

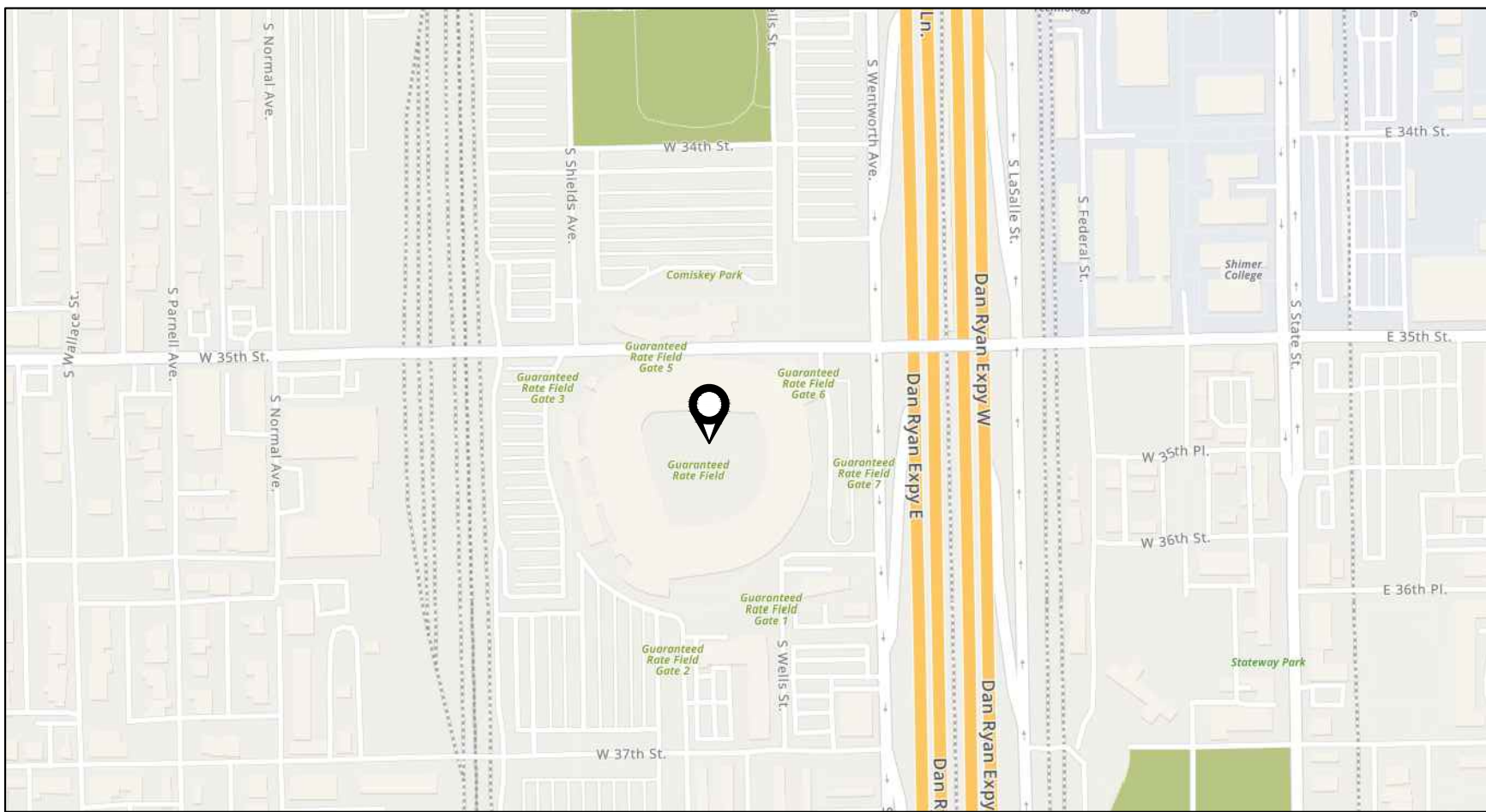
GUARANTEED RATE FIELD - PA AND RIBBON BOARD EM POWER UPGRADES

333 W 35TH STREET,
CHICAGO, IL 60616



SHEET LIST TABLE

SHEET NUMBER	SHEET TITLE
ELECTRICAL	
E0.001	ELECTRICAL TITLESHEET
SERVICE LEVEL	
E1.002	ELECTRICAL PLAN - SERVICE LEVEL - SECTION 2
E1.003	ELECTRICAL PLAN - SERVICE LEVEL - SECTION 3
E1.004	ELECTRICAL PLAN - SERVICE LEVEL - SECTION 4
E1.005	ELECTRICAL PLAN - SERVICE LEVEL - SECTION 5
E1.006	ELECTRICAL PLAN - SERVICE LEVEL - SECTION 6
E1.007	ELECTRICAL PLAN - SERVICE LEVEL - SECTION 7
E1.008	ELECTRICAL PLAN - SERVICE LEVEL - SECTION 8
E1.009	ELECTRICAL PLAN - SERVICE LEVEL - SECTION 9
E1.010	ELECTRICAL PLAN - SERVICE LEVEL - SECTION 10
E1.011	ELECTRICAL PLAN - SERVICE LEVEL - SECTION 11
100 LEVEL	
E1.101	ELECTRICAL PLAN - LEVEL 100 - SECTION 1
E1.102	ELECTRICAL PLAN - LEVEL 100 - SECTION 2
E1.104	ELECTRICAL PLAN - LEVEL 100 - SECTION 4
E1.106	ELECTRICAL PLAN - LEVEL 100 - SECTION 6
E1.109	ELECTRICAL PLAN - LEVEL 100 - SECTION 9
E1.111	ELECTRICAL PLAN - LEVEL 100 - SECTION 11
200 LEVEL	
E2.204	ELECTRICAL PLAN - LEVEL 200 - SECTION 4
E2.206	ELECTRICAL PLAN - LEVEL 200 - SECTION 6
E2.209	ELECTRICAL PLAN - LEVEL 200 - SECTION 9
300 LEVEL	
E1.304	ELECTRICAL PLAN - LEVEL 300 - SECTION 4
E1.305	ELECTRICAL PLAN - LEVEL 300 - SECTION 5
E1.306	ELECTRICAL PLAN - LEVEL 300 - SECTION 6
E1.308	ELECTRICAL PLAN - LEVEL 300 - SECTION 8
E1.309	ELECTRICAL PLAN - LEVEL 300 - SECTION 9
400 LEVEL	
E1.405	ELECTRICAL PLAN - LEVEL 400 - SECTION 5
E1.409	ELECTRICAL PLAN - LEVEL 400 - SECTION 9
500 LEVEL	
E1.505	ELECTRICAL PLAN - LEVEL 500 - SECTION 5
E1.508	ELECTRICAL PLAN - LEVEL 500 - SECTION 8
E1.509	ELECTRICAL PLAN - LEVEL 500 - SECTION 9
330 W 35TH	
E1.601	ELECTRICAL PLAN - PLAZA LEVEL
ELECTRICAL	
E02.001	ELECTRICAL DEMOLITION SINGLE LINES
E02.002	ELECTRICAL DEMOLITION SINGLE LINES
E2.001	ELECTRICAL SINGLE LINES
E2.002	ELECTRICAL SINGLE LINES
E2.003	ELECTRICAL SINGLE LINES
E3.001	ELECTRICAL SPECIFICATIONS



1 LOCATION MAP
SCALE: NO SCALE

PROJECT SCOPE OF WORK

- PROVIDE NEW UPS SYSTEM TO THE EXISTING SOUND ROOM RACK POWER.
- REROUTE THE EXISTING ELECTRICAL SYSTEM AS REQUIRED TO MEET THE ELECTRICAL CODE.
- RELOCATE ALL EXISTING TICKET WINDOW GATE AMPLIFIER TO THE EXISTING SOUND ROOMS.

ELECTRICAL SYMBOLS

GENERAL		FIRE ALARM	
	POINT OF CONNECTION OF NEW TO EXISTING WORK		HORN ALARM
	POINT OF DEMOLITION TO EXISTING WORK		VISUAL ALARM
	EMERGENCY SHUTOFF		COMMUNICATION SPEAKER (ONE-WAY)
	EQUIPMENT TAG		COMMUNICATION SPEAKER (ONE-WAY) AND VISUAL COMBO ALARM
	KITCHEN EQUIPMENT TAG		HORN AND VISUAL COMBO ALARM
	MATCH LINE		REMOTE ANNUNCIATOR
	SECTION VIEW REFERENCE		DUCT SMOKE DETECTOR, REMOTE ALARM INDICATOR, AND KEY SWITCH TEST STATION
	POWER		COMMUNICATION TELEPHONE
	EXISTING TO REMAIN		AREA OF RESCUE ASSISTANCE COMMUNICATION TELEPHONE
	EXISTING TO BE DEMOLISHED		CARBON MONOXIDE DETECTOR/SENSOR
	NEW		CARBON DIOXIDE DETECTOR/SENSOR
	CONDUIT BREAK LINE		HEAT DETECTOR
	CONDUIT, TURNED UP		
	CONDUIT, TURNED DOWN		
	EXPOSED CONDUIT (STRAIGHT LINES)		
	CONCEALED CONDUIT (CURVED LINES)		
	CIRCUIT DESIGNATIONS:		
	FLEXIBLE CONDUIT CONNECTION		
	UTILITY METER		
	CUSTOMER METER		
	ANSUL TANKS		
	PUSH BUTTON CONTROL STATION		
	TRANSFER SWITCH		
	BUS DUCT BREAK LINE		
	MOTOR (XX DENOTES HORSEPOWER)		
	SHADE MOTOR		
	JUNCTION BOX		

NOTE: NOT ALL SYMBOLS LISTED ABOVE MAY BE USED OR APPEAR IN THESE DRAWINGS.

ABBREVIATIONS	
A.AMP	AMPERE
ABV	ABOVE
AC	ALTERNATING CURRENT
ACL	ACROSS THE LINE
ACT	ACOUSTICAL CEILING TILE
AD	ACCESS DOOR
ADA	AMERICANS WITH DISABILITIES ACT
ADJ	ADJUSTABLE
AF	AMP FUSE
AFI	ARC FAULT CIRCUIT INTERRUPTER
AFI	AMP FUSE
AHJ	AUTHORITY HAVING JURISDICTION
AIC	ADDRESS INTERRUPTING CAPACITY
AIEE	AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS
AL	ALUMINUM
ALM	ALARM
ALT	ALTERNATE
ANN	ANNUNCIATOR
AS	AMP SWITCH
AT	AMP TRIP
ATS	AUTOMATIC TRANSFER SWITCH
AUTO	AUTOMATIC
AVC	ABOVE COUNTER
AWG	AMERICAN WIRE GAUGE
BAL	BALLAST
BASC	BUILDING AUTOMATION SYSTEM CONTRACTOR
BGB	BUILDING GROUND BOX
BHP	BREAK HORSEPOWER
BKR	BREAKER
C	CONDUIT
CAB	CABINET
CAT	CATALOG
CATV	CABLE TELEVISION
C.B.	CIRCUIT BREAKER
CBC	CHICAGO BUILDING CODE
CCTV	CLOSED CIRCUIT TELEVISION
CCW	COUNTERCLOCKWISE
CD	CANDELA
CESCO	COMMONWEALTH EDISON COMPANY
CIC	CABLE IN CONDUIT
CKT	CIRCUIT
CL	CENTER LINE
CLG	CEILING
CLK	CLOCK
CLO	CLOSET
CLOS	CLOSED
COAX	COAXIAL
COL	COLUMN
COM	COMMON
COMED	COMED COMPANY
CONC	CONCRETE
CT	CURRENT TRANSFORMER
CU	COPPER
C.U.	COEFFICIENT OF UTILIZATION
CUH	CABINET UNIT HEATER
CW	CLOCKWISE
DB	DECIBEL
DC	DIRECT CURRENT
DEG	DEGREE
DEMO	DEMOLITION
DN	DOWN
DO	DRAW OUT
DPST	DOUBLE POLE DOUBLE THROW
DPST	DOUBLE POLE SINGLE THROW
DS	DISCONNECT SWITCH
DT	DUST TIGHT
DW	DISHWASHER
DWG	DRAWING
EA	EACH
EC	ELECTRICAL CONTRACTOR
EF	EXHAUST FAN
EHD	ELECTRIC HAND DRYER
ELEC	ELECTRIC
ELEV	ELEVATOR
EM	EMERGENCY
EMT	ELECTRIC METALLIC TUBING (THIN WALL CONDUIT)
ENG	ENGINEER
EP	EXPLOSION PROOF
EPO	ELECTRIC POWER OFF
EQ	EQUIPMENT
ER#	EXISTING TO RELOCATE
EUH	ELECTRIC UNIT HEATER
EWC	ELECTRIC WATER COOLER
EW	ELECTRIC WALL HEATER
EX	EXISTING TO REMAIN
EXT	EXTERIOR
F	FUSE
FA	FIRE ALARM
FB	FLOOR BOX
FC	FOOT CANDLE
FDC	FIRE DEPARTMENT CONNECTION
FDR	FEEDER
FF	FINISHED FLOOR
FX	FIXTURE
FLA	FULL LOAD AMPS
FLUOR	FLUORESCENT
FPS	FAN POWERED BOX
FS	FUSED SWITCH
FT	FEET
FURN	FURNITURE
FVNR	FULL VOLTAGE NON-REVERSING
FVR	FULL VOLTAGE REVERSING
FWD	FORWARD
G.GRD	GROUND
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GEN	GENERATOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GHW	GALVANIZED HEAVY WALL STEEL CONDUIT
H	HOT
HD	HEAVY DUTY
HDCP	HANDICAPPED
HGB	HOGAN GROUND BOX
HID	HIGH INTENSITY DISCHARGE
HOA	HANDS-OFF-AUTO
HP	HORSEPOWER
HPS	HIGH PRESSURE SODIUM
HTR	HEATER
HV	HIGH VOLTAGE
HZ	HERTZ (CYCLES/SECOND)
IC	CURRENT
IC	INTERRUPTING CAPACITY
IG	ISOLATED GROUND
IMC	INTERMEDIATE GRADE CONDUIT
IN	INCH
INC	INCANDESCENT
INFO	INFORMATION
INSUL	INSULATION
ISC	INSTANTANEOUS SHORT CIRCUIT
JB	JUNCTION BOX

NOTE: NOT ALL ABBREVIATIONS LISTED ABOVE MAY BE USED OR APPEAR IN THESE DRAWINGS.

ISSUE/REVISION:

REV.	DATE	DESCRIPTION
1	10/20/2024	ISSUED FOR BID

PROJECT:
GUARANTEED RATE FIELD -
PA AND RIBBON BOARD
EM POWER UPGRADES

333 W 35TH STREET,
CHICAGO, ILLINOIS 60616

DRAWING TITLE:
ELECTRICAL TITLESHEET

DESIGNED BY: BT
CHECKED BY: BT
PROJECT NO: 23504
SCALE: NO SCALE

SHEET NO.

E0.001



- KEYED ELECTRICAL NEW WORK SHEET NOTES
1.

DISCONNECT AND REMOVE THE EXISTING AMPLIFIER. CUT AND CAP EXISTING INPUT WIRES. THE EXISTING OUTPUT WIRES SHALL BE ROUTED TO SOUND ROOM - J (2.01.01).
2.

FURNISH AND INSTALL PA SYSTEM WIRES IN 3/4" CONDUIT FROM GATE-1 TICKET WINDOW TO SOUND ROOM-J. THE CONDUIT ROUTING SHOWN IS DIAGRAMMATICALLY. THE CONTRACTOR SHALL FIELD VERIFY AND INSTALL CONDUIT AND WIRES AS REQUIRED.

1

ELECTRICAL PLAN - SERVICE LEVEL - SECTION 2 ENLARGED

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1558' 0"

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1562' 0"

1564' 0"

1566' 0"

1568' 0"

1570' 0"

1572' 0"

1574' 0"

1576' 0"

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1580' 0"

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1586' 0"

1588' 0"

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1592' 0"

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1596' 0"

1598' 0"

1600' 0"

1602' 0"

1604' 0"

1606' 0"

1608' 0"

1610' 0"

1612' 0"

1614' 0"

1616' 0"

1618' 0"

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1654' 0"

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1700' 0"

1702' 0"

1704' 0"

1706' 0"

1708' 0"

1710' 0"

1712' 0"

1714' 0"

1716' 0"

1718' 0"

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1756' 0"

1758' 0"

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1762' 0"

1764' 0"

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1770' 0"

1772' 0"

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1780' 0"

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1790' 0"

1792' 0"

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1796' 0"

1798' 0"

1800' 0"

1802' 0"

1804' 0"

1806' 0"

1808' 0"

1810' 0"

1812' 0"

1814' 0"

1816' 0"

1818' 0"

1820' 0"

1822' 0"

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1834' 0"

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1854' 0"

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1862' 0"

1864' 0"

1866' 0"

1868' 0"

1870' 0"

1872' 0"

1874' 0"

1876' 0"

1878' 0"

1880' 0"

1882' 0"

1884' 0"

1886' 0"

1888' 0"

1890' 0"

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1894' 0"

1896' 0"

1898' 0"

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1902' 0"

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1924' 0"

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2060' 0"

2062' 0"

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2068' 0"

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2076' 0"

2078' 0"

2080' 0"

2082' 0"

2084' 0"

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2088' 0"

2090' 0"

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2094' 0"

2096

KEYED ELECTRICAL NEW WORK SHEET NOTES

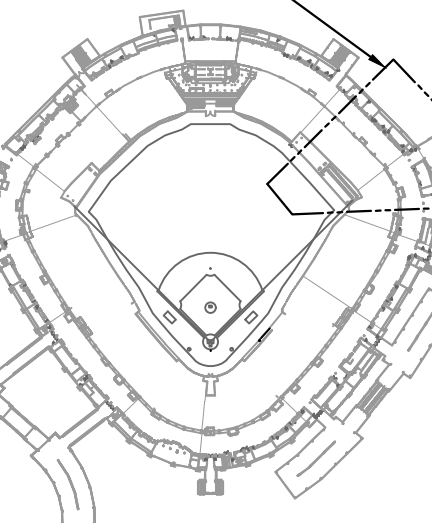
1. DISCONNECT AND REMOVE THE EXISTING AMPLIFIER. CUT AND CAP EXISTING INPUT WIRES. THE EXISTING OUTPUT WIRES SHALL BE ROUTED TO SOUND ROOM - B (1.19.04).
2. FURNISH AND INSTALL PA SYSTEM WIRES IN 3/4" CONDUIT FROM GATE-2 TICKET WINDOW TO SOUND ROOM-B. THE CONDUIT ROUTING SHOWN IS DIAGRAMMATICALLY. THE CONTRACTOR SHALL FIELD VERIFY AND INSTALL CONDUIT AND WIRES AS REQUIRED.



1 ELECTRICAL PLAN - SERVICE LEVEL - SECTION 3 ENLARGED

KEY PLAN:

AREA OF WORK



ISSUE/REVISION:

REV.	DATE	DESCRIPTION
1	10/20/2024	ISSUED FOR BID

PROJECT:
GUARANTEED RATE FIELD -
PA AND RIBBON BOARD
EM POWER UPGRADES

333 W 35TH STREET,
CHICAGO, ILLINOIS 60616

DRAWING TITLE:
ELECTRICAL PLAN - SERVICE
LEVEL - SECTION 3

DESIGNED BY: BT
CHECKED BY: BT
PROJECT NO: 23504
SCALE: 1/8" = 1'-0"

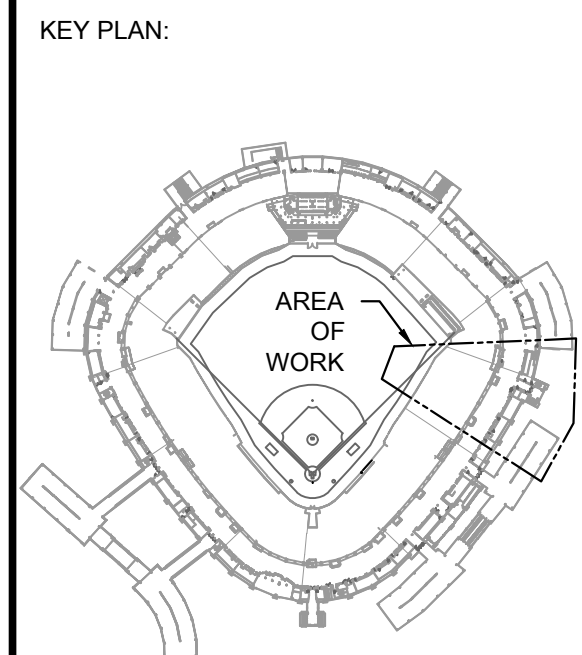
SHEET NO.

E1.003



- KEYED ELECTRICAL NEW WORK SHEET NOTES**
- FURNISH AND INSTALL PA SYSTEM WIRES IN 3/4" CONDUIT FROM GATE-2 TICKET WINDOW TO SOUND ROOM-B. THE CONDUIT ROUTING SHOWN IS DIAGRAMMATICALLY. THE CONTRACTOR SHALL FIELD VERIFY AND INSTALL CONDUIT AND WIRES AS REQUIRED.
 - DISCONNECT AND REMOVE THE EXISTING AMPLIFIER. CUT AND CAP EXISTING INPUT WIRES. THE EXISTING OUTPUT WIRES SHALL BE ROUTED TO SOUND ROOM - B (4.19.04).
 - FURNISH AND INSTALL PA SYSTEM WIRES IN 3/4" CONDUIT FROM GATE-3-IN TICKET WINDOW TO SOUND ROOM-B. THE CONDUIT ROUTING SHOWN IS DIAGRAMMATICALLY. THE CONTRACTOR SHALL FIELD VERIFY AND INSTALL CONDUIT AND WIRES AS REQUIRED.

1 ELECTRICAL PLAN - SERVICE LEVEL - SECTION 4 ENLARGED



ISSUE/REVISION:		
REV.	DATE	DESCRIPTION
1	10/20/2024	ISSUED FOR BID

PROJECT: GUARANTEED RATE FIELD - PA AND RIBBON BOARD EM POWER UPGRADES

333 W 35TH STREET, CHICAGO, ILLINOIS 60616

DRAWING TITLE: ELECTRICAL PLAN - SERVICE LEVEL - SECTION 4

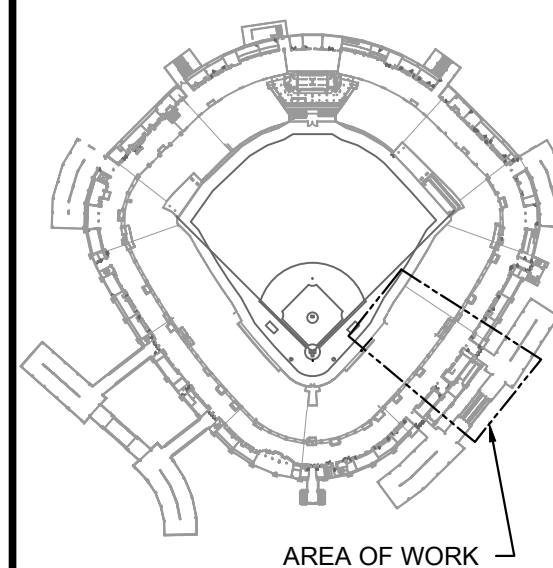
DESIGNED BY:	BT
CHECKED BY:	BT
PROJECT NO:	23504
SCALE:	1/8" = 1'-0"
SHEET NO.	E1.004

KEYED ELECTRICAL NEW WORK SHEET NOTES

1. DISCONNECT AND REMOVE EXISTING BRANCH CIRCUIT. EXISTING RECEPTACLES SHALL REMAIN. FURNISH AND INSTALL NEW 20A BRANCH CIRCUIT FROM THE EXISTING PANELBOARD "EM PANEL" AND AS NOTED CIRCUIT NUMBER.
2. NEW 1500W RACK MOUNTED UPS SHALL BE FURNISHED BY OTHER AND INSTALLED BY THE ELECTRICAL CONTRACTOR ON THE RACK WHERE PA AMPLIFIER INSTALLED. COORDINATE WITH WHITE SOX IT DEPARTMENT.
3. EXISTING PANELBOARD SHALL REMAIN. EXISTING 20A/1P CIRCUIT BREAKER SHALL BE REUSED FOR THE NEW BRANCH CIRCUITS.



KEY PLAN:



ISSUE/REVISION:

REV.	DATE	DESCRIPTION
1	10/02/2024	ISSUED FOR BID

PROJECT:
GUARANTEED RATE FIELD -
PA AND RIBBON BOARD
EM POWER UPGRADES

333 W 35TH STREET,
CHICAGO, ILLINOIS 60616

DRAWING TITLE:
ELECTRICAL PLAN - SERVICE
LEVEL - SECTION 5

DESIGNED BY: BT
CHECKED BY: BT
PROJECT NO: 23504
SCALE: 1/8" = 1'-0"

SHEET NO.

E1.005

1 ELECTRICAL PLAN - SERVICE LEVEL - SECTION 5 ENLARGED

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

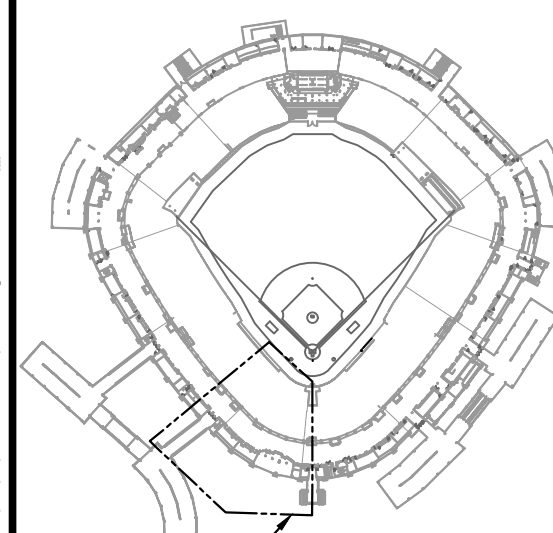
KEYED ELECTRICAL NEW WORK SHEET NOTES

⑦

1. DISCONNECT AND REMOVE THE EXISTING AMPLIFIER. CUT AND CAP EXISTING INPUT WIRES. THE EXISTING OUTPUT WIRES SHALL BE ROUTED TO SOUND ROOM-D. THE EXISTING OUTPUT WIRES SHALL BE ROUTED TO SOUND ROOM-D. (4.27.02)
2. FURNISH AND INSTALL PA SYSTEM WIRES IN 3/4" CONDUIT FROM GATE-4 TICKET WINDOW TO SOUND ROOM-D. THE CONDUIT ROUTING SHOWN IS DIAGRAMMATICALLY. THE CONTRACTOR SHALL FIELD VERIFY AND INSTALL CONDUIT AND WIRES AS REQUIRED.



KEY PLAN:



AREA OF WORK:

ISSUE/REVISION:

REV.	DATE	DESCRIPTION
1	10/20/2024	ISSUED FOR BID

PROJECT:
GUARANTEED RATE FIELD -
PA AND RIBBON BOARD
EM POWER UPGRADES

333 W 35TH STREET,
CHICAGO, ILLINOIS 60616

DRAWING TITLE:
ELECTRICAL PLAN - SERVICE
LEVEL - SECTION 7

DESIGNED BY: BT
CHECKED BY: BT
PROJECT NO: 23504
SCALE: 1/8" = 1'-0"

SHEET NO.

E1.007

1 ELECTRICAL PLAN - SERVICE LEVEL - SECTION 7 ENLARGED

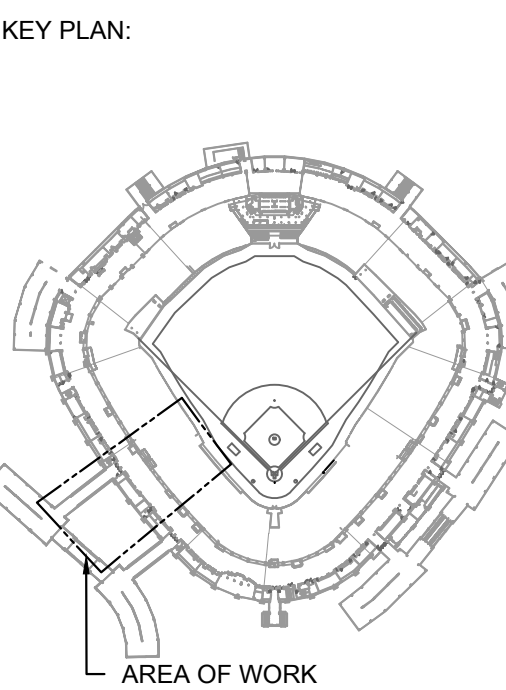
SCALE: 1/8" = 1'-0"



KEYED ELECTRICAL NEW WORK SHEET NOTES

1. EXISTING TO REMAIN.

1 ELECTRICAL PLAN - SERVICE LEVEL - SECTION 8 ENLARGED



ISSUE/REVISION:		
REV.	DATE	DESCRIPTION
1	10/20/2024	ISSUED FOR BID

PROJECT:
GUARANTEED RATE FIELD -
PA AND RIBBON BOARD
EM POWER UPGRADES
333 W 35TH STREET,
CHICAGO, ILLINOIS 60616

DRAWING TITLE:
ELECTRICAL PLAN - SERVICE
LEVEL - SECTION 8

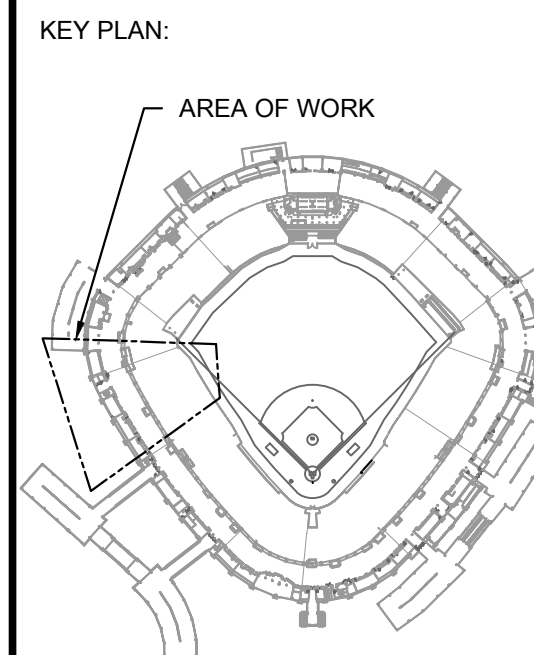
DESIGNED BY: BT
CHECKED BY: BT
PROJECT NO: 23504
SCALE: 1/8" = 1'-0"

SHEET NO.
E1.008



- KEYED ELECTRICAL NEW WORK SHEET NOTES**
- FURNISH AND INSTALL PA SYSTEM WIRES IN 3/4" CONDUIT FROM GATE-6 TICKET WINDOW TO SOUND ROOM-F. THE CONDUIT ROUTING SHOWN IS DIAGRAMMATICALLY. THE CONTRACTOR SHALL FIELD VERIFY AND INSTALL CONDUIT AND WIRES AS REQUIRED.
 - FURNISH AND INSTALL NEW EMERGENCY POWER FEEDER FROM THE EXISTING SWITCHBOARD GDP-1-5B TO NEW ATS-RB. REFER TO RISER DIAGRAM FOR SIZE.
 - FURNISH AND INSTALL NEW 200A FUSE SWITCH WITH NEW FUSES. REFER TO RISER DIAGRAM.

1 ELECTRICAL PLAN - SERVICE LEVEL - SECTION 9 ENLARGED



ISSUE/REVISION:		
REV.	DATE	DESCRIPTION
1	10/02/2024	ISSUED FOR BID

PROJECT:
GUARANTEED RATE FIELD -
PA AND RIBBON BOARD
EM POWER UPGRADES

333 W 35TH STREET,
CHICAGO, ILLINOIS 60616

DRAWING TITLE:
ELECTRICAL PLAN - SERVICE
LEVEL - SECTION 9

DESIGNED BY:	BT
CHECKED BY:	BT
PROJECT NO:	23504
SCALE:	1/8" = 1'-0"
SHEET NO.	

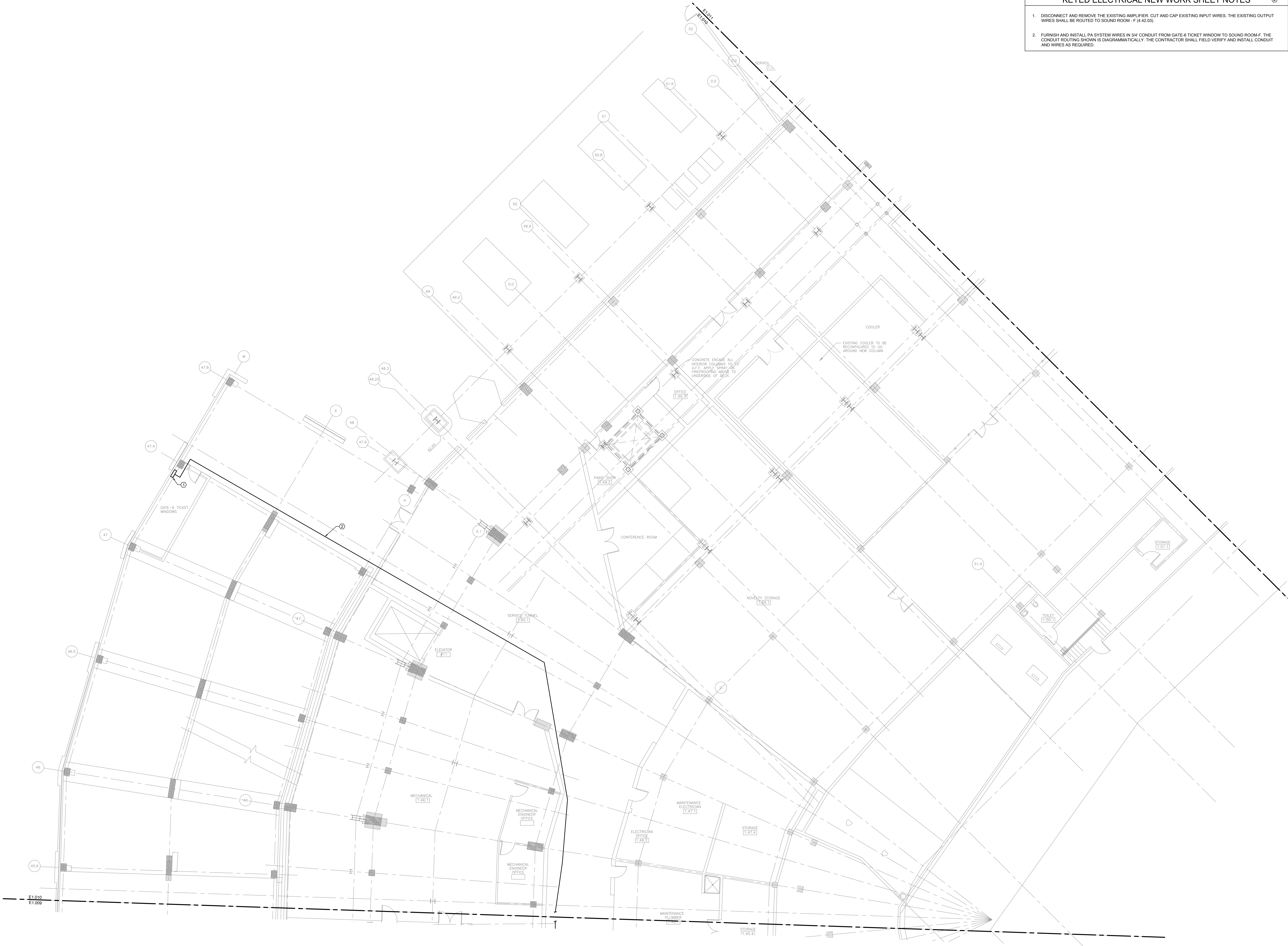
KEYED ELECTRICAL NEW WORK SHEET NOTES

1.

DISCONNECT AND REMOVE THE EXISTING AMPLIFIER. CUT AND CAP EXISTING INPUT WIRES. THE EXISTING OUTPUT WIRES SHALL BE ROUTED TO SOUND ROOM - F (4.42.03).

2.

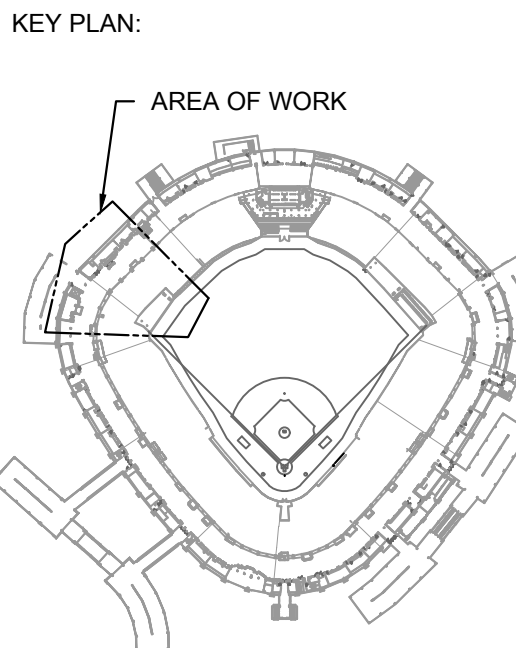
FURNISH AND INSTALL PA SYSTEM WIRES IN 3/4" CONDUIT FROM GATE-6 TICKET WINDOW TO SOUND ROOM-F. THE CONDUIT ROUTING SHOWN IS DIAGRAMMATICALLY. THE CONTRACTOR SHALL FIELD VERIFY AND INSTALL CONDUIT AND WIRES AS REQUIRED.



1

ELECTRICAL PLAN - SERVICE LEVEL - SECTION 10 ENLARGED

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



ISSUE/REVISION:

REV.	DATE	DESCRIPTION
1	10/02/2024	ISSUED FOR BID

PROJECT:

GUARANTEED RATE FIELD - PA AND RIBBON BOARD EM POWER UPGRADES

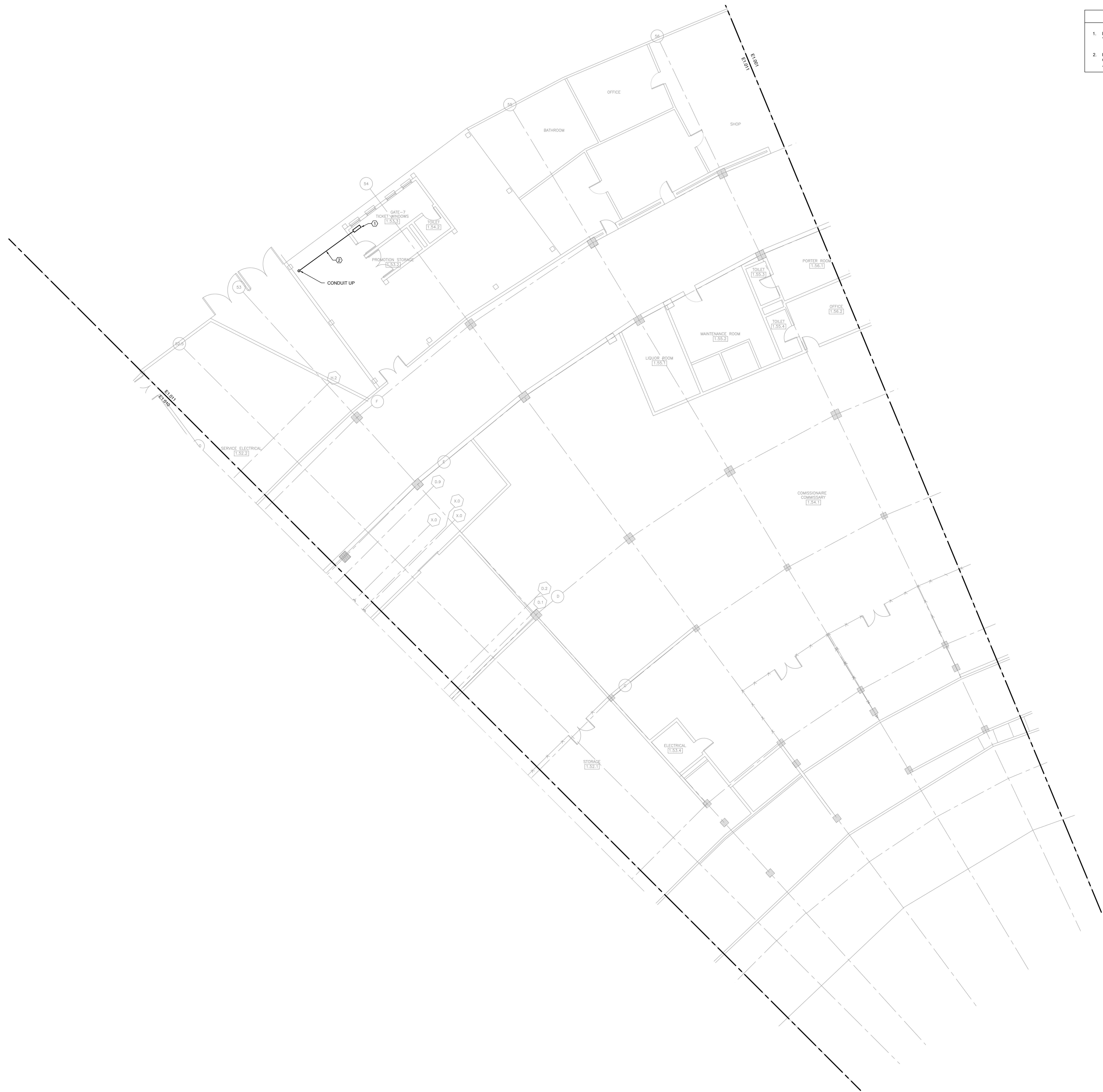
333 W 35TH STREET, CHICAGO, ILLINOIS 60616

DRAWING TITLE:

ELECTRICAL PLAN - SERVICE LEVEL - SECTION 10

DESIGNED BY:	BT
CHECKED BY:	BT
PROJECT NO:	23504
SCALE:	1/8" = 1'-0"
SHEET NO.	

E1.010

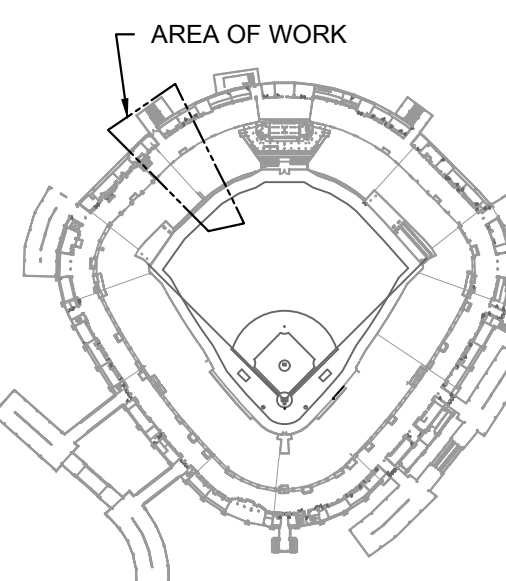


KEYED ELECTRICAL NEW WORK SHEET NOTES

1. DISCONNECT AND REMOVE THE EXISTING AMPLIFIER. CUT AND CAP EXISTING INPUT WIRES. THE EXISTING OUTPUT WIRES SHALL BE ROUTED TO SOUND ROOM - J (2.01.01).
2. FURNISH AND INSTALL PA SYSTEM WIRES IN 3/4" CONDUIT FROM GATE-7 TICKET WINDOW TO SOUND ROOM-J. THE CONDUIT ROUTING SHOWN IS DIAGRAMMATICALLY. THE CONTRACTOR SHALL FIELD VERIFY AND INSTALL CONDUIT AND WIRES AS REQUIRED.



KEY PLAN:



ISSUE/REVISION:

REV.	DATE	DESCRIPTION
1	10/02/2024	ISSUED FOR BID

PROJECT:
GUARANTEED RATE FIELD -
PA AND RIBBON BOARD
EM POWER UPGRADES

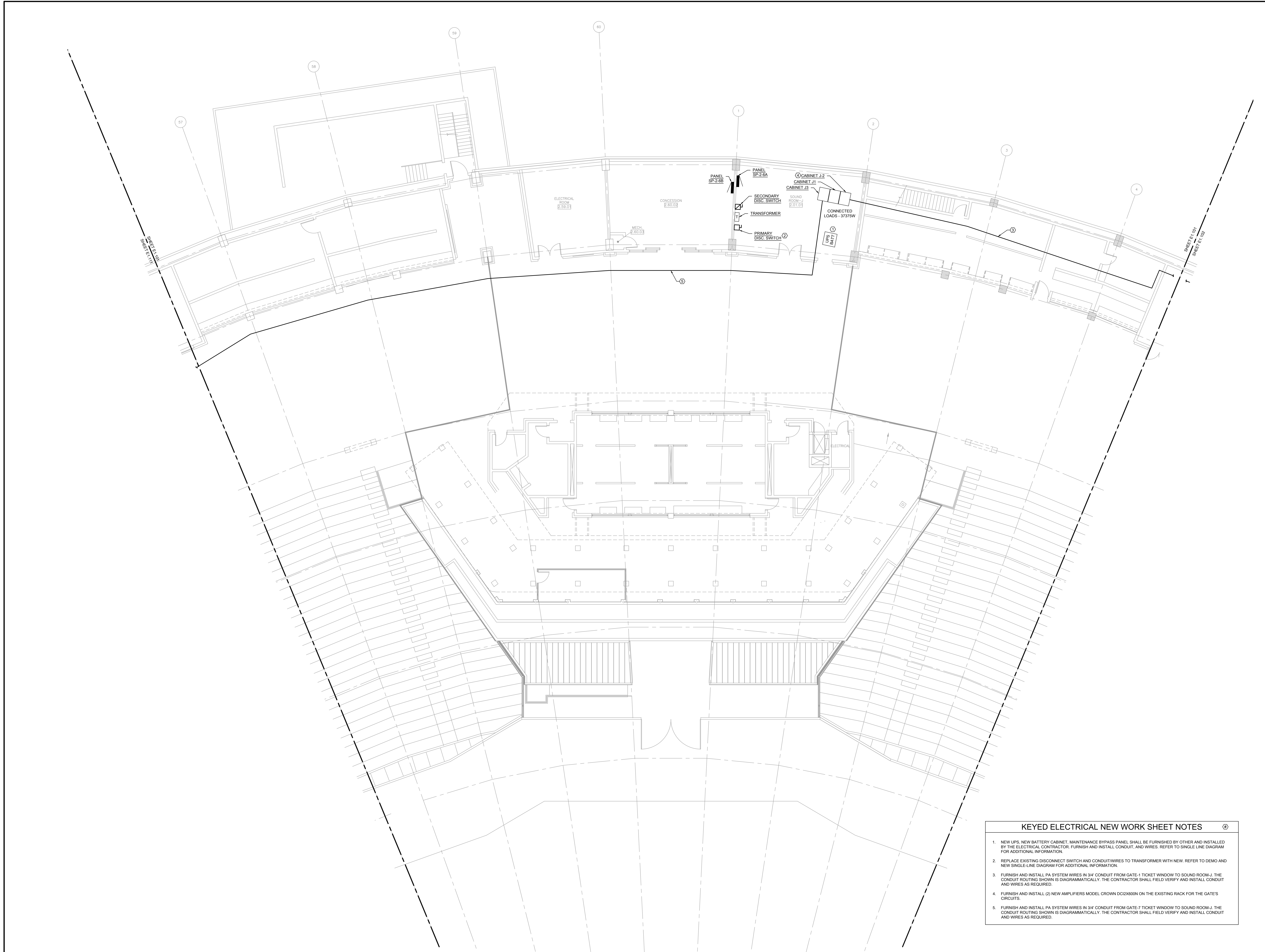
333 W 35TH STREET,
CHICAGO, ILLINOIS 60616

DRAWING TITLE:
ELECTRICAL PLAN - SERVICE
LEVEL - SECTION 11

DESIGNED BY: BT
CHECKED BY: BT
PROJECT NO: 23504
SCALE: 1/8" = 1'-0"

SHEET NO.

E1.011



1 ELECTRICAL PLAN - 100 LEVEL - SECTION 1 ENLARGED

- KEYED ELECTRICAL NEW WORK SHEET NOTES**
1. NEW UPS, NEW BATTERY CABINET, MAINTENANCE BYPASS PANEL SHALL BE FURNISHED BY OTHER AND INSTALLED BY THE ELECTRICAL CONTRACTOR. FURNISH AND INSTALL CONDUIT, AND WIRES. REFER TO SINGLE LINE DIAGRAM FOR ADDITIONAL INFORMATION.
 2. REPLACE EXISTING DISCONNECT SWITCH AND CONDUIT/WIRES TO TRANSFORMER WITH NEW. REFER TO DEMO AND NEW SINGLE-LINE DIAGRAM FOR ADDITIONAL INFORMATION.
 3. FURNISH AND INSTALL PA SYSTEM WIRES IN 3/4" CONDUIT FROM GATE-1 TICKET WINDOW TO SOUND ROOM-J. THE CONDUIT ROUTING SHOWN IS DIAGRAMMATICALLY. THE CONTRACTOR SHALL FIELD VERIFY AND INSTALL CONDUIT AND WIRES AS REQUIRED.
 4. FURNISH AND INSTALL (2) NEW AMPLIFIERS MODEL CROWN DC2X600N ON THE EXISTING RACK FOR THE GATE'S CIRCUITS.
 5. FURNISH AND INSTALL PA SYSTEM WIRES IN 3/4" CONDUIT FROM GATE-7 TICKET WINDOW TO SOUND ROOM-J. THE CONDUIT ROUTING SHOWN IS DIAGRAMMATICALLY. THE CONTRACTOR SHALL FIELD VERIFY AND INSTALL CONDUIT AND WIRES AS REQUIRED.



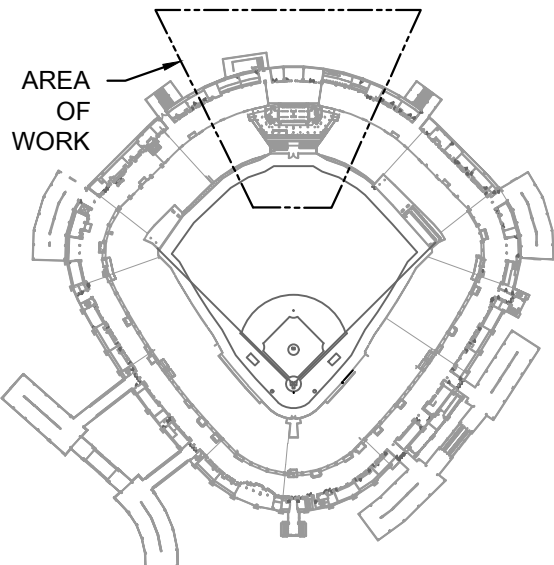
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FACILITIES AUTHORITY



KEY PLAN:



ISSUE/REVISION:		
REV.	DATE	DESCRIPTION
1	10/20/2024	ISSUED FOR BID

PROJECT:
GUARANTEED RATE FIELD -
PA AND RIBBON BOARD
EM POWER UPGRADES

333 W 35TH STREET,
CHICAGO, ILLINOIS 60616

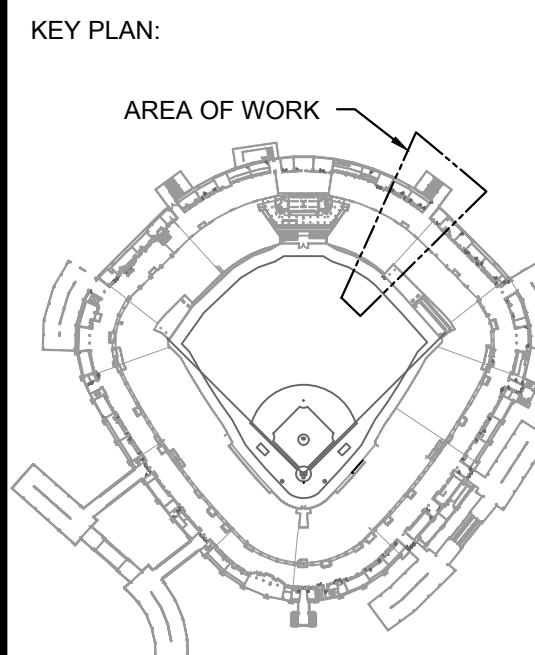
DRAWING TITLE:
ELECTRICAL PLAN - LEVEL 100
- SECTION 1

DESIGNED BY:	BT
CHECKED BY:	BT
PROJECT NO:	23504
SCALE:	1/8" = 1'-0"
SHEET NO.	E1.101



KEYED ELECTRICAL NEW WORK SHEET NOTES		
1.	FURNISH AND INSTALL PA SYSTEM WIRES IN 3/4" CONDUIT FROM GATE-1 TICKET WINDOW TO SOUND ROOM-J. THE CONDUIT ROUTING SHOWN IS DIAGRAMMATICALLY. THE CONTRACTOR SHALL FIELD VERIFY AND INSTALL CONDUIT AND WIRES AS REQUIRED.	

1 ELECTRICAL PLAN - 100 LEVEL - SECTION 2 ENLARGED



ISSUE/REVISION:		
REV.	DATE	DESCRIPTION
1	10/02/2024	ISSUED FOR BID

PROJECT:
GUARANTEED RATE FIELD -
PA AND RIBBON BOARD
EM POWER UPGRADES

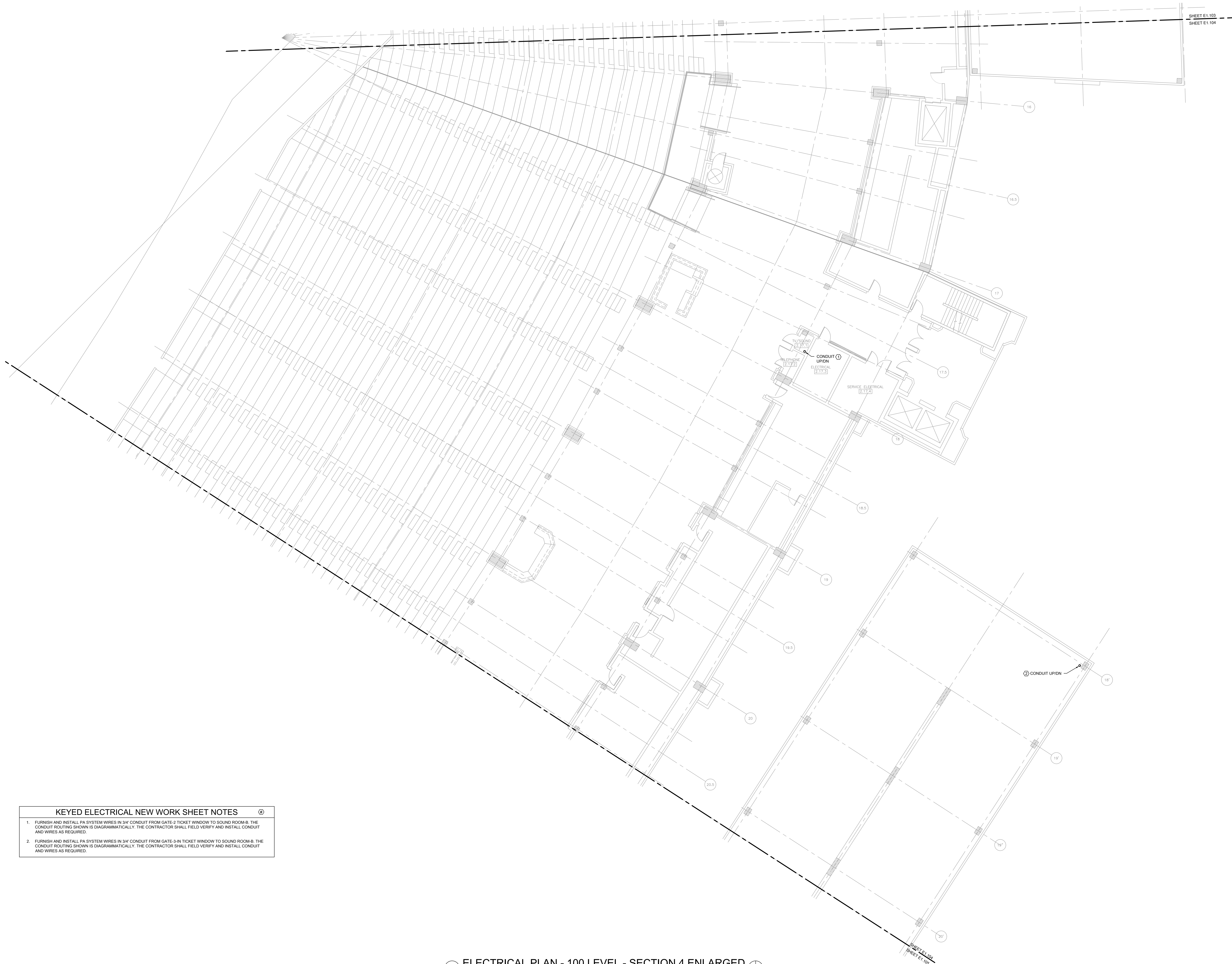
333 W 35TH STREET,
CHICAGO, ILLINOIS 60616

DRAWING TITLE:
ELECTRICAL PLAN - LEVEL 100
- SECTION 2

DESIGNED BY:	BT
CHECKED BY:	BT
PROJECT NO:	23504
SCALE:	1/8" = 1'-0"

SHEET NO.

E1.102



KEYED ELECTRICAL NEW WORK SHEET NOTES

1.

FURNISH AND INSTALL PA SYSTEM WIRES IN 3/4" CONDUIT FROM GATE-2 TICKET WINDOW TO SOUND ROOM-B. THE CONDUIT ROUTING SHOWN IS DIAGRAMMATICALLY. THE CONTRACTOR SHALL FIELD VERIFY AND INSTALL CONDUIT AND WIRES AS REQUIRED.

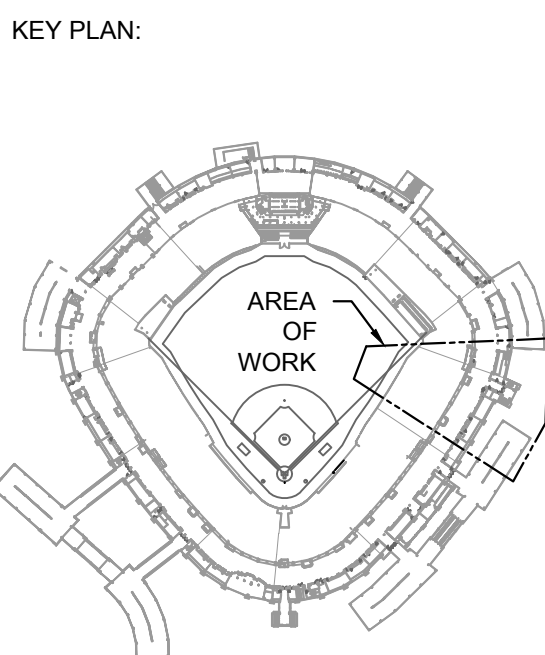
2.

FURNISH AND INSTALL PA SYSTEM WIRES IN 3/4" CONDUIT FROM GATE-3-IN TICKET WINDOW TO SOUND ROOM-B. THE CONDUIT ROUTING SHOWN IS DIAGRAMMATICALLY. THE CONTRACTOR SHALL FIELD VERIFY AND INSTALL CONDUIT AND WIRES AS REQUIRED.

1

ELECTRICAL PLAN - 100 LEVEL - SECTION 4 ENLARGED

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



ISSUE/REVISION:		
REV.	DATE	DESCRIPTION
1	10/02/2024	ISSUED FOR BID

PROJECT:
GUARANTEED RATE FIELD -
PA AND RIBBON BOARD
EM POWER UPGRADES

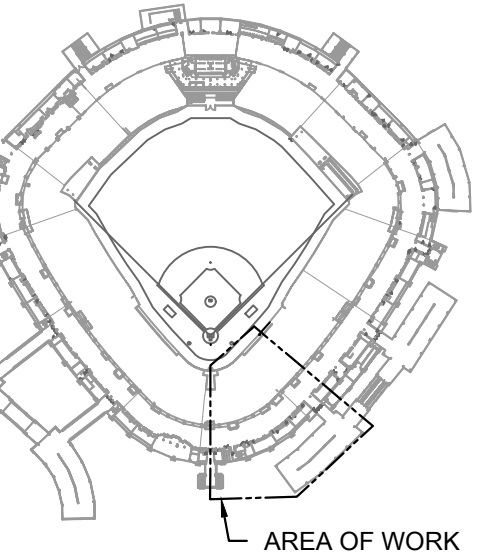
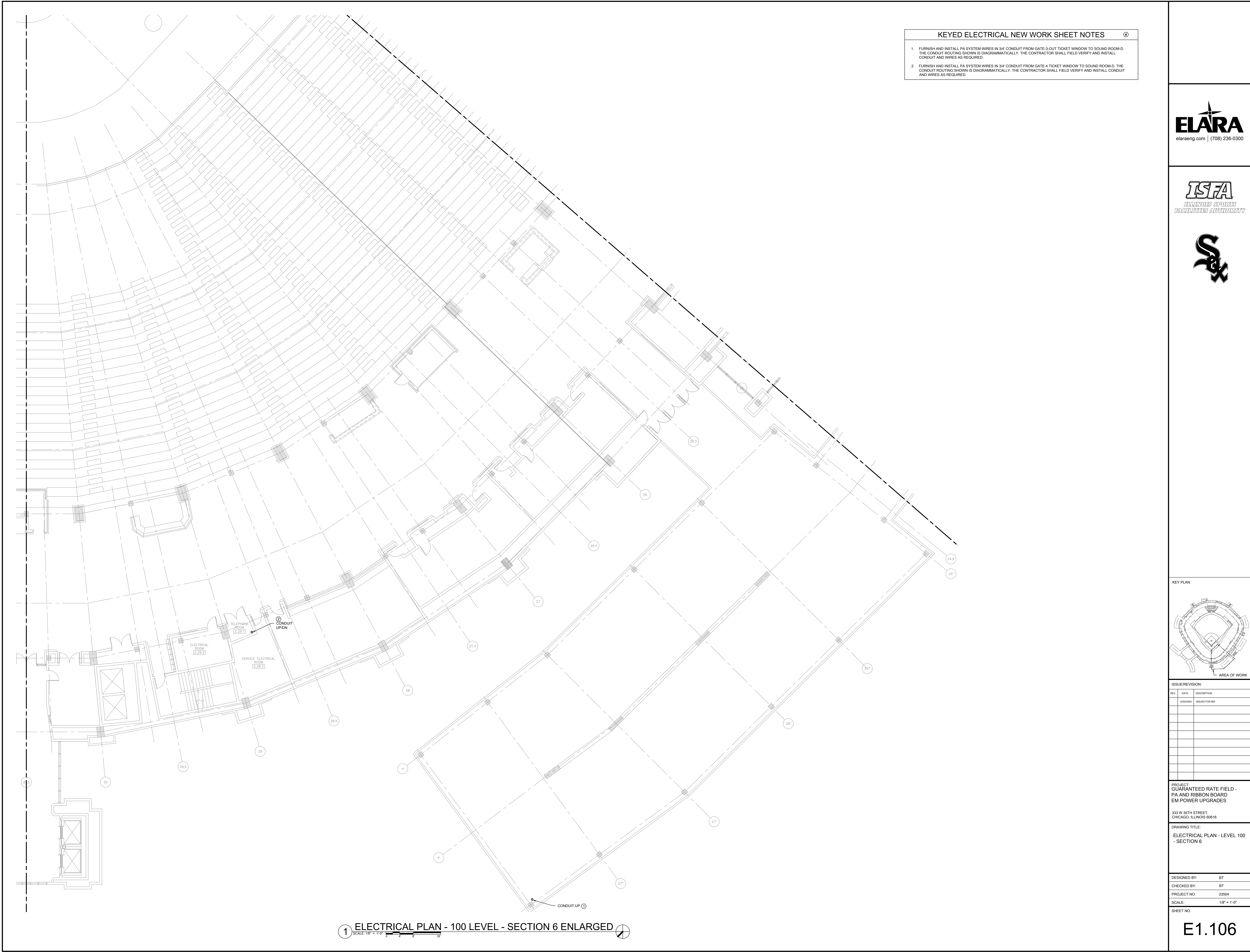
333 W 35TH STREET,
CHICAGO, ILLINOIS 60616

DRAWING TITLE:
ELECTRICAL PLAN - LEVEL 100
- SECTION 4

DESIGNED BY:	BT
CHECKED BY:	BT
PROJECT NO:	23504
SCALE:	1/8" = 1'-0"

SHEET NO.

E1.104



REV.	DATE	DESCRIPTION
1	10/02/2024	ISSUED FOR BID



- KEYED ELECTRICAL NEW WORK SHEET NOTES ⓘ
1.

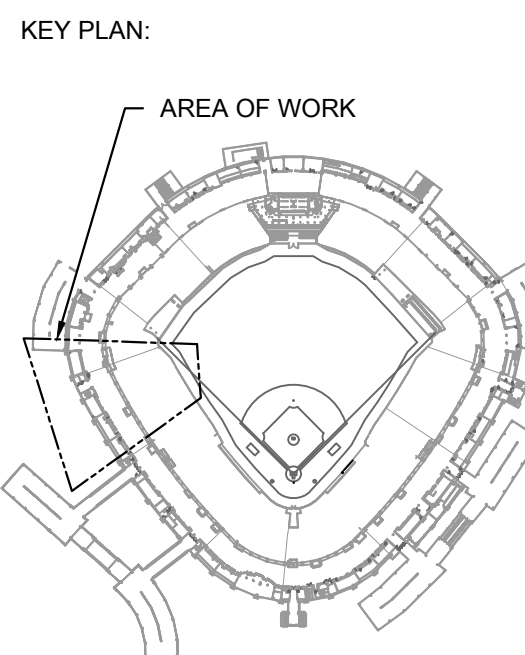
FURNISH AND INSTALL PA SYSTEM WIRES IN 3/4" CONDUIT FROM GATE-6 TICKET WINDOW TO SOUND ROOM-F. THE CONDUIT ROUTING SHOWN IS DIAGRAMMATICALLY. THE CONTRACTOR SHALL FIELD VERIFY AND INSTALL CONDUIT AND WIRES AS REQUIRED.
2.

FURNISH AND INSTALL NEW EMERGENCY POWER FEEDER FROM THE EXISTING SWITCHBOARD GDP-1-SB TO NEW ATS-RB. REFER TO RISER DIAGRAM FOR SIZE.

1 ELECTRICAL PLAN - 100 LEVEL - SECTION 9 ENLARGED ⓘ

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

0 5 10



ISSUE/REVISION:

REV.	DATE	DESCRIPTION
1	10/02/2024	ISSUED FOR BID

PROJECT:
GUARANTEED RATE FIELD -
PA AND RIBBON BOARD
EM POWER UPGRADES

333 W 35TH STREET,
CHICAGO, ILLINOIS 60616

DRAWING TITLE:

ELECTRICAL PLAN - LEVEL 100
- SECTION 9

DESIGNED BY:	BT
CHECKED BY:	BT
PROJECT NO:	23504
SCALE:	1/8" = 1'-0"

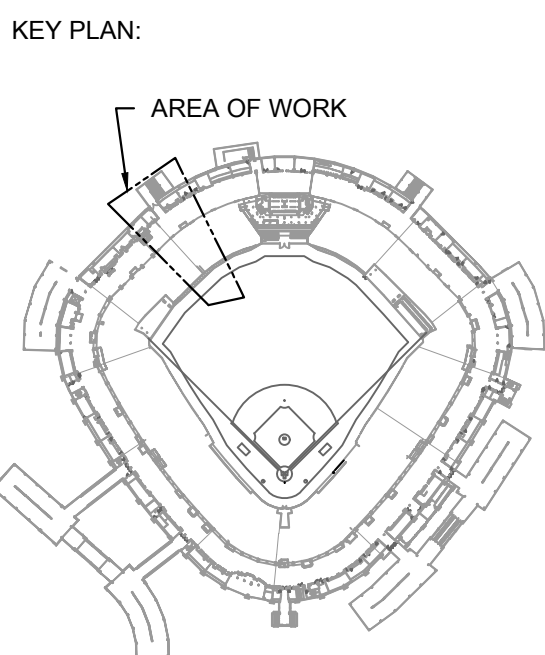
SHEET NO.

E1.109



KEYED ELECTRICAL NEW WORK SHEET NOTES

1. FURNISH AND INSTALL PA SYSTEM WIRES IN 3/4" CONDUIT FROM GATE-7 TICKET WINDOW TO SOUND ROOM-J. THE CONDUIT ROUTING SHOWN IS DIAGRAMMATICALLY. THE CONTRACTOR SHALL FIELD VERIFY AND INSTALL CONDUIT AND WIRES AS REQUIRED.



ISSUE/REVISION:		
REV.	DATE	DESCRIPTION
1	10/02/2024	ISSUED FOR BID

PROJECT:
GUARANTEED RATE FIELD -
PA AND RIBBON BOARD
EM POWER UPGRADES

333 W 35TH STREET,
CHICAGO, ILLINOIS 60616

DRAWING TITLE:
ELECTRICAL PLAN - LEVEL 100
- SECTION 11

DESIGNED BY:	BT
CHECKED BY:	BT
PROJECT NO:	23504
SCALE:	1/8" = 1'-0"

SHEET NO.

E1.111

1 ELECTRICAL PLAN - 100 LEVEL - SECTION 11 ENLARGED



KEYED ELECTRICAL NEW WORK SHEET NOTES

1.

FURNISH AND INSTALL PA SYSTEM WIRES IN 3/4" CONDUIT FROM GATE-2 TICKET WINDOW TO SOUND ROOM-B. THE CONDUIT ROUTING SHOWN IS DIAGRAMMATICALLY. THE CONTRACTOR SHALL FIELD VERIFY AND INSTALL CONDUIT AND WIRES AS REQUIRED.

2.

FURNISH AND INSTALL PA SYSTEM WIRES IN 3/4" CONDUIT FROM GATE-3-IN TICKET WINDOW TO SOUND ROOM-B. THE CONDUIT ROUTING SHOWN IS DIAGRAMMATICALLY. THE CONTRACTOR SHALL FIELD VERIFY AND INSTALL CONDUIT AND WIRES AS REQUIRED.

1 ELECTRICAL PLAN - 200 LEVEL - SECTION 4 ENLARGED

MA
SHEET E2.203
SHEET E2.204

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ISFA
ILLINOIS SPORTS
FACILITIES AUTHORITY

St. Louis Cardinals

KEY PLAN:

ISSUE/REVISION:

REV.	DATE	DESCRIPTION
1	10/02/2024	ISSUED FOR BID

PROJECT:
GUARANTEED RATE FIELD -
PA AND RIBBON BOARD
EM POWER UPGRADES

333 W 35TH STREET,
CHICAGO, ILLINOIS 60616

DRAWING TITLE:
ELECTRICAL PLAN - LEVEL 200
- SECTION 4

DESIGNED BY: BT
CHECKED BY: BT
PROJECT NO: 23504
SCALE: 1/8" = 1'-0"

SHEET NO.
E2.204



- KEYED ELECTRICAL NEW WORK SHEET NOTES
1.

FURNISH AND INSTALL PA SYSTEM WIRES IN 3/4" CONDUIT FROM GATE-3-OUT TICKET WINDOW TO SOUND ROOM-D. THE CONDUIT ROUTING SHOWN IS DIAGRAMMATICALLY. THE CONTRACTOR SHALL FIELD VERIFY AND INSTALL CONDUIT AND WIRES AS REQUIRED.
2.

FURNISH AND INSTALL PA SYSTEM WIRES IN 3/4" CONDUIT FROM GATE-4 TICKET WINDOW TO SOUND ROOM-D. THE CONDUIT ROUTING SHOWN IS DIAGRAMMATICALLY. THE CONTRACTOR SHALL FIELD VERIFY AND INSTALL CONDUIT AND WIRES AS REQUIRED.
3.

FURNISH AND INSTALL NEW 45A/3P CIRCUIT BREAKER IN THE EXISTING PANELBOARD FOR THE NEW T-CRP-4-1 TRANSFORMER. THE NEW CIRCUIT BREAKER MAKE, MODEL, AND AIC RATING SHALL MATCH THE EXISTING.
4.

FURNISH AND INSTALL NEW CONDUIT AND WIRES TO THE NEW TRANSFORMER T-CRP-4-1 PRIMARY DISCONNECT SWITCH LOCATED IN THE ROOM 4.22.01. REFER TO RISER DIAGRAM FOR THE SIZE.



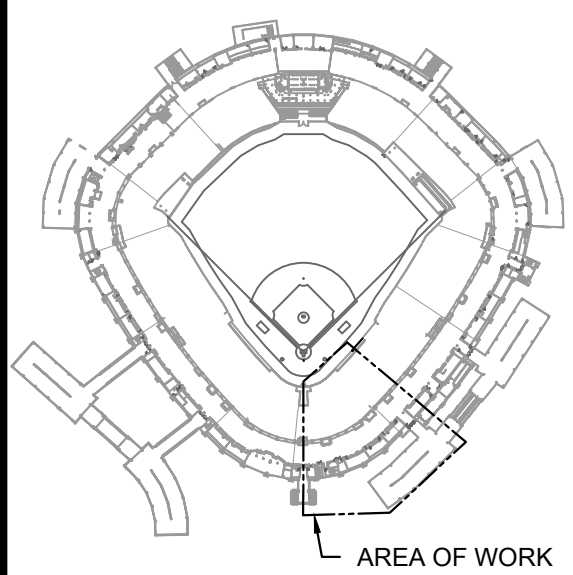
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KEY PLAN:



AREA OF WORK

ISSUE/REVISION:

REV.	DATE	DESCRIPTION
1	10/02/2024	ISSUED FOR BID

PROJECT:

GUARANTEED RATE FIELD -
PA AND RIBBON BOARD
EM POWER UPGRADES

333 W 35TH STREET,
CHICAGO, ILLINOIS 60616

DRAWING TITLE:

ELECTRICAL PLAN - LEVEL 200
- SECTION 6

DESIGNED BY:

BT

CHECKED BY:

BT

PROJECT NO:

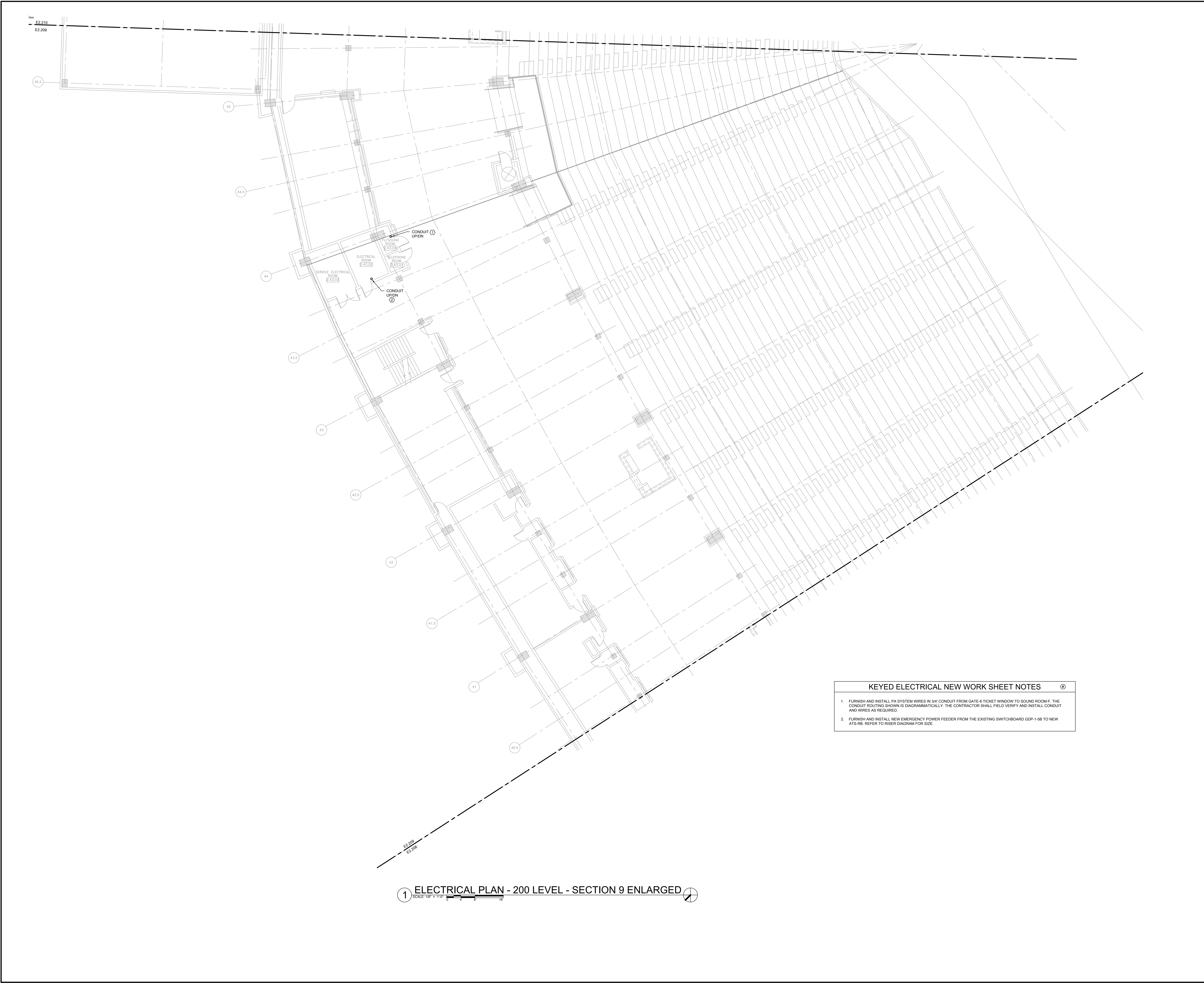
23504

SCALE:

1/8" = 1'-0"

SHEET NO.

E2.206



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ILLINOIS SPORTS FACILITIES AUTHORITY

KEY PLAN:

ISSUE/REVISION:

REV.	DATE	DESCRIPTION
1	10/02/2024	ISSUED FOR BID

PROJECT:
GUARANTEED RATE FIELD -
PA AND RIBBON BOARD
EM POWER UPGRADES

333 W 35TH STREET,
CHICAGO, ILLINOIS 60616

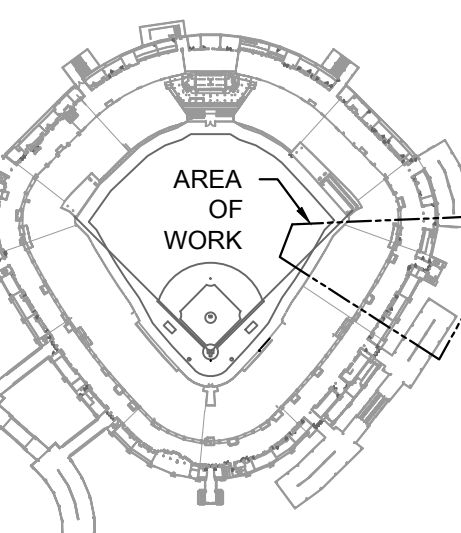
DRAWING TITLE:
ELECTRICAL PLAN - LEVEL 200
- SECTION 9

DESIGNED BY:	BT
CHECKED BY:	BT
PROJECT NO:	23504
SCALE:	1/8" = 1'-0"

SHEET NO.

E2.209

KEY PLAN:



ISSUE/REVISION:

REV.	DATE	DESCRIPTION
1	10/02/2024	ISSUED FOR BID

PROJECT:
GUARANTEED RATE FIELD -
PA AND RIBBON BOARD
EM POWER UPGRADES

333 W 35TH STREET,
CHICAGO, ILLINOIS 60616

DRAWING TITLE:
ELECTRICAL PLAN - LEVEL 300
- SECTION 4

DESIGNED BY: BT
CHECKED BY: BT
PROJECT NO: 23504
SCALE: 1/8" = 1'-0"

SHEET NO.

E1.304





- KEYED ELECTRICAL NEW WORK SHEET NOTES
1.

FURNISH AND INSTALL PA SYSTEM WIRES IN 3/4" CONDUIT FROM GATE-3-IN TICKET WINDOW TO SOUND ROOM-B. THE CONDUIT ROUTING SHOWN IS DIAGRAMMATICALLY. THE CONTRACTOR SHALL FIELD VERIFY AND INSTALL CONDUIT AND WIRES AS REQUIRED.
2.

REPLACE THE EXISTING TRANSFORMER WITH NEW AS SHOWN IN THE RISER DIAGRAM.
3.

DISCONNECT AND REMOVE EXISTING PRIMARY FEEDER TO THE DEMO TRANSFORMER. TAG AS SPARE ON THE EXISTING CIRCUIT.
4.

DISCONNECT AND REMOVE THE EXISTING SECONDARY FEEDER FROM DEMO TRANSFORMER TO THE EXISTING PANELBOARD. FURNISH AND INSTALL NEW FEEDER AS SHOWN IN THE RISER DIAGRAM. FURNISH AND INSTALL 40A/3P CIRCUIT BREAKER FOR THE EXISTING PANELBOARD SP-4-1B. LOCATED IN THE ROOM 4.19.04.
5.

REPLACE THE EXISTING DISCONNECT SWITCH WITH NEW DISCONNECT SWITCH. REFER TO RISER DIAGRAM FOR THE SIZE.
6.

FURNISH AND INSTALL NEW CONDUIT AND WIRES FROM THE EXISTING PANELBOARD CRP-3-8 TO THE NEW TRANSFORMER T-CRP-4-1 TRANSFORMER PRIMARY SWITCH, LOCATED IN THE ROOM 4.22.01. REFER TO RISER DIAGRAM FOR SIZE.
7.

RELOCATE EXISTING 20A BRANCH CIRCUITS FROM CKT # 17, 19, 20, AND 22 FROM THE EXISTING PANELBOARD SP-4-4B, LOCATED IN THE ROOM 4.27.02.
8.

FURNISH AND INSTALL NEW DISCONNECT SWITCH. REFER TO RISER DIAGRAM FOR SIZES.
9.

FURNISH AND INSTALL NEW TRANSFORMER. REFER TO RISER DIAGRAM FOR SIZE.
10.

FURNISH AND INSTALL FEEDER. REFER TO RISER DIAGRAM FOR SIZE.

1

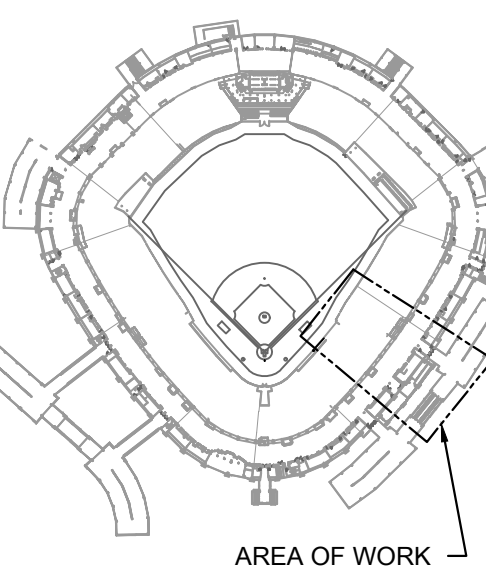
ELECTRICAL PLAN - 300 LEVEL - SECTION 5 ENLARGED

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

0 2 4 6 8 10



KEY PLAN:



AREA OF WORK

ISSUE/REVISION:

REV.	DATE	DESCRIPTION
1	10/02/2024	ISSUED FOR BID

PROJECT:
GUARANTEED RATE FIELD -
PA AND RIBBON BOARD
EM POWER UPGRADES

333 W 35TH STREET,
CHICAGO, ILLINOIS 60616

DRAWING TITLE:
ELECTRICAL PLAN - LEVEL 300
- SECTION 5

DESIGNED BY:	BT
CHECKED BY:	BT
PROJECT NO:	23504
SCALE:	1/8" = 1'-0"
SHEET NO.	

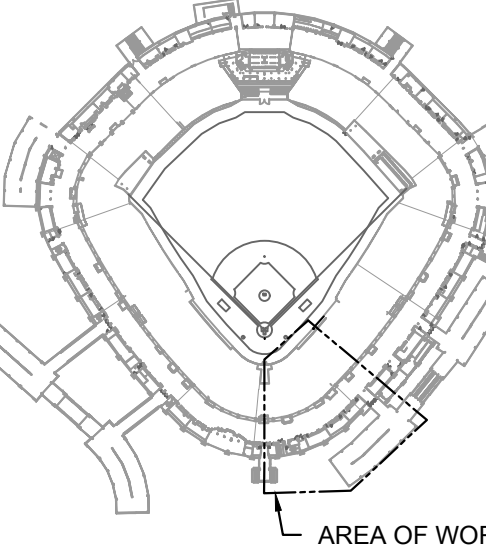
E1.305



- KEYED ELECTRICAL NEW WORK SHEET NOTES**
1. NEW UPS, NEW BATTERY CABINET, MAINTENANCE BYPASS PANEL SHALL BE FURNISHED BY OTHER AND INSTALLED BY THE ELECTRICAL CONTRACTOR. FURNISH AND INSTALL CONDUIT, AND WIRES. REFER TO SINGLE LINE DIAGRAM FOR ADDITIONAL INFORMATION.
 2. REPLACE EXISTING DISCONNECT SWITCH AND CONDUIT/WIRES TO TRANSFORMER WITH NEW. REFER TO DEMO AND NEW SINGLE LINE DIAGRAM FOR ADDITIONAL INFORMATION.
 3. FURNISH AND INSTALL PA SYSTEM WIRES IN 3/4" CONDUIT FROM GATE-3 OUT TICKET WINDOW TO SOUND ROOM-D. THE CONDUIT ROUTING SHOWN IS DIAGRAMMATICALLY. THE CONTRACTOR SHALL FIELD VERIFY AND INSTALL CONDUIT AND WIRES AS REQUIRED.
 4. FURNISH AND INSTALL PA SYSTEM WIRES IN 3/4" CONDUIT FROM GATE-4 TICKET WINDOW TO SOUND ROOM-D. THE CONDUIT ROUTING SHOWN IS DIAGRAMMATICALLY. THE CONTRACTOR SHALL FIELD VERIFY AND INSTALL CONDUIT AND WIRES AS REQUIRED.
 5. FURNISH AND INSTALL (2) NEW AMPLIFIERS MODEL CROWN DC12X600N ON THE EXISTING RACK FOR THE GATE'S CIRCUITS.
 6. FURNISH AND INSTALL NEW CONDUIT AND WIRES FROM THE EXISTING PANELBOARD CRP-3-8 TO THE NEW TRANSFORMER T-CRP-4-1 TRANSFORMER PRIMARY SWITCH, LOCATED IN THE ROOM 4.22.01. REFER TO RISER DIAGRAM FOR SIZE.
 7. RELOCATE EXISTING 20A BRANCH CIRCUITS FROM OCT # 17, 19, 20, AND 22 TO THE EXISTING PANELBOARD CRP-4-1, LOCATED IN THE ROOM 4.22.01. DISCONNECT AND REMOVE EXISTING PANELBOARD COMPLETELY.



KEY PLAN:



ISSUE/REVISION:

REV.	DATE	DESCRIPTION
1	10/02/2024	ISSUED FOR BID

PROJECT:
GUARANTEED RATE FIELD -
PA AND RIBBON BOARD
EM POWER UPGRADES

333 W 35TH STREET,
CHICAGO, ILLINOIS 60616

DRAWING TITLE:
ELECTRICAL PLAN - LEVEL 300
- SECTION 6

DESIGNED BY:	BT
CHECKED BY:	BT
PROJECT NO:	23504
SCALE:	1/8" = 1'-0"
SHEET NO.	

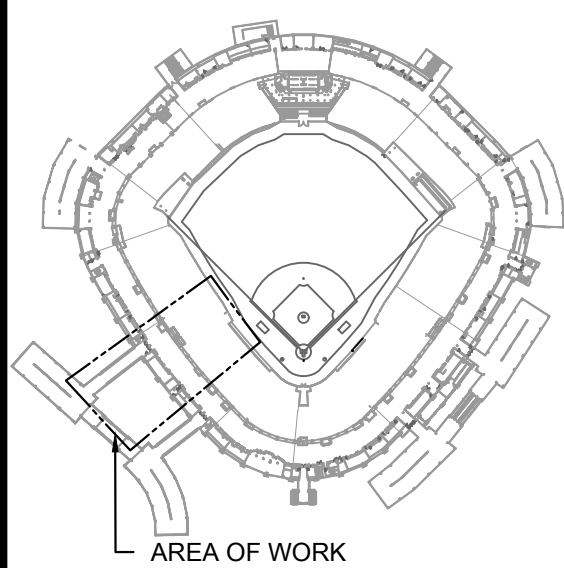
E1.306

1 ELECTRICAL PLAN - 300 LEVEL - SECTION 6 ENLARGED

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



KEY PLAN:



ISSUE/REVISION:

REV.	DATE	DESCRIPTION
1	10/02/2024	ISSUED FOR BID

PROJECT:
GUARANTEED RATE FIELD -
PA AND RIBBON BOARD
EM POWER UPGRADES

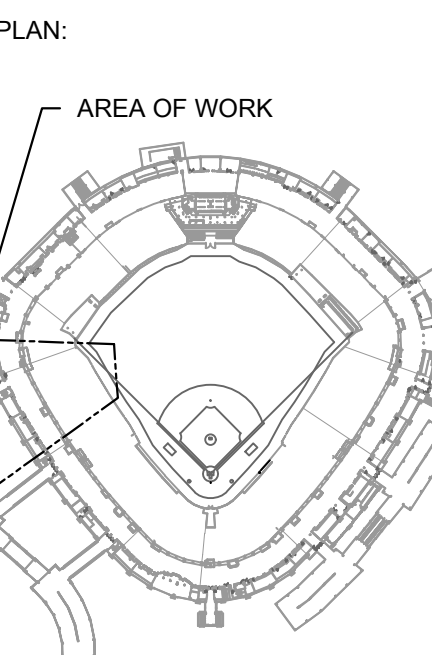
333 W 35TH STREET,
CHICAGO, ILLINOIS 60616

DRAWING TITLE:
ELECTRICAL PLAN - LEVEL 300
- SECTION 8

DESIGNED BY: BT
CHECKED BY: BT
PROJECT NO: 23504
SCALE: 1/8" = 1'-0"

SHEET NO.

E1.308



ISSUE/REVISION:		
REV.	DATE	DESCRIPTION
1	10/02/2024	ISSUED FOR BID

PROJECT:
GUARANTEED RATE FIELD -
PA AND RIBBON BOARD
EM POWER UPGRADES

333 W 35TH STREET,
CHICAGO, ILLINOIS 60616

DRAWING TITLE:
ELECTRICAL PLAN - LEVEL 300
- SECTION 9

DESIGNED BY:	BT
CHECKED BY:	BT
PROJECT NO:	23504
SCALE:	1/8" = 1'-0"
SHEET NO.	

E1.309



- KEYED ELECTRICAL NEW WORK SHEET NOTES**
- NEW UPS, NEW BATTERY CABINET, MAINTENANCE BYPASS PANEL SHALL BE FURNISHED BY OTHER AND INSTALLED BY THE ELECTRICAL CONTRACTOR. FURNISH AND INSTALL CONDUIT, AND WIRES. REFER TO SINGLE LINE DIAGRAM FOR ADDITIONAL INFORMATION.
 - REPLACE EXISTING DISCONNECT SWITCH AND CONDUIT/WIRES TO TRANSFORMER WITH NEW. REFER TO DEMO AND NEW SINGLE-LINE DIAGRAM FOR ADDITIONAL INFORMATION.
 - FURNISH AND INSTALL (1) NEW AMPLIFIER MODEL CROWN DC12X600N ON THE EXISTING RACK FOR THE GATE'S CIRCUITS.
 - FURNISH AND INSTALL PA SYSTEM WIRES IN 3/4" CONDUIT FROM GATE-6 TICKET WINDOW TO SOUND ROOM-F. THE CONDUIT ROUTING SHOWN IS DIAGRAMMATICALLY. THE CONTRACTOR SHALL FIELD VERIFY AND INSTALL CONDUIT AND WIRES AS REQUIRED.
 - RELOCATE EXISTING (5) 20A BRANCH CIRCUIT FROM THE EXISTING PANELBOARD CRP-4-3
 - FURNISH AND INSTALL NEW EMERGENCY POWER FEEDER FROM THE EXISTING SWITCHBOARD GDP-1-5B TO NEW ATS-RB. REFER TO RISER DIAGRAM FOR SIZE.

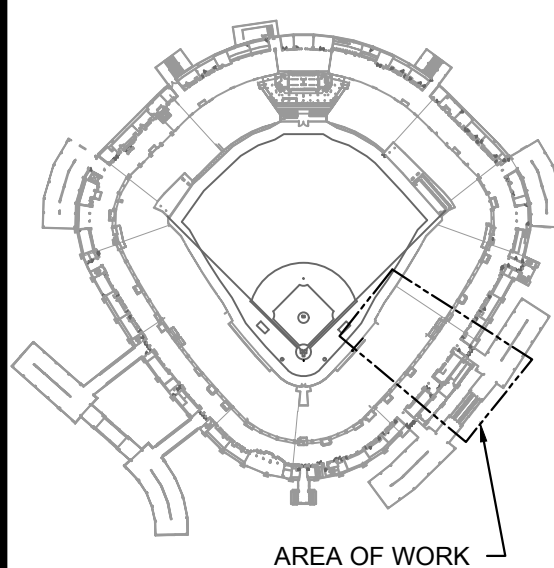
1 ELECTRICAL PLAN - 300 LEVEL - SECTION 9 ENLARGED
SCALE: 1/8" = 1'-0"

KEYED ELECTRICAL NEW WORK SHEET NOTES

1. FURNISH AND INSTALL NEW CONDUIT AND WIRES FROM THE SECONDARY SIDE OF THE NEW TRANSFORMER T-SCD-6-2A, LOCATED IN ROOM 4.22.01 TO THE EXISTING PANELBOARD SCD-6-2A, LOCATED IN ROOM 6.22.3. REFER TO RISER DIAGRAM FOR SIZE.



KEY PLAN:



ISSUE/REVISION:

REV.	DATE	DESCRIPTION
1	10/02/2024	ISSUED FOR BID

PROJECT:
GUARANTEED RATE FIELD -
PA AND RIBBON BOARD
EM POWER UPGRADES

333 W 35TH STREET,
CHICAGO, ILLINOIS 60616

DRAWING TITLE:
ELECTRICAL PLAN - LEVEL 400
- SECTION 5

DESIGNED BY:	BT
CHECKED BY:	BT
PROJECT NO:	23504
SCALE:	1/8" = 1'-0"
SHEET NO.	

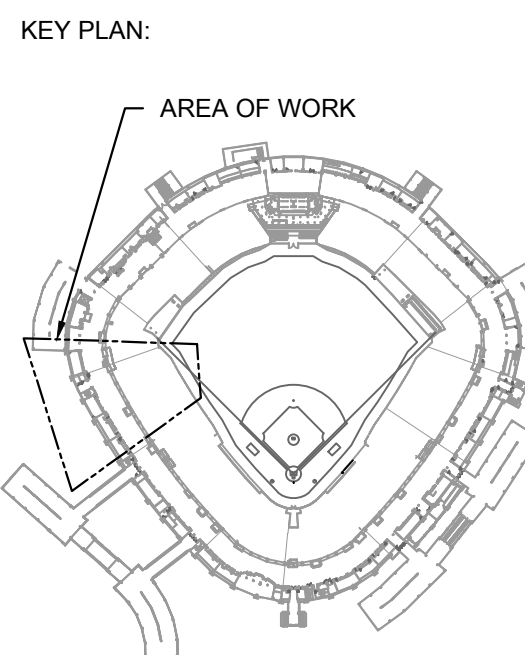
E1.405

1 ELECTRICAL PLAN - 400 LEVEL - SECTION 5 ENLARGED
SCALE: 1/8" = 1'-0"



KEYED ELECTRICAL NEW WORK SHEET NOTES	
1.	FURNISH AND INSTALL NEW EMERGENCY POWER FEEDER FROM THE EXISTING SWITCHBOARD GDP-1-5B TO NEW ATS-RB. REFER TO RISER DIAGRAM FOR SIZE.

1 ELECTRICAL PLAN - 400 LEVEL - SECTION 9 ENLARGED



ISSUE/REVISION:		
REV.	DATE	DESCRIPTION
1	10/02/2024	ISSUED FOR RBD

PROJECT:
GUARANTEED RATE FIELD -
PA AND RIBBON BOARD
EM POWER UPGRADES

333 W 35TH STREET,
CHICAGO, ILLINOIS 60616

DRAWING TITLE:
ELECTRICAL PLAN - LEVEL 400
- SECTION 9

DESIGNED BY:	BT
CHECKED BY:	BT
PROJECT NO:	23504
SCALE:	1/8" = 1'-0"

SHEET NO.

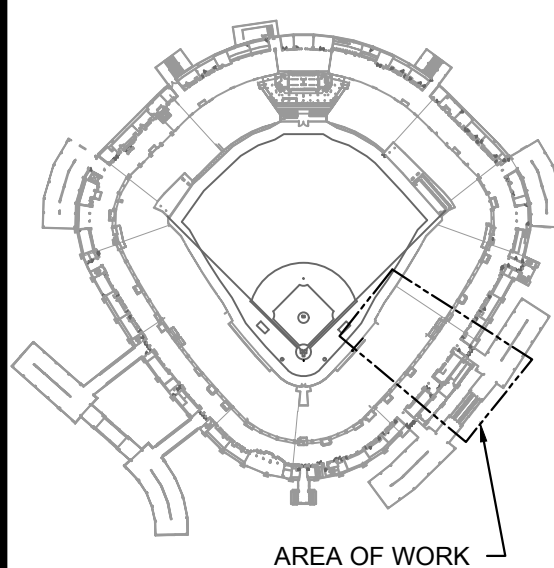
E1.409

KEYED ELECTRICAL NEW WORK SHEET NOTES

1. DISCONNECT AND REMOVE EXISTING FEEDER FROM THE EXISTING SWITCHBOARD SWBD-1-2A. FURNISH AND INSTALL NEW FEEDER FROM NEW TRANSFORMER T-SCD-6-2A. REFER TO RISER DIAGRAM.



KEY PLAN:



ISSUE/REVISION:

REV.	DATE	DESCRIPTION
1	10/02/2024	ISSUED FOR BID

PROJECT:
GUARANTEED RATE FIELD -
PA AND RIBBON BOARD
EM POWER UPGRADES

333 W 35TH STREET,
CHICAGO, ILLINOIS 60616

DRAWING TITLE:
ELECTRICAL PLAN - LEVEL 500
- SECTION 5

DESIGNED BY:	BT
CHECKED BY:	BT
PROJECT NO:	23504
SCALE:	1/8" = 1'-0"

SHEET NO.

E1.505

1 ELECTRICAL PLAN - 500 LEVEL - SECTION 5 ENLARGED

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

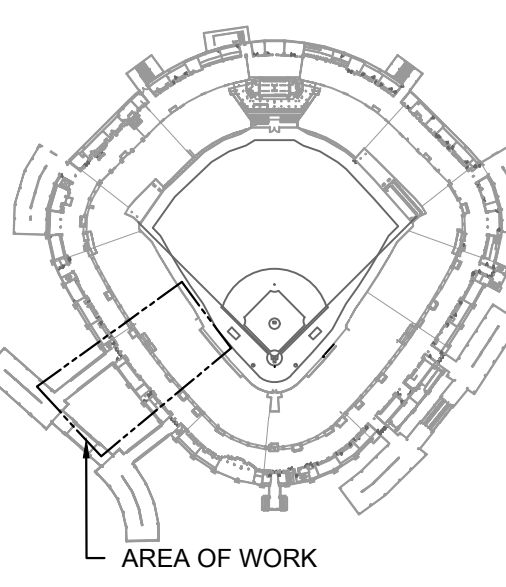


- KEYED ELECTRICAL NEW WORK SHEET NOTES**
- FURNISH AND INSTALL NEW AUTOMATIC TRANSFER SWITCH, FURNISH AND INSTALL NEW FEEDERS. REFER TO RISER DIAGRAM.
 - FURNISH AND INSTALL NEW EMERGENCY POWER FEEDER FROM THE EXISTING SWITCHBOARD GDP-1-SB. REFER TO RISER DIAGRAM FOR SIZE.

1 ELECTRICAL PLAN - 500 LEVEL - SECTION 8 ENLARGED



KEY PLAN:



ISSUE/REVISION:

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1	10/02/2024	ISSUED FOR BID

PROJECT:
GUARANTEED RATE FIELD -
PA AND RIBBON BOARD
EM POWER UPGRADES

333 W 35TH STREET,
CHICAGO, ILLINOIS 60616

DRAWING TITLE:
ELECTRICAL PLAN - LEVEL 500
- SECTION 8

DESIGNED BY: BT
CHECKED BY: BT
PROJECT NO: 23504
SCALE: 1/8" = 1'-0"

SHEET NO.

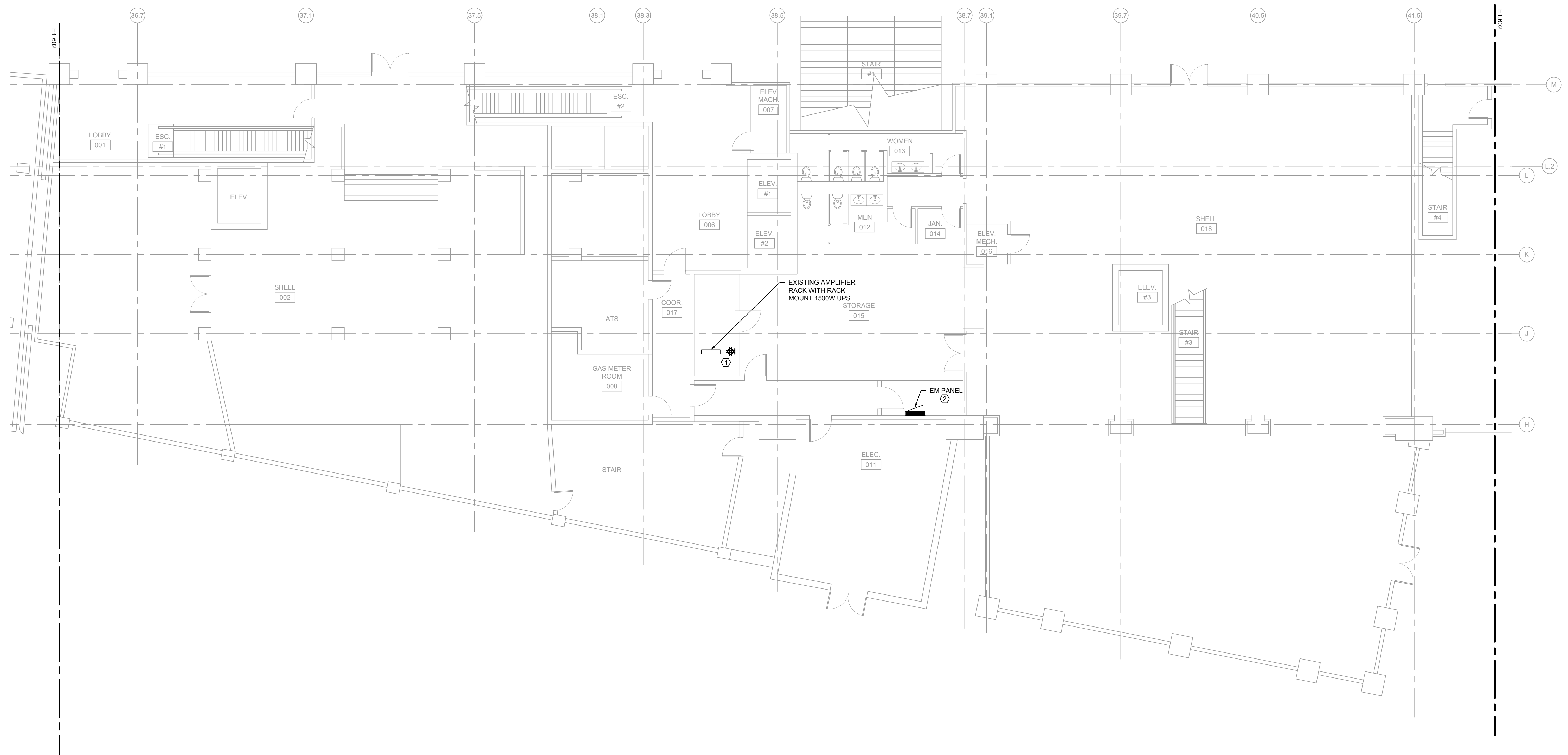
E1.508



1. FURNISH AND INSTALL NEW EMERGENCY POWER FEEDER FROM THE EXISTING SWITCHBOARD GDP-1-5B TO NEW ATS-RB. REFER TO RISER DIAGRAM FOR SIZE.



E1.509

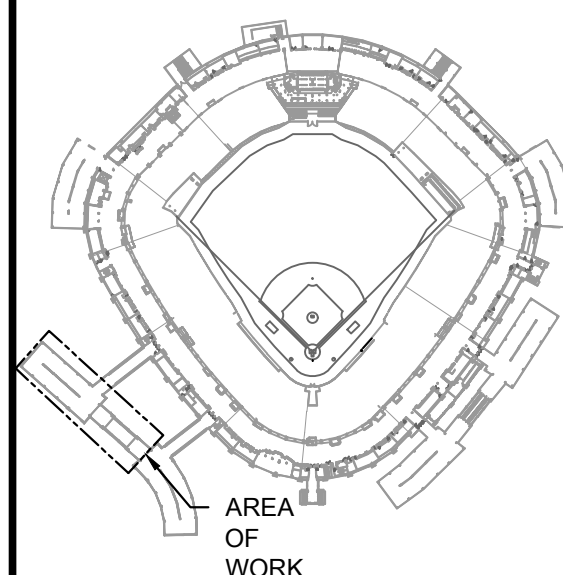


1 ELECTRICAL PLAN - PLAZA LEVEL - 320 W 35TH - SECTION 2

KEYED ELECTRICAL NEW WORK SHEET NOTES

1. DISCONNECT AND REMOVE EXISTING BRANCH CIRCUIT. EXISTING RECEPTACLES SHALL REMAIN. FURNISH AND INSTALL NEW 20A BRANCH CIRCUIT FROM THE EXISTING PANELBOARD "EM PANEL" CKT # 7.
2. EXISTING PANEL SHALL REMAIN. FURNISH AND INSTALL NEW 20A PLUG FUSE ON SPACE #7.

KEY PLAN:



ISSUE/REVISION:

REV.	DATE	DESCRIPTION
1	10/02/2024	ISSUED FOR BID

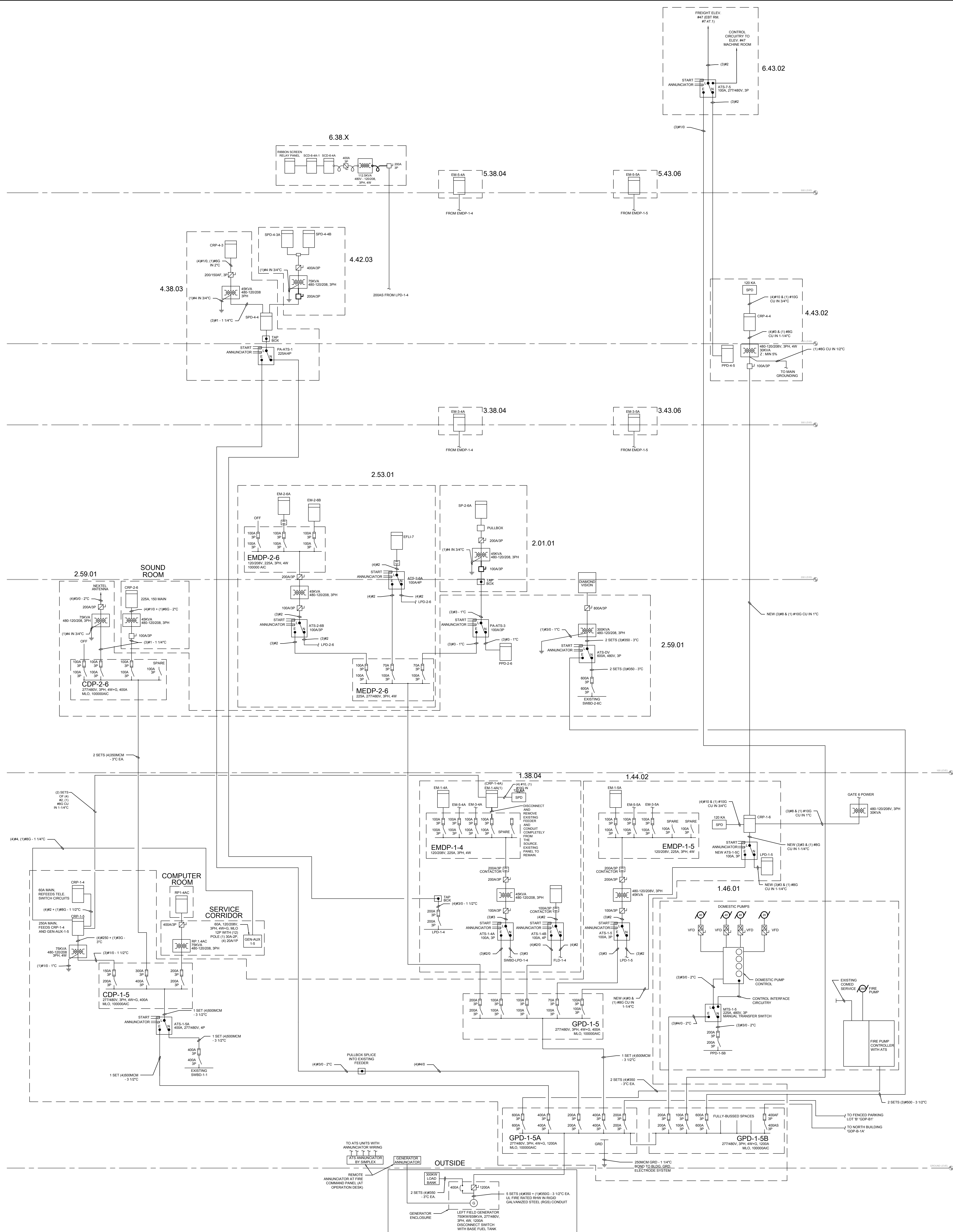
PROJECT:
GUARANTEED RATE FIELD -
PA AND RIBBON BOARD
EM POWER UPGRADES

333 W 35TH STREET,
CHICAGO, ILLINOIS 60616

DRAWING TITLE:
ELECTRICAL PLAN - PLAZA
LEVEL

DESIGNED BY: BT
CHECKED BY: BT
PROJECT NO: 23504
SCALE: 1/8" = 1'-0"

SHEET NO.



ISSUE/REVISION:		
REV.	DATE	DESCRIPTION
1	10/22/2024	ISSUED FOR BID

PROJECT:
GUARANTEED RATE FIELD -
PA AND RIBBON BOARD
EM POWER UPGRADES

333 W 35TH STREET,
CHICAGO, ILLINOIS 60616

DRAWING TITLE:
ELECTRICAL DEMOLITION
SINGLE LINES

DESIGNED BY: BT
CHECKED BY: BT
PROJECT NO: 23504
SCALE: NO SCALE
SHEET NO.

UPS PHASOR/PHASING/PHASE ROTATION TESTING

- THE ELECTRICAL CONTRACTOR SHALL VERIFY AND DOUBLE CHECK ALL PHASING AND PHASE RELATIONSHIP. THE PHASORS SHALL NOT BE OUT OF PHASE BY NO MORE THAN 5-DEGREES, AND NO MORE THAN A 20-VOLTS DIFFERENCE AS MEASURED IN "Y" BELOW.
- THE PHASING SHALL BE VERIFIED AT THE MAIN INCOMING UTILITY SERVICES, AND THE GENERATOR. THE PHASING SHALL BE CHECKED VIA A VOLT MEASUREMENT BETWEEN EACH POINT OF SERVICE VERIFYING LESS THAN 20-VOLTS WHEN MEASURED FROM "A" PHASE TO "A" (ALSO "B" AND "C" PHASES).
- ANY OPERATION OF THE TIE BREAKERS MUST BE DONE BY QUALIFIED/TRAINEE TECHNICIANS WEARING PPE RATED FOR NOT LESS THAN 800A, 10-PC FLASH. ANY OPERATION OR USE OF MANUAL CROSS TIE IN A BUMPLESS MANNER IS DONE AT THE OWNER'S RESPONSIBILITY. THERE IS ALWAYS THE POTENTIAL FOR AN OUT-OF-PHASE OR EXCESSIVE PHASOR ROTATION THAT COULD CAUSE A HIGH IN-RUSH CURRENT CAUSING A DEVICE FAILURE, OR ACCIDENTAL SHUT-DOWN DUE TO AN OVERCURRENT DEVICE OPERATION. IT IS THE OPINION OF ELARA ENGINEERING THAT ANY BUMPLESS SYSTEM TIES BE DONE USING STATIC OR MECHANICAL TRANSFER DEVICES WITH IN-PHASE OR SYNCHROSCOPIC CONTROL.
- THE GENERATOR PHASING SHALL ALSO BE VERIFIED FOR CORRECT PHASE CONNECTION AND ROTATION. UNDER NO CONDITION SHOULD THE GENERATOR SET ALTERNATOR BE PARALLELED WITH EITHER UTILITY SOURCE.

THERMAL SCAN SCOPE

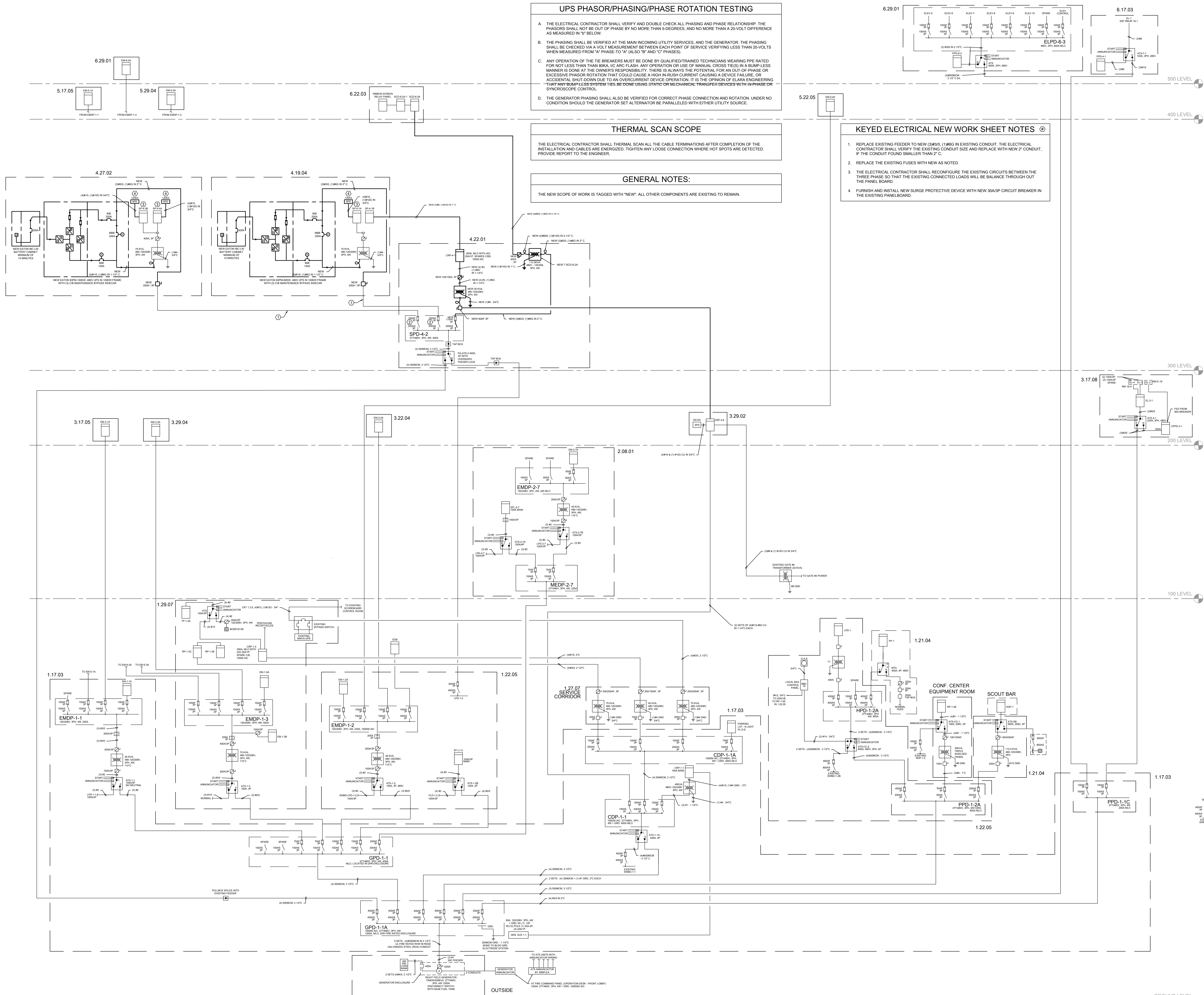
THE ELECTRICAL CONTRACTOR SHALL THERMAL SCAN ALL THE CABLE TERMINATIONS AFTER COMPLETION OF THE INSTALLATION AND CABLES ARE ENERGIZED. TIGHTEN ANY LOOSE CONNECTION WHERE HOT SPOTS ARE DETECTED. PROVIDE REPORT TO THE ENGINEER.

GENERAL NOTES:

THE NEW SCOPE OF WORK IS TAGGED WITH "NEW". ALL OTHER COMPONENTS ARE EXISTING TO REMAIN.

KEYED ELECTRICAL NEW WORK SHEET NOTES

- REPLACE EXISTING FEEDER TO NEW (3)W30, (1)W60 IN EXISTING CONDUIT. THE ELECTRICAL CONTRACTOR SHALL VERIFY THE EXISTING CONDUIT SIZE AND REPLACE WITH NEW 2" CONDUIT, IF THE CONDUIT FOUND SMALLER THAN 2" C.
- REPLACE THE EXISTING FUSES WITH NEW AS NOTED.
- THE ELECTRICAL CONTRACTOR SHALL RECONFIGURE THE EXISTING CIRCUITS BETWEEN THE THREE PHASE SO THAT THE EXISTING CONNECTED LOADS WILL BE BALANCE THROUGH OUT THE PANEL BOARD.
- FURNISH AND INSTALL NEW SURGE PROTECTIVE DEVICE WITH NEW 30A/3P CIRCUIT BREAKER IN THE EXISTING PANELBOARD.



ISSUE/REVISION:

REV.	DATE	DESCRIPTION
1	10/20/2024	ISSUED FOR BID

PROJECT:

GUARANTEED RATE FIELD - PA AND RIBBON BOARD EM POWER UPGRADES

333 W 35TH STREET, CHICAGO, ILLINOIS 60616

DRAWING TITLE:

ELECTRICAL SINGLE LINES

DESIGNED BY:

BT

CHECKED BY:

BT

PROJECT NO.:

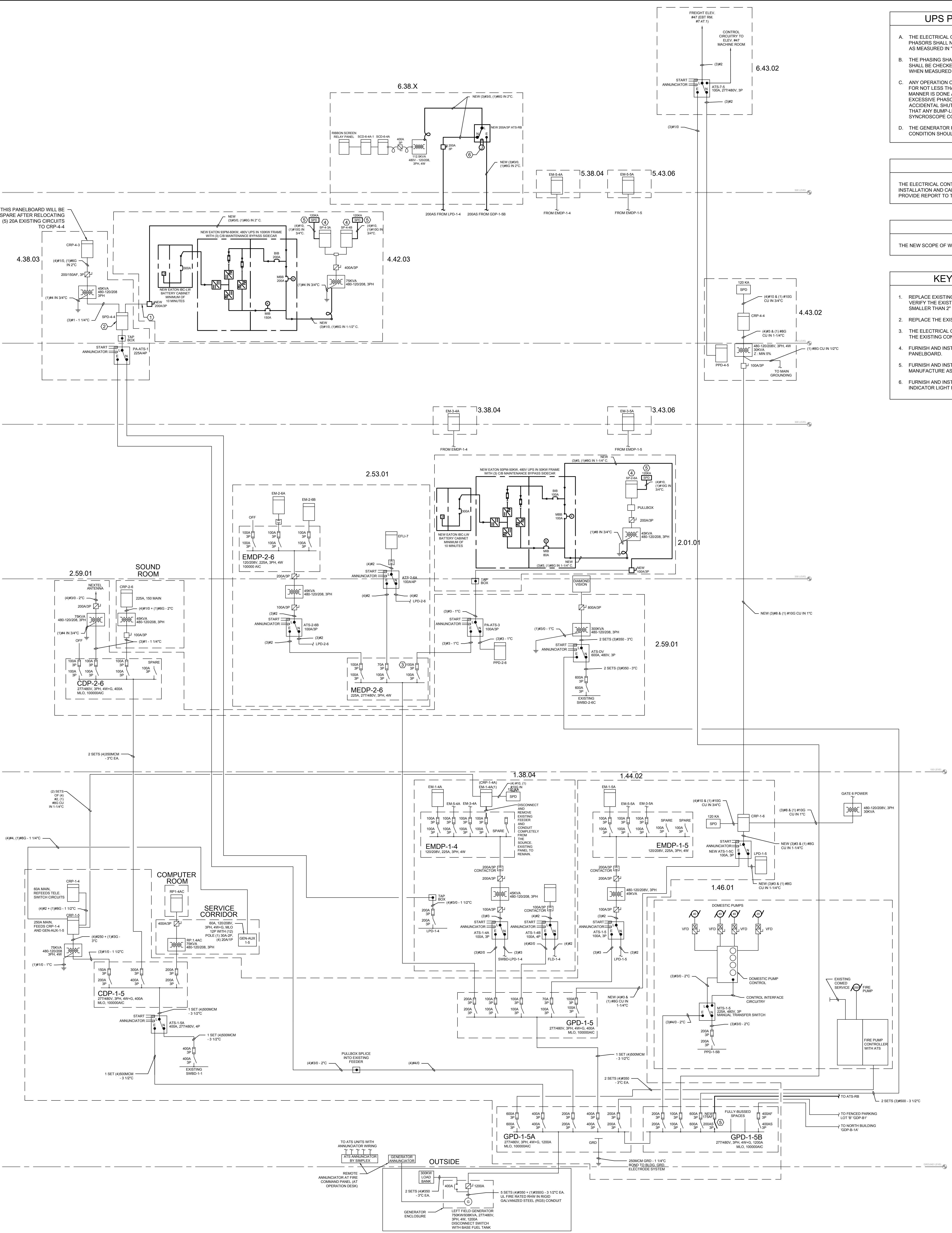
23504

SCALE:

NO SCALE

SHEET NO.:

E2.001



UPS PHASOR/PHASING/PHASE ROTATION TESTING

A. THE ELECTRICAL CONTRACTOR SHALL VERIFY AND DOUBLE CHECK ALL PHASING AND PHASE RELATIONSHIP. THE PHASORS SHALL NOT BE OUT OF PHASE BY NO MORE THAN 5-DEGREES, AND NO MORE THAN A 20-VOLT DIFFERENCE AS MEASURED IN "D" BELOW.

B. THE PHASING SHALL BE VERIFIED AT THE MAIN INCOMING UTILITY SERVICES, AND THE GENERATOR. THE PHASING SHALL BE CHECKED VIA A VOLT MEASUREMENT BETWEEN EACH POINT OF SERVICE VERIFYING LESS THAN 20-VOLTS WHEN MEASURED FROM "A" PHASE-TO "X" (ALSO "B" AND "C" PHASES).

C. ANY OPERATION OF THE TIE BREAKERS MUST BE DONE BY QUALIFIED/TRAINEE TECHNICIANS WEARING PPE RATED FOR NOT LESS THAN 80KA ICS ARC FLASH. ANY OPERATION OR USE OF MANUAL CROSS TIES IN A BUMP-LESS MANNER IS DONE AT THE OWNER'S RESPONSIBILITY. THERE IS ALWAYS THE POTENTIAL FOR AN OUT-OF-PHASE OR EXCESSIVE PHASOR ROTATION THAT COULD CAUSE A HIGH IN-RUSH CURRENT CAUSING A DEVICE FAILURE. OR ACCIDENTAL SHUT-DOWN DUE TO AN OVERCURRENT DEVICE OPERATION. IT IS THE OPINION OF ELARA ENGINEERING THAT ANY BUMP-LESS SYSTEM TIES BE DONE USING STATIC OR MECHANICAL TRANSFER DEVICES WITH IN-PHASE OR SYNCHROSCOPE CONTROL.

D. THE GENERATOR PHASING SHALL ALSO BE VERIFIED FOR CORRECT PHASE CONNECTION AND ROTATION. UNDER NO CONDITION SHOULD THE GENERATOR SET ALTERNATOR BE PARALLELED WITH EITHER UTILITY SOURCE.

THERMAL SCAN SCOPE

THE ELECTRICAL CONTRACTOR SHALL THERMAL SCAN ALL THE CABLE TERMINATIONS AFTER COMPLETION OF THE INSTALLATION AND CABLES ARE ENERGIZED. TIGHTEN ANY LOOSE CONNECTION WHERE HOT SPOTS ARE DETECTED. PROVIDE REPORT TO THE ENGINEER.

GENERAL NOTES:

THE NEW SCOPE OF WORK IS TAGGED WITH "NEW". ALL OTHER COMPONENTS ARE EXISTING TO REMAIN.

- KEYED ELECTRICAL NEW WORK SHEET NOTES**
1. REPLACE EXISTING FEEDER TO NEW (3#30), (1#60) IN EXISTING CONDUIT. THE ELECTRICAL CONTRACTOR SHALL VERIFY THE EXISTING CONDUIT SIZE AND REPLACE WITH NEW 2" CONDUIT, IF THE EXISTING CONDUIT FOUND SMALLER THAN 2" C.
 2. REPLACE THE EXISTING FUSES WITH NEW 200A FUSES IN THE EXISTING 200A FUSE SWITCH.
 3. THE ELECTRICAL CONTRACTOR SHALL RECONFIGURE THE EXISTING CIRCUITS BETWEEN THE THREE PHASE SO THAT THE EXISTING CONNECTED LOADS WILL BE BALANCE THROUGH OUT THE PANEL BOARD.
 4. FURNISH AND INSTALL NEW SURGE PROTECTIVE DEVICE WITH NEW 30A/3P CIRCUIT BREAKER IN THE EXISTING PANELBOARD.
 5. FURNISH AND INSTALL NEW FUSE SWITCH IN THE EXISTING SWITCHBOARD. NEW FUSE SWITCH SHALL BE THE SAME MANUFACTURE AS EXISTING AND SHALL BE COMPATIBLE. FURNISH AND INSTALL CUSTOM BUS DETAIL AS REQUIRED.
 6. FURNISH AND INSTALL (2) #12 IN 1/2" CONDUIT TO GENERATOR START CIRCUIT. ALSO, PROVIDE TEST SWITCH AND INDICATOR LIGHT FOR NEW ATS IN THE EXISTING FIRE ALARM CONTROL PANEL.



ISSUE/REVISION:		
REV.	DATE	DESCRIPTION
1	10/02/2024	ISSUED FOR BID

PROJECT:
GUARANTEED RATE FIELD -
PA AND RIBBON BOARD
EM POWER UPGRADES

333 W 35TH STREET,
CHICAGO, ILLINOIS 60616

DRAWING TITLE:
ELECTRICAL SINGLE LINES

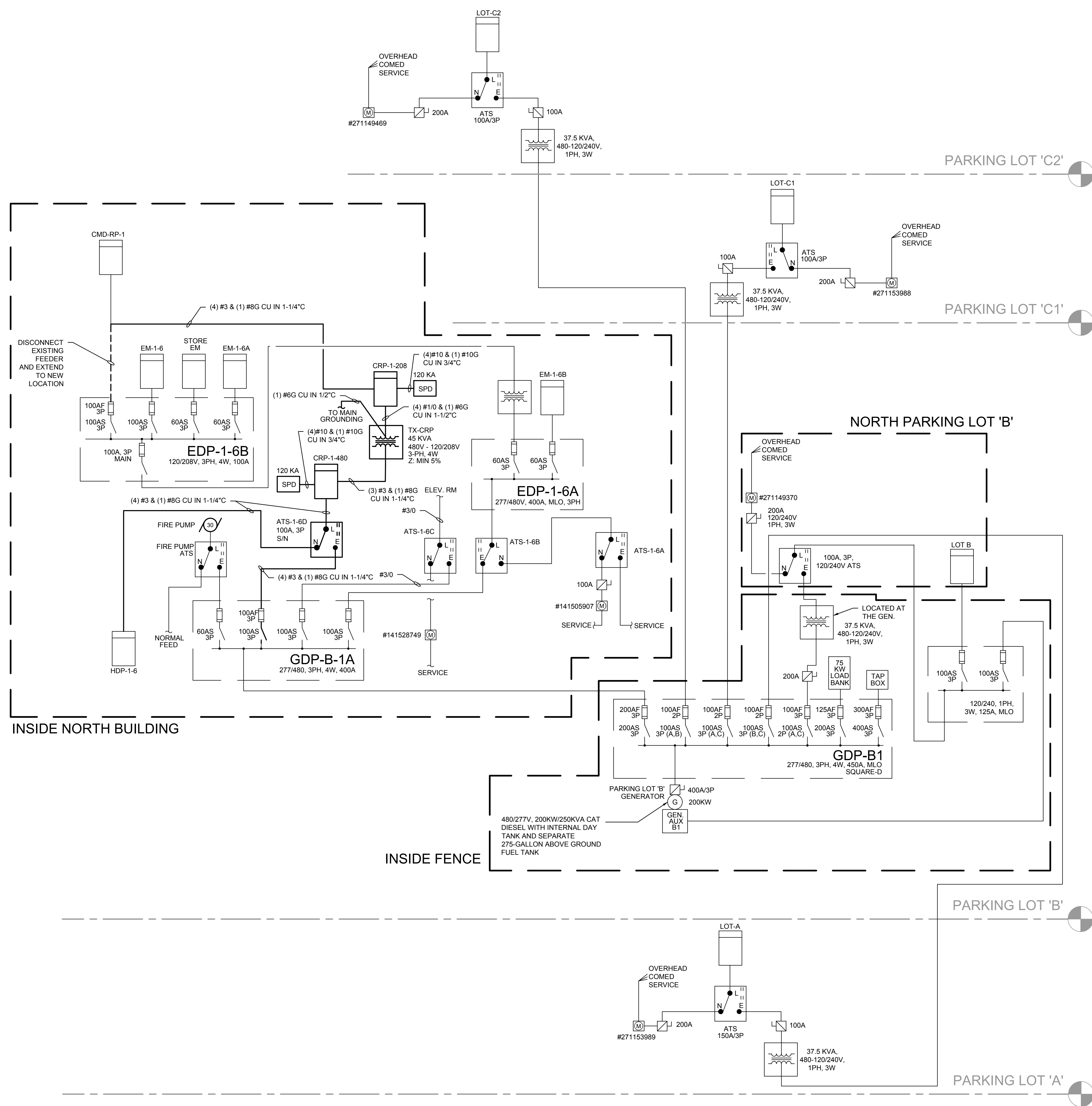
DESIGNED BY: BT

CHECKED BY: BT

PROJECT NO: 23504

SCALE: NO SCALE

SHEET NO.



1 ELECTRICAL NEW WORK RISER DIAGRAM - PARKING LOT 'B' GENERATOR
SCALE: NO SCALE

THREE PHASE FEEDER/BRANCH CIRCUIT VOLTAGE DROP SUMMARY								
DESCRIPTION	VOLT	AMP	WIRE	SET	LENGTH	CONDUIT	P.F	VD%
GDP-B-1A TO ATS-1-6D	480	80	3	1	180	STEEL	0.85	1.93%
CRP-1-5 TO EM-1-4A	208	80	2	2	298	STEEL	0.85	3.00%
CRP-1-6 TO CRP-4-4	480	40	8	1	160	STEEL	0.85	2.63%
CDP-1-1 TO CRP-3-8	480	80	3	2	530	STEEL	0.85	2.84%

2 VOLTAGE DROP CALCULATIONS
SCALE: NO SCALE



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SHEET NO.

E2.003

FOR REFERENCE ONLY

A. ALL ELECTRICAL WORK INCLUDING BUT NOT LIMITED TO INSTALLATION, GROUNDING, EQUIPMENT, AND DEVICES SHALL CONFORM TO THE REQUIREMENTS OF ALL AUTHORITIES HAVING JURISDICTION AND APPLICABLE NATIONAL, STATE, CITY, AND MUNICIPAL BUILDING CODES. B. ALL ELECTRICAL WORK SHALL CONFORM TO NATIONAL AND LOCAL STANDARDS AND GUIDELINES INCLUDING BUT NOT LIMITED TO THE LATEST VERSIONS OF THE FOLLOWING: 1. ANSI - AMERICAN NATIONAL STANDARDS INSTITUTE 2. ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA (IES) 3. NATIONAL ELECTRICAL SAFETY CODE (NECS) 4. NFPA - NATIONAL FIRE PROTECTION ASSOCIATION "STANDARD FOR ELECTRICAL SAFETY IN THE WORKPLACE (NFPA 70E) 5. UNDERWRITERS LABORATORY (OR OTHER RECOGNIZED INSPECTING AGENCY) 6. THE APPLICABLE NATIONAL ELECTRICAL CODE (NEC) 7. ENERGY CODE ICC. C. ALL MATERIALS SHALL BE LISTED BY AN APPROVED LABORATORY AND SHALL BE NEW AND THE BEST OF THEIR RESPECTIVE KINDS AND SHALL BE INSTALLED AND APPLIED AS INTENDED AND REQUIRED BY THE MANUFACTURER. D. ELECTRICAL WORK SHALL INCLUDE, BUT NOT BE LIMITED TO: 1. ALL MATERIALS 2. EQUIPMENT, TOOLS, AND LABOR REQUIRED FOR A COMPLETE AND CODE COMPLIANT SYSTEM 3. ANY OSHA REQUIREMENTS THAT MAY APPLY TO THE WORK UNDER THIS CONTRACT INCLUDING BUT NOT LIMITED TO SAFETY MEETINGS, STRICT LOCKOUT/TAGOUT PROCEDURES, AND PROPER PROTECTIVE EQUIPMENT. 4. LABOR AND SPECIALTY MODELING SOFTWARE REQUIRED FOR INTERDISCIPLINARY COORDINATION AND FAMILIARIZATION WITH SITE CONDITIONS 5. TRAINING AND GATHERING OF DOCUMENTATION FOR CLOSEOUT PROCEDURES E. THE DRAWINGS AND SPECIFICATIONS SHALL BE UNDERSTOOD TO COVER COMPLETE SYSTEMS ACCORDING TO THEIR INTENT AND MEANING AS DESCRIBED HEREIN. THIS SPECIFICATION IS INCLUSIVE FOR EACH ITEM, REQUIRING ALL LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO COMPLETE THE ELECTRICAL SYSTEM. F. THIS CONTRACTOR IS RESPONSIBLE FOR FURNISHING AND INSTALLING ALL ELECTRICAL COMPONENTS AND SYSTEMS AS REQUIRED FOR A FULLY FUNCTIONAL SYSTEM AND AS DESCRIBED HEREIN. ALL EQUIPMENT AND DEVICES SPECIFIED AND ADDITIONALLY REQUIRED WILL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR. IT WILL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO PURCHASE ALL EQUIPMENT AND FURNISH LABOR AND EQUIPMENT FOR A COMPLETE CODE COMPLIANT OPERATING ELECTRICAL SYSTEM. G. THE CONTRACTOR IS RESPONSIBLE FOR THE PROPER LAYOUT AND CONSTRUCTION OF THE WORK INCLUDED IN THIS CONTRACT. INSTALLATION ACCORDING TO THE APPLICABLE BUILDING CODES. H. SPECIFIC VOLTAGE AND CURRENT REQUIREMENTS ON THE ELECTRICAL DRAWINGS SHALL NOT RELIEVE THIS CONTRACTOR OF THE RESPONSIBILITY TO VERIFY THE VOLTAGE PRIOR TO PURCHASING OR ROUGHING WORK. THIS CONTRACTOR SHALL REVIEW ALL DEVICES AND EQUIPMENT FURNISHED BY HISHER CONTRACT AND THOSE FURNISHED BY OTHER CONTRACTORS ARE IN AGREEMENT WITH THE DATA SHOWN ON THE DRAWINGS. THE E.C. SHALL PROVIDE FEEDERS, CABLES AND DEVICES THAT ARE IN ACCORDANCE WITH CODE. I. ITEMS, ACCESSORIES, AND DEVICES NECESSARY AS NECESSARY FOR THE COMPLETE AND PROPER OPERATION OF ANY SYSTEM SHALL BE PROVIDED BY THE CONTRACTOR FOR SUCH SYSTEMS, WHETHER THEY ARE SPECIFICALLY CALLED FOR BY THE DRAWINGS AND/OR SPECIFICATIONS OR NOT. J. THE DRAWINGS MAY NOT SHOW COMPLETE OR ACCURATE DETAILS OF THE EXISTING FACILITY IN EVERY RESPECT. EXACT LOCATIONS AND RELATIONS ARE TO BE DETERMINED IN THE FIELD AND SHALL BE TO THE SATISFACTION OF THE OWNER. THIS CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL FIELD MEASUREMENTS AND EXACT EQUIPMENT LOCATION. K. DRAWINGS ARE GENERALLY DIAGRAMMATIC. ROUTING OF CONDUIT, RACEWAYS ARE SHOWN FOR CONCEPT, BUT DO NOT INTEND TO SHOW EVERY RISE, DROP, OFFSET, FITTING, NOR ANY STRUCTURAL ELEMENT THAT MAY BE ENCOUNTERED DURING THE INSTALLATION OF THIS WORK. CONTRACTOR SHALL MAKE ANY REQUIRED CHANGES FROM THE GENERAL ROUTING SHOWN ON THESE DRAWINGS, SUCH AS OFFSETS, BENDS OR CHANGES IN ELEVATION DUE TO COORDINATION WITH THE WORK OF OTHER TRADES AND BUILDING CONSTRUCTION. ALL CHANGES SHALL BE MADE WITHOUT ADDITIONAL COST TO THE OWNER OR DELAY IN COMPLETION DATE OF THE PROJECT. L. IT IS INTENDED THAT EQUIPMENT SHALL BE LOCATED SYMMETRICALLY WITH THE ARCHITECTURAL ELEMENTS OF THE BUILDING. NOTWITHSTANDING THE FACT THAT LOCATIONS INDICATED BY THESE DRAWINGS MAY BE DISTORTED FOR CLARNESS OF PRESENTATION, ENGINEER HAS RIGHT TO MOVE ANY EQUIPMENT OR DEVICE BY 10 FEET WITHOUT ANY ADDITIONAL COST TO OWNER. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO ROUGH-IN. M. CONTRACTOR SHALL BE RESPONSIBLE AND PAY FOR ALL X-RAY IMAGING, CORROSION, CUTTING, PATCHING, REPAIRING AND REFINISHING OF BUILDING CONSTRUCTION REQUIRED TO ACCOMMODATE THE INSTALLATION OF THEIR WORK. ALL PATCHING, REPAIRING AND REFINISHING WORK SHALL BE PERFORMED BY THOSE REGULARLY INVOLVED IN THAT TRADE AND SHALL MATCH THE NEW CONSTRUCTION AS CLOSELY AS POSSIBLE. CARE SHALL BE TAKEN SO AS NOT TO DAMAGE ANY EXISTING BUILDING CONSTRUCTION OR ITEMS THAT ARE TO REMAIN. ANY EXISTING FINISHES THAT ARE DAMAGED DURING THE INSTALLATION OF THEIR WORK SHALL BE REPAIRED, REPLACED AND PAID FOR BY THE INSTALLING CONTRACTOR, TO THE SATISFACTION OF THE ENGINEER AND OWNER. N. THIS CONTRACTOR IS RESPONSIBLE FOR SCHEDULING DELIVERY, RECEIVING, UNLOADING, UNPACKING, STORING AND PROTECTING FROM DAMAGE, VANDALISM, THEFT OR WEATHER ALL NEW EQUIPMENT FURNISHED BY THIS CONTRACTOR FOR THE ENTIRETY OF CONSTRUCTION. THIS REQUIREMENT ALSO APPLIES TO ITEMS FURNISHED BY THE OWNER TO THE ELECTRICAL CONTRACTOR. THIS CONTRACTOR SHALL COORDINATE THE DELIVERY TO MEET THE PROJECT COMPLETION DATES AS ESTABLISHED BY THE OWNER. O. REFER TO ARCHITECTURAL DRAWINGS FOR EXISTING BUILDING CONSTRUCTION THAT IS TO REMAIN AND, THEREFORE, SUBJECT TO PATCHING, REPAIRING, AND REFINISHING. P. ANY ITEMS AND EQUIPMENT SCHEDULED TO BE REMOVED THAT THE OWNER WANTS TO RETAIN OR REUSE SHALL BE REMOVED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE TO THE OWNER. ALL OTHER ITEMS TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND REMOVED FROM THE SITE. Q. CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR OWN CLEANUP DURING CONSTRUCTION. IF CONTRACTOR FAILS TO PROVIDE SUCH CLEANUP, THE ENGINEER WILL DIRECT ANOTHER CONTRACTOR TO PERFORM THE CLEANUP AND THE NEGLIGENT CONTRACTOR SHALL PAY THE ASSOCIATED BACK-CHARGES AS DETERMINED APPROPRIATE BY THE ENGINEER. R. ACCESS TO WORK AREAS INCLUDING WORK SCHEDULED THEREIN, MUST HAVE PRIOR APPROVAL OF THE OWNER. ALL WORK AREAS WILL BE KEPT CLEAR BY THIS CONTRACTOR WITH THOROUGH CLEAN UP AT END OF EACH DAY'S WORK. ALL EXISTING ELECTRICAL SERVICE EQUIPMENT IS TO REMAIN OPERATIONAL DURING THE CONSTRUCTION PERIOD. ANY TEMPORARY WIRING OR REROUTING OF CIRCUITRY TO ACHIEVE THIS IS BY THE ELECTRICAL CONTRACTOR. S. CONTRACTOR SHALL FURNISH MATERIALS AND USE INSTALLATION METHODS SUITABLE FOR THE ENVIRONMENTAL CONDITIONS OF THE AREA IN WHICH EQUIPMENT, FIXTURES AND DEVICES ARE INSTALLED. T. CONTRACTOR SHALL PROVIDE SLEEVES IN BEAMS, FLOORS, COLLARS AND WALLS, AS REQUIRED BY JOB SITE CONDITIONS, AND/OR AS SPECIFIED, WHEN INSTALLING THEIR WORK. ALL BEAMS AND COLLARS WHICH ARE REQUIRED TO BE SLEEVED SHALL BE CUT AND REINFORCED AS REQUIRED BY FIELD CONDITIONS AND LOCATIONS AND SIZES SHALL BE CHECKED AND APPROVED BY ENGINEER BEFORE CONTRACTOR CUTS ANY BUILDING STRUCTURAL MEMBER. U. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL AND STRUCTURAL CONTRACT DRAWINGS BEFORE SUBMITTING THEIR BIDS TO FAMILIARIZE THEMSELVES WITH THE EXTENT OF THE GENERAL CONTRACTORS WORK, CEILING HEIGHTS AND CLEARANCE FOR INSTALLING THEIR WORK. V. CONTRACTOR SHALL STORE ALL MATERIALS AND EQUIPMENT SHIPPED TO THE SITE IN A PROTECTED AREA. IF MATERIAL IS STORED OUTSIDE OF THE BUILDING, IT MUST BE STORED OFF THE GROUND A MINIMUM OF SIX INCHES (6") ON 4" PLANKS AND/OR WOOD PALLET. ALL PIPING AND DUCTWORK WILL HAVE THE ENDS CLOSED TO KEEP OUT DIRT AND OTHER DEBRIS. NO EQUIPMENT SHALL BE STORED ON THE SITE UNLESS IT IS SITTING ON WOOD PLANKS AND COMPLETELY PROTECTED WITH WEATHERPROOF TAPPS OR VISQUIN. W. ELECTRICAL CONTRACTOR SHALL COORDINATE ALL NON-ACCESSIBLE SYSTEM DEVICES, PULL BOXES AND EQUIPMENT, ETC. TO ACCESSIBLE CEILING AREAS. E.C. SHALL INCLUDE ALL COMPLETE COSTS FOR RELOCATION AND VERIFY SUCH CONDITIONS WITH ARCHITECTURAL CEILING PLANS PRIOR TO FINAL BID. X. ELECTRICAL CONTRACTOR SHALL FOLLOW NFPA NO. P81-1 1989 PUBLICATION, PART V PROCEDURES PRIOR TO ENERGIZATION OF ANY SWITCHGEAR. THE ELECTRICAL CONTRACTOR SHALL USE ONLY TRAINED AND AUTHORIZED PROFESSIONAL ELECTRICAL CRAFT PERSONS. THE E.C. SHALL FURNISH ANY PERSONNEL, SAFETY EQUIPMENT, LADDERS, MAN LIFTS, AND POWERED HAND TOOLS THAT MAY BE REQUIRED. ALL POWERED TOOLS SHALL BE IN GOOD CONDITION WITH ALL GROUND CONDUCTOR IN PROPER OPERATION. Y. VERIFY CODE CLEARANCES FOR ALL NEW ELECTRICAL WORK BEFORE PROCEEDING WITH CONSTRUCTION. PROVIDE ADEQUATE WORKING CLEARANCES, DEDICATED EQUIPMENT SPACE, AND LEAK PROTECTION SYSTEMS AS REQUIRED BY APPLICABLE ELECTRICAL CODES. COORDINATE USAGE OF AVAILABLE SPACE WITH ALL TRADES. IN THE EVENT OF CONFLICTS, NOTIFY THE ENGINEER BEFORE PROCEEDING WITH THE WORK. Z. EXISTING, DEMOLITION, AND SALVAGE NOTATIONS: 1. EX - EXISTING TO REMAIN 2. X - DISCONNECT AND REMOVE THE EXISTING DEVICE MARKED WITH THE TAG "X" COMPLETELY. REMOVE EXISTING CONDUIT AND WIRE/CABLES COMPLETELY FROM THE SOURCE 3. ERW - DISCONNECT, REMOVE, AND SALVAGE THE EXISTING DEVICE MARKED WITH THE TAG "ER" FOR RELOCATION. EXISTING CONDUIT AND WIRE/CABLE SHALL REMAIN, EXTEND EXISTING WIRE/CABLE AND CONDUIT AS REQUIRED TO RELOCATED DEVICE LOCATION. 4. R - DISCONNECT AND REMOVE THE EXISTING DEVICE MARKED WITH THE TAG "R" COMPLETELY. EXISTING CONDUIT AND WIRE/CABLE SHALL REMAIN. 5. XS - DISCONNECT, REMOVE, AND SALVAGE THE EXISTING DEVICE MARKED WITH THE TAG "XS". REMOVE EXISTING CONDUIT AND WIRE/CABLE COMPLETELY FROM THE SOURCE.	III. SHUT-DOWN OF SYSTEM A. COORDINATE AND SEQUENCE DEMOLITION SO AS NOT TO CAUSE SHUTDOWN OF OPERATION OF SURROUNDING AREAS. B. SHUT-DOWN PERIODS: 1. ARRANGE TIMING OF SHUT-DOWN PERIODS OF SYSTEM SERVICE WITH OWNER. DO NOT SHUT DOWN ANY SERVICE WITHOUT PRIOR WRITTEN APPROVAL. PROVIDE NOTICE MINIMUM 15 WORKING DAYS IN ADVANCE. 2. KEEP SHUT-DOWN PERIOD TO MINIMUM OR USE INTERMITTENT PERIOD AS DIRECTED BY THE OWNER. 3. MAINTAIN LIFE-SAFETY SYSTEM IN FULL OPERATION IN OCCUPIED FACILITIES, OR PROVIDE NOTICE MINIMUM 15 WORKING DAYS IN ADVANCE. 4. THE SYSTEM SHUT-DOWN SHALL BE DONE DURING OFF-BUSINESS HOURS. IV. VISIT TO SITE A. THE CONTRACTOR SHALL CAREFULLY EXAMINE THE ENTIRE SET OF CONTRACT DOCUMENTS, VISIT THE SITE, AND FULLY FAMILIARIZE HIMSELF/HERSELF AS TO ALL CONDITIONS AND MATTERS THAT CAN AFFECT THE WORK OR THE COST THEREOF. THIS CONTRACTOR IS RESPONSIBLE FOR NOTIFYING ENGINEER IN WRITING, AND PRIOR TO BID, OF DISCREPANCIES OR OMISSIONS FROM THE DRAWINGS, SPECIFICATIONS OR OTHER DOCUMENTS. OBTAIN CLARIFICATION PRIOR TO SUBMITTING ANY BID. LACK OF NOTIFICATION SHALL BE INTERPRETED TO INDICATE NO DISCREPANCIES OR CONFLICTS EXIST AND ADDITIONAL CLARIFICATION WILL NOT BE GRANTED AFTER AWARD OF CONTRACT FOR ANY WORK REQUIRED TO COMPLY WITH THESE REQUIREMENTS OR INTENT. B. SUBMISSION OF PROPOSALS SHALL BE CONSIDERED EVIDENCE THAT THE CONTRACTOR HAS VISITED AND EXAMINED THE SITE. C. NO EXTRA PAYMENT WILL BE ALLOWED THE CONTRACTOR FOR EXTRA WORK CAUSED BY FAILURE TO VISIT, EXAMINE AND VERIFY. D. THE ENGINEER WILL MAKE PERIODIC VISITS TO THE JOBSITE TO OBSERVE THE PROGRESS OF THE WORK AND TO OBSERVE ITS ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE ENGINEER IS NOT A GUARANTOR OF THE CONTRACTOR'S SITE CONDITIONS. FUNCTIONALITY OF THE SAFETY IS RESPONSIBLE FOR SUPERINTENDING, OR IN CHARGE OF THE ERECTION AND/OR CONSTRUCTION OF THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR THE SAFETY OF THE WORK AND OF ANY SHIPMENT, BUILDING, SCAFFOLDING, FORMS OR OTHER WORK AIDS USED. V. LAWS, ORDINANCES, AND REGULATIONS A. ALL SYSTEMS SHALL CONFORM IN FULL AND/OR PART SHALL CONFORM TO ALL PERTINENT LAWS, ORDINANCES AND REGULATIONS OF ALL BODIES HAVING JURISDICTION AT ALL GOVERNING LEVELS, NOTWITHSTANDING ANYTHING IN THESE DRAWINGS OR SPECIFICATIONS TO THE CONTRARY. IN CASE OF CONFLICT BETWEEN GOVERNING LEVELS, THE MORE STRINGENT LAWS SHALL APPLY. B. THE CONTRACTOR SHALL PAY ALL FEES AND OBTAIN AND PAY FOR ALL PERMITS AND INCLUDED IN THIS CONTRACT. INSTALLATION ACCORDING TO THE APPLICABLE BUILDING CODES. C. WHERE APPLICABLE, ALL NEW MATERIAL SHALL BEAR THE UNDERWRITERS (UL) SEAL OF APPROVAL, AS WELL AS THOSE SEALS OF ALL MUNICIPALITIES HAVING JURISDICTION. CERTIFICATES OF LISTING AND APPROVAL SHALL BE SUBMITTED UPON REQUEST. D. THE ELECTRICAL CONTRACTOR SHALL SECURE AND PAY FOR ALL LICENSES REQUIRED BY THE GOVERNING BODIES TO OPERATE AS AN ELECTRICAL CONTRACTOR FOR THIS PROJECT. E. ALL LIGHT FIXTURES, RECEPTACLES, AND ELECTRICAL COMPONENTS SHALL BE DISPOSED IN CONFORMANCE WITH EPA REGULATION. VI. WORKMANSHIP A. ALL WORK TO BE PERFORMED SHALL BE DONE BY QUALIFIED MECHANICS. ALL MECHANICS IN THE EMPLOY OF THIS CONTRACTOR ON THIS PROJECT SHALL BE SKILLED IN THE PHASES OF THE WORK TO WHICH THEY ARE USED. B. ALL WORK MUST BE DONE IN WORKMANLIKE MANNER TO THE COMPLETE SATISFACTION OF THE ENGINEER. ALL MATERIAL SHALL BE NEW, OF THE QUALITY SPECIFIED, FREE FROM DEFECTS AND IN FIRST-CLASS CONDITION. ALL VERTICAL CONDUITS SHALL BE PLUMB. C. THE COMPLETE SYSTEM SHALL MEET THE REQUIREMENTS OF THE LOCAL ELECTRICAL CODE AND AS MAY BE MODIFIED BY LOCAL ORDINANCES AND SHALL ACCURATELY REFLECT THE ACTUAL INSTALLATION OF THE ELECTRICAL COMPONENTS AND CONDUITS. D. THIS CONTRACTOR SHALL ESTABLISH SAFE WORKING PROCEDURES FOR THE PROTECTION OF THE WORKING CREW AND NON-WORKING OCCUPANTS IN ALL PHASES OF WORK, COMPLYING WITH THE APPLICABLE PROVISIONS OF ALL CITY, STATE AND FEDERAL SAFETY LAWS (OSHA, THIS SHALL INCLUDE "LOCK-OUT/TAG-OUT" AND REQUIRED GROUNDING. WORK UNDER THIS CONTRACT SHALL NOT BE DONE ON ENERGIZED CIRCUITS. VII. MATERIALS AND EQUIPMENT A. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND SHALL CONFORM TO THE GRADE, QUALITY AND STANDARD SPECIFIED HEREIN. ALL EQUIPMENT OFFERED UNDER THESE SPECIFICATIONS SHALL BE LIMITED TO PRODUCTS REGULARLY PRODUCED AND RECOMMENDED FOR SERVICE, IN ACCORDANCE WITH ENGINEERING
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