- . ALL UNIT BATTERIES SHALL BE NSTALL PER LOCAL AUTHORITY EM CODE AND IN COMPLIANCE WITH LOCAL INSPECTOR.
- . ALL UNIT BATTERIES SHALL BE LABELED AS EMERGENCY LIGHT NG EQU PMENT. INDIVIDUAL UNIT EQUIPMENT FOR CODE REQUIRED
- STANDBY EMERGENCY LLUMINATION SHALL CONSIST OF:
- A RECHARGEABLE BATTERY
- A BATTERY CHARGING MEANS PROVISIONS FOR FOR ONE OR MORE LAMPS
- A RELAY DEVICE TO AUTOMATICALLY ENERGIZE LAMPS UPON FAILURE OF THE SUPPLY TO THE UNIT EQUIPMENT
- A PILOT LIGHT TO INDICATE SUPPLY FROM NORMAL SOURCE AND A PLOT LIGHT OR METER TO INDICATE THE BATTERY IS CHARGING. IT IS NOT PERMITTED FOR THIS PILOT LIGHT TO MARKED "READY" TO NDICATE POWER IS AVAILABLE.
- UNIT EQU PMENT SHALL BE PERMANENTLY FIXED IN PLACE
- AND SUPPLIED BY HARD WIRE.
- THE BRANCH CIRCUIT FEEDING THE UNIT EQUIPMENT SHALL BE THE SAME BRANCH CIRCUIT AS THAT SERVING THE NIGHT LIGHT NG ILLUMINATION IN THE AREA.

GENERAL NOTES

- A. LIGHTING AND EQUIPMENT BRANCH CIRCUIT BREAKERS SHALL BE SERIES RATED WITH REMOTE MAIN BREAKERS ALL IN ACCORDANCE WITH UL 489.
- B. PANELBOARD COMPONENTS INCLUDING OVERCURRENT PROTECTION DEVICES SHALL BE FULLY RATED FOR THE AVAILABLE FAULT CURRENT, ELECTRICAL SHALL VERIFY AVAILABLE FAULT CURRENT WITH LOCAL POWER COMPANY ENGINEER.
- C. PER LOCAL AUTHORITY, PROVIDE IDENTIFICATION AT ENCLOSURE OF PANELBOARDS WHERE BREAKERS ARE APPLIED IN SERIES COMBINATION, STATING: "CAUTION SERIES RATED SYSTEM. AMPS AVAILABLE. IDENTIFIED REPLACEMENT COMPONENTS REQUIRED." CONTRACTOR TO FILL IN BLANK WITH AVAILABLE FAULT CURRENT AS PROVIDED BY POWER COMPANY.
- D. PER LOCAL AUTHORITY, PROVIDE IDENTIFICATION AT EACH DISCONNECTING MEANS FEEDING DOWNSTREAM DEVICES APPLIED IN SERIES COMBINATION, STATING: "CAUTION -SERIES RATED DEVICES ARE FEED FROM THIS REMOTE MAIN. _____AMPS AVAILABLE. IDENTIFIED REPLACEMENT COMPONENTS REQUIRED." CONTRACTOR TO FILL IN BLANK WITH AVAILABLE FAULT CURRENT AS PROVIDED BY POWER COMPANY.
- E. NO DESIGN CHANGES MAY BE MADE TO THE SYSTEM WITHOUT PRIOR WRITTEN APPROVAL OF THE OWNER AND THE ELECTRICAL INSPECTOR.
- F. A.I.C. RATING SHOWN AT PANELBOARD IS THE MINIMUM RATING FOR OVERCURRENT PROTECTION DEVICES. EACH DEVICE SHALL BE FULLY RATED OR SERIES RATED WITH UPSTREAM DEVICES AT AFC AS SHOWN ON PANEL SCHEDULES.
- G. ELECTRICAL BOXES AND/OR CONDUIT INSTALLED IN SUSPENDED CEILINGS SHALL NOT EXCEED 100 CUBIC INCHES IN SIZE, AND THEY SHALL EITHER BE FASTENED TO THE FRAME MEMBERS BY BOLTS, SCREWS, RIVETS, OR APPROVED CLIPS, OR SECURED TO THE CEILING SUPPORT.

