

## ELECTRICAL FEEDER SCHEDULE

SYMBOL DESIGNATION	FEEDER CONDUIT AND WIRE
(20-3)	¾"C - 3#12, #12G
(20-4)	¾"C - 4#12, #12G
(30-3)	¾"C - 3#10, #10G
(30-4)	¾"C - 4#10, #10G
(40-3)	1"C - 3#8, #10G
(40-4)	1¼"C - 4#8, #10G
(55-3)	1¼"C - 3#6, #8G
(55-4)	1¼"C - 4#6, #8G
(70-3)	1¼"C - 3#4, #8G
(70-4)	1¼"C - 4#4, #8G
(85-3)	1½"C - 3#3, #8G
(85-4)	1½"C - 4#3, #8G
(95-3)	1½"C - 3#2, #6G
(95-4)	1½"C - 4#2, #6G
(110-3)	2"C - 3#1, #6G
(110-4)	2"C - 4#1, #6G
(150-3)	2"C - 3#1/0, #6G
(150-4)	2"C - 4#1/0, #6G
(175-3)	2"C - 3#2/0, #6G
(175-4)	2"C - 4#2/0, #6G
(200-3)	2½"C - 3#3/0, #6G
(200-4)	2½"C - 4#3/0, #6G
(230-3)	2½"C - 3#4/0, #4G
(230-4)	2½"C - 4#4/0, #4G
(255-3)	3"C - 3#250 KCMIL, #4G
(255-4)	3"C - 4#250 KCMIL, #4G
(285-3)	3"C - 3#300 KCMIL, #4G
(285-4)	3"C - 4#300 KCMIL, #4G
(310-3)	3½"C - 3#350 KCMIL, #3G
(310-4)	3½"C - 4#350 KCMIL, #3G
(335-3)	3½"C - 3#400 KCMIL, #3G
(335-4)	3½"C - 4#400 KCMIL, #3G
(380-3)	4"C - 3#500 KCMIL, #3G
(380-4)	4"C - 4#500 KCMIL, #3G
(420-4)	4"C - 4#600 KCMIL, #3G

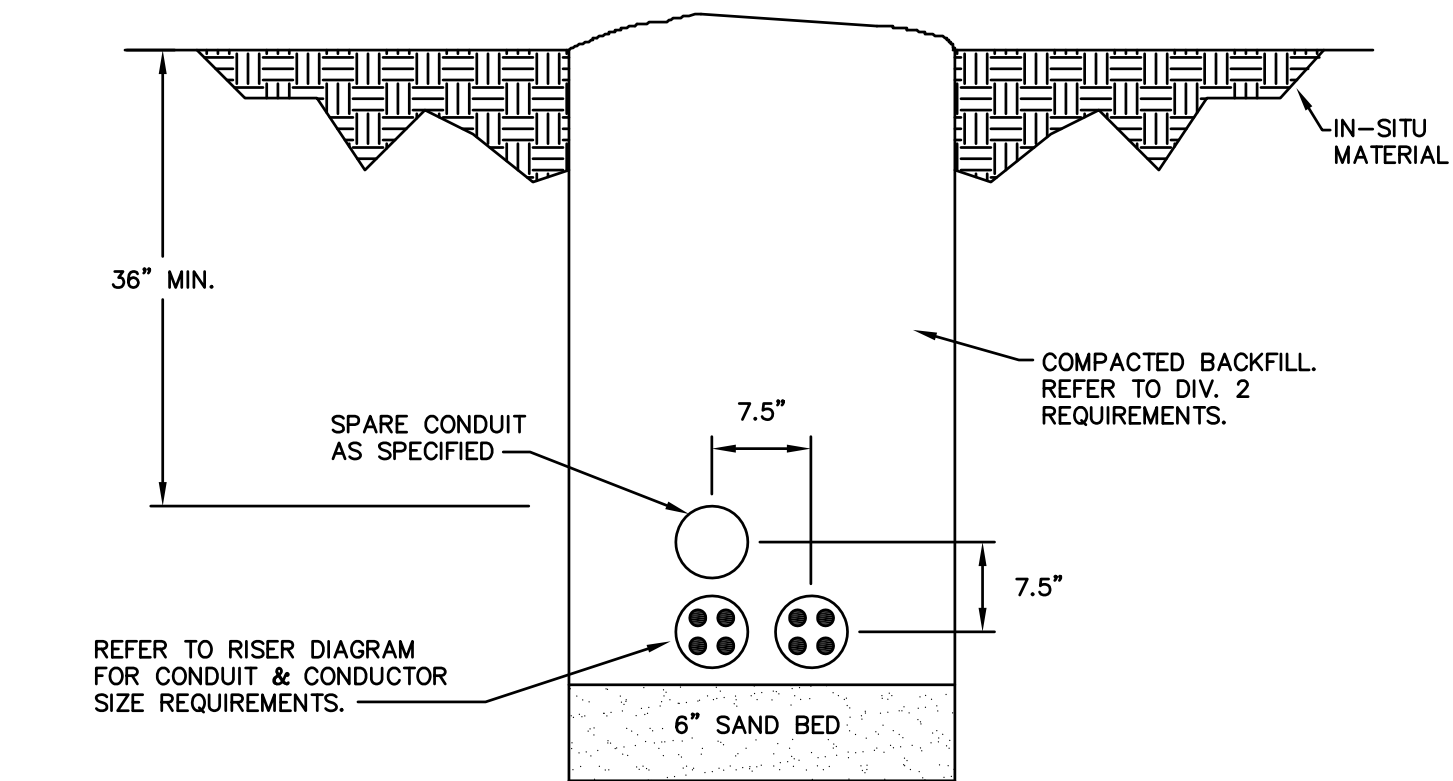
- NOTES:
- GROUNDING CONDUCTORS SHALL BE INSTALLED WITH ALL FEEDERS & BRANCH CIRCUITS.
  - OTHER THAN SERVICE, ALL CONDUCTORS SHALL BE COPPER, TYPE THW OR THWN.
  - CONDUCTOR SIZES INDICATED ARE MINIMUM ALLOWED. INCREASE SIZE AS REQUIRED TO ACCOUNT FOR VOLTAGE DROP.
  - FOR PARALLEL FEEDERS, INCREASE THE GROUND IN EACH CONDUIT PER N.E.C. 250.

