

DIGITAL SIGNS AND INTEGRATION SERVICES

Project Number NE-90-X111

Request for Proposal Documents

Prepared by: Metro

July 1, 2019



Transit Authority of the City of Omaha, d/b/a/ Metro
2222 Cuming Street
Omaha, NE 68102

PROJECT: Digital Signs and Integration Services

PROJECT#: NE-90-X111

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PROJECT: Display Signs and Integration Services
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DIVISION 1- RFP SOLICITATION

PROJECT: Display Signs and Integration Services
PROJECT #: NE-90-X111 SPEC NO. 26-18

NOTICE OF REQUEST FOR PROPOSALS (RFP)

DIGITAL SIGNS AND INTEGRATION SERVICES
PROJECT #: NE-90-X111 SPEC NO. 26-18
("Project")

The Transit Authority of the City of Omaha, d/b/a Metro ("**Metro**") is requesting proposals from qualified responsible contractors for the performance of Work (as defined in Project Manual) in conformity with the Contract Documents (as defined in the Project Manual). Metro will receive sealed proposals for that purpose, until **August 1, 2019 at 2:00 p.m** Central Time, ("**Submission Deadline**"). Proposals not received by Metro as of the Submission Deadline will not be considered responsive and will not be opened. Proposals not meeting specified delivery and methods of submittal will not be considered responsive and will not be opened. Metro reserves the right to extend the Submission Deadline by issuing an Addendum.

Proposers shall refer to the RFP Documents for detailed deliverables. The purpose of this RFP is to solicit competitive proposals to implement Digital Display signage to present real-time transit arrival information for transit service at Bus Rapid Transit (BRT) stations. The digital display signage will integrate with an existing AVL / CAD system to receive real-time data on vehicle locations and present the information to passengers on digital display signage.

The current forms of the RFP and all issued Addenda are available for inspection at Metro's Administrative Offices located at 2222 Cuming Street in Omaha, Nebraska ("**Administrative Offices**") and online at the following links <http://www.standardshare.com> and www.ometro.com. Metro reserves the right to modify all or any of the same at any time prior to the Submission Deadline through an Addendum.

Proposals are subject to all terms, conditions, and provisions of this document, including Affirmative Action and Equal Employment Opportunity regulations. Proposers shall read and understand the requirements of this RFP.

The requirements of 49 Code of Federal Regulations (CFR) Part 26 applies to the Contract. It is the policy of Metro to practice nondiscrimination based on race, color, sex, or national origin in the award or performance of the Contract. Metro encourages participation under this solicitation by all qualifying and responsible firms regardless of business size or ownership, whether as the prime contractor or a subcontractor. There is no established Disadvantaged Business Enterprise participation goal for the Contract but participation is highly encouraged.

All proposals must be made in the form and on the forms (and contain all certificates, documentation and information) required by the RFP Documents and must be accompanied by RFP security in the amount and on forms required thereby. Any proposal that does not fully comply with any requirement of the RFP Documents will be considered non-responsive, and Metro shall be entitled to reject any such proposal at any time. Metro reserves the right to waive any minor informality or mere irregularity contained in any proposal.

No proposal will be construed to be binding on Metro unless (i) a Contract first has been awarded by its Board of Directors at a public meeting, (ii) the Contract has been duly executed by each of the Contractor and Metro, and (iii) all conditions applicable to such award of the Contract and as otherwise may be set forth in the Contract Documents have been fully satisfied.

Proposals must be received with all required submittals as stated in the RFP, no later than August 1, 2019 at 2:00 p.m. Central Time. Proposals must be submitted to Metro in a sealed opaque envelope. Each Proposal must make reference to the Project by name and number in the upper left-hand corner and shall identify the contents of the envelope as a "Sealed Proposal for Project NE-90-X111" and identify the name and address of the Proposer.

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Proposals received after the time specified shall not be considered for award. Proposals received via facsimile (fax) or electronic mail (e-mail) shall not be considered. Proposals not meeting specified delivery and method of submittal will not be opened nor considered responsive.

Proposals must be addressed and delivered to Metro at the following address. This is also the address to be used for all communication in connection with this RFP:

Transit Authority of the City of Omaha d/b/a Metro
ATTN: Jeff Rumery, Grant Administrator
2222 Cuming Street
Omaha, Nebraska, 68102-4392

For information regarding this proposal, contact Jeff Rumery at (402)341-7560 EXT. 2601 phone, (402) 342-0949 fax or procurement@ometro.com. Any questions or requests for clarification are due from Proposers before Tuesday, July 16, 2019, 4:00 p.m. Central Time and must be submitted in writing to procurement@ometro.com. If required, Metro's response to these submissions will be in the form of an Addendum.

No person or entity submitting a proposal in response to this RFP, nor any officer, employee, agent, representative, relative or consultant representing such a person (or entity) may contact through any means, or engage in any discussion concerning the award of this contract with any member of Metro's Board or any employee of Metro (excluding Procurement staff) during the period beginning on the date of proposal issue and ending on the date of the selection of Contractor. Any such contact would be grounds for disqualification of the Proposer.

By: Mr. Jeff Rumery, Grant Administrator
Dates of Publication: July 1, 2019

REQUEST FOR PROPOSALS (RFP) INFORMATION AND GUIDELINES

DIGITAL SIGNS AND INTEGRATION SERVICES
PROJECT #: NE-90-X111 SPEC. NO. 26-18

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SECTION 1 – PROJECTED PROPOSAL CALENDAR

Proposal Advertised and Issued	July 1, 2019
Deadline for Questions, Comments, & Requests for Clarification	July 16, 2019 by 4:00 p.m.
Metro’s Response to Questions/Requests for Clarifications	July 19, 2019 by 4:00 p.m.
Proposal Closing	August 1, 2019 at 2:00 p.m.
Interviews (Tentative, and if Required)	August 12 th and 13 th , 2019
Notice of Contract Award (Anticipated)	August 26, 2019

SECTION 2- SCOPE OF SERVICES AND TECHNICAL SPECIFICATIONS

2.1 Purpose

The purpose of this RFP is to solicit competitive proposals to implement Digital Display signage to present real-time transit arrival information for transit service at Bus Rapid Transit (BRT) stations. The digital display signage will integrate with an existing AVL / CAD system to receive real-time data on vehicle locations and present the information to passengers on digital display signage.

The proposed system shall be scalable over its estimated lifetime to support additional digital displays at other locations and transit facilities without replacement of initially installed components, including both hardware and software components. Further, it must be capable of integrating with the existing AVL/CAD system used by Omaha Metro for its fixed route fleet.

2.1.1 Concept of Operations

Metro uses the Trapeze TripSpark AVL/CAD system for managing its fixed route fleet of buses. AVL system data is transmitted between Omaha Metro central office staff and its buses over the existing cellular / radio data networks.

The proposed Digital Display signage will receive a data feed from the existing AVL system which will contain the data elements required to provide real-time transit arrival information on digital displays. There will be two different types of display signage: 1) LCD monitors as digital displays that are installed at BRT stations, and 2) touch screen kiosk digital displays that are also installed at BRT stations. BRT stations with digital display signage shall also provide buttons that enable annunciations of real-time transit information for the visually impaired.

2.1.2 Metro Overview

A. Current Fixed Route Services

Metro's fixed route system is comprised of multiple routes that currently serve the greater Omaha area. The system centers on Omaha's downtown with routes extending to the suburbs in the North, West, and South. The downtown circulator "Green Route" operates a six (6) minute frequency on weekdays. Metro also provides service east to Council Bluffs across the state line in Iowa on the Blue and Yellow routes. Current route maps and schedules can be downloaded at <http://www.ometro.com/>.

B. Future BRT Services

Metro is planning complete the installation of a new Bus Rapid Transit (BRT) route. This will be the first BRT line in Omaha and the route will operate along the Dodge Street corridor for eight (8) miles between the downtown area and Westroads shopping mall. The BRT route will operate with 11 contemporary low-floor transit buses and service 25 major stations along the corridor. During peak periods, BRT buses will operate at ten minute headways, complemented by local bus service and limited direct express service.

The Digital Display signage mentioned in this RFP will be installed at the BRT stations along this corridor.

2.1.3 Scope of Work

It is Omaha Metro's desire to procure Digital Display Signage that meets or exceeds the technical specifications set forth in this document and is as close to a standard off-the-shelf, service-proven system as possible.

The selected vendor shall be responsible for providing a complete, fully operational and integrated Digital Display signage system and shall serve as systems integrator for all components and interfaces (internal and external). The vendor is also responsible for all connections and terminations where their equipment integrates with existing Metro equipment.

The following tasks are required of the digital display signage vendor to be completed:

Task 1: Digital Display Signage System Design

The vendor will be responsible for procuring, installing, configuring and testing all hardware and software required. Proposed system must be compatible with all future revisions and software/hardware versions for entire life of contract. Any upgrades or patching required to bring newer hardware or software into production must be included as part of this entire contract life.

All communication between Digital Display signage system equipment must be through the main AVL server location using a hub and spoke design.

As part of the system design, the vendor will be required to utilize in-place communications infrastructure at BRT stations for transmitting real-time transit information to digital displays from the central software required for digital display management.

Task 2: Digital Display Signage System Hardware Installation

The vendor will be responsible to provide the digital display signage (slot signs and kiosks in display cases) to Metro with delivery of the units to Metro's Station Canopy Contractor for installation of signage to the canopy structures at their facility in Kansas City. The Station Canopy Contractor will install the canopies and connect wiring for the system. Upon field installation of canopy structure, the vendor will be responsible to finalize digital display signage configuration, and testing all digital display signage system hardware components and sub-components and ensuring interfaces are working properly. Technical specs for digital display signage hardware are provided within this Division.

Refer to Division 3 for Station Canopy drawings illustrating placement and space for digital slot signs and kiosks.

Task 3: Digital Display Software Installation

The vendor shall grant Omaha Metro the right to use all software and firmware provided under the contract and will not impose any licensing restrictions on interfacing data to or from the digital display system software. Omaha Metro shall be the owner of all software data.

The vendor shall provide for hosting of the content management software as described within technical specs for the software that are provided within this Division. Hosting services, monthly service fees, maintenance, and licensing for the software shall be provided for the duration of the warranty period for all digital display signage system software. Omaha Metro shall have the option to extend the duration of software hosting beyond the system warranty period to be negotiated with system vendor at future periods.

The vendor shall establish an escrow account with a third party, acceptable to Omaha Metro, for a period no less than ten years, in which the source code and other program files including standard and custom reports and interfaces specific to this project will be deposited. The vendor shall pay all initial and future costs related to the escrow account. The vendor shall have the responsibility to maintain and update the version of source code and program files such that the version in escrow matches the version in used by Omaha Metro.

If at any time after the warranty period, in the sole opinion of Omaha Metro, the Vendor is unwilling or unable to perform future system software/firmware maintenance or modifications, Omaha Metro shall upon 30-day written notice to the vendor have full, complete, and unabridged right to obtain the source code and program files from the escrow agent.

Task 4: Digital Display System Integration with AVL System

The vendor shall be responsible for completing the integration of the Digital Display signage system with the Omaha Metro AVL system for receiving real-time transit information, and shall serve as systems integrator for all components and interfaces (internal and external).

Successful completion of Digital Display System Integration shall be achieved upon the successful completion of the thirty-day System Acceptance Testing period as defined in the following section.

Task 5: System Acceptance Testing

All materials furnished and all work performed under this specification shall be inspected and tested. Should any inspections or tests indicate that specific hardware, software, or documentation does not meet the specification requirement, the appropriate items shall be replaced, repaired, upgraded, or added by the Vendor as appropriate to correct the noted deficiencies at no cost to Omaha Metro. The Vendor will be required to submit a test plan and procedures for each of the following types of tests. The following information must be included in each Test Plan:

- Test schedule;
- Identification of all tests to be performed, the purpose of each test and the identification of the functional requirement(s) being tested;
- Identification of hardware and software to be tested;
- Description of test procedures;
- Description of measures of effectiveness or pass/fail criteria;
- Description of the methods and equipment used to record the test and test results;
- Description of the corrective actions and re-testing procedures; and
- Identification of special testing conditions.

All test plans and test procedures shall be submitted to Omaha Metro for approval. Omaha Metro and/or its designee reserves the right to witness any or all tests, without charge, and may include a check for compliance with all requirements set forth in this document and the resulting contract. The Vendor will provide reasonable notification to Omaha Metro and/or its designee of all tests, but in any case, not less than five (5) business days.

Task 5.1: Factory Acceptance Testing

The Vendor shall perform a Factory Acceptance Test (FAT) that shall demonstrate the required functional, software, and hardware operation of the fully integrated system. The FAT shall consist of a Vendor-performed dry run of the factory tests which shall include a Functional Performance Test and unstructured testing by Omaha Metro.

Task 5.2: Full System Acceptance Testing

A thirty-day Acceptance Testing period shall commence when the following minimum conditions are met:

- The Vendor's proposed Acceptance Test Plan shall have been received, reviewed and approved by Omaha Metro and/or its designee;
- The Vendor's proposed date for commencement of Acceptance Testing shall be compatible with the schedules of Metro staff and its consultants who shall be directly involved in such monitoring and testing;
- All fixed-end hardware and system software shall be fully installed and operating without problem for a minimum of seven (7) business days;

The Vendor shall certify and Omaha Metro and/or its designee shall have reason to believe that all equipment is installed and operating without problem, and that any equipment not passing the test shall be no more than marginally greater in number than that which should be expected during normal operation of the system after acceptance.

Omaha Metro expects, when notified by the Vendor that the system is ready for testing, the acceptance testing shall commence and will be completed with a "punch" list for error correction. Omaha Metro shall designate an organization to perform one (1) set of full acceptance testing for this project. In the event that more than one (1) set of acceptance tests is necessary due to the failure on the part of the Vendor, Omaha Metro reserves the right to require the Vendor to reimburse Omaha Metro for such costs.

The final written acceptance of the system shall be granted upon successful completion of all work called for by this RFP, the resulting contract, and all related documents, in addition to the successful completion of the integration system tests that Vendor shall be required to develop and provide to Omaha Metro and/or its designee. The integration system tests shall be subject to the approval of Omaha Metro and/or its designee and shall include, as a minimum, the following:

- Functional tests to ensure hardware and software compatibility. Procedures for these tests shall include descriptions of all functions and the steps taken to demonstrate each.
- Hardware and/or software tests to provide proof of performance for all equipment furnished to ensure that the functional and technical requirements of the various units and subsystems have been met.

System availability tests to ensure that the actual availability is sufficient to not impede operational functions. The Vendor shall guarantee a favorable failure rate for all equipment such that on average over any three-month (3) period, less than two (2) digital displays will experience a failure. A failure shall be defined as a malfunction of the Vendor-supplied equipment resulting from component failure in said equipment under normal operating conditions. Maintenance records kept and certified by the Vendor, and provided to Omaha Metro during a 120-day test period shall determine this. Omaha Metro reserves the right to audit and inspect such records, or allow its designee to do it, as the agency deems necessary. If the required reliability cannot be demonstrated during this period, the Vendor will have 60 days to rectify the problem. Such records shall be submitted in an agreed-to electronic format.

If any particular component within any of the equipment furnished under the resulting contract has a failure rate of 10% or greater during the twelve month period of the original warranty period, that component or components shall be considered to have failed 100% in all units and the Vendor shall

either remove and replace all such items or make appropriate modifications to eliminate the cause of the failures, all without additional cost or disruptions to normal daily operations to Omaha Metro.

Task 6: System Documentation

Within thirty (30) days after receipt of a Notice To Proceed (NTP), the Vendor shall furnish Omaha Metro with an Overall System Design document detailing the system architecture provided in the proposal. It must specifically identify all necessary interfaces with other systems and between components within the digital display signage system. It shall describe equipment and software to be furnished, including product specifications and software descriptions.

Interfaces with outside systems shall be broken down to identify the direction and frequency of the exchange, the physical medium to be utilized, dialogs, message sets and data elements to be transmitted and received, including the exact form of the objects on both sides of the exchange. The document shall identify which of these interfaces have been provided in specific previous projects. Any information that is unknown at this time shall be highlighted and an action plan for resolution presented.

Task 6.1: Documentation Requirements

Preliminary drafts of manuals shall be supplied sixty (60) days prior to start of acceptance testing. The documents shall be as complete and as comprehensive as possible. Six (6) sets of each type of document, manual and drawings as described in this section shall be supplied. The Preliminary documents shall be approved and comments furnished to the Vendor within thirty (30) calendar days of their receipt.

Complete final manuals in the quantities and quality as described in this section shall be supplied no more than thirty (30) days after comments have been furnished to the Vendor.

The final manuals provided at the successful completion of the warranty period shall be of the latest revision and shall have incorporated all modifications or changes made to any part of the System covered under this Specification. The documents shall not be considered final without the approval of Omaha Metro.

All documentation described in this section shall be provided in hard copy and electronic formats. Six (6) hard copies of all manuals shall be delivered to Omaha Metro. Electronic updates must be delivered as they become available.

All documentation shall be in English and utilize US measurements.

Final system acceptance will not occur until complete and final documents as specified herein have been furnished by the Vendor and approved by Omaha Metro.

The Vendor shall provide a list of all special or custom tools or instruments required to maintain or adjust any component within the System.

A complete Bill-of-Materials giving a unique part number, description, generic name and generic part number for each component shall be provided.

Diagrams and drawings shall identify each component in the System and call out each component

with the unique part number as referenced in the Bill-of-Materials.

Each type of maintenance manual shall contain, but not be limited to: a description of operation; installation procedures; a complete parts identification diagram and list; troubleshooting procedures; inspection procedures; preventive maintenance procedures and program; repair procedures; diagnostic procedures; wiring diagrams; electrical schematics with board and cable identification; and adjustment procedures. All subcontractor's names and part numbers shall be cross-referenced with the Vendor's part numbers.

Electrical and electronic drawings shall be supplied to show engineering changes made to any component or module up to the end of the warranty period of the System supplied.

The manuals shall be complete, accurate, up-to-date and shall contain only that information which pertains to the system installed.

Task 6.2: Digital Display Signage Operations Manuals

The manual for each item of equipment shall contain succinct instructions on how to operate the equipment. Pictograms and photos are encouraged. Fault procedures need to be described as well as directions for dealing with problems.

Task 6.3: Digital Display Signage Maintenance Manuals

The Vendor shall provide manuals for each item of equipment to include drawings which identify the various parts and assemblies in the equipment. The materials provided shall contain, but not be limited to: a description of operation; installation procedures; preventive maintenance procedures and program; repair procedures; diagnostic procedures; wire diagrams; electrical schematics with board and cable identification; and adjustment procedures.

The manuals shall identify any special tools required for any of the procedures. The manuals shall contain the following types of sections:

Preventive Maintenance Section - shall contain all information needed to enable maintenance technicians to perform all periodic inspection and preventive maintenance tasks including lubrication, inspection and replacement of consumable items. The manual shall contain recommended preventative maintenance schedules.

Troubleshooting and Corrective Maintenance Section - shall contain all information needed to diagnose problems and make adjustments and repairs to all System components and sub-assemblies to restore the system to a normal operational condition in an efficient and timely manner. The manual shall include, at a minimum: a general description of each subsystem, component and subassembly; functional block diagrams; detailed schematics; and wiring diagrams.

Shop Repair Section - shall contain detailed descriptions of each assembly and subassembly sufficient to service, maintain, repair, replace, rebuild, and overhaul the equipment. Systematic procedures; wear and tolerance limits for determining when overhauls are needed; overhaul procedures; and special tools and equipment required shall be included.

Task 6.4: Information Technology (IT) / Software Documentation

The Vendor shall provide complete documentation for each Vendor developed and furnished computer software program for the System.

The software documents shall be furnished for review and approval by Omaha Metro prior to installation in the equipment on Metro property. Preliminary software documentation shall be furnished for review and approval by Omaha Metro. Each version of the program shall require new copies of the documentation to be furnished for review and approval by Omaha Metro prior to installation on Metro property. The software documentation shall not be distributed beyond the authorized personnel.

The documentation for each version of each program shall be complete and comprehensive to include, but not be limited to: complete source code listings with fully documented statements; comprehensive flow charts; and block diagrams explaining the system as a whole and showing how the individual programs are interrelated.

Task 7: Digital Display Signage System Training

The vendor shall provide a comprehensive training program that enables Metro employees to operate and maintain the system. The training plan shall assume training for Metro system operators and IT and maintenance personnel. Training topics shall include:

- Digital display signage operator training;
- Hardware training for IT and maintenance personnel (maintenance and troubleshooting);
- System administration training including 3rd party interfaces (i.e. GTFS data feed);

The vendor shall provide a detailed training plan in conjunction with the overall project schedule. The plan will provide a description and duration of each course. All training will be conducted on-site at Omaha Metro's facility. Course instructors must have prior training experience and intimate familiarity with all aspects of the systems, training materials, and training aids.

Additional training shall be provided by the Vendor at no cost to Omaha Metro under the following circumstances:

- Major modifications to the software and/or hardware made after the initial training due to system(s) defect(s) and/or upgrade(s) within two (2) years of installations; and
- Delays in systems deployment after initial training for which the Vendor is responsible.

Task 8: Digital Display Signage System Warranty

The Vendor will provide a three (3) year service and warranty policy on all components of the system including equipment, services, and software purchased under this contract. The warranty period will begin following final system acceptance by Omaha Metro. Vendors are required to identify their service facility in their proposals. Omaha Metro reserves the right to approve or reject the service facility specified by the Vendors.

A complete copy of the vendor's warranty shall be included in the proposal.

Vendor shall provide a single point of contact for all warranty administration during the warranty period.

The Vendor shall provide any software updates and patches for the current version at no cost to Omaha Metro during the warranty and support period.

Future upgrades to the software system will be made available to Omaha Metro at no additional

charge during the warranty and support period.

If there is a change in the production configuration of any equipment or software being installed prior to installation completion, Omaha Metro may require that all previously installed equipment and software be upgraded to match the updated configuration.

Ongoing Support and Maintenance - The vendor shall provide ongoing user and technical support for a period of 3 years as part of the warranty period.

Task 8.1: Repair or Replacement of Faulty Components

During the warranty period, the vendor shall repair or replace any faulty components, with the cost included in the warranty price.

If at least 25% of a given component requires repair or replacement within the five-year warranty period, the component shall be deemed to warrant system-wide replacement. System wide replacement shall require the Vendor to replace all units of the suspect component throughout the system, whether or not they have exhibited any fault. Even if the system-wide replacement activity extends beyond the warranty period, the Vendor shall be obligated to complete the system-wide replacement if the need was documented before the end of the warranty period.

Software support during the warranty period shall include technical support for all hardware and software, with a technical support line, as well as providing, licensing, installing and integrating all released software patches and updates.

2.1.4 Response Requirements

Proposers shall describe their approach to completing the tasks described within the scope of work presented in this document. Vendors will include in their completed Bid Form document all costs required to design, provide, install, test, and maintain a complete system package in accordance with their offer.

If the proposed solution includes software or services supplied by another vendor, the system vendor will assume a primary vendor role and will be held accountable for ensuring that the seamless, real-time exchange of information is achieved.

2.1.5 Overview of Digital Display System Requirements

Proposers should fully describe the System being offered as part of this submission. Capabilities and features should be described in the context of the application to the requirements and specifications of Omaha Metro’s fixed route services. Proposers must list all software components or modules necessary to fully implement the project, including third party software necessary to complete the total installation (*e.g.*, report generation software, database software, GIS street data, etc.) Failure on the part of Omaha Metro to specify precisely each and every item necessary for the system shall not relieve the Vendor of total system responsibility.

By presenting a proposal, vendors warrant that all equipment quoted within shall constitute a complete system in accordance with its proposal, and insofar as system components exist, all such components are compatible with all other system components provided under this contract or

compatible with components provided by others as an integral part of the system. Integration with existing Omaha Metro systems is also required to perform the specified functions. Proposers further warrant that the system is fit for the use intended. Metro will not accept prototype systems. All equipment must have a verifiable historical reference showing functionality in same environments types as proposed in this RFP. Exception would be for upgraded firmware or software that provided new enhancement or compatibilities without changing the primary function or operational ability of the hardware/software.

It shall be the responsibility of the vendor to provide, integrate, and implement software and hardware which will provide the required functionality. It will also be the responsibility of the vendor and Omaha Metro to test the new system. Finally, the vendor shall provide support services and train the appropriate Metro personnel to use and maintain the system from a user and systems maintenance standpoint.

2.1.6 Technical Specifications

The following are meant to be the minimum technical specifications which Metro will accept as a portion of the RFP for Digital Display Signs. Any variance from these specifications must be requested using Exhibit F "Request for Substitutions/Approved Equals in the required Submission Documents. Completed forms must be received by **July 16, 2019, by 4:00 pm** Central Time. Submissions not received by this date and time will not be considered. All components must be TAA compliant.

A. OVERHEAD DISPLAY, (SLOT SIGN)

These signs will be used at Metro Transit Centers and ORBT Stations to provide real time arrival and other information, including infotainment. These signs will be installed locally and will be enclosed (see Enclosure Specifications) and will be subject to exterior temperatures normal for Omaha, Nebraska. Displays have been specified as a portion of this RFP and must meet the minimum specifications set forth below.

Display sizes

35-38"; Ultra widescreen or stretched (landscape formate), wall mounted at ORBT Stations 47-52", Ultra widescreen Ceiling Mounted at Transit Centers (landscape format) – Refer to Exhibit A for Station Canopy drawings illustrating placement and space for digital slot signs.

Display Minimum Technical Specifications

Power - AC-100 to 240v, single phase, 60-120 Hz

Display - Commercial Grade, LED back-lit, LCD screen, Full HD resolution or above, with local and remote dimming.

Display - Display proposed must support HDMI or DVI input at Full HD resolution, at a minimum.

Display Blackout - Black Mura free performance throughout entire operating temperature range stated above

Display - Automatic brightness control functions

Brightness - daylight readable 1500 NIT or greater

Contrast ratio - 3000:1 or greater

Resolution - 1920 X 1080 native resolution or greater; Pixel pitch, <1.0mm

Glass - Anti-glare, anti-reflective technology/surface with 100% UV protection, high-strength with optically bonded tempered glass,

Glass - Thickness >6.0mm

Glass - Anti-breakage film applied, the minimum light transmission shall be >97

Glass - Anti-graffiti coated applied

Controller board/Processor - On-board controller shall support the following:

1080P FHD Max Resolution with True 1080 HTML5 Rendering

Portrait or Landscape Display Orientation Support

Onboard Text to Speech Engine

IoT Trigger Interface Support

AVL System Data Feed – Displays shall be capable of accepting real-time data feed from existing Omaha Metro AVL system in GTFS format or other approved equal.

Diagnostics -_User interface; on-board; with real time, remote connection health and fault monitoring with event log

Display Software -Remote, (via Ethernet); software upgradeable in the field or by remote access

Outputs-Audio - Minimum 1X, Stereo Mini Jack, 3.5mm

Inputs -_Inputs, at least 1X of each unless specified otherwise:

10/100/1000 BaseT Ethernet

2X, USB 2.0 or above,

2X - HDMI 2.0 or above, DVI input that supports 1080p or 2160p 4K UHD, SD Card, (supports up to 128GB)

All media bay power port powers media players without the need for external cords (5v@3.5amps / 12v@3amps)

SD Slot Content Cache Expandability

Communications -_RS232, support remote interface

Operating Environmental Factors

Temperature Range - -40 to +150 degrees Fahrenheit, minimum

Humidity - 0 to 100%, relative

Sunlight - Direct sunlight viewing rated & readable

Operational Hours - Designed for 24/7 continuous outdoor, in direct sunlight operation, >50,000 hours

Warranty - Minimum 36 months with 24x7x365 call-in US support coverage, with priority <30 day RMA turn-around process.

B. DISPLAY CASE

These display cases will be used to mount digital signs. Metro is requesting single sided display cases. Display cases will be overhead mounted and will be installed locally. These display cases will include all necessary and needed hardware and equipment to allow for installation. Display cases must be able to secure digital displays and allow for full visibility and functionality of the digital display. Display cases will be installed outside and will be subject to exterior temperatures normal for Omaha, Nebraska. Single sided display cases have been specified as a portion of this RFP and must meet the minimum specifications set forth below.

Display Cases

Rating - Outdoor rated; IP65 or greater, NEMA 4X compliant

Wind rating - Case/display mounting rated to >110mph

Color - Metallic medium grey powder-coated finish over rust-proof aluminum, .090" thickness or greater (Owner to choose final color)

Security - Secured Protection, with at least one stainless steel keyed-lock, and the rest of the panel enclosure fasteners be of a stainless steel, tamper-proof, captive design with machine threads

Display bracket - Exterior VESA rated, Wall mounted at the ORBT stations and Ceiling Mounted at the Transit Centers

Angle - Display cases must be tilted at a slight downward angle for viewing by passengers at stations

Audio

Speaker - Speakers can be removed and serviced from the outside of the display case without requirement of opening the entire display case

Speaker - Speakers must not be hard wired to controller, must have a connection/disconnect point accessible upon removal from display case

Power - Minimum, 20 watts each, individually powered with external aluminum grilles

Security - Secured Protection, speaker panel enclosure fasteners be of a stainless steel, tamper-proof, captive design with machine threads

Warranty - Minimum 36 months, including finish and performance, with 24x7x365 call-in US support coverage, with priority <30 day RMA turn-around process.

Speaker - 2X - 4" or larger outdoor, (waterproof) rated audio speakers

C. KIOSKS/INFORMATIONAL SIGNS

Kiosks/Information Signs will be used at Metro Transit Centers and ORBT Stations to provide real time traveler information, including infotainment. Kiosks/Information Signs will be installed locally and will be subject to exterior temperatures normal for Omaha, Nebraska.

Kiosk Size

Screen size - 47-52"; widescreen (portrait format), touch-screen, 16:9 format or approved equal, Wall mounted at the ORBT Stations and Floor Mounted at the Transit Centers – Refer to Exhibit A for Station Canopy drawings illustrating placement and space for digital kiosks.

Kiosk Minimum Technical Specifications

Power - AC-100 to 240v, single phase, 60-120 Hz

Display - Commercial Grade, LED back-lit, LCD screen, Full HD resolution or above, with local and remote dimming

Display Blackout - Black Mura free performance throughout entire operating temperature range stated above

Display - Automatic brightness control functions

Brightness - daylight readable 1500 NIT or greater

Contrast ratio - 3000:1 or greater

Resolution - Minimum Full HD, 1920 X 1080 native resolution; Pixel pitch, <1.0mm

Display - Display proposed must support HDMI or DVI input at Full HD resolution, at a minimum.

Viewing angle - Minimum viewing angle is 170 degrees vertical and horizontal

Glass - Anti-glare, anti-reflective technology/surface with 100% UV protection, high-strength with optically bonded tempered glass,

Glass - Anti-graffiti coated applied

Controller board/Processor - On-board controller shall support the following:

1080P FHD Max Resolution with True 1080 HTML5 Rendering

Portrait or Landscape Display Orientation Support

Onboard Text to Speech Engine

IoT Trigger Interface Support

AVL System Data Feed – Kiosks shall be capable of accepting real-time data feed from existing Omaha Metro AVL system in GTFS format or other approved equal.

Wayfinding Information – Kiosks shall include wayfinding capabilities that allows public users to transfer route requests to a mobile device.

Diagnostics - User interface; on-board; with real time, remote connection health and fault monitoring with event log

Display Software - Remote, (via Ethernet); software upgradeable in the field or by remote access

Touch Screen Functionality – Kiosks shall operate with touch screen functionality to allow customers to touch and interact with the content presented on the kiosks. Kiosks shall provide Omaha Metro the functionality to enable or disable touch screen functionality as needed.

Outputs-Audio - Minimum 1X, Stereo Mini Jack, 3.5mm

Inputs - Inputs, at least 1X of each unless specified otherwise:

10/100/1000 BaseT Ethernet

2X, USB 2.0 or above,

2X - HDMI 2.0 or above, DVI input that supports 1080p or 2160p 4K UHD, SD Card, (supports up to 128GB)

All media bay power port powers media players without the need for external cords (5v@3.5amps / 12v@3amps)

SD Slot Content Cache Expandability

Communications - RS232, support remote interface

Operating Environmental Factors

Operating temperature -40 to +150 degrees Fahrenheit, minimum

Humidity - 0 to 100%, relative

Sunlight - Direct sunlight viewing rated & readable

Operational Hours -24/7 continuous, (for continuous outdoor, in direct sunlight operation, >50,000 hours);

Warranty - Minimum 36 months with 24x7x365 call-in US support coverage, with priority <30 day RMA turn-around process.

D. KIOSK DISPLAY CASE

Kiosk Display Cases will be used to mount touch screen kiosks. Kiosk Display Cases will be pedestal mounted and will be installed locally. Kiosk Display Cases will include all necessary and needed hardware and equipment to allow for installation. Kiosk Display Cases must be able to secure Kiosk/Information Signs and allow for full visibility and functionality of the Kiosks/Information Signs. Kiosk Display Cases will be installed outside and will be subject to exterior temperatures normal for Omaha, Nebraska. Cases to house touch screen kiosks have been specified as a portion of this RFP. Cases must meet the minimum specifications set forth below.

Display Cases

ADA - Sign height with touch-screen features that are fully ADA compliant, bi-lingual, (English, Spanish)

Rating - Outdoor rated; IP65 or greater, NEMA 4X compliant

Wind rating – Case/display mounting rated to >110mph

Color - Metallic medium grey powder-coated finish over rust-proof aluminum, .090” thickness or greater (Owner to choose final color)

Security - Secured Protection, with at least one stainless steel keyed-lock, and the rest of the panel enclosure fasteners be of a stainless steel, tamper-proof, captive design with machine threads

Display Bracket - Exterior VESA rated, Wall Mounted at the ORBT Stations and Floor Mounted at the Transit Centers

Audio

Speaker – Minimum of two speakers 4 inch or larger outdoor rated, (waterproof) audio speakers

Speaker - Speakers can be removed and serviced from the outside of the display case

without requirement of opening the entire display case, Speaker panel enclosure fasteners shall be stainless steel, tamper-proof, captive design with machine threads

Speaker - Speakers must not be hard wired to controller, must have a connection/disconnect point accessible upon removal from display case

Power - Minimum, 20 watts each, individually powered with external aluminum grilles

Warranty - Minimum warranty 36 months, parts, finish and performance

E. INFOTAINMENT SIGNS

Infotainment Signs will be used on ORBT buses to provide real time traveler information, including infotainment. Kiosks/Information Signs will be installed at New Flyer and will be mounted inside the ORBT buses.

Infotainment Size

Screen size - 20-24"; widescreen (landscape format), 16:9 format or approved equal

Infotainment Minimum Technical Specifications

Power - DC-24 - 48v Vehicle Powered

Display - Commercial Grade, LED back-lit, LCD screen, Full HD resolution or above, with local and remote dimming

Display Blackout - Black Mura free performance

Display - Automatic brightness control functions

Brightness - daylight readable 700 NIT or greater

Contrast ratio - 3000:1 or greater

Resolution - Minimum Full HD, 1920 X 1080 native resolution; Pixel pitch, <1.0mm

Display - Display proposed must support HDMI or DVI input at Full HD resolution, at a minimum.

Glass - Anti-glare, anti-reflective technology/surface with 100% UV protection, high-strength with optically bonded tempered glass,

Glass - Anti-graffiti coated applied

Controller board/Processor - On-board controller with Android: Quad Core A17, 1.8 Ghz or Better with at least 2 GB RAM, 16 GB content Cache and 8 GB Flash, Windows: 7th Generation Celeron or i3 or Better with at least 8 GB RAM and 120 GB SSD.

1080P FHD Max Resolution with True 1080 HTML5 Rendering

Portrait or Landscape Display Orientation Support

Onboard Text to Speech Engine

IoT Trigger Interface Support

Operating System Compatibility - Prefer Android 5.1 or Higher, but will consider Windows 7 or Higher, or; Chrome OS 57 or Higher, or; Mac OSX 10.10 (Yosemite) or Higher, or; Samsung SSSP2 or SSSP3, or; LG Web OS 2.0 or Higher (Professional Displays ONLY).

AVL System Data Feed – Infotainment shall be capable of accepting real-time data feed from existing Omaha Metro AVL system in GTFS format or other approved equal.

Diagnostics - User interface; on-board; with real time, remote connection health and fault monitoring with event log

Display Software - Remote, (via Ethernet); software upgradeable in the field or by remote access

Outputs-Audio - Minimum 1X, Stereo Mini Jack, 3.5mm

Inputs - Inputs, at least 1X of each unless specified otherwise:

10/100/1000 BaseT Ethernet

2X, USB 2.0 or above,

2X - HDMI 2.0 or above, DVI input that supports 1080p or 2160p 4K UHD, SD Card, (supports up to 128GB)

All media bay power port powers media players without the need for external cords (5v@3.5amps / 12v@3amps)

SD Slot Content Cache Expandability

Communications - RS232, support remote interface

Operating Environmental Factors

Operating temperature +32 to +104 degrees Fahrenheit, minimum

Humidity - 0 to 100%, relative

Sunlight - Direct sunlight viewing rated & readable

Operational Hours -24/7 continuous, (for continuous on bus operation, >50,000 hours);

Warranty - Minimum 36 months with 24x7x365 call-in US support coverage, with priority <30 day RMA turn-around process.

Mounting Requirements

Display bracket – VESA rated

Security – fasteners to be made of stainless steel, tamperproof, captive design with machine threads

Design – vehicle wall (bulkhead) mount with pivot of at least +30° to -30°, cable management, and anti-theft.

Color – Metallic medium grey powder-coated finish over rust-proof aluminum, .090” thickness or greater (Owner to choose final color)

F. Content Management Software

AVL System Data Feed – Software shall be capable of accepting real-time data feed from existing Omaha Metro AVL system in GTFS format or other approved equal

Content Configuration and Updates – Software shall allow Omaha Metro to simultaneously configure and display multiple types of information (time, weather, emergency alerts,

advertising, etc.) on displays and kiosks. Content shall be customizable by Omaha Metro staff to include multiple types of information in configurable segments on the displays / kiosks. Content shall be able to rotated between landscape and portrait formats. Software shall support a variety of content presentation, including user configurable sub-screen management that includes scrolling, flashing, and static messages on displays and kiosks. All software templates shall be made available through content management software for customization by Omaha Metro staff. Content management software shall update the content presented on displays and kiosks in real-time.

Health Monitoring – Content management software shall include health monitoring of the displays / kiosks and send an email notice of changes.

Software Hosting – Location of content management software shall be hosted by vendor and be accessible to Omaha Metro staff via remote internet connection. Software shall also be capable of being hosted by Omaha Metro.

ADA Requirements – Content Management Software shall have ADA controls to support the annunciation of transit information at sign locations.

Software Updates – Content management software shall update the content presented on displays and kiosks in real-time.

SECTION 3. PROPOSAL INSTRUCTIONS

3.1 Definitions

In addition to any other term that may be defined in the RFP Documents, whenever used in the RFP Documents, the following terms shall have the following meanings:

- (a) **“RFP”** means and refers to the response and offer of a Proposer submitted on the prescribed forms and in the prescribed manner setting forth, among other matters, the prices for the Work to be performed. The RFP includes the completed proposal together with all other attachments, documents, instruments, forms, submissions, exhibits and schedules attached thereto or referenced therein or that is otherwise submitted or furnished (or is required to be submitted or furnished) to Metro at any time by a Proposer in furtherance of its RFP in accordance with the RFP Documents or that a Proposer is required by the RFP Documents to submit or furnish to Metro, including the Bid Security;
- (b) **“Proposer”** means and refers to a responsible Proposer that has submitted a responsive RFP to Metro;
- (c) **“RFP Documents”** means and refers to all documents issued by Metro in furtherance of the solicitation of RFPs for the Project. The RFP Documents include: (i) the Notice of Solicitation (including any other advertisement or invitation to RFP and any related published information), (ii) the RFP Documents together with all attachments, documents, instruments, forms, submissions, exhibits and schedules attached thereto or referenced therein, including the Supplemental Conditions, Construction Drawings and the Technical Specifications. (iii) all Addenda, (iv) all inquiries, notices, requests, forms, requests, documentation and other matters that a prospective Proposer is required or permitted to submit in furtherance of any communication with Metro pursuant to paragraph 2(m) of the Instructions to Proposer, (v) the Proposer’s List Data Form,
- (d) **“business day”** means Monday through Friday of a calendar week other than a day that is recognized by Metro as a holiday for Metro’s administrative personnel;
- (e) **“Contract”** means and refers to the entire integrated written agreement between Metro and Contractor concerning the Work and the Project. The Contract includes (i) all exhibits and schedules attached to the Contract, and (ii) all agreed to Change Orders (as defined in the Contract), each of which is or will be integrated into and made a part of the Contract. The Contract constitutes the entire agreement and supersedes all prior agreements and understandings, both written and oral, between Metro and Contractor as to the subject matter of the Contract;
- (f) **“Contract Documents”** means and refers to (i) the RFP Documents, (ii) the RFP, (iii) the required performance bond and labor and material payment bond [and other required bonds], (iii) the Contract and any documents, information or other items or matters designated as such in the Contract,
- (g) **“Contractor”** means and refers to the Proposer that has been awarded the Contract by Metro, but only if the Contract has been entered into by both Metro and Contractor and all conditions applicable to the award of the Contract and as otherwise may be set forth in the Contract Documents have been fully satisfied;
- (h) **“include”, “included”, “including”** and words of similar import shall be construed as if followed by the phrase “without limitation”;
- (i) **“Governmental Authority”** means and refers to any governing bodies (including any governmental (and quasi-governmental), federal, state and local subdivision or unit of such governing body, together with their respective officials, authorities, agencies, departments and divisions) that has jurisdiction, whether in whole or in part, over any matter that, at any time, may relate to or pertain to any matter to which any Governmental Requirement may govern or apply. Governmental Authority includes the United States Department of Transportation (**“DOT”**) and the Federal Transit Administration (**“FTA”**);
- (j) **“Governmental Requirement”** means any requirement of any Governmental Authority that is, or that may become, effective or applicable at any time to the any of the RFP Documents, the Contract Documents, the Project, the Work or Contractor’s performance under and in respect of the Contract, including all Laws and

Regulatory Approvals of any Governmental Authority and all regulations, rules, orders, directives and standards and other requirements all regulations, rules, orders, directives and standards and other requirements issued or promulgated thereunder that Metro may be at any time be required to implement, observe, execute, follow or adhere to, whether by application of the provisions of the applicable Master Agreement between Metro and the FTA ("Master Agreement"), any Laws or Regulatory Approvals or otherwise;

(k) "**Law(s)**" means all statutes, laws, codes, ordinances, regulations, rules, orders, directives and standards of any Governmental Authority, that may be in effect or that may be or that may become applicable at any time to the any of the any of the RFP Documents, the Contract Documents, the Project, the Work, the Contract or Contractor's performance under and in respect of the Contract. Laws includes all Environmental Regulations and the Federal Transportation Act and all regulations, rules, orders, directives and standards and other requirements issued or promulgated thereunder;

(l) "**Project**" means Omaha Rapid Transit Station Canopy Package PROJECT NO.: NE-79-X001; "Project" is sometimes used interchangeably with "Work" and, if so, shall be ascribed that definition;

(m) "**Regulatory Approval**" means any and all approvals, licenses, permits, consents, registrations or authorizations, certificates, forms and licenses of any Governmental Authority that may be in effect or that may be or that may become applicable at any time to the RFP Documents, the Contract Documents, the Work, the Project or Contractor's performance under or in respect of the Contract;

(n) "**Representative**" means and refers to AECOM, 564 White Pond Drive, Akron, Ohio 44320; and

(o) "**Work**" means and refers to all supervision, direction, employees and other labor, all materials, supplies, services, work, machinery, transportation, tools, equipment, plant required for set-up of general plant, storage/staging areas and facilities, and all other tasks and incidentals necessary to fabricate, construct, assemble, install and otherwise perform and complete the Project, the Work and the Contract as and when required and otherwise in conformity with the Contract Documents.

3.2 Reservations

- A. Metro reserves the right to waive informalities or irregularities in proposals, to accept or reject any or all proposals, to cancel this RFP in part or in its entirety, and to re-advertise for proposals if it is in the best interest of the Authority.
- B. Metro also reserves the right to award a contract solely on the basis of the initial proposal without any interviews or negotiations. Therefore, proposals should be submitted to Metro on the most favorable terms possible, from a cost or price and technical standpoint.
- C. This solicitation for RFPs shall not be considered to be an offer to award the Contract. This solicitation may be amended, modified, withdrawn or canceled by Metro at any time for any reason or for no reason. Whether not Metro amends, modifies, withdraws or cancels this solicitation, Metro is not responsible for any cost or expense that may be incurred by any prospective proposer or any proposer incurred prior to the execution of the Contract, including any costs associated with preparing a Proposal. No Proposal shall be considered binding upon Metro unless (i) a Contract first has been awarded by its Board of Directors at a public meeting, (ii) the Contract has been duly executed by each of the Contractor and Metro, and (iii) all conditions applicable to such award of the Contract and as otherwise may be set forth in the Contract Documents have been fully satisfied. Metro reserves the right to withdraw or cancel the award of the Contract for any reason or no reason without liability. In the event of the withdrawal or cancellation of this solicitation or the award of the Contract, the Bid Security of each Proposer shall be released and returned by Metro.

3.3 Proposer's Responsibilities

- A. Without prejudice or limitation to any other representation required to be made or otherwise made by Proposer with its Proposal, the submission of its Proposal constitutes a representation by Proposer that,
- 1) Proposer has read and understands the RFP Documents and the Proposal is made in accordance with all requirements of the RFP Documents;
 - 2) Proposer possesses the capabilities, resources, and personnel necessary to perform the Work in accordance with the Contract Documents;
 - 3) Proposer is duly organized and existing under and by virtue of the Laws of the state of its organization and has the power to transact business in the State of Nebraska;
 - 4) Proposer has all power, authority and capacity under all applicable Laws and under its organizational and constituent documents to enter into and to perform under and in respect of the Contract;
 - 5) The Proposal has been duly authorized, executed and delivered by Proposer;
 - 6) Proposer has read and thoroughly examined the RFP Documents and has a complete understanding of the terms and conditions required for the full and complete performance of the Work in conformity with the Contract Documents;
 - 7) Before submitting its Proposal, Proposer has made all investigations and examinations necessary to ascertain the character, location and other conditions and requirements pertaining to the Work site and the Work that it has determined may affect in any way its full and complete performance of the Work in conformity with the Contract Documents;
 - 8) Proposer has found no errors, conflicts, ambiguities or omissions in any of the RFP Documents;
 - 9) Proposer is familiar with all applicable Governmental Requirements applicable to the Project, the Work, the Contract and Proposer's required performance (as Contractor) under and in respect of the Contract;
 - 10) To the best of Proposer's knowledge, after due and diligent investigation and inquiry,
 - a. No member of Metro's Board of Directors nor any of Metro's officers or employees is employed by, or has a financial interest, direct or indirect, in the Bid, the contemplated Contract, the Proposer or any Subcontractors,
 - b. No gratuities have been offered or given by or on behalf of Proposer with an intent to secure the Contract, and
 - c. Neither the award of the Contract to the Proposer nor its performance (as Contractor) under or in respect of the Contract will result in any conflict of interest that is prohibited under any Governmental Requirement, including any such conflict referenced or described in the Master Agreement or in Section 7 or Section 8(a)(5) of FTA Circular 4220.1E.

3.4 Identification of Proposer

With its Proposal, Proposer must separately be identified fully and completely in an attachment to its Bid referencing this Paragraph 3.4, whether a natural person/individual, partnership (general or limited), corporation, limited liability company, association or other form of business organization (whether or not regarded as a legal entity under Applicable Law), trust, estate or any other entity. If an individual doing business under a fictitious name submits a Proposal, the Proposal should so state. If a Proposal is made by a partnership or a limited liability company, the full names and addresses of all members of the partnership or limited liability company must be given. In the case of a partnership, a general partner must sign the Proposal. In the case of a limited liability company, the manager or authorized member must sign the Proposal. If a corporation makes the Proposal, an authorized officer must sign the Proposal. If the Proposal is made by a

joint venture, the full names and addresses of all members of the joint venture must be given and one authorized member should sign the Proposal. If applicable, a copy of the partnership/joint-venture agreement/operating agreement shall be included as an attachment to the Proposal. Each Proposal shall be made in the name of the Proposer, dated and signed with an ink pen by the appropriate individual, whose name and title also shall be printed or legibly written. Signatures shall be accompanied by the address (including city, State and zip code) and the telephone number of the Proposer. If the Proposal has been submitted by an agent of Proposer, evidence of the power of attorney must be attached to the Proposal. Metro reserves the right to verify the status of the signatory.

3.5 Communication with Metro

- A. General Inquiry. Other than as otherwise expressly required in this paragraph 3.7(A) any relating to the RFP Documents, the Project or the Work must be made in writing to the Grant Administrator and must be received by Metro no later than 4:00 p.m on July 16th, 2019. Each inquiry must refer to the Project by name and submitted on the Request for Clarification Form Provided in the RFP Documents. Metro will issue a response to any such request by written Addendum.
- B. Errors and Discrepancies in RFP Documents. If a Proposer believes that there may exist an error, discrepancy, ambiguity or omission in any RFP Document, then prior to the submission of its Proposal, Proposer must notify the Grant Administrator of the same by written notice on the Request for Clarification Form. By submission of its Proposal, Proposer represents there exists no error, discrepancy, ambiguity or omission in any of the RFP Documents that would change the cost, progress or performance of the Work. Metro will review, evaluate and respond in the same manner as any other inquiry made pursuant to the RFP Documents. Whether or not approved, Metro will issue a response to Proposer's inquiries by written Addendum.
- C. Requests for Approved Equals, Product Options and Substitutions. Wherever brand, manufacturer, or product names are used in respect of the Work, they are included only for the purpose of establishing a description of minimum quality of the requested item unless otherwise specified in the specifications or other RFP Documents. This inclusion is not to be considered as advocating or prescribing the use of any particular brand or item or product. Prospective Proposers may discuss the specifications and related matters with the Grant Administrator; however, any requests for approved equals or other substitutions must be made to the Grant Administrator in writing by use of the "**Request for Substitutions/Approved Equals**" form included in the RFP Documents, which must be received by Metro no later than **4:00 p.m. on July 16, 2019**. When an approved equal is requested, if so requested by Metro, the prospective proposer must demonstrate the quality of its alternative product to Metro and furnish sufficient technical data, test results, etc., to enable Metro to determine whether the product is or is not equal to specification required by the RFP Documents. Whether or not approved, Metro will issue a response to a Request for Substitutions/Approved Equals by written Addendum. The Contract will provide that Metro may reject any request by Contractor following the award of a Contract for a substitute or qualified equal, in its Metro's sole judgment and absolute discretion.
- D. Modifications to Proposals; Withdrawal of Proposals. Any Proposer that has submitted a Proposal may modify or withdraw its Proposal at any time prior to the Submission Deadline. Withdrawal of a Proposal may be made only with written confirmation under signature of the Proposer. Withdrawal of a Proposal will not prejudice the right of any Proposer to submit a new Proposal in its own name or in combination with another Proposer, provided that the new Proposal is received by Metro as of the Submission Deadline. Modifications to a Proposal and requests to withdraw a Proposal received by Metro after the Submission Deadline will have no effect and will be returned unopened.

- E. Submission by Prospective Proposers. For avoidance of any doubt, all inquiries, notices, requests, forms, requests, documentation and other matters that a prospective proposer is required or permitted to submit in furtherance of any communication with Metro pursuant to this paragraph 3.7(E) must be made in the name of the prospective proposer or Proposer, as may be applicable.
- F. Addendum; Metro Initiated Addendum; Proposer Responsibility. No verbal or written instructions or interpretations in respect of the RFP Documents, the Contract Documents or the Project will have effect or validity regardless of source unless made in the name of the Grant Administrator in the form of a written Addendum. Complete copies of each related form, inquiry, request or submission etc. made pursuant to this paragraph 3.7(F), together with the corresponding Addendum (and any other Addendum contemplated by the RFP Documents) will be available for inspection at Metro's Administrative Offices and online at the following links <http://www.standardshare.com> and www.ometro.com. Nothing in the RFP Documents shall be construed to restrict Metro from issuing any Addendum at any time or at its own initiation. Notwithstanding anything contained in the RFP Documents to the contrary, it is the responsibility of the Proposer to obtain copies of all issued Addenda. Proposer is required to acknowledge on the form and manner required by the RFP Documents that it has received all issued Addenda, and failure to do so will cause the Bid to be deemed non-responsive.

