

A detailed street map of Madison, Wisconsin, showing the city's layout between Lake Mendota and Lake Monona. The map includes major streets like N Lake St, N Main St, E Main St, and E Washington Ave. It also shows several parks: James Madison Park, Giddings Park, Sherman Ave, Tenney Park, Breese Stevens Field, Orton Park, Arrowhead Park, and Brittingham Park. The city name 'Madison' is prominently displayed in the center. The map is oriented with Lake Mendota at the top and Lake Monona at the bottom.

CONTRACT: 7154

ELECTRICAL SYMBOLS

LIGHTING

| | |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| | FIXTURE SYMBOL (TYPICAL) A-INDICATES FIXTURE TYPE 2-INDICATES CIRCUIT NUMBER b-INDICATES SWITCHING SOLID CIRCLE INDICATES ALWAYS ON |
| | INCANDESCENT, LED, HID, SURFACE OR PENDANT |
| | POLE MOUNTED LIGHT FIXTURE(S) |
| | ELECTRICAL COMPONENT ENCLOSURE |
| | 1X4 FLUORESCENT, SURFACE OR PENDANT |
| | 1X8 FLUORESCENT, SURFACE OR PENDANT |
| | FLUORESCENT, WALL |
| | 1X4 FLUORESCENT, RECESSED |
| | 2X2 FLUORESCENT, RECESSED |
| | 2X4 FLUORESCENT, RECESSED |
| | CAN, FLUORESCENT, LED, OR HID |
| | EXIT, SURFACE, PENDANT OR RECESSED |
| | EXIT, WALL |
| | EMERGENCY LIGHTING |
| SWITCHES | |
| | SINGLE POLE |
| | TWO POLE |
| | THREE WAY |
| | FOUR WAY |
| | KEYED |
| | DIMMER |
| | MANUAL MOTOR SWITCH (3 PHASE) |
| | WEATHER PROOF |
| | SWITCH WITH PILOT LIGHT |
| | LIGHTING CONTROL STATION |
| | LOCKOUT STOP SWITCH |
| | DOOR POSITION SWITCH |
| | PHOTOCELL |

EQUIPMENT AND WIRING

| | |
|--|---------------------------------------------------------|
| | GROUND ROD 10'-5/8" DIA. COPPER CLAD |
| | TRANSFORMER |
| | DISCONNECT, F=FUSED, B=CIRCUIT BREAKER, BLANK=NON-FUSED |
| | MOTOR STARTER MAGNETIC |
| | CIRCUIT BREAKER |
| | COMBINATION STARTER |
| | JUNCTION BOX |
| | LINE VOLTAGE THERMOSTAT |
| | LINE VOLTAGE THERMOSTAT W/REMOTE BULB |
| | 480V LOAD, REFER TO MCC SCHEDULE FOR EQUIPMENT NUMBER |
| | VARIABLE FREQUENCY DRIVE |

POWER SYMBOLS

| | |
|--|----------------------------------------------------------------------|
| | UNDERGROUND ELECTRIC |
| | OVERHEAD ELECTRIC |
| | CIRCUIT NUMBER (TYPICAL) OTHERWISE SHOWN PANEL DESIGNATION (TYP.) |
| | DUPLEX, 125 VOLT, WP INDICATES WEATHERPROOF |
| | DUPLEX, 125 VOLT, ABOVE FURNITURE |
| | DOUBLE DUPLEX, 125 VOLT, ABOVE FURNITURE |
| | DOUBLE DUPLEX, 125 VOLT |
| | SINGLE CONVENIENCE, 125 VOLT FOR ELECTRIC WATER COOLER |
| | EXPLOSION-PROOF, ABOVE FURNITURE |
| | EXPLOSION-PROOF |
| | FIXED EQUIPMENT CONNECTION |
| | POWER OUTLET, VOLTAGE & AMPERAGE AS INDICATED |
| | AUTOMATIC TRANSFER SWITCH (ONE-LINE DIAGRAM) |
| | CIRCUIT BREAKER (ONE-LINE DIAGRAM) |
| | METER (ONE-LINE DIAGRAM) |
| | PANELBOARD |

FIRE ALARM AND DETECTION SYMBOLS

| | |
|--|-------------------------------------------|
| | FIRE ALARM CONTROL PANEL |
| | FIRE ANNUNCIATOR CONTROL PANEL |
| | STROBE; WALL MOUNT - ADA RATED |
| | HORN STROBE; WALL MOUNT - ADA RATED |
| | SPEAKER STROBE; WALL MOUNT - ADA RATED |
| | HORN; WALL MOUNT - ADA RATED |
| | SPEAKER; WALL MOUNT - ADA RATED |
| | STROBE; CEILING MOUNT - ADA RATED |
| | HORN STROBE; CEILING MOUNT - ADA RATED |
| | SPEAKER STROBE; CEILING MOUNT - ADA RATED |
| | AREA OF RESCUE ASSISTANCE |
| | EMERGENCY TELEPHONE SYSTEM |
| | HEAT DETECTOR; CEILING MOUNT |
| | SMOKE DETECTOR; CEILING MOUNT |
| | ELEVATOR RECALL SMOKE DETECTOR |
| | NITROUS OXIDE SENSOR |
| | CARBON MONOXIDE SENSOR |
| | SWITCH INDICATION |
| | DUCT SMOKE DETECTOR |
| | DUCT SIZE |
| | REMOTE TEST SWITCH |
| | FIRE ALARM PULL STATION |
| | SPRINKLER FLOW SWITCH |
| | SPRINKLER VALVE TAMPER SWITCH |
| | FIRE ALARM BELL |

INSTRUMENTATION EQUIPMENT

| | |
|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | ANALYSIS ELEMENT |
| | ANALYSIS INDICATING TRANSMITTER, *: DO=DISSOLVED OXYGEN, PH=PH, TRB=TURBIDITY, TSS=TOTAL SUSPENDED SOLIDS, GD=GAS DETECTOR, CA=CHLORINE ANALYZER, OP=OXYGEN PURITY, LEL=LOWER EXPLOSIVE LIMIT, PR=PROXIMITY, MST=MOISTURE |
| | CONTROL SWITCH DEVICE TYPE (SEE MCC SCHEDULE) |
| | DENSITY ELEMENT |
| | DENSITY INDICATING TRANSMITTER |
| | FLOW ELEMENT |
| | FLOW INDICATING TRANSMITTER, *: M=MAGNETIC, TM= THERMAL MASS, DP=DIFFERENTIAL PRESSURE, U=ULTRASONIC |
| | FLOW SWITCH *: P=PADDLE, T=THERMAL, C=CAPACITANCE, A=AIR FLOW |
| | HAND SWITCH *: SS=SAFETY SWITCH |
| | POWER ELEMENT (CURRENT XFMR, POTENTIAL XFMR) |
| | CURRENT SWITCH |
| | POWER INDICATING TRANSMITTER |
| | TIME SWITCH |
| | LEVEL ELEMENT |
| | LEVEL INDICATING TRANSMITTER, *: S=SUBMERSIBLE, U=ULTRASONIC, R=RING TYPE |
| | LEVEL SWITCH, *: C=CONDUCTANCE, F=BALL FLOAT, V=VIBRATING FORK, B=BUILDING FLOODING |
| | DIFFERENTIAL PRESSURE INDICATING TRANSMITTER |
| | PRESSURE ELEMENT |
| | PRESSURE INDICATING TRANSMITTER |
| | PRESSURE SWITCH |
| | SPEED SWITCH |
| | TEMPERATURE CONTROLLER |
| | TEMPERATURE ELEMENT, *: R=RTD, T=THERMOCOUPLE |
| | TEMPERATURE INDICATING TRANSMITTER |
| | TEMPERATURE CONTROL STATION |
| | TEMPERATURE SWITCH |
| | TEMPERATURE TRANSMITTER |
| | VIBRATION ELEMENT |
| | VIBRATION INDICATING TRANSMITTER |
| | WEIGHT ELEMENT |
| | TORQUE SWITCH |
| | WEIGHT TRANSMITTER (SCALE) |
| | PRESENCE/ABSENCE DETECTOR |
| | POSITION SWITCH, *: D=DOOR, L=LIMIT, P=PROXIMITY |
| | SOLENOID VALVE |
| | FIXED SECURITY CAMERA |
| | PAN, TILT, ZOOM SECURITY CAMERA |

TECHNOLOGY SYMBOLS

| | |
|--|-------------------------------------------------------|
| | DATA JACK; * = # OF JACKS |
| | POTS ANALOG PHONE JACK; * = # OF JACKS |
| | POTS ANALOG PHONE AND DATA JACKS; * = # OF JACKS |
| | WALL MOUNT VOIP PHONE JACK 54" AFF |
| | WALL MOUNT POTS ANALOG PHONE JACK 54" AFF |
| | SCADA NETWORK JACK |
| | DATA RACK |
| | COAX CABLE |
| | POWER POLE |
| | PA SYSTEM SPEAKER *WATTAGE TAP |
| | SPEAKER; CEILING MOUNT A=SPEAKER TYPE |
| | KEY PAD |
| | GLASS BREAK DETECTOR |
| | MOTION SENSOR |
| | PUSH BUTTON |
| | ELECTRIC STRIKE |
| | MAGNETIC LOCK |
| | INTERCOM STATION |
| | OCCUPANCY SENSOR SEE SPECIFICATION FOR SENSOR TYPE |
| | CARD READER |
| | REMOTE VOLUME CONTROL |

DUCTWORK SYMBOLS

| | |
|--|-------------------------------------------|
| | SUPPLY DUCT (UP OR SECTION) |
| | SUPPLY OR OUTSIDE AIR DUCT (DOWN/OR AWAY) |
| | EXHAUST DUCT (UP OR SECTION) |
| | EXHAUST OR RETURN DUCT (DOWN/OR AWAY) |
| | ROUND DUCTWORK UP |
| | ROUND DUCTWORK DOWN |
| | FLEXIBLE CANVAS CONNECTION |
| | TURNING VANES |

DAMPER SYMBOLS

| | |
|--|-----------------------|
| | AUTOMATIC DAMPER |
| | BACKDRAFT DAMPER |
| | MANUAL VOLUME DAMPER |
| | 1-1/2 HR. FIRE DAMPER |

FIELD MOUNTED CONTROLS

| | |
|--|---------------------|
| | THERMOSTAT |
| | ROOM HUMIDISTAT |
| | PRESSURE SENSOR |
| | ROOM SENSOR |
| | DUCT SMOKE DETECTOR |
| | PRESSURE GAUGE |

ACTUATORS

| | |
|--|------------------|
| | MOTOR (ELECTRIC) |
| | PNEUMATIC |
| | SOLENOID |

EQUIPMENT SYMBOLS

| | |
|--|------------------------------------------------------------------|
| | ACCUMULATOR |
| | AIR FLOW DIRECTION |
| | BASE MOUNTED PUMP |
| | BLOWER |
| | CEILING DIFFUSER WITH FLEXIBLE DUCT |
| | CENTRIFUGAL PUMP |
| | CONNECT TO EXISTING |
| | DRIP TRAP |
| | DUCT BOOST COIL |
| | EQUIPMENT TAG |
| | FLAME ARRESTER |
| | FLAME CELL |
| | FLAME TRAP ASSEMBLY |
| | GRINDER |
| | INLINE PUMP |
| | POSITIVE DISPLACEMENT PUMP |
| | ROOF EXHAUST FAN |
| | UNIT HEATER |
| | VARIABLE AIR VOLUME (VAV) BOX WITH ELECTRIC REHEAT COIL |
| | VARIABLE AIR VOLUME (VAV) BOX WITH HEATING HOT WATER REHEAT COIL |
| | FLOATING MIXER |
| | SCREW CONVEYOR |

STANDARD SYMBOLS

917 EAST MIFFLIN STREET
CITY OF MADISON
MADISON, WISCONSIN

JOB NO.
1020.074

PROJECT MGR.
DAVE GOHDES

SA
STRAND
ASSOCIATES®

SHEET
2
G0.2

GENERAL EQUIPMENT ABBREVIATIONS

| | |
|-------|-------------------------------------|
| AC | AIR COMPRESSOR |
| ACU | ACCUMULATOR |
| ADT | AUTOMATIC DRIP TRAP |
| AFT | AUTOMATIC FILTER |
| AOV | AIR OPERATED VALVE |
| AM | ANOXIC MIXER |
| AST | AUTOMATIC STRAINER |
| BSLP | BLENDED SLUDGE PUMP |
| B | BLOWER |
| BC | BRIDGE CRANE |
| BFP | BELT FILTER PRESS |
| BFFPF | BFP FEED PUMP |
| BFV | BUTTERFLY VALVE |
| BLP | BIOSOLIDS LOADING PUMP |
| BLR | BOILER |
| BP | BOOSTER PUMP |
| BSLMP | BLENDED SLUDGE MIXING PUMP |
| BSLP | BLENDED SLUDGE PUMP |
| BSTM | BIOSOLIDS STORAGE MIXER |
| BTP | BIOSOLIDS TRANSFER PUMP |
| CENT | CENTRIFUGE |
| CNTP | CENTRATE PUMP |
| CENTP | CENTRIFUGE FEED PUMP |
| CP | CHEMICAL PUMP |
| COMP | COMPRESSOR |
| CON | CONVEYOR |
| DBC | DEWATERED BIOSOLIDS CONVEYOR |
| DCP | DECANT PUMP |
| DEWP | DISINFECTED EFFLUENT PUMP |
| DP | DRAINAGE PUMP |
| DRLP | DIGESTER RECIRCULATION PUMP |
| DSLMP | DIGESTER MIXING PUMP |
| DSLTP | DIGESTED SLUDGE TRANSFER PUMP |
| DT | DRIP TRAP |
| DOW | DOWNWARD OPENING WEIR GATE |
| EFC | EXCESS FLOW CLARIFIER |
| EFP | EXCESS FLOW PUMP |
| EFSP | EXCESS FLOW SOLIDS PUMP |
| EP | EFFLUENT PUMP |
| FC | FINAL CLARIFIER |
| FCD | FINAL CLARIFIER DRIVE |
| FEP | FINAL EFFLUENT PUMP |
| FILT | FILTER |
| FM | FLOW METER |
| FT | FLAME TRAP |
| GBT | GRAVITY BELT THICKENER |
| GC | GRIT CLASSIFIER |
| GFM | GAS FLOW METER |
| GCS | GAS COMPRESSOR SKID |
| GP | GRIT PUMP |
| GRN | GRINDER |
| GT | GRIT TRAP |
| GUH | GAS UNIT HEATER |
| GW | GRIT WASHER |
| H | HOIST |
| HBT | HYDROPNEUMATIC BOOSTER TANK |
| HTX | HEAT EXCHANGER |
| IP | INFLUENT PUMP |
| MA | MOTORIZED ACTUATOR |
| MBV | MOTORIZED BALL VALVE |
| MFS | MECHANICAL FINE SCREEN |
| MIX | MIXER |
| MOV | MOTOR OPERATED VALVE |
| MP | MIXING PUMP |
| MPE | MISCELLANEOUS PROCESS EQUIPMENT |
| MST | MANUAL STRAINER |
| MT | MICROTURBINE |
| NRP | NITRATE RECYCLE PUMP |
| OCD | OVERHEAD COILING DOOR |
| OCE | ODOR CONTROL EQUIPMENT |
| ODE | OXIDATION DITCH EQUIPMENT |
| PC | PROGRESSING CAVITY PUMP |
| PCD | PRIMARY CLARIFIER DRIVE |
| PCFD | PRIMARY CLARIFIER FLOCCULATOR DRIVE |
| PF | POLYMER FEEDER |
| PFP | POLYMER FEED PUMP |
| PLWP | PLANT WATER PUMP |
| PRCP | PHOSPHORUS REMOVAL CHEMICAL PUMP |
| PRCT | PHOSPHORUS REMOVAL CHEMICAL TANK |
| PREP | PRIMARY EFFLUENT PUMP |
| PRFP | PROCESS RETURN FLOW PUMP |
| PRSP | PRIMARY SLUDGE PUMP |
| PTP | POLYMER TRANSFER PUMP |
| RAD | REFRIGERATED AIR DRYER |
| RASP | RETURN ACTIVATED SLUDGE PUMP |
| RDT | ROTARY DRUM THICKENER |
| RDTP | ROTARY DRUM THICKENER FEED PUMP |
| RM | RAPID MIXER |
| SA | SAMPLER |
| SBFP | SODIUM BISULFITE FEED PUMP |
| SBST | SODIUM BISULFITE STORAGE TANK |
| SCMP | SCUM PUMP |
| SCW | SCREENINGS WASHER |
| SEJ | SEWAGE EJECTOR |

| | |
|-------|----------------------------------|
| SG | SLIDE GATE |
| SHFP | SODIUM HYPOCHLORITE FEED PUMP |
| SHST | SODIUM HYPOCHLORITE STORAGE TANK |
| SLG | SLUICE GATE |
| SP | SUMP PUMP |
| SRT | SILOXANE REMOVAL TANK |
| SSC | SCREENINGS SCREW CONVEYOR |
| STCP | STRUMTE CHEMICAL PUMP |
| STG | STOP GATE |
| STR | STRAINER |
| SV | SOLENOID VALVE |
| SWP | SCREENINGS WASHER/PRESS |
| TV | TELESCOPING VALVE |
| TWASP | TWAS PUMP |
| UV | ULTRAVIOLET DISINFECTION |
| WASP | WAS PUMP |

