

ST. CLAIR COUNTY, ILLINOIS
CONSTRUCTION PLANS
FOR

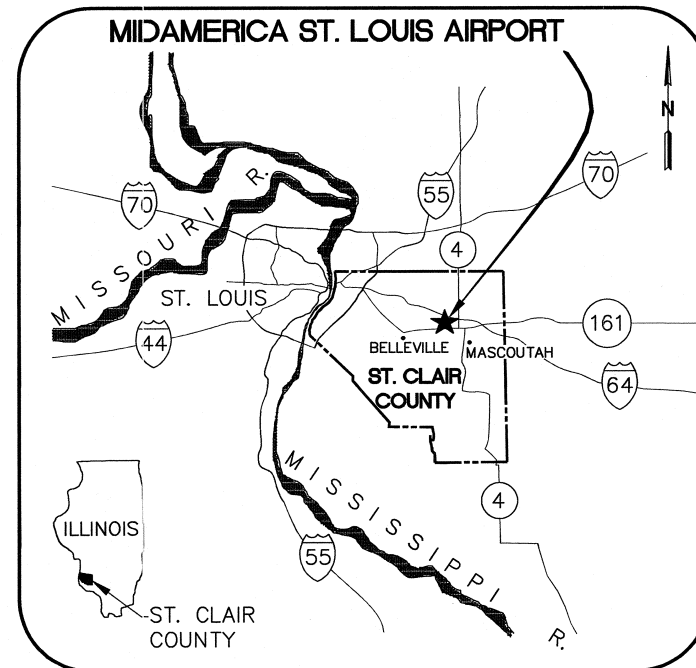


INDEX TO SHEETS

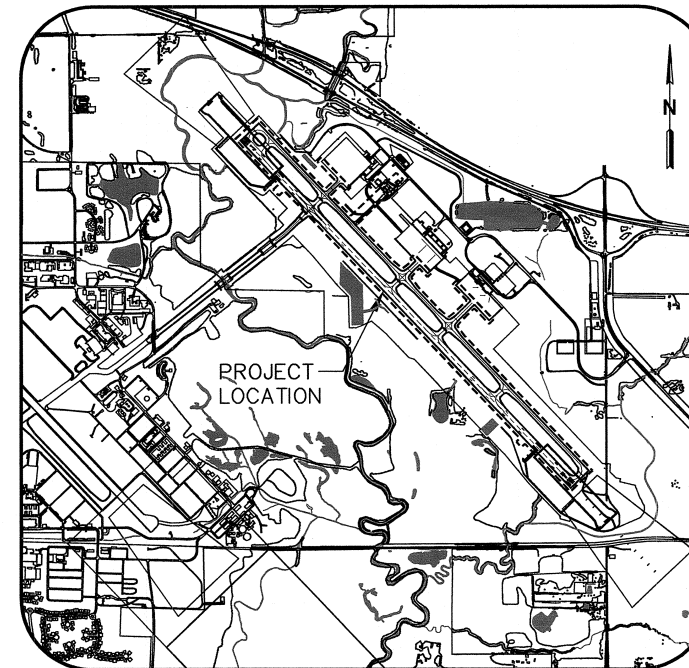
1. COVER SHEET
2. SUMMARY OF QUANTITIES
3. SITE PLAN/PROPOSED IMPROVEMENTS
4. CSPP NOTES 1
5. CSPP NOTES 2
6. CONSTRUCTION PHASING OVERVIEW
7. CONSTRUCTION ACTIVITY PLAN PHASE 1
8. CONSTRUCTION ACTIVITY PLAN PHASE 2
9. CONSTRUCTION ACTIVITY PLAN PHASE 3
10. CONSTRUCTION ACTIVITY PLAN PHASE 4
11. CONSTRUCTION ACTIVITY PLAN PHASE 5
12. CONSTRUCTION ACTIVITY PLAN PHASE 6
13. LIGHT REPLACEMENT PLAN 1
14. LIGHT REPLACEMENT PLAN 2
15. LIGHT REPLACEMENT PLAN 3
16. LIGHT REPLACEMENT PLAN 4
17. SIGNAGE PLAN 1
18. SIGNAGE PLAN 2
19. SIGNAGE PLAN 3
20. SIGNAGE PLAN 4
21. SIGNAGE PLAN 5
22. SIGNAGE PLAN 6
23. CIRCUITRY PLAN 1
24. CIRCUITRY PLAN 2
25. CIRCUITRY PLAN 3
26. CIRCUITRY PLAN 4
27. CIRCUITRY PLAN 5
28. CIRCUITRY PLAN 6
29. CIRCUITRY PLAN 7
30. ELECTRICAL DETAILS 1
31. ELECTRICAL DETAILS 2
32. ELECTRICAL DETAILS 3
33. ELECTRICAL DETAILS 4
34. ELECTRICAL DETAILS 5
35. VAULT FLOOR PLAN

ILLINOIS PROJECT BLV - 4405
A. I. P. PROJECT 3-17-SBGP-XX
AIRFIELD LIGHTING IMPROVEMENTS

JUNE 27, 2014



LOCATION MAP



SITE PLAN

811 Know what's below. Call before you dig.
J.U.L.I.E. JOINT UTILITY LOCATING INFORMATION FOR EXCAVATORS
www.illinois1call.com

THE LOCATION, SIZE AND TYPE OF MATERIAL OF EXISTING UNDERGROUND UTILITIES INDICATED ON THE PLANS IS NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT OR COMPLETE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ACTUAL LOCATIONS OF ALL SUCH FACILITIES, INCLUDING SERVICE CONNECTIONS TO UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY UTILITY COMPANIES OF HIS OPERATIONAL PLANS, OBTAIN FROM RESPECTIVE UTILITY COMPANIES DETAILED INFORMATION AND ASSISTANCE RELATIVE TO THE LOCATION OF THEIR FACILITIES AND THE WORKING SCHEDULE OF THE COMPANIES FOR REMOVAL OR ADJUSTMENT WHERE REQUIRED. IN THE EVENT AN UNEXPECTED UTILITY INTERFERENCE IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY COMPANY OF JURISDICTION AND THE ONE-CALL NOTICE SYSTEM. THE ENGINEER SHALL ALSO BE IMMEDIATELY NOTIFIED. ANY SUCH UTILITY OR SERVICES SHALL BE RESTORED TO SERVICE AT ONCE AND PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT.

CALL J.U.L.I.E. FOR UTILITY INFORMATION AT 811.

CALL J.U.L.I.E.
BEFORE EXCAVATING
1-800-892-0123

ST. CLAIR COUNTY
MASCOUTAH TOWNSHIP
TOWNSHIP: 1 NORTH TOWNSHIP: 1 NORTH
RANGE: 7 WEST RANGE: 6 WEST
SECTION(S): 1, 12 SECTION(S): 7

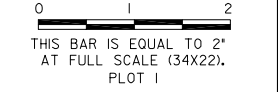
ST. CLAIR COUNTY
PUBLIC BUILDING COMMISSION
AIRPORT SPONSOR
APPROVED *Richard J. Sargent*
CHAIRMAN, PUBLIC BUILDING COMMISSION
DATE *June 19, 2014*

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500
CMT
CRAWFORD MURPHY & TILLY, INC.
CONSULTING ENGINEERS
■ AURORA, IL ■ CHICAGO, IL ■ COLUMBUS, OH
■ EDWARDSVILLE, IL ■ INDIANAPOLIS, IN ■ PEORIA, IL
■ ROCKFORD, IL ■ SPRINGFIELD, IL ■ ST. LOUIS, MO
■ SPRINGFIELD, MO
SUBMITTED BY *Brian W. Daski*
DATE *June 18, 2014*
CMT JOB NUMBER 13098-02

6/18/14
BRIAN W. DASKI
062-058921
LICENSED
PROFESSIONAL
ENGINEER
STATE OF ILLINOIS
Brian W. Daski
Exp. 11/30/15

FILE: K:\MidAmerica\09088601...Joint\Draw\Sheets\01_cover.dwg
DATE: 6/18/14
SCALE: 1" = 20'
PLOT # 0
PLOT UPDATE:

REVISIONS		
NUMBER	BY	DATE



BASE BID

ITEM #	DESCRIPTION	UNIT	QUANTITY
AR108108	1/C #8 5 KV UG CABLE	LF	146,950
AR108960	REMOVE CABLE	LF	60,000
AR110202	2" PVC DUCT, DIRECT BURY	LF	110
AR125416	MITL-BASE MOUNTED-LED	EA	192
AR125444	TAXI GUIDANCE SIGN, 4 CHARACTER	EA	3
AR125448	TAXI GUIDANCE SIGN, 8 CHARACTER	EA	1
AR125550	HI THRESHOLD LIGHT BASE MTD	EA	16
AR125902	REMOVE BASE MOUNTED LIGHT	EA	208
AR125904	REMOVE TAXIWAY GUIDANCE SIGN	EA	4
AR125928	REPLACE PAPI	EA	2
AR125932	REPLACE SIGN PANEL	EA	10
AR150520	MOBILIZATION	LS	1
AR801982	REINSTALL EXISTING CABLE	LF	27,700
AR801983	REPLACE ISOLATION TRANSFORMER	EA	100
AR801984	SPARE MITL-BASE MOUNTED-LED W/XFMR	EA	19

ADDITIVE ALTERNATE NO. 1


ITEM #	DESCRIPTION	UNIT	QUANTITY
AS125416	MITL-BASE MOUNTED-LED	EA	50
AS125902	REMOVE BASE MOUNTED LIGHT	EA	50

ADDITIVE ALTERNATE NO. 2

ITEM #	DESCRIPTION	UNIT	QUANTITY
AT125416	MITL-BASE MOUNTED-LED	EA	82
AT125902	REMOVE BASE MOUNTED LIGHT	EA	82

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

AIRFIELD LIGHTING IMPROVEMENTS



CMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500

© Copyright CMT, Inc.
PROFESSIONAL ENGINEERING - 184--00613

**IL PROJECT, BLV-4405
AIP PROJECT, 3-17-SBGP-XX**

FILE: 02_QUANTITIES.dwg

DESIGN BY: ASF

DRAWN BY: ASF

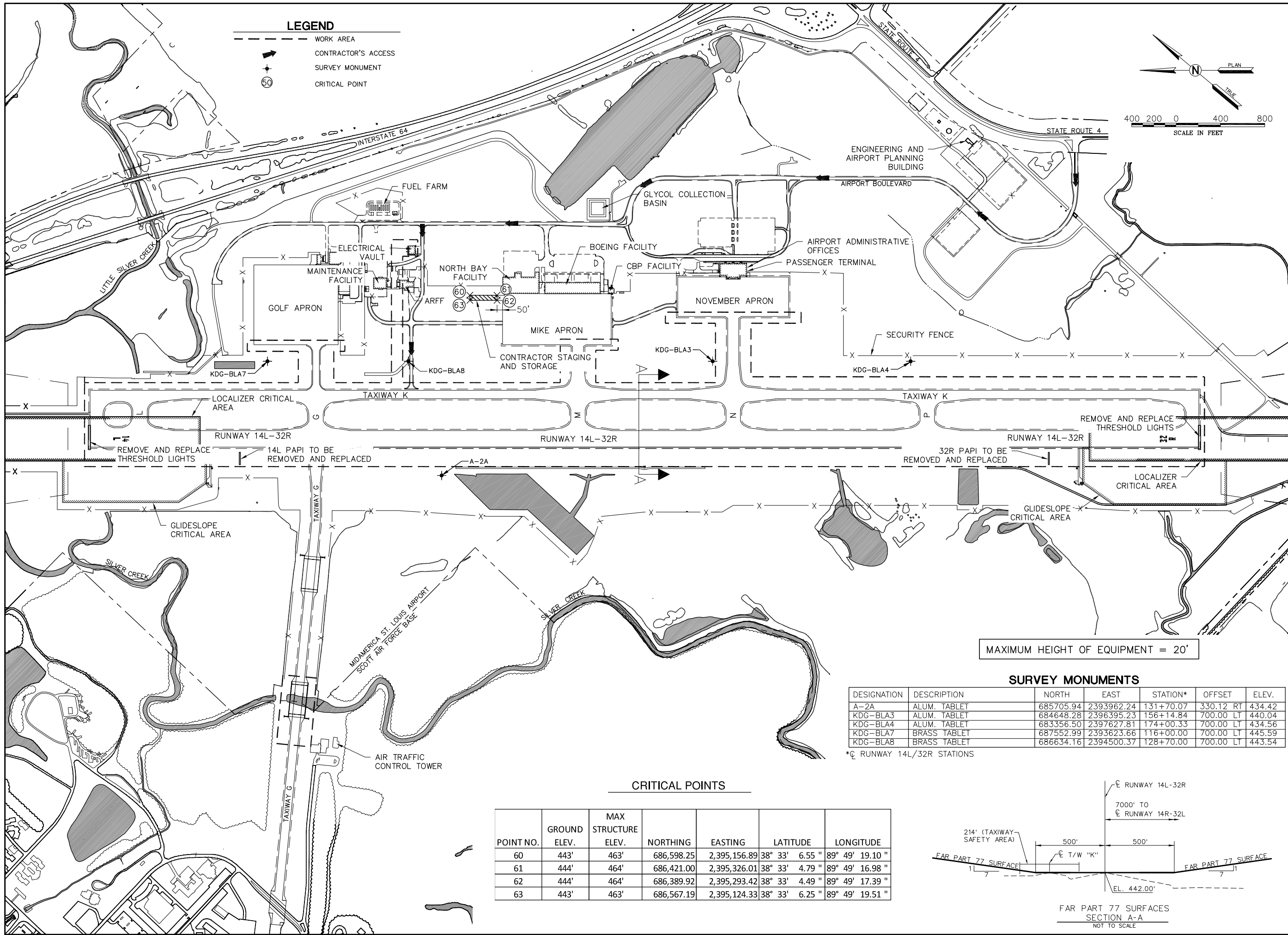
CHECKED BY: MJD/CET

APPROVED BY: BWG

DATE: JUNE 27, 2014

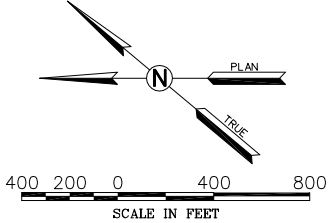
JOB No: 13098-02

**SUMMARY OF
QUANTITIES**



LEGEND

- WORK AREA
- CONTRACTOR'S ACCESS
- SURVEY MONUMENT
- CRITICAL POINT



REVISIONS		
NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2'
AT FULL SCALE (34X22).
PLOT 1

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

AIRFIELD LIGHTING IMPROVEMENTS

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500

CMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS
PROFESSIONAL ENGINEERING - 184-00613

**IL PROJECT, BLV-4405
AIP PROJECT, 3-17-SBGP-XX**

MAXIMUM HEIGHT OF EQUIPMENT = 20'

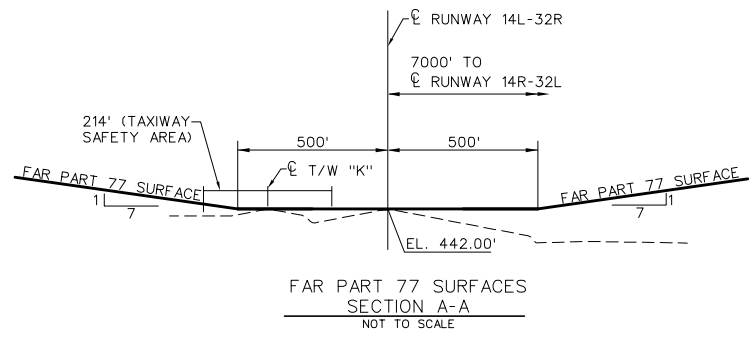
SURVEY MONUMENTS

DESIGNATION	DESCRIPTION	NORTH	EAST	STATION*	OFFSET	ELEV.
A-2A	ALUM. TABLET	685705.94	2393962.24	131+70.07	330.12 RT	434.42
KDG-BLA3	ALUM. TABLET	684648.28	2396395.23	156+14.84	700.00 LT	440.04
KDG-BLA4	ALUM. TABLET	683356.50	2397627.81	174+00.33	700.00 LT	434.56
KDG-BLA7	BRASS TABLET	687552.99	2393623.66	116+00.00	700.00 LT	445.59
KDG-BLA8	BRASS TABLET	686634.16	2394500.37	128+70.00	700.00 LT	443.54

*@ RUNWAY 14L/32R STATIONS

CRITICAL POINTS

POINT NO.	GROUND ELEV.	MAX STRUCTURE ELEV.	NORTHING	EASTING	LATITUDE	LONGITUDE
60	443'	463'	686,598.25	2,395,156.89	38° 33' 6.55"	89° 49' 19.10"
61	444'	464'	686,421.00	2,395,326.01	38° 33' 4.79"	89° 49' 16.98"
62	444'	464'	686,389.92	2,395,293.42	38° 33' 4.49"	89° 49' 17.39"
63	443'	463'	686,567.19	2,395,124.33	38° 33' 6.25"	89° 49' 19.51"



FILE: 03_SITE.dwg
DESIGN BY: ASF
DRAWN BY: ASF
CHECKED BY: MJD/CET
APPROVED BY: BWG
DATE: JUNE 27, 2014
JOB No: 13098-02

**SITE PLAN/
PROPOSED
IMPROVEMENTS**

SHEET 3 OF 35 SHEETS

GENERAL

1. THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL FOLLOW THE REQUIREMENTS OF THE AIRPORT'S APPROVED CONSTRUCTION SAFETY AND PHASING PLAN (CSPP), FAA AC 150/5370-2F, AND ALL AIRPORT SAFETY AND SECURITY REQUIREMENTS.
2. THE CSPP CONSISTS OF PLAN SHEETS 3 THROUGH 12.
3. PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR SHALL SUBMIT TO THE AIRPORT FOR APPROVAL A SAFETY PLAN COMPLIANCE DOCUMENT (SPCD) IN ACCORDANCE WITH FAA AC 150/5370-2F. NO CONSTRUCTION ACTIVITY SHALL BEGIN UNTIL THE AIRPORT HAS APPROVED THE SPCD.
4. THE CSPP COVERS OPERATIONAL SAFETY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INDIVIDUAL SAFETY OF HIS/HER PERSONNEL AND MEETING OSHA REQUIREMENTS.
5. A MINIMUM OF 10 DAYS PRIOR TO THE PRECONSTRUCTION CONFERENCE THE CONTRACTOR SHALL PROVIDE A LIST OF SUBCONTRACTORS AND MATERIAL SUPPLIERS.
6. ALL CONTRACTOR COSTS ASSOCIATED WITH THE REQUIREMENTS LISTED ON THIS SHEET SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT UNLESS A SPECIFIC PAY ITEM IS PROVIDED.
7. IF CONTRACTOR IS NOT ALLOWED TO WORK DUE TO AIRPORT OPERATIONS, THE CONTRACTOR WILL NOT BE CHARGED CONTRACT TIME FOR THAT DAY.

1. COORDINATION

1. PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR SHALL ATTEND A PRECONSTRUCTION CONFERENCE WITH THE AIRPORT, ENGINEER, AND ILLINOIS DIVISION OF AERONAUTICS (IDA). THE COST OF PREPARING FOR AND ATTENDING THE PRECONSTRUCTION CONFERENCE SHALL BE INCIDENTAL TO THE CONTRACT.
2. ON OR BEFORE THE PRECONSTRUCTION CONFERENCE, THE CONTRACTOR SHALL SUBMIT A PROPOSED SCHEDULE FOR THE PROJECT. THE SCHEDULE SHALL INCLUDE A START AND COMPLETION DATE FOR EACH ITEM OF WORK. THE SCHEDULE SHALL BE UPDATED ON A WEEKLY BASIS. ALL COSTS ASSOCIATED WITH THE SCHEDULE SHALL BE INCIDENTAL TO THE CONTRACT.
3. DURING CONSTRUCTION THE CONTRACTOR SHALL ATTEND A DAILY COORDINATION MEETING WITH THE AIRPORT STAFF AND ENGINEER. ALL COSTS ASSOCIATED WITH ATTENDING THE DAILY MEETING SHALL BE INCIDENTAL TO THE CONTRACT.
4. OTHER CONSTRUCTION ACTIVITIES AT SCOTT AIR FORCE BASE WILL BE ONGOING DURING THE TIME OF THIS PROJECT. ANY CONFLICTS WILL BE RESOLVED BY THE AIRPORT.

2. PHASING

1. TOTAL CONTRACT TIME SHALL BE 75 CALENDAR DAYS FOR THE BASE BID. IF ADDITIVE ALTERNATE 1 IS AWARDED AN ADDITIONAL 6 CALENDAR DAYS WILL BE ADDED FOR A TOTAL OF 81. IF ADDITIVE ALTERNATE 2 IS AWARDED AN ADDITIONAL 10 CALENDAR DAYS WILL BE AWARDED FOR A TOTAL OF 85. IF BOTH ADDITIVE ALTERNATE 1 AND ADDITIVE ALTERNATE 2 ARE AWARDED, AN ADDITIONAL 16 CALENDAR DAYS WILL BE AWARDED FOR A TOTAL OF 91.
2. PHASING SHALL BE AS NOTED BELOW AND AS SHOWN ON THE CONSTRUCTION ACTIVITY PLAN (CAP) SHEETS.
3. RUNWAY 14L-32R SHALL NOT BE CLOSED WHEN RUNWAY 14R-32L IS CLOSED.

GENERAL NOTES

1. CABLES TO BE REMOVED AND DISCARDED MAY BE USED AS TEMPORARY JUMPER CABLES WHEN APPROVED BY THE AIRPORT. JUMPER CABLES MAY BE PLACED ON TOP OF THE GROUND IN THE GRASS NEXT TO THE EDGE OF THE PAVED SHOULDER.
2. THE AIRPORT RESERVES THE RIGHT TO OPEN A CLOSED TAXIWAY TO ALLOW A PLANE TO PASS THROUGH DURING ANY OF THE WORK. IF A TAXIWAY IS NEEDED TO BE TEMPORARILY OPENED, THE CONTRACTOR SHALL CLEAR ALL EQUIPMENT FROM THE TAXIWAY OBJECT FREE AREA AND MOVE ANY BARRICADES REQUIRED TO TEMPORARILY OPEN THE TAXIWAY. THE AIRPORT WILL MAKE EVERY EFFORT TO USE OTHER TAXI ROUTES WHEN AVAILABLE.
3. IF FLIGHT SCHEDULES OR SPECIAL OPERATIONS REQUIRE THE CONTRACTOR TO NOT WORK, NO CONTRACT TIME WILL BE CHARGED FOR EACH DAY THE CONTRACTOR IS NOT ALLOWED TO WORK.

PHASE 1 NOTES

1. PHASE 1 CONSISTS OF WORK BETWEEN THE ELECTRICAL VAULT AND THE TIE-IN WITH TAXIWAY K AS WELL AS TAXIWAY K FROM SOUTH OF TAXIWAY G TO NORTH OF TAXIWAY N. AIRFIELD PAVEMENTS WITHIN THE PHASE 1 WORK AREA MAY BE CLOSED CONTINUOUSLY FOR UP TO SIX (6) CALENDAR DAYS.
2. WORK IN PHASE 1 INCLUDES INITIAL MEGGAR TESTING OF ALL AIRFIELD CIRCUITS, REMOVAL OF HOMERUN CABLES, INSTALLATION OF NEW HOMERUN CABLES FOR SELECT CIRCUITS, REMOVAL AND REPLACEMENT OF TAXIWAY K EDGE LIGHT CABLE AND TAXIWAY K SIGN CABLE WITHIN THE PHASE 1 LIMITS, AIRFIELD SIGNAGE IMPROVEMENTS, AND REPLACEMENT OF MITL FIXTURES AND ISOLATION TRANSFORMERS WITH NEW LED MITL AND ISOLATION TRANSFORMERS.
3. THE AIRFIELD CIRCUITS DURING PHASE 1 MAY ONLY BE TURNED OFF DURING DAYLIGHT HOURS WITH NON-ILS WEATHER CONDITIONS. WHEN THE CONTRACTOR IS NOT WORKING, ALL CIRCUITS SHALL BE ACTIVE BUT EDGE LIGHTS AND SIGNS WITHIN THE PHASE 1 LIMITS MAY BE LEFT OFF.
4. PHASE 1 SHALL BE COMPLETED BEFORE MOVING TO ANY OTHER PHASES.

PHASE 2 NOTES

1. PHASE 2 CONSISTS OF WORK ALONG TAXIWAY K BETWEEN TAXIWAY N AND NORTH OF TAXIWAY P INCLUDING THE NOVEMBER APRON.

PHASE 2 NOTES (CONT.)

2. WORK IN PHASE 2 INCLUDES REMOVAL AND REPLACEMENT OF TAXIWAY K EDGE LIGHT CABLE AND TAXIWAY K SIGN CABLE WITHIN THE PHASE 2 LIMITS, AIRFIELD SIGNAGE IMPROVEMENTS, AND REPLACEMENT OF MITL FIXTURES AND ISOLATION TRANSFORMERS WITH NEW LED MITL AND ISOLATION TRANSFORMERS.
3. THE AIRFIELD CIRCUITS DURING PHASE 2 MAY ONLY BE TURNED OFF DURING DAYLIGHT HOURS WITH NON-ILS WEATHER CONDITIONS. WHEN THE CONTRACTOR IS NOT WORKING, ALL CIRCUITS SHALL BE ACTIVE BUT EDGE LIGHTS AND SIGNS WITHIN THE PHASE 2 LIMITS MAY BE LEFT OFF EXCEPT ON THURSDAYS AND SUNDAYS FOR TAXIWAY N.
4. WORK WITHIN THE INTERSECTION OF TAXIWAY K AND TAXIWAY N AND WORK ALONG TAXIWAY N WILL REQUIRE THE CONTRACTOR TO MOVE CLEAR OF THE TAXIWAY OBJECT FREE AREA FOR EACH PASSING AIRCRAFT. CURRENTLY SCHEDULED PASSENGER SERVICE OPERATES ONCE PER DAY ON THURSDAY AND SUNDAY. REFER TO FLYMIDAMERICA.COM FOR THE LATEST SCHEDULE.
5. WHEN THE CONTRACTOR IS NOT WORKING DURING PHASE 2, TAXIWAY N SHALL BE OPEN WITH THE TAXIWAY N BARRICADES MOVED TO TAXIWAY K, SOUTH OF TAXIWAY N AS SHOWN ON THE CONSTRUCTION ACTIVITY PLAN PHASE 2.
6. PHASE 2 SHALL BE COMPLETED AFTER THE COMPLETION OF PHASE 1 BUT BEFORE THE START OF PHASE 3.

PHASE 3 NOTES

1. PHASE 3 CONSISTS OF WORK ALONG TAXIWAY K BETWEEN TAXIWAY P AND THE SOUTH END OF TAXIWAY K.
2. WORK IN PHASE 3 INCLUDES REMOVAL AND REPLACEMENT OF TAXIWAY K EDGE LIGHT CABLE AND TAXIWAY K SIGN CABLE WITHIN THE PHASE 3 LIMITS, AIRFIELD SIGNAGE IMPROVEMENTS, AND REPLACEMENT OF MITL FIXTURES AND ISOLATION TRANSFORMERS WITH NEW LED MITL AND ISOLATION TRANSFORMERS.
3. THE AIRFIELD CIRCUITS DURING PHASE 3 MAY ONLY BE TURNED OFF DURING DAYLIGHT HOURS WITH NON-ILS WEATHER CONDITIONS. WHEN THE CONTRACTOR IS NOT WORKING, ALL CIRCUITS SHALL BE ACTIVE BUT EDGE LIGHTS AND SIGNS WITHIN THE PHASE 3 LIMITS MAY BE LEFT OFF.
4. PHASE 3 MAY OCCUR CONCURRENTLY WITH PHASE 4 AND/OR PHASE 5.

PHASE 4 NOTES

1. PHASE 4 CONSISTS OF WORK ALONG TAXIWAY K BETWEEN TAXIWAY G AND THE NORTH END OF TAXIWAY K INCLUDING THE GOLF APRON.
2. WORK IN PHASE 4 INCLUDES REMOVAL AND REPLACEMENT OF TAXIWAY K EDGE LIGHT CABLE AND TAXIWAY K SIGN CABLE WITHIN THE PHASE 4 LIMITS, AIRFIELD SIGNAGE IMPROVEMENTS, AND REPLACEMENT OF MITL FIXTURES AND ISOLATION TRANSFORMERS WITH NEW LED MITL AND ISOLATION TRANSFORMERS.
3. THE AIRFIELD CIRCUITS DURING PHASE 4 MAY ONLY BE TURNED OFF DURING DAYLIGHT HOURS WITH NON-ILS WEATHER CONDITIONS. WHEN THE CONTRACTOR IS NOT WORKING, ALL CIRCUITS SHALL BE ACTIVE BUT EDGE LIGHTS AND SIGNS WITHIN THE PHASE 4 LIMITS MAY BE LEFT OFF.
4. PHASE 4 MAY OCCUR CONCURRENTLY WITH PHASE 3 AND/OR PHASE 5.

PHASE 5 NOTES

1. PHASE 5 CONSISTS OF WORK ALONG RUNWAY 14L-32R AND REQUIRES THE CLOSURE OF THE RUNWAY DURING WORKING HOURS. THE CONTRACTOR SHALL GIVE A MINIMUM 72 HOURS NOTICE PRIOR TO REQUESTING A RUNWAY CLOSURE.
2. WORK IN PHASE 5 INCLUDES REMOVAL AND REPLACEMENT OF THE RUNWAY 14L-32R TWO EDGE LIGHT CABLE CIRCUITS (REL1 AND REL2), THE REMOVAL AND REPLACEMENT OF THE PAPI 14L AND PAPI 32R CABLE, THE REMOVAL AND REINSTALLATION OF EXISTING CABLES NECESSARY TO COMPLETE THE WORK, REMOVAL AND REPLACEMENT OF THE THRESHOLD LIGHTS, AND REMOVAL AND REPLACEMENT OF THE PAPI SYSTEMS FOR RUNWAY 14L AND RUNWAY 32R.
3. RUNWAY 14L-32R MAY BE CLOSED FOR UP TO THREE (3) CONSECUTIVE DAYS AT A TIME WITH A MAXIMUM OF TEN (10) TOTAL DAYS CLOSED. THE RUNWAY SHALL BE OPEN ON SUNDAYS AND THURSDAY AFTERNOONS. IF WORK IS NOT FULLY COMPLETED AT THE END OF THE FIRST THREE (3) DAY PERIOD, BOTH RUNWAY EDGE LIGHT CIRCUITS, THE RUNWAY DISTANCE REMAINING SIGN CIRCUIT, AND THE TAXIWAY K SIGN CIRCUIT MUST BE ACTIVE PRIOR TO REOPENING THE RUNWAY.
4. WHEN WORKING ON RUNWAY 14L-32R IN THE INTERSECTION OF TAXIWAY G, THE CONTRACTOR SHALL EXPEDITE THIS WORK AND CLEAR THE AREA OF MEN AND EQUIPMENT WHEN A PLANE NEEDS TO CROSS THE RUNWAY ON TAXIWAY G.
5. PHASE 5 MAY OCCUR CONCURRENTLY WITH PHASE 3 AND/OR PHASE 4.

PHASE 6 NOTES

1. PHASE 6 CONSIST OF WORK ALONG TAXIWAY G NECESSARY TO REMOVE THE TAXIWAY EDGE LIGHTS ON SCOTT AIR FORCE BASE (SAFB) PROPERTY FROM THE MIDAMERICA TAXIWAY G CIRCUIT AND CONNECT THE LIGHTS TO THE SAFB TAXIWAY G EAST CIRCUIT.
2. PHASE 6 MAY BE COMPLETED CONCURRENTLY WITH ANY OTHER PHASE.
3. ACCESS TO THE SAFB VAULT NECESSARY FOR DISCONNECTING POWER TO THE CIRCUIT WILL BE PROVIDED UNDER ESCORT.

3. AREAS AND OPERATIONS AFFECTED BY THE CONSTRUCTION ACTIVITY

1. ALL RUNWAYS, TAXIWAYS AND APRONS SHALL BE KEPT OPEN TO AIRCRAFT TRAFFIC DURING CONSTRUCTION EXCEPT AS NOTED ON THE PHASING PLAN.
2. WHEN CONFLICTS ARISE BETWEEN CONSTRUCTION ACTIVITIES AND AIRCRAFT OPERATIONS AND SAFETY, AIRCRAFT OPERATIONS AND SAFETY SHALL TAKE PRECEDENCE AND SHALL GOVERN. FINAL AUTHORITY IN THE APPROVAL OF CONSTRUCTION SEQUENCING LIES WITH THE AIRPORT.
3. ALL CONSTRUCTION TRAFFIC SHALL IMMEDIATELY YIELD TO ONCOMING AIRCRAFT AT ALL TIMES.

4. PROTECTION OF NAVIGATION AIDS (NAVAIDS)

1. THE CONTRACTOR SHALL REMAIN CLEAR OF THE ILS CRITICAL AREAS AND OTHER NAVAIDS FACILITIES AT ALL TIMES WHEN RUNWAY 14L-32R IS OPEN.

