



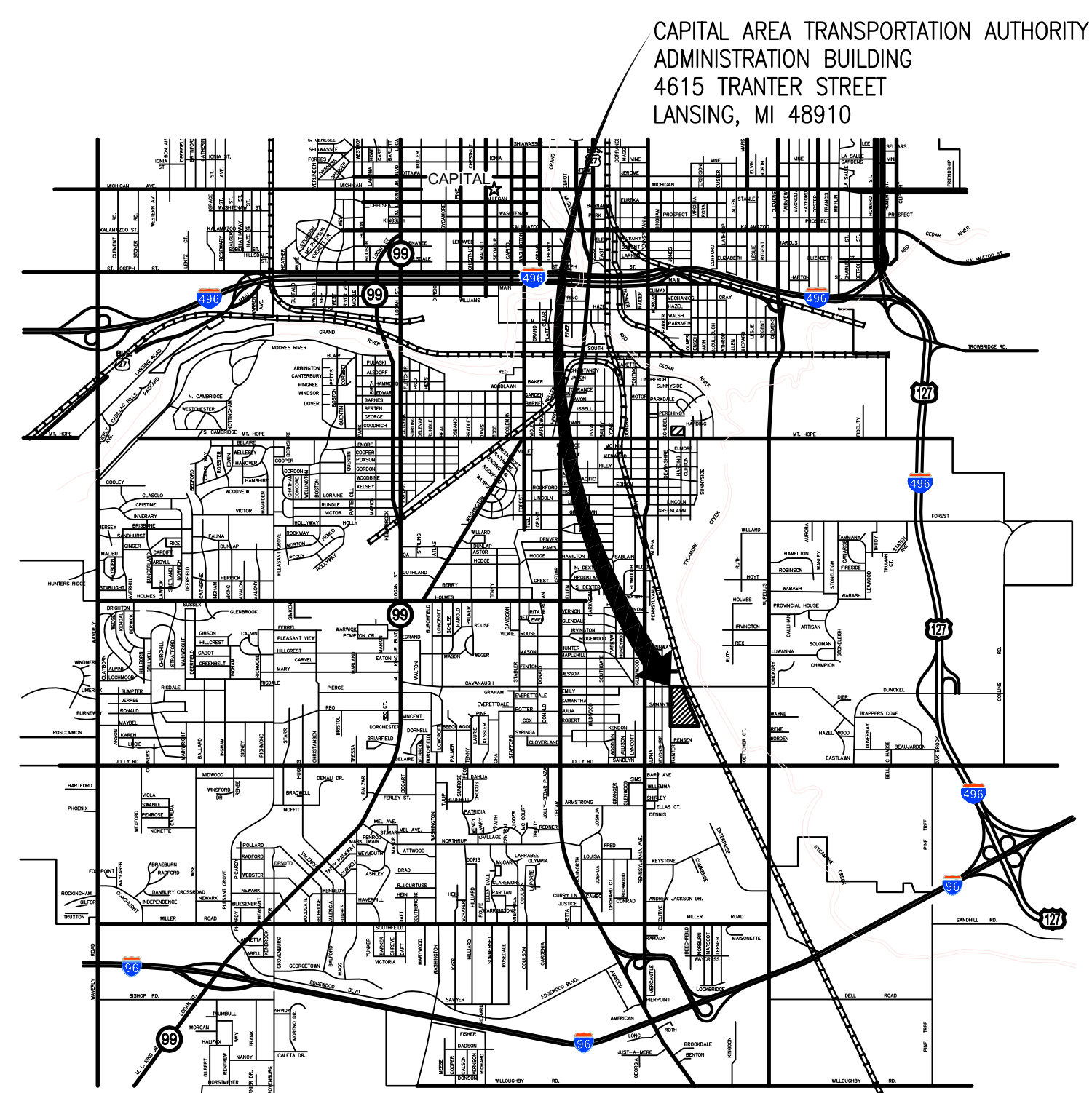
# CAPITAL AREA TRANSPORTATION AUTHORITY

## TRANTER STREET SITE IMPROVEMENTS

4615 TRANTER STREET  
LANSING, MICHIGAN 48910

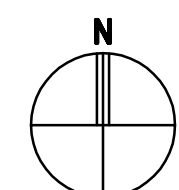
INVITATION TO BID (ITB) #  
DLZ NO. 0941-6302-00

BID SET DATED: SEPTEMBER 3, 2013



LOCATION MAP

SCALE: N.T.S.



### GENERAL NOTES

- A. CONTRACTOR IS ENCOURAGED TO VISIT THE BUILDING PRIOR TO BIDDING TO BECOME FAMILIAR WITH EXISTING CONDITIONS TO BE REMOVED, ALTERED, OR PROTECTED.
- B. ADJACENT EXISTING AREAS TO REMAIN WHICH ARE DAMAGED OR DESTROYED AS A RESULT OF CONTRACTOR ACTIVITIES SHALL BE REPAIRED OR REPLACED TO MATCH EXISTING CONDITION.
- C. CONTRACTOR IS RESPONSIBLE FOR ALL PERMITTING, UTILITY AND ASSOCIATED FEES/COSTS FOR THE ENTIRE PROJECT.
- D. COORDINATION: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CHECK AND COORDINATE ALL THE DRAWINGS BEFORE FABRICATION AND/OR INSTALLATION OF ANY WORK. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT OF ANY DISCREPANCIES OR ERRORS FOR ARCHITECT TO RESOLVE PRIOR TO COMMENCING WORK.
- E. FIELD VERIFICATION: PRIOR TO SCHEDULING OF WORK AND COMMENCING CONSTRUCTION, CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND CONDITIONS SHOWN.
- F. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE CONSTRUCTION PROCEDURES AND THE SEQUENCING OF WORK TO ENSURE THE SAFETY OF THE BUILDING AND ITS OCCUPANTS DURING CONSTRUCTION INCLUDING THE ADDITION OF WHATEVER SHORING, SHEETING, TEMPORARY BRACING OR TIE-DOWNS THAT MAY BE NECESSARY.
- G. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION.
- H. LEGEND: ALL SYMBOLS AND ABBREVIATIONS USED ON THE DRAWINGS ARE CONSIDERED CONSTRUCTION STANDARDS. IF THE CONTRACTOR HAS ANY QUESTIONS REGARDING THEIR EXACT MEANING, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY AND GET CLARIFICATION FROM THE ARCHITECT.
- I. EQUIPMENT SIZES AND INSTALLATION METHODS ARE MANUFACTURER SPECIFIC. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY EXACT DIMENSIONS AND INSTALLATION REQUIREMENTS OF EQUIPMENT PRIOR TO FABRICATION OR INSTALLATION.
- L. CONTRACTOR IS RESPONSIBLE FOR LIMITING/CONTAINING DUST/FUMES/OVERSPRAY/DEBRIS DURING CONSTRUCTION TO THE LIMITS OF THE PROPOSED IMPROVEMENTS AREA. ADJACENT AREAS TO WORK MUST REMAIN CLEAN AND UNDISTURBED.
- M. THE CONTRACTOR SHALL FURNISH AN INDEPENDENT COMMISSIONING AGENT TO OBSERVE THE ENTIRE INSTALLATION OF THE SYSTEM AND TO DIRECT A POINT-BY-POINT INSPECTION OF THE FINAL INSTALLATION AND OPERATION OF EQUIPMENT. THE COMMISSIONING AGENT SHALL CONFIRM THAT THE ENTIRE SYSTEM OPERATES AS INTENDED.

### INDEX OF DRAWINGS

SHEET	DESCRIPTION
	COVER SHEET
	SITE CIVIL
C1.0	SITE PLAN
C1.1	SITE DETAILS
C1.2	SITE DETAILS
	ARCHITECTURAL
A2.1	ACCESS CONTROL PLAN
	ELECTRICAL
E1.0	SPECIFICATIONS, DETAILS
E2.0	SITE PLAN
E3.0	SITE ACCESS CONTROL PLAN



### SITE DATA

#### LEGAL DESCRIPTION:

N 104.82 FT OF LOT 1 RENSEN CENTER

#### ALSO:

That part of the South 1/2 of Section 34, T4N, R2W, City of Lansing, Ingham County, Michigan, commencing at the West 1/4 corner of said Section 34; thence running along the East/West 1/4 line N89°48'25"E 1318.52 feet to the Northwest corner of the Northeast 1/4 of the Southwest 1/4 of Section 34; thence along the North line of said Northeast 1/4 of the Southwest 1/4 N89°49'00"E 984.00 feet; thence S00°00'00"W 33.00 feet to the intersection of the Southerly right of way line of Cavanaugh Road with the Easterly right of way line of Tranter Street, said point being the point of beginning; thence along the Easterly right of way line of Tranter Street S00°00'00"W 1271.18 feet to a point on the North line of RENSEN CENTER, recorded in Liber 27 of Plats, pages 46 and 47, Ingham County Records; thence along said North line N89°43'00"E 637.00 feet to the Westerly line of a Consumers Energy right of way as defined in a warranty deed recorded in Liber 310, Page 442, Ingham County Records; thence along said right of way line the following two courses, N24°32'00"W 491.10 feet; thence Northwesterly 873.89 feet along the arc of a 5191.60 foot radius curve to the right whose central angle is 9°38'40" and whose chord bears N19°42'40"W 872.86 feet to said Southerly right of way line of Cavanaugh Road; thence S89°49'00"W 138.68 feet to the point of beginning, containing 10.657 acres of land, more or less.

#### ZONING:

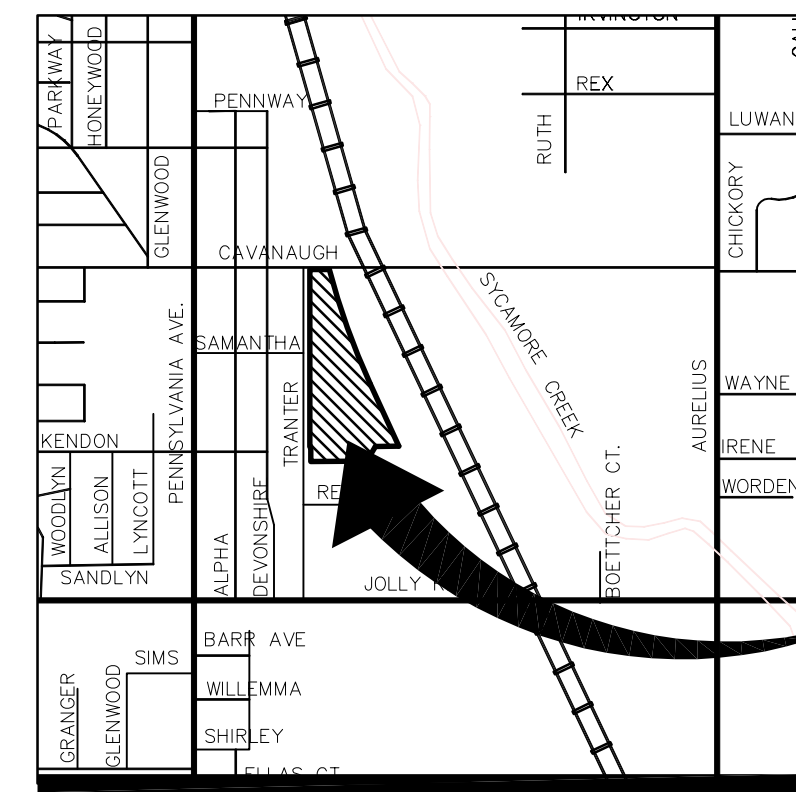
EXISTING ZONING: H - LIGHT INDUSTRIAL DISTRICT  
 PROPOSED ZONING: H - LIGHT INDUSTRIAL DISTRICT

#### PARCEL NUMBERS:

33-01-01-34-401-011 33-01-01-34-401-026  
 33-01-01-34-401-022 33-01-01-34-451-003

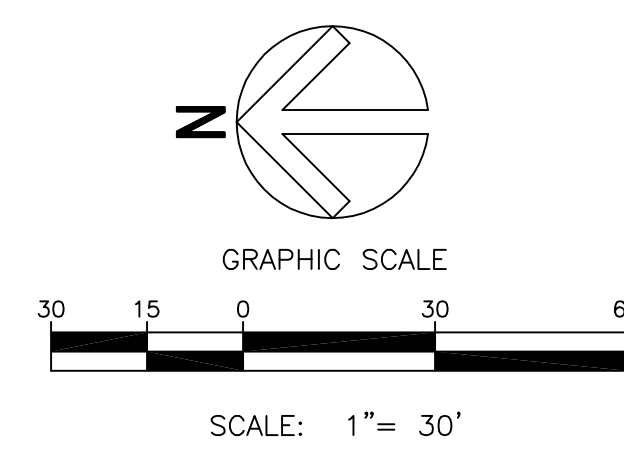
#### GENERAL SITE IMPROVEMENT KEY:

- (A1) ASPHALT PAVEMENT REPAIR DETAIL (3 C1.1)
- (B1) BUMPER POST (1 C1.1)
- (C1) CARD READER (2 C1.1)
- (F1) FENCE, ORNAMENTAL PICKET, 8' HEIGHT (1 C1.2)
- (G1) MAN GATE (2 C1.2)
- (G2) ENLARGED GATE PLAN VIEWS (4,5 C1.1)
- (G3) 18' WIDE GATE, CANTILEVER SLIDE, 8' HEIGHT (3 C1.2)
- (G4) 22' WIDE GATE, CANTILEVER SLIDE, 8' HEIGHT (4 C1.2)



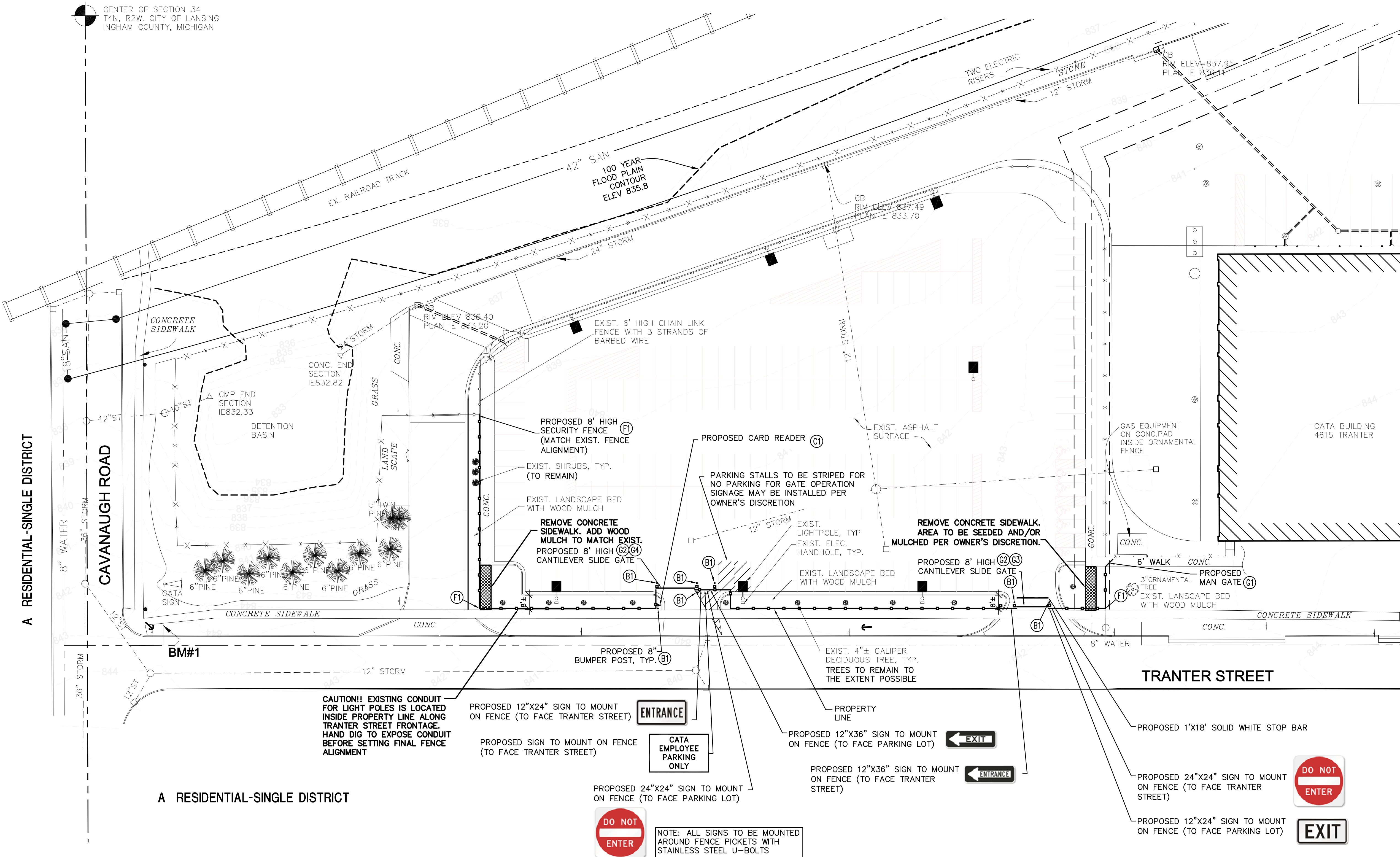
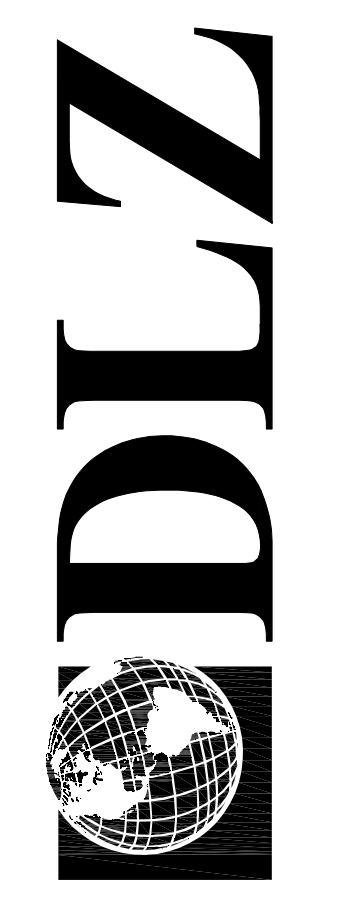
### LOCATION MAP

SCALE: N.T.S.



#### LEGEND:

- PROPERTY LINE
- OVERHEAD LINE
- FENCE
- ELECTRIC LINE
- WATERMAIN
- STORM SEWER
- NATURAL GAS LINE
- SANITARY SEWER
- UTILITY POLE
- STORM MANHOLE
- WATER VALVE
- FIRE HYDRANT
- LIGHT POLE
- CATCHBASIN
- CUY ANCHOR
- TELEPHONE BOX
- SIGN
- FOUND SURVEY MARKER



A RESIDENTIAL-SINGLE DISTRICT

A RESIDENTIAL-SINGLE DISTRICT

H LIGHT INDUSTRIAL DISTRICT

NOTE: ALL SIGNS TO BE MOUNTED AROUND FENCE PICKETS WITH STAINLESS STEEL U-BOLTS

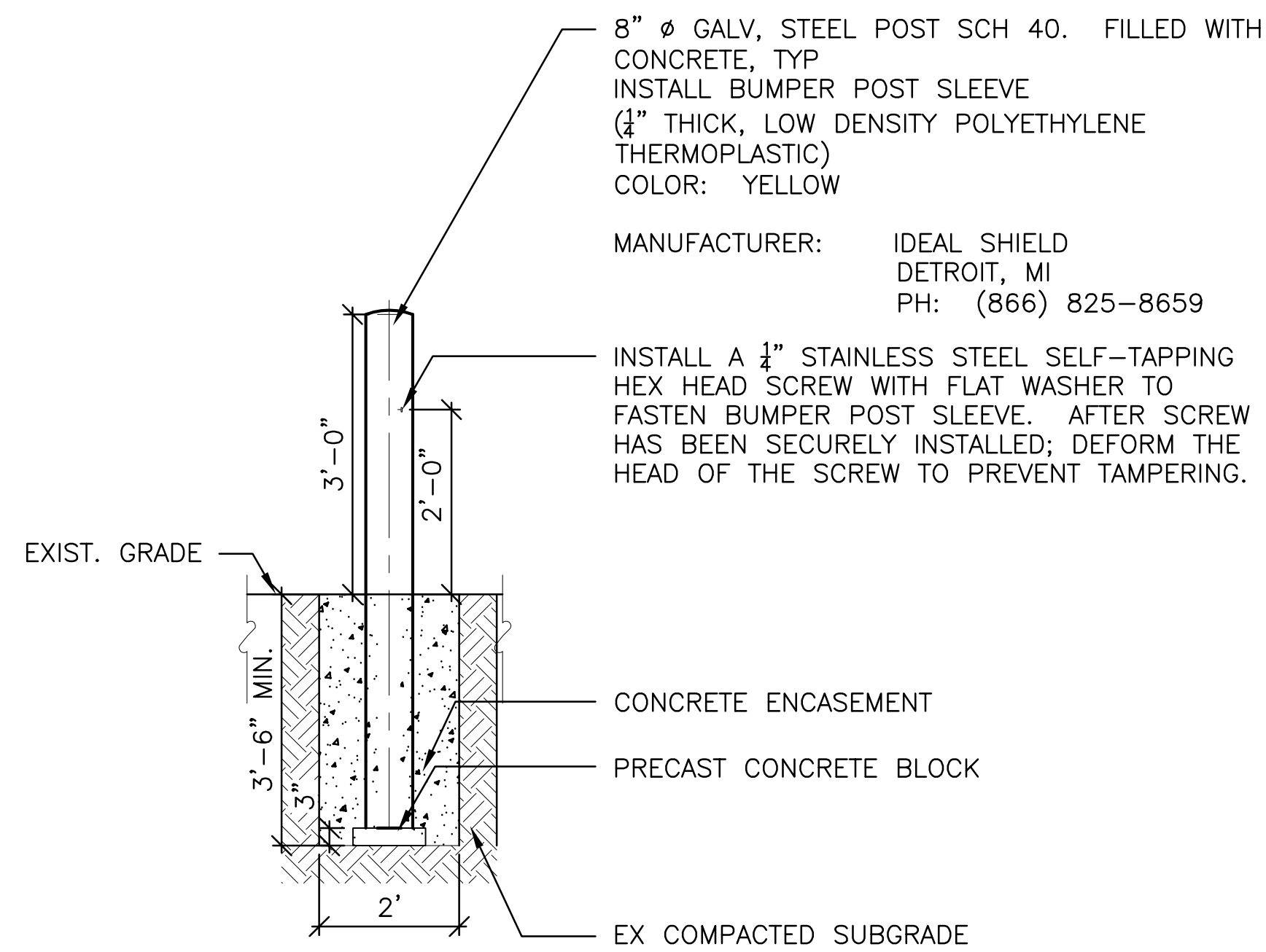
DATE	BY	DESCRIPTION

REVISIONS:	CHK'D.	DATE

DRAWN: JRL	CHK'D. ---	PROJECT NUMBER
DESIGNED: JRL	APPROV'D: ---	0941.6302.00
DATE: AUGUST 15, 2013		

LANSING	MICHIGAN
CAPITAL AREA TRANSPORTATION AUTHORITY	
TRANTRER STREET SITE IMPROVEMENTS	
SITE/CIVIL	
SITE PLAN	
SHEET	2
OF	8
DRAWING NUMBER	
C1.0	

