

<u>NOTES-</u> **ELECTRICAL**

- ALL ELECTRICAL WORK SHALL BE COORDINATED AND SCHEDULED WITH THE GSA PROJECT MANAGER AND CONSTRUCTION MANAGER.
- THE ELECTRICAL CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER DISCIPLINES.
- ALL CONDUITS ARE SHOWN DIAGRAMATICALLY. CONTRACTOR TO RUN CONDUIT TO SUIT ACTUAL FIELD CONDITIONS.
- ALL OPENINGS SHALL BE SEALED UPON COMPLETION OF INSTALLATION TO PREVENT SPREAD OF SMOKE AND PRE THROUGH OPENINGS. OPENINGS SHALL ALSO BE SEALED TO PREVENT WATER SEEPAGE WHERE APPLICABLE, ALL OPENINGS SHALL BE CORDINATED WITH OTHER CRAFTS TO PREVENT INTERFERENCE AND OBSTRUCTION.
- HE COMPLETE INSTALLATION SHALL BE TESTED AT COMPLETION OF JORK TO BE FREE OF GROUNDS AND SHORT CRICUITS CONDITIONS. LL INTERLOCK CIRCUITS SHALL BE TESTED TO VERIFY CORRECT PERATION OF EACH DEWCE. ALL ROTATING EQUIPMENT SHALL BE INERGIZED TO VERIFY CORRECT ROTATION.
- UNLESS OTHERWISE SPECIFIED, ALL NEW ABOVEGROUND CONDUITS MORE THAN 4 INCH DIA (IF ANY) SHALL BE HOT DIPPED GALVANIZED RIGID STEEL CONDUIT ALL CONDUIT BENDS SHALL BE OF THE LONG SWEEP BENDS. FAN MOTOR (IF ANY) SHALL HAVE FLEXIBLE CONNECTION.
- THE ELECTRICAL CONTRACTOR SHALL KEEP ONE SET OF THE LATEST ISSUE OF ELECTRICAL DRAWNIGS WHICH SHALL REFLECT THE ACTUAL INSTALLED CONDITIONS AND CONNECTIONS OF ALL EQUIPMENT AND DEVICES. THE ELECTRICAL CONTRACTOR SHALL PROVIDE CORPES OF ALL MANITEANACE INFORMATION AND INSTRUCTIONS RECEIVED WITH EQUIPMENT AND SYSTEMS. ALL "AS BUILL" DRAWNIGS AND MISCELLAMENUS INFORMATION SHALL BE BUILL" DRAWNIGS AND MISCELLAMENUS INFORMATION SHALL BE CHARLED ON THE OWNER AT COMPLETION OF WORK.

 THE ELECTRICAL CONTRACTOR SHALL BLARANTEE ALL MATERIAL AND LABOR TO BE FREE FROM DEFECTS FOR A ONE YEAR PERIOD FROM THE TIME OF OWNER ACCEPTANCE. ANY DEFECTS OCCUPRING DURING THIS PERIOD SHALL BE CORRECTED BY THE ELECTRICAL CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. CONTRACTOR SHALL TEST THE GROUNDING SYSTEM OF THE EXISTING MICCA, XTMRS, PANELS, AND SMITCHGEAR, REPAIR ANY DEFECTS OF THE GROUNDING SYSTEM IN MICCA, AND SMITCHGEAR, REPAIR ANY DEFECTS OF THE GROUNDING STATED STREMS. MINIMUM ELECTRODE GND. SIZE SHALL BE #2/0 AMG COPPER. (EVEN IF NOT SPECIFICALTY CALLED DUT ON DIGS OF SPECIFICATIONS, ALL NEW OR MODIFIED WORK SHALL BE COMPLETED WITH PROPER NEW GROUNDING IN ACCORDANCE WITH THE NEC CODE).

- ELECTRICAL NOTES (CONT'D):

 ALL WORK WILL BE LAWFULLY EXECUTED IN A NEAT AND WORKMANLIKE MANNER AND WILL BE DONE IN ACCORDANCE WITH GOOD TRADE PRACTICE AND IN STRICT CONFORMANCE WITH MANUFACTURERS RECOMMENDATIONS AS APPLICABLE.
- THIS INSTALLATION WILL CONFORM TO ALL CODES AND THE REQUIREMENTS OF FEDERAL, STATE, AND LOCAL REGULATORY AGENCIES HAVING JURISDICTION. IN PARTICULAR, THE WORK WILL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE PA UNIFORM CONSTRUCTION CODE (UCC), INCLUDING ALL OF ITS APPLICABLE SUBCODES (SHOWN BELOW).

