CITY OF MADISON REQUEST FOR BIDS



RFB #: 11108-0-2022-AM

Title: Products for Bus Rapid Transit

City Agency: Traffic Engineering

Due Date: Tuesday, December 27th, 2022

2:00 PM CST

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1 NOTICE TO BIDDERS

1.1 Summary

The City of Madison Traffic Engineering ("City") is soliciting Bids from qualified vendors for Products for Bus Rapid Transit. Vendors submitting Bids ("Bidders") are required to read this Request for Bids ("RFB") in its entirety and follow the instructions contained herein.

1.2 Important Dates

Deliver Bids no later than the due time and date indicated below. The City will reject late Bids:

Issue Date: Tuesday, December 13th, 2022
Questions Due Date: Friday, December 16th, 2022
Answers Posted Date: Tuesday, December 20th, 2022

Due Date: Tuesday, December 27th, 2022, 2:00 PM CST

1.3 Format

The City will not consider illegible Bids.

Elaborate Bids (i.e., expensive artwork) beyond that sufficient to present a complete and effective Bid, are not necessary or desired.

The City is requesting bids in the following format: Electronic. Electronic versions less than 20MB should be emailed to the address in section 1.5.

Complete and return Forms A through F to City of Madison Purchasing Services by Tuesday, December 27th, 2022, 2:00 PM CST.

1.4 Labeling

All email correspondence must include RFB #11108-0-2022-AM in the subject line.

1.5 Delivery of Bids

Delivery of electronic copy to: via email to bids@cityofmadison.com

Bids must be delivered as instructed. Deliveries to other City departments and/or locations may result in disqualification.

1.6 Appendix A: Standard Terms & Conditions

Bidders are responsible for reviewing Appendix A, the Standard Terms and Conditions, prior to submission of their bids. Appendix A applies to the submission of bids and in the absence of a signed contract becomes part of the contract terms. Part I of Appendix A provides legal terms relevant only to the submission of bids. Part II of Appendix A provides legal terms that would apply *only in the absence of a signed contract*.

1.7 Appendix B: Sample Contract for Purchase of Services

Bidders are responsible for reviewing Appendix B, Sample Contract, prior to submission of their bid. A contract in the form of Appendix B will serve as the basis of the contract resulting from this RFP. The resulting contract will control over any different legal terms in this RFP, Appendix A, the proposal, etc. By submitting a proposal, Bidders affirm their willingness to enter into a contract containing the

terms found in Appendix B. While the City strives to provide the most appropriate sample contract for this RFP, the City reserves the right to modify the sample form for any resulting contract. The City does not negotiate legal terms prior to award.

1.8 Additional Appendices

Proposers are responsible for reviewing additional appendices prior to submission of their proposals: Appendix C – US DOT Terms & Conditions.

In addition to the aforementioned Appendix A and Appendix B, the terms of these additional appendices shall become contractual obligations following award of the RFP. By submitting a proposal, Proposers affirm their willingness to enter into a contractual obligation containing these terms.

1.9 Affirmative Action Notice

If Contractor employs 15 or more employees and does aggregate annual business with the City of \$50,000 or more for the calendar year in which the PO and/or Contract is in effect, Contractor shall file, within thirty (30) days from the PO/Contract effective date and BEFORE RELEASE OF PAYMENT, an Affirmative Action Plan designed to ensure that the Contractor provides equal employment opportunity to all and takes affirmative action in its utilization of applicants and employees who are women, minorities and/or persons with disabilities. A sample affirmative action plan, Request for Exemption forms, and instructions are available at: www.cityofmadison.com/civil-rights/contract-compliance/vendors-suppliers/forms or by contacting a Contract Compliance Specialist at the City of Madison Affirmative Action Division at (608) 266-4910. Vendors must register for an account to complete the required forms online, here: https://elam.cityofmadison.com/citizenaccess

Contractor shall also allow maximum feasible opportunity to small business enterprises to compete for any subcontracts entered into pursuant to this PO/Contract.

Job postings: All contractors who employ 15 or more employees (regardless of the dollar amount of this contract or their annual aggregate business with the City) must notify the City of all external job openings at locations in Dane County, Wisconsin, and agree to interview candidates referred by the City or its designated organization. Job posting information is available at: http://www.cityofmadison.com/civil-rights/documents/RaISE Job Posting Instructions.pdf

The complete set of Affirmative Action requirements for this purchase can be found in **paragraph 20 of Appendix A – Standard Terms and Conditions** and, in **Section 13 of Appendix B – Sample Contract for Purchase of Services**.

1.10 Multiple Bids

Multiple Bids from Bidders are permitted; however, each must fully conform to the requirements for submission. Bidders must sequentially label (e.g., Bid #1, Bid #2) and separately package each Bid. Bidders may submit alternate pricing schemes without having to submit multiple Bids.

1.11 City of Madison Contact Information

The City of Madison Traffic Engineering is the procuring agency:

Jerry Schippa
City of Madison Traffic Engineering
PH: (608) 266-4761
JSchippa@cityofmadison.com

The City of Madison
Purchasing Services
administers the procurement

Purchasing Services City-County Bldg, Room 407 210 Martin Luther King, Jr. Blvd.

Ana Martinez

function: 210 Martin Luther King, Ji Madison, WI 53703-3346

PH: (608) 266-4521 bids@cityofmadison.com

For questions regarding Affirmative Action Plans please contact: Contract Compliance
Department of Civil Rights
City-County Bldg., Room 523
210 Martin Luther King, Jr. Blvd.

Madison, WI 53703 PH: (608) 266-4910 dcr@cityofmadison.com

The City employs spam filtering that occasionally blocks legitimate emails, holding them in 'quarantine' for four calendar days. The contacts listed in this RFB will acknowledge all emails received. Bidders not receiving acknowledgement within twenty-four hours shall follow-up via phone with specific information identifying the originating email address for message recovery.

1.12 Inquiries and Clarifications

Bidders are to raise any questions they have about the RFB document without delay. Direct all questions, *in writing,* to the Purchasing Services administrator listed in Section 1.10.

Bidders finding any significant ambiguity, error, conflict, discrepancy, omission, or other deficiency in this RFB document shall immediately notify the Buyer and request clarification. In the event that it is necessary to provide additional clarification or revision to the RFB, the City will post addenda – see 1.13 below. Bidders are strongly encouraged to check for addenda regularly.

Bids should be as responsive as possible to the provisions stated herein. Exceptions are not permitted. The City of Madison reserves the right to disqualify any and all bids that are non-responsive or that include exceptions.

1.13 Addenda

In the event that it is necessary to provide additional clarification or revision to the RFB, the City will post addenda to its Bids distribution websites – see 1.14 below. It is the Bidders responsibility to regularly monitor the websites for any such postings. Bidders must acknowledge the receipt of any addenda on Form B. Failure to retrieve addenda and include their provisions may result in disqualification.

1.14 Bid Distribution Networks

The City of Madison posts all Request for Bids, addenda, tabulations, awards and related announcements on two distribution networks – VendorNet and DemandStar. The aforementioned documents are available **exclusively** from these websites. It is the Bidders responsibility to regularly monitor the bid distribution network for any such postings. Bidders failure to retrieve such addenda and incorporate their appropriate provisions in their response may result in disqualification. Both sites offer free registration to City Bidders.

State of Wisconsin State of Wisconsin and local agencies bid network. Registration is free.

VendorNet System: http://vendornet.state.wi.us/vendornet

DemandStar by Onvia: National bid network – Free subscription is available to access Bids

from the City of Madison and other Wisconsin agencies, participating in the Wisconsin Association of Public Purchasers (WAPP). A fee is required if subscribing to multiple agencies that are not included in

WAPP.

Bid Opportunities: www.cityofmadison.com/finance/purchasing/bidDemandStar.cfm

Home Page: www.demandstar.com

To Register: https://www.demandstar.com/app/registration

Please note when registering: Pick the <u>Wisconsin Association of</u> <u>Public Procurement (WAPP)</u> to select all current Wisconsin

government agencies.

1.15 Oral Presentations/Site Visits/Meetings

Bidders may be asked to attend meetings, make oral presentations, inspect City locations or make their facilities available for a site inspection as part of this RFB process. Such presentations, meetings or site visits will be at the Bidders expense.

1.16 Acceptance/Rejection of Bids

The City reserves the right to accept or reject any or all Bids submitted, in whole or in part, and to waive any informalities or technicalities, which at the City's discretion is determined to be in the best interests of the City. Further, the City makes no representations that a contract will be awarded to any Bidder responding to this request. The City expressly reserves the right to reject any and all Bids responding to this invitation without indicating any reasons for such rejection(s).

The City reserves the right to postpone due dates and openings for its own convenience and to withdraw this solicitation at any time without prior notice.

1.17 Withdrawal or Revision of Bids

Bidders may, without prejudice, withdraw Bids submitted prior to the date and time specified for receipt of Bids by requesting such withdrawal before the due time and date of the submission of Bids. After the due date of submission of Bids, no Bids may be withdrawn for a period of 90 days or as otherwise specified or provided by law. Bidders may modify their Bids at any time prior to opening of Bids.

1.18 Non-Material and Material Variances

The City reserves the right to waive or permit cure of nonmaterial variances in the offer if, in the judgment of the City, it is in the City's best interest to do so. The determination of materiality is in the sole discretion of the City.

1.19 Public Records

Bidders are hereby notified that all information submitted in response to this RFB may be made available for public inspection according to the Public Records Law of the State of Wisconsin or other applicable public record laws. Information qualifying as a "trade secret"—defined in State of Wisconsin Statutes—may be held confidential.

Bidders shall seal separately and clearly identify all information they deem to be "trade secrets," as defined in the State of Wisconsin Statutes. Do not duplicate or co-mingle information, deemed confidential and sealed, elsewhere in your response.

- S. 19.36(5)
- (5) TRADE SECRETS. An authority may withhold access to any record or portion of a record containing information qualifying as a trade secret as defined in s. 134.90(1)(c).
- s. 134.90(1)(c)
- (c) "Trade secret" means information, including a formula, pattern, compilation, program, device, method, technique or process to which all of the following apply:
- 1. The information derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use.
- 2. The information is the subject of efforts to maintain its secrecy that are reasonable under the circumstances.

The City cannot ensure that information will not be subject to release if a request is made under applicable public records laws. The City cannot consider the following confidential: a bid in its entirety, price information, or the entire contents of any resulting contract. The City will not provide advance notice to Bidders prior to release of any requested record.

To the extent permitted by such laws, it is the intention of the City to withhold the contents of Bids from public view—until such times as competitive or bargaining reasons no longer require non-disclosure, in the City's opinion. At that time, all Bids will be available for review in accordance with such laws.

1.20 Usage Reports

Annually, the successful Bidders shall furnish to City Purchasing usage reports summarizing the ordering history for each department served during the previous contract year. The report, at a minimum, must include each and every item or service ordered during the period, its total quantities and dollars by item/service and in total. The City reserves the right to request usage reports at any time and request additional information, if required, when reviewing contract activity.

1.21 Partial Award

Unless otherwise noted, it will be assumed that Bidders will accept an order for all or part of the items/services priced.

1.22 Tax Exempt

The City of Madison as a municipality is exempt from payment of federal excise taxes (Registration Number 008-1020421147-08) and State of Wisconsin taxes per Wisconsin statute 77.54(9a). Federal Tax ID #39-6005507. A completed Wisconsin Department of Revenue Form S-211 (R.2-00) can be found on the City website. Our tax-exempt number is ES 42916.

1.23 Cooperative Purchasing

Bidders may choose to extend prices offered on bids to other municipalities. Under Wisconsin Statutes, a municipality is defined as a county; city; village; town; school district; board of school directors; sewer district; drainage district; vocational, technical and adult education district; or any other public or quasipublic corporation, officer, board or other body having the authority to award public contracts. This is known as "cooperative" or "piggyback" purchasing, a practice common amongst units of government. The City is not responsible for any contract resulting from a cooperative purchase using this RFB as a basis; they are made solely between the bidders and third party unit of government.

1.24 Bidders Responsibility

Bidders shall examine this RFB and shall exercise their judgment as to the nature and scope of the work required. No plea of ignorance concerning conditions or difficulties that exist or may hereafter arise in the execution of the work under the resulting contract, as a consequence of failure to make necessary examinations and investigations, shall be accepted as an excuse for any failure or omission on the part of the Bidders to fulfill the requirements of the resulting contract.

2 DESCRIPTION OF SERVICES/COMMODITIES

2.1 Work Summary

The City of Madison, Traffic Engineering, is seeking vendors to provide Products for Bus Rapid Transit. The City is accepting for **full or partial bids** for all products listed below. Bids need to include delivered prices to 3829 Hanson Rd Madison, WI 53704.

A lead-time/expected delivery for each individual product must accompany this Request for Bids. The delivery of product is essential for our construction schedule and will be taken into consideration when selecting the most responsible bidder. Lead time will be effective from date of purchase order (PO).

Must have 24 – 48 hours advance notice prior to delivery. Driver must contact Ed Smith 608-266-9034 at least 1 hour prior to arrival with exact time of arrival as building is vacant and we will need to meet for

Vendors that are awarded will need to have an active account on SAM.gov in order to be paid

entry and unloading. Delivery hours must be Monday - Friday 9am - 2 pm Central time.

2.2 Products

VENDORS please bid on products that your firm can commit to.

1. TYPE 9 SPECIAL POLE, 2 EACH

- a. Description: This item describes furnishing a "Type 9 Special Pole" as specified in the Wisconsin Department of Transportation Standard Detail Drawing SDD 09E08-b "Type 9 Special Pole, 35' Monotube Arm" and as outlined in WisDOT standard spec 657.0347.
- b. Materials: See WisDOT Standard Spec 657.0347.
- c. Construction: Vacant
- d. Measurement: The department will measure Type 9 Special pole by the each, acceptably furnished and delivered.

2. MONOTUBE ARMS 35-foot, 3 EACH

- a. Description: This item describes furnishing Monotube Arms, 35-foot per Wisconsin Department of Transportation Standard Spec 657.0535, and including all mounting hardware necessary to mount these arms to Type 9 and 10 Special Poles.
- b. Materials: Supply Monotube Arms, 35-foot per WisDOT Standard Specification 657.0535.
- c. Construction: Vacant
- d. Measurement: The department will measure Monotube Arms, 35-foot by the each, and all hardware necessary to mount arms to poles, acceptably furnished and delivered.

3. TYPE 10 SPECIAL POLE, 2 EACH

- a. Description: This item describes furnishing a "Type 10 Special Pole" as specified in the Wisconsin Department of Transportation Standard Detail Drawing SDD 09E08-f "Type 10 Special Pole, 35' Monotube Arm" and as outlined in WisDOT standard spec 657.0352, as well as the street light arm and arm attachment and all mounting hardware.
- Materials
 Per each Type 10 Pole Special, provide one of each of the following: Pole details, see
 WisDOT Standard Spec 657.0352. Luminaire Arm Steel (8-FT) details, see WisDOT Standard Spec 657.0808. Luminaire Arms Steel Type 10 Pole Clamp 15-FT details see
 WisDOT Standard Spec 657.0820.
- c. Construction: Vacant
- d. Measurement: The department will measure Type 10 Special pole by the each, with each pole including one of each: Luminaire Arm Steel (8-FT) and Luminaire Arm Steel Type 10

Pole Clamps, and all hardware necessary to mount luminaire arms, acceptably furnished and delivered.

4. ACCESSIBLE PEDESTRIAN SIGNAL (APS) 4-PUSH BUTTON SYSTEM, 21 EACH

Supply and ship a pedestrian push button system for each of the 21 crossings as shown on the plan sheets. Each system shall include four (4) Accessible Pedestrian Signal push buttons and all wiring and equipment necessary for operations at each location. The APS buttons shall conform with MUTCD Section "4E.09 Accessible Pedestrian Signals and Detectors – General" and "Section 4E.11 Accessible Pedestrian Signals and Detectors – Walk Indications."

The APS devices shall be 3-wire system (ground, power, data) with a Ped Head control unit and come equipped with enough wiring for each individual button to be wired to the associated pedestrian signal head. APS system shall be capable of wireless control, with programmable settings controlling volumes, tones, and messages. Each APS location shall have a site specific message in the following format:

Upon push "WAIT"

Upon extended push "Wait to cross [street being crossed] Wait"

Upon WALK indication from terrace "WALK is on to cross [street being crossed] to Median"

Upon WALK indication from median "Walk is on to cross [street being crossed]"

Upon flashing don't walk, read aloud the countdown timer.

Specific messages will be provided upon order. A data file of these messages shall be provided to Jerry Schippa with delivery of devices at jschippa@cityofmadison.com.

System shall come with 9" x 12" R10-3E signs with bottom text that distinguishes "cross to median" for push buttons located in the terrace, and "to cross push button" for buttons located in the median. System shall be capable of operating in temperatures as low as -30 degrees Fahrenheit and as high as 140 degrees Fahrenheit.

5. NEMA TS2 Type 1 Traffic Signal Control Cabinet, 22 EACH

Please review Attachment F.

6. NEMA TS2 TYPE 2 TRAFFIC SIGNAL CONTROLLER, 34 EACH

Please review Attachment G: TS2 TYPE 2 TRAFFIC SIGNAL CONTROLLER

7. Optical Signal Pre-emption, 11 EACH

- a. Description: This item describes furnishing Global Traffic Technologies Opticom optical signal preemption Equipment for each intersection. The optical signal preemption devices shall be capable of receiving input from the optical detector in the field and communicating with a NEMA TS2 type 1 cabinet and Type 2 controller for selecting the correct Emergency Vehicle Pre-emption program as set in the traffic signal controller.
- b. Materials: Provide the following material:
 - i. Four channel discriminator for each intersection
 - ii. Card rack for each intersection.
 - iii. Detector cable as necessary.
 - iv. Cables and auxiliary equipment as necessary for a complete operating system.
- c. Construction: Vacant
- d. Measurement: The department will measure Optical Signal Preempt as each, by the intersection, acceptably furnished and delivered.

8. EMERGENCY VEHICLE PRE-EMPTION DETECTOR, 14 EACH

a. Description: This item describes furnishing optical signal preempt receivers for each intersection. The optical signal preemption receiver shall be capable of receiving infrared

transmitter signals from emergency vehicles when vehicles and receivers are within line of sight from each other.

- b. Materials: Provide for each intersection in the plan set the following:
 - i. Receivers.
 - ii. Mounting equipment (pole mount, and trombone arm mount per plans).
 - iii. Wiring from receiver to cabinet for each receiver at each traffic signal location.
- c. Construction: Vacant
- d. Measurement: The department will measure Emergency Vehicle Pre-emption Receiver as each, by the intersection, acceptably furnished and delivered

9. LIGHTING CONTROLLER CABINET, 4 EACH

Please review Attachment H: Lighting Controller Cabinet

10. PEDESTRIAN PUSH BUTTONS 2505-00066, 133 EACH

This item describes furnishing and delivering Polara Bulldog Pedestrian push buttons and all mounting hardware in accordance to Wisconsin Department of Transportation Standard Spec 658.0500.

Push button shall be able to be activated upon a 3.0 lb force exerted on the button face and provide an audible 'beep' sound upon pushing.

Push button shall not include an LED light.

Push button shall be compatible with NEMA TS2 cabinets.

11. FISHEYE VIDEO DETECTION SYSTEM, 2 EACH

Provide a Gridsmart video detection system capable of viewing 360 degrees simultaneously with the ability to draw in detection zones and communicate with NEMA TS2 Type 1 traffic signal controller cabinet using virtual detection zones.

Video detection camera shall be capable of collecting count data, detecting bicycles, and detecting pedestrians.

Video detection camera and housing shall be rated for -20 degrees Fahrenheit and up to 140 degrees Fahrenheit. Video detection camera shall be water proof and dust proof, and have thermostatically controlled heaters.

Video detection camera shall be powered by power over Ethernet connection.

Video detection cameras shall be mounted on pole approximately 30-feet above the road surface, two per intersection.

The processor for the video detection camera system shall be capable of being shelf placed in the cabinet, and have capabilities for connect to the video detection camera via an Ethernet connection to a laptop for field adjustments.

The department will measure Fisheye Video Detection System as each, by the intersection, acceptably furnished and delivered.

Winning bid acceptance dependent on approval from City of Madison IT department review.

Please review:

Attachment A: Type 9, 10, 12 and 13 Poles with Monotube Arms

Attachment B: iNavigator 3 Wire Push Button Station

Attachment C: Pedestrian Push Button Polara

Attachment D: Signal Controller Summary

Attachment E: Final Signals

Attachment F: TS2 Type 1 Cabinet, 65"

Attachment G: TS2 TYPE 2 TRAFFIC SIGNAL CONTROLLER

Attachment H: Lighting Control Cabinet

3 Disadvantaged Business Enterprise (DBE) Program

This project includes Federal funding which are inclusive of DBEs. Our overall DBE goal of 5.66% for each of FFY 2022, FFY 2023, and FFY 2024 and the City encourages all DBEs to bid.

Any questions about the DBE Program provisions of this project, including filling out the Special Prequalification Report, should be directed to, Affirmative Action Division Manager, City Civil Rights Department, at 608-266-6510, e-mail dcr@cityofmadison.com.

A copy of the complete City of Madison Disadvantaged Business Enterprise (DBE) Program and/or DBE Directory may be obtained by calling the City Civil Rights Department at 608-266-6510 or online at: http://wisconsindot.gov/Pages/doing-bus/civil-rights/dbe/certified-firms.aspx.

3.1 Prequalification Requirements

A. Purpose

It is the policy of the U. S. Department of Transportation/Federal Transit Administration (USDOT/FTA) that disadvantaged business enterprises (DBE) as defined in 49 CFR Part 26 shall have the maximum feasible opportunity to participate in the performance of contracts financed in whole or in part with Federal funds. Consequently, the DBE requirements of 49 CFR Part 26 applies to this contract.

B. DBE Obligation

The Contractor agrees to ensure that DBEs as defined in 49 CFR Part 26 have the maximum feasible opportunity to participate in the performance of contracts and subcontracts financed under this project. In this regard, all bidders shall take all necessary and reasonable steps in accordance with 49 CFR Part 26 to insure that DBEs have the maximum feasible opportunity to compete for and perform contracts. The Contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of USDOT/FTA-assigned contracts.

C. DBE Utilization Goal

During the implementation of the contract, the bidder will be required to show adequate good faith efforts to meet the DBE goals set for each scope of work. DBE firms may participate as subcontractors, suppliers or in joint ventures.

D. DBE Certification

In order to be considered a DBE firm, the firm must be certified by the Wisconsin Unified Certification Program at the time of bid submittal. The DBE Directory is available at the following link:

http://wisconsindot.gov/Pages/doing-bus/civil-rights/dbe/certified-firms.aspx

E. Definitions And Certification Requirements

For the purposes of this program, a Disadvantaged Business Enterprise (DBE) is a small business concern:

Which is at least fifty-one (51) percent owned by one or more socially and economically disadvantaged individuals, or, in the case of any publicly owned business, at least fifty-one (51) percent of the stock of which is owned by one or more socially and economically disadvantaged individuals; and

Whose management and daily business operations are controlled by one or more of the socially and economically disadvantaged individuals who own it.

The Contract Compliance Officer has a list of DBE firms who are certified as meeting these definitions.

F. Good Faith Efforts

Once the contract work is initiated, to demonstrate sufficient reasonable efforts to meet the DBE contract goal, a bidder shall document, using a standard form, the steps it has taken to obtain DBE participation, including but not limited to the following:

- 1. Obtaining information about DBEs in specific subcontracting areas by:
 - a. Developing and maintaining the Contractor's own file of certified DBEs;
 - b. Consulting the list of certified DBEs from the Wisconsin Unified Certification Program Directory.
 - c. If necessary, assisting an uncertified firm to obtain certification by the City of Madison Department of Civil Rights. The Civil Rights Department will provide the necessary forms at the bidder's request.
- 2. Contacting DBEs sufficiently in advance of the bid deadline so that they can prepare a bid and engage in negotiations:
 - a. Advertising in general circulation media, trade association publications, and minorityfocus media for at least twenty (20) calendar days before bids are due. If twenty (20) days are not available, publication for a shorter reasonable time is acceptable, and
 - b. Written notification to DBEs that their interest in the contract is solicited.
- 3. Selecting portions of the work, to be performed by DBEs to increase the likelihood of achieving the DBE project goal.
- 4. Negotiating directly with DBEs, including DBEs who contact the bidder to volunteer a quote for participating as a subcontractor/sub consultant.
- 5. Outlining efforts to negotiate with DBEs for specific sub-bids including at a minimum the names, addresses, and telephone numbers of DBEs that were contracted; a description of the information provided to DBEs regarding the plans and specifications for portions of the work to be performed; and a statement of why additional agreements with DBEs were not reached:
 - a. If the DBE is unavailable, a detailed statement from the bidder of the reasons for that conclusion;
 - b. If the bidder considers the DBE to be unqualified, a detailed statement of the reasons for that conclusion;
 - c. If the DBE refused to or was unable to offer a price which the bidder could reasonably agree to pay, a detailed statement of the reasons for that decision; and
 - d. Any other reasons why agreements with DBEs could not be reached.
- 6. Efforts made to assist the DBEs contacted with needed assistance in obtaining bonding or insurance required by the bidder or the City.

7. Attendance at the virtual pre-bid conference is not mandatory, but it is recommended.

The selected firm will not be considered to have made a good faith effort to meet the DBE project goal if he or she rejects the bid of an otherwise qualified and competent DBE on the basis of price alone, unless it is shown that no reasonable price can be obtained from a DBE. A DBE's bid for the subcontract will be presumed to be unreasonable if the DBE's price exceeds the average price quoted by more than five (5) percent.

G. Counting DBE Participation

During the project, the firm may count towards his or her attainment of the DBE goal only those expenditures to DBEs that perform a commercially useful function. For purposes of evaluating a firm's responsiveness to the attainment of the DBE goal, the contract participation by a DBE is based on the percentage of the total base bid proposed by the Contractor. The total base bid price is inclusive of all amendments, modifications and change orders.

Work performed by a DBE firm in a particular transaction can be counted toward the goal only if it involves a commercially useful function. As provided in Section 26.55 (c) (1) a DBE performs a commercially useful function if the DBE firm in accordance with industry practices performs a useful role in the transaction. Under Section 26.55 (c)(2) a DBE does not perform a commercially useful function if its role is limited to that of an extra participant in a transaction, contract, or project to enable a prime contractor to pass through funds in order to obtain the appearance of DBE participation. If, in the City of Madison's judgment, the firm does not perform a commercially useful function in the transaction, no credit towards goals may be awarded, and the firm's participation cannot be counted towards the attainment of the DBE Goal.

It should be noted that the question of whether a firm is performing a commercially useful function is completely separate from the question of whether the firm is an eligible DBE. A firm is eligible if it meets the definitional criteria and ownership and control requirements, as set forth in the City of Madison's DBE Program.

The City of Madison will determine whether or not a firm is performing a commercially useful function on a project. If the commercially useful function is that of a dealer, then the City of Madison, in accordance with Section 26.55(e) (2)(i) may count 60% of the value of the product supplied towards the DBE goal.

As provided in Section 26.55 (e)(2)(ii) a regular dealer must be engaged in selling the product in question to the public and must be in regular trade with a variety of customers. This is an important distinguishing characteristic which defines whether or not a firm is acting as a regular dealer. If a firm performs supplier-like functions on an <u>ad-hoc</u> basis or for only one or two contractors with whom it has a special relationship, the firm will not be performing commercially useful function since it is not considered a regular dealer.

Section 26.55(e)(2)(ii)(A) allows a supplier of bulk goods to qualify as a regular dealer without owning, operating or maintaining a place of business if the supplier both owns and operates distribution equipment for the products. With respect to the distribution equipment; e. g., a fleet of trucks, the term "and operates" is intended to cover a situation in which the supplier leases the equipment on a regular basis for its entire business through a long-term lease agreement and not on an ad-hoc basis by simply providing drivers for trucks owned or leased by another party; e. g., a prime contractor, or leases such a party's trucks on an ad-hoc basis for a specific job.

If the commercially useful function being performed is not that of a regular dealer, but rather that of delivery of products, for example, a business that simply transfers title of a product from manufacturer to ultimate purchaser; e. g., a sales representative who re-invoices a steel product from the steel company to the City of Madison, or a firm that puts a product into a container for delivery, or a firm that expedites transactions would not be considered a regular dealer under provisions of Section 26.55(e)(2)(ii) (C).

Section 26.55 (e)(3) concerns the use of services that help the City of Madison obtain needed supplies, personnel, materials or equipment to perform a portion of the contract. If a DBE is acting as a broker or manufacturer's representative in the procurement of supplies, facilities, or materials, etc., only the fee received by the service provider could be counted toward goals. For example, use of a minority sales representative or distributor for a steel company, if performing a commercially useful function at all, would entitle the City of Madison receiving the steel to count only the fee paid to the representative or distributor toward the goal.

A similar provision contained in Section 26.55 (a)(2) would also govern fees for professional, technical, managerial and other services obtained expressly and solely to perform work relating to a specific contract or program function such as procurement of personnel. The counting rules of 49 CFR Part 26.55 (a)(2) would apply and only the commission will be counted towards the DBE goal.

Section 26.55 (a)(2) requires the application of the same principle to bonding and insurance matters. Contractors often are required to obtain bonding and insurance concerning their work in USDOT-assisted contracts. When a contractor obtains a bond or an insurance policy from a DBE agent, the amount allowable toward goals is not any portion of the face value of the policy or bond or the total premium, but rather the fee received by the agent for selling the bond or insurance policy.

Section 26.55(d) concerns credit for participation by trucking firms and management of transportation services. If a DBE trucking company picks up a product from a manufacturer or regular dealer and delivers the product to the City of Madison, the commercially useful function it is performing is not that of a supplier, but simply that of a transporter of goods. Unless the trucking company is itself the manufacturer or a regular dealer in the product, credit cannot be given based on a percentage of the cost of the product. Rather, credit would be allowed for the cost of the transportation service.

The City is aware that the rule's language does not explicitly mention every kind of business that works in USDOT/FTA financially assisted programs. In administering 49 CFR Part 26, the City will, on a case-by-case basis, determine the appropriate regulatory provision to apply in a particular situation.

H. The DBE Program Special Pregualification Report

There will be specific reporting requirements and standard forms the firm will have to submit for each scope of work relating to the DBE goals.

I. DBE Award Notification

Whenever a prime Contractor is awarded a contract by the City of Madison, the DBE subcontractor will be notified in writing by the DBE Liaison Officer that a contract has been awarded in which they were identified as a DBE subcontractor. A copy of the Letter of Notification will also be sent to the prime Contractor and the Transit General Manager.

3.2 DBE Project Requirements

A. DBE Substitutions

Once goals are set and the firm submits a list of subcontractors to work on each project scope, arbitrary changes by the Contractor of DBEs identified in his or her bid is strictly prohibited. Further, without prior approval by the DBE Liaison Officer, the Contractor may not terminate a subcontract agreement, reduce the scope of work nor decrease the proposed price to the DBE.

In instances where the Contractor finds it necessary to request substitution of a DBE for reasons such as default on the part of the DBE or poor work performance, the Contractor shall submit, in writing, to the DBE Liaison Officer, the reasons justifying release of prior approved DBEs and receive approval from the City of such change prior to subcontracting with another certified DBE.

The Contractor's notification shall, follow prior notice to the DBE proposed for termination (with a copy to the DBE Liaison Officer) including the specific reasons for the proposed substitution and in accordance with 49 CFR § 26.53(f). Stated reasons which would be acceptable include any of the following examples:

- 1. A previously committed DBE was found not to be able to perform;
- 2. A committed DBE was found not to be able to produce acceptable work;
- 3. A committed DBE was later discovered not to be bona fide; and
- 4. A DBE previously committed to a given price later demands an unreasonable escalation of price.

The Contractor's position in these cases shall be fully explained and supported with adequate documentation. Stated reasons which will not be acceptable include:

- 1. A replacement firm has been recruited to perform the same work under terms more advantageous to the Contractor;
- 2. Issues about performance by the committed DBE were disputed (unless every reasonable effort has already been taken to have the issues resolved or mediated satisfactorily); and
- DBE has requested reasonable price escalation which may be justified due to unforeseen circumstances; i. e., change in scope of DBE's work.

The Contractor's notification should include the name, address, and principal official of any proposed substitute DBE and the dollar value and scope of work of the proposed subcontractor. The same DBE affidavits, documents, and Letter of Intent which are required of bidders should be attached.

The DBE Liaison Officer will evaluate the submitted documentation and respond within fifteen (15) working days to the request for approval of a substitution. The response may be in the form of requesting more information, or requesting an interview to clarify or mediate the problem. The response may also be in the form of a rejection of the proposed DBE substitution with the reasons therefore included in the City's response. In the case of an expressed emergency need to receive the necessary decision for the sake of job progress, the City will instead respond as soon as practicable.