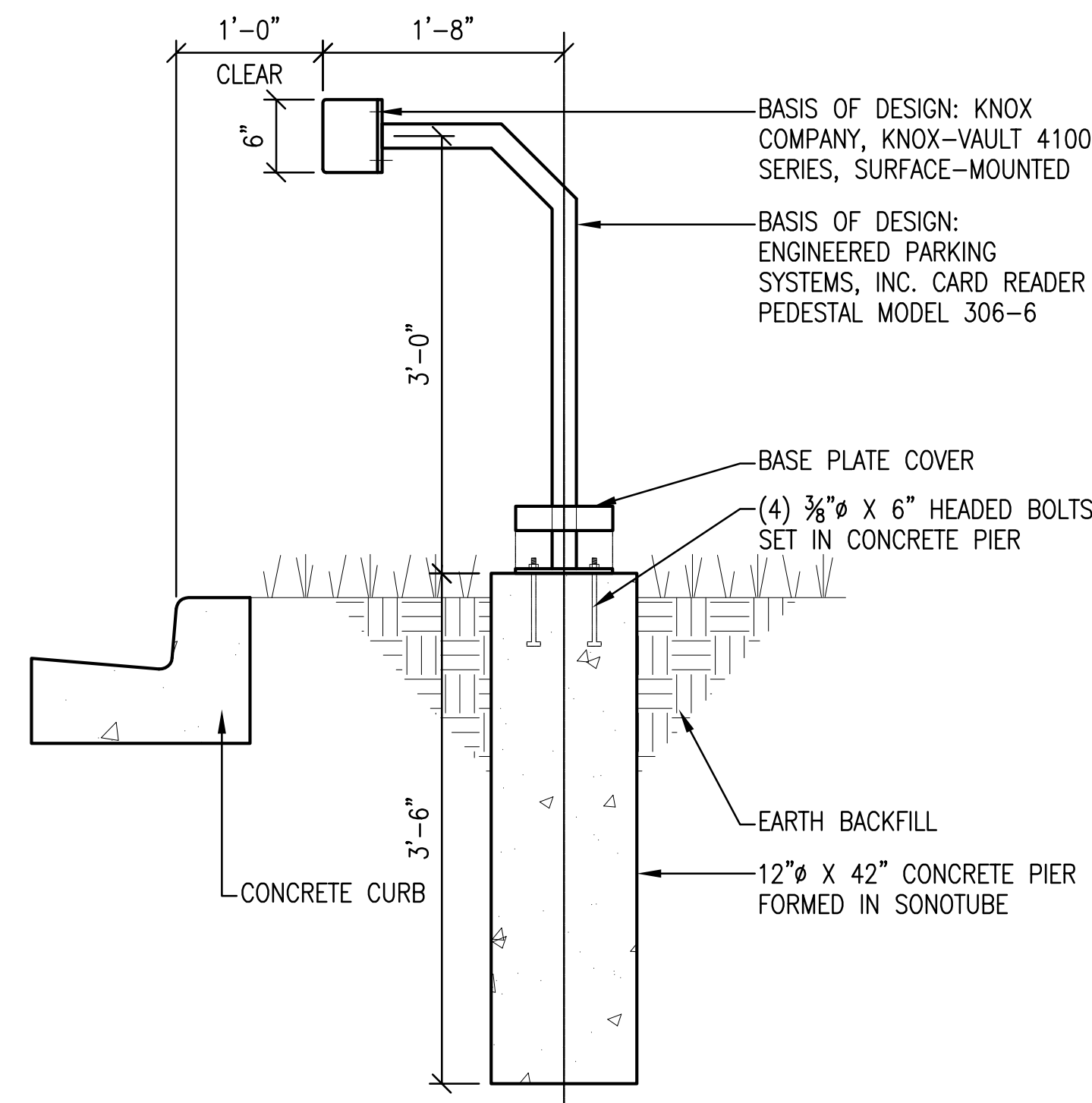
Time Stamp



**BUMPER POST, 8" DIA**

SCALE: N.T.S.

1  
C1.1



**CARD READER DETAIL**

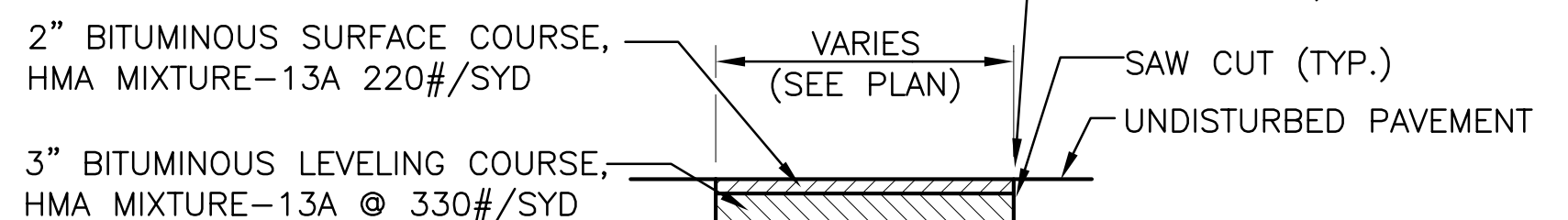
SCALE: N.T.S.

2  
C1.1

**ASPHALT PAVEMENT REPAIR DETAIL**

SCALE: N.T.S.

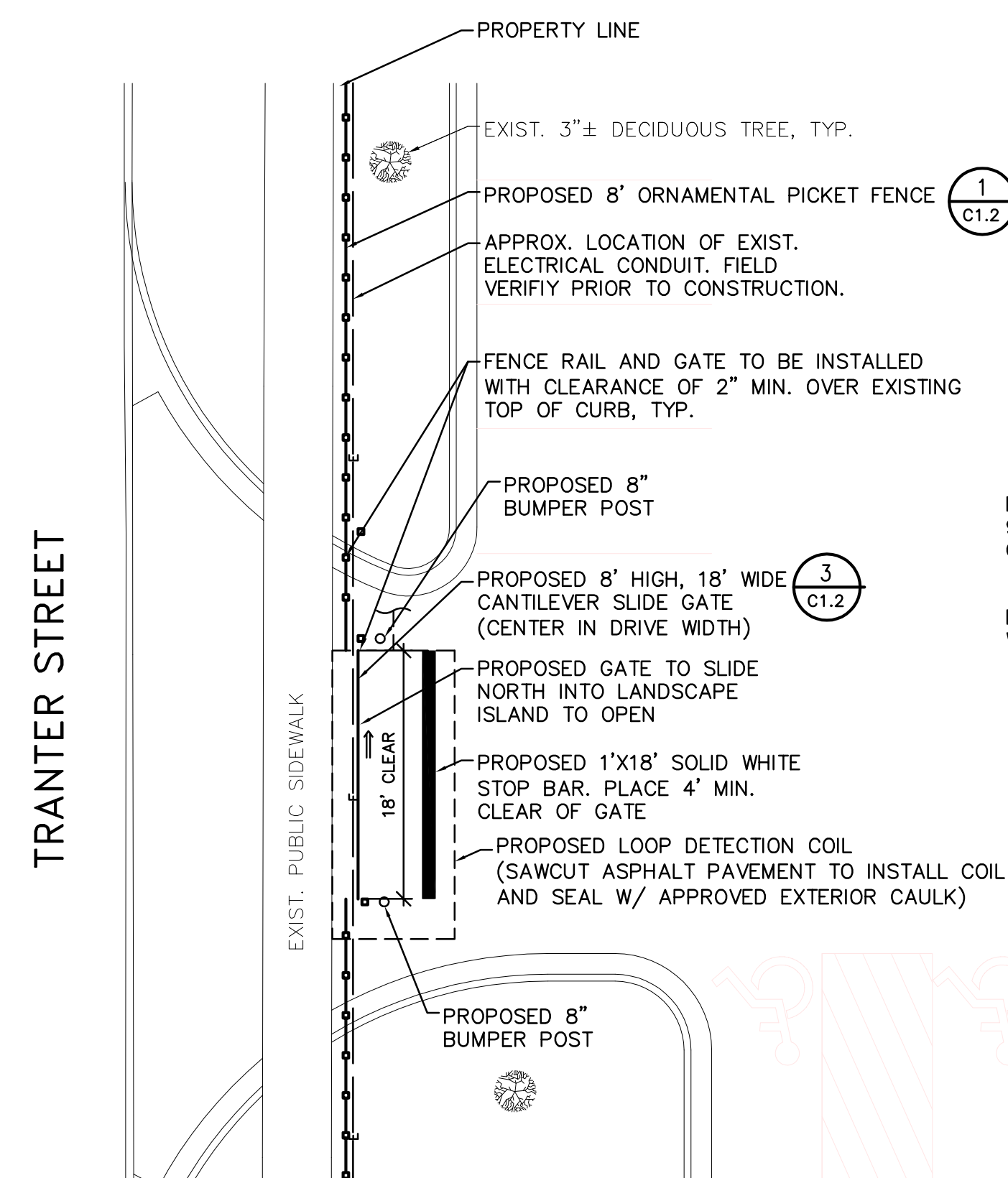
3  
C1.1



NOTE: IF EXISTING SURROUNDING PAVEMENT IS GREATER THAN 5" THICK, MATCH EXISTING DEPTH. PLACE HMA IN 2 LAYERS WITH TACK COAT BETWEEN EACH LAYER.

- ① NEW SURFACE SHALL BE SLOPED AT THE SAME SLOPE AS THE EXISTING SURFACE.
- ② EXISTING PAVEMENT SHALL BE SAW CUT. CUT EDGES STRAIGHT & SMOOTH.
- ③ BASE COURSE SHALL BE LAID AT 4" (MIN.) LIFTS AND SHALL BE COMPACTED TO A MINIMUM OF 95%.
- ④ UNIFORMLY APPLY TACK COAT, SS-1H, RATE: 0.10 TO 0.15 GALLON PER SYD OVER ENTIRE SURFACE OF EACH BITUMINOUS COURSE, EXCEPT THE LAST ONE, AND TO THE SIDES OF THE EXISTING PAVEMENT THAT WERE SAW CUT.
- ⑤ TRENCH SPOIL SHALL BE REMOVED FROM THE WORK SITE.

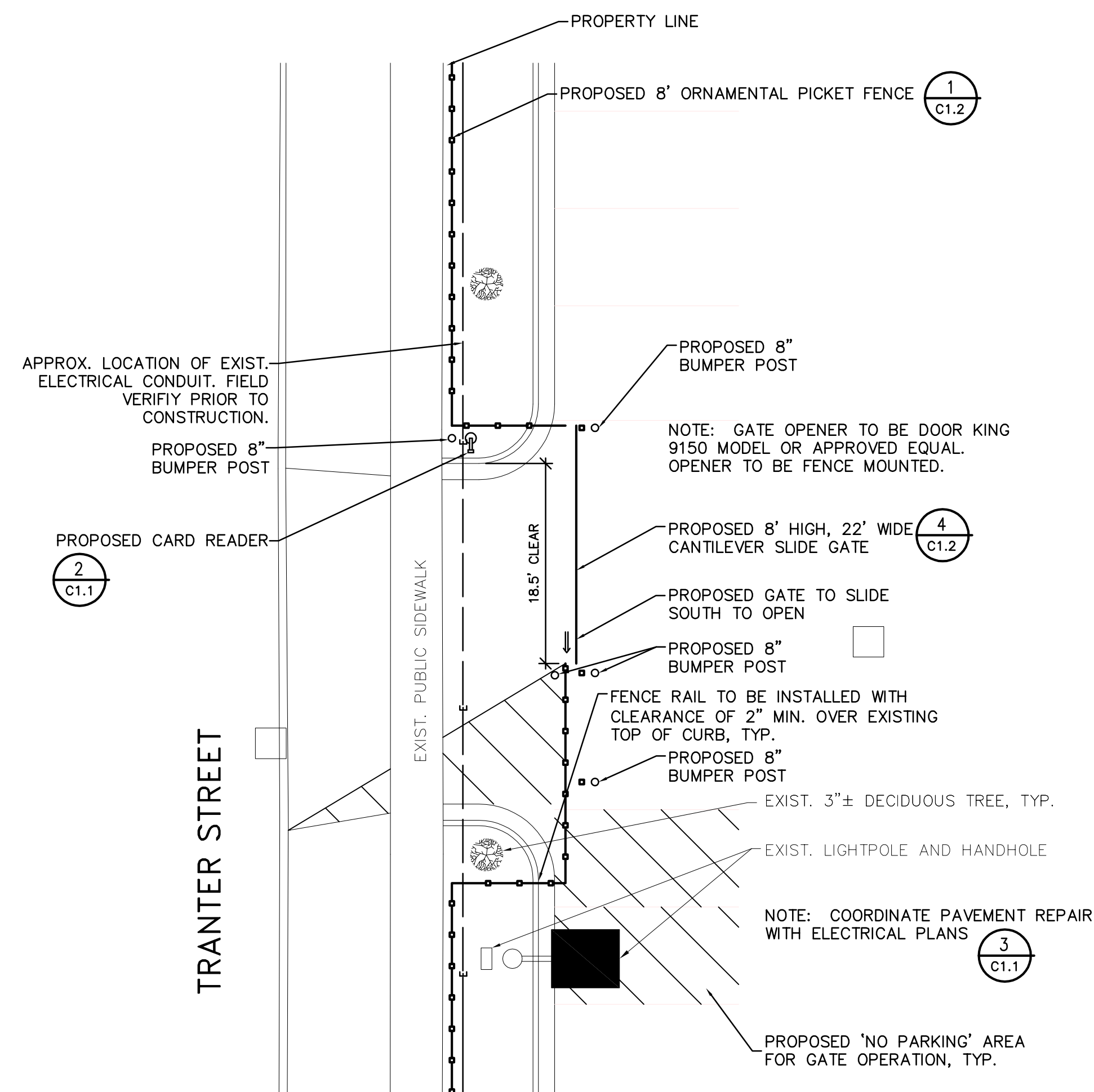
AFTER HMA PAVEMENT HAS BEEN REPLACED, SAWCUT OR ROUTE JOINT BETWEEN EXISTING AND NEW PAVEMENT AND FILL WITH HOT POURED RUBBER JOINT SEALER PRODUCT. HOT POURED RUBBER JOINT SEALER SHALL BE ONE OF THE FOLLOWING OR APPROVED EQUAL: 1) ROADSAVER 221; CRAFTCO INC., 2) PRODUCT #9005 OR #9030: KOCH MATERIAL COMPANY, 3) SEALTIGHT HI-SPEC; W.R. MEADOWS, INC.