ELECTRICAL BIDDERS NOTES:

A. EXISTING CONDITIONS SHALL BE VERIFIED IN FIELD BEFORE SUBMITTING BID. CONTRACTOR SHALL ADJUST FOR ACTUAL FIELD CONDITIONS AT NO ADDITIONAL COST TO THE OWNER.

B. CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH ALL TRADES WORK PRIOR TO BIDDING AND START OF WORK. CONTRACTOR IS

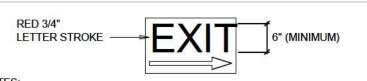
RESPONSIBLE TO COORDINATE AS REQUIRED FOR INSTALLATION OF NEW WORK AND IN COMPLIANCE WITH NEC CODES. C. MAINTAIN CONTINUITY OF ALL NEW CIRCUITS AS NEEDED TO PROVIDE POWER/LIGHTING TO DEVICES BEING USED AS TEMPORARY

D. SEE ADDITIONAL SHEETS FROM CIVIL/ARCHITECTURAL MECHANICAL PLANS AND COORDINATION WITH NEW WORK REQUIRED UNDER BASE BID. E. PROVIDE CADDY ADJUSTABLE FAR SIDE SUPPORTS OR EQUIVALENT ON ALL ELECTRICAL BOXES IN THE WALLS TO ASSURE TIGHT FITTING, SECURE BOXES. SECTION 21.107(A)(8).

F. ALL ELECTRICAL WORK SHALL COMPLY WITH ADOPTED AMENDMENTS OF THE LOCAL AUTHORITY AND THE NATIONAL ELECTRICAL CODE.

- G. THE USE OF ALUMINUM SHALL NOT BE ACCEPTED IN ANY FORM.
- H. CONDUIT RUN UNDER THE ROOF SHALL COMPLY WITH NEC 300.14 (E).
- I. GARVIN COVER OUTLETS SHALL HAVE A BONDING JUMPER INSTALLED TO BOX.
- J. MOGUL L.B. SHALL BE USED FOR ALL CONDUCTORS LARGER THAN #8.
- K. NO TANDEM, BUDDY, DUPLEX, PIGGYBACK CIRCUIT BREAKERS.
- L. ALL CONDUIT SYSTEMS AND RACEWAYS AND ETC. SHALL HAVE A GREEN GROUNDING CONDUCTOR PER NEC 250.122.
- M. FLEXIBLE METAL CONDUIT, TYPE FMC, IS PERMITED ONLY FOR INDOOR USE AND LIMITED TO A MAXIMUM OF 6'-0" IN LENGTH. N. WIRE TERMINATED ON RECEPTACLES OR SWITCHES SHALL BE UNDER THE SCREW OF DEVICE. BACKSTABBING NOT ALLOWED.
- O. ALL VOLTAGE OVER 24 VOLTS SHALL BE IN CONDUIT WHERE NOT ACCESSIBLE.

	— CANOPY FOR CEIL NG MOUNT WITH PEDANT OPTION.
12.25"	4 5" (WITH POWER PACK)
EXIT	<u></u>
NOTE: D MENSIONS MAY VARY WITH MANUFACTURER.	2 5/16" W DE



- 1. EXIT SIGNS SHALL BE CONNECTED TO A UNSWITCHED FUSED C RCUIT 2. EMERGENCY LIGHTS TO BE UL LISTED, WITH METAL HEADS.
- 3. EMERGENCY AND EXIT LIGHTS TO CARRY LOAD M N MUM 1.5 HOURS.
- AS PER ARTICLE 700 AND AS REQUIRED BY THE VILLAGE. 4. EXIT LIGHTING HEIGHT NOT TO EXCEED 12" ABOVE THE EGRESS DOOR OR EXIT
- 5. CIRCUIT FEED NG EXIT SIGN SHALL HAVE A LOCK-OUT DEVICE. 6. E.C. SHALL VERIFY MOUNT NG HEIGHTS OF EMERGENCY AND EXIT FIXTURES

EXIT SIGN DETAIL

DESCRIPTION

SINGLE FACE

STAIR(S) / STAIRWAY

SCALE: NONE

CODE NO

WITH THE LOCAL INSPECTOR (S) PRIOR TO INSTALLATION.