INTERNATIONAL BUILDING CODE

NATIONAL ELECTRICAL CODE/ LATEST EDITION
INTERNATIONAL FIRE CODE/ LATEST EDITION

- THE CONTRACTOR WILL BE RESPONSIBLE FOR ENJIRING THAT ALL RULES AND REGULATIONS, MICHAEL SHE ISSUED BY THE OWNER ARE BEING BESTED BY THE OWNER ARE BEING BESTED BY THE OWNER ARE BEING BESTED BY THE OWNER AND THE CONTRACTOR THE OWNER SELECTION AND THE OWNER AND THE OWNER
- EXISTING CONDITIONS ARE SHOWN AS ACCURATELY AS POSSIBLE THERE IS THE POSSIBLITY THAT CONDITIONS SHOWN ARE MOT EXACTLY AS EXISTING CONTRACTOR SHALL VERIFY ALL DIRENSONS, DIEVATIONS (DOCATIONS, SIZES AND CONDITIONS AT THE SITE AND REPORT ANY DISPREPANCIES OF THE OWNER PRIOR TO BEGINNING INSTALLATION OR FABRICATION WORK, OR ORDERING MATERIALS.
- WORK UNDER THIS CONTRACT SHALL CONSIST OF THE CONTRACTOR PROVIDING ALL LABOR, MATERIALS, AND SERVICES, INCLUDING WORK NOT SPECIFICALTY SHOWN BUT REASONABLY MIPLED, THIS SHALL INCLUDE CUTTING, PATCHING AND RESTORATION OF EXISTING SHALL INCLUDE CUTTING, THE CONSTRUCTION, CONTRACTOR SHALL ALSO PROVIDE ALL EQUIPMENT SHOWN OR SPECIFIED OR AN APPROVED EQUIPMENT OR MATERIALS SHALL NOT BE INSTALLED UNTIL GIVEN WRITTEN APPROVAL BY THE OWNER. ALL EQUIPMENT MUST BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- THE CONTRACTOR SHALL SECURE ALL APPLICABLE PERMITS AND APPLICATIONS AND PAY AND ALL FEES AS REQUIRED.

ELECTRICAL NOTES (CONT'D):

U.S. General Services Administration Mid-Attentic Region Public Buildings Service The Strawbridge Building 20 North 8th Street Philadelphia, PA 19107-3191

- THE ELECTRICAL CONTRACTOR SHALL VERIFY THE SIZE AND RATING OF ALL MECHANICAL EQUIPMENT PRIOR TO RUNNING OF CONDUCTORS AND SIZING OVERCURRENT PROTECTION DENCES. ALL ELECTRICAL WORK SHALL BE COORDINATED WITH THE CONSTRUCTION MANAGER AND ALL OTHER DISCIPLINES INVOLVED IN THIS PROJECT.
- EQUIPMENT ARRANGEMENTS ARE DESIGNED TO SHOW PREFERRED CONFIGURATIONS TO SUIT KNOWN, CONDITIONS, ACTUAL INSTALLATION BY COMPRACTOR MAY BE ALTERED AS REQUIRED TO SUIT FIELD CONDITIONS ENCOUNTERED DURING CONSTRUCTION WITHOUT COMPROMISING THE INITIAT OF THE ORIGINAL DESIGN AND WITHOUT ADDITIONAL COST TO THE OWNER.

- EXCAVATION FOR UNDERGROUND INSTALLATIONS OR MORK, IF APPLICABL APPROACHED MITH EXTREME CAUTION SO AS NOT TO DAMAGE EXISTING UNDERGROUND UTILITY SERVICES, CONDUITS AND PIPING. E, SHALL BE
- THE CONDUITS AND PULL BOXES SHOWN ON THESE DRAWINGS ARE DIAGRAMMATIC IN NATURE; THEY SHOW THE GENERAL ARRANGEMENT, SIZE OF THE CONDUITS, THEY ARE NOT INTENDED TO SHOW PEERFY OFFSET OR INTERPERGING THAT MAY BE ENCOUNTEED.

 CONTRACTOR IS RESPONSIBLE FOR ROUTING OF ALL CONDUITS, AND INSTALL NECESSARY AND REQUIRED PULL BOXES, IN THE MOST EFFICIENT MANNER IN ACCORDANCE WITH PROJECT SECONDATIONS, THEREFORE, WHETHER CONDUIT BENUS OR PULL BOXES ARE SHOWN ON UNGS OR NOT, IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLETE THE INSTALLATIONS IN ACCORDANCE WITH PROJECT REQUIREMENT SECONFATIONS AND APPLICABLE CODES, MUTIPLE CABLE FEEDS WITHIN A PULL BOX SHALL BE PROTECTED IN THE DESTINATIONS ON THE REPORT OF THE PROJECT OF SHALL DETERMINE REQUIRED PULL BOX SIZES, UNLESS OTHERWISE SHOWN ON DWIS. CONTRACTOR'S SHALL DETERMINE REQUIRED PULL BOX SIZES, UNLESS OTHERWISE SHOWN ON DWIS. CONTRACTOR'S SHALL BE FAMILIARIZED WITH THE COMPOUT ROUTING AND ALL OTHER REQUIRED WORK BEFORE BIDDING ON THIS PROJECT.