**ENLARGED SOUTH GATE PLAN (EXIT ONLY)**

SCALE: 1"=10'

4  
C1.1



**ENLARGED NORTH GATE PLAN (ENTRANCE ONLY)**

SCALE: 1"=10'

5  
C1.1

DATE	BY	DESCRIPTION	REVISIONS:	CHK'D.	APPR'D.	DATE	PROJECT NUMBER
							0941.6302.00

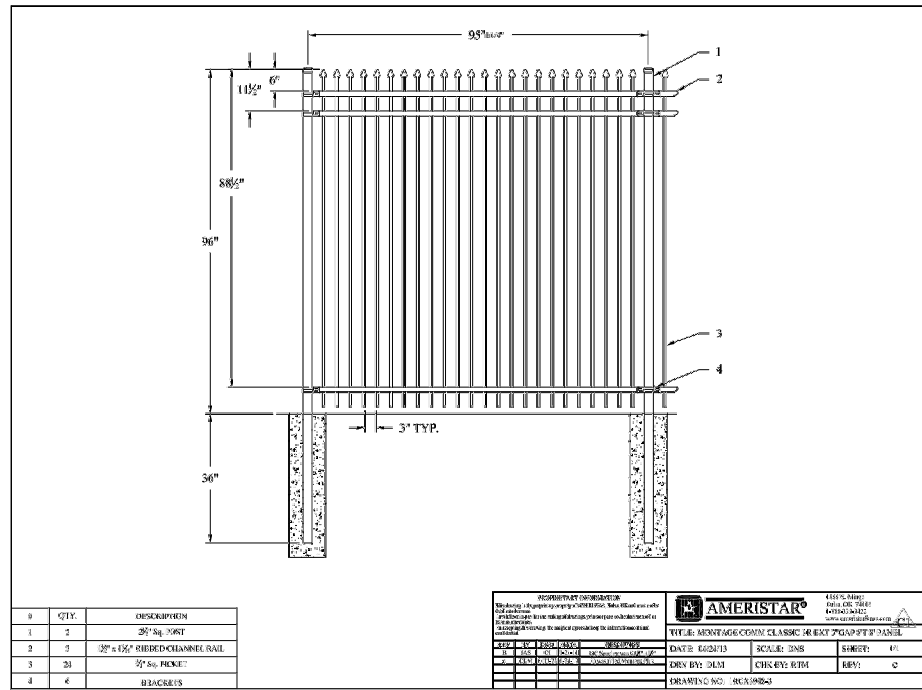
LANSING  
MICHIGAN  
CAPITAL AREA TRANSPORTATION AUTHORITY  
TRANTER STREET SITE IMPROVEMENTS  
SITE/CIVIL  
SITE DETAILS

SHEET 3

OF 8

DRAWING NUMBER

C1.1

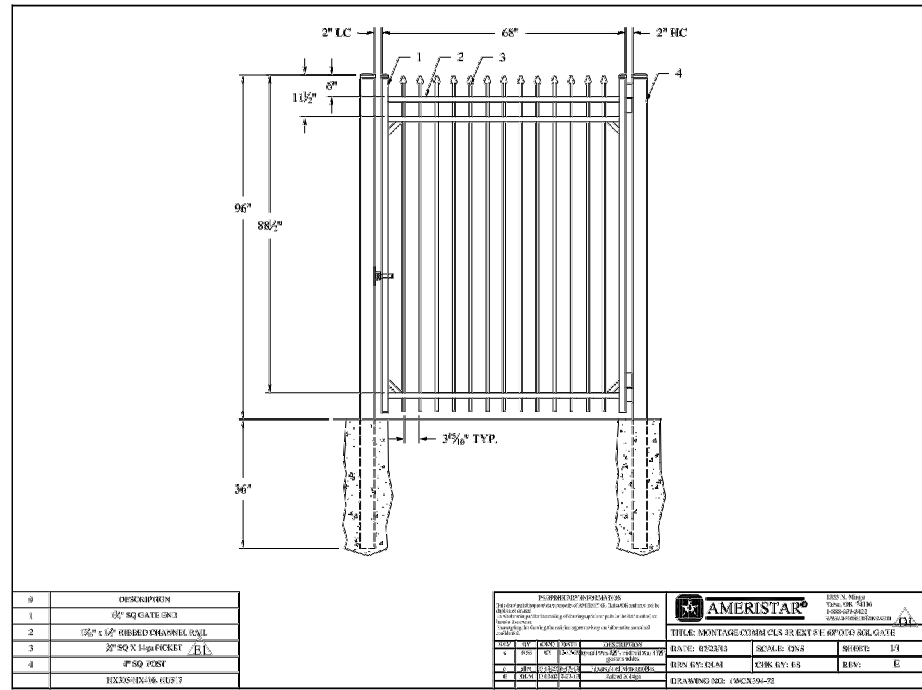


**FENCE, ORNAMENTAL PICKET, 8' HEIGHT**

SCALE: NTS

1

C1.2

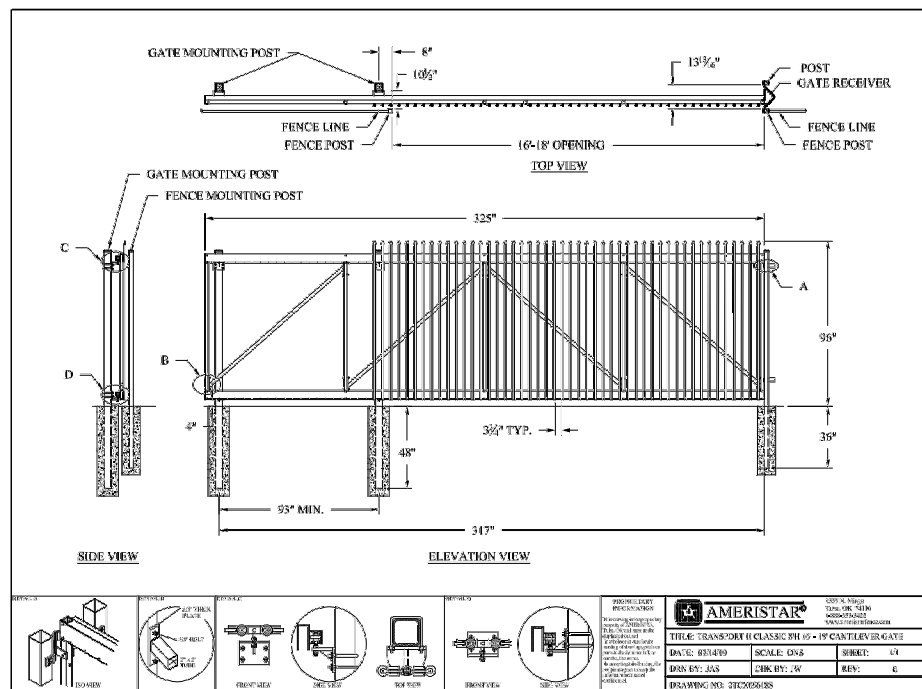


**MAN GATE**

SCALE: NTS

2

C1.2

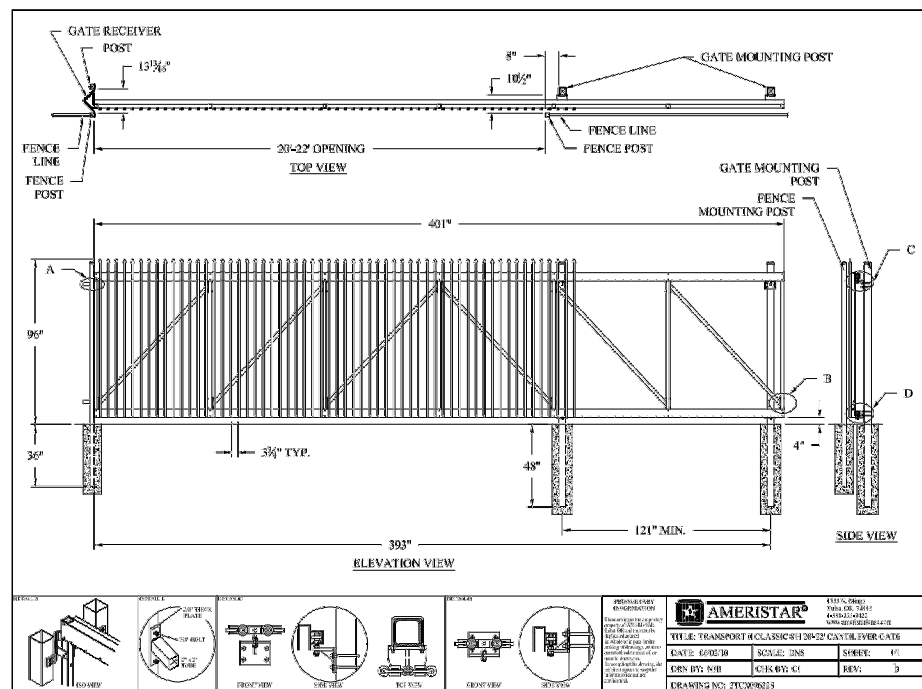


**18' WIDE GATE, CANTILEVER SLIDE, 8' HEIGHT**

SCALE: NTS

3

C1.2

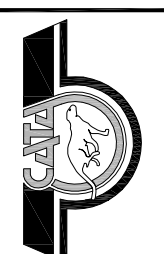
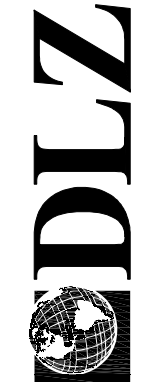