FLUID ABBREVIATIONS

| | |
|--------|----------------------------------|
| A | AIR |
| BSL | BLENDED SLUDGE |
| CA | COMPRESSED AIR |
| CNT | CENTRATE |
| CDG | COMPRESSED DIGESTER GAS |
| CLS | CHLORINE SOLUTION |
| CNT | CENTRATE |
| CW | COLD WATER |
| CWR | CHILLED WATER RETURN |
| CWS | CHILLED WATER SUPPLY |
| D | DRAIN |
| DEW | DISINFECTED EFFLUENT WATER |
| DG | DIGESTER GAS |
| DIV | DIVERSION |
| DRL | DIGESTER RECIRCULATION |
| DS | DIGESTER SUPERNATANT |
| DSL | DIGESTED SLUDGE |
| DSL MD | DIGESTER SLUDGE MIXER DISCHARGE |
| DSL MS | DIGESTER SLUDGE MIXER SUCTION |
| EF | EXCESS FLOW |
| EFS | EXCESS FLOW SOLIDS |
| FE | FINAL EFFLUENT |
| F | FORCE MAIN |
| G | NATURAL GAS |
| GR | GRIT |
| GTS | GRAMTY THICKENER SUPERNATANT |
| HOCL | HYPOCHLORITE |
| HW | HOT WATER |
| HWR | HOT WATER RETURN |
| HWS | HOT WATER SUPPLY |
| ML | MIXED LIQUOR |
| NAOH | SODIUM HYDROXIDE |
| NPW | NONPOTABLE WATER |
| OF | OVERFLOW |
| OC | ODOR CONTROL |
| PDP | PERFORATED DRAIN PIPE |
| PE | PLANT EFFLUENT |
| PEC | POLYELECTROLYTE CHEMICAL |
| PI | PLANT INFLUENT |
| PRC | PHOSPHORUS REMOVAL CHEMICAL |
| PRE | PRIMARY EFFLUENT |
| PRF | PROCESS RETURN FLOW |
| PRI | PRIMARY INFLUENT |
| PRS | PRIMARY SLUDGE |
| PSS | PLANT SANITARY SEWER |
| PW | POTABLE WATER |
| PWR | PROCESS WATER RETURN |
| PWS | PROCESS WATER SUPPLY |
| RAS | RETURN ACTIVATED SLUDGE |
| RW | RAW WASTEWATER |
| SAM | SAMPLE |
| SAN | SANITARY SEWER |
| SB | SODIUM BISULFITE |
| SCM | SCUM |
| SCMD | SCUM DECANT |
| SE | SECONDARY EFFLUENT |
| SH | SODIUM HYPOCHLORITE |
| SL | SLUDGE |
| SPD | SUMP PUMP DISCHARGE |
| ST | STORM SEWER |
| STC | STRUVITE CHEMICAL |
| SW | SERVICE WATER |
| SWS | SEAL WATER SUPPLY |
| TSL | THICKENED SLUDGE |
| TWAS | THICKENED WASTE ACTIVATED SLUDGE |
| V | VENT |
| W | POTABLE WATER |
| WAS | WASTE ACTIVATED SLUDGE |
| WML | WASTE MIXED LIQUOR |

PLUMBING ABBREVIATIONS

| | |
|------|---------------------------------|
| AEW | APRON END WALL |
| BF | BLIND FLANGE |
| CA | COMPRESSED AIR |
| CB | CATCH BASIN |
| CD | CONDENSATE DRAIN |
| CI | CAST IRON |
| CO | CLEAN OUT |
| COND | CONDENSATE |
| CPVC | CHLORINATED POLYVINYL CHLORIDE |
| CW | COLD WATER |
| D | DRAIN |
| DCBP | DOUBLE CHECK BACKFLOW PREVENTER |
| DF | DRINKING FOUNTAIN |
| DFU | DRAINAGE FIXTURE UNIT |
| DI | DUCTILE IRON |
| ESEW | EMERGENCY SHOWER EYEWASH |
| EW | EYEWASH |
| EWC | ELECTRIC WATER COOLER |
| FCO | FLOOR CLEAN OUT |
| FD | FLOOR DRAIN |
| FOR | FUEL OIL RETURN |
| FOS | FUEL OIL SUPPLY |
| HB | HOSE BIBB |
| HD | HUB DRAIN |
| HDPE | HIGH DENSITY POLYETHYLENE |
| HHWR | HEATING HOT WATER RETURN |
| HHWS | HEATING HOT WATER SUPPLY |
| HR | HOSE REEL |
| HWL | HIGH WATER LEVEL |
| HW | HOT WATER |
| HWR | HOT WATER RETURN |
| IE | INVERT ELEVATION |
| IWP | INDIRECT WASTE PIPE |
| L | LAVATORY |
| MB | MOP BASIN |
| MH | MANHOLE |
| MV | MUD VALVE |
| PHW | PROCESS HOT WATER |
| P | PUMP |
| POC | POINT OF CONNECTION |
| PRV | PRESSURE REDUCING VALVE |
| PV | PLUG VALVE |
| PVC | POLYVINYL CHLORIDE |
| PVR | PRESSURE VACUUM RELIEF ASSEMBLY |
| QC | QUICK CONNECT |
| RCP | REINFORCED CONCRETE PIPE |
| RD | ROOF DRAIN |
| RZBP | REDUCED ZONE BACKFLOW PREVENTER |
| S | SINK |
| SD | SHOWER DRAIN |
| SEJ | SEWAGE EJECTOR |
| SHR | SHOWER |
| SP | SUMP PUMP |
| SS | STAINLESS STEEL |
| SV | SOLENOID VALVE |
| SVS | SERVICE SINK |
| T | TANK |
| TD | TRENCH DRAIN |
| U | URINAL |
| V | VENT |
| VB | VACUUM BREAKER |
| VCP | VITRIFIED CLAY PIPE |
| VTR | VENT THRU ROOF |
| WCO | WALL CLEANOUT |
| WC | WATER CLOSET |
| WH | WATER HEATER |
| WS | WATER SOFTENER |
| WSFU | WATER SERVICE FIXTURE UNIT |

GENERAL/HVAC ABBREVIATIONS

| | |
|------|-------------------------------|
| ACH | AIR CHANGES PER HOUR |
| AFF | ABOVE FINISHED FLOOR |
| ALT | ALTERNATE |
| AP | ACCESS PANEL |
| BTU | BRITISH THERMAL UNIT |
| BTUH | BRITISH THERMAL UNIT PER HOUR |
| CFM | CUBIC FEET PER MINUTE |
| CLG | CEILING |
| COND | CONDENSATE |
| DAT | DISCHARGE AIR TEMPERATURE |
| DB | DRY BULB TEMPERATURE |
| DDC | DIRECT DIGITAL CONTROL |
| DG | DOOR GRILLE |
| DX | DIRECT EXPANSION |
| EA | EXHAUST AIR |
| EAT | ENTERING AIR TEMPERATURE |
| EL | ELEVATION |
| ESP | EXTERNAL STATIC PRESSURE |
| EWT | ENTERING WATER TEMPERATURE |
| FC | FAIL CLOSED |
| FLA | FULL LOAD AMPS |

| | |
|------|------------------------------|
| FO | FAIL OPEN |
| FPI | FINS PER INCH |
| FPM | FEET PER MINUTE |
| FT | FEET |
| GA | GAUGE |
| GPM | GALLONS PER MINUTE |
| LAT | LEAVING AIR TEMPERATURE |
| LWT | LEAVING WATER TEMPERATURE |
| MBH | THOUSANDS OF BTU PER HOUR |
| MC | MECHANICAL CONTRACTOR |
| NA | NOT APPLICABLE |
| NC | NORMALLY CLOSED |
| NO | NORMALLY OPEN |
| NPT | NATIONAL PIPE THREAD |
| NTS | NOT TO SCALE |
| OA | OUTSIDE AIR |
| OC | ON CENTER |
| OV | OUTLET VELOCITY |
| PD | PRESSURE DROP |
| PSI | POUNDS PER SQUARE INCH |
| PSIG | POUNDS PER SQUARE INCH GAUGE |
| RA | RETURN AIR |
| RPM | REVOLUTIONS PER MINUTE |
| SA | SUPPLY AIR |
| SP | STATIC PRESSURE |

HVAC EQUIPMENT ABBREVIATIONS

| | |
|-------|-----------------------------------|
| ACCU | AIR COOLED CONDENSING UNIT |
| AFR | ARCHITECTURAL FINE TUBE RADIATION |
| AHU | AIR HANDLING UNIT |
| AS | AIR SEPARATOR |
| BLR | BOILER |
| BB | BASEBOARD |
| C | CONVECTOR |
| CD | CEILING DIFFUSER |
| CHILL | CHILLER |
| CT | COOLING TOWER |
| CUH | CABINET UNIT HEATER |
| CWP | CHILLED WATER PUMP |
| DC | DRY COOLER |
| DH | DEHUMIDIFIER |
| DL | DRUM LOUVER |
| EBB | ELECTRIC BASEBOARD |
| EDH | ELECTRIC DUCT HEATER |
| EF | EXHAUST FAN |
| EG | EXHAUST GRILLE |
| EJ | EXPANSION JOINT |
| EL | EXPANSION LOOP |
| ER | EXHAUST REGISTER |
| ERC | ELECTRIC REHEAT COIL |
| ERU | ENERGY RECOVERY UNIT |
| EUH | ELECTRIC UNIT HEATER |
| EWH | ELECTRIC WALL HEATER |
| FCU | FAN COIL UNIT |
| FD | FIRE DAMPER |
| FR | FINNED TUBE RADIATION |
| FUR | FURNACE |
| GDF | GAS DUCT FURNACE |
| GRV | GRAVITY ROOF VENTILATOR |
| GUH | GAS UNIT HEATER |
| HC | HEATING COIL |
| HP | HEAT PUMP |
| HRP | HEAT RECOVERY PUMP |
| HU | HUMIDIFIER |
| HWH | HOT WATER UNIT HEATER |
| HWP | HOT WATER PUMP |
| HTX | HEAT EXCHANGER |
| ICF | INDUSTRIAL CEILING FAN |
| IR | INFRARED HEATER |
| L | LOUVER |
| MAU | MAKE-UP AIR UNIT |
| P | PUMP |
| PWP | PROCESS WATER PUMP |
| RF | RETURN FAN |
| RG | RETURN GRILLE |
| RR | REGISTER |
| RTU | ROOFTOP UNIT |
| SD | SUCTION DIFFUSER |
| SF | SUPPLY FAN |
| SG | SUPPLY GRILLE |
| SR | SUPPLY REGISTER |
| ST | STEAM TRAP |
| SUH | STEAM UNIT HEATER |
| TCP | TEMPERATURE CONTROL PANEL |
| TG | TRANSFER GRILLE |
| UH | UNIT HEATER |
| UV | UNIT VENTILATOR |
| VAV | VARIABLE AIR VOLUME BOX |
| VD | VOLUME DAMPER |
| VFD | VARIABLE FREQUENCY DRIVE |
| WSHP | WATER SOURCE HEAT PUMP |
| XT | EXPANSION TANK |

ELECTRICAL ABBREVIATIONS

| | |
|-------|------------------------------------------|
| A | AMPERE |
| AF | AMPERE FRAME |
| AFF | ABOVE FINISHED FLOOR |
| AFG | ABOVE FINISHED GRADE |
| AHJ | AUTHORITY HAVING JURISDICTION |
| AHU | AIR HANDLING UNIT |
| AIC | AMPERE INTERRUPTING CAPACITY |
| AL | ALUMINUM |
| AT | AMPERE TRIP |
| ATS | AUTOMATIC TRANSFER SWITCH |
| AV | AUDIO VISUAL |
| AWG | AMERICAN WIRE GAUGE |
| BLDG | BUILDING |
| C | CONDUIT |
| CAT | CATALOG |
| CATV | CABLE TELEVISION |
| CB | CIRCUIT BREAKER |
| CCTV | CLOSED CIRCUIT TELEVISION |
| CKT | CIRCUIT |
| CL | CENTERLINE |
| CLG | CEILING |
| COL | COLUMN |
| CT | CURRENT TRANSFORMER |
| CTE | CONNECT TO EXISTING |
| CU | COPPER |
| CUH | CABINET UNIT HEATER |
| D | DEDICATED |
| DC | DIRECT CURRENT |
| DISC | DISCONNECT |
| DWG | DRAWING |
| E | EMERGENCY |
| EC | ELECTRICAL CONTRACTOR |
| EDH | ELECTRIC DUCT HEATER |
| EF | EXHAUST FAN |
| EMT | ELECTRICAL METALLIC TUBING |
| EOL | END OF LINE DEVICE |
| EWC | ELECTRIC WATER COOLER |
| EX | EXISTING |
| FAAP | FIRE ALARM ANNUNCIATOR PANEL |
| FACP | FIRE ALARM CONTROL PANEL |
| FCU | FAN COIL UNIT |
| FLA | FULL LOAD AMPERES |
| FPCP | FIRE PUMP CONTROL PANEL |
| FR | FIRE RETARDANT |
| FT | FEET |
| FDA | FOOD AND DRUG ADMINISTRATION |
| FVNR | FULL VOLTAGE NON-REVERSING |
| FVR | FULL VOLTAGE REVERSING |
| G | GROUND |
| GC | GENERAL CONTRACTOR |
| GFI | GROUND FAULT INTERRUPTER |
| GFP | GROUND FAULT PROTECTION (EQUIPMENT) |
| GFCI | GROUND FAULT CKT INTERRUPTER |
| GRS | GALVANIZED RIGID STEEL |
| HACR | HEATING AND AIR CONDITIONING RATED |
| HP | HORSEPOWER |
| HV | HIGH VOLTAGE |
| HVAC | HEATING, VENTILATING, & AIR CONDITIONING |
| HZ | HERTZ |
| IG | ISOLATED GROUND |
| IMC | INTERMEDIATE METAL CONDUIT |
| JB | JUNCTION BOX |
| KCMIL | ONE THOUSAND CIRCULAR MILS |
| KO | KNOCKOUT |
| KVA | KILOVOLT AMPERES |
| KVAR | KILOVOLT AMPERES REACTIVE |
| KW | KILOWATT |
| LP | LIGHTING PANEL |
| LTG | LIGHTING |
| LV | LOW VOLTAGE |
| MATV | MASTER ANTENNA TELEVISION |
| MC | METAL CLAD |
| MCC | MOTOR CONTROL CENTER |
| MCB | MAIN CIRCUIT BREAKER |
| MCCB | MOLDED CASE CIRCUIT BREAKER |
| MCM | THOUSAND CIRCULAR MILS |
| MCP | MOTOR CIRCUIT PROTECTOR |
| MDP | MAIN DISTRIBUTION PANELBOARD |
| MISC | MISCELLANEOUS |
| MLO | MAIN LUGS ONLY |
| MO | MOTOR OPERATED |
| MSB | MAIN SWITCHBOARD |
| MTD | MOUNTED |
| MTG | MOUNTING |
| MTS | MANUAL TRANSFER SWITCH |
| MV | MEDIUM VOLTAGE |
| MW | MICROWAVE OR MEGAWATT |
| N | NEUTRAL |
| NA | NOT APPLICABLE |
| NC | NORMALLY CLOSED |
| NAC | NOTIFICATION APPLIANCE CIRCUIT PANEL |
| NEC | NATIONAL ELECTRIC CODE |
| NIC | NOT IN CONTRACT |
| NL | NIGHT LIGHT |

