

City of Mt. Pleasant, Michigan

CONTRACT DOCUMENTS

For

2016 Southmoor Street Reconstruction



KATHLEEN LING

Mayor

NANCY RIDLEY

City Manager

Prepared By:
Division of Public Works

JOHN ZANG

DPW Director

January 2016

T A B L E O F C O N T E N T S

2016 Southmoor Street Reconstruction

Bidding Information

Notice to Bidders
Instructions to Bidders

Contract Documents

Proposal

Technical Specifications

Supplemental Specifications
Special Provisions
Truck Route Map
DPW Policy for Replacing Private Items and Systems in the Public Right-of-Way,
Resulting from Construction Damage or Street and Utility Maintenance

NOTICE TO BIDDERS

2016 Southmoor Street Reconstruction

The City of Mt. Pleasant, Michigan, is requesting sealed bids at the Office of the City Clerk, City Hall, 320 W. Broadway Street, Mt. Pleasant, Michigan 48858, until 1:30 p.m. (local time), on February 9, 2016, at which time and place the bids will be publicly opened and read. All bids shall be submitted in a sealed envelope, plainly marked "2016 Southmoor Street Reconstruction – February 9, 2016."

Proposals are solicited on a unit price basis, for the following work (approx. quantities):

Street Reconstruction	7	STA
Sidewalk Ramp Construction	212	SFT
Curb and Gutter Construction	1,417	LFT
Bituminous Paving	360	TON
6" Water Main Replacement	253	LFT

All bid proposals must be accompanied by a bid bond, bank cashier's check, bank draft, or certified check for not less than five percent (5%) of the bid price, made payable to the City of Mt. Pleasant.

To view and download complete Plans and Specifications at no charge, visit the City of Mt. Pleasant website at www.mt-pleasant.org and navigate to the bids and quotes page.

A non-refundable \$50.00 fee is required for plans and specifications picked up at the Public Works Building, 1303 N. Franklin Street, Mt. Pleasant, Michigan 48858, (989) 779-5401, Monday through Friday, 8:00 a.m. to 4:30 p.m. A non-refundable \$60.00 fee is required for plans and specifications that must be mailed.

The City of Mt. Pleasant reserves the right to accept or reject any or all bids, to waive any irregularities in the bids, and to select the bid considered most advantageous to the City.

Stacie Tewari
 City Engineer
 (989) 779-5404

Jeremy Howard
 City Clerk

City of Mt. Pleasant, Michigan
INSTRUCTIONS TO BIDDERS

1. **Proposals**

Proposals must be made upon the forms provided therefore, with the Bid amount both written and shown in figures, and all other data required submitted.

The Proposal, bound together with all Proposal Documents, must be enclosed in a sealed envelope marked as specified in the Notice to Bidders for such Bid and clearly indicating the name and address of the Bidder and must be received by the City Clerk, City Hall, 320 West Broadway Street, Mt. Pleasant, Michigan 48858, no later than the time and date specified in the Notice to Bidders. At such specified time, Proposals shall be publicly opened and read aloud.

2. **Basis of Proposals**

Proposals are solicited on the basis of unit price(s) and/or lump sum(s), as specified on the Proposal form.

The City of Mt. Pleasant (also referred to as "Owner"), reserves the right to accept any Bid, to reject any or all Bids, to waive any irregularities in the Bids, and to select the Bid considered most advantageous to the city.

3. **Comparison of Bids**

In comparing Bids, consideration shall be given to the time proposed for completion of the Contract, qualifications of Bidder, price differentials, alternate Proposals for the alternate items listed in the Proposal (if applicable), and any other pertinent factors. **The City of Mt. Pleasant grants a preference to businesses located within the Mt. Pleasant City Limits. The preference given is a differential above the low bid if the low bid is not from a City of Mt. Pleasant bidder. The differential allowed is 3% of the total for bids between \$5,000 and \$9,999 and 2% of the total for bids over \$10,000. The maximum credit allowed is \$1500.00.** The Owner reserves the right to make an award to the Bidder whose Proposal is deemed to be in the best interest of the Owner.

4. **Time**

Time is of the essence in the performance of the Contract, and each Bidder, by submitting a Proposal, certifies his/her acceptance of the time allowed by the Contract for the completion of the work specified.

5. **Indemnification**

The Contractor shall save and hold harmless the city and its employees from and against all claims, damages, losses, or expenses, including attorney's fees, arising out of or resulting from the performance of the work; provided that any such claim, damage, loss or expense is caused in whole or in part by any negligent or willful act of omission of the contractor, subcontractor, employee, or anyone under their direction. The Contractor shall at his/her own expense, defend any and all such actions and shall pay all attorney's fees, costs, and expenses pertaining thereto.

6. **Bid Deposits**

Each Proposal shall be accompanied by a certified check, bank cashier's check, bank draft, or a Bid Bond by a recognized Surety Company similar to a U. S. Government Standard Form Bid Bond, in the amount of five percent (5%) of the total amount of the Bid, made payable to the City of Mt. Pleasant, subject to forfeiture to the Owner in the event of failure on the part of the successful Bidder to enter into the attached form of agreement to do the work specified by said Proposal at the price and within the time stated therein. The Bid Deposit of all Bidders, except the three (3) lowest acceptable Bidders, shall be returned within two (2) weeks after opening of bids. The bid deposits of the three (3) lowest acceptable bidders shall be returned within 48 hours after the executed Contract(s) have been finally approved by the Owner.

7. **Liquidated Damages**

A liquidated damage clause, as given in the Contract form, provides that the Contractor shall pay the Owner as liquidated damages, and not as a penalty, the amount as indicated in Section 108.10 of the 2012 MDOT Standard Specifications for Construction for each and every calendar day that the Contractor may be in default of substantial completion of the work required under said Contract.

8. **Insurance and Bonds**

The successful Bidder will be required to execute (2) Bonds, in the form attached hereto, with Surety acceptable to the Owner and insurance, as follows:

- a. Bond in the amount of 100% of the Estimated Contract Price running to the City of Mt. Pleasant, Michigan, to insure the completion of the entire work, according to the statutes of the State of Michigan in effect at that time.
- b. Bond in the amount of 100% of the Estimated Contract Price running to the People of the State of Michigan for the protection of Subcontractors and Labor and Material Men, according to the statutes of the State of Michigan in effect at that time.
- c. Insurance in the amounts required by City Ordinance as specified in the Section 1 - General Construction Specifications, attached hereto.

The successful bidder shall be required to furnish for each set of executed Contract Documents, and conformed copies thereof, an original conformed Performance Bond, Labor and Materials Bond, and Insurance Certificates.

9. **Permits and Local Codes**

The Owner shall procure the required permits for municipal sanitary sewer construction, municipal water system construction, and soil erosion control.

The Contractor shall obtain, at his/her expense, all other required local construction permits and shall comply with local building code and inspection requirements.

10. **Qualifications of Bidders**

It is the intent of the Owner to award the Contract to a Bidder fully capable, both financially and with regard to experience, to perform and complete all work in a satisfactory and timely manner. Evidence of such competency must be furnished on the forms included in the proposal, listing projects of similar difficulty, scope of work, and size, which the Bidder has satisfactorily undertaken and completed.

It is the intention of the City to award the contract to a Contractor whose ability and financial resources are fully equal to the task of performing the work in a satisfactory manner. With this in view, the Proposal calls for at least five (5) references, using specific names of persons to contact concerning the Contractor's ability to do this particular class of work. References from municipalities are preferred. The mere ability to furnish a Performance Bond shall not be accepted as sufficient evidence of responsibility on the part of the Bidder. The Bidder may also be required to furnish evidence of his current financial status.

11. **Interpretation of Documents**

If any Bidder is in doubt as to the true meaning of any part of the Plans, Specifications or any Contract Document, he/she may submit to the Owner a written request for an interpretation thereof. Any interpretation made in response to such a query shall be made only by Addendum, duly issued, and a copy of such Addendum shall be mailed or duly delivered to each prospective Bidder. The Owner shall not be responsible for any other explanation or interpretation of the Contract Documents. Alternative proposals that are suggested by bidders will be given consideration, if presented before the bid opening. If accepted, an addendum will be issued and sent out to all potential bidders, so that they may bid on the alternatives that have been identified.

12. **Execution of Bid Proposal**

A Bid Proposal, which is not signed by the individual making it, should have attached thereto a Power of Attorney evidencing authority to sign the Bid Proposal in the name of the person for whom it is signed.

A Bid Proposal, which is signed by a partnership, shall be signed by all of the partners or by an Attorney-in-Fact. If signed by an Attorney-in-Fact, there should be attached to the Bid a Power of Attorney evidencing authority to sign the Bid Proposal in the name of the partnership and such Power of Attorney shall be signed by all partners of the partnership.

A Bid Proposal, which is signed for a corporation, should have the correct corporate name thereof and the signature of the President, or other authorized officer(s) of the corporation, manually written below the corporate name and on the line indicating "By:_____." If such a Bid Proposal is manually signed by an officer other than the President of the corporation, a certified copy of a Resolution of the Board of Directors evidencing the authority of such officer(s) to sign the Bid Proposal should be attached thereto. Such a Bid Proposal should also bear the attested signature of the Secretary of the corporation and an impression of the corporate seal.

13. **Execution of Contract**

The successful Bidder to whom an award is made shall be required to enter into a written agreement, in the form attached hereto, within ten (10) days after receipt of a Notice of Award and copies of the documents to be executed. In the event the successful Bidder fails to comply with this provision, he/she may be considered by the Owner to have abandoned all his/her rights and interests in the award and his/her certified check or amount of the Bid Bond may be declared to be forfeited to the Owner, and the Contract may be awarded to another.

14. **Bidder Responsibility for Conditions of Work and Site**

The Bidder, or his/her representative, shall make personal investigation of the site of work and of existing structures and shall determine to his/her own satisfaction the conditions to be encountered, the nature of the ground, the difficulties involved in making connections to existing structures and pipes, and any and all other factors affecting the work proposed under the Contract.

The Bidder to whom the Contract is awarded shall not be entitled to any additional compensation by reason of conditions being different from those anticipated or by reason of his/her failure to fully acquaint himself/herself with the conditions at the site affecting the work of the Contract.

15. **Changes in Work**

If any change is required to be made in the work of the Contract, a payment adjustment therefore shall be determined as specified in Section 103 of the 2012 MDOT Standard Specifications for Construction.

City of Mt. Pleasant, Michigan
2015 Southmoor Street Reconstruction
BID PROPOSAL

TO: City Hall/City Clerk
320 W. Broadway Street
Mt. Pleasant, MI 48858

BID DATE: February 9, 2016
TIME: 1:30 p.m.

The undersigned, as Bidder, hereby declares that his bid is made in good faith without fraud or collusion with any person or persons bidding on the same Contract; that he has carefully read and examined the Contract Documents, including the Notice to Bidders, Instructions, Bond Forms, Technical and Detailed Specifications, and Contract Drawings, for the designated work and understands all of the same; that he, or his representative, has made such a personal investigation at the site as is necessary to determine the character and difficulties attending the execution of the proposed work; and he proposes and agrees that if this Proposal is accepted, he will contract with the Owner in the form of the Contract hereto annexed, to provide necessary machinery, tools, apparatus and other means of construction, including utility and transportation services, necessary to do all the work and furnish all the materials and equipment specified or referred to in the Contract Documents, including Addenda No. __, __, and __, in the manner and time therein prescribed, and according to the requirements of the Owner as therein set forth to furnish Contractor Bonds and Insurance required of the Contractor by the Contract Documents, and that he will take in full payment therefore the unit prices set forth in the following Proposal.

The Bidder understands that the Owner reserves the right to reject any or all bids and to waive any irregularities in the bidding.

The Bidder agrees that his bid shall be good and may not be withdrawn for a period of sixty (60) calendar days after the scheduled closing time for receiving the bids.

Upon receipt of a written Notice of Award of the Bid, the Bidder shall execute the formal Contract Agreement attached hereto within ten (10) days and shall deliver to the Owner a Surety Bond or Bonds required. In the event the Contract and Bond are not executed within the time above set forth, the Bid Deposit attached in the sum of five percent (5%) of the Bid Proposal shall become the property of the Owner as liquidated damages for the delay and additional expense to the Owner caused thereby.

The Bidder hereby agrees to commence work under this Contract on or before the date to be specified in the written Notice to Proceed executed by the Owner and to fully complete the project as stipulated in the Special Conditions of these Specifications. The Bidder further agrees to pay as liquidated damages the sum indicated in the Special Conditions for each consecutive calendar day thereafter, until substantial completion, that is when all work items in the proposal are complete and notification of substantial completion of work items and final quantities is given to the Director of Public Works by the contractor.