 SEPECIFICID IN SPECIFICION 1511. UNLESS OTHERWISE NOTED ON DRAWINGS USE THE FOLLOWING CONDUITS. (3) 3/4" TO 4" DIMEETER: USE EAR!; and (5) ABOVE 4" DIMETER: USE EAR! DESTINATION.
- CONTRACTOR SHALL USE TRAPEZE TO SUPPORT CONDUIT FROM BUILDING STEEL.
- NULESS OTHERWISE NOTED ON THE PROJECT DRAWNICS OR SPECIFICATIONS, ALL POWER AND CONTROL WRING SHALL BE STRANDED COPPER CONDUCTOR, MINIMUM SIZE POWER AND CONTROL, WITHOUT ONES OF OUT INSILATION THAN, CONDUCTORS #8 AWG & LARGER SHALL BE STRANDED COPPER WITH 75 DEGREE C INSULATION.
- ALL TEMPORARY WRING, LIGHTING AND POWER CIRCUITS AND DEVICES SHALL BE INSTALLED TO MEET THE LATEST REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE, LOCAL, STATE AND FEDERAL REQUIREMENTS FOR SUCH TEMPORARY INSTALLATION.
- CONTRACTOR MUST FIELD VERHY EXISTING TRANSFORMERS, PANELS, MCC., STARTERS AND CABLES AND MATCH THE NEW TEMS FOR THEIR TYPE, CAPACITY, SET, ETC. CONTRACTOR SHALL FIELD VERHY ALL DIMENSIONS, SIZES, TYPES ETC., PRIOR TO ORDERING NEW COMPONENTS. FIELD FIT ALL WORK WITHIN AVAILABLE SPACES.
- 25.
- MCC OR PANEL COMPARTMENT DESIGNATIONS ARE AS INDICATED BELOW:
 BLANK- NOT INTENDED FOR USE, COVERPLATE CAILY.

 SPACE- CONTAINS HECESSARY BUS AND HARDWARE FOR FUTURE ADDITION
 OF BREAKERS OR STARTERS WITHIN RANGE SHOWN.

 SPARE- CONTAINS A COMPLETE BREAKER OR STARTER INSTALLED, SIZE
 AS INDICATED, VANILABLE FOR FUTURE USE.
- ALL DEVICES SHALL BE ADEQUATELY IDENTIFIED WITH PERMANENT LABELS OR TAGS. WRING SHALL BE IDENTIFIED AS TO PHASING AND COMDUCTOR IDENTIFICATION. HE COMPLETIE INSTALLATION SHALL BE TESTED AT COMPLETION OF WORK, TO BE FREE OF GROUNDS AND SHAPT CIRCUITS CONDITIONS. ALL INTERLOCK CIRCUITS SHALL BE TESTED TO VERIFY CORRECT OPERATION OF EACH DEVICE. ALL ROTATING EQUIPMENT SHALL BE JOGGED TO VERIFY CORRECT ROTATION BEFORE PERMANENTLY ENERGIZING.
- THE CONTRACTOR SHALL COMPLETE AN AS-BUILT MARKUP DRAWNG SET. THE AS-BUILT MARKUP DRAWNGS SHALL BE SUBMITTED TO GSA AT THE END OF THE PROJECT.

PROJECT DWGS & OTHER REQUIREMENTS

1) SEE SPECIFICATION 01010 FOR SCOPE SUMMARY.
2) SEE SPECIFICATION PACKAGE FOR OTHER SPECS

THE SECTION OF THE STEEL OF THE SECTION OF THE SECT U.S. CUSTOMS HOUSE
200 CHESTNUT STREET
PHILADELPHIA
5x 19106

U.S. CUSTOMS HOUSE,
PHILADELPHIA
ELECTRICAL DISTRIBUTION
SYSTEM-UPGRADE; MCC,
TRANSFORMERS, & PANEL
REPLACEMENT PROJECT
DESIGN PHASE ISSUE 100%
BID DOCUMENT ISSUE; 08/27/08