Actual substitution of a DBE to fulfill contract requirements should not be made prior to City approval. Once notified of City approval, the substitute DBE subcontract shall be executed within five (5) working days, and a copy of the DBE subcontract, with signatures of both parties to the agreement, should be submitted to the DBE Liaison Officer.

The City will not approve extra payment for escalated costs incurred by the Contractor when a substitution of subcontractors becomes necessary in order to comply with DBE contract requirements.

In the case where an enterprise under contract was previously considered to be a DBE but is later found not to be, or whose work is found not to be creditable toward the DBE goals fully as planned, the City will consider the following criteria in evaluating at the request:

- 1. Whether the Contractor was reasonable in believing the enterprise was a DBE or that eligibility or "counting" standards were not being violated, and
- 2. The adequacy of unsuccessful efforts taken to obtain a substitute DBE.

B. Contract Monitoring

To ensure DBE compliance on all contracts regardless of dollar amount, the DBE Liaison Officer will contact the Contractor and the DBE subcontractor when the project reaches the 50% mark of completion.

The Contractor will receive a request for status of DBE subcontractor payment. The request will identify the names of DBEs proposed by the Contractor, the proposed goods or services the DBE subcontractor was to provide and the proposed subcontracted DBE dollar amount. The Contractor will be requested to supply, within ten (10) working days, proof of payment for each of the DBEs listed in order to verify the year-to-day DBE participation.

The DBE subcontractor will be requested to provide an affidavit for DBE subcontractor participation/payment attesting to the work performed and the amount paid to date to the subcontractor.

C. Non-Compliance And Liquidated Damages

The City shall have the discretion to apply suitable sanctions to the Contractor if the Contractor is found to be in non-compliance with the DBE requirements. Failure to comply with the DBE terms of a contract or failure to use DBEs as stated in the Contractor's bid constitutes a material breach of this contract, and may lead to the suspension or termination of this contract in whole or in part; furthermore, continued eligibility to enter into future contracting arrangements with the City of Madison may be jeopardized as a result of non-compliance. In some cases, monthly progress payments may be withheld until corrective action is taken.

Therefore, in such cases of non-compliance, the City will deduct as liquidated damages cumulative amounts computed as follows: for each one (1) percent (or fraction thereof) of shortfall toward the DBE goal, one (1) percent of the base bid for this contract shall be surrendered by the Contractor to the City in payment as liquidated damages, if such damages are assessed.

When work is completed, in the event that the City has determined that the Contractor was not in compliance in the fulfillment of the required DBE goals, and a grant of relief of the requirements was not obtained, the City will thereby be damaged in the failure to provide the benefit of participation to DBEs to the degree set forth in the contract.

D. Opportunities For The Use Of Banks Owned & Controlled By DBEs

The City of Madison encourages its prime contractors to use banks owned and controlled by minorities and women in Wisconsin whenever feasible.

E. Prompt Payment Requirement

The contractor is required to pay its subcontractors performing work related to this contract for satisfactory performance of that work no later than 30 days after the contractor's receipt of payment for that work from the City of Madison, as provided for in 49 CFR Part Section 26.29. In addition, the contractor is required to return any retainage payments to those subcontractors within 30 days after the subcontractor's work related to this contract is satisfactorily completed.

4 REQUIRED INFORMATION AND CONTENT OF BIDS

4.1 Required Information and Content of Bids

- 1. Form A Signature Affidavit
- 2. Form B Receipt Forms and Submittal Checklist
- 3. Form C Contractor Profile Information
- 4. Form D Cost Proposal
- 5. Form E References
- 6. Form F FTA Certifications

Appendix A: City of Madison Standard Terms and Conditions

Appendix B: Sample Contract for Purchase of Services

Appendix C: US DOT Terms and Conditions



Form A: Signature Affidavit

RFB #: 11108-0-2022-AM Products for Bus Rapid

Transit

This form must be returned with your response.

In signing Proposals, we certify that we have not, either directly or indirectly, entered into any agreement or participated in any collusion or otherwise take any action in restraint of free competition; that no attempt has been made to induce any other person or firm to submit or not to submit Proposals, that Proposals have been independently arrived at, without collusion with any other Proposers, competitor or potential competitor; that Proposals have not been knowingly disclosed prior to the opening of Proposals to any other Proposers or competitor; that the above statement is accurate under penalty of perjury.

The undersigned, submitting this Proposals, hereby agrees with all the terms, conditions, and specifications required by the City in this Request for Proposals, declares that the attached Proposals and pricing are in conformity therewith, and attests to the truthfulness of all submissions in response to this solicitation.

Proposers shall provide the information requested below. Include the legal name of the Proposers and signature of the person(s) legally authorized to bind the Proposers to a contract.

COMPANY NAME		
SIGNATURE	DATE	
PRINT NAME OF PERSON SIGNING		

Form B: Receipt of Forms and Submittal Checklist

RFB #: 11108-0-2022-AM Products for Bus Rapid Transit

This form must be returned with your response.

Proposers hereby acknowledge the receipt and/or submittal of the following forms:

Forms	Initial to Acknowledge SUBMITTAL	Initial to Acknowledge RECEIPT
Description of Services/Commodities	N/A	
Form A: Signature Affidavit		
Form B: Receipt of Forms and Submittal Checklist		
Form C: Vendor Profile		
Form D: Cost Proposal		
Form E: References		
Form F: FTA Certifications		
Appendix A: Standard Terms & Conditions	N/A	
Appendix B: Contract for Purchase of Services	N/A	
Appendix C: US DOT Terms and Conditions	N/A	
Attachment A: Type 9, 10, 12 and 13 Poles with Monotube Arms	N/A	
Attachment B: iNavigator 3 Wire Push Button Station	N/A	
Attachment C: Pedestrian Push Button Polara	N/A	
Attachment D: Signal Controller Summary	N/A	
Attachment E: Final Signals	N/A	
Attachment F: NEMA TS2 Type 1 Traffic Signal Control Cabinet	N/A	
Attachment G: TS2 TYPE 2 TRAFFIC SIGNAL CONTROLLER	N/A	
Attachment H: Lighting Control Cabinet	N/A	
Addendum #		
Addendum #		

VENDOR NAME			
COMPANY NAME			



Form C: Vendor Profile

RFP #: 11108-0-2022-AM Products for Bus Rapid

Transit

This form must be returned with your response.

COMPANY INFORMATION

COMPANY NAME (Make sure to use your complete, legal company name.)				
Registered with the Federal System for Award Management (SAM	1):			
Yes / No (circle one)				
FEIN (or SSN collected upon award.)				
CONTACT NAME (Able to answer questions about proposal.)	TITLE			
TELEPHONE NUMBER	FAX NUMBER			
EMAIL				
ADDRESS	CITY	STATE	ZIP	
AFFIRMATIVE ACTION CONTACT				
If the selected contractor employs 15 or more employees and doe contractor will be required to file an Affirmative Action Plan and consection 39.02(9)(e), within thirty (30) days contract signature. Veremployees or annual aggregate business must file a request for entitips://www.cityofmadison.com/civil-rights/contract-compliance/veremployees.	mply with the City of Madison Affir ndors who believe they are exempt xemption. Link to information and	mative Action is based on i	on Ordinance, number of	
CONTACT NAME	TITLE			
TELEPHONE NUMBER	FAX NUMBER			
EMAIL				
ADDRESS	CITY	STATE	ZIP	
ORDERS/BILLING CONTACT Address where City purchase orders/contracts are to be mailed and person the department contacts concerning orders and billing.				
CONTACT NAME	TITLE	Concerning	g orders and billing.	
TELEPHONE NUMBER	FAX NUMBER			
EMAIL	EMAIL			
ADDRESS	CITY	STATE	ZIP	



Form D: Cost Proposal

RFB #: 11108-0-2022-AM Products for Bus Rapid

Transit

This form must be returned with your response.

Prepare the fee proposal as all inclusive, not-to-exceed, fixed fees:

- All Inclusive Covers all direct and indirect necessary expenses including but not limited to; travel, telephone, copying and other out-of-pocket expenses.
- Not To Exceed The actual fees shall not exceed the amount specified in fee proposal.
- Fixed Fee All prices, rates, fees and conditions outlined in the proposal shall remain fixed and valid for the entire length of the contract and any/all renewals.

Any pricing increases or additions must be agreed upon in writing by both parties.

Payment is full compensation for furnishing and shipping each product to the City of Madison Metro Transit Bus Garage at, 3829 Hanson Road Madison WI 53704.

Line	Quantity	Description	Buy	Unit Price	Extended
Item			America		Price
Number			Compliant		
1.	2 Each	TYPE 9 SPECIAL POLE	Yes/No	\$	\$
		Days to Delivery ARO:			
2.	3 Each	MONOTUBE ARMS 35-foot	Yes/No	\$	\$
		Days to Delivery ARO:			
3.	2 Each	TYPE 10 SPECIAL POLE	Yes/No	\$	\$
		Days to Delivery ARO:			
4.	21 Each	ACCESSIBLE PEDESTRIAN SIGNAL (APS)	Yes/No	\$	\$
		4-PUSH BUTTON SYSTEM			
		Days to Delivery ARO:			
5.	22 Each	NEMA TS2 Type 1 Traffic Signal Control	Yes/No	\$	\$
		Cabinet			
		Days to Delivery ARO:		_	
6.	34 Each	NEMA TS2 TYPE 2 TRAFFIC SIGNAL	Yes/No	\$	\$
		CONTROLLER			
	44 = 1	Days to Delivery ARO:)/ (N)	•	•
7.	11 Each	Optical Signal Pre-emption	Yes/No	\$	\$
		Days to Delivery ARO:			
8.	14 Each	EMERGENCY VEHICLE PRE-EMPTION	Yes/No	\$	\$
		DETECTOR			
		Days to Delivery ARO:			
9.	4 Each	LIGHTING CONTROLLER CABINET	Yes/No	\$	\$
		Days to Delivery ARO:			
10.	133	PEDESTRIAN PUSH BUTTONS 2505-00066	Yes/No	\$	\$
	Each	Days to Delivery ARO:			
44	0.5	FIGURE VIDEO DETECTION OVOTEM	/N.I	Φ.	Φ.
11.	2 Each	FISHEYE VIDEO DETECTION SYSTEM	Yes/No	\$	\$
		Days to Delivery ARO:		Total	\$
				Total	Ф
1			1		1

ARO: After Receipt of Order

Please review descriptions and any attachment listed under the products in the RFB, section 2.2 Products. VENDORS PLEASE PROVIDE A PARTIAL OR FULL BID, THANK YOU

COMPANY NAME



Form E: References

RFB #: 11108-0-2022-AM Products for Bus Rapid

Transit

This form must be returned with your response.

Please list three references that are **NOT** from the City of Madison. If you wish to highlight any additional work experience for the City of Madison, please list it on a separate page.

REFERENCE #1 – CLIENT INFORMATION			
COMPANY NAME	CONTACT NAME		
ADDRESS	CITY	STATE	ZIP
TELEPHONE NUMBER	FAYNUMDED		
TELEPHONE NUMBER	FAX NUMBER		
EMAIL			
CONTRACT PERIOD	YEAR COMPLETED	TOTAL C	OST
DESCRIPTION OF THE PERFORMED WORK			
REFERENCE #2 - CLIENT INFORMATION	CONTACT NAME		
COMPANY NAME	CONTACT NAME		
ADDRESS	CITY	STATE	ZIP
TIBINESS .	3111	017112	211
TELEPHONE NUMBER	FAX NUMBER		
EMAIL	-		
CONTRACT PERIOD	YEAR COMPLETED	TOTAL C	OST
DESCRIPTION OF THE PERFORMED WORK			

REFERENCE #3 – CLIENT INFORMATION			
COMPANY NAME	CONTACT NAME		
ADDRESS	CITY	STATE	ZIP
TELEPHONE NUMBER	FAX NUMBER	•	
EMAIL			
CONTRACT PERIOD	YEAR COMPLETED	TOTAL C	OST
DESCRIPTION OF THE PERFORMED WORK			

1. AFFIDAVIT AND INFORMATION REQUIRED OF PROPOSERS -(Include in all bids)

I hereby declare and affirm under the penalty for perjury:

- A. That I am the Proposer (if the Proposer is an individual), a partner in the Proposal (if the Proposer is a partnership), or an officer or employee of the proposing corporation (if the Proposer is a corporation or limited liability company);
- B. That the attached Proposal(s) have been arrived at by the Proposer independently and have been submitted without collusion or sham [fraud] and without any agreement, understanding, or planned common course of action with any other vendor of materials, supplies, equipment, or services described in the request for proposals, designed to limit independent proposing or competition;
- C. That the contents of the Proposal(s) have not been communicated, directly or indirectly, by the Proposer or its employees or agents to any person not an employee or agent of the Proposer or its surety or any bond furnished with the Proposal(s), and will not be communicated to any such person prior to the official opening of the proposal(s); and
- D. That I have fully informed myself regarding the accuracy of the statements made in the affidavit.

SIGNATURE	
NAME	
TITLE	
FIRM NAME	
DATE	

2. OVERALL FEDERAL REGULATION COMPLIANCE

All contractual provisions required by USDOT/FTA, as set forth in USDOT/FTA Circular 4220.1F, as amended, and outlined in "USDOT/FTA Terms and Conditions", are hereby incorporated by reference. Anything to the contrary herein notwithstanding, all USDOT/FTA mandated terms shall be deemed to control in the event of a conflict with other provisions contained in the Contract with the successful Proposer. The successful Proposer shall not perform any act, fail to perform any act, or refuse to comply with any City of Madison requests which would cause the City of Madison to be in violation of USDOT/FTA or Wisconsin Department of Transportation grant terms and conditions. The successful Proposer shall ensure that any proposed subcontractors have been determined to meet the same standards of responsibility applicable to the prime contractor.

SIGNATURE	
NAME	
TITLE	
FIRM NAME	
DATE	

3. COMPLIANCE WITH SPECIFICATIONS/SCOPE OF WORK -(Include in all bids)

DATE

The Proposer hereby certifies that it will comply with the specifications/scope of work issued by the City of Madison, WI. The Proposer warrants and certifies that of the following three paragraphs, paragraph A or B or C is true (check one ONLY):
A The Proposer hereby states that it will comply with the specifications/scope of work in <u>all</u> areas. (This means that there are no exceptions to the City's specifications/scope of work, no matter how minor. If you have any doubts, check paragraph C or call the Procuring Agency, for assistance.)
B The Proposer hereby states that it will comply with the specifications/scope of work in all areas except those where requests for clarification were approved by the City prior to Proposal submission.
The Proposer hereby states that it will comply with the specifications/scope of work in all areas except those noted in its response as not being granted by the City in the requests for clarification process. The Proposer understands that those exceptions to the specifications/scope of work may be considered not responsive and may be rejected by the City.
SIGNATURE
NAME
TITLE
FIRM NAME

4. DEBARMENT AND SUSPENSION CERTIFICATION (LOWER TIER COVERED TRANSACTION) (Only Proposals Exceeding \$25,000)

Instructions for Certification:

- 1. By signing and submitting this Offer or proposal, the prospective lower tier participant is providing the signed certification set out below.
- 2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
- 3. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
- 4. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.
- 5. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is proposed for debarment under 48 CFR part 9, subpart 9.4, debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by in writing by the department or agency with which this transaction originated.
- 6. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion Lower Tier Covered Transaction", without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
- 7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not proposed for debarment under 48 CFR part 9, subpart 9.4, debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant agrees to review the "Excluded Parties Listing System" at http://www.sam.gov, before entering into any third party contract or subagreement.
- 8. Nothing contained in the foregoing shall be construed to require establishment of system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- 9. Except for transactions authorized under Paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is proposed for debarment under 48 CFR part 9, subpart 9.4, suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies including suspension and/or debarment.

The prospective lower tier participant certifies, by submission of this Proposal that neither it nor its "principals" as defined in 2. C.F.R. § 180.995 is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective lower tier participant shall attach an explanation to this proposal, and indicate that it has done so, by placing an X in the following space: _____

Furthermore, the prospective lower tier participant certifies that it will provide immediate written notice to the Procuring Agency if, at any time during the course of the proposed Offer, it learns that this certification was erroneous when submitted or has been erroneous by reason of changed circumstances.

THE SUBCONTRACTOR OR LOWER-TIER PARTICIPANT, CERTIFIES OR AFFIRMS THE TRUTHFULNESS AND ACCURACY OF EACH STATEMENT OF ITS CERTIFICATION AND EXPLANATION, IF ANY. IN ADDITION, THE PROPOSER OR OFFEROR UNDERSTANDS AND AGREES THAT THE PROVISIONS OF 31 U.S.C. §§ 3801 ET SEQ. APPLY TO THIS CERTIFICATION AND EXPLANATION, IF ANY.

SIGNATURE	
NAME	
TITLE	
FIRM NAME	
DATE	

5. DEBARMENT AND SUSPENSION CERTIFICATION - PRIMARY

(Only Proposals Exceeding \$25,000)

Instructions for Certification:

- 1. By signing and submitting this Offer or proposal, the prospective primary participant is providing the signed certification set out below.
- 2. The inability of a person to provide the certification required below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification shall disqualify such person from participation in this transaction.
- 3. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.
- 4. The prospective primary participant shall provide immediate written notice to the department or agency to which this proposal is submitted if at any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
- 5. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the department or agency to which this proposal is submitted for assistance in obtaining a copy of those regulations.
- 6. The prospective primary participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is proposed for debarment under 48 CFR part 9, subpart 9.4, debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by in writing by the department or agency entering into this transactions.
- 7. The prospective primary participant further agrees by submitting this proposal that it will include this clause titled "Certification regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion Lower Tier Covered Transaction", provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
- 8. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not proposed for debarment under 48 CFR part 9, subpart 9.4, debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant agrees to review the "Excluded Parties Listing System" at http://www.sam.gov, before entering into any third party contract or subagreement.
- 9. Nothing contained in the foregoing shall be construed to require establishment of system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- 10. Except for transactions authorized under Paragraph 6 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is proposed for debarment under 48 CFR part 9, subpart 9.4, suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

5. DEBARMENT AND SUSPENSION CERTIFICATION - PRIMARY- (continued)

The prospective primary participant certifies, by submission of this Proposal, to the best of its knowledge and belief, that neither it nor its "principals," as defined in 2. C.F.R. Part 180.995:

Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property.

Are not presently indicted for or otherwise criminally or civilly charges by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (2) of this certification.

Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State, local) terminated for cause or default.

If the prospective primary participant is unable to certify to any of the statements in this certification, such prospective primary participant shall attach an explanation to this proposal, and indicate that it has done so, by placing an "X" in the following space:

Furthermore, the Offeror certifies that it will provide immediate written notice to the Procuring Agency if, at any time during the course of the proposed contract, it learns that this certification was erroneous when submitted or has been erroneous by reason of changed circumstances.

THE PROPOSER OR OFFEROR, CERTIFIES OR AFFIRMS THE TRUTHFULNESS AND ACCURACY OF EACH STATEMENT OF ITS CERTIFICATION AND EXPLANATION, IF ANY. IN ADDITION, THE PROPOSER OR OFFEROR UNDERSTANDS AND AGREES THAT THE PROVISIONS OF 31 U.S.C. §§ 3801 ET SEQ. APPLY TO THIS CERTIFICATION AND EXPLANATION, IF ANY.

SIGNATURE	
NAME	
TITLE	
FIRM NAME	
DATE	

6. LOBBYING CERTIFICATION (Only Proposals Exceeding \$100,000)

As required by U.S.DOT regulations, "New Restrictions on Lobbying" at 49 CFR 20.110, the undersigned [Offeror] certifies, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for making lobbying contacts to an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form--LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions [as amended by "Government wide Guidance for New Restrictions on Lobbying," 61 Fed. Reg. 1413 (1/19/96).
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31, U.S.C. § 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

ACCURACY OF EACH STATEMENT OF ITS CERTIFICATION AND DISCLOSURE, IF ANY. IN ADDITION,

, CERTIFIES OR AFFIRMS THE TRUTHFULNESS AND

THE BIDDER OR OFFEROR UNDERSTANDS AND AGREES THAT SEQ. APPLY TO THIS CERTIFICATION AND DISCLOSURE, IF	AT THE PROVISIONS OF 31 U.S.C. §§ 3801 ET
Signature:	_
Name & Title:	_
Company Name:	_
D-4	

THE BIDDER OR OFFEROR,

7. DBE APPROVAL CERTIFICATION

The Proposer hereby certifies that it will not discriminate on the basis of race, color, national origin, religion, sex, age or disability in awarding a subcontract, and that it will take reasonable and necessary steps to ensure that Disadvantaged Business Enterprises as defined in 49 CFR Part 26, Participation by Disadvantaged Business Enterprises in DOT Financial Assistance Programs, including 49 CFR 26.13, will have the opportunity to participate in the performance of this Proposal. Furthermore, the Proposer certifies that its goals have not been disapproved by the Federal Transit Administration.

SIGNATURE	
NAME	
TITLE	
FIRM NAME	
DATE	

8. COMPLIANCE WITH LOCAL AFFIRMATIVE ACTION ORDINANCE

DATE

Agency including contract compliance requirements. The Bidder/Offeror warrants and certifies that, of the following three paragraphs, paragraph A or B or C, is true (check one ONLY), Check Paragraph D if applicable: It has prepared and has on file with the City of Madison's Department of Civil Rights an Affirmative Action Plan that meets the formal requirements of Federal Revised Order No. 4, 41 C.F.R. Part 60.2, as established by 43 FR 51400, November 3, 1978, including appendices required by the City of Madison ordinances or it has prepared and has on file a model Affirmative Action Plan approved by the Madison Common Council. (Please note that Affirmative Action plans must be updated annually with the Department of Civil Rights.) Within thirty (30) days after the effective date of this contract, it will complete an Affirmative Action Plan that meets the format requirements of Federal Revised Order No. 4, 41 C.F.R. Part 60.2, as established by 43 FR 51400, November 3, 1978, including appendices required by the City of Madison ordinance or within thirty (30) days after the effective date of this contract, it will complete a model Affirmative Action Plan approved by the Madison Common Council. The Bidder/Offeror is exempt from filing an Affirmative Action Plan as he or she has fewer than fifteen (15) employees. Within thirty (30) days after contract award, the offeror will file with the Department of Civil Rights an Employer Information Report form to document his or her exempt status. The Bidder/Offeror understands that if Offeror is found by Procuring Agencies Department of Civil Rights to be nonexempt, Paragraph B applies. **SIGNATURE NAME** TITLE FIRM NAME

The Bidder/Offeror hereby certifies that it will comply with all provisions of the Affirmative Action Ordinance of the Procuring

9. DBE VENDOR SURVEY (To be completed by prime and all sub-contractors whether DBE or not)

The United States Department of Transportation (USDOT) has issued new rules to restructure the Disadvantaged Business Enterprise Program so it complies with Court orders. These new rules at 49 C.F.R. Part 26.11 require transit properties to obtain the following information from all current, past and potential Proposers. Here "potential Proposer" is defined as one seeking or has sought to do business with us.

A.	PROPOSING COMPANY NAME									
Address	3.									
City	State	Zip + 4 _								
B.	How long has your firm been in business?									
C.	What are the annual gross receipts of your firm?									
D.	Are you a D.B.E.?	Yes	No	-						
E.	If yes, is your personal	net worth greater	r than \$750,00	0?	Yes	No				
protecte	If you want USDOT and space: If do not not be otherwise released to the state of the sta	one, then USDO dom of Informat	T and the City	will view this	information as	proprietary. It wil	l therefore be			
SIGNA	TURE									
NAME										
TITLE										
FIRM I	NAME									
DATE										

10. VENDOR DATA SHEET

A. LIST THE P	ERSON THE CITY CAN	CONTACT IF THERE	E ARE QUESTIONS	ABOUT YOUR PROPOS	AL.
Name					
Address					
City		State	Zip + 4	<u>.</u>	
Phone	FAX	E-1	nail		
B. LIST THE F	PERSON RESPONSIBLE I	FOR REQUIRED AFF	FIRMATIVE ACTION	NINFORMATION.	
Name					
Address					
City		State	Zip + 4	<u>.</u>	
Phone	FAX	E-1	nail		
C. LIST THE P.	ERSON RESPONSIBLE F	OR INVOICES & PR	EVAILING WAGE D	OCUMENTATION.	
Name					
Address					
City		State	Zip + 4		
Phone	FAX	E-1	mail		
D. LIST THE P	ERSON RESPONSIBLE F	OR THE MONTHLY	PROGRESS REPOR	TS, if required.	
Name					
Address					
City		State	Zip + 4	<u>.</u>	
Phone	FAX	F1	mail		

11. BUY AMERICA CERTIFICATION (Steel or Manufactured Products, except Rolling Stock)

NOTE: Only fill in one (1) of the following Buy America Certification forms.

The Bidder or Offeror hereby certifies that <u>it will</u> comply with the requirements of 49 U.S.C. Section 5323(j)(1), the applicable regulations of 49 C.F.R. 661 and the Build America, Buy America Act ("the Act"), Pub. L. No. 117-58, §§ 70901-52 of the Infrastructure Investment and Jobs Act (the Bipartisan Infrastructure Bill), Pub. L. No. 117-58.

Signature:	
Name & Title:	-
Company Name:	
Date:	
Certificate of Non-Compliance The Bidder or Offeror hereby certifies that it cannot comply with the require 5323(j), but it may qualify for an exception to the requirements pursuant to 4 applicable regulations in 49 C.F.R. 661.7.	
Signature:	
Name & Title:	-
Company Name:	-
Date:	

If Applicable, list the "exemption" qualifications accepted by FTA:



CITY OF MADISON

1. <u>General</u>. Throughout this document, "City of Madison," "City" and "Purchasing" shall be synonymous and mean the City of Madison. The words "bid" and "proposal" are synonymous, as are the words "bidder," "proposer" and "contractor." The phrases "request for proposal," "invitation for bids," "request," "invitation," and "solicitation" shall also be synonymous.

As applied to the winning or selected bidder, the words "bid," "proposal," and "contract" are synonymous.

2. <u>Entire Agreement, Order of Precedence</u>. These standard terms and conditions shall apply to any Purchase Order issued as a result of this Request for Bid/Proposal, except where expressly stated otherwise in the RFP or in a written instrument covering this purchase signed by an authorized representative of the City and the Contractor, in a form approved by the City Attorney (a "Separate Contract"). If such a separate contract is executed it shall constitute the entire agreement and no other terms and conditions, whether oral or written, shall be effective or binding unless expressly agreed to in writing by the City.

If a Separate Contract is not executed, these Standard Terms and Conditions, the City's request for proposals, the version of the vendor's bid that was accepted by the City, and the City's Purchase Order (if any) shall constitute a contract and will be the entire agreement.

Order of Precedence: If there is a conflict between this Section A and any terms in the vendor's accepted bid or proposal, this Section A shall control unless the parties expressly agree to another order of precedence, in writing. If there is a conflict between this Section A and a Separate Contract, the terms and conditions of the Separate Contract shall control.

- I. TERMS FOR SUBMISSION OF BIDS: The following section applies to the bid/selection process only.
- 3. This invitation for bids does not commit the City to award a contract, pay any costs incurred in preparation of bids, or to procure or contract for services or equipment. The City may require the bidder to participate in negotiation and to submit such additional price or technical or other revisions to his or her bids as may result from negotiation. The bidder shall be responsible for all costs incurred as part of his or her participation in the pre-award process.

The City reserves the right to accept or reject any or all bids submitted, in whole or in part, and to waive any informalities or technicalities which at the City's discretion are determined to be in the best interests of the City. Further, the City makes no representations that a contract will be awarded to any offeror responding to this request. The City expressly reserves the right to reject any and all bids responding to this invitation without indicating any reasons for such rejections(s).

The City reserves the right to postpone due dates and openings for its own convenience and to withdraw this solicitation at any time without prior notice.

- 4. <u>Addenda</u>. Changes affecting the specifications will be made by addenda. Changes may include, or result in, a postponement in the bid due date. Bidders are required to complete the Bidder Response Sheet, acknowledging receipt of all parts of the bid, including all addenda.
- 5. <u>Price Proposal</u>. All bidders are required to identify the proposed manufacturer and model, and to indicate the proposed delivery time on the attached Proposal Form. Failure to do so may cause the bid to be considered not responsive. If desired, the bidder may include product literature and specifications. The price quoted will remain firm throughout each contract period. Any price increase proposed shall be submitted sixty (60) calendar days prior to subsequent contract periods and shall be limited to fully documented cost increases to the bidder which are demonstrated to be industry-wide.
- 6. <u>Price Inclusion</u>. The price quoted in any bid shall include all items of labor, materials, tools, equipment, and other costs necessary to fully complete the furnishing and delivery of equipment or services pursuant to the specifications attached thereof. Any items omitted from the specifications which are clearly necessary for the completion of the project shall be considered a portion of the specifications although not directly specified or called for in these specifications.

7. Pricing and Discount.

- a. Unit prices shown on the bid/proposal or contract shall be the price per unit of sale (e.g., gal., cs., doz., ea., etc.) as stated on the bid/proposal or contract. For any given item, the quantity multiplied by the unit price shall establish the extended price. If an apparent mistake exists in the extended price, the unit price shall govern in the bid/proposal evaluation and contract administration.
- b. In determination of award, discounts for early payment will only be considered when all other conditions are equal. Early payment is defined as payment within fifteen (15) days providing the discount terms are deemed favorable. All payment terms must allow the option of Net 30.
- 8. <u>F.O.B. Destination Freight Prepaid</u>. Bid prices must include all handling, transportation and insurance charges. Failure to bid FOB Destination Freight Prepaid may disqualify your bid.

9. <u>Award</u>.

- a. The City will have sole discretion as to the methodology used in making the award. Where none is specified, the award will be made to the lowest responsible bidder in compliance with the specifications and requirements of this solicitation.
- b. The right is reserved to make a separate award of each item, group of items or all items, and to make an award in whole or in part, whichever is deemed in the best interest of the City.
- 10. <u>Responsiveness and Responsibility</u>. Award will be made to the responsible and responsive bidder whose bid is most advantageous to the City with price and other factors considered. For the purposes of this project, responsiveness is defined as the bidder's conformance to the requirements of the solicitation. Being not responsive includes the failure to furnish information requested.

Responsibility is defined as the bidder's potential ability to perform successfully under the terms of the proposed contract. Briefly, a responsible bidder has adequate financial resources or the ability to obtain said resources; can comply with required delivery taking into

Appendix A

account other business commitments; has a satisfactory performance record; has a satisfactory record of integrity and business ethics; and has the necessary organization, experience and technical skills.

The City reserves the right to refuse to accept any bid from any person, firm or corporation that is in arrears or is in default to the City, or has failed to perform faithfully any previous contract with the City. If requested, the bidder must present within five (5) working days evidence satisfactory to the City of performance ability and possession of necessary facilities, financial resources, adequate insurance, and any other resources required to determine the bidder's ability to comply with the terms of this solicitation document.

11. Cancellation.

- a. The City reserves the right to cancel this bid, in whole or in part, at any time for any reason. The City may, in its sole discretion and without any reason, cancel or terminate any contract or purchase order awarded as a result of this bid, in whole or in part, without penalty, by providing ten (10) days written notice thereof to the contractor.
- a. In the event the Bidder shall default in any of the covenants, agreements, commitments, or conditions and any such default shall continue unremedied for a period of ten (10) days after written notice to the Bidder, the City may, at its option and in addition to all other rights and remedies which it may have, terminate the Agreement and all rights of the Bidder under the Agreement.
- b. Failure to maintain the required certificates of insurance, permits, licenses and bonds will be cause for contract termination. If the Bidder fails to maintain and keep in force the insurance, if required, the City shall have the right to cancel and terminate the contract without notice.
- II. CONDITIONS OF PURCHASE: The following section applies to purchases/contracts after the award. See Paragraphs 1 & 2 for applicability and order of precedence.

12. Specifications.

- a. All bidders must be in compliance with all specifications and any drawings provided with this solicitation. Exceptions taken to these specifications must be noted on your bid.
- b. When specific manufacturer and model numbers are used, they are to establish a design, type, construction, quality, functional capability and/or performance level desired. When alternates are bid/proposed, they must be identified by manufacturer, stock number, and the bidder/proposer is responsible for providing sufficient information to establish equivalency. The City shall be the sole judge of equivalency. Bidders are cautioned to avoid bidding alternates which do not meet specifications, which may result in rejection of their bid/proposal.

