessary to complete the work as described.

During trench of abandonment with flowable fill placement operations, care shall be used to avoid dislocating any pipes due to fluid pressure from the flowable fill. All pipes within the backfill area shall be secured to avoid buoyant effect of flowable fill if necessary. Pipelines, manholes, and other areas not intended to receive flowable fill will be sealed tightly to prevent infiltration of flowable fill.

CITY OF KALAMAZOO

SPECIAL PROVISION
FOR
Soil Erosion Control, Inlet Protection, Fabric Drop, Modified

COK 1 of 1 02/17/2025

a. Description. This work consists of furnishing, installing, maintaining and removing Soil Erosion and Sedimentation Control (SESC) Devices, including permitting with local agencies (City, County, etc.) and routine inspection and reporting by an SESC Construction Site Inspector who is certified in the State of Michigan.

b. Materials. The following devices are approved for use, or approved equal:

1. Siltsack Type B, Regular Flow with or without Curb Deflector, by ACF Environmental, Inc.

2. Inlet Pro Sediment Bag, Standard Flow, with or without foam deflector by Hanes Geo Components.

3. Dandy Curb Bag, Dandy Bag, Dandy Curb Sack, Dandy Sack, or Dandy Pop by Dandy Products, Inc.

4. Flexstorm Catch-It and Flexstorm Pure used with filter bag types FX, FX+, FXO, PC, PC+ or IL.

5. Silt Fence

Fabric drops installed in curb inlets shall have a curb filter or deflector integrated into the product that fits across the curb back opening.

Ensure provided devices are sized appropriately for the drainage structures in which they will be installed.

c. Construction. Install, maintain and remove the devices in accordance with the manufacturer's guidelines. Remove material collected by the devices in accordance with the manufacturer's guidelines or as directed by the Engineer.

Dispose of collected material in accordance with subsection 205.03.P of the 2020 MDOT Standard Specifications for Construction. Those devices that are no longer needed and have been removed may be reused elsewhere on the project as approved by the Engineer.

d. Measurement and Payment. The completed work, as described, will be measured and paid for at the contract unit price using the following pay item:

Pay Item	**Pay Unit**
Soil Erosion Control, Inlet Protection, Fabric Drop, Modified	Each

Soil Erosion Control, Inlet Protection, Fabric Drop, Modified will be paid for by each device installed with 50% payment for installation and maintenance of SESC measures and 50% payment for removal of SESC measures once turf is established, or as directed by the Engineer.

MICHIGAN
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION
FOR
NON-COMPLIANCE WITH SOIL EROSION AND SEDIMENTATION CONTROL REQUIREMENTS

COS:DMG 1 of 2 APPR:TWK:HLZ:02-26-20
FHWA:APPR:03-02-20

a. Description. This special provision establishes negative adjustments related to the failure to properly install and maintain soil erosion and sedimentation control (SESC) measures and the conditions under which these adjustments will be determined and applied. Nothing in this special provision modifies section 107 of the Standard Specifications for Construction.

Delays to the project as a result of the Contractor conducting corrective actions for SESC measures do not constitute a valid reason for an extension of time.

Ensure deficiencies with SESC measures are corrected in the time frame stated herein. For those deficiencies not corrected within the stated time frame, the Engineer will make a negative adjustment to the contract as stated herein.

b. Materials. None specified.

c. Construction. Install all temporary erosion control measures identified on the plans and as directed by the Engineer for an impacted area of the project prior to the start of any earth disturbance including, but not limited to, clearing, grading and excavation in that area. The Engineer will inspect these measures every 7 days and within 24 hours after a precipitation event that results in a discharge from the site. Deficiencies will be documented on the National Pollutant Discharge Elimination System and SESC Inspection Report (MDOT Form 1126).

If at any time during the project, including the time during the seasonal suspension, the Engineer documents deficient SESC measures, the Engineer will provide written notification with instructions for corrective action to the Contractor. The time frame for completion of these corrective actions will be specified in the notification and will be discussed with the Contractor as necessary.

