

LEG	END			DRAV
DRAWIN	G SYMBOLS			A
ROOM NAME XXXXXX X	ROOM NAME/NUMBER EXISTING COLUMN CENTERLINE	001 CR - 3	MEDICAL EQUIPMENT	AB AD AC ACT ADD ADD'L
(x)	- COLUMN CENTERLINE	BG	BUMPER RAIL	ADJ AFF AGGR AL ALUM ALT
X	ACCESSORY	HR	HAND RAIL BED LOCATOR	ANOD APPROX BRCH
	DEMOLITION NUMBERED NOTES		WALL PROTECTION	B.M. BD BETW BF
01 A0.X	BUILDING WALL SECTION		CUBICLE CURTAIN TRACK	BG BL BL BLDG BLKG
A2.01	ELEVATION	$ \begin{array}{c} A3 \\ \hline \\ A3 \\ \hline \\ A3 \\ \hline \\ A3 \\ \hline \\ AAA \\ \hline \\ AAA \\ AAA \\ \hline \\ AAA \\ AAA \\ \hline \\ AAA $	PARTITION TYPE WITH NO SOUND ATTENUATION PARTITION TYPE WITH	BM BOT BR BRG BSMT BU ROD BUR
01 A0.X	SECTION DETAIL		BUILDING EXPANSION	C C CDR CEM
	PLAN, BLOW-UP DETAIL		CMU WALL	CER CG CIP CJ CL
$\diamond$	INTERIOR ELEVATION		NEW WALL	CL CLG CLR CMU
	DIRECTION INDICATOR			COL COMM CONC CONN CONST
$\bigvee_{\mid}$	EDGE OF SLAB		2 HOUR FIRE WALL	CONT COORD CPE POLYETHYLENE COOR
▼ I	FACE OF BUILDING		4 HOUR FIRE WALL NON-RATED SMOKE WALL	CR CR CSK CT CTD
+9'-0"	CEILING HEIGHT	7	1 HOUR SMOKE WALL	
<u>_</u>	MEDICAL GAS		2 HOUR SMOKE WALL 1 HOUR SHAFT WALL 2 HOUR SHAFT WALL	DET DIA DIAPH DIM DJ DJ
				DN DRG DS DWGS
	ALS			DWLS E
	CONCRETE/ PRECAST CONCRETE SOIL		GYPSUM BOARD	EA EF EIFS EJ EL
	SAND, EIFS FINISH COAT, OR CEMENT PLASTER		EXTERIOR GYPSUM SHEATHING	ELEC ELEV EOS EQ EQUIP ESC
	BRICK CMU		EXTERIOR CEMENT BOARD	EW EWC EXIST EXP BLT FXT
	STONE		COATED GLASS MAT WATER RESISTANT	FD FDN FE FEC CABINET
	FIBERGLASS BATT INSULATION		GYP BD	FF FHC FIB FIN
	FIBERGLASS SEMI RIGID INSULATION		PLYWOOD	FLR FS FT FTG FV
	MINERAL WOOL SEMI RIGID INSULATION		⊥ COVER BOARD	G <sup>C</sup> GA GALV
	EXPANDED POLYSTYRENE RIGID INSULATION			GB GEN GFRC
	EXTRUDED POLYSTYRENE RIGID INSULATION			GI GL GM GND GR
	POLYISOCYANURATE RIGID INSULATION			GRG GYPSUM <b>H</b> <sup>(P BD</sup>

DRAW	ING ADDRE	VIATIO	13
A	ANCHOR BOLT	L	AN
AD AC	AREA DRAIN AIR CONDITIONING	LAV LG	LA
ACT ADD	ACOUSTICAL CEILING TILE ADDENDUM	LKB LL	LO LIV
ADD'L ADJ	ADDITIONAL ADJACENT	LLH LLV	LO LO
AFF AGGR AL ALLIM			LO
ALT ANOD	ALTERNATE ANODIZED		LIC
APPROX RCH	APPROXIMATE ARCHITECTURAL	MAS	MA
в.М.	BENCH MARK	MAT'L MAX	MA MA
3D 3ETW	BOARD BETWEEN	MEON MEMB MEP	ME
3F 3G 3I	BACKFACE BUMPER GUARD BED LOCATOR	MFG	MA
3L BLDG	BUILDING LINE BUILDING	MGO MIN MISC	ME
BLKG BM	BLOCKING BEAM	MO MO MOB	MA
BOT BR BBC	BOTTOM BUMPER RAIL	MOD BIT MOD	MC
BRG BSMT BU ROD		MSL ``⊤L	ME ME
BUR	BUILT-UP ROOF BEARING WALL	NA	NC
		NIC NOA	NC NC
CDR CEM	COMPACT PARKING SPACE CARD READER CEMENT	BY	FL AU
CER CG	CERAMIC CORNER GUARD	NOM NS NTS	NE
CIP CJ	CAST IN PLACE CONTROL JOINT		NC
UJ CL CL G	CONSTRUCTION JOINT CENTER LINE CEILING	0	
CLR CMU	CLEAR CONCRETE MASONRY UNIT	OA OC	OV ON
COL	COLUMN COMMUNICATIONS		
	CONCRETE CONNECTION	OFOI	
CONT COORD	CONSTRUCTION CONTINUOUS COORDINATE	OWNER OH	INS OP
CPE POLYETHYLENE	CHLORINATED	OPNG OPP	OP OP
COOR CR CP	CORRIDOR COLD ROLLED	P	00
CSK CT	COUNTERSUNK CERAMIC TIL F	P LAM PC	PL PR
CTD D <sup>IR</sup>	CENTERED	PCF PCP	PO PO
	CURTAIN WALL DEPTH		PL PE
DBA DET	DEFORMED BAR ANCHOR DETAIL	PL PLUMB	PK PL PI
dia DIAPH DIM		PLYWD PP	PL PU
DJ DL	DEFLECTION JOINT DEAD LOAD	POL PORT CEM	PO PO
DN DRG	DOWN DRAWING	PREFAB PSF	PA PR
DS DWGS DWLS	DOWN SPOUT DRAWINGS	FOOT PSI	PO
E	DOWELS	INCH PT	PO
EA EF	EACH EACH FACE	<b>R</b> <sub>D</sub>	PN PA
EIFS	EXTERIOR INSULATION AND FINISH SYSTEM	R RAD	RIS
EJ EL	EXPANSION JOINT ELEVATION	RAF	RU FL/
ELEC ELEV FOS	ELECTRIC ELEVATOR EDGE OF SLAB	RAU	ME
EQUIP	EQUAL EQUIPMENT	RCP	UN
ESC EW	ESCALATOR EACH WAY	RD REBAR RECP	RC RE
EWC EXIST	ELECTRIC WATER COOLER EXISTING EXPANSION DOLT	REF REINF	RE RE RF
	EXTERIOR	RELOC REQ'D	RE
- FD	FLOOR DRAIN	KFVC RM	RE CA RC
FDN FE	FOUNDATION FIRE EXTINGUISHER	S	RC
CABINET FF	FIRE EXTINGUISHER	SAB	SO
FHC FIB	FIRE HOSE CABINET FIBERGLASS	SBC CODE	BL/ ST/
FIN FLR	FINISH FLOOR	SCHED SDL	SC SU
FS FT FTG	FAR SIDE FOOT FOOTING	LOAD SECT	SE
FV G <sup>′C</sup>	FIELD VERIFY FIRE VALVE CABINET	5/H SHWR SIM	SIN SH
GA	GAUGE	SO SOG	ST SL
GALV GB	GALVANIZED GRADE BEAM	SP SPA	ST
GEN GFRC	GENERAL GLASS-FIBER REINFORCED	SPEC SQ SS	SP SQ ST
GI GL	GALVANIZED IRON GLASS	SSF STA	SO ST
GM GND	GLAZED MASONRY UNIT GROUND	STC	SO
GR GRG	GRADE GLASS-REINFORCED	STD STIFF STIP	ST. ST
H <sup>(PBD</sup>	GYPSUM BOARD	STIK STL STRUC	ST ST
HB			SY SY
nuvv HDWD HK	HARDWARE HARDWOOD HOOK	Т Т&В	TR TO
HM HOR	HOLLOW METAL HORIZONTAL	TC TEL	TO
HP HR	HIGH POINT HOUR	TEMP THK TI T	TE TH
ns HSKP HT	HEADED STUD HOUSEKEEPING HFIGHT	TO TOB	TO TO
HW	HAND WASH	TOC	TO TO
IBC		TOP TOS TOSTI	TO TO
ID	CODE INSIDE DIAMETER	TRSH CH TW	TO TR
INSUL INT	INSULATION	U	TY
J		U/C	UN
ĸ		UNO THERWISE	UN UN
< <0	KIPS (1000 LB) KNOCK-OUT	<b>V</b> VAR	VA
KP KPD	KICKPLATE KEYPAD	VCT VERT	
〈SF	KIPS PER SQUARE FOOT	VEST VWC	VE VIN
		W	
		W/ W/C	WI WH
		W/O W WP	WI WI
		WD	W

WP WPO

	ANGLE LAVATORY LONG LOCKABLE LIVE LOAD LONG LEG HORIZONTAL LONG LEG VERTICAL LOCATION LOW POINT LIGHT LIGHTWEIGHT CONCRETE
	MASONRY MATERIAL MAXIMUM MECHANICAL MEMBRANE MECHANICAL, ELECTRICAL AND PLUMBING MANUFACTURER MEDICAL GAS OUTLET MINIMUM MISCELLANEOUS MASONRY OPENING MEDICAL OFFICE BUILDING MODIFIED BITUMEN MODIFIED MEAN SEA LEVEL METAL
Έ	NOT AVAILABLE NOT IN CONTRACT NOTICE OF ACCEPTANCE FLORIDA GOVERNING AUTHORITY NOMINAL NEAR SIDE NOT TO SCALE NORMAL WEIGHT
	OVER ALL ON CENTER OUTSIDE DIAMETER OVERFLOW DRAIN OWNER FURNISHED, CONTRACTOR INSTALLED OWNER FURNISHED, INSTALLED OPPOSITE HAND OPENING OPPOSITE OUTSIDE FACE
И	PLASTIC LAMINATE PRECAST CONCRETE POUNDS PER CUBIC FOOT PORTLAND CEMENT PLASTER PENTHOUSE PROPERTY LINE PLATE PLUMBING PLYWOOD PUSH PLATE POLISHED PORTLAND CEMENT PAIR PREFABRICATED POUNDS PER SQUARE
	POINT PNEUMATIC TUBE PAINTED RISER RADIUS RUBBERIZED ASPHALT FLASHING RUBBERIZED ASPHALT
	MEMBRANE RUBBERIZED ASPHALT UNDERLAYMENT REFLECTED CEILING PLAN ROOF DRAIN REINFORCING BAR RECEPTACLE REFER OR REFERENCE REINFORCING RELOCATE/RELOCATED REQUIRED RECESSED FIRE VALVE CABINET ROOM ROUGH OPENING
	SOUND ATTENUATION BLANKET STANDARD BUILDING SCHEDULE SUPERIMPOSED DEAD
	SECTION SINGLE HUNG SHOWER SIMILAR STRUCTURAL OPENING SLAB ON GRADE STAND PIPE SPACE, SPACING SPECIFICATION SQUARE STAINLESS STEEL SOLID SURFACE STATION SOUND TRANSMISSION CLASS STANDARD STIFFENER STIRRUP
	STELL STRUCTURAL SYMMETRICAL SYSTEM TREAD TOP AND BOTTOM TOP OF CURB TELEPHONE TEMPERATURE
	THICK TOILET TOP OF TOP OF BEAM TOP OF CONCRETE TOP OF FOOTING TOP OF PARAPET TOP OF SLAB TOP OF SLAB TOP OF STEEL TRASH CHUTE TOP OF WALL TYPICAL
SE	UNDER COUNTER UNDERGROUND UNLESS NOTED
	VARIES VINYL COMPOSITION TILE VERTICAL VESTIBULE VINYL WALL COVERING
	WITH WHEEL CHAIR WITHOUT WIDTH WATERPROOF(ING) WOOD WIDE FLANGE WIND LOAD WORK POINT WORK POINT - POINT OF ORIGIN WORK POINT - NUMBERED WELDED WIRE FABRIC

# **BUILDING SUMMARY**

#### **PROJECT INFORMATION**

PROJECT NAME: INTERMOUNTAIN LAYTON CLINIC ELEVATOR REMODEL ADDRESS: 2075 N UNIVERSITY PARK BLVD, LAYTON, UTAH

PROPOSED USE: EXISTING CLINIC RENOVATION

OWNER-CONTACT PERSON: NEIL GRANT, INTERMOUNTAIN HEALTHCARE, 801-941-3759

ARCHITECT-CONTACT PERSON: GARY BLAZZARD, HKS ARCHITECTS, 801-532-2393 APPLICABLE CODES

- LIFE SAFETY CODE: NFPA 101, 2001 EDITION, CMS REQUIREMENT - ACCESSIBILITY CODE: 2009 ICC/ANSI 117.1 - ENERGY CODE: 2018 INTERNATIONAL ENERGY CONSERVATION - BUILDING CODE: 2018 IBC - MECHANICAL: 2018 IMC - PLUMBING: 2018 IPC - ELECTRICAL: 2017 NEC CODE - SIGN CODE: LAYTON CITY - FM INSURED: NO - FIRE CODE: 2018 IFC - STATE/CITY AMENDMENTS: UTAH STATE **BUILDING PLANNING** OCCUPANCY: B MIXED OCCUPANCY? YES / NO REQUIRED FIRE SEPARATION: NONE FOR THIS PROJECT TYPE OF CONSTRUCTION

### CONSTRUCTION TYPE: II-B ESSENTIAL FACILITY (CHAPTER 16, IBC)

ESSENTIAL FACILITY? YES (NO)

### GENERAL BUILDING LIMITATIONS

- HEIGHT OF BUILDING: EXISTING
- NUMBER OF STORIES: EXISTING - MAXIMUM SINGLE FLOOR AREA: EXISTING
- TOTAL AREA OF BUILDING: EXISTING

<u>REMODEL AREAS:</u> LEVEL 1: 216 SF LEVEL 2: 195 SF

- PENTHOUSE AND ROOF STRUCTURE: EXISTING
- HIGH RISE: YES / NO
- PARKING SPACES PROVIDED: NO ADDITIONAL REQUIRED
- PARKING SPACES REQUIRED: NO ADDITIONAL REQUIRED - ACCESSIBLE PARKING SPACES PROVIDED: NO ADDITIONAL REQUIRED

(NO FOOTAGE BEING ADDED)

#### **FIRE PROTECTION SYSTEMS**

- FIRE EXTINGUISHING SYSTEM: YES / NO TYPE: EXISTING CLASS: EXISTING
- STANDPIPE SYSTEM: YES (NO) - SMOKE CONTROL: YES / NO

### FIRE RESISTANT CONSTRUCTION/FIREPROOFING SCHEDULE

ITEM		REQ'D RATING / HR	UL/FM # WHERE APPLICABLE
	- EXTERIOR WALLS: LOAD BEARING	EXISTING	Х
	NON-LOAD BEARING	EXISTING	Х
	- FIRE/PARTY WALLS	EXISTING	Х
	- SHAFTS	1 HOUR	UL U469
	- TENANT SEPARATION	EXISTING	Х
	- INTERIOR WALL: LOAD BEARING	EXISTING	Х
	NON-LOAD BEARING	EXISTING	Х
	- COLUMNS	EXISTING	Х
	- BEAMS	EXISTING	Х
	- FLOOR/CEILING	EXISTING	Х
	- ROOF/CEILING	FXISTING	х

SPECIAL INSPECTIONS REQUIREMENTS

1. PROVIDE SPECIAL INSPECTIONS AS REQUIRED BY ICC 1705.3.4 FOR SUSPENDED CEILING SYSTEMS AND ANCHORAGES

## **INDEX OF DRAWINGS**

	INDEX OF DRAWINGS	
Sheet Number	SHEET NAME	02/09/22 PERMIT ISSUE
		0
A0.01	PROJECT INFORMATION	
A2.01	FLOOR PLANS	
A2.02	DETAILS / SECTIONS / PARTITIONS	
S0.01	GENERAL STRUCTURAL NOTES	
S1.01	STRUCTURAL PLANS	
M000	LEGEND, GENERAL NOTES & SPECIFICATION	
M101	LEVEL 1 ELEVATOR EQUIPMENT ROOM MECHANICAL PLAN	
M102	LEVEL 2 ELEVATOR EQUIPMENT ROOM MECHANICAL PLAN	
M501	SCHEDULE AND DETAILS	
EE001	SHEET INDEX, ABBREVIATIONS, GENERAL NOTES	
EE501	ELECTRICAL DETAILS	
EE701	TYPICAL MOUNTING HEIGHT DETAILS	
EP101	LEVEL 1 ELECTRICAL PLANS	
EP102	LEVEL 2 ELECTRICAL PLANS	
EP601	ONE-LINE-DIAGRAM NORMAL	
EL601	INTERIOR LIGHTING FIXTURE SCHEDULE	
ET001	TELECOM SCHEDULE AND NOTES	
ET501	TELECOM DETAILS	
ET601	VOICE / DATA CONDUIT RISER DIAGRAM	



HKS ARCHITECTS, INC. 90 SOUTH 400 WEST, SUITE 110 SALT LAKE CITY, UT. 84101 **MECHANICAL ENGINEER** VBFA 181 EAST 5600 SOUTH, SUITE 200

MURRAY, UTAH 84107 ELECTRICAL ENGINEER SPECTRUM ENGINEERS 324 SOUTH STATE STREET

SALT LAKE CITY, UT 84111 STRUCTURAL ENGINEER BHB STRUCTURAL 2766 SOUTH MAIN STREET SALT LAKE CITY, UT 84115



REVISION NO. DESCRIPTION

DATE

24952.000 DATE 03/04/2022 ISSUE CONSTRUCTION DOCUMENTS SHEET TITLE PROJECT INFORMATION

**A0.01** 

HKS PROJECT NUMBER

SHEET NO.





**04**  $\frac{\text{LEVEL 1 FINISH PLAN}}{\frac{1}{8"} = 1'-0"}$ 

FINISH NOTES: SEE FINISH MATERIALS NOTED FOR FINISHES

WHICH APPLY TO BOTH FLOORS

PAINT: PT-01, SHERWIN WILLIAMS, SW 7043, WORLDLY GREY, SATIN PT-02, SHERWIN WILLIAMS, SW 6243, DISTANCE, SATIN PT-03, EXISTING PAINT COLOR TO MATCH, WALLS, SATIN PT-04, EXISTING PAINT COLOR TO MATCH, DOOR FRAME, SEMI-GLOSS SHEET VINYL / COVED VINYL BASE: MANNINGTON BIOSPEC SR, 57361, FLAX <u>CARPET:</u> INTENT IS TO REMOVE AND SALVAGE CARPET AND CARPET BASE FOR RE-INSTALLATION AT AREAS DISTURBED BY DEMOLITION / REMODEL. PROVIDE NEW CARPET BASE AT ELEVATOR WALLS, AS NOTED.











### GENERAL

- 1. The structural notes are intended to complement the project specifications. Specific notes and details in the drawings shall govern over the structural notes and typical details.
- 2. Typical details and sections shall apply where specific details are not shown.
- 3. The structural drawings are not all-inclusive and do not contain all dimensions, elevations, openings, mechanical shafts, and penetrations needed to build the structure. The contractor shall coordinate these items with the Architectural, Mechanical and Electrical drawings.
- 4. Omissions or conflicts between the contract drawings and/or specifications shall be brought to the attention of the architect/engineer before proceeding with any work involved. In case of conflict, follow the most stringent requirement as directed by the architect/engineer at no additional cost to the owner.
- 5. The contractor shall submit a written request to the architect/engineer before proceeding with any changes, substitutions, or modifications. Any work done by the contractor before receiving written approval will be at the contractor's risk.
- 6. The contractor shall coordinate with all trades any items that are to be integrated into the structural system such as openings, penetrations, mechanical and electrical equipment, etc. Sizes and locations of mechanical and other equipment that differs from those shown on the contract drawings shall be reported to the architect/engineer.
- 7. The contractor shall provide adequate shoring and bracing as required for the chosen method of erection. Shoring and bracing shall remain in place until final connections for the permanent members are completed. The building shall not be considered stable until all connections are completed. Walls shall not be considered self-supporting and shall be braced until the floor/roof system is completed.
- 8. The contractor shall not cut or core any holes in masonry or concrete walls without prior review by the architect/engineer.
- 9. Site observations by BHB Consulting Engineers' field representative shall not be construed as approval of construction procedures nor special inspection.
- 10. Detailing and shop drawing production for structural elements will require information (including dimensions) contained in the architectural, structural and/or other consultants' drawings. The structural drawings shall be used in conjunction with the architectural and other consultant's drawings. Some dimensions and elements such as elevations, depressions, slopes, mechanical housekeeping pads, etc. are not shown in the structural drawings. All dimensions shown on structural drawings shall be verified by contractor with architectural, mechanical, and electrical drawings.
- 11. Contractor shall review shop drawings for compliance with contract documents, and stamp shop drawings with review stamp prior to submission to architect for review. Review of shop drawings by BHB Consulting Engineers is for general compliance only and is not intended for approval. The shop drawing review shall not relieve the contractor from the responsibility of completing the project according to the contract documents. Fabrication shall not begin until shop drawings review process is complete. Shop drawings made from reproductions of the contract drawings will be rejected unless the contractor signs a release agreement prior to the shop drawings being reviewed.
- 12. Only an authorized representative of BHB Consulting Engineers may make changes to these contract drawings. BHB Consulting Engineers shall not be held responsible or liable for any claims arising directly or indirectly from changes made without written authorization by an authorized representative of BHB Consulting Engineers.

International Building Code 2018

### **BASIS OF DESIGN**

- 1. Governing Code
- a. Risk Category
- 2. Serviceability Criteria a. Elevator Machine Room Support Beams i. Static Load

#### **EXISTING CONDITIONS**

1. Structural connections and the framing systems shown in the structural drawings are based on a limited site survey. The contractor shall verify the existing conditions of exposed framing systems, connections, walls, and other structural elements within the project area. If existing conditions vary from the information in the contract documents, the contractor shall notify the architect/engineer prior to proceeding with the fabrication or construction of any affected elements.

L/1666

- 2. Existing framing systems and foundations taking new loads are assumed to be in good condition, unless noted otherwise in the contract documents. The contractor shall immediately notify the architect/engineer of any deficiencies in the existing structure that are observed or revealed during construction (e.g. corrosion of steel members, cracking or crumbling of concrete, checking or splitting of wood members) prior to proceeding with the fabrication or construction of any affected elements.
- 3. The contractor shall use the foundation systems indicated on the plans for reference only, and shall field verify foundation sizes, locations, and thicknesses during construction. The contractor shall notify the architect/engineer if existing foundations vary from the information in the contract documents prior to proceeding with the fabrication or construction of any affected elements.
- 4. While performing work adjacent to existing structures, the contractor shall be responsible for adequate shoring and protection of all existing structures, utilities, and services which will be affected by the work in the contract documents.

