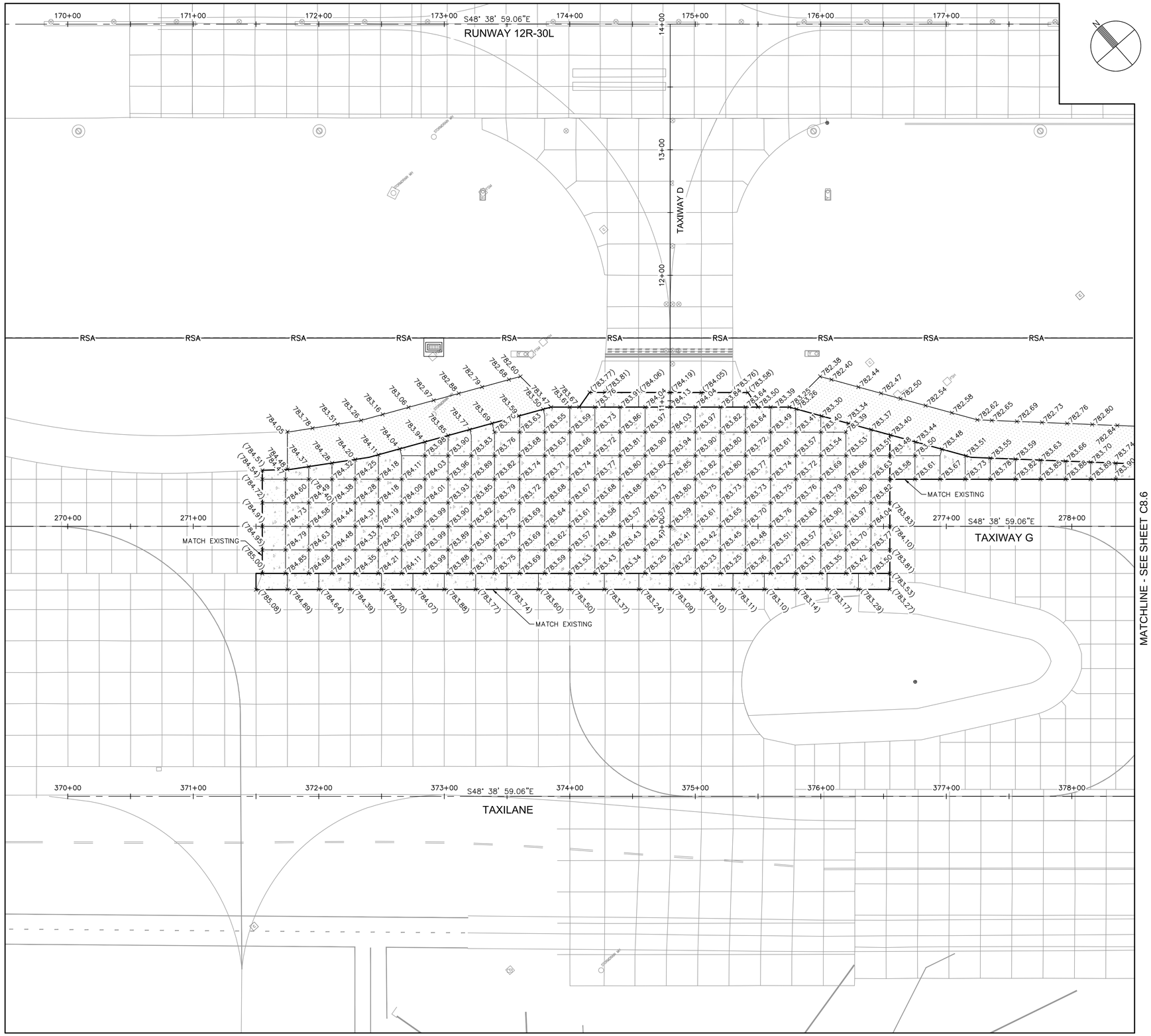
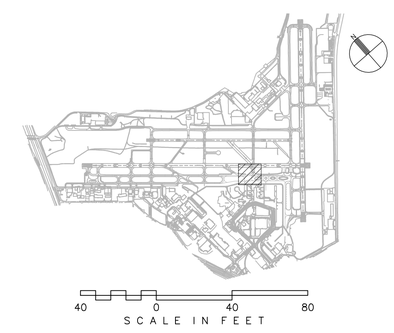


LEGEND

- PORTLAND CEMENT CONCRETE PAVEMENT
- PORTLAND CEMENT CONCRETE TRANSITION
- ASPHALT CONCRETE SHOULDER PAVEMENT
- ASPHALT CONCRETE TRANSITION
- +XXX.XX PROPOSED SPOT ELEVATION
- +(XXX.XX) EXISTING SPOT ELEVATION

GENERAL NOTES

1. REFER TO SHEET C1.11 FOR HORIZONTAL AND VERTICAL CONTROL.
2. PAVEMENT ELEVATIONS SHOWN ARE BASED ON JOINT LAYOUT, REFER TO PAVEMENT JOINT LAYOUT PLANS (SERIES C7).
3. REFER TO GRADING AND DRAINAGE PLAN (SERIES C9) FOR ADDITIONAL GRADING INFORMATION.
4. CONTRACTOR SHALL MATCH EXISTING PAVEMENT ELEVATIONS AS SHOWN ON PLAN. IF EXISTING ELEVATIONS DIFFER FROM THOSE SHOWN, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
5. 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
TEXAS REGISTERED FIRM, NO. 928

RUNWAY 12R-30L ELECTRICAL IMPROVEMENTS AND TERMINAL AREA TAXIWAY IMPROVEMENTS (PACKAGE 4)

MICHAEL A. NORBY 87178 REGISTERED PROFESSIONAL ENGINEER
05/03/16

MARK	DATE	DESCRIPTION

ISSUE:

PROJECT NO:	33-0019X
FILE NAME:	_33-00193-R1CZ-101-D03
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SHEET TITLE:

PAVEMENT ELEVATION PLAN - TAXIWAY G - ALTERNATE 3

C8.5

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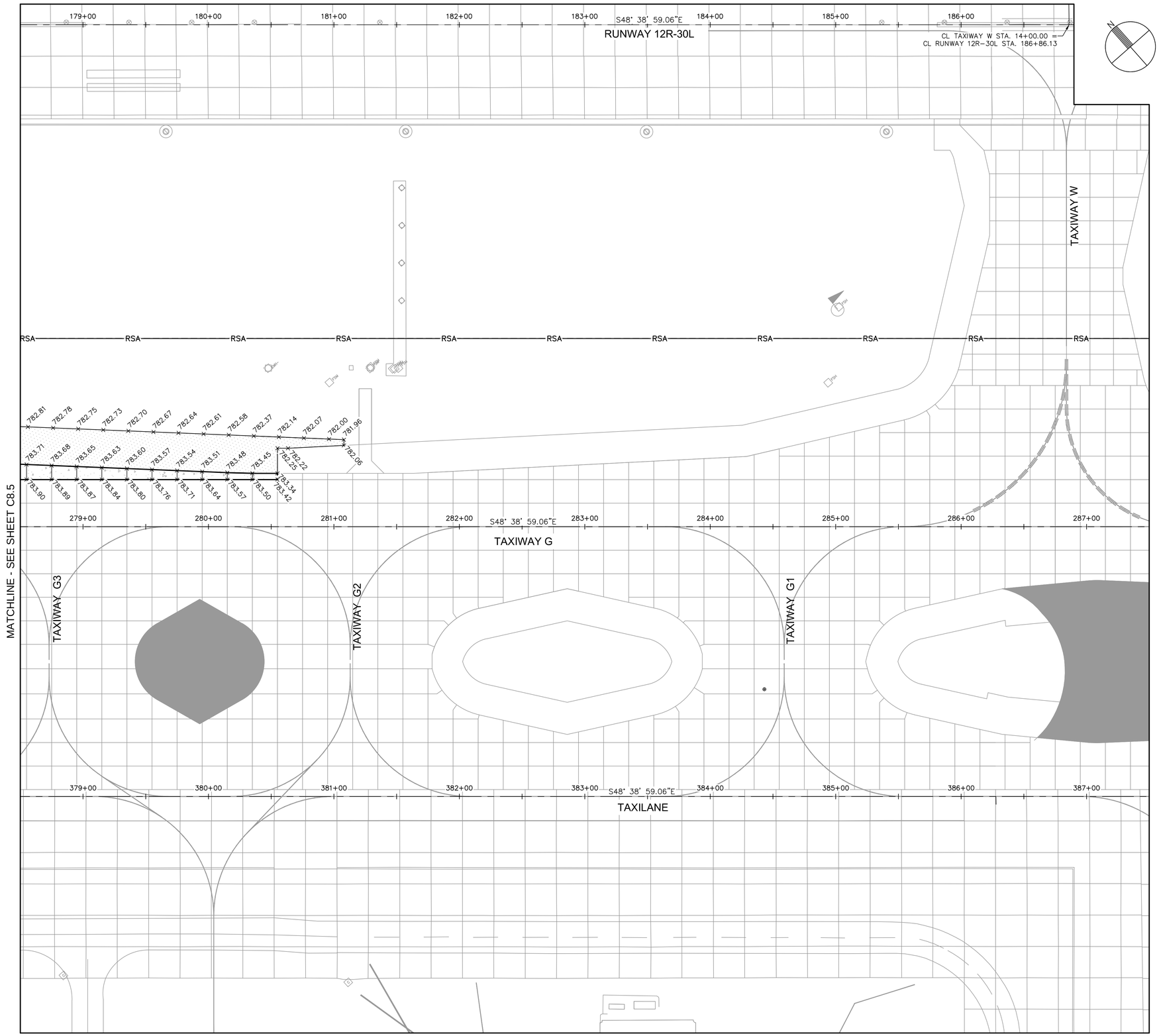
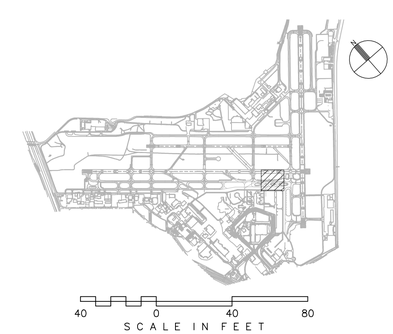


LEGEND

- PORTLAND CEMENT CONCRETE PAVEMENT
- PORTLAND CEMENT CONCRETE TRANSITION
- ASPHALT CONCRETE SHOULDER PAVEMENT
- ASPHALT CONCRETE TRANSITION
- +XXX.XX — PROPOSED SPOT ELEVATION
- +(XXX.XX) — EXISTING SPOT ELEVATION

GENERAL NOTES

1. REFER TO SHEET C1.11 FOR HORIZONTAL AND VERTICAL CONTROL.
2. PAVEMENT ELEVATIONS SHOWN ARE BASED ON JOINT LAYOUT, REFER TO PAVEMENT JOINT LAYOUT PLANS (SERIES C7).
3. REFER TO GRADING AND DRAINAGE PLAN (SERIES C9) FOR ADDITIONAL GRADING INFORMATION.
4. CONTRACTOR SHALL MATCH EXISTING PAVEMENT ELEVATIONS AS SHOWN ON PLAN. IF EXISTING ELEVATIONS DIFFER FROM THOSE SHOWN, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
5. REFER TO ELECTRICAL PLANS (SERIES E) FOR AIRFIELD LIGHTING, SIGNING, AND ELECTRICAL FEATURES.



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PAVEMENT ELEVATION PLAN - TAXIWAY G - ALTERNATE 3

C8.6

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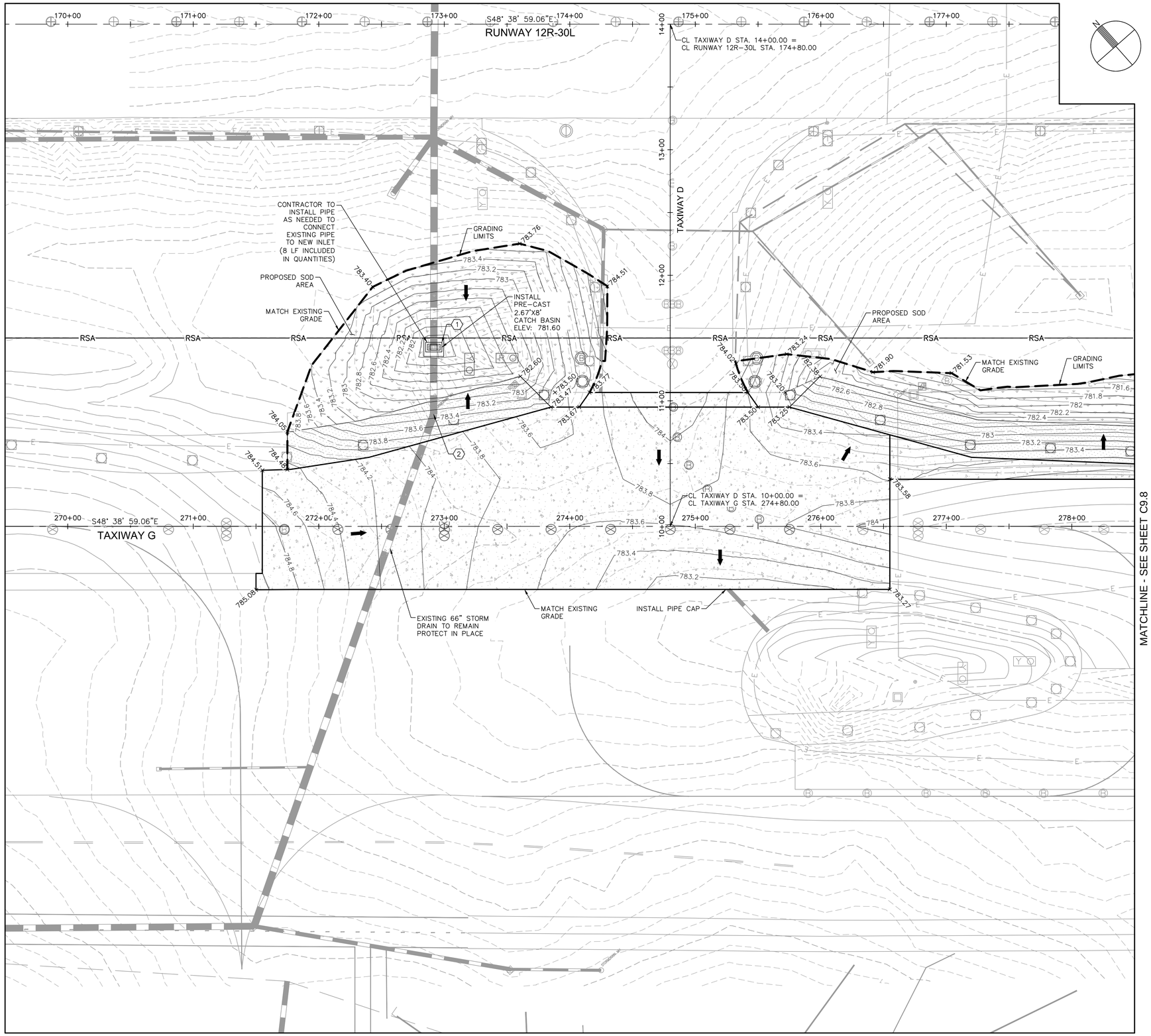


LEGEND

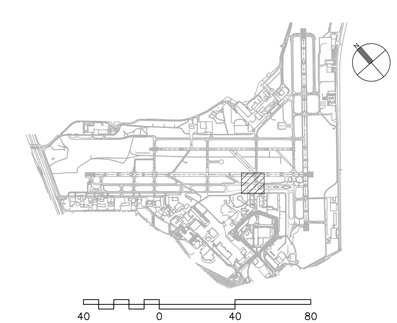
- PORTLAND CEMENT CONCRETE PAVEMENT
- PORTLAND CEMENT CONCRETE TRANSITION
- ASPHALT CONCRETE SHOULDER PAVEMENT
- ASPHALT CONCRETE TRANSITION
- PROPOSED SOD AREA
- PROPOSED SIGN
- DIRECTION OF FLOW
- EXISTING CONTOUR
- PROPOSED CONTOUR
- GRADING LIMITS
- +XXX.XX PROPOSED SPOT ELEVATION
- +(XXX.XX) EXISTING SPOT ELEVATION
- PROPOSED MANHOLE
- PROPOSED CATCH BASIN
- EXISTING INLET
- UCO PROPOSED UNDERDRAIN CLEANOUT
- PROPOSED UNDERDRAIN
- PROPOSED STORM DRAIN PIPE
- EXISTING STORM DRAIN PIPE

GENERAL NOTES

1. REFER TO SHEET C1.11 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.
5. EXISTING UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS ONLY. CONTRACTOR SHALL VERIFY EXACT LOCATIONS OF ALL UNDERGROUND UTILITIES PRIOR TO COMMENCING WORK IN ANY AREA.
6. ALL STATIONS AND OFFSETS REFER TO THE APPROPRIATE RUNWAY OR TAXIWAY STATIONING.
7. DESIGN CONTOURS REPRESENT FINISHED GRADE (PAVEMENT AND GRADING). CONTOURS AND PERCENT OF SLOPE ARE APPROXIMATE AND ARE SHOWN AS SUPPLEMENTAL INFORMATION ONLY.