Deficiencies are defined as one or more of the following:

1. Failure to install or construct SESC measures shown on the plans or as directed by the Engineer;

2. Failure to maintain the measures;

3. Failure to conduct earth change activities in a manner consistent with all applicable environmental permit requirements;

4. Failure to comply with the area limitations or the time limitations stated in subsections 208.03.A and 208.03.B, respectively, of the Standard Specifications for Construction.

SESC deficiencies are either emergency or non-emergency and the time frame for corrective action is determined accordingly. Sediment leaving the right-of-way or entering a drainage structure, waters of the state, or loss of support of the roadbed impacting public safety constitutes an emergency and corrective actions must be completed within 24 hours of notification, including weekends or holidays regardless of whether the Contractor is working or not. Non-emergency deficiencies must be corrected within 5 calendar days of notification.

For those emergency corrective actions not completed within 24 hours of notification, the Contractor will be assessed $100.00 per hour for every hour the deficiency remains uncorrected after the initial 24 hours of notification. For those non-emergency corrective actions not completed within 5 calendar days, the Contractor will be assessed $500.00 per day for every day, or part thereof, the deficiency remains uncorrected after the initial 5 days of notification.

If it is not practicable to complete the non-emergency corrective actions within 5 calendar days, the Contractor must document the reasons and propose a corrective action plan to the Engineer within 5 days of notification. The corrective action plan must contain the Contractor's course of action and a time frame for completion. If the reasons and the corrective action plan are acceptable to the Engineer, the Contractor will be allowed to proceed with the plan as proposed without incurring a negative adjustment. If the approved corrective action plan is not completed as proposed, the Contractor will be assessed $1000.00 per calendar day for every day, or part thereof, the deficiency remains uncorrected after the time frame is exceeded in the approved corrective action plan.

Correct, in the timeframe stated herein, all other emergency or non-emergency SESC deficiencies documented anywhere else on the project during completion of the approved corrective action plan.

d. Measurement and Payment. The Engineer will make the necessary monetary adjustment to the contract amount based on the length of time the Contractor allows the deficiencies to remain uncorrected after the time allowance stated herein and as described to cover any costs incurred by the Department as a result of SESC violations.

All costs associated with corrective actions required due to the Contractor's failure to properly install or maintain SESC measures on this project will be borne by the Contractor.

MICHIGAN
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION
FOR
VERTICAL EXPLORATORY INVESTIGATION FOR RELOCATION

COS:MRB 1 of 2 APPR:DMG:NAL:04-30-20
FHWA:APPR:05-06-20

a. Description. When proposed work must be relocated as directed by the Engineer, this special provision is used to compensate the Contractor to locate and expose underground infrastructure and obstructions, such as culverts, sewers and utilities. Perform this work only when conflicts are found in the planned work location. This special provision is not to compensate for the Contractor's responsibilities in subsection 107.12 of the Standard Specifications for Construction.

b. Materials. Use Granular Material Class III in accordance with section 902 of the Standard Specifications for Construction for backfill. Use material removed during exploratory investigation for backfill only if approved by the Engineer.

c. Construction. The owner of any sewer or utility to be exposed will not take the facilities out of service during the exploratory investigation. Contact utility owners in accordance with subsection 107.12 of the Standard Specifications for Construction.

Advance the exploratory excavation using vacuum excavation, hand digging, conventional machine excavation, or a combination thereof subject to approval of the Engineer. Allow the Engineer access to document the necessary information. If the technique used to advance the excavation causes any damage to the existing facilities, immediately contact the utility owner and cease all work until an alternate method is approved by the Engineer.

Take care to protect the exposed culvert, sewer or utility from damage during construction. The Contractor is responsible for all costs associated with the repair work and out of service time of all broken or damaged existing culverts, sewers or utilities as a result of any action by the Contractor. If the exploratory investigation results in damage to utilities, contact the owner of such utility to coordinate the repair. Repair or replace culvert, sewer or utility, damaged during exploratory excavation, in accordance with the standard specifications and as approved by the Engineer.

