# CITY OF PHOENIX AVIATION DEPARTMENT

DESIGN & CONSTRUCTION SERVICES

PROJECT NAME

THIS PROJECT -

Vicinity Map

PSHIA INFIELD UTILITY ACCESS UPGRADES AND PAVING TAXIWAY E & F INFIELDS (ES9, ES10, FN9, FN10) 3400 EAST SKY HARBOR BOULEVARD, PHOENIX, AZ 85034

**AV08000074 ADOT** 

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MAYOR KATE GALLEGO

VICE MAYOR YASSAMIN ANSARI

# CITY COUNCIL

DISTRICT NO. 2 JIM WARING DISTRICT NO. 6 KEVIN ROBINSON DISTRICT NO. 3 DEBRA STARK DISTRICT NO. 7 YASSAMIN ANSARI

DISTRICT NO. 4 LAURA PASTOR DISTRICT NO. 8 KESHA HODGE WASHINGTON

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APPROVALS

DEPUTY AVIATION DIRECTOR
DESIGN & CONSTRUCTION SERVICES DIVISION



# **APPROXIMATE QUANTITIES**

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
C-100	CONTRACTOR QUALITY CONTROL PROGRAM (CQCP)	LS	1
C-102-6.1	STORMWATER POLLUTION PREVENTION	LS	1
C-105	MOBILIZATION	LS	1
SP-30.1	CONSTRUCTION SURVEY LAYOUT	LS	1
SP-32.1	RAISE EXISTING COP UTILITY VAULT	EA	4
SP-33.1	REMOVE AND SALVAGE EXISTING CONCRETE LID AND APRON	EA	13
SP-34.1	CONSTRUCT NEW PRECAST CONCRETE LID AND APRON	EA	13
SP-35.1	SAWCUT ASPHALT PAVEMENT (FULL DEPTH)	LF	6,426
SP-36-8.1	AIRPORT SAFETY AND SECURITY (M-003)	LS	1
P-101-5.7	REMOVE EXISTING CATCH BASIN (DOUBLE GRATE)	EA	1
P-403-7.1	ASPHALT CONCRETE PAVEMENT (MAG D 1/2 INCH)	TON	6,364
D-751-6.1	CONSTRUCT NEW CONCRETE CATCH BASIN (TRIPLE GRATE)	EA	1
L-100-5.1	REMOVE AND SALVAGE EXISTING AIRFIELD GUIDANCE SIGN AND ISOLATION TRANSFORMER, REMOVE CONCRETE SIGN BASE	EA	14
L-100-5.2	REMOVE EXISTING CABLE, CONDUIT TO REMAIN	LF	2,845
L-100-5.3	EXCAVATE AND REMOVE EXISTING CONDUIT (CONTINGENCY ITEM)	LF	200
L-100-5.4	INSTALL SALVAGED RUNWAY DISTANCE REMAINING SIGN AND ISOLATION TRANSFORMER ON NEW 7.5', SIZE 4 RDR CONCRETE SIGN BASE	EA	1
L-100-5.5	INSTALL SALVAGED AIRFIELD GUIDANCE SIGN AND ISOLATION TRANSFORMER ON NEW 10.5', 2-MODULE CONCRETE SIGN BASE	EA	10
L-100-5.6	INSTALL SALVAGED AIRFIELD GUIDANCE SIGN AND ISOLATION TRANSFORMER ON NEW 14', 3-MODULE CONCRETE SIGN BASE	EA	3
L-100-5.7	INSTALL NEW MANHOLE ID PLAQUE ON NEW OR EXISTING MANHOLE COVER	EA	16
L-108-5.1	L-824, TYPE C, 2/C #8 AWG, 5KV CABLE (W/ BARE #6 STRANDED CU. GROUND)	LF	3,050
L-110-5.1	SINGLE-WAY, (1) - 2" CONDUIT, SLURRY ENCASED (CONTINGENCY ITEM)	LF	200

# **INDEX OF SHEETS**

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04	GI-004	LEGEND AND ABBREVIATIONS
05	GI-401	KEY MAP
06	GC-401	PROJECT LAYOUT PLAN
07	VF-401	SURVEY CONTROL PLAN
08	CS-501	TYPICAL SECTIONS
09	CS-502	PAVING DETAILS
10	CS-503	DRAINAGE DETAILS
11	CS-504	UTILITY ADJUSTMENT DETAILS
12	CG-101	TAXIWAY F INFIELDS UTILITY ACCESS UPGRADES AND PAVING
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14	CG-103	TAXIWAY E INFIELDS UTILITY ACCESS UPGRADES AND PAVING
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16	EA-001	ELECTRICAL LEGEND AND NOTES
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21	EA-501	AIRFIELD GUIDANCE SIGN BASE INSTALLATION DETAIL
22	EA-502	RDR SIGN BASE INSTALLATION AND MANHOLE DETAILS
23	EA-503	SPLICING AND GROUNDING DETAILS



C O N
1201 E. Jefferso
N S.
SUB CONSULTANT



SECTION 2—20, THESE PLANS ARE FOR UFFICIAL
USE ONLY AND MAY NOT BE SHARED WITH
OTHERS EXCEPT AS REQUIRED TO FULFILL THE
OBLIGATIONS OF CONTRACTOR'S CONTRACT WITH
THE CITY OF PHOENIX"

Y OF PHOENIX AVIATION DEPARTMENT
PSHIA INFIELD
ITY ACCESS UPGRADE
AND PAVING

Designed by: G. SHAW

Drawn by: A. SANTILLI

Checked by: C. JHAVERI

Date: 05/05/2023

Dwg scale: NTS

QUANTITY SUMMARY AND SHEET INDEX

SHEET
REFERENCE
NUMBER:
GI-002
SHEET 02 OF 23



#### **GENERAL NOTES:**

- 1. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL SAFETY REGULATIONS.
- 2. CONSTRUCTION OF THIS PROJECT SHALL BE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL AVIATION ADMINISTRATION'S (FAA) STANDARDS AND SPECIFICATIONS, ADOT STANDARDS AND SPECIFICATIONS, CITY OF PHOENIX (COP) SUPPLEMENTARY CONDITIONS, COP SUPPLEMENTS, 2021 MAG UNIFORM STANDARD GOVERNMENTS' (MAG) UNIFORM STANDARD SPECIFICATIONS AND UNIFORM STANDARD DETAILS. IN THE EVENT OF ANY CONFLICT BETWEEN THE CONTRACT DOCUMENTS FOR THIS PROJECT AND THE STANDARDS, THE CONTRACT DOCUMENTS FOR THIS PROJECT SHALL PREVAIL.

CALCULATED DIMENSIONS WILL GOVERN OVER SCALED DIMENSIONS.

- THE CONTRACTOR SHALL COMPLY WITH ALL CITY, COUNTY, AND STATE TRAFFIC REGULATIONS CONCERNING THE USE OF STREETS AND ROADWAYS FOR HAULING. ANY DAMAGE DONE TO THE ROADWAYS DUE TO THE CONTRACTOR'S EQUIPMENT OR HAULING OPERATIONS SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AT NO COST TO THE OWNER.
- THESE PLANS SHOW ITEMS TO BE CONSTRUCTED UNDER THIS CONTRACT. ACTUAL FIELD CONDITIONS, GRADES, LOCATIONS AND OTHER FEATURES MAY DIFFER FROM CONDITIONS INDICATED IN THESE DOCUMENTS.
- HAUL ROUTES THE LOCATION OF HAUL ROUTES ON THE AIRPORT SHALL BE SUBMITTED BY THE CONTRACTOR FOR APPROVAL BY THE COP AVIATION DEPARTMENT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE OFF-SITE HAUL ROUTES WITH THE PARTY HAVING JURISDICTION OVER THE AFFECTED ROUTE. ON-SITE HAUL ROUTES WILL BE MAINTAINED BY THE CONTRACTOR AND SHALL BE RESTORED TO THEIR ORIGINAL CONDITION UPON COMPLETION OF BEING USED AS A HAUL ROUTE. TAXIWAY AND RUNWAY PAVEMENT CROSSINGS ALONG HAUL ROUTES SHALL BE PROTECTED. FENCING, DRAINAGE, GRADING OR OTHER WORK NECESSARY TO CONSTRUCT HAUL ROUTES ON THE AIRPORT IS THE CONTRACTOR'S RESPONSIBILITY AND MUST BE APPROVED BY THE ENGINEER AND AIRPORT PRIOR TO THE WORK. EXCESS SOILS PLACEMENT - EXCESS SOILS, EXCESS MILLED ASPHALT CONCRETE, CONCRETE, RUBBLE, AND UNSUITABLE EXCAVATION SHALL BE DISPOSED OF OFF-SITE ACCORDING TO LOCAL LAWS AND REGULATIONS. MILLED ASPHALT CONCRETE IS TO BE PLACED IN THE LOCATIONS APPROVED BY THE AIRPORT.

COSTS ASSOCIATED WITH THE MATERIALS AND TASKS ABOVE ARE CONSIDERED INCIDENTAL TO THE CONTRACT. THE CONTRACTOR SHALL PROVIDE WRITTEN DOCUMENTATION TO THE COP AVIATION DEPARTMENT INDICATING THE LOCATION AND QUANTITY OF ALL MATERIAL DISPOSED OF OFF AIRPORT PROPERTY.

ANY REMOVAL ITEMS OF VALUE ARE TO REMAIN THE PROPERTY OF THE COP UNLESS OTHERWISE INDICATED. ALL MATERIAL TO BE HAULED OFF-SITE SHALL BE SAMPLED PRIOR TO HAUL OFF. CONTRACTOR TO COORDINATE WITH COP AVIATION PLANNING AND ENVIRONMENTAL PRIOR TO START OF CONSTRUCTION.

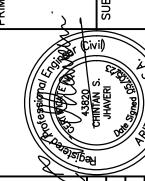
- 6. SALVAGED ITEMS ANY SALVAGED ITEMS ARE TO REMAIN THE PROPERTY OF AIRPORT.
- NO MATERIAL SHALL BE WASTED OR STOCKPILED ON THE AIRPORT UNLESS APPROVED BY THE ENGINEER AND AIRPORT. STOCKPILED MATERIAL SHALL BE CONSTRAINED IN A MANNER TO PREVENT MOVEMENT AS A RESULT OF AIRCRAFT OPERATIONS OR WIND AND IN ACCORDANCE WITH FAA ADVISORY CIRCULARS.
- CONTRACTOR GENERATED DEBRIS, WASTE AND LOOSE MATERIAL CAPABLE OF CAUSING DAMAGE TO AIRCRAFT LANDING GEAR, PROPELLERS AND ROTORS OR OF BEING INGESTED BY JET ENGINES SHALL NOT BE LEFT ON ACTIVE MOVEMENT AREAS. MATERIAL DROPPING WITHIN THESE AREAS SHALL BE REMOVED IMMEDIATELY AND CONTINUOUSLY BY THE CONTRACTOR DURING WORKING HOURS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRESERVATION OF ALL COP PROPERTY AND SHALL LOCATE AND PROTECT CAREFULLY FROM DAMAGE OR DISTURBANCE ALL BENCHMARKS, LAND MONUMENTS AND PROPERTY MARKERS. IF DAMAGE OR INJURY TO PROPERTY DOES OCCUR DURING THE WORK, THE CONTRACTOR SHALL RESTORE, AT HIS OWN EXPENSE, SUCH PROPERTY TO A CONDITION SIMILAR OR EQUAL TO THAT EXISTING BEFORE SUCH DAMAGE OR INJURY WAS DONE, BY REBUILDING OR RESTORING AS DIRECTED BY THE COP AVIATION DEPARTMENT AND THE ENGINEER.
- 10. THE CONTRACTOR IS ADVISED THAT OTHER CONSTRUCTION WILL BE IN PROGRESS DURING ALL OR PART OF THIS PROJECT. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE WORK OF OTHER CONTRACTORS AT THE AIRPORT.
- 11. EXISTING AIRPORT SURVEY MONUMENTS ARE LOCATED THROUGHOUT THE CONSTRUCTION AREA. THE CONTRACTOR SHALL AT HIS EXPENSE, HAVE A REGISTERED LAND SURVEYOR REPLACE ANY DISTURBED MONUMENT USING CITY OF PHOENIX STANDARDS. REPLACED MONUMENTS SHALL BE PLACED AT LEAST 10'BUT NOT MORE THAN 50' FROM THE ORIGINAL MONUMENT.
- 12. SAFETY AND SECURITY SAFETY AND SECURITY IS THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE COORDINATED WITH AIRPORT OPERATIONS, COP AVIATION DEPARTMENT AND THE ENGINEER. SEE SPECIAL CONDITIONS FOR SAFETY, SECURITY, BADGE AND OPERATING REQUIREMENTS IN THE CSPP.
- 13. THE CONTRACTOR SHALL NOT ENTER ONTO ANY AREA OUTSIDE OF THE CONSTRUCTION LIMITS. STAGING AREA OR DESIGNATED HAUL ROUTES WITHOUT THE WRITTEN APPROVAL BY THE ENGINEER AND AIRPORT
- 14. THE CONTRACTOR SHALL NOTIFY THE COP AVIATION DEPARTMENT IN WRITING, THROUGH THE ENGINEER, A MINIMUM OF SEVENTY-TWO (72) HOURS IN ADVANCE TO OBTAIN CLEARANCE FOR WORK. THE CONTRACTOR SHALL SUBMIT A CPM SCHEDULE FOR APPROVAL AT THE PRE-CONSTRUCTION CONFERENCE.
- 15. THE OWNER RESERVES THE RIGHT TO MAKE REVISIONS TO THE FINISHED ELEVATIONS AND GRADIENTS. IF CHANGES ARE NECESSARY, THE OWNER WILL FURNISH A REVISED GRADING OR PAVING PLAN. UNIT PRICES SHALL GOVERN FOR REVISED QUANTITIES.
- 16. SPECIFICATIONS ARE PROVIDED WHICH REQUIRE THE CONTRACTOR TO APPLY WATER. CHEMICALS. VEGETATION OR OTHER MATERIALS TO PREVENT THE OCCURRENCE OF DUST WHICH IS OBJECTIONABLE TO THE OPERATIONS OR USERS OF THE AREA. THESE SHALL INCLUDE BUT NOT BE LIMITED TO AIRPORT AUTHORITY OPERATIONS, MAINTENANCE, AIRCRAFT OPERATIONS, AND AIRFIELD OPERATIONS, AND LAND SIDE OPERATIONS. THE CONTRACTOR SHALL ALSO DISCONTINUE OPERATIONS. WHICH VIOLATE EXISTING LAWS AND REGULATIONS OR CREATE A UNIQUE HAZARD TO AIR TRAFFIC. ALL COST FOR CONTROLLING DUST OR POLLUTANTS TO THE AIR OF ANY KIND SHALL BE INCIDENTAL TO THE CONTRACT.
- 17. EXISTING UTILITY INFORMATION, LIGHTING DUCTS, AND CABLES SHOWN ON THE PLANS CONCERNING THE TYPE, SIZE, AND LOCATION WERE COMPILED BASED ON THE BEST AVAILABLE UTILITY RECORDS TO THE ENGINEER AND AIRPORT, AND ARE APPROXIMATE. THE CONTRACTOR SHALL PROVIDE A UTILITY LOCATOR AND VERIFY THE ACTUAL LOCATION PRIOR TO CONSTRUCTION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL EXISTING UTILITIES IN PLACE UNLESS NOTED OTHERWISE OR SPECIFIED. THE OWNER AND ENGINEER BEAR NO RESPONSIBILITY FOR UTILITIES NOT SHOWN ON THE PLANS OR NOT IN THE LOCATION SHOWN ON THE PLANS. ANY AND ALL DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. EXCAVATION IMMEDIATELY NEAR UTILITIES SHALL BE DONE BY HAND. UTILITIES INTERFERING WITH CONSTRUCTION SHALL BE RESET OR RELOCATED BY THE UTILITY COMPANY CONCERNED UNLESS NOTED OTHERWISE. CONTRACTOR SHALL CONTACT THE FOLLOWING UTILITY COMPANIES AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO BEGINNING CONSTRUCTION:

ARIZONA PUBLIC SERVICE (602) 371-6451, CONTACT: DAVID McCASLAND FAA FACILITIES (602) 305-2532, CONTACT: ROGER GUSTAFSON QWEST (602) 530-0496, CONTACT: JOHN O'DELL GAS (SW GAS) (602) 484-5344, CONTACT: NORMA JARDIN CITY WATER/SEWER (602) 261-8229, CONTACT: JAMI ERICKSON COP ENVIRONMENTAL (602) 273-3396, CONTACT: REBECCA GODLEY ALL EMERGENCY, FIRE, (602) 273-3311, CONTACT: OPERATOR POLICE, MEDICAL, COP ELECTRICAL (602) 540-7667, CONTACT: DAVID THORNTON (602) 708-0244, CONTACT: CHAD BLOTKAMP COP COMMUNICATIONS COP UTILITIES (602) 708-0244, CONTACT: CHAD BLOTKAMP

- 18. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT ALL UTILITY OWNERS AND THE PROGRAM MANAGER TO LOCATE ALL EXISTING AND PROPOSED UTILITIES PRIOR TO PERFORMING TRENCHING, MASS EXCAVATION, OR OTHER EARTHWORK.
- 19. SEVERAL UTILITY OWNERS INCLUDING THE COP AVIATION DEPARTMENT. SOLID WASTE MANAGEMENT DEPARTMENT HUMAN SERVICES DEPARTMENT, FEDERAL AVIATION ADMINISTRATION, AND OTHERS ARE NOT MEMBERS OF THE BLUE STAKE CENTER NOTIFICATION SYSTEM AND MUST BE NOTIFIED INDIVIDUALLY. CONTRACTOR TO USE A THIRD PARTY UTILITY LOCATOR.
- 20. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES AND ELECTRICAL SYSTEMS TO REMAIN PRIOR TO COMMENCING ANY DRAINAGE EXCAVATION.
- 21. POWER, CONTROL CABLES AND FIXTURES FOR AIRFIELD LIGHTING AND NAVIGATIONAL AIDS ARE LOCATED IN THE CONSTRUCTION AREAS. THE CONTRACTOR'S PERSONNEL SHALL BECOME FAMILIAR WITH THESE CABLE AND FIXTURE LOCATIONS AND KEEP VEHICLES AND EQUIPMENT CLEAR OF THEM AT ALL TIMES. ADHERENCE TO AVIATION LOCKOUT/TAGOUT PROCEDURES SHALL BE STRICTLY ENFORCED.
- 22. ANY DAMAGE TO THE EXISTING AIRPORT LIGHTING SYSTEM CAUSED BY CONSTRUCTION OPERATIONS SHALL BE IMMEDIATELY NOTED TO THE OWNER AND REPAIRED BY THE CONTRACTOR AT ITS OWN EXPENSE.
- 23. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL FIRE HYDRANTS AT ALL TIMES.
- 24. THE CONTRACTOR SHALL NOT DRAW WATER FROM ANY FIRE HYDRANT FOR USE ON THE WORK WITHOUT FIRST OBTAINING A WRITTEN PERMIT FROM THE CONTROLLING FIRE DEPARTMENT.
- 25. THE CONTRACTOR WILL BE REQUIRED TO COORDINATE WITH THE COP AVIATION DEPARTMENT ON THE PRECISE LOCATION AND LIMITS OF THE STAGING AREA, AS WELL AS ANY SPECIAL REQUIREMENTS FOR FENCING, SECURITY OR ACCESS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ALL UTILITIES AND HOOKUPS NECESSARY FOR THE CONTRACTOR'S USE AND FOR ALL PROJECT FIELD OFFICES AS REQUIRED IN THE SPECIAL
- 26. THE EXACT LIMITS, LIGHTING, AND SECURITY REQUIREMENTS OF THE CONTRACTOR'S STAGING AND STORAGE AREA SHALL BE ESTABLISHED BY THE CONTRACTOR WITH THE APPROVAL OF THE ENGINEER AND AIRPORT IN THE AREAS GENERALLY AS SHOWN ON THE PLANS. ANY AND ALL REQUIRED UTILITIES FOR THE CONTRACTOR'S OPERATIONS SHALL BE ARRANGED FOR AND PAID FOR BY THE CONTRACTOR AND PAID DIRECTLY TO THE APPROPRIATE UTILITY. UTILITY ARRANGEMENTS SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER AND AIRPORT. THE CONTRACTOR SHALL USE THE STORAGE AND STAGING AREAS SHOWN ON THE PLANS FOR HIS/HER SHOP, MATERIAL AND EQUIPMENT STORAGE AND OTHER PROJECT RELATED ACTIVITIES, INCLUDING EMPLOYEE PARKING. ALL COSTS ASSOCIATED WITH PREPARING THE STORAGE AND STAGING AREA SITE SHALL BE BORNE BY THE CONTRACTOR. THIS INCLUDES BUT IS NOT LIMITED TO CLEARING AND GRADING OF THE SITE CONSTRUCTION OF ALL TEMPORARY UTILITIES, ACCESS ROADS, ALL SECURITY FENCING, CLEAN-UP AND RESTORATION OF SITE TO ORIGINAL CONDITION.
- 27. THE CONTRACTOR SHALL SUBMIT A DRAWING SHOWING THE PROPOSED SITE LAYOUT OF ANY BATCH PLANTS. THE PLAN SHALL BE APPROVED BY THE ENGINEER AND AIRPORT PRIOR TO STARTING ANY WORK AT THE CONTRACTOR'S STAGING AREA.
- 28. THE CONTRACTOR SHALL INVESTIGATE THE AVAILABILITY OF AN ADEQUATE SUPPLY OF SUITABLE WATER, MAKE ALL ARRANGEMENTS (PERMITS) FOR THE PURCHASE OF THE WATER, AND PROVIDE NECESSARY FACILITIES TO FURNISH WATER FOR USE DURING CONSTRUCTION, SOLELY AT HIS EXPENSE.
- 29. BATCH PLANT SITES AND OTHER AREAS USED DURING CONSTRUCTION ARE TO BE RESTORED TO THEIR ORIGINAL CONDITION UPON COMPLETION OF THE PROJECT AT NO COST TO THE OWNER.
- 30. THE CONTRACTOR SHALL COMPLETE CLEAN UP AND RESTORATION OF ENTIRE PROJECT AREA. INCLUDING STAGING AND STORAGE AREAS. AS APPROVED BY THE ENGINEER AND AIRPORT WITHIN 10 DAYS OF CONTRACT COMPLETION DATE.
- 31. THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY ELECTRICAL TIE-OVERS THAT WILL BE REQUIRED TO KEEP TAXIWAY EDGE LIGHTS AND SIGNS IN OPERATION AT ALL TIMES WHEN THE PAVEMENT AREAS ARE AVAILABLE TO AIRCRAFT TRAFFIC.
- THE CONTRACTOR SHALL CONDUCT THE FINAL CLEANING OF AFFECTED AIRPORT PAVEMENTS PRIOR TO REOPENING THE PAVEMENTS TO AIR TRAFFIC. CONTRACTOR TO PROTECT ALL EXISTING UTILITY VAULTS AND LIDS DURING CONSTRUCTION. CONTRACTOR SHALL ENSURE THAT ALL VAULT LIDS ARE OPERATIONAL FOLLOWING COMPLETION OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR CONTINUOUS DAILY CLEAN UP OF HIS/HER WORK AREA. THE CONTRACTOR SHALL CONDUCT POWER VACUUM CLEANING OF AFFECTED AIRPORT PAVEMENTS PRIOR TO REOPENING EACH PHASE OF THE PAVEMENTS TO AIR TRAFFIC. AND FOR ACTIVE TAXIWAYS AND RUNWAYS IMMEDIATELY FOLLOWING ANY ACCESS ONTO OR CROSSING OF THE PAVEMENT BY CONSTRUCTION TRAFFIC.
- 33. THE CONTRACTOR IS REQUIRED TO PROVIDE LIGHTING FOR CONSTRUCTION DURING THE HOURS OF DARKNESS AS REQUIRED TO PERFORM CONSTRUCTION AND RELATED ACTIVITIES. COSTS FOR LIGHTING SHALL BE INCIDENTAL TO THE CONTRACT.
- 34. THE CONTRACTOR'S SUPERINTENDENT SHALL BE ON THE CONSTRUCTION SITE AT ALL TIMES DURING WORKING HOURS WHILE THIS PROJECT IS IN PROGRESS. THE CONTRACTOR'S SUPERINTENDENT SHALL BE THE DESIGNATED RESPONSIBLE CONTRACTOR REPRESENTATIVE AND SHALL BE AVAILABLE IN CASE OF EMERGENCIES ON A 24-HOUR DAILY BASIS.
- 35. MOST CONSTRUCTION WORK IN THIS PROJECT WILL OCCUR WITHIN THE AIR OPERATIONS AREA (AOA) AND IS SUBJECT TO OPERATIONAL SAFETY AND SECURITY REQUIREMENTS OF THE COP AND FAA. ANY ADDITIONAL REQUIREMENTS AS MAY BE DEEMED NECESSARY BY THE COP OR THE FAA WILL BE COMPLIED WITH BY THE CONTRACTOR AT NO COST TO THE OWNER.
- 36. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TRANSPORTING EMPLOYEES TO AND FROM THE PROJECT SITE IF
- 37. ROADS USED AS CONTRACTOR ROUTES MAY BE USED BY OTHER AIRPORT VEHICLES. THE CONTRACTOR SHALL NOT INTERFERE WITH OTHER VEHICLE TRAFFIC AND SHALL YIELD TO EMERGENCY VEHICLES ALONG ANY OF THE AIRPORT OR PUBLIC ROADS.
- 38. EACH CONTRACTOR/SUBCONTRACTOR, INCLUDING EACH CONTRACTOR/SUBCONTRACTOR EMPLOYEE, WHO OPERATES A GROUND VEHICLE ON ANY PORTION OF THE AOA AT THE AIRPORT MUST BE FAMILIAR WITH:
  - PHX RULES AND REGULATIONS.
  - PHX PROCEDURES FOR THE OPERATION OF GROUND VEHICLES.
  - •FAILURE TO COMPLY WITH PHX RULES AND REGULATIONS AND/OR PROCEDURES FOR THE OPERATION OF GROUND VEHICLES, WILL REQUIRE THE PERSON TO ATTEND A MOVEMENT AREA OPERATING PROCEDURES CLASS
- 39. ALL CONTRACTOR VEHICLES, INCLUDING HAULING VEHICLES, CONSTRUCTION EQUIPMENT (IE. ROLLERS. BACKHOES, SCRAPERS, ETC.) THAT ARE AUTHORIZED TO OPERATE ON THE AIRPORT WITHIN THE DESIGNATED LIMITS OF CONSTRUCTION OR HAUL ROUTES, SHALL DISPLAY IN FULL VIEW ABOVE THE VEHICLE A 3'X3' OR LARGER ORANGE AND WHITE CHECKERBOARD FLAG, EACH CHECKERBOARD COLOR BEING 1' SQUARE, WHEN OPERATING DURING PERIODS OF DARKNESS OR LIMITED VISIBILITY, CONTRACTOR'S VEHICLES SHALL BE EQUIPPED WITH ROTATING OR FLASHING AMBER LIGHTS. DURING SUCH PERIODS, HAULING VEHICLES NOT SO EQUIPPED SHALL BE ESCORTED BY A VEHICLE SO SUPPLIED.

