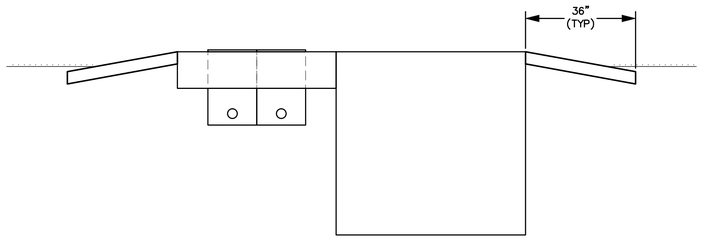
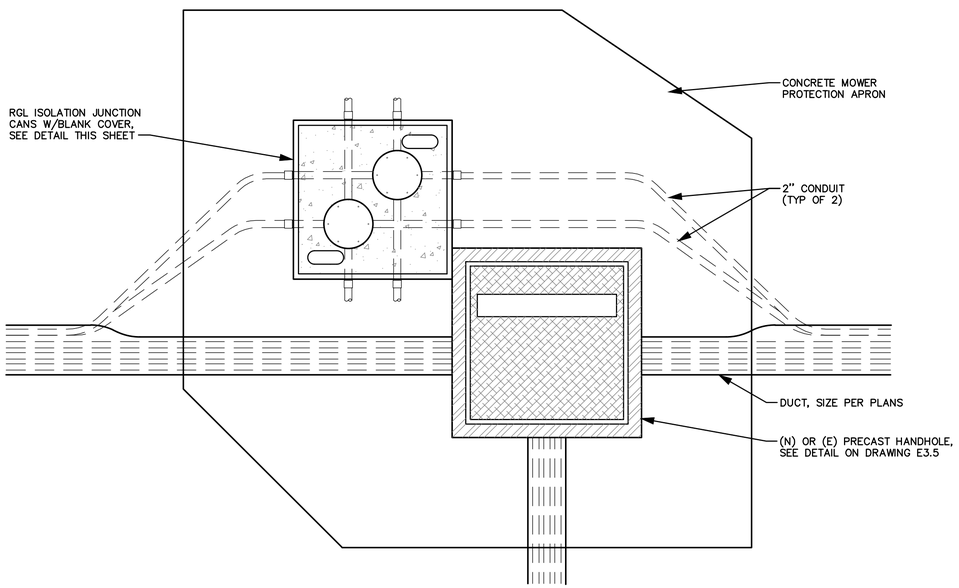


SECTION



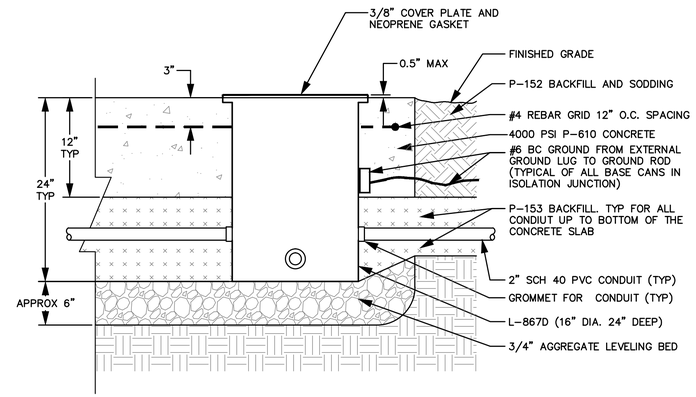
PLAN

HANDHOLE AND GUARD LIGHT AND SMGCS CIRCUIT ISOLATION DETAIL

N.T.S.

RGL ISOLATION JUNCTION CAN NOTES:

1. CONDUITS WHICH ARE NOT USED IN THE PROJECT SHALL BE CAPPED 12" OUTSIDE OF CONCRETE.
2. ORIENT JUNCTION CANS AS SHOWN ON LAYOUT PLAN SHEETS.
3. CONTRACTOR SHALL PROVIDE A METALLIC (ALUMINUM, BRASS OR BRONZE) MARKER PLATE AT EACH JUNCTION CAN INSTALLATION AS SHOWN. MARKER SHALL BE STAMPED WITH CIRCUIT IDENTIFICATIONS AS SHOWN ON LAYOUT PLAN SHEETS.
4. LETTERS AND NUMBERS SHALL BE 1" IN HEIGHT, PROPORTIONAL IN WIDTH, AND HAVE A STROKE WIDTH OF APPROXIMATELY 1/4".
4. INSTALL GROUND RODS AND GROUND LOOP AT ALL JUNCTION CAN INSTALLATIONS AS SHOWN. TWO GROUND RODS PER INSTALLATION LOCATED AT OPPOSITE CORNERS SHALL BE PROVIDED. COUNTERPOISE SHALL BE LOCATED NOMINALLY 12" BELOW EXISTING GRADE.
5. SEE LAYOUT PLAN SHEETS FOR IDENTIFICATION NUMBERS.



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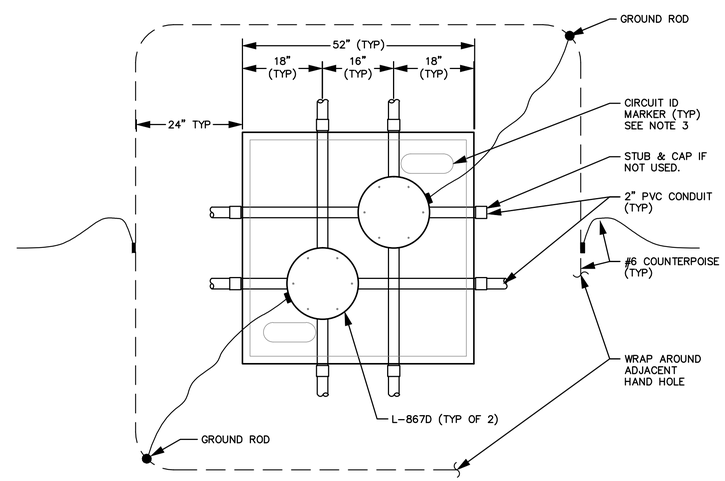

PLAN

EACH JUNCTION CAN SHALL HAVE 4 HUBS. HUBS SHALL BE PLACED IN 2 LAYERS AND THE HUBS IN ONE LAYER SHALL BE 90° APART FROM THE HUBS IN THE OTHER LAYER. EACH PAIR OF HUBS SHALL BE 180° APART.

RGL AND SMGCS ISOLATION JUNCTION CANS

N.T.S.

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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

ISSUE:	---
PROJECT NO:	33-00178 and 33-00193
FILE NAME:	_33-00193-R1ED-501
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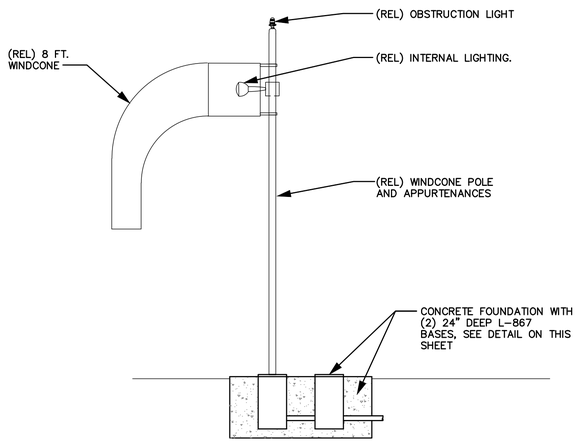
SHEET TITLE:

JUNCTION CAN
PLAZA (JCP)
AND HANDHOLE
DETAILS

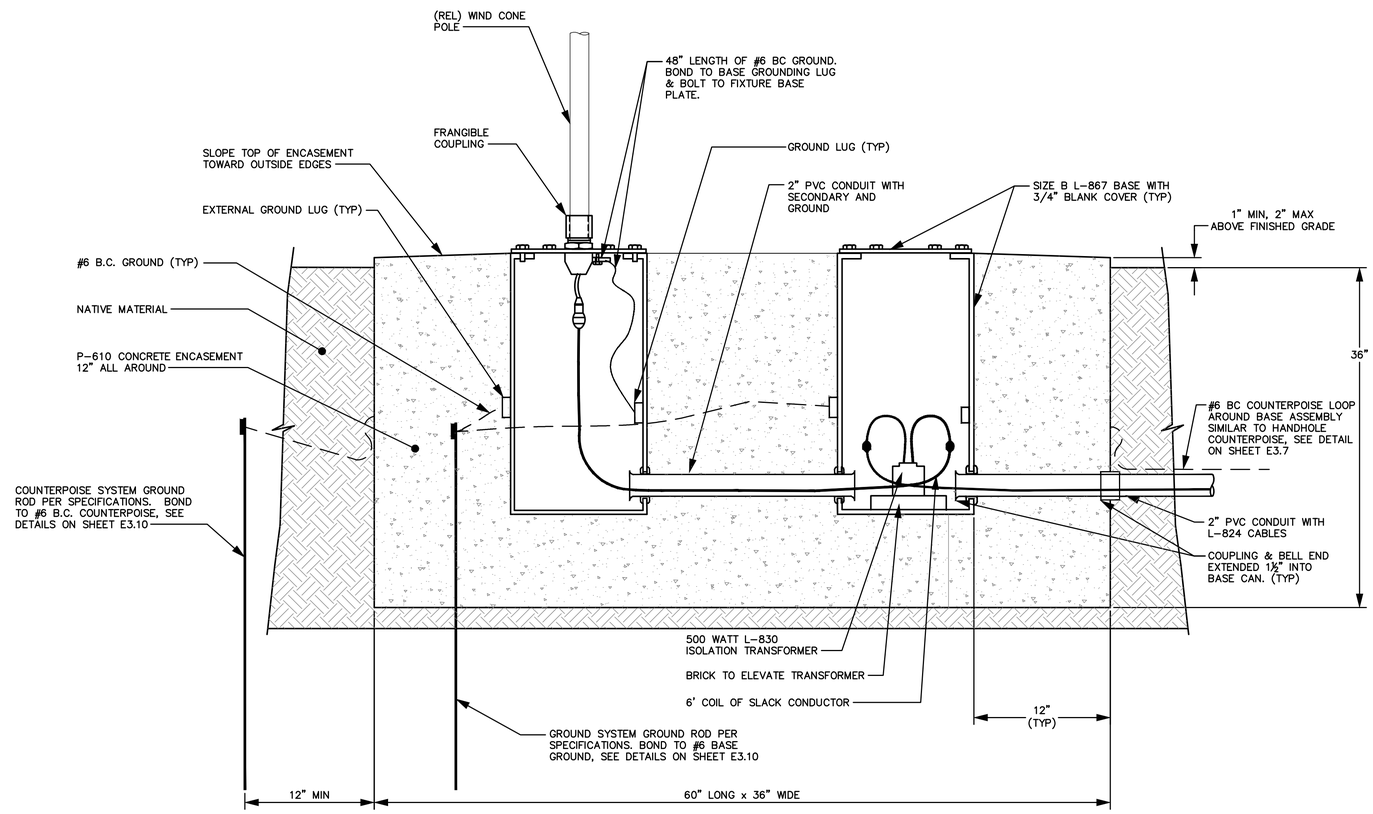
E3.8

K:\REN_Aviation\191629001-SAT Rwy & Twy Improvements\05 CADD_PACKAGE 3_33-00193-R1ED-501.dwg May 18, 2015 Peterson, Cory



SUPPLEMENTAL WINDCONE DETAIL

N.T.S.



SUPPLEMENTAL WINDCONE BASE MOUNTING DETAIL

N.T.S.

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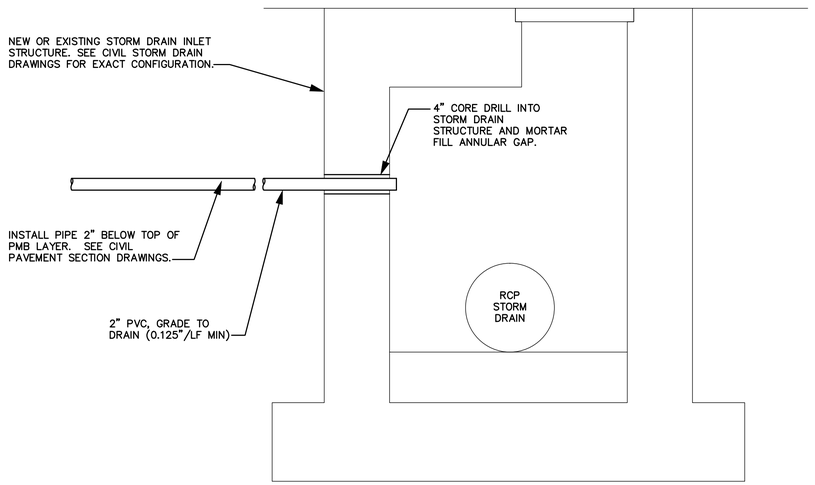
SHEET TITLE:

WINDCONE DETAILS

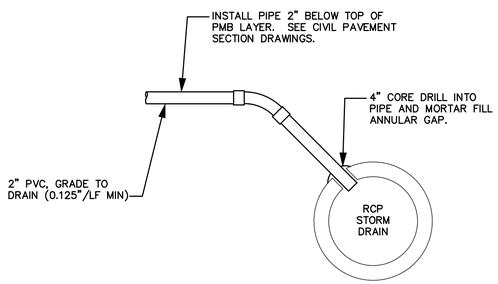
E3.9

K:\REN_Aviation\191629001-SAT Rwy & Twy Improvements\05 CADD_PACKAGE 3_33-00193-R1ED-501.dwg May 18, 2015 Peterson, Cary



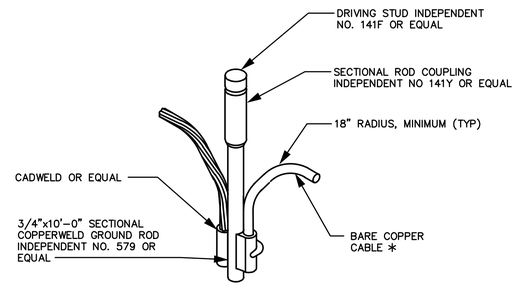
ELECTRICAL SYSTEM DRAIN CONNECTION INTO STORM DRAIN STRUCTURE

N.T.S.



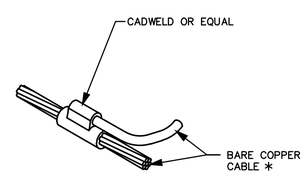
ELECTRICAL SYSTEM DRAIN CONNECTION INTO STORM DRAIN PIPE

N.T.S.



COUNTERPOISE SYSTEM GROUND ROD DETAIL

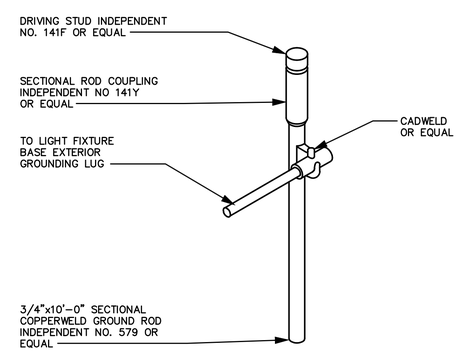
N.T.S.



COUNTERPOISE SYSTEM CABLE CONNECTION DETAIL

N.T.S.

* BARE COPPER CABLE –
#4/0 FOR FAA FACILITIES,
#1/0 FOR FAA DUCTS,
#6 SOLID FOR AIRFIELD LIGHTING



LIGHT BASE CAN GROUNDING DETAIL

N.T.S.

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LICENSED
PROFESSIONAL ENGINEER

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FILE NAME: _33-00193-R1ED-501

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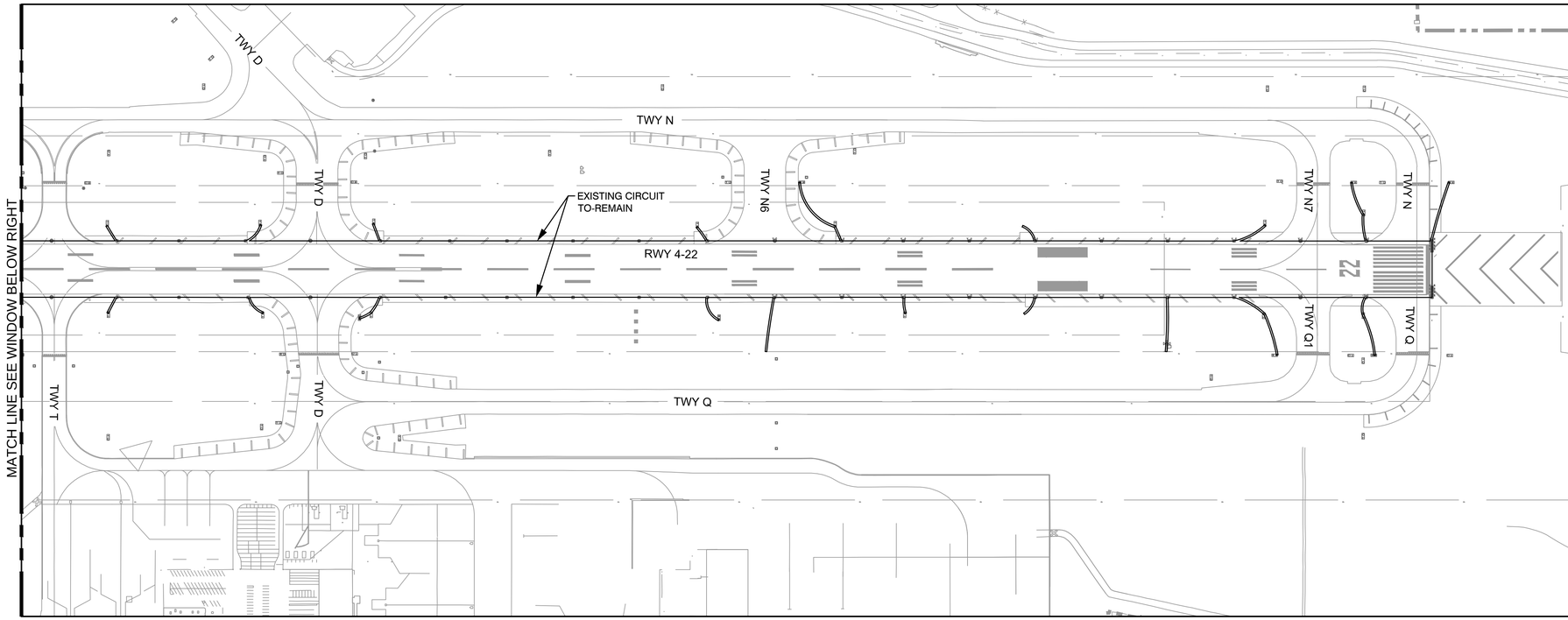
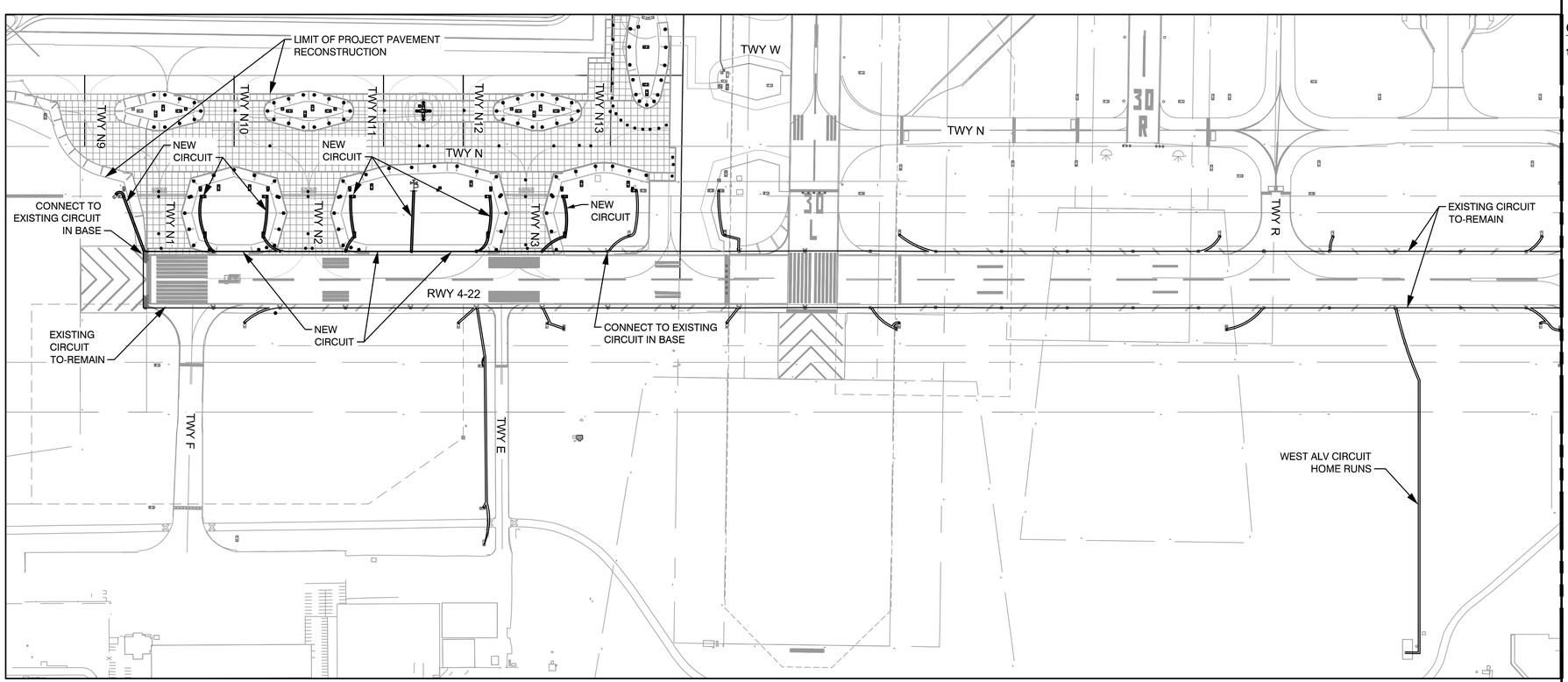
SHEET TITLE:

MISCELLANEOUS DETAILS

E3.10

K:\REN_Aviation\191629001-SAT Rwy & Twy Improvements\05 CAD_PACKAGE 3_33-00193-R1ED-501.dwg May 18, 2015 Peterson, Cory





GENERAL NOTES

1. ALL WORK ON THIS DRAWING IS PART OF THE BASE BID.

DATA TABLE - CIRCUIT '4-22 EDGE' (# N/A)				
QUANTITY	ITEM DESC.	FT./ITEM *		TOTAL LENGTH
84	L-862	x 6 '	=	504'
16	L-850	x 6 '	=	96'
61	SIGNS	x 6 '	=	366'
2	WINDCONES	x 6 '	=	12'
0	L-867 or L-868	x	=	0'
0	HANDHOLES	x2*12 '	=	0'
3	MANHOLES	x2*18 '	=	108'
* SLACK CABLE PER SPECS				
ITEM TOTAL LENGTH			=	1,086'
+ PLAN CIRCUIT LENGTH			=	30,764'
= TOTAL CIRCUIT LENGTH			=	31,850'