5. CONTRACTOR ACCESS

1. CONTRACTOR ACCESS SHALL BE AS NOTED BELOW AND AS SHOWN ON THE SITE PLAN AND CONSTRUCTION ACTIVITY PLAN SHEETS.
2. THE CONTRACTOR IS TO ACCESS THE SITE USING THE GATE LOCATED AT THE PUBLIC SAFETY OFFICE (BUILDING 8849). THIS GATE IS COMMONLY REFERRED TO AS THE "ARFF GATE".
3. CERTAIN CONTRACTOR EMPLOYEES SHALL OBTAIN A MIDAMERICA ST. LOUIS AIRPORT ACCESS MEDIA IDENTIFICATION BADGE. THIS CONSISTS OF FILLING OUT ALL NECESSARY PAPERWORK, FINGERPRINTING, ATTENDING AND PASSING A 2-HOUR TRAINING CLASS CONCERNING SAFETY AND SECURITY AT THE AIRPORT. CONTRACTOR EMPLOYEES MUST MEET CERTAIN BACKGROUND CHECK CRITERIA AND THE CONTRACTOR MUST MAKE CERTAIN CERTIFICATION ABOUT EACH EMPLOYEE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FINGERPRINTING COSTS (CURRENTLY \$75.00 PER INDIVIDUAL). ALL COSTS ASSOCIATED WITH OBTAINING THE IDENTIFICATION BADGE SHALL BE BORNE BY THE CONTRACTOR.
4. ALL CONTRACTOR EMPLOYEES WHO ARE DESIGNATED AS DRIVERS FOR THE CONTRACTOR WITHIN THE AIRFIELD OPERATIONS AREA (AOA) SHALL ALSO ATTEND AND PASS THE MIDAMERICA ST. LOUIS AIRPORT DRIVERS TRAINING PROGRAM. THE DURATION IS APPROXIMATELY TWO HOURS. ONLY THOSE INDIVIDUALS WHO RECEIVE THIS DESIGNATION WILL BE PERMITTED TO OPERATE VEHICLES OR EQUIPMENT ON MIDAMERICA ST. LOUIS AIRPORT (BLV). ALL COSTS ASSOCIATED WITH THE DRIVER TRAINING PROGRAM SHALL BE BORNE BY THE CONTRACTOR.
5. CONTRACTOR WORK CREWS MUST MAINTAIN RADIO CONTACT WITH THE AIR TRAFFIC CONTROL TOWER (ATCT) AT ALL TIMES WHEN INSIDE THE AIRPORT OPERATIONS AREA (AOA). MIDAMERICA ST. LOUIS AIRPORT WILL SUPPLY THE CONTRACTOR WITH UP TO 2 APPROPRIATE RADIOS.
6. THE STORAGE AND STAGING AREA WILL BE ON AIR SERVICE DRIVE ACROSS FROM THE ELECTRICAL VAULT BUILDING. THIS AREA IS OUTSIDE OF THE AOA FENCE AND HAS NO FENCING AROUND IT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SECURITY OF ANY EQUIPMENT OR MATERIALS STORED WITHIN THE STORAGE AND STAGING AREA. ALL COSTS ASSOCIATED WITH PROVIDING SECURITY OF THE STORAGE AND STAGING AREA SHALL BE BORNE BY THE CONTRACTOR.
7. THE CONTRACTOR SHALL KEEP A RECORD OF THE NAMES OF ALL EMPLOYEES ENTERING THE JOB SITE ON A DAILY BASIS. A RECORD OF EACH SUBCONTRACTOR ENTERING THE JOB SITE SHALL ALSO BE KEPT BY THE CONTRACTOR.
8. WHEN THE CONTRACTOR IS NOT WORKING, EQUIPMENT SHALL BE STORED AT THE STAGING AREA (SEE NOTE 9).
9. THE CONTRACTOR WILL BE PERMITTED TO STORE EQUIPMENT AND MATERIALS ONLY AT THE LOCATIONS SHOWN. PARKED EQUIPMENT AND MATERIAL STOCKPILES SHALL NOT PENETRATE SURFACES DEFINED BY F.A.R. TITLE 14 PART 77 - OBJECTS AFFECTING NAVIGABLE AIRSPACE. SEE SECTION A-A ON THE SITE PLAN SHEET.
10. ALL CONSTRUCTION TRAFFIC OPERATING ON, OR CROSSING RUNWAYS, TAXIWAYS AND APRONS OPEN TO AIRCRAFT TRAFFIC SHALL BE UNDER CONTROL BY A FLAGMAN OR ESCORT IN RADIO CONTACT WITH THE ATCT. THE CONTRACTOR SHALL PROVIDE HIS OWN FLAGMEN.
11. THE CONTRACTOR SHALL THOROUGHLY CLEAN ALL CONSTRUCTION AREAS AND HAUL ROUTES WHICH WILL BE OPENED TO AIR TRAFFIC TO THE SATISFACTION OF AIRPORT OPERATIONS OR THE ENGINEER. A POWER BROOM AND OPERATOR SHALL BE ON SITE AT ALL TIMES WHEN ACTIVE PAVEMENTS ARE UTILIZED FOR CONSTRUCTION TRAFFIC.
12. ALL PAVEMENTS, DRIVES OR ANY OTHER AREAS UTILIZED BY THE CONTRACTOR FOR HAUL ROADS OR STORAGE AREAS SHALL BE MAINTAINED AND REPAIRED TO THE SAME CONDITION OR BETTER THAN THEY WERE PRIOR TO BEGINNING CONSTRUCTION. NO ADDITIONAL COMPENSATION WILL BE MADE TO THE CONTRACTOR FOR THIS WORK.
13. ALL VEHICLE AND EQUIPMENT OPERATORS USED BY THE CONTRACTOR SHALL BE PROPERLY TRAINED BY THE CONTRACTOR.
14. THE CONTRACTOR SHALL NOTIFY THE AIRCRAFT RESCUE AND FIRE FIGHTING (ARFF) FACILITY IF CONSTRUCTION ACTIVITY WILL REQUIRE THE BLOCKAGE OF EMERGENCY ACCESS TO THE AIRPORT.
15. THE AIRPORT RESERVES THE RIGHT TO RESTRICT ACCESS TO CERTAIN AREAS OF THE AIRFIELD AT TIMES DUE TO OPERATIONS AT THE AIRPORT.

6. WILDLIFE MANAGEMENT

1. THE CONTRACTOR SHALL NOTIFY AIRPORT OPERATIONS OR THE ENGINEER IF ANY WILDLIFE IS SEEN ENTERING THE AIRPORT.
2. CONTRACTOR ACCESS GATES SHALL REMAIN CLOSED WHEN THE CONTRACTOR IS NOT WORKING.
3. THE CONTRACTOR SHALL DISPOSE OF ALL TRASH INCLUDING FOOD SCRAPS IN APPROVED CONTRACTOR PROVIDED CONTAINERS.

7. FOREIGN OBJECT DEBRIS (FOD) MANAGEMENT

1. THE CONTRACTOR SHALL PICK UP ANY FOREIGN OBJECT DEBRIS (FOD) SEEN ON THE AIRFIELD PAVEMENTS.
2. THE CONTRACTOR SHALL SECURE ALL LOOSE ITEMS FROM VEHICLES PRIOR TO DRIVING ON AIRFIELD PAVEMENTS.

REVISIONS		
NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2' AT FULL SCALE (34X22).
PLOT 1

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

AIRFIELD LIGHTING IMPROVEMENTS

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500

GMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS

© Copyright GMT, Inc.
PROFESSIONAL ENGINEERING - 184-00613

**IL PROJECT, BLV-4405
AIP PROJECT, 3-17-SBGP-XX**

FILE: 04_CSPP.dwg
DESIGN BY: ASF
DRAWN BY: ASF
CHECKED BY: MJD/CET
APPROVED BY: BWG
DATE: JUNE 27, 2014
JOB No: 13098-02

8. HAZARDOUS MATERIALS (HAZMAT) MANAGEMENT

1. THE CONTRACTOR SHALL DEVELOP A HAZMAT MANAGEMENT PLAN AND KEEP COPIES ON THE JOBSITE OF MATERIAL SAFETY DATA SHEETS (MSDS) FOR ALL MATERIALS HANDLED ON THE JOBSITE.

9. NOTIFICATION OF CONSTRUCTION ACTIVITIES

1. THE CONTRACTOR SHALL PROVIDE A 24 HOUR EMERGENCY CONTACT PERSON AND PHONE NUMBER.
2. THE CONTRACTOR SHALL GIVE A MINIMUM OF 72 HOURS NOTICE TO AIRPORT OPERATIONS PRIOR TO CLOSING ANY PAVEMENTS SO THAT PROPER NOTAMS MAY BE ISSUED BY THE AIRPORT.
3. FOR ANY EQUIPMENT USED BY THE CONTRACTOR WITH A HEIGHT GREATER THAN 20', THE CONTRACTOR SHALL PROVIDE TO THE AIRPORT THE TYPE OF EQUIPMENT, TOTAL HEIGHT, AND LOCATION WHERE THE EQUIPMENT WILL BE USED. THE AIRPORT WILL SUBMIT FAA FORM 7460-1 TO THE FAA FOR AN AIRSPACE STUDY. NO EQUIPMENT WITH A HEIGHT GREATER THAN 20' SHALL BE USED UNTIL A DETERMINATION FROM FAA IS RECEIVED.
4. IN THE EVENT OF AN EMERGENCY, THE CONTRACTOR SHALL CALL 911.
5. CONTACTS FOR THIS PROJECT ARE AS LISTED BELOW.

PUBLIC SAFETY
DENNIS SCHIPPER – CHIEF OF PUBLIC SAFETY (618) 566-5225

ENGINEERING & PLANNING
DAN TRAPP, P.E. – AIRPORT ENGINEER (618) 566-5322

AIRPORT MAINTENANCE
BRIAN GIESEKING – MAINTENANCE SUPERVISOR (618) 566-5211

ENGINEER
BRIAN GARKIE, P.E. – PROJECT ENGINEER (314) 571-9070
CHAD GILBERT – RESIDENT ENGINEER (618) 514-1726

10. INSPECTION REQUIREMENTS

1. THE CONTRACTOR SHALL INSPECT THE JOBSITE DAILY TO ENSURE COMPLIANCE WITH THE CSPP. THE CHECKLIST FOUND IN APPENDIX 3 OF FAA AC 150/5370-2F MAY BE USED TO AID IN THE INSPECTIONS.
2. THE CONTRACTOR SHALL ATTEND A FINAL INSPECTION OF EACH PHASE WORK AREA PRIOR TO OPENING THE AREA TO AIRPORT OPERATIONS.

11. UNDERGROUND UTILITIES

1. IT WILL BE NECESSARY FOR THE CONTRACTOR TO MAKE HIS OWN FIELD INVESTIGATION TO DETERMINE THE EXACT LOCATION OF THE UNDERGROUND UTILITIES AT CRITICAL POINTS. THE LOCATION OF UNDERGROUND UTILITIES AS INDICATED ON THE PLANS HAS BEEN OBTAINED FROM EXISTING RECORDS. NEITHER THE OWNER NOR THE ENGINEER ASSUMES ANY RESPONSIBILITY IN RESPECT TO THE ACCURACY, COMPLETENESS OR SUFFICIENCY OF THE INFORMATION.
2. BEFORE INITIATING ANY DIGGING, DRILLING OR EXCAVATING ON THE AIRPORT PROPERTY, THE CONTRACTOR SHALL CALL J.U.L.I.E. AND CONTACT THE LOCAL FAA OFFICE TO ARRANGE FOR UTILITY LOCATES. SEE SECTION 70-17 OF THE SPECIAL PROVISIONS FOR UTILITY CONTACT INFORMATION.

12. PENALTIES

1. NONCOMPLIANCE BY THE CONTRACTOR WITH AIRPORT RULES AND REGULATIONS OR FAILURE TO COMPLY WITH THE AIRPORT'S APPROVED CSPP AND THE CONTRACTOR'S APPROVED SPCD MAY RESULT IN FINES AS ALLOWED BY LAW.

13. SPECIAL CONDITIONS

1. THE CONTRACTOR'S OPERATIONS SHALL NOT BLOCK ACCESS TO THE NOVEMBER APRON FOR SCHEDULED PASSENGER FLIGHT SERVICE.
2. ALL CONTRACTOR PERSONNEL SHALL BE EASILY IDENTIFIED BY WEARING A HIGH VISIBILITY SHIRT OR VEST OF THE SAME COLOR AS THE OUTERMOST LAYER OF CLOTHING.
3. CONTRACTOR SHALL SUBMIT LOCK-OUT/TAG-OUT PROCEDURE PLAN OR FOLLOW AIRPORT'S PROCEDURES.

14. RUNWAY AND TAXIWAY VISUAL AIDS

1. RUNWAY/TAXIWAY CLOSURES ARE REQUIRED FOR THIS PROJECT. THE CONTRACTOR SHALL USE MARKING, LIGHTING AND SIGNS THAT FOLLOWING THE REQUIREMENTS OF FAA AC 150/5370-2F.
2. BARRICADES SHALL BE USED AS SHOWN ON THE CONSTRUCTION ACTIVITY PLAN SHEETS.

15. MARKING AND SIGNS FOR ACCESS ROUTES

1. BARRICADES AND SIGNS SHALL BE USED ALONG THE CONTRACTOR'S ACCESS ROUTE AS DETAILED ON THIS SHEET AND THE CONSTRUCTION ACTIVITY PLAN SHEETS.

16. HAZARD MARKING AND LIGHTING

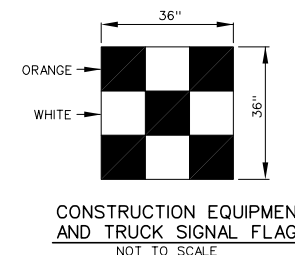
1. THE CONTRACTOR SHALL FURNISH, ERECT, AND MAINTAIN MARKINGS AND ASSOCIATED LIGHTING OF OPEN TRENCHES, EXCAVATIONS, TEMPORARY STOCKPILES, AND HIS/HER CONSTRUCTION EQUIPMENT.
2. ALL CONSTRUCTION EQUIPMENT SHALL BE FLAGGED AND/OR LIGHTED IN ACCORDANCE WITH FAA ADVISORY CIRCULAR 150/5370-2F AND 150/5210-5C AT ALL TIMES WHILE OPERATING ON AIRPORT PROPERTY. THE MAXIMUM EQUIPMENT HEIGHT IS 20'.
3. BARRICADES SHALL BE PLACED AT THE LOCATIONS SHOWN ON THE CONSTRUCTION ACTIVITY PLAN SHEET OR AS DIRECTED BY THE ENGINEER. THE AIRPORT WILL SUPPLY UP TO FIFTY (50) LOW PROFILE BARRICADES FOR USE DURING THE PROJECT. THE CONTRACTOR SHALL PROVIDE SOLAR POWERED RED LED LIGHTS FOR THE BARRICADES. THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTENANCE OF THE BARRICADES INCLUDING REPLACEMENT OF LIGHTS. IF ADDITIONAL LOW PROFILE BARRICADES ARE NEEDED, THE CONTRACTOR SHALL SUPPLY THE ADDITIONAL LOW PROFILE BARRICADES AT NO ADDITIONAL COST TO THE CONTRACT. UPON COMPLETION OF THE PROJECT, THE CONTRACTOR WILL RETAIN POSSESSION OF ANY ADDITIONAL BARRICADES SUPPLIED BY THE CONTRACTOR. THE BARRICADES SUPPLIED BY THE AIRPORT SHALL REMAIN PROPERTY OF THE AIRPORT AND SHALL BE RETURNED IN LIKE CONDITION WITH AN ALLOWANCE FOR NORMAL WEAR AND TEAR AS DETERMINED BY THE ENGINEER. ANY DAMAGED BARRICADES SHALL BE REPLACED BY THE CONTRACTOR WITH NEW BARRICADES OF SIMILAR TYPE AND DESIGN AT NO ADDITIONAL COST TO THE CONTRACT.
4. THE CONTRACTOR SHALL INSPECT THE BARRICADES ONCE DURING EACH WORK DAY TO INSURE PROPER PLACEMENT AND PROPER OPERATION OF THE RED LIGHTS.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FUELING RUNWAY CLOSURE MARKERS. BIODIESEL FUEL SHALL NOT BE USED FOR MARKERS.

17. PROTECTION

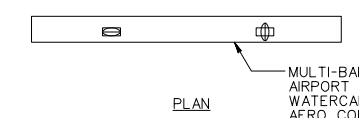
1. NO WORK SHALL BE PERFORMED/REQUIRED INSIDE OF THE ACTIVE RUNWAY 14L-32R SAFETY AREA WHICH EXTENDS 250' FROM THE RUNWAY CENTERLINE.
2. NO WORK SHALL BE PERFORMED/REQUIRED INSIDE OF AN ACTIVE TAXIWAY OBJECT FREE AREA WHICH EXTENDS 160' FROM THE TAXIWAY CENTERLINE FOR GROUP V AIRCRAFT AND 129.5' FROM THE TAXIWAY CENTERLINE FOR GROUP IV AIRCRAFT.

18. OTHER LIMITATIONS ON CONSTRUCTION

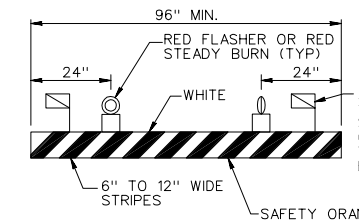
1. IF, DURING CONSTRUCTION, AN EMERGENCY IS DECLARED BY THE AIRPORT, THE CONTRACTOR SHALL IMMEDIATELY CLEAR THE PAVEMENT OF ALL VEHICLES, PERSONNEL AND EQUIPMENT.
2. BROKEN CONCRETE, BROKEN ASPHALT, AND OTHER MISCELLANEOUS DEBRIS SHALL BE DISPOSED OF OFF AIRPORT PROPERTY, UNLESS OTHERWISE SPECIFIED.



CONSTRUCTION EQUIPMENT AND TRUCK SIGNAL FLAG
NOT TO SCALE



PLAN
MULTI-BARRIER AR10x96, RRM AIRPORT BARRIER 4202-25, WATERCADE WC01-10, NEUBERT AERO CORP. NAC-PC9642, OR APPROVED EQUAL (SEE NOTE 6)



20" X 20" NYLON FLAG WITH 12 GA. DIAGONAL WIRE STIFFENER. TWO FLAGS TOTAL (ONE ORANGE FLAG AND ONE WHITE FLAG). FLAGS SHALL BE REMOVABLE.
SAFETY ORANGE

BARRICADE NOTES:

1. FLASHER OR STEADY BURN LIGHTS SHALL BE BATTERY OR SOLAR POWER OPERATED. LENS SHALL BE RED AND BE ABLE TO ROTATE 90°.
2. FACING OF BARRICADE SHALL BE COVERED WITH REFLECTIVE TAPE OR PAINT.
3. BARRICADES TO BE PLACED WITH A MAXIMUM OF 20' SPACING CENTER TO CENTER ALONG OPERATIONAL PAVEMENT ADJACENT TO CONSTRUCTION AS DIRECTED BY THE RESIDENT ENGINEER. ALTERNATE FLASHER OR STEADY BURN LENSES SO THAT EVERY OTHER LENS IS ROTATED 90°.
4. FLASHER OR STEADY BURN LIGHTS SHALL BE SECURED TO THE BARRICADES, AS APPROVED BY THE RESIDENT ENGINEER.
5. BARRICADES SHALL BE OF LOW MASS, EASILY COLLAPSIBLE UPON CONTACT WITH AN AIRCRAFT OR ANY OF ITS COMPONENTS, AND WEIGHTED TO AVOID BEING BLOWN OVER.
6. BARRICADES SHALL BE OF A COMMERCIAL DESIGN.
7. THE AIRPORT WILL SUPPLY UP TO FIFTY (50) LOW PROFILE BARRICADES.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING, REPLACING, AND DISPOSING OF BATTERIES. OLD BATTERIES SHALL BE DISPOSED OFF AIRPORT PROPERTY.

LOW PROFILE LIGHTED BARRICADE
NOT TO SCALE

REVISIONS		
NUMBER	BY	DATE

MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS
AIRFIELD LIGHTING IMPROVEMENTS

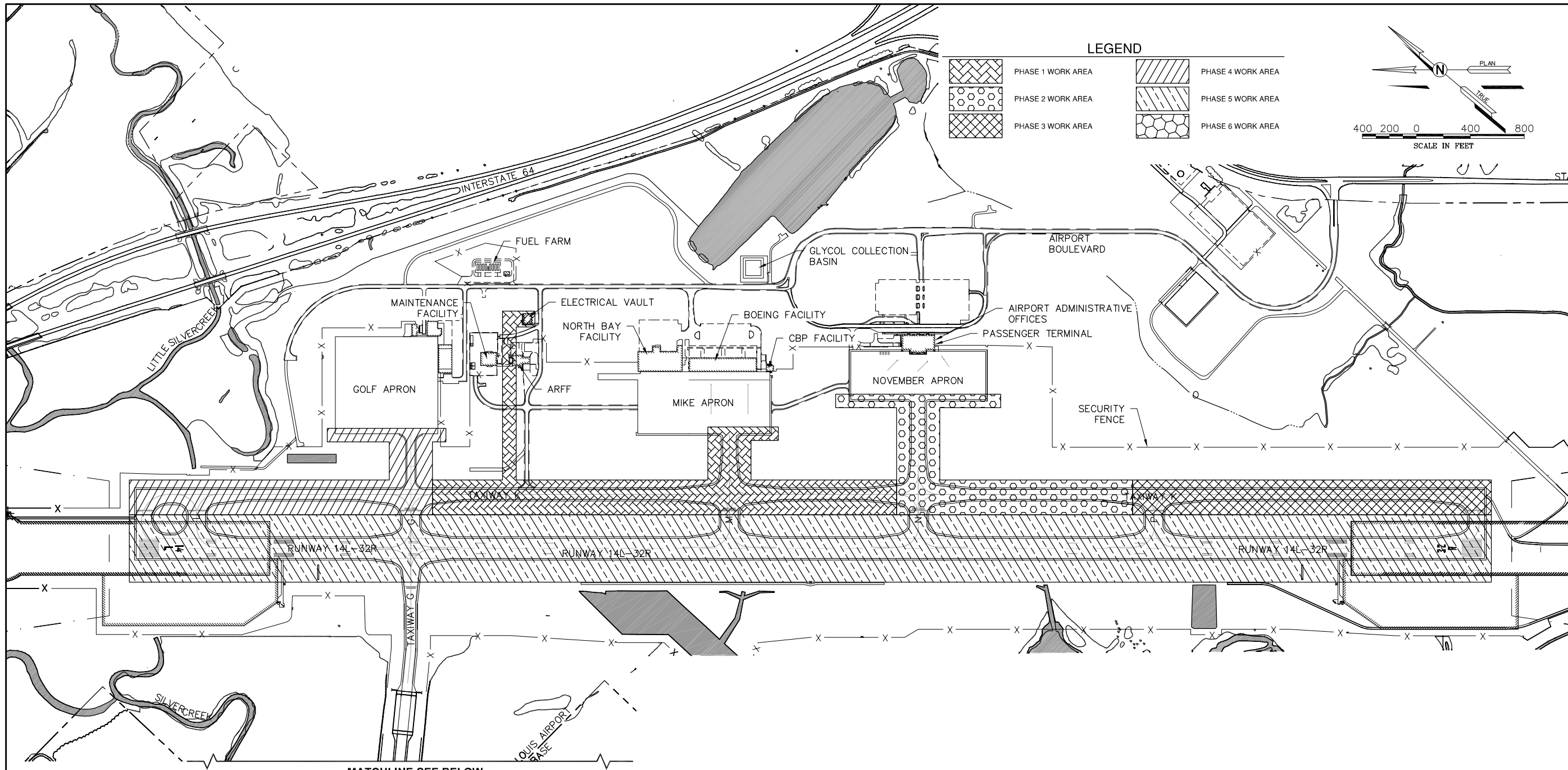
ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500

GMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS

© Copyright GMT, Inc.
PROFESSIONAL ENGINEERING - 184-00613

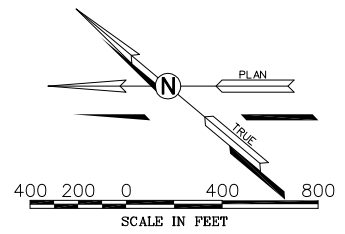
IL PROJECT, BLV-4405
AIP PROJECT, 3-17-SBGP-XX

FILE: 04_CSPP.dwg
DESIGN BY: ASF
DRAWN BY: ASF
CHECKED BY: MJD/CET
APPROVED BY: BWG
DATE: JUNE 27, 2014
JOB No: 13098-02



LEGEND

	PHASE 1 WORK AREA		PHASE 4 WORK AREA
	PHASE 2 WORK AREA		PHASE 5 WORK AREA
	PHASE 3 WORK AREA		PHASE 6 WORK AREA

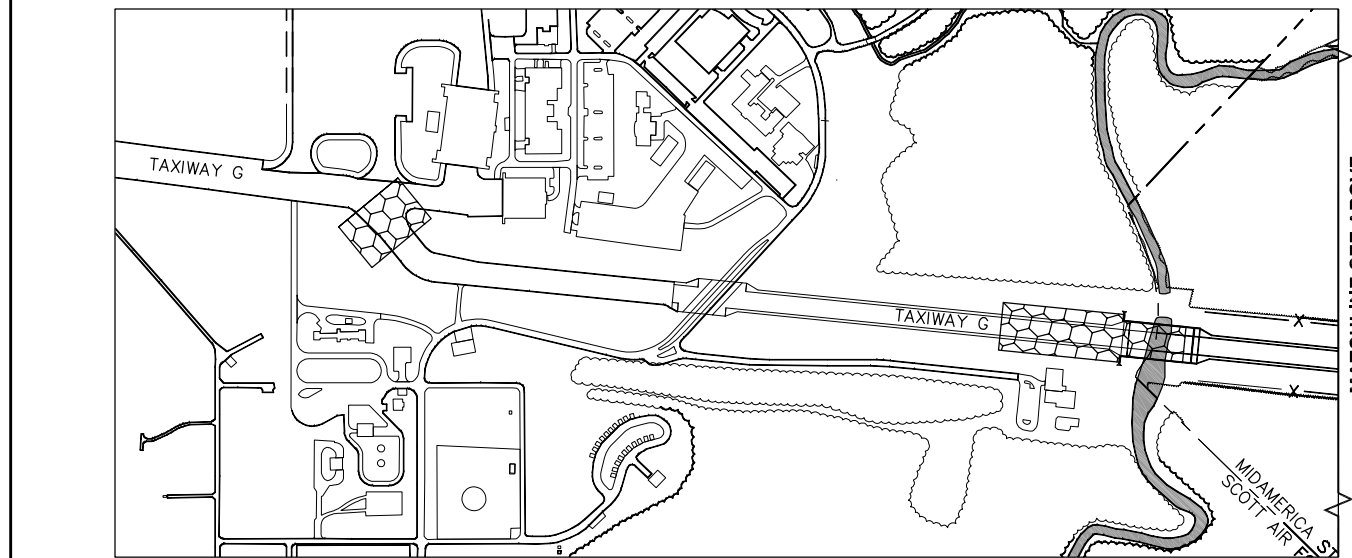


REVISIONS		
NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2'
AT FULL SCALE (34X22).
PLOT 1

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

AIRFIELD LIGHTING IMPROVEMENTS



MATCHLINE SEE BELOW

MATCHLINE SEE ABOVE

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500



GMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS
© Copyright GMT, Inc.
PROFESSIONAL ENGINEERING - 184-00613

**IL PROJECT, BLV-4405
AIP PROJECT, 3-17-SBGP-XX**

FILE: 05-12_CAP.dwg

DESIGN BY: ASF

DRAWN BY: ASF

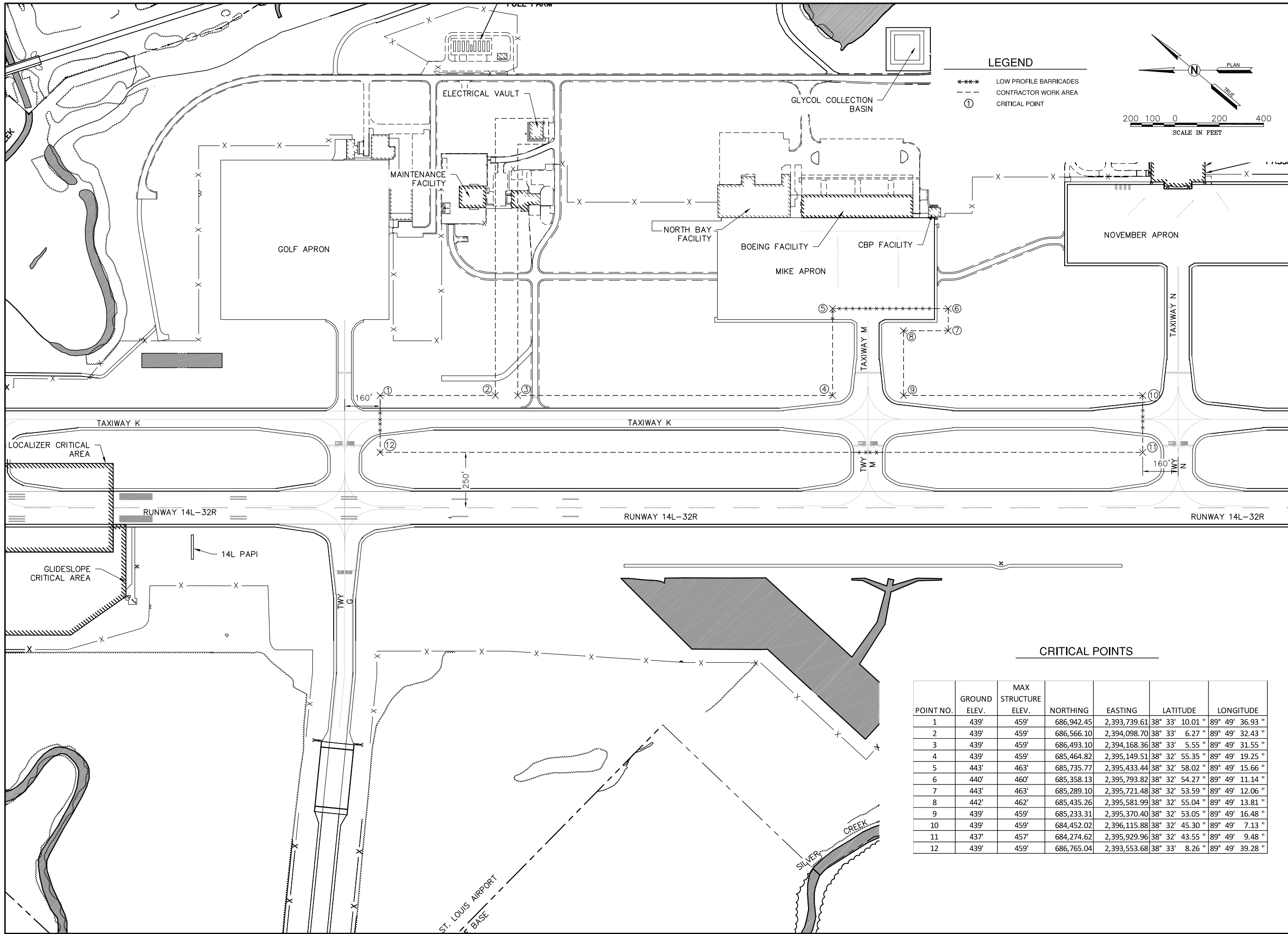
CHECKED BY: MJD/CET

APPROVED BY: BWG

DATE: JUNE 27, 2014

JOB No: 13098-02

**CONSTRUCTION
PHASING
OVERVIEW**



REVISIONS		
NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2"
AT FULL SCALE (34X22).
PLOT 1

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

AIRFIELD LIGHTING IMPROVEMENTS

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500

GMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS

© Copyright GMT, Inc.
PROFESSIONAL ENGINEERING - 184-00613

**IL PROJECT, BLV-4405
AIP PROJECT, 3-17-SBGP-XX**

CRITICAL POINTS

POINT NO.	GROUND ELEV.	MAX STRUCTURE ELEV.	NORTHING	EASTING	LATITUDE	LONGITUDE
1	439'	459'	686,942.45	2,393,739.61	38° 33' 10.01"	89° 49' 36.93"
2	439'	459'	686,566.10	2,394,098.70	38° 33' 6.27"	89° 49' 32.43"
3	439'	459'	686,493.10	2,394,168.36	38° 33' 5.55"	89° 49' 31.55"
4	439'	459'	685,464.82	2,395,149.51	38° 32' 55.35"	89° 49' 19.25"
5	443'	463'	685,735.77	2,395,433.44	38° 32' 58.02"	89° 49' 15.66"
6	440'	460'	685,358.13	2,395,793.82	38° 32' 54.27"	89° 49' 11.14"
7	443'	463'	685,289.10	2,395,721.48	38° 32' 53.59"	89° 49' 12.06"
8	442'	462'	685,435.26	2,395,581.99	38° 32' 55.04"	89° 49' 13.81"
9	439'	459'	685,233.31	2,395,370.40	38° 32' 53.05"	89° 49' 16.48"
10	439'	459'	684,452.02	2,396,115.88	38° 32' 45.30"	89° 49' 7.13"
11	437'	457'	684,274.62	2,395,929.96	38° 32' 43.55"	89° 49' 9.48"
12	439'	459'	686,765.04	2,393,553.68	38° 33' 8.26"	89° 49' 39.28"

