



HASTINGS PUBLIC LIBRARY

HASTINGS, MICHIGAN

REQUEST FOR PROPOSAL (RFP)

FOR

Concrete Construction – Barrier-Free Parking Spaces

PROCUREMENT NAME: Barrier-Free Parking

RFP ISSUE DATE: Monday, July 27, 2026

QUOTE DUE DATE: Friday, August 14, 2026 @ 12:00pm

Requests for Quotes and related documents may be obtained during normal business hours from:

Hastings Public Library, 227 E. State St., Hastings, MI 49058

Phone: (269) 945-4263 | Fax: (269) 948-3874

Contact: Tess Allerdington, Assistant Director

Email: tallerding@HastingsPublicLibrary.org

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General Terms and Conditions

Hastings Public Library assumes no responsibility of any kind or nature for any costs incurred by any potential vendor in the preparation of a response to this RFP. This applies to and includes any costs of delivery for a timely quote.

Hastings Public Library's Rights

Hastings Public Library reserves the exclusive, unencumbered right to:

- A. Cancel, revise, or amend the RFP;
- B. Reject any quote or all Quotes submitted in response hereto in whole or in part;
- C. Waive any irregularities in any quote;
- D. Award the whole or part of the work or goods that are the subject of this RFP to that offeror whose quote is, as determined at the sole discretion of Hastings Public Library, to be in the best interest of the Library considering such factors as it may deem pertinent.
- E. Quotes must be received on or before **Friday, August 14, 2026, at 12:00pm** at the main desk of the Hastings Public Library or via email. Date and time will be recorded on delivery. Deadline is for physical delivery to the specified location; postmarks or other indicators of sending or delivery will not be accepted. Quotes should be delivered to:

Hastings Public Library
Assistant Director
227 E. State St.
Hastings, MI 49058

Or via email to:

tallerding@HastingsPublicLibrary.org

- a) If delivering quotes via email, please ensure all details and Quotes are contained in attachments and not the body or subject of the email.
- F. Quotes will be opened on **Friday, August 14, 2026, at 1:00pm** at the Hastings Public Library.
- G. Hastings Public Library may request additional information, clarification, or presentations from any of the offerors after review of the Quotes received.
- H. Hastings Public Library has the right to use any or all ideas presented in reply to this RFP, subject only to the limitations regarding proprietary/confidential data of offeror.

Quote Submissions

Quotes must be submitted in accordance with the instructions and requirements contained in this RFP. Failure to do so may result in the quote or bid being considered non-responsive and it may be rejected.

An offeror must promptly notify the Assistant Director of any ambiguity, inconsistency, or error, which may be discovered upon examination of the RFP. An offeror requesting clarification or interpretation of this RFP should contact Tess Allarding, Assistant Director.

- A. Any questions regarding the RFP must be submitted in writing/via email before **Friday, August 7, 2026 at 5:00pm**. If necessary, an addendum to the RFP will be provided to all holders of the RFP of record.
- B. **Onsite visits to see the physical building are encouraged.** Contact Tess Allarding to schedule.
- C. Any interpretation, correction, or change of the RFP will be made by an addendum. Interpretations, corrections, or changes to this RFP made in any other manner will not be binding and offerors must not rely upon such interpretations, corrections, or changes. The Assistant Library Director will issue Addenda. Addenda will be emailed, faxed, or mailed to all known recipients of the RFP.
- D. Negligence on the part of the bidder in preparing the quote confers no rights for the withdrawal or modification of the bid after it has been opened.
- E. If either a unit price or extended price is obviously in error, and the other is obviously correct, the incorrect price will be disregarded.
- F. Quotes should demonstrate the offeror's successful experience in providing the services and/or items requested by this RFP.
- G. Any quote submitted shall be deemed conclusive assurance that the offeror does not discriminate in any manner against any class of protected persons under federal or state law. This includes non-discrimination on the basis of gender, race, national origin, age, and other categories specified by law. Non-discrimination applies to consideration for employment and services.
- H. By submission of this quote, the bidder certifies that the pricing structure offered has been arrived at independently without consultation, communication, or agreement of such prices for the purpose of restricting competition with any other bidder or competitor.
- I. Quotes must explicitly and completely describe and present all components of the price proposed for work or goods. **The Hastings Public Library is exempt from State of Michigan Sales and Use Taxes.** However, property purchased by a contractor to be used in the construction, alteration, repair, or improvement of fixed property owned by the library is taxable to the contractor. Therefore, the price bid for contracts other than construction contracts must be exclusive of taxes and will be so construed. Construction contracts will be construed to include all applicable taxes unless the contract specifies otherwise.

Disclosure

- A. Ownership of all data, materials, and documentation originated and prepared for the Hastings Public Library pursuant to the RFP shall belong exclusively to the Library and be subject to public inspection in accordance with the Michigan Freedom of Information Act.
- B. Only Hastings Public Library will make news releases or other public announcements pertaining to this RFP or the proposed award of a contract.

- C. All of the information included in your quote response is subject to the “Freedom of Information Act” and may be disclosed in its entirety.
- D. No information regarding the contents of responses to the RFP will be released prior to award. Once an award has been made, all Quotes will be open to public inspection subject to the provisions set forth above.
- E. The successful offeror must comply with all applicable City, State, and Federal laws, codes, provisions, and regulations.

Indemnification

The contractor agrees to hold and save the Library, its officers, agents, and employees harmless from liability of any kind, including costs and expenses, with respect to any claim, action, cost or judgment for patent, copyright or trademark infringement arising out of the purchase or use of equipment or use of equipment, materials, supplies, or services covered by this contract.

Process Overview

Hastings Public Library is soliciting quotes to have two ADA-compliant barrier-free parking spaces created outside the building's South entrance on State Street. See below for details.