The below unit prices shall include all labor, materials, overhead, profit, insurance, etc., to cover the finished work of the several kinds specified, and the Bidder agrees to perform all of the work described in the Specifications and/or shown on the Plans for the following unit prices:

BASE BID

DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL COST
Preconstruction Audio/Video Recording	1	LS	\$	\$
Minor Traf Devices	1	LS	\$	\$
Drainage Structure, Rem	3	EA	\$	\$
Curb and Gutter, Rem	1,417	LFT	\$	\$
Pavt, Rem	2,513	SYD	\$	\$
Sidewalk, Rem	52	SYD	\$	\$
Sewer, Rem, Less Than 24 Inch	159	LFT	\$	\$
Machine Grading, Modified	7	STA	\$	\$
Subgrade Undercutting, Type II	25	CYD	\$	\$
Gas and Water Shutoff Cover Adj, Case 1	2	EA	\$	\$
Erosion Control, Filter Bag	3	EA	\$	\$
Dr Structure Cover, Adj, Case 1	1	EA	\$	\$
Dr Structure Cover, SAN, Modified	2	EA	\$	\$
Dr Structure, 48 inch dia	2	EA	\$	\$
Dr Structure Cover, STM, Modified	2	EA	\$	\$
Sewer, CI A, 6 inch, Tr Det B	600	LFT	\$	\$
Sewer, CI A, 8 inch, Tr Det B	32	LFT	\$	\$
HMA, 13A	150	TON	\$	\$
HMA, 36A	210	TON	\$	\$
HMA Approach	12	TON	\$	\$
Approach, CI I, 6 inch	85	SYD	\$	\$
Sidewalk Ramp, Conc, 6 inch	212	SFT	\$	\$
Sidewalk, Conc, 4 inch	225	SFT	\$	\$
Sidewalk, Conc, 6 inch	378	SFT	\$	\$
Detectable Warning Surface, Modified	24	FT	\$	\$
Subbase, CIP, Min. \$5.00	924	CYD	\$	\$
Underdrain, Subgrade, Open-Graded, 4 inch, Modified	1,406	FT	\$	\$

Aggregate Base, 8 Inch	2,266	SYD	\$	\$
Driveway, Nonreinf, Conc, 6 Inch	189	SYD	\$	\$
Driveway Opening, Conc, Det L	188	LFT	\$	\$
Curb and Gutter, Conc, Det F4, Modified	1,218	LFT	\$	\$
Restoration, Modified	7	STA	\$	\$
Relocate and Replace Mailbox (Inc. New Post)	8	EA	\$	\$
Water Main, Rem	253	LFT	\$	\$
Water Valve, Rem	2	EA	\$	\$
Water Main, 6 inch	253	LFT	\$	\$
Water Valve, 6 inch	1	EA	\$	\$
Connect to Existing Water Main	4	EA	\$	\$
Testing (Allowance)	1	LS	\$5,000	\$5,000
Contractor Staking	1	LS	\$	\$
TOTAL				\$

Total (written) _____ and ___/100 Dollars

RESPECTFULLY SUBMITTED:

Company Name _____

Address _____

City _____ ST _____ Zip Code _____

Area Code/Telephone Number _____ Date _____

Fax _____

Email _____

Authorized Signature _____

Print of Type Name and Title _____

EXPERIENCE QUESTIONNAIRE

To be furnished by Bidder

The signatory of this proposal guarantees the truth and accuracy of all statements and of all answers hereinafter made.

1. How many years have you been in business as a contractor under your present name?

2. How many years have you been a principal officer of a firm under a different name?

Name of Firm _____

3. What projects of a similar nature has your organization contracted for within the past five years? (NOTE: Fill out each blank completely.)

Name of Owner & Location	Name/Address/Phone # of Person in Charge as Reference	Type of Work	Value of Work	Date Completed
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City of Mt. Pleasant, Michigan
2016 Southmoor Street Reconstruction

SUPPLEMENTAL SPECIFICATIONS

Construction Specifications

The work under this contract shall be completed following the 2012 MDOT Standard Specifications for Construction along with the City of Mt. Pleasant 2012 Standard Special Provisions, except as modified herein. This is not a state sponsored project; therefore, the payment of prevailing wages is not a requirement of this contract.

1. Time Constraints

Completion of this project within the time constraints described below is essential. The Contractor shall not begin work on the project before August 1, 2016. All work on this project shall be completed by August 26, 2016.

2. Holidays

No work is to be scheduled by the contractor on Sundays, nor on the following holidays or holiday weekends:

None

3. Residential/Commercial Access

Access to driveways for local residents, schools, and businesses shall be maintained and available for use. All driveways shall be opened by the Contractor when the Contractor is not working, including all evenings, Sundays, and holidays, except as approved in writing by the Inspector and with written notification to the residents/owners. Contractor is to keep delivery access to businesses during hours of operation.

4. Additional Work By Contractor For Property Owner(s)

Any and all additional work between the contractor and property owner shall be handled and negotiated between the contractor and property owner. The city shall have no responsibility or liability for any additional construction.

5. Residential Refuse and Recycling Collection

The City Contractor for trash (refuse) collection is Allied Waste/Republic Services, (888) 707-3867, and recycling collection is Mid Michigan Industries (989) 773-6918. Collection starts at 7:30 a.m. Monday through Thursday. The

Contractor shall schedule the work to allow and provide access for refuse and recycling Contractors to provide their services to the residential properties. If the refuse and recycling Contractors are unable to collect materials due to construction operations, then the construction Contractor shall collect and dispose of the refuse and collect and deliver the recyclable material to the Material Recovery Facility (MRF) on River Road at no cost to the City. It is the responsibility of the construction Contractor to contact the refuse and recycling Contractors to coordinate operations.

6. Road Closure

Streets within 300 feet (one block) of construction operations may be closed only to through traffic. All other streets and intersections shall be open to all traffic and maintained in good driving condition by the Contractor at all times. Intersections shall be open to cross street traffic except when construction work is in progress in those intersections. No more than one intersection may be closed at a time.

7. Sidewalk Handicap Ramps

Handicap ramps shall be constructed following the 2012 MDOT Standard Specifications for Construction along with the City of Mt. Pleasant Special Provisions attached herein. Sidewalk handicap ramp construction shall also follow the latest ADA requirements

8. Audio-Video Recording

An aboveground audio-video recording of the construction area along and adjacent to the project meeting the requirements of the Special Provision for Preconstruction Audio-Video Recording is required. Deliver to DPW prior to mobilization.

9. Location Verification

The Contractor shall excavate, as the Contractor deems necessary, or at the direction of the Engineer, all points of the pipe connection or reconnection to verify the material, condition, location, alignment, and elevation prior to setting of manholes, valves, tees, or bends. The cost of this work and the temporary and permanent restoration thereof shall be included in the various unit prices for the project.

10. Concrete Removal

Sidewalk, concrete drives, and curb and gutter removal shall be to existing construction joints. Unbroken joints shall be saw cut prior to removal. If a saw cut

can be made where the remaining section is undisturbed, unbroken or unjointed, and is five feet (5') in length at its least direction, then removal may be to that point.

11. Excavated Material

All excavated material, concrete, asphalt, broken pipe, and other material shall become the property of the Contractor for disposal, except as noted.

12. Tree Protection and Preservation

The Contractor shall protect and preserve trees within the construction area. If the Contractor causes tree damage resulting from non-compliance with the tree crossing detail, or if excessive damage occurs to the trunk or main limbs of a tree, the Contractor shall pay for the damages to the tree. The value of the tree shall be the amount appraised by the City's tree consultant. The Contractor shall also pay for the cost of removal in the event the damaged tree must be removed within a two-year period.

13. Truck Route Streets

The Contractor shall not allow any trucks, or equipment associated with this project to be driven on non-truck route City streets. The Contractor shall ensure that all trucks and equipment associated with the project travel only on streets identified as truck route streets on the Truck Route Map in the construction specification details. If any of the Contractors, the Contractors' subs, and/or suppliers, are seen driving on other City streets, the Contractor shall be required to pay for resurfacing the street with a polymer-modified asphalt approved by the City at a rate of application determined by the City.

14. Utility Location

The Contractor shall expose all existing utilities and services that will be crossed by proposed pipe. Utility locations and elevations, as shown on the plans, are approximations and shall be verified by the Contractor prior to beginning any work. The Contractor is required to call the MISS DIG system as noted in the Standard Construction Specifications.

15. Soil Borings

Should a bidder desire to make soil borings along the route, the Contractor making the borings shall first obtain a permit from Public Works. Insurance meeting the requirements of the City of Mt. Pleasant is required. The soil boring permit fee is \$25.00 per hole, and will be refunded if the results of the soil boring in the form of a soil-boring log are submitted to the City Engineer within one week after the close of bidding.

16. Insurance

The Contractor shall carry insurance that will provide for the full replacement cost of any property that is damaged during the project. The Contractor shall also pay the immediate costs of the homeowner/resident in the event an incident occurs, while waiting for the insurance company to make compensation. Immediate costs include but are not limited to: hotel/motel bills and meals if the building is unusable, costs for basic necessities such as beds or clothes in the event they are damaged.

17. Project Meetings

The Contractor shall attend weekly progress meetings with the Engineer to provide updates on the project, the schedule of work for the following week, and to resolve outstanding issues.

18. Signing and Barricading

Lighted barricades or barrels must adequately protect all excavations. Type I, Type II, or approved reflector zed barrels, shall be used at all excavations that will remain open overnight. Signing and barricading costs shall be borne by the contractor. The contractor shall provide the city with the telephone number of the signing company and the telephone number of a local contact person available during non-working hours to place or replace signs, signals, and barricades. One Hundred Dollars (\$100.00) shall be deducted from monies due to the contractor for each and every call requiring action by city forces for purposes of placing or replacing barricades and/or signing.

19. Sidewalk Grade Elevation

It is imperative that any continuous sections of sidewalk replacement be graded to allow water to drain both to the outside edge of the street side of the sidewalk and laterally to a driveway opening or perpendicular sidewalk connecting to the street. This may require raising either end of a continuous stretch of sidewalk to raise the grade to provide positive drainage. This may require the use of additional sand to elevate the sidewalk grade. The city will pay for all sand-compacted in-place by the cyd. The contractor shall stockpile sand at the DPW yard for use in this contract. All delivery tickets shall be given to the inspector upon delivery. For bidding purposes an estimated amount of sand shall be included in the proposal.

20. Damaged Sidewalk, Street or Driveways

Any damage occurring to adjacent sidewalk, streets, or driveways outside the limits of removal will be replaced at the contractor's expense, unless otherwise agreed upon prior to removal. It is recommended that sawcutting take

place at limits of removal to minimize damage to adjacent structures. Any newly poured sidewalk is to be protected by the contractor. Any damage occurring to concrete sidewalks prior to curing will be replaced at the contractor's expense. The contractor should verify listed quantities prior to removal.

City of Mt. Pleasant
SPECIAL PROVISION
FOR
TECHNICAL SPECIFICATIONS

City of MtPleasant

1 of 1

January 16

GENERAL REQUIREMENT

The 2012 MDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION shall govern all technical specifications of this contract. The following parts of the contract will prevail over all other parts in the following order:

- A. Special Provisions
- B. Supplemental Specifications
- C. Project Plans and Drawings
- D. City of Mt. Pleasant Standard Special Provisions
- E. MDOT Standard Plans
- F. MDOT Standard Specifications
- G. City of Mt. Pleasant Standard Construction Specifications

The Contractor shall not take advantage of any apparent error or omission in the contract documents. If any uncertainty, inconsistency, omission, or conflict is discovered in the contract documents, the Engineer will decide as to the true intent.

City of Mt. Pleasant
SPECIAL PROVISION
FOR
LINES, LEVELS, AND SURVEYS

City of Mt Pleasant

1 of 1

June, 2014

Staking is by the Contractor. The contractor shall carefully preserve all benchmarks, reference points, grade stakes, and other necessary control points and be held responsible for all errors that may result from their loss or disturbances.

City of Mt. Pleasant

SPECIAL PROVISION
FOR

UTILITY COORDINATION

City of MtPleasant

1 of 2

January 16

The contractor shall cooperate and coordinate construction activities with the owners of utilities as stated in Section 104.08 of the 2012 MDOT Standard Specifications for Construction. In addition, for the protection of underground utilities, the contractor shall follow the requirements in Section 107.12 of the 2012 MDOT Standard Specifications for Construction. Contractor delay claims, resulting from a utility, will be determined based upon Section 109.05E of the 2012 MDOT Standard Specifications for Construction.

A) General

For protection of underground utilities, the Contractor shall call the Miss Dig system at (800) 482-7171 a minimum of three (3) working days prior to excavating. Members will thus be routinely notified. This does not relieve the Contractor of the responsibility of notifying utility owners who may not be a part of the Miss Dig alert system.