- 40. ALL VEHICLES AND EQUIPMENT SHALL BE KEPT WITHIN THE WORK AREAS ESTABLISHED FOR EACH WORKSHIFT UNLESS TRAVELING TO OR FROM THE SITE. ALL VEHICLES AND EQUIPMENT SHALL BE PARKED IN STAGING AREAS AS APPROVED BY THE ENGINEER AND AIRPORT.
- 41. CONTRACTOR SHALL PROVIDE TRAINED FLAGMEN TO COORDINATE AND CONTROL CONSTRUCTION TRAFFIC WHEN OPERATING ACROSS ANY ACTIVE TAXIWAY. FLAGMEN SHALL BE EQUIPPED WITH RADIOS ON GROUND CONTROL FREQUENCY AND SHALL ALLOW TRAFFIC CROSSINGS ON ACTIVE TAXIWAYS AND RUNWAYS ONLY UPON SPECIFIC AUTHORIZATION BY AIR TRAFFIC CONTROL. FLAGMEN SHALL ALSO BE PROVIDED FOR CONTROLLING EQUIPMENT ENTERING AND LEAVING THE PROJECT AREA.
- 42. THE CONTRACTOR SHALL AT NO TIME CROSS AN ACTIVE RUNWAY OR TAXIWAY UNLESS ESCORTED BY A COP RADIO ESCORT. VIOLATION COULD RESULT IN PERMANENT EJECTION FROM THE AIRPORT PROPERTY AND/OR THE ASSESSMENT OF FINES.
- 43. CONTRACTOR ACCESS GATE SHALL BE MANNED BY A CONTRACTOR SUPPLIED GATE GUARD OR REMAIN LOCKED AT ALL TIMES (WHEN NOT OCCUPIED). APPROVED GATE GUARD SHALL CONTROL ACCESS TO ALLOW ONLY AUTHORIZED CONSTRUCTION TRAFFIC TO ENTER THE SITE.
- 44. CONSTRUCTION EQUIPMENT SHALL NOT PENETRATE THE HEIGHT RESTRICTIONS FOR FAR PART 77.
- 45. ALL SURFACE RUNOFF FROM THE STAGING AREA OR THE AREAS UNDER CONSTRUCTION SHALL BE COLLECTED AND ADEQUATELY FILTERED BEFORE DISCHARGE INTO THE EXISTING DRAINAGE SYSTEM. CONTRACTOR SHALL MITIGATE THE IMPACTS OF RUNOFF FROM THE SITE IN CONFORMANCE WITH THE SPECIFICATIONS.
- 46. NO ADJUSTMENT FOR ADDITIONAL COMPENSATION AND TIME WILL BE MADE FOR TIME LOST IN WORK AREAS CONTIGUOUS TO TAXIWAYS AND RUNWAYS DUE TO AIRCRAFT TRAFFIC.
- 47. CONTRACTOR SHALL NOTE IN THE RECORD DRAWINGS ANY AND ALL PIPES. DUCTS AND CABLES FOUND DURING EXCAVATION. INDICATE EXACT POSITION, ELEVATION, DIRECTION, SIZE, MATERIAL, PURPOSE AND ACTIVE STATUS,
- 48. ANY PAINT USED FOR NEW PAVEMENT MARKINGS SHALL BE LEAD FREE CERTIFIED. CONTRACTOR TO PROVIDE MATERIAL SAFETY DATA SHEET TO THE AIRPORT FOR APPROVAL PRIOR TO CONSTRUCTION.
- 49. BEFORE ANY WORK COMMENCES, AN ASBESTOS AND LEAD SURVEY NEEDS TO BE COMPLETED. THE CONTRACTOR SHALL CONTACT LAURA JARDIEANU AT 602-273-4300 APPROXIMATELY 3-4 WEEKS PRIOR TO CONSTRUCTION ACTIVITIES TO HAVE THE ASBESTOS AND LEAD SURVEY DONE. ANY ENVIRONMENTAL HAZARDS FOUND DURING THIS SURVEY SHALL BE ABATED PRIOR TO ANY DISTURBANCE. CONTRACTOR TO ALSO NOTIFY DAVID GORDON FOR ANY SUBSURFACE MATERIALS FOUND DURING CONSTRUCTION. CONTRACTOR SHALL ASSUME ALL SUSPECT MATERIALS CONTAIN ASBESTOS (ANYTHING OTHER THAN UNPAINTED WOOD, METAL, OR GLASS) UNLESS OTHERWISE NOTIFIED.
- 50. IF SOIL IS TO BE REMOVED FROM THE AIRPORT, THEN PRIOR TO ANY WORK COMMENCING, SOIL SAMPLING NEEDS TO BE COMPLETED. THE CONTRACTOR SHALL CONTACT LAURA JARDIEANU APPROXIMATELY 3-4 WEEKS PRIOR TO CONSTRUCTION ACTIVITIES TO HAVE THE SOIL SAMPLING COMPLETED. THE SOIL SHALL BE SAMPLED BY COP ENVIRONMENTAL ON-CALL CONSULTANTS WITH ASSISTANCE FROM THE CONTRACTOR. CONTRACTOR SHALL PROVIDE BARRICADES, COMMUNICATE WITH OPERATIONS AND REPLACE THE CORED AREA AFTER SAMPLING IS COMPLETE PER AIRPORT SPECIFICATIONS.
- 51. THE PROJECT WILL DISTURB MORE THAN 1/10 OF AN ACRE. THE CONTRACTOR SHALL OBTAIN A MARICOPA COUNTY DUST CONTROL PERMIT PRIOR TO CONSTRUCTION.
- 52. THE CONTRACTOR SHALL OBTAIN A CONSTRUCTION GENERAL PERMIT FROM ADEQ AND IMPLEMENT A STORM WATER POLLUTION PREVENTION PLAN (SWPPP). THE SWPPP SHALL BE SUBMITTED TO COP AIRPORT ENVIRONMENTAL FOR REVIEW AND APPROVAL PRIOR TO IMPLEMENTATION.
- 53. ANY WASTE OR CONSTRUCTION DEBRIS MUST BE DISPOSED OF PROPERLY. THE DISPOSAL OF MATERIAL OFF-SITE SHALL BE DONE IN A LAWFUL MANNER AND AT A SITE HAVING CURRENT APPROVAL TO ACCEPT SOLID WASTE FOR DISPOSAL.
- 54. CONTRACTOR TO OBTAIN PERMIT FROM THE WATER DEPARTMENT TO ACCESS STORM DRAINS, STORM DRAIN MANHOLES, AND SANITARY SEWER MANHOLES IF REQUIRED.
- 55. SERVICE ROAD ACCESS SHALL BE MAINTAINED AT ALL TIMES. ALIGNMENT FOR SERVICE ROAD DETOURS SHALL BE APPROVED BY AIRPORT OPERATIONS AND SECURITY.





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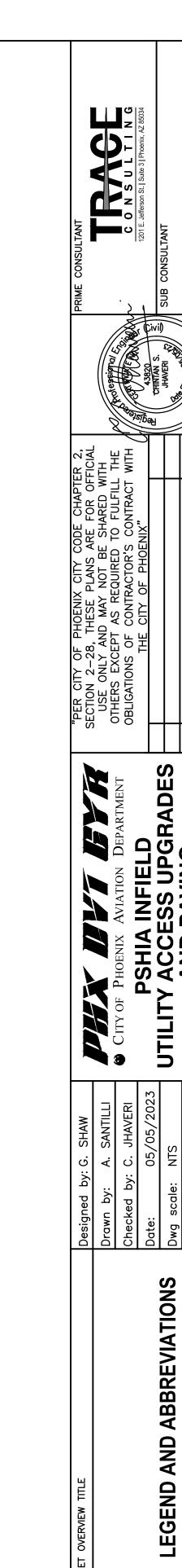
REFERENCE NUMBER: **GI-UU**3 SHEET 03 OF 23



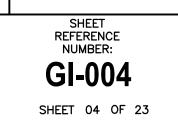
	ABBREVIATIONS
ADDDEVIATIONS	
ABBREVIATIONS	DEFINITIONS
7L/25R ABC	RUNWAY DESIGNATION  AGGREGATE BASE COURSE
AC	ASPHALTIC CONCRETE
ADOT	ARIZONA DEPARTMENT OF TRANSPORTATION
AIP	AIRPORT IMPROVEMENT PROGRAM
APS	ARIZONA PUBLIC SERVICE
ASTM	AMERICAN SOCIETY FOR TESTING MATERIALS
CL OR Q	CENTER LINE
C TO C	CENTER TO CENTER  CORRUGATED METAL PIPE
CONC	CONCRETE
CF OR CU FT	CUBIC FEET
CY	CUBIC YARDS
CZ DIA	CLEAR ZONE DIAMETER
DIP	DUCTILE IRON PIPE
D <sub>50</sub>	DIAMETER OF 50% ROCK SIZE
E	EAST OR EASTING
EA	EACH
ELEC EL OR ELEV	ELEC/ELECTRICAL  ELEVATION
EX OR EXST	EXISTING
FAA	FEDERAL AVIATION ADMINISTRATION
FIN	FINISHED
FL OR E	FLOW LINE FOOT
GPM	GALLONS PER MINUTE
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
JB L	JUNCTION BOX  LENGTH OR LEFT
LBS	POUNDS
LF	LINEAL FOOT
LS	LUMP SUM
LT	LEFT
MAG MAX	MARICOPA ASSOCIATION OF GOVERNMENTS  MAXIMUM
MH	MANHOLE
MIN	MINIMUM
NO.	NORTH OR NORTHING  NUMBER
NPI	NON-PAY-ITEM
NTS	NOT TO SCALE
N/A	NON APPLICABLE
OC OD	ON CENTER OUTSIDE DIAMETER
PROP	PROPOSED
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
R RCP	RADIUS OR RIGHT
REINF	REINFORCED CONCRETE PIPE REINFORCING
ROW	RIGHT-OF-WAY
RSA	RUNWAY SAFETY AREA
RT	RIGHT
RWY S	RUNWAY SOUTH OR SLOPE
SAL	SAFETY AREA LIMITS
SD	STANDARD DETAIL OR STORM DRAIN
SECT	SECTION
SHT SPECS	SHEET SPECIFICATIONS
STA	STATION
SY	SQUARE YARDS
T	TANGENT LENGTH
T.C.	TOP OF CONCRETE  TAXIWAY SAFETY AREA
TWY	TAXIWAY SAFETT AREA  TAXIWAY
TYP	TYPICAL
UG	UNDERGROUND
VCP	VITRIFIED CLAY PIPE
W	WEST OR WATER WATT
WT	WEIGHT
#	REBAR SIZE NUMBER

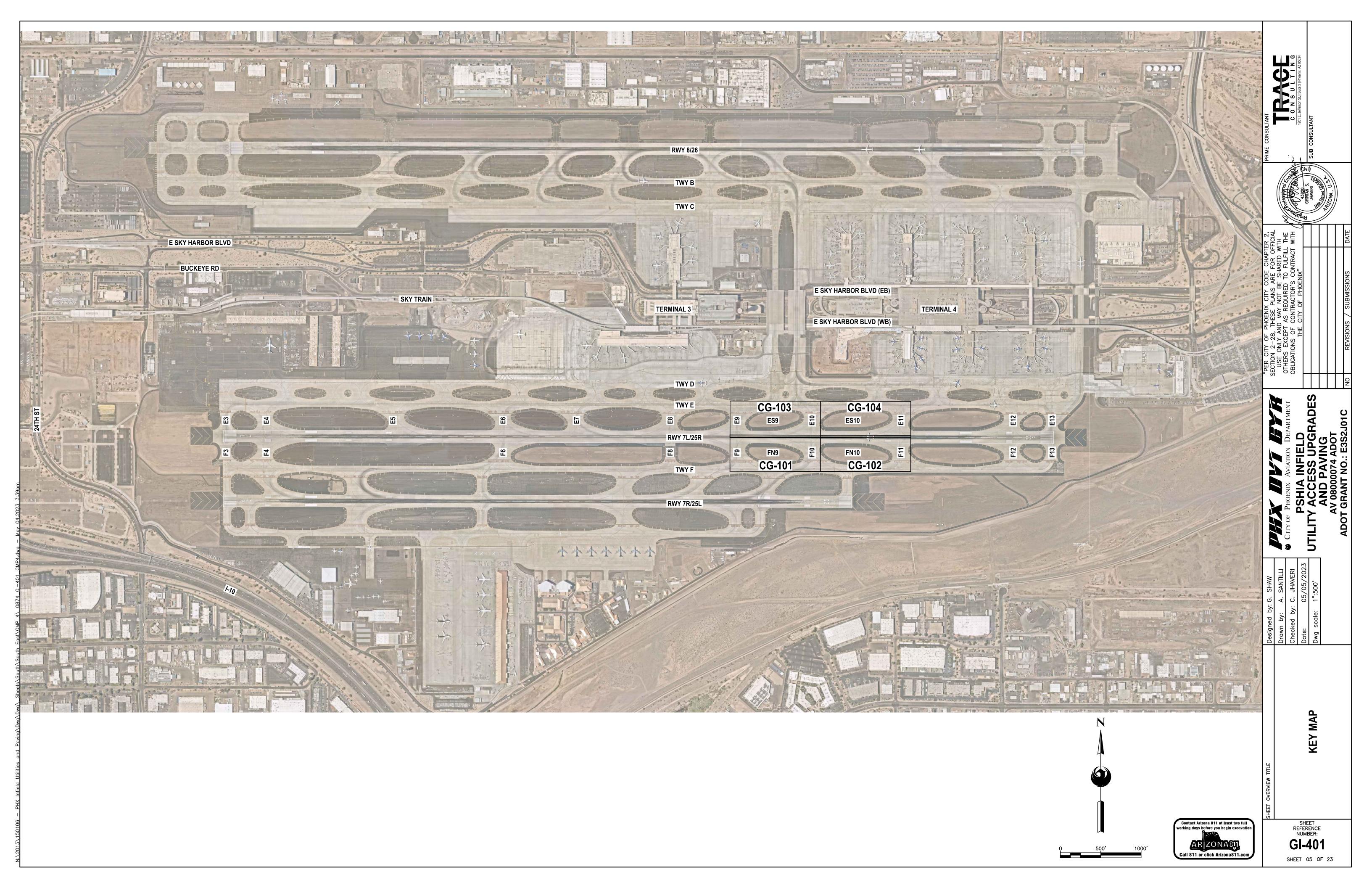
	ABBREVIATIONS
ABBREVIATIONS	DEFINITIONS
0	AT
ILS	INSTRUMENT LANDING SYSTEM
HP	HIGH POINT
GALV	GALVANIZED
GAL	GALLON
GA	GAUGE
EVC	END VERTICAL CURVE
ESMT	EASEMENT
CONST	CONSTRUCTION
CFS	CUBIC FEET PER SECOND
BVC	BEGIN VERTICAL CURB
ВОТ	воттом
BC	BEGIN CURVE
ATCT	AIR TRAFFIC CONTROL TOWER
APPROX	APPROXIMATE
ARFF	AIRPORT RESCUE AND FIRE FIGHTING
AOA	AIR OPERATIONS AREA
ALT	ALTERNATE
CTB	CEMENT TREATED BASE
SWPPP	STORM WATER POLLUTION PREVENTION PLAN
SCHD	SCHEDULE
PSHIA	PHOENIX SKY HARBOR INTERNATIONAL AIRPORT
RGRCP	RUBBER GASKET REINFORCED CONCRETE PIPE
KV	KILOVOLT
NAVD	NORTH AMERICAN VERTICAL DATUM
CLSM	CONTROLLED LOW STRENGTH MATERIAL
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOC.
NOTAM	NOTICE TO AIRMAN
TBM	TEMPORARY BENCH MARKS
COP	CITY OF PHOENIX
PC	POINT OF CURVATURE
 PI	POINT OF INTERSECTION
PCC	PORTLAND CEMENT CONCRETE
PCCP	PORTLAND CEMENT CONCRETE PAVEMENT
PETRO	PETROLEUM
PT	POINT OF TANGENCY
 PVI	POINT OF VERTICAL INTERSECTION
СРМ	CRITICAL PATH METHOD
ADEQ	ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALIT
SF	SQUARE FEET OR SEMI-FLUSH
STD	STANDARD
VC	VERTICAL CURVE
V OR VERT	VERTICAL
TOFA	TAXIWAY OBJECT FREE AREA
N.O.T.	NOTICE OF TERMINATION
N.O.I.	NOTICE OF TERMINATION  NOTICE OF INTENT
N.O.I. SIDA	SECURITY IDENTIFICATION DISPLAY AREA
DVT	DEER VALLEY AIRPORT
CPM	CRITICAL PATH METHOD