#### POST-INSTALLED ANCHORS

- 1. General Post-Installed Anchor Notes
- a. Do not install adhesive anchors in concrete if less than 21 days old; do not install mechanical anchors, screw anchor or powder actuated anchors in concrete less than 7 days old. Contractor must obtain written approval from the engineer to install prior to these time periods. Do not apply full load to anchors until concrete has reached 28-day compression strength.
- b. Anchors specified in details shall be provided; alternative anchors or adhesives may be used if the contractor provides calculations demonstrating that the alternative can achieve the performance values of the specified product. These calculations, along with an ICC-ES ESR or IAPMO-UES ER approval for use in cracked concrete and compliant with the specified codes herein, must be submitted to the structural engineer prior to use.
- c. Follow all the manufacturer's recommendations and certification testing reports for anchor installation. See specific anchors below for more information. d. No anchor shall be installed within 1.5 anchor rod diameters of an abandoned hole that has been filled
- with non-shrink grout; increase distance to 3 anchor rod diameters when the abandoned hole has not been filled.

2. Screw Anchors

a. For concrete, the screw anchors shall be Titen HD (ICC-ES ESR-2713 for concrete only) by Simpson Strong-Tie, or Screw-Bolt + (ICC-ER ESR-3889 for concrete only) by DeWalt, or Kwik HUS-EZ (ICC-ES ESR-3027 for concrete only) by Hilti Inc.

## STRUCTURAL STEEL

- 1. Material:

- 3. Welding

- decks.

ANCHOF DIAMET 3/4" 7/8" 1.1/4" 1.1/2" 1.3/4" 2.1/2"

around:

### FLANGE Less that 8.1/4" to 1 12.1/4" to



## **GENERAL STRUCTURAL NOTES**

## REQUIREMENTS FOR SPECIAL INSPECTION, MATERIAL TESTING, AND STRUCTURAL OBSERVATION

a. All Thread Rods, Other Shapes & Plates ASTM A36 (36 ksi)

2. Fabrication and construction shall comply with the latest edition of the following Codes and Standards: a. American Institute of Steel Construction (AISC), "Specification for the Design, Fabrication and Erection of Structural Steel for Buildings," with "Commentary".

b. AISC "Code of Standard Practice" excluding the following: Section 3.2, Section 4.4, Section 4.4.1, c. AISC "Specification for Structural Joints Using High-Strength Bolts"

d. American Welding Society (AWS), Structural Welding Code (specific items do not apply when they conflict with the AISC requirements).

e. AISC "Seismic Provision for Structural Steel Buildings"- ANSI/AISC 341

a. Field weld flags that have been put in these documents are for suggestion only. The contractor has the option to substitute shop welding for field welding or vice versa. The steel fabrication and steel erection drawings must clearly distinguish between shop welds and field welds prior to any work being performed. b. Steel fabricators shall indicate the shop welds that are excluded from their bids. Steel erectors shall indicate the field welds that are excluded from their bids. It is the responsibility of the contractor to coordinate shop welding and field welding with the appropriate subcontractors. c. All welding and cutting shall be performed by AWS certified welders.

d. Use E-70 XX (58 ksi yield, 70 ksi tensile) unless noted otherwise. E60 XX may be used for welding steel e. All intersecting steel shapes which are not bolted shall be connected by a fillet weld all around, unless

noted otherwise. Where fillet weld sizes are not shown they shall be 1/16" less than the thinnest of the connected parts for thicknesses 1/4" and larger. Fillet welds on plates less than 1/4" shall be of the same size as the thinnest of the connected part.

f. Reinforcing Bars: Do not weld rebar. Do not substitute reinforcing bars for deformed bar anchors (DBAs), machine bolts, or headed stud anchors (HSAs). g. Do not weld anchor bolts, including "tack" welds.

h. Headed Stud Anchors (HSAs) welding and deformed bar anchor welding shall conform to the manufacturer's specifications.

4. Provide baseplate anchor rod connections to concrete elements that correlate with ACI 117. Circular or square washers are acceptable:

	HOLE	WASHER	
ER	DIAIVIETER	SIZE	
	1.5/16''	2"	1/4''
	1.9/16''	2.1/2"	5/16''
	1.7/8"	3"	3/8''
	2.1/8"	3.1/2"	1/2"
	2.3/8"	4"	1/2"
	2.7/8"	4.1/2"	5/8"
	3.1/4"	5"	3/4"
	3.3/4"	5.1/2"	7/8"

5. Provide full-depth web-stiffener plates at each side of all beams at all bearing points. Stiffener plates shall be the thickness called out below unless noted otherwise and shall be welded both sides with fillet welds all

WIDTH	STIFFENER THICKNESS	WELD SIZ
n 8.1/4''	1/4''	3/16''
12.1/4"	3/8''	1/4''
o 16.1/2''	1/2"	5/16''
o 20.3/4"	5/8"	3/8"

## STATEMENT OF SPECIAL INSPECTION AND QUALITY ASSURANCE

Special inspection and quality assurance (incl	luding structural testing), as requir
provided by an independent agency employe	ed by the owner for the items in th
construction documents, unless waived by th	ne building official.
The names and credentials of the Special Insp	pectors to be used shall be submit
<b>Responsibilities of the Special Insp</b>	ector
	Special Inspector shall review all
	for conformance with the approv
	Testing and inspection reports sh
	engineer, building official and co
	be brought to the immediate atte
	uncorrected, to the architect, en
	Once corrections have been mad
	a final signed report to the buildi
	inspection was, to the best of the
	the approved construction plans,
Responsibilities of the Contractor	
	The contractor shall submit a wri
	building official prior to the comr
	section 1704.4. This statement s
	cooperate with the required insp
	The contractor shall notify the de
	inspection at least 24 hours befo
	All work requiring special inspect
	observed by the special inspector
	Special inspection during fabricat
	approved by the authority having
	inspection. Upon completion of
	certificate of compliance for subr
	The contractor shall be responsib
	fabrication, erection, etc.

### STEEL WELDED CONSTRUCTION INSPECTIONS Definition of Terms

Where special inspections are listed under "Random Basis", special inspection of elements and items shall be performed on a random basis. Operations need not be delayed pending these inspections. Where special inspection items are listed under "Every Element", special inspection shall be performed for each element, joint, or member, as applicable based on the task listed below.

Structural Welding (2018 IBC section 1705.2 and section 170
16 Chapter N and AISC 341-16 Chapter J)

	INSPECTION PLAN	
ITEM FOR VERIFICATION & INSPECTION	Every	Random
	Element	Basis
Inspection Tasks Prior to Welding		•
Welding procedures specifications and manufacturer certifications for welding consumables shall be available	x	-
Material identification (type/grade)	-	x
Welder identification system	-	x
Fit-up of groove welds	x	x
Configuration and finish of access holes	-	x
Fit-up of fillet welds	x	x
Check welding equipment	-	X
Inspection Tasks During Welding		
Use of qualified welders	-	X
Control and handling of welding consumables	-	x
Cracked tack welds	-	x
Environmental conditions	-	x
WPS followed	-	x
Welding techniques	-	x
Inspection Tasks After Welding		•
Welds cleaned	-	x
Size, length and location of welds	X	-
Welds meet visual acceptance criteria	x	-
Arc strikes, k-area, weld access holes for flanges greater than 2", backing removed and weld tabs removed (if required), repair activities	x	-
Document acceptance or rejection of each welded joint or member	x	-

red by section 1704 and 1705 of the 2018 IBC, shall be his section and other areas of the approved

tted to the Building Official for approval.

Il work listed in the special inspection schedules herein oved construction plans, specifications and 2018 IBC. hall be sent on a weekly basis to the architect, ontractor for review. All items not in compliance shall tention of the contractor for correction, and if

ngineer and building official. de by the contractor, the special inspector shall submit ding official stating that the work requiring special e special inspector's knowledge, in conformance with , specifications and 2018 IBC.

ritten statement of responsibility to the owner and the mencement of work in accordance with 2018 IBC shall indicate that the contractor will coordinate and pections contained herein.

esignated special inspector that work is ready for ore said inspection is required. ction shall remain open and accessible until it has beer

r and deemed acceptable through inspection report. ation is not required if the fabricator is registered and g iurisdiction to perform such work without special f fabrication, the approved fabricator shall submit a

mittal to the building official. ble for their own quality control including materials,

05.12.1 and section 1705.13.1 and AISC 360-

### COMMENTS

Welding procedures shall be submitted to the Engineer of Record for review.

Verify there is a system in place to identify the welder who has welded a joint or member. Including joint geometry, joint preparation, dimensions, cleanliness, tacking and backing type and fit.

Including alignment, gaps at root, dimensions, cleanliness and tacking.

Including packaging and exposure control

Verify no welding over cracked tack welds.

Including wind speed within limits and precipitation and temperature

Including settings on welding equipment, travel speed, selected welding materials, shielding gas type/flow rate, preheat applied, interpass temperature (min./max.) maintained, proper position (F, V, H, OH)

Including interpass and final cleaning, each pass within profile limitations, each pass meets quality requirements

Including crack prohibition, weld/base-metal fusion, crater cross section, weld profiles, weld size, undercut and porosity.

When welding of doubler plates, continuity plates, or stiffeners has been performed in the karea, visually inspect the web k-area for cracks within 3" of the weld.

## POST-INSTALLED ANCHOR INSPECTIONS

ITEM FOR VERIFICATION &	INSPECTION FREQUENCY		CONAMENITS	
INSPECTION	CONTINUOUS	PERIODIC	COMIMENTS	
Post-Installed Anchors and Rein	forcing Bars (20	18 IBC Sec	tion 1705.1.1)	
Adhesive Anchors and Reinforcing Bars	x	-	Special inspection shall be performed per manufacturer's requirements and approved ICC-ES reports noted in POST-INSTALLED ANCHOR section of the General Structural Notes prior to installation of epoxy and anchor rod. If the anchor is not installed in a horizontal, upwardly inclined or overhead orientation meant to resist sustained tension loads, special inspection may be reduced to a periodic frequency.	
Mechanical Anchors and Screw Anchors	-	x	Special inspection shall be provided per manufacturer's requirements and approved ICC-ES reports noted in POST-INSTALLED ANCHOR section of the General Structural Notes prior to installation of mechanical or screw anchor.	

### STRUCTURAL OBSERVATION PROGRAM

If structural observations are required, they shall be done by the Engineer of Record or an approved subordinate at the stages of construction listed in the Construction Notification Phases section of these notes. At the conclusion of the project, the designated structural observer shall submit to the building official a written statement that the site visits have been made and identify any reported deficiencies that to the best of the structural observer's knowledge have not been resolved (See IBC 2018 1704.6).

STRUCTURAL OBSERVATION PROGRAM REQUIRED BY	YES	NO
CODE:		X

### DEFERRED SUBMITTALS

None

For the purposes of this section, deferred submittals are defined as per section 107.3.4.1 of the IBC 2018. Submittal documents for deferred submittal items shall be submitted to the engineer, architect and building official for their review for general conformance with the design of the building.

DEFERRED STRUCTURAL SUBMITTALS FOR THIS PROJECT ARE







6 DETAIL

LEGEND OF WARKS A		
ANCHOR BOLT(S)	k	KIP(S) = 1000 POUNDS
ABOVE	KLF	KIPS PER LINEAL FOOT
	KSF	KIPS PER SQUARE FOOT
ARCHITECT(URAL)	LBS	POUNDS
	LF	
BUILDING	LLH	
BELOW	LLV	
BEAM	LSH	LONG SIDE HORIZONTAL
BOITOM	LSV	LONG SIDE VERTICAL
BEARING		
BETWEEN	MAX	MAXIMUM
	MECH	MECHANICAL
CENTER-TO CENTER	MFR	MANUFACTURER
CENTER OF GROSS STEEL	MIN	MINIMUM
CONST/CONTROL JOINT	MISC	MISCELLANEOUS
COLUMN		
CONCRETE	NIC	NOT IN CONTRACT
CONSTRUCTION	NTS	NOT TO SCALE
CENTER		
CONCRETE WALL	O.C.	ON CENTER
	O.F.	OUTSIDE FACE
DECK BEARING	OPNG	OPENING
DEFORMED BAR ANCHOR	OPP	OPPOSITE
DECK BEARING ELEVATION		
DOUBLE	PAF	POWDER-ACTUATED FASTENER
DETAIL	PCF	POUNDS PER CUBIC FOOT
DIAMETER	PL	PLATE
DIMENSION	PLF	POUNDS PER LINEAL FOOT
DOWN	PNI	PANFI
DRAWING	PSF	POUNDS PER SOUARE FOOT
DOWFI	PSI	
	PT	POINT
FXISTING		
EACH	REINE	REINFORCING
	REINI	PEOLIBED
	REQU	
	RIU	ROOF TOP UNITS
ELEVATION	CUT	CULET
	SHI	
EDGE OF SLAB	SI	SPECIAL INSPECTION
EQUIPMENT	SIM	SIMILAR
EQUAL	SMU	SUSPENDED MECHANICAL UNITS
EACH WAY	SOG	SLAB-ON-GRADE
EXISTING	SQ	SQUARE
EXPANSION	STAG	STAGGERED
EXTERIOR	STD	STANDARD
	STL	STEEL
CONTINUOUS FOOTING MARK	STR	STRUCTURAL
FLOOR DRAIN	STS	SELF TAPPING SCREWS
FOUNDATION		
FINISHED FLOOR	T&B	TOP AND BOTTOM
RECTANGULAR FOOTING	TEMP	TEMPERATURE
SQUARE FOOTING MARK	THDS	THREADS
FOOT	T.O.	TOP OF
FOOTING	тос	TOP OF CONCRETE
THICKENED SLAB MARK	TOD	TOP OF DECK
	TOF	TOP OF FOOTING
GAUGE	TOS	TOP OF STEEL
GALVANIZED	TOW	
GENERAL STRUCTURAL NOTES	TTE	THEAL
	UNU	
	VEDT	
	VERI	VERTICAL
HEIGHT		,
	W/	WITH
	W I	WALL THICKNESS
NTERNATIONAL CODE COUNCIL	WWF	WELDED WIRE FABRIC
ILERNATIONAL BUILDING CODE	WWM	WELDED WIRE MESH
INSIDE EACE		

ARC
BLD( BLW BM BOT BRG BTW
CC. CGS C.J. COL CON CON CTR CW-:
DB DBA DBE DBL DET DIA DIM DN DWC DWL
(E) EA E.F. E.J. ELEC E.O.I E.O.S EQU EQ E.W. EXT EXP EXT
FC-x F.D. FDN F.F. FR-x FS-x FT FTG FTS-:
GA GAL GSN
HB HOR HSA HT
ICC IBC I.F. IN.



(7) DETAIL

NO SCALE

VERIFY ALL FLOOR OPENINGS FOR MECHANICAL SHAFTS, STAIRS, ETC. WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
 COORDINATE SIZE AND LOCATION OF ALL MECHANICAL OPENINGS WITH ARCHITECTURAL AND MECHANICAL

DRAWINGS. 3. FIELD VERIFY ALL ELEMENTS AND REPORT ANY DIFFERENCES TO EOR BEFORE BEGINING WORK. MARKS AND SYMBOLS LEGEND

SECTION MARK INDICATES EXISTING WALL.



# LEGEND OF MECHANICAL SYMBOLS AND ABBREVIATIONS

## PLUMBING

RL	
RS	
T	
EF 1	
1	
<u>P-1</u>	

KEYED NOTE IDENTIFICATION

PLUMBING FIXTURES

REFRIGERANT LIQUID

REFRIGERANT SUCTION

EQUIPMENT IDENTIFICATION

THERMOSTAT

## MECHANICAL PIPING GENERAL NOTES

- 1. PIPING DRAWINGS ARE SCHEMATIC IN NATURE. FIELD VERIFY ALL ROUTING AND COORDINATE WITH ALL OTHER TRADES.
- 2. NO PIPING TO RUN DIRECTLY OVER ELECTRICAL PANELS, MCCS OF VFDS. ROUTE AROUND AS REQUIRED.
- 3. INSTALL A MANUAL AIR VENT AT ALL HYDRONIC SYSTEM HIGH POINTS. 4. INSTALL ALL EQUIPMENT WITH SUFFICIENT CLEARANCE FOR MAINTENANCE PER MANUFACTURERS RECOMMENDATION. PROVIDE A 24"X 24" ACCESS DOOR BELOW EQUIPMENT BOX AND CONTROL VALVE WHERE INSTALLED
- OVER NON LAY-IN CEILING AREAS. 5. COORDINATE EXACT LOCATION OF T-STATS WITH ARCHITECTURAL
- FURNISHINGS.
- 6. INSTALL A 24"X 24" ACCESS PANEL BELOW ALL VALVES CIRCUIT SETTERS, & CONTROL VALVES OVER NON-LAYIN CEILINGS.
- 7. MECHANICAL PIPING TO BE INSTALLED ABOVE DUCTWORK AND EQUIPMENT EXCEPT WHERE SHOWN.
- 8. FIELD VERIFY ALL EQUIPMENT LOCATIONS.
- 9. DETAILS REFERENCE ALL SHEETS.

- TYPICAL.
- DIFFUSERS AND GRILLES.
- SOUND ATTENUATION.

- DETAILS REFERENCE ALL SHEETS.

## MECHANICAL GENERAL NOTES

1. PROVIDE BALANCING DAMPER AT EACH BRANCH TAKE-OFF TO SERVE DIFFUSER OR GRILLE AS WELL AS WHERE INDICATED.

2. COORDINATE EXACT LOCATION OF DUCTS WITH STRUCTURAL MEMBERS, LIGHTS, REFLECTED CEILING, CABLE TRAY, PLUMBING, MECHANICAL PIPING, FIRE PROTECTION, ETC.

3. BRANCH DUCTWORK SHALL BE SIZED TO MATCH THE NECK SIZE OF THE DIFFUSER, REGISTER OR GRILLE IT SERVES UNLESS NOTED OTHERWISE,

4. COORDINATION DRAWING SUBMITTALS ARE REQUIRED FOR THIS SHEET. 5. SEE ARCHITECTURAL PLANS FOR EXACT LOCATION OF ALL REGISTERS,

6. INSTALL ALL HARD ELBOWS AS SHOWN. HARD ELBOWS ARE REQUIRED FOR

. INSTALL EQUIPMENT WITH CLEARANCE PER MANUFACTURERS RECOMMENDATIONS. MAINTAIN PROPER SPACE FOR COIL PULL, CONTROLS, AND MAINTENANCE ACCESS.

8. ALL BRANCH TAKE-OFFS TO HAVE A HIGH EFFICIENCY FITTING. SEE DETAIL 9. INSTALL TURNING VANES IN ALL SQUARE LOW PRESSURE DUCTWORK.

11. UNLESS OTHERWISE NOTED, ALL SUPPLY DIFFUSERS SHALL BE OF THE CD-1 TYPE, ALL RETURN GRILLES SHALL BE OF THE RG-1 TYPE AND ALL EXHAUST GRILLES SHALL BE OF THE EX-1 TYPE.

#### DIVISION 15 MECHANICAL PART 1 - GENERAL

1.01 DESCRIPTION A. WORK INCLUDED: FURNISH ALL LABOR, MATERIALS, EQUIPMENT, APPLIANCES AND NECESSARY INCIDENTALS FOR THE COMPLETE INSTALLATION OF ALL HEATING, VENTILATION AND AIR CONDITIONING AS SHOWN ON THE DRAWINGS AND AS SPECIFIED HEREIN.

1. AIR CONDITIONING AND HEATING TO EXISTING A/C UNITS AS INDICATED ON PLANS COMPLETE WITH DUCTWORK, AND CONTROLS. B. RELATED WORK INCLUDED IN THIS SECTION:

FURNISHING ELECTRICAL EVICES NECESSARY FOR MECHANICAL WORK, EXCEPT DISCONNECTS UNLESS INDICATED OTHERWISE 2. LINE AND LOW VOLTAGE WIRING FOR MECHANICAL CONTROLS

INCLUDING FINAL CONNECTIONS AS INDICATED ON WIRING DIAGRAMS CONDUIT FOR LINE AND LOW VOLTAGE WIRING FOR MECHANICAL

CONTROLS AS INDICATED ON WIRING DIAGRAMS 4. RESPONSIBILITY FOR OBTAINING CLARIFICATION OF DISCREPANCIES BETWEEN MECHANICAL AND ELECTRICAL WORK FROM ARCHITECT PRIOR TO PROCEEDING WITH THE WORK.

5. RESPONSIBILITY FOR PROPER OPERATION OF AUTOMATIC ELECTRICAL CONTROLS AND EQUIPMMENT, AND OF ELECTRIC POWER DRIVEN EQUIPMENT FURNISHED UNDER THIS SECTION.

C. RELATED WORK IN OTHER SECTIONS:

ELECTRICAL WORK AS FOLLOWS WILL BE PROVIDED UNDER ELECTRICAL DIVISION: D. CONDUIT FOR LINE VOLTAGE WIRING FOR EQUIPMENT AND DEVICES AS INDICATED OR SPECIFIED EXCEPT CONDUIT FOR LINE AND LOW VOLTAGE WIRING FOR MECHANICAL CONTROLS AS SPECIFIED UNDER DIVISION 15.

E. LINE VOLTAGE WIRING FOR EQUIPMENT AND DEVICES AS INDICATED OR SPECIFIED HEREIN EXCEPT LINE AND LOW VOLTAGE WIRING FOR MECHANICAL CONTROLS AS SPECIFIED UNDER DIVISION 15.

F. PROVIDING DISCONNECT SWITCHES G. INSTALLING ELECTRICAL DEVICES SUCH AS STARTERS AND DISCONNECTS, AND WHEN INDICATED, FURNISHING ALL SUCH DEVICES.

H. CODES AND STANDARDS: 1. IN ADDITION TO THE REQUIREMENTS OF ALL GOVERNING CODES, ORDINANCES AND AGENCIES, CONFORM TO THE REQUIREMENTS OF THE FOLLOWING CODES AND STANDARDS:

A. 2018 INTERNATIONAL BUILDING CODE 2018 INTERNATIONAL PLUMBING CODE

C. 2018 INTERNATIONAL ENERGY CONSERVATION CODE

#### 1.02 PRODUCT HANDLING A. PROTECTION: TAKE ALL PRECAUTIONS NECESSARY TO PROTECT THE MATERIALS OF THIS SECTION BEFORE, DURING AND AFTER INSTALLATION. B. REPLACEMENTS: IN THE EVENT OF DAMAGE, IMMEDIATELY REPAIR ALL DAMAGED

AND DEFECTIVE WORK TO THE APPROVAL OF THE ENGINEER, AT NO ADDITIONAL COST TO THE OWNER.

1.03 JOB CONDITIONS A. EXAMINATION OF SITE: EXAMINE THE SITE AND INCLUDE IN BID PROPOSAL ALL CONDITIONS UNDER WHICH WORK IS TO BE PERFORMED.

## 1.04 MISCELLANEOUS

A. PERMIT AND FEES: ARRANGE, APPLY AND PAY FOR ALL NECESSARY PERMITS, INSPECTIONS, EXAMINATIONS AND FEES OR CHARGES REQUIRED BY PUBLIC AUTHORITIES HAVING JURISDICTION. B. LOCATIONS AND ACCESSIBILITY: CONTRACTOR SHALL FULLY INFORM HIMSELF REGARDING PECULIARITIES AND LIMITATIONS OF SPACE AVAILABLE FOR INSTALLATION OF WORK UNDER THIS SECTION. VALVES, MOTORS, CONTROLS AND OTHER DEVICES REQUIRING SERVICE MAINTENANCE AND ADJUSTMENT SHALL BE PLACED IN FULLY ACCESSIBLE POSITIONS AND LOCATIONS. PROVIDE ACCESS DOORS WHERE REQUIRED IN DUCTWORK AND/OR CONSTRUCTION WHETHER SPECIALLY DETAILED OR NOT, AND RENDER ALL SUCH DEVICES ACCESSIBLE.