FILE: 05-12_CAP.dwg

DESIGN BY: ASF

DRAWN BY: ASF

CHECKED BY: MJD/CET

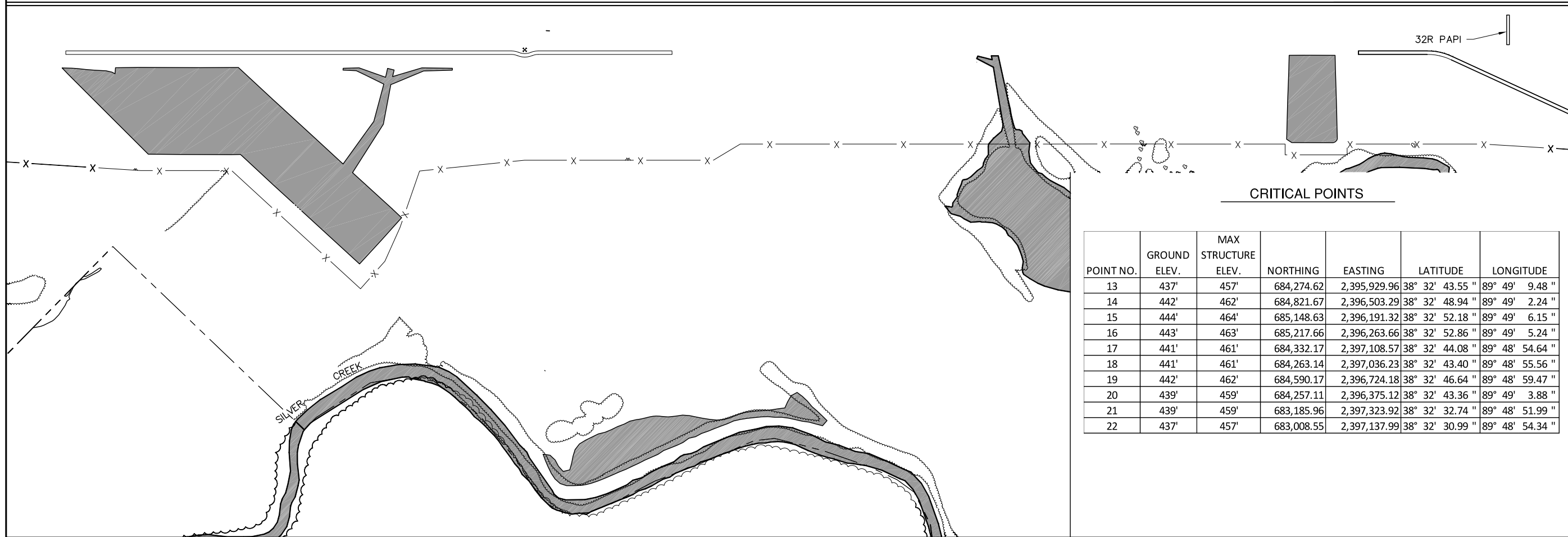
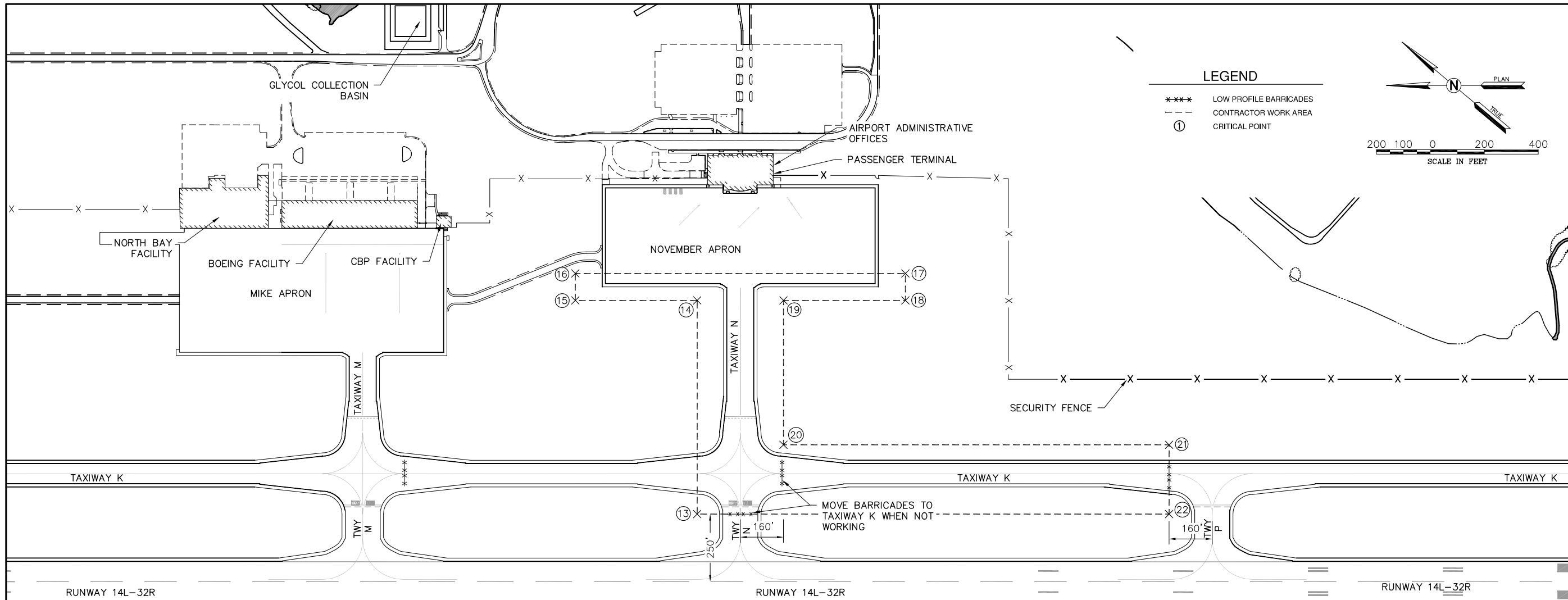
APPROVED BY: BWG

DATE: JUNE 27, 2014

JOB No: 13098-02

**CONSTRUCTION
ACTIVITY PLAN
PHASE 1**

SHEET 7 OF 35 SHEETS



POINT NO.	GROUND ELEV.	MAX STRUCTURE ELEV.	NORTHING	EASTING	LATITUDE	LONGITUDE
13	437'	457'	684,274.62	2,395,929.96	38° 32' 43.55 "	89° 49' 9.48 "
14	442'	462'	684,821.67	2,396,503.29	38° 32' 48.94 "	89° 49' 2.24 "
15	444'	464'	685,148.63	2,396,191.32	38° 32' 52.18 "	89° 49' 6.15 "
16	443'	463'	685,217.66	2,396,263.66	38° 32' 52.86 "	89° 49' 5.24 "
17	441'	461'	684,332.17	2,397,108.57	38° 32' 44.08 "	89° 48' 54.64 "
18	441'	461'	684,263.14	2,397,036.23	38° 32' 43.40 "	89° 48' 55.56 "
19	442'	462'	684,590.17	2,396,724.18	38° 32' 46.64 "	89° 48' 59.47 "
20	439'	459'	684,257.11	2,396,375.12	38° 32' 43.36 "	89° 49' 3.88 "
21	439'	459'	683,185.96	2,397,323.92	38° 32' 32.74 "	89° 48' 51.99 "
22	437'	457'	683,008.55	2,397,137.99	38° 32' 30.99 "	89° 48' 54.34 "

REVISIONS		
NUMBER	BY	DATE

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

AIRFIELD LIGHTING IMPROVEMENTS

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500

GMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS

© Copyright GMT, Inc.
PROFESSIONAL ENGINEERING - 184-00613

**IL PROJECT, BLV-4405
AIP PROJECT, 3-17-SBGP-XX**

FILE: 05-12_CAP.dwg

DESIGN BY: ASF

DRAWN BY: ASF

CHECKED BY: MJD/CET

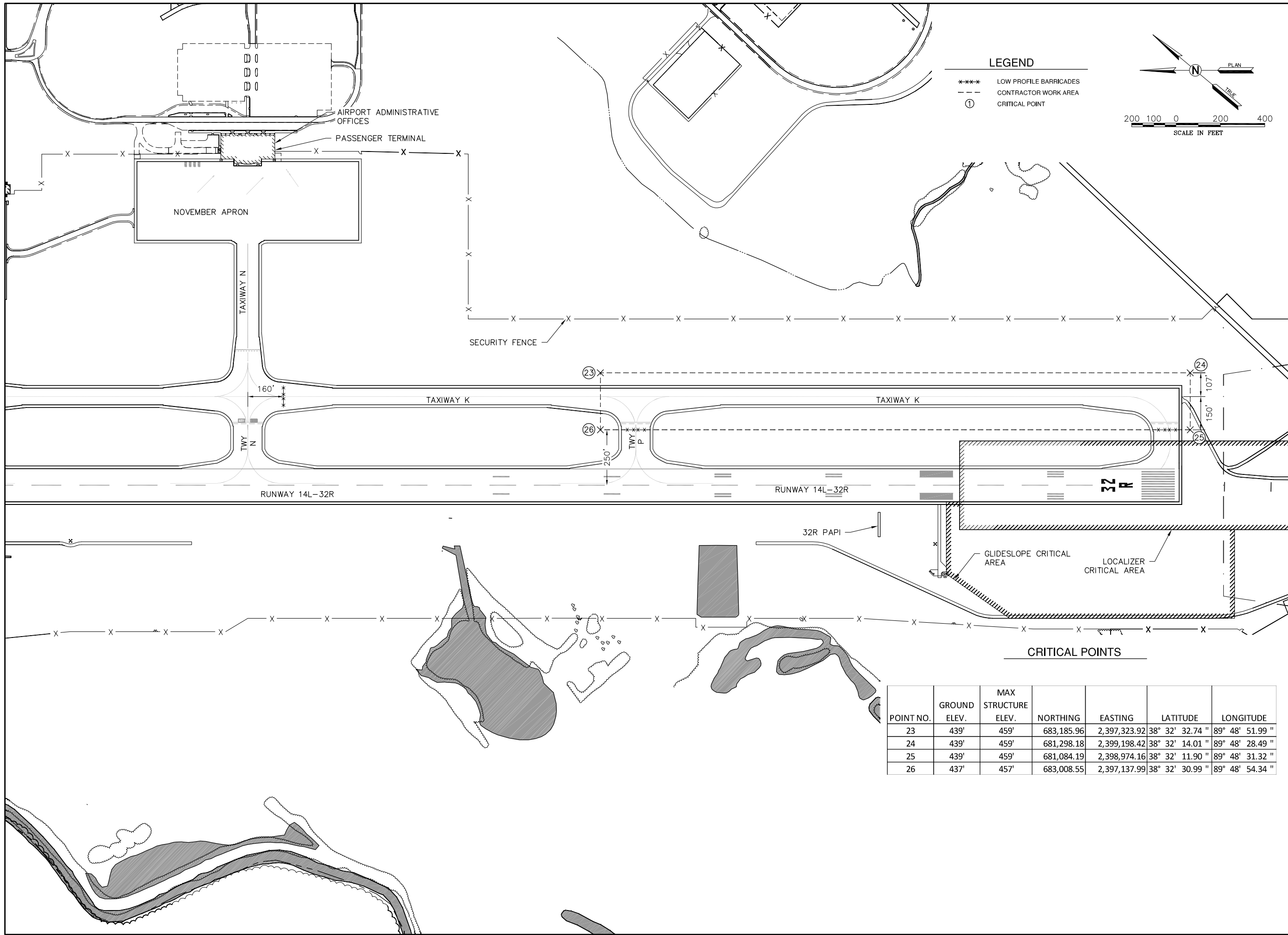
APPROVED BY: BWG

DATE: JUNE 27, 2014

JOB No: 13098-02

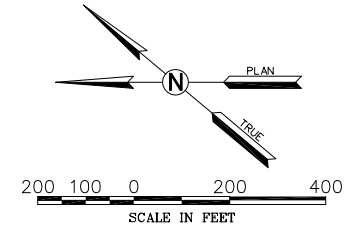
**CONSTRUCTION
ACTIVITY PLAN
PHASE 2**

SHEET 8 OF 35 SHEETS



LEGEND

- **** LOW PROFILE BARRICADES
- - - - CONTRACTOR WORK AREA
- ① CRITICAL POINT



REVISIONS		
NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2'
AT FULL SCALE (34X22).
PLOT 1

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

AIRFIELD LIGHTING IMPROVEMENTS

CRITICAL POINTS

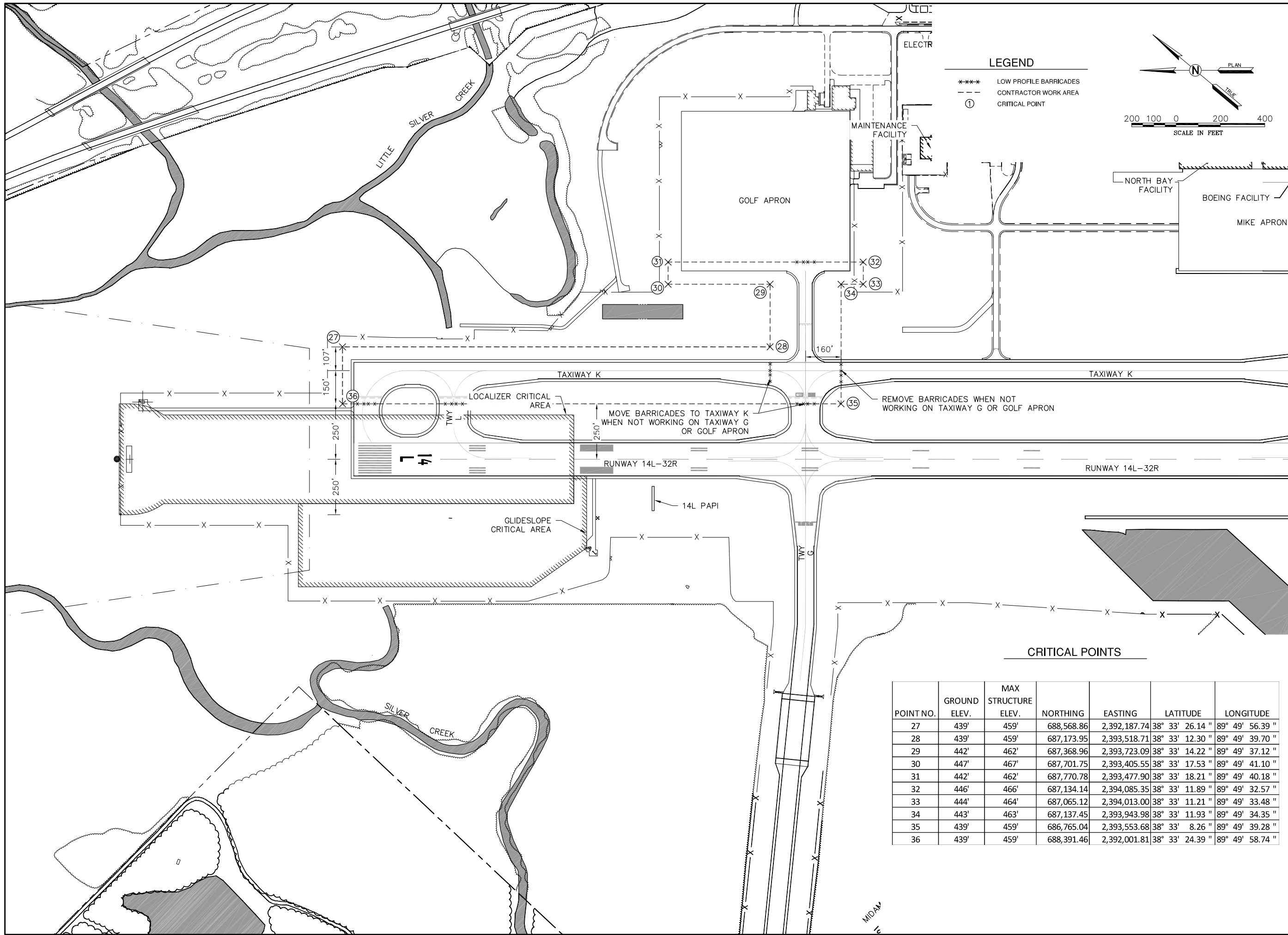
POINT NO.	GROUND ELEV.	MAX STRUCTURE ELEV.	NORTHING	EASTING	LATITUDE	LONGITUDE
23	439'	459'	683,185.96	2,397,323.92	38° 32' 32.74 "	89° 48' 51.99 "
24	439'	459'	681,298.18	2,399,198.42	38° 32' 14.01 "	89° 48' 28.49 "
25	439'	459'	681,084.19	2,398,974.16	38° 32' 11.90 "	89° 48' 31.32 "
26	437'	457'	683,008.55	2,397,137.99	38° 32' 30.99 "	89° 48' 54.34 "

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500

CMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS
PROFESSIONAL ENGINEERING - 184-00613

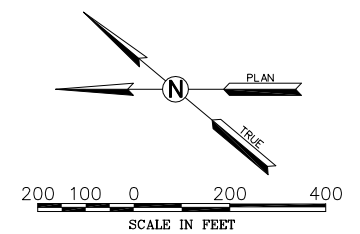
**IL PROJECT, BLV-4405
AIP PROJECT, 3-17-SBGP-XX**

FILE: 05-12_CAP.dwg
DESIGN BY: ASF
DRAWN BY: ASF
CHECKED BY: MJD/CET
APPROVED BY: BWG
DATE: JUNE 27, 2014
JOB No: 13098-02
**CONSTRUCTION
ACTIVITY PLAN
PHASE 3**
SHEET 9 OF 35 SHEETS



LEGEND

- **** LOW PROFILE BARRICADES
- - - - CONTRACTOR WORK AREA
- ① CRITICAL POINT



CRITICAL POINTS

POINT NO.	GROUND ELEV.	MAX STRUCTURE ELEV.	NORTHING	EASTING	LATITUDE	LONGITUDE
27	439'	459'	688,568.86	2,392,187.74	38° 33' 26.14 "	89° 49' 56.39 "
28	439'	459'	687,173.95	2,393,518.71	38° 33' 12.30 "	89° 49' 39.70 "
29	442'	462'	687,368.96	2,393,723.09	38° 33' 14.22 "	89° 49' 37.12 "
30	447'	467'	687,701.75	2,393,405.55	38° 33' 17.53 "	89° 49' 41.10 "
31	442'	462'	687,770.78	2,393,477.90	38° 33' 18.21 "	89° 49' 40.18 "
32	446'	466'	687,134.14	2,394,085.35	38° 33' 11.89 "	89° 49' 32.57 "
33	444'	464'	687,065.12	2,394,013.00	38° 33' 11.21 "	89° 49' 33.48 "
34	443'	463'	687,137.45	2,393,943.98	38° 33' 11.93 "	89° 49' 34.35 "
35	439'	459'	686,765.04	2,393,553.68	38° 33' 8.26 "	89° 49' 39.28 "
36	439'	459'	688,391.46	2,392,001.81	38° 33' 24.39 "	89° 49' 58.74 "

REVISIONS		
NUMBER	BY	DATE

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

AIRFIELD LIGHTING IMPROVEMENTS

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500

CMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS

© Copyright CMT, Inc.
PROFESSIONAL ENGINEERING - 184-00613

**IL PROJECT, BLV-4405
AIP PROJECT, 3-17-SBGP-XX**

FILE: 05-12_CAP.dwg

DESIGN BY: ASF

DRAWN BY: ASF

CHECKED BY: MJD/CET

APPROVED BY: BWG

DATE: JUNE 27, 2014

JOB No: 13098-02

**CONSTRUCTION
ACTIVITY PLAN
PHASE 4**

SHEET 10 OF 35 SHEETS

REVISIONS

NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2' AT FULL SCALE (34X22).
PLOT 1

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

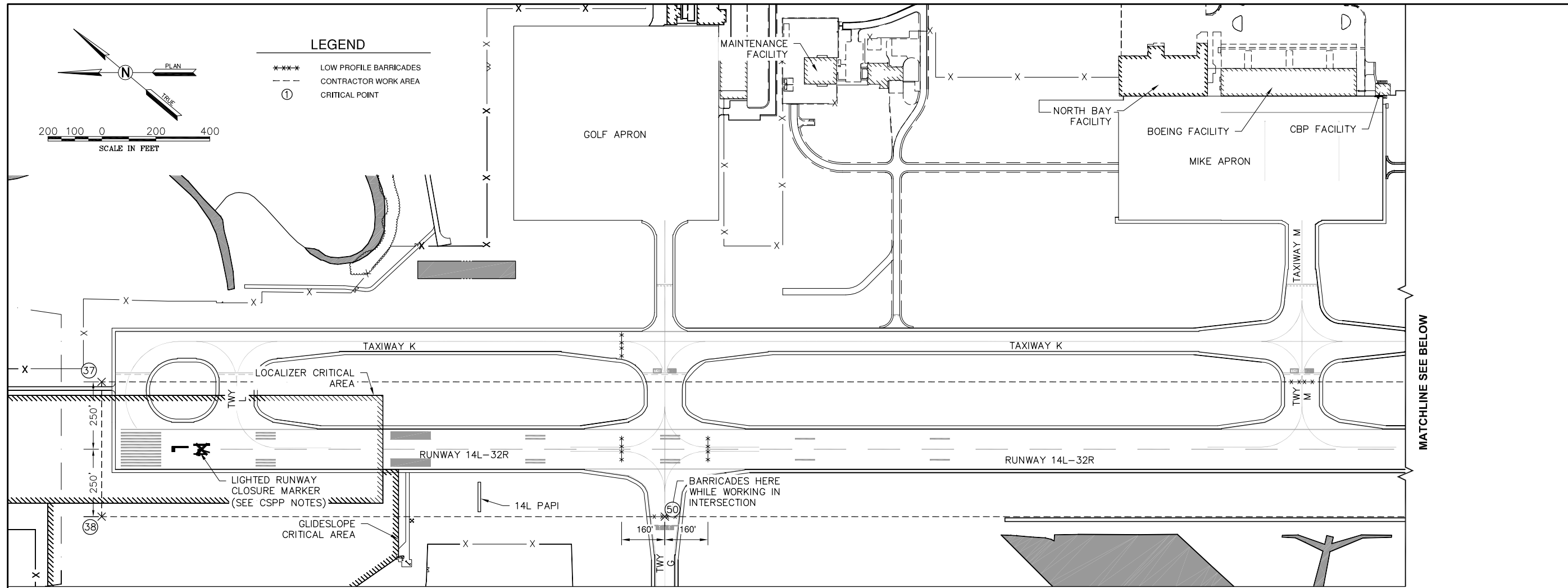
AIRFIELD LIGHTING IMPROVEMENTS

**IL PROJECT, BLV-4405
AIP PROJECT, 3-17-SBGP-XX**

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500
CMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS
© Copyright CMT, Inc.
PROFESSIONAL ENGINEERING - 184-00613

FILE: 05-12_CAP.dwg
DESIGN BY: ASF
DRAWN BY: ASF
CHECKED BY: MJD/CET
APPROVED BY: BWG
DATE: JUNE 27, 2014

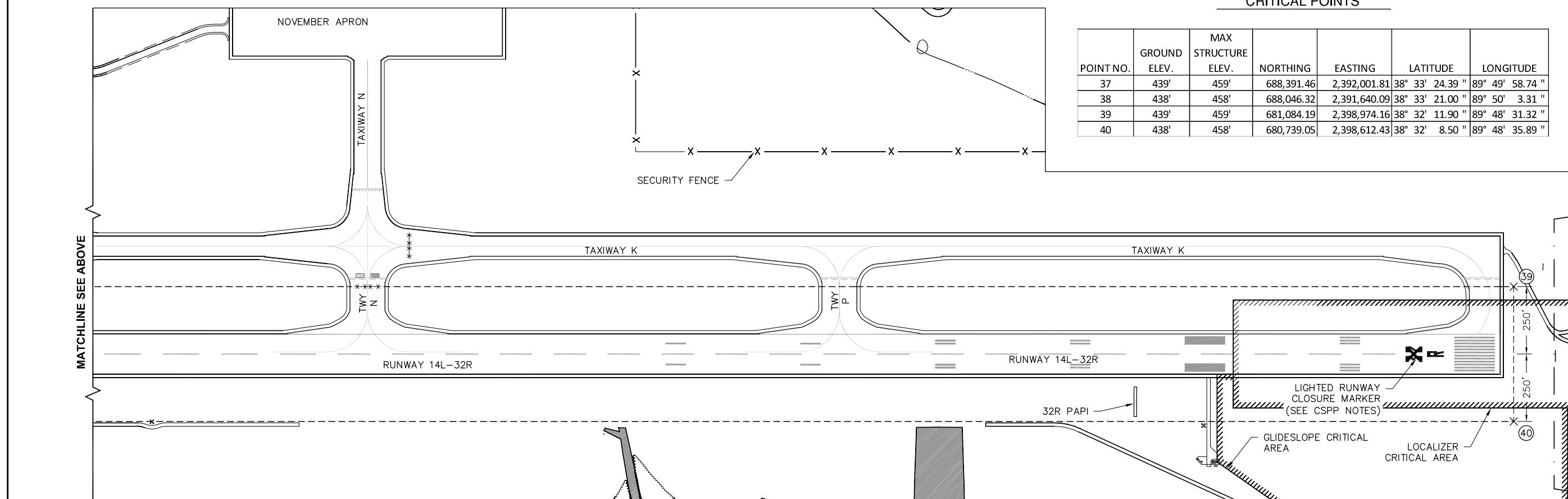
JOB No: 13098-02
**CONSTRUCTION
ACTIVITY PLAN
PHASE 5**
SHEET 11 OF 35 SHEETS



MATCHLINE SEE BELOW

CRITICAL POINTS

POINT NO.	GROUND ELEV.	MAX STRUCTURE ELEV.	NORTHING	EASTING	LATITUDE	LONGITUDE
37	439'	459'	688,391.46	2,392,001.81	38° 33' 24.39 "	89° 49' 58.74 "
38	438'	458'	688,046.32	2,391,640.09	38° 33' 21.00 "	89° 50' 3.31 "
39	439'	459'	681,084.19	2,398,974.16	38° 32' 11.90 "	89° 48' 31.32 "
40	438'	458'	680,739.05	2,398,612.43	38° 32' 8.50 "	89° 48' 35.89 "



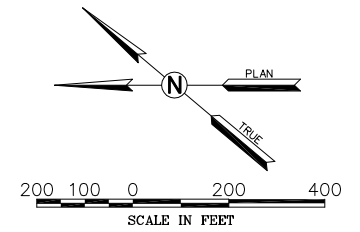
MATCHLINE SEE ABOVE

CRITICAL POINTS

POINT NO.	GROUND ELEV.	MAX STRUCTURE ELEV.	NORTHING	EASTING	LATITUDE	LONGITUDE
41	438'	458'	685,321.00	2,391,483.15	38° 32' 54.06 "	89° 50' 5.41 "
42	438'	458'	685,203.49	2,391,574.75	38° 32' 52.90 "	89° 50' 4.26 "
43	435'	455'	684,711.38	2,390,984.92	38° 32' 48.05 "	89° 50' 11.71 "
44	435'	455'	684,869.11	2,390,861.97	38° 32' 49.62 "	89° 50' 13.25 "
45	435'	455'	683,476.87	2,388,896.93	38° 32' 35.92 "	89° 50' 38.04 "
46	435'	455'	683,159.20	2,388,858.62	38° 32' 32.78 "	89° 50' 38.54 "
47	435'	455'	683,185.99	2,388,641.71	38° 32' 33.06 "	89° 50' 41.27 "
48	435'	455'	683,503.67	2,388,680.02	38° 32' 36.19 "	89° 50' 40.77 "
49	436'	456'	683,322.57	2,388,581.71	38° 32' 34.41 "	89° 50' 42.02 "
50	440'	460'	686,535.53	2,393,081.63	38° 33' 6.01 "	89° 49' 45.23 "

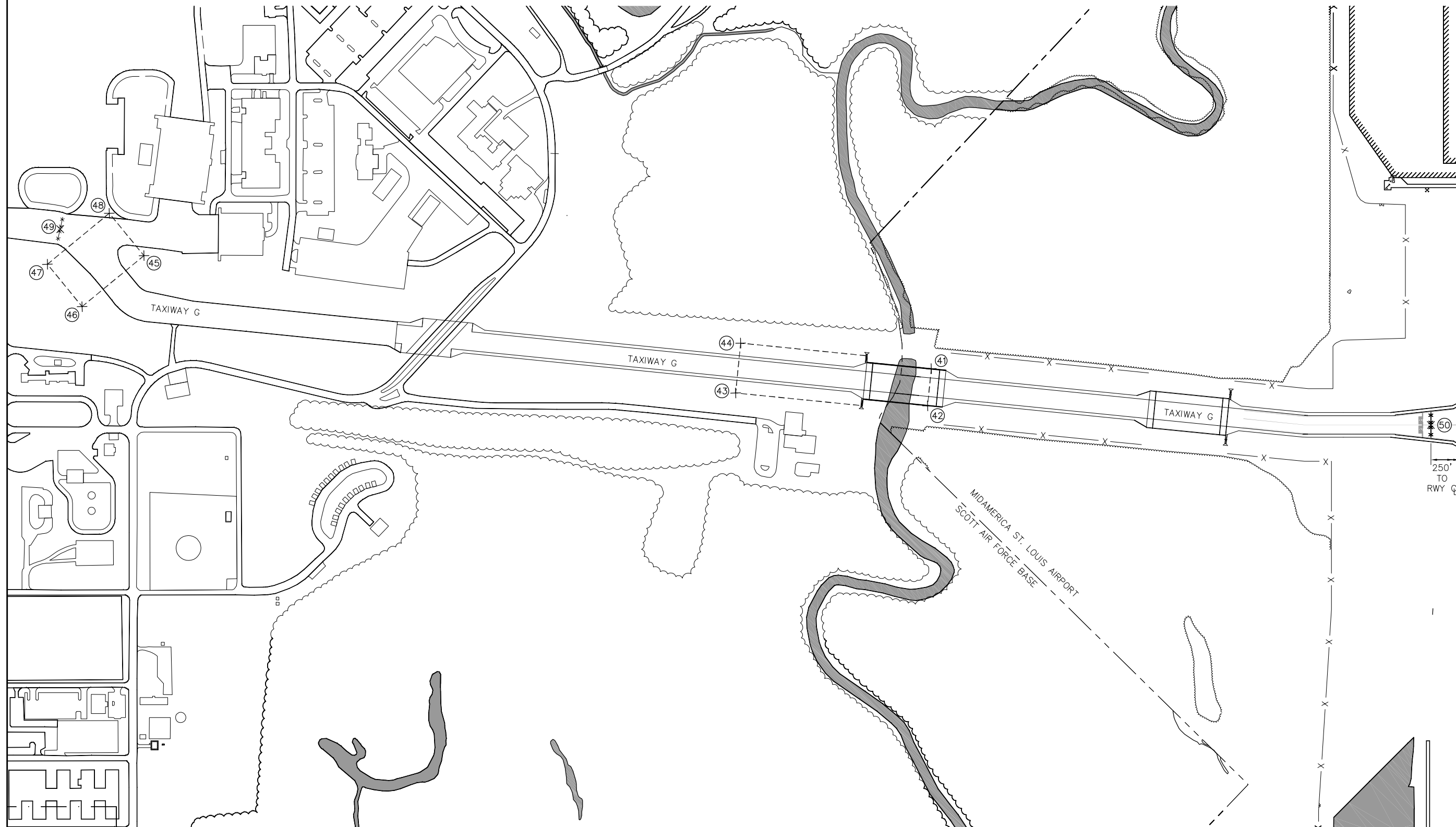
LEGEND

- **** LOW PROFILE BARRICADES
- - - - CONTRACTOR WORK AREA
- ① CRITICAL POINT



REVISIONS		
NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2' AT FULL SCALE (34X22).
PLOT 1



**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

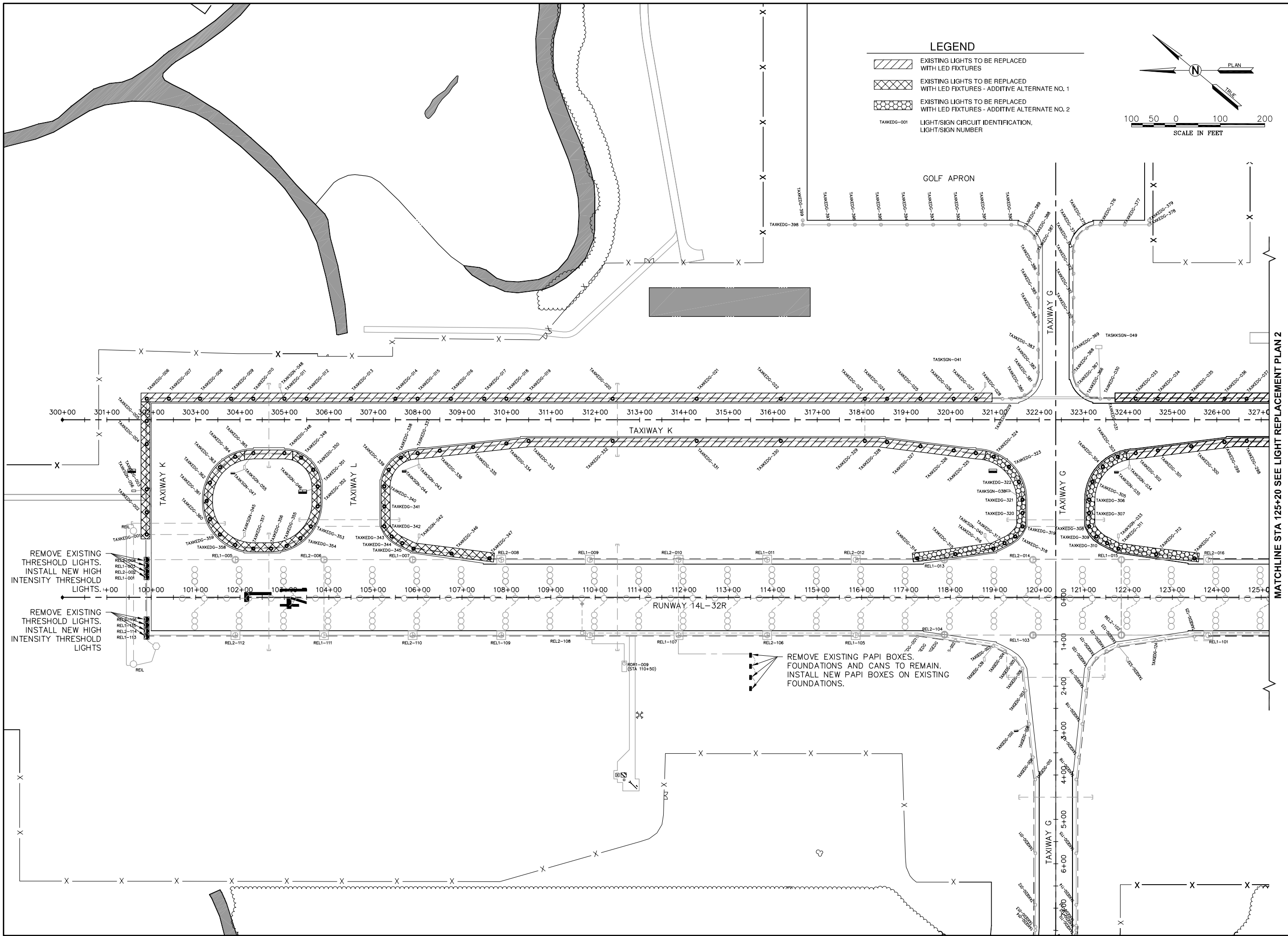
AIRFIELD LIGHTING IMPROVEMENTS

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500

CMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS
© Copyright CMT, Inc.
PROFESSIONAL ENGINEERING - 184-00613

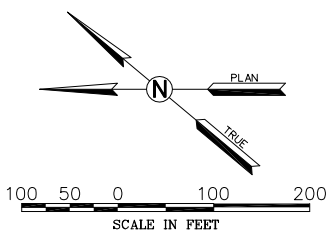
**IL PROJECT, BLV-4405
AIP PROJECT, 3-17-SBGP-XX**

FILE: 05-12_CAP.dwg
DESIGN BY: ASF
DRAWN BY: ASF
CHECKED BY: MJD/CET
APPROVED BY: BWG
DATE: JUNE 27, 2014
JOB No: 13098-02
CONSTRUCTION ACTIVITY PLAN PHASE 6
SHEET 12 OF 35 SHEETS



LEGEND

- EXISTING LIGHTS TO BE REPLACED WITH LED FIXTURES
- EXISTING LIGHTS TO BE REPLACED WITH LED FIXTURES - ADDITIVE ALTERNATE NO. 1
- EXISTING LIGHTS TO BE REPLACED WITH LED FIXTURES - ADDITIVE ALTERNATE NO. 2
- LIGHT/SIGN CIRCUIT IDENTIFICATION, LIGHT/SIGN NUMBER



REVISIONS		
NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2' AT FULL SCALE (34X22).
PLOT 1

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

AIRFIELD LIGHTING IMPROVEMENTS

MATCHLINE STA 125+20 SEE LIGHT REPLACEMENT PLAN 2

REMOVE EXISTING THRESHOLD LIGHTS.
INSTALL NEW HIGH INTENSITY THRESHOLD LIGHTS.

