

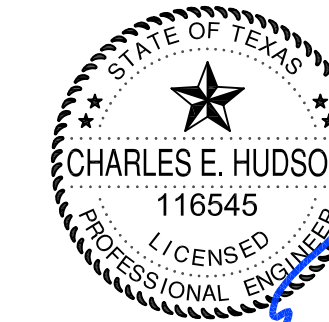
GREGG COUNTY, TEXAS EAST TEXAS REGIONAL AIRPORT TAXIWAY B, C, D, E, G, & K LIGHTING IMPROVEMENTS

FAA AIP No. 3-48-0137-42-2016
COUNTY BID No. 2016-609

June 20, 2016

RECOMMENDED BY:
KSA ENGINEERS, INC.

TBPE FIRM REGISTRATION NO. F-1356



Charles E. Hudson
CHARLES E. HUDSON, P.E.

6/20/16
DATE

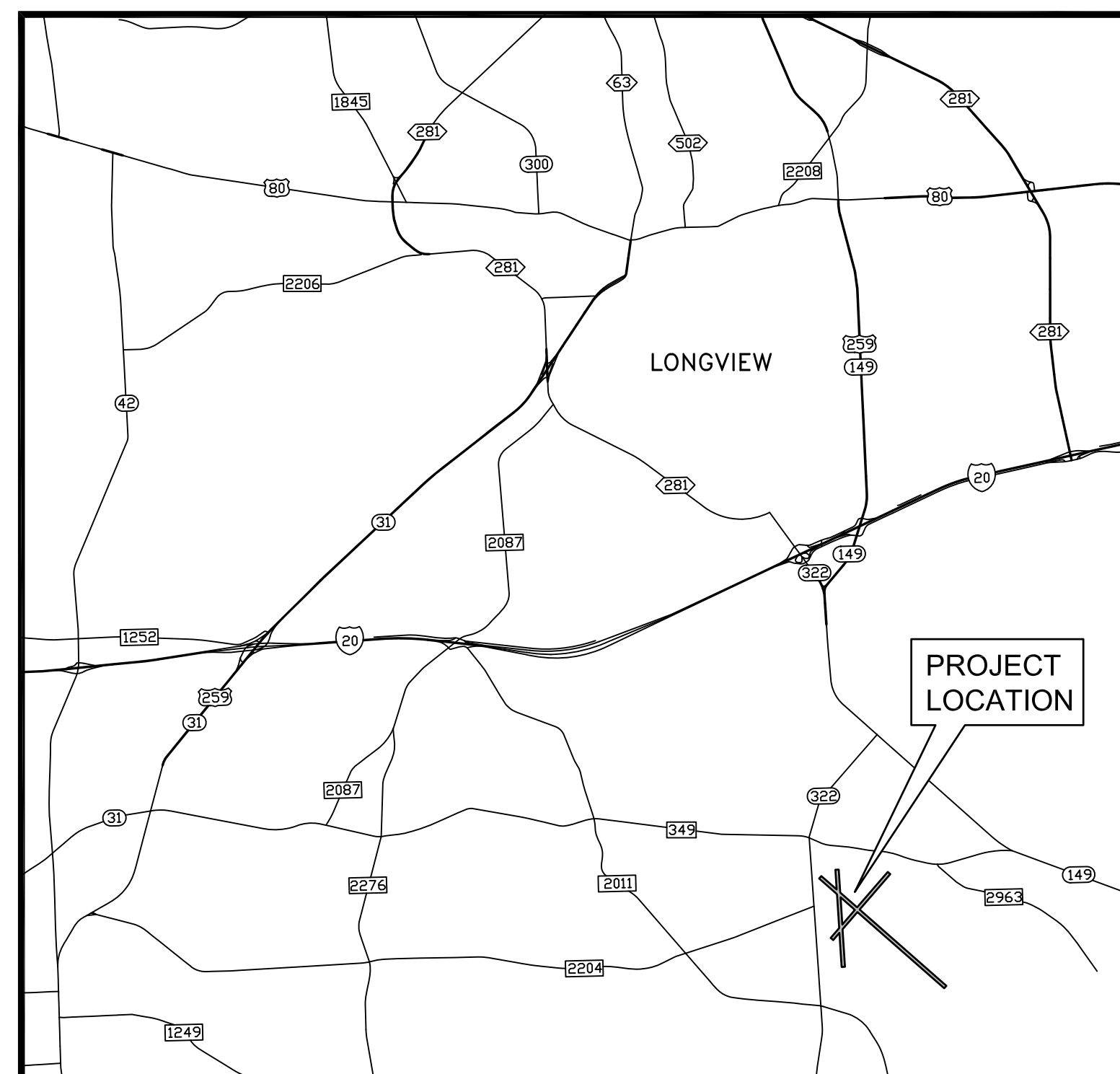
COUNTY OFFICIALS

COUNTY JUDGE
COMMISSIONER - PRECINCT 1
COMMISSIONER - PRECINCT 2
COMMISSIONER - PRECINCT 3
COMMISSIONER - PRECINCT 4

BILL STOUTD
RONNIE L. MCKINNEY
DARRYL PRIMO
GARY BOYD
JOHN MATHIS

AIRPORT DIRECTOR

ROY H. MILLER, Jr. A.A.E.



VICINITY MAP

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SAFETY & SECURITY NOTES

- 1. NO VEHICLE OR EQUIPMENT SHALL MOVE UPON APRONS, TAXIWAYS AND/OR RUNWAYS UNLESS THE VEHICLE:
 - A. IS IN RADIO CONTACT WITH THE ATCT AT UNICOM FREQUENCY 121.6, OR
 - B. IS UNDER ESCORT BY A VEHICLE IN RADIO CONTACT WITH THE ATCT, AND
 - C. IS IDENTIFIED BY MARKING OR A 3'x3' ORANGE AND WHITE CHECKERED FLAG AND FLASHING AMBER LIGHT. MARKINGS ON VEHICLES MUST BE MARKED WITH COMPANY NAME/LOGO THAT IS EASILY READ AT A DISTANCE BY THE ATCT.
- 2. AIRPORT SECURITY IS OF UTMOST IMPORTANCE. THE CONTRACTOR SHALL KEEP THE GATES LOCKED OR GUARDED AT ALL TIMES. THE AIRPORT SHALL PROVIDE THE CONTRACTOR WITH ACCESS TO THE AIRFIELD THROUGH THE GATES.
- 3. IF THE CONTRACTOR WISHES TO CHANGE OR MODIFY THE PARKING AND STAGING AREA THE CONTRACTOR SHALL SUBMIT FOR APPROVAL A PLAN SHOWING PROPOSED PARKING AND STORAGE LOCATIONS. THIS PLAN WILL HAVE TO BE APPROVED BY THE OWNER AND ENGINEER PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL PARK ALL EQUIPMENT IN THE STORAGE AREA WHEN NOT IN USE.
- 4. FLAGMEN WILL BE REQUIRED TO DIRECT THE CONTRACTOR'S TRUCKS AND EQUIPMENT WHICH ARE OPERATING IN THE AREA OF MOVING AIRCRAFT.
- 5. CONSTRUCTION PERSONNEL AND EQUIPMENT WILL NOT BE ALLOWED WITHIN THE AIRPORT OPERATIONS AREA (AOA) UNTIL THE AREA HAS BEEN CLOSED TO AIRCRAFT AND NOTAMS ISSUED.
- 6. ALL WORK WILL BE ACCOMPLISHED DURING NORMAL DAYTIME WORKING HOURS ONLY, OR AS APPROVED BY THE OWNER.
- 7. REFERENCE AC 150/5370-2F, "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION" FOR ADDITIONAL SAFETY INFORMATION AND REQUIREMENTS.
- 8. **GENERAL SAFETY REQUIREMENTS:** DURING PERFORMANCE OF THIS CONTRACT, THE AIRPORT RUNWAYS, TAXIWAYS, AND AIRCRAFT PARKING APRONS SHALL REMAIN IN USE BY AIRCRAFT TO THE MAXIMUM EXTENT POSSIBLE. AIRCRAFT USE OF AREAS NEAR THE CONTRACTOR'S WORK WILL BE CONTROLLED TO MINIMIZE DISTURBANCE TO THE CONTRACTOR'S OPERATION. THE CONTRACTOR SHALL NOT ALLOW HIS/HER EMPLOYEES, SUBCONTRACTOR'S, SUPPLIERS, OR ANY PERSON OVER WHO HE/SHE HAS CONTROL TO ENTER OR REMAIN IN ANY PART OF THE AIRPORT WHICH WOULD BE HAZARDOUS TO PERSONS OR TO AIRCRAFT OPERATIONS. WHENEVER AIRCRAFT OPERATIONS REQUIRE, THE ENGINEER, MAY ORDER THE CONTRACTOR TO SUSPEND OPERATIONS, MOVE PLANT, PERSONNEL, EQUIPMENT, AND MATERIALS TO A SAFE LOCATION AND STAND BY UNTIL AIRCRAFT USE IS COMPLETED.
- 9. **OBSTACLE FREE ZONE:** CONSTRUCTION ACTIVITY WITHIN AN OBSTACLE FREE ZONE WILL REQUIRE CLOSING PART OR ALL OF THE AFFECTED RUNWAY. SAFETY DIMENSIONS CAN BE FOUND IN AC 150/5370-2F.
- 10. **APPROACH CLEARANCE TO RUNWAYS:** RUNWAY LANDING THRESHOLDS SHALL BE LOCATED TO PROVIDE AN UNOBSTRUCTABLE APPROACH SURFACE WITH AN APPROACH RATION OVER EQUIPMENT AND MATERIALS.
- 11. **RUNWAY AND TAXIWAY SAFETY AREAS:** CONTRACTOR SHALL COORDINATE WITH THE RESIDENT PROJECT REPRESENTATIVE AND OWNER. CONSTRUCTION ACTIVITY WITHIN A RUNWAY SAFETY AREA WILL REQUIRE CLOSING PART OR ALL OF THE AFFECTED RUNWAY. CONSTRUCTION ACTIVITY WITHIN TAXIWAY SAFETY AREAS/OBSTACLE FREE AREAS IS PERMISSIBLE WHEN THE TAXIWAY IS OPEN TO AIRCRAFT TRAFFIC IF:
 - A. ADEQUATE WINGTIP/EMPENNAGE CLEARANCE EXIST BETWEEN THE AIRCRAFT AND EQUIPMENT/MATERIAL,
 - B. EXCAVATIONS, TRENCHES, OR OTHER CONDITIONS ARE CONSPICUOUSLY MARKED AND LIGHTED,
 - C. NOTICES TO AIRMEN ARE IN EFFECT CONCERNING THE ACTIVITY
- 12. **VEHICLE IDENTIFICATION AND PARKING:**
 - A. CONTRACTOR VEHICLES SHALL BE MARKED AND EQUIPMENT SHALL BE IDENTIFIED BY 3'x3' ORANGE AND WHITE CHECKERED FLAGS AND AMBER FLASHING LIGHTS.
 - B. PRIVATELY OWNED VEHICLE (POV) PARKING SHALL BE AS DESIGNATED BY THE OWNER.
- 13. NO TRENCHES IN OR DIRECTLY ADJACENT TO OPERATIONAL PAVEMENT SHALL REMAIN OPEN OVERNIGHT OR WHEN THE CONTRACTOR FINISHES WORK FOR THE DAY IN THE AREA. TRENCHES NOT BACKFILLED SHALL BE COVERED WITH STEEL PLATES TO ALLOW SAFE PASSAGE BY AIRCRAFT ACROSS THE TRENCH, IF APPROVED BY THE OWNER.
- 14. THE CONTRACTOR SHALL SUPPLY PORTABLE HAND-HELD RADIOS (AVIATION BAND), SET TO A PREDETERMINED FREQUENCY ESTABLISHED BY THE OWNER, TO EACH FLAGMAN, SUPERVISORY INDIVIDUAL, AND ENGINEER'S RESIDENT PROJECT REPRESENTATIVE SO THAT THEY MAY KEEP IN CONSTANT CONTACT AT ALL TIMES WITH THE OWNER. UPON COMPLETION OF THE PROJECT AND ACCEPTANCE BY THE OWNER, THE RESIDENT PROJECT REPRESENTATIVE SHALL RETURN THE RADIO SET TO THE CONTRACTOR. CONTRACTOR SHALL HAVE TWO (2) RADIOS IN CONTACT WITH THE TOWER AT ALL TIMES.
- 15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL PORTABLE HAND-HELD RADIO SETS IN WORKING ORDER AT ALL TIMES FOR THE DURATION OF THE PROJECT.
- 16. CONSTRUCTION EQUIPMENT AND VEHICLES SHALL NOT EXCEED 15 MPH WITHIN THE AIRPORT PROPERTY.
- 17. THE CONTRACTOR SHALL NOT, FOR ANY REASON ENTER ACTIVE AIRFIELD AREAS WITHOUT EXPLICIT APPROVAL BY THE ENGINEER OR RESIDENT PROJECT REPRESENTATIVE. THE CONTRACTOR SHALL LIMIT OPERATIONS TO LIMITS OF CONSTRUCTION ACTIVITIES.
- 18. ALL EQUIPMENT AND MATERIALS SHALL BE STORED IN THE CONTRACTORS STAGING AND STORAGE AREA WHEN NOT IN USE. EQUIPMENT AND MATERIALS SHALL NOT ENCROACH UPON ACTIVE OPERATIONAL AREAS. MINIMUM CLEARANCES SHALL BE MAINTAINED ON RUNWAYS IN ACCORDANCE WITH PART 77 OF FEDERAL AVIATION REGULATIONS.
- 19. ALL WASTE OR SPOIL MATERIAL SHALL BE DISPOSED OF OFF THE AIRPORT PROPERTY BY THE CONTRACTOR, UNLESS OTHERWISE NOTED. WASTE AND LOOSE MATERIAL CAPABLE OF DAMAGE TO AIRPLANES MUST NOT BE PLACED ON ACTIVE AIRPLANE MOVEMENT AREAS. MATERIAL TRACKED ON THESE AREAS MUST BE REMOVED CONTINUOUSLY BY A SWEEPER OR VACUUM TRUCK SUPPLIED BY THE CONTRACTOR DURING THE PROJECT. NO DIRECT PAY IN BID PROPOSAL.

CONSTRUCTION NOTES

- 1. EACH CONSTRUCTION AREA SHALL BE SHAPED TO ALLOW DRAINAGE OF SURFACE WATER DURING EACH WORK OPERATION. IF NECESSARY, SURFACE WATER SHALL BE PUMPED IMMEDIATELY FROM EACH CONSTRUCTION AREA AFTER EACH RAIN.
- 2. STOCKPILE LOCATION SHALL BE ADJUSTED IN THE FIELD AND COORDINATED WITH THE OWNER AND THE ENGINEER. STOCKPILE SHALL NOT CREATE ANY PONDING OF WATER OR ALTER DRAINAGE PATTERNS OF THE AIRPORT PROPERTY.
- 3. CONTRACTOR SHALL PROVIDE AND INSTALL ALL MATERIALS AND DRAINAGE STRUCTURES TO CONSTRUCT A STABILIZED CONSTRUCTION ENTRANCE/EXIT AT EACH POINT WHERE CONSTRUCTION CREWS WILL EXIT AIRPORT PROPERTY.

- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF ANY DAMAGE TO EXISTING UNDERGROUND CABLES, PIPELINES, ETC. ENCOUNTERED DURING CONSTRUCTION. ALL REPAIRS MUST BE MADE IN COMPLIANCE WITH THE OWNER AND THE ENGINEER'S REQUIREMENTS. NO DIGGING SHALL BE PERFORMED WITHOUT FIRST CONTACTING THE OWNER. ANY DAMAGE TO FAA CABLE OR OTHER UNDERGROUND CABLE OR FACILITIES SHALL BE REPAIRED IN ACCORDANCE WITH THE APPLICABLE FAA SPECIFICATIONS AND IN A MANNER ACCEPTABLE TO THE OWNER AND THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- 5. DAMAGE TO EXISTING PAVEMENTS DUE TO MOVING OR USAGE OF HEAVY EQUIPMENT OR THE TRANSPORT OF MATERIALS TO OR ON THE SITE SHALL BE REPAIRED TO EQUAL OR BETTER QUALITY BY THE CONTRACTOR AT HIS OWN EXPENSE. CONTRACTOR SHALL ALSO MAINTAIN AND REPAIR DAMAGE TO PUBLIC USE ROADS. MAINTENANCE SHALL BE PERFORMED THROUGHOUT THE PROJECT.
- 6. CONSTRUCTION EQUIPMENT AND VEHICLES SHALL TRAVEL A MINIMUM AMOUNT ON NEWLY CONSTRUCTED PAVEMENTS SO THAT THE NEWLY CONSTRUCTED PAVEMENT AREAS WILL NOT BE DAMAGED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF ANY DAMAGE TO THE NEWLY CONSTRUCTED PAVEMENTS AT THE CONTRACTORS EXPENSE.
- 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND ACQUIRING AN ACCEPTABLE WATER SOURCE AS REQUIRED FOR CONSTRUCTION.
- 8. THE CONTRACTOR SHALL ANTICIPATE ALL UNDERGROUND OBSTRUCTIONS SUCH AS, BUT NOT LIMITED TO, WATER MAINS, GAS LINES, STORM AND SANITARY SEWERS, TELEPHONE OR ELECTRIC LIGHT OR POWER DUCTS, CONCRETE, AND DEBRIS. ANY SUCH LINES OR OBSTRUCTIONS INDICATED ON THE DRAWINGS SHOW ONLY THE APPROXIMATE LOCATIONS AND SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR. THE OWNER AND ENGINEER WILL ENDEAVOR TO FAMILIARIZE THE CONTRACTOR WITH ALL KNOWN UTILITIES AND OBSTRUCTIONS, BUT THIS SHALL NOT RELIEVE THE CONTRACTOR FROM FULL RESPONSIBILITY IN ANTICIPATING ALL UNDERGROUND OBSTRUCTIONS WHETHER OR NOT SHOWN ON THE DRAWINGS.
- 9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF ANY DAMAGE TO EXISTING FACILITIES NOT DESIGNATED FOR RECONSTRUCTION OR REPLACEMENT, AT CONTRACTORS EXPENSE.
- 10. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, MAINTAIN IN PROPER WORKING ORDER AND WITHOUT INTERRUPTION OF SERVICE ALL EXISTING UTILITIES AND SERVICES WHICH MAY BE ENCOUNTERED IN THE WORK, WITH THE CONSENT OF THE ENGINEER AND UTILITY OWNER SUCH SERVICE CONNECTIONS MAY BE TEMPORARILY INTERRUPTED TO PERMIT THE CONTRACTOR TO REMOVE DESIGNATED LINES OR TO MAKE TEMPORARY CHANGES IN THE LOCATIONS OF SERVICES. THE COST OF MAKING ANY CHANGES SHALL BE AT THE CONTRACTOR'S EXPENSE.
- 11. NOTIFY ALL UTILITY COMPANIES INVOLVED TO HAVE THEIR UTILITIES LOCATED AND MARKED IN THE FIELD. ALL UNDERGROUND UTILITIES SHALL THEN BE UNCOVERED TO VERIFY LOCATION AND ELEVATION BEFORE CONSTRUCTION BEGINS. COORDINATE WITH UTILITY OWNER IF UTILITY INSPECTOR MUST BE ON SITE WHEN LOCATING OR EXCAVATING NEAR UTILITIES.
- 12. **SHEETING AND BRACING:** INSTALL SHEETING AND BRACING NECESSARY TO SUPPORT THE SIDES OF TRENCHES AND OTHER EXCAVATIONS WITH VERTICAL SIDES, AS REQUIRED BY CURRENT OSHA REGULATIONS. COST OF SHEETING AND BRACING SHALL BE SUBSIDIARY TO THE CONSTRUCTION.
- 14. **CONSTRUCTION SITE ACCESS AND HAUL ROADS:** ACCESS TO THE JOB SITE SHALL BE AS SHOWN ON THE PLANS OR AS DESIGNATED BY THE OWNER.
- 15. **WATER IN EXCAVATION:** KEEP WORK FREE FROM GROUND OR SURFACE WATER AT ALL TIMES. PROVIDE PUMPS OF ADEQUATE CAPACITY OR OTHER APPROVED METHOD TO REMOVE WATER FROM THE EXCAVATION IN SUCH A MANNER THAT IT WILL NOT INTERFERE WITH THE PROGRESS OF THE WORK OR THE PROPER PLACING OF OTHER WORK. THE COST OF DEWATERING THE EXCAVATION SHALL BE SUBSIDIARY TO CONSTRUCTION.
- 16. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL HORIZONTAL AND VERTICAL CONSTRUCTION STAKING AS REQUIRED FOR THE PROJECT DEVELOPMENT.
- 17. THE EXACT LOCATION(S) OF FILTER FABRIC FENCE SHALL BE DETERMINED IN ACCORDANCE WITH THE PROJECT EROSION CONTROL PLAN. THE FILTER FABRIC FENCE SHALL BE INSTALLED AND MAINTAINED AS SPECIFIED. ANY LOCATIONS OF THE FILTER FABRIC FENCE SHOWN ON THE PLANS ARE APPROXIMATE ONLY. PAYMENT SHALL BE MADE BASED ON THE PRICE AS LISTED IN THE BID PROPOSAL AND THE ORIGINAL LINEAR FEET OF MATERIAL INSTALLED. PAYMENT SHALL NOT BE MADE FOR REPLACEMENT FENCE REQUIRED FOR REPAIR OR MAINTENANCE. THE FILTER FABRIC FENCE SHALL BE MAINTAINED IN PROPER CONDITION AT ALL TIMES DURING THE PROJECT. THE COST OF REPAIRING THE FILTER FABRIC FENCE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- 18. TOPSOIL REPLACEMENT IS REQUIRED IN ALL AREAS. TOPSOIL SHALL INCLUDE THE TOP FOUR (4) INCHES OF TRENCH OR EXCAVATION. TOPSOIL SHALL BE KEPT SEPARATE FROM GENERAL EXCAVATED MATERIAL. IN CULTIVATED AREAS ROCK FROM THE EXCAVATION SHALL NOT BE INCLUDED IN THE TOP SIX INCHES OF TOPSOIL BACKFILL. ALL AREAS OF BACKFILL OR EXCAVATION SHALL BE BROUGHT TO WITHIN FOUR (4) INCHES OF FINAL GRADE AND BROUGHT TO GRADE WITH COMPACTED TOPSOIL.
- 19. UPON COMPLETION OF FINAL GRADING, OR AS REQUIRED BY THE SWPPP, ALL AREAS DISTURBED BY CONTRACTOR SHALL BE SEEDED AND FERTILIZED. (CONTRACTOR SHALL INSTALL EROSION CONTROL MATTING AS SHOWN ON THE PLANS.) CONTRACTOR SHALL INSTALL A MINIMUM FOUR (4) FOOT WIDE BONDED FIBER MATRIX MULCH STRIP ADJACENT TO ALL PAVEMENT EDGES AND ALL SLOPES GREATER THAN 5 PERCENT. THE CONTRACTOR SHALL SOD AREAS AS DESIGNATED ON THE PLANS. THE CONTRACTOR SHALL WATER, FERTILIZE, AND MAINTAIN GRASS FOR AT LEAST TWO CUTTINGS, OR AS REQUIRED TO ENSURE GROWTH.
- 20. REMOVE EROSION CONTROL DEVICES AS DIRECTED ONCE GRASS IS ESTABLISHED TO 70% COVERAGE. NO SEPARATE PAY
- 21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING HIS OWN PROJECT OFFICE, TOILETED FACILITIES AND OTHER NECESSARY BUILDINGS OR SHELTERS. THE OWNER WILL NOT PROVIDE FACILITIES TO THE CONTRACTOR DURING CONSTRUCTION. ALL FACILITIES AND SERVICES FOR RPR SHALL BE PROVIDED BY THE CONTRACTOR AND SHALL BE SUBSIDIARY TO THE VARIOUS BID ITEMS ON THE PROJECT. SEE TECHNICAL SPECIFICATIONS ITEM S-1 FOR INFORMATION REGARDING CONTRACTOR FACILITIES.
- 22. THE CONTRACTOR SHALL MAINTAIN A CLEAN SAFE CONSTRUCTION WORK AREA. THE CONTRACTOR SHALL PERFORM CLEANUP OPERATIONS ON A DAILY BASIS.
- 23. THE CONTRACTOR SHALL NOT DEVIATE FROM THE APPROVED CONSTRUCTION PHASING WITHOUT FIRST OBTAINING APPROVAL FROM THE ENGINEER.
- 24. THE CONTRACTOR SHALL HAVE SUFFICIENT EQUIPMENT AND PERSONNEL ON SITE TO ACCOMPLISH EFFICIENT AND PROMPT CONSTRUCTION OF THE VARIOUS WORK ITEMS, INCLUDING WORK ON MORE THAN ONE WORK ITEM SIMULTANEOUSLY.
- 25. ALL ABOVE GROUND AND GROUND LEVEL ELECTRICAL RELATED APPURTENANCES (I.E. RUNWAY LIGHTS, CABLE BOXES, CABLE AND/OR DUCT MARKERS, CONDUIT ETC.) SHALL BE PROTECTED AT ALL TIMES. ANY DAMAGE DONE TO SAID APPURTENANCES BY THE CONTRACTOR SHALL BE REPAIRED TO LIKE QUALITY AT THE CONTRACTORS EXPENSE. THE REPAIRS SHALL BE PERFORMED TO THE SATISFACTION OF THE OWNER AND THE ENGINEER.
- 26. WORK CANNOT COMMENCE UNTIL:
 - A. SUFFICIENT BARRICADES ARE IN PLACE TO CONFINE THE WORK AREA AND CREATE A BARRIER BETWEEN AIRCRAFT AND VEHICLE MOVEMENT AREAS AND THE CONSTRUCTION AREA.
 - B. ALL SAFETY EQUIPMENT FOR PERSONNEL AND CONSTRUCTION EQUIPMENT IS IN PLACE

- AND OPERABLE.
- C. A NOTICE TO PROCEED HAS BEEN ISSUED TO THE CONTRACTOR
- 27. ALL MATERIAL SUBMITTALS FOR ITEMS TO BE USED IN CONSTRUCTION OF THE PROJECT SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO COMMENCEMENT OF WORK.
- 28. A COMPLETE PROJECT SCHEDULE SHALL BE PROVIDED AT THE PRE-CONSTRUCTION MEETING AND PRESENTED AND EXPLAINED BY THE CONTRACTOR TO THE MEETING ATTENDEES. RUNWAY SHUTDOWN DATES MAY BE DETERMINED AT THE PRE-CONSTRUCTION MEETING, OR AT A LATER TIME, AS APPROVED BY THE OWNER AND COORDINATED BY THE RESIDENT PROJECT REPRESENTATIVE.
- 29. WEEKLY PROGRESS MEETINGS ARE MANDATORY. THE DAY OF THE WEEK FOR THESE MEETINGS MAY BE DETERMINED BY AGREEMENT BETWEEN THE OWNER, THE RPR AND THE CONTRACTOR. THESE MEETINGS SHALL BE CONDUCTED BY THE RPR.
- 30. INTERIM PROJECT SCHEDULES SHALL BE PROVIDED ON THE FIRST OF EACH MONTH AND INCLUDE: ORIGINAL BASELINE, UPDATED TO CURRENT CONSTRUCTION ACTIVITY, ADJUSTED CRITICAL PATH AND RUNWAY/TAXIWAY SHUTDOWN DATES TO BE CLEARLY NOTED.
- 31. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND RESTRICTIONS FOR SERVICING AND MAINTAINING EQUIPMENT AND DISPOSAL OF USED LUBRICANTS, ETC. ACCORDING TO THE PERTINENT LAW AND REGULATIONS.
- 32. IT IS THE INTENT OF THESE PLANS TO MINIMIZE INTERFERENCE TO AIRCRAFT MOVEMENT; THEREFORE, IN UNCLOSED PORTIONS, AIRCRAFT MOVEMENT SHALL HAVE THE RIGHT-OF-WAY.
- 33. THE CONTRACTOR SHALL PROVIDE A MOTORIZED MECHANICAL SWEEPER ON SITE AT ALL TIME DURING THIS PROJECT TO REMOVE "FOREIGN OBJECTS DAMAGE" (FOD) IN AIRCRAFT MOVEMENT AREAS.
- 34. TEMPORARY FENCING WITH GATES SHALL BE PROVIDED BY THE CONTRACTOR. THE CONTRACTOR SHALL KEEP THE CONSTRUCTION SITE SECURE AT ALL TIMES. THE CONTRACTOR SHALL KEEP THE PERIMETER OF THE AIRPORT SECURE AT ALL TIMES. THE CONTRACTOR SHALL GUARD ANY SECTION OF THE PERIMETER FENCE THAT IS LEFT OPEN TO CONSTRUCTION ACTIVITIES.
- 35. ALL SAW CUTTING SHALL BE SUBSIDIARY TO THE VARIOUS BID ITEMS ON THE PROJECT.
- 36. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF ANY DAMAGE TO EXISTING FACILITIES NOT DESIGNATED FOR RECONSTRUCTION OR REPLACEMENT, AT HIS EXPENSE.
- 37. THE CONTRACTOR SHALL ENSURE THAT EQUIPMENT IS NOT PARKED BETWEEN THE EXISTING ARFF STATION AND THE AIRPORT OPERATIONS AREA (AOA). CLEAR PASSAGEWAY MUST BE MAINTAINED BETWEEN THE ARFF STATION AND THE AOA AT ALL TIMES.
- 38. CONTRACTOR WILL HAVE PROJECT SUPERVISOR AND ALL LEAD EMPLOYEES BADGED TO ACT AS ESCORT TO CREW. BADGE FEES AND A MANDATORY CLASS AND DRIVER TRAINING AT THE AIRPORT TO DISCUSS TSA SECURITY REQUIREMENTS WILL BE AT THE EXPENSE OF THE CONTRACTOR. PROJECT SUPERVISOR SHALL KEEP EMPLOYEES WITHIN LINE OF SIGHT AT ALL TIMES.
- 39. CONTRACTOR WILL COMPLY WITH ALL SECURITY DIRECTIVES AND PLANS REQUIRED BY THE AIRPORT AND/OR TSA.
- 40. ANY WORK DESCRIBED IN THE PLANS OR SPECIFICATIONS THAT IS NOT PAID FOR DIRECTLY BY A SPECIFIC BID ITEM SHALL BE CONSIDERED SUBSIDIARY TO THE VARIOUS BID ITEMS OF THE PROJECT.

DEMobilization NOTES

- 1. CONDITIONS OF THE PROJECT AREA UPON COMPLETION OF THE JOB SHALL BE GOOD AS OR BETTER THAN THE CONDITION PRIOR TO STARTING WORK, IN ADDITION TO THE WORK ITEMS LISTED.
- 2. THE PROJECT AREA SHALL BE FREE OF ANY CONTRACTOR STOCKPILE MATERIALS UPON COMPLETION OF THE JOB UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- 3. UPON COMPLETION OF THE PROJECT, ALL THE HAUL ROUTES SHALL BE PROPERLY CLEANED TO PREVENT OBSTRUCTION AND/OR CAUSE INCONVENIENCE TO NORMAL REGULAR TRAFFIC. ALL TEMPORARY HAUL ROUTES SHALL BE REMOVED AND BROUGHT BACK TO ORIGINAL CONDITION OR BETTER.
- 4. THE RPR TRAILER, ALL OF THE CONSTRUCTION EQUIPMENT, AND ANY FACILITIES TEMPORARILY PLACED ON SITE FOR THE PROJECT SHALL BE REMOVED FROM THE SITE.
- 5. ANY PROPERTIES BELONGING TO THE AIRPORT SHALL BE RETURNED TO THE OWNER.
- 6. PROPER DRAINAGE (NO LOCALIZED PONDING) SHALL BE MAINTAINED, PRIOR TO, DURING AND AFTER MOBILIZATION.
- 7. DEMOBILIZATION SHALL BE DONE TO THE SATISFACTION OF THE ENGINEER.
- 8. DEMOBILIZATION SHALL BE DONE IN A MANNER THAT WILL NOT CAUSE ANY INCONVENIENCE TO AIRPORT OPERATIONS.
- 9. ANY DAMAGE TO THE AIRPORT PROPERTIES DURING DEMOBILIZATION SHALL BE REPAIRED AND PAID FOR AT THE CONTRACTOR'S OWN EXPENSE.
- 10. AIRPORT SAFETY REGULATIONS SHALL BE OBSERVED AT ALL TIMES DURING DEMOBILIZATION.

ENVIRONMENTAL NOTES

- 1. IN THE EVENT THAT UNANTICIPATED ARCHEOLOGICAL DEPOSITS ARE ENCOUNTERED DURING CONSTRUCTION, WORK IN THE IMMEDIATE AREA WILL CEASE AND THE ENGINEER WILL CONTACT PROFESSIONAL ARCHEOLOGISTS TO INITIATE POST-REVIEW DISCOVERY PROCEDURES UNDER THE PROVISIONS OF 36 CFR 800.13..
- 2. IN THE EVENT THAT UNANTICIPATED HAZARDOUS MATERIALS ARE ENCOUNTERED DURING CONSTRUCTION, WORK IN THE IMMEDIATE AREA WILL CEASE AND THE ENGINEER WILL BE NOTIFIED.
- 3. HAZARDOUS WASTE: ALL SPILLS MUST BE REPORTED IMMEDIATELY TO THE PROJECT MANAGER.
- 4. EROSION CONTROLS SHALL BE INSPECTED EVERY SEVEN DAYS.
- 5. THE FEDERAL MIGRATORY BIRD TREATY ACT (MBTA) (16 USC §703-711.), 50 CFR 10, AND FISH & GAME CODE §3503 §3513, AND §3800, PROTECT MIGRATORY AND NONGAME BIRDS. THEIR OCCUPIED NESTS, AND THEIR EGGS. IN THE EVENT THAT MIGRATORY BIRDS ARE ENCOUNTERED ONSITE DURING PROJECT CONSTRUCTION FROM FEBRUARY 15 TO OCTOBER 1, THE SUPERINTENDENT WORKING ON THE PROJECT MUST TAKE REASONABLE CARE TO AVOID IMPACTS TO PROTECTED BIRDS, ACTIVE NESTS, EGGS AND/OR THE YOUNG. A PERSON THAT VIOLATES THAT MBTA MAY BE HELD STRICTLY LIABLE FOR ACTIONS THAT RESULT IN UNPERMITTED TAKE WHEN MIGRATORY BIRD NESTS ARE DISCOVERED WHICH MAY BE ADVERSELY AFFECTED BY CONSTRUCTION ACTIVITY, OR WHEN A BIRD IS FOUND INJURED OR KILLED AS A RESULT OF CONSTRUCTION ACTIVITY, IMMEDIATELY STOP WORK WITHIN 50 FEET OF THE NEST OR BIRD AND NOTIFY THE RESIDENT PROJECT REPRESENTATIVE/ENGINEER/ AND OWNER.

ACCESS ROUTE NOTES

- 1. DAMAGE TO EXISTING PAVEMENTS OR FENCES WHICH IS CAUSED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED TO ORIGINAL OR BETTER CONDITION AT NO EXPENSE TO THE OWNER.
- 2. ACCESS ROUTES FOR EACH CONSTRUCTION PHASE SHALL BE COORDINATED WITH THE RESIDENT PROJECT REPRESENTATIVE AND OWNER. ROUTES SHOWN ARE PRELIMINARY ONLY, AND SUBJECT TO APPROVAL AND ADJUSTMENT BY THE OWNER. SEE PHASING PLANS FOR ADDITIONAL ACCESS ROUTE INFORMATION.
- 3. THE PAVEMENT ON THE ACCESS ROUTES MAY NOT SUPPORT CONSTRUCTION TRAFFIC. THE CONTRACTOR SHALL LIMIT LOAD AS NECESSARY TO PREVENT DAMAGE OR SHALL INCLUDE IN HIS BID ADEQUATE BUDGET TO REPAIR DAMAGE TO PAVEMENT.

MARK	REVISION	DATE

GENERAL NOTES

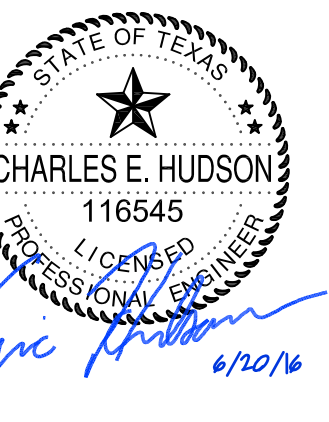
GREGG COUNTY, TEXAS
EAST TEXAS REGIONAL AIRPORT
TAXIWAY B, C, D, E, G, & K LIGHTING
IMPROVEMENTS

 SHEET NAME:

 SHEET NO.:

DRAWN BY: JRP	DESIGNED BY: CEH	LATEST REVISION: 6/16/2016	KSA JOB NO.:	GC-100
PROJECT NAME: GREGG COUNTY, TEXAS EAST TEXAS REGIONAL AIRPORT TAXIWAY B, C, D, E, G, & K LIGHTING IMPROVEMENTS	PROJECT NO.:			

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SUMMARY OF QUANTITIES

Item No.	Description	Unit	Estimated Quantity
L-108-5.1	No. 8 AWG, 5 KV, L-824, Type C Cable, Installed in Conduit	L.F.	55,100
L-108-5.2	No. 6 AWG, Solid Bare Counterpoise Wire, Installed in Trench, Including Ground Rods and Ground Connectors	L.F.	28,200
L-109-5.1	Remove Existing 7.5 KW Constant Current Regulator	EA.	2
L-109-5.2	Remove Existing 4 KW Constant Current Regulator	EA.	1
L-109-5.3	Install New 7.5 KW Constant Current Regulator	EA.	2
L-109-5.4	Install New 4 KW Constant Current Regulator	EA.	1
L-110-5.1	Install 2" PVC Schedule 40 Conduit In Trench Including Excavation and Backfill	L.F.	28,500
L-110-5.2	Install Duct Marker	EA.	20
L-110-5.3	Install 4" HDPE SDR 11 Conduit Directional Boring under Pavement	L.F.	5,400
L-110-5.4	Install 2" HDPE SDR 11 Conduit Directional Boring under Pavement	L.F.	4,900
L-115-5.1	Install L-868D Electrical Handhole	EA.	35
L-115-5.2	Install Aircraft Rated Electrical Handhole	EA.	7
S-E105-5.1	Remove Existing Stake-Mount Elevated MITL including Transformer	EA.	238
S-E105-5.2	Remove Existing No. 8 AWG, L-824C in Trench	L.F.	30,100
S-E105-5.3	Remove Existing 2" Conduit Including Excavation and Backfill	L.F.	500
S-E125-5.1	Install Can-Mounted Elevated MITL, Transformer, Base Can and Concrete Pad	EA.	301
S-E125-5.3	Reconnect Primary Cable to Existing Sign	EA.	40
S-E125-5.4	Install Fiber Optic Cable in Existing 4" Conduit	L.F.	5,200
S-E890-01	Airfield Lighting Control System (ALCS)	L.S.	1
S-E890-02	Miscellaneous Electrical Modification at Electrical Vault and ATCT, Remove Existing Relay Panels	L.S.	1
S-001	Barricades and Displaced Threshold Markings	L.S.	1
T-901-5.1	Seeding	AC.	11
GP-105	Mobilization	L.S.	1

SUMMARY OF QUANTITIES

GREGG COUNTY, TEXAS
 EAST TEXAS REGIONAL AIRPORT
 TAXIWAY B, C, D, E, G, & K LIGHTING
 IMPROVEMENTS

DRAWN BY: JKP
 DESIGNED BY: CEH
 LATEST REVISION: 6/16/2016
 KSA JOB NO.: GC-100

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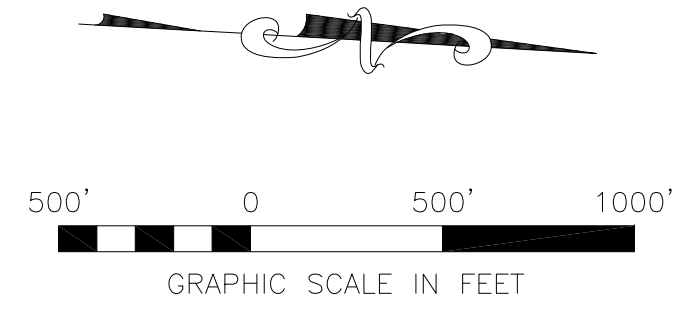
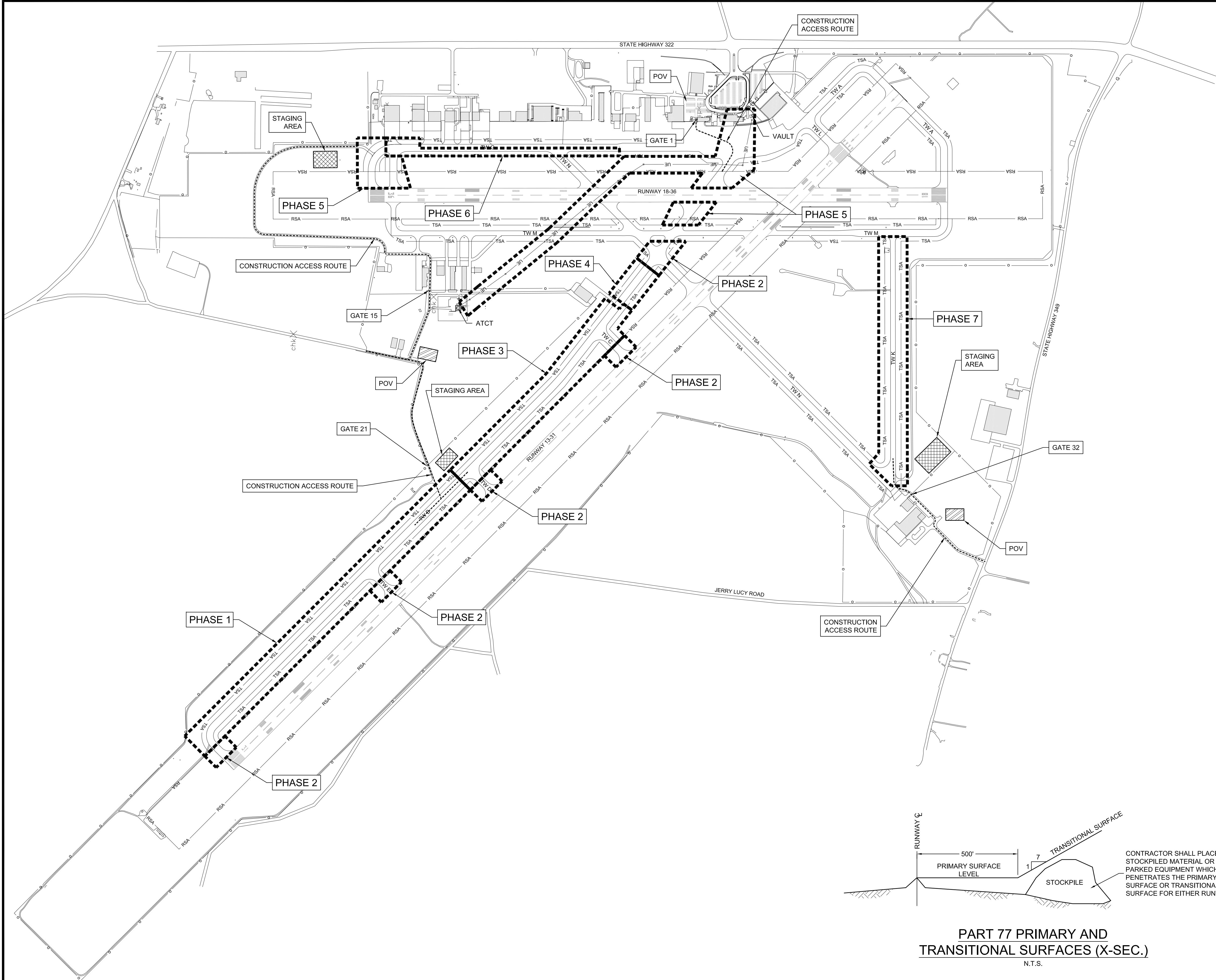
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 TBPE Firm Registration No. F-1356
 SHEET NO.

C03

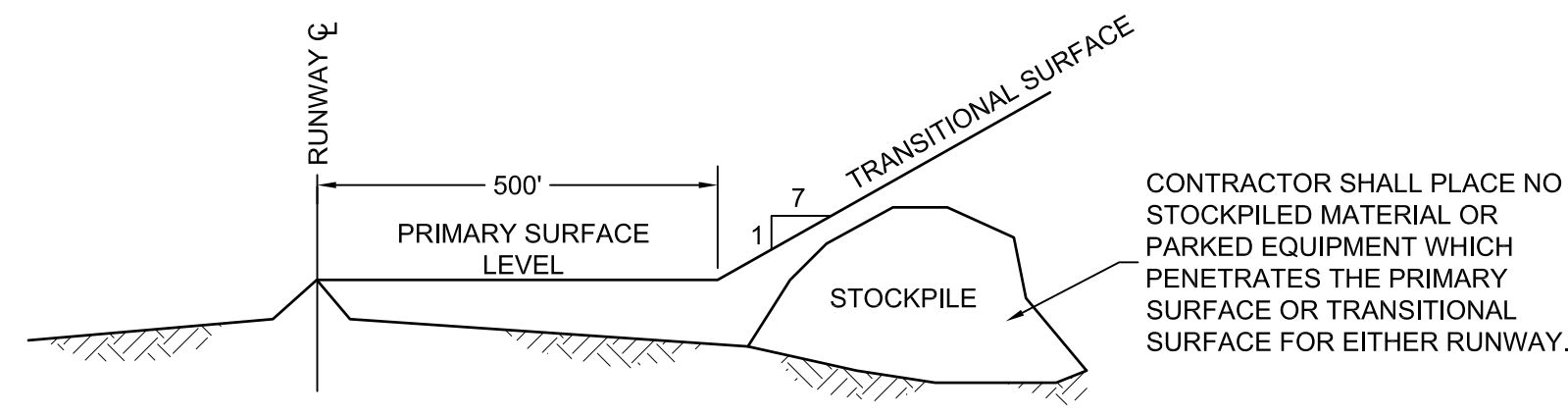
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 PROJECT SHEET: GC100 - QUANTITIES
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SHEET NAME:

PROJECT NAME:



- ACCESS ROUTE NOTES:**
- DAMAGE TO EXISTING PAVEMENT, FENCES, OR OTHER PROPERTY WHICH IS CAUSED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED TO ORIGINAL OR BETTER CONDITION AT NO EXPENSE TO THE OWNER.
 - ACCESS ROUTES FOR EACH CONSTRUCTION PHASE SHALL BE COORDINATED WITH THE OWNER. ROUTES SHOWN ARE PRELIMINARY ONLY, AND SUBJECT TO APPROVAL AND ADJUSTMENT BY THE OWNER. SEE PHASING PLANS FOR ADDITIONAL ACCESS ROUTE INFORMATION.
 - THE PAVEMENT ON THE ACCESS ROUTES MAY NOT SUPPORT CONSTRUCTION TRAFFIC. THE CONTRACTOR SHALL LIMIT LOAD AS NECESSARY TO PREVENT DAMAGE OR SHALL INCLUDE IN HIS BID ADEQUATE BUDGET TO REPAIR DAMAGE TO PAVEMENT.
 - AIRCRAFT ALWAYS HAVE THE RIGHT OF WAY.
 - SWEEP TAXIWAYS AND APRONS FREQUENTLY TO KEEP PAVEMENT FREE OF DEBRIS.
 - REPAIR ANY DAMAGE TO ANY EXISTING PAVEMENTS UPON COMPLETION OF CONSTRUCTION AT NO DIRECT PAY.
 - CONSTRUCTION EQUIPMENT AND VEHICLES SHALL TRAVEL A MINIMUM AMOUNT ON NEWLY CONSTRUCTED PAVEMENTS SO THAT THE NEWLY CONSTRUCTED AREAS WILL NOT BE DAMAGED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF ANY DAMAGE TO THE NEWLY CONSTRUCTED PAVEMENTS AT THE CONTRACTOR'S EXPENSE.
 - SEE SHEET NO. C05 FOR SAFETY PLAN.



