

CITY OF IRONWOOD

MICHIGAN

CONSTRUCTION SPECIFICATIONS

AND

RELATED DOCUMENTS

FOR

CITY OF IRONWOOD

2021

ASPHALT PAVING PROGRAM

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## **BID ADVERTISEMENT**

The City of Ironwood is soliciting bids for the asphalt milling, asphalt paving of local streets, asphalt street patches, storm catch basins/manhole, and concrete curb & gutter.

Sealed offers will be received by the Ironwood City Clerk in the Memorial Building, Ironwood, Michigan 49938, until 10:00 A.M. local time, Wednesday, July 7, 2021, at which time the bids shall be read aloud.

Bid Documents may be obtained from the Ironwood City Clerk, 213 S. Marquette Street, Ironwood, Michigan 49938.

The City reserves the right to accept or reject any and all bids.

Karen M. Gullan  
City Clerk

## SPECIAL PROVISIONS

### 1. Underground Utilities

- (a) For protection of underground utilities and in conformance with Public Act 53, 1974, the Contractor shall call 1-800-482-7171 a minimum of three full working days, excluding Saturdays, Sundays and Holidays prior to beginning each excavation in areas where public utilities have not been previously located. Members will thus be routinely notified. This does not relieve the Contractor of the responsibility of notifying utility owners who may not be part of the “Miss Dig” alert system.

### 3. Construction Coordination / Permits

- (a) Construction will need to be coordinated with the City of Ironwood Engineering Department.
- (b) The contractor will be responsible for obtaining the necessary permits from the State of Michigan and/or any other necessary agency. Contractor shall include all permit costs with their bid.

### 4. Requirements for Performance Security and Payment Security

- (a) The successful bidder, at the execution of the contract, shall furnish security to guarantee faithful performance of the contract in the amount of 100% of the total contract price.
- (b) The successful bidder shall also furnish security to guarantee payment to all persons supplying labor or materials in the performance of the contract in the amount of 100% of the total contract price.
- (c) Security may be in the form of a performance bond and payment bonds, postal money order, certified check or cashier’s check.
- (d) Upon completion of project the contractor shall provide lien wavers from all contractors and suppliers.
- (e) A 5% Bid Bond shall be provided with the submittal of the bid.

5. Commencement, Execution and Completion of Work

- (a) The contractor shall be required to commence work under this Contract within 5 calendar days after the date the Contractor receives the Notice to Proceed.
- (b) Execute the work diligently.
- (c) Working hours are between 7:00 A.M. and 9:00 P.M.
- (d) A construction Schedule shall be provided and approved by a City Representative.
- (e) No work shall be done on Saturday's or Sunday's unless approved in advance by a City Representative.

6. Failure to Complete Work Within Contract Time

Construction shall be fully completed by Friday, October 21, 2021. If the Contractor fails to prosecute the work, or any separate part thereof with such diligence as will insure its completion within the time specified in this contract, fixed and agreed Liquidate Damages will be assessed for each calendar day of delay until the work is completed and accepted. Liquidate Damages equal \$250 / Calendar Day.

7. Warranty / Defects

The Contractor shall be responsible for any and all defects that may develop in any part of the entire work or installation furnished by him/her. Upon written notice of the City of Ironwood, the contractor shall immediately replace and make good, without expense to the owner, any faulty part, material, or workmanship. A one-year warranty shall be provided by the contractor. The warranty shall start from the date the final payment is made.

## **SECTION A - BID SOLICITATION**

Issued By: City of Ironwood

Type of Solicitation: Sealed Bid

Project Name: 2021 City of Ironwood Asphalt Paving Program

Project Description: Asphalt milling of existing asphalt streets, concrete curb & gutter, installation of catch basins, shoulder grading/minor ditching for positive drainage, hot mix asphalt, turf restoration and all appurtenances necessary for a complete project. This project also includes asphalt street patches and concrete curb & gutter and sidewalk repairs at various locations around the city.

Project Location: See attached map for project locations.

Site Inspection: The contractor is encouraged to inspect the project locations prior to bidding.

Delivery of Proposal: The proposal shall be submitted in a sealed envelope, plainly marked with the name of the Project and the name and address of the Bidder on the outside of the envelope. All offers must be received by the City Clerk prior to the time and at the place specified in the advertisement.

Award: One Contract will be awarded, to the lowest responsive and responsible bidder. The City reserves the right to reject bids at its sole discretion.