REMOVE EXISTING PAPI BOXES.
FOUNDATIONS AND CANS TO REMAIN.
INSTALL NEW PAPI BOXES ON EXISTING FOUNDATIONS.

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500

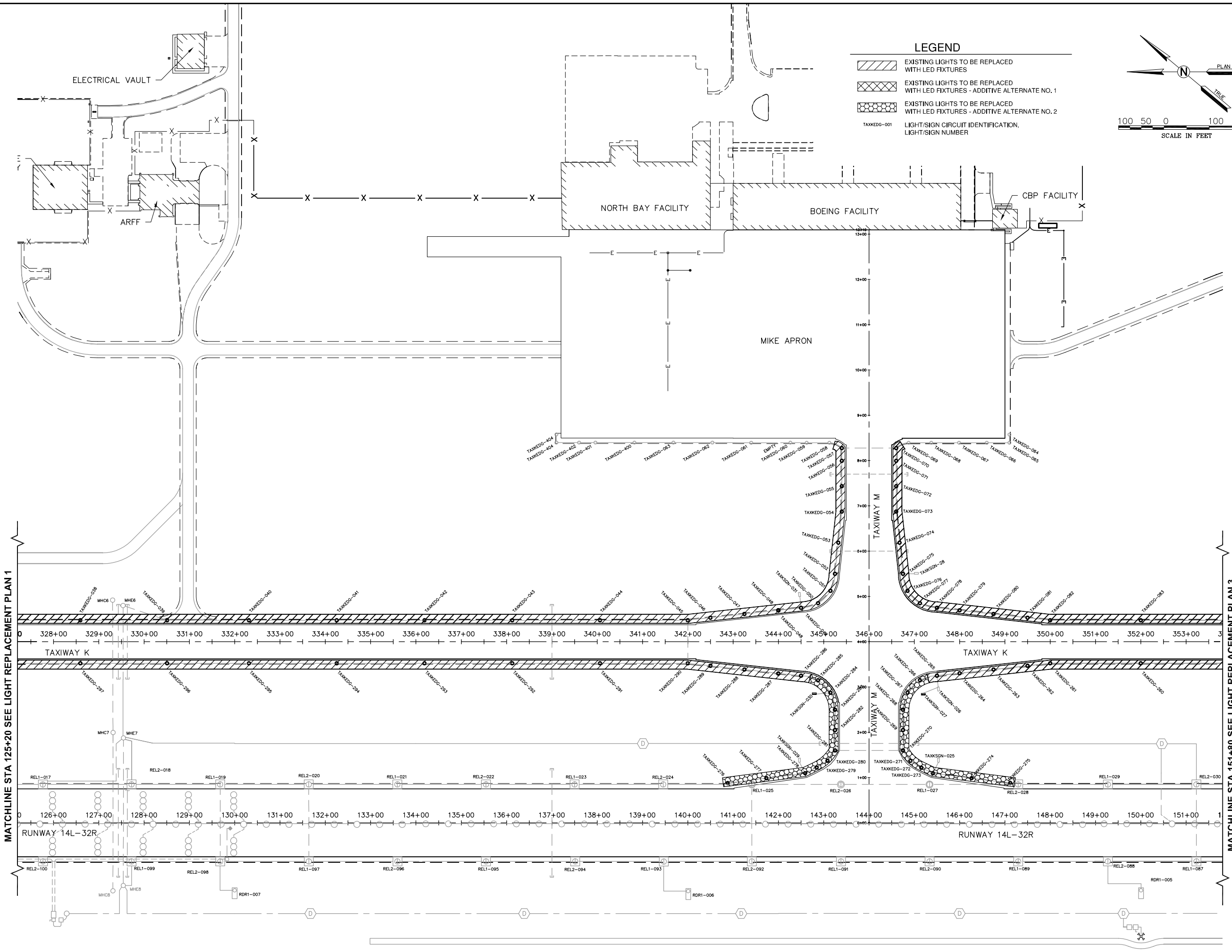
GMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS

© Copyright GMT, Inc.
PROFESSIONAL ENGINEERING - 184-00613

**IL PROJECT, BLV-4405
AIP PROJECT, 3-17-SBGP-XX**

FILE: 13-16_LIGHT_REPLACEMENT.dwg

DESIGN BY: ASF
DRAWN BY: ASF
CHECKED BY: MJD/CET
APPROVED BY: BWG
DATE: JUNE 27, 2014
JOB No: 13098-02
LIGHT REPLACEMENT PLAN 1
SHEET 13 OF 35 SHEETS



LEGEND

- EXISTING LIGHTS TO BE REPLACED WITH LED FIXTURES
- EXISTING LIGHTS TO BE REPLACED WITH LED FIXTURES - ADDITIVE ALTERNATE NO. 1
- EXISTING LIGHTS TO BE REPLACED WITH LED FIXTURES - ADDITIVE ALTERNATE NO. 2
- LIGHT/SIGN CIRCUIT IDENTIFICATION, LIGHT/SIGN NUMBER

REVISIONS

NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2' AT FULL SCALE (34X22).
SCALE IN FEET
100 50 0 100 200

REVISIONS

NUMBER	BY	DATE

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

AIRFIELD LIGHTING IMPROVEMENTS

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500

CMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS

© Copyright CMT, Inc.
PROFESSIONAL ENGINEERING - 184-00613

**IL PROJECT, BLV-4405
AIP PROJECT, 3-17-SBGP-XX**

FILE: 13-16_LIGHT_REPLACEMENT.dwg

DESIGN BY: ASF

DRAWN BY: ASF

CHECKED BY: MJD/CET

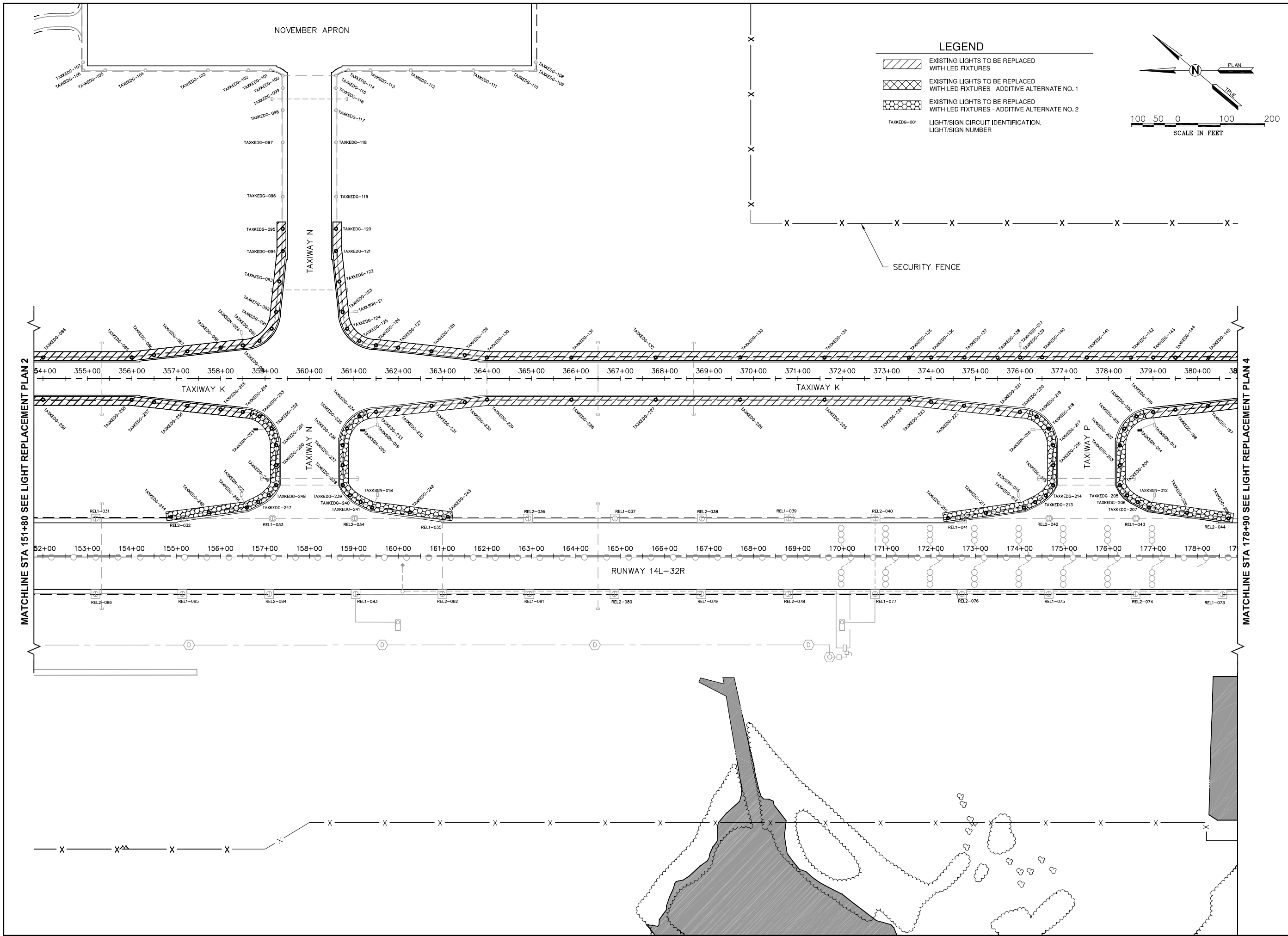
APPROVED BY: BWG

DATE: JUNE 27, 2014

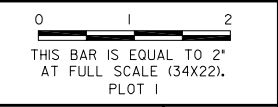
JOB No: 13098-02

**LIGHT
REPLACEMENT
PLAN 2**

SHEET 14 OF 35 SHEETS



REVISIONS		
NUMBER	BY	DATE



**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

AIRFIELD LIGHTING IMPROVEMENTS

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500

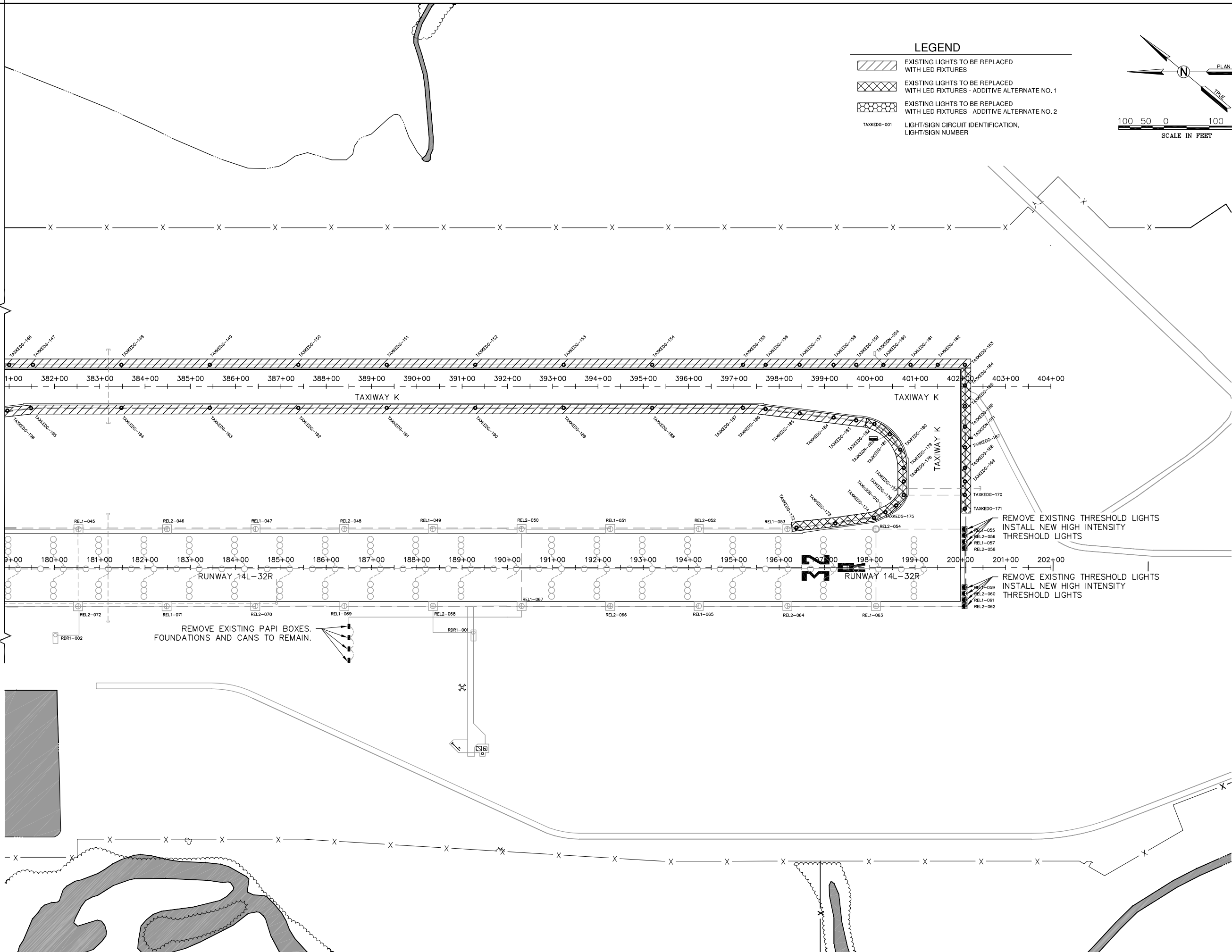
CMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS

© Copyright CMT, Inc.
PROFESSIONAL ENGINEERING - 184-00613





**IL PROJECT, BLV-4405
AIP PROJECT, 3-17-SBGP-XX**

FILE: 13-16_LIGHT_REPLACEMENT.dwg
DESIGN BY: ASF
DRAWN BY: ASF
CHECKED BY: MJD/CET
APPROVED BY: BWG
DATE: JUNE 27, 2014
JOB No: 13098-02
LIGHT REPLACEMENT PLAN 3
SHEET 15 OF 35 SHEETS

MATCHLINE STA 179+00 SEE LIGHT REPLACEMENT PLAN 3



LEGEND

-  EXISTING LIGHTS TO BE REPLACED WITH LED FIXTURES
-  EXISTING LIGHTS TO BE REPLACED WITH LED FIXTURES - ADDITIVE ALTERNATE NO. 1
-  EXISTING LIGHTS TO BE REPLACED WITH LED FIXTURES - ADDITIVE ALTERNATE NO. 2
-  LIGHT/SIGN CIRCUIT IDENTIFICATION, LIGHT/SIGN NUMBER

North arrow pointing up, labeled 'N' and 'PLAN'. Below it, a scale bar showing 0, 50, 100, 150, 200 feet. Text below the scale bar: 'SCALE IN FEET'.

REMOVE EXISTING PAPI BOXES. FOUNDATIONS AND CANS TO REMAIN.

REMOVE EXISTING THRESHOLD LIGHTS
INSTALL NEW HIGH INTENSITY THRESHOLD LIGHTS

REMOVE EXISTING THRESHOLD LIGHTS
INSTALL NEW HIGH INTENSITY THRESHOLD LIGHTS

REVISIONS		
NUMBER	BY	DATE

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

AIRFIELD LIGHTING IMPROVEMENTS

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500

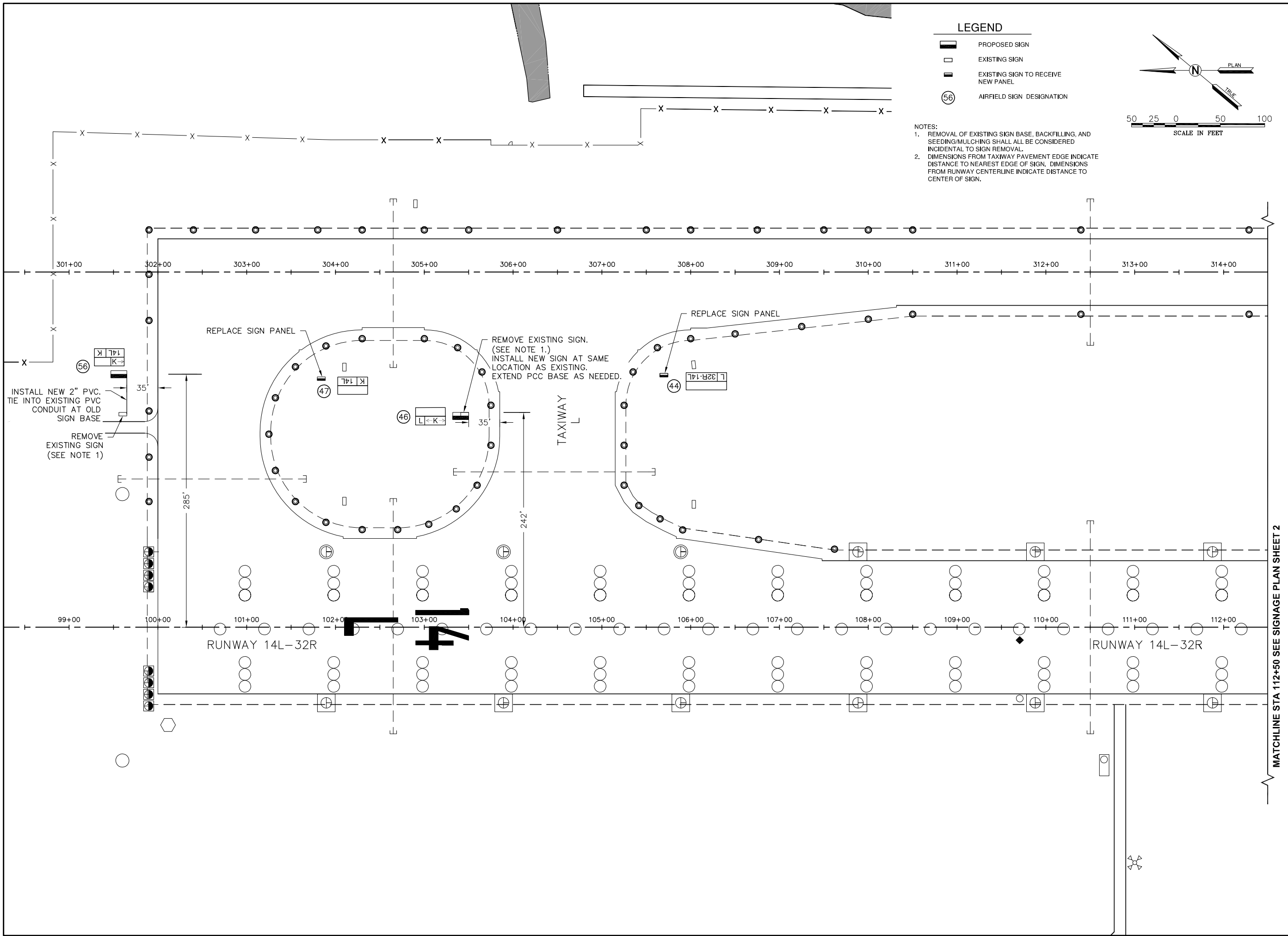
GMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS

© Copyright GMT, Inc.
PROFESSIONAL ENGINEERING - 184-00613





**IL PROJECT, BLV-4405
AIP PROJECT, 3-17-SBGP-XX**

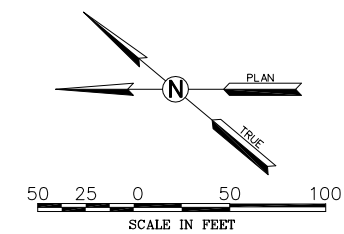
FILE: 13-16_LIGHT_REPLACEMENT.dwg

DESIGN BY: ASF
DRAWN BY: ASF
CHECKED BY: MJD/CET
APPROVED BY: BWG
DATE: JUNE 27, 2014
JOB No: 13098-02
LIGHT REPLACEMENT PLAN 4
SHEET 16 OF 35 SHEETS



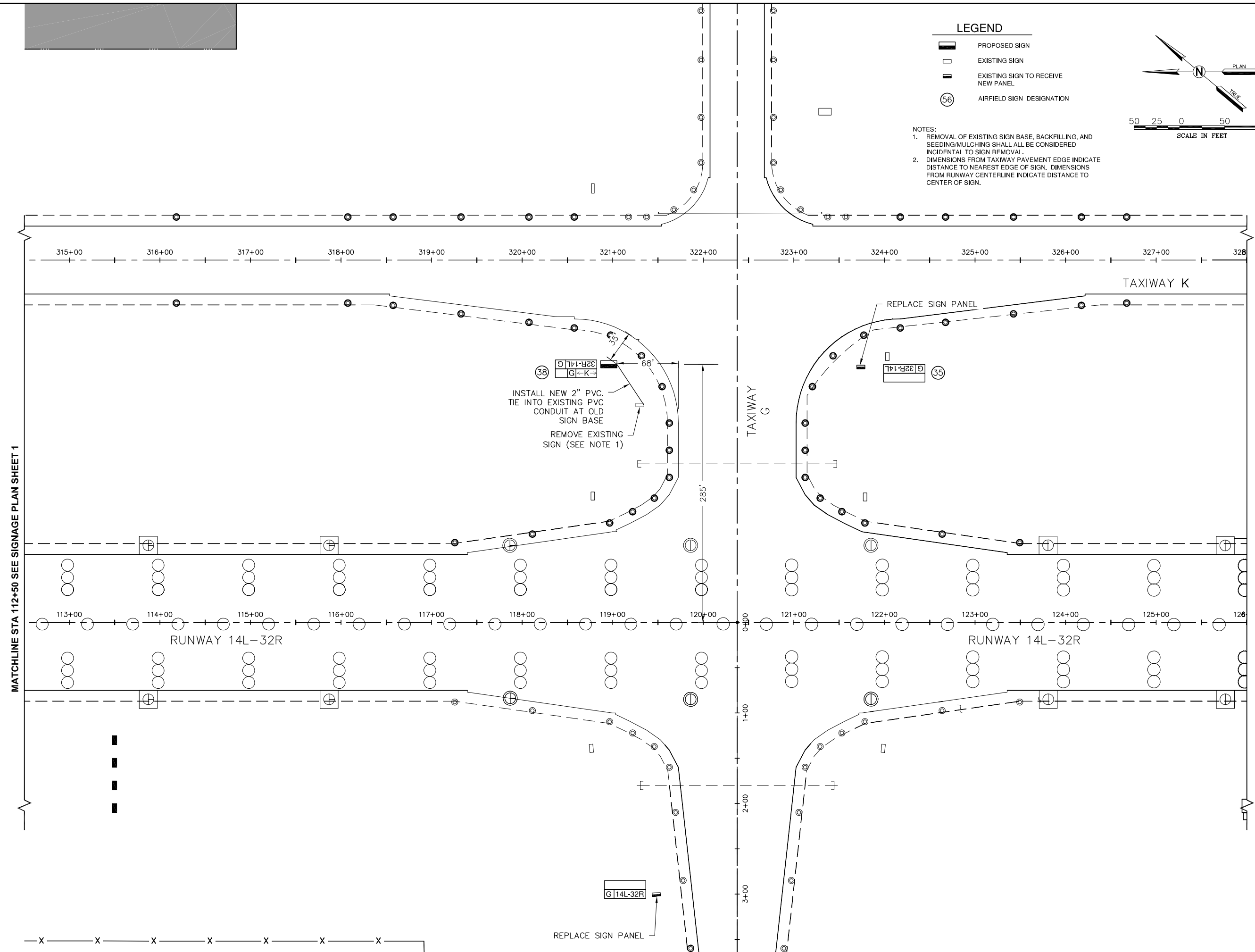
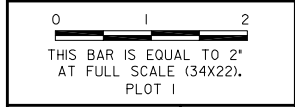
MATCHLINE STA 112+50 SEE SIGNAGE PLAN SHEET 2

- LEGEND**
-  PROPOSED SIGN
 -  EXISTING SIGN
 -  EXISTING SIGN TO RECEIVE NEW PANEL
 -  AIRFIELD SIGN DESIGNATION



- NOTES:**
1. REMOVAL OF EXISTING SIGN BASE, BACKFILLING, AND SEEDING/MULCHING SHALL ALL BE CONSIDERED INCIDENTAL TO SIGN REMOVAL.
 2. DIMENSIONS FROM TAXIWAY PAVEMENT EDGE INDICATE DISTANCE TO NEAREST EDGE OF SIGN. DIMENSIONS FROM RUNWAY CENTERLINE INDICATE DISTANCE TO CENTER OF SIGN.

REVISIONS		
NUMBER	BY	DATE



MATCHLINE STA 112+50 SEE SIGNAGE PLAN SHEET 1

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

AIRFIELD LIGHTING IMPROVEMENTS

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500



CMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS
© Copyright CMT, Inc.
PROFESSIONAL ENGINEERING - 184-00613

**IL PROJECT, BLV-4405
AIP PROJECT, 3-17-SBGP-XX**

FILE: 17-19_SIGNAGE.dwg

DESIGN BY: ASF

DRAWN BY: ASF

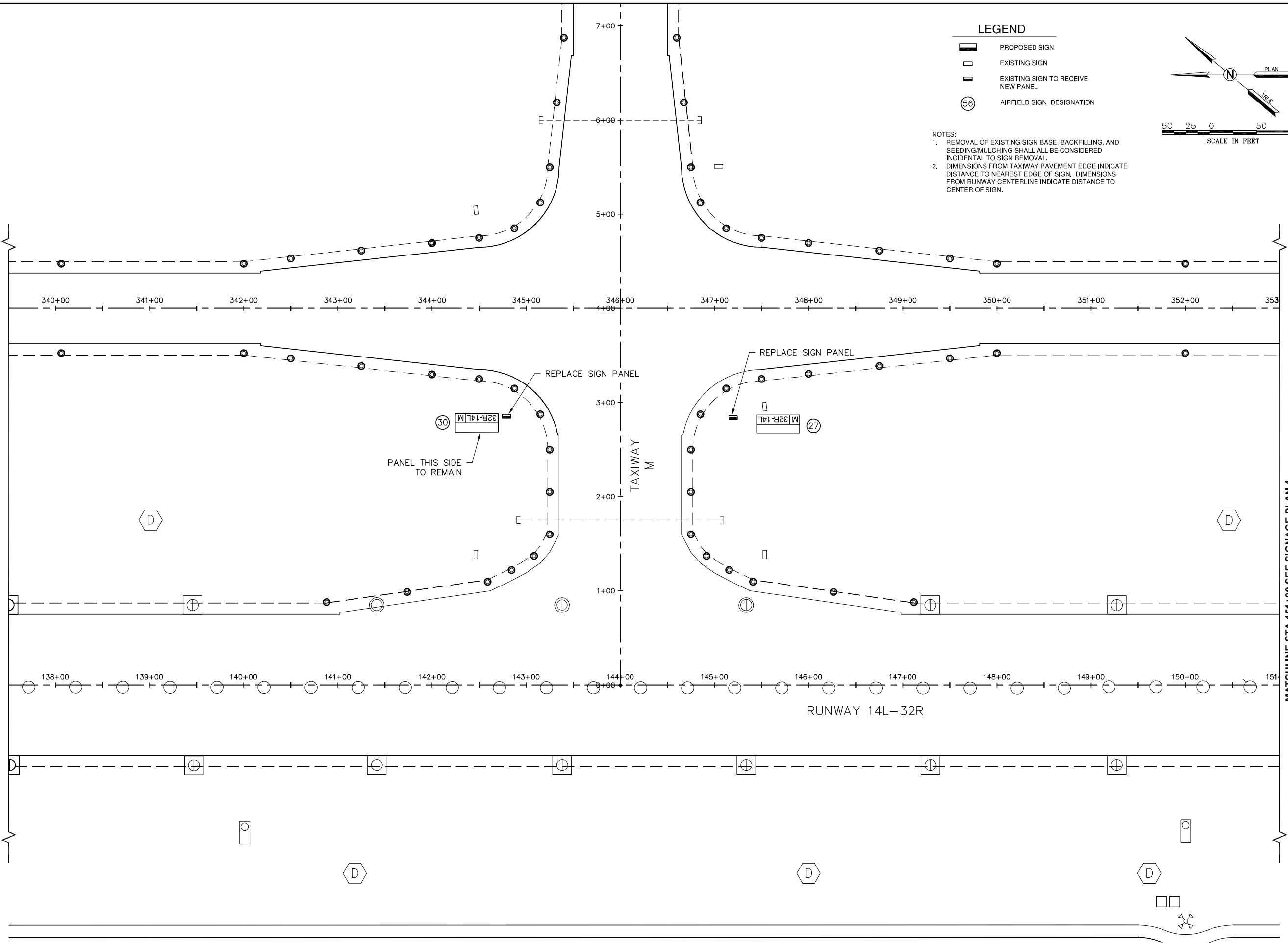
CHECKED BY: MJD/CET

APPROVED BY: BWG

DATE: JUNE 27, 2014

JOB No: 13098-02

SIGNAGE PLAN 2

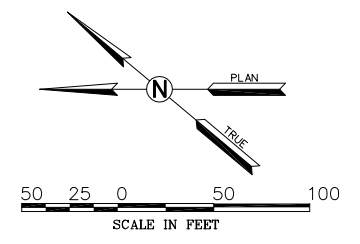


LEGEND

- PROPOSED SIGN
- EXISTING SIGN
- EXISTING SIGN TO RECEIVE NEW PANEL
- 56 AIRFIELD SIGN DESIGNATION

NOTES:

1. REMOVAL OF EXISTING SIGN BASE, BACKFILLING, AND SEEDING/MULCHING SHALL ALL BE CONSIDERED INCIDENTAL TO SIGN REMOVAL.
2. DIMENSIONS FROM TAXIWAY PAVEMENT EDGE INDICATE DISTANCE TO NEAREST EDGE OF SIGN. DIMENSIONS FROM RUNWAY CENTERLINE INDICATE DISTANCE TO CENTER OF SIGN.



REVISIONS		
NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2'
AT FULL SCALE (34X22).
PLOT 1

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

AIRFIELD LIGHTING IMPROVEMENTS

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500

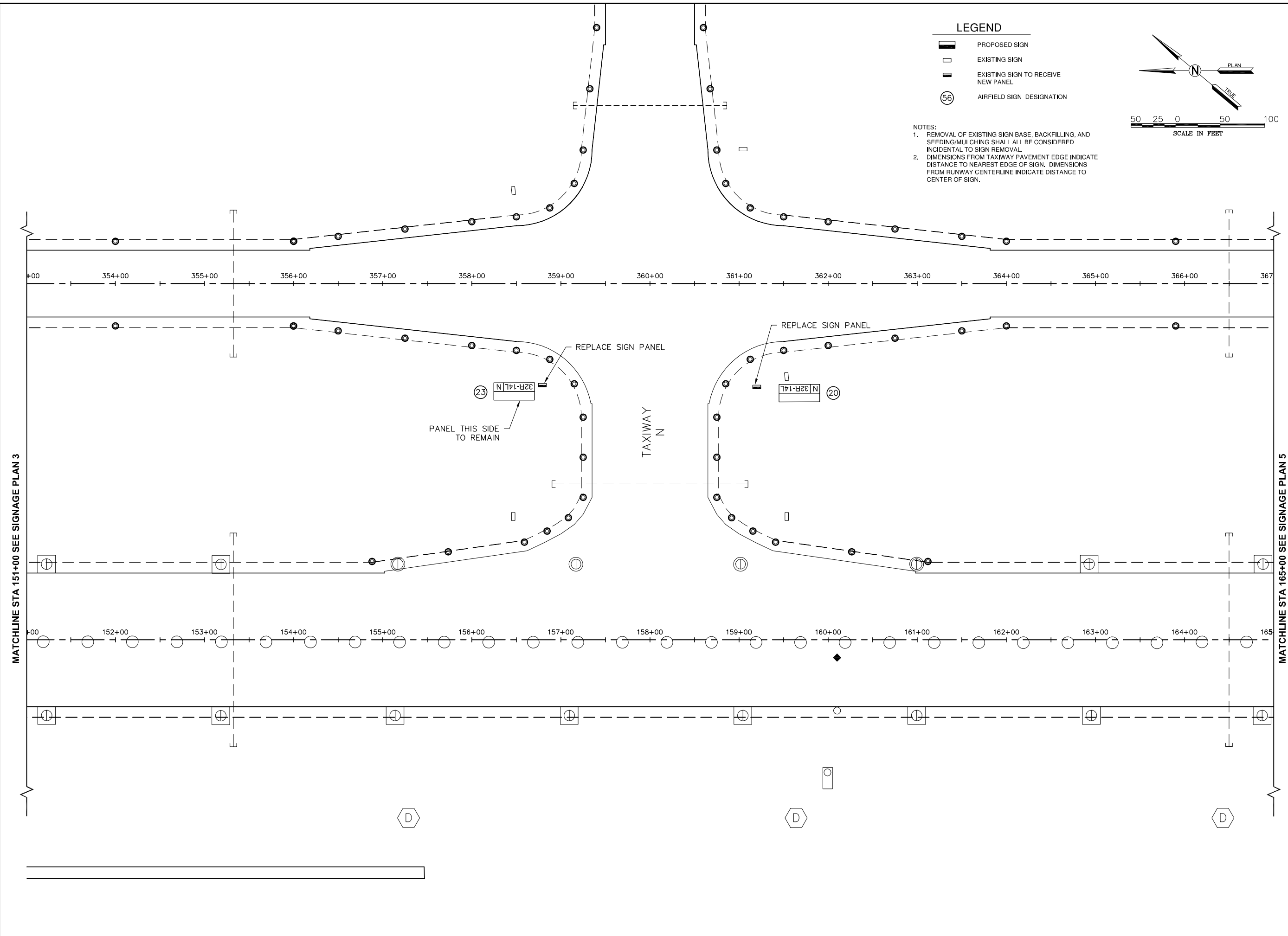
CMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS

© Copyright CMT, Inc.
PROFESSIONAL ENGINEERING - 184-00613

**IL PROJECT, BLV-4405
AIP PROJECT, 3-17-SBGP-XX**

FILE: 17-19_SIGNAGE.dwg
DESIGN BY: ASF
DRAWN BY: ASF
CHECKED BY: MJD/CET
APPROVED BY: BWG
DATE: JUNE 27, 2014
JOB No: 13098-02

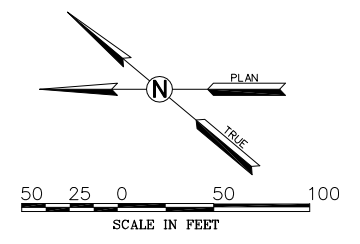
SIGNAGE PLAN 3



LEGEND

-  PROPOSED SIGN
-  EXISTING SIGN
-  EXISTING SIGN TO RECEIVE NEW PANEL
-  AIRFIELD SIGN DESIGNATION

- NOTES:
1. REMOVAL OF EXISTING SIGN BASE, BACKFILLING, AND SEEDING/MULCHING SHALL ALL BE CONSIDERED INCIDENTAL TO SIGN REMOVAL.
 2. DIMENSIONS FROM TAXIWAY PAVEMENT EDGE INDICATE DISTANCE TO NEAREST EDGE OF SIGN. DIMENSIONS FROM RUNWAY CENTERLINE INDICATE DISTANCE TO CENTER OF SIGN.