PART 77 PRIMARY AND TRANSITIONAL SURFACES (X-SEC.)
N.T.S.

LEGEND

	PROJECT WORK LIMITS
	STAGING AREA
	PRIVATELY OWNED VEHICLES (POV)
	CONSTRUCTION ACCESS ROUTE
	PROPERTY LINE
	EXISTING FENCE
	RUNWAY SAFETY AREA
	TAXIWAY SAFETY AREA
	EXISTING BUILDING

MARK	REVISION	DATE

PROJECT LAYOUT

PROJECT NAME: GREGG COUNTY, TEXAS EAST TEXAS REGIONAL AIRPORT TAXIWAY B, C, D, E, G, & K LIGHTING IMPROVEMENTS

PROJECT NO.: GC.100

SHEET NAME: LAYOUT.PLOT DATE: TIME

DRAWN BY:	JKP
DESIGNED BY:	CEH
LATEST REVISION:	6/16/2016
KSA JOB NO.:	GC.100

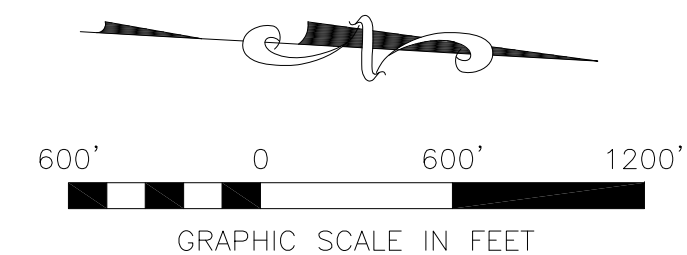
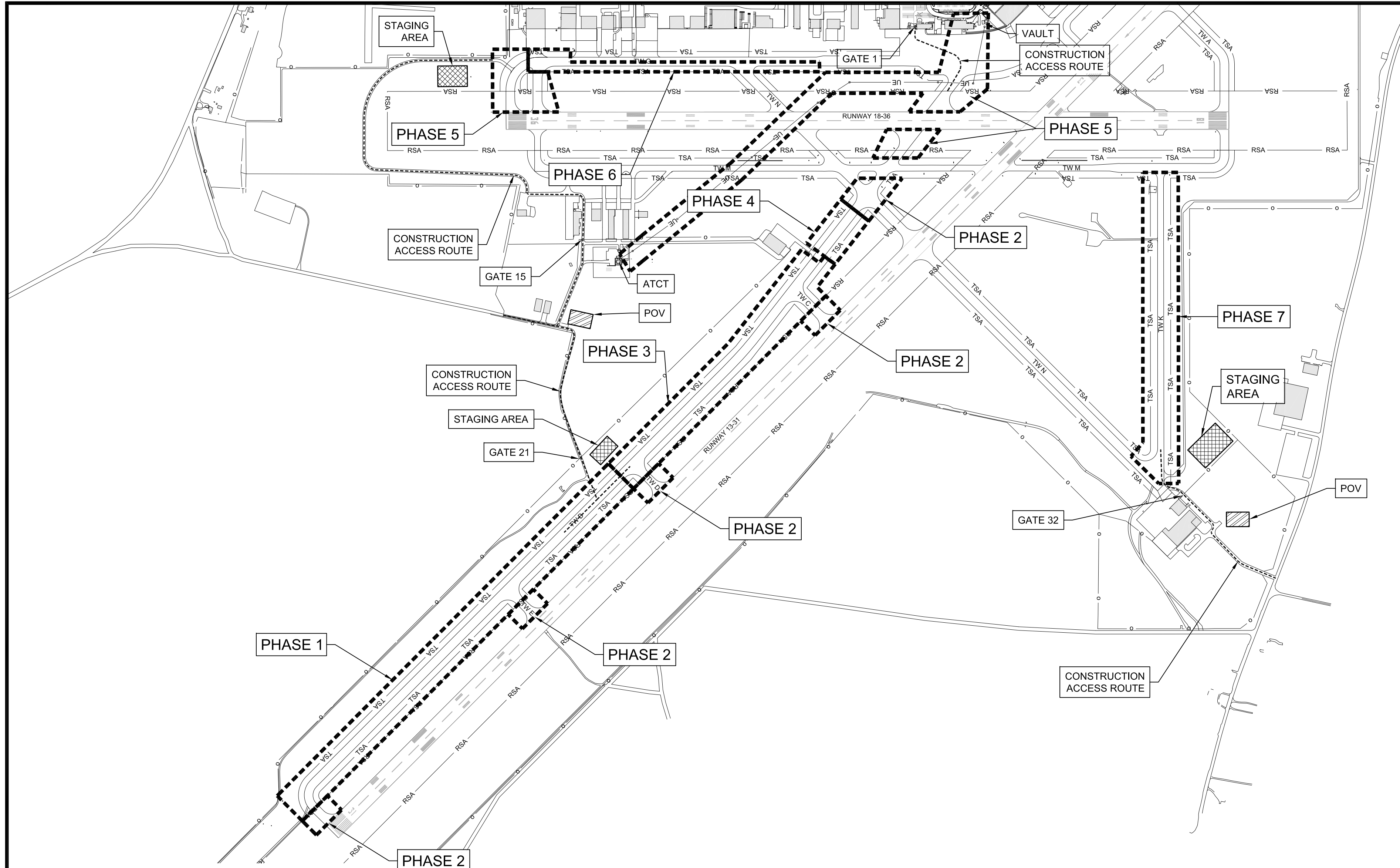
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STATE OF TEXAS

 CHARLES E. HUDSON
 116545
 LICENSED PROFESSIONAL ENGINEER

SEALS: TBPE Firm Registration No. F-1356
SHEET NO. **C04**



LEGEND

- PROJECT WORK LIMITS
- STAGING AREA
- CONSTRUCTION ACCESS ROUTE
- PROPERTY LINE
- EXISTING FENCE
- RUNWAY SAFETY AREA
- TAXIWAY SAFETY AREA
- EXISTING BUILDING



TABLE 1: AIRPORT OPERATIONS AFFECTED BY CONSTRUCTION

PAVEMENT NAME	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6	PHASE 7
RUNWAY 13-31	OPEN	CLOSED	OPEN	OPEN	OPEN	OPEN	OPEN
RUNWAY 18-36	OPEN	OPEN	OPEN	OPEN	CLOSED	OPEN	OPEN
TAXIWAY "A"	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN
TAXIWAY "B"	PARTIALLY CLOSED	PARTIALLY CLOSED	PARTIALLY CLOSED	PARTIALLY CLOSED	PARTIALLY CLOSED	OPEN	OPEN
TAXIWAY "C"	OPEN	CLOSED	CLOSED	OPEN	OPEN	OPEN	OPEN
TAXIWAY "D"	OPEN	CLOSED	CLOSED	OPEN	OPEN	OPEN	OPEN
TAXIWAY "E"	CLOSED	CLOSED	OPEN	OPEN	OPEN	OPEN	OPEN
TAXIWAY "G"	OPEN	OPEN	OPEN	OPEN	PARTIALLY CLOSED	PARTIALLY CLOSED	OPEN
TAXIWAY "K"	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	CLOSED
TAXIWAY "L"	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN
TAXIWAY "M"	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN
TAXIWAY "N"	OPEN	PARTIALLY CLOSED	OPEN	OPEN	OPEN	PARTIALLY CLOSED	OPEN

COMMUNICATIONS:
 1. EAST TEXAS REGIONAL AIRPORT TOWER FREQUENCY - 121.6.

2. THE CONTRACTOR WILL PROVIDE PORTABLE HAND HELD 2-WAY RADIOS (AVIATION BAND), SET TO THE APPROPRIATE FREQUENCIES, TO EACH FLAG MAN, SUPERVISORY INDIVIDUAL, RESIDENT PROJECT REPRESENTATIVE (RPR) SO THAT THEY MAY REMAIN IN CONSTANT CONTACT WITH THE AIR TRAFFIC CONTROL TOWER. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN ALL RADIOS IN WORKING CONDITION THROUGHOUT THE DURATION OF THE PROJECT. UPON COMPLETION OF THE PROJECT AND ACCEPTANCE BY THE OWNER, THE RPR WILL RETURN THE RADIO TO THE CONTRACTOR.

3. THE CONTRACTOR SHALL PROVIDE THE NAME AND TELEPHONE NUMBER OF THE PERSON TO ATCT AND OWNER AS THE CONTRACTOR'S REPRESENTATIVE, AVAILABLE 24 HOURS PER DAY, SHOULD PROBLEMS PERTAINING TO THE CONSTRUCTION WORK ARISE WHICH WOULD REQUIRE THE CONTRACTOR'S IMMEDIATE ATTENTION.

COORDINATION:
 1. CONTRACTOR PROGRESS MEETINGS - THE OWNER, ENGINEER AND/OR THE ON-SITE REPRESENTATIVE AND THE CONTRACTOR WILL HOLD PROGRESS MEETINGS ON A COORDINATED SCHEDULE DURING CONSTRUCTION. THE CSPP WILL BE A STANDING AGENDA ITEM IN SUCH MEETINGS. AIRPORT TENANTS AND USERS SHALL BE INVITED TO ATTEND THESE MEETINGS.

2. SCOPE OR SCHEDULE CHANGES - CHANGES IN THE SCOPE OR DURATION OF THE PROJECT MAY NECESSITATE REVISIONS TO THE CSPP AND REQUIRE REVIEW AND APPROVAL BY THE OWNER AND FAA.

3. FAA ATO COORDINATION - COORDINATION WITH THE FAA WILL BE DIRECTED THROUGH THE OWNER. COORDINATION WILL BE MADE WHEN SCHEDULING AIRWAY FACILITY SHUTDOWN AND RESTARTS. CONTRACTOR WILL COORDINATE WITH OWNER REGARDING SPECIFIC REQUIREMENTS RELATED TO SHUTDOWNS AND RESTARTS.

PHASING:
 1. REFER TO PLANS (SHEETS C06-C11) FOR INDIVIDUAL PHASE ELEMENTS REGARDING PAVEMENT CLOSURES, DURATION, TAXI ROUTES, AND NAVAID IMPACTS.

AREA AND OPERATIONS AFFECTED BY CONSTRUCTION ACTIVITY:
 1. REFER TO TABLE 1 FOR PAVEMENT IMPACT/CLOSURES FOR EACH INDIVIDUAL PHASE.

NAVIGATION AID (NAVAID PROTECTION):
 1. NOTICE TO AIRMEN (NOTAM) - CONTRACTOR SHALL NOTIFY THE OWNER AT LEAST 96 HOURS BEFORE NOTAMS ARE REQUIRED. OWNER WILL THEN ENSURE NOTAMS ARE PUBLISHED APPROPRIATELY. ALL OPENINGS AND CLOSURES OF THE AOA OR RESTRICTION ON AIRPORT OPERATIONS SHALL BE INITIATED OR CANCELED BY THE OWNER. THE CONTRACTOR WILL NOT COMMENCE CONSTRUCTION UNTIL APPROPRIATE NOTAMS HAVE BEEN ISSUED.

CONTRACTOR ACCESS:
 1. THE AIR OPERATIONS AREA (AOA) IS DEFINED AS ALL PAVED AND UNPAVED AREAS OF THE AIRPORT INSIDE THE PERIMETER FENCE AND INCLUDES BUT IS NOT LIMITED TO APRONS, TAXIWAYS, RUNWAYS AND RUNWAY SAFETY AREAS.
 a. IT IS THE INTENT OF THESE PLANS TO MINIMIZE INTERFERENCE TO AIRCRAFT MOVEMENT, IN ACTIVE PORTIONS OF THE AOA, AIRCRAFT SHALL HAVE THE RIGHT-OF-WAY. THE ENGINEER MAY REQUIRE THE CONTRACTOR TO SUSPEND ALL CONSTRUCTION ACTIVITY IF REQUIRED FOR AIRCRAFT OPERATIONS. THIS WILL REQUIRE THE CONTRACTOR TO MOVE PERSONNEL, EQUIPMENT AND MATERIALS TO A SAFE LOCATION AND STAND BY UNTIL AIRCRAFT USE IS COMPLETED.
 b. DURING PERFORMANCE OF THIS CONTRACT, RUNWAYS, TAXIWAYS AND AIRCRAFT PARKING APRONS WILL REMAIN OPEN TO THE MAXIMUM EXTENT POSSIBLE.

2. CONSTRUCTION ACCESS AND HAUL ROUTES
 a. ACCESS TO THE JOB SITE SHALL BE THROUGH DESIGNATED ROUTES DEPICTED ON THE PROJECT LAYOUT PLAN (SHEET C04).
 b. ACCESS ROUTES FOR EACH CONSTRUCTION PHASE WILL BE COORDINATED WITH THE OWNER. ACCESS ROUTES DEPICTED ON THE PLANS ARE PRELIMINARY ONLY AND ARE SUBJECT TO APPROVAL AND ADJUSTMENT BY THE OWNER.
 c. THE PAVEMENTS ON THE ACCESS ROUTES MAY NOT SUPPORT LOADS IMPOSED BY CONSTRUCTION EQUIPMENT OR VEHICLES. THE CONTRACTOR SHALL LIMIT LOADS AS NECESSARY TO PREVENT DAMAGE OR SHALL INCLUDE IN HIS BID ADEQUATE BUDGET TO REPAIR OR DAMAGE TO THE PAVEMENT.
 d. AIRCRAFT ALWAYS HAVE RIGHT OF WAY.
 e. SWEEP PAVEMENTS ADJACENT TO WORK AND ACCESS AREAS FREQUENTLY TO KEEP PAVEMENT FREE OF LOOSE DEBRIS AT ALL TIMES.
 f. PRIVATELY OWNED VEHICLES (POV) PARKING SHALL BE DESIGNATED BY ENGINEER OR AS SHOWN.
 g. CONSTRUCTION EQUIPMENT AND VEHICLES SHALL TRAVEL A MINIMUM AMOUNT ON NEWLY CONSTRUCTED PAVEMENTS SO THAT THESE ARE NOT DAMAGED. THE CONTRACTOR WILL BE RESPONSIBLE FOR REPAIR OF ANY DAMAGE TO THE NEWLY CONSTRUCTED PAVEMENTS AT THE CONTRACTOR'S EXPENSE.
 h. DAMAGE TO EXISTING FACILITIES CAUSED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED TO ORIGINAL OR BETTER CONDITION AT NO EXPENSE TO THE OWNER.

3. VEHICLE AND PEDESTRIAN OPERATIONS
 a. NO VEHICLE OR EQUIPMENT SHALL MOVE INSIDE THE AOA UNLESS IT IS
 i. LIGHTED OR MARKED / FLAGGED (FLAG OR LIGHT FOR DAY TIME ACTIVITY AND LIGHT FOR NIGHT TIME ACTIVITY).

ii. MONITORING THE APPROPRIATE RADIO FREQUENCY OR IS UNDER THE ESCORT OF A VEHICLE MONITORING THE APPROPRIATE RADIO FREQUENCY.

b. NO CONTRACTOR EMPLOYEES OR EMPLOYEES OF SUBCONTRACTORS OR SUPPLIERS, OR ANY OTHER PERSON UNDER THE CONTROL OF THE CONTRACTOR SHALL NOT ENTER ANY PART OF THE AIR OPERATIONS AREA (AOA) FROM THE CONSTRUCTION SITE UNLESS AUTHORIZED.

c. FLAG MEN OR ESCORTS WILL BE REQUIRED TO DIRECT THE CONTRACTOR'S TRUCKS AND EQUIPMENT THAT ARE OPERATING ON ACTIVE PORTIONS OF THE AOA.

d. CONSTRUCTION EQUIPMENT AND VEHICLES SHALL NOT EXCEED A SPEED OF 15 MPH WITHIN AIRPORT PROPERTY.

4. STOCKPILED MATERIAL
 a. CONTRACTOR IS LIMITED TO PLACEMENT OF STOCKPILED MATERIALS AT DESIGNATED LOCATIONS DEPICTED IN THE PLANS.
 b. CONTRACTOR WILL BE REQUIRED TO COORDINATE WITH THE OWNER PRIOR TO STOCKPILING MATERIALS.
 c. MATERIAL STOCKPILES WILL BE MANAGED BY CONTRACTOR SO THAT THEY DO NOT - ATTRACT WILDLIFE, GENERATE FOREIGN OBJECT DEBRIS (FOD) OR PENETRATE ANY AIRPORT OPERATION SURFACE LIKE THE APPROACH/DEPARTURE SURFACE ETC.

SAFETY:
 1. THE CONTRACTOR WILL ENSURE THAT AREAS OF AIRCRAFT OPERATION ARE CLEARLY AND VISIBLY SEPARATED FROM CONSTRUCTION AREAS.
 2. THE CONTRACTOR SHALL PROVIDE, INSTALL AND MAINTAIN ALL SAFETY DEVICES AS INDICATED ON THE PLANS OR AS DIRECTED BY THE RPR.
 3. THE CONTRACTOR SHALL STRICTLY ADHERE TO ALL SECURITY POLICIES OF THE AIRPORT INCLUDING ESCORTING PERSONNEL, BADGING AND ACCESS WITHIN THE SECURED AREAS OF THE AIRPORT. ACCESS OUTSIDE THE DEFINED CONSTRUCTION AREA IS STRICTLY PROHIBITED.
 4. THE CONTRACTOR MUST TAKE CARE TO MAINTAIN SECURITY DURING CONSTRUCTION. THE CONTRACTOR SHALL KEEP THE GATES LOCKED OR GUARDED AT ALL TIMES TO PREVENT ACCESS BY UNAUTHORIZED PERSONNEL AND ANIMALS. THE CONTRACTOR MUST IMPLEMENT PROCEDURES TO ENSURE THAT ONLY AUTHORIZED PERSONS AND VEHICLES HAVE ACCESS TO THE AOA AND TO PROHIBIT "PIGGYBACKING" BEHIND AUTHORIZED VEHICLES.
 5. FOD PREVENTION - THE CONTRACTOR SHALL PROVIDE A MOTORIZED MECHANICAL SWEEPER ALONG WITH A "FOD PLAN" PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES. THE FOD PLAN IS SUBJECT TO APPROVAL BY THE CONSTRUCTION MANAGER. THE FOD PLAN AND DAILY ACTIVITIES SHALL BE COORDINATED WITH THE CONSTRUCTION MANAGER.

6. THE CONTRACTOR SHALL PROTECT ALL EXISTING RUNWAY AND TAXIWAY LIGHTS OR REMOVE, STORE AND THEN RE-INSTALL THEM UPON COMPLETION OF THE PROJECT AT NO ADDITIONAL COST TO THE AIRPORT OWNER.

7. UTILITIES:
 a. THE CONTRACTOR WILL ANTICIPATE ALL UNDERGROUND STRUCTURES SUCH AS BUT NOT LIMITED TO WATER MAINS, GAS LINES, STORM AND SANITARY SEWERS, TELEPHONE OR ELECTRIC LIGHT OR POWER DUCTS, CONCRETE, DEBRIS, ANY UNDERGROUND STRUCTURE DEPICTED ON THE PLANS SHOWS AN APPROXIMATE LOCATION AND SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR. THE OWNER AND CONSTRUCTION MANAGER WILL ENDEAVOR TO APPRIZE THE CONTRACTOR OF ALL UNDERGROUND STRUCTURES BUT THIS WILL NOT RELIEVE THE CONTRACTOR FROM COMPLETE RESPONSIBILITY IN LOCATING ALL UNDERGROUND STRUCTURES WHETHER DEPICTED ON THE PLANS OR NOT.
 b. THE CONTRACTOR AT HIS EXPENSE SHALL NOTIFY ALL UTILITY COMPANIES TO ACCURATELY LOCATE AND MARK ALL UNDERGROUND UTILITIES. ALL THESE UTILITIES SHALL THEN BE UNCOVERED BY THE CONTRACTOR TO VERIFY THEIR LOCATION AND ELEVATION PRIOR TO COMMENCEMENT OF CONSTRUCTION AT NO COST TO THE OWNER. THE CONTRACTOR WILL COORDINATE WITH THE UTILITY OWNER IF A UTILITY INSPECTOR IS REQUIRED TO BE ON SITE WHEN LOCATING OR EXCAVATING NEAR UTILITIES.

8. THE CONTRACTOR SHALL HANDLE ALL HAZARDOUS MATERIAL (HAZMAT) WITH THE RELEVANT AUTHORITIES AND PURSUANT TO LOCAL, STATE, AND FEDERAL RULES AND REGULATIONS.

9. ALL ACTIVITIES WILL BE PERFORMED IN CONFORMANCE WITH FEDERAL AVIATION ADMINISTRATION'S (FAA) ADVISORY CIRCULAR (AC) 150/5370-2 TITLED "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION", LATEST VERSION. NOTHING ON THE PLANS WILL RELIEVE THE CONTRACTOR FROM HIS/HER RESPONSIBILITY TO COMPLY WITH THE REQUIREMENTS SET FORTH THEREIN.

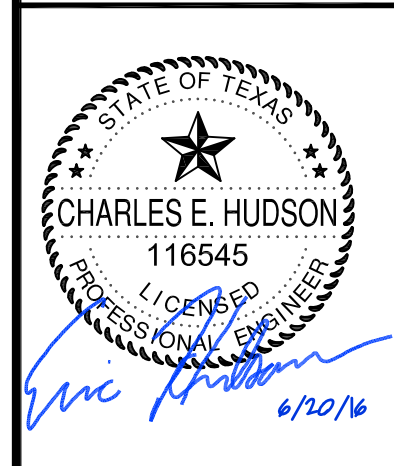
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PROJECT SAFETY PLAN

**GREGG COUNTY, TEXAS
 EAST TEXAS REGIONAL AIRPORT
 TAXIWAY B, C, D, E, G, & K LIGHTING
 IMPROVEMENTS**

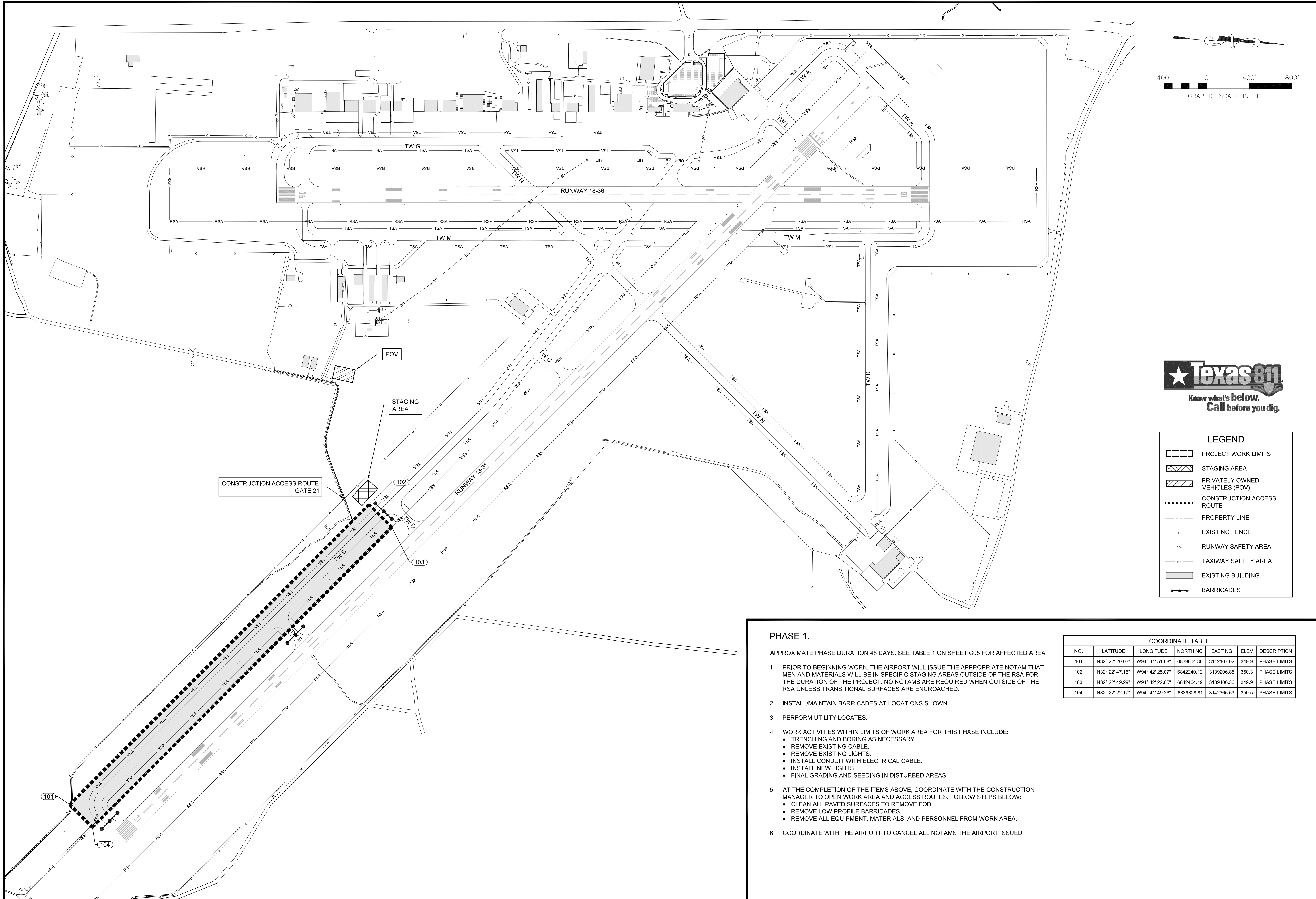
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SEALS:
 TBPE Firm Registration No. F-1356
 SHEET NO.

C05



LEGEND

- PROJECT WORK LIMITS
- STAGING AREA
- PRIVATELY OWNED VEHICLES (POV)
- CONSTRUCTION ACCESS ROUTE
- PROPERTY LINE
- EXISTING FENCE
- RUNWAY SAFETY AREA
- TAXIWAY SAFETY AREA
- EXISTING BUILDING
- BARRICADES

PHASE 1:

APPROXIMATE PHASE DURATION 45 DAYS. SEE TABLE 1 ON SHEET C05 FOR AFFECTED AREA.

1. PRIOR TO BEGINNING WORK, THE AIRPORT WILL ISSUE THE APPROPRIATE NOTAM THAT MEN AND MATERIALS WILL BE IN SPECIFIC STAGING AREAS OUTSIDE OF THE RSA FOR THE DURATION OF THE PROJECT. NO NOTAMS ARE REQUIRED WHEN OUTSIDE OF THE RSA UNLESS TRANSITIONAL SURFACES ARE ENCRoACHED.
2. INSTALL/MAINTAIN BARRICADES AT LOCATIONS SHOWN.
3. PERFORM UTILITY LOCATES.
4. WORK ACTIVITIES WITHIN LIMITS OF WORK AREA FOR THIS PHASE INCLUDE:
 - TRENCHING AND BORING AS NECESSARY.
 - REMOVE EXISTING CABLE.
 - REMOVE EXISTING LIGHTS.
 - INSTALL CONDUIT WITH ELECTRICAL CABLE.
 - INSTALL NEW LIGHTS.
 - FINAL GRADING AND SEEDING IN DISTURBED AREAS.
5. AT THE COMPLETION OF THE ITEMS ABOVE, COORDINATE WITH THE CONSTRUCTION MANAGER TO OPEN WORK AREA AND ACCESS ROUTES. FOLLOW STEPS BELOW:
 - CLEAN ALL PAVED SURFACES TO REMOVE FOD.
 - REMOVE LOW PROFILE BARRICADES.
 - REMOVE ALL EQUIPMENT, MATERIALS, AND PERSONNEL FROM WORK AREA.
6. COORDINATE WITH THE AIRPORT TO CANCEL ALL NOTAMS THE AIRPORT ISSUED.

COORDINATE TABLE						
NO.	LATITUDE	LONGITUDE	NORTHING	EASTING	ELEV.	DESCRIPTION
101	N32° 22' 20.03"	W94° 41' 51.68"	6839604.86	3142167.02	349.9	PHASE LIMITS
102	N32° 22' 47.15"	W94° 42' 25.07"	6842240.12	3139206.88	350.3	PHASE LIMITS
103	N32° 22' 49.29"	W94° 42' 22.65"	6842464.19	3139406.36	349.9	PHASE LIMITS
104	N32° 22' 22.17"	W94° 41' 49.26"	6839828.81	3142366.63	350.5	PHASE LIMITS

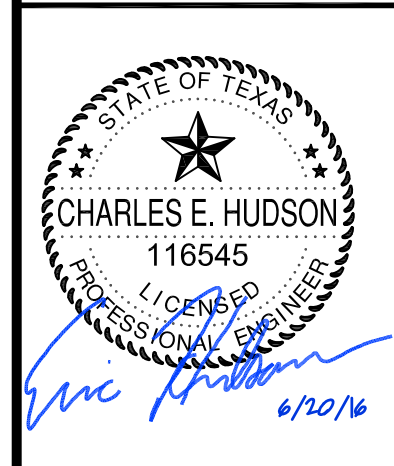
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PHASING PLAN 1

**GREGG COUNTY, TEXAS
EAST TEXAS REGIONAL AIRPORT
TAXIWAY B, C, D, E, G, & K LIGHTING
IMPROVEMENTS**

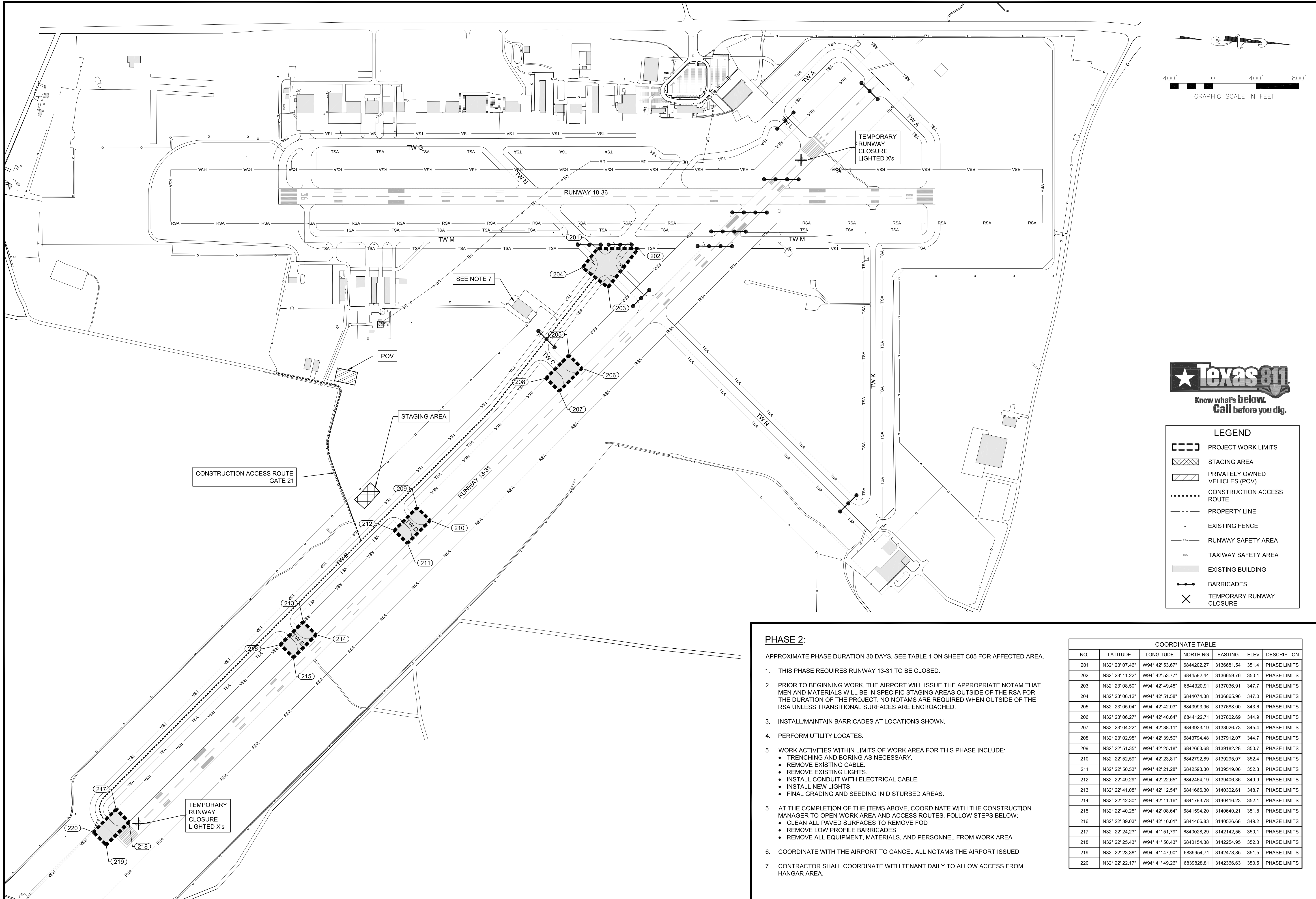
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DESIGNED BY:	CEH
LATEST REVISION:	6/15/2016
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LEGEND

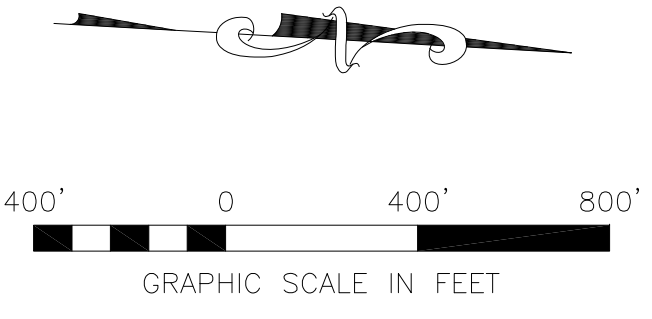
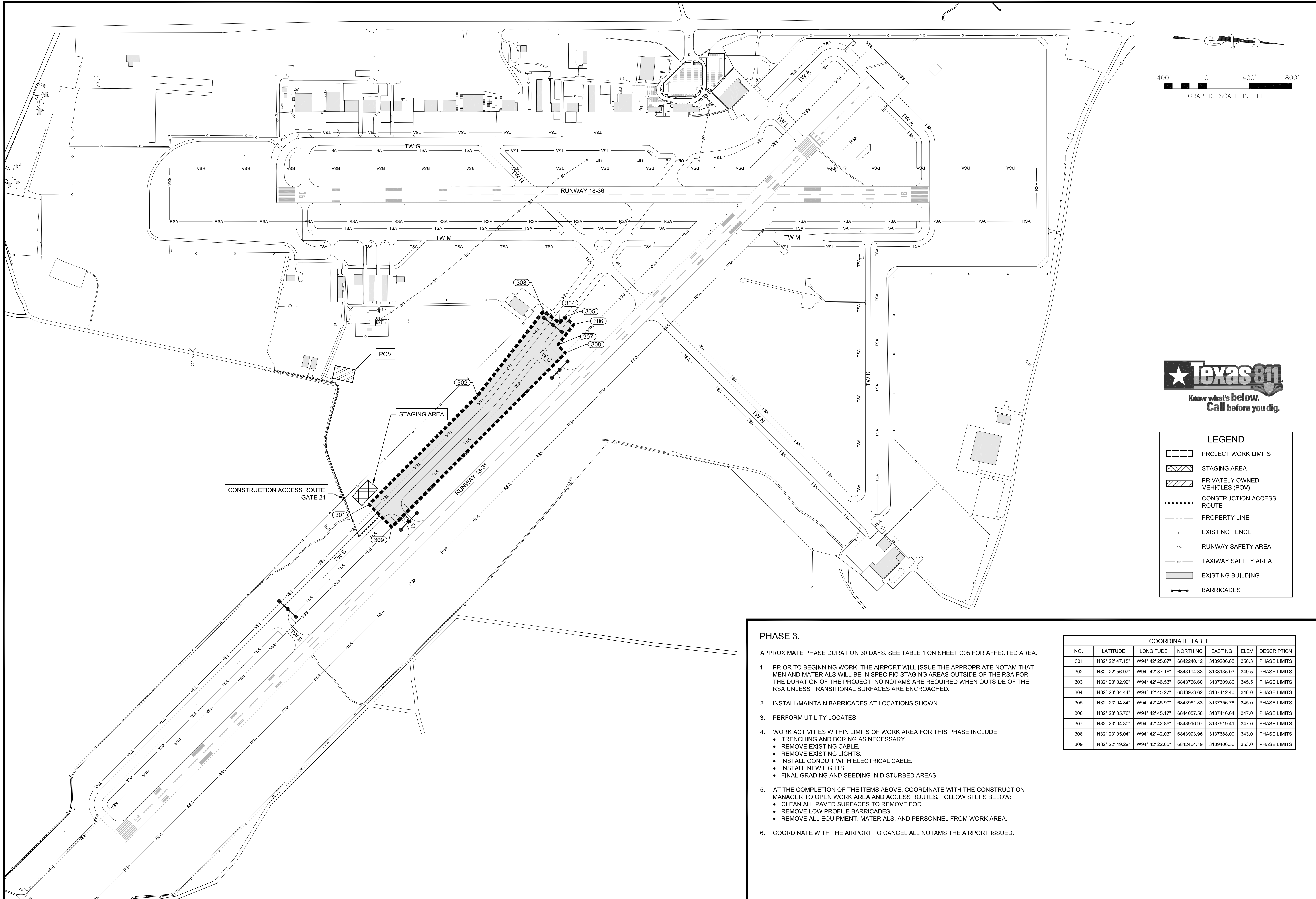
- PROJECT WORK LIMITS
- STAGING AREA
- PRIVATELY OWNED VEHICLES (POV)
- CONSTRUCTION ACCESS ROUTE
- PROPERTY LINE
- EXISTING FENCE
- RUNWAY SAFETY AREA
- TAXIWAY SAFETY AREA
- EXISTING BUILDING
- BARRICADES
- TEMPORARY RUNWAY CLOSURE

- PHASE 2:**
- APPROXIMATE PHASE DURATION 30 DAYS. SEE TABLE 1 ON SHEET C05 FOR AFFECTED AREA.
- THIS PHASE REQUIRES RUNWAY 13-31 TO BE CLOSED.
 - PRIOR TO BEGINNING WORK, THE AIRPORT WILL ISSUE THE APPROPRIATE NOTAM THAT MEN AND MATERIALS WILL BE IN SPECIFIC STAGING AREAS OUTSIDE OF THE RSA FOR THE DURATION OF THE PROJECT. NO NOTAMS ARE REQUIRED WHEN OUTSIDE OF THE RSA UNLESS TRANSITIONAL SURFACES ARE ENCREACHED.
 - INSTALL/MAINTAIN BARRICADES AT LOCATIONS SHOWN.
 - PERFORM UTILITY LOCATES.
 - WORK ACTIVITIES WITHIN LIMITS OF WORK AREA FOR THIS PHASE INCLUDE:
 - TRENCHING AND BORING AS NECESSARY.
 - REMOVE EXISTING CABLE.
 - REMOVE EXISTING LIGHTS.
 - INSTALL CONDUIT WITH ELECTRICAL CABLE.
 - INSTALL NEW LIGHTS.
 - FINAL GRADING AND SEEDING IN DISTURBED AREAS.
 - AT THE COMPLETION OF THE ITEMS ABOVE, COORDINATE WITH THE CONSTRUCTION MANAGER TO OPEN WORK AREA AND ACCESS ROUTES. FOLLOW STEPS BELOW:
 - CLEAN ALL PAVED SURFACES TO REMOVE FOD
 - REMOVE LOW PROFILE BARRICADES
 - REMOVE ALL EQUIPMENT, MATERIALS, AND PERSONNEL FROM WORK AREA
 - COORDINATE WITH THE AIRPORT TO CANCEL ALL NOTAMS THE AIRPORT ISSUED.
 - CONTRACTOR SHALL COORDINATE WITH TENANT DAILY TO ALLOW ACCESS FROM HANGAR AREA.

COORDINATE TABLE

NO.	LATITUDE	LONGITUDE	NORTHING	EASTING	ELEV.	DESCRIPTION
201	N32° 23' 07.46"	W94° 42' 53.67"	6844202.27	3136681.54	351.4	PHASE LIMITS
202	N32° 23' 11.22"	W94° 42' 53.77"	6844582.44	3136659.76	350.1	PHASE LIMITS
203	N32° 23' 08.50"	W94° 42' 49.48"	6844320.91	3137036.91	347.7	PHASE LIMITS
204	N32° 23' 06.12"	W94° 42' 51.58"	6844074.38	3136865.96	347.0	PHASE LIMITS
205	N32° 23' 05.04"	W94° 42' 42.03"	6843993.96	3137688.00	343.6	PHASE LIMITS
206	N32° 23' 06.27"	W94° 42' 40.64"	6844122.71	3137802.69	344.9	PHASE LIMITS
207	N32° 23' 04.22"	W94° 42' 38.11"	6843923.19	3138026.73	345.4	PHASE LIMITS
208	N32° 23' 02.98"	W94° 42' 39.50"	6843794.48	3137912.07	344.7	PHASE LIMITS
209	N32° 22' 51.35"	W94° 42' 25.18"	6842663.68	3139182.28	350.7	PHASE LIMITS
210	N32° 22' 52.59"	W94° 42' 23.81"	6842792.89	3139295.07	352.4	PHASE LIMITS
211	N32° 22' 50.53"	W94° 42' 21.28"	6842593.30	3139519.06	352.3	PHASE LIMITS
212	N32° 22' 49.29"	W94° 42' 22.65"	6842464.19	3139406.36	349.9	PHASE LIMITS
213	N32° 22' 41.08"	W94° 42' 12.54"	6841666.30	3140302.61	348.7	PHASE LIMITS
214	N32° 22' 42.30"	W94° 42' 11.16"	6841793.78	3140416.23	352.1	PHASE LIMITS
215	N32° 22' 40.25"	W94° 42' 08.64"	6841594.20	3140640.21	351.8	PHASE LIMITS
216	N32° 22' 39.03"	W94° 42' 10.01"	6841466.63	3140526.68	349.2	PHASE LIMITS
217	N32° 22' 24.23"	W94° 41' 51.79"	6840028.29	3142142.56	350.1	PHASE LIMITS
218	N32° 22' 25.43"	W94° 41' 50.43"	6840154.38	3142254.95	352.3	PHASE LIMITS
219	N32° 22' 23.38"	W94° 41' 47.90"	6839954.71	3142478.85	351.5	PHASE LIMITS
220	N32° 22' 22.17"	W94° 41' 49.26"	6839828.81	3142366.63	350.5	PHASE LIMITS

MARK	REVISION	DATE					
1	ISSUED FOR CONSTRUCTION	06/15/2016					
2	PHASING PLAN	10/17/2016 10:30 AM					
DRAWING PATH: \NAME\LAYOUT.PLOT DATE: TIME							
PHASING PLAN 2							
GREGG COUNTY, TEXAS EAST TEXAS REGIONAL AIRPORT TAXIWAY B, C, D, E, G, & K LIGHTING IMPROVEMENTS							
PROJECT NAME: GC.100							
DRAWN BY:	DESIGNED BY:	LATEST REVISION:	ISSA JOB NO.:	GC.100			
JKP	CEH	6/15/2016					
1111 Hwy. Ave., Shreveport, Louisiana 71107 T. 318-271-7501 F. 318-271-7635 www.ksaeng.com							
SEALS: TBPE Firm Registration No. F-1356							
SHEET NO.							
C07							



LEGEND

- PROJECT WORK LIMITS
- STAGING AREA
- PRIVATELY OWNED VEHICLES (POV)
- CONSTRUCTION ACCESS ROUTE
- PROPERTY LINE
- EXISTING FENCE
- RUNWAY SAFETY AREA
- TAXIWAY SAFETY AREA
- EXISTING BUILDING
- BARRICADES

PHASE 3:

APPROXIMATE PHASE DURATION 30 DAYS. SEE TABLE 1 ON SHEET C05 FOR AFFECTED AREA.

1. PRIOR TO BEGINNING WORK, THE AIRPORT WILL ISSUE THE APPROPRIATE NOTAM THAT MEN AND MATERIALS WILL BE IN SPECIFIC STAGING AREAS OUTSIDE OF THE RSA FOR THE DURATION OF THE PROJECT. NO NOTAMS ARE REQUIRED WHEN OUTSIDE OF THE RSA UNLESS TRANSITIONAL SURFACES ARE ENCREACHED.
2. INSTALL/MAINTAIN BARRICADES AT LOCATIONS SHOWN.
3. PERFORM UTILITY LOCATES.
4. WORK ACTIVITIES WITHIN LIMITS OF WORK AREA FOR THIS PHASE INCLUDE:
 - TRENCHING AND BORING AS NECESSARY.
 - REMOVE EXISTING CABLE.
 - REMOVE EXISTING LIGHTS.
 - INSTALL CONDUIT WITH ELECTRICAL CABLE.
 - INSTALL NEW LIGHTS.
 - FINAL GRADING AND SEEDING IN DISTURBED AREAS.
5. AT THE COMPLETION OF THE ITEMS ABOVE, COORDINATE WITH THE CONSTRUCTION MANAGER TO OPEN WORK AREA AND ACCESS ROUTES. FOLLOW STEPS BELOW:
 - CLEAN ALL PAVED SURFACES TO REMOVE FOD.
 - REMOVE LOW PROFILE BARRICADES.
 - REMOVE ALL EQUIPMENT, MATERIALS, AND PERSONNEL FROM WORK AREA.
6. COORDINATE WITH THE AIRPORT TO CANCEL ALL NOTAMS THE AIRPORT ISSUED.