**SECTION B- OFFER AND SCHEDULE OF ITEMS**

<u>Item No.</u>	<u>Item Description</u>	<u>Pay Unit</u>	<u>Estimated Quantity</u>	<u>Unit Price</u>	<u>Amount Bid</u>
1000	Mobilization	LS	1	\$_____	\$_____
3010	Mill & Install Asphalt Curbing (various locations)	LF	285	\$_____	\$_____
3050	Mill Pavement (1 ¾")	SYD	20,000	\$_____	\$_____
3060	1 ¾" Asphalt Overlay (Milled Streets)	TN	3,100	\$_____	\$_____
4000	Restoration & Turf Establishment (All Locations)	LS	1	\$_____	\$_____
7000	Remove & Replace Concrete Curb & Gutter (McLeod Ave.- Court St. to Silver St.)	LF	1,650	\$_____	\$_____
7010	Remove & Replace Concrete Curb & Gutter (various locations)	LF	1,650	\$_____	\$_____
7100	Remove & Replace Concrete Sidewalk (McLeod Ave.-Court St. to Silver St.)	SQFT	4,300	\$_____	\$_____
7110	Remove & Replace Concrete Sidewalk (various locations)	SQFT	1,600	\$_____	\$_____
7115	Remove & Replace (Dowel-In) Concrete Sidewalk	SQFT	400	\$_____	\$_____
7200	Provide & Install ADA Detectable Warning Device	SQFT	32	\$_____	\$_____
9000	Street Patch-Local Streets (Various Locations)	SQFT	8,000	\$_____	\$_____

**SECTION B – OFFER AND SCHEDULE OF ITEMS (page 2)**

9010	Provide & Install New Storm catch Basins (complete)	EA	2	\$_____	\$_____
9015	Provide & Install New Off Set Storm manhole (complete)	EA	1	\$_____	\$_____
9020	Provide & Install 12” Corrugated Plastic, smooth wall interior storm Sewer	LF	40	\$_____	\$_____
9980	Centerline Striping	LF	20,000	\$_____	\$_____
9981	White Edgeline (Fog Line)	LF	24,000	\$_____	\$_____
9982	Stop Bar	LF	220	\$_____	\$_____
9983	Crosswalk	LF	650	\$_____	\$_____
TOTAL BID, ALL ITEMS				\$_____	

Basis of Award: One contract will be awarded to the lowest responsive and responsible bidder based on the Total Bid Price for all items.

Firm Name: \_\_\_\_\_ Signature: \_\_\_\_\_

Address: \_\_\_\_\_ Title: \_\_\_\_\_

\_\_\_\_\_ Date: \_\_\_\_\_

Telephone No. \_\_\_\_\_



SECTION C – BIDDING REQUIREMENTS, CONDITIONS  
AND CONTRACT ADMINISTRATION

C-1. Competency of Bidders

- (a) The City Manager reserves the right to select bidders and may refuse to issue a proposal to any individual, partnership, firm or corporation based upon but not limited to one or more of the following facts:
  - (1) For having defaulted on previous contracts.
  - (2) For having preformed similar work in an unsatisfactory manner.
  - (3) When in the City Manager’s judgment the bidder does not have the required experience in the class of work bid on, fails to have the proper labor and equipment, or fails to have sufficient capital or quick asset to finance the work.

C-2. Interpretation of estimates, Specifications, Special Provisions and Site of Work

- (4) The quantities on the proposal are approximate only and given as a basis to compare bids. The City does not assume any responsibility that these quantities will remain unchanged in actual construction. The bidder is required to examine carefully the site of work, plans, specifications, and contract form for the proposed work. It will be assumed that he has judged for and satisfied himself as to the conditions to be encountered, as in the work, materials furnished, and in the above documents. The bidder is assumed to have familiarized himself with the Federal, State, and local laws which may affect the work, workers. Or materials furnished.

C-3. Delivery of Proposal

- (a) Each proposal must be submitted in a sealed envelope with the bidders name and address on the outside of the envelope. All proposals must be received on or before the hour stated in the advertisement. More than one proposal for the same project from an individual, partnership, firm, or corporation will not be considered. Faxed Bids are accepted.

C-4. Public Opening of Proposals

- (a) Proposals will be opened publicly and read aloud at the hour, date, and place set in the advertisement.

C-5. Execution of Contract

- (a) Contractor shall start work within five (5) days after receiving Notice of Award and Notice to Proceed. Notice to Proceed will be in the form of a City of Ironwood Purchase Order.
- (b) Project shall be completed by October 21, 2021.

C-6. Contract Administration

- (a) Project Engineer: Scott Erickson, P.E., City Engineer  
(906) 932-5050 ext. 116

C-7. Retainage

- (a) A five (5) percent retainage shall be withheld on all contract payments. The five percent retainage shall be paid upon final acceptance by the City of Ironwood of all work performed under this contract.