13. Regulatory Compliance.

- a. Seller represents and warrants that the goods or services furnished hereunder, including all labels, packages, and container for said goods, comply with all applicable standards, rules and regulations in effect under the requirements of all Federal, State and local laws, rules and regulations as applicable, including the Occupational Safety and Health Act (OSHA), as amended, with respect to design, manufacture or use for their intended purpose of said goods or services. Seller shall furnish Material Safety Data Sheets (MSDS) whenever applicable.
- b. If it is determined by the City that such standards are not met, the seller agrees to bear all costs required to meet the minimum standards as stated above for the equipment/products furnished under this contract.
- 14. Warranty. Unless otherwise specifically stated by the bidder, products shall be warranted against defects by the bidder for ninety (90) days from the date of receipt. If bidder or manufacturer offers warranty that exceeds 90 days, such warranty shall prevail.
- 15. Ownership of Printing Materials. All artwork, camera-ready copy, negative, dies, photos and similar materials used to produce a printing job shall become the property of the City. Any furnished materials shall remain the property of the City. Failure to meet this requirement will disqualify your bid.
- 16. <u>Item Return Policy</u>. Bidder will be required to accept return of products ordered in error for up to twenty-one (21) calendar days from date of receipt, with the City paying only the return shipping costs. Indicate in detail on the Bidder Response Sheet, your return policy.
- 17. Payment Terms and Invoicing. The City will pay properly submitted vendor invoices within thirty (30) days of receipt, providing good and/or services have been delivered, installed (if required), and accepted as specified.
 - a. Payment shall be considered timely if the payment is mailed, delivered, or transferred within thirty (30) days after receipt of a properly completed invoice, unless the vendor is notified in writing by the agency of a dispute before payment is due.
 - b. Invoices presented for payment must be submitted in accordance with instructions contained on the purchase order, including reference to purchase order and submittal to the correct address for processing. Invoice payment processing address is shown on the upper middle section of the purchase order. Send invoices to Accounts Payable address on the purchase order. Do not send invoices to Purchasing or ship to address.
 - c. Bidders, proposers shall include discounts for early payment as a percent reduction of invoice. Invoice discounts shall be determined where applicable, from the date of acceptance of goods and/or the receipt of invoice, whichever is later. Discounts for early payment terms stated on the bid/proposal must be shown plainly on the invoice; discounts for early payment not shown on the invoice will be taken.
 - Invoices submitted not in accordance with these instructions will be removed from the payment process and returned within ten (10)
 days.
- 18. <u>F.O.B. Destination Freight Prepaid</u>. Unless otherwise agreed in writing, the vendor shall bear all handling, transportation and insurance charges. Title of goods shall pass upon acceptance of goods at the City's dock.

19. <u>Tax Exemption</u>. The City of Madison is exempt from the payment of Federal Excise Tax and State Sales Tax. **The City Tax Exempt number** is **ES 42916**. Any other sales tax, use tax, imposts, revenues, excise, or other taxes which are now, or which may hereafter be imposed by Congress, the State of Wisconsin, or any other political subdivision thereof and applicable to the sale of material delivered as a result of the bidder's bid and which, by terms of the tax law, may be passed directly to the City, will be paid by the City.

20. Affirmative Action.

A. The following language applies to all successful bidders employing fifteen (15) or more employees (MGO 39.02(9)(c):

The Contractor agrees that, within thirty (30) days after the effective date of this Contract, Contractor will provide to the City of Madison Department of Civil Rights (the "Department"), certain workforce utilization statistics, using a form provided by the City.

If the Contract is still in effect, or if the City enters into a new Agreement with the Contractor, within one year after the date on which the form was required to be provided, the Contractor will provide updated workforce information using a second form, also to be furnished by the City. The second form will be submitted to the Department no later than one year after the date on which the first form was required to be provided.

The Contractor further agrees that, for at least twelve (12) months after the effective date of this Contract, it will notify the Department of each of its job openings at facilities in Dane County for which applicants not already employees of the Contractor are to be considered. The notice will include a job description, classification, qualifications, and application procedures and deadlines, shall be provided to the City by the opening date of advertisement and with sufficient time for the City to notify candidates and make a timely referral. The Contractor agrees to interview and consider candidates referred by the Department, or an organization designated by the Department, if the candidate meets the minimum qualification standards established by the Contractor, and if the referral is timely. A referral is timely if it is received by the Contractor on or before the date stated in the notice.

The Department will determine if a contractor is exempt from the above requirements (Sec. 20.A.) at the time the Request for Exemption in 20.B.(2) is made.

B. Articles of Agreement, Request for Exemption, and Release of Payment:

The "ARTICLES OF AGREEMENT" beginning on the following page, apply to all contractors, unless determined to be exempt under the following table and procedures:

NUMBER OF EMPLOYEES	LESS THAN \$50,000 Aggregate Annual Business with the City*	\$50,000 OR MORE Aggregate Annual Business with the City*
14 or less	Exempt**	Exempt**
15 or more	Exempt**	Not Exempt

^{*}As determined by the Finance Director

- (1) <u>Exempt Status</u>: In this section, "Exempt" means the Contractor is exempt from the Articles of Agreement in section 20.B.(5) of this Contract and from filing an Affirmative Action plan as required by Section IV of the Articles of Agreement. The Department of Civil Rights ("Department") makes the final determination as to whether a contractor is exempt. If the Contractor is not exempt, sec. 20.B.(5) shall apply and Contractor shall select option A. or B. under Article IV therein and file an Affirmative Action Plan.
- (2) <u>Request for Exemption Fewer Than 15 Employees</u>: (MGO 39.02(9)(a)2.) Contractors who believe they are exempt based on number of employees shall submit a Request for Exemption on a form provided by the Department within thirty (30) days of the effective date of this Contract.
- (3) <u>Exemption Annual Aggregate Business</u>: (MGO 39.02(9)(a)c.): The Department will determine, at the time this Contract is presented for signature, if the Contractor is exempt because it will have less than \$50,000 in annual aggregate business with the City for the calendar year in which the contract is in effect. CONTRACTORS WITH 15 OR MORE EMPLOYEES WILL LOSE THIS EXEMPTION AND BECOME SUBJECT TO SEC. 20.B.(5) UPON REACHING \$50,000 OR MORE ANNUAL AGGREGATE BUSINESS WITH THE CITY WITHIN THE CALENDAR YEAR, BEGINNING IN 2019.
- (4) Release of Payment: (MGO 39.02(9)(e)1.b.) All non-exempt contractors must have an approved Affirmative Action plan meeting the requirements of Article IV below on file with the Department within thirty (30) days of the effective date of this Contract and prior to release of payment by the City. Contractors that are exempt based on number of employees agree to file a Request for Exemption with the Department within thirty (30) days of the effective date and prior to release of payment by the City.

(5) Articles of Agreement:

ARTICLE I

The Contractor shall take affirmative action in accordance with the provisions of this Contract to ensure that applicants are employed, and that employees are treated during employment without regard to race, religion, color, age, marital status, disability, sex, sexual orientation, gender identity or national origin and that the employer shall provide harassment-free work environment for the realization of the potential of each employee. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation and selection for training including apprenticeship insofar as it is within the control of the Contractor. The Contractor agrees to post in conspicuous places available to employees and applicants notices to be provided by the City setting out the provisions of the nondiscrimination clauses in this Contract.

ARTICLE II

^{**}As determined by the Department of Civil Rights

Appendix A

The Contractor shall in all solicitations or advertisements for employees placed by or on behalf of the Contractors state that all qualified or qualifiable applicants will be employed without regard to race, religion, color, age, marital status, disability, sex, sexual orientation, gender identity or national origin.

ARTICLE III

The Contractor shall send to each labor union or representative of workers with which it has a collective bargaining Agreement or other Contract or understanding a notice to be provided by the City advising the labor union or workers representative of the Contractor's equal employment opportunity and affirmative action commitments. Such notices shall be posted in conspicuous places available to employees and applicants for employment.

ARTICLE IV

(This Article applies to non-public works contracts.)

The Contractor agrees that it will comply with all provisions of the Affirmative Action Ordinance of the City of Madison (MGO 39.02) including the Contract compliance requirements. The Contractor warrants and certifies that one of the following paragraphs is true (check one):

A. Contractor has prepared and has on file an affirmative action plan that meets the format requirements of Federal Revised Order No, 4, 41 CFR part 60-2, as established by 43 FR 51400 November 3, 1978, including appendices required by City of Madison ordinances or it has prepared and has on file a model affirmative action plan approved by the Madison Common Council.
 B. Within thirty (30) days after the effective date of this Contract, Contractor will complete an affirmative action plan that meets the format requirements of Federal Revised Order No. 4, 41 CFR Part 60-2, as established by 43 FR 51400, November 3, 1978, including appendices required by City of Madison ordinance or within thirty (30) days after the effective date of this Contract, it will complete a model affirmative action plan approved by the Madison Common Council.
 C. Contractor believes it is exempt from filing an affirmative action plan because it has fewer than fifteen (15) employees and has filed, or will file within thirty (30) days after the effective date of this Contract, a form required by the City to confirm exempt status based on number of employees. If the City determines that Contractor is not exempt, the Articles of Agreement will apply.
 D. Contractor believes it is exempt from filing an affirmative action plan because its annual aggregate business with the City for the calendar year in which the contract is in effect is less than fifty thousand dollars (\$50,000), or for another reason listed in MGO 39.02(9)(a)2. If the City determines that Contractor is not exempt, the Articles of Agreement will apply.

ARTICLE V (This Article applies only to public works contracts.)

The Contractor agrees that it will comply with all provisions of the Affirmative Action Ordinance of the City of Madison, including the Contract compliance requirements. The Contractor agrees to submit the model affirmative action plan for public works Contractors in a form approved by the Director of Affirmative Action.

ARTICLE VI

The Contractor will maintain records as required by Section 39.02(9)(f) of the Madison General Ordinances and will provide the City's Department of Affirmative Action with access to such records and to persons who have relevant and necessary information, as provided in Section 39.02(9)(f). The City agrees to keep all such records confidential, except to the extent that public inspection is required by law.

ARTICLE VII

In the event of the Contractor's or subcontractor's failure to comply with the Equal Employment Opportunity and Affirmative Action provisions of this Contract or Sections 39.03 and 39.02 of the Madison General Ordinances, it is agreed that the City at its option may do any or all of the following:

- A. Cancel, terminate or suspend this Contract in whole or in part.
- B. Declare the Contractor ineligible for further City contracts until the Affirmative Action requirements are met.
- C. Recover on behalf of the City from the prime Contractor 0.5 percent of the Contract award price for each week that such party fails or refuses to comply, in the nature of liquidated damages, but not to exceed a total of five percent (5%) of the Contract price, or ten thousand dollars (\$10,000), whichever is less. Under public works contracts, if a subcontractor is in noncompliance, the City may recover liquidated damages from the prime Contractor in the manner described above. The preceding sentence shall not be construed to prohibit a prime Contractor from recovering the amount of such damage from the noncomplying subcontractor.

ARTICLE VIII

(This Article applies to public works contracts only.)

The Contractor shall include the above provisions of this Contract in every subcontract so that such provisions will be binding upon each subcontractor. The Contractor shall take such action with respect to any subcontractor as necessary to enforce such provisions, including sanctions provided for noncompliance.

ARTICLE IX

The Contractor shall allow the maximum feasible opportunity to small business enterprises to compete for any subcontracts entered into pursuant to this Contract. (In federally funded contracts the terms "DBE, MBE, and WBE" shall be substituted for the term "small business" in this Article.)

21. <u>Nondiscrimination</u>. During the term of this Contract, the Contractor agrees not to discriminate against any employee or applicant for employment because of race, religion, marital status, age, color, sex, handicap, national origin or ancestry, income level or source of income, arrest record or conviction record, less than honorable discharge, physical appearance, sexual orientation, gender identity, political beliefs

or student status. Contractor further agrees not to discriminate against any subcontractor or person who offers to subcontract on this Contract because of race, religion, color, age, disability, sex, sexual orientation, gender identity or national origin.

- 22. Prevailing Wage. Where applicable under federal law, the Contractor warrants that prevailing wages will be paid to all trades and occupations.
- 23. <u>Indemnification</u>. The Contractor shall be liable to and hereby agrees to indemnify, defend and hold harmless the City of Madison, and its officers, officials, agents, and employees against all loss or expense (including liability costs and attorney's fees) by reason of any claim or suit, or of liability imposed by law upon the City or its officers, officials, agents or employees for damages because of bodily injury, including death at any time resulting therefrom, sustained by any person or persons or on account of damages to property, including loss of use thereof, arising from, in connection with, caused by or resulting from the acts or omissions of Contractor and any of Contractor's subcontractors in the performance of this agreement, whether caused by or contributed to by the negligence of the City or its officers, officials, agents or employees.

Insurance.

The Contractor will insure, and will require each subcontractor to insure, as indicated, against the following risks to the extent stated below. The Contractor shall not commence work under this Contract, nor shall the Contractor allow any Subcontractor to commence work on its Subcontract, until the insurance required below has been obtained and corresponding certificate(s) of insurance have been approved by the City Risk Manager.

- a. Commercial General Liability The Contractor shall procure and maintain during the life of this contract, Commercial General Liability insurance including, but not limited to, products and completed operations, bodily injury, property damage, personal injury, and products and completed operations (unless determined to be inapplicable by the Risk Manager) in an amount not less than \$1,000,000 per occurrence. This policy shall also provide contractual liability in the same amount. Contractor's coverage shall be primary and list the City of Madison, its officers, officials, agents and employees as additional insureds. Contractor shall require all subcontractors under this Contract (if any) to procure and maintain insurance meeting the above criteria, applying on a primary basis and listing the City of Madison, its officers, officials, agents and employees as additional insureds.
- b. Automobile Liability The Contractor shall procure and maintain during the life of this contract Business Automobile Liability insurance covering owned, non-owned and hired automobiles with limits of not less than \$1,000,000 combined single limit per accident. Contractor shall require all subcontractors under this Contract (if any) to procure and maintain insurance covering each subcontractor and meeting the above criteria.
- c. Worker's Compensation The Contractor shall procure and maintain during the life of this contract statutory Workers' Compensation insurance as required by the State of Wisconsin. The Contractor shall also carry Employers Liability limits of at least \$100,000 Each Accident, \$100,000 Disease Each Employee, and \$500,000 Disease Policy Limit. Contractor shall require all subcontractors under this Contract (if any) to procure and maintain such insurance, covering each subcontractor.
- d. Professional Liability The Contractor shall procure and maintain professional liability insurance with coverage of not less than \$1,000,000. If such policy is a "claims made" policy, all renewals thereof during the life of the contract shall include "prior acts coverage" covering at all times all claims made with respect to Contractor's work performed under the contract. This Professional Liability coverage must be kept in force for a period of six (6) years after the services have been accepted by the City.
- e. Acceptability of Insurers The above-required insurance is to be placed with insurers who have an A.M. Best rating of no less than A-(A minus) and a Financial Category rating of no less than VII.
- f. Proof of Insurance, Approval. The Contractor shall provide the City with certificate(s) of insurance showing the type, amount, effective dates, and expiration dates of required policies prior to commencing work under this Contract. Contractor shall provide the certificate(s) to the City's representative upon execution of the Contract, or sooner, for approval by the City Risk Manager. If any of the policies required above expire while this Contract is in effect, Contractor shall provide renewal certificate(s) to the City for approval. Certificate Holder language should be listed as follows:

City of Madison

ATTN: Risk Management, Room 406

210 Martin Luther King, Jr. Blvd.

Madison, WI 53703

The Contractor shall provide copies of additional insured endorsements or insurance policies, if requested by the City Risk Manager. The Contractor and/or Insurer shall give the City thirty (30) days advance written notice of cancellation, non-renewal or material changes to any of the above-required policies during the term of this Contract.

25. <u>Work Site Damages</u>. Any damage, including damage to finished surfaces, resulting from the performance of this contract shall be repaired to the Owner's satisfaction at the Contractor's expense.

26. Compliance.

- a. Regulations. The Contractor shall give all notices and comply with all laws, ordinances, rules, regulations and lawful orders of any public authority bearing on the performance of the work.
- b. Licensing and Permits. The Contractor selected under this bid shall be required to demonstrate valid **possession of appropriate required licenses and will** keep them in effect for the term of this contract. The Contractor shall also be required, when appropriate, to obtain the necessary building permits prior to performing work on City facilities.

27. Warranty of Materials and Workmanship.

- a. The Contractor warrants that, unless otherwise specified, all materials and equipment incorporated in the work under the Contract shall be new, first class, and in accordance with the Contract Documents. The Contractor further warrants that all workmanship shall be first class and in accordance with the Contract Documents and shall be performed by persons qualified in their respective trades.
- b. Work not conforming to these warranties shall be considered defective.

- c. This warranty of materials and workmanship is separate and independent from and in addition to any other guarantees in this Contract.
- 28. Replacement of Defective Work or Materials. Any work or material found to be in any way defective or unsatisfactory shall be corrected or replaced by the Contractor at its own expense at the order of the City notwithstanding that it may have been previously overlooked or passed by an inspector. Inspection shall not relieve the Contractor of its obligations to furnish materials and workmanship in accordance with this contract and its specifications.
- 29. Reservation of the Right to Inspect Work. At any time during normal business hours and as often as the City may deem necessary, the Contractor shall permit the authorized representatives of the City to review and inspect all materials and workmanship at any time during the duration of this contract, provided, however, the City is under no duty to make such inspections, and any inspection so made shall not relieve the Contractor from any obligation to furnish materials and workmanship strictly in accordance with the instructions, contract requirements and specifications.
- 30. Sweatfree Procurement of Items of Apparel. If this bid results in the procurement of \$15,000 or more in garments or items of clothing, any part of which is a textile, or any shoes/ footwear, then Sec. 4.25 of the Madison General Ordinances, "Procurement of Items of Apparel", is hereby incorporated by reference and made part of this contract. See Section 4.25(2) at www.municode.com for applicability specifics. The contractor shall follow labor practices consistent with international standards of human rights, meaning that, at a minimum, contractor shall adhere to the minimum employment standards found in Section 4.25 and shall require all subcontractors and third-party suppliers to do the same. For purposes of sec. 4.25, "Subcontractor" means a person, partnership, corporation or other entity that enters into a contract with the contractor for performance of some or all of the City-contracted work and includes all third-party suppliers or producers from whom the contractor or its contractors obtains or sources goods, parts or supplies for use on the city contract and is intended to include suppliers at all level of the supply chain. The standards in Sec. 4.25 shall apply in all aspects of the contractor's and subcontractor's operations, including but not limited to, manufacture, assembly, finishing, laundering or dry cleaning, (where applicable), warehouse distribution, and delivery. Contractor acknowledges that by entering into this contract, Contractor shall be subject to all of the requirements and sanctions of sec. 4.25 of the Madison General Ordinances.

The sanctions for violating Sec. 4.25 under an existing contract are as follows:

- a. Withholding of payments under an existing contract.
- b. Liquidated damages. The contractor may be charged liquidated damages on an existing contract of two thousand dollars (\$2,000) per violation, or an amount equaling twenty percent (20%) of the value of the apparel, garments or corresponding accessories, equipment, materials, or supplies that the City demonstrates were produced in violation of the contract and/or this ordinance per violation; whichever is greater.
- c. Termination, suspension or cancellation of a contract in whole or in part.
- d. Nonrenewal when a contract calls for optional renewals.
- e. Nonrenewal for lack of progress or impossible compliance. The City reserves the right to refuse to renew the contract that calls for optional renewals, when the contractor cannot comply with the minimum standard under (4)(b) and the noncompliance is taking place in a country where:
 - (1) Progress toward implementation of the standards in this Ordinance is no longer being made; and
 - (2) Compliance with the employment standards in the Ordinance is deemed impossible by the City and/or any independent monitoring agency acting on behalf of the City. Such determination shall be made in the sole opinion of the City and may be based upon examination of reports from governmental, human rights, labor and business organizations and after consultation with the relevant contractors and sub-contractors and any other evidence the City deems reliable.
- f. Disqualification of the contractor from bidding or submitting proposals on future City contracts, or from eligibility for future city procurements as defined in sub. (2), whether or not formal bidding or requests for proposals are used, for a period of one (1) year after the first violation is found and for a period of three (3) years after a second or subsequent violation is found. The disqualification shall apply to the contractor who committed the violation(s) whether that be under the same corporate name, or as an individual, or under the name of another corporation or business entity of which he or she is a member, partner, officer, or agent.

The exercise by the City of any or all of the above remedies, or failure to so exercise, shall not be construed to limit other remedies available to the City under this Contract nor to any other remedies available at equity or at law.

- 31. <u>Local Purchasing</u>. The City of Madison has adopted a local preference purchasing policy granting a 5 percent request for proposal and 1 percent request for bid scoring preference to local vendors.
 - To facilitate the identification of local suppliers, the City has provided an on-line website as an opportunity for suppliers to voluntarily identify themselves as local, and to assist City staff with their buying decisions. Proposers seeking to obtain local preference are required to register on the City of Madison online registration website. Only vendors registered as of the bid due date will receive preference. Additional information is available at: https://www.cityofmadison.com/finance/purchasing/local-businesses/register-businesse/.
- 32. Weapons Prohibition. Contractor shall prohibit, and shall require its subcontractors to prohibit, its employees from carrying weapons, including concealed weapons, in the course of performance of work under this Contract, other than while at the Contractor's or subcontractor's own business premises. This requirement shall apply to vehicles used at any City work site and vehicles used to perform any work under this Contract, except vehicles that are an employee's "own motor vehicle" pursuant to Wis. Stat. sec. 175.60(15m). This section does not apply to employees who are required to carry a weapon under the express terms of the Contract (such as armed security guard services, etc.).
- 33. Software & Technology Purchases.
 - a. <u>Software Licenses</u>. All software license agreements shall include the City's mandatory legal terms and conditions as determined by the City Attorney. Please be advised that no City employee has the authority to bind the City by clicking on an End User License Agreement (EULA) or any other click-through terms and conditions without being specifically authorized by the City's Chief Information Officer through procedures approved by the City Attorney and Risk Manager. All legal documents associated with the purchase or download of software must be reviewed by the City Attorney and may only be signed by an individual authorized to do so.

Appendix A

- b. <u>Network Connection Policy</u>. If this purchase includes software support, software maintenance, network services, and/or system development services and will require a Network Connection the City Network (as defined in the following link), the City's Network Connection Policy found at this link: www.cityofmadison.com/attorney/documents/posNetworkConnection.doc is hereby incorporated and made a part of the Contract and Contractor agrees to comply with all of its requirements.
- 34. Ban the Box Arrest and Criminal Background Checks.

This provision applies to service contracts of more than \$25,000 executed by the City on January 1, 2016 or later, unless exempt by Sec. 39.08 of the Madison General Ordinances (MGO).

- a. <u>Definitions</u>. For purposes of this requirement, "Arrest and Conviction Record" includes, but is not limited to, information indicating that a person has been questioned, apprehended, taken into custody or detention, held for investigation, arrested, charged with, indicted or tried for any felony, misdemeanor or other offense pursuant to any law enforcement or military authority.
 - "Conviction record" includes, but is not limited to, information indicating that a person has been convicted of a felony, misdemeanor or other offense, placed on probation, fined, imprisoned or paroled pursuant to any law enforcement or military authority.
 - "Background Check" means the process of checking an applicant's arrest and conviction record, through any means.
- b. Requirements. For the duration of any contract awarded under this RFP, the successful contractor shall:
 - (1) Remove from all job application forms any questions, check boxes, or other inquiries regarding an applicant's arrest and conviction record, as defined herein.
 - (2) Refrain from asking an applicant in any manner about their arrest or conviction record until after a conditional offer of employment is made to the applicant in question.
 - (3) Refrain from conducting a formal or informal background check or making any other inquiry using any privately or publicly available means of obtaining the arrest or conviction record of an applicant until after a conditional offer of employment is made to the applicant in question.
 - (4) Make information about this ordinance available to applicants and existing employees, and post notices in prominent locations at the workplace with information about the ordinance and complaint procedure, using language provided by the City.
 - (5) Comply with all other provisions of Sec. 39.08, MGO.
- c. Exemptions: This section does not apply when:
 - (1) Hiring for a position where certain convictions or violations are a bar to employment in that position under applicable law, or
 - (2) Hiring a position for which information about criminal or arrest record, or a background check is required by law to be performed at a time or in a manner that would otherwise be prohibited by this ordinance, including a licensed trade or profession where the licensing authority explicitly authorizes or requires the inquiry in question.

To be exempt under sec. C.1. or 2. above, contractor must demonstrate to the City that there is a law or regulation that requires the background check in question. If so, the contractor is exempt from this section for the position(s) in question.



INSTRUCTIONS FOR CONTRACTOR

DO NOT ATTACH TO CONTRACT

Your contract MUST include the following information, or it will not be signed by the City.

Ш	Check one box at top of Page 1 for the type of business entity.
	Sections 3 & 4 will be completed by the City and should be complete before you sign.
	Put a name in Sec. 7.A. – person responsible for administering the contract.
	Affirmative Action: Check the appropriate box in Sec. 13.B., Article IV and complete the appropriate online form for the box you have checked:
	Access the online forms for Affirmative Action compliance at this link: www.cityofmadison.com/civil-rights/contract-compliance/vendors-suppliers/forms . If you do not already have an approved, current Affirmative Action Plan on file with the City of Madison, read the "Instructions for Completing City of Madison Affirmative Action Plan" at the above link. This will direct you to register for an account. If you already have an account you may click on the link for "Affirmative Action Plan for Vendors and Suppliers" to proceed. If you have never filed a plan or request for exemption, you must create an account in our online system. If you are exempt under Article IV, Sections C or D you will still need to create an account and go through some steps to confirm your exemption. Register for an account here: https://elam.cityofmadison.com/citizenaccess .
	Affirmative Action Questions? Contact Dept. of Civil Rights, Contract Compliance: (608) 266-4910.
	Complete Sec. 15 – Official Notices. This is the name/job title/address of the person at your organization to receive legal notices under the contract.
	Signature line. A person with authority to bind the organization should sign, date, and print name and job title where shown on the signature page. Contractor signs first, City signs last.
	Print, sign and return three (3) complete, signed hard copies to the address for the City in Sec. 15 (Notices) unless otherwise instructed. (Under some circumstances, the City will accept a signed, scanned PDF of the entire contract. Please ask if you want to use this method.) - Make sure all exhibits/attachments are labeled and attached after the signature page, unless otherwise instructed. - Double-sided is OK, but all attachments should begin on a new page. - City will sign last, and will send you one hard copy with original signatures unless otherwise agreed.
	Enclose CERTIFICATE OF INSURANCE (C.O.I.) showing proof of insurance required by Sec. 27.
	Insurance Instructions:
	Certificate Holder: City of Madison Attn: Risk Manager 210 Martin Luther King Jr. Blvd. Room 406 Madison, WI 53703

Proof of all insurance required in the contract must be shown. Use City's certificate at this link: www.cityofmadison.com/finance/documents/CertInsurance.pdf

Insurance delivery options: (a) enclose hard copy of certificate with hard copies of contract mailed to the address in Section 15 of the contract, or (b) email certificate to City Risk Manager Eric Veum at: eveum@cityofmadison.com and cc: your City contact person on the email. Call Eric Veum at (608) 266-5965 with insurance questions.

Failure to complete these steps will result in contract not being signed.



Appendix B

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City of Madison CONTRACT FOR PURCHASE OF SERVICES

	This is a Contract between the City of Madison, Wisconsin, hereafter referred to as the "City" and hereafter referred to as "Contractor."		
	The Contractor is a: Corporation Limited Liability Company General Partnership LLP (to be completed by contractor) Sole Proprietor Unincorporated Association Other:		
2.	PURPOSE. The purpose of this Contract is as set forth in Section 3.		
3.	SCOPE OF SERVICES AND SCHEDULE OF PAYMENTS. Contractor will perform the following services and be paid according to the following schedule(s) or attachment(s):		
	List all attachments here by name, and attach and label them accordingly.		
	Order of Precedence: In the event of a conflict between the terms of this Contract for Purchase of Services and the terms of any document attached or incorporated herein, the terms of this Contract for Purchase of Services shall control and supersede any such conflicting term.		
4.	TERM AND EFFECTIVE DATE. This Contract shall become effective upon execution by the Mayor, (or the Purchasing Agent, if authorized) on behalf of the City of Madison, unless another effective date is specified in the Attachment(s) incorporated in Section 3, however in no case shall wor commence before execution by the City of Madison. The term of this Contract shall be insert dates or reference attachments a needed.		
5.	ENTIRE AGREEMENT. This Contract for Purchase of Services, including any and all attachments, exhibits and other documents referenced in Section 3 (hereafter, "Agreement" or "Contract") is the entire Agreement of the parties and supersedes any and all oral contracts and negotiations between the parties. If any document referenced in Section 3 includes a statement that expressly or implicitly disclaims the applicability of this Contract for Purchase of Services, or a statement that such other document is the "entire agreement," such statement shall be deemed rejected and shall not apply to this Contract.		
6.	ASSIGNABILITY/SUBCONTRACTING. Contractor shall not assign or subcontract any interest or obligation under this Contract without the City's prior written approval. A of the services required hereunder will be performed by Contractor and employees of Contractor.		
7.	DESIGNATED REPRESENTATIVE. A. Contractor designates as Contract Agent with primary responsibility for the performance of this Contract. In case this Contract Agent is replaced by another for any reason, the Contractor will designate another Contract Agent within seven (7) calendar days of the time the first terminates his or her employment or responsibility using the procedure serforth in Section 15, Notices. B. In the event of the death, disability, removal or resignation of the person designated above as the Contract agent, the City may accept another person as the Contract agent or may terminate this Agreement under Section 25, at its option.		
8.	PROSECUTION AND PROGRESS. A. Services under this Agreement shall commence upon written order from the City to the Contractor, which order will constitute authorization to proceed; unless another date for commencement is specified elsewhere in this Contractional including decomposite incorporated in Section 2		
	including documents incorporated in Section 3. B. The Contractor shall complete the services under this Agreement within the time for completion specified in Section 3, the Scope of Services, including any amendments. The Contractor's services are completed when the City notifies the Contractor in writing that the services are complete and are acceptable. The time for completion shall not be extended because of any delay attributable to the Contractor, but it may be extended by the City in the event of a delay attributable to the City, or in the event of unavoidable delay caused by war, insurrection, natural disaster, or other unexpected event beyond the control of the Contractor. If at any time the Contractor believes that the time for completion of the work should be extended because of unavoidable delay caused by an unexpected event, or because of a delay attributable to the City the Contractor shall notify the City as soon as possible, but not later than seven (7) calendar days after such an event Such notice shall include any justification for an extension of time and shall identify the amount of time claimed to be		

- necessary to complete the work.

 C. Services by the Contractor shall proceed continuously and expeditiously through completion of each phase of the work.
- D. Progress reports documenting the extent of completed services shall be prepared by the Contractor and submitted to the City with each invoice under Section 24 of this Agreement, and at such other times as the City may specify, unless another procedure is specified in Section 3.
- E. The Contractor shall notify the City in writing when the Contractor has determined that the services under this Agreement have been completed. When the City determines that the services are complete and are acceptable, the City will provide written notification to the Contractor, acknowledging formal acceptance of the completed services.

9. AMENDMENT.

PARTIES

This Contract shall be binding on the parties hereto, their respective heirs, devisees, and successors, and cannot be varied or waived by any oral representations or promise of any agent or other person of the parties hereto. Any other change in any provision

of this Contract may only be made by a written amendment, signed by the duly authorized agent or agents who executed this Contract.

10. EXTRA SERVICES.

The City may require the Contractor to perform extra services or decreased services, according to the procedure set forth in Section 24. Extra services or decreased services means services which are not different in kind or nature from the services called for in the Scope of Services, Section 3, but which may increase or decrease the quantity and kind of labor or materials or expense of performing the services. Extra services may not increase the total Contract price, as set forth in Section 23, unless the Contract is amended as provided in Section 9 above.

11. NO WAIVER.

No failure to exercise, and no delay in exercising, any right, power or remedy hereunder on the part of the City or Contractor shall operate as a waiver thereof, nor shall any single or partial exercise of any right, power or remedy preclude any other or further exercise thereof or the exercise of any other right, power or remedy. No express waiver shall affect any event or default other than the event or default specified in such waiver, and any such waiver, to be effective, must be in writing and shall be operative only for the time and to the extent expressly provided by the City or Contractor therein. A waiver of any covenant, term or condition contained herein shall not be construed as a waiver of any subsequent breach of the same covenant, term or condition.

12. **NONDISCRIMINATION.**

During the term of this Contract, the Contractor agrees not to discriminate against any employee or applicant for employment because of race, religion, marital status, age, color, sex, handicap, national origin or ancestry, income level or source of income, arrest record or conviction record, less than honorable discharge, physical appearance, sexual orientation, gender identity, political beliefs or student status. Contractor further agrees not to discriminate against any subcontractor or person who offers to subcontract on this Contract because of race, religion, color, age, disability, sex, sexual orientation, gender identity or national origin.

13. **AFFIRMATIVE ACTION.**

A. The following language applies to all contractors employing fifteen (15) or more employees (MGO 39.02(9)(c):

The Contractor agrees that, within thirty (30) days after the effective date of this Contract, Contractor will provide to the City of Madison Department of Civil Rights (the "Department"), certain workforce utilization statistics, using a form provided by the City.

If the Contract is still in effect, or if the City enters into a new Agreement with the Contractor, within one year after the date on which the form was required to be provided, the Contractor will provide updated workforce information using a second form, also to be furnished by the City. The second form will be submitted to the Department no later than one year after the date on which the first form was required to be provided.