C. SCAFFOLDING: FURNISH ALL SCAFFOLDING, RIGGING AND HOISTING AS REQUIRED FOR THE PROPER EXECUTION OF THE WORK. D. DRAWINGS: DRAWINGS INDICATE DESIRED LOCATION AND ARRANGEMENT OF DUCTWORK, EQUIPMENT, AND OTHER ITEMS, AND ARE TO BE FOLLOWED AS CLOSELY AS POSSIBLE. ALL OFFSETS AND INTERFERENCES MAY NOT BE SHOWN BECAUSE OF

THE SCALE OF DRAWINGS. ASSUME THE RESPONSIBILITY FOR COORDINATING THE WORK WITH ALL OTHER TRADES. WORK SPECIFIED AND NOT CLEARLY DEFINED BY THE DRAWINGS SHALL BE INSTALLED AND ARRANGED IN A MANNER SATISFACTORY TO THE ENGINEER. IN THE EVENT CHANGES IN INDICATED LOCATION AND ARRANGEMENTS ARE DEEMED NECESSARY BY THE ENGINEER, THEY SHALL BE MADE

BY THIS CONTRACTOR WITHOUT ADDITIONAL CHARGES. E. ALL HVAC EQUIPMENT SHALL BE LABELED. INFORMATION ON LABELS SHALL INCLUDE: IDENTIFICATION NUMBER AND NAME SAME AS THE DRAWINGS, FLOW AND STATIC PRESSURE AND THE AREA TO WHICH THE UNIT SERVES. LABELS SHALL BE BLACK FACED FORMICA WITH WHILE ENGRAVED LETTERING AT LEAST 3/16 INCH HIGH.

## 1.05 SUBMITTALS

A. SHOP DRAWINGS: WITHIN 15 DAYS AFTER AWARD OF CONTRACT, AND BEFORE ANY OF THE MATERIALS OF THIS SECTION ARE FABRICATED AND DELIVERED TO THE JOBSITE, SUBMIT COMPLETE SHOP DRAWINGS AND EQUIPMENT SUBMITTALS FOR ENGINEER TO REVIEW IN ACCORDANCE WITH THESE SPECIFICATIONS. SHOW ALL DETAILS OF ALL DUCTWORK, AND EQUIPMENT PADS.

B. PRODUCT DATA: SUBMIT SIX (6) COPIES OF ALL MANUFACTURER'S PRODUCT DATA SIMULTANEOUSLY WITH ALL SHOP DRAWING SUBMITTALS. 2. PRODUCT DATA TO INCLUDE ALL AIR CONDITIONING EQUIPMENT, HANGERS, FANS AND

SUBMITTAL INDICATING PRODUCTS TO BE USED ON THIS WORK. 3. MANUFACTURERS AND SUPPLIERS OF EQUIPMENT SHALL PROVIDE ALL DATA NECESSARY FOR COMPLIANCE WITH THE STATE OF CALIFORNIA ENERGY CONSERVATION STANDARDS. COMPLIANCE CERTIFICATION FOR ALL EQUIPMENT SHALL BE INCLUDED IN EQUIPMENT

SUBMITTALS. C. RECORD DRAIWNGS: MAINTAIN THROUGHOUT THE PROGRESS OF THE WORK PROJECT RECORD DRAWINGS AND SUBMIT TO THE OWNER. D. OPERATING MANUALS AND MAINTENANCE MANUALS:

SUBMIT FOUR (4) COPIES OF ALL OPERATING INSTRUCTIONS AND MAINTENANCE MANUALS. 2. FULLY INSTRUCT OWNER'S OPERATING PERSONNEL AND DEMONSTRATE PERFORMANCE, OPERATION AND MAINTENANCE OF EQUIPMENT. AMOUNT OF TIME ALLOCATED FOR SAID

INSTRUCTION AND DEMONSTRATION OF EQUIPMENT AND SYSTEMS SHALL BE PART OF THESE OBLIGATIONS. SUBMIT TO ENGINEER A LETTER SIGNED BY OWNER'S REPRESENTATIVE WHO WILL OPERATE SYSTEM STATING THAT HE HAS BEEN FULLY

INSTRUCTED BY CONTRACTOR ABOUT OPERATION AND MAINTENANCNE OF EQUIPMENT

AND SYSTEM. 3. SUBMIT ONE (1) ADDITIONAL SET OF APPROVED INSTRUCTIONS AND ONE (1) ADDITIONAL SET OF APPROVED CONTROL DIAGRAMS.

E. GUARANTEES: IN ADDITION TO EQUIPMENT WARRANTIES, FURNISH A WRITTEN GUARANTEE AGAINST DEFECTS IN MATERIALS AND WORKMANSHIP FOR ON YEAR. GUARANTEE SHALL INCLUDE REPAIR OF DAMAGE TO, OR REPLACEMENT OF, ANY PART OF EQUIPMENT OR PREMISES CAUSED BY LEAKS OR BREAKS IN PIPE OR EQUIPMENT PROVIDED UNDER THIS SECTION.

1.06 EQUIPMENT IDENTIFICATION A. EXCEPT FOR INDIVIDUAL ROOM HEATING UNITS AND ITEMS FURNISHED UNDER TEMPERATURE CONTROL, ALL ITEMS OF MECHANICAL EQUIPMENT, INCLUDING FANS, PUMPS, BOILERS, AND ELECTRICAL SWITCHES AND STARTERS FOR MECHANICAL EQUIPMENT AND GAUGES SHALL BE LABELED.

SAME AS THAT SHOWN ON THE DRAWINGS OR IN THE SPECS. 3. IF THE ITEM IS PART OF A UNIT, THE LABEL SHALL HAVE, IN ADDITION TO ITS NUMBER, THE NUMBER OF THE MAIN ITEM IT IS SERVING. POSITIONS SHALL BE INDICATED. FUNCTION NEEDS TO BE INCLUDED ON THE NAMEPLATE. C. THE TYPES OF NAMEPLATES SHALL BE AS FOLLOWS: LETTERING AT LEAST 3/16" HIGH.

BE IDENTIFIED WITH THE PROPER IDENTIFICATION. 1.07 SPLIT SYSTEM INDOOR FAN COIL UNIT

OPERATE. UNIT SHALL BE U.L. LISTED AND CARRY A U.L. LABEL A. CABINET SHALL BE CONSTRUCTED OF GALVANIZED STEEL, BONDERIZED AND COATED WITH 1 INCH THICK NEOPRENE COATED FIBERGLASS. CABINET PANELS SHALL BE EASILY REMOVABLE FOR ERVICE TO ALL OPERATING COMPONENTS. INDOOR AIR FANS SHALL BE FORWARD-CURVED CENTRIFUGAL, MULTI-SPEED TYPE COILS SHALL BE ON NONFERROUS CONSTRUCTION WITH ALUMINUM PLATE FINS MECHANICALLY BONDED TO SEAMLESS COPPER TUBES WITH ALL JOINTS BRAZED. D. PRIMARTY AND SECONDARY DRAIN CONNECTIONS WITH BRASS INSTERTS. CONDENSATE DRAINS SHALL BE TRAPPED OUTSIDE THE CABINET. FACTORY INSTALLED 5 KW ELECTRIC HEATER SHIPPED WITH CLEANABLE, PERMANENT FRAMED FILTER. 1.08 SPLIT SYSTEM OUTDOOR HEAT PUMP/VRF UNIT

SYSTEM SHALL BE MODEL OF SIZE AND CAPACITY INDICATED. UNITS SHALL BE

1.09 SUMMARY SLOTTED CHANNEL FRAMING A. FRAMING SHALL BE A STRUT TYPE METAL FRAMING SYSTEM (STRUT SYSTEM) B. STRUT SYSTEM SHALL BE USED: TO SUPPORT MECHANICAL AND ELECTRICAL EQUIPMENT AND DEVICES. MANUFACTURER.

1.10 QUALITY ASSURANCE SLOTTED CHANNEL FRAMING A. MANUFACTURER'S QUALIFICATIONS: MANUFACTURING STRUT SYSTEMS. HAVE BEEN PRODUCED IN ACCORDANCE WITH AN ESTABLISHED QUALITY ASSURANCE PROGRAM.

FEDERAL, STATE AND LOCAL CODES COLDFORMED STEEL STRUCTURAL MEMBERS 2001 EDITION 4. METAL FRAMING MANUFACTURER'S ASSOCIATION (MFMA)

1.11 SUBMITTALS SLOTTED CHANNEL FRAMING 1. DESCRIPTION OF DESIGN CRITERIA STRESS AND DEFLECTION ANALYSIS 800-882-5543 FAX: 708-339-7814

THE CONTRACT DRAWINGS C. PERTINENT MANUFACTURERS PUBLISHED DATA 1.12 PRODUCT DELIVERY, STORAGE, AND HANDLING SLOTTED CHANNEL FRAMING TO AVOID DAMAGE TO THE FINISH.

1.13 WARRANTY SLOTTED CHANNEL FRAMING DEFECT IN VIOLATION OF THE WARRANTY, INSTALLER SHALL HAVE THE OPTION TO REPAIR OR REPLACE ANY SUCH DEFECTIVE PRODUCT.

OTHER STANDARD ITEMS AS REQUIRED TO COMPLEMENT SHOP DRAWINGS FOR A

B. INFORMATION ON LABELS SHALL INCLUDE THE FOLLOWING: IDENTIFICATION NUMBER AND NAME. GENERALLY THIS NUMBER AND NAME SHALL BE THE 2. IF THE ITEM IS A FAN OR PUMP, THE FLOW AND HEAD SHALL BE INDICATED.

4. VALVES SHALL BE TAGGED WITH THE AREA SERVED AND THEIR NORMAL OPERATING

5. WHERE THE MAIN UNIT IS SERVED BY THE VALVE IS APPARENT, ONLY THE VALVE

VALVE TAGS SHALL BE 1/2" EMBOSSED ALUMINUM TAPES WITH IDENTIFICATION ON ONE SIDE FOR VALVES. TAGS FOR MAGNETIC STARTERS SHALL BE SCREWED TO THE METAL STARTER COVER. TAGS SHALL BE ADDRESSOGRAPH NO. B-5300. 2. EQUIPMENT NAMEPLATES SHALL BE BLACK FACED FORMICA WITH WHITE ENGRAVED

D. VALVE TAGS SHALL BE CONNECTED TO VALVE STEMS BY STEEL RINGS OR CHAINS. SCREWS SHALL BE USED FOR EQUIPMENT LABELS. PRIOR TO INSTALLATION, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A COMPLETE LIST OF ALL VALVES AND EACH ITEM OF EQUIPMENT TO

SYSTEM SHALL BE MITSUBISHI MODEL OF SIZE AND CAPACITY INDICATED. UNITS SHALL BE COMPLETELY ASSEMBLED AND TESTED COMPLETE WITH REFRIGERANT CHARGE AND READY TO

COMPLETELY ASSEMBLED AND TESTED COMPLETE WITH REFRIGERANT CHARGE AND READY TO OPERATE. UNIT SHALL BE U.L. LISTED AND CARRY A U.L. LABEL.

FOR STRUCTURAL APPLICATIONS AS APPLICABLE. STRUT SYSTEM AND COMPONENTS MUST BE SUPPLIED FROM A SINGLE APPROVED

1. THE MANUFACTURER SHALL HAVE AT LEAST 10 YEARS EXPERIENCE IN 2. THE MANUFACTURER MUST CERTIFY IN WRITING ALL COMPONENTS SUPPLIED

B. WORK SHALL MEET THE REQUIREMENTS OF THE FOLLOWING STANDARDS:

AMERICAN IRON AND STEEL INSTITUTE (AISI) SPECIFICATION FOR THE DESIGN OF 3. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

A. STRUCTURAL CALCULATIONS BY A REGISTERED PROFESSIONAL OR STRUCTURAL ENGINEER IN THE STATE OF THE PROJECT'S LOCATION FOR APPROVAL BY THE PROFESSIONAL OF RECORD. CALCULATIONS MAY INCLUDE, BUT ARE NOT LIMITED TO:

SELECTION OF FRAMING MEMBERS, FITTINGS, AND ACCESSORIES UNISTRUT INTERNATIONAL 16100 S. LATHROP AVE. HARVEY, IL 60426 PHONE: 708-339-1610

B. ASSEMBLY DRAWINGS NECESSARY TO INSTALL THE STRUT SYSTEM IN COMPLIANCE WITH

A. ALL MATERIAL IS TO BE DELIVERED TO THE WORK SITE IN ORIGINAL FACTORY PACKAGING B. UPON DELIVERY TO THE WORK SITE, ALL COMPONENTS SHALL BE PROTECTED FROM THE ELEMENTS BY A SHELTER OR OTHER COVERING.

A. MANUFACTURER SHALL WARRANT FOR 1 YEAR FROM THE SHIPMENT DATE THAT PRODUCTS WILL BE FREE FROM DEFECTS IN MATERIAL OR MANUFACTURE. IN THE EVENT

OF ANY SUCH DEFECT IN VIOLATION OF THE WARRANTY, MANUFACTURER SHALL HAVE THE OPTION TO REPAIR OR REPLACE ANY SUCH DEFECTIVE PRODUCT. B. INSTALLER SHALL WARRANT FOR 1 YEAR FROM THE DATE OF COMPLETION OF WORK THAT THE WORK WILL BE FREE OF DEFECTS IN INSTALLATION. IN THE EVENT OF ANY SUCH

**DIVISION 15 MECHANICAL** PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS SLOTTED CHANNEL FRAMING A. STRUT SYSTEM AND COMPONENTS SHALL BE UNISTRUT®

2.02 MATERIALS SLOTTED CHANNEL FRAMING A. ALL CHANNEL MEMBERS SHALL BE FABRICATED CONFORMING TO ONE OF THE

FOLLOWING ASTM SPECIFICATIONS: UNISTRUT DEFENDER™: A 1046 SS GRADE 33

STAINLESS STEEL: A 240 (TYPE 304)

B. ALL FITTINGS SHALL BE FABRICATED CONFORMING TO ONE OF THE FOLLOWING ASTM SPECIFICATIONS:

STAINLESS STEEL: A 240 (TYPE 304 OR TYPE 316)

B. A 276 (TYPE 304 OR TYPE 316) ANY SUBSTITUTIONS OF PRODUCT OR MANUFACTURER MUST BE APPROVED IN WRITING TEN DAYS PRIOR TO BID DATE BY THE PROFESSIONAL OF RECORD.

2.03 FINISHES SLOTTED CHANNEL FRAMING

A. FACTORY PAINTED CHANNEL

RUST INHIBITING THERMOSET ACRYLIC ENAMEL PAINT APPLIED BY ELECTRODEPOSITION AFTER CLEANING AND PHOSPHATING, AND THOROUGHLY BAKED.

FITTINGS POLYESTER POWDER COAT AFTER CLEANING AND PHOSPHATING, AND THOROUGHLY

BAKED. COLOR SHALL BE FHWA HIGHWAY GREEN, COLOR TOLERANCE CHART, PR COLOR NO. 4 HARDNESS = 2H

PERFORMANCE SALT SPRAY PER ASTM B117

SCRIBED: EXCEED 400 HOURS

UNSCRIBED: EXCEED 600 HOURS NOMINAL CHALKING AT 1,000 HOURS PER WEATHEROMETER G-23 TEST

NO CHECKING AT 1,000 HOURS PER WEATHEROMETER G-23 TEST ELECTRO-GALVANIZED PER ASTM B 633 TYPE III SC 1

PRE-GALVANIZED PER ASTM A653 ZINC COATED BY HOT-DIPPED PROCESS PRIOR TO ROLL FORMING AT THE STEEL MILL

ZINC COATING THICKNESS SHALL BE G90 (0.75 MIL = 0.45 OZ./ SQ. FT. SURFACE AREA)

HOT-DIPPED GALVANIZED PER ASTM A123 OR A153 ZINC COATED AFTER ALL MANUFACTURING OPERATIONS ARE COMPLETE

ZINC COATING THICKNESS SHALL BE G65 (2.6 MILS = 1.50 OZ./ SQ. FT. SURFACE AREA)

UNISTRUT DEFENDER™ PER ASTM A1046 AND A1059 STRUT COATED PER A1046 TO A MASS OF 0.45 OZ./ SQ. FT. SURFACE AREA

FITTINGS COATED PER A1059 TO A THICKNESS OF 30 MICRONS AND/OR A1046 TO A MASS OF 0.45 OZ /SQ. FT. SURFACE AREA

F. SPECIAL COATING / MATERIAL (DESCRIBE AS APPLICABLE)

DIVISION 15 MECHANICAL PART 3 - EXECUTION

3.01 EXAMINATION

A. THE INSTALLER SHALL INSPECT THE WORK AREA PRIOR TO INSTALLATION. IF WORK AREA CONDITIONS ARE UNSATISFACTORY, INSTALLATION SHALL NOT PROCEED UNTIL SATISFACTORY CORRECTIONS ARE COMPLETED.

3.02 INSTALLATION SLOTTED CHANNEL FRAMING

A. INSTALLATION SHALL BE ACCOMPLISHED BY A FULLY TRAINED MANUFACTURER AUTHORIZED INSTALLER. B. SET STRUT SYSTEM COMPONENTS INTO FINAL POSITION TRUE TO LINE, LEVEL AND PLUMB, IN ACCORDANCE WITH APPROVED DRAWINGS. C. ANCHOR MATERIAL FIRMLY IN PLACE, AND TIGHTEN ALL CONNECTIONS TO THEIR RECOMMENDED TORQUES.

3.03 CLEANUP SLOTTED CHANNEL FRAMING

A. UPON COMPLETION OF THIS SECTION OF WORK, REMOVE ALL PROTECTIVE WRAPS AND DEBRIS. REPAIR ANY DAMAGE DUE TO INSTALLATION OF THIS SECTION OF WORK. 3.04 PROTECTION SLOTTED CHANNEL FRAMING

A. DURING INSTALLATION, IT SHALL BE THE RESPONSIBILITY OF THE INSTALLER TO PROTECT THIS WORK FROM DAMAGE. B. UPON COMPLETION OF THIS SCOPE OF WORK, IT SHALL BECOME THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO PROTECT THIS WORK FROM DAMAGE DURING THE REMAINDER OF CONSTRUCTION ON THE PROJECT AND UNTIL SUBSTANTIAL COMPLETION.



© 2017 HKS ARCHITECTS, IN









	SPLIT SYSTEM A/C UNITS												
	MANUFACTURER	COOLING	INDOOR UNIT				OUTDOOR UNIT				REFRIGERANT L	INES	
	AND	CAPACITY	CFM	DIMENSIONS	WEIGHT		DIMENSIONS	WEIGHT	AMPS				
ID	MODEL NUMBER	(BTU)	RANGE	W" x H" x D"	(LBS.)	VOLTS/PH/HZ.	W" x H" x D"	(LBS.)	(MCA)	VOLTS/PH/HZ.	LIQUID	GAS	NOTES
AC-1	DAIKIN FTX36NVJU / RX36NMVJUA	36,000	742-960	13-3/8 × 47-1/4 × 10-3/16	38	208/60/1	28-15/16 × 34-1/4 × 12-5/8	133	19.8	208/60/1	1/4"	5/8"	1,2,3,4,5,6,7,8,9



——4" MIN. RADIUS ALL BENDS

THRU WALL. CAULK AND MAKE WEATHERTIGHT

—— 3/4" COND. DRAIN LINE. DAYLIGHT 1' 6" ABOVE GROUND

WIRING



SYMBOL	
	E AND LINE SYMBOLS
A5 E-501	DETAIL INDICATOR: A5 INDICATES DETAIL NUMBER, E-501 INDICATES DRAWING SHEET WHERE DETAIL IS SHOWN.
02	
A5	ELEVATION OR SECTION INDICATOR, EXTERIOR: A5 INDICATES
E-201	SHEET WHERE ELEVATION OR SECTION IS SHOWN.
03	
A5 E-201	ELEVATION OR SECTION INDICATOR, INTERIOR: A5 INDICATES ELEVATION OR SECTION NUMBER, E-201 INDICATES DRAWING SHEET WHERE ELEVATION OR SECTION IS SHOWN
ROOM NAME	
04 100	
(1) 06 $\wedge$	
08	
X-X XMDP	EQUIPMENT MARK SHOWN ON EQUIPMENT SCHEDULE. "XMDP IDENTIFIES PANEL EQUIPMENT IS CIRCUITED TO. REFER TO
09	EQUIPMENT SCHEDULE FOR ADDITIONAL INFORMATION.
	BREAK, STRAIGHT: TO BREAK PARTS OF DRAWING
SEE XX/X-XXX 12	
13	
14	
15	EXISTING TO REMAIN LINE: THIN LINE.
16	
17	
18	
XXX EF-X	EQUIPMENT OR EQUIPMENT ID. "EF-X" IDENTIFIES MECHANICA EQUIPMENT BEING SERVED. REFER TO EQUIPMENT SCHEDULI FOR ADDITIONAL INFORMATION.
19 <u>X-X</u>	EQUIPMENT INDICATOR. "X-X" INDICATES EQUIPMENT MARK SHOWN ON EQUIPMENT SCHEDULE. "1LA-3" IDENTIFIES PANEL
1LA-3	EQUIPMENT IS CIRCUITED TO. REFER TO EQUIPMENT SCHEDU FOR ADDITIONAL INFORMATION.
	THODS
01	WIRING.
04	BRANCH CIRCUIT HOME RUN TO PANELBOARD: NUMBER OF ARROWS INDICATES NUMBER OF CIRCUITS. LETTER AND
A-1,3,5	NUMBER NOTATIONS IDENTIFY PANEL AND CIRCUIT NUMBERS. USE #12 CONDUCTORS, EXCEPT #10 CONDUCTORS SHALL BE
	ELECTRICAL SPECIFICATIONS.
05	BRANCH CIRCUIT HOME RUN TO PANELBOARD: NUMBER OF
1	NUMBER NOTATIONS IDENTIFY PANEL AND CIRCUIT NUMBERS. NUMBER IN BOX REFERS TO THE CONDUCTOR AND CONDUIT
A-1,3,5	SCHEDULE. FOR BRANCH WIRING USE #12 CONDUCTORS, EXCEPT #10 CONDUCTORS SHALL BE INSTALLED IF DISTANCES
	EXCEED THOSE SPECIFIED IN THE ELECTRICAL SPECIFICATIONS.
08	WIRING AND/OR RACEWAY: THIN LINE. WHERE "X" = :
	CATV = CABLE TELEVISION NC = NURSE CALL CCTV = CLOSED CIRCUIT P = POWER
— x —	TELEVISION RC = RIGID CONDU FA = FIRE ALARM S = SOUND
	I = INTERCOM TV = TELEVISION
	OTHERS AS NOTED IN OTHER SCHEDULES. RACEWAYS AND WIRING SHALL BE SIZED AS SHOWN AND/OR SPECIFIED.
09	LOW VOLTAGE WIRING: DIVIDE, MEDIUM LINE.
<sup>10</sup> +	CONDUIT STUB. DIMENSION RECORD DRAWINGS AND MARK.
11 1	CONDUCTOR & CONDUIT ("CC") SCHEDULE INDICATOR. REFER TO ONE-LINE DIAGRAM.
12 (HC)	ADA ACCESS PUSH PLATE
<sup>13</sup> Ø	JUNCTION BOX.
20 W W	WIREWAY.
<sup>21</sup> <u>_</u>	EARTH GROUND (ONE-LINE DIAGRAM).
<sup>22</sup> 0 <sub>C</sub>	JUNCTION BOX, CEILING.
23	LADDER RACK.
24 [A] [A]	CABLE TRAY BELOW ACCESSIBLE FLOOR.
<sup>25</sup> $igodot$	MECHANICAL EQUIPMENT CONNECTION. REFER TO EQUIPMEN SCHEDULE FOR REQUIREMENTS.
	OGY SYSTEMS
01	TECHNOLOGY SYSTEM CABLE. SEE SPECIFIC JOB EQUIPMENT
	EXAMPLES:
x	C = CONTROL CABLE G = GROUND CABLE, 10 AWG, 1 CONDUCTOR, GREE
	M = MICROPHONE CABLE S = SPEAKER CABLE, 70 VOLT SYSTEM
02	Z = SPEAKER CABLE, 8 OHM SYSTEM
<sup>02</sup> (\$ <sub>#</sub>	SPEAKER, CEILING MOUNTED.
	SPEAKER, WALL MOUNTED.
13	SPEAKER, MASKING.
<sup>13</sup> (S <sub>R</sub>	SPEAKER, RECESSED.
22	EQUIPMENT CABINET.
22	MEDIA CONNECTION PLATE.
<sup>23</sup>	AUDIO/VISUAL OUTLET.
40	CONNECTION PANEL.
[ CP# ]	TRANSIENT VOLTAGE SURGE SUPPRESSER. AC LINE
49 TVSS	CONDITIONER.
49 TVSS 55	
49 TVSS 55 PA	CONDITIONER. AMPLIFIER (ONE-LINE DIAGRAM).
49 TVSS 55 PA 56 DD	CONDITIONER. AMPLIFIER (ONE-LINE DIAGRAM).
49 TVSS 55 PA 56 PB	CONDITIONER. AMPLIFIER (ONE-LINE DIAGRAM). POWER BRIDGE (VARIZONE DIGITAL PAGING SYSTEM).
49 TVSS 55 PA 56 PB 57 -WV-	CONDITIONER. AMPLIFIER (ONE-LINE DIAGRAM). POWER BRIDGE (VARIZONE DIGITAL PAGING SYSTEM). TERMINATOR (VARIZONE DIGITAL PAGING SYSTEM).
49 TVSS 55 PA 56 PB 57 -WV- 59 WW-	CONDITIONER. AMPLIFIER (ONE-LINE DIAGRAM). POWER BRIDGE (VARIZONE DIGITAL PAGING SYSTEM). TERMINATOR (VARIZONE DIGITAL PAGING SYSTEM). TRANSFORMER, ISOLATION/MATCHING (ONE-LINE DIAGRAM).