Specific or Technical Requirements of the Work

- A. Remove necessary existing concrete curb.
- B. Remove, retain, and reinstall existing decorative brickwork after installation of ramp.
- C. Create concrete ADA-compliant ramp in accordance with the plan set provided (Attachment "B": ADA Parking Final Plan Set).
- D. Adhere to concrete paving specifications as per the City (see Attachment "C": Section 6 – Concrete Paving and Attachment "D": Section 11 – Concrete Work).
- E. Painting of the new parking spaces and procurement of handicap-accessible signs are *not* requirements of this project.**
- F. Existing planters, light poles, etc. are *not* to be moved or altered.**

Evaluation Criteria

- A. The ability, capacity, and skill of the offeror to provide items described in this RFP in a prompt and timely manner without delay or interference.
- B. The character, integrity, reputation, judgment, experience, efficiency, and effectiveness of the offeror.
- C. The quality and timeliness of performance of previous contracts or services of the nature described in this RFP.
- D. Compliance by the offeror with laws and ordinances regarding prior contracts, purchases, or services.
- E. The conditions, if any, specified in offeror's quote; i.e. what expectations or requirements the offeror might have of the Library as a condition of, or related to the quote.
- F. Quotes shall be submitted in an easy-to-read form with any exceptions, deviations or modifications to the published requirements clearly noted and explained.
- G. Compliance by the offeror with the Library's insurance requirements policy.
- H. Price.

Selection Process

- A. Quotes will be opened on Friday, August 14, 2026 at 1:00pm, at the Hastings Public Library.
- B. Quotes not received by the published deadline will not be opened or considered.
- C. Library staff will evaluate quotes according to the evaluation criteria noted in the RFP and prepare a recommendation to the Board of Directors.
- D. The Board of Directors will make the final, binding decision as to the award of the contract or the rejection of any or all Quotes.

- E. Library staff or the Board of Directors may request additional information or clarification from any offeror. Failure to supply requested additional information may result in a quote being rejected or not considered further.
- F. Hastings Public Library shall award the contract to the quote that best accommodates the various project requirements, reserves the right to award the contract to more than one offeror, and to refuse any quote without obligation to either Hastings Public Library or to any offeror.
- G. Prior to award, Hastings Public Library shall reserve the right to cancel, suspend, and/or discontinue any quote at any time they deem necessary or fit without obligation or notice to the offeror(s).
- H. A formal contractual agreement will be entered into to effect the arrangements with the awarded offeror(s). ***Offerors should submit any requested contract terms as part of their quote.***

Submitting Quotes

Every valid response to this RFP will include the next six (6) items completed in full and returned to the Library by the stated deadline. Forms follow this page and/or are included in attachments as listed below unless noted:

- 1. Certification (form follows)
- 2. Insurance Documents (see Attachment "A")
 - a. Attach certificates of required insurance.
 - b. If the mandatory insurance coverage is not yet available, commitment to obtain insurance in the requested amounts is required once awarded the job.**
- 3. IRS W-9 (vendor provided)
- 4. Equipment or Service
 - a. List any and all equipment or service(s) required for this proposed project with individual, specific costs, and detail the cost.
 - b. List any equipment or service requiring a subcontractor, along with a brief explanation.
 - c. List any accommodations or space required from Hastings Public Library, along with a brief explanation.
 - d. Include an estimate of the number of days and/or hours to complete the job.**
- 5. Cost Quote
 - a. A detailed list of any and all expected costs or expenses related to the proposed project.
 - b. Summary & explanation of any other contributing expense to the total cost.
 - c. Brief summary of the total cost of the quote.
- 6. Three (3) references for prior work.

Attachments and Exhibits List

- 1. Certification
- 2. Attachment "A": Hastings Public Library Insurance Requirements

3. Attachment "B": ADA Parking Final Plan Set
4. Attachment "C": Section 6 – Concrete Paving
5. Attachment "D": Section 11 – Concrete Work

CERTIFICATION

In compliance with this request for quote and subject to all terms and conditions imposed therein, which are incorporated in this quote by reference, the undersigned offers and agrees to furnish the services and/or items requested in this solicitation if the undersigned is selected as the successful offeror.

Legal Name of Entity Submitting Quote: _____

Address: _____ Street: _____

City, State: _____ ZIP: _____

Phone: _____

Email: _____

Legal form of Entity: _____ Date company formed: _____
(e.g. sole proprietorship, partnership, corporation)

Federal Employee Identification Number (FEIN): _____

Description of company in terms of size, range, types of services offered and clientele:

Evidence of legal authority to conduct business in Michigan: _____
(e.g. business license number)

Has offeror or its parent company (if any) ever filed for bankruptcy? (Yes/No) _____

Has offeror or its parent company (if any) ever received any sanctions or are currently under investigation by any regulatory or governmental body? (Yes/No) _____

Authorized Official: Name: _____

Title: _____

Signature: _____ Date : _____

ATTACHMENT “A” INSURANCE POLICY FOR HASTINGS PUBLIC LIBRARY

The purpose of this policy statement is to establish guidelines requiring insurance for contractors, organizations, groups or individuals that carry on activities or do work on Library property. All Certificates of Insurance shall be maintained by the Library and updated as necessary.

If the mandatory insurance coverage is not yet available, commitment to obtain insurance in the requested amounts is required once awarded the job.

