TERMINAL AREA TAXIWAY IMPROVEMENTS - (PACKAGE 3)

SHEET NUMBER	CIVIL NO.	SHEET DESCRIPTION
BASE BID: GENERAL		
1	C1.1	COVER SHEET
2	C1.2	SHEET INDEX
3	C1.3	PROJECT KEYMAP
4	C1.4	ABBREVIATIONS AND LEGEND
5	C1.5	SUMMARY OF QUANTITIES
6	C1.6	GENERAL NOTES
7	C1.7	GENERAL NOTES
8	C1.8	PROJECT LAYOUT PLAN
9	C1.9	HORIZONTAL AND VERTICAL CONTROL PLAN
BASE BID: OPERATIONS AND PHASING		
10	C2.1	STAGING AREA AND HAUL ROUTES
11	C2.3	BASE BID – PHASE 1 PLAN
12	C2.4	PHASE I – TEMPORARY MARKINGS
13	C2.5	BASE BID – PHASE 2 PLAN
14	C2.6	PHASING DETAILS
BASE BID: DEMOLITION		
15	C3.1	DEMOLITION PLAN – BASE BID
BASE BID: TYPICAL SECTIONS		
16	C4.1	TYPICAL SECTIONS
17	C4.2	TYPICAL SECTIONS
BASE BID: GEOMETRICS		
18	C5.1	GEOMETRIC LAYOUT PLAN – BASE BID
BASE BID: PLAN AND PROFILE		
19	C6.1	PLAN AND PROFILE – TAXIWAY N – BASE BID
20	C6.2	PLAN AND PROFILE – TAXIWAY N9 – BASE BID
BASE BID: PAVEMENT JOINTS		
21	C7.1	PAVEMENT JOINT LAYOUT PLAN – BASE BID
22	C7.2	PAVEMENT JOINT DETAILS
BASE BID: PAVEMENT ELEVATIONS		
23	C8.1	PAVEMENT ELEVATIONS PLAN – BASE BID
BASE BID: GRADING AND DRAINAGE		
24	C9.1	GRADING AND DRAINAGE PLAN – BASE BID
25	C9.2	STORM DRAIN PROFILE – STORM DRAIN A – BASE BID
26	C9.3	UNDERDRAIN CLEANOUT DETAILS
27	C9.4	UNDERDRAIN DETAILS
BASE BID: PAVEMENT MARKING		
28	C11.1	PAVEMENT MARKING PLAN – BASE BID
29	C11.2	PAVEMENT MARKING DETAILS
30	C11.3	PAVEMENT MARKING DETAILS
31	C11.4	PAVEMENT MARKING DETAILS
BASE BID: STORM WATER POLLUTION PREVENTION		
32	C12.1	STORM WATER POLLUTION PREVENTION COVER SHEET
33	C12.2	STORM WATER POLLUTION PREVENTION PLAN – BASE BID
34	C12.3	STORM WATER POLLUTION PREVENTION PLAN DETAILS
35	C12.4	TEMPORARY EROSION CONTROL LOGS (TECL-06 (PHR)

2

ELECTRICAL PLANS

SHEET NUMBER	ELECT. NO.	SHEET DESCRIPTIONI
ELECTRICAL: GENERAL		
36	E0.1	ELECTRICAL SCOPE OF WORK – BASE BID
36A	E0.1A	ELECTRICAL SCOPE OF WORK – ALTERNATE 1
37	E0.2	ELECTRICAL SYMBOL LIST AND GENERAL NOTES
ELECTRICAL: BASE BID – PHASE 1		
38	E1.1	PHASE 1 – ELECTRICAL LAYOUT PLAN – BASE BID
39	E2.1	PHASE 1 – ELECTRICAL FIXTURE LAYOUT PLAN – BASE BID
40	E2.1A	PHASE 1 – ELECTRICAL FIXTURE DATA TABLES – BASE BID
ELECTRICAL: DETAILS		
41	E3.1	SIGN DETAILS FOR INSTALLATION IN UNPAVED AREAS
42	E3.2	SIGN DETAILS – INSTALLATION IN NEW PCCP
43	E3.3	ELEVATED TAXIWAY EDGE LIGHT DETAILS
44	E3.4	IN-PAVEMENT LIGHT DETAILS – NEW PCCP
45	E3.5	LIGHT FIXTURE/JOINT COORDINATION DETAILS
46	E3.6	DUCT DETAILS
47	E3.7	HANDHOLE DETAILS
48	E3.8	JUNCTION CAN PLAZA (JCP) AND HANDHOLE DETAILS
49	E3.9	WINDCONE DETAILS
50	E3.10	MISCELLANEOUS DETAILS
50A	E3.11	TEMPORARY LIGHTING DETAILS – ALTERNATE 1
50B	E3.12	TEMPORARY SIGNAGE DETAILS – ALTERNATE 1
ELECTRICAL: CIRCUIT MAPS		
51	E4.1	CIRCUIT MAP 12R-30L EDGE (CKT XX)
52	E4.2	CIRCUIT MAP G-3 (CKT 6)
53	E4.3	CIRCUIT MAP G-3 CL (CKT X)
54	E4.4	CIRCUIT MAP F1 (CKT 57)
55	E4.5	CIRCUIT MAP N-3 (CKT 52)
ELECTRICAL: BASE BID SIGNS AND DEMO		
56	E5.1	PHASE 1 – AIRFIELD SIGN PLAN – BASE BID
57	E6.1	PHASE 1 – ELECTRICAL DEMOLITION PLAN – BASE BID

SHEET NUMBER	CIVIL NO.	SHEET DESCRIPTION
ALTERNATE 1: OPERATIONS AND PHASING		
58	C2.6	ALTERNATE 1 – OVERALL PHASING
59	C2.7	ALTERNATE 1 – PHASE 1 PLAN
60	C2.8	PHASE I – TEMPORARY MARKINGS – ALTERNATE 1
61	C2.9	PHASE I – TEMPORARY GRADING AND DRAINAGE – ALTERNATE 1
62	C2.10	PHASE I – TEMPORARY GRADING AND DRAINAGE – ALTERNATE 1
63	C2.11	ALTERNATE 1 – PHASE 2 PLAN
64	C2.12	PHASE 2 – TEMPORARY MARKINGS – ALTERNATE 1
65	C2.13	PHASE 2 – TEMPORARY GRADING AND DRAINAGE – ALTERNATE 1
66	C2.14	PHASE 2 – TEMPORARY GRADING AND DRAINAGE – ALTERNATE 1
67	C2.15	ALTERNATE 1 – PHASE 3 PLAN
68	C2.16	PHASE 3 – TEMPORARY MARKINGS – ALTERNATE 1
69	C2.17	ALTERNATE 1 – PHASE 4 PLAN
70	C2.18	PHASE 4 – TEMPORARY MARKINGS – ALTERNATE 1
71	C2.19	PHASE 5 – TEMPORARY DEMOLITION – ALTERNATE 1
72	C2.20	ALTERNATE 1 – PHASE 5 PLAN
73	C2.21	PHASE 5 – TEMPORARY MARKINGS
74	C2.22	PHASE 6 – TEMPORARY DEMOLITION – ALTERNATE 1
75	C2.23	ALTERNATE 1 – PHASE 6 PLAN
76	C2.24	PHASE 6 – TEMPORARY MARKINGS – ALTERNATE 1
77	C2.25	ALTERNATE 1 – PHASE 7 PLAN
78	C2.26	PHASE 7 – TEMPORARY MARKINGS – ALTERNATE 1
79	C2.27	ALTERNATE 1 – PHASE 8 PLAN
80	C2.28	PHASE 8 – TEMPORARY MARKINGS – ALTERNATE 1
81	C2.29	ALTERNATE 1 – PHASE 9 PLAN
82	C2.30	PHASE 9 – TEMPORARY MARKINGS – ALTERNATE 1
ALTERNATE 1: DEMOLITION		
83	C3.2	DEMOLITION PLAN – ALTERNATE 1
84	C3.3	DEMOLITION PLAN – ALTERNATE 1
85	C3.4	DEMOLITION PLAN – ALTERNATE 1
ALTERNATE 1: GEOMETRICS		
86	C5.2	GEOMETRIC LAYOUT PLAN – ALTERNATE 1
87	C5.3	GEOMETRIC LAYOUT PLAN – ALTERNATE 1
88	C5.4	GEOMETRIC LAYOUT PLAN – ALTERNATE 1
ALTERNATE 1: PLAN AND PROFILE		
89	C6.3	PLAN AND PROFILE – TAXIWAY N – ALTERNATE 1
90	C6.4	PLAN AND PROFILE – TAXIWAY N – ALTERNATE 1
91	C6.5	PLAN AND PROFILE – TAXIWAY N – ALTERNATE 1
92	C6.6	PLAN AND PROFILE – TAXIWAY N1 TAXIWAY N2 – ALTERNATE 1
93	C6.7	PLAN AND PROFILE – TAXIWAY N3 TAXIWAY N9 – ALTERNATE 1
94	C6.8	PLAN AND PROFILE – TAXIWAY N10 TAXIWAY N11 – ALTERNATE 1
95	C6.9	PLAN AND PROFILE – TAXIWAY N12 TAXIWAY N13 – ALTERNATE 1
ALTERNATE 1: PAVEMENT JOINTS		
96	C7.3	PAVEMENT JOINT LAYOUT PLAN – ALTERNATE 1
97	C7.4	PAVEMENT JOINT LAYOUT PLAN – ALTERNATE 1
98	C7.5	PAVEMENT JOINT LAYOUT PLAN – ALTERNATE 1
ALTERNATE 1: PAVEMENT ELEVATIONS		
99	C8.2	PAVEMENT ELEVATIONS PLAN – ALTERNATE 1
100	C8.3	PAVEMENT ELEVATIONS PLAN – ALTERNATE 1
101	C8.4	PAVEMENT ELEVATIONS PLAN – ALTERNATE 1
ALTERNATE 1: GRADING AND DRAINAGE		
102	C9.5	GRADING AND DRAINAGE PLAN – ALTERNATE 1
103	C9.6	GRADING AND DRAINAGE PLAN – ALTERNATE 1
104	C9.7	GRADING AND DRAINAGE PLAN – ALTERNATE 1
105	C9.8	STORM DRAIN PROFILE – STORM DRAIN A – ALTERNATE 1
106	C9.9	STORM DRAIN PROFILE – STORM DRAIN A – ALTERNATE 1
107	C9.10	STORM DRAIN PROFILE – STORM DRAIN B & STORM DRAIN C – ALTERNATE 1
108	C9.11	STORM DRAIN PROFILE – STORM DRAIN D & STORM DRAIN E – ALTERNATE 1
109	C9.12	STORM DRAIN PROFILE – STORM DRAIN F – ALTERNATE 1
110	C9.13	STORM DRAIN STRUCTURE DETAILS – ALTERNATE 1
111	C9.14	STORM DRAIN MANHOLE DETAILS – ALTERNATE 1
112	C9.15	MISCELLANEOUS PIPE DETAILS – ALTERNATE 1
ALTERNATE 1: PAVEMENT MARKING		
109	C11.4	PAVEMENT MARKING PLAN – ALTERNATE 1
110	C11.5	PAVEMENT MARKING PLAN – ALTERNATE 1
111	C11.6	PAVEMENT MARKING PLAN – ALTERNATE 1
112	C11.7	RUNWAY MARKING DETAIL
ALTERNATE 1: STORM WATER POLLUTION PREVENTION		
117	C12.5	STORM WATER POLLUTION PREVENTION PLAN – ALTERNATE 1
118	C12.6	STORM WATER POLLUTION PREVENTION PLAN – ALTERNATE 1
119	C12.7	STORM WATER POLLUTION PREVENTION PLAN – ALTERNATE 1

2

ELECTRICAL PLANS

SHEET NUMBER	ELECT. NO.	SHEET DESCRIPTIONI
ELECTRICAL: ALTERNATE 1 – END-STATE		
120	E1.2	END STATE ELECTRICAL LAYOUT PLAN
121	E1.3	END STATE ELECTRICAL LAYOUT PLAN
122	E1.4	END STATE ELECTRICAL LAYOUT PLAN
123	E1.5	END STATE ELECTRICAL LAYOUT PLAN
ELECTRICAL: ALTERNATE 1 – DATA TABLES		
124	E2.2	ELECTRICAL FIXTURE LAYOUT PLAN – ALTERNATE 1
125	E2.2A	ELECTRICAL FIXTURE DATA TABLES – ALTERNATE 1
126	E2.3	ELECTRICAL FIXTURE LAYOUT PLAN – ALTERNATE 1
127	E2.3A	ELECTRICAL FIXTURE DATA TABLES – ALTERNATE 1
128	E2.4	ELECTRICAL FIXTURE LAYOUT PLAN – ALTERNATE 1
129	E2.4A	ELECTRICAL FIXTURE DATA TABLES – ALTERNATE 1
ELECTRICAL: ALTERNATE 1 – SIGN PLANS		
130	E5.2	AIRFIELD SIGN PLAN – ALTERNATE 1
131	E5.3	AIRFIELD SIGN PLAN – ALTERNATE 1
132	E5.4	AIRFIELD SIGN PLAN – ALTERNATE 1
ELECTRICAL: ALTERNATE 1 – DEMOLITION PLANS		
133	E6.2	ELECTRICAL DEMOLITION PLAN – ALTERNATE 1
134	E6.3	ELECTRICAL DEMOLITION PLAN – ALTERNATE 1
135	E6.4	ELECTRICAL DEMOLITION PLAN – ALTERNATE 1
ELECTRICAL: ALTERNATE 2		
136	E5.5	AIRFIELD SIGN PLAN – ALTERNATE 2
137	E5.6	AIRFIELD SIGN PLAN – ALTERNATE 2
138	E5.7	AIRFIELD SIGN PLAN – ALTERNATE 2
139	E5.8	AIRFIELD SIGN PLAN – ALTERNATE 2
140	E5.9	AIRFIELD SIGN PLAN – ALTERNATE 2
ELECTRICAL: ALTERNATE 1 – PHASE 1		
141	E031.1	PHASE 1 – ELECTRICAL LAYOUT PLAN – ALTERNATE 1
142	E031.2	PHASE 1 – ELECTRICAL LAYOUT PLAN – ALTERNATE 1
143	E031.3	PHASE 1 – ELECTRICAL LAYOUT PLAN – ALTERNATE 1
144	E036.1	PHASE 1 – ELECTRICAL DEMOLITION PLAN – ALTERNATE 1
145	E036.2	PHASE 1 – ELECTRICAL DEMOLITION PLAN – ALTERNATE 1
ELECTRICAL: ALTERNATE 1 – PHASE 2		
146	E041.1	PHASE 2 – ELECTRICAL LAYOUT PLAN – ALTERNATE 1
147	E041.2	PHASE 2 – ELECTRICAL LAYOUT PLAN – ALTERNATE 1
148	E042.1	TEMPORARY FIXTURE LOCATION PLAN – ALTERNATE 1
149	E042.2	TEMPORARY FIXTURE LOCATION PLAN – ALTERNATE 1
150	E046.1	PHASE 2 – ELECTRICAL DEMOLITION PLAN – ALTERNATE 1
151	E046.2	PHASE 2 – ELECTRICAL DEMOLITION PLAN – ALTERNATE 1
ELECTRICAL: ALTERNATE 1 – PHASE 3		
152	E051.1	PHASE 3 – ELECTRICAL LAYOUT PLAN – ALTERNATE 1
153	E051.2	PHASE 3 – ELECTRICAL LAYOUT PLAN – ALTERNATE 1
154	E056.1	PHASE 3 – ELECTRICAL DEMOLITION PLAN – ALTERNATE 1
155	E056.2	PHASE 3 – ELECTRICAL DEMOLITION PLAN – ALTERNATE 1
ELECTRICAL: ALTERNATE 1 – PHASE 4		
156	E061.1	PHASE 4 – ELECTRICAL LAYOUT PLAN – ALTERNATE 1
157	E061.2	PHASE 4 – ELECTRICAL LAYOUT PLAN – ALTERNATE 1
158	E066.1	PHASE 4 – ELECTRICAL DEMOLITION PLAN – ALTERNATE 1
159	E066.2	PHASE 4 – ELECTRICAL DEMOLITION PLAN – ALTERNATE 1
160	E066.3	PHASE 4 – ELECTRICAL DEMOLITION PLAN – ALTERNATE 1
ELECTRICAL: ALTERNATE 1 – PHASE 5		
161	E071.1	PHASE 5 – ELECTRICAL LAYOUT PLAN – ALTERNATE 1
162	E071.2	PHASE 5 – ELECTRICAL LAYOUT PLAN – ALTERNATE 1
163	E076.1	PHASE 5 – ELECTRICAL DEMOLITION PLAN – ALTERNATE 1
164	E076.2	PHASE 5 – ELECTRICAL DEMOLITION PLAN – ALTERNATE 1
ELECTRICAL: ALTERNATE 1 – PHASE 6		
165	E081.1	PHASE 6 – ELECTRICAL LAYOUT PLAN – ALTERNATE 1
166	E086.1	PHASE 6 – ELECTRICAL DEMOLITION PLAN – ALTERNATE 1
ELECTRICAL: ALTERNATE 1 – PHASE 7		
167	E091.1	PHASE 7 – ELECTRICAL LAYOUT PLAN – ALTERNATE 1
168	E096.1	PHASE 7 – ELECTRICAL DEMOLITION PLAN – ALTERNATE 1
ELECTRICAL: ALTERNATE 1 – PHASE 8		
169	E101.1	PHASE 8 – ELECTRICAL LAYOUT PLAN – ALTERNATE 1
170	E106.1	PHASE 8 – ELECTRICAL DEMOLITION PLAN – ALTERNATE 1
ELECTRICAL: ALTERNATE 1 – PHASE 9		
171	E111.1	PHASE 9 – ELECTRICAL LAYOUT PLAN – ALTERNATE 1
172	E116.1	PHASE 9 – ELECTRICAL DEMOLITION PLAN – ALTERNATE 1