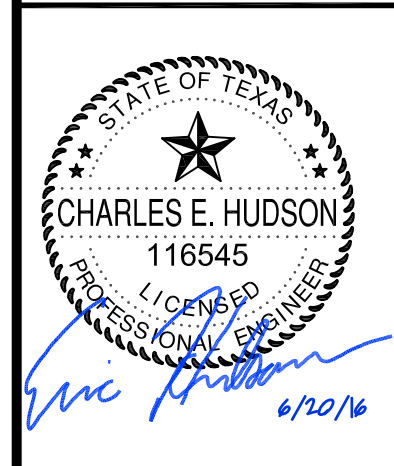
COORDINATE TABLE						
NO.	LATITUDE	LONGITUDE	NORTHING	EASTING	ELEV.	DESCRIPTION
301	N32° 22' 47.15"	W94° 42' 25.07"	6842240.12	3139206.88	350.3	PHASE LIMITS
302	N32° 22' 56.97"	W94° 42' 37.16"	6843194.33	3138135.03	349.5	PHASE LIMITS
303	N32° 23' 02.92"	W94° 42' 46.53"	6843766.60	3137309.80	345.5	PHASE LIMITS
304	N32° 23' 04.44"	W94° 42' 45.27"	6843923.62	3137412.40	346.0	PHASE LIMITS
305	N32° 23' 04.84"	W94° 42' 45.90"	6843961.83	3137356.78	345.0	PHASE LIMITS
306	N32° 23' 05.76"	W94° 42' 45.17"	6844057.58	3137416.64	347.0	PHASE LIMITS
307	N32° 23' 04.30"	W94° 42' 42.86"	6843916.97	3137619.41	347.0	PHASE LIMITS
308	N32° 23' 05.04"	W94° 42' 42.03"	6843993.96	3137688.00	343.0	PHASE LIMITS
309	N32° 22' 49.29"	W94° 42' 22.65"	6842464.19	3139406.36	353.0	PHASE LIMITS

MARK	REVISION	DATE

PHASING PLAN 3

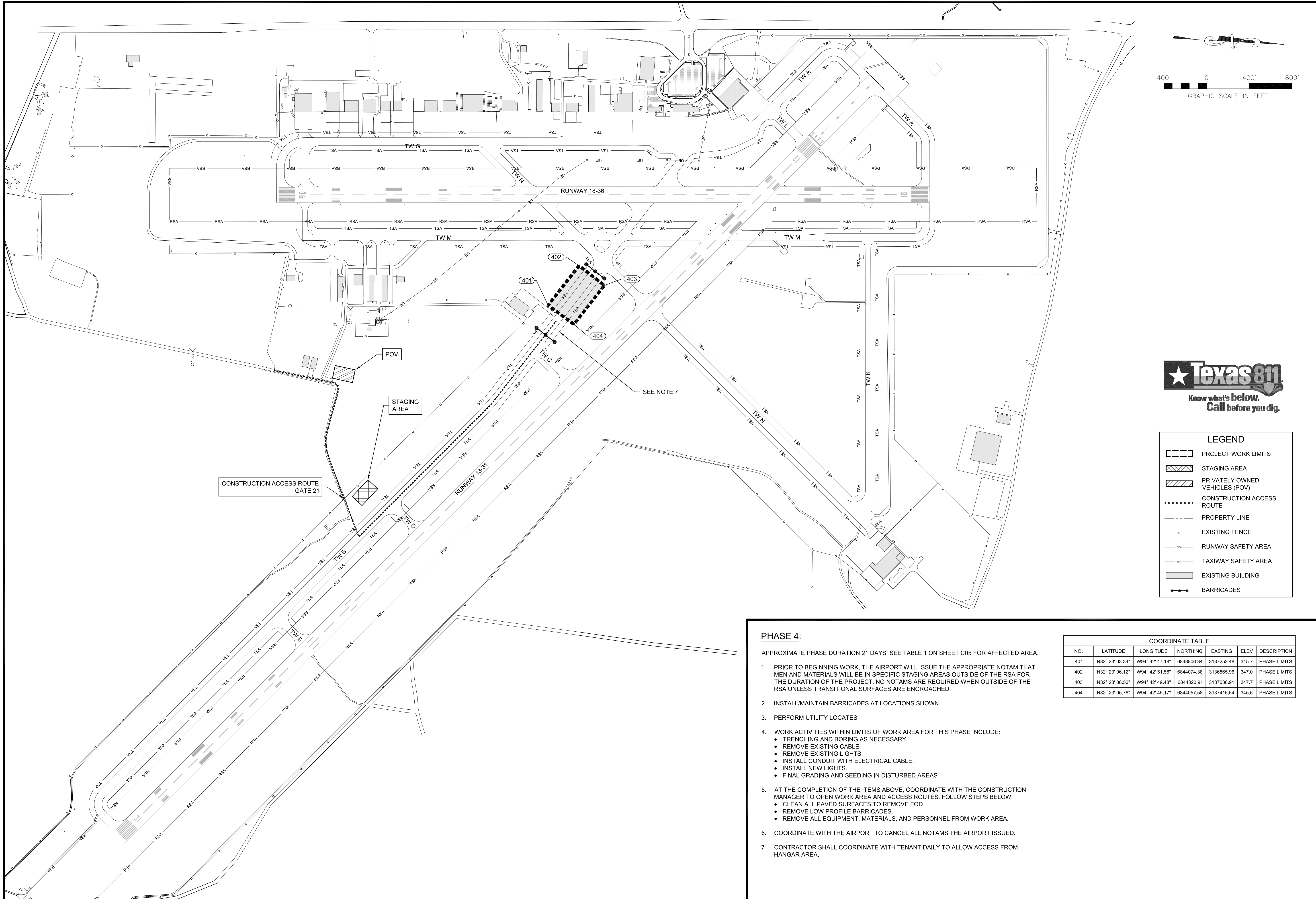
**GREGG COUNTY, TEXAS
EAST TEXAS REGIONAL AIRPORT
TAXIWAY B, C, D, E, G, & K LIGHTING
IMPROVEMENTS**

DRAWN BY:	JKP
DESIGNED BY:	CEH
LATEST REVISION:	6/15/2016
KSA JOB NO.:	GC.100



SEALS:
TBPE Firm Registration No. F-1356
SHEET NO.

C08



MARK	REVISION	DATE

PHASING PLAN 4

**GREGG COUNTY, TEXAS
EAST TEXAS REGIONAL AIRPORT
TAXIWAY B, C, D, E, G, & K LIGHTING
IMPROVEMENTS**

DRAWN BY:	JKP
DESIGNED BY:	CEH
LATEST REVISION:	6/15/2016
ISA JOB NO.:	GC.100

ISA
1111 Hwy. Ave., Shreveport, Louisiana 71107
T: 318-271-7501 F: 318-271-7635
www.isaeng.com

STATE OF TEXAS
CHARLES E. HUDSON
116545
LICENSED PROFESSIONAL ENGINEER
Charles E. Hudson 6/20/16

SEALS:
TBPE Firm Registration No. F-1356
SHEET NO.
C09



LEGEND

	PROJECT WORK LIMITS
	STAGING AREA
	PRIVATELY OWNED VEHICLES (POV)
	CONSTRUCTION ACCESS ROUTE
	PROPERTY LINE
	EXISTING FENCE
	RUNWAY SAFETY AREA
	TAXIWAY SAFETY AREA
	EXISTING BUILDING
	BARRICADES

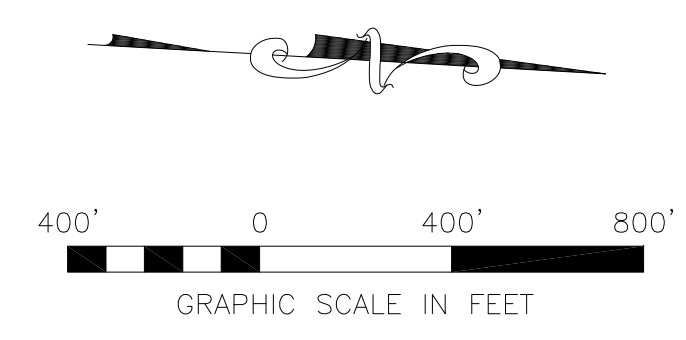
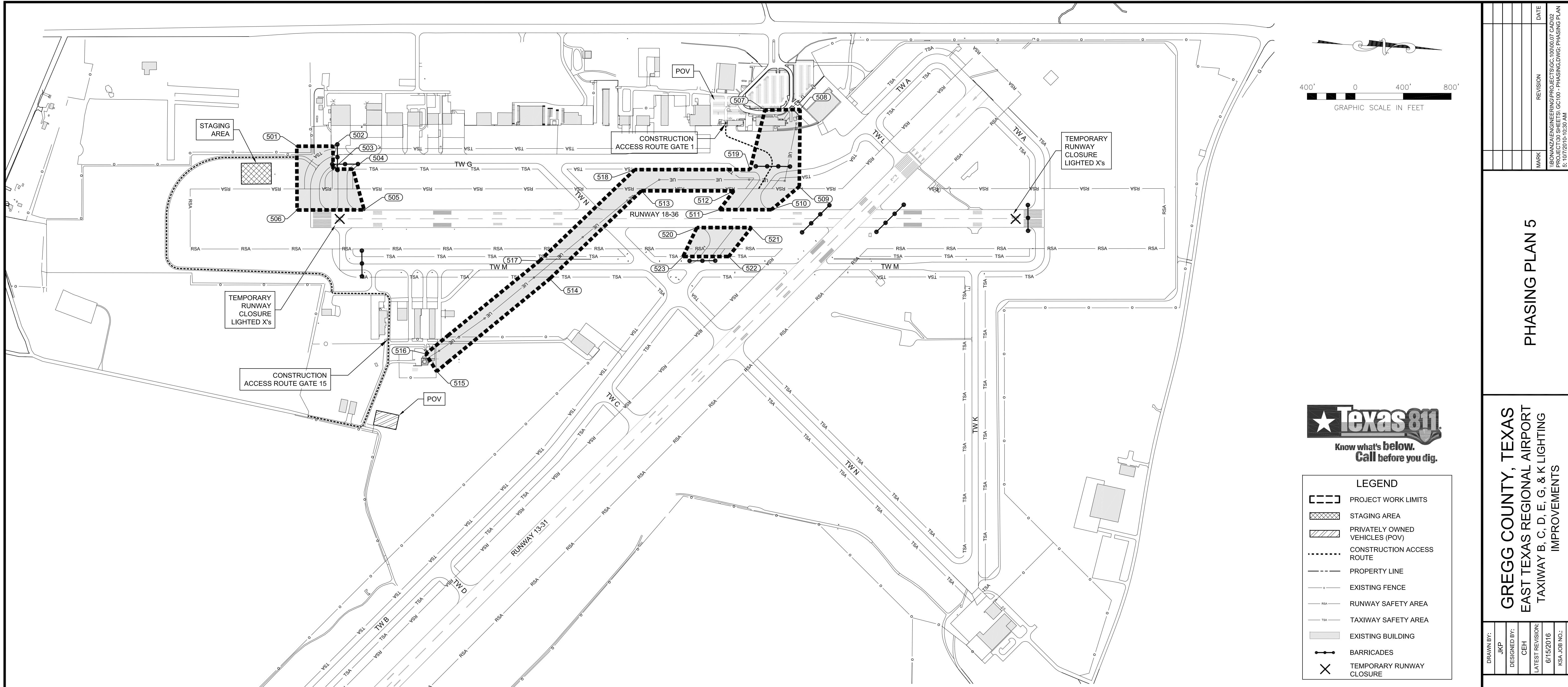
PHASE 4:

APPROXIMATE PHASE DURATION 21 DAYS. SEE TABLE 1 ON SHEET C05 FOR AFFECTED AREA.

- PRIOR TO BEGINNING WORK, THE AIRPORT WILL ISSUE THE APPROPRIATE NOTAM THAT MEN AND MATERIALS WILL BE IN SPECIFIC STAGING AREAS OUTSIDE OF THE RSA FOR THE DURATION OF THE PROJECT. NO NOTAMS ARE REQUIRED WHEN OUTSIDE OF THE RSA UNLESS TRANSITIONAL SURFACES ARE ENCREACHED.
- INSTALL/MAINTAIN BARRICADES AT LOCATIONS SHOWN.
- PERFORM UTILITY LOCATES.
- WORK ACTIVITIES WITHIN LIMITS OF WORK AREA FOR THIS PHASE INCLUDE:
 - TRENCHING AND BORING AS NECESSARY.
 - REMOVE EXISTING CABLE.
 - REMOVE EXISTING LIGHTS.
 - INSTALL CONDUIT WITH ELECTRICAL CABLE.
 - INSTALL NEW LIGHTS.
 - FINAL GRADING AND SEEDING IN DISTURBED AREAS.
- AT THE COMPLETION OF THE ITEMS ABOVE, COORDINATE WITH THE CONSTRUCTION MANAGER TO OPEN WORK AREA AND ACCESS ROUTES. FOLLOW STEPS BELOW:
 - CLEAN ALL PAVED SURFACES TO REMOVE FOD.
 - REMOVE LOW PROFILE BARRICADES.
 - REMOVE ALL EQUIPMENT, MATERIALS, AND PERSONNEL FROM WORK AREA.
- COORDINATE WITH THE AIRPORT TO CANCEL ALL NOTAMS THE AIRPORT ISSUED.
- CONTRACTOR SHALL COORDINATE WITH TENANT DAILY TO ALLOW ACCESS FROM HANGAR AREA.

COORDINATE TABLE

NO.	LATITUDE	LONGITUDE	NORTHING	EASTING	ELEV.	DESCRIPTION
401	N32° 23' 03.34"	W94° 42' 47.18"	6843806.34	3137252.48	345.7	PHASE LIMITS
402	N32° 23' 06.12"	W94° 42' 51.58"	6844074.38	3136865.96	347.0	PHASE LIMITS
403	N32° 23' 08.50"	W94° 42' 49.48"	6844320.91	3137036.91	347.7	PHASE LIMITS
404	N32° 23' 05.76"	W94° 42' 45.17"	6844057.58	3137416.64	345.6	PHASE LIMITS



LEGEND

- PROJECT WORK LIMITS
- STAGING AREA
- PRIVATELY OWNED VEHICLES (POV)
- CONSTRUCTION ACCESS ROUTE
- PROPERTY LINE
- EXISTING FENCE
- RUNWAY SAFETY AREA
- TAXIWAY SAFETY AREA
- EXISTING BUILDING
- BARRICADES
- TEMPORARY RUNWAY CLOSURE

- PHASE 5:**
APPROXIMATE PHASE DURATION 30 DAYS. SEE TABLE 1 ON SHEET C05 FOR AFFECTED AREA.
- THIS PHASE REQUIRES RUNWAY 18-36 TO BE CLOSED.
 - PRIOR TO BEGINNING WORK, THE AIRPORT WILL ISSUE THE APPROPRIATE NOTAM THAT MEN AND MATERIALS WILL BE IN SPECIFIC STAGING AREAS OUTSIDE OF THE RSA FOR THE DURATION OF THE PROJECT. NO NOTAMS ARE REQUIRED WHEN OUTSIDE OF THE RSA UNLESS TRANSITIONAL SURFACES ARE ENCLOSED.
 - INSTALL/MAINTAIN BARRICADES AT LOCATIONS SHOWN.
 - PERFORM UTILITY LOCATES.
 - WORK ACTIVITIES WITHIN LIMITS OF WORK AREA FOR THIS PHASE INCLUDE:
 - TRENCHING AND BORING AS NECESSARY.
 - REMOVE EXISTING CABLE.
 - REMOVE EXISTING LIGHTS.
 - INSTALL CONDUIT WITH ELECTRICAL CABLE.
 - INSTALL NEW LIGHTS.
 - INSTALL NEW LIGHTING CONTROL PANEL AND FIBER OPTIC CABLE.
 - FINAL GRADING AND SEEDING IN DISTURBED AREAS.
 - AT THE COMPLETION OF THE ITEMS ABOVE, COORDINATE WITH THE CONSTRUCTION MANAGER TO OPEN WORK AREA AND ACCESS ROUTES. FOLLOW STEPS BELOW:
 - CLEAN ALL PAVED SURFACES TO REMOVE FOD
 - REMOVE LOW PROFILE BARRICADES
 - REMOVE ALL EQUIPMENT, MATERIALS, AND PERSONNEL FROM WORK AREA
 - COORDINATE WITH THE AIRPORT TO CANCEL ALL NOTAMS THE AIRPORT ISSUED.

COORDINATE TABLE						
NO.	LATITUDE	LONGITUDE	NORTHING	EASTING	ELEV.	DESCRIPTION
501	N32° 22' 36.74"	W94° 43' 05.63"	6841063.10	3135768.52	364.4	PHASE LIMITS
502	N32° 22' 39.72"	W94° 43' 05.71"	6841364.20	3135751.27	364.0	PHASE LIMITS
503	N32° 22' 39.76"	W94° 43' 03.48"	6841375.40	3135941.95	363.5	PHASE LIMITS
504	N32° 22' 41.39"	W94° 43' 03.52"	6841540.03	3135932.52	362.4	PHASE LIMITS
505	N32° 22' 41.87"	W94° 42' 59.57"	6841559.90	3136270.80	364.7	PHASE LIMITS
506	N32° 22' 36.87"	W94° 42' 59.44"	6841095.84	3136298.71	364.9	PHASE LIMITS
507	N32° 23' 15.23"	W94° 43' 10.09"	6844937.15	3135246.75	358.0	PHASE LIMITS
508	N32° 23' 18.13"	W94° 43' 10.21"	6845229.22	3135225.72	359.0	PHASE LIMITS
509	N32° 23' 18.20"	W94° 43' 02.73"	6845259.03	3135866.70	355.0	PHASE LIMITS
510	N32° 23' 15.94"	W94° 43' 00.43"	6845038.18	3136071.91	355.0	PHASE LIMITS
511	N32° 23' 11.67"	W94° 43' 00.32"	6844607.61	3136096.27	354.0	PHASE LIMITS
512	N32° 23' 12.81"	W94° 43' 02.18"	6844716.77	3135933.02	353.0	PHASE LIMITS
513	N32° 23' 05.20"	W94° 43' 01.99"	6843948.48	3135976.71	353.0	PHASE LIMITS
514	N32° 22' 57.80"	W94° 42' 53.27"	6843228.75	3136750.97	352.0	PHASE LIMITS
515	N32° 22' 48.64"	W94° 42' 44.05"	6842332.36	3137574.93	353.0	PHASE LIMITS
516	N32° 22' 47.72"	W94° 42' 45.73"	6842234.04	3137434.27	353.0	PHASE LIMITS
517	N32° 22' 56.94"	W94° 42' 54.99"	6843136.04	3136606.51	352.0	PHASE LIMITS
518	N32° 23' 04.62"	W94° 43' 04.04"	6843883.71	3135803.28	355.0	PHASE LIMITS
519	N32° 23' 14.11"	W94° 43' 04.27"	6844841.39	3135748.90	355.0	PHASE LIMITS
520	N32° 23' 09.84"	W94° 42' 58.54"	6844427.71	3136255.85	353.0	PHASE LIMITS
521	N32° 23' 14.31"	W94° 42' 58.64"	6844679.56	3136230.48	355.0	PHASE LIMITS
522	N32° 23' 12.51"	W94° 42' 55.79"	6844705.88	3136481.42	350.0	PHASE LIMITS
523	N32° 23' 08.74"	W94° 42' 55.70"	6844325.97	3136503.17	350.0	PHASE LIMITS

MARK	REVISION	DATE

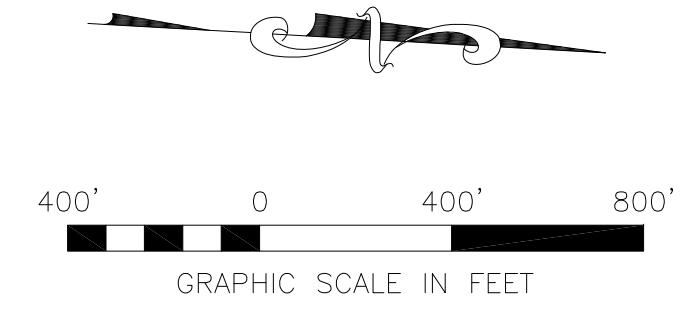
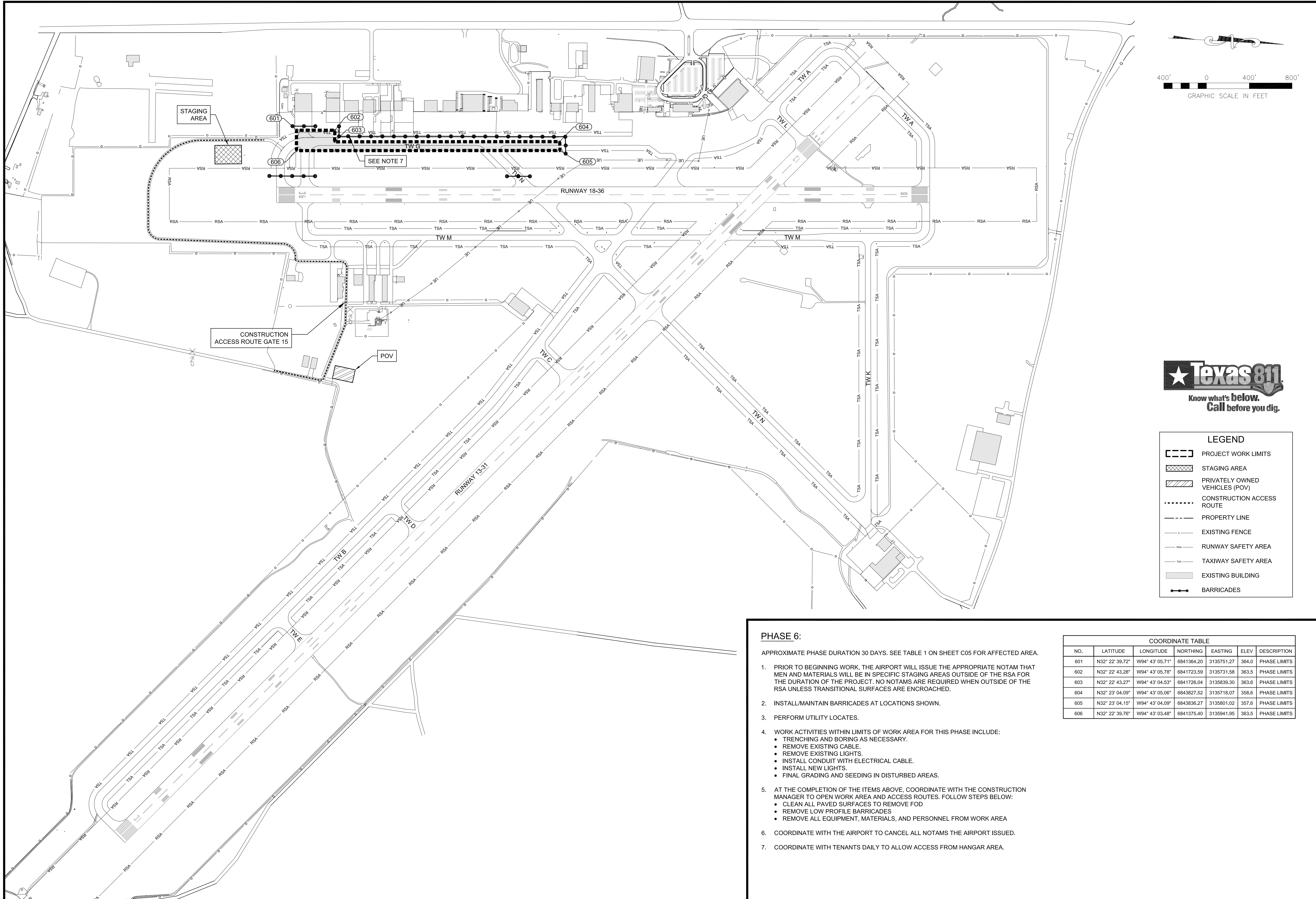
PHASING PLAN 5
 PROJECT NAME: LAYOUT-FLIGHT DATE: TIME

GREGG COUNTY, TEXAS
 EAST TEXAS REGIONAL AIRPORT
 TAXIWAY B, C, D, E, G, & K LIGHTING
 IMPROVEMENTS

DRAWN BY:	JKP
DESIGNED BY:	CEH
LATEST REVISION:	6/15/2016
ISA JOB NO.:	GC.100
SHEET NO.:	GC.100

SEALS:
 TBPE Firm Registration No. F-1356
 SHEET NO.

C10



LEGEND

- PROJECT WORK LIMITS
- STAGING AREA
- PRIVATELY OWNED VEHICLES (POV)
- CONSTRUCTION ACCESS ROUTE
- PROPERTY LINE
- EXISTING FENCE
- RUNWAY SAFETY AREA
- TAXIWAY SAFETY AREA
- EXISTING BUILDING
- BARRICADES

PHASE 6:

APPROXIMATE PHASE DURATION 30 DAYS. SEE TABLE 1 ON SHEET C05 FOR AFFECTED AREA.

1. PRIOR TO BEGINNING WORK, THE AIRPORT WILL ISSUE THE APPROPRIATE NOTAM THAT MEN AND MATERIALS WILL BE IN SPECIFIC STAGING AREAS OUTSIDE OF THE RSA FOR THE DURATION OF THE PROJECT. NO NOTAMS ARE REQUIRED WHEN OUTSIDE OF THE RSA UNLESS TRANSITIONAL SURFACES ARE ENCREACHED.
2. INSTALL/MAINTAIN BARRICADES AT LOCATIONS SHOWN.
3. PERFORM UTILITY LOCATES.
4. WORK ACTIVITIES WITHIN LIMITS OF WORK AREA FOR THIS PHASE INCLUDE:
 - TRENCHING AND BORING AS NECESSARY.
 - REMOVE EXISTING CABLE.
 - REMOVE EXISTING LIGHTS.
 - INSTALL CONDUIT WITH ELECTRICAL CABLE.
 - INSTALL NEW LIGHTS.
 - FINAL GRADING AND SEEDING IN DISTURBED AREAS.
5. AT THE COMPLETION OF THE ITEMS ABOVE, COORDINATE WITH THE CONSTRUCTION MANAGER TO OPEN WORK AREA AND ACCESS ROUTES. FOLLOW STEPS BELOW:
 - CLEAN ALL PAVED SURFACES TO REMOVE FOD
 - REMOVE LOW PROFILE BARRICADES
 - REMOVE ALL EQUIPMENT, MATERIALS, AND PERSONNEL FROM WORK AREA
6. COORDINATE WITH THE AIRPORT TO CANCEL ALL NOTAMS THE AIRPORT ISSUED.
7. COORDINATE WITH TENANTS DAILY TO ALLOW ACCESS FROM HANGAR AREA.

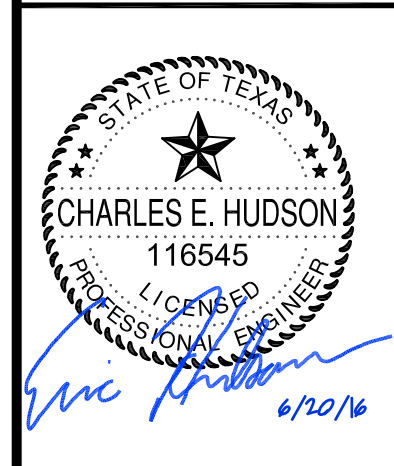
COORDINATE TABLE						
NO.	LATITUDE	LONGITUDE	NORTHING	EASTING	ELEV.	DESCRIPTION
601	N32° 22' 39.72"	W94° 43' 05.71"	6841364.20	3135751.27	364.0	PHASE LIMITS
602	N32° 22' 43.28"	W94° 43' 05.78"	6841723.59	3135731.58	363.5	PHASE LIMITS
603	N32° 22' 43.27"	W94° 43' 04.53"	6841726.04	3135839.30	363.6	PHASE LIMITS
604	N32° 23' 04.09"	W94° 43' 05.06"	6843827.52	3135718.07	358.6	PHASE LIMITS
605	N32° 23' 04.15"	W94° 43' 04.09"	6843836.27	3135801.02	357.6	PHASE LIMITS
606	N32° 22' 39.76"	W94° 43' 03.48"	6841375.40	3135941.95	363.5	PHASE LIMITS

MARK	REVISION	DATE

PHASING PLAN 6

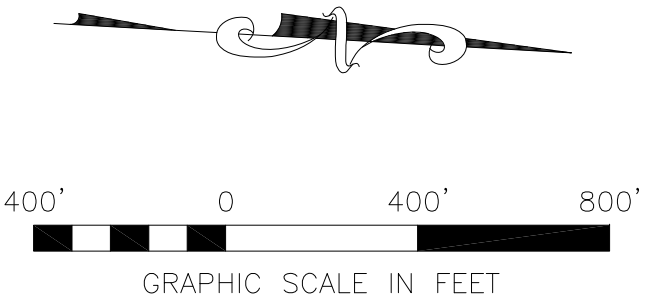
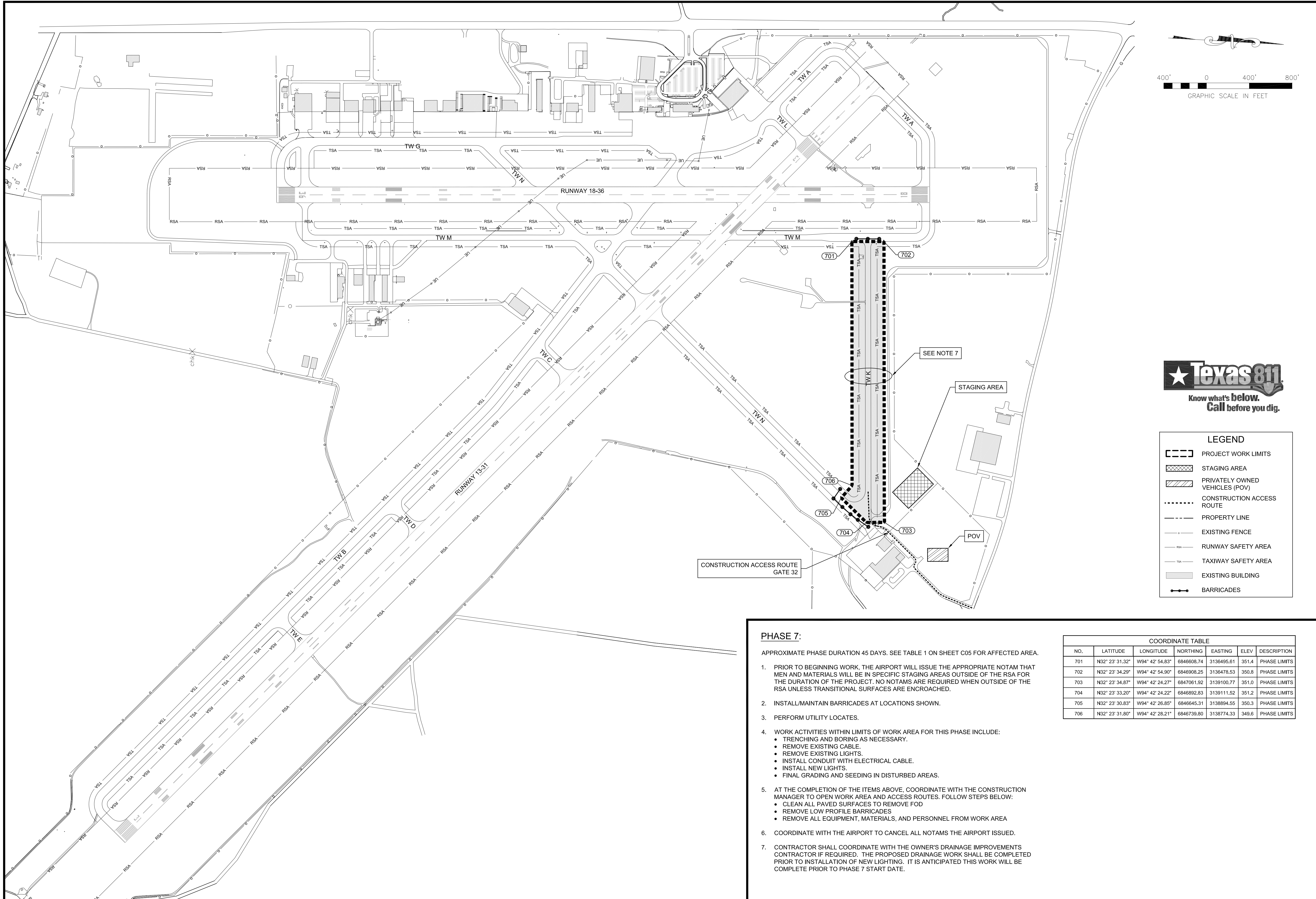
**GREGG COUNTY, TEXAS
EAST TEXAS REGIONAL AIRPORT
TAXIWAY B, C, D, E, G, & K LIGHTING
IMPROVEMENTS**

DRAWN BY:	JKP
DESIGNED BY:	CEH
LATEST REVISION:	6/15/2016
KSA JOB NO.:	GC.100



SEALS:
TBPE Firm Registration No. F-1356
SHEET NO.

C11



LEGEND

- PROJECT WORK LIMITS
- STAGING AREA
- PRIVATELY OWNED VEHICLES (POV)
- CONSTRUCTION ACCESS ROUTE
- PROPERTY LINE
- EXISTING FENCE
- RUNWAY SAFETY AREA
- TAXIWAY SAFETY AREA
- EXISTING BUILDING
- BARRICADES

MARK	REVISION	DATE

PHASING PLAN 7

**GREGG COUNTY, TEXAS
EAST TEXAS REGIONAL AIRPORT
TAXIWAY B, C, D, E, G, & K LIGHTING
IMPROVEMENTS**

DRAWN BY:	JKP
DESIGNED BY:	CEH
LATEST REVISION:	6/15/2016
ISA JOB NO.:	GC.100

1111 Hwy. Ave., Shreveport, Louisiana 71107
T. 318-271-7501 F. 318-271-7635
www.ksaeng.com

SEALS:
TBPE Firm Registration No. F-1356
SHEET NO.

C12

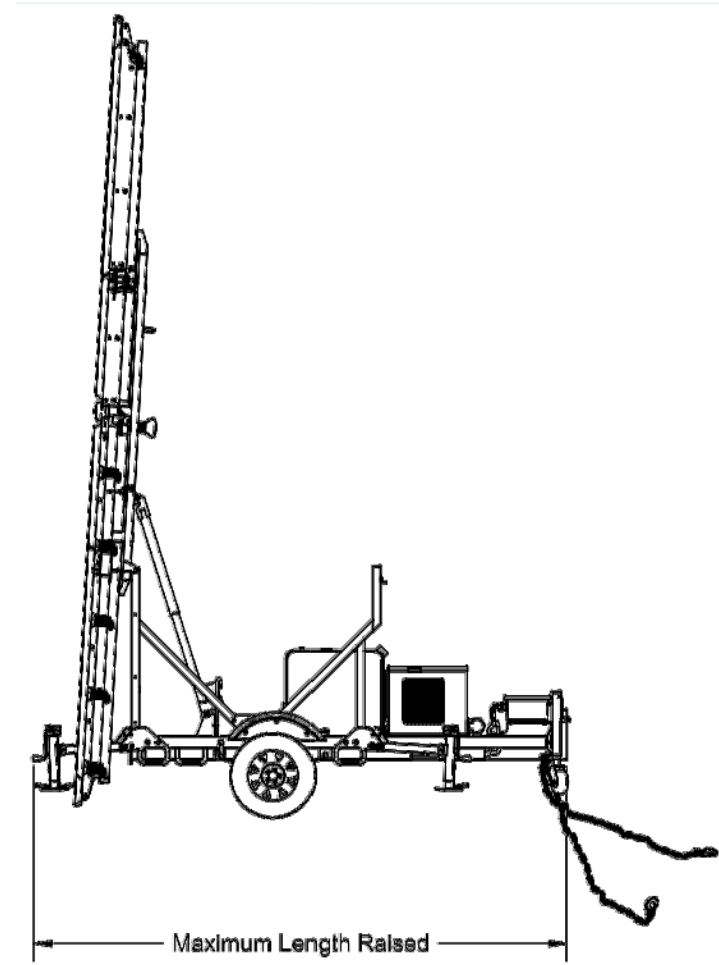
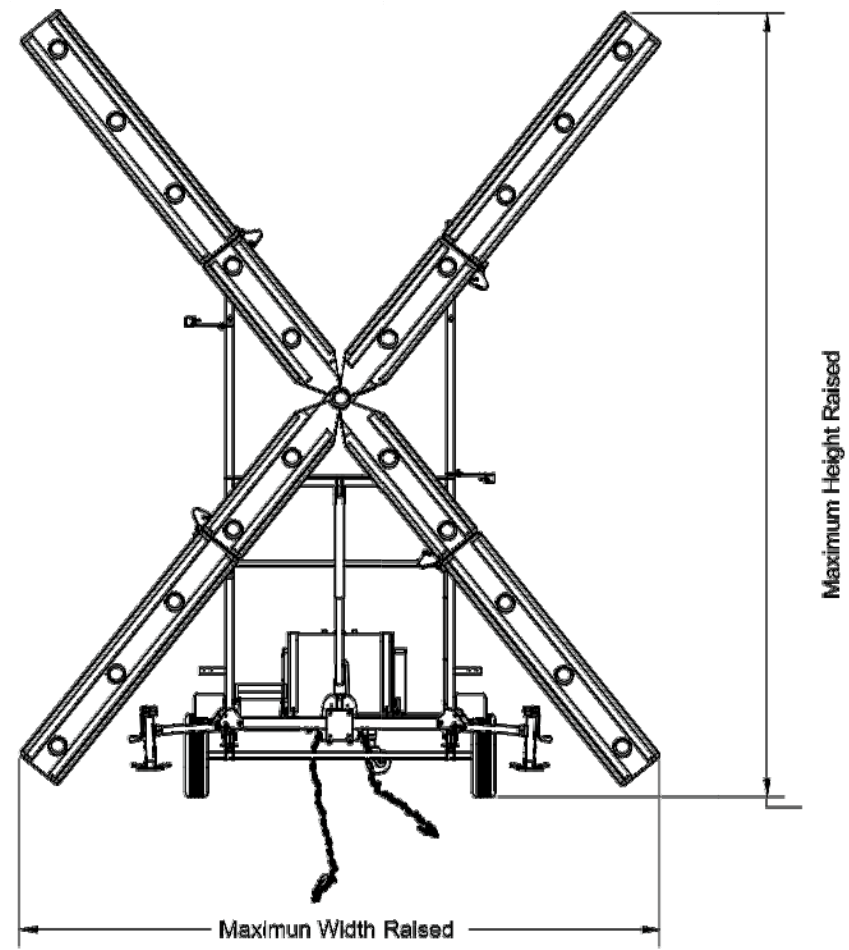
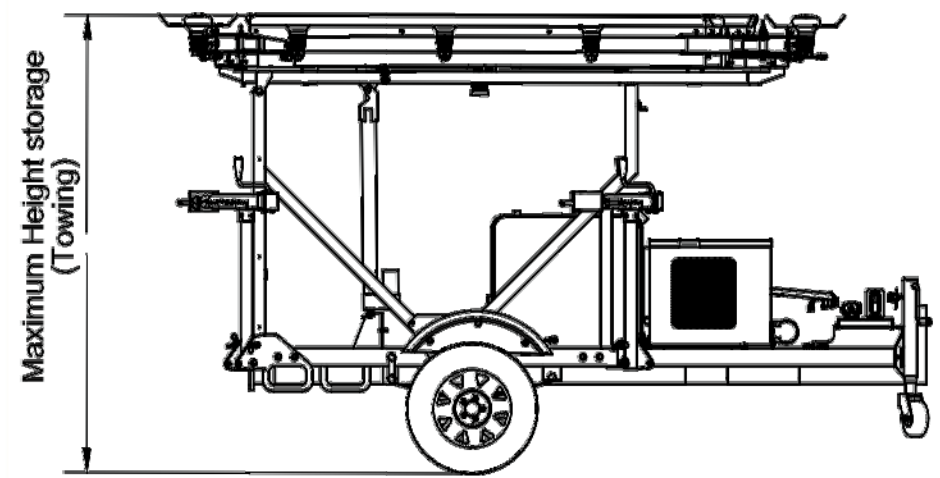
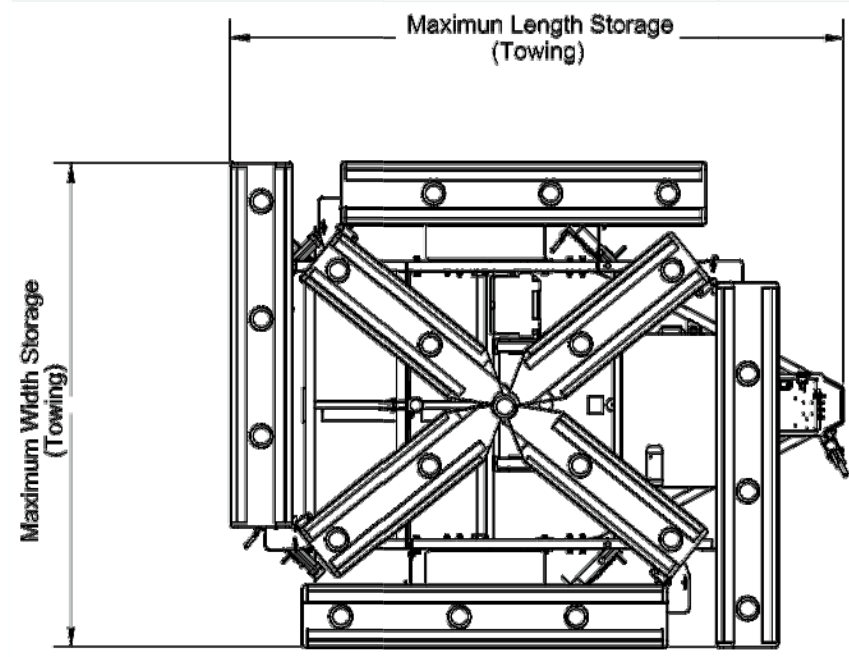
- PHASE 7:**
- APPROXIMATE PHASE DURATION 45 DAYS. SEE TABLE 1 ON SHEET C05 FOR AFFECTED AREA.
- PRIOR TO BEGINNING WORK, THE AIRPORT WILL ISSUE THE APPROPRIATE NOTAM THAT MEN AND MATERIALS WILL BE IN SPECIFIC STAGING AREAS OUTSIDE OF THE RSA FOR THE DURATION OF THE PROJECT. NO NOTAMS ARE REQUIRED WHEN OUTSIDE OF THE RSA UNLESS TRANSITIONAL SURFACES ARE ENCLOSED.
 - INSTALL/MAINTAIN BARRICADES AT LOCATIONS SHOWN.
 - PERFORM UTILITY LOCATES.
 - WORK ACTIVITIES WITHIN LIMITS OF WORK AREA FOR THIS PHASE INCLUDE:
 - TRENCHING AND BORING AS NECESSARY.
 - REMOVE EXISTING CABLE.
 - REMOVE EXISTING LIGHTS.
 - INSTALL CONDUIT WITH ELECTRICAL CABLE.
 - INSTALL NEW LIGHTS.
 - FINAL GRADING AND SEEDING IN DISTURBED AREAS.
 - AT THE COMPLETION OF THE ITEMS ABOVE, COORDINATE WITH THE CONSTRUCTION MANAGER TO OPEN WORK AREA AND ACCESS ROUTES. FOLLOW STEPS BELOW:
 - CLEAN ALL PAVED SURFACES TO REMOVE FOD
 - REMOVE LOW PROFILE BARRICADES
 - REMOVE ALL EQUIPMENT, MATERIALS, AND PERSONNEL FROM WORK AREA
 - COORDINATE WITH THE AIRPORT TO CANCEL ALL NOTAMS THE AIRPORT ISSUED.
 - CONTRACTOR SHALL COORDINATE WITH THE OWNER'S DRAINAGE IMPROVEMENTS CONTRACTOR IF REQUIRED. THE PROPOSED DRAINAGE WORK SHALL BE COMPLETED PRIOR TO INSTALLATION OF NEW LIGHTING. IT IS ANTICIPATED THIS WORK WILL BE COMPLETE PRIOR TO PHASE 7 START DATE.

COORDINATE TABLE

NO.	LATITUDE	LONGITUDE	NORTHING	EASTING	ELEV.	DESCRIPTION
701	N32° 23' 31.32"	W94° 42' 54.83"	6846608.74	3136495.61	351.4	PHASE LIMITS
702	N32° 23' 34.29"	W94° 42' 54.90"	6846608.25	3136478.53	350.8	PHASE LIMITS
703	N32° 23' 34.87"	W94° 42' 24.27"	6847061.92	3139100.77	351.0	PHASE LIMITS
704	N32° 23' 33.20"	W94° 42' 24.22"	6846892.83	3139111.52	351.2	PHASE LIMITS
705	N32° 23' 30.83"	W94° 42' 26.85"	6846645.31	3138894.55	350.3	PHASE LIMITS
706	N32° 23' 31.80"	W94° 42' 28.21"	6846739.60	3138774.33	349.6	PHASE LIMITS

PRODUCT INFORMATION

Specifications and Model Views



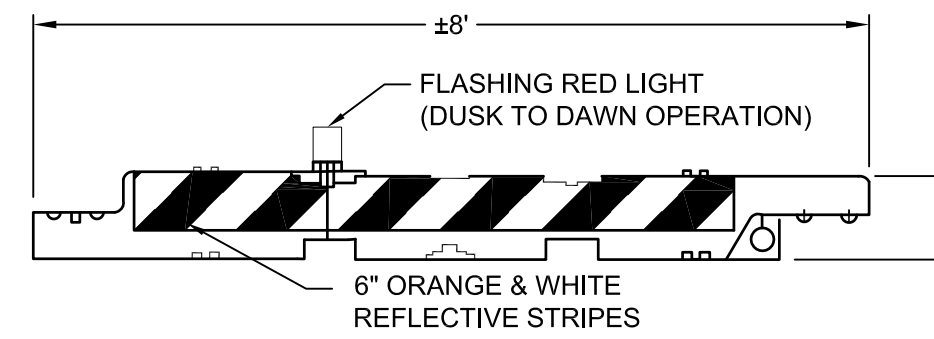
Maximum Weight No Fuel	1854 lbs
Maximum Length Towing & Storage Position	127.9 inches
Maximum Width in Towing & Storage Position	101.0 inches
Maximum Height in Towing & Storage Position	76.5 inches
Maximum Width in Raised Operating Position	188.5 inches
Maximum Length in Raised Position	137.4 inches
Maximum Height in Raised Operating Position	206.7 inches
Maximum Tongue - Weight Empty Fuel Tank	234 lbs
Maximum Tongue Weight - Full Fuel Tank	318 lbs
Maximum Tongue Weight - Full Fuel Tank & Second Unit on Rear Hitch	245 lbs

NOTES:

- THE PORTABLE LIGHTED RUNWAY CLOSURE MARKER (RCM) SHALL MEET THE REQUIREMENTS AND SPECIFICATIONS SET FORTH IN AC 150/5345-55 (CURRENT VERSION), SPECIFICATION FOR L-893, LIGHTED VISUAL AID TO INDICATE TEMPORARY RUNWAY CLOSURE. THE REQUIREMENTS OF THIS AC SHALL GOVERN IN THE EVENT OF CONFLICT WITH THE REQUIREMENTS OUTLINED IN THIS DETAIL.
- THE (RCM) SHALL BE DESIGNED TO FORM A LIGHTED "X" WHICH CONTAINS TWENTY-ONE (21) 90 WATT PAR 38, 10 DEGREE WEATHER PROOF OUTDOOR STANDARD BASE CLEAR LED SPOT BULBS WITH ONE (1) BULB LOCATED IN THE CENTER AND FIVE (5) BULBS LOCATED IN EACH OF THE FOUR (4) LEGS. ALL "X" PANEL BULBS, LIGHTED SOCKETS, WIRING, AND CONNECTIONS MUST BE ENCLOSED IN A WEATHER RESISTANT HOUSING.
- THE LIGHTED "X" FORMED WHEN OPENED AND OPERATING WILL BE 20'-6" EACH CONTINUOUS LEG AND 14'-6" ON THE PERIPHERAL.
- THE ANGLE MECHANISM MUST BE CAPABLE OF TILTING 3 DEGREES FROM VERTICAL AND HAVE TRAILER ADJUSTMENTS TO ACCOMMODATE THIS ANGLE NO MATTER WHAT THE DEGREE OF THE RUNWAY.
- ILLUMINATION OF THE RCM SHALL BE WORKABLE IN A CONTINUOUS OR FLASHING MODE. THIS MUST BE CONTROLLED BY A SOLID STATE FLASHER. MECHANICAL FLASHERS ARE NOT ACCEPTABLE.
- A PHOTO CELL MUST BE USED TO REDUCE THE VOLTAGE TO 75 VOLTS FOR NIGHTTIME OPERATIONS.
- A RADIO FREQUENCY FILTER SHALL BE INSTALLED WITH AN OPERATION FREQUENCY OF 50 HZ.
- THE RCM MUST BE ABLE TO WITHSTAND WINDS OF 40 MPH WHILE IN OPERATIONAL MODE.