The Contractor further agrees that, for at least twelve (12) months after the effective date of this Contract, it will notify the Department of each of its job openings at facilities in Dane County for which applicants not already employees of the Contractor are to be considered. The notice will include a job description, classification, qualifications, and application procedures and deadlines, shall be provided to the City by the opening date of advertisement and with sufficient time for the City to notify candidates and make a timely referral. The Contractor agrees to interview and consider candidates referred by the Department, or an organization designated by the Department, if the candidate meets the minimum qualification standards established by the Contractor, and if the referral is timely. A referral is timely if it is received by the Contractor on or before the date stated in the notice.

The Department will determine if a contractor is exempt from the above requirements (Sec. 13.A.) at the time the Request for Exemption in 13.B.(2) is made.

B. Articles of Agreement, Request for Exemption, and Release of Payment: The "ARTICLES OF AGREEMENT" beginning on the following page, apply to all contractors, unless determined to be exempt under the following table and procedures:

NUMBER OF EMPLOYEES	LESS THAN \$50,000 Aggregate Annual Business with the City*	\$50,000 OR MORE Aggregate Annual Business with the City*
14 or less	Exempt**	Exempt**
15 or more	Exempt**	Not Exempt

^{*}As determined by the Finance Director

- (1) <u>Exempt Status</u>: In this section, "Exempt" means the Contractor is exempt from the Articles of Agreement in section 13.B.(5) of this Contract and from filing an Affirmative Action plan as required by Section IV of the Articles of Agreement. The Department of Civil Rights ("Department") makes the final determination as to whether a contractor is exempt. If the Contractor is not exempt, sec. 13.B.(5) shall apply and Contractor shall select option A. or B. under Article IV therein and file an Affirmative Action Plan.
- (2) Request for Exemption Fewer Than 15 Employees: (MGO 39.02(9)(a)2.) Contractors who believe they are exempt based on number of employees shall submit a Request for Exemption on a form provided by the Department within thirty (30) days of the effective date of this Contract.
- (3) <u>Exemption Annual Aggregate Business</u>: (MGO 39.02(9)(a)c.): The Department will determine, at the time this Contract is presented for signature, if the Contractor is exempt because it will have less than \$50,000 in annual aggregate business with the City for the calendar year in which the contract is in effect. CONTRACTORS WITH 15 OR MORE

^{**}As determined by the Department of Civil Rights

EMPLOYEES WILL LOSE THIS EXEMPTION AND BECOME SUBJECT TO SEC. 13.B.(5) UPON REACHING \$50,000 OR MORE ANNUAL AGGREGATE BUSINESS WITH THE CITY WITHIN THE CALENDAR YEAR, BEGINNING IN 2019.

(4) Release of Payment: (MGO 39.02(9)(e)1.b.) All non-exempt contractors must have an approved Affirmative Action plan meeting the requirements of Article IV below on file with the Department within thirty (30) days of the effective date of this Contract and prior to release of payment by the City. Contractors that are exempt based on number of employees agree to file a Request for Exemption with the Department within thirty (30) days of the effective date and prior to release of payment by the City.

(5) Articles of Agreement:

ARTICLE I

The Contractor shall take affirmative action in accordance with the provisions of this Contract to ensure that applicants are employed, and that employees are treated during employment without regard to race, religion, color, age, marital status, disability, sex, sexual orientation, gender identity or national origin and that the employer shall provide harassment-free work environment for the realization of the potential of each employee. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation and selection for training including apprenticeship insofar as it is within the control of the Contractor. The Contractor agrees to post in conspicuous places available to employees and applicants notices to be provided by the City setting out the provisions of the nondiscrimination clauses in this Contract.

ARTICLE II

The Contractor shall in all solicitations or advertisements for employees placed by or on behalf of the Contractors state that all qualified or qualifiable applicants will be employed without regard to race, religion, color, age, marital status, disability, sex, sexual orientation, gender identity or national origin.

ARTICLE III

The Contractor shall send to each labor union or representative of workers with which it has a collective bargaining Agreement or other Contract or understanding a notice to be provided by the City advising the labor union or workers representative of the Contractor's equal employment opportunity and affirmative action commitments. Such notices shall be posted in conspicuous places available to employees and applicants for employment.

ARTICLE IV

(This Article applies to non-public works contracts.)

The Contractor agrees that it will comply with all provisions of the Affirmative Action Ordinance of the City of Madison (MGO 39.02) including the Contract compliance requirements. The Contractor warrants and certifies that one of the following paragraphs is true (check one):

- A. Contractor has prepared and has on file an affirmative action plan that meets the format requirements of Federal Revised Order No, 4, 41 CFR part 60-2, as established by 43 FR 51400 November 3, 1978, including appendices required by City of Madison ordinances or it has prepared and has on file a model affirmative action plan approved by the Madison Common Council.
- B. Within thirty (30) days after the effective date of this Contract, Contractor will complete an affirmative action plan that meets the format requirements of Federal Revised Order No. 4, 41 CFR Part 60-2, as established by 43 FR 51400, November 3, 1978, including appendices required by City of Madison ordinance or within thirty (30) days after the effective date of this Contract, it will complete a model affirmative action plan approved by the Madison Common Council.
- C. Contractor believes it is exempt from filing an affirmative action plan because it has fewer than fifteen (15) employees and has filed, or will file within thirty (30) days after the effective date of this Contract, a form required by the City to confirm exempt status based on number of employees. If the City determines that Contractor is not exempt, the Articles of Agreement will apply.
- D. Contractor believes it is exempt from filing an affirmative action plan because its annual aggregate business with the City for the calendar year in which the contract is in effect is less than fifty thousand dollars (\$50,000), or for another reason listed in MGO 39.02(9)(a)2. If the City determines that Contractor is not exempt, the Articles of Agreement will apply.

ARTICLE V

(This Article applies only to public works contracts.)

The Contractor agrees that it will comply with all provisions of the Affirmative Action Ordinance of the City of Madison, including the Contract compliance requirements. The Contractor agrees to submit the model affirmative action plan for public works Contractors in a form approved by the Director of Affirmative Action.

ARTICLE VI

The Contractor will maintain records as required by Section 39.02(9)(f) of the Madison General Ordinances and will provide the City's Department of Affirmative Action with access to such records and to persons who have relevant and necessary information, as provided in Section 39.02(9)(f). The City agrees to keep all such records confidential, except to the extent that public inspection is required by

ARTICLE VII

In the event of the Contractor's or subcontractor's failure to comply with the Equal Employment Opportunity and Affirmative Action provisions of this Contract or Sections 39.03 and **39.02** of the Madison General Ordinances, it is agreed that the City at its option may do any or all of the following:

- A. Cancel, terminate or suspend this Contract in whole or in part.
- B. Declare the Contractor ineligible for further City contracts until the Affirmative Action requirements are met.
- C. Recover on behalf of the City from the prime Contractor 0.5 percent of the Contract award price for each week that such party fails or refuses to comply, in the nature of liquidated damages, but not to exceed a total of five percent (5%) of the Contract price, or ten thousand dollars (\$10,000), whichever is less. Under public works contracts, if a subcontractor is in noncompliance, the City may recover liquidated damages from the prime Contractor in the manner described above. The preceding sentence shall not be construed to prohibit a prime Contractor from recovering the amount of such damage from the noncomplying subcontractor.

ARTICLE VIII

(This Article applies to public works contracts only.)

The Contractor shall include the above provisions of this Contract in every subcontract so that such provisions will be binding upon each subcontractor. The Contractor shall take such action with respect to any subcontractor as necessary to enforce such provisions, including sanctions provided for noncompliance.

ARTICLE IX

The Contractor shall allow the maximum feasible opportunity to small business enterprises to compete for any subcontracts entered into pursuant to this Contract. (In federally funded contracts the terms "DBE, MBE, and WBE" shall be substituted for the term "small business" in this Article.)

14. **SEVERABILITY.**

It is mutually agreed that in case any provision of this Contract is determined by any court of law to be unconstitutional, illegal or unenforceable, it is the intention of the parties that all other provisions of this Contract remain in full force and effect.

15. **NOTICES**

All notices to be given under the terms of this Contract shall be in writing and signed by the person serving the notice and shall be sent registered or certified mail, return receipt requested, postage prepaid, or hand delivered to the addresses of the parties listed below:

FOR THE CITY:	
	(Department or Division Head)
FOR THE CONTRACTOR:	

16. STATUS OF CONTRACTOR/INDEPENDENT/TAX FILING.

It is agreed that Contractor is an independent Contractor and not an employee of the City, and that any persons who the Contractor utilizes and provides for services under this Contract are employees of the Contractor and are not employees of the City of Madison.

Contractor shall provide its taxpayer identification number (or social security number) to the Finance Director, 210 Martin Luther King Jr. Blvd, Room 406, Madison, WI 53703, prior to payment. The Contractor is informed that as an independent Contractor, s/he may have a responsibility to make estimated tax returns, file tax returns, and pay income taxes and make social security payments on the amounts received under this Contract and that no amounts will be withheld from payments made to this Contractor for these purposes and that payment of taxes and making social security payments are solely the responsibility and obligation of the Contractor. The Contractor is further informed that s/he may be subject to civil and/or criminal penalties if s/he fails to properly report income and pay taxes and social security taxes on the amount received under this Contract.

17. **GOODWILL**

Any and all goodwill arising out of this Contract inures solely to the benefit of the City; Contractor waives all claims to benefit of such goodwill.

18. THIRD PARTY RIGHTS.

This Contract is intended to be solely between the parties hereto. No part of this Contract shall be construed to add, supplement, amend, abridge or repeal existing rights, benefits or privileges of any third party or parties, including but not limited to employees of either of the parties.

19. AUDIT AND RETAINING OF DOCUMENTS.

The Contractor agrees to provide all reports requested by the City including, but not limited to, financial statements and reports, reports and accounting of services rendered, and any other reports or documents requested. Financial and service reports shall be provided according to a schedule (when applicable) to be included in this Contract. Any other reports or documents shall be provided within five (5) working days after the Contractor receives the City's written requests, unless the parties agree in writing on a longer period. Payroll records and any other documents relating to the performance of services under the terms of this Contract shall be retained by the Contractor for a period of three (3) years after completion of all work under this Contract, in order to be available for audit by the City or its designee.

20. CHOICE OF LAW AND FORUM SELECTION.

This Contract shall be governed by and construed, interpreted and enforced in accordance with the laws of the State of Wisconsin. The parties agree, for any claim or suit or other dispute relating to this Contract that cannot be mutually resolved, the venue shall be

a court of competent jurisdiction within the State of Wisconsin and the parties agree to submit themselves to the jurisdiction of said court, to the exclusion of any other judicial district that may have jurisdiction over such a dispute according to any law.

21. COMPLIANCE WITH APPLICABLE LAWS.

The Contractor shall become familiar with, and shall at all times comply with and observe all federal, state, and local laws, ordinances, and regulations which in any manner affect the services or conduct of the Contractor and its agents and employees.

22. **CONFLICT OF INTEREST.**

- A. The Contractor warrants that it and its agents and employees have no public or private interest, and will not acquire directly or indirectly any such interest, which would conflict in any manner with the performance of the services under this Agreement.
- B. The Contractor shall not employ or Contract with any person currently employed by the City for any services included under the provisions of this Agreement.

23. **COMPENSATION.**

It is expressly understood and agreed that in no event will the total compensation under this Contract exceed \$

24. BASIS FOR PAYMENT.

A. GENERAL.

- (1) The City will pay the Contractor for the completed and accepted services rendered under this Contract on the basis and at the Contract price set forth in Section 23 of this Contract. The City will pay the Contractor for completed and approved "extra services", if any, if such "extra services" are authorized according to the procedure established in this section. The rate of payment for "extra services" shall be the rate established in this Contract. Such payment shall be full compensation for services rendered and for all labor, material, supplies, equipment and incidentals necessary to complete the services.
- (2) The Contractor shall submit invoices, on the form or format approved by the City and as may be further specified in Section 3 of this Contract. The City will pay the Contractor in accordance with the schedule, if any, set forth in Section 3. The final invoice, if applicable, shall be submitted to the City within three months of completion of services under this Agreement.
- (3) Should this Agreement contain more than one service, a separate invoice and a separate final statement shall be submitted for each individual service.
- (4) Payment shall not be construed as City acceptance of unsatisfactory or defective services or improper materials.
- (5) Final payment of any balance due the Contractor will be made upon acceptance by the City of the services under the Agreement and upon receipt by the City of documents required to be returned or to be furnished by the Contractor under this Agreement.
- (6) The City has the equitable right to set off against any sum due and payable to the Contractor under this Agreement, any amount the City determines the Contractor owes the City, whether arising under this Agreement or under any other Agreement or otherwise.
- (7) Compensation in excess of the total Contract price will not be allowed unless authorized by an amendment under Section 9, AMENDMENT.
- (8) The City will not compensate for unsatisfactory performance by the Contractor.

B. SERVICE ORDERS, EXTRA SERVICE, OR DECREASED SERVICE.

- (1) Written orders regarding the services, including extra services or decreased services, will be given by the City, using the procedure set forth in Section 15, NOTICES.
- (2) The City may, by written order, request extra services or decreased services, as defined in Section 10 of this Contract. Unless the Contractor believes the extra services entitle it to extra compensation or additional time, the Contractor shall proceed to furnish the necessary labor, materials, and professional services to complete the services within the time limits specified in the Scope of Services, Section 3 of this Agreement, including any amendments under Section 9 of this Agreement.
- (3) If in the Contractor's opinion the order for extra service would entitle it to extra compensation or extra time, or both, the Contractor shall not proceed to carry out the extra service, but shall notify the City, pursuant to Section 15 of this Agreement. The notification shall include the justification for the claim for extra compensation or extra time, or both, and the amount of additional fee or time requested.
- (4) The City shall review the Contractor's submittal and respond in writing, either authorizing the Contractor to perform the extra service, or refusing to authorize it. The Contractor shall not receive additional compensation or time unless the extra compensation is authorized by the City in writing.

25. **DEFAULT/TERMINATION.**

- A. In the event Contractor shall default in any of the covenants, agreements, commitments, or conditions herein contained, and any such default shall continue unremedied for a period of ten (10) days after written notice thereof to Contractor, the City may, at its option and in addition to all other rights and remedies which it may have at law or in equity against Contractor, including expressly the specific enforcement hereof, forthwith have the cumulative right to immediately terminate this Contract and all rights of Contractor under this Contract.
- B. Notwithstanding paragraph A., above, the City may in its sole discretion and without any reason terminate this Agreement at any time by furnishing the Contractor with ten (10) days' written notice of termination. In the event of termination under this subsection, the City will pay for all work completed by the Contractor and accepted by the City.

26. **INDEMNIFICATION.**

The Contractor shall be liable to and hereby agrees to indemnify, defend and hold harmless the City of Madison, and its officers, officials, agents, and employees against all loss or expense (including liability costs and attorney's fees) by reason of any claim or suit, or of liability imposed by law upon the City or its officers, officials, agents or employees for damages because of bodily injury, including death at any time resulting therefrom, sustained by any person or persons or on account of damages to property, including

loss of use thereof, arising from, in connection with, caused by or resulting from the Contractor's and/or Subcontractor's acts or omissions in the performance of this Agreement, whether caused by or contributed to by the negligence of the City, its officers, officials, agents, or its employees.

27. **INSURANCE.**

The Contractor will insure, and will require each subcontractor to insure, as indicated, against the following risks to the extent stated below. The Contractor shall not commence work under this Contract, nor shall the Contractor allow any Subcontractor to commence work on its Subcontract, until the insurance required below has been obtained and corresponding certificate(s) of insurance have been approved by the City Risk Manager.

Commercial General Liability

The Contractor shall procure and maintain during the life of this Contract, Commercial General Liability insurance including, but not limited to bodily injury, property damage, personal injury, and products and completed operations (unless determined to be inapplicable by the Risk Manager) in an amount not less than \$1,000,000 per occurrence. This policy shall also provide contractual liability in the same amount. Contractor's coverage shall be primary and non-contributory and list the City of Madison, its officers, officials, agents and employees as additional insureds. Contractor shall require all subcontractors under this Contract (if any) to procure and maintain insurance meeting the above criteria, applying on a primary basis and listing the City of Madison, its officers, officials, agents and employees as additional insureds.

Automobile Liability

The Contractor shall procure and maintain during the life of this Contract Business Automobile Liability insurance covering owned, non-owned and hired automobiles with limits of not less than \$1,000,000 combined single limit per accident. Contractor shall require all subcontractors under this Contract (if any) to procure and maintain insurance covering each subcontractor and meeting the above criteria.

Worker's Compensation

The Contractor shall procure and maintain during the life of this Contract statutory Workers' Compensation insurance as required by the State of Wisconsin. The Contractor shall also carry Employers Liability limits of at least \$100,000 Each Accident, \$100,000 Disease – Each Employee, and \$500,000 Disease – Policy Limit. Contractor shall require all subcontractors under this Contract (if any) to procure and maintain such insurance, covering each subcontractor.

Professional Liability

The Contractor shall procure and maintain professional liability insurance with coverage of not less than \$1,000,000. If such policy is a "claims made" policy, all renewals thereof during the life of the Contract shall include "prior acts coverage" covering at all times all claims made with respect to Contractor's work performed under the Contract. This Professional Liability coverage must be kept in force for a period of six (6) years after the services have been accepted by the City.

Acceptability of Insurers. The above-required insurance is to be placed with insurers who have an A.M. Best rating of no less than A- (A minus) and a Financial Category rating of no less than VII.

Proof of Insurance, Approval. The Contractor shall provide the City with certificate(s) of insurance showing the type, amount, effective dates, and expiration dates of required policies prior to commencing work under this Contract. Contractor shall provide the certificate(s) to the City's representative upon execution of the Contract, or sooner, for approval by the City Risk Manager. If any of the policies required above expire while this Contract is still in effect, Contractor shall provide renewal certificate(s) to the City for approval. Certificate Holder language should be listed as follows:

City of Madison ATTN: Risk Management, Room 406 210 Martin Luther King, Jr. Blvd. Madison, WI 53703

The Contractor shall provide copies of additional insured endorsements or insurance policies, if requested by the City Risk Manager. The Contractor and/or Insurer shall give the City thirty (30) days advance written notice of cancellation, non-renewal or material changes to any of the above-required policies during the term of this Contract.

28. OWNERSHIP OF CONTRACT PRODUCT.

All of the work product, including, but not limited to, documents, materials, files, reports, data, including magnetic tapes, disks of computer-aided designs or other electronically stored data or information (the "Documents"), which the Contractor prepares pursuant to the terms and conditions of this Contract are the sole property of the City. The Contractor will not publish any such materials or use them for any research or publication, other than as expressly required or permitted by this Contract, without the prior written permission of the City. The grant or denial of such permission shall be at the City's sole discretion.

The Contractor intends that the copyright to the Documents shall be owned by City, whether as author (as a Work Made For Hire), or by assignment from Contractor to City. The parties expressly agree that the Documents shall be considered a Work Made For Hire as defined by Title 17, United States Code, Section 101(2).

As further consideration for the City entering into this Contract, the Contractor hereby assigns to City all of the Contractor's rights, title, interest and ownership in the Documents, including the right to procure the copyright therein and the right to secure any renewals, reissues and extensions of any such copyright in any foreign country. The City shall be entitled to the sole and exclusive benefit of the Documents, including the copyright thereto, and whenever required by the City, the Contractor shall at no additional compensation, execute all documents of assignment of the full and exclusive benefit and copyright thereof to the City. Any subcontractors and other independent Contractors who prepare portions of the Documents shall be required by the Contractor to execute an assignment of ownership in favor of the City before commencing work.



29. **BAN THE BOX - ARREST AND CRIMINAL BACKGROUND CHECKS.** (Sec. 39.08, MGO. Applicable to contracts exceeding \$25,000.)

A. DEFINITIONS.

For purposes of this section, "Arrest and Conviction Record" includes, but is not limited to, information indicating that a person has been questioned, apprehended, taken into custody or detention, held for investigation, arrested, charged with, indicted or tried for any felony, misdemeanor or other offense pursuant to any law enforcement or military authority.

"Conviction record" includes, but is not limited to, information indicating that a person has been convicted of a felony, misdemeanor or other offense, placed on probation, fined, imprisoned or paroled pursuant to any law enforcement or military authority.

"Background Check" means the process of checking an applicant's arrest and conviction record, through any means.

- B. REQUIREMENTS. For the duration of this Contract, the Contractor shall:
 - (1) Remove from all job application forms any questions, check boxes, or other inquiries regarding an applicant's arrest and conviction record, as defined herein.
 - (2) Refrain from asking an applicant in any manner about their arrest or conviction record until after conditional offer of employment is made to the applicant in question.
 - (3) Refrain from conducting a formal or informal background check or making any other inquiry using any privately or publicly available means of obtaining the arrest or conviction record of an applicant until after a conditional offer of employment is made to the applicant in question.
 - (4) Make information about this ordinance available to applicants and existing employees, and post notices in prominent locations at the workplace with information about the ordinance and complaint procedure using language provided by the City.
 - Comply with all other provisions of Sec. 39.08, MGO.
- C. EXEMPTIONS: This section does not apply when:
 - (1) Hiring for a position where certain convictions or violations are a bar to employment in that position under applicable law, or
 - (2) Hiring a position for which information about criminal or arrest record, or a background check is required by law to be performed at a time or in a manner that would otherwise be prohibited by this ordinance, including a licensed trade or profession where the licensing authority explicitly authorizes or requires the inquiry in question.

To be exempt under sec. C.(1) or (2) above, Contractor must demonstrate to the City that there is a law or regulation that requires the hiring practice in question. If so, the contractor is exempt from this section for the position(s) in question.

30. WEAPONS PROHIBITION.

Contractor shall prohibit, and shall require its subcontractors to prohibit, its employees from carrying weapons, including concealed weapons, in the course of performance of work under this Contract, other than while at the Contractor's or subcontractor's own business premises. This requirement shall apply to vehicles used at any City work site and vehicles used to perform any work under this Contract, except vehicles that are an employee's "own motor vehicle" pursuant to Wis. Stat. sec. 175.60(15m).

31. IT NETWORK CONNECTION POLICY.

If this Contract includes services such as software support, software maintenance, network services, and/or system development services and will require a Network Connection the City Network (as defined in the following link), the City's Network Connection Policy found at this link: http://www.cityofmadison.com/attorney/documents/posNetworkConnection.doc is hereby incorporated and made a part of this Contract and Contractor agrees to comply with all of its requirements.

32. AUTHORITY.

Contractor represents that it has the authority to enter into this Contract. If the Contractor is not an individual, the person(s) signing on behalf of the Contractor represents and warrants that they have been duly authorized to bind the Contractor and sign this Contract on the Contractor's behalf.

33. COUNTERPARTS, ELECTRONIC SIGNATURE AND DELIVERY.

This Contract may be signed in counterparts, each of which shall be taken together as a whole to comprise a single document. Signatures on this Contract may be exchanged between the parties by facsimile, electronic scanned copy (.pdf) or similar technology and shall be as valid as original; and this Contract may be converted into electronic format and signed or given effect with one or more electronic signature(s) if the electronic signature(s) meets all requirements of Wis. Stat. ch. 137 or other applicable Wisconsin or Federal law. Executed copies or counterparts of this Contract may be delivered by facsimile or email and upon receipt will be deemed original and binding upon the parties hereto, whether or not a hard copy is also delivered. Copies of this Contract, fully executed, shall be as valid as an original.

IN WITNESS WHEREOF, the parties hereto have set their hands at Madison, Wisconsin.

CONTRACTOR:

		(Type or Print Name of Contracting Entity)
		By:(Signature)
		(Signature)
		(Print Name and Title of Person Signing)
		Date:
		CITY OF MADISON, WISCONSIN a municipal corporation:
		By: Satya Rhodes-Conway, Mayor
		Date:
Approve	ed:	
	David P. Schmiedicke, Finance Director	By:
Date:		Date:
		Approved as to Form:
	Eric T. Veum, Risk Manager	Michael Haas, City Attorney
Date:		Date:
For City	Use Only: SIGNATURE INSTRUCTIONS FOR CONTRA Obtain contractor's signature first. Route this Contract Routing Database. Include 1 copy of	ACTS SIGNED BY MAYOR/CLERK: contract & all of its attachments for City signatures using the City Clerk's authorizing resolution & 1 copy of the Certificate of Insurance.
	Certain service contracts may be executed by of Madison:	d by the designee of the Finance Director on behalf of
Ву:	Mary Richards, Procurement Supervisor	Date:
	Mary Richards, Procurement Supervisor	

MGO 4.26(3) and (5) authorize the Finance Director or designee to sign purchase of service contracts when all of the following apply:

- (a) The funds are included in the approved City budget.
- (b) An RFP or competitive process was used, or the Contract is exempt from competitive bidding under 4.26(4)(a).
- (c) The City Attorney has approved the form of the Contract.
- d) The Contract complies with other laws, resolutions and ordinances.
- (e) The Contract is for a period of 1 year or less, OR not more than 5 years AND the average cost is not more than \$100,000 per year, AND was subject to competitive bidding. (If over \$50,000 and exempt from bidding under 4.26(4)(a), regardless of duration of the Contract, the Common Council must authorize the Contract by resolution and the Mayor and City Clerk must sign, per 4.26(5)(b).)

Emergency Service contracts may also be signed by the designee of the Finance Director if the requirements of MGO 4.26(3)(c) are met.

For City Use Only: SIGNATURE INSTRUCTIONS FOR CONTRACT TO BE SIGNED BY FINANCE (PURCHASING):

Obtain contractor's signature first. Attach the contractor-signed contract with all attachments/exhibits and the certificate of insurance to the requisition in MUNIS.

<u>Federal Financial Assistance and Federal Changes</u>: Up to 80% of the total cost of the deliverables described in the Contract will be financed with Federal monies from the Federal Transit Act of 1964, as amended.

1. <u>No Government Obligation to Third Parties:</u> The Contractor agrees that it will comply the U.S. Department of Transportation regulations relating to contractual liability of the Federal Government to third parties as follows:

The City and Contractor acknowledge and agree that, notwithstanding any concurrence by the Federal Government in or approval of the solicitation or award of the underlying Contract, absent the express consent by the Federal Government, the Federal Government is not a party to this Contract and shall not be subject to any obligations or liabilities to the City, Contractor, or any other party (whether or not party to the Contract) pertaining to any matter resulting from the underlying Contract.

2. <u>Incorporation of FTA Terms.</u> The provisions in this section include, in part, certain standard terms and conditions required by USDOT/FTA, whether or not expressly set forth in these provisions. All contractual provisions required by USDOT/FTA, as set forth in FTA Circular 4220.1F are hereby incorporated by reference. Anything to the contrary herein notwithstanding, all USDOT/FTA mandated terms shall be deemed to control in the event of a conflict with other provisions contained in this Contract. The Contractor shall not perform any act, fail to perform any act, or refuse to comply with any City of Madison requests, which would cause the City of Madison to be in violation of the USDOT/FTA terms and conditions.

The Contractor agrees that it will comply at all times with 2 CFR Part 200; U. S. Department of Transportation regulations relating to applicable FTA regulations, policies, procedures and directives, including without limitation those listed directly or by reference in the Agreement Form FTA MA (29) dated February 2022, between the City and U. S. Department of Transportation/Federal Transit Administration (USDOT/FTA), as they may be amended or promulgated from time to time during the term of this contract. The Contractor's failure to so comply shall constitute a material breach of this contract.

These grant agreements and FTA Circular 4220.1F, "Third Party Contracting," are available for examination at the Office of the Transit Finance Manager, 1245 East Washington Avenue, Suite 201, Madison, WI 53703-3052, 608/266-6538 (voice), 608/267-8778 (fax) or skorth@cityofmadison.com.

- 3. <u>Procurement Protest Procedure</u>: In accordance with USDOT/FTA Circular 4220.1F, the City of Madison has a written procurement protest procedure, which is available upon request from the Office of the Transit Finance Manager. Protests against the City's responses to requests for approved equals and/or exceptions, unclear or restrictive specifications, the procurement process, alleged improprieties, etc. must be submitted in writing, in accordance with said procedure. Note this is not needed for a contract only.
- **4.** Compliance with Local, State and Federal Laws: The services and/or equipment provided shall be in compliance with all requirements of the laws and regulations of the City of Madison, the State of Wisconsin and the United States of America.

5. Ethics:

- a. <u>Prohibited Interest</u>: The Contractor guarantees that no employee, officer, or agent of the City during his or her tenure or one (1) year thereafter has any interest, direct or indirect, in this contract or the proceeds thereof. Such a conflict would also arise when any employee, officer or agent's family member or partner or organization that employs, or is about to employ any of the above, has a financial or other interest in the Contractor selected for award.
- b. <u>Interest of Members of or Delegates to Congress</u>: The Contractor guarantees that he or she has not offered or given to any member of, or delegate to the Congress of the United States, any share or part of this contract or to any benefit arising therefrom.
- c. <u>Covenant Against Gratuities</u>: The Contractor guarantees that he or she has not offered or given gratuities (in the form of entertainment, gifts, or otherwise) to any employee, officer or agent of the City with a view toward securing favorable treatment in the awarding, amending, or evaluating performance of the proposal or proposed contract.
- d. <u>Collusive Agreements</u>: The Contractor guarantees that the Contract submitted is not a product of collusion with any other Contractor and no effort has been made to fix any overhead, profit or cost element of any Contract price.

- e. Program Fraud and False or Fraudulent Statements and Related Acts:
 - 1. <u>Civil Fraud.</u> The Contractor acknowledges that the provisions of the Program Fraud Civil Remedies Act of 1986, as amended, 31 U.S.C. § § 3801 et seq. and U.S. DOT regulations, "Program Fraud Civil Remedies," 49 C.F.R. Part 31, apply to its actions pertaining to this Project. Upon execution of the underlying Contract, the Contractor certifies or affirms the truthfulness and accuracy of any statement it has made, it makes, it may make, or causes to be made, pertaining to the underlying contract or the FTA assisted project for which this contract work is being performed. In addition to other penalties that may be applicable, the Contractor further acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification, the Federal Government reserves the right to impose the penalties of the Program Fraud Civil Remedies Act of 1986 on the Contractor to the extent the Federal Government deems appropriate.
 - 2. <u>Criminal Fraud.</u> The Contractor also understands and acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification to the Federal Government under a Contract connected with a project that is financed in whole or in part with Federal assistance originally awarded by FTA under the authority of 49 U.S.C. § 5307, the Government reserves the right to impose the penalties of 18 U.S.C. § 1001 and 49 U.S.C. § 5307(n)(1) on the Contractor, to the extent the Federal Government deems appropriate.
 - 3. <u>Subcontracts</u>. Subrecipient agrees to include the above two clauses in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clauses shall not be modified, except to identify the Subcontractor who will be subject to the provisions.
- **6.** <u>Civil Rights</u> The Contractor shall comply with and ensures the compliance of all subcontractors with the following requirements:
 - a. Nondiscrimination In accordance with Title VI of the Civil Rights Act, as amended, 42 U.S.C. § 2000d, section 303 of the Age Discrimination Act of 1975, as amended, 42 U.S.C. § 6102, section 202 of the Americans with Disabilities Act of 1990, 42 U.S.C. § 12132, and Federal transit law at 49 U.S.C. § 5332, the Contractor agrees that it will not discriminate against any employee or applicant for employment because of race, color, creed, national origin, sex, age, or disability or discriminate against or exclude someone from participation in a business opportunity or any federally assisted program or activity on such grounds. In addition, the Contractor agrees to comply with applicable Federal implementing regulations and other implementing requirements FTA may issue.
 - b. <u>Equal Employment Opportunity</u> The following equal employment opportunity requirements apply to the underlying Contract:
 - 1. Race, Color, Creed, National Origin, Sex In accordance with Title VII of the Civil Rights Act, as amended, 42 U.S.C. § 2000e, and Federal transit laws at 49 U.S.C. § 5332, the Contractor agrees to comply with all applicable equal employment opportunity requirements of U.S. Department of Labor (U.S. DOL) regulations, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor," 41 C.F.R. Parts 60 et seq., (which implement Executive Order No. 11246, "Equal Employment Opportunity," as amended by Executive Order No. 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," 42 U.S.C. § 2000e note), and with any applicable Federal statutes, executive orders, regulations, and Federal policies that may in the future affect activities undertaken in the course of the Project. The Contractor agrees to take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, creed, national origin, or sex. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. In addition, the Contractor agrees to comply with any implementing requirements FTA and any other federal agency may issue.
 - 2. Age In accordance with section 4 of the Age Discrimination in Employment Act of 1967, as amended, 29 U.S.C. § § 621 through 634 and Federal transit law at 49 U.S.C. § 5332, the Contractor agrees to refrain from discrimination against present and prospective employees for reason of age. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue and with implementing regulations of the U.S. Equal Opportunity Commission (U.S. EEOC), 29 CFR, Part 1625.