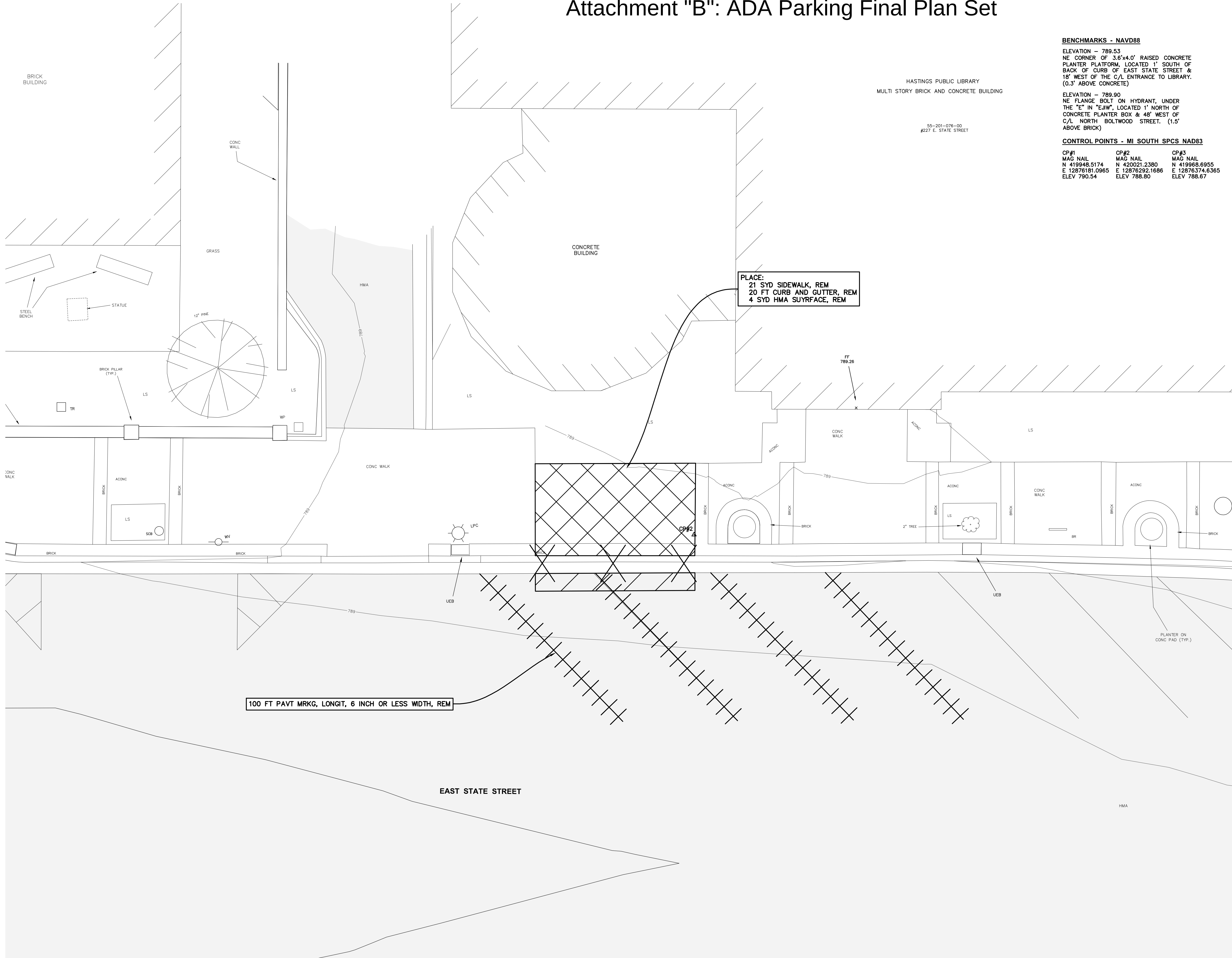
I. Doing work on Library Property.

Certificates indicating insurance coverage shall be required by all contractors or individuals that do work on Library property. The following coverage is required:

Type	Limit of Liability
1. Workers Compensation Statutory Coverage B and Employers Liability	• \$500,000.00
2. Public Liability (Including products and completed operations liability) a. Bodily Injury b. Property Damage	• \$1,000,000.00 Each Person • \$2,000,000.00 Each Accident • \$500,000.00 Each Accident • \$1,000,000.00 Each Aggregate
Automobile Liability (Including hired cars and automobile non-ownership)	
3. Bodily Injury	• \$1,000,000.00 Each Person • \$2,000,000.00 Each Occurrence
4. Property Damage	• \$250,000.00 Each Accident • \$500,000.00 Each Aggregate

Additional Insured – Hastings Public Library and the City of Hastings to be specifically named in clause on policy and certificate as an "additional insured."

Attachment "B": ADA Parking Final Plan Set



BENCHMARKS - NAVD88

ELEVATION - 789.53
NE CORNER OF 3.6'x4.0' RAISED CONCRETE PLANTER PLATFORM, LOCATED 1' SOUTH OF BACK OF CURB OF EAST STATE STREET & 18' WEST OF THE C/L ENTRANCE TO LIBRARY. (0.3' ABOVE CONCRETE)

ELEVATION - 789.90
NE FLANGE BOLT ON HYDRANT, UNDER THE "E" IN "EJW", LOCATED 1' NORTH OF CONCRETE PLANTER BOX & 48' WEST OF C/L NORTH BOLTWOOD STREET. (1.5' ABOVE BRICK)

CONTROL POINTS - MI SOUTH SPCS NAD83

CP#1	CP#2	CP#3
MAG NAIL	MAG NAIL	MAG NAIL
N 419948.5174	N 420021.2380	N 419968.6955
E 12876181.0965	E 12876292.1686	E 12876374.6365
ELEV 790.54	ELEV 788.80	ELEV 788.67



0 2.5 5
PLAN SCALE: 1" = 5'

811
Know what's below.
Call before you dig.

PLAN REVISIONS

Moore+Bruggink
Consulting Engineers
2020 Monroe Ave.
Grand Rapids, MI 49505
(616) 363-9801
mailto:mbs@mbce.com