1 CONTRACTOR PROVIDED PORTABLE LIGHTED RUNWAY CLOSURE MARKER

N.T.S.

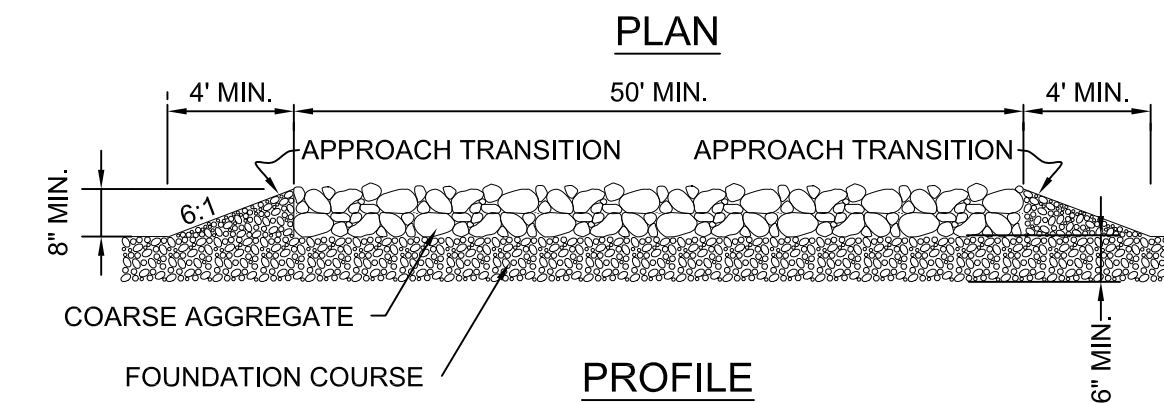
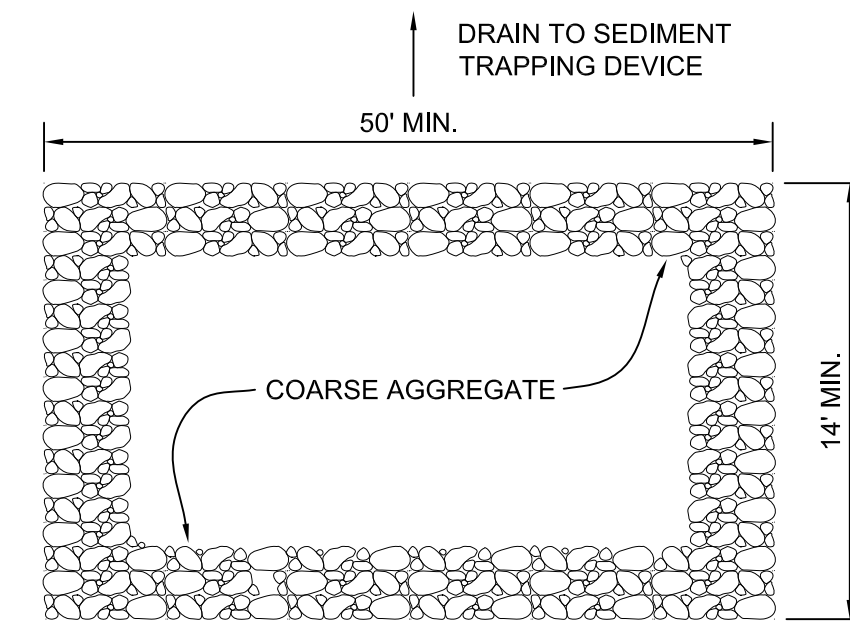


NOTES

- LIGHTED BARRICADES SHALL BE PROVIDED, INSTALLED, AND MAINTAINED BY CONTRACTOR.
- BARRICADE LIGHTING SHALL BE SPACED NOT TO EXCEED 20' ON CENTER AND SPACING BETWEEN BARRICADES NOT EXCEEDING 10'.
- BARRICADES SHALL BE REQUIRED AROUND ALL EXCAVATIONS WHICH EXCEED 3" IN DEPTH BELOW ADJACENT PAVEMENT AND IN LOCATIONS SHOWN.
- CONTRACTOR SHALL CHECK LAYOUT AND LIGHTS EACH DAY TO ENSURE BARRICADES ARE FUNCTIONING CORRECTLY.

2 TEMPORARY WATER FILLED LOW-PROFILE BARRICADE

N.T.S.

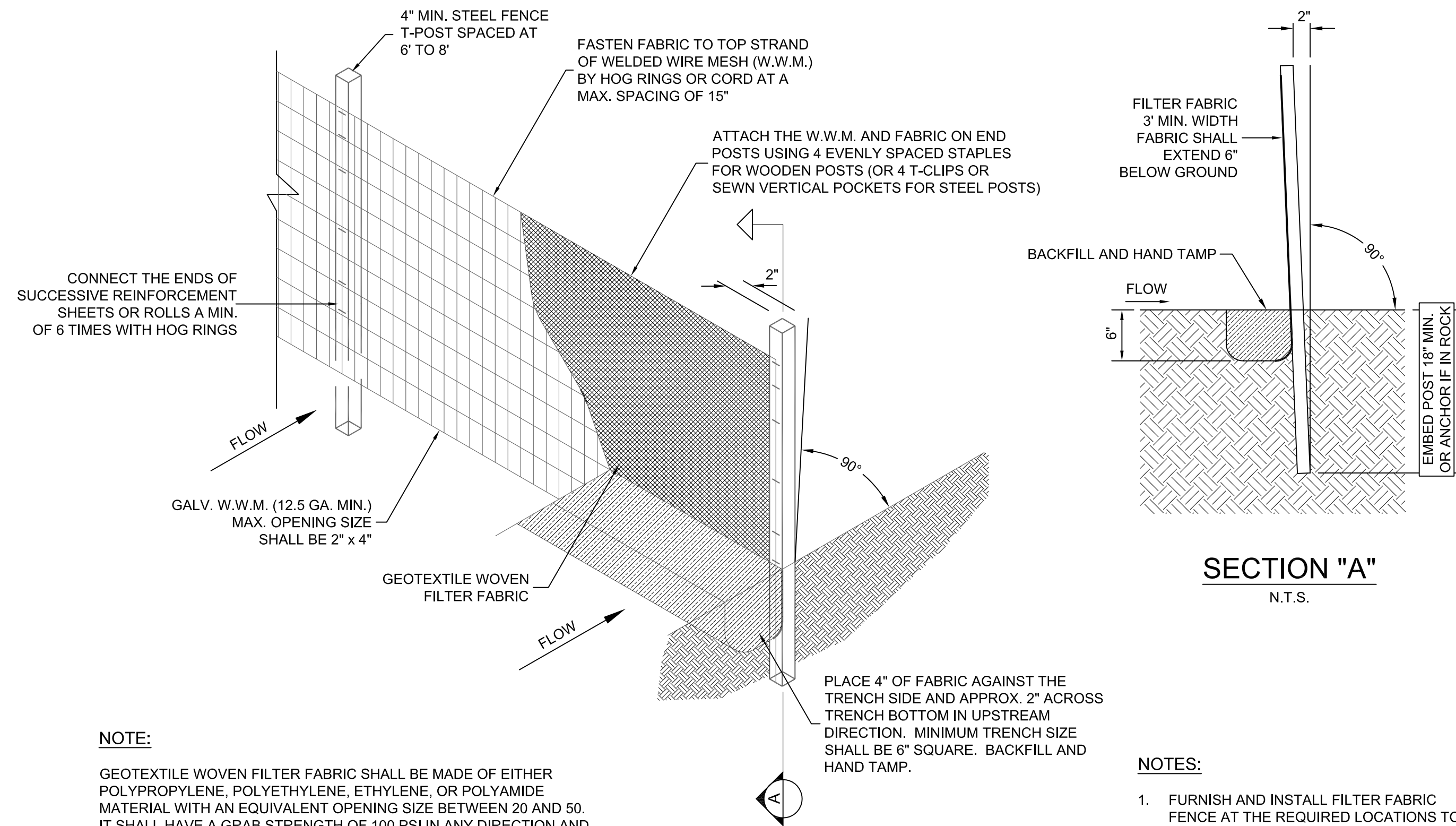


STABILIZED CONSTRUCTION EXIT NOTES:

- THE COARSE AGGREGATE SHOULD BE OPEN GRADED WITH A NOMINAL SIZE OF 4" TO 8" AND SHALL BE APPROVED BY THE ENGINEER.
- PRIOR TO INSTALLING COARSE AGGREGATE, STABILIZED CONSTRUCTION ENTRANCE SHALL BE LINED WITH GEOTEXTILE FABRIC.
- THE APPROACH TRANSITIONS SHOULD BE NO STEEPER THAN 6:1 AND CONSTRUCTED AS DIRECTED BY THE ENGINEER.
- THE FOUNDATION COURSE SHALL BE FLEXIBLE BASE OR OTHER MATERIAL AS APPROVED BY THE ENGINEER.
- THE CONSTRUCTION EXIT SHALL BE GRADED TO ALLOW DRAINAGE TO A SEDIMENT TRAPPING DEVICE.
- UPON COMPLETION OF CONSTRUCTION, CONTRACTOR SHALL REMOVE STABILIZED CONSTRUCTION EXIT AND GRADE AREA TO DRAIN.

3 STABILIZED CONSTRUCTION ENTRANCE / EXIT

N.T.S.



NOTE:

GEOTEXTILE WOVEN FILTER FABRIC SHALL BE MADE OF EITHER POLYPROPYLENE, POLYETHYLENE, ETHYLENE, OR POLYAMIDE MATERIAL WITH AN EQUIVALENT OPENING SIZE BETWEEN 20 AND 50. IT SHALL HAVE A GRAB STRENGTH OF 100 PSI IN ANY DIRECTION AND A MULLEN BURST STRENGTH EXCEEDING 200 PSI (ASTM D-3786).

NOTES:

- FURNISH AND INSTALL FILTER FABRIC FENCE AT THE REQUIRED LOCATIONS TO KEEP EROSION AND SEDIMENT OFF OF THE STREETS OR PRIVATE PROPERTY, OR AS INSTRUCTED BY THE ENGINEER OR THE ENGINEERING REPRESENTATIVE.
- ALL FILTER FABRIC FENCE PLACEMENT SHALL BE AGREED UPON BY THE ENGINEER OR THE ENGINEERING REPRESENTATIVE.

4 TEMPORARY FILTER FABRIC FENCE

N.T.S.

MISCELLANEOUS DETAILS

GREGG COUNTY, TEXAS
EAST TEXAS REGIONAL AIRPORT
TAXIWAY B, C, D, E, G, & K LIGHTING
IMPROVEMENTS

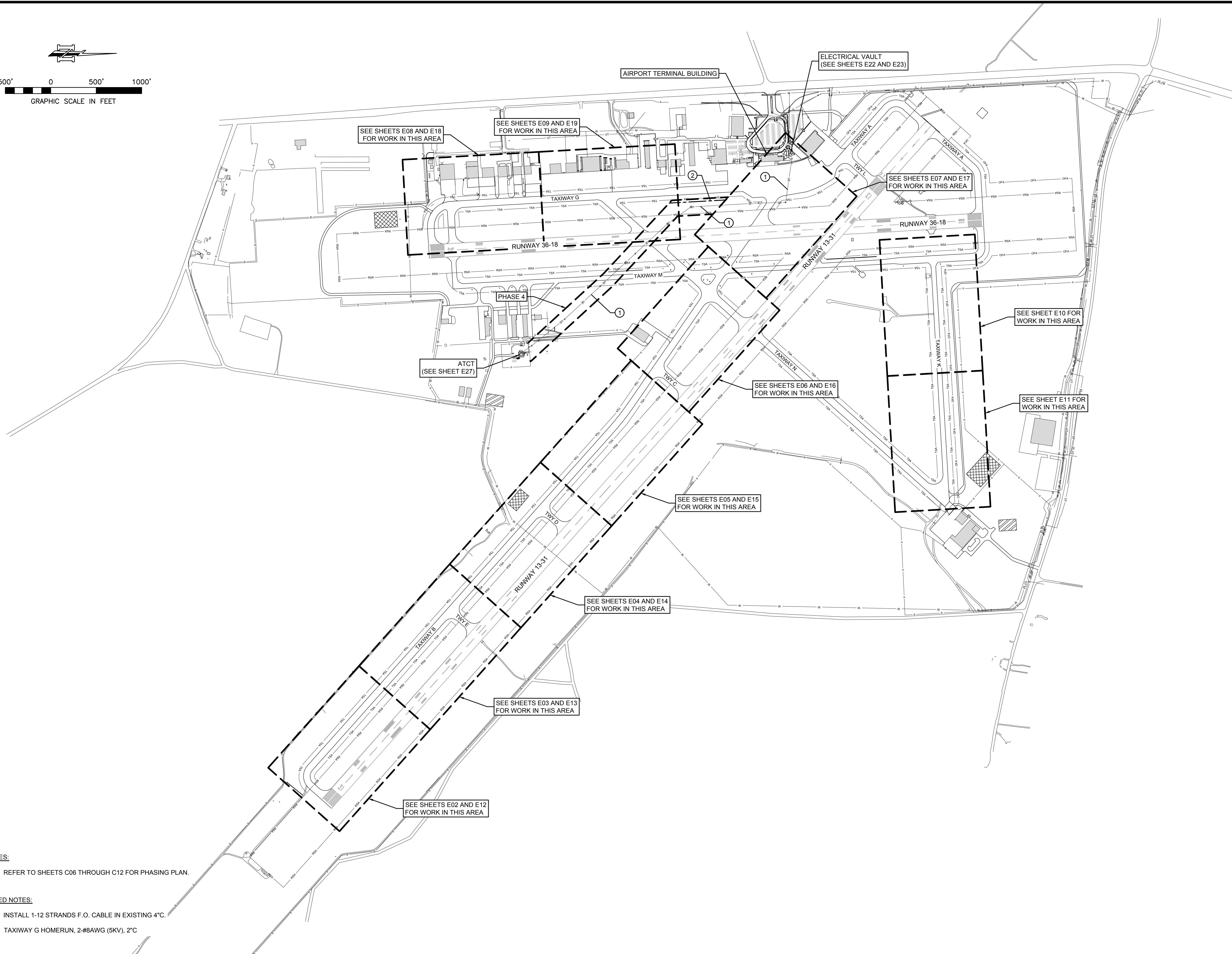
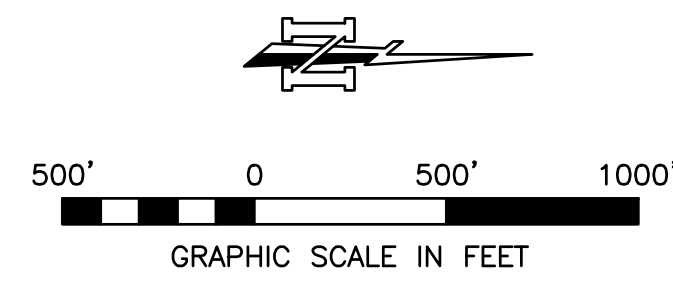
DRAWN BY: JKP
DESIGNED BY: CEH
LATEST REVISION: 4/14/2016
KSA JOB NO.: GC.100

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STATE OF TEXAS
REGISTERED PROFESSIONAL ENGINEER
CHARLES E. HUDSON
116545
6/20/16

SEALS: TBPE Firm Registration No. F-1356
SHEET NO.

C13



NOTES:
1. REFER TO SHEETS C06 THROUGH C12 FOR PHASING PLAN.

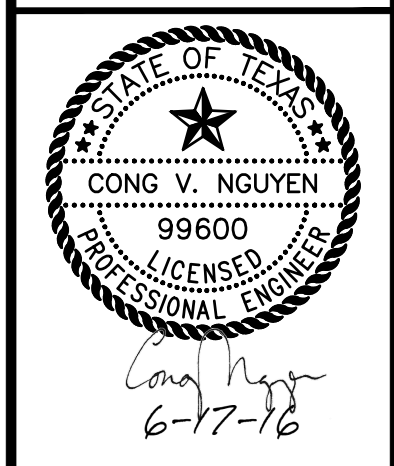
KEYED NOTES:
① INSTALL 1-12 STRANDS F.O. CABLE IN EXISTING 4" C.
② TAXIWAY G HOMERUN, 2-#8AWG (5KV), 2" C

MARK	REVISION	DATE

ELECTRICAL SITE PLAN

**GREGG COUNTY, TEXAS
EAST TEXAS REGIONAL AIRPORT
TAXIWAY B, C, D, E, G, & K LIGHTING
IMPROVEMENTS**

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DESIGNED BY:	CVN
LATEST REVISION:	6/17/2016
KSA JOB NO.:	GC-100



SEAL:
TBPE Firm Registration No. F-1356
SHEET NO.

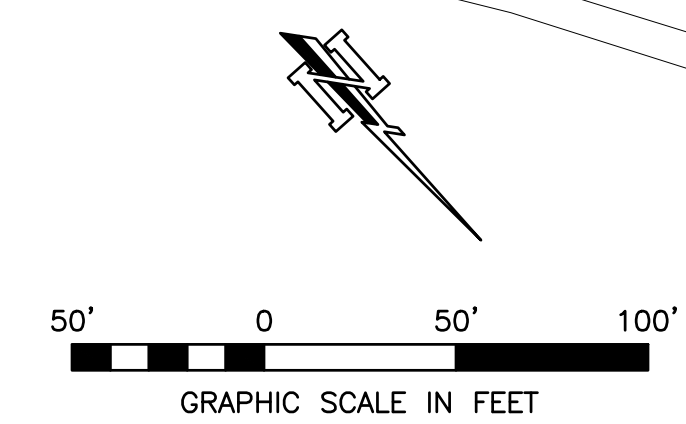
E01

PROJECT TITLE: PROJECT DESCRIPTION LOCATION: CITY, STATE, TEXAS

SHEET NAME:

PROJECT NAME:

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PHASE 1

SIGN #114

TAXIWAY B

SIGN #113

SIGN #115

SIGN #112 (2)

PHASE 2

TAXIWAY E

(2) SIGN #116

SIGN #111 (2)

RUNWAY 13-31

CONTINUED TO SHEET E02

CONTINUED TO SHEET E04

LEGEND	
	WORK LIMITS OF PHASE
	TAXIWAY SAFETY AREA
	RUNWAY SAFETY AREA
	CENTER-LINE OF PROPOSED ELECTRICAL DUCT BANK
	CENTER-LINE OF EXISTING ELECTRICAL DUCT BANK
	CENTER-LINE OF PROPOSED BORED CONDUIT
	EXISTING MITL AND TRANSFORMER TO BE REMOVED
	EXISTING ELECTRICAL DUCT BANK TO BE REMOVED
	EXISTING MITL/MIRL TO REMAIN
	PROPOSED HANDHOLE (L-868D)
	PROPOSED AIRCRAFT RATED HANDHOLE
	EXISTING HANDHOLE
	EXISTING SIGN TO REMAIN
	PROPOSED MITL, BASE CAN, TRANSFORMER, AND CONCRETE PAD

KEYED NOTES:

- ① UNDER PAVEMENT CONDUIT TO REMAIN. ACTUAL LOCATION OF CONDUIT SHALL BE FIELD VERIFIED.
- ② CONTRACTOR SHALL FIELD VERIFY SIGN CIRCUIT. IF SIGN IS FED FROM RUNWAY CIRCUIT, NO WORK IS REQUIRED FOR SIGNAGE.

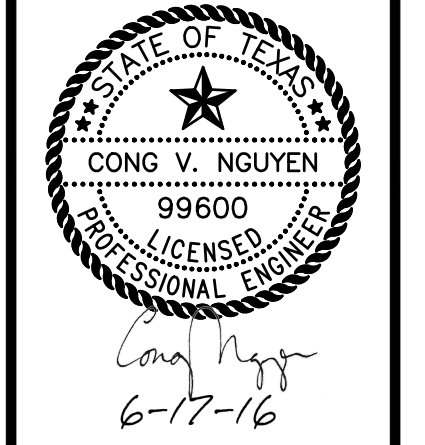
MARK	REVISION	DATE

PARTIAL PHASE 1 & 2
ELECTRICAL DEMOLITION PLAN
SHEET 2 OF 2

GREGG COUNTY, TEXAS
EAST TEXAS REGIONAL AIRPORT
TAXIWAY B, C, D, E, G, & K LIGHTING
IMPROVEMENTS

DRAWN BY:	MB
DESIGNED BY:	CVN
LATEST REVISION:	6/17/2016
KSA JOB NO.:	GC-100

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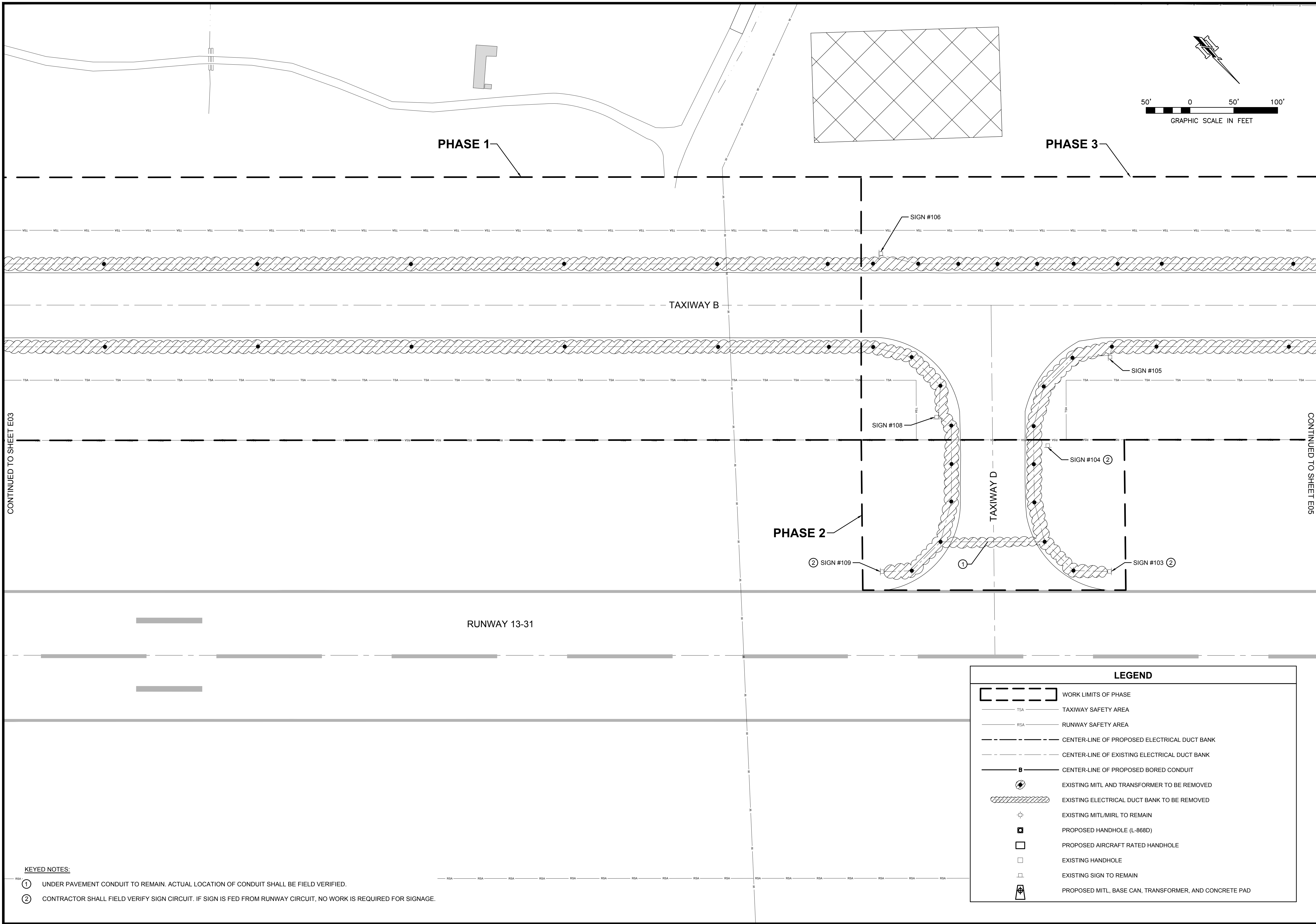
SEAL:
TBPE Firm Registration No. F-1356
SHEET NO.

E03

PROJECT TITLE: PROJECT DESCRIPTION LOCATION: CITY XX, TEXAS

SHEET NAME:

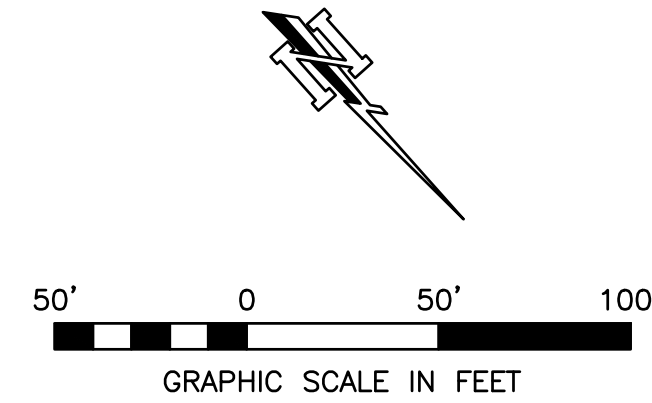
PROJECT NAME:



- KEYED NOTES:**
- ① UNDER PAVEMENT CONDUIT TO REMAIN. ACTUAL LOCATION OF CONDUIT SHALL BE FIELD VERIFIED.
 - ② CONTRACTOR SHALL FIELD VERIFY SIGN CIRCUIT. IF SIGN IS FED FROM RUNWAY CIRCUIT, NO WORK IS REQUIRED FOR SIGNAGE.

LEGEND	
	WORK LIMITS OF PHASE
	TSA
	TAXIWAY SAFETY AREA
	RSA
	RUNWAY SAFETY AREA
	CENTER-LINE OF PROPOSED ELECTRICAL DUCT BANK
	CENTER-LINE OF EXISTING ELECTRICAL DUCT BANK
	CENTER-LINE OF PROPOSED BORED CONDUIT
	EXISTING MITL AND TRANSFORMER TO BE REMOVED
	EXISTING ELECTRICAL DUCT BANK TO BE REMOVED
	EXISTING MITL/MIRL TO REMAIN
	PROPOSED HANDHOLE (L-868D)
	PROPOSED AIRCRAFT RATED HANDHOLE
	EXISTING HANDHOLE
	EXISTING SIGN TO REMAIN
	PROPOSED MITL, BASE CAN, TRANSFORMER, AND CONCRETE PAD

MARK <small>REVISION</small> <small>DATE</small>	<small>REVISION</small> <small>DATE</small>	<small>REVISION</small> <small>DATE</small>	<small>REVISION</small> <small>DATE</small>	<small>REVISION</small> <small>DATE</small>	<small>REVISION</small> <small>DATE</small>
<small>WSP: MARK SERVER PROJECTS\PROJECTS\00000010 ELECTRICAL\0007 CAD\02 PROJECT\00 SHEETS\01 SHEET SETS\GC-100 E04.DWG PARTIAL PHASE 1, 2 & 3 DRAWING: PARTIAL PHASE 1, 2 & 3</small>					
PARTIAL PHASE 1, 2, & 3 ELECTRICAL DEMOLITION PLAN					
GREGG COUNTY, TEXAS EAST TEXAS REGIONAL AIRPORT TAXIWAY B, C, D, E, G, & K LIGHTING IMPROVEMENTS					
<small>PROJECT NAME: PROJECT DESCRIPTION LOCATION: CITY XX, TEXAS</small>					
<small>DRAWN BY:</small> <small>MB</small>	<small>DESIGNED BY:</small> <small>CVN</small>	<small>LATEST REVISION:</small> <small>6/17/2016</small>	<small>RSA JOB NO.:</small> <small>GC-100</small>	<small>PROJECT NAME:</small> <small>GREGG COUNTY, TEXAS EAST TEXAS REGIONAL AIRPORT TAXIWAY B, C, D, E, G, & K LIGHTING IMPROVEMENTS</small>	<small>SHEET NAME:</small> E04
<small>1111 Hawn Ave., Steveport, Louisiana 71107 T. 318.221.7501 F. 318.221.7635 www.ksaeng.com</small>					
<small>SEAL: TBPE Firm Registration No. F-1356 SHEET NO.</small>					



PHASE 3

SIGN #97

TAXIWAY B

RUNWAY 13-31

CONTINUED TO SHEET E04

CONTINUED TO SHEET E06

LEGEND	
	WORK LIMITS OF PHASE
	TAXIWAY SAFETY AREA
	RUNWAY SAFETY AREA
	CENTER-LINE OF PROPOSED ELECTRICAL DUCT BANK
	CENTER-LINE OF EXISTING ELECTRICAL DUCT BANK
	CENTER-LINE OF PROPOSED BORED CONDUIT
	EXISTING MITL AND TRANSFORMER TO BE REMOVED
	EXISTING ELECTRICAL DUCT BANK TO BE REMOVED
	EXISTING MITL/MIRL TO REMAIN
	PROPOSED HANDHOLE (L-868D)
	PROPOSED AIRCRAFT RATED HANDHOLE
	EXISTING HANDHOLE
	EXISTING SIGN TO REMAIN
	PROPOSED MITL, BASE CAN, TRANSFORMER, AND CONCRETE PAD

- KEYED NOTES:**
- 1 UNDER PAVEMENT CONDUIT TO REMAIN AND REUSE. ACTUAL LOCATION OF CONDUIT SHALL BE FIELD VERIFIED.
 - 2 UNDER PAVEMENT CONDUIT TO REMAIN. ACTUAL LOCATION OF CONDUIT SHALL BE FIELD VERIFIED.
 - 3 CONTRACTOR SHALL FIELD VERIFY SIGN CIRCUIT. IF SIGN IS FED FROM RUNWAY CIRCUIT, NO WORK IS REQUIRED FOR SIGNAGE.

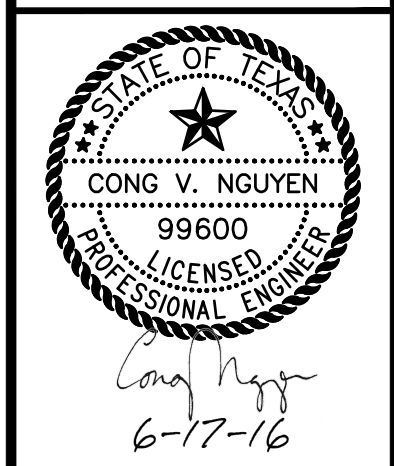
MARK	REVISION	DATE

PARTIAL PHASE 3 ELECTRICAL DEMOLITION PLAN

**GREGG COUNTY, TEXAS
EAST TEXAS REGIONAL AIRPORT
TAXIWAY B, C, D, E, G, & K LIGHTING IMPROVEMENTS**

DRAWN BY:	MB
DESIGNED BY:	CVN
LATEST REVISION:	6/17/2016
KSA JOB NO.:	GC-100

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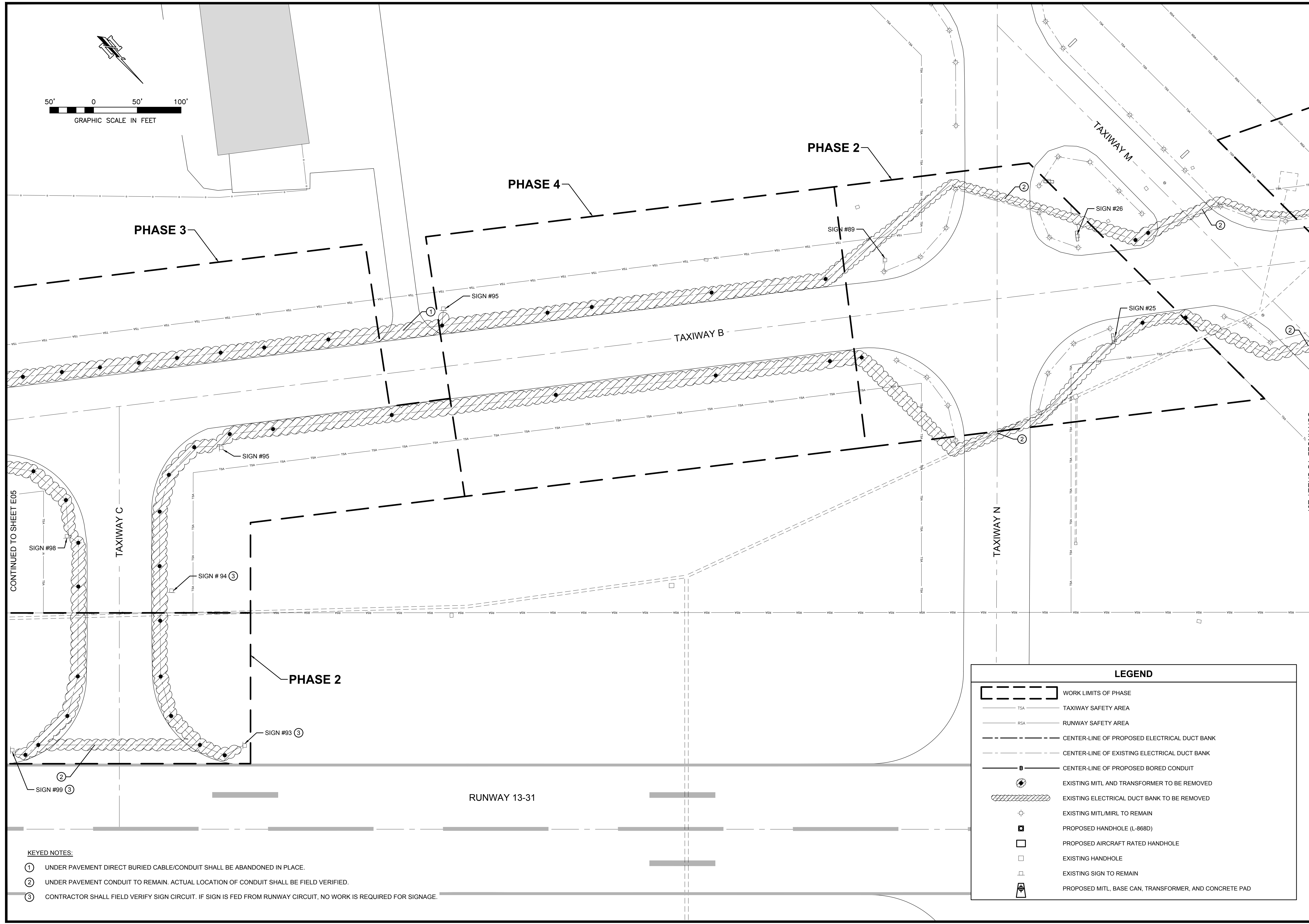
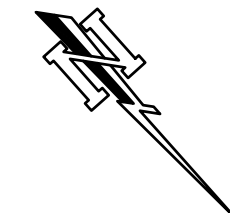
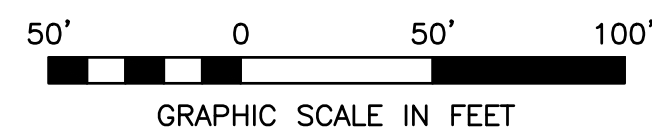
SEAL:
TBPE Firm Registration No. F-1356
SHEET NO.

E05

PROJECT TITLE: PROJECT DESCRIPTION LOCATION: CITY, STATE, TEXAS

SHEET NAME:

PROJECT NAME:



CONTINUED TO SHEET E05

CONTINUED TO SHEET E07

- KEYED NOTES:**
- ① UNDER PAVEMENT DIRECT BURIED CABLE/CONDUIT SHALL BE ABANDONED IN PLACE.
 - ② UNDER PAVEMENT CONDUIT TO REMAIN. ACTUAL LOCATION OF CONDUIT SHALL BE FIELD VERIFIED.
 - ③ CONTRACTOR SHALL FIELD VERIFY SIGN CIRCUIT. IF SIGN IS FED FROM RUNWAY CIRCUIT, NO WORK IS REQUIRED FOR SIGNAGE.

LEGEND	
	WORK LIMITS OF PHASE
	TSA TAXIWAY SAFETY AREA
	RSA RUNWAY SAFETY AREA
	CENTER-LINE OF PROPOSED ELECTRICAL DUCT BANK
	CENTER-LINE OF EXISTING ELECTRICAL DUCT BANK
	CENTER-LINE OF PROPOSED BORED CONDUIT
	EXISTING MITL AND TRANSFORMER TO BE REMOVED
	EXISTING ELECTRICAL DUCT BANK TO BE REMOVED
	EXISTING MITL/MIRL TO REMAIN
	PROPOSED HANDHOLE (L-868D)
	PROPOSED AIRCRAFT RATED HANDHOLE
	EXISTING HANDHOLE
	EXISTING SIGN TO REMAIN
	PROPOSED MITL, BASE CAN, TRANSFORMER, AND CONCRETE PAD

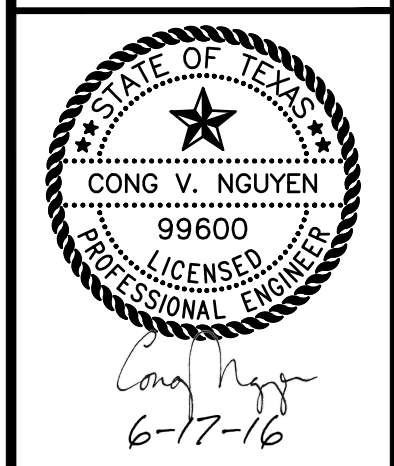
MARK	REVISION	DATE

**PARTIAL PHASE 2, 3, & 4
ELECTRICAL DEMOLITION PLAN**

**GREGG COUNTY, TEXAS
EAST TEXAS REGIONAL AIRPORT
TAXIWAY B, C, D, E, G, & K LIGHTING
IMPROVEMENTS**

DRAWN BY:	MB
DESIGNED BY:	CVN
LATEST REVISION:	6/17/2016
KSA JOB NO.:	GC-100

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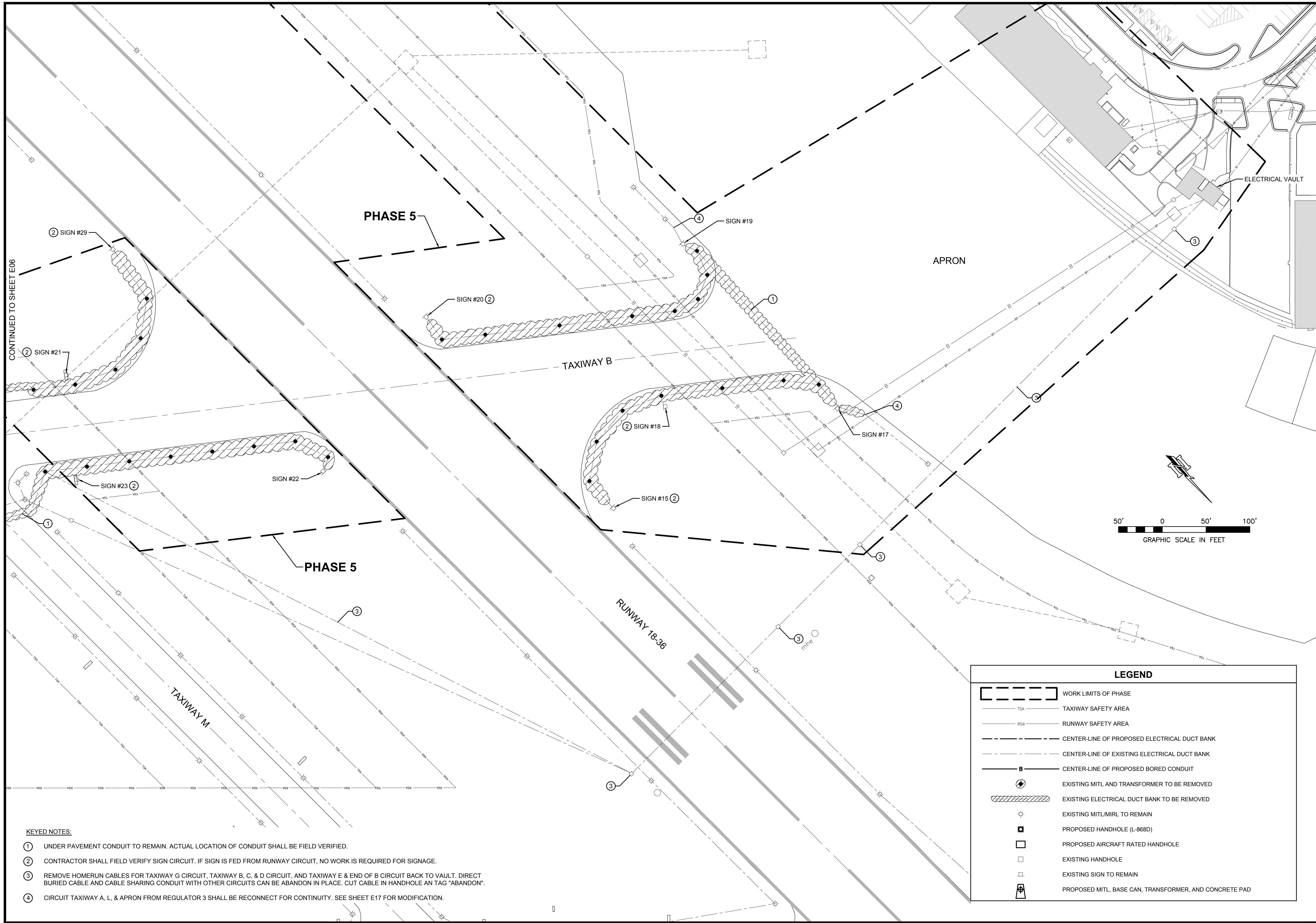
SEAL:
TBPE Firm Registration No. F-1356
SHEET NO.

E06

PROJECT TITLE: PROJECT DESCRIPTION LOCATION: CITY, STATE, TEXAS

SHEET NAME:

PROJECT NAME:



CONTINUED TO SHEET E06

- KEYED NOTES:**
- ① UNDER PAVEMENT CONDUIT TO REMAIN. ACTUAL LOCATION OF CONDUIT SHALL BE FIELD VERIFIED.
 - ② CONTRACTOR SHALL FIELD VERIFY SIGN CIRCUIT. IF SIGN IS FED FROM RUNWAY CIRCUIT, NO WORK IS REQUIRED FOR SIGNAGE.
 - ③ REMOVE HOMERUN CABLES FOR TAXIWAY G CIRCUIT, TAXIWAY B, C, & D CIRCUIT, AND TAXIWAY E & END OF B CIRCUIT BACK TO VAULT. DIRECT BURIED CABLE AND CABLE SHARING CONDUIT WITH OTHER CIRCUITS CAN BE ABANDON IN PLACE. CUT CABLE IN HANDHOLE AN TAG "ABANDON".
 - ④ CIRCUIT TAXIWAY A, L, & APRON FROM REGULATOR 3 SHALL BE RECONNECT FOR CONTINUITY. SEE SHEET E17 FOR MODIFICATION.

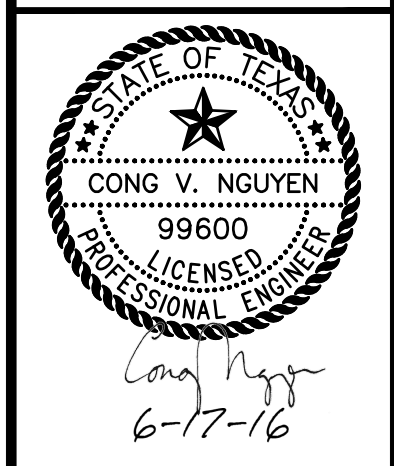
LEGEND	
	WORK LIMITS OF PHASE
	TSA TAXIWAY SAFETY AREA
	RSA RUNWAY SAFETY AREA
	CENTER-LINE OF PROPOSED ELECTRICAL DUCT BANK
	CENTER-LINE OF EXISTING ELECTRICAL DUCT BANK
	CENTER-LINE OF PROPOSED BORED CONDUIT
	EXISTING MITL AND TRANSFORMER TO BE REMOVED
	EXISTING ELECTRICAL DUCT BANK TO BE REMOVED
	EXISTING MITL/MIRL TO REMAIN
	PROPOSED HANDHOLE (L-868D)
	PROPOSED AIRCRAFT RATED HANDHOLE
	EXISTING HANDHOLE
	EXISTING SIGN TO REMAIN
	PROPOSED MITL, BASE CAN, TRANSFORMER, AND CONCRETE PAD

MARK	REVISION	DATE

PARTIAL PHASE 5 ELECTRICAL DEMOLITION PLAN

**GREGG COUNTY, TEXAS
EAST TEXAS REGIONAL AIRPORT
TAXIWAY B, C, D, E, G, & K LIGHTING IMPROVEMENTS**

DRAWN BY:	MB
DESIGNED BY:	CVN
LATEST REVISION:	6/17/2016
KSA JOB NO.:	GC-100



SEAL:
TBPPE Firm Registration No. F-1356
SHEET NO.