SECTION D – INSURANCE

D-1 Insurance

- (5) Workmen’s Compensation Insurance – The Contractor, prior to the execution of the Contract, shall file a certification that the Contractor carries Worker’s Compensation Insurance.
  
- (6) Bodily Injury and Property Damage Insurance – The Contractor prior to execution of the Contract shall file with the City of Ironwood copies of completed certificates of insurance, as evidence that the Contractor carries adequate insurance to afford protection against all claims for damages to public or private property and injuries to person, arising out of and during the progress of work. The minimum limits of insurance shall be as follows:
  - (7) General Liability
    - Bodily Injury and Property Damage Liability:
      - Each Occurrence.....\$1,000,000
      - Aggregate.....\$2,000,000
  
  - (2) Automobile Liability Insurance (Comprehensive Form)
    - Bodily Injury Liability:
      - Each Person..... \$ 500,000
      - Each Occurrence.....\$1,000,000
  
    - Property Damage Liability:
      - Each Occurrence.....\$1,000,000
  
    - Combined Single Limit for Bodily Injury and Property Damage Liability:
      - Each Occurrence.....\$2,000,000
  
- (8) The requirements for 1 and 2 above, may be met through an Umbrella policy.
  
- (9) Owners Protective Liability. Bodily injury and property damage protection, including general supervision of work performed, shall be extended to the City of Ironwood employees and agents. The minimum limit shall be \$1,000,000.

## Section E – Construction Specifications

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>PAGE</u>
1000	Mobilization	13
3010	Mill & Install Asphalt Curbing (various locations)	14
3050	Mill Pavement (1 ¾")	15
3060	1 ¾" Asphalt Overlay (Milled Streets)	16-17
4000	Restoration & Turf Establishment (All Locations)	18
7000	Remove & Replace Concrete Curb & Gutter (McLeod Ave – Court Street to Silver Street)	19
7010	Remove & Replace Concrete Curb & Gutter (various locations)	20
7100	Remove & Replace Concrete Sidewalk (McLeod Ave. – Court Street to Silver Street)	21
7110	Remove & Replace Concrete Sidewalk (various locations)	22
7115	Remove & Replace (Dowel-In) Concrete Sidewalk	23
7200	Provide & Install ADA Detectable Warning Device	24
9000	Street Patch – Local Streets (various locations)	25
9010	Provide & Install Storm Sewer Catch Basin(s)	26
9015	Provide & Install New Storm Manhole	27
9020	Provide & Install 12" Corrugated plastic storm pipe	28
9980	Centerline Striping	28
9981	White Edge line (Fog Line)	29
9982	Stop Bar	29
9983	Crosswalk	29

\*Note: All Street related work shall be done in accordance with Michigan Department of Transportation 2003 Standard Specifications for Construction and City of Ironwood Specifications for Construction and City of Ironwood Special Project Provisions

## ITEM 1000 – MOBILIZATION

### Description

- 1.1 Mobilization will be paid proportionately for each mobilization for a maximum of two moves. Mobilization shall not exceed \$10,000.00 total. The contractor shall anticipate and allow for up to two (2) separate mobilizations for milling, and paving, etc. If additional mobilizations are needed they will be at the contractor's discretion and expense.

### Measurement & Payment

- 2.1 This item is a lump sum item and will be paid proportionately for each mobilization. If only one mobilization is required, this item will be paid in full upon completion of project.

## ITEM 3010 – INSTALL ASPHALT CURB (VARIOUS LOCATIONS)

### Description

- 1.1 This work consists of milling the existing street surface at various locations and repairing milled area with asphalt and asphalt bituminous curb, to help direct stormwater drainage away from specified properties.

### Material

- 2.1 Bituminous asphalt pavement consistent with asphalt used for street paving.

### Construction

- 3.1 Mill existing street surface 3 ft. wide and min. 1 ½” depth.
- 3.2 Install new 1 ½ asphalt with an approximate 3 ½ inch high bituminous curb approximately 12 inches wide.
- 3.3 Bit Curb shall be integral with new street surface. Bit surface shall be roller compacted with machine and curb shall be hand formed integral curbing.
- 3.4 Compaction as necessary.
- 3.5 Bituminous curb locations are identified in Appendix B.

### Measurement and Payment

- 4.1 The bituminous curb shall be paid on a lineal foot basis. Any additional cost shall be included in this lineal footage cost.
- 4.2 The bid price shall include all labor, materials, and equipment required to complete the work.