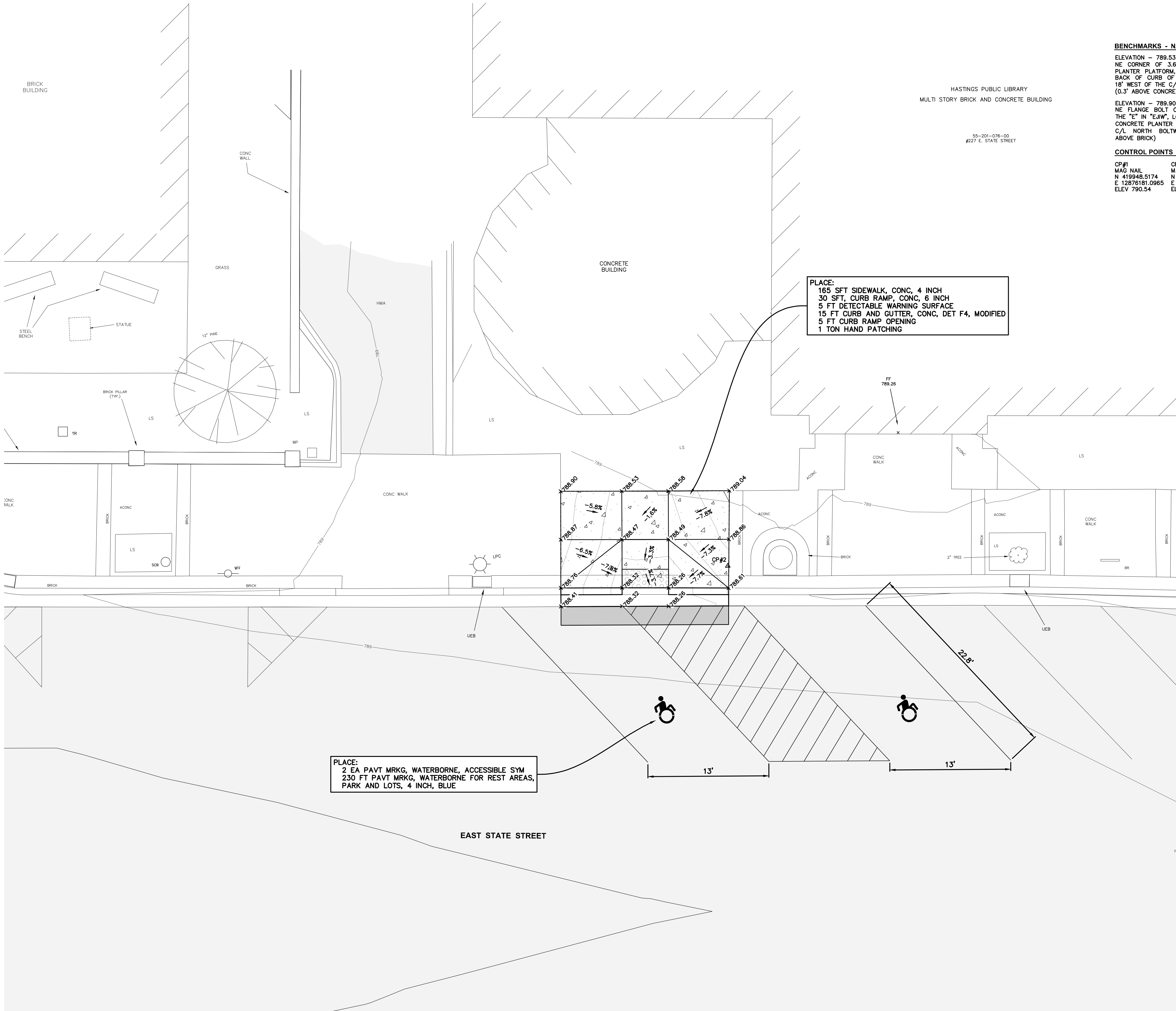
MB

BARRIER FREE PARKING
FOR
HASTINGS PUBLIC LIBRARY
CITY OF HASTINGS, BARRY COUNTY, MICHIGAN

FIELD SURVEY / DATE
CJB-TMC/5-8-2026
PROJECT NO.
260158.01
DESIGN DRAWN BY:
JPV
DESIGNED BY:
JPV
CHECKED BY:
RMA
PLAN DATE:
JUNE 15, 2026

PREPARED FOR:
HASTINGS PUBLIC LIBRARY
227 E STATE ST.
HASTINGS, MI 49058
(269) 945-4263
TALLERDING@HASTINGSPUBLICLIBRARY.ORG