B) Coordination with Utilities

During the course of the construction, the Contractor will encounter both overhead and underground utilities. The contact information of the utility company representatives are as follows:

Consumers Energy - Electric
Richard Klender
1325 Wright Avenue
Alma, MI 48801
(517) 466-4279

Charter Communication – Cable TV
Jeff Price
915 E. Broomfield Rd.
Mt. Pleasant, MI 48858
(989) 621-4931

DTE Energy/MichCon – Gas
Dave Newcomb
609 Bjornson
Big Rapids, MI 49307
(231) 592-3244

City of Mt. Pleasant – Water, Sanitary &
Storm Sewer
Jason Moore
1303 N. Franklin Ave.
Mt. Pleasant, MI 48858
(989) 779-5405 or (989) 779-5401

Frontier – Telephone
Mark Marshall
345 Pine Street
Alma, MI 48801
(989) 463-0392

The Contractor's attention is directed to existing underground gas mains, which are located adjacent to or near the work. The Contractor shall use extreme care when working in these areas, and shall notify DTE Energy/MichCon Gas Company at least three (3) working days in advance before beginning any excavation in these areas.

CMU requires notification of new utility installations for the purpose of GPS/GIS locating.

C) Relocation

If Utility relocation work is anticipated for this project, contact the appropriate utility company immediately to coordinate relocations. This will minimize delays to the Contractor's operations due to utility work.

Owners of public or private utilities will not be required to relocate utilities in order to facilitate the operations of construction equipment, unless it is determined by the Engineer that such poles or structures constitute a hazard to the public or are extremely dangerous to the Contractor's operations.

City of Mt. Pleasant

SPECIAL PROVISION
FOR

PRECONSTRUCTION AUDIO VIDEO RECORDING

City of MtPleasant

1 of 4

January 16

A) Description

The work covered under this special provision consists of furnishing all labor, materials and equipment to provide High Definition color video recording along the entire length of the project to serve as a record of "original" conditions.

B) Equipment

All audio-video taping equipment shall be supplied and operated by a professional firm actively engaged in pre-construction audio-video recording.

C) Inspection

1) Requirements

Prior to commencing any other work, a continuous color audio-video recording shall be made of the project.

i) Coverage Area

Shall include all above ground features located within the zone of construction influence. Of particular concern are any existing faults, fractures, defects or other imperfections exhibited by any above ground features.

2) Qualifications

The audio-video and photography shall be performed by a professional, qualified, established audio-video recording firm knowledgeable in construction practices which have a minimum of one year of experience in the implementation of established inspection procedures.

3) Acceptance of Recording

The City reserves the right to reject the audio-video recording because of poor quality, unintelligible audio, or uncontrolled pan or zoom. Any recording rejected by the City shall be re-recorded at no cost to the City. Under no circumstances shall construction begin until the City has received and accepted the audio-video recording.

4) Equipment

When conventional wheeled vehicles are used for recording, the distance from the camera lens to the ground shall not be less than twelve (12) feet to insure proper perspective. In some instances, audio-video coverage will be required in areas not accessible on conventional wheeled vehicles. Such coverage shall be obtained by walking or special conveyance approved by the Engineer.

i) Audio-Video Recording Media

The audio-video recording provided shall be a color cassette utilizing the VHS format and shall be compatible with the City's tape player or in a DVD format.

ii) Camera(s)

A color video camera shall be used that shall have High Definition recording capability. The camera shall be a professional quality camera acceptable to the Engineer.

5) Execution

i) Audio

Each tape shall begin with the current date, project name, project number and municipality, and be followed by the general location; i.e. name of the street or location of "cross country" line, viewing side and direction of progress.

ii) Video

To preclude the possibility of tampering or editing in any manner, all video recordings shall, by electronic means, display continuously and simultaneously generated transparent digital information to include the date and time of recording, as well as the corresponding engineering stationing numbers. The date information will contain the month, day and year. For example, 3/16/01, and shall be placed directly below the time information. The time information shall consist of hours, minutes, and seconds, separated by colons. For example, 11:25:14. This transparent information shall appear on the extreme upper left-hand third of the screen.

(1) Engineering Station Numbers

Station numbers shall be continuous, accurate, correspond to the project stationing and include the standard engineering symbols (for example, 16+50). This information shall appear in the lower half of the viewing screen.

(2) Additional Information

Below the engineering stationing, periodic transparent alphanumeric information, consisting of the name of the project, name of the area covered, direction of travel, viewing side, etc., shall appear.

iii) Audio-Video Tracks

The audio-video recording shall consist of one (1) video and two (2) audio tracks, all of which shall be recorded simultaneously. All tracks shall consist of original, live recordings and, thus, shall not be copies of other audio or video recordings. Audio track 1 shall contain the narrative commentary of the camera operator, recorded simultaneously with his fixed elevation video record of the zone of influence of construction. Audio Track 2 shall contain the narrative commentary and evaluations of the ground level remote technician whose function shall be to provide a complete circumspection of any features not adequately visible to the camera operator and to describe in detail the extent of any damage encountered. In order to maintain viewer orientation, transition from fixed camera overview to remote camera picture shall be by means of an electronic dissolve.

iv) Lighting Requirements

All taping shall be done during times of good visibility. Auxiliary lighting may be required to fill in shadow areas and/or when recording inside a building. The lighting shall be sufficient to illuminate all details in the area. Lighting shall be required upon the request of the Engineer.

v) Recording Coverage

Recording coverage shall include all surface features located within the zone of influence of construction specified on the plans and supported by appropriate audio description. Audio description shall be made simultaneously with video coverage.

(1) Coverage

Video coverage shall include, but not be limited to, all existing driveways, sidewalks, curbs, ditches, streets (including condition of paving for full width), landscaping, trees, culverts, catch basins, manholes, headwalls, retaining walls, fences, visible utilities, and all buildings located within the zone of influence. Of particular concern are any existing faults, fractures, defects, or other imperfections exhibited by the above-mentioned surface features.

(2) Houses and Buildings

Structures shall be identified visually by house or building number, when possible, in such a manner that the progress of the tape and the proposed construction may be located by reference to the houses and buildings.

(3) General

Taping shall not be done during periods of visible precipitation or when more than 10% of the ground area is covered with snow, leaves, floodwaters or debris, unless otherwise authorized by the Engineer.

(4)Rate of Speed

The rate of speed in the general direction of travel of conveyance used during taping shall not exceed 48 feet per minute. Panning rates and zoom-in, zoom-out rates shall be controlled sufficiently such that the rates will produce clarity of the object viewed during playback of the tapes.

(5)Coverage Area

The Engineer shall have the authority to designate areas that may be omitted or added for audio-video coverage.

(6)Identification

(a) Tape Cassettes and Tape Cases

Cassettes and cases shall be properly identified by tape number, location and project name and municipality in a manner acceptable to the Engineer.

(b) Records

A record of the contents of each tape shall be supplied by a sheet identifying each segment of the tape by location; i.e. roll number, street or road viewing, tape counter number, viewing side, point starting from, traveling direction and ending destination point.

D) Measurement and Payment

The complete work as measured for Preconstruction Audio Video Taping will be paid for at the contract unit price for the following contract pay item and includes all material, equipment, and labor to complete the item.

Contract Item (Pay Item)	Pay Unit
Preconstruction Audio Video Recording.....	Lump Sum

City of Mt. Pleasant
SPECIAL PROVISION
FOR
MAINTAINING TRAFFIC

City of MtPleasant

1 of 2

January 16

A) Description

Traffic shall be maintained throughout the project according to sections 104.11 and 812 of the Michigan Department of Transportation 2012 Standard Specifications and as specified herein. The Contractor shall for the safety and protection of through and local traffic, furnish, erect, and maintain traffic control devices as shown on the plans and as directed by the Engineer. The Contractor shall remove the traffic control devices in a prompt, safe, and orderly manner upon completion of the work or when directed by the Engineer.

The Contractor shall maintain access to business and residential driveways at all times as described herein.

The Contractor shall notify the Engineer a minimum of 72 business hours prior to the implementation of any detours, street closures, or lane closures.

Traffic control elements, traffic control devices, barricade lighting, barricade spacing, taper lengths, etc., shall conform to the requirements of the 2005 edition of the Michigan Manual of Uniform Traffic Control Devices as amended, unless otherwise specified herein. This includes advance warning signs, barricades and channeling devices at intersecting streets, on which traffic is to be maintained.

The Contractor is required to contact all local and state police, fire, emergency services that have jurisdiction within the construction influence area a minimum of five (5) calendar days prior to the implementation of any lane closure or detours.

Changes and/or adjustments to the maintaining traffic plans and standards may be applied as determined by the Engineer.

1) Construction Influence Area (CIA)

The CIA shall include the right-of-way of the street where work is to take place from the beginning to the end of the construction signing and inclusive of all the construction signing on the intersecting streets & detours.

B) Materials

All traffic control devices and their usage shall conform to the 2005 edition of the Michigan Manual of Uniform Traffic Control Devices as amended, and as specified as herein.

Construction signing shall be required as shown in the Maintaining Traffic plan sheets.

Signs, barricades, and plastic drums shall be cleaned over the entire surface as required by the Engineer.

1) Temporary Signs

All signs must be approved by the Engineer prior to use.

All diamond-shaped warning signs shall be 48" x 48" mounted at a 7' minimum bottom height. Distances shown between construction warning, regulatory, and guide signs shown on the plans and typical are approximate and may require field adjustment, as directed by the Engineer.

All temporary signs shall be constructed with legends and symbols flush to the sign's face and not extending beyond the sign borders or edges. Temporary warning, regulatory, and guide signs not required for a particular work Operation shall be removed, completely covered, or laid down with the legs off, as directed by the Engineer.

C) Measurement and Payment

This work will be measured and paid as specified in section 403 & 802 of the Standard Specifications using the following contract items (pay items).

Contract Item (Pay Item) Pay Unit

Minor Traf Devices..... Lump Sum

City of Mt. Pleasant
SPECIAL PROVISION
FOR

MACHINE GRADING, MODIFIED

City of MtPleasant

1 of 1

January 16

A) Description

This work shall consist of all excavation, including earth, necessary to shape the subgrade to the cross-sections shown on the plans for pavements, sidewalks, curbs, drive approaches, etc., within the right-of-way of the project. The work shall include proper disposal of excavated materials. This work shall also include all embankments necessary to shape areas behind curb and gutter, around all drives and sidewalks to grade to allow for placement of topsoil.

B) Materials

This work shall conform to the requirements of Section 205 of the Michigan Department of Transportation 2012 Standard Specifications for Construction of machine grading, earth excavation, embankment and density except as modified herein.

C) Measurement and Payment

Machine Grading, Modified will be measured by length in Stations along the street centerline and will be paid for at the contract unit price per Station, which price shall be payment in full for all labor, equipment and materials, including embankment, excavation and disposal of excavated material needed to accomplish this work, on both sides of the street and any adjacent side streets to the limits shown on the plans

Suitable excavated material as determined by the Engineer may be used as fill material behind proposed curb. Use of excavated material for fill material will be considered as included in the work of Machine Grading, Modified.

The completed work as measured for Machine Grading, Modified will be paid for at the contract unit price for the following contract item (pay item).

Contract Item (Pay Item)	Pay Unit
Machine Grading, Modified.....	Station

City of Mt. Pleasant

SPECIAL PROVISION
FOR

CURB AND GUTTER, CONC, DET __, MODIFIED

City of MtPleasant

1 of 1

January 16

A) Description

Install Curb and Gutter, Conc, Det __, Modified according to this Special Provision and as shown on the plans.

B) Materials

The materials used for this work shall meet the requirements of Section 802.02 of the 2012 Standard Specifications for Construction.

C) Construction

Construct Curb and Gutter, Conc, Det __, Modified in accordance with the requirements of Section 802 of the 2012 Standard Specifications for Construction. The material placed directly under the Curb and Gutter, Conc, Det __, Modified shall be 22A aggregate, and shall be included in the bid price for Curb and Gutter, Conc, Det __, Modified, as detailed on the proposed cross-section plan sheet. Thickness of this material shall be approximately 1.5 inches for local streets and 2.25 inches for major streets.

D) Measurement and Payment

The complete work as measured for Curb and Gutter, Conc, Det __, Modified will be paid for at the contract unit price for the following contract pay items and includes all material, equipment, and labor to complete this item

Contract Item (Pay Item)	Pay Unit
Curb and Gutter, Conc, Det F4, Modified.....	Foot

City of Mt. Pleasant

SPECIAL PROVISION
FOR

DR STRUCTURE COVER, _____, MODIFIED

City of MtPleasant

1 of 2

January 16

A) Description

Dr Structure Cover, _____, Modified, hereinafter referred to as Cover, shall consist of materials and work as described in Section 403 of the Michigan Department of Transportation 2012 Standard Specifications for Construction except as modified herein.