SYMBOL	DESCRIPTION
	VICES
²	RECEPTACLE, DUPLEX: NEMA 5-20R.
₩ A	
Фс	RECEPTACLE, DUPLEX, CEILING: NEMA 5-20R.
₩	INTERRUPTER, DRINKING FOUNTAIN: CONCEAL WATER COOLER RECEPTACLE BEHIND WATER COOLER. SEE
₩ DF	MECHANICAL/PLUMBING SHOP DRAWINGS FOR INSTALLATION REQUIREMENTS.
∬s	RECEPTACLE, DUPLEX, SWITCHED: NEMA 5-20R.
 ₩=	RECEPTACLE, DUPLEX, WEATHERPROOF: NEMA 5-20R.
<u> </u>	
	RECEFTACLE, DUFLEX, HUSFITAL GRADE. NEMA 5-20R.
0	RECEPTACLE, DUPLEX ON EMERGENCY POWER: NEMA 5-20R.
	POWER: NEMA 5-20R.
, P	RECEPTACLE, DUPLEX, CONNECTED TO UPS: NEMA 5-20R.
_ ۴	RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT
	RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT
₩	INTERRUPTER, HOSPITAL GRADE ON EMERGENCY POWER:
)	
₩P	INTERRUPTER, WEATHERPROOF: NEMA 5-20R.
ź ↓	RECEPTACLE, QUADRAPLEX: NEMA 5-20R.
	RECEPTACLE, QUADRAPLEX ON EMERGENCY POWER: NEMA 5-20R.
	RECEPTACLE, QUADRAPLEX, HOSPITAL GRADE: NEMA 5-20R.
<b>₩</b>	RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT
₩ <sup>3</sup> I	IN FERRUPTER: NEMA 5-20R. RECEPTACLE, SPECIAL PURPOSE. PROVIDE RECEPTACIE TO
$\odot$	MATCH EQUIPMENT PLUG.
•	PROVIDE RECEPTACLE TO MATCH EQUIPMENT PLUG.
D	RECEPTACLE, DRYER: NEMA 14-30R.
₿R	RECEPTACLE, RANGE: NEMA 14-50R.
	RECEPTACLE, CLOCK HANGER: NEMA 5-15R.
	MULTI-OUTLET ASSEMBLY: NEMA 5-20R.
(T)	THERMOSTAT.
, FB#]	FLUSH FLOOR BOX. "#" SHOWN ON DRAWINGS. REFER TO WIRING DEVICE SCHEDULE IN THE ELECTRICAL
[10#]	SPECIFICATIONS FOR CONFIGURATION AND DEVICES.
	FLUSH FIRE RATED POKE THRU. "#" SHOWN ON DRAWINGS.
PT#	REFER TO WIRING DEVICE SCHEDULE IN THE ELECTRICAL SPECIFICATIONS FOR CONFIGURATION AND DEVICES.
)	
Ψ ) X	
\$ X	SWITCH, SINGLE POLE ("x" INDICATES FIXTURES CONTROLLED).
\$2	SWITCH, DOUBLE POLE ("x" INDICATES FIXTURES CONTROLLED).
\$3	SWITCH, THREE-WAY ("x" INDICATES FIXTURES CONTROLLED).
5 X \$4	SWITCH, FOUR-WAY ("x" INDICATES FIXTURES CONTROLLED).
\$DS	SWITCH, DOOR.
¢к	
φι.	
\$M	
	SWITCH, WEATHERPROOF.
\$WP	
\$WP	RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE: NEMA 5-20R.
\$WP	RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE: NEMA 5-20R. RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER HOSPITAL GRADE ON EMERGENCY POWER:
\$WP	RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE: NEMA 5-20R. RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE ON EMERGENCY POWER: NEMA 5-20R.
\$WP	RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE: NEMA 5-20R. RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE ON EMERGENCY POWER: NEMA 5-20R. RECEPTACLE, SINGLE PLEX, WITH USB OUTLET
\$WP	RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE: NEMA 5-20R. RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE ON EMERGENCY POWER: NEMA 5-20R. RECEPTACLE, SINGLE PLEX, WITH USB OUTLET
\$WP	RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE: NEMA 5-20R. RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE ON EMERGENCY POWER: NEMA 5-20R. RECEPTACLE, SINGLE PLEX, WITH USB OUTLET RECEPTACLE, DULEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD)
\$WP 3 4 4 5 4 5 4 5 6 7 7 8 8 8 7 8 8 8 8 8 8 8 8 8 8 8 8 8	RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE: NEMA 5-20R. RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE ON EMERGENCY POWER: NEMA 5-20R. RECEPTACLE, SINGLE PLEX, WITH USB OUTLET RECEPTACLE, DULEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD)
	RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE: NEMA 5-20R. RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE ON EMERGENCY POWER: NEMA 5-20R. RECEPTACLE, SINGLE PLEX, WITH USB OUTLET RECEPTACLE, DULEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD) RECEPTACLE, QUADRAPLEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY
	RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE: NEMA 5-20R. RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE ON EMERGENCY POWER: NEMA 5-20R. RECEPTACLE, SINGLE PLEX, WITH USB OUTLET RECEPTACLE, DULEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD) RECEPTACLE, QUADRAPLEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD)
\$₩P 3 4 4 5 6 7 7 7 7 7 7 7 7 7 7 7 7 7	RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE: NEMA 5-20R. RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE ON EMERGENCY POWER: NEMA 5-20R. RECEPTACLE, SINGLE PLEX, WITH USB OUTLET RECEPTACLE, DULEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD) RECEPTACLE, QUADRAPLEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD)
\$WP 3 4 4 5 4 5 4 5 4 5 4 5 5 6 6 7 7 7 7 7 7 7 7 7 7 7 7 7	RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE: NEMA 5-20R. RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE ON EMERGENCY POWER: NEMA 5-20R. RECEPTACLE, SINGLE PLEX, WITH USB OUTLET RECEPTACLE, DULEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD) RECEPTACLE, QUADRAPLEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD)
\$WP	RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE: NEMA 5-20R. RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE ON EMERGENCY POWER: NEMA 5-20R. RECEPTACLE, SINGLE PLEX, WITH USB OUTLET RECEPTACLE, DULEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD) RECEPTACLE, QUADRAPLEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD) FIXTURE IDENTIFICATION: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED.
\$WP 3 4 4 5 6 7 7 7 7 7 7 7 7 7 7 7 7 7	RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE: NEMA 5-20R. RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE ON EMERGENCY POWER: NEMA 5-20R. RECEPTACLE, SINGLE PLEX, WITH USB OUTLET RECEPTACLE, DULEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD) RECEPTACLE, QUADRAPLEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD) FIXTURE IDENTIFICATION: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED. FIXTURE IDENTIFICATION, EMERGENCY WITH BATTERY PACK,
\$WP 3 4 5 6 7 7 7 7 7 7 7 7 7 7 7 7 7	RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE: NEMA 5-20R. RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE ON EMERGENCY POWER: NEMA 5-20R. RECEPTACLE, SINGLE PLEX, WITH USB OUTLET RECEPTACLE, DULEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD) RECEPTACLE, QUADRAPLEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD) FIXTURE IDENTIFICATION: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED. FIXTURE IDENTIFICATION, EMERGENCY WITH BATTERY PACK, CONNECTED TO GENERATOR AS INDICATED: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED.
\$WP	RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE: NEMA 5-20R. RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE ON EMERGENCY POWER: NEMA 5-20R. RECEPTACLE, SINGLE PLEX, WITH USB OUTLET RECEPTACLE, DULEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD) RECEPTACLE, QUADRAPLEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD) FIXTURE IDENTIFICATION: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED. FIXTURE IDENTIFICATION, EMERGENCY WITH BATTERY PACK, CONNECTED TO GENERATOR AS INDICATED: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED.
\$WP	RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE: NEMA 5-20R. RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE ON EMERGENCY POWER: NEMA 5-20R. RECEPTACLE, SINGLE PLEX, WITH USB OUTLET RECEPTACLE, DULEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD) RECEPTACLE, QUADRAPLEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD) FIXTURE IDENTIFICATION: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED. FIXTURE IDENTIFICATION, EMERGENCY WITH BATTERY PACK, CONNECTED TO GENERATOR AS INDICATED: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED. EMERGENCY.
\$WP 3 4 3 4 5 6 6 7 7 7 7 7 7 7 7 7 7 7 7 7	RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE: NEMA 5-20R. RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE ON EMERGENCY POWER: NEMA 5-20R. RECEPTACLE, SINGLE PLEX, WITH USB OUTLET RECEPTACLE, DULEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD) RECEPTACLE, QUADRAPLEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD) FIXTURE IDENTIFICATION: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED. FIXTURE IDENTIFICATION, EMERGENCY WITH BATTERY PACK, CONNECTED TO GENERATOR AS INDICATED: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED. EMERGENCY. EGRESS DIRECTION ARROW (EXIT SIGNS).
\$WP 3 4 3 4 5 6 6 6 7 6 7 7 7 7 7 7 7 7 7 7 7 7 7	RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE: NEMA 5-20R. RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE ON EMERGENCY POWER: NEMA 5-20R. RECEPTACLE, SINGLE PLEX, WITH USB OUTLET RECEPTACLE, DULEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD) RECEPTACLE, QUADRAPLEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD) FIXTURE IDENTIFICATION: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED. FIXTURE IDENTIFICATION, EMERGENCY WITH BATTERY PACK, CONNECTED TO GENERATOR AS INDICATED: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED. EMERGENCY. EGRESS DIRECTION ARROW (EXIT SIGNS). LOW VOLTAGE LIGHTING TRANSFORMER.
\$WP 3 4 4 5 6 6 6 7 7 7 7 7 7 7 7 7 7 7 7 7	RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE: NEMA 5-20R. RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE ON EMERGENCY POWER: NEMA 5-20R. RECEPTACLE, SINGLE PLEX, WITH USB OUTLET RECEPTACLE, DULEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD) RECEPTACLE, QUADRAPLEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD) FIXTURE IDENTIFICATION: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED. FIXTURE IDENTIFICATION, EMERGENCY WITH BATTERY PACK, CONNECTED TO GENERATOR AS INDICATED: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED. EMERGENCY. EGRESS DIRECTION ARROW (EXIT SIGNS). LOW VOLTAGE LIGHTING TRANSFORMER. EXIT SIGN: SINGLE FACE; CEILING MOUNTED
\$WP 3 4 3 4 3 4 5 5 6 6 7 7 7 7 7 7 7 7 7 7 7 7 7	RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE: NEMA 5-20R.         RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE ON EMERGENCY POWER: NEMA 5-20R.         RECEPTACLE, SINGLE PLEX, WITH USB OUTLET         RECEPTACLE, DULEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD)         RECEPTACLE, QUADRAPLEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD)         FIXTURE IDENTIFICATION: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED.         FIXTURE IDENTIFICATION, EMERGENCY WITH BATTERY PACK, CONNECTED TO GENERATOR AS INDICATES FIXTURE TYPE AS SCHEDULED.         EMERGENCY.         EGRESS DIRECTION ARROW (EXIT SIGNS).         LOW VOLTAGE LIGHTING TRANSFORMER.         EXIT SIGN: SINGLE FACE; CEILING MOUNTED         EXIT SIGN: SINGLE FACE; WALL MOUNTED
\$WP 3 4 3 4 5 5 5 6 6 6 7 7 7 7 7 7 7 7 7 7 7 7 7	RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE: NEMA 5-20R.         RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE ON EMERGENCY POWER: NEMA 5-20R.         RECEPTACLE, SINGLE PLEX, WITH USB OUTLET         RECEPTACLE, DULEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD)         RECEPTACLE, QUADRAPLEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD)         FIXTURE IDENTIFICATION: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED.         FIXTURE IDENTIFICATION, EMERGENCY WITH BATTERY PACK, CONNECTED TO GENERATOR AS INDICATES FIXTURE TYPE AS SCHEDULED.         EMERGENCY.         EGRESS DIRECTION ARROW (EXIT SIGNS).         LOW VOLTAGE LIGHTING TRANSFORMER.         EXIT SIGN: SINGLE FACE; CEILING MOUNTED         EXIT SIGN: SINGLE FACE; CEILING MOUNTED
\$WP 3 4 4 5 6 6 7 7 7 7 7 7 7 7 7 7 7 7 7	RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE: NEMA 5-20R.         RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE ON EMERGENCY POWER: NEMA 5-20R.         RECEPTACLE, SINGLE PLEX, WITH USB OUTLET         RECEPTACLE, DULEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD)         RECEPTACLE, QUADRAPLEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD)         FIXTURE IDENTIFICATION: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED.         FIXTURE IDENTIFICATION, EMERGENCY WITH BATTERY PACK, CONNECTED TO GENERATOR AS INDICATED: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED.         EMERGENCY.         EGRESS DIRECTION ARROW (EXIT SIGNS).         LOW VOLTAGE LIGHTING TRANSFORMER.         EXIT SIGN: SINGLE FACE; CEILING MOUNTED         EXIT SIGN: SINGLE FACE; CEILING MOUNTED         EXIT SIGN: DOUBLE FACE; CEILING MOUNTED         EXIT SIGN: DOUBLE FACE; WALL MOUNTED
\$WP 3 4 3 4 3 4 5 5 6 6 6 7 6 7 7 7 8 7 8 7 7 7 8 7 7 7 7 7 7 7 7 7 7 7 7 7	RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE: NEMA 5-20R.         RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE ON EMERGENCY POWER: NEMA 5-20R.         RECEPTACLE, SINGLE PLEX, WITH USB OUTLET         RECEPTACLE, DULEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD)         RECEPTACLE, QUADRAPLEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD)         FIXTURE IDENTIFICATION: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED.         FIXTURE IDENTIFICATION: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED.         EMERGENCY.         EGRESS DIRECTION ARROW (EXIT SIGNS).         LOW VOLTAGE LIGHTING TRANSFORMER.         EXIT SIGN: SINGLE FACE; CEILING MOUNTED         EXIT SIGN: SINGLE FACE; CEILING MOUNTED         EXIT SIGN: DOUBLE FACE; CEILING MOUNTED         EXIT SIGN: DOUBLE FACE; CEILING MOUNTED         EXIT SIGN: DOUBLE FACE; WALL MOUNTED
\$WP 3 4 3 4 3 4 5 5 5 6 6 7 6 7 7 7 7 7 7 7 7 7 7 7 7 7	RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE: NEMA 5-20R.         RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE ON EMERGENCY POWER: NEMA 5-20R.         RECEPTACLE, SINGLE PLEX, WITH USB OUTLET         RECEPTACLE, DULEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD)         RECEPTACLE, QUADRAPLEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD)         FIXTURE IDENTIFICATION: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED.         FIXTURE IDENTIFICATION: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED.         EMERGENCY.         EGRESS DIRECTION ARROW (EXIT SIGNS).         LOW VOLTAGE LIGHTING TRANSFORMER.         EXIT SIGN: SINGLE FACE; CEILING MOUNTED         EXIT SIGN: SINGLE FACE; CEILING MOUNTED         EXIT SIGN: DOUBLE FACE; CEILING MOUNTED         EXIT SIGN: DOUBLE FACE; WALL MOUNTED         EXIT SIGN: DOUBLE FACE; WALL MOUNTED
WP $WP$ $WP$ $WP$ $W$	RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE: NEMA 5-20R. RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE ON EMERGENCY POWER: NEMA 5-20R. RECEPTACLE, SINGLE PLEX, WITH USB OUTLET RECEPTACLE, DULEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD) RECEPTACLE, QUADRAPLEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD) FIXTURE IDENTIFICATION: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED. FIXTURE IDENTIFICATION, EMERGENCY WITH BATTERY PACK, CONNECTED TO GENERATOR AS INDICATES FIXTURE TYPE AS FIXTURE TYPE AS SCHEDULED. EMERGENCY. EGRESS DIRECTION ARROW (EXIT SIGNS). LOW VOLTAGE LIGHTING TRANSFORMER. EXIT SIGN: SINGLE FACE; CEILING MOUNTED EXIT SIGN: SINGLE FACE; CEILING MOUNTED EXIT SIGN: DOUBLE FACE; CEILING MOUNTED EXIT SIGN: DOUBLE FACE; CEILING MOUNTED EXIT SIGN: DOUBLE FACE; WALL MOUNTED EXIT SIGN: DOUBLE FACE; CEILING MOUNTED EXIT SIGN: DOUBLE FACE; CEILING MOUNTED EXIT SIGN: DOUBLE FACE; CEILING MOUNTED
WP $WP$ $WP$ $WP$ $W$	RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE: NEMA 5-20R. RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE ON EMERGENCY POWER: NEMA 5-20R. RECEPTACLE, SINGLE PLEX, WITH USB OUTLET RECEPTACLE, DULEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD) RECEPTACLE, QUADRAPLEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD) FIXTURE IDENTIFICATION: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED. FIXTURE IDENTIFICATION, EMERGENCY WITH BATTERY PACK, CONNECTED TO GENERATOR AS INDICATES FIXTURE TYPE AS SCHEDULED. EMERGENCY. EGRESS DIRECTION ARROW (EXIT SIGNS). LOW VOLTAGE LIGHTING TRANSFORMER. EXIT SIGN: SINGLE FACE; CEILING MOUNTED EXIT SIGN: SINGLE FACE; WALL MOUNTED EXIT SIGN: DOUBLE FACE; CEILING MOUNTED EXIT SIGN: DOUBLE FACE; WALL MOUNTED EXIT SIGN: DOUBLE FACE; WALL MOUNTED ISTICON TV DISTRIBUTION CABLE, INDIVIDUAL DROPS. TV DISTRIBUTION CABLE, TRUNK.
\$WP 3 4 3 4 3 4 5 4 5 6 6 6 7 6 7 7 7 7 7 7 7 7 7 7 7 7 7	RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE: NEMA 5-20R.         RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE ON EMERGENCY POWER: NEMA 5-20R.         RECEPTACLE, SINGLE PLEX, WITH USB OUTLET         RECEPTACLE, DULEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLED THROUGH TIME OR OCCUPANCY BASED CONTROLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD)         RECEPTACLE, QUADRAPLEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD)         FIXTURE IDENTIFICATION: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED.         FIXTURE IDENTIFICATION, EMERGENCY WITH BATTERY PACK, CONNECTED TO GENERATOR AS INDICATES FIXTURE TYPE AS SCHEDULED.         EMERGENCY.         EGRESS DIRECTION ARROW (EXIT SIGNS).         LOW VOLTAGE LIGHTING TRANSFORMER.         EXIT SIGN: SINGLE FACE; CEILING MOUNTED         EXIT SIGN: SINGLE FACE; CEILING MOUNTED         EXIT SIGN: DOUBLE FACE; WALL MOUNTED         EXIT SIGN: DOUBLE FACE; WALL MOUNTED         EXIT SIGN: DOUBLE FACE; WALL MOUNTED         EXIT SIGN: DOUBLE FACE; NOLVIDUAL DROPS.         TV DISTRIBUTION CABLE, INDIVIDUAL DROPS.         TV DISTRIBUTION CABLE, TRUNK.         COMBINER.
\$WP 3 4 3 4 3 4 3 4 5 5 5 6 6 6 6 7 6 7 7 7 7 7 7 7 7 7 7 7 7 7	RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE: NEMA 5-20R. RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE ON EMERGENCY POWER: NEMA 5-20R. RECEPTACLE, SINGLE PLEX, WITH USB OUTLET RECEPTACLE, DULEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD) RECEPTACLE, QUADRAPLEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD) FIXTURE IDENTIFICATION: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED. FIXTURE IDENTIFICATION: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED. EMERGENCY. EGRESS DIRECTION ARROW (EXIT SIGNS). LOW VOLTAGE LIGHTING TRANSFORMER. EXIT SIGN: SINGLE FACE; CEILING MOUNTED EXIT SIGN: SINGLE FACE; CEILING MOUNTED EXIT SIGN: DOUBLE FACE; CEILING MOUNTED EXIT SIGN: DOUBLE FACE; CEILING MOUNTED EXIT SIGN: DOUBLE FACE; WALL MOUNTED EXIT SIGN: DOUBLE FACE; CHING MOUNTED EXIT SIGN: DOUBLE FACE; CHING MOUNTED EXIT SIGN: DOUBLE FACE; CHING MOUNTED EXIT SIGN: DOUBLE FACE; WALL MOUNTED EXIT SIGN: DOUBLE FACE; WALL MOUNTED EXIT SIGN: DOUBLE FACE; WALL MOUNTED EXIT SIGN: DOUBLE FACE; CEILING MOUNTED EXIT SIGN: DOUBLE FACE; WALL MOUNTED EXIT SIGN: DOUBLE FACE; TUNK. COMBINER. DIRECTIONAL COUPLER.
WP $WP$ $WP$ $WP$ $W$	RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE: NEMA 5-20R. RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE ON EMERGENCY POWER: NEMA 5-20R. RECEPTACLE, SINGLE PLEX, WITH USB OUTLET RECEPTACLE, DULEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLED THROUGH TIME OR OCCUPANCY BASED CONTROLE THROUGH TIME OR OCCUPANCY BASED CONTROLE (REFER TO PLANS FOR CONTROL METHOD) RECEPTACLE, QUADRAPLEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD) FIXTURE IDENTIFICATION: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED. FIXTURE IDENTIFICATION, EMERGENCY WITH BATTERY PACK, CONNECTED TO GENERATOR AS INDICATED: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED. EMERGENCY. EGRESS DIRECTION ARROW (EXIT SIGNS). LOW VOLTAGE LIGHTING TRANSFORMER. EXIT SIGN: SINGLE FACE; CEILING MOUNTED EXIT SIGN: SINGLE FACE; CEILING MOUNTED EXIT SIGN: DOUBLE FACE; NALL MOUNTED EXIT SIGN: DOUBLE FACE; CEILING MOUNTED
WP $WP$ $WP$ $WP$ $W$	RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE: NEMA 5-20R.         RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE ON EMERGENCY POWER: NEMA 5-20R.         RECEPTACLE, SINGLE PLEX, WITH USB OUTLET         RECEPTACLE, DULEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD)         RECEPTACLE, QUADRAPLEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD)         RECEPTACLE, QUADRAPLEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD)         RECEPTACLE, QUADRAPLEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD)         FIXTURE IDENTIFICATION: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED.         FIXTURE IDENTIFICATION, EMERGENCY WITH BATTERY PACK, CONNECTED TO GENERATOR AS INDICATED: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED.         EMERGENCY.         EGRESS DIRECTION ARROW (EXIT SIGNS).         LOW VOLTAGE LIGHTING TRANSFORMER.         EXIT SIGN: SINGLE FACE; CEILING MOUNTED         EXIT SIGN: DOUBLE FACE; CEILING MOUNTED         EXIT SIGN: DOUBLE FACE; WALL MOUNTED         EXIT SIGN: DOUBLE FACE; WALL MOUNTED         EXIT SIGN: DOUBLE FACE; WALL MOUNTED         EVITION         TV DISTRIBUTION CABLE, INDIVIDUAL DROPS.         TV DISTRIBUTION CABL
WP $WP$ $WP$ $WP$ $W$	RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE: NEMA 5-20R. RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE ON EMERGENCY POWER: NEMA 5-20R. RECEPTACLE, DULEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD) RECEPTACLE, QUADRAPLEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD) FIXTURE IDENTIFICATION: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED. FIXTURE IDENTIFICATION; EMERGENCY WITH BATTERY PACK, CONNECTED TO GENERATOR AS INDICATES FIXTURE TYPE AS SCHEDULED. EMERGENCY. EGRESS DIRECTION ARROW (EXIT SIGNS). LOW VOLTAGE LIGHTING TRANSFORMER. EXIT SIGN: SINGLE FACE; CEILING MOUNTED EXIT SIGN: SINGLE FACE; CEILING MOUNTED EXIT SIGN: DOUBLE FACE; WALL MOUNTED EXIT SIGN: DOUBLE FACE; CEILING MOUNTED EXIT SIGN : DOUBLE FACE; CEILING MOUNTED EXIT SIGN : D
WP $WP$ $WP$ $WP$ $W$	RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE: NEMA 5-20R.         RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE ON EMERGENCY POWER: NEMA 5-20R.         RECEPTACLE, SINGLE PLEX, WITH USB OUTLET         RECEPTACLE, DULEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD)         RECEPTACLE, QUADRAPLEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD)         RECEPTACLE, QUADRAPLEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD)         RECEPTACLE, QUADRAPLEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD)         RECEPTACLE, QUADRAPLEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD)         RECEPTACLE, QUADRAPLEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD)         EMERGENCY.         EGRESS DIRECTION ARROW (EXIT SIGNS).         LOW VOLTAGE LIGHTING TRANSFORMER.         EXIT SIGN: SINGLE FACE; CEILING MOUNTED         EXIT SIGN: DOUBLE FACE; CEILING MOUNTED         EXIT SIGN: DOUBLE FACE; CEILING MOUNTED         EXIT SIGN: DOUBLE FACE; CEILING MOUNTED         EVITION         COMBINER.         DISTRIBUTION CABLE, I
WP $WP$ $WP$ $WP$ $W$	RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE: NEMA 5-20R. RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE ON EMERGENCY POWER: NEMA 5-20R. RECEPTACLE, SINGLE PLEX, WITH USB OUTLET RECEPTACLE, DULEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLS (REFER TO PLANS FOR CONTROL METHOD) RECEPTACLE, QUADRAPLEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD) RECEPTACLE, QUADRAPLEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD) FIXTURE IDENTIFICATION: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED. FIXTURE IDENTIFICATION: EMERGENCY WITH BATTERY PACK, CONNECTED TO GENERATOR AS INDICATED (W-3) INDICATES FIXTURE TYPE AS SCHEDULED. EMERGENCY. EGRESS DIRECTION ARROW (EXIT SIGNS). LOW VOLTAGE LIGHTING TRANSFORMER. EXIT SIGN: SINGLE FACE; CEILING MOUNTED EXIT SIGN: DOUBLE FACE; CEILING MOUNTED EXIT SI
WP $WP$ $WP$ $WP$ $W$	RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE: NEMA 5-20R.         RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE ON EMERGENCY POWER: NEMA 5-20R.         RECEPTACLE, SINGLE PLEX, WITH USB OUTLET         RECEPTACLE, DULEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLS (REFER TO PLANS FOR CONTROL METHOD)         RECEPTACLE, QUADRAPLEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD)         RECEPTACLE, QUADRAPLEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD)         FIXTURE IDENTIFICATION: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED.         FIXTURE IDENTIFICATION, EMERGENCY WITH BATTERY PACK, CONNECTED TO GENERATOR AS INDICATED: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED.         EMERGENCY.         EGRESS DIRECTION ARROW (EXIT SIGNS).         LOW VOLTAGE LIGHTING TRANSFORMER.         EXIT SIGN: SINGLE FACE; CEILING MOUNTED         EXIT SIGN: DOUBLE FACE; CEILING MOUNTED         EXIT SIGN: DOUBLE FACE; CEILING MOUNTED         EXIT SIGN: DOUBLE FACE; CEILING MOUNTED         CUTION         TV DISTRIBUTION CABLE, INDIVIDUAL DROPS.         TV DISTRIBUTION CABLE, INDIVIDUAL DROPS.         TV DISTRIBUTION CABLE, INDIVIDUAL DROPS.         TV DISTRIBUTION AMPLIFIER (ONE-LINE DIAGRAM).         SPLITTER (ONE-LINE DIAGRAM).
WP $WP$ $WP$ $WP$ $W$	RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE: NEMA 5-20R. RECEPTACLE, SINGLE PLEX, WITH USB OUTLET RECEPTACLE, DULEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD) RECEPTACLE, QUADRAPLEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD) RECEPTACLE, QUADRAPLEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD) RECEPTACLE, QUADRAPLEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD) RECEPTACLE, QUADRAPLEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD) BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD) FIXTURE IDENTIFICATION, EMERGENCY WITH BATTERY PACK, CONNECTED TO GENERATOR AS INDICATES FIXTURE TYPE AS SCHEDULED. EMERGENCY. EGRESS DIRECTION ARROW (EXIT SIGNS). LOW VOLTAGE LIGHTING TRANSFORMER. EXIT SIGN: SINGLE FACE; CEILING MOUNTED EXIT SIGN: SINGLE FACE; CEILING MOUNTED EXIT SIGN: DOUBLE FACE; CEILING MOUNTED EXIT SIGN: DOUBLE FACE; CEILING MOUNTED EXIT SIGN: DOUBLE FACE; WALL MOUNTED EXIT SIGN: DOUBLE FACE; VICH DIAGRAM). TV DISTRIBUTION CABLE, INDIVIDUAL DROPS. TV DISTRIBUTION AMPLIFI