- 3. <u>Disabilities</u> In accordance with section 102 of the Americans with Disabilities Act, as amended, 42 U.S.C. § 12112, the Contractor agrees that it will comply with the requirements of U.S. Equal Employment Opportunity Commission, "Regulations to Implement the Equal Employment Provisions of the Americans with Disabilities Act," 29 C.F.R. Part 1630, pertaining to employment of persons with disabilities. In addition, the Contractor agrees to comply with any implementing requirements FTA or other federal agency may issue.
- 4. <u>Solicitations for Subcontracts, Including Procurements of Materials and Equipment</u>: In all solicitations, either by competitive bidding or negotiation made by the Contractor for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the Contractor of the Contractor's obligations under this Contract and the Regulations relative to non-discrimination on the grounds of race, color, creed, age, disability, sex or national origin.
- 5. <u>Information and Reports</u>: The Contractor shall provide all information and reports required by the Federal Regulations or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the City or the USDOT/FTA to be pertinent to ascertain compliance with such Regulations, orders, and instructions. Where any information required of a Contractor is in the exclusive possession of another who fails or refuses to furnish this information, the Contractor shall so certify to the City or to the USDOT/FTA, as appropriate, and shall set forth what efforts it has made to obtain the information.
- 6. <u>Incorporation of Provisions</u>: The Contractor shall include the provisions of this entire section entitled "Civil Rights" in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto. The Contractor shall take such action with respect to any subcontract or procurement as the City or the USDOT/FTA may direct as a means of enforcing non-compliance. Provided, however, that in the event a Contractor becomes involved in, or is threatened with litigation with a subcontractor or supplier as a result of such direction, the Contractor may request the City to enter into such litigation to protect the interest of the United States.
- 7. <u>Penalties</u>: Failure by the Contractor to carry out these requirements is a material breach of the Contract, which may result in the withholding of payments to the Contractor under the contract until the Contractor complies; cancellation, termination or suspension of this Contract; ineligibility for future Contracts; or such other remedy as the City or USDOT/FTA deems appropriate in order to assure compliance with applicable civil rights standards as required by law.

7. <u>Disadvantaged Business Enterprise</u>:

The requirements of FAST Act P.L. 114-94< 23 U.S.C. § 101, note, 49 C.F.R. Part 26 and the City's USDOT/FTA approved Disadvantaged Business Enterprise (D.B.E.) Program are incorporated in this Contract by reference.

- a. <u>Policy.</u> It is the policy of the U.S. Department of Transportation that disadvantaged business enterprises as defined in 49 CFR Part 26 shall have the opportunity to participate in the performance of Contracts financed in whole or in part with Federal funds under this Agreement. Consequently, the DBE requirements of 49 CFR § 18.36(e) Contracting with Small and Minority Firms, Women's Business Enterprise and Labor Surplus Area Firms apply to this Agreement.
- b. <u>Obligation</u>. The Contractor and its subcontractors shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 C.F.R. Part 26 in the award and administration of any subcontracts entered into in its performance of this contract.
- c. <u>Penalty</u>: Failure by the Contractor or its subcontractor to carry out these requirements is a material breach of this Contract, which may result in the termination of this Contract or such other remedy as the City deems appropriate.
- **Reservation of the Right to Inspect Work:** At any time during normal business hours and as often as the City may deem necessary, the Contractor shall permit the authorized representatives of the City to review and inspect all materials and workmanship at anytime during the duration of this proposed contract, provided, however, the City is under no duty to make such inspections, and any inspection so made shall not relieve the Contractor from any obligation to furnish materials, workmanship or professional services strictly in accordance with the instructions, Contract requirements and specifications.

9. Audit and Inspection of Records:

a. The Contractor shall maintain intact and readily accessible all data, documents, reports, records, Contracts, and supporting materials relating to this proposed contract during the course of this contract and for three (3) years after City makes final payments and all other pending matters are closed. The Contractor shall permit the authorized representations of the City

and/or WisDOT or its designee, as required by USDOT/FTA, and the Comptroller General of the United States to inspect all project work, materials, payrolls, and other data, and to audit the books, records, and accounts pertaining to this Contract.

- b. The Contractor further agrees to include in all his or her subcontracts hereunder a provision to the effect that the subcontractor agrees to the requirements of the above paragraph. The term "subcontractor" as used in this clause excludes subcontracts or purchase orders for public utility services at rates established for uniform applicability to the general public.
- c. The periods of access and examination described above, for records which relate to (1) appeals under the disputes clause of this Contract, (2) litigation or the settlement of claims arising out of the performance of this Contract, and (3) costs and expenses of this Contract as to which exception has been taken by the Comptroller General or any of his/her duly authorized representatives, shall continue until such appeals, litigation, claims, or exceptions have been disposed of.
- 10. <u>Labor</u>: The Contractor agrees to comply with and assures compliance with applicable employee protection requirements for non-construction employees of section 102 of the Contract Work Hours and Safety Standards Act, as amended, 40 U.S.C. §§ 3701 et seq; and implementing USDOL regulations, Labor Standards Provisions Applicable to Contracts Governing Federally Financed and Assisted Construction (also Labor Standards Provisions Applicable to Non-construction Contracts Subject to the Contract Work Hours and Safety Standards Act), 29 C.F.R. Part 5.
- 11. <u>Government-wide Debarment & Suspension Non-procurement</u>: The Contractor agrees to comply with and shall assure subcontractor's compliance with the requirements of Executive Order 12549 and 12689, "Debarment and Suspension," 31 U.S.C. § 6101 note, and U.S. DOT regulations, "Government-wide Debarment and Suspension (Nonprocurement)," 49 C.F.R. Part 29, which prohibits FTA Contractors and Subcontractors from knowingly contracting for goods and services from organizations that have been suspended or debarred from receiving Federally-assisted contracts. The Contractor agrees to, and assures that its sub contractors will, review the "Excluded Parties Listing System" at http://www.sam.gov before entering into any third party contract or subagreement. The Contractor shall submit the certification prescribed in 49 CFR Part 29, Appendix A.

The Contractor is required to pass this requirement on to subcontractors seeking subcontracts over \$25,000 and, accordingly, shall require subcontractors at every tier to include the certification prescribed in 49 CFR Part 29, Appendix B in any proposal submitted in connection with such lower tier contract transactions.

Furthermore, the Contractor agrees, to provide and to require subcontractors at every tier to agree to provide, the Procuring Agency with immediate written notice if it learns that its submitted certification, which was not erroneous when submitted, has become erroneous by reasons of changed circumstances. Written notice shall be sent to Transit Finance Manager, 1245 East Washington Avenue, Suite 201, Madison, WI 53703-3052.

12. Environmental Requirements:

- a. <u>Environmental Protection</u>: The Contractor agrees to comply with and shall assure subcontractors compliance with any applicable standards, orders, and/or requirements of the National Environmental Policy Act of 1969, as amended, 42 U.S.C. § 4321 through 4335 (as restricted by 42 U.S.C. § 5159, if applicable); Executive Order No. 11514, as amended, "Protection and Enhancement of Environmental Quality," 42 U.S.C. § 4321 note; FTA statutory requirements at 49 U.S.C. § 5324(b); U.S. Council on Environmental Quality regulations pertaining to compliance with NEPA, 40 C.F.R. Parts 1500 through 1508; and joint FHWA/FTA regulations, "Environmental Impact and Related Procedures," 23 C.F.R. Part 771 and 49 C.F.R. Part 622; the applicable provisions of 23 U.S. §§ 139 and 326; and subsequent Federal environmental protection regulations that may be promulgated.
- b. <u>Air Quality</u>: The Contractor agrees to comply and shall assure subcontractors' compliance with all applicable regulations, standards, or orders implementing the Clean Air Act, as amended, 42 U.S.C. §§ 7401 through 7671q. In addition:
 - 1. The Contractor agrees to comply with the applicable requirements of section 176(c) of the Clean Air Act, 42 U.S.C. § 7506(c), consistent with the joint FHWA/FTA document, "Interim Guidance for Implementing Key FAST Act Provisions on Planning, Environment, and Air Quality for Joint FHWA/FTA Authorities," and any subsequent applicable Federal directives that may be issued; with U.S. EPA regulations, "Conformity to State or Federal Implementation Plans of Transportation Plans, Programs, and Projects Developed, Funded or Approved Under Title 23 U.S.C. or the Federal Transit Act," 40 C.F.R. Part 51, Subpart T; and "Determining Conformity of Federal Actions to State or Federal Implementation Plans," 40 C.F.R. Part 93. All equipment provided under this contract shall be designed and equipped to limit air pollution in accordance with EPA regulations.

- 2. The Contractor agrees to comply with the following U.S. EPA regulations to the extent they are applicable to the work: "Control of Air Pollution from Mobile Sources," 40 C.F.R. Part 85; "Control of Air Pollution from New and In-Use Highway Vehicles and Engines: Certification and Test Procedures," 40 C.F.R. Part 86; and "Fuel Economy and Greenhouse Gas Exhaust Emissions of Motor Vehicles," 40 C.F.R. Part 600, and any revisions thereto.
- 3. The Contractor agrees to comply with the notice of violating facility provisions of Section 306 of the Clean Air Act, as amended, 42 U.S.C. § 7414, and facilitate compliance with Executive Order No. 11738, "Administration of the Clean Air Act and the Federal Water Pollution Control Act with Respect to Federal Contracts, Grants, or Loans," 42 U.S.C. § 7606 note.
- 4. The Contractor shall include these requirements in each subcontract exceeding \$100,000; issued in relation to this contract.
- 5. The Contractor shall report each violation to the Procuring Agency and understands and agrees that the Procuring Agency will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office.
- c. <u>Clean Water:</u> The Contractor agrees to comply with all applicable Federal regulations and directives issued pursuant to the Clean Water Act, as amended, 33 U.S.C. §§ 1251 through 1377. Specifically:
 - I. The Contractor agrees to protect underground sources of drinking water consistent with the provisions of the Safe Drinking Water Act of 1974, as amended, 42 U.S.C. §§ 300f through 300j-6.
 - II. The Contractor agrees to comply with the notice of violating facility provisions of Section 508 of the Clean Water Act, as amended, 33 U.S.C. § 1368, and facilitate compliance with Executive Order No. 11738, "Administration of the Clean Air Act and the Federal Water Pollution Control Act with Respect to Federal Contracts, Grants, or Loans," 42 U.S.C. § 7606 note.
 - III. The Contractor agrees to report each violation to the Procuring Agency and understands and agrees that the Procuring Agency will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office.
 - IV. The Contractor shall include these requirements in each subcontract exceeding \$100,000., issued pursuant to this contract.
- d. <u>Energy Conservation</u>: The Contractor shall comply with mandatory standards and policies relating to energy efficiency which are contained in the State of Wisconsin Energy Conservation Plan issued in compliance with the Energy Policy and Conservation Act (42 U.S.C. §§ 6321 <u>et seq.</u>) and 2 CFR Part 200; and U. S. Department of Transportation regulations relating to energy conservation.
- e. <u>Recycled Products:</u> The Contractor agrees that it will comply with 42 USC.6962 <u>et seq.</u>, and 40 CFR Part 247, and Executive Order 12873; and U.S. Department of Transportation regulations relating to recycled products. This requirement applies to all Contracts designated by the EPA, when the City or Contractor procures \$10,000 or more of such items in the fiscal year, or when the cost of such items purchased during the previous fiscal year were \$10,000, using federal funds.

Violations shall be reported to USDOT/FTA and to the United States Environmental Protection Agency Assistant Administrator for Enforcement.

13. Prohibition Against the Use of Federal Funds for Lobbying: The Contractor, in compliance with 49 CFR Parts 19 and 20, hereby assures and certifies that for any Contracts over \$100,000: (1) No federal appropriated funds have been paid or will be paid, by or on behalf of the Contractor, to any person, to influence or attempt to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with awarding any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, an the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan or cooperative agreement. (2). If any funds other than Federal appropriated funds have been paid or will be paid to any person for making lobbying contacts to an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract or grant, the Contractor shall complete and submit Standard Form LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions. (3.) The Contractor shall require that the language of this certification be included in the award documents for all subcontracts at all tiers and that all subcontractors shall certify and disclose accordingly. This assurance is a material representation of fact upon

which reliance was placed when this transaction was made or entered into. Submission of the assurance and certification is a prerequisite for making or entering into this transaction, as imposed by 31 U.S.C. § 1352 (as amended by the Lobbying Disclosure Act of 1995). Any person who makes a prohibited expenditure or fails to file or amend a required certification or disclosure form shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each expenditure or failure.

- 14. <u>Assignment of Contract by City:</u> At any time during the continuance of the agreement, the City shall have the right to sell, assign and transfer the contract or all or part of the specified deliverables under the contract both the base and/or the option quantities with all its right, title, and interest therein, to any person, firm, or corporation that succeeds it as a common carrier and the assignee thereof shall acquire all the rights and licenses granted to the City and shall be subject to any obligations that the City may have under the contract and any rights and restrictions the City may have under the license(s).
- <u>15.</u> <u>Sensitive Security Information</u>. Contractor must protect, and take measures to ensure that its subcontractors at each tier protect "sensitive security information" made available during the administration of this contract or any subcontract to ensure compliance with 49 U.S.C. Section 40119(b) and implanting DOT regulations, "Protection of Sensitive Security Information," 49 CFR Part 15, and with 49 U.S.C. Section 114(r) and implementing Department of Homeland Security regulations, "Protection of Sensitive Security Information," 49 CFR Part 1520.
- <u>16.</u> <u>Seat Belt Use</u>. In compliance with Federal Executive Order No. 13043, "Increasing Seat Belt Use in the United States," April 16, 1997, 24 U.S.C. Section 402 note, FTA encourages Contractor to adopt and promote on-the-job seat belt use policies and programs for its employees and other personnel that operate company owned, rented, or personally operated vehicles, and to include this provision in any third party subcontracts, involving the projects.
- <u>17.</u> <u>Distracted Driving, Including Text Messaging While Driving.</u> In accordance with Executive Order No. 13513, "Federal Leadership on Reducing Text Messaging While Driving," October 1, 2009, and DOT Order 3902.10, "Text Messaging While Driving," December 30, 2009, the Recipient is encouraged to comply with the terms of the following Special Provision:
 - (1) Definitions. As used in this Special Provision:
 - (a) "Driving" means operating a motor vehicle on a roadway, including while temporarily stationary because of traffic, a traffic light, stop sign, or otherwise. "Driving" does not include being in your vehicle (with or without the motor running) in a location off the roadway where it is safe and legal to remain stationary.
 - (b) "Text Messaging" means reading from or entering data into any handheld or other electronic device, including for the purpose of short message service texting, e-mailing, instant messaging, obtaining navigational information, or engaging in any other form of electronic data retrieval or electronic data communication. The term does not include the use of a cell phone or other electronic device for the limited purpose of entering a telephone number to make an outgoing call or answer an incoming call, unless the practice is prohibited by State or local law.
 - (2) Safety. The Recipient is encouraged to:
 - (a) Adopt and enforce workplace safety policies to decrease crashes caused by distracted drivers including policies to ban text messaging while driving—
 - (b) Recipient-owned or Recipient-rented vehicles or Government-owned, leased or rented vehicles;
 - (c) Privately-owned vehicles when on official Project related business or when performing any work for or on behalf of the Project; or
 - (d) Any vehicle, on or off duty, and using an employer supplied electronic device.
 - (3) Recipient Size. The Recipient is encouraged to conduct workplace safety initiatives in a manner commensurate with the Recipient's size, such as:
 - (a) Establishment of new rules and programs or re-evaluation of existing programs to prohibit text messaging while driving; and

- (b) Education, awareness, and other outreach to employees about the safety risks associated with texting while driving.
- (4) Extension of Provision. The Recipient is encouraged to include this Special Provision in its subagreements with its subrecipients, its leases, and its third party contracts, and also encourage its subrecipients, lessees, and third party contractors to comply with the terms of this Special Provision, and include this Special Condition in each subagreement, lease, and third party contract at each tier financed with Federal assistance provided by the Federal Government.

18. Cargo Preference. The Contractor agrees:

To utilize privately owned United States-flag commercial vessels to ship at least 50 (fifty) percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this Contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.

To furnish within 20 (twenty) working days following the date of loading for shipments originating within the United States, or within 30 (thirty) working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, "on-board" commercial ocean bill-of-lading in English for each shipment of cargo described in the preceding paragraph to the Division of National Cargo and Compliance, Maritime Administration, Washington, DC 20590 and to the Procuring Agency (through the Contractor in the case of a subcontractor's bill-of-lading.)

To include these requirements in all subcontracts issued pursuant to this contract when the subcontract may involve the transport of equipment, material, or commodities by ocean vessel.

<u>Fly America</u>. The Contractor shall comply with 49 U.S.C. 40118, which provide that Federal funds may not be used in the costs of international air transportation of any persons involved in or property acquired for this contract unless that air transportation is provided by U.S.-flag air carriers to the extent service by these carriers is available, in accordance with the International Air Transportation Fair Competitive Practices Act of 1974, as amended, 49 U.S.C. 40118, and with U.S. General Services Administration (U.S. GSA) regulations pertaining to the use of United States flag air carriers, at 41 C.F.R. 301-10.131 et seq.

The Contractor shall submit, if a foreign air carrier was used, an appropriate certification or memorandum adequately explaining why service by a U.S. flag air carrier was not available or why it was necessary to use a foreign air carrier and shall, in any event, provide a certificate of compliance with the Fly America requirements.

The Contractor shall include these requirements in all subcontracts issued pursuant to this contract when the subcontract may involve the transport of property or persons by air between the United States and foreign destinations or between foreign destinations.

20. Buy America.

The Offeror and selected Contractor shall comply with 49 U.S.C. 5323(j) and 49 CFR Part 661, which provide that Federal funds may not be obligated unless steel, iron, and manufactured products used in FTA-funded projects are produced in the United States, unless a waiver has been granted by FTA or the product is subject to a general waiver. General waivers are listed in 49 CFR 661.7, A general public interest waiver from the Buy America requirements applies to microprocessors, computers, microcomputers, software or other such devices, which are used solely for the purpose of processing or storing data, and small purchases (currently less than \$150,000) made with capital, operating or planning funds. This general waiver does not extend to a product or device that merely contains a microprocessor or microcomputer and is not used solely for the purpose of processing or storing data. Separate requirements for rolling stock are set out at 5323(j)(2)(C) and 49 CFR 661.11. Rolling stock not subject to a general waiver must be manufactured in the United States and have 70 percent domestic content.

The applicable FTA Buy America requirements appear in 49 CFR Part 661.5 and require the following:

- (1) Except as provided in Sec. 661.7 and Sec. 661.11 of this part, no funds may be obligated by FTA for a grantee project unless all iron, steel, and manufactured products used in the project are produced in the United States.
- (2) All steel and iron manufacturing processes must take place in the United States, except metallurgical processes involving refinement of steel additives.
- (3) The steel and iron requirements apply to all construction materials made primarily of steel or iron and used in infrastructure projects such as transit or maintenance facilities, rail lines, and bridges. These items include, but are

not limited to, structural steel or iron, steel or iron beams and columns, running rail and contact rail. These requirements do not apply to steel or iron used as components or subcomponents of other manufactured products or rolling stock.

(4) For a manufactured product to be considered produced in the United States all of the manufacturing processes for the product must take place in the United States; and all of the components of the product must be of U.S. origin. A component is considered of U.S. origin if it is manufactured in the United States, regardless of the origin of its subcomponents.

An Offeror and selected Contractor shall submit to the Procuring Agency the appropriate Buy America certification with its response as described more fully below, except those subject to a general waiver. A proposal that is not accompanied by a completed Buy America certification will be rejected as non-responsive. This requirement does not apply to lower tier subcontractors.

The Offeror and selected Contractor shall complete and submit a declaration certifying either compliance or noncompliance with Buy America. If the Contractor certifies compliance with Buy America, it shall submit documentation which lists: 1) component and subcomponent parts of the rolling stock to be purchased identified by manufacturer of the parts, their country of origin and costs; and 2) the location of the final assembly point for the rolling stock, including a description of the activities that will take place at the final assembly point and the cost of final assembly.

21. Build America, Buy America.

In addition to the Buy American requirements set forth in Sec. 20, the Infrastructure Investment and Jobs Act (the Bipartisan Infrastructure Bill), Pub. L. No. 117-58, includes the Build America, Buy America Act ("the Act"), Pub. L. No. 117-58, §§ 70901-52. This Act requires that all of the iron, steel, manufactured products, and construction materials used on federally funded infrastructure projects are produced in the United States. As the Project is a federally funded infrastructure project, Contractor, and its subcontractors, shall comply with the requirements of this Act and shall be responsible for securing any waivers that may be necessary thereunder. Contractor, and its subcontractors, shall also comply with any federal regulations promulgated or requirements created under this Act during the term of the Contract. Additional information on the Act may be found at: https://www.transit.dot.gov/buyamerica.

22. Breaches and Dispute Resolution

Disputes arising in the performance of this Contract which are not resolved by agreement of the parties shall be decided in writing by the Transit General Manager. This decision shall be final and conclusive unless within ten (10) calendar days from date of receipt of its copy, the Selected Contractor mails or otherwise furnishes a written appeal to the City of Madison Finance Director. At a minimum, the challenge shall include the name and address of the Selected Contractor; the telephone and FAX numbers of the Selected Contractor; the action which is the subject of the dispute; the reason for the dispute; and a statement of the remedy sought. The letter should include all information available to the Selected Contractor relevant to the appeal. The challenge should be specific. A dispute will not be considered by the City Comptroller if it is insufficiently supported or if it is not received within the specified time limits. The decision of the City Comptroller shall be binding upon the Selected Contractor and the Selected Contractor shall abide by the decision. In the letter outlining the decision, the City Comptroller shall respond to each material issue raised in the appeal. This section is an administrative dispute resolution mechanism. It is not intended to deprive either party of its rights or remedies under Section 20 Choice of Law and Forum Selection of the Contract for Purchase of Services.

Unless otherwise directed by the City, the Selected Contractor shall continue performance under this Contract while matters in dispute are being resolved.

23. Termination

Termination for Default – The City may, by written notice of default to the Contractor, terminate the whole or any part of this Contract if the Contractor fails to make delivery of the supplies and/or work including, but not limited to buses and articles, parts and any other components provided for under this contract, or to perform the services within the time specified herein or any extension thereof; or if the Contractor fails to perform any of the other provisions of the Contract, or so fails to make progress as to endanger performance of this Contract in accordance with its terms, and in either of these two circumstances does not cure such failure within a period of 10 (ten) calendar days (or such longer period as the City may authorize in writing) after receipt of notice from the City specifying such failure.

In the event the City elects to waive its remedies for any breach by Contractor of any covenant, term or condition of this Contract, such waiver by the City shall not limit the City's remedies for any succeeding breach of that or of any other term, covenant, or condition of this Contract.

If the Contract is terminated in whole or in part for default, the City may procure, upon such terms and in such manner as the City may deem appropriate, including all articles supplies or services similar to those so terminated. The Contractor shall be liable to the City for any excess costs for such similar buses including all articles, supplies or services, and shall continue the performance of this Contract to the extent not terminated under the provisions of this clause. Except with respect to defaults of subcontractors, the Contractor shall not be liable for any excess costs if the failure to perform the Contract arises out of causes beyond the control and without the fault or negligence of the Contractor. If the failure to perform is caused by the default of a subcontractor, and if such default arises out of causes beyond the control of both the Contractor and subcontractor, and without the fault or negligence of either of them, the Contractor shall not be liable for any excess costs for failure to perform, unless the buses including all articles, supplies or services to be furnished by the subcontractor were obtainable from other sources in sufficient time to permit the Contractor to meet the required delivery or performance schedule.

Payment for completed work and buses including all articles delivered to and accepted by the City shall be at the Contract price. The City may withhold from amounts otherwise due the Contractor for such completed work and buses including all articles such sum as the City determines to be necessary to protect the City against loss because of outstanding liens or claims of former lien holders.

If, after notice of termination of this Contract under the provisions of this clause, it is determined for any reason that the Contractor was not in default under the provisions of this clause, or that the default was excusable under the provisions of this clause, the rights and obligations of the parties shall be the same as if the notice of termination had been issued pursuant to termination for convenience of the City.

The rights and remedies of the City provided in this clause shall not be exclusive and are in addition to any other rights and remedies provided by law or under this Contract.

<u>Termination for Convenience</u> - The performance of work under this Contract may be terminated at any time upon seven (7)-calendar days written notice to the Contractor, by the City in accordance with this clause in whole, or from time to time in part, whenever the City shall determine that such termination is in the best interest of the City. Any such termination shall be effected by delivery to the Contractor of a notice of termination specifying the extent to which performance of work under the Contract is terminated, and the date upon which such termination becomes effective.

After receipt of a notice of termination, and except as otherwise directed by the City, the Contractor shall: stop work under the Contract on the date and to the extent specified in the notice of termination; place no further orders or subcontracts for materials, services, or facilities, except as may be necessary for completion of such portion of the work under the Contract as is not terminated; terminate all orders and subcontracts to the extent that they relate to the performance of work terminated by the notice of termination; assign to the City in the manner, at the times, and to the extent directed by the City, all of the right, title, and interest of the Contractor under the orders and subcontracts so terminated, in which case the City shall have the right, in its discretion, to settle or pay and or all claims arising out of the termination of such orders and subcontracts; settle all outstanding liabilities and all claims arising out of such termination of orders and subcontracts, with the approval or ratification of the City, to the extent it may require, which approval or ratification shall be final for all the purposes of this clause; transfer title to the City and deliver in the manner, at the times, and to the extent, if any, directed by the City the fabricated or unfabricated parts, work in process, completed work, supplies, and other material produced as part of, or acquired in connection with the performance of, the work terminated, and the completed or partially completed plans, drawings, information and other property which, if the Contract had been completed, would have been required to be furnished to the City; use its best efforts to sell, in the manner, at the times, to the extent, and at the price(s) directed or authorized by the City, any property of the types referred to above, provided, however, that the Contractor shall not be required to extend credit to any purchaser, and may acquire any such property under the conditions prescribed by and at a price(s) approved by the City, and provided further, that the proceeds of any such transfer or disposition shall be applied in reduction of any payments to be made by the City to the Contractor under this Contract or shall otherwise be credited to the price or cost of the work covered by this Contract or paid in such other manner as the City may direct; complete performance of such part of the work as shall not have been terminated by the notice of termination; and take such action as may be necessary, or as the City may direct, for the protection or preservation of the property related to this Contract which is in the possession of the Contractor and in which the City has or may acquire an interest.

The Contractor shall promptly submit its claim for payment to the City to be paid to the Contractor. Settlement of claims by the Contractor under this termination for convenience clause shall be in accordance with the provisions set forth in 48 C.F.R. Part 31.2 except that wherever the word "Government" appears it shall be deleted and the word "the City" shall be substituted in lieu thereof.

24. Privacy Act:

- (1) The Contractor agrees to comply with, and assures the compliance of its employees with, the information restrictions and other applicable requirements of the Privacy Act of 1974, 5 U.S.C. § 552a. Among other things, the Contractor agrees to obtain the express consent of the Federal Government before the Contractor or its employees operate a system of records on behalf of the Federal Government. The Contractor understands that the requirements of the Privacy Act, including the civil and criminal penalties for violation of that Act, apply to those individuals involved, and that failure to comply with the terms of the Privacy Act may result in termination of the underlying contract.
- (2) The Contractor also agrees to include these requirements in each subcontract to administer any system of records on behalf of the Federal Government financed in whole or in part with Federal assistance provided by FTA.

25. National Intelligent Transportation Systems Architecture and Standards.

To the extent applicable, Contractor agrees to conform, and to assure its subcontractors' conformity, to the National Intelligent Transportation Systems (ITS) Architecture and Standards as required by FAST Act § 5307(c), 23 U.S.C. § 5307(c), 23 U.S.C. § 512 note, and follow the provisions of FTA Notice, "FTA National ITS Architecture Policy on Transit Projects," 66 Fed. Reg. 1455 et seq., January 8, 2001, and any other implementing directives FTA may issue at a later date, except to the extent FTA determines otherwise in writing.

60 **SDD 09E08**

STATE ELECTRICAL ENGINEER

Standard Detail Drawing 9E8 (sheet a)

August 2020

Type 9 Pole 15'-30' Monotube Arm

References:

FDM15-5 Attachment 30.5 and 30.6 for conventional symbols

Standard Spec 532.3.6.1 for Anchor Rod Tightening

Standard Spec 657.3.3.2 for Bolts and Bolted Connections.

Standard Spec 658 Traffic Signals

TSDM 5-1-6 Determining Electrical Cable Quantities

TSDM Monotube Signal Arm and Pole Structures 6-1-11

TEOpS X-X-X Cable and Wire Measurement Lengths

Bid items associated with this drawing:

ITEM NUMBER	<u>DESCRIPTION</u>	<u>UNIT</u>
531.8990	Anchor Assemblies Poles on Structures	EACH
654.0110	Concrete Bases Type 10	EACH
655.0200 - 0299	Cable Traffic Signal (# of conductors) (AWG)	LF
657.0345	Poles Type 9	EACH
657-0515 - 0530	Monotube Arms (size)	
658.0100 - 0199	Traffic Signal Face (section) (size)	EACH
658.0400 - 0499	Pedestrian Signal Face (inch)	
658.0500	Pedestrian Push Buttons	
658.1100 - 1199	Programmable Traffic Signal Face (sections) (size)	EACH
658.5070	Signal Mounting Hardware (location)	

Standardized Special Provisions associated with this drawing:

STSP NUMBER	TITLE
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659.XXXX.S Lamp, Ballast, LED, Switch Disposal by Vendor 659.XXXX.S Lamp, Ballast, LED, Switch Disposal by Department

Other SDDs associated with this drawing:

SDD 9C11	Concrete Base Type 10
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SDD 9C13 Concrete Base Type 10 and Type 13 Extension

SDD 9E8 Type 9, Type 10, Type 9/10 Special, Type 12 and Type 13 Poles with Monotube Arms,

sheet "k

SDD 12A4 Structure Identification Plaques, Ramp Gates, Sign Bridges, Overhead Sign Supports

and Traffic Signals

Design Notes:

Contact Person:

Ahmet Demirbilek (414) 220-6801

(414) 322-9606 (Mobile)

STATE ELECTRICAL ENGINEER

August 2020

Standard Detail Drawing 9E8 (sheet b) Version 9

Type 9 Special Pole 35' Monotube Arm

References:

FDM15-5 Attachment 30.5 and 30.6 for conventional symbols

Standard Spec 532.3.6.1 for Anchor Rod Tightening

Standard Spec 657.3.3.2 for Bolts and Bolted Connections.

Standard Spec 658 Traffic Signals

TSDM 5-1-6 Determining Electrical Cable Quantities

TSDM Monotube Signal Arm and Pole Structures 6-1-11

TEOpS X-X-X Cable and Wire Measurement Lengths

Bid items associated with this drawing:

ITEM NUMBER	<u>DESCRIPTION</u>	<u>UNIT</u>
531.8990	Anchor Assemblies Poles on Structures	EACH
654.0120	Concrete Bases Type 10 Special	EACH
655.0200 - 0299	Cable Traffic Signal (# of conductors) (AWG)	LF
657-0347	Poles Type 9 Special	
657-0536	Monotube Arms 35-FT-SpeciaL	EACH
658.0100 - 0199	Traffic Signal Face (section) (size)	EACH
658.0400 - 0499	Pedestrian Signal Face (inch)	
658.0500	Pedestrian Push Buttons	
658.1100 - 1199	Programmable Traffic Signal Face (sections) (size)	EACH
658.5070	Signal Mounting Hardware (location)	

Standardized Special Provisions associated with this drawing:

STSP NUMBER TITLE

659.XXXX.S Lamp, Ballast, LED, Switch Disposal by Vendor 659.XXXX.S Lamp, Ballast, LED, Switch Disposal by Department

Other SDDs associated with this drawing:

SDD 9C15 Concrete Base Type 10 Special

SDD 9E8 Type 9, Type 10, Type 9/10 Special, Type 12 and Type 13 Poles with Monotube Arms,

sheet "k

SDD 12A4 Structure Identification Plaques, Ramp Gates, Sign Bridges, Overhead Sign Supports

and Traffic Signals

Design Notes:

Contact Person:

Ahmet Demirbilek (414) 220-6801

(414) 322-9606 (Mobile)

40' MONOTUBE ARM

(MAXIMUM LOAD)

09c

MAXIMUM BASE PLATE

THICKNESS = 2 1/2"

SDD (

/S/ Ahmet Demirbilek STATE ELECTRICAL ENGINEER

APPROVED

August 2020 DATE

August 2020

Version 9

Standard Detail Drawing 9E8 (sheet c)

Type 9 Special Pole 40' Monotube Arm

References:

FDM15-5 Attachment 30.5 and 30.6 for conventional symbols

Standard Spec 532.3.6.1 for Anchor Rod Tightening

Standard Spec 657.3.3.2 for Bolts and Bolted Connections.