B) Materials

Covers shall include geotextile fabric, frame, grate or cover and shall be of the type indicated on the plans.

1) Dr Structure Cover, CB, Modified

Catch basin cover types shall depend on their location on the plans.

- i) Catch basins covers located in Det M openings shall be model 5100Z with type M1 grate as manufactured by East Jordan Iron Works, or approved equal.
- ii) Unless otherwise indicated on the plans, catch basins covers located in the curb shall be model 7000 with type M2 grate as manufactured by East Jordan Iron Works, or approved equal.
- iii) Unless otherwise indicated on the plans, catch basins covers outside of the curb shall be model 1040 with type M1 grates as manufactured by East Jordan Iron Works, or approved equal.

2) Dr Structure Cover, STM, Modified

- i) Storm drainage structure covers shall be model 1040 with type B cover as manufactured by East Jordan Iron Works, or approved equal.

3) Dr Structure Cover, SAN, Modified

- i) Sanitary drainage structure covers shall be model 1040 with type A cover as manufactured by East Jordan Iron Works, or approved equal. The preferred cover shall be stamped with the City of Mt. Pleasant logo.

C) Construction

Construct drainage structure covers according to the details on the plans and section 403 of the Standard Specifications. Drainage structure shall be wrapped with geotextile fabric as shown on the plans.

A) Measurement and Payment

This work will be measured and paid as specified in section 403 & 802 of the Standard Specifications using the following contract items (pay items).

Contract Item (Pay Item)	Pay Unit
Dr Structure Cover, CB, Modified.....	Each
Dr Structure Cover, STM, Modified.....	Each
Dr Structure Cover, SAN, Modified.....	Each

City of Mt. Pleasant
SPECIAL PROVISION
FOR

GAS/WATER SHUTOFF COVER ADJ, CASE 1

City of MtPleasant

1 of 1

January 16

A) Description

Adjust gas and water shutoff covers according to this Special Provision and as shown on the plans.

B) Materials

The materials used for this work shall meet the requirements of the utility owning the shutoff.

C) Construction

Adjust gas and water shutoff covers in accordance with the requirements of Section 403.03 C of the 2012 Standard Specifications for Construction for drainage structures.

A) Measurement and Payment

The complete work as measured for Gas/Water Shutoff Cover, Adj, Case 1 will be paid for at the contract unit price for the following contract pay items and includes all material, equipment, and labor to complete this item

Contract Item (Pay Item)	Pay Unit
Gas/Water Shutoff Cover, Adj, Case 1.....	Each

City of Mt. Pleasant

SPECIAL PROVISION
FOR

HMA APPLICATION ESTIMATE - LOCAL STREET

City of MtPleasant

1 of 1

January 16

A) Description

This work shall be done in accordance with the requirements of section 501 of the 2012 Standard Specifications for Construction and applicable supplemental specifications and special provisions, and as specified herein. The HMA Approach bid item shall include paving of HMA Driveways and cross streets. Cross streets shall be constructed in two passes at the same cross-section as the mainline pavement, follow the procedures outlined in MDOT 501.03F4

B) Materials

The HMA leveling course and HMA Approach shall be HMA, 13A. The HMA top course shall be HMA, 36A.

The leveling course shall have a yield of 175 pounds per square yard and the binder shall be PG 56-28

The top course shall have a yield of 125 pounds per square yard, an AWI of 260, minimum, and the binder shall be PG 58-28.

HMA Approach shall be 13A. Cross streets shall be constructed in two passes, have a yield of 300 pounds per square yard, and the binder shall be PG 58-28. Driveways shall be constructed in one pass, have a yield of 220 pounds per square yard, and the binder shall be PG 58-28.

The HMA Bond Coat material shall be per Section 501.03. The uniform rate of application shall be 0.05 - 0.15 gallons per square yard.

City of Mt. Pleasant
SPECIAL PROVISION
FOR
DETECTABLE WARNING SURFACE, MODIFIED

City of Mt. Pleasant

1 of 1

June 2014

A) Description

This work shall be done in accordance with the requirements of Standard Plan R-28 series and Section 803 of the 2012 Standard Specifications for Construction except that the detectable warning plate shall be an asphalt dipped Cast Iron warning plate.

B) Materials

The detectable warning plate shall be an asphalt dipped Cast Iron warning plate meeting the requirements of section 803 of the 2012 Standard Specifications for Construction.

C) Construction

This work shall be done in accordance with the requirements of Standard Plan R-28 series and Section 803 of the 2012 Standard Specifications for Construction except that the detectable warning plate shall be an asphalt dipped Cast Iron warning plate.

D) Measurement and Payment

The complete work as measured for Detectable Warning Surface, Modified will be paid for at the contract unit price for the following contract pay items and includes all material, equipment, and labor to complete this item.

Contract Item (Pay Item)

Pay Unit

Detectable Warning Surface, ModifiedFoot

City of Mt. Pleasant
SPECIAL PROVISION
FOR
RESTORATION, MODIFIED

City of MtPleasant

January 16

A) Description

This work shall include all labor, materials and equipment to clean up and restore public and private ground to a condition equal to or better than that which existed prior to construction. This includes removal and legal disposal of all construction debris, litter, and materials.

B) Materials

1) Topsoil

Black dirt or natural surface soil, high in organic material, free from stones, brush, debris, objectionable weeds, or other litter, and approved by the City Engineer prior to spreading. The engineer may perform a soil test prior to approval. Peat material is not acceptable.

2) Fertilizer

Fertilizer shall be commercial seed starting 20-10-10 grade supplied in the manufacturer's packaging with composition clearly marked. Bulk fertilizer may be used when certified delivery slips are furnished by the Contractor, meeting section 816 of the 2012 MDOT specifications.

3) Seed

Seed material and application shall meet section 816 of the 2012 MDOT specifications, using TUF seed mixture.

4) Mulch and Adhesive

Mulch and adhesives shall meet section 816 of the 2012 MDOT specifications, for wood fiber mulch. Paper mulch or straw are not acceptable.

C) Construction

1) Preparation of Seed Bed

i) Grading

Grades on areas to be seeded shall be maintained in a true and even condition. Where the grades are not defined, they shall be established by the Contractor to blend with existing adjacent grades without irregularities and shall provide for proper drainage.

ii) Placing Topsoil

Topsoil shall be evenly spread by blade graders, or other approved methods, to a minimum depth of four inches (4"). Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions where water will stand. Topsoil shall not be placed until the subgrade has been smoothly graded and compacted, and the engineer or inspector approves the subgrade in writing.

iii) Application of Fertilizer

Fertilizer shall meet the requirements of section 812 of the 2012 MDOT specifications for Class A fertilizer.

iv) Cleanup

After completion of the above operations, the surface shall be cleared of stones, roots, brush, wire, grade stakes, and other objects that might be a hindrance to maintenance operations.

2) Seeding

TUF seed mixture meeting requirements of section 816 of the 2012 MDOT specifications shall be used on all lawn areas and adjacent backslopes. No seeding shall be done until the Engineer has inspected the seed container and has given written approval of the topsoil. Seeding for erosion control measures shall be cereal rye seed.

3) Mulching

i) Straw and Hay Mulch

As part of the seeding and fertilizing operations, wood fiber mulch shall be spread over the surface as required in section 816 of the 2012 MDOT specifications. Paper mulch is not acceptable.

ii) Mulch Adhesive

Mulch shall be held in place by a spray coating of mulch adhesive. The Contractor shall protect all traffic, signs, structures, and other objects from being marked or disfigured by the adhesive material. Fire hydrants shall be covered prior to the placement of all sprayed materials. Adhesive material shall be applied uniformly at a rate of 400 gallons per acre, sprayed simultaneously with the mulch, or a surface application of adhesive sprayed immediately following mulching.

4) Establishment of Seeded Areas

The Contractor shall be responsible for the proper care of the seeded area during the period when the grass is becoming established, and shall be responsible for a total grass cover. The acceptance of the work will not be given until grass cover is established.

i) Watering

Seeded areas shall be watered whenever excessive drying is evident during the period set for establishment of the seeded area. The Contractor shall be responsible for the proper care of the seeded areas and for the establishment of a uniform stand of grass until final acceptance of the entire work covered by the Contract.

The City has established a program to encourage residents to water the newly seeded areas, to help establish the lawn. Residents will be given a credit on their water bill for watering the newly seeded areas.

ii) Weeds

After the grass has become established, if it appears to have more than ten percent (10%) weeds, the Contractor shall spray with an approved herbicide (weed killer).

D) Measurement and Payment

Restoration, Modified shall be paid for by the station as measured along the project centerline and will include all work necessary to restore both sides of the street. The price paid shall be payment in full for all Restoration, Modified work.

Contract Item (Pay Item)

Pay Unit

Restoration, Modified.....

Station

City of Mt. Pleasant
SPECIAL PROVISION
FOR
Underdrain, Subgrade, Open-Graded, 4 inch, Modified

City of MtPleasant

1 of 1

January 16

A) Description

This work consists of constructing and installing underdrains.

B) Materials

MDOT 34G aggregate or approved 1/2" crushed aggregate
4-inch geotextile-wrapped perforated plastic pipe

C) Construction

This work shall be done in accordance with the requirements of Section 404.03 of the MDOT 2012 Standard Specifications for Construction with the follow exceptions:

- 1) Backfill from trench bottom to 2 inches above shall be MDOT 34G or approved 1/2" crushed aggregate.
- 2) The remaining trench shall be backfilled with class II sand compacted, by means of a vibratory compactor, to at least 95% of its maximum density.
- 3) Underdrain pipe will be geotextile-wrapped; backfill material will not be wrapped.
- 4) Unless otherwise specified on the plans, underdrain pipe shall be placed at an elevation such that the bottom of the pipe is at an elevation 4 feet below the top of curb elevation.

D) Measurement and Payment

This work will be measured and paid as specified in section 404.04 of the MDOT 2012 Standard Specifications with the following exception. The unit price for Underdrain, Subgrade, Open-Graded, 4 inch, Modified shall include the following:

- 1) The cost of providing the pipe and fittings with a geotextile wrap
- 2) Not the cost of providing and lining the trench with geotextile.
- 3) The cost of connecting the downstream end of the underdrain pipe to either a drainage structure or an existing underdrain pipe.

Contract Item (Pay Item)

Pay Unit

Underdrain, Subgrade, Open-Graded, 4 inch, Modified..... Foot

City of Mt. Pleasant

SPECIAL PROVISION
FOR

WATER SYSTEM MATERIALS AND CONSTRUCTION

City of MtPleasant

1 of 16

January 16

A) Description

The Contractor shall furnish all labor, equipment, and materials to completely construct, test, and place in operation, the water system as shown on the drawings and specified herein.

B) Materials

1) Water Main Pipe

i) Ductile Iron Pipe

Ductile iron pipe shall meet the requirements of ANSI/AWWA C151/A21.51. Where these specifications differ with ANSI/AWWA C151/A21.51 these specifications will prevail.

Cement Mortar Lining - Cement mortar lining of pipe shall conform to ANSI/AWWA C104/A21.4. Care shall be taken to insure that no mortar remains in the joint surface of the bell. If mortar is found in the joint surface or lining, of greater thickness than allowed, the pipe will be returned.

Length of Pipe - The minimum nominal laying length of the pipe shall be eighteen feet (18'). A maximum of twenty percent (20%) of the total number of each size of an order may be furnished as much as twenty-four inches (24") shorter than the nominal laying length; an additional ten percent (10%) may be furnished as much as six inches (6") shorter than nominal laying length.

Pipe Thickness - Ductile iron pipe shall have a wall metal thickness as follows:

6-inch pipe	0.31 inch (Class 52)
8-inch pipe	0.33 inch (Class 52)
12-inch pipe	0.37 inch (Class 52)
16-inch pipe	0.37 inch (Class 51)
20-inch pipe	0.39 inch (Class 51)

Tolerances will be as allowed in ANSI/AWWA C151/A21.51. Pipe sizes not listed above will not be approved for use as main lines in the City water system.

Coating - The inside and outside of the pipe shall be coated with a bituminous coating of either coal-tar or asphalt base one mil. thick.

Independent Tests - The supplier shall furnish reports of all tests and inspections as required in the ANSI/AWWA C151/A21.51.

ii) Polyvinyl Chloride Pipe (PVC)

Polyvinyl chloride pipe (PVC) shall be of a class and designation as shown on the proposal, Plans and/or special conditions, with a SDR of 18 to 13.5 and compound designation Class No. 12454A, ASTM D-1784. PVC pipe shall be in accordance with current AWWA Standard C-900, meet the ANSI/NSF standard 14, and be blue in color.

PVC pipe sizes six to twelve inches (6" - 12") in diameter shall be Class 150, and pipe sizes greater than twelve inches (12") shall be Class 200.