ELECTRICAL LOAD ANALYSIS				
MP 120/240V, 1Ø, 3W				
LOAD DESCRIPTION	CONNECTED LOAD KVA	DEMAND FACTOR	DEMAND LOAD KVA	DEMAND LOAD AMPS
LIGHTING*	9.1	1.25	11.4	47.5
FUTURE TRACK LTO (452')	33.9	1.0	33.9	141.3
RECEPTACLES	10.0	1.0	10.0	41.7
RECEPT. (REMAINDER)	25.8	0.5	12.9	53.8
HVAC - COOL	39.6	1.0	39.6	165.0
HVAC - HEAT (ELEC)	40.0	1.0	40.0	166.7
EQUIPMENT	3.2	1.0	3.2	13.3
WATER HEATERS	0.2	1.0	0.2	0.8
LARGEST MOTOR	(4.0)	0.25	1.0	4.2
TOTAL:	-	-	152.2	634.3

SELECT: 800 AMP SERVICE AT 120/240 VOLTS, 1Ø, 3W  
REFER TO ELECTRICAL RISER DIAGRAM FOR CONDUITS AND CONDUCTORS.  
\* INDICATES FUTURE TRACK LIGHTING LOADS SHOWN ON SCHEDULE FOR PANEL P.

PANEL P 22,000 AMPS RMS SYM I.C. INTEGRATED EQUIPMENT RATING 120/240 VOLTS 1 PHASE 3 WIRE 400 AMPS MAIN LUGS ONLY									
SERVES	FEEDER	TRIP	KVA		TRIP	FEEDER	SERVES		
			ØA	ØC					
• LTS-EXHIBIT AREA	*	20-1	0.4	1	2	0.8	20-1	*	FUTURE TRACK LTS-WINDOWS
• LTS-EXHIBIT AREA	*	20-1	0.5	3	4	0.3	20-1	*	FUTURE TRACK LTS-EXHIBIT
• LTS-MULTI/OFFICE/WORKRM	*	20-1	0.7	5	6	0.3	20-1	*	FUTURE TRACK LTS-EXHIBIT
• LTS-STG/FSR	*	20-1	0.6	7	8	0.3	20-1	*	FUTURE TRACK LTS-EXHIBIT
• LTS-EXTR CANOPY	*	20-1	0.8	9	10	0.3	20-1	*	FUTURE TRACK LTS-EXHIBIT
• LTS-TLTS/JAN/ELEC	*	20-1	0.3	11	12	0.3	20-1	*	FUTURE TRACK LTS-EXHIBIT
• SIGN LIGHTS	**	20-1	1.4	13	14	0.3	20-1	*	FUTURE TRACK LTS-EXHIBIT
• LTS-EXHIBIT AREA (NL)	*	20-1	0.2	15	16	0.3	20-1	*	FUTURE TRACK LTS-EXHIBIT
• RECEPTS-MP/GFI	*	20-1	0.6	17	18	0.3	20-1	*	FUTURE TRACK LTS-EXHIBIT
• RECEPTS-OFFICE	*	20-1	1.2	19	20	0.6	20-1	*	FUTURE TRACK LTS-MP
• RECEPTS-PRINTER	*	20-1	1.0	21	22	0.6	20-1	*	FUTURE TRACK LTS-MP
• RECEPTS-OFFICE/EXIT	*	20-1	0.6	23	24	1.4	20	*	RECEPTS-MPRM QUADS
• RECEPTS-WORKRM	*	20-1	1.0	25	26	1.4	20	*	RECEPTS-MPRM QUADS
• RECEPTS-WORKRM (KIT)	*	20-1	0.4	27	28	1.0	20	*	RECEPTS-MPRM QUADS
• REFRIG.	*	20-1	1.1	29	30	1.0	20	*	RECEPTS-MPRM QUADS
• DISPOSER	*	20-1	0.6	31	32	0.8	20	*	RECEPTS-MPRM WIRE WAY
• MICROWAVE	*	20-1	1.1	33	34	1.2	20	*	RECEPTS-MPRM WIRE WAY