**22' WIDE GATE, CANTILEVER SLIDE, 8' HEIGHT**

SCALE: NTS

4

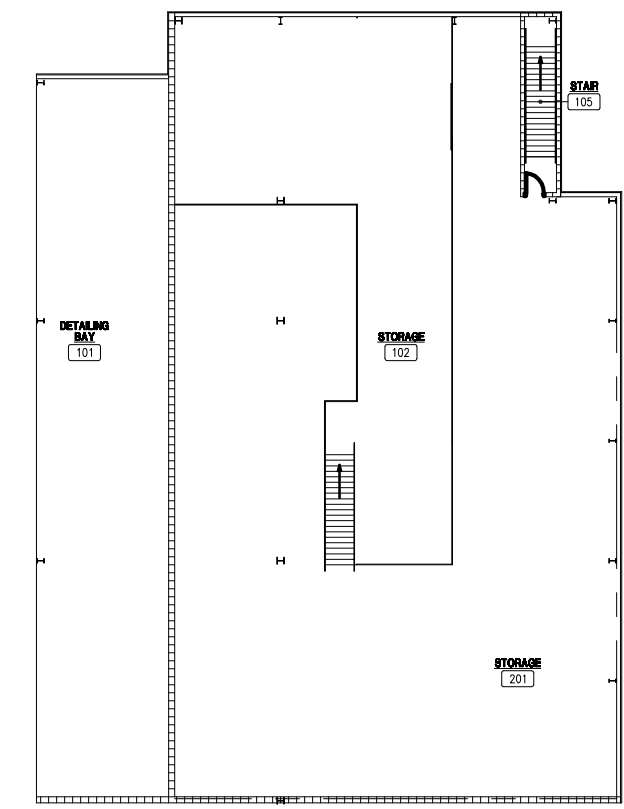
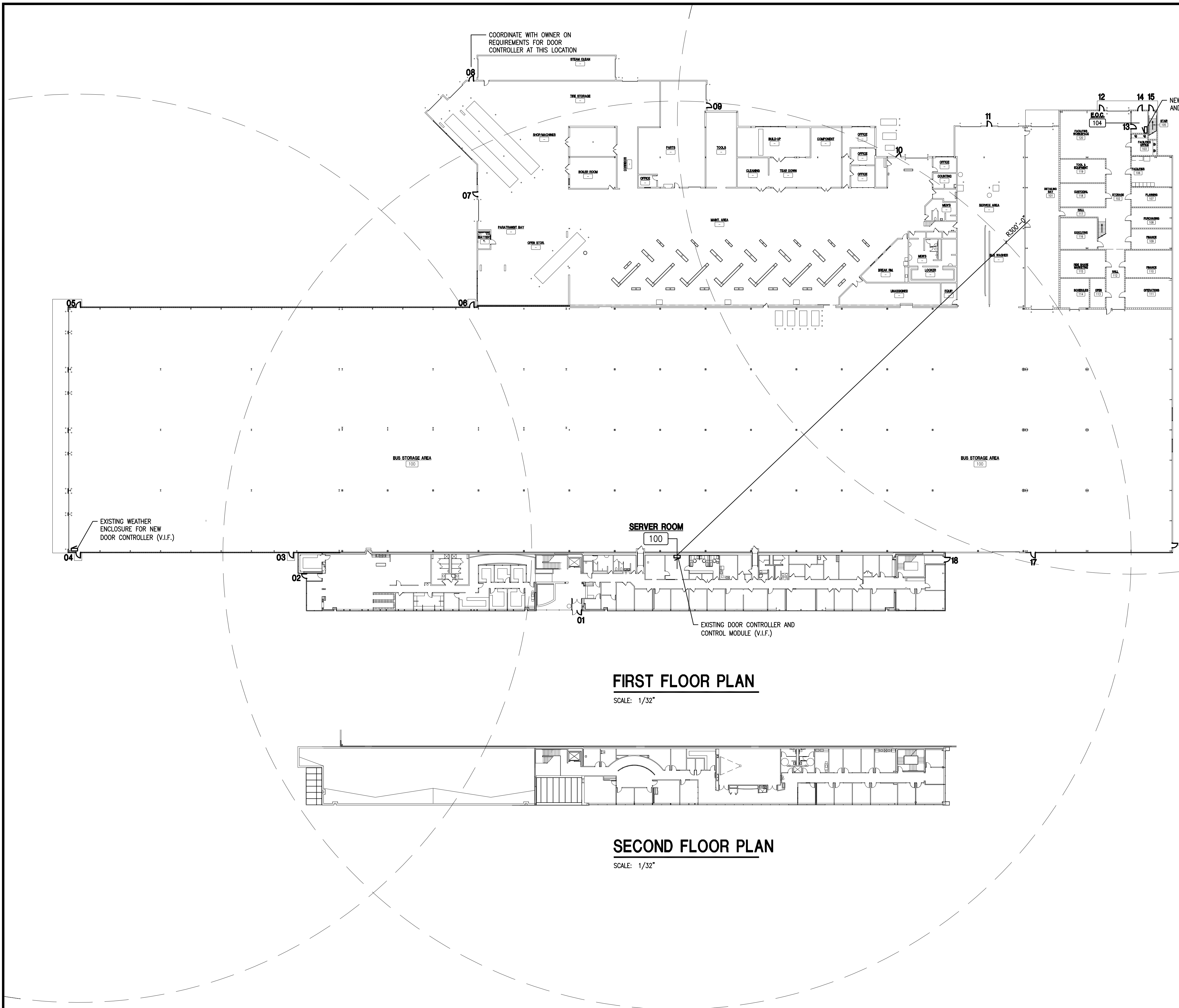
C1.2



DATE	
BY	
DESCRIPTION	
REVISIONS	
DRANK: JRL	CHK'D: ---
DESIGNED: JRL	APPROV'D: ---
DATE: AUGUST 15, 2013	
PROJECT NUMBER	0941.6302.00

MICHIGAN  
 CAPITAL AREA TRANSPORTATION AUTHORITY  
 TRANTER STREET IMPROVEMENTS  
 SITE/CIVIL  
 SITE DETAILS

SHEET	4
OF	8
DRAWING NUMBER	C1.2



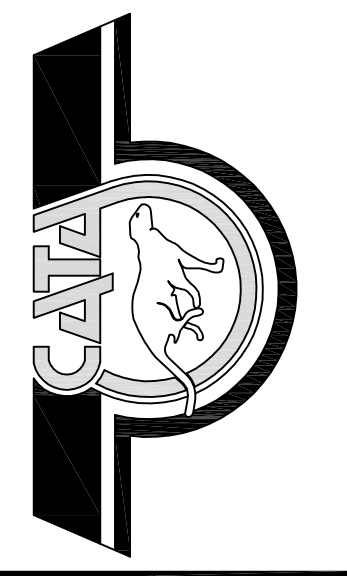
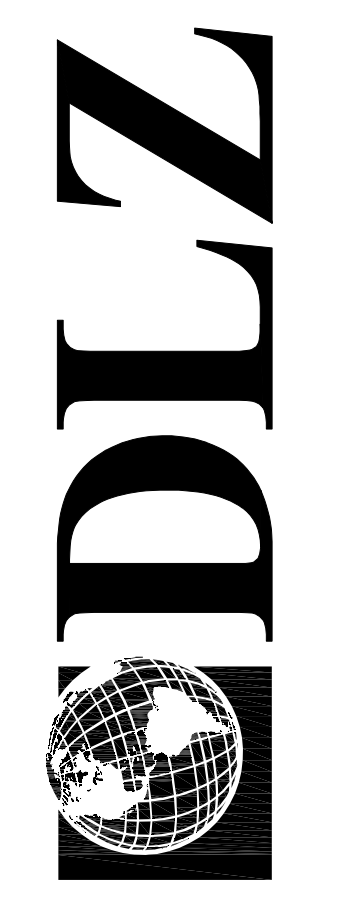
**MEZZANINE PLAN**  
SCALE: 1/32"

**FIRST FLOOR PLAN**  
SCALE: 1/32"

**SECOND FLOOR PLAN**  
SCALE: 1/32"

**NOTES:**

1. CONTRACTOR TO FURNISH AND INSTALL A COMPLETE AND OPERATIONAL SYSTEM. TEST AND CONFIRM OPERATION OF ALL COMPONENTS PRIOR TO COMPLETION.
2. CONTRACTOR TO DESIGN AND SUBMIT DRAWINGS, PRODUCT DATA, WARRANTIES, AND OTHER TECHNICAL INFORMATION A PROPOSED COMPLETE AND OPERATION SYSTEM FOR EACH DOOR.
  - 2.1. SYSTEM SHALL BE COMPATIBLE WITH ALL EXISTING INFRASTRUCTURE.
  - 2.2. SYSTEM SHALL MEET ALL APPLICABLE CODES.
3. EACH DOOR TO RECEIVE A POWERED LATCH, DOOR POSITION DETECTOR, AND CARD SWIPE.
  - 3.1. CARD SWIPE TO BE HID ProxPro II OR APPROVED EQUAL MOUNTED IN BOX RECESSED INTO EXISTING CMU/BRICK.
  - 3.2. CARD SWIPE IN ALUMINUM FRAMES TO BE HID MiniProx 5365 OR APPROVED EQUAL AND MOUNTED TO SURFACE OF FRAME.
4. ALL CABLING SHALL BE PROTECTED. USE OF SURFACE-MOUNTED RACEWAY IS ONLY ALLOWED ON THE NON-SECURE SIDE. SURFACE-MOUNTED RACEWAY IS NOT ACCEPTABLE AT DOORS 01, 02, OR 18; ALL BOXES AND CONDUITS TO BE INSTALLED WITHIN THE EXISTING WALL SYSTEM.
5. ALL DOORS, FRAMES, AND DOOR HARDWARE THAT IS REQUIRED TO BE REPLACED AS A RESULT OF THE ACCESS CONTROLS SYSTEM SHALL BE A PRODUCT COMPARABLE TO WHAT CURRENTLY EXISTS AS DETERMINED SOLELY BY THE ARCHITECT. ALL SUCH REPLACEMENTS SHALL BE SUBMITTED TO THE ARCHITECT FOR REVIEW PRIOR TO REPLACEMENT.
6. THE ESTABLISHED BASELINE FOR THE ACCESS CONTROL SYSTEM SHALL BE THE BASIS FOR SUBMISSION OF ALL BIDS. ANY MODIFICATIONS OF HARDWARE RELATED TO INADEQUACY OF THE CONTRACTORS INITIAL SELECTION SHALL BE CORRECTED AT THE CONTRACTOR'S SOLE EXPENSE.
7. LOCATIONS SHOWN ARE APPROXIMATE. FIELD VERIFICATION IS REQUIRED. THE INFORMATION SHOWN IS FOR REFERENCE PURPOSES ONLY. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO CONFIRM ALL EQUIPMENT/INFRASTRUCTURE RELATIVE TO THE EXISTING SYSTEM PRIOR TO SUBMITTING BIDS. ALL PARTS AND PIECES NECESSARY TO FURNISH AND INSTALL THE COMPLETE AND OPERATIONAL SYSTEM SHALL BE INCLUDED IN THE BID.
8. ANY AND ALL PENETRATIONS SHALL BE SEALED. PENETRATIONS THROUGH RATED CONSTRUCTION SHALL BE SEALED IN A MANNER ACCEPTABLE TO THE CODE OFFICIAL.



DATE	BY	DESCRIPTION	REVISIONS:	DRAWN: PFW	CHK'D: ETB	DESIGNED: PFW	APPROV'D: ETB	DATE: AUGUST 15, 2013	PROJECT NUMBER
									0941.6302.00

LANSING MICHIGAN  
CAPITAL AREA TRANSPORTATION AUTHORITY  
TRANSTER STREET SITE IMPROVEMENTS  
ARCHITECTURAL  
ACCESS CONTROL LAYOUT

SHEET 5  
OF 8  
DRAWING NUMBER  
**A2.1**

ELECTRICAL SPECIFICATIONS

DESCRIPTION OF WORK  
 WORK SHALL INCLUDE BUT NOT NECESSARILY BE LIMITED TO THE FOLLOWING:  
 1. WIRING METHODS.  
 2. FUSED SWITCHES.  
 3. DEVICES.  
 4. PANELS

STANDARDS  
 MATERIALS AND EQUIPMENT SHALL CONFORM TO THE REQUIREMENTS OF NEC, NIOSHA, NFPA, UL, NEMA, A.D.A. AND RESPECTIVE PUBLICATIONS AND OTHER REQUIREMENTS SPECIFIED BELOW. ALL MATERIALS AND EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH RECOMMENDATIONS OF THE MANUFACTURER.

CODES AND ORDINANCES  
 COMPLY WITH ALL CODES AND ORDINANCES. BIDDERS SHALL INFORM THEMSELVES OF CODE REQUIREMENTS.

PERMITS, INSPECTION FEES, AND CODES  
 THE CONTRACTOR SHALL OBTAIN AND PAY ALL PERMIT AND INSPECTION FEES. FINAL INSPECTION CERTIFICATES BY THE LOCAL ELECTRICAL INSPECTOR AND FIRE MARSHAL SHALL BE OBTAINED BY THE CONTRACTOR AND TURNED OVER IN DUPLICATE TO THE OWNER.

SUBMISSIONS  
 SUBMIT PRODUCT DATA, SHOP DRAWINGS, WIRING DIAGRAMS, AND DESCRIPTIVE LITERATURE ON ALL MATERIALS AND EQUIPMENT. MAKE SUBMITTALS WITHIN THIRTY (30) DAYS AFTER THE SIGNING OF THE CONTRACT. SHIPMENT SHALL NOT BE RELEASED UNTIL DRAWINGS AND LITERATURE HAVE BEEN FINALLY APPROVED.