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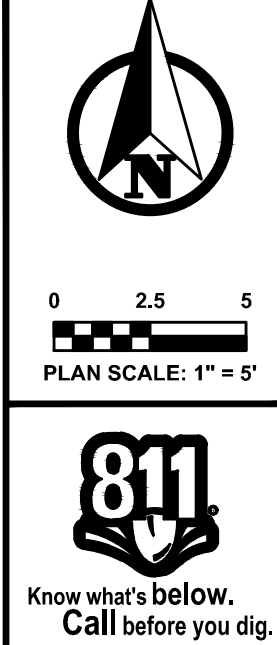
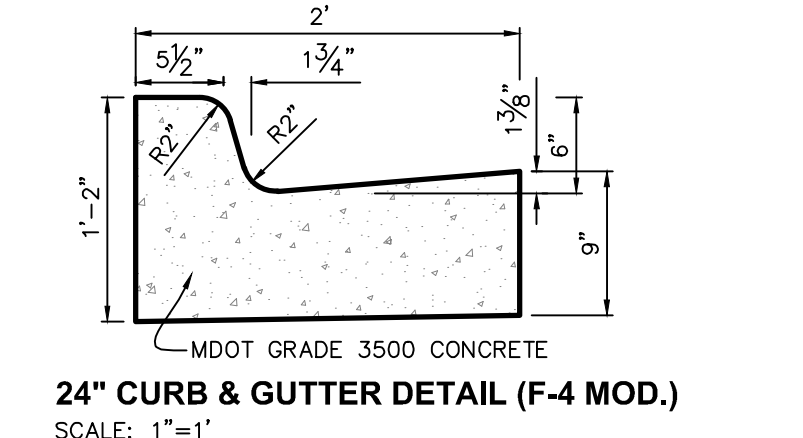
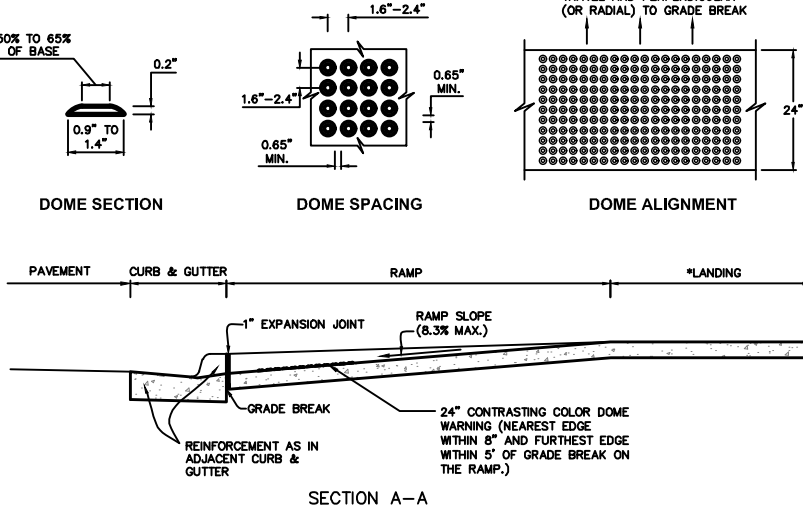
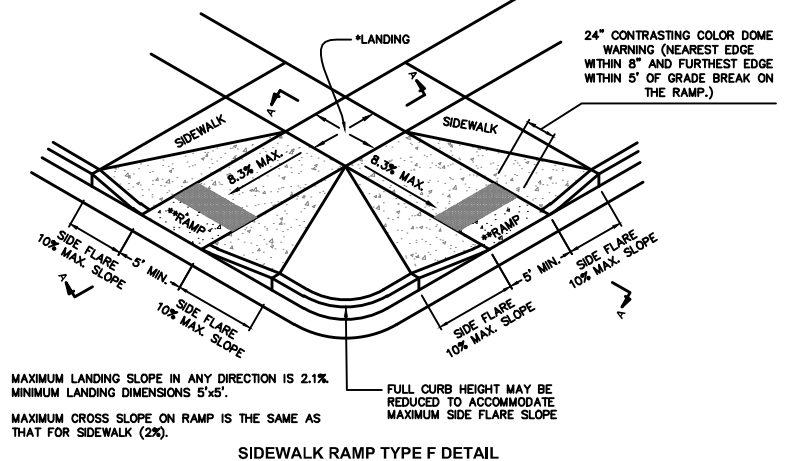
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PLAN REVISIONS

Moore+Bruggink
Consulting Engineers
2020 Monroe Ave.
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BARRIER FREE PARKING FOR
HASTINGS PUBLIC LIBRARY
CITY OF HASTINGS, BARRY COUNTY, MICHIGAN

FIELD SURVEY / DATE	CJB-TMC/5-8-2026
PROJECT NO.	260158.01
DESIGN DRAWN BY:	JPV
DESIGNED BY:	JPV
CHECKED BY:	RMA
PLAN DATE:	JUNE 15, 2026
SHEET NUMBER	2 OF 2

PREPARED FOR:
HASTINGS PUBLIC LIBRARY
227 E STATE ST.
HASTINGS, MI 49058
(269) 945-4263
TALLERDING@HASTINGSPUBLICLIBRARY.ORG

Attachment "C"

SECTION 6 – CONCRETE PAVING

PART 1 – GENERAL

SUMMARY

Extent of Portland cement concrete paving is shown on Drawings, including curbs, gutters, walkways, and pavement.

Prepared subbase is specified in under Section 4, Excavation and Backfill.

Concrete and related materials are specified in Section 11 Concrete Work.

SUBMITTALS

Provide samples, manufacturer's product data, test reports, and materials' certifications as required in referenced Sections.

QUALITY ASSURANCE

Codes and Standards. Comply with Michigan Department of Transportation, Standard Specifications for Construction, Standard Plans and Special Details, and the ACI.

PROJECT CONDITIONS

Traffic Control. Maintain access for vehicular and pedestrian traffic as required for other construction activities specified in Division 1.

PART 2 – PRODUCTS

GENERAL

Materials for forms, steel reinforcement, joint materials, and curing materials shall comply with MDOT Standard Specifications if not specified in Section 11 Concrete Work.

CONCRETE MIX, DESIGN, AND TESTING

Comply with requirements of applicable sections for concrete mix design, sampling and testing, and quality control and as herein specified.

WHEEL STOPS

Precast of 3,500 psi air-entrained concrete approximately 6 inches high, 9 inches wide, and 7'-0" long with chamfered corners and drainage slots on underside.

CONCRETE RAMPS

Ramps shall be constructed 6 inches thick and to the width and slope shown on the Drawings using Class A concrete. Type of ramp shall be as noted on the Drawings for different intersection conditions.

CONCRETE DRIVEWAYS

All concrete residential and some commercial driveways shall be Class A concrete, 6 inches thick. Joints shall be as specified in concrete work and/or concrete pavements. Heavy load traffic driveways (Industrial some commercial) shall be Class A concrete, 8 inches thick, min. W2.9 welded wire fabric.

CONCRETE SIDEWALKS

Concrete sidewalks shall be 4 inches thick (6 inches thick at driveway crossings) and to the width as shown on the Drawings or to match existing walks. Concrete shall be Class A. Sidewalk Ramps shall be 6 inches thick.

CONCRETE ROADWAYS

Pavement surfaces shall be as shown on the Drawings. Thickness shall be as shown on the Drawings or equal to that removed, but in no case less than 6 inches.

Concrete for pavements and bases shall be Class P concrete.

For pavement replacement, reinforcing steel shall be similar to that in the existing pavement and shall provide the same cross-sectional area of reinforcement per foot as the existing pavement.

CONCRETE CURB AND GUTTERS

Concrete curb and gutter shall be as shown on the Drawings or shall have the same cross-section as that removed, and be constructed using Class P concrete and in accordance with CITY standards. Required to maintain a slump within the range of 1 to 3 inches.

