

O 17' HT ROUND CURVED POLE

23' HT ROUND CURVED POLE

LIGHT BOLLARD

→ WALL MOUNTED LIGHT

LED LIGHT IN GLASS BLOCK ENCLOSURE

EMCEOSON

WALL SI

SURFACE MOUNTED ELECTRICAL PANELBOARD.

٠.

BRANCH CIRCUIT HOMERUN TO DESIGNATED ELECTRICAL PANELBOARD, NUMBER OF ARROWHEADS INDICATES NUMBER OF CIRCUITS IN RUN, NUMBER OF CONDUCTORS WHEN MORE THAN TWO, PROVIDE GROUND CONDUCTOR WITH ALL HOMERUNS.

#### **ABBREVIATIONS**

AFF ABOVE FINISHED FLOOR

A/C AIR CONDITIONING (UNIT)

AHU AIR HANDLING UNIT

AWG AMERICAN WIRE GAUGE

AIC AMPS INTERRUPTING CAPACITY

CLG CEILING

CLG CEILING CKT CIRCUIT

C/B CIRCUIT BREAKER

C CONDUIT
CU COPPER
DEMO DEMOLITION
DISC DISCONNECT
DBL DOUBLE
DWG DRAWING
ELEC ELECTRICAL

EMERG EMERGENCY
EC EMPTY CONDUIT
EF EXHAUST FAN

FSS FUSED SAFETY SWITCH
HD HEAVY DUTY
LTG LIGHTING

HP HORSEPOWER
KW KILOWATTS
MCA MAIN CIRCUITS AMPS

MCB MAIN CIRCUIT BREAKER
MCC MOTOR CONTROL CENTER
MDP MAIN DISTRIBUTION PANEL

MLO MAIN LUGS ONLY
NFSS NON-FUSED SAFETY SWITCH

NIC NOT IN CONTRACT
PNL PANEL

PH PHASE
P POLE(S)
RECEPT RECEPTACLE

RLA RUNNING LOAD AMPERES

SW SWITCH
TELE TELEPHONE
THE SINIT HEATER

UON UNLESS OTHERWISE NOTED

XFMR TRANSFORMER
Y WYE CONNECTED
WP WEATHER PROOF.

## **ELECTRICAL NOTES**

- ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE LATEST NATIONAL ELECTRICAL CODE AND THE DISTRICT OF COLUMBIA MUNICIPAL REGULATION CONSTRUCTION CODES (OCMR), LATEST EDITION.
- THE ELECTRICAL CONTRACTOR SHALL OBTAIN ALL PERMITS AND PAY SUCH FEES AS MAY BE NECESSARY FOR INSPECTIONS, TESTS, AND OTHER SERVICES NECESSARY FOR THE COMPLETION OF HIS/HER WORK.
- 3. CONTRACTOR SHALL VISIT THE SITE AND EXAMINE CONDITIONS OF THE PREMISES AND THE CHARACTER AND EXTENT OF WORK REQUIRED PRIOR TO SUBMISSION OF BIDS. ANY DIFFICULTIES IN COMPLYING WITH THE DRAWINGS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE BIDDING.
- 4. ALL MATERIAL SHALL BE NEW AND BEAR THE U.L. LABEL LISTED APPROVAL FOR ITS INSTALLED APPLICATION.
- 5. IT IS THE INTENT OF THESE DRAWINGS AND OTHER RELATED DOCUMENTS TO PRODUCE A COMPLETE AND FUNCTIONING ELECTRICAL SYSTEM. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIAL AND OTHER SERVICES AS MAY BE NECESSARY TO ACHIEVE THIS PRODUCT, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO BRING TO THE ATTENTION OF THE ENGINEER ANY DISCREPANCIES IN THE PLANS AND SPECIFICATION THAT WILL AFFECT THE WORK, PRIOR TO SUBMISSION OF HIS/HER BID PRICE.
- 6. THE CONTRACTOR SHALL GUARANTEE ALL HIS WORK AND MATERIALS FOR A PERIOD OF ONE YEAR AFTER ACCEPTANCE BY OWNER.
- 7. ALL WORK SHALL BE DONE AT SUCH TIMES AND IN SUCH A MANNER AS WILL LEAST INTERFERE WITH THE MAINTENANCE AND OPERATION OF ALL RELATED OR AFFECTED SYSTEMS. ALL POWER OUTAGES SHALL BE COORDINATED WITH THE UDC AND PEPCO.
- 8. ALL EXISTING ELECTRICAL CONDUIT MUST BE MAINTAINED UNTIL THE NEW OR TEMPORARY CONDUIT AND CABLE ARE IN PLACE, ALL ELECTRICAL WORK SHALL BE COORDINATED WITH UDC.
- 9. PEPCO AND/OR UDC IS TO BE NOTIFIED 72 HOURS (THREE WORKING DAYS) PRIOR TO WORKING IN THE VICINITY
- IO. THE LOCATION OF THE UTILITIES SHOWN ON THESE PLANS ARE BASED ON FIELD OBSERVATION AND/OR RECORD DRAWINGS. THE INFORMATION SHOWN IS NOT NECESSARILY COMPLETE AND THE LOCATION OF THE UTILITIES SHOWN IS APPROXIMATE, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE OF ALL UTILITIES IN ADVANCE OF CONDUCTING CONSTRUCTION OPERATIONS THAT COULD DAMAGE THESE UTILITIES.
- II. IN THE AREAS WHERE PROPOSED CONSTRUCTION MAY CONFLICT WITH EXISTING UTILITIES, THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO THESE UTILITIES.
- 12. IF AN UNDERGROUND UTILITY IS DAMAGED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND THE OWNER OF THE UTILITY. ANY DAMAGE SUSTAINED TO UTILITIES ABOVE OR BELOW GROUND SHALL BE REPAIRED BY THE CONTRACTOR UNDER THE DIRECTION OF THE UTILITY OWNER AT THE CONTRACTOR'S EXPENSE, UNDER NO CIRCUMSTANCE SHALL THE CONTRACTOR BACKFILL AN EXCAVATION AFFECTING SAID UTILITY WITHOUT FIRST RECEIVING PERMISSION FROM THE UTILITY OWNER.
- 13. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING PARTIES AT LEAST SEVENTY TWO (72) HOURS, BUT NOT MORE THAN TEN (10) WORKING DAYS, IN ADVANCE OF PROCEEDING WITH ANY EXCAVATION WORK:

TYPE OF WORK

NOTIFY AGENCIES

GAS, TELEPHONE, ELECTRICAL, CONDUIT & CABLE TV

MISS UTILITY (800) 257-7777

WATER MAIN & SEWERS

(202) 673-6600

STREET LIGHTS

MR, ERIK THOMPSON (202) 570-3490

- 14. DETAILED AND COORDINATED 1/2° SCALE SHOP DRAWINGS SHALL BE SUBMITTED FOR EQUIPMENT TO BE INSTALLED. MODIFY WORK AS NECESSARY TO ACCOMMODATE ALL APPROVAL TO THE PROJECT ENGINEER OR HIS REPRESENTATIVE FOR ALL WORK AND JOB CONDITIONS AND ALL DISCIPLINES.
- 15. IF THE CONTRACTOR FINDS DISCREPANCIES AND/OR ERRORS IN THESE DOCUMENTS, THE BID SHALL INCLUDE ALL MATERIAL AND LABOR NECESSARY TO RECTIFY THE PROBLEM.
- 16. REVIEW ALL CONTRACT DOCUMENTS AND COORDINATE WITH ALL TRADES. NECESSARY MODIFICATIONS SHALL BE INCLUDED IN THE ORIGINAL BID PROPOSAL.
- 17. COMPLY WITH THE PHASING REQUIRED BY UDC.
- 18. WHERE IT IS NECESSARY TO CUT FLOORS, WALLS OR CEILINGS FOR INSTALLATION OF ANY ELECTRICAL WORK SUCH AS CUTTING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ALL AFFECTED AREAS SHALL BE PATCHED AND FINISHED BY THE ELECTRICAL CONTRACTOR TO MATCH ORIGINAL CONDITION AND APPEARANCE. BEFORE ANY CUTTING OR PATCHING, THE CONTRACTOR SHALL OBTAIN THE APPROVAL OF THE PROJECT ENGINEER. X-RAY FLOORS BEFORE CORE DRILLING. REMOVE AND REINSTALL ACOUSTICAL CEILING (TILES, SUPPORTS, GRIDS, ETC.,) AS NECESSARY TO ACCOMMODATE THE INSTALLATION OF THE NEW SYSTEM. PLASTER WALLS AND CEILINGS SHALL BE CAREFULLY CUT AND BE RESTORED TO THEIR ORIGINAL CONDITION. PROVIDE ACCESS PANELS AS NEEDED. REFINISH ALL DISTURBED AREAS TO MATCH THE EXISTING FINISHES, PAINT TO MATCH EXISTING. IN AREAS WITH DECORATIVE WALLS AND CEILING THE CONTRACTOR SHALL DETERMINE THE METHOD FOR LEAST DISTURBANCE OF THESE SUPPRACES. WHEN CUTTING IS NECESSARY THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETE RESTORATION OF THE DISTURBED SURFACE. WOOD PANELS SHALL BE REMOVED AND REINSTALLED TO ACCOMMODATE THE INSTALLATION OF THE NEW CONDUITS AND DEVICES.
- 19. ALL CONDUCTORS SHALL BE COPPER, ALUMINUM CONDUCTORS WILL NOT BE PERMITTED, INSULATION SHALL BE 600 YOLT TYPE THWN, MINIMUM WIRE SIZE SHALL BE NO.12 AWG, WIRES SHALL BE COLOR CODED PER NEC.
- 20. ALL EXPOSED WIRING SHALL BE INSTALLED IN RIGID GALVANIZED STEEL WP CONDUIT, MINIMUM CONDUIT SHALL BE 1/2'. FINAL CONNECTIONS TO MOTORS SHALL BE MADE WITH LIQUID TIGHT FLEXIBLE METAL CONDUIT. CONDUITS IN PLAZA DECK SHALL BE PVC SCHEDULE 40.
- 21. GROUNDING OF THE ELECTRICAL SYSTEM SHALL BE IN ACCORDANCE WITH THE NATIONAL AND LOCAL ELECTRICAL CODES.
- 22. SUPPORT CONDUITS AND CABLES FROM BUILDING STRUCTURE IN A WORKMANLIKE MANNER.
- 23. EACH HOMERUN SHALL NOT CONTAIN MORE THAN 3 PHASE, GROUND AND NEUTRAL CONDUCTORS.
- 24. CONDUITS SHALL RUN PARALLEL/VERTICALLY TO THE EXISTING WALLS, TIGHT TO THE UNDERSIDE OF STRUCTURE.
- 25. PAINT ALL NEW SURFACES AND UNITS TO MATCH EXISTING SURROUNDING CONDITIONS.