).	DESCR PTION DOUBLE FACE		CODE NO.	DESCRIPT SINGLE FA	
Ī	SHOW THE FACES WITH THE PROPER ANGLE OF		41	FIRE ESCAPE	
ı	THE FACE AND FACE NUMBER (1,2,3)		2	STAIR(S) / STA	
۱	FIRE ESCAPE		3	EXIT	
ı	STAIR (S)		4	FIRE ESCAPE	
ı	EXIT		5	STAIR (S)	
ı	FIRE ESCAPE		6	EXIT	
ı	STAIR (S)		7	FIRE ESCAPE	
ı	EXIT		8	STAIR (S)	
ı	FIRE ESCAPE		9	EXIT	
ı	STAIR (S)		10	FIRE ESCAPE	
ı	EXIT		11	STAIR (S)	
1			12	FXIT	

EXIT SIGN SYMBOLS N NEW FIXTURES EXISTING FIXTURES CG (C) CHANGE GLASS IN EXISTING FIXTURES CF CHANGE EXISTING FIXTURES V EW NG SIDE OF FIXTURES SIGN NUMBER
(FOR ALL SIGNS IN ADDITION TO ABOVE)

CODE COMPLIANCE:

IT SHALL BE THE RESPONSIBILITY OF ELECTRICAL TRADE TO INSTALL SYSTEM COMPONENTS AS NOTED HEREIN IN COMPLIANCE WITH THE LATEST LOCAL ELECTRICAL CODE. INSTALL REFERENCE POINTS PER DRAWINGS IF IT SUPERSEDES THE CODE, WHICH EVER IS GREATER.

IT SHALL BE THE RESPONSIBILITY OF ELECTRICAL TRADE TO INSTALL COMPLETE ADDRESS AND/OR SUITE NUMBERS OF A MINIMUM 1" PERMANENT NUMBERS AND LETTER LABELS AT METER. BROWN OR BLACK

		NG FIXTURE SCHEDULE" will be provided or, tems to be Direct Order. No Substitutes.	LIGHTING	FIXT	URE SCH	HEDULE			
-3	1 <u>f</u>				LAMP LUMENS PER SECTION ICC 505 6.1		84		
SYMBOL	TYPE	MANUFACTURE/CATALOG NUMBER	LAMPS	WATT	REQUIRED	ACTUAL	VOLTAGE	MOUNTING	DESCRIPTION
_0-	F1	Metalux SSF-232-UNV-U	2-T832-SP35	64	N A.	N A.	120	SURFACE	1'X4' 2 lamp Strip fixture installed at structure, used for temp security lighting. To be removed at later date.
	XR	Sure-lites APCH7R Series - Red Letters Dual Voltage (IFC 1003.2.10 5)	LED	3	N A.	N A.	120	UNIVERSAL (WALL/ CLG.) SINGLE OR DOUBLE FACED	Backup Batteries shall maintain 100% illumination for minimum 90 minutes to comply with article 700.12 of the NEC. Remote Capable w/ exterior light
) M	F3	Sure-lites APEL Dual Voltage (IFC 1003.2.10 5)	LED	1	N A.	N A.	120	UNIVERSAL (WALL/ CLG.)	Backup Batteries shall maintain 100% illumination for minimum 90 minutes to comply with article 700.12 of the NEC.
ф	F4	LSI: XWM-FT-LED-06-40-UE-BRZ	LED	59	N.A.	6058	120	EXTERIOR SURFACE	Exterior wall mounted fixtures, provide back boxes. See architectural for elevations.
∞	RH2	Sure-lites APWR2 Dual Voltage (IFC 1003.2.10 5)	LED REMOTE HEADS	0	N A.	N A.	120	EXTERIOR SURFACE	Powered by Emergency "XR" fixture. illumination for minimum 90 minutes to comply with article 700.12 of the NEC.
ф	WP1	LSI: XWM-FT-LED-06-40-UE-BRZ	LED	59	N.A.	6058	120	EXTERIOR SURFACE	Full Cut-Off. Mount 12' aff to center line of fixture. See architectural for elevations.
					E-characteristics and a	A DESCRIPTION OF THE PROPERTY.	company the contract and the contract an		· · · · · · · · · · · · · · · · · · ·