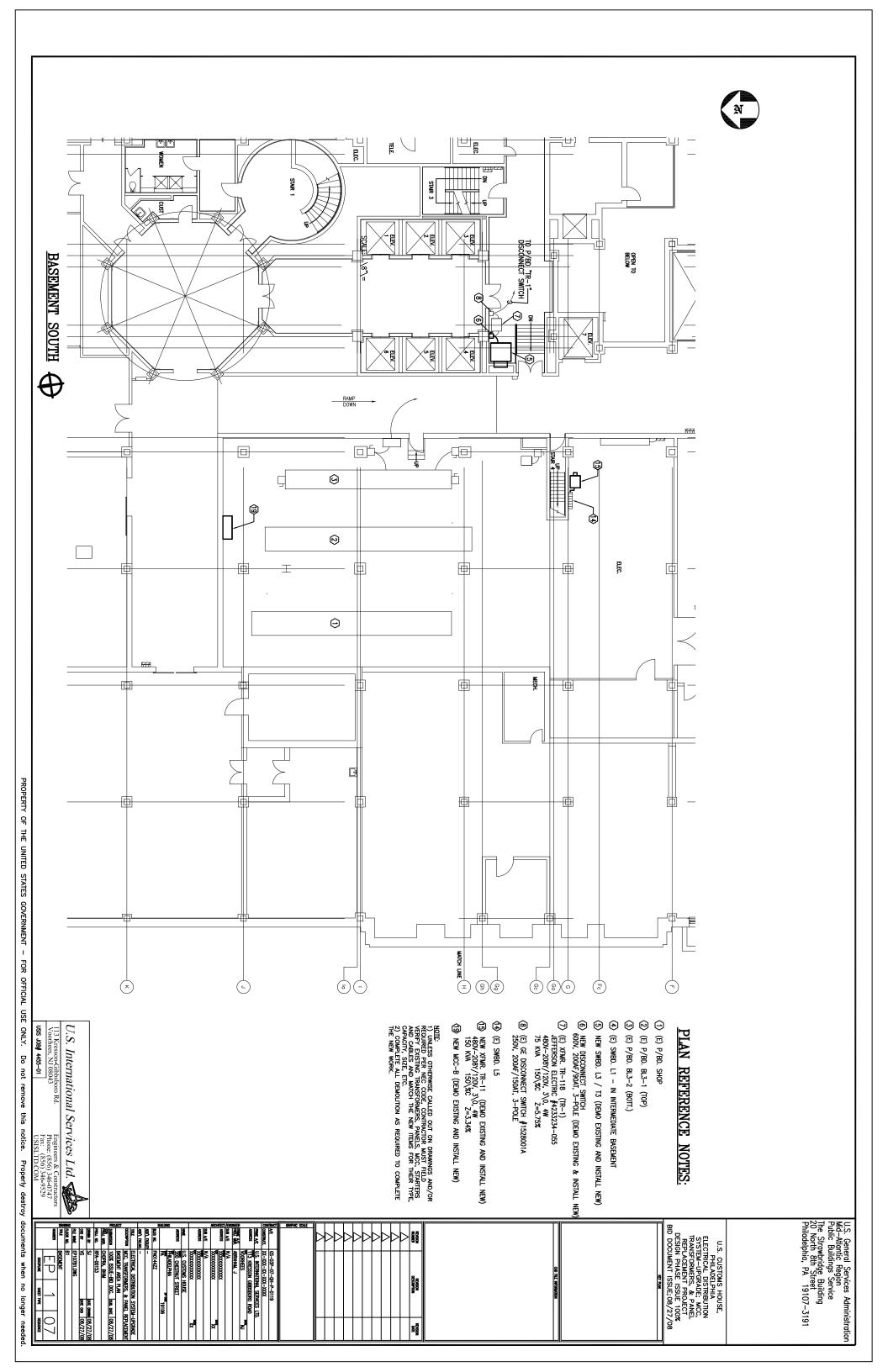
3/1 59884	COMPACT CONSTRUCT	GRAPHIC SCALE	Þ	>	_ >	<u> </u>	_ >	lacksquare	\triangleright	Þ	Þ	REVISION		
U.S. INTERNATIONAL SERVICES LTD.	CS-03P-07-QH-P-0119											NOSCAR NO	OO TAT MORNING TO LEAD AND TO	
												DATE		