| | |
|-------|--------------------------------|
| NM | NONMETALLIC |
| NO | NORMALLY OPEN |
| NSF | NATIONAL SANITARY FOUNDATION |
| NTS | NOT TO SCALE |
| OCB | OIL CIRCUIT BREAKER |
| OL | OVERLOAD |
| OT | OVERTEMP |
| PR | PAIR |
| P | POLE |
| PB | PULL BOX |
| PC | PULL CORD |
| PH | PH SENSOR |
| ø | PHASE |
| PNL | PANELBOARD |
| PRI | PRIMARY |
| PT | POTENTIAL TRANSFORMER |
| PTZ | PAN, TILT, ZOOM CAMERA |
| PVC | POLYVINYL CHLORIDE |
| PWR | POWER |
| RSC | RIGID GALVANIZED STEEL CONDUIT |
| RTS | REMOTE TEST SWITCH |
| RVNR | REDUCED VOLTAGE NON-REVERSING |
| RVSS | REDUCED VOLTAGE SOLID STATE |
| SC | SHORT CIRCUIT |
| SCADA | SUPERVISORY CONTROL AND DATA |
| SCC | SUPERVISORY CONTROL CENTER |
| SE | SERVICE ENTRANCE |
| SEC | SECONDARY |
| SH | SHIELDED |
| SS | STAINLESS STEEL |
| STP | SHIELDED TWISTED PAIR |
| SV | SOLENOID VALVE |
| SW | SWITCH |
| TEL | TELEPHONE |
| TS2W | TWO SPEED TWO WINDING |
| TYP | TYPICAL |
| UG | UNDERGROUND |
| UH | UNIT HEATER |
| UPS | UNINTERRUPTIBLE POWER SUPPLY |
| UTP | UNSHIELDED TWISTED PAIR |
| V | VOLTS |
| VFD | VARIABLE FREQUENCY DRIVE |
| W | WIRE OR WATT |
| WD | HIGH PRESSURE WASH DOWN |
| WL | WET LOCATION |
| WP | WEATHERPROOF |
| XFMR | TRANSFORMER |
| XP | EXPLOSION PROOF |
| Y | WYE |

ABBREVIATIONS

917 EAST MIFFLIN STREET
CITY OF MADISON
MADISON, WISCONSIN

JOB NO.
1020.074
PROJECT MGR.
DAVE GOHDES



SHEET
3
G0.3

GENERAL NOTES:

1. REMOVE ALL EXISTING ELECTRICAL EQUIPMENT AND MATERIALS ASSOCIATED WITH THE ITEMS BEING REMOVED.
2. THE SOCCER FIELD SHALL BE AVAILABLE FOR USE AT ALL TIMES DURING CONSTRUCTION. CONTRACTOR SHALL COORDINATE ALL EQUIPMENT OUTAGES WITH THE CITY OF MADISON PARKS DIVISION PRIOR TO INTERFERING WITH THE ABILITY TO USE THE FIELD. THE EXISTING LIGHTING SYSTEM MAY BE TAKEN OUT OF SERVICE AT ANY TIME DURING CONSTRUCTION.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORATION OF ALL DAMAGED SURFACES DUE TO EQUIPMENT TRAFFIC NECESSARY FOR THE DEMOLITION OF EQUIPMENT AND ASSOCIATED WORK PROVIDED AS PART OF THIS CONTRACT.
4. CONTRACTOR SHALL MINIMIZE EQUIPMENT TRAFFIC ON THE SOCCER FIELD PLAYING SURFACE TO THE EXTENT POSSIBLE. COORDINATE ANY AND ALL EQUIPMENT TRAFFIC ON THE PLAYING SURFACE WITH THE OWNER.
5. THE TOPS OF ALL EXISTING LIGHT FIXTURE POLES ARE 80- FEET ABOVE FINISHED GRADE.
6. EXISTING BELOW- GRADE CONDUITS THAT ARE NOTED TO BE REMOVED SHALL BE REMOVED TO 5'-0" BELOW GRADE, OR TO DEPTH OF HORIZONTAL RUN, AND BE ABANDONED IN PLACE.
7. REFER TO DIVISION 1 OF THE SPECIFICATIONS FOR GENERAL DEMOLITION REQUIREMENTS.

EXISTING LIGHT FIXTURE TRUSS TOWER P1

B
DAS1.1
E J K

THE TWO SPARE 3" CONDUITS FROM EXISTING POLE BASE INTO ROOM BELOW STADIUM SEATING SHALL REMAIN AND BE REUSED AS NOTED ON SHEET E1.1. REMOVE THIRD ABANDONED CONDUIT AT POLE BASE TO 2'-0" BELOW GRADE

EXISTING LIGHT FIXTURE POLE P2 SHALL REMAIN

F

EXISTING LIGHT FIXTURE POLE P3 SHALL REMAIN

F

BELOW SEATING

B
D1.1

EXISTING LIGHT FIXTURE POLE P4 SHALL REMAIN

F

BELOW SEATING

A
D1.1

BREESE STEVENS SOCCER FIELD

EXISTING PRESS BOX

EXISTING IRRIGATION WATER MAIN

EXISTING LIGHT FIXTURE AND AT&T CELLULAR ANTENNA POLE P8 SHALL REMAIN

G

EXISTING LIGHT FIXTURE TRUSS TOWER P7

A
DAS1.1
E

EXISTING CONCRETE HANDHOLE AND CIRCUIT BREAKER JUNCTION BOX

C H

EXISTING LIGHT FIXTURE TRUSS TOWER P6

A
DAS1.1
E

STONE WALL (TYP.)

REMOVE EXISTING HANDHOLE
EXISTING LIGHT FIXTURE POLE P5 SHALL REMAIN

F

EXISTING UNDERGROUND IRRIGATION PIPING (TYP.)

EXISTING LIGHTING ON-OFF PUSHBUTTONS

A

ATHLETIC FIELD OFFICE

CANOPY COVERED STADIUM SEATING
NORTH PATERSON STREET

NORTH BREARLY STREET

GOAL LINE

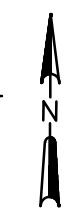
EXISTING UNDERGROUND IRRIGATION PIPING (TYP.)

SIDE LINE

SIDE LINE

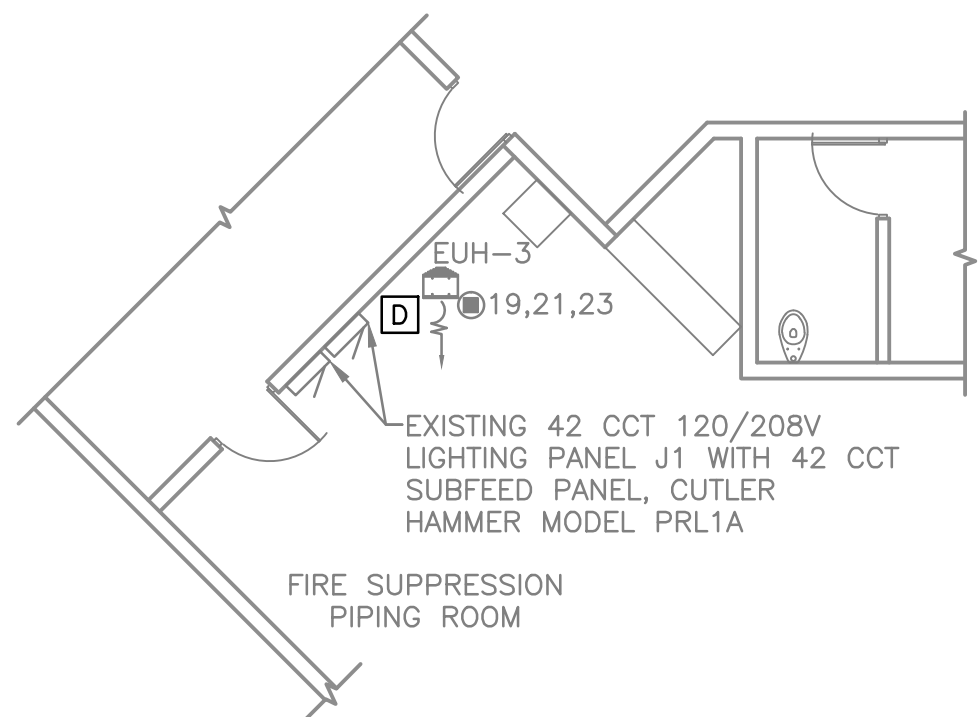
SITE DEMOLITION PLAN

0 15' 30' 60'

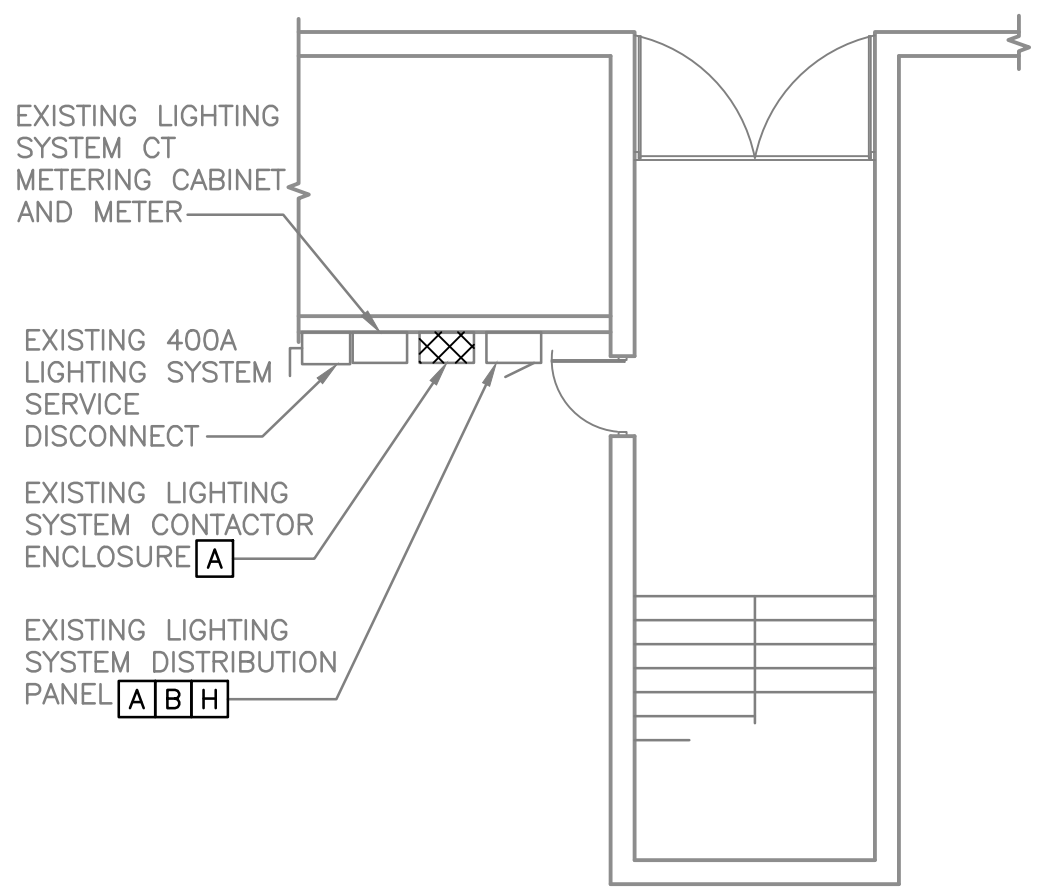


DEMOLITION NOTES:

- A REMOVE EXISTING LIGHTING SYSTEM CONTACTOR ENCLOSURE. ALTER AND EXTEND EXISTING 4~350MCM CONDUCTORS AND #3 GROUND IN 3 1/2" CONDUIT FROM EXISTING CT CABINET TO EXISTING LIGHTING SYSTEM DISTRIBUTION PANEL MAIN LUGS. SEE DRAWING E5.1 FOR THE ELECTRICAL ONE-LINE DIAGRAM. REMOVE ALL ASSOCIATED CONTROL CONDUIT AND WIRING FROM CONTACTOR ENCLOSURE TO LIGHTING CONTROL SWITCH IN THE ATHLETIC FIELD OFFICE.
- B EXISTING 800 AMP, 277/480V LIGHTING SYSTEM DISTRIBUTION PANEL, CUTLER HAMMER TYPE EE PANELBOARD, CATALOG NO. EEI323S08A. PANEL HAS ONE EXISTING 200 AMP AND FOUR EXISTING 60 AMP 3-POLE CIRCUIT BREAKERS. REMOVE ALL EXISTING CIRCUIT BREAKERS AND COVER PLATES AS REQUIRED FOR INSTALLATION OF NEW CIRCUIT BREAKERS SHOWN ON DRAWING E5.1.
- C REMOVE EXISTING CONCRETE HANDHOLE AND ASSOCIATED CIRCUIT BREAKER JUNCTION BOX. REMOVE ALL ASSOCIATED CONDUIT AND WIRING BACK TO THE LIGHTING DISTRIBUTION PANEL. BACKFILL AND RESTORE TO MATCH EXISTING GRADE.
- D RELOCATE EXISTING ELECTRIC UNIT HEATER EUH-3 NORTH WHERE SHOWN ON SHEET E1.2 AS REQUIRED TO MAKE SPACE FOR NEW WALL-MOUNTED SOUND SYSTEM AMPLIFIER RACK. PROVIDE 3~#8 CONDUCTORS AND #10 GROUND IN 3/4" CONDUIT FROM EXISTING CIRCUIT BREAKER IN PANEL J1 TO RELOCATED EUH-3.
- E REMOVE EXISTING TRUSS TOWER, LIGHT FIXTURES, AND ALL ASSOCIATED HARDWARE AND EQUIPMENT. REMOVE ALL ASSOCIATED CONDUIT AND WIRING BACK TO THE LIGHTING DISTRIBUTION PANEL. SEE SHEET DAS1.1 FOR ANCHOR BOLT REPAIR.
- F REMOVE EXISTING LIGHT FIXTURES AND ALL ASSOCIATED HARDWARE AND EQUIPMENT. REMOVE ALL ASSOCIATED CONDUIT AND WIRING BACK TO THE LIGHTING DISTRIBUTION PANEL. REMOVE ALL SUPPORT HARDWARE AND WALKWAYS FROM TOP OF POLE AND PROVIDE GALVANIZED STEEL CAP ON TOP OF POLE TO SEAL WATERTIGHT.
- G REMOVE LIGHT FIXTURE CROSS ARM ASSEMBLY AND ASSOCIATED HARDWARE AND EQUIPMENT FROM EXISTING POLE. POLE SHALL REMAIN FOR INSTALLATION OF NEW LIGHT FIXTURE ASSEMBLY. REMOVE ALL ASSOCIATED LIGHT FIXTURE CONDUIT AND WIRING BACK TO THE LIGHTING DISTRIBUTION PANEL. THE EXISTING AT&T CELLULAR ANTENNAS AND ALL ASSOCIATED CONDUIT, WIRING, HARDWARE, AND EQUIPMENT SHALL REMAIN. CELLULAR ANTENNA SERVICE SHALL BE OPERATIONAL AT ALL TIMES DURING CONSTRUCTION. COORDINATE ALL DEMOLITION WORK WITH MIKE JANSEN AT AT&T (262-785-7102) PRIOR TO DEMOLITION OF LIGHTING EQUIPMENT.
- H REMOVE EXISTING 200 AMP FEEDER FROM EXISTING LIGHTING SYSTEM DISTRIBUTION PANEL TO EXISTING HANDHOLE WITH CIRCUIT BREAKER JUNCTION BOX AT LIGHT FIXTURE TRUSS TOWER. REMOVE ALL ASSOCIATED CONDUCTORS. REMOVE CONDUIT TO EXTERIOR WALL AND CAP.
- J REMOVE EXISTING ASPHALT AS REQUIRED FOR SIDEPLATE INSTALLATION.
- K REMOVE EXISTING GALVANIZED PIPE FENCE.