Standard Spec 658 Traffic Signals

TSDM 5-1-6 Determining Electrical Cable Quantities

TSDM Monotube Signal Arm and Pole Structures 6-1-11

TEOpS X-X-X Cable and Wire Measurement Lengths

Bid items associated with this drawing:

ITEM NUMBER	DESCRIPTION	<u>UNIT</u>
531.8990	Anchor Assemblies Poles on Structures	EACH
654.0120	Concrete Bases Type 10 Special	EACH
655.0200 - 0299	Cable Traffic Signal (# of conductors) (AWG)	LF
657-0347	Poles Type 9 Special	
657-0541	Monotube Arms 40-FT-SpeciaL	EACH
658.0100 - 0199	Traffic Signal Face (section) (size)	EACH
658.0400 - 0499	Pedestrian Signal Face (inch)	
658.0500	Pedestrian Push Buttons	
658.1100 - 1199	Programmable Traffic Signal Face (sections) (size)	EACH
658.5070	Signal Mounting Hardware (location)	

Standardized Special Provisions associated with this drawing:

STSP NUMBER TITLE

659.XXXX.S Lamp, Ballast, LED, Switch Disposal by Vendor 659.XXXX.S Lamp, Ballast, LED, Switch Disposal by Department

Other SDDs associated with this drawing:

SDD 9C15 Concrete Base Type 10 Special

SDD 9E8 Type 9, Type 10, Type 9/10 Special, Type 12 and Type 13 Poles with Monotube Arms,

sheet "k

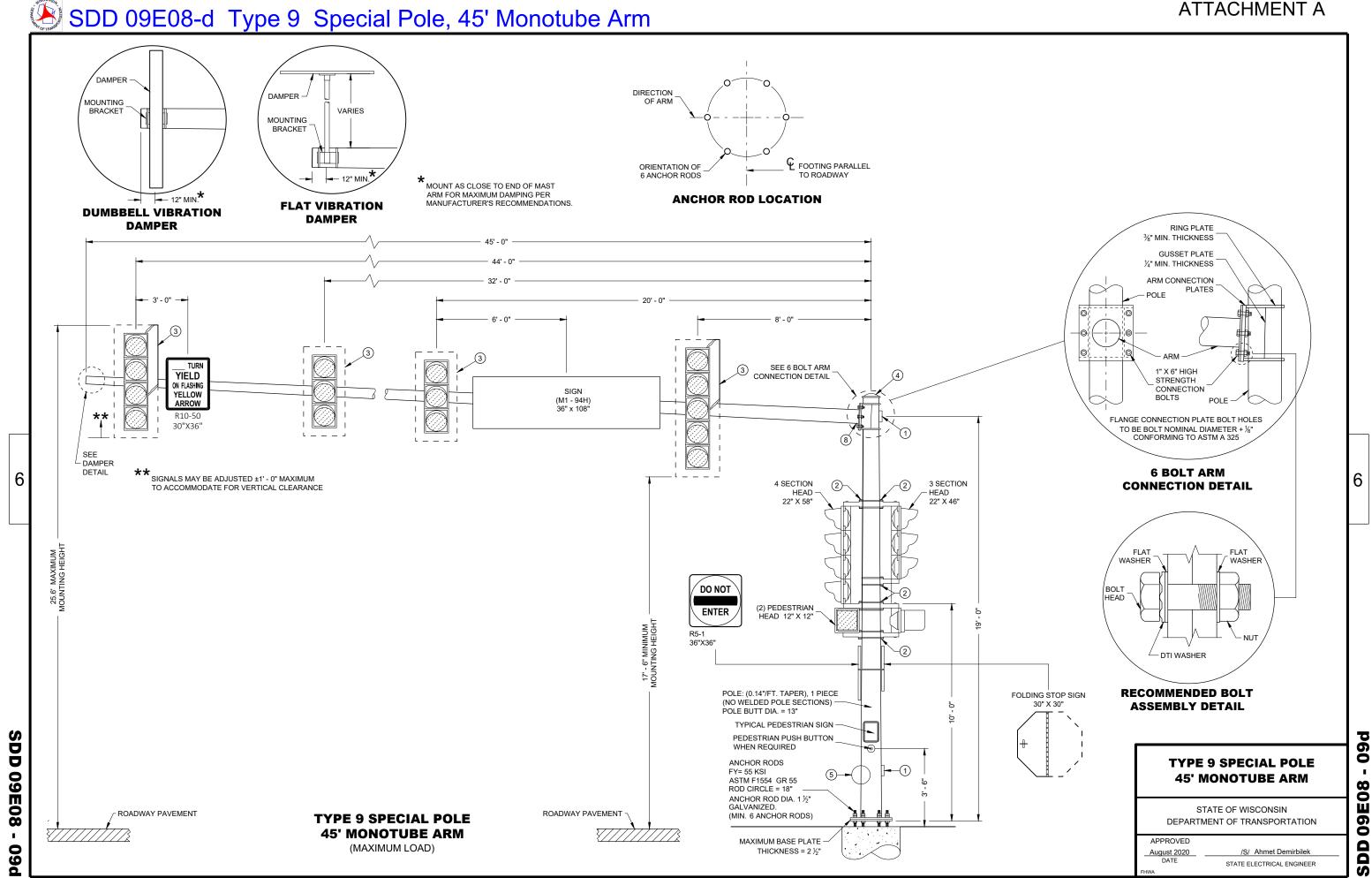
SDD 12A4 Structure Identification Plaques, Ramp Gates, Sign Bridges, Overhead Sign Supports

and Traffic Signals

Design Notes:

Contact Person:

Ahmet Demirbilek (414) 220-6801



Standard Detail Drawing 9E8 (sheet d)

August 2020

Type 9 Special Pole 45' Monotube Arm

References:

FDM15-5 Attachment 30.5 and 30.6 for conventional symbols

Standard Spec 532.3.6.1 for Anchor Rod Tightening

Standard Spec 657.3.3.2 for Bolts and Bolted Connections.

Standard Spec 658 Traffic Signals

TSDM 5-1-6 Determining Electrical Cable Quantities

TSDM Monotube Signal Arm and Pole Structures 6-1-11

TEOpS X-X-X Cable and Wire Measurement Lengths

Bid items associated with this drawing:

ITEM NUMBER	<u>DESCRIPTION</u>	<u>UNIT</u>
531.8990	Anchor Assemblies Poles on Structures	EACH
654.0120	Concrete Bases Type 10 Special	EACH
655.0200 - 0299	Cable Traffic Signal (# of conductors) (AWG)	LF
657-0347	Poles Type 9 Special	EACH
657-0546	Monotube Arms 45-FT-SpeciaL	
658.0100 - 0199	Traffic Signal Face (section) (size)	
658.0400 - 0499	Pedestrian Signal Face (inch)	
658.0500	Pedestrian Push Buttons	
658.1100 - 1199	Programmable Traffic Signal Face (sections) (size)	EACH
658.5070	Signal Mounting Hardware (location)	

Standardized Special Provisions associated with this drawing:

STSP NUMBER	TITLE
-------------	-------

659.XXXX.S Lamp, Ballast, LED, Switch Disposal by Vendor 659.XXXX.S Lamp, Ballast, LED, Switch Disposal by Department

Other SDDs associated with this drawing:

SDD 9C15 Concrete Base Type 10 Special

SDD 9E8 Type 9, Type 10, Type 9/10 Special, Type 12 and Type 13 Poles with Monotube Arms,

sheet "k

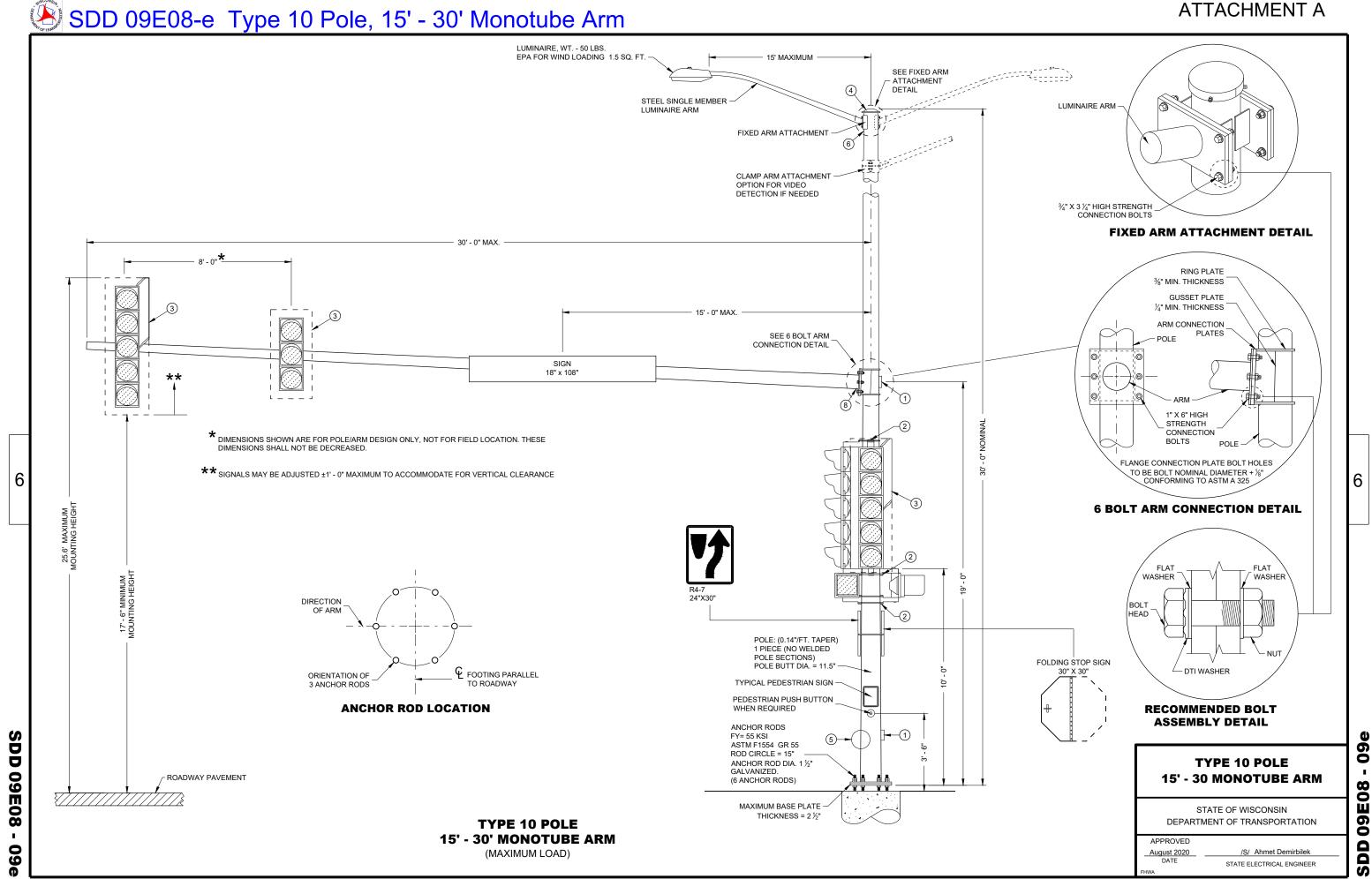
SDD 12A4 Structure Identification Plaques, Ramp Gates, Sign Bridges, Overhead Sign Supports

and Traffic Signals

Design Notes:

Contact Person:

Ahmet Demirbilek (414) 220-6801



Standard Detail Drawing 9E8 (sheet e)

August 2020

Type 10 Pole 15'-30' Monotube Arm

References:

FDM15-5 Attachment 30.5 and 30.6 for conventional symbols

Standard Spec 532.3.6.1 for Anchor Rod Tightening

Standard Spec 657.3.3.2 for Bolts and Bolted Connections.

Standard Spec 658 Traffic Signals

Standard Spec 659 Lighting

TSDM 5-1-6 Determining Electrical Cable Quantities

TSDM Monotube Signal Arm and Pole Structures 6-1-11

TEOpS X-X-X Cable and Wire Measurement Lengths

Bid items associated with this drawing:

ITEM NUMBER	DESCRIPTION	<u>UNIT</u>
531.8990	Anchor Assemblies Poles on Structures	EACH
654.0110	Concrete Bases Type 10	EACH
655.0200 - 0299	Cable Traffic Signal (# of conductors) (AWG)	LF
655.0610	Electrical Wire Lighting 12 AWG	LF
657-0350	Poles Type 10	EACH
657-0515 - 0530	Monotube Arms (size)	EACH
657-0806 - 0815	Luminaire Arms Steel (size)	EACH
657-0820	Luminaire Arms Steel Type 10 Pole Clamp 15-FT	
658.0100 - 0199	Traffic Signal Face (section) (size)	EACH
658.0400 - 0499	Pedestrian Signal Face (inch)	EACH
658.0500	Pedestrian Push Buttons	EACH
658.1100 - 1199	Programmable Traffic Signal Face (sections) (size)	EACH
658.5070	Signal Mounting Hardware (location)	EACH
659.1100 - 1199	Luminaires Utility LED (Category)	EACH

Standardized Special Provisions associated with this drawing:

STSP NUMBER TITLE

659.XXXX.S Lamp, Ballast, LED, Switch Disposal by Vendor 659.XXXX.S Lamp, Ballast, LED, Switch Disposal by Department

Other SDDs associated with this drawing:

SDD 9C11 Concrete Base Type 10

SDD 9C13 Concrete Base Type 10 and Type 13 Extension SDD 9E8 Type 9, Type 10, Type 9/10

Special, Type 12 and Type 13 Poles with Monotube Arms, sheet "k

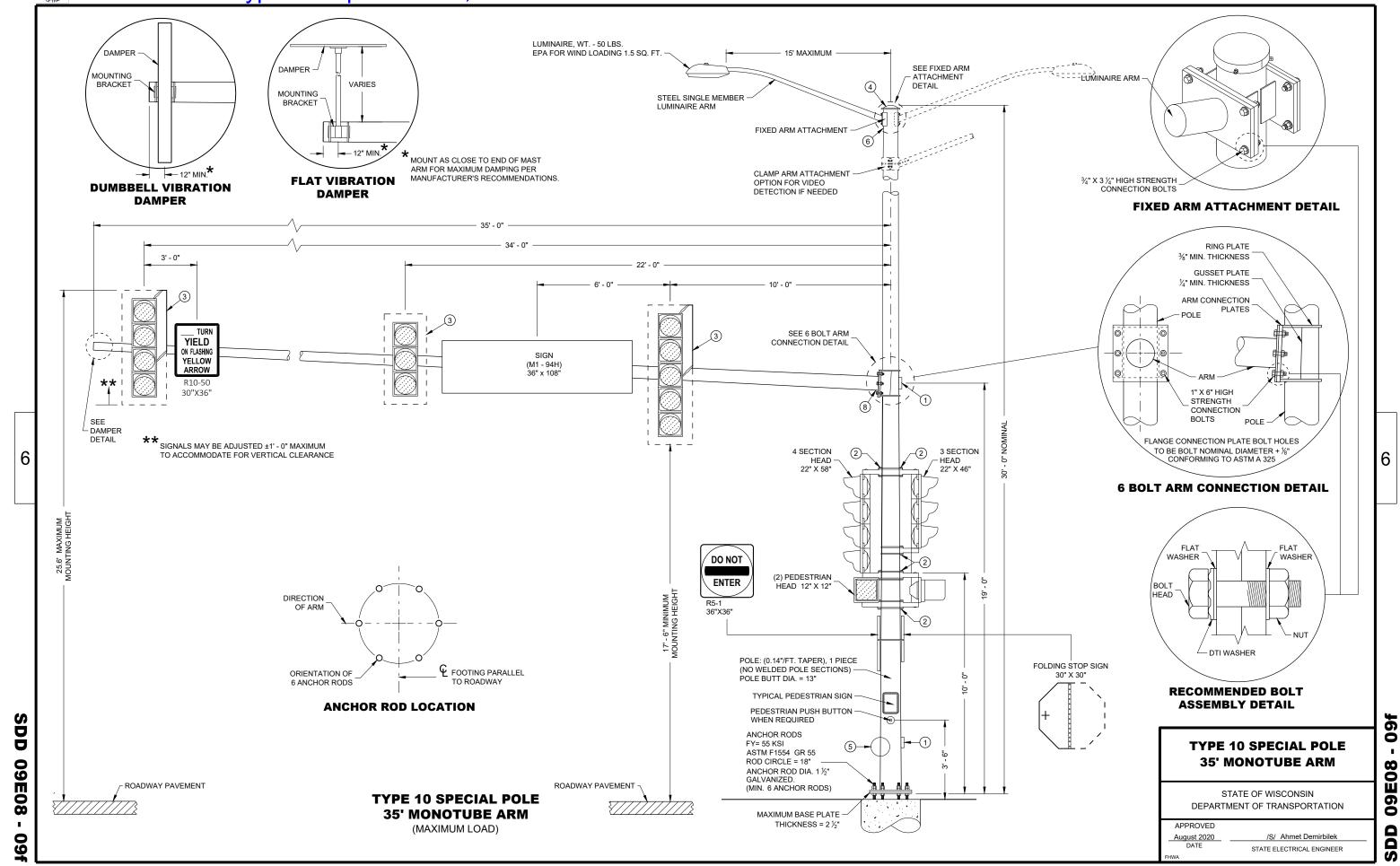
SDD 12A4 Structure Identification Plaques, Ramp Gates, Sign Bridges, Overhead Sign Supports

and Traffic Signals

Design Notes:

Contact Person:

Ahmet Demirbilek (414) 220-6801



Standard Detail Drawing 9L6 (Sheet i

August 2020

Type 10 Special Pole 35' Monotube Arm

References:

FDM15-5 Attachment 30.5 and 30.6 for conventional symbols

Standard Spec 532.3.6.1 for Anchor Rod Tightening

Standard Spec 657.3.3.2 for Bolts and Bolted Connections.

Standard Spec 658 Traffic Signals

Standard Spec 659 Lighting

TSDM 5-1-6 Determining Electrical Cable Quantities

TSDM Monotube Signal Arm and Pole Structures 6-1-11

TEOpS X-X-X Cable and Wire Measurement Lengths

Bid items associated with this drawing:

<u>DESCRIPTION</u>	<u>UNIT</u>
Anchor Assemblies Poles on Structures	EACH
Concrete Bases Type 10 Special	EACH
Cable Traffic Signal (# of conductors) (AWG)	LF
Electrical Wire Lighting 12 AWG	LF
Poles Type 10 Special	EACH
Monotube Arms 35-FT-SpeciaL	EACH
Luminaire Arms Steel (size)	EACH
Luminaire Arms Steel Type 10 Pole Clamp 15-FT	EACH
Traffic Signal Face (section) (size)	EACH
Pedestrian Signal Face (inch)	EACH
Pedestrian Push Buttons	EACH
Programmable Traffic Signal Face (sections) (size)	EACH
Signal Mounting Hardware (location)	EACH
Luminaires Utility LED (Category)	EACH
	Anchor Assemblies Poles on Structures

Standardized Special Provisions associated with this drawing:

STSP N	UMBER	TITI F

659.XXXX.S Lamp, Ballast, LED, Switch Disposal by Vendor 659.XXXX.S Lamp, Ballast, LED, Switch Disposal by Department

Other SDDs associated with this drawing:

SDD 9C15 Concrete Base Type 10 Special

SDD 9E8 Type 9, Type 10, Type 9/10 Special, Type 12 and Type 13 Poles with Monotube Arms,

sheet "k

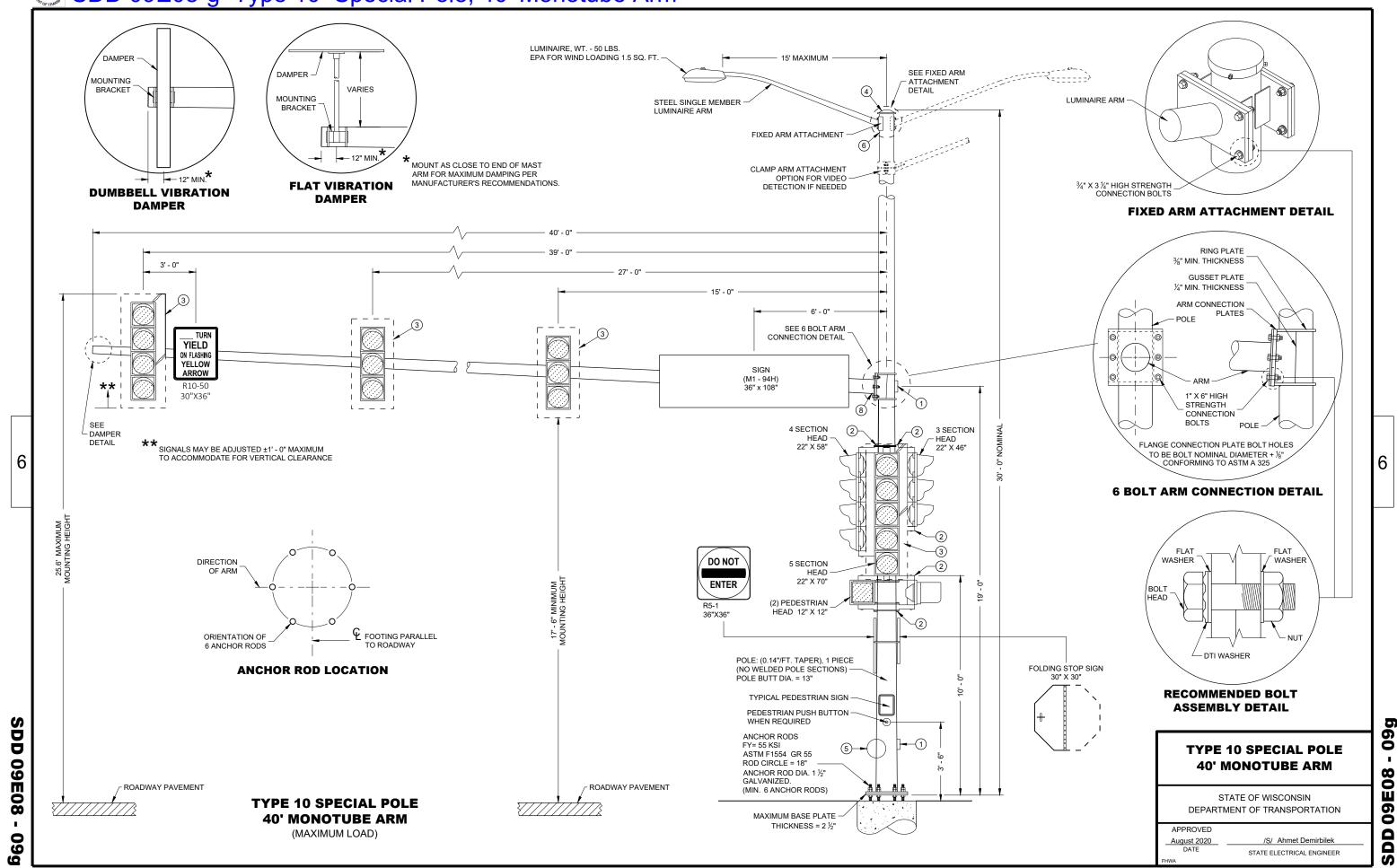
SDD 12A4 Structure Identification Plaques, Ramp Gates, Sign Bridges, Overhead Sign Supports

and Traffic Signals

Design Notes:

Contact Person:

Ahmet Demirbilek (414) 220-6801



August 2020

Type 10 Special Pole 40' Monotube Arm

References:

FDM15-5 Attachment 30.5 and 30.6 for conventional symbols

Standard Spec 532.3.6.1 for Anchor Rod Tightening

Standard Spec 657.3.3.2 for Bolts and Bolted Connections.

Standard Spec 658 Traffic Signals

Standard Spec 659 Lighting

TSDM 5-1-6 Determining Electrical Cable Quantities

TSDM Monotube Signal Arm and Pole Structures 6-1-11

TEOpS X-X-X Cable and Wire Measurement Lengths

Bid items associated with this drawing:

<u>ITEM NUMBER</u>	DESCRIPTION	<u>UNIT</u>
531.8990	Anchor Assemblies Poles on Structures	EACH
654.0120	Concrete Bases Type 10 Special	EACH
655.0200 - 0299	Cable Traffic Signal (# of conductors) (AWG)	LF
655.0610	Electrical Wire Lighting 12 AWG	LF
657-0352	Poles Type 10 Special	EACH
657-0541	Monotube Arms 40-FT-SpeciaL	EACH
657-0806 - 0815	Luminaire Arms Steel (size)	EACH
657-0820	Luminaire Arms Steel Type 10 Pole Clamp 15-FT	EACH
658.0100 - 0199	Traffic Signal Face (section) (size)	EACH
658.0400 - 0499	Pedestrian Signal Face (inch)	EACH
658.0500	Pedestrian Push Buttons	EACH
658.1100 - 1199	Programmable Traffic Signal Face (sections) (size)	EACH
658.5070	Signal Mounting Hardware (location)	EACH
659.1100 - 1199	Luminaires Utility LED (Category)	EACH

Standardized Special Provisions associated with this drawing:

STSP	NUMBER	TITLE

659.XXXX.S Lamp, Ballast, LED, Switch Disposal by Vendor 659.XXXX.S Lamp, Ballast, LED, Switch Disposal by Department

Other SDDs associated with this drawing:

SDD 9C15 Concrete Base Type 10 Special

SDD 9E8 Type 9, Type 10, Type 9/10 Special, Type 12 and Type 13 Poles with Monotube Arms,

sheet "k

SDD 12A4 Structure Identification Plaques, Ramp Gates, Sign Bridges, Overhead Sign Supports

and Traffic Signals

Design Notes:

Contact Person:

Ahmet Demirbilek (414) 220-6801

08

09E08

SDD

August 2020

Standard Detail Drawing 9E8 (sheet h) Version 9

Type 10 Special Pole 45' Monotube Arm

References:

Standard Spec 532.3.6.1 for Anchor Rod Tightening FDM15-5 Attachment 30.5 and 30.6 for conventional symbols

Standard Spec 532.3.6.1 for Anchor Rod Tightening

Standard Spec 657.3.3.2 for Bolts and Bolted Connections.

Standard Spec 658 Traffic Signals

Standard Spec 659 Lighting

TSDM 5-1-6 Determining Electrical Cable Quantities

TSDM Monotube Signal Arm and Pole Structures 6-1-11

TEOpS X-X-X Cable and Wire Measurement Lengths

Bid items associated with this drawing:

ITEM NUMBER	<u>DESCRIPTION</u>	<u>UNIT</u>
531.8990	Anchor Assemblies Poles on Structures	EACH
654.0120	Concrete Bases Type 10 Special	EACH
655.0200 - 0299	Cable Traffic Signal (# of conductors) (AWG)	LF
655.0610	Electrical Wire Lighting 12 AWG	LF
657-0352	Poles Type 10 Special	EACH
657-0546	Monotube Arms 45-FT-SpeciaL	EACH
657-0806 - 0815	Luminaire Arms Steel (size)	EACH
657-0820	Luminaire Arms Steel Type 10 Pole Clamp 15-FT	EACH
658.0100 - 0199	Traffic Signal Face (section) (size)	EACH
658.0400 - 0499	Pedestrian Signal Face (inch)	
658.0500	Pedestrian Push Buttons	EACH
658.1100 - 1199	Programmable Traffic Signal Face (sections) (size)	EACH
658.5070	Signal Mounting Hardware (location)	EACH
659.1100 - 1199	Luminaires Utility LED (Category)	EACH

Standardized Special Provisions associated with this drawing:

STSP	NUMBER	TITLE

659.XXXX.S Lamp, Ballast, LED, Switch Disposal by Vendor Lamp, Ballast, LED, Switch Disposal by Department 659.XXXX.S

Other SDDs associated with this drawing:

SDD 9C15 Concrete Base Type 10 Special

SDD 9E8 Type 9, Type 10, Type 9/10 Special, Type 12 and Type 13 Poles with Monotube Arms,

sheet "k

SDD 12A4 Structure Identification Plaques, Ramp Gates, Sign Bridges, Overhead Sign Supports

and Traffic Signals

Design Notes:

Contact Person:

Ahmet Demirbilek (414) 220-6801

Standard Detail Drawing 9E8 (sheet i)

August 2020

Type 12 Pole 35-55' Monotube Arm

References:

FDM15-5 Attachment 30.5 and 30.6 for conventional symbols

Standard Spec 532.3.6.1 for Anchor Rod Tightening

Standard Spec 657.3.3.2 for Bolts and Bolted Connections.

Standard Spec 658 Traffic Signals

TSDM 5-1-6 Determining Electrical Cable Quantities

TSDM Monotube Signal Arm and Pole Structures 6-1-11

TEOpS X-X-X Cable and Wire Measurement Lengths

Bid items associated with this drawing:

ITEM NUMBER	DESCRIPTION	<u>UNIT</u>
531.8990	Anchor Assemblies Poles on Structures	EACH
654.0113	Concrete Bases Type 13	EACH
655.0200 - 0299	Cable Traffic Signal (# of conductors) (AWG)	LF
657-0355	Poles Type 12	EACH
657.0535 - 0555	Monotube Arms 35 to 55 FT	
658.0100 - 0199	Traffic Signal Face (section) (size)	EACH
658.0400 - 0499	Pedestrian Signal Face (inch)	EACH
658.0500	Pedestrian Push Buttons	
658.1100 - 1199	Programmable Traffic Signal Face (sections) (size)	EACH
658.5070	Signal Mounting Hardware (location)	

Standardized Special Provisions associated with this drawing:

STSP NUMBER	TITLE
-------------	-------

659.XXXX.S Lamp, Ballast, LED, Switch Disposal by Vendor 659.XXXX.S Lamp, Ballast, LED, Switch Disposal by Department

Other SDDs associated with this drawing:

SDD 9C12 Concrete Base Type 13 sheets "a" and "b"

SDD 9C13 Concrete Base Type 10 and Type 13 Extension SDD 9E8 Type 9, Type 10, Type 9/10

Special, Type 12 and Type 13 Poles with Monotube Arms, sheet "k

<u>SDD 12A4</u> Structure Identification Plaques, Ramp Gates, Sign Bridges, Overhead Sign Supports and Traffic Signals

Design Notes:

Contact Person:

Ahmet Demirbilek (414) 220-6801 (414) 322-9606 (Mobile)

Standard Detail Drawing 9E8 (sheet j)

August 2020

Type 13 Pole 35-55' Monotube Arm

References:

FDM15-5 Attachment 30.5 and 30.6 for conventional symbols

Standard Spec 532.3.6.1 for Anchor Rod Tightening

Standard Spec 657.3.3.2 for Bolts and Bolted Connections.

Standard Spec 658 Traffic Signals

Standard Spec 659 Lighting

TSDM 5-1-6 Determining Electrical Cable Quantities

TSDM Monotube Signal Arm and Pole Structures 6-1-11

TEOpS X-X-X Cable and Wire Measurement Lengths

Bid items associated with this drawing:

531.8990	Anchor Assemblies Poles on Structures	EACH
654.0113	Concrete Bases Type 13	EACH
655.0200 - 0299	Cable Traffic Signal (# of conductors) (AWG)	LF
655.0610	Electrical Wire Lighting 12 AWG	
657-0360	Poles Type 13	
657.0535 - 0555	Monotube Arms 35 to 55 FT	EACH
657-0806 - 0815	Luminaire Arms Steel (size)	EACH
657-0825	Luminaire Arms Steel Type 13 Pole Clamp 15-FT	EACH
658.0100 - 0199	Traffic Signal Face (section) (size)	
658.0400 - 0499	Pedestrian Signal Face (inch)	
658.0500	Pedestrian Push Buttons	
658.1100 - 1199	Programmable Traffic Signal Face (sections) (size)	EACH
658.5070	Signal Mounting Hardware (location)	

Standardized Special Provisions associated with this drawing:

STSP	NUMBER	TITLE

659.XXXX.S Lamp, Ballast, LED, Switch Disposal by Vendor 659.XXXX.S Lamp, Ballast, LED, Switch Disposal by Department

Other SDDs associated with this drawing:

SDD 9C12 Concrete Base Type 13 sheets "a" and "b"

SDD 9C13 Concrete Base Type 10 and Type 13 Extension SDD 9E8 Type 9, Type 10, Type 9/10

Special, Type 12 and Type 13 Poles with Monotube Arms, sheet "k

<u>SDD 12A4</u> Structure Identification Plaques, Ramp Gates, Sign Bridges, Overhead Sign Supports and Traffic Signals

Design Notes:

Contact Person:

Ahmet Demirbilek (414) 220-6801

POLE TYPES 9 AND 10 ARE FOR ARM LENGTHS 15 FOOT TO 30 FOOT.

POLE TYPES 9 SPECIAL AND 10 SPECIAL ARE FOR ARM LENGTHS 35 FOOT, 40 FOOT, AND 45 FOOT.

POLE TYPES 12 AND 13 ARE FOR ARM LENGTHS 35 FOOT TO 55 FOOT

MONOTUBE POLES AND ARMS SHALL BE GALVANIZED STEEL

RING STIFFENED BUILT UP BOX TYPE OF ATTACHMENT FOR TRAFFIC SIGNAL ARM

ONE PIECE POLE CONSTRUCTION (NO WELDED POLE SECTIONS).