CONSTRUCTION NOTES

(1) INSTALL SINGLE CATCH BASIN, SEE SHEET C9.2 FOR DETAILS



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CITY OF SAN ANTONIO AVIATION DEPARTMENT

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STATE OF TEXAS
MICHAEL A. NORBY
87178
REGISTERED PROFESSIONAL ENGINEER
05/03/16

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SHEET TITLE:

GRADING AND DRAINAGE PLAN - TAXIWAY G - ALTERNATE 3

C9.7

SHEET NO. 143 OF 157

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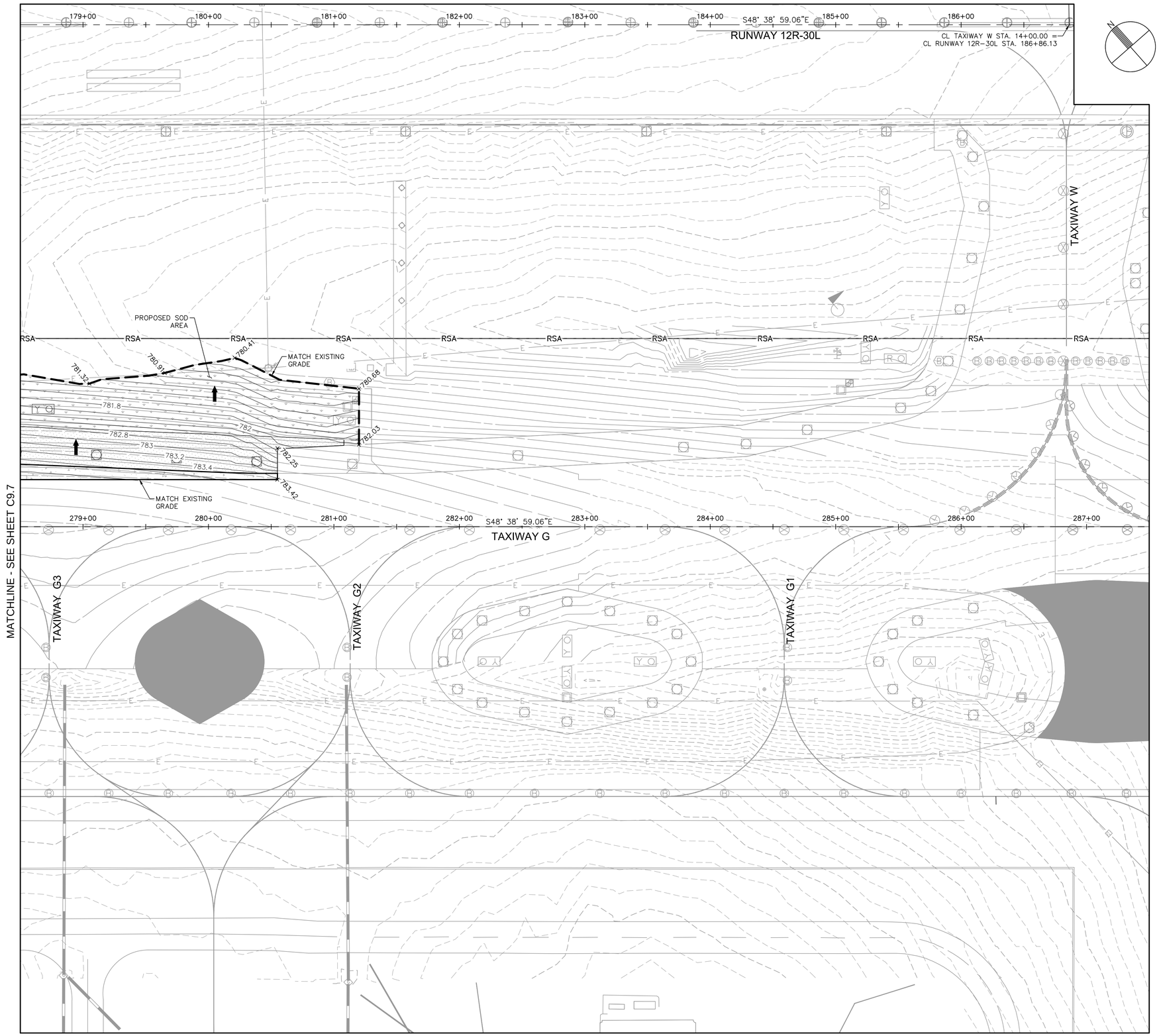

LEGEND

- PORTLAND CEMENT CONCRETE PAVEMENT
- PORTLAND CEMENT CONCRETE TRANSITION
- ASPHALT CONCRETE SHOULDER PAVEMENT
- ASPHALT CONCRETE TRANSITION
- PROPOSED SOD AREA
- PROPOSED SIGN
- DIRECTION OF FLOW
- 780 EXISTING CONTOUR
- 780 PROPOSED CONTOUR
- GRADING LIMITS
- +XXX.XX PROPOSED SPOT ELEVATION
- +(XXX.XX) EXISTING SPOT ELEVATION
- PROPOSED MANHOLE
- PROPOSED CATCH BASIN
- EXISTING INLET
- UCO PROPOSED UNDERDRAIN CLEANOUT
- PROPOSED UNDERDRAIN
- PROPOSED STORM DRAIN PIPE
- EXISTING STORM DRAIN PIPE

GENERAL NOTES

1. REFER TO SHEET C1.11 FOR HORIZONTAL AND VERTICAL CONTROL.
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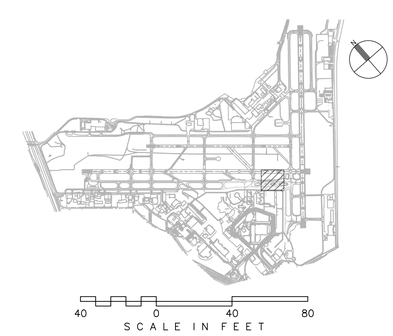
7. DESIGN CONTOURS REPRESENT FINISHED GRADE (PAVEMENT AND GRADING). CONTOURS AND PERCENT OF SLOPE ARE APPROXIMATE AND ARE SHOWN AS SUPPLEMENTAL INFORMATION ONLY.

CONSTRUCTION NOTES

1. INSTALL SINGLE CATCH BASIN, SEE SHEET C9.2 FOR DETAILS



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GRADING AND DRAINAGE PLAN - TAXIWAY G - ALTERNATE 3

C9.8

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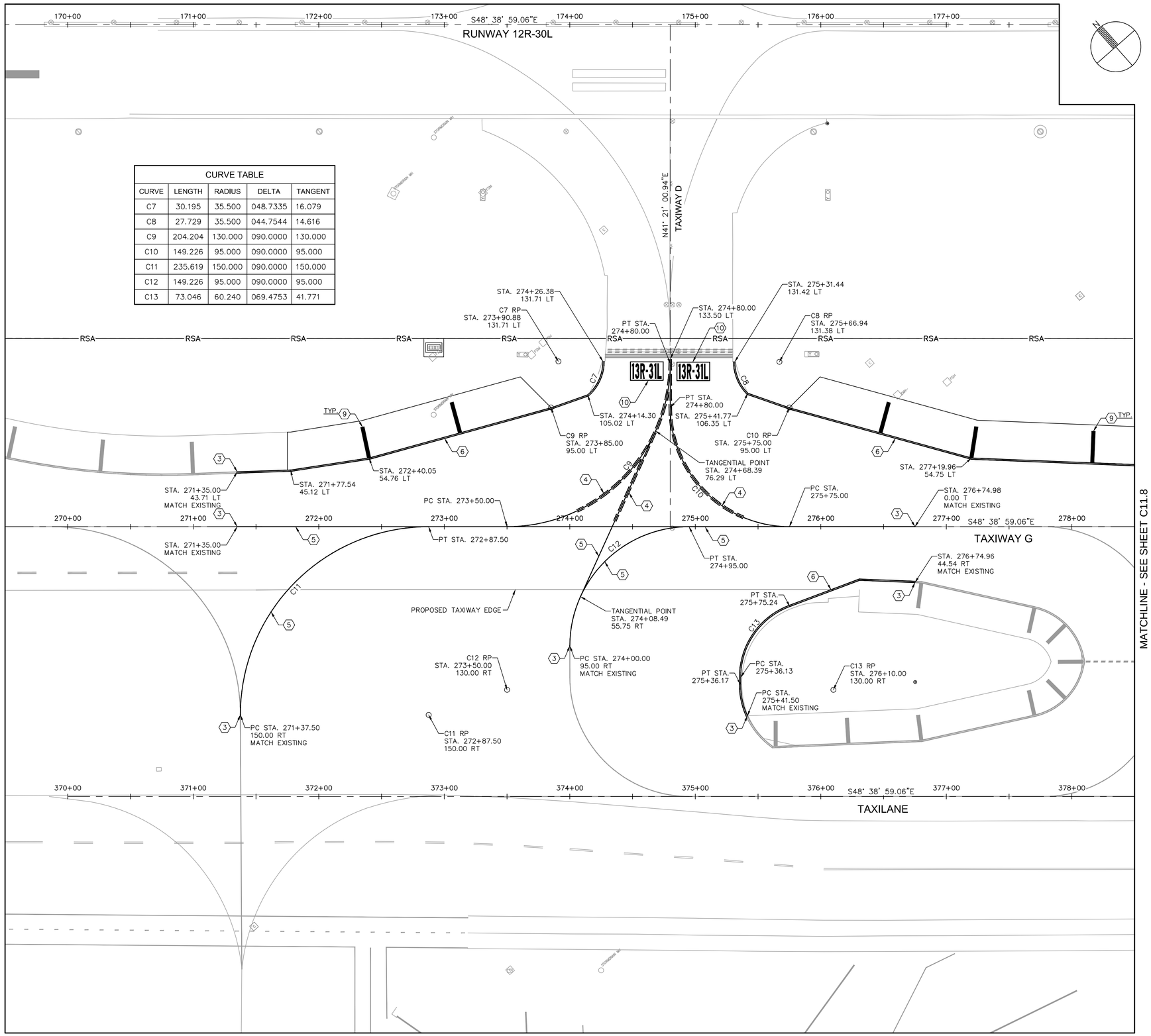


CURVE TABLE				
CURVE	LENGTH	RADIUS	DELTA	TANGENT
C7	30.195	35.500	048.7335	16.079
C8	27.729	35.500	044.7544	14.616
C9	204.204	130.000	090.0000	130.000
C10	149.226	95.000	090.0000	95.000
C11	235.619	150.000	090.0000	150.000
C12	149.226	95.000	090.0000	95.000
C13	73.046	60.240	069.4753	41.771

LEGEND

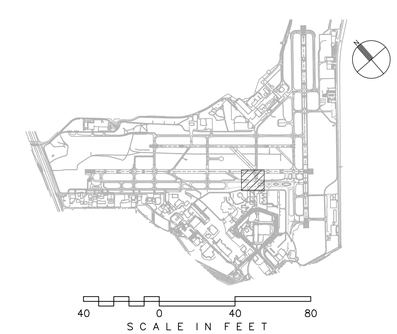
- RUNWAY CENTERLINE LIGHT, REFER TO ELECTRICAL PLANS (SERIES E) FOR DETAILS
- RUNWAY EDGE LIGHT, REFER TO ELECTRICAL PLANS (SERIES E) FOR DETAILS
- RUNWAY TOUCHDOWN ZONE LIGHT, REFER TO ELECTRICAL PLANS (SERIES E) FOR DETAILS
- TAXIWAY CENTERLINE LIGHT, REFER TO ELECTRICAL PLANS (SERIES E) FOR DETAILS
- TAXIWAY EDGE LIGHT, REFER TO ELECTRICAL PLANS (SERIES E) FOR DETAILS

GENERAL NOTES

1. PAVEMENT MARKING DETAILS SHALL CONFORM TO THE LATEST EDITION OF THE FEDERAL AVIATION ADMINISTRATION'S ADVISORY CIRCULAR AC-150/5340-1. IF A CONFLICT OCCURS BETWEEN THESE PLANS AND THE ADVISORY CIRCULAR, THE ADVISORY CIRCULAR SHALL TAKE PRECEDENCE.
2. THE CONTRACTOR SHALL REMOVE CURING MATERIALS FROM THE PCCP PRIOR TO THE APPLICATION OF MARKINGS.
3. CONTRACTOR TO SURVEY EXISTING PAVEMENT MARKINGS SHOWN OUTSIDE OF PAVING LIMITS AND TO REINSTALL AT THOSE LOCATIONS UNLESS SPECIFIED OTHERWISE.
4. PROVIDE DOUBLE APPLICATION OF ALL NEW PAVEMENT MARKINGS (2 COATS INCLUDED IN PER S.F. PRICE)
5. ALL PERMANENT MARKINGS, LOCATED ON PCC, SHALL HAVE A SIX-INCH (6") WIDE BLACK BORDER. (NO DIRECT PAY)
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.
7. SURFACES THAT ARE OBSTRUCTED DUE TO DEBRIS OR FLAKING PAINT SHALL BE THOROUGHLY CLEANED AND SWEPT BEFORE APPLYING NEW MARKINGS.
8. ENGINEER TO REVIEW AND APPROVE PAVEMENT MARKING LAYOUT BEFORE MARKING IS PERFORMED.
9. REFER TO SHEET C1.11 FOR HORIZONTAL AND VERTICAL CONTROL.