3.6 Protests

- A. Pre-Submittal Protests. A pre-submittal protest is protest received prior to the Submission Deadline. This protest must be made in writing and received by the Grant Administrator not later than 2:00 pm. on the date that is not later than three (3) business days prior to the Submission Deadline. This protest must be addressed as follows: Protest, Project ###, Grant Administrator, 2222 Cuming St, Omaha NE 68102.
- B. Post-Submission Deadline/Pre-Award Protests. A Post-Submission Deadline/pre-award protest is a protest against making an award of the Contract, must be made in writing and received by the Grant Administrator not later than 2:00 p.m. on the date that is not later than five (5) days after the submission date. This protest must be addressed as follows: Protest, Project ###, Grant Administrator, 2222 Cuming St, Omaha NE 68102.
- C. Post-Award Protests. A Post-Award protest is a protest against making an award of the Contract to the successful Proposer as determined by Metro. This protest must be made in writing and received by the Grant Administrator not later than 2:00 p.m. on the date that is five (5) business days after the date of the Notice of Intent to Award the Contract. This protest must be addressed as follows: Protest, Project ###, Grant Administrator, 2222 Cuming St, Omaha NE 68102.
- D. Protest Limitations and Requirements. Protests are limited to those allowable by, and made in compliance with, the protest procedures currently established by Metro ("Protest Procedures"), a copy of which are available for inspection at the Administrative Offices. All protests must be concise, direct and sufficient to permit Metro to determine the full and complete basis therefor and shall be fully supported by all current, accurate, relevant, objective information, documentation and other support considered necessary by the prospective proposer or Proposer, as may be applicable. Metro reserves the right to request additional support from the protester. In the event of an appeal from the award of a Contract, the award shall not be considered final or binding upon Metro unless the Contract award is thereafter confirmed to the successful Proposer in writing by the Executive Director.
- E. Metro Response. The Grant Administrator will respond to the protest no later than five (5) days after the protest has been received by the Grant Administrator. Appeals from the Grant Administrator's

determination must be made to the Executive Director as, when and in the manner required by the Protest Procedures. The Executive Director will decide if the protest and the appeal (if any) have been given fair and reasonable consideration, or if additional consideration is warranted. The Executive Director's decision will be provided within ten (10) days after receipt of protester's appeal from request. The Executive Director's decision is final, and no further action on the protest will be taken by Metro.

- F. Extensions of Time and other Effects of Protest. Without limitation to any other provision in the RFP Documents, if deemed appropriate to resolve any protest Metro may extend the Submission Deadline and the award of the Contract, issue an Addendum or withdraw this solicitation, or postpone, reconsider any award of a Contract or cancel this solicitation, all as determined in the sole judgment and absolute discretion of Metro.
- G. Appeals to FTA. For information purposes only, protesters should be aware of the Federal Transit Administration's protest procedures with the FTA Regional Office (ref: FTA Circular 4220.1F). If Federal funding is involved, the FTA will review protests from a third party only when a grantee does not have a written protest procedure or fails to follow its procedure or fails to review a complaint or protest; or violations of specific federal Governmental Requirements have occurred. A protester must exhaust all administrative remedies with Metro before pursuing a protest with the FTA. An appeal to the FTA by the protester must be received by the appropriate FTA regional or Headquarters Office within five (5) working days of the date the Proposer knew or should have known of Metro's final decision in respect of the protest. Such protests shall be addressed to: Regional Administrator, FTA Region 7, 901 Locust, Room 404, and Kansas City, MO, 64106.

3.7 Disclosure of Proprietary Information.

- A. By submission of its Proposal, a Proposer acknowledges that Metro is a public body to which Laws of the State of Nebraska governing the disclosure of public records (Neb. Rev. Stat. 84-712 to 84-712.09, inclusive; "Public Records Statutes") have application. A Proposer may attempt to restrict the disclosure of scientific and technological innovations in which it has a proprietary interest, or other information that is protected from public disclosure by Law contained in the Proposal by:
 - 1) marking each page of each such document prominently in at least 16-point font with the words "Proprietary Information",
 - 2) printing each page of each such document in a different color paper than the paper which the remainder of the proposal is printed; and
 - 3) segregating each page of each such document in a sealed envelope, which shall prominently display, on the outside, the words "Proprietary Information" in at least 16-point font, along with the name and address of the Proposer.

If access to documents marked "Proprietary Information" (and otherwise complying with (1) through (3) above), is requested pursuant to the Public Records Statutes, Metro will notify the Proposer of the request. The Proposer shall have the burden to establish that such documents are exempt from disclosure under the Public Records Statutes, and Metro shall not be responsible to undertake any act or action to prevent any such disclosure. Notwithstanding the foregoing, Metro reserves the right to release any documents requested pursuant to the Public Records Statutes if Metro determines that such information is a public record under the Public Records Statutes.

3.8 Disadvantaged Business Enterprise (DBE) Requirements

- A. The requirements of 49 Code of Federal Regulations ("CFR") Part 26 shall apply to the Contract. It is the

policy of Metro to practice nondiscrimination based on race, color, sex, or national origin in the award or performance of this Contract. Metro encourages participation under this solicitation by all responsible and qualifying firms regardless of business size or ownership. Metro has established a specific Disadvantaged Business Enterprise (“DBE”) participation goal for the Contract in the amount of **0%** of the Contract Amount (“**DBE Participation Goal**”) through race/gender neutral means. In order to receive the award of the Contract, Title 49 Code of Federal Regulations (CFR) Part 26, requires the apparent low Proposer must establish either (i) that it has met the DBE Participation Goal through race/gender neutral means; or (ii) that it has made adequate good faith efforts to meet the DBE Participation Goal. This requirement is in addition to all other pre-award requirements.

1. Attaining DBE Contract Goals

- a. Prime contractors shall, at a minimum, seek certified DBE Subcontractors in the same geographic area in which they generally seek subcontractors for a given solicitation. If the Proposer cannot meet the DBE goals using certified DBEs from the same geographic area, the Proposer may expand its search to a reasonably greater geographic area.
- b. Prime contractors are required to make good faith efforts to replace a DBE Subcontractor that is unable to perform with another certified DBE Subcontractor. In order to ensure compliance with this requirement, any substitution of DBE Subcontractors after execution of the Contract must be approved by Metro as outlined in 49 CFR Part 26.
- c. Metro encourages prime contractors on DOT assisted contracts to investigate to the full extent of services offered by financial institutions owned and controlled by socially and economically disadvantaged individuals in the community and to make reasonable efforts to use these institutions.

2. Soliciting DBEs

All Proposers should make every reasonable effort to subcontract work to DBEs through Good Faith Negotiations and solicitations in advance of the dates specified in this solicitation for submitting and opening of proposals.

Only those DBEs who are currently certified through the Nebraska Department of Transportation (NDOT) Civil Rights Office or DBEs having certification that can be made final through the NDOT Civil Rights Office in accordance with applicable provisions of 49 CFR Part 26 before the due date for this solicitation on which a firm seeks to participate as a DBE will be considered in meeting the DBE contract goal for this project. For a listing of Nebraska certified DBEs see: <http://dot.nebraska.gov/business-center/civil-rights>.

3. Evaluation of Bid Proposals for DBE Participation

- a. Meeting DBE Project Goal Criteria: The Proposer must either meet or exceed the established DBE goal(s) for the project or submit documentary evidence with their bid substantiating that good faith efforts were made to meet the established DBE goal(s).
- b. Required DBE Information as a matter of Proposer responsiveness:
The award of this Contract by Metro is conditioned upon the Proposer satisfying the good faith

effort requirements of 49 CFR 26.53. Proposers must present all of the required DBE information with their proposal as a matter of responsiveness for consideration of the proposal, as follows:

- i. All bidding firms are required to include a completed *DBE Participation Form* (included in this solicitation) and *DBE Confirmation Form* (included in this solicitation); and
- ii. All bidding firms are required to include a completed ***Bidder's List Form***.
- iii. If the DBE goal(s) is/are not met, documentary evidence of good faith efforts.

4. Evaluation of Responsiveness:

- a. A Bid proposal will not be read if the required DBE information is not included.
- b. If no DBE participation is intended by Proposer, the DBE Participation Form must indicate that good faith effort documentation is included with the bid proposal. A signed, blank or incomplete DBE Participation Form will be interpreted as meaning that no DBE participation is intended, and the bid deemed as not complying with submission of required DBE information and determined non-responsive.
- c. Required DBE information shall not be subject to revision after the closing date of specified in the solicitation.
- d. The information submitted on the DBE Participation Form will be verified by Metro's designated DBE Liaison Officer (DBLEO). Errors in addition will be treated in accordance with Metro's current specifications and procedures.

5. Good Faith Efforts to Secure DBE Participation

- a. If the Proposer fails to meet or exceed the established DBE goal, the Proposer must submit documentation evidencing that bona fide good faith efforts were undertaken to secure DBE participation as provided by 49 CFR Part 26, Appendix A, Part IV, quoted in italics below:

IV. The following is a list of types of actions which you should consider as part of the Proposer's good faith efforts to obtain DBE participation. It is not intended to be a mandatory checklist, nor is it intended to be exclusive or exhaustive. Other factors or types of efforts may be relevant in appropriate cases.

A. (1) Conducting market research to identify small business contractors and suppliers and soliciting through all reasonable and available means the interest of all certified DBEs that have the capability to perform the work of the contract. This may include attendance at pre-bid and business matchmaking meetings and events, advertising and/or written notices, posting of Notices of Sources Sought and/or Requests for Proposals, written notices or emails to all DBEs listed in the State's directory of transportation firms that specialize in the areas of work desired (as noted in the DBE directory) and which are located in the area or surrounding areas of the project.

(2) The Proposer should solicit this interest as early in the acquisition process as practicable to allow the DBEs to respond to the solicitation and submit a timely offer for the subcontract. The Proposer should determine with certainty if the DBEs are interested by taking appropriate steps to follow up initial solicitations.

B. Selecting portions of the Work to be performed by DBEs in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out Contract Work items into economically feasible units (for example, smaller tasks or quantities) to facilitate DBE participation, even when the prime contractor might otherwise prefer to perform these Work items with its own forces. This may include, where possible, establishing flexible timeframes for performance and delivery schedules in a manner that encourages and facilitates DBE participation.

C. Providing interested DBEs with adequate information about the plans, specifications, and requirements of the Contract in a timely manner to assist them in responding to a solicitation with their offer for the subcontract.

D. (1) Negotiating in good faith with interested DBEs. It is the Proposer's responsibility to make a portion of the Work available to DBE Subcontractors and suppliers and to select those portions of the Work or material needs consistent with the available DBE Subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBEs that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional Agreements could not be reached for DBEs to perform the Work.

(2) A Proposer using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE Subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBEs is not in itself sufficient reason for a Proposer's failure to meet the contract DBE goal, as long as such costs are reasonable. Also, the ability or desire of a prime contractor to perform the Work of a contract with its own organization does not relieve the Proposer of the responsibility to make good faith efforts. Prime contractors are not, however, required to accept higher quotes from DBEs if the price difference is excessive or unreasonable.

E. (1) Not rejecting DBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities. The Contractor's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union status) are not legitimate causes for the rejection or non-solicitation of bids in the contractor's efforts to meet the project goal. Another practice considered an insufficient good faith effort is the rejection of the DBE because its quotation for the work was not the lowest received. However, nothing in this paragraph shall be construed to require the Proposer or prime contractor to accept unreasonable quotes in order to satisfy contract goals.

(2) A prime contractor's inability to find a replacement DBE at the original price is not alone sufficient to support a finding that good faith efforts have been made to replace the original DBE. The fact that the Contractor has the ability and/or desire to perform the Contract Work with its own forces does not relieve the contractor of the obligation to make good faith efforts to find a replacement DBE, and it is not a sound basis for rejecting a prospective replacement DBE's reasonable quote.

F. Making efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance as required by the recipient or contractor.

G. Making efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials, or related assistance or services.

H. Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, State, and Federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBEs

6. Small Business Enterprise (SBE) Participation Program.

Metro has incorporated as an element of its DBE program, reasonable steps to eliminate obstacles for small business enterprises (SBEs), both DBE and non-DBE, in order to facilitate their competition on DOT assisted contracting opportunities, as provided by 49 CFR 26.39, as amended October 2, 2014.

- a. **Purpose/Objectives.** The purpose of Metro's Small Business Enterprise Participation Program is to foster race-neutral small business participation in DOT assisted projects. Since small business elements developed by Metro will be a part of its approved DBE program plan. Metro will use the definition of "small business concerns" set out in 49 CFR §26.5, as amended, in administering its program. This will ensure that all small businesses allowed to participate in the program (DBEs and non-DBEs) are subject to the same size standards and, consequently compete with similarly-sized businesses. By facilitating participation for small businesses, Metro believes that establishing program elements that pull together various ways for reaching out to small businesses, makes it easier for the small businesses to compete for DOT-assisted contracts, thus fostering the objectives of Metro's DBE program.
- b. **Definitions of Terms.** The definitions of terms contained in 49 CFR § 26.5, as amended October 2, 2014, shall be used as definitions in Metro's Small Business Enterprise Participation Program and are hereby incorporated by reference.
- c. **Fostering Small Business Participation.** As part of accomplishing this program element, Metro will actively use the following strategies to foster small business participation:
 - i. Metro will consider unbundling contracts on a case-by-case basis. The DBELO will review all scopes of work to determine if there are sections of work where there are definitely separable items that can be unbundled. Thus, when practical, on large scope contracts containing work involving different disciplines or trades, such contracts will be divided into potentially smaller contracting opportunities.
 - ii. On prime contracts exceeding \$100,000 not having DBE contract goals, Metro will require the prime contractor to provide subcontracting opportunities of a size that small business concerns, including DBEs, could reasonably perform, rather than self-performing all the work. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate SBE/DBE participation, even when the prime contractor might have the ability and otherwise prefer to perform these work items with its own forces.
 - iii. Generate awareness of Metro's procurement opportunities to small businesses by

utilizing broader advertising in print and electronic media, and advertisement circulation to small business representatives and stakeholder groups.

- iv. Participate in business development meetings and other stakeholder group hosted events intended to enhance procurement opportunities for small businesses.
 - v. Identify DBEs, non-DBE and SBEs in the local market area using Metro's Proposers list.
- d. **Eligibility Standards.** To ensure the eligibility of a small business concern, Metro will take steps to verify eligibility of a small business concern to participate in its Small Business Participation Program. Metro's Small Business Enterprise Participation Program prohibits small business concerns to self-certify/verify as small businesses.

Therefore, only those currently certified SBEs or SBEs that can be certified by the City of Omaha prior to a contract award are eligible for participation in Metro's Small Business Enterprise Participation Program. See: <http://www.cityofomaha.org/humanrights/contract-compliance> for a listing of City of Omaha eligible SBCs.

Certified SBEs should be noted on the Required Bidder's List Data form (Division 2).

- e. **Goal Setting/Reporting Requirements:** Metro's Small Business Enterprise Participation Program is intended to facilitate compliance with the 49 CFR §26.51, as amended October 2, 2014, (1) to meet the maximum feasible portion of Metro's overall DBE goals by using race-neutral means of obtaining DBE participation; and (2) to implement race-conscious measures by establishing goals that apply only to DOT-assisted contracts with subcontracting opportunities to meet any portion of the overall goal Metro is unable to meet using race-neutral means alone. The use of race-neutral small business goals on the same contracts that have DBE contract goals is difficult to administer. Therefore, Metro will not establish small business participation project goals in any contract solicitation that has a specified DBE goal.

Pursuant to 49 CFR §26.11(a), as amended October 2, 2014, Metro is required to track DBE project participation and transmit data via the Uniform Report of DBE Awards or Commitments and Payments to the applicable DOT operating administration. See: http://www.transportation.nebraska.gov/letting/DBE/Certified_DBEs_4-25-16.pdf for the *Directory of Nebraska of Department of Roads (NDOR) Certified Disadvantaged Business Enterprises.*

Therefore, race-neutral participation of DBEs certified through the NDOT achieved through the Small Business Enterprise Participation Program shall be counted towards attainment of Metro's overall DBE project goal established for any DOT-assisted contracts.

7. Good Faith Efforts Reconsideration.

If Metro's preliminary finding is that the proposer did not demonstrate a satisfactory effort to meet the contract DBE goal(s), the proposer may appeal the preliminary finding by submitting a writing request for reconsideration with three (3) days of the preliminary finding. The proposer may then present information either in a written narrative supporting its good faith efforts, or may appear in person. Any and all new information not included in the original SOQ documents will be excluded from the final determination. The appeal will be heard by a hearing officer appointed by the Executive Director. The hearing officer will be an individual who is knowledgeable about the DBE Program and

its good faith efforts provision, but how had no part in the preliminary finding. The hearing officer will hear the appeal within five (5) days of receipt of the written request, and issue a written decision within three (3) days following the appeal hearing. The hearing officer's decision is administratively final, and has no further appeal.

8. Substitution of DBE.

The Contract will require the Proposer awarded the Contract to promptly notify Metro whenever a DBE Subcontractor performing work related to the Work is terminated or fails to complete its Work, and must make good faith efforts to engage another DBE Subcontractor to perform at least the same amount of Work. The Proposer may not terminate any DBE Subcontractor and perform that Work through its own forces or those of an affiliate without prior written consent of Metro.

**SECTION 4. PROPOSAL SUBMISSION,
EVALUATION AND AWARD**

4.1 Proposal Copies

- A. The proposal package consists of two (2) sealed packages.
- B. The first sealed package should contain an original and six (6) bound, full, complete, and exact copies of the Technical Proposal. The package should be clearly labeled “Digital Signs and Integration Services NE-90-X111”.
- C. The second sealed package should contain an original and one (1) full, complete, and exact copies of the Cost Proposal. The package should be clearly labeled– “Digital Sign and Integration Services NE-90-X111-Cost Proposal.”
- D. Proposers are asked to submit a complete set of their Proposal Documents in an electronic format (flash drive) and submit with Cost Proposal packet.
- E. Pages in the Proposal document shall be numbered. The Proposer shall ensure that all copies and all electronic media are identical to the Proposer’s hardcopy, original submission. In case of a discrepancy, the hard copy shall govern.

4.2 Technical Proposal Format

- A. The technical proposal page limit is 20 pages. The Proposer may choose to allocate pages between any of the criteria as long as the proposal does not exceed 20 pages. If a Proposer submits a proposal exceeding this limit, Metro will consider the pages up to the allowable number and discard all subsequent pages.
- B. The following are excluded from the page count:
 - Title Page
 - Table of Contents
 - Letter of Transmittal
 - Tabs or Indices
 - Required forms such as certifications
 - Vendor Registration Form
 - Required Submittal Forms found in Division 2
- C. One page is defined as one side of a single, 8-1/2 x 11” page, with 11-point minimum font size for the substantive text. Any page over this size will be counted as two (2) pages. Any page or partial page with substantive text, tables, graphics, charts, résumés, etc. will be counted as one (1) page. Proposers may use their discretion for the font size of other materials (e.g. graphics, charts).

4.3 Technical Proposal Content

- A. Each technical proposal should enable the evaluation committee to make a thorough evaluation and arrive at a sound determination as to whether or not the proposal will meet Metro’s requirements. Each

technical proposal must be so specific, detailed and complete as to clearly and fully demonstrate that the Proposer has a thorough knowledge and understanding of the requirements and has valid and practical solutions for technical problems. Statements which paraphrase the requirements or attest that “standard procedures will be employed” are inadequate to demonstrate how the Proposer will comply with the requirements of this procurement.

B. To achieve a uniform review process and obtain the maximum degree of compatibility, technical proposals must be organized as follows:

1. Title Page

Show the RFP title, the name of the firm, address, telephone number(s), name and title of contact person, telephone number(s), email address, facsimile number and date.

2. Table of Contents

Clearly identify the materials by section and page number.

3. Letter of Transmittal

The letter should be addressed to Grant Administration, Jeff Rumery, and signed by a corporate officer with authority to bind the firm. The letter must contain the following:

- a. Identification of proposing firm(s), including name, address, telephone number(s) and email addresses of each subcontractor
- b. Proposed working relationship among proposing firms (e.g., prime, subcontractor), if applicable
- c. Acknowledgement of receipt of RFP addenda, if any
- d. Name, title, address, telephone number and email address of the contact person for this project
- e. Briefly state the firm’s understanding of the services to be performed and make a positive commitment to provide the services as specified

4. Approach

- a. Provide information on the Proposer’s approach to completing the scope of work and project tasks.

5. Company History and Experience

- a. Proposer should discuss the stability of the company and history in regards to successful integrations with real-time vehicle arrival times.
- b. Proposer experience in creating wayfinding interactive displays.

- c. Proposer experience in advertising and defining digital display signage based on location and with the ability to introduce custom alert messaging in real-time.
 - d. Value of hardware/software design and implementation to Metro and Metro Customers.
6. Exceptions, Omissions and Form of Contract
- a. Exceptions. The proposal should clearly identify any exceptions to the requirements set forth in this RFP.
 - b. Omissions. The Contractor will be responsible for providing all services, equipment, facilities, and functions which are necessary for the safe, reliable, efficient, and well-managed operation of the program, within the general parameters described in this RFP, and consistent with established industry practices, regardless of whether those services, equipment, facilities, and functions are specifically mentioned in this RFP or not. The Proposer should clearly identify any omissions to the requirements set forth in the RFP.
 - c. Sample Contract and Conditions. In addition to carefully reading all of the information in the RFP, the Proposer must carefully read and review the attached sample contract (Section 6). The successful Proposer will be required to enter into a contract with Metro, which will be substantially similar to the sample provided. Therefore, the Proposer must submit any proposed changes to the sample contract with the proposal. Any requested changes must be made legibly and conspicuously. Page(s) on which the change(s) appear must be tabbed so as to be easily identified. The Proposer must also provide the rationale for any requested changes. If no changes are requested, the Proposer will be deemed to have accepted the sample contract language. If the Proposer requests changes, such requests will be considered in any negotiations with Metro. Failure to reach an agreement may result in Metro pursuing negotiations with the second highest ranked Proposer.
7. Disclosure of Investigations/Actions. Proposer must provide a detailed description of any investigation or litigation, including administrative complaints or other administrative proceedings, involving any public sector clients during the past five (5) years including the nature and status of the investigation, and, for any litigation, the caption of the action, a brief description of the action, the date of inception, current status, and, if applicable, the disposition.
8. Debarment
- a. Proposer must certify that is not included in the "U. S. General Services Administration's List of Parties Excluded from Federal Procurement or Non-procurement Programs." Proposer must include a completed certification in the form attached in Division 2 of the RFP Documents.
 - b. Proposer agrees to refrain from awarding any Subcontractor of any amount (at any tier) to a debarred or suspended subcontractor. Proposer must include with its Proposal a completed certification in the form attached in Division 2 of the RFP Documents from each Subcontractor (at any tier) seeking a contract exceeding \$25,000.
 - c. Proposer agrees to provide Metro with a copy of each conditioned debarment or suspension certification provided by a prospective Subcontractor at any tier, and to refrain from awarding a

subcontract with any party that has submitted a conditioned debarment or suspension certification until FTA approval is obtained.

9. Lobbying

- a. Pursuant to Public Law 104-65, the Proposer is required to certify that no Federal funds were used to influence or attempt to influence an officer or employee of any Federal department or agency, a member of Congress or State legislature, an officer or employee of Congress or State legislature, or an employee of a member of Congress or State legislature regarding the project(s) included in this contract.
- b. Proposers who use non-Federal funds for lobbying on behalf of specific projects or proposals must submit disclosure documentation when these efforts are intended to influence the decisions of Federal officials. If applicable, Standard Form-LLL, "Disclosure Form to Report Lobbying", is required with the Proposer's first submission initiating the Metro's consideration for a contract. Additionally, Disclosure forms are required each calendar quarter following the first disclosure if there has been a material change in the status of the previous disclosure. A material change includes: 1) a cumulative increase of \$25,000 or more in the amount paid or expected to be paid for influencing or attempting to influence a covered Federal action; 2) a change in the person(s) or individual(s) influencing or attempting to influence a covered Federal action; or 3) a change in the officer(s) or employee(s) or Member(s) contacted to influence or attempt to influence a covered Federal action.
- c. The Proposer is required to obtain the same certification and disclosure from all subcontractors (at all tiers) when the Federal money involved in the subcontract is \$100,000 or more. Any disclosure forms received by the Proposer must be forwarded to Metro.

10. Employee Eligibility Verification

- a. The Proposer is required by sworn affidavit and provision of documentation, to affirm its enrollment and participation in a Federal work authorization program with respect to employees working in connection with the contracted services.
- b. The Proposer shall also affirm that it does not knowingly employ any person in connection with the contracted services who does not have the legal right or authorization under Federal law to work in the United States as defined in 8 U.S.C. §1324a(h)(3).
- c. The Proposer is required to obtain the same affirmation from all subcontractors at all tiers.

11. Buy America

- a. To the extent applicable to the Work, Proposer agrees to comply with 49 U.S.C. § 5323(j), and FTA's Buy America regulations at 49 C.F. R. Part 661, which provide that Federal funds may not be obligated unless steel, iron, and manufactured products used in this project are produced in the United States, unless a waiver of these provisions is granted. General waivers are listed in 49 C.F.R. 661.7. Proposer must submit to Metro the appropriate Buy America certification with its Proposal unless subject to a general waiver. Proposals that are not accompanied by a completed Buy America certification found in Division 2 of this solicitation will be rejected as nonresponsive.

4.4 Proposal Submission Requirements – Cost Proposal

A proposal response form/itemized BID sheet has been provided in Division 2. DO NOT DEVIATE FROM THE USE OF THIS FORM.

- A. The Cost Proposal shall be submitted in a separate, sealed envelope per RFP Instructions. **DO NOT INCLUDE COST PROPOSAL with other Submitted Proposal Documents – Separate Technical and Contractual Submissions per Section 4.3.**
- B. Vendors will include in their completed Bid Form document all costs required to design, provide, install, test, and maintain a complete system package in accordance with their offer.
- C. Proposer understands that pay applications submitted for this project work shall identify subcontractors, if applicable, the amount of payment to the subcontractor for each pay application period as well as cumulative total paid to the subcontractor for the term of the contract.

4.5 Basis for Contract Award

- A. This is a “Best Value,” competitive, negotiated source selection. Award of contract, if made, will be made to the responsive and responsible Proposer whose offer conforming to the solicitation is judged by an integrated assessment of the evaluation criteria to be the most advantageous to Metro, price/cost and other factors considered.
- B. Prior to the issuing Notice-of Intent to Award the Contract, Metro will review and evaluate each of those Proposals applying the criteria and requirements of the RFP Documents. Without limitation to any other Governmental Requirement, to be determined “responsible”, a Proposer must possess at the time of the award of the Contract the ability to perform successfully and a willingness to comply with the terms and conditions of the Contract, including (i) the financial resources adequate to perform the Contract, or the ability to obtain them; (ii) the ability to meet the required delivery or performance schedule, taking into consideration all existing commercial and governmental business commitments; (iii) a satisfactory performance record; (iv) a satisfactory record of integrity and business ethics; (v) the necessary organization, experience, accounting, and operational controls, and technical skills, or the ability to obtain them;(vi) compliance with applicable licensing and tax laws and regulations; (vii) the necessary production, construction, and technical equipment and facilities, or the ability to obtain them; (viii) compliance with Affirmative Action and Disadvantaged Business Program requirements; and (ix) any other qualifications and eligibility criteria necessary to receive an award under any Governmental Requirement.

Notwithstanding anything contained in the RFP Documents to the contrary and without limitation to any additional right of Metro in respect of such matters, Metro reserves the right to deem any Proposer as not responsible if: such Proposer has failed to comply with any requirements of the RFP Documents, including any pre-qualification requirements cited therein as a requirement or condition of the submission of a Proposal; whether the Proposer has failed to pay, or satisfactory settle, any amount to due for labor and materials in connection with a current contract with Metro as of the Submission Deadline; or the Proposer was declared to be in default in any previous contract with Metro that was not resolved to the reasonable satisfaction of Metro or whose work in a prior contract with Metro was otherwise found by Metro to be deficient or otherwise not satisfactory, as reasonably determined by Metro.

- C. Metro may select other than the lowest cost/priced, technically acceptable offer if it is determined that the additional technical merit offered is worth the additional cost in relation to other proposals received. Metro is more concerned with obtaining excellent technical features than with making an award at the lowest overall cost/price to the Authority. However, Metro will not make an award at a significantly higher overall cost to achieve only slightly superior technical features.
- D. Proposers are further cautioned that Metro may not necessarily make an award to the Proposer with the highest technical ranking if doing so would not represent the best value to Metro. For evaluation purposes, if proposals become more technically equivalent, than cost/price becomes more important and may be the deciding factor.

4.6 Technical Proposal Evaluation Criteria

- A. Proposals will be evaluated by an Evaluation Committee on the basis of the following weighted criteria.
 - 10% - Approach to completing scope of work and project tasks
 - 15% - Stability of bidding company and history of bidder in regards to successful integrations with real-time vehicle arrival times
 - 15% - Experience in creating wayfinding interactive displays
 - 15% - Experience in advertising and defining digital display signage based on location and with the ability to introduce custom alert messaging in real-time
 - 15% - Value of hardware/software design and implementation to Metro and Metro customers
 - 30% - Total cost of system ownership to Omaha Metro

4.7 Presentations/Interviews/Written Responses

- A. After the submission of proposals, selected Proposers with the highest evaluation score(s) may be invited to interview with the evaluation committee concerning its technical proposal. The evaluation committee may also require a Proposer(s) to submit written responses to questions regarding its proposal.
- B. Proposers selected for interview will be notified by telephone and follow up letter to advise of date and time. Interviews are tentatively scheduled August 12th and 13th, 2019. Selected Proposers will be informed as to the exact time and other details regarding the interview.

4.8 Negotiations & Best and Final Offers

- A. Additional contract negotiations may be required with the highest ranked Proposers prior to final contract award. Metro may solicit a Best and Final Offer (BAFO) from one or more Proposers. Metro may or may not contact all Proposers to negotiate and/or to submit a BAFO.
- B. After receipt of the results of the proposal evaluations, interviews, and BAFO(s), if applicable, the evaluation committee will complete its evaluation and recommend for award to the responsive and responsible Proposer(s) judged to provide the best value to Metro.

DIVISION 2-
REQUIRED SUBMISSION DOCUMENTS

REQUIRED SUBMISSION DOCUMENTS

The Transit Authority of the City of Omaha
PROJECT NAME: DIGITAL SIGNS AND INTEGRATION SERVICES
PROJECT #: NE-90-X111
SPEC NO: 26-18

The following forms are required to be submitted with the bid proposal and can be found on the pages following.

- _____ Proposal Form (to be included in the Cost Proposal Envelope ONLY)
- _____ Exhibit "A" to the General Conditions, Federal Clauses for Procurement of Construction
- _____ Exhibit "B" to the General Conditions, Debarment/Suspension - Prime
- _____ Exhibit "C" to the General Conditions, Debarment/Suspension - Sub
- _____ Exhibit "D" to the General Conditions, Affidavit of Non-Collusion – Prime
- _____ Exhibit "E" to the General Conditions, Lobbying Certification
- _____ Exhibit "F" Request for Substitutions/Approved Equals
- _____ Exhibit "G" Acknowledgement of Addendum
- _____ Exhibit "H" Conflict of Interest Disclosure
- _____ Exhibit "I" Buy America Acknowledgement
- _____ Exhibit "J" Davis Bacon Wage Acknowledgement
- _____ Exhibit "K" Required DBE Participation Form
- _____ Exhibit "L" Required DBE Confirmation Form
- _____ Exhibit "M" Documentation of Good Faith Effort
- _____ Exhibit "N" Bidder's List Data Form

Please ensure all forms are signed and dated and all requested information is assigned.

PROPOSAL FORM

To: The Transit Authority of the City of Omaha d/b/a Metro
2222 Cuming Street
Omaha, Nebraska 68102

The undersigned, having carefully examined the Drawings, Specifications, and all Addenda thereto and other RFP Documents prepared by METRO for the procurement of digital signs and integration services and having carefully familiarized himself with Federal, State and local laws, ordinances, rules and regulations affecting performance of the work, do hereby propose to furnish all items as described in said RFP Documents including Addenda No(s).

_____ issued thereto, for _____.
Dollars (\$ _____).

The undersigned understands the conditions of the project as stipulated in the Bid Form herein attached.

BASE BID -

ORBT Digital signs and Integration Services as called out in Division 1- RFP Solicitation

BID ALTERNATE 1-

Digital Signs and integration services Metro's Transit Centers.

BID ALTERNATE 2-

Infotainment signs and integration services for the New Flyer ORBT Vehicles

This project is sales tax exempt. Bidders shall not include sales tax in their bid. Metro will issue the successful bidder with a sales Tax Exemption certificate and Purchasing Agent Appointment for materials used on this project.

The undersigned agrees to execute the Contract within ten (10) days from and after the Notice of Award and further agrees to begin and complete all work under Contract within the time limits set forth in the RFP document.

The undersigned hereby assures that they will make sufficient and reasonable efforts to meet the DBE goals, and that they will provide DBE participation in the amount of **0%** of the dollar value of the prime contract to DBE firms. The DBE participation will be counted in accordance with 49 CFR 26.55.

The undersigned also assures that they will include the DBE clauses required by the Sponsor's DBE Program in all subcontracts that offer subcontracting opportunities. The undersigned will complete and submit (with the bid) the attached DBE Participation Form, including a demonstration of good faith effort if the DBE goal is not met. Along with the DBE Participation Forms the bidder shall submit a DBE Confirmation Form signed by each DBE subcontractor.

The undersigned certifies that they do not maintain or provide for their employees any segregated facilities at any of their establishments, and that they do not permit their employees to perform their services on any location under their control where segregated facilities are maintained. The undersigned certifies further that they will not maintain or provide for their employees any segregated facilities at any of their establishments, and that they will not permit their employees to perform their services at any location, under their control, where segregated facilities are maintained. The undersigned agrees that a breach of this certification is a violation of the equal opportunity clause in this contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, or national origin, because of habit, local custom, or any other reason. The undersigned agrees that (except where they have obtained identical certifications from proposed small Subcontractors for specific time periods) they will obtain identical certifications from proposed Subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the equal opportunity clause, and that they will retain such certifications in their files.

The undersigned specifically agrees not to discriminate against any recipients of services on the basis of race, color, sex, religion, creed, age, marital status, physical or mental disability, political affiliation, national origin or ancestry, and not to discriminate against any employees or applicant for employment on the basis of race, color, sex, religion, creed, age, marital status, physical or mental disability, political affiliation, national origin or ancestry.

The undersigned states that they are complying with and will continue to comply with fair labor standards, as defined in Nebraska State Statutes, in the pursuit of their business and in the execution of the contract pursuant to this bid.

The undersigned hereby declares that the only parties interested in this proposal are named herein, that this proposal is made without collusion with any other person, firm, or corporation, that no member of the council, officer or agent of the sponsor, is directly or indirectly financially interested in this bid.

The undersigned Contractor is complying with and will continue to comply with Fair Labor Standards as defined in Nebraska State Statutes, in pursuit of all business including execution of the Contract on which we are bidding herein.

In the event of a discrepancy between unit prices quoted in this Proposal and the extensions or totals, the unit prices shall control.

Respectfully submitted,
Signature of Proposer:

a) If an Individual:	
	(Signature of Individual)
Doing business as:	
	(Name of firm)
b) If a Partnership:	
	(Name of Partnership)
	(Signature of Partner)
	(Signature of Partner)
c) If a Corporation:	
	(Name of Corporation)
ATTEST:	
	(Officer's Signature)
	(Title)

Business Address:

Phone No. _____

Fax No. _____

BID FORM

ITEM No.	DESCRIPTION	MINIMUM QUANTITY	UNIT PRICE	AMOUNT
1	Furnish 35-38" Digital Wide Screen Overhead Wall Mounted Display Sign (Slot Sign)	24 EA		
2	Furnish Single Sided, Overhead Wall Mounted Display Case, For Slot Sign Size 35-38"	24 EA		
3	Furnish 47-52" Single Sided Wall mounted Touchscreen Information Kiosk	48 EA		
4	Furnish 47-52" Single Sided, Touch Screen Information Kiosk Enclosure/Display Case- wall mounted	48 EA		
5	Furnish and Install Digital Display Management Software and Hosting	1 LS		
6	Complete Digital Display System Integration with AVL System	1 LS		
7	Complete Digital Display System Training and Provide Documentation	1 LS		
8	Digital Display System Warranty and Support Services	1 LS		
TOTAL BASE BID (ITEMS 1-8)				

TOTAL BASE BID –for items 1 thru 8 is _____

_____ and _____ cents.

(Contractor to write out total base bid in addition to that provided in the tabular total).

GENERAL

Proposed contractor must propose and provide a list of recommended spares components, with individual prices and its availability, (I.e. carried in stock and if not, lead time for availability)

BID FORM – BID ALTERNATE 1

(Digital Signs and Integration Services at Metro Transit Centers)

ITEM No.	DESCRIPTION	MINIMUM QUANTITY	UNIT PRICE	AMOUNT
1	Furnish 47-52" Double Sided Digital Wide Screen Overhead Display Ceiling Mount Sign (Slot Sign)	36 EA		
2	Furnish Double Sided, Overhead Ceiling Mounted Display Case, For Double Sided Slot Sign Size 47-52"	36 EA		
3	Furnish 47-52" Single Sided, Touchscreen Information Kiosk – Floor Mounted	5 EA		
4	Furnish 47-52" Single Sided, Floor Mounted Touch Screen Information Kiosk Enclosure/Display Case	5 EA		
5	Furnish and Install Digital Display Management Software and Hosting	1 LS		
6	Complete Digital Display System Integration with AVL System	1 LS		
7	Complete Digital Display System Training and Provide Documentation	1 LS		
8	Digital Display System Warranty and Support Services	1 LS		
TOTAL BASE BID (ITEMS 1-8)				

TOTAL BASE BID –for items 1 thru 8 is _____

_____ and _____ cents.

(Contractor to write out total base bid in addition to that provided in the tabular total).

GENERAL

Proposed contractor must propose and provide a list of recommended spares components, with individual prices and its availability, (I.e. carried in stock and if not, lead time for availability)

BID FORM – BID ALTERNATE 2

(Digital Signs and Integration Services for New Flyer ORBT Vehicles)

ITEM No.	DESCRIPTION	MINIMUM QUANTITY	UNIT PRICE	AMOUNT
1	Furnish 20-24" Infotainment Signs for Vehicles	30 EA		
2	Provide mounting hardware for internal mounting to vehicle interior	30 EA		
3	Furnish and Install Digital Display Management Software and Hosting	1 LS		
4	Complete Digital Display System Integration with AVL System	1 LS		
5	Complete Digital Display System Training and Provide Documentation	1 LS		
6	Digital Display System Warranty and Support Services	1 LS		
TOTAL BASE BID (ITEMS 1-6)				

TOTAL BASE BID –for items 1 thru 6 is _____

_____ and _____ cents.

(Contractor to write out total base bid in addition to that provided in the tabular total).

GENERAL

Proposed contractor must propose and provide a list of recommended spares components, with individual prices and its availability, (i.e. carried in stock and if not, lead time for availability)

"CERTIFICATE"

A Corporate Contractor, in submitting this Proposal hereby represents that the Corporation has complied with all Nebraska Statutory requirements, which are prerequisite to its being qualified to do business in the State of Nebraska, or that it will take all steps necessary to so qualify, if the successful bidder.

By _____
(Name of Corporation) (Officer) (Title)

If Foreign Corporation: _____
Nebraska Resident Agent

SYNOPSIS OF EXPERIENCE RECORD

(This synopsis must accompany Proposal Form)

Name of Bidder: _____

Business Address: _____

Check one: Individual () Partnership () Corporation ()

Construction successfully completed within the past five years similar in size, scope, and difficulty of construction to the work bid upon.

	Name of Owner	Name of Project	Location of Project	Amount of Contract
1.				
2.				
3.				
4.				

	Number of Contract Days Allowed for Above Projects	Actual Number of Days to Complete Above Project
1.		
2.		
3.		
4.		

Signed: _____
(Name of Company)

By: _____

Title: _____

Date: _____

END OF PROPOSAL FORM

**EXHIBIT A
RECEIPT OF FEDERAL CLAUSES**

Project: DIGITAL SIGNS AND INTEGRATION SERVICES

Date:

Project No. NE-90-X111

Specification No. 26-18

I have reviewed the attached Federal Clauses for Procurement of Construction in conjunction with Metro's procurement of **Project No. NE-90-X111, Specification No. 26-18** for which:

has provided qualifications for consideration and hereby affirm that:

shall conform to and abide by all aforementioned requirements as set forth and any amendments thereto.

Authorized Representative

Title

Company Name

DUNS/TINS Number

Date

EXHIBIT B
DEBARMENT AND SUSPENSION CERTIFICATION FOR PROSPECTIVE CONTRACTOR

Primary covered transactions must be completed by Bidder for contract value over \$25,000.

Choose one alternative:

- The Proposer, _____ certifies to the best of its knowledge and belief that it and its principals:
 1. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any federal department or agency;
 2. 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 or embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
 3. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (federal, state, or local) with commission of any of the offenses enumerated in Paragraph 2 of this certification; and
 4. Have not within a three-year period preceding this Proposal had one or more public transactions (federal, state or local) terminated for cause or default. OR
- The Proposer is unable to certify to all of the statements in this certification, and attaches its explanation to this certification. (In explanation, certify to those statements that can be certified to and explain those that cannot.) The Proposer certifies or affirms the truthfulness and accuracy of the contents of the statements submitted on or with this certification and understands that the provisions of Title 31 USC § Sections 3801 are applicable thereto.

Executed in:

Name

Authorized Signature

EXHIBIT C

DEBARMENT AND SUSPENSION CERTIFICATION (LOWER-TIER COVERED TRANSACTION)

This form is to be submitted by each Subcontractor receiving an amount exceeding \$25,000.

–The prospective lower-tier participant (Proposer) certifies, by submission of this Proposal, that neither it nor its “principals” as defined at 49 CFR § 29.105(p) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any federal department or agency.

If the prospective Proposer is unable to certify to the statement above, it shall attach an explanation, and indicate that it has done so by placing an “X” in the following space: _____

THE Proposer, _____ CERTIFIES OR AFFIRMS THE TRUTHFULNESS AND ACCURACY OF _____

EACH STATEMENT OF ITS CERTIFICATION AND EXPLANATION, IF ANY. IN ADDITION, THE PROPOSER UNDERSTANDS AND AGREES THAT THE PROVISIONS OF 31 USC §§ 3801 ET SEQ. APPLY TO THIS CERTIFICATION AND EXPLANATION, IF ANY.

Name and title of the Bidder’s authorized official:

Name	Title
------	-------

Authorized Signature	Date
----------------------	------

DUNS/TIN Number:

**EXHIBIT D
NON-COLLUSION AFFIDAVIT**

This affidavit is to be filled out and executed by the Proposer; if a corporation makes the proposal, then by its properly executed agent. The name of the individual swearing to the affidavit should appear on the line marked "Name of Affiant." The affiant's capacity, when a partner or officer of a corporation, should be inserted on the line marked "Capacity." The representative of the Proposer should sign his or her individual name at the end, not a partnership or corporation name, and swear to this affidavit before a notary public, who must attach his or her seal.

The form does not modify, replace, amend or supersede any provisions of the RFP Documents or the Contract Documents.

<p>– State of _____, County of _____</p> <p>I, _____, being first duly sworn, do hereby state that (Name of Affiant)</p> <p>I am _____ of _____ (Capacity) (Name of Firm, Partnership or Corporation)</p> <p>whose business is and who resides at _____</p> <p>and that _____ (Give names of all persons, firms, or corporations interested in the bid)</p> <p>is/are the only person(s) with me in the profits of the herein contained Contract; that the Contract is made without any connection or interest in the profits thereof with any persons making any bid or Proposal for said Work; that the said Contract is on my part, in all respects, fair and without collusion or fraud, and also that no members of the Board of Directors, head of any department or bureau, or employee therein, or any employee of the Authority, is directly or indirectly interested therein.</p>	
<p>Sworn to before me this _____ day of _____, 20____.</p>	<p>- Seal -</p>
<p>Notary Public Expires</p>	<p>My Commission</p>

**EXHIBIT E
LOBBYING CERTIFICATE**

The Proposer certifies, to the best of its 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 a federal department or agency, a member of the U.S. Congress, an officer or employee of the U.S. Congress, or an employee of a member of the U.S. 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 thereof.
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 instruction, 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, USC § 1352 (as amended by the Lobbying Disclosure Act of 1995). 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.

THE PROPOSER, _____, CERTIFIES OR AFFIRMS THE TRUTHFULNESS AND ACCURACY OF EACH STATEMENT OF ITS CERTIFICATION AND DISCLOSURE, IF ANY. IN ADDITION, THE PROPOSER UNDERSTANDS AND AGREES THAT THE PROVISIONS OF 31 USC §§ 3801 ET SEQ. APPLY TO THIS CERTIFICATION AND DISCLOSURE, IF ANY.

Name of the Proposer or Proposer's Authorized Official

Title

Signature

Date

EXHIBIT F
REQUEST FOR SUBSTITUTIONS/APPROVED EQUALS

DIGITAL SIGNS AND INTEGRATION SERVICES
Metro Project NE-90-X111, Specification No. 26-18
Date _____

Use one form per requested equal/per clarification; duplicate as needed.

SPECIFIED ITEM: _____
Section: _____
Drawing Number(s): _____ Detail Number(s): _____

PROPOSED SUBSTITUTION: _____

REASON FOR NOT GIVING PRIORITY TO SPECIFIED ITEMS: _____

Attach product data that includes description, specifications, drawings, photographs, performance and test data adequate for evaluation of request; applicable portions of data are clearly identified.
Attached data also includes a description of changes to Contract Documents that proposed substitution will require for its proper installation.

The undersigned certifies that the following paragraphs, unless modified by attachments, are correct:

1. Proposed Substitution has been fully checked and coordinated with Contract Documents.
2. Proposed Substitution does not affect dimensions shown on Drawings.
3. Proposed Substitution does not require revisions to mechanical or electrical work.
4. The undersigned will pay for changes to building design, including Architectural and Engineering design, detailing, and construction costs caused by requested Substitution.
5. Proposed Substitution will have no adverse affect on other trades, construction schedule, or specified warranty requirements.
6. Maintenance and service parts will be locally available for proposed substitution.

The undersigned further states that the function, appearance, and quality of proposed Substitution are equivalent or superior to specified item.

Submitted by:

(Firm) By: _____
(Signature)

(Address) Telephone: (____) _____

For use by the Architect/Engineer:

Approved Approved as noted Not Approved Received too late

Signature	Title	Date
Remarks:		

EXHIBIT G
ACKNOWLEDGMENT OF ADDENDA

DIGITAL SIGNS AND INTEGRATION SERVICES--- *This form must be submitted as an attachment to the Bid Proposal Form ---*

If, in the course of this request for offers, it becomes necessary to modify the original solicitation documents, acknowledged receipt of each addendum must be clearly established and included with the Offer. Failure to acknowledge receipt of all addenda may cause an Offer to be considered non-responsive.

Acknowledgment of Addenda

Project: DIGITAL SIGNS AND INTEGRATION SERVICES

Project No.: NE-90-X111 Specification No.: **26-18**

The undersigned acknowledges receipt of the following addenda to the original solicitation documents:

Addendum No. _____,	Dated _____
Addendum No. _____,	Dated _____
Addendum No. _____,	Dated _____
Addendum No. _____,	Dated _____
Addendum No. _____,	Dated _____
Addendum No. _____,	Dated _____

Company

Street Address, City, State, Zip

Signature of Authorized Representative

Title of Authorized Representative

Phone

EXHIBIT H
CONFLICT OF INTEREST DISCLOSURE STATEMENT

Project Name: DIGITAL SIGNS AND INTEGRATION SERVICES

As the Contractor's project manager or approved representative, I, _____ hereby certify that: I am familiar with the attached conflict of interest guidance and the conflict of interest laws including, but not limited to, 49 CFR 18.36, 48 Fed Reg. 34263, 40 CFR 1506 and Nebraska Rev. Stat. §§49-1401 to 1444 and 49-1493 to 14,104.

- And to the best of my knowledge and belief, of all relevant facts – concerning past present or currently planned interests or activities (financial, contractual, organizational or otherwise that relate to the proposed work and bear on whether I have or my organization has a possible conflict of interest), determined that, for myself, any Owner, partner or employee with my firm or any of my sub-consulting firms providing services for this project, including any family members and personal interests, that for the above referenced project:

- No real or potential conflicts of interest exist with respect to (1) be able to render impartial, technically sound, and objective assistance or advice and (2) being given an unfair competitive advantage

- Real conflicts of interest or the potential for conflicts of interest exist.

- Furthermore, I certify that I have reviewed the proposed scope of work and project area and to the best of my knowledge, determined that, for myself, any Owner, partner or employee, with my firm or any of my sub-consulting firms providing services for this project, including family members and personal interests of the above persons that are no financial or other interests in the outcome of the project, including but not limited to work associated with the Bus Rapid Transit Final Design unless described and noted on the attached.

If a real or potential conflict has been identified, describe on the attached sheet the nature of the conflict, including the information requested on the reverse side of this form for the type of conflict being reported, and provide a detailed description of Contractor's proposed mitigation measures (if possible). Complete and sign this form and send it, along with all attachments, to Metro.

Furthermore, I certify that for myself, any Owner, partner or employee with my firm or any of my sub-consulting firms providing services for this project, will comply with professional codes of conduct governing participation in the above referenced project and whenever conducting business on behalf of Metro.

I recognize that a conflict of interest disclosure is an ongoing obligation. Should I or my organization become aware of any actual or potential conflicts of interest during the performance of this contract, I or my organization will advise Metro and propose mitigation or explain why none is needed. Conflicts of interest or the failure to disclose conflicts, real or potential, may preclude award of a contract or termination of a contract for cause.

Signature: _____

Printed Name: _____

Title: _____

Organization: _____

Date: _____

EXHIBIT H- (cont.)
CONFLICT OF INTEREST DISCLOSURE FORM

The following Sections are provided as guidance in determining whether a real or potential Conflict of Interest (COI) exists and in disclosing details concerning potential conflicts of interest.

Section 1 – Contractor Officer or Employee COI

Is there anyone in your firm or business who is either; (1) employed by, on a full or part time basis; or (2) a public official or agent of, the local public agency or partner agencies from whom this Request for Qualifications (IFB) has been received?

If yes, please list below: (1) the name, address and phone number of the person(s); (2) the position held by that person(s) with Contractor; (3) the position held by that person(s); and (4) a detailed description of the duties of that person(s) for the local public agency, including whether that person(s) has any duties concerning the negotiating, approving, accepting or administering of any contract or subcontract for the federal-aid transportation project?

Section 2 – Persons Associated with local public agency, Financial or Personal Interest Conflict of Interest

The potential for conflicts of interest extends to persons associated with a local public agency official, employee or agent. There may be a conflict of interest on a federal-aid project if a person associated with an official, employee or agent has a financial or personal interest in a consulting firm or business providing services for a project. These indirect conflicts of interest can extend to the following persons associated with an LPA official, employee, or agent: (a) Any member of his [or her] immediate family; (b) his [or her] partner; or (c) an organization which employs, or is about to employ, any of the above, when that organization has a financial or other interest in the firm selected for award. Is there anyone with a financial or personal interest in your firm or business who is associated with (as listed in the preceding sentence) and responsible for negotiating, approving, accepting or administering any contract or subcontract on behalf of Metro for this project?

If yes, please below: (1) the name, address and phone number of the person(s); (2) the nature of the financial or personal interest in firm; (3) the person's relationship to Metro, including the position held by the official, employee or agent of Metro; and (4) a detailed description of the duties of the official, employee or agent of Metro, including whether that person(s) has any duties for the Metro concerning the negotiating, approving, accepting or administering of any contract or subcontract for Metro's federal-aid transportation project?

EXHIBIT H- (cont.)
CONFLICT OF INTEREST DISCLOSURE FORM

Section 3 – Real Estate COI

If Contractor (or sub-Contractor) has an interest in real estate located along or near the project **that might be acquired, in whole or in part**, for this federal-aid transportation project, which interest is either; (1) through anyone in Contractor’s organization, including a member of immediate family or a sub-Contractor, having an ownership interest in; or (2) through a client for whom Contractor has been retained to provide professional services to the owner for that tract of land, then Contractor must disclose such interest and abstain from being involved in any aspect of the right-of-way valuation or acquisition process for the federal-aid transportation project.

If either of these situations exist, please provide below: (1) the name of the Owner, the address and legal description of the property, and a description of the Contractor’s interest in the property; (2) a map or aerial photo identifying the location of the property; (3) a description of the potential need or use of this property for the federal-aid transportation project; and (4) a declaration by Contractor that it will comply with the third sentence of 23 CFR Section 1.33.

Section 4 – Outcome of Project bias/Objectivity

If Contractor, agent or subcontractor because of other activities, financial interests, relationships, or contracts is unable, or potentially unable, to render impartial assistance or advice to the grantee (including the appearance of inability), then the Contractor must disclose such interest.

If any of these situations exist, please list below the nature of any potential partiality or appearance of any potential bias when Contractor, agent or subcontractor has or at any time during the life of the contract, any pecuniary or other interests in the outcomes of the project not listed above.