STANDARD STRAIGHT ARM DESIGN (3% ± RISE).

SECTION 657, POLES OF THE STANDARD SPECIFICATION SHALL APPLY TO THIS DRAWING.

PROVIDE WIREWAY THRU POLE WALL AND ARM CONNECTION PLATES. PROVIDE ROUND, SMOOTH INSIDE SURFACE.

MANUFACTURER'S SUBMITTED POLE DESIGNS AND DRAWINGS SHALL BE SIGNED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER AND CERTIFIED AS BEING IN COMPLIANCE WITH THE AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNAL 2015 1ST EDITION (INCLUDING INTERIM REVISIONS)" AND ALL PERTINENT WISDOT SPECIFICATIONS AND DRAWINGS FOR THE LIGHTING STRUCTURES

CATEGORY III FATIGUE LOADS OF GALLOPING. TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 AND TYPE 10 STRUCTURES.

CATEGORY II FATIGUE LOADS OF TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 SPECIAL AND TYPE 10 SPECIAL STRUCTURES. IN LIEU OF DESIGNING FOR GALLOPING A VIBRATION DAMPER MITIGATION DEVICE IS REQUIRED TO BE SUPPLIED AND INSTALLED AT THE END OF THE

CATEGORY II FATIGUE FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE12 AND TYPE 13 STRUCTURES.

115 MPH (700 YEAR MRI BASIC WIND SPEED)

SECURE THE OPENING BELOW THE BASE PLATE WITH STAINLESS STEEL OR GALVANIZED STEEL MESH AND SECURE THE MESH WITH 3/4" STAINLESS STEEL BANDING AROUND THE LEVELING NUTS.

INDENT PRINT (NOMINAL ½" HIGH) THE POLE LENGTH AND FIRST TWO LETTERS OF THE MANUFACTURERS NAME ON TWO SIDES OF THE BASE PLATE 180 DEGREES APART, BEFORE GALVANIZING. THE ARM SHALL BE IDENTIFIED

SIGNAL FACE SHALL BE MOUNTED 6 INCHES (NOMINAL) FROM THE END OF THE MONOTUBE ARM OR AS SHOWN ON THE PLAN CONSTRUCTION DETAIL OR A S DIRECTED BY THE PROJECT ENGINEER/ELECTRICAL OPERATIONS PERSONNEL MOUNT ALL LIKE HEAD AT SAME ELEVATION.

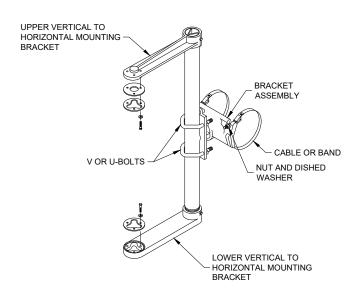
SIGN MOUNTING BRACKETS SHALL BE FURNISHED IN ACCORDANCE WITH SECTION 637 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

- DESIGN FOR MAXIMUM ALLOWABLE HAND HOLE WITH COVER ASSEMBLY WITH TWO ¾" X ¾" 20 TPI STAINLESS STEEL
- SIGNAL MOUNTING BRACKETS FOR POLE MOUNTING, MOUNT WITH CAP SCREW AND BANDING (SEE SPECIFICATION
- SECURELY MOUNT BACK PLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER
- THE TOP OF THE POLE SHAFT AND THE MONOTUBE ARM SHALL BE EQUIPPED WITH A REMOVABLE, VENTILATED CAP HELD SECURELY IN PLACE WITH SET SCREWS.
- FACTORY WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HAND HOLD, (LUG AND HARDWARE PAID UNDER SEPARATE ITEM). PROVIDE HOLE IN BRACKET FOR 1/2" X 1/2" - 20 TPI STAINLESS STEEL HEX HEAD BOLT.
- FACTORY WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE
- INSTALL STRUCTURAL IDENTIFICATION PLAQUES.

STRUCTURAL IDENTIFICATION PLAQUES SHALL BE PLACED ON THE POLES IN THE SAME DIRECTION AS THE ARM.

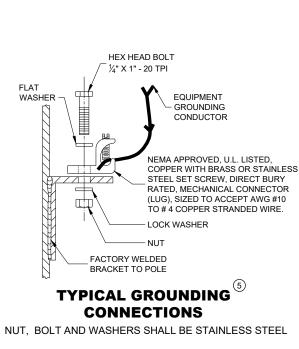
MOUNTING HEIGHT SHALL BE 6' - 0" ABOVE THE CURB OR SHOULDER, ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

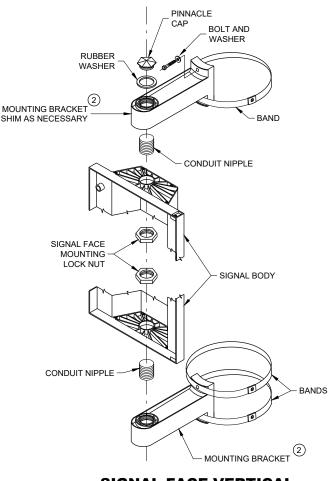
FACTORY DRILLED 1/2" DRAIN HOLE 2" FROM FLANGE CONNECTION PLATE



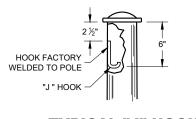
SIGNAL FACE MOUNTING BRACKET **DETAIL FOR MONOTUBE ARM**

(MOUNT PER MANFACTURER'S RECOMMENDATION)





SIGNAL FACE VERTICAL **MOUNTING DETAIL**



TYPICAL "J" HOOK WIRE SUPPORT

GENERAL NOTES AND HARDWARE FOR TYPES 9,10, 9/10 SPECIAL, 12 AND 13 POLES WITH MONOTUBE ARMS

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED August 2020 DATE /S/ Ahmet Demirbilel STATE ELECTRICAL ENGINEER

STRUCTURAL IDENTIFICATION **PLAQUE PLACEMENT**

TT TT

6' - 0"

DD 09E08

Ò 60

ATTACHMENT A

Version 9

Standard Detail Drawing 9E8 (sheet k)

August 2020

General Notes and Hardware Details for Types 9, 10, 9/10 Special, Type 12 and Type 13

Poles with Monotube Arms

References:

<u>FDM15-5 Attachment 30.5</u> and <u>30.6</u> for conventional symbols TSDM Monotube Signal Arm and Pole Structures 6-1-11

Bid items associated with this drawing:

ITEM NUMBER TITLE

UNIT

NONE

Standardized Special Provisions associated with this drawing:

STSP NUMBER

TITLE

NONE

Other SDDs associated with this drawing:

<u>SDD 12A4</u> Structure Identification Plaques, Ramp Gates, Sign Bridges, Overhead Sign Supports and Traffic Signals

Design Notes:

Include this sheet with all pole and monotube combinations in this drawing series (SDD 9E8, Sheets a-j).

Contact Person:

Ahmet Demirbilek (414) 220-6801



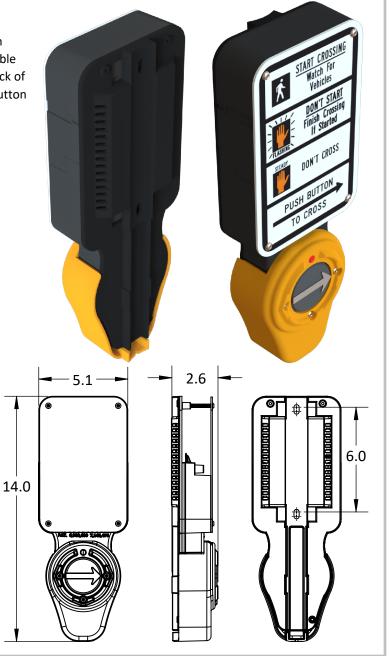
iNS3: "iNS" iNavigator 3-Wire Push Button Station

The"iNS" iNavigator 3-Wire Push Button Station (iNS3 PBS) is the pedestrian interface to the iNavigator Accessible Pedestrian System. A system consists of a Ped Head Control Unit (iPHCU3S) and a Push Button Station. The iNS3 PBS provides valuable information and cues via both a vibrating arrow button and audible sounds, making the intersection accessible for all pedestrians. All sounds emanate from the front and back of the unit. A sunlight-visible red LED latches "ON" along with a tactile feedback "bounce" to confirm the button has been pushed. The vandal-resistant design of the iNS3 PBS includes the body, which houses the ADA compliant push button (shown), a faceplate (5X7 sign shown), and mounting hardware.

By interfacing with the iPHCU3S that installs in the Ped Head, the iNS3 PBS can provide the following standard features:

- 3 Wires (Data, PWR, GND) connect iPHCU3S to iNS3. Two wires to traffic cabinet are needed to
 place calls for actuated intersections.
- Cuckoo, Chirp, Rapid Tick, Verbal, or other user-customized voice messages during walk. A total of 10 walk sound options are included with an additional 3 locations for custom sounds.
- Standard locating tone during Don't Walk (and Clearance if desired)
- Choice of 4 locating tones, Canadian Melody, or verbal countdown during PED clearance
- Walk, Clearance, and Don't Walk sounds automatically adjust to ambient
- Separate ambient response settings for Locate Tone (for quiet ambient conditions)
- Independently set maximum and minimum volume on most sounds
- Button vibrates during Walk
- Button push confirmed by latching LED, tactile bounce, and audible "wait" sound
- Extended button push can boost volume for next Walk and Clearance
- Direction of travel message with extended button push, capable
- Extended Push activation settings: 0-6 second range, 0.5 second increments
- Extended Push can turn on and boost volumes on the activated crosswalk
- Beaconing and Ping Pong features available
- Custom audio messages, configuration settings, and firmware updates can be easily uploaded wirelessly via Bluetooth using Windows or iOS
- Select audio messages, change settings, and perform firmware updates wirelessly using iOS
 (9.0+) or Android (5.0+) devices, or a Windows PC with Polara's Bluetooth Dongle (PN iN-DGL,
 purchased separately)
- Built in health/event logging feature, up to 1000 events
- External speaker option at time of order
- External button input for bike lanes, horses, etc.
- Warranty: 3 year limited

Dimensions are in inches. iNS35BN0-Y unit shown.



^{*}The iNS3 replaces the iN3 and is backward compatible with the iPHCU3W.



Operating Specifications		
Parameter	Rating	
Operating Temp. Range	-34°C to +74°C (-30°F to +165°F)	
Storage Temp. Range	-45°C to +85°C (-50°F to +185°F)	
Operating Force	3.0 lbs max, option of 3 adjustable programmed forces	
Switch Operating Life	Greater than 20 million operations	
Max. Volume	100 dB @ 1 meter	

Design Compliance			
Functionality Test Type	Compliance		
Temperature and Humidity	MUTCD 2009-4E		
Transient Voltage Protection	NEMA TS2		
Transient Suppression	NEMA TS2		
Mechanical Shock and Vibration	NEMA TS2		
iNS3 PBS Enclosure	NEMA 250 Type 4X		
Electrical Reliability	NEMA TS2		

Notes:

- 1. Lab tested to applicable sections of referenced standards
- 2. All specifications are subject to change without notice
- 3. All specifications are typical unless otherwise specified

A 3 Wire Cable (General Cable: C2831A or equivalent) must be routed between each iNS3 PBS and Ped Head Control Unit (iPHCU3S). This cable is not supplied with the iNS3 PBS, but is available separately in precut 12 ft, 25 ft, and 50 ft lengths.

iNS3 PBS Cables			
Part No.	Length		
iN3-CABLE-12	12 ft		
iN3-CABLE-25	25 ft		
iN3-CABLE-50	50 ft		

Terminal screws on each iNS3 PBS include washer (clamping plates) intended for bare wire. Crimp terminals are not recommended.

<u>iNS3 5 A N 0 - B - BD-ES</u>

- Additional Options

Button Options

NA - No Arrow

BD - Bi-Directional Arrow

Other Options

WPC - With pole cap

ES - External Speaker option

Button Cover Color

Back plate is always black.

B - Black

G - Green

Y - Yellow

Audio Message Option

0 - Standard messages

1 - Custom Messages

Braille

N - No braille on faceplate

B - Braille on faceplate

Faceplate

MUTCD Compliant
V - 9x12 R10-3
U - 9X12 R10-3b
B - 5x7- International
B - 5x7- International
C - 0x15 R10-3c

T - 9x15 R10-3e C - 9X12- Countdown

D - 5X7 or 9x12- International

O - No Faceplate

-Size of Front Plate Adapter

5 - 5" x 7"

9 - 9" x 12"

3 - 9" x 15"

Navigator Family

iNS3 - iNavigator S 3-Wire Push Button

Dimensions are in inches.

BDSP-011 – BullDog III Series Vandal Resistant ADA Compliant Push Button without LED for TS1 Cabinets with Relay Isolators This button is a bigbly yandel resistant button with acceptably no moving parts. It is pressure activated, but on with

This butt

Ø2.0 (50)

Ø2.55 (64.8)

Ø.21 x .04 (5.3 x 1.0)

1.65

This button is a highly vandal resistant button with essentially no moving parts. It is pressure activated, but can withstand an impact from a baseball bat or hammer. When the switch activates, you hear a beep. When the button is released you will hear a second beep. BDSP-011 meets the relay driving requirements of older electromechanical relay based PED isolators found in some TS1 Cabinets.

Body Material: Aluminum, Powder Coated

Button material: 316 Stainless Steel

Piezo Driven Solid State Switch:

Operating Force: 3.0 lbs. Maximum

Operating Temperature: -30°F to +165°F (-34°C to +74°C)

Operating Voltage: 12-36 VDC, 9-25 VAC RMS (18 VDC Typ.)

MTBF: 8,800,000 hours Typ.

Switch Operating Life: Greater than 300 million operations

"Off" Current: $15\mu A$ Typ. 5Ω Typ.

Maximum "On" Current: 350 mA (over-current protected) Typ.

Maximum "On" Time: 11 sec. Typ. Debounce Time: 85 ms Typ.

Beeper:

Volume: 68 dB @ 1 meter Typ.

Beep on Press: 2.6 kHz
Beep on Release: 2.3 kHz
Beep Length: 50 ms Typ.

Terminal screws include washers (clamping plates) intended for bare wire. Crimp Terminals are not recommended.

Warranty: 5 Years, free from manufacturers defects

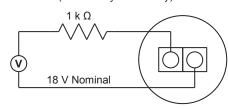
See page 2 for product ordering information

0.65 (16.5) (41.9)

L.62 (16) x W.83 (21)

Suggested Test Circuit (Momentary Mode Only)

0.92 (23.4)



BDSP-011-Y model shown.
Dimensions are in inches (millimeters).

ø3.4 (86.7)

Design Compliance

Test Type	Compliance
Activation Force	MUTCD 2009 - 4E
Temperature and Humidity	NEMA TS 2
Transient Voltage Protection	NEMA TS 2
Transient Suppression	IEC 61000-4-4, IEC 61000-4-5
Lightning and Power Protection	GR-1089-CORE, 6000V-400A 25 reps, 60VAC-15 minutes
Electronic Noise	FCC Title 47, Part 15, Class A
Mechanical Shock and Vibration	NEMA TS 2
Ingress of Water	NEMA 250 – 6P, Rain, Snow, etc.
Ingress of Water	NEMA 250 – 6P, Submersion
Salt Spray and Corrosion	NEMA 250 – 6P
Ingress of Foreign Objects	NEMA 250 – 6P
Electrical Reliability	NEMATS 4

Notes

- 1) Applicable sections only of referenced standards.
- 2) All specifications subject to change without notice.

	Traffic Signal Summary			
Intersection	In American property of the second second	Associated Cabinet/Controller Improvements	Signal Plan Sheet	
Junction Rd. at New Park and Ride	COBALT	New Traffic Signal Cabinet	X	
Junction Rd. at Mineral Pt EB	ASC/3	New Traffic Signal Controller (Cobalt)		
Junction Rd. at Mineral Pt	ASC/3	New Traffic Signal Controller (Cobalt)		
Junction at Commerce Dr	ASC/3	New Traffic Signal Controller (Cobalt)		
Mineral Pt at Beltine (US12/14) EB	ASC/3	New Traffic Signal Controller (Cobalt)		
MPR and High Point	ASC/3	New Traffic Signal Cabinet	X	
MPR and Randolph	ASC/3	New Traffic Signal Controller (Cobalt)		
MPR and Westfield	ASC/3	New Traffic Signal Cabinet	X	
MPR and Gammon	ASC/3	New Traffic Signal Controller (Cobalt)	X	
MPR and Grand Canyon	ASC/3	New Traffic Signal Cabinet	X	
MPR and Yellowstone	ASC/3	New Traffic Signal Controller (Cobalt)	X	
MPR and Island	ASC/3	New Traffic Signal Cabinet	X	
MPR and Rosa	ASC/3	New Traffic Signal Cabinet	X	
Whitney Way and Tokay	ASC/3	New Traffic Signal Controller (Cobalt)	1	
Whitney Way and Science	ASC/2	New TS Cabinet		
MPR and Whitney Way	ASC/3	New Traffic Signal Cabinet	X	
Whitney Way and Regent	ASC/3	New Traffic Signal Cabinet	X	
Whitney Way and Sheboygan	COBALT	New Traffic Signal Cabinet	X	
Sheboygan and Segoe	COBALT	New Traffic Signal Cabinet	X	
Segoe and Frey	ASC/3	New Traffic Signal Controller (Cobalt)		
University and Segoe	COBALT	Firmware Update EOS		
University and Hilldale	COBALT	Firmware Update EOS		
University and Midvale	COBALT	Firmware Update EOS	X	
University and Shorewood	COBALT	Firmware Update EOS	X	
University and Ridge	COBALT	Firmware Update EOS		
University and Farley	COBALT	Firmware Update EOS	X	
University and Campus Drive	ASC/3	New Traffic Signal Controller (Cobalt)	X	
University and Babcock	ASC/3	New Traffic Signal Controller (Cobalt)		
Johnson and Randall	ASC/2	New TS Cabinet) X	
University and Randall	ASC/3	New Traffic Signal Controller (Cobalt)		
Johnson and Orchard	ASC/3	New Traffic Signal Controller (Cobalt)		
University and Orchard	ASC/3	New Traffic Signal Controller (Cobalt)	X	
Johnson and Charter	ASC/2	New TS Cabinet		
University and Charter	ASC/3	New Traffic Signal Controller (Cobalt)		
Johnson and Mills	ASC/2	New TS Cabinet		
University and Mills	ASC/3	New Traffic Signal Controller (Cobalt)		
Johnson and Brooks	ASC/3	New Traffic Signal Controller (Cobalt)		
University and Brooks	ASC/3	New Traffic Signal Controller (Cobalt)		
Johnson and Park	COBALT	Firmware Update EOS		
University and Park	COBALT	Firmware Update EOS		
Johnson and East Campus	ASC/3	New Traffic Signal Controller (Cobalt)		
University and East Campus	ASC/3	New Traffic Signal Controller (Cobalt)		
Johnson and Lake	ASC/3	New Traffic Signal Controller (Cobalt)		
University and Lake	ASC/3	New Traffic Signal Controller (Cobalt)		
Johnson and Frances	ASC/2	New TS Cabinet		
University and Frances	ASC/3	New Traffic Signal Controller (Cobalt)		

	Traffic Signal Summary			
Intersection		Associated Cabinet/Controller Improvements	Signal Plan Sheet	
Johnson and Bassett	ASC/2	New TS Cabinet		
Gorham and Bassett	ASC/3	New Traffic Signal Controller (Cobalt)		
Johnson and Broom	ASC/2	New TS Cabinet		
Gorham and Broom	ASC/2	New TS Cabinet		
State and Gorham	ASC/2	New TS Cabinet		
State and Johnson	ASC/3	New Traffic Signal Controller (Cobalt)		
State and Dayton	ASC/3	New Traffic Signal Controller (Cobalt)		
State and Mifflin	ASC/2	New TS Cabinet		
Caroll and West Wash	ASC/3	New Traffic Signal Controller (Cobalt)		
Carroll and Main	ASC/3	New Traffic Signal Controller (Cobalt)		
Main and MLK	ASC/3	New Traffic Signal Controller (Cobalt)		
Main and Pinckney	ASC/3	New Traffic Signal Controller (Cobalt)		
Mifflin and Wisconsin	ASC/3	New Traffic Signal Controller (Cobalt)		
Pinckney and Mifflin	ASC/3	New Traffic Signal Controller (Cobalt)		
Pinckney and East Wash	ASC/3	New Traffic Signal Controller (Cobalt)		
East Wash and Webster	ASC/3	New Traffic Signal Controller (Cobalt)		
East Wash and Blair	COBALT	Firmware Update EOS	X	
East Wash and Livingston	COBALT	Firmware Update EOS	X	
East Wash and Paterson	COBALT	Firmware Update EOS	X	
East Wash and Ingersoll	COBALT	Firmware Update EOS		
East Wash and Baldwin	COBALT	Firmware Update EOS	X	
East Wash and First	COBALT	Firmware Update EOS	X	
East Wash and Fourth	COBALT	Firmware Update EOS	X	
East Wash and Sixth	COBALT	Firmware Update EOS		
East Wash and Milwaukee	COBALT	Firmware Update EOS	X	
East Wash and Johnson	COBALT	Firmware Update EOS		
East Wash and Marguette	COBALT	Firmware Update EOS	X	
East Wash and EB Hwy 30	COBALT	Firmware Update EOS		
East Wash and WB Hwy 30	COBALT	Firmware Update EOS		
East Wash and Melvin Ct	COBALT	New Traffic Signal Cabinet	X	
East Wash and Wright	COBALT	Firmware Update EOS	X	
Wright and Anderson	ASC/2	New TS Cabinet	X	
Anderson and Stoughton	WisDOT	WisDOT controls the signal, unsure of controller type	,,	
East Wash and Stoughton	WisDOT	WisDOT controls the signal, unsure of controller type		
East Wash and Mendota	COBALT	Firmware Update EOS	X	
East Wash and Lien	COBALT	Firmware Update EOS	,	
East Wash and Thierer	COBALT	Firmware Update EOS	X	
East Wash and Eagan	COBALT	Firmware Update EOS		
East Wash and Independence Ln	COBALT	New Traffic Signal Cabinet	×	
East Wash and Zeier Rd	ASC/3	New Traffic Signal Controller (Cobalt)		
East Wash and East Springs	COBALT	Firmware Update EOS	X	

New Service Location**

Junction Rd. at New Park and Ride Whitney Way and Sheboygan Sheboygan and Segoe East Wash and Melvin Ct East Wash and Independence Ln BUS RAPID TRANSIT

CITY OF MADISON

CITY OF MADISON, DANE COUNTY, WI

60631225P

SD-1

I U I C. S. PWWORKING VAECOM_DS20_N
LAYOUT NAME - 01

^{**}City of Madison Traffic Engineering Department to complete utility service requests for all new traffic signal cabinets.

NEMA TS2 Type 1 Traffic Signal Control Cabinet

A. Description

This specification describes furnishing a fully configured and equipped, sixteen channel (minimum), NEMA TS2 Type 1 traffic signal control cabinet for testing by the City. The traffic signal control cabinet provided shall be capable of operating the intersections as shown in the plans.

B. General Requirements

Furnish and install equipment and assemble the cabinet conforming to the latest revision of NEMA Standards Publication TS Version 2.06 (R2008), Traffic Controller Assemblies with NTCIP Requirements, National Electrical Manufacturers Association, hereinafter called NEMA TS2 Standard, except where modified in this specification. Conform all work to the Wisconsin State Electrical Code (WSEC).

Provide a traffic signal control cabinet designed for TS2 Type 1 operation. Pre-wire cabinet for a minimum of sixteen phases as specified herein. Provide a second harness ready for communication between the traffic signal control cabinet itself and a NEMA TS2 Type 2 Traffic Signal Controller. TS2 Type 2 harness should be easily connected without having to drop the back panel or modify the wiring on the power panel.

Furnish and install at no extra cost any equipment and materials not specifically described but required in order to perform the intended functions in the cabinet.

The City of Madison will install this item as part of the construction of this project.

Furnish and install at no extra cost any equipment and materials not specifically described, but required in order to perform the intended functions in the cabinet.

C. Materials

C.1 Cabinet Design

Furnish a door-in-door ground mounted (without anchor bolts) aluminum cabinet of clean-cut design and appearance. Provide a cabinet of minimum size 44 inches wide, minimum 24 inches deep and minimum 60 inches to maximum 65 inches high. The size of the cabinet shall provide ample space for housing the controller, all of the associated devices which are to be furnished with the controller, all other auxiliary devices herein specified, and all equipment to be furnished and installed by others.

Provide cabinets designed for TS2 Type 1 operation. Pre-wire cabinets for a minimum of sixteen phases as specified herein. Provide a second harness ready for communication between the cabinet itself and a NEMA TS2 Type 2 Traffic Signal Controller. TS2 Type 2 harness should be easily connected without having to drop the back panel or modify the wiring on the power panel.

The cabinet shall comply with the environmental and operating standards outlined in the NEMA TS2 Standard. The cabinet shall provide reasonable vandalism protection. The cabinet shall have a NEMA 3R rating.

Construct the cabinet from type 5052-H32 aluminum with a minimum thickness of 0.125 inches. Furnish the cabinet with a natural, uncoated, aluminum finish inside and outside. Continuously

weld all seams. The surface shall be smooth, free of marks and scratches. Use stainless steel for all external hardware.

On the top of the cabinet, incorporate a 1-inch slope toward the rear to prevent rain accumulation. Incorporate a rain channel into the design of the main door opening to prevent liquids from entering the enclosure.

Include an exhaust plenum with a vent screen into the roof of the cabinet. Perforations in the vent screen shall not exceed 0.125 inches in diameter. Insulate the remaining area of the roof of the cabinet with a moisture resistant rigid foam board insulation with a minimum R value of 4.0 that can be perforated for an antenna.

Equip the lower section of the cabinet door with a louvered air entrance. The air inlet shall be large enough to allow sufficient air flow per the rated fan capacity. Louvers must satisfy the NEMA rod entry test for Type 3R ventilated enclosures. Secure a washable, aluminum, removable air filter to the air entrance. The filter shall fit snugly against the cabinet door wall. Attach an aluminum, easily removable, gasketed cover over the air filter and louver.

Provide arc flash protection within the cabinet as needed to satisfy NFPA 70E and OSHA requirements.

C.2 Doors

The cabinet door opening shall be a minimum of 80 percent of the front surface of the cabinet. The main door and police door-in-door shall each close against a weatherproof and dust-proof, closed-cell neoprene gasket seal. The gasket material for the main door shall be a minimum of 0.188 inches thick by 1.00 inch wide. The gasket material for the police door shall be a minimum of 0.188 inches thick by 0.500 inches wide. Permanently bond the gaskets to the cabinet.

Equip the main door with a three-point latching mechanism. The upper and lower locking points of the latching mechanism shall each have a pair of nylon rollers. The handle on the main door shall utilize a shank of stainless steel 3/4 inches minimum diameter. The handle shall include a hasp for the attachment of an optional padlock. The cabinet door handle may turn either clockwise or counterclockwise to open, and shall not extend outwards past the edge of the door at any time. Position the lock assembly so the key will not cause any interference with the handle, or a person's hand on the handle, when opening the cabinet door.

Include on the main door a solid stainless steel rod stop and catch mechanism capable of rigidly holding the door open at approximately 90, 120, and 180 degrees under windy conditions. The operator must be able to engage and disengage the catch with a shoed or booted foot.

The main door hinge shall be a one-piece, continuous piano hinge with a minimum 0.25 inch stainless steel pin running the entire length of the right side of the door (right-handed). Attach the hinge in such a manner that no rivets or bolts are exposed.

Equip the main door with a brass Corbin tumbler lock No. 2, swing away dust cap. Provide two No. 2 keys. Equip the police door-in-door with a standard police lock and provide one key.

Electrically bond the door to the rest of the cabinet with a braided copper grounding conductor. The length of the grounding conductor shall allow the door to swing fully open, without using the stop bar, without stretching or breaking the grounding conductor. The grounding conductor shall not interfere with normal door operation.

Provide a door switch for the main cabinet door. When the door is opened the switch shall send a signal to the controller sufficient for the controller to log an alarm.

C.3 Shelves and Mountings

Mount a minimum of three vertical "C" channels on each interior side wall of the cabinet for the purpose of mounting the cabinet components. The channels shall accommodate spring mounted nuts or studs. Install three vertical "C" channels or three slotted rails on the interior back wall of the cabinet. All mounting channels and rails shall extend to within 7 inches of the top and bottom of the cabinets and shall be of sufficient strength to rigidly hold specified shelves and equipment.

Provide three full-width, 11-inch deep, fully adjustable, aluminum shelves to support the controller and other equipment. Mount the lower shelf at a height above the bottom of the cabinet such that the shelf and attached drawer does not interfere with the ability to tilt the terminal facility forward on its hinges for maintenance purposes. Mount the top shelf at least 13 inches above the surface of the lower shelf.

The controller and MMU2 will be located on the lower shelf. Locate the loop detector racks and other auxiliary equipment on the top shelf. The power supply may be mounted on either shelf.

Provide an under-shelf drawer beneath the lower shelf. The drawer shall be approximately 20 inches wide and a minimum of 12" deep. The drawer shall operate easily and smoothly, and shall have a stop to prevent inadvertently pulling the drawer out of its support. Design the stop to allow purposeful complete removal of the drawer without the use of tools. Provide a slide out shelf capable of supporting a 5 pound, 14" wide by 11" deep load. This slide out support can be the cover for the drawer, as long as it extends far enough out to support the entire 11" depth of the laptop.

Provide a fully wired receptacle on the door that is specifically designed to support the twist and lock style plug specified for the optional heater element. Locate receptacle such that when installed, heater should be mounted a minimum of 6.5" from the bottom of the door.

C.4 Auxiliary Cabinet Equipment

Ventilate the cabinet by means of a 120 VAC, 60HZ, tube axial compact type fan located in the top of the cabinet plenum. The fan's free delivery airflow shall be equal to or greater than 100 cubic feet per minute. The magnetic field of the fan motor shall not affect the performance of control equipment. The fan bearings shall operate freely. The fan unit shall not crack, creep, warp, or have bearing failure within a seven year duty cycle. The maximum noise level shall be less than 40 decibels. The fan unit shall be corrosion resistant. The thermostat's turn on setting shall be adjustable from 90 to 120 degrees F. The fan shall run until the cabinet temperature decreases below the turn-on temperature setting by approximately 30 degrees F. The fan shall be fused.

Mount a single LED light strip (GESS32-13200K or approved equal) at the top of the cabinet and the appropriate power supply to support up to four (4) light strip panels. Wire the power supply to an ON/OFF toggle switch. Mount two (2) LED light strips under the lower shelf fed off the power supply on the top of the cabinet. Locate one strip on each side of the drawer.

Provide a 250-watt element heater. The heater shall be mountable on the face of the aluminum, louvered air filter cover such that feed air is supplied through the cover. Provide a protective, ventilated cover over the heater. Provide a cord and twist-off plug that will connect to the electrical receptacle on the cabinet door. Provide a thermostat with an adjustable setting from 0 to 100

degrees F. Install the thermostat on the interior ceiling of the cabinet well away from the cabinet light or any heat source. Provide a thermal limit switch to prevent the heater's protective cover from exceeding 170 degrees F.

C.5 Terminal Facility

The terminal facility panel shall be constructed from 5052-H32 brushed aluminum of 0.125 inches minimum thickness and formed so as to eliminate any flexing when plug-in components are installed.

Mount the bottom of the terminal facility a minimum of nine inches from the bottom of the cabinet. Hinge the terminal facility at the bottom to allow easy access with simple tools to all wiring on the rear of the panel. It shall not be necessary to remove the lower shelf, the shelf drawer, or any shelf-mounted equipment to hinge down the terminal facility. Provide sufficient slack in the load bay wiring to allow for dropping the load bay.

Fully wire the terminal facility with sixteen load switch sockets: eight phases of vehicular, four phases of pedestrian, and four phases of overlap operation; eight flash transfer relay sockets; one flasher socket; and two terminal facility BIU rack slots. The use of printed circuit boards is not acceptable on the terminal facility, except printed circuit boards are acceptable for the BIU interface with the load bay. Position the 16 load switch sockets in two horizontal rows of eight sockets each. Support the load switches and flasher by a bracket or shelf extending at least three inches from the terminal facility. Label all terminals, load switches, and flash transfer relay sockets. Label reference designators by silk-screening on the front and rear of the terminal facility to match drawing designations.

Provide rack mounted BIU's. Provide a dual-row, 64-pin female DIN 41612 Type B connector for each BIU rack position. Provide card guides for both edges of the BIU. Terminal and facilities BIU mounting shall be an integral part of the terminal facility.

Provide two 16-channel, 8-position, TS2 detector racks, each with an integrally mounted BIU mounting. Rack shall be addressable. Power each detector rack by the cabinet power supply. Fasten the loop detector racks towards the left side of the top shelf.

For BIU rack connectors, provide pre-wired address pins or jumper plugs corresponding to the requirements of the NEMA TS2 Standard. The address pins or jumper plugs shall control the BIU mode of operation. BIUs shall be capable of being interchanged with no additional programming.