LIGHTING FIXTURE SCHEDULE/ INSTALLATION GENERAL NOTING:

- Furnish and install complete systems, including lighting fixtures lamps, switches, mounting facili ies, wiring control equipment and other required accessories
- The fixture catalog numbers listed on the schedule indicate the manufacturer, fixture design, appearance and performance desired. Verify the ceiling system and coordinate
- the lighting fixture trim and support requirements. These fixtures shall be modified as necessary to comply with the drawing and specification requirements.
- 3 Fixtures shall bear the UL label and shall be wired and installed in full compliance with all applicable codes. 4 All fluorescent fixtures shall have energy saving ballasts and lamps.
- 5 All exit signs and battery operated emergency lighting units shall be modified as required for local code requirements
- 6 Verify all fixture locations before roughing-in. 7 Where air handling fixtures are shown, they shall be furnished and installed in coordina ion with the mechanical trades.
- 8 Fixtures intended to be install in air plenums are to be approves for such installation. Coordinate with he mechanical drawings and specifications.
- 9 Not used.

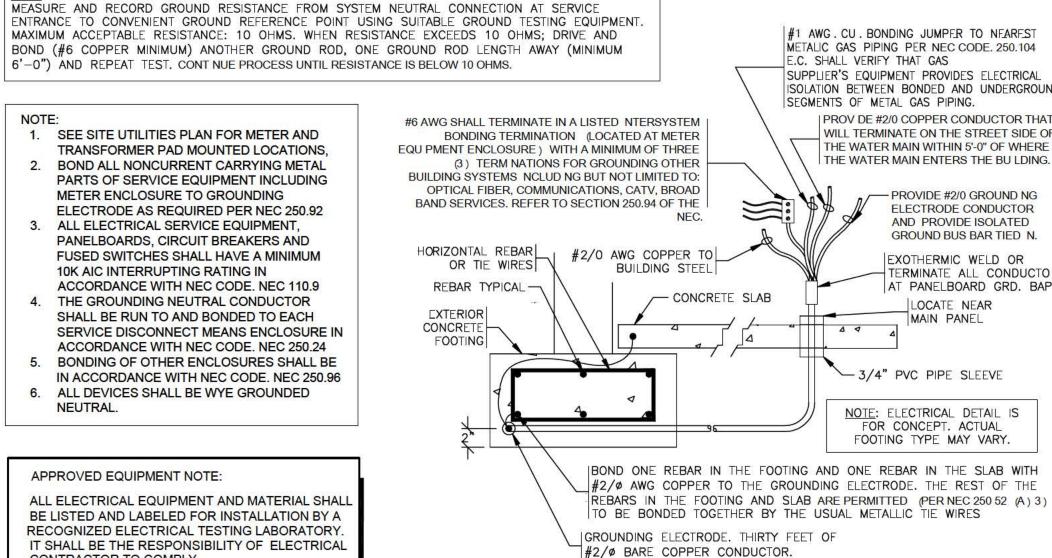
NOTE: GROUNDING ELECTRODE TEST

APPROVED EQUIPMENT NOTE:

CONTRACTOR TO COMPLY.

- 10 Lighting fixtures and raceways shall be installed per local code, Means of Support.
- 11 All cable routed in ceiling to be neatly attached to cable hangers attached to building, not the ceiling.
- 12 Emergency lighting and exit signs shall be battery back-up type. Said equipment shall be spaced and located throughout all occupied spaces to meet applicable codes and are 13 subject to the approval of the Fire Protection District of authority. In the event of a power supply supply failure, the exit signs and emergency means of egress lighting shall provide power for a duration of not less than 90 minutes.
- 14 The wattage for screw lamp holders shall be the maximum labeled wattage of the luminaries per IECC 505.1.1

15 The wattage for Low-Voltage Lighting shall be the specified wattage of the transformer supplying the system per IECC 505.5.1.2



ISOLATION BETWEEN BONDED AND UNDERGROUN PROV DE #2/0 COPPER CONDUCTOR THAT WILL TERMINATE ON THE STREET SIDE OF TERMINATE ALL CONDUCTO AT PANELBOARD GRD. BAP