CITY OF
SAN ANTONIO
AVIATION
DEPARTMENT

SAN ANTONIO AIRPORT SYSTEM

Kimley»Horn
KIMLEY-HORN AND ASSOCIATES, INC.
601 NW LOOP 410, SUITE 350
SAN ANTONIO, TEXAS 78216
PHONE: (210) 541-9166
TEXAS REGISTERED FIRM,
NO. 928

TERMINAL AREA TAXIWAY IMPROVEMENTS - (PACKAGE 3)

MICHAEL A. NORBY
87178
REGISTERED
PROFESSIONAL ENGINEER
05/18/15

MARK	DATE	DESCRIPTION
2	06/08/15	ADDENDUM 2

ISSUE:

PROJECT NO:	33-00193
FILE NAME:	_33-00193-R1GN-001-C00
DRAWN BY:	CAD
CHECKED BY:	MAN
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SHEET TITLE:

SHEET INDEX

C1.2

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SUMMARY OF QUANTITIES

BASE BID

Item	Specification Number	Bid Item Description	Quantity	Unit
BASE BID				
1	100.1	Mobilization/Demobilization	1	LS
2	100.2	Insurance and Bonds	1	LS
3	100.3	Airside Safety and Security / Traffic Control	1	LS
4	101.1	Preparing Right-of-Way	1	LS
5	540.1	Storm Water Pollution Prevention Plan	1	LS
6	GP 60-05	Field Office and Curing Facilities	1	LS
7	P-100-2.1	Contractor Quality Control	1	LS
8	P-101-5.1	Portland Cement Concrete Pavement Removal, Including Thickened Edge and Reinforcement	1,150	SY
9	P-101-5.2	Bituminous Pavement Removal	3,700	SY
10	P-101-5.3	Cement-Treated Base Removal	4,850	SY
11	P-101-5.4	Concrete Pavement Saw Cut (Full Depth)	980	LF
12	P-101-5.5	AC Pavement Saw Cut	70	LF
13	P-101-5.6	Mill Portland Cement Concrete Pavement (Varies, 0 - 2" Depth)	1,350	SY
14	P-151-4.1	Clearing and Grubbing	1.40	AC
15	P-151-4.2	Remove Existing Storm Drain Pipe	110	LF
16	P-151-4.3	Remove Existing Catch Basin or Manhole	3	EA
17	P-152-4.1	Unclassified Excavation	7,130	CY
18	P-155-8.1	Lime-Treated Subgrade (6" Depth)	12,010	SY
19	P-155-8.2	Lime	260	Ton
20	P-208-5.1	Aggregate Base Course, 13" Depth	5,210	SY
21	P-208-5.2	Temporary Aggregate Base Course, 8" Depth	760	SY
22	P-209-5.1	Crushed Aggregate Base Course, 6" Depth	6,160	SY
23	P-304-8.2	Cement-Treated Base Course, 12" Depth	6,160	SY
24	P-401-8.1	Temporary Bituminous Pavment (2" - 5" Surface Course)	1,700	Ton
25	P-403-8.1	HMA Pavement (3" Surface Course)	630	Ton
26	P-403-8.2	Temporary HMA Pavment (9" Base Course)	370	Ton
27	P-501-8.1	Portland Cement Concrete Pavement, 16"	5,840	SY
28	P-604-6.1	Preformed Sealer, 1/2-inch Joint	5,230	LF
29	P-604-6.2	Preformed Sealer, 1-inch Joint	480	LF
30	P-604-6.3	Hot Applied Edge Seal	960	LF
31	P-620-5.1	Reflective Yellow Taxiway Pavement Markings, Waterborne	4,600	SF
32	P-620-5.2	Reflective White Runway Pavement Markings, Waterborne	100	SF
33	P-620-5.4	Non-Reflective Black Pavement Markings, Waterborne	5,320	SF
34	P-620-5.6	Reflective Surface Painted Holding Position Signs, Waterborne	570	SF
35	P-620-5.7	Non-Reflective Green Infield Pavement Markings, Waterborne	0	SF
36	P-620-5.8	Pavement Marking Obliteration	2,290	SF
37	P-620-5.9	Temporary Reflective Yellow Taxiway Pavement Markings, Waterborne	3,440	SF
38	T-901-5.1	Hydro-Mulch Seeding	2.04	AC
39	T-904-5.1	Sodding	1,830	SY
40	T-905-5.1	Topsoiling	650	CY
41	D-701-5.1	24" RGRCP, Class V	120	LF
42	D-701-5.2	36" RGRCP, Class V	0	LF
43	D-701-5.3	42" RGRCP, Class V	0	LF
44	D-701-5.4	Concrete Pipe Collar	1	EA
45	D-705-5.1	Underdrain System	1	LS
46	D-751-5.1	Manholes	0	EA
47	D-751-5.2	Catch Basins	1	EA
48	D-751-5.3	Temporary Catch Basins	0	EA
49	D-751-5.4	In-Pavement Manhole/Inlet	1	EA
50	L-100-5.1	Electrical Demolition	0.25	LS
51	L-105-6.1	Temporary Jumper, L-824, Type C, 1/C #6, 5 kV Cable in Conduit	2,000	LF
52	L-105-6.2	Temporary, Surface Mounted Single-way 2" Conduit	1,000	LF
53	L-105-6.3	No. 8 AWG, 5 kV, L-824, Type C Cable, Installed in, Duct Bank or Conduit	1,200	LF
54	L-105-6.5	L-853 Elevated Retroreflective Taxiway Edge Marker	25	EA
55	L-105-6.6	Salvage and Reinstall L-862E Runway End/Threshold Light with New Isolation Transformer on Existing Base	4	EA
56	L-108-5.1	No. 8 AWG, 5 kV, L-824, Type C Cable, Installed in, Duct Bank or Conduit	3,000	LF
57	L-108-5.3	No. 6 AWG, Solid, Bare Counterpoise Wire, Installed in Trench, Above the Duct Bank or Conduit, Including Ground Rods and Ground Connectors	2,300	LF
58	L-110-5.1	Single-way 2" Conduit, Direct Buried	1,540	LF
59	L-110-5.4	Single-way 2" Conduit, Concrete Encased	440	LF
60	L-110-5.5	Multiple-way (6) 2-inch Conduits, Concrete Encased	70	LF
61	L-110-5.6	Multiple-way (4) 2-inch Conduits, Concrete Encased	240	LF
62	L-115-5.1	New Concrete Handhole, Type II, Furnished & Installed	2	EA
63	L-115-5.2	Two-Can Junction Can Plaza, Furnished & Installed	1	EA
64	L-858-5.2	New Size 3, 2-Module Airside LED Guidance Sign, Installed on Any Foundation or Base Assembly	2	EA
65	L-858-5.3	New Size 3, 3-Module Airside LED Guidance Sign, Installed on Any Foundation or Base Assembly	1	EA
66	L-858-5.4	New Size 3, 4-Module Airside LED Guidance Sign, Installed on Any Foundation or Base Assembly	1	EA
67	L-861T-4.1	New L-861T(L) LED Taxiway Edge Light with New Isolation Transformer on New or Existing Base	26	EA
68	L-861T-4.2	Spare L-861T(L) LED Taxiway Edge Light with New Isolation Transformer	6	EA
69	L-861T-4.4	Salvage and Reinstall L-862 Runway Edge Light with New Isolation Transformer on New or Existing Base	4	EA
70	L-867/868-6.1	Size "B" L-867 Base Can for Any New, Reinstalled or Future Fixture in New Asphalt Shoulder	25	EA
71	L-867/868-6.3	Size "B" L-868 Base Can – "Standard Installation (New PCCP)"	2	EA
72	L-867/868-6.8	New Size "B" L-867 Blank Base Can Cover	1	EA
73	L-867/868-6.9	New Size "B" L-868 Blank Base Can Cover	2	EA
74	L-867/868-6.12	Concrete Foundation for 2-Module Sign	2	EA
75	L-867/868-6.13	Concrete Foundation for 3-Module Sign	1	EA
76	L-867/868-6.14	Concrete Foundation for 4-Module Sign	1	EA

ALTERNATE 1

2

ITEM NO.	S.P. NO	BID ITEM DESCRIPTION	UNIT OF MEASURE	APPROX. QUANTITIES
1	100.1	Mobilization/Demobilization	LS	1
2	100.2	Insurance and Bonds	LS	1
3	100.3	Airside Safety and Security / Traffic Control	LS	1
4	101.1	Preparing Right-of-Way	LS	1
5	540.1	Storm Water Pollution Prevention Plan	LS	1
6	GP 60-05	Field Office and Curing Facilities	LS	1
7	P-100-2.1	Contractor Quality Control	LS	1
8	P-101-5.1	Portland Cement Concrete Pavement Removal, Including Thickened Edge and Reinforcement	SY	40,570
9	P-101-5.2	Bituminous Pavement Removal	SY	13,510
10	P-101-5.3	Cement-Treated Base Removal	SY	54,080
11	P-101-5.4	Concrete Pavement Saw Cut (Full Depth)	LF	2,800
12	P-101-5.5	AC Pavement Saw Cut	LF	100
13	P-101-5.6	Mill Portland Cement Concrete Pavement (Varies, 0 - 2" Depth)	SY	2,420
14	P-151-4.1	Clearing and Grubbing	AC	8.50
15	P-151-4.2	Remove Existing Storm Drain Pipe	LF	5,300
16	P-151-4.3	Remove Existing Catch Basin or Manhole	EA	11
17	P-152-4.1	Unclassified Excavation	CY	7,140
18	P-155-8.1	Lime-Treated Subgrade (6" Depth)	SY	65,560
19	P-155-8.2	Lime	Ton	1,420
20	P-208-5.1	Aggregate Base Course, 13" Depth	SY	16,410
21	P-208-5.2	Temporary Aggregate Base Course, 8" Depth	SY	7,270
22	P-209-5.1	Crushed Aggregate Base Course, 6" Depth	SY	50,690
23	P-304-8.2	Cement-Treated Base Course, 12" Depth	SY	50,690
24	P-401-8.1	Temporary Bituminous Pavment (2" - 5" Surface Course)	Ton	2,370
25	P-403-8.1	HMA Pavement (3" Surface Course)	Ton	2,600
26	P-403-8.2	Temporary HMA Pavment (9" Base Course)	Ton	3,560
27	P-501-8.1	Portland Cement Concrete Pavement, 16"	SY	49,150
28	P-604-6.1	Preformed Sealer, 1/2-inch Joint	LF	43,170
29	P-604-6.2	Preformed Sealer, 1-inch Joint	LF	3,310
30	P-604-6.3	Hot Applied Edge Seal	LF	4,680
31	P-620-5.1	Reflective Yellow Taxiway Pavement Markings, Waterborne	SF	19,800
32	P-620-5.2	Reflective White Runway Pavement Markings, Waterborne	SF	30,370
33	P-620-5.4	Non-Reflective Black Pavement Markings, Waterborne	SF	22,660
34	P-620-5.6	Reflective Surface Painted Holding Position Signs, Waterborne	SF	1,700
35	P-620-5.7	Non-Reflective Green Infield Pavement Markings, Waterborne	SF	3,300
36	P-620-5.8	Pavement Marking Obliteration	SF	47,130
37	P-620-5.9	Temporary Reflective Yellow Taxiway Pavement Markings, Waterborne	SF	15,510
38	T-901-5.1	Hydro-Mulch Seeding	AC	3.55
39	T-904-5.1	Sodding	SY	6,560
40	T-905-5.1	Topsoiling	CY	1,320
41	D-701-5.1	24" RGRCP, Class V	LF	2,100
42	D-701-5.2	36" RGRCP, Class V	LF	565
43	D-701-5.3	42" RGRCP, Class V	LF	525
44	D-701-5.4	Concrete Pipe Collar	EA	1
45	D-751-5.1	Manholes	EA	2
46	D-751-5.2	Catch Basins	EA	9
47	D-751-5.3	Temporary Catch Basins	EA	1
48	D-751-5.4	In-Pavement Manhole/Inlet	EA	1
49	L-100-5.1	Electrical Demolition	LS	0.75
50	L-100-5.2	Windcone Relocation	LS	1
51	L-100-5.3	ALCMS Modifications (Allowance)	LS	1
52	L-100a-3.1	Photometric Testing	LS	1
53	L-105-6.1	Temporary Jumper, L-824, Type C, 1/C #6, 5 kV Cable in Conduit	LF	15,000
54	L-105-6.2	Temporary, Surface Mounted 2" Conduit	LF	5,000
55	L-105-6.3	Temporary No. 8 AWG, 5 kV, L-824, Type C Cable, Direct Burial in Trench	LF	600
56	L-105-6.4	Temporary Secondary Circuit, (2)-1/C #10 in 1-1/4" Conduit	LF	400
57	L-105-6.5	Temporary Pavement Mounted Taxiway Edge Light	EA	14
58	L-105-6.6	Temporary Direct Burial Isolation Transformer	EA	10
59	L-105-6.7	Temporary Pavement Mounted Taxiway Edge Light & Isolation Transformer	EA	34
60	L-105-6.8	Relocate Temporary Pavement Mounted Taxiway Edge Light & Isolation Transformer	EA	13
61	L-105-6.9	Temporary Stake Mounted Guidance Sign with Isolation Transformer	EA	4
62	L-108-5.1	No. 8 AWG, 5 kV, L-824, Type C Cable, Installed in, Duct Bank or Conduit	LF	16,300
63	L-108-5.2	No. 6 AWG, 5 kV, L-824, Type C Cable, Installed in, Duct Bank or Conduit	LF	4,100
64	L-108-5.3	No. 6 AWG, Solid, Bare Counterpoise Wire, Installed in Trench, Above the Duct Bank or Conduit, Including Ground Rods and Ground Connectors	LF	19,500
65	L-110-5.1	Single-way 2" Conduit, Direct Buried	LF	7,020
66	L-110-5.2	Multiple-way (6) 2-inch Conduits, Direct Buried	LF	850
67	L-110-5.3	Multiple-way (4) 4-inch Conduits, Direct Buried	LF	750
68	L-110-5.4	Single-way 2" Conduit, Concrete Encased	LF	7,700
69	L-110-5.5	Multiple-way (6) 2-inch Conduits, Concrete Encased	LF	630
70	L-110-5.6	Multiple-way (4) 2-inch Conduits, Concrete Encased	LF	1,140
71	L-110-5.7	Multiple-way (4) 4-inch Conduits, Concrete Encased	LF	100
72	L-110-5.8	System Drain, (1) 2" Conduit, Concrete Encased	LF	1,310
73	L-115-5.1	New Concrete Handhole, Type II, Furnished & Installed	EA	13
74	L-115-5.2	Two-Can Junction Can Plaza, Furnished & Installed	EA	7
75	L-850-4.1	New In-pavement L-850C Runway Edge Light with New Isolation Transformer on New Base	EA	3
76	L-852-4.1	Salvage and Reinstall In-pavement L-852 Light with New Isolation Transformer on New or Existing Base	EA	2
77	L-858-5.1	New Size 3, 1-Module Airside LED Guidance Sign, Installed on Any Foundation or Base Assembly	EA	1
78	L-858-5.2	New Size 3, 2-Module Airside LED Guidance Sign, Installed on Any Foundation or Base Assembly	EA	17
79	L-858-5.3	New Size 3, 3-Module Airside LED Guidance Sign, Installed on Any Foundation or Base Assembly	EA	4
80	L-858-5.4	New Size 3, 4-Module Airside LED Guidance Sign, Installed on Any Foundation or Base Assembly	EA	6
81	L-858-5.5	New Size 2, 2-Module Airside LED Guidance Sign, Installed on Any Foundation or Base Assembly	EA	2
82	L-858-5.6	New Size 2, 3-Module Airside LED Guidance Sign, Installed on Any Foundation or Base Assembly	EA	2
83	L-861T-4.1	New L-861T(L) LED Taxiway Edge Light with New Isolation Transformer on New or Existing Base	EA	112
84	L-861T-4.2	Spare L-861T(L) LED Taxiway Edge Light with New Isolation Transformer	EA	20
85	L-861T-4.5	Salvage and Reinstall existing L-804 Runway Guard Light with New Isolation Transformer on New Base	EA	1
86	L-867/868-6.1	Size "B" L-867 Base Can for Any New, Reinstalled or Future Fixture in New Asphalt Shoulder	EA	107
87	L-867/868-6.3	PCCP)"	EA	40
88	L-867/868-6.4	Size "B" L-868 Base Can – "Core Drill New PCCP" Installation at Joint or Sawcut	EA	4
89	L-867/868-6.6	Size "B" L-868 Base Can – "Diamond Leave-out"	EA	3
90	L-867/868-6.7	Size "D" L-867 Junction Can	EA	3
91	L-867/868-6.8	New Size "B" L-867 Blank Base Can Cover	EA	1
92	L-867/868-6.9	New Size "B" L-868 Blank Base Can Cover	EA	40
93	L-867/868-6.10	L-868 to L-867 Adaptor Ring	EA	4
94	L-867/868-6.11	Concrete Foundation for 1-Module Sign	EA	1
95	L-867/868-6.12	Concrete Foundation for 2-Module Sign	EA	13
96	L-867/868-6.13	Concrete Foundation for 3-Module Sign	EA	1
97	L-867/868-6.14	Concrete Foundation for 4-Module Sign	EA	5
98	L-867/868-6.15	Sign Base Assembly in New PCCP, Any Single Sign Array	EA	4

ALTERNATE 2

Item	Specification Number	Bid Item Description	Quantity	Unit
ALTERNATE 2 BID				
1	100.1	Mobilization/Demobilization	1	LS
2	100.2	Insurance and Bonds	1	LS
3	100.3	Airside Safety and Security / Traffic Control	1	LS
4	P-100-2.1	Contractor Quality Control	1	LS
5	L-108-5.1	No. 8 AWG, 5 kV, L-824, Type C Cable, Installed in, Duct Bank or Conduit	1,200	LF
6	L-858-5.2	New Size 3, 2-Module Airside LED Guidance Sign, Installed on Any Foundation or Base Assembly	13	EA
7	L-858-5.3	New Size 3, 3-Module Airside LED Guidance Sign, Installed on Any Foundation or Base Assembly	7	EA
8	L-867/868-6.12	Concrete Foundation for 2-Module Sign	13	EA
9	L-867/868-6.13	Concrete Foundation for 3-Module Sign	7	EA

CITY OF SAN ANTONIO AVIATION DEPARTMENT

SAN ANTONIO AIRPORT SYSTEM

Kimley»Horn

KIMLEY-HORN AND ASSOCIATES, INC.
601 NW LOOP 410, SUITE 350
SAN ANTONIO, TEXAS 78216
PHONE: (210) 541-9166

TEXAS REGISTERED FIRM, NO. 928

TERMINAL AREA TAXIWAY IMPROVEMENTS - (PACKAGE 3)

MICHAEL A. NORBY 87178 REGISTERED PROFESSIONAL ENGINEER 05/18/15

MARK	DATE	DESCRIPTION
2	06/08/15	ADDENDUM 2

ISSUE:

PROJECT NO:	33-00193
FILE NAME:	_33-00193-R1GN-003-C00
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SUMMARY OF QUANTITIES

C1.5

K:\PHX_Aviation\191629001- San Antonio\CADD_PACKAGE 3_33-00193-R1GN-003-C00.dwg May 18, 2015 Crawford, Pat

SAN ANTONIO INTERNATIONAL AIRPORT

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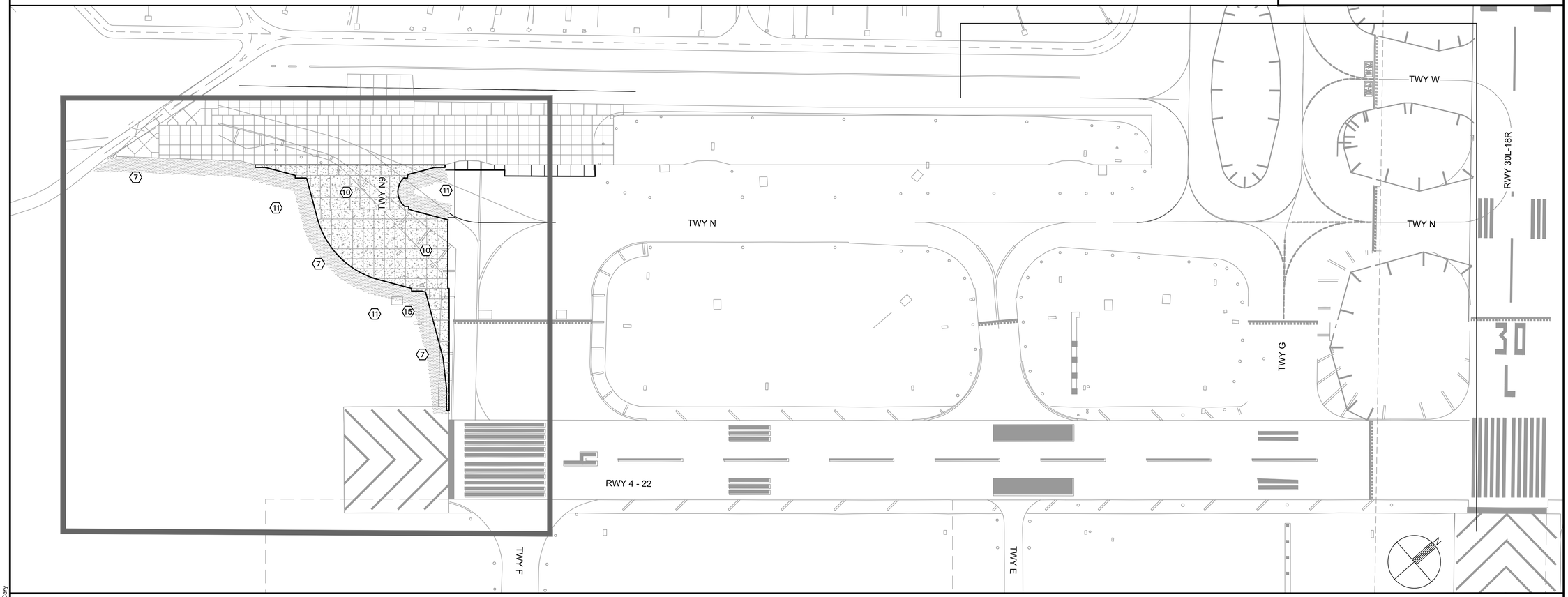

ELECTRICAL SCOPE OF WORK - BASE BID

(7) FURNISH AND INSTALL NEW LED TAXIWAY EDGE LIGHTS ON NEW L-867 BASE CANS WITH NEW CONDUIT AND CABLES ON TAXIWAY 'N' SHOULDER RECONSTRUCTION AREAS.

(10) FURNISH AND INSTALL NEW L-868 BASE CANS WITH NEW CONDUIT FOR FUTURE TAXIWAY CENTERLINE LIGHTS IN NEW PCC PAVEMENT IN TAXIWAY 'G' AND TAXIWAY 'N' PAVEMENT RECONSTRUCTION AREAS.

(11) FURNISH AND INSTALL NEW SIGNS WITH NEW CONCRETE FOUNDATIONS.

(15) FURNISH AND INSTALL NEW PRECASE CONCRETE HANDHOLE AND ADJACENT JUNCTION CAN PLAZA.

TERMINAL AREA TAXIWAY
IMPROVEMENTS -
(PACKAGE 3)

PROJECT NOS. 33-00178 AND 33-00193
FAA AIP 3-48-0192-XX-2013

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TEXAS REGISTERED FIRM,
NO. 928

TERMINAL AREA TAXIWAY
IMPROVEMENTS -
(PACKAGE 3)

STATE OF TEXAS
ERIC C. LOVEJOY
84081
LICENSED
PROFESSIONAL ENGINEER

MARK	DATE	DESCRIPTION
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ELECTRICAL
SCOPE OF WORK -
BASE BID

E0.1

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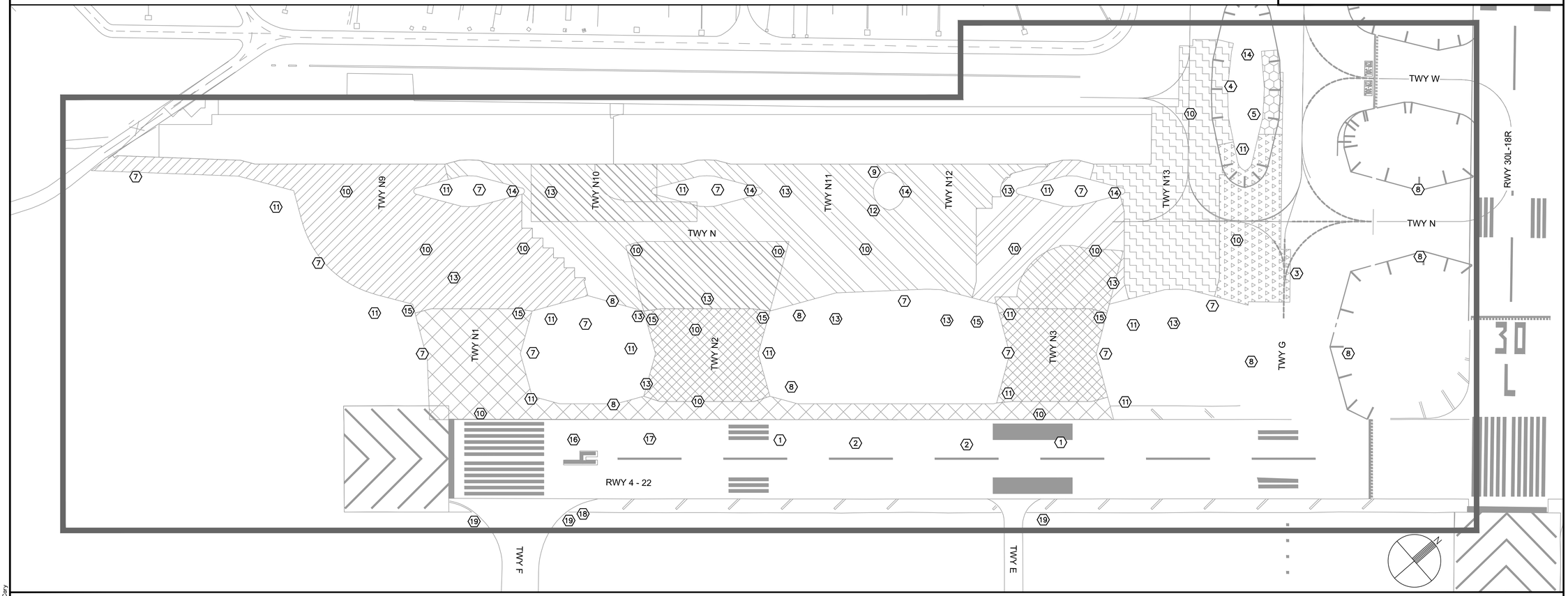

LEGEND

- ALTERNATE 1 PHASE 1
- ALTERNATE 1 PHASE 2
- ALTERNATE 1 PHASE 3
- ALTERNATE 1 PHASE 4
- ALTERNATE 1 PHASE 5
- ALTERNATE 1 PHASE 6
- ALTERNATE 1 PHASE 7
- ALTERNATE 1 PHASE 8
- ALTERNATE 1 PHASE 9

TERMINAL AREA TAXIWAY IMPROVEMENTS - (PACKAGE 3)

PROJECT NOS. 33-00178 AND 33-00193
FAA AIP 3-48-0192-XX-2013

ELECTRICAL SCOPE OF WORK - ALTERNATE 1

1. FURNISH AND INSTALL NEW IN-PAVEMENT RUNWAY EDGE LIGHT ON NEW L-868 BASE CAN WITH NEW CONDUIT AND CABLES IN TAXIWAY 'N' PAVEMENT RECONSTRUCTION AREA.
2. SALVAGE AND REINSTALL EXISTING ELEVATED RUNWAY EDGE LIGHT ON NEW L-867 BASE CAN WITH NEW CONDUIT AND CABLES IN TAXIWAY 'N' SHOULDER RECONSTRUCTION AREA.
3. SALVAGE AND REINSTALL EXISTING IN-PAVEMENT TAXIWAY CENTERLINE LIGHT ON NEW L-868 BASE CAN WITH NEW CONDUIT AND CABLES IN TAXIWAY 'G' RECONSTRUCTION AREAS.
4. SALVAGE AND REINSTALL EXISTING ELEVATED TAXIWAY EDGE LIGHTS ON NEW L-867 BASE CAN WITH NEW CONDUIT AND CABLES IN TAXIWAY 'G' RECONSTRUCTION AREAS.
5. SALVAGE AND REINSTALL EXISTING SIGN WITH NEW CONCRETE FOUNDATION.
7. FURNISH AND INSTALL NEW LED TAXIWAY EDGE LIGHTS ON NEW L-867 BASE CANS WITH NEW CONDUIT AND CABLES ON TAXIWAY 'N' SHOULDER RECONSTRUCTION AREAS.
8. FURNISH AND INSTALL NEW LED TAXIWAY EDGE LIGHTS ON EXISTING L-867 BASE CANS WITH NEW CABLES ON TAXIWAY 'N' AND TAXIWAY 'G'.
9. FURNISH AND INSTALL NEW LED TAXIWAY EDGE LIGHTS ON NEW L-868 BASE CANS WITH NEW CABLES IN NO-TAXI ISLAND.
10. FURNISH AND INSTALL NEW L-868 BASE CANS WITH NEW CONDUIT FOR FUTURE TAXIWAY CENTERLINE LIGHTS IN NEW PCC PAVEMENT IN TAXIWAY 'G' AND TAXIWAY 'N' PAVEMENT RECONSTRUCTION AREAS.
11. FURNISH AND INSTALL NEW SIGNS WITH NEW CONCRETE FOUNDATIONS.
12. FURNISH AND INSTALL NEW SIZE 2 SIGNS WITH NEW CONCRETE FOUNDATIONS IN NO-TAXI ISLAND.
13. FURNISH AND INSTALL NEW DUCT BANKS IN TAXIWAY 'N' PAVEMENT AREAS.
14. FURNISH AND INSTALL NEW PRECAST CONCRETE HANDHOLE.
15. FURNISH AND INSTALL NEW PRECASE CONCRETE HANDHOLE AND ADJACENT JUNCTION CAN PLAZA.
16. FURNISH AND INSTALL NEW ELEVATED RUNWAY EDGE LIGHT ON NEW L-867 BASE CAN WITH NEW CONDUIT AND CABLES IN TAXIWAY 'N' PAVEMENT RECONSTRUCTION AREA.
17. FURNISH AND INSTALL NEW IN-PAVEMENT RUNWAY EDGE LIGHT ON NEW L-868 BASE CAN WITH NEW CONDUIT AND CABLES IN TAXIWAY 'N' PAVEMENT RECONSTRUCTION AREA.
18. FURNISH AND INSTALL NEW L-867 BASE CAN AT END OF DUCT CROSSING AND NEW CONDUIT TO CONNECT TO EXISTING CIRCUIT AT TAXIWAY F.
19. CONNECT TO EXISTING TAXIWAY CIRCUIT ON SOUTHEAST SIDE OF RUNWAY 4-22 AND MODIFY CIRCUIT PER REVISED CIRCUIT MAP.