REVISIONS		
NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2"
AT FULL SCALE (34X22).
PLOT 1

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

AIRFIELD LIGHTING IMPROVEMENTS

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500



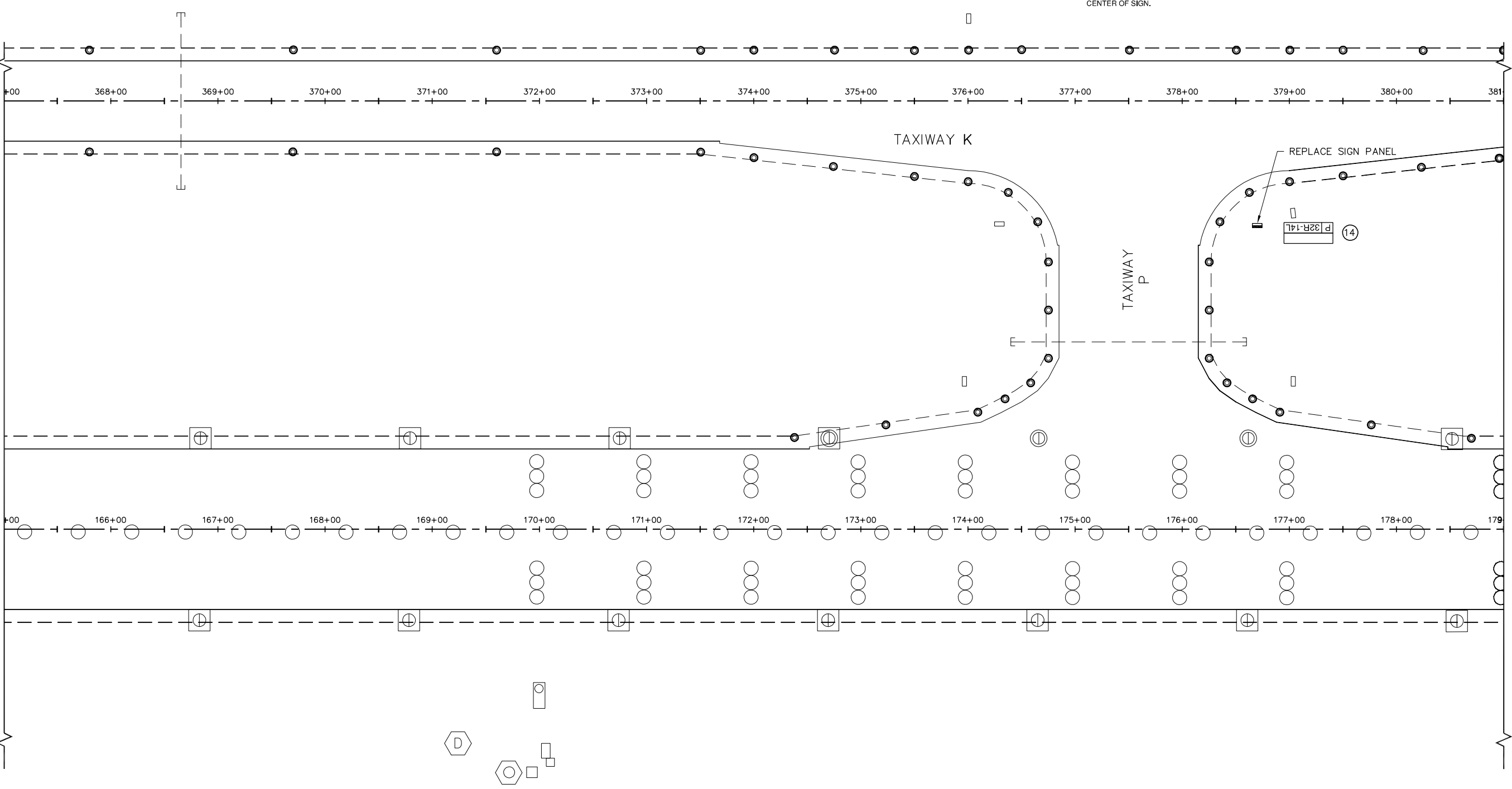
© Copyright CMT, Inc.
PROFESSIONAL ENGINEERING - 184-000613

**IL PROJECT, BLV-4405
AIP PROJECT, 3-17-SBGP-XX**

FILE: 17-19_SIGNAGE.dwg
DESIGN BY: ASF
DRAWN BY: ASF
CHECKED BY: MJD/CET
APPROVED BY: BWG
DATE: JUNE 27, 2014
JOB No: 13098-02

SIGNAGE PLAN 4

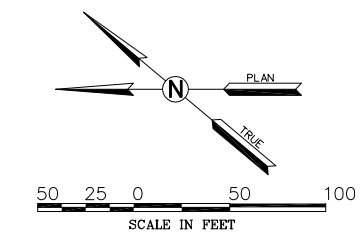
MATCHLINE STA 165+00 SEE SIGNAGE PLAN 5



LEGEND

-  PROPOSED SIGN
-  EXISTING SIGN
-  EXISTING SIGN TO RECEIVE NEW PANEL
-  AIRFIELD SIGN DESIGNATION

- NOTES:
1. REMOVAL OF EXISTING SIGN BASE, BACKFILLING, AND SEEDING/MULCHING SHALL ALL BE CONSIDERED INCIDENTAL TO SIGN REMOVAL.
 2. DIMENSIONS FROM TAXIWAY PAVEMENT EDGE INDICATE DISTANCE TO NEAREST EDGE OF SIGN. DIMENSIONS FROM RUNWAY CENTERLINE INDICATE DISTANCE TO CENTER OF SIGN.



REVISIONS		
NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2"
AT FULL SCALE (34X22).
PLOT 1

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

AIRFIELD LIGHTING IMPROVEMENTS

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500



CMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS
© Copyright CMT, Inc.
PROFESSIONAL ENGINEERING - 184-00613

**IL PROJECT, BLV-4405
AIP PROJECT, 3-17-SBGP-XX**

FILE: 17-19_SIGNAGE.dwg

DESIGN BY: ASF

DRAWN BY: ASF

CHECKED BY: MJD/CET

APPROVED BY: BWG

DATE: JUNE 27, 2014

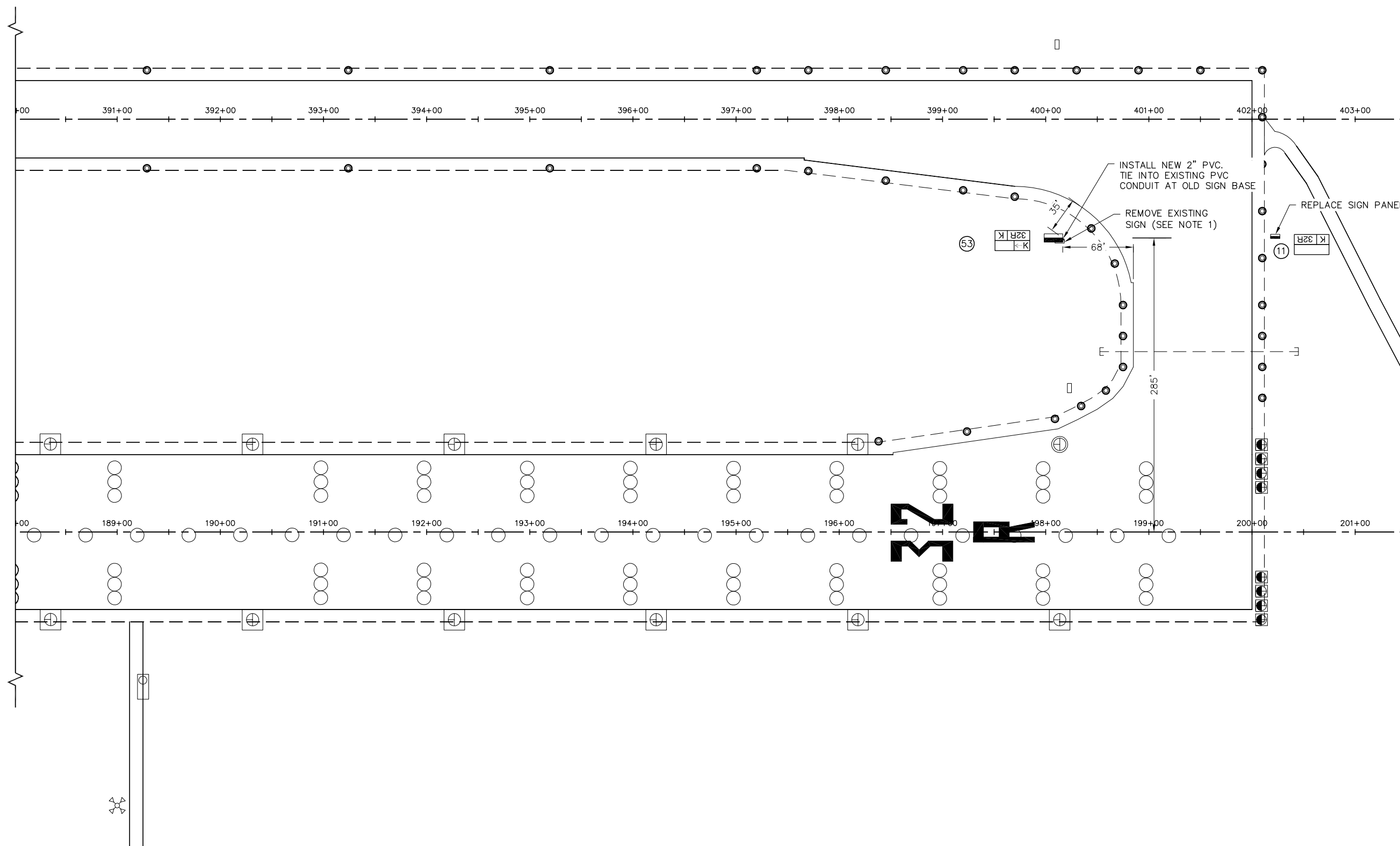
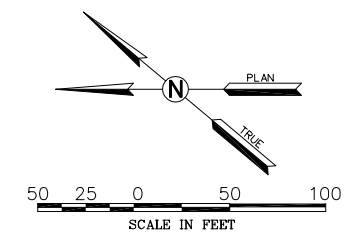
JOB No: 13098-02

SIGNAGE PLAN 5

LEGEND

-  PROPOSED SIGN
-  EXISTING SIGN
-  EXISTING SIGN TO RECEIVE NEW PANEL
-  AIRFIELD SIGN DESIGNATION

- NOTES:
- REMOVAL OF EXISTING SIGN BASE, BACKFILLING, AND SEEDING/MULCHING SHALL ALL BE CONSIDERED INCIDENTAL TO SIGN REMOVAL.
 - DIMENSIONS FROM TAXIWAY PAVEMENT EDGE INDICATE DISTANCE TO NEAREST EDGE OF SIGN, DIMENSIONS FROM RUNWAY CENTERLINE INDICATE DISTANCE TO CENTER OF SIGN.



REVISIONS		
NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2'
AT FULL SCALE (34X22).
PLOT 1

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

AIRFIELD LIGHTING IMPROVEMENTS

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500

CMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS

© Copyright CMT, Inc.
PROFESSIONAL ENGINEERING - 184-00613

**IL PROJECT, BLV-4405
AIP PROJECT, 3-17-SBGP-XX**

FILE: 17-19_SIGNAGE.dwg
DESIGN BY: ASF
DRAWN BY: ASF
CHECKED BY: MJD/CET
APPROVED BY: BWG
DATE: JUNE 27, 2014
JOB No: 13098-02

SIGNAGE PLAN 6

CIRCUIT SYMBOL LEGEND

- REMOVE EXISTING CABLE. INSTALL NEW 1/2" #8 5 KV CABLE IN EXISTING CONDUIT
- REMOVE EXISTING CABLE. DO NOT DAMAGE DURING REMOVAL. REINSTALL CABLE IN EXISTING CONDUIT
- REMOVE EXISTING CABLE
- INSTALL NEW 1/2" #8 5 KV CABLE IN NEW OR EXISTING CONDUIT (SEE SIGNAGE PLANS FOR NEW CONDUIT LOCATIONS)

NOTES:

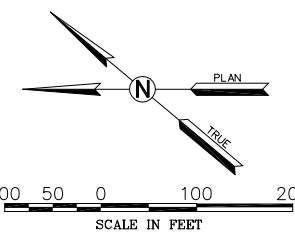
1. NUMBER OF SYMBOLS INDICATES NUMBER OF CABLES TO BE REMOVED AND/OR INSTALLED.
2. NEW CABLE SHALL BE MANUFACTURED WITH COLOR-CODED CABLE ACCORDING TO THE COLOR LEGEND.
3. ODD NUMBERED RUNWAY EDGE LIGHTS AND THRESHOLD LIGHTS ARE POWERED BY REL1, AND EVEN NUMBERED LIGHTS ARE POWERED BY REL2. THE CIRCUITING OF THE RUNWAY LIGHTS SHALL CONTINUE TO USE THIS PATTERN.
4. ALL BOLTS REMOVED FROM IN-PAVEMENT LIGHTS/CANS SHALL BE REPLACED WITH NEW STAINLESS STEEL BOLTS.

CIRCUIT IDENTIFICATION LEGEND

- REL1 RUNWAY EDGE LIGHTS #1
- REL2 RUNWAY EDGE LIGHTS #2
- RDR1 RUNWAY DISTANCE REMAINING SIGNS
- PAPI14L PAPI 14L
- PAPI32R PAPI 32R
- TAXKEDG TAXIWAY K EDGE LIGHTS
- TAXKSGN TAXIWAY K SIGNS
- TAXGEDG TAXIWAY G EDGE LIGHTS
- TAXGEDG-SAFB TAXIWAY G EDGE LIGHTS - SCOTT AIR FORCE BASE (POWERED BY SCOTT AIR FORCE BASE ELECTRICAL VAULT)

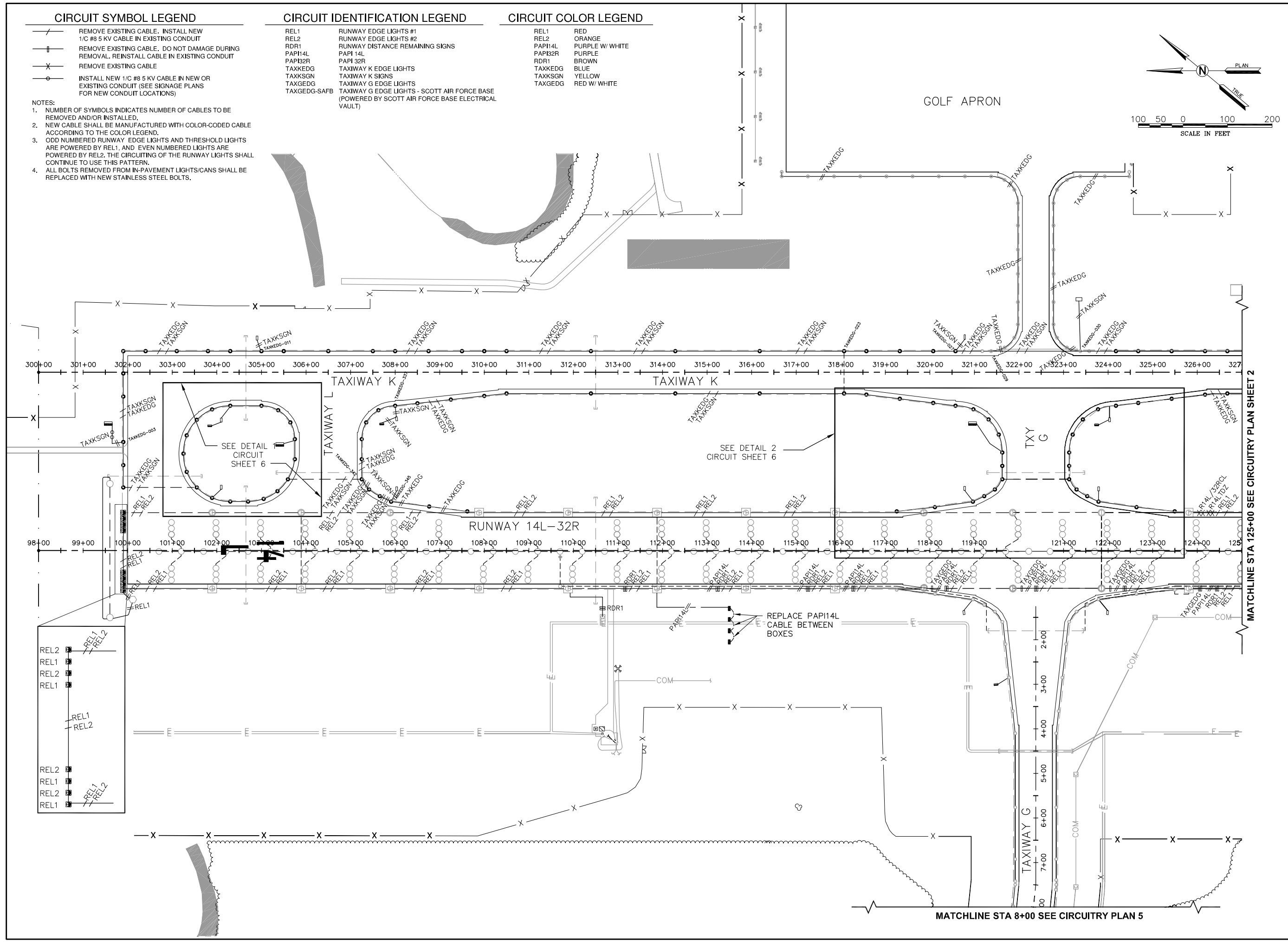
CIRCUIT COLOR LEGEND

- REL1 RED
- REL2 ORANGE
- PAPI14L PURPLE W/ WHITE
- PAPI32R PURPLE
- RDR1 BROWN
- TAXKEDG BLUE
- TAXKSGN YELLOW
- TAXGEDG RED W/ WHITE



REVISIONS		
NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2' AT FULL SCALE (34X22).
PLOT 1



**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

AIRFIELD LIGHTING IMPROVEMENTS

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500

CMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS

© Copyright CMT, Inc.
PROFESSIONAL ENGINEERING - 184-00613

**IL PROJECT, BLV-4405
AIP PROJECT, 3-17-SBGP-XX**

FILE: 20-23_CIRCUIT.dwg

DESIGN BY: ASF

DRAWN BY: ASF

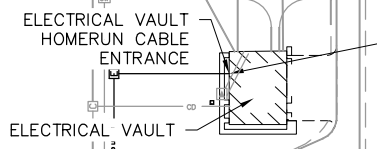
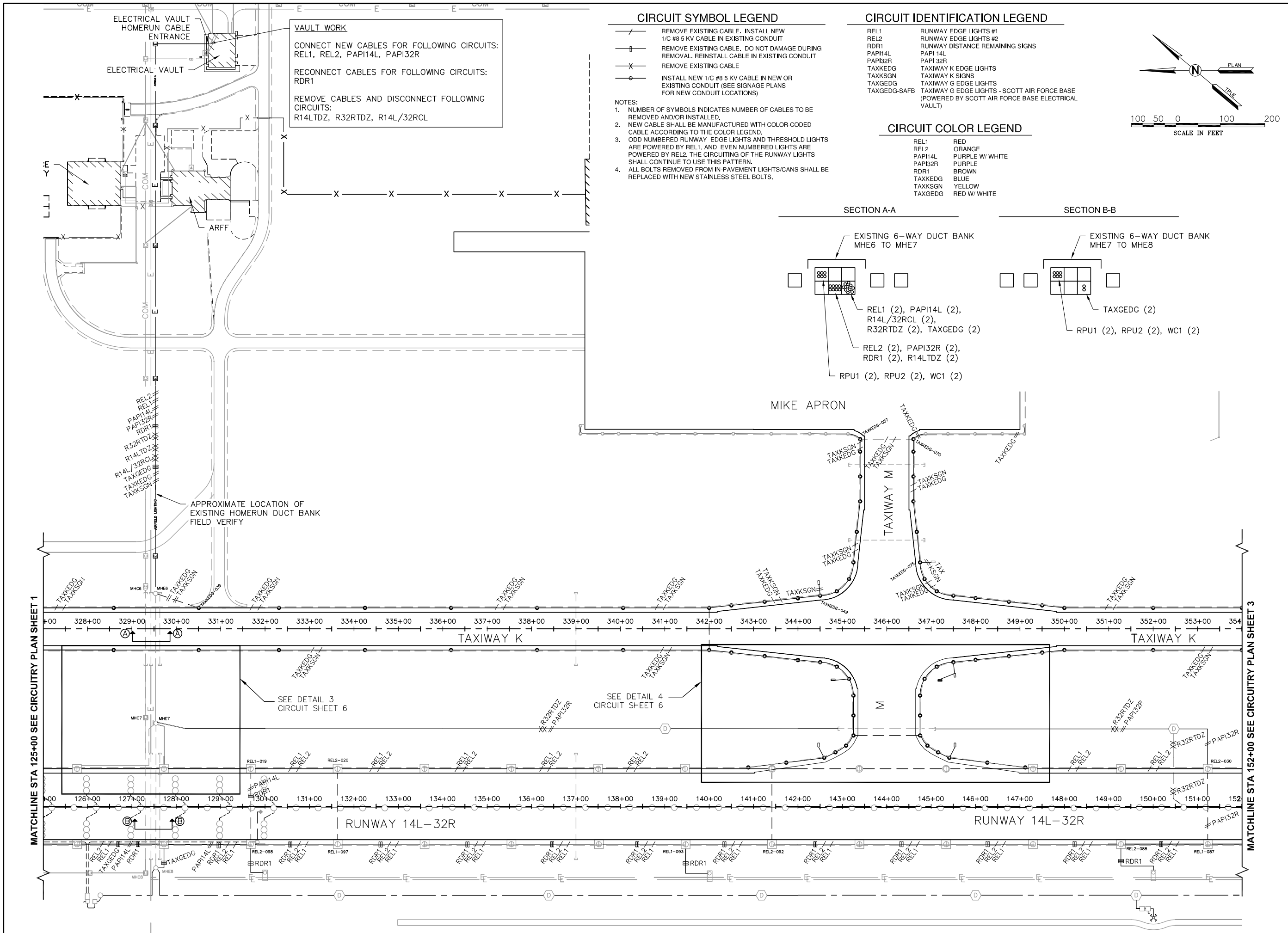
CHECKED BY: MJD/CET

APPROVED BY: BWG

DATE: JUNE 27, 2014

JOB No: 13098-02

CIRCUITRY PLAN 1



VAULT WORK

CONNECT NEW CABLES FOR FOLLOWING CIRCUITS:
REL1, REL2, PAPI14L, PAPI32R

RECONNECT CABLES FOR FOLLOWING CIRCUITS:
RDR1

REMOVE CABLES AND DISCONNECT FOLLOWING CIRCUITS:
R14LTDZ, R32RTDZ, R14L/32RCL

CIRCUIT SYMBOL LEGEND

- / — REMOVE EXISTING CABLE. INSTALL NEW 1/C #8 5 KV CABLE IN EXISTING CONDUIT
- | — REMOVE EXISTING CABLE. DO NOT DAMAGE DURING REMOVAL. REINSTALL CABLE IN EXISTING CONDUIT
- X — REMOVE EXISTING CABLE
- ○ — INSTALL NEW 1/C #8 5 KV CABLE IN NEW OR EXISTING CONDUIT (SEE SIGNAGE PLANS FOR NEW CONDUIT LOCATIONS)

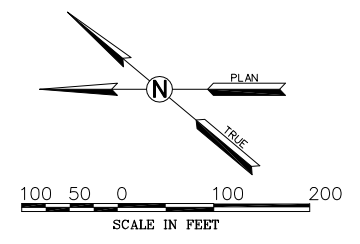
- NOTES:
1. NUMBER OF SYMBOLS INDICATES NUMBER OF CABLES TO BE REMOVED AND/OR INSTALLED.
 2. NEW CABLE SHALL BE MANUFACTURED WITH COLOR-CODED CABLE ACCORDING TO THE COLOR LEGEND.
 3. ODD NUMBERED RUNWAY EDGE LIGHTS AND THRESHOLD LIGHTS ARE POWERED BY REL1, AND EVEN NUMBERED LIGHTS ARE POWERED BY REL2. THE CIRCUITING OF THE RUNWAY LIGHTS SHALL CONTINUE TO USE THIS PATTERN.
 4. ALL BOLTS REMOVED FROM IN-PAVEMENT LIGHTS/CANS SHALL BE REPLACED WITH NEW STAINLESS STEEL BOLTS.

CIRCUIT IDENTIFICATION LEGEND

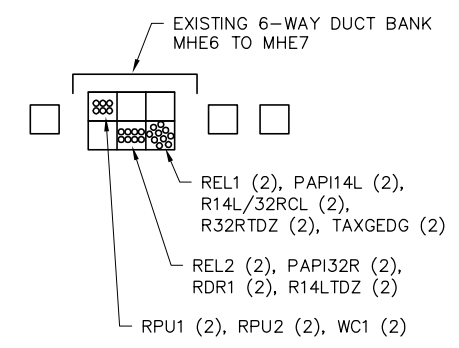
- | | |
|--------------|---|
| REL1 | RUNWAY EDGE LIGHTS #1 |
| REL2 | RUNWAY EDGE LIGHTS #2 |
| RDR1 | RUNWAY DISTANCE REMAINING SIGNS |
| PAPI14L | PAPI 14L |
| PAPI32R | PAPI 32R |
| TAXKEDG | TAXIWAY K EDGE LIGHTS |
| TAXKSGN | TAXIWAY K SIGNS |
| TAXGEDG | TAXIWAY G EDGE LIGHTS |
| TAXGEDG-SAFB | TAXIWAY G EDGE LIGHTS - SCOTT AIR FORCE BASE (POWERED BY SCOTT AIR FORCE BASE ELECTRICAL VAULT) |

CIRCUIT COLOR LEGEND

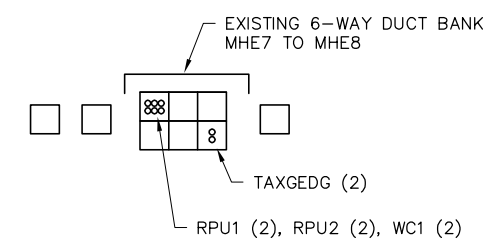
- | | |
|---------|-----------------|
| REL1 | RED |
| REL2 | ORANGE |
| PAPI14L | PURPLE W/ WHITE |
| PAPI32R | PURPLE |
| RDR1 | BROWN |
| TAXKEDG | BLUE |
| TAXKSGN | YELLOW |
| TAXGEDG | RED W/ WHITE |



SECTION A-A



SECTION B-B



MATCHLINE STA 125+00 SEE CIRCUITRY PLAN SHEET 1

MATCHLINE STA 152+00 SEE CIRCUITRY PLAN SHEET 3

REVISIONS		
NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2' AT FULL SCALE (34X22). PLOT 1

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

AIRFIELD LIGHTING IMPROVEMENTS

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500

CMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS

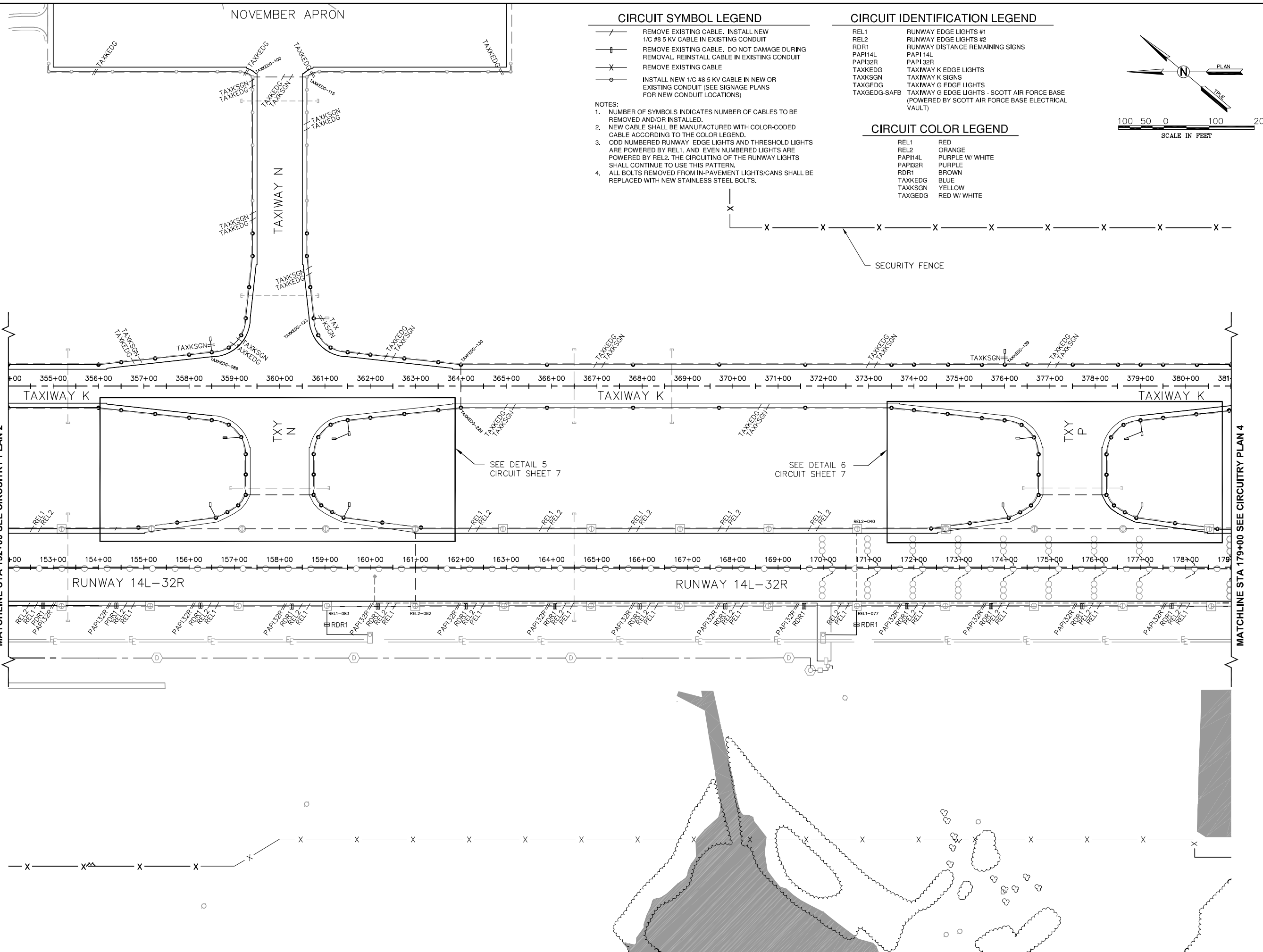
© Copyright CMT, Inc.
PROFESSIONAL ENGINEERING - 184-00613

**IL PROJECT, BLV-4405
AIP PROJECT, 3-17-SBGP-XX**

FILE: 20-23_CIRCUIT.dwg
DESIGN BY: ASF
DRAWN BY: ASF
CHECKED BY: MJD/CET
APPROVED BY: BWG
DATE: JUNE 27, 2014
JOB No: 13098-02

CIRCUITRY PLAN 2

SHEET 24 OF 35 SHEETS



CIRCUIT SYMBOL LEGEND

- REMOVE EXISTING CABLE. INSTALL NEW 1/C #8 5 KV CABLE IN EXISTING CONDUIT
- REMOVE EXISTING CABLE. DO NOT DAMAGE DURING REMOVAL. REINSTALL CABLE IN EXISTING CONDUIT
- REMOVE EXISTING CABLE
- INSTALL NEW 1/C #8 5 KV CABLE IN NEW OR EXISTING CONDUIT (SEE SIGNAGE PLANS FOR NEW CONDUIT LOCATIONS)

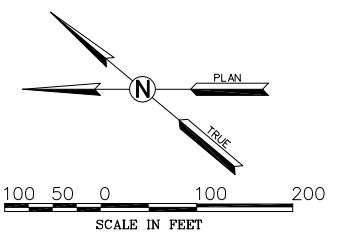
- NOTES:
1. NUMBER OF SYMBOLS INDICATES NUMBER OF CABLES TO BE REMOVED AND/OR INSTALLED.
 2. NEW CABLE SHALL BE MANUFACTURED WITH COLOR-CODED CABLE ACCORDING TO THE COLOR LEGEND.
 3. ODD NUMBERED RUNWAY EDGE LIGHTS AND THRESHOLD LIGHTS ARE POWERED BY REL1, AND EVEN NUMBERED LIGHTS ARE POWERED BY REL2. THE CIRCUITING OF THE RUNWAY LIGHTS SHALL CONTINUE TO USE THIS PATTERN.
 4. ALL BOLTS REMOVED FROM IN-PAVEMENT LIGHTS/CANS SHALL BE REPLACED WITH NEW STAINLESS STEEL BOLTS.