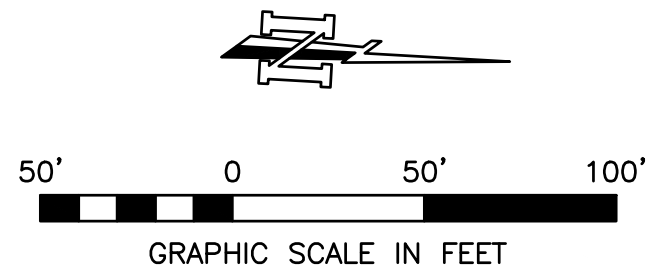
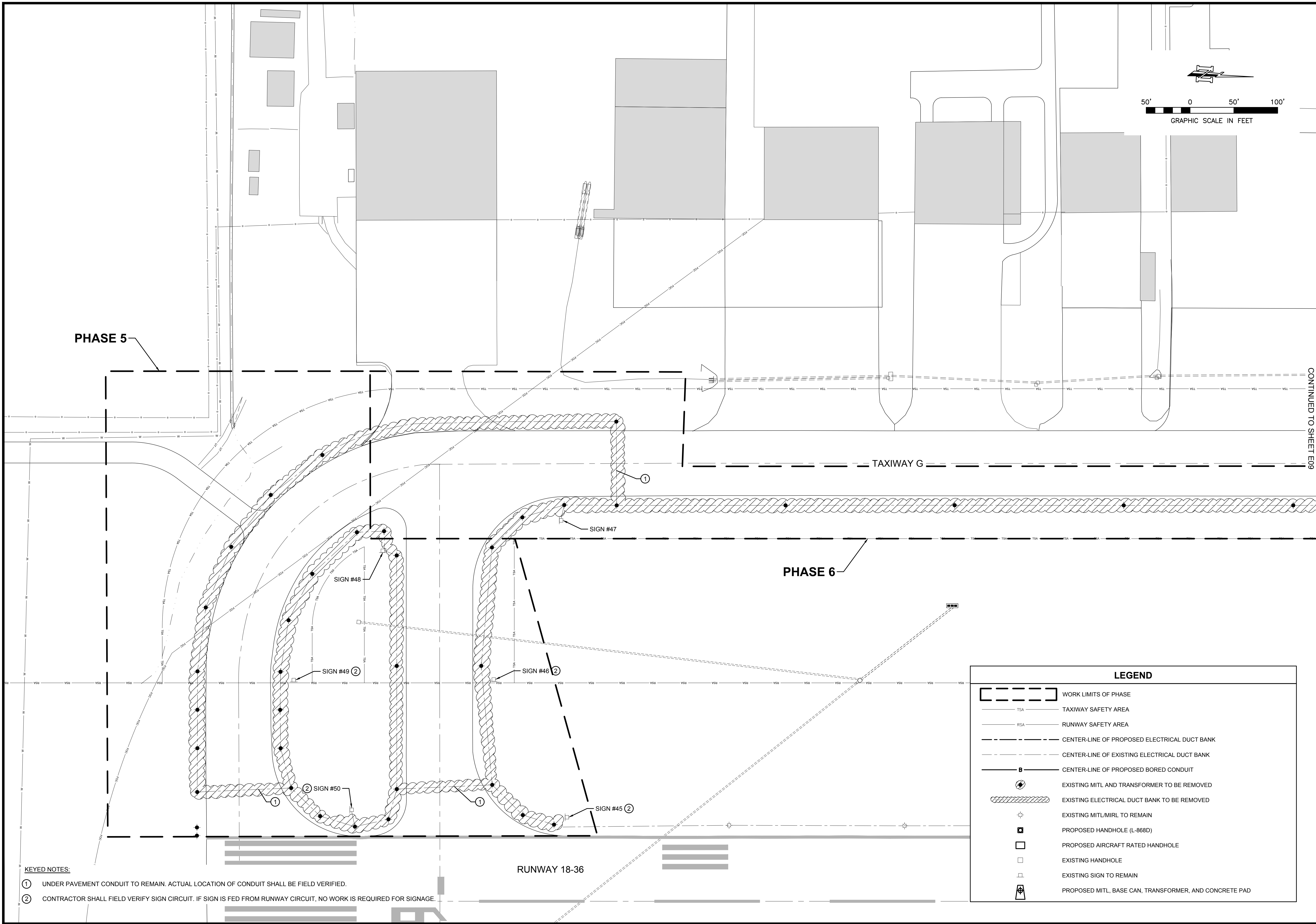
E07

PROJECT TITLE: PROJECT DESCRIPTION LOCATION: CITY, STATE, TEXAS

SHEET NAME:

PROJECT NAME:

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PHASE 5

PHASE 6

TAXIWAY G

RUNWAY 18-36

CONTINUED TO SHEET E09

- KEYED NOTES:**
- ① UNDER PAVEMENT CONDUIT TO REMAIN. ACTUAL LOCATION OF CONDUIT SHALL BE FIELD VERIFIED.
 - ② CONTRACTOR SHALL FIELD VERIFY SIGN CIRCUIT. IF SIGN IS FED FROM RUNWAY CIRCUIT, NO WORK IS REQUIRED FOR SIGNAGE.

LEGEND	
	WORK LIMITS OF PHASE
	TSA
	TAXIWAY SAFETY AREA
	RSA
	RUNWAY SAFETY AREA
	CENTER-LINE OF PROPOSED ELECTRICAL DUCT BANK
	CENTER-LINE OF EXISTING ELECTRICAL DUCT BANK
	CENTER-LINE OF PROPOSED BORED CONDUIT
	EXISTING MITL AND TRANSFORMER TO BE REMOVED
	EXISTING ELECTRICAL DUCT BANK TO BE REMOVED
	EXISTING MITL/MIRL TO REMAIN
	PROPOSED HANDHOLE (L-868D)
	PROPOSED AIRCRAFT RATED HANDHOLE
	EXISTING HANDHOLE
	EXISTING SIGN TO REMAIN
	PROPOSED MITL, BASE CAN, TRANSFORMER, AND CONCRETE PAD

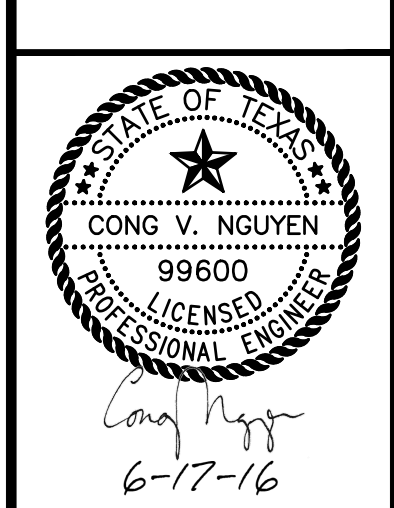
MARK	REVISION	DATE

GREGG COUNTY, TEXAS
EAST TEXAS REGIONAL AIRPORT
TAXIWAY B, C, D, E, G, & K LIGHTING
IMPROVEMENTS

PARTIAL PHASE 5 & 6
 ELECTRICAL DEMOLITION PLAN

DRAWN BY:	MB
DESIGNED BY:	CVN
LATEST REVISION:	6/17/2016
KSA JOB NO.:	GC-100

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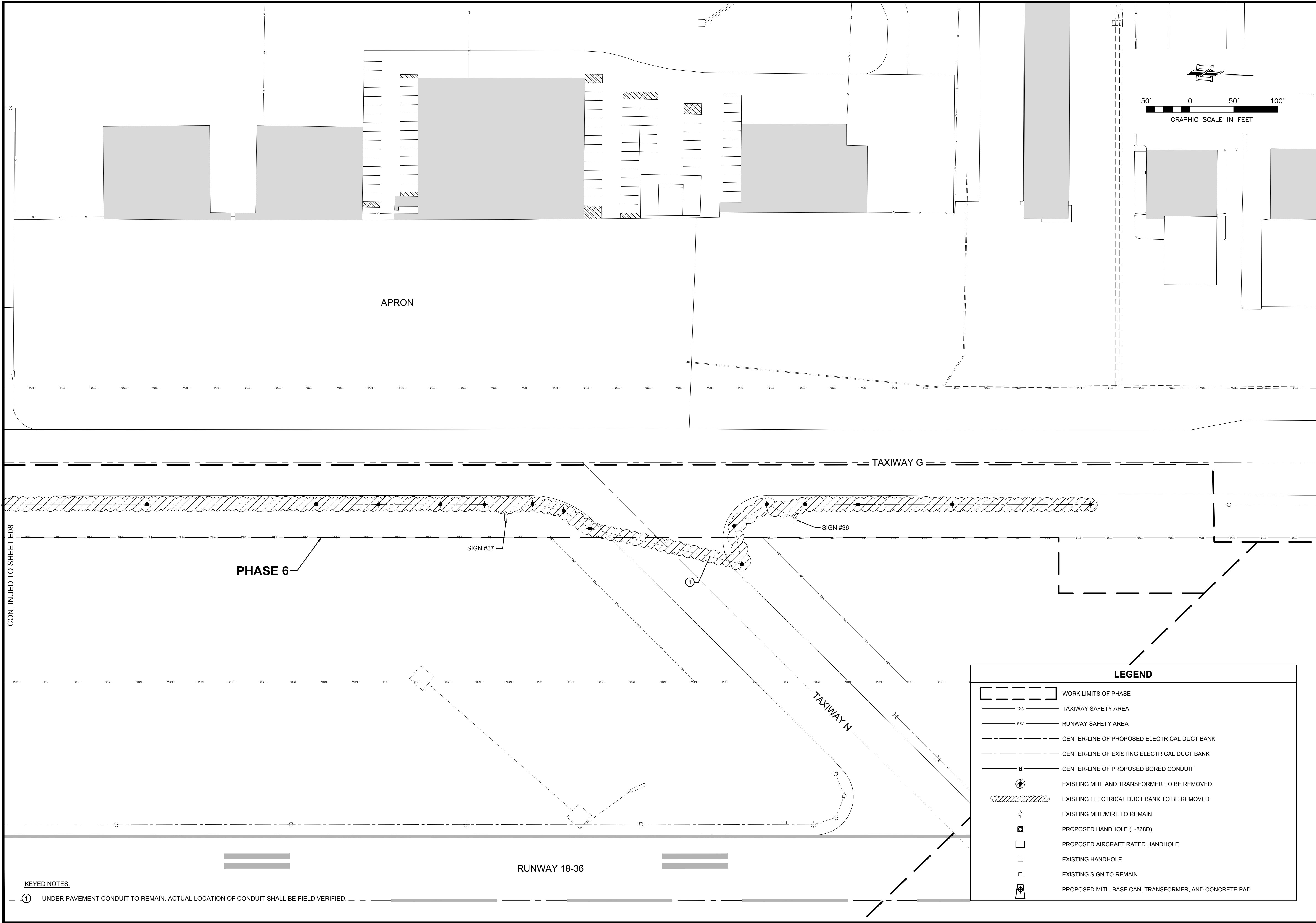
SEAL:
 TBPE Firm Registration No. F-1356
 SHEET NO.

E08

PROJECT TITLE: PROJECT DESCRIPTION LOCATION: CITY, STATE, TEXAS

SHEET NAME:

PROJECT NAME:



CONTINUED TO SHEET E08

PHASE 6

SIGN #37

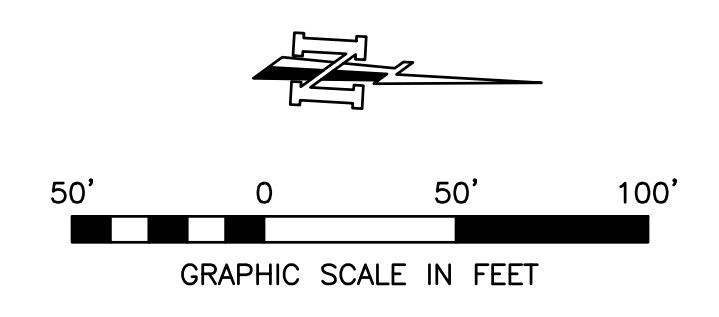
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TAXIWAY G

TAXIWAY N

RUNWAY 18-36

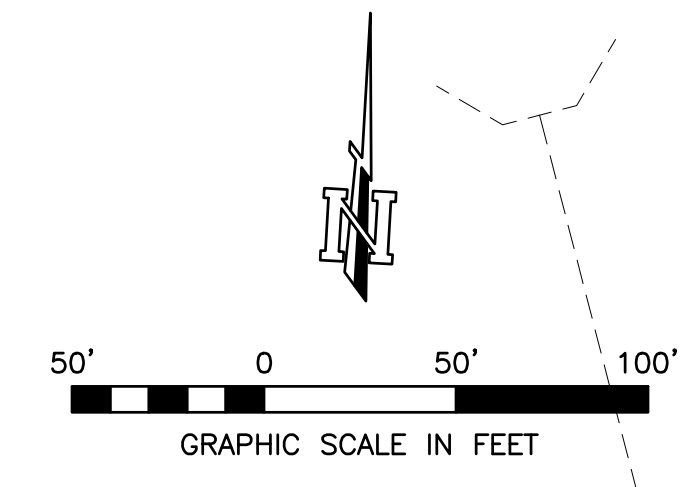
APRON



LEGEND	
	WORK LIMITS OF PHASE
	TAXIWAY SAFETY AREA
	RUNWAY SAFETY AREA
	CENTER-LINE OF PROPOSED ELECTRICAL DUCT BANK
	CENTER-LINE OF EXISTING ELECTRICAL DUCT BANK
	CENTER-LINE OF PROPOSED BORED CONDUIT
	EXISTING MITL AND TRANSFORMER TO BE REMOVED
	EXISTING ELECTRICAL DUCT BANK TO BE REMOVED
	EXISTING MITL/MIRL TO REMAIN
	PROPOSED HANDHOLE (L-868D)
	PROPOSED AIRCRAFT RATED HANDHOLE
	EXISTING HANDHOLE
	EXISTING SIGN TO REMAIN
	PROPOSED MITL, BASE CAN, TRANSFORMER, AND CONCRETE PAD

KEYED NOTES:
 ① UNDER PAVEMENT CONDUIT TO REMAIN. ACTUAL LOCATION OF CONDUIT SHALL BE FIELD VERIFIED.

MARK	REVISION	PROJECT	DATE	PROJECT TITLE: PROJECT DESCRIPTION LOCATION - CITY XX, TEXAS			
		WSSA MKS SERVICES PROJECTS (SIC) 000000.00		SHEET NO.			
		ELECTRICAL 00.07 CAD02 PROJECT 00 SHEETS 001 SHEET		SHEET NO.			
		SETS, GC, 100, E09 DWG / PARTIAL PHASE 6 ELECTRICAL		SHEET NO.			
		DRAWING (PARTIAL) 17/2016		SHEET NO.			
		DATE: 6/17/2016		SHEET NO.			
		TIME		SHEET NO.			
PARTIAL PHASE 6 ELECTRICAL DEMOLITION PLAN							
GREGG COUNTY, TEXAS EAST TEXAS REGIONAL AIRPORT TAXIWAY B, C, D, E, G, & K LIGHTING IMPROVEMENTS							
DRAWN BY:	DESIGNED BY:	LATEST REVISION:	PROJECT NO.:	SHEET NO.			
MB	CVN	6/17/2016	GC-100	SHEET NO.			
1111 Hawn Ave., Shreveport, Louisiana 71107 T. 318.221.7501 F. 318.221.7635 www.ksaeng.com							
SEAL: TBPE Firm Registration No. F-1356 SHEET NO.							
E09							



MARK	REVISION	DATE

**PHASE 7 TAXIWAY KIL0
ELECTRICAL PROPOSED
PLAN SHEET 1 OF 2**

**GREGG COUNTY, TEXAS
EAST TEXAS REGIONAL AIRPORT
TAXIWAY B, C, D, E, G, & K LIGHTING
IMPROVEMENTS**

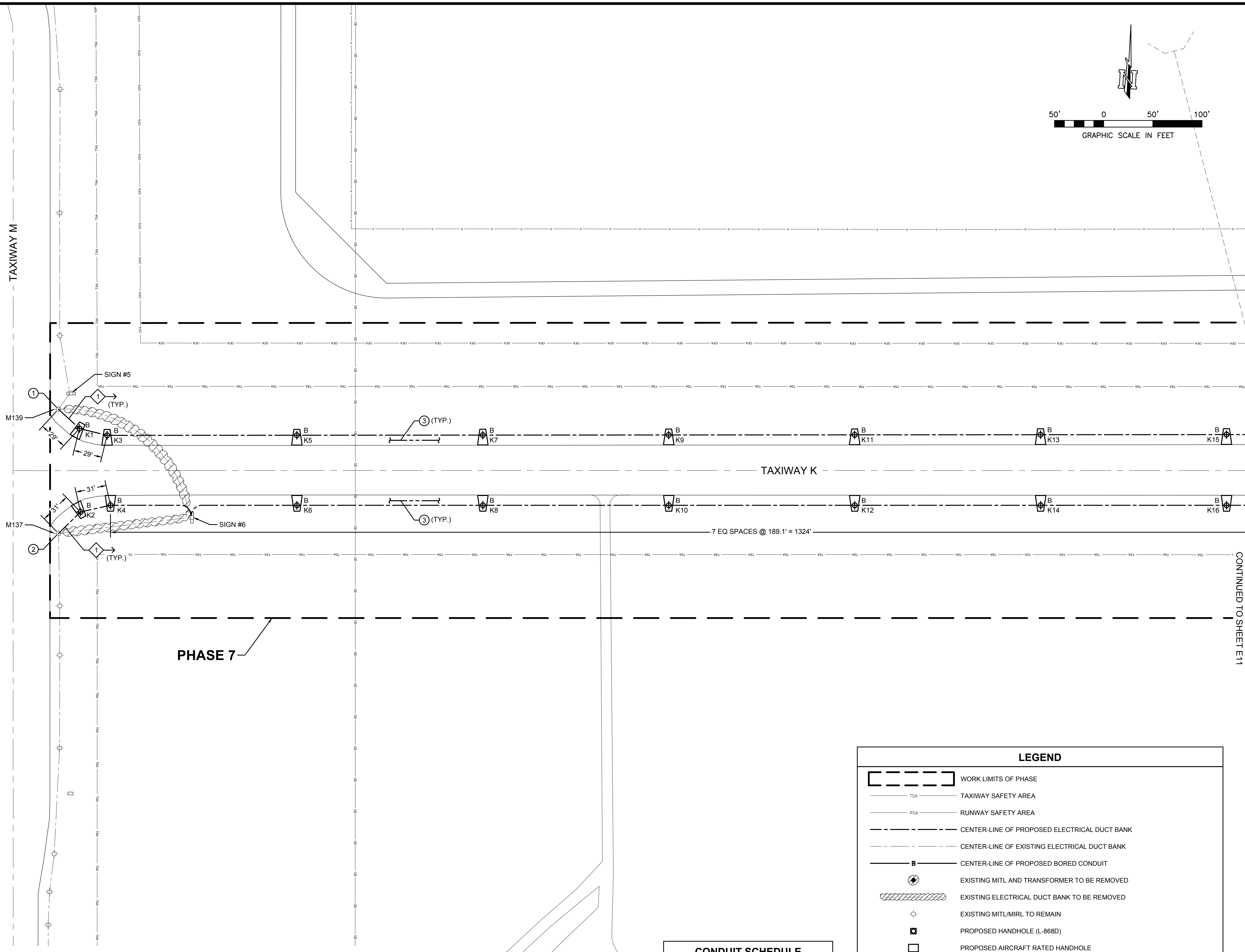
DRAWN BY:	MB
DESIGNED BY:	CVN
LATEST REVISION:	6/17/2016
KSA JOB NO.:	GC-100

KSA
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www.ksaeng.com

STATE OF TEXAS
CONG V. NGUYEN
99600
LICENSED PROFESSIONAL ENGINEER
6-17-16

SEAL:
TBPE Firm Registration No. F-1356
SHEET NO.

E10



- KEYED NOTES:**
- EXISTING MITL TO REMAIN. EXTEND CIRCUIT TO PROPOSED MITL (K1).
 - EXISTING MITL TO REMAIN. EXTEND CIRCUIT TO PROPOSED MITL (K2).
 - NOT SHOWN FOR CLARITY, CONTRACTOR SHALL INSTALL COUNTERPOISE MIDWAY BETWEEN PAVEMENT EDGE AND EDGE LIGHTS FOR ALL NEW UNDERGROUND CIRCUIT. EXOTHERMIC WELD NEW COUNTERPOISE WIRE TO EXISTING COUNTERPOISE WIRE OF EXISTING CIRCUIT. COUNTERPOISE INSTALLATION DETAILS ARE SHOWN ON E20.

CONDUIT SCHEDULE	
1	1#8 AWG (5KV), 2"C
2	2#8 AWG (5KV), 2"C

LEGEND

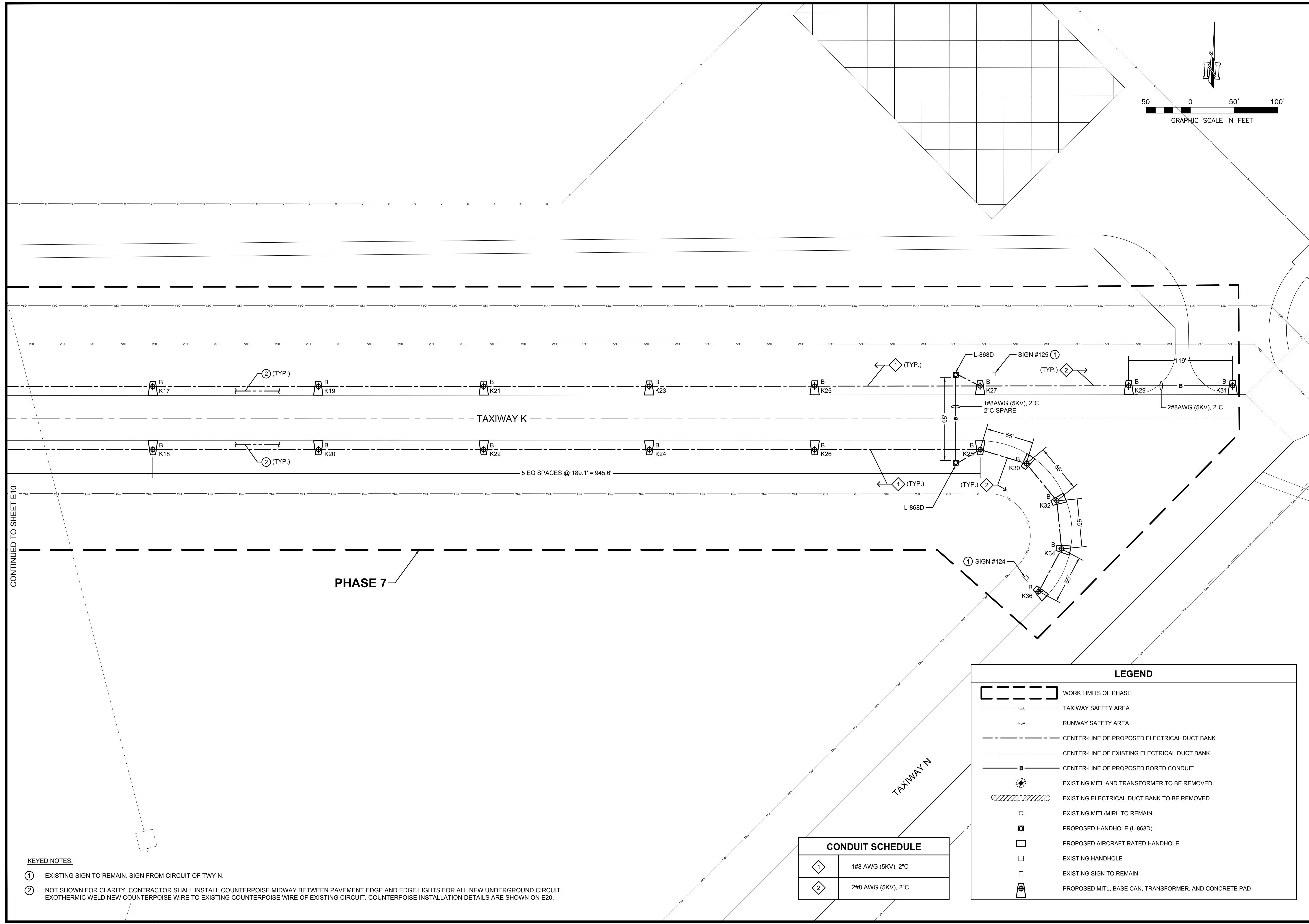
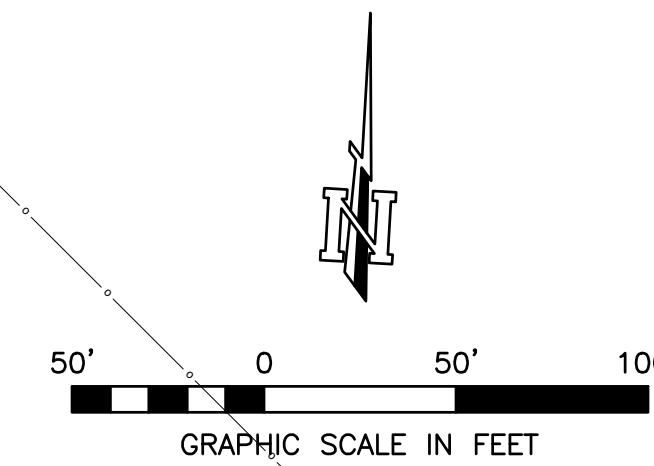
- WORK LIMITS OF PHASE
- TAXIWAY SAFETY AREA
- RUNWAY SAFETY AREA
- CENTER-LINE OF PROPOSED ELECTRICAL DUCT BANK
- CENTER-LINE OF EXISTING ELECTRICAL DUCT BANK
- CENTER-LINE OF PROPOSED BORED CONDUIT
- EXISTING MITL AND TRANSFORMER TO BE REMOVED
- EXISTING ELECTRICAL DUCT BANK TO BE REMOVED
- EXISTING MITL/MIRL TO REMAIN
- PROPOSED HANDHOLE (L-868D)
- PROPOSED AIRCRAFT RATED HANDHOLE
- EXISTING HANDHOLE
- EXISTING SIGN TO REMAIN
- PROPOSED MITL, BASE CAN, TRANSFORMER, AND CONCRETE PAD

CONTINUED TO SHEET E11

PROJECT TITLE: PROJECT DESCRIPTION LOCATION: CITY, STATE, TEXAS

SHEET NAME:

PROJECT NAME:



CONTINUED TO SHEET E10

PHASE 7

- KEYED NOTES:**
- ① EXISTING SIGN TO REMAIN. SIGN FROM CIRCUIT OF TWY N.
 - ② NOT SHOWN FOR CLARITY, CONTRACTOR SHALL INSTALL COUNTERPOISE MIDWAY BETWEEN PAVEMENT EDGE AND EDGE LIGHTS FOR ALL NEW UNDERGROUND CIRCUIT. EXOTHERMIC WELD NEW COUNTERPOISE WIRE TO EXISTING COUNTERPOISE WIRE OF EXISTING CIRCUIT. COUNTERPOISE INSTALLATION DETAILS ARE SHOWN ON E20.

CONDUIT SCHEDULE	
①	1#8 AWG (5KV), 2\"/>

LEGEND

- WORK LIMITS OF PHASE
- TAXIWAY SAFETY AREA
- RUNWAY SAFETY AREA
- CENTER-LINE OF PROPOSED ELECTRICAL DUCT BANK
- CENTER-LINE OF EXISTING ELECTRICAL DUCT BANK
- CENTER-LINE OF PROPOSED BORED CONDUIT
- EXISTING MITL AND TRANSFORMER TO BE REMOVED
- EXISTING ELECTRICAL DUCT BANK TO BE REMOVED
- EXISTING MITL/MIRL TO REMAIN
- PROPOSED HANDHOLE (L-868D)
- PROPOSED AIRCRAFT RATED HANDHOLE
- EXISTING HANDHOLE
- EXISTING SIGN TO REMAIN
- PROPOSED MITL, BASE CAN, TRANSFORMER, AND CONCRETE PAD

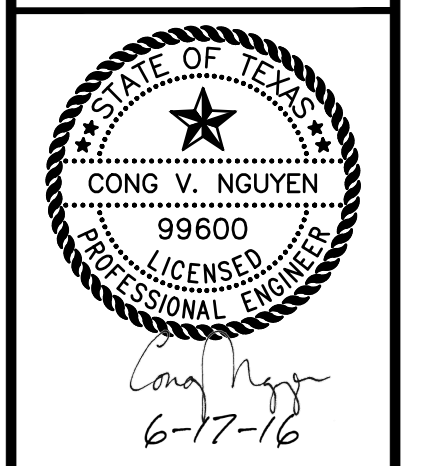
MARK	REVISION	DATE

**PHASE 7 TAXIWAY KILO
ELECTRICAL PROPOSED
PLAN SHEET 2 OF 2**

**GREGG COUNTY, TEXAS
EAST TEXAS REGIONAL AIRPORT
TAXIWAY B, C, D, E, G, & K LIGHTING
IMPROVEMENTS**

DRAWN BY:	MB
DESIGNED BY:	CVN
LATEST REVISION:	6/17/2016
KSA JOB NO.:	GC-100

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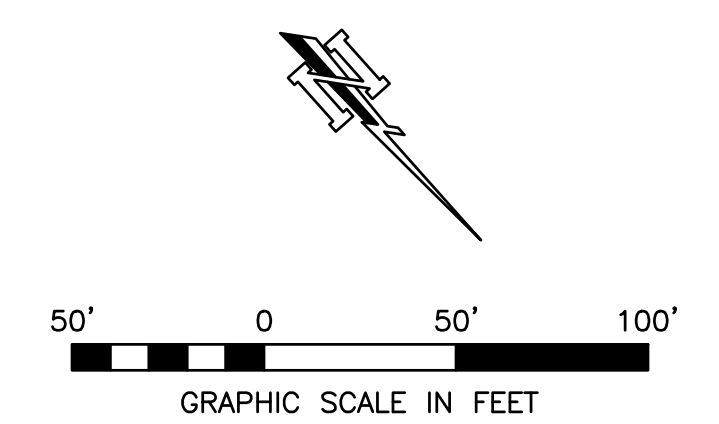
SEAL:
TBPE Firm Registration No. F-1356
SHEET NO.

E11

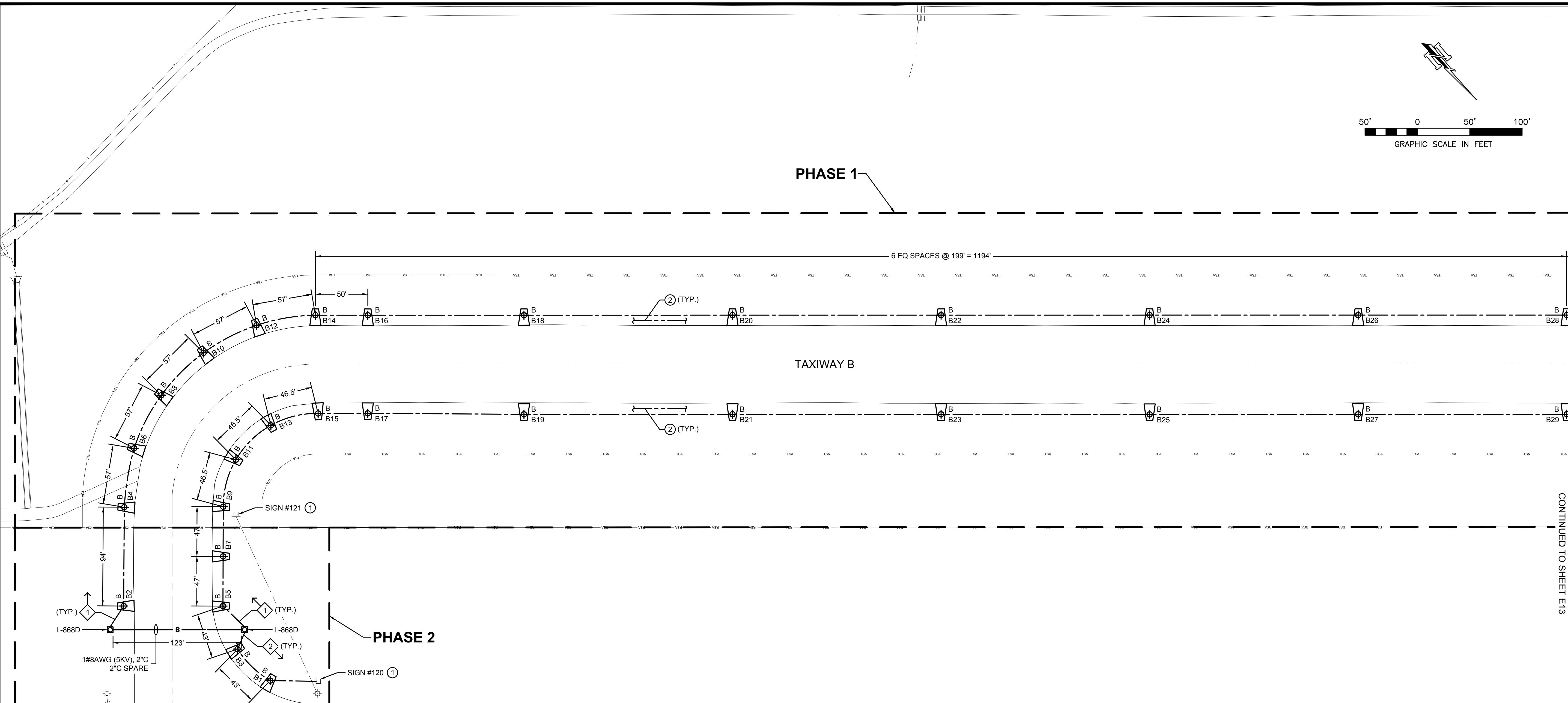
PROJECT TITLE: PROJECT DESCRIPTION LOCATION: CITY, STATE, TEXAS

PROJECT NAME:

PROJECT NAME:



PHASE 1

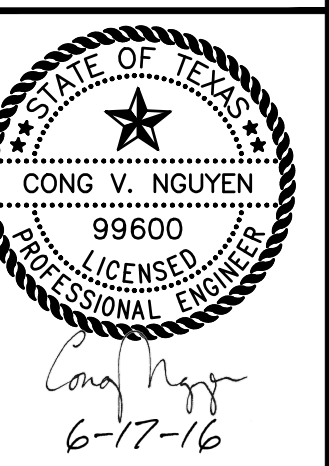


CONTINUED TO SHEET E13

**GREGG COUNTY, TEXAS
EAST TEXAS REGIONAL AIRPORT
TAXIWAY B, C, D, E, G, & K LIGHTING
IMPROVEMENTS**

DRAWN BY:	MB
DESIGNED BY:	CVN
LATEST REVISION:	6/17/2016
KSA JOB NO.:	GC-100

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SEAL:
TBPE Firm Registration No. F-1356
SHEET NO.

E12

- KEYED NOTES:**
- ① CONTRACTOR SHALL FIELD VERIFY SIGN CIRCUIT. IF SIGN IS FED FROM RUNWAY CIRCUIT, NO WORK IS REQUIRED FOR SIGNAGE.
 - ② NOT SHOWN FOR CLARITY, CONTRACTOR SHALL INSTALL COUNTERPOISE MIDWAY BETWEEN PAVEMENT EDGE AND EDGE LIGHTS FOR ALL NEW UNDERGROUND CIRCUIT. EXOTHERMIC WELD NEW COUNTERPOISE WIRE TO EXISTING COUNTERPOISE WIRE OF EXISTING CIRCUIT. COUNTERPOISE INSTALLATION DETAILS ARE SHOWN ON E20.

CONDUIT SCHEDULE	
①	1#8 AWG (5KV), 2°C
②	2#8 AWG (5KV), 2°C

LEGEND	
	WORK LIMITS OF PHASE
	TSA
	TAXIWAY SAFETY AREA
	RSA
	RUNWAY SAFETY AREA
	CENTER-LINE OF PROPOSED ELECTRICAL DUCT BANK
	CENTER-LINE OF EXISTING ELECTRICAL DUCT BANK
	CENTER-LINE OF PROPOSED BORED CONDUIT
	EXISTING MITL AND TRANSFORMER TO BE REMOVED
	EXISTING ELECTRICAL DUCT BANK TO BE REMOVED
	EXISTING MITL/MIRL TO REMAIN
	PROPOSED HANDHOLE (L-868D)
	PROPOSED AIRCRAFT RATED HANDHOLE
	EXISTING HANDHOLE
	EXISTING SIGN TO REMAIN
	PROPOSED MITL, BASE CAN, TRANSFORMER, AND CONCRETE PAD

PROJECT TITLE: PROJECT DESCRIPTION LOCATION: CITY, STATE, TEXAS

SHEET NAME:

PROJECT NAME:

DATE

REVISION

MARK

PROJECT NO.

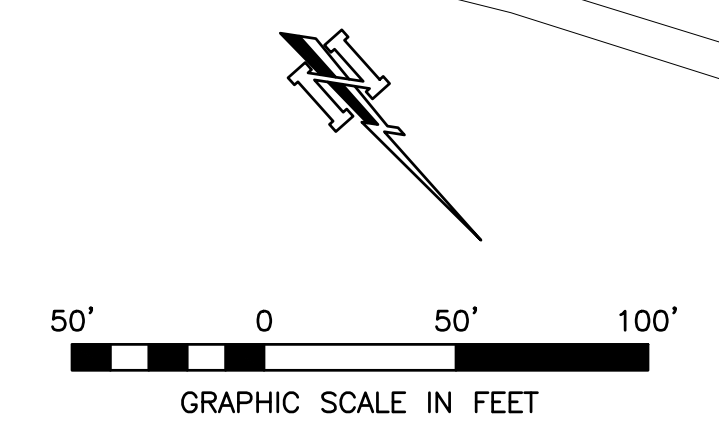
DATE

REVISION

MARK

PROJECT NO.

DATE



PHASE 1

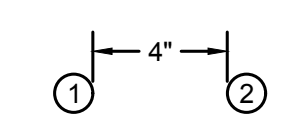
TAXIWAY B

PHASE 2

RUNWAY 13-31

DUCT BANK SECTION

SECTION A-A



1. 1-#8AWG (5KV) TWY E AND END OF B - 4°C
2. 1-#8AWG (5KV) TWY B, C, & D - 4°C

CONDUIT SCHEDULE	
1	1#8 AWG (5KV), 2°C
2	2#8 AWG (5KV), 2°C

KEYED NOTES:

- ① CONTRACTOR SHALL FIELD VERIFY SIGN CIRCUIT. IF SIGN IS FED FROM RUNWAY CIRCUIT, NO WORK IS REQUIRED FOR SIGNAGE.
- ② NOT SHOWN FOR CLARITY, CONTRACTOR SHALL INSTALL COUNTERPOISE MIDWAY BETWEEN PAVEMENT EDGE AND EDGE LIGHTS FOR ALL NEW UNDERGROUND CIRCUIT. EXOTHERMIC WELD NEW COUNTERPOISE WIRE TO EXISTING COUNTERPOISE WIRE OF EXISTING CIRCUIT. COUNTERPOISE INSTALLATION DETAILS ARE SHOWN ON E20.
- ③ AIRCRAFT RATED HANDHOLE.

LEGEND	
	WORK LIMITS OF PHASE
	TAXIWAY SAFETY AREA
	RUNWAY SAFETY AREA
	CENTER-LINE OF PROPOSED ELECTRICAL DUCT BANK
	CENTER-LINE OF EXISTING ELECTRICAL DUCT BANK
	CENTER-LINE OF PROPOSED BORED CONDUIT
	EXISTING MITL AND TRANSFORMER TO BE REMOVED
	EXISTING ELECTRICAL DUCT BANK TO BE REMOVED
	EXISTING MITL/MIRL TO REMAIN
	PROPOSED HANDHOLE (L-868D)
	PROPOSED AIRCRAFT RATED HANDHOLE
	EXISTING HANDHOLE
	EXISTING SIGN TO REMAIN
	PROPOSED MITL, BASE CAN, TRANSFORMER, AND CONCRETE PAD

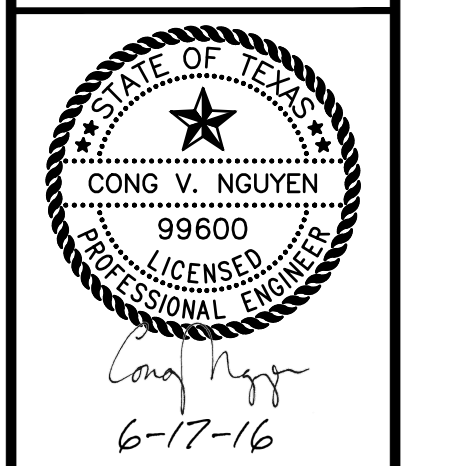
MARK	REVISION	DATE

**PARTIAL PHASE 1 & 2
ELECTRICAL PROPOSED PLAN**

**GREGG COUNTY, TEXAS
EAST TEXAS REGIONAL AIRPORT
TAXIWAY B, C, D, E, G, & K LIGHTING
IMPROVEMENTS**

DRAWN BY:	MB
DESIGNED BY:	CVN
LATEST REVISION:	6/17/2016
KSA JOB NO.:	GC-100

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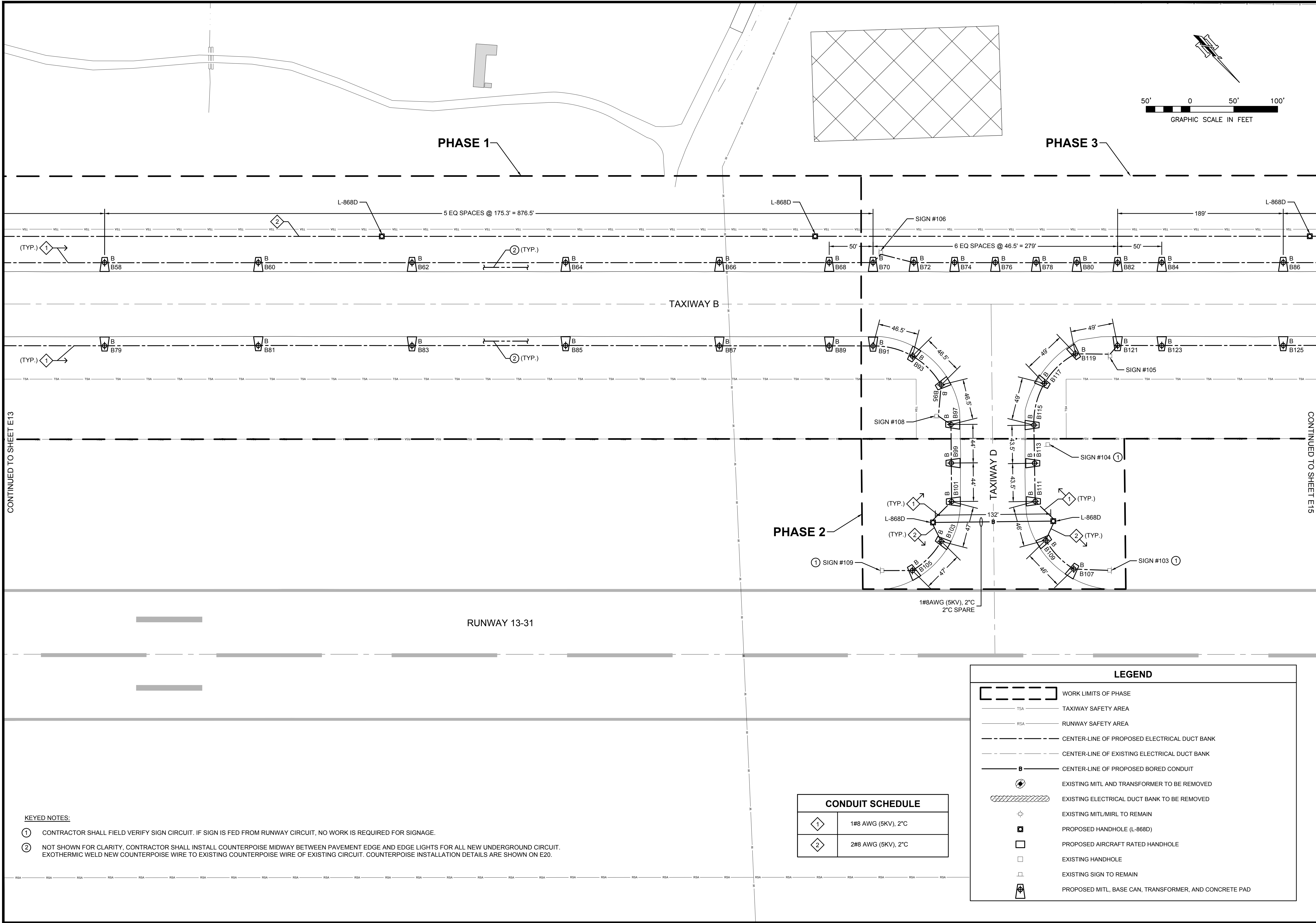
SEAL:
TBPE Firm Registration No. F-1356
SHEET NO.

E13

PROJECT TITLE: PROJECT DESCRIPTION LOCATION - CITY XX, TEXAS

SHEET NAME:

PROJECT NAME:



CONTINUED TO SHEET E13

CONTINUED TO SHEET E15

- KEYED NOTES:**
- ① CONTRACTOR SHALL FIELD VERIFY SIGN CIRCUIT. IF SIGN IS FED FROM RUNWAY CIRCUIT, NO WORK IS REQUIRED FOR SIGNAGE.
 - ② NOT SHOWN FOR CLARITY, CONTRACTOR SHALL INSTALL COUNTERPOISE MIDWAY BETWEEN PAVEMENT EDGE AND EDGE LIGHTS FOR ALL NEW UNDERGROUND CIRCUIT. EXOTHERMIC WELD NEW COUNTERPOISE WIRE TO EXISTING COUNTERPOISE WIRE OF EXISTING CIRCUIT. COUNTERPOISE INSTALLATION DETAILS ARE SHOWN ON E20.

CONDUIT SCHEDULE	
①	1#8 AWG (5KV), 2°C
②	2#8 AWG (5KV), 2°C

LEGEND	
	WORK LIMITS OF PHASE
	TSA TAXIWAY SAFETY AREA
	RSA RUNWAY SAFETY AREA
	CENTER-LINE OF PROPOSED ELECTRICAL DUCT BANK
	CENTER-LINE OF EXISTING ELECTRICAL DUCT BANK
	CENTER-LINE OF PROPOSED BORED CONDUIT
	EXISTING MITL AND TRANSFORMER TO BE REMOVED
	EXISTING ELECTRICAL DUCT BANK TO BE REMOVED
	EXISTING MITL/MIRL TO REMAIN
	PROPOSED HANDHOLE (L-868D)
	PROPOSED AIRCRAFT RATED HANDHOLE
	EXISTING HANDHOLE
	EXISTING SIGN TO REMAIN
	PROPOSED MITL, BASE CAN, TRANSFORMER, AND CONCRETE PAD

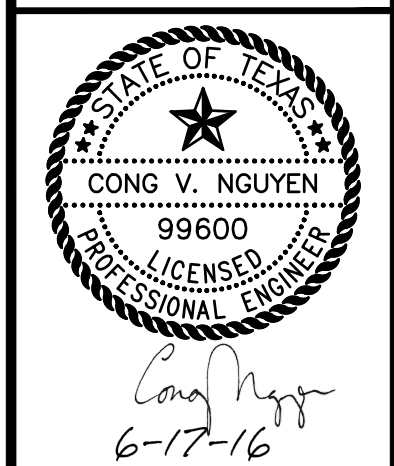
MARK	REVISION	DATE

PARTIAL PHASE 1, 2, & 3
ELECTRICAL PROPOSED PLAN

GREGG COUNTY, TEXAS
EAST TEXAS REGIONAL AIRPORT
TAXIWAY B, C, D, E, G, & K LIGHTING
IMPROVEMENTS

DRAWN BY:	MB
DESIGNED BY:	CVN
LATEST REVISION:	6/17/2016
KSA JOB NO.:	GC-100

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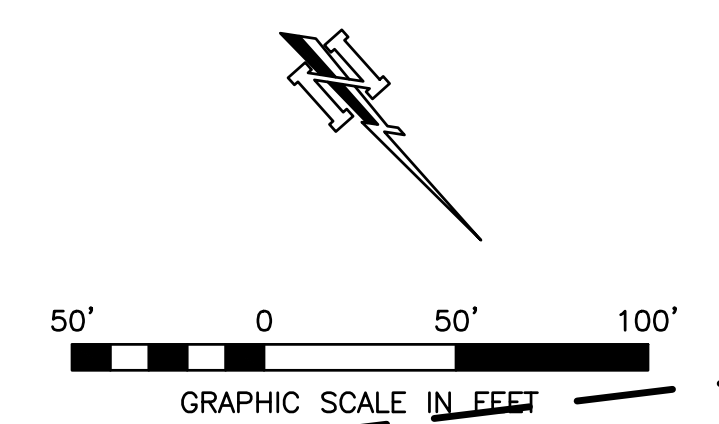
SEAL:
 TBPE Firm Registration No. F-1356
 SHEET NO.