Obtain the Engineer's approval before backfilling the excavation. Complete backfilling no later than 24 hours after approval has been given. Backfill in accordance with subsection 204.03.C of the Standard Specifications for Construction. Dispose of excess material in accordance with the standard specifications.

d. Measurement and Payment. The completed work, as described, will be measured and paid for at the contract unit price using the following pay item:

Pay Item	**Pay Unit**
Exploratory Investigation, Vertical	Foot

Exploratory Investigation, Vertical will be measured by the foot from top of existing grade vertically to the bottom of the excavation for up to a 4-foot maximum diameter hole, or as approved by the Engineer. The excavated depth of each 4-foot maximum diameter hole will be measured separately for payment.

Exploratory Investigation, Vertical includes all costs associated with repair or replacement resulting from the Contractor's activities. Providing necessary lane, shoulder and/or sidewalk closures required to perform work will be paid for by other associated items in the contract. Restoration work will be paid for by other associated items.

CITY OF KALAMAZOO

SPECIAL PROVISION
FOR
SANITARY SEWER LEAD CONFLICTS

H&S:ARP 1 of 1 11/1/2025

a. Description. This work consists of furnishing and constructing sanitary leads as necessary to adjust sanitary sewer connections from the main sewer to the nearest possible end point in instances of conflict with proposed water main or storm sewer. This includes sewer pipe, fittings, temporary plugs, clearing and grading, dewatering, earth excavation, joint materials, concrete, laying of pipe, backfill, and disposal of excess material; protection of existing structures and utilities, cleanup and other operations necessary to complete the work as shown on the plans and as specified in the City of Kalamazoo Standard Specifications for Collector Sewers and Service Installations, 2026.

b. Materials. All materials shall conform with Section 2.01 and 2.02 of the City of Kalamazoo Standard Specifications for Collector Sewers and Service Installations, 2026.

c. Construction. All construction shall conform with Part 3 of the City of Kalamazoo Standard Specifications for Collector Sewers and Service Installations, 2026.

d. Measurement and Payment. The completed work, as described, will be measured and paid for at the contract unit price using the following pay item:

Pay Item	**Pay Unit**
Sanitary Sewer Lead Conflict, 4 inch, Modified……..…….	Foot
Sanitary Sewer Lead Conflict, 6 inch, Modified……..…….	Foot

The unit price of **Sanitary Sewer Lead Conflict, _ inch, Modified** includes the cost of the following:

1. Excavation and backfill;
2. Dewatering operations (trench and/or pipe);
3. Providing and installing fittings, gaskets, and geotextile fabric;
4. Installing risers as detailed on the plans;
5. Plugging and marking terminations;
6. Testing and televising; and
7. Preparing and providing as-built plans.

The cost of dewatering of trenches, pipe, or both is included in the unit price for relevant items of work.

The cost of excavating, disposing of excess material, and providing, placing, and compacting the backfill, is included in the unit price for related items of work.

CITY OF KALAMAZOO

SPECIAL PROVISION
FOR
BYPASS PUMPING

H&S: ARP 1 of 2 11/1/2025

a. Description. This work consists of installing, maintaining, and removing temporary bypass pumping systems at the locations determined by the Contractor to divert existing sanitary flow during construction of sanitary sewer as shown on the plans. Temporary bypass pumping will be required to operate 24 hours a day, 7 days a week for the required duration.

b. Materials. Furnish materials in accordance with section 825 of the 2020 MDOT Standard Specifications for Construction and as specified herein.

c. Construction Contractor shall submit a detailed bypass pumping plan in PDF to the Engineer for review and approval 10 days prior to starting the work. Do not begin work until the Engineer's approval of the bypass pumping plan is obtained. Ensure the plan includes, but is not limited to, the following:

1. Staging areas for pumps;
2. Pipe plugging method and types of plugs;
3. Temporary wet wells as needed;
4. Number, size, and location of pumps and piping;
5. power generator size and location;
6. Downstream discharge plan;
7. Method of noise control for each pump and/or generator;
8. Schedule for installation, operation, maintenance and removal of system;
9. Coordination with the proposed construction activities;
10. Contingency plan for inadvertent system shutdown including 24 hours a day

Bypass pumping shall be accomplished by temporarily plugging an existing upstream structure and pumping the sewage into a downstream structure or separate system beyond the limits of the construction activity. The pump and bypass line shall be of adequate size to accommodate the flow, even in wet weather conditions,

The Contractor shall either:

1. Temporarily reconnect the sewer at the end of each workday **(PREFERRED),** or

2. Provide a redundant pumping system including, but not limited to, a second pump capable of handling the flow at the upstream structure. Contractor shall continuously monitor the level of sewage in the upstream structure and replace or reinforce the pump if it is not meeting demand.