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TEXAS REGISTERED FIRM,
NO. 928

TERMINAL AREA TAXIWAY IMPROVEMENTS - (PACKAGE 3)

STATE OF TEXAS
ERIC C. LOVEJOY
84081
LICENSED
PROFESSIONAL ENGINEER

MARK	DATE	DESCRIPTION
1	06/08/15	NEW DRAWING

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ELECTRICAL SCOPE OF WORK - ALTERNATE 1

E0.1A

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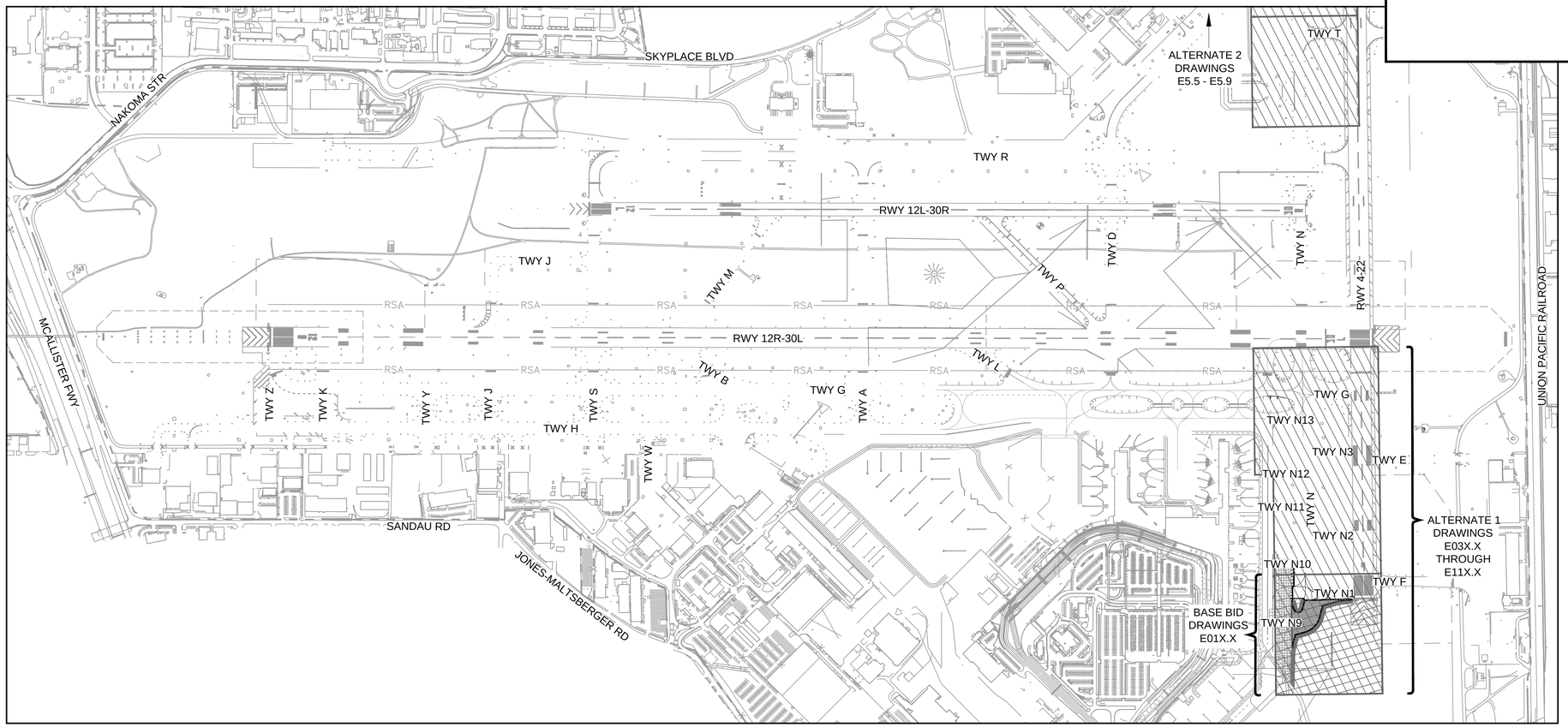

ABBREVIATION LIST

AB (AB)	ABANDONED CONDUIT OR DUCT (OR ABAND.)
ALV	AIRFIELD LIGHTING VAULT
ATCT	AIR TRAFFIC CONTROL TOWER
BC	BARE COPPER CONDUCTOR
BL	BLANK
C, CNDT	CONDUIT
C.E.	CONCRETE ENCASED (PER P-610)
CKT	CIRCUIT
C/L, ℄	CENTERLINE
CLSM	CONTROLLED LOW STRENGTH MATERIAL
CONC	CONCRETE, P-610 FOR ELECTRICAL FACILITIES U.O.N.
C.M.	CONSTRUCTION MANAGER
COVER	BLANK COVER FOR L-867 OR L-868 BASE
CTPB	CEMENT TREATED PERMEABLE BASE
DB. DEB	DIRECT EARTH BURIAL, PER P-152 OR P-153
(E)	EXISTING EQUIPMENT OR FACILITY
EC	EMPTY CONDUIT
FAA	FEDERAL AVIATION ADMINISTRATION
F.O.C.	FIBER OPTIC CABLE
ISO	ISOLATION (TRANSFORMER)
ISO-XFMR	ISOLATION TRANSFORMER
LT	LEFT; USUALLY OFFSET OF SURVEY DATUM
MFGR	MANUFACTURER
(N)	NEW EQUIPMENT OR FACILITY
OFFSET	DISTANCE FROM SURVEY DATUM BASE LINE (LT OR RT)
PB	PULL BOX (L-115)
PCC(P)	PORTLAND CEMENT CONCRETE (PAVEMENT PER P-501)
PMB	PROCESS MISCELLANEOUS BASE (SEE CIVIL DRAWINGS)
P.O.C.	POINT OF CONNECTION (WITH EXISTING CONDUIT OR DUCT)
PR	PROPOSED (NEW) EQUIPMENT OR FACILITY OR PAIR (E.G 12-PR)
PVC	POLYVINYLCHLORIDE: CONDUIT MATERIAL
R.E.	RESIDENT ENGINEER
(R)	REMOVE EQUIPMENT OR FACILITY
(R/R)	REMOVE AND RELOCATE EQUIPMENT OR FACILITY
(REL)	RELOCATED EQUIPMENT OR FACILITY (SEE R/R)
(RL)	RELABEL CIRCUIT OR EQUIPMENT
RPZ	RUNWAY PROTECTION ZONE
RSA	RUNWAY SAFETY AREA
RT	RIGHT; USUALLY OFFSET OF SURVEY DATUM
R/W, RWY	RUNWAY
STA:	STATION, DISTANCE ALONG SURVEY DATUM BASE LINE
STR	STRAND; SINGLE ELEMENT OF CABLE ASSEMBLY
(T), TEMP.	TEMPORARY EQUIPMENT OR FACILITY
TDZ	TOUCHDOWN ZONE
TSA	TAXIWAY SAFETY AREA
T/W, TWY	TAXIWAY
TYP.	TYPICAL
U.O.N.	UNLESS OTHERWISE NOTED
WWF	WOVEN WIRE FABRIC STEEL REINFORCEMENT IN P-610
XFMR	TRANSFORMER

SYMBOL LIST

- 56 — E — E — NEW 2" PVC CONDUIT, CONCRETE ENCASED (UNLESS OTHERWISE NOTED) WITH CIRCUIT FILL INFORMATION. SEE E4 SERIES SHEETS FOR CIRCUIT INFORMATION.
- 4-4" D.B. (N)POWER (N) 56 — NEW DUCT (DIRECT BURIED) WITH DETAIL DESIGNATION AND CIRCUIT FILL INFORMATION. SEE SHEET E3.6 FOR DUCT SECTIONS.
- 4-4" C.E. (E)POWER D111 — EXISTING DUCT SECTIONS (CONCRETE ENCASED) AND CIRCUIT FILLS. U.O.N. EXISTING DUCT HAS EXISTING CIRCUITS IN IT.
- E — E — EXISTING CONDUIT.
- CONDUIT TO BE REMOVED
- DUCT TO BE REMOVED
- FAA — FAA CONDUIT OR DUCT
- NEW CONCRETE HANDHOLE AND ADJOINING JUNCTION CAN PLAZA
- EXISTING CONCRETE HANDHOLE
- L-850C IN-PAVEMENT BI-DIRECTIONAL RUNWAY EDGE LIGHT WITH OPTICAL SYSTEM COLOR FILTERS AS NOTED ON DATA TABLE
- L-862 ELEVATED BI-DIRECTIONAL RUNWAY EDGE LIGHT WITH OPTICAL SYSTEM COLOR FILTERS AS NOTED ON DATA TABLE
- L-862E ELEVATED BI-DIRECTIONAL RUNWAY THRESHOLD/END LIGHT WITH OPTICAL SYSTEM COLOR FILTERS AS NOTED ON DATA TABLE
- L-861T ELEVATED OMNI-DIRECTIONAL MEDIUM INTENSITY T/W EDGE LIGHT, BLUE GLOBE UNLESS OTHERWISE NOTED
- L-852A IN-PAVEMENT BI-DIRECTIONAL TAXIWAY CENTERLINE LIGHT (NARROW BEAM) WITH OPTICAL SYSTEM COLOR FILTERS AS NOTED ON DATA TABLE
- L-852J IN-PAVEMENT BI-DIRECTIONAL TAXIWAY CENTERLINE LIGHT (TOED WIDE BEAM) WITH OPTICAL SYSTEM COLOR FILTERS AS NOTED ON DATA TABLE
- BLANK LOAD RATED COVER ON L-868 BASE
- BLANK COVER ON L-867B LIGHT BASE OR L-867D BASE JUNCTION CAN
- AIRFIELD GUIDANCE SIGN
- WINDCONE
- LINKED LOW LEVEL BARRICADES, SEE CIVIL DRAWINGS
- LOW LEVEL BARRICADES, SEE CIVIL DRAWINGS

GENERAL NOTES

1. REFER TO DRAWING C1.5 FOR CONFINED SPACES INFORMATION.
2. REFER TO C2 SERIES DRAWINGS FOR PHASING NOTES.
3. CONTRACTOR SHALL MAINTAIN ON HAND SUFFICIENT MATERIAL/EQUIPMENT REQUIRED TO PROVIDE TEMPORARY LIGHTING AND CIRCUIT EXTENSIONS. THIS INCLUDES, BUT IS NOT LIMITED TO, FIXTURES, TRANSFORMERS, BASES, CONDUIT, L-824 CABLE & L-823 SPLICE KITS. THESE ITEMS WILL NOT BE AVAILABLE FROM THE SAN ANTONIO INTERNATIONAL AIRPORT MAINTENANCE SHOP.
4. CONTRACTOR SHALL MAINTAIN THE INDICATED MINIMUM STOCK OF THE FOLLOWING ITEMS:
   - 20 EACH TEMPORARY LIGHT FIXTURES WITH BASES
   - 20 EACH L-830 6.6 AMP TRANSFORMERS OF VARIOUS CAPACITIES
   - 200 LF 2" PVC CONDUIT FOR TEMPORARY ABOVE GRADE CONNECTIONS
   - 400 LF L-824, #8 5KV TYPE C CABLE FOR TEMPORARY CONNECTIONS
   - 40 EACH L-823 CONNECTOR KITS
5. THE CONTRACTOR SHALL MAINTAIN QUALIFIED PERSONNEL, WITH THE APPROPRIATE EQUIPMENT, FOR THE INSTALLATION AND SPLICING OF AIRFIELD LIGHTING AND FIBER OPTIC CABLES. SUCH PERSONNEL SHALL BE CAPABLE OF 60 MINUTE RESPONSE TIME IF THEY ARE NOT ALREADY PRESENT ON THE AIRFIELD.
6. CONTRACTOR SHALL COORDINATE ALL WORK WITH AIRPORT MAINTENANCE, AIRPORT OPERATIONS, AND THE ENGINEER AS NECESSARY.
7. CONTRACTOR SHALL GIVE 48 HOURS NOTICE PRIOR TO WORKING ON OR AROUND ANY FAA EQUIPMENT, DUCT BANKS, HANDHOLES, ETC.
8. ALL TEMPORARY JUMPERS SHALL BE INSTALLED PRIOR TO THE START OF ANY DEMOLITION, SEE E4 SERIES DRAWINGS.

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TEXAS REGISTERED FIRM,
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TERMINAL AREA TAXIWAY IMPROVEMENTS - (PACKAGE 3)

STATE OF TEXAS
ERIC C. LOVEJOY
84081
LICENSED
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MARK	DATE	DESCRIPTION
1	06/08/15	RE-ISSUED DRAWING

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ELECTRICAL
SYMBOL LIST AND
GENERAL NOTES

E0.2

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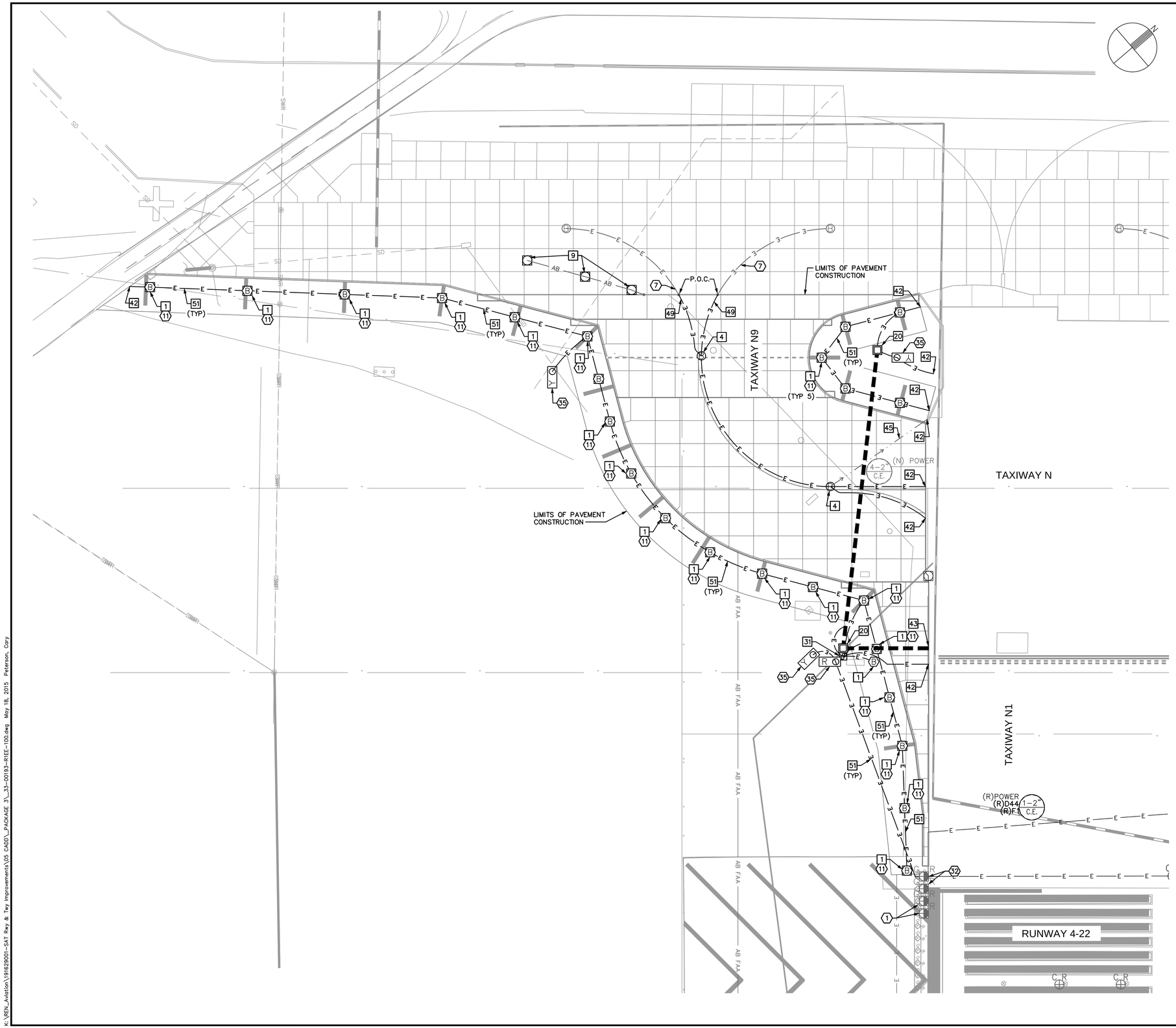


ELECTRICAL CONSTRUCTION NOTES

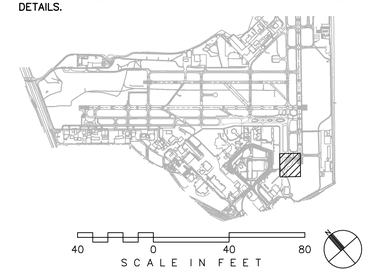
1. EXISTING LIGHT, PROTECT IN PLACE.
7. EXISTING EMPTY CONDUIT, PROTECT IN PLACE.
11. INSTALL NEW L-861T(LED) TAXIWAY EDGE LIGHT AND ISOLATION TRANSFORMER.
32. DURING CONSTRUCTION, REMOVE AND STORE RUNWAY THRESHOLD LIGHT AND INSTALL BLANK COVER. AT END OF PAVING, REINSTALL LIGHT FIXTURE.
35. NEW SIGN AND ISOLATION TRANSFORMER ON NEW CONCRETE FOUNDATION.

BASE CAN, FOUNDATION & CONDUIT NOTES

1. NEW L-867 BASE CAN (WITH 3/8" BLANK COVER IF NOTED IN TABLE) IN NEW ASPHALT PAVEMENT.
4. NEW L-868 BASE CAN (WITH 3/4" BLANK COVER OR 3/4" THICK L-868 TO L-867 ADAPTOR RING IF NOTED IN TABLE) IN NEW PCC PAVEMENT.
9. NEW OR RELOCATED 3/4" BLANK COVER ON EXISTING L-868 BASE CAN.
20. NEW PRECAST CONCRETE HANDHOLE. SEE DATA TABLES IN E2 SERIES DRAWINGS FOR LOCATION & DETAIL DATA.
31. NEW 2-CAN JUNCTION CAN PLAZA, SEE DETAILS ON DRAWING E3.8.
42. STUB AND CAP 1-2"C FOR FUTURE EXTENSION. RECORD STATION, OFFSET AND DEPTH ON RECORD DRAWINGS.
43. STUB AND CAP DUCT FOR FUTURE EXTENSION. RECORD STATION, OFFSET AND DEPTH ON RECORD DRAWINGS.
45. INSTALL 2"C (ITEM L-110) TO DRAIN STRUCTURES. COMBINE DRAIN CONDUITS FROM SEPARATE SYSTEMS INTO COMMON TRENCH WHEN POSSIBLE. SEE DETAILS ON E3.10.
49. CONNECT NEW 2" EMPTY CONDUIT TO EXISTING EMPTY 2" CONDUIT.
51. (N) CABLES (ITEM L-108) IN (N) 2" CONDUIT, DIRECT BURIAL (ITEM L-110), FROM HANDHOLE OR JUNCTION CAN PLAZA, TO OR BETWEEN SIGNS, EDGE LIGHTS, OR WIND CONES. COORDINATE WITH E4 SERIES DRAWINGS FOR CIRCUIT CONTENT.

GENERAL NOTES

1. SEE DWG E2.1 & E2.1A DATA TABLES FOR NEW FIXTURE, HANDHOLE, JUNCTION CAN, BASE CAN, AND SIGN FOUNDATION LOCATIONS.
2. SEE CIRCUIT MAPS E4 SERIES DRAWINGS FOR NEW OR TEMPORARY CIRCUITS AND FIXTURES.
3. SEE E5 SERIES DRAWINGS FOR AIRFIELD SIGN LEGENDS.
4. SEE E6 SERIES DRAWINGS FOR ELECTRICAL DEMOLITION PLANS.
5. SEE DRAWING E3.6 FOR DUCT CONFIGURATIONS AND INSTALLATION DETAILS.



CITY OF SAN ANTONIO AVIATION DEPARTMENT

SAN ANTONIO AIRPORT SYSTEM

Kimley»Horn

KIMLEY-HORN AND ASSOCIATES, INC.
601 NW LOOP 410, SUITE 350
SAN ANTONIO, TEXAS 78216
PHONE: (210) 541-9166

TEXAS REGISTERED FIRM, NO. 928

TERMINAL AREA TAXIWAY IMPROVEMENTS - (PACKAGE 3)

STATE OF TEXAS
ERIC C. LOVEJOY
84081
LICENSED
PROFESSIONAL ENGINEER

MARK	DATE	DESCRIPTION
1	06/08/15	RE-ISSUED DRAWING

ISSUE: ----

PROJECT NO:	33-00178 and 33-00193
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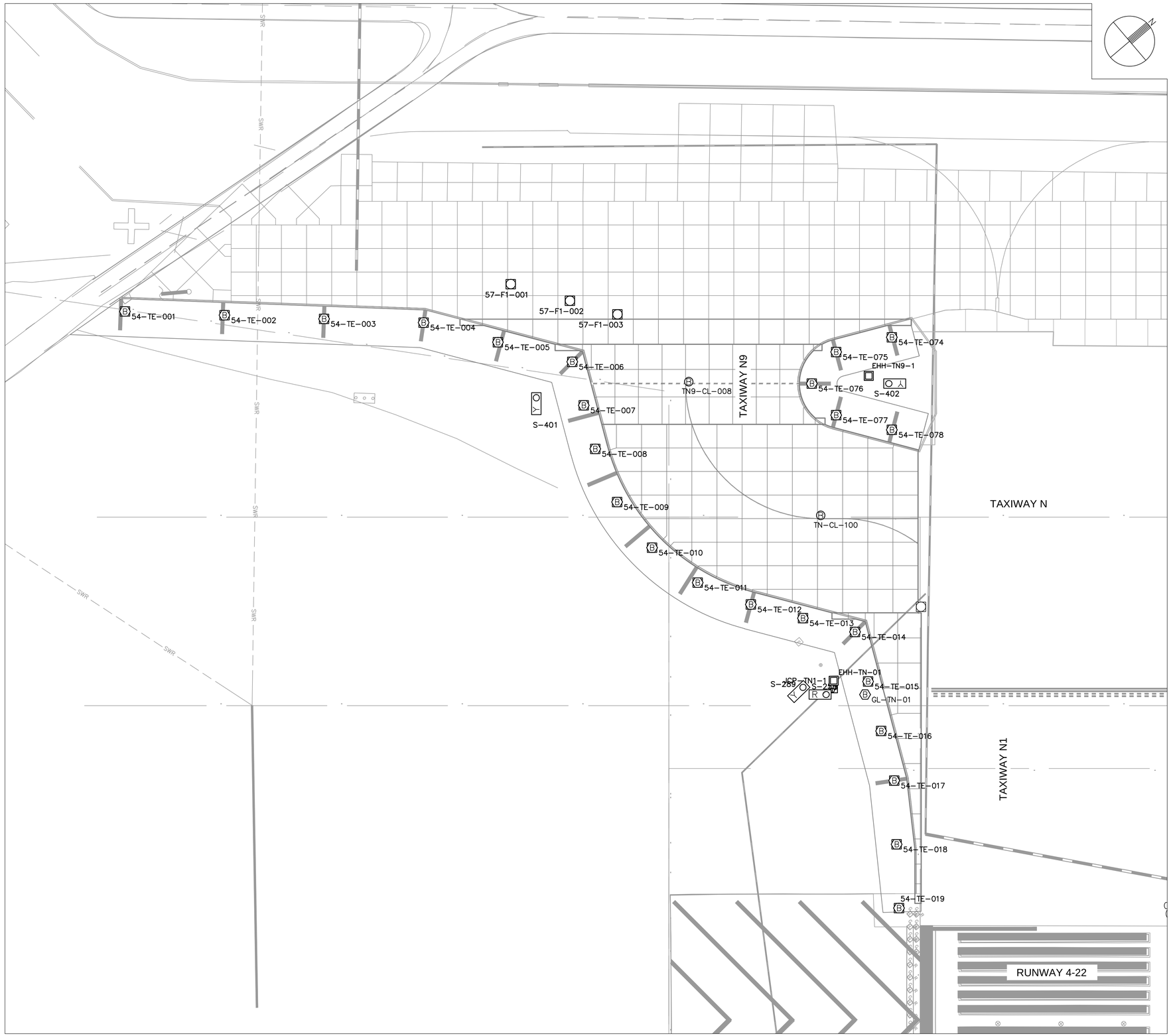
PHASE 1 - ELECTRICAL LAYOUT PLAN - BASE BID

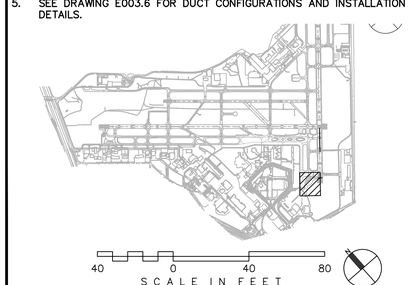
E1.1

K:\REN_Aviation\191629001-SAT Rwy & Twy Improvements\05 CADD_PACKAGE 3_33-00193-R1EE-100.dwg May 18, 2015 Peterson, Cory



GENERAL NOTES

1. SEE DATA TABLES ON DRAWING E012.2 FOR NEW FIXTURE, HANDHOLE, JUNCTION CAN, BASE CAN, AND SIGN FOUNDATION LOCATIONS. ALL ELEMENTS ON THIS DRAWING ARE LOCATED PER "Taxiway N" ALIGNMENT.
2. SEE DRAWING E011.1 FOR NEW ELECTRICAL SYSTEM LAYOUT PLAN.
3. SEE DRAWING E015.1 FOR AIRFIELD SIGN LEGEND.
4. SEE DRAWING E016.1 FOR ELECTRICAL DEMOLITION PLAN.
5. SEE DRAWING E003.6 FOR DUCT CONFIGURATIONS AND INSTALLATION DETAILS.



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PHASE 1 - ELECTRICAL FIXTURE LAYOUT PLAN - BASE BID

E2.1

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E2.1 L–867 DATA TABLE				
FIXT–NUM	STA	OFF	DETAIL	FAA–TYPE
54–TE–001	STA. 400+95.56	164.86' LT.	E3.3	L–867B FOR L–861T
54–TE–002	STA. 401+74.77	161.93' LT.	E3.3	L–867B FOR L–861T
54–TE–003	STA. 402+53.98	158.99' LT.	E3.3	L–867B FOR L–861T
54–TE–004	STA. 403+33.20	156.05' LT.	E3.3	L–867B FOR L–861T
54–TE–005	STA. 403+92.35	140.43' LT.	E3.3	L–867B FOR L–861T
54–TE–006	STA. 404+51.49	124.82' LT.	E3.3	L–867B FOR L–861T
54–TE–007	STA. 404+60.64	90.17' LT.	E3.3	L–867B FOR L–861T
54–TE–008	STA. 404+69.79	55.52' LT.	E3.3	L–867B FOR L–861T
54–TE–009	STA. 404+87.18	13.21' LT.	E3.3	L–867B FOR L–861T
54–TE–010	STA. 405+14.99	23.10' RT.	E3.3	L–867B FOR L–861T
54–TE–011	STA. 405+51.30	50.91' RT.	E3.3	L–867B FOR L–861T
54–TE–012	STA. 405+93.61	68.30' RT.	E3.3	L–867B FOR L–861T
54–TE–013	STA. 406+35.05	79.24' RT.	E3.3	L–867B FOR L–861T
54–TE–014	STA. 406+76.49	90.18' RT.	E3.3	L–867B FOR L–861T
54–TE–015	STA. 406+86.91	129.61' RT.	E3.3	L–867B FOR L–861T
54–TE–016	STA. 406+97.32	169.05' RT.	E3.3	L–867B FOR L–861T
54–TE–017	STA. 407+07.73	208.48' RT.	E3.3	L–867B FOR L–861T
54–TE–018	STA. 407+09.61	259.24' RT.	E3.3	L–867B FOR L–861T
54–TE–019	STA. 407+11.49	310.00' RT.	E3.3	L–867B FOR L–861T
54–TE–074	STA. 407+05.82	144.34' LT.	E3.3	L–867B FOR L–861T
54–TE–075	STA. 406+61.49	132.64' LT.	E3.3	L–867B FOR L–861T
54–TE–076	STA. 406+42.12	107.50' LT.	E3.3	L–867B FOR L–861T
54–TE–077	STA. 406+61.49	82.36' LT.	E3.3	L–867B FOR L–861T
54–TE–078	STA. 407+05.82	70.66' LT.	E3.3	L–867B FOR L–861T
GL–TN–01	STA. 406+84.48	140.00' RT.	E3.3	L–867B FOR L–861T

E2.1 L–868 DATA TABLE				
FIXT–NUM	STA	OFF	DETAIL	FAA–TYPE
TN9–CL–008	STA. 405+44.19	108.96' LT.	E3.4	L–868 W/ COVER
TN–CL–100	STA. 406+49.18	2.50' LT.	E3.4	L–868 W/ COVER

E2.1 SIGN DATA TABLE						
SIGN–NUM	STA	OFF	DETAIL	CIRCUIT	MODULES	SIZE
S–256	STA. 406+53.45	140.00' RT.	E3.1	4–22 EDGE	RT858R4M	MODE 2
S–289	STA. 406+35.09	134.35' RT.	E3.1		RT858Y2M	MODE 2
S–401	STA. 404+22.86	96.18' LT.	E3.1		RT858Y2M	MODE 2
S–402	STA. 407+03.38	107.50' LT.	E3.1		RT858Y3M	MODE 2

E2.1 HANDHOLE DATA TABLE			
HH–NUM	STA	OFF	DETAIL
EHH–TN–01	STA. 406+59.56	129.00' RT.	E3.8
EHH–TN9–1	STA. 406+87.45	113.64' LT.	E3.7

CIRCUIT DESIGNATION SCHEDULE

CIRCUIT NAME	FIELD CIRUIT NUMBER	ALCS NUMBER	REMARKS
WEST VAULT:			
12R–30L EDGE	31	16	MODIFIED CIRCUIT
12R CENTERLINE	30	15	MODIFIED CIRCUIT
30L CENTERLINE	32	17	MODIFIED CIRCUIT
12R TDZ	33	18	MODIFIED CIRCUIT
12L–30R EDGE	35	19	EXISTING CIRCUIT
ALPHA	11	2	EXISTING CIRCUIT
BRAVO	12	1	EXISTING CIRCUIT
G–1	2	12	EXISTING CIRCUIT
G–2	4	7	EXISTING CIRCUIT
G–3	6	8	MODIFIED CIRCUIT
G CENTERLINE WEST	16	13	MODIFIED CIRCUIT
G CENTERLINE EAST	15	14	EXISTING CIRCUIT
G–3 CENTERLINE TO LAHSO	N/A	6	EXISTING CIRCUIT
LAHSO STOP BAR	N/A	27	EXISTING CIRCUIT
H–1 WEST	13	11	EXISTING CIRCUIT
H–2 EAST	14	9	EXISTING CIRCUIT
JULIET	9	3	EXISTING CIRCUIT
LIMA ON 24/7	10	5	EXISTING CIRCUIT
MIKE	7	4	EXISTING CIRCUIT
ROMEO	8	20	EXISTING CIRCUIT
SIERRA R/C	N/A	20	EXISTING CIRCUIT
EAST VAULT:			
4–22 EDGE	N/A	41	EXISTING CIRCUIT
4 CENTERLINE	N/A	43	EXISTING CIRCUIT
22 CENTERLINE	N/A	42	EXISTING CIRCUIT
DELTA	56	35	EXISTING CIRCUIT
FOXTROT	57	34	MODIFIED CIRCUIT
N–1	52	36	EXISTING CIRCUIT
N–2	53	37	EXISTING CIRCUIT
N–3	54	32	EXISTING CIRCUIT
NEW CARGO	51	31	EXISTING CIRCUIT
QUEBEC	55	33	EXISTING CIRCUIT

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STATE OF TEXAS
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PROFESSIONAL ENGINEER

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PHASE 1 - ELECTRICAL FIXTURE DATA TABLES - BASE BID

E2.1A

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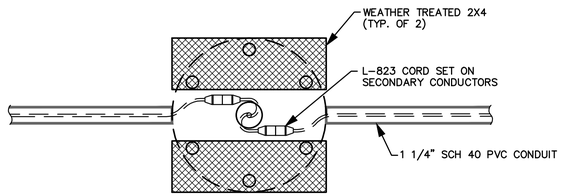
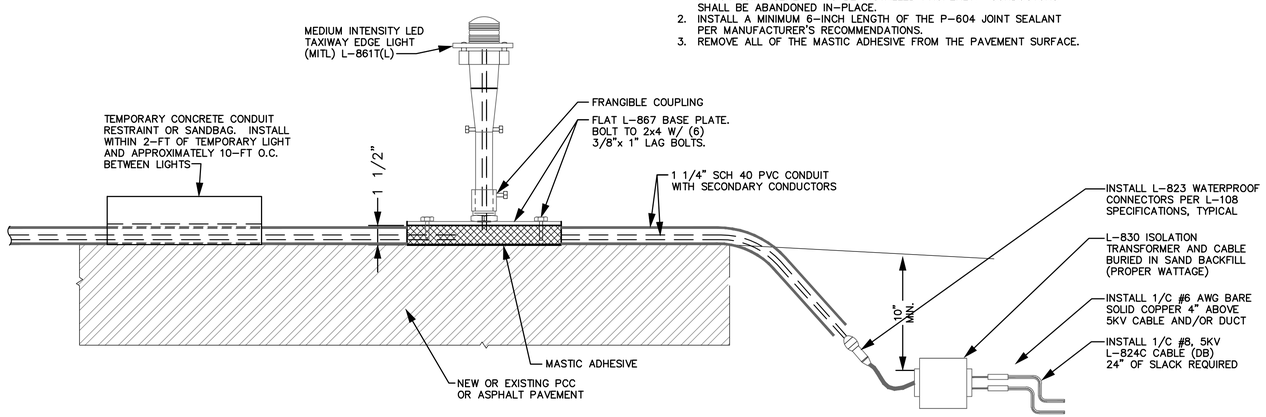


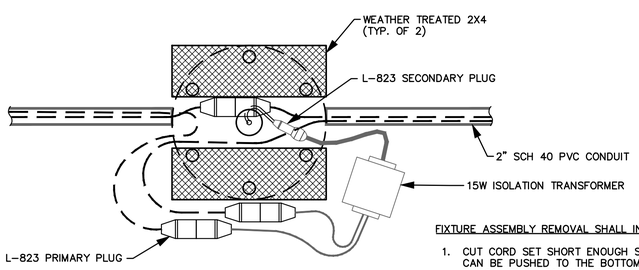
FIXTURE ASSEMBLY REMOVAL SHALL INCLUDE:

1. CUT CORD SET SHORT ENOUGH SO THAT ENDS OF THE CONDUCTORS CAN BE PUSHED TO THE BOTTOM OF THE JOINT KERF AND ALLOW THE P-604 JOINT SEALANT TO BE INSTALLED PROPERLY. CONDUCTORS SHALL BE ABANDONED IN-PLACE.
2. INSTALL A MINIMUM 6-INCH LENGTH OF THE P-604 JOINT SEALANT PER MANUFACTURER'S RECOMMENDATIONS.
3. REMOVE ALL OF THE MASTIC ADHESIVE FROM THE PAVEMENT SURFACE.



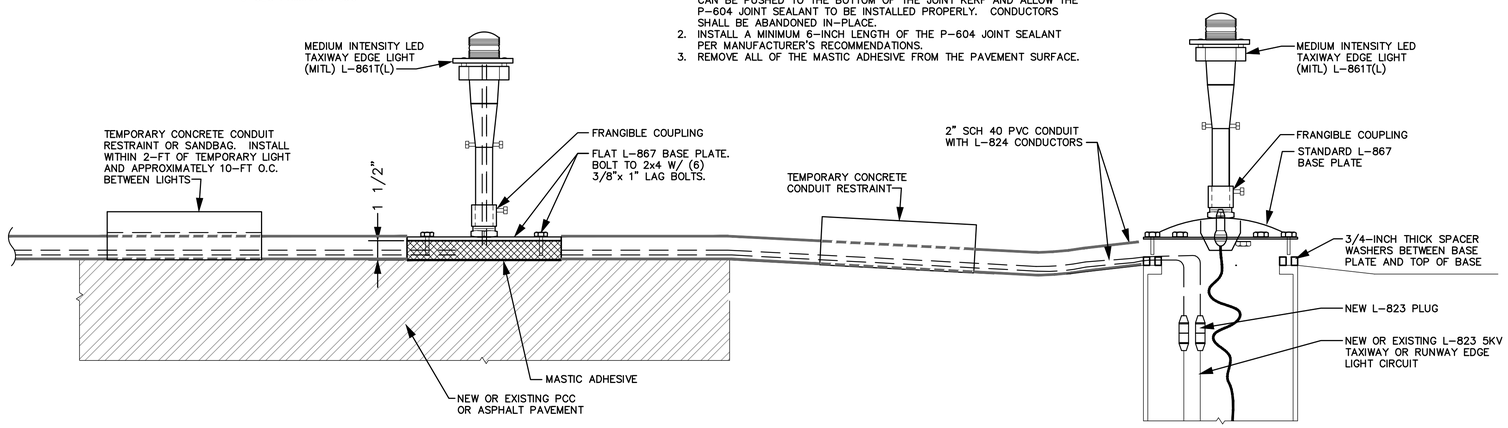
LONG TERM TEMPORARY SURFACE MOUNTED EDGE LIGHT - SECONDARY SERIES CIRCUIT

N.T.S.



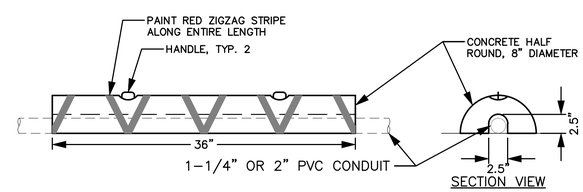
FIXTURE ASSEMBLY REMOVAL SHALL INCLUDE:

1. CUT CORD SET SHORT ENOUGH SO THAT ENDS OF THE CONDUCTORS CAN BE PUSHED TO THE BOTTOM OF THE JOINT KERF AND ALLOW THE P-604 JOINT SEALANT TO BE INSTALLED PROPERLY. CONDUCTORS SHALL BE ABANDONED IN-PLACE.
2. INSTALL A MINIMUM 6-INCH LENGTH OF THE P-604 JOINT SEALANT PER MANUFACTURER'S RECOMMENDATIONS.
3. REMOVE ALL OF THE MASTIC ADHESIVE FROM THE PAVEMENT SURFACE.



LONG TERM TEMPORARY SURFACE MOUNTED EDGE LIGHT WITH ISOLATION TRANSFORMER

N.T.S.



TEMPORARY CONDUIT RESTRAINT DETAIL

N.T.S.

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PHONE: (210) 541-9166

TEXAS REGISTERED FIRM,
NO. 928

TERMINAL AREA
TAXIWAY
IMPROVEMENTS -
(PACKAGE 3)

STATE OF TEXAS
ERIC C. LOVEJOY
84081
LICENSED
PROFESSIONAL ENGINEER

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1	06/08/15	NEW DRAWING

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TEMPORARY
LIGHTING DETAILS -
ALTERNATE 1

E3.11

SHEET NO. 50A OF 172

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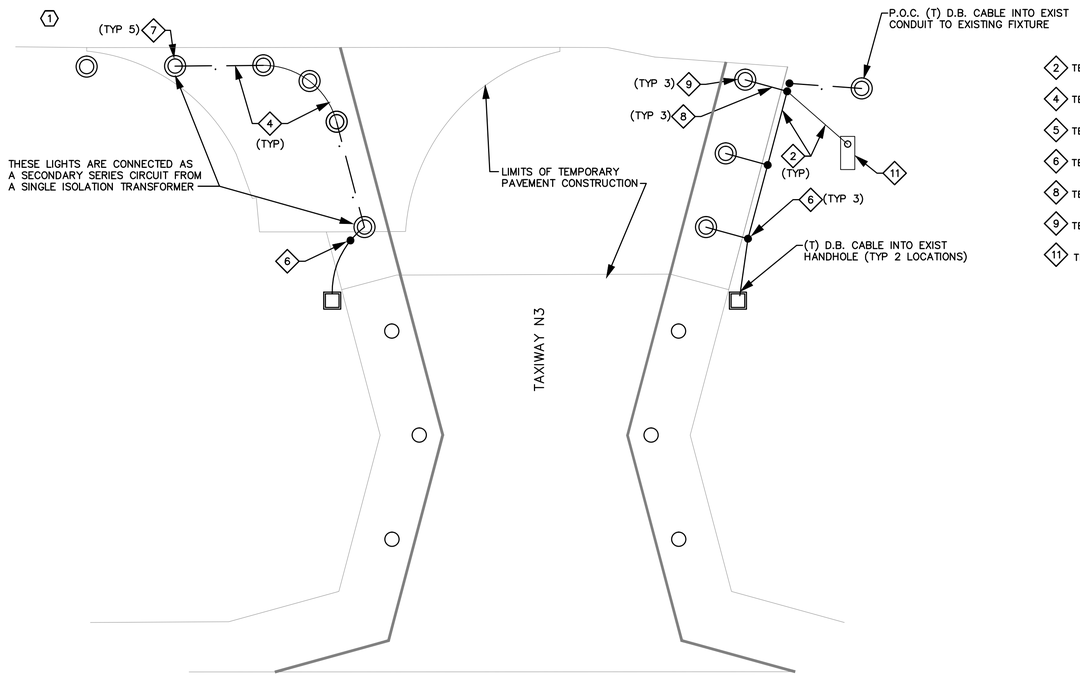


TWY N3 - LONG TERM TEMPORARY CIRCUIT ROUTING
N.T.S.

2 TEMPORARY DIRECT BURIED L-824, TYPE C, 1/C #6, 5 KV CABLE.

4 TEMPORARY SURFACE MOUNTED 2" CONDUIT WITH L-824, TYPE C, #6, 5 KV CABLE(S).

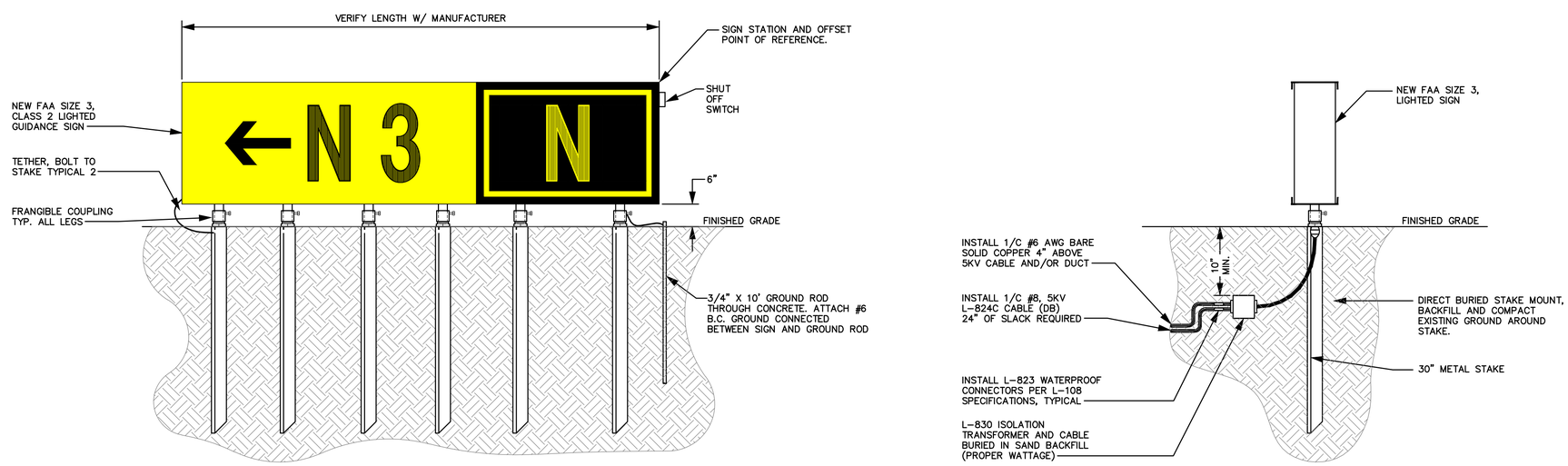
5 TEMPORARY 1-1/4" CONDUIT WITH L-824, TYPE C, #6, 5 KV CABLE(S).

6 TEMPORARY DIRECT BURIAL ISOLATION TRANSFORMER.

8 TEMPORARY SECONDARY CIRCUIT, (2)-1/C #10 IN 1-1/4" CONDUIT.

9 TEMPORARY PAVEMENT MOUNTED TAXIWAY EDGE LIGHT.

11 TEMPORARY STAKE MOUNTED GUIDANCE SIGN & ISOLATION TRANSFORMER. SEE DETAILS E3.12.



TEMPORARY AIRFIELD SIGN - STAKE MOUNTED INSTALLATION DETAIL
N.T.S.

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TEMPORARY SIGNAGE DETAILS - ALTERNATE 1

E3.12

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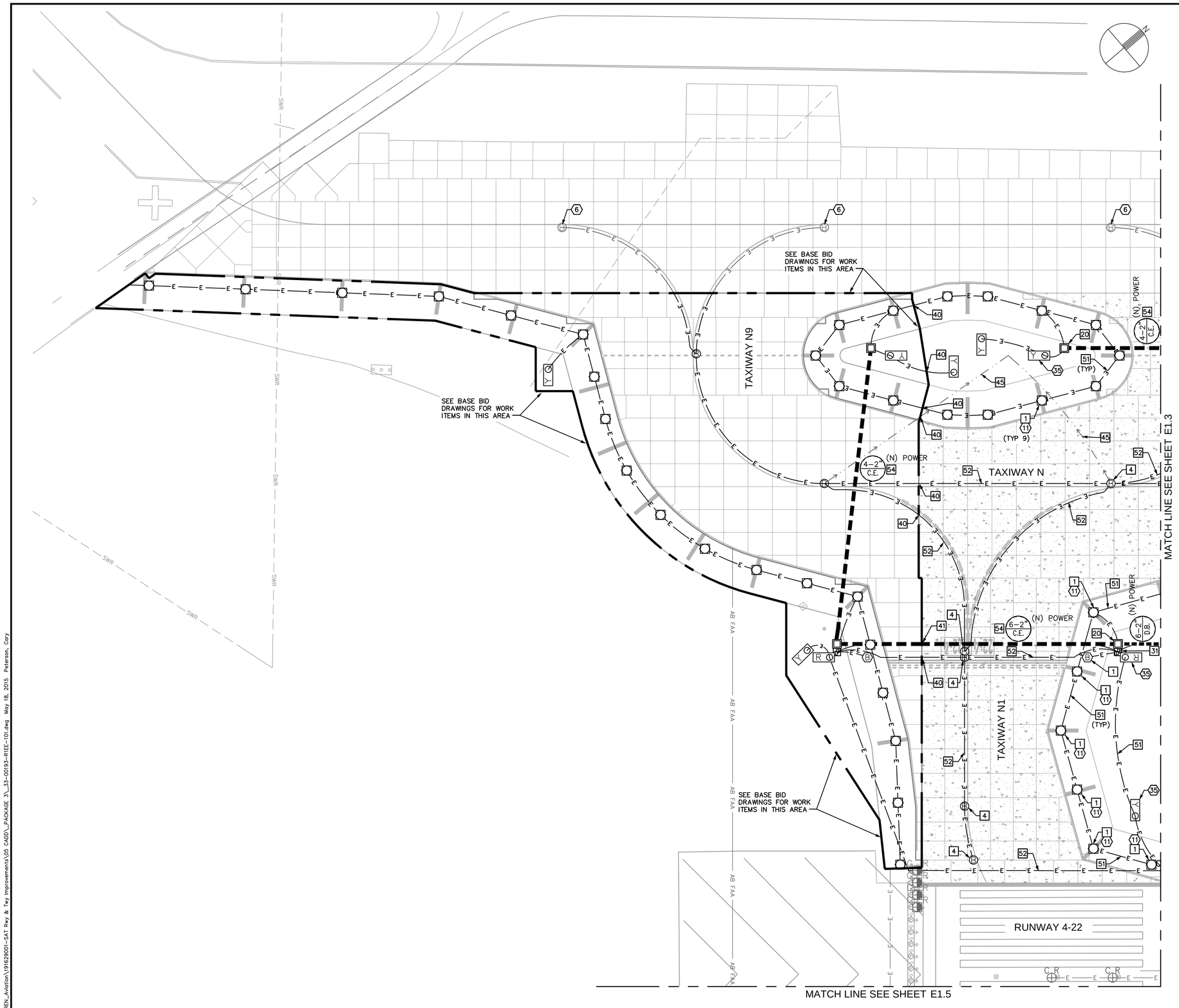


ELECTRICAL CONSTRUCTION NOTES

6 EXISTING BASE CAN, PROTECT IN PLACE.

11 INSTALL NEW L-861T(LED) TAXIWAY EDGE LIGHT AND ISOLATION TRANSFORMER.

35 NEW SIGN AND ISOLATION TRANSFORMER ON NEW CONCRETE FOUNDATION.

BASE CAN, FOUNDATION & CONDUIT NOTES

1 NEW L-867 BASE CAN (WITH 3/8" BLANK COVER IF NOTED IN TABLE) IN NEW ASPHALT PAVEMENT.

4 NEW L-868 BASE CAN (WITH 3/4" BLANK COVER OR 3/4" THICK L-868 TO L-867 ADAPTOR RING IF NOTED IN TABLE) IN NEW PCC PAVEMENT.

20 NEW PRECAST CONCRETE HANDHOLE (ITEM L-115). SEE DATA TABLES IN E2 SERIES DRAWINGS FOR LOCATION & DETAIL DATA.

31 NEW 2-CAN JUNCTION CAN PLAZA (ITEM L-115). SEE DETAILS ON DRAWING E3.8.

40 CONNECT NEW CONDUIT TO EXISTING CONDUIT. INSTALL NEW CONDUCTORS. SEE CIRCUIT MAPS, E4 SERIES DRAWINGS.

41 CONNECT NEW DUCT TO EXISTING DUCT AS SHOWN. INSTALL NEW CONDUCTORS. SEE CIRCUIT MAPS, E4 SERIES DRAWINGS.

45 INSTALL 2"C (ITEM L-110) TO DRAIN STRUCTURES. COMBINE DRAIN CONDUITS FROM SEPARATE SYSTEMS INTO COMMON TRENCH WHEN POSSIBLE. SEE DETAILS ON E3.10.

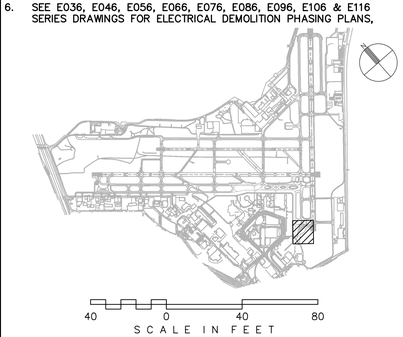
51 (N) 2" CONDUIT, DIRECT BURIAL (ITEM L-110) W/ (N) CABLES (ITEM L-108). SEE E4 SERIES DRAWINGS FOR CIRCUITS.

52 (N) 2" CONDUIT, CONCRETE ENCASED (ITEM L-110) W/ (N) CABLES (ITEM L-108). SEE E4 SERIES DRAWINGS FOR CIRCUITS.

54 (N) DUCT, CONCRETE ENCASED (ITEM L-110) W/ (N) CABLES (ITEM L-108) BETWEEN U.G. ELECTRICAL STRUTURES. SEE E4 SERIES DRAWINGS FOR CIRCUITS.

GENERAL NOTES

1. SEE DWG E2.1 & E2.1A DATA TABLES FOR NEW FIXTURE, HANDHOLE, JUNCTION CAN, BASE CAN, AND SIGN FOUNDATION LOCATIONS.
2. SEE CIRCUIT MAPS E4 SERIES DRAWINGS FOR NEW OR TEMPORARY CIRCUITS AND FIXTURES.
3. SEE E5 SERIES DRAWINGS FOR AIRFIELD SIGN LEGENDS.
4. SEE DRAWING E3.6 FOR DUCT CONFIGURATIONS AND INSTALLATION DETAILS.
5. SEE E031, E041, E051, E061, E071, E081, E091, E101 & E111 SERIES DRAWINGS FOR CONSTRUCTION PHASING.
6. SEE E036, E046, E056, E066, E076, E086, E096, E106 & E116 SERIES DRAWINGS FOR ELECTRICAL DEMOLITION PHASING PLANS.



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END STATE ELECTRICAL LAYOUT PLAN

E1.2

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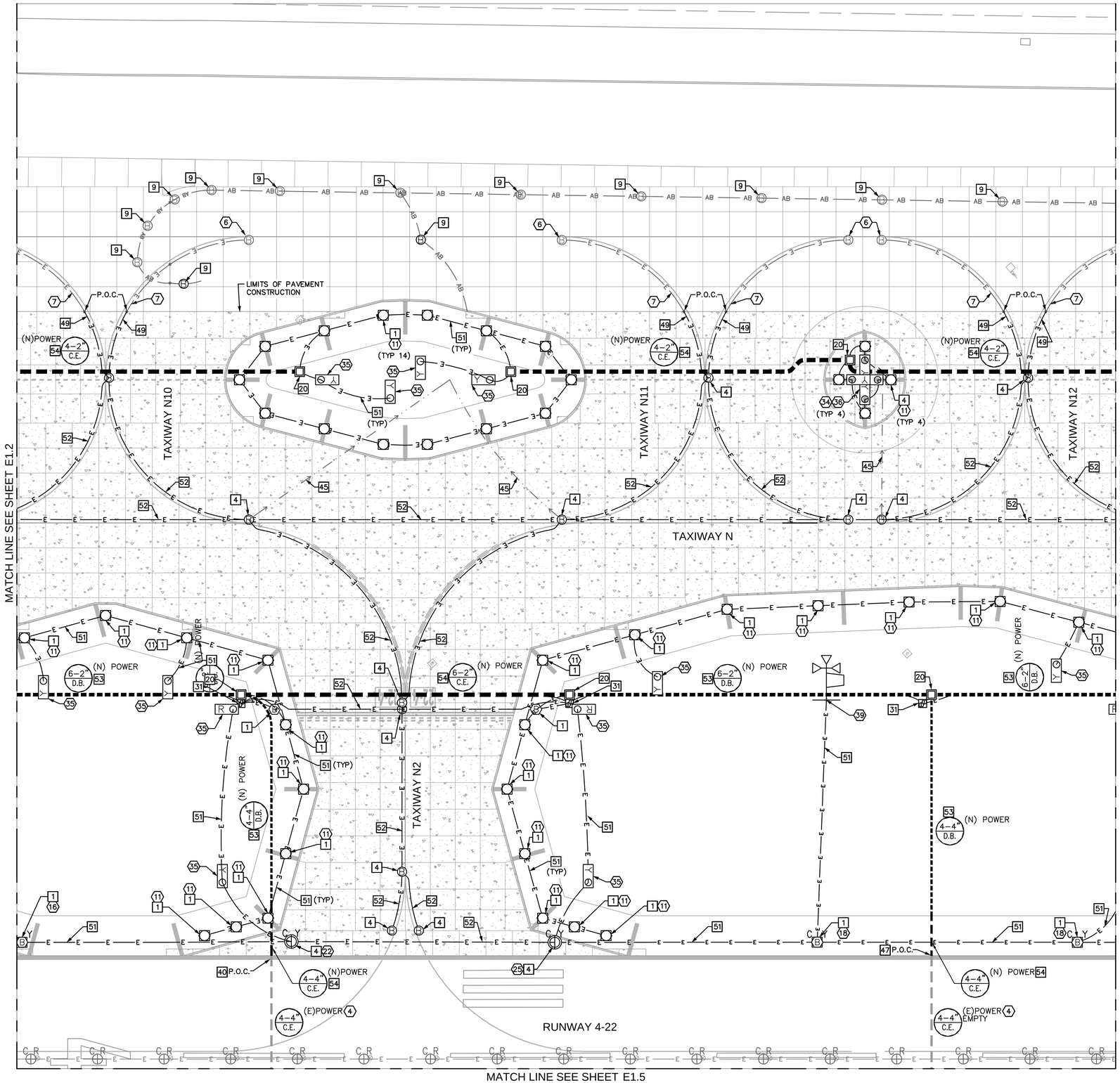


ELECTRICAL CONSTRUCTION NOTES

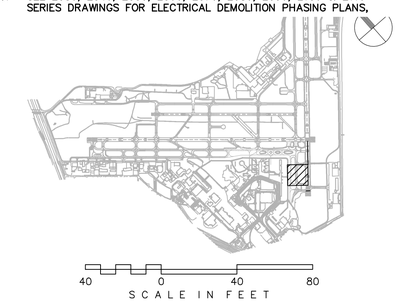
4. EXISTING DUCT, PROTECT IN PLACE. INSTALL NEW CONDUCTOR(S) AS NOTED.
6. EXISTING BASE CAN, PROTECT IN PLACE.
7. EXISTING EMPTY CONDUIT, PROTECT IN PLACE.
11. INSTALL NEW L-861T(LED) TAXIWAY EDGE LIGHT AND ISOLATION TRANSFORMER.
16. INSTALL NEW L-862 RUNWAY EDGE LIGHT AND ISOLATION TRANSFORMER.
18. REINSTALL EXISTING L-862 RUNWAY EDGE LIGHT WITH NEW ISOLATION TRANSFORMER.
22. INSTALL NEW L-850C RUNWAY EDGE LIGHT AND ISOLATION TRANSFORMER.
25. REINSTALL EXISTING L-850C RUNWAY EDGE LIGHT WITH NEW 100 W, 20A ISOLATION TRANSFORMER.
34. SIZE 2 SIGN.
35. NEW SIGN AND ISOLATION TRANSFORMER ON NEW CONCRETE FOUNDATION.
36. NEW SIGN AND ISOLATION TRANSFORMER ON NEW L-868 BASE CAN WITH BLANK COVER IN NEW CONCRETE PAVEMENT.
39. RELOCATE AND REINSTALL LIGHTED WINDCONE WITH NEW ISOLATION TRANSFORMER ON NEW FOUNDATION.

BASE CAN, FOUNDATION & CONDUIT NOTES

1. NEW L-867 BASE CAN (WITH 3/8" BLANK COVER IF NOTED IN TABLE) IN NEW ASPHALT PAVEMENT.
4. NEW L-868 BASE CAN (WITH 3/4" BLANK COVER OR 3/4" THICK L-868 TO L-867 ADAPTOR RING IF NOTED IN TABLE) IN NEW PCC PAVEMENT.
9. NEW 3/4" BLANK COVER ON EXISTING L-868 BASE CAN.
20. NEW PRECAST CONCRETE HANDHOLE (ITEM L-115). SEE DATA TABLES IN E2 SERIES DRAWINGS FOR LOCATION & DETAIL DATA.
31. NEW 2-CAN JUNCTION CAN PLAZA (ITEM L-115). SEE DETAILS ON DRAWING E3.8.
40. CONNECT NEW CONDUIT TO EXISTING CONDUIT. INSTALL NEW CONDUCTORS. SEE CIRCUIT MAPS, E4 SERIES DRAWINGS.
45. INSTALL 2"C (ITEM L-110) TO DRAIN STRUCTURES. COMBINE DRAIN CONDUITS FROM SEPARATE SYSTEMS INTO COMMON TRENCH WHEN POSSIBLE. SEE DETAILS ON E3.10.
47. COORDINATE (N) DUCT OR CONDUIT CROSSING WITH (E) DUCT OR CONDUIT. AT CROSSING, POTHOLE VERIFY EXACT LOCATION AND DEPTH OF EXISTING FACILITY PRIOR TO TRENCH EXCAVATION.
49. CONNECT NEW 2" EMPTY CONDUIT TO EXISTING EMPTY 2" CONDUIT.
51. (N) 2" CONDUIT, DIRECT BURIAL (ITEM L-110) W/ (N) CABLES (ITEM L-108). SEE E4 SERIES DRAWINGS FOR CIRCUITS.
52. (N) 2" CONDUIT, CONCRETE ENCASED (ITEM L-110) W/ (N) CABLES (ITEM L-108). SEE E4 SERIES DRAWINGS FOR CIRCUITS.
53. (N) DUCT, DIRECT BURIAL (ITEM L-110) W/ (N) CABLES (ITEM L-108) BETWEEN U.G. ELECTRICAL STRUTURES. SEE E4 SERIES DRAWINGS FOR CIRCUITS.
54. (N) DUCT, CONCRETE ENCASED (ITEM L-110) W/ (N) CABLES (ITEM L-108) BETWEEN U.G. ELECTRICAL STRUTURES. SEE E4 SERIES DRAWINGS FOR CIRCUITS.

GENERAL NOTES

1. SEE DWG E2.2 & E2.2A DATA TABLES FOR NEW FIXTURE, HANDHOLE, JUNCTION CAN, BASE CAN, AND SIGN FOUNDATION LOCATIONS.
2. SEE CIRCUIT MAPS E4 SERIES DRAWINGS FOR NEW OR TEMPORARY CIRCUITS AND FIXTURES.
3. SEE E5 SERIES DRAWINGS FOR AIRFIELD SIGN LEGENDS.
4. SEE DRAWING E3.6 FOR DUCT CONFIGURATIONS AND INSTALLATION DETAILS.
5. SEE E031, E041, E051, E061, E071, E081, E091, E101 & E111 SERIES DRAWINGS FOR CONSTRUCTION PHASING.
6. SEE E036, E046, E056, E066, E076, E086, E096, E106 & E116 SERIES DRAWINGS FOR ELECTRICAL DEMOLITION PHASING PLANS.



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CITY OF SAN ANTONIO AVIATION DEPARTMENT

SAN ANTONIO AIRPORT SYSTEM

Kimley»Horn

KIMLEY-HORN AND ASSOCIATES, INC.
601 NW LOOP 410, SUITE 350
SAN ANTONIO, TEXAS 78216
PHONE: (210) 541-9166

TEXAS REGISTERED FIRM, NO. 928

TERMINAL AREA TAXIWAY IMPROVEMENTS - (PACKAGE 3)

STATE OF TEXAS
ERIC C. LOVEJOY
84081
LICENSED
PROFESSIONAL ENGINEER

MARK	DATE	DESCRIPTION
1	06/08/15	RE-ISSUED DRAWING

ISSUE: ----

PROJECT NO:	33-00178 and 33-00193
FILE NAME:	_33-00193-R1EE-101
DRAWN BY:	CMP
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END STATE ELECTRICAL LAYOUT PLAN

E1.3

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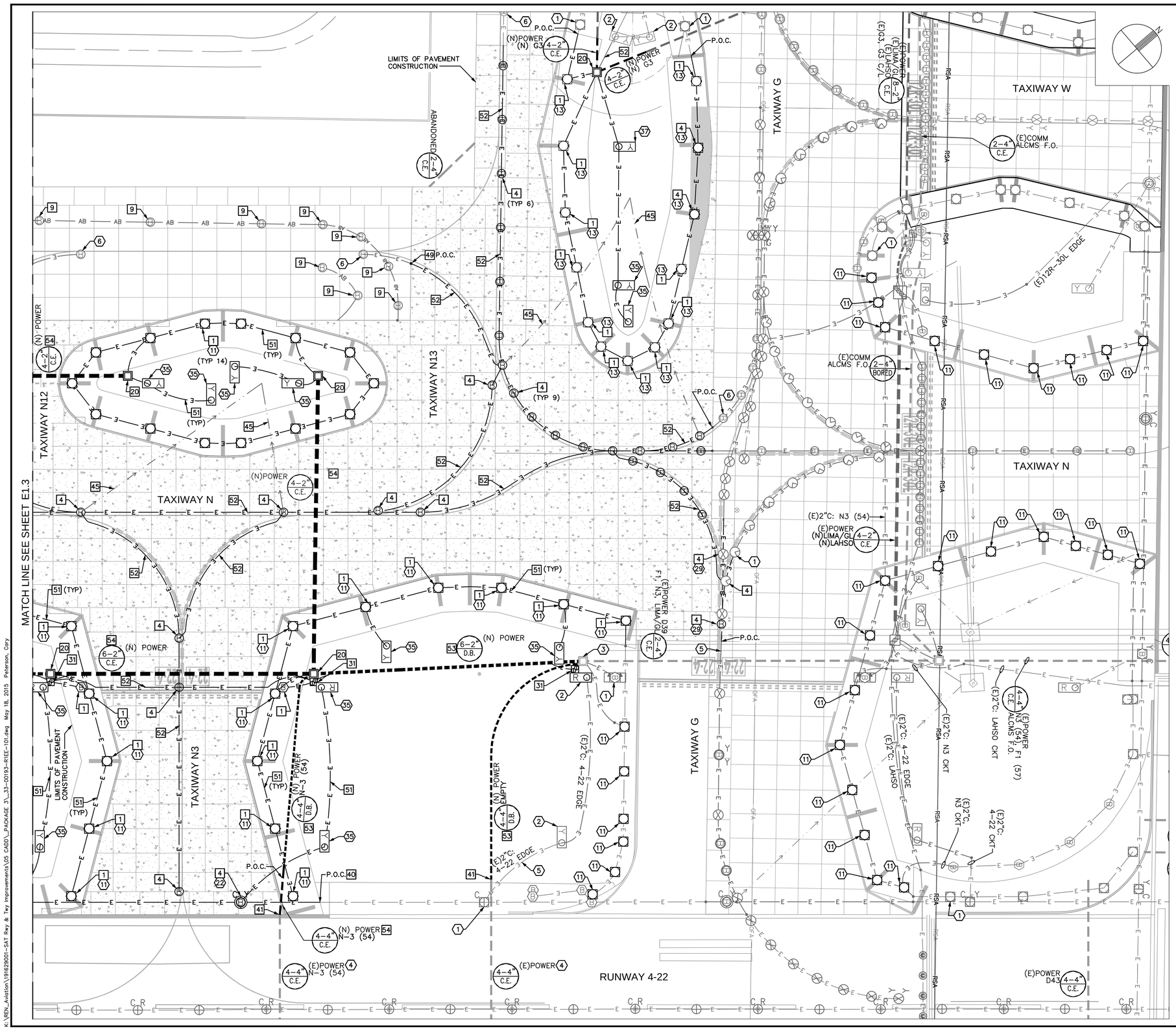


ELECTRICAL CONSTRUCTION NOTES

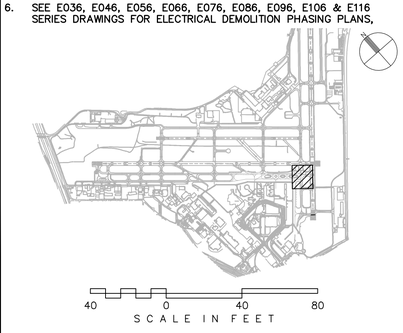
1. EXISTING LIGHT, PROTECT IN PLACE.
2. EXISTING SIGN, PROTECT IN PLACE.
3. EXISTING HANDHOLE, JUNCTION CAN PLAZA OR PULLBOX, PROTECT IN PLACE.
4. EXISTING DUCT, PROTECT IN PLACE. INSTALL NEW CONDUCTOR(S) AS NOTED.
5. EXISTING CONDUIT, PROTECT IN PLACE. INSTALL NEW CONDUCTOR(S) AS NOTED.
6. EXISTING BASE CAN, PROTECT IN PLACE.
11. INSTALL NEW L-861T(LED) TAXIWAY EDGE LIGHT AND ISOLATION TRANSFORMER.
13. REINSTALL EXISTING L-861T(L) TAXIWAY EDGE LIGHT WITH NEW ISOLATION TRANSFORMER.
22. INSTALL NEW L-850C RUNWAY EDGE LIGHT AND ISOLATION TRANSFORMER.
29. REINSTALL EXISTING L-852A TAXIWAY CENTERLINE LIGHT WITH NEW ISOLATION TRANSFORMER.
35. NEW SIGN AND ISOLATION TRANSFORMER ON NEW CONCRETE FOUNDATION.
37. RELOCATE AND REINSTALL SIGN WITH NEW ISOLATION TRANSFORMER ON NEW CONCRETE FOUNDATION.

BASE CAN, FOUNDATION & CONDUIT NOTES

1. NEW L-867 BASE CAN (WITH 3/8" BLANK COVER IF NOTED IN TABLE) IN NEW ASPHALT PAVEMENT.
4. NEW L-868 BASE CAN (WITH 3/4" BLANK COVER OR 3/4" THICK L-868 TO L-867 ADAPTOR RING IF NOTED IN TABLE) IN NEW PCC PAVEMENT.
9. NEW 3/4" BLANK COVER ON EXISTING L-868 BASE CAN.
20. NEW PRECAST CONCRETE HANDHOLE (ITEM L-115). SEE DATA TABLES IN E2 SERIES DRAWINGS FOR LOCATION & DETAIL DATA.
31. NEW 2-CAN JUNCTION CAN PLAZA (ITEM L-115). SEE DETAILS ON DRAWING E3.8.
40. CONNECT NEW CONDUIT TO EXISTING CONDUIT. INSTALL NEW CONDUCTORS. SEE CIRCUIT MAPS, E4 SERIES DRAWINGS.
41. CONNECT NEW DUCT TO EXISTING DUCT AS SHOWN. INSTALL NEW CONDUCTORS. SEE CIRCUIT MAPS, E4 SERIES DRAWINGS.
45. INSTALL 2"C (ITEM L-110) TO DRAIN STRUCTURES. COMBINE DRAIN CONDUITS FROM SEPARATE SYSTEMS INTO COMMON TRENCH WHEN POSSIBLE. SEE DETAILS ON E3.10.
49. CONNECT NEW 2" EMPTY CONDUIT TO EXISTING EMPTY 2" CONDUIT.
51. (N) 2" CONDUIT, DIRECT BURIAL (ITEM L-110) W/ (N) CABLES (ITEM L-108). SEE E4 SERIES DRAWINGS FOR CIRCUITS.
52. (N) 2" CONDUIT, CONCRETE ENCASED (ITEM L-110) W/ (N) CABLES (ITEM L-108). SEE E4 SERIES DRAWINGS FOR CIRCUITS.
53. (N) DUCT, DIRECT BURIAL (ITEM L-110) W/ (N) CABLES (ITEM L-108) BETWEEN U.G. ELECTRICAL STRUTURES. SEE E4 SERIES DRAWINGS FOR CIRCUITS.
54. (N) DUCT, CONCRETE ENCASED (ITEM L-110) W/ (N) CABLES (ITEM L-108) BETWEEN U.G. ELECTRICAL STRUTURES. SEE E4 SERIES DRAWINGS FOR CIRCUITS.

GENERAL NOTES

1. SEE DWG E2.3 & E2.3A DATA TABLES FOR NEW FIXTURE, HANDHOLE, JUNCTION CAN, BASE CAN, AND SIGN FOUNDATION LOCATIONS.
2. SEE CIRCUIT MAPS E4 SERIES DRAWINGS FOR NEW OR TEMPORARY CIRCUITS AND FIXTURES.
3. SEE E5 SERIES DRAWINGS FOR AIRFIELD SIGN LEGENDS.
4. SEE DRAWING E3.6 FOR DUCT CONFIGURATIONS AND INSTALLATION DETAILS.
5. SEE E031, E041, E051, E061, E071, E081, E091, E101 & E111 SERIES DRAWINGS FOR CONSTRUCTION PHASING.
6. SEE E036, E046, E056, E066, E076, E086, E096, E106 & E116 SERIES DRAWINGS FOR ELECTRICAL DEMOLITION PHASING PLANS,



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STATE OF TEXAS
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LICENSED
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E1.4

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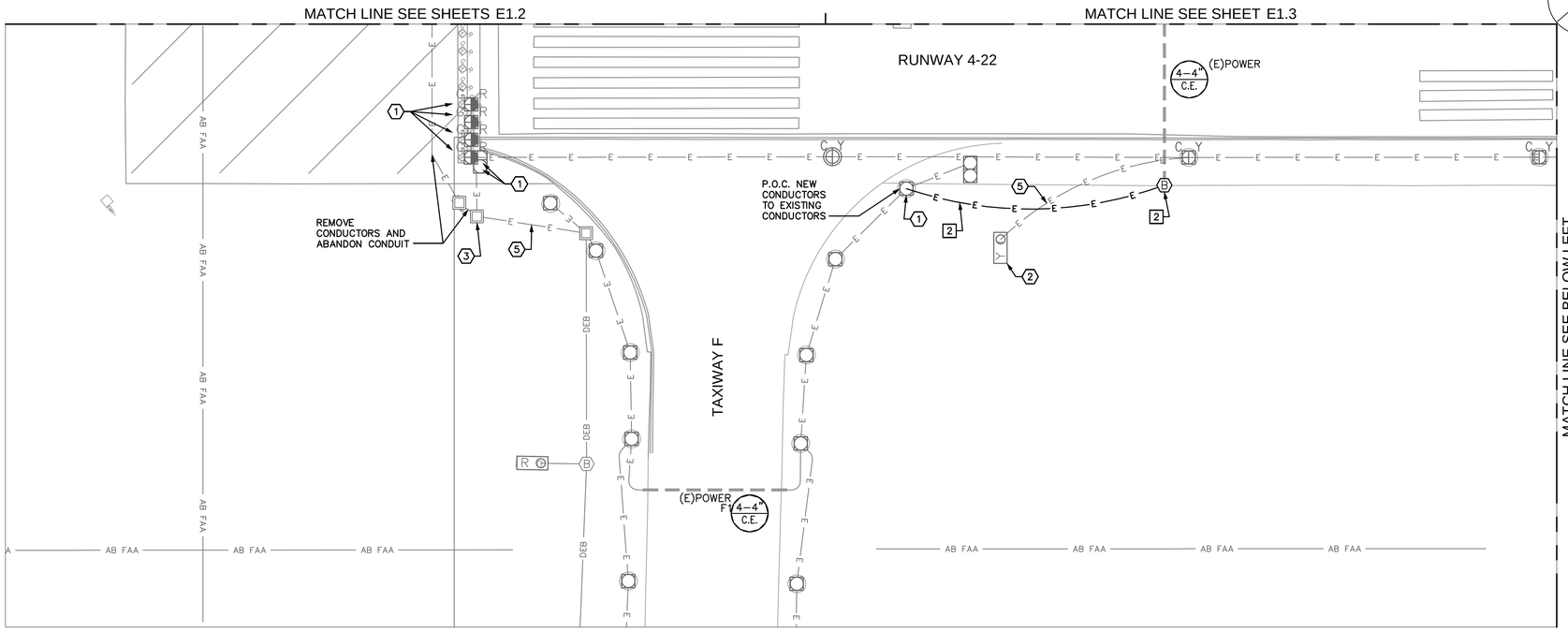
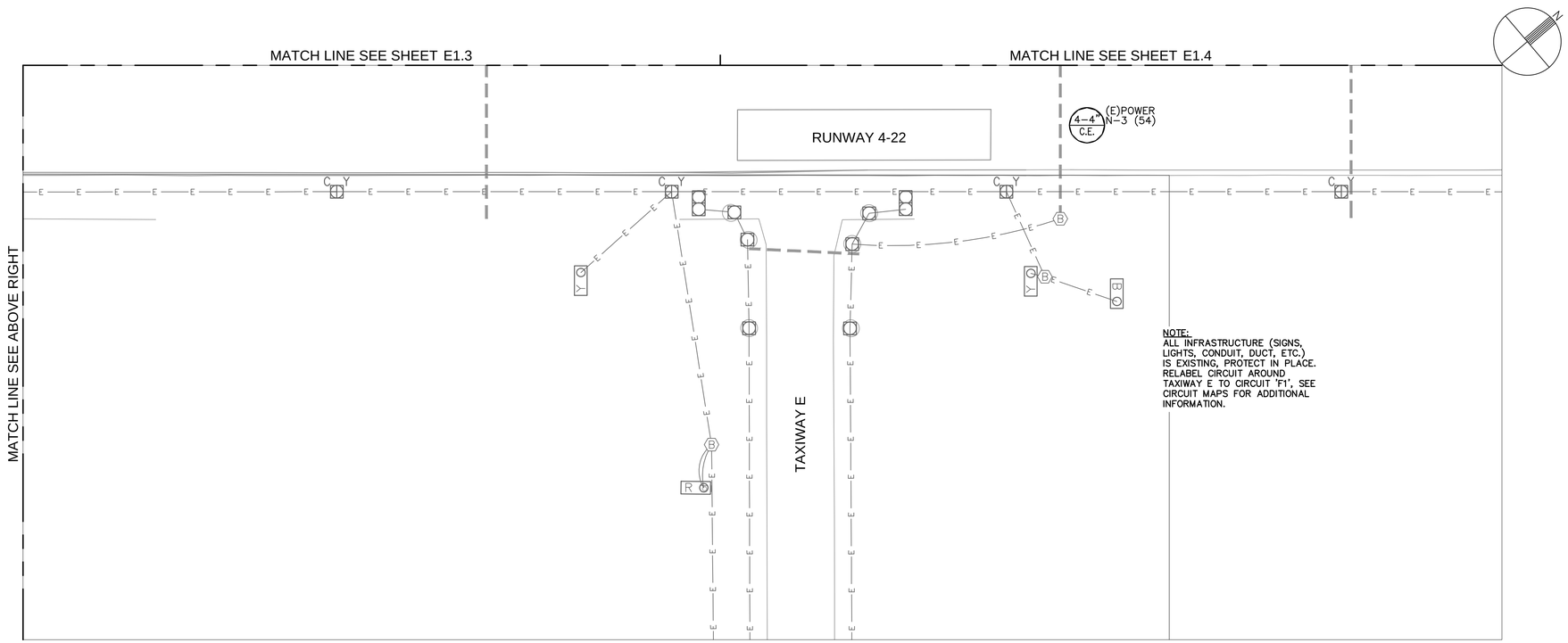




NOTE:
ALL INFRASTRUCTURE (SIGNS, LIGHTS, CONDUIT, DUCT, ETC.) IS EXISTING, PROTECT IN PLACE. RELABEL CIRCUIT AROUND TAXIWAY E TO CIRCUIT 'F1', SEE CIRCUIT MAPS FOR ADDITIONAL INFORMATION.

ELECTRICAL CONSTRUCTION NOTES

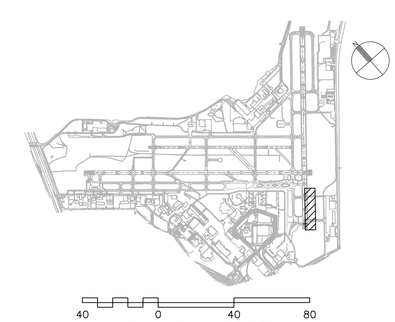
1. EXISTING LIGHT, PROTECT IN PLACE.
2. EXISTING SIGN, PROTECT IN PLACE.
3. EXISTING HANDHOLE, JUNCTION CAN PLAZA OR PULLBOX, PROTECT IN PLACE.
5. EXISTING CONDUIT, PROTECT IN PLACE. INSTALL NEW CONDUCTOR(S) AS NOTED.

BASE CAN, FOUNDATION & CONDUIT NOTES

2. NEW L-867 BASE CAN (WITH 3/8" BLANK COVER IF NOTED IN TABLE) IN EXISTING ASPHALT PAVEMENT.

GENERAL NOTES

1. SEE CIRCUIT MAPS E4 SERIES DRAWINGS FOR NEW OR TEMPORARY CIRCUITS AND FIXTURES.
2. SEE E031, E041, E051, E061, E071, E081, E091, E101 & E111 SERIES DRAWINGS FOR CONSTRUCTION PHASING.



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E1.5

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