CEMENT

Cement shall be Air-Entraining Portland Cement, Type 1A, conforming to ASTM C150. Air-Entraining Portland cement, Type IS-A conforming to ASTM C595 or High-Early-Strength Air-Entraining Portland Cement, Type IIIA conforming to ASTM C150. The CONTRACTOR shall provide suitable means for storing and protecting the cement against dampness. Cement that for any reason has become partially set or that contains lumps or caked cement shall be rejected.

PART 3 – EXECUTION

SURFACE PREPARATION

Remove loose material from compacted subbase or base surface immediately before placing concrete.

FORM CONSTRUCTION

Set forms to required grades and lines, braced, and secured. Install forms to allow continuous progress of Work and so that forms can remain in place at least 24 hours after concrete placement.

Check completed formwork for grade and alignment to following tolerances:

Top of forms not more than 1/8 inch in 10 feet.

Vertical face on longitudinal axis, not more than 1/4 inch in 10 feet.

Clean forms after each use and coat with form release agent as required to ensure separation from concrete without damage.

Slope step treads at 1/4 inch per foot to drain.

REINFORCEMENT

Locate, place, and support reinforcement as specified in applicable Section, unless otherwise indicated.

CONCRETE PLACEMENT

General. Comply with requirements of applicable Sections for mixing and placing concrete, and as herein specified.

Do not place concrete until subbase, base, and forms have been checked for line and grade. Moisten subbase/base if required to provide a uniform dampened condition at time concrete is placed. Do not place concrete around manholes or other structures until they are at required finish elevation and alignment.

Place concrete by methods that prevent segregation of mix. Consolidate concrete along face of forms and adjacent to transverse joints with internal vibrator. Keep vibrator away from joint assemblies, reinforcement, or side forms. Use only square-faced shovels for hand-spreading and consolidation. Consolidate with care to prevent dislocation of reinforcing, dowels, and joint devices.

Use bonding agent at locations where fresh concrete is placed against hardened or partially hardened concrete surfaces.

Deposit and spread concrete in a continuous operation between transverse joints as far as possible. If interrupted for more than 1/2 hour, place a construction joint.

When adjacent pavement lanes are placed in separate pours, do not operate equipment on concrete until pavement has attained sufficient strength to carry loads without injury.

Fabricated Bar Mats. Keep mats clean and free from excessive rust, and handle units to keep them flat and free of distortions. Straighten bends, kinks, and other irregularities or replace units as required before placement. Set mats for a minimum 2-inch overlap to adjacent mats.

Place concrete in two operations; strike off initial pour for entire width of placement and to the required depth below finish surface. Lay fabricated bar mats immediately in final position. Place top layer of concrete, strike off, and screed.

Remove and replace portions of bottom layer of concrete that have been placed more than 15 minutes without being covered by top layer or use bonding agent if acceptable to the DIRECTOR OF PUBLIC SERVICES.

Curb and Gutter. Automatic machine may be used for curb and gutter placement at the CONTRACTOR's option. If machine placement is to be used, submit revised mix design and laboratory test results that meet or exceed minimums specified. Machine placement must produce curbs and gutters to required cross-section, lines, grades, finish, and jointing as specified for formed concrete. If results are not acceptable, remove and replace with formed concrete as specified.

JOINTS

General. Construct expansion, weakened-plane (contraction), and construction joints true to line with face perpendicular to surface of concrete. Construct transverse joints at right angles to the centerline, unless otherwise indicated.

When joining existing structures, place transverse joints to align with previously placed joints, unless otherwise indicated.

Joints shall be of the type and location as shown on the Drawings. Joints shall be constructed in accordance with MDOT Specifications.

CONCRETE FINISHING

After striking off and consolidating concrete, smooth surface by screeding and floating. Use hand methods only where mechanical floating is not possible. Adjust floating to compact surface and produce uniform texture.

After floating, test surface for trueness with a 10-foot straightedge. Distribute concrete as required to remove surface irregularities, and refloat repaired areas to provide a continuous smooth finish.

Work edges of slabs, gutters, back top edge of curb, and formed joints with an edging tool, and round to 1/2-inch radius, unless otherwise indicated. Eliminate tool marks on concrete surface.

After completion of floating and when excess moisture or surface sheen has disappeared, complete troweling and finish surface as follows:

Broom finish by drawing a fine-hair broom across concrete surface perpendicular to the line of traffic. Repeat operation if required to provide a fine line texture acceptable to the DIRECTOR OF PUBLIC SERVICES.

On inclined slab surfaces, provide a coarse, non-slip finish by scoring surface with a stiff-bristled broom, perpendicular to line of traffic.

Burlap finish by dragging a seamless strip of damp burlap across concrete, perpendicular to the line of traffic. Repeat operation to provide a gritty texture acceptable to the DIRECTOR OF PUBLIC SERVICES.

Do not remove forms for 24 hours after concrete has been placed. After form removal, clean ends of joints and point-up any minor honeycombed areas. Remove and replace areas or sections with major defects, as directed by the DIRECTOR OF PUBLIC SERVICES.

SIDEWALKS

Forms shall be of metal or wood, straight and free of distortion, and of sufficient strength to resist springing during the placing of concrete. Forms shall be securely staked, braced, and tied to the required line and grade. Flexible steel or adequately sized lumber may be used for short radius forms.

The walk subgrade shall be compacted to 95 percent compaction by tamping. After wetting the subgrade, the concrete shall be placed to the proper depth and spaded along the form faces.

Concrete shall be alternately tamped and screeded until all voids are removed and the surface has been brought to the required grade. The surface shall then be floated to produce a smooth, dense surface, free from irregularities. All edges and joints shall be rounded to a radius of 1/4 inch with an edging tool and trowel. As soon as all excess moisture has disappeared, the surface shall be finished by light brooming.

Walks shall be divided into blocks approximately square, using slab division forms or by cutting joints after floating. These joints shall be 1/2-inch deep by 1/8 to 1/4 inch in width and shall be finished smooth and true to line. Bituminous expansion joints shall be provided at intervals of 50 feet and at junctions with structures and curbs. Control joints shall be located between expansion joints at intervals equal to the sidewalk width.