Maintain sanitary sewer service at all times during construction of the sanitary sewer and/or structures by temporary pumping, construction staging, or other means as approved by the Engineer. Provide bypass pumping equipment, labor, and materials to perform the work of bypass pumping for the interrupted flow of sewage in the sanitary sewer mains during construction of the proposed sanitary system and coordinate the progress with the Engineer. Equipment used for dewatering and bypass pumping must be of a size and type adequate to perform the job and must be operated in such a manner as to minimize disruption to the public. On operations that require continuous pumping over prolonged periods of time, provide pumps, generators, and other equipment that meet local and state noise ordinances. The work may need to be performed on weekends, holidays, or off-peak hours to minimize impact. Coordinate scheduling of connections with the municipality and obtain the Engineer's approval of the schedule.

d. Measurement and Payment. The completed work, as described, will be measured and paid for at the contract unit price using the following pay item:

Pay Item	**Pay Unit**
Bypass Pumping	Lump Sum

Payment for **Bypass Pumping** includes all materials, equipment and labor necessary to complete all sanitary sewer work as described.

CITY OF KALAMAZOO

SPECIAL PROVISION
FOR
SANITARY SEWER TWO-WAY CLEANOUT, _ INCH

H&S:ARP 1 of 1 11/1/2025

a. Description. This work consists of constructing two-way sanitary lateral cleanouts on existing sanitary leads as necessary and where indicated on the plans. This work includes sewer pipe, fittings, temporary plugs, clearing and grading, earth excavation, laying of pipe, dewatering, backfilling, testing of the pipe, disposal of waste materials, connections to existing systems, protection of existing structures and utilities, maintaining sanitary service, cleanup and other operations necessary to complete the work as shown on the plans and as specified in the 2026 City of Kalamazoo Standard Specifications for Collector Sewers and Service Installations

b. Materials. All materials shall conform with Section 825 of the 2020 MDOT Standard Specifications for Construction and the 2026 City of Kalamazoo Standard Specifications for Collector Sewers and Service Installations.

c. Construction. All construction shall conform with Sections 825 of the 2020 MDOT Standard Specifications for Construction and the 2026 City of Kalamazoo Standard Specifications for Collector Sewers and Service Installations.

d. Measurement and Payment. The completed work, as described, will be measured and paid for at the contract unit price using the following pay item:

Pay Item	**Pay Unit**
Sanitary Sewer Two-Way Cleanout, _ Inch…….……....…….	Each

The unit price for **Sanitary Sewer, Two-Way Cleanout, _ inch** will be measured per unit installed and include the furnishing and installation of riser pipe, plug/cap, and any additional items as detailed on the drawings. Contractor shall provide sewer televising services to identify and locate existing sewer laterals and coordinate the condition and location of the lateral with the Engineer. All televising work shall be considered incidental to construction and will not be paid for separately.

CITY OF KALAMAZOO

SPECIAL PROVISION
FOR
PAVEMENT REMOVAL, MODIFIED

H&S:ARP 1 of 1 02/17/2026

a. Description. This work consists of removing existing pavement to the limits shown on the plans and as directed by the Engineer regardless of the existing material type (HMA, reinforced concrete, non-reinforced concrete, brick pavers) or number of layers and thickness of individual layers.

b. Materials. Furnish materials in accordance with subsection 204.02 of the MDOT Standard Specifications for Construction.

c. Construction. Remove and dispose of existing HMA, reinforced concrete, non-reinforced concrete, and brick paver pavements in accordance with subsection 204.03 of the MDOT Standard Specifications for Construction. Remove pavement a minimum of 2 feet past trenches edges and/or the nearest lane line with a saw cut edge or neatly trim edge air hammer.

d. Measurement and Payment. The completed work, as described, will be measured and paid for at the contract unit price using the following pay item:

Pay Item	**Pay Unit**
Pavt, Rem, Modified	Square Yard

Pavt, Rem, Modified will be measured and paid for once all areas identified for removal, regardless of the existing material type, number of layers or thickness of individual layers, are removed.