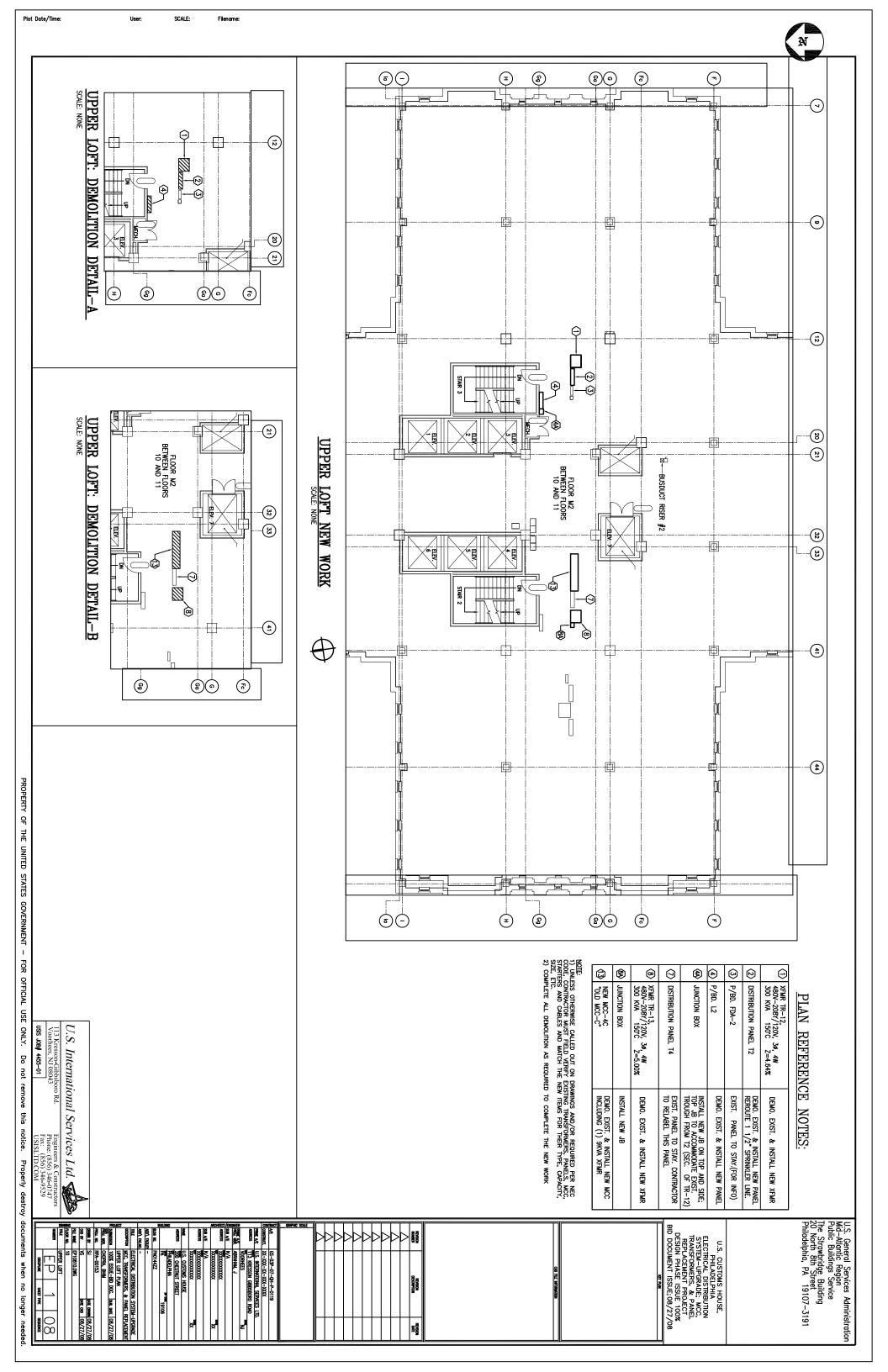
U.S. International S

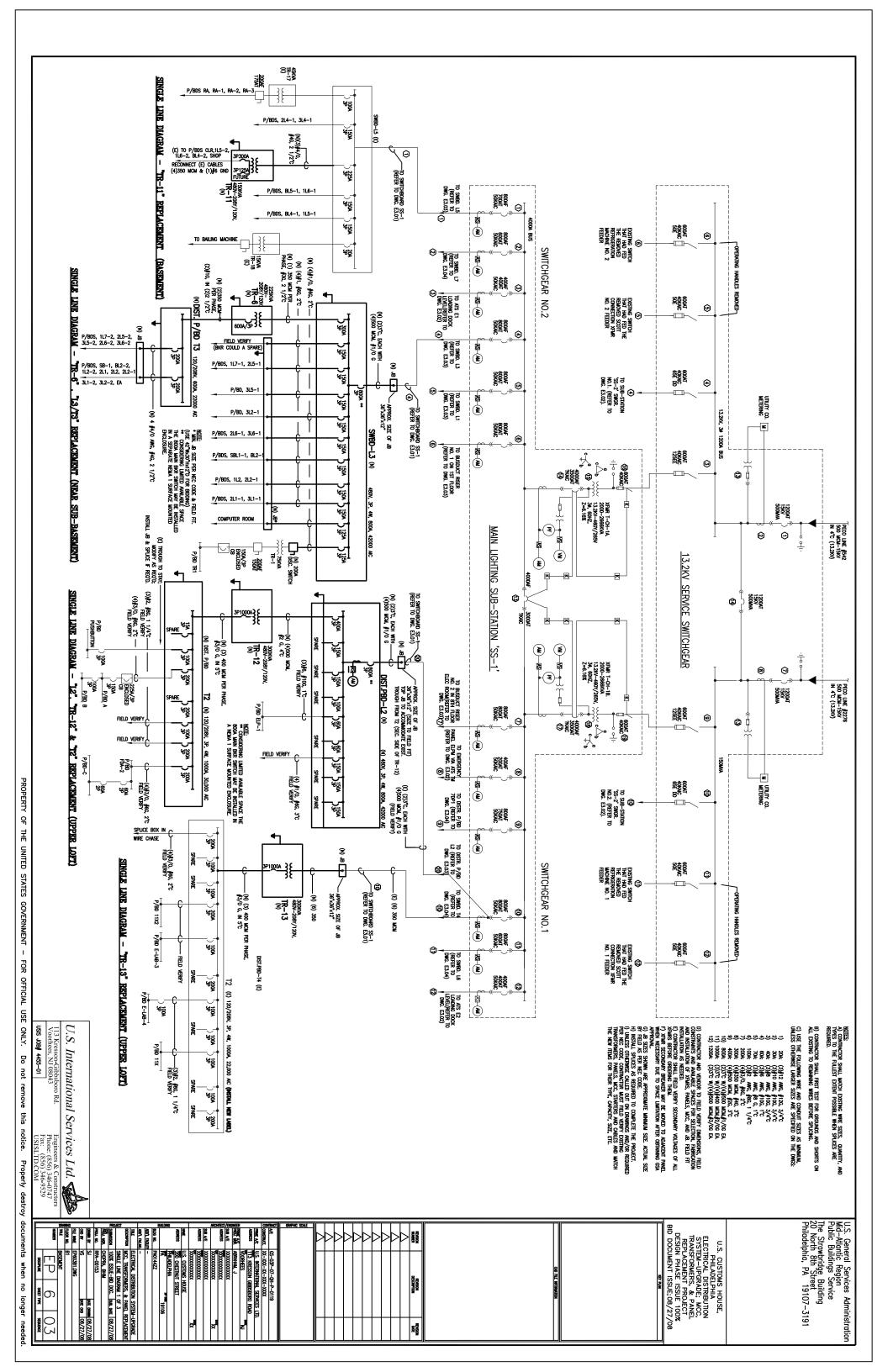
II			ī	COLORID COM
Ī.,	DISCIPLINE		F	2
Γ	[Fax: (856) 346-9529
	Ţ			Phone: (856) 346-0747
1	ך כ			Engineers & Constructors
	BASEMENT	S TIME	70	
l		TOUGH TOU		
	2		40	
l	EP002B1.DWG			1