CONSTRUCTION NOTES

1. APPLY THIRTY-SIX INCH (36") WIDE SOLID WHITE RUNWAY EDGE LINE PAVEMENT MARKING PER DETAIL 1, SHEET C11.2
2. APPLY SOLID YELLOW CLOSED TAXIWAY PAVEMENT MARKING PER DETAIL 6, SHEET C11.2
3. MATCH EXISTING MARKING
4. APPLY ENHANCED RUNWAY HOLDING POSITION PAVEMENT MARKING PER DETAIL 4, SHEET C11.2
5. APPLY SIX INCH (6") WIDE SOLID YELLOW TAXIWAY CENTERLINE PAVEMENT MARKING PER DETAIL 2, SHEET C11.2
6. APPLY DOUBLE SIX INCH (6") WIDE SOLID YELLOW TAXIWAY EDGE PAVEMENT MARKING PER DETAIL 3, C11.2
7. APPLY TEMPORARY DOUBLE SIX INCH (6") WIDE SOLID YELLOW TAXIWAY EDGE PAVEMENT MARKING PER DETAIL 3, C11.2
8. REFER TO DETAIL 5, SHEET C11.2 FOR RUNWAY/TAXIWAY INTERSECTION INFORMATION
9. APPLY THIRTY-SIX INCH (36") WIDE SOLID YELLOW TAXIWAY SHOULDER PAVEMENT MARKING PER DETAIL 1, SHEET C11.3
10. APPLY SURFACE PAINTED HOLD POSITION SIGN PER DETAIL 2, SHEET C11.3
11. APPLY BLACK PAINT TO PCC PAVEMENT THAT LIES OUTSIDE OF TAXIWAY EDGE MARKINGS (NPI)



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TEXAS REGISTERED FIRM,
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MICHAEL A. NORBY
87178
REGISTERED PROFESSIONAL ENGINEER
05/03/16

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SHEET TITLE:

PAVEMENT MARKING PLAN - TAXIWAY G - ALTERNATE 3

C11.7

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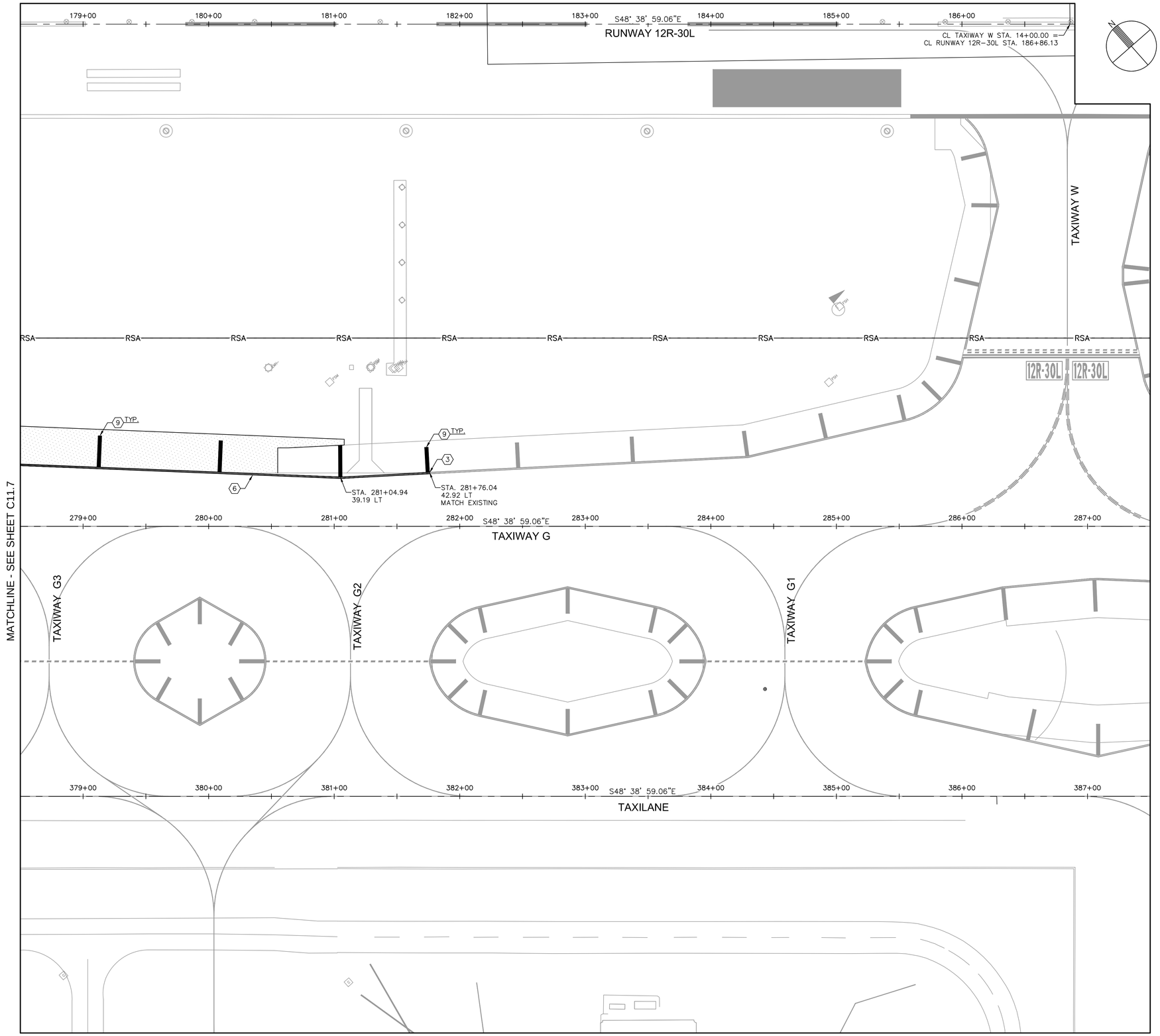

LEGEND

- RUNWAY CENTERLINE LIGHT, REFER TO ELECTRICAL PLANS (SERIES E) FOR DETAILS
- RUNWAY EDGE LIGHT, REFER TO ELECTRICAL PLANS (SERIES E) FOR DETAILS
- RUNWAY TOUCHDOWN ZONE LIGHT, REFER TO ELECTRICAL PLANS (SERIES E) FOR DETAILS
- TAXIWAY CENTERLINE LIGHT, REFER TO ELECTRICAL PLANS (SERIES E) FOR DETAILS
- TAXIWAY EDGE LIGHT, REFER TO ELECTRICAL PLANS (SERIES E) FOR DETAILS

GENERAL NOTES

1. PAVEMENT MARKING DETAILS SHALL CONFORM TO THE LATEST EDITION OF THE FEDERAL AVIATION ADMINISTRATION'S ADVISORY CIRCULAR AC-150/5340-1. IF A CONFLICT OCCURS BETWEEN THESE PLANS AND THE ADVISORY CIRCULAR, THE ADVISORY CIRCULAR SHALL TAKE PRECEDENCE.
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7. SURFACES THAT ARE OBSTRUCTED DUE TO DEBRIS OR FLAKING PAINT SHALL BE THOROUGHLY CLEANED AND SWEPT BEFORE APPLYING NEW MARKINGS.
8. ENGINEER TO REVIEW AND APPROVE PAVEMENT MARKING LAYOUT BEFORE MARKING IS PERFORMED.
9. REFER TO SHEET C1.11 FOR HORIZONTAL AND VERTICAL CONTROL.

CONSTRUCTION NOTES

1. APPLY THIRTY-SIX INCH (36") WIDE SOLID WHITE RUNWAY EDGE LINE PAVEMENT MARKING PER DETAIL 1, SHEET C11.2
2. APPLY SOLID YELLOW CLOSED TAXIWAY PAVEMENT MARKING PER DETAIL 6, SHEET C11.2
3. MATCH EXISTING MARKING
4. APPLY ENHANCED RUNWAY HOLDING POSITION PAVEMENT MARKING PER DETAIL 4, SHEET C11.2
5. APPLY SIX INCH (6") WIDE SOLID YELLOW TAXIWAY CENTERLINE PAVEMENT MARKING PER DETAIL 2, SHEET C11.2
6. APPLY DOUBLE SIX INCH (6") WIDE SOLID YELLOW TAXIWAY EDGE PAVEMENT MARKING PER DETAIL 3, C11.2
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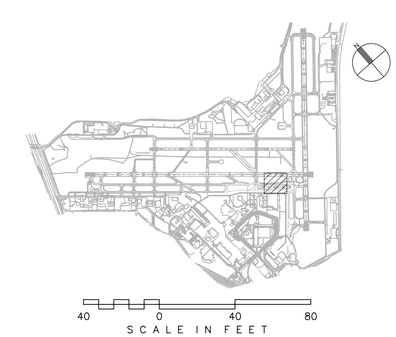
8. REFER TO DETAIL 5, SHEET C11.2 FOR RUNWAY/TAXIWAY INTERSECTION INFORMATION
9. APPLY THIRTY-SIX INCH (36") WIDE SOLID YELLOW TAXIWAY SHOULDER PAVEMENT MARKING PER DETAIL 1, SHEET C11.3
10. APPLY SURFACE PAINTED HOLD POSITION SIGN PER DETAIL 2, SHEET C11.3
11. APPLY BLACK PAINT TO PCC PAVEMENT THAT LIES OUTSIDE OF TAXIWAY EDGE MARKINGS (NPI)



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PAVEMENT MARKING PLAN - TAXIWAY G - ALTERNATE 3

C11.8

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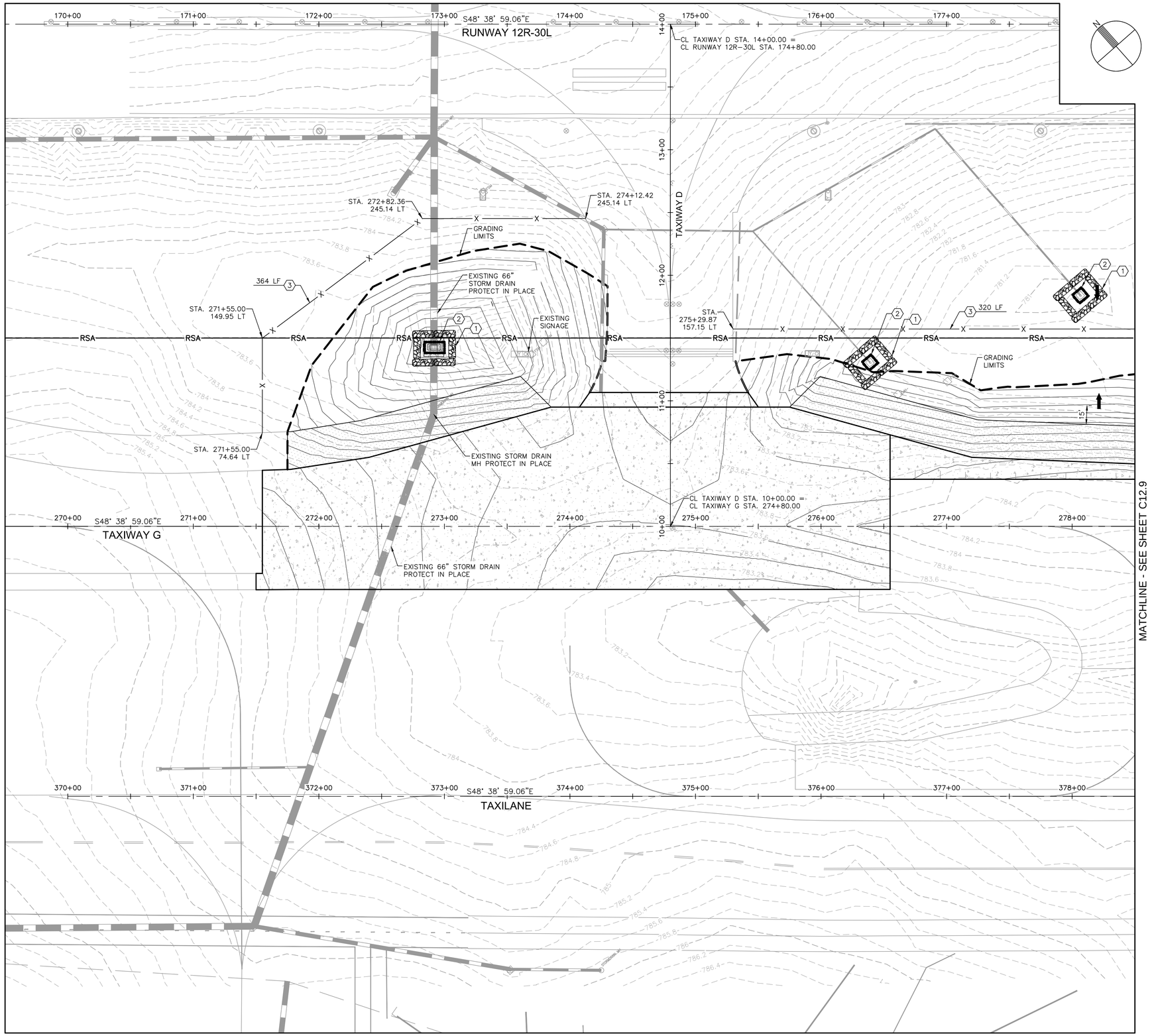


LEGEND

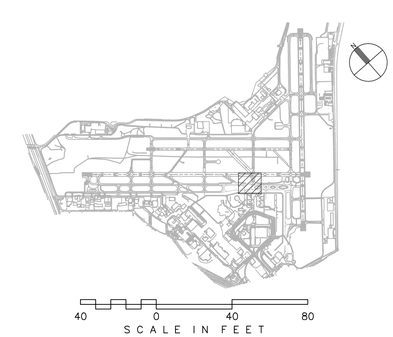
- PORTLAND CEMENT CONCRETE PAVEMENT
- PORTLAND CEMENT CONCRETE TRANSITION
- ASPHALT CONCRETE SHOULDER PAVEMENT
- ROCK FILTER DAM
- DRAINAGE INLET PROTECTION
- FLOW DIRECTION ARROW
- GRADING LIMITS
- 777 EXISTING CONTOUR
- 777 PROPOSED CONTOUR
- X SEDIMENT CONTROL FENCE
- PROPOSED STORM DRAIN
- EXISTING STORM DRAIN

GENERAL NOTES

1. THE PURPOSE OF THE SWPPP IS TO PROTECT THE EXISTING DRAINAGE BASINS, CHANNELS, AND PIPE NETWORKS FROM SEDIMENTATION AND CONTAMINANTS.
2. THIS PROPOSED LAYOUT SHOWS THE FINAL CONDITION OF THE PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING AND MAINTAINING BMP INSTALLATIONS DURING CONSTRUCTION.
3. PLACE WATTLES IN FRONT OF ALL INLETS.
4. SEE SPECIFICATION T-904 FOR SODDING REQUIREMENTS.
5. REFER TO ELECTRICAL PLANS (SERIES E) FOR AIRFIELD LIGHTING, SIGNING, AND ELECTRICAL FEATURES.
6. LIMITS OF SODDING ARE A TYPICAL WIDTH OF 15 FEET OFF OF THE EDGES OF PROPOSED PAVEMENT.
7. INLET PROTECTION TO BE PLACED ON EXISTING STORM DRAIN INLETS INITIALLY AND REMOVED UPON DEMOLITION OF EXISTING STORM DRAIN SYSTEM. INLET PROTECTION SHALL BE PLACED ON PROPOSED STORM DRAIN INLETS UPON THEIR CONSTRUCTION.
8. SILT FENCE MUST BE REMOVED FROM RUNWAY SAFETY AREA PRIOR TO OPENING OF RUNWAY.
9. A NOTAM SHALL BE ISSUED DURING THIS PHASE THAT WORK WILL BE COMPLETED ON TAXIWAY D/G, OUTSIDE THE RSA, WHILE STORM WATER MEASURES WILL BE WITHIN THE RSA.

CONSTRUCTION NOTES

1. INSTALL ROCK FILTER DAM PER DETAIL SHEET C12.3.
2. INSTALL CATCH BASIN PROTECTION PER DETAIL SHEET C12.4.
3. INSTALL SEDIMENT CONTROL FENCE PER DETAIL SHEET C12.3.