A
D1.1
NO SCALE
ENLARGED DEMOLITION PLAN NO. 1



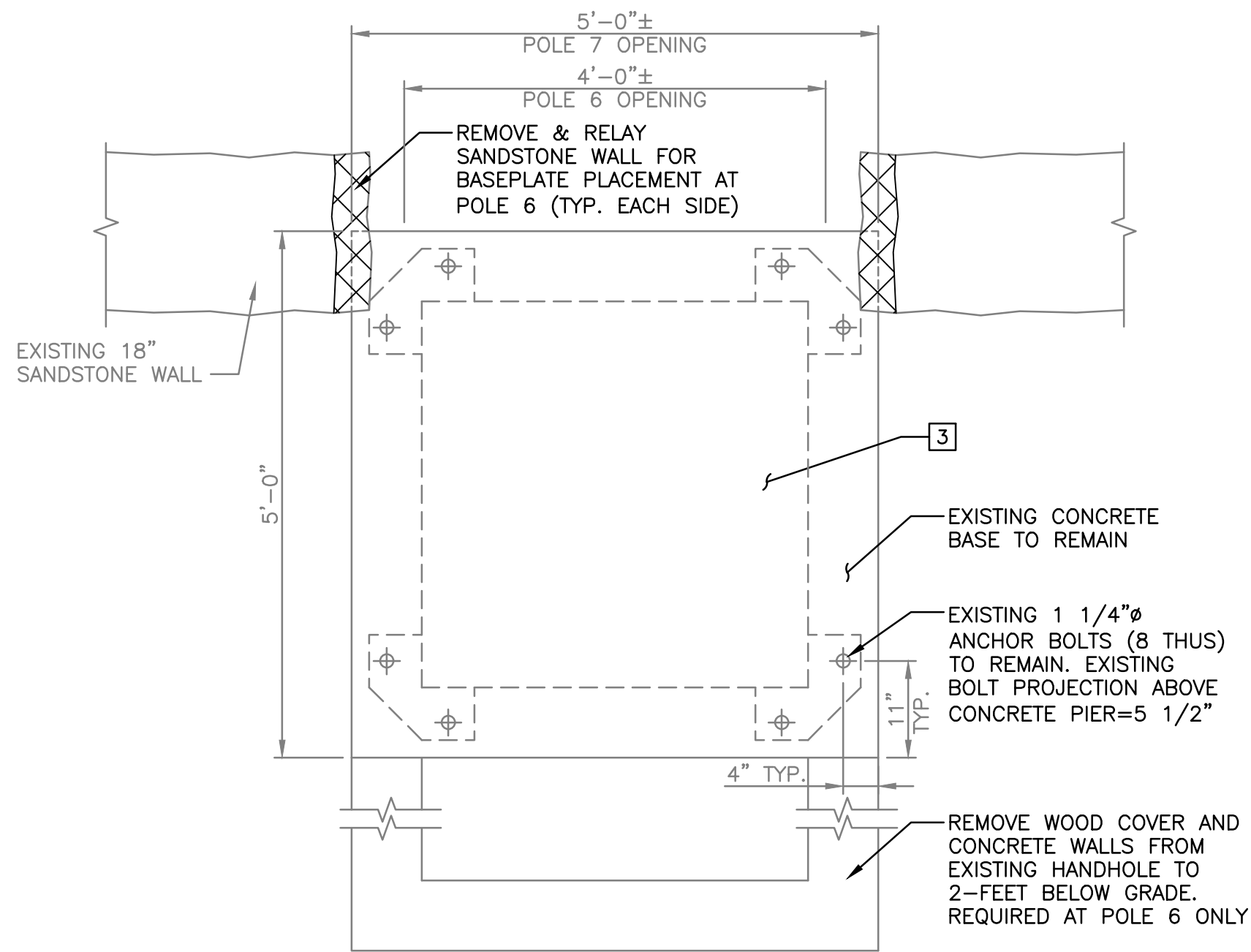
B
D1.1
NO SCALE
ENLARGED DEMOLITION PLAN NO. 2

BREESE STEVENS FIELD
DEMOLITION PLAN
917 EAST MIFFLIN STREET
CITY OF MADISON
MADISON, WISCONSIN

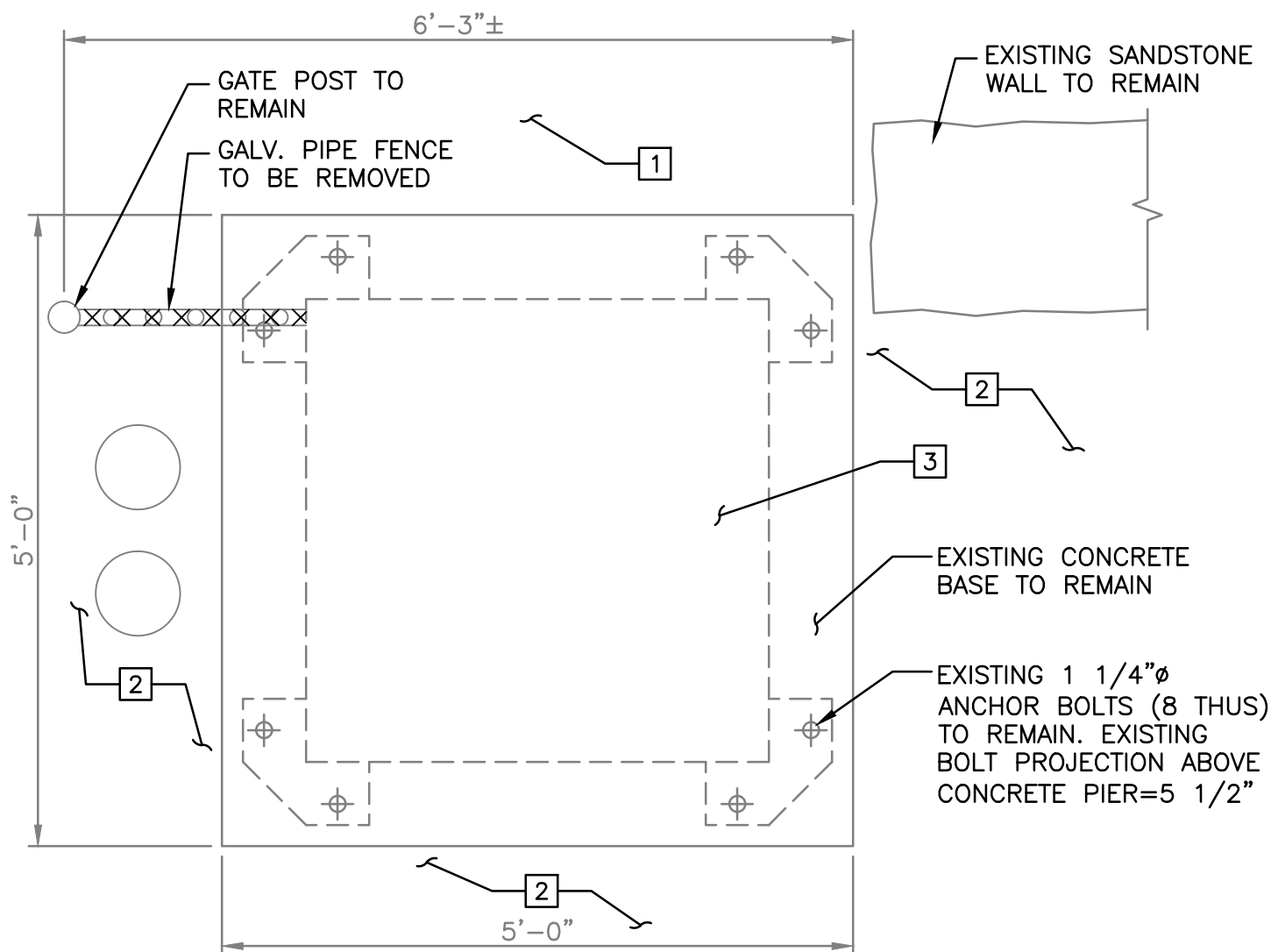
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DAVE GOHDES

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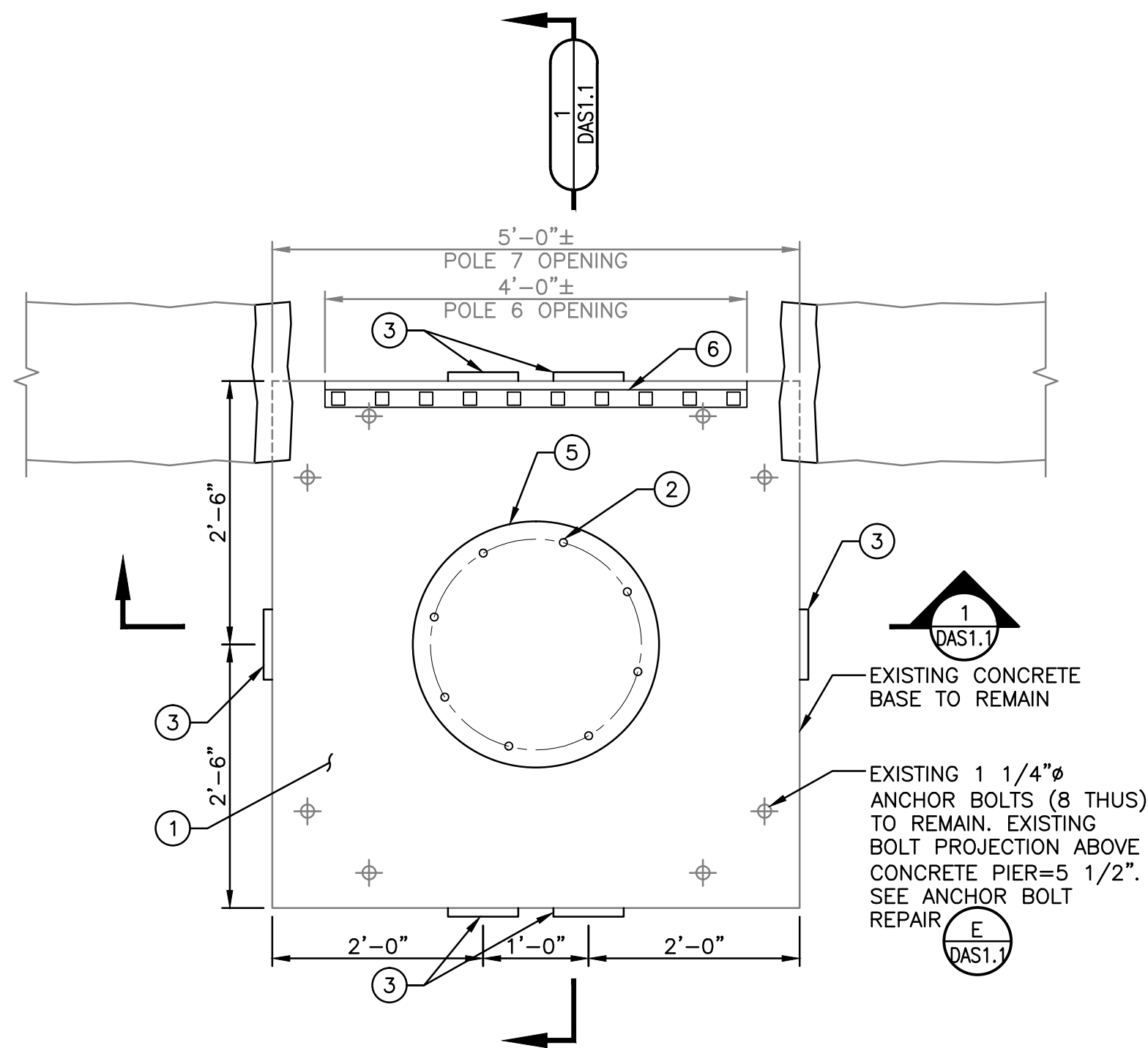
SHEET
4
D1.1



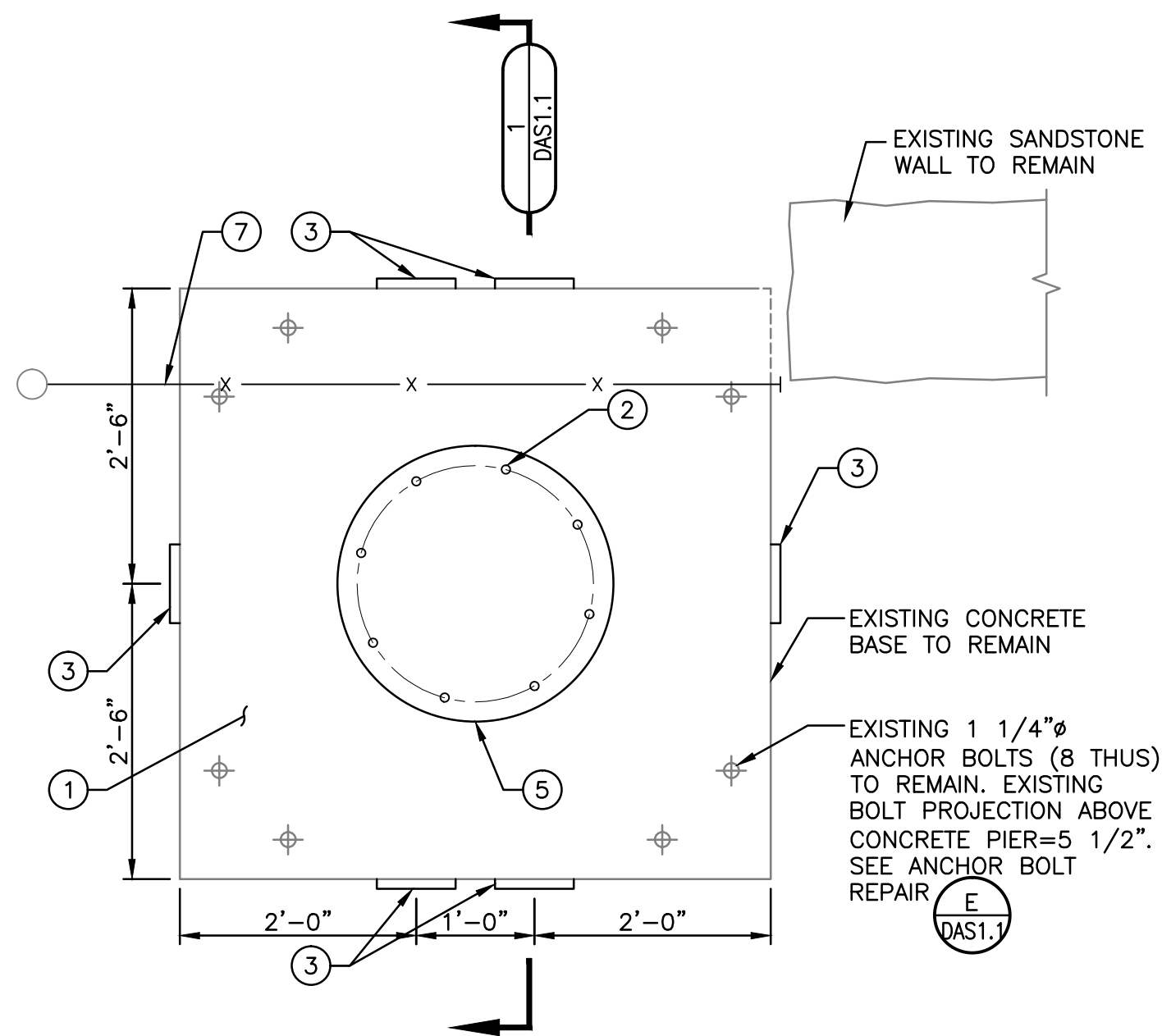
A DEMOLITION PLAN
DAS1.1 POLE 6 (P6), POLE 7 (P7)