CITY OF KALAMAZOO

SPECIAL PROVISION
FOR
RAILROAD, REM

H&S: ARP 1 of 1 09/22/2025

a. Description. This work shall consist of the removal, in whole or in part, of railroad ties, track bolts, spikes, tie plates, anchors, fasteners, rails, railway sleeper, railway ballast, track encasement, concrete header foundations, earth excavation, backfill, disposal of excess material, and the protection of existing structures.

All railroads on this portion of Burdick have been paved over with asphalt and/or concrete. The locations shown on the plans are based off historical maps and past work performed in the roadway. Railroad removal will only be as required for installation of new infrastructure.

b. Materials. Furnish materials in accordance with subsection 204.02 of the 2020 MDOT Standard Specifications for Construction.

c. Construction. Remove and dispose of all railroad materials in accordance with subsection 204.03 of the 2020 MDOT Standard Specifications for Construction.

d. Measurement and Payment. The completed work, as described, will be measured and paid for at the contract unit price using the following pay item:

Pay Item	**Pay Unit**
Railroad, Rem	Foot

Railroad, Rem will be measured down the center of the line track between the rails and includes the cost of cutting and removing the rails, ties, track encasement, stone or ballast as directed, concrete header foundations, and other related items. Pavement removal above the railroad will be measured and paid for as Pavt, Rem, Modified.

CITY OF KALAMAZOO

SPECIAL PROVISION
FOR
MACHINE GRADING, MODIFIED

H&S: ARP 1 of 1 11/1/2025

a. Description. This work consists of all excavation and grading operations required to develop the proposed cross section of **VanderSalm Court** as shown on the plans and in accordance with section 205 of the 2020 MDOT Standard Specifications for Construction.

Machine Grading, Modified will consist of the following:

1. Identify any areas of unsuitable material with project manager and verify limits with geotechnical engineer.

2. All excavation and embankment required to construct the proposed cross section.

3. Shaping and compacting any disturbed subbase to standard specifications for subbase.

4. Hauling, disposal of all excess materials in accordance with subsection 205.03 of the Standard Specifications for Construction.

5. Removal of all miscellaneous items identified for removal, unless noted otherwise.

b. Materials. All material used in the construction of the project aggregate base and subbase must meet the requirements of Section 902.

c. Construction. Construction shall be in accordance with section 205 of the Standard Specifications.

d. Measurement and Payment. The completed work, as measured, shall be paid for at the contract unit price for the following contract pay item.

Pay Item	**Pay Unit**
Machine Grading, Modified	Lump Sum

Machine Grading, Modified includes all labor and equipment necessary to construct the proposed cross section of VanderSalm Court as indicated on the plans and this special provision.

CITY OF KALAMAZOO

SPECIAL PROVISION
FOR
MAINTENANCE GRAVEL, ASPHALT MILLINGS

H&S:ARP 1 of 1 11/1/2025

a. Description. This work consists of providing all labor, materials and equipment necessary to construct and maintain an aggregate surface on a prepared grade to maintain local access and traffic between the interim open to traffic date and Hot Mix Asphalt (HMA) surfacing as directed by the Engineer. Traffic shall not travel on maintenance surfaces for longer than 7 working days, areas that are required to be opened to traffic greater than 7 working days shall be hand patched. Removal and disposal of the aggregate when no longer needed, or coordinate with the engineer, is included in this item of work. Conduct work in accordance with section 306 of the Standard Specifications for Construction except as modified by this special provision.