SYMBOL	SYMBOLS LEGEND
	L POWER AND DISTRIBUTION
	FUSE WITH RATING (ONE-LINE DIAGRAM).
	DISCONNECT, FUSED (ONE-LINE DIAGRAM).
03	DISCONNECT, NONFUSED (ONE-LINE DIAGRAM).
	DISCONNECT WITH FUSE AND MOTOR STARTER COMBINATION (ONE-LINE DIAGRAM).
	CIRCUIT BREAKER, MOLDED CASE (ONE-LINE DIAGRAM).
	CIRCUIT BREAKER, MOLDED CASE WITH SHUNT TRIP (ONE-LINE DIAGRAM).
	CIRCUIT BREAKER, MOTOR CIRCUIT PROTECTION (ONE-LINE DIAGRAM).
	CIRCUIT BREAKER, SOLID STATE (ONE-LINE DIAGRAM).
	CIRCUIT BREAKER, SOLID STATE WITH GROUND FAULT PROTECTION (ONE-LINE DIAGRAM).
12	MOTOR.
<sup>16</sup> <u>WW</u> MM	TRANSFORMER (ONE-LINE DIAGRAM).
"1H"	PANELBOARD (ONE-LINE DIAGRAM).
23 225/3 "1H"	PANELBOARD WITH MAIN LUGS ONLY. BUS SIZE AND PHASE AS SHOWN (ONE-LINE DIAGRAM).
24 (*)225/3 "1H"	PANELBOARD WITH MAIN CIRCUIT BREAKER. SIZE AND PHASE AS SHOWN (ONE-LINE DIAGRAM).
225/3 "1H" 60/3	PANELBOARD WITH MAIN AND SUB FEED CIRCUIT BREAKER (ONE-LINE DIAGRAM).
	PANELBOARD WITH MAIN LUGS ONLY AND SURGE PROTECTION WITH CIRCUIT BREAKER (ONE-LINE DIAGRAM).
01 FSA	FIRE SYSTEM ANNUNCIATOR.
<sup>02</sup> FCP	FIRE ALARM CONTROL PANEL, SEMI-RECESSED.
<sup>03</sup> FPS	FIRE ALARM NOTIFICATION POWER SUPPLY.
08 MM	MONITOR MODULE.
09 P	FIRE ALARM MANUAL PULL STATION.
10 R	SHUT DOWN RELAY: INSTALL RELAY IN CONTROL CIRCUIT OF EQUIPMENT TO BE CONTROLLED IN THE EVENT OF A FIRE.
11 5	MAGNETIC DOOR HOLDER.
22	DETECTOR, SMOKE.
	DETECTOR, SMOKE, DUCT WITH HOUSING AND SAMPLING TUBE.
<sup>25</sup> X	DETECTOR, HEAT. STROBE.
<sup>26</sup> X 75	STROBE. SUBSCRIPT INDICATES CANDELA RATING.
27 WP	ALARM, HORN/SPEAKER, WEATHERPROOF.
28	
	ALARM, HORN/STROBE, ONE ASSEMBLY.
<sup>29</sup> X 75	ALARM, HORN/STROBE, ONE ASSEMBLY. ALARM, HORN/STROBE, ONE ASSEMBLY. SUBSCRIPT INDICATES CANDELA RATING.
$\begin{array}{c} \boxed{\times} \\ \hline \\ 29 \\ \boxed{\times} \\ 75 \\ \hline \\ 30 \\ \boxed{\times} \\ \hline \\ 31 \\ \boxed{\times} \\ \hline \\ \hline \\ 31 \\ \boxed{\times} \\ \hline \\ $	ALARM, HORN/STROBE, ONE ASSEMBLY. ALARM, HORN/STROBE, ONE ASSEMBLY. SUBSCRIPT INDICATES CANDELA RATING. ALARM, CHIME/STROBE, ONE ASSEMBLY. ALARM, HORN/STROBE WITH GUARD, ONE ASSEMBLY.
$\begin{array}{c c} & \boxtimes & \swarrow \\ \hline & 29 & \boxtimes & \swarrow \\ \hline & 30 & \boxtimes & \frown \\ \hline & 30 & \boxtimes & \frown \\ \hline & 31 & \boxtimes & \frown \\ \hline & 31 & \boxtimes & \frown \\ \hline & 32 & \boxtimes & \frown \\ \hline & M \end{array}$	ALARM, HORN/STROBE, ONE ASSEMBLY. ALARM, HORN/STROBE, ONE ASSEMBLY. SUBSCRIPT INDICATES CANDELA RATING. ALARM, CHIME/STROBE, ONE ASSEMBLY. ALARM, HORN/STROBE WITH GUARD, ONE ASSEMBLY. ALARM, MINI HORN/STROBE, ONE ASSEMBLY.
$\begin{array}{c c} & \boxtimes & \bigvee \\ \hline & 29 & \boxtimes & \swarrow & 75 \\ \hline & 30 & \boxtimes & \bigvee & C \\ \hline & 31 & \boxtimes & \bigvee & G \\ \hline & 31 & \boxtimes & \bigvee & G \\ \hline & 32 & \boxtimes & \bigvee & M \\ \hline & 35 & & & & & & \\ \hline & & & & & & & & \\ \hline & & & &$	ALARM, HORN/STROBE, ONE ASSEMBLY. ALARM, HORN/STROBE, ONE ASSEMBLY. SUBSCRIPT INDICATES CANDELA RATING. ALARM, CHIME/STROBE, ONE ASSEMBLY. ALARM, HORN/STROBE WITH GUARD, ONE ASSEMBLY. ALARM, MINI HORN/STROBE, ONE ASSEMBLY. DETECTOR, FLOW SWITCH: FLOW SWITCHES SHALL BE PROVIDED AND INSTALLED WITH FIRE SPRINKLER SYSTEM AND SHALL BE CONNECTED TO LOCATIONS SHOWN ON THE FIRE SPRINKLER SHOP DRAWINGS.
$ \begin{array}{c c}  & \times \\  & \times \\  & 29 \\  & 30 \\  & \times \\  & 75 \\  & 30 \\  & & \\  & 31 \\  & & & \\  & & \\  & 31 \\  & & & &$	ALARM, HORN/STROBE, ONE ASSEMBLY. ALARM, HORN/STROBE, ONE ASSEMBLY. SUBSCRIPT INDICATES CANDELA RATING. ALARM, CHIME/STROBE, ONE ASSEMBLY. ALARM, HORN/STROBE, ONE ASSEMBLY. ALARM, MINI HORN/STROBE, ONE ASSEMBLY. DETECTOR, FLOW SWITCH: FLOW SWITCHES SHALL BE PROVIDED AND INSTALLED WITH FIRE SPRINKLER SYSTEM AND SHALL BE CONNECTED TO LOCATIONS SHOWN ON THE FIRE SPRINKLER SHOP DRAWINGS. DETECTOR, TAMPER SWITCH WITH VALVE: TAMPER SWITCHES SHALL BE PROVIDED AND INSTALLED WITH FIRE SPRINKLER SYSTEM AND SHALL BE CONNECTED TO LOCATIONS SHOWN ON THE FIRE SPRINKLER SHOP DRAWINGS.
$ \begin{array}{c c}  & & & \\  &$	ALARM, HORN/STROBE, ONE ASSEMBLY. ALARM, HORN/STROBE, ONE ASSEMBLY. SUBSCRIPT INDICATES CANDELA RATING. ALARM, CHIME/STROBE, ONE ASSEMBLY. ALARM, HORN/STROBE WITH GUARD, ONE ASSEMBLY. ALARM, MINI HORN/STROBE, ONE ASSEMBLY. DETECTOR, FLOW SWITCH: FLOW SWITCHES SHALL BE PROVIDED AND INSTALLED WITH FIRE SPRINKLER SYSTEM AND SHALL BE CONNECTED TO LOCATIONS SHOWN ON THE FIRE SPRINKLER SHOP DRAWINGS. DETECTOR, TAMPER SWITCH WITH VALVE: TAMPER SWITCHES SHALL BE PROVIDED AND INSTALLED WITH FIRE SPRINKLER SYSTEM AND SHALL BE CONNECTED TO LOCATIONS SHOWN ON THE FIRE SPRINKLER SHOP DRAWINGS. SMOKE DAMPER.
$ \begin{array}{c c}  & & & \\  & & & &$	ALARM, HORN/STROBE, ONE ASSEMBLY. ALARM, HORN/STROBE, ONE ASSEMBLY. SUBSCRIPT INDICATES CANDELA RATING. ALARM, CHIME/STROBE, ONE ASSEMBLY. ALARM, HORN/STROBE WITH GUARD, ONE ASSEMBLY. ALARM, MINI HORN/STROBE, ONE ASSEMBLY. DETECTOR, FLOW SWITCH: FLOW SWITCHES SHALL BE PROVIDED AND INSTALLED WITH FIRE SPRINKLER SYSTEM AND SHALL BE CONNECTED TO LOCATIONS SHOWN ON THE FIRE SPRINKLER SHOP DRAWINGS. DETECTOR, TAMPER SWITCH WITH VALVE: TAMPER SWITCHES SHALL BE PROVIDED AND INSTALLED WITH FIRE SPRINKLER SYSTEM AND SHALL BE CONNECTED TO LOCATIONS SHOWN ON THE FIRE SPRINKLER SHOP DRAWINGS. SMOKE DAMPER. FIRE AND SMOKE DAMPER.
$ \begin{array}{c c}  & & & \\ 29 & & & \\ 30 & & & \\ 30 & & & \\ 30 & & & \\ 31 & & & \\ 31 & & & \\ 32 & & & \\ 32 & & & \\ 32 & & & \\ 32 & & & \\ 33 & & & \\ 35 & & & \\ 35 & & & \\ 35 & & & \\ 35 & & & \\ 36 & & & \\ 37 & & & \\ 38 & & \\ 38 & $	ALARM, HORN/STROBE, ONE ASSEMBLY. ALARM, HORN/STROBE, ONE ASSEMBLY. SUBSCRIPT INDICATES CANDELA RATING. ALARM, CHIME/STROBE, ONE ASSEMBLY. ALARM, HORN/STROBE WITH GUARD, ONE ASSEMBLY. ALARM, MINI HORN/STROBE, ONE ASSEMBLY. DETECTOR, FLOW SWITCH: FLOW SWITCHES SHALL BE PROVIDED AND INSTALLED WITH FIRE SPRINKLER SYSTEM AND SHALL BE CONNECTED TO LOCATIONS SHOWN ON THE FIRE SPRINKLER SHOP DRAWINGS. DETECTOR, TAMPER SWITCH WITH VALVE: TAMPER SWITCHES SHALL BE PROVIDED AND INSTALLED WITH FIRE SPRINKLER SYSTEM AND SHALL BE CONNECTED TO LOCATIONS SHOWN ON THE FIRE SPRINKLER SHOP DRAWINGS. SMOKE DAMPER. FIRE AND SMOKE DAMPER. DETECTOR, CARBON MONOXIDE. DETECTOR, SMOKE/STROBE, RESIDENITIAL
$ \begin{array}{c c}  & \swarrow \\  & 29 \\  & 30 \\  & 15 \\  & 30 \\  & 16 \\  & 31 \\  & & & \\  $	ALARM, HORN/STROBE, ONE ASSEMBLY.         ALARM, HORN/STROBE, ONE ASSEMBLY. SUBSCRIPT         INDICATES CANDELA RATING.         ALARM, CHIME/STROBE, ONE ASSEMBLY.         ALARM, HORN/STROBE, ONE ASSEMBLY.         ALARM, HORN/STROBE WITH GUARD, ONE ASSEMBLY.         ALARM, MINI HORN/STROBE, ONE ASSEMBLY.         ALARM, MINI HORN/STROBE, ONE ASSEMBLY.         DETECTOR, FLOW SWITCH: FLOW SWITCHES SHALL BE         PROVIDED AND INSTALLED WITH FIRE SPRINKLER SYSTEM         AND SHALL BE CONNECTED TO LOCATIONS SHOWN ON         THE FIRE SPRINKLER SHOP DRAWINGS.         DETECTOR, TAMPER SWITCH WITH VALVE: TAMPER SWITCHES         SHALL BE PROVIDED AND INSTALLED WITH FIRE SPRINKLER         SYSTEM AND SHALL BE CONNECTED TO LOCATIONS SHOWN         ON THE FIRE SPRINKLER SHOP DRAWINGS.         SMOKE DAMPER.         FIRE AND SMOKE DAMPER.         DETECTOR, CARBON MONOXIDE.         DETECTOR, SMOKE/STROBE, RESIDENTIAL.         ALARM, HORN/STROBE, ONE ASSEMBLY, CEILING MOUNTED.         SUBSCRIPT INDICATES CANDELA RATING.
$ \begin{array}{c c}  & \swarrow \\  & & \swarrow \\  & & & & \\  &$	ALARM, HORN/STROBE, ONE ASSEMBLY. ALARM, HORN/STROBE, ONE ASSEMBLY. SUBSCRIPT INDICATES CANDELA RATING. ALARM, CHIME/STROBE, ONE ASSEMBLY. ALARM, HORN/STROBE WITH GUARD, ONE ASSEMBLY. ALARM, MINI HORN/STROBE, ONE ASSEMBLY. DETECTOR, FLOW SWITCH: FLOW SWITCHES SHALL BE PROVIDED AND INSTALLED WITH FIRE SPRINKLER SYSTEM AND SHALL BE CONNECTED TO LOCATIONS SHOWN ON THE FIRE SPRINKLER SHOP DRAWINGS. DETECTOR, TAMPER SWITCH WITH VALVE: TAMPER SWITCHES SHALL BE PROVIDED AND INSTALLED WITH FIRE SPRINKLER SYSTEM AND SHALL BE CONNECTED TO LOCATIONS SHOWN ON THE FIRE SPRINKLER SHOP DRAWINGS. SMOKE DAMPER. FIRE AND SMOKE DAMPER. DETECTOR, CARBON MONOXIDE. DETECTOR, SMOKE/STROBE, RESIDENTIAL. ALARM, HORN/STROBE, ONE ASSEMBLY, CEILING MOUNTED. SUBSCRIPT INDICATES CANDELA RATING. ALARM, HORN, CEILING MOUNTED. SUBSCRIPT INDICATES CANDELA RATING.