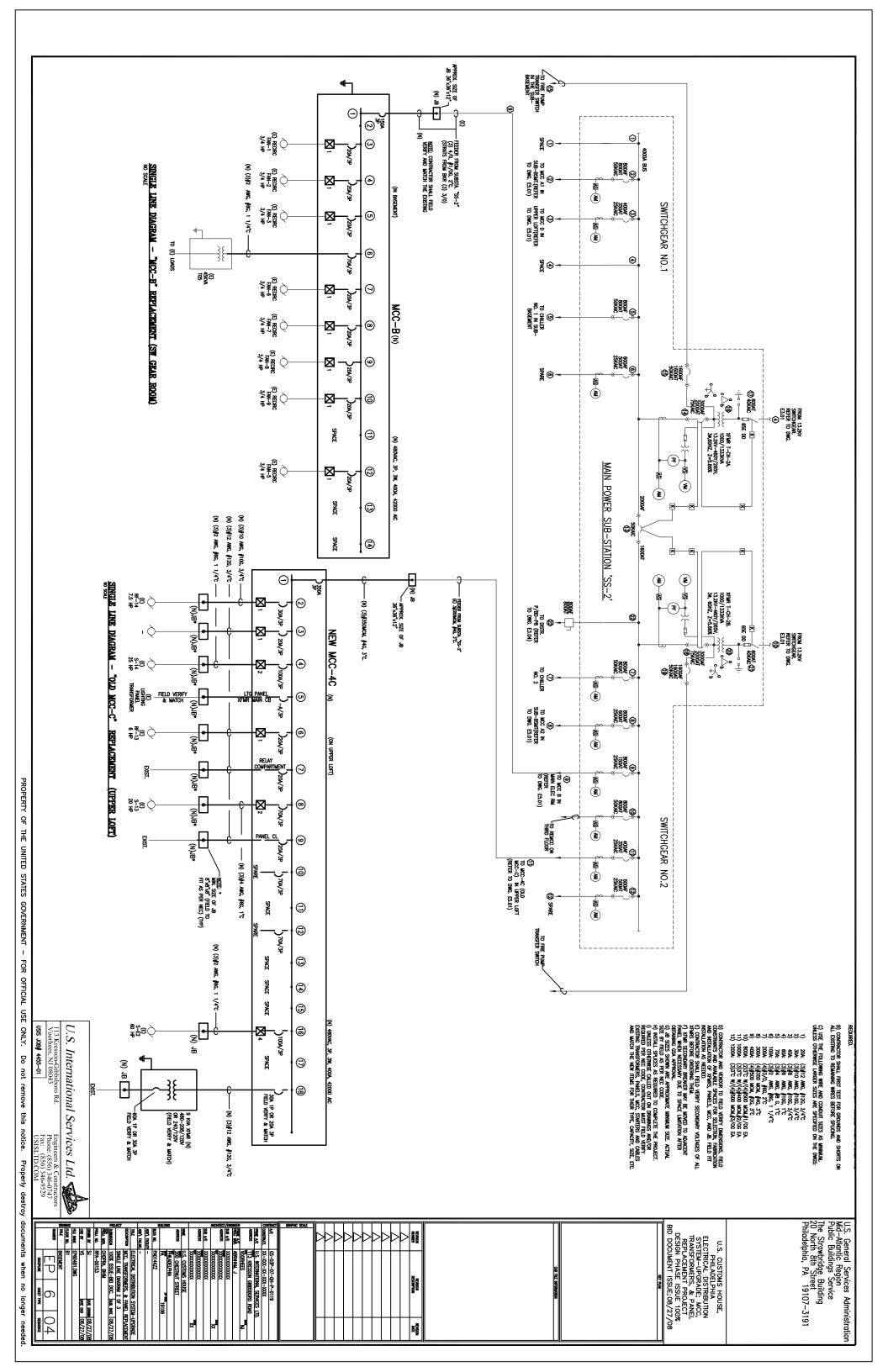
DATE CHO 08/27/0

USIS JOB# 4455-01









	D) (200/3P REM 1) (9 SPACE D) CTO (200/3P REM 2) (9 SPACE D) GR-13 (200/3P REM 1) (9 SPACE D) BC-13 (200/3P REM 2) (9 SPACE D) S-13 (700/3P REM 2) (9 SPACE D) S-13 (700/3P REM 2) (9 SPACE D) S-13 (700/3P REM 2) (9 SPACE D) SPACE D) SPACE (700/3P) (9 SPACE D) SPACE (700/3P) (9 SPACE D) SPACE (700/3P) (9 SPACE D) SPACE (700/3P) (1003 D) SPACE	A 1 SIR ILL (10) PER L	DESCRIPTION
PROPERTY OF THE UNITED STATES GOVERNMENT	HOTES FOR NEW TRANSFORMERS. 1) SEE SHIGE UNE DIAGRAMS FOR SIZE REQUIREMENTS OF NEW TRANSFORMERS. 2) CONTROTOR SHALL FEED FORMERS AND MICH THE EUSTING SIZES, RATINGS AND DIMENSIONS. 3) IF RECID DUE TO SPACE CONSTRAINTS MAN BRY MAY BE INSTALLED M.A. NEMA 1 SURFACE MOUNTED BACKSINE. FEED IT AS REQUIRED TO COMPLETE THE INSTALLATION WHICH HE HE HAVEL SHALLS OTHERWISE CALLED OUT ON DRAWNINGS AND/OR REQUIRED PER NEC CODE. 4) UNILESS OTHERWISE CALLED OUT ON DRAWNINGS AND/OR REQUIRED PER NEC CODE. CONTRACTOR MUST FEED, VEREY DESIGNE TRANSFORMERS, PAPILS, MCC, STAFTERS AND CABLES AND MATCH THE NEW TIBLS FOR THEIR TIPE, CAPACITY, SIZE, ETC.	DESCRIPTION MEE 000 Data 000	DESCRIPTION Ref. 200 0000 300