• SPARE	*	20-1	0.3	35	36	1.0	20-1	*	RECEPTS-4HR STORAGE
• RECEPTS-RESTROOMS	*	20-1	0.4	37	38	1.2	20-1	*	RECEPTS-JANITOR/ELEC
• RECEPTS-EWC	*	20-1	0.6	39	40	0.1	20-1	*	WATER HEATER
• RECEPTS-(N) EXHIBITS QUADS	**	20	1.4	41	42	1.5	20-1	*	RECEPTS-SPR RISER
• RECEPTS-(W) EXHIBITS QUADS	**	20	1.4	43	44	0.4	20-1	*	RECEPTS-TELE-BD (DED)
• RECEPTS-(W) EXHIBITS QUADS	**	20	1.2	45	46	1.2	20-1	*	RECEPTS-WINDOW EXHIBIT
• RECEPTS-(W) EXHIBITS QUADS	**	20	1.2	47	48	1.0	20	**	RECEPTS-(E) EXHIBITS QUADS
• RECEPTS-(W) EXHIBITS QUADS	**	20	1.4	49	50	1.0	20	**	RECEPTS-(E) EXHIBITS QUADS
• RECEPTS-(W) EXHIBITS QUADS	**	20	1.4	51	52	1.0	20	**	RECEPTS-(E) EXHIBITS QUADS
• RECEPTS-(S) EXHIBITS QUADS	**	20	0.8	53	54	1.0	20	**	RECEPTS-(E) EXHIBITS QUADS
• RECEPTS-(S) EXHIBIT QUADS	**	20	0.8	55	56	0.8	20-1	*	RECEPTS-WINDOW EXHIBIT
• DATA EQUIP	*	20-1	1.0	57	58	1.2	20	*	RECEPTS-LOBBY
• SECURITY EQUIP	*	20-1	1.0	59	60	1.2	20	*	RECEPTS-LOBBY
• SPARE	*	20-1	0.1	61	62		20-1		SPARE
• SPARE	*	20-1	0.3	63	64		20-1		SPARE
• SPARE	*	20-1	0.3	65	66		20-1		SPARE
• SPARE	*	20-1	0.3	67	68		20-1		SPARE
• SPARE	*	20-1	0.3	69	70		20-1		SPARE
• LTO CONTROLS	*	20-1	0.2	71	72		20-1		SPARE

• WHERE NOTED ROUTE CIRCUIT VIA LIGHTING CONTROL PANEL.  
REFER TO LIGHTING CONTROL SCHEDULE ON SHEET E2.2.



## 2 SECONDARY SERVICE LATERAL DETAIL

MAIN PANEL 'MP'				
42,000 AMPS, RMS, SYM, INTEGRATED EQUIPMENT RATING 120/240 VOLTS 1 PHASE 3 WIRE 800 AMPS MAIN LUGS ONLY				
CKT.	SERVES	LOAD (KVA)	CIRCUIT BREAKER	FEEDER
1	PANEL P	43.5	300A/2P	TWO SETS: 2"C-3#3/0, #2G (AL)
2	AHU-1 - (GAS HEAT)	0.9	Δ	(30-3)
3	AC-1-(5 TON)	10.0	Δ	(55-3)
4	HP-2 (RTU)	15.9	90A/2P	(85-3)
5	HP-3	4.2	35A/2P	(40-3)
6	HP-4	4.2	35A/2P	(40-3)
7	HP-5	4.2	35A/2P	(40-3)
8	HP-3 (ELEC HEAT)	13.4	60A/2P	(70-3)
9	HP-4 (ELEC HEAT)	13.4	60A/2P	(70-3)
10	HP-5 (ELEC HEAT)	13.4	60A/2P	(70-3)
11	SPACE ONLY		60A/2P	
12	SPACE ONLY		60A/2P	
13	SPACE ONLY		60A/2P	
14	SPACE ONLY		60A/2P	

Δ FIELD VERIFY EXISTING CIRCUIT BREAKER REQUIREMENTS FOR EXISTING UNIT.

## LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	LAMPS
A	LED PENDANT LUMINAIR, DIMMABLE - TO BE SELECTED BY OWNER.	25W MAX.
B	LED GLASS PENDANT LUMINAIR, DIMMABLE - TO BE SELECTED BY OWNER.	25W MAX.
C	LED RECESS DOWNLIGHT - TO BE SELECTED BY OWNER.	25W MAX.
D	DECORATIVE WALL BRACKET - TO BE SELECTED BY OWNER.	32W MAX.
E	FLUORESCENT STRIP, 4' LENGTH, 1-LAMP WITH ELECTRONIC ZERO DEGREE BALLAST. SUITABLE FOR INSTALLATION IN WET LOCATION.	1-F32/T8 /735
EX	SIMILAR TO TYPE 'E', EXCEPT WITH EMERGENCY BATTERY PACK.	1-F32/T8 /735
FX	FLUORESCENT STRIP, 4' LENGTH, 2-LAMP WITH ELECTRONIC BALLAST AND EMERGENCY BATTERY PACK.	2-F32/T8 /735
G	DECORATIVE SURFACE MOUNTED DOWNLIGHT TO BE SELECTED BY OWNER.	VERIFY LAMP(S)
H	FLUORESCENT SURFACE MOUNTED FIXTURE, 3' LENGTH, 1-LAMP WITH ELECTRONIC BALLAST.	2-F32/T8 /735
K	FLUORESCENT UNDERCABINET LIGHT 2' LENGTH WITH ACRYLIC LENS AND ELECTRONIC BALLAST. PROVIDE WITH INTEGRAL ON/OFF ROCKER SWITCH.	1-F017/T8 /735
L	COMPACT FLUORESCENT WALL PACK WITH CUT-OFF OPTICS AND ELECTRONIC BALLAST.	1-42W/TRT
W	EMERGENCY BATTERY PACK WITH TWO LAMP HEADS.	INCLUDED (2) 1W LED
X	DUAL LITE #EV-2-I-W/B(OR EQUAL) LED EMERGENCY EXIT SIGN WITH TWO LAMP HEADS, STENOIL FACE WITH RED PANEL. SUITABLE FOR TOP, BACK, OR PENDANT MOUNTING. COLOR AS SELECTED BY OWNER.	INCLUDED (2) 3W LED
XX	SIMILAR TO TYPE 'X' EXCEPT WITH TWO ADDITIONAL REMOTE HEADS AND 12W REMOTE BATTERY CAPACITY. COLOR TO BE SELECTED BY OWNER. DUAL LITE #HCX-U-R-W/B-03L-RC12(OR EQUAL)	INCLUDED (4) 3W LED

### NOTES TO LIGHTING FIXTURE SCHEDULE:

- OWNER SELECTED FIXTURES SHALL NOT EXCEED UL LABELED WATTAGE LISTED ABOVE. OWNER SELECTED FIXTURES SHALL BE VERIFIED WITH MANUFACTURER TO BE SUITABLE FOR USE WITH LED EDISON BASE TYPE LAMPS, INCLUDING SUITABLE FOR DISIPATING HEAT FROM LED DRIVERS WITHOUT LOWERING LAMP LIFE. SUITABLE FOR WEIGHT OF LAMP, AND APPROPRIATE FOR LAMP DIMENSIONS.
- LED AND FLUORESCENT LAMP COLOR TEMPERATURE SHALL BE VERIFIED WITH OWNER.
- LED LAMPS/FIXTURES SHALL BE DIMMABLE TYPE, WHERE NOTED. CONTRACTOR SHALL COORDINATE DIMMER SWITCH COMPATIBILITY WITH LAMPS TO BE USED IN OWNER SELECTED FIXTURES.
- CONTRACTOR SHALL VERIFY PENDANT STEM LENGTHS FOR MOUNTING HEIGHTS AS SPECIFIED BY OWNER.
- ALL FIXTURES SHALL BE 120V.

ADDITION, RENOVATIONS AND RECONSTRUCTIONS FOR

SPELLMAN MUSEUM  
OF FORNEY HISTORY

200 S. BOIS D'ARC STREET - FORNEY, TEXAS 75126

ELECTRICAL RISER  
DIAGRAM AND  
PANEL SCHEDULES

AUGUST 21, 2012

E2.1