E14

PROJECT TITLE: PROJECT DESCRIPTION LOCATION: CITY, STATE, TEXAS

SHEET NAME:

PROJECT NAME:



PHASE 3

8 EQ SPACES @ 188.9' = 1511.3'

TAXIWAY B

RUNWAY 13-31

CONTINUED TO SHEET E14

CONTINUED TO SHEET E16

KEYED NOTES:
 ① NOT SHOWN FOR CLARITY, CONTRACTOR SHALL INSTALL COUNTERPOISE MIDWAY BETWEEN PAVEMENT EDGE AND EDGE LIGHTS FOR ALL NEW UNDERGROUND CIRCUIT. EXOTHERMIC WELD NEW COUNTERPOISE WIRE TO EXISTING COUNTERPOISE WIRE OF EXISTING CIRCUIT. COUNTERPOISE INSTALLATION DETAILS ARE SHOWN ON E20.

CONDUIT SCHEDULE	
①	1#8 AWG (5KV), 2" C
②	2#8 AWG (5KV), 2" C

LEGEND	
	WORK LIMITS OF PHASE
	TAXIWAY SAFETY AREA
	RUNWAY SAFETY AREA
	CENTER-LINE OF PROPOSED ELECTRICAL DUCT BANK
	CENTER-LINE OF EXISTING ELECTRICAL DUCT BANK
	CENTER-LINE OF PROPOSED BORED CONDUIT
	EXISTING MITL AND TRANSFORMER TO BE REMOVED
	EXISTING ELECTRICAL DUCT BANK TO BE REMOVED
	EXISTING MITL/MIRL TO REMAIN
	PROPOSED HANDHOLE (L-868D)
	PROPOSED AIRCRAFT RATED HANDHOLE
	EXISTING HANDHOLE
	EXISTING SIGN TO REMAIN
	PROPOSED MITL, BASE CAN, TRANSFORMER, AND CONCRETE PAD

MARK	REVISION	DATE

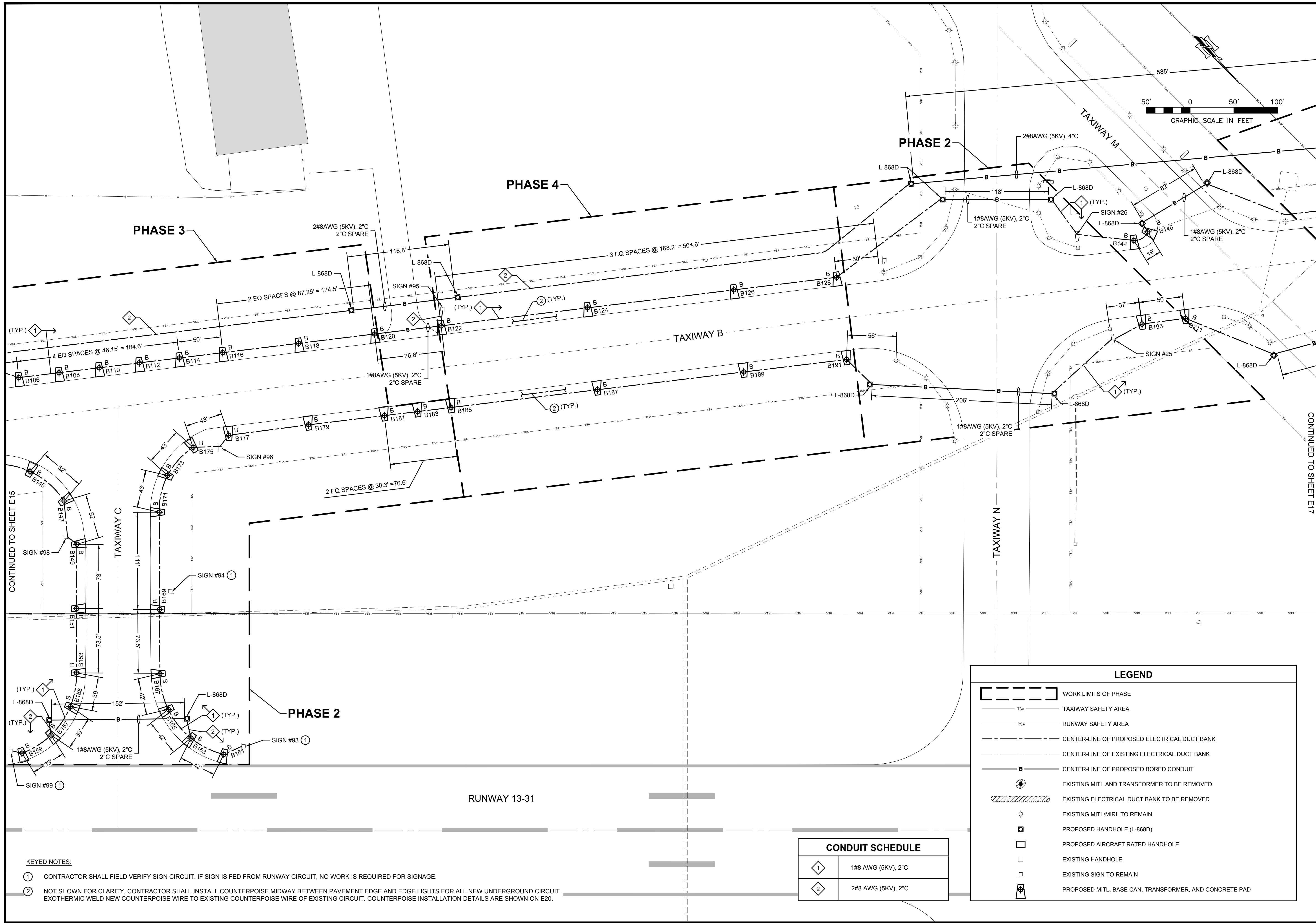
PARTIAL PHASE 3 ELECTRICAL PROPOSED PLAN
GREGG COUNTY, TEXAS
EAST TEXAS REGIONAL AIRPORT
TAXIWAY B, C, D, E, G, & K LIGHTING IMPROVEMENTS
 PROJECT TITLE: PROJECT DESCRIPTION LOCATION: CITY, STATE, TEXAS
 SHEET NAME:

DRAWN BY:	MB
DESIGNED BY:	CVN
LATEST REVISION:	6/17/2016
KSA JOB NO.:	GC-100

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SEAL:
 TBPE Firm Registration No. F-1356
 SHEET NO.

E15



MARK	REVISION	DATE

**PARTIAL PHASE 2, 3, & 4
ELECTRICAL PROPOSED PLAN**

**GREGG COUNTY, TEXAS
EAST TEXAS REGIONAL AIRPORT
TAXIWAY B, C, D, E, G, & K LIGHTING
IMPROVEMENTS**

CONTINUED TO SHEET E17

PROJECT TITLE: PROJECT DESCRIPTION LOCATION: CITY XX, TEXAS
PROJECT NAME:
DRAWN BY: MIB
DESIGNED BY: C/VN
LATEST REVISION: 6/17/2016
KSA JOB NO.:
GC-100

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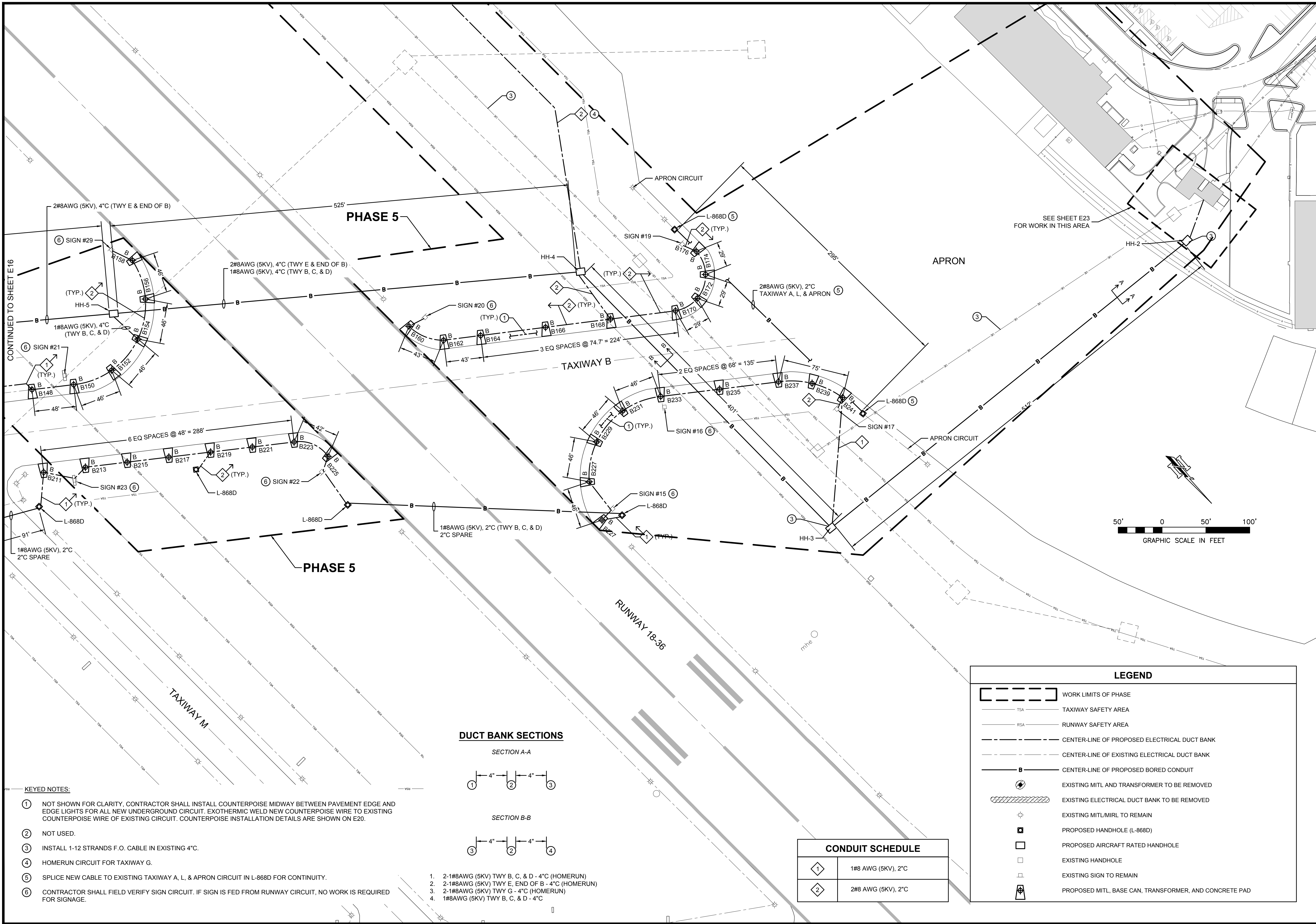
STATE OF TEXAS
CONG V. NGUYEN
99600
LICENSED PROFESSIONAL ENGINEER
6-17-16

SEAL: TBPE Firm Registration No. F-1356
SHEET NO. **E16**

- KEYED NOTES:**
- ① CONTRACTOR SHALL FIELD VERIFY SIGN CIRCUIT. IF SIGN IS FED FROM RUNWAY CIRCUIT, NO WORK IS REQUIRED FOR SIGNAGE.
 - ② NOT SHOWN FOR CLARITY, CONTRACTOR SHALL INSTALL COUNTERPOISE MIDWAY BETWEEN PAVEMENT EDGE AND EDGE LIGHTS FOR ALL NEW UNDERGROUND CIRCUIT. EXOTHERMIC WELD NEW COUNTERPOISE WIRE TO EXISTING COUNTERPOISE WIRE OF EXISTING CIRCUIT. COUNTERPOISE INSTALLATION DETAILS ARE SHOWN ON E20.

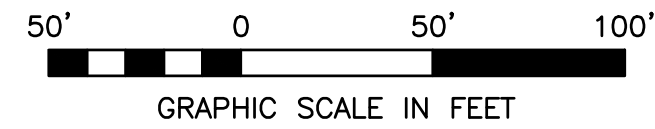
CONDUIT SCHEDULE	
①	1#8 AWG (5KV), 2°C
②	2#8 AWG (5KV), 2°C

LEGEND	
	WORK LIMITS OF PHASE
	TSA TAXIWAY SAFETY AREA
	RSA RUNWAY SAFETY AREA
	CENTER-LINE OF PROPOSED ELECTRICAL DUCT BANK
	CENTER-LINE OF EXISTING ELECTRICAL DUCT BANK
	CENTER-LINE OF PROPOSED BORED CONDUIT
	EXISTING MITL AND TRANSFORMER TO BE REMOVED
	EXISTING ELECTRICAL DUCT BANK TO BE REMOVED
	EXISTING MITL/MIRL TO REMAIN
	PROPOSED HANDHOLE (L-868D)
	PROPOSED AIRCRAFT RATED HANDHOLE
	EXISTING HANDHOLE
	EXISTING SIGN TO REMAIN
	PROPOSED MITL, BASE CAN, TRANSFORMER, AND CONCRETE PAD

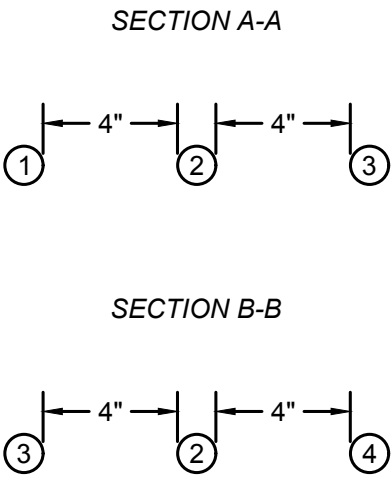


CONTINUED TO SHEET E16

SEE SHEET E23 FOR WORK IN THIS AREA



DUCT BANK SECTIONS



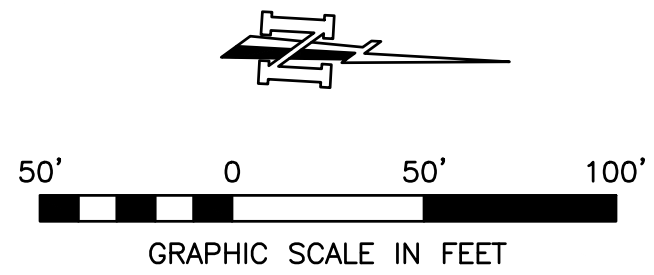
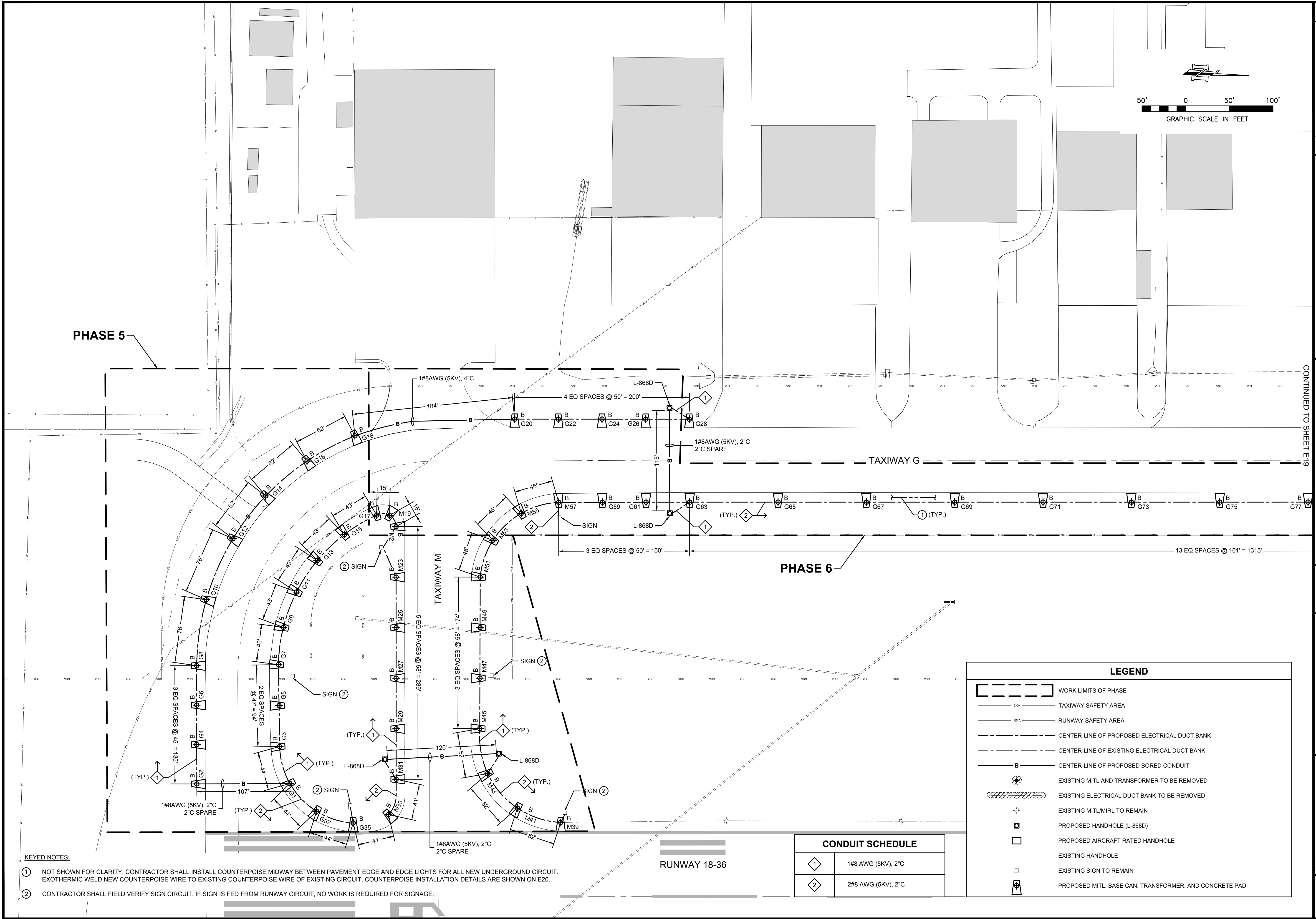
- KEYED NOTES:**
- NOT SHOWN FOR CLARITY, CONTRACTOR SHALL INSTALL COUNTERPOISE MIDWAY BETWEEN PAVEMENT EDGE AND EDGE LIGHTS FOR ALL NEW UNDERGROUND CIRCUIT. EXOTHERMIC WELD NEW COUNTERPOISE WIRE TO EXISTING COUNTERPOISE WIRE OF EXISTING CIRCUIT. COUNTERPOISE INSTALLATION DETAILS ARE SHOWN ON E20.
 - NOT USED.
 - INSTALL 1-12 STRANDS F.O. CABLE IN EXISTING 4".
 - HOMERUN CIRCUIT FOR TAXIWAY G.
 - SPLICE NEW CABLE TO EXISTING TAXIWAY A, L, & APRON CIRCUIT IN L-868D FOR CONTINUITY.
 - CONTRACTOR SHALL FIELD VERIFY SIGN CIRCUIT. IF SIGN IS FED FROM RUNWAY CIRCUIT, NO WORK IS REQUIRED FOR SIGNAGE.

- 2-1#8AWG (5KV) TWY B, C, & D - 4" (HOMERUN)
- 2-1#8AWG (5KV) TWY E, END OF B - 4" (HOMERUN)
- 2-1#8AWG (5KV) TWY G - 4" (HOMERUN)
- 1#8AWG (5KV) TWY B, C, & D - 4"

CONDUIT SCHEDULE	
1	1#8 AWG (5KV), 2"C
2	2#8 AWG (5KV), 2"C

LEGEND	
	WORK LIMITS OF PHASE
	TSA TAXIWAY SAFETY AREA
	RSA RUNWAY SAFETY AREA
	CENTER-LINE OF PROPOSED ELECTRICAL DUCT BANK
	CENTER-LINE OF EXISTING ELECTRICAL DUCT BANK
	CENTER-LINE OF PROPOSED BORED CONDUIT
	EXISTING MITL AND TRANSFORMER TO BE REMOVED
	EXISTING ELECTRICAL DUCT BANK TO BE REMOVED
	EXISTING MITL/MIRL TO REMAIN
	PROPOSED HANDHOLE (L-868D)
	PROPOSED AIRCRAFT RATED HANDHOLE
	EXISTING HANDHOLE
	EXISTING SIGN TO REMAIN
	PROPOSED MITL, BASE CAN, TRANSFORMER, AND CONCRETE PAD

REVISION	MARK	DATE			
KSA MARK SHEET PROJECT SHEETS (FORM 1.0) ELECTRICAL 0.07 CAD/02 PROJECT/00 SHEETS/00 SHEET SETS, GC, 100, E17, DWG, PARTIAL PHASE 5 ELECTRICAL DRAWN BY: MIB / DESIGNED BY: CVN / LATEST REVISION: 6/17/2016 / KSA JOB NO.: GC-100 / PROJECT NAME:					
PARTIAL PHASE 5 ELECTRICAL PROPOSED PLAN					
GREGG COUNTY, TEXAS EAST TEXAS REGIONAL AIRPORT TAXIWAY B, C, D, E, G, & K LIGHTING IMPROVEMENTS					
DRAWN BY:	DESIGNED BY:	LATEST REVISION:	KSA JOB NO.:	PROJECT NAME:	SHEET NAME:
MIB	CVN	6/17/2016	GC-100	GREGG COUNTY, TEXAS	E17
 1111 Hawn Ave., Shreveport, Louisiana 71107 T. 318.221.7501 F. 318.221.7635 www.ksaeng.com					
SEAL: TPBE Firm Registration No. F-1356 SHEET NO. E17					



PHASE 5

PHASE 6

CONTINUED TO SHEET E19

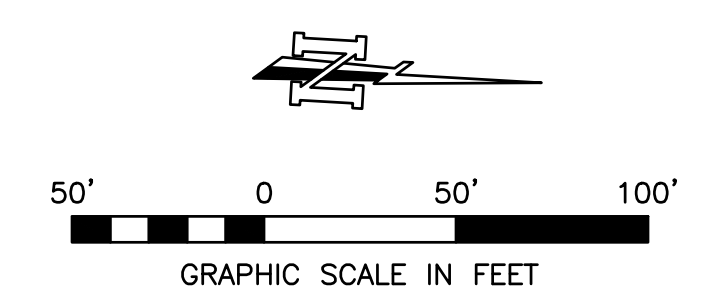
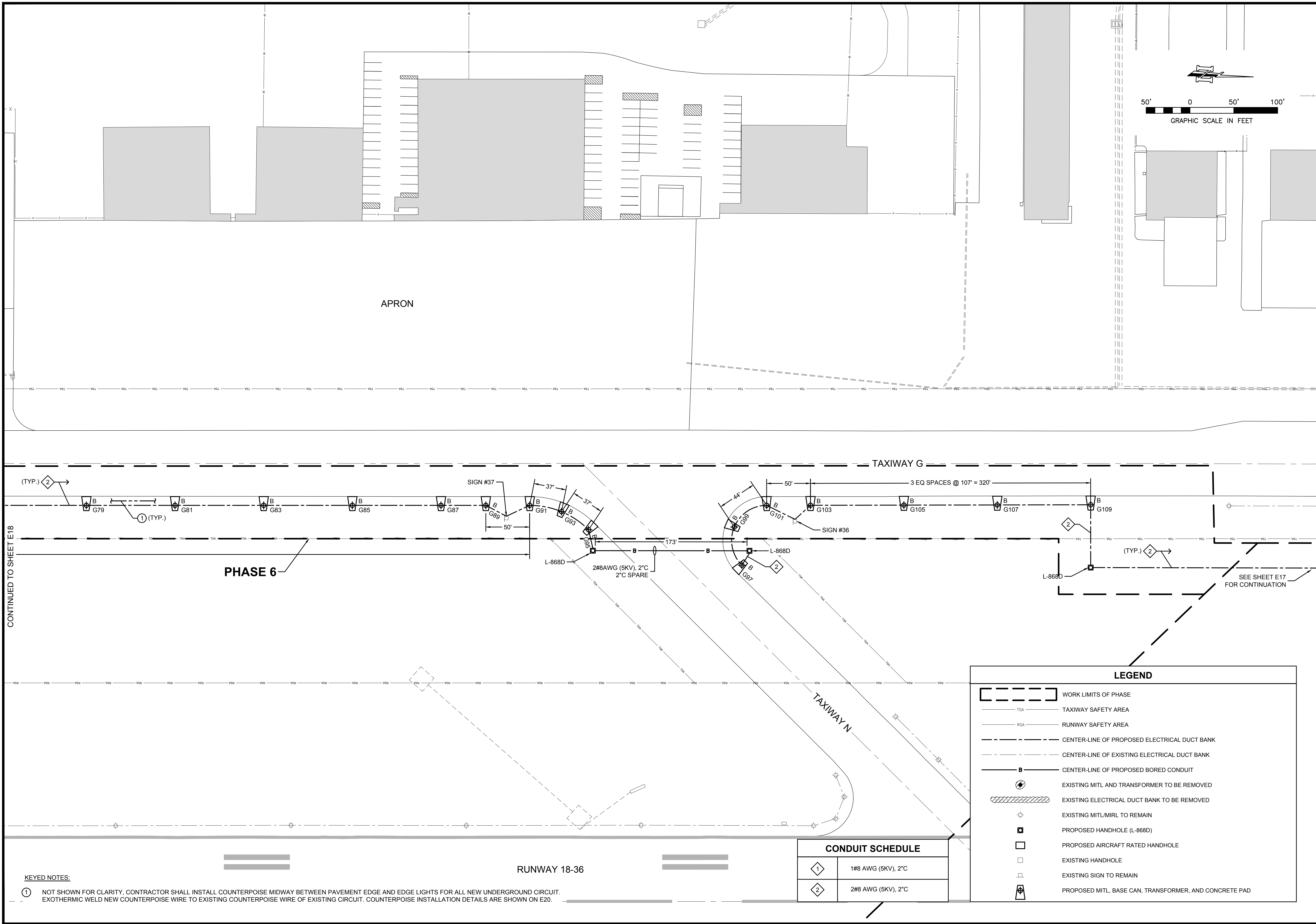
- KEYED NOTES:**
- ① NOT SHOWN FOR CLARITY, CONTRACTOR SHALL INSTALL COUNTERPOISE MIDWAY BETWEEN PAVEMENT EDGE AND EDGE LIGHTS FOR ALL NEW UNDERGROUND CIRCUIT. EXOTHERMIC WELD NEW COUNTERPOISE WIRE TO EXISTING COUNTERPOISE WIRE OF EXISTING CIRCUIT. COUNTERPOISE INSTALLATION DETAILS ARE SHOWN ON E20.
 - ② CONTRACTOR SHALL FIELD VERIFY SIGN CIRCUIT. IF SIGN IS FED FROM RUNWAY CIRCUIT, NO WORK IS REQUIRED FOR SIGNAGE.

CONDUIT SCHEDULE	
①	1#8 AWG (5KV), 2°C
②	2#8 AWG (5KV), 2°C

LEGEND

- WORK LIMITS OF PHASE
- TSA TAXIWAY SAFETY AREA
- RSA RUNWAY SAFETY AREA
- CENTER-LINE OF PROPOSED ELECTRICAL DUCT BANK
- CENTER-LINE OF EXISTING ELECTRICAL DUCT BANK
- CENTER-LINE OF PROPOSED BORED CONDUIT
- EXISTING MITL AND TRANSFORMER TO BE REMOVED
- EXISTING ELECTRICAL DUCT BANK TO BE REMOVED
- EXISTING MITL/MIRL TO REMAIN
- PROPOSED HANDHOLE (L-868D)
- PROPOSED AIRCRAFT RATED HANDHOLE
- EXISTING HANDHOLE
- EXISTING SIGN TO REMAIN
- PROPOSED MITL, BASE CAN, TRANSFORMER, AND CONCRETE PAD

MARK	REVISION	DATE	PROJECT TITLE: PROJECT DESCRIPTION LOCATION - CITY, STATE						
			GREGG COUNTY, TEXAS EAST TEXAS REGIONAL AIRPORT TAXIWAY B, C, D, E, G, & K LIGHTING IMPROVEMENTS						
DRAWN BY: MB			DESIGNED BY: CVN			LATEST REVISION: 6/17/2016			PROJECT NAME: GC-100
KSA			1111 Hawn Ave., Shreveport, Louisiana 71107 T. 318.221.7501 F. 318.221.7635 www.ksa.com			SEAL: STATE OF TEXAS CONG V. NGUYEN 99600 LICENSED PROFESSIONAL ENGINEER 6-17-16			SHEET NO. E18



MARK	REVISION	DATE

PARTIAL PHASE 6 ELECTRICAL PROPOSED PLAN

**GREGG COUNTY, TEXAS
EAST TEXAS REGIONAL AIRPORT
TAXIWAY B, C, D, E, G, & K LIGHTING IMPROVEMENTS**

DRAWN BY:	MB
DESIGNED BY:	CVN
LATEST REVISION:	6/17/2016
KSA JOB NO.:	GC-100

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STATE OF TEXAS
CONG V. NGUYEN
99600
LICENSED PROFESSIONAL ENGINEER

SEAL: TBPE Firm Registration No. F-1356
SHEET NO. **E19**

PHASE 6

TAXIWAY G

TAXIWAY N

RUNWAY 18-36



CONDUIT SCHEDULE	
1	1#8 AWG (5KV), 2°C
2	2#8 AWG (5KV), 2°C

LEGEND	
	WORK LIMITS OF PHASE
	TSA TAXIWAY SAFETY AREA
	RSA RUNWAY SAFETY AREA
	CENTER-LINE OF PROPOSED ELECTRICAL DUCT BANK
	CENTER-LINE OF EXISTING ELECTRICAL DUCT BANK
	CENTER-LINE OF PROPOSED BORED CONDUIT
	EXISTING MITL AND TRANSFORMER TO BE REMOVED
	EXISTING ELECTRICAL DUCT BANK TO BE REMOVED
	EXISTING MITL/MIRL TO REMAIN
	PROPOSED HANDHOLE (L-868D)
	PROPOSED AIRCRAFT RATED HANDHOLE
	EXISTING HANDHOLE
	EXISTING SIGN TO REMAIN
	PROPOSED MITL, BASE CAN, TRANSFORMER, AND CONCRETE PAD

KEYED NOTES:

1 NOT SHOWN FOR CLARITY, CONTRACTOR SHALL INSTALL COUNTERPOISE MIDWAY BETWEEN PAVEMENT EDGE AND EDGE LIGHTS FOR ALL NEW UNDERGROUND CIRCUIT. EXOTHERMIC WELD NEW COUNTERPOISE WIRE TO EXISTING COUNTERPOISE WIRE OF EXISTING CIRCUIT. COUNTERPOISE INSTALLATION DETAILS ARE SHOWN ON E20.

CONTINUED TO SHEET E18

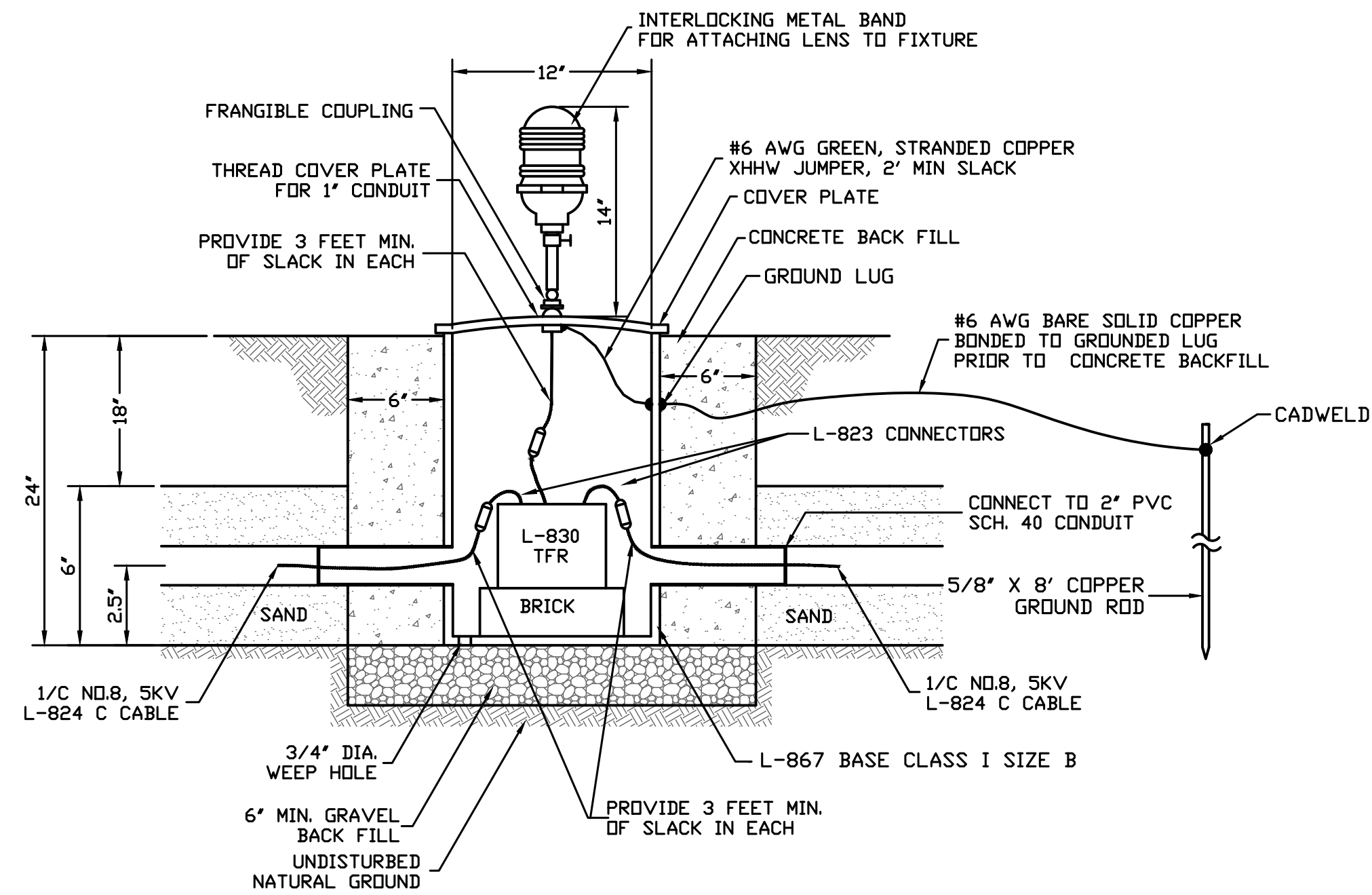
SEE SHEET E17 FOR CONTINUATION

PROJECT TITLE: PROJECT DESCRIPTION LOCATION: CITY, STATE, TEXAS

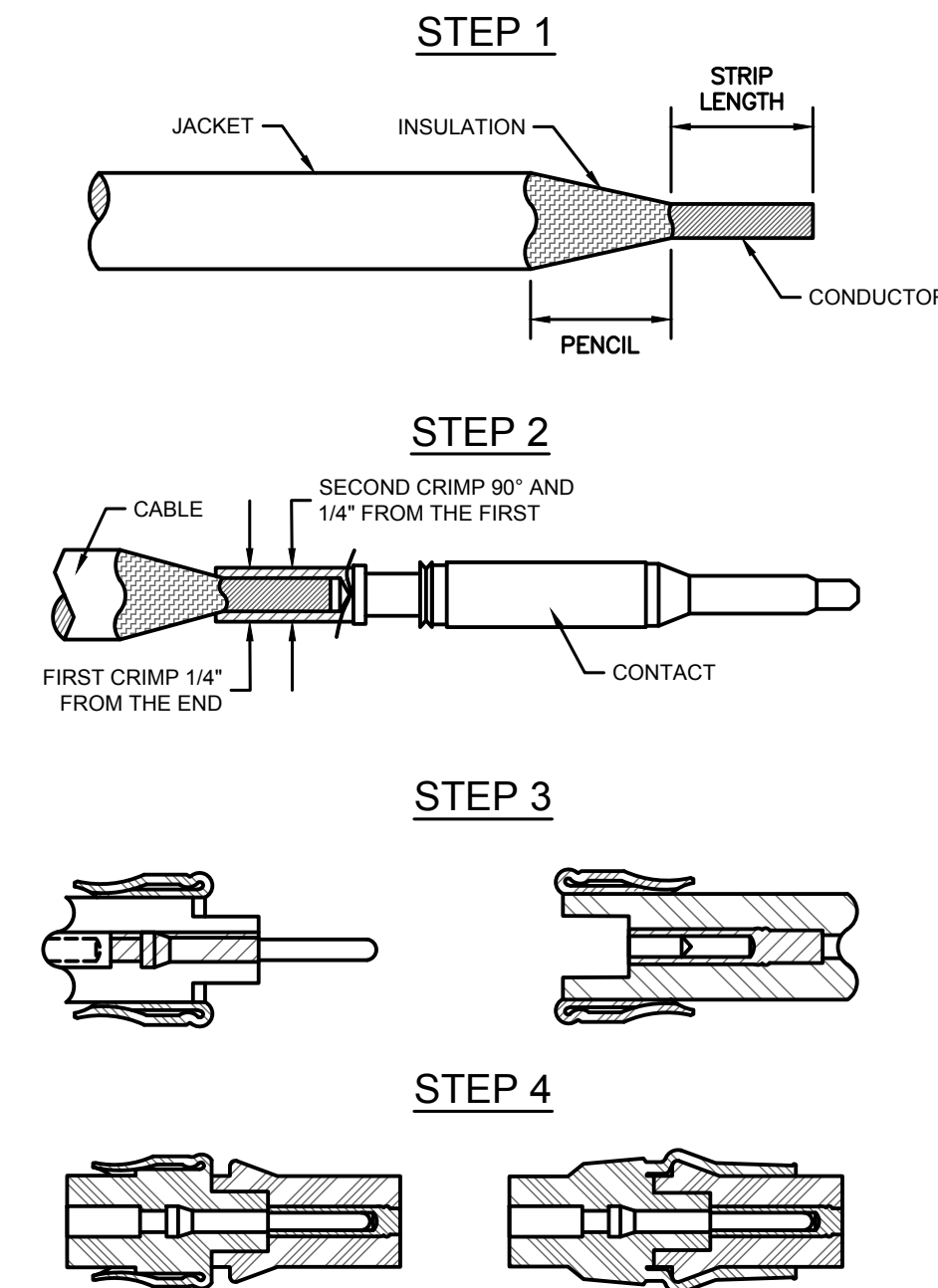
SHEET NAME:

PROJECT NAME:

BASE MOUNTED MITL
N.T.S.

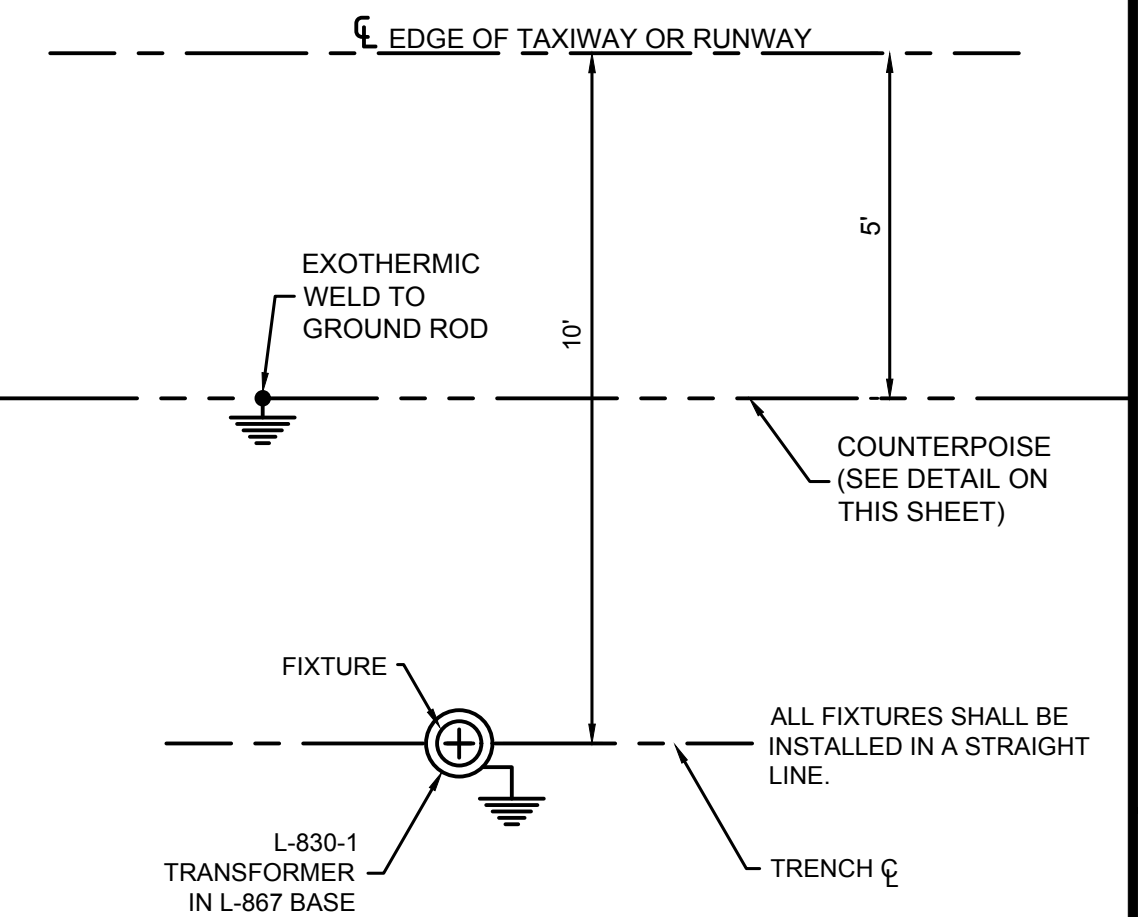


FAA L823 CLASS B TYPE 1 STYLE 3 AND STYLE 10 CONNECTIONS
N.T.S.

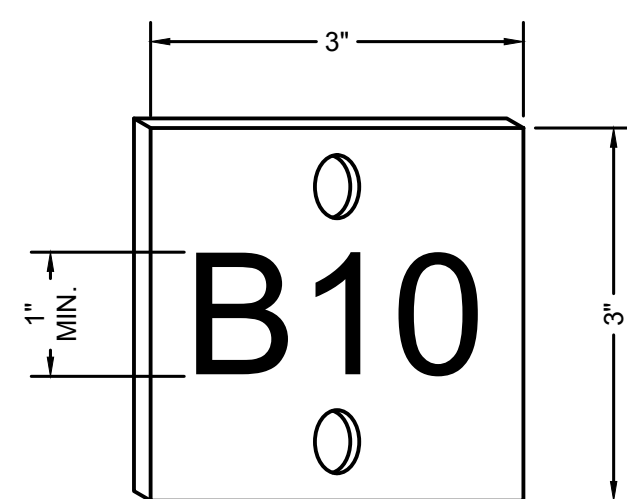


- NOTES:**
1. QUALIFIED PERSONNEL SHALL TERMINATE/ SPLICE PRIMARY CABLE IN FULL ACCORDANCE WITH APPROVED KIT INSTRUCTIONS.
 2. THE USE OF TAPE OR HEAT SHRINK TUBING IS PROHIBITED.
 3. INSTALLER SHALL SIGN AND DATE EACH SPLICE/TERMINATION.

MITL FIXTURE LOCATION AND COUNTERPOISE DETAIL
N.T.S.

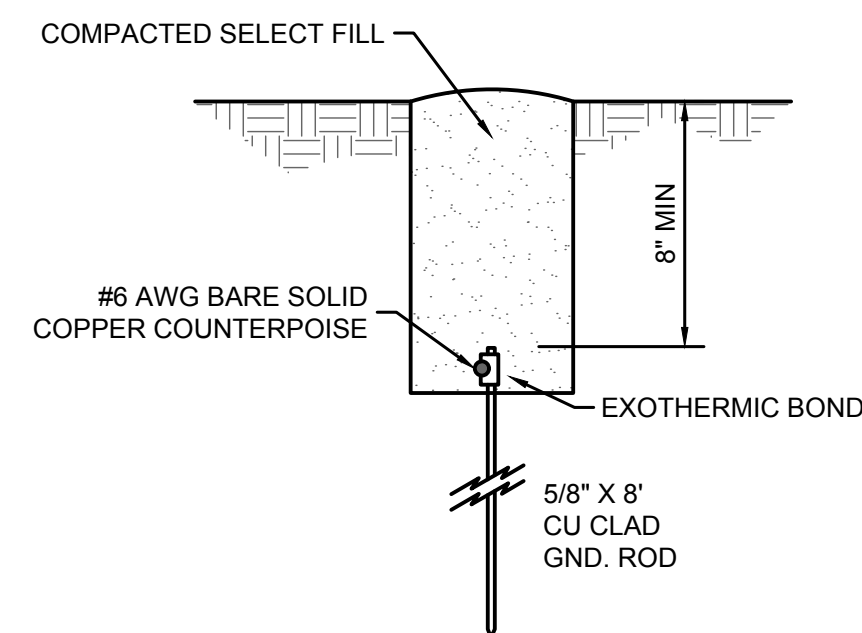


TAG DETAIL
N.T.S.



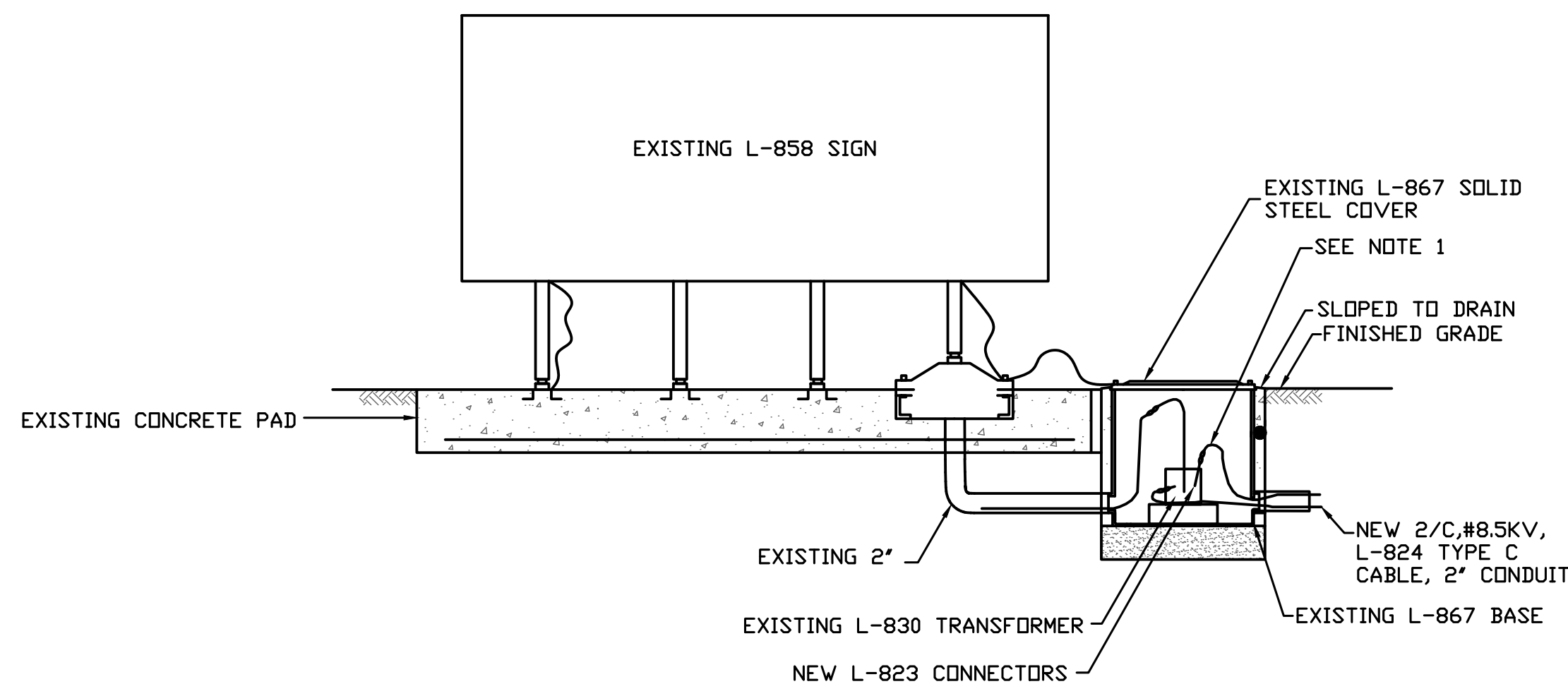
- NOTES:**
1. AFFIX A 3" SQUARE 18GA. ALUMINUM TAG WITH BLACK BACKGROUND TO MITL. NUMERALS MUST BE ENGRAVED FOR PERMANENT READABILITY (1" TALL, 1/8" FONT WIDTH).