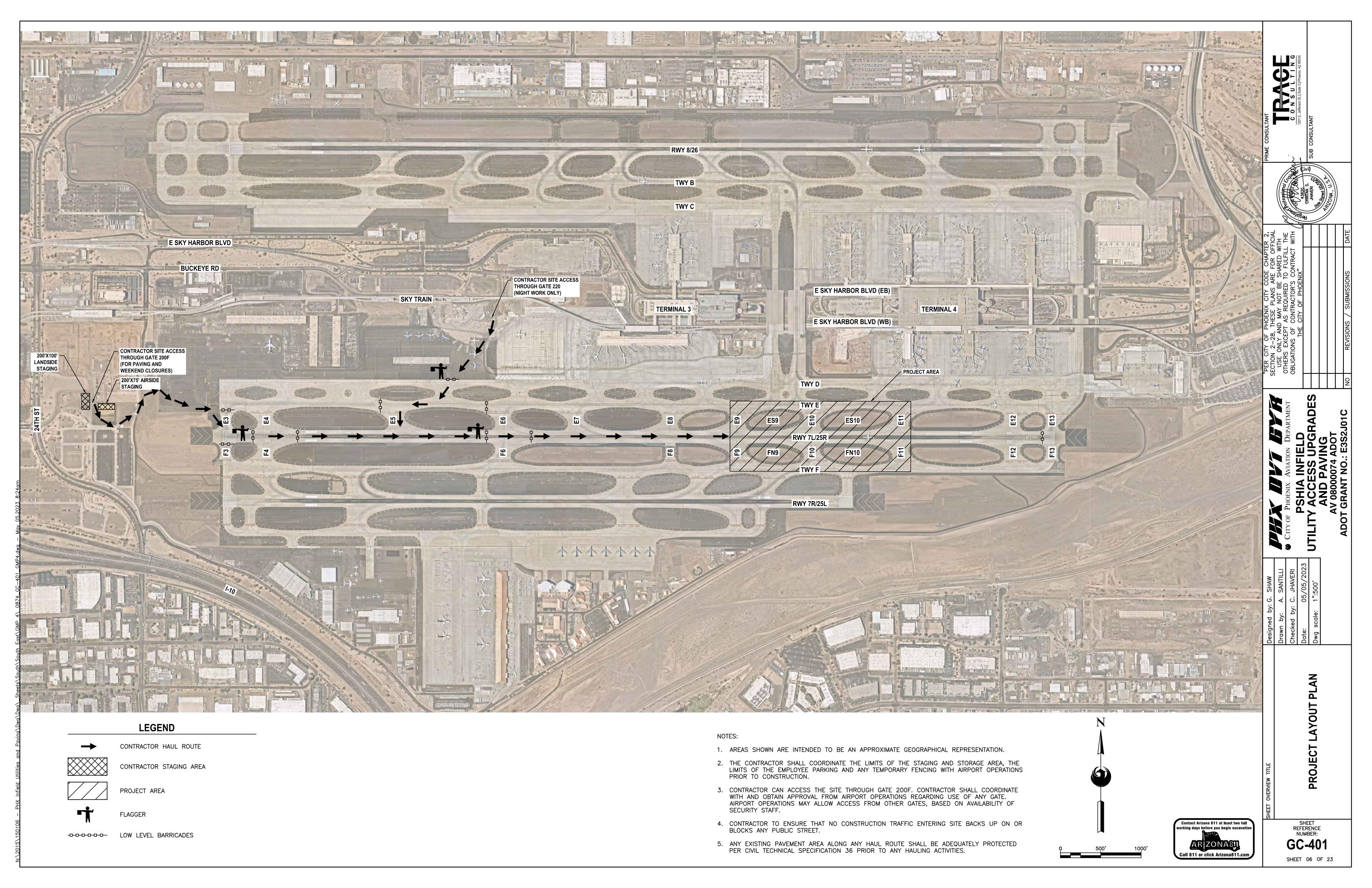
LEGE	ND	
DESCRIPTION	EXISTING	PROPOSE
CONCRETE SIGN BASE		
RUNWAY/TAXIWAY EDGE LIGHT		•
FLUSH RUNWAY/TAXIWAY EDGE LIGHT		
RUNWAY GUARD LIGHT		
SANITARY SEWER AND MANHOLE	(s)	SSS <sub>x</sub>
STORM DRAIN, MANHOLE & INLET		
DI INIWAY /TAYIWAY CENTEDI INE		
RUNWAY/TAXIWAY CENTERLINE CHAIN LINK FENCE	-00	
MAJOR CONTOUR LINES	—— 1125 ——	1125
MINOR CONTOUR LINES		1123
FIBER OPTIC	FO	F0
GRADE BREAK	10	
FLOW LINE		
APS MANHOLE	(APS)	(APS)
MONITORING WELL	(MW)	₩
WATER LINE	W <sub>x</sub>	w
TELEPHONE	CU	CU
GAS LINE	G <sub>x</sub>	g_x
FAA		<u> </u>
ELECTRICAL		— — -
RUNWAY SAFETY AREA	RSA	RSA
TAXIWAY SAFETY AREA	TSA	TSA
CONSTRUCTION NOTE		1
REFERENCE NOTE OR STORM		
DRAIN CONSTRUCTION NOTE		
ADJUSTMENT/REMOVAL/DEMOLITION NOTE		
	<u> </u>	**************************************
SPOT ELEVATION	<b>*</b>	149
SPOT ELEVATION—CATCH BASIN GRATE		14.3.
SAWCUT FULL DEPTH AND MATCH EXISTING		SM
MATCH EXISTING		ME
ļ		

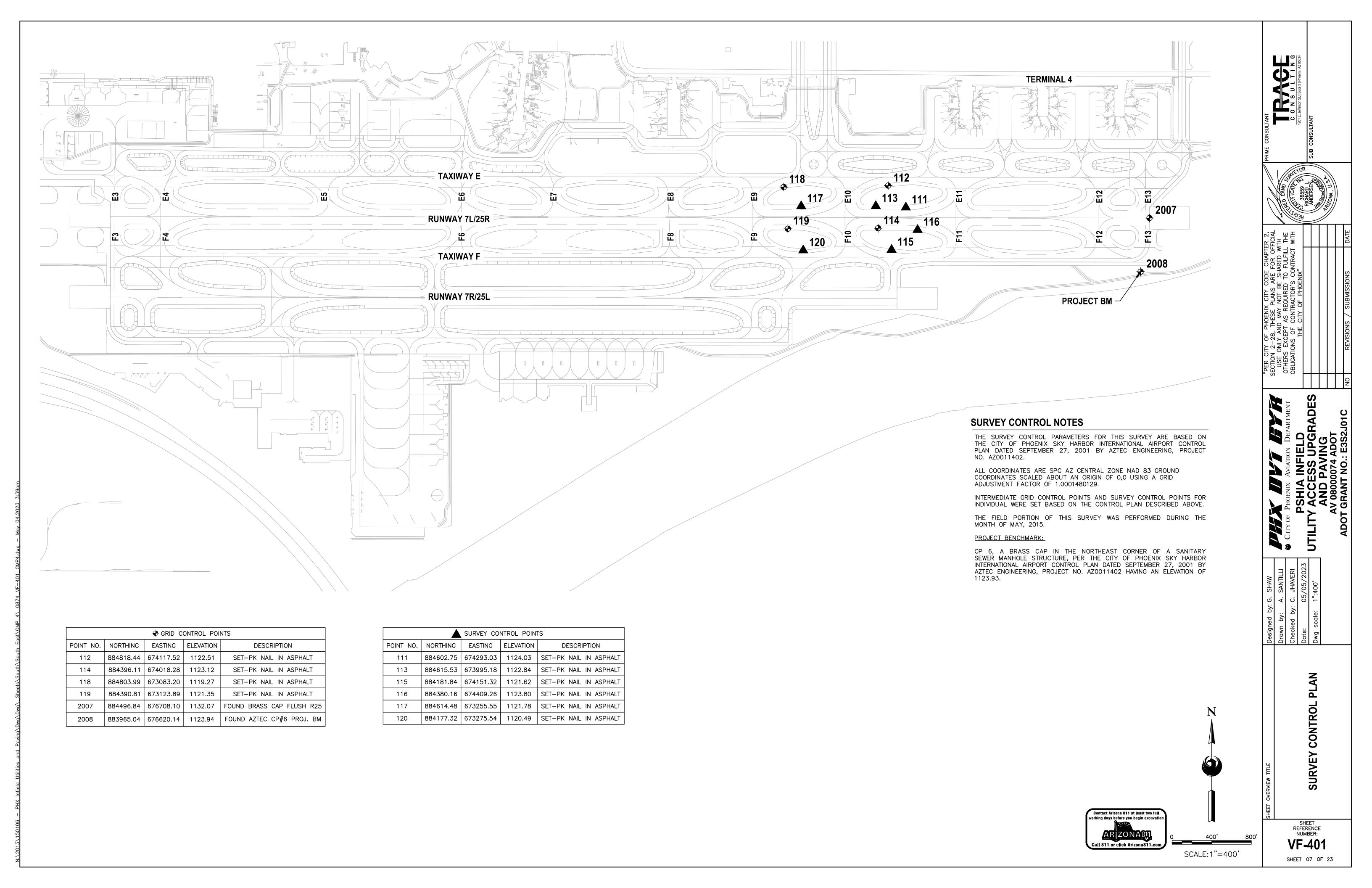


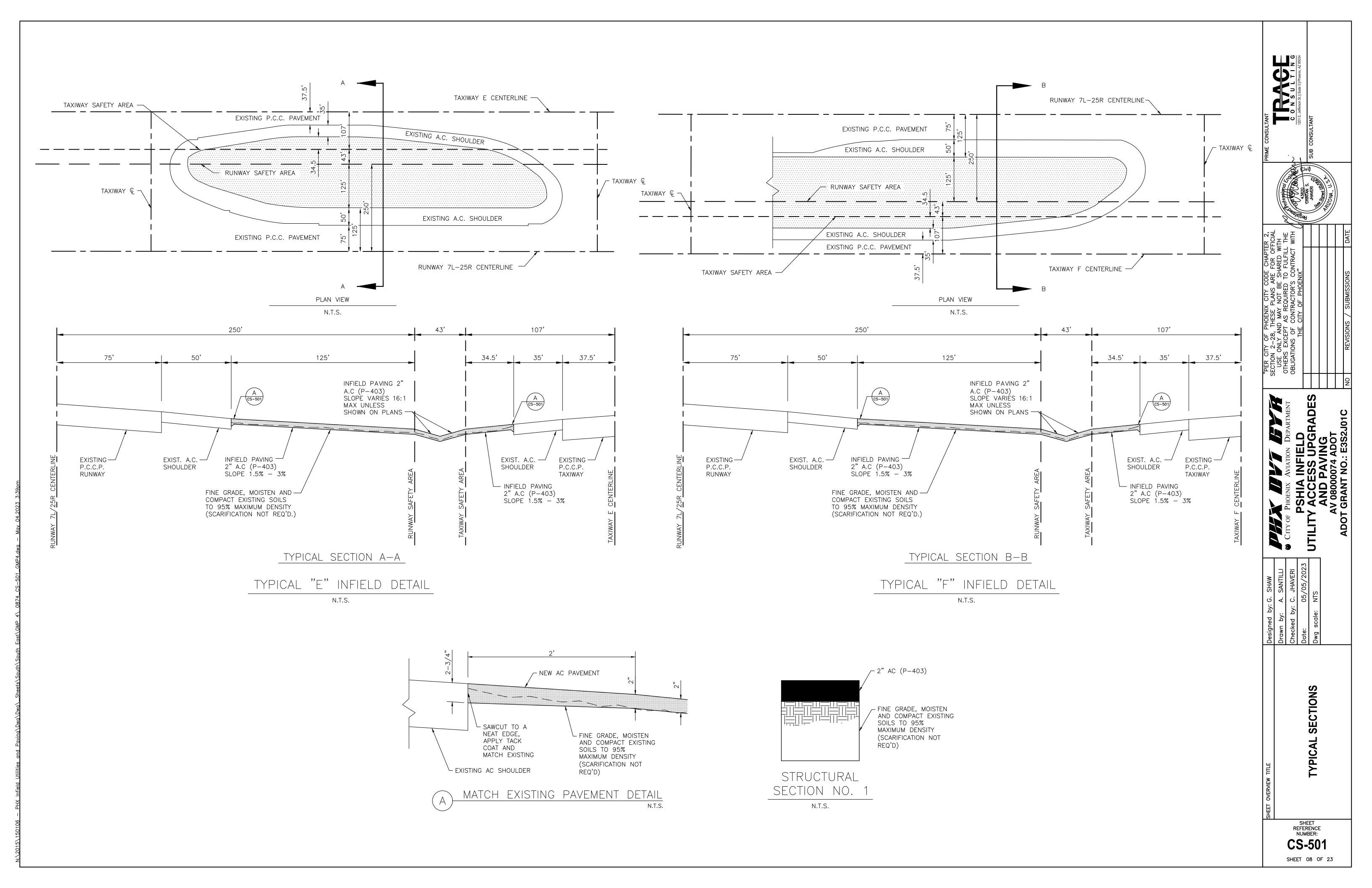


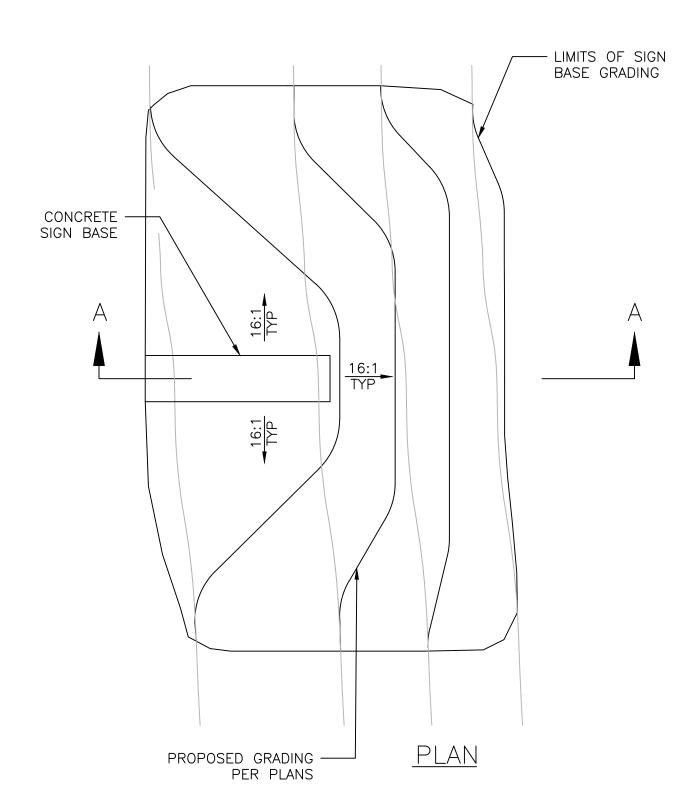


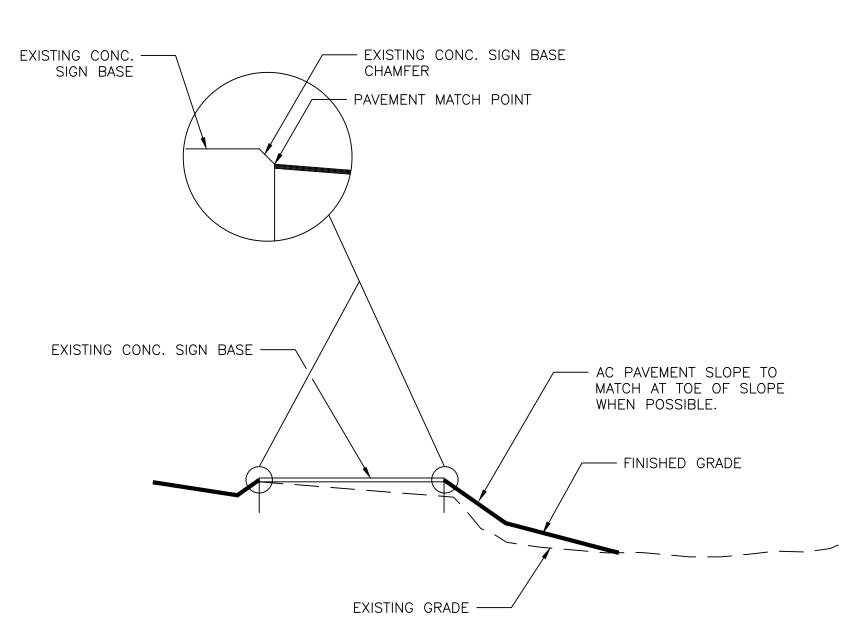










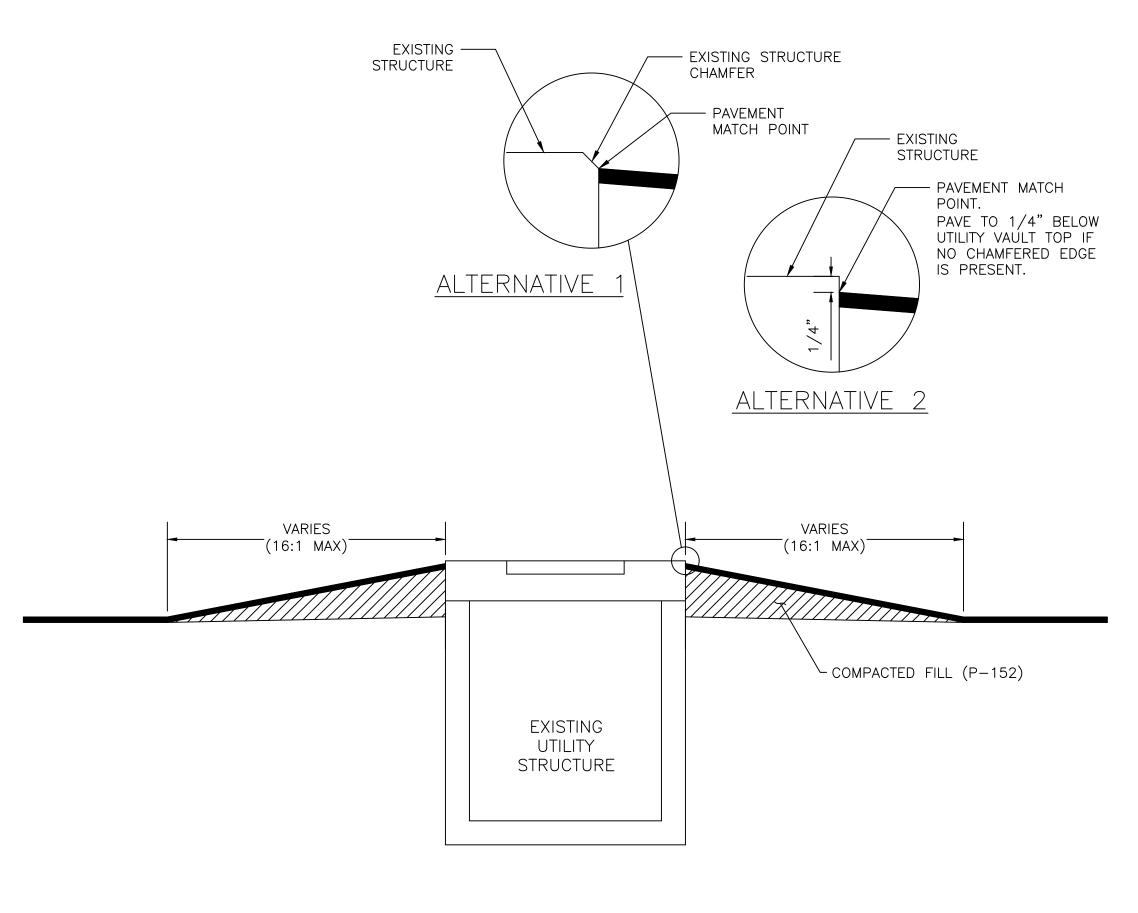


(NOTE: OTHER STRUCTURES SIMILAR)

# SECTION A-A

NOTE: 16:1 SLOPE IS TYPICAL FOR ALL SIGN BASES. SLOPES UP TO 4:1 MAY BE USED IN LOCATIONS WHERE 16:1 SLOPE IS IMPRACTICAL DUE TO PROXIMITY OF OTHER STRUCTURES WITH ENGINEER'S APPROVAL.

B SIGN BASE PAVING DETAIL N.T.S.

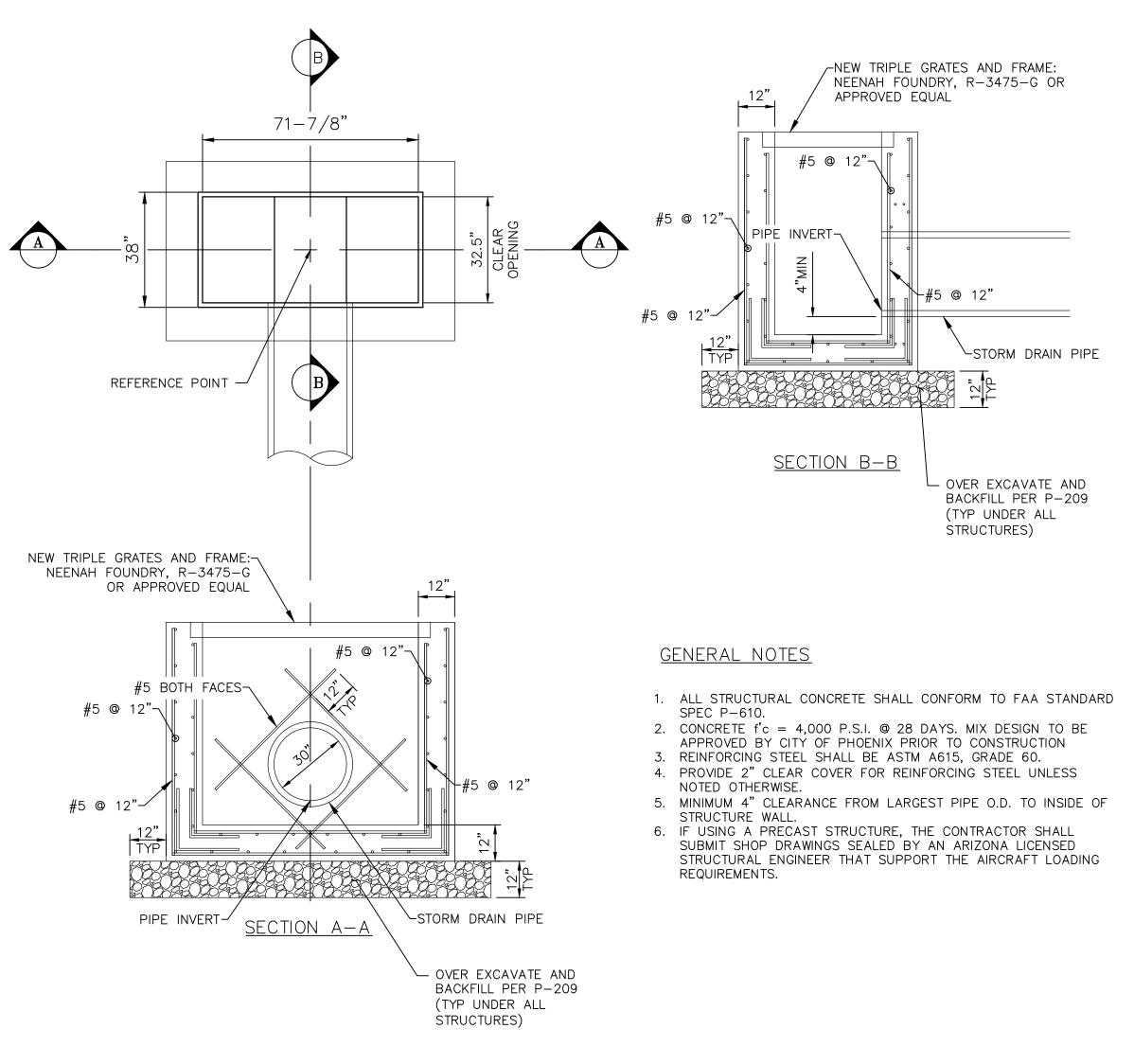


STRUCTURE PAVING DETAIL
N.T.S.

**DETAILS PAVING** SHEET REFERENCE NUMBER:

**CS-502** 

SHEET 09 OF 23



D NEW TRIPLE GRATE CATCH BASIN

E CONSULTANT

C O N S U L T I N G



2–28, THESE PLANS ARE FOR OFFICIAL ONLY AND MAY NOT BE SHARED WITH EXCEPT AS REQUIRED TO FULFILL THE IONS OF CONTRACTOR'S CONTRACT WITH THE CITY OF PHOENIX"

ENIX AVIATION DEPARTMENT
HIA INFIELD
CCESS UPGRADES

DSHIA INFIEL
PSHIA INFIEL
PSHIA INFIEL
ACCESS UP
AND PAVING
AV 08000074 AD

Drawn by: G. SHAW
Drawn by: A. SANTILLI
Checked by: C. JHAVERI
Date: 05/05/2023
Dwg scale: NTS

DRAINAGE DETAILS

SH REFE

SHEET
REFERENCE
NUMBER:
CS-503

SHEET 10 OF 23

6" OR GREATER ADJUSTMENT

UTILITY VAULT EXTENSION

- PRECAST CONCRETE VAULT RISER. ADJUSTMENT HEIGHT VARIES, SEE

- INSTALL WATER STOP ALONG

JOINT. USE WATERSTOP-RX

- VAULT BASE AND ALL ASSOCIATED

ALL MODIFICATIONS SHALL RETAIN AIRCRAFT LOAD

RATING OF MANHOLE.

PIPING SHALL BE PROTECTED

IN PLACE

RX-101 OR APPROVED EQUAL,

#### UTILITY VAULT NOTES

- 1. ALL STEEL, OTHER THAN REBAR, TO BE HOT DIPPED GALVANIZED AFTER FABRICATION.
- 2. GROUT ALL CONDUIT PENETRATIONS.
- 3. PROVIDE MANUFACTURER'S DRAWINGS AND STRUCTURAL CALCULATIONS FOR ALL CONCRETE ELEMENTS OF UTILITY VAULTS AND FABRICATED
- 4. DO NOT CONNECT COUNTERPOISE TO GROUNDING SYSTEM.
- 5. AFTER ADJUSTING THE UTILITY VAULT TO GRADE, THE CONTRACTOR SHALL REPLACE THE LADDER (SEE NOTE 6) AS NECESSARY TO ENSURE THAT IT IS THE CORRECT LENGTH FOR THE NEW DEPTH OF THE VAULT.
- 6. ALL REPLACED LADDERS TO BE FIBERGLASS WITH MOUNTED HOOKS AT TOP. A PERMANENT MOUNTED TOP STEP TO BE INSTALLED WITHIN THE VAULT COLLAR TO HOOK LADDERS TO.
- 7. ALL UTILITIES WITHIN EXISTING UTILITY VAULTS SHALL BE PROTECTED IN PLACE. EXISTING UTILITIES DAMAGED AS A RESULT OF CONSTRUCTION SHALL BE FIXED BY CONTRACTOR AT NO COST TO THE CITY.
- 8. THE HINGE OF THE LID SHALL BE FACING THE NEAREST RUNWAY OR PARALLEL TAXIWAY PAVEMENT.
- 9. REFER TO SHEET EA-502 FOR VAULT NAME PLATE INSTALLATION DETAIL.



DETAIL **ADJUSTMENT** 

SHEET REFERENCE NUMBER: **CS-504** 

SHEET 11 OF 23

VAULT APRON AND RISER SHALL BE -

#4 REBAR SHALL BE ANCHORED WITH —

DRILL AND PLACE REBAR 18" ON

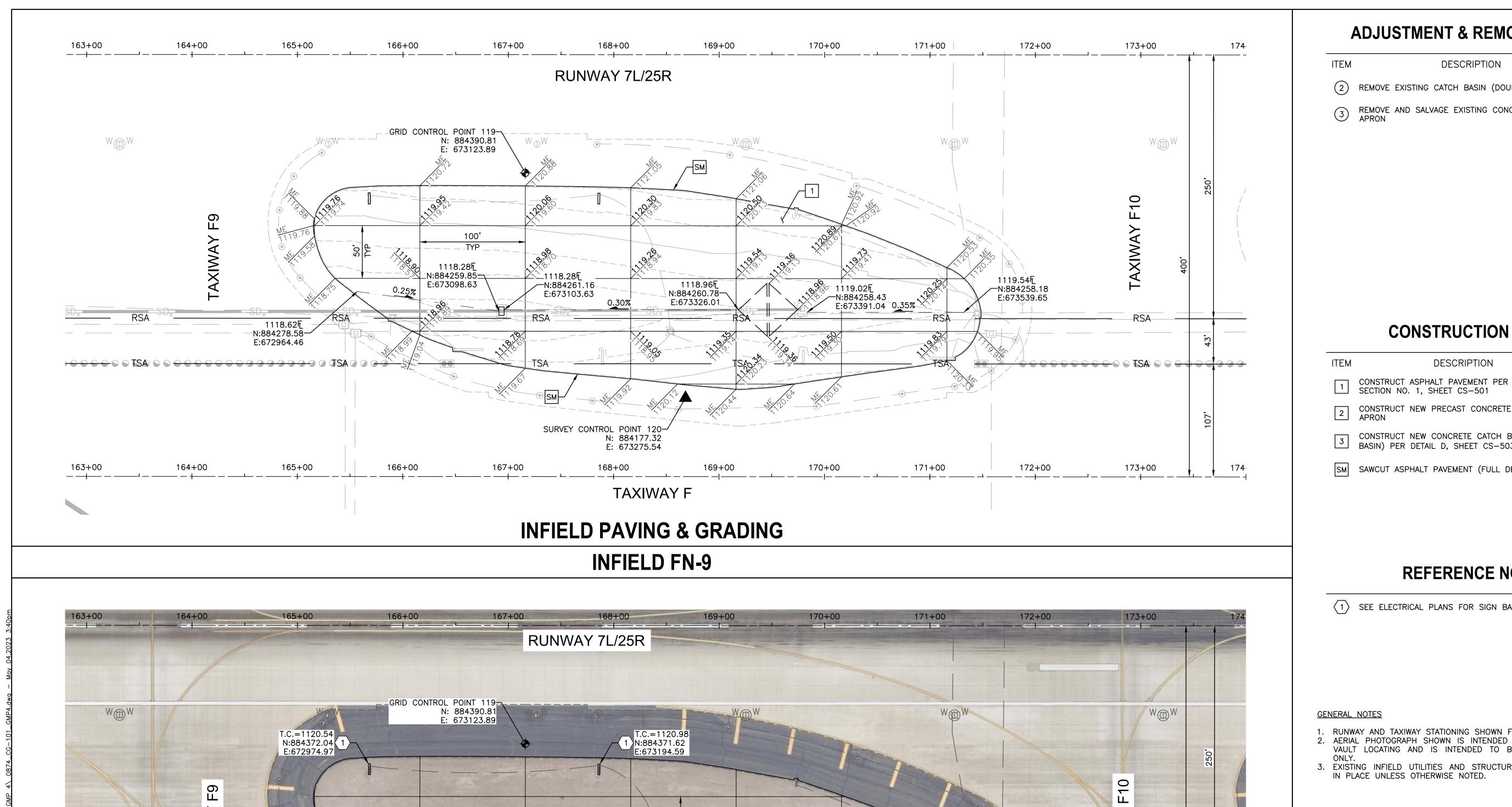
(E) DUCT PROTECT

IN-PLACE

CENTER IN ALL WALLS

EPOXY IN CONTRACTOR DRILLED HOLE.