CIRCUIT DEFINITION - CIRCUIT '4-22 EDGE' (# N/A)		
CABLE SIZE	CABLE TYPE	DESCRIPTION
#6	L-824 5kV TYPE C	AIRFIELD LIGHTING PER L-108
TOTAL CIRCUIT LENGTH INSTALLED IN THE BASE BID 4,100'		

N

200 0 200 400

SCALE IN FEET

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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

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FILE NAME: 33-00193-R1EC-601
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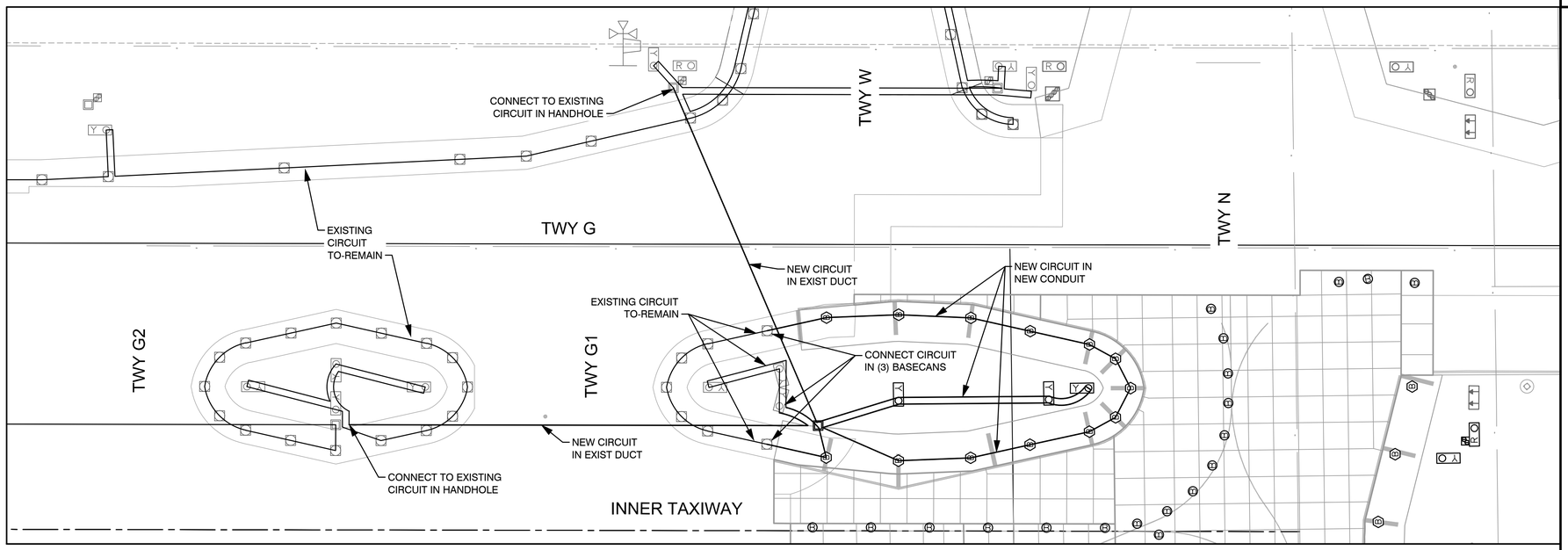
SHEET TITLE:

CIRCUIT MAP
12R-30L EDGE
(CKT XX)

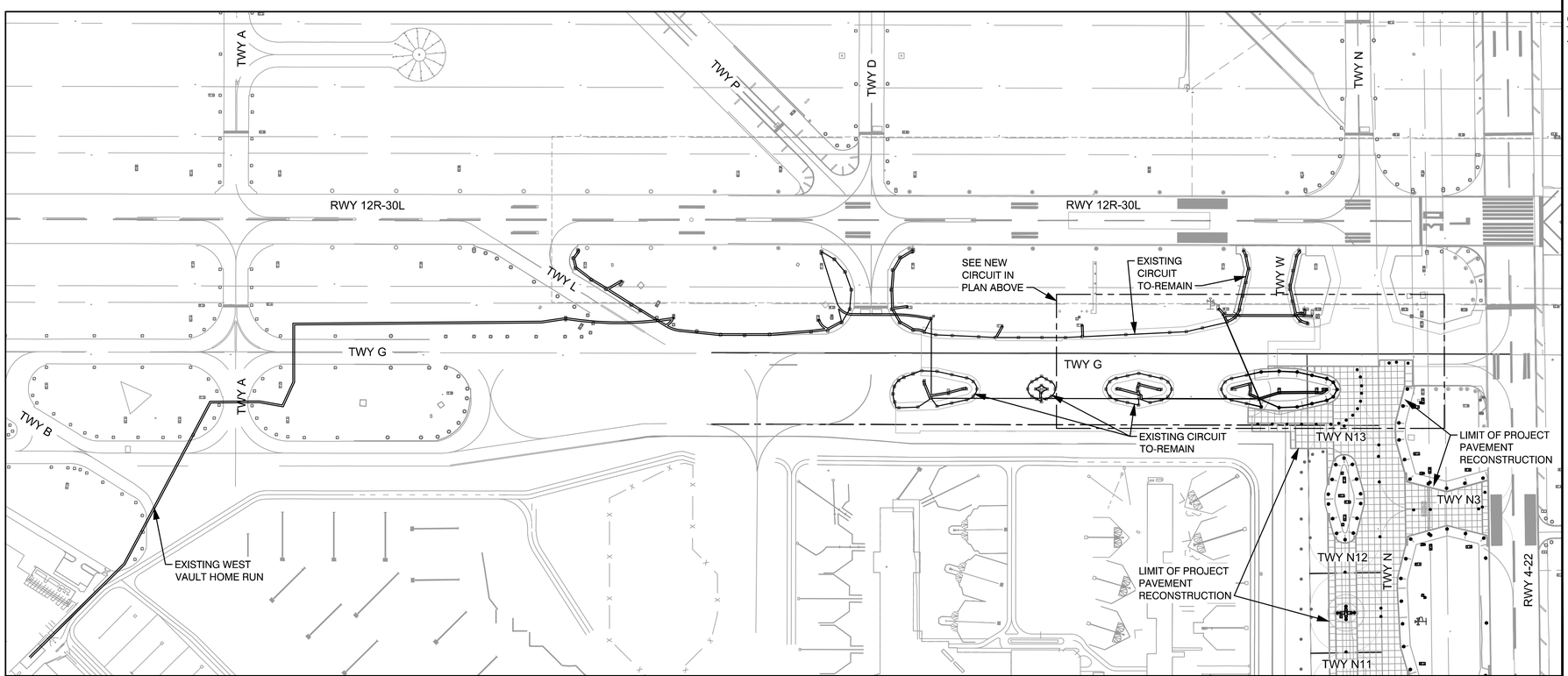
E4.1

SHEET NO. 51 OF 140

K:\REN_Aviation\191629001-SAT Rwy & Twy Improvements\05 CADD_PACKAGE 3_33-00193-REC-601.dwg May 18, 2015 Peterson, Cory



50 0 50 100
SCALE IN FEET



GENERAL NOTES

1. ALL WORK ON THIS DRAWING IS PART OF THE BASE BID.

DATA TABLE - CIRCUIT 'T/W EDGE G-3' (# 6)				
QUANTITY	ITEM DESC.	FT./ITEM *		TOTAL LENGTH
12	L-861T	x 6 '	=	72'
116	L-861T(L)	x 6 '	=	696'
23	SIGNS	x 6 '	=	138'
		x 6 '	=	'
		x 2*6 '	=	'
		x2*12 '	=	'
14	MANHOLES	x2*18 '	=	504'
* SLACK CABLE PER SPECS				
ITEM TOTAL LENGTH = 1,410'				
+ PLAN CIRCUIT LENGTH = 16,836'				
= TOTAL CIRCUIT LENGTH = 18,245'				

CIRCUIT DEFINITION - CIRCUIT 'T/W EDGE G-3' (# 6)		
CABLE SIZE	CABLE TYPE	DESCRIPTION
#8	L-824 5kV TYPE C	AIRFIELD LIGHTING PER L-108
TOTAL CIRCUIT LENGTH INSTALLED IN THE BASE BID 2,100'		

N

200 0 200 400
SCALE IN FEET

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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

ISSUE:	----
PROJECT NO:	33-00178 and 33-00193
FILE NAME:	_33-00193-R1EC-601
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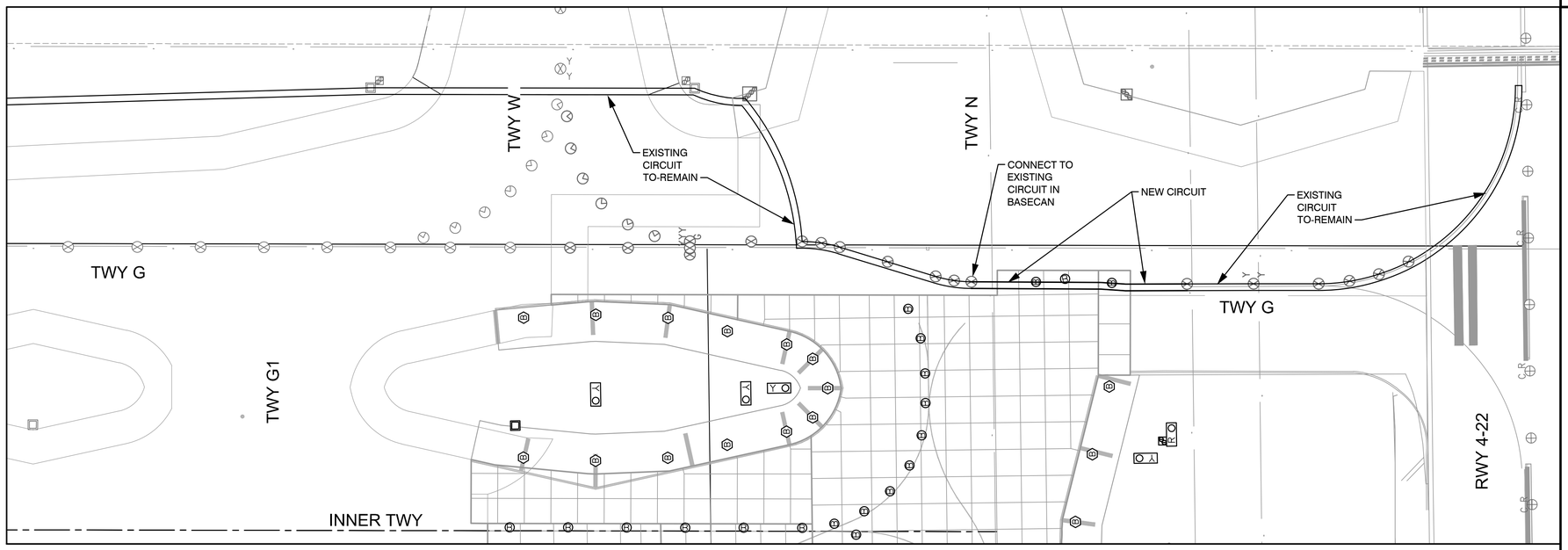
SHEET TITLE:

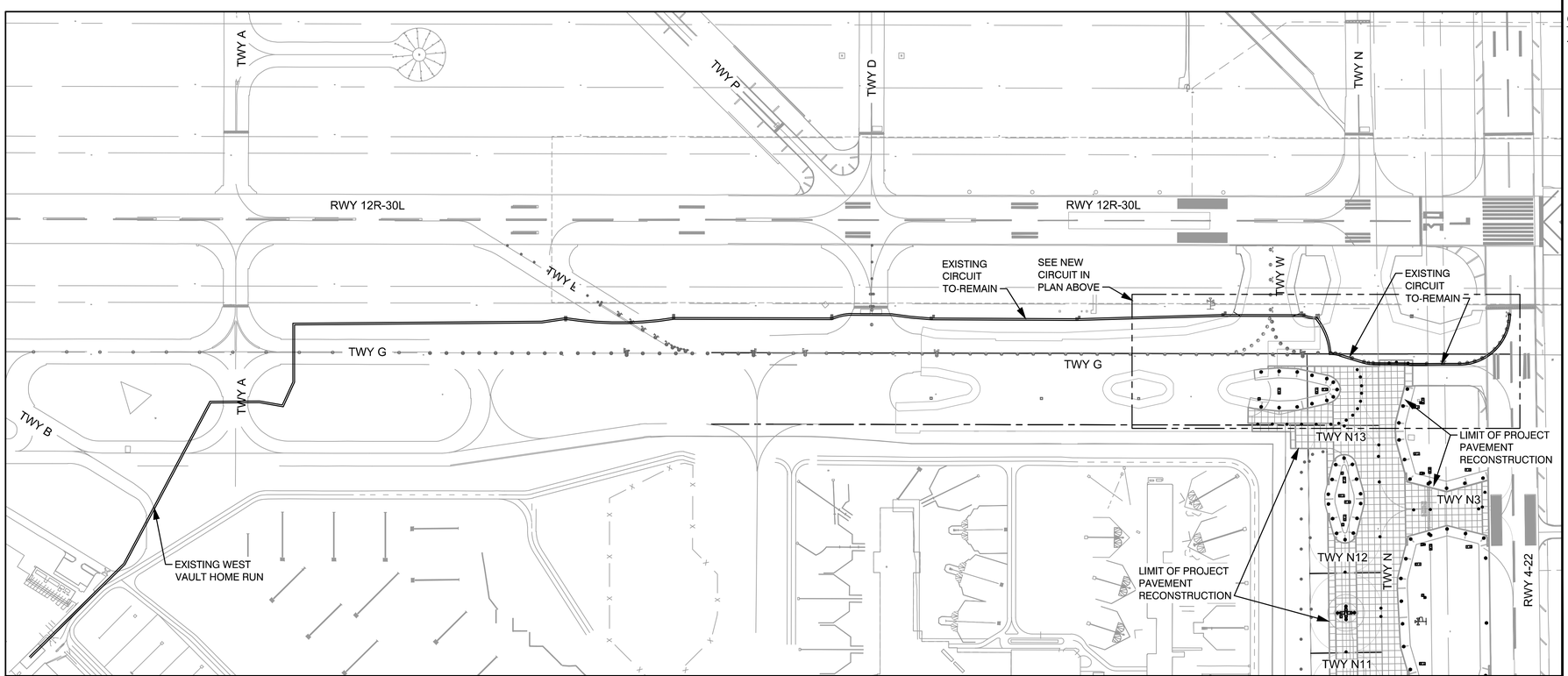
CIRCUIT MAP G-3
(CKT 6)

E4.2

K:\REN_Aviation\191629001-SAT Rwy & Twy Improvements\05 CADD_PACKAGE 3_33-00193-R1EC-601.dwg May 18, 2015 Peterson, Cory



50 0 50 100
SCALE IN FEET



200 0 200 400
SCALE IN FEET

GENERAL NOTES

1. ALL WORK ON THIS DRAWING IS PART OF THE BASE BID.

DATA TABLE - CIRCUIT 'G-3 C/L' (#)				
QUANTITY	ITEM DESC.	FT./ITEM *		TOTAL LENGTH
20	L-852	x 6 '	=	120'
		x 6 '	=	'
		x 6 '	=	'
		x 6 '	=	'
		x 2*6 '	=	'
2	HANDHOLES	x2*12 '	=	48'
12	MANHOLES	x2*18 '	=	432'
* SLACK CABLE PER SPECS				
ITEM TOTAL LENGTH			=	600'
+ PLAN CIRCUIT LENGTH			=	10,760'
= TOTAL CIRCUIT LENGTH			=	11,360'

CIRCUIT DEFINITION		
CABLE SIZE	CABLE TYPE	DESCRIPTION
#8	L-824 5kV TYPE C	AIRFIELD LIGHTING PER L-108
TOTAL CIRCUIT LENGTH INSTALLED IN THIS PROJECT 400'		

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TERMINAL AREA TAXIWAY IMPROVEMENTS - (PACKAGE 3)

STATE OF TEXAS
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84081
LICENSED
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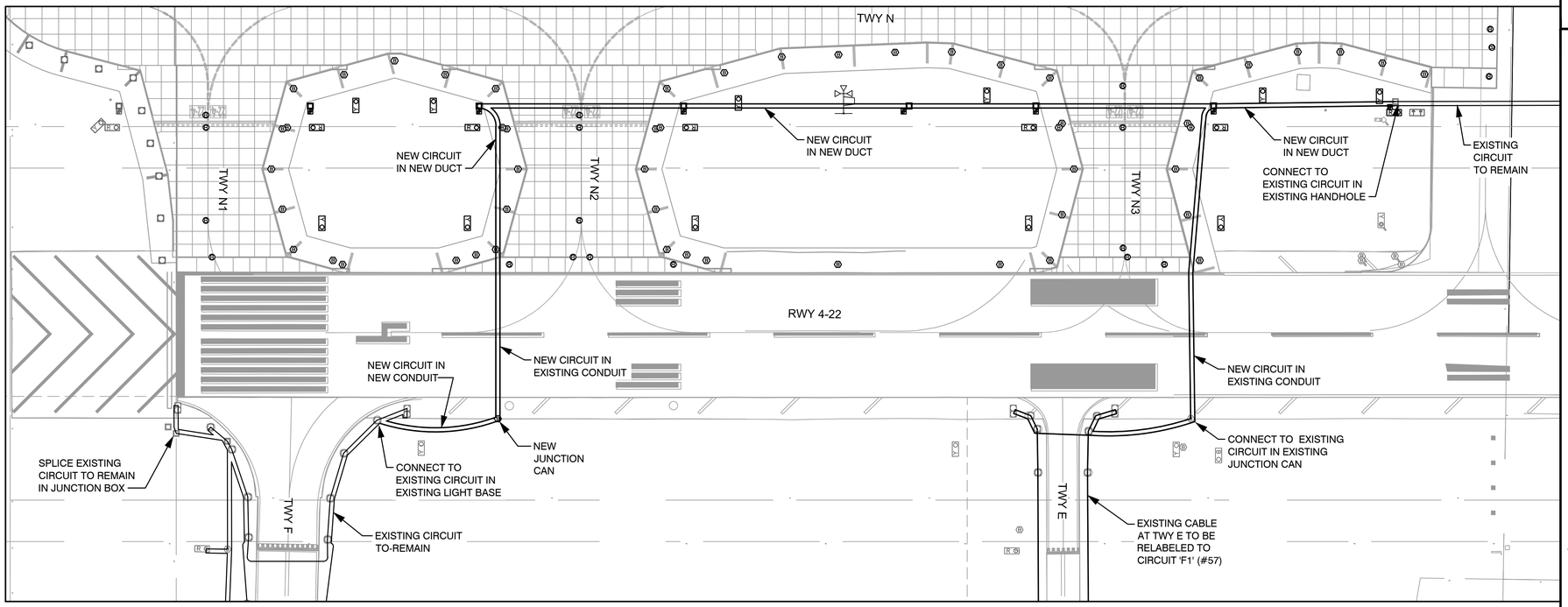
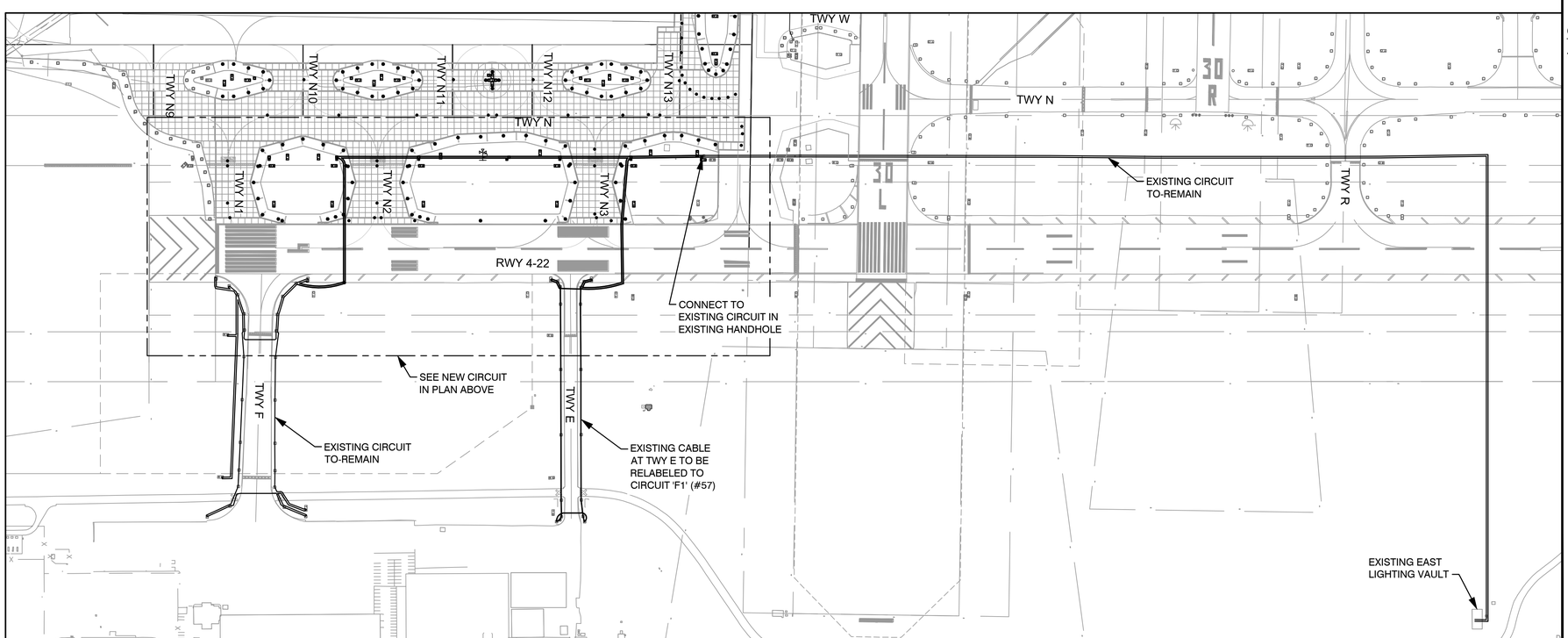
SHEET TITLE:

CIRCUIT MAP G-3
CL (CKT X)

E4.3

K:\REN_Aviation\191629001-SAT Rwy & Twy Improvements\05 CADD_PACKAGE 3_33-00193-R1EC-601.dwg May 18, 2015 Peterson, Cory





80 0 80 160
SCALE IN FEET

GENERAL NOTES

1. ALL WORK ON THIS DRAWING IS PART OF THE BASE BID.

DATA TABLE - CIRCUIT 'TWY F1 EDGE' (# 57)