COUNTERPOISE TRENCH DETAIL
N.T.S.



- NOTES:**
1. THE COUNTERPOISED CONDUCTOR SHALL BE BONDED TO GROUND ROD AT INTERVAL NOT EXCEEDING 500' AND BONDED TO GROUND ROD LOCATED ON EACH SIDE OF A RACEWAY CROSSING UNDER THE AIRFIELD PAVEMENT.

PEDESTAL SIGN 5KV CABLE CONNECTION DETAIL
N.T.S.



- NOTES:**
1. PROVIDE 3' MIN. SLACK IN EACH PRIMARY CABLE AND SECONDARY EXTENSION.

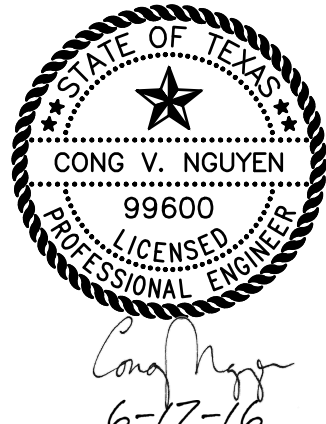
THIS SPACE NOT USED

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ELECTRICAL DETAILS
SHEET 1 OF 2

GREGG COUNTY, TEXAS
EAST TEXAS REGIONAL AIRPORT
TAXIWAY B, C, D, E, G, & K LIGHTING
IMPROVEMENTS

DRAWN BY:	MB
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SHEET NO.

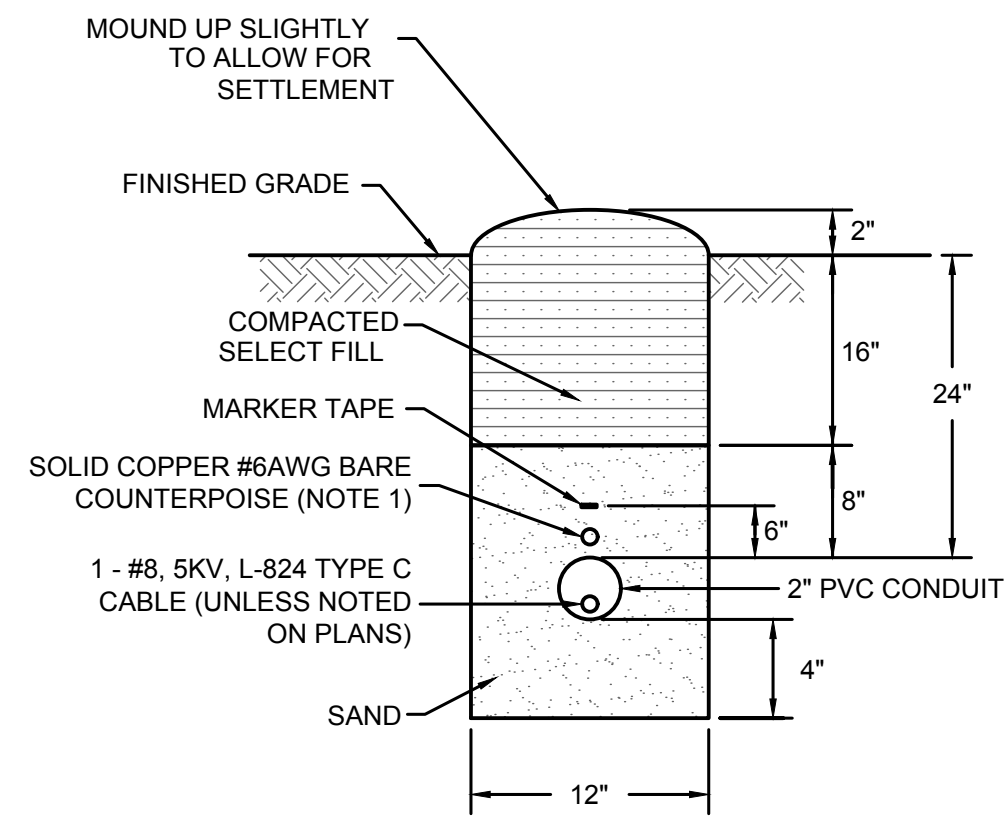
E20

PROJECT TITLE: PROJECT DESCRIPTION LOCATION - CITY, STATE

SHEET NAME:

PROJECT NAME:

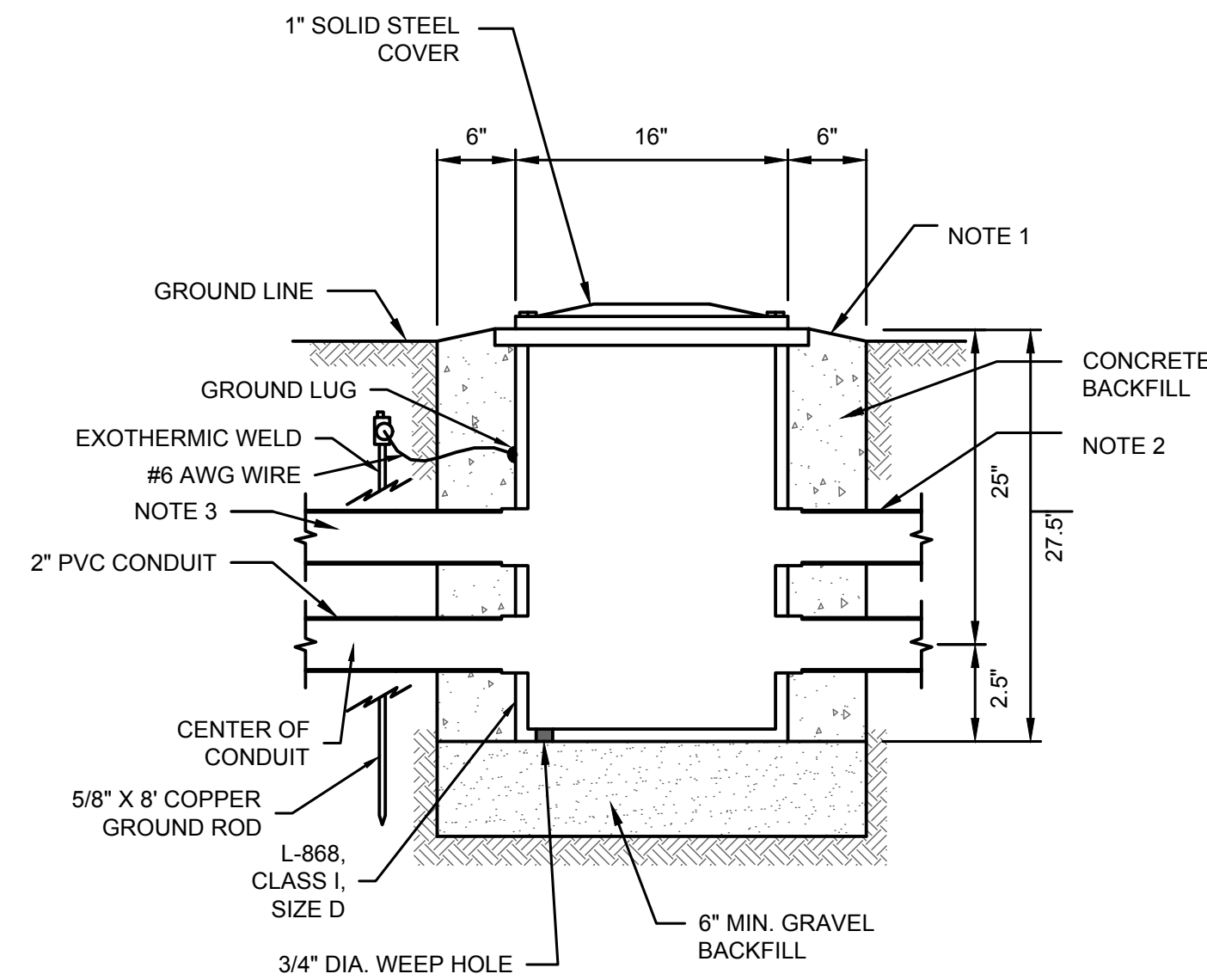
**ONE 2-INCH ELECTRICAL CONDUIT
DUCT BANK**
N.T.S.



NOTES:

1. INSTALL COUNTERPOISE ABOVE CONDUIT 20" MIN. BELOW GRADE FOR HOMERUN CONDUIT. INSTALL COUNTERPOISE MIDWAY BETWEEN PAVEMENT EDGE AND TWY/RWY LIGHT CIRCUIT AS DETAILED IN SHEET E20.

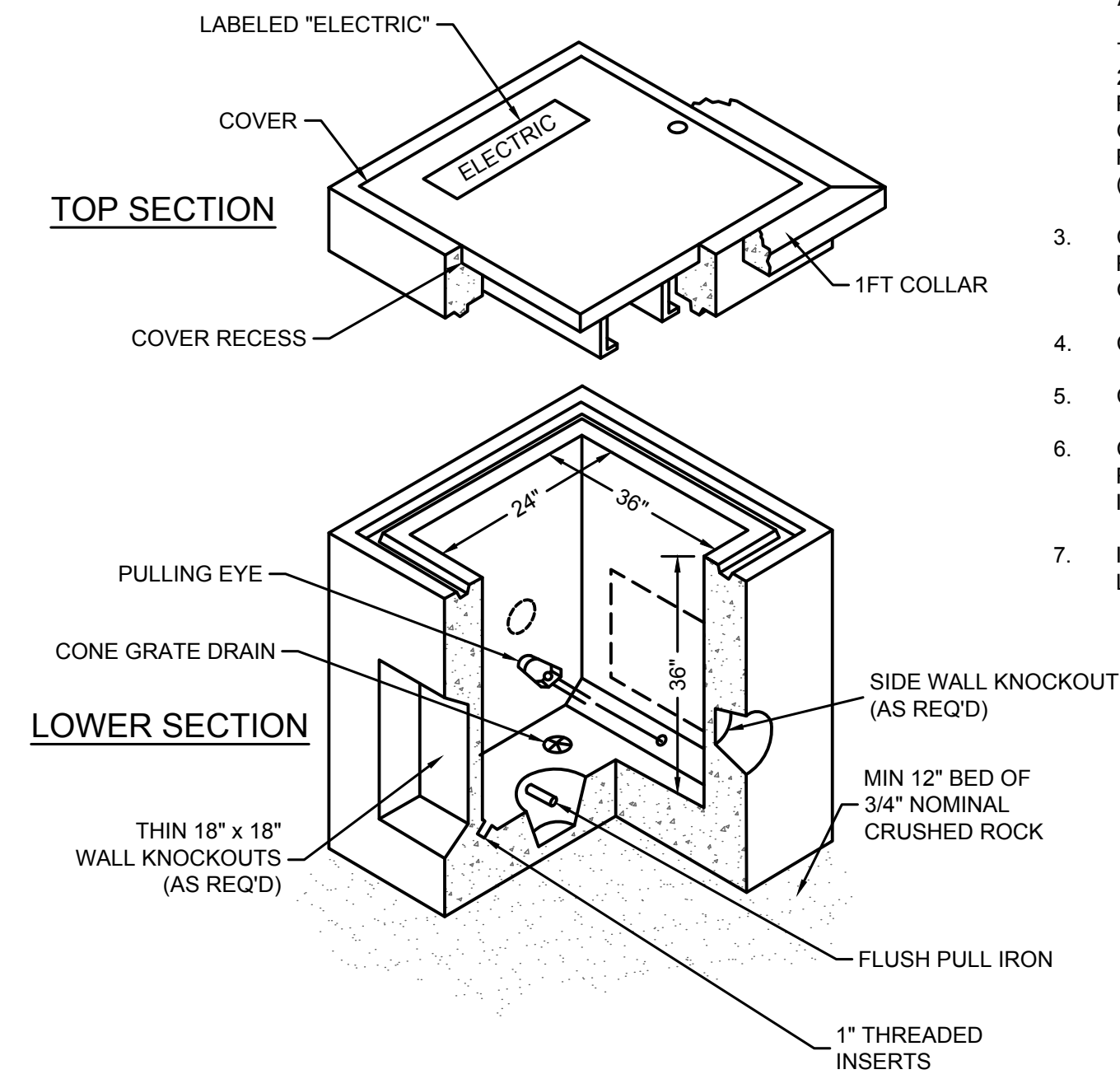
L-868 HANDHOLE DETAIL
N.T.S.



NOTES:

1. SLOPE TO DRAIN AWAY FROM COVER.
2. SPARE CONDUIT EXTENDED TO OTHER HANDHOLE.
3. EXTEND SPARE CONDUIT 12" FROM CONCRETE AND CAP CONDUIT.

PRECAST CONCRETE AIRCRAFT RATED HANDHOLE DETAIL
N.T.S.

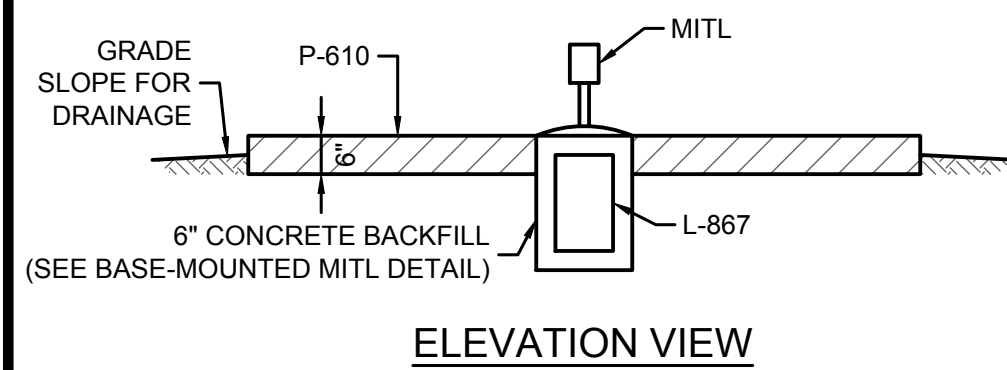
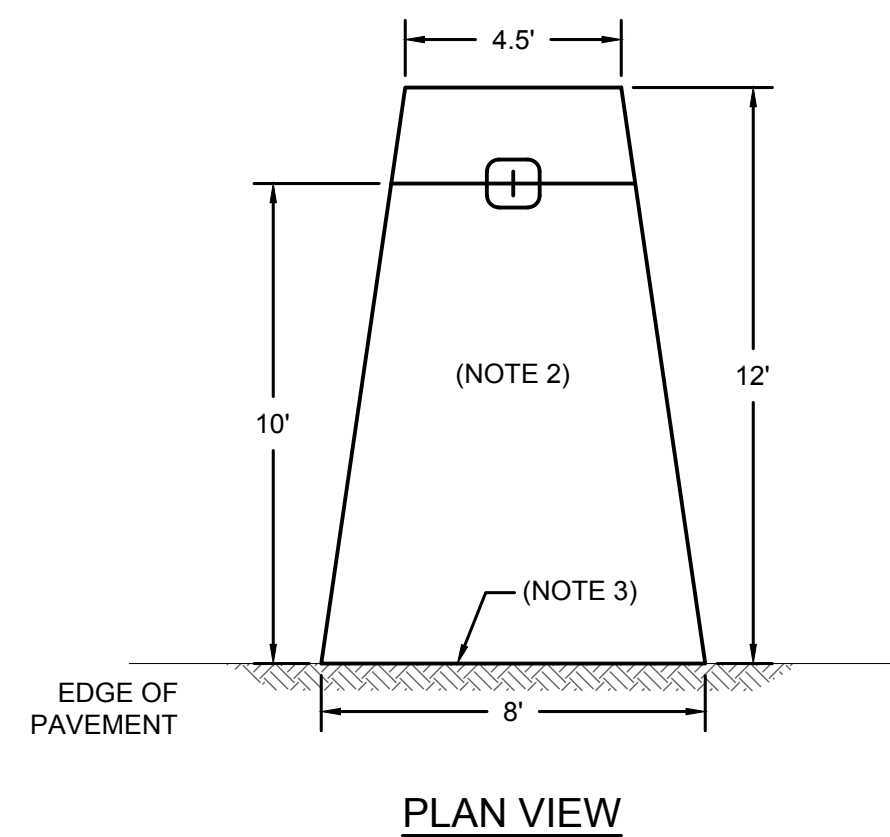


HANDHOLE NOTES:

1. ALL STEEL, INCLUDING FASTENERS, OTHER THAN REBAR, SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION.
2. ALL HANDHOLES SHALL CONFORM TO LATEST FAA, ASTM, AND AASHTO SPECIFICATIONS.
3. CONTRACTOR SHALL INSTALL 5/8" X 8' COPPER GROUND ROD IN EACH HANDHOLE AND CONNECTED TO DUCTBANK GROUND WIRES.
4. CONTRACTOR SHALL GROUT ALL CONDUIT PENETRATIONS.
5. CONTRACTOR SHALL PROVIDE DRAIN WITH CONE GRATE.
6. CONTRACTOR SHALL INSTALL HANDHOLES OUTSIDE THE RUNWAY SAFETY AND TAXIWAY SAFETY AREAS UNLESS INDICATED OTHERWISE ON THE SITE PLAN.
7. INSTALL END BELL FOR ALL PVC CONDUIT ENTERING AND LEAVING HANDHOLE.

TYPE A:
24" x 36" x 36" D PRECAST CONCRETE, AIRCRAFT LOAD RATED, EXTRA HEAVY-DUTY, (OLDCASTLE PRECAST INC. OR APPROVED EQUAL) WITH GALVANIZED, AIRCRAFT LOAD RATED BOLT-DOWN FRAME WITH HINGED DOOR ASSEMBLY (INWESCO OR APPROVED EQUAL).

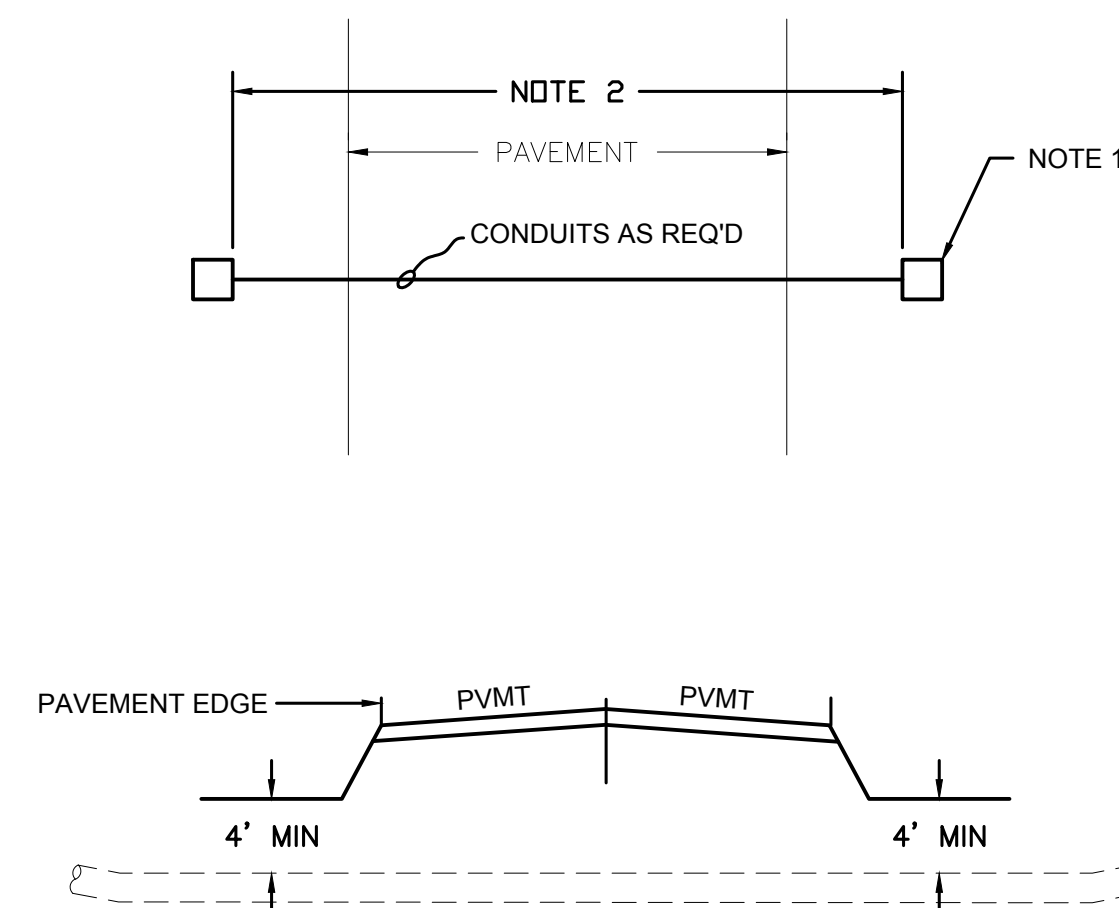
TAXIWAY LIGHT MAINTENANCE PAD
N.T.S.



NOTES:

1. PAYMENT SHALL BE CONSIDERED SUBSIDIARY TO THE MITL PAY ITEM.
2. PROVIDE 6x6x6 WIRE MESH FOR REINFORCEMENT.
3. REQUIRED SAWCUT AND JOINT SEALANT (P-605) AS APPROVED BY ENGINEER.

UNDER PAVEMENT BORED CONDUIT DETAIL
N.T.S.



NOTES:

1. HANDHOLE. REFER TO PLAN SHEETS FOR HANDHOLE LOCATIONS.
2. AS CALLED FOR IN PLAN SET.

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THIS SPACE NOT USED

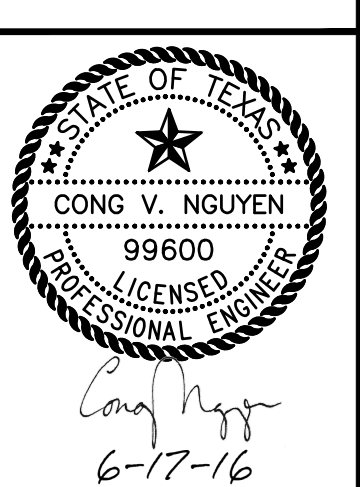
MARK	REVISION	DATE

**ELECTRICAL DETAILS
SHEET 2 OF 2**

**GREGG COUNTY, TEXAS
EAST TEXAS REGIONAL AIRPORT
TAXIWAY B, C, D, E, G, & K LIGHTING
IMPROVEMENTS**

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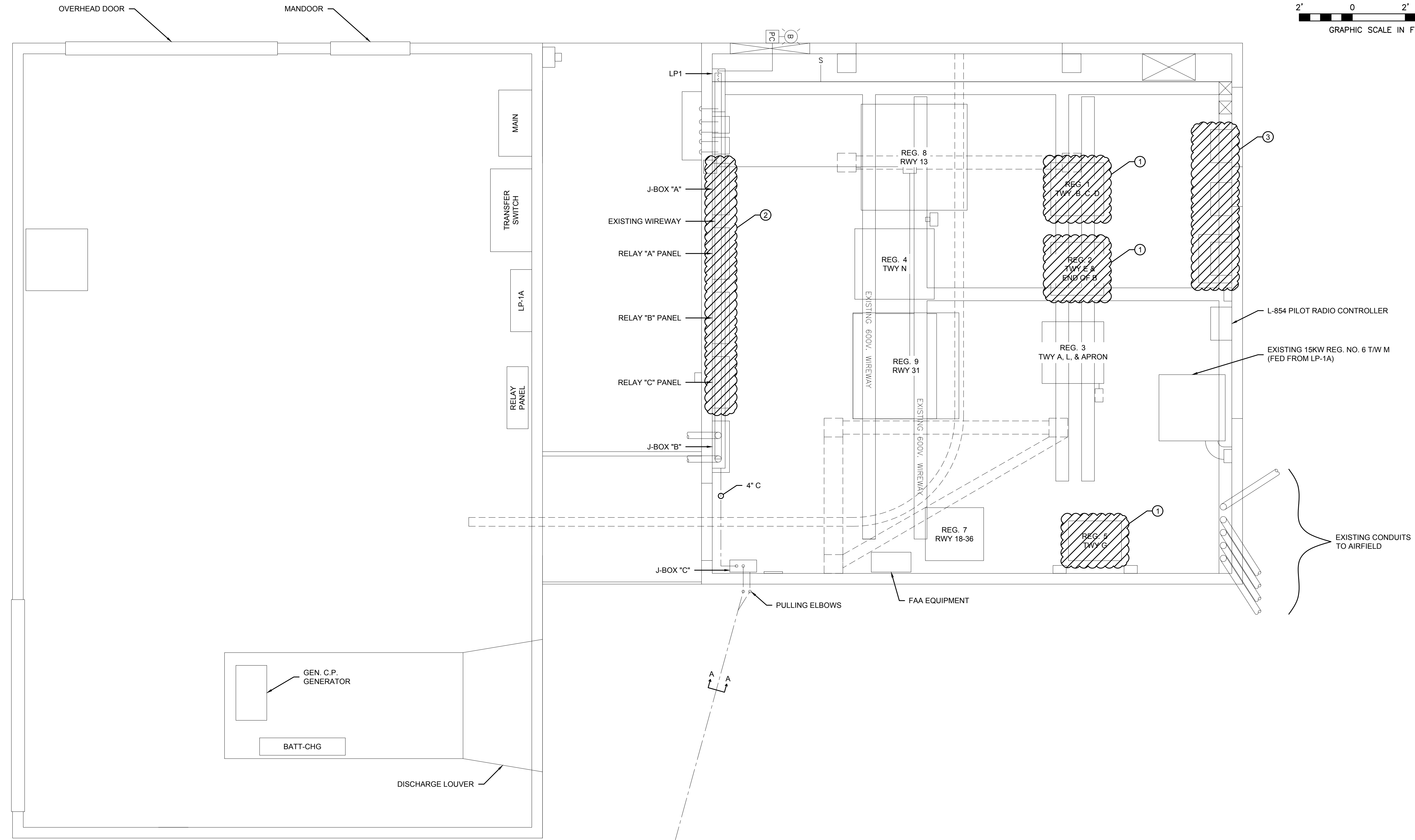
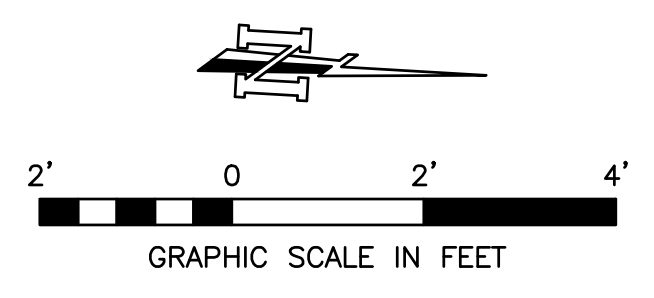
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SEAL:
TBPE Firm Registration No. F-1356
SHEET NO.

E21

ELECTRICAL VAULT AND GENERATOR BUILDING PLAN



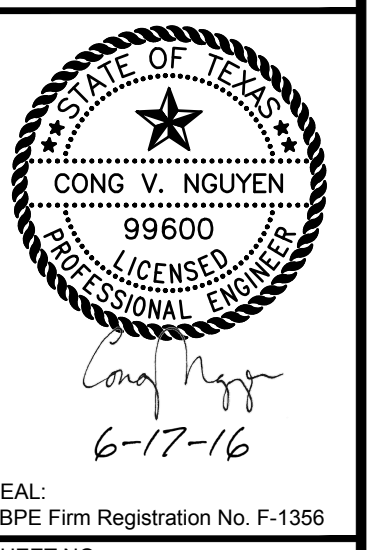
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**ELECTRICAL PHASE 4
VAULT & GENERATOR
BUILDING DEMOLITION PLAN**

**GREGG COUNTY, TEXAS
EAST TEXAS REGIONAL AIRPORT
TAXIWAY B, C, D, E, G, & K LIGHTING
IMPROVEMENTS**

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LATEST REVISION:	6/17/2016
KSA JOB NO.:	GC-100

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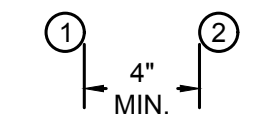
SEAL: TBPE Firm Registration No. F-1356
SHEET NO. **E22**

- KEYED NOTES:**
- 1 REMOVE EXISTING REGULATOR AND TURN OVER TO THE OWNER, UNLESS NOTED OTHERWISE. RETAIN THE LOW VOLTAGE, HIGH VOLTAGE AND CONTROL WIRES FOR RECONNECTION.
 - 2 REMOVE RELAY PANELS "A", "B", AND "C" AND J-BOX "A" AFTER NEW L-890 ALCMS SYSTEM ARE ONLINE AND FULLY FUNCTIONAL. COORDINATE WITH ATCT AND AIRPORT PERSONNEL PRIOR TO REMOVAL OF EXISTING AIRFIELD LIGHTING CONTROL SYSTEM.
 - 3 REMOVE EXISTING PANELS, REGULATOR, AND CUT-OUT SWITCHES.

SEE SHEET E01 FOR CONTINUATION

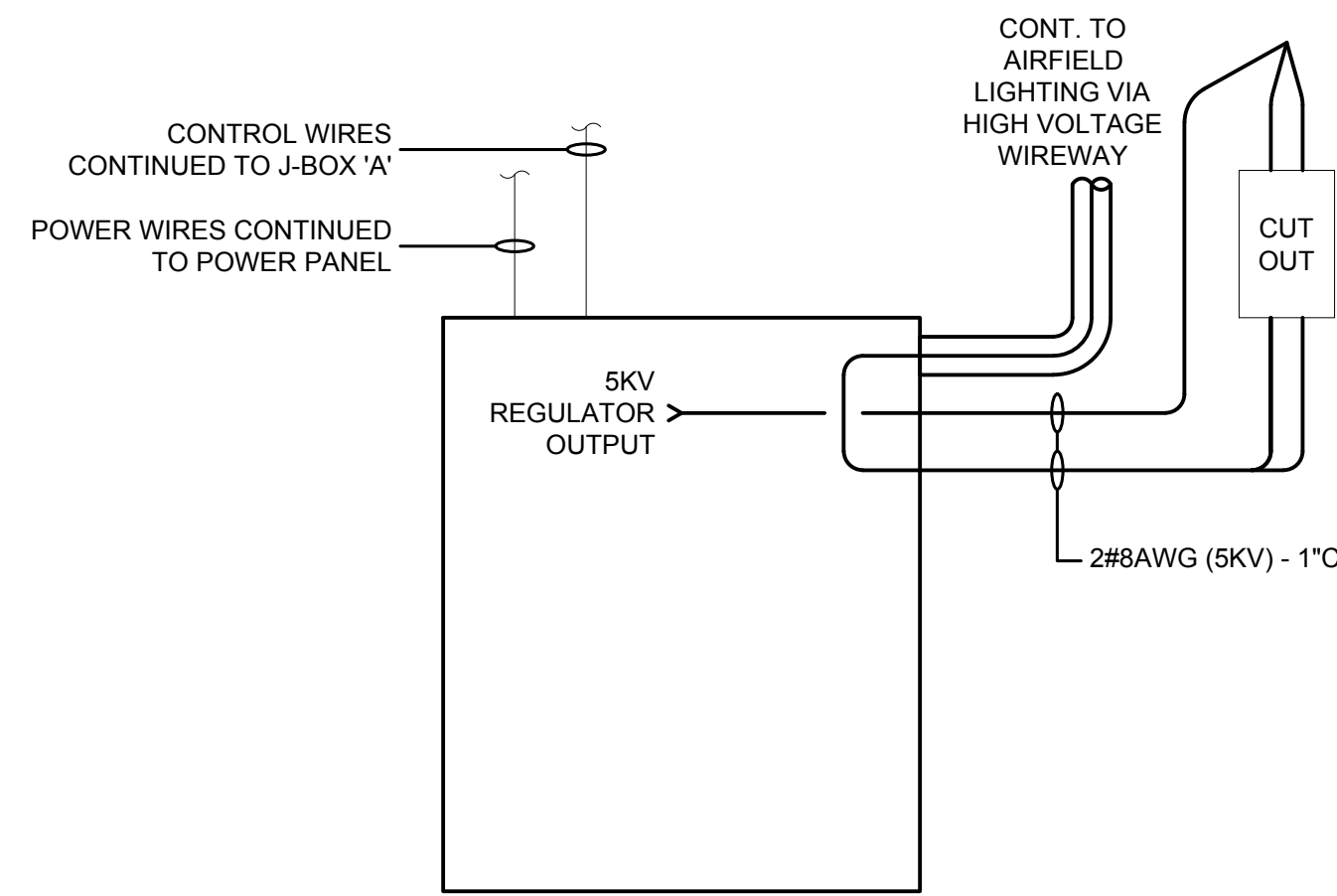
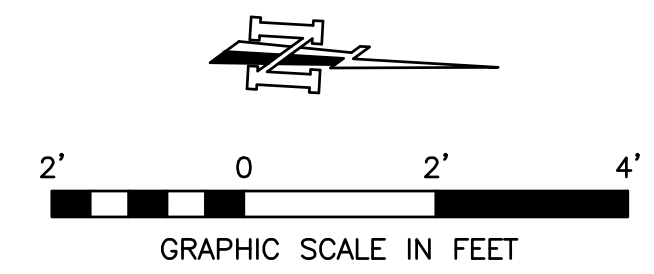
DUCT BANK SECTIONS

SECTION A-A



1. 2 SETS OF 50 PAIR #18 AWG TWISTED PAIRED CABLE, 4°C
2. 4" EMPTY CONDUIT WITH PULL CORD

ELECTRICAL VAULT AND GENERATOR BUILDING MODIFICATION PLAN

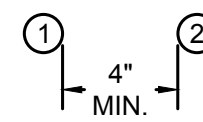


TYPICAL REGULATOR WIRING DIAGRAM

N.T.S.

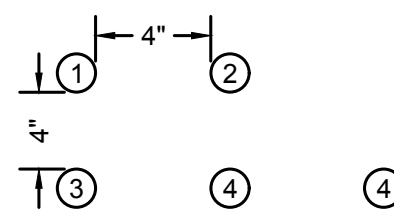
DUCT BANK SECTIONS

SECTION A-A



1. EXISTING 2 SETS OF 50 PAIR #18 AWG TWISTED PAIRED CABLE, 4°C
2. 1-12 STRAND F.O. CABLE, EXISTING 4°C

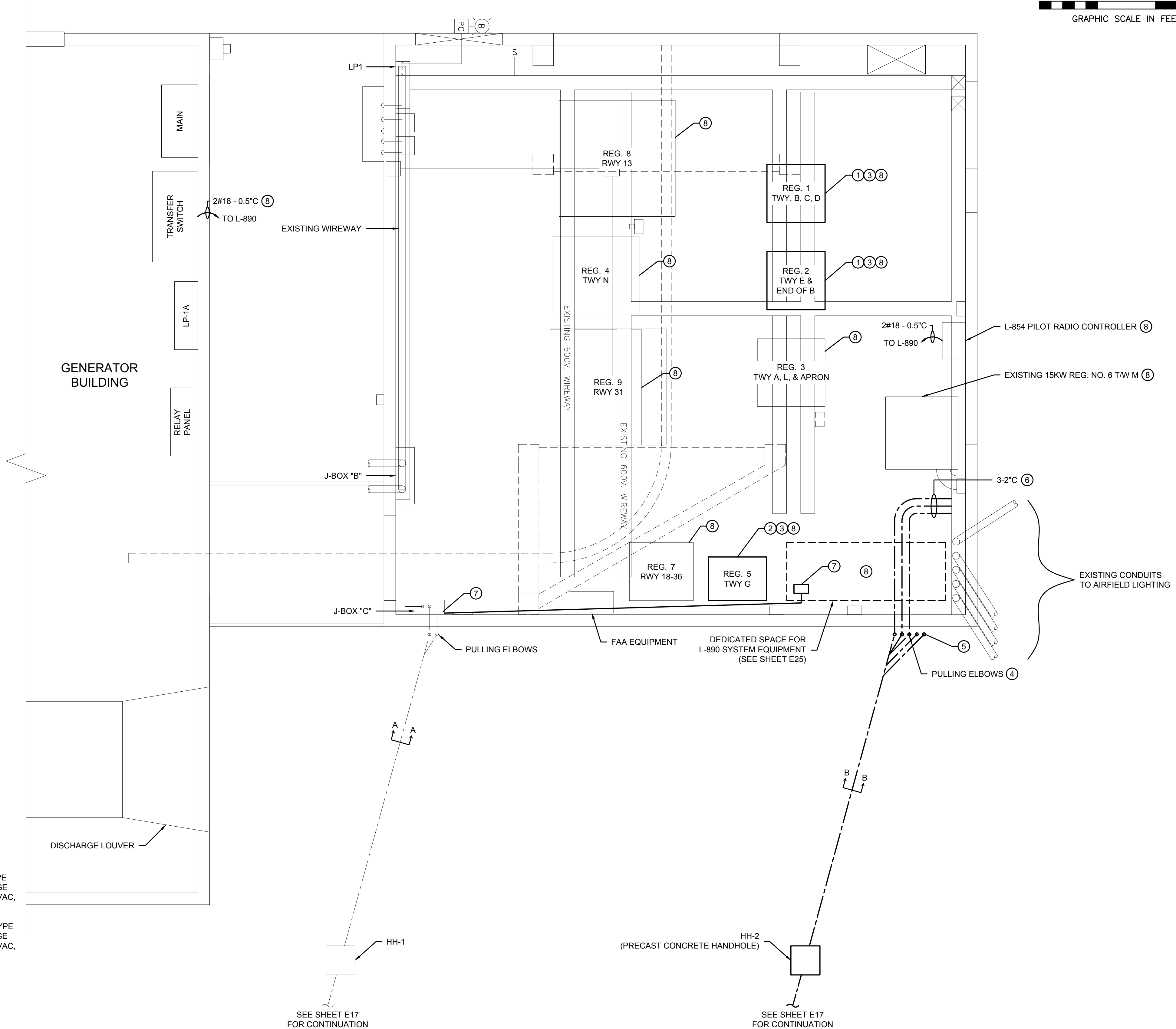
SECTION B-B



1. 2-1#8AWG (5KV) TWY B, C, & D - 2°C
2. 2-1#8AWG (5KV) TWY E & END OF B - 2°C
3. 2-1#8AWG (5KV) TWY G - 2°C
4. SPARE 2°C

KEYED NOTES:

- ① PROVIDE AND INSTALL A NEW 7.5-KW. CONSTANT CURRENT FERRO-RESONANT DRY-TYPE REGULATOR, TYPE L-828, CLASS 1 (6.6-AMP), STYLE 1 (3-STEP) REGULATOR HAVING OUTPUT CURRENT METER, OUTPUT VOLTAGE METER, INPUT POWER SHALL BE 240-VAC, 1 PHASE (LINE-TO-LINE), 60 HZ. CONTROL POWER SHALL BE 120 VAC, AND MANUFACTURED IN ACCORDANCE WITH THE LATEST EDITION OF FAA AC 150/5345-10.
- ② PROVIDE AND INSTALL TWO NEW 4-KW. CONSTANT CURRENT FERRO-RESONANT DRY-TYPE REGULATOR, TYPE L-828, CLASS 1 (6.6-AMP), STYLE 1 (3-STEP) REGULATOR HAVING OUTPUT CURRENT METER, OUTPUT VOLTAGE METER, INPUT POWER SHALL BE 240-VAC, 1 PHASE (LINE-TO-LINE), 60 HZ. CONTROL POWER SHALL BE 120 VAC, AND MANUFACTURED IN ACCORDANCE WITH THE LATEST EDITION OF FAA AC 150/5345-10.
- ③ RECONNECT THE POWER AND CONTROL WIRING.
- ④ DRILL HOLE THROUGH WALL AND INSTALL 3-2" 90 DEGREE PULLING ELBOWS ABOUT 10' AFG. REPAIR HOLE USING WATERPROOFING SILICONE AND PAINT TO MATCH EXISTING BUILDING COLOR.
- ⑤ STUB SPARE CONDUIT 6" AFG AT BUILDING EXTERIOR WALL AND CAP FOR FUTURE.
- ⑥ EXTEND CONDUITS TO 5KV WIREWAY AND EXTEND CABLES TO RESPECTIVE REGULATORS.
- ⑦ EXTEND 1-12 STRANDS F.O. CABLE TO PATCH PANEL IN 2°C AND MAKE CONNECTION AS SHOWN ON SHEET E26.
- ⑧ REFER TO SHEETS E24-E26 FOR WORK RELATED TO L-890 ALCMS



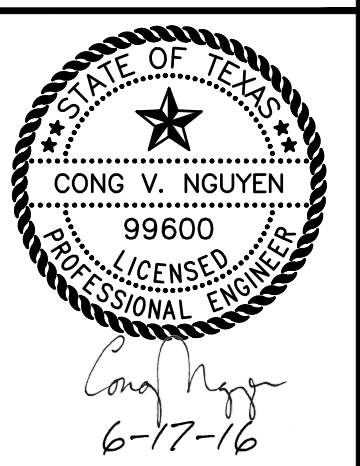
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ELECTRICAL PHASE 4 VAULT & GENERATOR BUILDING MODIFICATION PLAN

GREGG COUNTY, TEXAS EAST TEXAS REGIONAL AIRPORT TAXIWAY B, C, D, E, G, & K LIGHTING IMPROVEMENTS

DRAWN BY:	MB
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LATEST REVISION:	6/17/2016
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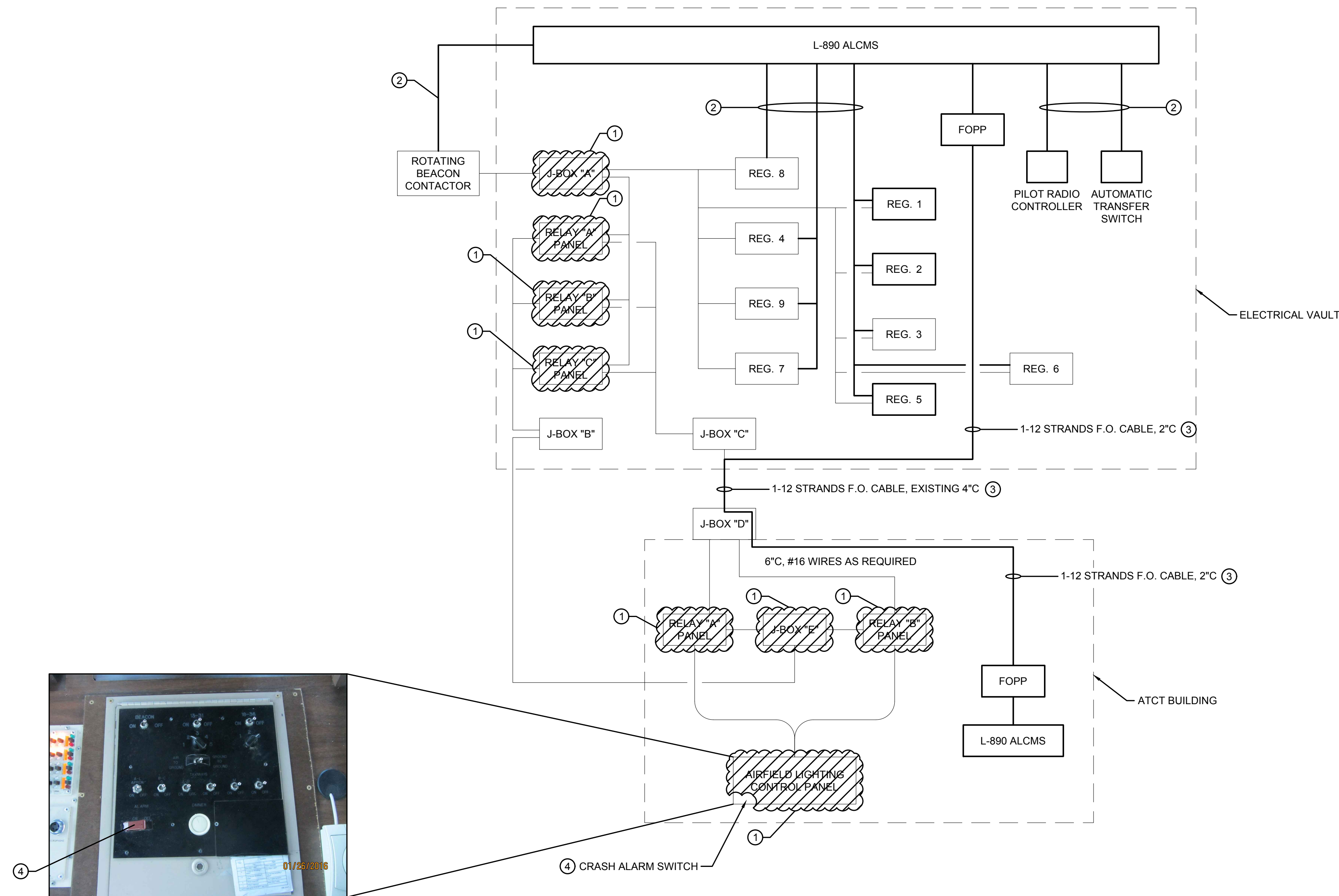
E23

PROJECT TITLE: PROJECT DESCRIPTION LOCATION: CITY, STATE, TEXAS

SHEET NAME:

SHEET NAME:

AIRFIELD LIGHTING CONTROL RISER DIAGRAM



LEGEND	
ALCMS	AIRFIELD LIGHTING CONTROL AND MONITORING SYSTEM
ATCT	AIR TRAFFIC CONTROL TOWER
FOPP	FIBER OPTIC PATCH PANEL
REG.	CONSTANT CURRENT REGULATOR
	EXISTING CONDUIT/WIREWAY/WITH WIRES
	PROPOSED CONDUIT/WIREWAY/WITH WIRES
	BUILDING LIMIT
	EXISTING EQUIPMENT
	PROPOSED EQUIPMENT

KEYED NOTES:

- ① EQUIPMENT TO BE REMOVED AFTER PROPOSED L-890 ALCMS IS FUNCTIONALLY TESTED AND OPERATIONAL. REMOVE UNUSED EXISTING CONTROL WIRES, CONDUITS AND APPURTENANCE TO/FROM EXISTING EQUIPMENT.
- ② SEE SHEET E26 FOR PROPOSED WIRE AND CONDUIT REQUIREMENTS.
- ③ FIBER OPTIC CABLE IS APPROXIMATED 5000 LINEAR FEET. CONTRACTOR SHALL FIELD VERIFY ACTUAL LENGTH.
- ④ REPLACE EXISTING AIRFIELD LIGHTING CONTROL PANEL WITH A BLANK PLATE AND RELOCATE CRASH ALARM SWITCH TO BLANK PLATE. PROVIDE ENGRAVED NAMEPLATE FOR ALARM SWITCH. CIRCUITRY FOR CRASH ALARM INCLUDING WIRES, CONTROL RELAYS, AND ASSOCIATED DEVICES SHALL REMAIN AND OPERATIONAL. IF ALARM CIRCUITRY IS PART OF THE EXISTING RELAY PANEL, THAT RELAY PANEL SHALL NOT BE REMOVED. CONTRACTOR IS RESPONSIBLE FOR TRACING CIRCUIT OF ALARM SWITCH.