SCALE: NONE

GROUNDING DETAIL

EF E E E E WH E GFI G G GND G HID H IG IS J-BOX JU kcmil 10 kV K kVA K	INTERCE CURRENT XHAUST FAN ILECTRIC WATER HEATER IROUND FAULT CIRCUIT INTERRUPTER IROUND IGH INTENSITY DISCHARGE IORSEPOWER ISOLATED GROUND UNCTION BOX 11LOVOLT ILLOVOLT ILLOVOLT ILLOWATT INTERCET CURRENT MANUFACTURER'S ASSOCIATION OC ON CENTER PH PHASE RLA RUNNING LOAD AMPS RTU ROOFTOP UNIT TYP TYPICAL V VOLT VA VOLT-AMPERE W WATT WP WEATHERPROOF XFMR TRANSFORMER						
	ELECTRICAL LEGEND						
F_1	RECESSED MOUNTED FLUORESCENT LIGHTING FIXTURE LETTER DENOTES TYPE, NUMBER DENOTES CIRCUIT						
0	CEILING MOUNTED INCANDESCENT OR HID LIGHTING FIXTURE						
⊗l	EXIT LIGHT						
S S ₃ S _P S ₈ S ₀₈	20A, 120/277V, SINGLE POLE TOGGLE SWITCH, "3" INDICATES 3 WAY, "P" INDICATES PILOT LIGHT,"M" INDICATES MOTOR RATED, "OS" INDICATES OCCUPANCY SENSOR (HUBBELL #AT1277W1). MOUNTED AT 48" AFF UNLESS OTHERWISE NOTED. DEVICE						
	AND COVERPLATE TO BE IVORY. SWITCHBOARD OR PANELBOARD						
T	LOW VOLTAGE CONTROL TRANSFORMER						
①	J-BOX - WALL, CEILING						
∯ _{GFI} WP IG	20 A, 125V, 2P, 3W GROUNDING DUPLEX WALL RECEPTACLE "GFI" INDICATES GROUND FAULT INTERRUPTING, "WP INDICATES WEATHER PROOF, "IG" INDICATES ISOLATED GROUND. DEVICES AND COVERPLATE SHALL BE IVORY.						
φ	20A, 125V DOUBLE DUPLEX RECEPTACLE, DEVICES AND COVERPLATE (IVORY), 15A NOT ACCEPTABLE						
 	20A, 125V QUAD RECEPTACLE, DEVICES AND COVERPLATE (IVORY), 15A NOT ACCEPTABLE						
P₽	DEDICATED RECEPTACLE DIRECT TO CIRCUIT BREAKER 20AMP-125V. (NEMA 15-5) GROUNDING TYPE DUPLEX RECEPTACLE, FLUSH MOUNTED 18" ABOVE FINISHED FLOOF UNLESS OTHERWISE NOTED.						
9	MOTOR - HORSEPOWER, VOLTAGE AND PHASE AS NOTED ON DRAWINGS						
	DISCONNECT SWITCH - SIZE AS NOTED ON DRAWINGS. (RATING/POLES/FUSE SIZE, "NF" INDICATES NON FUSED DISCONNECT)						
\boxtimes	MAGNETIC MOTOR STARTER - SIZE AS NOTED ON DRAWINGS						
Ţ	DOOR BUZZER/TRANSFORMER - EDWARDS CATALOG NUMBER 725/598 ON SINGLE GANG SURFACE BOX						
0	WEATHERPROOF PUSHBUTTON STATION - EDWARDS CATALOG NUMBER 1786-B						
	CONDUIT - CONCEALED ABOVE CEILINGS, IN WALLS IN FINISHED AREAS, OR EXPOSED IN UNFINISHED AREAS.						
<i>,</i> \	CONDUIT - IN OR BELOW FLOOR SLAB OR BELOW FINISHED GRADE						
	CONDUIT HOMERUN TO PANEL - #12 OR SIZE AS INDICATED (GROUND NOT SHOWN BUT REQUIRED). UNLESS OTHERWISE NOTED, 2-#12,1-#12 G						
Â	TELEPHONE OUTLET. PROVIDE 4"X4" BOX, PLASTER RING AND 1" CONDUIT TO ROOF JOIST SPACE.						
₹	DATA,TIME/ATTENDANCE OUTLET. PROVIDE 4"X4" BOX, PLASTER RING AND 1" CONDUIT TO ROOF JOIST SPACE						
Ŧ	TEMPERATURE SENSOR, HONEYWELL TB8220 COMMERICAL VISIONPRO MOUNTED AT 60" AFF. BY ELECTRICAL						
(SD)	DUCT SMOKE DETECTOR						
GROUND —	NEUTRAL HOMERUN CIRCUIT						

ELECTRICAL ABBREVIATIONS

MCA

MCB

AMP. AMPERE

ALTERNATING CURRENT

ABOVE FINISHED FLOOR

AMPERE INTERRUPTING

AMERICAN WIRE GAUGE

CEILING UNIT HEATER

KILOWATT-HOUR

METAL HAL DE

NEC NATIONAL ELECTRICAL

CODE

MAIN LUGS ONLY

LIGHTING

LOCKED ROTOR AMPS

MAIN CIRCUIT BREAKER

MINIMUM CIRCUIT AMPACITY

REVISIONS

INSTALLATION NOTES:

1. PROVIDE A METAL IDENTIFICATION IS INSTALLED WHERE THE GROUNDING CONDUCTOR IS CONNECTED TO
THE GROUND ELECTRODE WITH A APPROVED GROUND STRAP. PROVIDE TAG AND OR STRAP AS REQUIRED
UNDER BASE BID. ALL GROUNDING ELECTRICAL CONDUCTORS SHALL BE INSTALLED IN ELECTRICAL METALLIC
TUBING OR RIGID HEAVY WALL CONDUIT.

2. PROVIDE A JUMPER ACROSS THE WATER MAIN PER LOCAL REQUIREMENTS. PROVIDE AS REQUIRED UNDER

3. BONDING BUSHINGS SHALL BE INSTALLED ON ALL SERVICES.

4. FURNISH AND INSTALL NEW POWER PANEL BRANCH SERVICE FEEDERS AS NOTED ON PLANS. FEEDERS SHALL BE INSTALLED IN COMPLIANCE WITH THE LOCAL AUTHORITY. EXTEND TO BREAKERS AS REQUIRED. ALL VOLTAGE OVER 24 MUST BE INSTALLED IN CONDUIT.

5. VERIFY AND MAINTAIN A MINIMUM OF 36" CLEAR IN FRONT AND AND EXTENDING THE WITH OF THE PANEL OR 30" HORIZONTALLY. ALL PER THE LOCAL AUTHORITY.

6. ALL POWER CIRCUITS SHALL BE IN EMT CONDUIT, UNLESS OTHERWISE NOTED. NO MORE THAN 6 RECEPTACLES ON ANY NEW CIRCUIT OR AS NOTED ON PLANS. CIRCUITS SHALL NOT SHARE A NEUTRAL. EC SHALL ADJUST FEEDER AS REQUIRED.

7. IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO PROVIDE PROPER GROUNDING THROUGH SEALTIGHT OR FLEX TO POWER PANEL GROUNDING CONDUCTOR (E.G.C.)

8. PANEL CIRCUIT NUMBER AND OR HOMERUNS SHOWN ARE INTENDED TO BE A COMPLETED OPERATIONAL CIRCUIT. EXTEND CIRCUIT TO ASSOCIATED PANEL AND MAKE FINAL CONNECTION AS REQUIRED. ELECTRICAL SHALL VERIFY FIELD CONDITIONS AND INCLUDE IN THERE BID.

11. EMERGENCY LIGHTING SHALL BE BATTERY BACK-UP TYPE. SAID EQUIPMENT SHALL BE FURNISHED AND INSTALLED BY EC. PROVIDE ALL REQUIRED WIRE CIRCUIT/ CONTROL FEEDERS. BATTERY BACKUP SHALL BE CAPABLE OF CARRYING THE LOAD FOR 90 MINUTES. EXIT AND EMERGENCY LIGHTING SHALL BE VERIFIED IN FIELD TO COMPLY WITH LOCAL AUTHORITY.

11. ANY AND ALL RESPONSIBILITY CONFLICTS NOTED WITHIN THE ELECTRICAL PLANS AND SPECIFICATION SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO FURNISH AND INSTALL THE GREATER OF THE CONFLICTS AND SHALL BE INCLUDED IN THE BASE BID PRICE.