SEPARATED AT GROUTED JOINT



EXIST 24" RGRCP SD

170+00

171+00

172+00

169+00

173+00

100' TYP

EXIST 30" RGRCP SD -

165+00

164+00

GRATE ELEV=1118.34

INVERT ELEV=1112.43
N:884263.89
E:673103.63

SURVEY CONTROL POINT 120-N: 884177.32 E: 673275.54

168+00

TAXIWAY F

**UTILITY ACCESS UPGRADES** 

167+00

166+00

# **ADJUSTMENT & REMOVAL NOTES**

QTY

2 REMOVE EXISTING CATCH BASIN (DOUBLE GRATE)

REMOVE AND SALVAGE EXISTING CONCRETE LID AND APRON

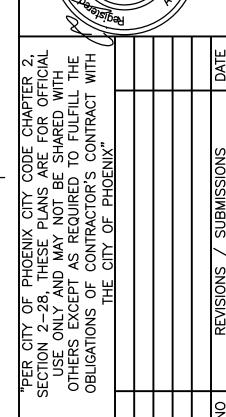
# **CONSTRUCTION NOTES**

QTY CONSTRUCT ASPHALT PAVEMENT PER STRUCTURAL SECTION NO. 1, SHEET CS-501

CONSTRUCT NEW PRECAST CONCRETE LID AND APRON

CONSTRUCT NEW CONCRETE CATCH BASIN (TRIPLE BASIN) PER DETAIL D, SHEET CS-503

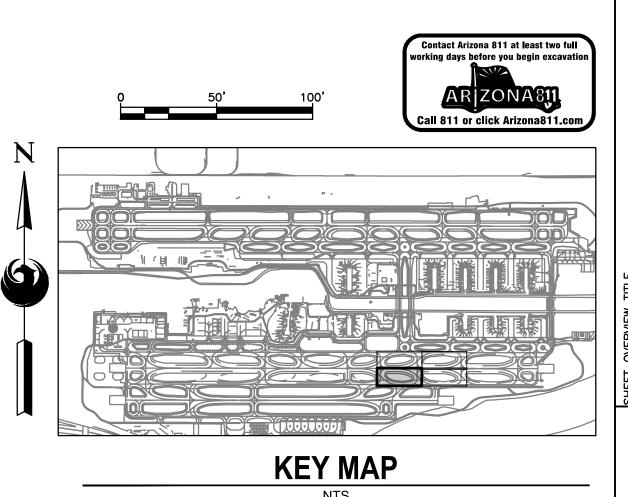
SAWCUT ASPHALT PAVEMENT (FULL DEPTH) 1,420 LF

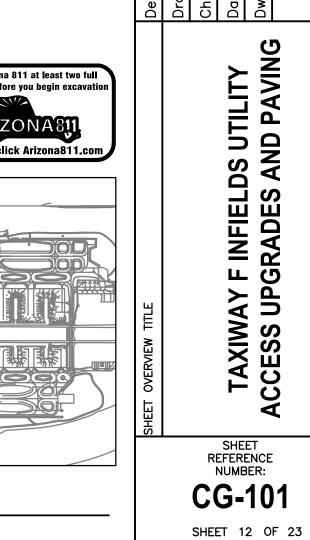


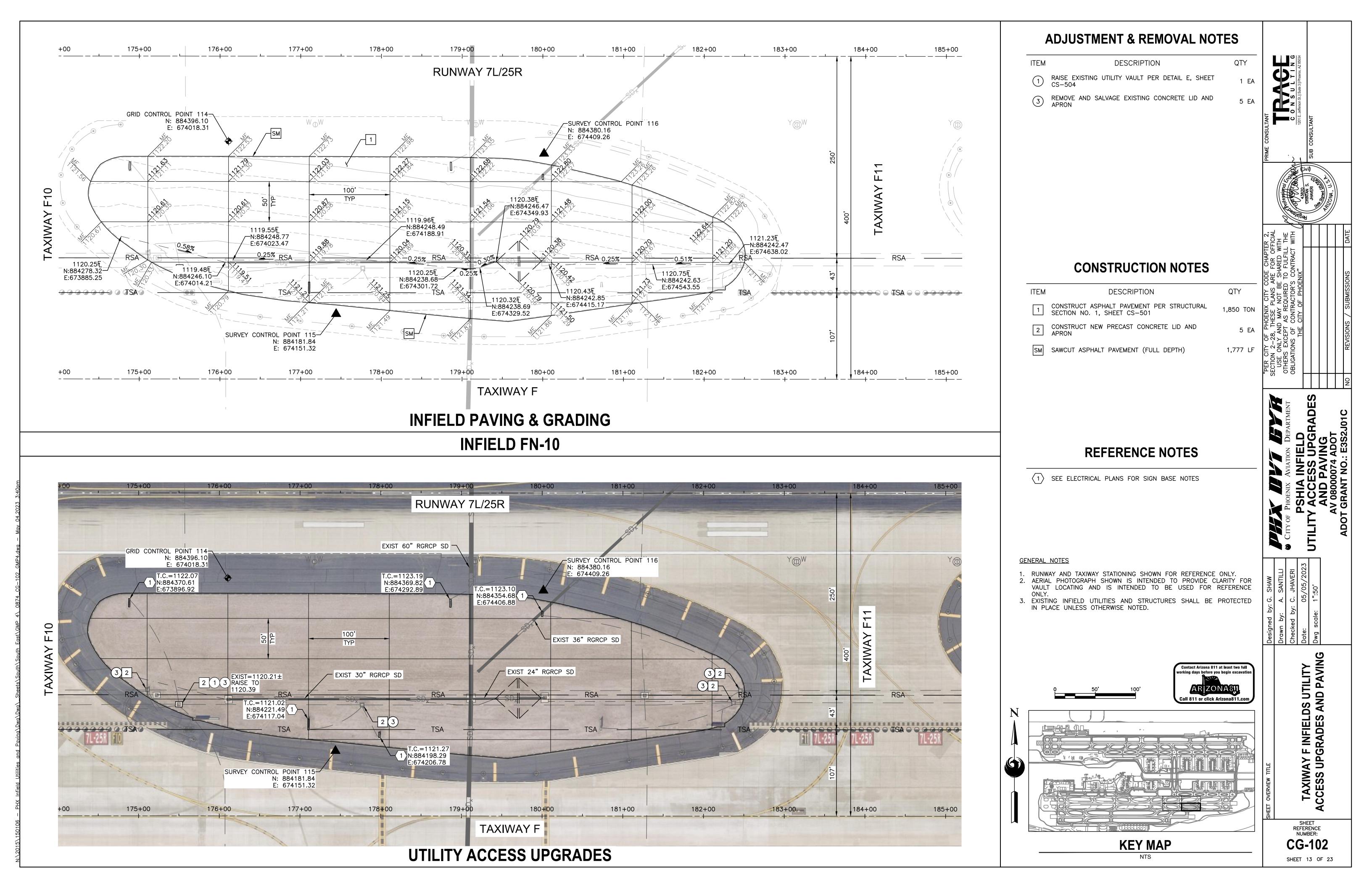
# **REFERENCE NOTES**

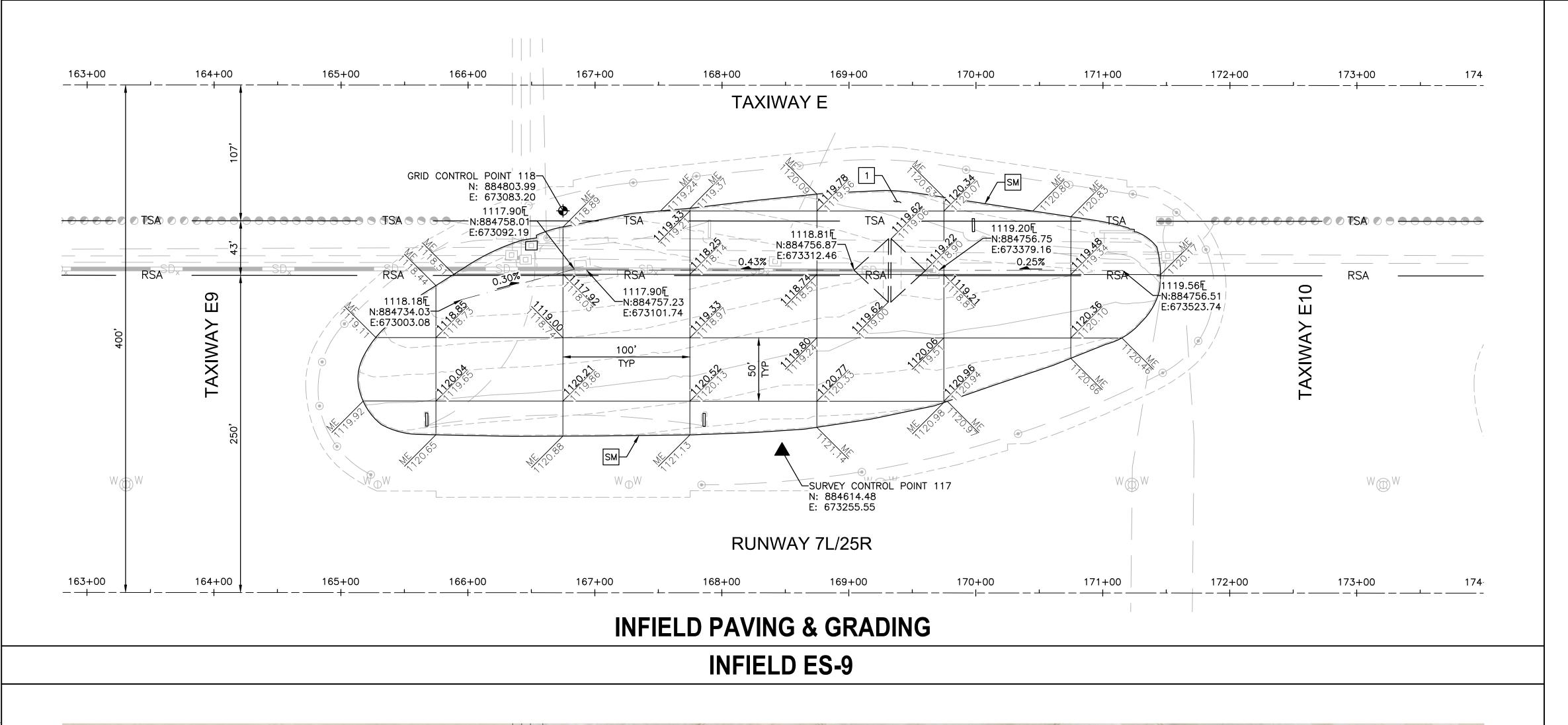
1 SEE ELECTRICAL PLANS FOR SIGN BASE NOTES

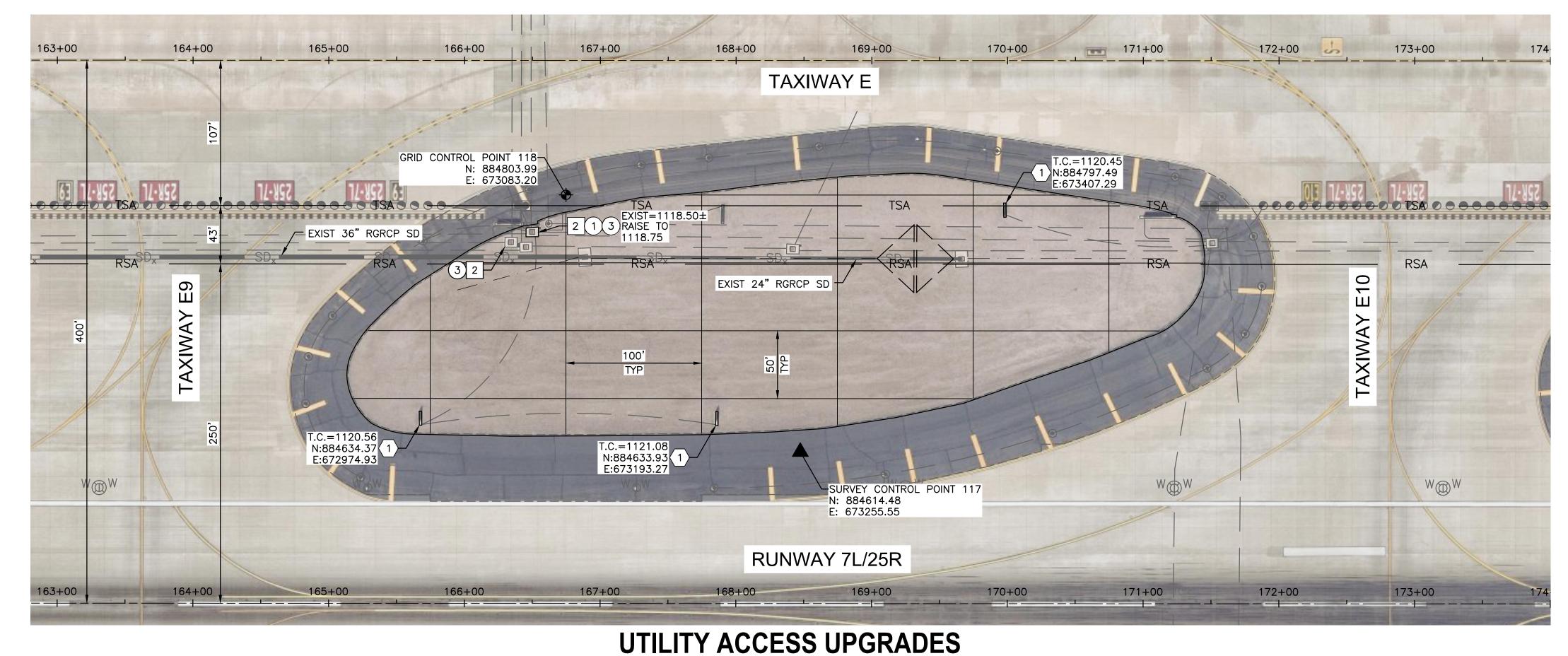
- RUNWAY AND TAXIWAY STATIONING SHOWN FOR REFERENCE ONLY.
  AERIAL PHOTOGRAPH SHOWN IS INTENDED TO PROVIDE CLARITY FOR VAULT LOCATING AND IS INTENDED TO BE USED FOR REFERENCE
- 3. EXISTING INFIELD UTILITIES AND STRUCTURES SHALL BE PROTECTED IN PLACE UNLESS OTHERWISE NOTED.