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AIRFIELD LIGHTING CONTROL RISER DIAGRAM

**GREGG COUNTY, TEXAS
EAST TEXAS REGIONAL AIRPORT
TAXIWAY B, C, D, E, G, & K LIGHTING
IMPROVEMENTS**

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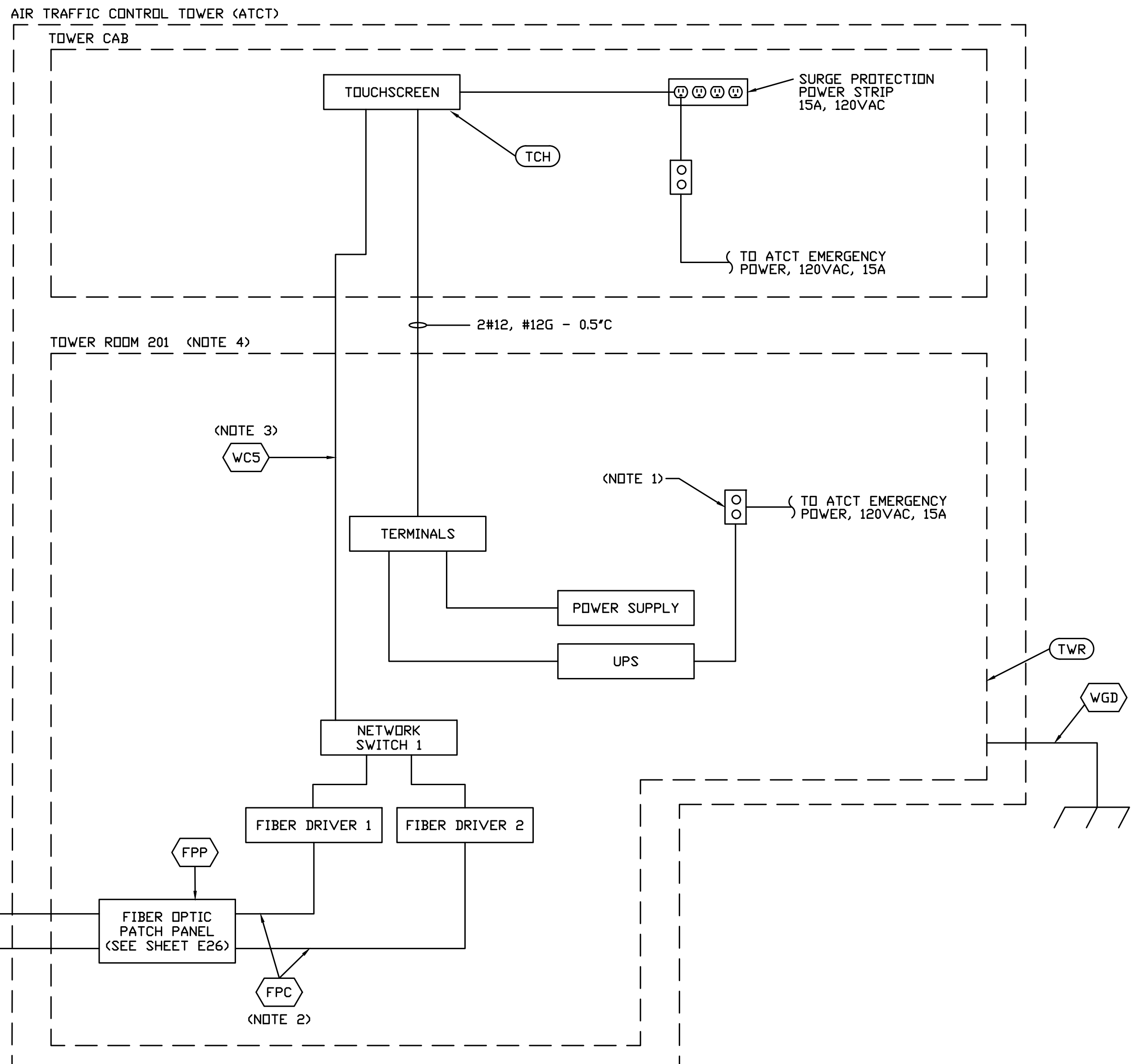
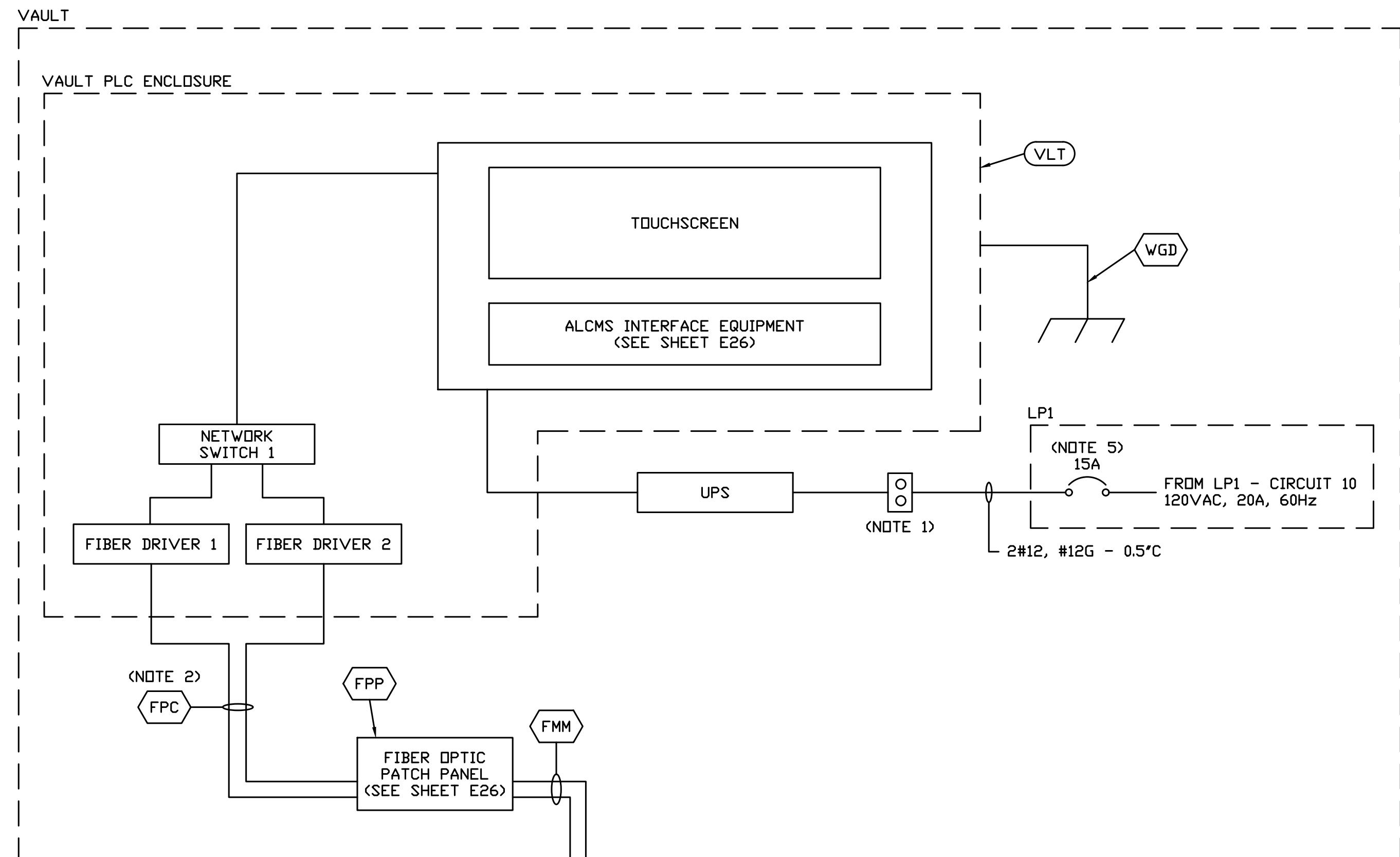
SEAL: TBPE Firm Registration No. F-1356
SHEET NO.

E24

PROJECT TITLE: PROJECT DESCRIPTION LOCATION - CITY, STATE

SHEET NAME:

PROJECT NAME:



GENERAL ASSEMBLY BILL OF MATERIALS		
ITEM #	PART NAME/ DESCRIPTION	QTY
FPC	FIBER PATCH CABLE, DUPLEX, 62.5/125 MICRON, 1300NM WAVE LENGTH, MULTI-MODE, TERMINATED WITH ST STYLE CONNECTORS, 1 PAIR EACH	A/R
FPP	FIBER PATCH PANEL, SURFACE MOUNT	A/R
FMM	12 STRANDS FIBER CABLE, 62.5/125 MICRON, 1300NM WAVE LENGTH, MULTI-MODE, TERMINATED WITH ST STYLE CONNECTORS, 2 STRANDS REQUIRED PER COMMUNICATION LINK	A/R
W24	WIRE, 18AWG, 600V, QTY AS REQUIRED	A/R
WGD	WIRE, GROUND, 8AWG STRANDED (MUST BE CONNECTED DIRECTLY TO BUILDING'S LIGHTNING GROUND)	A/R
WC5	WIRE, 24AWG, SOLID BARE COPPER, CAT 5, NON-PLENUM, UNSHIELDED (BELDEN# 1583A OR EQUIVALENT)	A/R
TCH	TOUCHSCREEN CONTROL STATION ASSEMBLY	1
TWR	TOWER ALCMS ENCLOSURE ASSEMBLY	1
VLT	VAULT ALCMS ENCLOSURE ASSEMBLY	1

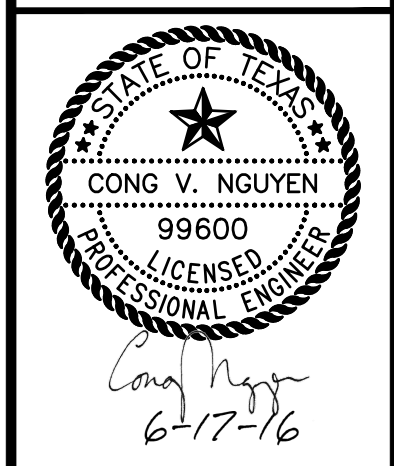
- INSTALLATION NOTES:**
- CONTRACTOR TO PROVIDE AND MOUNT 120VAC, 15A, DUPLEX RECEPTACLE BOX INSIDE VAULT ENCLOSURE.
 - FIBER ZIP CORDS ARE TO BE ENCLOSED IN CONDUIT FROM THE FIBER PATCH PANEL TO THE VAULT ENCLOSURE.
 - CAT5 COMMUNICATIONS CABLE TO BE ENCLOSED IN CONDUIT (OR AS SPECIFIED BY FAA FROM TOWER ENCLOSURE TO TOWER CAB TOUCHSCREEN LOCATION. TWO (2) CAT5 CABLES TO BE PULLED FROM THE TOWER ENCLOSURE TO THE TOWER CAB. ONE WILL BE USED FOR THE SYSTEM AND THE OTHER WILL BE A SPARE.
 - COORDINATE WITH ATCT PERSONNEL FOR ACTUAL LOCATION OF TOWER ALCMS ENCLOSURE ASSEMBLY.
 - REPLACE EXISTING 20A/1P BREAKER WITH A 15A/1P BREAKER OF SAME MFR & TYPE.

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ALCMS RISER DIAGRAM

**GREGG COUNTY, TEXAS
EAST TEXAS REGIONAL AIRPORT
TAXIWAY B, C, D, E, G, & K LIGHTING
IMPROVEMENTS**

DRAWN BY:	MB
DESIGNED BY:	CVN
LATEST REVISION:	6/17/2016
KSA JOB NO.:	GC-100



SEAL: TBPE Firm Registration No. F-1356
SHEET NO.

E25

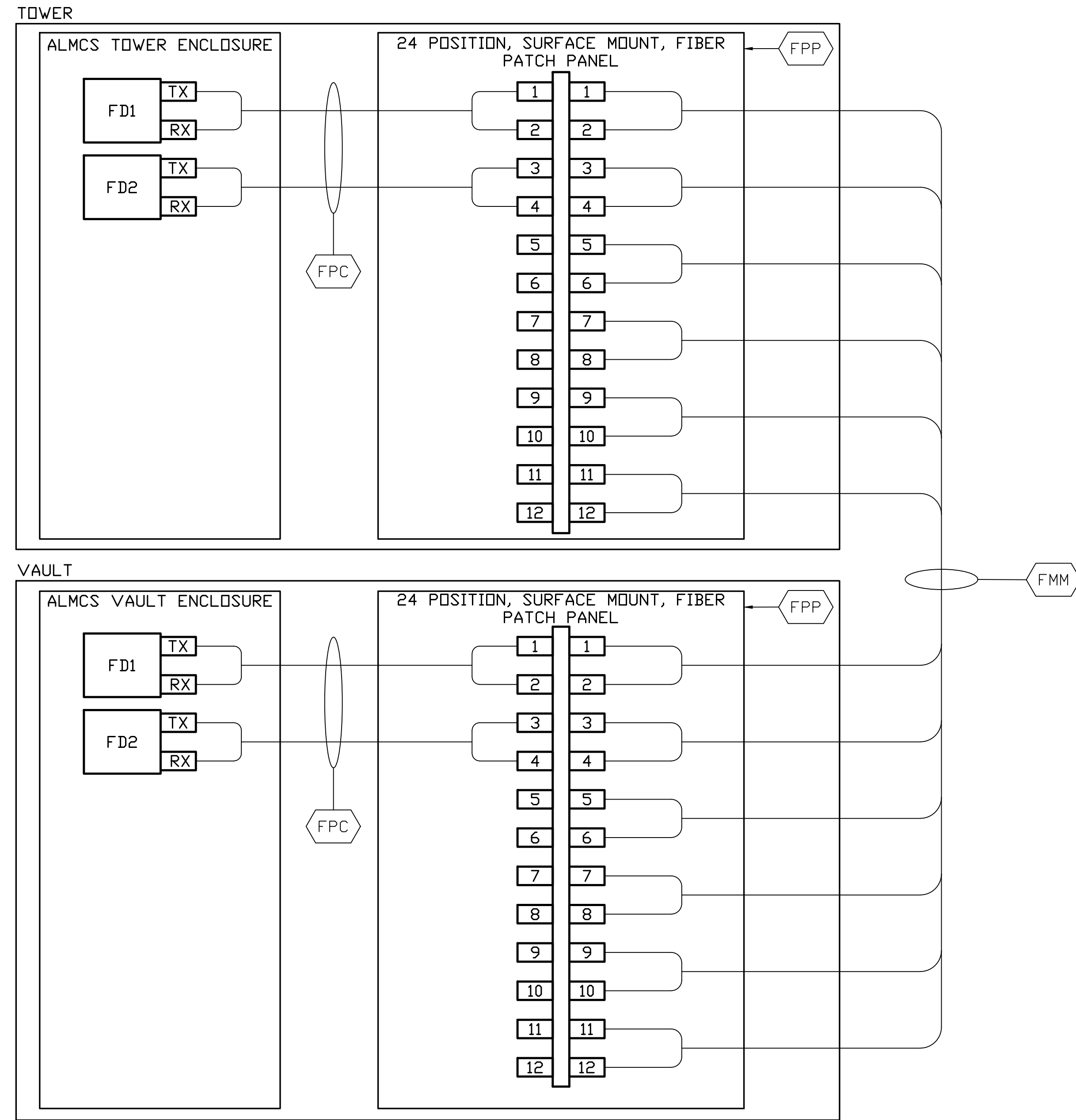
PROJECT TITLE: PROJECT DESCRIPTION LOCATION - CITY, STATE

SHEET NAME:

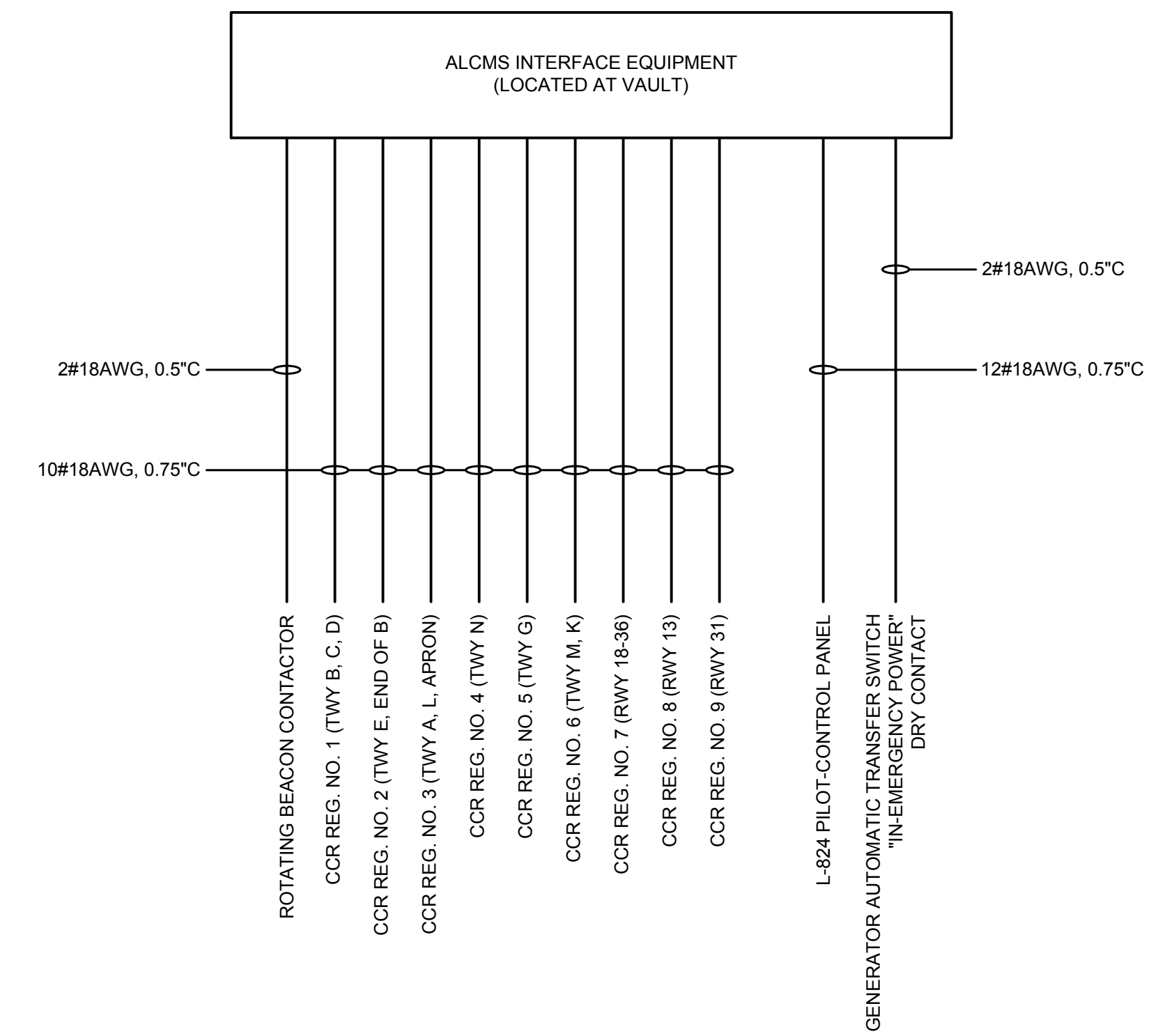
PROJECT NAME:

PROJECT NO.:

FIBER OPTIC PATCH PANEL WIRING DIAGRAM



ALCMS FIELD DEVICE INTERCONNECTION DIAGRAM

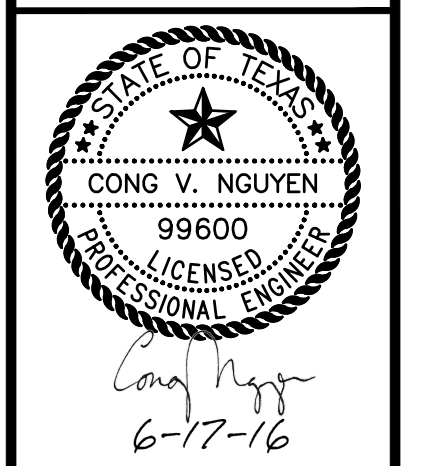


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FIBER OPTIC PATCH PANEL WIRING DIAGRAM

**GREGG COUNTY, TEXAS
EAST TEXAS REGIONAL AIRPORT
TAXIWAY B, C, D, E, G, & K LIGHTING
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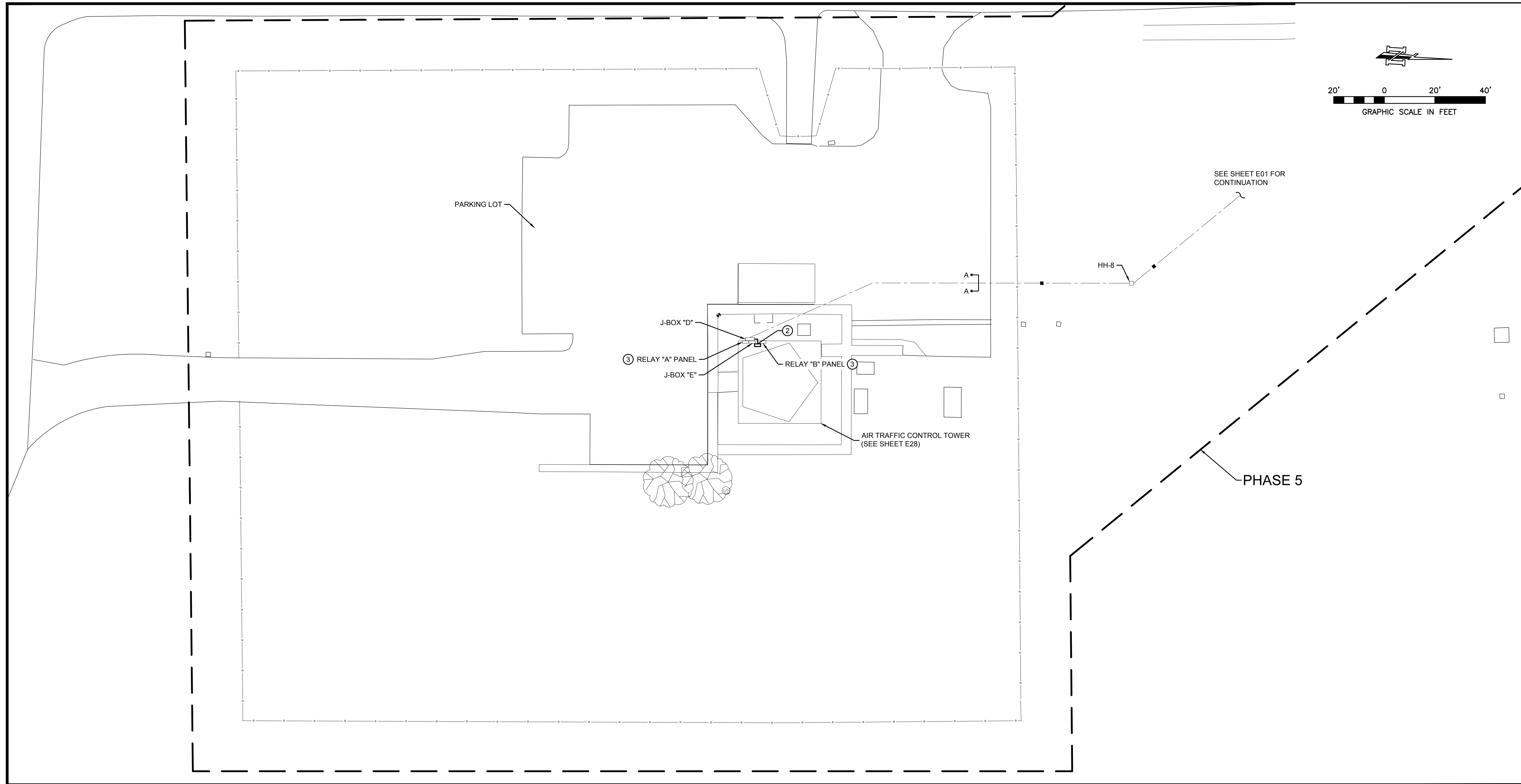
E26

PROJECT TITLE: PROJECT DESCRIPTION LOCATION - CITY, STATE

SHEET NAME:

PROJECT NAME:

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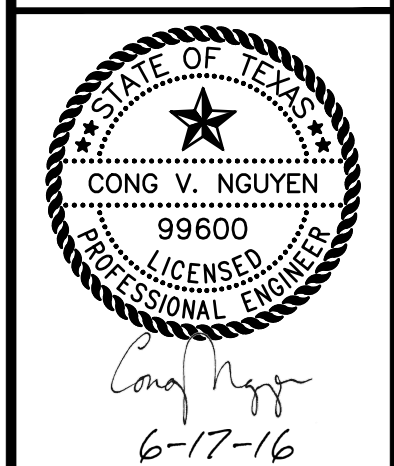
MARK	REVISION	DATE

**ELECTRICAL PHASE 5
ATCT ENLARGED PLAN**

**GREGG COUNTY, TEXAS
EAST TEXAS REGIONAL AIRPORT
TAXIWAY B, C, D, E, G, & K LIGHTING
IMPROVEMENTS**

DRAWN BY:	MB
DESIGNED BY:	CVN
LATEST REVISION:	6/17/2016
KSA JOB NO.:	GC-100

KSA
1111 Hawn Ave., Shreveport, Louisiana 71107
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SEAL:
TBPE Firm Registration No. F-1356
SHEET NO.

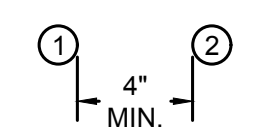
E27

KEYED NOTES:

- ① INSTALL 1-12 STANDS FIBER OPTIC CABLE IN EXISTING 4" CONDUIT. SEE SPECIFICATION S-E125 FOR FIBER OPTIC CABLE SPECIFICATIONS.
- ② EXTEND 1-12 STANDS FIBER OPTIC CABLE, 2" C TO F.O. PATCH PANEL LOCATED ON SECOND FLOOR ROOM 201.
- ③ RELAY PANELS LOCATED ON THE FIRST FLOOR TO BE REMOVED AFTER PROPOSED L-890 ALMCS IS OPERATIONAL.

DUCT BANK SECTIONS

SECTION A-A



- 1. EXISTING 2 SETS OF 50 PAIR #18 AWG TWISTED PAIRED CABLE, 4"C
- 2. FIBER OPTIC CABLE, EXISTING 4"C

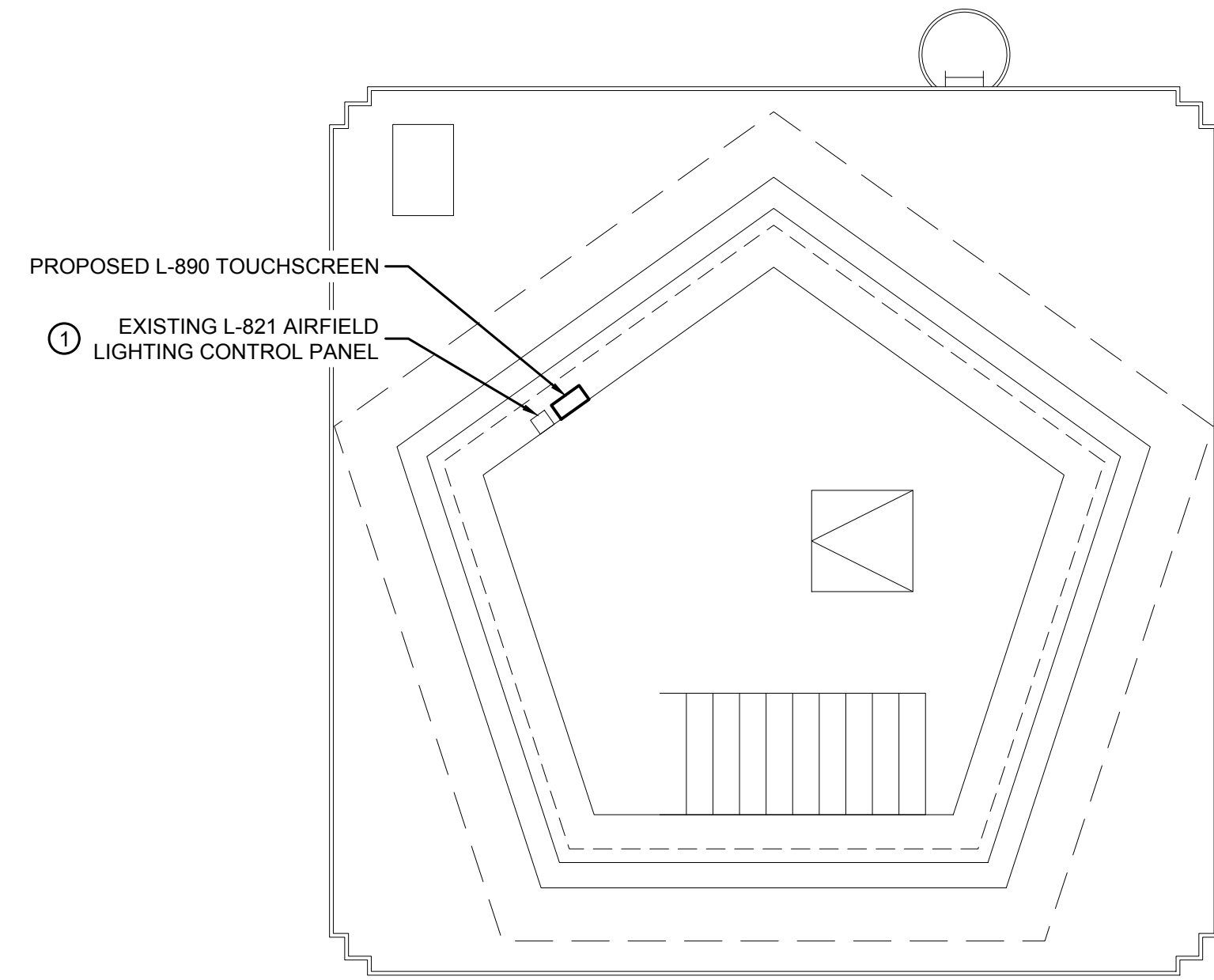
LEGEND

- WORK LIMITS OF PHASE
- PROPOSED AIRCRAFT RATED HANDHOLE
- DUCT MARKER WITH ENGRAVED "2-4"C
- CENTER LINE OF PROPOSED BORED CONDUITS
- CENTER LINE OF PROPOSED ELECTRICAL DUCTBANK
- JUNCTION BOX

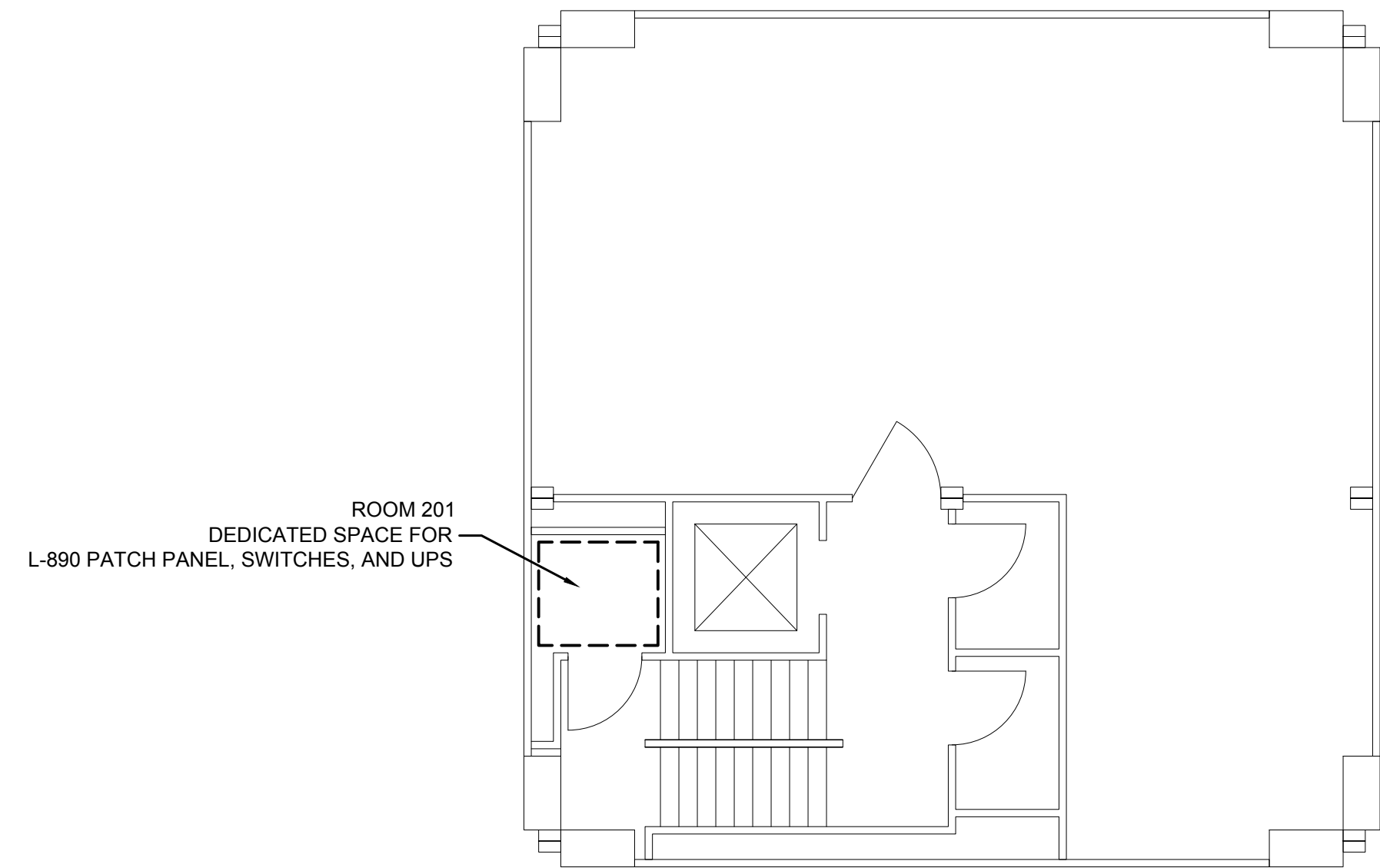
PROJECT TITLE: PROJECT DESCRIPTION LOCATION: CITY, STATE

SHEET NAME:

PROJECT NAME:



ATCT CAB FLOOR PLAN
N.T.S.

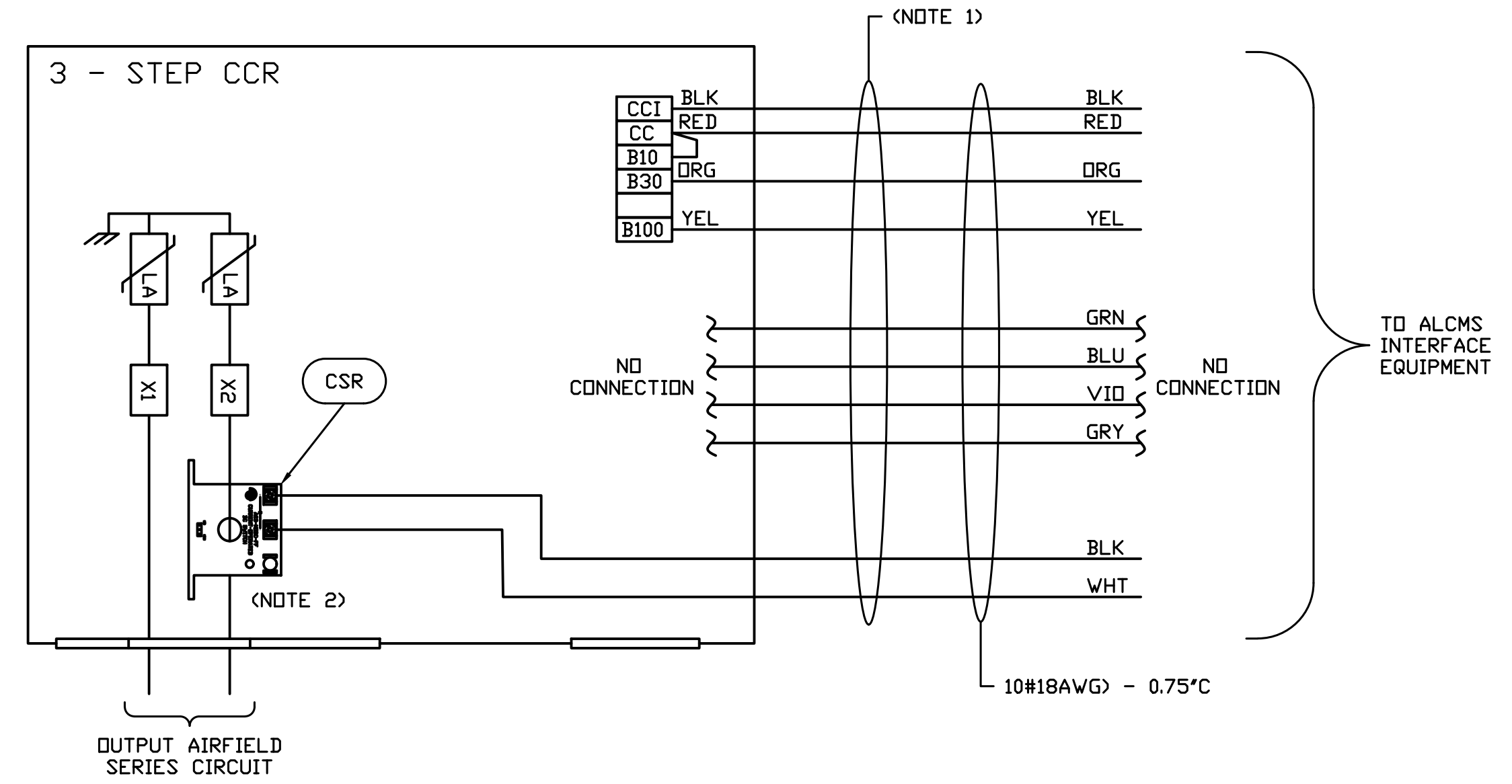


ATCT SECOND FLOOR PLAN
N.T.S.

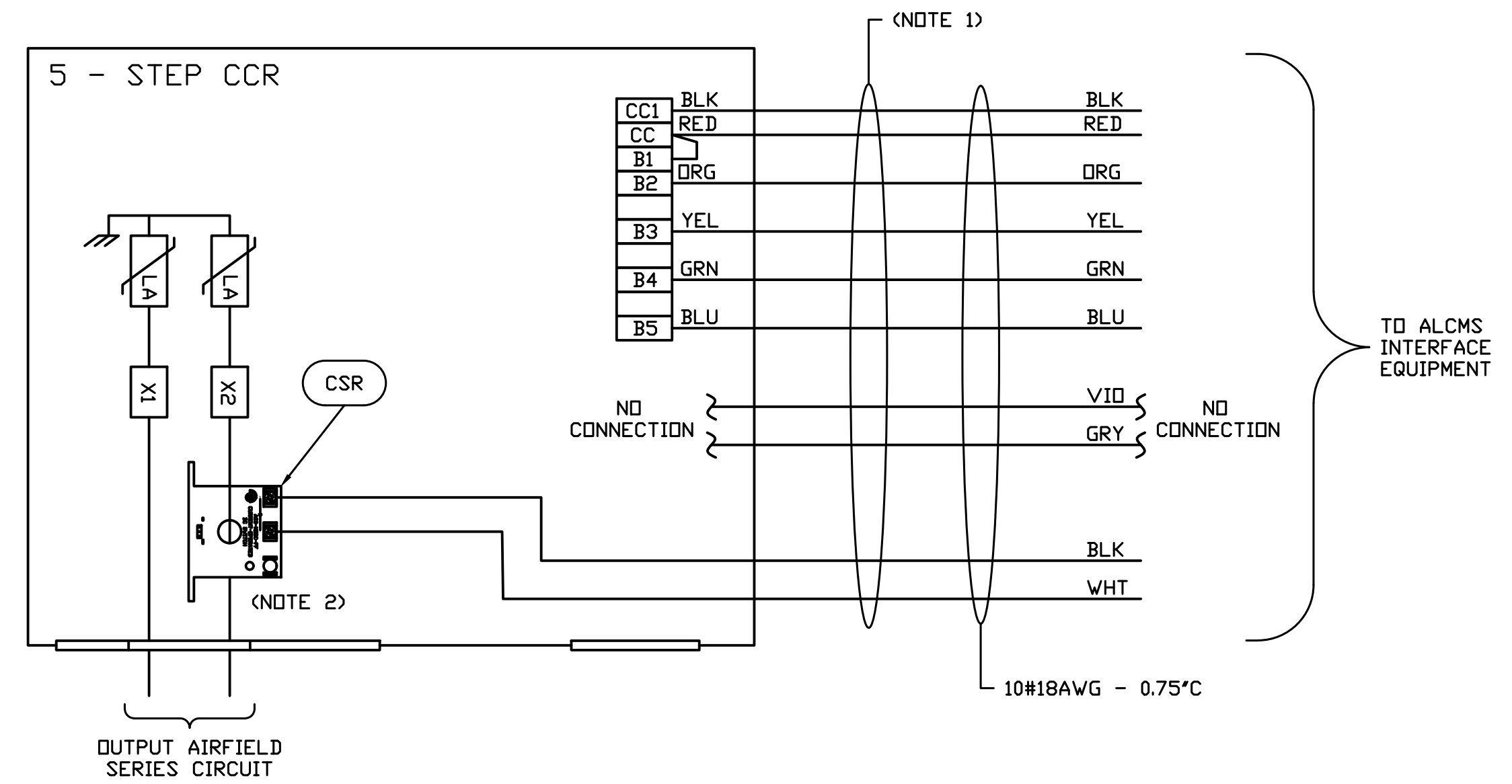
KEYED NOTES:

① EXISTING L-821 CONTROL PANEL TO BE REMOVED AFTER L-890 IS OPERATIONAL.

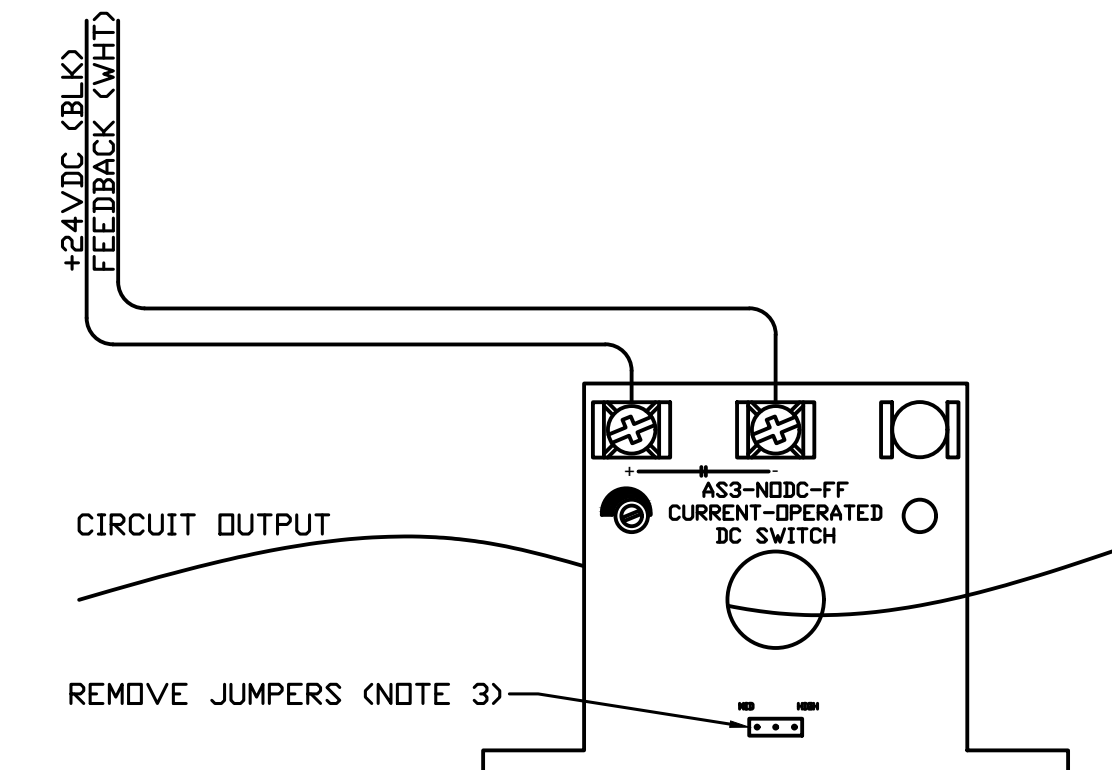
TYPICAL FOR 3-STEP CCR



TYPICAL FOR 5-STEP CCR



TYPICAL FOR CURRENT SENSING RELAY (CSR) CONNECTIONS



- NOTES:**
- CONTRACTOR TO WIRE ALL CCR'S USING THE SAME COLOR CODE SCHEME AS SHOWN.
 - CONTRACTOR TO INSTALL CURRENT SENSING RELAYS (CSR) PROVIDED BY AIRFIELD LIGHTING CONTROL SYSTEM MANUFACTURER INTO EACH CCR, AND WIRE ONE CCR OUTPUT CABLE THROUGH CSR. CONTRACTOR TO VERIFY CSR TRIM POT IS ADJUSTED SUCH THAT THE CSR CLOSURES WHEN THERE IS > 2.5A ON THE OUTPUT. ADJUST POTENTIOMETER TO "TRIP" WHEN CCR IS TURNED ON TO STEP 1. FAST BLINKING LIGHT = ON.
 - REMOVE ALL JUMPERS BEFORE INSTALLATION.

MARK	REVISION	DATE

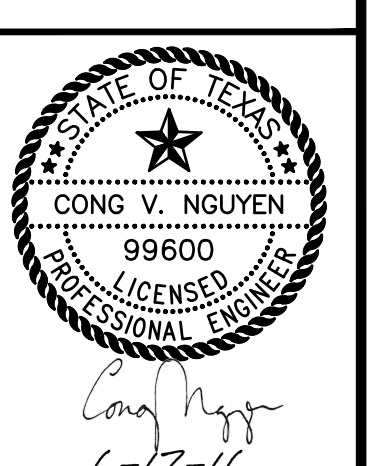
**ATCT ELECTRICAL PLAN AND
ALCMS WIRING DIAGRAMS**

**GREGG COUNTY, TEXAS
EAST TEXAS REGIONAL AIRPORT
TAXIWAY B, C, D, E, G, & K LIGHTING
IMPROVEMENTS**

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E28

PROJECT TITLE: PROJECT DESCRIPTION LOCATION - CITY, STATE, TEXAS

SHEET NAME:

PROJECT NAME: