

MILWAUKEE TRANSPORT SERVICES, INC.
Operator of the Milwaukee County Transit System



Invitation to Bid
KK TANK HOUSE ELECTRICAL UPGRADES
Bid Number: 2020-24
Release Date: November 30, 2020
Submission Deadline: December 16, 2020

INFORMATION SUMMARY SHEET

BID Title:	KK Tank House Electrical Upgrades
BID Number:	2020-24
BID Issuing Office:	MTS Maintenance Department
BID Issue Date:	November 30, 2020
Optional Walkthrough Meeting:	December 7, 2020 @ 10:00 am CST
Walk Through Meeting Location:	MTS KK Tank House
Deadline for Receipt of Questions:	December 9, 2020 @ 4:30 pm CST
Proposals Due:	December 16, 2020 @ 2:00 pm CST
Submission Location:	Milwaukee Transport Services Administration Building 1942 North 17 TH St. Milwaukee, WI 53205

Bid Administrator (proposers' sole point of contact for all matters related to this BID):

Ayame Metzger
Contracts and Purchasing Administrator
Milwaukee Transport Services, Inc.
ametzger@mcts.org

No one may contact any person at MTS or working with MTS regarding this bid, except the bid Administrator, without the BID Administrator's written consent. Any such unauthorized contact can be grounds for disqualification from consideration under this bi

I. Introduction and Project Information

Milwaukee Transport Services, Inc., (MTS), operator of the Milwaukee County Transit System (MCTS), is seeking is seeking proposals for a general contractor or electrical company willing to contract with a construction company to convert an existing room within the tank house into a new electrical room.

MTS is a separate entity from Milwaukee County managed by its own Board of Directors, with discrete oversight by Milwaukee County. It has approximately 1,100 employees and operates 24/7 with the majority of employees working varied schedules. MTS has a fleet of 400 buses that operate approximately 18 million miles and 1.4 million hours annually. There are approximately 101,000 passengers boarding and alighting buses each weekday with 29 million riders annually.

Walk Through Meeting:

A walk through will be held on **December 7, 2020 at 10:00 am CST** at **KK Wash House 1710 S. Kinnickinnic Ave Milwaukee, Wisconsin 53204**. Vendors are to meet MTS staff in the parking lot nearest the garage. **Masks are required.**

The purpose of this meeting will be to allow vendors to inspect the project site to access current conditions and ask general questions about the project. Any answers given at the walkthrough will not be considered official answers and vendors are encouraged to submit those questions to the Bid Administrator before the question submission deadline.

Site Conditions

Prior to submitting a proposal, Vendors should inspect the sites to understand the existing conditions that may affect execution of the services requested in this Bid. No additional fees or costs will be paid due to a lack of understanding on the contractors' part regarding existing site conditions. Attended the walkthrough for this contract is HIGHLY ENCOURAGED to verify field conditions of the project area.

II. Project Description and Scope of Work

SCOPE

The KK Wash House electrical systems are currently located above the bus washing systems and are exposed to the elements causing electrical deficiencies that need correcting. MTS is looking for a general contractor or electrical company to convert an unused bathroom located within the tank house to house the electrical systems for the tank house. The project will require the conversion of the bathroom and the re-location and upgrading of the current electrical systems to this room. Detailed scope and project specifications have been provided by Allume Architects and Hardwood Electrical Consultants and are attached and incorporated into this bid. This Bid also requests separate pricing for an additional/alternate work to the electrical room which may or may not be awarded depending on funding.

Milwaukee Transport Services, Inc

Kinnickinnic Avenue Campus (KK) – Tank House Electrical Upgrades

1710 S Kinnickinnic Avenue

Milwaukee, Wisconsin 53204



Aerial View of Campus

November 24, 2020



Milwaukee Transport Services, Inc

Kinnickinnic Avenue Campus (KK) – Tank House Electrical Upgrades

1710 S Kinnickinnic Avenue

Milwaukee, Wisconsin 53204

Background

The Kinnickinnic Avenue Station and Garage Facility was built in the years of 1982-1984. It covers a total square footage of approximately 182,153 square feet. The campus is comprised of four buildings: the Station, Bus Storage Building, Maintenance Garage, and the Tank House.

Tank House

The Tank House is a 9,205 square foot structure. Its primary function is to wash the busses.

General Description of Subject Conditions:

The exterior envelope of the Tank House building is in a fairly good condition. During our recent assessment, electrical deficiencies were discovered. None of these pose an emergent danger to the public or to MCTS personnel but the conditions warrant repair and updating. Repair solutions for these electrical deficiencies are outlined in this document.

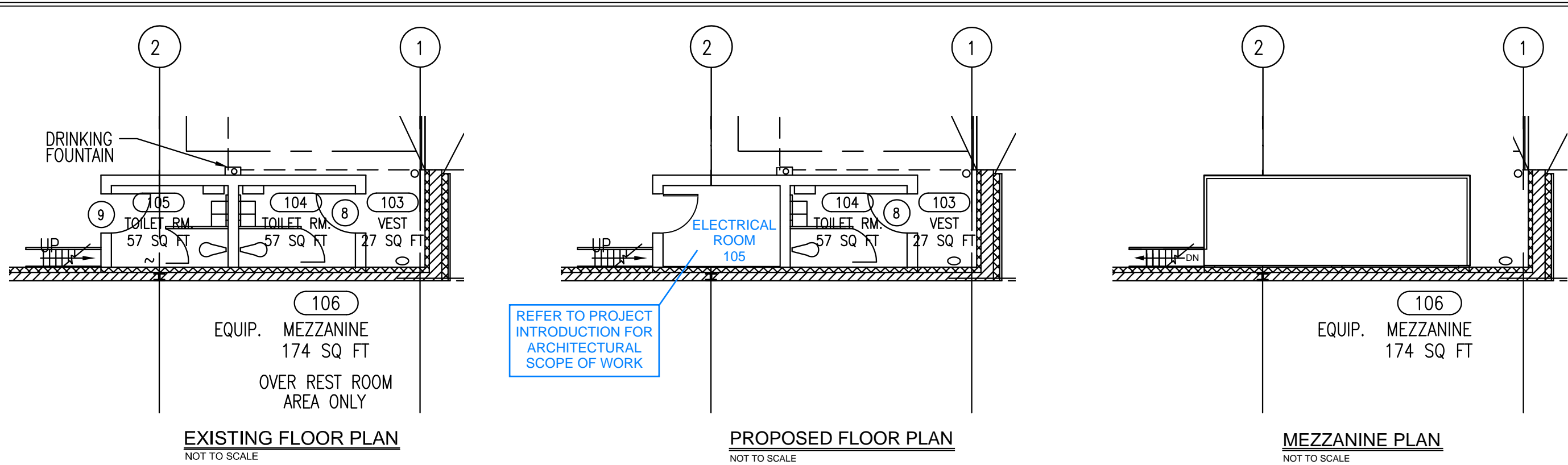
Scope of Architectural Work for Existing Men's Room / New Electrical Room:

- Remove all stored items [by MCTS staff]
- Remove lavatory and toilet; cap plumbing in place; take measures to prevent residual smells
- Power wash all surfaces
- Paint walls and ceiling – “White”; color shall be selected by GC and submitted to Owner and Architect for approval)
- Provide blocking and 5/8” PT plywood on east and south walls - full height and width (for mounting new electrical panels) [approximately 130 sf total]

ALTERNATE: (provide separate line item cost for the following scope items)

- Remove and replace hollow metal door & frame:
 - Provide 2'-6" x 6'-8" hollow metal door and frame with 4" head
 - Provide lever lockset with Storeroom function; keying shall be coordinated with MCTS facilities staff; re-use cylinder as practical
 - Provide closer
 - Provide new threshold
 - Paint door and frame [Gray]; color shall be selected by GC and submitted to Owner and Architect for approval
 - Provide cementitious topping to encourage surface water away from door; scarify floor slab as required for bonding; provide concrete “curb” below threshold as required prior to installing new door and frame
- Install corrugated wall panels to shield new Electrical Room door from bus wash overspray; panels shall be supplied by MCTS; 2x2 steel framing posts and purlins by GC; leave gap for passage

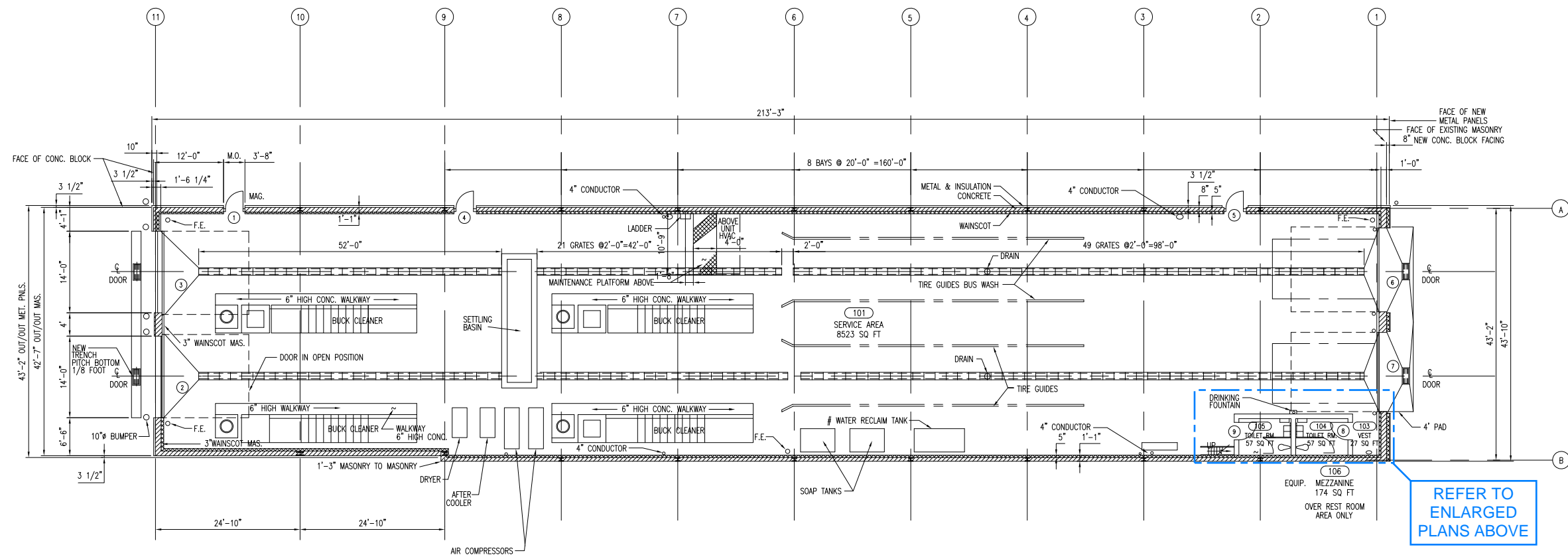
END OF INTRODUCTION



EXISTING FLOOR PLAN
NOT TO SCALE

PROPOSED FLOOR PLAN
NOT TO SCALE

MEZZANINE PLAN
NOT TO SCALE



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



EXISTING FLOOR PLAN
NOT TO SCALE



VIEW OF EXISTING RESTROOM WITH MEZZANINE ABOVE

AUGMENT CORRUGATED WALL PANELS TO SHIELD DOOR FROM OVER-SPRAY; RETAIN 48" OPENING IN WALL FOR ACCESS; PANELS SHALL BE PROVIDED BY MCTS; 2x2 STEEL TUBE FRAMING PROVIDED BY GC

REPLACE HOLLOW METAL DOOR AND FRAME; REFER TO SCOPE NARRATIVE

SHIP'S LADDER TO MEZZANINE

PROVIDE CEMENTITIOUS TOPPING TO PITCH WATER AWAY FROM NEW DOOR



CLOSER VIEW OF DOOR TO EXISTING RESTROOM

PROVIDE CEMENTITIOUS TOPPING TO PITCH WATER AWAY FROM NEW DOOR



CLOSER VIEW OF FLOOR SLAB AREA IN FRONT OF DOOR TO EXISTING RESTROOM



VIEW OF EXISTING RESTROOMS WITH MEZZANINE ABOVE



INTERIOR VIEWS OF EXISTING RESTROOM (CLUTTER SHALL BE REMOVED BY OWNER; PLUMBING FIXTURES SHALL BE REMOVED AND CAPPED BY GC)



INTERIOR VIEW OF EXISTING RESTROOM



EXTERIOR VIEW OF EXISTING TANK HOUSE (FROM SOUTH)

PHOTOS OF EXISTING SUBJECT AREA

ABBREVIATIONS

A/E	ARCHITECT/ENGINEER	IMC	INTERMEDIATE METAL CONDUIT
AF	AMP FUSE	I	INSTALLED
AFC	AVAILABLE FAULT CURRENT	IU	INTEGRAL TO UNIT
AFB	ABOVE FINISHED FLOOR	JB	JUNCTION BOX
ARCH	ARCHITECT	KW	KILOWATT
AFG	ABOVE FINAL GRADE	LIG	LAY-IN GRID
AHJ	AUTHORITY HAVING JURISDICTION	LOC	LOCATION
AR	AS REQUIRED	LTO	LIGHTING
AS	AMP SWITCH	MAG	MAGNETIC STARTER
ATS	AUTOMATIC TRANSFER SWITCH	MAN	MANUAL STARTER
BKR	BREAKER	MC	MECHANICAL CONTRACTOR
BFG	BELOW FINAL GRADE	MLO	MAIN LUGS ONLY
C	MOUNTED 6" ABOVE COUNTER	MSB	MAIN SWITCHBOARD
CAB	CABINET	MTD	MOUNTED
CB	CIRCUIT BREAKER	MTS	MANUAL TRANSFER SWITCH
cd	CANDELA	NU	NEAR UNIT
CKT	CIRCUIT	NIC	NOT IN CONTRACT
CLG	CEILING	NL	NIGHT LIGHT
CONC	CONCRETE	O	OTHERS
CP	CONTROL PANEL	OC	ON CENTER
CS	COMBINATION STARTER/DISC. SWITCH	ORS	OVER RIDE SWITCH
D	DISCONNECT SWITCH	OU	ON UNIT
DISC	DISCONNECT SWITCH	P	POLE
DLS	DUAL LEVEL SWITCH	PC	PHOTOCELL
DN	DOWN	PEND	PENDANT
DNLT	DOWN LIGHT	PLBG	PLUMBING CONTRACTOR
EWC	ELECTRIC WATER COOLER	PNL	PANEL
E-C	ELECTRICAL CONTRACTOR	PB	PUSH-BUTTON
ELEV	ELEVATION	R	RECEPTACLE
EMT	ELECTRICAL METALLIC TUBING	RAI	REMAIN AS IS
ENT	ELECTRICAL NON-METALLIC TUBING	REC	RECESSED
EP	EXPLOSION PROOF	SS	SWITCH STATION
ER	EXISTING TO BE REMOVED	SURF	SURFACE
EXP	EXPOSED	SUSP	SUSPENDED
EXR	EXISTING IN NEW LOCATION	SW	SWITCH
EX	EXISTING TO REMAIN	TC	TIME CLOCK
EXT	EXISTING TO BE RELOCATED	TCC	TEMPERATURE CONTROL
F	FURNISHED	CONTRACTOR	
FBO	FURNISHED BY OTHER	TYP	TYPICAL
FIXT	FIXTURE	UM	UNIT MANUFACTURER
FLUOR	FLUORESCENT	VER	VERIFY
G.C.	GENERAL CONTRACTOR	VFD	VARIABLE FREQUENCY DRIVE
GFI	GROUND FAULT INTERRUPTING	W	WIRED
GRC	GALVANIZED RIGID CONDUIT	WP	WEATHERPROOF
GYP	GYP SUM BOARD	XFMR	TRANSFORMER
HOA	HAND-OFF-AUTO SELECTOR SWITCH		
HP	HORSEPOWER		
HVAC	HEATING, VENTILATING, AND		
HV	AIR CONDITIONING CONTRACTOR		
HW	HEAVYWALL		

GENERAL RENOVATION/DEMOLITION NOTES:

- ELECTRICAL DRAWINGS ARE BASED ON THE BEST INFORMATION AVAILABLE. FOR AREAS BEING REMODELED, WORK SHOWN REFLECTS INFORMATION SHOWN ON AS-BUILT PLANS AND FIELD OBSERVATION; IT IS NOT GUARANTEED 100% ACCURATE. THIS CONTRACTOR MUST FIELD VERIFY CONDITIONS AND MAKE NECESSARY ADJUSTMENTS WITHOUT EXTRA COSTS TO THE PROJECT TO SUIT ACTUAL NEEDS.
- THE CONTRACTOR SHALL REWIRE/REROUTE/RELOCATE, AS REQUIRED DUE TO CONSTRUCTION, ALL EXISTING CIRCUITS AND EQUIPMENT WHICH ARE TO CONTINUE IN OPERATION.
- MAINTAIN THE INTEGRITY OF ALL SYSTEMS AFFECTED BY THE REMOVAL OR ADDITION OF ELECTRICAL DEVICES AND CONTROLS IN REMODELED AREAS.
- ALL ELECTRICAL PANELS SHALL REMAIN IN PLACE AS IS, UNLESS INDICATED OTHERWISE. PANELS EXPOSED TO PUBLIC SHALL BE PROVIDED WITH A LOCKABLE COVER. TURN KEY(S) OVER TO OWNER. PROVIDE GROUND TERMINATE BUS IN A FLUSH JUNCTION BOX ABOVE PANEL BOARD TO ACCOMMODATE ISOLATED GROUNDING TYPE RECEPTACLES.
- PROVIDE COMPLETE UPDATED DIRECTORIES FOR ALL PANELS AND SWITCHBOARD AFFECTED BY CONSTRUCTION. BREAKERS RELIEVED FROM DUTY AND NOT BEING USED SHALL BE SWITCHED OFF AND LABELED "SPARE".
- CIRCUITS INDICATED ARE INTENDED TO DENOTE WHICH DEVICES/FIXTURES ARE TO BE WIRED TO A COMMON CIRCUIT BREAKER, AND NOT ITS POSITION IN THE PANEL. UTILIZE RELIEVED/SPARE CIRCUIT BREAKER MOUNTING SPACES. PROVIDE CIRCUIT BREAKERS AS REQUIRED. REBALANCE LOADS BETWEEN PHASES (MAX. 7.5%) UPON COMPLETION OF WIRING.
- BRANCH CIRCUITS FOR RECEPTACLES MOUNTED ON ROOF TOP EQUIPMENT MAY BE ROUTED UP THROUGH UNIT CURB OR UNIT ITSELF IF RECOMMENDED BY ROOF TOP EQUIPMENT MANUFACTURER.
- NEW EXIT LIGHTS SHALL BE WIRED TO THE NEAREST AVAILABLE UNSWITCHED LIGHTING CIRCUIT SERVING THE AREA THAT EXIT LIGHT IS INSTALLED.
- OCCUPANCY SENSOR LOCATIONS SHOWN ON DRAWINGS ARE DIAGNOSTIC ONLY. ACTUAL LOCATION SHALL BE DETERMINED AT SITE PER MANUFACTURER'S RECOMMENDATIONS AND LAYOUT. PROVIDE MINIMUM 4"-0" OF FLEX CONDUIT/WIRES SO THAT THE SENSOR CAN BE FIELD ADJUSTED FOR PROPER COVERAGE DURING FINAL TESTING. THE TRAINED FACTORY PERSONNEL SHALL PERFORM THE FINAL TIME SETTINGS AND TESTING.
- ALL EXISTING DEVICES WHICH ARE TO REMAIN AND ARE LOCATED ON NEW FURRED OUT WALLS SHALL BE PROVIDED WITH APPROPRIATE EXTENSION RINGS. REFER TO ARCHITECTURAL DRAWINGS FOR SPECIFIC WALLS.
- ALL EXISTING DEVICES WHICH ARE NOT SHOWN ON THESE DRAWINGS OR DIRECTED BY A/E SHALL REMAIN IN PLACE AS IS.
- ALL EXISTING DEVICES WHICH ARE NOT SHOWN ON THESE DRAWINGS OR DIRECTED BY A/E SHALL BE REMOVED.
- EXISTING RECEPTACLES WHICH WOULD BE RENDERED INACCESSIBLE, DUE TO THE PLACEMENT OF NEW CASEWORK, SHALL BE RELOCATED TO THE KICK PLATE OF THE CASEWORK, OR OTHERWISE RELOCATED SUCH THAT RECEPTACLES ARE ACCESSIBLE.
- ALL NEW DEVICES AND COVER PLATES SHALL MATCH EXISTING UNLESS OTHERWISE DIRECTED BY A/E. COVER PLATES IN KITCHEN AREAS SHALL BE STAINLESS STEEL.
- ALL REMOVED DEVICES AND NOT REPLACED IN ANY WAY EXPOSING AN EMPTY CAB BOX, THE CONTRACTOR SHALL PROVIDE A STAINLESS STEEL COVER PLATE.
- ELECTRICAL RACEWAYS AND BOXES SHALL BE CONCEALED IN CEILING CAVITY OR IN WALLS WHERE POSSIBLE, OTHERWISE RACEWAY SHALL BE EXPOSED WIREMOLD TYPE, 200, 500 OR 700 AS NECESSARY TO ACCOMMODATE WIRES.
- ELECTRICAL RACEWAYS AND BOXES SHALL BE CONCEALED IN CEILING CAVITY OR IN WALLS. EXPOSED RACEWAYS ARE NOT ACCEPTABLE UNLESS SPECIFICALLY INDICATED AND/OR APPROVED BY A/E.
- EXACT LOCATION OF SPECIAL PURPOSE OUTLETS SHALL BE VERIFIED IN FIELD. VERIFY SPECIFIC WIRING REQUIREMENTS WITH VENDORS' DRAWINGS/INSTRUCTION, COORDINATING ELECTRICAL WORK WITH WORK OF VENDOR AND OTHER TRADES.
- IN ROOMS WHICH HAVE BEEN SUBDIVIDED, UNUSED EXISTING LIGHTING SWITCHES SHALL BE REMOVED AND BLANK COVER PLATES SHALL BE PROVIDED. PROPERLY TERMINATE ALL UNUSED CONDUCTOR(S) WITH WIRE NUT(S).
- EXISTING CEILING SPEAKERS SHALL BE REMOVED PRIOR TO DEMOLITION OF EXISTING CEILINGS. SPEAKERS SHALL BE REINSTALLED IN COMPARABLE LOCATION IN NEW CEILING.
- WALL MOUNTED SPEAKERS, FIRE ALARM DEVICES, ETC. SHALL BE RELOCATED AS NECESSARY TO ACCOMMODATE NEW CEILING HEIGHTS.
- WHERE EXISTING FIXTURES ARE TO BE REUSED, THE CONTRACTOR SHALL PROPERLY REMOVE, CLEAN, RELAMP, AND REINSTALL EXISTING FIXTURES AS SHOWN ON PLAN.
- INCLUDE FISH WIRE IN ALL NON-POWER CONDUITS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROPERLY DISCONNECTING POWER AND REMOVING THE EXISTING FIXTURES FOR REUSE. ANY FIXTURE(S), ELECTRICAL DEVICES, NOT INDICATED TO BE REUSED SHALL BE PROPERLY DISPOSED OF AND/OR IN ACCORDANCE WITH THE SPECIFICATIONS.

- VERIFY EXACT LOCATION OF LIGHTING FIXTURES IN THE FIELD TO AVOID CONFLICT WITH MECHANICAL EQUIPMENT, DUCT WORK, AND PIPES.
- IN ALL LOCATIONS WHERE RE-USE OR EXTENDING OF AN EXISTING CIRCUIT IS INDICATED ON THE PLANS, THE CONTRACTOR SHALL VERIFY THAT THE EXISTING CIRCUIT HAS ENOUGH CAPACITY TO HANDLE THE ADDITIONAL LOAD. IF REQUIRED CAPACITY DOES NOT EXIST, THE CONTRACTOR SHALL EXTEND A NEW CIRCUIT TO FEED THE NEW EQUIPMENT. NO MORE THAN 6 DUPLEX RECEPTACLES SHALL BE ON ONE CIRCUIT.
- PAIN ALL EXPOSED CONDUIT TO MATCH ADJACENT AREAS.
- REMOVE AND REPLACE EXISTING CEILING TILE REQUIRED FOR INSTALLATION OF CONDUITS AND CABLES. COORDINATE ALL WORK WITH THE GENERAL CONTRACTOR.
- FIRE AND/OR SMOKE RATINGS OF WALLS, FLOORS AND CEILINGS SHALL BE MAINTAINED. IF THE INTEGRITY IS SACRIFICED THEN THE BARRIER SHALL BE REPAIRED TO ITS ORIGINAL RATING. ALL PENETRATIONS SHALL BE PROPERLY SEALED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING AND AMING ALL FIXTURES TO THE OPTIMUM DISTRIBUTION AND OWNER'S SATISFACTION.
- COORDINATE CABLE TYPES AND INSTALLATIONS FOR WORK ABOVE CEILING WITH HVAC FOR PLENUM VS. NON-PLENUM RATING OF CEILING SPACE. INSTALLATION SHALL FOLLOW GUIDELINES FOR RATINGS OF CEILING CAVITY.
- FOR ALL FLUSH FLOOR BOXES, THE CONTRACTOR SHALL XRAY WITH DEPTH LOCATION, TRENCH AND RUN CONDUIT TO NEAREST WALL OR COLUMN UP TO AN ACCESSIBLE LOCATION ABOVE CEILING OR PANEL BOARD AS REQUIRED, OR AS INDICATED ON DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING TRENCH TO OWNER'S SATISFACTION.
- THE CONTRACTOR SHALL NOTE THAT THE EXISTING BUILDING WILL REMAIN IN SERVICE DURING CONSTRUCTION. AREAS OF THE BUILDING WILL BE VACATED AS REQUIRED TO FACILITATE CONSTRUCTION. PROCEED WITH THE COMPLETION OF THE WORK IN SUCH A MANNER AS TO CAUSE THE LEAST POSSIBLE INTERFERENCE WITH OWNER'S OPERATION. ALL WORK SHALL BE DONE IN A MANNER AND TIME ACCEPTABLE TO OWNER. OUTAGES AND OTHER WORK RENDERING EXISTING EQUIPMENT INOPERATING SUCH AS BUT NOT LIMITED TO THE FIRE ALARM SYSTEM SHALL BE HELD TO A MINIMUM. PRIOR ARRANGEMENTS FOR EACH SHALL BE MADE WITH OWNER AND SHALL BE ACCEPTABLE AS TO TIME AND DURATION. ALL SHUTDOWNS SHALL BE COORDINATED WITH OWNER 2 WEEKS IN ADVANCE. ALL EXISTING SYSTEMS BEING MODIFIED SHALL BE OPERABLE WHEN CONTRACTOR MODIFYING THE SYSTEM IS NOT ON-SITE.
- THE CONTRACTOR SHALL DO THE NECESSARY DEMOLITION WORK IN THE AFFECTED AREAS INCLUDING THE REMOVAL OF LIGHTING FIXTURES, LAMPS, WIRING, ACCESSIBLE CONDUIT, AND ELECTRICAL EQUIPMENT. IN ADDITION, PRECEDING DEMOLITION WORK, HE SHALL DE-ENERGIZE ALL CIRCUITS IN THE AFFECTED AREAS AND WHERE WIRING IS ROUTED THROUGH THESE AREAS SERVING AREAS OF THE BUILDING REMAINING IN SERVICE. PROVIDE TEMPORARY AND/OR PERMANENT WIRING AS REQUIRED. ALSO, WHERE NECESSARY TO MAINTAIN SERVICE IN OTHER AREAS, PROVIDE NECESSARY AND REQUIRED SOURCES OF POWER AND TEMPORARY WIRING. REMOVE ALL CONDUIT AND WIRING OF EQUIPMENT BEING REMOVED AND/OR ABANDONED BACK TO SOURCE. REMOVE ALL LOW-VOLTAGE CABLES NOT BEING REUSED.
- VERIFY LOCATION OF MARKER BOARDS, TACK BOARDS, ARTWORK, SIGNS AND ANY OTHER WALL MOUNTED ITEMS PRIOR TO ROUGH-IN OF FIRE ALARM DEVICES AND ANY OTHER WALL MOUNTED DEVICE. DO NOT ROUGH IN BEHIND BOARDS.
- ALL SPEAKERS, LIGHTS FIXTURES, FIRE ALARM DEVICES, CLOCKS AND SIMILAR DEVICES IN GYM AREA SHALL HAVE WIRE GUARDS OR SHIELDING TO PROTECT THE EQUIPMENT FROM DAMAGE.
- WHEN THE KITCHEN HOOD FIRE SUPPRESSION SYSTEM IS ACTIVATED, ALL ELECTRICAL SOURCES SERVING COOKING APPLIANCES AND EQUIPMENT UNDERNEATH AND ASSOCIATED WITH THE HOODS SHALL BE AUTOMATICALLY DEACTIVATED VIA A SHUNT TRIP CIRCUIT BREAKER INTERCONNECTED TO THE HOOD FIRE SUPPRESSION SYSTEM SHUTDOWN CIRCUIT. THE HOOD EXHAUST FAN SHALL REMAIN IN OPERATION UNLESS NOTED OTHERWISE. PROVIDE MULTI-POLE CONTACTOR AS REQUIRED. ALSO, PROVIDE ALARM WIRING FROM FIRE SUPPRESSION SYSTEM TO FIRE ALARM CONTROL PANEL. INCLUDE ALL NECESSARY ACCESSORIES.
- SEE MECHANICAL/ELECTRICAL SHEETS FOR ELECTRICAL INFORMATION OF HVAC EQUIPMENT INDICATED ON DRAWINGS.
- SEE DEMOLITION DRAWINGS OF OTHER TRADES. THIS CONTRACTOR IS RESPONSIBLE FOR DISCONNECTION, REMOVAL AND RE-ROUTING OF EXISTING ELECTRICAL WORK.
- JUNCTION BOXES INSTALLED IN EXTERIOR WALLS SHALL NOT PENETRATE THE VAPOR BARRIER. IF THE INTEGRITY IS SACRIFICED THEN THE BARRIER SHALL BE REPAIRED TO ITS ORIGINAL RATING.
- ANY EXISTING CODE VIOLATIONS CONCEALED DURING PRE-BID WALK THROUGH SHALL BE BROUGHT TO A/E'S ATTENTION FOR EVALUATION. ANY EXISTING CODE VIOLATIONS EXPOSED TO VIEW SHALL BE THE RESPONSIBILITY OF THE E.C. TO CORRECT AT NO ADDITIONAL CHARGE TO OWNER.
- PLASTIC TIE WRAPS SHALL NOT BE USED TO SUPPORT ANY RACEWAYS OR OPEN AIR WIRING.
- FIRE ALARM DEVICES MAY BE SHOWN OFF CENTERED SO THAT ROOM NAMES AND NUMBERS ARE VISIBLE. CONTRACTOR SHALL CENTER THESE DEVICES IN THE ROOMS ACCORDINGLY.
- RECEPTACLE LOCATED IN AREAS OF CHILDREN SHALL BE TAMPER TYPE.
- ALL NEW CIRCUIT BREAKERS BEING INSTALLED IN EXISTING PANELS SHALL MATCH EXISTING BREAKERS INCLUDING AIC RATINGS.
- SEE ALL AQUATIC, FOOD SERVICE AND FEC DRAWINGS FOR ELECTRICAL INFORMATION IN ADDITION TO EQUIPMENT INDICATED ON DRAWINGS, THAT SHALL TO BE PROVIDED/PERFORMED BY E.C.
- ALL CONDUITS IN CONCRETE PIERS AND COLUMNS SHALL BE INSIDE REBAR CAGE OF PIER AND EXTEND TO DEVICE MOUNTED IN OR ON PIER AS REQUIRED.
- THE FOLLOWING ARE MINIMUM DISTANCES FROM WATERS EDGE OF A POOL OR SPA.
 - RECEPTACLES 6'-0"
 - SWITCHING DEVICES 5'-0"
 - REMOTE CONTROLS, SIGNALING DEVICES, FIRE ALARM DEVICES, COMMUNICATION CIRCUITS AND SIMILAR DEVICES 10'-0"
 - EMERGENCY SHUT OFF BUTTONS 5'-0"
 - SPA/WHIRL POOL (1) RECEPTACLE REQUIRED MINIMUM 6'-0" AND NO FURTHER THAN 10'-0"
 - UNDERGROUND FEEDERS AND BRANCH CIRCUITS NOT ASSOCIATED TO THE POOL - 5'-0"
- ALL RECEPTACLES IN INTERIOR WATER PARK AREA AND EXTERIOR AT POOLS SHALL BE GFI PROTECTED.
- ELECTRICAL CONTRACTOR SHALL PROVIDE PROPER GROUNDING AND BONDING PER DETAILS AND SPECIFICATIONS. ALL GROUNDING AND BONDING LOCATIONS SHALL BE VERIFIED WITH THE POOL CONTRACTOR PRIOR TO COMMENCING WORK. REFER TO NEC ARTICLE 680 FOR MORE INFORMATION.
- THESE DRAWINGS INDICATE A PORTION OF WORK NEEDED AND GIVES A TYPICAL REQUIREMENT FOR THE EQUIPOTENTIAL BONDING SYSTEM PER THE CURRENT NEC ARTICLE 680.26. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THAT ALL EQUIPMENT IS BONDED AS REQUIRED.

POWER & DIAGRAMS

- DUPLEX RECEPTACLE - MOUNTED 18" AFF.
- FUSED DISCONNECT SWITCH.
- CIRCUIT BREAKER - AMPS, POLES.
- METER.
- METER.
- ELECTRICAL DISTRIBUTION PANEL - EXISTING
- ELECTRICAL DISTRIBUTION PANEL - NEW
- GROUND
- OR TRANSFORMER

MISCELLANEOUS SYMBOLS

- INDICATES DETAIL NUMBER
- SEE DETAIL
- INDICATES SHEET NUMBER
- INDICATES NOTE NUMBER
- SEE NOTE
- INDICATES SHEET NUMBER

SPECIAL SYSTEMS SYMBOLS

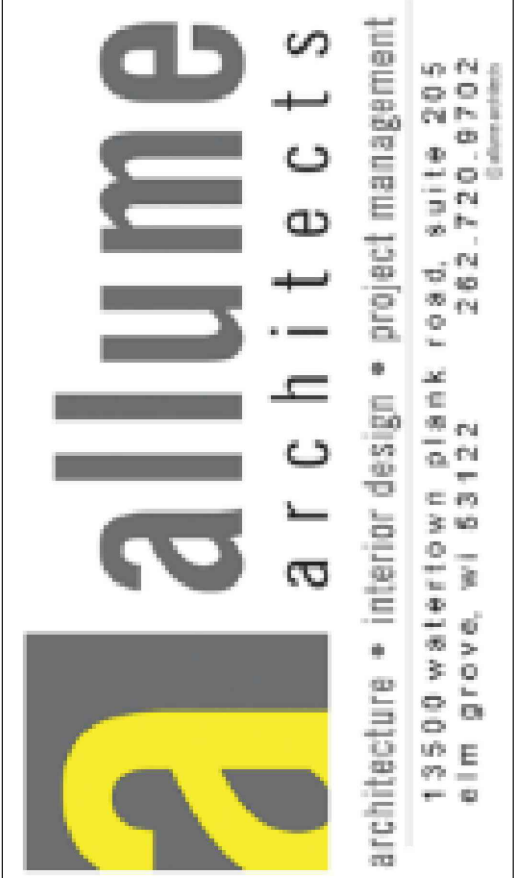
- JUNCTION BOX

SYMBOLS LIST NOTE:

ANY SYMBOLS UTILIZED ON THE FLOOR PLANS NOT OTHERWISE ON THE SYMBOLS LIST SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEERS PRIOR TO BIDDING FOR CLARIFICATION.

SHEET INDEX

E001	SYMBOLS, ABBREVIATIONS AND NOTES
E101	ELECTRICAL FLOOR PLANS
E201	ELECTRICAL SCHEDULES AND DETAILS



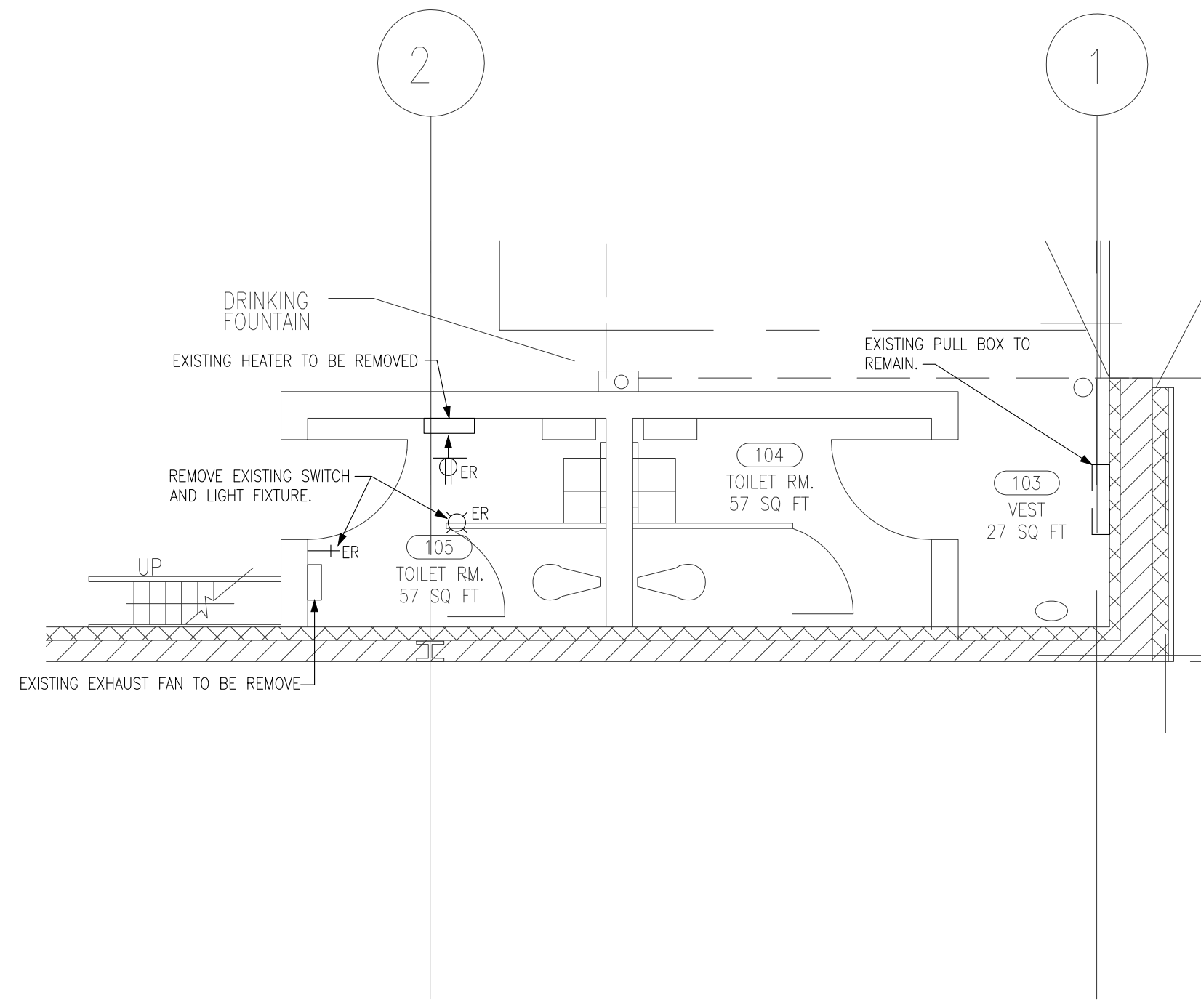
PROJECT FOR:
MILWAUKEE TRANSPORT SERVICES, INC.
 1942 N 17TH STREET
 MILWAUKEE, WI 53205

DRAWING DESCRIPTION:
KINNICKINNIC AVENUE TANK HOUSE BUILDING FLOOR PLANS

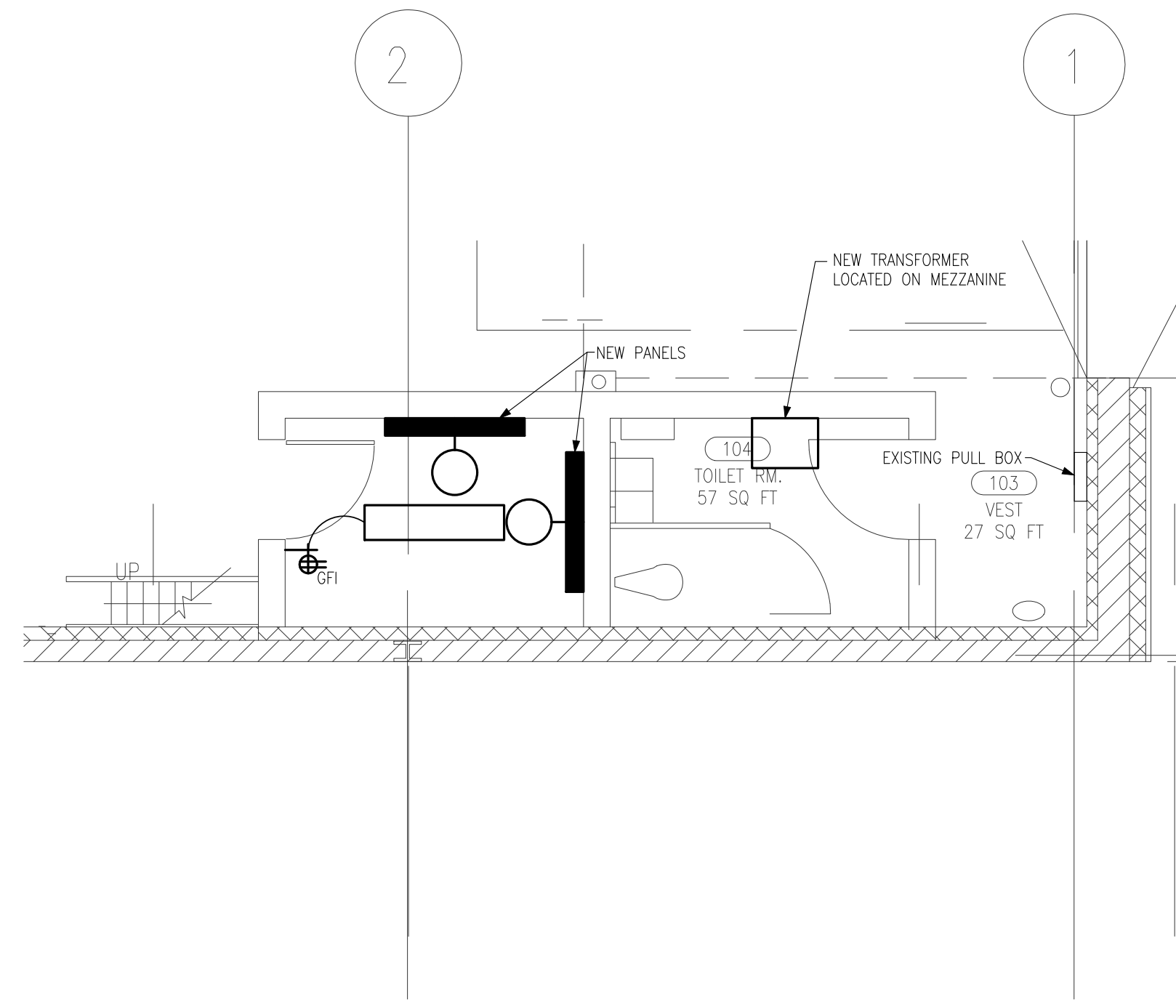
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DRAWN BY:
 DATE:
 11/16/2020
 SHEET NUMBER:
E001
 TANK HOUSE BUILDING

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 DATE: NOVEMBER 16, 2020

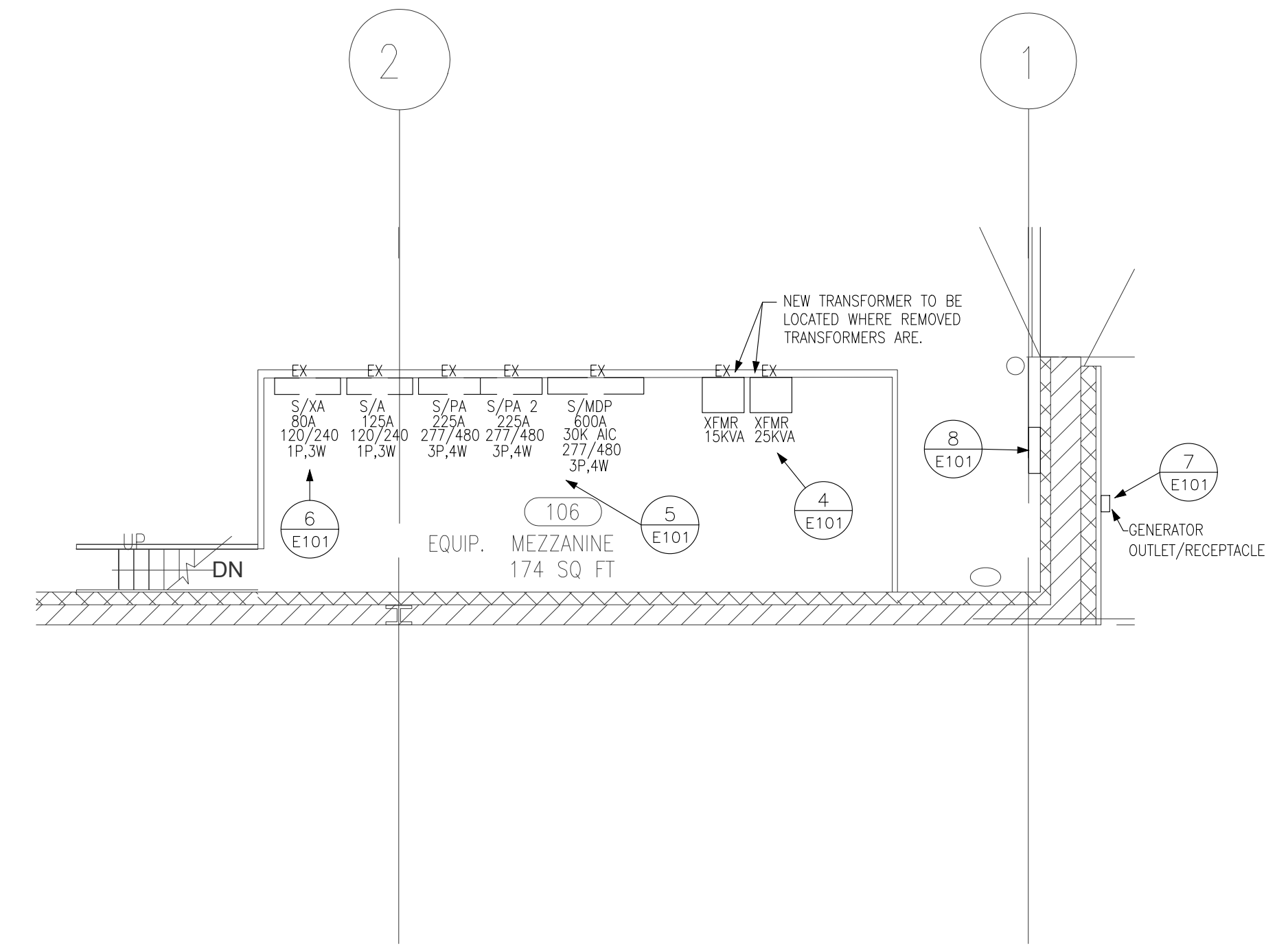


1 **E101** **EXISTING ELECTRICAL FLOOR PLAN**
SCALE: 1/4" = 1'-0"



2 **E101** **PROPOSED ELECTRICAL FLOOR PLAN**
SCALE: 1/4" = 1'-0"

1. INSTALL NEW 120VOLT CIRCUIT FOR NEW FIXTURE AND RECEPTACLE.
2. RAB LIGHTING #GUSJR427840DWL.



3 **E101** **ELECTRICAL MEZZANINE FLOOR PLAN**
SCALE: 1/4" = 1'-0"

1. EXISTING PANELS TO BE CONVERTED TO JUNCTION BOXES.
2. TRANSFORMERS TO BE REMOVED.



6 **E101** **EXISTING PANEL S/XA AND TRANSFER SWITCH**
SCALE: NTS

1. MANUAL TRANSFER SWITCH AND ECLOSED 60/2 BREAKER UNDERNEATH PANEL S/XA.



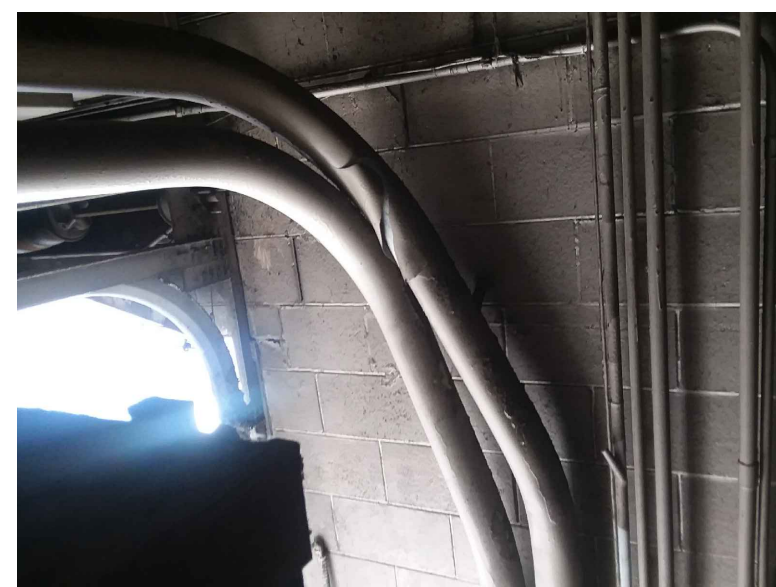
5 **E101** **EXISTING PANEL BOARDS ON MEZZANINE**
SCALE: NTS

- (FROM RIGHT TO LEFT)
1. PANEL S/MDP 300A, 277/480, 3ø, 4W.
 2. PANEL S/PA (2 TUBS) 225A, 277/480V, 3ø, 4W.
 3. PANEL S/A 125A, 120/240V, 1ø, 3W.
 4. PANEL S/XA 80A, 120/240V, 1ø, 3W.
 5. INTERIORS OF ALL PANELS TO BE REMOVED AND ENCLOSURES TO BE USED AS JUNCTION BOXES. FABRICATE GALVANIZED SHEET METAL COVERS FOR ALL FOUR PANEL ENCLOSURES.



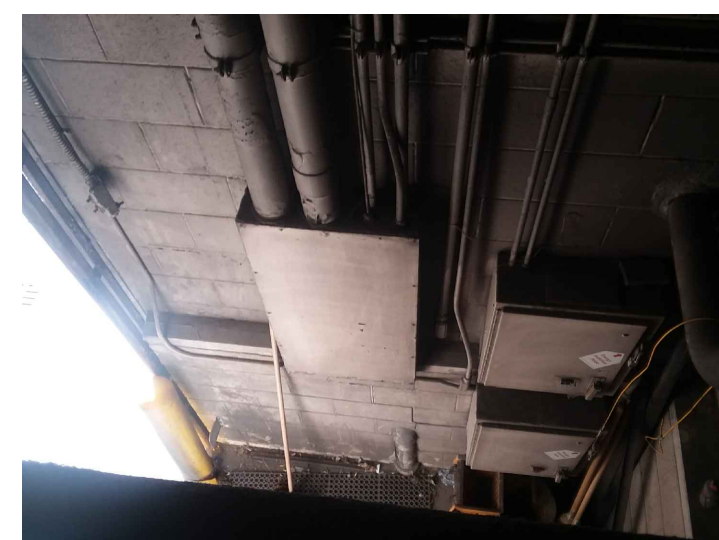
4 **E101** **EXISTING SINGLE PHASE TRANSFORMER**
SCALE: NTS

1. REMOVE TRANSFORMERS AND ALL PRIMARY/SECONDARY RACEWAYS & WIRING.



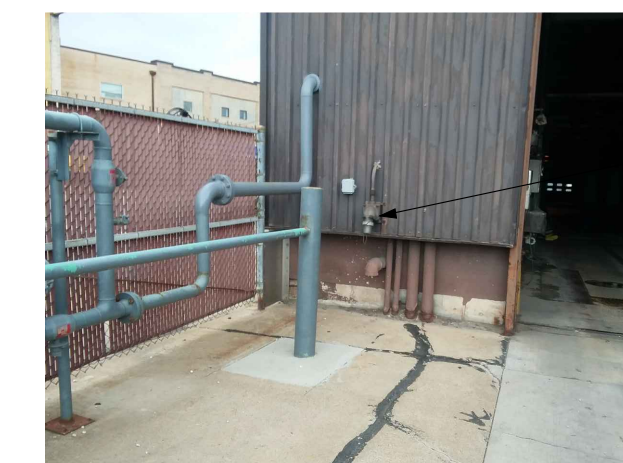
9 **E101** **SERVICE FEEDER CONDUITS AT ROOF**
SCALE: NTS

1. PARALLEL 6" CONDUITS FROM PULL BOX TO PANEL S/MDP.



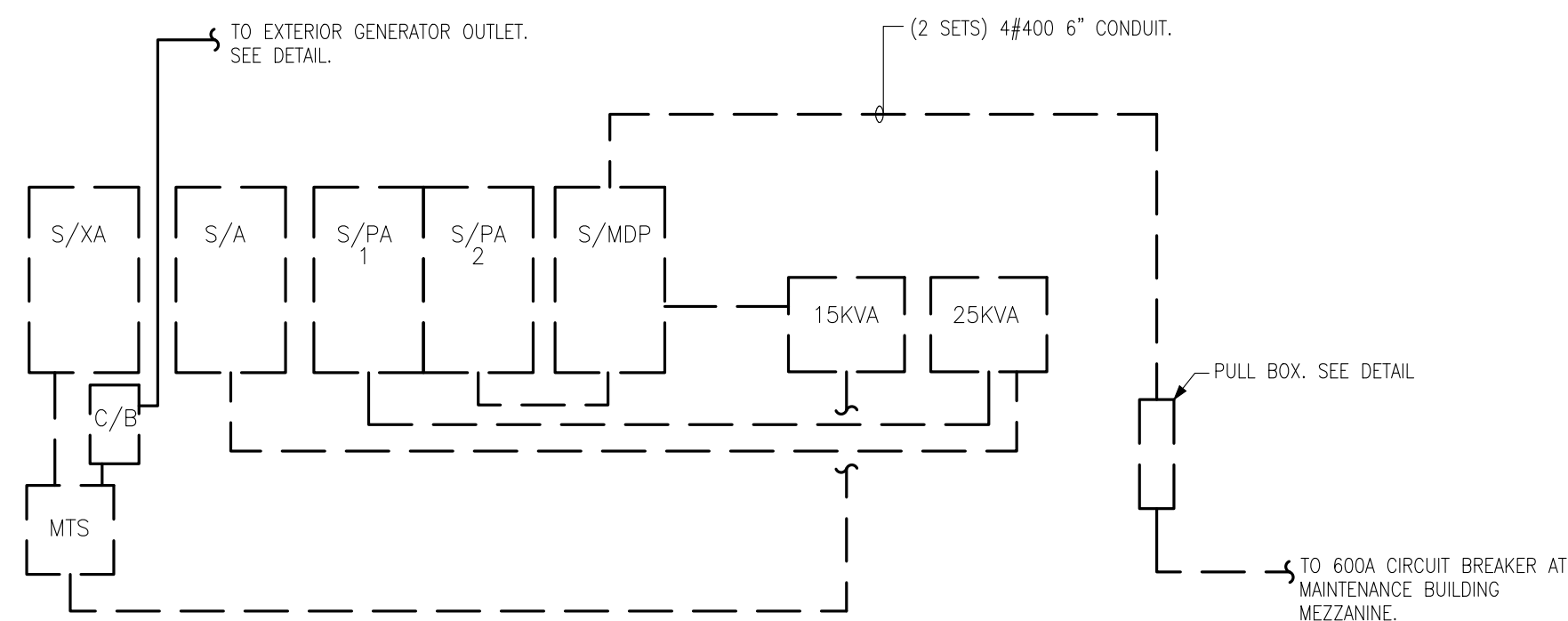
8 **E101** **EXISTING PULL BOC**
SCALE: NTS

1. SERVICE ENTRANCE CONDUCTORS ARE PULLED THROUGH THIS BOX. CONDUCTORS ENTER AT BOTTOM AND EXIT AT TOP.
2. TWO SETS OF 4#400KCMIL COPPER IN 6" CONDUIT. (NO GROUND).
3. PULL BOX DIMENSIONS APPROXIMATELY 12" X 8" DEEP X 36" HIGH.
4. PHOTO TAKEN FROM MEZZANINE LEVEL.

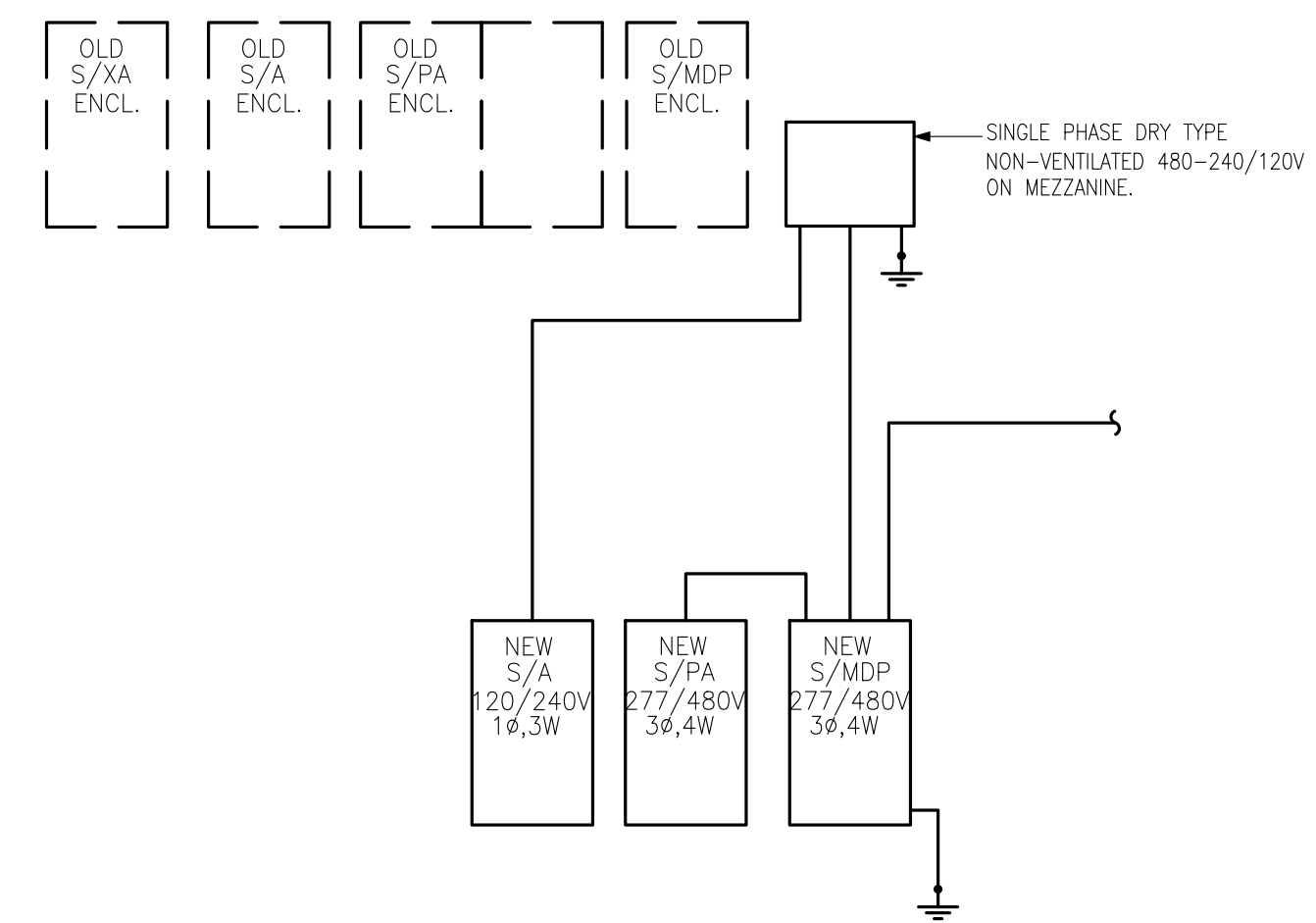


7 **E101** **ELECTRICAL SERVICE ENTRY AND GENERATOR**
SCALE: NTS

1. TWO 6" CONDUITS UNDERGROUND ROUTED UP TO PULL BOX. SEE EXISTING PULL BOX DETAIL.
2. REMOVE EXISTING GENERATOR OUTLET.



2 EXISTING ONE-LINE DIAGRAM
E201 SCALE:NTS



1 NEW ONE-LINE DIAGRAM
E201 SCALE:NTS

PANEL SCHEDULE														
NO.	CIRCUIT BREAKERS						1 POLE SPACES	MAINS BUSING	VOLTS	AIC	LOCATION	CABINET	REMARKS	SEE NOTE
	QTY.	POLE	AMP.	QTY.	POLE	AMP.								
EX S/XA	6	1	20											
	7	2	20				80A MCB	120/240 18.3W		MEZZ	SURFACE			
	1	2	80											
EX S/A	19	1	20											
	1	1(G)	20				125A MCB	120/240 18.3W		MEZZ	SURFACE			
EX S/PA1	2	1	30											
	8	1	20											
EX S/PA2	4	3	30				225A MLO	277/480 36.4W		MEZZ	SURFACE			
	9	1	15	1	1	40								
EX S/MDP	1	3	20				225A MLO	277/480 36.4W		MEZZ	SURFACE			
	1	3	70											
EX S/MDP	1	3	200	1	3	XXX								
	1	3	50	2	3	70	X	600A MCB	277/480 36.4W	30K	MEZZ	SURFACE		
	2	3	100	X	X	X								

PANEL SCHEDULE NOTES:

1. FAULT CURRENT INDICATED IS PROVIDED FOR BID PURPOSES ONLY. ALL EQUIPMENT INCLUDING CIRCUIT BREAKERS SHALL BE FULLY RATED, SERIES RATING NOT ACCEPTABLE. THE CONTRACTOR SHALL VERIFY WITH A WRITTEN STATEMENT FROM THE UTILITY THE MAXIMUM SHORT CIRCUIT CAPACITY. USING THE MAXIMUM FAULT, PREPARE A SHORT CIRCUIT ANALYSIS, COORDINATION STUDY AND ARC FLASH STUDY OF THE ELECTRICAL DISTRIBUTION SYSTEM. THIS STUDY WITH THE UTILITY LETTER SHALL BE SUBMITTED WITH THE ELECTRICAL DISTRIBUTION SHOP DRAWINGS.
2. PROVIDE TERMINATION LUGS COMPATIBLE WITH FEEDER SIZE.
3. (L) INDICATES LEFT PANEL, (R) INDICATES RIGHT PANEL OF DOUBLE TUB PANELS.
4. (G) INDICATES GFI CIRCUIT BREAKER, (S) INDICATES SHUNT TRIP CIRCUIT BREAKER.



PROJECT FOR:
MILWAUKEE TRANSPORT SERVICES, INC.
1942 N 17TH STREET
MILWAUKEE, WI 53205

DRAWING DESCRIPTION:
KINNICKINNIC AVENUE TANK HOUSE BUILDING FLOOR PLANS

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DRAWN BY:
DATE:
11/16/2020
SHEET NUMBER:

E201
TANK HOUSE BUILDING

PROGRESS PRINT
FOR COORDINATION ONLY
DATE: NOVEMBER 16, 2020

Section 26 00 01 - Electrical General Requirements

PROJECT DESCRIPTION: Electrical work associated with the Electrical Distribution Service Upgrade at Milwaukee County Transit System's KK Facility Tank House.

Some of the project highlights include:

- Remove and demolish existing panelboard interiors.
- Provide new main and branch circuit panelboards to serve the building.
- Backfeed all existing circuits, using the existing panelboard tubs as junction boxes.
- Investigate and verify all backfed circuits and properly identify or label all circuit breakers.

PART 1 - GENERAL

1.00 INDEX

DIVISION 26 ELECTRICAL

26 00 01	Electrical General Requirements
26 05 02	Electrical Demolition for Remodeling
26 05 19	Wire & Cable 600 Volt and Below
26 05 26	Grounding and Bonding
26 05 33	Raceways and Boxes
26 05 53	Electrical Identification
26 22 13	Dry Type Transformers
26 24 16	Panelboards
26 27 26	Wiring Devices

1.01 DESCRIPTION

- A. Work Includes:
1. Furnish all labor materials, tools, equipment, and services for all electrical work as indicated, in accord with provisions of Contract Documents.
 2. Completely coordinate with work of all other trades.
 3. Although such work is not specifically called out on drawing, the contractor shall furnish and install all miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.
 4. See Division 01 for General Requirements.
- B. Drawings Use and Interpretation:
1. Drawings are diagrammatic and indicate general arrangement of systems and equipment, except when specifically dimensioned or detailed.
 2. For exact locations of building elements, field measuring is required.
 3. Intention is to show size, capacity, approximate location, direction and general relationship of one work phase to another, but not exact detail or arrangement.
 4. Field verify locations and arrangement of all existing systems and equipment.
 5. Omissions no later than ten (10) days before bid opening, the Contractor shall call the attention of the Architect/Engineer to any materials or apparatus the Contractor believes to be inadequate and to any necessary items of work omitted.
 6. If any errors or omissions appear in Drawings, Specifications, or other documents, bidding Contractor shall notify Engineer no later than ten (10) days prior to submitting bid. Should conflict occur in or between drawings and specifications, bidding contractor is deemed to have estimated more expensive way of doing work, unless he shall have asked for and obtained written decision (addendum) before submission of bid as to which method or materials will be required.

- C. Installation of all systems and equipment is subject to clarification as indicated in reviewed shop drawings and field coordination drawings.
- D. Dimensions indicated are limiting dimensions.
- E. Do not use equipment exceeding dimensions indicated or equipment or arrangements that reduce required clearances or exceed specified maximum dimensions.
- F. Description of systems: Furnish and install all materials to provide functioning systems in compliance with performance requirements specified, and any modifications required by reviewed shop drawings and field coordinated drawings.
- G. Definitions:
 - 1. A/E: Architect and/or Engineer
 - 2. Provide: Furnish, install, wire and connect complete by Contractor.
 - 3. Contractor/EC: The person or group responsible for project construction under Divisions 26, 27 and 28.
 - 4. The word "ENERGIZE" means all material and labor necessary to apply voltage to a device or item of equipment to make same operational.
 - 5. The word "CODE" means all applicable codes.
 - 6. Corrosive areas are pool areas, pool equipment areas, chemical areas and/or as indicated on drawings.
 - 7. Unless noted otherwise, the terminology used throughout the Specifications shall be interpreted as defined in Article 100 of the NEC.

1.02 WEATHERPROOF EQUIPMENT

- A. Where weatherproof (WP) equipment is indicated, use NEMA 3R enclosures.
 - 1. All exterior devices and equipment shall be weather-proof.

1.03 QUALITY ASSURANCE

- A. Perform all work and install materials and equipment in full accordance with the latest applicable rules, regulations, requirements, and specifications of the following:

State and Federal Laws
 National Electrical Testing Association (NETA)
 National Electrical Code (NEC 2017 Edition)
 International Building code (IBC)
 Life Safety Code (NFPA-101)
 National Electrical Safety Code (NESC)
 American National Standards Institute (ANSI)
 National Electrical Manufacturers Association (NEMA)
 Institute of Electrical and Electronic Engineers (IEEE)
 Insulated Power Cable Engineers Association (ICEA)
 The Occupational Safety and Health Act (OSHA)
 American Society for Testing and Materials (ASTM)
 Underwriters' Laboratory (UL)
 Wisconsin Safety and Professional Services Code
 Department of Natural Resources NR-101
 Local laws, codes and ordinances
 ADA Accessibility Guidelines

- B. Conflicts, if any, that may exist between the above items, the more restrictive shall govern.

- C. The Electrical Contractor is charged with responsibility for full compliance with local interpretations of applicable Codes. After entering into contract, this Contractor will be held to complete all work as per the foregoing without extra compensation.

1.04 SUBMITTALS

- A. General:
1. The A/E's review of shop drawings or samples shall not relieve the EC of responsibility for any deviation from the contract documents. The EC shall include with the shop drawings an index sheet detailing all deviations from the contract documents, and will be held responsible for all deviations unless he has received written approval from the A/E for the specific deviation, separate from general shop drawing approval. The A/E's review shall not relieve the EC from responsibility for errors or omissions in the shop drawings or samples.
- B. Shop Drawings:
1. As indicated in Divisions 26.
 2. Provide scale layout of electrical rooms/spaces showing electrical equipment placement and clearances.
 3. The Contractor shall review the shop drawings and stamp with his approval prior to submitting shop drawings to A/E for review.
 4. Shop drawings shall be submitted electronically in an editable PDF format file. PDF file name shall contain specification number and product name. Provide one submittal (PDF file) for each specification section submitted. Each shop drawing submittal shall contain the following:
 - a. Cover Sheet
The submittals shall contain a cover sheet, which shall include the following information:
 - Submittal Date
 - Specification Section(s)
 - Manufacturer's Representative (Contact Name, address, and telephone number)
 - Electrical Contractor (Contact Name, address, and telephone number)
 - Project Name, Project City, Project State, and Project Address.
 - b. Equipment List
A complete equipment list of all components, including the following: Quantity, Manufacturer, Part Number, and Description. If the supplier uses different part numbers from those of the actual manufacturer, the actual manufacturer and part numbers as they appear - marked on the shipping box/packages, shall also be identified on this list.
 - c. Product Data:
Manufacturer's product data sheets, and equipment description of all system components.
These data sheets shall be highlighted or suitably marked, so that included items and options are indicated. On data sheets that include multiple products, products that are not used shall be crossed out.
 - Product Data Sheets shall be organized, in order, corresponding to the FIRST occurrence of the corresponding item on the equipment list.
- C. Samples:
1. As indicated in Divisions 26, 27 and 28.

- D. Project Information:
 - 1. As indicated in Divisions 26, 27 and 28.
- E. Approval Documents:
 - 1. Prepare and submit all drawings, calculations, and professional seals as required to Federal, State and local authorities having jurisdiction.

1.05 PROTECTION

- A. Provide covering and shielding for all equipment to protect from damage.
- B. Protect nameplates on motors and similar equipment, to prevent defacing.
- C. Repair, restore or replace damaged, corroded and rejected items.

1.06 JOB CONDITIONS

- A. Cause as little interference or interruption of existing utilities and services as possible.
 - 1. Schedule work which will cause interference or interruption in advance with Owner, Engineer, authorities having jurisdiction and all affected trades.
- B. Examine Contract Documents to determine how other work will affect execution of electrical work.
- C. Determine and verify locations of all existing utilities on or near site.
- D. Make arrangements for and pay for necessary permits, licenses, and inspections.
- E. Record drawings:
 - 1. Keep a complete set of all electrical drawings in job site office for showing actual installation of electrical systems and equipment.
 - 2. Use this set of drawings for no other purpose.
 - 3. Where any material, equipment, or system components are installed differently from that shown, indicate differences clearly and neatly using ink or indelible pencil.
 - 4. At project completion, submit record set of drawings (See Division 01).

1.07 QUALIFICATIONS

- A. Where specified in various Sections of this DIVISION, final wiring terminations to all equipment and testing of the completed system, shall be done by a factory authorized representative. The representative shall be part of a fully equipped service organization capable of furnishing adequate maintenance to the entire system, including factory replacement parts.

1.08 COORDINATION

- A. Obtain and review shop drawings, product data, and manufacturer's instructions for equipment furnished under other sections.
- B. Determine connection locations and requirements.
- C. Sequence rough-in of electrical connections to coordinate with installation schedule for equipment.

- D. Sequence electrical connections to coordinate with start-up schedule for equipment.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Acceptable Manufacturers:
 - 1. Individual items:
 - a. Base: As noted
 - b. Optional: As noted
 - 2. Other manufacturers desiring approval comply with Instruction to Bidders
- B. Use only prime quality, new materials, apparatus and equipment.
- C. Use U/L labeled electrical materials where listing has been established for materials or devices in question.
 - 1. Manufactured items and fabricated assemblies of electrically operating equipment: U/L approval or U/L reexamination listing.
- D. Structural steel for supports: ASTM A36.
 - 1. Galvanize members installed in areas of high humidity or condensation.
 - 2. Furnish other members with shop coat of rust inhibiting primer.
 - 3. Shop fabricate for field assembly using bolts.
 - 4. Minimize field welding.
 - 5. Retouch primer and galvanizing after field welding.
- E. Access doors, panels and frames:
 - 1. Style and type required for material in which installed.
 - 2. All materials, equipment and other electrical apparatus subject to replacement, inspection or maintenance shall be readily accessible. The Electrical Contractor shall provide metal access panels of required size and type to meet the requirements for access to equipment located in walls, above ceilings or furred in spaces. Exception: Wherever accessible acoustical tile ceilings are employed.
 - 3. Non-secure area access panels:
 - a. Size: Minimum 12 x 12 IN (300 x 300 mm), or larger as required.
 - b. Minimum 14 GA (1.9 mm) sheet metal, cadmium plated or galvanized after fabrication.
 - c. Key lock, keyed alike, for panels in public areas.
 - d. Prime painted.
 - e. U/L labeled in fire rated construction.
 - f. Base manufacturer: J L Industries.
 - g. Optional: Ventfab; American Warming; Potter-Roemer and Milcor Inc.
 - h. Other manufacturers desiring approval comply with Instructions to Bidders.

PART 3 - EXECUTION

3.01 GENERAL

- A. Use only thorough, highly skilled, and experienced workmen.
 - 1. Divisions 26 equipment shall be installed in a neat and workmanlike manner.
- B. When changes in location of any work are required, obtain approval from the Engineer

before making change.

1. Make changes at no extra cost.
- C. Do not change indicated sizes without written approval of Architect.
- D. Provide all necessary offsets and crossovers in conduits, raceways and ducts.
- E. Install exposed conduits parallel to walls and ceilings and vertically plumb, unless otherwise indicated.

3.02 CUTTING AND PATCHING

- A. Perform or pay for all cutting, fitting, repairing, patching and finishing of work of other sections where it is necessary to disturb such work to permit installation of electrical work.
1. Repair or replace existing or new work disturbed.
- B. Avoid cutting, where possible, by setting sleeves or frames, and by requesting openings in advance.
- C. Before cutting obtain approval of Owner's Representative. See Division 01.
1. Use only approved methods.
 2. Cut all holes neatly and as small as possible to admit work.
 3. Do not weaken walls or floors; locate holes in concrete to miss structural sections.
- D. Locate openings and sleeves to permit neat installation of conduits and equipment.
- E. Do not remove or damage fireproofing materials.
1. Install hangers, inserts, supports, and anchors prior to installation of fireproofing.
 2. Repair or replace fireproofing removed or damaged, at no extra cost, in accordance with special conditions.

3.03 INSTALLATION OF EQUIPMENT

- A. Install all equipment in accord with manufacturer's recommendations.
- B. Provide all necessary anchoring devices and supports.
1. Use structural supports suitable for equipment.
 2. Check loadings and dimensions of equipment with shop drawings.
 3. Do not cut, or weld to, building structural members.
- C. Verify that equipment will fit support layouts indicated.
1. Where substitute equipment is used, revise indicated supports to fit at no additional cost.
- D. Arrange for necessary openings to allow entry of equipment.
- E. Install equipment to permit easy access for normal maintenance.
1. Maintain easy access to switches, pull boxes, non-fused disconnects, receptacles, etc.
 2. Relocate items which interfere with access.
- F. Provide concrete foundations or pads for all floor mounted electrical equipment, as indicated or as follows:
1. Where drawings do not show special foundations, install 4 IN high concrete pads.

2. Use 3,000 PSI (14 Kg/s/mm) concrete.
 3. Reinforce with 6 x 6 IN W2.9 x W2.9, 10 GA (3.4 mm) mesh, with short dowels into floor at 12 IN OC around perimeter.
 4. Chamfer top edges 3/4 IN (18 mm).
 5. Make all faces smooth.
 6. Set anchor bolts for equipment. Consult with user.
- G. Where equipment components are installed prior to final installation (back boxes, panel tubs, etc.), these components shall be properly protected from construction debris (paint, dirt, plaster, etc.)
- H. In wet and damp locations, use steel channel supports to stand cabinets and panelboards one inch off wall.

3.04 REMODELING

- A. Where relocation of existing equipment and piping systems is necessary in areas providing uninterruptible services, schedule work for minimal down time during slack period.
- B. Do not cut into existing services without first verifying with Owner that service has been correctly identified.
- C. Fabricate and install interconnecting portions of these systems prior to shut down for final connections.
- D. Maintain all existing services and equipment unless indicated to be removed.
- E. Demolition:
1. Remove all equipment indicated.
 2. Relocate items indicated after thorough cleaning.
 3. Remove all existing wiring serving abandoned circuits.
 4. Remove all non-embedded conduit serving abandoned circuits.
- F. Existing material and equipment removed from existing construction and not shown or required to be reused shall become the property of the Owner, if they so elect. The Contractor shall present the equipment and materials removed to the Owner's designated Representative and he shall select the equipment and materials which he elects to retain. Material and equipment not retained shall become the property of the Contractor and shall be promptly removed from the site.
- G. Existing conduit and wire of proper sizes may be spliced and extended from appropriate points, but do not reuse after removal. If the integrity of the raceway and wire is suitable it may be reused, otherwise, new conduit and wire shall be installed.
- H. Removed devices and equipment shall not be reused.

3.05 FIELD QUALITY CONTROL

- A. Perform indicated tests to demonstrate workmanship, operation, and performance.
1. Conduct tests in presence of Owner and, if required inspectors or agencies having jurisdiction.
 2. Arrange date of tests in advance with Owner, manufacturer and installer.
 3. Give all inspectors minimum of 24 hours notice.
 4. Furnish or arrange for use of electrical energy, required for tests.
 5. Furnish all lubricating materials required for test.

- 6. Provide written report on all tests.
- B. Repair or replace equipment and systems found inoperative or defective and retest.
 - 1. If equipment or system fails retest, replace it with products conforming with Contract Documents.
 - 2. Continue remedial measures and retests until satisfactory results are obtained.
- C. Test equipment and systems as indicated for each item, unless otherwise recommended by manufacturer.

3.06 FINAL PERFORMANCE TEST

- A. At completion of installation, test for operation, panel load balance, short circuits, and ground.
 - 1. Provide written report on final performance test.

3.07 ADJUST AND CLEAN

- A. Inspect all equipment and put in good working order.
- B. Clean all exposed and concealed items.
- C. Where new work occurs in existing areas where no other work has been done, clean area and restore to original condition.

3.08 PUTTING SYSTEMS IN OPERATION - START UP

- A. Prior to energizing any equipment whether installed by this section or not:
 - 1. First make a thorough inspection of it to make sure it has been unpacked correctly and all packing materials and supports have been removed.
 - 2. Be responsible for assisting the equipment start up personnel to assure correct equipment connections and rotation.
- B. Prior to final acceptance, at time agreed to by Owner and Architect, put all systems in to satisfactory operation.
- C. Operate all systems in good working order for period of 5 working days.

3.09 DEVICE MOUNTING SCHEDULE

- A. Dimensions are to center of item unless otherwise indicated. Coordinate outlet locations with all architectural millwork and/or casework elevations.
- B. Mounting heights as indicated below:
 Receptacle (in mechanical equipment rooms) 48 IN
 Panelboard (to top) _____ 72 IN

END OF SECTION

Section 26 05 02 - Electrical Demolition for Remodeling

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Work Includes:
Furnish all labor, materials, tools, equipment, and services for wiring all equipment furnished by others as indicated, in accord with provisions of Contract Documents.

1.02 RELATED WORK AND REQUIREMENTS

- A. Applicable provisions of Division 01 shall apply to all of this section.

1.03 WORK INCLUDED

- A. Electrical Demolition

PART 2 - MATERIALS

2.01 MATERIALS AND EQUIPMENT

- A. Materials and equipment for patching and extending work:
As specified in individual sections.

PART 3 - EXECUTION

3.01 DEMOLITION, RENOVATION AND DISPOSITION OF EXISTING EQUIPMENT:

- A. The EC shall note that the existing building will remain in service during construction. All work shall be done in a manner and time acceptable to the Owner. Outages and other work rendering existing equipment inoperative shall be held to a minimum; prior arrangements for each shall be made with the Owner and shall be acceptable as to time and duration.
- B. The EC shall do the necessary demolition work in the affected areas including the removal of conduit, wiring and electrical equipment. In addition, preceding demolition work, he shall de-energize all circuits in the affected areas.
- C. Electrical equipment in conflict with construction shall be removed and/or relocated as indicated on the drawings, as directed or required. Remove all electrical equipment, accessible conduit, wire and low voltage exposed cabling back to source released from service as a result of construction, equipment removed shall not be reused, except as specifically directed on the drawings or elsewhere herein. Unless otherwise indicated, all electrical equipment removed shall become the property of the EC and shall be removed from the site by the EC. Equipment to be retained by Owner shall be stored on site at location designated by Owner.
- D. The EC shall be responsible for the work normally done by other trades as may be necessary to facilitate the installation of electrical work in the existing building. Such work, that is, normally done by other trades and is not covered as a part of other divisions of the work shall be done under the direction and at the expense of the EC.

- E. Any existing circuits or equipment not shown on the drawings and which are logically expected to be continued in service and which may be interrupted or disturbed during construction shall be reconnected in an approved manner. In addition, any existing circuit or equipment which may require relocation or rerouting as a result of construction shall be considered a part of the work of this branch and shall be done by the EC with no additional compensation.
- F. Electrical drawings are based on the best information available. For areas being remodeled, work shown reflects information shown on original construction drawings; it is not guaranteed 100% accurate. This contractor must field verify conditions and make necessary adjustments without extra costs to the project to suit actual needs.

END OF SECTION

Section 26 05 19 - Wire and Cable - 600 Volt and Below

PART 1 - GENERAL

1.01 DESCRIPTION

- A. General:
 - 1. Furnish all labor, materials, tools, equipment, and services for all wire and cable (600 V and below) as indicated, in accord with provisions of Contract Documents.
 - 2. Completely coordinate with work of all other trades.
 - 3. Although such work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.
 - 4. See Section 26 00 01 for General Electrical Requirements.

1.02 WORK INCLUDED

- A. Building wire and cable.
- B. Underground wire and cable.
- C. Wiring connectors and connections.

1.03 RELATED SECTIONS

Section 26 05 33 – Raceways and Boxes
Section 26 05 53 - Electrical Identification

1.04 REFERENCES

- A. ANSI/NFPA 70- National Electrical Code.

1.05 SHOP DRAWING SUBMITTALS

- A. Submit under provisions of General conditions and Section 26 00 01.
- B. Submit product data: Provide for each cable assembly type.
- C. Submit factory test reports: Indicate procedures and values obtained.
- D. Submit manufacturer's installation instructions: Indicate application conditions and limitations of use stipulated by product testing agency specified under Regulatory Requirements.

1.06 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum three years documented experience.

1.07 REGULATORY REQUIREMENTS

- A. Conform to requirements of ANSI/NFPA 70.
- B. Furnish products listed and classified by Underwriters Laboratories, Inc. as suitable for

purpose specified and shown.

1.08 PROJECT CONDITIONS

- A. Verify that field measurements are as shown on Drawings.
- B. Conductor sizes are based on copper.
- C. Wire and cable routing shown on Drawings is approximate unless dimensioned. Route wire and cable as required to meet Project Conditions.
- D. Where wire and cable routing is not shown, and destination only is indicated, determine exact routing and lengths required.

1.09 COORDINATION

- A. Coordinate Work under provisions of General conditions and Section 26 00 01.
- B. Determine required separation between cable and other work.
- C. Determine cable routing to avoid interference with other work.

PART 2 - PRODUCTS

2.01 GENERAL

- A. All wire shall be new, delivered to the site in unbroken cartons and shall be less than one year old out of manufacturer's stock.
- B. All conductors shall be copper.
- C. Insulation shall have a 600 volt rating.
- D. In mechanical rooms, light fixtures, and other high temperature applications, the insulation shall be rated 90°C. Other areas shall use insulation rated 75°C unless stated.
- E. All conductors must be suitable for the application intended. Conductors #14 and larger must be stranded. Conductors #16 and smaller may be solid or stranded with the following requirements or exceptions.
- F. All conductors terminated with crimp type devices must be stranded.
- G. Stranded conductors may only be terminated with UL or ETL Listed type terminations or methods: e.g. stranded conductors may not be wrapped around a terminal screw but must be terminated with a crimp type device if a terminal screw is used or must be terminated in an approved back wired method.

2.02 BUILDING WIRE

- A. Description: Single conductor insulated wire.
- B. Insulation: Type THW, THHN/THWN, XHHW insulation for feeders and branch circuits.
- C. Use conductors not smaller than #12 AWG for power and lighting circuits.

2.03 WIRING CONNECTORS

- A. Split Bolt Connectors: Not acceptable.
- B. Solderless Pressure Connectors: High copper alloy terminal. May be used only for cable termination to equipment pads. Not approved for splicing.
- C. Spring Wire Connectors: Solderless spring type pressure connector with insulating covers for copper wire splices and taps. Use for conductor sizes 10 AWG and smaller.
- D. Mechanical Connectors: Bolted type tin-plated; high conductivity copper alloy; spacer between conductors; belled cable entrances.
- E. Compression (crimp) Connectors: Long barrel; seamless, tin-plated electrolytic copper tubing; internally beveled barrel ends. Connector shall be clearly marked with the wire size and type and proper number and location of crimps.
- F. ILSCO type connectors are acceptable.

PART 3 - EXECUTION

3.01 GENERAL WIRING METHODS

- A. All wire and cable shall be installed in conduit.
- B. All conductors shall be sized to prevent excessive voltage drop at rated circuit ampacity. As a minimum use 10 AWG conductor for 20 ampere, 120 volt branch circuit home runs longer than 100 feet.
 - 1. 3% drop for branch circuits.
 - 2. 5% drop for motor circuits.
- C. Make conductor lengths for parallel conductors equal.
- D. Splice only in junction or outlet boxes.

3.02 WIRING INSTALLATION IN RACEWAYS

- A. Pull all conductors into a raceway at the same time. Use Listed wire pulling lubricant for pulling 4 AWG and larger wires and for other conditions when necessary.
- B. Install wire in raceway after interior of building has been physically protected from the weather and all mechanical work likely to injure conductors has been completed.
- C. Completely and thoroughly swab raceway system before installing conductors.
- D. Place all conductors of a given circuit (this includes phase wires, neutral (if any), and ground conductor) in the same raceway. If parallel phase and/or neutral wires are used, then place an equal number of phase and neutral conductors in same raceway or cable.

3.03 CABLE INSTALLATION

- A. Provide protection for exposed cables where subject to damage.
- B. Neatly train and lace wiring inside boxes, equipment, and panelboards.

- C. Use suitable cable fittings and connectors.

3.04 WIRING CONNECTIONS AND TERMINATIONS

- A. Splice only in accessible junction boxes.
- B. Wire splices and taps shall be made firm, and adequate to carry the full current rating of the respective wire without soldering and without perceptible temperature rise.
- C. Use solderless spring type pressure connectors with insulating cover for wire splices and taps, 10 AWG and smaller.
- D. Use mechanical or compression connectors for wire splices and taps, 8 AWG and larger. Tape uninsulated conductors and connectors with electrical tape to 150 percent of the insulation value of conductor.
- E. Thoroughly clean wires before installing lugs and connectors.
- F. At all splices and terminations, leave tails long enough to cut splice out and completely resplice.

3.05 FIELD QUALITY CONTROL

- A. Feeders and new branch circuits shall have their insulation tested after installation and before connection to utilization devices such as fixtures, motors, or appliances.
- B. Test shall be performed by meggar and conductors shall test free from short-circuits and grounds.
- C. Test conductors phase-to-phase and phase-to-ground.
- D. The contractor shall furnish the instruments, materials, and labor for these tests.

3.06 WIRE AND CABLE INSTALLATION SCHEDULE

- A. Interior Locations: Building wire in raceways.
- B. Exterior Locations: Building wire in raceways.
- C. High Temperature Areas (light fixtures and mechanical rooms): Building wire rated 90°C in raceways.

3.07 WIRE COLOR

- A. General:
 - 1. For wire sizes 10 AWG and smaller - Wire shall be colored as indicated below.
 - 2. For wire sizes 8 AWG and larger - Identify wire with colored tape at all terminals, splices and boxes. Colors to be as indicated below.
 - 3. In existing facilities, use existing color scheme.
- B. Neutral Conductors: White. Where there are two or more neutrals in one conduit, each shall be individually identified with the proper circuit. See requirements of NEC 200-6, 200-7, 210-4, and 310-12.
- C. Branch Circuit Conductors: Three or four wire home runs shall have each phase uniquely color coded.

- D. Feeder Circuit Conductors: Each phase shall be uniquely color coded.
- E. Ground Conductors: Green for 6 AWG and smaller. For 4 AWG and larger, identify with green tape at both ends and all visible points including in all junction boxes. See requirements of NEC 210-5 and 310-12.

3.08 BRANCH CIRCUITS

- A. In general, the use of multiwire branch circuits with a common neutral feeding loads producing a high level of harmonics is discouraged due to the problems with overheating of the common neutral.
- B. Therefore, if multiwire branch circuits used for loads producing harmonics (such as fluorescent lighting, and computer receptacles) then the neutral shall be sized two times phase conductor overcurrent protection.
- C. Multi-wire branch circuits shall be provided with a means that will simultaneously disconnect all underground conductors at a point where the branch circuit originates. Contractor shall provide multi-pole breakers or approved breaker ties as required.

END OF SECTION

Section 26 05 26 - Grounding and Bonding

PART 1 - GENERAL

1.01 DESCRIPTION

- A. General:
 - 1. Furnish all labor, materials, tools, equipment, and services for grounding as indicated in accord with provisions of Contract Documents.
 - 2. Completely coordinate with work of all other trades.
 - 3. Although such work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.
 - 4. See Section 26 00 01 for General Electrical Requirements.

1.02 WORK INCLUDED

- A. Grounding electrodes and conductors.
- B. Equipment grounding conductors.
- C. Bonding.

1.03 REFERENCES

- A. ANSI/NFPA 70 - National Electrical Code.
- B. IEEE/ANSI 142-1982 - Recommended Practice for Grounding of Industrial and Commercial Power System.

1.04 GROUNDING ELECTRODE SYSTEM

- A. Rod Electrode

1.05 PERFORMANCE REQUIREMENTS

- A. Grounding System Resistance: 2 ohms.

1.06 SUBMITTALS

- A. Submit under provisions of Section 26 00 01.
- B. Product Data: Provide data for grounding electrodes and connections.
- C. Test Reports: Indicate overall resistance to ground and resistance of each electrode.
- D. Manufacturer's Instructions: Include instructions for storage, handling, protection, examination, preparation and installation of exothermic connectors.

1.07 PROJECT RECORD DOCUMENTS

- A. Submit under provisions of General conditions.
- B. Accurately record actual locations of grounding electrodes.

1.08 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum three years documented experience.

1.09 REGULATORY REQUIREMENTS

- A. Conform to requirements of ANSI/NFPA 70.
- B. Furnish products listed and classified by Underwriters Laboratories, Inc. as suitable for purpose specified and shown.

PART 2 - PRODUCTS

2.01 ROD ELECTRODE

- A. Acceptable Manufacturers
 1. Burndy
 2. Blackburn
 3. Or Equal
 4. Substitutions: Under provisions of General Conditions and Section 26 00 01.
- B. Material: Copper clad steel.
- C. Diameter: 3/4 inch minimum.
- D. Length: 10 feet minimum rods. Rod shall be driven at least 9'-6" deep.
- E. Provide the number of rods required to obtain proper ground resistance. This applies to manholes, padmount switches, transformers, service entrances, etc.

2.02 MECHANICAL CONNECTORS

- A. Acceptable Manufacturers
 1. Burndy Co., Hy-Ground Series
 2. Or Equal
 3. Substitutions: Under provisions of General Conditions and Section 26 00 01.
- B. Type: Compression type applied with compression tool.
- C. Material: Bronze.

2.03 EXOTHERMIC CONNECTIONS

- A. Manufacturers:
 1. Cadweld
 2. Or Equal
 3. Substitutions: Under provisions of General Conditions Section 26 00 01.

2.04 WIRE

- A. Material: Stranded copper (aluminum not permitted).
- B. Grounding Electrode Conductor: Size as shown on drawings, specifications or as required by NFPA 70, whichever is larger.

- C. Foundation Electrodes: Bare copper #4 wire in the new footing. Center wire in footing and attach to steel reinforcement.
- D. Feeder and Branch Circuit Equipment Ground: Same size as phase conductors or as indicated on plan.

2.05 BUS

- A. Material: copper (aluminum not permitted).
- B. Size: 1/4" x 2" minimum.

2.06 INTERSYSTEM BONDING TERMINATION

- A. Provide an Intersystem Bonding Termination Bar exterior of main service enclosure with a minimum set of six spare termination points. See NEC "250.94 Bonding of Other Systems" for more information.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify that final backfill and compaction has been completed before driving rod electrodes.

3.02 GENERAL

- A. Install Products in accordance with manufacturer's instructions.
- B. Mechanical connections shall be accessible for inspection and checking. No insulation shall be installed over mechanical ground connections.
- C. Ground connection surfaces shall be cleaned and all connections shall be made so that it is impossible to move them.
- D. Attach grounds permanently before permanent building service is energized.
- E. Install rod electrodes at locations indicated or as required by Code, whichever requires the most rods. Install additional rod electrodes as required to achieve specified resistance to ground.

3.03 LESS THAN 600 VOLT SYSTEM GROUNDING

- A. Supplementary Grounding Electrode: Use driven ground rod in main service equipment area.
- B. Provide code sized copper grounding electrode conductor from secondary switchboard ground bus, each separately derived system neutral secondary service system neutral, to street side of water meter, building steel, ground rod, and any concrete encased electrodes. Provide bonding jumper around water meter. Bond conduit as described above.
- C. Receptacle Grounding: All receptacle circuits and permanently wired equipment, except light fixtures, shall have a separate grounding conductor. Receptacles shall be

connected to the ground conductor utilizing pigtails. At time of final inspection, any one device found improperly grounded shall mean a complete check by the Contractor of every device on the project at no additional cost to the Owner.

- D. Provide separate ground wire for motors and other equipment items from equipment items to nearest conduit system box. Provide green wire ground continuously from panel to all surface raceway systems and where indicated on plans.
- E. Provide grounding conductor in all non-metallic and flexible raceways. Terminate each end on a grounding lug, bus or bushing.
- F. Bond together system neutrals, service equipment enclosures, exposed non-current carrying metal parts of electrical equipment, metal raceway systems, grounding conductor in raceways and cables, receptacle ground connectors and plumbing systems.
- G. Equipment Grounding Conductor: Provide separate, insulated conductor within each feeder circuit raceway. Terminate each end on suitable lug, bus, or bushing. Where conductors are run in parallel in multiple raceways or cables, the equipment grounding conductors shall be run in parallel in each raceway or cable. Each parallel equipment grounding conductor shall be sized on the basis of the ampere rating of the overcurrent device protecting the circuit conductors in the raceway or cable.
- H. Equipment grounding shall comprise a permanent bonding together of all metallic, noncurrent – carrying parts of the Electrical System (raceways, boxes, panels, cabinets, equipment enclosures, housings, motor frames, lighting fixtures, etc.) to insure a continuous grounding circuit. Provide a grounding bushing on each conduit entering service entrance equipment, bonding same to equipment grounding stud/bar/bus.
- I. Equipment Grounding Conductor: Provide separate, insulated grounding conductor in all branch circuit and feeder raceways. Terminate each end on suitable lug, bus, or bushing.

3.04 FIELD QUALITY CONTROL

- A. Inspect grounding and bonding system conductors and connections for tightness and proper installation.
- B. Measure ground resistance from system neutral connection at service entrance to convenient ground reference point using suitable ground testing equipment. Resistance shall not exceed 2 ohms.

END OF SECTION

Section 26 05 33 – Raceways and Boxes

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Work Includes:
 - 1. Furnish all labor, materials, tools, equipment and services for all raceways as indicated, in accord with provisions of Contract Documents.
 - 2. Completely coordinate with work of all other trades.
 - 3. Although such work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.
 - 4. See Section 26 00 01 for General Electrical Requirements.

1.02 WORK INCLUDED

- A. Electrical Metallic Tubing (EMT) and Fittings
- B. Conduit Supports
- C. Conduit Bodies
- D. Outlet Boxes
- E. Pull and Junction Boxes
- F. Conduit Sizing, Arrangement and Support
- G. Conduit Installation
- H. Conduit Installation Schedule
- I. Connections and Fittings
- J. Supports, Sleeves and Seals
- K. Cutting and Patching
- L. Coordination of Box Locations
- M. Outlet Box Installation
- N. Pull and Junction Box Installation
- O. Pull and Junction Box Installation Requirements

1.03 RELATED WORK

Section 26 05 29 – Hangers and Supports for Electrical Systems

Section 26 27 26 – Wiring Devices

PART 2 - PRODUCTS

2.01 ELECTRICAL METALLIC TUBING (EMT)

- A. Standard lengths and size.
- B. Minimum conduit size shall be 1/2 inch.
- C. Connectors and Couplings: Threaded, insulated throat, gland compression type, rain and concrete tight. No set screw, push on or indenter type permitted.

2.02 CONDUIT BODIES

- A. Galvanized or cadmium plated with threaded hubs.
- B. PVC in corrosive areas.
- C. Removable cover, with gasket.
- D. Corrosion-resistant screws, 316 stainless steel.

2.03 EMPTY CONDUIT AND OUTLET BOXES

- A. Conduit: As specified in Section 26 00 01.
- B. Outlet Box – General: With extension ring, of proper size and depth, with cover plate to match wiring device cover.

2.04 OUTLET BOXES

- A. Acceptable Manufacturers:
 - 1. Galvanized boxes:
 - a. Base: Appleton Electric Co.; Steel City; and Raco.
 - 2. Corrosion resistant boxes and fittings:
 - a. Base: Crouse-Hinds; and Appleton Electric Co.
 - 3. PVC coated conduit fittings and boxes:
 - a. Base: Robroy Industries and Occidental Coating Co.
 - 4. PVC boxes F Series with ground lug.
 - a. Base: Heritage Plastic Group.
 - 5. Junction box and conduit supports:
 - a. Base: CADDY.
 - 6. Other manufacturers desiring approval comply with Instruction to Bidders.
- B. Exposed switch and receptacle boxes: Galvanized type.
- C. Weatherproof receptacle boxes: Die Cast Aluminum type
- D. Pull and junction boxes: Code-sized galvanized steel boxes provided with plain blank removable covers held in place with screws unless otherwise indicated.
 - 1. Where sizes are not indicated, use 4 IN square or NEC size.

2.05 PULL AND JUNCTION BOXES

- A. Install pull boxes and junction boxes above accessible ceilings and in unfinished areas only.

- B. Acceptable Manufacturers:
 - 1. For interior work, provide galvanized sheet metal boxes of code thickness with lapped and welded joints, 3/4" flanges and screw covers.
 - 2. For exterior work, provide galvanized sheet metal boxes of code thickness with lapped and welded joints, 3/4" flanges, bolted covers with full gaskets forming a completely raintight assembly, equal to Keystone 19000 series.
 - 3. For exterior work in graded areas outside the building, provide heavy duty sidewalk junction boxes externally flanged for flush mounting. Covers shall be fully gasketed, watertight with grounding strap and secured with plated screws or bolts equal to Quazite Type PC. Covers shall have logo naming the type of system, electric, high voltage lighting, etc. Shall comply with NEC 314.

- C. Large Pull Boxes: Boxes larger than 100 cubic inches in volume or 12 inches in any dimension.
 - 1. Interior Dry Locations: Use non-hinged enclosure.
 - 2. Other Locations: Use surface-mounted cast metal box.

PART 3 - EXECUTION

3.01 CONDUIT SIZING, ARRANGEMENT AND SUPPORTS

- A. Interior conduits for electrical wiring may be electrical metallic tubing (EMT) exceptions to the requirements stated above area as follows:
 - 1. Conduits for feeder conductors shall be EMT regardless of conduit size.
 - 2. Conduits in poured concrete construction shall be PVC regardless of size.
 - 3. Conduits installed in corrosive areas shall be PVC conduit.
 - 4. Conduits installed within 1-1/2" under metal-corrugated sheet roof decking shall be IMC or GRC.
 - 5. Above ground exterior conduit shall be GRC.

- B. Cut joints shall be square, reamed smooth, and drawn up tight.

- C. Keep conduit plugged, clean, and dry during construction.

- D. Install No. 12 pull wire in empty conduit.

- E. Cap spare conduits.

- F. Provide riser clamps around all conduits 1-1/4" or larger that are routed between floors.

- G. Provide a watertight conduit system where installed in wet locations such as underground, or where embedded in concrete.

3.02 CONDUIT INSTALLATION

- A. Install all conduits concealed within finished areas of building.

- B. Exposed overhead conduits may be used in Switchgear Room, Mechanical Equipment Rooms, Electric Closets, and unfinished Storage and Equipment Rooms.

- C. Run exposed conduit in straight lines at right angles to or parallel with walls, beams or columns.

- D. Keep conduit away from waterlines or heating duct lines. Where crossings are unavoidable, leave minimum 6 IN clearances.

- E. Where corrosion protection is necessary and conduit is threaded in field, the threads shall be coated with an approved electrically conductive corrosion-resistant compound.
- F. Installation of the PVC Coated Metal Conduit System shall be performed in accordance with the Manufacturer's Installation Manual. To assure correct installation, the installer shall be certified by Manufacturer to install coated conduit.
- G. Conduits in corrosive areas such as pool equipment shall be PVC.
- H. Maintain 12 inch clearance between conduit and surfaces with temperatures exceeding 104 degrees F.

3.03 CONDUIT INSTALLATION SCHEDULE

- A. Support all conduit systems from building structure or structure with approved hangers or supports.
 - 1. Do not support from piping, ducts or support systems for piping or ducts.
 - 2. Do not install to prevent ready removal of piping, ducts or ceiling tiles.
 - 3. Do not support from ceiling or ceiling support systems.
- B. Do not install more than the equivalent of three 90° bends (270 degrees total) in any conduit run.
 - 1. Where more bends are necessary, install junction box or pullbox.
 - 2. Make all bends in 1/2 IN and 3/4 IN conduit (1 IN EMT) with a conduit bender.
 - 3. Use machine bends for larger sizes.
- C. Make joints in threaded conduit watertight with white nonlead compound applied to male threads only.
 - 1. Cut square, ream smooth, and properly thread field joints to receive couplings.
 - 2. Do not use running threads.
- D. Fit all conduit ends at switch and outlet boxes with approved tight bond with box when screwed tightly in place.
- E. Remove moisture and debris from conduit before wire is drawn into place. Tightly plug ends of conduit with tapered wood plugs inserts until wire is pulled.
- F. Neatly seal openings around conduits, etc., where they pass through fire rated construction or exterior walls or roof.

3.04 CONNECTIONS AND FITTINGS

- A. Install electrical fittings in accordance with the manufacturer's written instructions and with recognized industry practices to ensure that fittings serve intended purposes.
- B. Rigidly secure connectors at cabinets and boxes with galvanized lock nut and bushing.
- C. Seal conduits that run through different temperature or atmospheric conditions to prevent condensations or moisture from entering electrical equipment and devices.
- D. Install wall entrance seal where conduits or direct burial conductors pass through foundation walls below grade.

- E. Install conduit expansion fittings complete with bonding jumper in following locations:
 - 1. Conduit runs which cross a structural expansion joint.
 - 2. Conduit runs where movement perpendicular to axis of conduit may be encountered.
- F. Locate conduit bodies so as to assure accessibility of electrical wiring.

3.05 SUPPORTS, SLEEVES AND SEALS

- A. Conduit Hangers - General: Threaded rods, with straps or clamp conduit holder. For corrosive areas use stainless steel 316 threaded rods, nuts and anchors.
 - 1. Do not use perforated strap hangers or wire.
 - 2. Use trapeze assemblies for multiple conduits.
 - a. Trapeze assembly to consist of threaded rod hangers, Unistrut P1000 strut and Caddy SCH conduit clips.
 - 3. Provide sufficient hangers for support of electrical work and equipment to limit load on single hanger to 25 LB, max.; space not over 8 FT on center.
 - 4. Hangers in metal roof deck: Do not extend above tops of ribs, or otherwise interfere with vapor barrier, insulation or roofing.
 - 5. For PVC conduit provide non-metallic straps, chemical and corrosion resistant, UV inhibited, spaced per N.E.C. section 352.30. 316 stainless steel bolts and anchors shall be used.
- B. Hangers for joint between precast units: Fehr Bros., T-Hanger; Heckman Building Prod., No. 480; and Dayton Sure-Grip, F-68.
 - 1. Space minimum 4 IN from walls and minimum 2 IN apart.
- C. Hanger fasteners: Provide inserts or fasteners to attach hangers to structure.
 - 1. Do not use drilled or explosive driven inserts in precast-prestressed concrete construction.
 - 2. Drilled or explosive driven inserts may not extend more than 1 IN into post-tensioned concrete construction.
 - 3. Attachment to metal roof deck may be by means of prepunched tabs, prepunched holes, or with screws in sides of ribs or toggle bolts in bottom of ribs.
 - 4. Do not use concrete nails in masonry walls.

3.06 CUTTING AND PATCHING

- A. Provisions for openings, holes, and clearances through walls, floors, ceiling, and partitions shall be made in advance of construction.
- B. Provide cutting, patching and painting necessary for the installation of electrical systems.
- C. Install 22 ga. galvanized iron steel pipe sleeves, 1 IN larger in diameter than the conduit to be routed through concrete or masonry construction. Sleeves shall extend 2" above and below the floor slab penetrated.
- D. The Electrical Contractor shall prepare drawings indicating size and location of all anticipated floor sleeves for the installation of electrical conduits. Such drawings shall be made available to the General contractor 10 days prior to any scheduled concrete work.

3.07 COORDINATION OF BOX LOCATIONS

- A. Provide electrical boxes as shown on Drawings, and as required for splices, taps, wire pulling, equipment connections, and code compliance.

- B. Electrical box locations shown on Contract Drawings are approximate unless dimensioned. Verify location of floor boxes and outlets in offices and work areas prior to rough-in.

3.08 OUTLET BOX INSTALLATION

- A. Surface wall outlets shall be 4 inch square with raised covers for one and two gang requirements. For three gang or larger requirements, use gang boxes with non-overlapping covers.

3.09 PULL AND JUNCTION BOX INSTALLATION

- A. Locate pull boxes and junction boxes above accessible ceilings or in unfinished areas.
- B. Support pull and junction boxes independent of conduit.

3.10 PULL AND JUNCTION BOX INSTALLATION REQUIREMENTS

- A. Provide junction boxes as shown on drawings and otherwise where required, sized according to number of conductors in box or type of service to be provided. Minimum junction box size 4" square and 2-1/8" deep. Provide screw covers for junction boxes.
- B. Use minimum 16 gauge steel for pull boxes and provide with screw cover.
- C. Install boxes in conduit runs wherever necessary to avoid excessive runs or bends. Do not exceed 100' runs without pull boxes.
- D. Rigidly secure boxes to walls or ceilings. Conduit runs will not be considered as adequate support.
- E. Install boxes with covers in accessible locations. Size boxes in accordance with Article 314 of the latest edition of the National Electric Code.
- F. Do not install pull or junction boxes for joint use of line voltage and signal or low voltage controls unless all conductors are insulated for the highest voltage being used in the same box.
- G. Install all components as indicated.
- H. Tag ends of conduit with system identification letters.
- I. Test conduit for clear passage.
- J. Neatly mark inside of outlet boxes with system identification letters using black felt-ink marker.

END OF SECTION

Section 26 05 53 - Electrical Identification

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Work Includes:
 - 1. Furnish all labor, materials, tools, equipment, and services for wiring all equipment furnished by others as indicated, in accord with provisions of Contract Documents.
 - 2. Completely coordinate with work of all other trades.
 - 3. Although such work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.
 - 4. See Section 26 00 01 for General Electrical Requirements.

1.02 SECTION INCLUDES

- A. Nameplates
- B. Stenciling
- C. Wire and Cable Markers

1.03 SUBMITTALS

- A. Submit shop drawings under provisions of Section 26 00 01.
- B. Include schedule for nameplates and stenciling.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Nameplates: Engraved three-layer laminated plastic, black letters on a white background. Emergency system shall use red letters on white background.
- B. Stenciling: Black paint. Emergency system stenciling shall use red paint.
- C. Wire and Cable Markers: Cloth markers, split sleeve or tubing type.
- D. Tape (phase identification only): Scotch #35 tape in appropriate colors for system voltage and phase.
- E. Adhesive type labels not permitted except for phase and wire identification.

PART 3 - EXECUTION

3.01 GENERAL

- A. All branch circuit and power panels must be identified with the same symbol used in circuit directory in main distribution center.

- B. Wording of nameplates and embossed labels shall define the components actual use. Nomenclature used on the Drawings and in Specifications is for construction purposes only. Actual nomenclature shall be verified with the Owner. Identify voltage where other than 120 volts.

3.02 INSTALLATION

- A. Clean surfaces to receive nameplates or stenciling.
- B. Install nameplates parallel to equipment lines.
- C. Secure nameplates to equipment fronts using screws, or rivets. Secure nameplate to inside of recessed panelboards in finished locations.
- D. Embossed tape will not be permitted for any application.
- E. Stenciling may only be used on equipment fronts in unfinished areas or in areas designated by the Architect/Engineer.
- F. Secure nameplate to inside surface of door on panelboard that is recessed in finished locations.
- G. Identify underground conduits using underground warning tape. Install one tape per trench at 6 inches below finished grade.

3.03 WIRE IDENTIFICATION

- A. Provide wire markers on each conductor in panelboard gutters, pull boxes, outlet and junction boxes, and at load connection. Identify with branch circuit or feeder number for power and lighting circuits, and with control wire number as indicated on schematic and interconnection diagrams for control wiring.
- B. Verify label identification numbering systems with the Owner's representative.

3.04 FEEDER IDENTIFICATION

- A. Each feeder within each pulling pit, manhole and pull box will be identified utilizing permanently attached nameplates.
- B. Nameplates shall be engraved three-layer laminated plastic, black on white background for normal power, red on white background for emergency power. Firmly attach to cable with non-aging nylon tie-wraps.
- C. Nameplate shall identify voltage, system (i.e. normal, em-equip or em-life) and destination of feeder (i.e. buildings A, B, C and D, etc.).
- D. Temporary tags are to be utilized during construction and permanent tags to be installed near substantial completion of distribution system.

3.05 NAMEPLATE ENGRAVING AND STENCILING

- A. Provide nameplates or stencils of minimum letter height as scheduled below.
- B. Panelboards and Switchboards: 1 inch; identify equipment designation. 1/2 inch; identify voltage rating and source, and available short circuit current, per the short circuit study.

- C. Individual Circuit Breakers, Switches, and Motor Starters in Panelboards, Switchboards, and Motor Control Centers: 1/4 inch; identify circuit and load served, including location.
- D. Individual Circuit Breakers, Enclosed Switches, and Motor Starters: 1/4 inch; identify load served.
- E. Junction boxes: 1/2 inch; identify system source(s) and load(s) served.

3.06 PANELBOARD DIRECTORIES

- A. Directories for panels must be covered with clear plastic, have a metal frame and shall be typewritten. Room number on directories shall be Owner's numbers, not Plan numbers unless Owner so specifies. Directory shall include panel name, available short circuit current per the short circuit study, circuit description including: breaker amp/pole size, description of devices served, and area served.

3.07 WIRING DEVICE IDENTIFICATION

- A. Receptacles, device plates and box covers, junction boxes, shall be identified with circuit numbers and source. Identifications should be made inside of device covers, unless directed otherwise. Use machine-generated labels, or neatly hand-written permanent marker.

END OF SECTION

Section 26 22 13 - Dry Type Transformers

PART 1 - GENERAL

1.01 DESCRIPTION

- A. General:
 - 1. Furnish all labor, materials, tools, equipment, and services for all dry type transformers as indicated in accord with provisions of Contract Documents.
 - 2. Completely coordinate with work of all other trades.
 - 3. Although such work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.
 - 4. See Section 26 00 01 for General Electrical Requirements.
 - 5. See Division 1 for General Requirements.

1.02 RELATED WORK

- A. Section 26 05 26 - Grounding and Bonding

1.03 SUBMITTALS

- A. Shop Drawings:
 - 1. Manufacturer's data.
- B. Project Data:
 - 1. Operating and maintenance data: See Section 01 70 00.

1.04 STANDARDS

- A. Table 4-2 of NEMA Standard TP-1-2002.
- B. Efficiency levels per DOE 10 CFR 431.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Acceptable manufacturers:
 - 1. Dry-type transformers:
 - a. Base: Eaton, Schneider, Siemens.
 - 2. Other manufacturers desiring approval comply with Instruction To Bidders.
- B. Dry-type transformers: Air cooled, 3-coil, two winding type.
 - 1. Voltage rating: 480-208/120V wye, 60 cycle or as indicated.
 - 2. KVA rating as indicated.
 - 3. Single phase: 480-240/120 volts, two winding.
 - 4. Transformers 25 KVA through 112.5 KVA shall be designed so they can be either floor or wall mounted. Above 112.5 KVA, they shall be floor mounted design.
 - 5. Sound levels shall be guaranteed by the manufacturer not to exceed the following:
 - a. 25 to 50 KVA - 50dB
 - b. 51 to 150 KVA - 55dB
 - c. 151 to 300 KVA - 58dB

- d. 301 to 500 KVA - 60dB
- C. External wiring connections: Use flexible steel conduit. See Section 26 05 33.
- D. Ground core and coil assembly to enclosure by means of a visible flexible copper grounding strap size to meet NEMA and UL standards.
- E. Provide ground bar kit and neutral to ground bond jumper terminated at ground bar. Provide mechanical lugs mounted on the ground bar for input ground bond, output bond and external ground.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. The transformer shall be listed by Underwriters' Laboratory for the specified temperature rise.
- B. Contractor shall take precautions such that the transformer vibration does not transmit into any building surfaces. Transformer shall not be mounted tight against a wall, and all floor mounted transformers shall sit on rubber isolated pads. The transformer shall not be direct connected with rigid conduit. All transformers shall be connected using flexible steel conduit. Refer to supporting devices for transformer mounting.
- C. Contractor shall assume that all transformers are to be wall mounted using wall mounting brackets unless stated otherwise on the floor plans. The Contractor is to coordinate wall mounting with other mechanical equipment in the space.
- D. The Contractor is responsible for all mounting and hardware.
- E. The Contractor shall verify whether or not the transformer can be suspended using wall mounting brackets or should be mounted against wall using support from structural steel system. He shall assume that he is to support it from the ceiling structural steel system, unless he can verify that the wall is of appropriate strength to support direct wall mounting brackets.
- F. Coordinate with Mechanical Contractor to ensure proper ventilation (cooling) is supplied for the transformer. Any cost associated with this requirement, if not already borne by the Mechanical Contractor, shall be borne by this Contractor.
- G. The primary side of the transformer shall either have a disconnecting means within sight of the transformer, or if in a remote location, the disconnecting means shall be lockable and the location shall be field marked on the transformer.
- H. Provide an appropriately sized grounding conductor to the main building ground point. Note, in lieu of the main building grounding point, building steel, a suitable water pipe and any other suitable grounding source is acceptable if approved by local code authority.

3.02 TRANSFORMER MOUNTING BRACKETS

- A. Provide mounting brackets fabricated of welded galvanized steel channel section. Design bracket to support size transformer as indicated on Drawings. Paint brackets grey. Provide isolation pads between transformer and mounting bracket.

- B. Contractor shall take precautions such that the transformer vibration is not transmitted to building surfaces. The transformer shall not be mounted tight against the wall and all floor mounted transformers shall sit on rubber isolated pads.
- C. The Contractor shall verify whether or not the transformer can be suspended using wall mounting brackets or should be mounted against wall using support from structural steel system. He shall assume that he is to support it from the ceiling structural steel system, unless he can verify that the wall is of appropriate strength to support direct wall mounting brackets.

END OF SECTION

Section 26 24 16 - Panelboards

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Work Includes:
 - 1. Furnish all labor, materials, tools, equipment, and services for all panelboards as indicated, in accord with provisions of Contract Documents.
 - 2. Completely coordinate with work of all other trades.
 - 3. Although such work is not specifically shown or specified, all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation shall be furnished and installed as part of this work.
 - 4. See Section 26 00 01 for General Electrical Requirements.

1.02 SCOPE

- A. Provide panelboards as indicated in the panel schedule, as noted on the drawings and as specified herein.

1.03 RELATED WORK

- A. Section 26 05 53 - Electrical Identification
- B. Section 26 28 16 - Safety Switches, Circuit Breakers and Fuses
- C. Plans - Panel Schedule

1.04 SUBMITTALS

- A. Shop Drawings:
 - 1. Cabinet dimensions, nameplate nomenclature, electrical ratings, and breaker type listing.
 - 2. Product data sheets with installation instructions.
 - 3. Field quality control test results.
 - 4. Operating and maintenance data.

1.05 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Do not store panelboards exposed to weather.
- B. Protect panelboards against damage from work of other trades.

PART 2 - PRODUCTS

2.01 GENERAL

- A. Use of a manufacturer's name and model or catalog number is for the purpose of establishing standard of quality and general configuration desired.

2.02 ACCEPTABLE MANUFACTURERS

- A. Schneider/Square D

- B. Eaton
- C. Siemens
- D. Engineer approved equal.

2.03 PANELBOARD RATINGS

- A. UL listed short circuit rating (integral equipment rating):
 - 1. 240Y/120V Branch Circuit Panels: 10,000 RMS symmetrical amperes minimum or as indicated on drawings equivalent to Square D Type NQOD.
 - 2. Power Panels: 22,000 RMS symmetrical amperes minimum or as indicated on drawings equivalent to Square "D" NF/I-Line.
 - 3. Panels used for the main service shall be suitable for service entrance.

2.04 PANELBOARD CONSTRUCTION

- A. Main breaker or main lugs only, per panelboard schedule.
- B. Insulated Neutral Bus with Terminals: Provide bus with minimum number of terminals equal to 50% of number of poles in panel.
- C. Equipment Grounding Bus with Terminals: Bus shall be bonded to enclosure. Provide bus with minimum number of terminals equal to 50% of number of poles in panel.
- D. Insulated/Isolated Grounding Bus with Terminals: Provide bus with minimum number of terminals equal to 50% of number of poles in panel.
- E. Branch Breaker Details:
 - 1. Conform to Section 26 28 16.
 - 2. Emergency branch breakers shall be properly coordinated.
- F. Bussing:
 - 1. Distributed phase sequence type.
 - 2. Ratings per panelboard schedule, 100 amp minimum.
 - 3. Plated copper construction.
 - 4. Bolt on circuit breaker construction.
- G. Gutters adequate for wire size used, 4 in. minimum.
- H. Boxes:
 - 1. NEMA 1 enclosure where indicated on drawings. Exterior shall be NEMA 3R.
 - 2. Minimum 20" wide.
 - 3. Minimum 5-3/4" deep.
 - 4. Height as required to accommodate breakers and spaces indicated on plans and code required gutter space.
- I. Fronts:
 - 1. Dead front safety type.
 - 2. Concealed adjustable trim clamps.
 - 3. Concealed hinges.
 - 4. Flush stainless steel cylinder tumbler type locks with spring loaded door pulls.
 - 5. Locks keyed alike.
 - 6. Code gauge steel with rust inhibiting primer and baked enamel finish.
 - 7. Panel front shall be hinged door-in-door type, hinged overall door with hinged

door within cover to access circuit breakers.

- J. Circuit Directory: Conform to Section 26 05 53.
 - 1. Suitable for complete descriptions.
 - 2. Clear plastic cover.
 - 3. Typewritten card.
 - 4. Provide steel frame holder on inside cover of door to hold directory. Directory shall be covered with a sheet of clear plastic.

2.05 NAMEPLATES: Conform to Section 26 05 53.

PART 3 - EXECUTION

3.01 INSPECTION

- A. Examine area to receive panelboard to assure adequate clearance for panelboard installation.
- B. Start work only after unsatisfactory conditions are corrected.

3.02 INSTALLATION

- A. Install in accordance with manufacturer's written instructions, applicable requirements of NEC and NECA's "Standard of Installation," and in accordance with recognized industry practices.
- B. Flush mount, surface mount, as specified on drawings and schedules.
- C. Support panel cabinets independently to structure with no weight bearing on conduits.
- D. Install recessed panelboards to allow cover to be drawn tight against wall to provide neat appearance.
- E. Install panelboards so top breaker is not higher than 6 ft.-7 in. above floor.
- F. Adjacent panel cabinets shall be of same size and mounted in horizontal alignment.
- G. Install in each panelboard a typewritten directory accurately indicating rooms and/or equipment being served, current available short circuit, breaker amp/pole rating.
- H. Attach nameplates. Nameplates for panels in public areas shall be attached to the inside face of the cover. Nameplates for panels in equipment rooms and other non-public areas shall be attached to the outside face of the cover.

3.03 FIELD QUALITY CONTROL

- A. Balance load among feeder conductors.
- B. Unbalance shall not exceed $\pm 7\frac{1}{2}\%$ of computed average load per phase.
- C. Energize each circuit and check for complete and correct function.

3.04 ADJUSTMENT AND CLEANING

- A. Adjust doors and operating mechanisms for free mechanical movement.
- B. Tighten lugs and bus connections.
- C. Clean interior of panelboard.
- D. EC shall install temporary panel covers as necessary during construction to reduce the construction debris within panels.

END OF SECTION

Section 26 27 26 - Wiring Devices

PART 1 - GENERAL

1.01 DESCRIPTION

- A. General:
 - 1. Furnish all labor, materials, tools, equipment, and services for all wiring devices as indicated, in accord with provisions of Contract Documents.
 - 2. Completely coordinate with work of all other trades.
 - 3. Although such work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances and devices and incidental to or necessary for a sound, secure and complete installation.
 - 4. See Section 26 00 01 for General Electrical Requirements.

1.02 SUBMITTALS

- A. Submittals for products in this Section are not required.

PART 2 - PRODUCTS

2.01 MATERIALS - GENERAL

- A. Acceptable Manufacturers:
 - 1. GFI Receptacles:
 - a. Base: Hubbell; Leviton; Pass & Seymour (P&S); and Arrow Hart.
 - 2. Other manufacturers desiring approval comply with Instructions to Bidders.
- B. Device and Cover Plate Colors:
 - 1. Cover plates shall be 304 stainless steel.

2.02 DUPLEX AND SINGLE RECEPTACLES

- A. Specification Grade (Heavy Duty):
 - 1. 20 amp, duplex: NEMA 5-20R; Hubbell HBL 5362; Leviton 5362; P&S 5362A.
- B. Special Requirements:
 - 1. Ground Fault Circuit Interrupter: 20 amp, with built-in ground fault interruption, 5 mA sensitivity, LED indicator light (on when operable) and reset, UL 2003 compliant. GFI receptacle shall have lock-out feature when GFI protection device fails. Duplex, Leviton 8898.
 - 2. GFI, weather-resistant, tamper-resistant, duplex Hubbell GFTR20 Series.
- C. Weatherproof Receptacles: GFCI receptacle with die cast weatherproof receptacle cover:
 - 1. Unless noted otherwise, cover shall be weatherproof- while-in-use type, metallic with pad lock holes, Hubbell WP Series. Ground wires shall not be readily accessible.
 - 2. Receptacles installed outside shall be GFCI weather-resistant type.
 - 3. Where designated on plans as maintenance outlets, cover shall be Hubbell CWP26H.

2.03 DEVICE PLATES

- A. 304 lined stainless steel cover plates
- B. Device Plates for Surface Type Cast-metal Boxes:
Cadmium-plated cast ferrous metal designed for application.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Install convenience receptacles with grounding pole on top.
- B. Install galvanized steel plates on outlet boxes and junction boxes in unfinished areas, above accessible ceilings, and on surface-mounted outlets.
- C. Receptacles shall have a bonding conductor from grounding terminal to the metal conduit system. Self-grounding receptacles using mounting screws as bonding means are not approved.

3.02 FIELD QUALITY CONTROL

- A. Inspect each wiring device for defects.
- B. Verify that each receptacle device is energized.
- C. Test each receptacle device for proper polarity.
- D. Test each GFCI receptacle device for proper operation.

3.03 ADJUSTING

- A. Adjust devices and wall plates to be flush and level.
- B. Mark all conductors with the panel and circuit number serving the device, at the device.
- C. Mark the panel and circuit number serving the device on the backside of the device plate with a permanent marking system that does not show through the front of the plate.

END OF SECTION

**Section 26 43 00 - Surge Protection Device
TYPE 2 (Main Service MSB or MDP)**

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Work Includes:
 - 1. Furnish all labor, materials, tools, equipment, and services for wiring all equipment furnished by others as indicated in accord with provisions of Contract Documents.
 - 2. Completely coordinate with work of all other trades.
 - 3. Although such work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.
 - 4. See Section 26 00 01 for General Electrical Requirements.
 - 5. See Division 1 for General Requirements.
 - 6. Provide three phase surge protection device (SPD) for transient voltage surges.

1.02 RELATED WORK

- A. Section 26 01 60 - Electrical System Short-Circuit, Coordination and Arc Flash Studies
- B. Section 26 24 13 - Main Switchboard
- C. Section 26 24 16 - Panelboards
- D. Section 26 05 26 – Grounding and Bonding

1.03 SUBMITTALS (See General Conditions)

- A. Shop Drawings: Required.
- B. Product Data: Required.
- C. Project Information: Not required.
- D. Electrical System Short-Circuit, Coordination and Arc Flash Studies (See Section 26 01 60) Required.

1.04 QUALITY ASSURANCE

- A. Underwriters Laboratories (UL 1449) Fourth Edition, current standard for Surge Protection Device. Underwriters Laboratories (UL 1283 current edition) listed as an electro-magnetic interference filter.
- B. National Electrical Code (NEC Article 285) National Electrical Manufacturers Association Military Standards (MIL-STD 220C) Canadian Standards Association (CSA) & National Fire Protection Association (NFPA-78).
- C. The SPD system shall comply and be installed to N.E.C. Article 285 "Surge Protection Devices".
- D. SPD shall be braced for minimum 100,000 SCCR RMS unless otherwise noted.

PART 2 - PRODUCTS

2.01 SPD – SURGE PROTECTIVE DEVICES

- A. Surge suppressor shall have a UL1449 (Fourth Edition) Listed suppression rating for each mode of protection, as follows: 208/120 volt, 3 phase "WYE" - 400 volts.
- B. Suppression device shall provide protection in seven modes. Four modes for "wye" systems L-N and N-G. [See NEMA 2.2.7 & IEEE Std. 1100-current edition]
- C. Minimum Surge Current Capacity shall be based on ANSI/IEEE C62.41-2002 standard 8 x 20 microsecond current waveform, the minimum surge current capacity, in amps, of the unit shall be no less than as follows:
 - 150,000 amps, L-N
 - 150,000 amps, N-G
- D. The unit shall include a high-frequency extended range tracking filter for noise filtering between 100 KHz and 100 MHz. The filter shall provide a minimum insertion loss ratio of 34 dB over the entire range. [NEMA 2.2.11]
NOTE: Standardized insertion loss data obtained utilizing MIL-STD-220A 50 ohm insertion loss methodology. SPD shall also be co-listed to UL1283.
- E. Minimum continuous operating voltage of any component shall not be less than 115% of nominal operating voltage.
- F. The unit shall include externally mounted LED visual status indicators that show the on-line status of each phase.
- G. The primary suppression path shall provide suppression in all modes.
- H. The manufacturer shall provide a limited Ten-year Warranty against failure.
- I. All surge current diversion modules shall be made by way of low impedance plated busbars. No small gauge round wire, printed circuit boards, silicon avalanche diodes or plug-in connections shall be used.
- J. Each individual MOV and Capacitor shall be fused so that the failure of any component does not affect the operation or protection of the entire unit.
- K. The manufacturer's rep shall be on site for start-up and training of maintenance personnel. Factory trained representative shall test the installed units with a portable surge generator to verify that the unit suppresses voltage within factory guidelines in all modes, is wired properly and verifies the integrity of the neutral to ground bond. The testing shall also include testing of all phases to verify 100% of surge current protection devices are functional.

2.02 MANUFACTURERS

- A. Same as gear manufacturer

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Install all surge suppressors where shown on drawings in accordance with manufacturer's recommendations. When remote from panel unit is to be connected via a 60A, 3 Pole breaker and #2 copper conductor.

- B. For remote mounting the SPD cables shall not extend more than 3 (or 5) feet from the panelboard circuit breaker. If it is necessary to mount the SPD further than the recommended distance, substitute low impedance cable to minimize path impedance and maximize clamping capability, and avoid any bends in the conductors.

END OF SECTION

III. Bid Terms and Conditions

Bid Due Date

Proposals must be submitted at or before 2:00p.m. CST on December 16, 2020. Late proposals will not be opened or accepted for evaluation. Any proposals received after the established due date and time at the place designated for receipt of proposals is late, without exception. Faxed or emailed proposals will not be accepted. One proposal per vendor.

Questions Deadline

Questions regarding this solicitation document, must be submitted by e-mail to Ayame Metzger at ametzger@mcts.org on or before end of business on December 9, 2020.

MTS will provide an official written response to Proposer questions received by the respective deadlines. Proposers must not rely on any oral statements or conversations with MTS representatives for questions or clarifications regarding this Bid. Verbal responses to questions and/or clarifications will be considered unofficial and non-binding. Only written responses posted in the form of an Addendum will be considered official and binding. All such Addenda will become part of the Solicitation and any awarded Contract. If no requests for clarification are received, MTS will construe silence as acceptance and that the Proposer intends to comply with the Solicitation Documents as written in their entirety.

Submission of Proposals

Bidders are required to make their bids on the Bid Proposal forms provided in this document and return it no later than 2:00 p.m. on the Bid Due Date. Mail or Deliver Bids to Debby Casper or Ayame Metzger, Materials Management, Room 104, 1942 N. 17th St. Milwaukee, WI 53205. It is the Bidder's responsibility to ensure that their proposal reaches the location stated above on or before the listed deadline.

Manufacturers Name:

If applicable, Bidders shall state in their bids the Manufacturer or Trade name and part number of the items they propose to furnish. The name of any manufacturer or trade name in the specifications is only for specifying a standard quality and type and for no other purpose.

Incurred Expenses

MTS shall not be responsible for any cost or expense incurred by the firms preparing and submitting a Proposal or cost associated with meetings and evaluations of Proposals prior to execution of an agreement. This includes any legal fees for work performed or representation by proposer's legal counsel during any and all phases of the bid process, any appeal or administrative review process.

Bid Opening

Bids will be opened and read at the above opening date and time in Room 104 of the Administration Building- Materials Management Department 1942 N. 17th St. Milwaukee, WI 53205. Due to the on-going health crisis, no members of the public will be allowed to observe the bid opening.

Withdrawal of Proposal

Submissions may be withdrawn by written notice received at any time before the listed deadline. The subject line of the e-mail or the letter must read "Withdrawal of Submitted Proposal." Requests for withdrawal received after the bid opening may not be honored and the submitted proposal may still be considered for acceptance by MTS. The decision to honor a withdrawal after the bid open is in the sole discretion of MTS.

Bid Evaluation and Award

Award will be made to the lowest responsive, responsible bidder meeting specifications. MTS reserves the right to award a separate contract for each item unless otherwise specified in the bid; any group of items; or to reject any or all bids or any portion of any or all bids when, in the opinion of

the Director of Materials Management the best interests of MTS will be served thereby.

Milwaukee Transport Services, Inc reserves the right to make an award based on its own determination, or to reject any or all proposals or portions of same, if in the opinion of MTS, Inc., the best interests of Milwaukee Transport Services, Inc. will be served thereby.

A binding contract will be sent to the successful bidder. A sample contract is included in the bid documents for this solicitation.

Non-Responsive Bids

Bids which are incomplete, conditioned or qualified in any way, contain erasures or alterations, include alternate bids or other items not called for in the Bid Form and in the Bid Documents, are not in conformity with the law or with these instructions, or include any other irregularity shall be rejected as nonresponsive.

Waiving Irregularities

MTS reserves the right to reject any or all bids, and to waive as an informality any immaterial irregularities in the bids received.

Responsible Bidders

It is the intent of MTS to award a contract to the lowest responsible bidder

Targeted Business Enterprise Goal (TBE):

This project has a Targeted Business Enterprise (TBE) goal of 25%. Additionally, the award of this Contract is conditioned upon your good faith efforts in achieving this project's TBE goal, and you must document those efforts by submitting with your Bid/Proposal one of the following:

A signed and notarized *Commitment to Contract with TBE Firms* (TBE-14) form(s), one for each TBE documenting the participation achieved toward satisfying the goal *, evidencing your proposed participation plan to meet or exceed the TBE goal;

AND/OR

A signed and notarized *Certificate of Good Faith Efforts* (TBE-01) form** and all relevant documentation, including a signed and notarized *Commitment to Contract with TBE Firms* (TBE-14) form for each TBE documenting the participation achieved toward satisfying the goal.

*TBE-14 form(s) must identify (1) the TBE firm(s) by name and address, (2) the scope(s) of work/service(s) to be provided, (3) the dollar amount(s) of such work, and (4) the percentage of the TBE goal to be met. The form must be signed by the Prime and notarized to be considered responsive. The signature of the TBE firm in the affirmation section is not required at time of bid but will be required for the participation plan to be approved. Milwaukee County is entitled to reject your Bid/Proposal for failing to identify this information for each TBE.

TBE-01 form(s) must be complete to the fullest extent possible and outline communications with both solicited TBE firm(s) and Milwaukee County's Community Business Development Partners department (CBDP). Submission of form(s) with supporting documentation such as emails and similar correspondence is strongly recommended. **A necessary step in the good faith efforts process and for documentation in the *Certificate of Good Faith Efforts* (TBE-01) form, is contacting CBDP at 414-278-4747 or cbdp@milwaukeecountywi.gov for assistance in identifying TBE firms and understanding the County's TBE Program procedures.

During the Contract, the successful Bidder/Proposer and all subcontractors will use the County's online reporting system B2G to document TBE participation. The *Targeted Business Enterprise (TBE) Utilization Specifications* and forms to be used are included in the BID/RFP.

The official directory of eligible TBE firms can be accessed through the following link:

<http://wisconsin.gov/Pages/doing-bus/civil-rights/dbe/certified-firms.aspx>

To access the North American Industry Classification System (NAICS), please go to Business

Classifications by NAICS Code: <http://www.census.gov/eos/www/naics/>

Single Bid, If Received

If only a single bid is received, MTS may require that the Bidder provide the necessary cost or pricing data to enable MTS to perform a cost or price analysis to ensure that the bid price is fair and reasonable. If requested, the Bidder shall provide the cost or price data within five (5) working days of the date requested. MTS reserves the right to reject or accept the bid based on the cost or pricing data.

Where only one responsive and responsible bid is received, MTS may also negotiate price with the sole responsive bidder.

Contract Terms

This is a firm fixed price one (1) year contract. MTS realizes that work might not start in the 2020 calendar year due to weather conditions, but expects work to be completed as soon as possible once weather conditions improve.

Incorporation of Documents Into Contract

A Proposal submitted in response to this Solicitation is an offer to contract with Transit. This Solicitation document, all incorporated documents, any subsequent addenda, and the successful Proposer's Response will be incorporated by reference into the resulting Contract.

Insurance Requirements

Insurance Certificate meeting the MTS minimums, must be received from all parties doing work at the work site, prior to any work starting. The certificates of insurance must list Milwaukee County and Milwaukee Transport Services as additionally insured.

Continuation Clause

Contractor recognizes that the services under this contract are vital to MTS and to the public and must be continued without interruption. Contractor agrees that MTS, in its sole discretion, and by written notice to Contractor at least 30 days prior to contract expiration, may extend this Agreement for up to an additional 120 days. If extended by MTS, Contractor shall continue to provide services under this Agreement, on the same Terms as set forth in this Agreement. MTS may terminate any such extension by providing Contractor with 30 days' notice. Contractor further agrees to exercise its best efforts and cooperation to affect an orderly and efficient transition to any successor Contractor.

Information Release

All materials submitted become the property of MTS. Any restriction on the use of data contained within a request must be clearly stated in the proposal itself. Proprietary information submitted in response to a request will be handled in accordance with applicable Milwaukee County Ordinances, State of Wisconsin procurement regulations, and the Wisconsin public records law. Proprietary restrictions normally are not accepted. However, when accepted, it is the vendor's responsibility to defend the determination in the event of an appeal or litigation.

Data contained in a Proposal, all documentation provided therein, and innovations developed as a result of the contracted commodities or services cannot be copyrighted or patented. All data, documentation and innovations become the property of MTS.

MTS may, at any time during the procurement process, request and/or require additional disclosures, acknowledgments, and/or warranties, relating to, without limitation, confidentiality, EEOC compliance, collusion, disbarment, and/or conflict of interest.

Cost (pricing) always becomes public information and therefore cannot be kept confidential. Any other requests for confidentiality MUST be justified in writing on the form provided and included in the bid submitted. Milwaukee County has the sole right to determine whether designations made by a proposer qualify as trade secrets under the Wisconsin public records law.

False Information

If MTS determines that a Proposer purposefully or willfully submitted false information in response to this Bid, the Proposer will not be considered for an award and any resulting Agreement that may have been executed may be immediately terminated.

Right to Reject: MTS reserves the right to make an award based on its own determination, or to reject any or all proposals or portions of same, if in the opinion of MTS, the best interest of MTS will be served thereby.

Binding Contract: A proposal received in response to an Invitation to Bid (BID) is an offer that can be accepted by Milwaukee Transport Services, Inc., to create a binding contract without negotiation with any offeror.

Alternate Proposals

Vendors may only submit one proposal for evaluation. Alternate proposals (proposals that offer something different than what is asked for) will be rejected.

Milwaukee Transport Services Inc., (MTS) reserves the right to make an award based on its own determination, or to reject any or all proposals or portions of same, if in the opinion of MTS, the best interests of Milwaukee

Delays in Delivery

Delays in delivery caused by bona fide strikes, government priority or requisition, riots, fires, sabotage, acts of God or any other delays deemed by the Director of Materials Management to be clearly and unequivocally beyond the contractor's control, will be recognized. The vendor may be relieved of meeting the delivery time specified if vendor files with the Director of Materials Management a request for an extension of time, signed by a responsible official, giving in detail all the essential circumstances which upon verification by Director of Materials Management justifies such extension.

Delivery Terms

Bids shall include delivery costs to the specified delivery point, all transportation charges prepaid and borne by you.

Written Change Orders

Oral change orders are not permitted. No change in this contract shall be made unless the contracting officer gives his prior written approval, therefore. The contractor shall be liable for all costs resulting from, and/or for satisfactorily correcting, any specification changes not properly ordered by written modification to the contract and signed by the contracting officer.

IV. Preparing and Submitting a Bid

Cost Response:

Do not adjust the pricing format. The cost figures shall be furnished on the price sheet(s) provided and shall be submitted in a sealed envelope separate from your technical response. Your cost response shall include the price sheets(s) and the signature sheet. One (1) original copy of the price sheet and signature sheet, plus one (1) copy on a vendor provided thumb drive are required to be returned. Provide the hard copy in a separate sealed envelope.

The price quoted should be inclusive of all labor markups, tags and any other charges. No hidden charges will be allowed, therefore a complete, disclosure of charges should be included within the submitted bid. Any charges not disclosed on the bid would be the sole responsibility of the Contractor proposing the cost. MTS is tax exempt.

An electronic, fillable price sheet is available upon request to the Bid Administrator.

This Invitation to Bid should not be construed as a contract to purchase goods or services from any of the participating Contractors.

Tax Exemption:

MTS is an agency of Milwaukee County and is exempt from Wisconsin Sales Tax under Section 77.54 (9a) (b) of the Wisconsin Statutes, and is exempt from the Federal Excise Tax, and has been granted Exempt No. 39-73-0429K. Wisconsin Exempt No. CES014818. Bids shall be submitted excluding any of these taxes.

Variations in Word and Figures

In case of variation between the amounts in words and figures, the amount prescribed in words will prevail.

Instructions for Proposal Submittal

Bid a unit price per each unit. Award(s) will be made to the lowest responsible bidder complying with the specifications, & will be based on what is deemed in the best interest of MTS. All responses must be returned in a sealed envelope provided by the vendor with Bid Number **2020-24 KK Tank House Electrical Upgrades** clearly marked on the outside of the envelope and received by **December 16, 2020 – 2:00 PM CDT**. If bids are returned via Federal Express or UPS, the outer envelope must also be clearly identified with the bid number & title as stated above. **Faxed or emailed bids will not be allowed or accepted.**

Bidders shall be responsible to obtain all documents pertaining to the bid via the website:

<https://www.ridemcts.com/business-partners/ebid>

Proposers must also submit the following forms for Request for Bid. Bid forms must be submitted using the exact forms provided and must be signed by an authorized representative of the Bidder. Any alterations of the Forms or failure to submit required Forms may cause the Bid to be rejected as non-responsive.

1. Cover letter
2. Signature Sheet (One Signed Original)
3. Proposal Price Sheet(s)
4. One signed EEO Certificate
5. Conflict of Interest Form
6. TBE Form
7. Bidders List Form

Protest and Appeals Policy for Sealed Bids

Calculation of time in days and hours shall exclude Saturdays, Sundays and major holidays.

A. Prior to sealed bid opening:

1. Protests to form and content of bid documents shall be received by the Director of Materials Management not less than five (5) days prior to the time scheduled for bid opening. Protests shall be in writing and state the reason for it.

2. The Director of Materials Management shall review protests and if modification is necessary, the bid opening date shall be extended and addenda containing the changes shall be sent to each bidder. If the modification is rejected, the protestor shall be notified. The decision of the Director of Materials Management is final.

B. After sealed bid opening:

1. Protests concerning irregularities on sealed bid opening procedures or compliance by bidders with bid documents shall be received by the Director of Materials Management within seventy-two (72) hours after time of bid opening.
2. When a sealed bid is awarded to other than the lowest bidder, all bidders shall be notified in writing by certified mail, return receipt requested, or by fax machine transmission of the proposed award. Protest to the award must be delivered to the Director of Materials Management within seventy-two (72) hours after receipt of notice. A copy of the fax transmission cover sheet, or the department's fax log, shall be conclusive proof of the time and date of receipt by a bidder.
3. A protest under either (B.1.) or (B.2.) above must be in writing and state the reason for it. The Director of Materials Management shall review the protest and notify the protestor of a decision in writing by certified mail return receipt requested, or by fax machine transmission, within five (5) days. No contract shall be awarded while a protest is pending. A protest that is untimely or fails to clearly state the reason for it or shall have been made prior to bid opening is invalid. The decision of the Director of Materials Management disqualifying the protest for these reasons is final and cannot be appealed. A copy of the fax transmission cover sheet, or the department's fax log, shall be conclusive proof of the time and date of receipt by a bidder.

C. Appeals to the Purchasing Appeals Committee:

1. Protest from the decision of the Director of Materials Management shall be made to the Purchasing Appeals Committee by delivering a written request for appeal hearing both to the Materials Management Department and the Purchasing Appeals Committee within seventy-two (72) hours after the receipt of the Director of Materials Management's decision.
2. Written appeals to the Purchasing Appeals Committee shall be addressed as follows:
**Purchasing Appeals Committee
C/O MTS Materials Management Department
1942 North 17th Street
Milwaukee, WI 53205**
3. The request shall state the grounds upon which the protest is based and shall request an appeal hearing. No contract shall be awarded until the final disposition of the protest.
4. The Chairperson of the Purchasing Appeals Committee shall notify all interested persons of the time and place of the hearing.
5. The Purchasing Appeals Committee shall affirm, reverse or modify the decision of the Director of Materials Management and its' decision shall be final.

V. Milwaukee County Terms and Conditions

Calculation of time in days and hours shall exclude Saturdays, Sundays and major holidays. Where Milwaukee County Terms and Conditions conflict with the Bid Terms and Conditions in Section III of this document, the Terms and Conditions in Section III of this document will prevail.

1. Award

Award will be made to the lowest responsive, responsible bidder meeting specifications. MTS reserves the right to award a separate contract for each item unless otherwise specified in the bid; any group of items; or to reject any or all bids or any portion of any or all bids when, in the opinion of the Director of Materials Management the best interests of MTS will be served thereby.

Milwaukee Transport Services, Inc reserves the right to make an award based on its own determination, or to reject any or all proposals or portions of same, if in the opinion of MTS, Inc., the best interests of Milwaukee Transport Services, Inc. will be served thereby.

2. Tie Bids

If there are tie bids, award will be made in accordance with tie bid provisions as outlined in Chapter 32 of the Milwaukee County General Ordinances.

3. Changes in Specifications

Changes to specifications are not permitted. Bids not meeting the minimum requirements specified shall be rejected. All merchandise shall be new and unused unless otherwise specified in the specifications.

4. Defaulting Bidders Excluded

No bids will be accepted from any person, firm or corporation that has failed to perform faithfully any previous contract with MTS unless said person, firm or corporation has been reinstated on the eligible list of bidders by the Director of Materials Management.

5. Delays in Delivery

Delays in delivery caused by bona fide strikes, government priority or requisition, riots, fires, sabotage, acts of God or any other delays deemed by the Director of Materials Management to be clearly and unequivocally beyond the contractor's control, will be recognized. The vendor may be relieved of meeting the delivery time specified if vendor files with the Director of Materials Management a request for extension of time, signed by a responsible official, giving in detail all the essential circumstances which upon verification by Director of Materials Management justifies such extension.

6. Delivery Terms

Bids shall include delivery costs to the specified delivery point, all transportation charges prepaid and borne by the vendor.

7. Taxes

MTS is exempt from Federal Excise Taxes and Wisconsin State Sales Tax. Bids shall be submitted without such taxes.

8. Code of Ethics

The Milwaukee County Code of Ethics states in part, "No person may offer to give to any Public official or employee or his immediate family, and no Public official or employee or his immediate family may solicit or receive anything of value pursuant to an understanding that such officers or employees' vote, official actions or judgment would be influenced thereby."

No person(s) with a personal financial interest in the approval or denial of a contract being considered by a County department or with an agency funded and regulated by a County department, may make a campaign contribution to any County official who has approval authority over that contract during its consideration. Contract consideration shall begin when a contract is submitted directly to a County department or to an agency until the contract has reached final disposition, including adoption, county executive action, proceedings on veto (if necessary) or departmental approval. This provision does not apply to those items covered by Section 9.15 unless an acceptance by an elected official would conflict with this section. The language in Section 9.05(2)(l) shall be included in all Request for Proposals (RFP) and bid documents.

9. Funds

If funds are not appropriated for payment of this contract, Purchaser may terminate contract at the end of any fiscal year upon 30 days written notice.

MTS operates the transit system for, and under an agreement with, Milwaukee County, Wisconsin. All multi-year contracts / agreements with MTS are contingent upon Milwaukee County retaining MTS as the operator of the transit system. The continuation of this agreement beyond December 31 of any given year, shall be contingent upon MTS receiving the necessary funding from the government agency.

10. Insurance

Contractor agrees to maintain policies of insurance and proof of financial responsibility to cover costs as may arise from claims for damages to property of and/or claims which may arise out of or result from Contractors activities, by whomever performed, in such coverage and amounts as required and approved by MTS. Acceptable proof of such coverage shall be furnished to MTS prior to commencement of activities under this agreement. A Certificate of Insurance including declarations page, shall be submitted for review for each successive period of coverage for the duration of this agreement, unless otherwise specified by MTS, in the minimum amounts specified below.

Contractor shall provide evidence of the following coverages and minimum amounts:

<u>Type of Coverage</u>	<u>Minimum Limits</u>
Wisconsin Workers' Compensation and Employer's Liability & Disease	Statutory/Waiver of Subrogation \$100,000/\$500,000/\$100,000
General Liability	\$1,000,000 Per Occurrence
Bodily Injury and Property Damage to include: Personal Injury, Fire, Products and Completed Operations	\$2,000,000 Aggregate
Automobile Liability	\$1,000,000 Per Accident
Bodily Injury and Property Damage All Autos	
Professional Liability	\$1,000,000 Per Occurrence
Refer to Additional Provision A.1.	\$3,000,000 Aggregate
Umbrella Liability	\$5,000,000 Per Occurrence
Policy will follow form to underlying Employer's, General, and Automobile Liability policies	\$5,000,000 Aggregate

Milwaukee Transport Services, Inc (MTS) and Milwaukee County shall be named as an Additional Insured on the General and Automobile Liability policies as respects the services provided in this agreement. A Waiver of Subrogation shall be afforded to MTS on the Workers' Compensation policy. A thirty (30) day written notice of cancellation or non-renewal shall be afforded to Milwaukee County.

The insurance specified above shall be placed with a Carrier approved to do business in the State of Wisconsin. All carriers must be A rated or better per AM Best's Rating Guide.

Any requests for deviations from or waivers of required coverages or minimums shall be submitted in writing and approved by MTS's Risk Manager as a condition of this agreement.

A.1. Professional Liability – Additional Provision.

Contractor agrees to provide additional information on its professional liability coverage as respects policy type, i.e. errors and omissions for consultants, architects, and/or engineers, etc.; applicable retention levels; coverage form, i.e. claims made, occurrence; discover clause conditions, and effective retroactive and expiration dates, to MTS's Procurement Department as may be requested to obtain approval of coverage as respects this section.

It is understood and agreed that coverage which applies to the services inherent in this agreement will be extended for two (2) years after completion of all work contemplated on this project if coverage is written on a claims-made basis.

11. Indemnification Agreement

The successful bidder shall indemnify and hold harmless Milwaukee Transport Services, Milwaukee County, their employees, agents and assigns, from any and all liability for damages on account of injury, including death, to persons, including employees of Milwaukee Transport Services or Milwaukee County, or for damage to property which actually or allegedly results from or actually or allegedly arises in connection with the performance of services or the furnishing of goods or products provided in connection

with this bid. In addition, the successful bidder shall reimburse Milwaukee Transport Services, Inc. and Milwaukee County for all costs, expenses, including all costs of defense attorney's fees, and all other losses incurred by Milwaukee Transport Services, Inc. or Milwaukee County in connection with any claims, demands and causes of action, whether meritorious or not, which may be brought against Milwaukee Transport Services, Inc., Milwaukee County or their employees, agents or assigns, arising in whole or in part from goods, services or products provided or furnished for this bid.

12. Intellectual Property Indemnification

The successful bidder shall defend, at its expense, any action brought against MTS or Milwaukee County or their employees to the extent that it is based on a claim that the goods, services, or products provided relating to this purchase order infringes any patent, trade secret, trademark, copyright, or other proprietary right. Successful bidder shall indemnify MTS and Milwaukee County for any costs, damages, and fees, including any costs, damages, and fees finally awarded against MTS and Milwaukee County, which are attributable to such claim, if MTS or Milwaukee County notifies successful bidder of the claim. MTS and Milwaukee County shall permit successful bidder, at successful bidder's sole discretion, to defend, compromise or settle the claim. MTS and Milwaukee County shall provide all available information, assistance and authority to enable Vendor to do so, provided successful bidder reimburses MTS and Milwaukee County for such activity.

13. Independent Contractor

Nothing contained in the Agreement shall constitute or be construed to create a partnership or joint venture between MTS, Inc. or its successors and the Contractor or its successors or assigns. In entering into this Agreement, and in acting in compliance herewith, Contractor is always acting and performing as an independent Contractor, duly authorized to perform the acts required of it hereunder.

14. Retention of Records

Contractor agrees to retain all records related to this contract for a period of at least three years from final date of payment of this contract

15. Audit of Records

Contractor shall permit the authorized representative of the Milwaukee County Auditor, after reasonable notice, the right to inspect and audit all data and records of Contractor related to carrying out the contract for a period of up to three years after completion of the contract. If subcontracts and/or associates are utilized, prime contractor shall have a written contractual agreement with County approved subcontractors and/or associates which bind the subcontractor to the same audit contract terms and conditions as the prime Contractor.

16. Non-Discrimination

The contractor, lessee, offeror, supplier, purchaser, etc., agrees not to discriminate against any employee or applicant for employment because of race, religion, color, national origin, age, sex, or handicap, which include, but not limited to: recruitment or recruitment advertising; employment; upgrading; demotion or transfer, layoff or termination; rates of pay or other forms of compensation; selection for training, including apprenticeship. A violation of this provision shall be sufficient cause for MTS to terminate the contract, lease, order, etc. pursuant to County Ordinance 56.17 - Non-Discriminatory Contracts.

17. Disadvantaged Business Enterprise

The contractor, sub recipient or subcontractor shall not discriminate based on race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate.

18. Termination for Convenience

MTS may terminate this contract, in whole or in part, at any time by written notice to the Contractor when it is in MTS's best interest. The Contractor shall be paid its cost, including contract close-out costs, and profit on work performed up to the time of termination. The Contractor shall promptly submit its termination claim to MTS to be paid the Contractor. If the Contractor has any property in its possession belonging to MTS, the Contractor will account for the same and dispose of it in the manner MTS directs.

19. Termination for Default

If the Contractor does not deliver supplies in accordance with the contract delivery schedule, or, if the contract for services, the Contractor fails to perform in the manner called for in the contract, or if the Contractor fails to comply with any other provisions of the contract, MTS may terminate this contract for default. Termination shall be affected by serving a notice of termination on the Contractor setting forth the manner in which the Contractor is in default. The contractor will only be paid the contract price for supplies delivered and accepted, or services performed in accordance with the manner of performance set forth in the contract.

If it is later determined by MTS that the Contractor had an excusable reason for not performing, such as a strike, fire, or flood, events which are not the fault of or are beyond the control of the Contractor, MTS after setting up a new delivery of performance schedule, may allow the Contractor to continue work, or treat the termination as a termination for convenience.

20. Opportunity to Cure

MTS in its sole discretion may, in the case of a termination for default, allow the Contractor thirty (30) days to cure the defect. In such case, the notice of termination will state the time period in which cure is permitted and other appropriate conditions.

If Contractor fails to remedy to MTS' satisfaction the default or any other terms covenants, or

conditions of this Contract within the thirty (30) days after receipt by the Contractor of written notice from MTS setting forth the nature of said default, MTS shall have the right to terminate the Contract without any further obligation to the Contractor. Any such termination for default shall not in any way operate to preclude MTS from also pursuing all available remedies against the Contractor and its sureties for said default.

21. Employee's Right to Know

It is a direct condition of the Terms of this proposal that if there be any toxic substances, materials, or infectious agents, the offeror shall supply copies of material safety data sheets (SDS) in accordance with Wisconsin Statutes, Chapter 364. These can be sent to **Equipment Engineer, 1525 W. Vine Street, Milwaukee WI 53205**

22. Written Change Orders

Oral change orders are not permitted. No change in this contract shall be made unless the contracting officer gives his prior written approval therefore. The contractor shall be liable for all costs resulting from, and/or for satisfactorily correcting, any specification changes not properly ordered by written modification to the contract and signed by the contracting officer.

23. Waiver of Informalities

In its sole discretion, MTS may waive informalities or minor irregularities in proposals received.

24. Protest and Appeal

Protest Policy for Sealed Bids:

Calculation of time in days and hours shall exclude Saturdays, Sundays and major holidays.

1. Prior to sealed bid opening:
2. Protests to form and content of bid documents shall be received by the Director of Materials Management not less than five (5) days prior to the time scheduled for bid opening. Protests shall be in writing and state the specific reason for the protest.
3. The Director of Materials Management shall review protests and if modification is necessary, the bid opening date shall be extended and addenda containing the changes shall be sent to each bidder. If the modification is rejected, the protestor shall be notified. The decision of the Director of Materials Management is final.

B. After sealed bid opening:

1. Protests concerning irregularities on sealed bid opening procedures or compliance by bidders with bid documents shall be received by the Director of Materials Management within seventy-two (72) hours after time of bid opening.
2. When a sealed bid is awarded to other than the lowest bidder, all bidders shall be notified in writing by email. The *sent* copy of the email shall be proof that the notification was sent to all bidders. Any protest to the award must be delivered to the Director of Materials Management within seventy-two (72) hours after receipt of the email.

Director of Materials Management within five (5) days after receipt of a protest notice, shall respond the bidder in writing via email or fax. The sent copy of the email or the copy of the fax transmission shall be conclusive proof of the time and date of receipt by a bidder. A protest under either (B.1.) or (B.2.) above must be in writing and state the specific reason for the protest. The Director of Materials

Management shall review the protest and notify the protestor of a decision in writing via email or via certified mail return receipt requested, or by fax machine transmission, within five (5) days. No contract shall be awarded while a protest is pending. A protest that is untimely or fails to clearly state the reason, or made prior to bid opening is invalid. The decision of the Director of Materials Management disqualifying the protest for these reasons is final and cannot be appealed. A copy of the *sent* email or fax transmission cover sheet shall be conclusive proof of the time and date of receipt by a bidder.

C. Appeals to the Purchasing Appeals Committee:

1. Protest from the decision of the Director of Materials Management shall be made to the Purchasing Appeals Committee by delivering a written request for appeal hearing both to the Materials Management Department and the Purchasing Appeals Committee within seventy-two (72) hours after the receipt of the Director of Materials Management's decision.
2. Written appeals to the Purchasing Appeals Committee shall be addressed as follows:
Purchasing Appeals Committee
C/O MTS Materials Management Department 1942
North 17th Street
Milwaukee, WI 53205
3. The request shall state the grounds upon which the protest is based and shall request an appeal hearing. No contract shall be awarded until the final disposition of the protest.
4. The Chairperson of the Purchasing Appeals Committee shall notify all interested persons of the time and place of the hearing.
5. The Purchasing Appeals Committee shall affirm, reverse or modify the decision of the Director of Materials Management and its' decision shall be final.

25. Contract Continuation

Contractor recognizes that the services under this contract are vital to MTS and to the public and must be continued without interruption. Contractor agrees that MTS, in its sole discretion, and by written notice to Contractor at least 30 days prior to contract expiration, may extend this Agreement for up to an additional 120 days. If so extended by MTS, Contractor shall continue to provide services under this Agreement, on the same Terms as set forth in this Agreement.

26. Quantities

Items shipped in excess of the designated quantities will not be accepted and will be returned at the Vendor's expense.

27. Invoices

Invoices shall be emailed to accountspayable@mcts.org Governing Law and Venue. Any purchase made pursuant to these Terms shall be governed by and construed in accordance with the laws of the State of Wisconsin. The Vendor agrees and consents to the exclusive jurisdiction of the courts of the State of Wisconsin for all purposes regarding any such purchase, and further agrees and consents that venue of any action hereunder shall be exclusively Milwaukee County, Wisconsin.

28. Compliance with Laws

Vendor shall fully comply with all applicable provisions of federal, state and local laws, rules and

regulations, and Vendor agrees to hold Milwaukee Transport Services, Inc and Milwaukee County, its agents, officers and employees harmless from any all liability and costs, including, but not limited to attorney's fees and damages resulting from failure of compliance.

29. Most Favored Customer

Vendor represents and warrants that the prices Vendor charges MTS do not exceed existing selling prices to other customers for same or substantially similar items or services for comparable quantities under similar Terms and Conditions.

30. Code of Ethics

Vendor during the period of any Contract with MTS shall not hire, retain, or utilize for compensation any member, officer, or employee of MTS or any person who. To the knowledge of Vendor, has a conflict of interest.

31. Invalidity, Remedies Not Exclusive

The invalidity in whole or in part of any Term or Condition of these Terms shall not affect the validity of the remainder of these Terms and the application of such provisions to other persons or circumstance shall not be affected thereby. The rights and remedies provided herein shall not be exclusive and are in addition to any other rights and remedies in law or equity.

Sample Professional Service Contract

This Contract between Milwaukee Transport Services, Inc., a quasi-governmental instrumentality of Milwaukee County and operator of Milwaukee County Transit System located at 1942 North 17th Street, Milwaukee, Wisconsin 53205 (hereinafter called the "MTS"), and _____ located at _____ (hereafter called "Contractor"), is entered into as of _____, 2020.

1. SCOPE OF SERVICES.

The Contract consists of the following _____ documents listed below, all of which are incorporated herein by reference, in the following order of precedence that will be govern any inconsistencies between the terms of this Contract and the terms of any Exhibits, Schedules, or Attachments thereto:

- a. This Professional Service Contract
- b. MTS Request for Proposal/Bid/Quote #
- c. MTS Purchase Order
- d. Contractor's Proposal

2. STAFFING.

Contractor's employees listed below are assigned to MTS and are the main points of contact for this Contract.

<u>Name</u>	<u>Position</u>
-------------	-----------------

Contractor represents that its employees and subcontractors possess the necessary skill, expertise, and capability, including sufficient personnel with the necessary qualifications, to perform the services required by this Contract. Contractor shall provide, at its own expense, all personnel required in performing the services under this Contract. Such personnel shall not be the employees of, or have any other contractual relationship with, MTS.

3. DATES OF PERFORMANCE.

The initial term of this Contract shall be from _____ through _____ or until such time as either party notifies the other of its termination, as provided herein.

4. COMPENSATION.

Contractor shall be compensated for work as listed in Contractor's Best and Final Offer, attached and incorporated into this Contract. This compensation shall include any and all out-of-pocket expenses incurred by Contractor or its employees. State Prompt Pay Law, Section 66.285, does not apply to this Contract. As a matter of practice, MTS attempts to pay all invoices in 30 days.

Contractor shall provide MTS with monthly billings, **listing actual costs**, which shall include, but not be limited to, the following:

- A. Name and address of contractor
Invoice date and number
- B. Remittance name and address
- C. Name, title, and phone number of person to notify in event of defective invoice

Invoices should be sent to: accountspayable@mcts.org

MTS reserves the right to use a purchasing card to pay invoices.

5. MISSION CRITICAL CONTRACT.

MTS has identified this Contract as critical to MTS's ability to provide essential services. During the duration of the current COVID-19 pandemic, while there are federal, state, and/or local orders relating to or arising from this pandemic, or during any future pandemic or state of emergency declared during the term of this contract by federal, state, or local governments, Contractor will:

- a. Dedicate resources to identify and mitigate situations in the workplace or jobsite which may introduce, expose, or spread COVID-19.
- b. Screen employees following current CDC guidelines to verify they have not: : a) Traveled to a Level 2 or 3 Country in the past 14 days, or visited an area that requires self-quarantine because of COVID-19 infection, b) Had close contact (within 6 feet) with anyone known or suspected to have COVID19, c) Exhibited any symptoms (chest or back pain, cough, difficulty breathing) of COVID-19 or had a fever greater than 100.4 in the past 14 days.
- c. Educate employees on key CDC recommendations including how employees can protect themselves and what employees should do if they feel sick.
- d. Provide MTS services remotely, to the greatest extent possible.
- e. Notify MTS within 24 hours of becoming aware of any employee who has been on site at any MTS building, or in contact with any MTS employee, that has a confirmed or suspected case of COVID-19.
- f. Notify MTS immediately if Contractor believes, or has reason to believe, Contractor will be unable to provide services or goods under this Contract.
- g. Agrees that MTS is not responsible for any costs, and will not be invoiced for any incomplete work, if MTS revokes permission for Contractor's employees to be on MTS property due to that employee exhibiting symptoms of COVID-19, or any other illness.

6. OWNERSHIP OF DATA.

Upon completion of the work or upon termination of the Contract, it is understood that all completed or partially completed data, drawings, records, computations, survey information, and all other material that Contractor has collected or prepared in carrying out this Contract shall be provided to and become the exclusive property of MTS. Therefore, any reports, information and data, given to or prepared or assembled by Contractor under this Contract shall not be made available to any individual or organization by Contractor without the prior written approval of MTS.

No reports or documents produced in whole or in part under this Contract shall be the subject of an application for copyright by or on behalf of the Contractor.

7. RIGHTS OF ACCESS AND AUDIT.

The Contractor, Lessee, or other party to the contract, its officers, directors, agents, partners and employees shall allow MTS and Milwaukee County Audit Services Division and department contract administrators (collectively referred to as Designated Personnel) and any other party the Designated Personnel may name, with or without notice, to audit, examine and make copies of any and all records of the Contractor, Lessee, or other party to the contract, related to the terms and performance of the Contract for a period of up to three years following the date of last payment, the end date of this contract, or activity under this contract, whichever is later. Any subcontractors or other parties performing work on this Contract will be bound by the same terms and responsibilities as the Contractor. All subcontracts or other agreements for work performed on this Contract will include written notice that the subcontractors or other parties understand and will comply with the terms and responsibilities. The Contractor, Lessee, or other party to the contract, and any subcontractors understand and will abide by the requirements of Chapter Section 34.09 (Audit) and Section 34.095 (Investigations concerning fraud, waste, and abuse) of the Milwaukee County Code of General Ordinances.

8. AFFIRMATIVE ACTION.

The Contractor assures that it will undertake an affirmative action program as required by Milwaukee County Code of General Ordinances (MCCGO) 56.17(1d), to insure that no person shall, on the grounds of race, creed, color, national origin, or sex be excluded from participating in any employment activities covered in MCCGO 56.17(1d). The Contractor assures that no person shall be excluded, on these grounds, from participating in or receiving the services or benefits of any program or activity covered by this subpart. The Contractor assures that it will require that its covered organizations provide assurances to the Contractor that they similarly will undertake affirmative action programs and that they will require assurances from their suborganizations, as required by MCCGO 56.17(1d), to the same effect.

9. TARGETED BUSINESS ENTERPRISES.

Contractor shall adhere to the approved TBE participation plan contained in this contract, which assures that 25 % percent of the Contract be attributed to a firm certified by the County or an entity whose certification is recognized by the County throughout the term of this Contract. Approval must be obtained from the County prior to making any change(s) to the approved TBE participation plan. A copy of the TBE-14 form is attached to this Contract as Exhibit __.

10. NON-DISCRIMINATION, EQUAL EMPLOYMENT OPPORTUNITY AND AFFIRMATIVE ACTION PROGRAMS.

In the performance of work or execution of this contract, the Contractor shall not discriminate against any employee or applicant for employment because of race, color, national origin or ancestry, age, sex, sexual orientation, gender identity and gender expression, disability, marital status, family status, lawful source of income, or status as a victim of domestic abuse, sexual assault or stalking, which shall include but not be limited to the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training including apprenticeships. A violation of this provision shall be sufficient cause for MTS to terminate the Contract without liability for the uncompleted portion or for any materials or services purchased or paid for by the Contractor for use in completing the contract.

The Contractor agrees that it will strive to implement the principles of equal employment opportunities through an effective affirmative action program, and will so certify prior to the award of the Contract, which program shall have as its objective to increase the utilization of women, minorities and handicapped persons, and other protected groups, at all levels of employment in all divisions of the contractor's workforce, where these groups may have been previously under-

utilized and under-represented. The Contractor also agrees that in the event of any dispute as to compliance with the aforesaid requirements, it shall be his/her responsibility to show that he/she has met all such requirements.

The Contractor agrees that it will strive to implement the principles of active and aggressive efforts to assist MTS in meeting or exceeding its overall annual goal of participation of target enterprise firms.

When a violation of the non-discrimination, equal opportunity or Affirmative Action provisions of this section has been determined by MTS. Contractor shall immediately be informed of the violation and directed to take all action necessary to halt the violation, as well as such action as may be necessary to correct, if possible, any injustice to any person adversely affected by the violation, and immediately take steps to prevent further violations.

If, after notice of a violation to Contractor, further violations of the section are committed during the term of the Contract, MTS may terminate the Contract without liability for the uncompleted portion or any materials or services purchased or paid for by the Contractor for use in completing the Contract, or it may permit Contractor to complete the Contract, but, in either event, Contractor shall be ineligible to bid on any future contracts let by County.

11. INDEMNITY.

Contractor agrees to the fullest extent permitted by law, to indemnify, defend and hold harmless, MTS and its agents, officers and employees, from and against all loss or expense including costs and attorney's fees by reason of statutory benefits under Workers' Compensation Laws, or liability for damages including suits at law or in equity, caused by any wrongful, intentional, or negligent act or omission of Contractor, or its (their) agents which may arise out of or are connected with the activities covered by this Contract.

Contractor shall indemnify and save MTS harmless from any award of damages and costs against MTS for any action based on U.S. patent or copyright infringement regarding computers programs involved in the performance of the tasks and services covered by this Agreement.

12. INSURANCE.

Contractor agrees to maintain policies of insurance and proof of financial responsibility to cover costs as may arise from claims for damages to property of and/or claims which may arise out of or result from Contractors activities, by whomever performed, in such coverage and amounts as required and approved by MTS. Acceptable proof of such coverage shall be furnished to MTS prior to commencement of activities under this agreement. A Certificate of Insurance including declarations page, shall be submitted for review for each successive period of coverage for the duration of this agreement, unless otherwise specified by MTS, in the minimum amounts specified below.

Contractor shall provide evidence of the following coverages and minimum amounts:

<u>Type of Coverage</u>	<u>Minimum Limits</u>
Wisconsin Workers' Compensation and Employer's Liability & Disease	Statutory/Waiver of Subrogation \$100,000/\$500,000/\$100,000
General Liability Bodily Injury and Property Damage to include: Personal Injury, Fire, Products and Completed Operations	\$1,000,000 Per Occurrence \$2,000,000 Aggregate

Automobile Liability Bodily Injury and Property Damage All Autos	\$1,000,000 Per Accident
Professional Liability Refer to Additional Provision A.1.	\$1,000,000 Per Occurrence \$3,000,000 Aggregate
Umbrella Liability Policy will follow form to underlying Employer's, General, and Automobile Liability policies	\$5,000,000 Per Occurrence \$5,000,000 Aggregate

Milwaukee Transport Services, Inc (MTS) and Milwaukee County shall be named as an Additional Insured on the General and Automobile Liability policies as respects the services provided in this agreement. A Waiver of Subrogation shall be afforded to MTS on the Workers' Compensation policy. A thirty (30) day written notice of cancellation or non-renewal shall be afforded to Milwaukee County.

The insurance specified above shall be placed with a Carrier approved to do business in the State of Wisconsin. All carriers must be A rated or better per AM Best's Rating Guide. Any requests for deviations from or waivers of required coverages or minimums shall be submitted in writing and approved by MTS's Risk Manager as a condition of this agreement.

A.1. Professional Liability – Additional Provision.

Contractor agrees to provide additional information on its professional liability coverage as respects policy type, i.e. errors and omissions for consultants, architects, and/or engineers, etc.; applicable retention levels; coverage form, i.e. claims made, occurrence; discover clause conditions, and effective retroactive and expiration dates, to MTS's Procurement Department as may be requested to obtain approval of coverage as respects this section.

It is understood and agreed that coverage which applies to the services inherent in this agreement will be extended for two (2) years after completion of all work contemplated on this project if coverage is written on a claims-made basis.

13. PERMITS, TAXES, LICENSES.

Contractor is responsible for procuring, maintaining and paying for all necessary federal, state, and local permits, licenses, fees and taxes required to carry out the provisions of this Contract.

14. TERMINATION BY CONTRACTOR.

Contractor may, at its option, terminate this Contract upon the failure of MTS to pay any amount that may become due hereunder for a period of sixty (60) days following submission of appropriate billing and supporting documentation. Upon said termination, Contractor shall be paid the compensation due for all services rendered through the date of termination including any retainage.

15. TERMINATION BY MTS FOR VIOLATIONS BY CONTRACTOR.

If the Contractor fails to fulfill its obligations under this Contract in a timely or proper manner, or violates any of its provisions, MTS shall there upon have the right to terminate it by giving thirty (30) days written notice of termination of contract, specifying the alleged violations, and effective date of termination. It shall not be terminated if, upon receipt of the notice, Contractor promptly cures the alleged violation prior to the end of the thirty (30) day period. In the event of termination, MTS will only be liable for services rendered through the date of termination and not for the uncompleted portion, or for any materials or services purchased or paid for by Contractor for use in completing the Contract.

16. UNRESTRICTED RIGHT OF TERMINATION BY MTS.

MTS further reserves the right to terminate the Contract at any time for any reason by giving Contractor thirty (30) days written notice of such termination. In the event of said termination, the Contractor shall reduce its activities hereunder as mutually agreed to, upon receipt of said notice, and turn over all work product to MTS. Upon said termination, Contractor shall be paid for all services rendered through the date of termination.

17. CONTINUITY OF SERVICE.

Contractor recognizes that the services under this contract are vital to MTS and must be continued without interruption and that, upon contract expiration or termination, a successor, either MTS or another contractor, may continue them. Contractor agrees to:

- a. Furnish phase-in, phase-out services for up to 30 days after this contract expires or terminates for any reason; and (ii) negotiate in good faith a plan with a successor to determine the nature and extent of phase-in, phase-out services required. The plan shall specify a training program and a date for transferring responsibilities for each division of work described in the plan, and shall be subject to MTS approval. Contractor shall provide sufficient experienced personnel during the phase-in, phase-out period to ensure that the services called for by this contract are maintained at the required level of proficiency.
- b. Contractor shall allow as many personnel as practicable to remain on the job to help the successor maintain the continuity and consistency of the services required by this contract. Contractor also shall disclose necessary personnel records and allow the successor to conduct on-site interviews with these employees. If selected employees are agreeable to the change, Contractor shall release them at a mutually agreeable date and negotiate transfer of their earned fringe benefits to the successor.

18. INDEPENDENT CONTRACTOR.

Nothing contained in this Contract shall constitute or be construed to create a partnership or joint venture between MTS or its successors or assigns and Contractor or its successors or assigns. In entering into this Contract, and in acting in compliance herewith, Contractor is at all times acting and performing as an independent contractor, duly authorized to perform the acts required of it hereunder. Nothing contained in this Contract shall give Contractor any authority to supervise, manage, and/or direct MTS employees.

19. SUBCONTRACTS.

Assignment of any portion of the work by subcontract must have the prior written approval of County.

20. ASSIGNMENT LIMITATION.

This Contract shall be binding upon and inure to the benefit of the parties and their successors and assigns; provided, however, that neither party shall assign its obligations hereunder without the prior written consent of the other.

21. PROHIBITED PRACTICES.

The following practices are prohibited during the term of this contract:

- a. Contractor during the period of this contract shall not hire, retain or utilize for compensation any member, officer, or employee of MTS or any person who, to the knowledge of Contractor, has a conflict of interest.
- b. Contractor hereby attests that it is familiar with Milwaukee County's Code of Ethics, which applies to MTS employees, and which states, in part, "No person may offer to give to any County officer or employee or his immediate family, and no County officer or employee or his immediate family, may solicit or receive anything of value pursuant to an understanding

that such officer's or employee's vote, official actions or judgment would be influenced thereby" and will not offer or give anything of value to any MTS employee.

22. PUBLIC RECORDS.

Both parties understand that MTS is bound by the public records law, and as such, all of the terms of this agreement are subject to and conditioned on the provisions of Wis. Stat. § 19.21, *et seq.* Contractor hereby agrees that it shall be obligated to assist MTS in retaining and timely producing records that are subject to the Wisconsin Public Records Law upon any statutory request having been made, and that any failure to do so shall constitute a material breach of this agreement, whereupon the contractor shall then and in such event be obligated to indemnify, defend and hold MTS harmless from liability under the Wisconsin Public Records Law occasioned by such breach. Except as otherwise authorized by MTS in writing, records that are subject to the Wisconsin Public Records Law shall be maintained for a period of three years after receipt of final payment under this agreement.

23. TAXES.

MTS is exempt from Federal Excise Taxes and Wisconsin State Sales Taxes. Any billing submitted by Contractor must be without such taxes. Including taxes on invoices will delay payment.

24. NON-CONVICTION FOR BRIBERY.

Contractor hereby declares and affirms that, to the best of its knowledge, none of its officers, directors, or partners or employees directly involved in obtaining contracts has been convicted of bribery, attempted bribery, or conspiracy to bribe under the laws of any state or the federal government.

25. CONFIDENTIALITY.

Contractor agrees that all work product and oral reporting shall be provided only to or as directed by the individual who is signing this Contract on behalf of MTS, below, and not any other person or entity, including any other MTS employee or official. Contractor further agrees that, aside from obligations under the public records law as more fully described in Sec. 23 of this Contract and as determined in cooperation with MTS Contractor shall maintain all materials and communications developed under or relating to this Contract as confidential and shall disclose them only to or as directed by the individual who is signing this Contract on behalf of MTS. Contractor understands that breach of confidentiality, especially regarding information that is not subject to public records law disclosure, may harm or create liability for MTS and may require Contractor to indemnify MTS as provided in Sec. 12 of this Contract.

26. NOTICES.

All notices with respect to this Contract shall be in writing. Except as otherwise expressly provided in this Agreement, a notice shall be deemed duly given and received upon delivery, if delivered by hand, or three days after posting via US Mail, to the party addressed as follows:

To Contractor:

To MTS:

Attn.:
Address:

Attn.: Materials Management
Address: 1942 N. 17th St
Milwaukee, WI 53205

Either party may designate a new address for purposes of this Contract by written notice to the other party.

27. MISCELLANEOUS.

This Contract shall be interpreted and enforced under the laws and jurisdiction of the State of Wisconsin.

This Contract constitutes the entire understanding between the parties and is not subject to

amendment unless agreed upon in writing by both parties.

28. LIQUIDATED DAMAGES

- a. Contractor shall agree to reimburse MTS \$115/hr. for any labor or charges incurred to repair or address any quality defects in Contractor's manufacturing that must be addressed immediately.

- b. In the event that Contractor fails to comply with a request from MTS to repair, replace materials, correct defective work, equipment, or accessories, MTS shall, upon written notice to Contractor, have the authority to deduct the cost(s) incurred by MTS to address the request from the next payment due under the contract.

29. FEDERAL LAWS, REGULATIONS, AND REQUIREMENTS.

Contractor acknowledges and agrees that it will perform its obligations hereunder in compliance with all applicable state, local or federal law, rules and regulations and orders.

30. COUNTERPARTS.

This Agreement may be executed in counterparts, each of which is deemed an original, but all of which together are deemed to be one and the same agreement. A signed copy of this Agreement delivered by facsimile, e-mail, or other means of electronic transmission is deemed to have the same legal effect as delivery of an original signed copy of this Agreement.

31. AUTHORIZATION.

IN WITNESS WHEREOF, this contract is effective on the date of the last acquired signature. Signer for Contractor warrants they are authorized to sign on behalf of Contractor.

CONTRACTOR

By: _____ Date: _____
Signed

Name Printed Title

Milwaukee Transport Services, Inc

By: _____ Date: _____
Signed

Name Printed Title



Required Forms

Labor/Personnel**Must include individual line item for all anticipated roles/trades/workers**

	Cost per hour	Number of Hours	Total Cost
Superintendant			
Project Manager			
Demolition			
Installer			
Plumber			
Electrician			
Paint			
Cleaning/Powerwash			
Other, etc.... (list what other includes)			
Subtotal:			

Materials/Equipment**Must include individual line item for all anticipated materials and equipment.**

	Cost per item	Quantity	Total Cost
Demolition			
Carpentry			
Paint			
Electrical (list other if not listed below including wiring, fixtures, devices, etc.)			
New 600A 277/480 Main Panelboard			
New 225A 120/240 Double Tub Panelboard			
New 50kVA Dry Type Non-Vent XFMR			
New 400A Fusible Disconnect Switch			
Other, etc.... (list what other includes)			
Subtotal:			
Alternate pricing to provide new door, lockset, closer, threshold, paint, cement topping, install wall panels			

Other Expenses**Must include individual line item for all anticipated expenses**

	Cost per item	Quantity	Total Cost
Material storage			
Transportation			
Dumpsters			
Permits			
Insurance			
Other, etc.... (list what other includes)			
Subtotal:			
Total Cost:			



**COMMUNITY BUSINESS DEVELOPMENT PARTNERS
CERTIFICATE OF GOOD FAITH EFFORTS TBE**

Completion of this form is required for all bidders who have not achieved the participation goal. Submission of a complete form is a matter of responsiveness to this bid. Completion of all three pages attached is required.

Certificate of Good Faith Efforts

Guidance on completing these documents.

This guidance and information is provided to assist bidders in compliance with the provisions under all Milwaukee County Ordinances (MCTE) pertaining to the implementation of the target business enterprise program. Like all guidance material, these questions and answers are not, in themselves, legally binding or mandatory, and do not constitute regulations. They are issued to provide an acceptable means, but not the only means, of compliance with regulations and laws. The Milwaukee County CDBP program can be reviewed in more detail at: <http://county.milwaukee.gov/cbdp> including links to relevant regulations.

When Milwaukee County assigns a participation goal, you will make good faith efforts to meet this goal prior to submitting a bid or proposal in order to be responsive. If you haven't met the goal, you can document adequate good faith efforts toward that end. This means that you must show that you took all necessary and reasonable steps to achieve the participation goal. The County will make a fair and reasonable judgment as to whether you made adequate good faith efforts according to the following guidelines. It is important to consider the quality, quantity, and intensity of the different kinds of efforts that were made. These efforts should be those that one could reasonably expect you to take if you were actively and aggressively trying to obtain participation sufficient to meet the participation goal. Going through the motions by making phone calls to firms that you think should qualify is not good faith efforts to meet the project requirements. The County's determination concerning the sufficiency of your good faith efforts is a judgment call and meeting quantitative formulas is not required. The following is a list of types of actions the County considers as part of your good faith efforts. This isn't a mandatory checklist, nor is it all-inclusive. Other factors or types of efforts may be relevant in appropriate cases, see regulations for more information.



**COMMUNITY BUSINESS DEVELOPMENT PARTNERS
CERTIFICATE OF GOOD FAITH EFFORTS TBE**

Certificate of Good Faith Efforts
--

This document is required to detail what your firm has done to meet this project's participation goal if the participation you have attained is less than the goal set for this project. Guidance as to acceptable 'good faith efforts' is found on the Guidance page of this spreadsheet. Failure to use and properly document good faith efforts to meet the assigned participation goal will result in the rejection of your bid/proposal. By submitting this document, you hereby acknowledge that I am authorized as the representative for the bidder/proposer on the following Milwaukee County Project and that we have provided documented proof of our good faith efforts to solicit, negotiate with and utilize certified firms to meet the participation goal of this contract as demonstrated by my response to the questions contained in this fully completed set of documents.

Prime Contractor Firm Name and Address	Authorized Representative	Email Address	Telephone Number	Other Contact Info	Is the Prime a TBE?

Project Number	Bid Number	Project Title	Total Contract Amount	DBE Total Project Percentage	
				Goal	Pledged

Provide a brief summary of why your firm is unable to meet the participation goal on this project.



COMMUNITY BUSINESS DEVELOPMENT PARTNERS CERTIFICATE OF GOOD FAITH EFFORTS TBE

Contractible Work Items

You are required to determine portions of work to be contracted in a manner that will increase the likelihood of meeting the participation goal set for this project. In selecting work to be contracted, you must consider, where appropriate, breaking down scoped into economically feasible units to facilitate TBE participation. To assist in these efforts and to provide consistent definitions, use NAICS codes (<http://www.census.gov/eos/www/naics/>) to identify each category of work you determine is feasible for participation. TBE firms are registered by NAICS code and firms available for participation may be found in the directories listed on the second page of the TBE-14 form which is included in the bid or RFP documents.

NAICS codes (Required)	Description of work	Estimated Dollar Value (Required)	Was this work made available to DBE Firms? If no, explain why.	Explanation



COMMUNITY BUSINESS DEVELOPMENT PARTNERS MILWAUKEE COUNTY

TARGETED BUSINESS ENTERPRISE (TBE) UTILIZATION SPECIFICATIONS for PROFESSIONAL SERVICES

1. The award of the contract is conditioned upon achieving the project's Targeted Business Enterprise (TBE) participation goal of 17%. Firms that qualify as a TBE include DBE firms certified by and listed in the Wisconsin Unified Certification Program (UCP) directory, MBE and WBE firms certified by the State of Wisconsin DOA and listed in the directory, SBE firms certified by Milwaukee County and listed in the Milwaukee County directory, and SBE firms that meet the SBA size standards and are listed in the SAM directory. All firms must be certified prior to the proposal submission deadline. A firm certified in another state must be certified by the Wisconsin UCP or State of Wisconsin DOA prior to submission of bid.
2. **TBE Participation:** The participation goal is based upon the total dollar value of your proposal less reimbursable items. Participation must be maintained throughout the contract, including any fee increases. TBE Prime self-performance may be counted to achieve the goal.

PROPOSAL CONSIDERATIONS

3. The County may reject your proposal if it does not include the **Commitment to Contract with TBE (TBE-14)** form(s), one completed for each of the firms you are including for participation. The Prime must indicate the dollar amount of work to be provided to the sub-consultant, sign the form, and have the TBE firm sign the form in the affirmation section prior to acceptance of your proposal by the County.
4. If awarded the contract, you will enter into a contractual agreement, directly or through sub-consultant, according to the **Commitment to Contract with TBE (TBE-14)** form(s) provided with your proposal. Copies of the executed agreements(s) will be submitted to the County.
5. TBE participation credit is calculated as follows:
 - a. All of the identified scope(s) of work must have a commercially useful function in the actual performance of the contract and work must be performed directly by the TBE with their own employees.
 - b. One hundred percent (100%) for the work performed by a TBE firm. If a TBE subcontracts a portion of work to another firm, the value of the subcontracted work will not be counted towards the TBE participation unless the work is performed by another TBE.
 - c. You must notify the County if any TBE contractor(s) sublet any portion of their work.
6. The County reserves the right to request supporting documentation from both you and any listed TBE. If you fail to respond within the time specified, the County may determine you to be non-responsive and remove you from further consideration for contract award.



COMMUNITY BUSINESS DEVELOPMENT PARTNERS MILWAUKEE COUNTY

FOLLOWING CONTRACT AWARD

7. The County reserves the right to conduct compliance reviews and request, both from you and your subs, supporting documentation to verify TBE participation, in addition to the information entered monthly into the County's online reporting system. The County will notify you if you are not in compliance with contract terms. If you fail to take corrective action as directed, the County may take one or more of the following actions:
 - a. Terminate or cancel your contract, in whole or in part;
 - b. Remove you from the list of qualified consultants, and refuse to accept future proposals from you for a period not to exceed three (3) years;
 - c. Withhold contract payments to cover shortfall; and/or
 - d. Bring suit to recover damages up to the amount of the shortfall, including interest at the rate of 12% annually, plus the County's costs, expenses and actual attorney's fees incurred in the collection action.
8. You must submit copies of the executed subcontract agreement(s) for each of the sub-consultants listed on the contract. REQUESTS FOR PAYMENT WILL BE DELAYED IF NOT SUBMITTED.
9. If the TBE sub(s) are unable to perform, or any other issues arise, you must immediately contact CBDP Compliance at (414) 278-4851. You must submit written notification of your desire for substitution to the TBE affected, and copy the County. This notice must state the reason for the request. The TBE has five (5) business days to provide written objection/acceptance to you. Approval must be obtained from County prior to making any substitutions. TBE consultants are also required to notify and obtain approval from the County prior to subletting work.
10. The Prime will record payments received from the County and payments made to sub-consultants directly into the County's online reporting system on a monthly basis. These entries will cover payments during the preceding month and will include zero dollar (\$0) entries where no payment has occurred. You must also indicate on the invoice work being performed by TBEs. Either a) place the word "TBE" behind the work item or b) break out the work done by TBEs at the end of the report. Failure to comply may result in withholding of payments, or enforcement of other sanctions including those listed in Section 7, above.
11. The County has a revolving loan program for DBE firms. If you have contracted with a DBE that is using these County funds, you must assist the County for repayment of these funds. This may include, but is not limited to, providing written information regarding the sub's contract balance, prior payment (two or three party) agreements, and the issuance of two-party checks payable in the name of Milwaukee County and the DBE indebted to the County under this program.
12. The County reserves the right to waive any of these specifications when it is in our best interest.

TARGETED BUSINESS ENTERPRISE (TBE) REQUIREMENTS

Community Business Development Partners (CBDP) is responsible for monitoring and enforcing the Milwaukee County Target Enterprise (MCTE) Ordinance for inclusion of small business. Target firms include DBE firms certified under the Wisconsin Unified Certification Program following Federal regulations, WBE and MBE certifications from the State of Wisconsin DOA, SBE firms certified by Milwaukee County, and SBE firms meeting SBA size standards and listed in the SAM directory.

Targeted Business Enterprise (TBE) participation goal for this RFP is 17%. To be considered for this project, you must submit a *Subcontractor/Sub-consultant/Supplier Information Sheet* (TBE-02) with your Proposal listing all sub-consultants as well as signed *Commitment to Contract with TBE* (TBE-14) forms, one for each of the TBE firms included to meet participation. TBE-14 form(s) must identify (1) the TBE firm by name and address, (2) the scope of service(s) to be provided, (3) the dollar amount and (4) the percentage. The form is first completed and signed by the Prime, then forwarded to the TBE sub-consultant for signature in the affirmation section. Signatures must occur in the proper date order sequence, or the form may be considered non-responsive. CBDP is entitled to reject your Proposal for improperly completed forms. If you are not able to meet the goal, you must submit the TBE-01 Good Faith Effort for your proposal to be considered responsive.

CBDP may be contacted at 414-278-4851 or cbdpcompliance@milwaukeecountywi.gov for assistance in identifying TBE firms and understanding the County's TBE Program.

Following are the links to Directories for firms eligible for credit:

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

MBE WBE <http://www.doa.state.wi.us/Divisions/Enterprise-Operations/Supplier-Diversity-Program>

Milwaukee County SBE <https://mke.diversitycompliance.com/Default.aspx>

SAM Directory for Federal SBE <https://www.sam.gov/portal/SAM#1>

Adherence with prompt payment requirements is monitored through information entered into the Diversity Management and Compliance System, utilizing B2GNow software. Prime consultants are required to report payments received from the County and amounts paid to sub-consultants. Subs will receive an automated email requesting them to confirm the amounts and whether the terms of the prompt payment policy were complied with. There is no cost to the Prime or any sub-consultant, the only requirement is to become a registered user and complete the one hour webinar training. The County will enter the Primes contract, and the Prime will enter all sub-consultants, including both TBE and non-TBE firms.



COMMUNITY BUSINESS DEVELOPMENT PARTNERS MILWAUKEE COUNTY

COMMITMENT TO CONTRACT WITH TBE

PROJECT No. _____ PROJECT TITLE _____

TOTAL CONTRACT AMOUNT (less allowances) \$ _____ TBE Goal: _____

Name & Address of TBE	Scope of Work Detailed Description	1) TBE Contract Amount	2) % of Total Contract

- 1) The total project contract amount is an estimate based on the outcome of negotiation between the Prime and Milwaukee County. In some situations the TBE sub-contract amount **might NOT** be based on the total project contract amount.
- 2) The **percentage** is based on the eligible scope of services that TBE participation can reasonably be obtained; which might not be based on the total project contract amount. The commitment percentage is the key indicator of TBE participation. The **Pass/Fail** determination is based on the percentage stated in the RFP/BID. If the Prime is using one or multiple TBE companies the sum of the percentages **MUST** satisfy the minimum percentage stated in the RFP/BID. Note the percentage indicated on this document will be viewed by CBDP the Prime's **COMMITMENT** to the TBE company.

Bidder/Proposer Commitment (To be completed by firm committing work to TBE)

I certify that the TBE firm quoted the identified service(s) and cost(s). I further acknowledge our firm having negotiated with, and having received confirmation, on partnering, pricing and delivery from the TBE firm listed herein.

Prime Contractor/Consultant _____ Phone _____, or one of our subs, will enter into contract with the TBE firm listed, for the service(s) and amount(s) specified when awarded this contract. The information on this form is true and accurate to the best of my knowledge. I further understand that falsification, fraudulent statement, or misrepresentation will result in appropriate sanctions under applicable law.

Signature of Authorized Representative Name & Title of Authorized Representative Date

TBE Affirmation (To be completed by TBE Owner/Authorized Representative)

- I affirm that our company is certified as (check all certifications that apply)
 - _____ DBE by the Wisconsin Unified Certification Program certifying partners
 - _____ MBE by State of Wisconsin DOA
 - _____ WBE by State of Wisconsin DOA
 - _____ SBE by SBA Federal Size Standards, NAICS and registered in SAM
 - _____ SBE by Milwaukee County
- I acknowledge and accept this commitment to contract with my firm for the service(s) and dollar amount(s) specified herein. I understand and accept that this commitment is for service(s) to be rendered in completion of the project specified herein and all work is to be completed with my own forces. I affirm that approval from CBDP will be obtained prior to subletting any portion of this work awarded to my firm on this project. I affirm that our company meets one of the following requirements: Certified as DBE and listed in the Wisconsin UCP Directory, certified as MBE or WBE with the State of Wisconsin DOA, or SBE firm certified by Milwaukee County or meets the SBA size standards and is listed in the SAM directory.

Signature of Authorized TBE Representative Name & Title of Authorized TBE Representative Phone Number Date

FOR CBDP USE ONLY

Commitment number ____ of ____ Participation: _____ Project Total: _____

Authorized Signature Date



COMMUNITY BUSINESS DEVELOPMENT PARTNERS MILWAUKEE COUNTY

COMMITMENT TO CONTRACT WITH TBE

ADDITIONAL INFORMATION & REQUIREMENTS:

Links to Directories for firms eligible for credit:

DBE <http://wisconsin.gov/Pages/doing-bus/civil-rights/dbe/certified-firms.aspx>

MBE and WBE <http://www.doa.state.wi.us/Divisions/Enterprise-Operations/Supplier-Diversity-Program>

Milwaukee County SBE <https://mke.diversitycompliance.com/Default.aspx>

SAM Directory for Federal SBE <https://www.sam.gov/portal/SAM/#1>

- 1. CONTRACT ADJUSTMENTS:** The successful Bidder/Proposer will maintain the approved TBE participation level during the term of the contract with the County, including any additional work on the contract, e.g., change orders, addendums, scope changes, or fee increases.
- 2. WRITTEN CONTRACTS WITH TBE:** The County requires that the successful Bidder/Proposer enter into contract, directly or through subs, as stated in this form. Agreements must be submitted to the County within 7 days of receipt of the Notice-To-Proceed. By executing this commitment, you are certifying that you have had contact with the named TBE firm and that they will be hired if you are awarded the contract by the County.
- 3. SUBSTITUTIONS, TBE SUBCONTRACTING WORK, TRUCKING FIRMS:** The successful Bidder/Proposer must submit written notification of desire for substitution to the TBE affected, and send a copy to the County, stating the reason(s) for the request. The TBE will have five (5) business days to provide written objection/acceptance of the substitution. The “right to correct” must be afforded any TBE objecting to substitution/termination for less than good cause as determined by the County. Approval must be obtained from the County prior to making any substitutions. TBE firms are required to notify and obtain approval from the County prior to seeking to subcontract out work on this project. In the case of TBE trucking firms, credit will be given for trucks leased from other TBE firms; however, if the TBE leases trucks from non-TBE firms, the commission or fee will be counted for crediting.
- 4. REQUESTS FOR PAYMENT:** The successful Bidder/Proposer must indicate on the Continuation Sheet (AIA form G703, or equivalent) or invoice for consulting the work being performed by TBE by either a) placing the word “TBE” behind the work item or b) breaking out the work done by TBES at the end of the report. The successful Bidder/Proposer shall notify TBE firms of the date on which they must submit their invoices for payment.
- 5. TBE UTILIZATION REPORTS:** The successful Bidder/Proposer will enter payments to subs and suppliers directly into the County’s online reporting system on a monthly basis. These entries will cover payments made during the preceding month and will include zero dollar (\$0) entries where no payment has occurred.

If you have any questions related to the Milwaukee County Target Enterprise Program, please contact:

414.278.4851 or cbdpcompliance@milwaukeecountywi.gov

SIGNATURE SHEET

CASH DISCOUNT:

Cash invoice discount for payment of invoices following receipt and acceptance of goods or services _____% 30 days.

DELIVERY:

Price shall include delivery, FOB destination freight prepaid to Milwaukee Transport Services, Inc., 1525 W. Vine St., Milwaukee, WI 53205, unless otherwise noted in this bid.

BY SIGNING THIS BID YOU ARE AGREEING WITH THE FOLLOWING STATEMENTS:

1. This bid has been made without any connection with any other bidder and is in all respects fair and without collusion or fraud.

2. This bid has been made with the understanding that no elected officer/employee of Milwaukee Transport Services, Inc., or Milwaukee County is interested therein, directly or indirectly.

3. The specifications for this bid, and all pages of this bid, including any addenda, have been read and understood.

4. Your company has never defaulted on any contract with Milwaukee Transport Services, Inc., or Milwaukee County.

In signing and submitting this bid the bidder assures Milwaukee Transport Services, Inc., that the furnishing of the subject materials, services or equipment is under his/her control and accepts and has read all the Terms and Conditions of MTS, of this BID/RFP and all of its documents. If the bidder's performance, in the event he/she is successful is contingent upon the act of another party, the bidder assures MTS that he/she has the necessary commitments to complete the contract which may be awarded him/her.

Date: _____

Submitted by: _____

Name of firm: _____

Address of firm: _____

Signed per: (manual signature required) _____

Print name: _____

Title: _____ Email: _____

Telephone: _____ Fax: _____

CONFLICT OF INTEREST STIPULATION

For purposes of determining a possible conflict of interest, all vendors submitting a proposal in response to this RFP must disclose if any Milwaukee County or MTS employee, agent or representative or an immediate family member of any Milwaukee County or MTS employee, agent or representative is also an owner, officer, employee, agent or representative of the business submitting the proposal.

Please answer below either YES or NO to the question of whether any Milwaukee County or MTS employee, agent or representative or immediate family member is also an owner, officer, employee, agent or representative of your business:

YES _____

NO _____

If the answer to the question above is YES, then identify the name of the individual, the individual's position with Milwaukee County, and the individual's relationship to your business:

Name _____

County Position _____

Business Relationship _____

The appropriate corporate representative must sign and date this Conflict of Interest Stipulation below:

Printed Name _____

Authorized Signature _____

Title _____

Date _____

**EQUAL EMPLOYMENT OPPORTUNITY CERTIFICATE
FOR
MILWAUKEE COUNTY CONTRACTS**

In accordance with Section 56.17 of the Milwaukee County General Ordinances and Title 41 of the Code of Federal Regulations, Chapter 60, SELLER or SUCCESSFUL BIDDER or CONTRACTOR or LESSEE or (other-specify)_____ (henceforth referred to as **VENDOR**), certifies to MILWAUKEE COUNTY as to the following and agrees that the terms of this certificate are hereby incorporated by reference into any contract awarded.

Non-Discrimination

VENDOR certifies that it will not discriminate against any employee or applicant for employment because of race, color, national origin, age, sex or disability, which includes, but is not limited to the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training including apprenticeship.

VENDOR will post, in conspicuous places available to its employees, notices to be provided by the County setting forth the provisions of the non-discriminatory clause.

A violation of this provision shall be sufficient cause for the County to terminate the contract without liability for the uncompleted portion or for any materials or services purchased or paid for by the contractor for use in completing the contract.

Affirmative Action Program

VENDOR certifies that it will strive to implement the principles of equal employment opportunity through an effective affirmative action program, which shall have as its objective to increase the utilization of women, minorities, and persons with disabilities and other protected groups, at all levels of employment in all divisions of the seller, successful respondent or contractor's work force, where these groups may have been previously under-utilized and under-represented

Non-Segregated Facilities

VENDOR certifies that it does not and will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not permit its employees to perform their services at any location under its control where segregated facilities are maintained.

Subcontractors

VENDOR certifies that it has obtained or will obtain certifications regarding non-discrimination, affirmative action program and non-segregated facilities from proposed subcontractors that are directly related to any contracts with Milwaukee County, if any, prior to the award of any sub-contracts, and that it will retain such certifications in its files.

Reporting Requirements

Where applicable, **VENDOR** certifies that it will comply with all reporting requirements and procedures in Title Code 41 Code of Federal Regulations, Chapter 60.

Affirmative Action Plan

VENDOR certifies that, if it has 50 or more employees, it has filed or will develop and submit (within 120 days of contract award) for each of its establishments a written affirmative action plan. Current affirmative action plans, if required, must be filed with ANY one of the following: The Office of Federal Contract Compliance Programs, or the State of Wisconsin, or the Milwaukee County Department of Audit, Milwaukee County - City Campus, 9th Floor, 2711 W. Wells Street, Milwaukee, Wisconsin 53208. If a current plan has been filed, indicate where filed _____ and the year covered _____. Please provide proof of your AA Plan approval.

VENDOR will also require its lower-tier subcontractors who have 50 or more employees to establish similar written affirmative action plans.

Employees

VENDOR certifies that it has _____ employees in the Standard
(No. of Employees)
Metropolitan Statistical Area (Counties of Milwaukee, Waukesha, Ozaukee and Washington, Wisconsin) and _____ employees in total.
(Total No. of Employees)

Compliance

VENDOR certifies that it is not currently in receipt of any outstanding letters of deficiencies, show cause, probable cause, or other notification of noncompliance with EEO regulations.

Executed this _____ day of _____ 20____ by:

Firm Name: _____

Address: _____

City/State/Zip _____

Telephone: _____

(Title)

WARNING: An unsigned form shall be considered as a negative response.

By _____
(Signature)

(Please Print Name Here)

MILWAUKEE COUNTY – BIDDERS LIST FORM
DOT ASSISTED CONTRACTS [49 CFR, Part 26]

49 CFR, Part 26 requires that all recipients of Federal Funds collect certain information from all bidders submitting responses to solicitations. To assist in the building of demographics for the area upon which reasonable and effective expectations of DBE opportunities may be based, all bidders are required to return this certificate with their offer. Any offer submitted that does not contain a completed copy of this form will be ruled as non-responsive and dropped from further consideration in the procurement process of the solicitation.

Firm Name: _____

Firm Address: _____

Firm Phone (____) _____ Firm Email Address _____

Firm Fax: (____) _____

General Classification of Firm by Quantity of Employees:

____ Less than 10 ____ 11-50 ____ 51-100 ____ 101-500
____ 501-1000 ____ 1001-5000 ____ More than 5000

General Classification of Firm in Age of Existence:

____ 0-5 years ____ 6-10 years ____ 11-50 years ____ Over 50 years

General Classification by Type:

____ Firm is a Small Business ____ Firm is a Certified DBE
____ Firm is a Certified WBE ____ Firm is not one of the above

General Classification by Annual Gross Income:

____ The approximate annual gross income for this firm is less than \$100,000
____ The approximate annual gross income for this firm is \$100,000 - \$250,000
____ The approximate annual gross income for this firm is \$250,001 - \$500,000
____ The approximate annual gross income for this firm is \$500,000 - \$1M
____ The approximate annual gross income for this firm is \$1M - \$5M
____ The approximate annual gross income for this firm is greater than \$5M

I certify this information is accurate to the best of my knowledge.

Signature

Print Name

Date