CONSTRUCTION PLANS

REHABILITATE RUNWAY 11/29

COLES COUNTY MEMORIAL AIRPORT (MTO)
MATTOON-CHARLESTON, COLES COUNTY, ILLINOIS

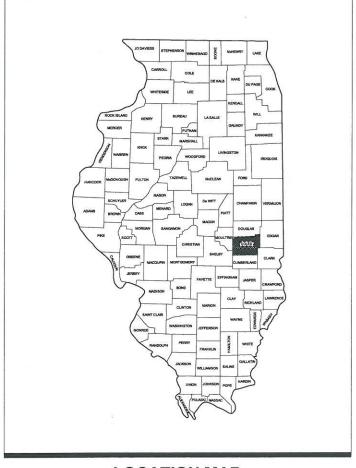
SBG PROJECT NO. 3-17-SBGP-XX IDA PROJECT NO. MTO-4320

NOTICE TO CONTRACTORS AND BIDDERS

THESE CONSTRUCTION PLANS RELY UPON THE SPECIAL PROVISIONS AND THE SPECIFICATIONS TO PROVIDE FOR A COMPLETE DESCRIPTION OF THE WORK AND CONSTRUCTION REQUIREMENTS. THE PLANS SHALL ONLY BE USED IN COMBINATION WITH ALL CONTRACT DOCUMENTS.

No.	Issue/Description	Sheets Changed	Date	Ву
-			+	+
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VICINITY MAP

LOCATION MAP



Seal COUERING Date of Plans April 18, 2014

ELECTRICAL DESIGN

FOR SHEETS 37 THROUGH 46

Keyn N. Lightfoot, Five. Electrical Engineer

May 21, 2014

Exp. Date



HANSON	
HANSON PROFESSIONAL SERVICES INC.	
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Springfield, Illinois 62703	
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TOM/	
I ASI War	10 20 20 20 20
() which	May 21, 2014
obert A. Waller, P.E.	May 21, 2014 Date
oiect Manager	Date

COLES COUNTY MEMORIAL AllRPORT
432 Alrport Road
Mattoon, Illinois 61938
Telophone: 217.234.7120
Fax: 217.234.7116

Milke Vaughan

College County Memorial AllRPORT

4-8-17

	SUMMARY OF QUAN	TITIES		
ITEM NO.	DESCRIPTION	UNIT	TOTAL QUANTITY	AS-BUILT QUANTITY
AR107408	L-806 WIND CONE-8' LIGHTED	EA.	2	
AR108108	1/C #8 5 KV UG CABLE	L.F.	1,280	
AR108158	1/C #8 5 KV UG CABLE IN UD	L.F.	86	
AR110202	2" PVC DUCT, DIRECT BURY	L.F.	640	
AR125565	SPLICE CAN	EA.	2	
AR125941	ADJUST STAKE MOUNTED LIGHT	EA.	3	
AR125942	ADJUST BASE MOUNTED LIGHT	EA.	15	
AR125943	ADJUST INPAVEMENT LIGHT	EA.	6	
AR150510	ENGINEER'S FIELD OFFICE	L.S.	1	
AR150520	MOBILIZATION	L.S.	1	
AR150540	HAUL ROUTE	L.S.	1	
AR152480	SHOULDER ADJUSTMENT	S.Y.	20,586	
AR156520	INLET PROTECTION	EA.	24	
AR156530	TEMPORARY SEEDING	ACRE	4.5	
AR401614	BIT. SURF. CSEMETHOD II, SUPERPAVE	TON	14,214	
AR401630	BITUMINOUS SURFACE TEST SECTION	EA.	1	
AR401640	BITUMINOUS PAVEMENT GROOVING	S.Y.	101,349	
AR401655	BUTT JOINT CONSTRUCTION	S.Y.	2,481	
AR401660	SAW & SEAL BIT. JOINTS	L.F.	3,455	
AR403614	BIT. BASE CSEMETHOD II, SUPERPAVE	TON	18,568	
AR403630	BITUMINOUS BASE TEST SECTION	EA.	1	
AR501120	RUBBLIZE PAVEMENT	S.Y.	112,499	
AR501551	PCC BUTT JOINT	S.Y.	5,145	
AR603510	BITUMINOUS TACK COAT	GAL.	20,402	
AR620520	PAVEMENT MARKING-WATERBORNE	S.F.	110,665	
AR620525	PAVEMENT MARKING-BLACK BORDER	S.F.	17,233	
AR620900	PAVEMENT MARKING REMOVAL	S.F.	898	
AR705526	6" PERFORATED UNDERDRAIN W/SOCK	L.F.	11,341	
AR705546	6" NON PERFORATED UNDERDRAIN	L.F.	265	
AR705630	UNDERDRAIN INSPECTION HOLE	EA.	10	
AR705635	UNDERDRAIN COLLECTION STRUCTURE	EA.	7	
AR705640	UNDERDRAIN CLEANOUT	EA.	12	
AR705903	REMOVE UNDERDRAIN INSP. HOLE	EA.	16	
AR705943	ADJUST UNDERDRAIN INSP. HOLE	EA.	2	
AR800446	RELOCATE MALSR ACCESS ROAD	L.S.	1	
AR800451	REHAB GLIDE SLOPE ACCESS ROAD	L.S.	1	
AR901510	SEEDING	ACRE	4.5	
AR908510	MULCHING	ACRE	4.5	

MATERIAL CERTIFICATION

MATERIAL TO BE INCORPORATED INTO THE PROJECT CANNOT BE USED MATERIAL TO BE INCORPORATED INTO THE PROJECT CANNOT BE SUSED IN THE PROJECT MUST BE SUBMITTED TO THE RESIDENT ENGINEER FOR APPROVAL. USE OF MATERIAL WITHOUT PRIOR APPROVAL AND ULTIMATELY DETERMINED TO BE UNACCEPTABLE BY THE ILLINOIS DIVISION OF AERONAUTICS ARE SUBJECT TO REMOVAL AND/OR NON-PAYMENT.

ALL CONSTRUCTION/OPERATIONS ARE TO BE PERFORMED IN ACCORDANCE WITH LATEST EDITION OF FAA ADVISORY CIRCULAR (AC) 150/5370-2 "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION" AND AC 150/5300-13 "AIRPORT DESIGN".

ALL CONSTRUCTION EQUIPMENT ON THE AIRPORT SHALL BE MARKED, LIGHTED AND/OR FLAGGED IN ACCORDANCE WITH LATEST EDITION OF AC 150/5210-5 AND 70/7460-1.

CERTIFIED PAYROLLS

THE RESIDENT ENGINEER CANNOT FORWARD CONSTRUCTION REPORTS TO THE ILLINOIS DIVISION OF AERONAUTICS FOR PROCESSING UNTIL ALL CERTIFIED PAYROLLS FOR THE PERIOD HAVE BEEN RECEIVED.



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5 6	CONSTRUCTION SAFETY & PHASING PLAN - PHASE 1 CONSTRUCTION SAFETY & PHASING PLAN - PHASE 2				
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10	PROPOSED STORMWATER POLLUTION PREVENTION PLAN				
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16	PROPOSED TYPICAL SECTIONS AND NOTES				
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23	PLAN AND PROFILE RUNWAY 6-24 STA. 31+50 TO 45+00				
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25	PROPOSED DRAINAGE PLAN STA. 74+00 TO 99+00				
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65	RUNWAY 11-29 CROSS SECTIONS - STA. 90+00 TO 93+50				
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RUNWAY 6-24 CROSS SECTIONS - STA. 39+50 TO 42+50



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Illinois Licensed Professional Service Corporation #184-001084

COLES COUNTY AIRPORT AUTHORITY

REHABILITATE **RUNWAY 11/29**

IDA No: MTO-4320

Contract No. CO061

NO.	DATE	DES	CRIPT	ION		
NO.	DATE	LAY	DWN	REV		
SSUE:	SSUE: MAY 2, 2014					
PRO IFO	PRO IECT NO: 1440005D					

CAD FILE: G-002FLP.DWG LAYOUT BY: CAH 02/14/14

DRAWN BY: BAK 02/14/14 REVIEWED BY: CAH 05/02/14

SHEET TITLE

SUMMARY OF **QUANTITIES AND** INDEX TO SHEETS <u>IDENTIFICATION</u> - WHEN THE CONTRACTORS VEHICLES AND EQUIPMENT ARE ON THE AIRPORT THEY SHALL BE PROPERLY MARKED WITH THREE (3') FOOT SQUARE CHECKERED FLAGS (INTERNATIONAL ORANGE AND WHITE). THE CONTRACTOR WILL ALSO PROVIDE WORKERS WITH SOME TYPE OF TAG OR GARMENT TO IDENTIFY THE PERSON AS BEING PART OF THE CONSTRUCTION

RADIO CONTROL - THE CONTRACTOR WILL BE REQUIRED TO BE IN TWO-WAY RADIO CONTACT (122.70 MHz.) WITH THE AIRPORT UNICOM. THIS WILL KEEP THE CONTRACTOR IN CONSTANT CONTACT WITH THE COLES COUNTY MEMORIAL AIRPORT AND ENABLE THE AIRPORT TO IMMEDIATELY CONTACT THE CONTRACTOR IN CASE OF AN AERONAUTIC EMERGENCY THAT WOULD REQUIRE ACTION BY THE CONTRACTOR AND/OR HIS PERSONNEL

AIRFIELD SAFETY ASSURANCE - AIRFIELD SAFETY SHALL BE THE NUMBER ONE PRIORITY AT ALL TIMES. ANY INDIVIDUALS RESPONSIBLE FOR INCURSIONS OR POTENTIAL INCURSIONS WITH AIR TRAFFIC DUE TO NON-COMPLIANCE WITH THE REQUIREMENTS SET FORTH IN THE THESE PLANS, SPECIFICATIONS, SPECIAL PROVISIONS, AND FAA ADVISORY CIRCULAR 150/5370-2F WILL BE SUBJECT TO AN IMMEDIATE SUSPENSION OF THEIR DRIVING PRIVILEGES ON THE AIRPORT OR A COMPLETE RESTRICTION FROM ENTERING THE ACTIVE AIRCRAFT OPERATION AREA ALTOGETHER. THE AIRPORT MANAGER OR AIRPORT REPRESENTATIVE MAY STOP THE WORK AT ANY TIME THEY BELIEVE AIRFIELD SAFETY IS BEING COMPROMISED.

1 IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO PLACE

AND MAINTAIN BARRICADES AND TRAFFIC CONES AS SHOWN

ON THE PROPOSED PHASING PLANS AND/OR AS DIRECTED

BY THE AIRPORT MANAGER THE PLACEMENT MAINTENANCE

AND REMOVAL OF THE BARRICADES AND TRAFFIC CONES

WILL BE CONSIDERED AS AN INCIDENTAL ITEM TO THE

THE CONTRACTOR'S EQUIPMENT PARKING AND MATERIAL

STORAGE AREAS WILL BE AS SHOWN ON THIS SHEET.

THE CONTRACTOR'S EMPLOYEES WILL PARK THEIR

VEHICLES WILL BE ALLOWED OUTSIDE THESE AREAS

VEHICLES IN THESE AREAS ONLY CONTRACTOR

THE CONTRACTOR AND HIS EMPLOYEES WILL BE

RESTRICTED TO THE WORK AREA AND ALL OTHER

AREAS OF THE AIRPORT ARE "OFF LIMITS" TO THEM.

THE COLES COUNTY MEMORIAL AIRPORT AUTHORITY

REQUIRES PERSONNEL DRIVING ON THE AIRPORT TO

ATTEND A DRIVERS TRAINING CLASS PRESENTED BY THE AIRPORT MANAGER. THE CONTRACTOR WILL ARRANGE WITH THE AIRPORT MANAGER FOR HIS

PERSONNEL TO ATTEND THE DRIVING CLASS. ONLY

THESE PERSONNEL WILL BE ALLOWED TO DRIVE ON

THE AIRPORT OUTSIDE OF THE AREA RESTRICTED FOR

THE PROPOSED CONSTRUCTION, THOSE DRIVERS NOT

DRIVING OUTSIDE OF THE PROPOSED CONSTRUCTION

THIS PROJECT WILL DISTURB MORE THAN 1 ACRE OF

LAND, THEREFORE A N.P.D.E.S. PERMIT WILL BE

THE CONTRACTOR WILL LOCATE THIS LINE AT THE

LIMITS THAT ALL CONTRACTOR PERSONNEL MAY VENTURE WHEN A RUNWAY IS NOT CLOSED. THE

CONTRACTOR WILL MAINTAIN THE LATHE LINE FOR

START OF CONSTRUCTION AND WILL PLACE FLAGGED

LATHE EVERY 150' ALONG IT. THIS LINE WILL BE THE

EROSION CONTROL

AIRCRAFT OPERATION LINE

REQUIRED.

RUNWAYS

AREA WILL NOT BE REQUIRED TO ATTEND THE DRIVING

CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE

BARRICADES AND TRAFFIC CONES

CONTRACTOR RESPONSIBILITIES

SCOPE OF WORK

THIS PROJECT CONSISTS OF THE REHABILITATION OF RUNWAY 11-29. ASSOCIATED WORK ITEMS CONSIST OF RUBBLIZATION OF THE EXISTING 14" PCC PAVEMENT, BITUMINOUS BASE COURSE, BITUMINOUS SURFACE COURSE, DRAINAGE INSTALLATION, ELECTRICAL ADJUSTMENTS, SHOULDER ADJUSTMENT, PAVEMENT MARKING, SEEDING AND MULCHING.

AIRPORT SECURITY NOTE

AIRPORT SECURITY WILL BE MAINTAINED AT ALL TIMES. THE CONTRACTOR WILL CLOSE AND LOCK THE EXISTING ACCESS GATES IN THE HAUL ROUTES AT THE END OF EACH WORKING DAY.

HEIGHT OF CONSTRUCTION EQUIPMENT

THE MAXIMUM ANTICIPATED HEIGHT OF THE CONSTRUCTION EQUIPMENT WILL BE 25 FEET. THE TALLEST EQUIPMENT IS EXPECTED TO BE A DUMP TRUCK

CRITICAL POINT DATA

CRITICAL POINT NO. 1 LATITUDE: 39° 28' 41.97" LONGITUDE: 88° 16' 50.47" ELEVATION: 717.30 M.S.L.

CRITICAL POINT NO 2 LATITUDE: 39° 28' 39.55" LONGITUDE: 88' 16' 43.09" ELEVATION: 718.20 M.S.L.

CRITICAL POINT NO. 3 LATITUDE: 39° 28' 57.52" LONGITUDE: 88° 17' 30.97' ELEVATION: 715.00 M.S.L.

CRITICAL POINT NO 4 LATITUDE: 39° 28' 31.98" LONGITUDE: 88' 16' 35.11 ELEVATION: 711.70 M.S.L.

HORIZONTAL AND VERTICAL CONTROL DATA DESCRIPTION NORTHING EASTING ELEV. BM 1 - CHISELED X NE CORNER OF INLET FRAME 996.948 1.025.083 707.85 BM 2 - CHISELED X NE CORNER OF INLET FRAME 1,024,711 997,928 708.84 BM 3 - CHISELED X NE CORNER OF INLET FRAME 1.024.453 998.648 707.22 BM 4 - CHISELED X NE CORNER OF INLET FRAMI 1,024,108 999,586 712.33 BM 5 - CHISELED X NE CORNER OF INLET FRAME 1,023,869 1,000,247 711.49 BM 6 - CHISELED X NE CORNER OF INLET FRAME 1.023.373 1.001.301 708.64 BM 7 - CHISELED X NE CORNER OF INLET FRAME 1,022,90 1.002,299 708.72 NGS - "COLES AIRPORT AZ MK", BRASS DISK 1,026,015.02 995,319.32 NGS - "COLES AIRPORT", BRASS DISK 1,025,751.34 998,427.68

ALIGNMENT DATA						
DESCRIPTION	STATION	NORTHING	EASTING			
BEGIN RUNWAY 11-29 ALIGNMENT	45+00.00	1,025,151.26	996,108.99			
END RUNWAY 11-29 ALIGNMENT	120+00.00	1,022,235.05	1,003,018.82			
BEGIN RUNWAY 6-24 ALIGNMENT	10+00.00	1,022,363.02	996,954.47			
END RUNWAY 6-24 ALIGNMENT	67+98.53	1,025,247.48	1,001,984.66			

HAUL ROUTE AND VEHICLE PARKING

1. THE CONTRACTOR WILL USE THE DESIGNATED HAUL ROUTES AND PARKING AREAS AS SHOWN ON THIS SHEET. THE PROPOSED PARKING AREAS WILL BE 200' X 200'. THE CONTRACTOR WILL BE REQUIRED TO MAINTAIN THE PROPOSED HAUL ROUTES AND PARKING AREAS THROUGHOUT THE COURSE OF THE PROJECT. ANY AREAS DAMAGED OUTSIDE OF THESE AREAS WILL BE REPAIRED BY THE CONTRACTOR AND AT THE CONTRACTOR'S OWN EXPENSE. AT THE CONCLUSION OF THE PROJECT THE CONTRACTOR WILL GRADE, FERTILIZE, SEED AND MULCH THE HAUL ROUTES AND PARKING AREAS AS NEEDED TO RESTORE THEM TO THEIR ORIGINAL STATE. RESTORATION OF THE HAUL ROUTES AND PARKING AREAS WILL BE CONSIDERED INCIDENTAL TO THE PROJECT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

REVISED AS PER IDA REVIEW - 05/20/2014

Offices Nationwide

1525 S. 6th Street

Springfield, IL 62568

phone: 217-788-2450

REHABILITATE

RUNWAY 11/29

IDA No: MTO-4320

Contract No. CO061

NO. DATE

ISSUE: MAY 2, 2014

SHEET TITLE

PLAN

PROJECT NO: 14A0005D

CAD FILE: G-003SFY.DWG

LAYOUT BY: CAH 02/14/14

DRAWN BY: BAK 02/14/14

REVIEWED BY: CAH 05/02/14

PROPOSED SAFETY

fax: 217-788-2503

Illinois Licensed

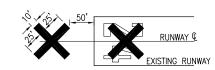
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Hanson Professional Services Inc.

Professional Service Corporation #184-001084

COLES COUNTY AIRPORT

AUTHORITY



YELLOW IN COLOR

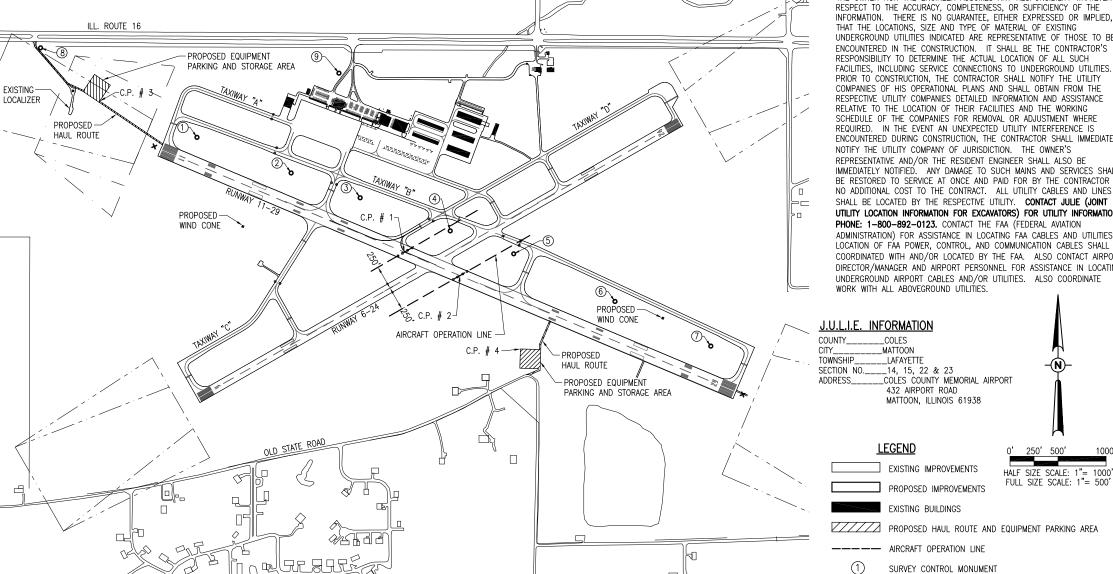
DETAIL OF CROSS FOR CLOSED RUNWAY

1. COST OF CONSTRUCTING, PLACING, MAINTAINING AND REMOVING CROSSES WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED. THE CROSSES WILL BE YELLOW IN COLOR AND SHALL BE MADE OF A SUITABLE MATERIAL AS APPROVED BY THE AIRPORT MANAGER. ON RUNWAY 6-24 THE CROSSES WILL BE PLACED OVER THE NUMERALS. ON RUNWAY 11-29 THE CROSSES WILL BE PLACED OFF BOTH RUNWAY ENDS OF THE RUNWAY AS SHOWN ON THIS SHEET. THE CROSSES WILL BE SECURED IN A MANNER APPROVED BY THE AIRPORT MANAGER. THE PROPOSED CROSSES WILL BE PLACED EACH DAY THE RUNWAY IS CLOSED AND REMOVED WHEN THE RUNWAY IS RE-OPENED THE CONTRACTOR WILL BE RESPONSIBLE FOR THE PLACEMENT AND REMOVAL OF THE CROSSES. NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

UTILITY NOTE

1. THE LOCATION, SIZE, AND TYPE OF MATERIAL OF EXISTING UNDERGROUND AND/OR ABOVEGROUND UTILITIES INDICATED ON THE PLANS ARE NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT OR COMPLETE. NEITHER THE OWNER NOR THE ENGINEER ASSUMES ANY RESPONSIBILITY WHATEVER I RESPECT TO THE ACCURACY, COMPLETENESS, OR SUFFICIENCY OF THE INFORMATION. THERE IS NO GUARANTEE, EITHER EXPRESSED OR IMPLIED, THAT THE LOCATIONS, SIZE AND TYPE OF MATERIAL OF EXISTING UNDERGROUND UTILITIES INDICATED ARE REPRESENTATIVE OF THOSE TO BE ENCOUNTERED IN THE CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES, INCLUDING SERVICE CONNECTIONS TO UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES OF HIS OPERATIONAL PLANS AND SHALL OBTAIN FROM THE 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. THE OWNER'S REPRESENTATIVE AND/OR THE RESIDENT ENGINEER SHALL ALSO BE IMMEDIATELY NOTIFIED. ANY DAMAGE TO SUCH MAINS AND SERVICES SHALL BE RESTORED TO SERVICE AT ONCE AND PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT. ALL UTILITY CABLES AND LINES SHALL BE LOCATED BY THE RESPECTIVE UTILITY. CONTACT JULIE (JOINT LITHITY LOCATION INFORMATION FOR EXCAVATORS) FOR LITHITY INFORMATION. PHONE: 1-800-892-0123. CONTACT THE FAA (FEDERAL AVIATION ADMINISTRATION) FOR ASSISTANCE IN LOCATING FAA CABLES AND UTILITIES LOCATION OF FAA POWER, CONTROL, AND COMMUNICATION CABLES SHALL BI COORDINATED WITH AND/OR LOCATED BY THE FAA. ALSO CONTACT AIRPORT DIRECTOR/MANAGER AND AIRPORT PERSONNEL FOR ASSISTANCE IN LOCATING UNDERGROUND AIRPORT CABLES AND/OR UTILITIES. ALSO COORDINATE

PROPOSED BARRICADES



DESCRIPTION

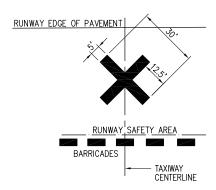
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BARRICADE NOTES

 IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO PLACE AND MAINTAIN BARRICADES AS SHOWN ON THE PLANS AND AS DIRECTED BY THE AIRPORT MANAGER.

MODIFIED TYPE II BARRICADE

- ALL CONSTRUCTION SIGNS AND TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES INCLUDING THE ILLINOIS SUPPLEMENT (LATEST EDITION) AND THE FAA ADVISORY CIRCULARS (LATEST EDITION) UNLESS NOTED OTHERWISE THE FAA OR MORE STRINGENT SPECIFICATIONS SHAUL GOVERN.
- MODIFIED TYPE II BARRICADES SHALL BE SPACED END TO END THE WIDTH OF THE PAVEMENT IN 4' INCREMENTS AS DIRECTED BY THE ENGINEER. BARRICADES ARE TO BE SET BACK 93' FROM THE ACTIVE TAXIWAY CENTERLINE OR AS SHOWN ON THE PLANS.
- 4. CONSTRUCTION RED WARNING LIGHT: THESE ARE PORTABLE, LENS DIRECTED, ENCLOSED LIGHTS. THE COLOR OF THE LIGHT EMITTED SHALL BE RED. THEY MAY BE USED IN EITHER A STEADY BURN (TYPE C) OR LOW INTENSITY FLASHING MODE (TYPE A) UNLESS NOTED OTHERWISE
- THE LIGHTING SHALL BE MAINTAINED IN OPERATION DURING THE HOURS OF DARKNESS BETWEEN 1/2 HOUR AFTER SUNSET AND 1/2 HOUR BEFORE SUNRISE AND WHEN CONDITIONS EXIST WHICH TEND TO OBSCURE VISION.
- BARRICADES SHALL BE SECURED TO THE GROUND BY APPROVED METHODS TO PREVENT MOVEMENT BY PROP WASH, JET BLAST OR OTHER WIND CURRENTS.
- 7. THE COLOR COMBINATION ON TYPE II BARRICADES IS ORANGE AND WHITE. THE ORANGE STRIPES SHALL BE ENCAPSULATED LENS REFLECTIVE SHEETING. THE WHITE STRIPES SHALL BE EITHER ENCAPSULATED OR ENCLOSED LENS REFLECTIVE SHEETING AND MUST BE IN ACCEPTABLE CONDITION
- COST FOR PLACING, MAINTAINING, AND REMOVING BARRICADES WILL BE CONSIDERED AS AN INCIDENTAL ITEM TO THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.



- 1. TEMPORARY "CLOSED TAXIWAY" MARKINGS SHALL BE "AVIATION YELLOW"
- TEMPORARY "CLOSED TAXIWAY" MARKINGS SHALL BE CONSTRUCTED USING TEMPORARY PAINT SUCH AS SEYMOUR TEMPORARY MARKER, PART NO. 20-636, OR AN EQUIVALENT PAINT EASILY REMOVED WITH WATER WITHOUT DEFACING THE PAVEMENT.
- TEMPORARY "CLOSED TAXIWAY" MARKINGS SHALL BE PLACED WHEN THE RUNWAY IS
 OPEN AND THE TAXIWAY IS CLOSED MORE THAN 72 HOURS. THE "CLOSED TAXIWAY"
 MARKINGS SHALL BE PLACED AS SHOWN ON THIS SHEET.
- 4. THE PROPOSED CROSSES WILL BE PLACED EACH DAY THE TAXIMAY IS CLOSED AND REMOVED WHEN THE TAXIMAY IS RE-OPENED. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE PLACEMENT AND REMOVAL OF THE CROSSES. "CLOSED TAXIMAY" MARKINGS SHALL NOT BE A PAY ITEM AND SHALL BE INCIDENTAL TO OTHER CONTRACT BID ITEMS.

TEMPORARY TAXIWAY CLOSURE CROSS DETAIL

NOT TO SCALE

GENERAL NOTES

- THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIAL, EQUIPMENT, AND TRANSPORTATION NECESSARY TO CONSTRUCT ALL ELEMENTS OF THE PROJECT AS DESCRIBED IN THE CONSTRUCTION PLANS AND SPECIFICATIONS.
- 2. THE RULES, REGULATIONS, AND SPECIFICATIONS NOTED HEREIN SHALL BE CONSIDERED AS MINIMUM REQUIREMENTS. THEY SHALL NOT PROHIBIT THE CONTRACTOR FROM FURNISHING AND INSTALLING HIGHER GRADES OF MATERIAL THAN ARE SPECIFIED LEPEIN
- 3. THE CONSTRUCTION ENTRANCES AS SHOWN ON THE SAFETY PLAN SHALL BE USED FOR THE PROJECT. ACCESS TO THE PROJECT FOR ALL HAULING OF MATERIALS AND EQUIPMENT SHALL BE RESTRICTED TO THE DESIGNATED CONSTRUCTION ENTRANCES AND HAUL ROUTES. ACCESS TO THE WORK AREAS FROM THE STAGING AREA SHALL BE COORDINATED WITH THE RESIDENT ENGINEER/RESIDENT PROJECT REPRESENTATIVE AND AIRPORT MANAGEMENT.
- 4. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT, PRESERVE AND REPAIR THE EXISTING AIRFIELD AND ROADWAY PAVEMENTS AT ALL TIMES. THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING ELECTRICAL, DRAINAGE, AND PAVEMENT STRUCTURES AT NO ADDITIONAL COST TO THE CONTRACT.
- 5. CONTRACTOR IS REQUIRED TO PROVIDE THEIR OWN RESTROOM FACILITIES.
- 6. UNLESS OTHERWISE NOTED, ALL DISTURBED AREAS OUTSIDE OF THE PROPOSED CONSTRUCTION LIMITS SHALL BE GRADED, SEEDED AND/OR HYDROMULCH SEEDED AT NO ADDITIONAL COST TO THE CONTRACT.
- 7. ALL WASTE MATERIAL SHALL BE HAULED FROM THE AIRPORT AND PROPERLY DISPOSED OF UNITESS OTHERWISE SPECIFIED HERFIN
- 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING PERMITS FOR HAULING ON PUBLIC ROADS, AS APPLICABLE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTING ANY DAMAGES TO ANY PAVEMENTS (PUBLIC OR PRIVATE) CAUSED BY HIS/HER CONSTRUCTION EQUIPMENT OR PERSONNEL.
- 9. THE OWNER SHALL HAVE THE RIGHT OF FIRST REFUSAL FOR ALL SALVAGEABLE MATERIAL REMOVED ON THE PROJECT.
- THE CONTRACTOR SHALL PROVIDE ONE SET OF REDLINED AS-BUILT DRAWINGS TO THE RESIDENT ENGINEER/RESIDENT PROJECT REPRESENTATIVE AT THE COMPLETION OF THE PROJECT
- 11. CONTRACTOR SHALL NOTE THAT ALL AREAS WITHIN THE AIRPORT PROPERTY LINE AND OUTSIDE THE CONSTRUCTION LIMITS MAY BE USED FOR AGRICULTURAL PURPOSES. THE CONSTRUCTION LIMITS SHALL BE RESTRICTED TO AREAS THAT ARE ABSOLUTELY NECESSARY TO DISTURB TO COMPLETE THE REQUIRED WORK ITEMS. LIMITS SHALL BE COORDINATED WITH THE RESIDENT ENGINEER PRIOR TO BEGINNING ANY WORK. ALL AREAS WHICH HAVE BEEN FARMED AND OR DESIGNATED TO BE FARMED AFTER THE PROJECT COMPLETION, AND HAVE BEEN DISTURBED BY CONSTRUCTION ACTIVITY, SHALL BE CHISEL PLOWED (36" MAX.) OR OTHERWISE SCARIFIED TO RETURN THE AREA TO A REASONABLE TILLABLE CONDITION (IF SO PERMITTED BY THE AIRPORT MANAGER.)
- 12. CONTRACTOR SHALL RESTORE TO ORIGINAL CONDITION ALL GRASS, STONE, OR PAVEMENT DISTURBED BY CONTRACTOR'S CONSTRUCTION OPERATIONS, STAGING, AND CONSTRUCTION ACCESS ROUTES. DISTURBED AREAS WILL BE REPAIRED, GRADED, MULCHED AND SEEDED UNLESS OTHERWISE NOTED. STAGING AREA AND SITE ACCESS RESTORATION SHALL BE INCLUDED IN THE COST OF THE PROJECT.
- 13. THE PROJECT PAY ITEMS ARE INTENDED TO BE INCLUSIVE OF ALL WORK TO BE PERFORMED AS SHOWN IN THESE PLANS. ALL INCIDENTAL WORK REQUIRED TO COMPLETE THE PROJECT TO THE SATISFACTION OF THE RESIDENT ENGINEER/RESIDENT PROJECT REPRESENTATIVE IS TO BE INCLUDED IN THE COSTS OF PERFORMING THESE ITEMS.
- 14. APPROXIMATE LOCATIONS OF UNDERGROUND UTILITIES ARE SHOWN THROUGHOUT THESE PLANS. THE CONTRACTOR SHALL DETERMINE EXACT LOCATIONS AND PROTECT THESE UTILITIES DURING CONSTRUCTION. ANY UTILITIES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. CONTRACTOR SHALL COORDINATE WITH THE PROPER PERSONS FOR THE PURPOSE OF LOCATING AND PROTECTING FXISTING UNDERGROUND UTILITIES.
- THE CONTRACTOR MUST AT ALL TIMES MAINTAIN PROPER DRAINAGE FOR ALL AREAS AFFECTED BY HIS WORK.

SAFETY NOTES

- FOLLOWING ARE THE CONSTRUCTION SAFETY PROCEDURES THAT THE CONTRACTOR SHALL FOLLOW THROUGHOUT
 THIS PROJECT. ADDITIONAL REQUIREMENTS ARE SHOWN ON THE SAFETY AND PHASING NOTES AND DETAILS
 SHEET.
- ALL PROVISIONS OF THE LATEST EDITION OF FAA ADVISORY CIRCULAR AC 150/5370-2 (CURRENT EDITION),
 "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION", APPLY TO THIS CONTRACT, EXCEPT AS MODIFIED
 BY THIS SAFETY PLAN, OR AS MODIFIED BY THE OWNER THROUGH THE RESIDENT ENGINEER AT THE
 PRECONSTRUCTION CONFERENCE. OR DURING THE COURSE OF THE CONTRACT.
- 3. THE CONTRACTORS SHALL MINIMIZE DISRUPTION OF STANDARD OPERATING PROCEDURES FOR AERONAUTICAL ACTIVITY BY REMAINING WITHIN THE PRESCRIBED STAGING, CONSTRUCTION, AND PHASING AREAS PRESENTED ON THE PROJECT SAFETY AND PHASING PLANS.
- 4. NO UNAUTHORIZED PERSONNEL SHALL ENTER ANY AREA OF THE AIRPORT THAT COULD POTENTIALLY BE HAZARDOUS. THE ENGINEER, ENGINEER'S REPRESENTATIVE AND/OR AIRPORT MANAGER RESERVE THE RIGHT TO SUSPEND OPERATIONS IN ORDER TO MAINTAIN SAFETY AT THE AIRPORT.
- CONTRACTOR EQUIPMENT, VEHICLES, AND PROJECT MATERIALS SHALL BE STORED AT THE STAGING AREA SHOWN ON THE PLAN VIEW, EXCEPT AS OTHERWISE PROVIDED FOR AT THE PRECONSTRUCTION CONFERENCE.
- 6. ALL CONSTRUCTION EQUIPMENT OPERATING IN THE PRESCRIBED CONSTRUCTION AREA IS REQUIRED TO DISPLAY A CHECKERBOARD FLAG PROPERLY LOCATED AND/OR A ROTATING BEACON (STROBE) AS SPECIFIED IN AC 150/5210-5, "PAINTING, MARKING, AND LIGHTING OF VEHICLES USED ON AN AIRPORT" LATEST EDITION.
- 7. NO CONSTRUCTION MATERIAL STOCKPILES SHALL BE LOCATED WITHIN 250' OF RUNWAYS 11-29 AND 6-24 CENTERLINE WHEN ACTIVE, WITHIN 93' OF AN ACTIVE TAXIWAY CENTERLINE, WITHIN 81' OF AN ACTIVE TAXI LANE CENTERLINE, OR PENETRATE A PART 77 IMAGINARY SURFACE (PROVIDED BY THE ENGINEER) EXTENDING OUT AND UPWARDS FROM ALL SIDES OF AN ACTIVE RUNWAY.
- 8. CLOSED AIRFIELD PHASING AREAS, OPEN TRENCHES, AND STOCKPILED MATERIALS AT THE CONSTRUCTION SITE SHALL BE PROMINENTLY MARKED WITH LIGHTED BARRICADES WITH STEADY BURNING OR FLASHING RED LIGHTS AS SPECIFIED IN 150/5370-2, "OPERATIONAL SAFETY ON AIRPORT DURING CONSTRUCTION, LATEST EDITION. LIGHTED BARRICADES MUST BE NO TALLER THAN 24" (EXCLUSIVE OF SUPPLEMENTARY LIGHTS) ON THE TAXIWAYS AND COMPLY WITH ADVISORY CIRCULAR 150/5370-2, LATEST EDITION. CONTRACTOR SHALL NIGHT CHECK BARRICADES DAILY FOR PROPER OPERATION.
- NO OPEN TRENCHES WITHIN 250' OF RUNWAYS 11-29 AND 6-24 CENTERLINE WHEN ACTIVE, WITHIN 93' OF AN
 ACTIVE TAXIWAY CENTERLINE, OR WITHIN 81' OF AN ACTIVE TAXI LANE CENTERLINE, WILL BE PERMITTED. OTHER
 TRENCHES SHALL BE MAINTAINED SAFE, I.E., BARRICADED OR COVERED WITH STEEL PLATES IN ALL OTHER
 APPAS
- OPEN TRENCHES, EXCAVATIONS, AND STOCKPILED MATERIALS AT THE CONSTRUCTION SITE SHOULD BE PROMINENTLY MARKED WITH ORANGE FLAGS AND LIGHTED WITH FLASHING YELLOW LIGHTS DURING HOURS OF RESTRICTED VISIBILITY AND/OR DARKNESS.
- 11. NO OPEN FLAME WELDING OR TORCH CUTTING OPERATION IS PERMITTED UNLESS ADEQUATE FIRE AND SAFETY PRECAUTIONS ARE PROVIDED AND HAVE BEEN APPROVED BY THE AIRPORT MANAGER. NO FLARE POTS ARE ALLOWED. ON THE PROJECT.
- 12. SOIL, DEBRIS, AND LOOSE MATERIAL DROPPED OR TRUCKED ONTO AIRPORT ROADS, TAXIWAYS, AND SOD SURFACES, OR WHICH CAN BE BLOWN ONTO SUCH SURFACES, SHALL BE IMMEDIATELY SWEPT, PICKED UP AND REMOVED, OR PLACED INTO CLOSED CONTAINERS. ANY DAMAGE TO AIRPORT PROPERTY SHALL BE REPAIRED IMMEDIATELY AT NO COST TO THE OWNER.
- 13. EACH CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND MAINTAINING AIRPORT LIGHTING AND NAVIGATIONAL ELECTRICAL SYSTEMS DURING CONSTRUCTION. A CONTACT PERSON AND TELEPHONE NUMBER FOR 24 HOUR EMERGENCY IMMEDIATE REPAIR SHALL BE SUBMITTED TO THE AIRPORT MANAGER AND ENGINEER. HAUL ROUTES CROSSING PAVEMENT, DRAINAGE, MISCELLANEOUS. STRUCTURES AND/OR AIRFIELD CABLES SHALL BE PROTECTED FROM DAMAGE
- ALL AIRCRAFT AND AIRPORT OPERATIONS HAVE THE RIGHT-OF-WAY. CONTRACTOR TO YIELD TO VEHICLES AND REMAIN CLEAR AT ALL TIMES.
- 15. CONTRACTOR SHALL PLACE, SECURE, AND MAINTAIN LIGHTED BARRICADES AND CLOSURE CROSSES WHEN A RUNWAY/TAXIWAY/APRON IS CLOSED OR AS REQUIRED BY THE PLANS AND DESIGNATED BY THE ENGINEER.
- 16. CONTRACTOR SHALL MARK HAZARDOUS AREA WITH STEADY-BURNING OR FLASHING RED AND YELLOW LIGHTS DURING PERIODS OF LOW VISIBILITY AS REQUIRED.
- 17. THE CONTRACTOR SHALL PERIODICALLY PERFORM ONSITE INSPECTIONS THROUGHOUT THE DURATION OF THE PROJECT WITH THE IMMEDIATE REMEDY OF ANY DIFFERENCES, WHETHER CAUSED BY NEGLIGENCE, OVERSIGHT, OR PROJECT SCOPE CHANGE.
- 18. CONTRACTOR SHALL MOVE MAINTENANCE OF TRAFFIC COMPONENTS AT THE DIRECTION OF THE AIRPORT MANAGER AND/OR THE RESIDENT ENGINEER/RESIDENT PROJECT REPRESENTATIVE AT NO ADDITIONAL COST.
- 19. CONTRACTOR SHALL NOT REMOVE THE BARRICADES WITHOUT THE APPROVAL BY THE AIRPORT MANAGER AND/OR RESIDENT ENGINEER/RESIDENT PROJECT REPRESENTATIVE.
- 20. CONTRACTOR SHALL MAINTAIN FLASHERS, SIGNS AND/OR BARRICADES AS REQUIRED BY THE PLANS, CITY OR COUNTY REGULATIONS OR CONTRACTOR ACTIVITIES. CONTRACTOR SHALL OBTAIN ANY AND ALL REQUIRED LOCAL PERMITS UNLESS SPECIFIED OTHERWISE.
- 21. THE CONTRACTOR SHALL UTILIZE WATER AND/OR CHEMICALS APPROVED BY THE ENGINEER AS NECESSARY TO CONTROL DUST.
- 22. CONSTRUCTION EQUIPMENT OR CONSTRUCTION ACTIVITY WILL NOT BE PERMITTED WITHIN THE RUNWAY SAFETY AREA OF ANY ACTIVE RUNWAY CENTERLINE OR WITHIN THE OBJECT FREE AREA OF AN ACTIVE TAXIWAY OR APRON.
- 23. UNLESS SPECIFIED OTHERWISE, COST FOR THE ABOVE IS TO BE CONSIDERED INCIDENTAL TO THE PROJECT. SEPARATE PAYMENT SHALL NOT BE MADE.

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Illinois Licensed Professional Service Corporation #184-001084

COLES COUNTY AIRPORT
AUTHORITY
COLES COUNTY MEMORIAL AIRPORT

Contract No. CO061

DRAWN BY: BAK 02/14/14

REVIEWED BY: CAH 05/02/14
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SHEET TITLE

PROPOSED SAFETY PLAN NOTES

- 2. THE CONTRACTOR WILL NOTIFY THE AIRPORT MANAGER AT LEAST FOUR WEEKS PRIOR TO CLOSING RUNWAY 11-29 SO THE AIRPORT MANAGER CAN CONTACT THE FEDERAL AVIATION ADMINISTRATION (FAA) ABOUT SHUTTING DOWN THE ASSOCIATED NAVAIDS ON RUNWAY 11-29. THESE NAVAIDS WILL REMAIN DE-ACTIVATED UNTIL THE RUNWAY IS READY
- 3. RUNWAY 6-24 WILL REMAIN OPEN THROUGH OUT PHASE 1 ACTIVITIES AND THE LIGHTING CIRCUIT AND NAVAIDS FOR RUNWAY 6-24 WILL REMAIN OPERATIONAL AS WELL.
- 4. CURRENTLY THERE ARE SEVEN DIFFERENT TAXIWAY LIGHTING CIRCUITS. THIS PROJECT, AT ONE TIME OR ANOTHER, WILL IMPACT ALL OF THESE TAXIWAY LIGHTING CIRCUITS.
- 5. TAXIWAY CIRCUIT NO. 7 WILL BE SHUT OFF AT THE START OF THIS PHASE AND WILL REMAIN OFF UNTIL RUNWAY 11-29 IS READY TO BE RE-OPENED.
- 6 IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO "COVER" THE TAXIWAY LIGHTS THAT ARE LOCATED WITHIN TAXIWAY AREAS THAT HAVE BEEN CLOSED TO AIRCRAFT MOVEMENT. THERE ARE APPROXIMATELY 100 TAXIWAY LIGHTS THAT WILL
- 7. THE PROPOSED "COVER" WILL NOT ALLOW THE EMITTANCE OF ANY LIGHT FROM THE TAXIWAY LIGHT FIXTURE. THE CONTRACTOR WILL BE ALLOWED TO USE ANY MATERIAL AT HIS DISPOSAL TO "COVER" THE LIGHTS. DIFFERENT TYPES OF "COVERINGS" USED IN THE PAST HAVE BEEN BLACK PLASTIC BAGS, CANS, AND SECTIONS OF PLASTIC PIPE. ANY DAMAGE TO THE EXISTING LIGHT FROM THE "COVERING" WILL BE REPAIRED/REPLACED AT THE CONTRACTOR'S OWN EXPENSE.
- 8. THE "COVERING" OF THE TAXIWAY LIGHTS AS WELL AS THE DE-ACTIVATION/RE-ACTIVATION OF THE RUNWAY 11-29 LIGHTING CIRCUIT AND TAXIWAY LIGHTING CIRCUIT NO. 7 WILL BE CONSIDERED AS AN INCIDENTAL ITEM TO THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED
- 9. THE CONTRACTOR (AT HIS DISCRETION) WILL REMOVE THE THRESHOLD LIGHT FIXTURES OFF THE WEST END OF RUNWAY 11-29. THE LIGHT FIXTURES WILL BE STORED AND PROTECTED FROM DAMAGE. ANY DAMAGE TO THESE FIXTURES WILL BE REPAIRED/REPLACED AT THE CONTRACTOR'S OWN EXPENSE. THE CONCRETE LIGHT BASES WILL BE LEFT IN PLACE AND PROTECTED FROM TRUCKS/EQUIPMENT TRAVELING OVER THEM. ANY DAMAGE TO THE CONCRETE LIGHT BASES WILL BE REPAIRED/REPLACED AT THE ILL. ROUTE 16

EXISTING-

LOCALIZER

PROPOSED -

HAUL ROUTE

EXISTING STOL SOD

STRIP 18-36 250' X 1.085

CONTRACTOR'S OWN EXPENSE. THE THRESHOLD LIGHT FIXTURES WILL BE REPLACED WHEN RUNWAY 11-29 IS READY TO BE RE-OPENED. ALL WORK ASSOCIATED WITH THE REMOVAL, STORAGE, AND REPLACEMENT OF THESE LIGHTS WILL BE CONSIDERED AS AN INCIDENTAL ITEM TO THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

PROPOSED BARRICADES

- 1. THE CONTRACTOR WILL FURNISH, MAINTAIN AND REMOVE THE PROPOSED BARRICADES THROUGHOUT THIS
- 2. THE CONTRACTOR WILL PLACE THE PROPOSED BARRICADES AT A DISTANCE OF 93 FEET FROM THE CENTERLINE OF THE TAXIWAY BEING LEFT OPEN TO AIRCRAFT MOVEMENT. THE PROPOSED BARRICADES WILL BE AS SHOWN ON SHEET NO. 4 AND WILL BE PLACED ACROSS THE TAXIWAY BEING CLOSED. SPACING OF THE BARRICADES WILL BE IN ACCORDANCE WITH THE NOTES ON SHEET NO. 4.
- 3. THE CONTRACTOR WILL PLACE THE PROPOSED BARRICADES AT A DISTANCE OF 250 FEET FROM THE CENTERLINE OF THE RUNWAY BEING LEFT OPEN TO AIRCRAFT MOVEMENT. THE PROPOSED BARRICADES WILL BE AS SHOWN ON SHEET NO. 4 AND WILL BE PLACED ACROSS THE TAXIWAY BEING CLOSED. SPACING OF THE BARRICADES WILL BE IN ACCORDANCE WITH THE NOTES ON SHEET NO. 4.

PROPOSED HAUL ROUTE & STAGING AREAS

DURING THE PHASE 1 CONSTRUCTION THE CONTRACTOR WILL BE USING THE FOLLOWING ACCESSES:

- 1. THE PROPOSED HAUL ROUTE OFF OF ROUTE 16 WILL BE THE PRIMARY HAUL ROUTE FOR ALL CONSTRUCTION ACTIVITIES ON THE WESTERLY PORTION OF RUNWAY 11-29 AND THE CONNECTING TAXIWAYS.
- 2. THE PROPOSED HAUL ROUTE OFF OF OLD STATE ROAD WILL BE THE SECONDARY HAUL ROUTE FOR ALL CONSTRUCTION ACTIVITIES ON THE EASTERLY PORTION OF RUNWAY 11-29 AND THE CONNECTING TAXIWAYS ON THE EASTERLY PORTION.
- 3. THE CONTRACTOR(S) AND HIS PERSONNEL WILL USE THE DESIGNATED EQUIPMENT PARKING AND STORAGE AREAS AS SHOWN ON THIS PHASING PLAN.

PROPOSED PHASE 1 CONSTRUCTION

THE NOTICE TO PROCEED ON THIS PROJECT IS ANTICIPATED TO BE ISSUED IN THE LATE SPRING OF 2015.

- THE PHASE 1 CONSTRUCTION SHALL CONSIST OF THE FOLLOWING ITEMS:
- 1. CONSTRUCT HAUL ROUTES AND STAGING AREAS.

PROPOSED EQUIPMENT

PARKING AND STORAGE AREA

OLD STATE ROAD

- 2. RUBBLIZE THE WESTERLY 2,600' X 150' OF RUNWAY 11-29.
- 3. MILLING OF THE CONCRETE/BITUMINOUS BUTT JOINTS ON THE CONNECTING TAXIWAYS TO RUNWAY 11-29.
- 4. ADJUSTMENT OF THE EXISTING RUNWAY LIGHT BASES THAT ARE LOCATED ON THE CONNECTING TAXIWAYS TO RUNWAY 11-29.
- 5. THE CONTRACTOR WILL BE ALLOWED TO PLACE THE PROPOSED BITUMINOUS BASE COURSE IN ONE LIFT (6" MAXIMUM DEPTH) ON THE WESTERLY 2,600' SECTION OF RUNWAY 11-29
- 6. INSTALLATION OF THE PROPOSED UNDERDRAIN SYSTEM ALONG THE EASTERLY 3.000' OF RUNWAY 11-29.

PROPOSED CLOSURE CROSSES

- 1. THE CONTRACTOR WILL FURNISH, MAINTAIN AND REMOVE THE PROPOSED CLOSURE CROSSES THROUGHOUT THIS PROJECT.
- 2. AT THE START OF THIS PHASE THE CONTRACTOR WILL CLOSE RUNWAY 11-29 AND STOL SOD STRIP 18-36. THEY WILL REMAIN CLOSED UNTIL THE END OF PHASE
- 3. THE PROPOSED RUNWAY CLOSURE CROSSES WILL BE AS SHOWN ON SHEET NO. 3. THE PROPOSED RUNWAY CLOSURE CROSSES WILL BE CONSTRUCTED IN ACCORDANCE WITH THE NOTES ON SHEET NOS. 3 AND
- 4. THE PROPOSED TAXIWAY CLOSURE CROSS WILL BE AS SHOWN ON SHEFT NO. 4. THE PROPOSED TAXIWAY CLOSURE CROSS WILL BE CONSTRUCTED IN ACCORDANCE WITH THE NOTES ON SHEET NO. 4.
- 5. THE PROPOSED TAXIWAY CLOSURE CROSS WILL BE IN PLACE AT THE START OF PHASE I AND WILL REMAIN IN PLACE THROUGH PHASE II. WHEN RUNWAY 6-24 IS CLOSED, THE TAXIWAY CLOSURE CROSS CAN BE REMOVED.
- 6. THE PLACEMENT, MAINTENANCE AND REMOVAL OF THE RUNWAY AND TAXIWAY CLOSURE CROSSES WILL BE CONSIDERED AS AN INCIDENTAL ITEM TO THE PROJECT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

PROPOSED TAXIWAY

PHASE I - INSTALLATION

Ы

OF UNDERDRAINS

- PROPOSET

PARKING AND STORAGE AREA

PROPOSED EQUIPMENT

HAUL ROUTE

CLOSURE CROSS

PROPOSED AIRCRAFT

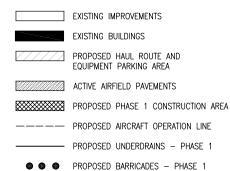
OPERATION LINE

CROSSING RUNWAY 6-24 WHILE ACTIVE

THE CONTRACTOR, HIS PERSONNEL OR HIS EQUIPMENT WILL NOT BE ALLOWED TO CROSS RUNWAY 6-24 WHILE IT IS ACTIVE EXCEPT UNDER THE FOLLOWING CONDITIONS:

- 1. THE CONTRACTOR HAS COMPLETED A PHASE OF CONSTRUCTION AND NEEDS TO TAKE HIS EQUIPMENT ACROSS RUNWAY 6-24 TO START THE
- 2. THE CONTRACTOR HAS NOTIFIED THE AIRPORT MANAGER AND THE RESIDENT ENGINEER/RESIDENT PROJECT REPRESENTATIVE THAT HE DESIRES TO MOVE TO THE NEXT PHASE OF WORK AND WILL HAVE TO CROSS THE ACTIVE RUNWAY 6-24
- 3. THE DATE AND TIME OF THE MOVE ACROSS RUNWAY 6-24 HAS BEEN APPROVED BY THE AIRPORT MANAGER.
- 4. THE CONTRACTOR WILL PROVIDE A FLAGMAN TO CONTROL THE MOVEMENT OF HIS EQUIPMENT AND PERSONNEL ACROSS RUNWAY 6-24. THE FLAGMAN WILL BE TRAINED IN VEHICULAR OPERATIONAL PROCEDURES ON THE AIRPORT.
- 5. ALL THE EQUIPMENT BEING MOVED ACROSS RUNWAY 6-24 IS MOBILIZED AT A DISTANCE OF 250' FROM THE CENTERLINE OF RUNWAY 6-24.
- 6. JUST BEFORE THE CONTRACTOR BEGINS THE MOVE ACROSS RUNWAY 6-24 HE REQUESTS PERMISSION FROM THE AIRPORT MANAGER TO CROSS RUNWAY 6-24.
- 7. WITH PERMISSION FROM THE AIRPORT MANAGER THE CONTRACTOR WILL HAVE A 20 MINUTE WINDOW TO MOVE ALL OF HIS EQUIPMENT ACROSS RUNWAY 6-24 AND TO A DISTANCE OF AT LEAST 250' FROM THE CENTERLINE OF RUNWAY 6-24.
- 8. THE CONTRACTOR, RESIDENT ENGINEER/RESIDENT PROJECT REPRESENTATIVE AND A REPRESENTATIVE OF THE AIRPORT WILL INSPECT THE AREA WHERE THE EQUIPMENT CROSSED TO INSURE NO "FOREIGN MATERIAL" WAS LEFT ON THE PAVEMENT. ANY UN-DESIREABLE MATERIAL WILL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR PRIOR TO THE AREA BEING ACCEPTED FOR OPENING TO AIRCRAFT ACTIVITY.
- 9 AFTER APPROVAL OF THE CROSSING AREA AND ALL THE EQUIPMENT ARE AT LEAST 250' FROM THE CENTERLINE OF RUNWAY 6-24, THEN THE CONTRACTOR WILL NOTIFY THE AIRPORT MANAGER ALL HIS FOUIPMENT HAVE CLEARED RUNWAY 6-24 AND RUNWAY 6-24 IS READY FOR AIRCRAFT OPERATIONS.
- 10. DAILY CROSSING OF RUNWAY 6-24 WHILE IT IS ACTIVE WILL NOT BE ALLOWED.

LEGEND



PRIMARY HAUL ROUTE - PHASE 1

SECONDARY HAUL ROUTE - PHASE 1

CLOSURE CROSS



HALF SIZE SCALE: 1"= 1000 FULL SIZE SCALE: 1"= 500

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Illinois Licensed Professional Service Corporation #184-001084



REHABILITATE **RUNWAY 11/29**

IDA No: MTO-4320

Contract No. CO061

AS PER IDA 1 5/21/14 CAH CAH JSL DESCRIPTION NO. DATE LAY DWN REV ISSUE: MAY 2, 2014 PROJECT NO: 14A0005D CAD FILE: G-004STG.DWG LAYOUT BY: CAH 02/14/14 DRAWN BY: BAK 02/14/14

CONSTRUCTION SAFETY & PHASING PLAN - PHASE 1

REVIEWED BY: CAH 05/02/14

- 1. AT THE START OF PHASE 1 THE CONTRACTOR WILL SHUT OFF THE LIGHTING CIRCUIT TO RUNWAY 11-29. THIS CIRCUIT WILL REMAIN DE-ACTIVATED UNTIL THE RUNWAY IS READY TO BE RE-OPENED.
- 2. RUNWAY 6-24 WILL REMAIN OPEN THROUGH OUT PHASE 2 ACTIVITIES AND THE LIGHTING CIRCUIT AND NAVAIDS FOR RUNWAY 6-24 WILL REMAIN OPERATIONAL AS WELL
- 3. CURRENTLY THERE ARE SEVEN DIFFERENT TAXIWAY LIGHTING CIRCUITS. THIS PROJECT, AT ONE TIME OR ANOTHER, WILL IMPACT ALL OF THESE TAXIWAY LIGHTING CIRCUITS.
- 4. TAXIWAY CIRCUIT NO. 7 WILL BE SHUT OFF AT THE START OF PHASE 1 AND WILL REMAIN OFF UNTIL RUNWAY 11-29 IS READY TO BE RE-OPENED
- 5. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO "COVER" THE TAXIWAY LIGHTS THAT ARE LOCATED WITHIN TAXIWAY AREAS THAT HAVE BEEN CLOSED TO AIRCRAFT MOVEMENT. THERE ARE APPROXIMATELY 100 TAXIWAY LIGHTS THAT WILL
- 6 THE PROPOSED "COVER" WILL NOT ALLOW THE EMITTANCE OF ANY LIGHT FROM THE TAXIWAY LIGHT FIXTURE THE CONTRACTOR WILL BE ALLOWED TO USE ANY MATERIAL AT HIS DISPOSAL TO "COVER" THE LIGHTS. DIFFERENT TYPES OF "COVERINGS" USED IN THE PAST HAVE BEEN BLACK PLASTIC BAGS. CANS. AND SECTIONS OF PLASTIC PIPE. ANY DAMAGE TO THE EXISTING LIGHT FROM THE "COVERING" WILL BE REPAIRED/REPLACED AT THE CONTRACTOR'S OWN
- 7. THE "COVERING" OF THE TAXIWAY LIGHTS AS WELL AS THE DE-ACTIVATION/RE-ACTIVATION OF THE RUNWAY 11-29 LIGHTING CIRCUIT AND TAXIWAY LIGHTING CIRCUIT NO. 7 WILL BE CONSIDERED AS AN INCIDENTAL ITEM TO THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- 8. THE THE CONTRACTOR (AT HIS DISCRETION) WILL REMOVE THE THRESHOLD LIGHT FIXTURES OFF THE EAST END OF RUNWAY 11-29. THE LIGHT FIXTURES WILL BE STORED AND PROTECTED FROM DAMAGE. ANY DAMAGE TO THESE FIXTURES WILL BE REPAIRED/REPLACED AT THE CONTRACTOR'S OWN EXPENSE. THE CONCRETE LIGHT BASES WILL BE LEFT IN PLACE AND PROTECTED FROM TRUCKS/EQUIPMENT TRAVELING OVER THEM. ANY DAMAGE TO THE CONCRETE LIGHT BASES WILL BE REPAIRED/REPLACED AT THE CONTRACTOR'S OWN EXPENSE. THE THRESHOLD LIGHT FIXTURES WILL BE RESTORED TO THE CONCRETE LIGHT BASES WHEN RUNWAY 11-29 IS READY TO BE RE-OPENED. ALL WORK ASSOCIATED WITH THE REMOVAL, STORAGE, AND REPLACEMENT OF THESE LIGHTS WILL BE CONSIDERED AS AN INCIDENTAL ITEM TO THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

PROPOSED PHASE 2 CONSTRUCTION

THE PHASE 2 CONSTRUCTION SHALL CONSIST OF THE FOLLOWING ITEMS:

- 1. RUBBLIZE THE EASTERLY 3,000' X 150' OF RUNWAY 11-29. (THE EDGE DRAIN SYSTEM THAT WAS INSTALLED UNDER PHASE 1 MUST HAVE BEEN IN OPERATION AT LEAST ONE WEEK PRIOR TO STARTING THE RUBBLIZATION OF
- 2. MILLING OF THE CONCRETE/BITUMINOUS BUTT JOINTS ON THE CONNECTING TAXIWAYS TO RUNWAY 11-29
- 3. ADJUSTMENT OF THE EXISTING RUNWAY LIGHT BASES THAT ARE LOCATED ON THE CONNECTING TAXIWAYS TO RUNWAY 11-29.
- 4. THE CONTRACTOR WILL BE ALLOWED TO PLACE THE PROPOSED BITUMINOUS

PROPOSED CLOSURE CROSSES

- 1. THE CONTRACTOR WILL FURNISH, MAINTAIN AND REMOVE THE PROPOSED CLOSURE CROSSES THROUGHOUT THIS
- 2. AT THE START OF PHASE 1 THE CONTRACTOR CLOSED RUNWAY 11-29 AND STOL SOD STRIP 18-36 AND THEY WILL REMAIN CLOSED UNTIL THE END OF PHASE 4.
- SHOWN ON SHEET NO. 3. THE PROPOSED RUNWAY CLOSURE CROSSES WILL BE CONSTRUCTED IN ACCORDANCE WITH THE NOTES ON SHEET NOS. 3 AND 4.
- 4. THE PROPOSED TAXIWAY CLOSURE CROSS WILL BE AS SHOWN ON SHEET NO. 4. THE PROPOSED TAXIWAY CLOSURE CROSS WILL BE CONSTRUCTED IN ACCORDANCE
- 5. THE PROPOSED TAXIWAY CLOSURE CROSS WILL BE IN PLACE AT THE START OF PHASE I AND WILL REMAIN IN PLACE THROUGH PHASE II. WHEN RUNWAY 6-24 IS CLOSED, THE TAXIWAY CLOSURE CROSS CAN BE REMOVED.
- 6. THE PLACEMENT, MAINTENANCE AND REMOVAL OF THE RUNWAY AND TAXIWAY CLOSURE CROSSES WILL BE CONSIDERED AS AN INCIDENTAL ITEM TO THE PROJECT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

CROSSING RUNWAY 6-24 WHILE ACTIVE

THE CONTRACTOR, HIS PERSONNEL OR HIS EQUIPMENT WILL NOT BE ALLOWED TO CROSS RUNWAY 6-24 WHILE IT IS ACTIVE EXCEPT UNDER THE FOLLOWING CONDITIONS:

- 1. THE CONTRACTOR HAS COMPLETED A PHASE OF CONSTRUCTION AND NEEDS TO TAKE HIS EQUIPMENT ACROSS RUNWAY 6-24 TO START THE
- 3. THE PROPOSED RUNWAY CLOSURE CROSSES WILL BE AS 2. THE CONTRACTOR HAS NOTIFIED THE AIRPORT MANAGER AND THE RESIDENT ENGINEER/RESIDENT PROJECT REPRESENTATIVE THAT HE DESIRES TO MOVE TO THE NEXT PHASE OF WORK AND WILL HAVE TO CROSS THE ACTIVE RUNWAY 6-24.
 - 3. THE DATE AND TIME OF THE MOVE ACROSS RUNWAY 6-24 HAS BEEN APPROVED BY THE AIRPORT MANAGER.
 - 4. THE CONTRACTOR WILL PROVIDE A FLAGMAN TO CONTROL THE MOVEMENT OF HIS EQUIPMENT AND PERSONNEL ACROSS RUNWAY 6-24. THE FLAGMAN WILL BE TRAINED IN VEHICULAR OPERATIONAL PROCEDURES ON THE AIRPORT
 - 5. ALL THE EQUIPMENT BEING MOVED ACROSS RUNWAY 6-24 IS MOBILIZED AT A DISTANCE OF 250' FROM THE CENTERLINE OF RUNWAY 6-24.
 - 6. JUST BEFORE THE CONTRACTOR BEGINS THE MOVE ACROSS RUNWAY 6-24 HE REQUESTS PERMISSION FROM THE AIRPORT MANAGER TO CROSS RUNWAY 6-24.
 - 7. WITH PERMISSION FROM THE AIRPORT MANAGER THE CONTRACTOR WILL HAVE A 20 MINUTE WINDOW TO MOVE ALL OF HIS EQUIPMENT ACROSS RUNWAY 6-24 AND TO A DISTANCE OF AT LEAST 250' FROM THE CENTERLINE OF RUNWAY 6-24.
 - 8. THE CONTRACTOR, RESIDENT ENGINEER/RESIDENT PROJECT REPRESENTATIVE AND A REPRESENTATIVE OF THE AIRPORT WILL INSPECT THE AREA WHERE THE EQUIPMENT CROSSED TO INSURE NO "FOREIGN MATERIAL" WAS LEFT ON THE PAVEMENT. ANY UN-DESIREABLE MATERIAL WILL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR. PRIOR TO THE AREA BEING ACCEPTED FOR OPENING TO AIRCRAFT ACTIVITY.
 - 9. AFTER APPROVAL OF THE CROSSING AREA AND ALL THE EQUIPMENT ARE AT LEAST 250' FROM THE CENTERLINE OF RUNWAY 6-24, THEN THE CONTRACTOR WILL NOTIFY THE AIRPORT MANAGER ALL HIS EQUIPMENT HAVE CLEARED RUNWAY 6-24 AND RUNWAY 6-24 IS READY FOR AIRCRAFT OPERATIONS
 - 10. DAILY CROSSING OF RUNWAY 6-24 WHILE IT IS ACTIVE WILL NOT BE ALLOWED

LEGEND

EXISTING IMPROVEMENTS EXISTING BUILDINGS

PROPOSED HAUL ROUTE AND EQUIPMENT PARKING AREA

ACTIVE AIRFIELD PAVEMENTS

PROPOSED PHASE 2 CONSTRUCTION AREA ---- PROPOSED AIRCRAFT OPERATION LINE

PROPOSED UNDERDRAINS - PHASE 2

PROPOSED BARRICADES - PHASE 2

PRIMARY HAUL ROUTE - PHASE 2

SECONDARY HAUL ROUTE - PHASE 2 CLOSURE CROSS

HALF SIZE SCALE: 1"= 1000 FULL SIZE SCALE: 1"= 500

1000

250' 500'

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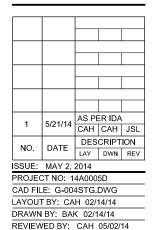
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COLES COUNTY AIRPORT AUTHORITY

REHABILITATE **RUNWAY 11/29**

IDA No: MTO-4320

Contract No. CO061



CONSTRUCTION SAFETY & PHASING PLAN - PHASE 2

SHEET TITLE

PROPOSED BARRICADES

2. THE CONTRACTOR WILL PLACE THE PROPOSED BARRICADES AT A DISTANCE OF 93 FEET FROM THE CENTERLINE OF THE TAXIWAY BEING LEFT OPEN TO AIRCRAFT MOVEMENT. THE PROPOSED BARRICADES WILL BE AS SHOWN ON SHEET NO. 4 AND WILL BE PLACED. ACROSS THE TAXIWAY BEING CLOSED. SPACING OF THE BARRICADES WILL BE IN ACCORDANCE WITH THE NOTES ON SHEET NO. 4.

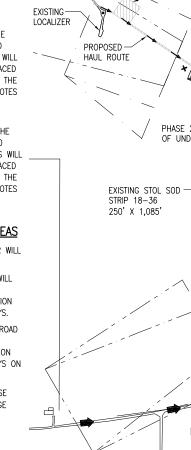
1. THE CONTRACTOR WILL FURNISH, MAINTAIN AND REMOVE

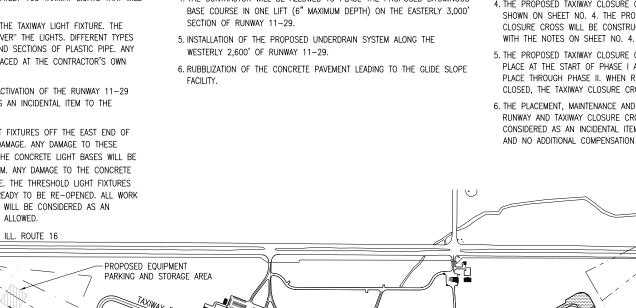
3. THE CONTRACTOR WILL PLACE THE PROPOSED BARRICADES AT A DISTANCE OF 250 FEET FROM THE CENTERLINE OF THE RUNWAY BEING LEFT OPEN TO AIRCRAFT MOVEMENT. THE PROPOSED BARRICADES WILL BE AS SHOWN ON SHEET NO. 4 AND WILL BE PLACED ACROSS THE TAXIWAY BEING CLOSED, SPACING OF THE BARRICADES WILL BE IN ACCORDANCE WITH THE NOTES ON SHEET NO. 4.

PROPOSED HAUL ROUTE & STAGING AREAS

DURING THE PHASE 2 CONSTRUCTION THE CONTRACTOR WILL BE USING THE FOLLOWING ACCESSES:

- 1. THE PROPOSED HAUL ROUTE OFF OF ROUTE 16 WILL BE THE SECONDARY HAUL ROUTE FOR ALL CONSTRUCTION ACTIVITIES ON THE WESTERLY PORTION OF RUNWAY 11-29 AND THE CONNECTING TAXIWAYS.
- 2. THE PROPOSED HAUL ROUTE OFF OF OLD STATE ROAD WILL BE THE PRIMARY HAUL ROUTE FOR ALL CONSTRUCTION ACTIVITIES ON THE EASTERLY PORTION OF RUNWAY 11-29 AND THE CONNECTING TAXIWAYS ON THE EASTERLY PORTION.
- 3. THE CONTRACTOR(S) AND HIS PERSONNEL WILL USE THE DESIGNATED EQUIPMENT PARKING AND STORAGE AREAS AS SHOWN ON THIS PHASING PLAN.





- 1. AT THE START OF PHASE 1 THE CONTRACTOR WILL SHUT OFF THE LIGHTING CIRCUIT TO RUNWAY 11-29. THIS CIRCUIT WILL REMAIN DE-ACTIVATED UNTIL THE RUNWAY IS READY TO BE RE-OPENED.
- 2. THE CONTRACTOR WILL NOTIFY THE AIRPORT MANAGER AS SOON AS POSSIBLE BUT AT LEAST ONE WEEK PRIOR TO CLOSING RUNWAY 6-24 SO THE AIRPORT MANAGER CAN CONTACT THE FEDERAL AVIATION ADMINISTRATION (FAA) ABOUT SHUTTING DOWN THE ASSOCIATED NAVAIDS ON RUNWAY 6-24. THESE NAVAIDS WILL REMAIN DE-ACTIVATED UNTIL THE RUNWAY IS READY TO BE RE-OPENED. THE AIRPORT MANAGER WILL ALSO NOTIFY THE AIRPORT USERS THAT THE AIRPORT WILL BE CLOSED IN ONE WEEK AND WILL REMAIN CLOSED UNTIL THE COMPLETION OF PHASE 4.
- 3. AT THE START OF THIS PHASE THE CONTRACTOR WILL SHUT OFF THE LIGHTING CIRCUIT TO RUNWAY 6-24. THIS CIRCUIT WILL REMAIN DE-ACTIVATED UNTIL THE RUNWAY IS READY TO BE RE-OPENED.
- 4. ALL SEVEN OF THE TAXIWAY LIGHTING CIRCUITS WILL BE SHUT OFF FOR THE DURATION OF THIS PHASE AND PHASE
- 5. SINCE ALL THE TAXIWAY LIGHTING CIRCUITS ARE DEACTIVATED THERE IS NO NEED FOR THE TAXIWAY LIGHTS TO BE "COVERED". THE CONTRACTOR MAY LEAVE THE TAXIWAY LIGHTS "COVER" THROUGH OUT THIS PHASE AND PHASE 4. HOWEVER, AT THE END OF PHASE 4 THE TAXIWAY LIGHTS WILL HAVE TO BE UN-COVERED IN PREPARATION TO RE-OPENING THE RUNWAYS AND TAXIWAYS.

PROPOSED BARRICADES

- THE CONTRACTOR WILL FURNISH, MAINTAIN AND REMOVE
 THE PROPOSED BARRICADES THROUGHOUT THIS
 PROJECT.
- 2. THE CONTRACTOR WILL PLACE THE PROPOSED BARRICADES AT A DISTANCE OF 93 FEET FROM THE CENTERLINE OF THE TAXIWAY BEING LEFT OPEN TO AIRCRAFT MOVEMENT. THE PROPOSED BARRICADES WILL BE AS SHOWN ON SHEET NO. 4 AND WILL BE PLACED ACROSS THE TAXIWAY BEING CLOSED. SPACING OF THE BARRICADES WILL BE IN ACCORDANCE WITH THE NOTES ON SHEET NO. 4.
- 3. THE CONTRACTOR WILL PLACE THE PROPOSED BARRICADES AT A DISTANCE OF 250 FEET FROM THE CENTERLINE OF THE RUNWAY BEING LEFT OPEN TO AIRCRAFT MOVEMENT. THE PROPOSED BARRICADES WILL BE AS SHOWN ON SHEET NO. 4 AND WILL BE PLACED ACROSS THE TAXIWAY BEING CLOSED. SPACING OF THE BARRICADES WILL BE IN ACCORDANCE WITH THE NOTES ON SHEET NO. 4.

PROPOSED HAUL ROUTE & STAGING AREAS

DURING THE PHASE 3 CONSTRUCTION THE CONTRACTOR WILL BE USING THE FOLLOWING ACCESSES:

- THE PROPOSED HAUL ROUTE OFF OF ROUTE 16 WILL
 BE THE PRIMARY HAUL ROUTE FOR ALL CONSTRUCTION
 ACTIVITIES WITHIN THE INTERSECTION OF THE TWO
 PLINWAYS

 OF THE TWO

 THE TWO
- 2. THE CONTRACTOR(S) AND HIS PERSONNEL WILL USE THE DESIGNATED EQUIPMENT PARKING AND STORAGE AREAS AS SHOWN ON THIS PHASING PLAN.

NOTE TO THE CONTRACTOR

- 1. THIS PHASE WILL CLOSE THE AIRPORT TO ALL AIRCRAFT OPERATIONS. ALL WORK THROUGH OUT THIS PHASE AND PHASE 4 WILL BE EXPEDITED TO LIMIT THE AMOUNT OF TIME THE AIRPORT IS CLOSED.
- 2. THE CONTRACTOR WILL HAVE 30 CALENDAR DAYS TO COMPLETE PHASE 3 AND 4 AND RE-OPEN THE AIRPORT.

PROPOSED CLOSURE CROSSES

- THE CONTRACTOR WILL FURNISH, MAINTAIN AND REMOVE
 THE PROPOSED CLOSURE CROSSES THROUGHOUT THIS
 PROJECT.
- 2. AT THE START OF PHASE 1 THE CONTRACTOR CLOSED RUNWAY 11-29 AND STOL SOD STRIP 18-36 AND THEY WILL REMAIN CLOSED LINTIL THE FIND OF PHASE 4
- 3. AT THE START OF THIS PHASE THE CONTRACTOR WILL CLOSE RUNWAY 6-24 AND IT WILL REMAIN CLOSED UNTIL THE END OF PHASE 4.
- 4. THE PROPOSED RUNWAY CLOSURE CROSSES WILL BE AS SHOWN ON SHEET NO. 3. THE PROPOSED RUNWAY CLOSURE CROSSES WILL BE CONSTRUCTED IN ACCORDANCE WITH THE NOTES ON SHEET NOS. 3 AND 4.
- 5. THE PROPOSED TAXIWAY CLOSURE CROSS WILL NOT BE NEEDED AS PART OF THIS PHASE AND (AT THE DISCRETION OF THE CONTRACTOR) SHALL BE REMOVED.
- 6. THE PLACEMENT, MAINTENANCE AND REMOVAL OF THE RUNWAY AND TAXIWAY CLOSURE CROSSES WILL BE CONSIDERED AS AN INCIDENTAL ITEM TO THE PROJECT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

PROPOSED PHASE 3 CONSTRUCTION

THE PHASE 3 CONSTRUCTION SHALL CONSIST OF THE FOLLOWING ITEMS:

- 1. INSTALLATION OF THE UNDERDRAIN SYSTEM LOCATED WITHIN THE INTERSECTION AREA.
- 2. MILLING OF THE CONCRETE/BITUMINOUS BUTT JOINTS ON RUNWAY 6-24.
- 3. ADJUSTMENT OF THE EXISTING RUNWAY LIGHT BASES THAT ARE LOCATED ON THE RUNWAY 6-24.
- 4. RUBBLIZE THE REMAINING SECTION OF RUNWAY 11-29 AND THE NORTHERN SECTION OF RUNWAY 6-24.
- 5. THE CONTRACTOR WILL BE ALLOWED TO PLACE THE PROPOSED BITUMINOUS BASE COURSE IN ONE LIFT (6" MAXIMUM DEPTH) ON THE PHASE 3 AREA. IF HE CAN NOT OBTAIN THE REQUIRE PAVEMENT DENSITIES AND GRADES THEN HE WILL BE REQUIRED TO DO THE FOIL OWING:
- 5.1. PLACEMENT OF "BITUMINOUS LEVELING COURSE" WHERE NEEDED.
- 5.2. PLACEMENT OF FIRST LIFT OF BITUMINOUS BASE COURSE (3" MAXIMUM DEPTH) ON THE PHASE 3 AREA.

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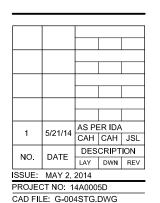
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REHABILITATE RUNWAY 11/29

IDA No: MTO-4320

Contract No. CO061



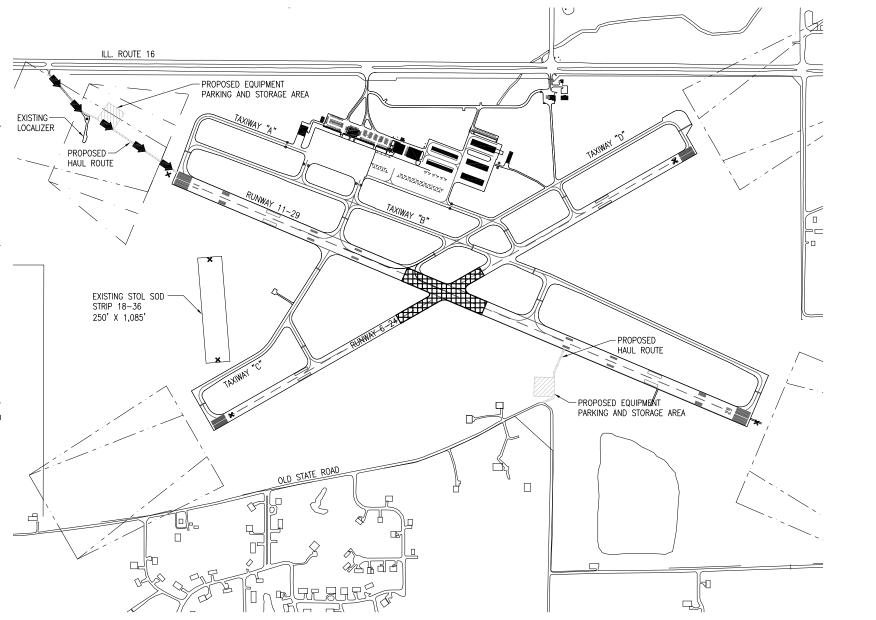
CONSTRUCTION SAFETY & PHASING PLAN - PHASE 3

LAYOUT BY: CAH 02/14/14

DRAWN BY: BAK 02/14/14

SHEET TITLE

REVIEWED BY: CAH 05/02/14



FULL SIZE SCALE: 1"= 500

LEGEND

EXISTING IMPROVEMENTS

PROPOSED HAUL ROUTE AND

EQUIPMENT PARKING AREA

ACTIVE AIRFIELD PAVEMENTS

PROPOSED BARRICADES - PHASE 3

CLOSURE CROSS

PROPOSED PHASE 3 CONSTRUCTION AREA

PRIMARY HAUL ROUTE - PHASE 3

EXISTING BUILDINGS

7

2. WHEN PHASE 4 HAS BEEN COMPLETED THE CONTRACTOR WILL REPLACE THE THRESHOLD LIGHT FIXTURES ON BOTH ENDS OF RUNWAY 11-29, HE WILL RE-ACTIVATE THE LIGHTING CIRCUITS FOR BOTH RUNWAY 11-29 AND 6-24.

3. AT THE CONCLUSION OF PHASE 4 THE CONTRACTOR WILL REMOVE ALL THE "COVERS" FROM THE TAXIWAY LIGHTS (IF HE HASN'T ALREADY REMOVED THEM UNDER PHASE 3). THE CONTRACTOR WILL RETAIN THESE "COVERS" SINCE THEY WILL BE NEEDED AGAIN AS PART OF PHASE 5,

4. THE CONTRACTOR WILL PROVIDE THE AIRPORT MANAGER WITH AS MUCH ADVANCE NOTICE AS POSSIBLE BUT AT LEAST 5 DAYS NOTICE TO RE-OPENING THE RUNWAYS AND TAXIWAYS TO ALLOW THE AIRPORT MANAGER TO CONTACT FAA SO THEY CAN SCHEDULE THE RE-ACTIVATION OF THE NAVAIDS FOR RUNWAYS 6-24 AND 11-29.

PROPOSED BARRICADES

1. THE CONTRACTOR WILL FURNISH, MAINTAIN AND REMOVE THE PROPOSED BARRICADES THROUGHOUT THIS

2. THE CONTRACTOR WILL PLACE THE PROPOSED BARRICADES AT A DISTANCE OF 93 FEET FROM THE CENTERLINE OF THE TAXIWAY BEING LEFT OPEN TO AIRCRAFT MOVEMENT. THE PROPOSED BARRICADES WILL BE AS SHOWN ON SHEET NO. 4 AND WILL BE PLACED ACROSS THE TAXIWAY BEING CLOSED. SPACING OF THE BARRICADES WILL BE IN ACCORDANCE WITH THE NOTES ON SHEET NO. 4.

3. THE CONTRACTOR WILL PLACE THE PROPOSED BARRICADES AT A DISTANCE OF 250 FEET FROM THE CENTERLINE OF THE RUNWAY BEING LEFT OPEN TO AIRCRAFT MOVEMENT. THE PROPOSED BARRICADES WILL BE AS SHOWN ON SHEET NO. 4 AND WILL BE PLACED ACROSS THE TAXIWAY BEING CLOSED. SPACING OF THE BARRICADES WILL BE IN ACCORDANCE WITH THE NOTES ON SHFFT NO 4

PROPOSED HAUL ROUTE & STAGING AREAS

DURING THE PHASE 4 CONSTRUCTION THE CONTRACTOR WILL BE USING THE FOLLOWING ACCESSES:

1. THE PROPOSED HAUL ROUTES OFF OF ROUTE 16 AND OLD STATE ROAD (AT THE DISCRETION OF THE CONTRACTOR) WILL BE THE PRIMARY HAUL ROUTES FOR ALL CONSTRUCTION ACTIVITIES WITHIN THIS PHASE.

2. THE CONTRACTOR(S) AND HIS PERSONNEL WILL USE THE DESIGNATED EQUIPMENT PARKING AND STORAGE AREAS AS SHOWN ON THIS PHASING PLAN.

NOTE TO THE CONTRACTOR

1. THIS PHASE WILL CLOSE THE AIRPORT TO ALL AIRCRAFT OPERATIONS. ALL WORK THROUGH OUT THIS PHASE AND PHASE 4 WILL BE EXPEDITED TO LIMIT THE AMOUNT OF TIME THE AIRPORT IS CLOSED

2. THE CONTRACTOR WILL HAVE 30 CALENDAR DAYS TO COMPLETE PHASE 3 AND 4 AND RE-OPEN THE AIRPORT

PROPOSED CLOSURE CROSSES

1. THE CONTRACTOR WILL FURNISH, MAINTAIN AND REMOVE THE PROPOSED CLOSURE CROSSES THROUGHOUT THIS

2. AT THE START OF PHASE 1 THE CONTRACTOR CLOSED RUNWAY 11-29 AND STOL SOD STRIP 18-36 AND THEY WILL REMAIN CLOSED UNTIL THE END OF PHASE 4.

3. AT THE START OF PHASE 3 THE CONTRACTOR CLOSED RUNWAY 6-24 AND IT WILL REMAIN CLOSED UNTIL THE FND OF PHASE 4

4. THE PROPOSED RUNWAY CLOSURE CROSSES WILL BE AS SHOWN ON SHEET NO 3 THE PROPOSED RUNWAY CLOSURE CROSSES WILL BE CONSTRUCTED IN ACCORDANCE WITH THE NOTES ON SHEET NOS. 3 AND 4.

5. AT THE END OF PHASE 4 THE CONTRACTOR WILL RE-OPEN RUNWAYS 6-24, 11-29 AND 18-36.

6. THESE RUNWAYS WILL BE OPEN TO AIRCRAFT OPERATIONS UNTIL THE BITUMINOUS SURFACE COURSE HAS AMPLE TIME TO CURE (MINIMUM OF 30 DAYS) AND THE GROOVING OPERATION CAN BEGIN.

7. THE PLACEMENT, MAINTENANCE AND REMOVAL OF THE RUNWAY AND TAXIWAY CLOSURE CROSSES WILL BE CONSIDERED AS AN INCIDENTAL ITEM TO THE PROJECT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

PROPOSED PHASE 4 CONSTRUCTION

THE PHASE 4 CONSTRUCTION SHALL CONSIST OF THE FOLLOWING ITEMS:

1. APPLICATION OF THE BITUMINOUS TACK COAT TO RUNWAY 11-29 AND ALL CONNECTING TAXIWAYS.

2. PLACEMENT OF THE BITUMINOUS SURFACE COURSE (2" DEPTH) ON RUNWAY 11-29, ALL CONNECTING TAXIWAYS AND THE GLIDE SLOPE ACCESS ROAD.

3. APPLICATION OF THE BITUMINOUS TACK COAT TO RUNWAY 6-24.

4. PLACEMENT OF THE BITUMINOUS SURFACE COURSE (2" DEPTH) ON RUNWAY 6-24.

5. CONSTRUCTION OF THE PROPOSED MALSR ACCESS ROAD.

5 PLACEMENT COMPACTION AND GRADING OF THE SHOULDER ADJUSTMENT ON RUNWAY 6-24, RUNWAY 11-29 AND ALL CONNECTING TAXIWAYS.

6. PLACEMENT OF ONE APPLICATION OF PAVEMENT MARKING ON RUNWAY 6-24, RUNWAY 11-29 AND ALL CONNECTING TAXIWAYS. GLASS BEADS WILL BE APPLIED WITH THIS APPLICATION.

LEGEND

EXISTING IMPROVEMENTS EXISTING BUILDINGS

PROPOSED HAUL ROUTE AND

PROPOSED BARRICADES - PHASE 4

PRIMARY HAUL ROUTE - PHASE 4

EQUIPMENT PARKING AREA

ACTIVE AIRFIELD PAVEMENTS

CLOSURE CROSS

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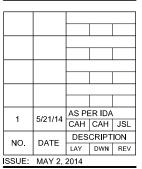
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REHABILITATE **RUNWAY 11/29**

IDA No: MTO-4320

Contract No. CO061



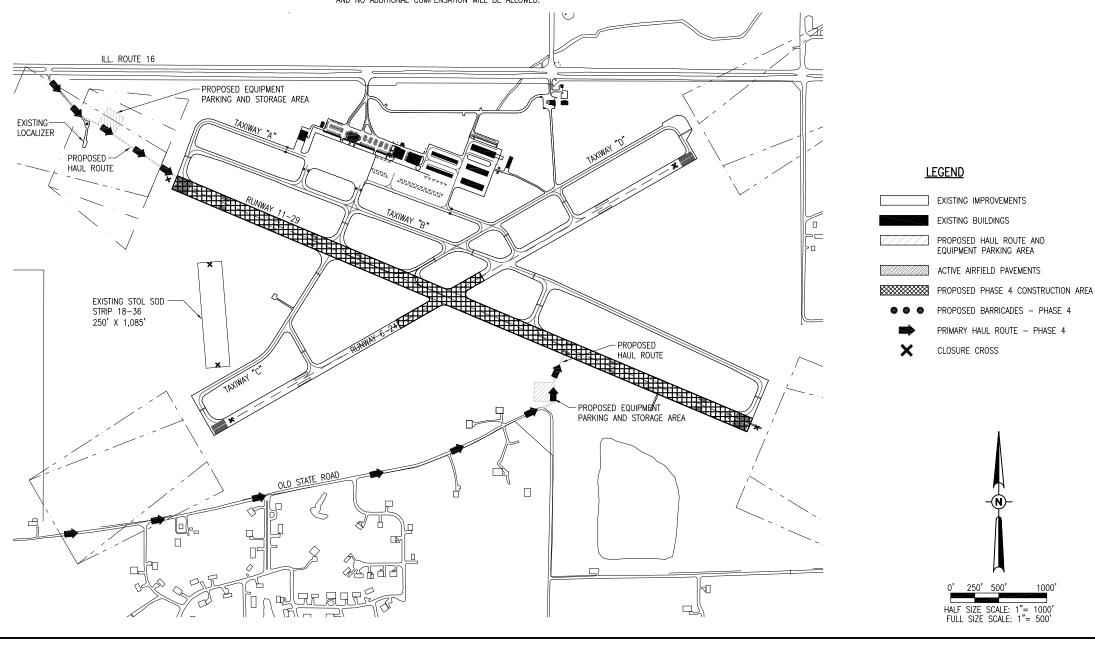
PROJECT NO: 14A0005D CAD FILE: G-004STG.DWG

LAYOUT BY: CAH 02/14/14 DRAWN BY: BAK 02/14/14

REVIEWED BY: CAH 05/02/14

SHEET TITLE

CONSTRUCTION SAFETY & PHASING PLAN - PHASE 4



HALF SIZE SCALE: 1"= 1000 FULL SIZE SCALE: 1"= 500"

PROPOSED HAUL ROUTE & STAGING AREAS

DURING THE PHASE 5 CONSTRUCTION THE CONTRACTOR WILL

1. THE PROPOSED HAUL ROUTE OFF OF ROUTE 16 WILL

ACTIVITIES ON THE WESTERLY PORTION OF RUNWAY

11-29 AND THE CONNECTING TAXIWAYS. THIS HAUL

2. THE PROPOSED HAUL ROUTE OFF OF OLD STATE ROAD WILL BE THE PRIMARY HAUL ROUTE FOR ALL

CONSTRUCTION ACTIVITIES ON THE FASTERLY PORTION OF RUNWAY 11-29 AND THE CONNECTING TAXIWAYS ON

3. THE CONTRACTOR(S) AND HIS PERSONNEL WILL USE

AREAS AS SHOWN ON THIS PHASING PLAN.

THE DESIGNATED EQUIPMENT PARKING AND STORAGE

1. THE CONTRACTOR WILL FURNISH, MAINTAIN AND REMOVE

BARRICADES AT A DISTANCE OF 93 FEET FROM THE

CENTERLINE OF THE TAXIWAY BEING LEFT OPEN TO

AIRCRAFT MOVEMENT. THE PROPOSED BARRICADES WILL

BE AS SHOWN ON SHEET NO. 4 AND WILL BE PLACED

ACROSS THE TAXIWAY BEING CLOSED, SPACING OF THE

BARRICADES WILL BE IN ACCORDANCE WITH THE NOTES

BARRICADES AT A DISTANCE OF 250 FEET FROM THE

CENTERLINE OF THE RUNWAY BEING LEFT OPEN TO

AIRCRAFT MOVEMENT. THE PROPOSED BARRICADES WILL BE AS SHOWN ON SHEET NO. 4 AND WILL BE PLACED

ACROSS THE TAXIWAY BEING CLOSED. SPACING OF THE

BARRICADES WILL BE IN ACCORDANCE WITH THE NOTES.

THE PROPOSED BARRICADES THROUGHOUT THIS

2. THE CONTRACTOR WILL PLACE THE PROPOSED

3. THE CONTRACTOR WILL PLACE THE PROPOSED

BE THE PRIMARY HAUL ROUTE FOR ALL CONSTRUCTION

ROUTE WILL BE USED FOR ALL INTERSECTION WORK AS

BE USING THE FOLLOWING ACCESSES:

THE EASTERLY PORTION.

PROPOSED BARRICADES

PROJECT

ON SHEET NO. 4.

ON SHEET NO. 4.

2. AT THE START OF PHASE 5. AREA 2 CONSTRUCTION THE CONTRACTOR WILL SHUT OF THE LIGHTING CIRCUIT TO RUNWAY 6-24. THIS CIRCUIT WILL REMAIN DE-ACTIVATED UNTIL THE PROJECT IS COMPLETED AND THE RUNWAY IS READY TO BE RE-OPENED

3. THE CONTRACTOR WILL NOTIFY THE AIRPORT MANAGER AS SOON AS POSSIBLE BUT AT LEAST TWO WEEKS PRIOR TO CLOSING RUNWAY 11-29 AND ONE WEEK PRIOR TO CLOSING RUNWAY 6-24 SO THE AIRPORT MANAGER CAN CONTACT THE FEDERAL AVIATION ADMINISTRATION (FAA) ABOUT SHUTTING DOWN THE ASSOCIATED NAVAIDS ON RUNWAY 11-29 OR RUNWAY 6-24. THESE NAVAIDS WILL REMAIN IN-ACTIVE UNTIL THE ASSOCIATED RUNWAY IS READY TO BE RE-OPENED.

4. RUNWAY 6-24 WILL REMAIN OPEN THROUGH OUT PHASE 5, AREA 1 ACTIVITIES AND THE LIGHTING CIRCUIT AND NAVAIDS FOR RUNWAY 6-24 WILL REMAIN OPERATIONAL AS WELL.

5. TAXIWAY CIRCUIT NO. 7 WILL BE SHUT OFF AT THE START OF PHASE 5, AREA 1 AND WILL REMAIN OFF UNTIL RUNWAY 11-29 IS READY TO BE RE-OPENED.

6. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO ONCE AGAIN "COVER" THE TAXIWAY LIGHTS THAT ARE LOCATED WITHIN TAXIWAY AREAS THAT HAVE BEEN CLOSED TO AIRCRAFT MOVEMENT. THERE ARE APPROXIMATELY 100 TAXIWAY LIGHTS THAT WILL REQUIRE "COVERING".

7. THE PROPOSED "COVER" WILL NOT ALLOW THE EMITTANCE OF ANY LIGHT FROM THE TAXIWAY LIGHT FIXTURE, THE CONTRACTOR WILL BE ALLOWED TO USE ANY MATERIAL AT HIS DISPOSAL TO "COVER" THE LIGHTS. DIFFERENT TYPES OF "COVERINGS" USED IN THE PAST HAVE BEEN BLACK PLASTIC BAGS, CANS, AND SECTIONS OF PLASTIC PIPE. ANY DAMAGE TO THE EXISTING LIGHT FROM THE "COVERING" WILL BE REPAIRED/REPLACED AT THE CONTRACTOR'S OWN EXPENSE.

8. THE "COVERING" OF THE TAXIWAY LIGHTS AS WELL AS THE DE-ACTIVATION/RE-ACTIVATION OF RUNWAY 6-24 AND RUNWAY 11-29 LIGHTING CIRCUITS AND THE TAXIWAY LIGHTING CIRCUITS WILL BE CONSIDERED AS AN INCIDENTAL ITEM TO THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE

EXISTING

LOCALIZER

PROPOSED

HAUL ROUTE

PROPOSED PHASE 5 CONSTRUCTION

THE PHASE 5, AREA 1 CONSTRUCTION SHALL CONSIST OF THE FOLLOWING ITEMS:

1. GROOVING RUNWAY 11-29 OUTSIDE THE AIRCRAFT OPERATION LINE FOR RUNWAY

THE PHASE 5, AREA 2 CONSTRUCTION SHALL CONSIST OF THE FOLLOWING ITEMS:

1. COMPLETE THE GROOVING OF RUNWAY 11-29.

2 GROOVE RUNWAY 6-24

STORAGE AREAS.

PROPOSED EQUIPMENT

PARKING AND STORAGE AREA

ILL. ROUTE 16

EXISTING STOL SOD STRIP 18-36

250' X 1.085

3. MARK RUNWAY 6-24, RUNWAY 11-29 AND ALL CONNECTING TAXIWAYS.

3.1. THE PROPOSED MARKING ON RUNWAY 6-24 AND RUNWAY 11-29 WHERE THE PAVEMENT WAS GROOVED WILL RECEIVE TWO APPLICATIONS OF PAINT. THE SECOND APPLICATION WILL BE APPLIED IN THE OPPOSITE DIRECTION AS THE FIRST APPLICATION. THE SECOND APPLICATION OF WHITE PAINT WILL BE APPLIED WITH GLASS BEADS

3.2. THE PROPOSED MARKING ON RUNWAY 6-24 AND RUNWAY 11-29 WHERE THE PAVEMENT WAS NOT GROOVED WILL RECEIVE ONLY ONE APPLICATION OF PAINT. THE APPLICATION OF WHITE PAINT WILL BE APPLIED WITH GLASS BFADS.

3.3. ALL PROPOSED TAXIWAY MARKINGS THAT WILL BE PLACED ON GROOVED PAVEMENT WILL RECEIVE TWO APPLICATIONS OF PAINT THE SECOND APPLICATION WILL BE APPLIED IN THE OPPOSITE DIRECTION AS THE FIRST APPLICATION. THE SECOND APPLICATION OF YELLOW PAINT WILL BE APPLIED

3.4. ALL PROPOSED TAXIWAY MARKINGS THAT ARE NOT LOCATED ON GROOVED PAVEMENT WILL BE RE-MARKED WITH ONE APPLICATION OF PAINT. THE APPLICATION OF YELLOW PAINT WILL BE APPLIED WITH GLASS BEADS.

4. COMPLETE THE SEEDING AND MULCHING OF THE SHOULDER ADJUSTMENT AREAS

5. REMOVAL OF THE HAUL ROUTES AND EQUIPMENT PARKING AND MATERIAL

7. THE PLACEMENT, MAINTENANCE AND REMOVAL OF THE RUNWAY AND TAXIWAY CLOSURE CROSSES WILL BE CONSIDERED AS AN INCIDENTAL ITEM TO THE

PROPOSED CLOSURE CROSSES

PROPOSED TAXIWAY

- PROPOSED HAUL ROUTE

PARKING AND STORAGE AREA

Ы

-PROPOSED EQUIPMENT

CLOSURE CROSS

PROPOSED AIRCRAFT -

П

OPFRATION LINE

1. THE CONTRACTOR WILL FURNISH, MAINTAIN AND REMOVE THE PROPOSED CLOSURE CROSSES THROUGHOUT THIS PROJECT.

2. AFTER THE BITUMINOUS PAVEMENT PLACED UNDER PHASE 4 HAS PROPERLY CURED (MINIMUM OF 30 DAYS) THE CONTRACTOR WILL CLOSE RUNWAY 11-29 AND IT WILL REMAIN CLOSED UNTIL THE END OF THIS PROJECT.

3. AFTER THE CONTRACTOR HAS COMPLETED ALL THE GROOVING OF RUNWAY 11-29 OUTSIDE OF THE AIRCRAFT OPERATION LINE, THEN HE WILL CLOSE RUNWAY 6-24 AND COMPLETE THE GROOVING ON RUNWAY 11-29 AND

4. THE PROPOSED RUNWAY CLOSURE CROSSES WILL BE AS SHOWN ON SHEET NO. 3. THE PROPOSED RUNWAY CLOSURE CROSSES WILL BE CONSTRUCTED IN ACCORDANCE WITH THE NOTES ON SHEET NOS. 3 AND 4.

5. THE PROPOSED TAXIWAY CLOSURE CROSS WILL BE AS SHOWN ON SHEET NO. 4. THE PROPOSED TAXIWAY CLOSURE CROSS WILL BE CONSTRUCTED IN ACCORDANCE WITH THE NOTES ON SHEET NO. 4

6. THE PROPOSED TAXIWAY CLOSURE CROSS WILL BE IN PLACE AT THE START OF PHASE 5 AND WILL REMAIN UNTIL RUNWAY 6-24 IS CLOSED, THEN THE TAXIWAY CLOSURE CROSS CAN BE REMOVED.

PROJECT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

NOTE TO THE CONTRACTOR

1. PHASE 5, AREA 2 WILL CLOSE THE AIRPORT TO ALL AIRCRAFT OPERATIONS. ALL WORK THROUGH OUT PHASE 5, AREA 2 WILL BE EXPEDITED TO LIMIT THE AMOUNT OF TIME THE AIRPORT IS CLOSED.

2. THE CONTRACTOR WILL HAVE 6 CALENDAR DAYS TO COMPLETE PHASE 5. AREA 2 AND RE-OPEN THE AIRPORT.

CROSSING RUNWAY 6-24 WHILE ACTIVE

THE CONTRACTOR, HIS PERSONNEL OR HIS EQUIPMENT WILL NOT BE ALLOWED TO CROSS RUNWAY 6-24 WHILE IT IS ACTIVE EXCEPT UNDER THE FOLLOWING CONDITIONS:

1. THE CONTRACTOR HAS COMPLETED A PHASE OF CONSTRUCTION AND NEEDS TO TAKE HIS EQUIPMENT ACROSS RUNWAY 6-24 TO START THE

RESIDENT ENGINEER/RESIDENT PROJECT REPRESENTATIVE THAT HE DESIRES TO MOVE TO THE NEXT PHASE OF WORK AND WILL HAVE TO CROSS THE ACTIVE RUNWAY 6-24.

3. THE DATE AND TIME OF THE MOVE ACROSS RUNWAY 6-24 HAS BEEN APPROVED BY THE AIRPORT MANAGER.

MOVEMENT OF HIS EQUIPMENT AND PERSONNEL ACROSS RUNWAY 6-24. THE FLAGMAN WILL BE TRAINED IN VEHICULAR OPERATIONAL PROCEDURES ON THE AIRPORT

6. JUST BEFORE THE CONTRACTOR BEGINS THE MOVE ACROSS RUNWAY 6-24 HE REQUESTS PERMISSION FROM THE AIRPORT MANAGER TO CROSS RUNWAY 6-24.

9. AFTER APPROVAL OF THE CROSSING AREA AND ALL THE EQUIPMENT ARE AT LEAST 250' FROM THE CENTERLINE OF RUNWAY 6-24, THEN THE CONTRACTOR WILL NOTIFY THE AIRPORT MANAGER ALL HIS EQUIPMENT HAVE CLEARED RUNWAY 6-24 AND RUNWAY 6-24 IS READY FOR

10. DAILY CROSSING OF RUNWAY 6-24 WHILE IT IS ACTIVE WILL NOT BE

PROPOSED HALL ROLLTE AND

FOUIPMENT PARKING AREA

OOO PROPOSED BARRICADES - PHASE 5, AREA 2

PRIMARY HAUL ROUTE - PHASE 5

CONSTRUCTION **SAFETY & PHASING** PLAN - PHASE 5

NO. DATE

SHEET TITLE

ISSUE: MAY 2, 2014

PROJECT NO: 14A0005D

CAD FILE: G-004STG.DWG

LAYOUT BY: CAH 02/14/14

DRAWN BY: BAK 02/14/14

REVIEWED BY: CAH 05/02/14

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Hanson Professional Services Inc.

Professional Service Corporation

COLES COUNTY AIRPORT

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REHABILITATE

RUNWAY 11/29

IDA No: MTO-4320

Contract No. CO061

AS PER IDA 1 5/21/14 CAH CAH JSL

DESCRIPTION

LAY DWN REV

2. THE CONTRACTOR HAS NOTIFIED THE AIRPORT MANAGER AND THE

4. THE CONTRACTOR WILL PROVIDE A FLAGMAN TO CONTROL THE

5. ALL THE EQUIPMENT BEING MOVED ACROSS RUNWAY 6-24 IS MOBILIZED AT A DISTANCE OF 250' FROM THE CENTERLINE OF RUNWAY 6-24.

7. WITH PERMISSION FROM THE AIRPORT MANAGER THE CONTRACTOR WILL HAVE A 20 MINUTE WINDOW TO MOVE ALL OF HIS EQUIPMENT ACROSS RUNWAY 6-24 AND TO A DISTANCE OF AT LEAST 250' FROM THE CENTERLINE OF RUNWAY 6-24.

8. THE CONTRACTOR, RESIDENT ENGINEER/RESIDENT PROJECT REPRESENTATIVE AND A REPRESENTATIVE OF THE AIRPORT WILL INSPECT THE AREA WHERE THE EQUIPMENT CROSSED TO INSURE NO "FOREIGN MATERIAL" WAS LEFT ON THE PAVEMENT. ANY UN-DESIREABLE MATERIAL WILL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR. PRIOR TO THE AREA BEING ACCEPTED FOR OPENING TO AIRCRAFT ACTIVITY.

AIRCRAFT OPERATIONS.

ALLOWED.

LEGEND

EXISTING IMPROVEMENTS

EXISTING BUILDINGS

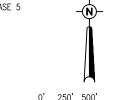
ACTIVE AIRFIELD PAVEMENTS- PHASE 5, AREA 1

PROPOSED PHASE 5, AREA 1 CONSTRUCTION AREA

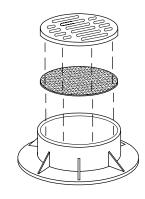
PROPOSED PHASE 5, AREA 2 CONSTRUCTION AREA

PROPOSED BARRICADES - PHASE 5, AREA 1

CLOSURE CROSS



HALF SIZE SCALF: FULL SIZE SCALE:



INLET PROTECTION DETAIL

NOT TO SCALE

EROSION CONTROL NOTES

- EROSION CONTROL MEASURES ARE GOVERNED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY'S STANDARDS AND SPECIFICATIONS FOR SOIL EROSIONS AND SPECIFICATION FOR SOIL EROSIONS AND SEDIMENT CONTROL.
- FILTER WRAP TO BE PLACED IN ALL PROPOSED AND EXISTING INLETS LOCATED IN PAVED AREAS.
- 3. FABRIC SHALL BE IN CONFORMANCE WITH MATERIALS SPECIFIED FOR EROSION CONTROL FENCING.
- 4. FABRIC SHALL OVERLAY FRAME BY 2" MIN.
- 5. THE CONTRACTOR SHALL CLEAR DEBRIS AND SILT AS REQUIRED FROM FABRIC TO MAINTAIN DRAINAGE THROUGH THE STRUCTURE.
- FABRIC SHALL REMAIN IN PLACE UNTIL TURFED AREAS HAVE DEVELOPED A MIN. OF 80% COVERAGE.
- COST OF FILTER WRAP, INSTALLATION, MAINTENANCE AND REMOVAL SHALL BE PAID FOR UNDER ITEM NO. AR156520.

LEGEND

EXISTING PAVEMENT

——ss—— EXISTING STORM SEWER

EXISTING INLET (TO BE PROTECTED)

- · - PROPOSED GRADING LIMITS



HALF SIZE SCALE: 1"= 600' FULL SIZE SCALE: 1"= 300' HANSON Englneering | Planning | Ailled Service

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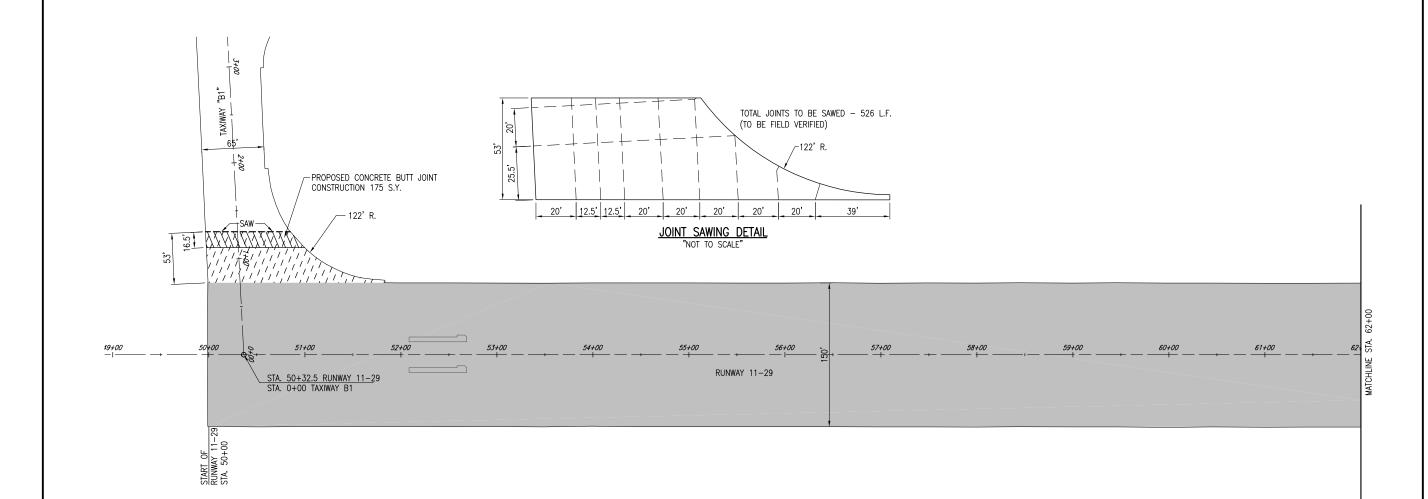
REHABILITATE RUNWAY 11/29

IDA No: MTO-4320

Contract No. CO061

NO.	DATE	DES	CRIPT	ION
NO.	DATE	LAY	DWN	REV
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REVIEW	/ED BY:	CAH	05/02/	14

PROPOSED STORMWATER POLLUTION PREVENTION PLAN



CONCRETE BUTT JOINT CONSTRUCTION NOTES

- EXISTING TAXIWAY "B1" IS CONSTRUCTED OF 14" P.C. CONCRETE PAVEMENT ON 7" BITUMINOUS BASE COURSE.
- 2. THE PROPOSED BUTT JOINTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ITEM AR501551 "PCC BUTT JOINT" AS STATED IN THE SPECIAL PROVISIONS.
- THIS ITEM SHALL CONSIST OF REMOVING THE EXISTING CONCRETE PAVEMENT SURFACE BY MILLING IN ORDER TO CONSTRUCT A BUTT JOINT FOR THE TRANSITION OF THE PROPOSED BITUMINOUS OVERLAY AT THE LOCATION SHOWN ON THIS SHEET.
- 4. THE PAVEMENT SURFACE WILL BE MILLED TO A DEPTH OF 0.17 FEET AT THE BUTT END AND WILL TAPER TO 0 INCHES AT THE OPPOSITE END. THE PLANER MUST BE CAPABLE OF MILLING THE SURFACE TO THE DESIRED ELEVATIONS AND GRADES.
- ANY ADJACENT PAVEMENT DAMAGED BY THE MILLING OPERATIONS WILL BE REPAIRED AT THE CONTRACTOR'S OWN EXPENSE.
- 6. ALL CONCRETE PAVEMENT MILLING AREAS WILL BE LOCATED AND MARKED BY THE RESIDENT ENGINEER/RESIDENT PROJECT REPRESENTATIVE.
- 7. THE CONCRETE PAVEMENT MILLING WILL BE PAID FOR UNDER ITEM:

 ARS01551 "PCC BUTT JOINT" _ _ PER S.Y

BITUMINOUS SAWING AND SEALING NOTES

- AFTER THE CONCRETE PAVEMENT HAS BEEN OVERLAID, THE CONTRACTOR WILL DUPLICATED
 THE JOINTING PATTERN BY SAWING THE BITUMINOUS PAVEMENT IN ACCORDANCE WITH THE
 DETAIL ON THIS SHEET AND ITEM AR401660 "SAW & SEAL BIT. JOINTS".
- THERE MAY BE SOME VARIATION FROM THE JOINTING PATTERN SHOWN. THE CONTRACTOR
 WILL BE REQUIRED TO FIELD VERIFY THE JOINT LAYOUT. THE QUANTITY OF PROPOSED
 SAWING AND SEALING HAS BEEN INCREASED BY 5% TO COVER ANY VARIATION.
- 3. THE JOINT SEALANT SHALL MEET THE REQUIREMENTS OF ASTM D 5329 AND ASTM D 6690.
- 4. THE BITUMINOUS SAWING AND SEALING WILL BE PAID FOR UNDER ITEM AR401660 "SAW & SEAL BIT. JOINTS" $_$ PER L.F.
- 5. QUANTITY OF SAWING ON THIS SHEET 526 + 26 = 552 L.F.

PAVEMENT SAWING NOTES

- 1. WHERE THE PROPOSED BITUMINOUS SURFACE COURSE ABUTS THE EXISTING PAVEMENT, THE EXISTING PAVEMENT WILL BE SAWED TO FURNISH A STRAIGHT EDGE TO ABUT AGAINST.
- 2. THE RESIDENT ENGINEER WILL MARK THE PROPOSED SAW LINE IN THE FIELD.
- ANY PAVEMENT CUT FROM THE SAWING OPERATIONS WILL BE COLLECTED AND DISPOSED OF OFF THE AIRPORT SITE.
- 4. THE SAWING AND DISPOSAL OF ANY WASTE MATERIAL WILL BE CONSIDERED INCIDENTAL TO THE BUTT JOINT CONSTRUCTION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

LEGEND

EXISTING PAVEMENT

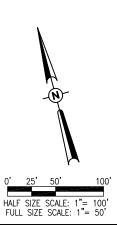
EXISTING MARKING

PROPOSED CONCRETE BUTT JOINT CONSTRUCTION

PROPOSED BITUMINOUS OVERLAY ON EXISTING CONCRETE PAVEMENT

PROPOSED BITUMINOUS OVERLAY ON RUBBLIZED CONCRETE PAVEMENT

PROPOSED SAWING (AT MATCH-IN TO EXISTING PAVEMENT)





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REHABILITATE RUNWAY 11/29

IDA No: MTO-4320

Contract No. CO061

NO.	DATE	DESCRIPTION		
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DRAWN	BY: BAI	< 02/1	4/14	

REVIEWED BY: CAH 05/02/14

SHEET TITLE

PROPOSED CONSTRUCTION PLAN STA. 50+00 TO 62+00

6. ALL BITUMINOUS PAVEMENT MILLING AREAS WILL BE LOCATED AND MARKED BY THE RESIDENT

1. WHERE THE PROPOSED BITUMINOUS SURFACE COURSE ABUTS THE EXISTING PAVEMENT, THE

EXISTING PAVEMENT WILL BE SAWED TO FURNISH A STRAIGHT EDGE TO ABUT AGAINST.

4. THE SAWING AND DISPOSAL OF ANY WASTE MATERIAL WILL BE CONSIDERED INCIDENTAL TO

THE BUTT JOINT CONSTRUCTION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

ANY PAVEMENT CUT FROM THE SAWING OPERATIONS WILL BE COLLECTED AND DISPOSED OF

2. THE RESIDENT ENGINEER WILL MARK THE PROPOSED SAW LINE IN THE FIELD.

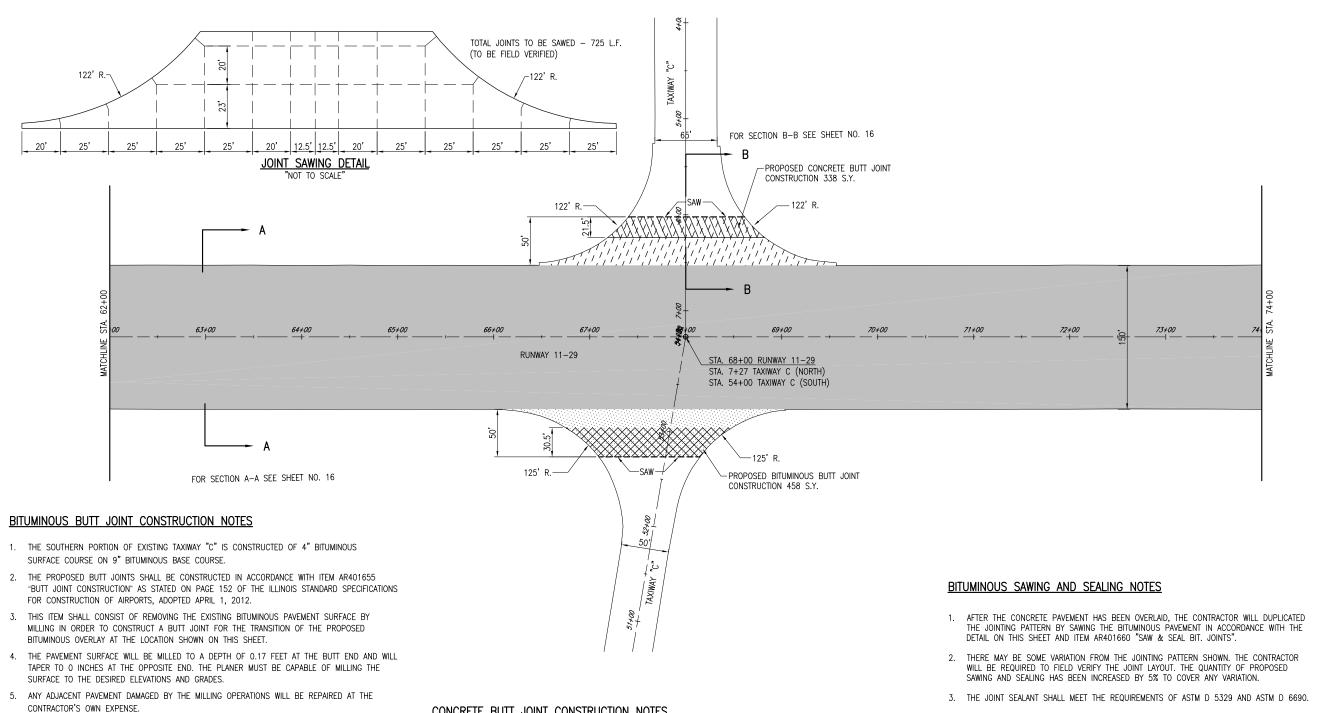
ENGINEER/RESIDENT PROJECT REPRESENTATIVE.

PAVEMENT SAWING NOTES

OFF THE AIRPORT SITE.

7. THE BITUMINOUS PAVEMENT MILLING WILL BE PAID FOR UNDER ITEM:

AR401655 "BUTT JOINT CONSTRUCTION" _ _ PER S.Y



CONCRETE BUTT JOINT CONSTRUCTION NOTES

- 2. THE PROPOSED BUTT JOINTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ITEM AR501551 "PCC
- 3. THIS ITEM SHALL CONSIST OF REMOVING THE EXISTING CONCRETE PAVEMENT SURFACE BY MILLING IN ORDER TO CONSTRUCT A BUTT JOINT FOR THE TRANSITION OF THE PROPOSED BITUMINOUS
- 4. THE PAVEMENT SURFACE WILL BE MILLED TO A DEPTH OF 0.17 FEET AT THE BUTT END AND WILL TAPER TO 0 INCHES AT THE OPPOSITE END. THE PLANER MUST BE CAPABLE OF MILLING THE
- 5. ANY ADJACENT PAVEMENT DAMAGED BY THE MILLING OPERATIONS WILL BE REPAIRED AT THE
- ENGINEER/RESIDENT PROJECT REPRESENTATIVE.
- 7. THE CONCRETE PAVEMENT MILLING WILL BE PAID FOR UNDER ITEM: AR501551 "PCC BUTT JOINT" _ _ PER S.Y.

SEAL BIT. JOINTS" _ _ PER L.F. 5. QUANTITY OF SAWING ON THIS SHEET 725 + 36 = 761 L.F.

LEGEND

EXISTING MARKING

EXISTING PAVEMENT

PROPOSED CONCRETE BUTT JOINT CONSTRUCTION

PROPOSED BITUMINOUS BUTT JOINT CONSTRUCTION

---- PROPOSED SAWING (AT MATCH-IN TO EXISTING PAVEMENT)

PROPOSED BITUMINOUS OVERLAY ON EXISTING CONCRETE PAVEMENT

PROPOSED BITUMINOUS OVERLAY ON RUBBLIZED CONCRETE PAVEMENT

PROPOSED BITUMINOUS OVERLAY ON EXISTING BITUMINOUS PAVEMENT

4. THE BITUMINOUS SAWING AND SEALING WILL BE PAID FOR UNDER ITEM AR401660 "SAW &

- 1. THE NORTHERN SECTION OF THE EXISTING TAXIWAY "C" IS CONSTRUCTED OF 14" P.C. CONCRETE PAVEMENT ON 7" BITUMINOUS BASE COURSE.
- BUTT JOINT" AS STATED IN THE SPECIAL PROVISIONS.
- OVERLAY AT THE LOCATION SHOWN ON THIS SHEET.
- SURFACE TO THE DESIRED ELEVATIONS AND GRADES.
- CONTRACTOR'S OWN EXPENSE.
- 6. ALL CONCRETE PAVEMENT MILLING AREAS WILL BE LOCATED AND MARKED BY THE RESIDENT



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COLES COUNTY AIRPORT ≟_∕Ã**⋃ТҢ**О∦Я Ү

REHABILITATE **RUNWAY 11/29**

IDA No: MTO-4320

Contract No. CO061

NO. DATE DESCRIT ISSUE: MAY 2, 2014 PROJECT NO: 14A0005D CAD FILE: C-121CON.DWG LAYOUT BY: CAH 02/14/14 DRAWN BY: BAK 02/14/14 REVIEWED BY: CAH 05/02/14

PROPOSED CONSTRUCTION PLAN STA. 62+00 TO 74+00

SHEET TITLE

HALF SIZE SCALE: 1"= 100

FULL SIZE SCALE: 1"= 50'



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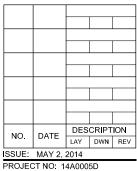
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REHABILITATE **RUNWAY 11/29**

IDA No: MTO-4320

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CAD FILE: C-121CON.DWG LAYOUT BY: CAH 02/14/14 DRAWN BY: BAK 02/14/14

REVIEWED BY: CAH 05/02/14

SHEET TITLE

---- PROPOSED SAWING (AT MATCH-IN TO EXISTING PAVEMENT)

PROPOSED CONSTRUCTION PLAN

STA. 74+00 TO 86+00

13

- EXISTING TAXIWAY "B2" IS CONSTRUCTED OF 14" P.C. CONCRETE PAVEMENT ON 7" BITUMINOUS BASE COURSE.
- 2. THE PROPOSED BUTT JOINTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ITEM AR501551 "PCC BUTT JOINT" AS STATED IN THE SPECIAL PROVISIONS.
- 3. THIS ITEM SHALL CONSIST OF REMOVING THE EXISTING CONCRETE PAVEMENT SURFACE BY MILLING IN ORDER TO CONSTRUCT A BUTT JOINT FOR THE TRANSITION OF THE PROPOSED BITUMINOUS OVERLAY AT THE LOCATION SHOWN ON THIS SHEET.
- 4. THE PAVEMENT SURFACE WILL BE MILLED TO A DEPTH OF 0.17 FEET AT THE BUTT END AND WILL TAPER TO 0 INCHES AT THE OPPOSITE END. THE PLANER MUST BE CAPABLE OF MILLING THE SURFACE TO THE DESIRED ELEVATIONS AND GRADES.
- ANY ADJACENT PAVEMENT DAMAGED BY THE MILLING OPERATIONS WILL BE REPAIRED AT THE CONTRACTOR'S OWN EXPENSE.
- 6. ALL CONCRETE PAVEMENT MILLING AREAS WILL BE LOCATED AND MARKED BY THE RESIDENT ENGINEER/RESIDENT PROJECT REPRESENTATIVE.
- 7. THE CONCRETE PAVEMENT MILLING WILL BE PAID FOR UNDER ITEM: AR501551 "PCC BUTT JOINT" _ _ PER S.Y.

PAVEMENT SAWING NOTES

- WHERE THE PROPOSED BITUMINOUS SURFACE COURSE ABUTS THE EXISTING PAVEMENT, THE EXISTING PAVEMENT WILL BE SAWED TO FURNISH A STRAIGHT EDGE TO ABUT AGAINST.
- 2. THE RESIDENT ENGINEER WILL MARK THE PROPOSED SAW LINE IN THE FIELD.
- ANY PAVEMENT CUT FROM THE SAWING OPERATIONS WILL BE COLLECTED AND DISPOSED OF OFF THE AIRPORT SITE.
- 4. THE SAWING AND DISPOSAL OF ANY WASTE MATERIAL WILL BE CONSIDERED INCIDENTAL TO THE BUTT JOINT CONSTRUCTION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

BITUMINOUS SAWING AND SEALING NOTES

- AFTER THE CONCRETE PAVEMENT HAS BEEN OVERLAID, THE CONTRACTOR WILL DUPLICATED THE JOINTING PATTERN BY SAWING THE BITUMINOUS PAVEMENT IN ACCORDANCE WITH THE DETAIL ON THIS SHEET AND ITEM AR401660 "SAW & SEAL BIT. JOINTS".
- THERE MAY BE SOME VARIATION FROM THE JOINTING PATTERN SHOWN. THE CONTRACTOR WILL BE REQUIRED TO FIELD VERIFY THE JOINT LAYOUT. THE QUANTITY OF PROPOSED SAWING AND SEALING HAS BEEN INCREASED BY 5% TO COVER ANY VARIATION.
- 3. THE JOINT SEALANT SHALL MEET THE REQUIREMENTS OF ASTM D 5329 AND ASTM D 6690.
- 4. THE BITUMINOUS SAWING AND SEALING WILL BE PAID FOR UNDER ITEM AR401660 "SAW & SEAL BIT. JOINTS" $_$ PER L.F.
- 5. QUANTITY OF SAWING ON THIS SHEET 648 + 32 = 680 L.F.

LEGEND

EXISTING PAVEMENT

EXISTING MARKING

PROPOSED CONCRETE BUTT JOINT CONSTRUCTION

PROPOSED BITUMINOUS OVERLAY ON EXISTING CONCRETE PAVEMENT

PROPOSED BITUMINOUS OVERLAY ON RUBBLIZED CONCRETE PAVEMENT

---- PROPOSED SAWING (AT MATCH-IN TO EXISTING PAVEMENT)

0' 25' 50' 100'
HALF SIZE SCALE: 1"= 100'
FULL SIZE SCALE: 1"= 50'

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REHABILITATE RUNWAY 11/29

IDA No: MTO-4320

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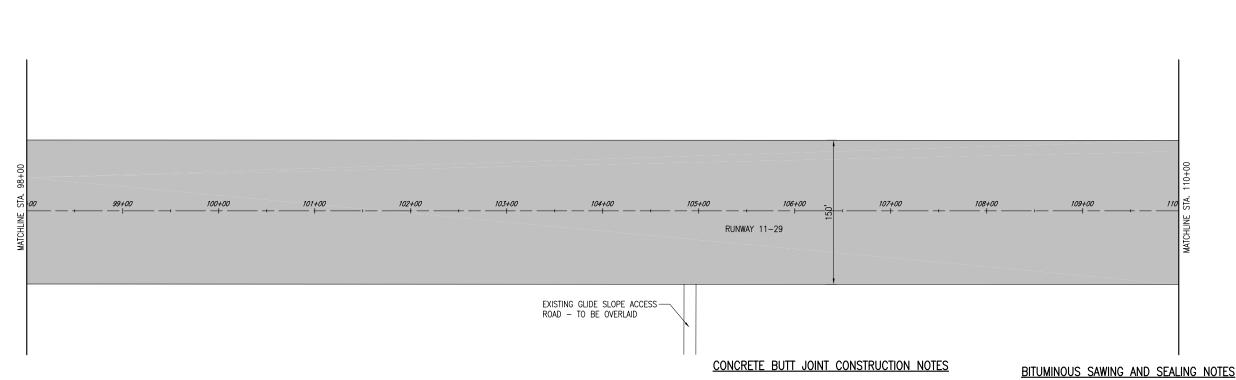
ISSUE: MAY 2, 2014

PROJECT NO: 14A0005D
CAD FILE: C-121CON.DWG
LAYOUT BY: CAH 02/14/14

DRAWN BY: BAK 02/14/14

PROPOSED CONSTRUCTION PLAN STA. 86+00 TO 98+00

REVIEWED BY: CAH 05/02/14



TOTAL JOINTS TO BE SAWED - 560 L.F. (TO BE FIELD VERIFIED) 122' R 26.84 20' 20' 20' 12.5' 12.5' JOINT SAWING DETAIL "NOT TO SCALE" PROPOSED CONCRETE BUTT JOINT-CONSTRUCTION 256 S.Y. -EXISTING MALSR ACCESS ROAD -TO BE REMOVED 111+00 114+00 STA. 114+68.5 RWY. 11-29 STA. 0+00 TAXIWAY B3

- 1. EXISTING TAXIWAY "B3" IS CONSTRUCTED OF 14" P.C. CONCRETE PAVEMENT ON 7" BITUMINOUS BASE COURSE.
- 2. THE PROPOSED BUTT JOINTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ITEM AR501551 "PCC BUTT JOINT" AS STATED IN THE SPECIAL
- 3. THIS ITEM SHALL CONSIST OF REMOVING THE EXISTING CONCRETE PAVEMENT SURFACE BY MILLING IN ORDER TO CONSTRUCT A BUTT JOINT FOR THE TRANSITION OF THE PROPOSED BITUMINOUS OVERLAY AT THE LOCATION SHOWN ON THIS SHEET.
- 4. THE PAVEMENT SURFACE WILL BE MILLED TO A DEPTH OF 0.17 FEET AT THE BUTT END AND WILL TAPER TO 0 INCHES AT THE OPPOSITE END. THE PLANER MUST BE CAPABLE OF MILLING THE SURFACE TO THE DESIRED ELEVATIONS AND GRADES.
- 5. ANY ADJACENT PAVEMENT DAMAGED BY THE MILLING OPERATIONS WILL BE REPAIRED AT THE CONTRACTOR'S OWN EXPENSE.
- 6. ALL CONCRETE PAVEMENT MILLING AREAS WILL BE LOCATED AND MARKED BY THE RESIDENT ENGINEER/RESIDENT PROJECT REPRESENTATIVE.
- 7. THE CONCRETE PAVEMENT MILLING WILL BE PAID FOR UNDER ITEM: AR501551 "PCC BUTT JOINT" _ _ PER S.Y.

PAVEMENT SAWING NOTES

- WHERE THE PROPOSED BITUMINOUS SURFACE COURSE ABUTS THE EXISTING PAVEMENT, THE EXISTING PAVEMENT WILL BE SAWED TO FURNISH A STRAIGHT EDGE TO ABUT AGAINST.
- 2. THE RESIDENT ENGINEER WILL MARK THE PROPOSED SAW LINE IN THE
- 3. ANY PAVEMENT CUT FROM THE SAWING OPERATIONS WILL BE COLLECTED AND DISPOSED OF OFF THE AIRPORT SITE.
- 4. THE SAWING AND DISPOSAL OF ANY WASTE MATERIAL WILL BE CONSIDERED INCIDENTAL TO THE BUTT JOINT CONSTRUCTION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

LEGEND

EXISTING PAVEMENT

EXISTING MARKING

PROPOSED CONCRETE BUTT JOINT CONSTRUCTION PROPOSED BITUMINOUS OVERLAY ON EXISTING CONCRETE PAVEMENT

PROPOSED BITUMINOUS OVERLAY ON RUBBLIZED CONCRETE PAVEMENT

---- PROPOSED SAWING (AT MATCH-IN TO EXISTING PAVEMENT)

- 1. AFTER THE CONCRETE PAVEMENT HAS BEEN OVERLAID, THE CONTRACTOR WILL DUPLICATED THE JOINTING PATTERN BY SAWING THE BITUMINOUS PAVEMENT IN ACCORDANCE WITH THE DETAIL ON THIS SHEET AND ITEM AR401660 "SAW & SEAL BIT.
- THERE MAY BE SOME VARIATION FROM THE JOINTING PATTERN SHOWN. THE CONTRACTOR WILL BE REQUIRED TO FIELD VERIFY THE JOINT LAYOUT. THE QUANTITY OF PROPOSED SAWING AND SEALING HAS BEEN INCREASED BY 5% TO COVER ANY VARIATION.
- THE JOINT SEALANT SHALL MEET THE REQUIREMENTS OF ASTM D 5329 AND ASTM D 6690.
- 4. THE BITUMINOUS SAWING AND SEALING WILL BE PAID FOR UNDER ITEM AR401660 "SAW & SEAL BIT. JOINTS" $_$ $_$ PER L.F.
- 5. QUANTITY OF SAWING ON THIS SHEET 560 + 28 = 588 L.F.



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COLES COUNTY AIRPORT<u>`</u>AUTHO<u>®</u>∂TY

REHABILITATE **RUNWAY 11/29**

IDA No: MTO-4320

Contract No. CO061

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PROPOSED CONSTRUCTION PLAN STA. 98+00 TO 115+01

1½" DROP-OFF AT PAVEMENT EDGE (TYP.) 1 0% AND VARIES .0% AND VARIES -(2)(4) (5)

> TYPICAL SECTION "D-D" - RUNWAY 6-24 SOUTH OF RUNWAY 11-29 NOT TO SCALE

AR401614 BITUMINOUS SURFACE COURSE-METHOD II, SUPERPAVE

- 1. THE BITUMINOUS SURFACE COURSE (401) SHALL BE PLACED IN ACCORDANCE WITH ITEM AR401003 "BITUMINOUS SURFACE COURSE-METHOD II, SUPERPAVE" AS STATED ON PAGE 105 OF THE ILLINOIS STANDARD SPECIFICATIONS FOR CONSTRUCTION OF AIRPORTS, ADOPTED APRIL 1.
- 2. THIS ITEM OF WORK SHALL CONSIST OF CONSTRUCTING: 1 LIFT OF BITUMINOUS SURFACE COURSE-METHOD II, SUPERPAVE (2 INCH DEPTH) ON THE PROPOSED BITUMINOUS BASE COURSE
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE QUALITY CONTROL IN THE PRODUCTION AND PAVEMENT EDGE (TYP.) CONSTRUCTION OF THE BITUMINOUS SURFACE COURSE METHOD II, SUPERPAVE
 - PRIOR TO STARTING THE BITUMINOUS SURFACE COURSE-METHOD II, SUPERPAVE OPERATION, THE CONTRACTOR SHALL SUBMIT TO THE RESIDENT ENGINEER A DETAILED OUTLINE SHOWING AREAS AND ORDER OF PAVING WIDTHS OF PAVING LANES, AND REQUIRED OFFSETS FOR ELECTRONIC
 - THE PROPOSED BITUMINOUS SURFACE COURSE METHOD II, SUPERPAVE WILL BE DESIGNED TO A SUPERPAVE DESIGN OF MORE THAN 60,000 POUNDS.
 - 6. 401-4.9 ADD THE FOLLOWING TO THIS SECTION:

1½" DROP-OFF AT

2 EXISTING

-(6)

WHEN HAND SPREADING IS PERMITTED, THE MIXTURE WILL BE DISTRIBUTED AND SPREAD USING HAND TOOLS. WHEN THE WORK IS COMPLETED, THE LAYER WILL HAVE THE REQUIRED THICKNESS AND CONFORM TO THE GRADE AND SURFACE CONTOUR SHOWN ON THE PLANS.

7. 401-4.12 ADD THE FOLLOWING TO THIS PARAGRAPH:

ALL PAVEMENT EDGES (LONGITUDINAL, RADIUS, AND PAVEMENT ENDS) MUST BE LEFT IN PROPER ALIGNMENT AS SHOWN ON THE PLANS. THIS MAY BE ACCOMPLISHED BY THE TRIMMING METHOD OUTLINED ABOVE OR AT THE CONTRACTOR'S OPTION BY SAWING AFTER THE PAVING HAS BEEN COMPLETED. NO ADDITIONAL COMPENSATION WILL BE MADE IF THE SAWING METHOD IS USED.

8. 401-6.1 ADD THE FOLLOWING TO THIS SECTION AR401614 BIT. SURF. CSE-METHOD II, SUPERPAVE ____ PER TON

AR403614-BITUMINOUS BASE COURSE-METHOD II, SUPERPAVE NOTES

- 1. THE BITUMINOUS BASE COURSE (403) SHALL BE PLACED IN ACCORDANCE WITH ITEM AR403613 "BITUMINOUS BASE COURSE-METHOD II, SUPERPAVE" AS STATED ON PAGE 187 OF THE ILLINOIS STANDARD SPECIFICATIONS FOR CONSTRUCTION OF AIRPORTS, ADOPTED APRIL 1, 2012.
- 2. THIS ITEM OF WORK SHALL CONSIST OF CONSTRUCTING ONE OR MULTIPLE LIFTS OF BITUMINOUS BASE COURSE ON THE PROPOSED RUBBLIZED CONCRETE PAVEMENT
- 3. THE THICKNESS OF THE PROPOSED BITUMINOUS BASE COURSE VARIES FROM 2 TO 6 INCHES. AREAS EXCEEDING 3 INCHES IN THICKNESS MAY BE PAVED IN ONE LIFT, PROVIDED THE CONTRACTOR DEMONSTRATES THE ABILITY TO CONSISTENTLY MEET TO THE COMPACTION AND GRADE REQUIREMENTS. IF MULTIPLE BASE COURSE LIFTS ARE PLACED IN AREAS OVER 3 INCHES THICK, THE "LEVELING" LIFT WILL BE ACCEPTANCE TESTED PER METHOD I REQUIREMENTS. SEE SHEET NO. 33 FOR A PLAN VIEW DETAIL OF THE BITUMINOUS BASE COURSE THICKNESSES.
- 4. THE PROPOSED BITUMINOUS BASE COURSE WILL BE DESIGNED TO A SUPERPAVE DESIGN FOR AIRCRAFT WEIGHING MORE THAN 60,000 POUNDS.
- 5. 403-6.1 PAYMENT WILL BE MADE UNDER:

AR403614 BIT. BASE CSE.-METHOD II, SUPERPAVE -- PER TON.

AR603510-BITUMINOUS TACK COAT NOTES:

- 1. THE BITUMINOUS TACK COAT (603) SHALL BE PLACED IN ACCORDANCE WITH ITEM AR603 "BITUMINOUS TACK COAT" AS STATED ON PAGE 250 OF THE ILLINOIS STANDARD SPECIFICATIONS FOR CONSTRUCTION OF AIRPORTS, ADOPTED APRIL 1, 2012.
- 2. QUANTITY OF BITUMINOUS TACK COAT WAS CALCULATED AT 0.15 GALLONS PER SQUARE YARD FOR PLACEMENT ON BITUMINOUS PAVEMENT AND 0.20 GAL/S.Y. FOR PLACEMENT ON NON-RUBBLIZED CONCRETE. THE ACTUAL APPLICATION RATE WILL BE DETERMINED AT THE TIME OF CONSTRUCTION.
- 3. THE PROPOSED BITUMINOUS TACK COAT WILL BE PAID FOR UNDER ITEM: AR603510 BITUMINOUS TACK COAT ____ PER GAL.

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REHABILITATE **RUNWAY 11/29**

IDA No: MTO-4320

Contract No. CO061

NO. DATE DESCRIT...

LAY DWN REV ISSUE: MAY 2, 2014 PROJECT NO: 14A0005D CAD FILE: C-301TYP.DWG LAYOUT BY: CAH 02/14/14 DRAWN BY: BAK 02/14/14

PROPOSED TYPICAL **SECTIONS AND** NOTES

REVIEWED BY: CAH 05/02/14

SHEET TITLE

(2)

(3)

LEGEND FOR TYPICAL SECTION "D-D"

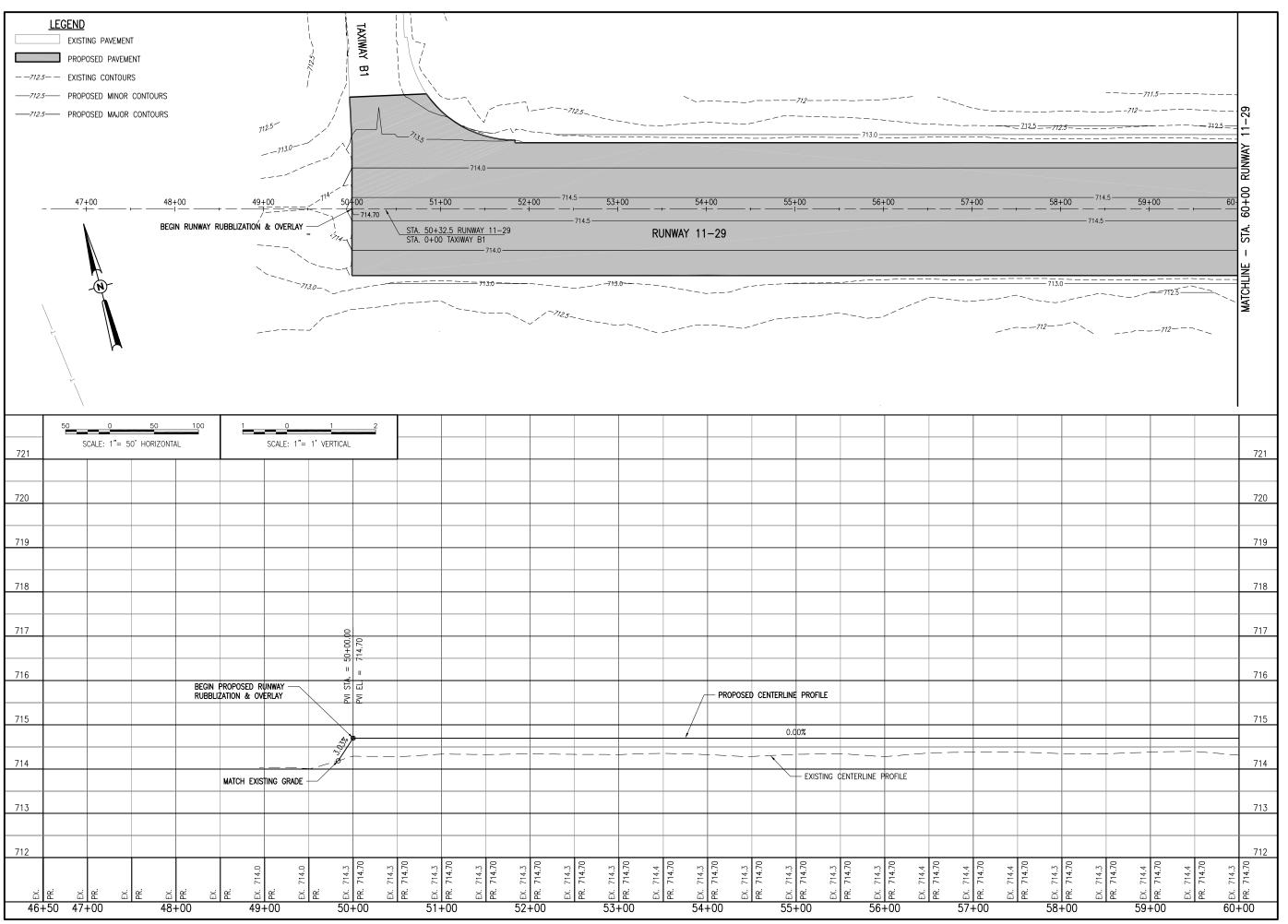
EXISTING BITUMINOUS PAVEMENT

PROPOSED SHOULDER ADJUSTMENT

(1) PROPOSED BITUMINOUS SURFACE COURSE (2" DEPTH)

PROPOSED BITUMINOUS TACK COAT (0.05-0.15 GAL./S.Y.)

PROPOSED BITUMINOUS BASE COURSE (VARIABLE DEPTH)





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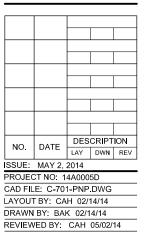
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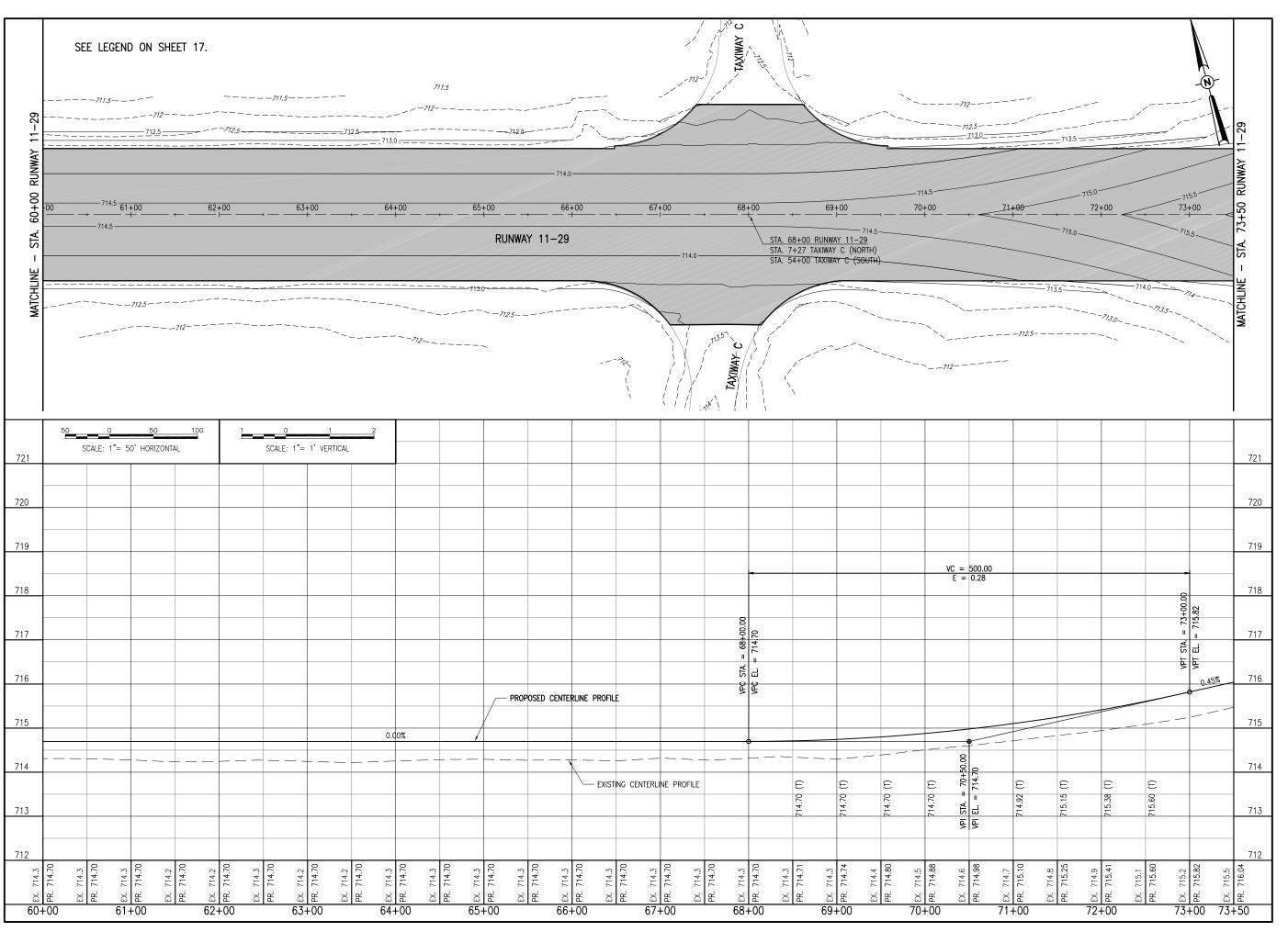
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PLAN AND PROFILE RUNWAY 11-29 STA. 49+50 TO 60+00





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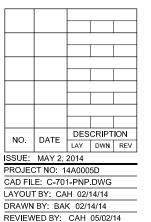
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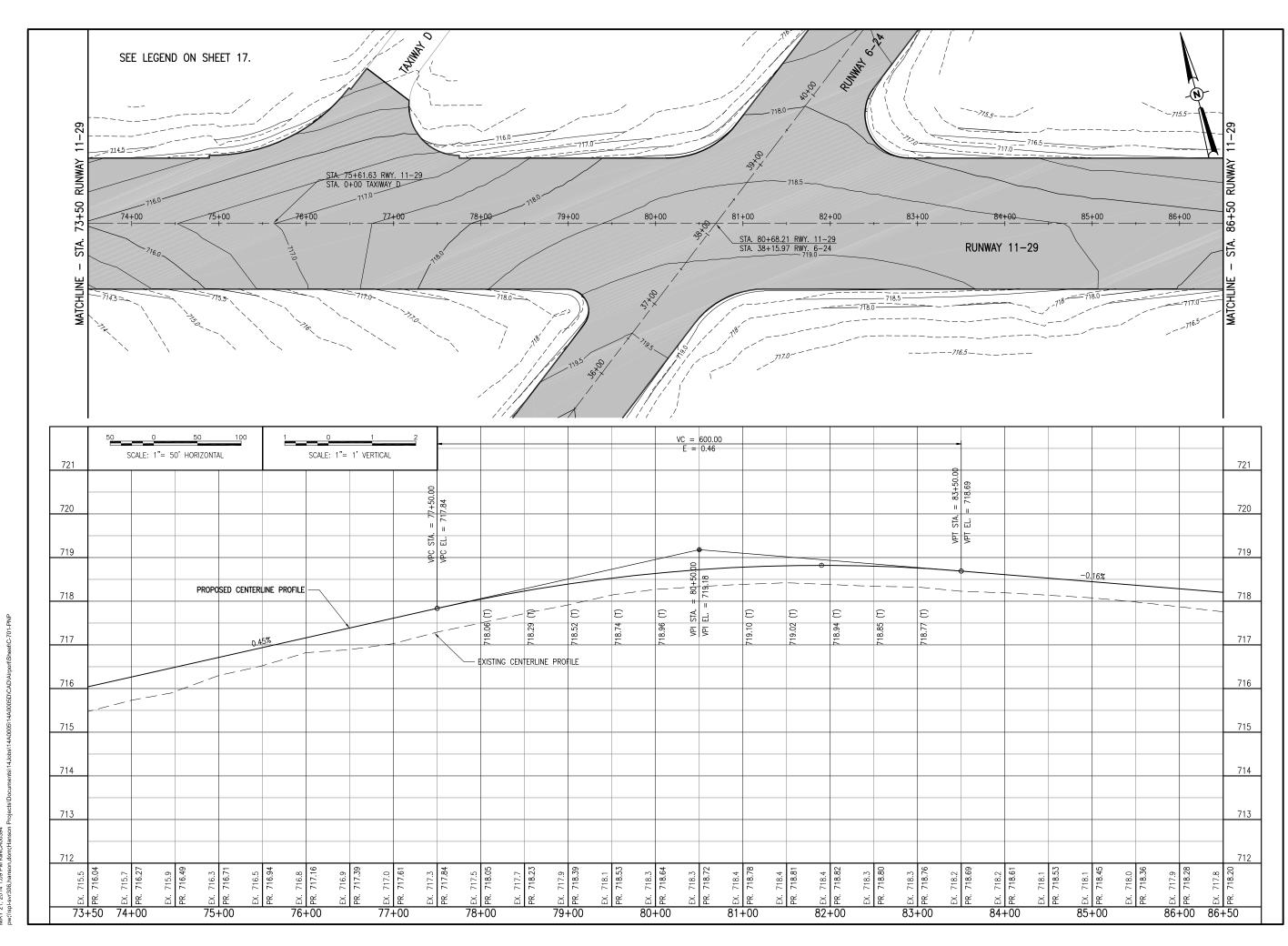
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PLAN AND PROFILE RUNWAY 11-29 STA. 60+00 TO 73+50





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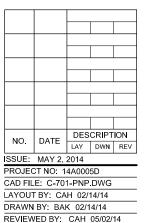
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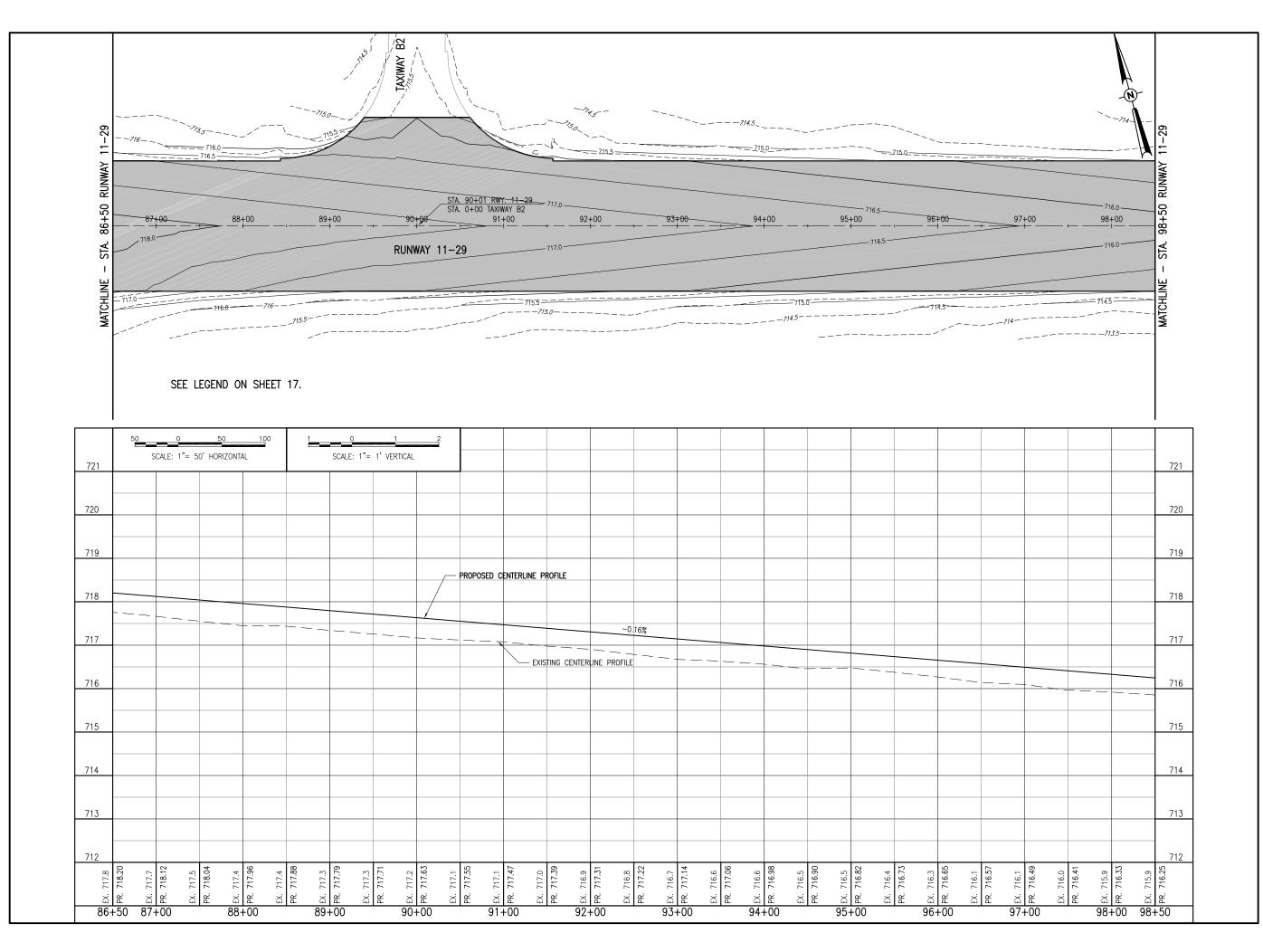
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IDA No: MTO-4320

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PLAN AND PROFILE RUNWAY 11-29 STA. 73+50 TO 86+50





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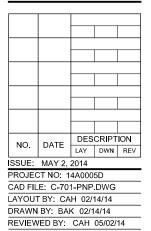
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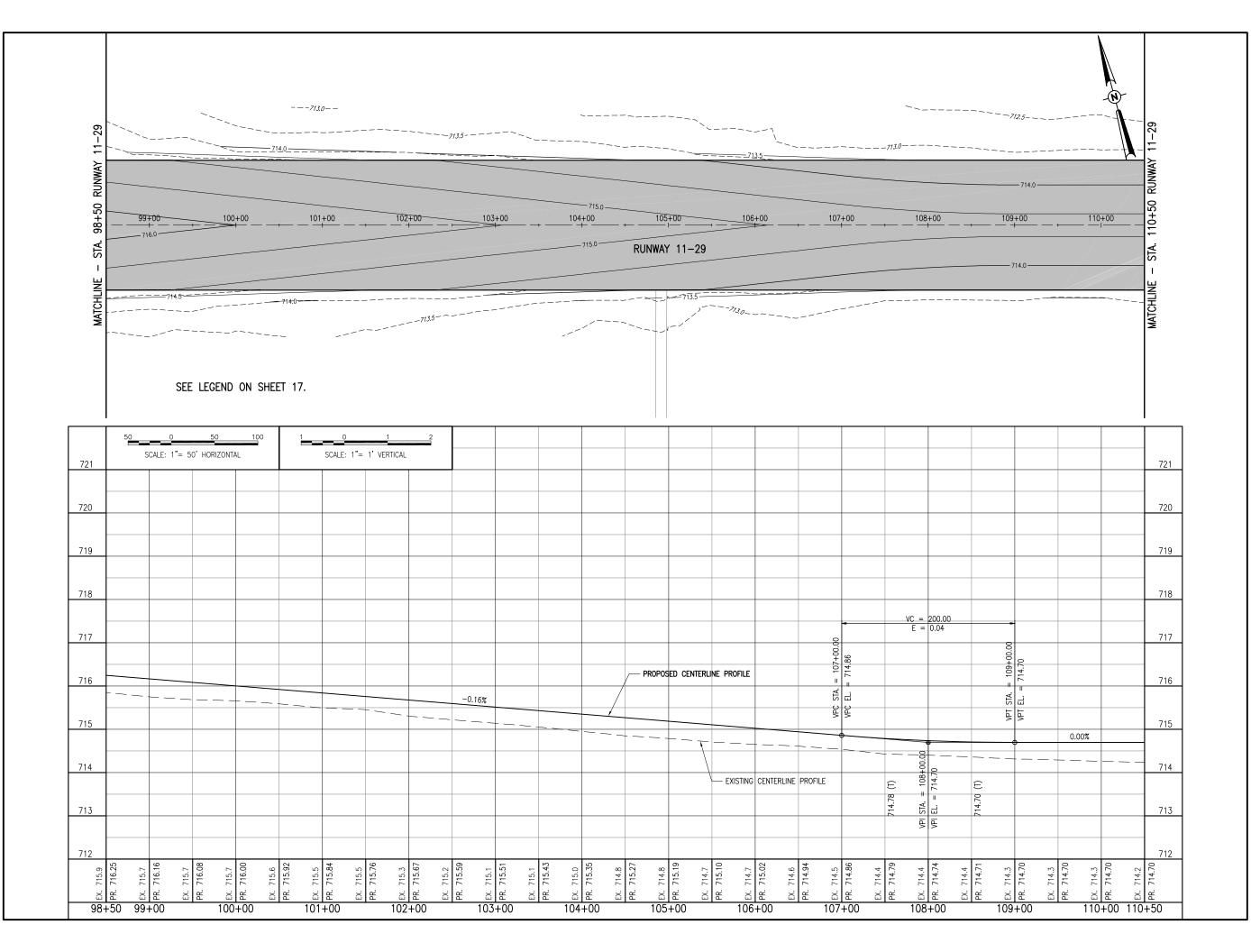
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PLAN AND PROFILE RUNWAY 11-29 STA. 86+50 TO 98+50





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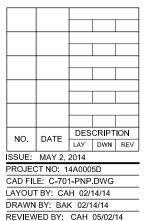
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PLAN AND PROFILE RUNWAY 11-29 STA. 98+50 TO 110+50



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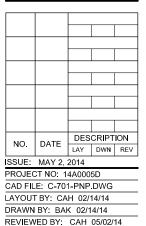
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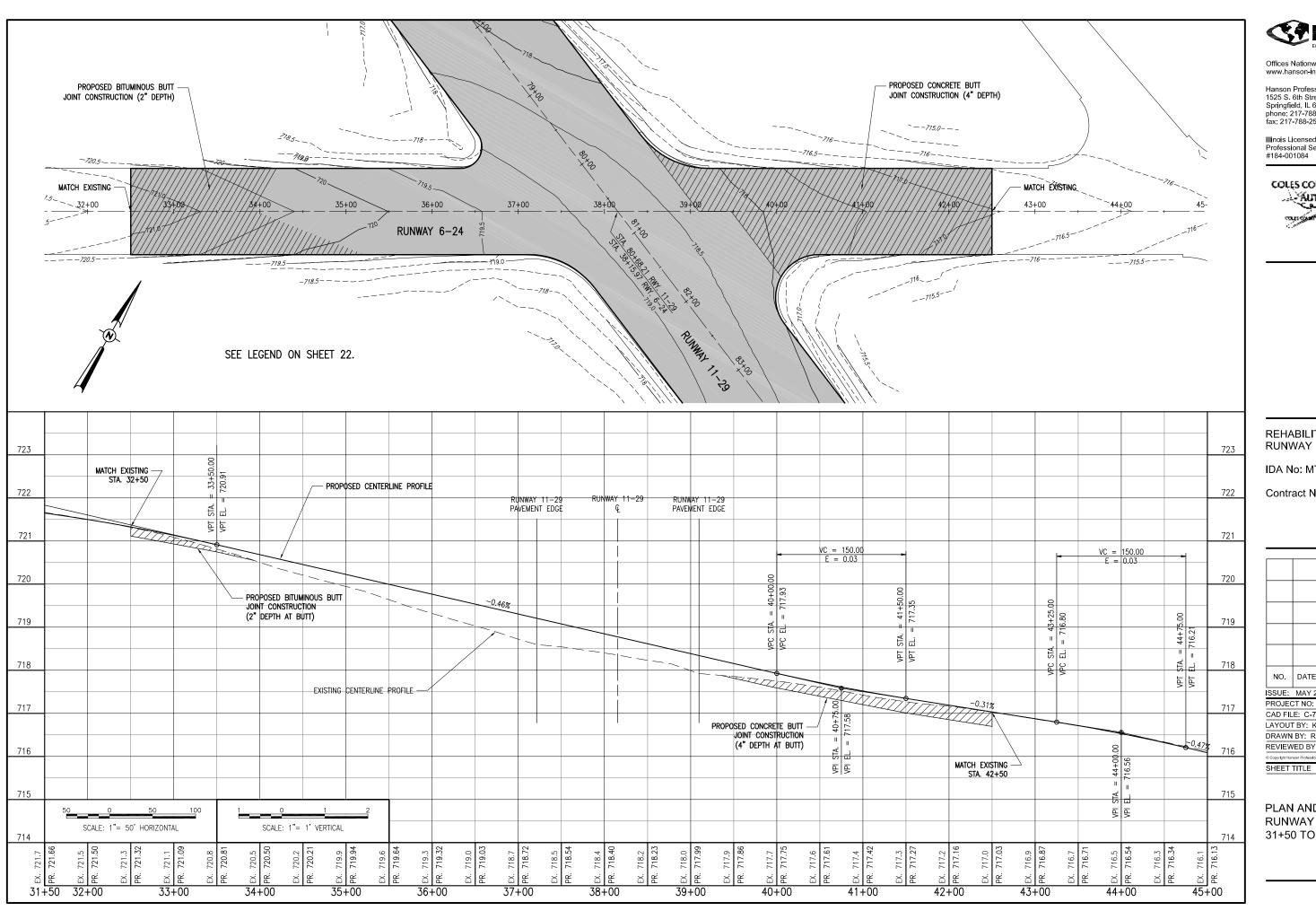
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PLAN AND PROFILE RUNWAY 11-29 STA. 110+50 TO 115+50





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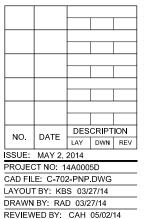
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IDA No: MTO-4320

Contract No. CO061



PLAN AND PROFILE RUNWAY 6-24 STA. 31+50 TO 45+00

- THE EXISTING RUNWAY 11-29 UNDERDRAIN. LOCATED ON THE PORTION WEST OF RUNWAY 6-24, SHALL REMAIN FUNCTIONAL UNTIL THE COMPLETION OF THE RUBBLIZATION IN THAT AREA. IT SHALL THEN BE PLUGGED AND ABANDONED IN PLACE OR REMOVED WHEN FOUND TO BE IN CONFLICT WITH THE PROPOSED REPLACEMENT UNDERDRAIN INSTALLATION.
- 2. WHEREVER THE EXISTING UNDERDRAIN PIPE INTERFERES WITH THE INSTALLATION OF THE PROPOSED UNDERDRAIN PIPE, THE CONTRACTOR WILL REMOVE THE EXISTING UNDERDRAIN PIPE AND DISPOSE OF IT OFF THE AIRPORT SITE IN A LEGAL MANNER. WHEN AN EXISTING UNDERDRAIN PIPE NO LONGER INTERFERES WITH THE PROPOSED INSTALLATION, THE CONTRACTOR WILL SEAL/CAP THE EXPOSED END OF THE UNDERDRAIN PIPE AT THAT LOCATION AND LEAVE THE REMAINING UNDERDRAIN PIPE IN
- APPROXIMATE AREAS OF ANTICIPATED CONFLICT WITH THE EXISTING UNDERDRAIN PIPE HAVE BEEN NOTED ON THESE SHEETS. THESE AREAS ARE BASED ON RECORD DRAWING INFORMATION AND THEREFORE MAY VARY IN THE FIELD. ALL REMOVAL OF EXISTING UNDERDRAIN PIPE, REGARDLESS OF WHETHER IT IS SHOWN TO BE IN CONFLICT ON THE PLANS. IS INCIDENTAL TO THE REPLACEMENT UNDERDRAIN INSTALLATION.
- 4. ALL EXISTING INSPECTION HOLES DESIGNATED FOR REMOVAL WILL BE REMOVED AND DISPOSED OF OFF THE AIRPORT SITE IN A LEGAL MANNER. THE HOLES SHALL BE BACKFILLED WITH A DIRT PLUG AND COMPACTED TO THE SATISFACTION OF THE RESIDENT ENGINEER. ALL PIPES CONNECTED TO THE REMOVED INSPECTION HOLES SHALL BE PLUGGED OR CAPPED.
- 5. THE EXISTING INSPECTION HOLES ARE CONSTRUCTED OF CONCRETE ENCASED CORRUGATED METAL PIPE WITH A NEENAH CASTING ON TOP OF
- THE EXISTING UNDERDRAIN PIPE IS BELIEVED TO BE A 6" PERFORATED CORRUGATED METAL PIPE.
- 7. THE METHOD OF SEALING/CAPPING THE UNDERDRAIN PIPE WILL BE APPROVED BY THE RESIDENT ENGINEER.
- THE THE REMOVAL OF THE EXISTING INSPECTION HOLES WILL BE PAID FOR

AR705903 "REMOVE UNDERDRAIN INSPECTION HOLE" _ _ PER EACH.

INSPECTION HOLE ADJUSTMENT NOTES

- ALL INSPECTION HOLES DESIGNATED FOR ADJUSTMENT WILL BE ADJUSTED IN ACCORDANCE WITH THE DETAIL SHOWN ON
- 2. THE CONTRACTOR WILL REMOVE THE TOP OF THE EXISTING STRUCTURE DOWN TO SOUND CONCRETE. TWO NO. 5 RE-BAR WILL BE DRILLED AND GROUTED INTO THE TOP OF THE LOWERED STRUCTURE. THE CONTRACTOR WILL FORM THE STRUCTURE TO THE PROPOSED GRADE.
- 3. THE CONTRACTOR WILL FURNISH A NEW FRAME AND LID AS SHOWN ON SHEET 26.
- 4. THE ADJUSTED INSPECTION HOLE WILL BE PAID FOR UNDER:

AR705943 "ADJUST UNDERDRAIN INSP. HOLE" _ _ PER

THE CONTRACTOR SHALL INSTALL THE PROPOSED 6" P.E. TUBING UNDERDRAINS TO THE DEPTH AND GRADES SHOWN ON THE PROPOSED DRAINAGE PLAN SHEETS. THE UNDERDRAINS ON THE EAST SIDE OF RUNWAY 6-24 SHALL BE INSTALLED AND FUNCTIONAL FOR A PERIOD

- OF 7 DAYS PRIOR TO THE START OF THE RUBBLIZATION IN THAT AREA. 2. THE 6" P.E. TUBING SHALL BE CAPPED AT THE ENDS WHICH DO NOT CONNECT INTO EXISTING
- THE TRENCH SHALL BE BACKFILLED AND COMPACTED WITH POROUS BACKFILL MATERIAL. THE TRENCH LOCATED IN TURF AREAS SHALL BE BACKFILLED UP TO WITHIN 6 INCHES OF THE EXISTING GROUND ELEVATION. THE REMAINING 6 INCHES OF TRENCH WILL BE BACKFILLED AND COMPACTED WITH EARTH MATERIAL.
- POROUS BACKFILL MATERIAL SHALL CONFORM TO IDOT CA-16 REQUIREMENTS AND BE FREE OF CLAY OR OTHER FOREIGN MATERIALS. THE POROUS BACKFILL WILL BE CONSIDERED AS AN INCIDENTAL ITEM TO THE INSTALLATION OF THE PROPOSED 6" PERFORATED UNDERDRAIN PIPE AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- THE PROPOSED UNDERDRAINS AND BACKFILLED MATERIAL WILL BE PAID FOR UNDER THE FOLLOWING ITEMS: AR705506 "6" PERFORATED UNDERDRAIN"__ PER L.F.



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REHABILITATE **RUNWAY 11/29**

IDA No: MTO-4320

Contract No. CO061

	NO.	DATE	DES	CRIPT	ION
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CAD FILE: C-131DRN.DWG LAYOUT BY: CAH 02/14/14

DRAWN BY: BAK 02/14/14 REVIEWED BY: CAH 05/02/14

SHEET TITLE

PROPOSED DRAINAGE PLAN STA. 50+00 TO 74+00

24



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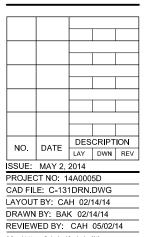
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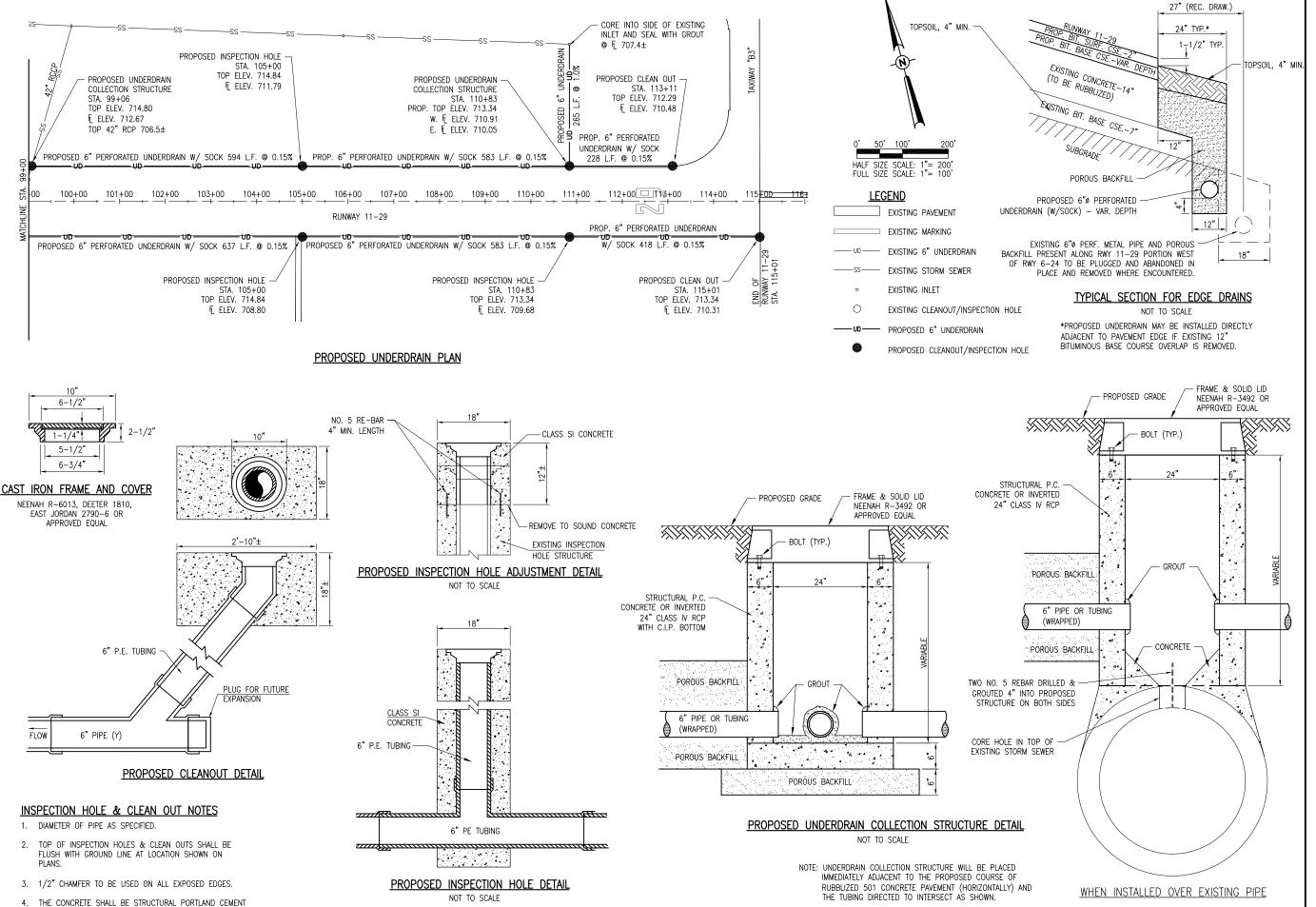
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PROPOSED DRAINAGE PLAN STA. 74+00 TO 99+00



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IDA No: MTO-4320

Contract No. CO061

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PROJECT NO: 14A0005D

CAD FILE: C-131DRN.DWG

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DRAWN BY: BAK 02/14/14

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SHEET TITLE

PROPOSED DRAINAGE PLAN

DRAINAGE PLAN STA. 99+00 TO 115+01

CONCRETE (NON-REINFORCED)



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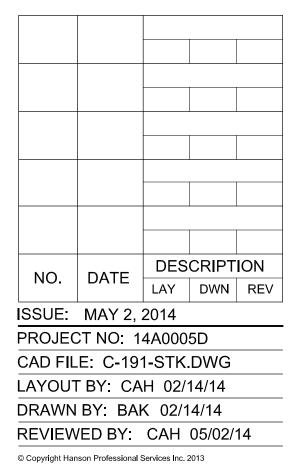
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PROPOSED STAKING PLAN RUNWAY 11-29 STA. 49+00 TO 62+00



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NO. DATE DESCRIPTION
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ISSUE: MAY 2, 2014

PROJECT NO: 14A0005D

CAD FILE: C-191-STK.DWG

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PROPOSED STAKING PLAN RUNWAY 11-29 STA. 62+00 TO 78+00

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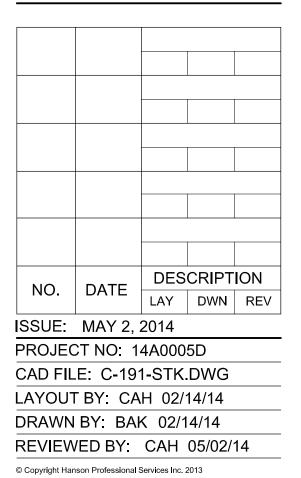
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PROPOSED STAKING PLAN RUNWAY 11-29 STA. 78+00 TO 94+00



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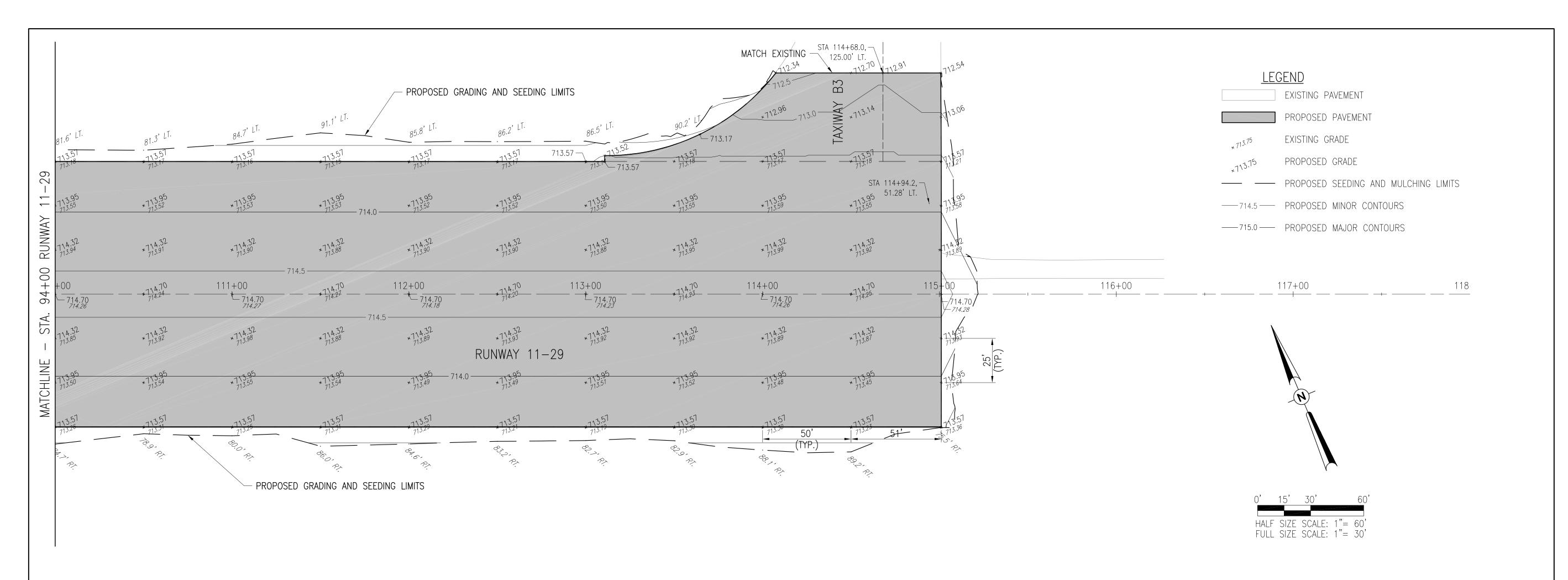
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PROPOSED STAKING PLAN RUNWAY 11-29 STA. 94+00 TO 110+00

REVIEWED BY: CAH 05/02/14

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908 MULCHING NOTES

- 1. THE PROPOSED MULCHING SHALL BE ACCOMPLISHED IN ACCORDANCE WITH ITEM 908 "MULCHING" AS STATED ON PAGE 330 OF THE ILLINOIS STANDARD SPECIFICATIONS FOR CONSTRUCTION OF AIRPORTS, ADOPTED APRIL 1, 2012.
- 2. THIS ITEM SHALL CONSIST OF THE FURNISHING, TRANSPORTING, AND PLACING MULCH OVER THE SEEDED AREA. DISTURBED AREAS OUTSIDE THE GRADING LIMITS SHALL ALSO BE MULCHED AND PARTICIPATION WILL BE THE SAME AS FOR SEEDED AREAS.
- 3. 908-2.1 MULCH MATERIAL: THE CONTRACTOR MAY EITHER FURNISH STRAW OR HYDROMULCH AS THE TYPE OF MULCH MATERIAL TO BE USED ON THIS PROJECT.
- 4. 908-3.1 MULCHING: THE HYDRAULIC MULCH SHALL BE APPLIED AS A SLURRY OF 2,500 POUNDS OF MULCH AND NOT LESS THAN 2,500 GALLONS OF WATER PER ACRE.
- 5. 908-3.4 STRUCTURE CLEANING: AFTER THE PROPOSED MULCH HAS BEEN APPLIED, THE CONTRACTOR WILL CLEAN THE MULCH OFF ALL STRUCTURES (DRAINAGE, ELECTRICAL, LIGHTS, SIGNS, ETC.).
- 6. DATE MULCHING COMPLETED_____.
- 7. THE PROPOSED MULCHING WILL BE PAID FOR UNDER ITEM: AR908510 "MULCHING" ____ PER ACRE

901 SEEDING NOTES

- 1. THE PROPOSED SEEDING SHALL BE ACCOMPLISHED IN ACCORDANCE WITH ITEM 901 "SEEDING" AS STATED ON PAGE 319 OF THE ILLINOIS STANDARD SPECIFICATIONS FOR CONSTRUCTION OF AIRPORTS, ADOPTED APRIL 1, 2012.
- 2. ALL DISTURBED AREAS LOCATED WITHIN THE PROPOSED GRADING AND SEEDING LIMITS WILL BE SEEDED IN ACCORDANCE WITH THE ABOVE NOTED SPECIFICATION. ALL AREAS OUTSIDE THE DESIGNATED GRADING AND SEEDING LIMITS WILL ALSO BE SEEDED BUT AT THE CONTRACTOR'S OWN EXPENSE.
- 3. ALL MATERIALS AND/OR DEBRIS RESULTING FROM THE SEEDING OPERATIONS WILL BE REMOVED FROM THE PAVEMENTS AND MISCELLANEOUS STRUCTURES PRIOR TO OPENING THE RUNWAY.
- 4. 901-3.4 MAINTENANCE OF SEEDED AREAS. DELETE THE SECOND PARAGRAPH OF THIS SECTION AND ADD THE FOLLOWING:
- 5. "THE CONTRACTOR WILL BE REQUIRED TO ESTABLISH A GOOD STAND OF GRASS OF UNIFORM COLOR AND DENSITY TO THE SATISFACTION OF THE RESIDENT ENGINEER. IF AT THE TIME WHEN THE CONTRACT HAS BEEN OTHERWISE COMPLETED, IT IS NOT POSSIBLE TO MAKE AN ADEQUATE DETERMINATION OF COLOR, DENSITY, AND UNIFORMITY OF SUCH STAND OF GRASS, THE ITEM OF WORK WILL BE REVIEWED AT A LATER DATE DETERMINED BY THE ILLINOIS DIVISION OF AERONAUTICS."
- 6. DATE SEEDING COMPLETED_____.
- 7. THE PROPOSED SEEDING WILL BE PAID FOR UNDER ITEM: AR901510 "SEEDING" ____ PER ACRE

EARTH SHOULDER ADJUSTMENT

- 1. 1 THE EXISTING EARTH SHOULDERS ADJACENT TO ALL PROPOSED PAVING AREAS WILL BE ADJUSTED AS SHOWN ON THESE SHEETS AND ON THE CROSS—SECTIONS. THE EXISTING SOD WILL BE TILLED/DISKED THOROUGHLY TO REMOVE ANY CLUMPS OR CLODS AND TO INCORPORATE ANY TOPSOIL MATERIAL BROUGHT IN TO BRING THE SHOULDERS TO GRADE. THE DROP—OFF FROM PAVEMENT TO SHOULDER WILL NOT EXCEED ONE AND A HALF INCHES (1–1/2"). THE SHOULDER MATERIAL WILL NOT REQUIRE COMPACTING. OTHER THAN LIGHT ROLLING AND SHAPING.
- 2. THE EARTH SHOULDERS SHALL BE CONSTRUCTED WITH A QUALITY TOPSOIL MATERIAL OBTAINED FROM OFF-SITE AND FREE OF LARGE CLUMPS, ROCKS, AND OTHER FOREIGN MATERIAL. NO COMPACTION, GRADATION, ORGANIC CONTENT OR PH TESTING WILL BE REQUIRED, PROVIDED THE TOPSOIL MEETS THE APPROVAL OF THE RESIDENT ENGINEER AND FACILITATES THE GROWTH OF THE SEEDING.
- 3. APPROXIMATELY 985 CUBIC YARDS OF OFF-SITE TOPSOIL MATERIAL WILL BE NEEDED FOR THE SHOULDER ADJUSTMENT. THE QUANTITY IS GIVEN FOR ESTIMATING PURPOSES ONLY AND WILL NOT BE MEASURED FOR ANY KIND OF PAYMENT OR UNIT PRICE ADJUSTMENT TO THE PAY ITEM.
- 4. THE PROPOSED EARTH SHOULDER ADJUSTMENT WILL BE PAID FOR UNDER: ITEM AR152480 "SHOULDER ADJUSTMENT" _____ PER S.Y.

EXISTING RUNWAY/TAXIWAY LIGHT NOTES

- 1. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT THE EXISTING RUNWAY AND TAXIWAY LIGHTS AND BASES/STAKES THAT ARE LOCATED WITHIN THE PROPOSED CONSTRUCTION LIMITS.
- 2. ANY DAMAGE TO ANY RUNWAY OR TAXIWAY LIGHT AND OR ITS' BASE/STAKE WILL BE REPAIRED/REPLACED BY THE CONTRACTOR AT HIS OWN EXPENSE.



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REHABILITATE

RUNWAY 11/29

IDA No: MTO-4320

Contract No. CO061

NO. DATE DESCRIPTION
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ISSUE: MAY 2, 2014

PROJECT NO: 14A0005D

CAD FILE: C-191-STK.DWG

LAYOUT BY: CAH 02/14/14

DRAWN BY: BAK 02/14/14

PROPOSED STAKING PLAN RUNWAY 11-29 STA. 110+00 TO 116+00

REVIEWED BY: CAH 05/02/14

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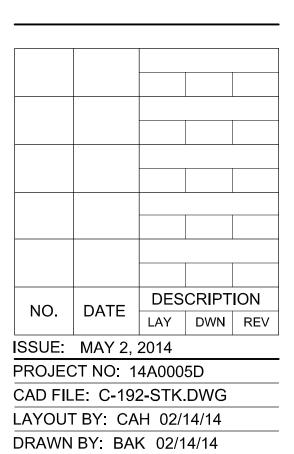
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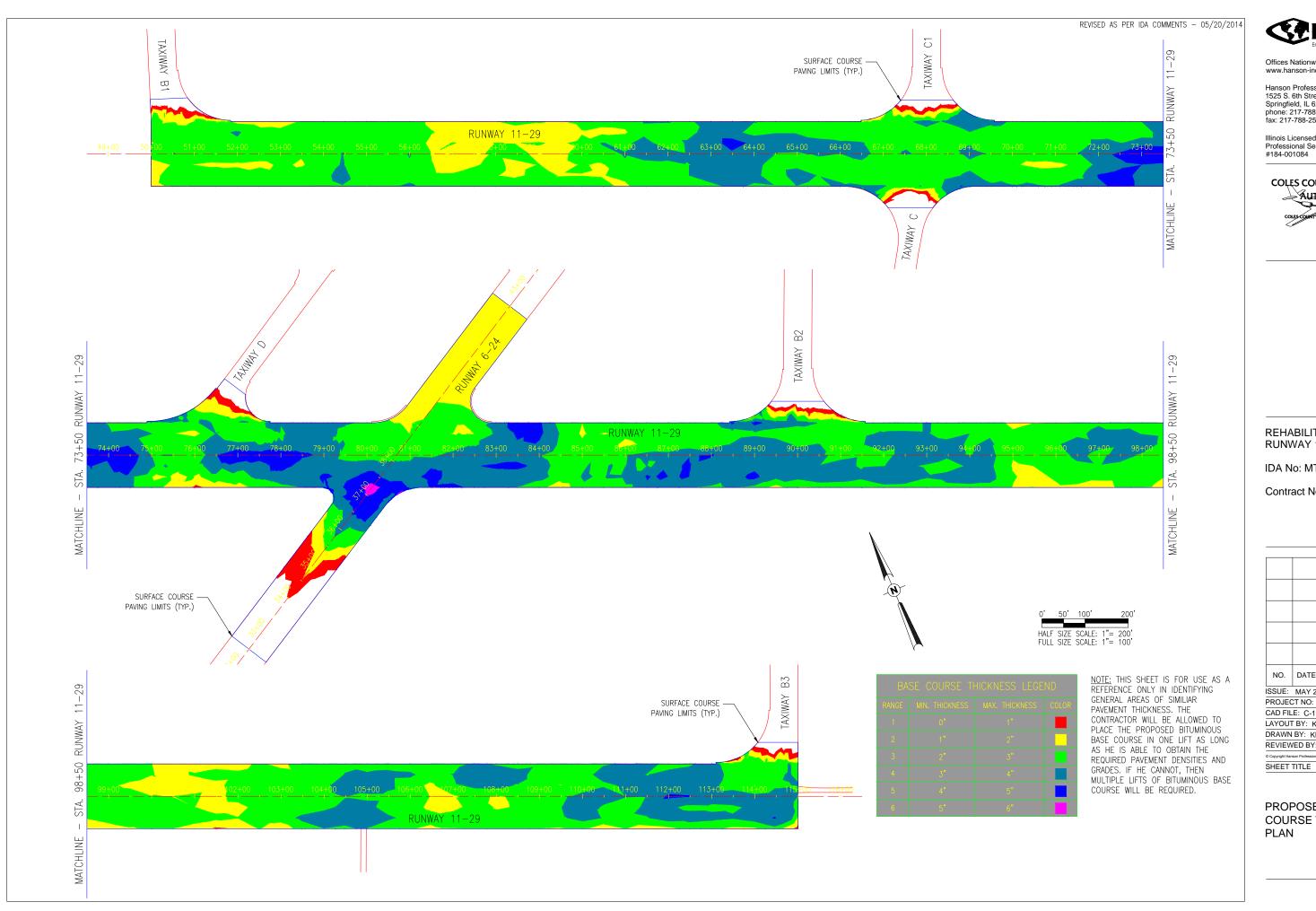
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PROPOSED STAKING PLAN RUNWAY 6-24 STA. 32+50 TO 42+50

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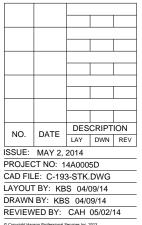
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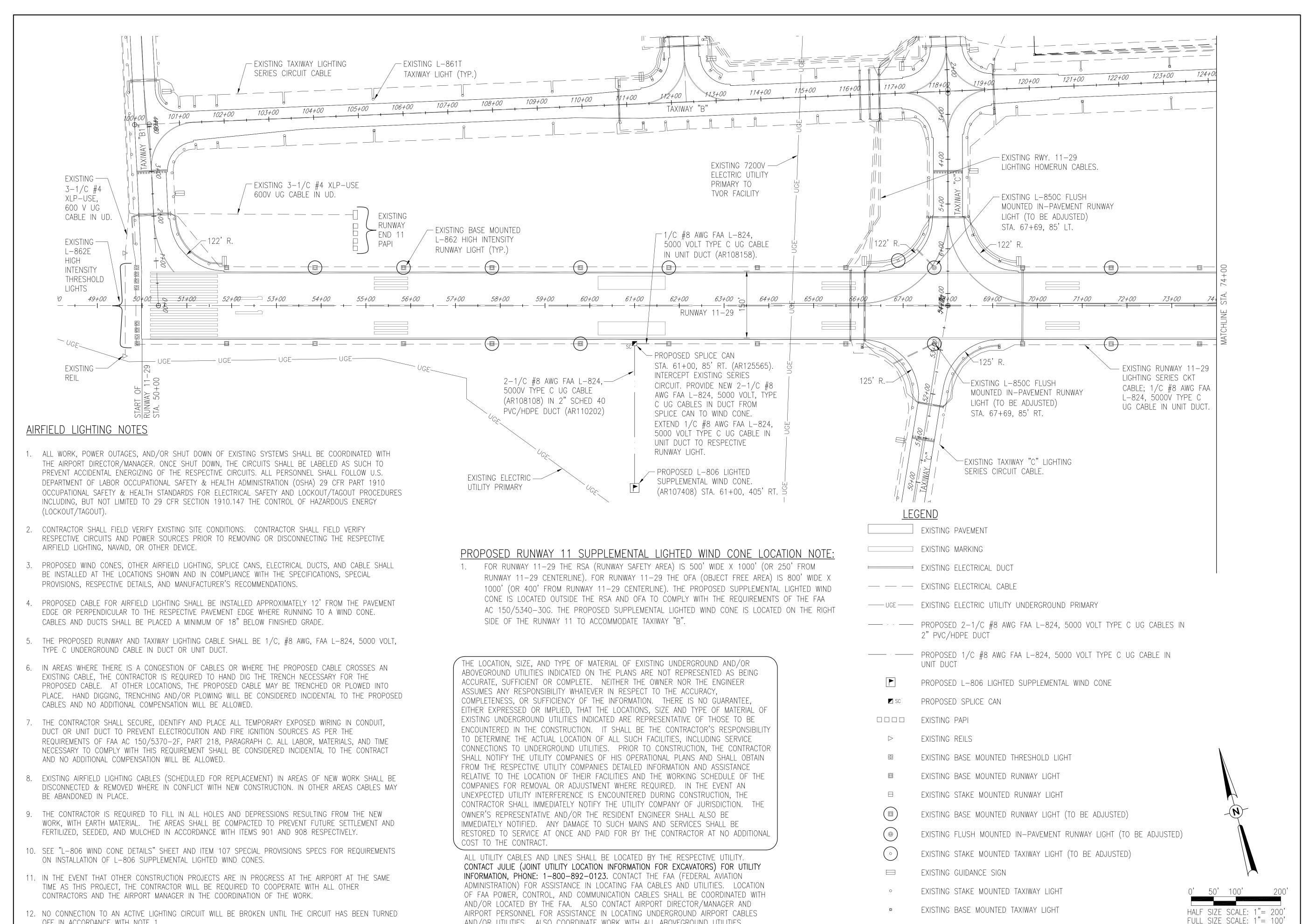
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PROPOSED BASE **COURSE THICKNESS PLAN**

OFF IN ACCORDANCE WITH NOTE 1.