## ITEM 3050 – MILL EXISTING PAVEMENT - (1 ¾ INCH)

### Description

- 1.1 This work shall consist of milling the existing street surface one and three quarter inch (1 ¾) inches in depth. The millings shall be removed, and the surface properly swept and cleaned. The milling shall leave square edges for paving. If square edges are not attained the edges shall be saw cut. The milling shall be full width. The finished street crown shall be approximately 3% or match existing.

### Material

- 2.1 All milled material shall be hauled, deposited, compacted, and graded (by the Contractor) in the Civic Center Parking Lot located at E4972 Jackson Road or the Gogebic Community College Campus.

### Construction

- 3.1 The existing bituminous pavement shall be milled to a depth of 1 ¾ inches.
- 3.2 The underlying pavement shall be swept and cleaned to allow a new asphalt surface to be installed.
- 3.3 The contractor shall saw cut straight lines between bituminous pavement to be removed and bituminous pavement to remain in place. Cuts may be required on the roadways, on intersecting street and/or at private driveways. This work shall be considered incidental to project.
- 3.4 The contractor shall not damage the adjoining areas of concrete or asphalt pavements, driveways, sidewalks, etc.
- 3.5 All cuts to be made with a concrete saw capable of cutting straight and true to a depth sufficient to allow for neat removal of existing concrete or asphalt pavement.
- 3.6 All milled material shall be transported, placed, graded, and compacted by the contractor, to a six-inch depth, at E4972 Jackson Road. Any larger asphalt pieces shall be removed during grading (3 inch and larger).

### Measurement and Payment

- 4.1 Pavement milling shall be measured and paid for by the square yard of material removed to the specified depth and width and accepted by a City Representative. This pavement milling shall be measured by a City Representative prior to removal. This item shall also be used for milling driveway approaches, intersections or other pavement removal locations. This item shall also include all costs associated with hauling, placing, grading, and compacting milling at the Civic Center parking lot.

## ITEM 3060 – HOT MIX ASPHALT (MILLED STREETS)

### Description

- 1.1 This work consists of constructing a minimum 1 3/4 - inch-thick Hot Mix Asphalt surface over a milled surface. Hot Mix Asphalt shall be placed over a milled surface and shall be paved with a crown to match existing.
- 1.2 The paving locations will be McLeod Ave. (Lowell St. to Silver Street), Lowell Street (McLeod Ave. to Aurora Street), Ayer Street (Suffolk Street to Mansfield St.), intersection of Lowell Street and Ayer Street and shall include all driveway, intersections, or miscellaneous paving locations.

### Material

- 2.1 The Hot Mix Asphalt mixture shall be Michigan 5E1 Super Pave W/5828 A.C. Oil.
- 2.2 The mix design shall have been previously approved for use on other State of Michigan projects.
- 2.1 The mix design shall be submitted with the Bid Proposal.
- 2.2 The Contract shall certify in writing that the materials used in the mixture are from the same source as the materials used in developing the Hot Mix Asphalt mixture.

### Construction

- 3.1 The Hot Mix Asphalt pavement shall be placed in one 1 3/4 inch depth (min.) lift. A base or wedge course may be needed to achieve a smooth paving surface.  
  
The City will be taking core samples to insure a minimum pavement thickness of 1 3/4 inches.
- 3.2 All intersecting bituminous streets shall be milled to provide a butt edge at approximately the end radius of the intersecting street.
- 3.3 A bond coat shall be applied to all vertical edges of any existing pavement and driveways before placing the new pavement. The bituminous bond coat material shall comply with the Michigan DOT Standard Specifications.
- 3.4 The Nuclear Gauge method of testing compaction will be used for this project.



- 3.5 Quality assurance and compaction testing will be performed. Initial costs of testing shall be paid by the City of Ironwood. Any failed test shall require repeat testing. Any repeat testing costs shall be paid by the Contractor.
- 3.6 A bituminous tack coat shall be applied to contact surfaces of the gutter or any other existing concrete or bituminous surface. A tack coat shall be applied between the milled surface and the new asphalt surfacing.
- 3.7 Any adjustment to catch basins, manholes, and/or valves shall be incidental to the contract.
- 3.8 The McLeod Ave. section shall have all concrete curb & gutter and sidewalk removed and replaced prior to paving.
- 3.9 This item will also be used for payment for paving the intersection of Lowell St./Ayer St.

#### Measurement and Payment

- 4.0 This item shall be used for all milled streets as well as any leveling required to level the existing drainage swale located in the south and north lanes of Ayer Street, to the extent possible.
- 4.1 Hot Mix Asphalt Michigan 5E1 Super Pave W/5828 Oil will be paid for by the ton.
- 4.2 The price shall include all costs for furnishing, placing, and compacting.
- 4.3 The City will have core samples taken of the new asphalt pavement.
- 4.4 All driveway transitions and/or wedging intersection paving shall use this bid item for payment.
- 4.5 Adjustment to manhole castings, storm sewer inlets and valve boxes shall be incidental to the contract.

## ITEM 4000 – RESTORATION & TURF ESTABLISHMENT

### Description

- 1.2 This work shall consist of “grading to drain” all necessary areas adjacent to the roadway to insure positive drainage, top soiling, seeding, fertilizing, and mulching all disturbed areas. This item also includes topsoil & seeding, to blend the new street surface elevation to the adjacent terrain. A maximum 5:1 slope will be allowed. All distributed areas including paved areas, street patch areas and bituminous burb areas shall include proper restoration and backfill.

### Materials

- 2.1 Seed shall be a mixture by weight of white clover (10%), red clover (10%), annual rye (20%), perennial rye (40%), and smooth brome (20%) or approved equal.
- 2.2 Fertilizer shall be 10-10-10.
- 2.3 Mulch may be hay or straw.
- 2.4 Gravel shall be MDOT 22A.

### Construction

- 3.1 Hand seeding, fertilizing, and mulching is an acceptable method of application on disturbed areas.
- 3.2 Gravel shall be properly compacted.

### Measurement and Payment

- 4.1 Restoration shall be paid as lump sum.
- 4.2 The bid price shall include all labor, materials, and equipment required to complete the work.

ITEM 7000 – REMOVE AND REPLACE CONCRETE CURB & GUTTER  
(MCLEOD AVENUE – COURT STREET TO SILVER STREET)

Description

- 1.1 Remove existing concrete curb & gutter and construct new concrete curb and gutter along both sides of entire length of this section of the project. Detail C-4 (or match existing), on a prepared base (6" compacted 22A). All work to be done in compliance with the City of Ironwood specifications for Curb and Gutter and MDOT Standard Plan for Concrete Curb and Gutter II-30D.

Materials

- 2.1 A minimum of 5000 psi concrete shall be used.

Construction

- 3.1 Contractor shall be responsible to survey existing curb, gutter, and sidewalk elevations prior to removals and shall be required to re-establish grade prior to installation of new.
- 3.2 Remove existing concrete curb and gutter. This shall also include removal of 18 inches (in width) of full depth street asphalt adjacent to the gutter pan. This shall be sawcut prior to removal.
- 3.3 Prepare the base by shaping and compacting to not less than 95 percent maximum density. Obtain the City Representative's approval for the base before placing concrete.
- 3.4 Contractor may elect to use fixed forms or slip forming methods. Match the dimensions of the C-4 curb and gutter.
- 3.5 Installation and recompacting of the 18 inches of asphalt between the gutter pan and existing asphalt street shall be included with the bid item. Contractor shall install 2 ½ inches of compacted asphalt to bring asphalt surface adjacent to new curb & gutter, to milled surface level.
- 3.6 Quality assurance and compaction testing will be performed. Initial costs of testing shall be paid by the City of Ironwood. Any failed test shall require repeat testing. Any repeat testing shall be paid by the contractor.
- 3.7 All concrete surfaces shall be properly cured with a spray membrane once the concrete surface is finished.

Measurement and Payment

- 4.1 Payment for this item includes capturing existing grades and establishing new grades for the concrete curb and gutter, all work required to remove and dispose of the existing concrete curb & gutter, prepare the base, install asphalt patch between new gutter and existing milled street surface, furnish and place the new curb and gutter and cure the placed concrete.

ITEM 7010 – REMOVE AND REPLACE CONCRETE CURB & GUTTER (VARIOUS LOCATIONS)

Description

- 1.1 Remove existing concrete curb & gutter and construct new concrete curb and gutter at various locations around town. Detail C-4 (or match existing), on a prepared base (6” compacted 22A). All work to be done in compliance with the City of Ironwood specifications for Curb and Gutter and MDOT Standard Plan for Concrete Curb and Gutter II-30D. Curb replacements will be at various locations around the community.

Materials

- 2.2 A minimum of 5000 psi concrete shall be used.

Construction

- 3.1 Remove and dispose of concrete curb and gutter. Sawcut asphalt edge if necessary for a smooth edge of gutter line with street surface.
- 3.2 Prepare the base by shaping and compacting to not less than 95 percent maximum density. Obtain the City Representative’s approval for the base before placing concrete.
- 3.3 Contractor may elect to use fixed forms of slip forming methods. Match the dimensions of the C-4 curb and gutter.
- 3.4 Quality assurance and compaction testing will be performed. Initial costs of testing shall be paid by the City of Ironwood. Any failed test shall require repeat testing. Any repeat testing shall be paid by the contractor.
- 3.5 All concrete surfaces shall be properly cured with a spray membrane once the concrete surface is finished.

Measurement and Payment

- 4.1 Payment for this item includes all work required to saw cut , remove, and dispose of the existing concrete curb and gutter, prepare the base, furnish and place the new curb and gutter and cure the placed concrete.
- 4.2 Removal and disposal of existing curb and gutter is included with this bid item.
- 4.3 Driveway opening concrete gutter will be paid at the same unit price bid for concrete curb
- 4.4 Concrete curb and gutter will be paid for by the linear foot removed, placed and accepted by a City Representative.

ITEM 7100 – REMOVE & REPLACE CONCRETE SIDEWALK (MCLEOD AVE., COURT STREET TO SILVER STREET)

Description

- 1.1 Remove existing and construct new concrete sidewalk along the north side of McLeod Avenue from Court Street to Silver Street. This work shall also include installation from Court Street to Silver Street. This work shall also include installation of new sidewalk along a section of this route. This item also pertains to the construction of new ADA ramps.

Materials

- 2.1 5000 psi concrete
- 2.2 Clean, pulverized topsoil to backfill disturbed area.
- 2.3 Clean sand base.

Construction

- 3.1 Remove existing concrete sidewalk and/or turf areas to prepare area for sidewalk installation.
- 3.2 Construct new 6 inch thick concrete sidewalk on 6 inches of clean sand base. Sidewalk width shall be 5 ft. wide. This item will also be used to pay for new ADA ramps on either end of this section of sidewalk.
- 3.3 Quality assurance and compaction testing will be performed. Initial costs of testing shall be paid by the City of Ironwood. Any failed test shall require repeat testing. Any repeat testing shall be paid by the contractor.
- 3.4 All concrete surfaces shall be properly cured with a spray membrane once the concrete surface is established.
- 3.5 All disturbed areas around the concrete shall be properly backfilled, top soiled and seeded.
- 3.6 There will be additional slope grading and restoration required in the area of the new section of sidewalk. A maximum of a 3:1 slope will be provided in this area. This will be included in the scope of this work.

Measurement and Payment

- 4.1 Payment for this Item includes all work required to remove and dispose of the existing concrete sidewalk, and/or turf areas, prepare the base, furnish and place the new sidewalk, curing the placed concrete, and restoration.
- 4.2 Removal and disposal of existing sidewalk and/or turf is included with this bid item.
- 4.3 Concrete Sidewalk will be paid for by the square foot removed, placed and accepted by a City Representative. This unit price will also apply to the installation of new sidewalk along this route and the ADA ramps at this location.

ITEM 7110 – REMOVE & REPLACE CONCRETE SIDEWALK (VARIOUS LOCATIONS)

Description

1.2 Remove existing and construct new concrete sidewalk. The sidewalk shall be located at various locations around Ironwood.

Materials

2.1 5000 psi concrete

2.2 Clean, pulverized topsoil to backfill disturbed area.

Construction

3.1 Remove existing concrete sidewalk.

3.2 Construct new 6 inch thick concrete sidewalk on 6 inches of clean sand base. Sidewalk width shall be 5 ft. wide.

3.3 Quality assurance and compaction testing will be performed. Initial costs of testing shall be paid by the City of Ironwood. Any failed test shall require repeat testing. Any repeat testing shall be paid by the contractor.

3.6 All concrete surfaces shall be properly cured with a spray membrane once the concrete surface is established.

Measurement and Payment

4.1 This item will be paid for on the square foot of sidewalk removed and replaced.

ITEM 7115 – REMOVE & REPLACE (DOWEL-IN) CONCRETE SIDEWALK  
(VARIOUS LOCATIONS)

Description

- 1.3 Remove existing and construct new (doweled) concrete sidewalk. The sidewalk shall be located at various locations around Ironwood.

Materials

- 2.2 5000 psi concrete
- 2.2 Clean, pulverized topsoil to backfill disturbed area.
- 2.3 #5 epoxy coated dowel bars.

Construction

- 3.1 Remove existing concrete sidewalk.
- 3.2 Construct new 6 inch thick concrete sidewalk on 6 inches of clean sand base. Install epoxy coated dowels with 6 inch embedment and 6 inch extensions. Bars shall be secured in dowel with proper mastic.
- 3.3 Quality assurance and compaction testing will be performed. Initial costs of testing shall be paid by the City of Ironwood. Any failed test shall require repeat testing. Any repeat testing shall be paid by the contractor.
- 3.7 All concrete surfaces shall be properly cured with a spray membrane once the concrete surface is established.

Measurement and Payment

- 4.1 This item will be paid for on the square foot of sidewalk removed and replaced.

## ITEM 7200 – INSTALL ADA DETECTABLE WARNING DEVICE

### Description

- 1.1 Install ADA detectable warning device at locations defined by the City's Representative (McLeod at Silver Street and at Court Street).

### Materials

- 2.1 ADA detectable warning devices may be cast iron or plastic and shall meet or exceed MDOT specifications.

### Construction

- 3.1 Install ADA detectable warning devices per the manufacture's recommendation.
- 3.2 Detectable devices shall be per MDOT specification and shall be permanently secured into the new concrete apron. A variety of colors shall be provided for the owner's selection.

### Measurement and Payment

- 4.1 This item will be paid by the square foot installed.



## ITEM 9000 – STREET PATCH LOCAL STREETS

### Description

- 1.1 This work consists of constructing street patches on local streets at various locations. The street patch shall consist of three inches of asphalt pavement.

### Materials

- 2.1 The Hot Mix Asphalt Mixture shall be Michigan 5E1 Super Pave W/5828 A.C. Oil.
- 2.2 The Mix Design shall have been previously approved for use on other State of Michigan Projects.
- 2.3 The Mix Design shall be submitted with the Bid Proposal.
- 2.4 The Contractor shall certify in writing that the materials used in the Mixture are from the same source as the materials used in developing the Hot Mix Asphalt Mixture design.

### Construction

- 3.1 The Hot Mix Asphalt Pavement shall be placed in one – three (3) inch thick, compacted layer. Patches shall be paver laid unless approved **otherwise** by the City Representative.
- 3.2 All patch locations shall be saw cut (full depth) prior to removal. This is considered incidental to the contract.
- 3.3 A Bond Coat shall be applied to the vertical edge of the existing pavement and between lifts before placing the new pavement. The Bituminous Bond Coat material shall comply with the Michigan DOT Standard Specifications.
- 3.4 The Nuclear Gage method of testing compaction is waived for this project. The Number of Rollers Method shall apply.
- 3.5 Contractor shall be responsible for all removals and compacting necessary to prepare the area for paving.

### Measurement and Payment

- 4.1 The street patch shall be paid on a square foot basis. The square foot price shall include all costs associated with constructing a complete patch.
- 4.2 The price shall include all costs for saw cutting, excavation and preparation, furnishing, placing and compacting.
- 4.2 Shaping and Base preparation prior to paving, if required, shall be done at no cost.

## ITEM 9010 – PROVIDE AND INSTALL STORM SEWER CATCH BASIN

### Description

- 1.1 This item includes all work necessary to install a 2 ft. diameter, precast, storm sewer catch basin. This will include all removals, saw cutting, street patch work or other related items for a complete installation.

### Materials

- 2.1 2 ft. diameter, 6 ft. depth, precast manhole complete with top slab and high velocity inlet casting.

### Construction

- 3.1 Provide and install two, (2 ft. diameter) pre-cast catch basin castings on Ayer Street at approximately 337 Ayer Street. Catch basins shall have an approximate 2 ft. depth sump.
- 3.2 Provide proper compaction around all catch basins structures to insure no settlement occurs around the structure.
- 3.3 Provide high velocity inlet casting and grate, heavy duty, Neenah R-3065-V with diffusor (or equal).

### Measurement and Payment

- 4.1 This item will be paid on an each basis.

## ITEM 9015 – PROVIDE AND INSTALL A 6 FT. DIAMETER OFF-SET STORM MANHOLE

### Description

- 1.1 This item includes the installation of a 6 ft. diameter, precast off-set manhole, over an existing 36 inch diameter concrete storm sewer pipe at approximately 337 Ayer Street. This will include removal of the existing storm pipe to accommodate the installation of a new manhole.

### Materials

- 2.1 Precast 6 ft. diameter manhole with storm casting and cover. Include installation of access steps.

### Construction

- 3.1 Provide and install 6 ft. diameter storm manhole over existing 36 inch diameter concrete storm sewer pipe. Approximate depth from top of road surface to flow line of the existing pipe is 9 feet. Contractor shall excavate and determine actual depth of manhole based on field verification prior to ordering the precast manhole.
- 3.2 Provide a water proof pipe penetration into manhole through a combination of a watertight boot and a concrete collar around the pipe at the manhole. This work shall include all backfill, compaction, gravel and asphalt restoration around the manhole. This work shall include all backfill, compaction, gravel, and asphalt restoration around the manhole.

### Measurement and Payment

- 4.1 This item will be paid on an each basis.

ITEM 9020 – PROVIDE AND INSTALL A 12” CORRUGATED PLASTIC SMOOTH WALL INTERIOR STORM SEWER

Description

- 1.1 This work consist of installing new 12” Storm Sewer Catch basin pipe between the catch basins and storm manhole.

Materials

- 2.1 12” Corrugated Plastics, Smooth Wall Interior Storm Sewer, connection and all accessories required for a complete installation.

Construction

- 3.1 Install new 12” storm sewer pipe at a depth of 4.5 ft at invert of pipe.
- 3.2 This work will include all connection to catch basin and manhole and shall include restoration, backfill and restoration of asphalt to milled pavement surface level.

Measurement & Payment

- 4.1 This item shall be paid per lineal foot of pipe installed.

ITEM 9980 – CENTERLINE STRIPING

Description

- 3.2 Provide for the complete installation of double yellow centerline striping.

Materials

- 2.1 Paint shall be Sherwin-Williams yellow or approved equal. Paint to include glass beads.

Construction

- 3.1 Install per MDOT specifications.

Measurement & Payment

- 4.1 Double yellow centerline will be paid based upon the linear footage of double yellow road centerline markings installed. **Each line is not paid separately.**

## ITEM 9981 – WHITE EDGE LINE (FOG LINE)

### Description

1.1 Provide for the complete installation of white edge line installed.

### Materials

2.1 Paint shall be Sherwin-Williams white or approved equal. Paint to include glass beads.

### Construction

3.1 Install per MDOT specifications.

### Measurement & Payment

4.1 Each white edge line will be paid based upon the linear footage of each white edge line installed separately.

## ITEM 9982 – STOP BAR

### Description

1.1 Provide for the complete installation of 12-inch wide white stop bar.

### Materials

2.1 Paint shall be Sherwin-Williams white or approved equal. Paint to include glass beads.

### Construction

3.1 Install per MDOT specifications.

### Measurement & Payment

4.1 White stop bars shall be paid per lineal foot of 12 inch stop bar painted.

## ITEM 9983 – CROSSWALK

### Measurement & Payment

Twelve-inch crosswalk shall be paid per lineal foot of 12-inch crosswalk line installed.

**Milled Street  
Project Paving Locations  
(APPENDIX A)**

1. Lowell Street (Aurora St. to McLeod Ave.) - Mill
2. McLeod Avenue (Lowell St. to Silver St.) – Mill
3. Liberty Street (Iron King Road to Country Club Rd.) - Mill
4. Intersection of Lowell Street and Ayer Street. - Mill
5. West Street Alley Apron (Pave only)
6. All driveway or intersection transitions.

**Milled & Install Asphalt Curbing  
(Various Locations)  
(APPENDIX B)**

- |                                     |        |
|-------------------------------------|--------|
| 1. 401 Norrie Street                | 55 LF  |
| 2. 425 Geneva Street                | 65 LF  |
| 3. 49 Newport Heights South         | 40 LF  |
| 4. Bonnie Rd. North of Tiziani Lane | 125 LF |

**Centerline & Fog Line Locations  
(APPENDIX C)**

1. Bonnie St. (Ayer to South West)
2. Ayer (Lake St. to Old County Rd.)

## UTILITIES

The existing utilities listed below represent the best information available. This information does not relieve the contractor of the responsibility to be satisfied as to its accuracy and the location of existing utilities.

### NAME AND ADDRESS OF OWNER

### UTILITY DESCRIPTION

Ameritech  
3255 US-41 West  
Marquette, MI 49855  
Ms. Marsha Bertoldi  
(906) 779-2744

Telephone

Charter Communications  
115 E. McLeod Ave.  
Ironwood, MI 49938  
Greg Johnson  
(906) 932-1831

Cable TV

X-Cel Energy  
101 Alfred Wright Blvd.  
Ironwood, MI 49938  
Stacy Westeen  
(800) 895-4999

Electric & Gas

City of Ironwood  
213 South Marquette Street  
Ironwood, MI 49938  
Bob Tervonen  
(906) 932-5050

Water & Sewer

Owners of public utilities will not be required by the department to move additional poles and structures that are not within grading or structure limits in order to facilitate the operation of construction equipment, unless it is determined by the engineer that such pole line or structures constitute a hazard to the public or are extraordinarily dangerous to the contractor's operations.