A single strand of 12 gauge insulated copper wire, blue in color, shall be buried in the trench twelve inches (12") above the PVC pipe. Solder all wire splices and wrap with "Scotch 2200 Vinyl Mastic Pads". The tracer wire shall be connected to each hydrant at a bolt on the bottom of the hydrant barrel by use of a soldered connection, a crimped U-shaped connection, or a ring lug.

iii) Restrained Joint PVC Pipe (RJPVC)

Restrained Joint PVC Pipe (RJPVC) shall use a Certa- or approved equal joint restraint system. RJPVC shall meet the above requirements for Polyvinyl Chloride Pipe except that it shall be Class 235.

iv) Water Services

Allowable sizes are one inch, two inch, four inch (1", 2", 4"), or as specified for mains. Service saddles are required at each service connection on water main.

Material for four inch (4") shall be ductile iron or polyvinyl chloride, as specified for mains. Material for one inch (1") and two (2") shall be one of the following:

(1) Type K annealed seamless copper tubing conforming to ASTM B-88.

(2) One inch (1") shall be copper tube size, polyethylene (PE) water service pipe meeting AWWA C901 specifications. Markings on the pipe shall be AWWA C901, PE 3406, ASTM D-2737, dimension ratio SDR-9 brand name, date of manufacture, nominal size, sizing type (i.e., copper tube Size (CTS)), pressure rating 160 PSI at 73 1/2 temperature, seal or (mark) of accuracy.

(3) Two inch (2") shall be copper tube size, polyethylene (PE) water service pipe meeting AWWA C901 specifications. Markings on the pipe shall be AWWA C901, PE 3406, ASTM D-2737, dimension ratio 7, brand name, date of manufacture, nominal size, sizing type (i.e., copper tube size (CTS), pressure rating 200 PSI at 73 1/ temperature, seal or (mark) of accuracy.

v) Joints

(1) Cast and Ductile Iron Pipe

- (a) Mechanical - ANSI A21.11 or AWWA C111 with rubber gaskets.
- (b) Push-on - ANSI A21.11 or AWWA C111 with thermite welded sockets and cable.

vi) Fittings

(1) Cast Iron or Ductile Iron ANSI A21.10 or AWWA C110 or C153, 250 psi working pressure through twelve inches (12") and 150 psi above. Cutting-in sleeves, Clow Corporation #F 1220 or Traverse City Iron Works #A 847 M.

(2) All fittings are to be mechanical joint, including bends, tees, valves, hydrants. All fittings on new water main shall be Mega Lug fittings.

vii) Valves

(1) Gate - AWWA C509, full resilient wedge, non-rising stem, mechanical joint, fully bronze mounted with roller and gear operator. Waterous Series 500 or Clow RW Valve or equal. Turn counter-clockwise to open.

(2) Butterfly - AWWA C504, Class 150-B, cast iron short body, cast iron disc, mechanical joint, worm gear traveling nut operator for direct burial allowed only for valves larger than sixteen inches (16"). Turn counterclockwise to open.

(3) Boxes - Three section cast iron with lid marked "WATER":

- (a) Upper Section - Screw on adjoining center section and full diameter throughout.
- (b) Center Section - Minimum five inch (5") inside diameter.
- (c) Base Section - Fit over valve bonnet and shaped round for valves through ten inches (10") and oval for twelve inches (12") and over.

(4)Hydrants

- (a) Style - Break-away traffic model by East Jordan Iron Works, Model 5 – BR. AWWA C502, open clockwise.
- (b) Size - Hydrant with eight inch (8") I.D. barrel.
- (c) Inlet – six inch (6") diameter mechanical joint.
- (d) Drain - Tapped and plugged with brass plug.
- (e) Nozzles - National Standard Thread
 - (i) Two (2) 2-1/2 inch hose nozzles.
 - (ii) One (1) 4-1/2 inch pumper nozzle.
- (f) Operating nut and nozzle cap nuts to be 1-3/4 inch square.
- (g) Burial - six feet (6') minimum or as directed on the Plans or by the Engineer. The Contractor is to verify needed fire hydrant length to provide for 22 inch port height above the ground.
- (h) Conforming to City standards.

(5)Service Fittings

- (a) Unions will not be allowed between corporation stop and the curb stop. New services and the repair of existing services shall be made so that there will be a continuous, unbroken pipe between the corporation stop and the curb stop.
- (b) Service Saddles - Double-strap bronze or brass parts, AWWA CC threads. For PVC C900 pipe, use Ford S90 or approved equivalent.
- (c) Brass Corporation Stops [With CC (AWWA) threads]
 - (i) Ford - one inch (1") F600; Mueller – one inch (1") H15000 or approved equivalent.
 - (ii) Polyethylene Pipe - Use above specified corporations with adapter. Ford C 06-44.
 - (iii) For two inch (2") Services - Ford FB 1000, Mueller P-25008

- (d) Brass Curb Stops – two inch (2") Minneapolis pattern required.
 - (i) Ford Z22-333M, Z22-444M, Z44-777M, Mueller P25155 or approved equivalent. Polyethylene pipe will require a Ford C 06-44 adapter or equal.
- (e) Curb Stop Boxes - six feet (6') burial – two inch (2") Minneapolis tapped base with 1-1/4 inch upper section riser with pentagon brass nut in cap. Mueller H10300, Ford type PL or approved equivalent.

(6) Miscellaneous

- (a) Stainless Steel Tie Rods and Clamps - Clow Corp. or Traverse City Iron Works.
- (b) Plastic Seamless Encasement Tubing
 - (i) Material - ASTM D-1248 Polyethylene, Type III, Class C, eight (8) mils thick.
 - (ii) Closing Tape – two inches (2") wide Poly-Ken #900 or Scotchwrap #50.
- (c) Tapping Sleeves
 - (i) The tapping sleeve shall be a Ford Tapping sleeve, style FAST, with a stainless steel flange and rubber coat.
 - (ii) Stainless steel tapping sleeve shall not be allowed on water mains larger than 16 inches.
 - (iii) Full circle mechanical joint cast iron shall be required on water mains larger than 16 inches.
 - (iv) All tapping sleeves must be pressure tested to 150 psi before main is tapped.

(7) Shop Drawings and Material Inspection

- (a) The Contractor shall have the City Water Department Superintendent review shop drawings and all materials to be used on the City water system prior to installation.

C) Construction

1) Water Main

The installation, handling, and storage of all pipe and appurtenances shall be according to manufacturer's recommendations. Pipe shall, at all times, be protected against impact shocks and free fall. Stockpiling of pipe and appurtenances at the site shall be in such a location as to minimize handling and prevent collecting or submergence with water.

The depth of trench shall be such that the top of the pipe to be placed therein shall not be less than six feet (6') or more than seven feet (7') below the proposed finish grade. The depth shall be increased or decreased, if so shown on the Plans or so ordered by the Engineer. Depths shall be noted on the "As Built" Plans and Daily Inspection Reports. The trench shall be of such width as will readily permit the laying, handling and assembling of the pipes in the trench and to allow thorough filling and compacting of the earth backfill, adjacent to the lower half of the pipe. All hub holes shall be excavated to an extra width and depth to allow for proper examining of the pipe and shall provide a solid bearing for the pipe, practically its full length without refilling before the pipe is laid. Blocking of the pipe will not be allowed.

The trench bottom shall be undercut three to four-inches (3"-4") below the final location of the pipe and the trench then filled with Class II sand or crushed stone compacted with hand tampers to provide a cushion for bedding the pipe. The Contractor shall provide the sand or crushed stone from off the site, except when the trench passes through well-defined strata of sand or gravel.

Trenches for pipe shall be excavated so that there will be a minimum clearance of six inches (6") on each side of the barrel of the pipe and a maximum width of trench at the level of the top of the pipe, of not more than 16 inches greater than the OD of the pipe.

There shall be, at all times, a sufficient width to permit the pipe to be laid and to permit first-class construction methods to be used. Sufficient space shall be provided in the trench to permit the joint to be properly made.

Excavation for structures shall be extended sufficiently beyond the limits of the structure to provide ample room for placement and for other construction methods to be followed, wherever necessary.

In case soft material is encountered in the bottom of a trench or underneath a special structure, which, in the opinion of the Engineer, is not suitable for supporting the pipe or structure, the Engineer may order the removal of this soft material and its replacement with crushed stone, concrete or other material in order to make a suitable foundation for the construction of the pipe or structure.

After the pipe is laid, Class II sand, fine gravel or crushed stone shall be placed the entire width of the trench up to the spring line of the pipe. Backfill shall be carefully tamped under the haunches of the pipe. Additional sand, gravel or stone shall then be placed until the entire width of the trench is filled to not less than one foot (1') above the top of the pipe. Sand used for backfill around and over the pipe shall be thoroughly compacted with a vibratory compactor; hand compaction will not be acceptable.

The remainder of the backfilling may be done with acceptable material. All backfill, including pipe bedding, is to be compacted in maximum one-foot (1') lifts to a density of 95 percent of the maximum unit weight as determined by the modified proctor.

After the trench has been excavated as required, the pipe, fittings, valves and hydrants shall, after first being thoroughly inspected and the joints cleaned, be placed in the trench. All pipe fittings, and valves that will not be chlorinated with the new water main, shall be swabbed inside with five percent (5%) bleach (Sodium Hypochlorite) full strength before assembly and placement into the system. All pipe, fittings, valves and hydrants shall be carefully placed into the trench in such a manner as to prevent damage to them. Under no circumstances shall water main materials be dropped or dumped into the trench.

All lumps, blisters, and excess tar coating shall be removed from the bell and spigot ends of all ductile iron pipe and fittings. The outside of the spigot and the inside of the bell shall be wire-brushed and wiped clean before the pipe is laid.

Any damage to the exterior coating of the pipe shall be repaired with an approved coating before the pipe is laid. After placing a length of pipe in the trench, the spigot end shall be lubricated and then entered into the bell and the pipe pushed to the stop mark and brought to correct line and grade. Lubricants recommended by the pipe manufacturer and approved for use on a potable water system shall be applied as recommended. Due care should be used to seat the gasket evenly in the bell at all points.

The plain end of the slip type joint is furnished with a slight taper to ease its sliding fit with the gasket when the joint is made up. When necessary to cut pipe in the field, the outside of the cut end should be tapered by filing or grinding back about 1/8-inch at an angle of about 30 degrees with the centerline of the pipe.

Cutting pipe for inserting valves, fittings, etc., shall be performed in a neat workmanlike manner, without damage to the pipe or lining, and so as to leave a smooth end at right angles to the axis of the pipe.

Ductile Iron - Cutting shall be performed with a roller or shear type cutter for pipe sizes up to 20 inches in diameter. When machine cutting is not available for cutting pipe twenty 20 inches in diameter, or larger, electric arc cutting method will be permitted, using a carbon or steel rod. Only qualified, experienced workmen shall be used for this.

Asbestos-Cement or PVC Pipe - Cutting the pipe shall be performed by hand saw, abrasive discs or with a special asbestos-cement or PVC pipe cutting tool. All piping cutting tools must be of the true cutting variety. Under no circumstances is the pipe to be cut with a roller or shear type cutting tool.

If the trench contains any water, the open ends of the pipe shall be plugged with a water tight plug. A plug shall be used during any breaks in construction to prevent any possible contamination.

Whenever it is desirable to deflect the pipe in order to form a long-radius curve or to avoid obstructions, the pipe may be deflected within the tolerances recommended by the manufacturer and approved by the Engineer. No deflections in excess of those recommended by the manufacturer shall be allowed except by utilization of standard fittings as specified herein.

i) Valve and Hydrant Operation

No valves or fire hydrants on the existing system or new system, after it is in operation within the City system, shall be operated for any purpose by the Contractor without prior permission of the City Water Superintendent. Any unauthorized operation of said valves or fire hydrants shall result in a three hundred dollar (\$300.00) fine per incident.

ii) Notification Procedure for Scheduled Water main Shutdown

A 48 hour notification is required to the Water Department and to critical users, as identified below, all others require a 24 hour notification. Notification must be in writing stating the time of shutdown and length of time water is to be off. It shall be the responsibility of the Contractor to notify, in writing, all persons affected by any shutoff in accordance with the notification procedures.

Critical users are Central Michigan University, restaurants, beauty shops, hospitals, medical care facilities, nursing homes, schools, and commercial laundries.

iii) Shutdown of Water Mains

Water mains shall not be shutdown on Mondays, Saturdays, Sundays, or holidays, and/or one (1) day on either side of the holiday unless approved in advance by the Director of Public Works or Water Superintendent. From Tuesday through Friday, water mains shall be shutdown after 9:00 a.m. and are to be placed back into service before 4:30 p.m., after notification specified in the preceding paragraph. Notification must also be given to the City Water Superintendent and the Fire Department. The City has a water main shutdown procedure and checklist which are part of this specification by reference.