AND/OR UTILITIES. ALSO COORDINATE WORK WITH ALL ABOVEGROUND UTILITIES.

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REHABILITATE **RUNWAY 11/29**

IDA No: MTO-4320

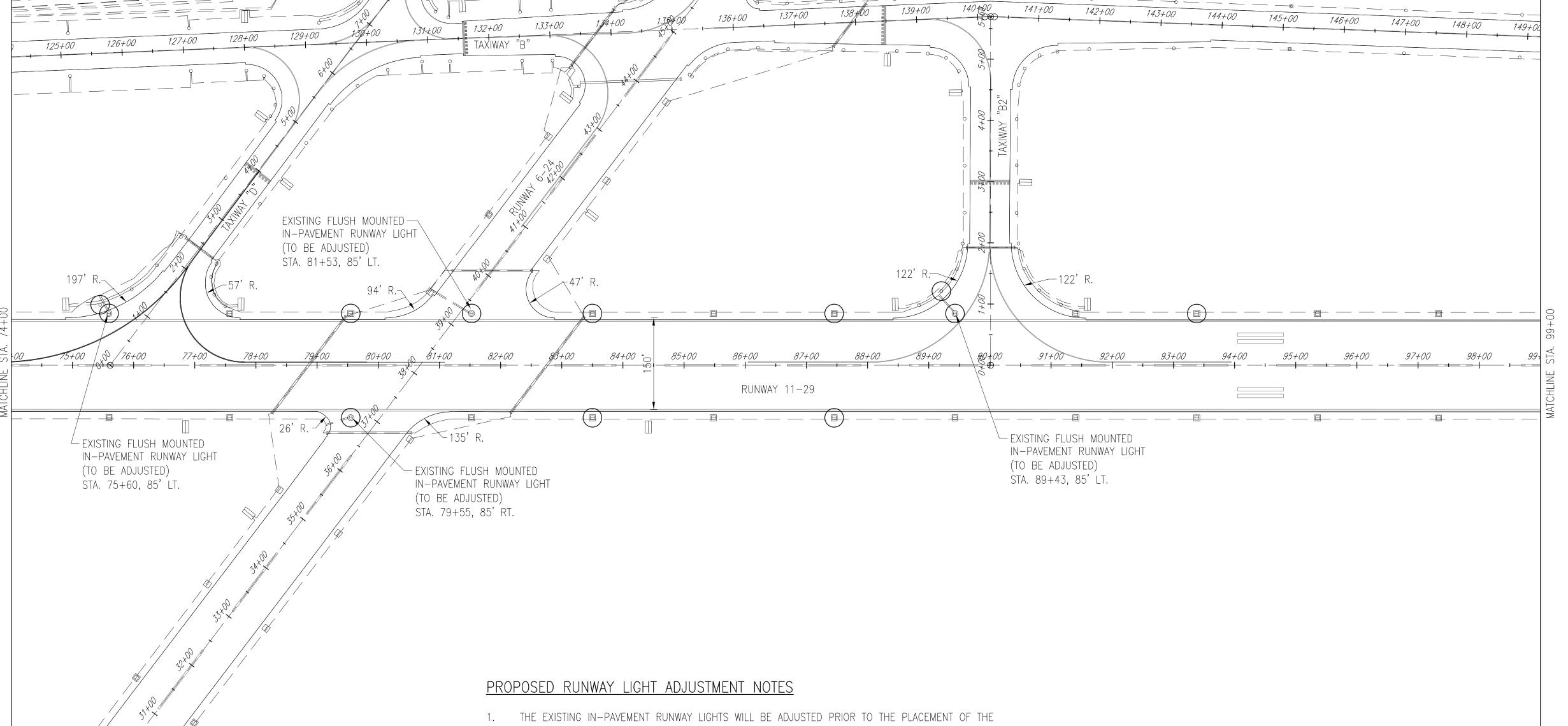
Contract No. CO061

DESCRIPTION NO. DATE LAY DWN REV ISSUE: MAY 2, 2014 PROJECT NO: 14A0005D CAD FILE: C-141ELE.DWG LAYOUT BY: CAH 02/14/14 DRAWN BY: BAK 02/14/14

PROPOSED **ELECTRICAL PLAN** STA. 50+00 TO 74+00

REVIEWED BY: KNL 04/07/14

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THE LOCATION, SIZE, AND TYPE OF MATERIAL OF EXISTING UNDERGROUND AND/OR ABOVEGROUND UTILITIES INDICATED ON THE PLANS ARE NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT OR COMPLETE. NEITHER THE OWNER NOR THE ENGINEER ASSUMES ANY RESPONSIBILITY WHATEVER IN RESPECT TO THE ACCURACY. COMPLETENESS, OR SUFFICIENCY OF THE INFORMATION. THERE IS NO GUARANTEE, EITHER EXPRESSED OR IMPLIED, THAT THE LOCATIONS, SIZE AND TYPE OF MATERIAL OF EXISTING UNDERGROUND UTILITIES INDICATED ARE REPRESENTATIVE OF THOSE TO BE ENCOUNTERED IN THE CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES, INCLUDING SERVICE CONNECTIONS TO UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES OF HIS OPERATIONAL PLANS AND SHALL OBTAIN FROM THE 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. THE OWNER'S REPRESENTATIVE AND/OR THE RESIDENT ENGINEER SHALL ALSO BE IMMEDIATELY NOTIFIED. ANY DAMAGE TO SUCH MAINS AND SERVICES SHALL BE RESTORED TO SERVICE AT ONCE AND PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT.

ALL UTILITY CABLES AND LINES SHALL BE LOCATED BY THE RESPECTIVE UTILITY. CONTACT JULIE (JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS) FOR UTILITY INFORMATION, PHONE: 1-800-892-0123. CONTACT THE FAA (FEDERAL AVIATION ADMINISTRATION) FOR ASSISTANCE IN LOCATING FAA CABLES AND UTILITIES. LOCATION OF FAA POWER, CONTROL, AND COMMUNICATION CABLES SHALL BE COORDINATED WITH AND/OR LOCATED BY THE FAA. ALSO CONTACT AIRPORT DIRECTOR/MANAGER AND AIRPORT PERSONNEL FOR ASSISTANCE IN LOCATING UNDERGROUND AIRPORT CABLES AND/OR UTILITIES. ALSO COORDINATE WORK WITH ALL ABOVEGROUND UTILITIES.

FIRST LIFT OF BITUMINOUS BASE COURSE.

THE CONTRACTOR SHALL REMOVE THE EXISTING LIGHT FIXTURE, BASE PLATE AND ISOLATION TRANSFORMER FROM THE LIGHT BASE TO INSURE NO DAMAGE OCCURS TO THEM DURING THE PROPOSED CONSTRUCTION OPERATIONS. ONCE THE LIGHT BASE HAS BEEN ADJUSTED AND THE ADJACENT PAVING HAS BEEN COMPLETED THE CONTRACTOR WILL RETURN THE LIGHT FIXTURE, BASE PLATE AND ISOLATION TRANSFORMER TO THE ADJUSTED LIGHT BASE. ANY DAMAGE TO THE LIGHT FIXTURE AND/OR ISOLATION TRANSFORMER WILL BE REPAIRED/REPLACED BY THE CONTRACTOR AT HIS OWN EXPENSE.

- .THE CONTRACTOR WILL BOLT A COVER OVER THE BASE CAN TO PREVENT ANY FOREIGN MATERIAL FALLING INTO THE BASE CAN DURING CONSTRUCTION ACTIVITIES THAT OCCUR AFTER HE HAS REMOVED THE LIGHT FIXTURE.
- 4. THE CONTRACTOR WILL ADJUST EACH IN-PAVEMENT RUNWAY LIGHT TO A SUFFICIENT HEIGHT TO MATCH THE PROPOSED PAVEMENT AROUND IT. THE PROPOSED ADJUSTMENT WILL BE COMPLETED IN ACCORDANCE WITH THE DETAIL SHOWN ON SHEET NO. 38 OF THESE CONSTRUCTION PLANS.
- 5. THE EXISTING BASE MOUNTED RUNWAY LIGHTS AND THE EXISTING STAKE MOUNTED TAXIWAY LIGHTS ARE LOCATED 10' FROM THE PAVEMENT EDGE. THESE LIGHTS WILL BE ADJUSTED AT THE DISCRETION OF THE CONTRACTOR. ONCE ADJUSTED THESE LIGHTS WILL MATCH THE PROPOSED EARTH GRADE AROUND THEM.
- 6. THE EXISTING BASE MOUNTED RUNWAY LIGHTS WILL BE ADJUSTED IN ACCORDANCE WITH THE DETAIL SHOWN ON SHEET NO. 38 OF THESE CONSTRUCTION PLANS.
- 7. THE EXISTING STAKE MOUNTED TAXIWAY LIGHTS WILL BE ADJUSTED BY THE CONTRACTOR DIGGING UP THE LIGHT STAKE, ISOLATION TRANSFORMER AND CABLE LEADS AND THEN ADJUSTING THEM UPWARD TO THE PROPOSED EARTH GRADE AROUND THEM. THE ISOLATION TRANSFORMER AND CABLE LEADS WILL HAVE SAND PLACED AROUND AND OVER THEM PRIOR TO BACKFILLING WITH EARTH MATERIAL. THE EARTH MATERIAL WILL BE COMPACTED TO PREVENT ANY FUTURE SETTLEMENT.
- 8. THE PROPOSED LIGHT ADJUSTMENTS WILL BE PAID FOR UNDER ITEMS: AR125941 ADJUST STAKE MOUNTED LIGHT -- PER EACH. AR125942 ADJUST BASE MOUNTED LIGHT -- PER EACH. AR125943 ADJUST INPAVEMENT LIGHT -- PER EACH.



___ EXISTING PAVEMENT

EXISTING MARKING

EXISTING ELECTRICAL DUCT

— — EXISTING ELECTRICAL CABLE

□□□□ EXISTING PAPI

EXISTING REILS

EXISTING BASE MOUNTED THRESHOLD LIGHT

EXISTING BASE MOUNTED RUNWAY LIGHT

EXISTING STAKE MOUNTED RUNWAY LIGHT

EXISTING BASE MOUNTED RUNWAY LIGHT (TO BE ADJUSTED)

EXISTING FLUSH MOUNTED IN-PAVEMENT RUNWAY LIGHT (TO BE ADJUSTED)

EXISTING STAKE MOUNTED TAXIWAY LIGHT (TO BE ADJUSTED)

EXISTING GUIDANCE SIGN

EXISTING STAKE MOUNTED TAXIWAY LIGHT

EXISTING BASE MOUNTED TAXIWAY LIGHT

0' 50' 100' HALF SIZE SCALE: 1"= 200' FULL SIZE SCALE: 1"= 100'



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COLES COUNTY AIRPORT AUTHORITY

COLES COLESTY MEMORIAL AIRPOR

REHABILITATE **RUNWAY 11/29**

IDA No: MTO-4320

Contract No. CO061

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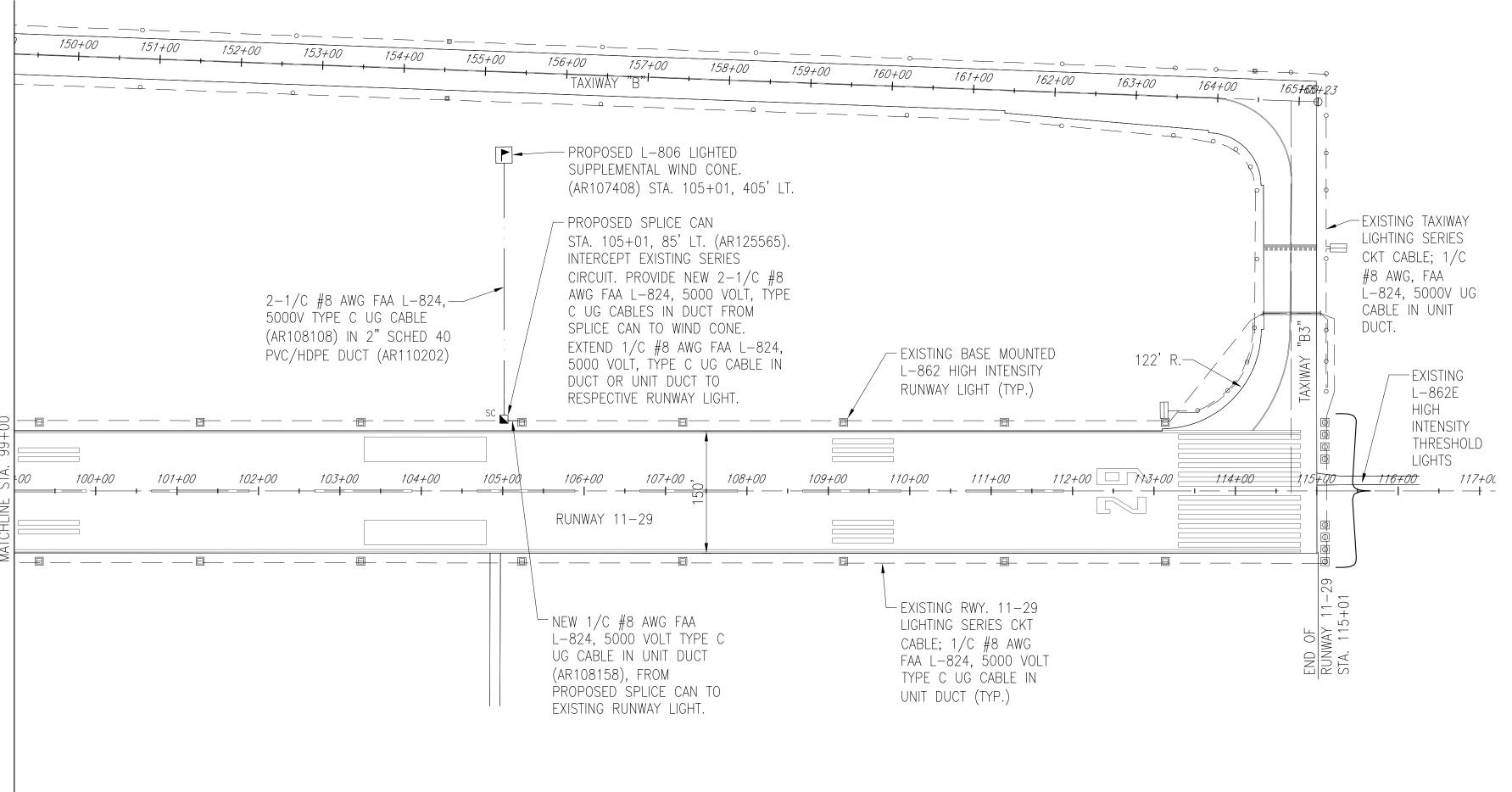
PROPOSED ELECTRICAL PLAN STA. 74+00 TO 99+00

DRAWN BY: BAK 02/14/14

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SHEET TITLE

REVIEWED BY: KNL 04/07/14



PROPOSED RUNWAY 29 SUPPLEMENTAL LIGHTED WIND CONE LOCATION NOTE:

1. FOR RUNWAY 11-29 THE RSA (RUNWAY SAFETY AREA) IS 500' WIDE X 1000' (OR 250' FROM RUNWAY 11-29 CENTERLINE). FOR RUNWAY 11-29 THE OFA (OBJECT FREE AREA) IS 800' WIDE X 1000' (OR 400' FROM RUNWAY 11-29 CENTERLINE). THE PROPOSED SUPPLEMENTAL LIGHTED WIND CONE IS LOCATED OUTSIDE THE RSA AND OFA TO COMPLY WITH THE REQUIREMENTS OF THE FAA AC 150/5340-30G. THE PROPOSED SUPPLEMENTAL LIGHTED WIND CONE IS LOCATED ON THE RIGHT SIDE OF THE RUNWAY 29 TO ACCOMMODATE THE GLIDE SLOPE CRITICAL AREA.

LEGEND EXISTING PAVEMENT EXISTING MARKING EXISTING ELECTRICAL DUCT EXISTING ELECTRICAL CABLE PROPOSED 2-1/C #8 AWG FAA L-824, 5000 VOLT TYPE C UG CABLES IN 2" PVC/HDPE DUCT PROPOSED 1/C #8 AWG FAA L-824, 5000 VOLT TYPE C UG CABLE IN UNIT DUCT PROPOSED L-806 LIGHTED SUPPLEMENTAL WIND CONE PSC PROPOSED SPLICE CAN EXISTING PAPI

EXISTING FLUSH MOUNTED IN-PAVEMENT RUNWAY LIGHT (TO BE ADJUSTED)

> EXISTING REILS

EXISTING BASE MOUNTED THRESHOLD LIGHT

EXISTING BASE MOUNTED RUNWAY LIGHT

EVISTING DAZE MOONTED KONMAT FIGHT

EXISTING STAKE MOUNTED RUNWAY LIGHT

EXISTING GUIDANCE SIGN

• EXISTING STAKE MOUNTED TAXIWAY LIGHT

EXISTING BASE MOUNTED TAXIWAY LIGHT



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IDA No: MTO-4320

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PROPOSED ELECTRICAL PLAN STA. 99+00 TO 115+01

REVIEWED BY: KNL 04/07/14

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SHEET TITLE

0' 50' 100'

HALF SIZE SCALE: 1"= 200' FULL SIZE SCALE: 1"= 100' 4. ALL DISTURBED SURFACES SHALL BE RESTORED TO THEIR ORIGINAL CONDITION. COST IS INCIDENTAL TO TRENCH.

-FINISHED GRADE AFFIX NON-CORROSIVE TAG TO FIXTURE FACING RUNWAY WITH SET SCREW, WIRE TIE. OR METAL BAND. NUMERALS SHALL BE ENGRAVED FOR PERMANENT READABILITY. TAG DETAIL (NOT TO SCALE) -CABLE JACKET REMOVED, "PENCIL" INSULATION. CONTRACTOR SHALL USE A CABLE STRIPPER/PENCILLER WHENEVER CABLE PLASTIC BODY MOLD-CONNECTIONS ARE MADE. POURING SPOUT CABLES INSIDE UNIT DUCT 3" MIN. AS SHOWN ON PROPOSED LIGHTING LAYOUT SHEET(S) T SEPARATION COMPRESSION TYPE SLEEVE CONNECTORS, CRIMP WITH TOOL -SEAL ENDS OF MOLD WITH TAPE PROVIDED IN SPLICE KIT RECOMMENDED BY MANUFACTURER PLOWED CABLE TYPE A (NOT TO SCALE) FOR SPLICES IN LOW VOLTAGE CABLE

CONTINUOUS HEAT SHRINK TUBING PLACED -

OVER THE ENTIRE L-823 CONNECTOR(S)

BOTH MALE AND FEMALE AT ALL 5KV

JUNCTIONS. THE HEAT SHRINK TUBING

SHALL BE APPROXIMATELY 18" IN LENGTH WITH 6 INCHES OF MASTIC ON BOTH

ENDS AND VOID OF MASTIC IN MIDDLE OF

ADDITIONAL ADHESIVE

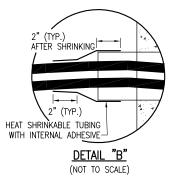
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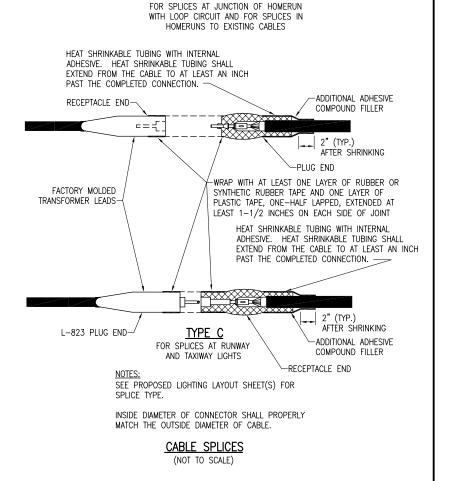
TUBE RATED FOR 5KV.

CABLE TRENCHES
(NOT TO SCALE)

NOTE:
FOR THE PURPOSE OF ENHANCING SAFETY, EACH
BASE MUST HAVE INSTALLED, BY THE
MANUFACTURER, AN INTERNAL AND EXTERNAL
GROUND STRAP THAT IS AVAILABLE FOR THE
PURPOSE OF ATTACHING A GROUND LUG THAT IS
CONNECTED TO AN EARTH GROUND OR A SAFETY
GROUND CONDUCTOR INSTALLED WITH THE
RESPECTIVE CIRCUIT. FOR AIRPORT PROJECTS
RECEIVING FEDERAL FUNDS THIS REQUIREMENT IS
MANDATORY PER FAA AC 150/5345-42F.

-3/8" THICK (MIN.) GALVANIZED STEEL COVER PLATE WITH STAINLESS STEEL BOLTS. INCLUDE INTERNAL & EXTERNAL SMOOTH TROWEL FINISH GROUND LUGS (REQUIRED PER (SLOPE TO DRAIN) FAA AC 150/5345-42F) FINISHED GRADE-.-867. CLASS IA. SIZE B. 24" BASE 610 CONCRETE WITH 2" HUBS AT 0', & 180' AND 3" COUPLING TO INTERFACE -4" MIN. THICK HUR AT 90° TO 2" DUCT. USE BUSHING AND HEAT -2" HUBS CONDUIT BUSHING, SHRINK FOR INTERFACE PROVIDE HEAT SHRINK TO CABLE IN UNIT DUCT FOR INTERFACE TO CABLE IN UNIT DUCT SEE DETAIL "B". -2" GRS CONDUIT #6 AWG CU NIPPLE EXTENSION; 8" 6" SAND CUSHION (MIN.) MIN. LEGTH 3" HUB SIZED TO ACCOMMODATE -UL LISTED COPPERCLAD 2 SETS OF 1/C #8, 5 KV L-824 GROUND ROD 3/4" TYPE C CABLE IN UNIT DUCT, OR DIA x 10'L (MIN.) 2" HUB SIZED TO ACCOMMODATE 2-1/C #8, 5KV L-824 TYPE C SPLICE CAN DETAIL CABLES IN 2" PVC/HDPE DUCT. (NOT TO SCALE)





(600V) HOMERUNS FOR EXTENSIONS TO

EXISTING LOW VOLTAGE CABLES ONLY.

TYPE A SPLICES SHALL BE MADE IN SPLICE

CANS, HANDHOLES, MANHOLES, OR

JUNCTIONS BOXES

UNDERGROUND CABLE

SPEC. L-824, TYPICAL

-WRAP WITH AT LEAST ONE LAYER OF RUBBER OR

SYNTHETIC RUBBER TAPE AND ONE LAYER OF

-RECEPTACLE END

TYPE B

PLASTIC TAPE, ONE—HALF LAPPED, EXTENDED AT LEAST 1-1/2 INCHES ON EACH SIDE OF JOINT

-PLUG FND

2" (TYP.)
AFTER SHRINKING

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REHABILITATE RUNWAY 11/29

IDA No: MTO-4320

Contract No. CO061

NO. DATE DESCRIPTION
LAY DWN REV
ISSUE: MAY 2, 2014
PROJECT NO: 14A0005D
CAD FILE: E-501DTLS.DWG

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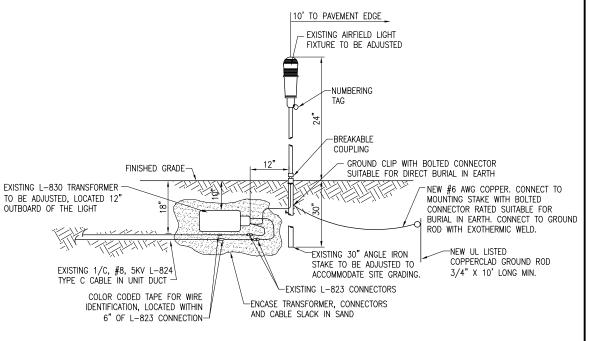
ELECTRICAL DETAILS SHEET 1

"NOT TO SCALE"

(NOT TO SCALE)

RUNWAY LIGHT ADJUSTMENT NOTES

- 1. ALL WORK, POWER OUTAGES, AND/OR SHUT DOWN OF EXISTING SYSTEMS SHALL BE COORDINATED WITH THE AIRPORT MANAGER. ONCE SHUT DOWN, THE CIRCUITS SHALL BE LABELED AS SUCH TO PREVENT ACCIDENTAL ENERGIZING OF THE RESPECTIVE CIRCUITS. ALL PERSONNEL SHALL FOLLOW U.S. DEPARTMENT OF LABOR OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION (OSHA) 29 CFR PART 1910 OCCUPATIONAL SAFETY & HEALTH STANDARDS FOR ELECTRICAL SAFETY AND LOCKOUT/TAGOUT PROCEDURES INCLUDING, BUT NOT LIMITED TO, 29 CFR SECTION 1910.147 THE CONTROL OF HAZARDOUS ENERGY (LOCKOUT/TAGOUT).
- 2. CONTRACTOR SHALL EXAMINE THE SITE TO DETERMINE THE EXTENT OF THE WORK. CONTRACTOR SHALL FIELD VERIFY EXISTING SITE CONDITIONS. THE EXISTING RUNWAY 11-29 LIGHTS AT THE COLES COUNTY AIRPORT ARE UNDERSTOOD TO BE POWERED BY THE RUNWAY 11-29 LIGHTING CONSTANT CURRENT REGULATORS LOCATED IN THE AIRPORT ELECTRICAL VAULT. CONTRACTOR SHALL FIELD VERIFY RESPECTIVE CIRCUITS AND POWER SOURCES PRIOR TO REMOVING OR DISCONNECTING THE RESPECTIVE AIRFIELD LIGHTING, NAVAID, OR OTHER DEVICE.
- . CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF FAA AC NO. 150/5370-2F (OR MOST CURRENT ISSUE) "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION"
- CONTRACTOR SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF NFPA 70E STANDARD FOR ELECTRICAL SAFETY IN THE WORKPLACE.
- 5. SOME OF THE EXISTING RUNWAY LIGHTS LOCATED ON RUNWAY 11-29 WILL REQUIRE ADJUSTMENT TO ACCOMMODATE SITE GRADING AND PAVEMENT WORK. EXISTING AIRFIELD LIGHTS THAT ARE DESIGNATED FOR ADJUSTMENT SHALL BE DISCONNECTED AND CAREFULLY REMOVED BY THE CONTRACTOR AS NOT TO DAMAGE THE LIGHT. THE LIGHT SHALL BE RE-INSTALLED WITH THE ADJUSTMENT.
- 6. ALL ELECTRICAL EQUIPMENT (INCLUDING AIRFIELD LIGHTING AND NAVAIDS) SHALL BE INSTALLED IN CONFORMANCE WITH NFPA 70 NATIONAL ELECTRIC CODE (NEC) MOST CURRENT ISSUE IN FORCE, THE RESPECTIVE EQUIPMENT MANUFACTURER'S DIRECTIONS, AND ALL OTHER APPLICABLE LOCAL CODES, LAWS, ORDINANCES, AND REQUIREMENTS IN FORCE. ANY INSTALLATIONS WHICH VOID THE U.L. LISTING, INTERTEK TESTING SERVICES VERIFICATION/LISTING (OR OTHER THIRD PARTY LISTING) AND/OR THE MANUFACTURER'S WARRANTY OF A DEVICE WILL NOT BE PERMITTED.
- 7. ANY AND ALL TRENCHES AND DISTURBED AREAS WILL BE BACKFILLED AND RESTORED TO A SMOOTH GRADE AND SEEDED TO THE SATISFACTION OF THE ENGINEER. ALL TRENCH SETTLEMENT SHALL BE CORRECTED FOR A PERIOD OF ONE YEAR. RESTORATION, GRADING, SEEDING, AND MULCHING OF AREAS DISTURBED DURING THE AIRFIELD LIGHT FIXTURE ADJUSTMENT WILL BE INCIDENTAL TO THE ADJUSTMENT OF THE RESPECTIVE AIRFIELD LIGHT FIXTURE.
- NO CONNECTION TO AN ACTIVE LIGHTING CIRCUIT, NAVAID, OR OTHER CIRCUIT SHALL BE BROKEN UNTIL THE CIRCUIT HAS BEEN TURNED OFF IN ACCORDANCE WITH THE ABOVE NOTE 1.



STAKE MOUNTED LIGHT ADJUSTMENT DETAIL

(NOT TO SCALE)

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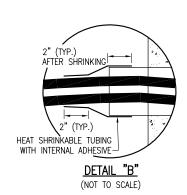
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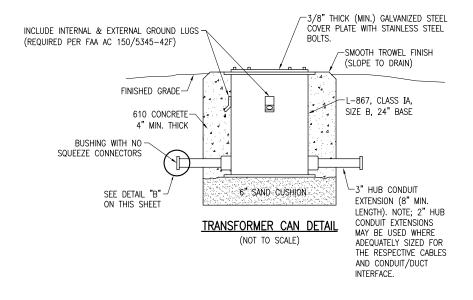
LAYOUT BY: KNL 04/09/14

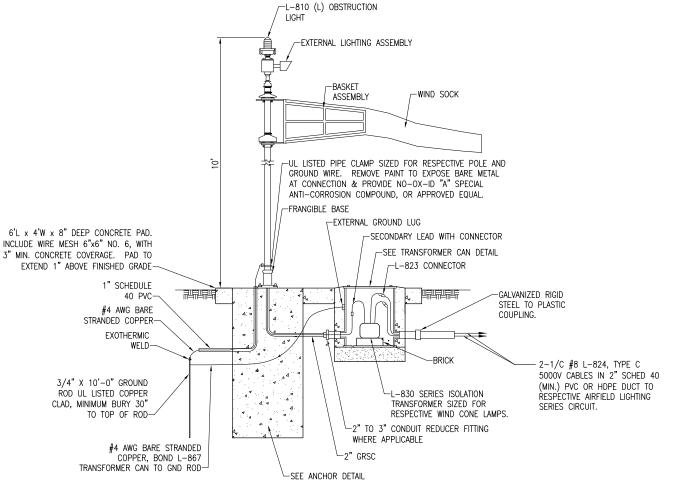
DRAWN BY: BAK 04/10/14

ELECTRICAL DETAILS SHEET 2

REVIEWED BY: CAH 04/10/14

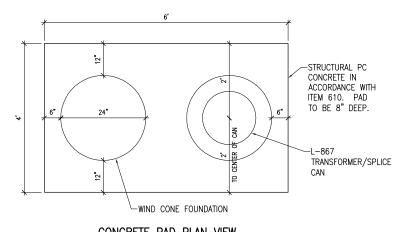






NOTES

- SUPPLEMENTAL WIND CONES SHALL BE FAA APPROVED TYPE L-806(L) WITH LIGHT EMITTING DIODE ILLUMINATION, SIZE 1
 (18-INCH DIAMETER BY 8 FEET LONG), AND SUITABLE FOR 6.6 AMP SERIES CIRCUIT POWER. WIND CONES SHALL
 INCLUDE CONSTANT-BRIGHTNESS SERIES CIRCUIT POWER ADAPTER. SEE SPECIAL PROVISION SPECS.
- 2. THE RUNWAY 11-29 LIGHTING CIRCUIT IS POWERED BY AN L-828, CLASS 1 6.6 AMP OUTPUT CURRENT, STYLE 2-5 BRIGHTNESS STEPS CONSTANT CURRENT REGULATOR. COORDINATE WITH THE RESPECTIVE WIND CONE MANUFACTURER TO PROVIDE A COMPATIBLE AND PROPERLY SIZED SERIES ISOLATION TRANSFORMER FOR EACH WIND CONE.
- 3. THE CONSTANT CURRENT REGULATOR POWERING THE SERIES CIRCUIT FOR THE WIND CONES HAS BEEN SIZED FOR THE RESPECTIVE RUNWAY LIGHTING LOADS AND WIND CONES THAT HAVE A LOAD OF LESS THAN 150VA AND DO NOT REQUIRE A SERIES ISOLATION TRANSFORMER LARGER THAN A 300 WATT RATING. IN THE EVENT THAT A WIND CONE IS PROPOSED THAT EXCEEDS THIS RATING, THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT THE RESPECTIVE CONSTANT CURRENT REGULATOR IS PROPERLY SIZED FOR THE TOTAL SERIES CIRCUIT LOAD. WHERE A WIND CONE IS PROPOSED THAT REQUIRES LOADS THAT EXCEED THE RATING OF THE EXISTING CONSTANT CURRENT REGULATOR, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ADJUSTMENTS INCLUDING PROVIDING A LARGER CONSTANT CURRENT REGULATOR AND ALL ASSOCIATED CIRCUIT BREAKERS, CONDUITS, WIRING AND VAULT WORK AS APPLICABLE TO ACCOMMODATE THE RESPECTIVE SERIES CIRCUIT LOAD WITH THE WIND CONE(S).
- SUPPLEMENTAL L-806 WIND CONES WILL BE PAID FOR UNDER ITEM AR107408 L-806 WIND CONE 8' LIGHTED PER
 EACH. SPLICE CANS FOR WIND CONE SERIES CIRCUIT TRANSFORMERS WILL BE INCIDENTAL TO THE RESPECTIVE WIND
 CONE PAY ITEM.
- REBAR SHALL BE CONFORM TO THE REQUIREMENTS OF ASTM A706, GRADE 60 AND SHALL BE MANUFACTURED FROM 100% DOMESTIC STEEL.
- 6. FOR EACH GROUNDING ELECTRODE SYSTEM (GROUND ROD) THE CONTRACTOR SHALL TEST THE MADE ELECTRODE GROUNDING SYSTEM WITH A INSTRUMENT THAT IS SPECIFICALLY DESIGNED FOR TESTING GROUNDING SYSTEMS. TEST RESULTS SHALL BE RECORDED FOR EACH GROUNDING ELECTRODE SYSTEM. IF GROUND RESISTANCE EXCEEDS 25 OHMS, CONTACT THE PROJECT ENGINEER FOR FURTHER DIRECTION. COPIES OF THE GROUND SYSTEM TEST RESULTS SHALL BE FURNISHED TO THE RESIDENT ENGINEER/RESIDENT PROJECT REPRESENTATIVE.



CONCRETE PAD PLAN VIEW
(NOT TO SCALE)

EXTERNALLY LIGHTED L806 WIND CONE (SERIES CIRCUIT TYPE)



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REVIEWED BY: CAH 03/28/14
C-0pyligh Hasson Professband Services Inc. 2013
SHEET TITLE

L-806 WIND CONE DETAILS

- CONTRACTOR SHALL KEEP A COPY OF THE LATEST NEC IN FORCE ON SITE AT ALL TIMES DURING CONSTRUCTION FOR USE AS A REFERENCE.
- CONTRACTOR SHALL COORDINATE WORK AND ANY POWER OUTAGES AND/OR SHUT DOWN OF SYSTEMS WITH THE RESPECTIVE FACILITY OWNER PERSONNEL AND THE AIRPORT MANAGER/DIRECTOR. ONCE SHUT DOWN, THE CIRCUITS SHALL BE LABELED AS SUCH TO PREVENT ACCIDENTAL ENERGIZING OF THE RESPECTIVE CIRCUITS. ALL PERSONNEL SHALL FOLLOW U.S. DEPARTMENT OF LABOR OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION (OSHA) 29 CFR PART 1910 OCCUPATIONAL SAFETY & HEALTH STANDARDS FOR ELECTRICAL SAFETY AND LOCKOUT/TAGOUT PROCEDURES INCLUDING, BUT NOT LIMITED TO, 29 CFR SECTION 1910.147 THE CONTROL OF HAZARDOUS ENERGY (LOCKOUT/TAGOUT)
- THE CONTRACTOR SHALL ASCERTAIN THAT ALL LIGHTING SYSTEM COMPONENTS FURNISHED BY HIM, INCLUDING FAA APPROVED EQUIPMENT, ARE COMPATIBLE IN ALL RESPECTS WITH EACH OTHER AND THE REMAINDER OF THE NEW/EXISTING SYSTEM. ANY NONCOMPATIBLE COMPONENTS FURNISHED BY THIS CONTRACTOR SHALL BE REPLACED BY HIM AT NO ADDITIONAL COST TO THE AIRPORT SPONSOR WITH A SIMILAR UNIT, APPROVED BY THE ENGINEER (DIFFERENT MODEL OR DIFFERENT MANUFACTURER) THAT IS COMPATIBLE WITH THE REMAINDER OF THE AIRPORT LIGHTING SYSTEM.
- IN CASE THE CONTRACTOR ELECTS TO FURNISH AND INSTALL AIRPORT LIGHTING EQUIPMENT REQUIRING ADDITIONAL WIRING, TRANSFORMERS, ADAPTORS, MOUNTINGS, ETC., TO THOSE SHOWN ON THE DRAWINGS AND/OR LISTED IN THE SPECIFICATION, ANY COST FOR THESE ITEMS SHALL BE INCIDENTAL TO THE
- THE CONTRACTOR INSTALLED EQUIPMENT (INCLUDING FAA APPROVED) SHALL NOT GENERATE ANY ELECTROMAGNETIC INTERFERENCE IN THE EXISTING AND/OR NEW COMMUNICATIONS, WEATHER, AIR NAVIGATION, AND AIR TRAFFIC CONTROL EQUIPMENT. ANY EQUIPMENT GENERATING SUCH INTERFERENCE SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST WITH THE EQUIPMENT MEETING THE APPLICABLE SPECIFICATIONS AND NOT GENERATING ANY INTERFERENCE.
- WHEN A SPECIFIC TYPE, STYLE, CLASS, ETC. OF FAA APPROVED EQUIPMENT IS SPECIFIED ONLY THAT TYPE, STYLE, CLASS, WILL BE ACCEPTABLE, EVEN THOUGH EQUIPMENT OF OTHER TYPES STYLES, CLASSES, ETC. MAY BE APPROVED.
- ANY AND ALL INSTRUCTIONS FROM THE RESIDENT ENGINEER/RESIDENT PROJECT REPRESENTATIVE TO THE CONTRACTOR REGARDING CHANGES IN OR DEVIATIONS FROM THE PLANS AND SPECIFICATIONS SHALL BE IN WRITING WITH COPIES SENT TO THE AIRPORT SPONSOR AND THE ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF AERONAUTICS. THE CONTRACTOR SHALL NOT ACCEPT ANY VERBAL INSTRUCTIONS FROM THE RESIDENT ENGINEER/RESIDENT PROJECT REPRESENTATIVE REGARDING ANY CHANGES FROM THE PLANS AND SPECIFICATIONS
- A MINIMUM OF THREE COPIES OF THE INSTRUCTION BOOK SHALL BE SUPPLIED WITH EACH DIFFERENT TYPE OF EQUIPMENT. THE BOOKS DESCRIBING A MORE SOPHISTICATED TYPE OF EQUIPMENT, SUCH AS REGULATORS, PAPI, REIL, ETC. AS A MINIMUM SHALL CONTAIN THE FOLLOWING:
 - A DETAILED DESCRIPTION OF THE OVERALL EQUIPMENT AND ITS INDIVIDUAL
 - THEORY OF OPERATION INCLUDING THE FUNCTION OF EACH COMPONENT.
 - INSTALLATION INSTRUCTION.
 - START-UP INSTRUCTIONS.
 - F. PREVENTATIVE MAINTENANCE REQUIREMENTS.
 - CHART FOR TROUBLE-SHOOTING.
 - COMPLETE POWER AND CONTROL DETAILED WIRING DIAGRAM(S), SHOWING EACH CONDUCTOR/CONNECTION/COMPONENT - "BLACK" BOXES ARE NOT ACCEPTABLE. THE DIAGRAM OF THE NARRATIVE SHALL SHOW VOLTAGE/CURRENTS/WAVE SHAPES AT STRATEGIC LOCATIONS TO BE USED WHEN CHECKING AND/OR TROUBLE-SHOOTING THE EQUIPMENT. WHEN THE EQUIPMENT HAS SEVERAL MODES OF OPERATION, SUCH AS SEVERAL BRIGHTNESS STEPS, THESE PARAMETERS SHALL BE INDICATED FOR ALL
 - PARTS LIST WHICH WILL INCLUDE ALL MAJOR AND MINOR COMPONENTS SUCH AS RESISTORS, DIODES, ETC. IT SHALL INCLUDE A COMPLETE NOMENCLATURE OF EACH COMPONENT AND, IF APPLICABLE, THE NAME OF ITS MANUFACTURER AND THE CATALOG NUMBER.
 - SAFETY INSTRUCTIONS.

POWER AND CONTROL NOTES

- PROVIDE LEGEND PLATES FOR ALL ELECTRICAL EQUIPMENT TO IDENTIFY FUNCTION, CIRCUIT VOLTAGE AND PHASE. WHERE THE EQUIPMENT CONTAINS FUSES, ALSO IDENTIFY THE FUSE OR FUSE LINK AMPERE RATING. WHERE THE EQUIPMENT DOES NOT HAVE SUFFICIENT AREA TO INSTALL LEGEND PLATES. THE LEGEND PLATES SHALL BE INSTALLED ON THE WALL NEXT TO THE UNIT. LEGEND PLATES SHALL BE WEATHERPROOF ENGRAVED PLASTIC OR PHENOLIC MATERIAL. 1/4" HIGH BLACK LETTERS ON A WHITE BACKGROUND UNLESS NOTED OTHERWISE. SECURE WITH WEATHERPROOF ADHESIVE AND MACHINE SCREWS. FURNISH ADDITIONAL LEGEND PLATES WHERE REQUIRED BY CODE, FOR ADDITIONAL EQUIPMENT, AS DETAILED HEREIN ON THE PLANS, AND AS NOTED IN THE SPECIAL PROVISION SPECIFICATIONS.
- COLOR CODE ALL PHASE WIRING BY THE USE OF COLORED WIRE INSULATION AND/OR COLORED TAPE. WHERE TAPE IS USED, THE WIRE INSULATION SHALL BE BLACK BLACK AND RED SHALL BE USED FOR PHASE CONDUCTORS ON 120/240VAC SINGLE-PHASE, THREE WIRE SYSTEMS AND BLACK, ORANGE (FOR HIGH LEG) AND BLUE SHALL BE USED FOR PHASE CONDUCTORS ON 240/120VAC THREE-PHASE, FOUR WIRE SYSTEMS. NEUTRAL CONDUCTORS, SIZE NO. 6 AWG OR SMALLER, SHALL BE IDENTIFIED BY A CONTINUOUS WHITE OR NATURAL GRAY OUTER FINISH ALONG ITS ENTIRE LENGTH. NEUTRAL CONDUCTORS LARGER THAN NO. 6 AWG SHALL BE IDENTIFIED EITHER BY A CONTINUOUS WHITE OR NATURAL GRAY OUTER FINISH ALONG ITS ENTIRE LENGTH OR BY THE USE OF WHITE TAPE AT ITS TERMINATIONS AND INSIDE ACCESSIBLE WIREWAYS. INSULATED GROUND CONDUCTORS SHALL HAVE GREEN COLORED INSULATION FOR ALL CONDUCTOR SIZES (AWG OR KCMIL).
- ALL BRANCH CIRCUIT CONDUCTORS CONNECTED TO A PARTICULAR PHASE SHALL BE IDENTIFIED WITH THE SAME COLOR. THE COLOR CODING SHALL BE EXTENDED
- IN CONTROL WIRING THE SAME COLOR SHALL BE USED THROUGHOUT THE SYSTEM FOR THE SAME FUNCTION, SUCH AS 10%, 30%, 100% BRIGHTNESS CONTROL,
- LOW VOLTAGE (600 V.) AND HIGH VOLTAGE (5000 V.) CONDUCTORS SHALL BE INSTALLED IN SEPARATE WIREWAYS.
- NEATLY LACE WIRING IN DISTRIBUTION PANELS, WIREWAYS, SWITCHES AND JUNCTION/PULL BOXES.
- THE MINIMUM SIZE OF PULL/JUNCTION BOXES, REGARDLESS OF THE QUANTITY AND SIZE OF THE CONDUCTORS SHOWN, SHALL BE AS FOLLOWS:
 - IN STRAIGHT PULLS THE LENGTH OF THE BOX SHALL NOT BE LESS THAN EIGHT TIMES THE TRADE DIAMETER OF THE LARGER CONDUIT. THE TOTAL AREA (INCLUDING THE CONDUIT CROSS-SECTIONAL AREA) OF A BOX END SHALL BE AT LEAST 3 TIMES GREATER THAN THE TOTAL TRADE CROSS-SECTIONAL AREA OF THE CONDUITS TERMINATING AT THE END.
 - IN ANGLE PULLS OR 'U' PULLS THE DISTANCE BETWEEN EACH CONDUIT ENTRY INSIDE THE BOX AND THE OPPOSITE WALL OF THE BOX SHALL NOT BE LESS THAN SIX (6) TIMES THE TRADE DIAMETER OF THE LARGEST CONDUIT. THIS DISTANCE SHALL BE INCREASED FOR ADDITIONAL ENTRIES BY THE AMOUNT OF THE SUM OF THE DIAMETERS OF ALL OTHER CONDUIT ENTRIES ON THE SAME WALL AS THE BOX. THE DISTANCE BETWEEN CONDUIT ENTRIES ENCLOSING THE SAME CONDUCTOR SHALL NOT BE LESS THAN SIX TIMES THE TRADE DIAMETER OF THE LARGEST CONDUIT
- A RUN OF CONDUIT BETWEEN TERMINATIONS AT EQUIPMENT ENCLOSURES, SQUARE DUCTS AND PULL/JUNCTION BOXES, SHALL NOT CONTAIN MORE THAN THE EQUIVALENT OF FOUR QUARTER BENDS (360 DEGREES TOTAL), INCLUDING THOSE BENDS LOCATED IMMEDIATELY AT THE TERMINATIONS, CAST, CONDUIT TYPE OUTLETS SHALL NOT BE TREATED AS PULL/JUNCTION BOXES.
- EQUIPMENT CABINETS SHALL NOT BE USED AS PULL/JUNCTION BOXES. ONLY WIRING TERMINATING AT THE EQUIPMENT SHALL BE BROUGHT INTO THESE
- SPLICES AND JUNCTION POINTS SHALL BE PERMITTED ONLY IN JUNCTION BOXES, DUCTS EQUIPPED WITH REMOVABLE COVERS, AND AT EASILY ACCESSIBLE
- CIRCUIT BREAKERS IN POWER DISTRIBUTION PANEL(S) SHALL BE THERMAL-MAGNETIC MOLDED CASE, PERMANENT TRIP WITH 100 AMPERE, MINIMUM
- DUAL LUGS SHALL BE USED WHERE TWO (2) WIRES, SIZE NO. 6 OR LARGER, ARE TO BE CONNECTED TO THE SAME TERMINAL.
- ALL INTERIOR WALL MOUNTED EQUIPMENT ENCLOSURES SHALL BE MOUNTED ON HOT DIPPED GALVANIZED STEEL STRUT SUPPORT, OR STAINLESS STEEL STRUT SUPPORT, WITH CORROSION RESISTANT HARDWARE
- SUPPORT FOR EXTERIOR MOUNTED EQUIPMENT SHALL USE HOT DIPPED GALVANIZED STEEL STRUT SUPPORT OR STAINLESS STEEL STRUT SUPPORT WITH STAINLESS STEEL HARDWARE. PROVIDE ZINC RICH PAINT APPLIED TO FIELD CUTS OF GALVANIZED STEEL SUPPORT TO MINIMIZE THE POTENTIAL FOR CORROSION PER THE RESPECTIVE STRUT SUPPORT MANUFACTURER'S RECOMMENDATIONS.

- 15. CONDUITS FOR ELECTRIC SERVICE ENTRANCE AND FEEDERS SHALL BE AS DETAILED HEREIN ON THE PLANS. WHERE GALVANIZED RIGID STEEL CONDUIT IS SPECIFIED IT SHALL HAVE THREADED FITTINGS. SET SCREW TYPE FITTINGS WILL NOT BE ACCEPTABLE. CONDUITS FOR UNDERGROUND APPLICATIONS SHALL BE AS DETAILED HEREIN. CONDUITS FOR GROUNDING ELECTRODE CONDUCTORS OR INDIVIDUAL GROUNDING CONDUCTORS SHALL BE SCHEDULE 40 OR SCHEDULE 80
- 16. PROVIDE LIQUID TIGHT FLEXIBLE METAL CONDUIT AT CONNECTIONS TO EQUIPMENT SUBJECT TO VIBRATION OR WHERE FLEXIBILITY IS REQUIRED. LIQUID TIGHT FLEXIBLE METAL CONDUIT AND ASSOCIATED FITTINGS SHALL BE U.L. LISTED TO MEET THE REQUIREMENTS OF NEC 350.6, SUITABLE FOR GROUNDING, SUNLIGHT RESISTANT, AND RESISTANT TO OIL, GASOLINE, AND GREASE. LIQUID TIGHT FLEXIBLE METAL CONDUIT THAT IS USED FOR FLEXIBILITY (INCLUDING CONNECTIONS TO MOTORS, TRANSFORMERS, & CONSTANT CURRENT REGULATORS) SHALL REQUIRE AN EXTERNAL BONDING JUMPER OR INTERNAL EQUIPMENT GROUNDING CONDUCTOR PER NEC 350.60. DO NOT INSTALL LIQUID TIGHT FLEXIBLE METAL CONDUIT THAT IS NOT UL. LISTED. CONFIRM LIQUID-TIGHT FLEXIBLE METAL CONDUIT BEARS THE UL LABEL PRIOR TO INSTALLING IT.
- UNLESS OTHERWISE SHOWN, ALL EXPOSED CONDUITS SHALL BE RUN PARALLEL TO OR AT RIGHT ANGLES WITH THE LINES OF THE STRUCTURE.
- 18. ALL STEEL CONDUITS, FITTINGS, NUTS, BOLTS, ETC. SHALL BE GALVANIZED.
- 19. USE CONDUIT BUSHINGS AT EACH CONDUIT TERMINATION. WHERE NO. 4 AWG OR LARGER UNDERGROUND WIRE IS INSTALLED, USE INSULATED BUSHINGS.
- 20. USE DOUBLE LOCK NUTS AT EACH CONDUIT TERMINATION.
- WRAP ALL PRIMARY AND SECONDARY POWER TRANSFORMER CONNECTIONS WITH SUFFICIENT LAYERS OF INSULATING TAPE (3M SCOTCH 23 ALL-VOLTAGE SPLICING TAPE, 3M SCOTCH 130C LINERLESS RUBBER SPLICING TAPE, OR APPROVED EQUAL) AND COVER WITH VINYL ELECTRICAL TAPE (3M SCOTCH 88 VINYL ELECTRICAL TAPE OR APPROVED EQUAL) FOR FULL VALUE OF CABLE INSULATION
- 22. UNLESS OTHERWISE NOTED, ALL SINGLE CONDUCTOR CONTROL WIRING SHALL BE NO 12 AWG COPPER MINUMUM
- 23. THE FOLLOWING SHALL APPLY TO RELAY/CONTACTOR PANELS/ENCLOSURES:
 - FOR INTERIOR LOCATIONS ALL COMPONENTS SHALL BE MOUNTED IN NEMA 12 (DUST TIGHT) ENCLOSURE(S) WITH VERTICALLY HINGED COVERS. FOR EXTERIOR/OUTDOOR LOCATIONS ALL COMPONENTS SHALL BE MOUNTED IN NEMA 4X STAINLESS STEEL ENCLOSURE(S) WITH VERTICALLY HINGED COVERS. ALL CONDUIT ENTRIES INTO NEMA 4. 4X ENCLOSURES SHALL HAVE NEMA 4 HUBS LISTED SUITABLE FOR THE RESPECTIVE ENCLOSURE TO MAINTAIN THE NEMA 4, 4X RATING OF THE ENCLOSURE.
 - THE ENCLOSURE(S) SHALL HAVE AMPLE SPACE FOR THE CIRCUIT COMPONENTS, TÈRMINAL BLOCKS AND INCOMING AND INTERNAL WIRING.
 - ALL CONTROL CONDUCTOR TERMINATIONS SHALL BE OF THE OPEN-EYE CONNECTOR/SCREW TYPE. SOLDERED CLOSED-EYE TERMINATIONS, OR TERMINATIONS WITHOUT CONNECTORS ARE NOT ACCEPTABLE.
 - WHEN THE ENCLOSURE COVER IS OPENED, ALL CIRCUIT COMPONENTS, WIRING AND TERMINALS SHALL BE EXPOSED AND ACCESSIBLE WITHOUT REMOVAL OF ANY PANELS, COVERS, ETC., EXCEPT THOSE COVERING HIGH VOLTAGE COMPONENTS.
 - ACCESS TO, OR REMOVAL OF A CIRCUIT COMPONENT OR TERMINAL BLOCK WILL NOT REQUIRE THE REMOVAL OF ANY OTHER CIRCUIT COMPONENT OR
 - EACH CIRCUIT COMPONENT SHALL BE CLEARLY IDENTIFIED INDICATING ITS CORRESPONDING NUMBER SHOWN ON THE DRAWINGS AND ITS FUNCTION.
 - A COMPLETE WIRING DIAGRAM SHALL BE MOUNTED ON THE INSIDE OF THE COVER. THE DIAGRAM SHALL REPRESENT EACH CONDUCTOR BY A SEPARATE
 - THE DIAGRAM SHALL IDENTIFY EACH CIRCUIT COMPONENT AN NUMBERING AND COLOR OF EACH TERMINAL CONDUCTOR AND TERMINAL.
 - ALL WIRING SHALL BE NEATLY TRAINED AND LACED.
 - MINIMUM WIRE SIZE SHALL BE NO. 12 AWG.
- FURNISH & INSTALL A WEATHERPROOF WARNING LABEL FOR EACH METER SOCKET, SERVICE DISCONNECT, SAFETY SWITCH, CUTOUT, PANELBOARD, & CONTROL PANEL TO WARN PERSONS OF POTENTIAL ELECTRIC ARC FLASH HAZARDS, PER THE REQUIREMENTS OF NEC 110.16 "FLASH PROTECTION"

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SHEET TITLE

ELECTRICAL NOTES SHEET 1

AIRFIELD LIGHTING NOTES

- UNLESS OTHERWISE NOTED, ALL UNDERGROUND AIRFIELD LIGHTING SERIES CIRCUIT CONDUCTORS WHETHER DEB OR IN DUCT/CONDUIT SHALL BE FAA APPROVED 5000 VOLT L-824 TYPE. ALL UNDERGROUND FIELD POWER LOW VOLTAGE (600 VOLT & BELOW) CIRCUIT CONDUCTORS WHETHER DEB OR IN DUCT/CONDUIT SHALL BE UL LISTED 600 VOLT, TYPE XLP-USE-2 COPPER CONDUCTORS. CONDUCTOR SIZES SHALL BE AS SPECIFIED. HEREIN.
- NO COMPONENTS OF PRIMARY CIRCUIT SUCH AS CABLE, CONNECTORS AND TRANSFORMERS SHALL BE BROUGHT ABOVE GROUND AT EDGE LIGHTS, SIGNS, REIL, PAPL ETC.
- 3. THERE SHALL BE NO EXPOSED POWER/CONTROL CABLES BETWEEN THE POINT WHERE THEY LEAVE THE UNDERGROUND (DEB OR L-867 BASES) AND WHERE THEY ENTER THE EQUIPMENT (SUCH AS TAXIWAY SIGNS, PAPI, REIL, ETC.) ENCLOSURES. THESE CABLES SHALL BE ENCLOSED IN RIGID CONDUIT OR IN FLEXIBLE, WATERTIGHT CONDUIT WITH BREAKABLE COUPLING(S) AT THE GRADE OR THE HOUSING COVER, AS SHOWN IN APPLICABLE DETAILS.
- 4. THE JOINTS OF THE L-823 PRIMARY CONNECTORS SHALL BE WRAPPED 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 THE JOINT, AS SHOWN ON ELECTRICAL DETAILS SHEET 1.
- 5. THE CABLE ENTRANCE INTO THE FIELD-ATTACHED L-823 CONNECTORS SHALL BE ENCLOSED BY A HEAT-SHRINKABLE TUBING WITH CONTINUOUS INTERNAL ADHESIVE, AS SHOWN ON ELECTRICAL DETAILS SHEET 1.
- L-823 TYPE II, TWO-CONDUCTOR SECONDARY CONNECTORS SHALL BE CLASS 'A' (FACTORY MOLDED).
- THERE SHALL BE NO SPLICES IN THE SECONDARY CABLE(S) WITHIN THE STEMS OF A RUNWAY/TAXIWAY EDGE/THRESHOLD LIGHTING FIXTURE AND THE WIREWAYS LEADING TO TAXIWAY SIGNS AND PAPI/REIL EQUIPMENT.
- ELECTRICAL INSULATING GREASE SHALL BE APPLIED WITHIN THE L-823, SECONDARY, TWO CONDUCTOR CONNECTORS TO PREVENT WATER ENTRANCE. THESE CONNECTORS SHALL NOT BE TAPED.
- DEB ISOLATION TRANSFORMERS SHALL BE BURIED AT A DEPTH OF TEN (10") INCHES
 ON A LINE CROSSING THE LIGHT AND PERPENDICULAR TO THE RUNWAY/TAXIWAY
 CENTERLINE AT A LOCATION TWELVE (12") INCHES FROM THE LIGHT OPPOSITE FROM
 THE RUNWAY/TAXIWAY.
- 10. A SLACK OF THREE (3') FEET, MINIMUM, PLUS DEPTH OF BASE CAN (IF APPLICABLE) SHALL BE PROVIDED IN THE PRIMARY CABLE AT EACH TRANSFORMER/CONNECTOR TERMINATION. AT STAKE—MOUNTED LIGHTS, THE SLACK SHALL BE LOOSELY COILED IMMEDIATELY BELOW THE ISOLATION TRANSFORMER. THERE SHALL BE NO ADDITIONAL PAYMENT FOR CABLE SLACK AND THEREFORE THE QUANTITY OF PROPOSED CABLE SLACK HAS NOT BEEN INCLUDED IN THE RESPECTIVE CABLE PAY ITEMS.
- 11. DIRECTION OF PRIMARY CABLES SHALL BE IDENTIFIED BY COLOR CODING AS FOLLOWS: WHEN FACING LIGHT WITH BACK TO PAVEMENT, CABLE TO THE LEFT IS CODED RED AND CABLE TO RIGHT IS CODED BLUE. THIS APPLIES TO STAKE MOUNTED LIGHTS AND BASE MOUNTED LIGHTS WHERE THE BASE HAS ONLY ONE ENTRANCE.
- 12. L-867 BASES SHALL BE SIZE B, 24" DEEP, CLASS I, UNLESS OTHERWISE NOTED.
- 13. BASE MOUNTED BREAKABLE COUPLINGS SHALL NOT HAVE WEEP HOLES TO THE OUTSIDE. PLUGGED UP HOLES SHALL NOT BE ACCEPTABLE. IT SHALL BE A 1/4" DIAMETER, MINIMUM, OR EQUIVALENT OPENING FOR DRAINAGE FROM THE SPACE AROUND THE SECONDARY CONNECTOR INTO THE L-867 BASE.
- 14. THE ELEVATION OF THE BREAKABLE COUPLING GROOVE SHALL NOT EXCEED 1-1/2" ABOVE THE EDGE OF THE COVER IN CASE OF BASE MOUNTED COUPLINGS, OR THE TOP OF THE STAKE IN CASE OF STAKE MOUNTED COUPLINGS.
- 15. WHERE THE BREAKABLE COUPLING IS NOT AN INTEGRAL PART OF THE LIGHT FIXTURE STEM OR MOUNTING LEG, A BEAD OF SILICON SEAL SHALL BE APPLIED COMPLETELY AROUND LIGHT STEM OR WIREWAY AT BREAKABLE COUPLING TO PROVIDE A WATERTIGHT SFAI
- 16. TOPS OF THE STAKES SUPPORTING LIGHT FIXTURES SHALL BE FLUSH WITH THE SURROUNDING GRADE.
- 17. PLASTIC LIGHTING FIXTURE COMPONENTS, SUCH AS LAMP HEADS, STEMS, BREAKABLE COUPLINGS, BASE COVERS, BRACKETS, STAKES, SHALL NOT BE ACCEPTABLE.
- 18. THE TOLERANCE FOR THE HEIGHT OF RUNWAY/TAXIWAY EDGE LIGHTS SHALL BE: ONE (1) INCH. IN CASE OF STAKE MOUNTED LIGHTS, THE SPECIFIED LIGHTING FIXTURE HEIGHT SHALL BE MEASURED BETWEEN THE TOP OF THE STAKE AND THE TOP OF THE LENS. IN CASE OF BASE MOUNTED LIGHTS, THE SPECIFIED LIGHTING FIXTURE HEIGHT SHALL BE MEASURED BETWEEN THE TOP OF THE BASE FLANGE AND THE TOP OF THE LENS, THUS INCLUDING THE BASE COVER, THE FRANGIBLE COUPLING, THE STEM, THE LAMP HOUSING AND THE LENS.

- 19. THE TOLERANCE FOR THE LATERAL SPACING (LIGHT LANE TO RUNWAY/TAXIWAY CENTERLINE) OF RUNWAY/TAXIWAY EDGE LIGHTS SHALL BE ONE (1) INCH. THIS ALSO APPLIES AT INTERSECTIONS TO LATERAL SPACING BETWEEN LIGHTS OF A RUNWAY/TAXIWAY AND THE INTERSECTING RUNWAY/TAXIWAY.
- 20. ENTRANCES INTO L-867 BASES SHALL HAVE CONDUIT COUPLINGS OR REDUCERS TO INTERFACE UNIT DUCT/CONDUIT TO L-867 BASE HUBS, OR SHALL BE SEALED WITH HEAT SHRINK AS SHOWN IN DETAIL "B" ON ELECTRICAL DETAILS SHEET 1.
- GALVANIZED/PAINTED EQUIPMENT/COMPONENT SURFACES SHALL NOT BE DAMAGED BY DRILLING, FILING, ETC. DRAIN HOLES IN METAL TRANSFORMER HOUSINGS SHALL BE MADE BEFORE GALVANIZING.
- 22. EDGE LIGHT NUMBERING TAGS SHALL BE FACING THE PAVEMENT.
- 23. CABLE/SPLICE/DUCT MARKERS SHALL BE PRECAST CONCRETE OF THE SIZE SHOWN.

 LETTERS/NUMBERS/ARROWS FOR THE LEGEND TO BE IMPRESSED INTO THE TOPS OF
 THE MARKERS SHALL BE PRE-ASSEMBLED AND SECURED IN THE MOLD BEFORE THE
 CONCRETE IS POURED. LEGEND INSCRIBED BY HAND IN WET CONCRETE SHALL NOT BE
 ACCEPTABLE
- 24. ALL UNDERGROUND CABLE RUNS SHALL BE IDENTIFIED BY CABLE MARKERS AT 200 FEET MAXIMUM SPACING, WITH AN ADDITIONAL MARKER AT EACH CHANGE OF DIRECTION OF THE CABLE RUN. CABLE MARKERS SHALL BE INSTALLED IMMEDIATELY ABOVE THE CARI FS.
- 25. THERE SHALL BE NO SPLICES BETWEEN THE ISOLATION TRANSFORMERS. L-823 CONNECTORS ARE ALLOWED AT TRANSFORMER CONNECTIONS ONLY, UNLESS OTHERWISE SHOWN.
- 26. APPLY AN OXIDE INHIBITING, ANTI-SEIZING COMPOUND TO ALL SCREWS, NUTS AND BREAKAGE COUPLING THREADS.
- 27. LOCATIONS OF ENDS OF ALL UNDERGROUND DUCTS SHALL BE IDENTIFIED BY DUCT MARKERS
- 28. WHERE A PARALLEL, CONSTANT VOLTAGE PAPI SYSTEM IS PROVIDED, THE "T" SPLICES SHALL BE OF THE CAST TYPE.
- CONCRETE USED FOR SLABS, FOOTINGS, BACKFILL AROUND TRANSFORMER HOUSINGS, MARKINGS, ETC. SHALL BE 3500 PSI, AIR-ENTRAINED.
- 30. ALL POWER AND CONTROL CABLES IN MAN/HAND HOLES SHALL BE TAGGED. USE EMBOSSED COPPER STRIPS TO BE ATTACHED AT BOTH ENDS TO THE CABLE BY THE USE OF PLASTIC STRAPS. MINIMUM OF TWO TAGS SHALL BE PROVIDED ON EACH CABLE IN A MAN/HAND HOLE—ONE AT THE CABLE ENTRANCE AND ONE AT THE CABLE EXIT.
- 31. THE LOCATION, SIZE AND TYPE OF MATERIAL OF EXISTING UNDERGROUND AND/OR ABOVEGROUND UTILITIES INDICATED ON THE PLANS IS NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT OR COMPLETE. NEITHER THE OWNER NOR THE ENGINEER ASSUMES ANY RESPONSIBILITY WHATEVER IN RESPECT TO ACCURACY, COMPLETENESS, OR SUFFICIENCY OF THE INFORMATION. THERE IS NO GUARANTEE EITHER EXPRESSED OR IMPLIED, THAT THE LOCATIONS, SIZE AND TYPE OF MATERIAL OF EXISTING UNDERGROUND UTILITIES INDICATED ARE REPRESENTATIVE OF THOSE TO BE ENCOUNTERED IN THE CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES, INCLUDING SERVICE CONNECTIONS TO UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES OF HIS OPERATIONAL PLANS AND SHALL OBTAIN FROM THE 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. THE OWNER'S REPRESENTATIVE AND/OR THE RESIDENT ENGINEER/RESIDENT PROJECT REPRESENTATIVE SHALL ALSO BE IMMEDIATELY NOTIFIED. ANY DAMAGE TO SUCH MAINS AND SERVICES SHALL BE RESTORED TO SERVICE AT ONCE AND PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT. ALL UTILITY CABLES AND LINES SHALL BE LOCATED BY THE RESPECTIVE UTILITY. CONTACT J.U.L.I.E. FOR UTILITY INFORMATION AT 1-800-892-0123. ALSO CONTACT AIRPORT DIRECTOR/MANAGER AND AIRPORT PERSONNEL FOR ASSISTANCE IN LOCATING UNDERGROUND AIRPORT CABLES AND/OR UTILITIES. ALSO COORDINATE WORK WITH ALL ABOVEGROUND UTILITIES.
- WHEN PREPARING CABLE FOR SPLICES, THE CONTRACTOR SHALL USE A CABLE STRIPPER/PENCILLER WHENEVER CABLE CONNECTIONS ARE MADE.

GROUNDING NOTES FOR AIRFIELD LIGHTING

- GROUNDING FOR RUNWAY LIGHTS, TAXIWAY LIGHTS, AND LIGHTED TAXI GUIDANCE SIGNS SHALL BE AS DETAILED ON THE PLANS AND AS SPECIFIED HEREIN. PER FAA AC 150/5340-30G DESIGN AND INSTALLATION DETAILS FOR AIRPORT VISUAL AIDS, CHAPTER 12, PART 12.6; A GROUND MUST BE INSTALLED AT EACH LIGHT FIXTURE. THE PURPOSE OF THE LIGHT BASE GROUND IS TO PROVIDE A DEGREE OF PROTECTION FOR MAINTENANCE PERSONNEL FROM POSSIBLE CONTACT WITH AN ENERGIZED LIGHT BASE OR MOUNTING STAKE THAT MAY RESULT FROM A SHORTED POWER CABLE OR ISOLATION TRANSFORMER. A LIGHT BASE GROUND SHALL BE INSTALLED AT EACH TRANSFORMER BASE/LIGHT CAN ASSOCIATED WITH RUNWAY LIGHTS, TAXIWAY LIGHTS, AND LIGHTED TAXI GUIDANCE SIGNS. A LIGHT BASE GROUND SHALL ALSO BE INSTALLED AT EACH STAKE MOUNTED LIGHT FIXTURE. A LIGHT BASE GROUND SHALL BE INSTALLED AND CONNECTED TO THE METAL FRAME OF EACH TAXI GUIDANCE SIGN AS DETAILED ON THE PLANS AND IN ACCORDANCE WITH THE RESPECTIVE TAXI GUIDANCE SIGN MANUFACTURER RECOMMENDATIONS. THE LIGHT BASE GROUND SHALL BE A #6 AWG BARE COPPER CONDUCTOR BONDED TO THE GROUND LUG ON THE RESPECTIVE I -867 TRANSFORMER BASE/LIGHT CAN OR MOUNTING STAKE AND A 3/4-INCH DIAMETER BY 10-FOOT LONG (MINIMUM) UL LISTED COPPER CLAD GROUND ROD. CONNECTIONS TO GROUND LUGS ON THE L-867 TRANSFORMER BASE/LIGHT CAN OR MOUNTING STAKE SHALL BE WITH A UL LISTED GROUNDING CONNECTOR SUITABLE FOR DIRECT BURY IN EARTH OR CONCRETE. CONNECTIONS TO GROUND RODS SHALL BE MADE WITH EXOTHERMIC WELD TYPE CONNECTORS, CADWELD BY ERICO PRODUCTS, INC., SOLON, OHIO, (PHONE: 800-248-9353), THERMOWELD BY CONTINENTAL INDUSTRIES, INC., TULSA, OKLAHOMA (PHONE: 918-663-1440), ULTRAWELD BY HARGER, GRAYSLAKE, ILLINOIS (PHONE: 800-842-7437). OR APPROVED EQUAL. EXOTHERMIC WELD CONNECTIONS SHALL BE INSTALLED IN CONFORMANCE WITH THE RESPECTIVE MANUFACTURER'S DIRECTIONS USING MOLDS AS REQUIRED FOR EACH RESPECTIVE APPLICATION. BOLTED CONNECTIONS WILL NOT BE PERMITTED AT GROUND RODS. TOP OF GROUND RODS SHALL BE BURIED 12 INCHES MINIMUM BELOW GRADE, UNLESS SPECIFIED OTHERWISE HEREIN, FOR RESPECTIVE APPLICATIONS.
- 2. FOR BASE MOUNTED LIGHT FIXTURES THE LIGHT FIXTURE MUST BE BONDED TO THE LIGHT BASE INTERNAL GROUND LUG VIA A #6 AWG STRANDED COPPER WIRE RATED FOR 600 VOLTS WITH GREEN XHHW INSULATION OR A BRAIDED GROUNDING STRAP OF EQUIVALENT CURRENT RATING. THE GROUND WIRE LENGTH MUST 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 A BONDING WIRE.
- CLEAN ALL METAL SURFACES BEFORE MAKING GROUND CONNECTIONS. METALLIC SURFACES TO BE JOINED SHALL BE PREPARED BY THE REMOVAL OF ALL NON-CONDUCTIVE MATERIAL PER 2014 NATIONAL ELECTRICAL CODE ARTICLE 250-12.
- 4. PER FAA 150/5340-30G THE RESISTANCE TO GROUND OF THE RESPECTIVE MOUNTING STAKE OR LIGHT BASE (WITH GROUND ROD CONNECTED) MUST BE 25 OHMS OR LESS.
- 5. FOR EACH AIRFIELD LIGHT FIXTURE, TAXI GUIDANCE SIGN, SPLICE CAN, AND NAVAID INSTALLED ON THIS PROJECT THE CONTRACTOR SHALL TEST THE MADE ELECTRODE GROUND SYSTEM WITH AN INSTRUMENT SPECIFICALLY DESIGNED FOR TESTING GROUNDING SYSTEMS. TEST RESULTS SHALL BE RECORDED FOR EACH GROUNDING ELECTRODE SYSTEM. IF GROUND RESISTANCE EXCEEDS 25 OHMS CONTACT THE PROJECT ENGINEER FOR FURTHER DIRECTION. COPIES OF THE GROUND SYSTEM TEST RESULTS SHALL BE FURNISHED TO THE RESIDENT ENGINEER/RESIDENT PROJECT REPRESENTATIVE.

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REHABILITATE RUNWAY 11/29

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SHEET TITLE

ELECTRICAL NOTES SHEET 2

ELEC	CTRICAL LEGEND — ONE—LINE DIAGRAM		
	CABLE TERMINATOR/LUG		
***	TRANSFORMER		
_\	DISCONNECT SWITCH		
-\=	FUSIBLE DISCONNECT SWITCH		
	CIRCUIT BREAKER		
-^-	THERMAL MAGNETIC CIRCUIT BREAKER		
	FUSE		
↓	TRANSIENT VOLTAGE SURGE SUPPRESSOR OR SURGE PROTECTOR DEVICE		
#	GROUND — GROUND ROD, GROUNDING ELECTRODE, OR AT EARTH POTENTIAL		
a	INDICATING LIGHT		
W	MOTOR		
#	LOAD, MOTOR, # = HORSEPOWER		
	ELECTRIC UTILITY METER BASE		
·	JUNCTION BOX WITH SPLICE		
XXX	EQUIPMENT, XXX = DEVICE DESCRIPTION		
GND	GROUND BUS OR TERMINAL		
S/N	NEUTRAL BUS		
#	PANELBOARD WITH MAIN LUGS		
	PANELBOARD WITH MAIN BREAKER		
♣	FUSE PANEL WITH MAIN FUSE PULLOUT		
	DUPLEX RECEPTACLE 120V SINGLE PHASE GROUNDING TYPE		
S S	CONTROL STATION		
N EM	Transfer swiich		
	ENGINE GENERATOR SET		

	ELECTRICAL LEGEND — SCHEMATIC			
	NORMALLY CLOSED (N.C.) CONTACT			
(\$*)	STARTER COIL, * = STARTER NUMBER			
OL H	OVERLOAD RELAY CONTACT			
(CR+)	CONTROL RELAY, * = CONTROL RELAY NUMBER			
(R*)	RELAY, * = RELAY NUMBER			
·	TOGGLE SWITCH / 2 POSITION SWITCH			
OFF_AUTO	2-position selector switch			
o ox				
HAND T AUTO VOO OOX	3-POSITION SELECTOR SWITCH (H-O-A SHOWN)			
	2 POLE DISCONNECT SWITCH			
111	3 POLE DISCONNECT SWITCH			
<u></u>	PHOTOCELL			
	TERMINAL BLOCK, * = TERMINAL NUMBER			
INTERNAL PANEL WIRING				
— — FIELD WIRING				
	FUSE			
GND	GROUND BUS OR TERMINAL			
S/N NEUTRAL BUS				
≢	GROUND, GROUND ROD, GROUND BUS			
0 0	INDUSTRIAL CONTROL RELAY OR LIGHTING CONTACTOR			
	S1 CUTOUT HANDLE REMOVED			
	S1 CUTOUT HANDLE INSERTED			
%	N.O. THERMAL SWITCH			
7	N.C. THERMAL SWITCH			
(3E)	L-830 SERIES ISOLATION TRANSFORMER			

	ELECTRICAL ABBREVIATIONS			
A.F.F.	ABOVE FINSHED FLOOR			
A, AMP	AMPERES			
ATS	AUTOMATIC TRANSFER SWITCH			
AWG	AMERICAN WIRE GAUGE			
BKR	BREAKER			
С	CONDUIT			
СВ	CIRCUIT BREAKER			
СКТ	CIRCUIT			
CR	CONTROL RELAY			
cu	COPPER			
DPDT	DOUBLE POLE DOUBLE THROW			
DPST	DOUBLE POLE SINGLE THROW			
ЕМ	EMERGENCY			
EMT	ELECTRICAL METALLIC TUBING			
ENCL	ENCLOSURE			
EP	EXPLOSION PROOF			
ES	EMERGENCY STOP			
ETL	INTERTEK - ELECTRICAL TESTING LABS			
ETM	ELAPSE TIME METER			
GFCI	GROUND FAULT CIRCUIT INTERRUPTER			
GFI	GROUND FAULT INTERRUPTER			
GND	GROUND			
GRSC	GALVANIZED RIGID STEEL CONDUIT			
HID	HIGH INTENSITY DISCHARGE			
НОА	HAND OFF AUTOMATIC			
HP	HORSEPOWER			
HPS	HIGH PRESSURE SODIUM			
J	JUNCTION BOX			
KVA	KILOVOLT AMPERE(S)			
kw	KILOWATTS			
LC	LIGHTING CONTACTOR			
LTFMC	LIQUID TIGHT FLEXIBLE METAL CONDUIT (UL LISTED)			
LTG	LIGHTING			
LP	LIGHTING PANEL			
MAX	MAXIMUM			
мсв	MAIN CIRCUIT BREAKER			
мсм	THOUSAND CIRCLUAR MIL			
MDP	MAIN DISTRIBUTION PANEL			
MFR	MANUFACTURER			
мн	METAL HALIDE			
MIN	MINIMUM			
MLO	MAIN LUGS ONLY			
NEC	NATIONAL ELECTRICAL CODE (NFPA 70)			
NC	NORMALLY CLOSED			
NO	NORMALLY OPEN			
NTS	NOT TO SCALE			
OHE	OVERHEAD ELECTRIC			
F				

OVERLOAD

El	ECTRICAL ABBREVIATIONS (CONTINUED)
PB	PULL BOX
PC	PHOTO CELL
PDB	POWER DISTRIBUTION BLOCK
PNL	PANEL
RCPT	RECEPTACLE
R	RELAY
S	STARTER
SPD	SURGE PROTECTION DEVICE
SPST	SINGLE POLE SINGLE THROW
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
TYP	TYPICAL
UG	UNDERGROUND
UGE	UNDERGROUND ELECTRIC
UL	UNDERWRITER'S LABORATORIES
٧	VOLTS
W/	WITH
W /0	WITHOUT
WP	WEATHER PROOF
XFER	TRANSFER
XFMR	TRANSFORMER

AIRPORT EQUIPMENT/FACILITY ABBREVIATIONS		
ASOS	AUTOMATED SURFACE OBSERVING SYSTEM	
ATCT	AIR TRAFFIC CONTROL TOWER	
AWOS	AUTOMATED WEATHER OBSERVING SYSTEM	
CCR	CONSTANT CURRENT REGULATOR	
DME	DISTANCE MEASURING EQUIPMENT	
FAR	FEDERAL AVIATION REGULATION	
GS	GLIDE SLOPE FACILITY	
HIRL	HIGH INTENSITY RUNWAY LIGHT	
ILS	INSTRUMENT LANDING SYSTEM	
IM	INNER MARKER	
LIR	LOW IMPACT-RESISTANT	
LOC	LOCALIZER FACILITY	
MALS	MEDIUM INTENSITY APPROACH LIGHTING SYSTEM	
MALSR	MEDIUM INTENSITY APPROACH LIGHTING SYSTEM WITH RUNWAY ALIGNMENT INDICATING LIGHTS	
MIRL	MEDIUM INTENSITY RUNWAY LIGHT	
MITL	MEDIUM INTENSITY TAXIWAY LIGHT	
NDB	NON-DIRECTIONAL BEACON	
PAPI	PRECISION APPROACH PATH INDICATOR	
PLASI	PULSE LIGHT APPROACH SLOPE INDICATOR	
RAIL	RUNWAY ALIGNMENT INDICATING LIGHTS	
REIL	RUNWAY END IDENTIFIER LIGHT	
RVR	RUNWAY VISUAL RANGE	
VADI	VISUAL APPROACH DESCENT INDICATOR	
VASI	VISUAL APPROACH SLOPE INDICATOR	
VOR	VERY HIGH FREQUENCY OMNIDIRECTIONAL RANGE FACILITY	
WC	WIND CONE	

NOTES:

- CONTRACTOR SHALL EXAMINE THE SITE AND VAULT TO DETERMINE EXISTING SITE CONDITIONS.
- 2. ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN CONFORMANCE WITH NFPA 70 NATIONAL ELECTRICAL CODE (NEC) MOST CURRENT ISSUE IN FORCE, THE RESPECTIVE EQUIPMENT MANUFACTURER'S DIRECTIONS AND ALL OTHER APPLICABLE LOCAL CODES, LAWS, ORDINANCES, AND REQUIREMENTS IN FORCE. ANY INSTALLATIONS WHICH VOID THE U.L. LISTING, ETL LISTING (OR OTHER THIRD PARTY LISTING) AND/OR THE MANUFACTURER'S WARRANTY OF A DEVICE WILL NOT BE PERMITTED.
- ALL VAULT WORK, POWER OUTAGES, AND/OR SHUT DOWN OF EXISTING SYSTEMS SHALL BE COORDINATED WITH THE AIRPORT MANAGER. ONCE SHUT DOWN, THE CIRCUITS SHALL BE LABELED AS SUCH TO PREVENT ACCIDENTAL ENERGIZING OF THE RESPECTIVE CIRCUITS. ALL PERSONNEL SHALL FOLLOW U.S. DEPARTMENT OF LABOR OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION (OSHA) 29 CFR PART 1910 OCCUPATIONAL SAFETY & HEALTH STANDARDS FOR ELECTRICAL SAFETY AND LOCKOUT/TAGOUT PROCEDURES INCLUDING, BUT NOT LIMITED TO, 29 CFR SECTION 1910.147 THE CONTROL OF HAZARDOUS ENERGY (LOCKOUT/TAGOUT).
- 4. COLOR CODE PHASE AND NEUTRAL CONDUCTOR INSULATION FOR NO. 6 AWG OR SMALLER. PROVIDE COLORED INSULATION OR COLORED MARKING TAPE FOR PHASE AND NEUTRAL CONDUCTORS FOR NO. 4 AWG AND LARGER. INSULATED GROUND CONDUCTORS SHALL HAVE GREEN COLORED INSULATION FOR ALL CONDUCTOR AWG AND/OR KCMIL TO COMPLY WITH NEC 250.119. NEUTRAL CONDUCTORS SHALL HAVE WHITE COLORED INSULATION FOR NO. 6 AWG AND SMALLER TO MEET THE REQUIREMENTS OF NEC 200.6. STANDARD COLORS FOR POWER WIRING AND BRANCH CIRCUITS SHALL BE AS FOLLOWS:

120/240 VAC.	1 PHASE, 3 WIRE
PHASE A	BLACK
PHASE B	RED
NEUTRAL	WHITE
GROUND	GREEN

- 5. SEE RESPECTIVE SITE PLANS FOR SITE LEGEND INFORMATION.
- 6. LTFMC DENOTES LIQUID TIGHT FLEXIBLE METAL CONDUIT UL LISTED, SUNLIGHT RESISTANT, & SUITABLE FOR GROUNDING. LIQUID TIGHT FLEXIBLE METAL CONDUIT AND ASSOCIATED FITTINGS SHALL BE U.L. LISTED TO MEET THE REQUIREMENTS OF NEC 350.6. LIQUID TIGHT FLEXIBLE METAL CONDUIT THAT IS USED FOR FLEXIBILITY (INCLUDING CONNECTIONS TO CCR'S & TRANSFORMERS) SHALL REQUIRE AN EXTERNAL BONDING JUMPER OR INTERNAL EQUIPMENT GROUNDING CONDUCTOR PER NEC 350.60. EXTERNAL BONDING JUMPERS USED WITH CCR INSTALLATIONS SHALL BE #6 AWG COPPER (MINIMUM). DO NOT INSTALL LIFMC THAT IS NOT UL LISTED. CONFIRM LIFMC BEARS THE UL LABEL PRIOR TO INSTALLATION.
- ALL ENCLOSURES RATED NEMA 4, 4X SHALL HAVE WATERTIGHT HUBS AT CONDUIT ENTRANCES U.L. LISTED NEMA 4, 4X FOR THE RESPECTIVE ENCLOSURE, TO MAINTAIN THE NEMA 4, 4X RATING.
- HIGH VOLTAGE & LOW VOLTAGE CIRCUITS SHALL NOT BE INSTALLED IN THE SAME WIREWAY, CONDUIT, DUCT, OR HANDHOLE.



Offices Nationwide www.hanson-inc.com

Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084

COLES COUNTY AIRPORT
AUTHORITY
TOUR COMPTION OF THE PROPERTY

REHABILITATE RUNWAY 11/29

IDA No: MTO-4320

Contract No. CO061

NO. DATE DESCRIPTION
LAY DWN REV

ISSUE: MAY 2, 2014

PROJECT NO: 14A0005D
CAD FILE: E-003NOTES.DWG

LAYOUT BY: KNL 02/24/14

DRAWN BY: BAK 02/24/14

REVIEWED BY: CAH 03/28/14

SHEET TITLE

ELECTRICAL LEGEND, ABBREVIATIONS & NOTES



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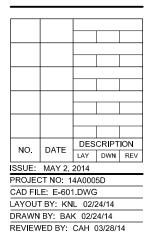
Illinois Licensed Professional Service Corporation #184-001084

COLES COUNTY AIRPORT
AUTHORATY

REHABILITATE RUNWAY 11/29

IDA No: MTO-4320

Contract No. CO061



EXISTING ELECTRICAL ONE LINE DIAGRAM FOR VAULT

SHEET TITLE

 CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF FAA AC NO. 150/5370-2F (OR MOST CURRENT ISSUE) "OPERATIONAL

CONTRACTOR SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS

OF NFPA 70E - STANDARD FOR ELECTRICAL SAFETY IN THE

5. WHEN A RUNWAY IS SHUT DOWN THE RUNWAY LIGHTING AND ASSOCIATED AIRFIELD NAVAIDS FOR THAT RUNWAY SHALL BE SHUT

SAFETY ON AIRPORTS DURING CONSTRUCTION".

NOTES:

- ALL WORK, POWER OUTAGES, AND/OR SHUT DOWN OF EXISTING SYSTEMS SHALL BE COORDINATED WITH THE AIRPORT MANAGER/DIRECTOR AND THE RESPECTIVE FAA ATCT PERSONNEL. ONCE SHUT DOWN, THE CIRCUITS SHALL BE LABELED AS SUCH TO PREVENT ACCIDENTAL ENERGIZING OF THE RESPECTIVE CIRCUITS. ALL PERSONNEL SHALL FOLLOW U.S. DEPARTMENT OF LABOR OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION (OSHA) 29 CFR PART 1910 OCCUPATIONAL SAFETY & HEALTH STANDARDS FOR ELECTRICAL SAFETY AND LOCKOUT/TAGOUT PROCEDURES INCLUDING, BUT NOT LIMITED TO, 29 CFR SECTION 1910.147 THE CONTROL OF HAZARDOUS ENERGY (LOCKOUT/TAGOUT).
- 2. CONTRACTOR SHALL EXAMINE THE SITE TO CONFIRM AND FIELD VERIFY EXISTING SITE CONDITIONS.
- MEGGER TEST AND RECORD EXISTING SERIES CIRCUITS PRIOR TO CABLE WORK. ALSO TEST AND RECORD SERIES CIRCUIT LOOP RESISTANCE.
- RUNWAY 11/29 CCR, BACKUP CCR FOR RUNWAY 11/29, RUNWAY 6/24 CCR, AND THE ASSOCIATED CUTOUTS ARE
- TWO L-806 SUPPLEMENTAL LIGHTED WIND CONES ARE PROPOSED TO BE ADDED TO THE RUNWAY 11-29 LIGHTING
- THE RESPECTIVE CCR'S SHALL BE TESTED FOR PROPER OPERATION BEFORE REMOVAL WORK, MODIFICATIONS, AND/OR ADDITIONS AND AFTER THE NEW CABLES AND LIGHTING SYSTEM MODIFICATIONS AND ADDITIONS HAVE BEEN COMPLETED. CONTRACTOR SHALL TEST AND RECORD THE INPUT CURRENT AND OUTPUT CURRENT FOR EACH CONSTANT CURRENT REGULATOR IN THE AUTOMATIC AND MANUAL MODES OF OPERATIONS. CONTRACTOR SHALL REPORT CONCERNS AND/OR DEFICIENCIES TO THE RESIDENT PROJECT REPRESNTATIVE/RESIDENT ENGINEER.

LEGEND

DENOTES PLUG CUTOUT WITH PLUG INSERTED

DENOTES PLUG CUTOUT WITH PLUG PULLED

"CCR" DENOTES CONSTANT CURRENT REGULATOR

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COLES COUNTY AIRPORT AUTHOR/TY

REHABILITATE **RUNWAY 11/29**

IDA No: MTO-4320

Contract No. CO061

NO.	DATE	DES	CRIPT	ION
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REVIEW	/ED BY:	CAH (03/28/1	4

HIGH VOLTAGE WIRING SCHEMATIC FOR **RUNWAYS**

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Illinois Licensed Professional Service Corporation #184-001084

COLES COUNTY AIRPORT .≟-**ÄUTHO**g∂TY

REHABILITATE **RUNWAY 11/29**

IDA No: MTO-4320

Contract No. CO061

NO. DATE | DESCRIPTION | REV ISSUE: MAY 2, 2014 PROJECT NO: 14A0005D CAD FILE: E-603.DWG

LAYOUT BY: KNI 02/24/14 DRAWN BY: BAK 02/24/14

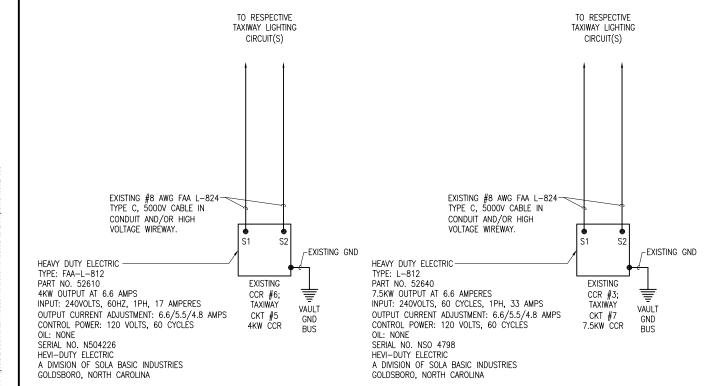
REVIEWED BY: CAH 03/28/14

SHEET TITLE

HIGH VOLTAGE WIRING

SCHEMATIC FOR **TAXIWAYS**

- ALL WORK, POWER OUTAGES, AND/OR SHUT DOWN OF EXISTING SYSTEMS SHALL BE COORDINATED WITH THE AIRPORT MANAGER/DIRECTOR AND THE RESPECTIVE FAA ATCT PERSONNEL. ONCE SHUT DOWN, THE CIRCUITS SHALL BE LABELED AS SUCH TO PREVENT ACCIDENTAL ENERGIZING OF THE RESPECTIVE CIRCUITS. ALL PERSONNEL SHALL FOLLOW U.S. DEPARTMENT OF LABOR OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION (OSHA) 29 CFR PART 1910 OCCUPATIONAL SAFETY & HEALTH STANDARDS FOR ELECTRICAL SAFETY AND LOCKOUT/TAGOUT PROCEDURES INCLUDING, BUT NOT LIMITED TO, 29 CFR SECTION 1910.147 THE CONTROL OF HAZARDOUS ENERGY (LOCKOUT/TAGOUT).
- 2. CONTRACTOR SHALL EXAMINE THE SITE TO CONFIRM AND FIELD VERIFY EXISTING SITE CONDITIONS.
- NOTE THE EXISTING TAXIWAY CIRCUIT CUTOUTS ARE OLD AND SOME ARE IN POOR CONDITION. SOME CUTOUTS MIGHT NOT FUNCTION PROPERLY. CONTRACTOR SHALL EXERCISE CAUTION, PRACTICE SAFETY, AND DISCONNECT THE SERIES CIRCUITS FROM THE RESPECTIVE CONSTANT CURRENT REGULATORS, AS APPLICABLE WHEN PERFORMING WORK ON THE AIRFIELD LIGHTING OR WORK THAT MIGHT AFFECT THE AIRFIELD LIGHTING. CONTRACTOR SHALL MAKE NECESSARY ARRANGEMENTS TO DISCONNECT POWER AND LOCKOUT CIRCUITS FOR PROTECTION OF PERSONNEL.
- CONDUCT TESTS FOR AREAS OF WORK WHERE THE RESPECTIVE CIRCUITS MIGHT BE AFFECTED. MEGGER TEST AND RECORD EXISTING SERIES CIRCUITS PRIOR TO CABLE WORK. ALSO TEST AND RECORD SERIES CIRCUIT LOOP
 RESISTANCE. TEST ARE NOT REQUIRED WHERE THE RESPECTIVE WORK IS NOT ANTICIPATED TO AFFECT THE RESPECTIVE
- 5. CCR #3, CCR #4, CCR #5, CCR #6, CCR #7, & CCR #8 ARE EXISTING.
- THE RESPECTIVE CCR'S SHALL BE TESTED FOR PROPER OPERATION BEFORE ANY AIRFIELD WORK THAT MIGHT AFFECT LIGHTING CIRCUITS, REMOVAL WORK, MODIFICATIONS, AND/OR ADDITIONS AND AFTER THE AIRFIELD WORK AND ADDITIONS HAVE BEEN COMPLETED. CONTRACTOR SHALL TEST AND RECORD THE INPUT CURRENT AND OUTPUT CURRENT FOR EACH CONSTANT CURRENT REGULATOR IN THE AUTOMATIC AND MANUAL MODES (WHERE APPLICABLE) OF OPERATIONS. CONTRACTOR SHALL REPORT CONCERNS AND/OR DEFICIENCIES TO THE RESIDENT PROJECT REPRESNTATIVE/RESIDENT ENGINEER.



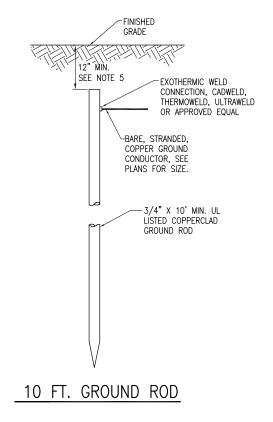
"CCR" DENOTES CONSTANT CURRENT REGULATOR

LEGEND

45

- 1. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL GROUNDING AS MAY BE NECESSARY OR REQUIRED TO MAKE A COMPLETE GROUNDING SYSTEM AS REQUIRED BY THE LATEST NATIONAL ELECTRICAL CODE (NFPA 70) IN FORCE AND FAA—STD—019e (LIGHTNING AND SURGE PROTECTION, GROUNDING, BONDING, AND SHEILDING REQUIREMENTS FOR FACILITIES AND ELECTRONIC EQUIPMENT). THE RELIABILITY OF THE GROUNDING SYSTEM IS DEPENDENT ON CAREFUL, PROPER INSTALLATION AND CHOICE OF MATERIALS. IMPROPER PREPARATION OF SURFACES TO BE JOINED TO MAKE AN ELECTRICAL PATH, LOOSE JOINTS OR CORROSION CAN INTRODUCE IMPEDANCE THAT WILL SERIOUSLY IMPAIR THE ABILITY OF THE GROUND PATH TO PROTECT PERSONNEL AND EQUIPMENT AND TO ABSORB TRANSIENTS THAT CAN CAUSE NOISE IN COMMUNICATIONS CIRCUITS. THE FOLLOWING FUNCTIONS ARE PARTICULARLY IMPORTANT TO ENSURE A RELIABLE GROUND SYSTEM:
- 2. FURNISH AND INSTALL GROUND RODS AS DETAILED HEREIN. GROUND RODS FOR AIRFIELD LIGHTING (RUNWAY LIGHTING, TAXIWAY LIGHTING, TAXI GUIDANCE SIGNS, & WIND CONES SHALL BE MINIMUM 3/4—IN. DIAMETER BY 10—FT LONG, UL—LISTED COPPER CLAD WITH 10—MIL MINIMUM COPPER COATING. GROUND RODS FOR OTHER APPLICATIONS SHALL BE MINIMUM 3/4—IN. DIAMETER BY 10—FT LONG, UL—LISTED, COPPER CLAD WITH 10—MIL MINIMUM COPPER COATING. GROUND RODS SHALL BE SPACED OR AS DETAILED ON THE RESPECTIVE PLANS, AND IN NO CASE SPACED LESS THAN ONE ROD LENGTH APART. ALL CONNECTIONS TO GROUND RODS AND THE GROUND RING SHALL BE MADE WITH EXOTHERMIC WELD TYPE CONNECTORS, CADWELD BY ERICO PRODUCTS, INC., SOLON, OHIO, (PHONE 1—800—248—9353), THERMOWELD BY CONTINENTAL INDUSTRIES, INC., TULSA, OKLAHOMA (PHONE 918—663—1440) OR ULTRAWELD BY HARGER, GRAYSLAKE, ILLINOIS (PHONE 1—800—842—7437) OR APPROVED EQUAL. EXOTHERMIC WELD CONNECTIONS SHALL BE INSTALLED IN CONFORMANCE WITH THE RESPECTIVE MANUFACTURER'S DIRECTIONS USING MOLDS AS REQUIRED FOR EACH RESPECTIVE APPLICATION. BOLTED CONNECTIONS WILL NOT BE PERMITTED AT GROUND RODS OR AT BURIED GROUNDING ELECTRODE CONDUCTORS.
- 3. CONTRACTOR SHALL TEST EACH MADE ELECTRODE GROUND ROD/GROUND FIELD/GROUND RING WITH AN INSTRUMENT SPECIFICALLY DESIGNED FOR TESTING GROUND FIELD SYSTEMS. IF GROUND RESISTANCE EXCEEDS 25 OHMS, CONTACT THE PROJECT ENGINEER FOR FURTHER DIRECTION. COPIES OF GROUND ROD TEST RESULTS SHALL BE FURNISHED TO THE RESIDENT ENGINEER/RESIDENT PROJECT REPRESENTATIVE.
- 4. ALL PRODUCTS ASSOCIATED WITH THE GROUNDING SYSTEM SHALL BE UL-LISTED AND LABELED.
- ALL BOLTED OR MECHANICAL CONNECTIONS SHALL BE COATED WITH A CORROSION PREVENTATIVE COMPOUND BEFORE JOINING, SANCHEM INC. "NO-OX-ID "A-SPECIAL" COMPOUND, BURNDY PENETROX E. OR EQUAL.
- METALLIC SURFACES TO BE JOINED SHALL BE PREPARED BY THE REMOVAL OF ALL NON-CONDUCTIVE MATERIAL, PER 2011 NATIONAL ELECTRICAL CODE ARTICLE 250-12. ALL COPPER BUS BARS MUST BE CLEANED PRIOR TO MAKING CONNECTIONS TO REMOVE SURFACE OXIDATION.
- 7. METALLIC RACEWAY FITTINGS SHALL BE MADE UP TIGHT TO PROVIDE A PERMANENT LOW IMPEDANCE PATH FOR ALL CIRCUITS. METAL CONDUIT TERMINATIONS IN ENCLOSURES SHALL BE BONDED TO THE ENCLOSURE WITH UL-LISTED FITTINGS SUITABLE FOR GROUNDING. PROVIDE GROUNDING BUSHINGS WITH BONDING JUMPERS FOR ALL METAL CONDUITS ENTERING SERVICE EQUIPMENT (METER BASE, CT CABINET, MAIN SERVICE BREAKER ENCLOSURE, ETC.). PROVIDE GROUNDING BUSHINGS WITH BONDING JUMPERS FOR ALL METAL CONDUITS ENTERING AN ENCLOSURE THROUGH CONCENTRIC OR ECCENTRIC KNOCKOUTS THAT ARE PUNCHED OR OTHERWISE FORMED SO AS TO IMPAIR THE ELECTRICAL CONNECTION TO GROUND. STANDARD LOCKNUTS OR BUSHINGS SHALL NOT BE THE SOLE MEANS FOR BONDING WHERE A CONDUIT ENTERS AN ENCLOSURE THROUGH A CONCENTRIC OR ECCENTRIC KNOCKOUT
- 8. ALL CONNECTIONS, LOCATED ABOVE GRADE, BETWEEN THE DIFFERENT TYPES OF GROUNDING CONDUCTORS SHALL BE MADE USING UL—LISTED DOUBLE COMPRESSION CRIMP TYPE CONNECTORS OR UL—LISTED BOLTED GROUND CONNECTORS. FOR GROUND CONNECTIONS TO ENCLOSURES, CASES AND FRAMES OF ELECTRICAL EQUIPMENT NOT SUPPLIED WITH GROUND LUGS THE CONTRACTOR SHALL DRILL REQUIRED HOLES FOR MOUNTING A BOLTED GROUND CONNECTOR. ALL BOLTED GROUND CONNECTORS SHALL BE BURNDY, THOMAS AND BETTS, OR EQUAL. TIGHTEN CONNECTIONS TO COMPLY WITH TIGHTENING TORQUES IN UL STANDARD 486A TO ASSURE PERMANENT AND EFFECTIVE GROUNDING.
- 9. ALL METAL EQUIPMENT ENCLOSURES, CONDUITS, CABINETS, BOXES, RECEPTACLES, MOTORS, ETC. SHALL BE BONDED TO THE RESPECTIVE GROUNDING SYSTEM.
- 10. PROVIDE ALL BOXES FOR PROPOSED OUTLETS, SWITCHES, CIRCUIT BREAKERS, ETC. WITH GROUNDING SCREWS. PROVIDE ALL PANELBOARD, SWITCHGEAR, ETC., ENCLOSURES WITH GROUNDING BARS WITH INDIVIDUAL SCREWS, LUGS, CLAMPS, ETC., FOR EACH OF THE GROUNDING CONDUCTORS THAT ENTER THEIR RESPECTIVE FINCIOSITIES.
- 11. EACH NEW FEEDER CIRCUIT AND/OR BRANCH CIRCUIT SHALL INCLUDE AN EQUIPMENT GROUND WIRE. METAL RACEWAY OR CONDUIT SHALL NOT MEET THIS REQUIREMENT. THE EQUIPMENT GROUND WIRE FROM EQUIPMENT SHALL NOT BE SMALLER THAN ALLOWED BY 2011 NEC TABLE 250—122 "MINIMUM SIZE CONDUCTORS OR GROUNDING RACEWAY AND EQUIPMENT." WHEN CONDUCTORS ARE ADJUSTED IN SIZE TO COMPENSATE FOR VOLTAGE DROP, EQUIPMENT—GROUNDING CONDUCTORS SHALL BE ADJUSTED PROPORTIONATELY ACCORDING TO CIRCULAR MIL AREA. ALL EQUIPMENT GROUND WIRES SHALL BE COPPER, EITHER BARE OR INSULATED GREEN IN COLOR. WHERE THE EQUIPMENT GROUNDING CONDUCTORS ARE INSULATED, THEY SHALL BE IDENTIFIED BY THE COLOR GREEN, AND SHALL BE THE SAME INSULATION TYPE AS THE PHASE CONDUCTORS.

- 12. ALL EXTERIOR METAL CONDUIT, WHERE NOT ELECTRICALLY CONTINUOUS BECAUSE OF MANHOLES, HANDHOLES, NON-METALLIC JUNCTION BOXES, ETC., SHALL BE BONDED TO ALL OTHER METAL CONDUIT IN THE RESPECTIVE DUCT RUN, AND AT EACH END, WITH A COPPER-BONDING JUMPER SIZED IN CONFORMANCE WITH 2011 NEC 250-102. WHERE METAL CONDUITS TERMINATE IN AN ENCLOSURE (SUCH AS A MOTOR CONTROL CENTER, SWITCHBOARD, ETC) WHERE THERE IS NOT ELECTRICAL CONTINUITY WITH THE CONDUIT AND THE RESPECTIVE ENCLOSURE, PROVIDE A BONDING JUMPER FROM THE RESPECTIVE ENCLOSURE GROUND BUS TO THE CONDUIT SIZED PER 2011 NEC 250-102.
- 13. IT IS THE INTENT OF THIS SPECIFICATION THAT ALL MOTOR FRAMES, PUMP BASES ELECTRICAL EQUIPMENT ENCLOSURES, PANEL HOUSINGS, CONDUITS, BOXES, ETC. HAVE A CONTINUOUS COPPER WIRE GROUND CONNECTION AND SHALL BE POSITIVELY BONDED TO THE RESPECTIVE GROUNDING SYSTEM. CONDUIT CONNECTORS <u>WILL NOT</u> BE CONSIDERED AS ADEQUATE GROUNDING.
- 14. PROVIDE A POSITIVE GROUND BOND FOR ALL OUTLET BOXES, ELECTRICAL EQUIPMENT ENCLOSURES, GROUNDING RECEPTACLES, TOGGLE SWITCHES, ETC. INSTALL A GROUNDING CONDUCTOR IN ALL WIRE AND CABLE RACEWAYS. GROUND CONDUCTOR TO HAVE 600-VOLT INSULATION AND BE IDENTIFIED BY A CONTINUOUS GREEN COLOR COATING. THEY SHALL BE USED SOLELY FOR GROUNDING PURPOSES AND BE ENTIRELY SEPARATE FROM WHITE GROUNDED NEUTRAL CONDUCTOR, EXCEPT AT SUPPLY SIDE OF SERVICE DISCONNECTING MEANS, WHERE GROUNDING AND NEUTRAL SYSTEMS ARE TO BE CONNECTED TO SERVICE GROUND.
- EACH AND ALL GROUNDED CASED AND METAL PARTS ASSOCIATED WITH ELECTRICAL EQUIPMENT SHALL BE TESTED FOR CONTINUITY OF CONNECTION WITH GROUND BUS SYSTEM BY CONTRACTOR IN PRESENCE OF OWNER'S REPRESENTATIVE.
- 16. ALL CONNECTIONS BETWEEN THE DIFFERENT TYPES OF GROUNDING CONDUCTORS ABOVE GRADE SHALL BE MADE USING BOLTED GROUND CONNECTORS. GROUND LUGS SHALL BE PROVIDED IN ALL ENCLOSURES AND WIRING TERMINATION JUNCTION BOXES. EQUIPMENT GROUNDS AND GROUNDING CONDUCTOR SHALL BE CONNECTED TO THESE GROUND LUGS. FOR GROUND CONNECTIONS TO ENCLOSURES, CASES AND FRAMES OF ELECTRICAL EQUIPMENT NOT SUPPLIED WITH GROUND LUGS THE CONTRACTOR SHALL DRILL REQUIRED HOLES FOR MOUNTING A BOLTED GROUND CONNECTOR. ALL BOLTED GROUND CONNECTORS SHALL BE BURNDY, OR APPROVED EQUAL.
- 17. BOND ALL NONCURRENT-CARRYING PARTS OF METAL EQUIPMENT TO GROUND SYSTEM.
- BUILDING STRUCTURAL STEEL SYSTEM SHALL BE BONDED TO ELECTRICAL GROUND SYSTEM.
- INSTALL GROUNDING ELECTRODE CONDUCTORS, LIGHTNING PROTECTION DOWN CONDUCTORS AND SEPARATE GROUND CONDUCTORS IN SCHEDULE 40 OR SCHEDULE 80 PVC CONDUIT OR EXPOSED WHERE ACCEPTABLE TO LOCAL CODES. WHERE GROUNDING ELECTRODE CONDUCTORS, LIGHTNING PROTECTION DOWN CONDUCTORS OR INDIVIDUAL GROUND CONDUCTORS ARE RUN IN PVC CONDUIT, DO NOT COMPLETELY ENCIRCLE CONDUIT WITH FERROUS AND/OR MAGNETIC MATERIALS. USE NON-METALLIC REINFORCED FIBERGLASS STRUT SUPPORT. WHERE METAL CONDUIT CLAMPS ARE INSTALLED, USE NYLON BOLTS, NUTS, WASHERS AND SPACERS TO INTERRUPT A COMPLETE METALLIC PATH FROM ENCIRCLING THE CONDUIT. THIS IS REQUIRED TO AVOID GIRDLING OF GROUND CONDUCTORS. GIRDLING OF A GROUND CONDUCTOR IS THE RESULT OF PLACING THE CONDUCTOR IN A RING OF MAGNETIC MATERIAL. THIS RING COULD BE A METALLIC CONDUIT, U-BOLT OR STRUT SUPPORT PIPE CLAMP, OR OTHER SUPPORT HARDWARE. THE RESULT OF GIRDLING GROUND CONDUCTORS SIGNIFICANTLY INCREASES THE INDUCTIVE IMPEDANCE OF THE GROUND CONDUCTOR. INDUCTIVE AND CAPACITIVE IMPEDANCE IS A TYPE OF RESISTANCE THAT OPPOSES THE FLOW OF ALTERNATING CURRENT. ANY INCREASE IN THE IMPEDANCE OF A GROUND CONDUCTOR REDUCES ITS ABILITY TO EFFECTIVELY MITIGATE RADIO FREQUENCY NOISE IN THE GROUND SYSTEM. THE CONDITION WHERE A GROUND CONDUCTOR IS GIRDLED DURING A LIGHTNING STRIKE RESULTS IN PHENOMENA KNOWN AS SURGE IMPEDANCE LOADING. SURGE IMPEDANCE LOADING IS A RESULT OF VOLTAGE AND CURRENT REACHING 500,000 VOLTS AND 10,000 AMPS FOR A SHORT DURATION. GIRDLING FURTHER INCREASES THE IMPEDANCE AT LIGHTNING FREQUENCIES OF 100 KILOHERTZ TO 100 MEGAHERTZ. AT THESE POWER AND FREQUENCY LEVELS ANY INCREASE IN THE IMPEDANCE OF THE GROUND CONDUCTOR MUST BE CONTROLLED. DURING LIGHTNING DISCHARGE CONDITIONS A LOW INDUCTIVE IMPEDANCE PATH IS MORE IMPORTANT THAN A LOW DC RESISTANCE PATH.
- 20. IF LOCAL CODES DICTATE THAT INDIVIDUAL GROUNDING CONDUCTORS MUST BE RUN IN METAL CONDUIT OR RACEWAY, THEN THE CONDUIT OR RACEWAY MUST BE BONDED AT EACH END OF THE RUN WITH A BONDING JUMPER SIZED EQUAL TO THE INDIVIDUAL GROUNDING CONDUCTOR OR AS REQUIRED BY 2011 NEC 250—102. NOTE THIS DOES NOT APPLY TO AC EQUIPMENT GROUNDING CONDUCTORS RUN WITH AC CIRCUITS.
- 21. WHERE A CONFLICT IS DETERMINED WITH RESPECT TO GROUNDING REQUIREMENTS PER MANUFACTURER INSTALLATION INSTRUCTIONS, NEC, AND/OR THE CONTRACT DOCUMENTS, CONTACT THE RESIDENT ENGINEER OR PROJECT ENGINEER FOR FURTHER DIRECTIONS.
- 22. GROUND RODS SHALL BE MANUFACTURED IN THE UNITED STATES OF AMERICA TO COMPLY WITH THE AIRPORT IMPROVEMENT PROGRAM BUY AMERICAN REQUIREMENTS. STEEL USED TO MANUFACTURER GROUND RODS SHALL BE 100 PERCENT DOMESTIC



NOTES

- 1. TYPE AND MINIMUM NUMBER OF GROUND RODS SHALL BE AS SPECIFIED ON THE PLAN.
- . THE RESISTANCE TO GROUND OF THE GROUNDING SYSTEM SHALL NOT EXCEED 25 OHMS.
- COST OF GROUND RODS IS INCIDENTAL TO THE ASSOCIATED ITEMS REQUIRING GROUNDING UNLESS OTHERWISE SPECIFIED.
- GROUND RODS SHALL BE SPACED AS DETAILED ON THE PLANS AND SHALL NOT BE SPACED LESS THAN ONE ROD LENGTH APART.
- TOP OF GROUND RODS SHALL BE 12" MINIMUM BELOW GRADE UNLESS DETAILED OTHERWISE HEREIN.
- . GROUND RODS FOR SPLICE CANS AND WIND CONES SHALL BE A MINIMUM 3/4-INCH DIAMETER BY 10-FT LONG UL LISTED COPPER CLAD.

GROUND RODS
(NOT TO SCALE)



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COLES COUNTY AIRPORT
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REHABILITATE RUNWAY 11/29

IDA No: MTO-4320

Contract No. CO061

NO.	DATE	DES	CRIPT	ION
NO.	DATE	LAY	DWN	REV
ISSUE:	MAY 2,	2014		
PROJEC	CT NO: 1	4A000	5D	
CAD FIL	E: E-004	1.DWG	;	

GROUNDING NOTES

LAYOUT BY: KNI 04/05/14

DRAWN BY: BAK 04/07/14

SHEET TITLE

REVIEWED BY: CAH 03/28/14



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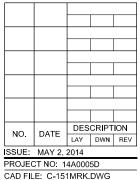
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COLES COUNTY AIRPORT

REHABILITATE RUNWAY 11/29

IDA No: MTO-4320

Contract No. CO061



CAD FILE: C-151MRK.DWG
LAYOUT BY: CAH 02/14/14
DRAWN BY: BAK 02/14/14
REVIEWED BY: CAH 05/02/14

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SHEET TITLE

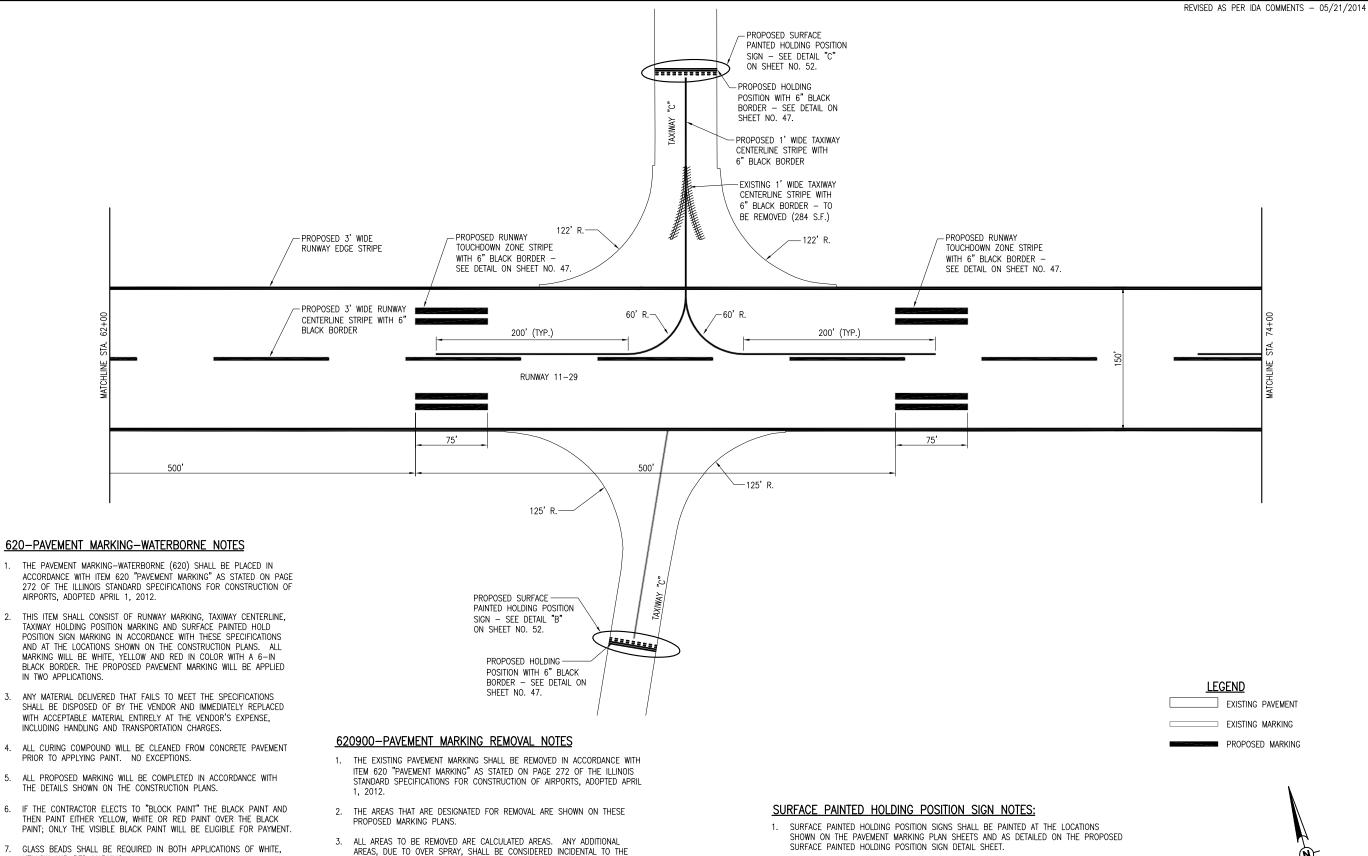
PROPOSED MARKING PLAN STA.

50+00 TO 62+00

YELLOW AND RED MARKING.

CUT-OFF SHEETS WILL BE REQUIRED TO INSURE STRAIGHT EDGES.

THE PROPOSED MARKING WILL BE PAID FOR UNDER ITEM: AR620520 PAVEMENT MARKING-WATERBORNE ___ PER S.F.
AR620525 PAVEMENT MARKING-BLACK BORDER ___ PER S.F.



CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

4. THE PROPOSED REMOVAL WILL BE ACCOMPLISHED BY THE USE OF A

5. THE QUANTITY OF PROPOSED MARKING REMOVAL - - 898 S.F.

AR620900 PAVEMENT MARKING REMOVAL ___ PER S.F.

6. THE PROPOSED MARKING REMOVAL WILL BE PAID FOR UNDER ITEM:

HALF SIZE SCALE: 1"= 100 FULL SIZE SCALE: 1"= 50'

2. THE AIRPORT PERSONNEL HAVE THE STENCILS FOR THE SURFACE PAINTED HOLDING POSITION SIGNS AND WILL MAKE THEM AVAILABLE FOR THE CONTRACTOR TO USE. THE

CONTRACTOR SHALL MAINTAIN THE STENCILS IN GOOD CONDITION AND AT THE

3. ONE APPLICATION OF PAINT FOR THE SURFACE PAINTED HOLDING POSITION SIGNS SHALL BE APPLIED PRIOR TO THE PROPOSED PAVEMENT GROOVING AND THE OTHER APPLICATION

WILL BE APPLIED AFTER THE PROPOSED PAVEMENT GROOVING HAS BEEN COMPLETED.

CONCLUSION OF THE PROJECT RETURN THE STENCILS TO THE AIRPORT

BOTH APPLICATIONS WILL RECEIVE BEADS.

PROPOSED MARKING PLAN STA. 62+00 TO 74+00

NO. DATE | DESCRIPTION | REV

ISSUE: MAY 2, 2014

SHEET TITLE

PROJECT NO: 14A0005D

CAD FILE: C-151MRK.DWG

LAYOUT BY: CAH 02/14/14 DRAWN BY: BAK 02/14/14

REVIEWED BY: CAH 05/02/14

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REHABILITATE

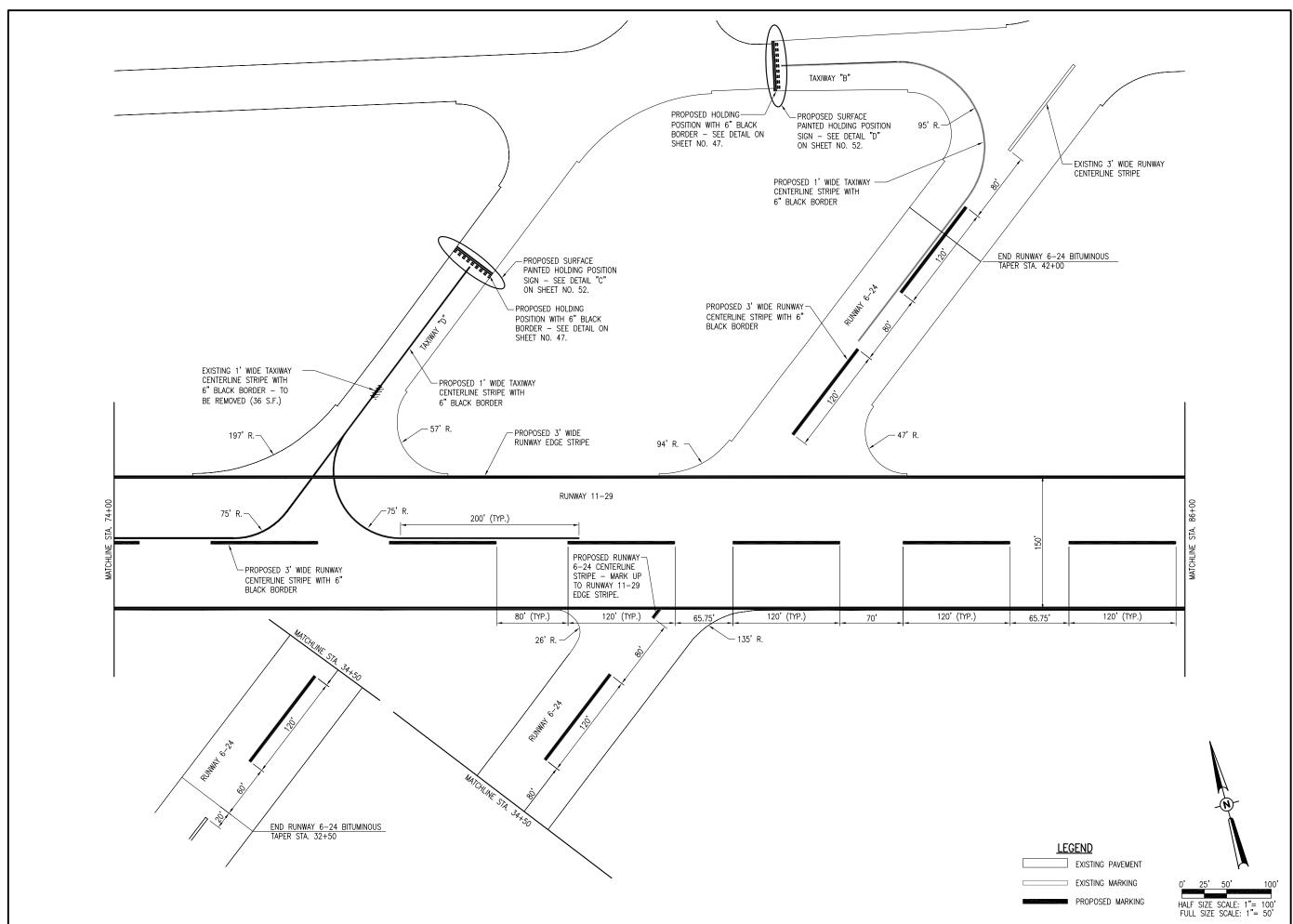
RUNWAY 11/29

IDA No: MTO-4320

Contract No. CO061

COLES COUNTY AIRPORT

48





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COLES COUNTY AIRPORT
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REHABILITATE RUNWAY 11/29

IDA No: MTO-4320

Contract No. CO061

NO.	DATE	DES	CRIPT	ION
NO.	DATE	LAY	DWN	REV
ISSUE:	MAY 2,	2014		
PROJEC	CT NO: 1	4A000	5D	
CAD FIL	.E: C-15	1MRK.	DWG	
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REVIEW	/ED BY:	CAH	05/02/	14

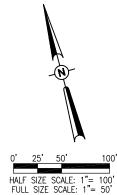
PROPOSED MARKING PLAN STA. 74+00 TO 86+00

MARKING QUANTITIES FOR RUNWAY	11-29
YELLOW MARKING: AR620520	TOTAL AREA (S.F.)
TAXIWAY CENTERLINES & LEAD-IN STRIPES (RWY. 11-29)	3,222
HOLDING POSITION	1,087
TOTAL YELLOW	
BLACK MARKING: AR620525	TOTAL AREA (S.F.)
TAXIWAY CENTERLINES & LEAD-IN STRIPES (RWY. 11-29)	3,234
HOLDING POSITION	1,802
TOTAL BLACK FOR YELLOW	5,036
WHITE MARKING: AR620520	TOTAL AREA (S.F.)
RUNWAY THRESHOLD STRIPE - 5.75'x150' (x24)	20,700
RUNWAY EDGE STRIPE - 3'x6,461' (x2)	38,766
RUNWAY CENTERLINE STRIPE - 3'x120' (x30) (RWY. 11-29)	10,800
RUNWAY TOUCHDOWN ZONE STRIPE - 6'x75' (x28)	12,600
RUNWAY AIMING POINT STRIPE - 30'x150' (x4)	18,000
RUNWAY NUMERAL 1 (x2)	636
RUNWAY NUMERAL 2	652
RUNWAY NUMERAL 9	712
TOTAL WHITE	
BLACK MARKING: AR620525	TOTAL AREA (S.F.)
RUNWAY THRESHOLD STRIPE - (x24)	3,762
RUNWAY CENTERLINE STRIPE - (x30) (RWY. 11-29)	3,720
RUNWAY TOUCHDOWN ZONE STRIPE - (x28)	2,296
RUNWAY AIMING POINT STRIPE - (x4)	724
RUNWAY NUMERAL 1 (x2)	135
RUNWAY NUMERAL 2	106
RUNWAY NUMERAL 9	114
TOTAL BLACK FOR WHITE	
TOTAL MARKING (YELLOW & WHITE):	
TOTAL BLACK (YELLOW & WHITE):	: 15,893

MARKING REMOVAL QUANTITIES			
EXISTING TAXIWAY CENTERLINE MARKING: AR620900	TOTAL AREA (S.F.)		
BLACK MARKING	449		
WHITE MARKING	449		
TOTAL REM	OVAL: 898		

MARKING QUANTITIES FOR RUNWAY	6-24
YELLOW MARKING: AR620520	TOTAL AREA (S.F.)
TAXIWAY CENTERLINES & LEAD-IN STRIPES (RWY. 6-24)	544
HOLDING LINE	168
TOTAL YELLOW:	712
BLACK MARKING: AR620525	TOTAL AREA (S.F.)
TAXIWAY CENTERLINES & LEAD-IN STRIPES (RWY. 6-24)	546
HOLDING LINE	282
TOTAL BLACK FOR YELLOW:	828
WHITE MARKING: AR620520	TOTAL AREA (S.F.)
RUNWAY CENTERLINE STRIPE - 3'x120' (x4) (RWY. 6-24)	1,440
RUNWAY CENTERLINE STRIPE - 3'x14' (x1) (RWY. 6-24)	42
TOTAL WHITE:	1,482
BLACK MARKING: AR620525	TOTAL AREA (S.F.)
RUNWAY CENTERLINE STRIPE - (x5) (RWY. 6-24)	496
RUNWAY CENTERLINE STRIPE - (x1) (RWY 6-24)	16
TOTAL BLACK FOR WHITE:	512
TOTAL MARKING (YELLOW & WHITE):	2,194
TOTAL BLACK (YELLOW & WHITE):	1,340

YELLOW MARKING: AR620520	TOTAL AREA (S.F.)
TAXIWAY CENTERLINES & LEAD-IN STRIPES (RWY. 6-24)	544
HOLDING LINE	168
TOTAL YELLOW:	712
BLACK MARKING: AR620525	TOTAL AREA (S.F.)
TAXIWAY CENTERLINES & LEAD-IN STRIPES (RWY. 6-24)	546
HOLDING LINE	282
TOTAL BLACK FOR YELLOW:	828
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TOTAL BLACK FOR WHITE:	512
TOTAL MARKING (YELLOW & WHITE):	2,194
TOTAL BLACK (YELLOW & WHITE):	1,340



LEGEND

EXISTING PAVEMENT EXISTING MARKING PROPOSED MARKING

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COLES COUNTY AIRPORT AUTHORATY

REHABILITATE **RUNWAY 11/29**

IDA No: MTO-4320

Contract No. CO061

NO	NO. DATE	DESCRIPTION						
INO.		LAY	DWN	REV				
ISSUE: MAY 2, 2014								
PROJEC	PROJECT NO: 14A0005D							
CAD FIL	E: C-15	1MRK.	DWG					
LAYOUT	ГВҮ: СА	H 02/	14/14					
DRAWN BY: BAK 02/14/14								
REVIEW	/ED BY:	CAH	05/02/	14				

PROPOSED MARKING PLAN STA. 86+00 TO 98+00



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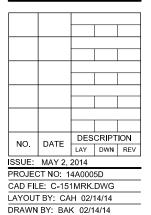
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REHABILITATE RUNWAY 11/29

IDA No: MTO-4320

Contract No. CO061



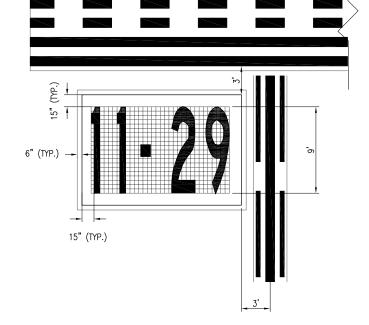
PROPOSED MARKING PLAN STA. 98+00 TO 115+01

REVIEWED BY: CAH 05/02/14

SURFACE PAINTED HOLDING POSITION SIGN DETAIL "A"

NOTE: GRID SHOWN FOR PROPER SIZING OF INSCRIPTIONS

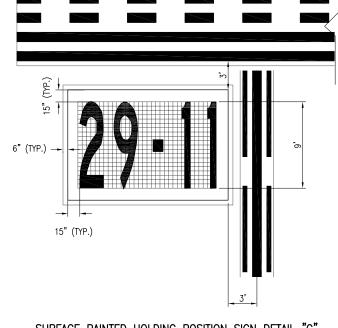
- NOT TO BE PAINTED. GRID SPACING IS 0.45 FEET.
THIS SIGN WILL BE PAINTED USING WATERBORNE PAINT



SURFACE PAINTED HOLDING POSITION SIGN DETAIL "B"

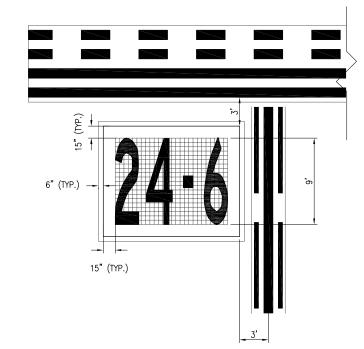
NOTE: GRID SHOWN FOR PROPER SIZING OF INSCRIPTIONS

- NOT TO BE PAINTED. GRID SPACING IS 0.45 FEET.
THIS SIGN WILL BE PAINTED USING WATERBORNE PAINT



SURFACE PAINTED HOLDING POSITION SIGN DETAIL "C"

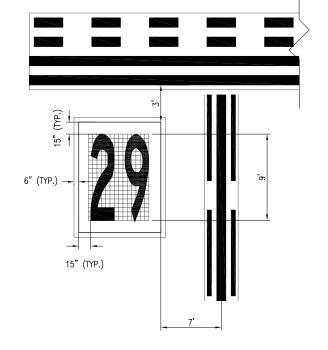
NOTE: GRID SHOWN FOR PROPER SIZING OF INSCRIPTIONS
- NOT TO BE PAINTED. GRID SPACING IS 0.45 FEET.
THIS SIGN WILL BE PAINTED USING WATERBORNE PAINT



SURFACE PAINTED HOLDING POSITION SIGN DETAIL "D"

NOTE: GRID SHOWN FOR PROPER SIZING OF INSCRIPTIONS

- NOT TO BE PAINTED. GRID SPACING IS 0.45 FEET.
THIS SIGN WILL BE PAINTED USING WATERBORNE PAINT

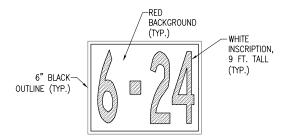


SURFACE PAINTED HOLDING POSITION SIGN DETAIL "E"

NOTE: GRID SHOWN FOR PROPER SIZING OF INSCRIPTIONS

- NOT TO BE PAINTED. GRID SPACING IS 0.45 FEET.
THIS SIGN WILL BE PAINTED USING WATERBORNE PAINT

SURFACE PAINTED	HOLDING	POSITION	SIGN	MARKING	QUANTITIES	\setminus
MARKING: AR620520				TOTAL	AREA (S.F.)	
SPHP SIGNS				-	1,296	
(TOT	AL MARK	ING	1.296	フ



SURFACE PAINTED HOLDING POSITION SIGN DETAIL

TYPICAL COLOR SCHEME
NOT TO SCALE

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COLES COUNTY AIRPORT
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REHABILITATE RUNWAY 11/29

IDA No: MTO-4320

Contract No. CO061

NO. DATE DESCRIPTION
LAY DWN REV
ISSUE: MAY 2, 2014
PROJECT NO: 14A0005D
CAD FILE: C-151MRK.DWG
LAYOUT BY: CAH 02/14/14
DRAWN BY: BAK 02/14/14
REVIEWED BY: CAH 05/02/14

PROPOSED SURFACE PAINTED HOLDING POSITION SIGN DETAILS



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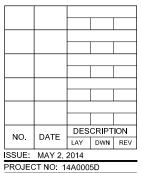
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COLES COUNTY AIRPORT AUTHORATY

REHABILITATE **RUNWAY 11/29**

IDA No: MTO-4320

Contract No. CO061

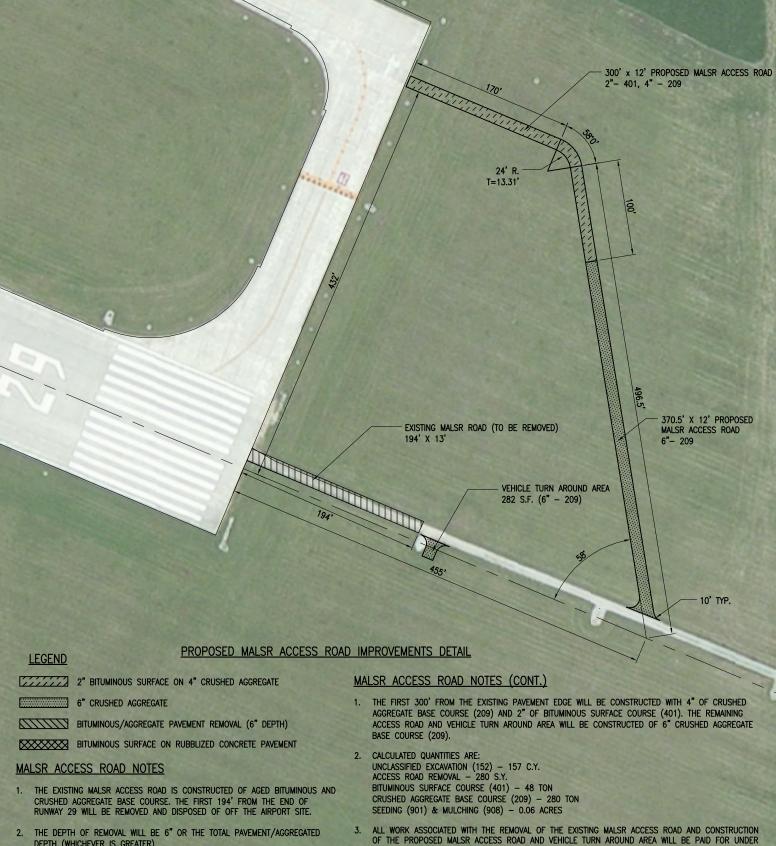


CAD FILE: C-122CON.DWG LAYOUT BY: CAH 02/14/14

DRAWN BY: BAK 02/14/14 REVIEWED BY: CAH 05/02/14

SHEET TITLE

PROPOSED **GROOVING PLAN**



AR800446 RELOCATE MALSR ACCESS ROAD _ _ PER LUMP SUM.

DEPTH (WHICHEVER IS GREATER).

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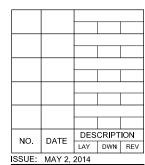
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COLES COUNTY AIRPORT

REHABILITATE **RUNWAY 11/29**

IDA No: MTO-4320

Contract No. CO061



PROJECT NO: 14A0005D

CAD FILE: C-521CON.DWG LAYOUT BY: CAH 03/31/14 DRAWN BY: CAH 03/31/14 REVIEWED BY: CAH 05/02/14

SHEET TITLE

PROPOSED

ACCESS ROADS IMPROVEMENTS



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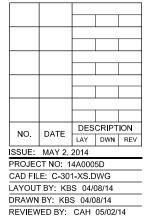
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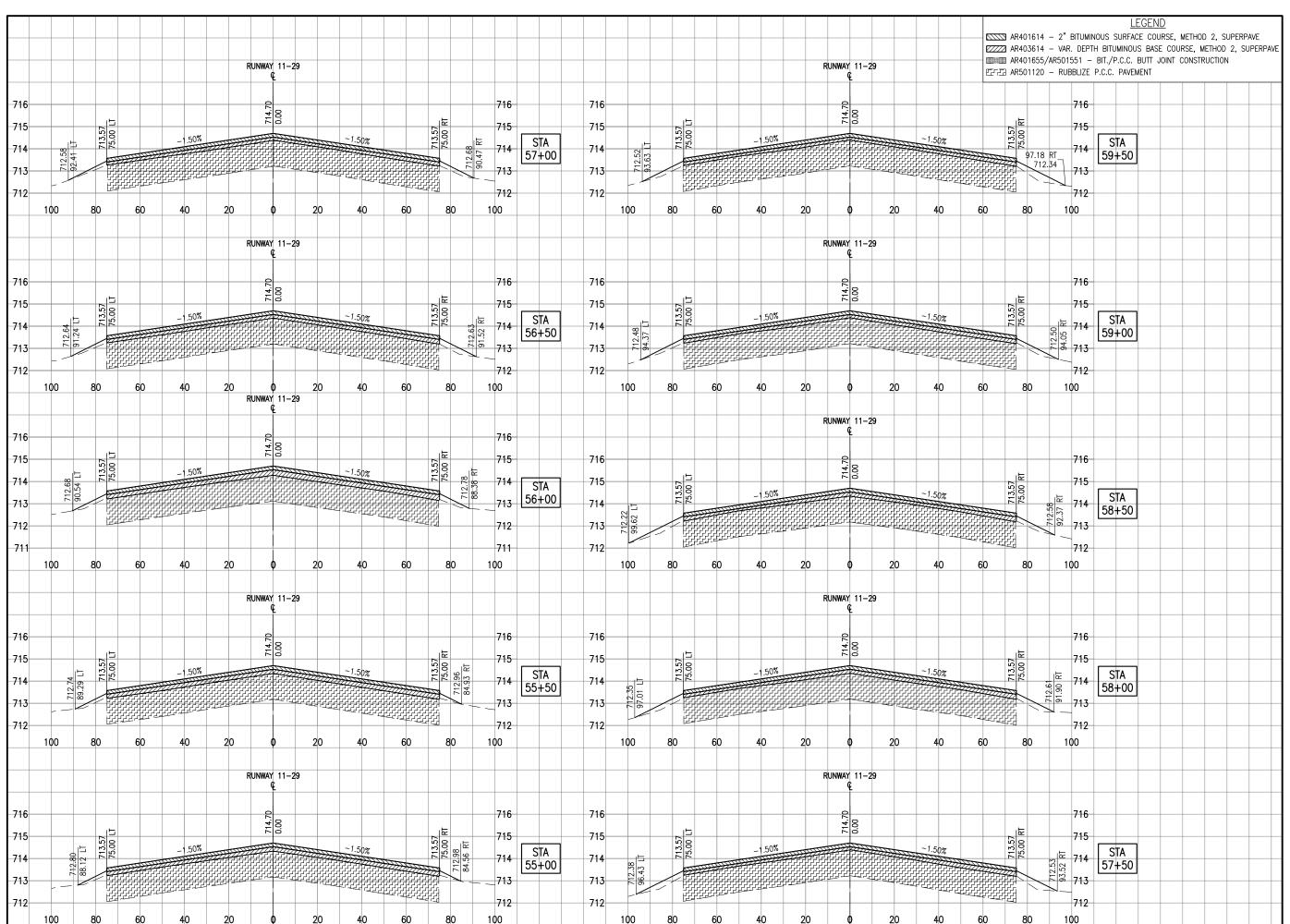
REHABILITATE RUNWAY 11/29

IDA No: MTO-4320

Contract No. CO061



RUNWAY 11-29 CROSS SECTIONS -STA. 50+00 TO 54+50





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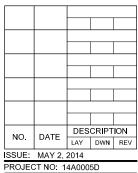
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COLES COUNTY AIRPORT
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COLES ON MANAGEMENT AIRPORT

REHABILITATE RUNWAY 11/29

IDA No: MTO-4320

Contract No. CO061



PROJECT NO: 14A0005D

CAD FILE: C-301-XS.DWG

LAYOUT BY: KBS 04/08/14

DRAWN BY: KBS 04/08/14

REVIEWED BY: CAH 05/02/14

REVIEWED BY: CAH 05/02
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SHEET TITLE

RUNWAY 11-29 CROSS SECTIONS -STA. 55+00 TO 59+50



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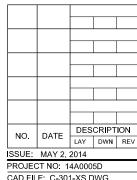
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REHABILITATE RUNWAY 11/29

IDA No: MTO-4320

Contract No. CO061



PROJECT NO: 14A0005D

CAD FILE: C-301-XS.DWG

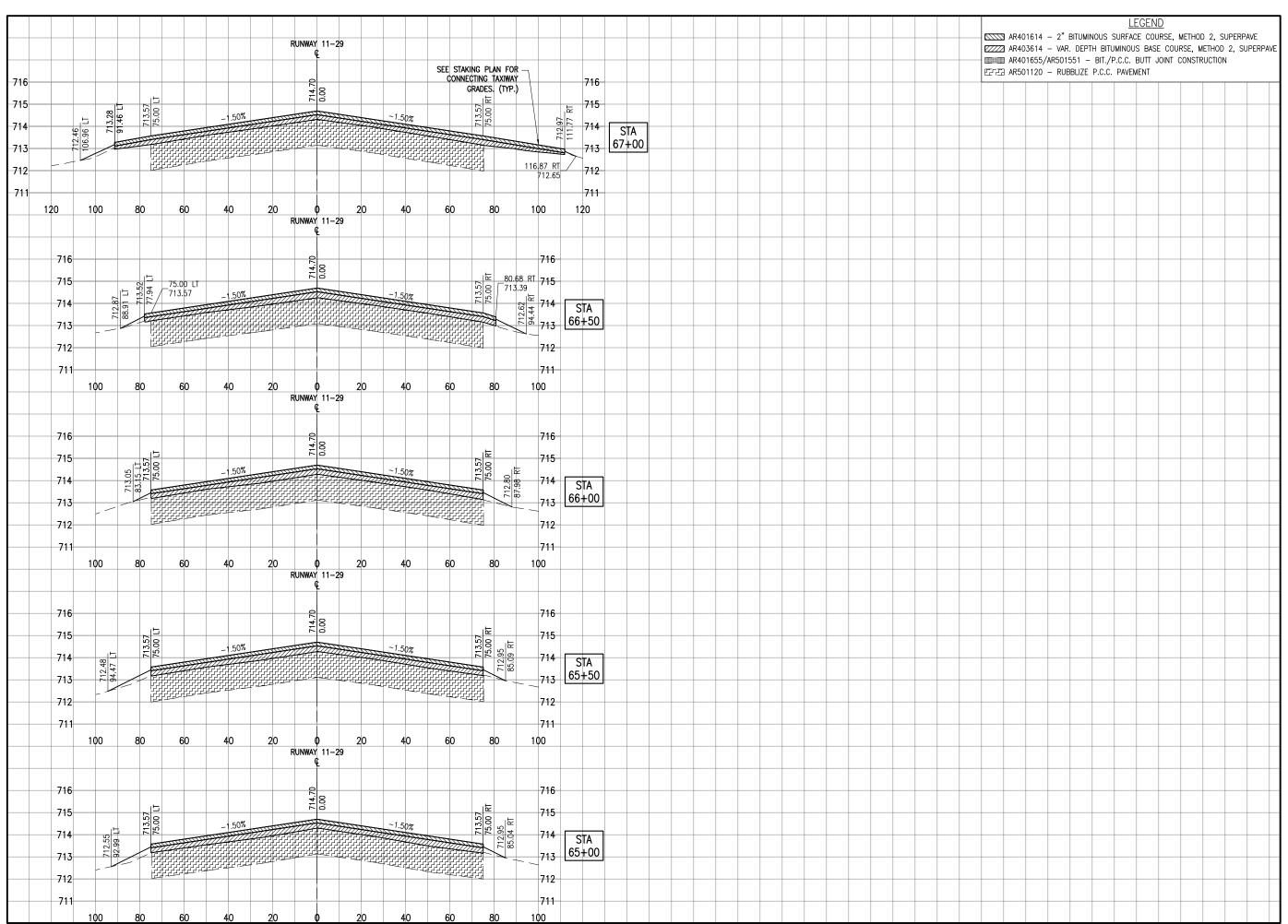
LAYOUT BY: KBS 04/08/14

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SHEET TITLE

RUNWAY 11-29 CROSS SECTIONS -STA. 60+00 TO 64+50





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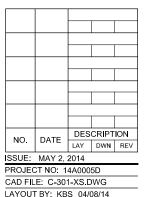
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IDA No: MTO-4320

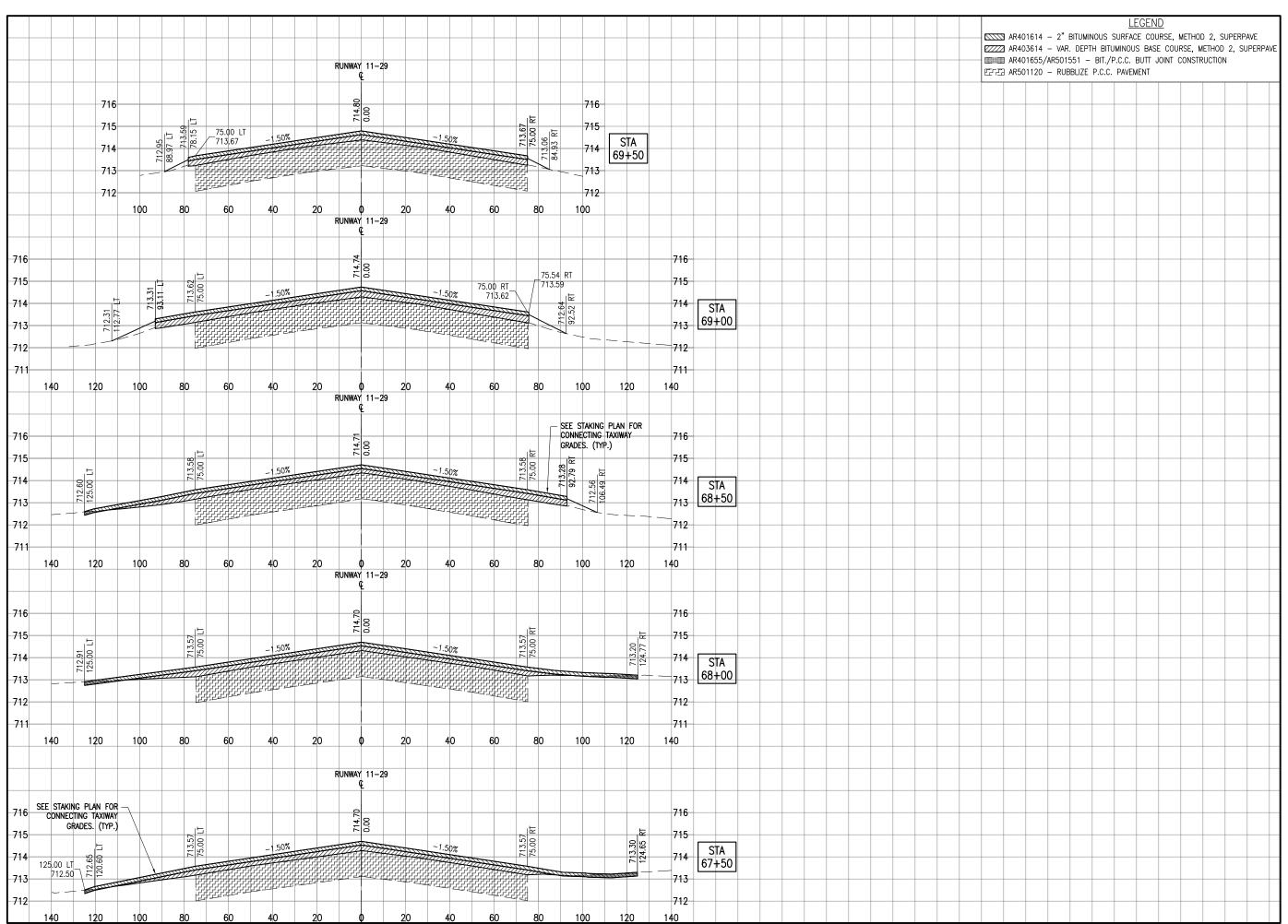
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RUNWAY 11-29 CROSS SECTIONS -STA. 65+00 TO 67+00





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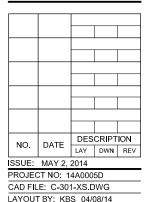
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IDA No: MTO-4320

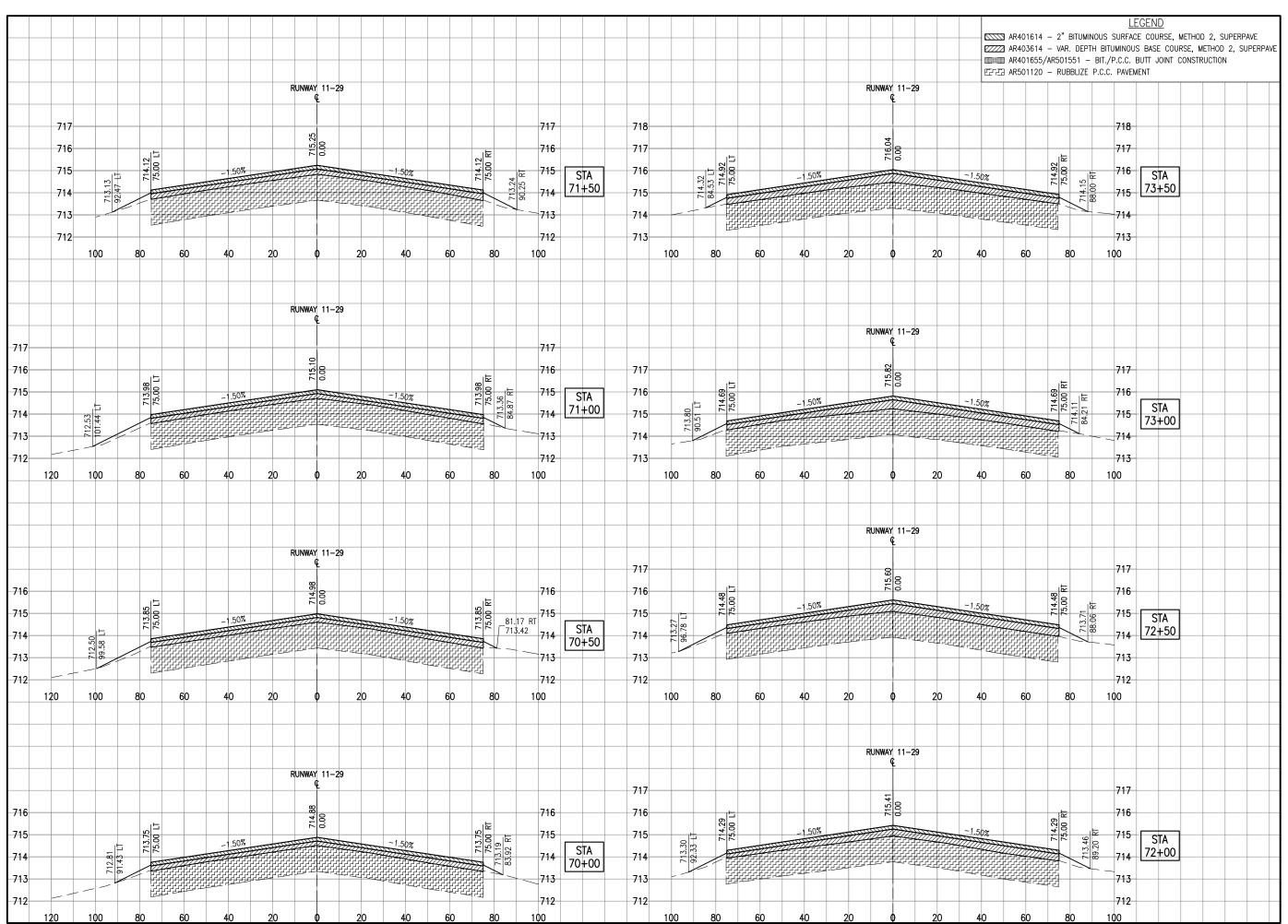
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RUNWAY 11-29 CROSS SECTIONS -STA. 67+50 TO 69+50





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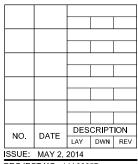
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COLES COUNTY AIRPORT
AUTHORITY
COLES ON MANAGEMENT AIRPORT

REHABILITATE RUNWAY 11/29

IDA No: MTO-4320

Contract No. CO061

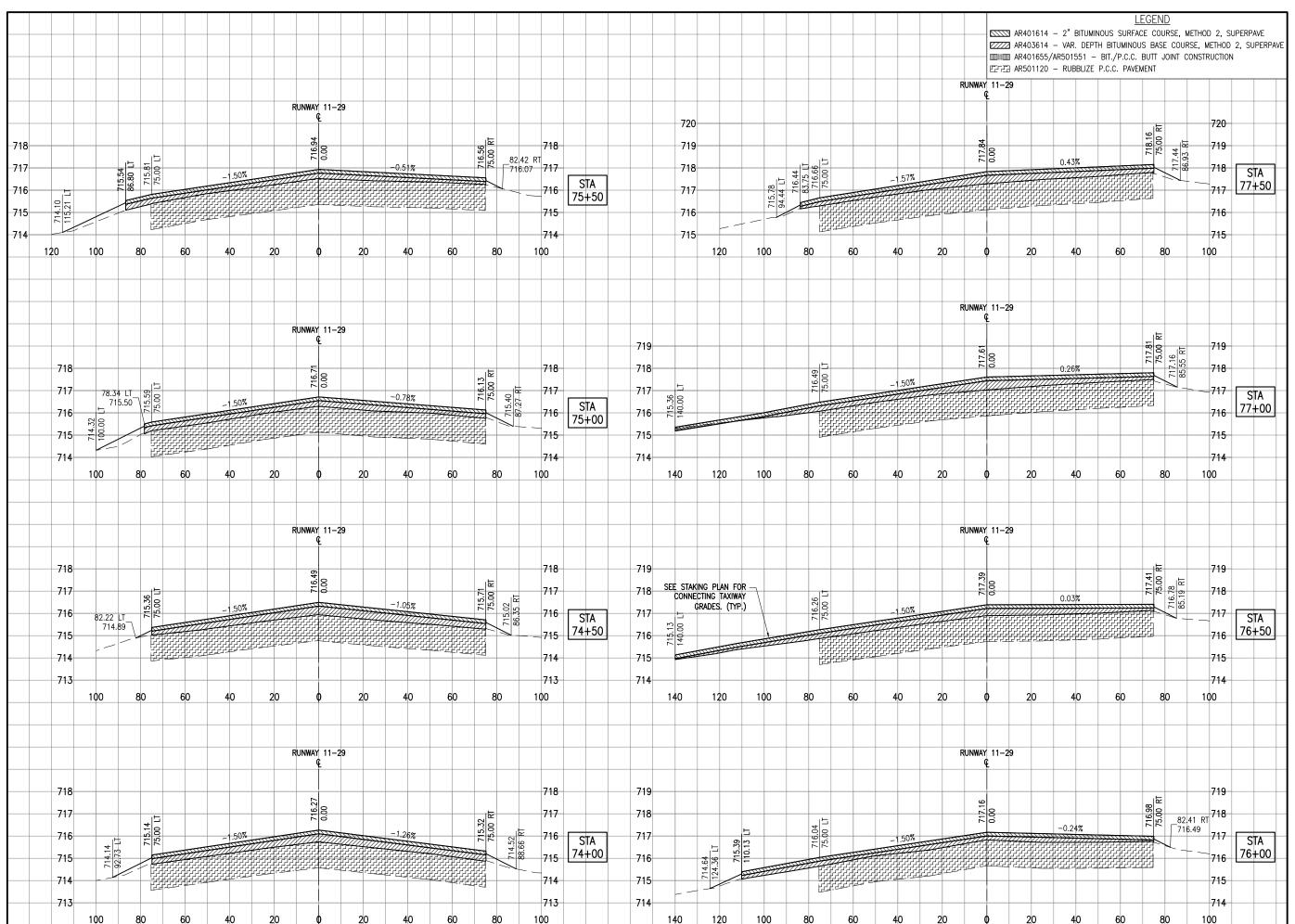


ISSUE: MAY 2, 2014
PROJECT NO: 14A0005D
CAD FILE: C-301-XS.DWG
LAYOUT BY: KBS 04/08/14
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SHEET TITLE

RUNWAY 11-29 CROSS SECTIONS -STA. 70+00 TO 73+50





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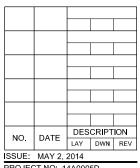
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REHABILITATE RUNWAY 11/29

IDA No: MTO-4320

Contract No. CO061



PROJECT NO: 14A0005D

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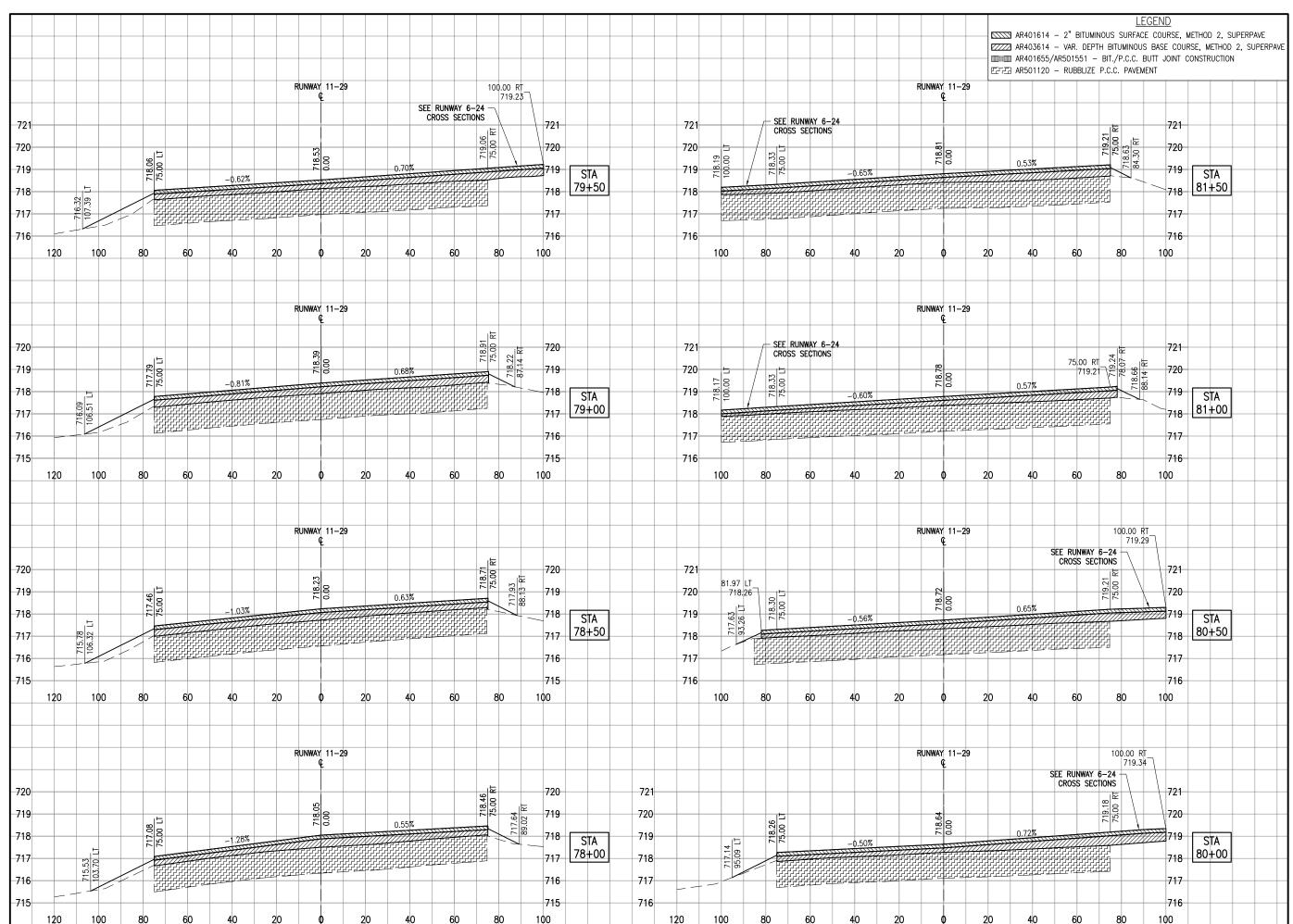
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SHEET TITLE

RUNWAY 11-29 CROSS SECTIONS -STA. 74+00 TO 77+50





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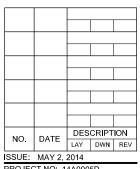
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IDA No: MTO-4320

Contract No. CO061

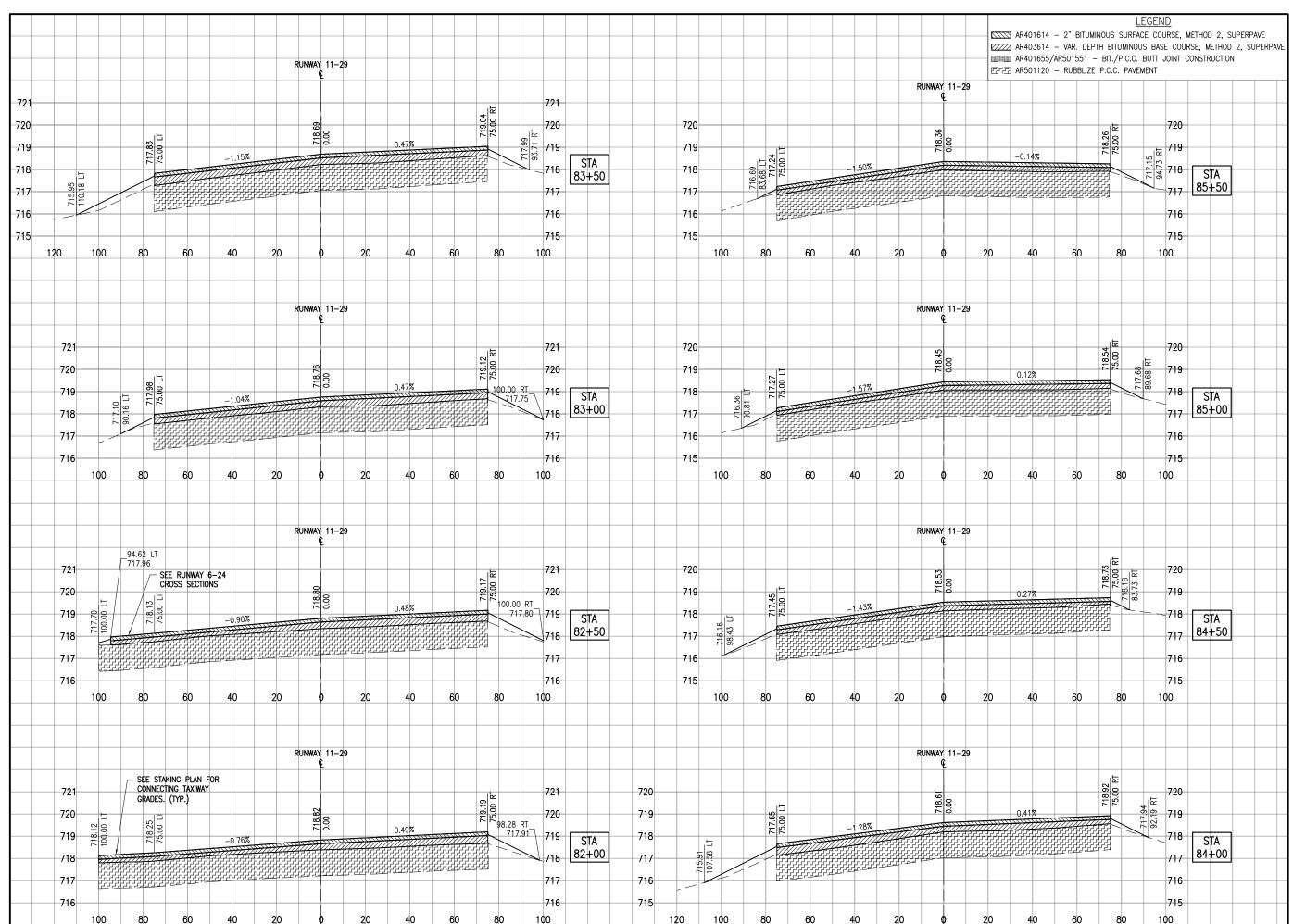


ISSUE: MAY 2, 2014
PROJECT NO: 14A0005D
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SHEET TITLE

RUNWAY 11-29 CROSS SECTIONS -STA. 78+00 TO 81+50





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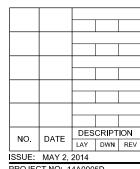
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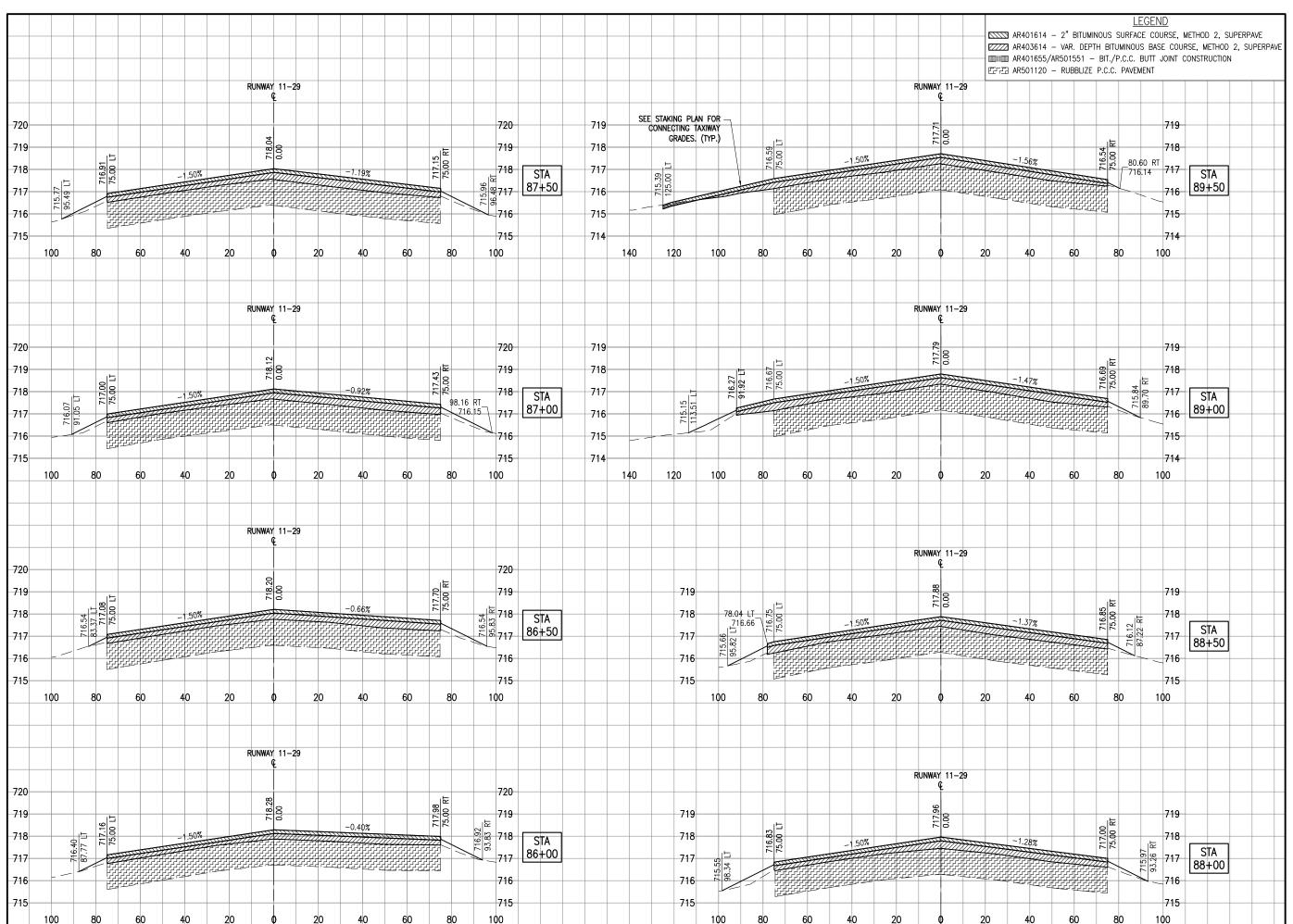
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PROJECT NO: 14A0005D CAD FILE: C-301-XS.DWG LAYOUT BY: KBS 04/08/14 DRAWN BY: KBS 04/08/14 REVIEWED BY: CAH 05/02/14

SHEET TITLE

RUNWAY 11-29 CROSS SECTIONS -STA. 82+00 TO 85+50





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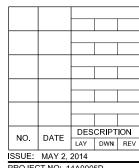
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IDA No: MTO-4320

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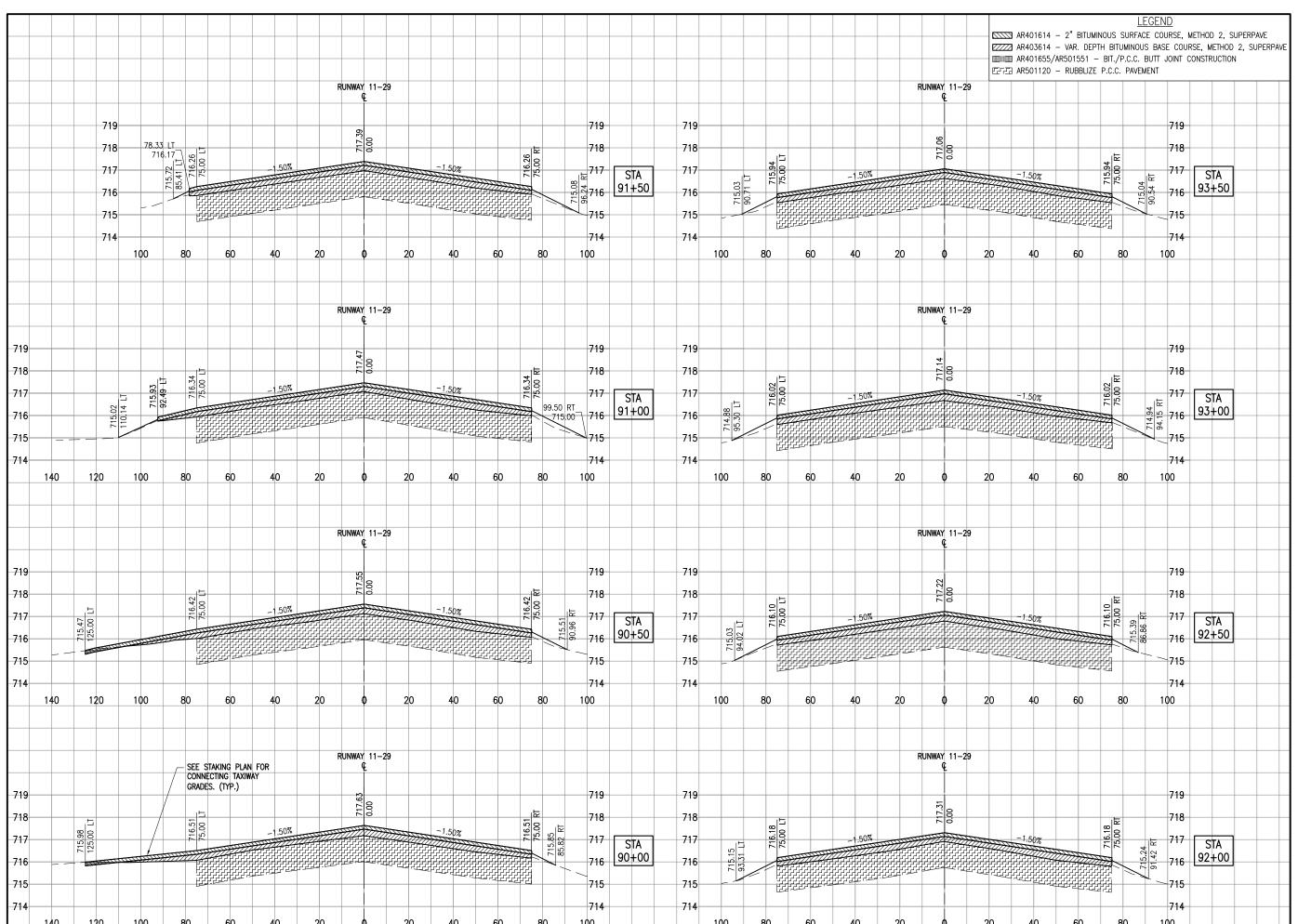


ISSUE: MAY 2, 2014
PROJECT NO: 14A0005D
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RUNWAY 11-29 CROSS SECTIONS -STA. 86+00 TO 89+50





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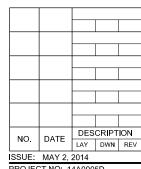
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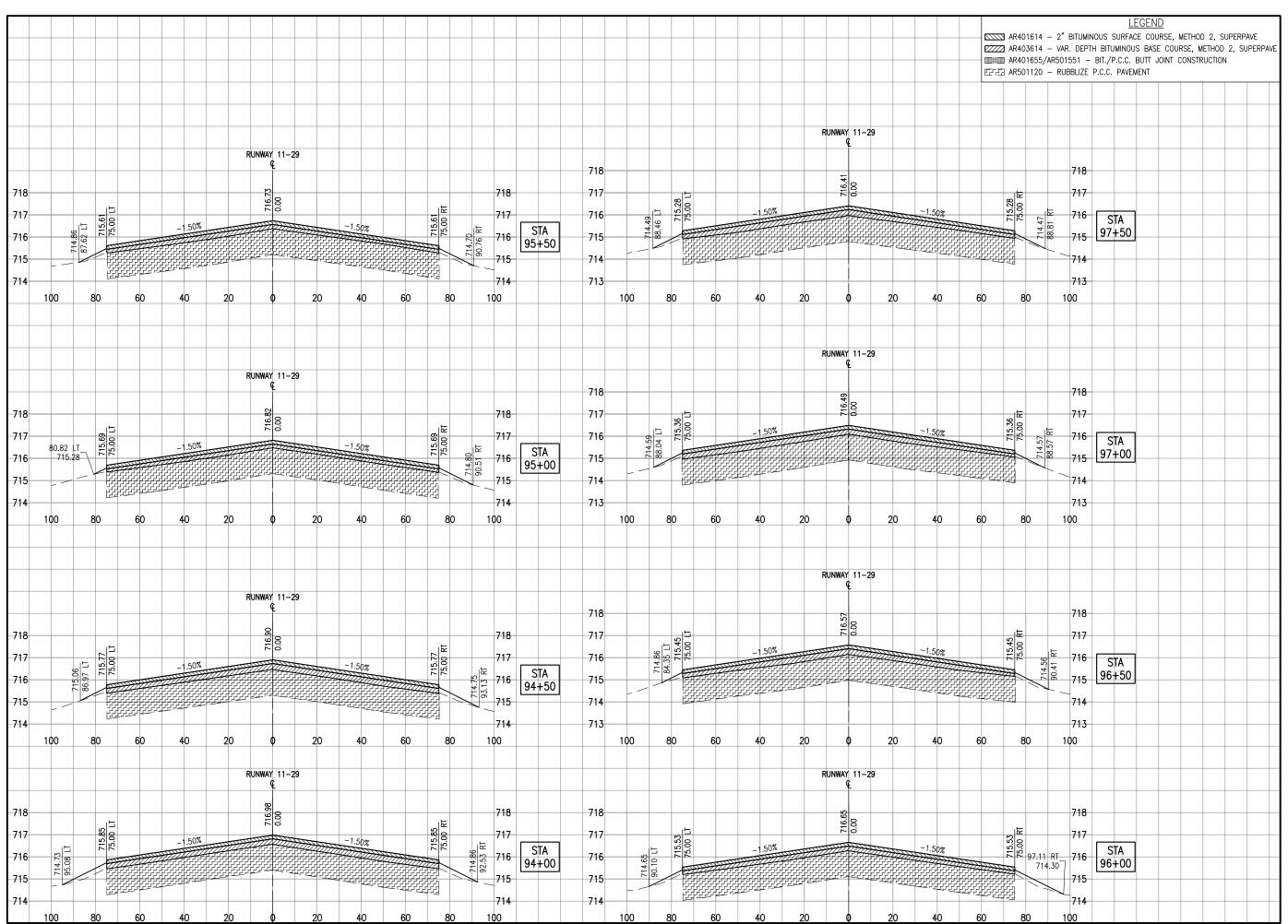
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SHEET TITLE

RUNWAY 11-29 CROSS SECTIONS -STA. 90+00 TO 93+50





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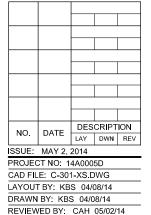
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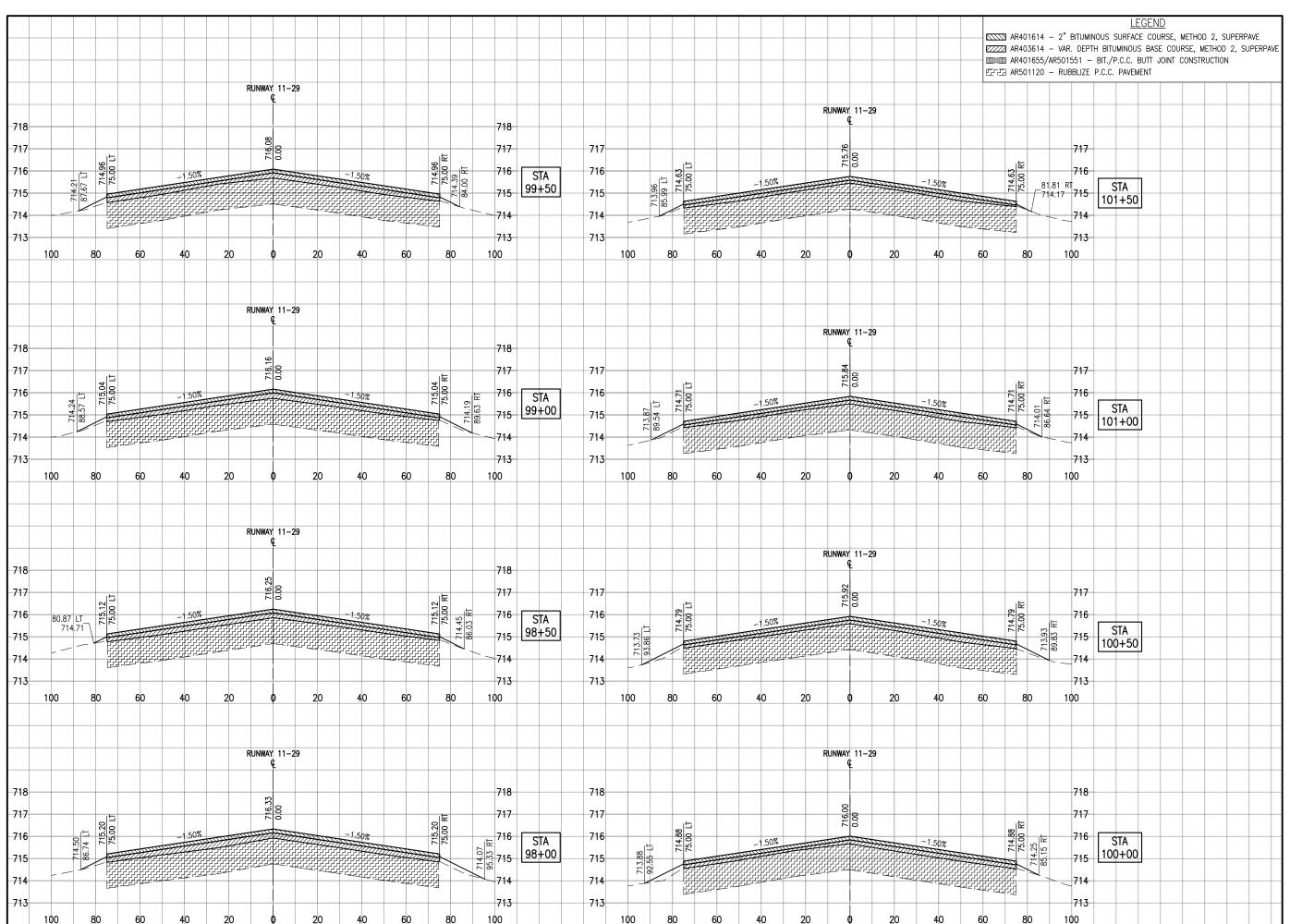
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RUNWAY 11-29 CROSS SECTIONS -STA. 94+00 TO 97+50





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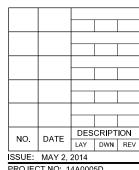
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IDA No: MTO-4320

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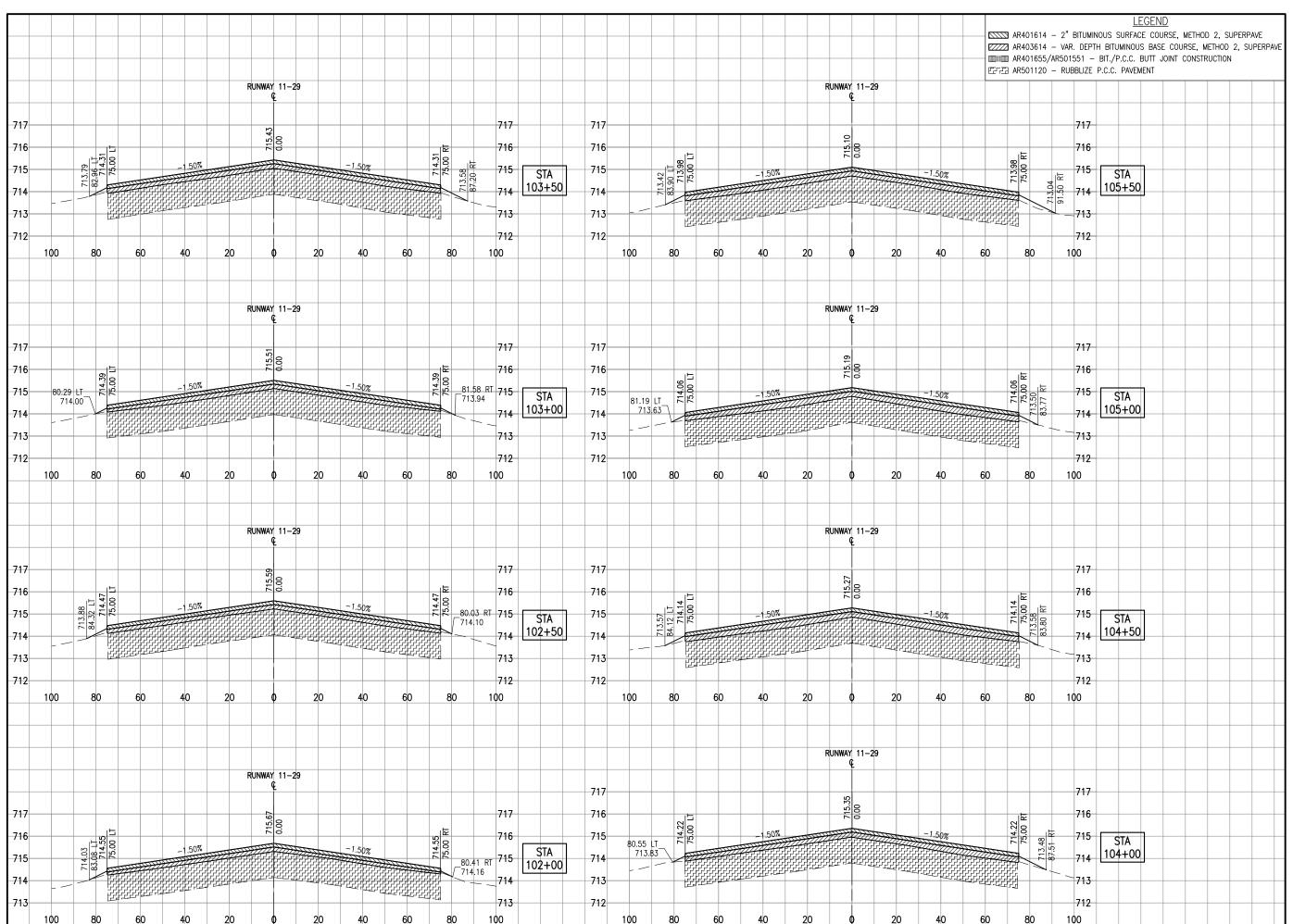


ISSUE: MAY 2, 2014
PROJECT NO: 14A0005D
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RUNWAY 11-29 CROSS SECTIONS -STA. 98+00 TO 101+50





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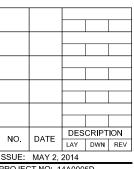
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IDA No: MTO-4320

Contract No. CO061

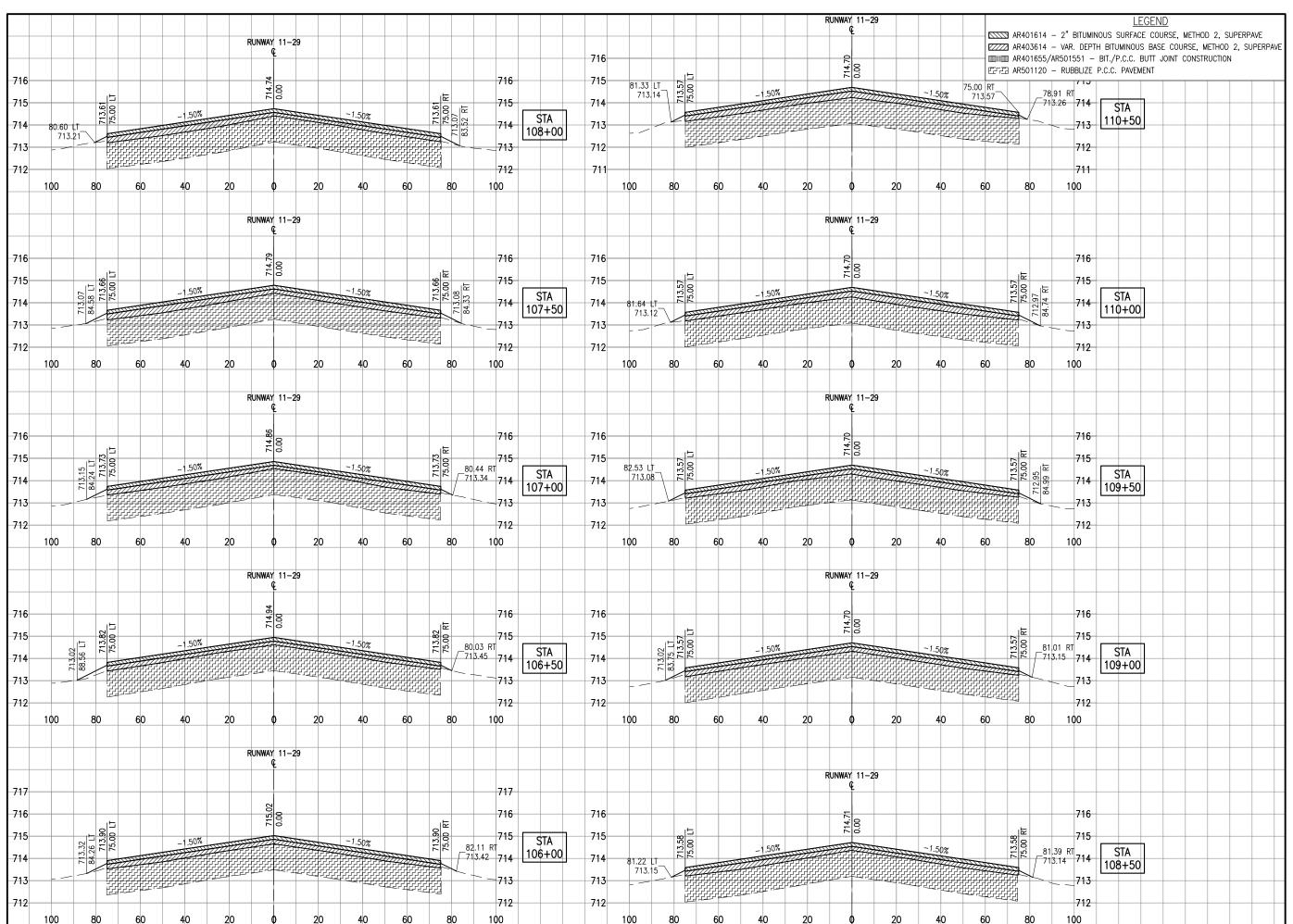


ISSUE: MAY 2, 2014 PROJECT NO: 14A0005D CAD FILE: C-301-XS.DWG

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RUNWAY 11-29 CROSS SECTIONS - STA. 102+00 TO 105+50





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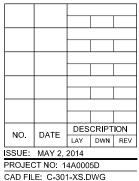
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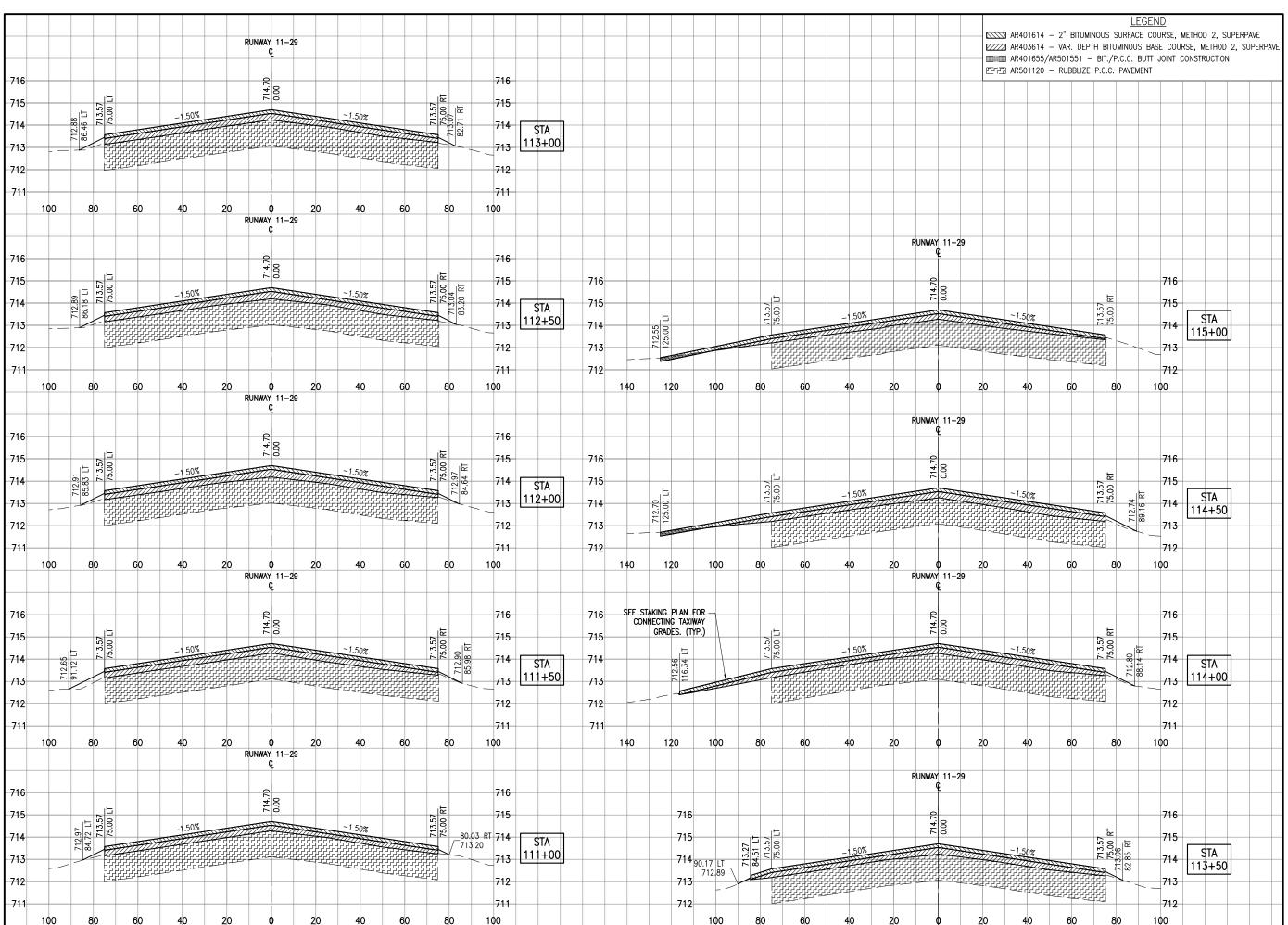


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RUNWAY 11-29 CROSS SECTIONS - STA. 106+00 TO 110+50





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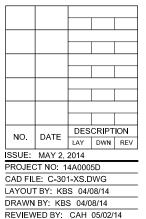
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RUNWAY 11-29 CROSS SECTIONS -STA. 111+00 TO 115+01



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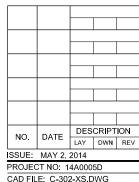
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Contract No. CO061



PROJECT NO: 14A0005D

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SHEET TITLE

RUNWAY 6-24 CROSS SECTIONS -STA. 32+50 TO 39+10



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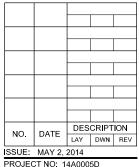
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RUNWAY 6-24 CROSS SECTIONS -STA. 39+50 TO 42+50