AS-BUILTS - OPERATION & MAINTENANCE MANUALS  
 PROVIDE FOR EACH SYSTEM AND EQUIPMENT AS SPECIFIED FOR USE BY OPERATION AND MAINTENANCE PERSONNEL. THE OPERATING INSTRUCTIONS SHALL INCLUDE:  
 • WIRING DIAGRAMS, CONTROL DIAGRAMS, AND CONTROL SEQUENCE FOR EACH SYSTEM AND ITEM OF EQUIPMENT.  
 • START-UP, PROPER ADJUSTMENT, OPERATING, LUBRICATION, AND SHUT-DOWN PROCEDURES.  
 • SAFETY PRECAUTIONS  
 • THE PROCEDURE IN THE EVENT OF EQUIPMENT FAILURE  
 • OTHER ITEMS OF INSTRUCTION AS RECOMMENDED BY THE MANUFACTURER OF EACH SYSTEM OR ITEM OF EQUIPMENT.

IDENTIFICATION OF SYSTEMS  
 OPERATING INSTRUCTIONS, PRINT OR ENGRAVE INSTRUCTIONS AND FRAME UNDER GLASS OR APPROVED LAMINATED PLASTIC. POST INSTRUCTIONS IN VIEW OF EQUIPMENT. PROVIDE WEATHER RESISTANT MATERIALS FOR EXTERIOR APPLICATIONS.

EQUIPMENT: PROVIDE NAMEPLATE FOR ALL EQUIPMENT IT SHALL BE A SELF-ADHESIVE, ENGRAVED, LAMINATED ACRYLIC OR MELAMINE LABEL. PROVIDE ADHESIVE BACK, WITH WHITE LETTERS ON A DARK GRAY BACKGROUND. MINIMUM LETTER HEIGHT SHALL BE 3/8-INCH.

WARNING SIGNS: PROVIDE A SELF-ADHESIVE WARNING LABEL THAT IS FACTORY PRINTED, MULTI-COLOR, PRESSURE SENSITIVE, ADHESIVE LABEL. COMPLY WITH NEC 10 AND 29 CFR 1910.145. LABELS FOR MULTIPLE POWER SOURCES SHALL READ: "DANGER - ELECTRICAL SHOCK HAZARD - EQUIPMENT HAS MULTIPLE POWER SOURCES". LABELS FOR ALL OTHER EQUIPMENT REQUIRING WORK SPACE CLEARANCES SHALL READ: "WARNING - OSHA REGULATION - AREA IN FRONT OF ELECTRICAL EQUIPMENT MUST BE KEPT CLEAR FOR 36-INCHES".

GUARANTEE  
 PROVIDE GUARANTEE FOR ALL LABOR AND MATERIALS FOR ONE (1) YEAR AFTER OWNER'S WRITTEN ACCEPTANCE OF THE PROJECT.

LAYOUT OF THE WORK  
 EXAMINE THE SITE AND ALL THE DRAWINGS BEFORE PROCEEDING WITH THE LAYOUT AND INSTALLATION OF THIS WORK. LOCATE ESSENTIALLY AS SHOWN ON THE DRAWINGS, BUT IN EXACT LAYOUT DETERMINED ON THE JOB, TO SUIT ACTUAL CONDITIONS. CONFER AND COOPERATE WITH OTHER TRADES ON THE JOB SO ALL PARTS WILL BE INSTALLED IN PROPER RELATIONSHIP. PRECISE LOCATION OF PARTS TO COORDINATE WITH OTHER WORK IS THE RESPONSIBILITY OF THE CONTRACTOR.

DEMOLITION  
 CONTRACTOR SHALL REMOVE ALL EQUIPMENT AND MATERIAL AS INDICATED ON THE DEMOLITION PLAN. EXISTING CONDUIT HOMERUNS MAY BE REUSED WHENEVER POSSIBLE. CONTRACTOR SHALL PATCH EXISTING WALL AND CEILING OPENINGS IN FINISHED AREAS UPON REMOVAL OF ELECTRICAL EQUIPMENT. CONTRACTOR SHALL ALSO PROTECT ALL EXISTING ELECTRICAL EQUIPMENT TO REMAIN DURING CONSTRUCTION PERIOD.

COORDINATION  
 CONTRACTOR SHALL MAINTAIN POWER TO FACILITY DURING CONSTRUCTION. IF A POWER OUTAGE IS REQUIRED FOR CONSTRUCTION, CONTRACTOR SHALL COORDINATE TIME WITH OWNER A MINIMUM OF 5-DAYS PRIOR TO SHUT-DOWN. ALL SHUT-DOWNS SHALL BE AFTER-HOURS AND ON WEEKENDS.

CUTTING AND PATCHING  
 ALL NECESSARY CUTTING OF THE BUILDING CONSTRUCTION FOR THE NEW INSTALLATION OF THE WORK SHALL BE FURNISHED BY THE CONTRACTOR. NO STRUCTURAL MEMBERS OF THE BUILDING SHALL BE CUT WITHOUT PRIOR APPROVAL OF THE ARCHITECT. ALL NECESSARY PATCHING OF THESE SURFACES TO BE FURNISHED BY THIS CONTRACTOR.

WIRE AND CABLE  
 ALL WIRING SHALL STRANDED COPPER AND INSTALLED IN CONDUIT, TUBING, OR SURFACE METALLIC RACEWAY. CONDUCTORS SHALL BE CONTINUOUS BETWEEN OUTLETS OF JUNCTION BOXES WITH SPLICES MADE ONLY WITHIN SUCH BOXES. SOLDERLESS PRESSURE-TYPE CONNECTORS PROPERLY INSULATED SHALL BE USED FOR ALL JOINTS. NO WIRE SMALLER THAN 1/2 MAY BE USED UNLESS SPECIFICALLY SPECIFIED UNDER DESCRIPTIONS OF SPECIAL SYSTEMS.

CONDUIT  
 ALL CONDUIT SHALL BE 1/2-INCH MINIMUM UNLESS NOTED OTHERWISE. WIRING METHODS:  
 • EXTERIOR EXPOSED AND CONCEALED: RGC,  
 • UNDERGROUND: FVC SCHEDULE 40,  
 • INTERIOR EXPOSED/CONCEALED UNDER 2-INCHES: EMT,  
 • INTERIOR EXPOSED/CONCEALED 2-INCHES AND LARGER: RGC.

KEEP RACEWAYS AT LEAST 6-INCHES FROM PARALLEL RUNS OF FLUES, STEAM AND HOT WATER PIPING. INSTALL HORIZONTAL CONDUIT RUNS ABOVE WATER AND STEAM PIPING. INSTALL RACEWAYS LEVEL AND SQUARE AND AT PROPER ELEVATIONS. PROTECT STUB UPS FROM DAMAGE WHERE CONDUITS RISE THROUGH FLOOR SLABS AND ARRANGE SO CURVED PORTION OF BENDS ARE NOT VISIBLE ABOVE THE FINISHED SLAB. INSTALL RACEWAYS IN MIDDLE THIRD OF SLAB WITH MINIMUM OF 1-INCH CONCRETE COVER. SECURE RACEWAYS TO REINFORCING RODS TO PREVENT SAGGING OR SHIFTING DURING CONCRETE PLACEMENT. SPACE RACEWAYS LATERALLY TO PREVENT VOIDS IN CONCRETE. RUN CONDUIT LARGER THAN 1-INCH TRADE SIZE PARALLEL TO OR AT RIGHT ANGLES TO MAIN REINFORCEMENT. WHERE AT RIGHT ANGLES TO REINFORCEMENT, PLACE CONDUIT CLOSE TO SLAB SUPPORT.

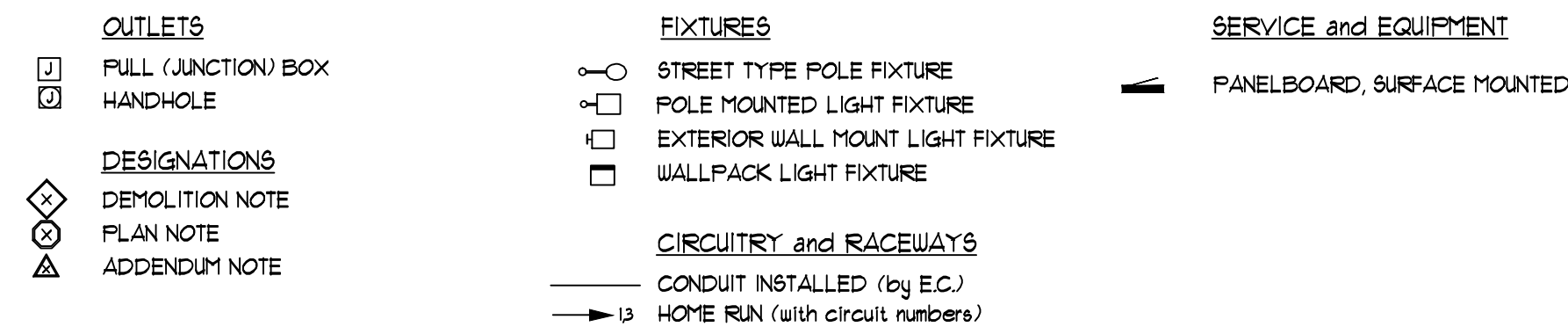
ELECTRICAL SERVICE  
 SERVICE IS EXISTING.

GROUNDING  
 ALL ELECTRICAL EQUIPMENT SHALL BE GROUNDED IN A MANNER APPROVED BY THE LOCAL INSPECTOR.

SUPPORTS AND HANGERS  
 PROVIDE AND INSTALL NECESSARY STEEL BRACKETS, RODS, CLAMPS, ETC. FOR SUPPORT OF ALL WORK UNDER THIS CONTRACT.

END OF DIVISION 26

ELECTRICAL SYMBOLS LEGEND



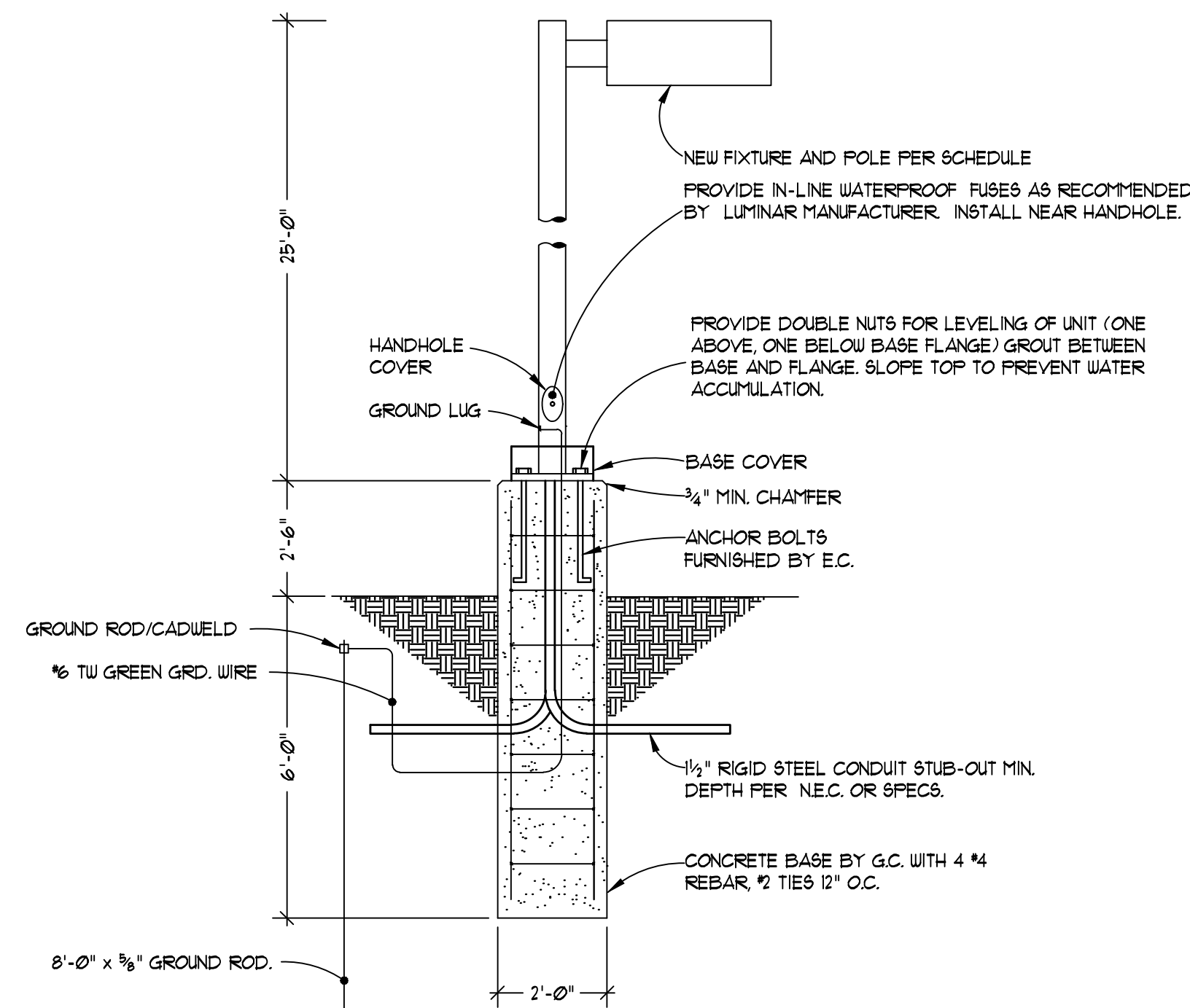
ABBREVIATIONS LEGEND

BLDG	BUILDING	F	POLE
CND (C)	CONDUIT	FB	FULL BOX
CKT	CIRCUIT	PNL	PANEL
EC	ELECTRICAL CONTRACTOR	RECEPT	RECEPTACLE
EMT	ELECTRICAL METALLIC TUBING	RGC	RIGID GALVANIZED STEEL CONDUIT
EXIST (E)	EXISTING	SPEC	SPECIFICATIONS
GND	GROUND	UNO	UNDERWRITERS' LABORATORIES, INC. UNLESS NOTED OTHERWISE
IG	ISOLATED GROUND	V	VOLTS
IMC	INTERMEDIATE METAL CONDUIT		
JB	JUNCTION BOX		
LTG	LIGHTING		
MTD	MOUNTED		