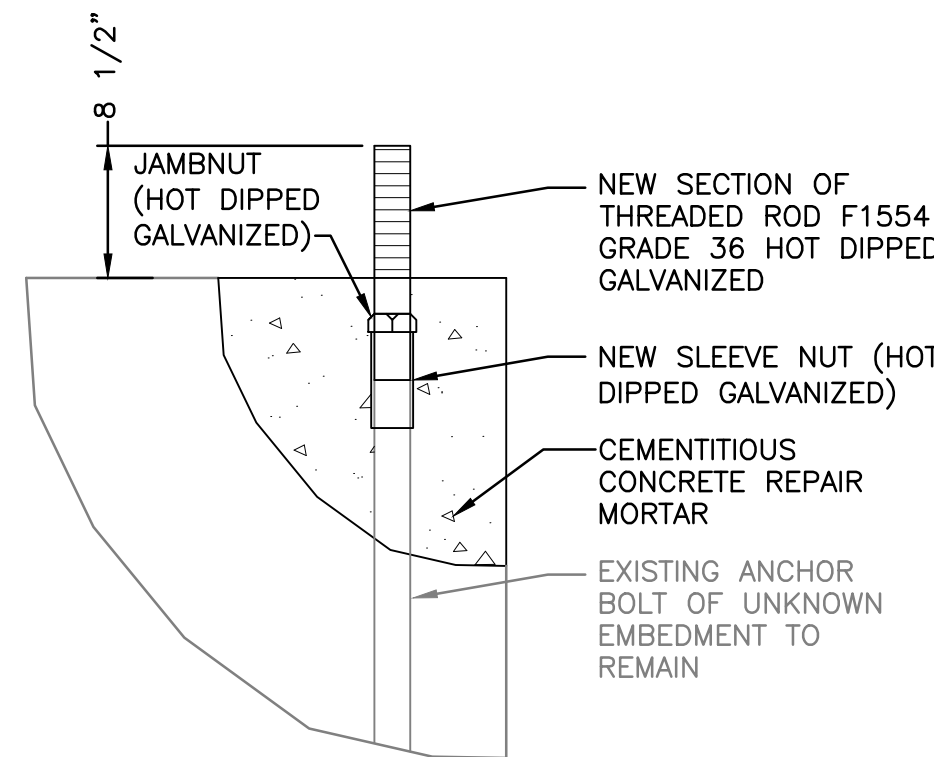
B DEMOLITION PLAN
DAS1.1 POLE 1 (P1)



C PLAN OF NEW POLE BASE
DAS1.1 POLE 6 (P6), POLE 7 (P7)



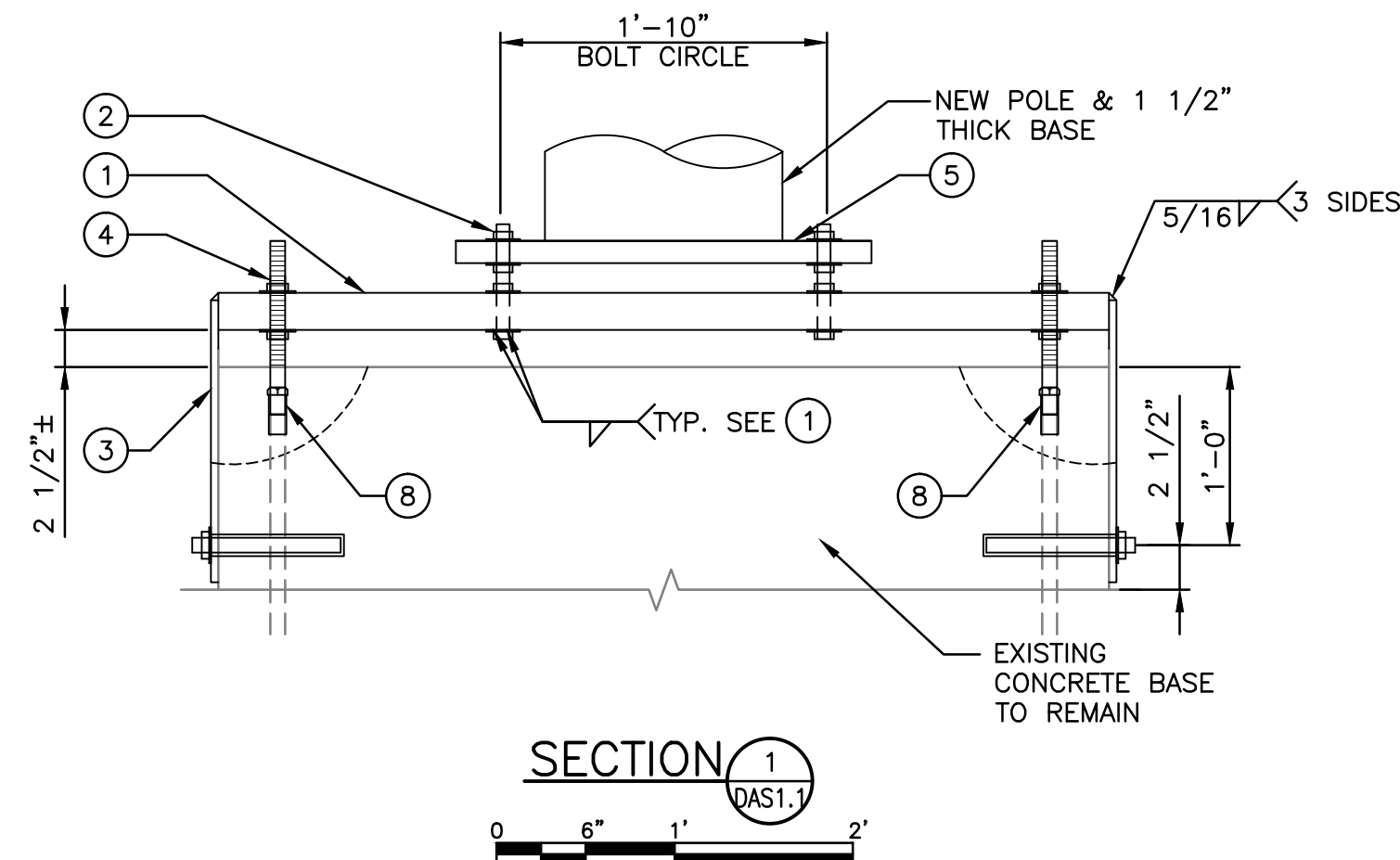
D PLAN OF NEW POLE BASE
DAS1.1 POLE 1 (P1)



E ANCHOR BOLT REPAIR
DAS1.1 NO SCALE

NOTES:

1. VERIFY CONDITION OF EXISTING ANCHOR BOLT BEFORE PROCEEDING WITH FOLLOWING.
2. CHIP AWAY CORNERS OF EXISTING PIERS TO EXPOSE ANCHOR BOLTS. DO NOT DAMAGE BOLTS. USE CHIPPING HAMMER. CUT EXISTING ANCHOR BOLT TO ALLOW INSTALLATION OF SLEEVE NUT AND JAMNUT.
3. THREAD EXPOSED PORTION OF EXISTING ROD FOR SLEEVE NUT. PROVIDE SLEEVE NUTS TO MATCH BOLT SIZE. SOLVENT CLEAN AND COAT ENTIRE ASSEMBLY WITH ZINC RICH COATING.
4. EXTEND ANCHOR BOLTS WITH NEW THREADED ANCHOR ROD AS SHOWN.
5. REPLACE CONCRETE WITH CEMENTITIOUS CONCRETE REPAIR MORTAR.



SECTION 1
DAS1.1

DEMOLITION KEY NOTES:

- 1 REMOVE SIDEWALK AS REQUIRED FOR SIDE PLATE INSTALLATION. BACKFILL WITH COMPACTED GRANULAR MATERIAL AND REPLACE SIDEWALK TO MATCH EXISTING.
- 2 REMOVE ASPHALT AS REQUIRED FOR SIDE PLATE INSTALLATION. BACKFILL WITH COMPACTED GRANULAR MATERIAL AND REPLACE ASPHALT TO MATCH EXISTING.
- 3 REMOVE EXISTING LIGHT POLE, BASE, CONDUIT, ELECTRICAL BOXES, AND ENCLOSURE.

GENERAL NOTES:

1. SEE SHEET E1.1 FOR POLE LOCATIONS.
2. FIELD TOUCH UP ALL DAMAGED GALVANIZED MATERIALS PER SPECIFICATIONS.

KEY NOTES:

- 1 NEW 2 1/2" THICK LOWER STEEL (A36) BASE PLATE. ACCURATELY MEASURE EXISTING PIER SIZE AND EXISTING ANCHOR BOLT LOCATIONS AND MATCH SIZE SUCH THAT SIDE PLATES CAN BE INSTALLED. PROVIDE GALVANIZED A325 BOLT/NUTS/WASHERS TO ANCHOR NEW POLE BASE. WELD BOLT HEAD TO UNDERSIDE OF BASE PLATE THROUGH STD. WASHER ON TWO OPPOSITE FLATS. HOT DIP GALVANIZE PLATE ASSEMBLY. PROVIDE 6" DIAMETER HOLE IN CENTER OF PLATE WITH EASED EDGES FOR ELECTRICAL WIRE PASSAGE. NO GROUT SHALL BE PLACED BELOW THIS PLATE.
- 2 8~7/8" DIA. A325 BOLTS WITH UPPER AND LOWER NUTS/WASHERS FOR LEVELING. ALL BOLTS, NUTS, AND WASHERS SHALL BE HOT DIPPED GALVANIZED.
- 3 SIDE PLATES SHOP WELDED TO LOWER BASE PLATE. AFTER LEVELING BASE PLATE, CONNECT SIDE PLATE TO EXISTING PIER WITH 1" DIAMETER ADHESIVE ANCHOR. BOLT/NUT/WASHER TO BE STAINLESS STEEL ASTM 304. EMBED 8 1/4" INTO CONCRETE. COAT ASSEMBLY BELOW GRADE WITH ASPHALT PAINT. SIDE PLATES TO BE 1/2" THICK x 4" WIDE, HOT DIPPED GALVANIZED.
- 4 1 1/4" DIA HOT DIPPED GALVANIZED THREADED ANCHOR BOLT. PROVIDE DOUBLE NUTS/WASHERS FOR LEVELING. WASHERS ARE 1/4" HOT DIPPED GALVANIZED PLATE WASHERS WITH HOLE = BOLT DIAMETER + 1/16" COMBINED WITH STD. CUT HOT DIPPED GALVANIZED WASHERS. HOT DIP GALVANIZE ENTIRE ASSEMBLY.
- 5 1 1/2" x 2'-4" DIA POLE BASE PLATE SUPPLIED BY LIGHT MANUFACTURER.
- 6 NEW DECORATIVE FENCE BY OWNER.
- 7 NEW CHAIN LINK FENCE BY OWNER.
- 8 ANCHOR BOLT REPAIR

BREESE STEVENS FIELD
LIGHT POLE BASE PLANS, SECTIONS, AND DETAILS
917 EAST MIFFLIN STREET
CITY OF MADISON
MADISON, WISCONSIN

JOB NO.
1020.074
PROJECT MGR.
DAVE GOHDES

STRAND ASSOCIATES

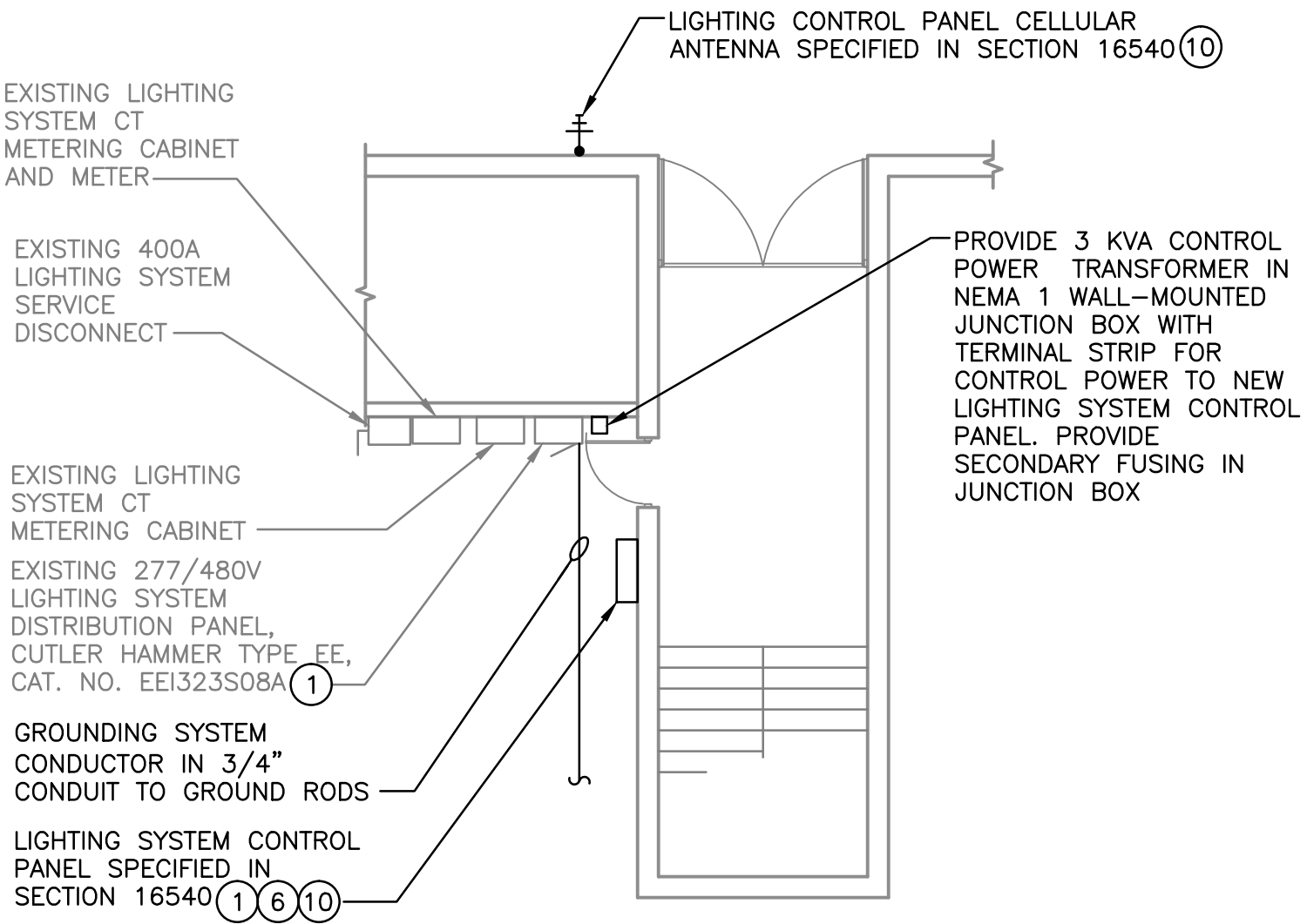
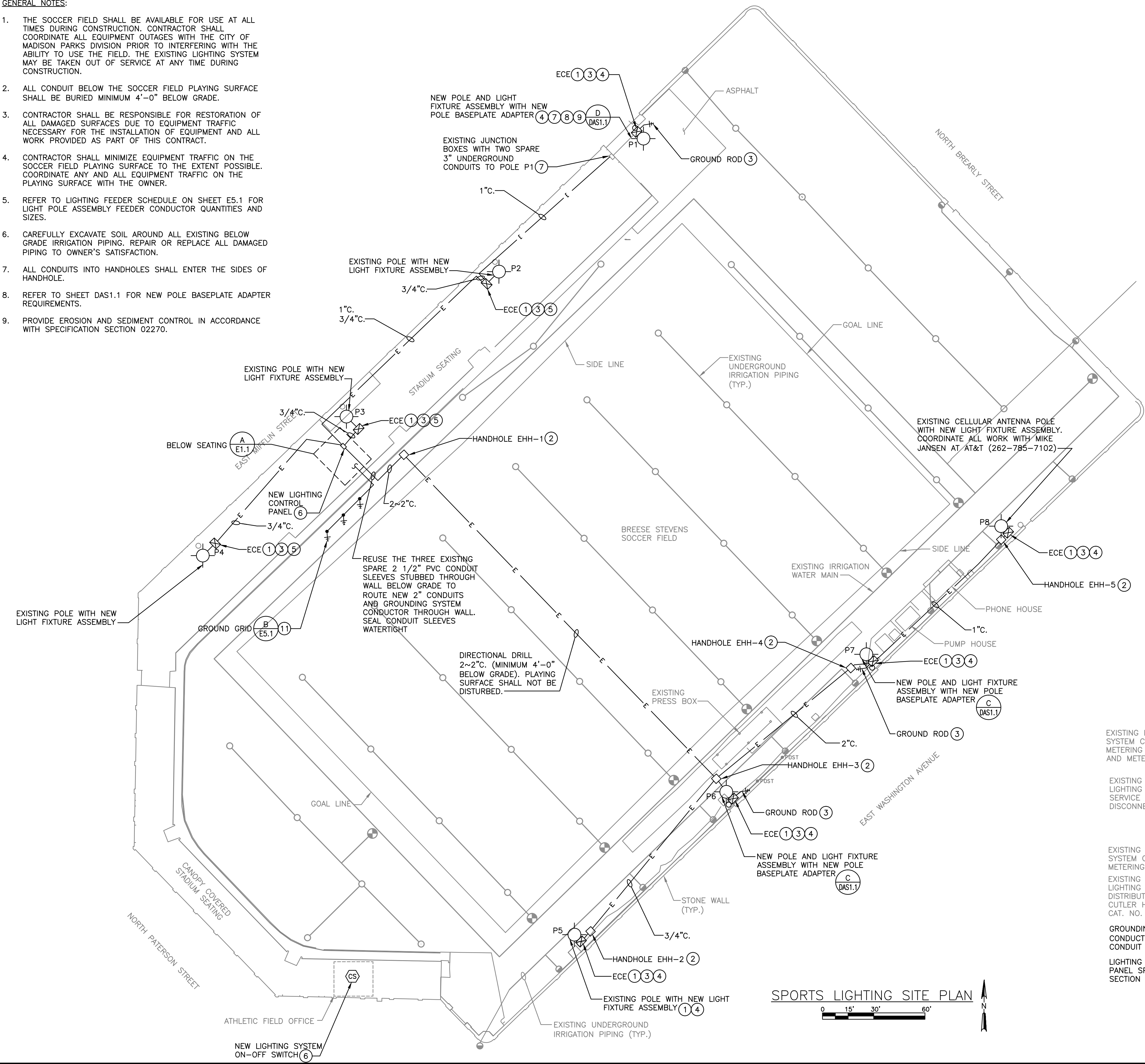
SHEET
5
DAS1.1