Work Included Under Other Contract Items

Aggregate Base
Hand patching

b. Materials. Asphalt Millings. Material must not exceed a nominal maximum size of 1 inch.

c. Construction. Place asphalt millings on an unfrozen grade at locations shown on the plans or as directed by the Engineer to provide a flush transition to the existing HMA roadway surface or other areas where traffic is to be maintained. Compact asphalt millings to at least 98% of the maximum unit weight.

Maintain the milling surface in a smooth, stable condition until no longer needed for maintaining traffic. When construction operations progress to the point that the maintenance gravel is no longer needed, removal of the maintenance gravel must occur in the same workday as paving.

If approved by the Engineer, the asphalt millings may be incorporated into the aggregate base.

d. Measurement and Payment. The completed work, as described, will be measured and paid for at the contract unit price using the following pay item:

Pay Item	**Pay Unit**
Maintenance Gravel, Asphalt Millings	Cubic Yard

CITY OF KALAMAZOO

SPECIAL PROVISION
FOR
HMA APPLICATION ESTIMATE

H&S: ARP 1 of 1 11/1/2025

a. Description. This work shall be done in accordance with Division 5 of the 2020 MDOT Standard Specifications for Construction except as herein specified. The engineer representative will perform density testing.

b. Materials. The HMA application estimate is as follows:

1. **Burdick Street** (station 4+00 to 36+50, including all side streets)
   - HMA, 3E, Modified (base) shall have a yield of 330 pounds per square yard
   - HMA, 4E, Modified (leveling) shall have a yield of 220 pounds per square yard
   - HMA, 5E, Modified (top) shall have a yield of 220 pounds per square yard

2. **VanderSalm Court** (station 0+00 to 3+00)
   - HMA, 13A, Modified (base) shall have a yield of 220 pounds per square yard
   - HMA, 36A, Modified (top) shall have a yield of 165 pounds per square yard

Asphalt binder shall be PG 64-28 for all mixes

Target air voids shall be designed for 4.0% and field regressed to 3.0% for all HMA mixes.

Aggregate Wear Index for the HMA, 5E (Top) and HMA, 36A (Top) shall be 260 minimum. HMA Bond Coat shall be type SS – 1h and be applied at the rate of 0.05 to 0.10 gal/syd per Manufacturer's recommendation.

Hand Patching shall be HMA, 3E; HMA, 4E; HMA, 13A; or other mix as approved by the Engineer in writing before placement.

RAP shall not exceed Tier 1 limits as specified in the MDOT Special Provision for Recycled Hot Mix Asphalt Mixture on Local Agency Projects included in this proposal.

c. Measurement and Payment. The completed work, as described, will be measured and paid for at the contract unit price using the following pay item:

Pay Item	**Pay Unit**
HMA, (type), Modified	Ton

CITY OF KALAMAZOO

SPECIAL PROVISION
FOR
COVER, ADJ, MODIFIED

H&S:ARP 1 of 2 11/1/2025

a. Description. This work consists of removing and replacing existing City of Kalamazoo owned manhole structure covers and water valve boxes during HMA surface operations with City of Kalamazoo standard covers. This operation uses the Mr. Manhole™, Manhole Leveling System, or equivalent. Section references are to the current version of the MDOT Standard Specifications for Construction.

b. Materials. Provide materials in accordance with the following:

1. Cover and Casting:
    a. Supply the City of Kalamazoo standard design cover and casting for Sanitary and Storm sewer per special provision for **DR STRUCTURE COVER, TYPE __, MODIFIED**
    b. Water main valve boxes meeting the City of Kalamazoo Standard Specifications for Water Main and Service Installation, 2021

2. Concrete:
    a. Use Grade P-NC concrete meeting the requirements of Section 1006.

3. Mortar Type R-2:
    a. Use mortar meeting the requirement of Section 1005.

4. HMA:
    a. Use HMA mixtures as specified in the special provisions

c. Construction. Remove existing pavement around manhole structures and water valve boxes using the Mr. Manhole™ or equivalent system. Remove the existing structure cover in a manner to avoid roadway materials from entering the manhole structure. Salvage existing manhole covers and castings as determined by Engineer. Notify the Engineer when manhole cover and casting are ready for pickup. Place a steel plate over the manhole structure and fill in the resulting void with the HMA mixture or material approved by the Engineer. Record the location of each structure and use a locating system or GPS record of each structure to find it following final paving.