A SSOC. ENG., P.C. 2028 WSCONSIN AVE. WASHINGTON, D.C. 202

Drawn By MetO
Designed By APAO
Checked By CNR
Date
MAY 6, 2010

NONE

26 of 109

E-1

## ELECTRICAL NOTES CONT.

- 26. THE CONTRACTOR SHALL PROVIDE CONNECTION TO ALL EQUIPMENT REQUIRING POWER, VERIFY EXACT LOCATION AND TYPE OF CONNECTION.
  COORDINATE EXACT JUNCTION BOX AND POWER REQUIREMENTS FOR NEW EQUIPMENT WITH THE RESPECTIVE CONTRACTORS FURNISHING EQUIPMENT, SECURE CATALOG CUTS FOR EACH ITEM OF EQUIPMENT TO ENSURE CORRECT ROUGH-IN, REVISE CONNECTORS, RECEPTACLES, ETC. AS NEEDED TO SATISFY ALL REQUIREMENTS.
- 27. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR AND PAY FOR ANY DAMAGES CAUSED BY OR RESULTING FROM DEFECTS IN HIS WORK.
- 28. THE CONTRACTOR SHALL ARRANGE AND COORDINATE HIS INSPECTION WITH OTHER TRADES ASSOCIATED WITH THIS PROJECT. PROVIDE THE OWNER WITH ALL CERTIFICATES OF COMPLIANCE REQUIRED FOR OCCUPANCY PERMIT.
- 29. THE CONTRACTOR SHALL PROVIDE NEW PANELBOARDS, WIRING WITH CONDUIT AND OTHER ELECTRICAL WORK AS NECESSARY. RUN ALL CONDUITS TIGHT TO THE UNDERSIDE OF SLAB AND COORDINATE ROUTING WITH ALL OTHER TRADES.
- 30. ALL WIRING DEVICES INCLUDING SWITCHES SHALL MATCH THE BUILDING STANDARD AS APPROVED BY UDC.
- 31. ALL NEW OUTLETS SHALL BE INSTALLED ON CLEAR WALL SPACES. ITEMS IMPROPERLY LOCATED SHALL BE RELOCATED AS DIRECTED BY ARCHITECT/ ENGINEER AT CONTRACTOR'S EXPENSE.
- 32. PROVIDE ALL REQUIRED TEMPORARY POWER AND LIGHTING TO SATISFY THE PROJECT CONDITIONS AND ALL SAFETY STANDARDS.
- 33. IDENTIFY ALL JUNCTION BOXES WITH THEIR CIRCUIT NUMBER, PANEL AND SYSTEM VOLTAGE.
- 34. LIGHTING CONTROL: PROVIDE ALL REQUIRED EQUIPMENT INCLUDING d) CONTACTOR ASCO 917, NEMA I, 120V COIL WITH REQUIRED NO. OF POLES. b) TIME CLOCK BY TORK DZS200. c) PHOTO CELL BY TORK 3010.
- 35. COORDINATION OF THE OWNERS EQUIPMENT INSTALLERS: THE ELECTRICAL INFORMATION SHOWN IS FOR PERMIT. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER'S EQUIPMENT INSTALLER THE EXACT ELECTRICAL REQUIREMENTS REQUIRED BY THE MANUFACTURER FOR A COMPLETE WIRING SYSTEM.
- 36. THE DRAWINGS ARE DIAGRAMMATIC AND REFLECT THE INTENT OF THIS PROJECT. THE CONTRACTOR SHALL REVIEW ALL DOCUMENTS BEFORE RENDERING HIS BID AND SHALL MAKE PROVISION FOR ALL MODIFICATIONS REQUIRED IN THE ELECTRICAL DESIGN. ADDITIONAL COST RELATED TO THE INSTALLATION, RELOCATION, MODIFICATION OR ADDITION OF EQUIPMENT REQUIRED TO SATISFY THE INTENT OF THIS PROJECT WILL NOT BE
- 37. FOR ADDITIONAL INFORMATION SEE CONTRACT SPECIFICATIONS.
- 38. IDENTIFY ALL PANELS, TRANSFORMERS, DISTR. PANELS, DISCONNECT SWITCHES, CONTROLLERS, RECEPTACLES, SWITCHES, ETC. PROVIDE NAME, SOURCE AND LOAD ON PHENOLIC PLATES. COORDINATE WITH

- 39. CONTRACTOR SHALL COORDINATE LOCATION AND ELECTRICAL CHARACTERISTICS OF EQUIPMENT TO SUIT ACTUAL EQUIPMENT
- 40. PROVIDE ALL ADDITIONAL WIRES REQUIRED FOR SWITCHING AND CONTROL FUNCTIONS INDICATED OR REQUIRED, INCREASE ASSOCIATED CONDUIT SIZE ACCORDINGLY.
- 41. ELECTRICAL CONTRACTOR SHALL COORDINATE HIS WORK WITH WORK OF OTHER PROJECTS AND TRADES TO AVOID PHYSICAL INTERFERENCES OR IMPROPER INSTALLATION, FAILURE TO DO SO SHALL BE CAUSE FOR CONTRACTOR TO REMOVE AND REINSTALL HIS WORK AT NO ADDITIONAL EXPENSE TO THE
- 42. BIDDERS SHALL VERIFY LOCAL CODE REQUIREMENTS PRIOR TO BID SUBMITTAL AND SHALL INCLUDE ALL COSTS FOR COMPLETE
- 43. VERIFY FIELD CONDITIONS FOR HEADROOM, ROOM FINISHES, FURRED CEILINGS, EXACT LOCATIONS OF FIXTURES, EQUIPMENT,
- 44. FOR 120 VOLT CIRCUITS 100' OR OVER CONTRACTOR SHALL PROVIDE AND INSTALL #10 AWG WIRING THROUGHOUT THE CIRCUIT. FOR RUNS OVER 175', PROVIDE \*8 AWG WIRING. FOR RUNS OVER 200', PROVIDE \*8 AWG WIRING.
- 45. IDENTIFY ALL NEW JUNCTION BOXES.