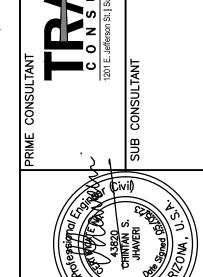


# ADJUSTMENT & REMOVAL NOTES

ITEM			DE	SCRIP	TION				QΤ
$\bigcirc$	RAISE	<b>EXISTING</b>	UTILITY	VAULT	PER	DETAIL	Ε,	SHEET	1

CS-504

REMOVE AND SALVAGE EXISTING CONCRETE LID AND APRON 2



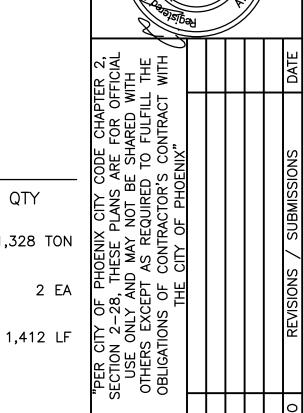
# **CONSTRUCTION NOTES**

DESCRIPTION QTY

CONSTRUCT ASPHALT PAVEMENT PER STRUCTURAL 1,328 1

2 CONSTRUCT NEW PRECAST CONCRETE LID AND APRON

SM SAWCUT ASPHALT PAVEMENT (FULL DEPTH)

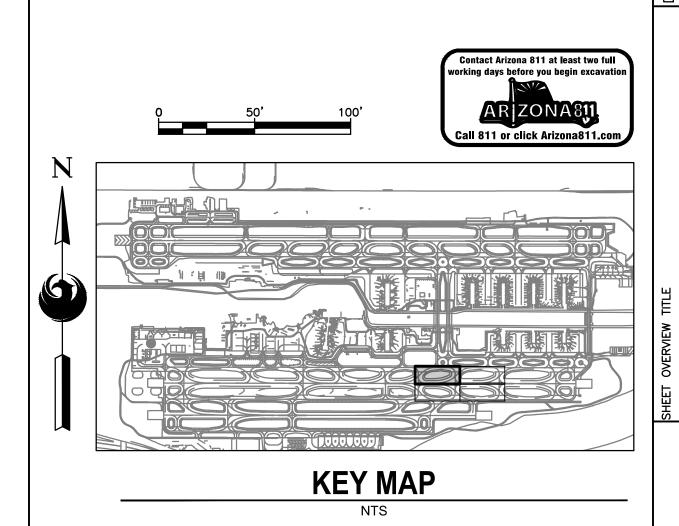


# **REFERENCE NOTES**

1 SEE ELECTRICAL PLANS FOR SIGN BASE NOTES

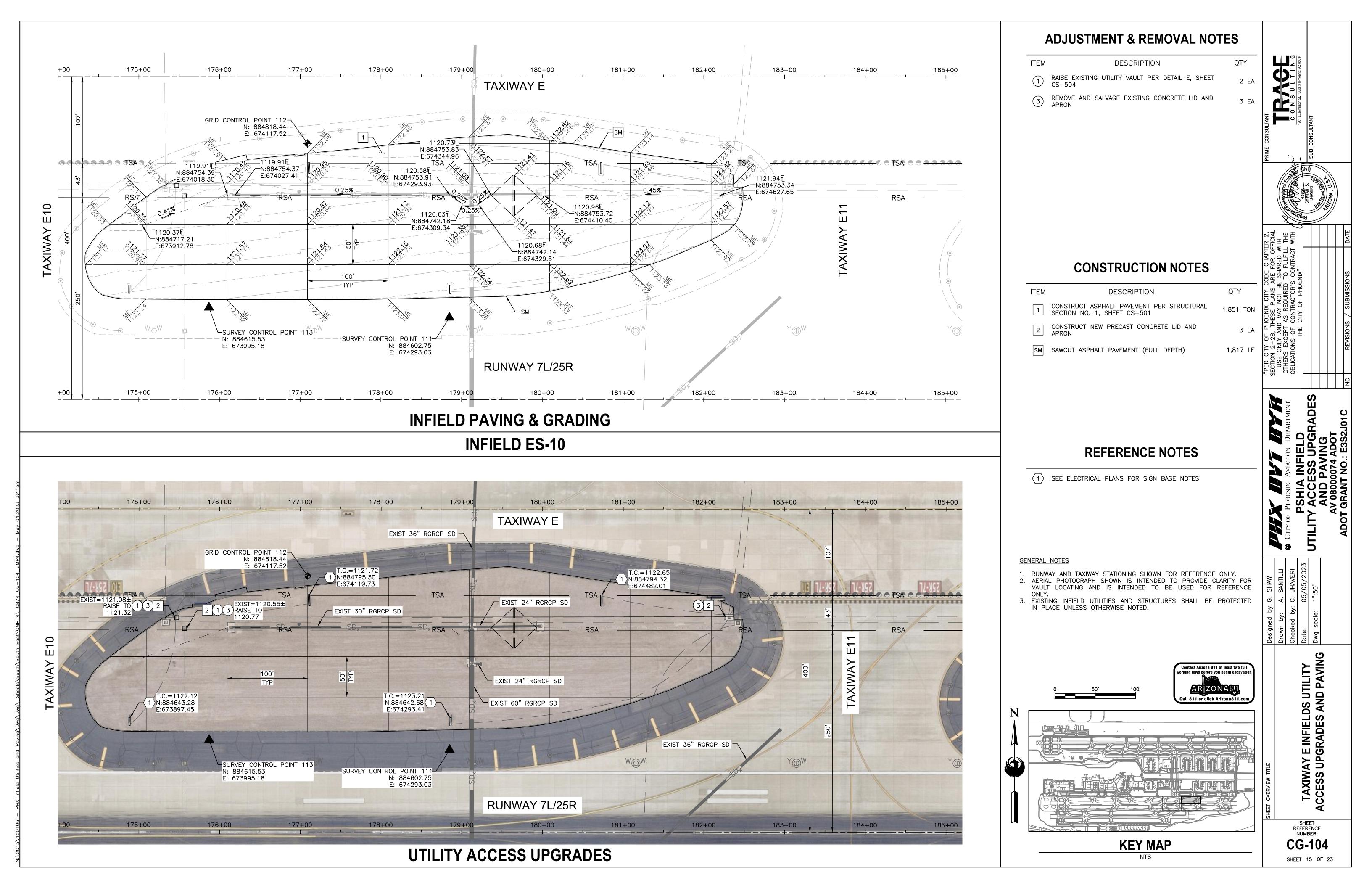
#### GENERAL NOTES

- RUNWAY AND TAXIWAY STATIONING SHOWN FOR REFERENCE ONLY.
   AERIAL PHOTOGRAPH SHOWN IS INTENDED TO PROVIDE CLARITY FOR VAULT LOCATING AND IS INTENDED TO BE USED FOR REFERENCE
- 3. EXISTING INFIELD UTILITIES AND STRUCTURES SHALL BE PROTECTED IN PLACE UNLESS OTHERWISE NOTED.



TAXIWAY E INFIELDS UTILITY ACCESS UPGRADES AND PAVING

SHEET
REFERENCE
NUMBER:
CG-103
SHEET 14 OF 23



# **ELECTRICAL ABBREVIATIONS:** ARIZONA PUBLIC SERVICE BARE COPPER CONDUCTOR CONCRETE ENCASED CKT FEDERAL AVIATION ADMINISTRATION GALVANIZED RIGID STEEL INNER DIAMETER OR IDENTIFICATION LIGHT EMITTING DIODE LINEAR FEET MEDIUM-INTENSITY APPROACH LIGHTING SYSTEM WITH RUNWAY ALIGNMENT INDICATOR LIGHTS PRECISION APPROACH PATH INDICATOR PVC POLY-VINYL CHLORIDE RUNWAY 2 (MANDATORY SIGNS) RUNWAY DISTANCE REMAINING RUNWAY GUARD LIGHT SLURRY ENCASED

# ELECTRICAL DEMOLITION GENERAL NOTES

TAXIWAY ECHO SIGNS

TAXIWAY FOXTROT SIGNS

- 1. WITHIN AREAS OF DEMOLITION AND AS OTHERWISE SHOWN, REMOVE IDENTIFIED SIGN BASES, ISOLATION TRANSFORMERS AND OTHER INDICATED ITEMS.
- 2. <u>CABLE REMOVAL</u>

TFS

- A. <u>DIRECT BURIAL:</u> REMOVE FROM WITHIN MANHOLES AND HANDHOLES AND REMOVE IN AREAS WHERE EXCAVATION REQUIRES DISTURBING, ABANDON ELSEWHERE.
- B. <u>IN CONDUIT:</u> REMOVE COMPLETELY BETWEEN NEAREST BASES, HANDHOLES OR MANHOLES.
- 3. AT INDICATED DEVICES TO BE REMOVED OR IN DEMOLITION AREAS INDICATED, REMOVE ALL CONDUCTORS BACK TO NEAREST MANHOLE OR HANDHOLE OUTSIDE DEMOLITION AREA.
- 4. SIGNS AND/OR SIGN BASES, CABLES, CONDUITS, DUCTS, ETC. WHICH ARE NOT SPECIFICALLY INDICATED TO BE REMOVED (OR WHICH ARE SHOWN TO REMAIN WITHIN AREAS OF GENERAL DEMOLITION) SHALL REMAIN IN—PLACE AND FUNCTIONAL.
- 5. CONTRACTOR SHALL VERIFY EQUIPMENT AND CABLE DESIGNATIONS AND STATUS PRIOR TO REMOVAL OR DISCONNECTING.
- 6. UNLESS OTHERWISE NOTED, ALL REMOVED MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH APPLICABLE LOCAL ORDINANCES.
- 7. DRAWINGS MAY NOT DETAIL ALL EXISTING FACILITIES IN AREAS OF DEMOLITION. CONTRACTOR SHALL REVIEW THE SITE AND RECORD DRAWINGS TO VERIFY THE DEMOLITION EFFORT INVOLVED.
- 8. EXISTING SIGNS MUST REMAIN OPERATIONAL DURING CONSTRUCTION. TEMPORARY CONNECTIONS TO EXISTING SIGNS REQUIRED DURING RELOCATION. TEMPORARY MOUNTING OF EXISTING SIGNS REQUIRED WHERE NEW LOCATION CONFLICTS WITH EXISTING LOCATION.

#### **ELECTRICAL LEGEND:**

(UNLESS OTHERWISE NOTED ON PLANS)

 PVC W/#8-5KV L-824 TYPE "C" CABLE PER INDICATED LIGHTING CIRCUIT. (QUANTITY AND SIZE AS INDICATED ON PLAN SHEETS)
 EXISTING ELECTRICAL CONDUIT AND CONDUCTOR
EXISTING ELEVATED EDGE LIGHT
EXISTING LIGHT CAN WITH COVER
EXISTING RUNWAY GUARD LIGHT
EXISTING IN-PAVEMENT RUNWAY GUARD LIGHT
EXISTING AIRFIELD GUIDANCE SIGN
RELOCATED EXISTING AIRFIELD GUIDANCE SIGN
EXISTING ELECTRICAL HANDHOLE
EXISTING ELECTRICAL MANHOLE

#### **ELECTRICAL SHEET INDEX**

EA-001	ELECTRICAL LEGEND AND NOTES
EA-101	PARTIAL AIRFIELD ELECTRICAL SITE PLAN
EA-102	PARTIAL AIRFIELD ELECTRICAL SITE PLAN
EA-103	PARTIAL AIRFIELD ELECTRICAL SITE PLAN
EA-104	PARTIAL AIRFIELD ELECTRICAL SITE PLAN
EA-501	AIRFIELD GUIDANCE SIGN BASE INSTALLATION DETAIL
EA-502	RDR SIGN BASE INSTALLATION AND MANHOLE DETAIL

SPLICING AND GROUNDING DETAILS

# ADVISORY CIRCULARS FOR AIRPORT PROJECTS (MOST RECENT VERSION):

150/5340-18	STANDARDS FOR AIRPORT SIGN SYSTEMS
150/5340-30	DESIGN & INSTALLATION DETAILS FOR AIRPORT VISUAL AIDS
150/5345-7	SPECIFICATION FOR L-824 UNDERGROUND ELECTRICAL CABLE FOR AIRPORT LIGHTING CIRCUITS
150/5345-26	SPECIFICATION FOR L-823 PLUG AND RECEPTACLE, CABLE CONNECTORS
150/5345-42	SPECIFICATION FOR AIRPORT LIGHT BASES, TRANSFORMER HOUSINGS, JUNCTION BOXES, AND ACCESSORIES
150/5345-44	SPECIFICATION FOR RUNWAY AND TAXIWAY SIGNS
150/5345-47	SPECIFICATION FOR SERIES TO SERIES ISOLATION TRANSFORMERS FOR AIRPORT LIGHTING SYSTEMS
150/5345-53	AIRPORT LIGHTING EQUIPMENT CERTIFICATION PROGRAM
150/5370-2	OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION
150/5370-10	STANDARDS FOR SPECIFYING CONSTRUCTION OF AIRPORTS
ADDENDUM	AIRPORT LIGHTING EQUIPMENT CERTIFICATION PROGRAM (PUBLISHED MONTHLY AND LISTING APPROVED SUPPLIERS)