GENERAL NOTES:

1. THE SOCCER FIELD SHALL BE AVAILABLE FOR USE AT ALL TIMES DURING CONSTRUCTION. CONTRACTOR SHALL COORDINATE ALL EQUIPMENT OUTAGES WITH THE CITY OF MADISON PARKS DIVISION PRIOR TO INTERFERING WITH THE ABILITY TO USE THE FIELD. THE EXISTING LIGHTING SYSTEM MAY BE TAKEN OUT OF SERVICE AT ANY TIME DURING CONSTRUCTION.
2. ALL CONDUIT BELOW THE SOCCER FIELD PLAYING SURFACE SHALL BE BURIED MINIMUM 4'-0" BELOW GRADE.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORATION OF ALL DAMAGED SURFACES DUE TO EQUIPMENT TRAFFIC NECESSARY FOR THE INSTALLATION OF EQUIPMENT AND ALL WORK PROVIDED AS PART OF THIS CONTRACT.
4. CONTRACTOR SHALL MINIMIZE EQUIPMENT TRAFFIC ON THE SOCCER FIELD PLAYING SURFACE TO THE EXTENT POSSIBLE. COORDINATE ANY AND ALL EQUIPMENT TRAFFIC ON THE PLAYING SURFACE WITH THE OWNER.
5. REFER TO LIGHTING FEEDER SCHEDULE ON SHEET E5.1 FOR LIGHT POLE ASSEMBLY FEEDER CONDUCTOR QUANTITIES AND SIZES.
6. CAREFULLY EXCAVATE SOIL AROUND ALL EXISTING BELOW GRADE IRRIGATION PIPING. REPAIR OR REPLACE ALL DAMAGED PIPING TO OWNER'S SATISFACTION.
7. ALL CONDUITS INTO HANDHOLES SHALL ENTER THE SIDES OF HANDHOLE.
8. REFER TO SHEET DAS1.1 FOR NEW POLE BASEPLATE ADAPTER REQUIREMENTS.
9. PROVIDE EROSION AND SEDIMENT CONTROL IN ACCORDANCE WITH SPECIFICATION SECTION 02270.

KEY NOTES:

1. ALL LIGHT FIXTURE ELECTRICAL COMPONENT ENCLOSURES SHALL BE POWERED FROM NEW CIRCUIT BREAKERS IN THE EXISTING LIGHTING SYSTEM DISTRIBUTION PANEL THROUGH CONTACTORS IN THE NEW LIGHTING SYSTEM CONTROL PANEL.
2. PROVIDE MINIMUM 6 FEET OF PVC-COATED RGS CONDUIT FOR ALL CONDUITS OUT OF HANDHOLES BEFORE TRANSITIONING TO PVC CONDUIT.
3. PROVIDE ONE GROUND ROD AT EACH NEW POLE LOCATION. GROUND ROD CONDUCTOR SHALL BE 2/0 BARE COPPER AND INSTALLED THROUGH LUG IN POLE AND BE ROUTED INSIDE POLE CONTINUOUS TO THE ELECTRICAL COMPONENT ENCLOSURE. FOR EXISTING POLES, PROVIDE 2/0 GROUND CONDUCTOR IN 3/4" SCHEDULE 80 PVC CONDUIT FROM GROUND LUG TO ELECTRICAL COMPONENT ENCLOSURE.
4. CONTRACTOR SHALL MOUNT ELECTRICAL COMPONENT ENCLOSURE (ECE) 10'-0" ABOVE FINISHED GRADE. PROVIDE STAINLESS STEEL MOUNTING HARDWARE. COORDINATE EXACT MOUNTING LOCATION WITH MANUFACTURING OPENING IN NEW POLES. REFER TO DETAIL A E5.1 FOR MOUNTING ECE ON EXISTING AND NEW POLES.
5. ELECTRICAL COMPONENT ENCLOSURE (ECE) SHALL BE MOUNTED BELOW THE STADIUM SEATING DECKING. PROVIDE 1" CONDUIT FROM ECE AND INTERCEPT EXISTING CONDUIT INTO POLE FOR NEW SECTION 16540 SUPPLIER FURNISHED CABLE FROM ECE TO LIGHT FIXTURES. ROUTE CONDUIT FROM ECE TO EXISTING POLE-MOUNTED JUNCTION BOXES.
6. PROVIDE LIGHTING SYSTEM REMOTE ON-OFF SELECTOR SWITCH IN SURFACE MOUNTED JUNCTION BOX IN THE ATHLETIC FIELD OFFICE. SELECTOR SWITCH SHALL BE SQUARE-D CLASS 9001 TYPE SKY, ALLEN BRADLEY BULLETIN BOOT, OR EQUAL. COORDINATE MOUNTING LOCATION IN OFFICE WITH OWNER PRIOR TO INSTALLATION. PROVIDE 2~#12 IN 3/4" CONDUIT FROM SELECTOR SWITCH TO NEW LIGHTING CONTROL PANEL.
7. ROUTE NEW CONDUIT FOR POLE P1 ELECTRICAL COMPONENT ENCLOSURE TO EXISTING JUNCTION BOXES THAT HAVE TWO SPARE 3" UNDERGROUND CONDUITS TO JUNCTION BOXES LOCATED AT POLE P1 BASE. REPLACE EXISTING POLE BASE JUNCTION BOXES WITH A NEW NEMA 4X STAINLESS STEEL JUNCTION BOX AND REUSE EXISTING UNDERGROUND CONDUIT FOR NEW POLE P1 BRANCH CIRCUIT CONDUCTORS TO POLE-MOUNTED ECE.
8. EXISTING POLE BASE IS SURROUNDED BY ASPHALT AND CONCRETE SIDEWALK. EXCAVATE AND RESTORE ASPHALT AND CONCRETE SIDEWALK TO MATCH EXISTING AS REQUIRED FOR NEW POLE BASEPLATE ADAPTER INSTALLATION.
9. EXISTING POLE BASE IS SURROUNDED BY GRASS AND SIDEWALK. EXCAVATE AND RESTORE SIDEWALK TO MATCH EXISTING AS REQUIRED FOR NEW POLE BASEPLATE ADAPTER INSTALLATION.
10. MOUNT LIGHTING CONTROL PANEL CELLULAR ANTENNA ON EXTERIOR WALL 10'-0" AFG. PROVIDE MANUFACTURER FURNISHED ANTENNA CABLE IN 3/4" CONDUIT FROM ANTENNA TO LIGHTING CONTROL PANEL. PROVIDE COOPER CGB FITTING AND DRIP LOOP AT ANTENNA TO SEAL CONDUIT WATERTIGHT. PROVIDE STAINLESS STEEL MOUNTING HARDWARE.
11. IN LIEU OF PROVIDING A NEW GROUNDING SYSTEM FOR THE LIGHTING DISTRIBUTION PANEL, CONTRACTOR MAY TEST AND REUSE THE EXISTING GROUNDING SYSTEM IF A GOOD EARTH GROUND IS IN PLACE. CONTRACTOR SHALL INCLUDE NEW GROUND SYSTEM IN THE BID.



BREESE STEVENS FIELD
SPORTS LIGHTING SITE PLAN

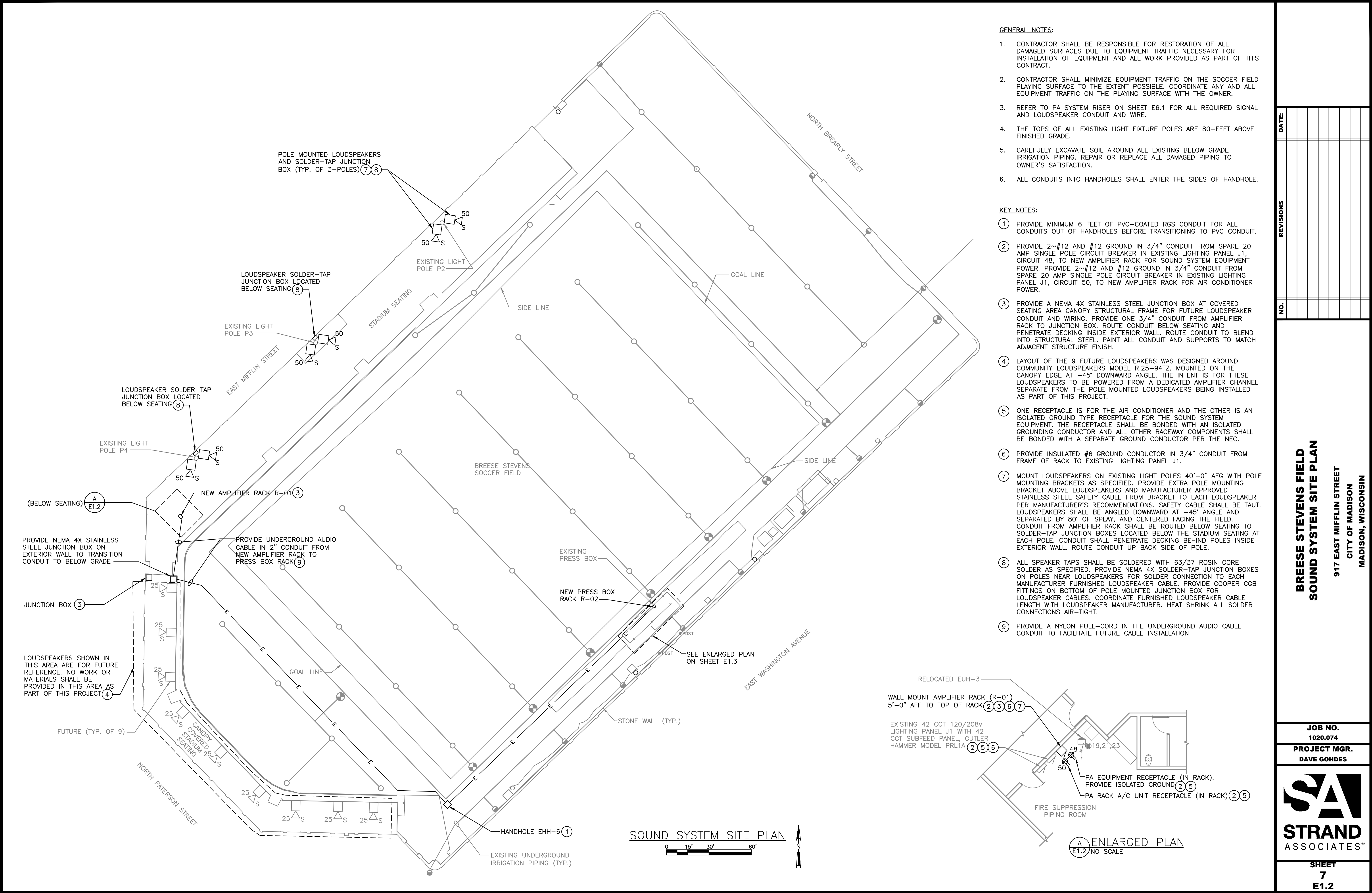
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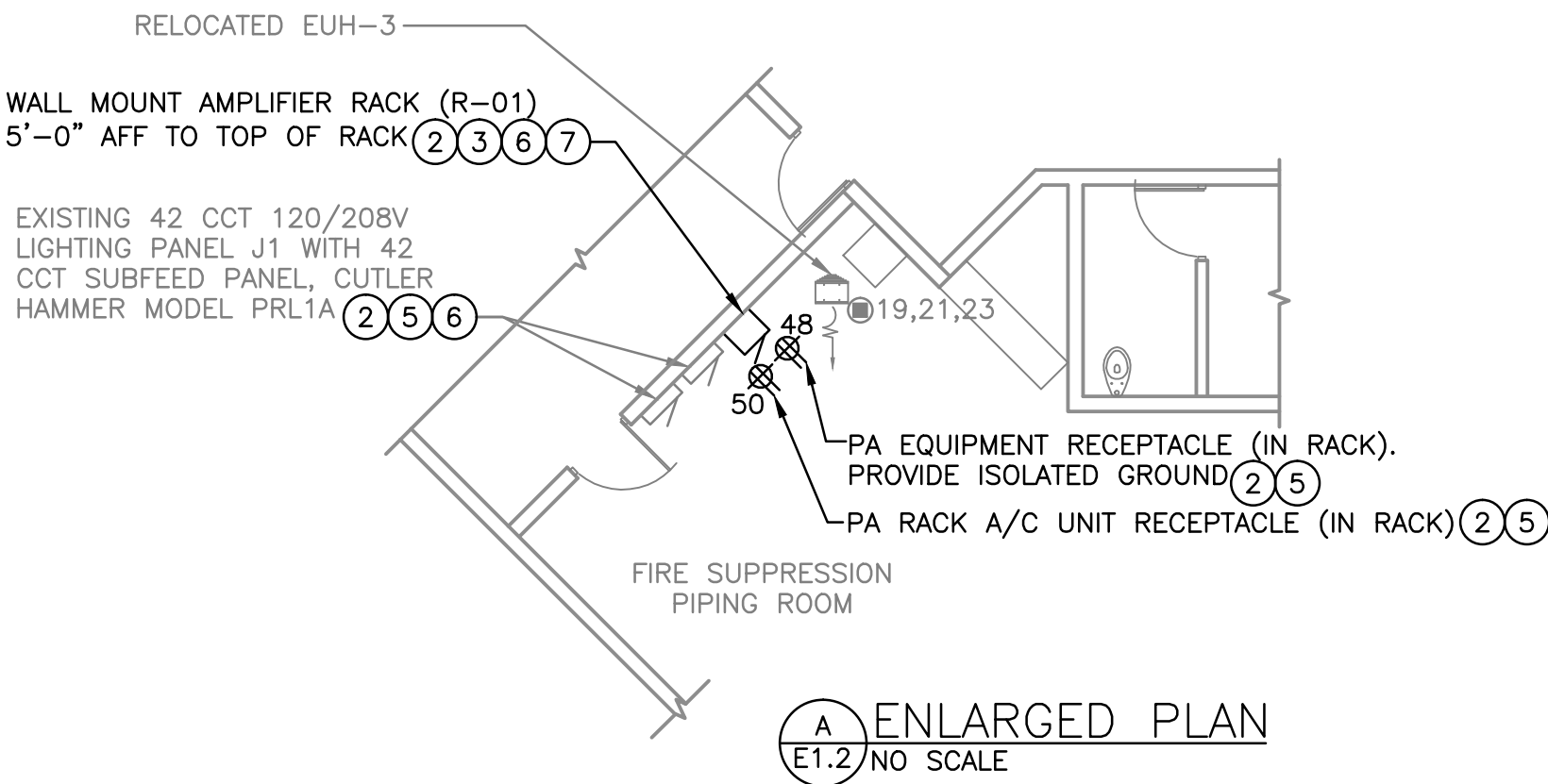