CIRCUIT IDENTIFICATION LEGEND

- REL1 RUNWAY EDGE LIGHTS #1
- REL2 RUNWAY EDGE LIGHTS #2
- RDR1 RUNWAY DISTANCE REMAINING SIGNS
- PAPI4L PAPI 14L
- PAPI32R PAPI 32R
- TAXKEDG TAXIWAY K EDGE LIGHTS
- TAXKSGN TAXIWAY K SIGNS
- TAXGEDG TAXIWAY G EDGE LIGHTS
- TAXGEDG-SAFB TAXIWAY G EDGE LIGHTS - SCOTT AIR FORCE BASE (POWERED BY SCOTT AIR FORCE BASE ELECTRICAL VAULT)

CIRCUIT COLOR LEGEND

- REL1 RED
- REL2 ORANGE
- PAPI4L PURPLE W/ WHITE
- PAPI32R PURPLE
- RDR1 BROWN
- TAXKEDG BLUE
- TAXKSGN YELLOW
- TAXGEDG RED W/ WHITE



REVISIONS		
NUMBER	BY	DATE

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

AIRFIELD LIGHTING IMPROVEMENTS

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500

CMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS

© Copyright CMT, Inc.
PROFESSIONAL ENGINEERING - 184-00613

**IL PROJECT, BLV-4405
AIP PROJECT, 3-17-SBGP-XX**

FILE: 20-23_CIRCUIT.dwg
DESIGN BY: ASF
DRAWN BY: ASF
CHECKED BY: MJD/CET
APPROVED BY: BWG
DATE: JUNE 27, 2014
JOB No: 13098-02

CIRCUIT SYMBOL LEGEND

- REMOVE EXISTING CABLE. INSTALL NEW 1/2" #8 5 KV CABLE IN EXISTING CONDUIT
- REMOVE EXISTING CABLE. DO NOT DAMAGE DURING REMOVAL. REINSTALL CABLE IN EXISTING CONDUIT
- REMOVE EXISTING CABLE
- INSTALL NEW 1/2" #8 5 KV CABLE IN NEW OR EXISTING CONDUIT (SEE SIGNAGE PLANS FOR NEW CONDUIT LOCATIONS)

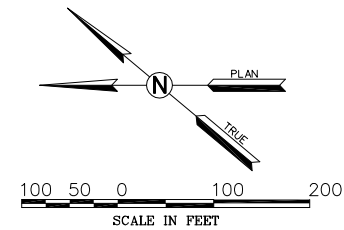
- NOTES:
1. NUMBER OF SYMBOLS INDICATES NUMBER OF CABLES TO BE REMOVED AND/OR INSTALLED.
 2. NEW CABLE SHALL BE MANUFACTURED WITH COLOR-CODED CABLE ACCORDING TO THE COLOR LEGEND.
 3. ODD NUMBERED RUNWAY EDGE LIGHTS AND THRESHOLD LIGHTS ARE POWERED BY REL1, AND EVEN NUMBERED LIGHTS ARE POWERED BY REL2. THE CIRCUITING OF THE RUNWAY LIGHTS SHALL CONTINUE TO USE THIS PATTERN.
 4. ALL BOLTS REMOVED FROM IN-PAVEMENT LIGHTS/CANS SHALL BE REPLACED WITH NEW STAINLESS STEEL BOLTS.

CIRCUIT IDENTIFICATION LEGEND

- REL1 RUNWAY EDGE LIGHTS #1
- REL2 RUNWAY EDGE LIGHTS #2
- RDR1 RUNWAY DISTANCE REMAINING SIGNS
- PAP14L PAPI 14L
- PAP132R PAPI 32R
- TAXKEDG TAXIWAY K EDGE LIGHTS
- TAXKSGN TAXIWAY K SIGNS
- TAXGEDG TAXIWAY G EDGE LIGHTS
- TAXGEDG-SAFB TAXIWAY G EDGE LIGHTS - SCOTT AIR FORCE BASE (POWERED BY SCOTT AIR FORCE BASE ELECTRICAL VAULT)


CIRCUIT COLOR LEGEND

- REL1 RED
- REL2 ORANGE
- PAP14L PURPLE W/ WHITE
- PAP132R PURPLE
- RDR1 BROWN
- TAXKEDG BLUE
- TAXKSGN YELLOW
- TAXGEDG RED W/ WHITE



REVISIONS		
NUMBER	BY	DATE

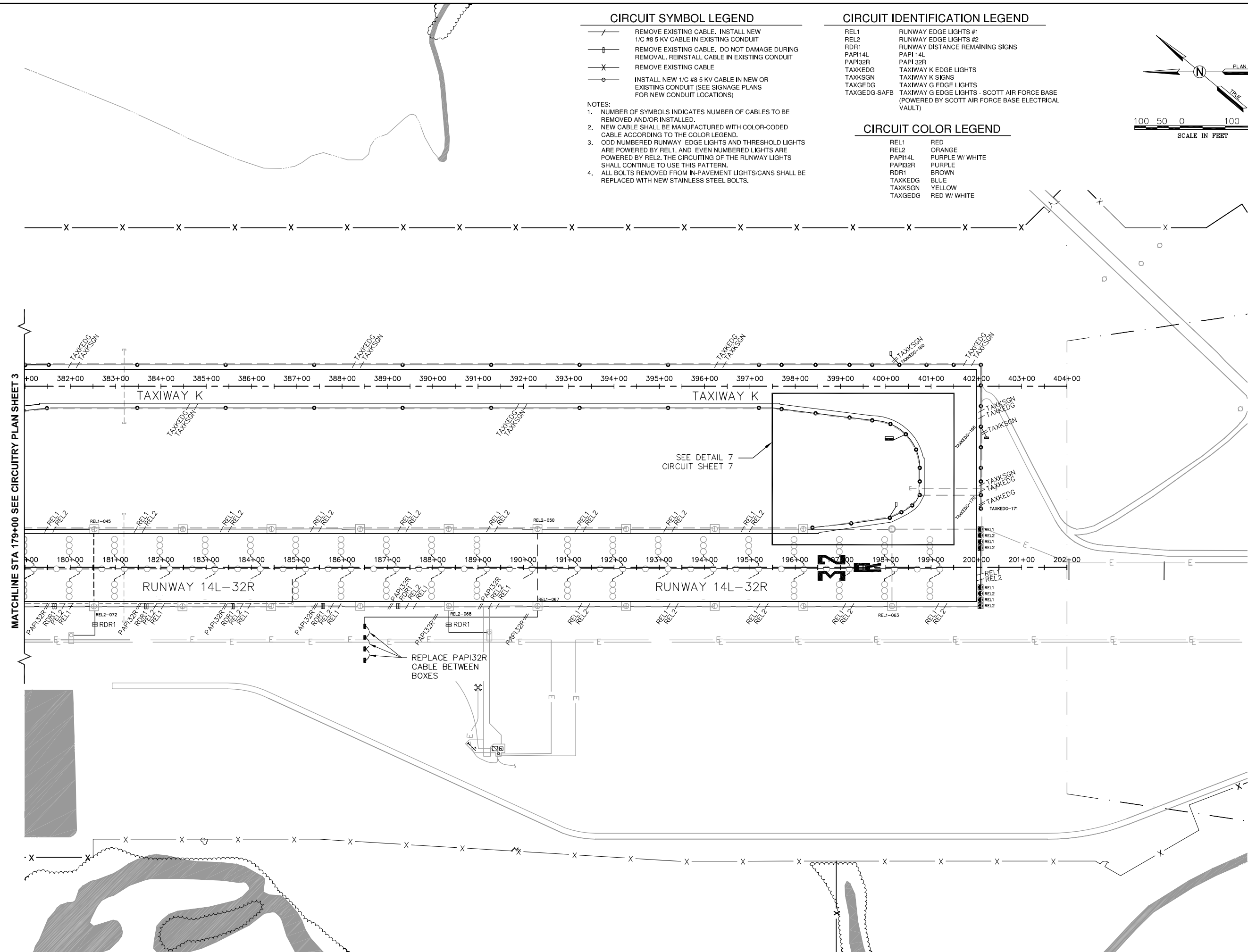
MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS
AIRFIELD LIGHTING IMPROVEMENTS


GMT
 CRAWFORD, MURPHY & TILLY, INC.
 CONSULTING ENGINEERS
© Copyright GMT, Inc. PROFESSIONAL ENGINEERING - 184-00613

IL PROJECT, BLV-4405
AIP PROJECT, 3-17-SBGP-XX

FILE: 20-23_CIRCUIT.dwg
 DESIGN BY: ASF
 DRAWN BY: ASF
 CHECKED BY: MJD/CET
 APPROVED BY: BWG
 DATE: JUNE 27, 2014
 JOB No: 13098-02

CIRCUITRY PLAN 4
 SHEET 26 OF 35 SHEETS



CIRCUIT SYMBOL LEGEND

- REMOVE EXISTING CABLE. INSTALL NEW 1/C #8 5 KV CABLE IN EXISTING CONDUIT
- REMOVE EXISTING CABLE. DO NOT DAMAGE DURING REMOVAL. REINSTALL CABLE IN EXISTING CONDUIT
- REMOVE EXISTING CABLE
- INSTALL NEW 1/C #8 5 KV CABLE IN NEW OR EXISTING CONDUIT (SEE SIGNAGE PLANS FOR NEW CONDUIT LOCATIONS)

NOTES:

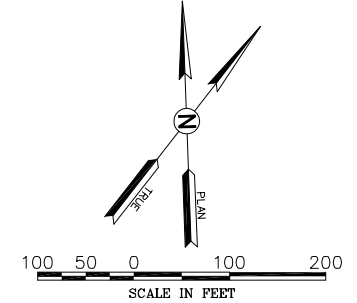
1. NUMBER OF SYMBOLS INDICATES NUMBER OF CABLES TO BE REMOVED AND/OR INSTALLED.
2. NEW CABLE SHALL BE MANUFACTURED WITH COLOR-CODED CABLE ACCORDING TO THE COLOR LEGEND.
3. ODD NUMBERED RUNWAY EDGE LIGHTS AND THRESHOLD LIGHTS ARE POWERED BY REL1, AND EVEN NUMBERED LIGHTS ARE POWERED BY REL2. THE CIRCUITING OF THE RUNWAY LIGHTS SHALL CONTINUE TO USE THIS PATTERN.
4. ALL BOLTS REMOVED FROM IN-PAVEMENT LIGHTS/CANS SHALL BE REPLACED WITH NEW STAINLESS STEEL BOLTS.

CIRCUIT IDENTIFICATION LEGEND

- REL1 RUNWAY EDGE LIGHTS #1
- REL2 RUNWAY EDGE LIGHTS #2
- RDR1 RUNWAY DISTANCE REMAINING SIGNS
- PAP114L PAPI 14L
- PAP132R PAPI 32R
- TAXKEDG TAXIWAY K EDGE LIGHTS
- TAXKSGN TAXIWAY K SIGNS
- TAXGEDG TAXIWAY G EDGE LIGHTS
- TAXGEDG-SAFB TAXIWAY G EDGE LIGHTS - SCOTT AIR FORCE BASE (POWERED BY SCOTT AIR FORCE BASE ELECTRICAL VAULT)

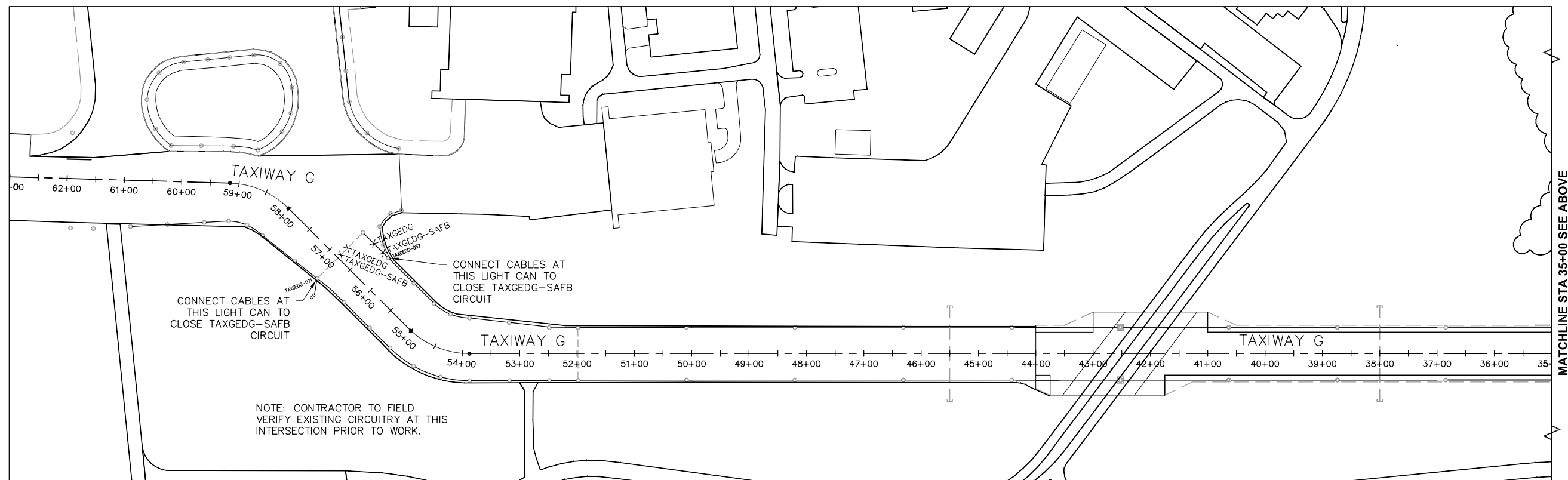
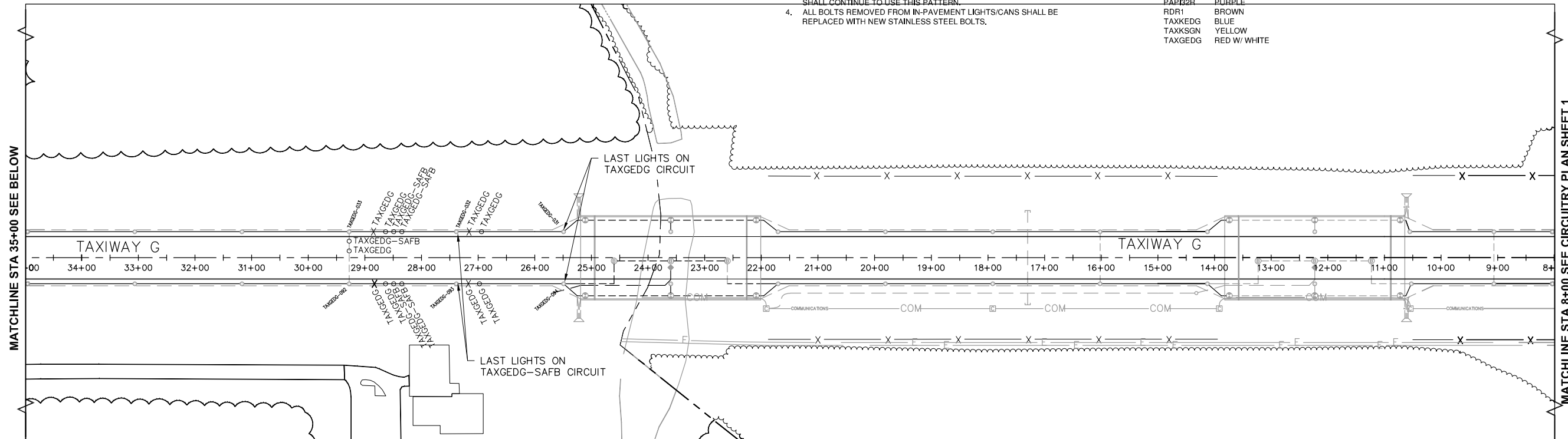
CIRCUIT COLOR LEGEND

- REL1 RED
- REL2 ORANGE
- PAP114L PURPLE W/ WHITE
- PAP132R PURPLE
- RDR1 BROWN
- TAXKEDG BLUE
- TAXKSGN YELLOW
- TAXGEDG RED W/ WHITE



REVISIONS		
NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2'
AT FULL SCALE (34X22).
PLOT 1



**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

AIRFIELD LIGHTING IMPROVEMENTS

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500



CMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS

© Copyright CMT, Inc.
PROFESSIONAL ENGINEERING - 184-00613

**IL PROJECT, BLV-4405
AIP PROJECT, 3-17-SBGP-XX**

FILE: 20-23_CIRCUIT.dwg

DESIGN BY: ASF

DRAWN BY: ASF

CHECKED BY: MJD/CET

APPROVED BY: BWG

DATE: JUNE 27, 2014

JOB No: 13098-02

CIRCUITRY PLAN 5

SHEET 27 OF 35 SHEETS

CIRCUIT SYMBOL LEGEND

- REMOVE EXISTING CABLE. INSTALL NEW 1/2" #8 5 KV CABLE IN EXISTING CONDUIT
- REMOVE EXISTING CABLE. DO NOT DAMAGE DURING REMOVAL. REINSTALL CABLE IN EXISTING CONDUIT
- REMOVE EXISTING CABLE
- INSTALL NEW 1/2" #8 5 KV CABLE IN NEW OR EXISTING CONDUIT (SEE SIGNAGE PLANS FOR NEW CONDUIT LOCATIONS)

NOTES:

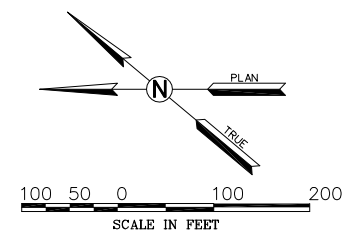
1. NUMBER OF SYMBOLS INDICATES NUMBER OF CABLES TO BE REMOVED AND/OR INSTALLED.
2. NEW CABLE SHALL BE MANUFACTURED WITH COLOR-CODED CABLE ACCORDING TO THE COLOR LEGEND.
3. ODD NUMBERED RUNWAY EDGE LIGHTS AND THRESHOLD LIGHTS ARE POWERED BY REL1, AND EVEN NUMBERED LIGHTS ARE POWERED BY REL2. THE CIRCUITING OF THE RUNWAY LIGHTS SHALL CONTINUE TO USE THIS PATTERN.
4. ALL BOLTS REMOVED FROM IN-PAVEMENT LIGHTS/CANS SHALL BE REPLACED WITH NEW STAINLESS STEEL BOLTS.

CIRCUIT IDENTIFICATION LEGEND

- REL1 RUNWAY EDGE LIGHTS #1
- REL2 RUNWAY EDGE LIGHTS #2
- RDR1 RUNWAY DISTANCE REMAINING SIGNS
- PAPI14L PAPI 14L
- PAPI32R PAPI 32R
- TAXKEDG TAXIWAY K EDGE LIGHTS
- TAXKSGN TAXIWAY K SIGNS
- TAXGEDG TAXIWAY G EDGE LIGHTS
- TAXGEDG-SAFB TAXIWAY G EDGE LIGHTS - SCOTT AIR FORCE BASE (POWERED BY SCOTT AIR FORCE BASE ELECTRICAL VAULT)

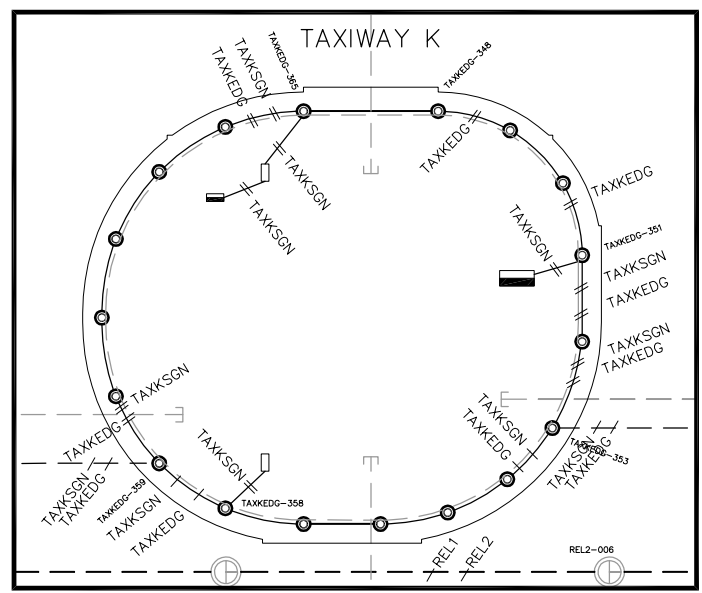
CIRCUIT COLOR LEGEND

- REL1 RED
- REL2 ORANGE
- PAPI14L PURPLE W/ WHITE
- PAPI32R PURPLE
- RDR1 BROWN
- TAXKEDG BLUE
- TAXKSGN YELLOW
- TAXGEDG RED W/ WHITE

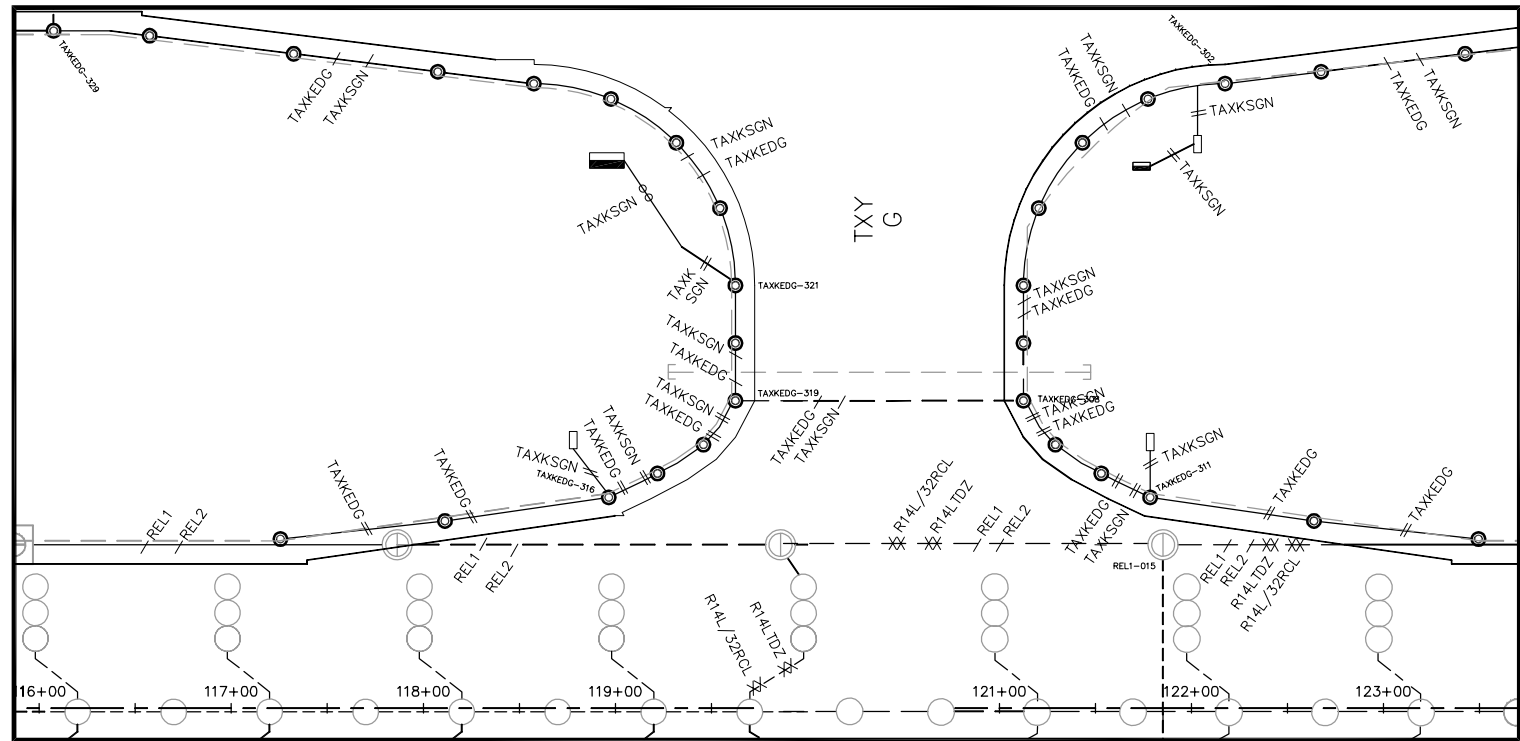


REVISIONS		
NUMBER	BY	DATE

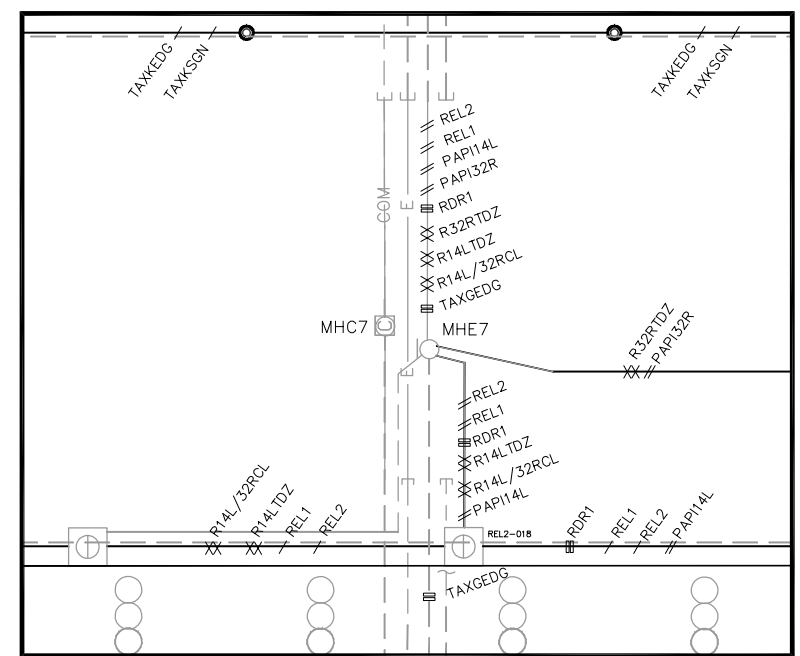
0 1 2
THIS BAR IS EQUAL TO 2'
AT FULL SCALE (34X22).
PLOT 1



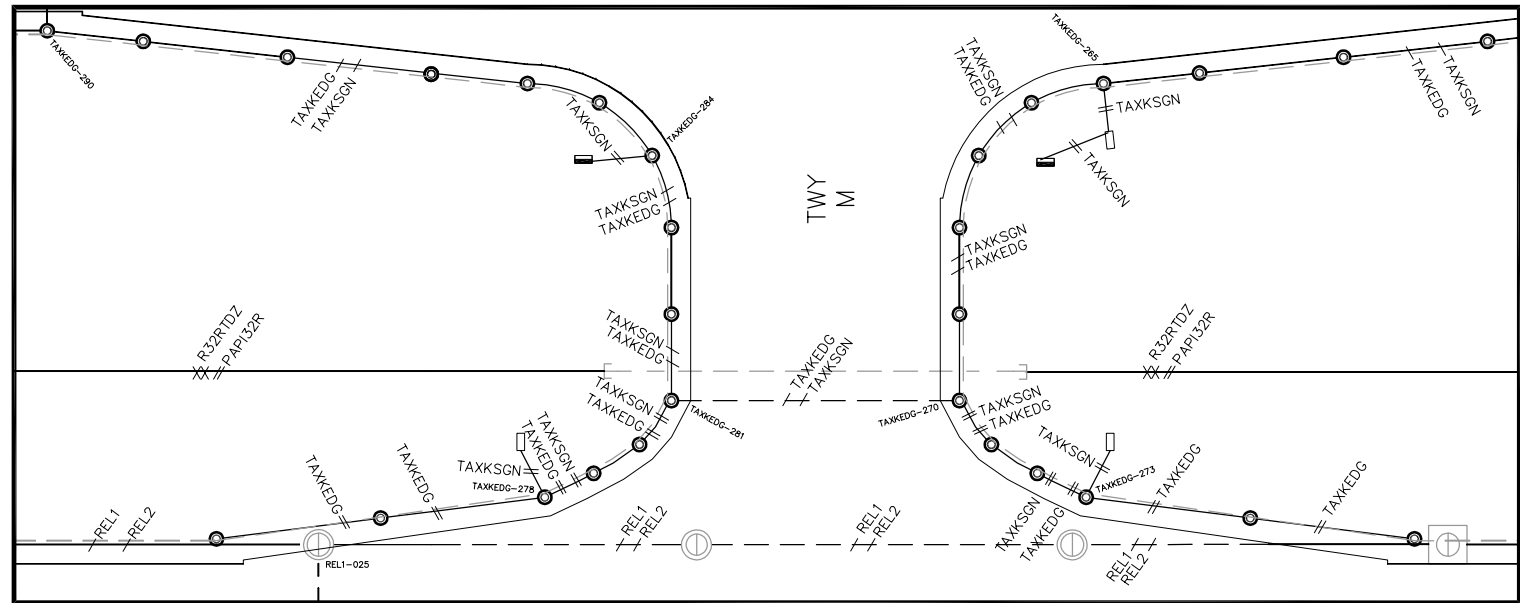
DETAIL 1 - TAXIWAY K AT 14L, TWY L



DETAIL 2 - TAXIWAY G



DETAIL 3 - INFIELD AREA



DETAIL 4 - TAXIWAY M

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

AIRFIELD LIGHTING IMPROVEMENTS

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500

CMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS

© Copyright CMT, Inc.
PROFESSIONAL ENGINEERING - 184-00613

**IL PROJECT, BLV-4405
AIP PROJECT, 3-17-SBGP-XX**

FILE: 20-23_CIRCUIT.dwg

DESIGN BY: ASF

DRAWN BY: ASF

CHECKED BY: MJD/CET

APPROVED BY: BWG

DATE: JUNE 27, 2014

JOB No: 13098-02

CIRCUIT SYMBOL LEGEND

- REMOVE EXISTING CABLE. INSTALL NEW 1/2" #8 5 KV CABLE IN EXISTING CONDUIT
- REMOVE EXISTING CABLE. DO NOT DAMAGE DURING REMOVAL. REINSTALL CABLE IN EXISTING CONDUIT
- REMOVE EXISTING CABLE
- INSTALL NEW 1/2" #8 5 KV CABLE IN NEW OR EXISTING CONDUIT (SEE SIGNAGE PLANS FOR NEW CONDUIT LOCATIONS)

NOTES:

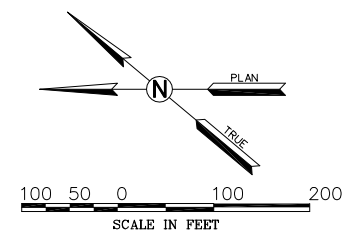
1. NUMBER OF SYMBOLS INDICATES NUMBER OF CABLES TO BE REMOVED AND/OR INSTALLED.
2. NEW CABLE SHALL BE MANUFACTURED WITH COLOR-CODED CABLE ACCORDING TO THE COLOR LEGEND.
3. ODD NUMBERED RUNWAY EDGE LIGHTS AND THRESHOLD LIGHTS ARE POWERED BY REL1, AND EVEN NUMBERED LIGHTS ARE POWERED BY REL2. THE CIRCUITING OF THE RUNWAY LIGHTS SHALL CONTINUE TO USE THIS PATTERN.
4. ALL BOLTS REMOVED FROM IN-PAVEMENT LIGHTS/CANS SHALL BE REPLACED WITH NEW STAINLESS STEEL BOLTS.