#### PANELBOARD NOTES

- I. PANELBOARDS SHALL BE PROVIDED WITH COPPER BUSSES. S/N EQUIPMENT GROUND BUS, ISOLATED GROUND BUS AND BOLT-ON CIRCUIT BREAKERS.
- 2. PANELBOARDS SHALL BE EQUIPPED WITH DOOR IN DOOR FRAME, MANUFACTURER'S NAME PLATE WITH CHARACTERISTICS AND ALL KEYED ALIKE.
- 3. CONTRACTOR SHALL VERIFY MOUNTING OF ALL PANELBOARDS PRIOR TO RELEASE FOR FABRICATION.
- 4. PANELBOARDS SHALL BE SUITABLE FOR SURFACE MOUNTING.
- 5. PANELBOARDS SHALL BE PROVIDED WITH A TYPEWRITTEN DIRECTORY, HANDWRITTEN LABELS ARE NOT ACCEPTABLE.
- 6. PANELBOARDS SHALL BE PROVIDED WITH PHENOLIC PLASTIC ETCHED NAMEPLATES WITH THE FOLLOWING: (I) PANEL DESIGNATION (2) PANEL SOURCE OF SUPPLY WITH CIRCUIT NUMBER (3) PANEL FEEDER SIZE
- 7. CONTRACTOR SHALL CHECK ALL PANELBOARD BUSSES FOR UNBALANCED CONDITIONS AND BALANCE PANEL BETWEEN PHASES AS CLOSE AS POSSIBLE, SUBMIT AMPERE READING FOR EACH PANEL BOARD TO ELECTRICAL ENGINEER FOR REVIEW AND APPROVAL.
- 8. FAULT CURRENT RATING a) PANELBOARD 65K UON
- 9. DO NOT LOCATE PANELBOARDS UNDER DUCTWORK OR PIPING. RELOCATE AS NECESSARY.

# BASIC MATERIALS AND METHODS

- I. NEW WIRING SHALL RUN IN CONDUIT WITH A MINIMUM TRADE SIZE OF 1/2" INCH (UON),
- 2. MOTORS AND VIBRATING EQUIPMENT SHALL BE CONNECTED WITH A SHORT (APPROXIMATELY TWO (2) FEET) LENGTH OF LIQUID TIGHT FLEXIBLE METAL CONDUIT (UON).
- FITTINGS, COUPLINGS AND ACCESSORIES SHALL BE COMPATIBLE WITH THE CONDUIT MATERIAL.
- 4. PULL AND JUNCTION BOXES SHALL BE PROVIDED WHERE INDICATED AND REQUIRED OF THE TYPE AND SIZE FOR THE INSTALLATION OF THE ELECTRICAL SYSTEM AND SHALL BE ACCESSIBLE. PROVIDE ACCESS PANELS AS REQUIRED BY
- 5. IN EMPTY CONDUITS (EC), INSTALL A No.12 THHN OR NYLON
- 6. ALL CIRCUIT CONDUCTORS SHALL BE MARKED OR TAGGED IN THE PANELBOARDS AND CONTROL PANELS TO IDENTIFY ITEMS SERVED AND THEIR LOCATION.
- 7. ALL THE BOXES AND CONDUCTORS SHALL BE MARKED TO INDICATE THE VOLTAGE, CIRCUIT NUMBERS AND TYPE OF SYSTEM.
- 8. EQUIPMENT, ELECTRICAL ITEMS AND APPURTENANCES REQUIRING INSPECTION, MAINTENANCE OR MANUAL OPERATION SHALL NOT BE INSTALLED IN INACCESSIBLE LOCATIONS. PROVIDE ACCESS PANELS AS NEEDED.
- 9. TEST ALL EQUIPMENT, DEVICES, APPURTENANCES, SYSTEMS, WIRING, ETC., USED. REPLACE ANY AND ALL DEFECTIVE FOUIPMENT, DEVICES, APPURTENANCES, SYSTEMS, WIRING. ETC., BEFORE COMPLETION OF PROJECT.
- IO. CONTRACTOR SHALL VISIT THE SITE TO DETERMINE CONDITIONS WHICH MAY AFFECT THE BID.
- II. WORK MAY NEED TO BE RELOCATED AS NECESSARY TO ACCOMMODATE FIELD CONDITIONS.
- 12. ALL CONDUITS IN THE GARAGE SHALL BE INSTALLED EXPOSED.
- 13. IN AREAS WHERE THE CONTRACTOR SUSPECTS THE PRESENCE OF ASBESTOS, THE CONTRACTOR SHALL HAVE THE AREA TESTED BY A REPUTABLE ASBESTOS COMPANY. IF ASBESTOS IS PRESENT THE INSTALLATION SHALL BE MADE SO THAT THE EXISTING ASBESTOS WILL NOT BE DISTURBED. IF THE INSTALLATION IS NOT POSSIBLE THE CONTRACTOR SHALL NOTIFY UDC. UDC WILL ASSIGN AN ASBESTOS REMOVAL CONTRACTOR TO REMOVE THE ASBESTOS, THE CONTRACTOR THEN WILL BE ALLOWED TO PROCEED WITH HIS INSTALLATION, ALL COSTS AND DELAYS DUE TO THIS PROCEDURE SHALL BE INCLUDED IN THE ORIGINAL BID PROPOSAL, NO EXTRAS WILL BE ALLOWED FOR THIS PROCEDURE.
- 14. COORDINATE LOCATION OF ALL EQUIPMENT WITH EXISTING CONDITIONS, RELOCATE AS NECESSARY,
- 15. WIRE, CONNECT AND ENERGIZE ALL DEVICES AS REQUIRED.
- 16. WHERE CONCEALMENT IS NOT POSSIBLE, PAINT NEW CONDUITS TO MATCH EXISTING FINISHES.
- 17. ALL FIXTURES EXCEPT TYPE G SHALL BE U.L. LISTED FOR "WET LOCATION".