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

RUNWAY 12R-30L ELECTRICAL IMPROVEMENTS AND TERMINAL AREA TAXIWAY IMPROVEMENTS (PACKAGE 4)

MICHAEL A. NORBY
87178
REGISTERED PROFESSIONAL ENGINEER
05/03/16

MARK	DATE	DESCRIPTION

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STORM WATER POLLUTION PREVENTION PLAN - TAXIWAY G - ALTERNATE 3

C12.8

SHEET NO. 147 OF 157

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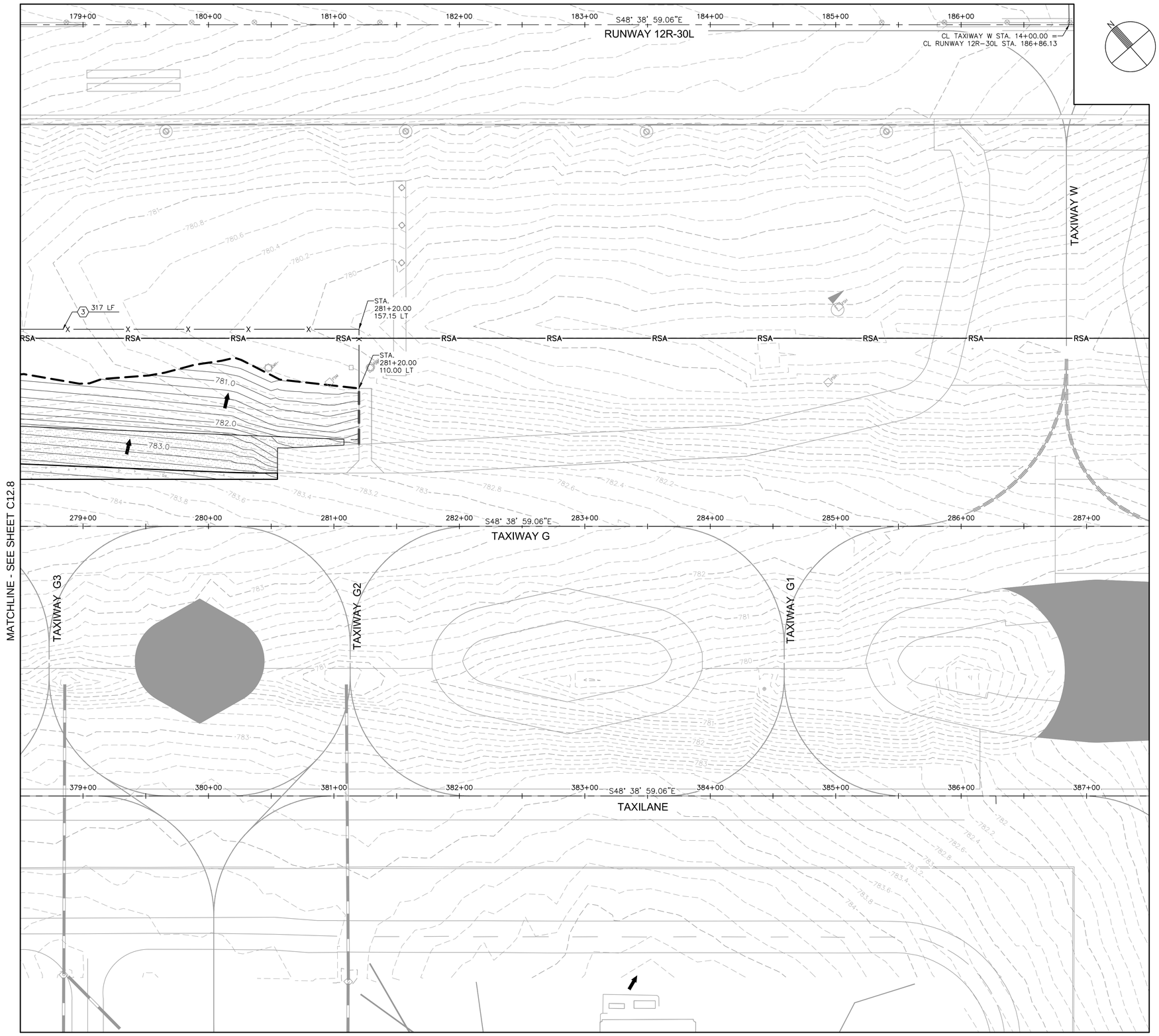


LEGEND

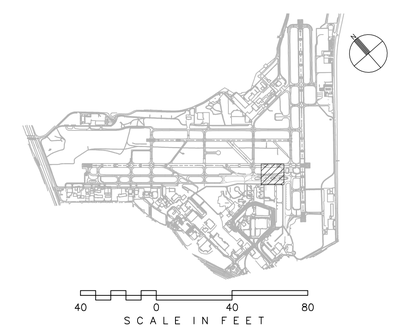
- PORTLAND CEMENT CONCRETE PAVEMENT
- PORTLAND CEMENT CONCRETE TRANSITION
- ASPHALT CONCRETE SHOULDER PAVEMENT
- ROCK FILTER DAM
- DRAINAGE INLET PROTECTION
- FLOW DIRECTION ARROW
- GRADING LIMITS
- 777 EXISTING CONTOUR
- 777 PROPOSED CONTOUR
- X SEDIMENT CONTROL FENCE
- PROPOSED STORM DRAIN
- EXISTING STORM DRAIN

GENERAL NOTES

1. THE PURPOSE OF THE SWPPP IS TO PROTECT THE EXISTING DRAINAGE BASINS, CHANNELS, AND PIPE NETWORKS FROM SEDIMENTATION AND CONTAMINANTS.
2. THIS PROPOSED LAYOUT SHOWS THE FINAL CONDITION OF THE PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING AND MAINTAINING BMP INSTALLATIONS DURING CONSTRUCTION.
3. PLACE WATTLES IN FRONT OF ALL INLETS.
4. SEE SPECIFICATION T-904 FOR SODDING REQUIREMENTS.
5. REFER TO ELECTRICAL PLANS (SERIES E) FOR AIRFIELD LIGHTING, SIGNING, AND ELECTRICAL FEATURES.
6. LIMITS OF SODDING ARE A TYPICAL WIDTH OF 15 FEET OFF OF THE EDGES OF PROPOSED PAVEMENT.
7. INLET PROTECTION TO BE PLACED ON EXISTING STORM DRAIN INLETS INITIALLY AND REMOVED UPON DEMOLITION OF EXISTING STORM DRAIN SYSTEM. INLET PROTECTION SHALL BE PLACED ON PROPOSED STORM DRAIN INLETS UPON THEIR CONSTRUCTION.
8. SILT FENCE MUST BE REMOVED FROM RUNWAY SAFETY AREA PRIOR TO OPENING OF RUNWAY.
9. A NOTAM SHALL BE ISSUED DURING THIS PHASE THAT WORK WILL BE COMPLETED ON TAXIWAY D/G, OUTSIDE THE RSA, WHILE STORM WATER MEASURES WILL BE WITHIN THE RSA.

CONSTRUCTION NOTES

1. INSTALL ROCK FILTER DAM PER DETAIL SHEET C12.3.
2. INSTALL CATCH BASIN PROTECTION PER DETAIL SHEET C12.4.
3. INSTALL SEDIMENT CONTROL FENCE PER DETAIL SHEET C12.3.



CITY OF SAN ANTONIO AVIATION DEPARTMENT

SAN ANTONIO AIRPORT SYSTEM

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TEXAS REGISTERED FIRM, NO. 928

RUNWAY 12R-30L ELECTRICAL IMPROVEMENTS AND TERMINAL AREA TAXIWAY IMPROVEMENTS (PACKAGE 4)

MICHAEL A. NORBY
67178
REGISTERED PROFESSIONAL ENGINEER
05/03/16

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STORM WATER POLLUTION PREVENTION PLAN - TAXIWAY G - ALTERNATE 3

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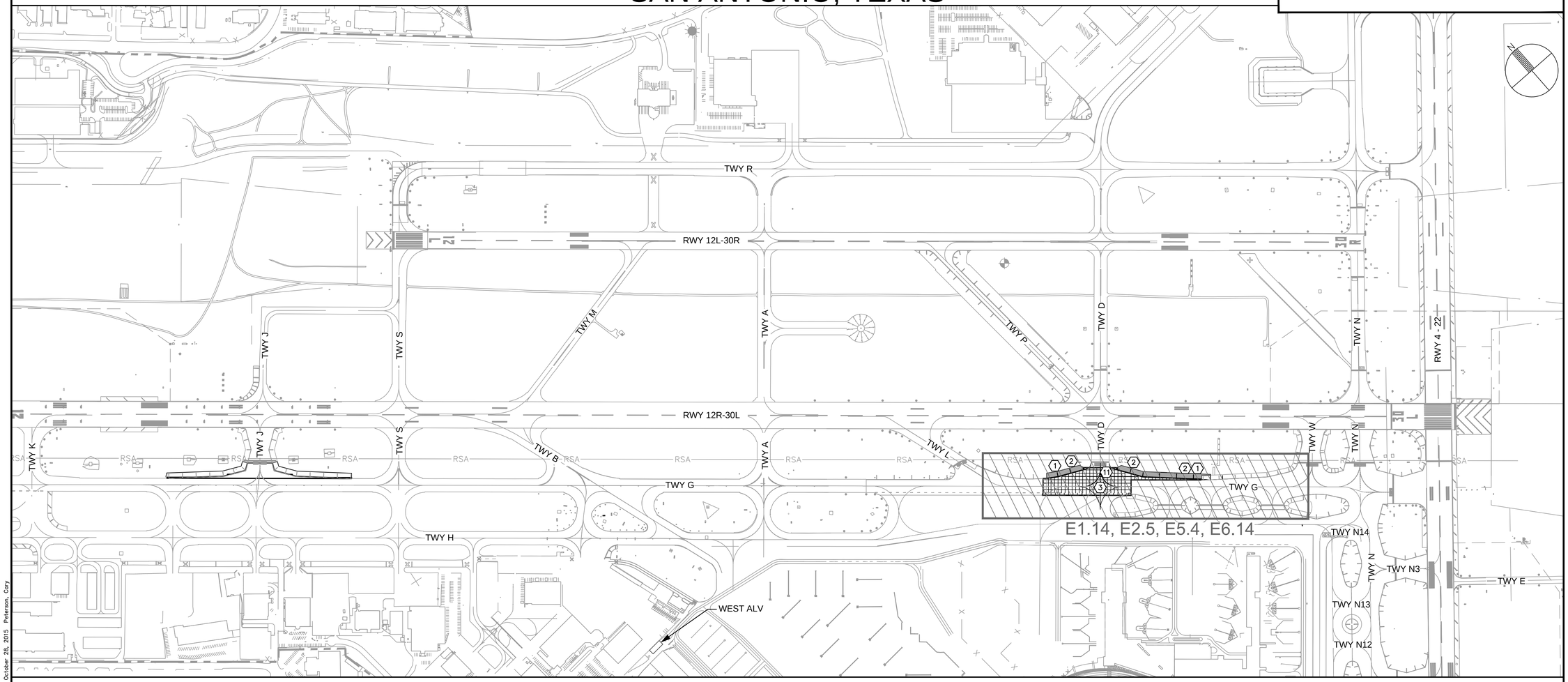

TERMINAL AREA TAXIWAY IMPROVEMENTS
TAXIWAY GOLF AT TAXIWAY DELTA
PACKAGE 4 - BID ALT 3

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

ELECTRICAL SCOPE OF WORK - PACKAGE 4 - BID ALT 3

1. SALVAGE AND REINSTALL EXISTING ELEVATED LED TAXIWAY EDGE LIGHTS WITH NEW ISOLATION TRANSFORMERS ON NEW L-867 BASE CAN WITH NEW CONDUIT AND CABLES.
2. SALVAGE AND REINSTALL EXISTING SIGNS WITH NEW ISOLATION TRANSFORMERS ON NEW CONCRETE FOUNDATIONS.
3. INSTALL NEW L-868 BASES & CONDUIT FOR TAXIWAY CENTERLINE LIGHTS IN PCC PAVEMENT IN RECONSTRUCTED SEGMENTS OF TAXIWAYS 'G' AND TAXIWAY 'D'. SALVAGE AND REINSTALL EXISTING IN-PAVEMENT TAXIWAY CENTERLINE LIGHTS WITH NEW ISOLATION TRANSFORMERS ON NEW L-868 BASES. INSTALL BLANK COVERS ON INDICATED NEW L-868 BASES.
11. INSTALL NEW DUCT BANK PARALLEL TO RUNWAY 12R-30L. DIRECTIONAL BORE UNDER EXISTING TAXIWAY PAVEMENT.

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TEXAS REGISTERED FIRM,
NO. 928

RUNWAY 12R-30L
ELECTRICAL IMPROVEMENTS
AND TERMINAL AREA
TAXIWAY IMPROVEMENTS
(PACKAGE 4)

STATE OF TEXAS
ERIC C. LOVEJOY
84081
LICENSED
PROFESSIONAL ENGINEER
5/6/16

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ELECTRICAL SCOPE
OF WORK -
ALTERNATE 3

E0.8

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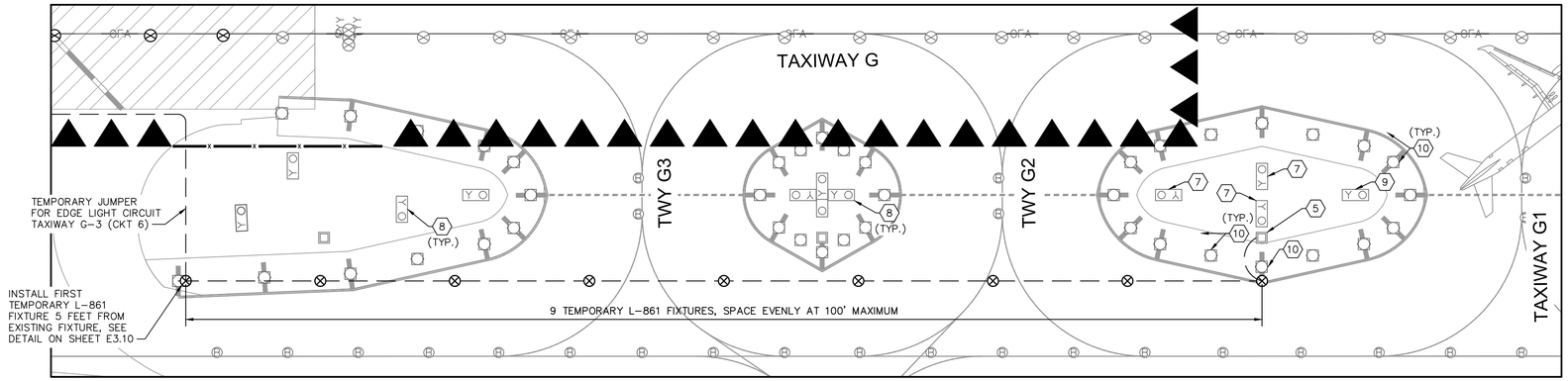