As soon as concrete surfaces have hardened sufficiently to prevent marring, they shall be covered by an approved curing compound, or they shall be thoroughly wetted and cured by an approved method for a period of six days unless otherwise directed by the DIRECTOR OF PUBLIC SERVICES.

PAVEMENT

The surface of concrete pavements shall be properly consolidated and struck off to such elevations so as to match adjacent pavement and made uniform by transverse floating. As soon as all excess moisture has disappeared, the pavement shall be given a final light brooming finish by dragging a seamless strip of damp burlap or cotton fabric. Edges of all joints shall be tooled.

As soon as concrete surfaces have hardened sufficiently to prevent marring, they shall be covered by an approved curing compound, or they shall be thoroughly wetted and cured by an approved method for a period of six days unless otherwise directed by the DIRECTOR OF PUBLIC SERVICES.

CURB AND GUTTER

Concrete curb and gutter shall be placed prior to the placement of other types of roadway surfaces, including concrete pavements.

Curb and gutter to be replaced shall be determined by the DIRECTOR OF PUBLIC SERVICES and shall include any cracked or broken sections and any sections that have settled 1/4 inch or more.

Forms shall be complete front and back type. Back forms resulting in hand forming the curb and gutter will not be allowed. Forms shall be of metal, straight and free of distortion, and of sufficient strength to resist springing during the placing of concrete. Forms shall be securely staked, braced, and tied to the required line and grade. Flexible steel or adequately sized lumber may be used for short radius forms.

One-inch expansion joints shall be placed opposite expansion joints in an abutting pavement. If curb or curb and gutter does not abut a concrete pavement, place expansion joints at all spring lines of street returns. If intersecting streets are more than 300 feet apart, place expansion joints at 200-foot intervals. For MDOT

Standard Details (no longer a detail A), B, C5, C6 and D curb and gutter, place expansion joints in abutting pavement.

If the structure does not abut a concrete pavement or base, contraction joints shall be placed at approximately 100-foot intervals.

Intermediate plane of weakness joints shall be placed at approximately 10-foot intervals between other joints as called for above.

Curb returns and curb cuts for driveways shall be installed as required.

The gutter and top of curb shall not vary more than 3/16 inch in 10 feet when checked with a 10-foot straightedge. The balance of the exposed surfaces shall not vary more than 3/8 inch from the alignment and typical cross section.

After the back forms are removed, honeycomb and minor defects shall be filled with mortar, composed of one part Portland cement and two parts sand.

As soon as concrete surfaces have hardened sufficiently to prevent marring, they shall be covered by an approved curing compound, or they shall be thoroughly wetted and cured by an approved method for a period of six days unless otherwise directed by the DIRECTOR OF PUBLIC SERVICES.

CURING

Protect and cure finished concrete paving in compliance with applicable requirements of applicable Section. Use membrane-forming curing and sealing compound or approved moist-curing methods.

REPAIRS AND PROTECTIONS

Repair or replace broken or defective concrete, as directed by the DIRECTOR OF PUBLIC SERVICES.

Protect concrete from damage until acceptance of Work. Exclude traffic from pavement for at least 14 days after placement. When construction traffic is permitted, maintain pavement as clean as possible by removing surface stains and spillage of materials as they occur.

Sweep concrete pavement and wash free of stains, discolorations, dirt, and other foreign material just before final inspection.

END OF SECTION 6

Attachment "D"

SECTION 11 – CONCRETE WORK

PART 1 – GENERAL

REFERENCES

ACI	American Concrete Institute
ASTM A185	Specification for Steel welded Wire, Fabric, Plain, for Concrete Reinforcement
ASTM A497	Specification for Welded Deformed Steel Wire Fabric for Concrete Reinforcement
ASTM A615	Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement
ASTM A94	Specification for Ready-Mixed Concrete
ASTM C150	Specification for Portland Cement
ASTM C260	Specification for Air-Entraining Admixtures for Concrete
ASTM C309	Specification for Liquid Membrane-Forming Curing Compounds for Curing
ASTM C494	Specification for Chemical Admixtures for Concrete
ASTM C595	Specification for Blended Hydraulic Cements
ASTM C618	Specification for Fly-Ash and Raw or Calcined Natural Pozzolan for Use as a Mineral Admixture in Portland Cement Concrete
MDOT 902	Coarse Aggregates for Portland Cement Concrete
MDOT 902	Fine Aggregates for Portland Cement Concrete and Mortar 2NS

SUBMITTALS

Mix Design. Submit concrete mix design as early as possible, but no later than four weeks before scheduled pouring. Submittal shall also include a sieve analysis of the course aggregates, including the quantity of deleterious materials present.

Product Data. Submit data for proprietary materials and items, including reinforcement, admixtures, patching compounds, water stops, joint systems, curing compounds, and others used under this Section.

QUALITY ASSURANCE

Testing. During the progress of construction and at the direction of the DIRECTOR OF PUBLIC SERVICES, perform tests to determine that the concrete complies with the compressive strength and consistency requirements. The DIRECTOR OF PUBLIC SERVICES will witness the preparation of test cylinders.

Provide concrete for test cylinders. Make, handle, and store test specimens. Pack and ship specimens in substantial packages to prevent damage during transit. The CONTRACTOR shall bear expenses of shipment and testing specimens by an approved, independent testing laboratory.

PART 2 – PRODUCTS

FORM MATERIALS

Forms for Exposed Finish Concrete. Use plywood, metal, metal-framed plywood faced, or other acceptable panel materials, to provide continuous, straight, smooth, exposed surfaces. Furnish largest practicable sizes to minimize number of joints and to conform to joint system shown on Drawings.

Form for Unexposed Finished Concrete. Use plywood, lumber, metal, or other acceptable material. Use lumber dressed on at least two edges and one side for tight fit.

REINFORCING MATERIALS

Reinforcing Bars. ASTM A615, Grade 60, deformed as per Section 905.

Welded Wire Fabric. ASTM A185, welded steel wire fabric.

Welded Deformed Steel Wire Fabric. ASTM A497.

CONCRETE MATERIALS

Portland Cement. ASTM C150, Type I or Type III. Use Type III where high-early-strength is required.

Blended Hydraulic Cement. Conforming to ASTM C595, Type IP (Portland Pozzolan cement), with pozzolan content not to exceed 20 percent by weight.

Fly-Ash. ASTM C618, Type C or Type F with loss on ignition not more than 6 percent.

Aggregates. Fine aggregate – MDOT (Michigan Department of Transportation) 2NS. Coarse aggregate – MDOT 6AA.

Water. Drinkable.

Air-Entraining Admixture. ASTM C260.

Water-Reducing Admixture. ASTM C494, Type A, and containing not more than 0.1 percent chloride ions.

Curing Compound. ASTM C309, Type 1 or 2, Class B. Limit moisture loss to 0.040 gm per sq. cm. when applied at 200 sq. ft. per gal. coverage.

CONCRETE MIX DESIGN

Classes.

Class A	All concrete not otherwise indicated.
Class B	Sidewalks and manhole bases (unless otherwise indicated on the Drawings).
Class C	Fill in structures.
Class F	Flowable fill for filling spaces as permitted and directed by the DIRECTOR OF PUBLIC SERVICES

Proportions. Proportion concrete by volume in agreement with the following table:

Concrete Class	A	B	C	F
28-day Compressive strength, psi * Laboratory Trial Batch for Selecting Concrete Proportions, Average 28-day	3500	3000	2000	50-100
Compressive Strength, psi, Design Mix	4100	3600	2600	NA

Concrete Class	A	B	C	F
Cement Content per cu. yard of concrete, sacks minimum **	6	5	4	0.4-3.0 12- 16.0**
Water/Cement Ratio by weight, maximum	0.44	0.58	0.75	0.40- 0.75
Air Content, percent by volume	5+1	6.5+1.5	NA	NA
Slump at point of placement, inches ***	2-4	3-5	3-6	NA

*7-day compressive strength for high-early-strength concrete

**For concrete with fly ash, values are total of cement plus fly ash (Except Class F).

***For concrete containing HRWR admixture (superplasticizer), slump shall not exceed 8 inches after addition of HRWR to verified 2-4 inches slump concrete

PART 3 – EXECUTION

FORMS

Install forms to conform to the shape, lines, and dimensions of the structures as called for on the Drawings. Forms shall be substantial and sufficiently tight to prevent leakage of mortar and shall be properly braced or tied together to maintain position and shape. Forms shall be clean inside before concrete is poured.

Reinforcement. Place bars in the exact position shown on the Drawings. Fasten bars to prevent displacement while depositing concrete.

Space bars with a clear distance of not less than the diameter of the bar, nor 1 inch. Place bars so that the distance from the surface of the concrete to the nearest surface of the nearest bars is 2 inches in slabs, walls, beams, and columns and 3 inches in the bottom of footings (where no mud mat is used).

Splicing of Reinforcement. At splices, lap bars a distance of not less than the following to ensure full bond development of each bar:

<u>Bar Size</u>	<u>Lap Length</u>	<u>Bar Size</u>	<u>Lap Length</u>
No. 3	16 inches	No. 8	38 inches
No. 4	20 inches	No. 9	42 inches
No. 5	24 inches	No. 10	50 inches
No. 6	28 inches	No. 11	62 inches
No. 7	34 inches		

Wire mesh: 14 inches overlap between outermost cross wires of each fabric.

PLACING CONCRETE

Forms shall be moist when concrete is placed. Concrete shall be handled to maintain its consistency and not to permit the ingredients to separate. Place concrete in layers not over 18 inches deep. Vibrate, rod, tamp, or work into places after each layer so that no voids or segregation of the aggregate show when the forms are removed.

Discharge concrete at the Work within 1-1/2 hours after the cement has been added to the water or the aggregates. When the air temperature exceeds 85 degrees F, reduce the maximum permitted mixing time to 45 minutes.

When depositing concrete against the ground for slabs and footings, place the concrete on undisturbed or compacted granular base moistened but free from standing water, mud, frost, and ice.

REMOVAL OF FORMS

The removal of forms shall be made without damage to the concrete and in a manner to ensure complete safety to the structures. Do not remove shoring until the member has acquired sufficient strength to support safely its weight and loads placed thereon.

After form removal, exposed vertical and overhead surfaces shall have burrs and fins removed and holes filled with non-shrink non-metallic grout. The surfaces shall be true to line, with full corners and shall be reasonably smooth.

CURING

Maintain concrete in a moist condition for at least the first seven days after placing for normal concrete and three days after placing for high-early-strength concrete. This shall be done by keeping the surface continuously wet, covering it with a plastic membrane, or by the application of a curing compound approved by the DIRECTOR OF PUBLIC SERVICES.

The surfaces of concrete from which forms are removed before seven days after placing shall be similarly protected until the concrete has been in place for seven days.

CONCRETE WORK IN COLD WEATHER

Concrete, when deposited, shall have a temperature of not less than 50 degrees F nor more than 85 degrees F. During cold weather, which shall be taken to mean weather in which the temperature of the air falls as low as 40 degrees F during any part of the 24 hours which follows, the ingredients of the concrete, including the water, shall be heated immediately before being mixed. If an antifreeze additive is allowed by the DIRECTOR OF PUBLIC SERVICES, it must also conform to ACI 306.1, along with all other aspects when concreting during cold weather. During cold weather, concrete work shall be housed, or covered with canvas or other suitable material, and shall be kept warm by salamanders or by other means, which shall ensure protection from freezing during the setting period.

CONCRETE WORK IN HOT WEATHER

During hot weather, concrete temperature shall be closely monitored and kept below 85 degrees F with the use of cold water or ice for mixing water. The total water in the concrete mix shall not exceed the quantity approved in the concrete mix design (http://civilwares.free.fr/ACI/MCP04/3061_90.pdf).

END OF SECTION 11