05-06-2010 ENGINEER'S SEAL & SIGNATURE

> ABBREVIATIONS (2 OF 2) SYMBOLS, NOTES LIGHTING S AND

OF COLI SA. RENOVATION OF DECK & PARKING DISTRICT CAMPUS, AESS ₹ AN

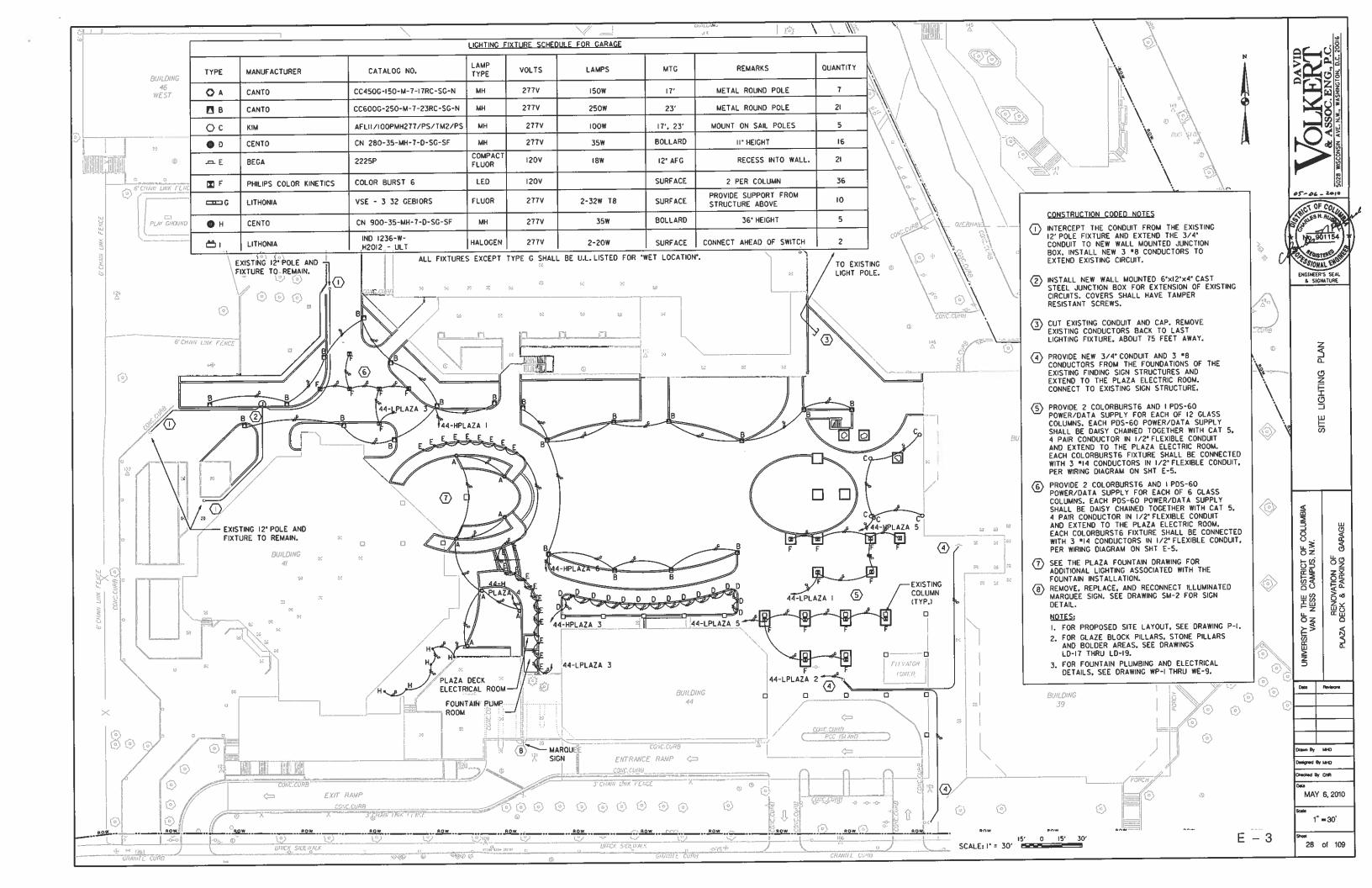
Oate Revisions eligned By MHD eclad By CNR

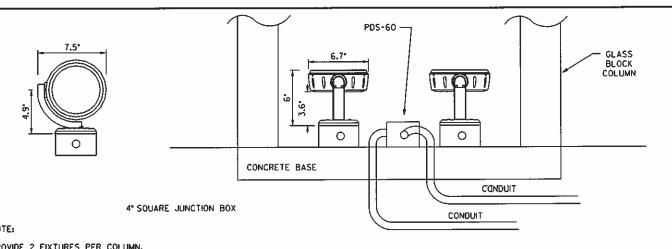
MAY 6, 2010

NONE

27 of 109

E-2





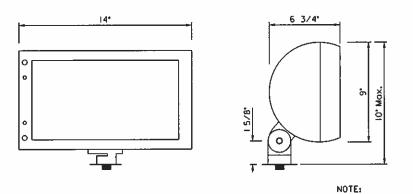
NOTE:

- I. PROVIDE 2 FIXTURES PER COLUMN.
- 2. SEE COLOR BURST 6 WIRING DIAGRAM, SHEET E-5.

MOUNT 4' SQUARE JUNCTION BOX TO FLOOR.
MOUNT COLORBURST FIXTURE TO JUNCTION BOX.
STUB UP CONDUIT THROUGH CONCRETE BASE.
CONNECT TO PDS-60 WITH FLEXIBLE CONDUIT.

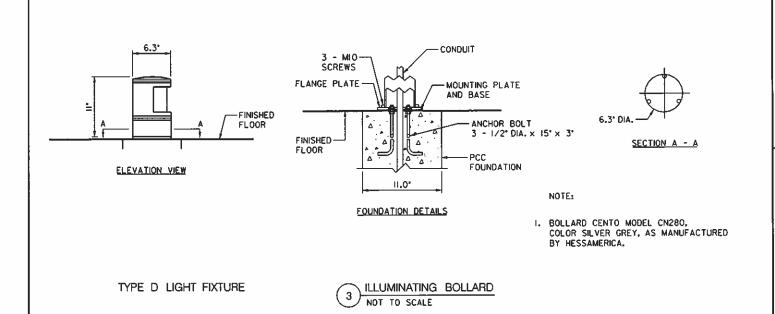
GLASS BLOCK COLUMN LUMINAIRE NOT TO SCALE

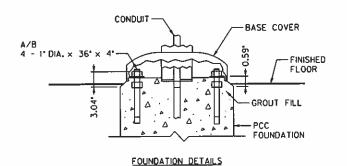
TYPE F LIGHT FIXTURE

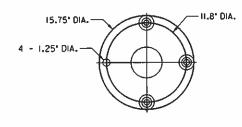


TYPE C LIGHT FIXTURE

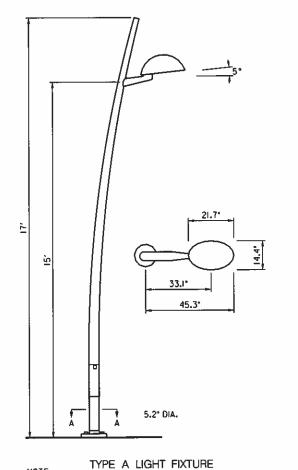
- SAIL LIGHTS NOT TO SCALE
- I. PROVIDE ALL HARDWARE FOR MOUNTING ON SAIL POLES.
- 2. USE KIM LIGHTING CATALOG NO. SPT, SIDE POLE MOUNT TENON FOR ROUND POLE.
- 3. SEE DETAIL I. BAKER DWG LD-15.







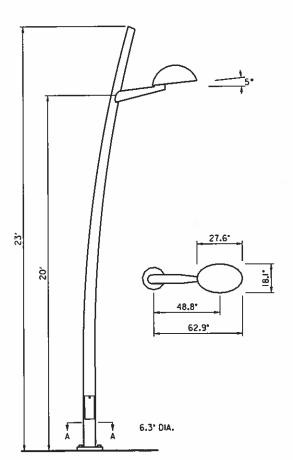
SECTION A - A

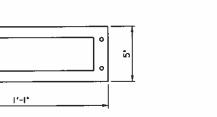


TYPE B LIGHT FIXTURE NOTE:

- I. LIGHT POLE MODEL CANTO CC600G, COLOR SILVER GREY, AS MANUFACTURED BY HESSAMERICA.
- 2. SEE DETAIL 4. BAKER DWG LD-13.

23' POLE MOUNTED LUMINAIRE NOT TO SCALE





TYPE E LIGHT FIXTURE

NOTE:

1. BEGA RECESSED WALL LUMINAIRE 2225 P.

I. LIGHT POLE MODEL CANTO CC450G.

2. SEE DETAIL 4, BAKER DWG LD-13.

NOT TO SCALE

BY HESSAMERICA.

COLOR SILVER GREY, AS MANUFACTURED

17' POLE MOUNTED LUMINAIRE

2. SEE DETAIL I, BAKER DWG. LD-13.

RECESSED WALL LUMINAIRE

NOT TO SCALE

E - 4

UNIVERSITY OF THE DISTRICT OF COLUMBIA VAN NESS CAMPUS, N.W. HENOVATION OF DECK & PARKING G Date Revelons

AND

NOTES

LIGHTING

GARAGE

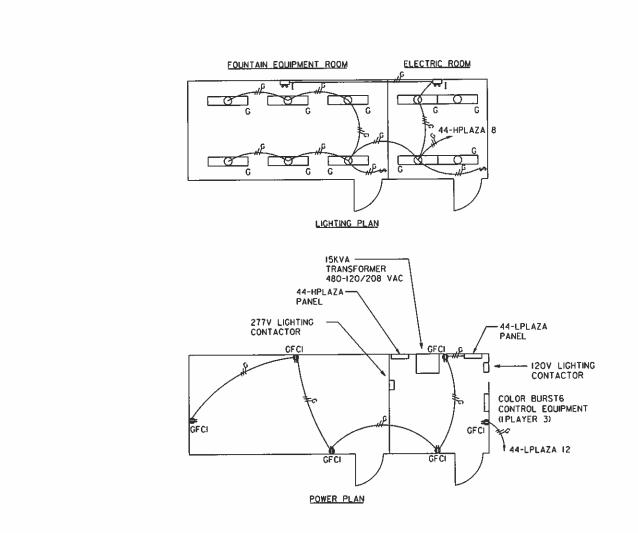
MAY 6, 2010 NONE

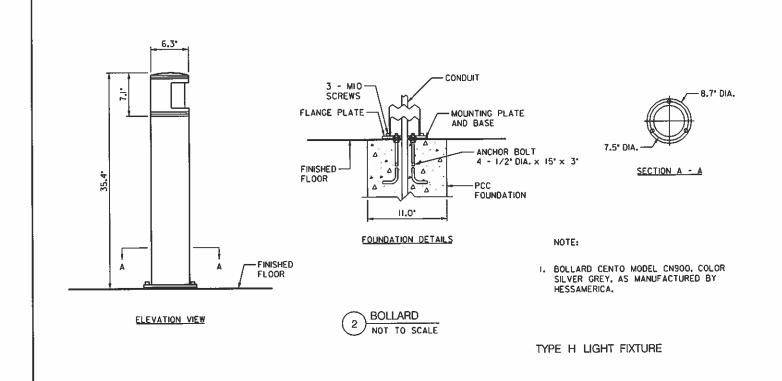
Drawn By MHD

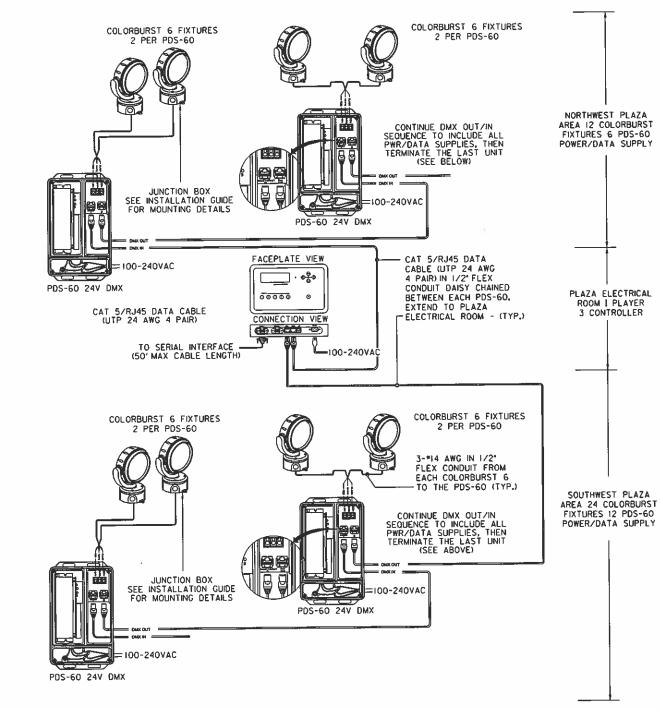
esigned By MHD

vectors By CNR

29 of 109







NOTES:

- 1. PDS-60 SHALL BE INSTALLED IN BASE OF EACH GLASS COLUMN.
- ALL FLEXIBLE CONDUIT, POWER CABLE, CONTROL CABLE, JUNCTION BOXES, 18 PDS-60 POWER/DATA SUPPLY SHALL BE INCLUDED IN THE PRICE OF THE COLORBURST 6 FIXTURES.
- 3. ALL 36 COLORBURST 6 FIXTURES SHALL BE CONTROLLED BY THE I-PLAYER 3 LOCATED IN THE PLAZA ELECTRIC ROOM.

COLOR BURST 6 WIRING DIAGRAM (TYP)
NOT TO SCALE

ELECTRIC ROOM LAYOUT AND DETAILS STATES TO SELECT STATES

UNIVERSITY OF THE DISTRICT OF COLUME
VAN NESS CAMPUS, N.W.
RENOVATION OF
PLAZA DECK & PARKING GARAGE

Drawn By MHO
Designed By MHO
Designed By MHO
Designed By CNR
Date
MAY 6, 2010

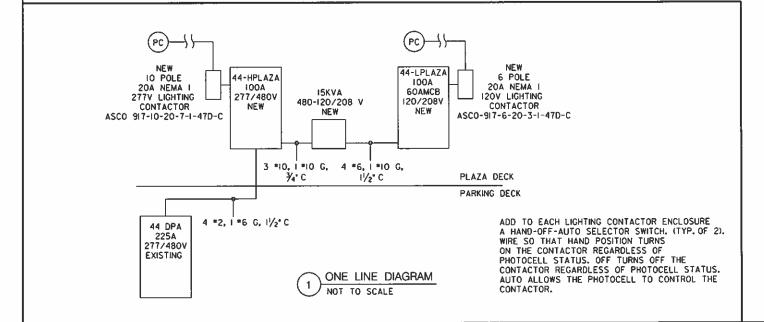
NONE

30 of 109

E - 5

MATERIA DOMANU CATE CATE COMPANY MATERIA	
	A.I.C.: 30K
DESCRIPTION WIRING COND KVA BRANCH DXT BRANCH NO. ABC 0XT BRANCH NO. BRANCH N	G: SURFACE
	RIPTION
PANEL '41-HG-2A 4*2, 1*6G 11/4* 18.9 3/100 3 1 1 1 2 3/100 SPARE	
ADD BREAKER. FOUNTAIN 4=1/0, 1=6G 2 22.8 3/150 9 10 3/20 SPARE	
SPARE 3/20 13 - 14 3/20 SPARE	
SPACE	
SUBTOTALS: 41.7 38.2 40.4 SUBTOTALS:	
"A" PHASE TOTAL: 41.7 B" PHASE TOTAL: 38.2 C" PHASE TOTAL: 38.2	
TOTAL LOAD: 120.3 KVA AT 1.73 × 480V VOLTS, 3 PHASE# WIRE 144.86AMPS LOCATED IN BUILDING 41 BA	<u>ŞEMENT</u>
HIGH PHASE: 41.7 KVA AT 277 VOLTS, I PHASE 150.5 AMPS	
150.5 x 1.25 S.F. = 188.17A -> 225A FEEDER AND MAIN	

150 AMP BREAKER FOR FOUNTAIN EQUIPMENT SHALL BE SHUNT TRIP. CONNECT SHUNT TO THE FLOAT SWITCH PROVIDED WITH THE FOUNTAIN EQUIPMENT. RISING WATER SHALL TRIP THE BREAKER, KILLING POWER TO THE FOUNTAIN EQUIPMENT.



	Г	·					NIENA/	PANI			_	SCHE	רוו נ			MANUE	ACTUD	ER 'SIEMENS' OR 'GE"	
	L						AEAA	PAN	CLD.	UAR	<u> </u>	SUFFE	DOL						_
	Г	PANEL: 44-LPLAZA		LOCA'	TION:	PLAZ	A ELE	ECTRICA	L R	ООМ	FE	EDER: 5				MAINS: 60A		A.I.C.: 65K	
		VOLTAGE: 120/208V		PHASE	E: 3		WIRE:	4W	BUS	SING:	COPF	ER FE	D FR	OM: E	XIST.	PANEL 44-H	PLAZA	MOUNTING: SURFACE	_
	Г	DESCRIPTION	WIRING	COND.	Aø	KVA Bø	Сø	BRANCH BREAKER SIZE	CKT. NO.	ABC	OKT. NO.	BRANCH BREAKER SIZE	K Aø	VA Bø	Cø	WIRING	COND.	DESCRIPTION	
	*	PLAZA LIGHTING	2#8, I=10G	74.	.15	T	İ	1/20	П	1	- 2	1/20	8.			2*8, I*10G	74	PLAZA SIGN	
	*	PLAZA LIGHTING	2*8. I*IOG			.34		1/20	3		- 4	1/20		.45		2*8, I*10G	¥4°	* FOUNTAIN LIGHTING	G GF
	*	PLAZA LIGHTING	2*8, I*10G			_	.15	1/20	5	H	- 6	1/20			.3	2*8, 1*10G	3/4*	* FOUNTAIN LIGHTIN	G GF
GFI	*	FOUNTAIN LIGHTING	2*10, 1*100		.6			1/20	7		- 8	1/20						SPARE	
GFI	*	FOUNTAIN LIGHTING	2*10, 1*10G	¥4°		.6		1/20	9		- 10	1/20		1.0		2"12, 1"120		RECEPTACLE	
GFI	*	FOUNTAIN LIGHTING	2*10, 1*100				.6	1/20	11	-	- 12	1/20			0.2	2"12, 1"2G	<i>¥</i> 4*	COLORBURST CONTR	OL.
• • •	Н	SPACE		1 1				1/	13		- 14	1/					l	SPACE	
	$\vdash$	SPACE						1/	15	Н	- 16	1/						SPACE	
	$\vdash$	SPACE						17	17		- 18	1/						SPACE	_
	Г								l	$\overline{}$	F							<u> </u>	
										$\Box$	-	Γ							_
	Г			Ī						1	F								_
	Г										<u> </u>				<u> </u>	<u> </u>	<u> </u>		_
			SUBT	OTALS:	0.75	0.99	0.75	)			SUB1	OTALS:	0.8	1.45	.5	]			
	17	A' PHASE TOTAL: 1.55			•E	3° PHA	SE T	OTAL: 2				SE TO							
	T	OTAL LOAD: 5.24 K	VA AT√3×2	ОВ								E, 4 WI							
	H	IGH PHASE: 2.44 K	VA AT 120						VOL1	S, I	PHAS	SE	AMPS	20.3	ļ				_
		20.3 x l.:	25 S.F. = 25	.4l <del>-&gt;</del>	OA P	ANEL	AND	FEEDE	R						<u> </u>				
	*	CIRCUIT SHALL BE VI	A 10 POLE	LIGHTIN	G CO	NTAC	TOR												

\* CIRCUIT SHALL BE VIA 10 POLE LIGHTING CONTACTOR

GFI - INDICATES GROUND FAULT INTERRUPTER BREAKER

		_															
NEW PANELBOARD SCHEDULE MANUFACTURER 'SIEMENS' OR "GE"																	
PANEL: 44-HPLAZA		LOCATION: PLAZA ELECTRICAL ROOM   FEEDER: SEE RISER									MAINS: 100A MLO A.I.C.: 65K						
VOLTAGE: 277/480V		PHASE	: 3		WIRE:	4W	3US:	SING:	COP	PER FE	D FR	OM: E	KIST.	PANEL	44-D	PA	MOUNTING: SURFACE
DESCRIPTION	WIRING	COND.	Aø	KVA Bø	Cø	BRANCH BREAKER SIZE	CXT. NO.	ΑВ	C K	BRANCH BREAKER SIZE	K Aø	VA Bø	Çø	WIR	ING	COND.	DESCRIPTION
* PLAZA LIGHTING	2#8, I=10G	- <del>/</del> 4"	2.9			1/20	Τ	Ŧ	+ 2	1/20	Т			2*8,	1#10G	. ¥4°	* JOALE
* PLAZA LIGHTING	2=8, 1*10G	Y4*		.86		1/20	3	$\mp$	4	1/20		1.7		2*8,	1*10G		* PLAZA LIGHTING
* PLAZA LIGHTING	2*8, 1*10G	<i>y</i> <sub>4</sub> .			.65	1/20	5	1	- 6	1/20			3.2	-	1*10G		# PLAZA LIGHTING
-			5			3 /	7	++	- 8	1/20		.25		2*8,	1*10G	<i>¥</i> •	EL. RM. & EM. LITES
15 KVA TRANSFORMER	3#8, 1*10G	₹4.		5		/	9	+	+ 10	1/20	L					<u> </u>	SPARE
				<u> </u>	5	/ 40	Ш	++	+ 12	1/20	ļ						SPARE
SPACE			<u> </u>			-17	13	++	+ 14	1/	1	L					SPACE
SPACE						- 17	15	++	+ 16	1/	ļ						SPACE
SPACE			<u> </u>			-17	17		18	1/							SPACE
		1						+	<u> </u>								
								1	#								ļ
				i				+	<u>+1_</u>	J	<u> </u>			<u>L</u>			<u>                                     </u>
	SUBTO	TALS:	7.9	5.86	5.65				SUB	TOTALS	0	1.95	3.2	]			
'A' PHASE TOTAL: 7.9			[*B	PHA	SE T	TAL:			_	ASE TO							
TOTAL LOAD: 24.56 K	VA AT√3×48	BOV				VC	LTS	, 3 1	PHAS		<b>29.54</b>						
	VA AT 277								PHA	SE	AMPS	31.94	<u> </u>				
31,94 × 1.25 S.F. = 39.93 → 100A PANEL AND FEEDER																	

\* CIRCUIT SHALL BE VIA 6 POLE LIGHTING CONTACTOR

& ASSOC. ENG., P.C.

STORATURE

LIGHTING PANEL SCHEDULES AND ONE-LINE DIAGRAM

UNIVERSITY OF THE DISTRICT OF COLUMBIA
VAN NESS CAMPUS, N.W.

RENOVATION OF
PLAZA DECK & PARKING GARAGE

Deta Revisions

Detain By MHD

Designos By MHD

Checked By CNR

MAY 6, 2010

NONE 31 of 109

E-6