

PROJECT GENERAL NOTES

- ALL WORK SHALL COMPLY WITH CURRENT FEDERAL, STATE, AND LOCAL CODES AND ORDINANCES AS WELL AS THE CONSTRUCTION DOCUMENTS. CONTRACTOR SHALL REPORT ANY CONFLICTS TO THE ENGINEER AS SOON AS THEY ARE DISCOVERED.
- THE COMPLETE INSTALLATION SHALL BE IN ACCORDANCE WITH THE A.D.A.A.G. (AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES).
- THE CONTRACTOR SHALL REVIEW THE DRAWINGS AND SPECIFICATIONS PRIOR TO BIDDING JOB AND DURING CONSTRUCTION. EXCEPT AS OTHERWISE NOTED, THE CONTRACTOR SHALL PROVIDE ALL EQUIPMENT, MATERIALS, AND LABOR FOR A COMPLETE PROJECT AS SHOWN IN THE DRAWINGS AND SPECIFICATIONS. DRAWINGS AND SPECIFICATIONS CARRY EQUAL IMPORTANCE AND ITEMS LISTED IN EITHER SHALL BE FURNISHED AS IF LISTED IN BOTH. ALSO REVIEW DETAILS AND RISER DIAGRAMS FOR ADDITIONAL ITEMS/INSTRUCTIONS WHETHER SPECIFICALLY REFERRED TO ON PLANS OR NOT.
- THE CONTRACTOR MUST VISIT THE SITE TO FAMILIARIZE HIMSELF WITH THE EXISTING SITE CONDITIONS WHICH WILL BE AFFECTED DURING CONSTRUCTION PRIOR TO SUBMITTING HIS BID PROPOSAL, INCLUDING THE EXTENT OF DEMOLITION AND CONFLICTS WITH PLANS.
- DRAWINGS ARE DIAGRAMMATIC IN NATURE AND SHOW THE GENERAL INSTALLATION OF EQUIPMENT AND MATERIALS IN RELATIONSHIP TO STRUCTURE AND OTHER TRADES. THEY MAY NOT SHOW EVERY REQUIRED OFFSET, FITTING, ETC. THE CONTRACTOR SHALL FIELD VERIFY ACTUAL JOB CONDITIONS AND COORDINATE WORK WITH OTHER TRADES PRIOR TO BIDDING JOB AND PRIOR TO ORDERING EQUIPMENT, FABRICATION OF MATERIALS, OR STARTING WORK. CONTRACTOR SHALL NOT SCALE THE DRAWINGS.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ALL ITEMS THAT AFFECT OTHER DISCIPLINES WITH THE CORRESPONDING CONTRACTOR AND THE GENERAL CONTRACTOR IF EQUIPMENT, MATERIALS, ETC. OTHER THAN THOSE SCHEDULED AND SPECIFIED (PENDING PRE-APPROVAL) ARE FURNISHED.
- CHANGE ORDERS WILL NOT BE GRANTED DUE TO LACK OF COORDINATION WITH JOB CONDITIONS AND/OR OTHER CONTRACTORS.
- EXISTING EQUIPMENT, CONDUIT, FIXTURES, DEVICES, AND CIRCUITS ARE SHOWN FOR REFERENCE ONLY. ADJUST EXACT INSTALLATION AND CONNECTION OF NEW ITEMS ACCORDING TO ACTUAL CONDITIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR STORAGE OF RELOCATED EQUIPMENT AND MATERIALS DURING CONSTRUCTION. ITEMS DAMAGED DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- UPON COMPLETION OF THE PROJECT THE CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS TO THE OWNER, ARCHITECT, AND ENGINEER SHOWING EQUIPMENT, FIXTURES, DEVICES, CIRCUITS, ETC. THAT DIFFERS FROM CONSTRUCTION DOCUMENTS AS THEY ARE ACTUALLY INSTALLED.