CIRCUIT IDENTIFICATION LEGEND

- REL1 RUNWAY EDGE LIGHTS #1
- REL2 RUNWAY EDGE LIGHTS #2
- RDR1 RUNWAY DISTANCE REMAINING SIGNS
- PAPI14L PAPI 14L
- PAPI32R PAPI 32R
- TAXKEDG TAXIWAY K EDGE LIGHTS
- TAXKSGN TAXIWAY K SIGNS
- TAXKEDG TAXIWAY G EDGE LIGHTS
- TAXKEDG-SAFB TAXIWAY G EDGE LIGHTS - SCOTT AIR FORCE BASE (POWERED BY SCOTT AIR FORCE BASE ELECTRICAL VAULT)

CIRCUIT COLOR LEGEND

- REL1 RED
- REL2 ORANGE
- PAPI14L PURPLE W/ WHITE
- PAPI32R PURPLE
- RDR1 BROWN
- TAXKEDG BLUE
- TAXKSGN YELLOW
- TAXKEDG RED W/ WHITE



REVISIONS		
NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2'
AT FULL SCALE (34X22).
PLOT 1

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

AIRFIELD LIGHTING IMPROVEMENTS

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500

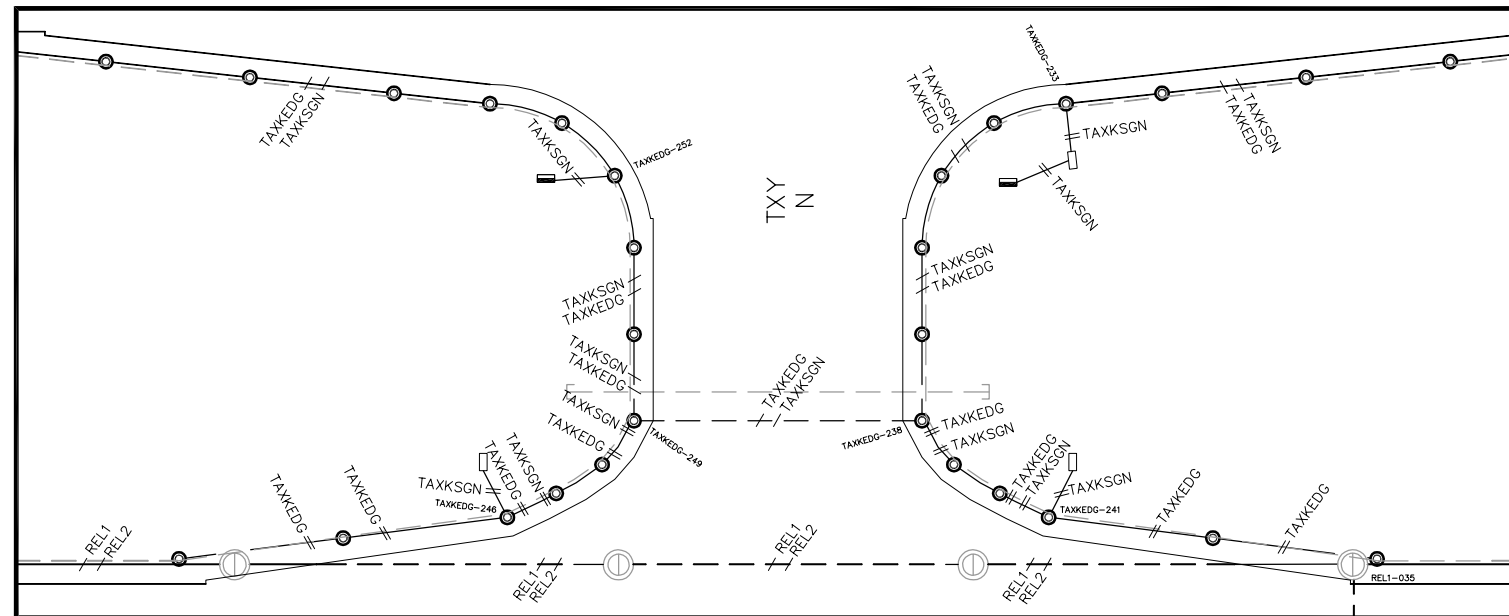
CMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS

© Copyright CMT, Inc.
PROFESSIONAL ENGINEERING - 184-00613

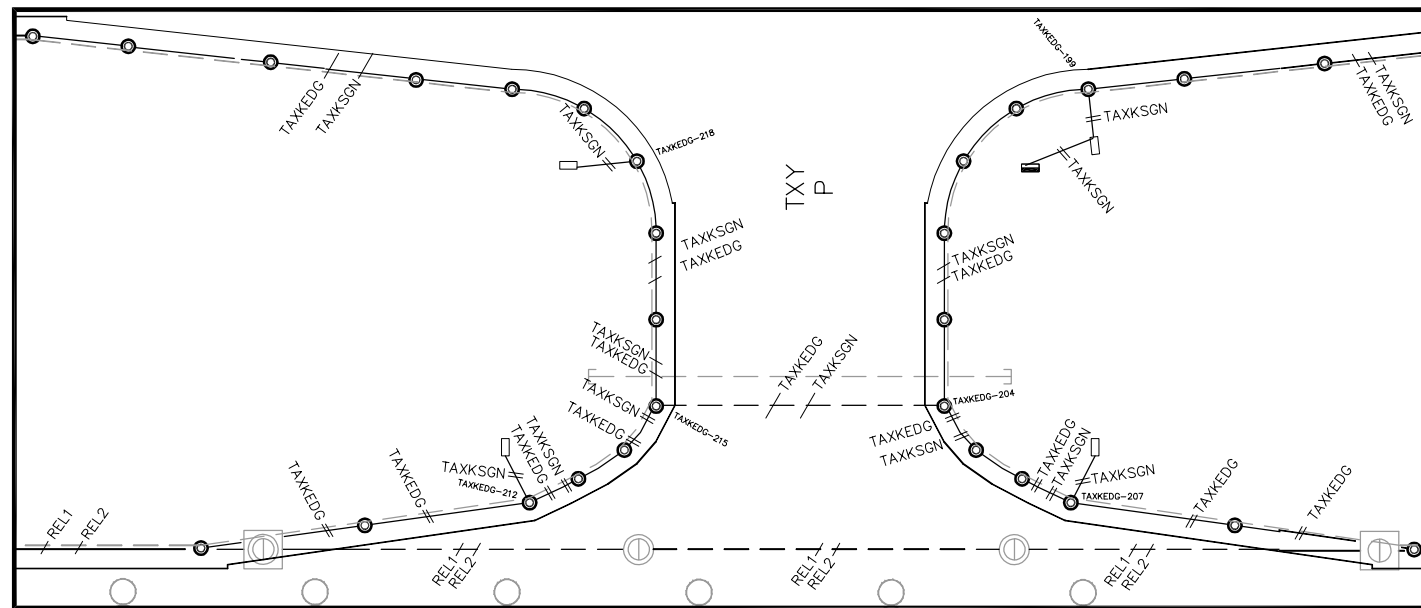
**IL PROJECT, BLV-4405
AIP PROJECT, 3-17-SBGP-XX**

FILE: 20-23_CIRCUIT.dwg
DESIGN BY: ASF
DRAWN BY: ASF
CHECKED BY: MJD/CET
APPROVED BY: BWG
DATE: JUNE 27, 2014
JOB No: 13098-02

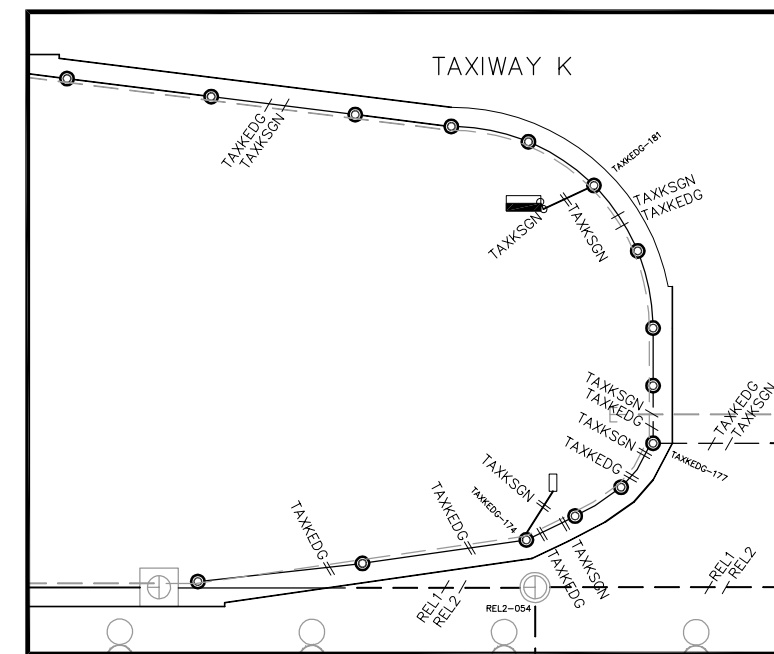
CIRCUITRY PLAN 7



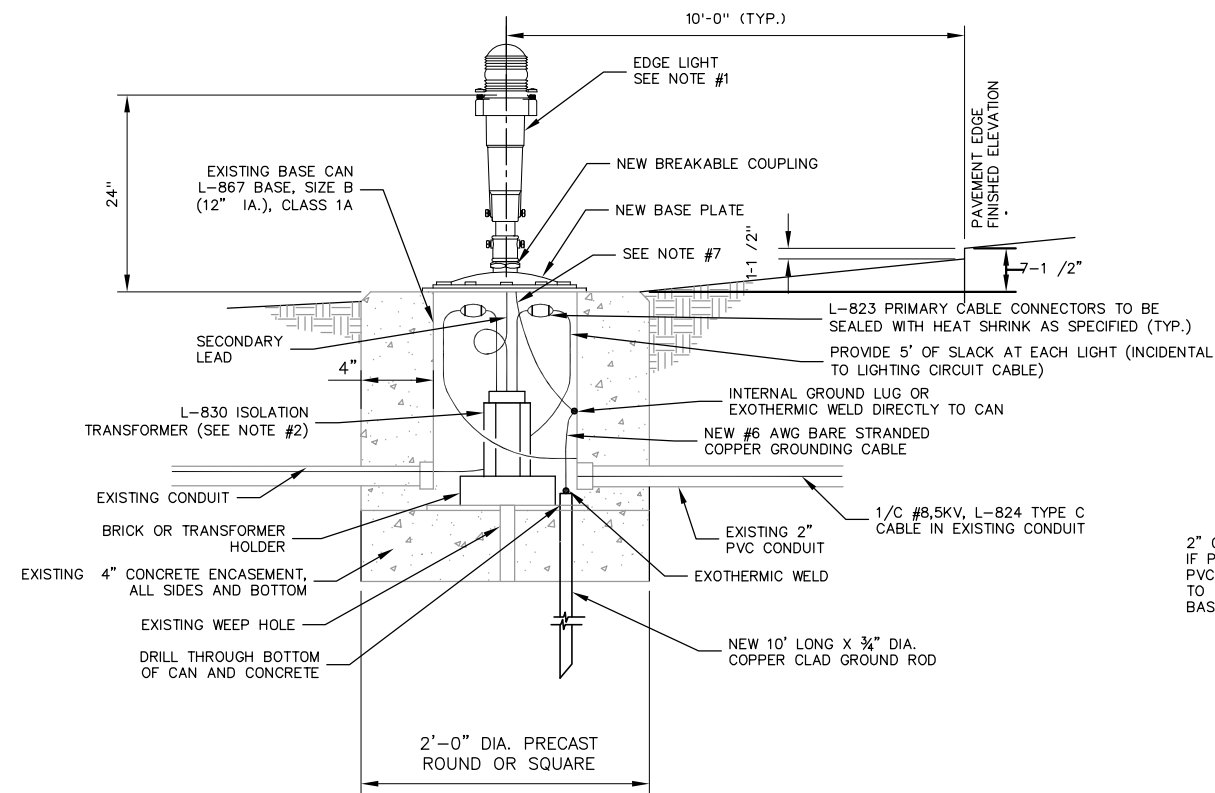
DETAIL 5 - TAXIWAY N



DETAIL 6 - TAXIWAY P



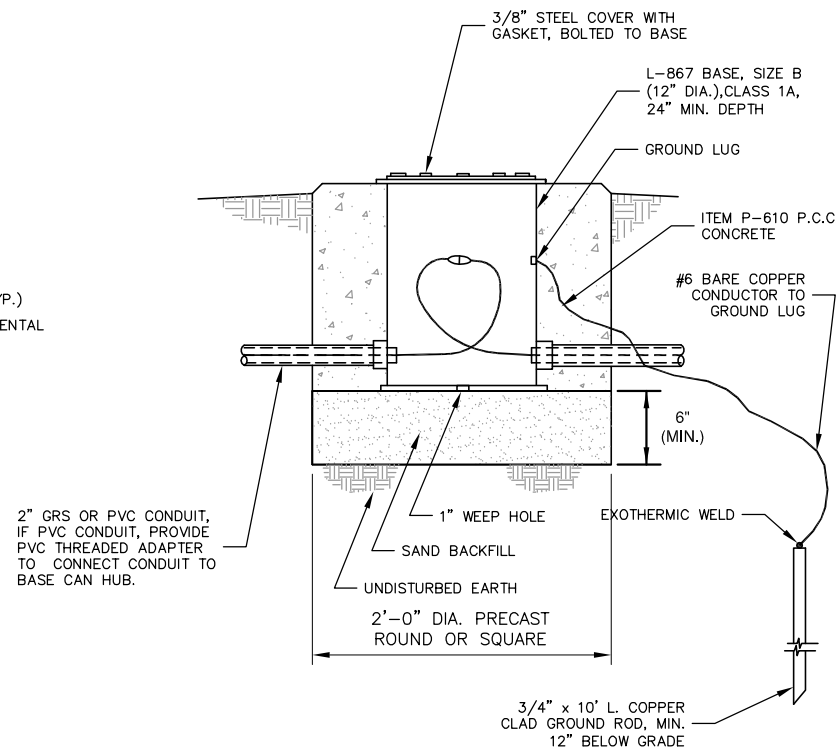
DETAIL 7 - TAXIWAY K AT 32R



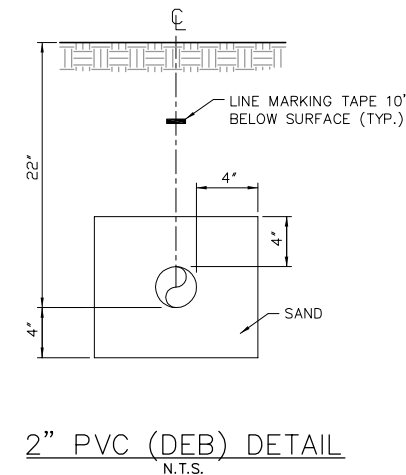
NOTES

1. LIGHT FIXTURES SHALL BE L-861(L) OR L-862E AS INDICATED ON THE PLANS AND SPECIFICATIONS. TAXIWAY EDGE LIGHTS TO BE LED. RUNWAY THRESHOLD LIGHTS TO BE HIGH INTENSITY QUARTZ, LAMPS 100 W, AS REQUIRED BY LIGHT FIXTURE MANUFACTURER TO MEET MINIMUM DISTRIBUTION AND OUTPUT REQUIREMENTS OF AC 150/5345-46(LATEST EDITION).
2. L-830 ISOLATION TRANSFORMERS FOR THRESHOLD LIGHTS SHALL BE L-830/831-4, 100 WATT. LED EDGE LIGHTS SHALL BE L-830-16, 10/15 WATT OR L-830-17, 20/25 WATT, AS RECOMMENDED BY LIGHT FIXTURE MANUFACTURER.
3. THE TOLERANCE FOR THE HEIGHT OF RUNWAY/TAXIWAY EDGE LIGHTS MUST BE ± 1 INCH. THE TOLERANCE FOR THE LATERAL SPACING (LIGHT LANE TO RUNWAY/TAXIWAY CENTERLINE) OF RUNWAY/TAXIWAY EDGE LIGHTS MUST BE ± 1 INCH.
4. DIRECTION OF PRIMARY CABLES MUST BE IDENTIFIED BY COLOR CODING AS FOLLOWS: WHEN FACING LIGHT WITH BACK FACING PAVEMENT, CABLE TO THE LEFT IS CODED RED AND CABLE TO THE RIGHT IS CODED BLUE.
5. APPLY A CORROSION INHIBITING, ANTI-SEIZE COMPOUND TO ALL SCREWS, NUTS AND FRANGIBLE COUPLING THREADS. IF COATED BOLTS ARE USED PER ENGINEERING BRIEF #83, DO NOT APPLY ANTI-SEIZE COMPOUND.
6. ELECTRICAL INSULATING GREASE MUST BE APPLIED WITHIN THE L-830 ISOLATION TRANSFORMER SECONDARY TWO CONDUCTOR CONNECTORS TO PREVENT WATER ENTRANCE. THE CONNECTORS MUST NOT BE TAPED.
7. THE LIGHT FIXTURE SHALL BE BONDED TO THE LIGHT BASE INTERNAL GROUND LUG VIA A #6 AWG STRANDED COPPER WIRE RATED FOR 600 VOLTS WITH GREEN XHHW INSULATION. THE GROUND WIRE LENGTH SHALL BE SUFFICIENT TO ALLOW THE REMOVAL OF THE LIGHT FIXTURE FROM THE LIGHT BASE FOR ROUTINE MAINTENANCE. SEE THE LIGHT FIXTURE MANUFACTURER'S INSTRUCTIONS FOR PROPER METHODS OF ATTACHING THIS BONDING WIRE. AS AN ALTERNATE, THE CONTRACTOR MAY ATTACH THE INSULATED BONDING WIRE DIRECTLY TO THE GROUND ROD VIA EXOTHERMIC WELD.
8. INSTALLATION OF GROUND ROD SHALL BE INCIDENTAL TO INSTALLATION OF THE LIGHT FIXTURE.
9. EXISTING LIGHT FIXTURES ARE 14\"/>

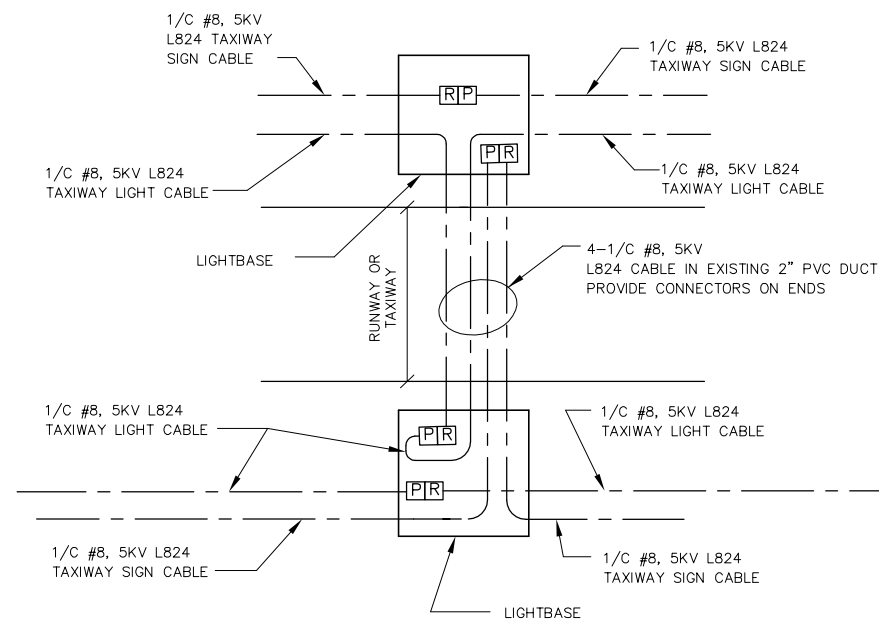
BASE MOUNTED EDGE LIGHT
N.T.S.



SPLICE CAN DETAIL
N.T.S.



2\"/>N.T.S.



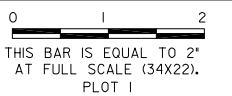
NOTE: THIS CONFIGURATION TYPICAL FOR ALL TEST LOOPS.

- P L823 PLUG CONNECTOR
- R L823 RECPT. CONNECTOR

TEST LOOP DETAIL
N.T.S.

REVISIONS

NUMBER	BY	DATE



**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

AIRFIELD LIGHTING IMPROVEMENTS

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500



CMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS

© Copyright CMT, Inc.
PROFESSIONAL ENGINEERING - 184-00613

**IL PROJECT, BLV-4405
AIP PROJECT, 3-17-SBGP-XX**

FILE: 33-36_ELECTRICAL_DETAILS.dwg

DESIGN BY: ASF

DRAWN BY: ASF

CHECKED BY: MJD/CET

APPROVED BY: BWG

DATE: JUNE 27, 2014

JOB No: 13098-02

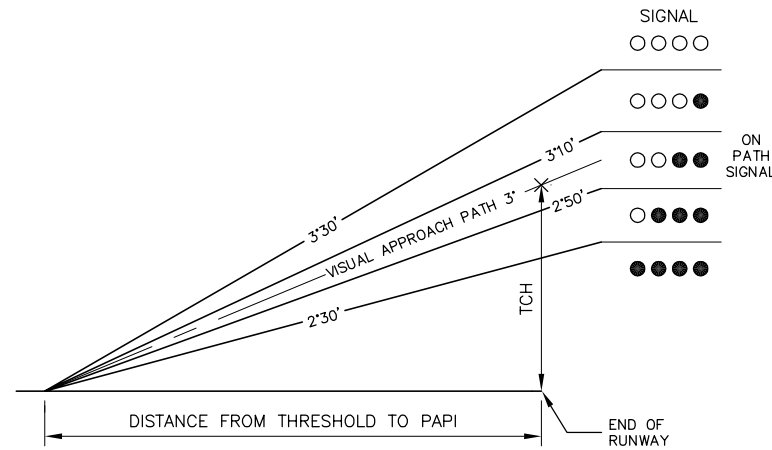
**ELECTRICAL
DETAILS 1**

PAPI SITING INFORMATION	RUNWAY	
	14L	32R
HEIGHT GROUP USED FOR SITING	4	4
THRESHOLD ELEVATION	441.5	441.7
THRESHOLD CROSSING HEIGHT	72.0'	72.0'
PAPI DISTANCE FROM THRESHOLD	1350'	1350'
GLIDE PATH ANGLE *	3'	3'
ELEVATION C _L OF APERTURE	441.6	441.6

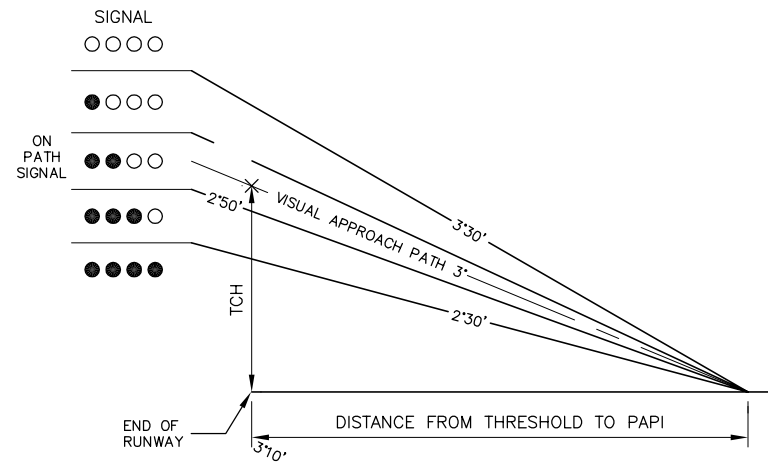
* THE VISUAL GLIDE PATH ANGLE IS THE CENTER OF THE ON COURSE ZONE & IS MEASURED FROM THE HORIZONTAL

AIMING OF TYPE L-880 (4-BOX) PAPI RELATIVE TO PRESELECTED GLIDE PATH (3'00')

LIGHT UNIT	AIMING ANGLE (IN MINUTES OF ARC)
	STANDARD INSTALLATION
UNIT NEAREST RUNWAY	30' ABOVE GLIDE PATH
NEXT ADJACENT UNIT	10' ABOVE GLIDE PATH
NEXT ADJACENT UNIT	10' BELOW GLIDE PATH
NEXT ADJACENT UNIT	30' BELOW GLIDE PATH

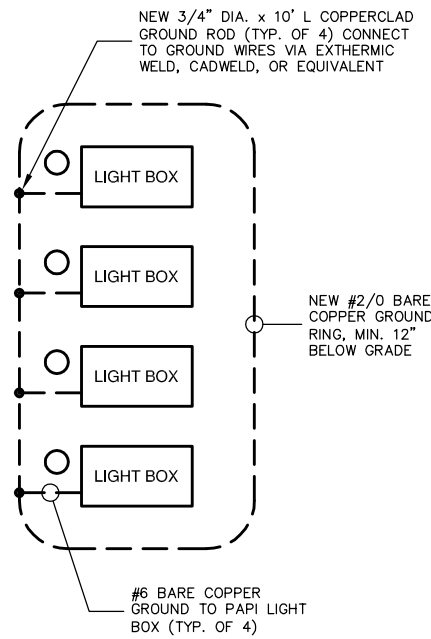


RUNWAY 14L TYPICAL PROFILE N.T.S.

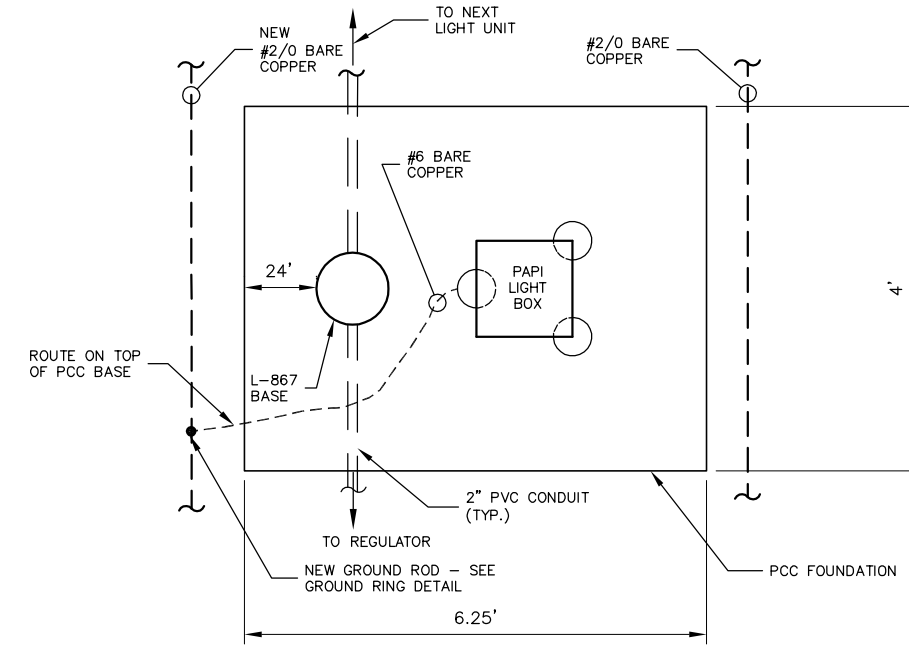


RUNWAY 32R TYPICAL PROFILE N.T.S.

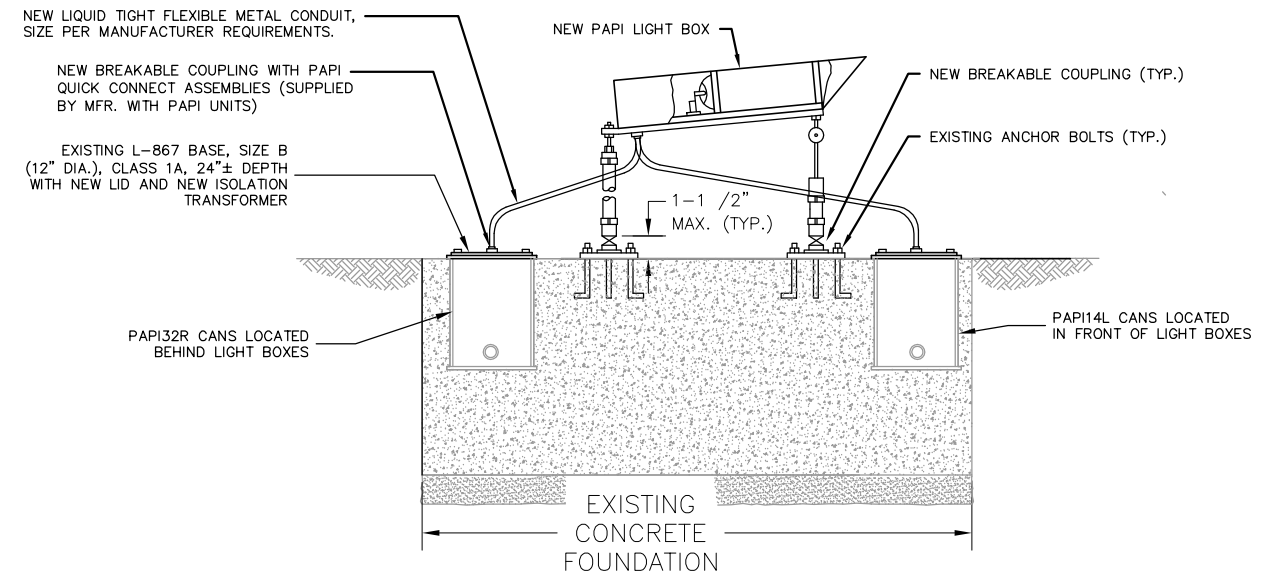
PAPI-L-880 (4BOX)



PAPI GROUND RING DETAIL
N.T.S.



PAPI LIGHT BOX PLAN
N.T.S.



AZIMUTHAL AIMING:
EACH LIGHT UNIT SHALL BE AIMED OUTWARD INTO THE APPROACH ZONE ON A LINE PARALLEL TO THE RUNWAY CENTERLINE WITHIN A TOLERANCE OF ±1/2 DEGREE.

MOUNTING HEIGHT TOLERANCES:
THE BEAM CENTERS OF ALL LIGHT UNITS SHALL BE WITHIN ±1 INCH OF A HORIZONTAL PLANE AT THE ELEVATION GIVEN IN THE TABLE.

TOLERANCE ALONG LINE PERPENDICULAR TO RUNWAY:
THE FRONT FACE OF EACH LIGHT UNIT IN A BAR SHALL BE LOCATED ON A LINE PERPENDICULAR TO THE RUNWAY CENTERLINE WITHIN ±6 INCHES.

LATERAL SPACING:
THE DIFFERENCE IN LATERAL SPACING BETWEEN LIGHT UNITS SHALL NOT EXCEED 1'-0".

PAPI INSTALLATION DETAIL
N.T.S.

REVISIONS		
NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2" AT FULL SCALE (34X22).
PLOT 1

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

AIRFIELD LIGHTING IMPROVEMENTS

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500

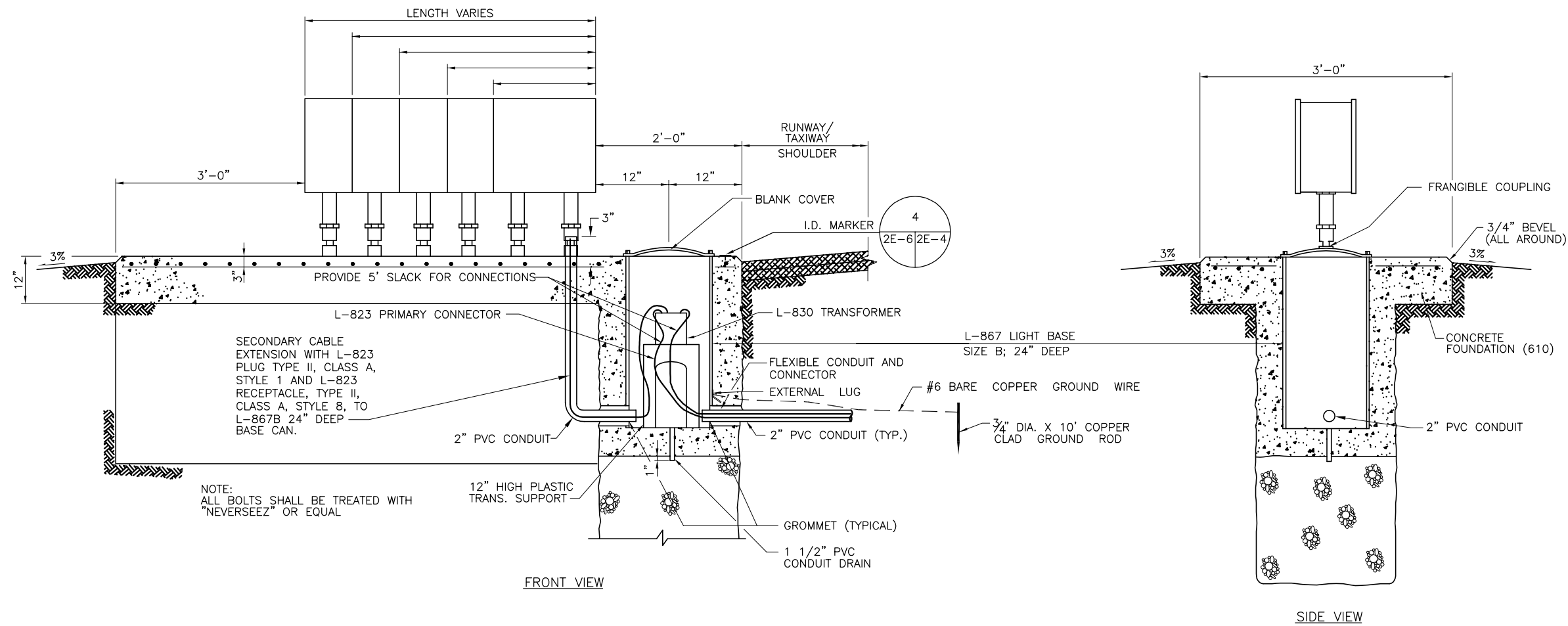
CMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS

© Copyright CMT, Inc.
PROFESSIONAL ENGINEERING - 184-00613

**IL PROJECT, BLV-4405
AIP PROJECT, 3-17-SBGP-XX**

FILE: 33-36_ELECTRICAL_DETAILS.dwg

DESIGN BY:	ASF
DRAWN BY:	ASF
CHECKED BY:	MJD/CET
APPROVED BY:	BWG
DATE:	JUNE 27, 2014
JOB No:	13098-02



SECONDARY CABLE EXTENSION WITH L-823 PLUG TYPE II, CLASS A, STYLE 1 AND L-823 RECEPTACLE, TYPE II, CLASS A, STYLE 8, TO L-867B 24" DEEP BASE CAN.

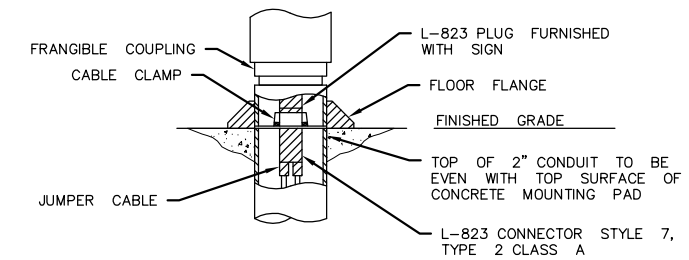
NOTE: ALL BOLTS SHALL BE TREATED WITH "NEVERSEEZ" OR EQUAL

FRONT VIEW

SIDE VIEW

NOTES

- MANDATORY = L-858R
LOCATION = L-858L
DIRECTION = L-858Y
ALL SIGNS SHALL BE INCANDESCENT
- SIGN LENGTHS GIVEN ON THE SCHEDULE ARE NOMINAL, ACTUAL LENGTHS PER F.A.A. REQUIREMENT. ALL LENGTHS SHALL BE VERIFIED WITH THE SIGN MANUFACTURER BY THE CONTRACTOR.
- ALL TAXIWAY SIGNS TO BE SIZE 3, STYLE 5, CLASS 2, MODE 1.
- A YELLOW AND BLACK FRANGIBLE, RETROREFLECTIVE BARRIER SHALL BE INSTALLED. SIGN SHALL BE INTERNALLY ILLUMINATED.
- ALL BASE CANS, CONDUITS, REINFORCING, CONCRETE, ETC. SHOWN ARE INSTALLED UNDER ANOTHER CONTRACT UNLESS OTHERWISE INDICATED.
- SIGNS 32, 39, 50, AND 60 SHALL BE SIZE 3, STYLE 2, CLASS 2, MODE 1.
- EXISTING SIGNS ARE CROUSE-HINDS. REPLACEMENT SIGN PANELS SHALL BE COMPATIBLE.



ELECTRICAL CONNECTION DETAIL
NTS

TAXIWAY GUIDANCE SIGN DETAIL
N.T.S.

REVISIONS		
NUMBER	BY	DATE



**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

AIRFIELD LIGHTING IMPROVEMENTS

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500

GMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS

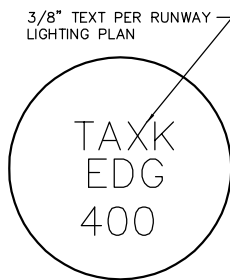
© Copyright GMT, Inc.
PROFESSIONAL ENGINEERING - 184-00613

**IL PROJECT, BLV-4405
AIP PROJECT, 3-17-SBGP-XX**

FILE: 33-36_ELECTRICAL_DETAILS.dwg
DESIGN BY: ASF
DRAWN BY: ASF
CHECKED BY: MJD/CET
APPROVED BY: BWG
DATE: JUNE 27, 2014
JOB No: 13098-02

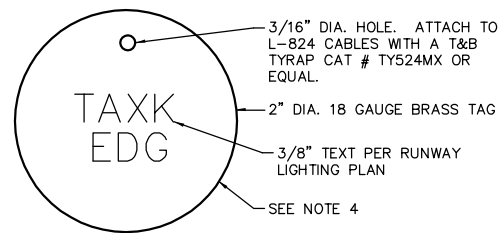
**ELECTRICAL
DETAILS 3**

SHEET 32 OF 35 SHEETS



TOP VIEW AIRFIELD LIGHTING
FIXTURE IDENTIFICATION MARKER

N.T.S.

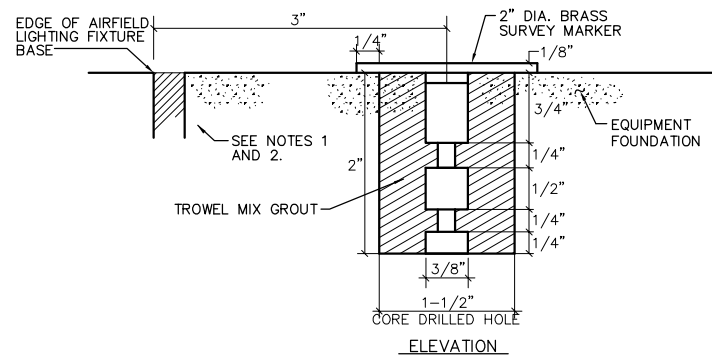


L-824 CABLE IDENTIFICATION TAG

N.T.S.

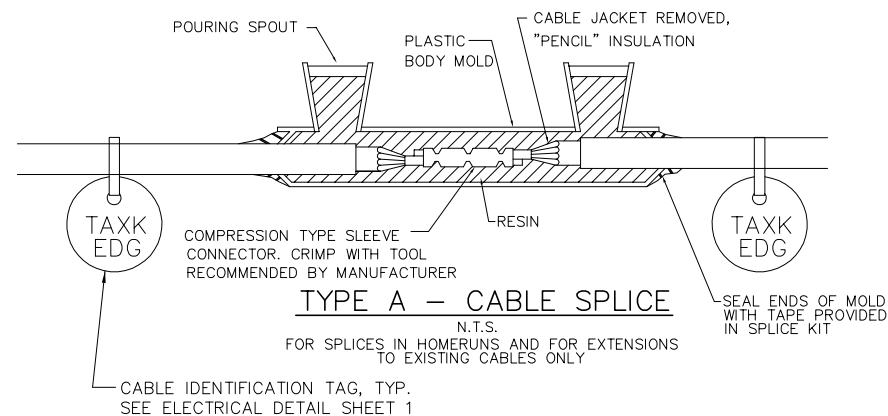
NOTES:

- FOR IDENTIFICATION NUMBERS, SEE CIRCUITRY PLANS. CONTRACTOR SHALL VERIFY NUMBERING WITH AIRPORT PRIOR TO ORDERING MARKERS.
- ALL AIRFIELD LIGHTING EQUIPMENT SHALL BE IDENTIFIED WITH A BRASS SURVEY MARKER. ITEMS REQUIRING ID MARKERS ARE:
SIGN
- AT ANY LOCATION THE CONTRACTOR IS WORKING AT, NOT TO EXCEED 10 LOCATIONS, THE CONTRACTOR SHALL REPLACE MISSING IDENTIFICATION MARKERS AT NO ADDITIONAL COST TO THE CONTRACT.
- L-823 CONNECTORS SHALL BE INSTALLED ON ALL CABLES, IN EACH MANHOLE, BASE CANS, OR OTHER ACCESSIBLE LOCATIONS, INCLUDING HANDHOLES, MANHOLES, AND SPLICE CANS. L-823 CONNECTORS SHALL BE INSTALLED SO A PORTION OF THE LOOP CAN BE BYPASSED.
- ALL AIRFIELD LIGHTING CIRCUITS SHALL BE IDENTIFIED WITH A BRASS TAG WITH ITS RESPECTIVE CIRCUIT/LOOP NUMBER AT ALL ACCESSIBLE LOCATIONS. ATTACH THE ID TAG TO BOTH CABLES 12" FROM THE L-823 CONNECTORS.



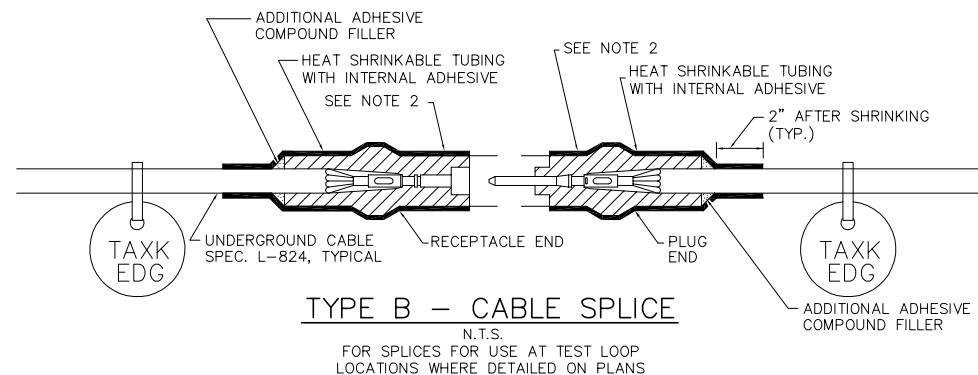
AIRFIELD LIGHTING FIXTURE
IDENTIFICATION MARKER

N.T.S.



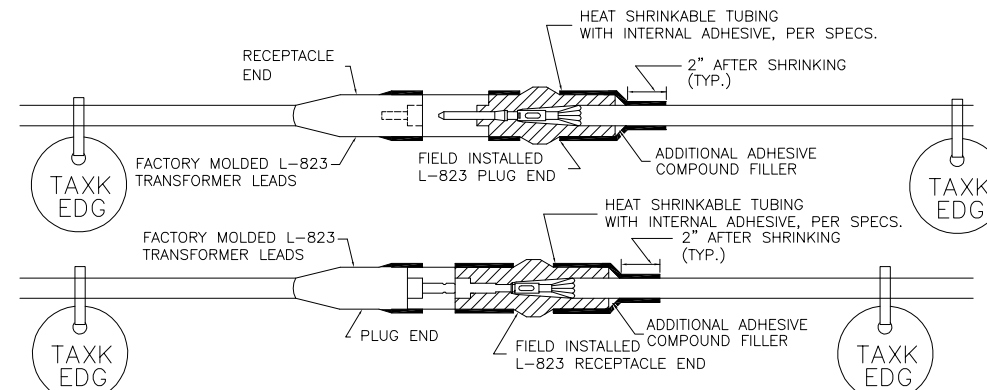
TYPE A - CABLE SPLICE

N.T.S.
FOR SPLICES IN HOMERUNS AND FOR EXTENSIONS
TO EXISTING CABLES ONLY



TYPE B - CABLE SPLICE

N.T.S.
FOR SPLICES FOR USE AT TEST LOOP
LOCATIONS WHERE DETAILED ON PLANS



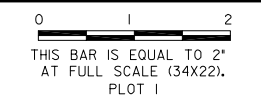
TYPE C AND D - CABLE SPLICE

N.T.S.
FOR SPLICES AT
RUNWAY/TAXIWAY LIGHTS AND SIGNS

NOTES


- INSIDE DIAMETER OF CONNECTOR SHALL PROPERLY MATCH THE OUTSIDE DIAMETER OF CABLE.
- WRAP WITH AT LEAST ONE LAYER OF RUBBER OR SYNTHETIC RUBBER TAPE AND ONE LAYER OF PLASTIC TAPE, ONE-HALF LAPPED, EXTENDING AT LEAST 1-1/2 INCHES ON EACH SIDE OF JOINT.
- THE COST OF FURNISHING AND INSTALLING ALL SPLICE MATERIALS SHALL BE INCIDENTAL TO THE ASSOCIATED CABLE ITEMS.
- THE CONTRACTOR SHALL HAVE A MINIMUM OF TWO (2) TYPE A SPLICE KITS ON THE JOB SITE AT ALL TIMES FOR EMERGENCY REPAIRS.

REVISIONS		
NUMBER	BY	DATE



**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

AIRFIELD LIGHTING IMPROVEMENTS


GMT
 CRAWFORD, MURPHY & TILLY, INC.
 CONSULTING ENGINEERS
© Copyright GMT, Inc. PROFESSIONAL ENGINEERING - 184-00613

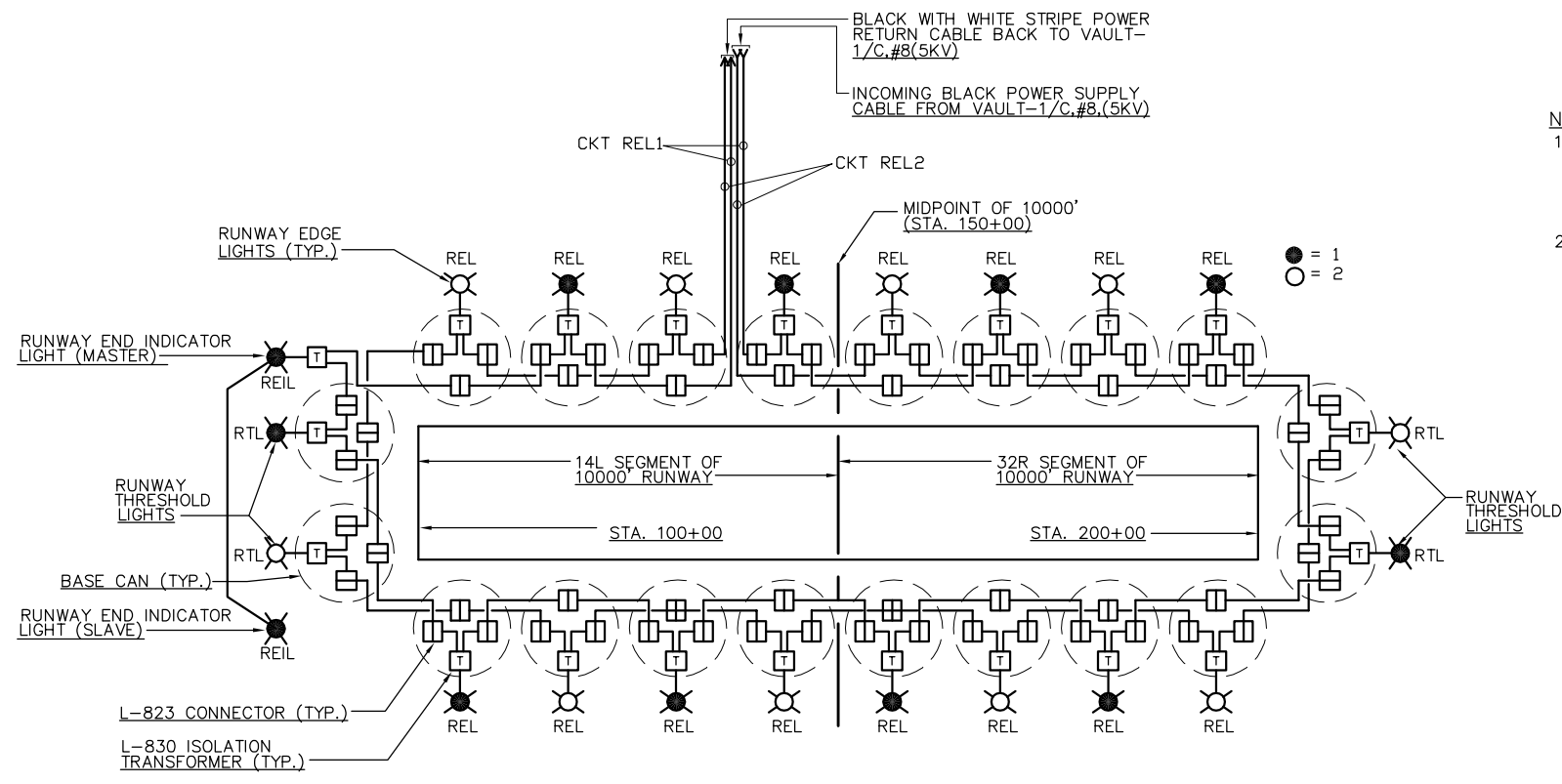
ONE MEMORIAL DRIVE, SUITE 500
 ST. LOUIS, MO 63102
 (314) 436-5500

**IL PROJECT, BLV-4405
AIP PROJECT, 3-17-SBGP-XX**

FILE: 33-36_ELECTRICAL_DETAILS.dwg

DESIGN BY: ASF
DRAWN BY: ASF
CHECKED BY: MJD/CET
APPROVED BY: BWG
DATE: JUNE 27, 2014
JOB No: 13098-02

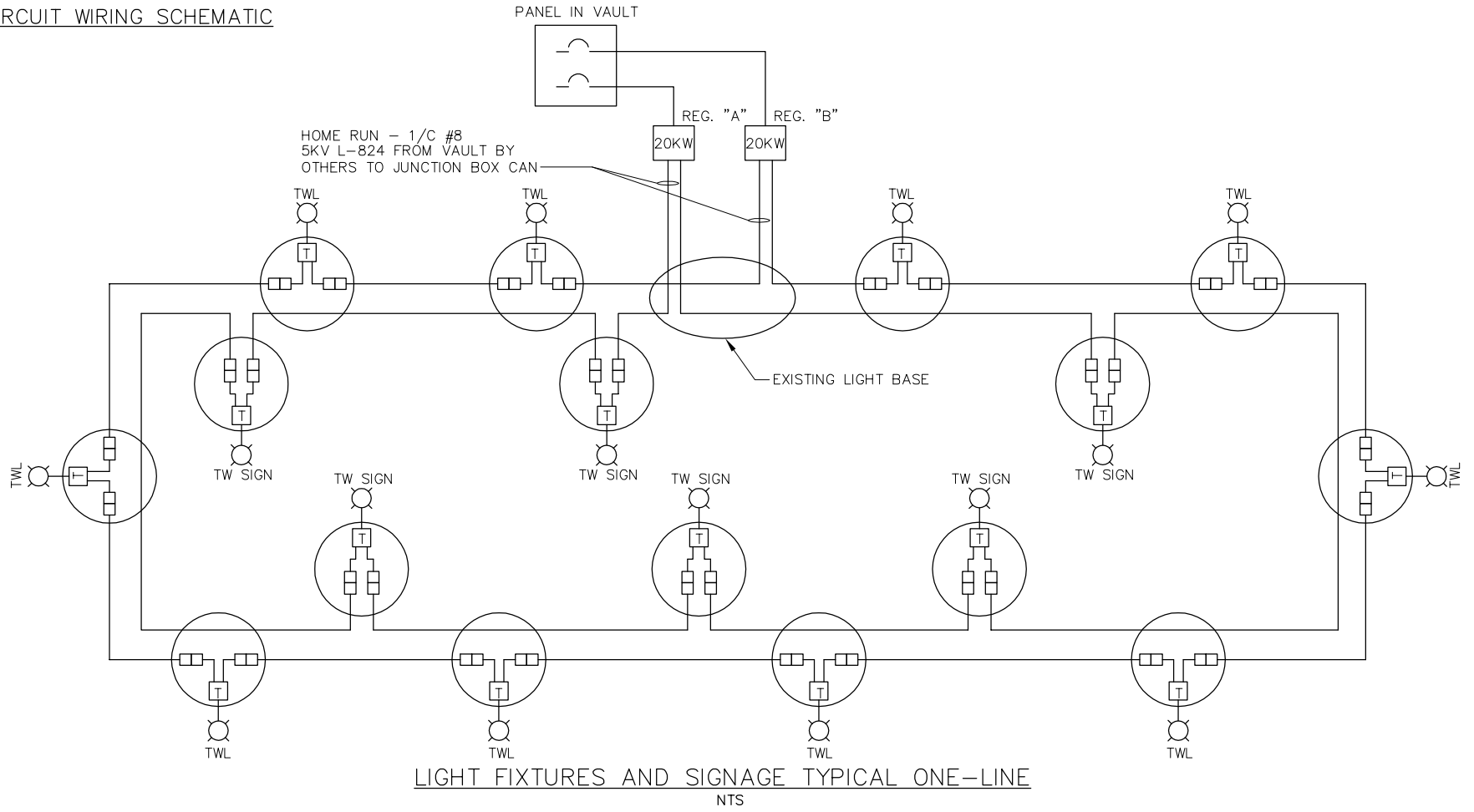
**ELECTRICAL
DETAILS 4**



RUNWAY EDGE LIGHTING SERIES CIRCUIT WIRING SCHEMATIC
NTS

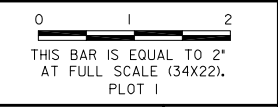
NOTE:

- SERIES CIRCUIT WIRING SCHEMATICS ARE TYPICAL FOR ALL CENTERLINE, EDGE, TOUCHDOWN ZONE AND THRESHOLD LIGHTS, AS WELL AS REILS AND DISTANCE REMAINING SIGNS.
- REFER TO LAYOUT AND CIRCUITRY DRAWINGS FOR ACTUAL QUANTITY OF LIGHTS AND SIGNS CONNECTED TO THE RESPECTIVE CIRCUITS.



LIGHT FIXTURES AND SIGNAGE TYPICAL ONE-LINE
NTS

REVISIONS		
NUMBER	BY	DATE



**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

AIRFIELD LIGHTING IMPROVEMENTS

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500

CMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS

© Copyright CMT, Inc.
PROFESSIONAL ENGINEERING - 184-00613

**IL PROJECT, BLV-4405
AIP PROJECT, 3-17-SBGP-XX**

FILE: 33-36_ELECTRICAL_DETAILS.dwg

DESIGN BY: ASF

DRAWN BY: ASF

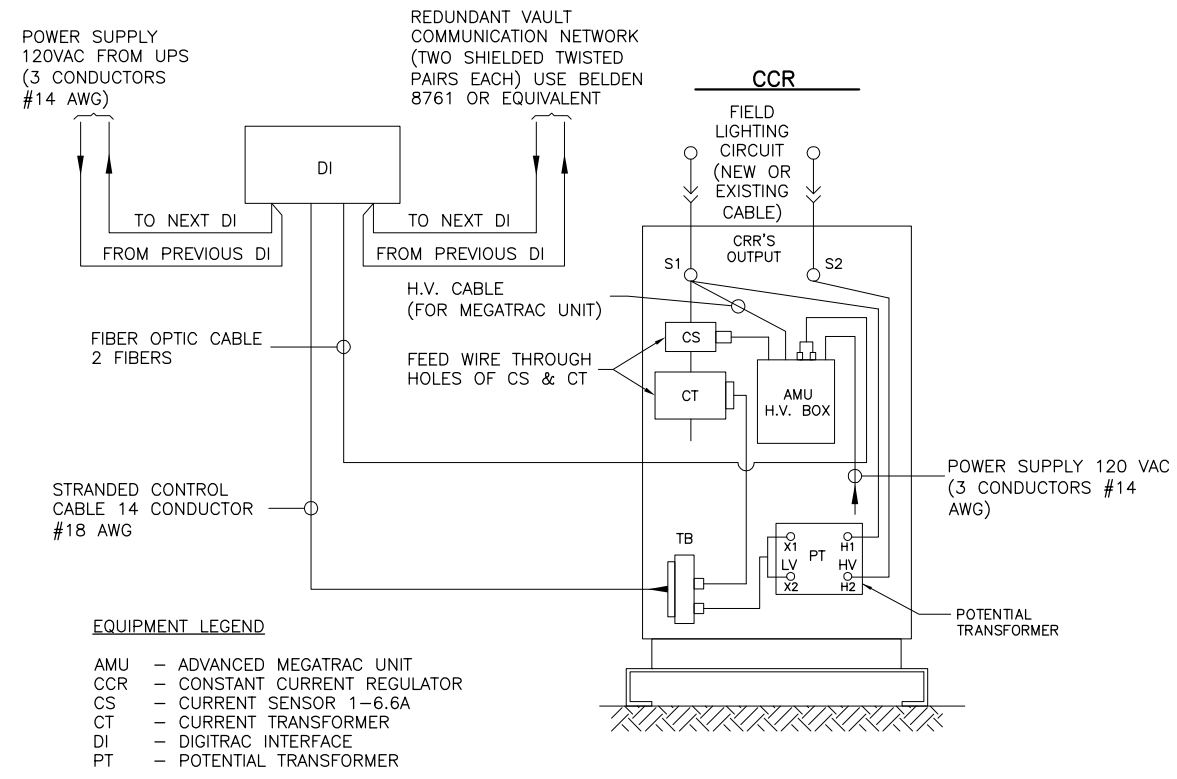
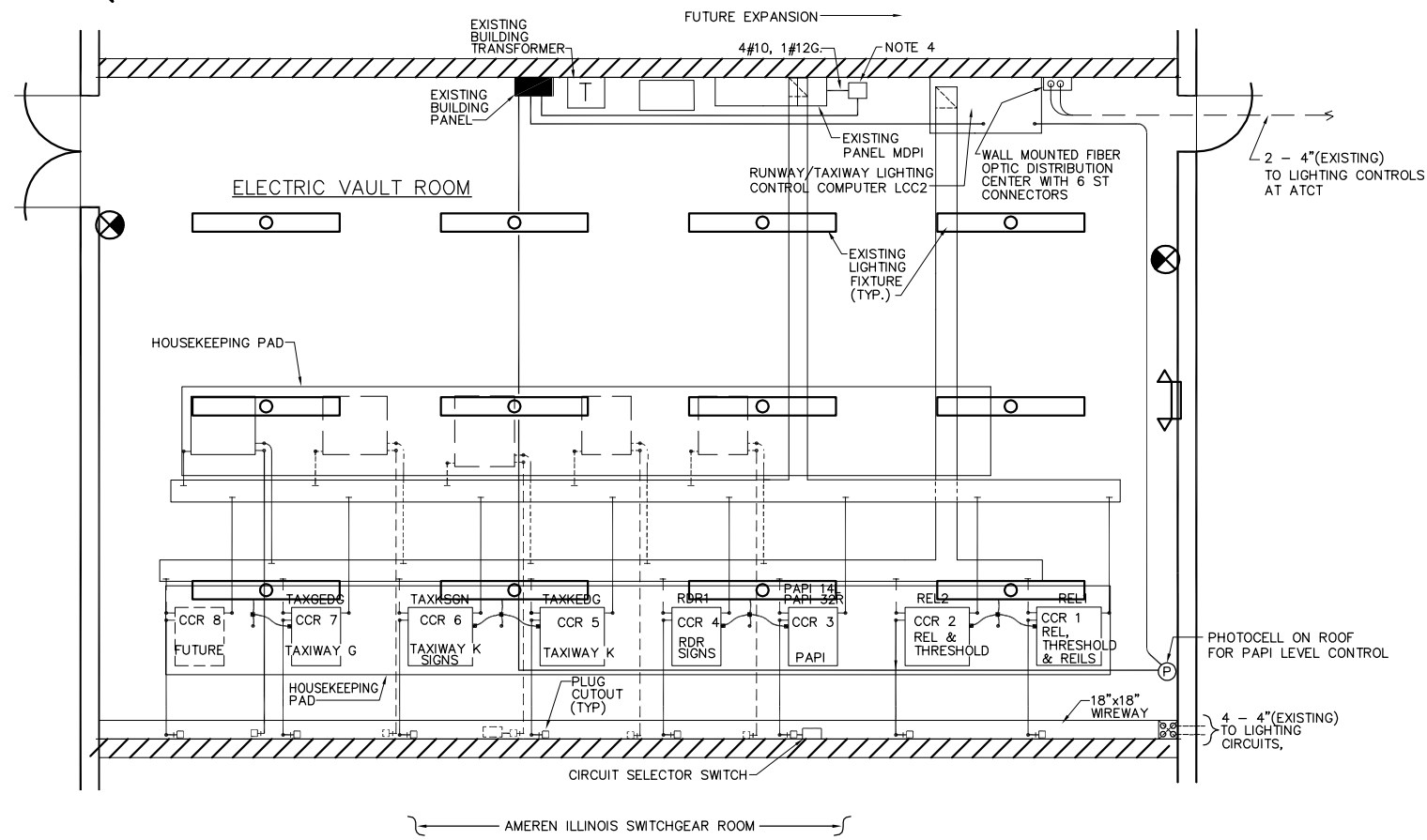
CHECKED BY: MJD/CET

APPROVED BY: BWG

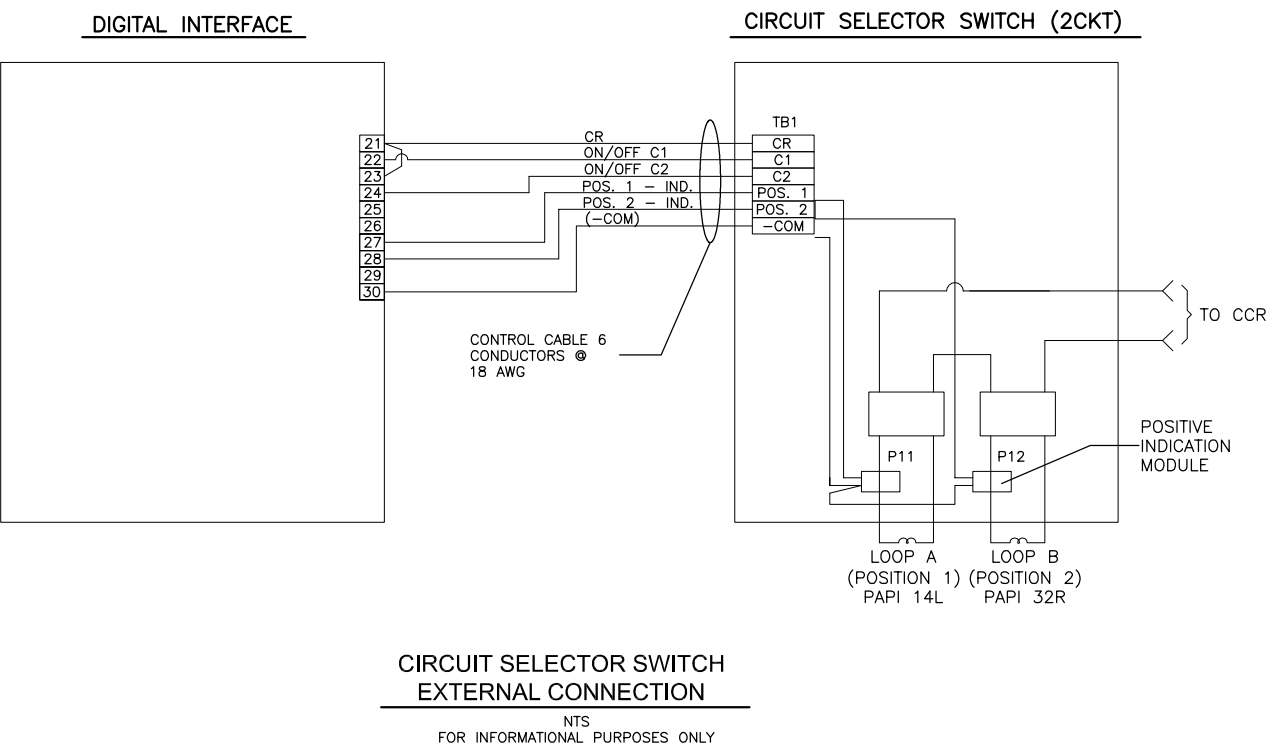
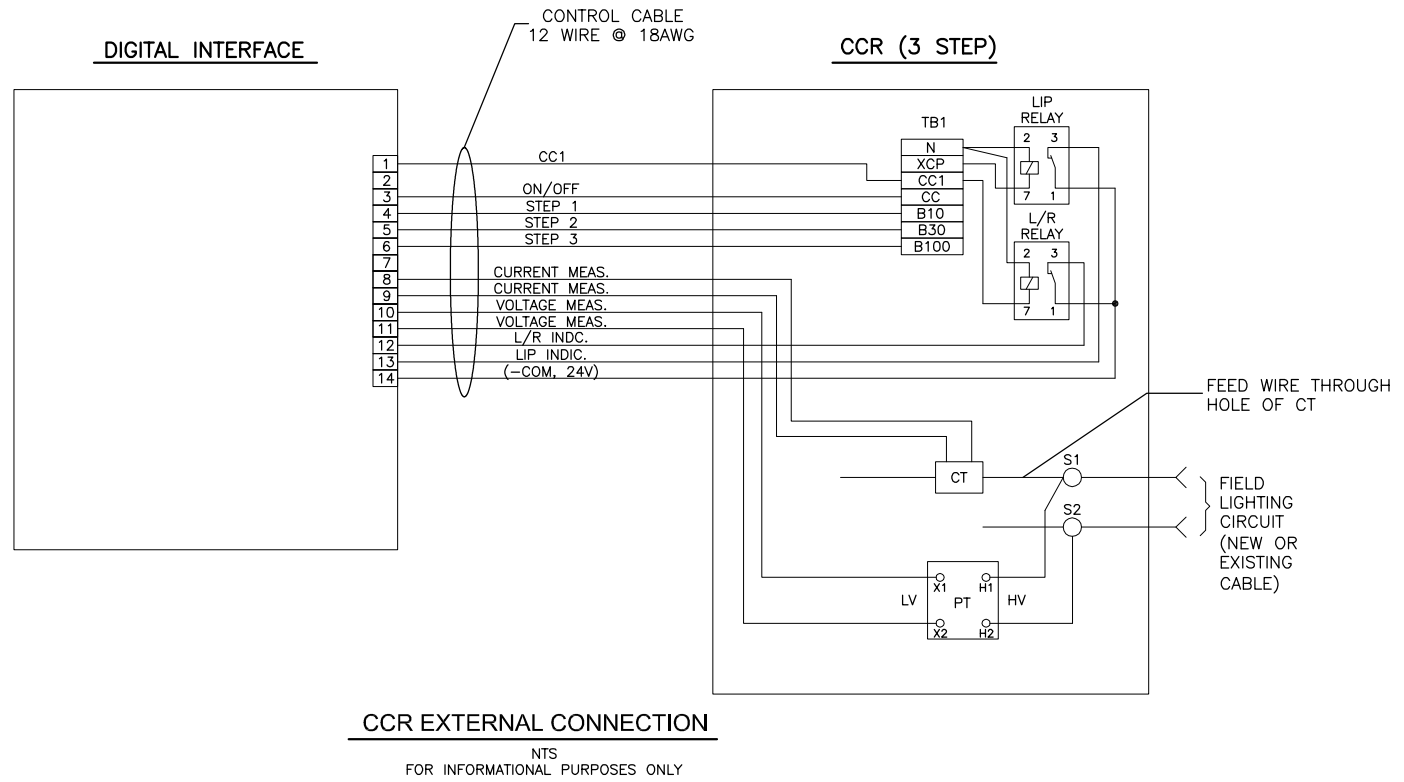
DATE: JUNE 27, 2014

JOB No: 13098-02

**ELECTRICAL
DETAILS 5**



NOTE:
CONTRACTOR SHALL REPLACE EXISTING POTENTIAL TRANSFORMER WITH NEW POTENTIAL TRANSFORMER (CROUSE-HINDS 3246B OR EQUAL) FOR TAXIWAY K REGULATOR ONLY. CONTRACTOR SHALL CONTACT CROUSE-HINDS FOR CALIBRATION OF ALCMS.



REVISIONS		
NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2'
AT FULL SCALE (34X22).
PLOT 1

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

AIRFIELD LIGHTING IMPROVEMENTS

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500

GMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS
PROFESSIONAL ENGINEERING - 184-00613

**IL PROJECT, BLV-4405
AIP PROJECT, 3-17-SBGP-XX**

FILE: 33-36_ELECTRICAL_DETAILS.dwg
DESIGN BY: ASF
DRAWN BY: ASF
CHECKED BY: MJD/CET
APPROVED BY: BWG
DATE: JUNE 27, 2014
JOB No: 13098-02

VAULT FLOOR PLAN

SHEET 35 OF 35 SHEETS