QUANTITY	ITEM DESC.	FT./ITEM *		TOTAL LENGTH
45	L-861T	x 6 '	=	270'
3	SIGNS	x 6 '	=	18'
4	L-867	x 6 '	=	24'
		x 6 '	=	0'
		x 6 '	=	0'
7	HANDHOLES	x2*12 '	=	168'
8	MANHOLES	x2*18 '	=	288'
* SLACK CABLE PER SPECS				
ITEM TOTAL LENGTH			=	768'
+ PLAN CIRCUIT LENGTH			=	17,602'
= TOTAL CIRCUIT LENGTH			=	18,370'

CIRCUIT DEFINITION - CIRCUIT 'TWY F1 EDGE' (# 57)

CABLE SIZE	CABLE TYPE	DESCRIPTION
#6	L-824 5kV TYPE C	AIRFIELD LIGHTING PER L-108
TOTAL CIRCUIT LENGTH INSTALLED IN BASE BID		4,200'

200 0 200 400
SCALE IN FEET

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SAN ANTONIO AIRPORT SYSTEM

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TERMINAL AREA TAXIWAY IMPROVEMENTS - (PACKAGE 3)

STATE OF TEXAS
ERIC C. LOVEJOY
84081
LICENSED
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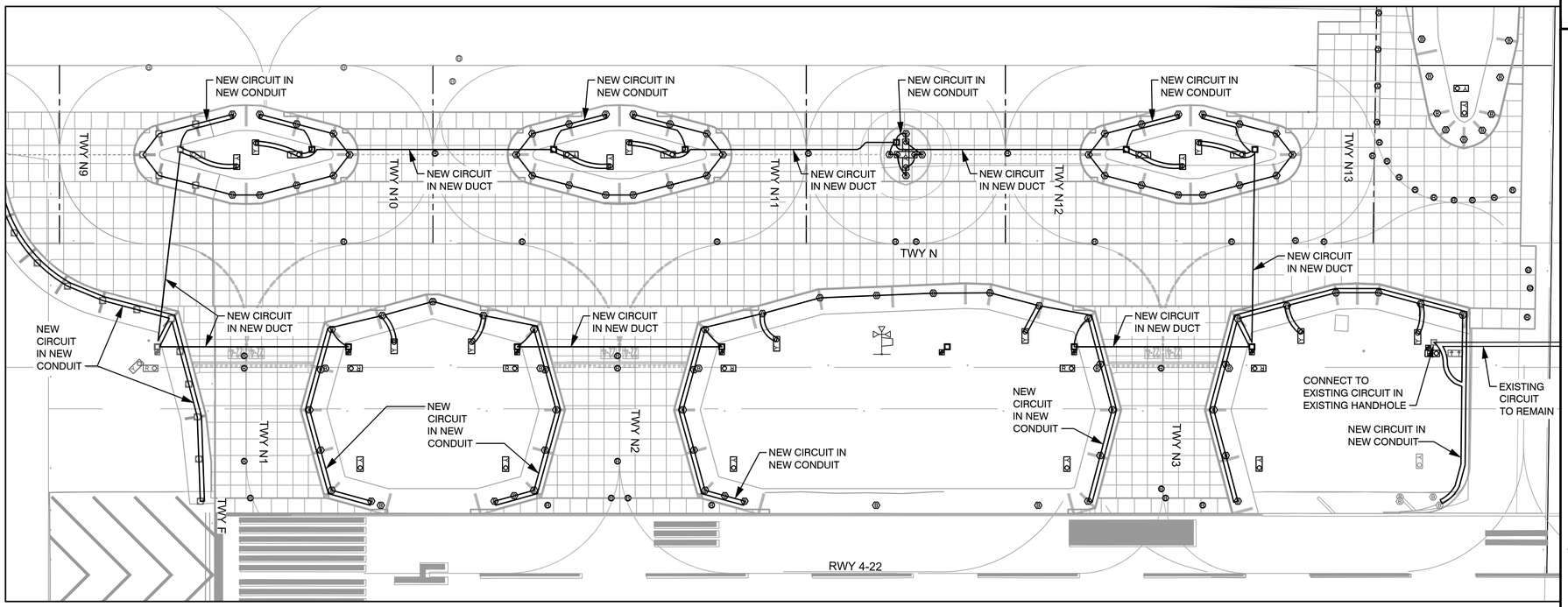
SHEET TITLE:

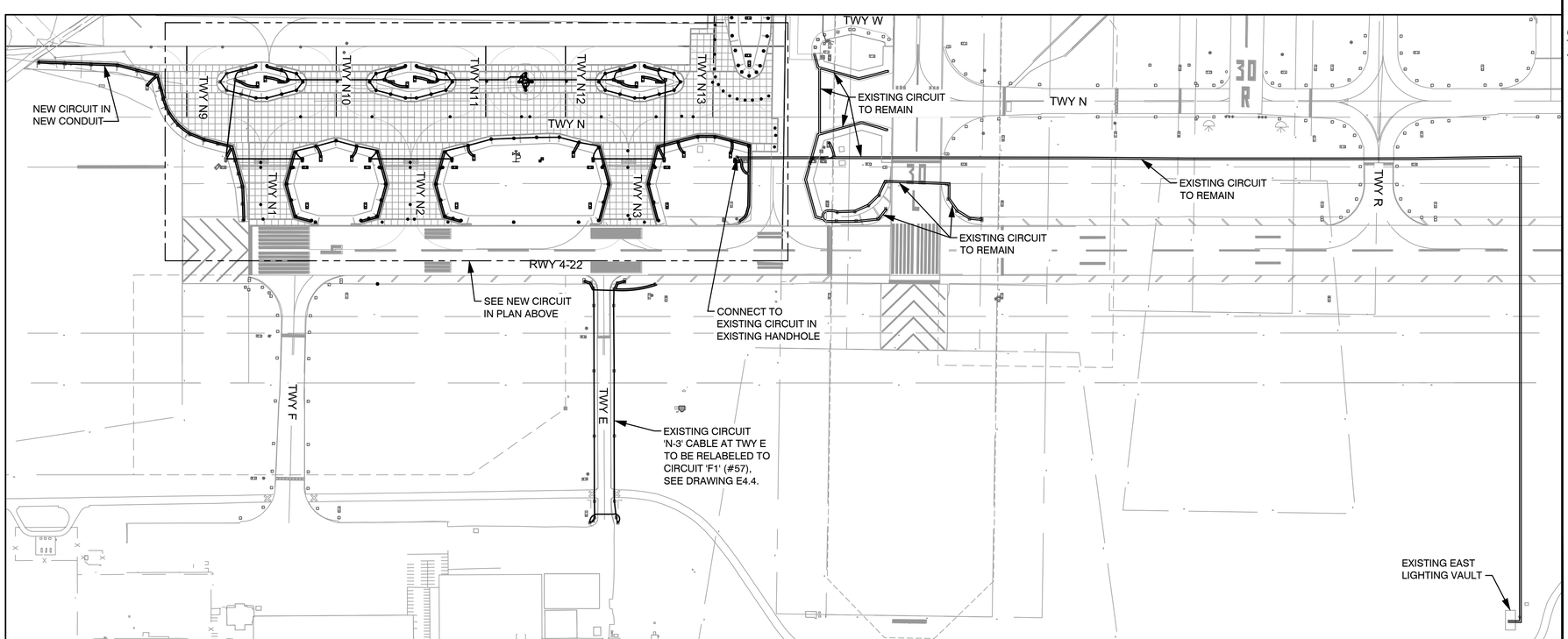
CIRCUIT MAP
F1 (CKT 57)

E4.4

SHEET NO. 54 OF 140

K:\REN_Aviation\191629001-SAT Rwy & Twy Improvements\05 CADD_PACKAGE 3_33-00193-R1EC-601.dwg May 18, 2015 Peterson, Cary





GENERAL NOTES

1. ALL WORK ON THIS DRAWING IS PART OF THE BASE BID.

DATA TABLE - CIRCUIT 'TWY N3 EDGE' (# 54)			
QUANTITY	ITEM DESC.	FT./ITEM *	TOTAL LENGTH
–	L–861T	x 6 '	= –'
138	L–861T(L)	x 6 '	= 828'
4	L–867	x 6 '	= 24'
24	SIGNS	x 6 '	= 144'
		x 6 '	= '
17	HANDHOLES	x2*12 '	= 408'
8	MANHOLES	x2*18 '	= 288'
* SLACK CABLE PER SPECS			
ITEM TOTAL LENGTH = 1,692'			
+ PLAN CIRCUIT LENGTH = 23,468'			
= TOTAL CIRCUIT LENGTH = 25,160'			

CIRCUIT DEFINITION - CIRCUIT 'TWY N3 EDGE' (# 54)		
CABLE SIZE	CABLE TYPE	DESCRIPTION
#8	L–824 5kV TYPE C	AIRFIELD LIGHTING PER L–108
TOTAL CIRCUIT LENGTH INSTALLED IN THE BASE BID 13,000'		

80 0 80 160
SCALE IN FEET

200 0 200 400
SCALE IN FEET

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STATE OF TEXAS
ERIC C. LOVEJOY
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LICENSED
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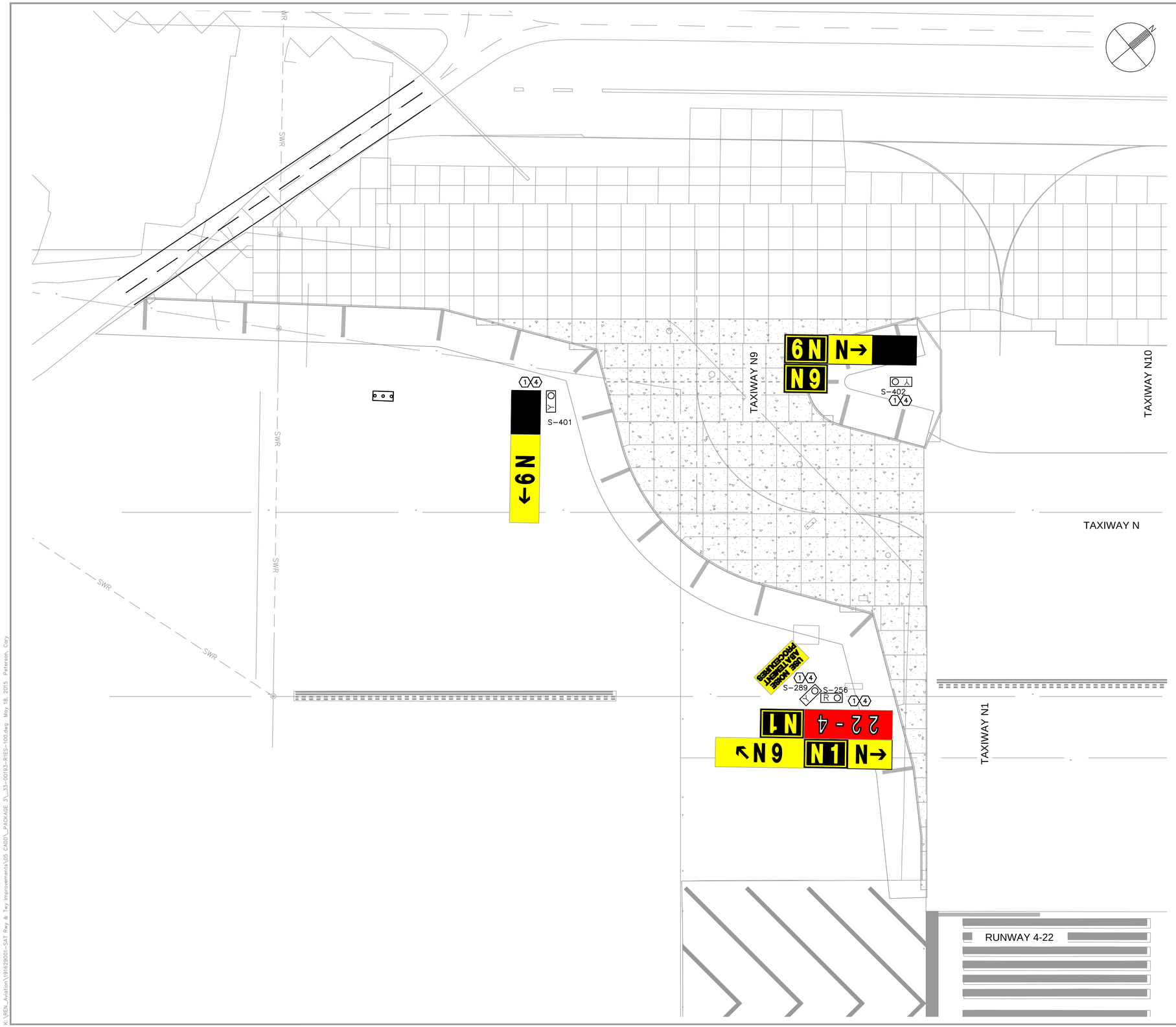
SHEET TITLE:

CIRCUIT MAP
N-3 (CKT 52)

E4.5

K:\REN_Aviation\191629001-SAT Rwy & Twy Improvements\05 CADD_PACKAGE 3_33-00193-R1EC-601.dwg May 18, 2015 Peterson, Cory

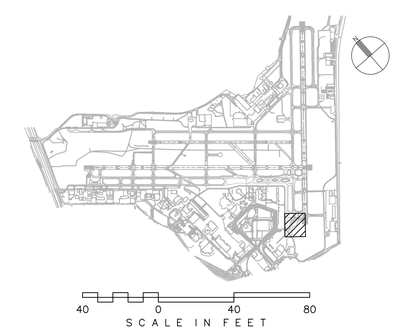


SIGN SHEET NOTES

1. NEW CONCRETE FOUNDATION INSTALLED IN THIS PHASE. SEE DETAILS ON E3.1. SEE E2 SERIES DRAWINGS FOR LOCATIONS.
4. SIGN LEGEND FOR NEW SIGN INSTALLED IN THIS PHASE ON CONCRETE FOUNDATION OR BASE ASSEMBLY.

GENERAL NOTES

1. SEE E1 SERIES DRAWINGS FOR ELECTRICAL SYSTEM LAYOUT PLANS.
2. SEE E2 SERIES DRAWINGS FOR NEW AIRFIELD SIGN LOCATIONS.



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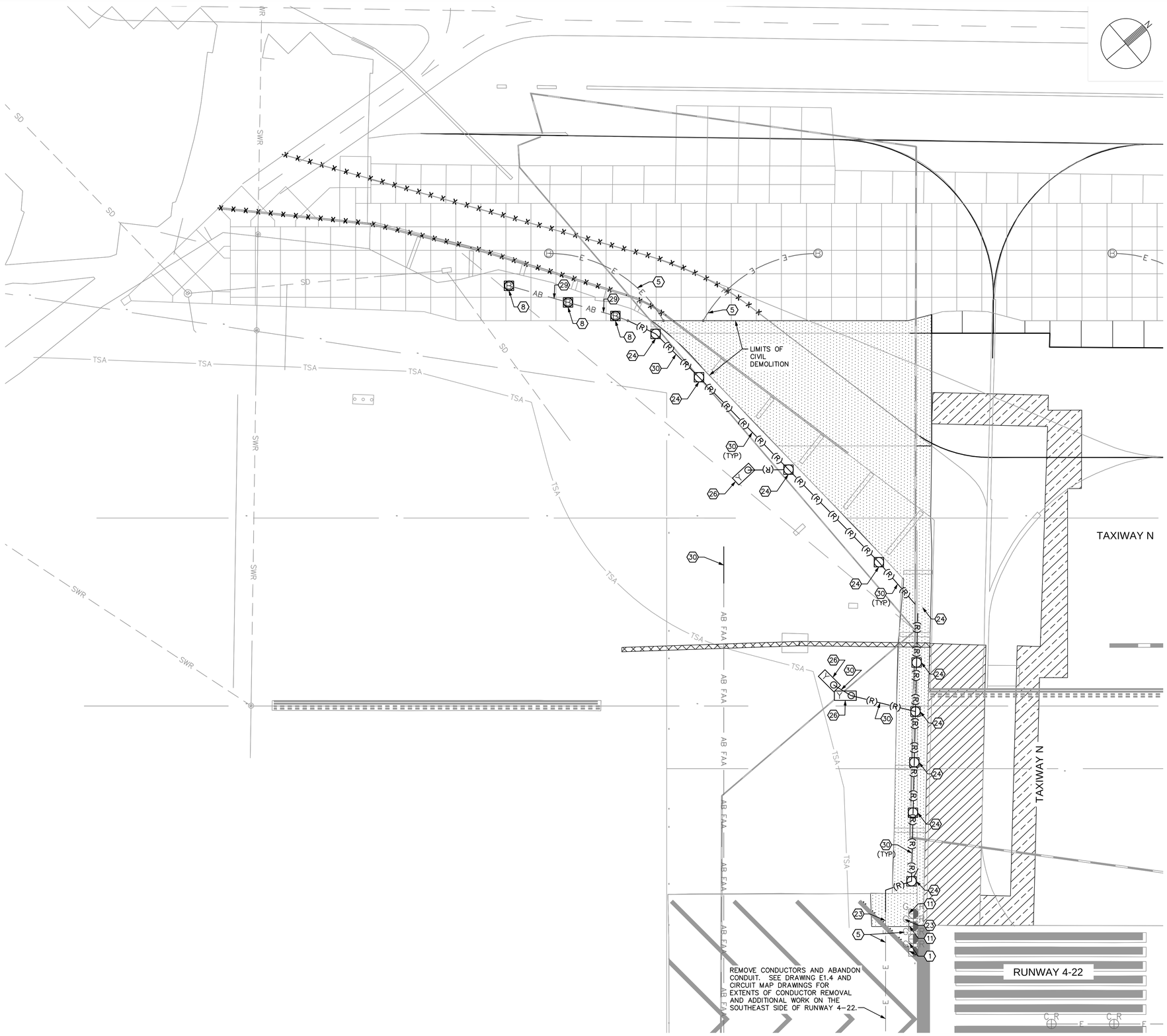
SHEET TITLE:

AIRFIELD SIGN PLAN - BASE BID

E5.1

SHEET NO. 56 OF 140

K:\REN_Aviation\191629001-SAT Rwy & Twy Improvements\05 CADD_PACKAGE 3_33-00193-R1ES-100.dwg May 18, 2015 Peterson, Cary



ELECTRICAL DEMOLITION NOTES

1. EXISTING LIGHT, PROTECT IN PLACE.
5. EXISTING CONDUIT, PROTECT IN PLACE. REMOVE CONDUCTOR(S) AS NOTED.
8. SALVAGE EXISTING TAXIWAY EDGE LIGHT FOR REINSTALLATION. SALVAGE EXISTING ISOLATION TRANSFORMER TO THE OWNER. SEE E1 SERIES DRAWINGS FOR REINSTALLATION OF EDGE LIGHT.
11. SALVAGE EXISTING RUNWAY THRESHOLD\END LIGHT FOR REINSTALLATION. SALVAGE EXISTING ISOLATION TRANSFORMER TO THE OWNER. SEE E1 SERIES DRAWINGS FOR REINSTALLATION OF THRESHOLD/END LIGHT.
23. REMOVE EXISTING CONDUIT TO LIMITS OF DEMOLITION OR AS NOTED. PROTECT FOR CONNECTION TO NEW CONDUIT. REMOVE CONDUCTORS BACK TO EXISTING STRUCTURE TO REMAIN OR AS NOTED.
24. REMOVE EXISTING ELEVATED LIGHT FIXTURE, BASECAN AND ISOLATION TRANSFORMER FROM SITE.
26. REMOVE EXISTING SIGN, FOUNDATION AND ISOLATION TRANSFORMER FROM SITE.
29. REMOVE EXISTING CONDUCTORS BACK TO EXISTING STRUCTURE TO REMAIN OR AS NOTED. ABANDON CONDUIT IN PLACE.
30. REMOVE EXISTING CONDUIT. REMOVE CONDUCTORS BACK TO EXISTING STRUCTURE TO REMAIN OR AS NOTED.

FIELD SURVEY NOTE

1. PRIOR TO DEMOLITION, THE CONTRACTOR SHALL FIELD SURVEY LOCATIONS OF THE INDICATED EXISTING RUNWAY AND TAXIWAY FIXTURES TO BE SALVAGED FOR REINSTALLATION ON NEW BASES SO THAT THE FIXTURES MAY BE REINSTALLED IN THE SAME LOCATIONS.

GENERAL NOTES

1. SEE E1 SERIES DRAWINGS FOR ELECTRICAL LAYOUT PLANS.
2. SEE E2 SERIES DRAWINGS & DATA TABLES FOR NEW FIXTURE, HANDHOLE, JUNCTION CAN, BASE CAN, AND SIGN FOUNDATION LOCATIONS.
3. SEE CIRCUIT MAPS E4 SERIES DRAWINGS FOR NEW OR TEMPORARY CIRCUITS AND FIXTURES.
4. SEE E5 SERIES DRAWINGS FOR AIRFIELD SIGN LEGENDS.

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
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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

ISSUE:	----
PROJECT NO:	33-00178 and 33-00193
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ELECTRICAL DEMOLITION PLAN - BASE BID

E6.1

SHEET NO. 57 OF 140

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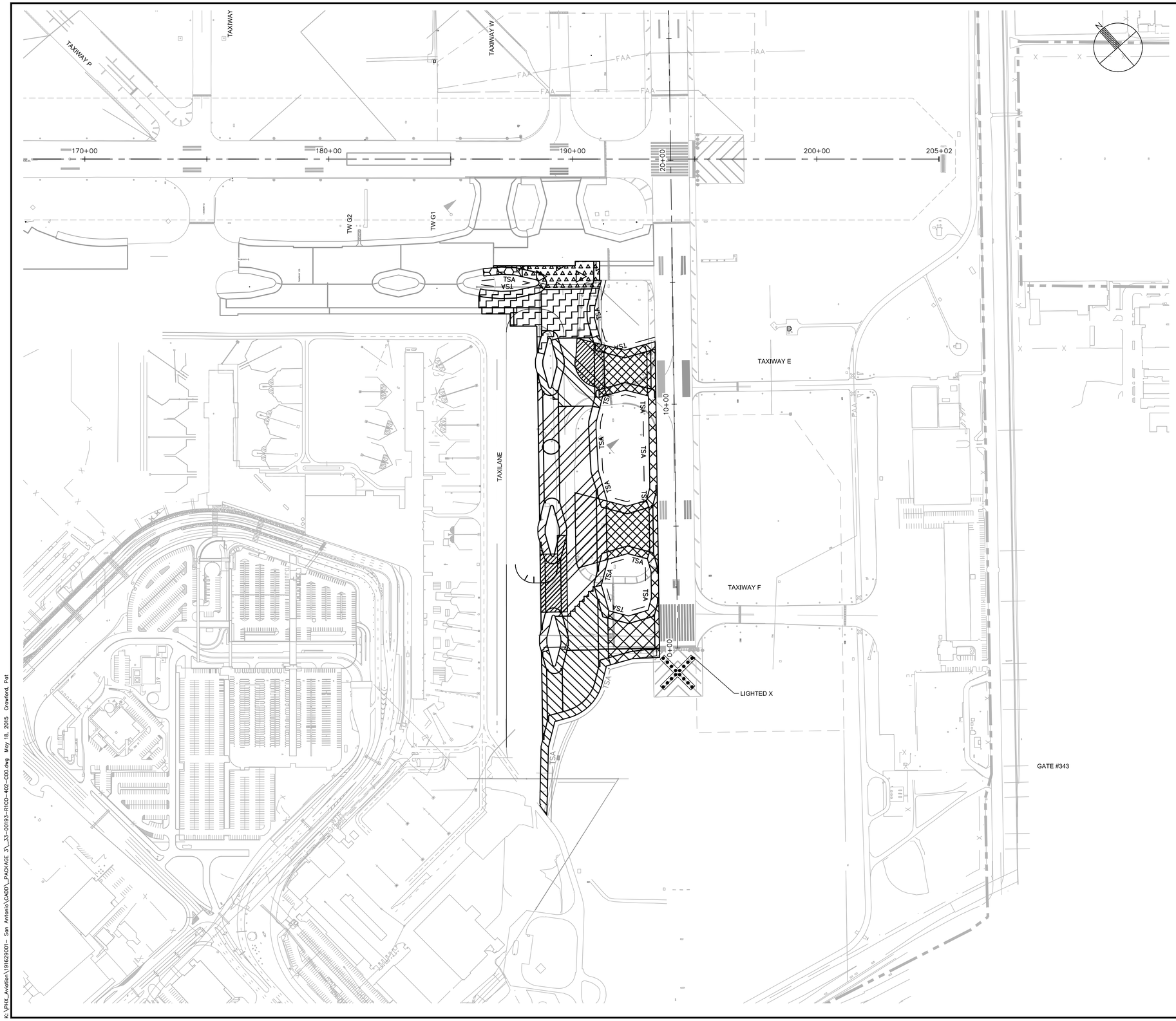

LEGEND

- ALTERNATE 1 PHASE 1 (55 DAYS)(03/11/16 START DATE)
- ALTERNATE 1 PHASE 2 (45 DAYS)(ALL NIGHTWORK)
- ALTERNATE 1 PHASE 3A (50 DAYS), PHASE 3B (60 DAYS)
- ALTERNATE 1 PHASE 4 (95 DAYS)
- ALTERNATE 1 PHASE 5 (125 DAYS)
- ALTERNATE 1 PHASE 6 (70 DAYS)
- ALTERNATE 1 PHASE 7 (85 DAYS)
- ALTERNATE 1 PHASE 8 (55 DAYS)
- ALTERNATE 1 PHASE 9 (50 DAYS)
- CONTRACTOR FIELD OFFICE, STAGING AND STORAGE AREA

GENERAL NOTES

1. RUNWAY 4–22 AND 12R–30L WILL NOT BE CLOSED AT THE SAME TIME.
2. IT IS THE INTENT TO USE HAUL ROUTE A WHILE RUNWAY 4–22 IS CLOSED AND HAUL ROUTE B EITHER WHEN RUNWAY 4–22 IS OPEN OR CLOSED. HOWEVER, THE AIRPORT HAS THE AUTHORITY TO CHANGE THE HAUL ROUTES WHEN REQUIRED, DUE TO WIND DIRECTION AND TRAFFIC FLOW. THE CONTRACTOR WILL BE PROVIDED NOTICE OF THE CHANGE AS SOON AS PRACTICAL (EACH MORNING). NO ADDITIONAL PAYMENT WILL BE MADE FOR ALTERING THE ROUTE.
3. THE CONTRACTOR SHALL BE AWARE THAT CONSTRUCTION WILL BE ADJACENT TO ACTIVE AIRCRAFT OPERATIONS. CONSTRUCTION TRAFFIC SHALL YIELD TO AIRCRAFT AT ALL TIMES. THE CONTRACTOR SHALL NOT MOVE ANY EQUIPMENT ON ANY ACTIVE AIRPORT OPERATIONS AREA WITHOUT AN OPERATIONS OR MAINTENANCE STAFF ESCORT. DELAYS AND PRECAUTIONS RESULTING FROM AIRCRAFT MOVEMENTS SHOULD BE EXPECTED. EXPENSES ASSOCIATED WITH ANY DELAYS ARE INCIDENTAL TO THE PROJECT (NPI).
4. PORTABLE LIGHTED RUNWAY CLOSURE MARKERS (LIGHTED "X") WILL BE PROVIDED AND MAINTAINED BY THE CONTRACTOR THROUGHOUT THE DURATION OF ALTERNATE 1 PHASES 1–3, REFER TO DETAIL 1, SHEET C2.5.
5. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN LOW PROFILE BARRICADES (EITHER LINKED OR SEPARATED), LIGHTS AND FLAGS FOR RUNWAY/TAXIWAY CLOSURES AS INDICATED ON THE CONSTRUCTION PHASING PLANS, REFER TO DETAIL SHEET C2.5. THE CONTRACTOR SHALL PLACE THE LOW PROFILE BARRICADES AS SHOWN ON EACH PHASING PLAN OR AS DIRECTED BY THE SAT OPERATIONS PRIOR TO BEGINNING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING PROPER POSITIONING OF LOW PROFILE BARRICADES THROUGHOUT THE DURATION OF THE PROJECT (NPI).
6. THE CONTRACTOR SHALL COORDINATE WITH OPERATIONS AND MAINTENANCE STAFF TO COVER AND PROTECT ANY EXISTING GUIDANCE SIGNS AND EDGE LIGHTS ASSOCIATED WITH CLOSED RUNWAYS AND TAXIWAYS. DAMAGE TO SIGNS AND EDGE LIGHTS SHALL BE REPLACED AT THE CONTRACTOR EXPENSE (NPI).
7. THE CONTRACTOR SHALL REMOVE THE LOW PROFILE BARRICADES AND UNCOVER THE GUIDANCE SIGNS AND EDGE LIGHTS UPON COMPLETION OF THE PROJECT PHASE AS DIRECTED. DAMAGE TO SIGNS AND EDGE LIGHTS SHALL BE REPLACED AT THE CONTRACTORS EXPENSE (NPI).
8. CONTRACTOR IS RESPONSIBLE FOR THE SECURITY OF THE BATCH PLANT LOCATION. ALL MEASURES TO SECURE THE BATCH PLANT ARE THE RESPONSIBILITY OF THE CONTRACTOR.
9. THE CONTRACTOR IS RESPONSIBLE FOR THE SECURITY OF ANY OF THE TEMPORARY STAGING AREAS ASSOCIATED WITH PACKAGE 3 (NPI). FENCING WILL NOT BE ALLOWED TO BE ANCHORED INTO EXISTING PAVEMENT.
10. THE CONTRACTOR SHALL PROVIDE LICENSED GATE GUARDS IN ACCORDANCE WITH THE AIRPORTS STANDARDS AND REQUIREMENTS. COST FOR PROVIDING GATE GUARDS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THIS GUARD WILL NOT HAVE AUTHORITY OVER AIRPORT SECURITY WHILE ON DUTY. (NPI)
11. ALL VEHICLES WILL BE SUBJECT TO SEARCH BEFORE ENTERING THE SECURED AREA.
12. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE OFF–SITE ROUTES (STATE HIGHWAYS, COUNTY ROADS OR CITY STREETS) WITH THE APPROPRIATE OWNER WHO HAS JURISDICTION OVER THE AFFECTED ROUTE. ON–SITE HAUL ROUTES SHALL BE MAINTAINED BY THE CONTRACTOR AND SHALL BE RESTORED TO THEIR ORIGINAL CONDITION UPON COMPLETION OF BEING USED AS A HAUL ROUTE. THE CONTRACTOR SHALL PROVIDE APPROPRIATE TXDOT WARNING SIGNS PRIOR TO THE PROJECT ENTRANCE NOTIFYING THE TRAVELING PUBLIC. THESE SIGNS WILL BE REVIEWED AND APPROVED BY THE ENGINEER/AIRPORT AND BE PROVIDED FOR THE DURATION OF THE PROJECT. THESE SIGNS ARE CONSIDERED INCIDENTAL TO THE PROJECT. (NPI)
13. CONTRACTOR CAN TEMPORARILY STORE CONTAMINATED MATERIALS AT THE BATCH PLANT LOCATION PRIOR TO REMOVAL FROM AIRPORT PROPERTY. CONTRACTOR IS RESPONSIBLE TO PROTECT THE EXISTING SITE FROM CONTAMINATION AND REMEDIATE ANY ISSUES CAUSED BY STORED MATERIALS AT NO ADDITIONAL COST TO THE OWNER.
14. ALTERNATE 1 INCLUDES THE DEMOLITION AND CONSTRUCTION OF THOSE AREAS SHOWN PREVIOUSLY IN THE BASE BID PLANS. THE NEW PHASING LIMITS AS SHOWN IN THE INDIVIDUAL ALTERNATE 1 PHASING SHEETS ALTER THE LIMITS AND TIMING OF THE BASE BID. IF ALTERNATE IS AWARDED, BASE BID PHASING WILL BE INCLUDED IN ALTERNATE 1.

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CITY OF SAN ANTONIO AVIATION DEPARTMENT

SAN ANTONIO AIRPORT SYSTEM

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TEXAS REGISTERED FIRM, NO. 928

TERMINAL AREA TAXIWAY IMPROVEMENTS - (PACKAGE 3)

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

MARK	DATE	DESCRIPTION

ISSUE:

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ALTERNATE 1 - OVERALL PHASING

C2.6

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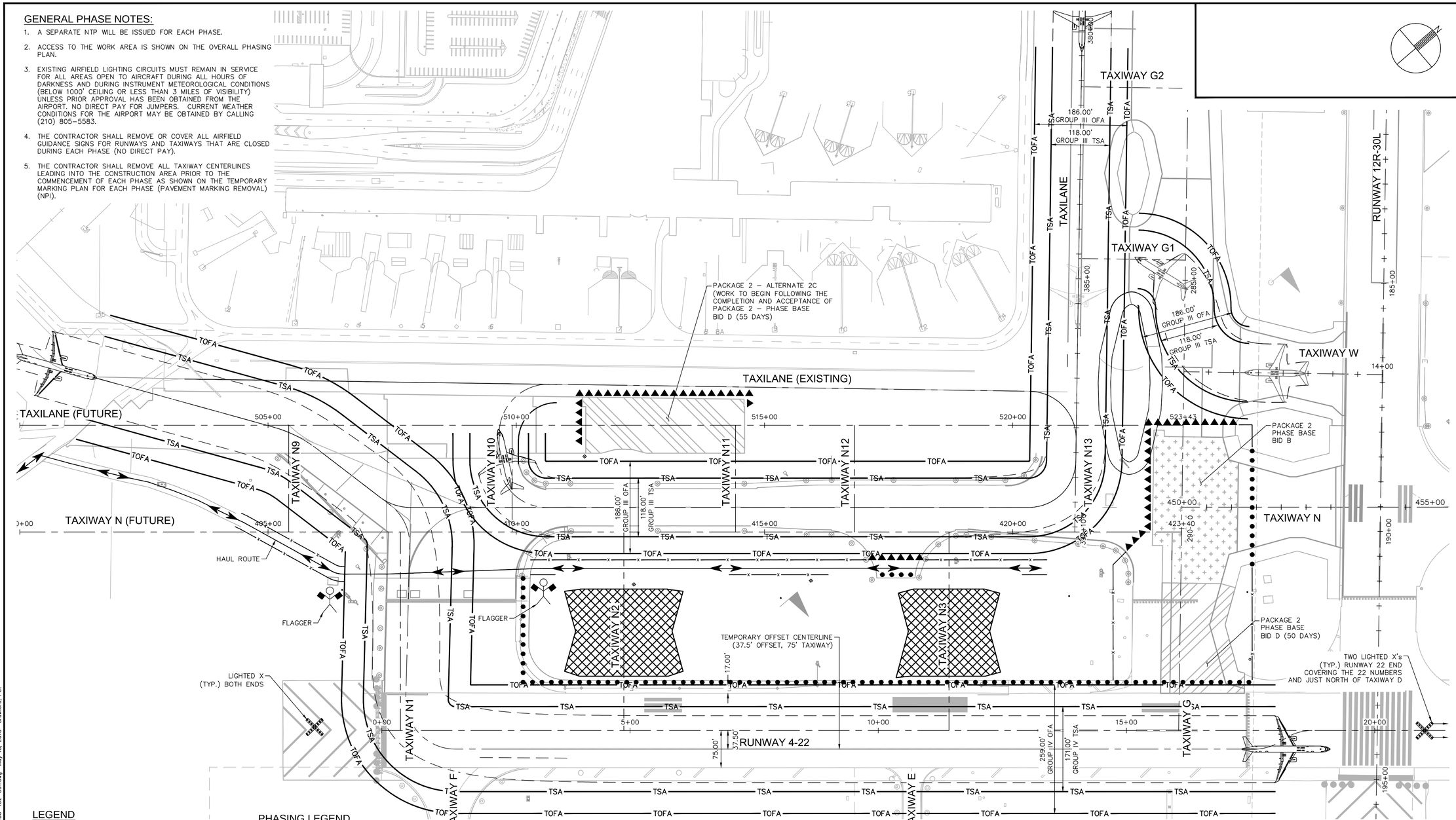
GENERAL PHASE NOTES:

1. A SEPARATE NTP WILL BE ISSUED FOR EACH PHASE.
2. ACCESS TO THE WORK AREA IS SHOWN ON THE OVERALL PHASING PLAN.
3. EXISTING AIRFIELD LIGHTING CIRCUITS MUST REMAIN IN SERVICE FOR ALL AREAS OPEN TO AIRCRAFT DURING ALL HOURS OF DARKNESS AND DURING INSTRUMENT METEOROLOGICAL CONDITIONS (BELOW 1000' CEILING OR LESS THAN 3 MILES OF VISIBILITY) UNLESS PRIOR APPROVAL HAS BEEN OBTAINED FROM THE AIRPORT. NO DIRECT PAY FOR JUMPERS. CURRENT WEATHER CONDITIONS FOR THE AIRPORT MAY BE OBTAINED BY CALLING (210) 805-5583.
4. THE CONTRACTOR SHALL REMOVE OR COVER ALL AIRFIELD GUIDANCE SIGNS FOR RUNWAYS AND TAXIWAYS THAT ARE CLOSED DURING EACH PHASE (NO DIRECT PAY).
5. THE CONTRACTOR SHALL REMOVE ALL TAXIWAY CENTERLINES LEADING INTO THE CONSTRUCTION AREA PRIOR TO THE COMMENCEMENT OF EACH PHASE AS SHOWN ON THE TEMPORARY MARKING PLAN FOR EACH PHASE (PAVEMENT MARKING REMOVAL) (NPI).



LEGEND

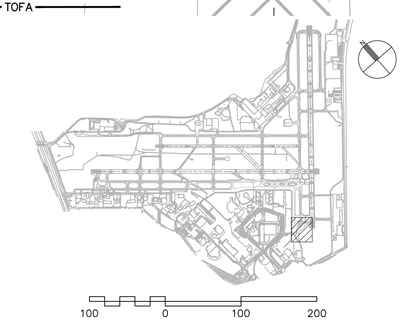
- INSTALL LOW LEVEL BARRICADES PER DETAIL 2, SHEET C2.5
- INSTALL LINKED LOW LEVEL BARRICADES PER DETAIL 3, SHEET C2.5
- AIRCRAFT WINGTIP
- TSA — TAXIWAY SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- INSTALL ORANGE SAFETY FENCE PER DETAIL 4 SHEET C2.5
- HAUL ROUTE
- FLAGGER (TO BE SUPPLIED BY CONTRACTOR)
- PORTABLE LIGHTED RUNWAY CLOSURE MARKER PROVIDED BY THE CONTRACTOR PER DETAIL 1, SHEET C2.5

PHASING LEGEND

- PACKAGE 2 – BASE BID B (50 DAYS)
- PACKAGE 2 – BASE BID D (50 DAYS) (03/11/16 START DATE)
- PACKAGE 2 – ALTERNATE 2C (40 DAYS)
- PACKAGE 2 – ALTERNATE 2B (55 DAYS)
- PACKAGE 2 – ALTERNATE 2A (45 DAYS)
- PACKAGE 3 – ALTERNATE 1 PHASE 1 (55 DAYS)(03/11/16 START DATE)
- PACKAGE 3 – ALTERNATE 1 PHASE 2 (45 DAYS)(ALL NIGHTWORK)
- PACKAGE 3 – ALTERNATE 1 PHASE 3A (50 DAYS), PHASE 3B (60 DAYS)
- PACKAGE 3 – ALTERNATE 1 PHASE 4 (95 DAYS)
- PACKAGE 3 – ALTERNATE 1 PHASE 5 (125 DAYS)
- PACKAGE 3 – ALTERNATE 1 PHASE 6 (70 DAYS)
- PACKAGE 3 – ALTERNATE 1 PHASE 7 (85 DAYS)
- PACKAGE 3 – ALTERNATE 1 PHASE 8 (55 DAYS)
- PACKAGE 3 – ALTERNATE 1 PHASE 9 (50 DAYS)

ALTERNATE 1 PHASE 1 NOTES:

1. ALTERNATE 1 PHASE 1 WILL BEGIN ON MARCH 11, 2016 CONSISTENT WITH PACKAGE 2 PHASE – BASE BID D. TEMPORARY RUNWAY/TAXIWAY MARKINGS MUST BE COMPLETED PRIOR TO PROJECT START DATE.
2. ALTERNATE 1 PHASE 1 CONSISTS OF TWO CONNECTING TAXIWAYS AS SHOWN BELOW AND PER SPECIFIC SHEETS.
3. FENCING AND BARRICADES MUST BE PLACED AS SHOWN AND OUT OF THE INDIVIDUAL TAXIWAY OBJECT FREE AREA (TOFA) AS SHOWN.
4. RUNWAY 4-22 WILL BE CONVERTED ALONG WITH THIS PHASE TO A TEMPORARY TAXIWAY ENCOMPASSING THE EASTERN HALF OF THE RUNWAY. ACTIVE TRAFFIC WILL REMAIN ON TAXIWAY N, TAXIWAY N CONNECTOR AND TAXIWAY (RUNWAY 4-22).
5. ANY WORK TO BE COMPLETED WITHIN A TAXIWAY OBJECT FREE AREA (TOFA) OR A TAXIWAY SAFETY AREA (TSA) WILL REQUIRE A TEMPORARY CLOSURE UNTIL THE WORK WITHIN THAT AREA IS COMPLETED.
6. CONTRACTOR MUST ALLOW ACCESS THROUGH THIS SITE FOR THE PACKAGE 2 CONTRACTOR WORKING ON TAXIWAY G.



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MICHAEL A. NORBY 87178 REGISTERED PROFESSIONAL ENGINEER

05/18/15

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ALTERNATE 1 - PHASE 1 PLAN

C2.7

SHEET NO. 59 OF 140

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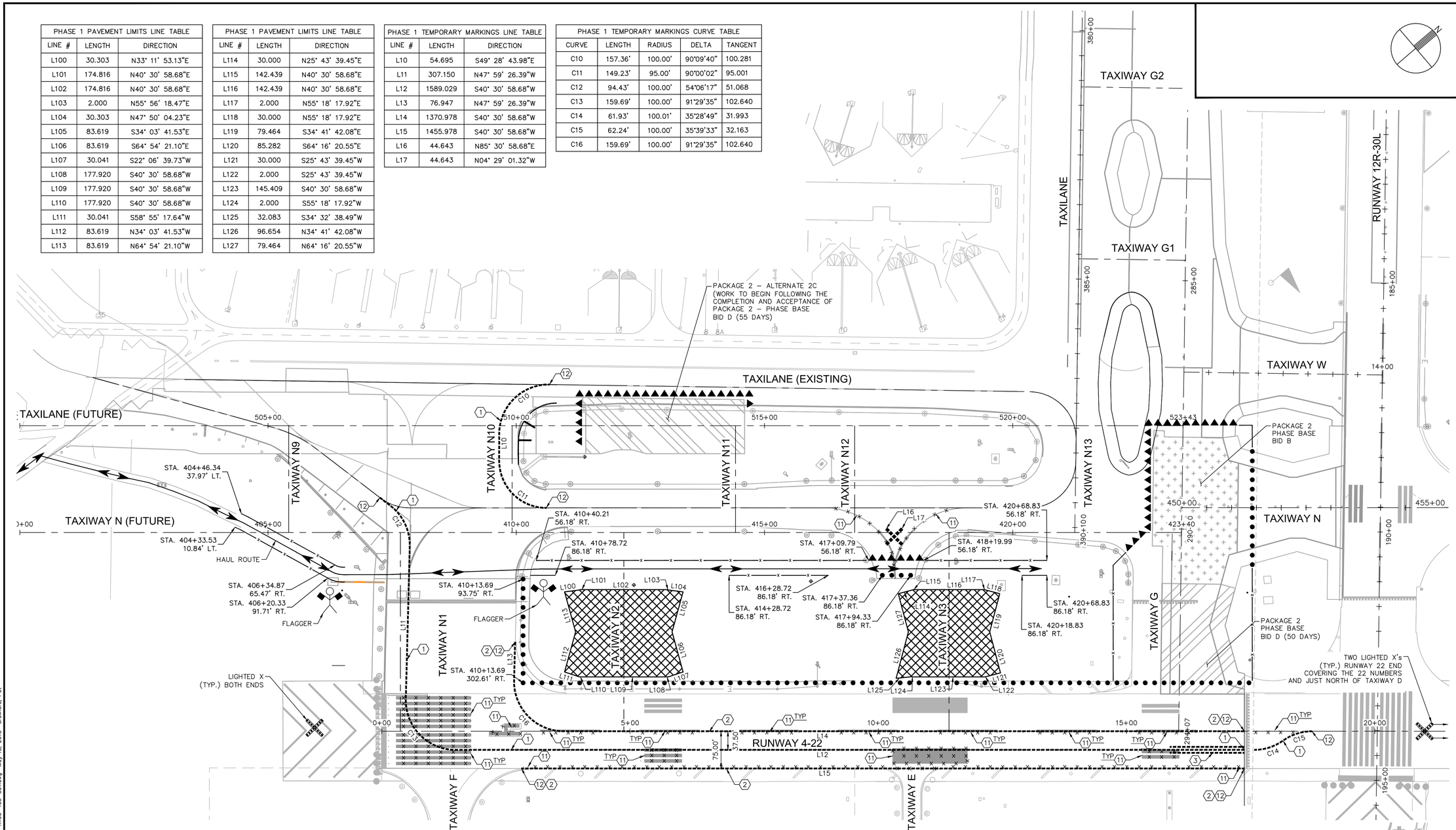
PHASE 1 PAVEMENT LIMITS LINE TABLE		
LINE #	LENGTH	DIRECTION
L100	30.303	N33° 11' 53.13"E
L101	174.816	N40° 30' 58.68"E
L102	174.816	N40° 30' 58.68"E
L103	2.000	N55° 56' 18.47"E
L104	30.303	N47° 50' 04.23"E
L105	83.619	S34° 03' 41.53"E
L106	83.619	S64° 54' 21.10"E
L107	30.041	S22° 06' 39.73"W
L108	177.920	S40° 30' 58.68"W
L109	177.920	S40° 30' 58.68"W
L110	177.920	S40° 30' 58.68"W
L111	30.041	S58° 55' 17.64"W
L112	83.619	N34° 03' 41.53"W
L113	83.619	N64° 54' 21.10"W

PHASE 1 PAVEMENT LIMITS LINE TABLE		
LINE #	LENGTH	DIRECTION
L114	30.000	N25° 43' 39.45"E
L115	142.439	N40° 30' 58.68"E
L116	142.439	N40° 30' 58.68"E
L117	2.000	N55° 18' 17.92"E
L118	30.000	N55° 18' 17.92"E
L119	79.464	S34° 41' 42.08"E
L120	85.282	S64° 16' 20.55"E
L121	30.000	S25° 43' 39.45"W
L122	2.000	S25° 43' 39.45"W
L123	145.409	S40° 30' 58.68"W
L124	2.000	S55° 18' 17.92"W
L125	32.083	S34° 32' 38.49"W
L126	96.654	N34° 41' 42.08"W
L127	79.464	N64° 16' 20.55"W

PHASE 1 TEMPORARY MARKINGS LINE TABLE		
LINE #	LENGTH	DIRECTION
L10	54.695	S49° 28' 43.98"E
L11	307.150	N47° 59' 26.39"W
L12	1589.029	S40° 30' 58.68"W
L13	76.947	N47° 59' 26.39"W
L14	1370.978	S40° 30' 58.68"W
L15	1455.978	S40° 30' 58.68"W
L16	44.643	N85° 30' 58.68"E
L17	44.643	N04° 29' 01.32"W

PHASE 1 TEMPORARY MARKINGS CURVE TABLE				
CURVE	LENGTH	RADIUS	DELTA	TANGENT
C10	157.36'	100.00'	90°09'40"	100.281
C11	149.23'	95.00'	90°00'02"	95.001
C12	94.43'	100.00'	54°06'17"	51.068
C13	159.69'	100.00'	91°29'35"	102.640
C14	61.93'	100.01'	35°28'49"	31.993
C15	62.24'	100.00'	35°39'33"	32.163
C16	159.69'	100.00'	91°29'35"	102.640



LEGEND

- ● ● ● ● ● INSTALL LOW LEVEL BARRICADES PER DETAIL 2, SHEET C2.5
- ▲▲▲▲▲ INSTALL LINKED LOW LEVEL BARRICADES PER DETAIL 3, SHEET C2.5
- x x x x OBLITERATE EXISTING PAVEMENT MARKING
- INSTALL TEMPORARY PAVEMENT MARKING
- APPLY TEMPORARY TAXIWAY CLOSURE MARKING PER DETAIL 4, SHEET C11.3

GENERAL NOTES

1. APPLY TEMPORARY SIX INCH (6") WIDE SOLID YELLOW TAXIWAY CENTERLINE PAVEMENT MARKING PER DETAIL 2, SHEET C11.2
2. APPLY TEMPORARY DOUBLE SIX INCH (6") WIDE SOLID YELLOW TAXIWAY EDGE PAVEMENT MARKING PER DETAIL 3, C11.2
3. APPLY TEMPORARY ENHANCED CENTERLINE PAVEMENT MARKING PER DETAIL 5, SHEET C11.2

CONSTRUCTION NOTES (CONTINUED)

4. REFER TO DETAIL 1, SHEET C11.3 FOR RUNWAY/TAXIWAY INTERSECTION INFORMATION
5. APPLY PERMANENT 36" SOLID WHITE RUNWAY CENTERLINE PAVEMENT MARKING PER DETAIL 6, SHEET C11.2
6. APPLY PERMANENT 36" SOLID WHITE RUNWAY EDGE LINE PAVEMENT MARKING PER DETAIL 1, SHEET C11.2
7. APPLY PERMANENT SOLID WHITE AIMING POINT MARKING PER DETAIL 4, SHEET C11.7
8. APPLY PERMANENT SOLID WHITE TOUCHDOWN ZONE MARKING PER DETAIL 4, SHEET C11.7
9. APPLY PERMANENT SOLID WHITE RUNWAY DESIGNATION MARKING PER DETAIL 4, SHEET C11.7
10. APPLY PERMANENT SOLID WHITE RUNWAY THRESHOLD MARKINGS PER DETAIL 4, SHEET C11.7
11. OBLITERATE EXISTING PAVEMENT MARKING
12. MATCH EXISTING MARKING

GENERAL NOTES

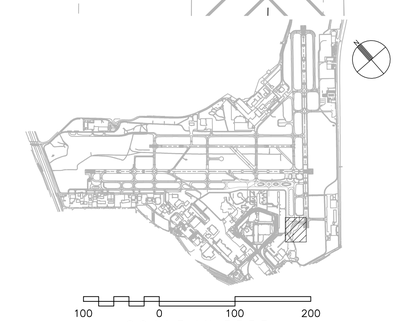
1. PAVEMENT MARKING DETAILS SHALL CONFORM TO THE LATEST EDITION OF THE FEDERAL AVIATION ADMINISTRATION'S ADVISORY CIRCULAR AC-150/5340. IF A CONFLICT OCCURS BETWEEN THESE PLANS AND THE ADVISORY CIRCULAR, THE ADVISORY CIRCULAR SHALL TAKE PRECEDENCE.
2. THE CONTRACTOR SHALL REMOVE THE DESIGNATED PAVEMENT MARKINGS PRIOR TO THE APPLICATION OF TEMPORARY MARKINGS.
3. CONTRACTOR TO SURVEY EXISTING PAVEMENT MARKINGS SHOWN OUTSIDE OF PAVING LIMITS AND TO REINSTALL AT THOSE LOCATIONS UNLESS SPECIFIED OTHERWISE.
4. PROVIDE TEMPORARY APPLICATION OF ALL NEW PAVEMENT MARKINGS AS PER SPECIFICATIONS.
5. ALL TEMPORARY MARKINGS. LOCATED ON PCC, SHALL HAVE A SIX-INCH (6") WIDE BLACK BORDER.
6. EVERY EFFORT HAS BEEN MADE TO ACCURATELY DEPICT ALL MARKINGS THAT WILL BE RE-STRIPED ON THIS PROJECT, HOWEVER ADDITIONAL MARKINGS MAY BE REQUIRED AT THE DIRECTION OF THE ENGINEER AND SAT OPERATIONS.
7. SURFACES THAT ARE OBSTRUCTED DUE TO DEBRIS OR FLAKING PAINT SHALL BE THOROUGHLY CLEANED AND SWEPT BEFORE APPLYING NEW MARKINGS.

GENERAL NOTES (CONTINUED)

8. ENGINEER TO REVIEW AND APPROVE PAVEMENT MARKING LAYOUT BEFORE MARKING IS PERFORMED.
9. REFER TO SHEET C1.9 FOR HORIZONTAL AND VERTICAL CONTROL.
10. REFER TO SHEET C11.2 AND C11.3 FOR FOR PAVEMENT MARKING DETAILS.
11. ALL TEMPORARY MARKINGS SHALL RECEIVE A 6" BLACK BORDER (TEMPORARY APPLICATION).

ALTERNATE 1 - PHASE 1 TEMPORARY PAVEMENT MARKING NOTES:

1. REMOVAL OF RUNWAY MARKINGS AND CONVERSION TO A TAXIWAY MUST TAKE PLACE PRIOR TO THE START OF ANY OTHER PHASE 1 WORK.
2. REFER TO ELECTRICAL SHEETS FOR ALL TEMPORARY LIGHTING ASSOCIATED WITH THIS PHASE.



CITY OF SAN ANTONIO AVIATION DEPARTMENT

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MICHAEL A. NORBY 87178 REGISTERED PROFESSIONAL ENGINEER

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PHASE I - TEMPORARY MARKINGS - ALTERNATE 1

C2.8

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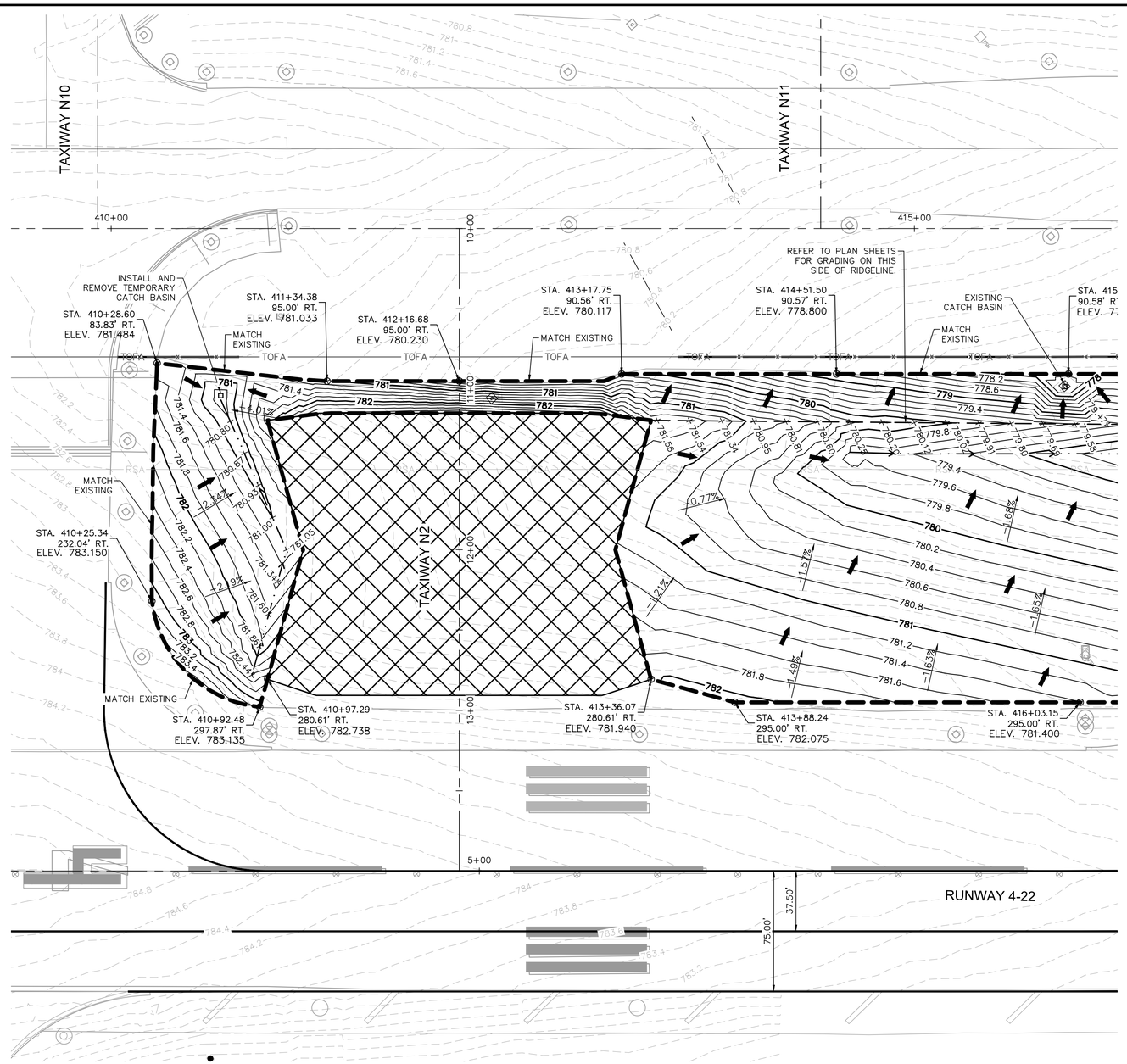
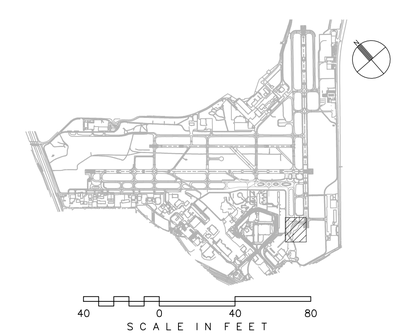


LEGEND

- PORTLAND CEMENT CONCRETE PAVEMENT
- PORTLAND CEMENT CONCRETE TRANSITION
- ASPHALT CONCRETE SHOULDER PAVEMENT
- ASPHALT CONCRETE TRANSITION
- ASPHALT CONCRETE MILL AND REPLACE (VARIABLE DEPTH)
- Y O PROPOSED SIGN
- DIRECTION OF FLOW
- 780 EXISTING CONTOUR
- 780 PROPOSED CONTOUR
- GRADING LIMITS
- +XXX.XX PROPOSED SPOT ELEVATION
- +(XXX.XX) EXISTING SPOT ELEVATION

GENERAL NOTES

1. REFER TO SHEET C1.9 FOR HORIZONTAL AND VERTICAL CONTROL.
2. PAVEMENT ELEVATIONS SHOWN ARE BASED ON JOINT LAYOUT, REFER TO PAVEMENT JOINT LAYOUT PLANS (SERIES C7).
3. CONTRACTOR SHALL MATCH EXISTING PAVEMENT ELEVATIONS AS SHOWN ON PLAN. IF EXISTING ELEVATIONS DIFFER FROM THOSE SHOWN, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
4. REFER TO ELECTRICAL PLANS (SERIES E) FOR AIRFIELD LIGHTING, SIGNING, AND ELECTRICAL FEATURES.



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

MARK	DATE	DESCRIPTION
ISSUE:		

PROJECT NO:	33-00193
FILE NAME: _33-00193-R1CO-403A-C01	
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SHEET TITLE:

PHASE I - TEMPORARY GRADING AND DRAINAGE - ALTERNATE 1

C2.9

SHEET NO. 61 OF 140

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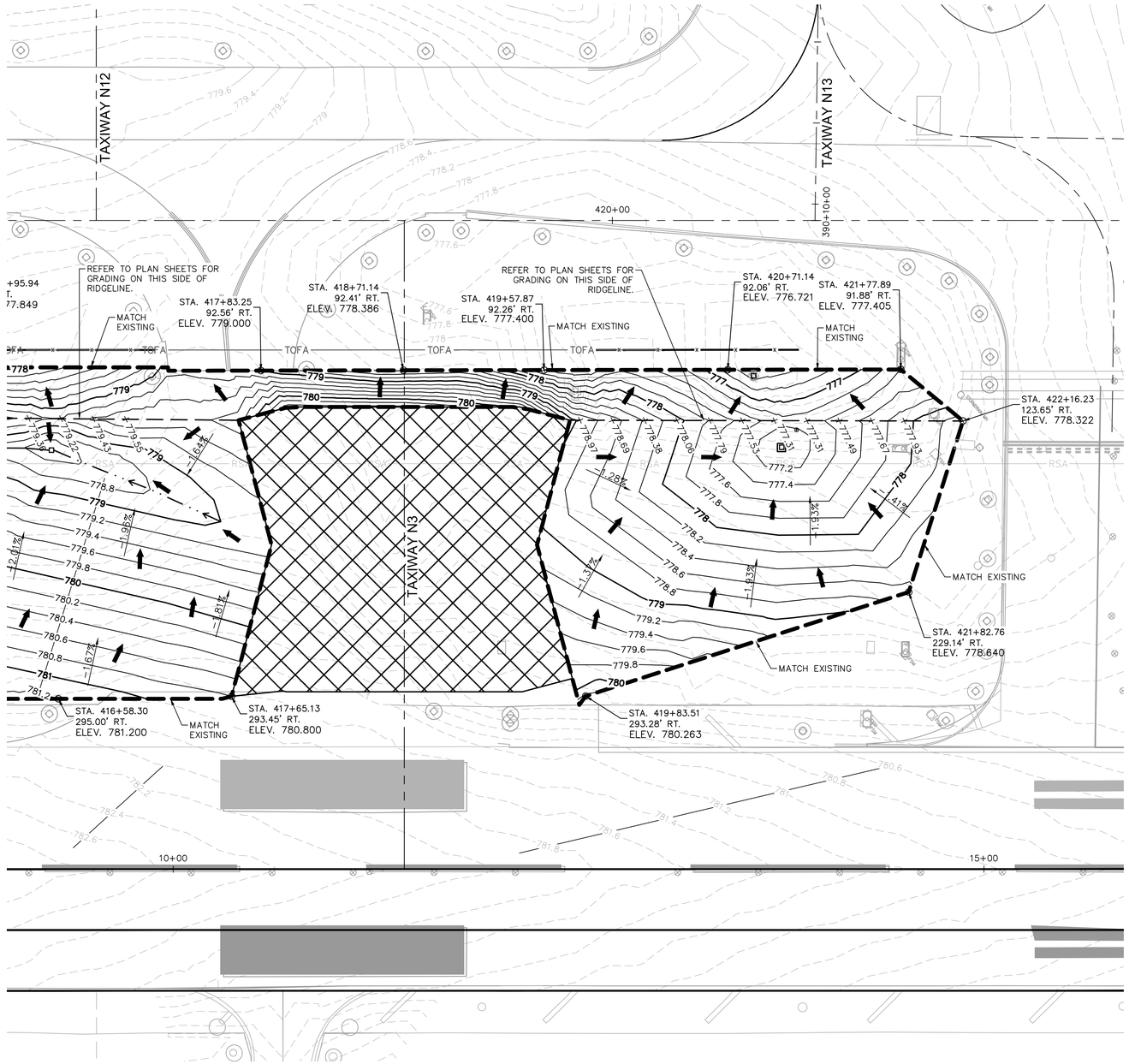
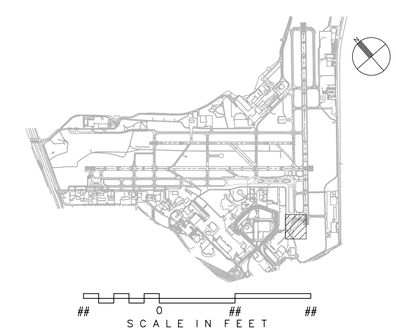


LEGEND

- PORTLAND CEMENT CONCRETE PAVEMENT
- PORTLAND CEMENT CONCRETE TRANSITION
- ASPHALT CONCRETE SHOULDER PAVEMENT
- ASPHALT CONCRETE TRANSITION
- ASPHALT CONCRETE MILL AND REPLACE (VARIABLE DEPTH)
- Y O — PROPOSED SIGN
- DIRECTION OF FLOW
- 780 — EXISTING CONTOUR
- 780 — PROPOSED CONTOUR
- GRADING LIMITS
- +XXX.XX — PROPOSED SPOT ELEVATION
- +(XXX.XX) — EXISTING SPOT ELEVATION

GENERAL NOTES

1. REFER TO SHEET C1.9 FOR HORIZONTAL AND VERTICAL CONTROL.
2. PAVEMENT ELEVATIONS SHOWN ARE BASED ON JOINT LAYOUT, REFER TO PAVEMENT JOINT LAYOUT PLANS (SERIES C7).
3. CONTRACTOR SHALL MATCH EXISTING PAVEMENT ELEVATIONS AS SHOWN ON PLAN. IF EXISTING ELEVATIONS DIFFER FROM THOSE SHOWN, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
4. REFER TO ELECTRICAL PLANS (SERIES E) FOR AIRFIELD LIGHTING, SIGNING, AND ELECTRICAL FEATURES.



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
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PHASE I - TEMPORARY GRADING AND DRAINAGE - ALTERNATE 1

C2.10

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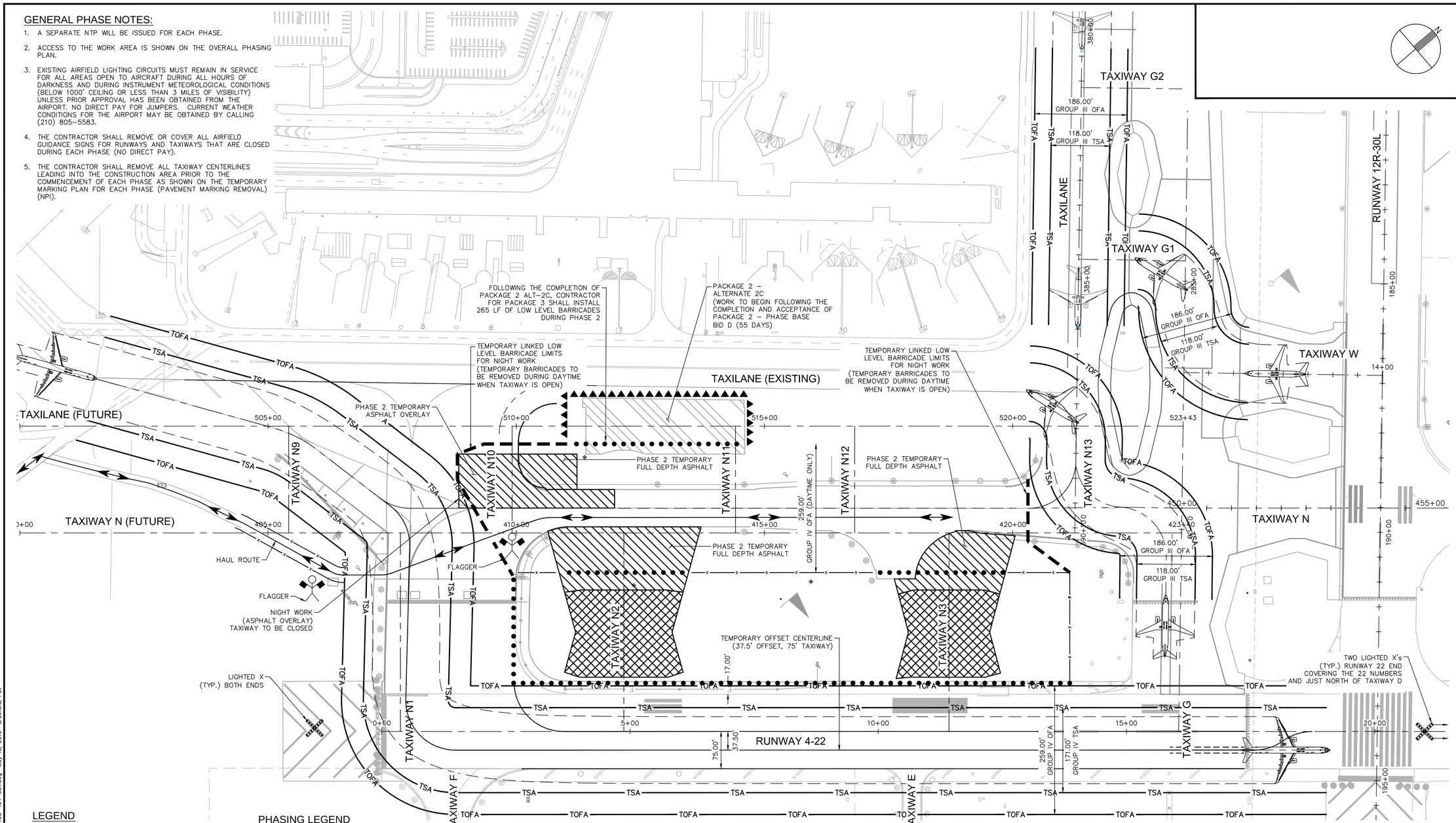
GENERAL PHASE NOTES:

1. A SEPARATE NTP WILL BE ISSUED FOR EACH PHASE.
2. ACCESS TO THE WORK AREA IS SHOWN ON THE OVERALL PHASING PLAN.
3. EXISTING AIRFIELD LIGHTING CIRCUITS MUST REMAIN IN SERVICE FOR ALL AREAS OPEN TO AIRCRAFT DURING ALL HOURS OF DARKNESS AND DURING INSTRUMENT METEOROLOGICAL CONDITIONS (BELOW 1000' CEILING OR LESS THAN 3 MILES OF VISIBILITY) UNLESS PRIOR APPROVAL HAS BEEN OBTAINED FROM THE AIRPORT. NO DIRECT PAY FOR JUMPERS. CURRENT WEATHER CONDITIONS FOR THE AIRPORT MAY BE OBTAINED BY CALLING (210) 805-5583.
4. THE CONTRACTOR SHALL REMOVE OR COVER ALL AIRFIELD GUIDANCE SIGNS FOR RUNWAYS AND TAXIWAYS THAT ARE CLOSED DURING EACH PHASE (NO DIRECT PAY).
5. THE CONTRACTOR SHALL REMOVE ALL TAXIWAY CENTERLINES LEADING INTO THE CONSTRUCTION AREA PRIOR TO THE COMMENCEMENT OF EACH PHASE AS SHOWN ON THE TEMPORARY MARKING PLAN FOR EACH PHASE (PAVEMENT MARKING REMOVAL) (NPI).



LEGEND

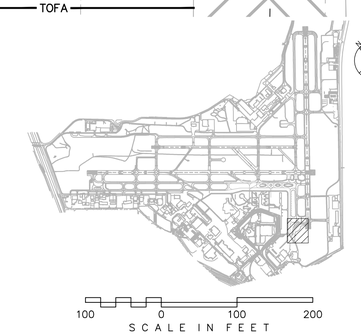
- ● ● ● ● ● INSTALL LOW LEVEL BARRICADES PER DETAIL 2, SHEET C2.5
- ▲▲▲▲▲ INSTALL LINKED LOW LEVEL BARRICADES PER DETAIL 3, SHEET C2.5
- — — — AIRCRAFT WINGTIP
- —TSA— TAXIWAY SAFETY AREA
- —TOFA— TAXIWAY OBJECT FREE AREA
- —x——x— INSTALL ORANGE SAFETY FENCE PER DETAIL 4 SHEET C2.5
- HAUL ROUTE
- FLAGGER (TO BE SUPPLIED BY CONTRACTOR)
- PORTABLE LIGHTED RUNWAY CLOSURE MARKER PROVIDED BY THE CONTRACTOR PER DETAIL 1, SHEET C2.5

PHASING LEGEND

- PACKAGE 2 – BASE BID B (50 DAYS)
- PACKAGE 2 – BASE BID D (50 DAYS) (03/11/16 START DATE)
- PACKAGE 2 – ALTERNATE 2C (40 DAYS)
- PACKAGE 2 – ALTERNATE 2B (55 DAYS)
- PACKAGE 2 – ALTERNATE 2A (45 DAYS)
- PACKAGE 3 – ALTERNATE 1 PHASE 1 (55 DAYS)(03/11/16 START DATE)
- PACKAGE 3 – ALTERNATE 1 PHASE 2 (45 DAYS)(ALL NIGHTWORK)
- PACKAGE 3 – ALTERNATE 1 PHASE 3A (50 DAYS), PHASE 3B (60 DAYS)
- PACKAGE 3 – ALTERNATE 1 PHASE 4 (95 DAYS)
- PACKAGE 3 – ALTERNATE 1 PHASE 5 (125 DAYS)
- PACKAGE 3 – ALTERNATE 1 PHASE 6 (70 DAYS)
- PACKAGE 3 – ALTERNATE 1 PHASE 7 (85 DAYS)
- PACKAGE 3 – ALTERNATE 1 PHASE 8 (55 DAYS)
- PACKAGE 3 – ALTERNATE 1 PHASE 9 (50 DAYS)

ALTERNATE 1 PHASE 2 NOTES:

1. ALTERNATE 1 PHASE 2 CAN BEGIN WITH THE COMPLETION AND ACCEPTANCE OF ALTERNATE 1 PHASE 1.
2. ALTERNATE 1 PHASE 2 CONSISTS OF PROVIDING TEMPORARY PAVEMENT THAT WILL BE USED AS CONNECTING TAXIWAYS IN FUTURE PHASES.
3. FENCING AND BARRICADES MUST BE PLACED AS SHOWN AND OUT OF THE INDIVIDUAL TAXIWAY OBJECT FREE AREA (TOFA) AS SHOWN.
4. RUNWAY 4-22 REMAINS AS A TAXIWAY DURING THE DURATION OF THIS PHASE.
5. ANY WORK REQUIRED TO BE COMPLETED WITHIN A TAXIWAY OBJECT FREE AREA (TOFA) OR A TAXIWAY SAFETY AREA (TSA) WILL REQUIRE A TEMPORARY CLOSURE AND POSSIBLE NIGHT WORK UNTIL THE WORK WITHIN THAT AREA IS COMPLETED.
6. ALL WORK DURING THIS PHASE SHALL BE COMPLETED AT NIGHT.
7. PRIOR TO REOPENING THE PROJECT AREA EACH DAY, THE TSA/TOFA ASSOCIATED WITH THE PROJECT AREA MUST MEET THE REQUIREMENTS SHOWN IN DETAIL C, SHEET C4.2



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TEXAS REGISTERED FIRM, NO. 928

TERMINAL AREA TAXIWAY IMPROVEMENTS - (PACKAGE 3)

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

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ALTERNATE 1 - PHASE 2 PLAN

C2.11

SHEET NO. 63 OF 140

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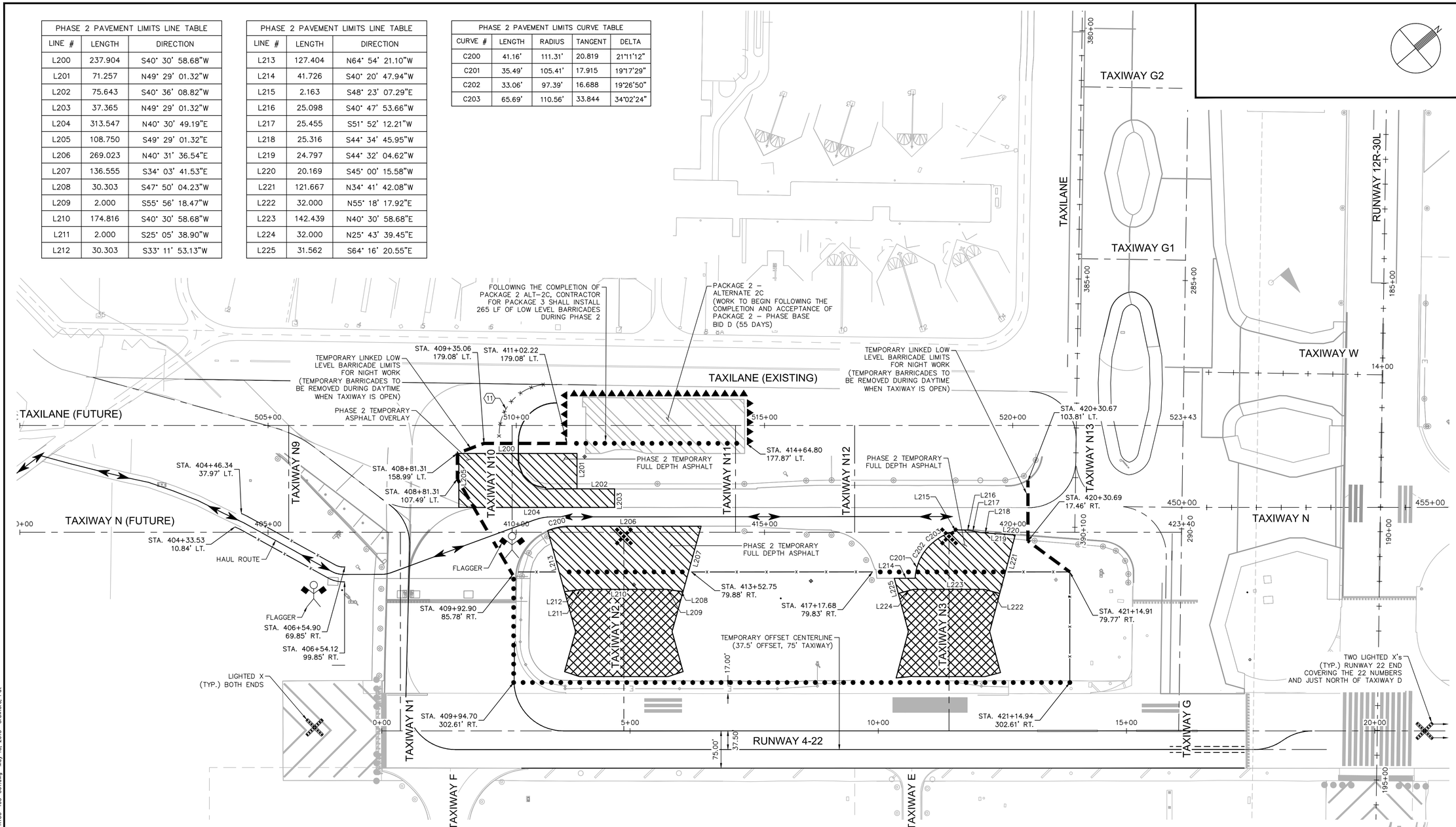
PHASE 2 PAVEMENT LIMITS LINE TABLE		
LINE #	LENGTH	DIRECTION
L200	237.904	S40° 30' 58.68"W
L201	71.257	N49° 29' 01.32"W
L202	75.643	S40° 36' 08.82"W
L203	37.365	N49° 29' 01.32"W
L204	313.547	N40° 30' 49.19"E
L205	108.750	S49° 29' 01.32"E
L206	269.023	N40° 31' 36.54"E
L207	136.555	S34° 03' 41.53"E
L208	30.303	S47° 50' 04.23"W
L209	2.000	S55° 56' 18.47"W
L210	174.816	S40° 30' 58.68"W
L211	2.000	S25° 05' 38.90"W
L212	30.303	S33° 11' 53.13"W

PHASE 2 PAVEMENT LIMITS LINE TABLE		
LINE #	LENGTH	DIRECTION
L213	127.404	N64° 54' 21.10"W
L214	41.726	S40° 20' 47.94"W
L215	2.163	S48° 23' 07.29"E
L216	25.098	S40° 47' 53.66"W
L217	25.455	S51° 52' 12.21"W
L218	25.316	S44° 34' 45.95"W
L219	24.797	S44° 32' 04.62"W
L220	20.169	S45° 00' 15.58"W
L221	121.667	N34° 41' 42.08"W
L222	32.000	N55° 18' 17.92"E
L223	142.439	N40° 30' 58.68"E
L224	32.000	N25° 43' 39.45"E
L225	31.562	S64° 16' 20.55"E

PHASE 2 PAVEMENT LIMITS CURVE TABLE				
CURVE #	LENGTH	RADIUS	TANGENT	DELTA
C200	41.16'	111.31'	20.819	21°11'12"
C201	35.49'	105.41'	17.915	19°17'29"
C202	33.06'	97.39'	16.688	19°26'50"
C203	65.69'	110.56'	33.844	34°02'24"



LEGEND

- ● ● ● ● ● INSTALL LOW LEVEL BARRICADES PER DETAIL 2, SHEET C2.5
- ▲▲▲▲▲ INSTALL LINKED LOW LEVEL BARRICADES PER DETAIL 3, SHEET C2.5
- x x x x OBLITERATE EXISTING PAVEMENT MARKING
- -------- INSTALL TEMPORARY PAVEMENT MARKING
- APPLY TEMPORARY TAXIWAY CLOSURE MARKING PER DETAIL 4, SHEET C11.3

GENERAL NOTES

1. APPLY TEMPORARY SIX INCH (6") WIDE SOLID YELLOW TAXIWAY CENTERLINE PAVEMENT MARKING PER DETAIL 2, SHEET C11.2
2. APPLY TEMPORARY DOUBLE SIX INCH (6") WIDE SOLID YELLOW TAXIWAY EDGE PAVEMENT MARKING PER DETAIL 3, C11.2
3. APPLY TEMPORARY ENHANCED CENTERLINE PAVEMENT MARKING PER DETAIL 5, SHEET C11.2

CONSTRUCTION NOTES (CONTINUED)

4. REFER TO DETAIL 1, SHEET C11.3 FOR RUNWAY/TAXIWAY INTERSECTION INFORMATION
5. APPLY PERMANENT 36" SOLID WHITE RUNWAY CENTERLINE PAVEMENT MARKING PER DETAIL 6, SHEET C11.2
6. APPLY PERMANENT 36" SOLID WHITE RUNWAY EDGE LINE PAVEMENT MARKING PER DETAIL 1, SHEET C11.2
7. APPLY PERMANENT SOLID WHITE AIMING POINT MARKING PER DETAIL 4, SHEET C11.7
8. APPLY PERMANENT SOLID WHITE TOUCHDOWN ZONE MARKING PER DETAIL 4, SHEET C11.7
9. APPLY PERMANENT SOLID WHITE RUNWAY DESIGNATION MARKING PER DETAIL 4, SHEET C11.7
10. APPLY PERMANENT SOLID WHITE RUNWAY THRESHOLD MARKINGS PER DETAIL 4, SHEET C11.7
11. OBLITERATE EXISTING PAVEMENT MARKING
12. MATCH EXISTING MARKING

GENERAL NOTES

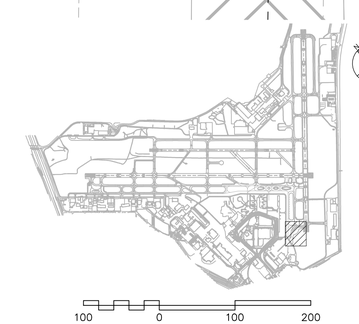
1. PAVEMENT MARKING DETAILS SHALL CONFORM TO THE LATEST EDITION OF THE FEDERAL AVIATION ADMINISTRATION'S ADVISORY CIRCULAR AC-150/5340. IF A CONFLICT OCCURS BETWEEN THESE PLANS AND THE ADVISORY CIRCULAR, THE ADVISORY CIRCULAR SHALL TAKE PRECEDENCE.
2. THE CONTRACTOR SHALL REMOVE THE DESIGNATED PAVEMENT MARKINGS PRIOR TO THE APPLICATION OF TEMPORARY MARKINGS.
3. CONTRACTOR TO SURVEY EXISTING PAVEMENT MARKINGS SHOWN OUTSIDE OF PAVING LIMITS AND TO REINSTALL AT THOSE LOCATIONS UNLESS SPECIFIED OTHERWISE.
4. PROVIDE TEMPORARY APPLICATION OF ALL NEW PAVEMENT MARKINGS AS PER SPECIFICATIONS.
5. ALL TEMPORARY MARKINGS. LOCATED ON PCC, SHALL HAVE A SIX-INCH (6") WIDE BLACK BORDER.
6. EVERY EFFORT HAS BEEN MADE TO ACCURATELY DEPICT ALL MARKINGS THAT WILL BE RE-STRIPED ON THIS PROJECT, HOWEVER ADDITIONAL MARKINGS MAY BE REQUIRED AT THE DIRECTION OF THE ENGINEER AND SAT OPERATIONS.
7. SURFACES THAT ARE OBSTRUCTED DUE TO DEBRIS OR FLAKING PAINT SHALL BE THOROUGHLY CLEANED AND SWEPT BEFORE APPLYING NEW MARKINGS.

GENERAL NOTES (CONTINUED)

8. ENGINEER TO REVIEW AND APPROVE PAVEMENT MARKING LAYOUT BEFORE MARKING IS PERFORMED.
9. REFER TO SHEET C1.9 FOR HORIZONTAL AND VERTICAL CONTROL.
10. REFER TO SHEET C11.2 AND C11.3 FOR FOR PAVEMENT MARKING DETAILS.
11. ALL TEMPORARY MARKINGS SHALL RECEIVE A 6" BLACK BORDER (TEMPORARY APPLICATION).

ALTERNATE 1 - PHASE 2 TEMPORARY PAVEMENT MARKING NOTES:

1. RUNWAY 4-22 TO REMAIN AS A TEMPORARY TAXIWAY THROUGH THIS PHASE.
2. REFER TO ELECTRICAL SHEETS FOR ALL TEMPORARY LIGHTING ASSOCIATED WITH THIS PHASE.
3. PRIOR TO REOPENING THE PROJECT AREA EACH DAY, THE TSA/TOFA ASSOCIATED WITH THE PROJECT AREA MUST MEET THE REQUIREMENTS SHOWN IN DETAIL C, SHEET C4.2
4. UPON COMPLETION OF TAXIWAY N2 AND N3 TEMPORARY CLOSURE MARKINGS WILL BE INSTALLED.



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PHASE 2 - TEMPORARY MARKINGS - ALTERNATE 1

C2.12

SHEET NO. 64 OF 140

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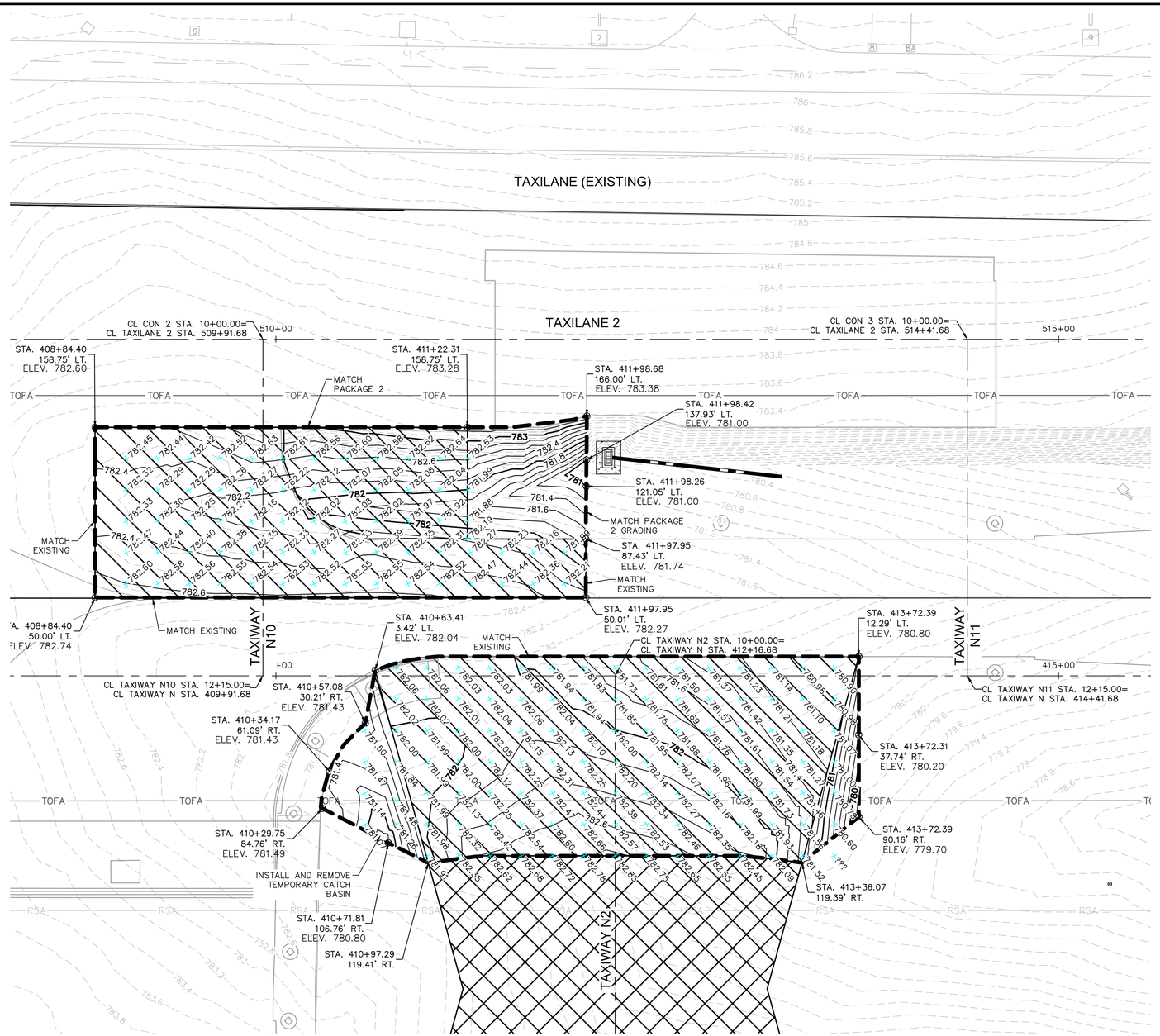

LEGEND

- PORTLAND CEMENT CONCRETE PAVEMENT
- PORTLAND CEMENT CONCRETE TRANSITION
- ASPHALT CONCRETE SHOULDER PAVEMENT
- ASPHALT CONCRETE TRANSITION
- ASPHALT CONCRETE MILL AND REPLACE (VARIABLE DEPTH)
- PROPOSED SIGN
- DIRECTION OF FLOW
- 780 EXISTING CONTOUR
- 780 PROPOSED CONTOUR
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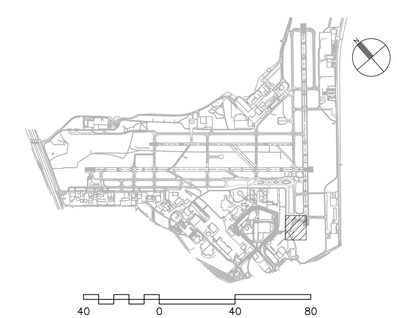
- +XXX.XX PROPOSED SPOT ELEVATION
- +(XXX.XX) EXISTING SPOT ELEVATION

GENERAL NOTES

1. REFER TO SHEET C1.9 FOR HORIZONTAL AND VERTICAL CONTROL.
2. PAVEMENT ELEVATIONS SHOWN ARE BASED ON JOINT LAYOUT, REFER TO PAVEMENT JOINT LAYOUT PLANS (SERIES C7).
3. CONTRACTOR SHALL MATCH EXISTING PAVEMENT ELEVATIONS AS SHOWN ON PLAN. IF EXISTING ELEVATIONS DIFFER FROM THOSE SHOWN, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
4. REFER TO ELECTRICAL PLANS (SERIES E) FOR AIRFIELD LIGHTING, SIGNING, AND ELECTRICAL FEATURES.



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PHASE 2 - TEMPORARY GRADING AND DRAINAGE - ALTERNATE 1

C2.13

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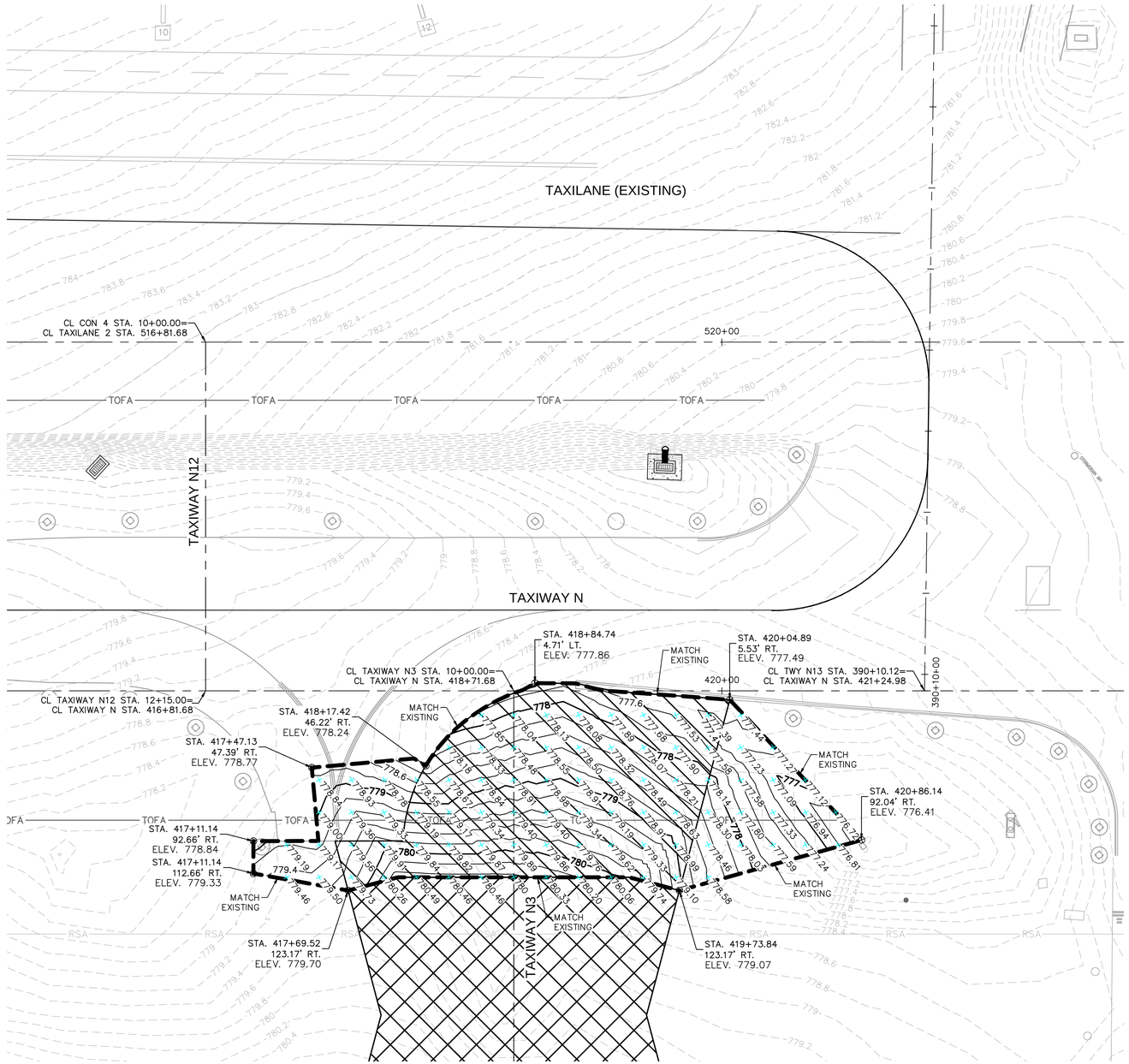

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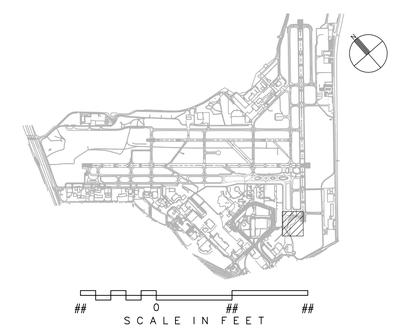

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PHASE 2 - TEMPORARY GRADING AND DRAINAGE - ALTERNATE 1

C2.14

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GENERAL PHASE NOTES:

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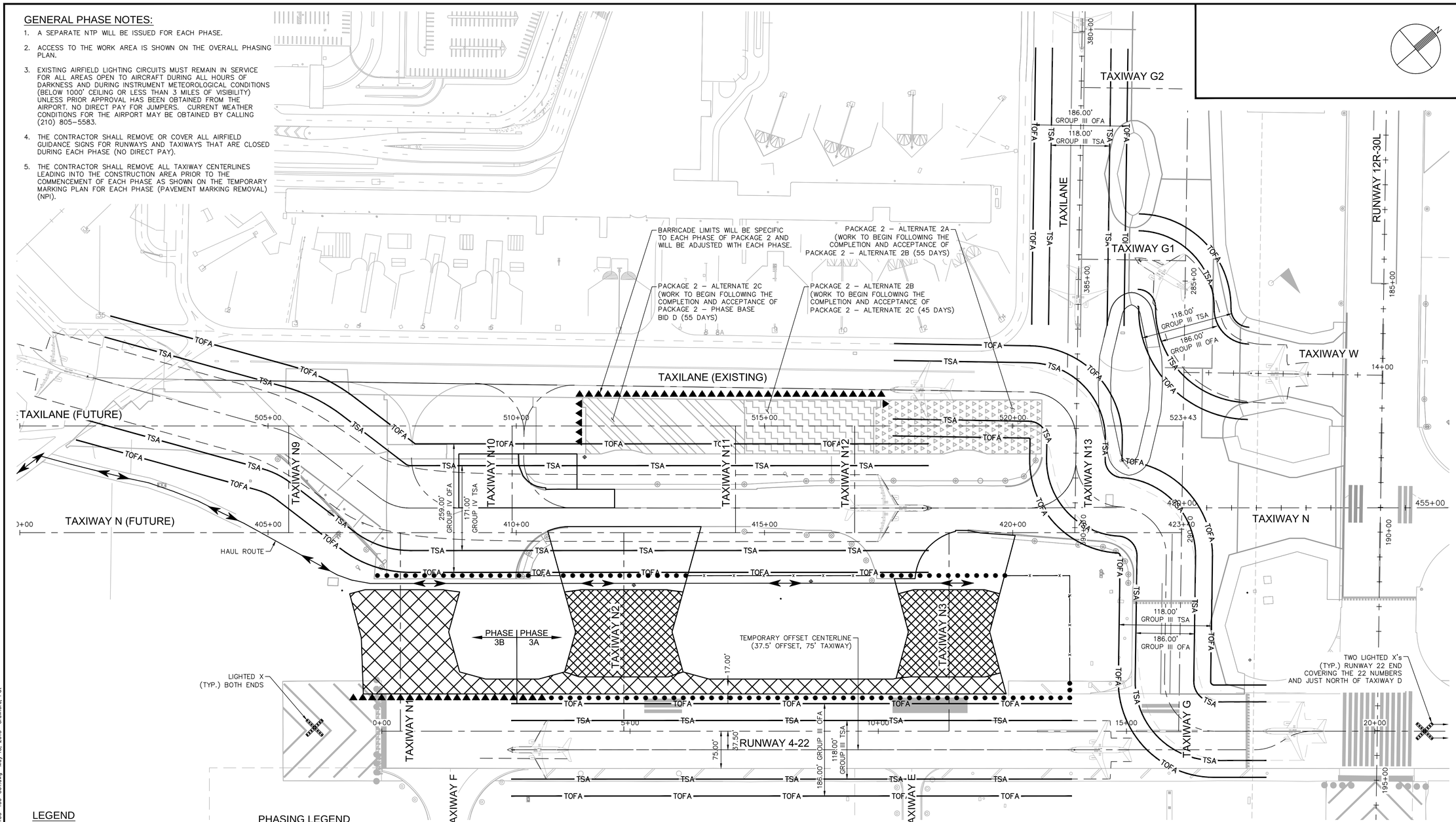

LEGEND

- INSTALL LOW LEVEL BARRICADES PER DETAIL 2, SHEET C2.5
- INSTALL LINKED LOW LEVEL BARRICADES PER DETAIL 3, SHEET C2.5
- AIRCRAFT WINGTIP
- TSA — TAXIWAY SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- INSTALL ORANGE SAFETY FENCE PER DETAIL 4 SHEET C2.5
- HAUL ROUTE
- FLAGGER (TO BE SUPPLIED BY CONTRACTOR)
- PORTABLE LIGHTED RUNWAY CLOSURE MARKER PROVIDED BY THE CONTRACTOR PER DETAIL 1, SHEET C2.5

PHASING LEGEND

- PACKAGE 2 – BASE BID B (50 DAYS)
- PACKAGE 2 – BASE BID D (50 DAYS) (03/11/16 START DATE)
- PACKAGE 2 – ALTERNATE 2C (40 DAYS)
- PACKAGE 2 – ALTERNATE 2B (55 DAYS)
- PACKAGE 2 – ALTERNATE 2A (45 DAYS)
- PACKAGE 3 – ALTERNATE 1 PHASE 1 (55 DAYS)(03/11/16 START DATE)
- PACKAGE 3 – ALTERNATE 1 PHASE 2 (45 DAYS)(ALL NIGHTWORK)
- PACKAGE 3 – ALTERNATE 1 PHASE 3A (50 DAYS), PHASE 3B (60 DAYS)
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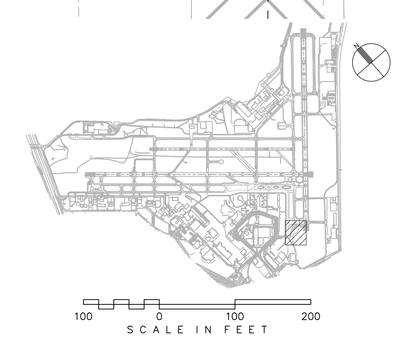
- PACKAGE 3 – ALTERNATE 1 PHASE 7 (85 DAYS)
- PACKAGE 3 – ALTERNATE 1 PHASE 8 (55 DAYS)
- PACKAGE 3 – ALTERNATE 1 PHASE 9 (50 DAYS)

ALTERNATE 1 PHASE 3 NOTES:

1. ALTERNATE 1 PHASE 3A CAN BEGIN WITH THE COMPLETION AND ACCEPTANCE OF PHASE2. ALTERNATE 1 PHASE 3A CAN BEGIN WITH THE OPENING OF CONNECTING TAXIWAYS N2 AND N3.
2. ALTERNATE 1 PHASE 3 CONSISTS OF PROVIDING PERMANENT PAVEMENT FOR CONNECTING TAXIWAYS N1, N2, AND N3 AND OPENING TAXIWAYS N2 AND N3.
3. FENCING AND BARRICADES MUST BE PLACED AS SHOWN AND OUT OF THE INDIVIDUAL TAXIWAY OBJECT FREE AREA (TOFA) AS SHOWN.
4. RUNWAY 4–22 REMAINS A TAXIWAY DURING THE DURATION OF THIS PHASE.
5. ANY WORK TO BE COMPLETED WITHIN A TAXIWAY OBJECT FREE AREA (TOFA) OR A TAXIWAY SAFETY AREA (TSA) WILL REQUIRE A TEMPORARY CLOSURE UNTIL THE WORK WITHIN THAT AREA IS COMPLETED.



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
ISSUE:		

PROJECT NO:	33-00193
FILE NAME:	_33-00193-R1CO-406-C01
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SHEET TITLE:

ALTERNATE 1 - PHASE 3 PLAN

C2.15

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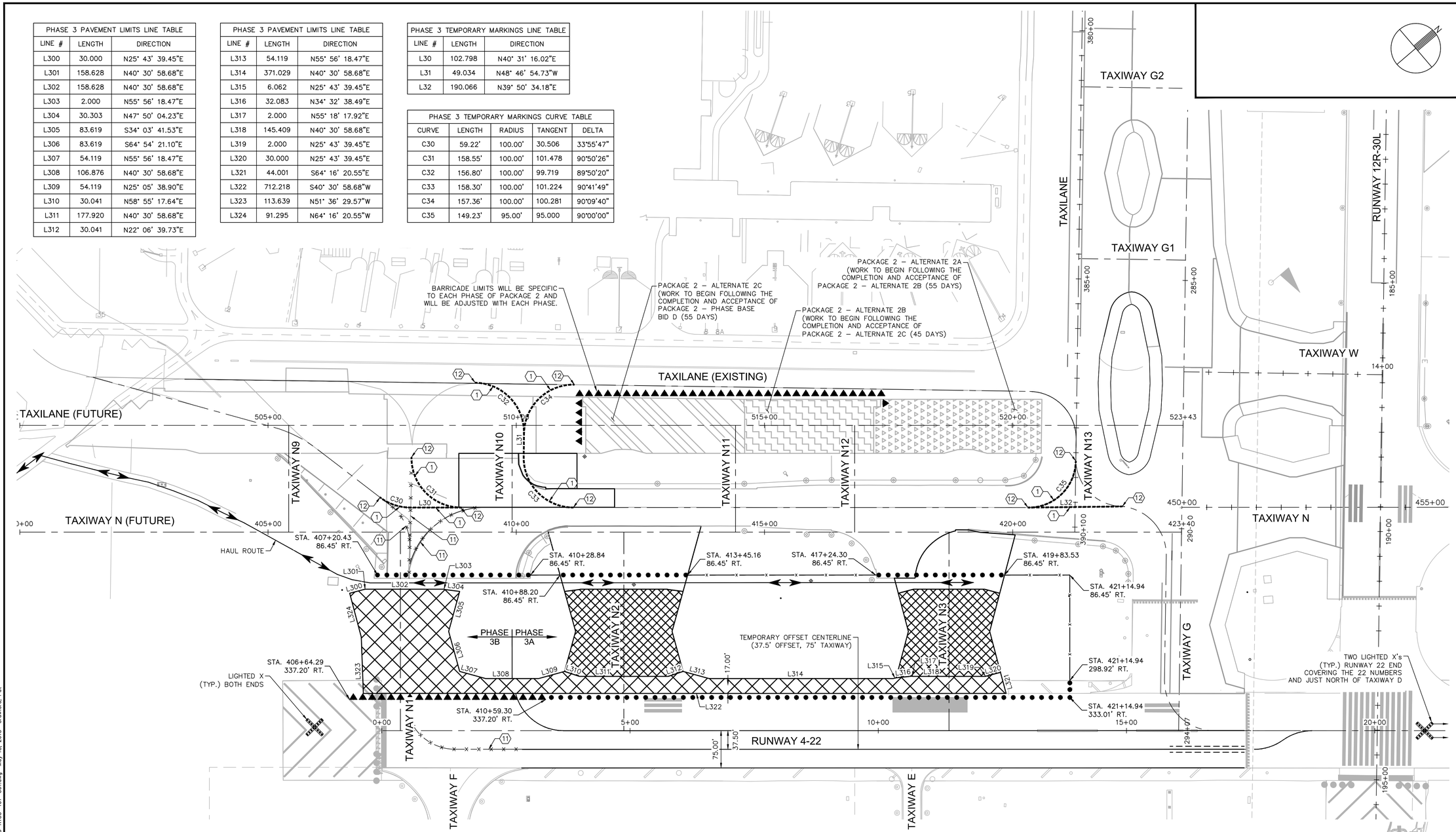
PHASE 3 PAVEMENT LIMITS LINE TABLE		
LINE #	LENGTH	DIRECTION
L300	30.000	N25° 43' 39.45"E
L301	158.628	N40° 30' 58.68"E
L302	158.628	N40° 30' 58.68"E
L303	2.000	N55° 56' 18.47"E
L304	30.303	N47° 50' 04.23"E
L305	83.619	S34° 03' 41.53"E
L306	83.619	S64° 54' 21.10"E
L307	54.119	N55° 56' 18.47"E
L308	106.876	N40° 30' 58.68"E
L309	54.119	N25° 05' 38.90"E
L310	30.041	N58° 55' 17.64"E
L311	177.920	N40° 30' 58.68"E
L312	30.041	N22° 06' 39.73"E

PHASE 3 PAVEMENT LIMITS LINE TABLE		
LINE #	LENGTH	DIRECTION
L313	54.119	N55° 56' 18.47"E
L314	371.029	N40° 30' 58.68"E
L315	6.062	N25° 43' 39.45"E
L316	32.083	N34° 32' 38.49"E
L317	2.000	N55° 18' 17.92"E
L318	145.409	N40° 30' 58.68"E
L319	2.000	N25° 43' 39.45"E
L320	30.000	N25° 43' 39.45"E
L321	44.001	S64° 16' 20.55"E
L322	712.218	S40° 30' 58.68"W
L323	113.639	N51° 36' 29.57"W
L324	91.295	N64° 16' 20.55"W

PHASE 3 TEMPORARY MARKINGS LINE TABLE		
LINE #	LENGTH	DIRECTION
L30	102.798	N40° 31' 16.02"E
L31	49.034	N48° 46' 54.73"W
L32	190.066	N39° 50' 34.18"E

PHASE 3 TEMPORARY MARKINGS CURVE TABLE				
CURVE	LENGTH	RADIUS	TANGENT	DELTA
C30	59.22'	100.00'	30.506	33°55'47"
C31	158.55'	100.00'	101.478	90°50'26"
C32	156.80'	100.00'	99.719	89°50'20"
C33	158.30'	100.00'	101.224	90°41'49"
C34	157.36'	100.00'	100.281	90°09'40"
C35	149.23'	95.00'	95.000	90°00'00"



LEGEND

- ● ● ● ● ● INSTALL LOW LEVEL BARRICADES PER DETAIL 2, SHEET C2.5
- ▲▲▲▲▲ INSTALL LINKED LOW LEVEL BARRICADES PER DETAIL 3, SHEET C2.5
- × × × × OBLITERATE EXISTING PAVEMENT MARKING
- INSTALL TEMPORARY PAVEMENT MARKING
- APPLY TEMPORARY TAXIWAY CLOSURE MARKING PER DETAIL 4, SHEET C11.3

GENERAL NOTES

(1) APPLY TEMPORARY SIX INCH (6") WIDE SOLID YELLOW TAXIWAY CENTERLINE PAVEMENT MARKING PER DETAIL 2, SHEET C11.2

(2) APPLY TEMPORARY DOUBLE SIX INCH (6") WIDE SOLID YELLOW TAXIWAY EDGE PAVEMENT MARKING PER DETAIL 3, C11.2

(3) APPLY TEMPORARY ENHANCED CENTERLINE PAVEMENT MARKING PER DETAIL 5, SHEET C11.2

CONSTRUCTION NOTES (CONTINUED)

(4) REFER TO DETAIL 1, SHEET C11.3 FOR RUNWAY/TAXIWAY INTERSECTION INFORMATION

(5) APPLY PERMANENT 36" SOLID WHITE RUNWAY CENTERLINE PAVEMENT MARKING PER DETAIL 6, SHEET C11.2

(6) APPLY PERMANENT 36" SOLID WHITE RUNWAY EDGE LINE PAVEMENT MARKING PER DETAIL 1, SHEET C11.2

(7) APPLY PERMANENT SOLID WHITE AIMING POINT MARKING PER DETAIL 4, SHEET C11.7

(8) APPLY PERMANENT SOLID WHITE TOUCHDOWN ZONE MARKING PER DETAIL 4, SHEET C11.7

(9) APPLY PERMANENT SOLID WHITE RUNWAY DESIGNATION MARKING PER DETAIL 4, SHEET C11.7

(10) APPLY PERMANENT SOLID WHITE RUNWAY THRESHOLD MARKINGS PER DETAIL 4, SHEET C11.7

(11) OBLITERATE EXISTING PAVEMENT MARKING

(12) MATCH EXISTING MARKING

GENERAL NOTES

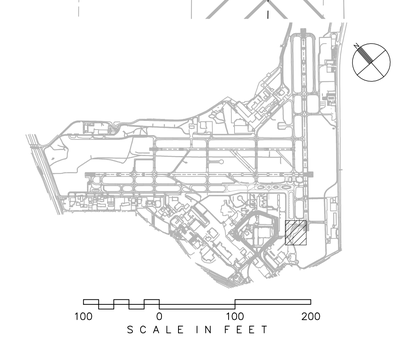
1. PAVEMENT MARKING DETAILS SHALL CONFORM TO THE LATEST EDITION OF THE FEDERAL AVIATION ADMINISTRATION'S ADVISORY CIRCULAR AC–150/5340. IF A CONFLICT OCCURS BETWEEN THESE PLANS AND THE ADVISORY CIRCULAR, THE ADVISORY CIRCULAR SHALL TAKE PRECEDENCE.
2. THE CONTRACTOR SHALL REMOVE THE DESIGNATED PAVEMENT MARKINGS PRIOR TO THE APPLICATION OF TEMPORARY MARKINGS.
3. CONTRACTOR TO SURVEY EXISTING PAVEMENT MARKINGS SHOWN OUTSIDE OF PAVING LIMITS AND TO REINSTALL AT THOSE LOCATIONS UNLESS SPECIFIED OTHERWISE.
4. PROVIDE TEMPORARY APPLICATION OF ALL NEW PAVEMENT MARKINGS AS PER SPECIFICATIONS.
5. ALL TEMPORARY MARKINGS. LOCATED ON PCC, SHALL HAVE A SIX–INCH (6") WIDE BLACK BORDER.
6. EVERY EFFORT HAS BEEN MADE TO ACCURATELY DEPICT ALL MARKINGS THAT WILL BE RE–STRIPED ON THIS PROJECT, HOWEVER ADDITIONAL MARKINGS MAY BE REQUIRED AT THE DIRECTION OF THE ENGINEER AND SAT OPERATIONS.
7. SURFACES THAT ARE OBSTRUCTED DUE TO DEBRIS OR FLAKING PAINT SHALL BE THOROUGHLY CLEANED AND SWEPT BEFORE APPLYING NEW MARKINGS.

GENERAL NOTES (CONTINUED)

8. ENGINEER TO REVIEW AND APPROVE PAVEMENT MARKING LAYOUT BEFORE MARKING IS PERFORMED.
9. REFER TO SHEET C1.9 FOR HORIZONTAL AND VERTICAL CONTROL.
10. REFER TO SHEET C11.2 AND C11.3 FOR FOR PAVEMENT MARKING DETAILS.
11. ALL TEMPORARY MARKINGS SHALL RECEIVE A 6" BLACK BORDER (TEMPORARY APPLICATION).

ALTERNATE 1 - PHASE 3 TEMPORARY PAVEMENT MARKING NOTES:

1. UPON COMPLETION OF THIS PHASE TAXIWAY N1 AND TAXIWAY N2 WILL BE MARKED WITH TEMPORARY APPLICATION AND OPENED FOR TRAFFIC.
2. REFER TO ELECTRICAL SHEETS FOR ALL TEMPORARY LIGHTING ASSOCIATED WITH THIS PHASE.



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TEXAS REGISTERED FIRM, NO. 928

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

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PHASE 3 - TEMPORARY MARKINGS - ALTERNATE 1

C2.16

SHEET NO. 68 OF 140

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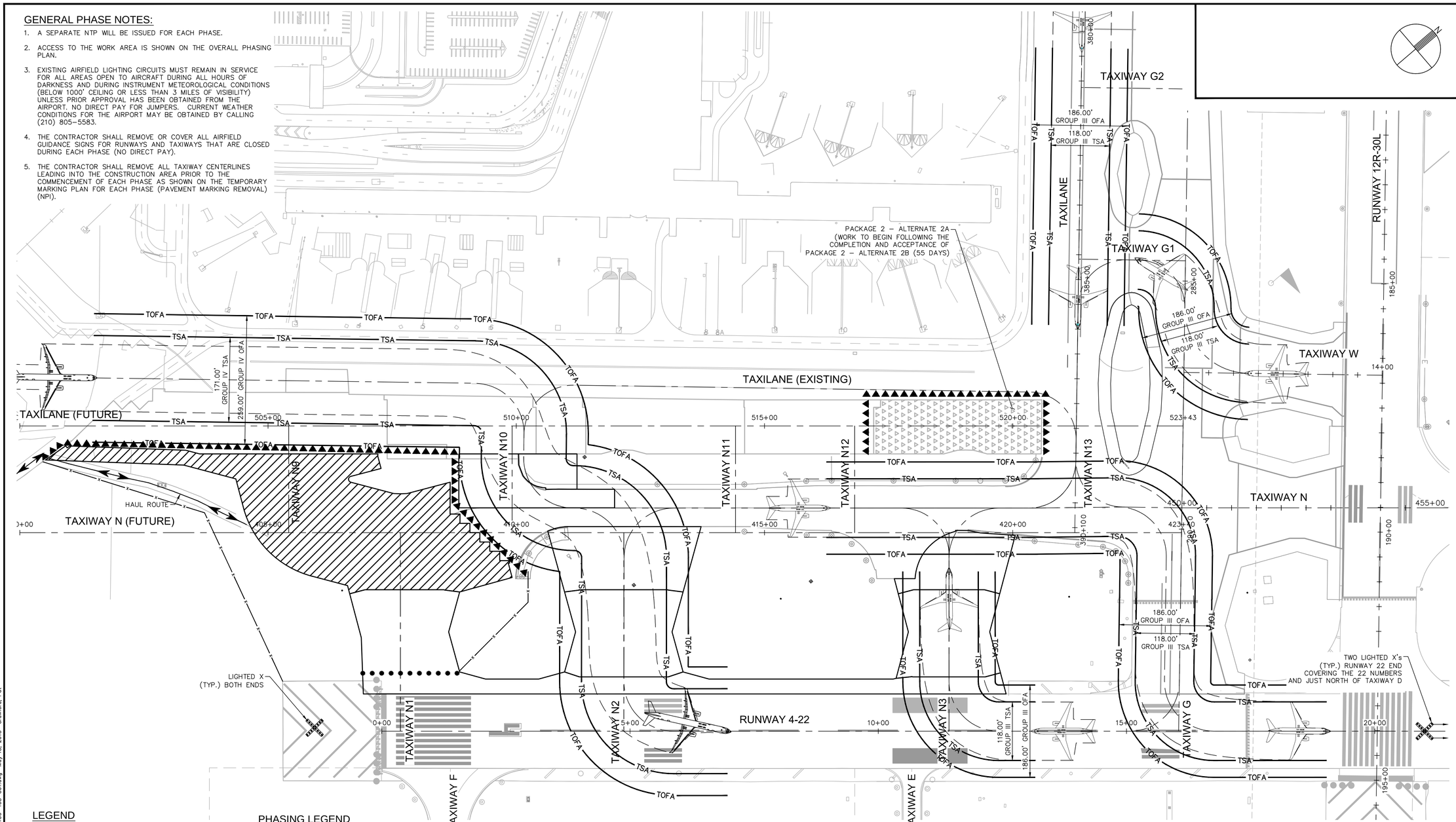
GENERAL PHASE NOTES:

1. A SEPARATE NTP WILL BE ISSUED FOR EACH PHASE.
2. ACCESS TO THE WORK AREA IS SHOWN ON THE OVERALL PHASING PLAN.
3. EXISTING AIRFIELD LIGHTING CIRCUITS MUST REMAIN IN SERVICE FOR ALL AREAS OPEN TO AIRCRAFT DURING ALL HOURS OF DARKNESS AND DURING INSTRUMENT METEOROLOGICAL CONDITIONS (BELOW 1000' CEILING OR LESS THAN 3 MILES OF VISIBILITY) UNLESS PRIOR APPROVAL HAS BEEN OBTAINED FROM THE AIRPORT. NO DIRECT PAY FOR JUMPERS. CURRENT WEATHER CONDITIONS FOR THE AIRPORT MAY BE OBTAINED BY CALLING (210) 805-5583.
4. THE CONTRACTOR SHALL REMOVE OR COVER ALL AIRFIELD GUIDANCE SIGNS FOR RUNWAYS AND TAXIWAYS THAT ARE CLOSED DURING EACH PHASE (NO DIRECT PAY).
5. THE CONTRACTOR SHALL REMOVE ALL TAXIWAY CENTERLINES LEADING INTO THE CONSTRUCTION AREA PRIOR TO THE COMMENCEMENT OF EACH PHASE AS SHOWN ON THE TEMPORARY MARKING PLAN FOR EACH PHASE (PAVEMENT MARKING REMOVAL) (NPI).



LEGEND

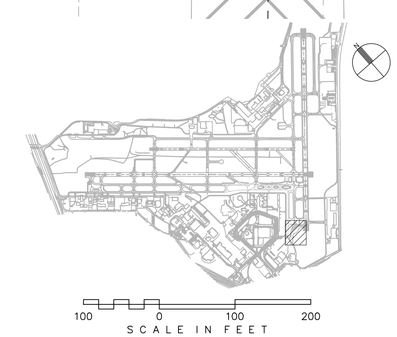
- ●●●●● INSTALL LOW LEVEL BARRICADES PER DETAIL 2, SHEET C2.5
- ▲▲▲▲▲ INSTALL LINKED LOW LEVEL BARRICADES PER DETAIL 3, SHEET C2.5
- — —— — AIRCRAFT WINGTIP
- —TSA— TAXIWAY SAFETY AREA
- —TOFA— TAXIWAY OBJECT FREE AREA
- —x——x— INSTALL ORANGE SAFETY FENCE PER DETAIL 4 SHEET C2.5
- HAUL ROUTE
- FLAGGER (TO BE SUPPLIED BY CONTRACTOR)
- PORTABLE LIGHTED RUNWAY CLOSURE MARKER PROVIDED BY THE CONTRACTOR PER DETAIL 1, SHEET C2.5

PHASING LEGEND

- PACKAGE 2 – BASE BID B (50 DAYS)
- PACKAGE 2 – BASE BID D (50 DAYS) (03/11/16 START DATE)
- PACKAGE 2 – ALTERNATE 2C (40 DAYS)
- PACKAGE 2 – ALTERNATE 2B (55 DAYS)
- PACKAGE 2 – ALTERNATE 2A (45 DAYS)
- PACKAGE 3 – ALTERNATE 1 PHASE 1 (55 DAYS)(03/11/16 START DATE)
- PACKAGE 3 – ALTERNATE 1 PHASE 2 (45 DAYS)(ALL NIGHTWORK)
- PACKAGE 3 – ALTERNATE 1 PHASE 3A (50 DAYS), PHASE 3B (60 DAYS)
- PACKAGE 3 – ALTERNATE 1 PHASE 4 (95 DAYS)
- PACKAGE 3 – ALTERNATE 1 PHASE 5 (125 DAYS)
- PACKAGE 3 – ALTERNATE 1 PHASE 6 (70 DAYS)
- PACKAGE 3 – ALTERNATE 1 PHASE 7 (85 DAYS)
- PACKAGE 3 – ALTERNATE 1 PHASE 8 (55 DAYS)
- PACKAGE 3 – ALTERNATE 1 PHASE 9 (50 DAYS)

ALTERNATE 1 PHASE 4 NOTES:

1. ALTERNATE 1 PHASE 4 CAN BEGIN WITH THE COMPLETION AND ACCEPTANCE OF ALTERNATE 1 PHASE 3.
2. ALTERNATE 1 PHASE 4 CONSISTS AS THE EXTENSION OF TAXIWAY N CORRECTING GEOMETRICS TO MATCH WITH THE NEW DESIGN ADVISORY CIRCULAR.
3. FENCING AND BARRICADES MUST BE PLACED AS SHOWN AND OUT OF THE INDIVIDUAL TAXIWAY OBJECT FREE AREA (TOFA) AS SHOWN.
4. RUNWAY 4-22 REMAINS AS A TAXIWAY DURING THE DURATION OF THIS PHASE.
5. ANY WORK TO BE COMPLETED WITHIN A TAXIWAY OBJECT FREE AREA (TOFA) OR A TAXIWAY SAFETY AREA (TSA) WILL REQUIRE A TEMPORARY CLOSURE UNTIL THE WORK WITHIN THAT AREA IS COMPLETED.



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

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ALTERNATE 1 - PHASE 4 PLAN

C2.17

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PHASE 4 PAVEMENT LIMITS LINE TABLE		
LINE #	LENGTH	DIRECTION
L400	49.729	N05° 32' 09.63"E
L401	5.000	S84° 26' 53.62"E
L402	6.614	N05° 33' 06.38"E
L403	233.981	N42° 38' 26.94"E
L404	28.403	N55° 18' 17.92"E
L405	359.076	N40° 30' 58.68"E
L406	5.000	S49° 29' 01.32"E
L407	25.166	S64° 16' 20.55"E
L408	63.140	S25° 43' 39.45"W
L409	89.490	N55° 18' 17.92"E
L410	13.570	N42° 38' 26.94"E
L411	13.570	N38° 23' 30.43"E
L412	89.490	N25° 43' 39.45"E
L413	64.199	S49° 24' 22.33"E

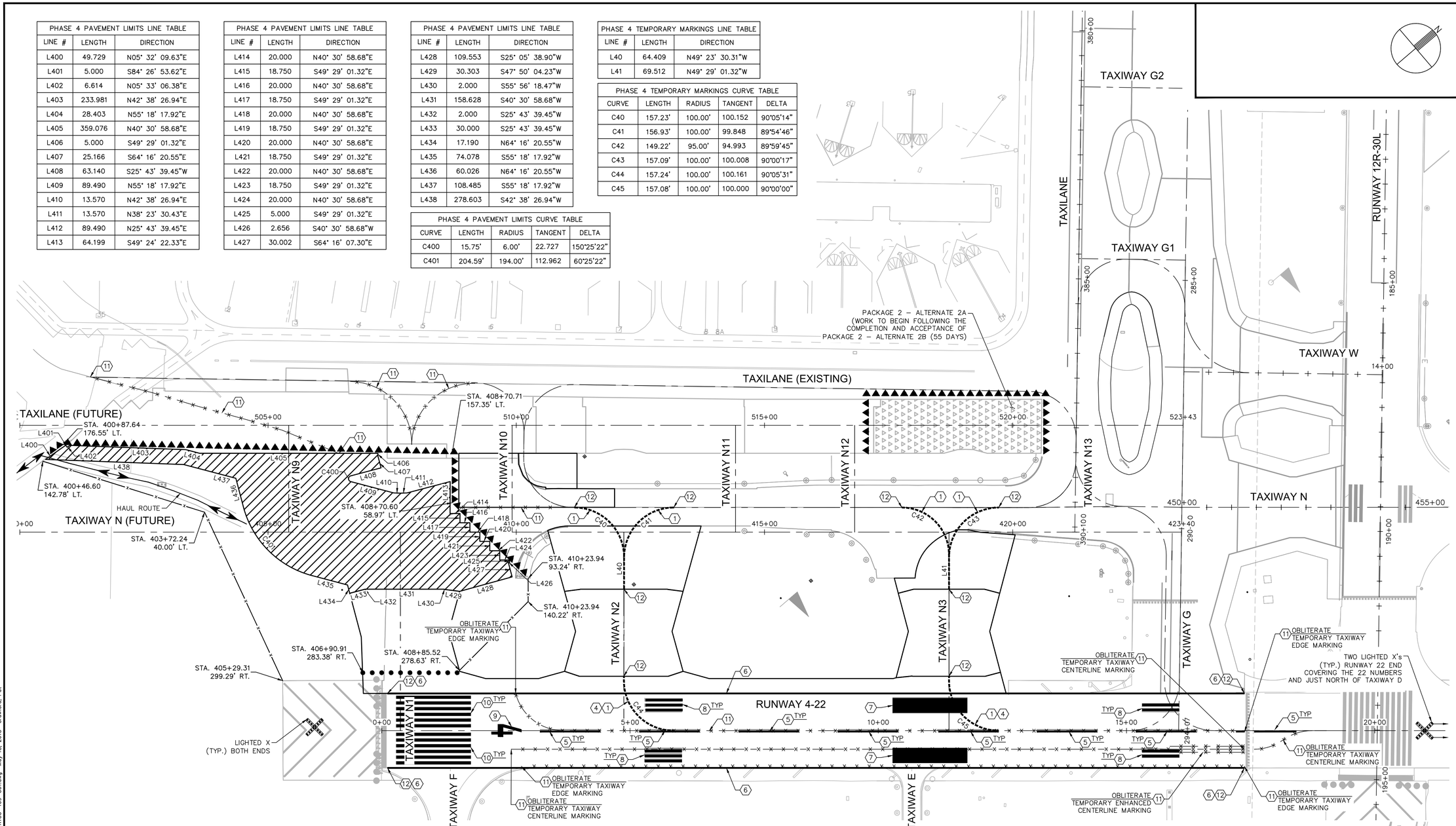
PHASE 4 PAVEMENT LIMITS LINE TABLE		
LINE #	LENGTH	DIRECTION
L414	20.000	N40° 30' 58.68"E
L415	18.750	S49° 29' 01.32"E
L416	20.000	N40° 30' 58.68"E
L417	18.750	S49° 29' 01.32"E
L418	20.000	N40° 30' 58.68"E
L419	18.750	S49° 29' 01.32"E
L420	20.000	N40° 30' 58.68"E
L421	18.750	S49° 29' 01.32"E
L422	20.000	N40° 30' 58.68"E
L423	18.750	S49° 29' 01.32"E
L424	20.000	N40° 30' 58.68"E
L425	5.000	S49° 29' 01.32"E
L426	2.656	S40° 30' 58.68"W
L427	30.002	S64° 16' 07.30"E

PHASE 4 PAVEMENT LIMITS LINE TABLE		
LINE #	LENGTH	DIRECTION
L428	109.553	S25° 05' 38.90"W
L429	30.303	S47° 50' 04.23"W
L430	2.000	S55° 56' 18.47"W
L431	158.628	S40° 30' 58.68"W
L432	2.000	S25° 43' 39.45"W
L433	30.000	S25° 43' 39.45"W
L434	17.190	N64° 16' 20.55"W
L435	74.078	S55° 18' 17.92"W
L436	60.026	N64° 16' 20.55"W
L437	108.485	S55° 18' 17.92"W
L438	278.603	S42° 38' 26.94"W

PHASE 4 PAVEMENT LIMITS CURVE TABLE				
CURVE	LENGTH	RADIUS	TANGENT	DELTA
C400	15.75'	6.00'	22.727	150°25'22"
C401	204.59'	194.00'	112.962	60°25'22"

PHASE 4 TEMPORARY MARKINGS LINE TABLE		
LINE #	LENGTH	DIRECTION
L40	64.409	N49° 23' 30.31"W
L41	69.512	N49° 29' 01.32"W

PHASE 4 TEMPORARY MARKINGS CURVE TABLE				
CURVE	LENGTH	RADIUS	TANGENT	DELTA
C40	157.23'	100.00'	100.152	90°05'14"
C41	156.93'	100.00'	99.848	89°54'46"
C42	149.22'	95.00'	94.993	89°59'45"
C43	157.09'	100.00'	100.008	90°00'17"
C44	157.24'	100.00'	100.161	90°05'31"
C45	157.08'	100.00'	100.000	90°00'00"



LEGEND

- ● ● ● ● ● INSTALL LOW LEVEL BARRICADES PER DETAIL 2, SHEET C2.5
- ▲▲▲▲▲ INSTALL LINKED LOW LEVEL BARRICADES PER DETAIL 3, SHEET C2.5
- x x x x OBLITERATE EXISTING PAVEMENT MARKING
- INSTALL TEMPORARY PAVEMENT MARKING
- APPLY TEMPORARY TAXIWAY CLOSURE MARKING PER DETAIL 4, SHEET C11.3

GENERAL NOTES

1. APPLY TEMPORARY SIX INCH (6") WIDE SOLID YELLOW TAXIWAY CENTERLINE PAVEMENT MARKING PER DETAIL 2, SHEET C11.2
2. APPLY TEMPORARY DOUBLE SIX INCH (6") WIDE SOLID YELLOW TAXIWAY EDGE PAVEMENT MARKING PER DETAIL 3, C11.2
3. APPLY TEMPORARY ENHANCED CENTERLINE PAVEMENT MARKING PER DETAIL 5, SHEET C11.2

CONSTRUCTION NOTES (CONTINUED)

4. REFER TO DETAIL 1, SHEET C11.3 FOR RUNWAY/TAXIWAY INTERSECTION INFORMATION
5. APPLY PERMANENT 36" SOLID WHITE RUNWAY CENTERLINE PAVEMENT MARKING PER DETAIL 6, SHEET C11.2
6. APPLY PERMANENT 36" SOLID WHITE RUNWAY EDGE LINE PAVEMENT MARKING PER DETAIL 1, SHEET C11.2
7. APPLY PERMANENT SOLID WHITE AIMING POINT MARKING PER DETAIL 4, SHEET C11.7
8. APPLY PERMANENT SOLID WHITE TOUCHDOWN ZONE MARKING PER DETAIL 4, SHEET C11.7
9. APPLY PERMANENT SOLID WHITE RUNWAY DESIGNATION MARKING PER DETAIL 4, SHEET C11.7
10. APPLY PERMANENT SOLID WHITE RUNWAY THRESHOLD MARKINGS PER DETAIL 4, SHEET C11.7
11. OBLITERATE EXISTING PAVEMENT MARKING
12. MATCH EXISTING MARKING

GENERAL NOTES

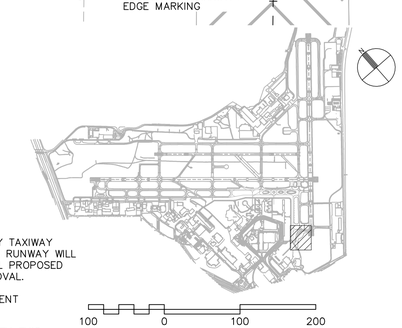
1. PAVEMENT MARKING DETAILS SHALL CONFORM TO THE LATEST EDITION OF THE FEDERAL AVIATION ADMINISTRATION'S ADVISORY CIRCULAR AC-150/5340. IF A CONFLICT OCCURS BETWEEN THESE PLANS AND THE ADVISORY CIRCULAR, THE ADVISORY CIRCULAR SHALL TAKE PRECEDENCE.
2. THE CONTRACTOR SHALL REMOVE THE DESIGNATED PAVEMENT MARKINGS PRIOR TO THE APPLICATION OF TEMPORARY MARKINGS.
3. CONTRACTOR TO SURVEY EXISTING PAVEMENT MARKINGS SHOWN OUTSIDE OF PAVING LIMITS AND TO REINSTALL AT THOSE LOCATIONS UNLESS SPECIFIED OTHERWISE.
4. PROVIDE TEMPORARY APPLICATION OF ALL NEW PAVEMENT MARKINGS AS PER SPECIFICATIONS.
5. ALL TEMPORARY MARKINGS. LOCATED ON PCC, SHALL HAVE A SIX-INCH (6") WIDE BLACK BORDER.
6. EVERY EFFORT HAS BEEN MADE TO ACCURATELY DEPICT ALL MARKINGS THAT WILL BE RE-STRIPED ON THIS PROJECT, HOWEVER ADDITIONAL MARKINGS MAY BE REQUIRED AT THE DIRECTION OF THE ENGINEER AND SAT OPERATIONS.
7. SURFACES THAT ARE OBSTRUCTED DUE TO DEBRIS OR FLAKING PAINT SHALL BE THOROUGHLY CLEANED AND SWEPT BEFORE APPLYING NEW MARKINGS.

GENERAL NOTES (CONTINUED)

8. ENGINEER TO REVIEW AND APPROVE PAVEMENT MARKING LAYOUT BEFORE MARKING IS PERFORMED.
9. REFER TO SHEET C1.9 FOR HORIZONTAL AND VERTICAL CONTROL.
10. REFER TO SHEET C11.2 AND C11.3 FOR FOR PAVEMENT MARKING DETAILS.
11. ALL TEMPORARY MARKINGS SHALL RECEIVE A 6" BLACK BORDER (TEMPORARY APPLICATION).

ALTERNATE 1 - PHASE 4 TEMPORARY PAVEMENT MARKING NOTES:

1. UPON COMPLETION OF THIS PHASE, ALL PAVEMENT MARKINGS ON TEMPORARY TAXIWAY (RUNWAY 4-22) ASSOCIATED WITH THE TAXIWAY WILL BE REMOVED AND THIS RUNWAY WILL BE REMARKED PERMANENTLY TO THE HOLD LINE SOUTH OF RUNWAY 30L. ALL PROPOSED MARKINGS WILL BE CONSISTENT WITH THE RUNWAY MARKINGS PRIOR TO REMOVAL.
2. ALL PAVEMENT MARKINGS ON NEW PAVEMENT AND RUNWAY WILL BE PERMANENT APPLICATION.
3. REFER TO ELECTRICAL SHEETS FOR ALL TEMPORARY LIGHTING ASSOCIATED WITH THIS PHASE.



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PHASE 4 - TEMPORARY MARKINGS - ALTERNATE 1

C2.18

SHEET NO. 70 OF 140

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