ELECTRICAL GENERAL NOTES

- COORDINATION WITH OTHER TRADES:**
 - ELECTRICAL CONTRACTOR SHALL VERIFY TOTAL CONNECTED LOAD OF EQUIPMENT PRIOR TO WIRING OF ALL EQUIPMENT. MAKE ANY CHANGES TO OVERCURRENT DEVICES OR FEED SIZE PER THE NATIONAL ELECTRICAL CODE, APPLICABLE VERSION.
- CONDUIT AND WIRE:**
 - ALL POWER WIRING OF ALL SYSTEMS SHALL BE COPPER WITH INSULATED GROUND WIRE IN CONDUIT AND BOXES UNLESS SPECIFICALLY NOTED OTHERWISE.
 - ALL CONNECTIONS TO EQUIPMENT SUBJECT TO MOVEMENT OR VIBRATIONS SHALL BE LIQUID TIGHT FLEXIBLE METAL CONDUIT, NOT LESS THAN 12" IN LENGTH, NOR GREATER THAN 36" IN LENGTH.
 - MULTIPLE CIRCUITS ON THE SAME PHASE SHALL NOT BE COMBINED IN A SINGLE RACEWAY UNLESS OTHERWISE SHOWN ON THE CONTRACT DRAWINGS. SINGLE PHASE BRANCH CIRCUIT HOME RUNS MAY BE COMBINED AT THE CONTRACTOR'S DISCRETION NOT GREATER THAN THREE CIRCUITS CONSISTING OF (3) PHASE CONDUCTORS, (3) NEUTRAL CONDUCTORS, AND GROUNDING CONDUCTOR.
 - THE MINIMUM WIRE SIZE SHALL BE #10 FOR ALL POWER CIRCUITS. EACH CIRCUIT SHALL HAVE A SEPARATE AND DEDICATED NEUTRAL FROM THE PANEL. SEE BRANCH CIRCUIT VOLTAGE DROP TABLE FOR SIZING OF CONDUCTORS.
 - THE MINIMUM CONDUIT SIZE IS 0.75".
 - ALL EXPOSED CONDUIT SHALL BE INSTALLED PARALLEL OR PERPENDICULAR, AND SHALL BE RIGID GALVANIZED UNLESS OTHERWISE NOTED.
 - ALL CONDUIT UNDER GROUND SHALL BE A MINIMUM OF 1". ALL BENDS UNDERGROUND, HORIZONTAL OR VERTICAL, SHALL BE RIGID GALVANIZED STEEL, NO EXCEPTION.
 - MAINTAIN MAXIMUM SPACE BETWEEN LOW VOLTAGE CABLES WITH METAL CONDUCTORS AND SOURCES OF INTERFERENCE INCLUDING: POWER WIRING, ALL LIGHT FIXTURES, AND ESPECIALLY MOTORS AND TRANSFORMERS. ELECTRICAL INTERFERENCE IS REDUCED BY DISTANCE FROM SOURCES.
 - ALL BELOW GRADE ELBOWS SHALL BE RGS.
- ELECTRICAL-OTHER:**
 - ALL PANELS SHALL BE PANELBOARD CONSTRUCTION WITH BOLT ON BREAKERS. TANDEM BREAKERS SHALL NOT BE USED.

ABBREVIATIONS

	DESCRIPTION		DESCRIPTION
A	AMPERES	KW	KILOWATT
AD	AREA DRAIN	LTG	LIGHTING
AFF	ABOVE FINISHED FLOOR	MC	MECHANICAL CONTRACTOR
AFG	ABOVE FINISHED GRADE	MCA	MINIMUM CIRCUIT AMPACITY
AIC	AMPERES INTERRUPTING CAPACITY (K IS *1000)	MCOP	MAXIMUM OVERCURRENT PROTECTION
ATS	AUTOMATIC TRANSFER SWITCH	MCP	MOTOR CIRCUIT PROTECTOR (MAGNETIC TRIP)
BFC	BELOW FINISHED CEILING	MFS	MAXIMUM FUSE SIZE
BFG	BELOW FINISHED GRADE	(N)	NEW
C	CONDUIT	NC	NORMALLY CLOSED
CB	CIRCUIT BREAKER	NL	NIGHT LIGHT
CT	MOUNTED 6" ABOVE COUNTER TOP	NO	NORMALLY OPEN
DN	DOWN	NTS	NOT TO SCALE
(E)	EXISTING	OC	OVERCURRENT PROTECTION
EC	ELECTRICAL CONTRACTOR	P	POLE
EM	INDICATES DEVICE ON EMERGENCY CIRCUIT OR WITH AN EMERGENCY BATTERY	PH	PHASE
FD	FIRE DAMPER	RLA	RUNNING LOAD AMPS
FLA	FULL LOAD AMPS	SR	SAFETY RECEPTACLE
FP	FIRE PROTECTION	SPD	SURGE PROTECTIVE DEVICE
FPC	FIRE PROTECTION CONTRACTOR	T-STAT	THERMOSTAT
FPI	FINS PER INCH	TCC	TEMPERATURE CONTROLS CONTRACTOR
FPM	FEET PER MINUTE	TP	TAMPER PROOF / SAFETY OUTLET OR COVERS
FPS	FEET PER SECOND	TYP	TYPICAL
FSD	FIRE/SMOKE DAMPER	UCT	MOUNTED UNDER COUNTER WITHIN 12" OF TOP
GC	GENERAL CONTRACTOR	UON	UNLESS OTHERWISE NOTED
GFI/GFCI	GROUND FAULT INTERRUPTER	V	VOLTS
GND	GROUND	VFD	VARIABLE FREQUENCY DRIVE
HOA	HAND-OFF-AUTO SELECTOR SWITCH	W	WIRE
HP	HORSE POWER	WP	WEATHER PROOF
IG	ISOLATED GROUND	WPI	WP IN SERVICE (WITH PLUG INSERTED)
J-BOX	JUNCTION BOX	WR	WEATHER RESISTANT TYPE DEVICE

ABBREVIATION SCHEDULE NOTES:
 1. SOME MAY NOT BE USED IN THIS SET OF PLANS.
 2. ABBREVIATIONS MAY BE WITH OR WITHOUT PERIODS.

ELECTRICAL SYMBOL LIST

	SYMBOL	DESCRIPTION	MOUNTING OR AS INDICATED
LIGHTING		LIGHT FIXTURE WITH LETTER DESIGNATION	SURFACE OR RECESSED
		LIGHT FIXTURE W/EM POWER W/LETTER DESIGN	SURFACE OR RECESSED
		LIGHT FIXTURE WITH LETTER DESIGNATION	WALL,SURFACE,SUSPENDED
		LIGHT FIXTURE WITH EMERGENCY POWER W/LETTER DESIGN	WALL,SURFACE,SUSPENDED
		LIGHT FIXTURE WITH LETTER DESIGNATION	RECESSED OR SURFACE
		LIGHT FIXTURE WITH EM POWER WITH LETTER DESIGNATION	RECESSED OR SURFACE
		LIGHT FIXTURE WITH LETTER DESIGNATION	WALL
		LIGHT FIXTURE WITH EM POWER WITH LETTER DESIGNATION	WALL
		EXIT LIGHT W/LTR. DESIGN. (SHADE INDICATES FACE DIRECTION)	CEILING
		EXIT LIGHT W/LTR. DESIGN. (SHADE INDICATES FACE DIRECTION)	WALL - 6" ABOVE DOOR
WIRING DEVICES		EMERGENCY LIGHT FIXTURE WITH LETTER DESIGNATION	WALL - 12" BELOW CLG
		SINGLE POLE SWITCH	WALL - 48" AFF TO TOP
		THREE-WAY SWITCH	WALL - 48" AFF TO TOP
		FOUR-WAY SWITCH	WALL - 48" AFF TO TOP
		SWITCH WITH PILOT LIGHT	WALL - 48" AFF TO TOP
		KEY SWITCH	WALL - 48" AFF TO TOP
		TIME SWITCH (SET FOR 30 MINUTES)	WALL - 48" AFF TO TOP
		DIMMER SWITCH	WALL - 48" AFF TO TOP
		SWITCHING SCHEME	-
		MOTION DETECTOR (TYPE #)	WALL - 48" AFF TO TOP
POWER DISTRIBUTION		ULTRA SONIC SENSOR (TYPE #)	CEILING
		SINGLE RECEPTACLE (SAME RATING AS CIRCUIT)	WALL - 18" AFF
		ISOLATED GROUND DUPLEX RECEPTACLE	WALL - 18" AFF
		DUPLEX RECEPTACLE (20 AMP)	WALL - 18" AFF
		TAMPER-RESISTANT DUPLEX RECEPTACLE (20 AMP)	WALL - 18" AFF
		EMERGENCY RECEPTACLE (20 AMP)	WALL - 18" AFF
		QUAD-PLEX RECEPTACLE	WALL - 18" AFF
		SWITCHED DUPLEX RECEPTACLE	WALL - 18" AFF
		GFI DUPLEX RECEPTACLE (20 AMP)	WALL - 18" AFF
		GFI QUAD RECEPTACLE	WALL - 18" AFF
POWER DISTRIBUTION		SPECIAL OUTLET (SEE SCHEDULE)	WALL, FLOOR
		TELEPHONE OUTLET	WALL - 18" AFF
		DATA OUTLET	WALL - 18" AFF
		COMBINATION DATA AND TELEPHONE OUTLET	WALL - 18" AFF
		CLOCK OUTLET	WALL
		CABLE T.V. OUTLET	AS NOTED
		CONTROLLER	WALL - 48" AFF
		CONNECT TO EXISTING	AS NOTED
		JUNCTION BOX	AS NOTED
		PULL BOX	WALL
POWER DISTRIBUTION		SAFETY SWITCH (NON-FUSED)	6"-0" AFF TO TOP
		SAFETY SWITCH (FUSED)	6"-0" AFF TO TOP
		TOGGLE DISCONNECT SWITCH	WALL
		COMBINATION STARTER	WALL
		STARTER	WALL
		EMERGENCY STOP-MUSHROOM HEAD MAINTAINED PUSH BUTTON	44" AFF OR AFG
		MOTOR	AS NOTED
		ELECTRICAL PANELBOARD (SURFACE MTD.)	48" AFF TO CENTER UON
		ELECTRICAL PANELBOARD (FLUSH MTD.)	48" AFF TO CENTER UON
		TELEPHONE TERMINAL BOARD (SURFACE MTD.)	NOTE 2
	ELECTRICAL UTILITY METER	AS NOTED	

- SYMBOLS LIST NOTES:**
- ALL MOUNTINGS APPLY UNLESS OTHERWISE NOTED.
 - TTB SHALL BE MINIMUM VOID FREE, A/C 3/4" PLYWOOD WITH A FACE SHOWING, KILN DRIED WITH MAXIMUM 15% MOISTURE CONTENT, SECURELY ATTACHED TO WALL FRAMING MEMBERS, WITH FIRE RETARDANT COATING, OR INTUMESCENT WHITE PAINT. COVER WALL WITH TTB PLYWOOD FROM FLOOR TO 8' AFF.
 - LIGHT FIXTURE CAPITAL LETTER DESIGNATIONS KEY TO MATCHING ENTRIES IN THE LIGHTING FIXTURE SCHEDULE.
 - LIGHT FIXTURE SMALL CASE LETTER DESIGNATIONS (IF SHOWN) REPRESENT SWITCHING REQUIREMENTS.
 - ALL MOUNTING HEIGHTS SHALL BE TO CENTERLINE OF DEVICE U.O.N.

LINETYPES LEGEND

	EXISTING/REFERENCE		WORK TO BE DONE
	EXISTING TO BE DEMOLISHED		

ELECTRICAL CONTACTS

ELECTRICAL:	ELECTRICAL UTILITY:
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CODE INFORMATION

ELECTRICAL:
 2017 NATIONAL ELECTRICAL CODE

ELECTRICAL SHEET INDEX

82	ELECTRICAL COVERSHEET
83	ELECTRICAL SITE PLAN - AREA A
84	ELECTRICAL SITE PLAN - AREA B
85	ELECTRICAL SITE PLAN - AREA C
86	ELECTRICAL SITE PLAN - ENLARGED STATUE AREA
87	ELECTRICAL DETAILS
88	ELECTRICAL DETAILS
89	ELECTRICAL SCHEDULES

BRANCH VOLT DROP TABLE

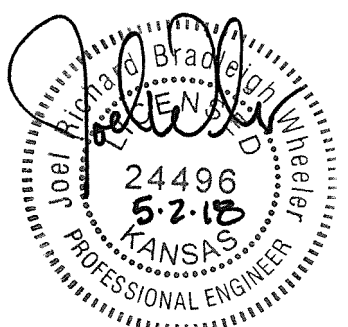
FOR COPPER SINGLE PHASE 3% VOLTAGE DROP, 20 A CIRCUIT BREAKER			
MAXIMUM DISTANCE	PHASE AND NEUTRAL SIZE	EQUIPMENT GROUND SIZE	
120'	240V		
100'	175'	#12	#12
175'	300'	#10	#10
275'	450'	#8	#8
475'	650'	#6	#6

- VOLTAGE DROP TABLE NOTES:**
- DISTANCE GIVEN IS THE MAXIMUM FOR THE LONGEST RUN FOR ANY BRANCH, PANEL TO LOAD.
 - THE DISTANCES ARE FOR THE ENTIRE RUN IN THE GIVEN WIRE SIZE.
 - WIRE REDUCTIONS (WHERE REQUIRED BY DEVICE CONSTRUCTION) SHALL BE MADE WITHIN 3 FEET OF THE SOURCE OR LOAD, AND SHALL BE ONLY DOWN TO THE LARGEST WIRE SIZE THE DEVICE ALLOWS.
 - OTHER NEC DERATING FACTORS ARE NOT INCLUDED IN THE WIRE SIZES IN THIS TABLE.



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PAVING, LANDSCAPE & UTILITIES FOR
STRYKER SPORTS
 WICHITA, KANSAS



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ELECTRICAL COVERSHEET

PROJECT NO.	1701010567
DATE	MAY 2, 2018
SCALE	N.T.S.
DESIGNED	CNG
DRAWN	ECW
CHECKED	JRBW

0	ISSUED FOR CONST.	05-02-18
NO.	REVISION	DATE

SHEET NO.