- FOR OFFICIAL USE ONLY. Do not remove this not	U.S. International Services Ltd. 113 Kresson-Gibbsboro Rd. Voorhees, NJ 08043 USS JOB 4455-01 USS JOB 455-01 USS USB USB 175-05 USB 175-0	DESCRIPTION SEE ON 2004 1	DESCRIPTION SMEE DOI DOI
by documents when no longer needed.	DRAWING PROJECT		U.S. General Services Administration Mid-Atlantic Region Public Buildings Service The Strawbridge Building 20 North 8th Street Philadelphia, PA 19107–3191 U.S. CUSTOMS HOUSE, PHILADELPHIA ELECTRICAL DISTRIBUTION SYSTEM-UPGRADE; MCC, TRANSFORMERS, & PANEL REPLACEMENT PROJECT DESIGN PHASE ISSUE 100% BID DOCUMENT ISSUE; 08/27/08

B

(E) OLD MCC-C (480V.30) (REF. FOR NEW MCC 44C)

NOTE: CONTRACTOR SHALL FIELD VERIFY AND MATCH THE EXISTING

© INCOMING (3\$350,\$46) TOP FEI
© RF-14 (30A/3P NEM 1)
© RF-14 (30A/3P NEM 2)
© S-14 (100A/3P NEM 2)
© S-14 (100A/3P NEM 2)
© RET-13 (20A/3P NEM 1)
© RELAY COMPARTMENT
© S-13 (70A/3P NEM 2)
© PANEL CL (100A)
© SPANEL (70A/3P)

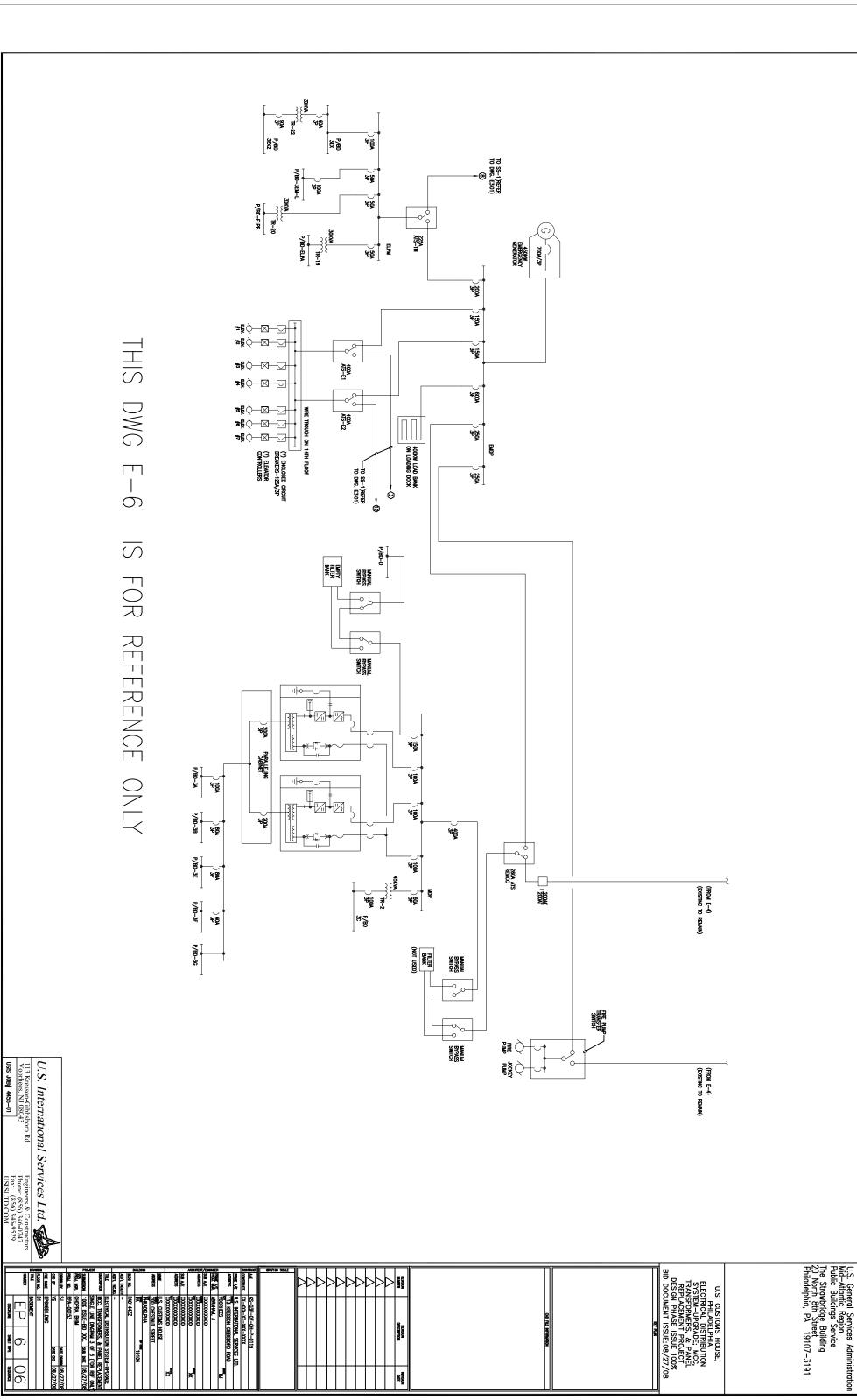
(9) SPACE
(9) SEAME (70A/3P)
(9) SEAME (9) SPACE
(10) SPACE
(