SHEET
6
E1.1



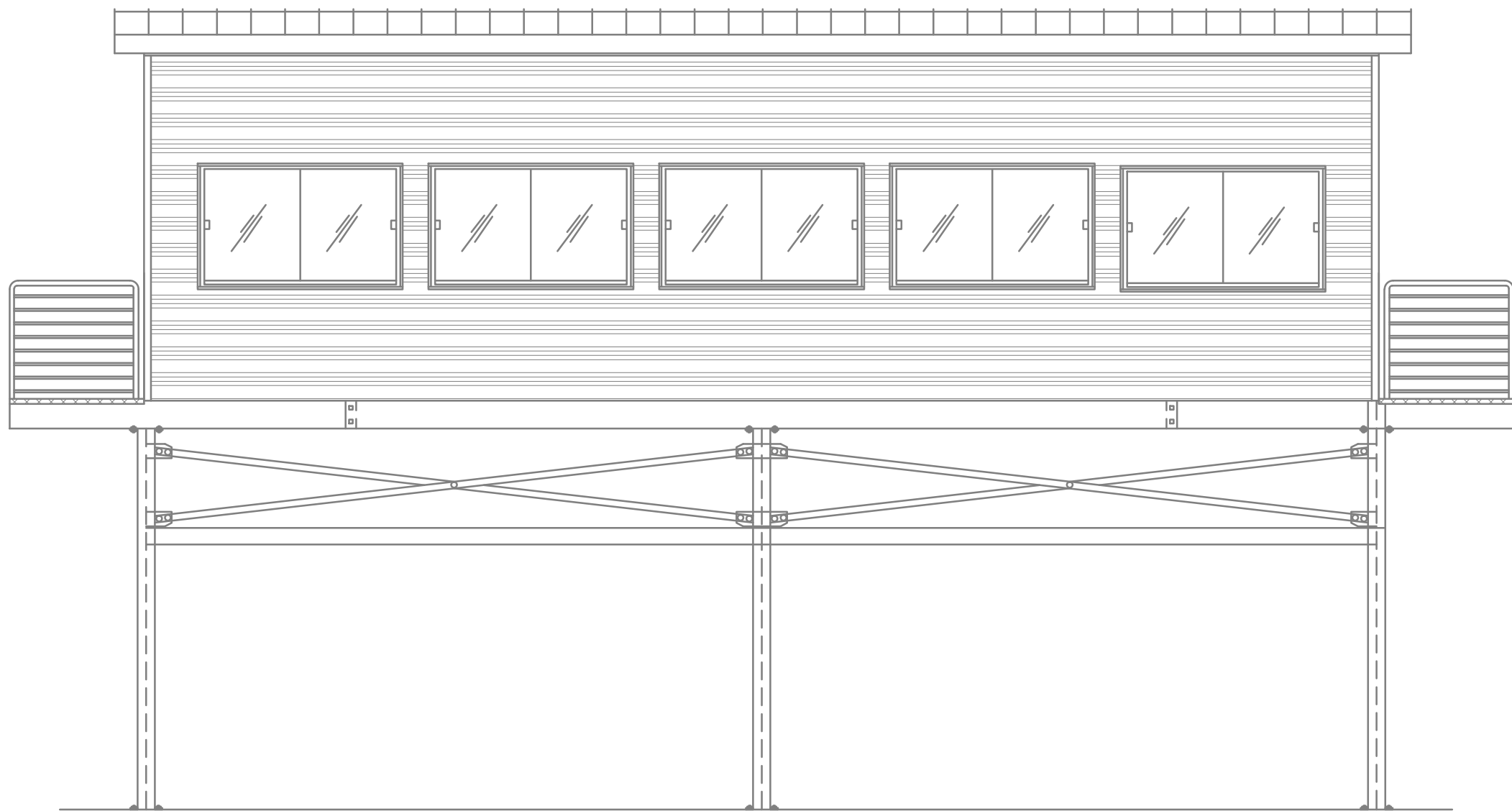
- GENERAL NOTES:
1. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORATION OF ALL DAMAGED SURFACES DUE TO EQUIPMENT TRAFFIC NECESSARY FOR INSTALLATION OF EQUIPMENT AND ALL WORK PROVIDED AS PART OF THIS CONTRACT.
 2. CONTRACTOR SHALL MINIMIZE EQUIPMENT TRAFFIC ON THE SOCCER FIELD PLAYING SURFACE TO THE EXTENT POSSIBLE. COORDINATE ANY AND ALL EQUIPMENT TRAFFIC ON THE PLAYING SURFACE WITH THE OWNER.
 3. REFER TO PA SYSTEM RISER ON SHEET E6.1 FOR ALL REQUIRED SIGNAL AND LOUDSPEAKER CONDUIT AND WIRE.
 4. THE TOPS OF ALL EXISTING LIGHT FIXTURE POLES ARE 80- FEET ABOVE FINISHED GRADE.
 5. CAREFULLY EXCAVATE SOIL AROUND ALL EXISTING BELOW GRADE IRRIGATION PIPING. REPAIR OR REPLACE ALL DAMAGED PIPING TO OWNER'S SATISFACTION.
 6. ALL CONDUITS INTO HANDHOLES SHALL ENTER THE SIDES OF HANDHOLE.

- KEY NOTES:
- 1 PROVIDE MINIMUM 6 FEET OF PVC-COATED RGS CONDUIT FOR ALL CONDUITS OUT OF HANDHOLES BEFORE TRANSITIONING TO PVC CONDUIT.
 - 2 PROVIDE 2~#12 AND #12 GROUND IN 3/4" CONDUIT FROM SPARE 20 AMP SINGLE POLE CIRCUIT BREAKER IN EXISTING LIGHTING PANEL J1, CIRCUIT 48, TO NEW AMPLIFIER RACK FOR SOUND SYSTEM EQUIPMENT POWER. PROVIDE 2~#12 AND #12 GROUND IN 3/4" CONDUIT FROM SPARE 20 AMP SINGLE POLE CIRCUIT BREAKER IN EXISTING LIGHTING PANEL J1, CIRCUIT 50, TO NEW AMPLIFIER RACK FOR AIR CONDITIONER POWER.
 - 3 PROVIDE A NEMA 4X STAINLESS STEEL JUNCTION BOX AT COVERED SEATING AREA CANOPY STRUCTURAL FRAME FOR FUTURE LOUDSPEAKER CONDUIT AND WIRING. PROVIDE ONE 3/4" CONDUIT FROM AMPLIFIER RACK TO JUNCTION BOX. ROUTE CONDUIT BELOW SEATING AND PENETRATE DECKING INSIDE EXTERIOR WALL. ROUTE CONDUIT TO BLEND INTO STRUCTURAL STEEL. PAINT ALL CONDUIT AND SUPPORTS TO MATCH ADJACENT STRUCTURE FINISH.
 - 4 LAYOUT OF THE 9 FUTURE LOUDSPEAKERS WAS DESIGNED AROUND COMMUNITY LOUDSPEAKERS MODEL R.25-94TZ, MOUNTED ON THE CANOPY EDGE AT -45° DOWNWARD ANGLE. THE INTENT IS FOR THESE LOUDSPEAKERS TO BE POWERED FROM A DEDICATED AMPLIFIER CHANNEL SEPARATE FROM THE POLE MOUNTED LOUDSPEAKERS BEING INSTALLED AS PART OF THIS PROJECT.
 - 5 ONE RECEPTACLE IS FOR THE AIR CONDITIONER AND THE OTHER IS AN ISOLATED GROUND TYPE RECEPTACLE FOR THE SOUND SYSTEM EQUIPMENT. THE RECEPTACLE SHALL BE BONDED WITH AN ISOLATED GROUNDING CONDUCTOR AND ALL OTHER RACEWAY COMPONENTS SHALL BE BONDED WITH A SEPARATE GROUND CONDUCTOR PER THE NEC.
 - 6 PROVIDE INSULATED #6 GROUND CONDUCTOR IN 3/4" CONDUIT FROM FRAME OF RACK TO EXISTING LIGHTING PANEL J1.
 - 7 MOUNT LOUDSPEAKERS ON EXISTING LIGHT POLES 40'-0" AFG WITH POLE MOUNTING BRACKETS AS SPECIFIED. PROVIDE EXTRA POLE MOUNTING BRACKET ABOVE LOUDSPEAKERS AND MANUFACTURER APPROVED STAINLESS STEEL SAFETY CABLE FROM BRACKET TO EACH LOUDSPEAKER PER MANUFACTURER'S RECOMMENDATIONS. SAFETY CABLE SHALL BE TAUT. LOUDSPEAKERS SHALL BE ANGLED DOWNWARD AT -45° ANGLE AND SEPARATED BY 80' OF SPLAY, AND CENTERED FACING THE FIELD. CONDUIT FROM AMPLIFIER RACK SHALL BE ROUTED BELOW SEATING TO SOLDER-TAP JUNCTION BOXES LOCATED BELOW THE STADIUM SEATING AT EACH POLE. CONDUIT SHALL PENETRATE DECKING BEHIND POLES INSIDE EXTERIOR WALL. ROUTE CONDUIT UP BACK SIDE OF POLE.
 - 8 ALL SPEAKER TAPS SHALL BE SOLDERED WITH 63/37 ROSIN CORE SOLDER AS SPECIFIED. PROVIDE NEMA 4X SOLDER-TAP JUNCTION BOXES ON POLES NEAR LOUDSPEAKERS FOR SOLDER CONNECTION TO EACH MANUFACTURER FURNISHED LOUDSPEAKER CABLE. PROVIDE COOPER CGB FITTINGS ON BOTTOM OF POLE MOUNTED JUNCTION BOX FOR LOUDSPEAKER CABLES. COORDINATE FURNISHED LOUDSPEAKER CABLE LENGTH WITH LOUDSPEAKER MANUFACTURER. HEAT SHRINK ALL SOLDER CONNECTIONS AIR-TIGHT.
 - 9 PROVIDE A NYLON PULL-CORD IN THE UNDERGROUND AUDIO CABLE CONDUIT TO FACILITATE FUTURE CABLE INSTALLATION.

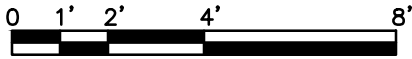


BREESE STEVENS FIELD
SOUND SYSTEM SITE PLAN
917 EAST MIFFLIN STREET
CITY OF MADISON
MADISON, WISCONSIN

JOB NO.
1020.074
PROJECT MGR.
DAVE GOHDES
STRAND ASSOCIATES®
SHEET
7
E1.2



EXISTING PRESS BOX NORTH ELEVATION

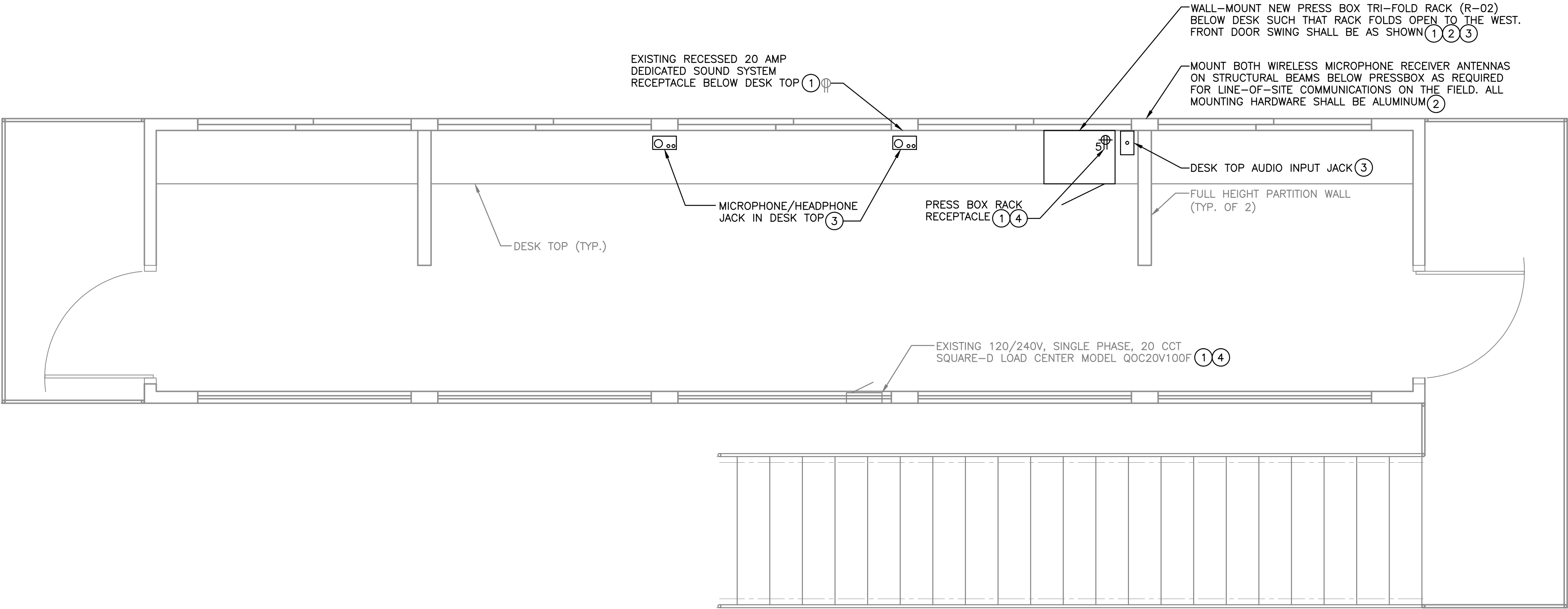


GENERAL NOTES:

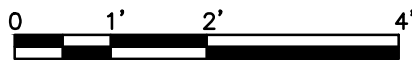
1. ALL EXTERIOR EXPOSED CONDUIT SHALL BE SCHEDULE 80 PVC, UNLESS OTHERWISE NOTED. ALL CONDUIT INSIDE THE PRESS BOX SHALL BE EMT, UNLESS OTHERWISE NOTED. PAINT INTERIOR EXPOSED CONDUIT TO MATCH FINISH ON ADJACENT SURFACE.
2. ALL CONDUITS SHALL ENTER BOTTOM OF PRESS BOX RACK.
3. ALL CONDUITS INTO THE PRESS BOX SHALL ENTER THROUGH THE FLOOR. SEAL PENETRATIONS AIR-TIGHT. CONDUIT PENETRATIONS INSIDE THE PRESS BOX SHALL BE PROPERLY SIZED AND MAINTAIN AN AESTHETICALLY PLEASING APPEARANCE.

KEY NOTES:

- ① REMOVE EXISTING RECEPTACLE AND PROVIDE A NEW SURFACE MOUNTED JUNCTION BOX. PROVIDE 2~#12 AND #12 GROUND IN 3/4" CONDUIT FROM JUNCTION BOX TO PRESS BOX RACK RECEPTACLE. EXISTING RECESSED SOUND SYSTEM RECEPTACLE IS POWERED FROM A DEDICATED 20 AMP SINGLE POLE CIRCUIT BREAKER IN THE EXISTING 120/240V LOAD CENTER, CIRCUIT 5.
- ② PROVIDE TWO ANTENNA CABLES WITH BNC CONNECTIONS AS REQUIRED FROM RACK TO OUTDOOR ANTENNAS IN SEPARATE 3/4" CONDUITS. PROVIDE NEMA 4X PVC JUNCTION BOX BELOW PRESS BOX NEAR ANTENNAS WITH COOPER CGB FITTINGS FOR EACH CABLE ON BOTTOM OF JUNCTION BOX TO SEAL ANTENNA CABLES WATERTIGHT. CONDUITS SHALL PENETRATE PRESS BOX FLOOR INTO PRESS BOX INTERIOR DIRECTLY BELOW RACK. PROVIDE LB FITTINGS AT ALL CONDUIT BENDS.
- ③ DRILL ACCESS HOLES IN DESK TOP FOR CABLES TO NEW MICROPHONE/HEADPHONE JACK FACEPLATES AND DESK TOP AUDIO INPUT JACK FACEPLATE. PROVIDE SINGLE-GANG OUTLET BOX MOUNTED TO BOTTOM OF DESK TOP FOR CONDUIT ENTRY AT EACH FACEPLATE. PROVIDE 3~AUDIO CABLES IN 1/2" CONDUIT FROM PRESS BOX RACK TO EACH MICROPHONE/HEADPHONE JACK FACEPLATE AND ONE AUDIO CABLE IN 1/2" CONDUIT TO THE AUDIO INPUT JACK FACEPLATE.
- ④ PROVIDE A NEMA 4X PVC JUNCTION BOX MOUNTED ON FRAMING BELOW PRESS BOX FOR THE UNDERGROUND AUDIO CABLE CONDUIT FROM THE FIRE SUPPRESSION PIPING ROOM AMPLIFIER RACK, AS SHOWN ON SHEET E1.2. PROVIDE 3/4" CONDUIT FROM JUNCTION BOX TO PRESS BOX RACK. CONDUIT SHALL PENETRATE PRESS BOX FLOOR INTO PRESS BOX INTERIOR DIRECTLY BELOW RACK.



EXISTING PRESS BOX ENLARGED PLAN



BREESE STEVENS FIELD
SOUND SYSTEM PLAN - EXISTING PRESS BOX

917 EAST MIFFLIN STREET
CITY OF MADISON
MADISON, WISCONSIN

JOB NO.
1020.074

PROJECT MGR.
DAVE GOHDES



SHEET
8
E1.3



- | LIGHTING FEEDER SCHEDULE | | | | |
|---------------------------------|-------------------------------|---------------------------------------------|--------------------------------------------------------------|-------------------------------------------------------|
| Pole No. | New/ Existing Pole | Lighting Control Panel Contactor | Fixture Assembly Height Above Playing Surface | Feeder Conductor Quantities and Sizes* |
| P1 | New | C1 | 80' | 3~#8, #10 GND |
| P2 | Existing | C2 | 80' | 3~#10, #10 GND |
| P3 | Existing | C3 | 80' | 3~#10, #10 GND |
| P4 | Existing | C4 | 80' | 3~#10, #10 GND |
| P5 | Existing | C5 | 80' | 3~#8, #10 GND |
| P6 | New | C6 | 80' | 3~#8, #10 GND |
| P7 | New | C7 | 80' | 3~#8, #10 GND |
| P8 | Existing | C8 | 80' | 3~#8, #8 GND |
- *REFER TO DRAWING E1.1 FOR CONDUIT SIZES AND ROUTING.

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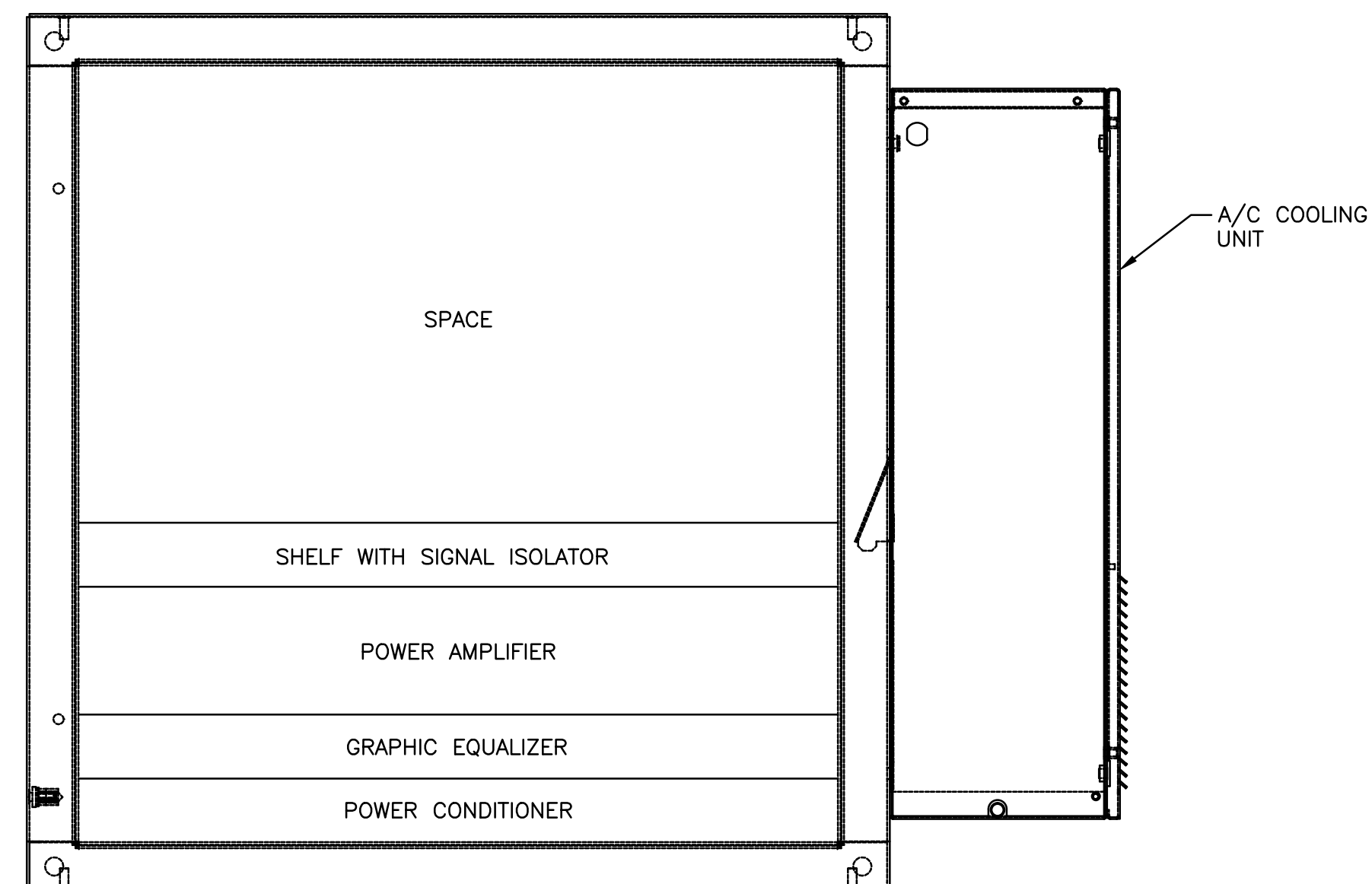
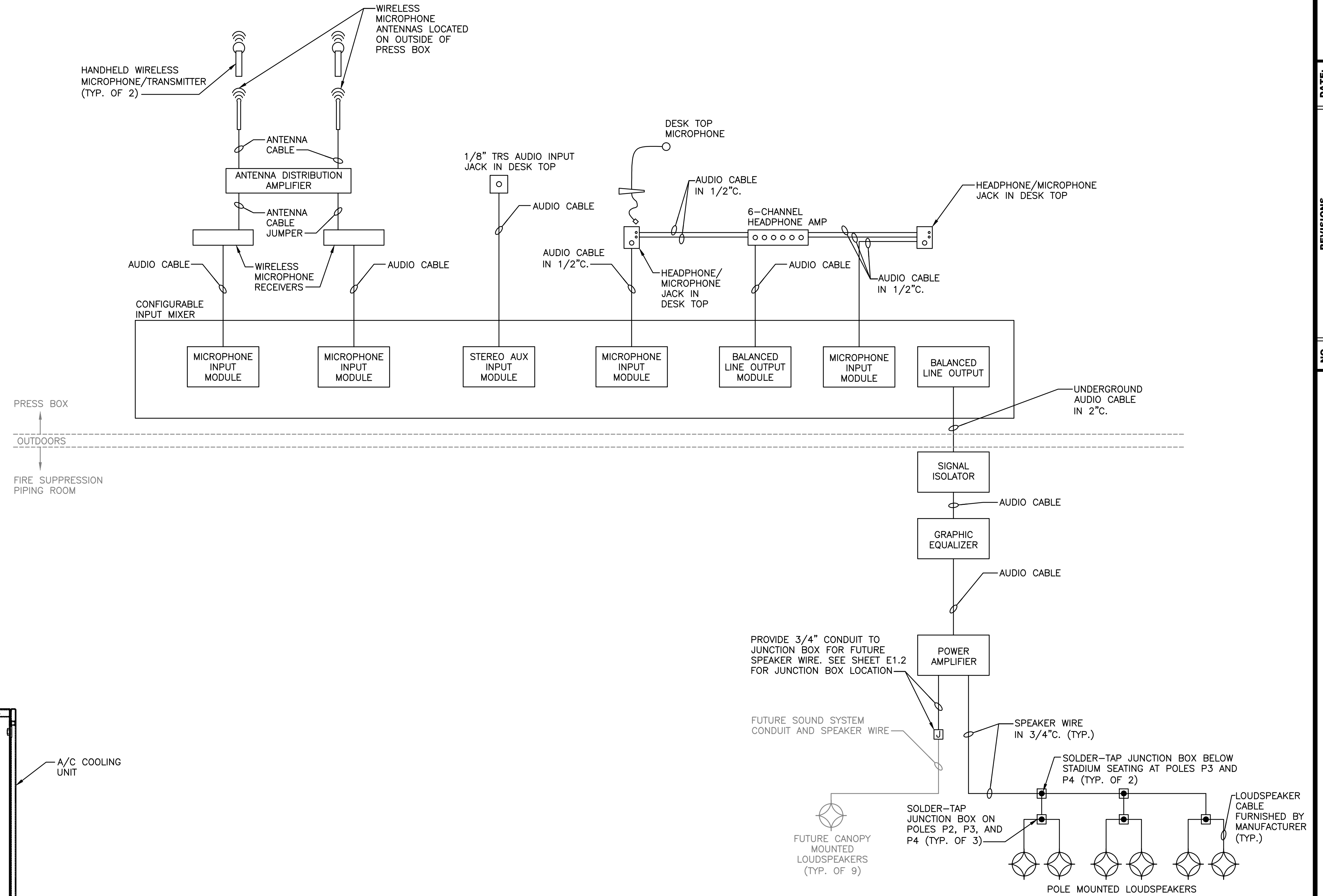
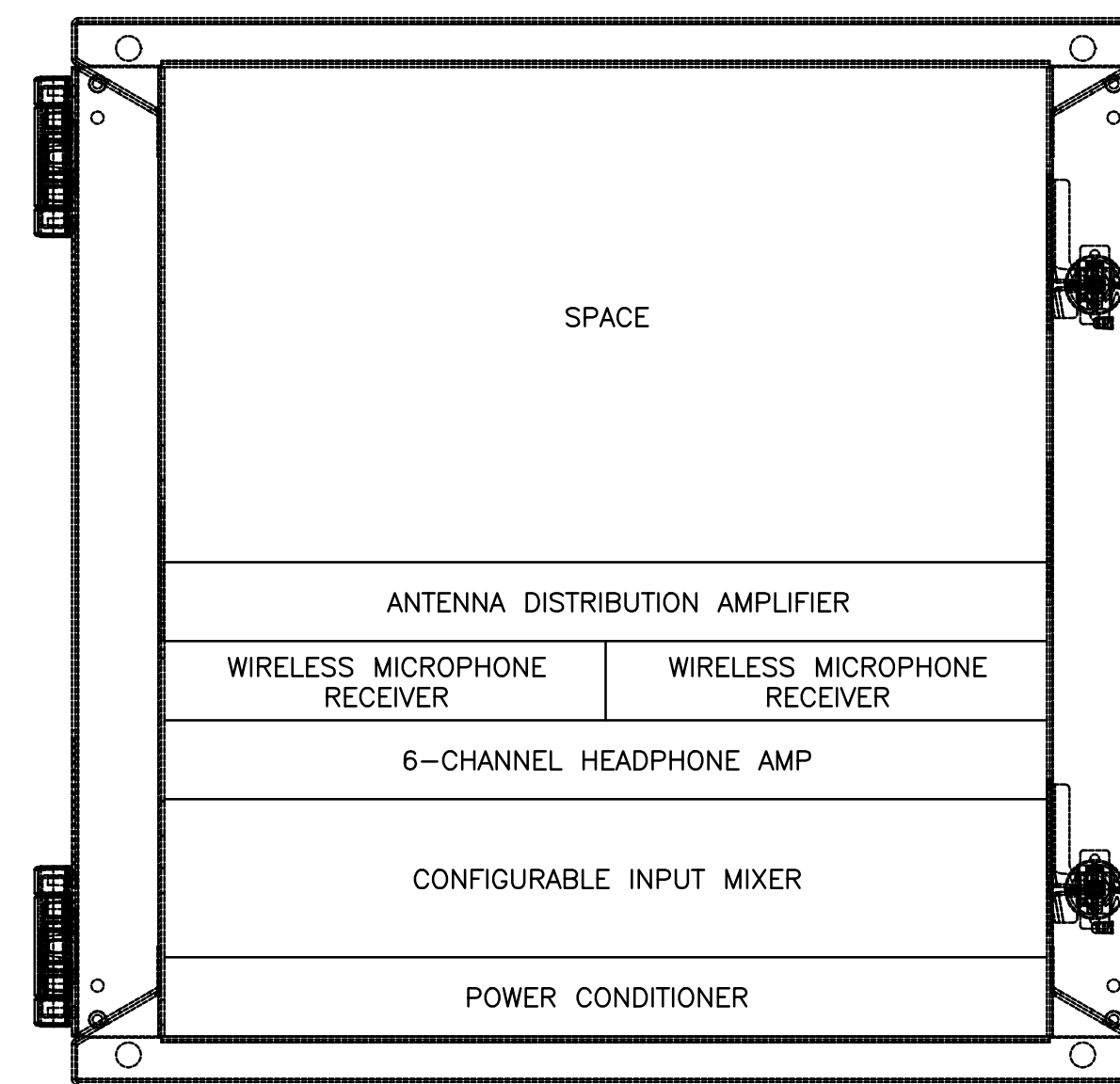
**BREESE STEVENS FIELD
DETAILS, SCHEDULES, AND ELECTRICAL ONE-LINE DIAGRAM**

JOB NO.
1020.074

PROJECT MGR.
DAVE GOHDES



SHEET
9
E5.1



GENERAL NOTES:

1. CONTRACTOR SHALL PROVIDE ALL AUDIO CABLE CONNECTORS AND TERMINATIONS REQUIRED FOR ALL AUDIO CABLE CONNECTIONS TO ALL SOUND SYSTEM EQUIPMENT, JACKS, AND DEVICES.

[illegible]

BREESE STEVENS FIELD SOUND SYSTEM RISER DIAGRAM

**CITY OF MADISON
MADISON, WISCONSIN**

JOB NO.
1020.074

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SHEET
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E6.1