2) Valve Manholes

Valves twenty 20 inches or larger shall be installed in a valve manhole. All air release valves shall be in manholes. Details and materials of construction shall be as shown on the Plans and as specified for sanitary sewer manholes. The cover shall have "WATER" cast in the top.

3) Setting Valves and Boxes

All valves shall be set at a depth to the top of pipe, from a minimum of six feet (6') to a maximum of seven feet (7') below finished grade, with the stem in a vertical position and shall be plumb. The valve box shall be set so that it will not transmit shock or stress to the valve. It shall be centered over the stem nut of the valve and shall be true and plumb. The box shall be adjusted so that the cover is flush with the finished ground surface or as directed by the Engineer. Unless otherwise specified, a valve box shall be provided for every valve.

4) Setting Fire Hydrants

Fire hydrants shall be located as shown on the Plans, or as directed by the Engineer. All hydrants shall be set plumb and to a grade which will place center of the pumper nozzle above finished grade, (E.J.I.W. 22" above finished grade), unless otherwise directed by the Engineer. At no time shall the breakaway flange be below finished grade. Sufficient barrel extensions shall be furnished and installed by the Contractor to meet this requirement. Barrel extensions shall be installed such that the breakaway flange is located at finished grade level. Barrel extensions, if needed, shall be incidental to construction.

Each hydrant shall be connected to the main by a six inch (6") branch. A six inch (6") resilient wedge gate valve with box shall be installed with a valve depth of six feet (6') minimum to seven (7') feet maximum from finished grade to top of pipe, in each hydrant connection. The hydrant and valve shall be connected to the main line tee, as shown in the City standard detail, and the steamer port on the hydrant shall face the roadside.

6) Water Service Connection

- i) Water service connections shall not be made prior to the water main passing the bacteriological tests.
- ii) Water service materials must meet City specifications and be one inch (1") in size, unless specified otherwise.
- iii) Each service will consist of a saddle, corporation, piping, curb stop, and curb box.
- iv) Depth shall be a minimum of six feet (6') and a maximum of seven feet (7') of cover to the finished grade of the project or development.
- v) Curb boxes shall be adjusted to finished grade.
- vi) Curb boxes shall be fully screwed onto the curb stop valve.
- vii) Pipe must be beveled and lubricated with an approved lubricant for use on potable water systems.
- viii) Curb stops are to be installed so that the key top is parallel to curb, or proposed curb, when in the off position. (i.e. Flow is to be perpendicular to curb.) Curb boxes installed in concrete or bituminous areas shall be separated from the concrete or bituminous by the use of a length of four inches (4") PVC pipe.
- ix) The Contractor will check to see if existing curb stop is in the on or off position and leave new curb stop in same position. No curb stop valve will be turned on unless there is someone in the building to ensure there are no leaks
- x) Water services, if extended past the curb stop, shall be extended straight for a minimum of six feet (6') or past the right-of-way line perpendicular to the curb or proposed curblines.
- xi) Services are to be flushed prior to backfilling.
- xii) Taps are to be on the service side of the main.
- xiii) Taps shall be horizontal to five degrees above horizontal.
- xiv) Cookies must be given to the inspector at the time of tap.

7) Water Service Reconnections

- i) The City Water Department shall be notified of any iron pipe or lead pipe water services in use (pressurized).
- ii) Except for iron or lead pipes, all reconnections shall be of the same materials as the existing service and use brass fittings.
- iii) Where iron pipe or lead pipe water services are encountered, a new one inch (1") water service connection shall be constructed, in accordance with Sec. 8.03F, Water Service Connection above.
- iv) Reconnection shall include service saddle, corporation, and piping meeting City specifications.
- v) Taps shall be on the service side of the main.
- vi) Taps shall be horizontal to 5 degrees above horizontal. .
- vii) After reconnection is made and before the service line is pressurized, the water meter shall be removed, the line flushed, and the meter reinstalled. Any stopped water meters caused by reconnection will be charged to the Contractor on a time and material basis for repair and re-installation.

8) Live Taps

All service taps shall be made live taps, including chlorination and testing taps.

D) Testing and Sterilization

1) Pressure Testing

The Contractor shall furnish equipment for the test, and the test shall be run by him under the direction of the Engineer. The test shall be made at 150 pounds per square inch hydrostatic pressure, and shall be maintained for at least two (2) hours and the leakage shall not exceed 10.45 gallons per day, per inch diameter, per mile of pipe. The City will provide a certified gauge for the test. The Contractor shall furnish all labor and all additional equipment to make the test.

All valves shall be opened such that all air in the line can be removed upon filling with water. The Contractor shall install any corporation stops necessary to allow the air to be expelled. The main shall be filled at a velocity no greater than 1 foot per second. Flushing at a minimum velocity of 3 feet per second shall be preformed prior to starting any pressure testing.

The Contractor shall run a preliminary test to determine that all air has been expelled and to check for any leakage. If any leakage should exist, the Contractor shall make the necessary repairs and perform the preliminary testing until satisfactory results are obtained. The final test shall be made in the presence of the Engineer or Water Superintendent. If the test to be witnessed by the Engineer or Water Superintendent fails, the Contractor will be billed \$75.00 per hour with a \$150.00 minimum for the additional testing. The City will provide a certified gauge for the pressure test. The Contractor shall provide any additional equipment necessary to add and measure the water necessary to maintain the hydrostatic pressure within five pounds per square inch (5 psi) of the required test pressure for the duration of the test. If the City's gauge becomes damaged while in the Contractor's possession, the Contractor will be charged for the repair/replacement of the gauge.

When the testing period is complete, the Contractor shall add and measure the water to bring the final pressure reading to the initial pressure reading. The total gallons added during the duration of the test shall not exceed the allowable leakage.

2) Sterilization

Before the mains are chlorinated, they shall be thoroughly flushed. All mains shall be chlorinated for a period of twenty-four (24) hours. The Contractor shall furnish all necessary equipment and materials and the work shall be done under the direction of the City Engineer in accordance with all local and state health department regulations. Chlorine shall be added in sufficient quantity to give a 50 PPM residual of free chlorine after a twenty-four (24) hour period. Chlorine tablets shall not be used.

After completion of the chlorine procedure, the main shall be flushed and sampled, as per Michigan Department of Public Health requirements. The first sample shall be collected 24 hours after the chlorine has been flushed out of the main. Samples shall be taken from each end of the main with additional samples taken in order to maintain a minimum of 1 sample for each 1,200 feet of main. Sample shall also be taken at the end of each branch installed. The chlorinated water flushed from the main shall not be discharged to a storm sewer or open drainage way, that would result in discharge to surface water. The chlorinated water must be discharged to a sanitary sewer, held on site, or treated, until the chlorine is removed. All requirements of the Federal Clean Water Act (CWA) must be followed.

Two consecutive samples of water, 24 hours apart, shall be taken from the main by the Water Department for bacteriological tests, at a rate established by the DPW, per test. If the results of these tests indicate safe water, the main may be placed in service. If the tests should result in unsafe conditions, the chlorination shall be repeated by the Contractor. The Contractor shall be responsible for all costs associated with necessary retesting.

E) Measurement and Payment

1) Water Main, ___ inch

i) Description

The work of Water Main, ___ inch, Modified shall consist of excavation, the furnishing and placing of the complete water main (including all fittings, testing, concrete work, disinfecting, backfilling and removal of surplus excavated material), protection and replacement or repair of existing utilities and restoration of the surface to within four inches (4") of original grade. All work shall be done in accordance with the Plans and/or Specifications.

ii) Method of Measurement and Basis of Payment

Water Main, ___ inch, Modified will be measured in place by length in feet and will be paid for at the contract unit price which price shall be payment in full for any fittings, couplers, sheeting or shoring trench walls, backfill as required and all labor, material and equipment needed to accomplish this work.

2) Water Valve, ___ inch

i) Description

The work of Water Valve, ___ inch, shall consist of excavation, the furnishing and placing of valves, valve manholes (inc. castings), and/or boxes, as applicable. All work shall be done in accordance with the Plans and/or Specifications.

ii) Method of Measurement and Basis of Payment

Water Valve, ___ inch, will be paid for by the unit each, and shall include the valve box and/or valve manhole, and casting, as well as all labor, materials, and related work as described above.

3) Hydrant Set

i) Description

The work of Hydrant Set shall consist of furnishing and installing fire hydrant, an auxiliary valve, valve box, connecting piping, fittings, thrust block, barrel extension, drainage pit, and miscellaneous appurtenances. All work shall be done in accordance with the Plans and/or Specifications.

ii) Method of Measurement and Basis of Payment

Hydrant Set shall be paid for by the unit each, and shall include the auxiliary valve, valve box, connecting piping, fittings, thrust block, barrel extension, and miscellaneous appurtenances. All work shall be done in accordance with the Plans and/or Specifications.

4) Tapping Sleeve & Valve

i) Description

The work of Tapping Sleeve & Valve, shall consist of furnishing and installing tapping sleeves and valves on existing mains without loss of pressure in the existing main. It shall also include the installation of a valve box or manhole, as applicable. All work shall be done in accordance with the Plans and/or Specifications.

ii) Method of Measurement and Basis of Payment

Tapping Sleeve & Valve shall be paid for by the unit each, and shall include the installation of a valve box or manhole, as applicable. There will be a time and materials charge by the City if main has to be de-pressurized to pull out cookie.

5) Water Service - (Short or Long), ___inch

i) Description

The work of Water Service - (Short or Long), ___inch, shall consist of excavation, furnishing and placement of sand backfill, removal of surplus excavated material, tapping the main, furnishing and installation of service clamp or saddle, corporation stops, curb stops, curb boxes, service pipe, and fittings to connect to existing service pipe, in accordance with the Specifications. Long-side service leads shall include crossing roads. Short-side service leads are those which do not cross roads.

ii) Method of Measurement and Basis of Payment

Water Service - (Short or Long), ___inch, shall be paid for by the unit each, and shall include tapping the main, furnishing and installation of service clamp or saddle, corporation stops, curb stops, curb boxes, service pipe, and fittings to connect to existing service pipe, in accordance with the Specifications.

6) Connect to Existing Water Main

i) Description

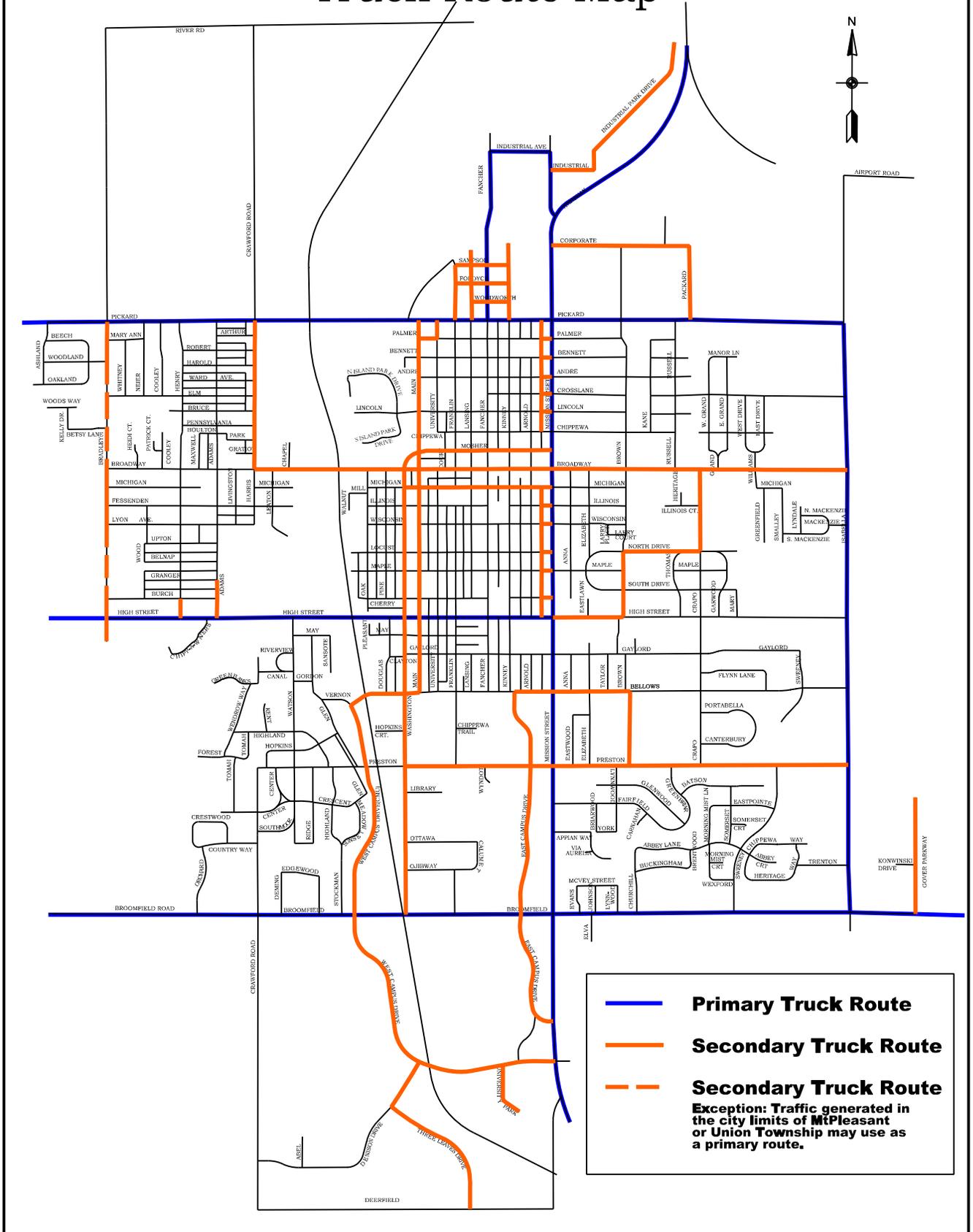
The work of Connect to Existing Water Main, shall consist of excavation, furnishing and placement of sand backfill, removal of surplus excavated material, tapping the main, furnishing and installation of service clamp or saddle, corporation stops, service pipe from the main to the reconnection point between the main and the existing curb stop box, and fittings to connect to existing service pipe, in accordance with the Specifications.

ii) Method of Measurement and Basis of Payment

Connect to Existing Water Main, shall be paid for by the unit each, and shall include tapping the main, furnishing and installation of service clamp or saddle, corporation stops, service pipe, and fittings to connect to existing service pipe, in accordance with the Specifications

Contract Item (Pay Item)	Pay Unit
Water Main, ___ inch.....	Linear Foot
Water Main, ___inch, Bored.....	Linear Foot
Water Valve, ___inch.....	Each
Hydrant Set.....	Each
Tapping Sleeve & Valve.....	Each
Water Service - (Short or Long), ___inch.....	Each
Connect to Existing Water Main.....	Each
Water Valve, Rem.....	Each
Water Main, 6 inch, Cut & Cap.....	Each

City of Mt. Pleasant Truck Route Map



DPW Policy for replacing private items and systems in the public right-of-way, resulting from construction damage or street and utility maintenance.

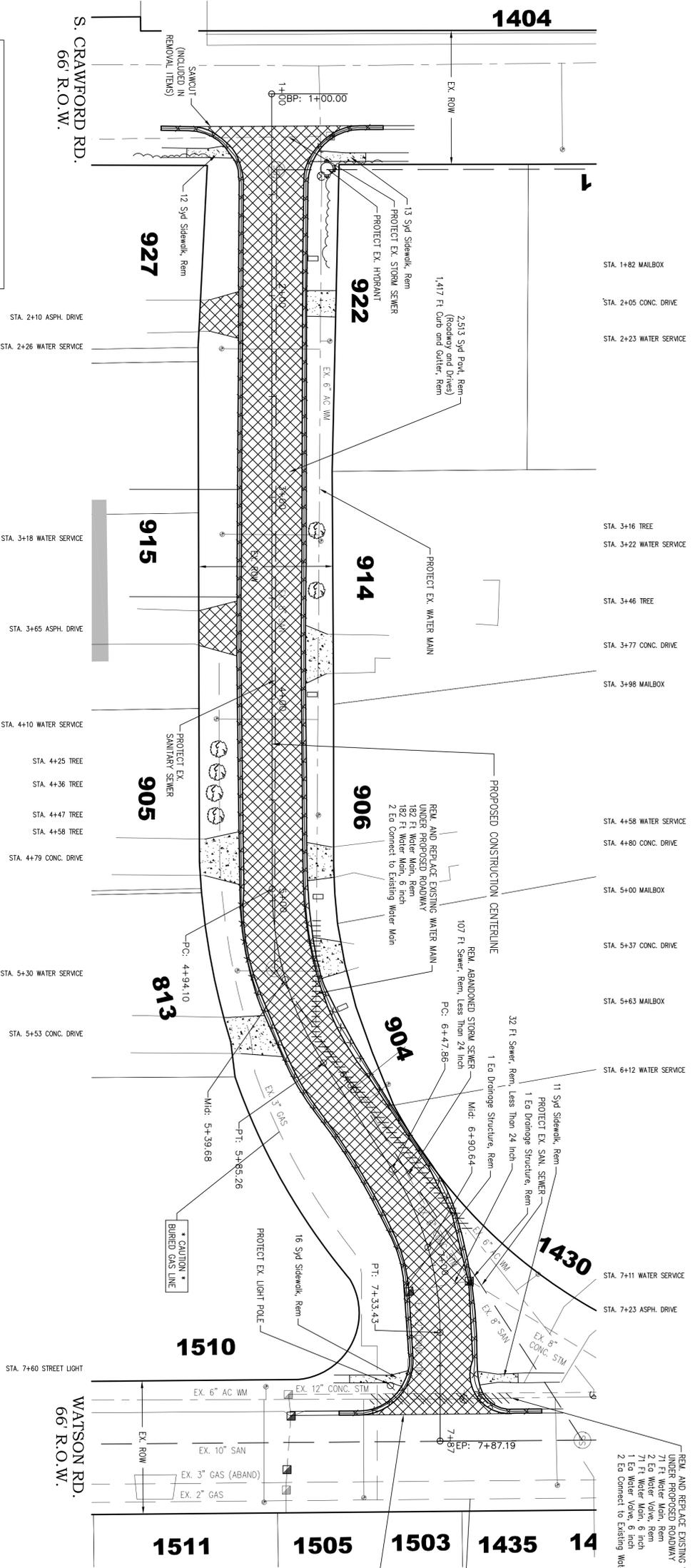
Structures, walkways, and decorative paving and pillars (including mailboxes) in the right-of-way will be replaced with functionally and aesthetically similar structures, if damaged during construction or street, sidewalk, and utility repair. Curb cuts for service walks and driveways where the drive does not exist will not be replaced. Structures in the path of street or sidewalk construction will not be replaced. Fences will not be put back up in the right-of-way.

The City of Mt. Pleasant will give advance notice asking residents to move or mark their underground irrigation systems. If sprinklers are marked, or contractors are notified of sprinklers being present, and they are damaged, the contractor will pay for the damage (except as outlined below). If not marked and the contractor is not notified of the presence of underground irrigation systems, or if no building permit was taken out at installation, the City will not pay for damage. If the City repairs a sprinkler system, they will confirm backflow prevention is in place.

Landscaping and plantings will be spared as much as practicable, but will not be replaced at the City's expense. The City will give at least one week's notice to residents to allow time to move plantings.

On state roads where structures and private paving in the right-of-way are not repaired or replaced as a result of construction damage, (MDOT rule), the City will contract for repairs and replacements outside the road contract, within the restrictions listed above.

When installing sidewalks, the DPW will accommodate residents to a reasonable extent to move sidewalks out of the normal sidewalk path to save trees and to allow extra driveway parking. The DPW will have final discretion as to which trees to cut for sidewalk installation. If there is no obstruction and no issue other than the resident wants the sidewalk to take a different path, the City will not accommodate the resident.



NOTE: THERE MAY BE BURIED CONCRETE SEWER STRUCTURES AND STORM LOCATIONS WERE NOT ABLE TO BE VERIFIED. CONTRACTOR TO USE CAUTION.

SOUTHMOOR ROAD (66' R.O.W.)



- LEGEND**
- SOIL BORING LOCATION
 - SANITARY MANHOLE
 - STORM MANHOLE
 - TREE
 - WATER SHUT OFF VALVE
 - FIRE HYDRANT
 - CURB STOP
 - CATCH BASIN
 - TRAFFIC CONTROL SIGN
 - LIGHT POLE
 - REMOVE ASPHALT
 - REMOVE CURB AND GUTTER
 - REMOVE CONCRETE

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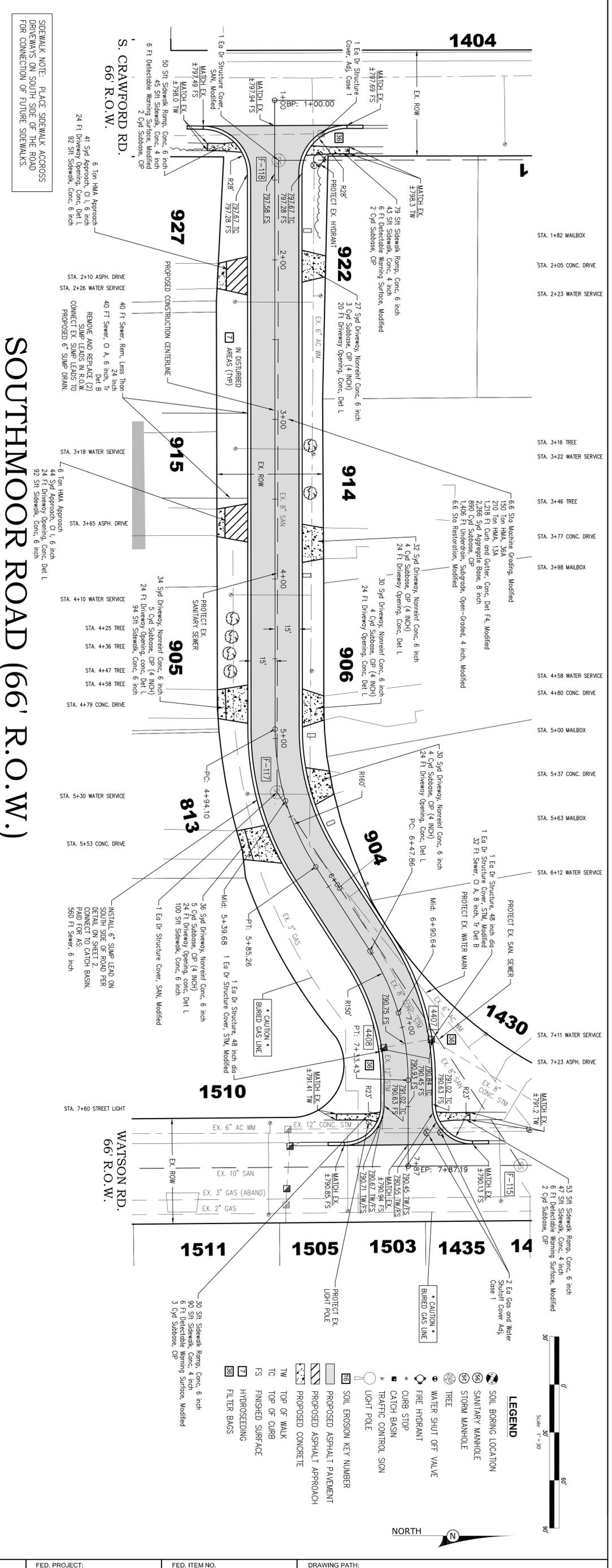


CITY OF MOUNT PLEASANT
 DIVISION OF PUBLIC WORKS
 MT. PLEASANT, MICHIGAN 48858
 (989) 779-5401
 WWW.MT-PLEASANT.ORG

REMOVAL SHEET 2016 SOUTHMOOR ROAD RECONSTRUCTION

DESIGN BY ST	CONSTRUCTED
DRAWN BY ST	DATE JAN. 2016
CHECKED BY BB	SCALE NONE
APPROVED BY JZ	SHEET 3 OF 6 SHEETS
REVISIONS	DATE/TITLE

CONTROL SECT.	JOB NO.	FED. PROJECT	FED. ITEM NO.
PLOT DATE:			



1404

EX. ROW

1 Ea Dr. Structure Cover, SAN, Modified
 ±797.69 FS
 MATCH EX. ±797.69 FS

79.5' Slt. Sidewalk, Conc. 6 inch
 6 Ft. Detectable Warning Surface, Modified
 2 Cvd Subbase, CP

PROTECT EX. HYDRANT

27 Svd Driveway, Nonrent Conc. 6 inch
 3 Cvd Subbase, CP (4 INCH)
 20 Ft. Driveway Opening, Conc. Det L

797.67 TC
 797.28 FS
 ±798.0 TW

1 Ea Dr. Structure Cover, SAN, Modified
 ±797.69 FS
 MATCH EX. ±797.69 FS

79.5' Slt. Sidewalk, Conc. 6 inch
 6 Ft. Detectable Warning Surface, Modified
 2 Cvd Subbase, CP

PROPOSED CONSTRUCTION CENTERLINE

40 Ft. Sewer, Rem. Less Than 24 inch
 40 Ft. Sewer, CI A, 6 inch, 15' RIM 797.38
 REMOVE AND REPLACE SUMP LEADS IN R.O.W.
 CONNECT EX. SUMP LEADS TO PROPOSED 6" SUMP DRAIN.

6 Ton HMA Approach
 41 Svd Approach, CI I, 6 inch
 24 Ft. Driveway Opening, Conc. Det L
 92 Slt. Sidewalk, Conc. 6 inch

66' R.O.W.

927

922

914

915

906

905

813

904

1510

1511

1505

1503

1435

14

WATSON RD.
 66' R.O.W.

EX. 6" AC WM
 EX. 12" CONC. STM
 EX. 10" SAN
 EX. 3" GAS (ABAND)
 EX. 2" GAS

PROTECT EX. SAN. SEWER

PROTECT EX. WATER MAIN

1 Ea Dr. Structure, 48 inch dia
 1 Ea Dr. Structure Cover, STM, Modified
 32 Ft. Sewer, CI A, 8 inch, 15' Det B
 PROTECT EX. WATER MAIN

Mid: 6+90.64
 P.T.: 7+43.43

1 Ea Dr. Structure, 48 inch dia
 1 Ea Dr. Structure Cover, STM, Modified

36 Svd Driveway, Nonrent Conc. 6 inch
 5 Cvd Subbase, CP (4 INCH)
 24 Ft. Driveway Opening, Conc. Det L
 100 Slt. Sidewalk, Conc. 6 inch
 1 Ea Dr. Structure Cover, SAN, Modified

1 Ea Dr. Structure, 48 inch dia
 1 Ea Dr. Structure Cover, STM, Modified

30 Slt. Sidewalk, Conc. 6 inch
 90 Slt. Sidewalk, Conc. 4 inch
 6 Ft. Detectable Warning Surface, Modified
 3 Cvd Subbase, CP

53 Slt. Sidewalk, Conc. 6 inch
 47 Slt. Sidewalk, Conc. 4 inch
 6 Ft. Detectable Warning Surface, Modified
 2 Cvd Subbase, CP

2 Ea Gas and Water Shutoff Cover Adj. Case 1

LEGEND

- SOIL BORING LOCATION
- SANITARY MANHOLE
- STORM MANHOLE
- TREE
- WATER SHUT OFF VALVE
- FIRE HYDRANT
- CURB STOP
- CATCH BASIN
- TRAFFIC CONTROL SIGN
- LIGHT POLE
- SOIL EROSION KEY NUMBER
- PROPOSED ASPHALT PAVEMENT
- PROPOSED ASPHALT APPROACH
- PROPOSED CONCRETE
- TW TOP OF WALK
- TC TOP OF CURB
- FS FINISHED SURFACE
- F3 HYDROSEEDING
- 7 FILTER BAGS

SCALE 1" = 30'

NORTH

- GENERAL CONSTRUCTION NOTES**
1. MOBILIZATION, TRAFFIC CONTROL, TESTING AND ALL OTHER WORK NECESSARY TO PERFORM THE WORK SHOWN ON THE PLANS AND SPECIFICATIONS ARE INCIDENTAL TO THE UNIT PRICES LISTED ON THE BID PROPOSAL AND WILL NOT BE PAID FOR SEPARATELY.
 2. CONTRACTOR TO MAINTAIN DRIVEWAY ACCESS EVERY NIGHT AND THROUGH THE WEEKEND.
 3. CONTRACTOR TO INSTALL BARRICADES PRIOR TO REMOVALS.
 4. CONTRACTOR TO VERIFY EXISTING SITE CONDITIONS AND UTILITY DEPTHS PRIOR TO CONSTRUCTION.
 5. CONTRACTOR TO PROTECT EXISTING TREES AND POLES.
 6. CONTRACTOR TO MAINTAIN SOIL EROSION CONTROL MEASURES UNTIL SEEDING IS ESTABLISHED.
 7. CONTRACTOR TO WORK AROUND EXISTING POWER POLES. CURBS MAY NEED TO BE ADJUSTED.
 8. ALL PAVEMENT CURB AND SIDEWALK REMOVALS SHALL BE SAW CUT. PAVEMENT INCLUDED IN REMOVAL ITEMS.
 9. ALL STORM INLETS SHALL BE PROTECTED FROM SEDIMENT BY THE USE OF FILTER BAGS DURING THE CONSTRUCTION PROCESS UNTIL ADEQUATE STABILIZATION OF DISTURBED AREAS.
 10. CONTRACTOR MUST WORK WITHIN ROAD RIGHT-OF-WAY. SHOULD THE NEED ARISE TO DO WORK OUTSIDE OF THE RIGHT-OF-WAY, THE CONTRACTOR IS RESPONSIBLE FOR GETTING PERMISSION FROM THE PROPERTY OWNER, IN WRITING, AND REPAIR ALL DAMAGE AS A RESULT OF CONSTRUCTION.
 11. PROTECT ALL EXISTING STORM AND SANITARY STRUCTURES.
 12. PLACE CRUSHED STONE AT ALL PROPOSED UTILITY CROSSINGS. INCLUDED IN PAVEMENT FOR PIPE.
 13. CONTRACTOR SHALL CONNECT ANY EX. SUMP LEADS TO THE PROPOSED SUMP DRAIN.

EXISTING STRUCTURES

F-118
 EX. SANITARY MH
 RIM 797.38
 INV. 8" N & E = 789.58

F-117
 EX. SANITARY MH
 RIM 793.85
 INV. 8" W & NE = 786.15

F-115
 EX. SANITARY MH
 RIM 790.27
 INV. 8" SW = 785.07
 INV. 10" N & S = 784.77

SOIL BORING INFORMATION

SB #1 - WEST SIDE
 3" ASPHALT
 8" AGGREGATE
 49" CLAY

SB #2 - EAST SIDE
 3" ASPHALT
 8" AGGREGATE
 49" CLAY

2016 SOUTHMOOR ROAD RECONSTRUCTION

PLAN SHEET

CITY OF MOUNT PLEASANT
 DIVISION OF PUBLIC WORKS
 MT. PLEASANT, MICHIGAN 48858
 (989) 776-5401
 WWW.MT-PLEASANT.ORG

DESIGNED BY **ST**
 DRAWN BY **ST**
 CHECKED BY **BB**
 APPROVED BY **JZ**

CONSTRUCTED BY **ST** **JAN. 2016**
 SCALE **NONE**
 SHEET **4** OF **6** SHEETS
 REVISIONS _____ DATE/TIME/INITIALS _____

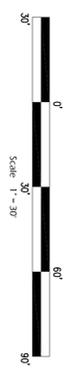
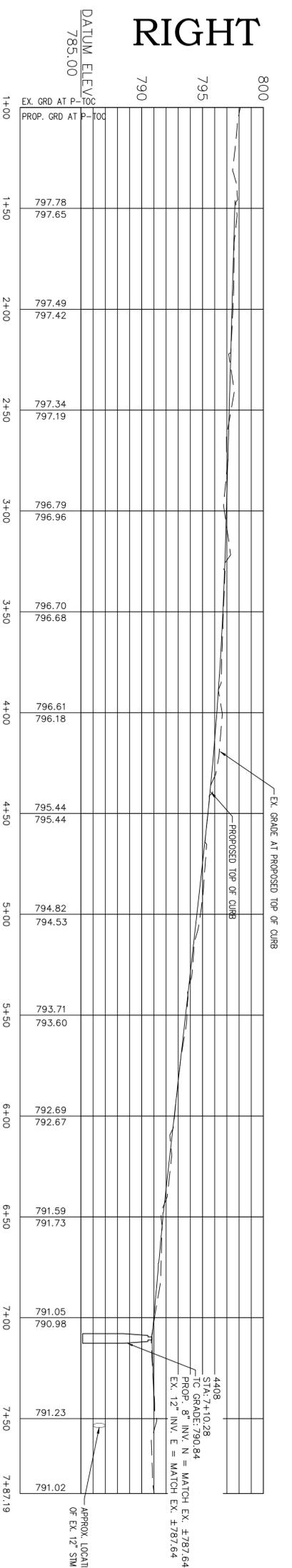
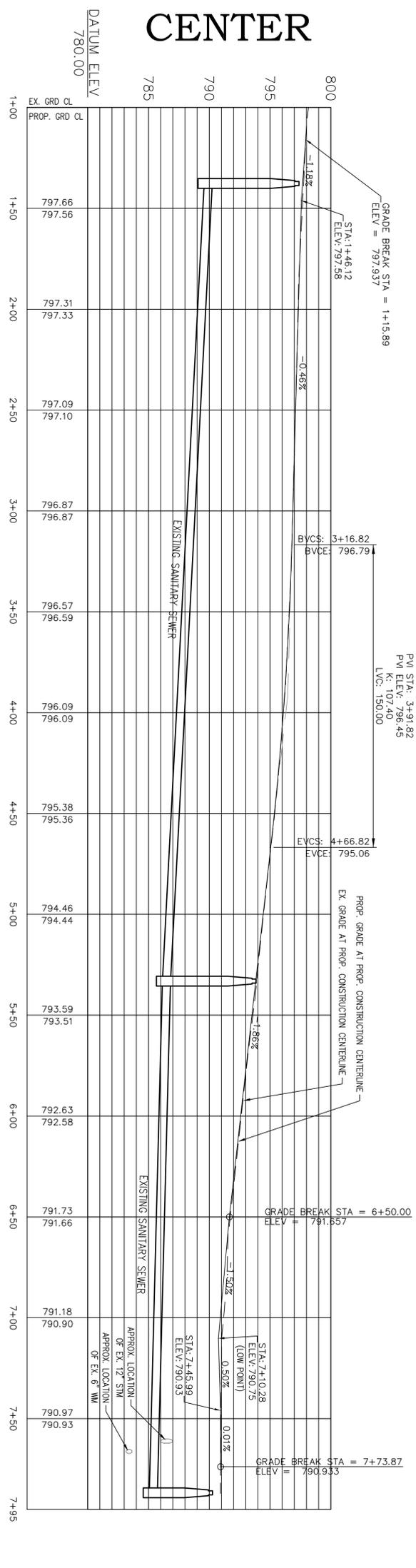
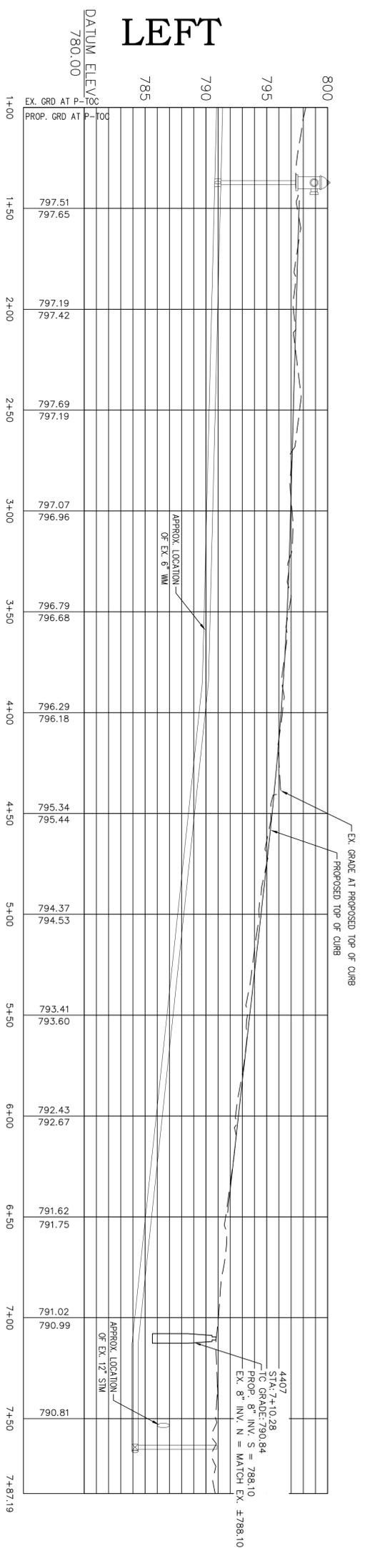
CONTROL SECT. _____ JOB NO. _____ FED. PROJECT _____ FED. ITEM NO. _____

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2016 SOUTHMOOR ROAD RECONSTRUCTION CONTROL SECTION: LOCAL JOB NO.: FED. PROJECT: FED. ITEM NO. DRAWING PATH:

SOUTHMOOR ROAD PROFILES



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PROFILE SHEET 2016 SOUTHMOOR ROAD RECONSTRUCTION

DESIGN BY ST	CONSTRUCTED BY ST	DATE JAN. 2016
DRAWN BY BB	CHECKED BY BB	SCALE NONE
APPROVED BY JZ	SHEET 5 OF 6	SHEETS
REVISIONS	DATE/INITIALS	

CONTROL SECT.	JOB NO.	FED. PROJECT	FED. ITEM NO.
PLOT DATE:			