		SYMBOLS LEGEND
5	SYMBOL	DESCRIPTION
EL	ECTRICA	L POWER AND DISTRIBUTION
30		CT CABINET PER UTILITY'S REQUIREMENTS (ONE-LINE DIAGRAM).
31		TRANSFER SWITCH (ONE-LINE DIAGRAM).
32		DIGITAL MULTIMETER (ONE-LINE DIAGRAM).
33	ÌI- ı	SERVICE ENTRANCE SURGE PROTECTION (ONE-LINE DIAGRAM).
34		GENERATOR, ANNUNCIATOR (ONE-LINE DIAGRAM).
35	$\overline{\mathbb{G}}$	GENERATOR POWER (ONE-LINE DIAGRAM)
36		METER
38 VI	C VFD	VARIABLE FREQUENCY MOTOR CONTROLLER (ONE-LINE DIAGRAM).
41	Ŀ	DISCONNECT SWITCH, FUSED.
40	•	PUSHBUTTON.
40	:	PUSHBUTTONS, MOTOR CONTROL.
47	<u>•</u>	PANELBOARD CABINET, FLUSH MOUNTED.
40		PANELBOARD CABINET, SURFACE MOUNTED, 1 SECTION.
49		PANELBOARD CABINET, SURFACE MOUNTED, 2 SECTION.
50	 DP#	DISTRIBUTION PANEL OR SWITCHBOARD.
51	LP	LIGHTING RELAY, CONTACTOR PANEL, OR DIMMING ENCLOSURE.
53		LIGHTING CONTROL STATION OF CONTROL STATION STATION
56	-	MOUNTED.
76	75	TRANSFORMER: NUMBER INDICATES KVA.
		SPECIALIZED TRANSFER SWITCH (ONE-LINE DIAGRAM).
77 78	HC →	ACCESSIBLE DOOR ENTRY PUSH PLATE OPERATOR.
		CIRCUIT BREAKER, DRAW OUT (ONE-LINE DIAGRAM).
89 NI	JRSE CAL	_L
01	Q	JUNCTION BOX.
02	$\square$	CORRIDOR LIGHT.
03	■ B	BATHROOM PULL CORD STATION.
04		DUTY STATION.
05		EMERGENCY ASSISTANCE CALL STATION.
06		EMERGENCY ASSISTANCE CODE BLUE CALL STATION.
07		PATIENT STATION.
08		STAFF STATION.
09		TOUCH SCREEN NURSE CALL MASTER STATION.
10		ZONE LIGHT CONTROLLER.
11		NURSE CALL AREA CONTROL UNIT & POWER SUPPLIES.
00 SF		
04	[SEC]	INTRUSION DETECTION HEADEND EQUIPMENT.
05	[ <u>-</u> ]	CARD ACCESS DOOR TYPE #1 OR AS NOTED. SEE
06		CARD READER.
07		KEYPAD/CARD READER COMBINATION.
09	 @	EXIT REQUEST.
10		REMOTE DOOR RELEASE BUTTON.
21	(P)	PANIC DURESS SWITCH.
22		ULTRASONIC MOTION DETECTOR.
00 LI		CONTROL
01	*	OCCUPANCY SENSOR, DUAL TECHNOLOGY,
02	*	OCCUPANCY SENSOR, DUAL TECHNOLOGY, WALL.
05	(R)	OCCUPANCY SENSOR CONTROL RELAY.
06		VACANCY SENSOR, DUAL TECHNOLOGY,
07	<b>↓</b> • <b>●</b> • • <b>●</b> •	VACANCY SENSOR, DUAL TECHNOLOGY, WALL.
08		PHOTOCELL.
09	тс	TIME CLOCK.
10	$\langle HR \rangle$	HOUSE RELAY SCHEDULE INDICATOR.
18	 a,b	LOW VOLTAGE DIGITAL LIGHTING CONTROL SWITCH: LETTER "a,b" INDICATES ZONING WHERE SHOWN (REFER TO PLANS,
19		SCHEDULES, AND DETAILS FOR EXACT BUTTON CONFIGURATION AND PROGRAMMING REQUIREMENTS) DIGITAL LIGHTING DIMMING CONTROLLER
25	SM	LIGHTING NETWORK SEGMENT MANAGER
26 (1		LIGHTING SPACE CONTROL TYPE. X INDICATES TYPE. SEE
		SCHEDULE / DIAGRAM.

# GENERAL ELECTRICAL NOTES

1P	SINGLE POLE	kV
1PH	SINGLE-PHASE	kVA
1WAY	ONE-WAY	kVAR
2/C		KVV
2VVAY		
3/U 3/W/AY	THREE-CONDUCTOR	
40UT	QUADRUPLE RECEPTACLE	
1001	OUTLET	LFNC
4PDT	FOUR-POLE DOUBLE THROW	
4PST	FOUR-POLE SINGLE THROW	LPS
4W	FOUR-WIRE	LRA
4WAY	FOUR-WAY	
A		
		1017 (1 0
ADA	ACT	MAX
ADJ	ADJACENT	MC
AFF	ABOVE FINISHED FLOOR	MCA
AFG	ABOVE FINISHED GRADE	MCB
AIC	AMPERE INTERRUPTING	MCC
A L L IN 4		MCP
		MG
		MH
AP	ACCESS POINT (WIRELESS	MIN
	DATA)	MLO
AR	AS REQUIRED	MOCI
ASC	AMPS SHORT CIRCUIT	
ATS		MTS
Δ\/		NA
AWG	AMERICAN WIRE GAGE	NEC
BB	BUCK-BOOST TRANSFORMER	NEC
XFMR		
С	CEILING MOUNTED	
CATV		NFC
CB		NEPA
CCBA	CUSTOM COLOR AS SELECTED	NIC
	BY ARCHITECT	NL
CCTV	CLOSED CIRCUIT TELEVISION	NO
CF/CI	CONTRACTOR FURNISHED/	NTS
		OC
CF/OI	OWNER INSTALLED	OCP
CFBA	CUSTOM FINISH AS SELECTED	OF/C
	BYARCHITECT	OF/O
CKT	CIRCUIT	
		OFP
		OH D
COR	CONTRACTING OFFICER'S	OL
	REPRESENTATIVE	PB
CP	CONTROL PANEL	РГ РН
CT	CURRENT TRANSFORMER	PNL
CTV	CABLE TELEVISION	PT
		PTZ
		QTY
ыы	THROW	R
DS	DISCONNECT SWITCH	RCP
EA	EACH	
EM	EMERGENCY	RPM
EMT	ELECTRICAL METALLIC TUBING	RR
ENI	TUBING	S/S
EPO	EMERGENCY POWER OFF	SCA
EQUIP	EQUIPMENT	SCBA
EX	EXISTING	QE
F F		SFRA
		2. 017
		SPD
FMC	FLEXIBLE METAL CONDUIT	SPDT
FOB	FREIGHT ON BOARD	SPEC
FVNR	FULL VOLTAGE	SPSI
	NON-REVERSING	SWB
FVR	FULL VOLTAGE REVERSING	SWG
		TL
GFP	GROUND FAULT PROTECTION	TP
GND	GROUND	TP
HD	HEAVY DUTY	TTB
HID	HIGH INTENSITY DISCHARGE	
HOA	HAND-OFF-AUTOMATIC	1788
HP	HORSE POWER	TYP
HPF		UF
ΠРЭ П/У		UGNE
HZ	HERTZ	UPS
I/O	INPUT/ OUTPUT	v
IG	ISOLATED GROUND	V \/A
IMC	INTERMEDIATE METAL	
D.1/10		D. 0,
IN/IS		W/
117		W/O

ABBREVIATIONS

NOTE: ALL ABBREVIATIONS MAY NOT BE USED.

	RILOVOLI
kVA	
KVAR	
LFMC	LIQUID TIGHT FLEXIBLE METAL
	CONDUIT
LFNC	
	LOW PRESSURE SODIUM
LV	LOW VOLTAGE
MATV	MASTER ANTENNA TELEVISION
	SYSTEM
MAX	MAXIMUM
MC	METAL CLAD
MCP	MOTOR CIRCUIT PROTECTION
MDP	MAIN DISTRIBUTION PANEL
MG	MOTOR GENERATOR
MH	MANHOLE
MIN	MINIMUM
MLO	MAIN LUGS ONLY
MOCP	
MTS	MANUAL TRANSFER SWITCH
NA	NOT APPLICABLE
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL
NEC	NATIONAL FIRE CODE
NFPA	NATIONAL FIRE PROTECTION
	ASSOCIATION
NIC	NOT IN CONTRACT
NL	
	NORMALLY OPEN
	ON CENTER
OCP	OVER CURRENT PROTECTION
OF/CI	OWNER FURNISHED/
	CONTRACTOR INSTALLED
OF/OI	OWNER FURNISHED/ OWNER
	OBTAIN FROM PLANS
	OVERHEAD (COILING) DOOR
OL	OVERLOAD
PB	PUSHBUTTON
PF	POWER FACTOR
PH	PHASE
	PANEL
	PAN/TILT/ZOOM
QTY	QUANTITY
R	REMOVE
RCP	REFLECTED CEILING PLAN
RMC	····· · · · · · · · · · · · · · · · ·
	RIGID METAL CONDUIT
RNC	RIGID METAL CONDUIT RIGID NONMETAL CONDUIT
RNC RPM	RIGID METAL CONDUIT RIGID NONMETAL CONDUIT REVOLUTIONS PER MINUTE
RNC RPM RR	RIGID METAL CONDUIT RIGID NONMETAL CONDUIT REVOLUTIONS PER MINUTE REMOVE AND RELOCATE
RNC RPM RR S/S	RIGID METAL CONDUIT RIGID NONMETAL CONDUIT REVOLUTIONS PER MINUTE REMOVE AND RELOCATE START/STOP SHORT CIRCUIT AMPS
RNC RPM RR S/S SCA SCA	RIGID METAL CONDUIT RIGID NONMETAL CONDUIT REVOLUTIONS PER MINUTE REMOVE AND RELOCATE START/STOP SHORT CIRCUIT AMPS STANDARD COI OR AS
RNC RPM RR S/S SCA SCBA	RIGID METAL CONDUIT RIGID NONMETAL CONDUIT REVOLUTIONS PER MINUTE REMOVE AND RELOCATE START/STOP SHORT CIRCUIT AMPS STANDARD COLOR AS SELECTED BY ARCHITECT
RNC RPM RR S/S SCA SCBA SF	RIGID METAL CONDUIT RIGID NONMETAL CONDUIT REVOLUTIONS PER MINUTE REMOVE AND RELOCATE START/STOP SHORT CIRCUIT AMPS STANDARD COLOR AS SELECTED BY ARCHITECT SQUARE FOOT (FEET)
RNC RPM RR S/S SCA SCBA SF SFBA	RIGID METAL CONDUIT RIGID NONMETAL CONDUIT REVOLUTIONS PER MINUTE REMOVE AND RELOCATE START/STOP SHORT CIRCUIT AMPS STANDARD COLOR AS SELECTED BY ARCHITECT SQUARE FOOT (FEET) STANDARD FINISH AS SELECTED BY ARCHITECT
RNC RPM RR S/S SCA SCBA SFBA SFBA	RIGID METAL CONDUIT RIGID NONMETAL CONDUIT REVOLUTIONS PER MINUTE REMOVE AND RELOCATE START/STOP SHORT CIRCUIT AMPS STANDARD COLOR AS SELECTED BY ARCHITECT SQUARE FOOT (FEET) STANDARD FINISH AS SELECTED BY ARCHITECT SURGE PROTECTIVE DEVICE
RNC RPM RR S/S SCA SCBA SFBA SFBA SPD SPDT	RIGID METAL CONDUIT RIGID NONMETAL CONDUIT REVOLUTIONS PER MINUTE REMOVE AND RELOCATE START/STOP SHORT CIRCUIT AMPS STANDARD COLOR AS SELECTED BY ARCHITECT SQUARE FOOT (FEET) STANDARD FINISH AS SELECTED BY ARCHITECT SURGE PROTECTIVE DEVICE SINGLE POLE, DOUBLE THROW
RNC RPM RR S/S SCA SCBA SF SFBA SFBA SPD SPDT SPEC	RIGID METAL CONDUIT RIGID NONMETAL CONDUIT REVOLUTIONS PER MINUTE REMOVE AND RELOCATE START/STOP SHORT CIRCUIT AMPS STANDARD COLOR AS SELECTED BY ARCHITECT SQUARE FOOT (FEET) STANDARD FINISH AS SELECTED BY ARCHITECT SURGE PROTECTIVE DEVICE SINGLE POLE, DOUBLE THROW SPECIFICATION
RNC RPM RR S/S SCA SCBA SF SFBA SFBA SPD SPDT SPEC SPST	RIGID METAL CONDUIT RIGID NONMETAL CONDUIT REVOLUTIONS PER MINUTE REMOVE AND RELOCATE START/STOP SHORT CIRCUIT AMPS STANDARD COLOR AS SELECTED BY ARCHITECT SQUARE FOOT (FEET) STANDARD FINISH AS SELECTED BY ARCHITECT SURGE PROTECTIVE DEVICE SINGLE POLE, DOUBLE THROW SPECIFICATION SINGLE POLE, SINGLE THROW
RNC RPM RR S/S SCA SCBA SF SFBA SFBA SPD SPDT SPEC SPST ST	RIGID METAL CONDUIT RIGID NONMETAL CONDUIT REVOLUTIONS PER MINUTE REMOVE AND RELOCATE START/STOP SHORT CIRCUIT AMPS STANDARD COLOR AS SELECTED BY ARCHITECT SQUARE FOOT (FEET) STANDARD FINISH AS SELECTED BY ARCHITECT SURGE PROTECTIVE DEVICE SINGLE POLE, DOUBLE THROW SPECIFICATION SINGLE THROW
RNC RPM RR S/S SCA SCBA SF SFBA SFBA SPD SPDT SPEC SPST ST SWBD	RIGID METAL CONDUIT RIGID NONMETAL CONDUIT REVOLUTIONS PER MINUTE REMOVE AND RELOCATE START/STOP SHORT CIRCUIT AMPS STANDARD COLOR AS SELECTED BY ARCHITECT SQUARE FOOT (FEET) STANDARD FINISH AS SELECTED BY ARCHITECT SURGE PROTECTIVE DEVICE SINGLE POLE, DOUBLE THROW SPECIFICATION SINGLE POLE, SINGLE THROW SINGLE THROW SWITCHBOARD
RNC RPM RR S/S SCA SCBA SFBA SFBA SPD SPDT SPEC SPST ST SWBD SWGR TI	RIGID METAL CONDUIT RIGID NONMETAL CONDUIT REVOLUTIONS PER MINUTE REMOVE AND RELOCATE START/STOP SHORT CIRCUIT AMPS STANDARD COLOR AS SELECTED BY ARCHITECT SQUARE FOOT (FEET) STANDARD FINISH AS SELECTED BY ARCHITECT SURGE PROTECTIVE DEVICE SINGLE POLE, DOUBLE THROW SPECIFICATION SINGLE POLE, SINGLE THROW SINGLE THROW SWITCHBOARD SWITCHGEAR TWIST LOCK
RNC RPM RR S/S SCA SCBA SF SFBA SFBA SPD SPDT SPEC SPST ST SWBD SWGR TL TP	RIGID METAL CONDUIT RIGID NONMETAL CONDUIT REVOLUTIONS PER MINUTE REMOVE AND RELOCATE START/STOP SHORT CIRCUIT AMPS STANDARD COLOR AS SELECTED BY ARCHITECT SQUARE FOOT (FEET) STANDARD FINISH AS SELECTED BY ARCHITECT SURGE PROTECTIVE DEVICE SINGLE POLE, DOUBLE THROW SPECIFICATION SINGLE POLE, SINGLE THROW SINGLE THROW SWITCHBOARD SWITCHGEAR TWIST LOCK TELEPHONE POLE
RNC RPM RR S/S SCA SCBA SF SFBA SPD SPDT SPEC SPST ST SWBD SWGR TL TP TP	RIGID METAL CONDUIT RIGID NONMETAL CONDUIT REVOLUTIONS PER MINUTE REMOVE AND RELOCATE START/STOP SHORT CIRCUIT AMPS STANDARD COLOR AS SELECTED BY ARCHITECT SQUARE FOOT (FEET) STANDARD FINISH AS SELECTED BY ARCHITECT SURGE PROTECTIVE DEVICE SINGLE POLE, DOUBLE THROW SPECIFICATION SINGLE POLE, SINGLE THROW SINGLE THROW SWITCHBOARD SWITCHGEAR TWIST LOCK TELEPHONE POLE TWISTED PAIR
RNC RPM RR S/S SCA SCBA SF SFBA SFBA SPD SPDT SPEC SPST ST SWBD SWGR TL TP TP TP TTB	RIGID METAL CONDUIT RIGID NONMETAL CONDUIT REVOLUTIONS PER MINUTE REMOVE AND RELOCATE START/STOP SHORT CIRCUIT AMPS STANDARD COLOR AS SELECTED BY ARCHITECT SQUARE FOOT (FEET) STANDARD FINISH AS SELECTED BY ARCHITECT SURGE PROTECTIVE DEVICE SINGLE POLE, DOUBLE THROW SPECIFICATION SINGLE THROW SWITCHBOARD SWITCHGEAR TWIST LOCK TELEPHONE POLE TWISTED PAIR TELEPHONE TERMINAL BOARD
RNC RPM RR S/S SCA SCBA SF SFBA SFBA SPD SPDT SPEC SPST ST SWBD SWGR TL TP TP TP TP TP	RIGID METAL CONDUIT RIGID NONMETAL CONDUIT REVOLUTIONS PER MINUTE REMOVE AND RELOCATE START/STOP SHORT CIRCUIT AMPS STANDARD COLOR AS SELECTED BY ARCHITECT SQUARE FOOT (FEET) STANDARD FINISH AS SELECTED BY ARCHITECT SURGE PROTECTIVE DEVICE SINGLE POLE, DOUBLE THROW SPECIFICATION SINGLE POLE, SINGLE THROW SWITCHBOARD SWITCHGEAR TWIST LOCK TELEPHONE POLE TWISTED PAIR TELEPHONE TERMINAL BOARD TELEVISION
RNC RPM RR S/S SCA SCBA SF SFBA SFBA SPD SPDT SPEC SPST ST SWBD SWGR TL TP TP TP TTB TV TVSS	RIGID METAL CONDUIT RIGID NONMETAL CONDUIT REVOLUTIONS PER MINUTE REMOVE AND RELOCATE START/STOP SHORT CIRCUIT AMPS STANDARD COLOR AS SELECTED BY ARCHITECT SQUARE FOOT (FEET) STANDARD FINISH AS SELECTED BY ARCHITECT SURGE PROTECTIVE DEVICE SINGLE POLE, DOUBLE THROW SPECIFICATION SINGLE POLE, SINGLE THROW SWITCHBOARD SWITCHGEAR TWIST LOCK TELEPHONE POLE TWISTED PAIR TELEPHONE TERMINAL BOARD TELEVISION TRANSIENT VOLTAGE SURGE SUPPRESSER
RNC RPM RR S/S SCA SCBA SF SFBA SFBA SPD SPDT SPEC SPST ST SWBD SWGR TL TP TP TTB TV TVSS TYP	RIGID METAL CONDUIT RIGID NONMETAL CONDUIT REVOLUTIONS PER MINUTE REMOVE AND RELOCATE START/STOP SHORT CIRCUIT AMPS STANDARD COLOR AS SELECTED BY ARCHITECT SQUARE FOOT (FEET) STANDARD FINISH AS SELECTED BY ARCHITECT SURGE PROTECTIVE DEVICE SINGLE POLE, DOUBLE THROW SPECIFICATION SINGLE POLE, SINGLE THROW SWITCHBOARD SWITCHBOARD SWITCHGEAR TWIST LOCK TELEPHONE POLE TWISTED PAIR TELEPHONE TERMINAL BOARD TELEVISION TRANSIENT VOLTAGE SURGE SUPPRESSER TYPICAL
RNC RPM RR S/S SCA SCBA SF SFBA SPD SPDT SPEC SPST ST SWBD SWGR TL TP TP TP TP TP TP TP TV VVSS TYP UF	RIGID METAL CONDUIT RIGID NONMETAL CONDUIT REVOLUTIONS PER MINUTE REMOVE AND RELOCATE START/STOP SHORT CIRCUIT AMPS STANDARD COLOR AS SELECTED BY ARCHITECT SQUARE FOOT (FEET) STANDARD FINISH AS SELECTED BY ARCHITECT SURGE PROTECTIVE DEVICE SINGLE POLE, DOUBLE THROW SPECIFICATION SINGLE POLE, SINGLE THROW SWITCHBOARD SWITCHGEAR TWIST LOCK TELEPHONE TERMINAL BOARD TELEPHONE TERMINAL BOARD TELEVISION TRANSIENT VOLTAGE SURGE SUPPRESSER TYPICAL UNDERFLOOR
RNC RPM RR S/S SCA SCBA SF SFBA SFBA SPD SPDT SPEC SPST ST SWBD SWGR TL TP TP TTB TV TVSS TYP UF UGND	RIGID METAL CONDUIT RIGID NONMETAL CONDUIT REVOLUTIONS PER MINUTE REMOVE AND RELOCATE START/STOP SHORT CIRCUIT AMPS STANDARD COLOR AS SELECTED BY ARCHITECT SQUARE FOOT (FEET) STANDARD FINISH AS SELECTED BY ARCHITECT SURGE PROTECTIVE DEVICE SINGLE POLE, DOUBLE THROW SPECIFICATION SINGLE POLE, SINGLE THROW SWITCHBOARD SWITCHGEAR TWIST LOCK TELEPHONE POLE TWISTED PAIR TELEPHONE TERMINAL BOARD TELEVISION TRANSIENT VOLTAGE SURGE SUPPRESSER TYPICAL UNDERFLOOR UNDERGROUND
RNC RPM RR S/S SCA SCBA SF SFBA SPD SPDT SPEC SPST ST SWBD SWGR TL TP TP TTB TV TVSS TYP UF UGND UPS	RIGID METAL CONDUIT RIGID NONMETAL CONDUIT REVOLUTIONS PER MINUTE REMOVE AND RELOCATE START/STOP SHORT CIRCUIT AMPS STANDARD COLOR AS SELECTED BY ARCHITECT SQUARE FOOT (FEET) STANDARD FINISH AS SELECTED BY ARCHITECT SURGE PROTECTIVE DEVICE SINGLE POLE, DOUBLE THROW SPECIFICATION SINGLE POLE, SINGLE THROW SWITCHBOARD SWITCHBOARD SWITCHGEAR TWIST LOCK TELEPHONE TERMINAL BOARD TELEVISION TRANSIENT VOLTAGE SURGE SUPPRESSER TYPICAL UNDERFLOOR UNDERGROUND UNINTERRUPTIBLE POWER
RNC RPM RR S/S SCA SCBA SF SFBA SPD SPDT SPEC SPST ST SWBD SWGR TL TP TP TP TP TP TB TV TVSS TYP UF UGND UPS	RIGID METAL CONDUIT RIGID NONMETAL CONDUIT REVOLUTIONS PER MINUTE REMOVE AND RELOCATE START/STOP SHORT CIRCUIT AMPS STANDARD COLOR AS SELECTED BY ARCHITECT SQUARE FOOT (FEET) STANDARD FINISH AS SELECTED BY ARCHITECT SURGE PROTECTIVE DEVICE SINGLE POLE, DOUBLE THROW SPECIFICATION SINGLE POLE, SINGLE THROW SWITCHBOARD SWITCHGEAR TWIST LOCK TELEPHONE TERMINAL BOARD TELEPHONE TERMINAL BOARD TELEVISION TRANSIENT VOLTAGE SURGE SUPPRESSER TYPICAL UNDERFLOOR UNINTERRUPTIBLE POWER SUPPLY
RNC RPM RR S/S SCA SCBA SF SFBA SFBA SPD SPDT SPEC SPST ST SWBD SWGR TL TP TP TTB TV TVSS TYP UF UGND UPS V	RIGID METAL CONDUIT RIGID NONMETAL CONDUIT REVOLUTIONS PER MINUTE REMOVE AND RELOCATE START/STOP SHORT CIRCUIT AMPS STANDARD COLOR AS SELECTED BY ARCHITECT SQUARE FOOT (FEET) STANDARD FINISH AS SELECTED BY ARCHITECT SURGE PROTECTIVE DEVICE SINGLE POLE, DOUBLE THROW SPECIFICATION SINGLE THROW SWITCHBOARD SWITCHGEAR TWIST LOCK TELEPHONE TERMINAL BOARD TELEVISION TRANSIENT VOLTAGE SURGE SUPPRESSER TYPICAL UNDERFLOOR UNDERGROUND UNINTERRUPTIBLE POWER SUPPLY VOLTS VOLTS
RNC RPM RR S/S SCA SCBA SF SFBA SFBA SPD SPDT SPEC SPST ST SWBD SWGR TL TP TP TTB TV TVSS TYP UF UGND UPS V VA VECA/E	RIGID METAL CONDUIT RIGID NONMETAL CONDUIT REVOLUTIONS PER MINUTE REMOVE AND RELOCATE START/STOP SHORT CIRCUIT AMPS STANDARD COLOR AS SELECTED BY ARCHITECT SQUARE FOOT (FEET) STANDARD FINISH AS SELECTED BY ARCHITECT SURGE PROTECTIVE DEVICE SINGLE POLE, DOUBLE THROW SPECIFICATION SINGLE POLE, SINGLE THROW SWITCHBOARD SWITCHBOARD SWITCHGEAR TWIST LOCK TELEPHONE TERMINAL BOARD TELEVISION TRANSIENT VOLTAGE SURGE SUPPRESSER TYPICAL UNDERFLOOR UNDERGROUND UNINTERRUPTIBLE POWER SUPPLY VOLTS VOLT AMPERE VARIABLE F RECUIENCY MOTOR
RNC RPM RR S/S SCA SCBA SF SFBA SPD SPDT SPEC SPST ST SWBD SWGR TL TP TP TP TP TP TP TP TP TP TP TP TV V V VA VFC/VF D	RIGID METAL CONDUIT RIGID NONMETAL CONDUIT REVOLUTIONS PER MINUTE REMOVE AND RELOCATE START/STOP SHORT CIRCUIT AMPS STANDARD COLOR AS SELECTED BY ARCHITECT SQUARE FOOT (FEET) STANDARD FINISH AS SELECTED BY ARCHITECT SURGE PROTECTIVE DEVICE SINGLE POLE, DOUBLE THROW SPECIFICATION SINGLE THROW SWITCHBOARD SWITCHGEAR TWIST LOCK TELEPHONE TERMINAL BOARD TELEPHONE TERMINAL BOARD TELEPHONE TERMINAL BOARD TELEVISION TRANSIENT VOLTAGE SURGE SUPPRESSER TYPICAL UNDERFLOOR UNINTERRUPTIBLE POWER SUPPLY VOLTS VOLT AMPERE VARIABLE FREQUENCY MOTOR CONTROLLER
RNC RPM RR S/S SCA SCBA SF SFBA SPD SPDT SPEC SPST ST SWBD SWGR TL TP TP TTB TV TVSS TVP UF UGND UPS V V VA VFC/VF D W/	RIGID METAL CONDUIT RIGID NONMETAL CONDUIT REVOLUTIONS PER MINUTE REMOVE AND RELOCATE START/STOP SHORT CIRCUIT AMPS STANDARD COLOR AS SELECTED BY ARCHITECT SQUARE FOOT (FEET) STANDARD FINISH AS SELECTED BY ARCHITECT SURGE PROTECTIVE DEVICE SINGLE POLE, DOUBLE THROW SPECIFICATION SINGLE POLE, SINGLE THROW SWITCHBOARD SWITCHGEAR TWIST LOCK TELEPHONE POLE TWISTED PAIR TELEPHONE TERMINAL BOARD TELEVISION TRANSIENT VOLTAGE SURGE SUPPRESSER TYPICAL UNDERFLOOR UNDERGROUND UNINTERRUPTIBLE POWER SUPPLY VOLTS VOLT AMPERE VARIABLE FREQUENCY MOTOR CONTROLLER WITH
RNC RPM RR S/S SCA SCBA SF SFBA SPD SPDT SPEC SPST ST SWBD SWGR TL TP TP TTB TV TVSS TYP UF UGND UPS V VA VFC/VF D W/ W/O	RIGID METAL CONDUIT RIGID NONMETAL CONDUIT REVOLUTIONS PER MINUTE REMOVE AND RELOCATE START/STOP SHORT CIRCUIT AMPS STANDARD COLOR AS SELECTED BY ARCHITECT SQUARE FOOT (FEET) STANDARD FINISH AS SELECTED BY ARCHITECT SURGE PROTECTIVE DEVICE SINGLE POLE, DOUBLE THROW SPECIFICATION SINGLE POLE, SINGLE THROW SWITCHBOARD SWITCHGEAR TWIST LOCK TELEPHONE TERMINAL BOARD TELEVISION TRANSIENT VOLTAGE SURGE SUPPRESSER TYPICAL UNDERFLOOR UNDERGROUND UNINTERRUPTIBLE POWER SUPPLY VOLTS VOLT AMPERE VARIABLE FREQUENCY MOTOR CONTROLLER WITH WITHOUT

## DEFINITIONS NOTE: ALL DEFINITIONS MAY NOT BE USED.

XFMR TRANSFORMER

J-BOX JUNCTION BOX

INDICATED: THE TERM "INDICATED" REFERS TO GRAPHIC REPRESENTATIONS, NOTES, OR SCHEDULES ON THE DRAWINGS, OTHER PARAGRAPHS OR SCHEDULES IN THE SPECIFICATIONS, AND SIMILAR REQUIREMENTS IN THE CONTRACT DOCUMENTS. WHERE TERMS SUCH AS "SHOWN", "NOTED", "SCHEDULED", AND "SPECIFIED" ARE USED, IT IS TO HELP THE READER LOCATE THE REFERENCE, NO LIMITATION ON LOCATION IS INTENDED.

DIRECTED: TERMS SUCH AS "DIRECTED", "REQUESTED", AUTHORIZED", "SELECTED", "APPROVED", "REQUIRED", AND "PERMITTED" MEAN "DIRECTED BY THE ENGINEER", "REQUESTED BY THE ENGINEER", AND SIMILAR PHRASES. APPROVED: THE TERM "APPROVED", WHERE USED IN CONJUNCTION WITH THE ENGINEER'S ACTION ON THE CONTRACTOR'S SUBMITTALS, APPLICATIONS, AND

REQUESTS, IS LIMITED TO THE ENGINEER'S DUTIES AND RESPONSIBILITIES AS STATED IN GENERAL AND SUPPLEMENTARY CONDITIONS. FURNISH: THE TERM "FURNISH" IS USED TO MEAN "SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY,

INSTALLATION, AND SIMILAR OPERATIONS."

INSTALL: THE TERM "INSTALL" IS USED TO DESCRIBE OPERATIONS AT PROJECT SITE INCLUDING THE ACTUAL "UNLOADING, UNPACKING, ASSEMBLY, ERECTION, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS."

PROVIDE: THE TERM "PROVIDE" MEANS "TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE."

INSTALLER: AN "INSTALLER" IS THE CONTRACTOR OR AN ENTITY ENGAGED BY THE CONTRACTOR, EITHER AS AN EMPLOYEE, SUBCONTRACTOR, OR SUB-SUBCONTRACTOR, FOR PERFORMANCE OF A PARTICULAR CONSTRUCTION ACTIVITY, INCLUDING INSTALLATION, ERECTION, APPLICATION, AND SIMILAR OPERATIONS. INSTALLERS ARE REQUIRED TO BE EXPERIENCED IN THE OPERATIONS THEY ARE ENGAGED TO PERFORM.

TECHNOLOGY SYSTEMS: THE TERM "TECHNOLOGY SYSTEMS" IS USED TO DESCRIBE ALL LOW VOLTAGE SYSTEMS GENERALLY REFERRED TO AS "SPECIAL SYSTEMS". THESE SYSTEMS INCLUDE BUT ARE NOT NECESSARILY LIMITED TO ALL SYSTEMS WHICH UTILIZE VOLTAGES OF LESS THAN 71 VOLTS SUCH AS SOUND SYSTEMS, VIDEO SYSTEMS, TV SYSTEMS, SECURITY SYSTEMS, VOICE AND DATA CABLING SYSTEMS, ETC ...

CLARIFICATION METHODS: AT THE TIME OF BIDDING, BIDDERS SHALL FAMILIARIZE
THEMSELVES WITH THE DRAWINGS AND SPECIFICATIONS. ANY QUESTIONS,
MISUNDERSTANDINGS, CONFLICTS, DELETIONS, DISCONTINUED PRODUCTS,
CATALOG NUMBER DISCREPANCIES, DISCREPANCIES BETWEEN THE EQUIPMENT
SUPPLIED AND THE INTENT OR FUNCTION OF THE EQUIPMENT, ETC, SHALL BE
SUBMITTED TO THE ARCHITECT/ENGINEER IN WRITING FOR CLARIFICATION PRIOR
TO ISSUANCE OF THE FINAL ADDENDUM AND BIDDING OF THE PROJECT. WHERE
DISCREPANCIES OR MULTIPLE INTERPRETATIONS OCCUR, THE MOST STRINGENT
(WHICH IS GENERALLY RECOGNIZED AS THE MOST COSTLY) THAT MEETS THE
INTENT OF THE DOCUMENTS SHALL BE ENFORCED.

- OWNER FURNISHED ITEMS: THE OWNER WILL FURNISH MATERIAL AND EQUIPMENT AS INDICATED IN THE CONTRACT DOCUMENTS TO BE INCORPORATED INTO THE WORK. THESE ITEMS ARE ASSIGNED TO THE INSTALLER AND COSTS FOR RECEIVING, HANDLING, STORAGE, IF REQUIRED, AND INSTALLATION ARE INCLUDED IN THE CONTRACT SUM.
- A. THE INSTALLER'S RESPONSIBILITIES ARE THE SAME AS IF THE INSTALLER FURNISHED THE MATERIALS OR EQUIPMENT.
- B. THE OWNER WILL ARRANGE AND PAY FOR DELIVERY OF OWNER FURNISHED ITEMS FREIGHT ON BOARD JOB SITE AND THE INSTALLER WILL INSPECT DELIVERIES FOR DAMAGE. IF OWNER FURNISHED ITEMS ARE DAMAGED, DEFECTIVE OR MISSING, DOCUMENT DAMAGED ITEMS WITH THE TRANSPORT COMPANY AND THE OWNER WILL ARRANGE FOR REPLACEMENT. THE OWNER WILL ALSO ARRANGE FOR MANUFACTURER'S FIELD SERVICES, AND THE DELIVERY OF MANUFACTURER'S WARRANTIES AND BONDS TO THE INSTALLER.
- C. THE INSTALLER IS RESPONSIBLE FOR DESIGNATING THE DELIVERY DATES OF OWNER FURNISHED ITEMS AND FOR RECEIVING, UNLOADING AND HANDLING OWNER FURNISHED ITEMS AT THE SITE. THE INSTALLER IS RESPONSIBLE FOR PROTECTING OWNER FURNISHED ITEMS FROM DAMAGE, INCLUDING DAMAGE FROM EXPOSURE TO THE ELEMENTS, AND TO REPAIR OR REPLACE ITEMS DAMAGED AS A RESULT OF HIS OPERATIONS.
- 3. EXPOSED STRUCTURE AREAS (EXCLUDING MECHANICAL, ELECTRICAL, AND COMMUNICATION SPACES): INSTALL RACEWAYS BETWEEN DECK AND STRUCTURE WHEREVER POSSIBLE IN EXPOSED STRUCTURE CEILING AREAS. ROUTE RACEWAYS IN CONCEALED AREAS WHEREVER POSSIBLE. REFER ALL CONDITIONS WHERE RACEWAYS MUST BE INSTALLED WHICH CANNOT COMPLY WITH THESE REQUIREMENTS TO THE ARCHITECT.
- SUBMITTALS: PROVIDE ORIGINAL ELECTRONIC PDF FORMAT, BOUND, BOOKMARKED (EACH SECTION AND PRODUCT), AND HIGHLIGHTED. JOB NAME AND SUBCONTRACTOR SHALL BE ON THE FRONT COVER. PREPARE INDEX OF EQUIPMENT SUBMITTED IN EACH TAB.
- REFLECTED CEILING PLANS: COORDINATE THE LOCATION OF LIGHT FIXTURES WITH THE ARCHITECTURAL REFLECTED CEILING PLANS. REFER ALL DISCREPANCIES TO THE ARCHITECT AND ENGINEER.
- 6. ALL WORK SHALL BE DONE ACCORDING TO THE CURRENT NATIONAL ELECTRIC CODE (NEC), IBC, NFPA, AND IFC. COMPLIANCE AND FINAL APPROVAL IS SUBJECT TO THE ON SITE FIELD INSPECTION OF THE AHJ.

## ELECTRICAL SHEET INDEX SHEET INDEX ARREVIATIONS, AND GENERAL NOTES

=E001	SHEET INDEX, ABBREVIATIONS, AND GENERAL NOTES
EE501	ELECTRICAL DETAILS
EE701	TYPICAL MOUNTING HEIGHT DETAILS
EP101	LEVEL 1 ELECTRICAL PLANS
EP102	LEVEL 2 ELECTIRCAL PLANS
EP601	ONE-LINE DIAGRAM - NORMAL
EL601	INTERIOR LIGHTING FIXTURE SCHEDULE
ET001	TELECOM SCHEDULES AND NOTES
ET501	TELECOM DETAILS
ET601	VOICE/ DATA CONDUIT RISER DIAGRAM





PLOT DATE:



ARCHITECT HKS ARCHITECTS, INC. 90 SOUTH 400 WEST, SUITE 110 SALT LAKE CITY, UT. 84101 **MECHANICAL ENGINEER** VBFA 181 EAST 5600 SOUTH, SUITE 200 MURRAY, UTAH 84107 ELECTRICAL ENGINEER SPECTRUM ENGINEERS 324 SOUTH STATE STREET SALT LAKE CITY, UT 84111 Clinic ton U roje ay nountain ato Ele Inte OWNER INTERMOUNTAIN HEALTHCARE 36 SOUTH STATE STREET SALT LAKE CITY, UTAH 84111 No. 11783731-2202 JASON R. WORTHEN 03/04/2022 REVISION NO. DESCRIPTION DATE HKS PROJECT NUMBER 24952.000 DATE 03/04/2022 ISSUE CONSTRUCTION DOCUMENTS SHEET TITLE ELECTRICAL DETAILS SHEET NO. **EE501** 



![](_page_11_Picture_2.jpeg)

![](_page_11_Picture_14.jpeg)

HKS ARCHITECTS, INC. 90 SOUTH 400 WEST, SUITE 110 SALT LAKE CITY, UT. 84101 **MECHANICAL ENGINEER** VBFA 181 EAST 5600 SOUTH, SUITE 200

MURRAY, UTAH 84107 ELECTRICAL ENGINEER SPECTRUM ENGINEERS 324 SOUTH STATE STREET SALT LAKE CITY, UT 84111

![](_page_11_Figure_17.jpeg)

No. 11783731-2202 JASON R. WORTHEN 03/04/2022

REVISION NO. DESCRIPTION

DATE

HKS PROJECT NUMBER 24952.000 DATE 03/04/2022 ISSUE CONSTRUCTION DOCUMENTS SHEET TITLE TYPICAL MOUNTING **HEIGHT DETAILS** SHEET NO.

**EE701** 

![](_page_12_Figure_0.jpeg)

![](_page_12_Picture_3.jpeg)

![](_page_13_Figure_0.jpeg)

![](_page_13_Picture_3.jpeg)

PLOT DATE:	

MARK	ITEM DESCRIPTION	LOAD DATA						
		HP	kW	MCA	FLA	VOLT	PH	Hz
AC-1	SPLIT SYSTEM INDOOR UNIT			19.8	15.9	208	1	60
AC-1	SPLIT SYSTEM OUTDOOR UNIT					208	1	60

## EQUIPMENT SCHEDULE

					-											
WIRE AND	COND.		OVERCURRENT DISCONNECT				CT							ST	FARTER DAT	A
CONDUIT SIZE	AND		PROTECT	ION												
	CONDUIT	FURN	DEVICE	LOCATION	FURN	DEVICE	LOCATION	FURN	DEVICE	LOCATION	SIZE	SPEED	CTRL	SELECTOR	PUSH	PILOT
	SCHED.	BY			BY			BY					VOLT	SWITCH	BUTTON	LAMP
2 #10, #10 GR	4	E	30A/2P	PANEL	E	30A/2P	ADJ TO	Q								
0.75" CND			CB			FRN 20	EQUIP									
2 #10, #10 GR	4	E	30A/2P	PANEL	E	30A/2P	ADJ TO	Q								
0.75" CND			CB			FRN 20	EQUIP									
				·										•		·

![](_page_14_Figure_4.jpeg)

![](_page_14_Picture_5.jpeg)

1 PARTIAL ONE LINE DIAGRAM SCALE: NTS

ALUMINUM CONDUCTOR
AND CONDUIT SCHEDULE

				SCHEDUI		FR					_
	<b>(</b> **	7							<u> </u>	NOTES	MAF
	۳.	J <sub>*</sub>	-	SUBSCRIF	T (NOTI	E 5)		(E.G.)	5 <sub>IG</sub>		
NOF	RMAL	L	/ NOR	MALLY F	PHÀSE		/ATIC	REMOTE	EMG		_
C	PEN			SENDUIF,			KARE 1)		PWER	NOTES	
COI		Ŧŧ	STCON		RECAY	SIZE	G	IG	3E	NOTES	<u>_</u>
	$\overline{2}$	\$									-AC-
	3	A									
	4	A		$\searrow$							
	<u>5</u>	4									_
		A									_
	<u>()</u> (8)	A   ^							r		-
	9	Δ				$\overline{}$					-
	(10)	A					$\searrow$				_
	11	A					<				
	(12)	A									_
	14				-						-
	(15)	Δ Δ									-
	16	A									
	17	A									
	(18)		$\angle$								_
	19	4									$\exists$
	21	A   ^	130	2	3	2/0	4	1/0	4	2.7	-
	22	A	130	2	4	2/0	4	1/0	4	2,7	-
	23	Ą	150	2	3	3/0	4	1/0	4	2,7	
	24)	A	150	2	4	3/0	4	1/0	4	2,7	
	25	A	175	2	3	4/0	4	1/0	2	2,7	_
	(26) (77)		1/5 200	2.50	4 2	4/U 250	4 1	1/0	2	2,1	-
	<u>رہے</u> (28	A   ∧	200	3	4	250	4	1/0	2	2,7	$\neg$
	29		230	2.50	3	300	2	1/0	1/0	2,7	1
	30	A	230	3	4	300	2	1/0	1/0	2,7	_
	31	A	250	3	3	350	2	2/0	1/0	2,7	
	<u>32</u>	A	250	3	4	350	2	2/0	1/0	2,7	_
	<u>34</u>	<u> </u>	310	3 4	3	500	1	3/0	1/0	2,7	-
	35	Δ Δ	380	2 EA 2.50	3	250	1	4/0	3/0	2,7	-
	36	A	380	2 EA 3	4	250	1	4/0	3/0	2,7	
	37	A	400	2 EA 2.50	3	250	1/0	4/0	3/0	2,7	
	38	A	400	2 EA 2.50	4	250	1/0	4/0	3/0	2,7	_
	39	A	500	2 EA 3	3	350	1/0	300	3/0	2,4,7	_
	<u>40</u> 41	A   ^	620	2 EA 3	4	500	3/0	300	3/0	2,4,7	-
	42		620	2 EA 4	4	500	3/0	300	3/0	2,4,7	
	43	Ą	750	3 EA 3	3	350	3/0	300	4/0	2,4,7	
	44	4	750	3 EA 3	4	350	3/0	300	4/0	2,4,7	_
	45	A	810	3 EA 3	3	400	4/0	300	250	2,4,7	_
	47	A   ^	1000	4 EA 3	4	350	4/0	300	250	4.7	-
	48	Ā	1000	4 EA 3	4	350	4/0	300	250	4,7	
	49	A	1140	4 EA 4	3	500	250	300	250	4,7	
	50	A	1140	4 EA 4	4	500	250	300	250	4,7	_
	<u>51</u> 52	<u> </u>	1240	4 EA 4 4 EA 4	3 4	500	350	300	250	4,7	_
	53	A   A	1620	6 EA 4	4	400	400	350	250	4,7	-
	54	Ā	2170	7 EA 4	4	500	400	500	250	4,7	-
	55	A	2695	7 EA 4	4	750	600	750	750	4,7	
	56	A	3080	8 EA 4	4	750	600	750	750	4,7	_
	<u>67)</u> 58		4235	5 E 4	4	750	800	750	750	4,7	-
	59	A ⊿	-	5	-	-	-	-	-	6	-
	60	A	-	10 EA 4	-	-	-	-	-	6	1
	<ul> <li>CONDUIT AND CONDUCTOR SCHEDULE NOTES</li> <li>CONDUCTORS SHOWN ARE SHOWN FOR EACH CONDUIT WITH MODIFICATIONS AS NOTED IN NOTE 5. ALL CONDUCTORS SHOWN ARE THWN UNLESS OTHERWISE NOTED.</li> <li>PROVIDE EQUIPMENT GROUND CONDUCTORS PER TABLE 250-122 WHEN CIRCUIT BREAKERS ARE SIZED GREATER THAN AMPERE RATING SHOWN IN TABLE.</li> <li>PROVIDE #10 NEUTRALS FOR MULTIWIRE BRANCH CIRCUITS SERVING COMPUTERS.</li> <li>GROUND (G) CONDUCTOR MAY BE DELETED ON SERVICE ENTRANCE</li> </ul>										
	5	S	SYMBO "21 "F(	L SUBSCR I": INCLU SCHE G" FULL CONF	IPTS: JDE TWO DULED SIZE GF	O NEUTF FOR PHA ROUND, S	RAL CON ASED AI SIZE EQ SAME SI	NDUCTORS	S, SIZED A AL CONDU GROUNDII	S JCTORS. NG	
			"HI	CONE H": NEUT "NON DERA	RAL CU LINEAR	RRENTS 'LOADS.	EXIST I CURRI	DUE TO HI ENT CARR	GH HARM	ONIC IDUCTORS	
			"IG	5": INCLU SCHE GROU	JDE IG ( DULED JND COI	INSULAT ALONG \ NDUCTO	ED/ISOI WITH TH R.	LATED GRU IE GROUN	OUND COI D OF EQU	NDUCTOR) IPMENT	
	6	F	"SI RACEW	E": SUBS SHOV SECC /AY ONLY.	STITUTE VN, WHI NDARY CONDU	"SE" CO CH IS SI OF THE CTORS F	NDUCT( ZED FOI SEPAR/ PROVID	OR FOR "G R THE GRO ATELY DEF ED BY UTII	" CONDUC DUNDING ( RIVED SYS LITY.	CTOR OF THE STEM.	

7 ALUMINUM CONDUCTORS NOT TO BE USED FOR CONNECTION TO MOTORS

OR MOTOR DRIVEN EQUIPMENT.

# SHEET KEYNOTES

RELOCATE EXISTING ELEVATOR CONTROL PANEL PER NEW ELEVATOR SHOP DRAWINGS. EXTEND SIGNAL WIRING FOR FIRE ALARM TO THE NEW LOCATION

## COPPER CONDUCTOR AND CONDUIT SCHEDULE

<b>(</b> ** <b>)</b>		CONLL		DEIX		(F C				
	*	SUBSC	RIPT (NOT	TE 5)	(E.G.) 5 IG					
		НН	CONDUIT	COND	JCTOR (I	NOTE 1)				
SYM	AMP	AMPS	SIZE	QTY	SIZE	G	IG/HH	SE	NOTES	
	20	-	.75	2	12	12	12	8	2	
<u>(2)</u> (3)	20	- 24	.75 75	3	12	12	12	8	2,3	
4	30	- 24	.75	2	10	12	12	8	2,5	
5	30	-	.75	3	10	10	10	8	2	
6	30	32	.75	4	10	10	10	8	2	
7	40	-	1	2	8	10	8	6	2	
<u>8</u>	40	-	1	3	8	10	8	6	2	
10	55	- 44	1	4	6	10	8	4	2	
11	55	-	1	3	6	10	8	4	2	
12	55	60	1.25	4	6	10	8	4	2	
13	70	-	1	2	4	8	4	2	2	
(14)	70	-	1.25	3	4	8	4	2	2	
15	70 85	76	1.25	4	4	8	4	2	2	
17	85	-	1.25	2	3	8	3	2	2	
(18)	85	92	1.25	4	3	8	3	2	2	
19	95	-	1.25	3	2	8	2	2	2	
20	95	104	1.50	4	2	8	2	2	2	
21	130	-	1.50	3		6	2	2	2	
(22) (22)	130	116	1.50 2	4	1/0	6	2	2	2	
<u>دى</u> (24	150	- 136	2	3 4	1/0	6	2	1/0	2	
25	175	-	2	3	2/0	6	2	2/0	2	
26	175	156	2	4	2/0	6	2	2/0	2	
27	200	-	2	3	3/0	6	2	2/0	2	
28	200	180	2.50	4	3/0	6	2	2/0	2	
29	230	-	2.50	3	4/0	4	2	2/0	2	
30	230	208	2.50	4	4/0 250	4	2	2/0	2	
32	255	232	2.50	4	250	4	1	2/0	2	
33	310	-	3	3	350	3	1/0	3/0	2	
34	310	280	3	4	350	3	1/0	3/0	2	
35	380	-	3.50	3	500	3	3/0	3/0	2	
36	380	344	4	4	500	3	3/0	3/0	2	
<u>(37)</u>	400	- 360	2 EA 2	3	3/0	3	3/0	3/0	2	
<u> </u>	510		2 EA 2.50	3	250	1	3/0 4/0	3/0	2	
40	510	464	2 EA 3	4	250	1	4/0	3/0	2	
41	620	-	2 EA 3	3	350	1/0	4/0	3/0	2,4	
42	620	560	2 EA 3	4	350	1/0	4/0	3/0	2,4	
43	760	-	2 EA 3.50	3	500	1/0	4/0	3/0	2,4	
44	855	000	2 EA 4 3 EA 3	4	300	2/0	4/0	3/0	2,4	
46	855	768	3 EA 3	4	300	2/0	4/0	3/0	2.4	
47	1000	-	3 EA 3.50	3	400	2/0	4/0	3/0	4	
48	1000	912	3 EA 3.50	4	400	2/0	4/0	3/0	4	
49	1140	-	3 EA 4	3	500	3/0	4/0	3/0	4	
<u>50</u>	1140	1032	3 EA 4	4	500 250	3/0	4/0	3/0	4	
<u>52</u>	1240	- 1120	4 EA 3	3 4	350	3/0	4/0	3/0	4	
<u>53</u>	1675	1520	5 EA 4	4	400	4/0	4/0	4/0	4	
54	2010	1824	6 EA 4	4	400	250	250	250	4	
55	2660	2408	7 EA 4	4	500	350	350	350	4	
56	3040	2752	8 EA 4	4	500	500	500	500	4	
67 E0	4180	3784	11 EA 4	4	500	500	500	500	4	
<u>്</u> രാഗ് ട്രവ	-	-	ວ ⊑A 4 5	-	-	-	-		6	
60	-	-	10 EA 4	_	-	-	-	-	6	
ريب									_ I	
1 4	יייםואטי									
т. ( Д	AS NOT	ED IN N	JOTE 5. AL		UCTORS	SHOWN	ARE TH		SS	
(	OTHER	WISE N	OTED.							
2. F							ER TABLE	250-122		
(	TABLE.	IDREA	NERS ARE	SIZED (	JREATE			VATING S		
3. F	PROVID	)E #10 N	<b>IEUTRALS</b>	FOR MU	JLTIWIRE	E BRANC	H CIRCUI	TS SERV	ING	
(	COMPU	TERS.	<b></b>							
4. (	GROUN	D (G) C	ONDUCTO	r may e	BE DELE	IED ON S	SERVICE	ENTRAN	ĴE	
5. 9	SYMRO	LSURS	CRIPTS'							
`		2NI. IN					RS SIZE	) AS		
	4	LINI. IIN S(	CHEDULED	FOR P	HASE AN	ID NEUT	RAL CONE	DUCTORS	3	
		W	HERE THE		JCTOR IS	5 #1/0 OR			)E	
		A ا	SINGLE 20	0% RAT דאב •	ED CON		IHATIS SFAND N	IWICE TH IEUTR∆I	112	
		C	ONDUCTOR	R WHEF	RE THE C	ONDCUT	OR IS BE	LOW #1/0	)	
		IN	SIZE.							
				<b>-</b>	<b>.</b>		<b>-</b>			
	"	FG" Fl	JLL SIZE G	R TO RE	, SIZE EC	JUIPMEN	II GROUN	NDING F		
		C	ONDUCTOR	RS.	, 0	/\0 1		-		
	"	HH": NI			S EXIST			RMONIC		
		N.			ა. UUKH	LEINT CAP				

CONDUCTORS DERATED ACCORDINGLY. PROVIDE THE IG/HH SIZE FOR THE EQUIPMENT GROUNDING CONDUCTOR.

"IG": INCLUDE IG (INSULATED/ISOLATED GROUND CONDUCTOR) SCHEDULED ALONG WITH THE GROUND OF EQUIPMENT GROUND CONDUCTOR.

"SE": SUBSTITUTE "SE" CONDUCTOR FOR "G" CONDUCTOR SHOWN, WHICH IS SIZED FOR THE GROUNDING OF THE SECONDARY OF THE SEPARATELY DERIVED SYSTEM. 6. RACEWAY ONLY. CONDUCTORS PROVIDED BY UTILITY.

![](_page_14_Picture_18.jpeg)

![](_page_15_Figure_1.jpeg)

.IG⊢	GHTING FIXTURE SCHEDULE												
											GENEF	RAL NOTE	S
re Juminum Steel Chitect Dlor by OR by RAL 9D	DIFFUSER/L         #A       - ACRYLIC #         GC       - GLASS (CL         GO       - GLASS (OF         GF       - GLASS (OF         SGL       SOFT GLO         HPL       - HIGH PERI         DO       - DROP OPA         CGL       - CONVEX OF         S       - SATIN LEN	ENS #THICK #THICK (OPAL) LEAR) PAL) ROSTED) WW LENS FORMANCE LE AL GLASS LENS NS	ENS	REF OP SS D SC PR FDR DS LI IR SL GL CA	ELECTO NONE SPECI SEMI-3 DIFFU PRISM PRISM FULL I DIFFU LOW I IRIDES SILVE GOLD CLEAF	DR /OPEN ULAR SPECULAI SE (WHITI ULAR (CO /ATIC DEPTH RE ISE (SEMI RIDESCEN R R ALZAK	R E ENAMEL LORED) EFLECTOR SPECULA NT	-) R) SILVER	1. FFAIII 2. CSAAA 3. SBF 4. SF 5. AL 5. AL 7. C 8. L 9. AA 9. AA	PROVIDE FOR EACI FAILURE AND EMPI NSTALLA NSTALLE CONTRAC SPECIFIEI ALLOWAN AND DO N SUBSTITU BIDDING, PRIOR TC SAMPLES PRIOR TC ALL FIXTU OCATION VERIFY TH NSTALLA COMPLY N REFER TC IGHTING ALL LIGHT	UNIT PRICES AND FIXTURE + FIXTURE TYPES SHOWN TO COMPLY WITH THIS REC OWER THE ENGINEER TO IN TION CHANGES, WITHOUT R. CTOR ALLOWANCE PRICES D, CONTRACTOR AND ELEC ICE AND REPORT ANY PRO- ICE PRICE MAY OR MAY NO ICE PRICE MAY OR MAY NO INCLUDE ANY TAXES. ITIONS AND/OR EQUAL FIX THEY MUST BE SUBMITTED ID OPENING. MUST BE PROVIDED FOR RELEASING FIXTURES. IRES SHALL BE LISTED AND N. HE PROPER MOUNTING KIT TION AS SHOWN AT EACH WITH THE "INTERIOR LIGHT O SPECIFICATIONS FOR IMP FIXTURES, DRIVERS, AND T FIXTURES TO BE EITHER ID BY ARCHITECT/ENGINEE	E BRAND SELECTED FOR A WITHIN 48 BUSINESS HOL QUIREMENT MAY DISQUAL DETERMINE FAIR VALUE F FURTHER INPUT FROM TH ARE ACCURATE WHEN TH CTRICAL DISTRIBUTOR SH DBLEMS TO THE ENGINEED DT INCLUDE LAMP(S) OR F TURES MUST RECEIVE AF D TO THE ENGINEER NO L ANY AND ALL FIXTURES U D APPROVED FOR THEIR I IS OR ACCESSORIES TO F LOCATION ON THE DRAW FING" SECTION OF THE SP PORTANT TECHNICAL REC LAMPS.	ADD/DELETE CHANGES IRS OF THE BID DATE. JFY THE PRODUCTS OR FIXTURE AND HE CONTRACTOR OR HIS JOB WAS IALL VERIFY THIS R BEFORE THE BID. REIGHT AS NOTED, PROVAL PRIOR TO ESS THAN 2 WEEKS PON A/E REQUEST NTENDED USE AND ACILITATE INGS. ECIFICATIONS. QUIREMENTS FOR S" LISTED OR TO BE
	ATION										MANU	FACTURER (CATALOG SE	RIES)
CRI	DRIVER CONFIGUR	VOLTAGE	WATTS	FINISH	FIXTURE LUMENS	DIFFUSER/LENS	REFLECTOR	OPTIONS		NOTES	OPTION 1	OPTION 2	OPTION 3
	NO DIMMING	120/277	51	WH	4000	-	-	-			FAILSAFE (HVL8-4-LD4-1-STD-40-UN V-O-EDC1-S)	NEWSTAR (VIC4N-L2401-RW-UN-WH)	LUMINAIRE LED (VPF 84 46" 50W 3500K 120-277 OP BRZ WET TX/SD)

![](_page_15_Picture_4.jpeg)

_
_

## STATION PATCH CORD SCHEDULE

(CATEGORY 6A F/UTP CABLES W/RJ-45 CONNECTORS)								
LENGTH (FEET)	COLOR	QUANTITY	UNIT COST (EACH)					
7'	BLUE	40% OF TOTAL PORTS IN TDR'S						
10'	BLUE	40% OF TOTAL PORTS IN TDR'S						
15'	BLUE	20% OF TOTAL PORTS IN TDR'S						

## WIRELESS PATCH CORD PATCH CORD SCHEDULE

(CATEGORY 6A F/UTP W RJ/45 CONNECTORS							
LENGTH (METER)	COLOR	QUANTITY	UNIT COST (EACH)				
7'	YELLOW	100% OF TOTAL PORTS IN TDR'S					

	EQUIPMENT/CABL	E LIST
THE ITEMS	INDICATED BELOW SHALL NOT BE CONSTRUED AS A "BILL OF MATERIALS". THIS LIST IDENT	FIES ITEMS OF SIGNIFICANCE USED DURING THE DESIGN OF THE
	ISTALLATION. WHERE THE ITEMS INDICATED ARE ONE PORTION OF AN ASSEMBLY, THE ENTI UL MISCELLANEOUS HARDWARE AND SUPPORTS WHICH MAY NOT BE LISTED HERE. FOR A C	RE ASSEMBLY SHALL BE PROVIDED UNLESS SPECIFIED OTHERWISE.
DESCRIPTI	ONS AND NOTIFY ENGINEER OF DISCREPANCIES PRIOR TO BID. IF CATALOG NUMBERS DO N	OT MATCH DESCRIPTIONS, THE DESCRIPTIONS TAKE PRECEDENCE.
PROVIDE C	OMPLETE SUBMITTAL FOR APPROVAL PRIOR TO PURCHASING ANY EQUIPMENT OR CABLE.	REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
SYMBOL	ITEM DESCRIPTION	ACCEPTABLE TYPES
	STATION CABLE, DATA - CATEGORY 6A FUTP RISER, DATA, BLUE	SIEMON 9A6R4-A5-06-R1A
	STATION CABLE, DATA - CATEGORY 6A FUTP PLENUM, WIRELESS, YELLOW	SIEMON 9A6P4-A5-05-R1A
	STATION CABLE, DATA - CATEGORY 6A FUTP PLENUM, SECURITY, BLUE	SIEMON 9A6P4-A5-06-R1A
	STATION CABLE, DATA - CATEGORY 5E RISER, GREEN VENDOR NETWORK	SIEMON 9C5R4-E2-07-R1A
	DATA OUTLET, SINGLE GANG FACEPLATE, WHITE, 4 POSITION	SIEMON 10GMX-FPS04-02
$\bigtriangledown$	CATEGORY 6A JACK - DATA, BLUE	SIEMON Z6A-S06
	BLANK INSERT, WHITE	SIEMON MX-BL-02
A V V	DATA OUTLET, SINGLE GANG FACEPLATE, WHITE, 4 POSITION ("A" = ABOVE COUNTER)	SIEMON 10GMX-FPS04-02
<b>v v</b>	CATEGORY 6A JACK - DATA, BLUE	SIEMON Z6A-S06
T	DATA OUTLET, SINGLE GANG FACEPLATE, WHITE, 3 POSITION	SIEMON 10GMX-FPS04-02
•	CATEGORY 6A JACK - DATA, BLUE	SIEMON Z6A-S06
4 ▼	DATA OUTLET, SINGLE GANG FACEPLATE, WHITE, 4 POSITION	SIEMON 10GMX-FPS04-02
•	CATEGORY 6A JACK - DATA, BLUE	SIEMON Z6A-S06
C	DATA OUTLET, SURFACE MOUNT BOX, WHITE, 2 POSITION	SIEMON MX-SMZ2-02
	CATEGORY 6A JACK - DATA, BLUE	SIEMON Z6A-S06
C ▼	DATA OUTLET, SURFACE MOUNT BOX, WHITE, 3 POSITION	SIEMON MX-SMZ2-02
• 	CATEGORY 6A JACK - DATA, BLUE	SIEMON Z6A-S06
$\left( \begin{pmatrix} (\bullet) \end{pmatrix} \right)$	DATA OUTLET, SURFACE MOUNT BOX, WHITE, 2 POSITION	SIEMON MX-SMZ2-02
<sup>∰</sup> C	CATEGORY 6A JACK - WIRELESS, YELLOW	SIEMON Z6A-S05
$\square$	DATA OUTLET, SURFACE MOUNT BOX, WHITE, 1 POSITION	SIEMON MX-SMZ1-02
	CATEGORY 6A JACK - SECURITY, BLUE	SIEMON Z6A-S06
SPP1	48 PORT, 1RU ANGLE PATCH PANEL WITH OUTLETS	SIEMON 26AS-PA-48
	EQUIPMENT RACK 19 WIDE X 8-0 HIGH, 52RU, BLACK	CHATSWORTH 55053-715
	CABLE RUNWAY - 24", BLACK WITH ALL REQUIRED MOUNTING ACCESSORIES	CHATSWORTH 10250-724
	BUTT SPLICE KIT, BLACK	CHATSWORTH 11301-701
	JUNCTION SPLICE KIT, BLACK	CHATSWORTH 11302-701
	FOOT KIT, BLACK	CHATSWORTH 11309-701
	6" CHANNEL RACK TO RUNWAY, BLACK	CHATSWORTH 12409-724
	TRIANGLE BRACKETS, BLACK	CHATSWORTH 11746-724
	END CLOSING KIT, CABLE RUNWAY, BLACK	CHATSWORTH 11700-724
	WALL ANGLE SUPPORT KIT, CABLE RUNWAY, BLACK	CHATSWORTH 11421-724
	CABLE RUNWAY ELEVATION KIT, 6"	CHATSWORTH 10506-706
	CABLE RUNWAY RADIUS DROP	CHATSWORTH 12100-712
	PLYWOOD BACKBOARD, 4' X 8', GRADE AC, FIRE TREATED & PAINTED	
	TELECOMMUNICATIONS MAIN GROUNDING BUS BAR	-
	TELECOMMUNICATIONS GROUNDING BUS BAR	

NOTE: ALL RACKS, LADDER, PATCH PANELS AND ACCESSORIES SHALL BE BLACK IN COLOR.

# GENERAL PROJECT NOTES

- 1. UNLESS OTHERWISE NOTED, INSTALL ALL CABLE INSIDE RACEWAY SYSTEMS. WHERE RACEWAY SYSTEMS HAVE NOT BEEN PROVIDED OR SPECIFIED, INSTALL CABLE THROUGH THE SPECIFIED "CADDY" CLIPS AT THE MINIMUM INTERVALS IDENTIFIED IN THE SPECIFICATIONS. SUPPORT "CADDY" CLIPS DIRECTLY FROM THE BUILDING STRUCTURE, NOT FROM OTHER BUILDING SYSTEM SUPPORT WIRES OR CABLE.
- 2. PROVIDE PLENUM RATED CABLE IN ALL AIR PLENUMS. IF A PLENUM RATED CABLE IS NOT SPECIFIED, PROVIDE THE PLENUM RATED EQUIVALENT TO THE SPECIFIED CABLE.
- 3. LABEL ALL CABLE INSTALLED UNDER THIS CONTRACT REGARDLESS OF LENGTH. 4. THE EQUIPMENT LABELING IDENTIFIED ON DETAILS IN THESE DRAWINGS ARE EXAMPLES ONLY OF THE ACTUAL LABELING WHICH IS REQUIRED AS PART OF THIS CONTRACT. PRIOR TO FABRICATION, SUBMIT THE NOMENCLATURE FOR ALL LABELS TO THE OWNER FOR REVIEW. THIS REQUIREMENT INCLUDES BUT IS NOT LIMITED
- 5. IF OUTLET IS TERMINATED IN CEILING SPACE, LABEL THE T-BAR GRID WITH THE OUTLET NUMBER FOR EASY LOCATION AND IDENTIFICATION.
- 6. GROUND ALL EQUIPMENT RACKS INSTALLED UNDER THIS CONTRACT IN COMPLIANCE WITH THE CONTRACT DOCUMENTS.

TO ALL CABLE LABELING, AND ALL EQUIPMENT LABELING.

- 7. FOR EVERY CABLE PULL SPECIFIED, COIL 15' OF EXCESS CABLE AT THE STATION END FOR FUTURE USE. NEATLY COIL 15' ABOVE THE CEILING OR BELOW FLOOR
- WHERE APPLICABLE. 8. PROVIDE THE QUANTITY OF PATCH PANELS REQUIRED +20% FOR THE TOTAL DATA OUTLETS SHOWN ON FLOOR PLANS FOR THE PARTICULAR LEVEL.
- 9. RACK SPACE ALLOCATION SHOULD BE FOLLOWED PER DRAWINGS. IF YOU HAVE A SYSTEM THAT HAS NOT RACK ALLOCATION PLEASE CALL BOE SAUSEDO AT 801-707-3805.
- 10. ALL DATA LOCATIONS ARE NOT SHOWN IN ET SHEETS. REFER TO ENLARGED POWER PLANS FOR DATA LOCATIONS IF NOT SHOWN ON ET SHEETS.

# ABBREVIATIONS

NOTE: ALL ABBREVIATIONS MAY NOT BE USED.

AUGMENTED CATEGORY

A CAT E EA FPP GIG HWM NIC OE PNM PR PS RPP	AUGMENTED CATEGORY ENHANCED EACH EQUIPMENT ROOM FIBER PATCH PANEL GIGA HERTZ HORIZONTAL WIRE M NOT IN CONTRACT OWNER ELECTRONIC PLENUM PAIR POWER SUPPLY RISER PATCH PANEL
PR	
RPP	RISER PATCH PANEL
TC	TELECOMMUNICATIO
IYP VWM	TYPICAL VERTICAL WIRE MAN

GIGA HERTZ HORIZONTAL WIRE MANAGEMENT NOT IN CONTRACT

- OWNER ELECTRONICS PLENUM PAIR
- POWER SUPPLY **RISER PATCH PANEL** STATION PATCH PANEL
- TELECOMMUNICATIONS ROOM TYPICAL
- VERTICAL WIRE MANANGEMENT

## DEFINITIONS NOTE: ALL DEFINITIONS MAY NOT BE USED.

INDICATED: THE TERM "INDICATED" REFERS TO GRAPHIC REPRESENTATIONS, NOTES, OR SCHEDULES ON THE DRAWINGS, OTHER PARAGRAPHS OR SCHEDULES IN THE SPECIFICATIONS, AND SIMILAR REQUIREMENTS IN THE CONTRACT DOCUMENTS. WHERE TERMS SUCH AS "SHOWN", "NOTED", "SCHEDULED", AND "SPECIFIED" ARE USED, IT IS TO HELP THE READER LOCATE THE REFERENCE, NO LIMITATION ON LOCATION IS INTENDED.

DIRECTED: TERMS SUCH AS "DIRECTED", "REQUESTED", AUTHORIZED", "SELECTED", "APPROVED", "REQUIRED", AND "PERMITTED" MEAN "DIRECTED BY THE ENGINEER", "REQUESTED BY THE ENGINEER", AND SIMILAR PHRASES.

APPROVE: THE TERM "APPROVED", WHERE USED IN CONJUNCTION WITH THE ENGINEER'S ACTION ON THE CONTRACTOR'S SUBMITTALS, APPLICATIONS, AND REQUESTS, IS LIMITED TO THE ENGINEER'S DUTIES AND RESPONSIBILITIES AS STATED IN GENERAL AND SUPPLEMENTARY CONDITIONS.

FURNISH: THE TERM "FURNISH" IS USED TO MEAN "SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS."

INSTALL: THE TERM "INSTALL" IS USED TO DESCRIBE OPERATIONS AT PROJECT SITE INCLUDING THE ACTUAL "UNLOADING, UNPACKING, ASSEMBLY, ERECTION, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS."

PROVIDE: THE TERM "PROVIDE" MEANS "TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE."

INSTALLER: AN "INSTALLER" IS THE CONTRACTOR OR AN ENTITY ENGAGED BY THE CONTRACTOR, EITHER AS AN EMPLOYEE, SUBCONTRACTOR, OR SUB-SUBCONTRACTOR, FOR PERFORMANCE OF A PARTICULAR CONSTRUCTION ACTIVITY, INCLUDING INSTALLATION, ERECTION, APPLICATION, AND SIMILAR OPERATIONS. INSTALLERS ARE REQUIRED TO BE EXPERIENCED IN THE OPERATIONS THEY ARE ENGAGED TO PERFORM.

ELECTRONIC SYSTEMS: THE TERM "ELECTRONIC SYSTEMS" IS USED TO DESCRIBE ALL LOW VOLTAGE SYSTEMS GENERALLY REFERRED TO AS "SPECIAL SYSTEMS". THESE SYSTEMS INCLUDE BUT ARE NOT NECESSARILY LIMITED TO ALL SYSTEMS WHICH UTILIZE VOLTAGES OF LESS THAN 71 VOLTS SUCH AS SOUND SYSTEMS, VIDEO SYSTEMS, TV SYSTEMS, SECURITY SYSTEMS, VOICE AND DATA CABLING SYSTEMS, ETC...

![](_page_16_Picture_36.jpeg)

PLOI DAIE:

![](_page_17_Picture_1.jpeg)

![](_page_17_Figure_2.jpeg)

![](_page_17_Picture_3.jpeg)

![](_page_17_Figure_4.jpeg)

![](_page_18_Picture_1.jpeg)

![](_page_18_Picture_2.jpeg)

![](_page_18_Picture_3.jpeg)

![](_page_18_Figure_4.jpeg)

![](_page_18_Picture_9.jpeg)