ENLARGED PLAN

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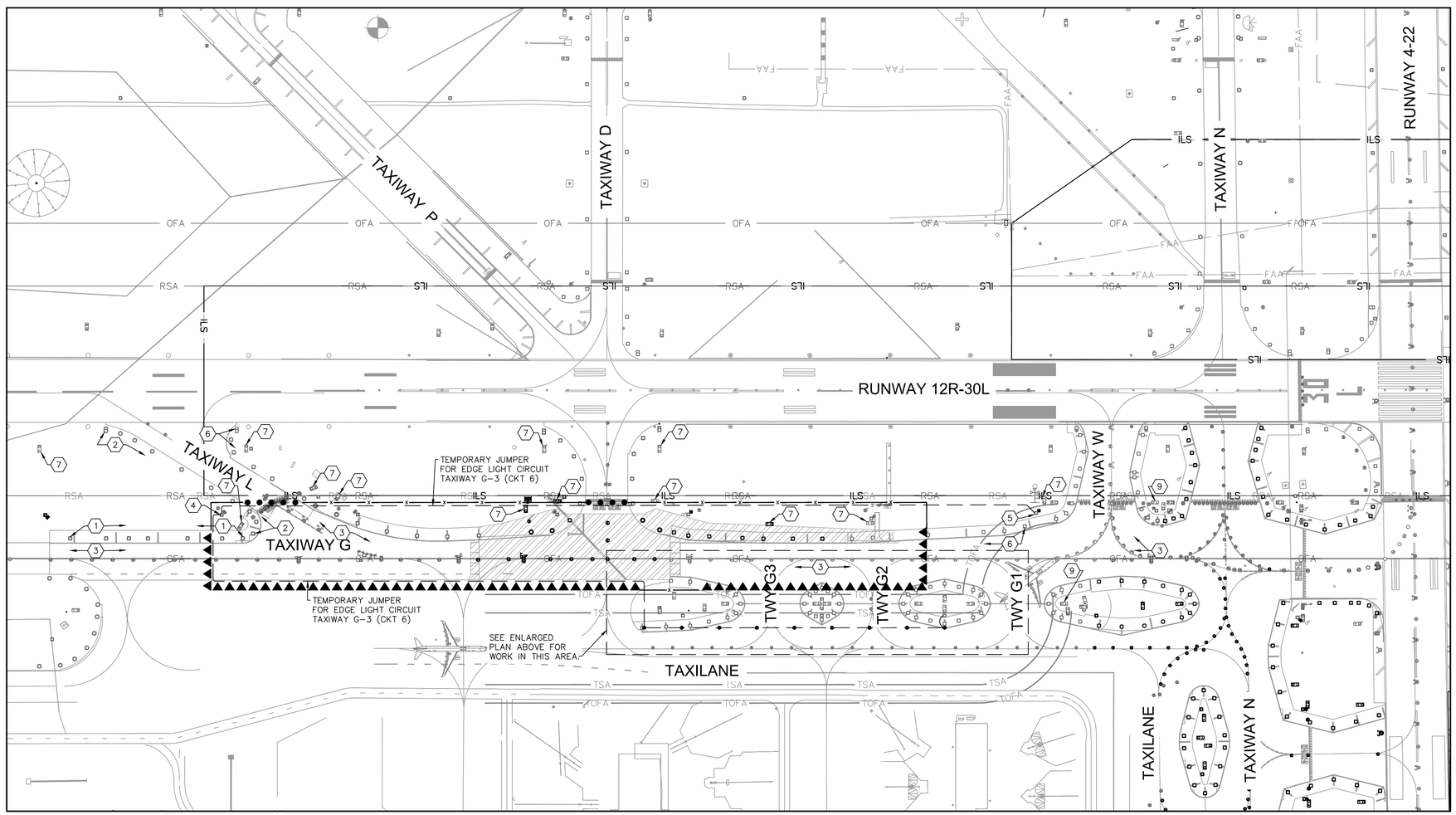
SCALE IN FEET



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SCALE IN FEET

LEGEND

- LOW LEVEL BARRICADES, SEE CIVIL DRAWINGS
- LINKED LOW LEVEL BARRICADES, SEE CIVIL DRAWINGS
- TSA — TAXIWAY SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- ORANGE SAFETY FENCE, SEE CIVIL DRAWINGS
- TAXIING AIRCRAFT
- PACKAGE 4 – ALTERNATE 3

GENERAL NOTES:

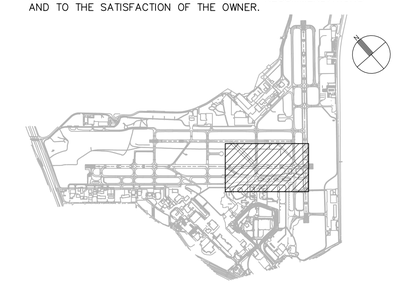
1. TEMPORARY CIRCUITS ARE TO BE INSTALLED AS NECESSARY TO MAINTAIN THE OPEN PORTIONS OF THE AIRFIELD.
2. SEE CIRCUIT MAPS ON E4 SERIES DRAWINGS FOR ADDITIONAL INFORMATION.
3. CONTRACTOR IS TO COORDINATE ALL POWER OR LIGHTING OUTAGES WITH SAT OPERATIONS PRIOR TO ANY WORK.
4. SEE E5 SERIES FOR SIGNS THAT ARE TO BE COVERED DURING CONSTRUCTION.
5. COORDINATE WITH CONSTRUCTION PHASING PLANS, C2 SERIES DRAWINGS.

CONSTRUCTION NOTES:

1. COVER ELEVATED TAXIWAY EDGE LIGHTS ALONG TWY 'G' BETWEEN WEST OF TWY 'L' WITH PVC PIPE SECTIONS, SEE DETAIL ON SHEET E3.10.
2. COVER ELEVATED TAXIWAY EDGE LIGHTS ALONG WEST SIDE OF TWY 'L' WITH PVC PIPE SECTIONS, SEE DETAIL ON SHEET E3.10.
3. TURN OFF TAXIWAY GOLF CENTERLINE LIGHT CIRCUIT G-CL-EAST (CKT 15) ENTIRELY.
4. INTERCEPT CIRCUIT TAXIWAY G-3 (CKT 6) IN HANDHOLE. CONNECT TEMPORARY JUMPERS TO INCOMING CONDUCTORS.
5. INTERCEPT CIRCUIT TAXIWAY G-3 (CKT 6) IN HANDHOLE. CONNECT TEMPORARY JUMPER TO EXISTING CONDUCTOR WHICH EXITS THE HANDHOLE TO THE EAST.
6. ELEVATED TAXIWAY EDGE LIGHTS THAT ARE DE-ENERGIZED BY THE TEMPORARY JUMPER ON CIRCUIT TAXIWAY G-3 (CKT 6) SEE NOTE 5 ABOVE.
7. COVER EXISTING SIGN, SEE DETAIL ON SHEET E3.1.
8. COVER ALL SIGNS ON THE INFIELD ISLAND, SEE DETAIL ON SHEET E3.1.
9. PARTIALLY COVER SIGN, SEE DETAIL ON SHEET E3.1.
10. COVER ELEVATED TAXIWAY EDGE LIGHTS IN INFIELD ISLAND BETWEEN TWY 'G2' AND TWY 'G1'. COVER WITH PVC PIPE SECTIONS, SEE DETAIL ON SHEET E3.10.

LENS COVER NOTES:

1. COVER LENS WITH MATTE FINISH, VINYL COATED, NO-RESIDUE GAFFER'S TAPE, COLOR BLACK, 2" WIDE (3M MODEL 6910 OR EQUAL). CONTRACTOR TO SUBMIT SAMPLE OF PROPOSED TAPE FOR ENGINEER'S REVIEW.
2. LENS COVERING SHALL SEAL AROUND THE LENS AND EXTEND 2" MINIMUM BEYOND THE LENS ONTO THE FIXTURE BODY. LENS COVERING SHALL BLOCK ALL LIGHT EMANATING FROM THE FIXTURE.
3. CONTRACTOR SHALL CLEAN ANY ADHESIVE RESIDUE OFF THE LENSES OF TEMPORARY COVERED CENTERLINE LIGHTS. CLEANING SHALL BE PER MANUFACTURER'S RECOMMENDATIONS AND TO THE SATISFACTION OF THE OWNER.



CITY OF SAN ANTONIO AVIATION DEPARTMENT

SAN ANTONIO AIRPORT SYSTEM

Kimley»Horn

KIMLEY-HORN AND ASSOCIATES, INC.
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SAN ANTONIO, TEXAS 78216
PHONE: (210) 541-9166

TEXAS REGISTERED FIRM, NO. 928

RUNWAY 12R-30L ELECTRICAL IMPROVEMENTS AND TERMINAL AREA TAXIWAY IMPROVEMENTS (PACKAGE 4)

STATE OF TEXAS
ERIC C. LOVEJOY
84061
LICENSED
PROFESSIONAL ENGINEER
5/27/16

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TEMPORARY AIRFIELD ELECTRICAL - ALTERNATE 3

E0.9

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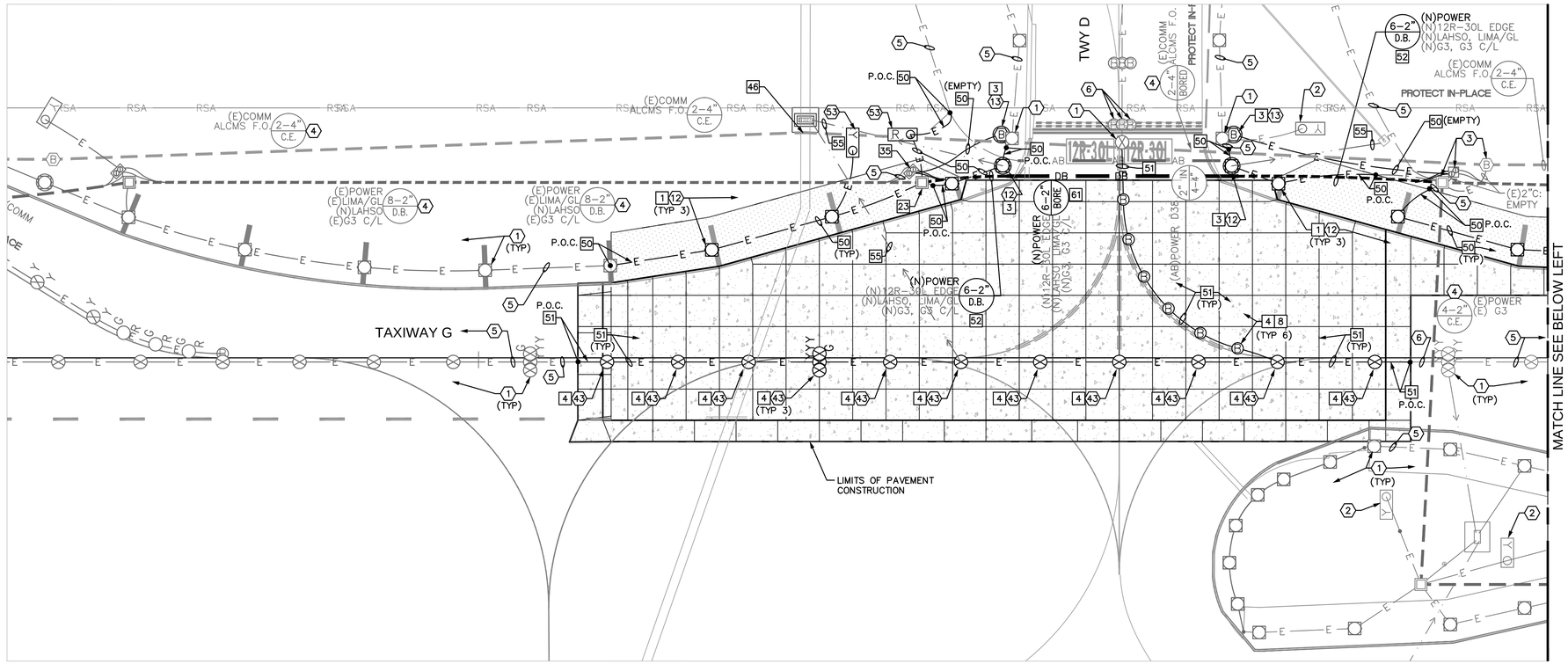
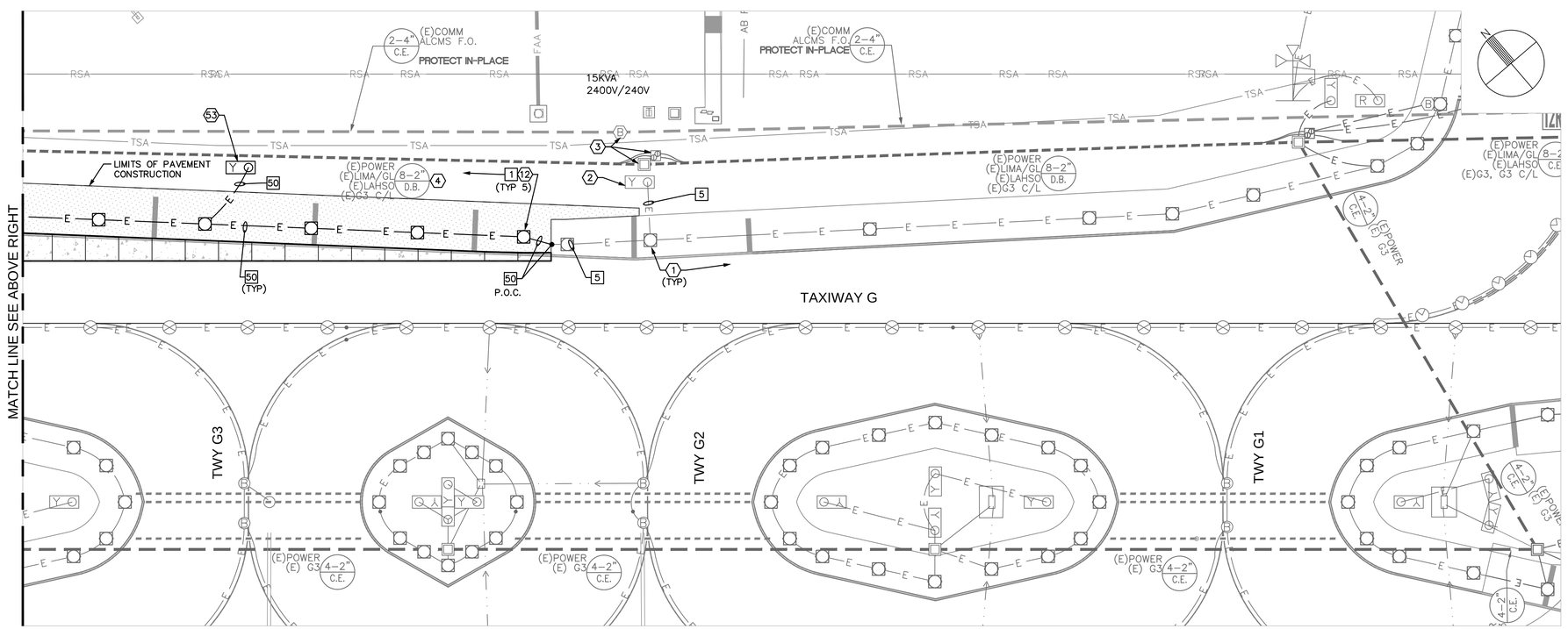




FIXTURE, SIGN & CIRCUIT CONSTRUCTION NOTES

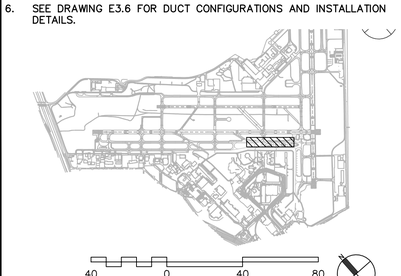
1. EXISTING LIGHT, PROTECT IN PLACE.
2. EXISTING SIGN, PROTECT IN PLACE.
3. EXISTING MANHOLE, HANDHOLE OR PULLBOX, PROTECT IN PLACE.
4. EXISTING DUCT, PROTECT IN PLACE. IF NOTED INSTALL NEW CONDUCTOR(S) AS INDICATED. SEE E4 SERIES CIRCUIT MAPS.
5. EXISTING CONDUIT, PROTECT IN PLACE. IF NOTED INSTALL NEW CONDUCTOR(S) AS INDICATED. SEE E4 SERIES CIRCUIT MAPS.
6. EXISTING BASE CAN, PROTECT IN PLACE.
12. RELOCATE L-861T(LED) TAXIWAY EDGE LIGHT AND L-830.
13. FURNISH AND INSTALL BLANK COVER: FUTURE L-804 RUNWAY GUARD LIGHT.
43. REINSTALL SALVAGED EXISTING L-852A TAXIWAY CENTERLINE LIGHT WITH NEW L-830.
53. SALVAGE & REINSTALL SIZE 3 SIGN WITH NEW L-830 ON NEW CONCRETE FOUNDATION.