Prior to paving, ensure that locations of structures are confirmed and recorded, and any markers or caps used are in place to easily identify and find each structure after final paving. Upon completion of final paving, cut out and remove the pavement around the structure using the Mr. Manhole™ or equivalent system. Avoid roadway materials from entering the manhole structure. Remove the plate and locator cap. Set the new structure cover in a full bed of mortar or using custom adjusting rings built for this purpose. Adjust in accordance with manufacturer's instructions, MDOT Standard Specifications, and best practices. Set the structure cover level with the roadway (nominal offset = 0", maximum offset = +/- 1/8"). Fill in resulting void with

concrete meeting the requirements of Section 1006. Assume ownership of removed materials and dispose of according to subsection 205.03P.

Any material entering the sewer systems must be removed promptly. If the contractor neglects to remove the material within 7 days for storm or 24 hours for sanitary after receiving written notification from the Engineer, the Engineer may proceed with the removal. The Engineer will deduct the cost of the removal from the monies that are or may become due to the Contractor.

d. Measurement and Payment. The completed work, as described, will be measured and paid for at the contract unit price using the following pay item:

Pay Item	**Pay Unit**
Cover, Adj, Modified……	Each

The unit price for **Cover, Adj, Modified** includes all labor, equipment, and materials to remove pavement, provide and install the new cover and casting or valve box, and place the concrete collar.

CITY OF KALAMAZOO

SPECIAL PROVISION
FOR
DR STRUCTURE COVER, TYPE __, MODIFIED

H&S:ARP 1 of 1 11/1/2025

a. Description. This work consists of installing drainage structure castings with City logos in accordance with City of Kalamazoo standards.

b. Materials. All materials shall conform with Section 403.02 of the Michigan Department of Transportation 2020 Standard Specifications for Construction with the exception of the following:

Cover B, Modified shall consist of an EJIW 1045ZPT bolted frame with a 1040A non-bolted, non-vented cover with 2 inch “STORM SEWER” lettering or approved equal.

Cover K1, Modified shall be East Jordan Iron Works 7030 frame with M2 grate and T1 back.

Cover Q, Modified shall consist of an EJIW 1045ZPT bolted frame with a 1040A non-bolted cover with 2 inch “SANITARY SEWER” lettering or approved equal.

c. Construction. All construction shall conform with Section 403.03 of the Michigan Department of Transportation 2020 Standard Specifications for Construction.

d. Measurement and Payment. The completed work, as described, will be measured and paid for at the contract unit price using the following pay item:

Pay Item	**Pay Unit**
Dr Structure Cover, Type B, Modified	Each
Dr Structure Cover, Type K1, Modified	Each
Dr Structure Cover, Type Q, Modified	Each

CITY OF KALAMAZOO

SPECIAL PROVISION
FOR
SLOPE RESTORATION, MODIFIED

H&S:ARP 1 of 1 11/1/2025

a. Description. This work consists of preparing all areas disturbed during construction for slope restoration by the contractor or as directed by the Engineer, and applying topsoil, fertilizer, seed, and mulch with mulch anchor, mulch blanket or high velocity mulch blanket to those areas.

b. Materials. All materials shall conform with Sections 816 and 917 of the MDOT Standard Specifications for Construction, current edition unless modified by this special provision or as directed by the engineer. All seeding shall use “TUF” Mixture and fertilizer Class “A” in accordance with Section 816.03.

Erosion control blankets shall be biodegradable jute/scrim netting with leno weave type mesh or equivalent . Plastic or synthetic net or netting shall not be authorized.

Approved products:

1. Western Green, BioNet SC150BN
2. Western Excelsior, Excel SS-2
3. Or Equivelant

c. Construction. Construction methods shall be in accordance with Section 816.03 of the MDOT Standard Specifications for Construction current edition.