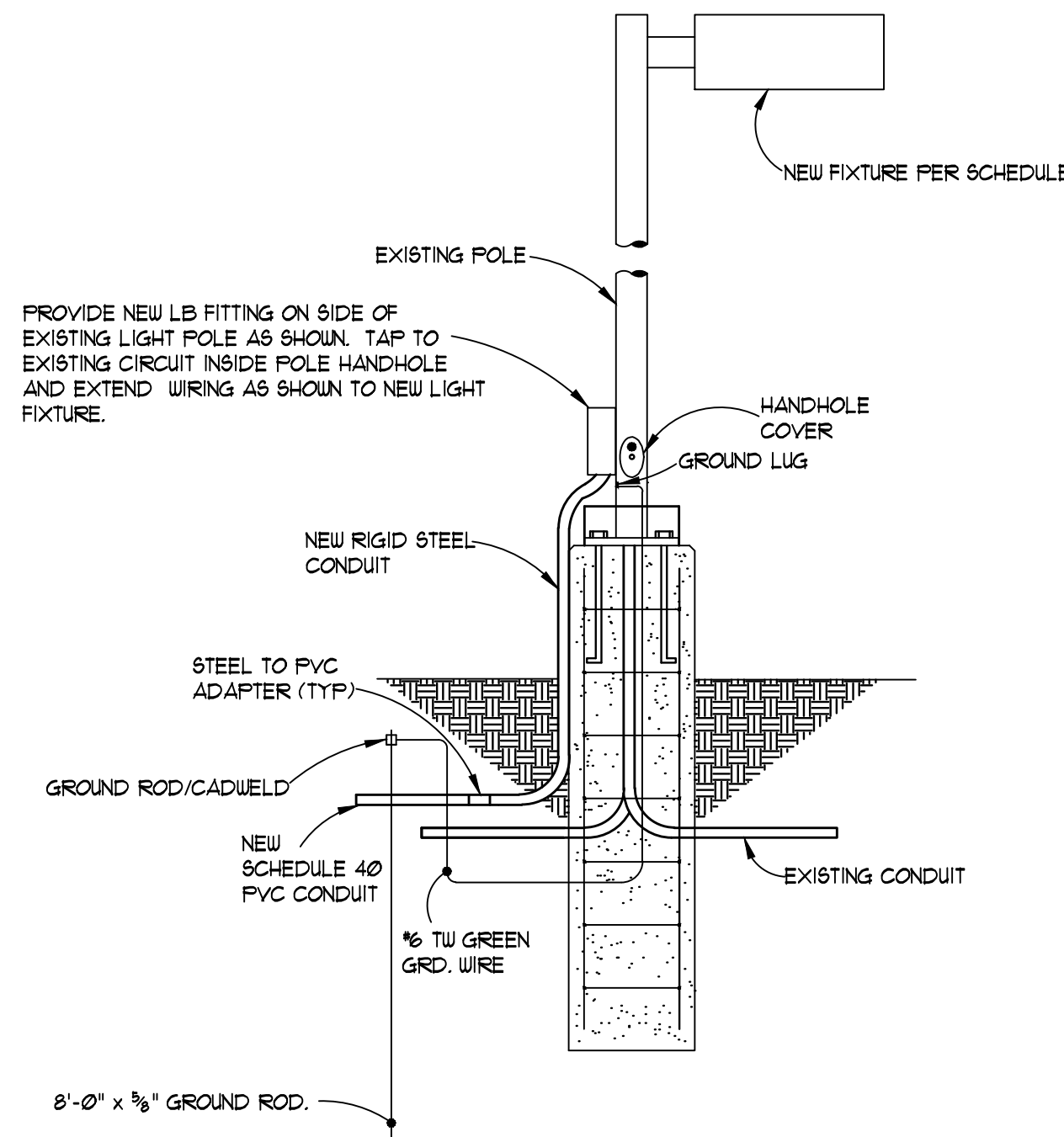
GENERAL ELECTRICAL NOTES

- ALL WALL AND FLOOR PENETRATIONS ARE TO BE SEALED TO MAINTAIN ORIGINAL RATING.
- ALL CONDUITS TO BE FIELD ROUTED ALONG EXISTING PIPING AND STRUCTURAL STEEL.
- THE DIVISION 26 CONTRACTORS SHALL VISIT THE PROJECT AND DETERMINE THE EXACT EXTENT OF THE DEMOLITION WORK REQUIRED BEFORE BIDDING THE PROJECT.
- REMOVE ALL EXISTING OBSOLETE EXPOSED CONDUIT, WIRE AND UNUSED EQUIPMENT WHERE WORK IS BEING DONE EXCEPT ITEMS NOTED OTHERWISE.
- WHERE BUILDING SURFACES ARE DAMAGED BY THE REMOVAL OF OLD WORK, SURFACES SHALL BE PATCHED TO MATCH ADJACENT.
- EXISTING WORK WHICH IS PRESENTLY CONCEALED AND WHICH WILL REMAIN CONCEALED AND DOES NOT INTERFERE WITH ANY NEW WORK OF ANY TRADE NEED NOT BE REMOVED. HOWEVER, ALL CONDUIT SHALL BE CARVED BELOW FINISH SURFACE AND THEN PATCHED TO MATCH, OR AS NOTED.
- EXISTING OPENINGS, WHICH ARE TO BE REUSED, SHALL BE MODIFIED OR ENLARGED TO SUIT THE NEW SYSTEMS AS REQUIRED. PROVIDE ALL REQUIRED CUTTING AND PATCHING.
- IF ASBESTOS IS PRESENT, IT WILL BE REMOVED OR RENDERED HARMLESS UNDER SEPARATE CONTRACT BY THE OWNER.
- THE DIVISION 26 CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING THE EXISTING WALLS TO MATCH THE ADJACENT SURFACES BEHIND ALL SURFACE MOUNTED EQUIPMENT.
- CONTRACTOR SHALL FIELD VERIFY ALL EQUIPMENT VOLTAGES AND LOADS PRIOR TO INSTALLING SERVICE TO EQUIPMENT.
- DRAWINGS ARE BASED ON EXISTING RECORD DOCUMENT AND CASUAL FIELD OBSERVATION. REPORT ANY DISCREPANCIES TO ENGINEER FOR CLARIFICATION.

TYPE	MANUFACTURER	CATALOG NO.	DESCRIPTION AND COMMENTS	BALLAST INFO	FIXTURE MOUNTING HEIGHT	LAMPS
HA	LITHONIA WIDELITE LUMARK SPAULDING	KAD-250M-9R2-2T1-UBD04-SF AL3P250-24-2T1-UB-FI-DB MFTR-25-250-2T1-FI-LA-MAI201-B2 CH1-UBA5-F2B-H2-F-Q-DB	EXTERIOR WALL MOUNT FIXTURE. PROVIDE TYPE II DISTRIBUTION, 4-INCH WALL BRACKET, FUSE AND DARK BRONZE FINISH.	SUPER SUIA FULSE START	25-FEET ABOVE GRADE	250W MH
HB FIXTURE	LITHONIA WIDELITE LUMARK SPAULDING	KAD-400M-9R4C-2T1-9PD04-SF AL3P400-4H-2T1-9S-FI-DB MFTR-45-400-2T1-FI CH1-AB-F40-H4-F-Q-DB	EXTERIOR POLE MOUNT FIXTURE. PROVIDE TYPE IV DISTRIBUTION.	SUPER SUIA FULSE START	21'-6" ABOVE GRADE	400W MH
HB POLE	LITHONIA LYTEPOLES HAPCO SPAULDING	555-25-4G-DM19-DOB 101-5011-25-DB 55525D4-4-1-0-BM 555-25-40-TAX-DB	25-FT SQUARE STRAIGHT STEEL DARK BRONZE POLE. PROVIDE HAND HOLE COVER PLATES.	-	-	-
HC	LITHONIA WIDELITE LUMARK SPAULDING	KAD-400M-9R4C-2T1-9PD04-SF AL3P400-4H-2T1-9S MFTR-45-400-2T1-FI CH1-AB-F40-H4-F-Q-F4-H8-DB	EXTERIOR POLE MOUNT FIXTURE. PROVIDE TYPE IV DISTRIBUTION.	SUPER SUIA FULSE START	21'-6" ABOVE GRADE	400W MH
HD	WIDELITE MCGRAW EDISON LITHONIA SPAULDING	AL4P-1000-3F-QV-95-FI-TDB TLL-1000-MH-2T1-FG-FG-BZ-L KV2-1000M-9R2FL-2T1-9P CH2-A5-FK-H2P-F-Q-DB-4(2T1)	EXTERIOR POLE MOUNT FIXTURE. PROVIDE TYPE II DISTRIBUTION.	SUPER SUIA FULSE START	30'-6" ABOVE GRADE	1000W MH
HE	WIDELITE MCGRAW EDISON LITHONIA SPAULDING	AL4P-1000-4F-2T1-9S-FI-TDB TLL-1000-MH-2T1-4F-FG-BZ-L-MAI010-BZ KV2-1000M-9R4FL-2T1-9P CH2-A5-FK-H4P-F-Q-DB-4(2T1)	EXTERIOR POLE MOUNT FIXTURE. PROVIDE TYPE IV DISTRIBUTION.	SUPER SUIA FULSE START	30'-6" ABOVE GRADE	1000W MH
LA	MCGRAW EDISON GARDCO SPAULDING LITHONIA	GLEON-AA-03-LED-EI-T2-BZ-UM ECP-1-4-105LA-641A-NUN-UV-BRP CL1-A-30L-U-4K-2-DB-UB-F4 DSX1-LED-60C-100-40K-T25-2T1-UBA-9F-DDBXD	EXTERIOR WALL MOUNT FIXTURE. PROVIDE TYPE II DISTRIBUTION.	-	25-FEET ABOVE GRADE	13,481 LUMEN 13W 10 CRI 4000K LED
LB FIXTURE	MCGRAW EDISON GARDCO SPAULDING LITHONIA	GLEON-AA-05-LED-EI-T4-BZ-MAI036-BZ ECP-1-4-105LA-641A-NUN-UV-BRP CL1-A-30L-U-4K-4-105-DB-F4 DSX1-LED-60C-1000-T4M-2T1-9FA-9F-DDBXD	EXTERIOR POLE MOUNT FIXTURE. PROVIDE TYPE IV DISTRIBUTION.	-	21'-6" ABOVE GRADE	18,205 LUMEN 203W 10 CRI 4000K LED
LB POLE	LITHONIA LYTEPOLES HAPCO SPAULDING	555-25-4G-DM19-DOB 101-5011-25-DB 55525D4-4-1-0-BM 555-25-40-TAX-DB	25-FT SQUARE STRAIGHT STEEL DARK BRONZE POLE. PROVIDE HAND HOLE COVER PLATES.	-	-	-