BASE CAN, FOUNDATION & CONDUIT NOTES

1. NEW L-867 BASE CAN IN NEW ASPHALT PAVEMENT.
3. NEW L-867 BASE CAN IN UN-PAVED SHOULDER.
4. NEW L-868 BASE CAN IN NEW PCC PAVEMENT.
5. NEW L-868 BASE CAN IN EXISTING PCC PAVEMENT.
8. NEW 3/4" BLANK COVER ON NEW OR EXISTING L-868 BASE CAN.
23. EXTEND EXIST HANDHOLE TO NEW GRADE. SEE DETAILS ON DRAWING E3.9.
35. EXTEND EXIST 2-CAN JUNCTION CAN PLAZA TO NEW GRADE. SEE DETAILS ON DRAWING E3.9.
46. REMOVE SIZE D JUNCTION CAN AND CONCRETE SURROUND. PROTECT ALCMS F.O. CABLE. PROTECT (2)2" CONDUITS BEYOND LIMITS OF CONCRETE REMOVAL. THROUGH THE EXCAVATED AREA: 1) REPAIR CONDUIT CONTAINING THE F.O. CABLE WITH SPLIT CONDUIT, 2) SPLICE EMPTY 2" CONDUIT, 3) ENCASE BOTH CONDUITS WITH CONCRETE THROUGH THE EXCAVATED AREA PER E3.6 TRENCH DETAILS AND FILL REMAINING AREA WITH P-153 AND P-152.
50. NEW 1-2"PVC, D.B. (ITEM L-110). NEW CONDUCTORS (ITEM L-108).
51. NEW 1-2"PVC, C.E. (ITEM L-110). NEW CONDUCTORS (ITEM L-108).
52. NEW DUCT, D.B. (ITEM L-110). NEW CONDUCTORS (ITEM L-108).
61. DIRECTIONAL BORE HDPE DUCT UNDER EXISTING PAVEMENT: MINIMUM 36-INCHES BELOW PAVEMENT SURFACE.

GENERAL NOTES

1. SEE E0 SERIES DRAWINGS FOR TEMPORARY CIRCUITS AND FIXTURES
2.
3. SEE CIRCUIT MAPS E4 SERIES DRAWINGS FOR NEW OR TEMPORARY CIRCUITS AND FIXTURES.
4. SEE E5 SERIES DRAWINGS FOR AIRFIELD SIGN LEGENDS.
5. SEE E6 SERIES DRAWINGS FOR ELECTRICAL DEMOLITION PLANS.
6. SEE DRAWING E3.6 FOR DUCT CONFIGURATIONS AND INSTALLATION DETAILS.



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SAN ANTONIO AIRPORT SYSTEM

Kimley»Horn

KIMLEY-HORN AND ASSOCIATES, INC.
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TEXAS REGISTERED FIRM, NO. 928

RUNWAY 12R-30L ELECTRICAL IMPROVEMENTS AND TERMINAL AREA TAXIWAY IMPROVEMENTS (PACKAGE 4)

STATE OF TEXAS
ERIC C. LOVEJOY
84081
LICENSED
PROFESSIONAL ENGINEER
7-16

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ELECTRICAL LAYOUT PLAN - ALTERNATE 3

E1.14

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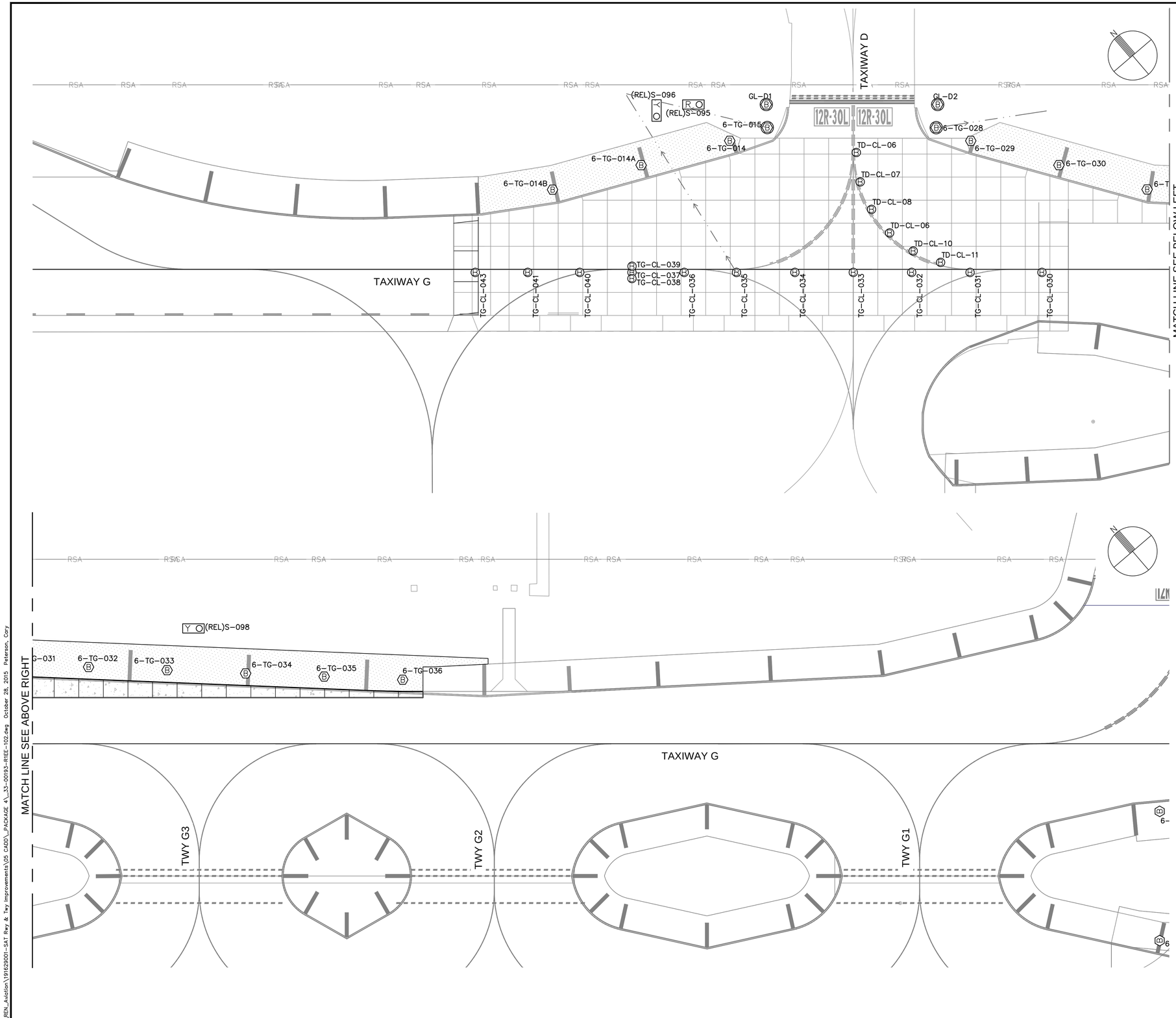
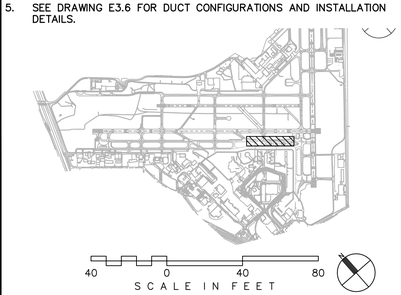


GENERAL NOTES

1. SEE DATA TABLES ON FOLLOWING DRAWING (E2._A) FOR NEW FIXTURE, HANDHOLE, JUNCTION CAN, BASE CAN, AND SIGN FOUNDATION LOCATIONS.
2. SEE E1 SERIES DRAWINGS FOR NEW ELECTRICAL SYSTEM LAYOUT PLANS.
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.



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STATE OF TEXAS
ERIC C. LOVEJOY
84081
LICENSED
PROFESSIONAL ENGINEER
5/16/16

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ELECTRICAL FIXTURE LAYOUT PLAN - ALTERNATE 3

E2.5

SHEET NO. 152 OF 157

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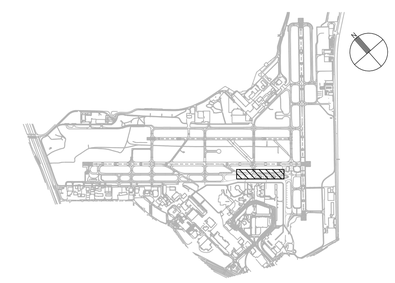
E2.5 L–867 DATA TABLE				
FIXT–NUM	STA	OFF	DETAIL	FAA–TYPE
6–TG–014	'Taxiway G' 273+79.51	104.55' LT.	E3.3	L–867B FOR (REL)L–861T(L)
6–TG–014A	'Taxiway G' 273+07.46	84.67' LT.	E3.3	L–867B FOR (REL)L–861T(L)
6–TG–014B	'Taxiway G' 272+35.40	64.79' LT.	E3.3	L–867B FOR (REL)L–861T(L)
6–TG–015	'Taxiway G' 274+10.05	115.28' LT.	E3.3 UNPAVED SHOULDER	L–867B FOR (REL)L–861T(L)
6–TG–028	'Taxiway G' 275+47.47	115.16' LT.	E3.3 UNPAVED SHOULDER	L–867B FOR (REL)L–861T(L)
6–TG–029	'Taxiway G' 275+75.61	104.52' LT.	E3.3	L–867B FOR (REL)L–861T(L)
6–TG–030	'Taxiway G' 276+47.33	84.73' LT.	E3.3	L–867B FOR (REL)L–861T(L)
6–TG–031	'Taxiway G' 277+19.05	64.95' LT.	E3.3	L–867B FOR (REL)L–861T(L)
6–TG–032	'Taxiway G' 277+82.94	62.36' LT.	E3.3	L–867B FOR (REL)L–861T(L)
6–TG–033	'Taxiway G' 278+46.83	59.78' LT.	E3.3	L–867B FOR (REL)L–861T(L)
6–TG–034	'Taxiway G' 279+10.72	57.20' LT.	E3.3	L–867B FOR (REL)L–861T(L)
6–TG–035	'Taxiway G' 279+74.61	54.62' LT.	E3.3	L–867B FOR (REL)L–861T(L)
6–TG–036	'Taxiway G' 280+38.50	52.03' LT.	E3.3	L–867B FOR (REL)L–861T(L)
GL–D1	'Taxiway G' 274+09.25	134.00' LT.	E3.3	L–867B W/ COVER
GL–D2	'Taxiway G' 275+48.67	134.00' LT.	E3.3	L–867B W/ COVER

E2.5 L–868 DATA TABLE				
FIXT–NUM	STA	OFF	DETAIL	FAA–TYPE
TD–CL–06	'Taxiway G' 274+82.50	95.00' LT.	E3.4 W/ BLANK COVER	L–868
TD–CL–06	'Taxiway G' 275+09.59	29.59' LT.	E3.4 W/ BLANK COVER	L–868
TD–CL–07	'Taxiway G' 274+85.65	71.06' LT.	E3.4 W/ BLANK COVER	L–868
TD–CL–08	'Taxiway G' 274+94.89	48.75' LT.	E3.4 W/ BLANK COVER	L–868
TD–CL–10	'Taxiway G' 275+28.75	14.89' LT.	E3.4 W/ BLANK COVER	L–868
TD–CL–11	'Taxiway G' 275+51.06	5.65' LT.	E3.4 W/ BLANK COVER	L–868
TG–CL–030	'Taxiway G' 278+05.00	2.50' RT.	E3.4 FOR L–852	L–868
TG–CL–031	'Taxiway G' 275+75.01	2.50' RT.	E3.4 FOR L–852	L–868
TG–CL–032	'Taxiway G' 275+27.51	2.50' RT.	E3.4 FOR L–852	L–868
TG–CL–033	'Taxiway G' 274+80.01	2.50' RT.	E3.4 FOR L–852	L–868
TG–CL–034	'Taxiway G' 274+32.51	2.50' RT.	E3.4 FOR L–852	L–868
TG–CL–035	'Taxiway G' 273+85.00	2.50' RT.	E3.4 FOR L–852	L–868
TG–CL–036	'Taxiway G' 273+42.50	2.50' RT.	E3.4 FOR L–852	L–868
TG–CL–037	'Taxiway G' 273+00.00	2.50' RT.	E3.4 FOR L–852	L–868
TG–CL–038	'Taxiway G' 272+99.97	7.51' RT.	E3.4 FOR L–852	L–868
TG–CL–039	'Taxiway G' 273+00.04	2.51' LT.	E3.4 FOR L–852	L–868
TG–CL–040	'Taxiway G' 272+57.50	2.50' RT.	E3.4 FOR L–852	L–868
TG–CL–041	'Taxiway G' 272+15.20	2.50' RT.	E3.4 FOR L–852	L–868
TG–CL–043	'Taxiway G' 272+57.50	2.50' RT.	E3.4 FOR L–852	L–868

E2.5 SIGN DATA TABLE						
SIGN–NUM	STA	OFF	DETAIL	CIRCUIT	MODULES	SIZE
(REL)S–095	'Taxiway G' 273+54.66	134.00' LT.	E3.1	12R–30L EDGE (31)	RT858R4M	MODE 2
(REL)S–096	'Taxiway G' 273+20.00	124.44' LT.	E3.1	G3 (6)	RT858Y3M	MODE 2
(REL)S–098	'Taxiway G' 278+72.98	93.75' LT.	E3.1	G3 (6)	RT858Y4+2M	MODE 3



CITY OF
SAN ANTONIO
AVIATION
DEPARTMENT

SAN ANTONIO AIRPORT SYSTEM

Kimley»Horn

KIMLEY–HORN AND ASSOCIATES, INC.
601 NW LOOP 410, SUITE 350
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PHONE: (210) 541–9166

TEXAS REGISTERED FIRM,
NO. 928

RUNWAY 12R-30L
ELECTRICAL IMPROVEMENTS
AND TERMINAL AREA
TAXIWAY IMPROVEMENTS
(PACKAGE 4)

STATE OF TEXAS
ERIC C. LOVEJOY
84081
LICENSED
PROFESSIONAL ENGINEER
7-1-16

MARK	DATE	DESCRIPTION

ISSUE: ----

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ELECTRICAL
FIXTURE DATA
TABLES -
ALTERNATE 3

E2.5A

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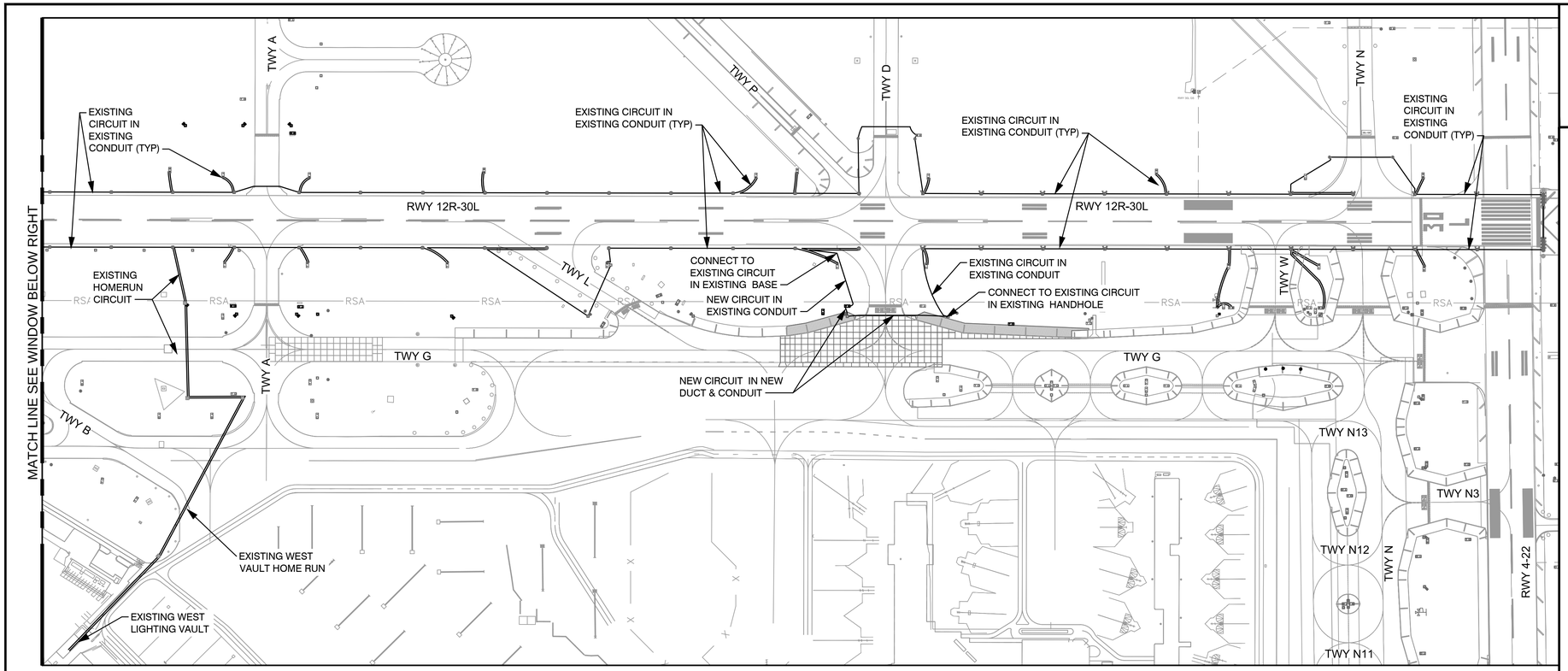

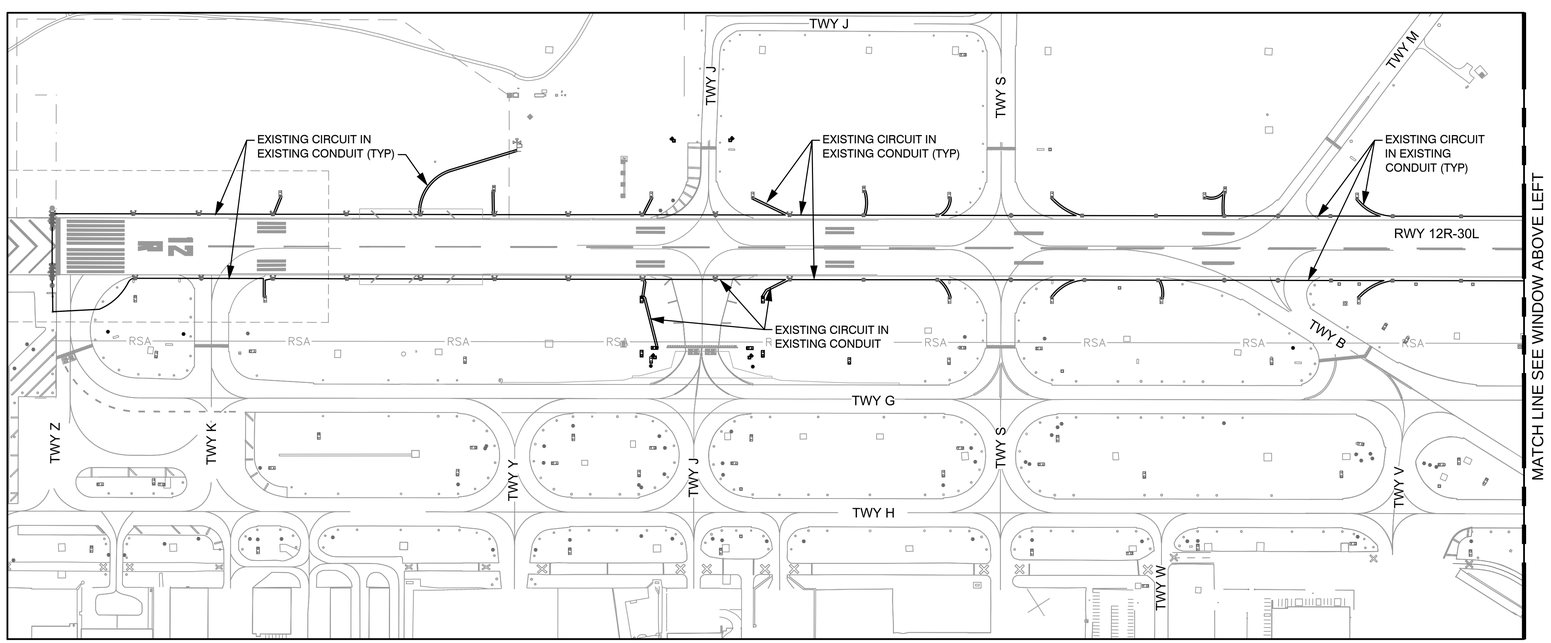

GENERAL NOTES

1. ALL WORK ON THIS DRAWING IS PART OF THE ALT 3 BID.

DATA TABLE - CIRCUIT '12R-30L EDGE' (# 31)				
QUANTITY	ITEM DESC.	FT./ITEM *		TOTAL LENGTH
90	L-862	x 6 '	=	540'
20	L-850C	x 6 '	=	120'
44	SIGNS	x 6 '	=	264'
2	WINDCONES	x 6 '	=	12'
1	L-867 or L-868	x 6 '	=	6'
14	HANDHOLES	x2*12 '	=	336'
6	MANHOLES	x2*18 '	=	216'
* SLACK CABLE PER SPECS				
ITEM TOTAL LENGTH			=	1,494'
+ PLAN CIRCUIT LENGTH			=	29,226'
= TOTAL CIRCUIT LENGTH			=	30,720'

CIRCUIT DEFINITION		
CABLE SIZE	CABLE TYPE	DESCRIPTION
#6	L-824 5kV TYPE C	AIRFIELD LIGHTING PER L-108
TOTAL CIRCUIT LENGTH INSTALLED IN ALT 3 BID		600'

200 0 200 400
SCALE IN FEET

CITY OF SAN ANTONIO AVIATION DEPARTMENT

SAN ANTONIO AIRPORT SYSTEM

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TEXAS REGISTERED FIRM, NO. 928

RUNWAY 12R-30L ELECTRICAL IMPROVEMENTS AND TERMINAL AREA TAXIWAY IMPROVEMENTS (PACKAGE 4)

STATE OF TEXAS
ERIC C. LOVEJOY
84081
LICENSED
PROFESSIONAL ENGINEER
5/27/16

MARK	DATE	DESCRIPTION

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CIRCUIT MAP 12R-30L EDGE (CKT 31) - ALTERNATE 3

E4.13

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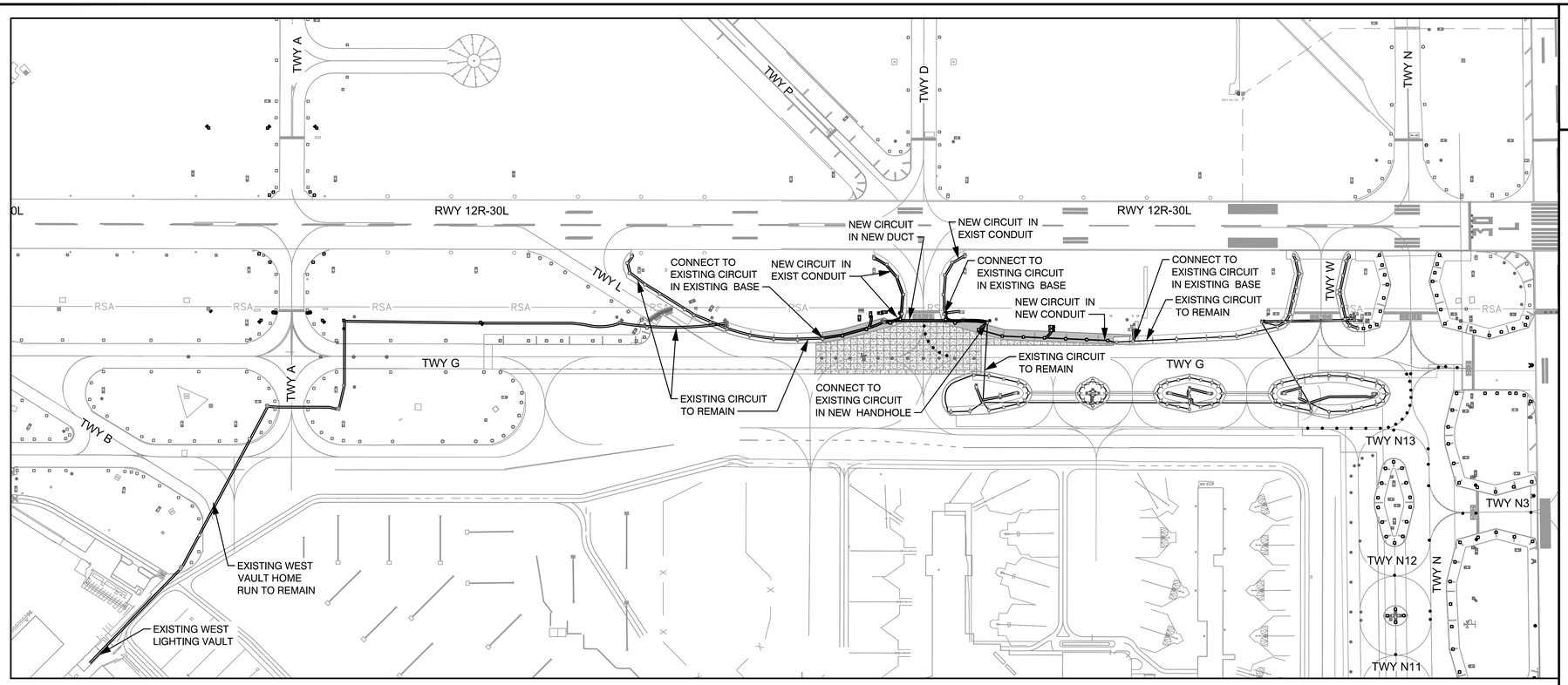

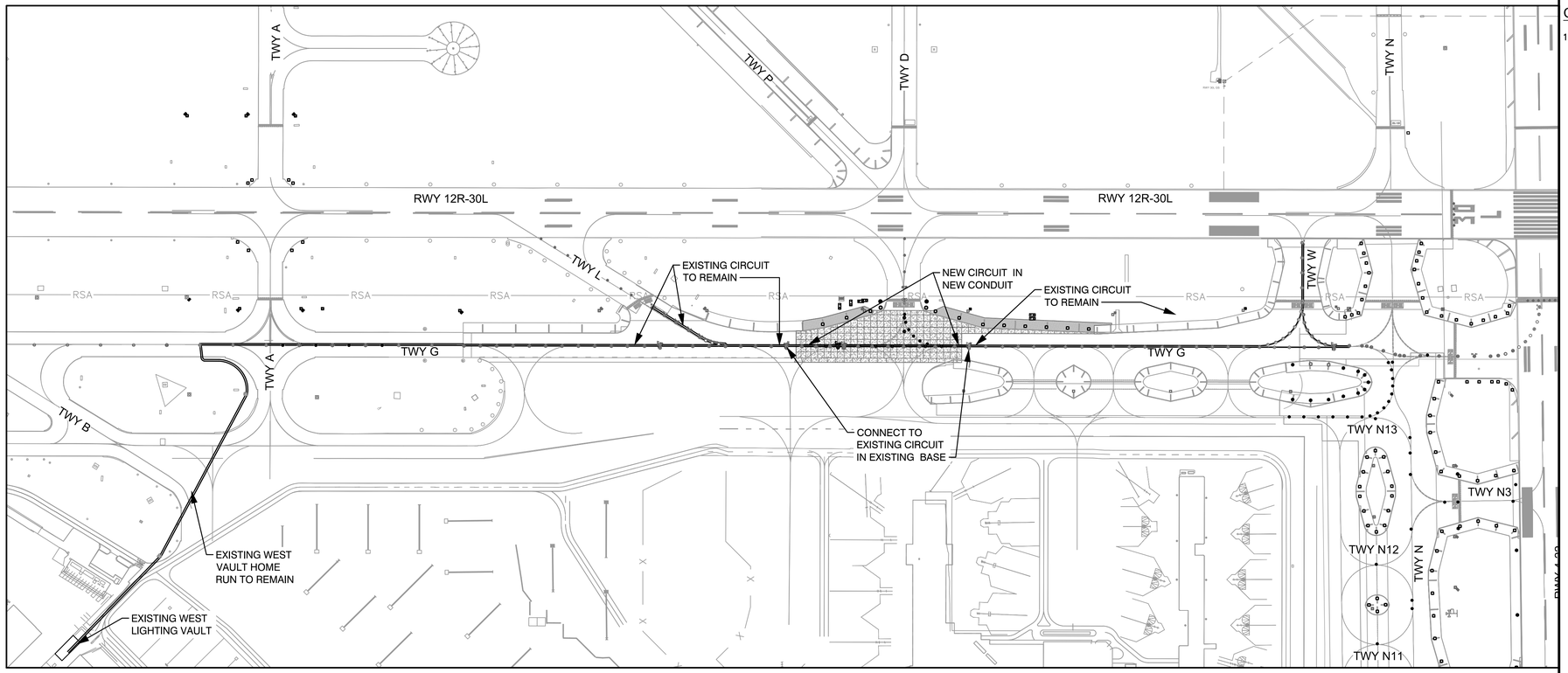

DATA TABLE - CIRCUIT 'T/W EDGE G-3' (# 6)

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 '	= '
12	HANDHOLES	x2*12 '	= 288'
3	MANHOLES	x2*18 '	= 108'
* SLACK CABLE PER SPECS			
		ITEM TOTAL LENGTH	= 1,302'
		+ PLAN CIRCUIT LENGTH	= 16,818'
		= TOTAL CIRCUIT LENGTH	= 18,120'

CIRCUIT DEFINITION

CABLE SIZE	CABLE TYPE	DESCRIPTION
#8	L-824 5kV TYPE C	AIRFIELD LIGHTING PER L-108
TOTAL CIRCUIT LENGTH INSTALLED IN ALT 3 BID		2,600'

GENERAL NOTES

1. ALL WORK ON THIS DRAWING IS PART OF THE ALT 3 BID.

DATA TABLE - CIRCUIT 'T/W G CL EAST' (# 15)

QUANTITY	ITEM DESC.	FT./ITEM *	TOTAL LENGTH
88	L-852A	x 6 '	= 528'
13	L-852K	x 6 '	= 78'
		x 6 '	= '
		x 6 '	= '
4	L-868	x 6 '	= 24'
0	HANDHOLES	x2*12 '	= 0'
3	MANHOLES	x2*18 '	= 108'
* SLACK CABLE PER SPECS			
		ITEM TOTAL LENGTH	= 738'
		+ PLAN CIRCUIT LENGTH	= 10,532'
		= TOTAL CIRCUIT LENGTH	= 11,270'

CIRCUIT DEFINITION

CABLE SIZE	CABLE TYPE	DESCRIPTION
#8	L-824 5kV TYPE C	AIRFIELD LIGHTING PER L-108
TOTAL CIRCUIT LENGTH INSTALLED IN ALT 3 BID		1,200'

N

200 0 200 400

SCALE IN FEET

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RUNWAY 12R-30L ELECTRICAL IMPROVEMENTS AND TERMINAL AREA TAXIWAY IMPROVEMENTS (PACKAGE 4)

STATE OF TEXAS
ERIC C. LOVEJOY
84061
LICENSED
PROFESSIONAL ENGINEER

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CIRCUIT MAPS TAXIWAY G 3 (CKT 6) & TAXIWAY G CL EAST (CKT 15) - ALTERNATE 3

E4.14

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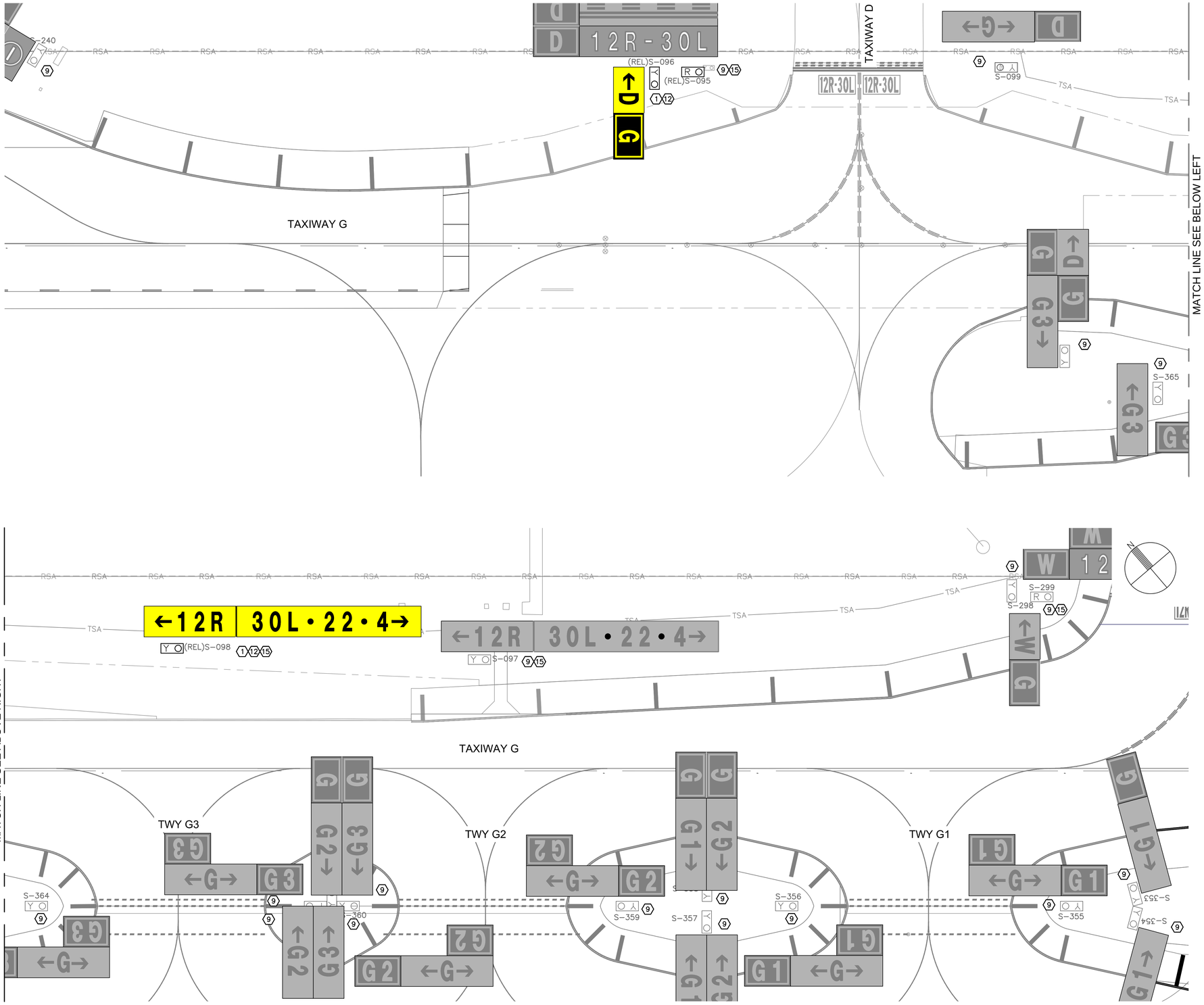
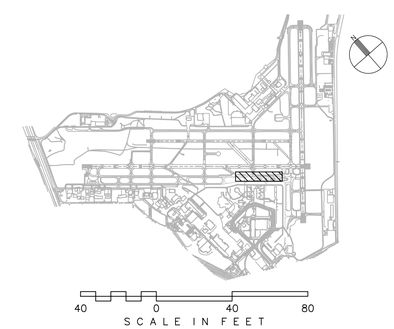


SIGN SHEET NOTES

1. NEW CONCRETE FOUNDATION INSTALLED IN THIS PHASE. SEE DETAILS ON E3.1. SEE E2 SERIES DRAWINGS FOR LOCATIONS.
9. EXISTING SIGN, BASE AND LEGEND TO REMAIN IN THIS PHASE.
12. EXISTING SIGN TO BE REINSTALLED.
15. NEW SIGN PANELS FOR RUNWAY MAGNETIC DECLINATION CHANGE OF EXISTING SIGNS TO BE FURNISHED AND INSTALLED BY THE AIRPORT.

GENERAL NOTES

1. SEE E1 SERIES DRAWINGS FOR ELECTRICAL SYSTEM LAYOUT PLANS.
2. SEE E2 SERIES DRAWINGS FOR NEW AIRFIELD SIGN LOCATIONS.
3. NEW SIGN MESSAGES ARE SHOWN IN COLORS ON THE ORIGINAL PDF. EXISTING SIGN MESSAGES ARE SHOWN IN GRAY TONES.



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AIRFIELD SIGN PLAN - ALTERNATE 3

E5.4

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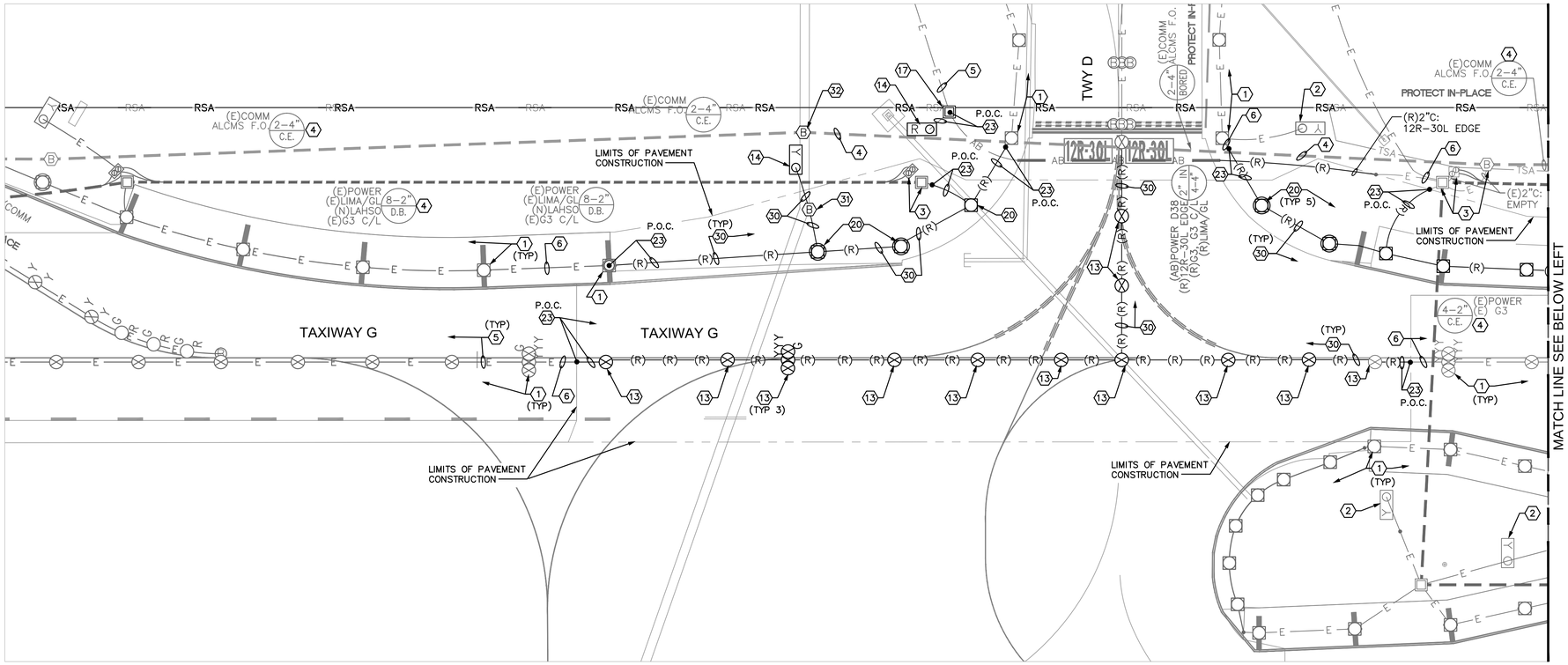
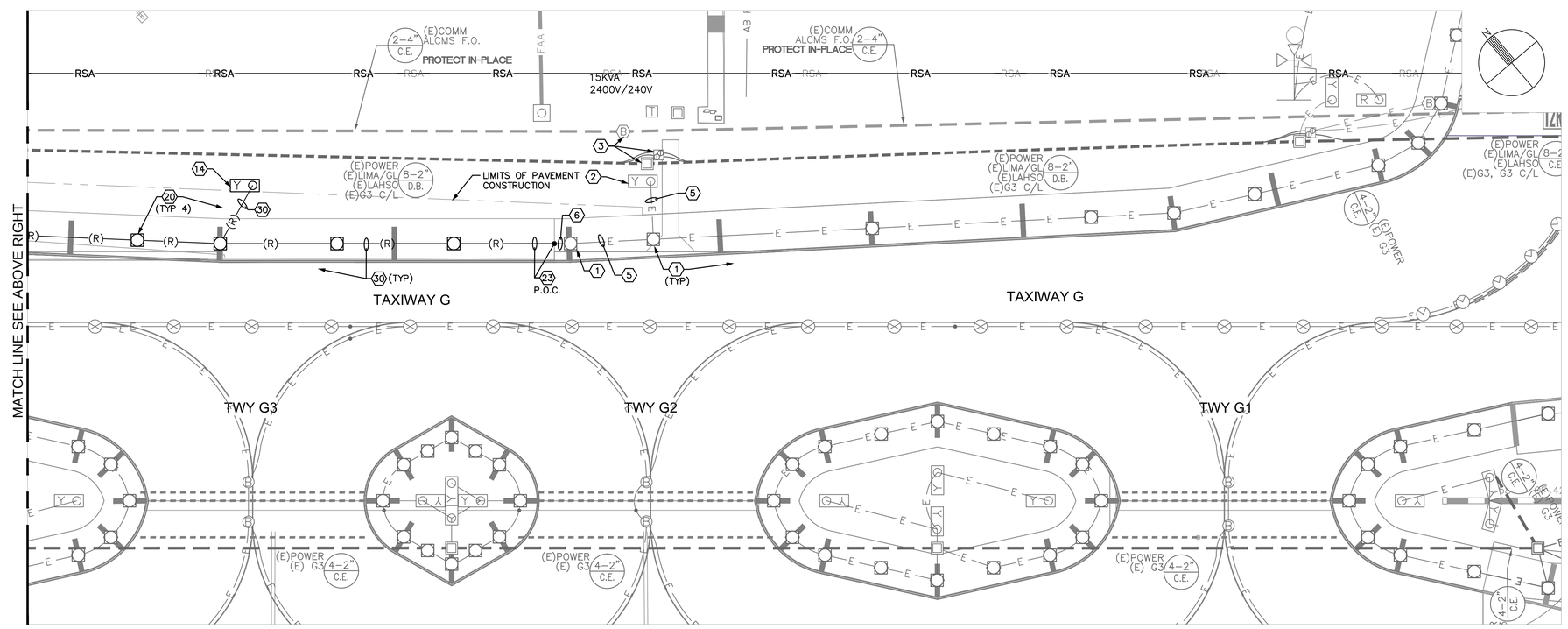


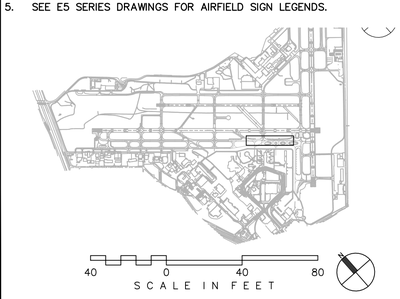


ELECTRICAL DEMOLITION NOTES

1. EXISTING LIGHT, PROTECT IN PLACE.
2. EXISTING SIGN OR SIGN FOUNDATION, PROTECT IN PLACE.
3. EXISTING HANDHOLE OR PULLBOX, PROTECT IN PLACE.
4. EXISTING DUCT, PROTECT IN PLACE. REMOVE CONDUCTOR(S) AS NOTED.
5. EXISTING CONDUIT, PROTECT IN PLACE. REMOVE CONDUCTOR(S) AS NOTED.
6. PROTECT EXISTING CONDUIT TO REMAIN OUTSIDE OF AREA OF CIVIL DEMOLITION FOR RECONNECTION TO NEW CONDUIT. PULL CONDUCTORS BACK TO ADJACENT BASE CAN TO REMAIN.
13. SALVAGE EXISTING TAXIWAY CENTERLINE LIGHT FOR REINSTALLATION. REMOVE EXISTING ISOLATION TRANSFORMER.
14. SALVAGE EXISTING SIGN FOR REINSTALLATION. REMOVE EXISTING ISOLATION TRANSFORMER. REMOVE THE FOUNDATION FROM SITE.
17. REMOVE EXISTING HANDHOLE OR SIZE D J-CAN AND CONCRETE SURROUND.
20. SALVAGE EXISTING TAXIWAY EDGE LIGHT FOR REINSTALLATION. REMOVE EXISTING ISOLATION TRANSFORMER. SEE E1 SERIES DRAWINGS FOR REINSTALLATION OF EDGE 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.
30. REMOVE EXISTING CONDUIT. REMOVE CONDUCTORS BACK TO EXISTING STRUCTURE TO REMAIN OR AS NOTED.
31. REMOVE EXISTING BASECAN AND ASSOCIATED CONDUIT TO LIMITS OF DEMOLITION.
32. REMOVE SIZE D JUNCTION CAN AND CONCRETE SURROUND. PROTECT ALCMS F.O. CABLE. PROTECT (2)2" CONDUITS BEYOND LIMITS OF CONCRETE REMOVAL. THROUGH THE EXCAVATED AREA: 1) REPAIR CONDUIT CONTAINING THE F.O. CABLE WITH SPLIT CONDUIT, 2) SPLICE EMPTY 2" CONDUIT, 3) ENCASE BOTH CONDUITS WITH CONCRETE THROUGH THE EXCAVATED AREA PER E3.6 TRENCH DETAILS AND FILL REMAINING AREA WITH P-153 AND P-152.

GENERAL NOTES

1. SEE E0 SERIES DRAWINGS FOR TEMPORARY CIRCUITS AND FIXTURES.
2. SEE DRAWING E1.14 FOR ELECTRICAL LAYOUT PLAN.
3. SEE E2 SERIES DRAWINGS & DATA TABLES FOR NEW FIXTURE, HANDHOLE, JUNCTION CAN, BASE CAN, AND SIGN FOUNDATION LOCATIONS.
4. SEE CIRCUIT MAPS E4 SERIES DRAWINGS FOR NEW OR MODIFIED CIRCUITS.
5. SEE E5 SERIES DRAWINGS FOR AIRFIELD SIGN LEGENDS.



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STATE OF TEXAS
ERIC C. LOVEJOY
84081
LICENSED
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2016

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ELECTRICAL DEMOLITION PLAN - ALTERNATE 3

E6.14

SHEET NO. 157 OF 157

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