₿

NEW MCC-B (480V.Se) (CUTLER HAMMER ADVANTAGEOR APPROVED EQUAL)

①② MAIN BRY & INCOMING (3-4/0,81/06) TOP FEED (STARTS AT BRYS 3-3/0)
③ RECINC FAN-1 (20A/3P NEMA1) ④ RECINC FAN-2 (20A/3P NEMA1)
④ RECINC FAN-3 (20A/3P NEMA1) ④ DECINC FAN-5 (20A/3P NEMA 1)
④ RECINC FAN-6 (20A/3P NEMA 1) ④ RECINC FAN-6 (20A/3P NEMA 1)
④ SPACE
④ SPACE
④ SPACE
⑤ SPACE
□ SPACE
□

① ② NCOMING (3-4/0,41/06) TOP FEED (STARTS AT BKR 3-3/0)
② RECIRC FAN-1 (20A/3P NEMA1) ④ RECIRC FAN-2 (20A/3P NEMA1)
③ RECIRC FAN-3 (20A/3P NEMA1) ④ TO 45KNA TRANS. TO5
② RECIRC FAN-8 (20A/3P NEMA 1) ④ RECIRC FAN-9 (20A/3P NEMA 1)
⑤ SPACE
⑤ SPACE
⑤ SPACE
⑤ SPACE
⑥ SPACE
⑤ SPACE EXISTING MCC-B (480V.30)
NO SCALE



REMSION

PROPERTY OF THE UNITED STATES GOVERNMENT - FOR OFFICIAL USE ONLY. Do not remove this notice. Properly destroy documents when no longer needed



U.S. General Services Administration Mid-Attantic Region Public Buildings Service The Strawbridge Building 20 North 8th Street Philadelphia, PA 19107-3191

U.S. CUSTOMS HOUSE,
PHILADELPHIA
ELECTRICAL DISTRIBUTION
SYSTEM-UPGRADE; MCC,
TRANSFORMERS, & PANEL
REPLACEMENT PROJECT
DESIGN PHASE ISSUE 100%
BID DOCUMENT ISSUE; 08/27/08

PUBLIC BUILDINGS SERVICE MID-ATLANTIC REGION

MCC, TRANSFORMERS, & PANEL REPLA CEMENT

PHILADELPHIA, PA PROJECT No. RPA-00153 U.S. CUSTOMS HOUSE 200 CHESTNUT STREET

PROJECT DWGS: 100% DESIGN PHASE ISSUE (BID DOCUMENT ISSUE)

1 COVER SHEET
2 ABBREVIATIONS AND NOTES
3 SINGLE LINE DIAGRAM 1 OF 3
4 SINGLE LINE DIAGRAM 2 OF 3
5 PANEL & MCC FRONT VIEWS
6 SINGLE LINE DIAGRAM 3 OF 3 (FOR REF. ONLY)
7 BASEMENT AREA PLAN
8 UPPER LOFT PLAN

U.S. International Services Ltd. RELETING DISTRIBUTION SSTEM-UPGROE

RECOMPANY LOC. TRANSPORMENS. & PAMEL REPUGNISHOT

RESIDENCE PROMINES

RELATION TO THE TOTAL DOC. See AND 105/27/00

RELATION

DATE DRAWN 08/27/0

19106

USIS JOB# 4455-01 346-0747 346-9529 G-001B1.DWG

Do not remove this Properly destroy documents when no longer needed SHEET THPE SEQUENCE

PROPERTY OF THE UNITED STATES GOVERNMENT - FOR OFFICIAL