1 NEW POLE BASE DETAIL  
 SCALE: N.T.S.



2 EXISTING POLE BASE DETAIL  
 SCALE: N.T.S.

DATE

BY

DESCRIPTION

REVISIONS:

DRAWN: AJB  
 CHECK'D: JFS  
 DESIGNED: AJB  
 APPROV'D: JFS  
 DATE: AUGUST 15, 2013  
 SCALE: AS SHOWN

PROJECT NUMBER  
 0941.6302.00

MICHIGAN  
 CAPITAL AREA TRANSPORTATION AUTHORITY  
 TRANTER STREET SITE IMPROVEMENTS

LANSING

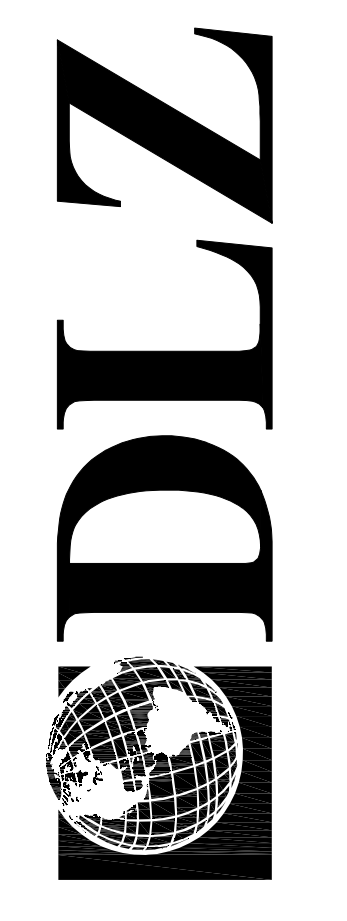
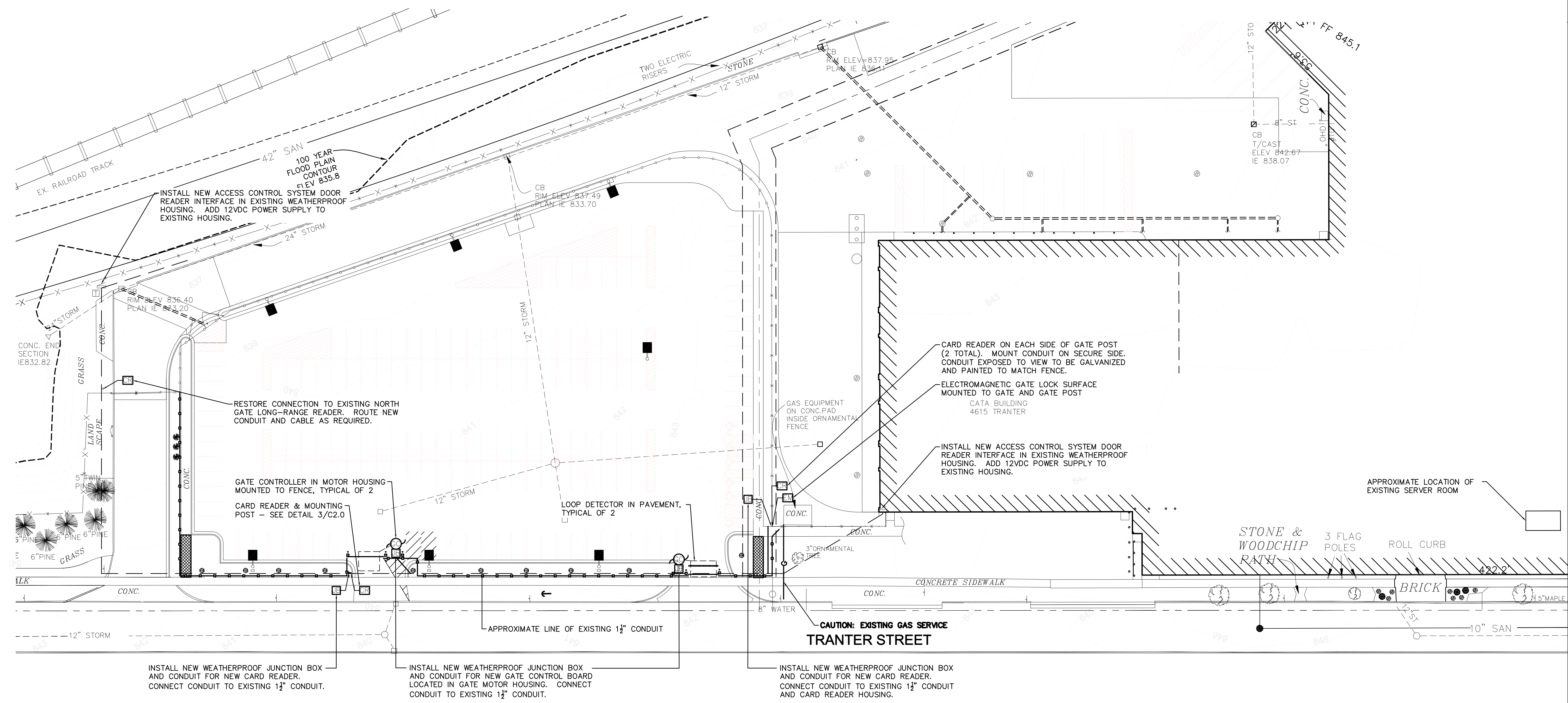
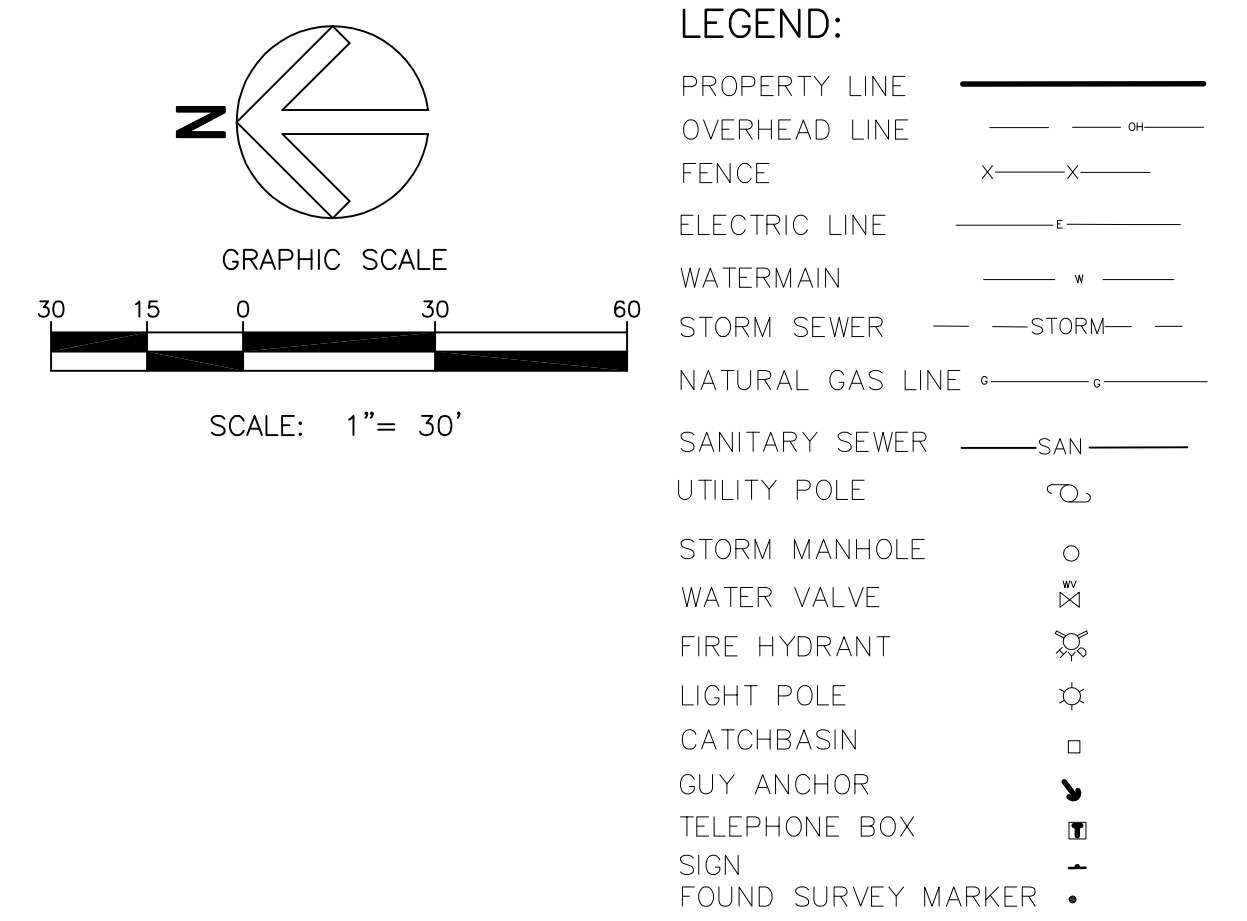
SPECIFICATIONS,  
 DETAILS

SHEET 5  
 OF 8

DRAWING NUMBER  
 E1.0



- NOTES:**
- ALL ACCESS CONTROL SYSTEMS SHALL BE COMPATIBLE WITH THE EXISTING SYSTEM GALAXY CONTROL SYSTEM. CONTRACTOR TO FIELD VERIFY SYSTEMS AND REQUIREMENTS.
    - BASIS OF DESIGN SYSTEMS:**
      - VEHICLE GATE CARD READER - HID ProxPro II OR APPROVED EQUAL
      - MAN GATE CARD READER - HID MiniProx 5365 OR APPROVED EQUAL
      - CREDENTIAL SYSTEM - HID 1346 ProxKey III OR APPROVED EQUAL
        - CONTRACTOR TO SUPPLY (350) HID 1346 ProxKey III FOBS
        - ELECTROMAGNETIC GATE LOCK - SCHLAGE 390G+ SERIES OR APPROVED EQUAL
        - FURNISH SWING GATE MOUNTING BRACKETS
  - CONTRACTOR TO PULL, TERMINATE AND TEST ALL LOW-VOLTAGE WIRE AND NETWORK CABLING AS REQUIRED TO MAKE ACCESS CONTROL SYSTEM COMPLETE AND OPERATIONAL. ALL WIRE SHALL BE FURNISHED BY THE CONTRACTOR.
  - THE CONTRACTOR SHALL FURNISH AND INSTALL A COMPLETE AND OPERATIONAL ACCESS CONTROL SYSTEM. ANY AND ALL COMPONENTS NOT SPECIFICALLY IDENTIFIED ON THE DRAWINGS OR IN THE TECHNICAL SPECIFICATIONS ARE HEREBY INCLUDED IN THE BASE BID. THIS INCLUDES ANY ITEMS THAT ARE ANCILLARY TO THE SYSTEM (I.E. POWER OUTLETS). IT IS ASSUMED THAT DOOR CONTROLLER WILL BE CONNECTED TO THE NETWORK SWITCH FOR CONNECTIVITY WITH THE EXISTING ACCESS CONTROL SYSTEM CONTROL BOARD.
  - THE CONTRACTOR SHALL MAKE ALL PENETRATIONS THROUGH EXISTING WALLS, AS REQUIRED, WITH PRECISION. ALL PENETRATIONS SHALL BE MADE WEATHERTIGHT. PENETRATIONS THROUGH FIRE RESISTIVE CONSTRUCTION SHALL BE CREATED, DETAILED AND SEALED AS REQUIRED BY THE CODE.
  - ALL UNDERGROUND CONDUIT SHALL MATCH EXISTING. ALL CONDUIT EXPOSED TO VIEW SHALL BE RIGID GALVANIZED METAL CONDUIT FIELD PAINTED TO MATCH FENCING.



DATE	
BY	
DESCRIPTION	
REVISIONS:	
DRAWN: JRL	CHK'D: ---
DESIGNED: JRL	APPROV'D: ---
DATE: AUGUST 15, 2013	
PROJECT NUMBER	0941.6302.00

MICHIGAN  
 CAPITAL AREA TRANSPORTATION AUTHORITY  
 TRANSTER STREET SITE IMPROVEMENTS  
 LANSING  
 ELECTRICAL  
 SITE ACCESS CONTROL PLAN

SHEET	8
OF	8
DRAWING NUMBER	E3.0

Time Stamp