For the terminal facility, contain all field wires within one or two rows of horizontally-mounted Marathon (or approved equal) heavy duty terminal blocks. Terminate all field output circuits on an unfused terminal block with a minimum rating of 10 amps. Use mechanical connector lugs rated for copper wire. Angle the lower section of the terminal block out from the back of the cabinet at approximately a 45 degree angle.

Identify all field input/output (I/O) terminals by permanent alphanumeric labels. All labels shall use standard nomenclature per the NEMA TS2 Standard.

All field flash sequence programming at the field terminals shall be able to be accomplished with the use of only a screwdriver.

Wire field terminal blocks to use three positions per vehicle or overlap phase (green, yellow, red).

Wire one RC network in parallel with each flash transfer relay coil.

Permanently label all logic-level, NEMA-controller and MMU2 input and output terminations on the terminal facility. Identify the function of each terminal position on the cabinet drawings.

Terminal blocks for DC signal interfacing shall have a number 6-32 x 7/32 inch screw as minimum. Functions to be terminated shall be as specified in the listing of Input/Output Terminals in Section 5 of the NEMA TS2 Standard.

Conform all terminal facility and cabinet wiring to the WSEC. The green/walk, yellow, and red/don't walk load switch outputs shall be minimum 16 gauge wire. The MMU2 (other than AC power), controller I/O, and logic ground shall be minimum 22 gauge wire. All wire colors shall be consistent in all cabinets furnished in one order.

C.6 Vehicle Detection Interface Panel

Provide a 32-position interface panel or two 16-position panels. Each interface panel shall allow for the connection of 32 or 16 independent field loops, respectively. One panel shall allow for 4 EVP channel inputs. The panels shall have barrier strip type terminals using 8-32 screws and be rated for 20 inch pounds of torque.

Provide a ground bus terminal between each loop pair terminal to provide a termination for the loop lead-in cable ground wire. Secure the interface panels to a mounting plate attached to the left interior side wall of the cabinet.

Provide a cable consisting of 20 AWG twisted pair wires to enable connection to and from the interface panel to a detector rack. The twisted pair wires shall be color-coded wires. Provide a cable of sufficient length to allow the detector racks to be placed on either shelf.

Provide a pathway or mechanism for securing loop lead in cables neatly next to interface panel. Identify all termination points by a unique number silk screened on the panel.

C.7 Lighting Control Panel

Provide an intersection lighting control panel as described. The intersection lighting control panel shall consist of an aluminum panel 0.125 inches thick and approximately 5 inches by 10 inches. Determine the actual panel size by the cabinet's mounting rail placement. Attach to the panel a 2 pole-30 amp contactor-120vac coil (Square D #8910DPA32V02 or equal), and a heavy duty six position terminal block (Marathon DJ1606 or equal). Use wire sizes 10AWG for power and load wiring, and 16AWG for control wires. Wire the terminal strip as follows:

- 1. Control coil
- 2. L1 in
- 3. L2 in
- 4. Neutral in and control coil
- 5. L1 out
- 6. L2 out

Protect each output by a MOV (V150LA20A) wired between the output and neutral. Include a photo control (Intermatic #K4021C or equal). Mount the photo control just above the cabinet door and approximately 12 inches from the right side of the cabinet. Wire the photo control to a 3 position terminal strip using 16AWG wire color coded to match the photo control wiring connected to the intersection lighting control panel.

Provide panel cover that is secured on the top and bottom of the panel with a minimum of 4 thumb screws.

Provide a switch in the cabinet that can turn intersection lighting on/off.

C.8 Auxiliary Surge Suppressor

Provide and mount within the cabinet an auxiliary surge suppressor unit conforming to the following minimum requirements:

- 6-NEMA 5-15R receptacles
- 2700 joule rating

Surge suppressor should be wired off a circuit breaker that is separate from the cabinet equipment such that if this circuit is faulted, the cabinet/controller and all associated equipment will still function.

C.9 Conductors and Cabling

All conductors in the cabinet shall be copper 22 AWG or larger. All 14 AWG and smaller wire shall conform to MIL-W-16878/1, Type B, 600V, 19-strand tinned copper. The wire shall have a minimum of 0.010 inches thick PVC insulation without clear nylon jacket and rated to 105 degrees Celsius. All 12 AWG and larger wire shall be UL or NRTL listed THHN/THWN 90 degrees Celsius, 600V, 0.020 inches thick PVC insulation, and clear nylon jacketed.

Provide controller and MMU2 cables of sufficient length to allow the units to be placed on either cabinet shelf in the operating mode. Connecting cables shall be sleeved in a braided nylon mesh. Exposed tie-wraps and interwoven cables are unacceptable.

Provide the cabinet configuration with enough SDLC RS-485 Port 1 communication cables to allow full capabilities of that cabinet. Each communication cable connector shall be a 15-pin metal shell D subminiature type. The cable shall be a shielded cable suitable for RS-485 communications. Secure all connecting cables and wire runs by mechanical clamps. Stick-on type clamps are not acceptable.

Pre-wire the terminal facility for a Type 16 MMU2.

All wiring shall be neat in appearance. Stow excess cable behind the terminal facility or below the shelves in order to allow easy access to the terminal facility and cabinet components. All cabinet wiring shall be continuous from its point of origin to its termination point. Butt type connections/splices are not acceptable.

Wire the grounding system in the cabinet into three separate circuits: AC Neutral, Earth Ground, and Logic Ground.

Optoisolate all pedestrian pushbutton inputs from the field to the controller through the BIU and operate at 12 VAC.

Hook or loop all wire, size 16 AWG or smaller, at solder joints around the eyelet or terminal block post prior to soldering to ensure circuit integrity. Lap joint soldering is not acceptable.

C.10 Cabinet Switches

Locate the following switches on a maintenance panel on the inside of the cabinet door:

a. Controller On/Off

b. Stop Time (Three Positions)

Position Switch Label Function

Upper Stop Time Place stop time on the controller

Center Run Remove the stop time input to the controller

Lower Normal Connects the MMU2 to the controller stop time input

Locate the following switches behind the police access door:

- a. Signal/Off
- b. Flash/Normal
- c. Hand/ auto
- d. Coiled hand control and cable

The above switches shall function as follows:

Off: Signals Dark

Signal: Signals On and operating as follows:

<u>Auto</u> <u>Hand</u>

Flash: Signals Flash Signals Flash

Normal: Signals Normal Signals Advance by use of hand control

C.11 Power Panel

C.11.1 Design

The power panel shall consist of a separate module, securely fastened to the interior right side wall of the cabinet. Wire the power panel to provide the necessary power to the cabinet, controller, MMU2, cabinet power supply, and all auxiliary equipment. Manufacture the power panel from 0.090-inch, 5052-H32 aluminum. Panel layout shall facilitate field inspection and maintenance accessibility without excessive disassembly or special tools.

Provide a light, tough, transparent, weather-resistant, non-yellowing, thermoplastic cover, rigidly mounted over the full power panel, with access holes for circuit breakers and other equipment, and open on the sides for ventilation.

All components of power panel shall meet or exceed the electrical requirements as laid out in section 5.4 of the NEMA TS2 Standard.

C.11.2 Grounding System

On each side of the cabinet, provide a minimum 20-position neutral bus bar capable of connecting three #12 AWG wires per position.

Also on each side of the cabinet, provide a minimum 20-position equipment ground bus bar capable of connecting three #12 AWG wires per position. Install this bus bar below the neutral bus bar.

C.11.3 Circuit Breakers

House in the power panel the following vertically mounted, single pole, 120 volts AC, 60 Hertz, circuit breakers, with the ON position being up:

 One 30-amp signal breaker. This breaker shall supply power for all cabinet functions not powered through one of the other breakers or fuses listed below.
 Streetlights will be powered from outside the cabinet in the meter breaker pedestal. This breaker shall feed a signal bus supplied through a solid state bus relay and a radio interference line filter. The bus relay, in all cases, shall be a solid state contactor and shall not be jack mounted. Breakers shall be thermal magnetic type, UL listed, with a minimum of 22,000 amp interrupting capacity.

- One 15-amp auxiliary breaker. This breaker shall supply power to the fan and heater.
- One 10-amp breaker. This breaker shall supply power for control equipment: controller, MMU, and cabinet power supply.
- One 20-amp circuit breaker for future use.

Power the cabinet light through the GFI fuse, not a circuit breaker.

C.11.4 Power receptacle

Mount a two-position, 120 VAC 20 amp, NEMA 5-20R GFCI convenience outlet on the interior right side wall above or as part of the power panel. The outlet shall be fully operational and fuse protected.

C.12 Auxiliary Devices

C.12.1 Flashers

Provide one solid state flasher conforming to the requirements of section 6.3 of the NEMA TS2 Standard.

C.12.2 Flash Transfer Relays

Provide four flash transfer relays conforming to the requirements of section 6.4 of the NEMA TS2 Standard.

C.12.3 Cabinet Power Supply

Provide one power supply with each cabinet conforming to the requirements of section 5.3.5 of the NEMA TS2 Standard. Provide LED indicators for the 12 VDC, 12 VAC, and 24 VDC outputs. Provide jack plugs on the front panel for access to the +24 VDC for test purposes.

C.12.4 Load Switches

Provide sixteen solid state load switches conforming to the requirements of Section 6.2 of the NEMA TS2 Standard.

C.12.5 Bus Interface Units (BIU)

Provide four BIUs conforming to the requirements of section 8 of the NEMA TS2 Standard. Provide two BIUs with the main panel and one BIU with each of the detector racks.

C.12.6 Inductive Loop Detector Amplifier Card

Provide sixteen, two-channel, type C, rack mounted, inductive loop detector amplifier cards conforming to section 6.5, Inductive Loop Detector Units, of the NEMA TS2 Standard.

Install inductive loop detector amplifier cards in the rack in traffic signal control cabinet. Program the signal controller to make the inductive loop detector and signal cabinet fully operational per plan.

C.12.7 Time Clock

Furnish a Tork EWZ210C astronomical time clock with an 8-year lithium battery time backup, -40° F to 120° F operating range, 40-year program schedule retention, LCD type, daylight saving time, and leap year correction. Program as required by the City of Madison.

C.13 NEMA TS2 TYPE 1 TRAFFIC SIGNAL CONTROLLER

Provide a shelf-mounted NEMA TS2 Type 2 Cobalt EOS traffic signal controller programmed and ready for operation within the associated traffic signal control cabinet. The controller unit shall be fully actuated, solid state, digital microprocessor based capable of providing the number and sequence of phases, overlaps, and any special logic as described herein. The controller unit and engine board shall comply with or exceed the industry's latest Advanced Traffic Controller (ATC) standard 5.2b and proposed standard 6.10. The controller unit shall also conform to NEMA TS2 Standard, Section 3, specifications for the Type 1 Actuated configuration in the areas where the ATC standard is silent.

The traffic signal controller shall have the capability to be programmed for MUTCD allowed signal sequences and non-standard operations using inputs on the front panel without requiring revisions to the operating system and the controller application software. Controller unit shall have a Linux-based operating system.

Provide intersection controller units with up to 16-phase operation plus 16 programmable overlaps regardless of whether or not preemption, coordination, or other special programming is used.

Provide a four-ring, programmable both for single and dual entry concurrent timing, nine-phase frame or equivalent. Provide volume density timing for eight phases and pedestrian timing for all phases. Provide MUTCD flash capability. All controls shall be in accordance with the NEMA TS2 Standard.

All controller timing parameters shall be fully programmable from the front panel keyboard inputs, and memory storage features shall be non-volatile under power-off conditions for at least thirty days. The locking, non-locking detection mode and per phase recall shall also be accessible on the front panel. The controller shall have the option for a security code entry before any timing parameters can be changed.

Provide a data key port and/or a USB port on the controller to load and store intersection programming.

Internally buffer all logic circuit inputs to withstand transients and noise, such as might result from normal usage, without damage to any mechanism components.

The controller shall provide a method for programming special user created logic functions. User created logic functions shall include, but not be limited to: nonstandard overlaps, special detector logic based on user selected parameters, coordination plan selection, and phase and pedestrian omits. Programming these special functions shall be accomplished through the use of the controller front panel keyboard. The need for special programming applications will not be considered acceptable; however it is acceptable to provide the programming functionality as part of a computer based controller programming application. Special user created logic functions shall be stored as intersection programming and be capable of being transferred from controller to controller through the use of a data-key or computer based controller programming application.

Front Panel Display

Provide a display panel on the front panel consisting of a backlit alphanumeric LCD display. The face of the display shall be scratch, chemical, and solvent resistant. The operator shall access

the controller through a menu system. By selecting various menu options, real time operational status or stored parameter tables shall be presented to the operator.

Show on the LCD display, in addition to information required elsewhere:

- a. The status of each signal phase on
- b. The interval status
- c. Phase termination information
- d. The presence of vehicular and pedestrian calls for each phase

Timing

The passage timer shall time concurrently with the minimum green timer, such that the duration of the minimum green time is directly adjustable and is independent of the passage time setting.

In the dual-ring application, no more than two phases shall be permitted to time concurrently, and no more than one phase per ring. Provide barrier protection against concurrent timing of two conflicting phases; no phases assigned to one side of the barrier shall be permitted to time concurrently, if a conflict will occur. Service calls on a single entry basis. Both rings shall cross the barrier simultaneously in accordance with the following logic:

- a. Phases timing concurrently shall terminate simultaneously if both have a gap-out due to excessive time between actuations.
- b. Phases timing concurrently shall terminate simultaneously if both have a maximum timeout.
- c. Phases timing concurrently shall terminate simultaneously if one has a gap-out and the other has a maximum time-out.
- d. In the event that one phase has not achieved a gap-out or maximum time-out, the other gapped-out phase shall be permitted to leave the gapped-out condition and retime an extension when an actuation is received.

Controllers shall not accept any operator input or stored timing parameters that would result in intervals shorter than the following:

- yellow clearance 3.0 seconds
- standard minimum walk 4.0 seconds
- preemption minimum walk = 0.0 seconds
- minimum pedestrian clearance 6.0 seconds

At the beginning of each of the above intervals, the controller shall check the previously stored data against these minimums. If an operator attempts to load an incorrect timing parameter the controller unit shall output a unique error code on the front panel display. As an alternate to minimum timing control a coded keyboard entry security feature may be provided.

Manual (Police) Control

If manual control is used, actuation of the manual control shall permit manual advance of the Walk, Pedestrian Clearance, and Green interval terminations only. Manual termination of Yellow or All-Red clearance intervals shall not be permitted.

Coordination

The controller shall be capable of operation in progressive coordination systems and mutual coordination and shall contain, but not be limited to, the following external inputs, with all functions brought out:

- Vehicle/Pedestrian Detectors (per phase)
- Pedestrian Omit (per phase)
- Phase Omit (per phase)
- Hold (per phase)
- Omit Red Clearance (per ring)
- Internal Maximum Inhibit (per ring)
- Maximum II (per ring)
- Red Rest (per ring)
- Stop Timing (per ring)
- Force-Off (per ring)
- Select Minimum Recall (per controller)
- Manual Control (per controller)
- Semi-Modes (per controller)
- External Start (per controller)
- Transit Signal Priority via centralized system inputs

Diagnostic Program

Provide a diagnostic program prepared by the manufacturer of the controller unit which will demonstrate the proper operation of all of the inputs, outputs, controls and indicators in the controller, and have visual confirmation on the front panel. The diagnostic program shall be resident in each controller. The controller shall continuously run a diagnostic routine in the background to assure unit integrity.

Message Logging

Provide user programmable, data logging of local events or alarm events including, but not limited to: Conflict Flash, Remote Flash, Local Flash, Controller Voltage Monitor, Detector Failure, On Line and Data Change. The time and date shall be recorded as a part of the message logged. The logging function shall be resident in the controller unit. The logging function shall be viewed from the front panel LCD display. If the logging function cannot be viewed from the front panel LCD display, it shall be performed by supplemental auxiliary equipment supplied with this specification.

Closed Loop Operation

The controller shall be able to be used in a closed loop system using twisted pair copper, single mode fiber, multimode fiber, cellular modem, or wireless radio to connect to compatible equipment.

Firmware/Software

Provide installed in the controller current, fully operational, NTCIP compliant and active controller firmware and software sufficient for the controller to perform all functions shown on the plans, sequence of operation plan sheet, specifications, and signal timing plan for the local intersection. Provide all software licenses.

The firmware and software shall be compatible with and able to fully communicate with:

- All phase sequences used by the City, including flashing yellow for both left and right turns
- Closed loop, adaptive, Performance Measure application, and on-street control software currently utilized by the City including Centracs and Centracs Adaptive
- Both the controller and the MMU2
- City PC laptop and desktop computers with Windows 7 operating systems

- Backwards compatibility with older traffic signal controllers and software produced by the controller manufacturer and installed at City traffic signal installations since 2010
- Capable of SPaT ouput for Connected Vehicle operations
- Capable of operating a centralized Transit Signal Priority system, and receiving requests from Centracs or other systems.

Controller Programming

Provide a controller that has been programmed to operate the associated intersection based upon the signal plan and sequence of operations sheet or as provided by the City.

C.14 Malfunction Management Unit (MMU)

Furnish equipment conforming to NEMA TS2 Standard, including NEMA Amendment #4-2012 for Flashing Yellow Arrow (MMU2), except where modified in this specification. Provide one shelf-mountable, 16 channel, solid-state MMU2 complete with programmed card and with Ethernet capability. The MMU2 shall meet the requirements of Section 4 of the NEMA TS2 Standard as well as Amendment #4-2012 for Flashing Yellow Arrow. The MMU2 shall be provided with Ethernet active and available for use without any further modification. The MMU2 shall come with a card that has been programmed per the sequence of operations.

The MMU2 shall be capable of the following:

- Detecting simultaneously active inputs of Green (Walk), Yellow, or Red (Don't Walk) on the same channel.
- Determining if the field signal input states detected as active or inactive by the MMU2 correspond with the data provided by the Controller Unit.
- Monitoring an optional external watchdog output from a Controller Unit or other external cabinet device.
- Monitoring an intersection with up to four approaches using the Flashing Yellow Arrow (for protected/permissive left and right turn movements).
- Event logging for the following; AC Line log, Prior/Previous Faults log, and Monitor Reset Log. All log entries shall include a date and time stamp.
- All monitor functions shall be capable of being programmed through the front panel, without the need for computers or special program cards.
- A built-in Diagnostic Wizard shall be provided that displays detailed diagnostic information regarding the fault being analyzed. This mode shall provide a concise view of the signal states involved in the fault, pinpoint faulty signal inputs, and provide guidance on how the technician should isolate the cause of the malfunction.

The MMU2 shall have an LCD display that allows for viewing of log files and field indications, as well as the viewing and setting of date and time and configuration parameters.

Furnish test results for the MMU2 showing that it has been tested within the past 3 months. The testing should include all standard NEMA TS2 required and optional tests – including flashing yellow arrow testing for the mode appropriate for the cabinet for which it is to be installed.

C.15 Documentation

C.15.1 Cabinet Intersection Wiring Diagrams

At the time of the cabinet delivery, furnish with the cabinet two sets of printed 22x34-inch cabinet intersection wiring diagrams, one set of .dwg CAD files and one .pdf file per cabinet. After cabinet acceptance is complete, if any cabinet wiring changes were made, revise the cabinet wiring

diagrams and provide two sets of printed 22x34-inch and two sets of printed cabinet intersection wiring diagrams, one set of .dwg CAD files and one .pdf file reflecting any field changes.

C.15.2 Manuals

At the time of the cabinet delivery, furnish the City an electronic copy of installation, operations, and maintenance manuals including each type of standard equipment in the cabinet. The manuals shall as a minimum include the following information:

- a. table of contents,
- b. operating procedure,
- c. step-by-step maintenance and trouble-shooting information for the entire assembly,
- d. schematic diagrams,
- e. pictorial diagrams of parts locations,
- f. itemized parts lists with parts numbers,
- g. theory of operation, and
- h. maintenance checklists.

The itemized parts lists shall include the manufacturer's name and parts number for all components (such as IC, diodes, switches, relays, etc.) used. The list shall include cross references to parts numbers of other manufacturers who make the same replacement parts.

C.16 Cabinet Delivery

Deliver the fully wired, equipped and configured cabinet with required documentation to the City of Madison, Traffic Engineering Electrical Shop located at 1120 Sayle Street, Madison, WI, 53704. Delivery shall be on a business day between 8:00 AM and 3:00 PM. Contact the City of Madison, Traffic Engineering Electrical Shop (Ed Smith at 608-266-9034) a minimum of two business days ahead of the desired delivery time to schedule and confirm the staff availability for delivery.

C.17 Warranty

The Contractor shall warrant the performance and construction of the fully-configured cabinet to meet the requirements of the plan, this specification, and shall warrant all wiring parts, components, and appurtenances against defects in design, material and workmanship for a period of one year from the date of installation. In the event defects and failures become apparent during this time, the Contractor shall repair and/or replace all defective parts or appurtenances at no additional expense to the City. This specification is to construe that any part, or parts, that fail to function properly shall be replaced at no charge to the City

D INSTALLATION

VACANT

E Measurement

The department will measure NEMA TS2 Type 1 Traffic Signal Control Cabinet as each individual traffic signal control cabinet acceptably completed, including delivery to the Metro Transit Bus Storage Facility at 3829 Hanson Road Madison WI 53704.

F Payment

The department will pay for the measured quantity at the contract unit price under the following bid items:

Payment is full compensation for furnishing, configuring and delivering all materials to the City of Madison, 3829 Hanson Road Madison WI 53704.

NEMA TS2 Type 2 Traffic Signal Controller with Special Programming Functions General Requirements

Provide a shelf-mounted NEMA TS2 Type 2 Cobalt EOS traffic signal controller programmed and ready for operation within the associated traffic signal control cabinet. The controller unit shall be fully actuated, solid state, digital microprocessor based capable of providing the number and sequence of phases, overlaps, and any special logic as described herein. The controller unit and engine board shall comply with or exceed the industry's latest Advanced Traffic Controller (ATC) standard 5.2b and proposed standard 6.10. The controller unit shall also conform to NEMA TS2 Standard, Section 3, specifications for the Type 1 Actuated configuration in the areas where the ATC standard is silent.

The traffic signal controller shall have the capability to be programmed for MUTCD allowed signal sequences and non-standard operations using inputs on the front panel without requiring revisions to the operating system and the controller application software. Controller unit shall have a Linux-based operating system.

Provide intersection controller units with up to 16-phase operation plus 16 programmable overlaps regardless of whether or not preemption, coordination, or other special programming is used.

Provide a four-ring, programmable both for single and dual entry concurrent timing, nine-phase frame or equivalent. Provide volume density timing for eight phases and pedestrian timing for all phases. Provide MUTCD flash capability. All controls shall be in accordance with the NEMA TS2 Standard.

All controller timing parameters shall be fully programmable from the front panel keyboard inputs, and memory storage features shall be non-volatile under power-off conditions for at least thirty days. The locking, non-locking detection mode and per phase recall shall also be accessible on the front panel. The controller shall have the option for a security code entry before any timing parameters can be changed.

Provide a data key port and/or a USB port on the controller to load and store intersection programming.

Internally buffer all logic circuit inputs to withstand transients and noise, such as might result from normal usage, without damage to any mechanism components.

The controller shall provide a method for programming special user created logic functions. User created logic functions shall include, but not be limited to: nonstandard overlaps, special detector logic based on user selected parameters, coordination plan selection, and phase and pedestrian omits. Programming these special functions shall be accomplished through the use of the controller front panel keyboard. The need for special programming applications will not be considered acceptable; however it is acceptable to provide the programming functionality as part of a computer based controller programming application. Special user created logic functions shall be stored as intersection programming and be capable of being transferred from controller to controller through the use of a data-key or computer based controller programming application.

Front Panel Display

Provide a display panel on the front panel consisting of a backlit alphanumeric LCD display. The face of the display shall be scratch, chemical, and solvent resistant. The operator shall access the controller through a menu system. By selecting various menu options, real time operational status or stored parameter tables shall be presented to the operator.

Show on the LCD display, in addition to information required elsewhere:

- a. The status of each signal phase on
- b. The interval status
- c. Phase termination information
- d. The presence of vehicular and pedestrian calls for each phase

Timing

The passage timer shall time concurrently with the minimum green timer, such that the duration of the minimum green time is directly adjustable and is independent of the passage time setting.

In the dual-ring application, no more than two phases shall be permitted to time concurrently, and no more than one phase per ring. Provide barrier protection against concurrent timing of two conflicting phases; no phases assigned to one side of the barrier shall be permitted to time concurrently, if a conflict will occur. Service calls on a single entry basis. Both rings shall cross the barrier simultaneously in accordance with the following logic:

- a. Phases timing concurrently shall terminate simultaneously if both have a gap-out due to excessive time between actuations.
- b. Phases timing concurrently shall terminate simultaneously if both have a maximum timeout.
- c. Phases timing concurrently shall terminate simultaneously if one has a gap-out and the other has a maximum time-out.
- d. In the event that one phase has not achieved a gap-out or maximum time-out, the other gapped-out phase shall be permitted to leave the gapped-out condition and retime an extension when an actuation is received.

Controllers shall not accept any operator input or stored timing parameters that would result in intervals shorter than the following:

- vellow clearance 3.0 seconds
- standard minimum walk 4.0 seconds
- preemption minimum walk = 0.0 seconds
- minimum pedestrian clearance 6.0 seconds

At the beginning of each of the above intervals, the controller shall check the previously stored data against these minimums. If an operator attempts to load an incorrect timing parameter the controller unit shall output a unique error code on the front panel display. As an alternate to minimum timing control a coded keyboard entry security feature may be provided.

Manual (Police) Control

If manual control is used, actuation of the manual control shall permit manual advance of the Walk, Pedestrian Clearance, and Green interval terminations only. Manual termination of Yellow or All-Red clearance intervals shall not be permitted.

Coordination

The controller shall be capable of operation in progressive coordination systems and mutual coordination and shall contain, but not be limited to, the following external inputs, with all functions brought out:

- Vehicle/Pedestrian Detectors (per phase)
- Pedestrian Omit (per phase)

- Phase Omit (per phase)
- Hold (per phase)
- Omit Red Clearance (per ring)
- Internal Maximum Inhibit (per ring)
- Maximum II (per ring)
- Red Rest (per ring)
- Stop Timing (per ring)
- Force-Off (per ring)
- Select Minimum Recall (per controller)
- Manual Control (per controller)
- Semi-Modes (per controller)
- External Start (per controller)
- Transit Signal Priority via centralized system inputs

Diagnostic Program

Provide a diagnostic program prepared by the manufacturer of the controller unit which will demonstrate the proper operation of all of the inputs, outputs, controls and indicators in the controller, and have visual confirmation on the front panel. The diagnostic program shall be resident in each controller. The controller shall continuously run a diagnostic routine in the background to assure unit integrity.

Message Logging

Provide user programmable, data logging of local events or alarm events including, but not limited to: Conflict Flash, Remote Flash, Local Flash, Controller Voltage Monitor, Detector Failure, On Line and Data Change. The time and date shall be recorded as a part of the message logged. The logging function shall be resident in the controller unit. The logging function shall be viewed from the front panel LCD display. If the logging function cannot be viewed from the front panel LCD display, it shall be performed by supplemental auxiliary equipment supplied with this specification.

Closed Loop Operation

The controller shall be able to be used in a closed loop system using twisted pair copper, single mode fiber, multimode fiber, cellular modem, or wireless radio to connect to compatible equipment.

Firmware/Software

Provide installed in the controller current, fully operational, NTCIP compliant and active controller firmware and software sufficient for the controller to perform all functions shown on the plans, sequence of operation plan sheet, specifications, and signal timing plan for the local intersection. Provide all software licenses.

The firmware and software shall be compatible with and able to fully communicate with:

- All phase sequences used by the City, including flashing yellow for both left and right turns
- Closed loop, adaptive, Performance Measure application, and on-street control software currently utilized by the City including Centracs and Centracs Adaptive
- Both the controller and the MMU2
- City PC laptop and desktop computers with Windows 7 operating systems
- Backwards compatibility with older traffic signal controllers and software produced by the controller manufacturer and installed at City traffic signal installations since 2010

Attachment G: TS2 TYPE 2 TRAFFIC SIGNAL CONTROLLER

- Capable of SPaT ouput for Connected Vehicle operations
- Capable of operating a centralized Transit Signal Priority system, and receiving requests from Centracs or other systems.

Controller Programming

Provide a controller that has been programmed to operate the associated intersection based upon the signal plan and sequence of operations sheet or as provided by the City.

Lighting Control Cabinet

A Description

This special provision describes furnishing a lighting control cabinet with all electrical components and wiring assembled.

B Materials

B.1 Contactors

Furnish 8-pole, 30-amp, 600-V electrically held contactors with 120-V control coil in NEMA 1 enclosure as required for the proposed circuits. Engrave "ALL NIGHT" or "MIDNIGHT" identification on cover of respective enclosures.

B.2 Photocell

Furnish a button type photocell and install as shown on the detail. Apply silicone caulk to maintain the watertight integrity of the enclosure. The photocell shall be rated for 120V, 1500W with 30-60 second delay between "on-off" operations.

B.3 Panel

Furnish a 120/240-volt, 100A main circuit breaker, single-phase, 20-circuit panel board in a NEMA 1 enclosure. Provide copper ground and split neutral bus bars in addition to copper bus bars. Provide bolt-on, thermal-magnetic circuit breakers that clearly indicate ON, OFF, or TRIPPED position in the panel. Provide double pole breakers as required for all multiwire branch circuits.

B.4 Time Clock

Furnish a time clock with an 8-year lithium battery time backup, -40° F to 120° F operating range, 40-year program schedule retention, LCD type, daylight saving time, and leap year correction. Program as required by the City of Madison.

B.5 Selector Switches

Furnish "Hand-Off-Auto" switches to control each circuit separately. Provide a "Hand-Off-Auto" legend plate for each switch. Engrave "ALL NIGHT" and "MIDNIGHT" above each appropriate operator. Mount the switches in a horizontal manner in a NEMA 1 enclosure.

B.6 Cabinet Enclosure

Provide a NEMA 4X enclosure made from .125-inch Type 5052-H32 aluminum. The doorframe shall be double flanged and all exterior seams shall be ground smooth. Door handle shall be 3/4-inch diameter stainless steel with three point latching system and hasp. Main door shall be sealed with a closed-cell neoprene gasket. Main door hinge shall be continuous 0.075-inch thick stainless steel with a 0.25-inch stainless steel hinge pin. Provide an aluminum-mounting panel at back (interior) of enclosure. Provide a weatherproof pad lock with 2-3/8-inch wide body, repinnable/replacable cylinder, and five keys. There shall be no louvers or Corbin main door lock. Applicable code working clearances shall be maintained between equipment mounted within the enclosure.

B.7 Surge Arrester

Furnish a surge suppressor to protect the panel board. The surge suppressor shall provide 6 modes of surge protection, meet UL1449 Second Edition with 32Ka per phase and 48KA system peak surge current, contain LED line indicators, and approximate dimensions of 4.54-inch X 2.58-inch X 0.22-inch. Connect the surge suppressor to the branch circuit breaker as indicated on the plans.

B.8 Field Wiring Termination Blocks

All connections from the field wiring to equipment in the lighting control cabinet shall be made through termination blocks. Provide quantity of channel mount, NEMA type single terminal blocks as indicated on plans that are capable of holding #12 to #1/0 wire with solderless box lugs, for power, neutral and grounding connections. Mount the terminal blocks on a mounting channel of appropriate length with end anchors and an end barrier. Each terminal block shall have a label indicating the appropriate circuit number, neutral ('N') or ground ('G') wire connected to block; handwritten numbers and letters are not acceptable means of identification. Make connections from the underground field wiring to the equipment in the lighting control cabinet through distribution blocks.

B.9 Convenience GFI Receptacle and Cabinet Light Fixture

Furnish a 20 ampere, 120 commercial grade GFI duplex receptacle within a galvanized steel outlet box with cover. 150 watt, 250 volt commercial grade lamp holder with galvanized steel box and 60 watt incandescent bulb. Furnish switch to turn on cabinet light by opening the cabinet door.

B.10 Incidental Materials

Secure all wiring using screw attachment type straps; adhesive type shall not be allowed.

C Construction

Assemble the control cabinet as shown on the plans. Pretest the cabinet prior to shipment to the site. Mount all equipment to panel in enclosure. Train the cables in straight horizontal and vertical directions and be parallel next to and adjacent to other cables whenever possible. Mount the cabinet to the concrete base per the manufacturer's requirements. The work under this bid item includes connection and termination to the feeder system wiring.

D Measurement

The department will measure Lighting Control Cabinet as each individual unit, acceptably completed.

Payment is full compensation for furnishing and delivery of photo control, contactors, panel, distribution blocks, surge arrestor, enclosure, grounding, wiring and electrical components; mounting to the concrete base. Delivery shall be made to City of Madison Metro Transit Bus Garage at 3829 Hanson road Madison, WI 53704.