High Velocity Mulch Blanket shall be placed in large disturbed areas with a 1-on-4 slope or greater as directed by the Engineer.

If an area washes out after this work has been properly completed and approved by the Engineer, Contractor shall make the required restorations and corrections to prevent future washouts and replace the topsoil, fertilizer, seed and mulch. This replacement will be paid for as additional work.

If weeds are determined by the Engineer to cover more than ten percent of the total area of slope restoration, the Contractor shall provide weed control in accordance to subsection 816.03.J of the MDOT Standard Specifications for Construction, current edition. Weed control shall be at the Contractor’s expense with no additional charges to the project for materials, labor or equipment.

d. Measurement and Payment. The completed work as described will be paid for at the contract unit price for the following contract item (pay item):

Pay Item	**Pay Unit**
Slope Restoration, Modified	Lump Sum

Slope Restoration, Modified shall be placed in all disturbed areas and includes all materials, labor and equipment required to install Topsoil Surface (Furnished or Salvaged); Fertilizer, Chemical Nutrient, Class A; Seeding Mixture TUF; Mulch and Mulch Anchoring; Mulch Blanket and High Velocity Mulch Blanket will not be paid for separately but shall be included in the contract unit price bid for **Slope Restoration, Modified**.

CITY OF KALAMAZOO

SPECIAL PROVISION
FOR
PAVEMENT MARKING, GREEN BIKE LANE

H&S:ARP 1 of 2 11/1/2025

a. **Description.** This work consists of preparing pavement surfaces and applying non-retro-reflectorized green pavement markings in bike lanes to delineate the bike lane, conflict areas, or bike boxes. Complete this work in accordance with this special provision, the plans, the standard specifications, and as directed by the Engineer.

b. **Materials.** Furnish materials in accordance with the standard specifications and as specified herein.

Select pavement marking material system in the approved FHWA green color for use in bike lanes from one of the following, or use a City approved equal:

ENNIS-FLINT by PPG PREMARK Preformed Thermoplastic
Pavement Surface Coatings LLC, Endurablend
GAF Materials LLC, StreetBond SB Pro

Ensure all materials are shipped to the job site in sturdy containers plainly marked per section 920 and 811 of the 2020 Standard Specifications for Construction and the contract.

Furnish technical data regarding material type and application rate from the marking manufacturer to the Engineer prior to starting work.

c. **Construction.** Place the marking material in accordance with this special provision and the manufacturer's recommendations.

Surface preparation requirements depend on surface conditions.

Prepare new HMA surfaces and HMA surfaces open to traffic for 10 days or less with no oil drips, residue, debris, or temporary or permanent markings, by cleaning the marking area with compressed air.

Prepare new PCC surfaces and PCC surfaces free of oil drips, residue, and debris, temporary, or permanent markings, by removing the curing compound from the area required for pavement markings.

Prepare existing HMA or PCC surfaces that do not have existing markings, but may have oil drip areas, debris, or both, by scarifying the marking area using non-milling grinding

teeth or shot blasting. The Engineer will allow the use of water blasting to scarify the marking area on PCC surfaces.

Prepare existing HMA or PCC surfaces with existing markings by completely removing the markings.

Conduct grinding, scarifying, sandblasting, shot blasting, or other operations in such a manner that the finished pavement surface is not damaged and does not exhibit a pattern that will mislead or misdirect the road user. Use vacuum-type equipment or equivalent to collect and contain debris generated by this operation.

When surface preparation is complete, broom the pavement surface, and follow with compressed air cleaning to remove all residue and debris resulting from the preparation work. Control and minimize airborne dust and similar debris generated by surface preparation and cleanup to prevent a hazard to motor vehicle operation or nuisance to adjacent property.

Do not damage transverse and longitudinal joint sealers on HMA and PCC surfaces when performing removal and cleaning work.

d. **Measurement and Payment.** The completed work, as described, will be measured and paid for at the contract unit price using the following pay item.

Pay Item	**Pay Unit**
_Pavt Mrkg, Bike Lane, Green	Square Foot

Removal of curing compound and removal of existing pavement markings will be measured and paid for separately under the associated pay items.