Section 5 – Unfair Competitive Advantage

Unfair competitive advantage occurs when one contractor has information not available to other contractors in the normal course of business. For example, an unfair competitive advantage would occur when a contractor developing specifications or work statements has access to information that the grantee has paid the contractor to develop, or information which the grantee has furnished to the contractor for its work, when that information has

**EXHIBIT H- (cont.)
CONFLICT OF INTEREST DISCLOSURE FORM**

not been made available to the public. Another example where an unfair competitive advantage might arise is where a contractor is allowed to write specifications or statements of work around its own or an affiliate's corporate strengths or products and then compete for a contract based on those specifications. If an individual employee has access to inside information, a possible solution would be to wall off that employee, so he cannot give his employer an unfair competitive advantage.

If any of these conditions exist, describe below (1) the nature of the unfair competitive advantage including the type of information involved, (2) its source, and (3) the dates when such information was obtained or generated.

Section 6 – Supplemental

Do you (or your organization or subcontractor(s)) have or have you ever had any contracts, agreements, special clauses or other arrangements which prohibit you from proposing work to be performed in this solicitation or any portion thereof:

To avoid what you perceive as a possible conflict of interest do you or your organization or subcontractors propose to exclude portions of the proposed work; employ special clauses; or take other measures?

Other relevant information pertaining to a conflict of interest or potential for a conflict of interest:

**EXHIBIT H- (cont.)
CONFLICT OF INTEREST DISCLOSURE**

Section 7 – Mitigation Plan

If applicable, please describe any proposed mitigation measures or plan:

Signature: _____

Printed Name: _____

Organization: _____

Title: _____

Date: _____

EXHIBIT I
BUY AMERICA ACKNOWLEDGEMENT

The Proposer must submit to Metro the appropriate Buy America certification below with its Proposal. Proposals that are not accompanied by a completed Buy America certification will be rejected as nonresponsive. In accordance with 49 C.F.R. § 661.6, for the procurement of steel, iron or manufactured products, use the certifications below.

Certificate of Compliance with Buy America Requirements

The Proposer hereby certifies that it will comply with the requirements of 49 U.S.C. 5323(j)(1), and the applicable regulations in 49 C.F.R. part 661.

Date: _____

Signature: _____

Company: _____

Name: _____

Title: _____

Certificate of Non-Compliance with Buy America Requirements

The Proposer hereby certifies that it cannot comply with the requirements of 49 U.S.C. 5323(j), but it may qualify for an exception to the requirement pursuant to 49 U.S.C. 5323(j)(2), as amended, and the applicable regulations in 49 C.F.R. § 661.7.

Signature: _____

Date: _____

Name: _____

Company: _____

Title: _____

EXHIBIT J
DAVIS BACON WAGE ACKNOWLEDGEMENT

Project: DIGITAL SIGNS AND INTEGRATION SERVICES

Date _____

Project No.: NE-90-X111

Specification No.: 26-18

I have reviewed the attached Davis-Bacon Preliminary Wage Determination (Attachment 1) in conjunction with Metro's procurement of **DIGITAL SIGNS AND INTEGRATION SERVICES** for which _____
_____ has provided pricing and hereby affirm that _____ shall conform to and abide by the aforementioned requirements and as set by the Davis-Bacon Act and any amendments thereto.

Authorized Representative

Title

Company Name

Date

**EXHIBIT K
REQUIRED DBE PARTICIPATION FORM**

All Proposers are required to complete and submit this form with their proposal.
The DBE goal for this project is **0%** of Proposer's total base bid.

The undersigned Proposer has satisfied the requirements of the RFP Documents in the following manner (please check the appropriate space):

_____ The Proposer is committed to a minimum of _____% DBE utilization on this contract.

_____ The Proposer (if unable to meet the DBE goal of 0%) is committed to a minimum of _____% DBE utilization on this contract and submits documentation demonstrating good faith efforts.

Name of Letting Agency: Metro		Name of Project: DIGITAL SIGNS AND INTEGRATION SERVICES		
METRO Project #: NE-90-x111		METRO Specification #: 26-18		
	Name of Certified DBE	Description of Work or Line Item Number	\$ Amount to be Paid DBE	Amount to be Credited Toward Goal
1				
2				
3				
4				
5				

NOTE: Overhead costs are not eligible for DBE credit. Show only the amount that will actually be paid to the DBE. Only 60% of the amount paid to a DBE supplier, for materials, may be credited toward the goal.

_____ Print Name of Firm

_____ Print Name of Authorized Representative Print Email Address

_____ Print Title of Authorized Representative

_____ Print Street Address/Mailing Address (including City, State & Zip)

_____ Area Code & Telephone Number Area Code & Fax Number

_____ Signature of Authorized Representative

(NOTE: If additional sheets are needed, attach to this sheet. However, show the contract total on this sheet.

**EXHIBIT L
REQUIRED DBE CONFIRMATION FORM**

All Proposers are required to have DBEs complete this form and submit it with their proposal.

Base Bid

Name of Letting Agency: Metro	Name of Project: Digital Signs and Integration Services
METRO Project #: NE-90-X111	METRO Specification #: 26-18
Item Number or Description of Work to be Completed by This DBE:	
Dollar Amount to be Completed by This DBE:	

Print Name of Firm

Print Name of Authorized Representative Print Email Address

Print Title of Authorized Representative

Print Street Address/Mailing Address (*including City, State & Zip*)

Area Code & Telephone Number Area Code & Fax Number

Signature of Authorized Representative

EXHIBIT M
DOCUMENTATION OF GOOD FAITH EFFORT

The Proposer (if unable to meet the DBE goal of **0%** of the **Base Bid**) is committed to a minimum of _____ % DBE utilization on this contract and hereby submits the following *minimum* documentation to demonstrate its good faith efforts.

Name of Letting Agency: METRO	Name of Project: Digital Signs and Integration Services		
METRO Project # : NE-90-X111	METRO Specification #: 26-18		
Did Prime-Contractor examine the Nebraska Unified Certification Program DBE Directory?	Yes	No	
Did Prime-Contractor attend the Pre-Bid Conference?	Yes	No	
DBE Firm Considered			
Name of DBE Firm	Area Code & Telephone Number		
DBE Firm Contact Person	Date Contacted		
Describe the information provided regarding the plans and specifications for the work selected for subcontracting and evidence			
DBE Firm Considered			
Name of DBE Firm	Area Code & Telephone Number		
DBE Firm Contact Person	Date Contacted		
Describe the information provided regarding the plans and specifications for the work selected for subcontracting and evidence			

**EXHIBIT M – (CONT.)
DOCUMENTATION OF GOOD FAITH EFFORT**

DBE Firm Considered	
Name of DBE Firm	Area Code & Telephone Number
DBE Firm Contact Person	Date Contacted
Describe the information provided regarding the plans and specifications for the work selected for subcontracting and evidence	

Print Name of Firm

Print Name of Authorized Representative

Print Email Address

Print Title of Authorized Representative

Print Street Address./Mailing Address (*including City, State & Zip*)

Area Code & Telephone Number

Area Code & Fax Number

Signature of Authorized Representative

(NOTE: Copy as needed, execute first signature page only).

EXHIBIT N
DOCUMENTATION OF GOOD FAITH EFFORT

BIDDERS LIST DATA FORM

Metro is required pursuant to 49 CFR Part 26(c) to create and maintain a comprehensive Bidders List. This Bidders List Data Form will be used to collect bidder information used to determine the relative availability of Disadvantaged Business Enterprise (DBE) and non-DBEs, and will assist with establishing Metro's annual DBE goal. Metro's Bidders List is a compilation of bidders, proposers, quoters, subcontractors, and suppliers of materials and services who have submitted bids during the advertising period of a solicitation for services and/or goods. **Please print legibly and provide the following information:**

PART A: BUSINESS DATA

1. Business Name: _____
2. Business Address: _____

3. Contact Person: _____ Title: _____
4. Phone: () _____ Fax: () _____
5. Email Address: _____
6. Is this business a certified DBE under Nebraska's Department of Roads Unified Certification Program? ____ Yes ____ No
7. Age of Business: ____ Years ____ Months
8. Business Annual Gross Receipts:
 < \$500,000 \$500,000 to \$1,000,000 \$1,000,000 to \$2,000,000
 \$2,000,000 to \$5,000,000 >\$5,000,000

PART B: PROJECT AND WORK DESCRIPTION

9. Project Name: _____
10. Provide a brief description of the scope of work, service, and/or materials to be performed or furnished:

11. Provide the NAICS code(s) that best defines your business: _____
12. Will the business subcontract any of work, service, and/or materials? ____ Yes* ____ No
(*If Yes, then the subcontractor(s) must also complete an individual Bidders List Data Form.)

PART C: SIGNATURE

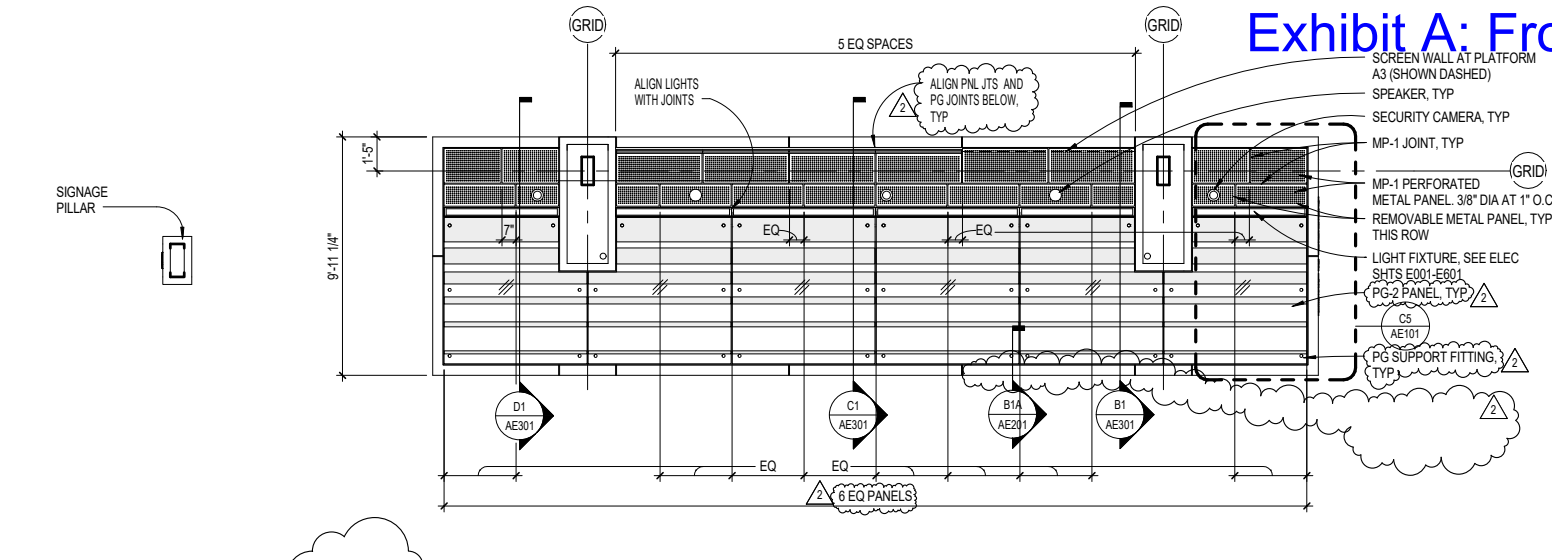
The undersigned hereby declares that the information set forth on this form is current, complete and accurate.

Authorized Signature: _____ Date: _____

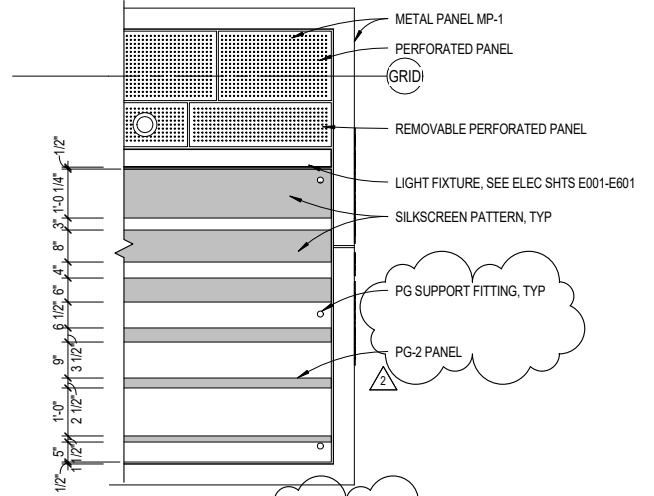
Printed Name: _____ Title: _____

DIVISION 3-
SUPPLEMENTAL CONDITIONS

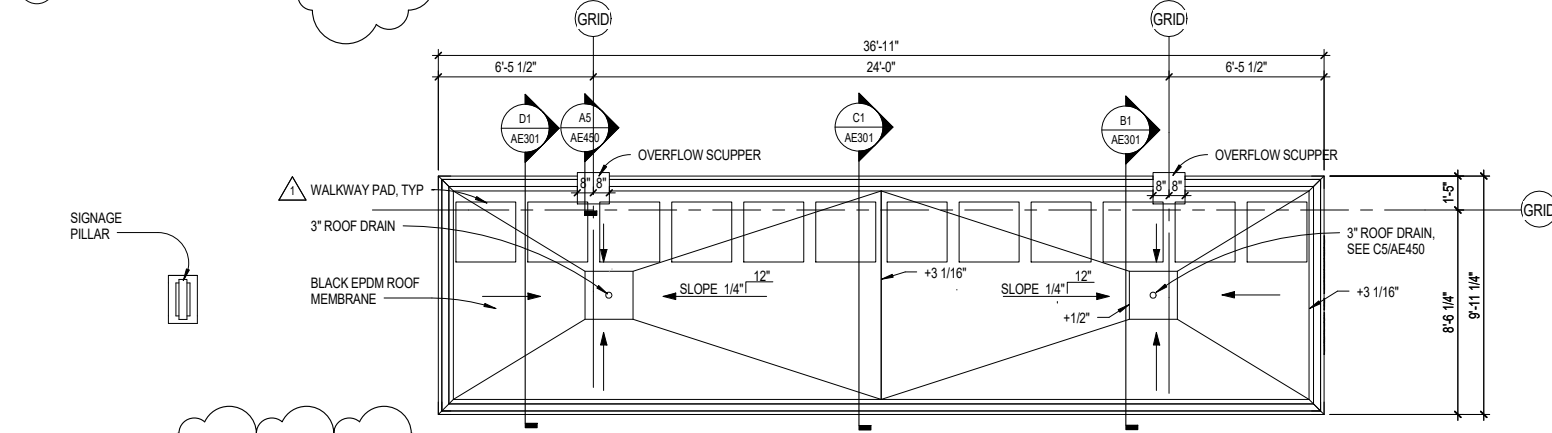
Exhibit A: From Station Canopy Package



C2 CEILING PLAN PLATFORMS A AND A3
SCALE: 1/4" = 1'-0"

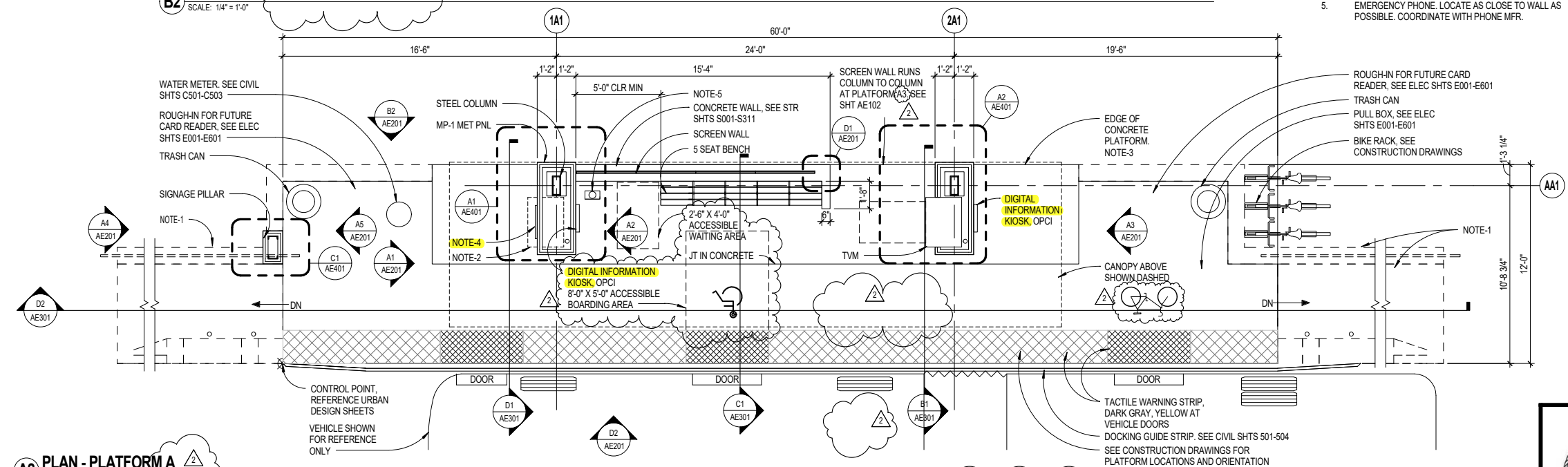


C5 RCP DETAIL PLATFORMS A AND A3
SCALE: 1/2" = 1'-0"



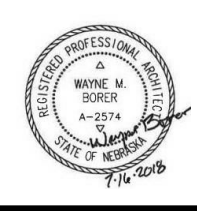
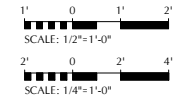
B2 ROOF PLAN - PLATFORMS A AND A3
SCALE: 1/4" = 1'-0"

- SHEET NOTES:**
1. CONCRETE WALL, RAMP, BOLLARD AND HANDRAIL WHEN OCCURS (SHOWN DASHED), LAYOUTS VARY. SEE CONSTRUCTION DRAWINGS, TYP ALL LOCATIONS.
 2. PROVIDE ELECTRICAL ROUGH-IN FOR FUTURE TVM. FUTURE TVM NIC. SEE ELEC SHTS E001-E001.
 3. STEP WHEN OCCURS. SEE CONSTRUCTION DRAWINGS FOR LOCATIONS AND EXTENT. AT STEP PROVIDE AND INSTALL 2" WIDE, BLACK ANTI-SLIP ABRASIVE TAPE MEETING ADA AND OSHA STANDARDS. TAPE TO BE 3M SERIES 600 OR EQUAL.
 4. **DIGITAL SLOT SIGN OPCI CENTERED ABOVE TVM OR FUTURE TVM WHERE OCCURS.**
 5. EMERGENCY PHONE. LOCATE AS CLOSE TO WALL AS POSSIBLE. COORDINATE WITH PHONE MFR.



A2 PLAN - PLATFORM A
SCALE: 1/4" = 1'-0"

PLATFORM A PLAN, ROOF PLAN, CEILING PLAN AE101



REV. NO.	REVISION/ISSUE	INITIALS	REVISION DATE
1	ADDENDUM NO. 4	WMB	8/20/2018
2	REVISION NO. 1	WMB	11/27/2018

CLIENT

metro 2222 CUMING STREET
OMAHA, NEBRASKA 68102
(402) 341-0800



AECOM
12120 SHAMROCK PLZ, STE 100
OMAHA, NEBRASKA 68154

LEO A DAILY
002-10178-000
8600 INDIAN HILLS DRIVE
OMAHA, NE 68114-4039

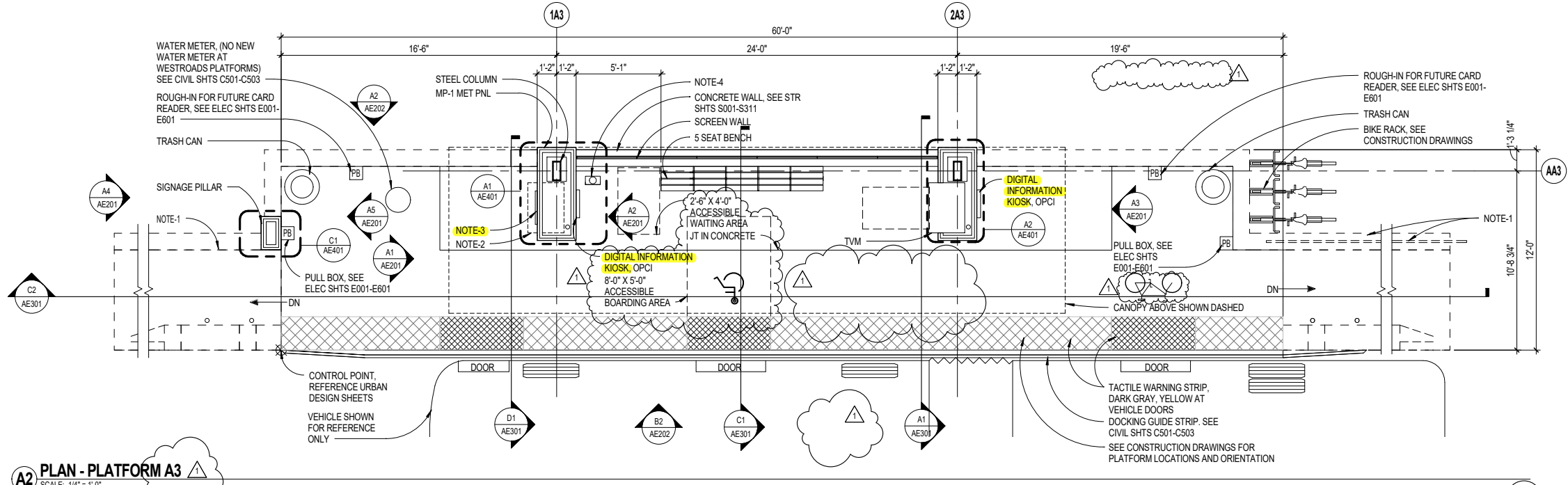
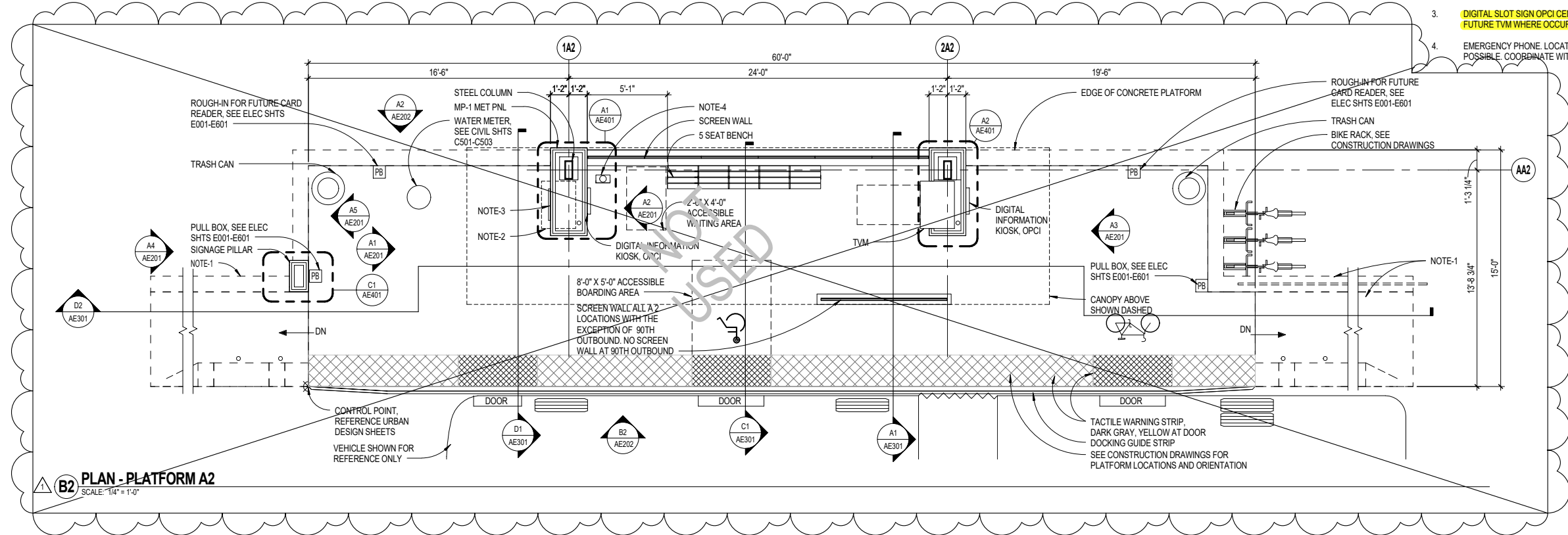
NE-79-X001
OPW 53347

11/27/2018 4:04:36 PM C:\Users\wmborer\Documents\Autodesk\Revit\2016\Projects\BRT-002\Arch_SHARED_LARGE_1_wmborer.rvt

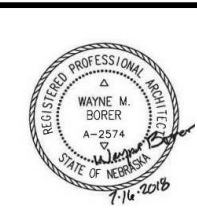
Exhibit A: From Station Canopy Package

SHEET NOTES:

1. CONCRETE WALL, RAMP, BOLLARD AND HANDRAIL WHEN OCCURS (SHOWN DASHED). LAYOUTS VARY. SEE CONSTRUCTION DRAWINGS, TYP ALL LOCATIONS.
2. INSTALL TVM OPCI AT LEFT COLUMN AT THE 72ND STREET PLATFORMS. PROVIDE ELECTRICAL ROUGH-IN FOR FUTURE TVM OTHER LOCATIONS. FUTURE TVM NIC. SEE ELECTRICAL SHEETS E001-E601.
3. **DIGITAL SLOT SIGN OPCI CENTERED ABOVE TVM OR FUTURE TVM WHERE OCCURS.**
4. EMERGENCY PHONE. LOCATE AS CLOSE TO WALL AS POSSIBLE. COORDINATE WITH PHONE MANUFACTURER.



SCALE: 1/4" = 1'-0"



PLATFORM A3 PLAN AE102

REV. NO.	REVISION/ISSUE	INITIALS	REVISION DATE
1	REVISION NO. 1	WMB	11/27/2018

CLIENT
metro 2222 CUMING STREET
OMAHA, NEBRASKA 68102
(402) 341-0800



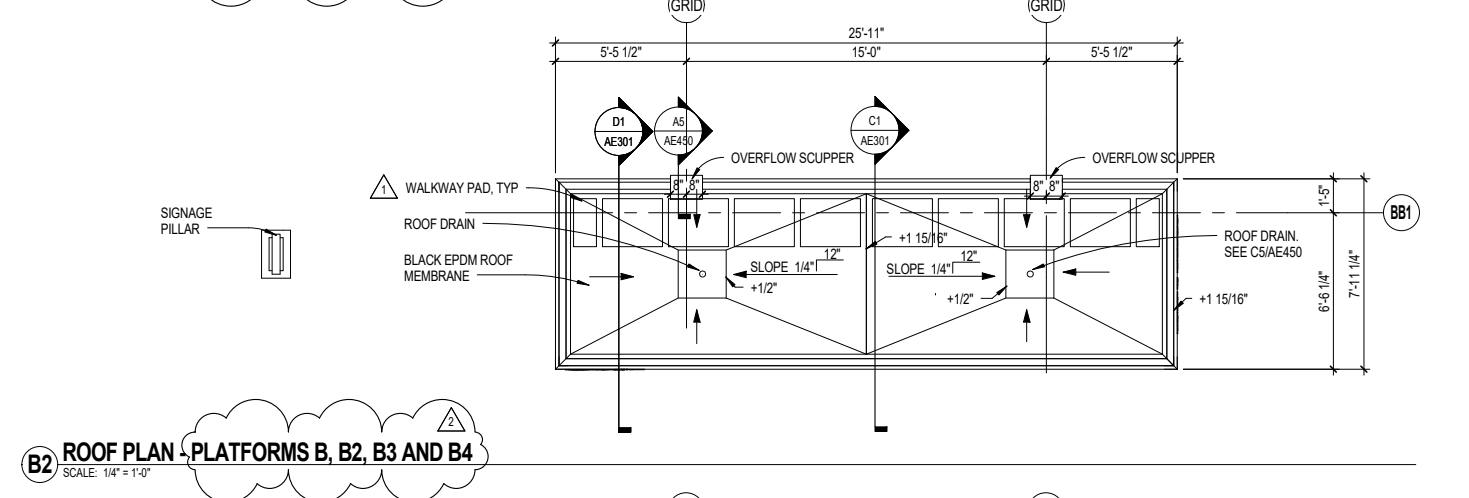
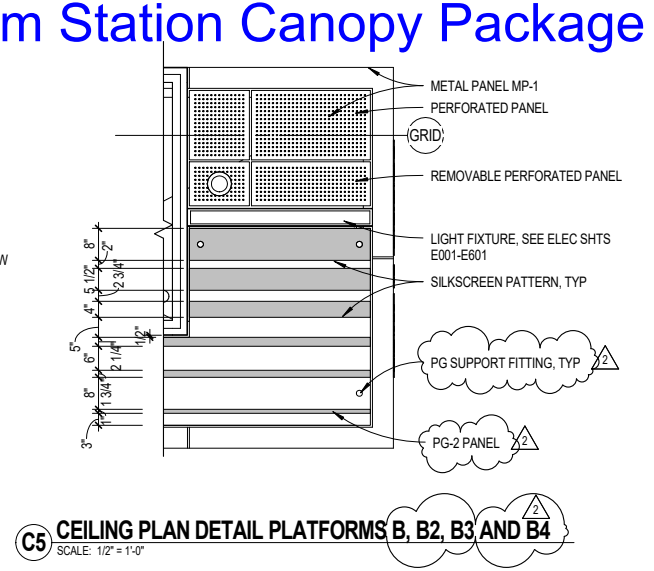
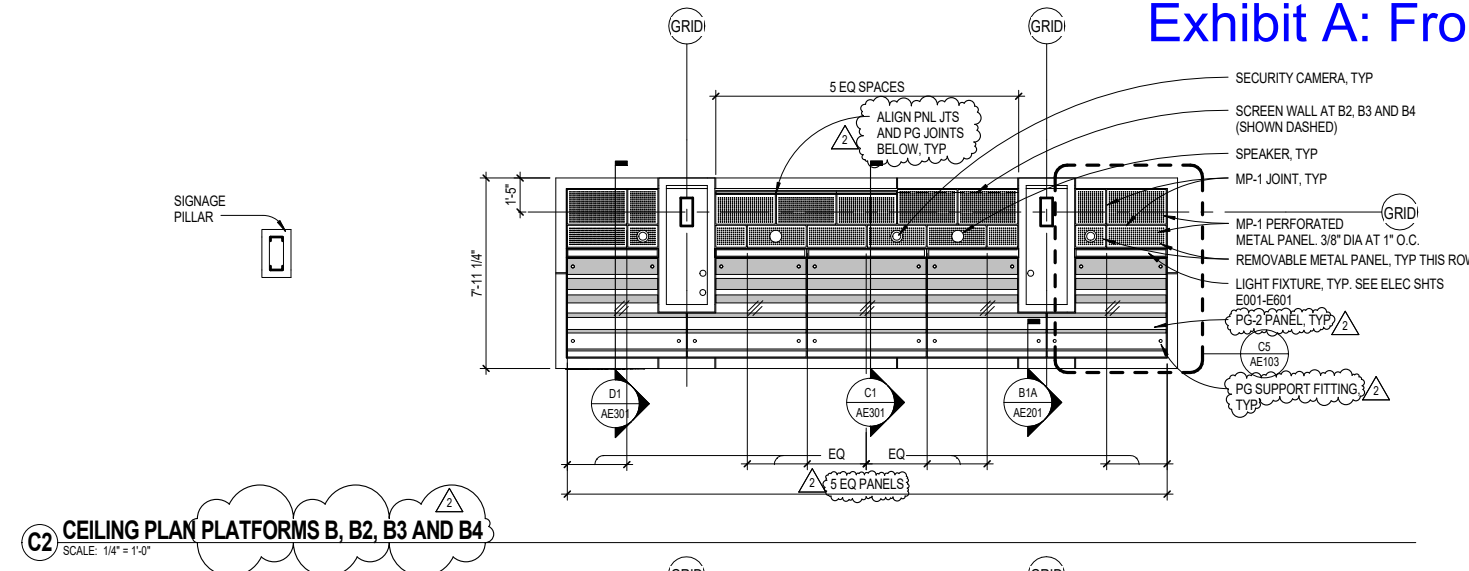
AECOM
12120 SHAMROCK PLZ, STE 100
OMAHA, NEBRASKA 68154

LEO A DAILY
002-10178-000
8600 INDIAN HILLS DRIVE
OMAHA, NE 68114-4039

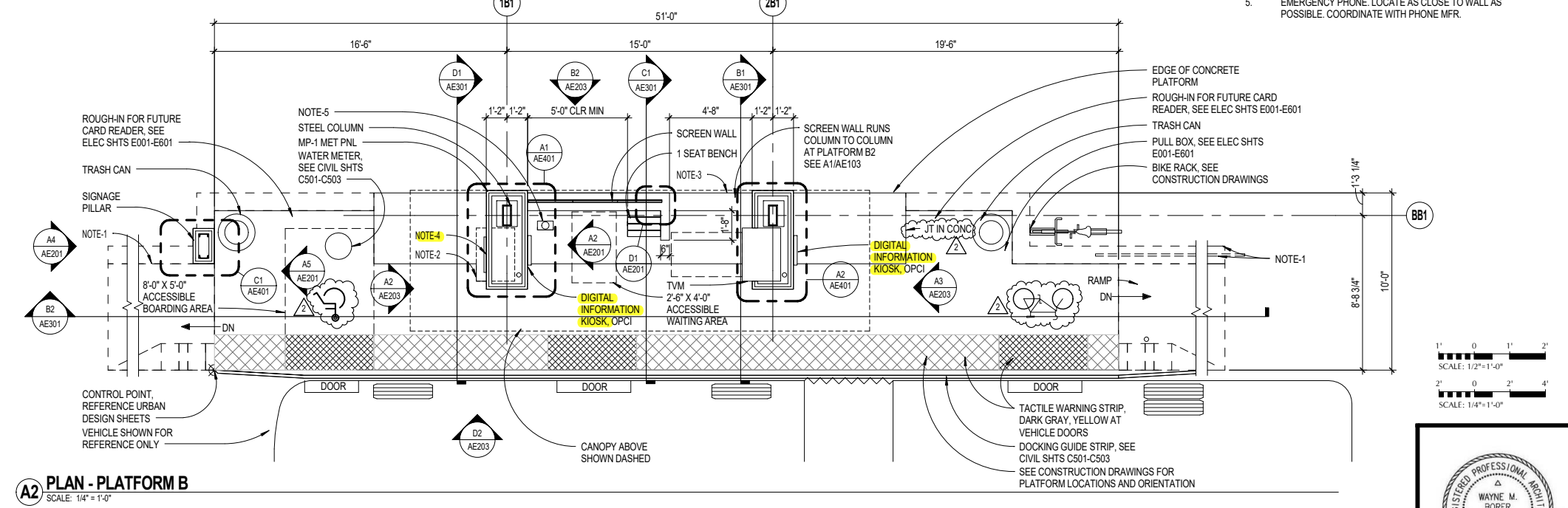
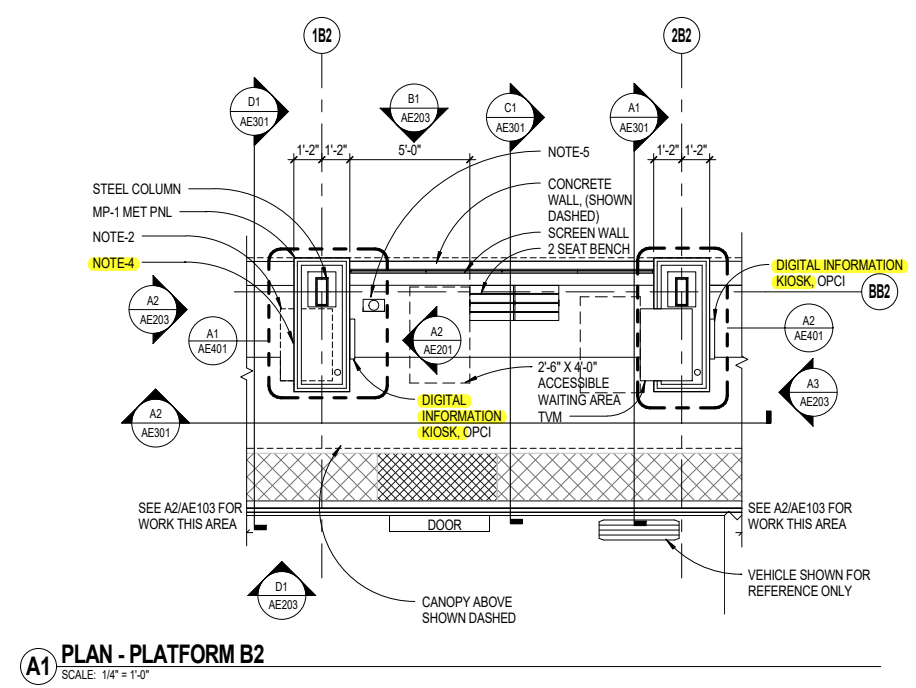
NE-79-X001
OPW 53347

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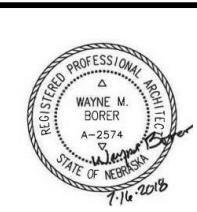
Exhibit A: From Station Canopy Package



- SHEET NOTES:**
- CONCRETE WALL, RAMP, BOLLARD AND HANDRAIL WHEN OCCURS (SHOWN DASHED), LAYOUTS VARY. SEE CONSTRUCTION DRAWINGS, TYP ALL LOCATIONS.
 - PROVIDE ELECTRICAL ROUGH-IN FOR FUTURE TVM. FUTURE TVM NIC. SEE ELECTRICAL SHEETS E001-E601.
 - STEP WHEN OCCURS. SEE CONSTRUCTION DRAWINGS FOR LOCATIONS AND EXTENT. AT STEP PROVIDE AND INSTALL 2" WIDE, BLACK, SOLID ANTI-SLIP ABRASIVE TAPE MEETING ADA AND OSHA STANDARDS. TAPE TO BE 3M 600 SERIES OR EQUAL.
 - DIGITAL SLOT OPC SIGN CENTERED ABOVE FUTURE TVM.**
 - EMERGENCY PHONE. LOCATE AS CLOSE TO WALL AS POSSIBLE. COORDINATE WITH PHONE MFR.



PLATFORM B AND B2 PLANS, ROOF PLAN AND CEILING PLAN AE103



REV. NO.	REVISION/ISSUE	INITIALS	REVISION DATE
1	ADDENDUM NO. 4	WMB	8/20/2018
2	REVISION NO. 1	WMB	11/27/2018

CLIENT

metro 2222 CUMING STREET
OMAHA, NEBRASKA 68102
(402) 341-0800

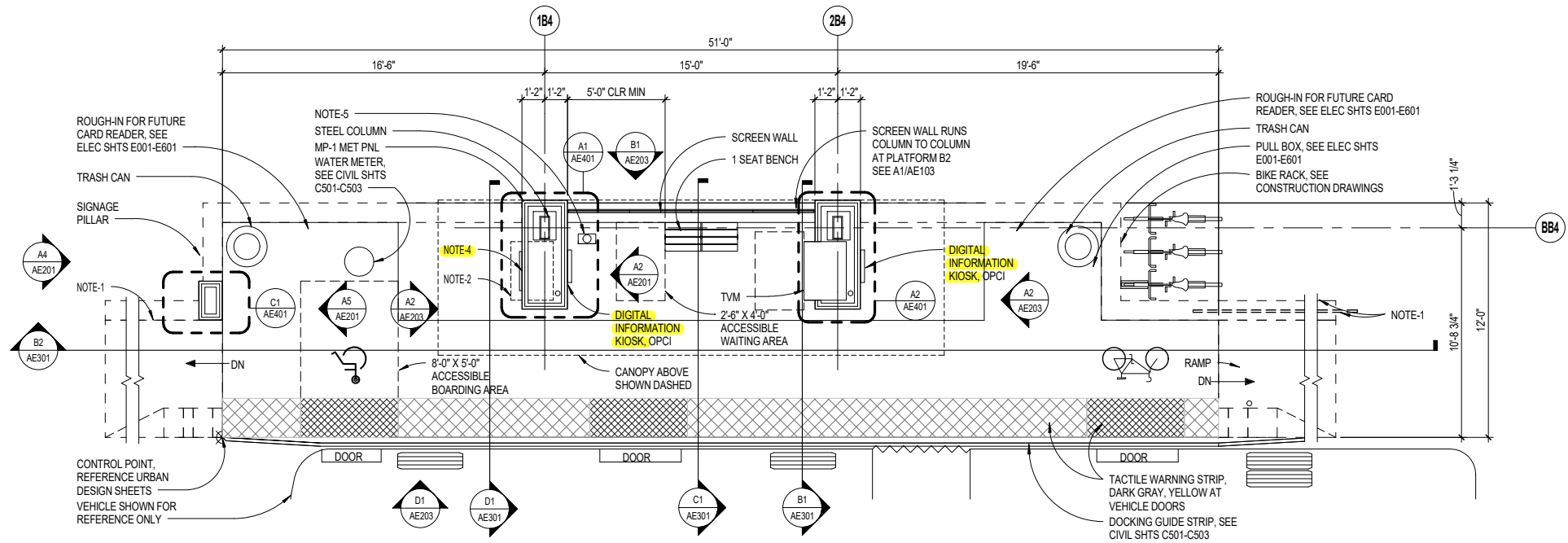


AECOM
12120 SHAMROCK PLZ, STE 100
OMAHA, NEBRASKA 68154

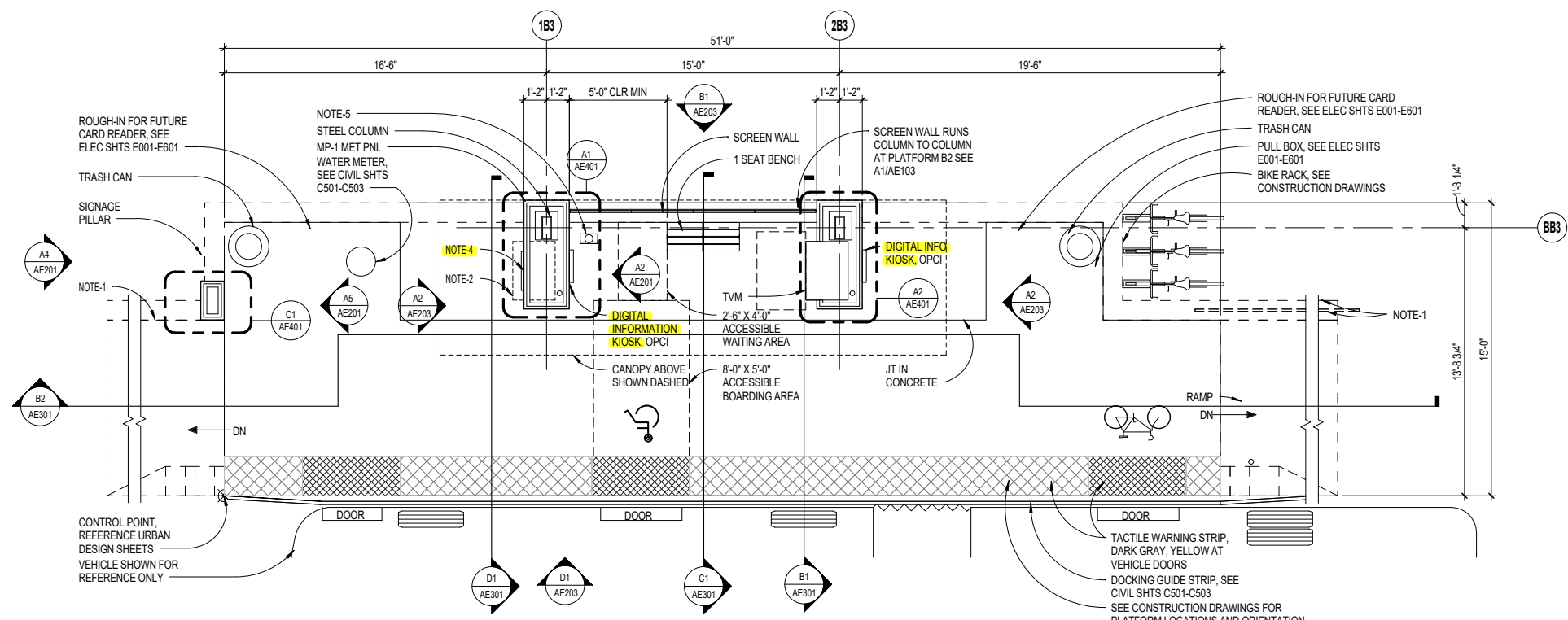
LEO A DAILY
002-10178-000
8600 INDIAN HILLS DRIVE
OMAHA, NE 68114-4039

NE-79-X001
OPW 53347

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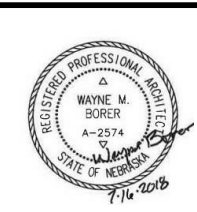
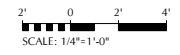


B2 PLAN PLATFORM B4
SCALE: 1/4" = 1'-0"



A2 PLAN PLATFORM B3
SCALE: 1/4" = 1'-0"

- SHEET NOTES:**
- CONCRETE WALL, RAMP, BOLLARD AND HANDRAIL WHEN OCCURS (SHOWN DASHED), LAYOUTS VARY. SEE CONSTRUCTION DRAWINGS, TYP ALL LOCATIONS.
 - PROVIDE ELECTRICAL ROUGH-IN FOR FUTURE TVM. FUTURE TVM NIC. SEE ELECTRICAL SHEETS E001-E601.
 - STEP WHEN OCCURS. SEE CONSTRUCTION DRAWINGS FOR LOCATIONS AND EXTENT. AT STEP PROVIDE AND INSTALL 2" WIDE, BLACK, SOLID ANTI-SLIP ABRASIVE TAPE MEETING ADA AND OSHA STANDARDS. TAPE TO BE 3M 600 SERIES OR EQUAL.
 - DIGITAL SLOT OPCI SIGN CENTERED ABOVE FUTURE TVM.**
 - EMERGENCY PHONE. LOCATE AS CLOSE TO WALL AS POSSIBLE. COORDINATE WITH PHONE MFR.



PLATFORM B3 AND B4 PLANS
AE104

REV. NO.	REVISION/ISSUE	INITIALS	REVISION DATE
1	REVISION NO. 1	WMB	11/27/2018

CLIENT

metro 2222 CUMING STREET
OMAHA, NEBRASKA 68102
(402) 341-0800



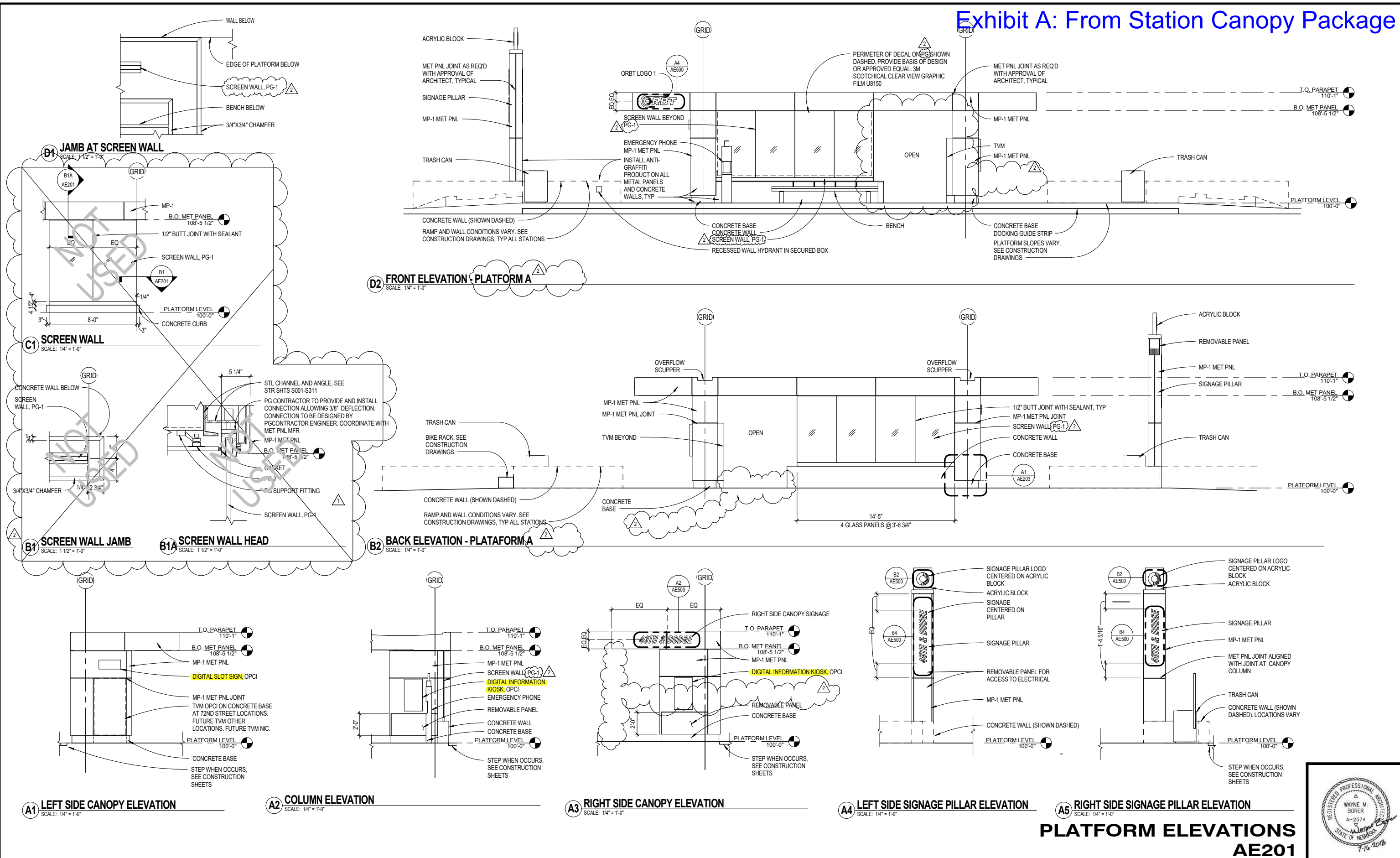
AECOM
12120 SHAMROCK PLZ, STE 100
OMAHA, NEBRASKA 68154

LEO A DAILY
002-10178-000
8600 INDIAN HILLS DRIVE
OMAHA, NE 68114-4039

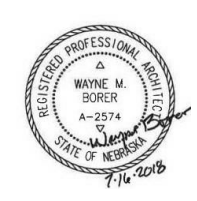
NE-79-X001
OPW 53347

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Exhibit A: From Station Canopy Package



PLATFORM ELEVATIONS AE201



REV. NO.	REVISION/ISSUE	INITIALS	REVISION DATE
1	ADDENDUM NO. 4	WMB	8/20/2018
2	REVISION NO. 1	WMB	11/27/2018

CLIENT
metro 2222 CUMING STREET
 OMAHA, NEBRASKA 68102
 (402) 341-0800

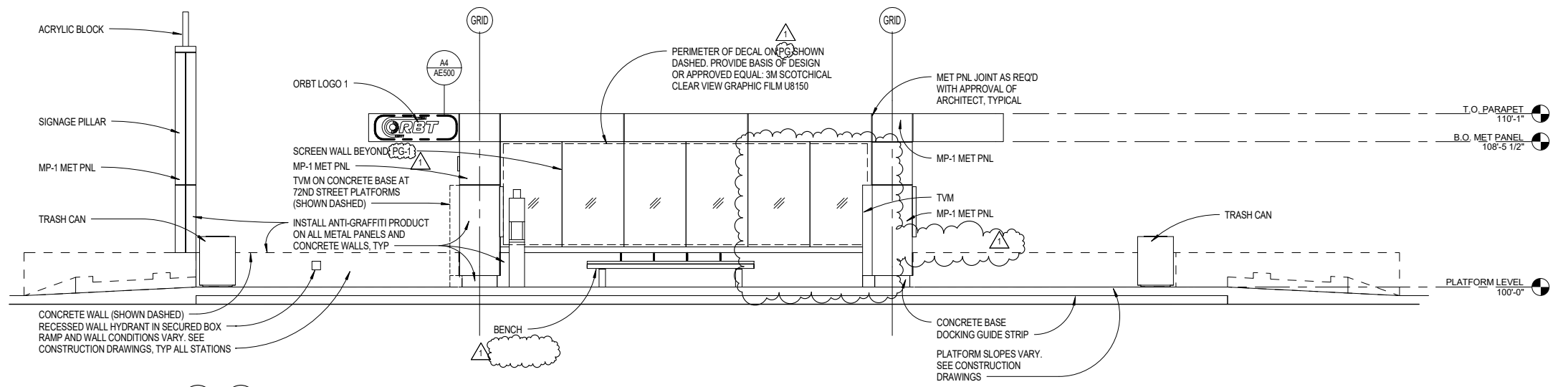


AECOM
 12120 SHAMROCK PLZ, STE 100
 OMAHA, NEBRASKA 68154

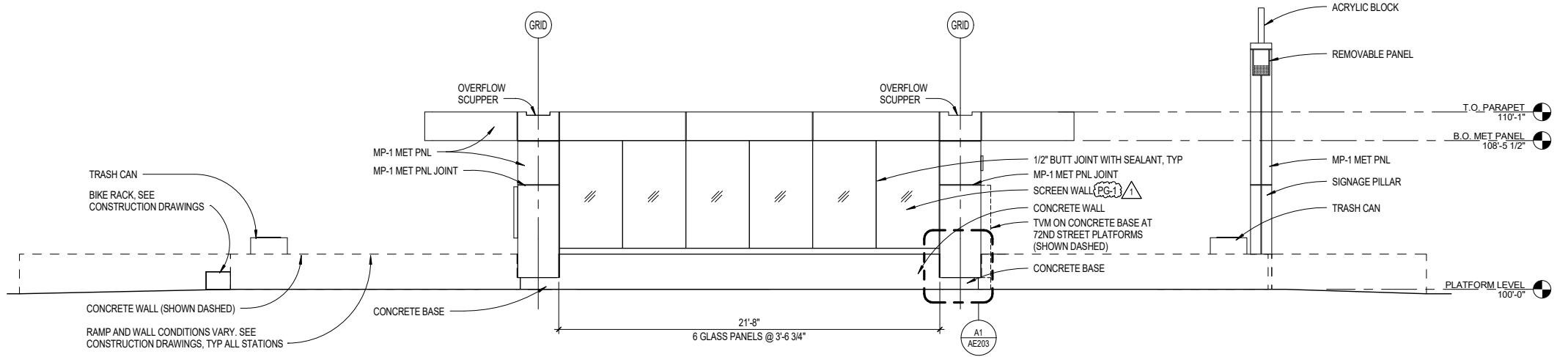
LEO A DAILY
 002-10178-000
 8600 INDIAN HILLS DRIVE
 OMAHA, NE 68114-4039

NE-79-X001
 OPW 53347

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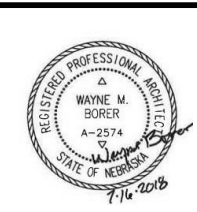
B2 FRONT ELEVATION - PLATFORM A3
SCALE: 1/4" = 1'-0"



A2 BACK ELEVATION - PLATAFORM A3
SCALE: 1/4" = 1'-0"

2" 0 2" 4"
SCALE: 1/4" = 1'-0"

**PLATFORM ELEVATIONS
AE202**



REV. NO.	REVISION/ISSUE	INITIALS	REVISION DATE
1	REVISION NO. 1	WMB	11/27/2018

CLIENT
metro
2222 CUMING STREET
OMAHA, NEBRASKA 68102
(402) 341-0800



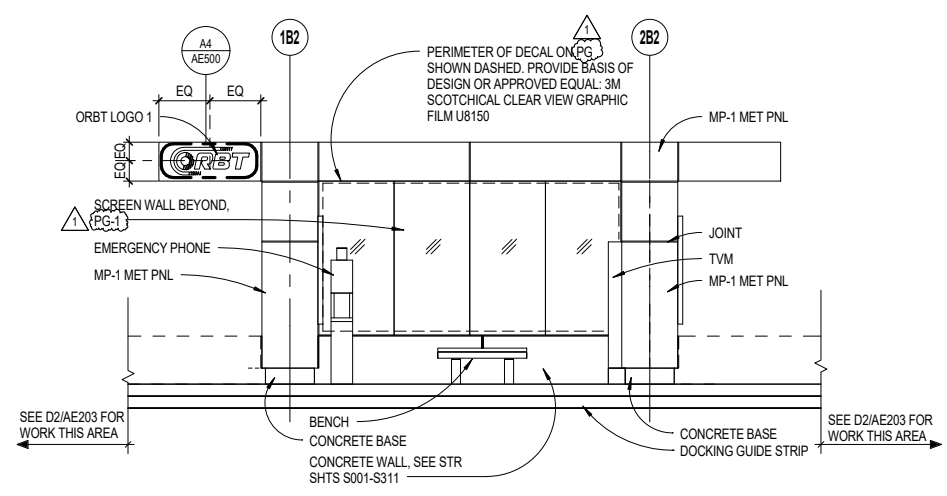
AECOM
12120 SHAMROCK PLZ, STE 100
OMAHA, NEBRASKA 68154

LEO A DAILY
002-10178-000
8600 INDIAN HILLS DRIVE
OMAHA, NE 68114-4039

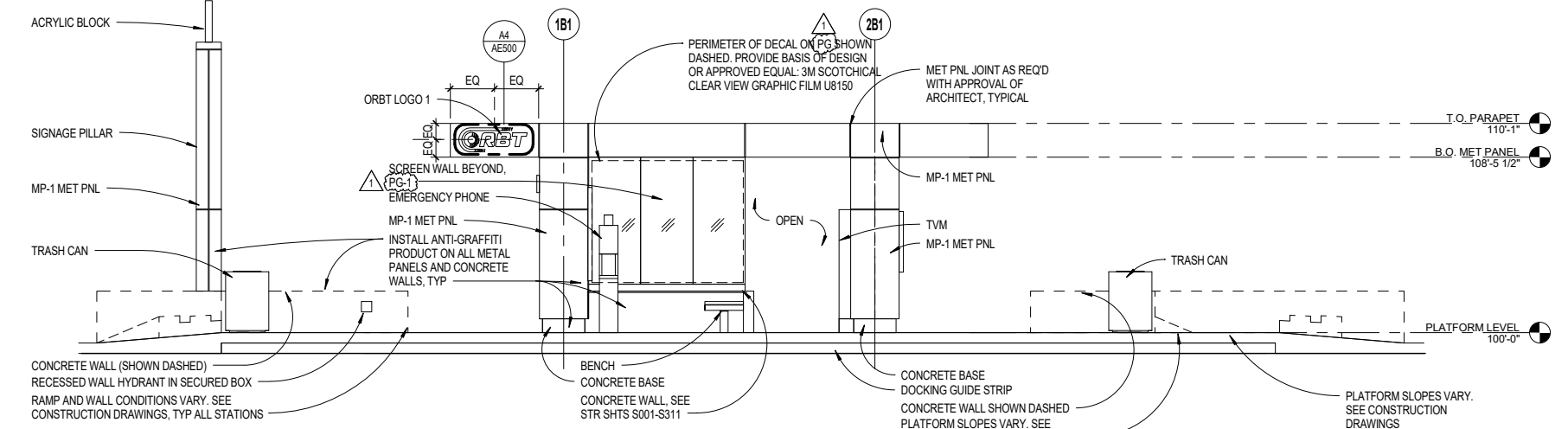
NE-79-X001
OPW 53347

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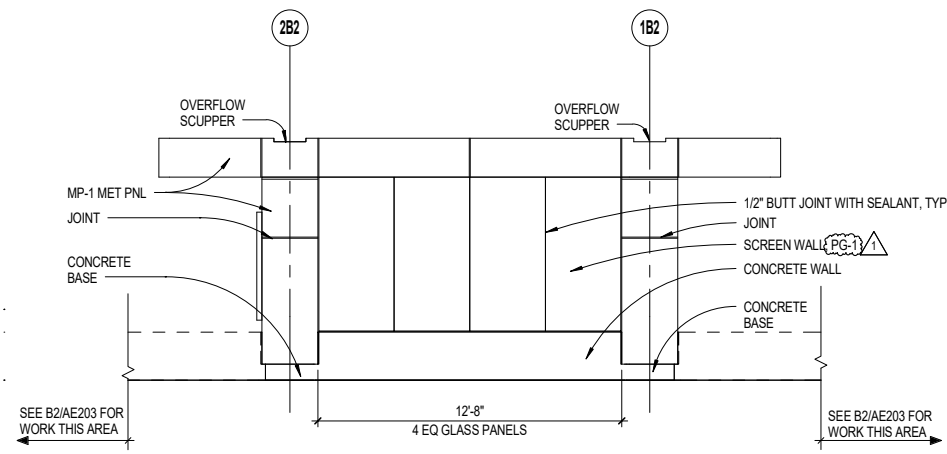
Exhibit A: From Station Canopy Package



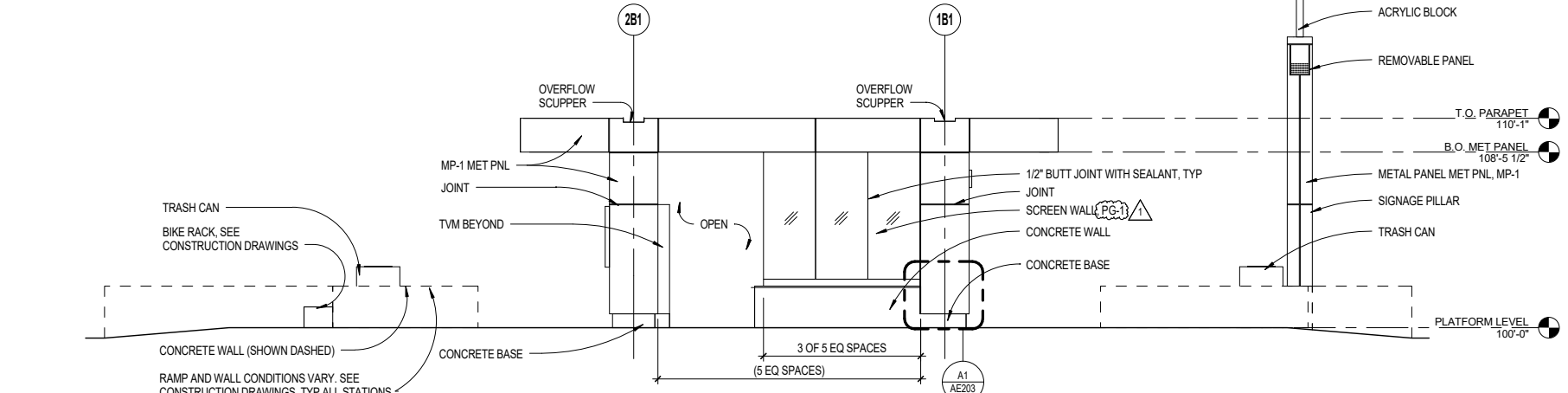
D1 FRONT ELEVATION - PLATFORM B2, B3 AND B4
SCALE: 1/4" = 1'-0"



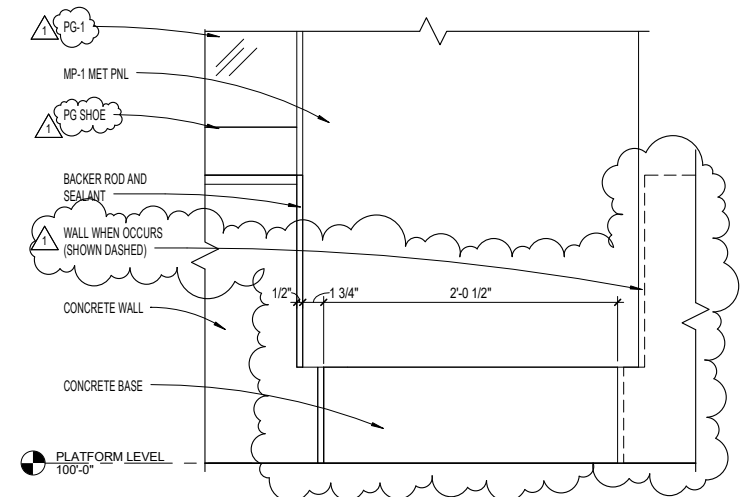
D2 FRONT ELEVATION - PLATFORM B
SCALE: 1/4" = 1'-0"



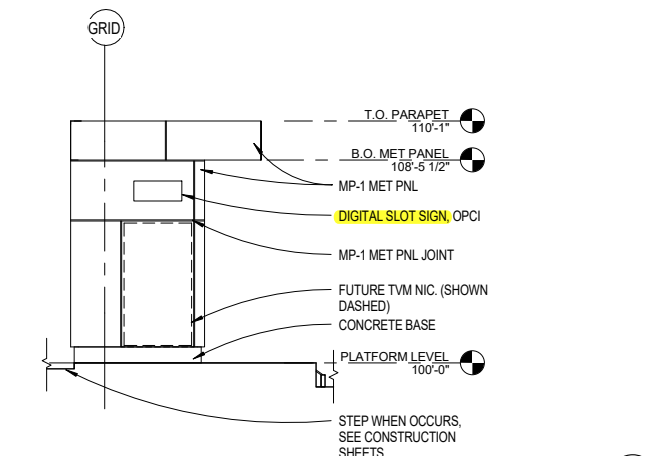
B1 BACK ELEVATION - PLATFORM B2, B3 AND B4
SCALE: 1/4" = 1'-0"



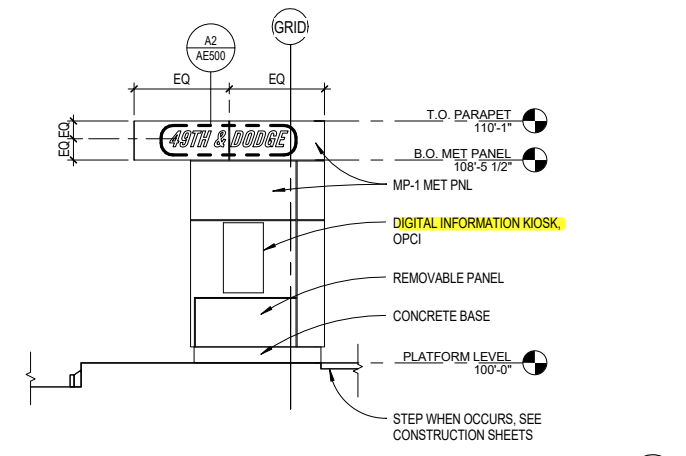
B2 BACK ELEVATION - PLATFORM B
SCALE: 1/4" = 1'-0"



A1 BACK ELEVATION - DETAIL
SCALE: 1 1/2" = 1'-0"

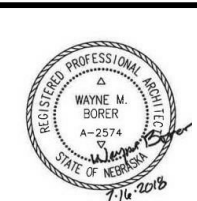


A2 LEFT SIDE CANOPY ELEVATION PLATFORMS B, B2, B3 AND B4
SCALE: 1/4" = 1'-0"



A3 RIGHT SIDE CANOPY ELEVATION PLATFORMS B, B2, B3 AND B4
SCALE: 1/4" = 1'-0"

PLATFORM ELEVATIONS AE203



REV. NO.	REVISION/ISSUE	INITIALS	REVISION DATE
1	REVISION NO. 1	WMB	11/27/2018

CLIENT
 2222 CUMING STREET
 OMAHA, NEBRASKA 68102
 (402) 341-0800

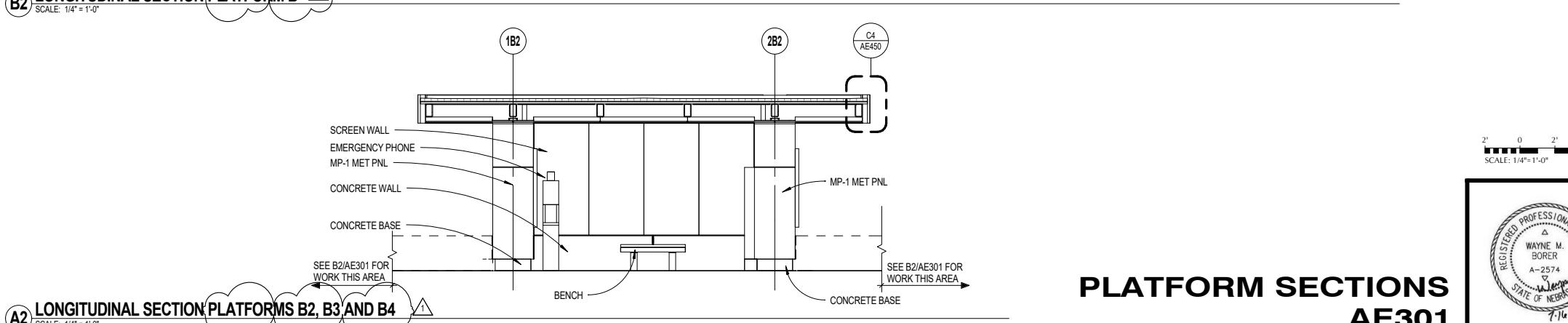
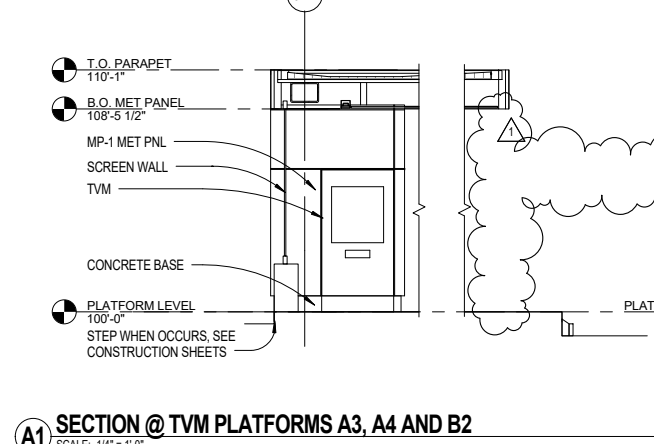
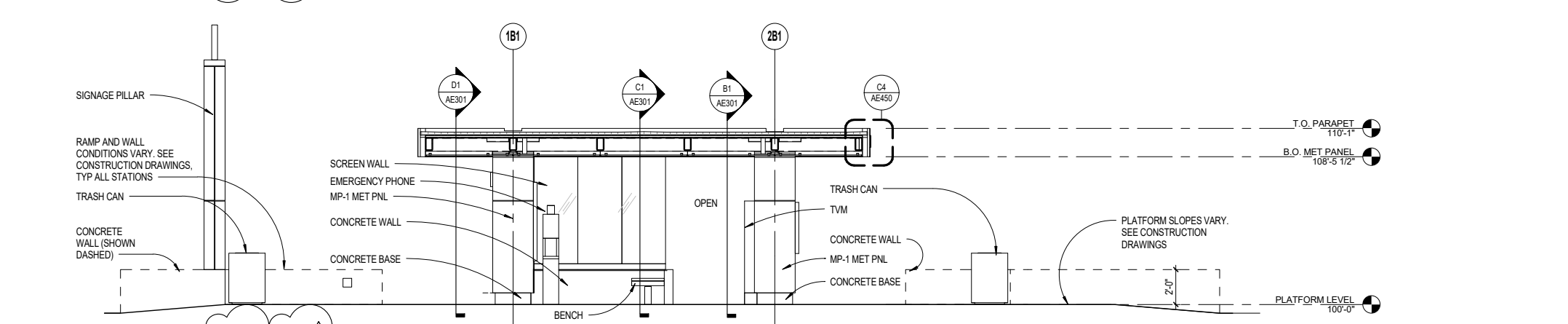
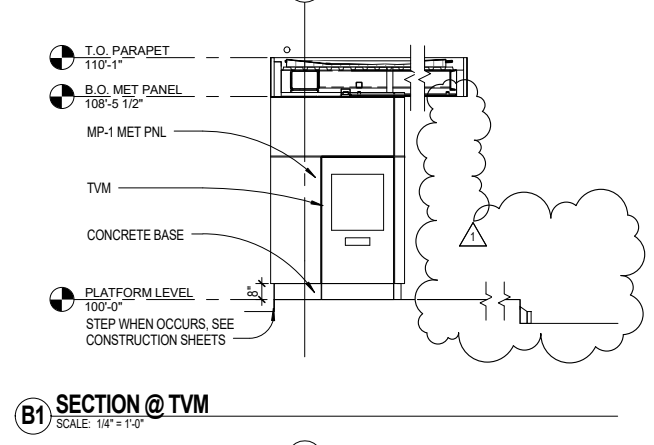
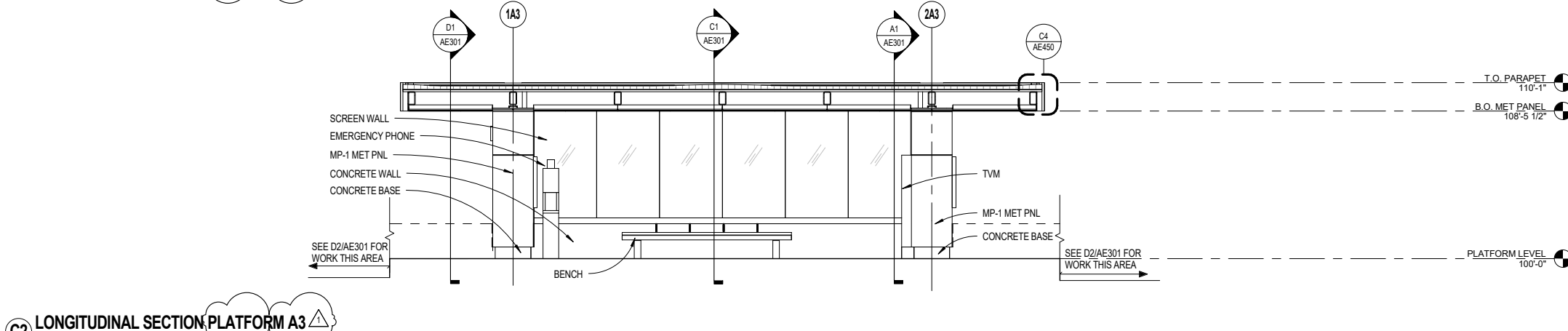
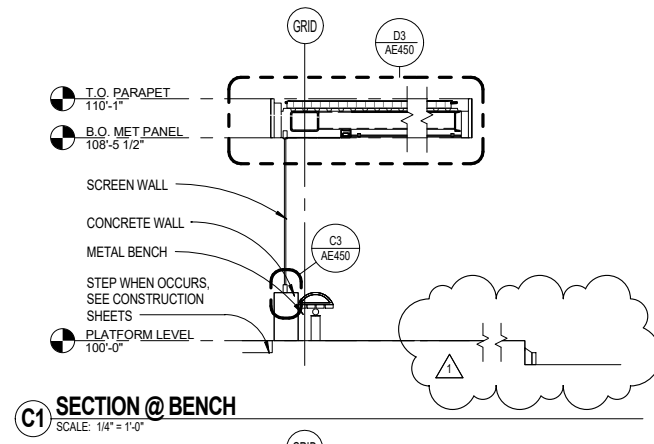
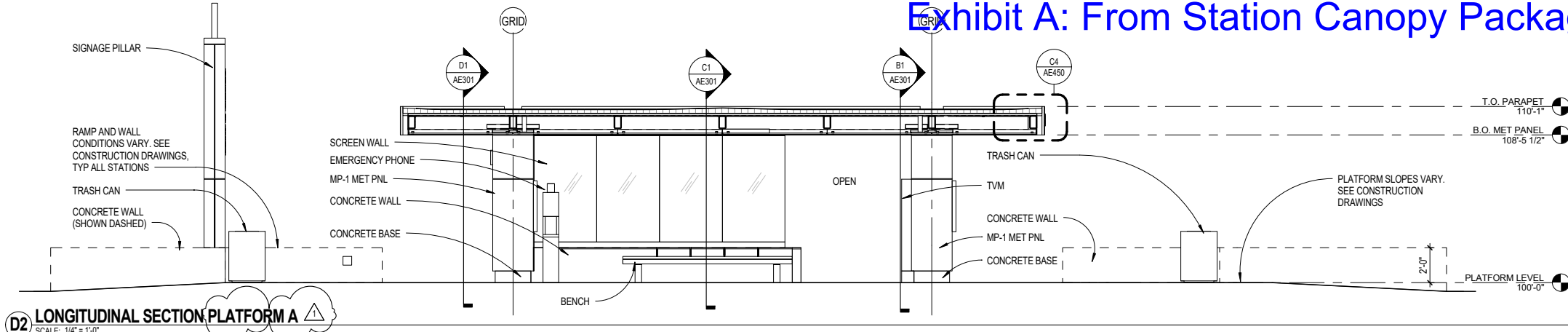
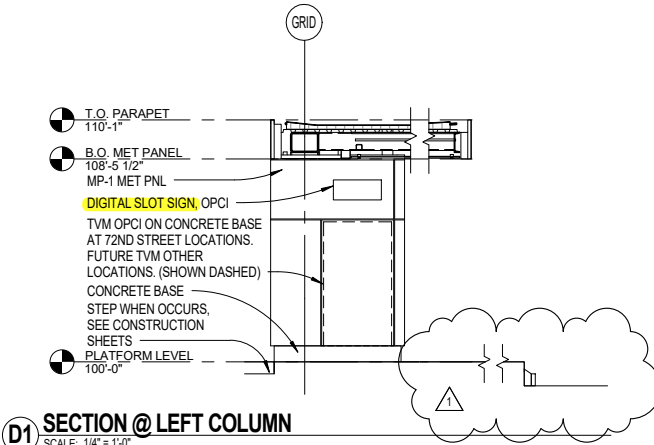


AECOM
 12120 SHAMROCK PLZ, STE 100
 OMAHA, NEBRASKA 68154

LEO A DAILY
 002-10178-000
 8600 INDIAN HILLS DRIVE
 OMAHA, NE 68114-4039

NE-79-X001
 OPW 53347

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2' 0' 2' 4'
SCALE: 1/4" = 1'-0"

**PLATFORM SECTIONS
AE301**



REV. NO.	REVISION/ISSUE	INITIALS	REVISION DATE
1	REVISION NO. 1	WMB	11/27/201

CLIENT
metro
2222 CUMING STREET
OMAHA, NEBRASKA 68102
(402) 341-0800

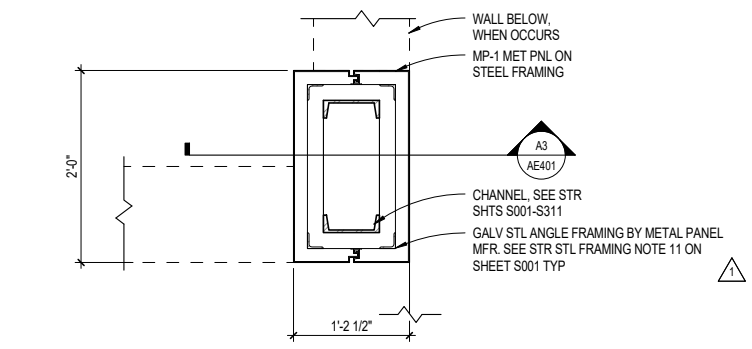


AECOM
12120 SHAMROCK PLZ, STE 100
OMAHA, NEBRASKA 68154

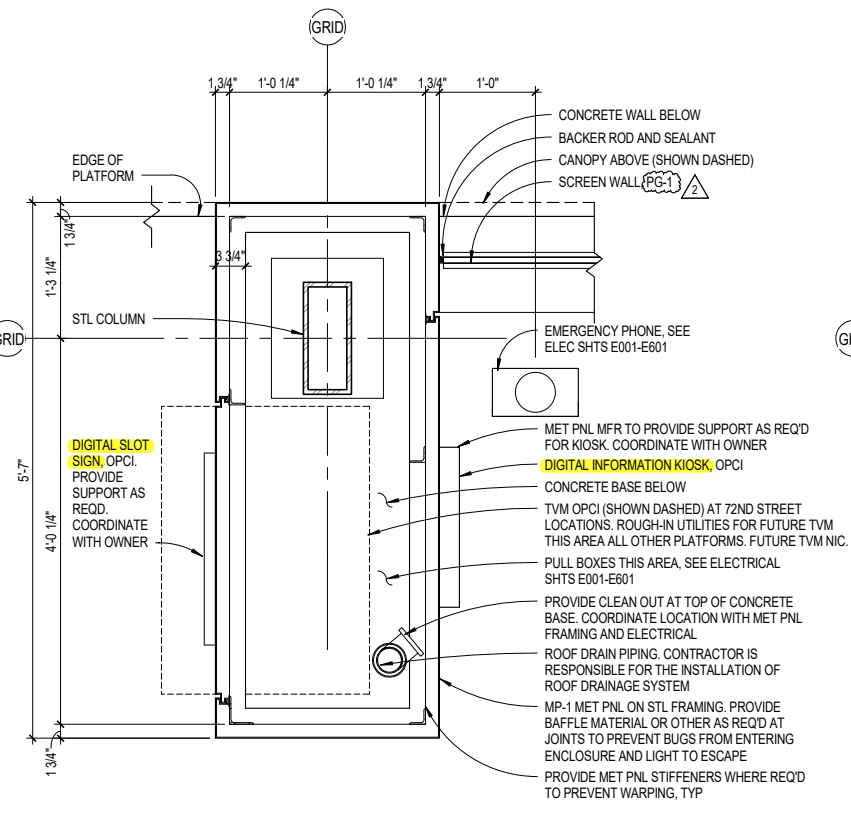
LEO A DAILY
002-10178-000
8600 INDIAN HILLS DRIVE
OMAHA, NE 68114-4039

NE-79-X001
OPW 53347

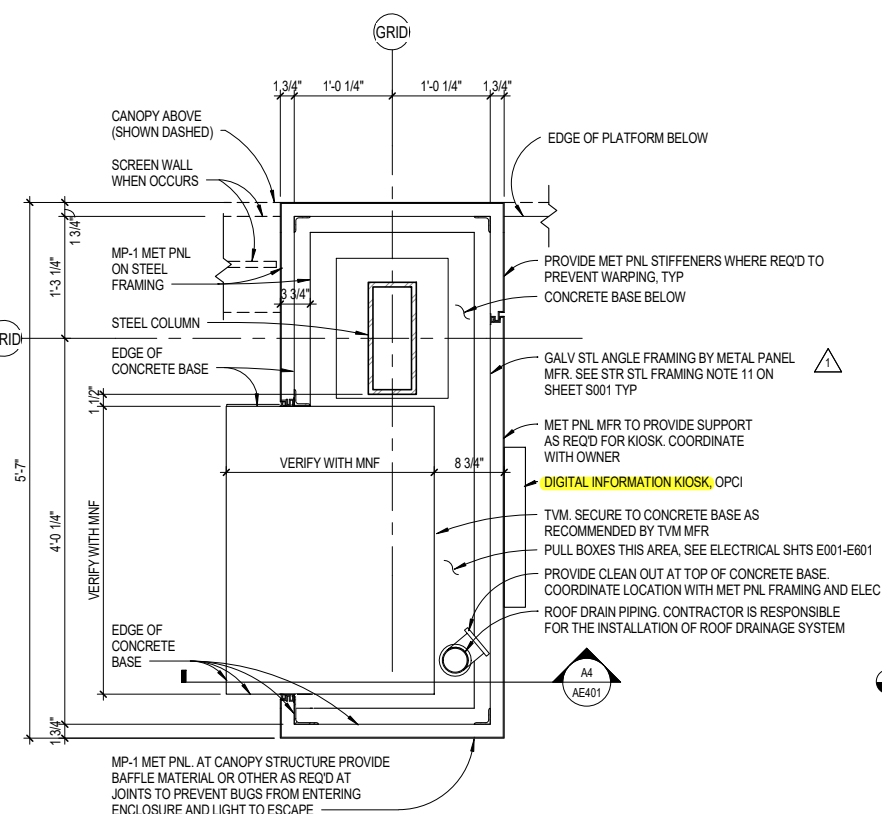
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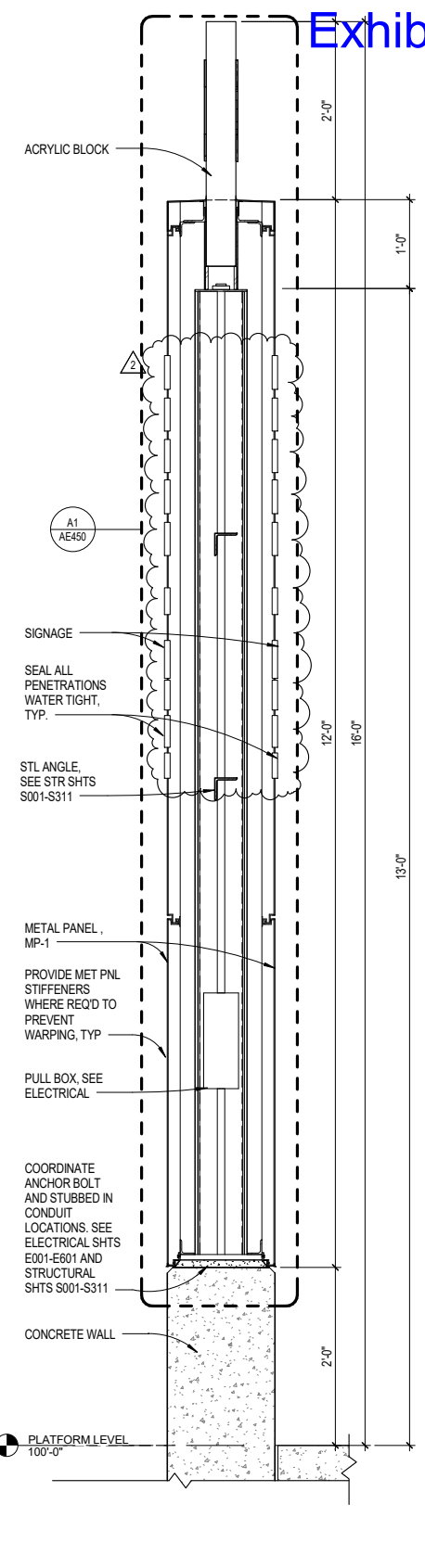
C1 ENLARGED PLAN AT SIGNAGE PILLAR
SCALE: 1"=1'-0"



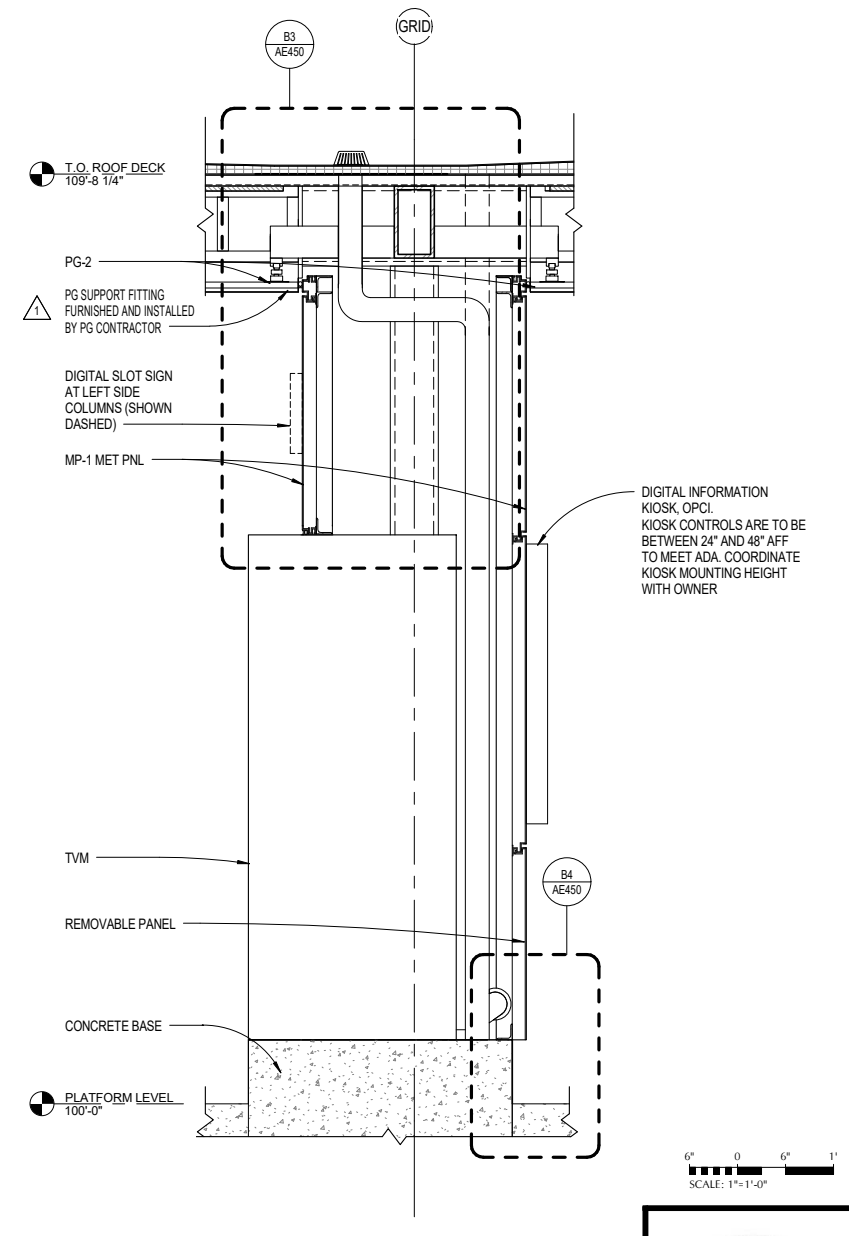
A1 LEFT COLUMN PLAN
SCALE: 1"=1'-0"



A2 RIGHT COLUMN PLAN
SCALE: 1"=1'-0"



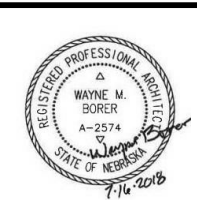
A3 SECTION AT SIGNAGE PILLAR
SCALE: 1"=1'-0"



A4 SECTION @ RIGHT COLUMN
SCALE: 1"=1'-0"

PLAN DETAILS AND WALL SECTIONS AE401

6" 0 6" 1"
SCALE: 1"=1'-0"



REV. NO.	REVISION/ISSUE	INITIALS	REVISION DATE
1	ADDENDUM NO. 4	WMB	8/20/2018
2	REVISION NO. 1	WMB	11/27/2018

CLIENT
metro 2222 CUMING STREET
OMAHA, NEBRASKA 68102
(402) 341-0800



AECOM
12120 SHAMROCK PLZ, STE 100
OMAHA, NEBRASKA 68154

LEO A DAILY
002-10178-000
8600 INDIAN HILLS DRIVE
OMAHA, NE 68114-4039

NE-79-X001
OPW 53347

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TRANSIT CENTER UPGRADES

(Metro 2017 IDIQ - Work Order #1)

SHEET INDEX

C000 TITLE SHEET
A100 WESTROADS: TRANSIT CENTER SITE PLAN
A101 WESTROADS: DEMOLITION PLAN
A102 WESTROADS: RENOVATION PLAN
A103 WESTROADS: SCHEDULES AND DETAILS
A200 NORTH OMAHA: TRANSIT CENTER SITE PLAN

M000 SYMBOLS AND ABBREVIATIONS
M100 WESTROADS MECHANICAL
M200 N.O.T.C. MECHANICAL

E000 ABBREVIATIONS ELECTRICAL
E100 WESTROADS PLAN - ELECTRICAL
E200 N.O.T.C. PLAN - ELECTRICAL
E201 N.O.T.C. PLAN - ELECTRICAL
E300 ELECTRICAL DETAILS & SCHEDULES

T000 SYMBOLS & ABBREVIATIONS - TELECOM
T001 RISERS - TELECOM
T100 WESTROADS SITE PLAN - TELECOM
T200 N.O.T.C. SITE PLAN - TELECOM
T201 N.O.T.C. CANOPY PLAN - TELECOM
T202 N.O.T.C. CANOPY PLAN - TELECOM
T400 DETAILS - TELECOM



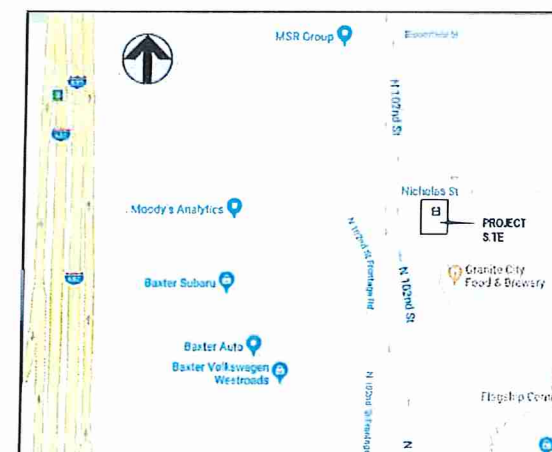
COORDINATING PROFESSIONAL
 **SRH** ENGINEERS
 PLANNERS
 DESIGNERS
 Consulting Group, Inc.
 11422 MIRACLE HILLS DRIVE, OMAHA, NEBRASKA 68154
 PHONE: 402-778-5025

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MECHANICAL & ELECTRICAL
 ENGINEER

ALVINE
 Engineering
 1201 CASS STREET, OMAHA, NE. 68102
 PHONE: (402) 346-7007 - FAX: (402) 346-9576



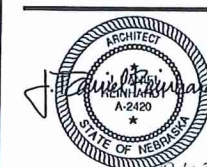
VICINITY MAP
(NO SCALE)



Transit Center
 Upgrades
 (Metro 2017 IDIQ - Work Order #1)
 Transit Authority of the City of Omaha
 2222 Cumming Street
 Omaha, Nebraska 68102
 100% CONST. DOCUMENTS



 ENGINEERS
 PLANNERS
 DESIGNERS
 Consulting Group, Inc.
 11422 Miracle Hills Drive
 Omaha, Nebraska 68154
 402-778-5025



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PROJECT NO: _____

ISSUES AND REVISIONS

NO.	DATE	DESCRIPTION

DRAWING TITLE
 TITLE SHEET

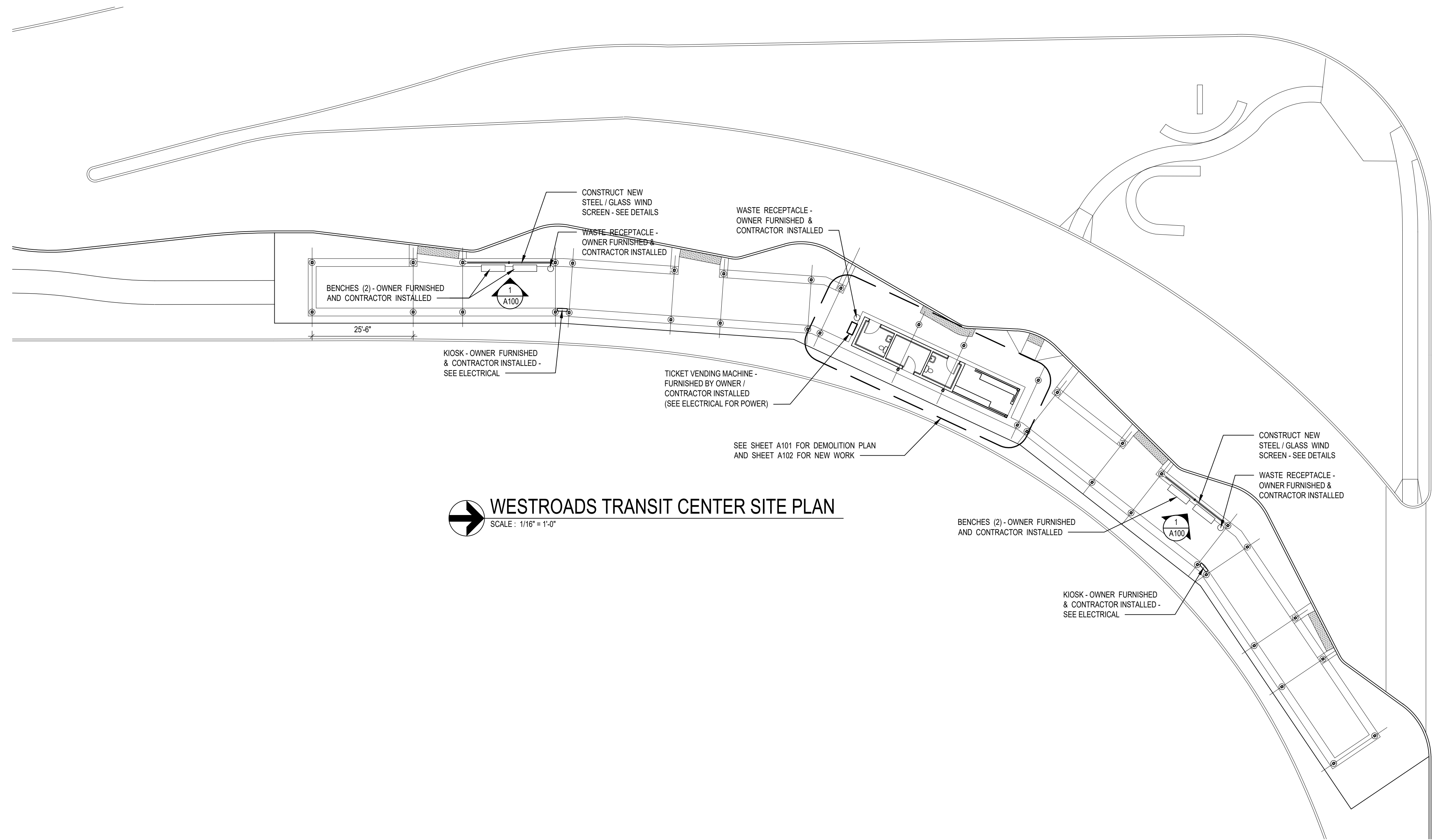
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C000

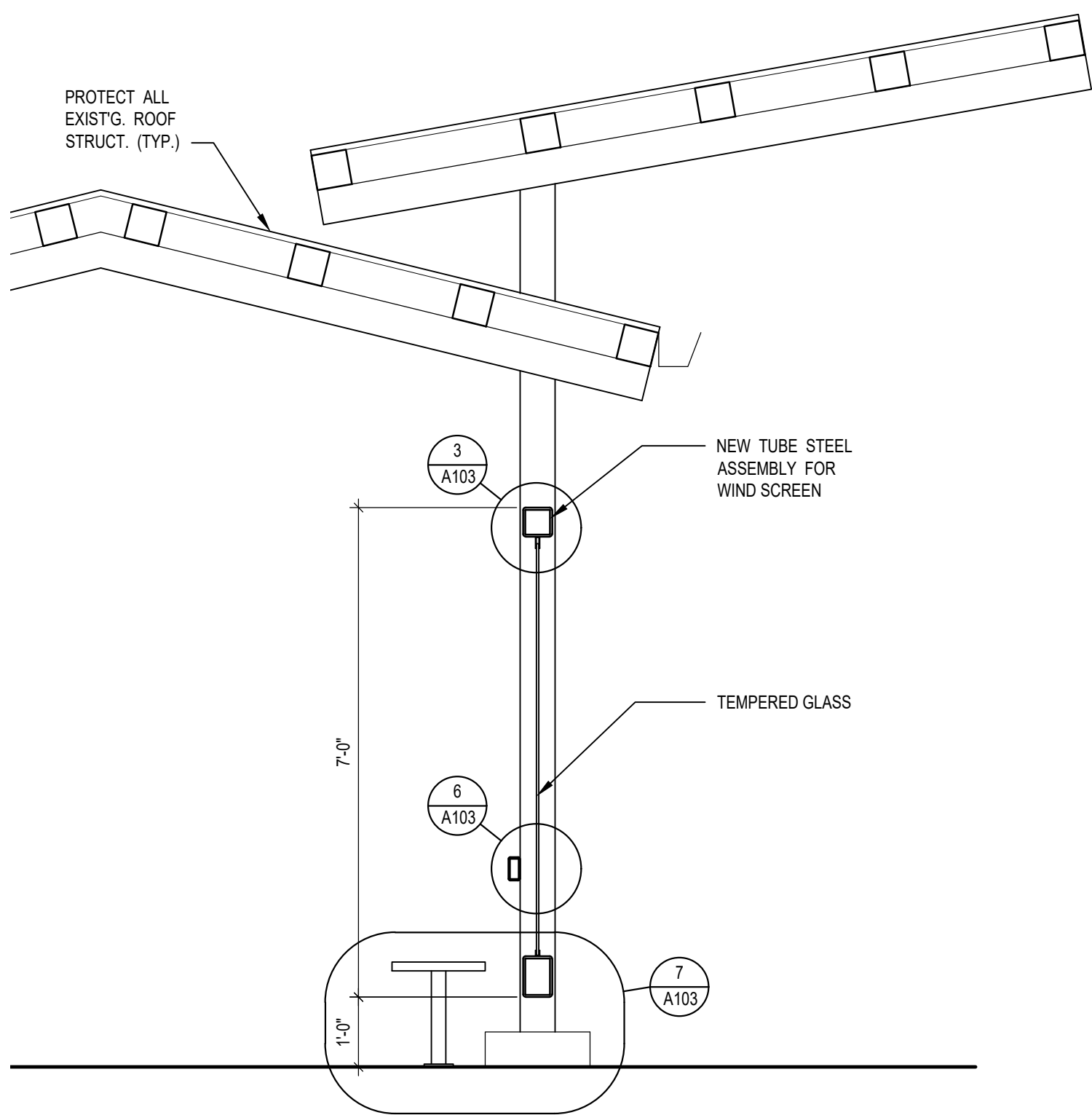


GENERAL NOTES :

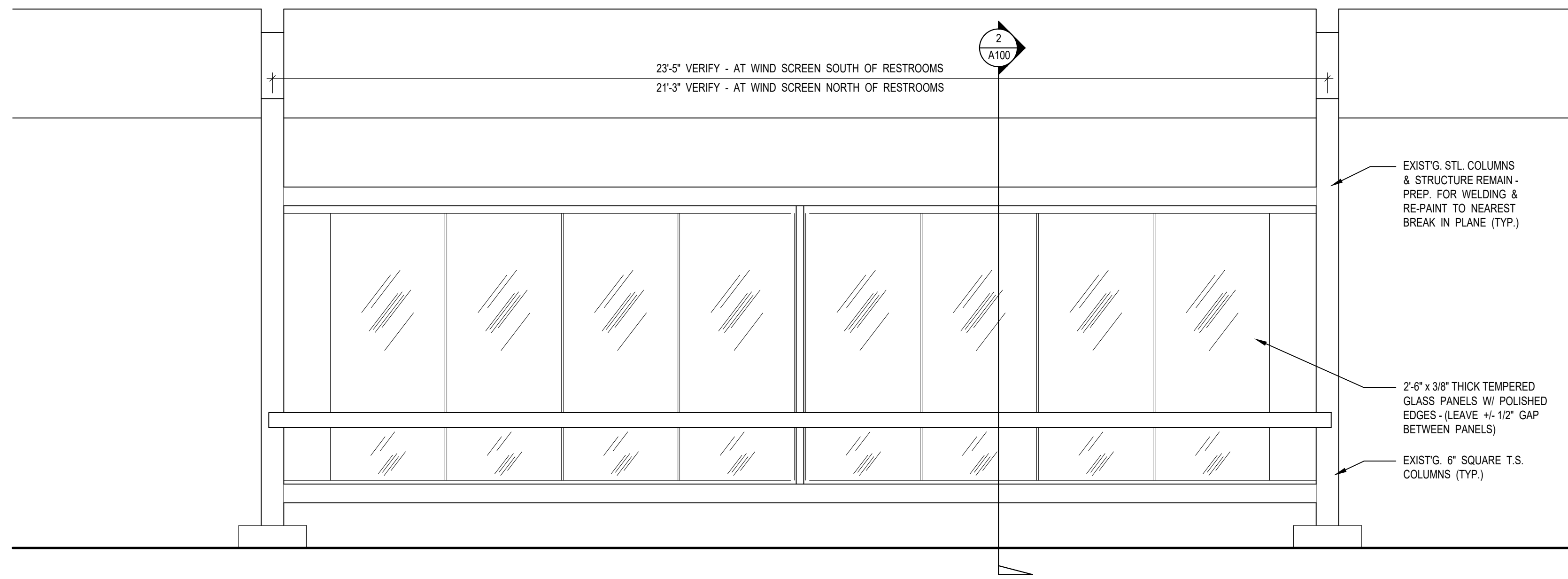
1. ALL WORK TO BE PERFORMED IN ACCORDANCE WITH LOCAL CODES AS ADOPTED OR AMENDED BY THE CITY OF OMAHA.
2. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE, ERECT, AND MAINTAIN SAFETY BARRIERS TO PROTECT PEDESTRIANS FROM CONSTRUCTION HAZARDS. VERIFY EXTENT REQUIRED BASED ON LOCATION AND SCHEDULING.
3. SEE SHEET A101 FOR DEMOLITION PLAN AND NOTES.
4. CONTRACTOR TO BE RESPONSIBLE TO INSTALL OWNER-FURNISHED DISPLAY MONITORS. VERIFY MOUNTING WITH MONITOR MANUFACTURER. SEE ELECTRICAL & TELECOMM SHEETS FOR LOCATIONS.



WESTROADS TRANSIT CENTER SITE PLAN
SCALE: 1/16" = 1'-0"



2 SECTION AT WIND SCREEN
SCALE: 1/2" = 1'-0"



1 WIND SCREEN ELEVATION
SCALE: 1/2" = 1'-0"



Transit Center Upgrades
(Metro 2017 IDIQ - Work Order #1)

Transit Authority of the City of Omaha
2222 Cumming Street
Omaha, Nebraska 68102

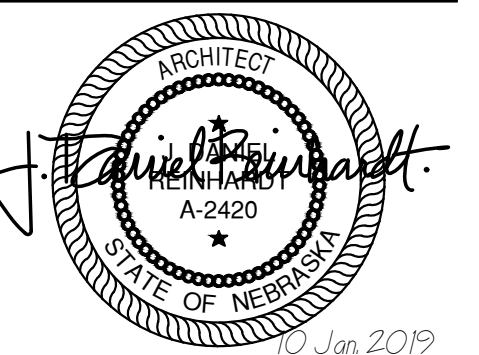
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418 South 14th Street, Omaha, NE 68102
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Omaha, Nebraska 68154
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ITEM	DATE

DRAWING TITLE
WESTROADS TRANSIT CENTER SITE PLAN AND DETAILS

SHEET NO.

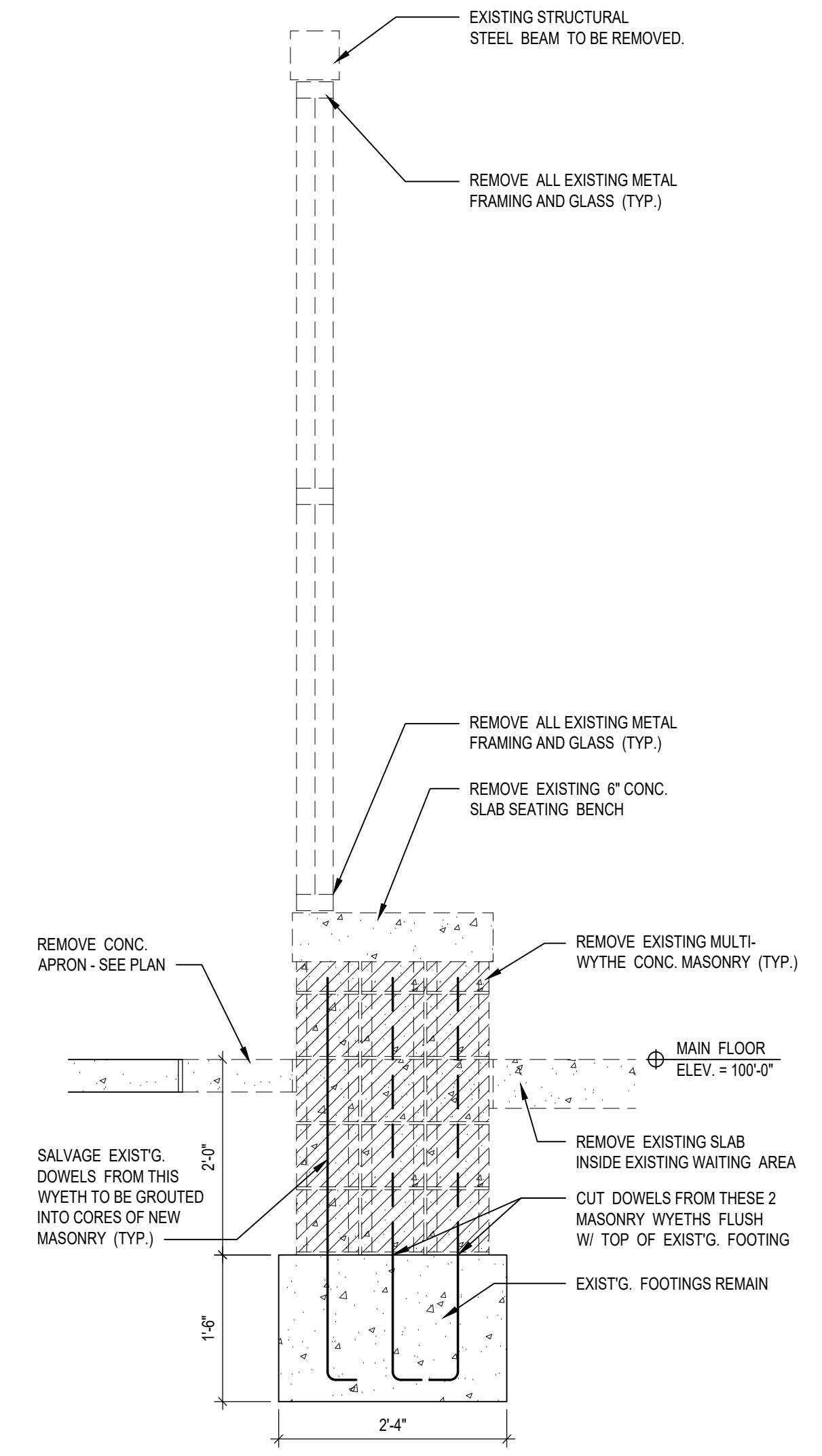
A100

DEMOLITION GENERAL NOTES :

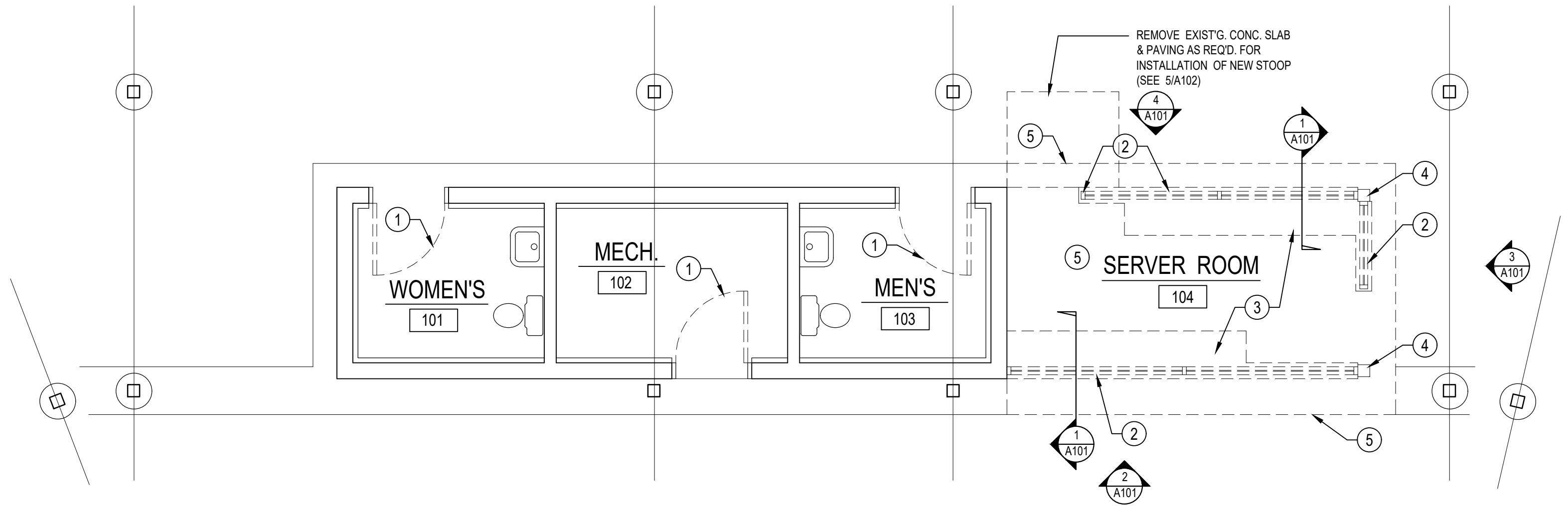
1. ALL WORK TO BE PERFORMED IN ACCORDANCE WITH LOCAL CODES AS ADOPTED OR AMENDED BY THE CITY OF OMAHA.
2. TOP PRIORITY SHALL BE GIVEN TO THE SAFETY OF PATRONS USING THIS FACILITY DURING DEMOLITION AND CONSTRUCTION OPERATIONS. METRO RESERVES THE RIGHT TO STOP WORK AT ANY TIME THEY OR THEIR REPRESENTATIVES DEEM THE WORK TO BE DANGEROUS OR DETRIMENTAL TO PATRONS OR EMPLOYEES OF THE TRANSIT SYSTEM.
3. CONTRACTOR SHALL ACCESS THE SITE FROM THE EAST SIDE PARKING LOT. A PORTION OF THIS LOT WILL BE DESIGNATED FOR USE BY THE CONTRACTOR UNTIL THE WORK IS COMPLETED.
4. PROTECT ALL EXISTING PORTIONS OF THE TRANSIT CENTER (BUILDING, PAVING, LANDSCAPING, ETC.) THAT ARE TO REMAIN. CONTRACTOR SHALL BE RESPONSIBLE TO DOCUMENT EXISTING CONDITIONS PRIOR TO COMMENCING WORK, AND TO REPAIR ANY DAMAGE TO EXISTING ELEMENTS NOT SCHEDULED FOR DEMOLITION AT THE DIRECTION OF METRO OR ITS REPRESENTATIVES.
5. ALL REFERENCES TO "REMOVE" OR "REMOVAL" IN THESE CONTRACT DOCUMENTS ARE TO BE INTERPRETED TO INCLUDE HAUL-AWAY AND DISPOSAL BY THE CONTRACTOR WHETHER OR NOT SPECIFICALLY NOTED.

KEYED DEMOLITION NOTES :

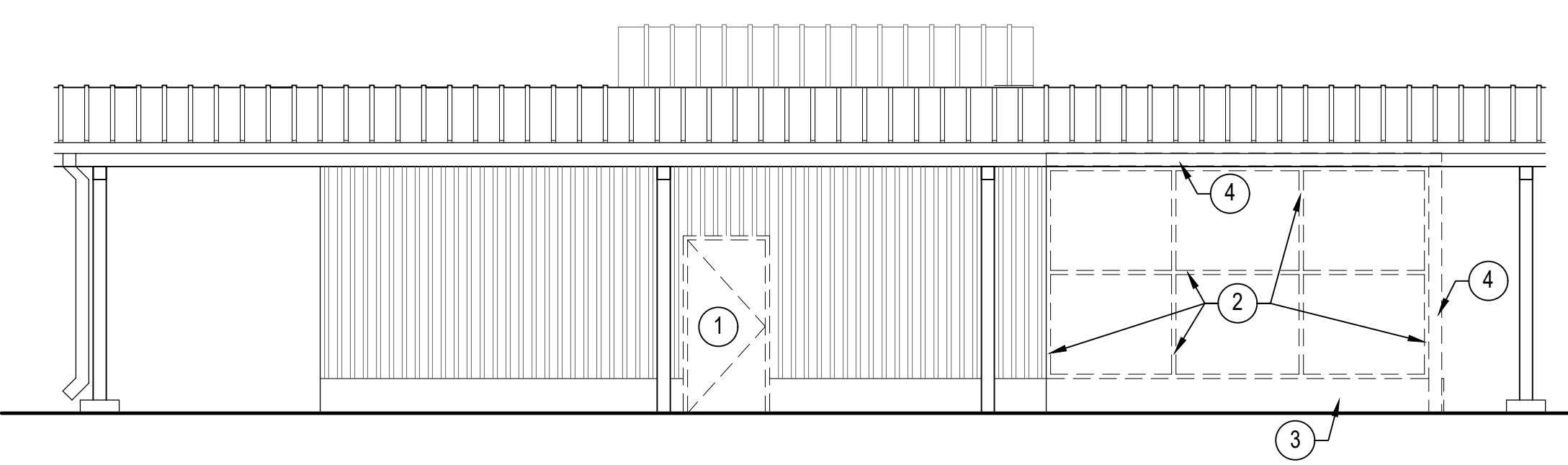
1. REMOVE EXISTING HOLLOW METAL FRAME AND DOOR FROM C.M.U. OPENING.
2. REMOVE EXISTING METAL FRAME AND GLAZING SYSTEM COMPLETE.
3. REMOVE EXISTING CONCRETE BENCH AND MASONRY FOUNDATION (INCLUDING COLUMN FOUNDATIONS). SEE DETAIL 1/A101 FOR EXTENT.
4. REMOVE EXISTING STEEL TUBE FRAME. USE CAUTION IN REMOVING FROM THE CONC. MASONRY BEARING AT THE SOUTH END.
5. REMOVE SURROUNDING CONCRETE SLAB AS REQUIRED FOR CONSTRUCTION OF NEW MASONRY WALLS.



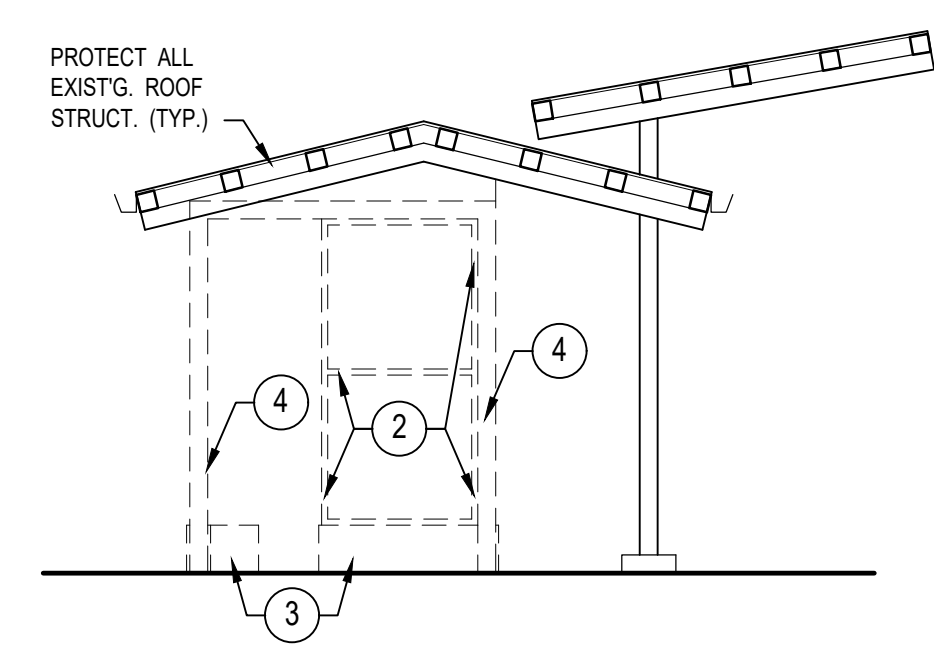
1 EXISTING WALL SECTION - DEMOLITION
SCALE: 3/4" = 1'-0"



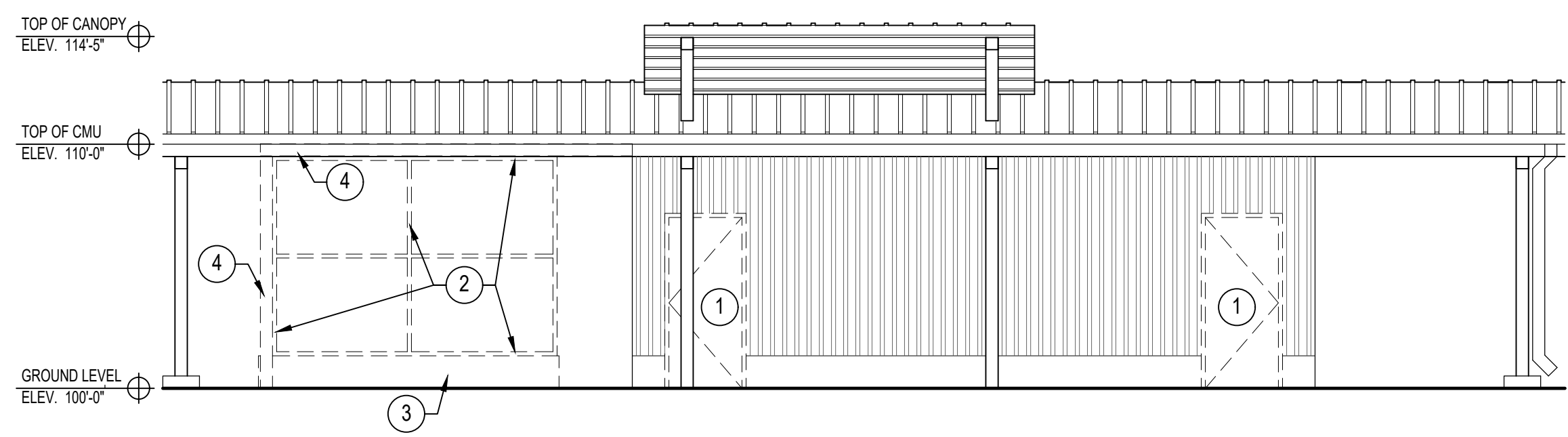
DEMOLITION PLAN
SCALE: 1/4" = 1'-0"



2 EAST ELEVATION - DEMOLITION
SCALE: 3/16" = 1'-0"



3 NORTH ELEVATION - DEMOLITION
SCALE: 3/16" = 1'-0"



4 WEST ELEVATION - DEMOLITION
SCALE: 3/16" = 1'-0"

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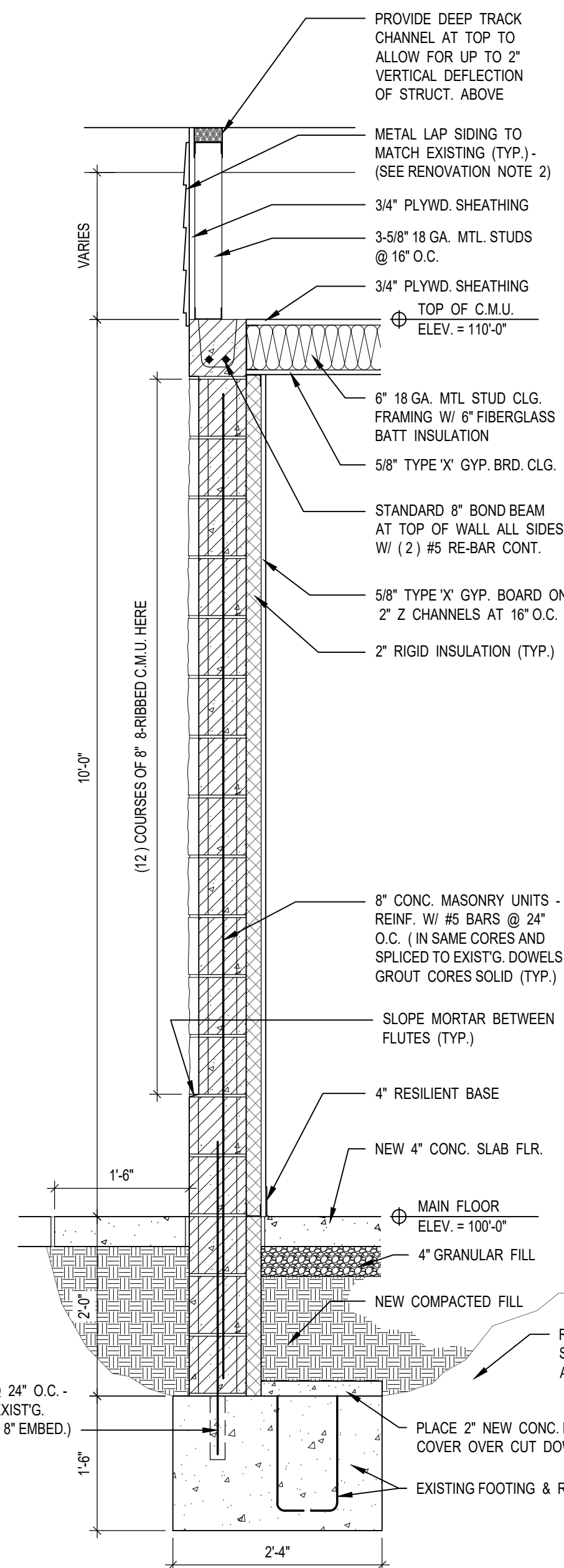
DRAWING TITLE
DEMOLITION PLAN AND DETAILS

SHEET NO.

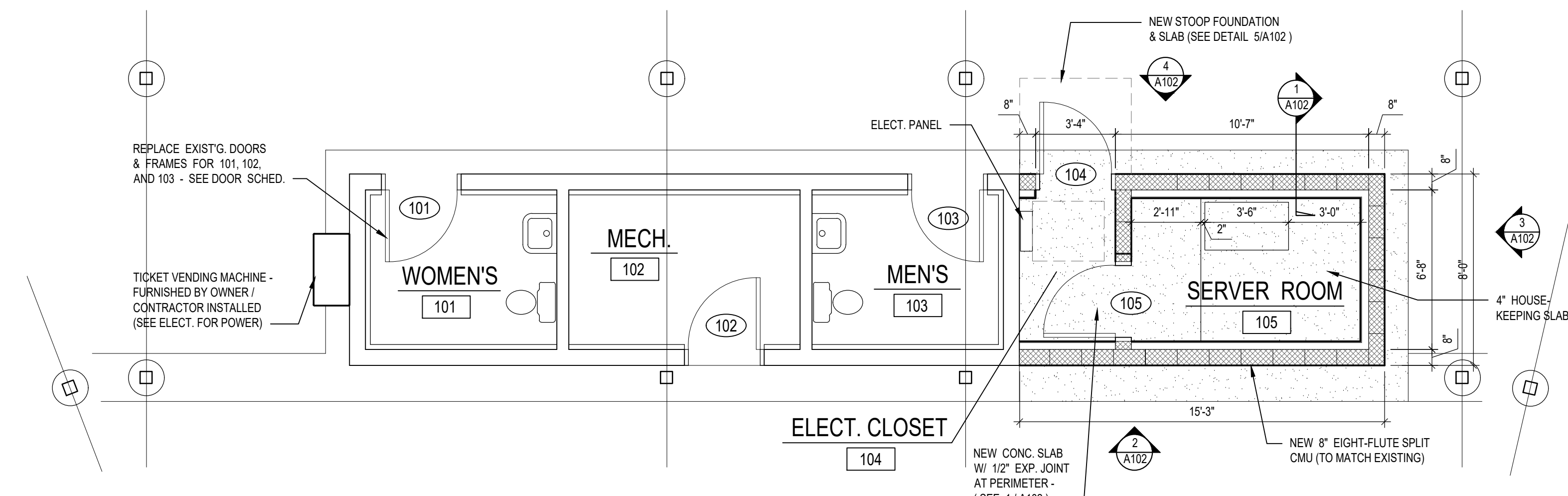
ISSUES AND REVISIONS	
ITEM	DATE

RENOVATION GENERAL NOTES :

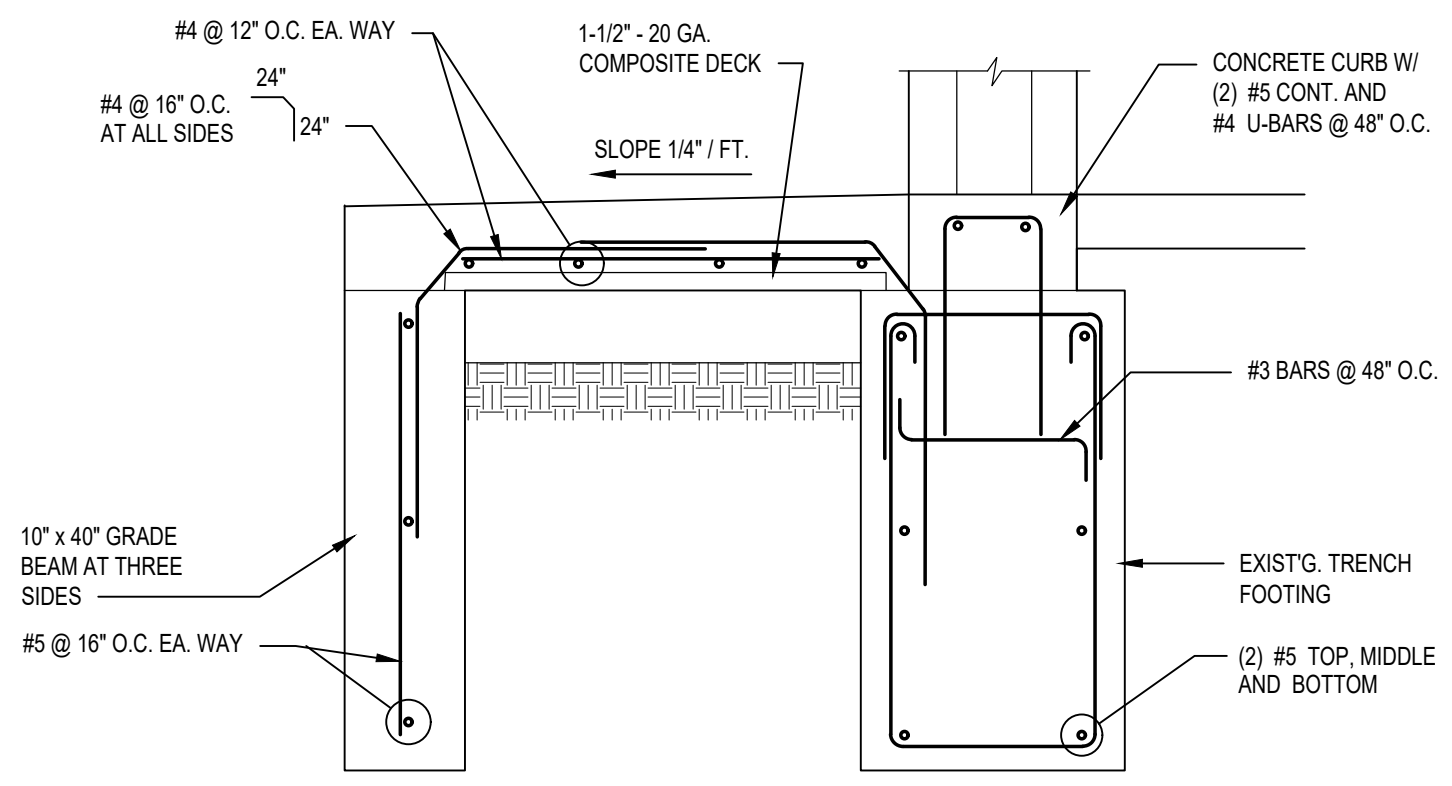
- ALL WORK TO BE PERFORMED IN ACCORDANCE WITH LOCAL CODES AS ADOPTED OR AMENDED BY THE CITY OF OMAHA.
- ORIGINAL SIDING SPECIFICATION WAS FOR "BERRIDGE COLONIAL METAL SIDING (COLOR: ZINC GREY). NEW SIDING SHOULD MATCH EXISTING TO THE EXTENT POSSIBLE. VERIFY EXTENT OF SPLICING WITH EXISTING MATERIAL THAT MAY BE REQUIRED.
- COORDINATE INSTALLATION OF NEW ROOF-MOUNTED EQUIPMENT WITH MECHANICAL DRAWINGS. ENSURE NEW BRACKETS ARE INSTALLED PER MANUFACTURERS & INDUSTRY STANDARDS FOR WEATHERTIGHTNESS.
- TOOTH-IN NEW CONCRETE MASONRY UNITS TO EXISTING AS REQUIRED.
- PROVIDE DRY BLOCK INTEGRAL WATER-REPELLANT ADMIXTURE FOR ALL NEW CONCRETE MASONRY UNITS AND MORTAR.
- PAINTING AT EXTERIOR IS LIMITED TO EXISTING COLUMNS WHERE NEW WIND SCREEN STEEL MEMBERS ARE ATTACHED (SEE DETAILS). NEW EXPOSED CONDUIT OR OTHER MECH./ELECT. APPURTENANCES, AND GENERAL TOUCH-UP OF AFFECTED AREAS THAT ARE CURRENTLY PAINTED. CONTACT ARCHITECT REGARDING ANY AREAS THAT APPEAR QUESTIONABLE.



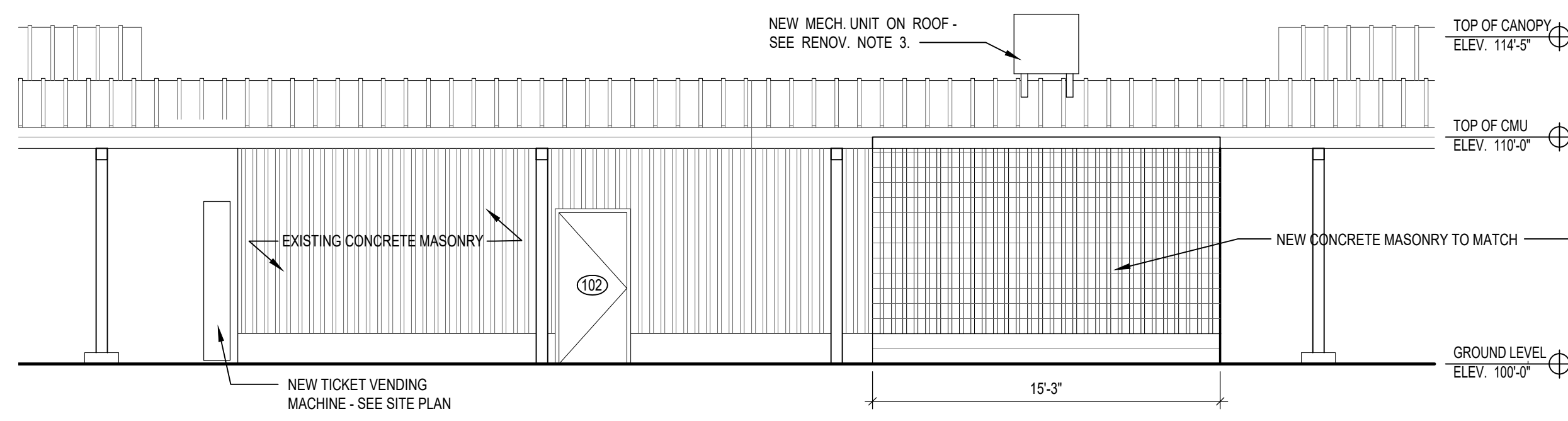
1 WALL SECTION - NEW
SCALE: 3/4" = 1'-0"



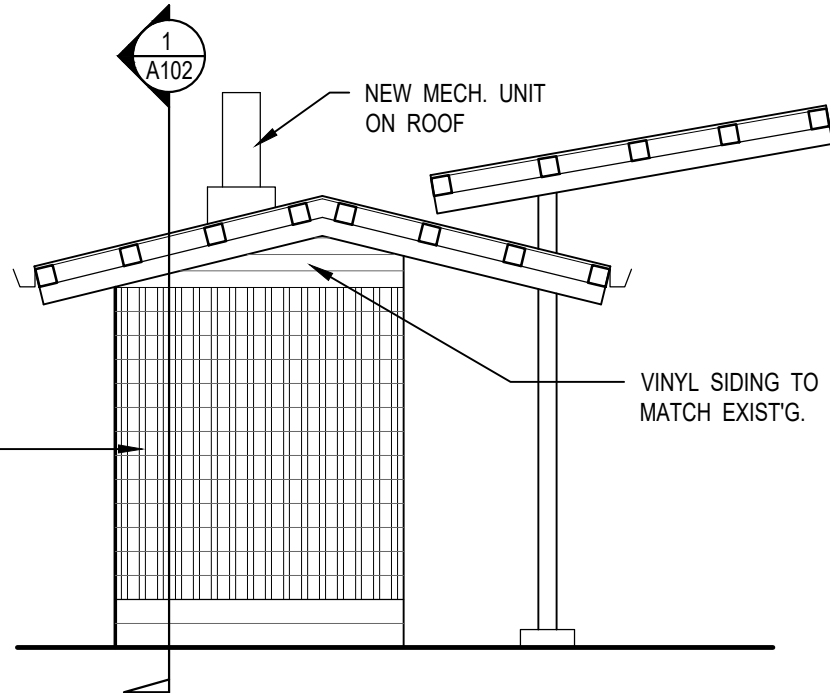
A WESTROADS TC - RENOVATION PLAN
SCALE: 1/4" = 1'-0"



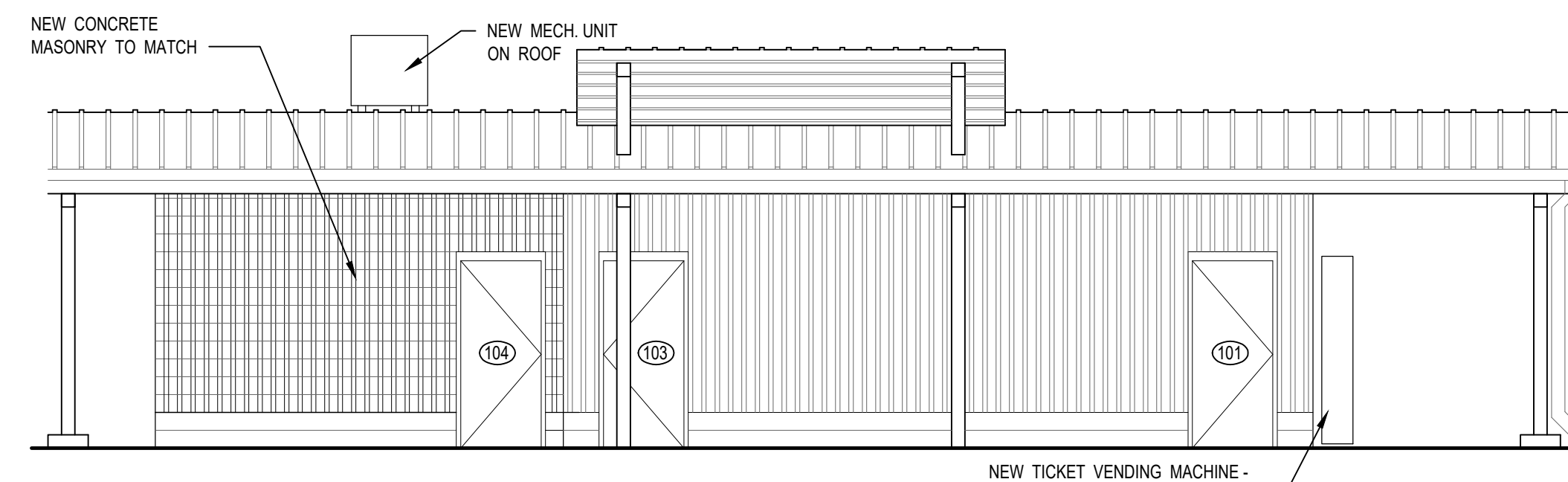
5 STOOP DETAIL
SCALE: 3/4" = 1'-0"



2 EAST ELEVATION
SCALE: 3/16" = 1'-0"



3 NORTH ELEVATION
SCALE: 3/16" = 1'-0"

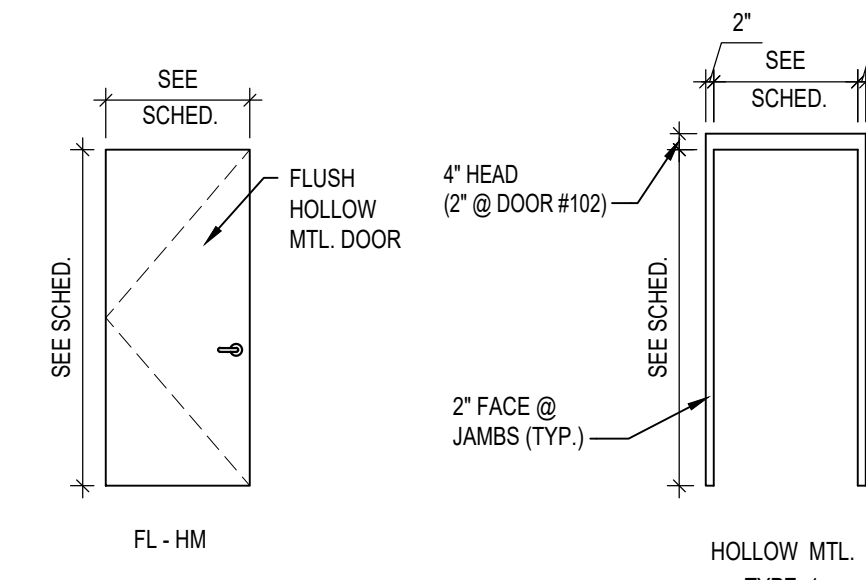


4 WEST ELEVATION
SCALE: 3/16" = 1'-0"

DOOR SCHEDULE																
MARK	ROOM	DOOR TYPE	DOORS			GLASS	INSUL.	FRAME TYPE	DEPTH	MAT'L.	FRAMES			FIRE RATING	HARDWARE GROUP	REMARKS
			WIDTH	HEIGHT	THICK.						HEAD	JAMB	SILL			
101	101	FL-HM	3'-0"	7'-0" - VERIFY	1-3/4"	NONE	YES	1	5-3/4"	H.M.	1 / A103 - SIM.	2 / A103 - SIM.	-	NONE	3	REPLACEMENT - VERIFY SIZE
102	102	FL-HM	3'-0"	6'-7" - VERIFY	1-3/4"	NONE	YES	1	5-3/4"	H.M.	1 / A103 - SIM.	2 / A103 - SIM.	-	NONE	3	REPLACEMENT - VERIFY SIZE
103	103	FL-HM	3'-0"	7'-0" - VERIFY	1-3/4"	NONE	YES	1	5-3/4"	H.M.	1 / A103 - SIM.	2 / A103 - SIM.	-	NONE	3	REPLACEMENT - VERIFY SIZE
104	104	FL-HM	3'-0"	7'-0"	1-3/4"	NONE	YES	1	5-3/4"	H.M.	1 / A103	2 / A103	-	NONE	1	NEW
105	105	FL-HM	3'-0"	7'-0"	1-3/4"	NONE	NO	1	5-3/4"	H.M.	1 / A103	2 / A103	-	1 HR.	2	NEW

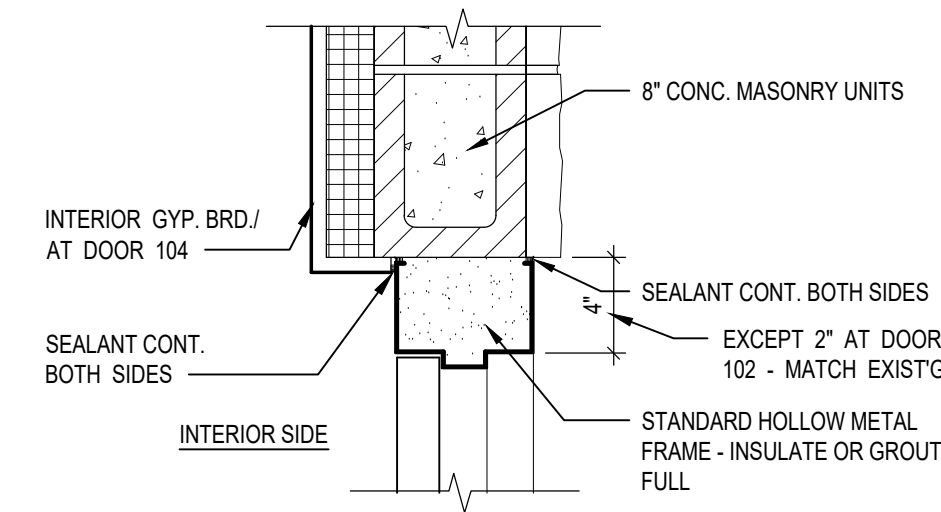
DOOR SCHEDULE NOTES:

- REFER TO SPECIFICATIONS FOR INFORMATION REGARDING HOLLOW METAL AND HARDWARE REQUIREMENTS.
- ALL DOORS AND FRAMES ARE TO BE PAINTED, AND SHALL BE PREPARED ACCORDING TO SPECIFICATION AND PAINT MANUFACTURER'S PRINTED INSTRUCTIONS.
- WHERE FRAMES ARE TO BE REMOVED, ENSURE ADJACENT SURFACES ARE PROTECTED FROM DAMAGE.
- FIELD VERIFY DIMENSIONS FOR ALL REPLACEMENT DOORS PRIOR TO INSTALLATION.

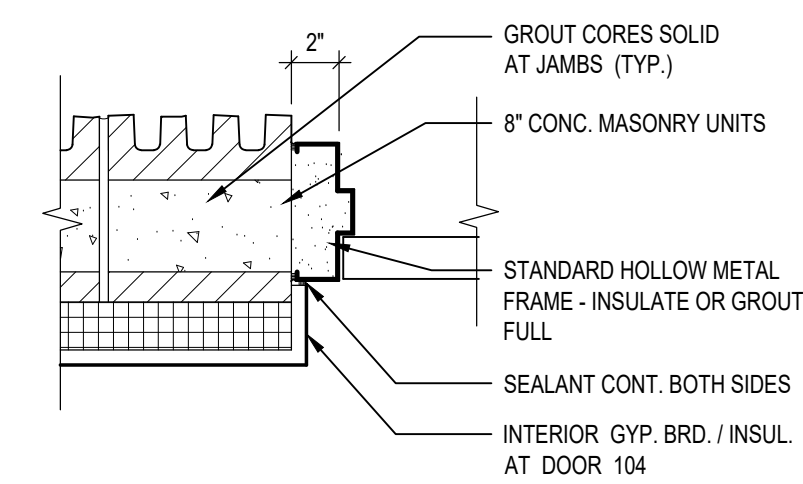


DOOR & FRAME TYPES

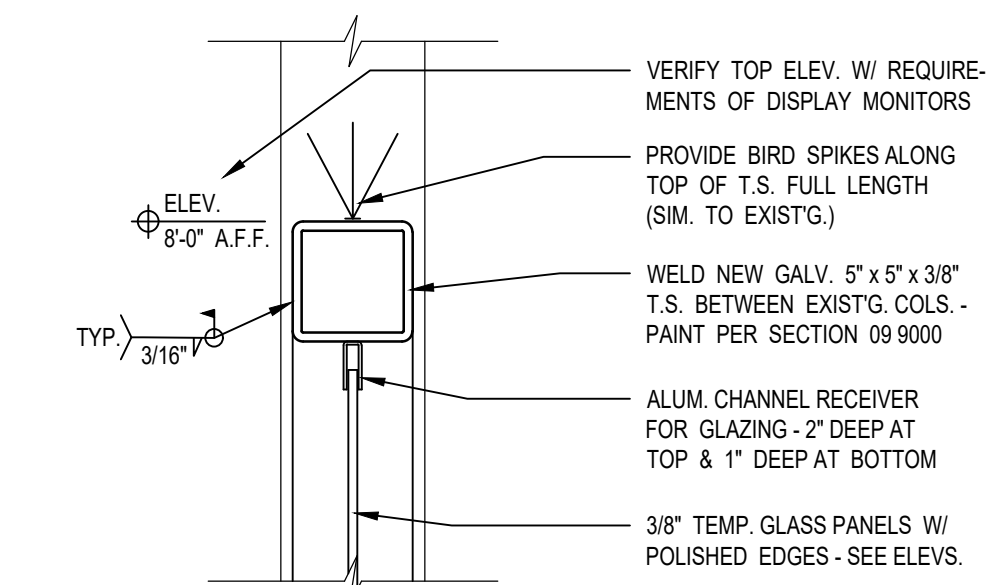
SCALE: 1/4" = 1'-0"



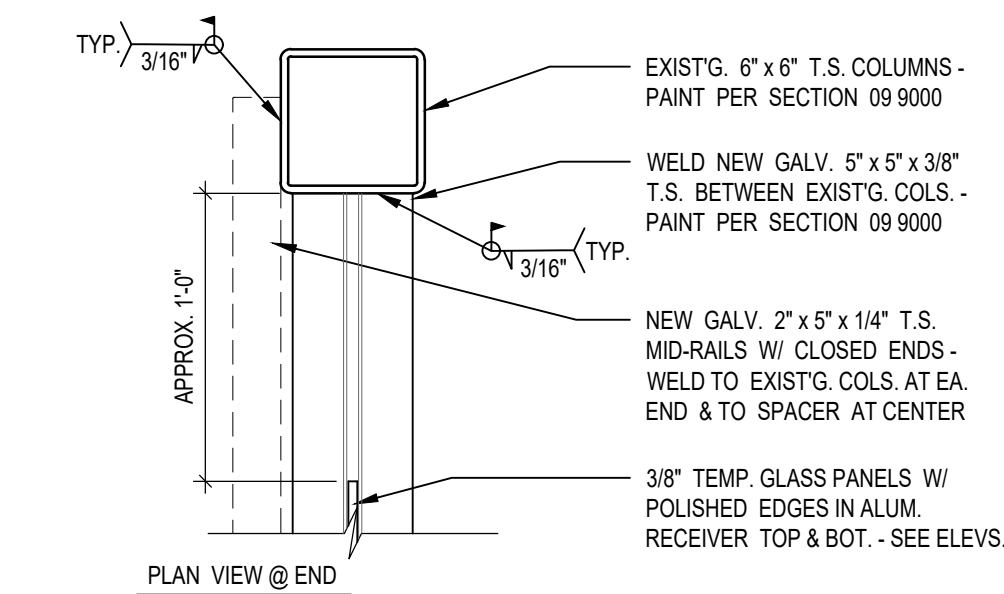
1 TYP. NEW DOOR HEAD DETAIL
SCALE: 1-1/2" = 1'-0"



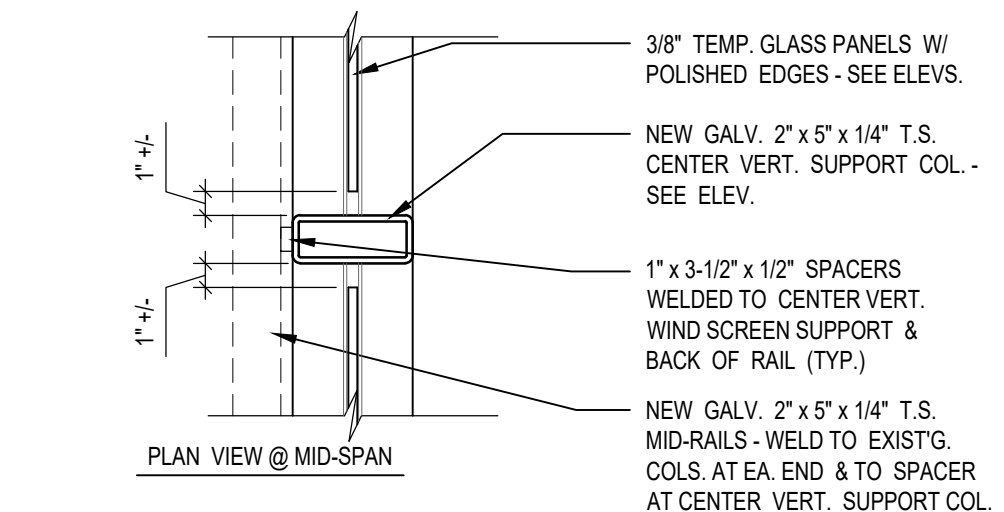
2 TYP. NEW DOOR JAMB DETAIL
SCALE: 1-1/2" = 1'-0"



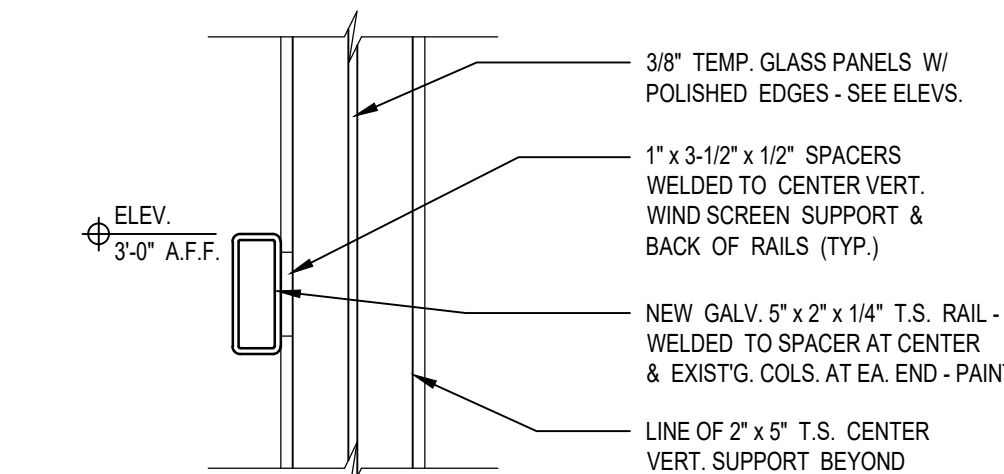
3 HEAD AT WIND SCREEN
SCALE: 1-1/2" = 1'-0"



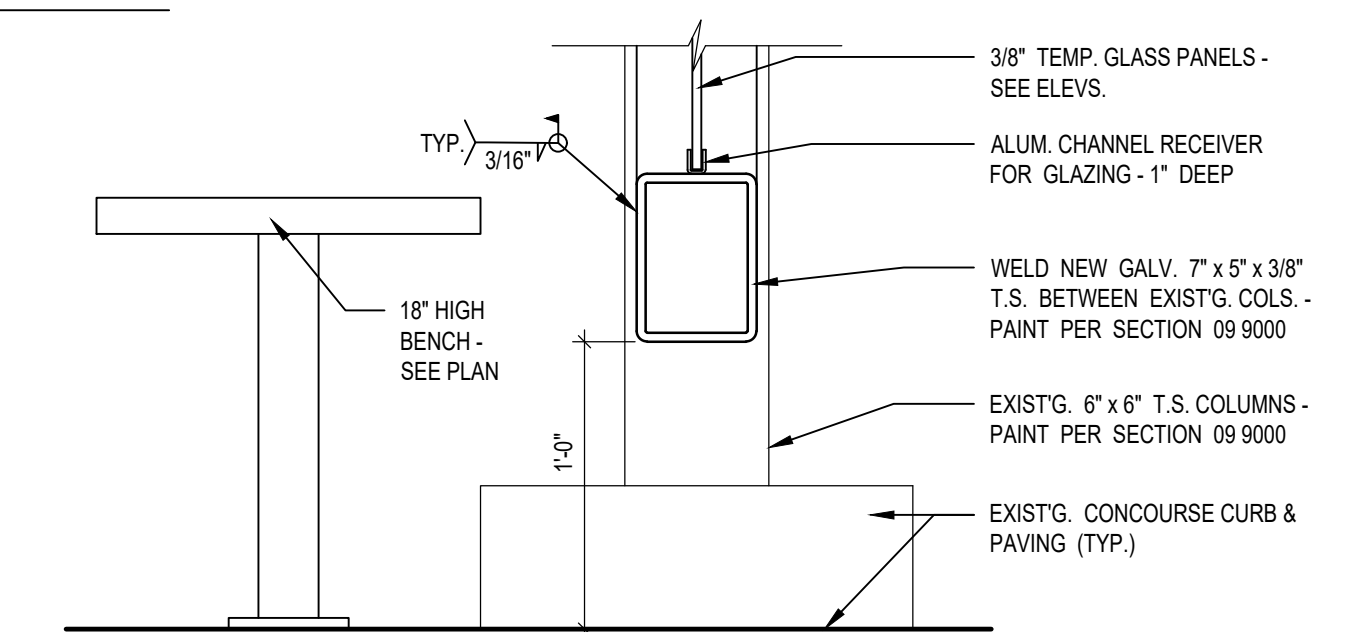
4 END AT WIND SCREEN
SCALE: 1-1/2" = 1'-0"



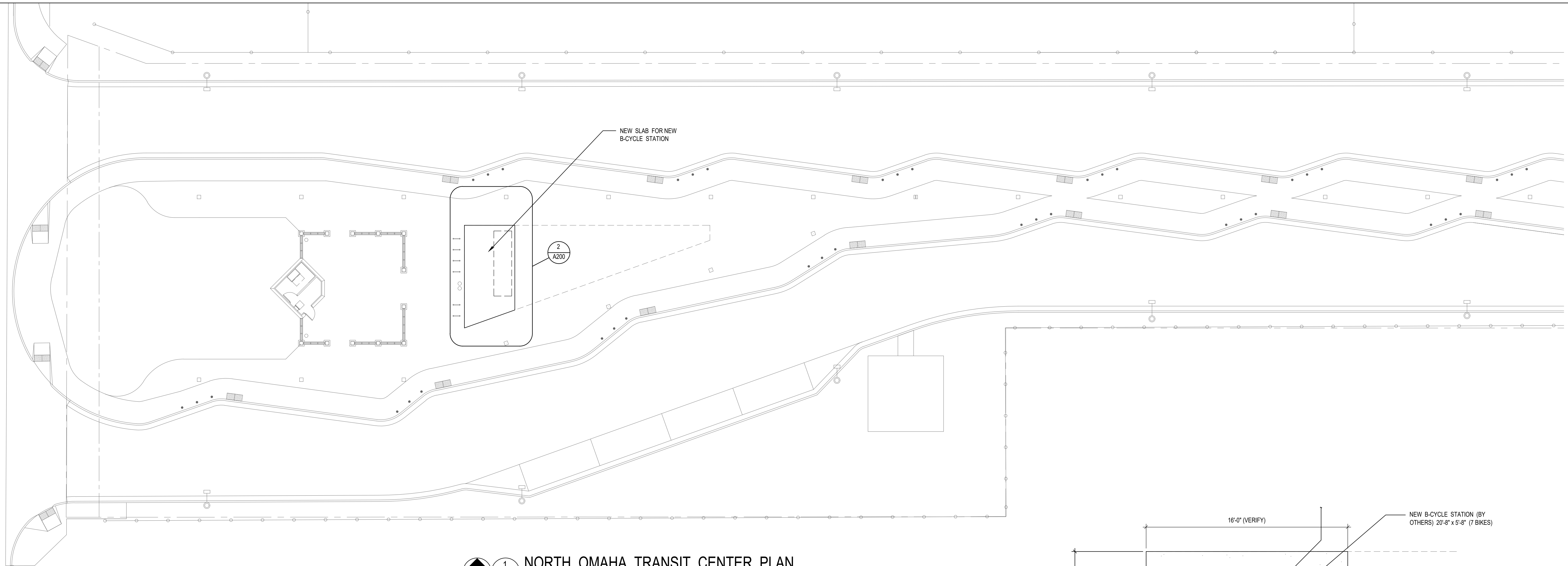
5 MID-SPAN AT WIND SCREEN
SCALE: 1-1/2" = 1'-0"



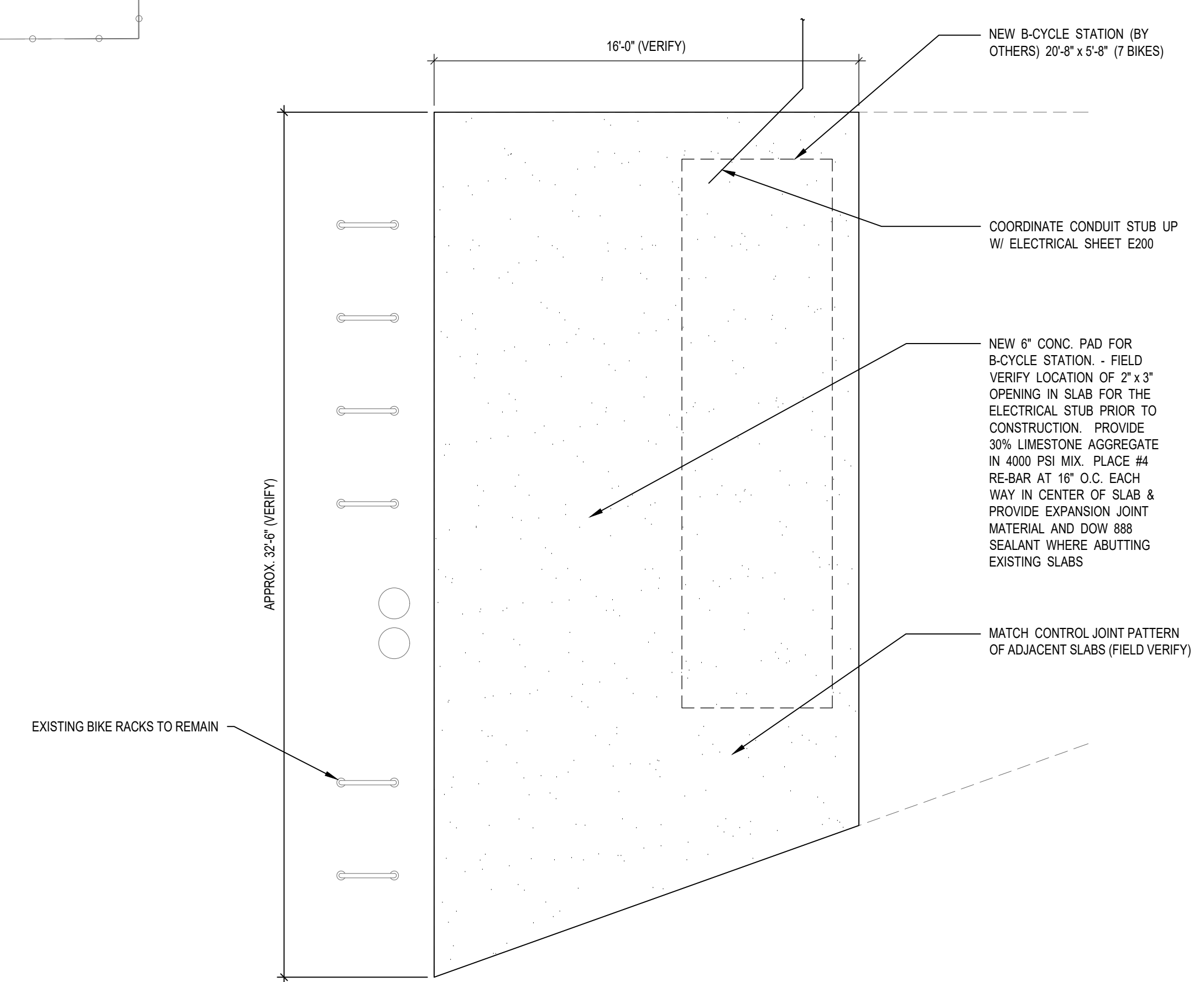
6 MID-RAIL AT WIND SCREEN
SCALE: 1-1/2" = 1'-0"



7 BOTTOM RAIL AT WIND SCREEN
SCALE: 1-1/2" = 1'-0"



1 NORTH OMAHA TRANSIT CENTER PLAN
 SCALE: 1/16" = 1'-0"



2 PLAN AT B-CYCLE STATION
 SCALE: 1/4" = 1'-0"



**Transit Center
Upgrades**

(Metro 2017 IDIQ - Work Order #1)
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 2222 Cuming Street
 Omaha, Nebraska 68102

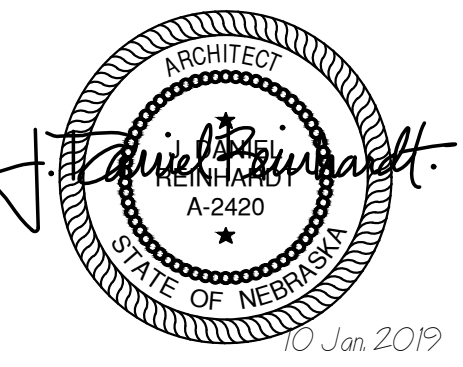
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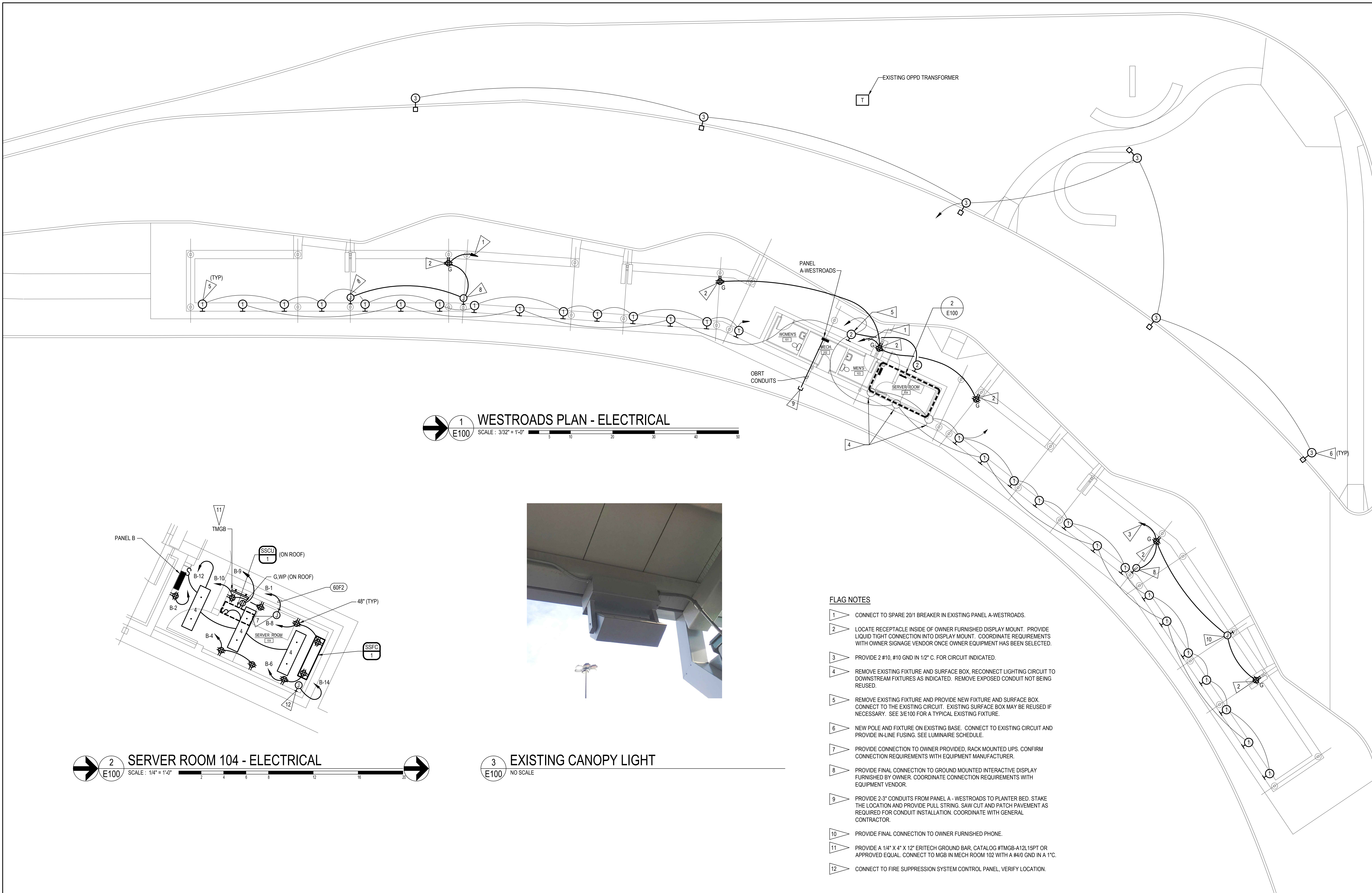
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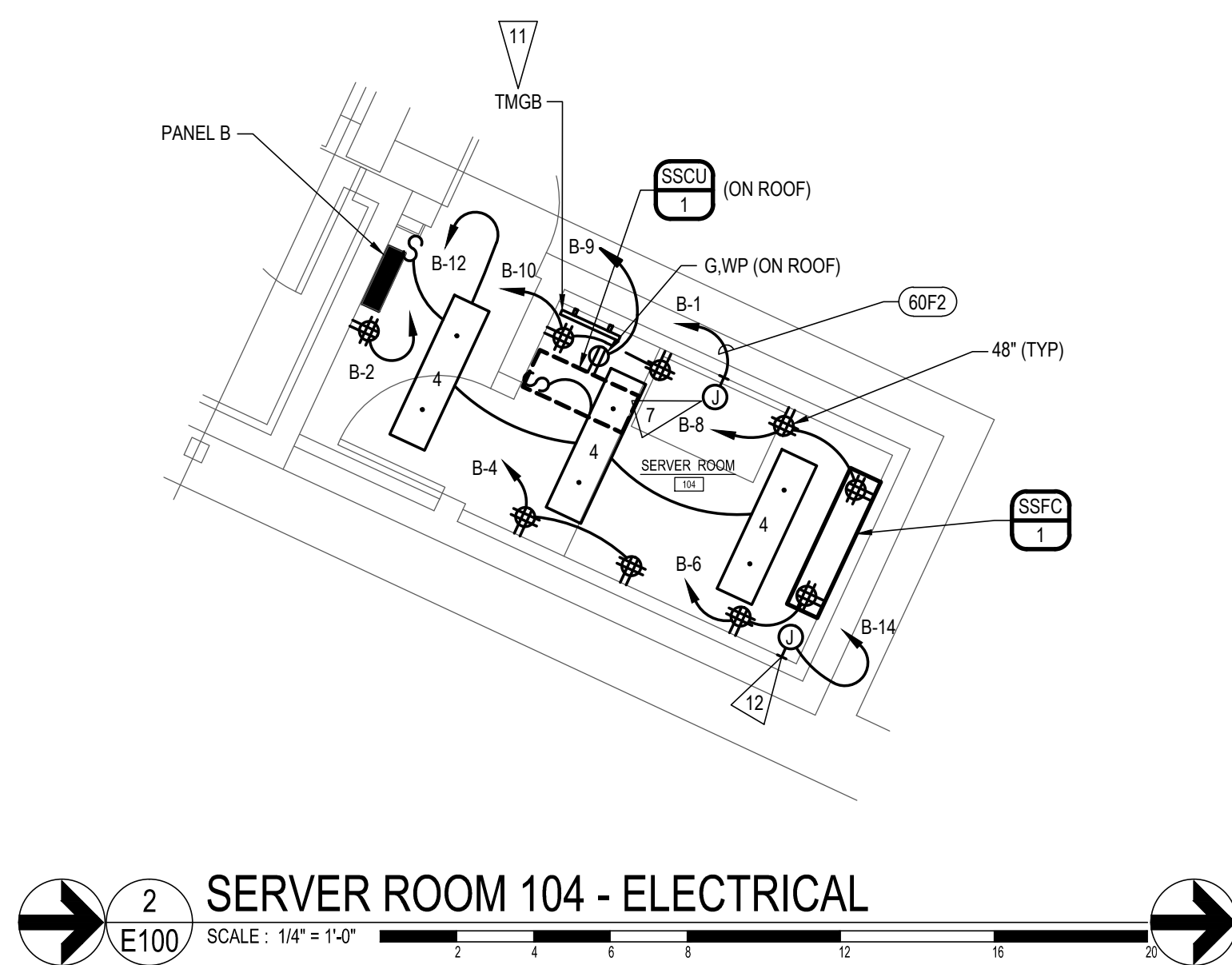
DRAWING TITLE
NORTH OMAHA TRANSIT CENTER SITE PLAN

SHEET NO.

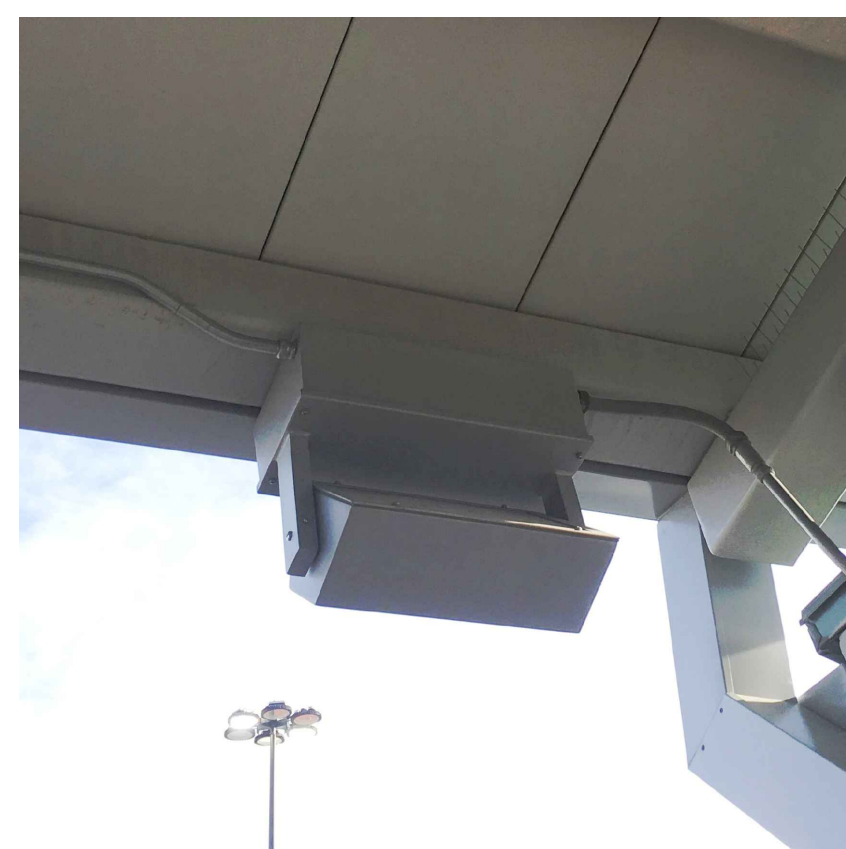
A200



1 WESTROADS PLAN - ELECTRICAL
SCALE: 3/32" = 1'-0"
E100



2 SERVER ROOM 104 - ELECTRICAL
SCALE: 1/4" = 1'-0"
E100



3 EXISTING CANOPY LIGHT
NO SCALE
E100

FLAG NOTES

- 1 CONNECT TO SPARE 201 BREAKER IN EXISTING PANEL A-WESTROADS.
- 2 LOCATE RECEPTACLE INSIDE OF OWNER FURNISHED DISPLAY MOUNT. PROVIDE LIQUID TIGHT CONNECTION INTO DISPLAY MOUNT. COORDINATE REQUIREMENTS WITH OWNER SIGNAGE VENDOR ONCE OWNER EQUIPMENT HAS BEEN SELECTED.
- 3 PROVIDE 2 #10, #10 GND IN 1/2" C. FOR CIRCUIT INDICATED.
- 4 REMOVE EXISTING FIXTURE AND SURFACE BOX. RECONNECT LIGHTING CIRCUIT TO DOWNSTREAM FIXTURES AS INDICATED. REMOVE EXPOSED CONDUIT NOT BEING REUSED.
- 5 REMOVE EXISTING FIXTURE AND PROVIDE NEW FIXTURE AND SURFACE BOX. CONNECT TO THE EXISTING CIRCUIT. EXISTING SURFACE BOX MAY BE REUSED IF NECESSARY. SEE 3/E100 FOR A TYPICAL EXISTING FIXTURE.
- 6 NEW POLE AND FIXTURE ON EXISTING BASE. CONNECT TO EXISTING CIRCUIT AND PROVIDE IN-LINE FUSING. SEE LUMINAIRE SCHEDULE.
- 7 PROVIDE CONNECTION TO OWNER PROVIDED, RACK MOUNTED UPS. CONFIRM CONNECTION REQUIREMENTS WITH EQUIPMENT MANUFACTURER.
- 8 PROVIDE FINAL CONNECTION TO GROUND MOUNTED INTERACTIVE DISPLAY FURNISHED BY OWNER. COORDINATE CONNECTION REQUIREMENTS WITH EQUIPMENT VENDOR.
- 9 PROVIDE 2-3" CONDUITS FROM PANEL A - WESTROADS TO PLANTER BED. STAKE THE LOCATION AND PROVIDE PULL STRING. SAW CUT AND PATCH PAVEMENT AS REQUIRED FOR CONDUIT INSTALLATION. COORDINATE WITH GENERAL CONTRACTOR.
- 10 PROVIDE FINAL CONNECTION TO OWNER FURNISHED PHONE.
- 11 PROVIDE A 1/4" X 4" X 12" ERITECH GROUND BAR, CATALOG #TMGB-A12L15PT OR APPROVED EQUAL. CONNECT TO MGB IN MECH ROOM 102 WITH A #4/0 GND IN A 1".
- 12 CONNECT TO FIRE SUPPRESSION SYSTEM CONTROL PANEL. VERIFY LOCATION.

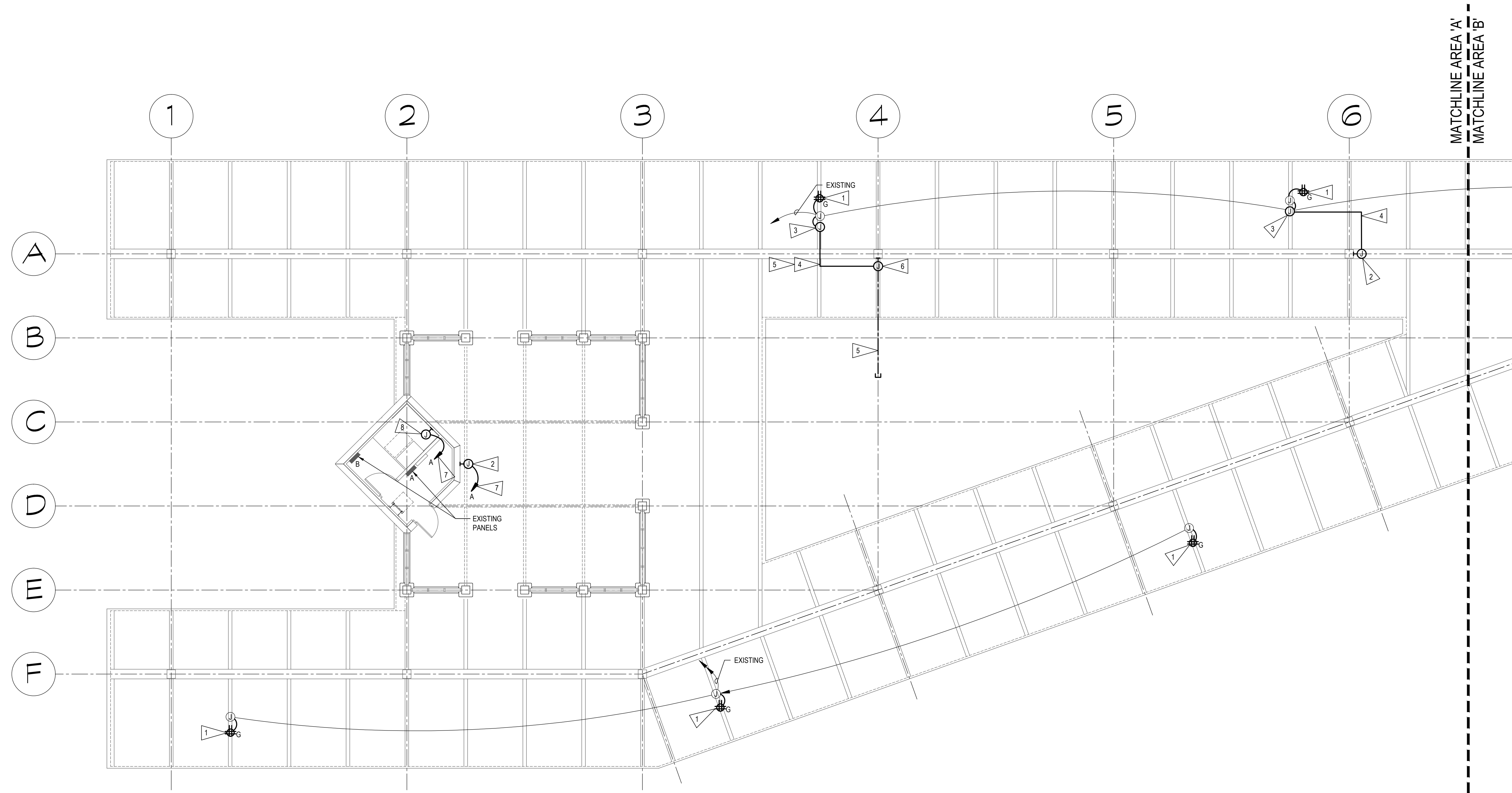
PROVIDE A DEDICATED NEUTRAL CONDUCTOR FOR EACH BRANCH CIRCUIT REQUIRING A NEUTRAL, UNLESS OTHERWISE NOTED.

INSTALL GREEN INSULATED GROUND WIRE WITH EACH LIGHTING, RECEPTACLE AND EQUIPMENT BRANCH CIRCUIT.

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FLAG NOTES

- 1 LOCATE RECEPTACLE INSIDE OF OWNER FURNISHED DISPLAY MOUNT. PROVIDE LIQUID TIGHT CONNECTION INTO DISPLAY MOUNT FROM EXISTING JUNCTION BOX AND CIRCUIT IN CANOPY. COORDINATE REQUIREMENTS WITH OWNER. SIGNAGE VENDOR ONCE EQUIPMENT HAS BEEN SELECTED.
- 2 PROVIDE FINAL CONNECTION TO GROUND MOUNTED INTERACTIVE DISPLAY FURNISHED BY OWNER. COORDINATE CONNECTION REQUIREMENTS WITH EQUIPMENT VENDOR.
- 3 PROVIDE DIE-CAST BOX WITH THREADED CONNECTORS OVER EXISTING JUNCTION BOX.
- 4 PROVIDE RIGID STEEL CONDUIT AND DIE-CAST FITTINGS WITH THREADED HUBS WHERE CONDUIT IS ATTACHED TO UNDERSIDE OF CANOPY ROOF DECK.
- 5 EMPTY 3/4" CONDUIT FOR FUTURE RENTAL BICYCLE STATION.
- 6 MOUNT JUNCTION BOX NEAR TOP OF COLUMN. ROUTE CONDUIT DOWN COLUMN AND UNDERGROUND AS INDICATED. REMOVE AND REPLACE FULL CONCRETE PANELS AS REQUIRED TO INSTALL CONDUIT. COORDINATE CONCRETE WORK WITH GENERAL CONTRACTOR.
- 7 PROVIDE 201 CIRCUIT BREAKER AND CONNECT TO EXISTING GENERAL ELECTRIC PANEL INDICATED, MATCH EXISTING BREAKERS.
- 8 CONNECT TO FIRE SUPPRESSION SYSTEM CONTROL PANEL, VERIFY LOCATION.

**NORTH OMAHA TRANSIT CENTER -
PLAN - AREA 'A' - ELECTRICAL**

1
E200
SCALE: 1/8" = 1'-0"

PROVIDE A DEDICATED NEUTRAL CONDUCTOR FOR EACH BRANCH CIRCUIT REQUIRING A NEUTRAL, UNLESS OTHERWISE NOTED.

INSTALL GREEN INSULATED GROUND WIRE WITH EACH LIGHTING, RECEPTACLE AND EQUIPMENT BRANCH CIRCUIT.

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CHECKED BY TJT
PROJECT NO. NE-0-X111

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ITEM	DATE

DRAWING TITLE

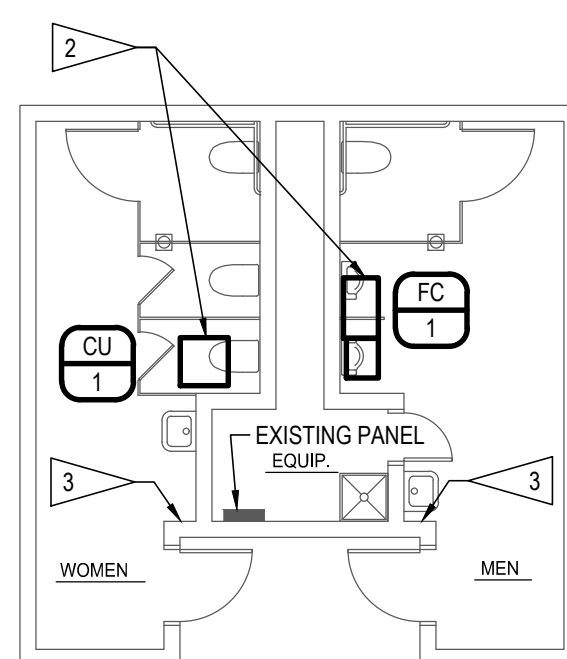
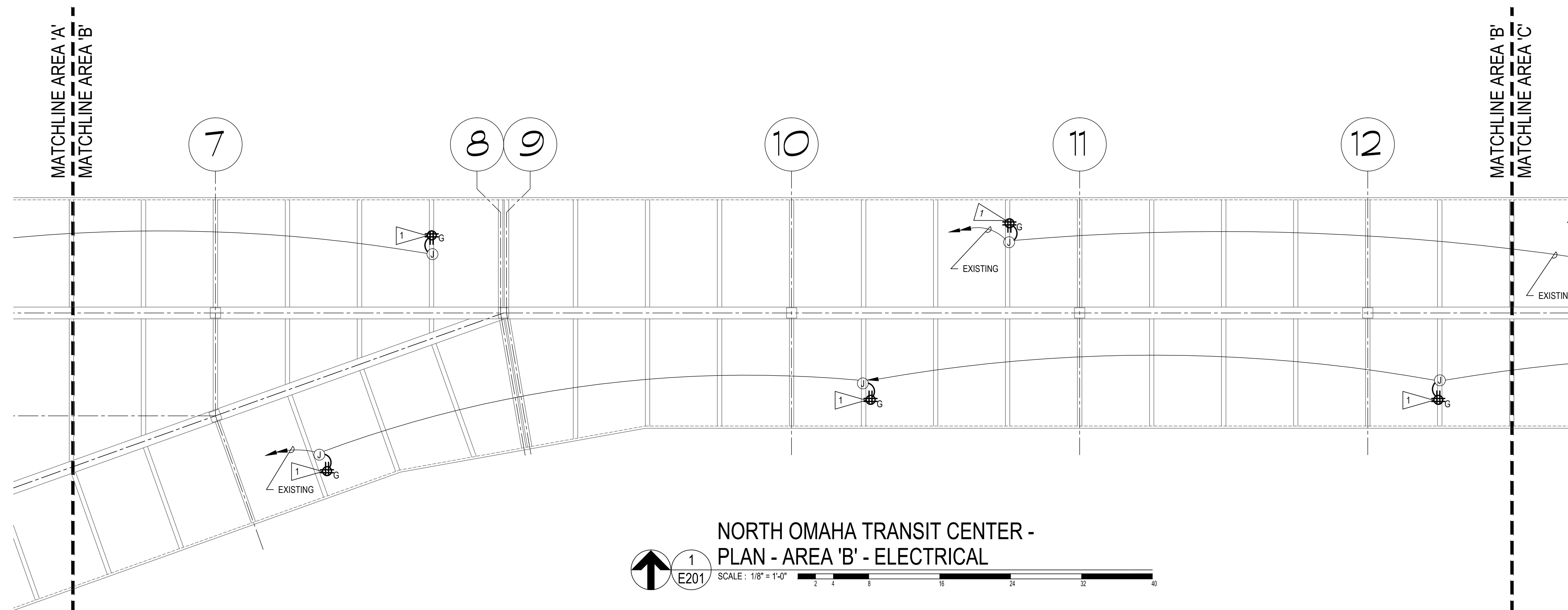
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ELECTRICAL**

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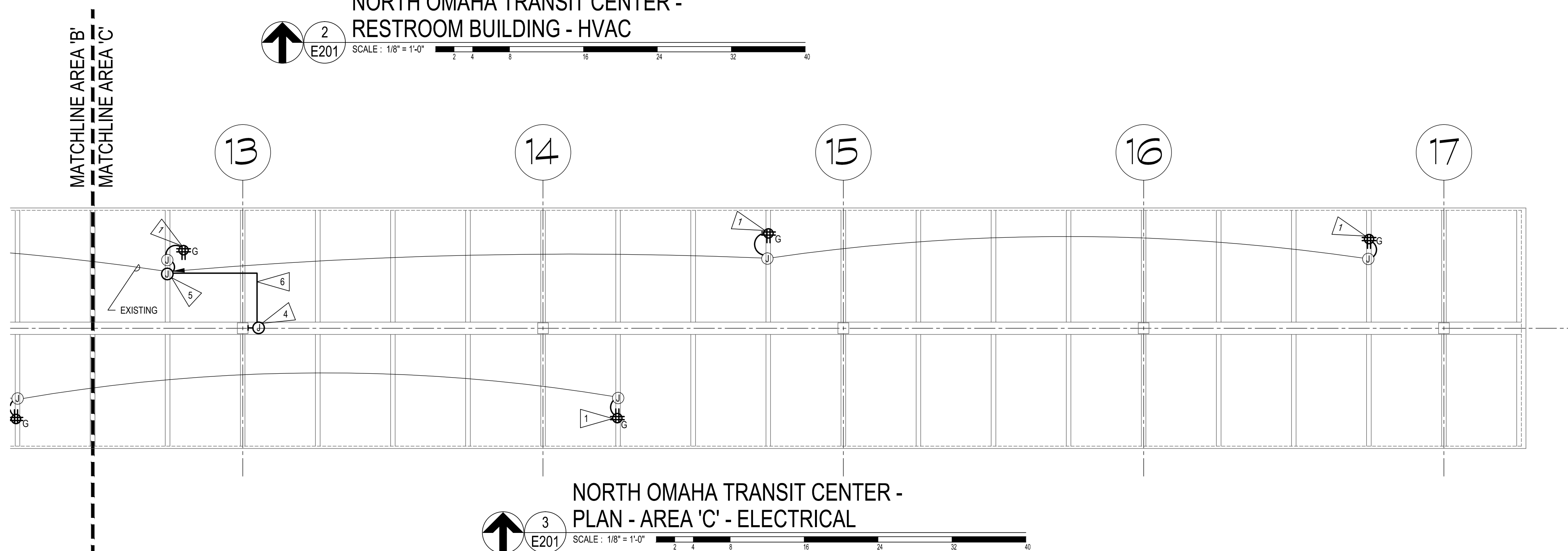
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FLAG NOTES

- 1 LOCATE RECEPTACLE INSIDE OF OWNER FURNISHED DISPLAY MOUNT. PROVIDE LIQUID TIGHT CONNECTION INTO DISPLAY MOUNT FROM EXISTING JUNCTION BOX AND CIRCUIT IN CANOPY. COORDINATE REQUIREMENTS WITH OWNER SIGNAGE VENDOR ONCE EQUIPMENT HAS BEEN SELECTED.
- 2 DISCONNECT EXISTING MECHANICAL EQUIPMENT TO ALLOW FOR REMOVAL BY OTHERS. CONNECT NEW MECHANICAL EQUIPMENT INDICATED. SEE MECHANICAL/ELECTRICAL COORDINATION SCHEDULE.
- 3 REMOVE EXISTING HAND DRYER AND PROVIDE 120 EXCEL THINAIR ADA COMPLIANT SURFACE MOUNT HAND DRYER. COORDINATE FINISH WITH ARCHITECT PRIOR TO ORDERING.
- 4 PROVIDE FINAL CONNECTION TO GROUND MOUNTED INTERACTIVE DISPLAY FURNISHED BY OWNER. COORDINATE CONNECTION REQUIREMENTS WITH EQUIPMENT VENDOR.
- 5 PROVIDE DIE-CAST BOX WITH THREADED CONNECTORS OVER EXISTING JUNCTION BOX.
- 6 PROVIDE RIGID STEEL CONDUIT AND DIE-CAST FITTINGS WITH THREADED HUBS WHERE CONDUIT IS ATTACHED TO UNDERSIDE OF CANOPY ROOF DECK.



**NORTH OMAHA TRANSIT CENTER -
RESTROOM BUILDING - HVAC**
SCALE: 1/8" = 1'-0"



PROVIDE A DEDICATED NEUTRAL CONDUCTOR FOR EACH BRANCH CIRCUIT REQUIRING A NEUTRAL, UNLESS OTHERWISE NOTED.

INSTALL GREEN INSULATED GROUND WIRE WITH EACH LIGHTING, RECEPTACLE AND EQUIPMENT BRANCH CIRCUIT.

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PANEL B										
208/120V		3 PHASE 4 WIRE W/ GND BAR		SURFACE MOUNTED						
100 AMP		MLO								
10,000		AIC								
24 POLES		ONE SECTION		SOURCE		A (EXISTING)				
DESCRIPTION	LOAD VA	REMARKS	O/C	CKT #	PH	CKT #	O/C	REMARKS	LOAD VA	DESCRIPTION
UPS	6000		50/2	1	A	2	20/1		400	ELEC ROOM, REC
-			-	3	B	4	20/1		800	SERVER ROOM, REC
SCCU-1	4784		35/2	5	C	6	20/1		800	SERVER ROOM, REC
-			-	7	A	8	20/1		800	SERVER ROOM, REC
ROOF RECEPT	180		20/1	9	B	10	20/1		800	SERVER ROOM, REC
SPARE			20/1	11	C	12	20/1		120	SERVER AND ELEC ROOM, LTS
SPARE			20/1	13	A	14	20/1		960	FIRE SUPPRESSION
SPARE			20/1	15	B	16	20/1			SPARE
SPARE			20/1	17	C	18	20/1			SPARE
SPARE			20/1	19	A	20	20/1			SPARE
SPARE			20/1	21	B	22	20/1			SPARE
SPARE			20/1	23	C	24	20/1			SPARE

FEEDER AND BRANCH CIRCUIT SCHEDULE	
MARK	CONDUCTORS AND CONDUIT
20F2	2 #12, #12 GND, 1/2" C.
60F2	2 #6, #10 GND, 3/4" C.
3 WIRE PLUS GROUND	
30F3	3 #10, #10 GND, 3/4" C.
4 WIRE PLUS GROUND	
100F4	4 #2, #8 GND, 1-1/2" C.

MECHANICAL / ELECTRICAL COORDINATION SCHEDULE															
ABBREVIATIONS:															
A	AMPS	BAS	BUILDING AUTOMATION SYSTEM	S	SWITCH	N1	NEMA 1								
ENCL	ENCLOSURE	C	COMBINATION STARTER AND SAFETY SWITCH	SF	SWITCH AND FUSTAT	N3R	NEMA 3R								
HP	HORSEPOWER	CB	CIRCUIT BREAKER	SS	SAFETY SWITCH	N4X	NEMA 4X								
KW	KILOWATTS	CP	CONTROL PANEL	VFC	VARIABLE FREQUENCY CONTROLLER			SCCR	SHORT CIRCUIT CURRENT RATING						
PH	PHASE	C+P	CORD AND PLUG												
V	VOLTAGE	I	INTEGRAL WITH EQUIPMENT												
W	WATTS	NF	NON-FUSED												
		OS	OCCUPANCY SENSOR	EC	ELECTRICAL CONTRACTOR										
				MC	MECHANICAL CONTRACTOR										
EQUIPMENT			ELECTRICAL SYSTEM				DISCONNECT			CONTROLLER			AVAILABLE FAULT CURRENT (AMPS)	REMARKS	
MARK	DESCRIPTION	LOAD	V	PH	FEEDER OR BRANCH CIRCUIT	PANEL - CIRCUIT	FURNISHED BY/ INSTALLED BY	TYPE	RATING (AMPS)	ENCL	FURNISHED BY/ INSTALLED BY	TYPE	ENCL		
CJ-1	CONDENSING UNIT	9.6 A	230	1	20F2	REMARK 1	EXISTING	-	-	-	-	-	-	-	
FC-1	FAN COIL UNIT	53.5 A	230	1	60F2	REMARK 1	EXISTING	-	-	-	-	-	-	-	
SSCU-1	SPLIT SYSTEM CONDENSING UNIT	23 A	208	1	30F3	B-5	EC/EC	SS	60	N3R	-	-	-	-	
SSFC-1	SPLIT SYSTEM FAN COIL UNIT	-	208	1	-	-	EC/EC	S	20	N1	-	-	-	-	2

GENERAL NOTES:

- VERIFY/COORDINATE RATINGS FOR EQUIPMENT SUPPLIED BY THE SELECTED MANUFACTURER. WHERE RATINGS ARE OTHER THAN AS REQUIRED FOR SPECIFIED UNIT, DISCONNECTS, MOTOR STARTERS, OVERCURRENT DEVICES AND RELATED REVISIONS SHALL BE PROVIDED ACCORDINGLY. THE CONTRACTOR THAT FURNISHES EQUIPMENT WITH RATINGS OTHER THAN AS NOTED SHALL BE RESPONSIBLE FOR COORDINATION AND COSTS FOR REVISIONS TO ACCOMMODATE SELECTED EQUIPMENT.
- SHORT CIRCUIT CURRENT RATING (SCCR) OF EQUIPMENT SHALL BE EQUAL TO OR GREATER THAN THE AVAILABLE FAULT CURRENT LISTED. SHORT CIRCUIT CURRENT RATING APPLIES TO EQUIPMENT AND DISCONNECT.
- FRACTIONAL HORSEPOWER SINGLE PHASE MOTORS SHALL BE PROVIDED WITH INTEGRAL OVERLOAD PROTECTION.
- DISCONNECTS SHALL BE FUSIBLE UNLESS NOTED OTHERWISE.
- ELECTRICAL CONTRACTOR SHALL PROVIDE CIRCUIT TO EQUIPMENT AS INDICATED.
- WHERE DISCONNECT IS NOT INDICATED ON PLANS, LOCATE AT EQUIPMENT PER NEC.
- EQUIPMENT IDs THAT END IN 'X' INDICATE THAT THERE ARE MULTIPLE UNITS THAT ARE IDENTICAL AND PROVIDED ON THE PROJECT. SEE PLANS FOR THE UNIQUE SEQUENTIAL DESIGNATION.

REMARKS:

- CONNECT TO EXISTING DISCONNECT IN ATTIC SPACE.
- INDOOR UNIT (SSFC) POWERED FROM OUTDOOR UNIT (SSCU). PROVIDE POWER AND CONTROL WIRING PER MANUFACTURER'S RECOMMENDATIONS.

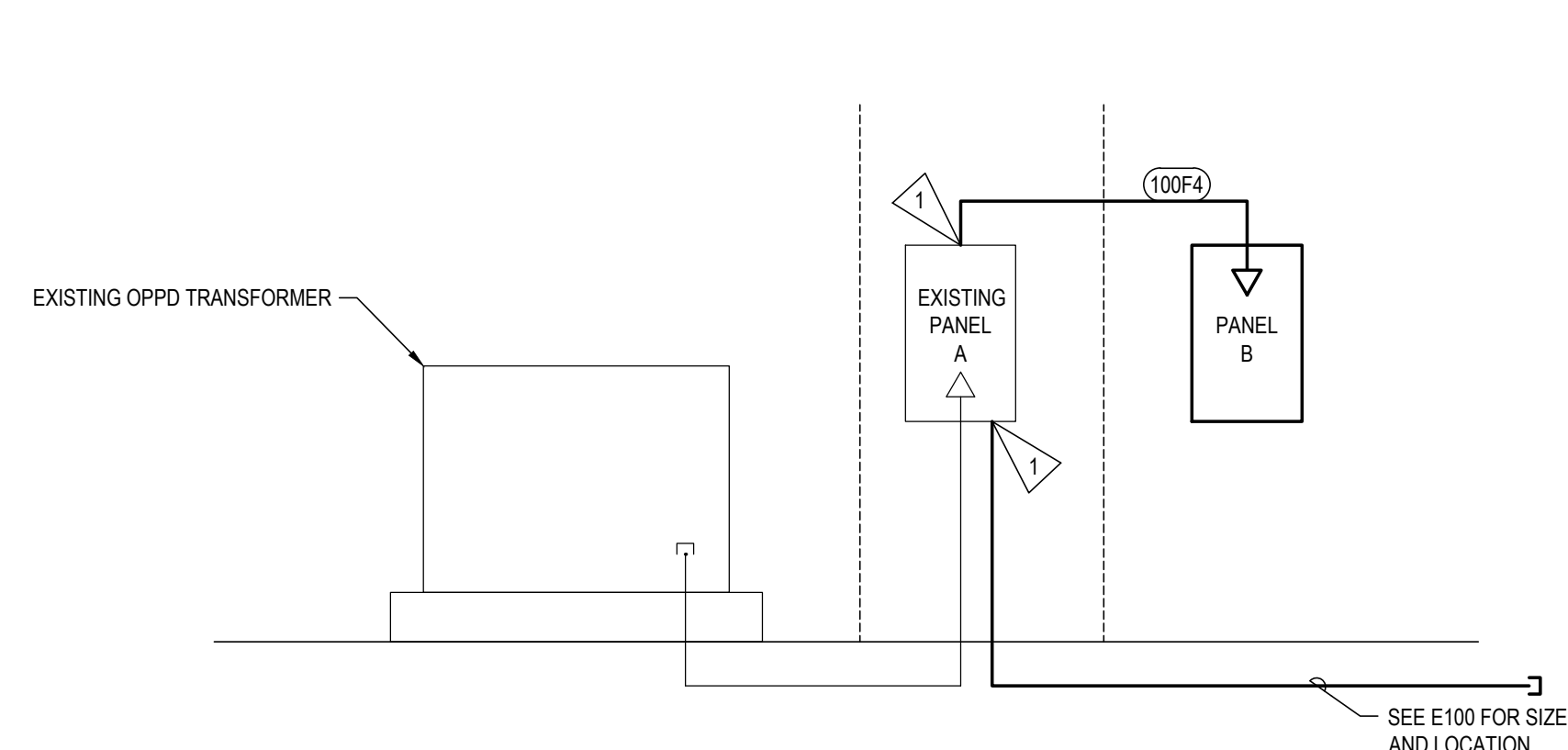
LUMINAIRE SCHEDULE											
MARK	MANUFACTURER	CATALOG NO.	BEAM DISTRIB.	LAMP DATA	VOLTS	FIXTURE QUAN. PER POLE	FIXTURE AND POLE FINISH	POLE HT. (FT.)	POLE TYPE	DESCRIPTION	REMARKS
1	WINONA	WLAWC804 SEH1 WL 12LONG AL1A4 40K MVOLT	ASYM	LED: 13173 LUMEN, 4000K, 120W	120	-	-	-	-	ASYMMETRIC SURFACE MOUNTED LED CANOPY UPLIGHT	
2	HUBBEL	TRP1 12L 15 4K7 2 U	2	LED: 1600 LUMEN, 4000K, 14W	120	-	-	-	-	SURFACE MOUNTED LED WALL PACK LIGHT	
3	KIM	1SA ARX09 2 4K 50 UV WH	2	LED: 8300 LUMEN, 4000K, 86W	120	1	WH	20'	RTS	LED POLE LIGHT	1, 2
4	CREE	LS4 40L 40K 10V	-	LED: 4250 LUMEN, 4000K, 40W	120	-	-	-	-	4 LED SUSPENDED STRIP LIGHT	

GENERAL NOTES:

- SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS FOR LUMINAIRES, LAMPS, AND BALLASTS.
- CONTRACTOR TO VERIFY LIGHT FIXTURE CATALOG NUMBER AND INSTALLATION REQUIREMENTS PRIOR TO ORDERING.
- POLE TYPE DESCRIPTION (ABC): A - SHAPE, R-ROUND, S-SQUARE; B - PROFILE, S-STRAIGHT, T-TAPERED; C - MATERIAL, A-ALUMINUM, S-STEEL
- PROVIDE INTERNAL VIBRATION DAMPENNER FOR EACH POLE.

REMARKS:

- NEW POLE SHALL BE INSTALLED ON EXISTING POLE BASE WITH 8" BY 8.5" BOLT SPACING, 12" DIAMETER BOLT CIRCLE. FIELD VERIFY PRIOR TO ORDERING AND PROVIDE NEW POLE TO MATCH BOLT PATTERN.
- IN ADDITION TO HANDHOLE AT BASE, PROVIDE HANDHOLE AT 18 FEET ABOVE BASE ON SIDE OF POLE OPPOSITE FIXTURE. SIZE POLE TO ACCOMMODATE CAMERA MOUNTED AT 18 FEET ABOVE BASE. APPROXIMATE EPA OF CAMERA IS 0.5 SQUARE FEET. PROVIDE 3/4" THREADED COUPLING INTO POLE AT 12 INCHES ABOVE BASE PLATE.



ONE-LINE POWER RISER DIAGRAM- WESTROADS

NO SCALE

FLAG NOTES

- PROVIDE NEW 1003 CIRCUIT BREAKER IN EXISTING SQUARE D PANEL. MATCH EXISTING BREAKER TYPE.

DRAWN BY JJW
CHECKED BY TJT
PROJECT NO. NE-0-X111

ISSUES AND REVISIONS
ITEM DATE

DRAWING TITLE

**ELECTRICAL
DETAILS &
SCHEDULES**

SHEET NO.

E300

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TELECOMMUNICATIONS SYMBOLS

TELECOMMUNICATIONS			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	COMMUNICATIONS OUTLET		CEILING MOUNTED COMMUNICATIONS OUTLET
	SPECIAL SERVICES COMMUNICATIONS OUTLET		MUTOA - MULTI-USER TELECOMMUNICATIONS OUTLET ASSEMBLY
	WIRELESS ACCESS POINT		CABLE SLACK (*X INDICATES SLACK LENGTH)
	FIBER OPTIC CABLE (*# INDICATES NUMBER OF STRANDS *T INDICATES TYPE AND *X INDICATES CABLE NAME)		CABLE PROTECTOR (*XXX INDICATES NUMBER OF PROTECTORS)
	COMBINATION DATA/AV FLOOR OUTLET (*# INDICATES DEVICE TYPE IN SCHEDULE)		CEILING MOUNTED DAS ANTENNA
	AV GEAR BOX. REFER TO SCHEMATICS AND SPECS		WALL MOUNTED DAS ANTENNA
AUDIOVISUAL			
	WALL SURFACE MOUNTED LOUDSPEAKER (*# INDICATES DEVICE TYPE IN SCHEDULE)		CEILING MOUNTED LOUDSPEAKER (*# INDICATES DEVICE TYPE IN SCHEDULE)
	TELEVISION/VIDEO OUTLET		VOLUME CONTROL
	CALL IN SWITCH		WALL MICROPHONE OUTLET (*# INDICATES DEVICE TYPE IN SCHEDULE)
	AV WALL OUTLET (*# INDICATES DEVICE TYPE IN SCHEDULE)		FLOOR MICROPHONE OUTLET (*# INDICATES DEVICE TYPE IN SCHEDULE)
	FLOOR AV OUTLET (*# INDICATES DEVICE TYPE IN SCHEDULE)		AV CEILING OUTLET (*S/F# INDICATES SURFACE OR FLUSH MOUNTED *# INDICATES DEVICE TYPE IN SCHEDULE)
	AV ROOM SCHEDULER (*# INDICATES DEVICE TYPE IN SCHEDULE)		AV CONTROL PANEL (*# INDICATES DEVICE TYPE IN SCHEDULE)
	AV BACKBOX (*# INDICATES TYPE IN SCHEDULE) (*#D INDICATES # OF DATA CABLES)		AV CEILING BACKBOX (*# INDICATES TYPE IN SCHEDULE) (*#D INDICATES # OF DATA CABLES)
SECURITY			
	WALL MOUNT MOTION SENSOR (90-90°, 180-180°, NB=NARROW BEAM)		WALL MOUNT EMERGENCY PHONE
	CEILING MOUNT MOTION SENSOR		GLASS BREAK SENSOR
	SOUNDER		INTERCOM STATION (*S' SUBSTATION, *M' MASTER STATION)
	STROBE		JUNCTION BOX FOR SPECIALTY SECURITY SENSOR
	ACCESS CONTROL DEVICE LOCATION (*M INDICATES MULLION MOUNT)		AUTOMATIC OPERATOR CONNECTION POINT (*G GATE, *D' DOOR)
	ELECTRONICALLY CONTROLLED AND MONITORED DOOR LOCATION (REFER TO ACCESS CONTROL OPENING SCHEDULE)		FIXED BOX CAMERA (*# INDICATES NUMBER IN SCHEDULE)
	MONITORED DOOR LOCATION (REFER TO ACCESS CONTROL OPENING SCHEDULE)		FIXED DOME CAMERA (*# INDICATES NUMBER IN SCHEDULE)
	SECURITY PUSH BUTTON - (*PID# INDICATES PANIC ALARM OR DOOR RELEASE)		PTZ DOME CAMERA (*# INDICATES NUMBER IN SCHEDULE)
PATHWAYS			
	GROUND BAR		CONDUIT SLEEVE WITH BUSHINGS
	WALL MOUNT TELECOMMUNICATIONS EQUIPMENT		J-HOOK STYLE CABLE HANGERS
	CABLE TRAY (*# INDICATES TRAY DIMENSIONS)		CABLE RUNWAY (*# INDICATES TRAY DIMENSIONS)
	CABLE TRAY - WALL MOUNTED (*# INDICATES TRAY DIMENSIONS)		EQUIPMENT RACK (*# INDICATES RACK NO. AND FRONT OF RACK)
MISCELLANEOUS			
	WALL MOUNTED CLOCK		CHIME
	DOUBLE FACE CLOCK		BUZZER
	COMBINATION CLOCK/SPEAKER UNIT		ELECTRIC SOLENOID VALVE
SUBSCRIPTS			
AC	SUBSCRIPT "AC" ADDED TO ANY SYMBOL INDICATES ABOVE COUNTER. LOCATE CENTER OF DEVICE 4" ABOVE COUNTER SURFACE OR WHERE PRESENT, 4" ABOVE BACKSPASH. WHERE INDICATED ADJACENT TO LAVATORY WITHOUT COUNTER, LOCATE CENTER OF DEVICE 8" ABOVE RIM OF LAVATORY.		
W	SUBSCRIPT "W" ADDED TO COMMUNICATIONS WALL OUTLET INDICATES WALL PHONE (HANGER PLATE MOUNTED AT 48" UNLESS NOTED OTHERWISE)		
P	SUBSCRIPT "P" ADDED TO COMMUNICATIONS DEVICE INDICATES POLE MOUNT		
C	SUBSCRIPT "C" ADDED TO COMMUNICATIONS DEVICE INDICATES CEILING MOUNT		
#D	SUBSCRIPT "#D" ADDED TO ANY SYMBOL INDICATES QUANTITY OF DATA CABLES		
BL	SUBSCRIPT "BL" INDICATES BLUE LIGHT EMERGENCY PHONE		

SYMBOLS INDICATED HERE AND NOT USED IN THE CONTRACT DOCUMENTS DO NOT APPLY TO THIS PROJECT. ADDITIONAL SYMBOLS AND ABBREVIATIONS MAY BE INDICATED IN THE CONTRACT DOCUMENTS.

ABBREVIATIONS							
A AMP	C CONDUIT	DWG DRAWING	FO FIBER OPTIC	IP INTERNET PROTOCOL	MUTOA MULTI-USER TELECOMMUNICATIONS OUTLET ASSEMBLY	PNL PANEL	SMACNA SHEET METAL AND AIR CONDITIONING CONTRACTORS' NATIONAL ASSOCIATION
AC ALTERNATING CURRENT	CAB CABINET	DX DIRECT EXPANSION	FOV FIELD OF VIEW	ISP INSIDE PLANT	POE POWER OVER ETHERNET	TV TELEVISION	TVSS TRANSIENT VOLTAGE SURGE SUPPRESSION
ACEG AC EQUIPMENT GROUND	CATV CABLE TELEVISION	EAC EXHAUST AIR	FP FIBER PANEL	JBOX JUNCTION BOX	POP POINT OF PRESENCE	(TP) TYPICAL	UG UNDERGROUND
AFB ABOVE FINISHED FLOOR	CB CIRCUIT BREAKER	EAC ELECTRONIC ACCESS CONTROL	FT FEET	KMCL THOUSAND CIRCULAR MILS	PP PATCH PANEL	UL UNDERWRITERS LABORATORY	UNO UNLESS NOTED OTHERWISE
AHJ AUTHORITY HAVING JURISDICTION	CCIV CLOSED CIRCUIT TELEVISION	EHC ELECTRIC HEATING COIL	FURN FURNISHED	KV KILOVOLT	PRV PRESSURE REGULATING VALVE	UPS UNINTERRUPTIBLE POWER SUPPLY	US UTILITY SINK
ALF ALUMINUM FRAME DOOR	CFH CUBIC FEET PER HOUR	EL ELEVATION	FW FILTERED WATER	KVA KILOVOLT AMPERE	PS PLASTER SINK	UTP UNSHIELDED TWISTED PAIR	VD VOLUME DAMPER
APPROX APPROXIMATELY	CFM CUBIC FEET PER MINUTE	ELEC ELECTRICAL	G GAUGE	KW KILOWATT	PSF POUNDS PER SQUARE FOOT	V VOLT, VENT	VERT VERTICAL
ASHRAE AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS	CL CENTER LINE	EMD ESTIMATED MAXIMUM DEMAND	GALV GALVANIZED	LAN LOCAL AREA NETWORK	SSI SECURITY SYSTEMS INTEGRATOR	WATER WATER	WAN WIDE AREA NETWORK
ASME AMERICAN SOCIETY OF MECHANICAL ENGINEERS	CLEC COMPETITIVE LOCAL EXCHANGE CARRIER	EMS ENERGY MANAGEMENT SYSTEM	GC GENERAL CONTRACTOR	LBM LATCH BOLT MONITOR	SSS SURGEON SCRUB SINK	WMP WIRE MANAGEMENT PANEL	WAP WIRELESS ACCESS POINT
ASTM STANDARD SPECIFICATIONS OF THE AMERICAN SOCIETY FOR TESTING MATERIALS	CLR CLEAR	EMT ELECTRICAL METALLIC TUBING	GEN GENERATOR	LBS POUNDS	STD STANDARD	WSA WIRE SIZING AMPS	WTR WIRE TRANSFER HINGE
ATS AUTOMATIC TRANSFER SWITCH	CMR COMMUNICATIONS RISER CABLE	EPO EMERGENCY POWER OFF EQUIPMENT	GFCI GROUND FAULT CIRCUIT INTERRUPTER	MA MAKEUP AIR	STP SHIELDED TWISTED PAIR	XTB TRANSFORMER	
AUX AUXILIARY	COAX COAXIAL CABLE	EQIP EQUIPMENT	GND GROUND	MATV MASTER ANTENNA TELEVISION	SW SWITCH		
AV ACID VENT, AUDIOVISUAL	CO-OSP CUSTOMER OWNER-OUTSIDE PLANT EXIST	EXH EXHAUST	GRM GALLONS PER MINUTE	MAU MAKEUP AIR UNIT	SWBD SWITCHBOARD		
AVG AVERAGE	CPVC CHLORINATED POLYVINYL CHLORIDE	EXIST EXIST	HGT HEIGHT	NWE NETWORK VIDEO ENCODER	SWGR SWITCHGEAR		
AVI AUTOMATIC VEHICLE IDENTIFICATION	CRAC COMPUTER ROOM AIR CONDITIONER	F FIRE WATER	HH HANDHOLE	NW NON-POTABLE WATER	T TRANSFORMER		
AW ACID WASTE	CT COOLING TOWER, CABLE TRAY CONSTANT VOLUME	FAA FIRE ALARM	HMF HOLLOW METAL FRAME DOOR	OC ON CENTER	T-1 TRUNK LEVEL 1		
AWG AMERICAN WIRE GAUGE	CVPV COOLING TOWER, CABLE TRAY CONSTANT VOLUME	FAC FIRE ALARM ANNUNCIATOR PANEL	HP HORSEPOWER, HEAT PUMP	OPE OWNER PROVIDED ELECTRONICS OPERATOR ROOM	TELECOMMUNICATIONS		
BAS BUILDING AUTOMATION SYSTEM	DAS DISTRIBUTION ANTENNA SYSTEM	FBA FIRE ALARM CABINET	HTG HEATING	OR OPERATOR ROOM	TBB BONDING BACKBONE		
BFP BACKFLOW PREVENTER	DD DOUBLE DUCT	FDC FIRE DEPARTMENT CONNECTION	HVAC HEATING, VENTILATING AND AIR CONDITIONING	OSP OUTSIDE PLANT	TBBIC TELECOMMUNICATIONS BONDING BACKBONE INTERCONNECTING BONDING CONDUCTOR		
BICSI BUILDING INDUSTRY CONSULTING SERVICE INTERNATIONAL	DIA DIAMETER	FHC FIRE HOSE CABINET	HW HOT WATER	PABX PRIVATE AUTOMATIC BRANCH EXCHANGE	TEL TELEPHONE		
BLOG BUILDING	DISC DISCONNECT	FL FLOOR	HWC HOT WATER CIRCULATING	PB PULLBOX	TELECOM TELECOMMUNICATIONS		
BTC BONDING CONDUCTOR FOR TELECOMMUNICATION	DIST DISTRIBUTION	FLA FULL LOAD AMPS	HZ HERTZ	PBU PROVIDE BY OTHERS	TEMP TEMPERATURE		
BTU BRITISH THERMAL UNIT	DN DOWN	FM FIRE	IC INTERCOM	PBX PRIVATE BRANCH EXCHANGE	TGB TELECOMMUNICATIONS GROUNDING BUSBAR		
BTUH BRITISH THERMAL UNIT PER HOUR	DPS DOOR POSITION SWITCH	FNG FACTORY MUTUAL GLOBAL	IDC INSULATION DISPLACEMENT CONNECTOR	PERP PERPENDICULAR	TMBG TELECOMMUNICATIONS MAIN GROUNDING BUSBAR		
	DVR DIGITAL VIDEO RECORDER		IDF INTERMEDIATE DISTRIBUTION FRAME	PIC PLASTIC INSULATED CABLE	TTR TELECOMMUNICATIONS ROOM TERMINAL		
			IDS INTRUSION DETECTION SYSTEM	PIV POST INDICATOR VALVE			
			IE INVERT ELEVATION	PLBG PLUMBING			

TELECOMMUNICATIONS GENERAL NOTES

COMMUNICATIONS CABLING NOTES

- INSTALL COMMUNICATIONS CABLES CONTINUOUS FROM OUTLET LOCATION TO THE TELECOMMUNICATIONS ROOM SERVING THAT AREA, OR FROM TELECOMMUNICATIONS ROOM TO TELECOMMUNICATIONS ROOM. DO NOT SPLICE TELECOMMUNICATION CABLES.
- CABLE DAMAGED DURING ITS INSTALLATION WILL NOT BE ACCEPTED. UNLESS OTHERWISE ALLOWED BY OWNER, THE CONTRACTOR SHALL REPLACE CABLE DAMAGED DUE TO ITS INSTALLATION WITH NEW CABLE INSTALLED AT THE EXPENSE OF THE CONTRACTOR. DAMAGE INCLUDES PHYSICAL DAMAGE TO CABLE OR IMPROPER INSTALLATION PRACTICES THAT MAY AFFECT PERFORMANCE.
- TERMINATE STATION CABLE TERMINATED ON PATCH PANELS IN TELECOMMUNICATIONS RACKS AND ON 110 BLOCKS. IN THE WORK AREA, TERMINATE CABLE TERMINATED WITH A POSITION MODULAR JACK IN ACCORDANCE WITH T568B PIN/PAIR ASSIGNMENT. MOUNTED IN A POSITION FACE PLATE AND LABELED. NUMBER OF CABLES AND JACKS ARE KEYS TO THE SYMBOL LEGEND. SEE DETAIL DRAWINGS AND SPECIFICATIONS FOR LABELING DETAILS.
- TERMINATE CABLE TERMINATED IN NUMERICAL ORDER BASED ON OUTLET NUMBERING.
- COORDINATE MOUNTING HEIGHTS AND FINAL LOCATION OF ALL OUTLETS WITH INTERIOR DESIGNER PRIOR TO ROUGH-IN.

CONSTRUCTION NOTES

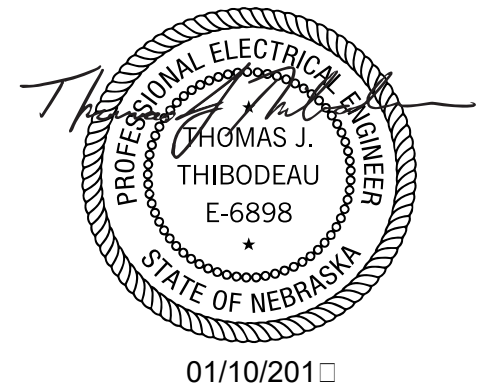
- ALL DEBRIS RESULTING FROM PENETRATIONS SHALL BE CLEARED AND REMOVED FROM SITE ON A DAILY BASIS.
- PROTECT ALL MATERIALS AND SURFACES TO REMAIN. IF SUCH MATERIALS AND SURFACES ARE DAMAGED DURING CONSTRUCTION, PROTECT REPAIR AND FINISH TO MATCH ORIGINAL CONDITIONS. EQUIPMENT, AND FURNISHINGS WHERE CONSTRUCTION WILL CAUSE DUST, DEBRIS, AND POSSIBLE DAMAGE.
- EXERCISE CARE WHEN REMOVING OR REPLACING SUSPENDED CEILING PANELS. DAMAGED PANELS SHALL BE REPLACED WITH NEW PANELS. ALL CEILINGS SHALL BE RETURNED TO ORIGINAL OR BETTER CONDITION. PAINT, CLEAN, AND REPLACE CEILING PANELS AS NECESSARY. DO NOT LEAVE FINGERPRINTS ON PANELS.
- ANY STAGING AREA USED BY CONTRACTOR SHALL BE RETURNED TO ORIGINAL CONDITION TO OWNER'S SATISFACTION. CONTRACTOR SHALL ARRANGE WITH THE GENERAL CONTRACTOR TO OBTAIN WORK TRAILER, MATERIAL STORAGE AND STAGING AND PARKING SPACE IF NEEDED. THE CONTRACTOR SHALL PROVIDE WORK TRAILER, SECURE STORAGE SPACE, PHONE LINES AND ANY OTHER SERVICE DEEMED NECESSARY. THE OWNER WILL NOT PROVIDE ANCILLARY SERVICES AT THE CONSTRUCTION SITE.
- FIRESTOP ALL FLOOR, TRAY, AND WALL PENETRATIONS.
- GROUND AND BOND ALL CABLE TRAYS WITH #6 AWG BARE COPPER WIRE UTILIZING CABLE TRAY MANUFACTURER'S RECOMMENDED HARDWARE TO MAINTAIN GROUND CONTINUITY.



Transit Center Upgrades
 (Metro 2017 IDIQ - Work Order #1)
 Transit Authority of the City of Omaha
 2222 Cumming Street
 Omaha, Nebraska 68102



11422 Miracle Hills Drive
Omaha, Nebraska 68154
402-778-5025



01/10/2019

DRAWN BY _____
 CHECKED BY _____
 PROJECT NO. NE-0-X111

ISSUES AND REVISIONS	
ITEM	DATE

DRAWING TITLE

SYMBOLS & ABBREVIATIONS - TELECOM

SHEET NO. _____

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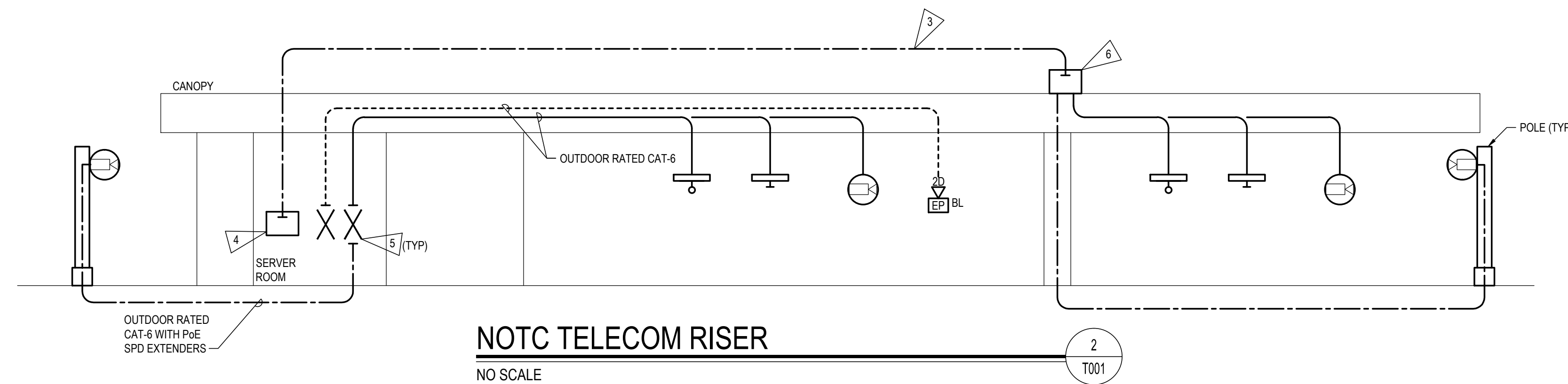
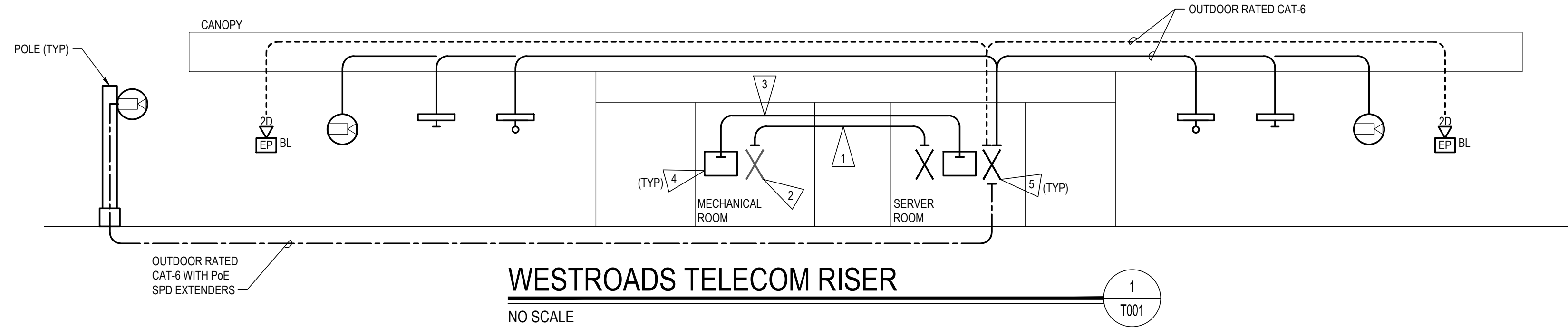
T000

GENERAL NOTES

1. FIRMLY SUPPORT RACEWAY PROVISIONS WITHIN 3 FEET OF EACH END AND SUPPORT AT INTERVALS OF 10 FEET MAXIMUM.
2. PROVIDE GROUNDING BUSHING WHEN CONDUIT OR CONDUIT SLEEVE LENGTH IS EQUAL TO OR GREATER THAN 30 INCHES. UNLESS NOTED OTHERWISE, PROVIDE INSULATED BUSHING WHEN CONDUIT OR CONDUIT SLEEVE LENGTH IS LESS THAN 30 INCHES. UNLESS NOTED OTHERWISE.
3. FIRESTOP ALL FLOOR AND THROUGH-WALL PENETRATIONS AFTER CABLING INSTALLATION IS COMPLETE.
4. COORDINATE CABLE INSTALLATION AND CABLE ROUTING WITH EXISTING BUILDING CONDITIONS. INSTALL CABLE SUCH THAT THE CAPACITY OF THE CONDUIT, SLEEVES, RACEWAY, AND CABLE TRAY IS USED EFFICIENTLY. FILL CONDUITS, SLEEVES, AND RACEWAYS TO MAXIMIZE CAPACITY AND MINIMIZE CROSSOVER OF FUTURE CABLE INSTALLATION. LAY CABLES FLAT IN CABLE TRAYS. SEE DETAIL SHEETS.
5. FIELD VERIFY RACEWAY AND CABLE LOCATIONS TO ENSURE CLEARANCE OF ALL EXISTING SYSTEMS AND STRUCTURAL MEMBERS. PLACE PENETRATIONS IN AREAS CLEAR OF UTILITY PIPES AND DUCTS. REVISE LOCATIONS AND ELEVATIONS FROM THOSE INDICATED, AS REQUIRED TO SUIT FIELD CONDITIONS AND WITH PRIOR APPROVAL BY ARCHITECT-ENGINEER. OWNER APPROVAL IS REQUIRED PRIOR TO CONSTRUCTION FOR ALL FLOOR PENETRATION LOCATIONS.
6. FIELD VERIFY ALL CONDITIONS.
7. FOR ANY AREAS AND LOCATIONS THAT ARE CLOSE TO EIA/TIA DISTANCE LIMITS, RUN A LENGTH TEST ON PROPOSED ROUTING TO SAID AREA OR LOCATION. INFORM OWNER AND ENGINEER OF ANY JACKS BEYOND EIA/TIA DISTANCE LIMITS. OWNER AND ENGINEER SHALL NOT BE RESPONSIBLE FOR OUT-OF-DISTANCE LIMITS THAT ARE NOT TESTED PRIOR TO INSTALLATION.
8. TELECOMMUNICATIONS CABLE PATHWAYS CANNOT ALWAYS BE ACCURATELY PREDICTED AND MAY NEED TO BE ADJUSTED DURING CONSTRUCTION. DIRECT PATHWAYS ARE NEEDED TO MAINTAIN CABLE LENGTH AS REQUIRED BY THIS SPECIFICATION. THE ENGINEER AND CONTRACTOR SHALL WORK TOGETHER IN A CREATIVE AND DILIGENT MANNER TO FIND SHORT PATHWAYS FOR TELECOMMUNICATIONS CABLES.
9. IF, IN THE COURSE OF INSTALLATION, THE CONTRACTOR FINDS A LOCATION THAT APPEARS TO EXCEED THE DISTANCE LIMITATION, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE ACTUAL DISTANCE PRIOR TO INSTALLING THE HORIZONTAL CABLE. UPON DISCOVERY OF AN OVER-LENGTH CABLE, THE CONTRACTOR SHALL CEASE INSTALLATION OF THE CABLE AND IMMEDIATELY NOTIFY THE OWNER AND ENGINEER. THE CONTRACTOR SHALL FOLLOW THIS NOTIFICATION WITH A FORMAL REQUEST FOR INFORMATION (RFI). THE CONTRACTOR SHALL CONSULT WITH THE ENGINEER AND OWNER TO RESOLVE THE PROBLEM. THERE SHALL BE NO ADDITIONAL PAYMENT TO THE CONTRACTOR FOR REROUTING OF OVER-LENGTH CABLES WHICH ARE DISCOVERED AFTER INSTALLATION.
10. CABLE DAMAGED DURING ITS INSTALLATION WILL NOT BE ACCEPTED UNLESS OTHERWISE ALLOWED BY OWNER. REPLACE CABLE DAMAGED DUE TO ITS INSTALLATION WITH NEW CABLE. DAMAGE INCLUDES PHYSICAL DAMAGE TO CABLE OR IMPROPER INSTALLATION PRACTICES THAT MAY AFFECT PERFORMANCE.

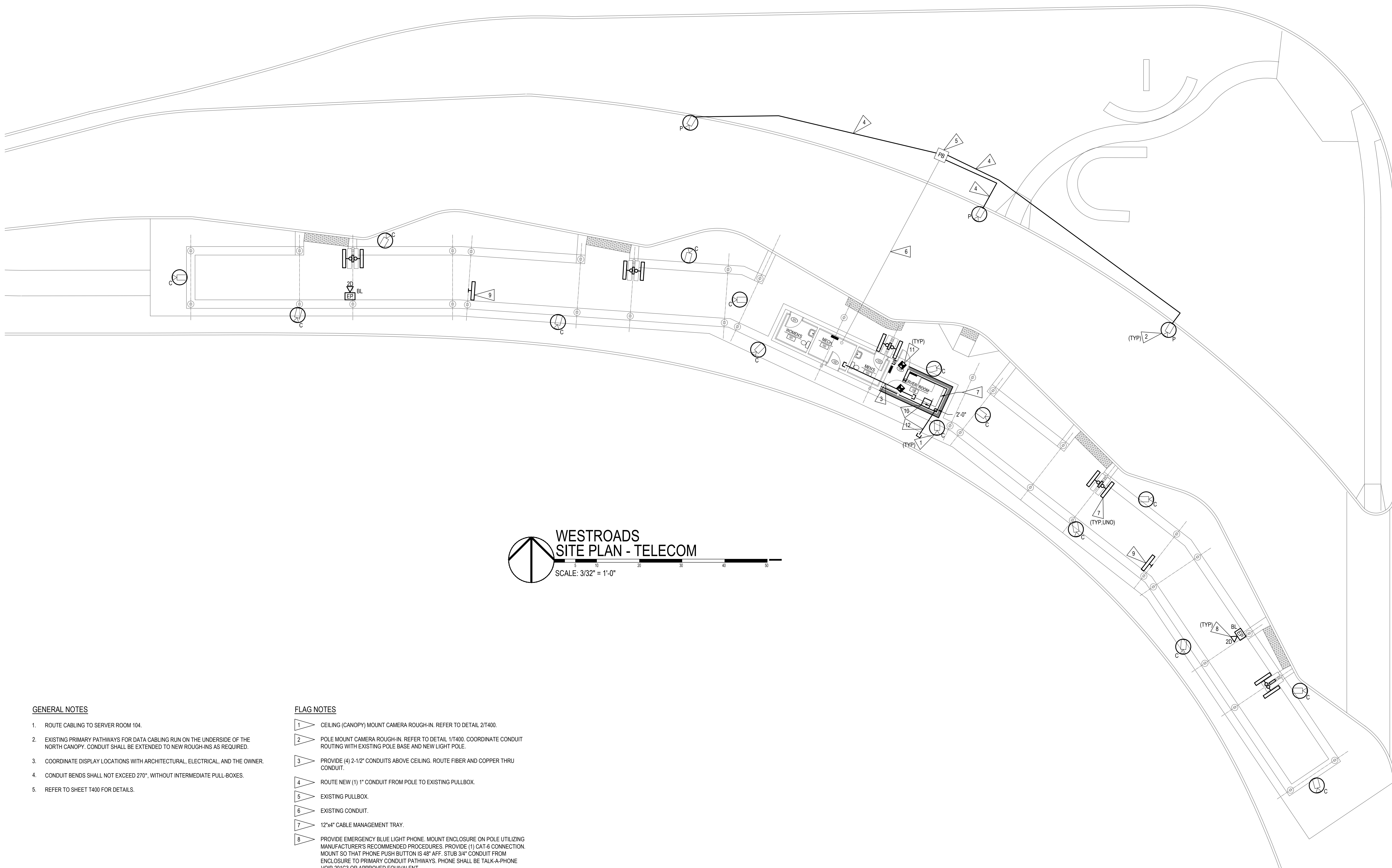
FLAG NOTES

1. EXTEND (1) 4 PAIR CAT-6 FROM ANALOG 66 BLOCK TO NEW 66 BLOCK MOUNTED ON WALL IN SERVER ROOM.
2. EXISTING ANALOG 66 BLOCK.
3. OUTDOOR RATED, INTERLOCKING ARMORED OS2 SINGLEMODE FIBER OPTIC CABLING.
4. FIBER TERMINATION SHELF.
5. 48 PORT MODULAR PATCH PANEL.
6. EXTERIOR ROOF MOUNT TELECOM ENCLOSURE. PROVIDE FIBER TERMINATION SHELF AND 24 PORT MODULAR PATCH PANEL.



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**WESTROADS
SITE PLAN - TELECOM**
SCALE: 3/32" = 1'-0"

GENERAL NOTES

1. ROUTE CABLING TO SERVER ROOM 104.
2. EXISTING PRIMARY PATHWAYS FOR DATA CABLING RUN ON THE UNDERSIDE OF THE NORTH CANOPY. CONDUIT SHALL BE EXTENDED TO NEW ROUGH-INS AS REQUIRED.
3. COORDINATE DISPLAY LOCATIONS WITH ARCHITECTURAL, ELECTRICAL, AND THE OWNER.
4. CONDUIT BENDS SHALL NOT EXCEED 270°. WITHOUT INTERMEDIATE PULL-BOXES.
5. REFER TO SHEET T400 FOR DETAILS.

FLAG NOTES

1. CEILING (CANOPY) MOUNT CAMERA ROUGH-IN. REFER TO DETAIL 2/T400.
2. POLE MOUNT CAMERA ROUGH-IN. REFER TO DETAIL 1/T400. COORDINATE CONDUIT ROUTING WITH EXISTING POLE BASE AND NEW LIGHT POLE.
3. PROVIDE (4) 2-1/2" CONDUITS ABOVE CEILING. ROUTE FIBER AND COPPER THRU CONDUIT.
4. ROUTE NEW (1) 1" CONDUIT FROM POLE TO EXISTING PULLBOX.
5. EXISTING PULLBOX.
6. EXISTING CONDUIT.
7. 12"x4" CABLE MANAGEMENT TRAY.
8. PROVIDE EMERGENCY BLUE LIGHT PHONE. MOUNT ENCLOSURE ON POLE UTILIZING MANUFACTURER'S RECOMMENDED PROCEDURES. PROVIDE (1) CAT-6 CONNECTION. MOUNT SO THAT PHONE PUSH BUTTON IS 48" AFF. STUB 3/4" CONDUIT FROM ENCLOSURE TO PRIMARY CONDUIT PATHWAYS. PHONE SHALL BE TALK-A-PHONE VOIP-201C3 OR APPROVED EQUIVALENT.
9. INTERACTIVE KIOSK ROUGH-IN. PROVIDE (1) 1" CONDUIT WITH 4-SQUARE BACK-BOX. PROVIDE (1) OUTDOOR RATED CAT-6 CABLE. TERMINATE ON SURFACE MOUNT BOX. REFER TO ARCHITECTURAL SHEET FOR ROUGH-IN LOCATION.
10. EQUIPMENT RACK.
11. EAC ROUGH-IN REFER TO 7/T400.
12. PROVIDE (2) 3" CONDUIT STUB OUTS TO GRASS AREA FOR FUTURE ORBT CONNECTIONS. COORDINATE EXACT LOCATION WITH OWNER PRIOR TO INSTALLATION. CAP AND STAKE CONDUITS AND PROVIDE PULLSTRING.

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**WESTROADS -
SITE PLAN -
TELECOM**

SHEET NO.

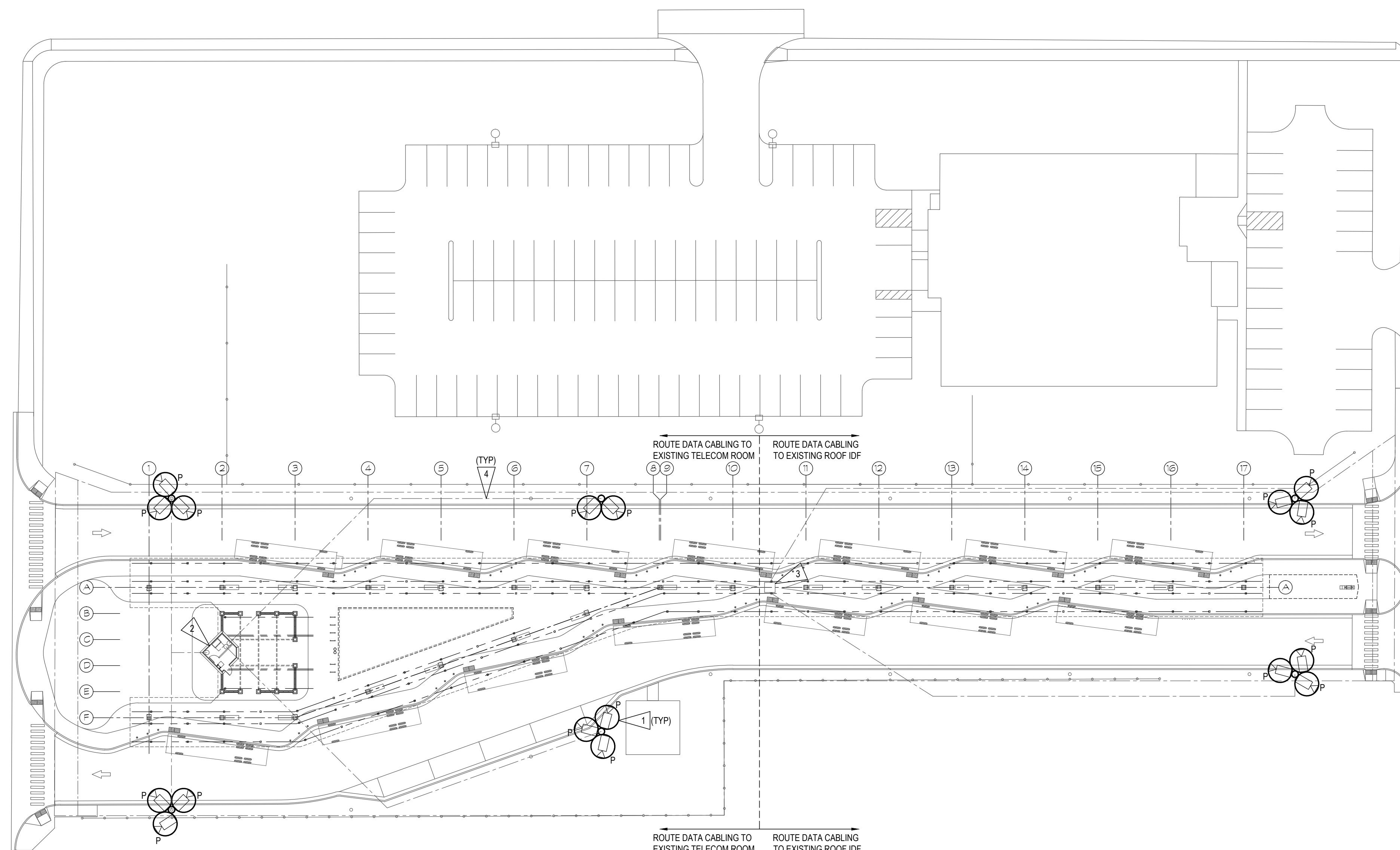
T100

GENERAL NOTES

- UTILIZE EXISTING PATHWAYS.
- REFER TO SHEET T400 FOR DETAILS.

FLAG NOTES

- POLE MOUNT CAMERA ROUGH-IN. REFER TO DETAIL 1/17400.
- APPROXIMATE LOCATION OF EXISTING TELECOM ROOM.
- APPROXIMATE LOCATION OF EXISTING ROOF IDF.
- EXISTING CONDUIT. ROUTE IS APPROXIMATE. FINAL ROUTING AND VERIFICATION SHALL BE REQUIRED.



**NORTH OMAHA TRANSIT CENTER -
SITE PLAN - TELECOM**
SCALE: 1/32" = 1'-0"

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CHECKED BY _____
PROJECT NO. NE-0-X111

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**NOTC - SITE PLAN -
TELECOM**

SHEET NO.

T200

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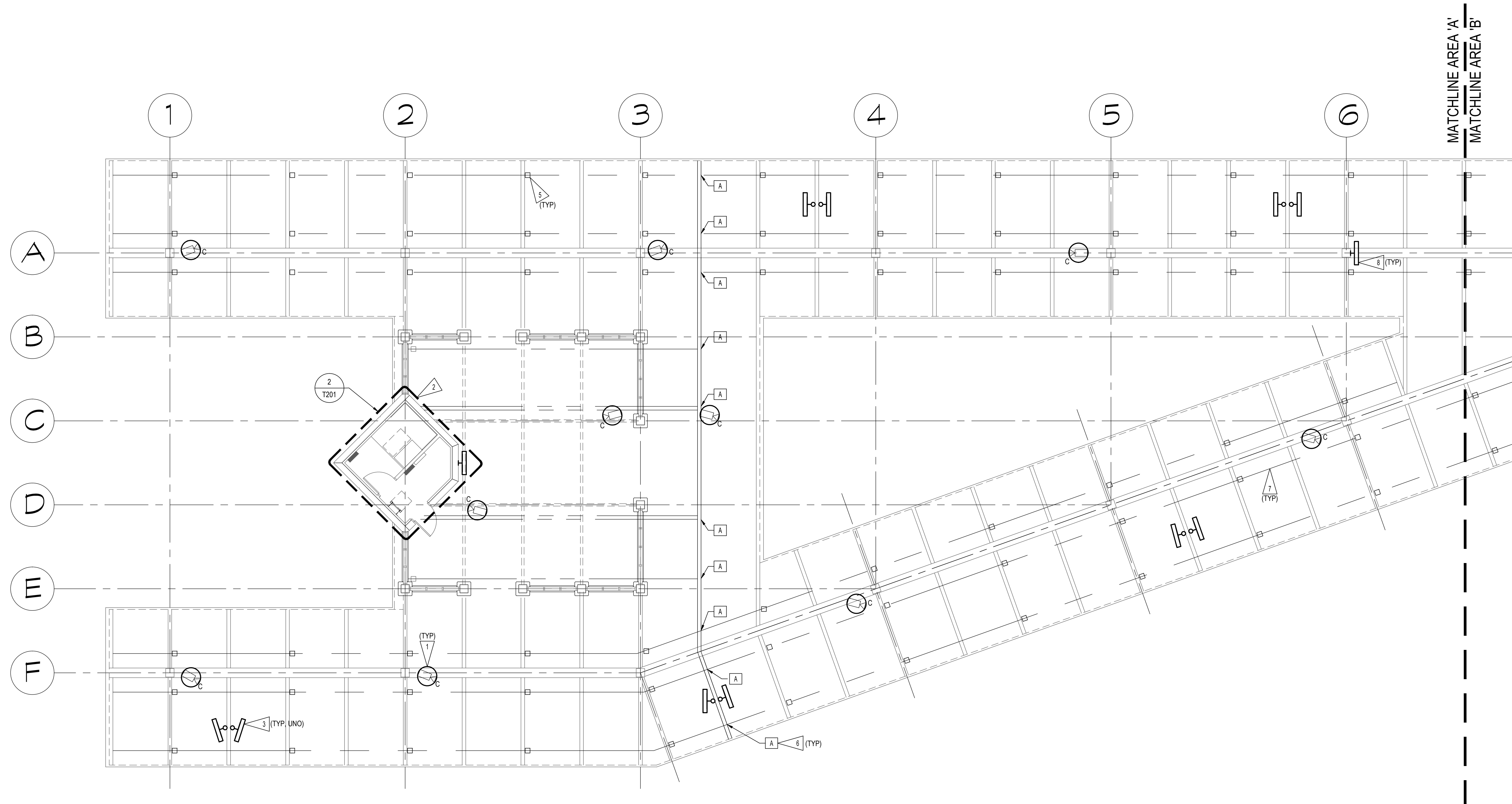
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GENERAL NOTES

1. ROUTE ALL CABLING TO EXISTING TELECOM ROOM.
2. UTILIZE EXISTING PATHWAYS.
3. REFER TO SHEET T400 FOR DETAILS.

FLAG NOTES

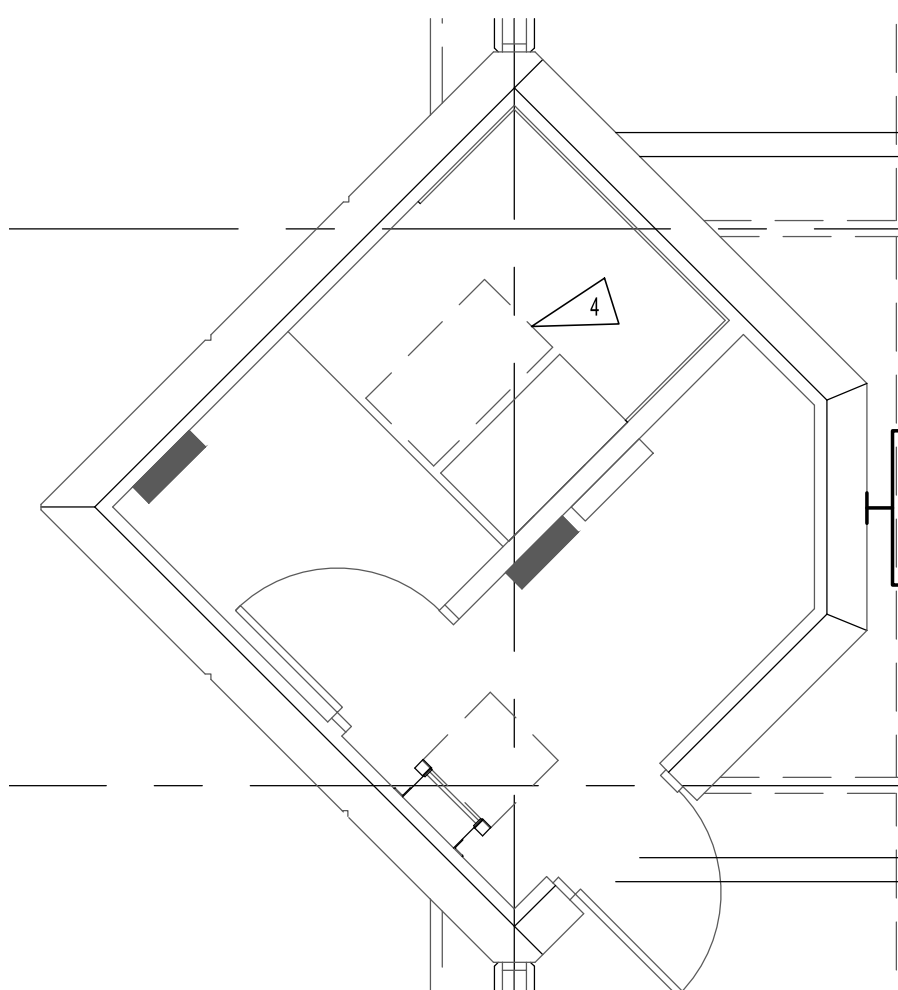
- 1 CEILING (CANOPY) MOUNT CAMERA ROUGH-IN. REFER TO DETAIL 2/T400.
- 2 APPROXIMATE LOCATION OF EXISTING TELECOM ROOM.
- 3 BUS SIGNAGE DISPLAY ROUGH-IN. PROVIDE (1) 1" CONDUIT WITH 4-SQUARE BACK-BOX FROM EXISTING PATHWAY TO DISPLAYS. PROVIDE (1) OUTDOOR RATED CAT-6 CABLE. TERMINATE ON SURFACE MOUNT BOX. REFER TO ARCHITECTURAL SHEETS FOR ROUGH-IN LOCATION.
- 4 APPROXIMATE LOCATION EXISTING TELECOM RACK. TERMINATE CABLING AT THE TOP OF RACK. MOUNT EVS SERVER IN RACK. COORDINATE WITH OWNER.
- 5 EXISTING 2" DIAMETER ACCESS OPENING WITH TUBE STEEL PATHWAY WITH 6"x6" STEEL COVER.
- 6 EXISTING ACCESS PANEL IN TUBE STEEL PATHWAY.
- 7 EXISTING CELLULAR DECK PATHWAY.
- 8 INTERACTIVE KIOSK ROUGH-IN. PROVIDE (1) 1" CONDUIT WITH 4-SQUARE BACK-BOX FROM EXISTING PATHWAY TO DISPLAYS. PROVIDE (1) OUTDOOR RATED CAT-6 CABLE. TERMINATE ON SURFACE MOUNT BOX. REFER TO ARCHITECTURAL SHEET FOR ROUGH-IN LOCATION.



**NORTH OMAHA TRANSIT CENTER -
CANOPY PLAN - AREA 'A' - TELECOM**

SCALE: 1/8" = 1'-0"

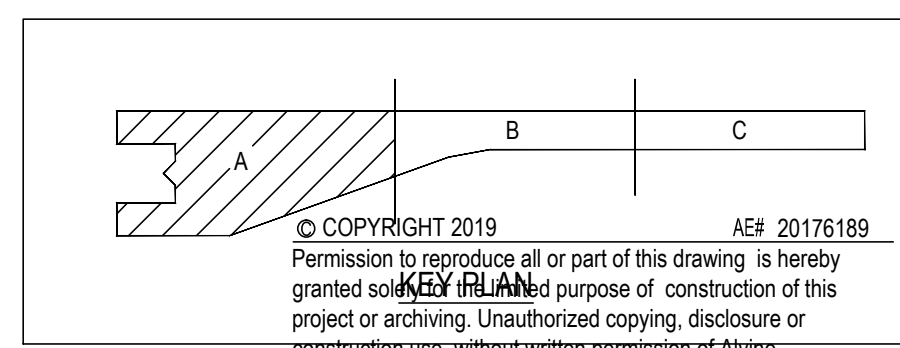
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T201



**NORTH OMAHA TRANSIT CENTER -
ELECTRICAL ROOM - TELECOM**

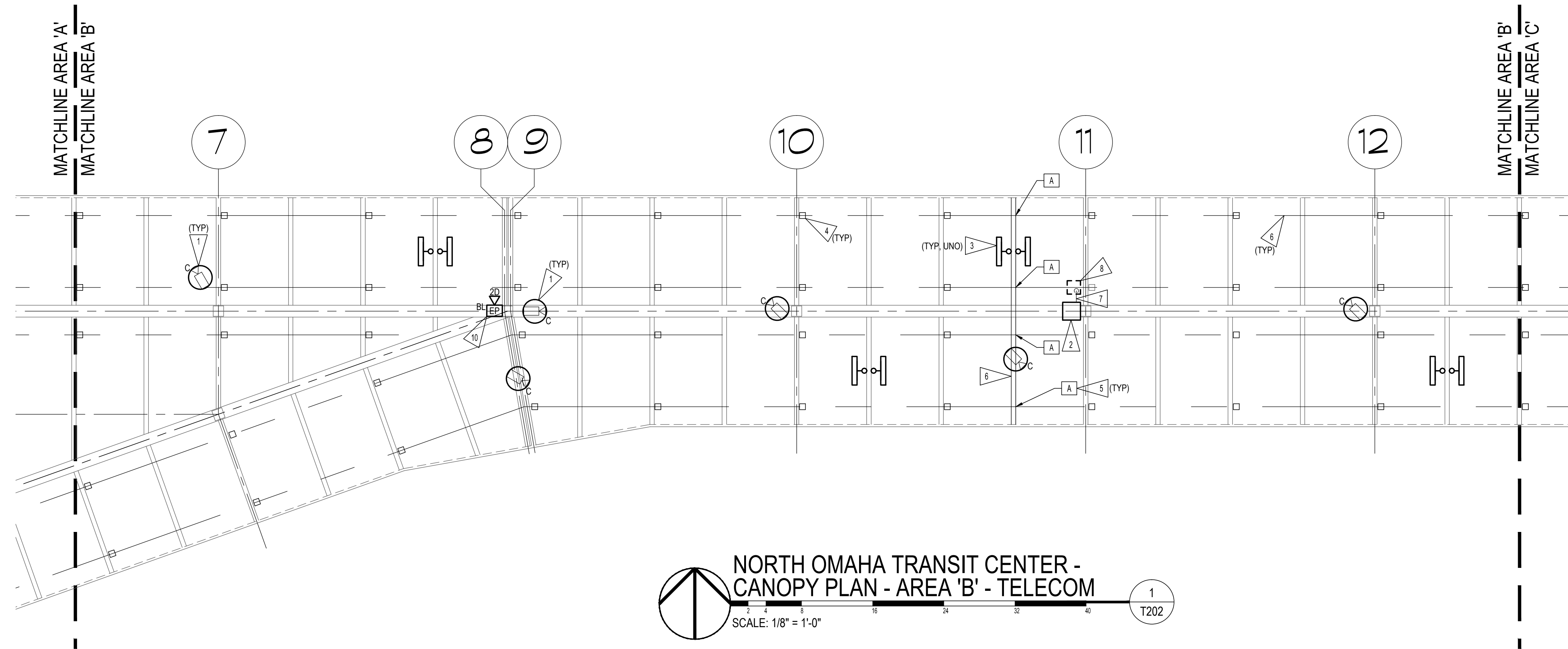
SCALE: 1/4" = 1'-0"

2
T201

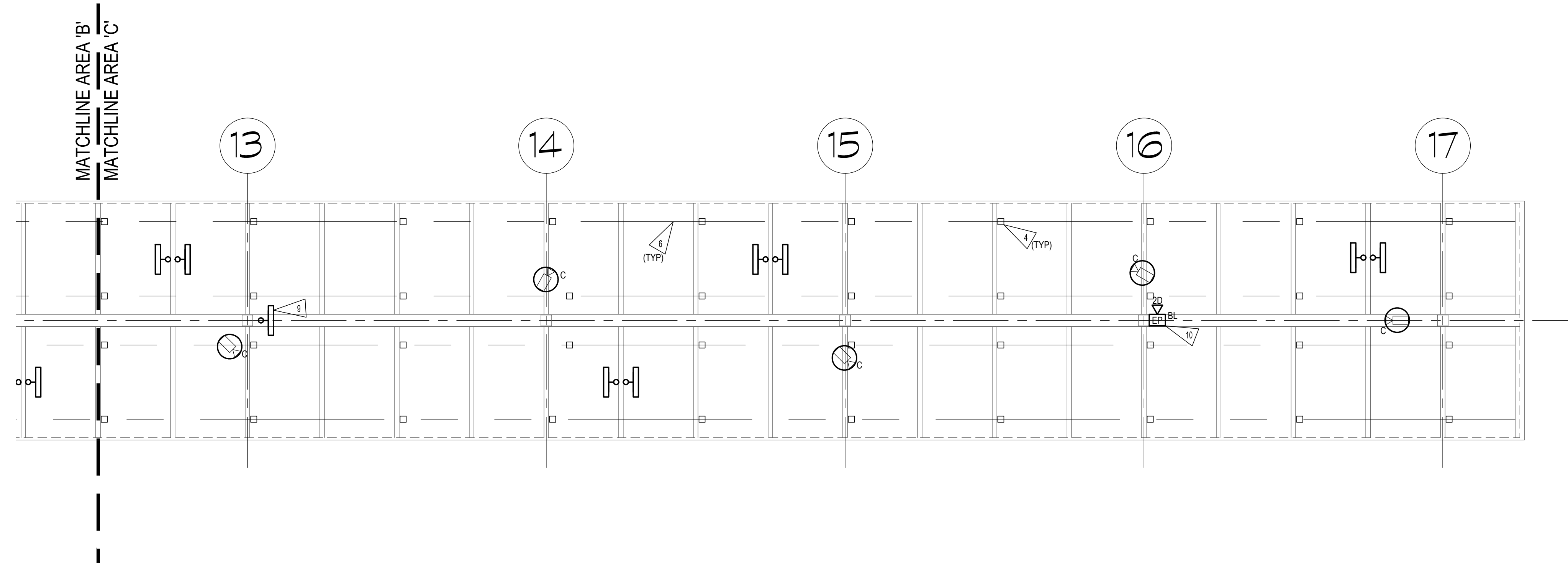


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NORTH OMAHA TRANSIT CENTER -
CANOPY PLAN - AREA 'B' - TELECOM
SCALE: 1/8" = 1'-0"
T202



NORTH OMAHA TRANSIT CENTER -
CANOPY PLAN - AREA 'C' - TELECOM
SCALE: 1/8" = 1'-0"
T202

GENERAL NOTES

- ROUTE ALL CABLING TO EXISTING ROOF TELECOM ENCLOSURE.
- UTILIZE EXISTING PATHWAYS.
- REFER TO SHEET T400 FOR DETAILS.

FLAG NOTES

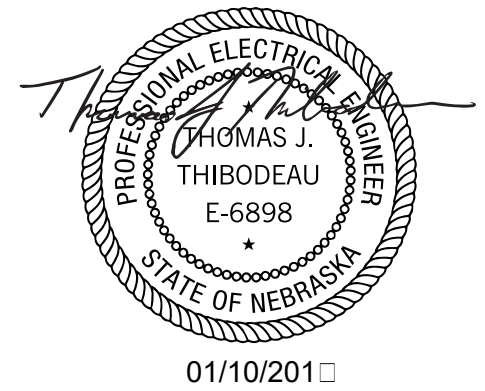
- CEILING (CANOPY) MOUNT CAMERA ROUGH-IN. REFER TO DETAIL 2/T400.
- EXISTING TELECOM ENCLOSURE INDICATED AS EXISTING ROOF IDF.
- BUS SIGNAGE DISPLAY ROUGH-IN. PROVIDE (1) 1" CONDUIT WITH 4-SQUARE BACK-BOX FROM EXISTING PATHWAY TO DISPLAYS. PROVIDE (1) OUTDOOR RATED CAT-6 CABLE. TERMINATE ON SURFACE MOUNT BOX. REFER TO ARCHITECTURAL SHEETS FOR ROUGH-IN LOCATION.
- ACCESS OPENING WITH TUBE STEEL PATHWAY WITH 6"x6" STEEL COVER.
- EXISTING ACCESS PANEL IN TUBE STEEL PATHWAY.
- EXISTING CELLULAR DECK PATHWAY.
- EXISTING (4) 1-1/4" CONDUIT.
- EXISTING ACCESS PANEL TO ACCESS CONDUITS INTO STEEL TUBING.
- INTERACTIVE KIOSK ROUGH-IN. PROVIDE (1) 1" CONDUIT WITH 4-SQUARE BACK-BOX FROM EXISTING PATHWAY TO DISPLAYS. PROVIDE (1) OUTDOOR RATED CAT-6 CABLE. TERMINATE ON SURFACE MOUNT BOX. REFER TO ARCHITECTURAL SHEET FOR ROUGH-IN LOCATION.
- PROVIDE EMERGENCY BLUE LIGHT PHONE. MOUNT ENCLOSURE ON POLE UTILIZING MANUFACTURER'S RECOMMENDED PROCEDURES. PROVIDE (1) ANALOG CAT-6 CONNECTION. MOUNT SO THAT PHONE PUSH BUTTON IS 48" AFF. STUB 3/4" CONDUIT FROM ENCLOSURE TO PRIMARY CONDUIT PATHWAYS. PHONE SHALL BE TALK-A-PHONE VOIP-201C3 OR APPROVED EQUIVALENT.



Transit Center
Upgrades
Metro 2017 IDIQ - Work Order #1
Transit Authority of the City of Omaha
2222 Cumming Street
Omaha, Nebraska 68102
100% CONST. DOCUMENTS



SR ENGINEERS
PLANNERS
DESIGNERS
Consulting Group, Inc.
11422 Miracle Hills Drive
Omaha, Nebraska 68154
402-778-5025



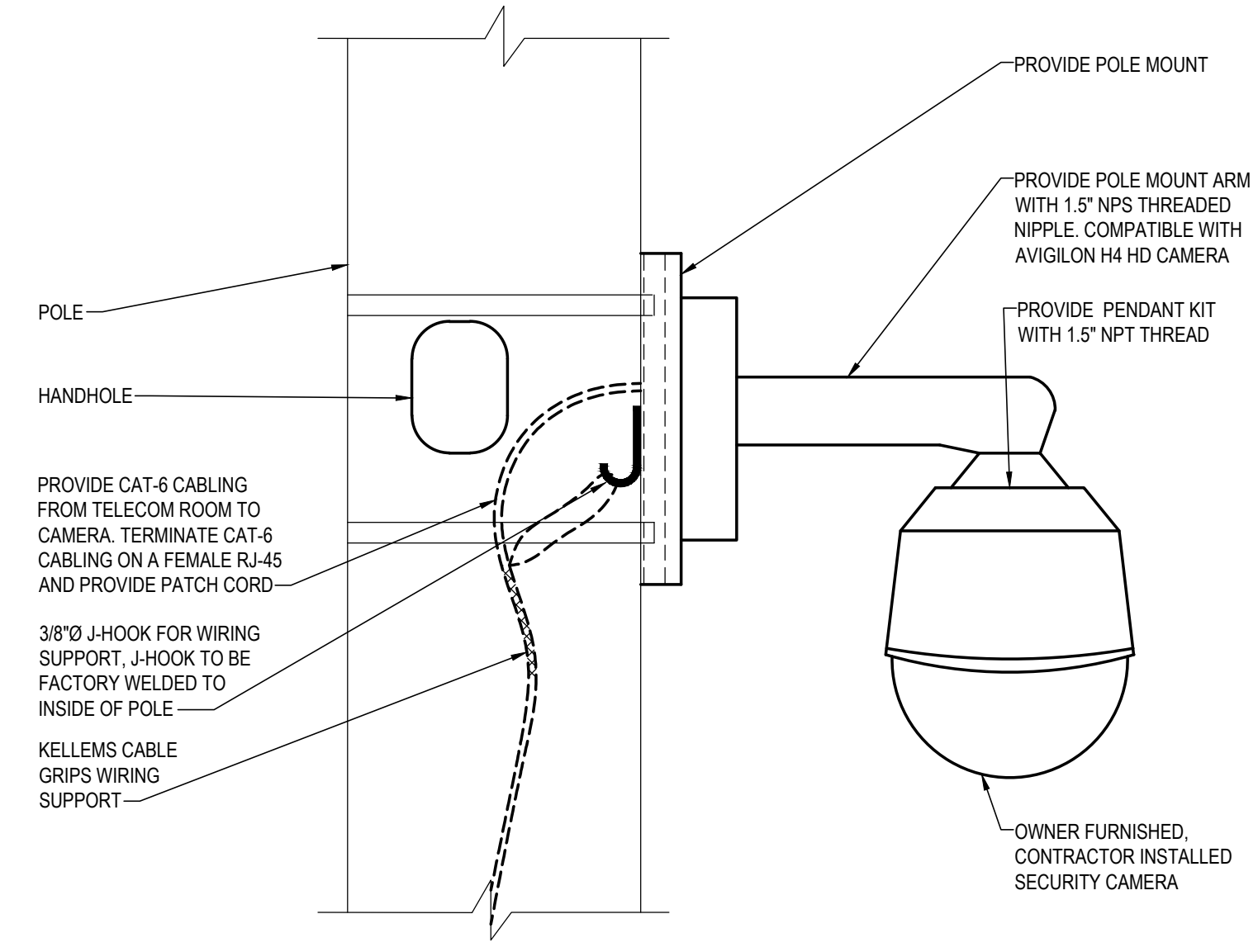
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NOTC - CANOPY
PLAN - TELECOM

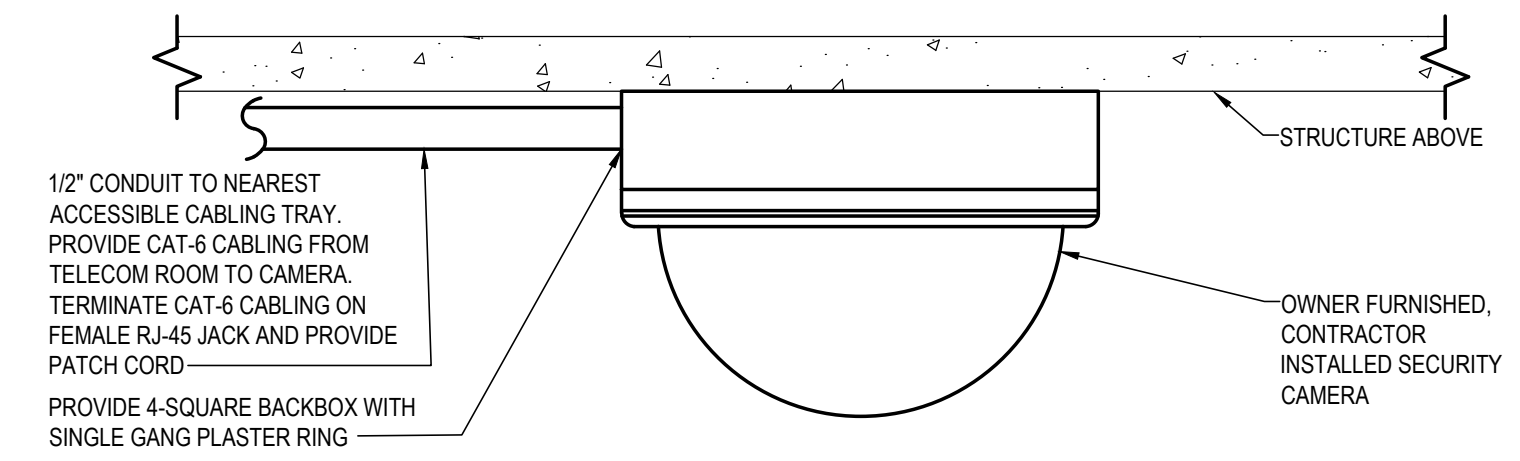
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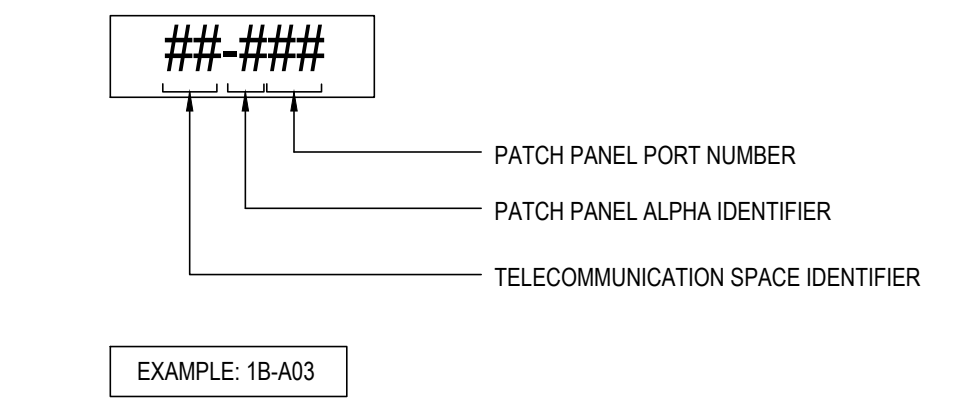
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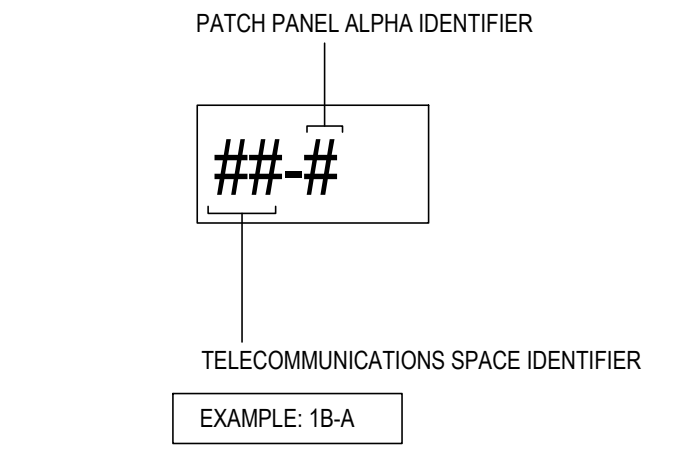
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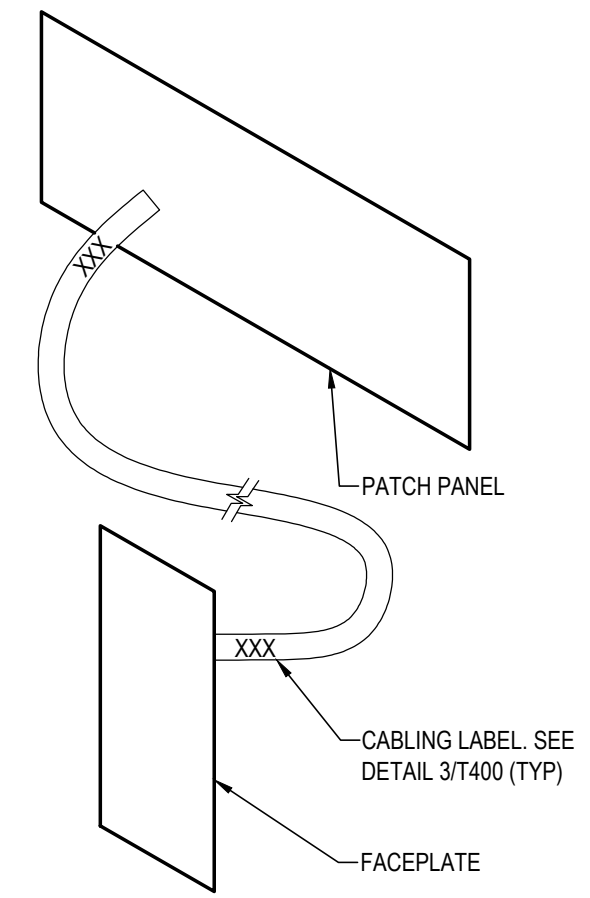
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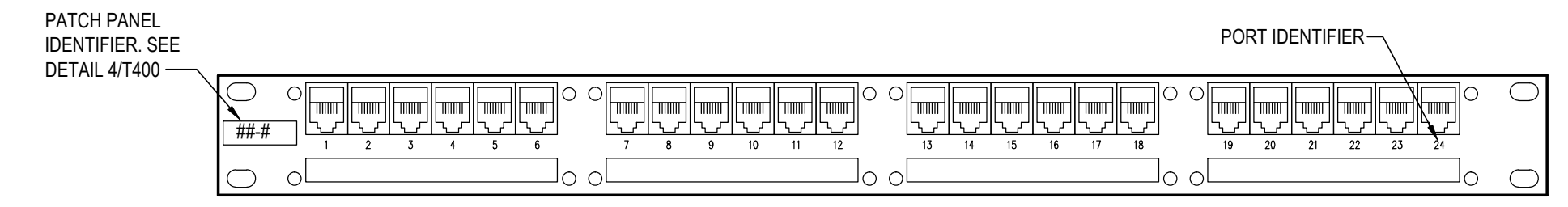
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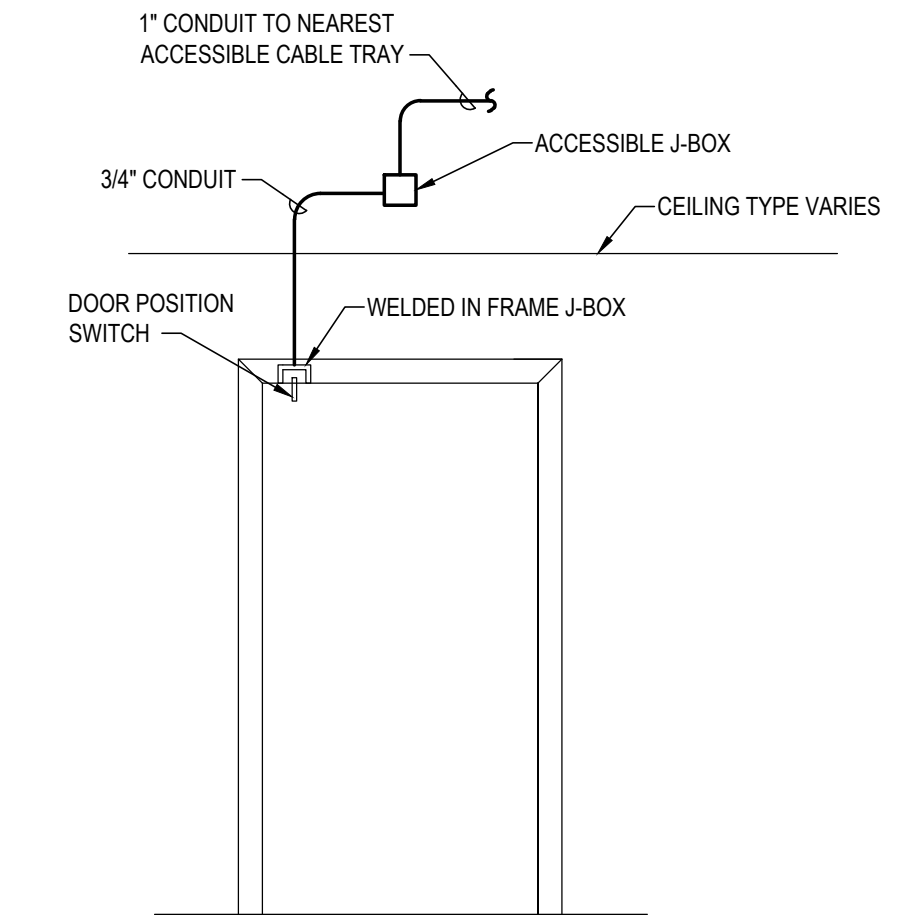
PATCH PANEL LABELING
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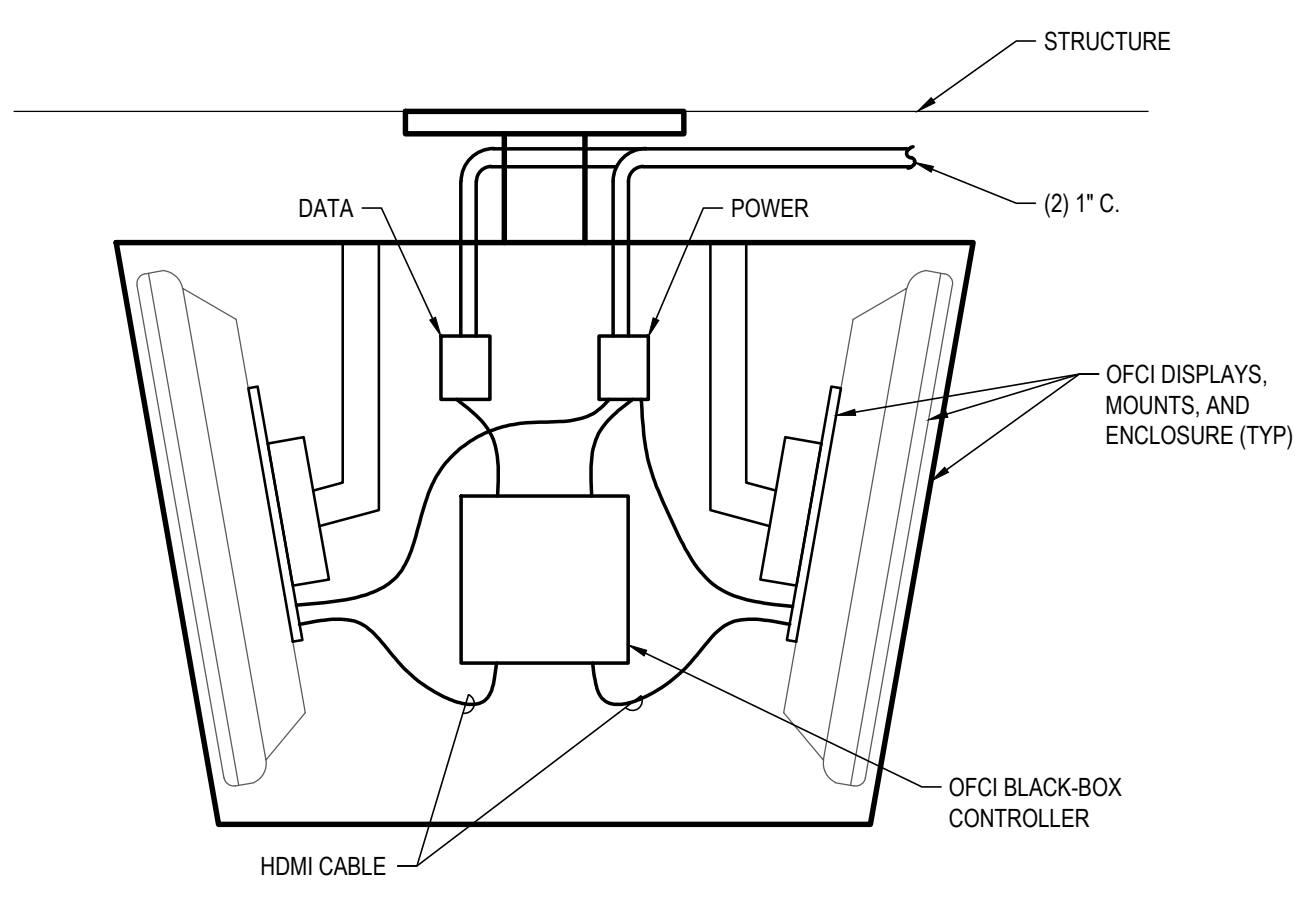
TYPICAL HORIZONTAL CABLING LABELING
NO SCALE



24 PORT MODULAR PATCH PANEL LABELING
NO SCALE



DOOR ELEVATION
NO SCALE



CEILING MOUNTED FLAT PANEL DISPLAY
NO SCALE

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**DETAILS -
TELECOM**

SHEET NO.

T400

ITEM	DATE

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MECHANICAL SYMBOLS

HEATING - VENTILATING - AIR-CONDITIONING			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	CHILLED WATER SUPPLY		AUTOMATIC CONTROL VALVE, 2-WAY
	CHILLED WATER RETURN		AUTOMATIC CONTROL VALVE, 3-WAY
	CONDENSATE OR BOILER FEED PUMP DISCHARGE		PRESSURE REGULATING VALVE (PRV)
	CONDENSER WATER SUPPLY FROM TOWER		PIPE IN SLEEVE
	CONDENSER WATER RETURN TO TOWER		VALVE IN VERTICAL PIPE
	COIL OR EQUIPMENT DRAIN		F AND T TRAP CAP LBS/HR
	GLYCOL SUPPLY		BUCKET TRAP CAP LBS/HR
	GLYCOL RETURN		AIR QUALITY SENSOR
	FUEL OIL SUPPLY		AQUASTAT
	FUEL OIL RETURN		CO2 SENSOR
	FUEL OIL VENT		HUMIDISTAT
	NATURAL GAS		REMOTE SENSOR
	HEAT PUMP WATER SUPPLY		THERMOSTAT
	HEAT PUMP WATER RETURN		THERMOSTAT WITH REMOTE SENSOR
	HIGH PRESSURE CONDENSATE RETURN		SOLENOID VALVE (REFRIGERANT)
	HIGH PRESSURE STEAM		THERMOSTATIC EXPANSION VALVE (REFRIGERANT)
	HOT WATER SUPPLY		SIGHT GLASS
	HOT WATER RETURN		MANUAL AIR VENT
	LOW PRESSURE CONDENSATE RETURN		PRESSURE OR TEMPERATURE MEASURING POINTS
	LOW PRESSURE STEAM		FLOW SWITCH
	MEDIUM PRESSURE CONDENSATE RETURN		HEATING RISER
	MEDIUM PRESSURE STEAM		ACCESS DOOR - SIZE AS SHOWN OR PER SPEC.
	REFRIGERANT LIQUID		EXPANSION LOOP, LENGTH AND DEPTH
	REFRIGERANT SUCTION		FINTUBE-TYPE CAPACITY MBH (SHADED AREA INDICATES ELEMENT LOCATION)
	REFRIGERANT HOT GAS DISCHARGE		MECH EQUIPMENT WITH ELEC CONNECTION SEE MECHANICAL/ELECTRICAL COORDINATION SCHEDULE
	BACK-DRAFT DAMPER (COUNTER BALANCED)		POINT OF DISCONNECT

MECHANICAL SYMBOLS

PIPING			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	TEE		GLOBE VALVE
	ELBOW		PRESS / TEMP TEST PORT
	UNION		GATE VALVE
	STRAINER WITH BLOW-OFF VALVE		CHECK VALVE (ARROW INDICATES FLOW)
	BALANCING VALVE		FLEXIBLE PIPING
	ISOLATION VALVE (BALL OR BUTTERFLY)		AUTOMATIC AIR VENT
	PRESSURE RELIEF VALVE		MANUAL AIR VENT WITH ISOLATION VALVE
	ELBOW UP		
	ELBOW DOWN		

HVAC GENERAL NOTES:

- DO NOT RUN DUCTWORK, PIPING, AND PLUMBING ABOVE ELECTRICAL PANELS OR IN CODE REQUIRED CLEARANCE SPACES. COORDINATE ALL ROUTING WORK WITH ALL OTHER TRADES.
- DO NOT RUN DUCTWORK, PIPING, AND PLUMBING ABOVE OR THROUGH INFORMATION TECHNOLOGY EQUIPMENT. COORDINATE ALL ROUTING WITH ALL OTHER TRADES.
- DRAWINGS, PLANS, SCHEMATICS, AND DIAGRAMS INDICATE THE GENERAL LOCATIONS AND THE ARRANGEMENT OF SYSTEMS. WHEREVER PRACTICAL, INSTALL SYSTEMS AS INDICATED. PROVIDE OFFSETS AND ELEVATION CHANGES TO DUCTWORK, PIPING, AND PLUMBING AS REQUIRED TO COMPLETE THE LAYOUT AND COORDINATION PROCESS AS WELL AS MEET ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS.
- DUCTWORK AND EQUIPMENT SHOWN WITH THIN LINES INDICATES EXISTING TO REMAIN, DUCTWORK AND EQUIPMENT SHOWN WITH BOLD LINES INDICATES NEW.
- PROVIDE CLEARANCES TO ALL EQUIPMENT AS REQUIRED BY MANUFACTURERS' INSTALLATION AND OPERATION REQUIREMENTS AND/OR BY CODE.
- INSTALL ALL PIPING IN MECHANICAL ROOMS AS HIGH AS POSSIBLE. PROVIDE 7'-0" MINIMUM HIGH ACCESS PATHWAYS TO ALL EQUIPMENT.
- COORDINATE SCHEDULE OF SHUTDOWN FOR EXISTING HVAC SYSTEMS, FOR INSTALLATION OF NEW HVAC SYSTEMS, WITH THE OWNERS REPRESENTATIVE PRIOR TO SHUTDOWN.
- ALL INSULATION SHALL MEET THE ENERGY CODE'S INSTALLED R VALUE REQUIREMENTS.

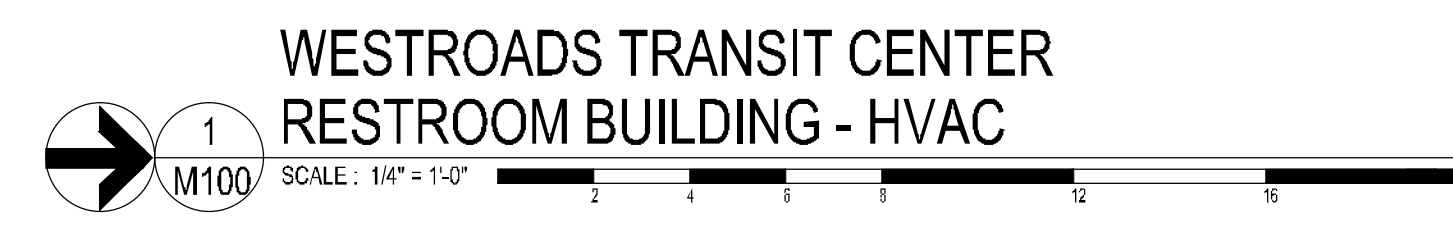
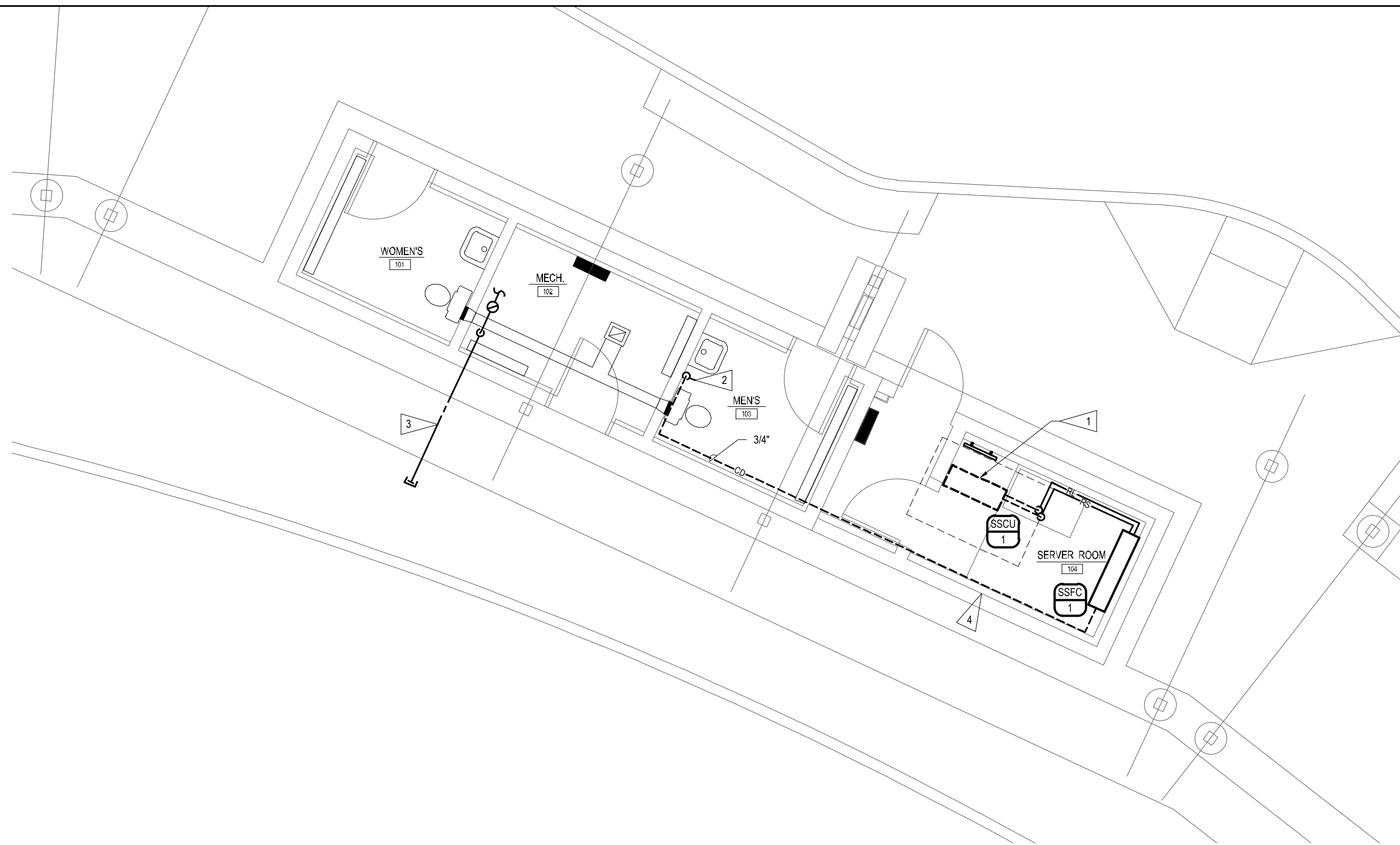
PIPING GENERAL NOTES:

- DO NOT RUN PIPING, PLUMBING, AND DUCTWORK ABOVE ELECTRICAL PANELS OR IN CODE REQUIRED CLEARANCE SPACES. COORDINATE ALL ROUTING WORK WITH ALL OTHER TRADES.
- DO NOT RUN PIPING, PLUMBING, AND DUCTWORK ABOVE OR THROUGH INFORMATION TECHNOLOGY EQUIPMENT. COORDINATE ALL ROUTING WITH ALL OTHER TRADES.
- DRAWINGS, PLANS, SCHEMATICS, AND DIAGRAMS INDICATE THE GENERAL LOCATIONS AND THE ARRANGEMENT OF SYSTEMS. WHEREVER PRACTICAL, INSTALL SYSTEMS AS INDICATED. PROVIDE OFFSETS AND ELEVATION CHANGES TO PIPING, PLUMBING, AND DUCTWORK AS REQUIRED TO COMPLETE THE LAYOUT AND COORDINATION PROCESS AS WELL AS MEET ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS.
- SIZE AND ROUTE REFRIGERANT PIPING PER MANUFACTURERS' RECOMMENDATIONS. SECURE AND RACK ALL REFRIGERANT PIPING NEATLY ALONG EXTERIOR AND INTERIOR WALLS. SEAL ALL PIPE PENETRATIONS WATER TIGHT.
- ROUTE ALL HORIZONTAL HVAC PIPING IN MECHANICAL ROOMS AT A MINIMUM OF 7'-6" ABOVE FINISHED FLOOR.
- PIPING AND EQUIPMENT SHOWN WITH THIN LINES INDICATES EXISTING TO REMAIN, PIPING AND EQUIPMENT SHOWN WITH BOLD LINES INDICATES NEW.
- ALL PIPING INSULATION SHALL MEET THE ENERGY CODE'S INSTALLED R VALUE REQUIREMENTS.
- DIELECTRIC NIPPLES OR FLANGE INSULATION KITS SHALL BE UTILIZED FOR ALL DISSIMILAR PIPE CONNECTIONS. DIELECTRIC UNIONS WILL NOT BE ACCEPTED.

SYMBOLS INDICATED HERE AND NOT USED IN THE CONTRACT DOCUMENTS DO NOT APPLY TO THIS PROJECT. ADDITIONAL SYMBOLS AND ABBREVIATIONS MAY BE INDICATED IN THE CONTRACT DOCUMENTS.

ABBREVIATIONS

A AMP	C CONDUIT	DWG DRAWING	FO FIBER OPTIC	IP INTERNET PROTOCOL	MUTOA MULTI USER TELECOMMUNICATIONS	PNL PANEL	SMACNA SHEET METAL AND AIR CONDITIONING CONTRACTORS' NATIONAL ASSOCIATION	TV TELEVISION
AC ALTERNATING CURRENT	CAB CABINET	DX DIRECT EXPANSION	FOV FIELD OF VIEW	ISP INSIDE PLANT	MXA MIXED AIR	PPE POWER OVER ETHERNET	SSD SUB SOIL DRAIN	TVSS TRANSIENT VOLTAGE SURGE SUPPRESSION
ACEG AC EQUIPMENT GROUND	CATV CABLE TELEVISION	EA EXHAUST AIR	FP FIBER PANEL	J-BOX JUNCTION BOX	NC NORMALLY CLOSED	POP POINT OF PRESENCE	SS SURGE PROTECTIVE DEVICE	(TYP) TYPICAL
AFF ABOVE FINISHED FLOOR	CB CIRCUIT BREAKER	EAC ELECTRONIC ACCESS CONTROL	FT FEET	KMIL THOUSAND CIRCULAR MILS	NEC NATIONAL ELECTRICAL CODE	PP PATCH PANEL	SS SPECIFICATIONS	UG UNDERGROUND
AHJ AUTHORITY HAVING JURISDICTION	CCV CLOSED CIRCUIT TELEVISION	EC ELECTRICAL CONTRACTOR	FURN FURNISHED	KV KILOVOLT	NEMA NATIONAL ELECTRICAL ASSOCIATION	PRV PRESSURE REGULATING VALVE	SS STAINLESS STEEL	UL UNDERWRITERS LABORATORY
ALF ALUMINUM FRAME DOOR	CFM CUBIC FEET PER HOUR	EHC ELECTRIC HEATING COIL	FW FILTERED WATER	KVA KILOWATT AMPERE	NFPA NATIONAL FIRE PROTECTION ASSOCIATION	PS PLASTER SINK	SSD SUB SOIL DRAIN	UNO UNLESS NOTED OTHERWISE
APPROX APPROXIMATELY	CFM CUBIC FEET PER MINUTE	EL ELEVATION	G GAS	KW KILOWATT	NIC NOT IN CONTRACT	PSF POUNDS PER SQUARE FOOT	SSI SECURITY SYSTEMS INTEGRATOR	UPS UNINTERRUPTIBLE POWER SUPPLY
ASHRAE AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS	CL CENTER LINE	ELEC ELECTRICAL	GA GAUGE	LAN LOCAL AREA NETWORK	NO NORMALLY OPEN	PSI POUNDS PER SQUARE INCH	SS SURGEON SCRUW SINK	US UTILITY SINK
ASME AMERICAN SOCIETY OF MECHANICAL ENGINEERS	CLEC COMPETITIVE LOCAL EXCHANGE CARRIER	EMD ESTIMATED MAXIMUM DEMAND	GALV GALVANIZED	LBM LATCH BOLT MONITOR	NOM NOMINAL	PTAC PACKAGED TERMINAL AIR CONDITIONER	ST STORM	UTP UNSHIELDED TWISTED PAIR
ASTM STANDARD SPECIFICATIONS OF THE AMERICAN SOCIETY FOR TESTING MATERIALS	CLR CEILING	EMS ENERGY MANAGEMENT SYSTEM	GEN GENERAL CONTRACTOR	LBS POUNDS	NOM NOMINAL	PTZ PAN-TILT-ZOOM	STP SHIELDED TWISTED PAIR	V VOLT VENT
ATS AUTOMATIC TRANSFER SWITCH	CM COMMUNICATIONS CABLE	ENT ELECTRICAL METALLIC TUBING	GEC GROUNDING ELECTRODE CONDUCTOR	LEC LOCAL EXCHANGE CARRIER	NPW NON-POTABLE WATER	PVC POLYVINYL CHLORIDE	SW SWITCH	VERT VERTICAL
AUX AUXILIARY	CMF COMMUNICATIONS PLENUM CABLE	EXH EXHAUST	GEN GENERATOR	LITG LIGHTING	NTS NOT TO SCALE	PWR POWER	SWBD SWITCHBOARD	VFC VARIABLE FREQUENCY CONTROL
AV ACID VENT, AUDIOVISUAL	CO-OSP CUSTOMER OWNER-OUTSIDE PLANT	EXIST EXISTING	GFCI GROUND FAULT CIRCUIT INTERRUPTER	LTD LIGHTING	NVE NETWORK VIDEO ENCODER	RA RETURN AIR	SWGR SWITCHGEAR	VOIP VOICE OVER INTERNET PROTOCOL
AVG AVERAGE	CPVC CHLORINATED POLYVINYL CHLORIDE	F FIRE WATER	GND GROUND	MAU MAKEUP AIR UNIT	NVR NETWORK VIDEO RECORDER	RIGD RIGID GALVANIZED STEEL	T TRANSFORMER	W WATER, WATT
AVI AUTOMATIC VEHICLE IDENTIFICATION	CRAC COMPUTER ROOM AIR CONDITIONER	FA FIRE ALARM	GPM GALLONS PER MINUTE	MBH 1000 BTU/HOUR	OA OUTSIDE AIR	RM ROOM	T-1 TRUNK LEVEL 1	WAN WIDE AREA NETWORK
AW ACID WASTE	CT COOLING TOWER, CABLE TRAY	FAA FIRE ALARM ANNUNCIATOR PANEL	HGT HEIGHT	MC MAIN CROSS CONNECT	OC ON CENTER	RO REVERSE OSMOSIS WATER	TBB TELECOMMUNICATIONS BONDING BACKBONE	WAP WIRELESS ACCESS POINT
AWG AMERICAN WIRE GAUGE	CV CONSTANT VOLUME	FACF FIRE ALARM CONTROL PANEL	HH HANDHOLE	MCB MAIN CIRCUIT BREAKER	OPE OWNER PROVIDED ELECTRONICS OPERATOR ROOM	RPBFP REDUCED PRESSURE BACKFLOW PREVENTER	TBBIC TELECOMMUNICATIONS BONDING BACKBONE INTERCONNECTING BONDING CONDUCTOR	WP WEATHERPROOF
BAS BUILDING AUTOMATION SYSTEM	DAS DISTRIBUTION ANTENNA SYSTEM	FACF FIRE ALARM CONTROL PANEL	HP HORSEPOWER, HEAT PUMP	MDF MAIN DISTRIBUTION FRAME	OSP OUTSIDE PLANT	REQ REQUEST TO EXIT	TC TELECOMMUNICATIONS CLOSET	WSA WIRE SIZING AMPS
BFP BACKFLOW PREVENTER	DA DIAMETER	FCO FLOOR CLEAN OUT	HTG HEATING	MDF MAIN DISTRIBUTION FRAME	PABX PRIVATE AUTOMATIC BRANCH EXCHANGE	REQ REQUEST TO EXIT	TEL TELEPHONE	WSHP WATER SOURCE HEAT PUMP
BICSI BUILDING INDUSTRY CONSULTING SERVICE INTERNATIONAL	CMR COMMUNICATIONS RISER CABLE	FHC FIRE HOSE CABINET	HVAC HEATING, VENTILATING AND AIR CONDITIONING	MERV MINIMUM EFFICIENCY REPORTING VALUE	PBX PRIVATE BRANCH EXCHANGE	REQ REQUEST TO EXIT	TELECOM TELECOMMUNICATIONS	WTH WIRE TRANSFER HINGE
BLDG BUILDING	DISC DISCONNECT	FL FLOOR	HWC HOT WATER CIRCULATING	(MM) MINIMUM	PB PULLBOX	REQ REQUEST TO EXIT	TEMP TEMPERATURE	XFMR TRANSFORMER
BTC BONDING CONDUCTOR FOR TELECOMMUNICATION	DISC DISCONNECT	FL FLOOR	HZ HERTZ	MISC MISCELLANEOUS	PBO PROVIDE BY OTHERS	REQ REQUEST TO EXIT	TEL TELEPHONE	
BTU BRITISH THERMAL UNIT	DP DEMARCATION POINT	FMA FULL LOAD AMPS	IC INTERCOM	MLO MAIN LOSS ONLY	PBX PRIVATE BRANCH EXCHANGE	REQ REQUEST TO EXIT	TEL TELEPHONE	
BTUH BRITISH THERMAL UNIT PER HOUR	DPS DOOR POSITION SWITCH	FM FACTORY MUTUAL	IDC INSULATION DISPLACEMENT CONNECTOR	MOA MINIMUM OUTDOOR AIR	PDU POWER DISTRIBUTION UNIT	REQ REQUEST TO EXIT	TEL TELEPHONE	
	DVR DIGITAL VIDEO RECORDER	FMG FACTORY MUTUAL GLOBAL	IDF INTERMEDIATE DISTRIBUTION FRAME	MPC MAIN POINT OF ENTRANCE	PERP PERPENDICULAR	REQ REQUEST TO EXIT	TEL TELEPHONE	
			IDS INTRUSION DETECTION SYSTEM	MTD MOUNTED	PIV POST INDICATOR VALVE	REQ REQUEST TO EXIT	TEL TELEPHONE	
			IE INVERT ELEVATION	MTG MOUNTING	PLGB PLUMBING	REQ REQUEST TO EXIT	TEL TELEPHONE	

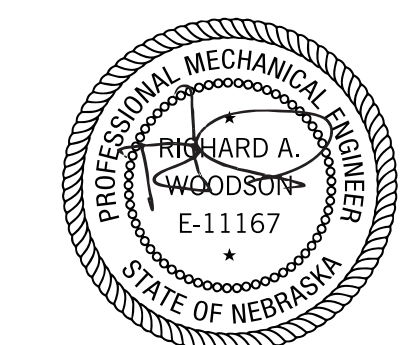


**WESTROADS TRANSIT CENTER
RESTROOM BUILDING - HVAC**

SPLIT-SYSTEM SCHEDULE																				
INDOOR UNIT									OUTDOOR UNIT											
MARK	LOCATION	TYPE	WEIGHT (LBS)	AIRFLOW (CFM)	TOTAL COOLING (MBH)	EAT (DB/WB) (°F)	HEATING CAPACITY (MBH)	DIMENSIONS (LxWxH) (IN)	MARK	LOCATION	WEIGHT (LBS)	TOTAL COOLING CAPACITY (MBH)	COMPRESSOR TYPE	AMBIENT TEMP (°F)	SOUND POWER (dBA) [1]	MIN EER/SEER (AHR)	DIMENSIONS (LxWxH) (IN)	MANUFACTURER	MODEL NUMBER	REMARKS
SSFC-1	SERVER ROOM 104	WALL	40	706	22	75/63	27	47x11x14	SSCU-1	ROOF	125	22	ROTARY	95	55	12.5/21.5	34x13x32	LIEBERT	SRC24	1,2,3,4

- REMARKS:
- OVERALL "A" WEIGHTED SCALE IN ACCORDANCE WITH ARI STANDARD 370.
 - INDOOR UNIT IS POWERED THROUGH THE OUTDOOR UNIT. COORDINATE WITH ELECTRICAL CONTRACTOR INTERCONNECTED WIRING.
 - PROVIDE WITH DEFROST/DE-ICING, RESTART DELAY, INVERTER, SELF DIAGNOSIS, SOFT START, AUTO RESTART, AND BUILT-IN LOW AMBIENT CONTROL TREATMENT.
 - PROVIDE ROOF SUPPORTS COMPATIBLE WITH EXISTING SLOPED METAL ROOF. MOUNT CONDENSING UNIT LEVEL ON ROOF SUPPORTS.

- FLAG NOTES**
- SPLIT SYSTEM CONDENSING UNIT LOCATED ON ROOF. PROVIDE SUPPORTS TO INSTALL CONDENSING UNIT LEVEL ON THE EXISTING SLOPED METAL ROOF. LOCATE ON EAST SIDE OF ROOF PEAK.
 - ROUTE CONDENSATE DRAIN PIPING AS HIGH AS POSSIBLE IN RESTROOM. SPILL INDIRECTLY OVER EXISTING FLOOR DRAIN.
 - INSTALL 3/4" SEAMLESS COPPER PIPE FOR FUTURE COLD WATER CONNECTION. ROUTE BELOW GRADE FROM EXISTING UTILITY ROOM TO PLANTER AREA. CAP FOR FUTURE CONNECTION. PROVIDE BALL VALVE AT CONNECTION TO EXISTING 1" CW IN UTILITY ROOM.
 - PROVIDE CLEAN AGENT FIRE SUPPRESSION SYSTEM FOR SERVER ROOM 104. FIRE SUPPRESSION SYSTEM SHALL BE LOCATED INSIDE ROOM. ALARM SIGNAL SHALL BE CONNECTED TO THE OWNER'S SECURITY SYSTEM. CONNECT TO SSFC-1 FOR THE FIRE SUPPRESSION SYSTEM TO SHUTDOWN.



01/10/2019

DRAWN BY ADW
CHECKED BY RAW
PROJECT NO. NE-0-X111

ISSUES AND REVISIONS
ITEM DATE

DRAWING TITLE
**WESTROADS -
MECHANICAL**

SHEET NO.

M100

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AIR COOLED CONDENSING UNIT SCHEDULE													
MARK	SERVES	CAPACITY (TONS)	COMPRESSOR TYPE	NUMBER OF COMPRESSORS	REFRIGERANT	AMBIENT TEMP (°F)	SOUND POWER (dBA) (2)	MINIMUM SEER	DIMENSIONS (LxWxH) (IN)	OPERATING WEIGHT (LBS)	MANUFACTURER	MODEL NUMBER	REMARKS
CU-1	FC-1	1.5	SCROLL	1	R-410A	105	75	15	24x24x24	125	YORK	YCD18821H	1

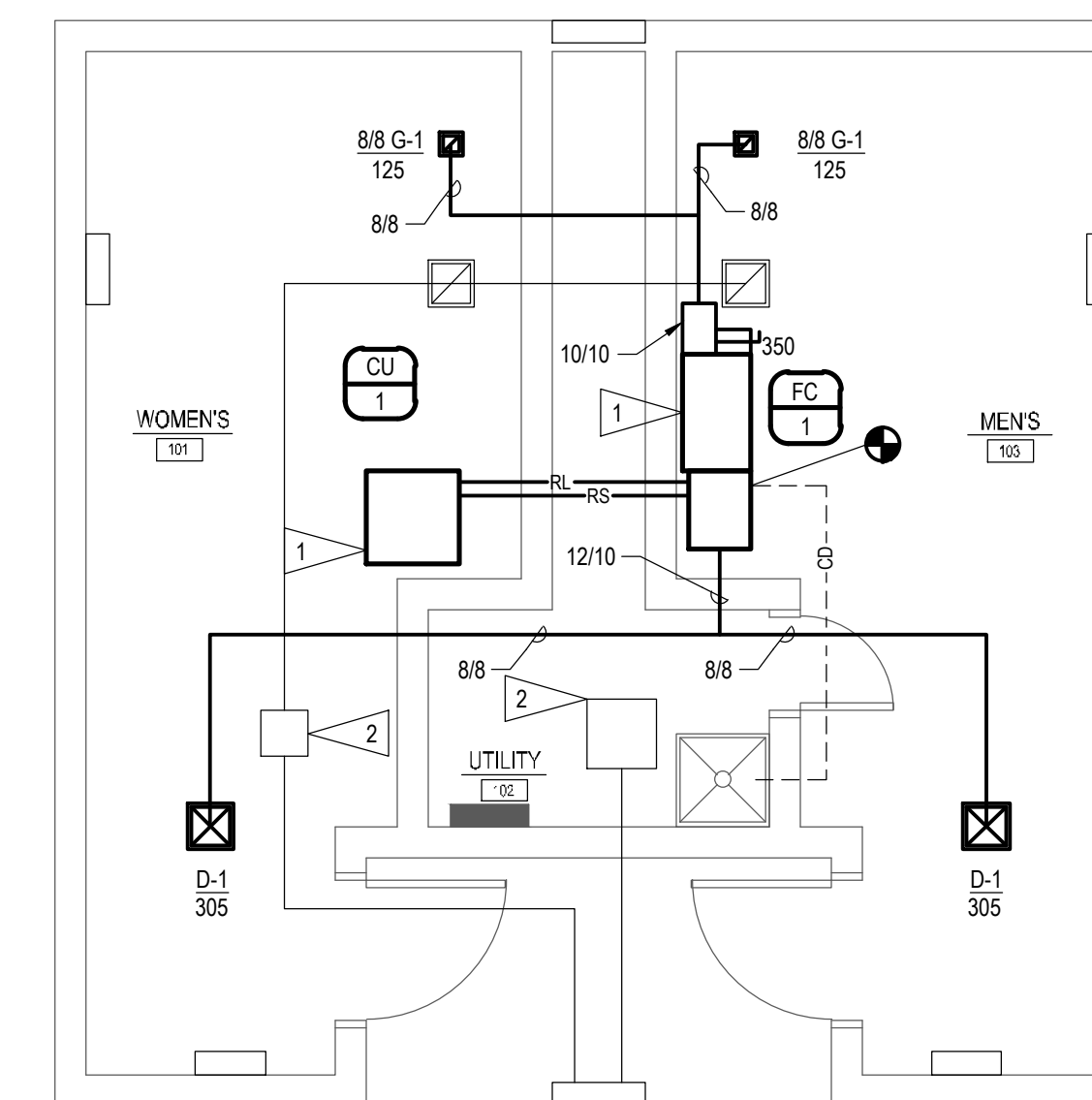
REMARKS:
1. SEE MECHANICALELECTRICAL COORDINATION SCHEDULE ON SHEET E-501 FOR ELECTRICAL DATA.
2. RATED IN ACCORDANCE WITH ARI STANDARD 270.

ELECTRIC FAN COIL SCHEDULE															
MARK	SERVES	LOCATION	CONFIGURATION	AIRFLOW (CFM)	OUTDOOR AIR (CFM)	EXTERNAL SP (IN. W.C.)	COOLING CAP. (MBH)	INPUT (KW)	HEATING CAP. (MBH)	DIMENSIONS (LxWxH) (IN)	OPERATING WEIGHT (LBS)	MANUFACTURER	MODEL NUMBER	CONDENSATE DRAIN SIZE (IN.)	REMARKS
FC-1	RESTROOMS	ATTIC	HORIZONTAL RIGHT	610	350	0.6	18	9.6	30.1	46x22x18	103	YORK	AHE18B	1	1

REMARKS:
1. SEE MECHANICALELECTRICAL COORDINATION SCHEDULE ON SHEET E-501 FOR ELECTRICAL DATA.

DIFFUSER REGISTER AND GRILLE SCHEDULE										
MARK	DESCRIPTION	DEFLECTION	MAXIMUM STATIC PRESSURE (IN W.G.)	MAXIMUM NC LEVEL	CONSTRUCTION MATERIAL	FINISH	FACE SIZE (IN)	MANUFACTURER	MODEL NUMBER	REMARKS
D-1	PLAQUE	4-WAY	0.1	30	ALUMINUM	WHITE	12x12	PRICE	ASPD	1
G-1	LOUVER	2-WAY	0.1	30	ALUMINUM	WHITE	8x8	PRICE	635	1

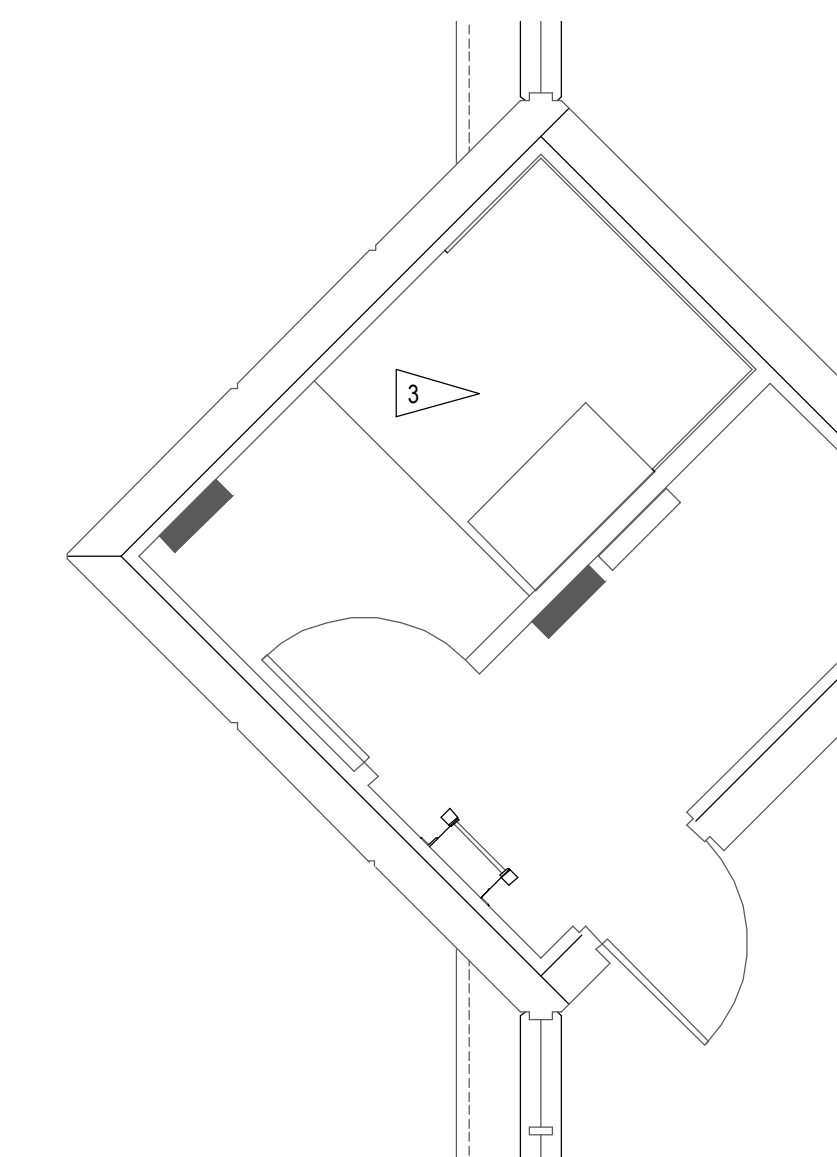
REMARKS:
1. CONTRACTOR SHALL VERIFY CEILING OR WALL CONSTRUCTION PRIOR TO FURNISHING MATERIAL.



NORTH OMAHA TRANSIT CENTER
RESTROOM BUILDING - HVAC
SCALE: 1/4" = 1'-0"

FLAG NOTES

- 1. EQUIPMENT INSTALLED IN ATTIC. ASSOCIATED DUCTWORK AND PIPING INSTALLED IN ATTIC AND ROUTED TO ALLOW SERVICE ACCESS.
- 2. EXISTING EXHAUST FANS TO REMAIN.
- 3. PROVIDE CLEAN AGENT FIRE SUPPRESSION SYSTEM FOR SERVER ROOM. FIRE SUPPRESSION SYSTEM SHALL BE LOCATED INSIDE ROOM. ALARM SIGNAL SHALL BE CONNECTED TO THE OWNER'S SECURITY SYSTEM. CONNECT TO EXISTING SPLIT SYSTEM FOR THE FIRE SUPPRESSION SYSTEM TO SHUTDOWN.



NORTH OMAHA TRANSIT CENTER
PLAN - AREA 'A' - HVAC
SCALE: 1/4" = 1'-0"

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DRAWN BY ADW
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PROJECT NO. NE-0-X111

ISSUES AND REVISIONS
ITEM DATE

DRAWING TITLE

NOTC - MECHANICAL

SHEET NO.

M200

PROJECT: Digital Signs and Integration Services
PROJECT #: NE-90-X111

SUPPLEMENTARY CONDITIONS

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PROJECT: OMAHA RAPID BUS TRANSIT STATION CANOPY PACKAGE
PROJECT #: NE-79-X001

DIVISION 4-
SAMPLE FORMS

REQUEST FOR CLARIFICATION

Project Name: Digital Signs and Integration Services Date: _____

Company Name: _____ Page No: _____

Document Reference (check one):

General Requirements: _____

Specifications: _____

Section Number: _____

Section Title: _____

Construction Drawings: _____

Sheet Number and Name: _____

PROPOSER'S REQUEST:

METRO RESPONSE:

Approved _____ Denied _____

Metro Comments:

Metro Authorized Signature

Grant Administrator

Metro Transit, 2222 Cuming Street, Omaha, NE 68102 jrumery@ometro.com

Date of Response