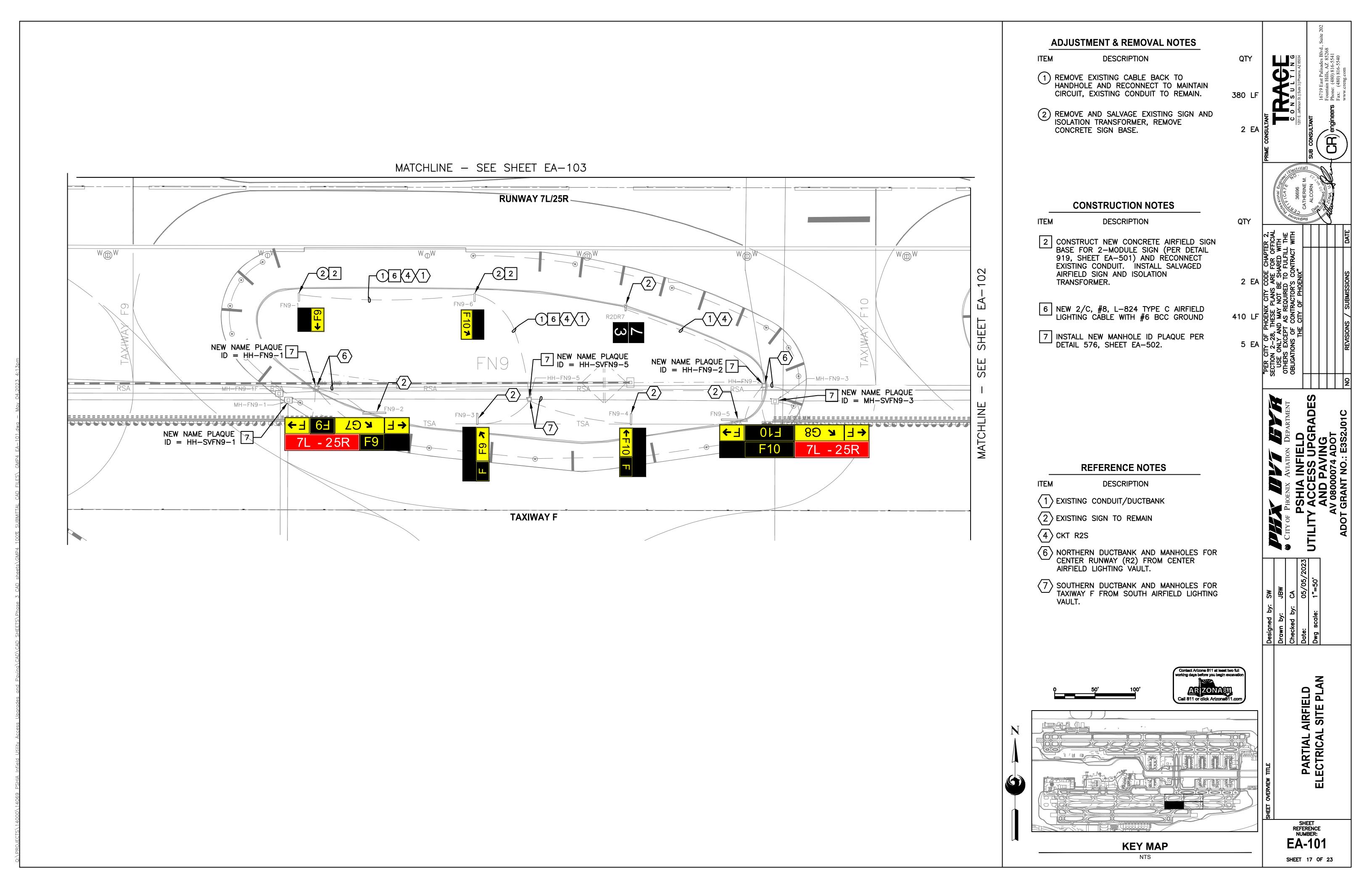
: CA
O5/05/2023
UTILITY ACC
NTS
AND
AV 0800

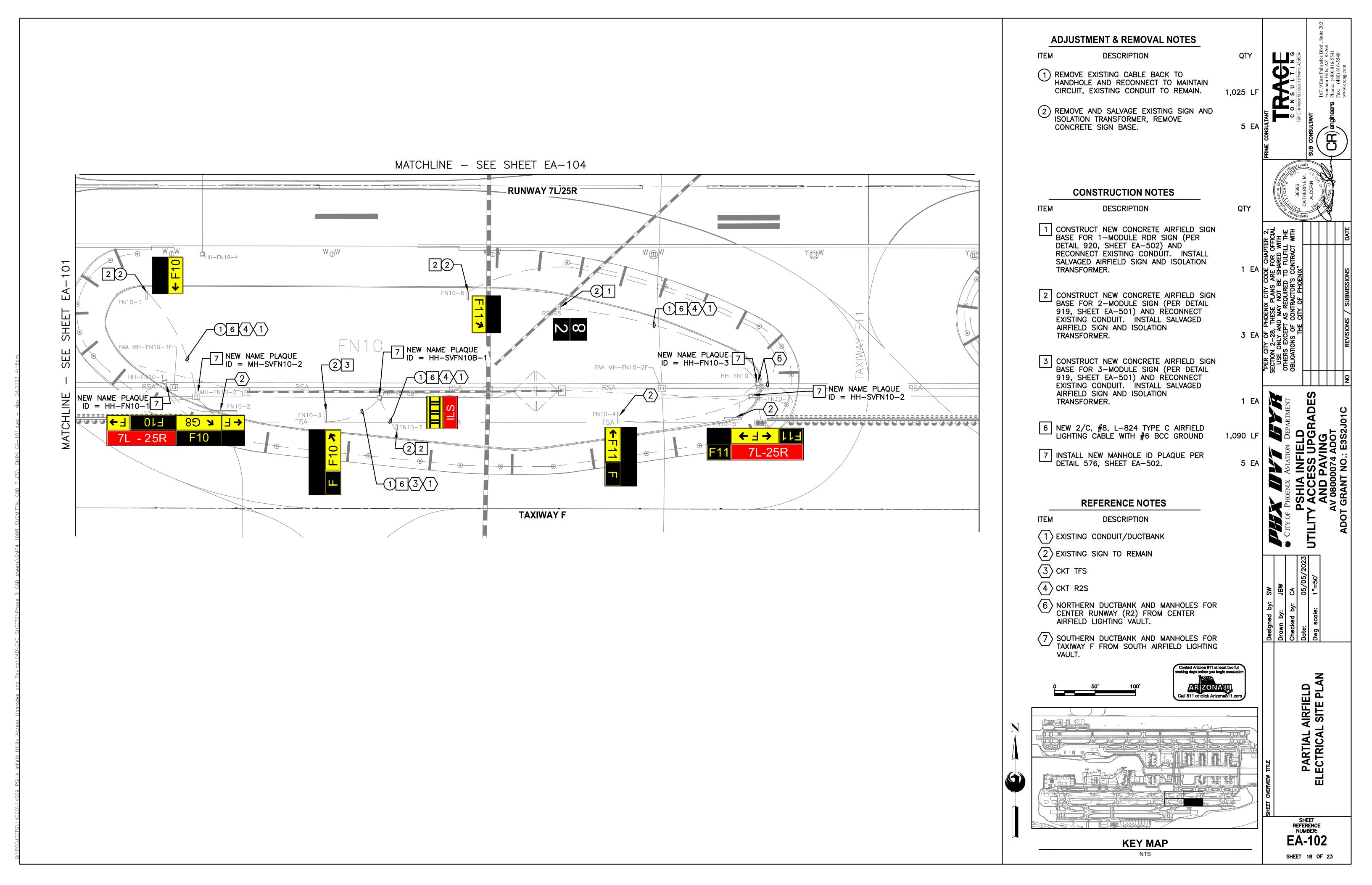
ELECTRICAL LEGEND AND NOTES

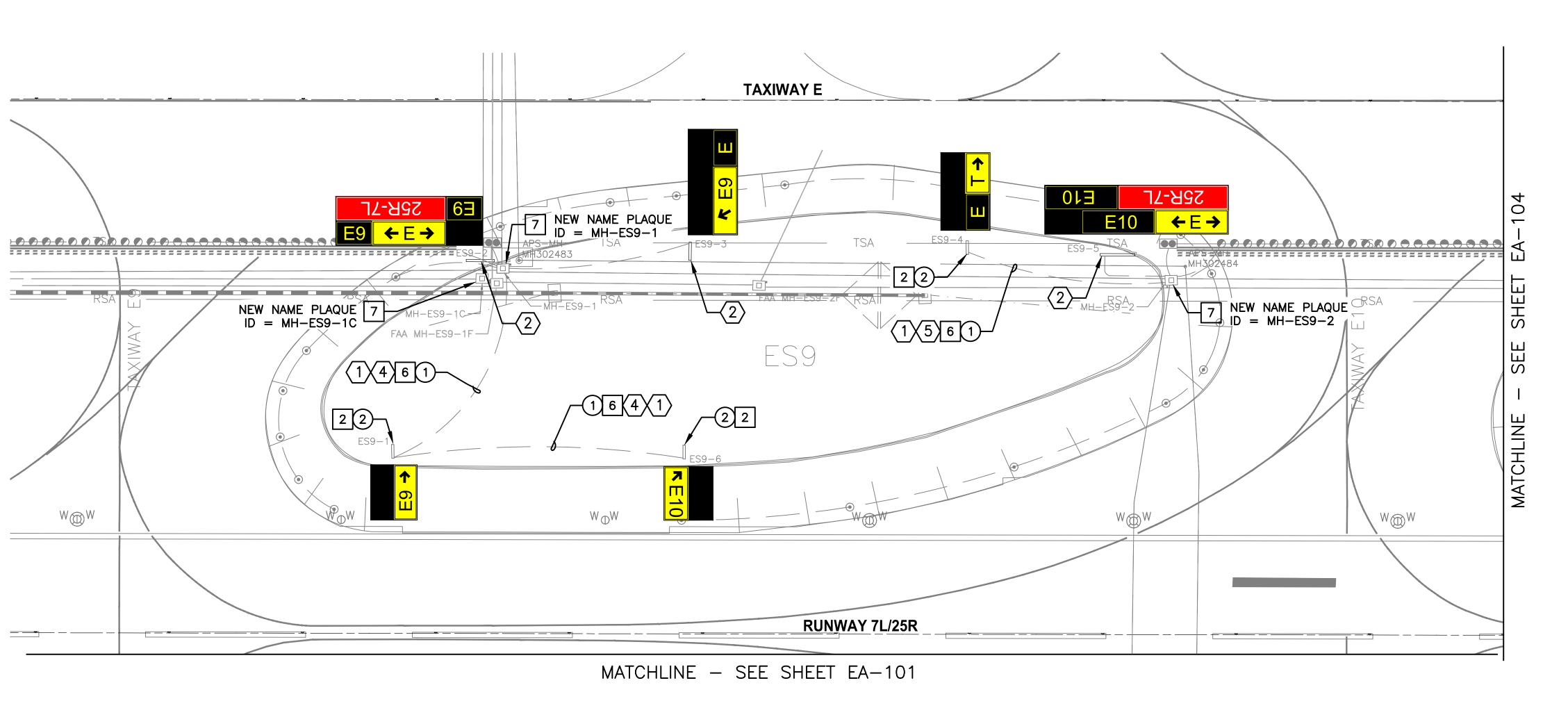
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REFERENCE
NUMBER:

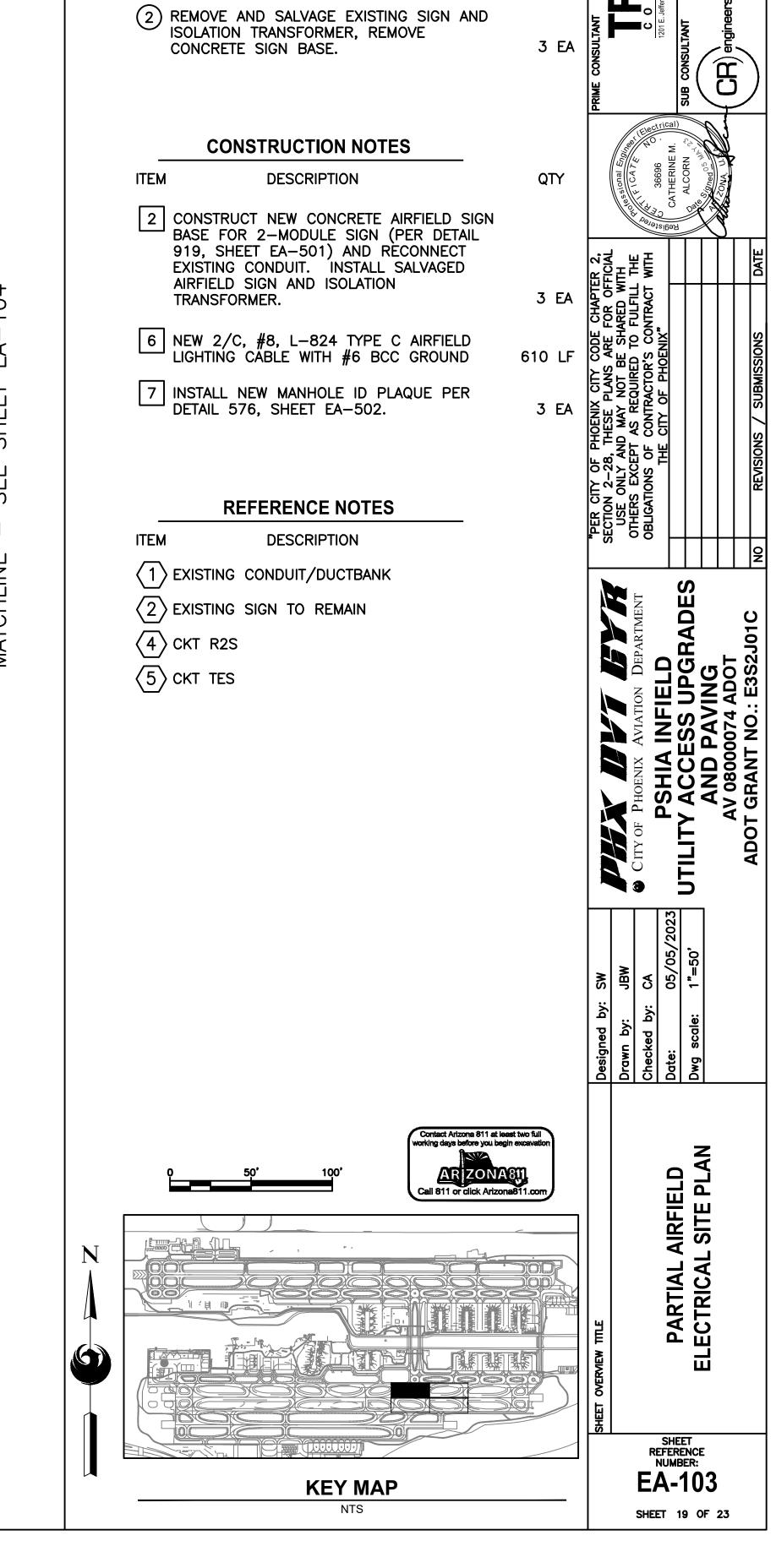
EA-001

SHEET 16 OF 23









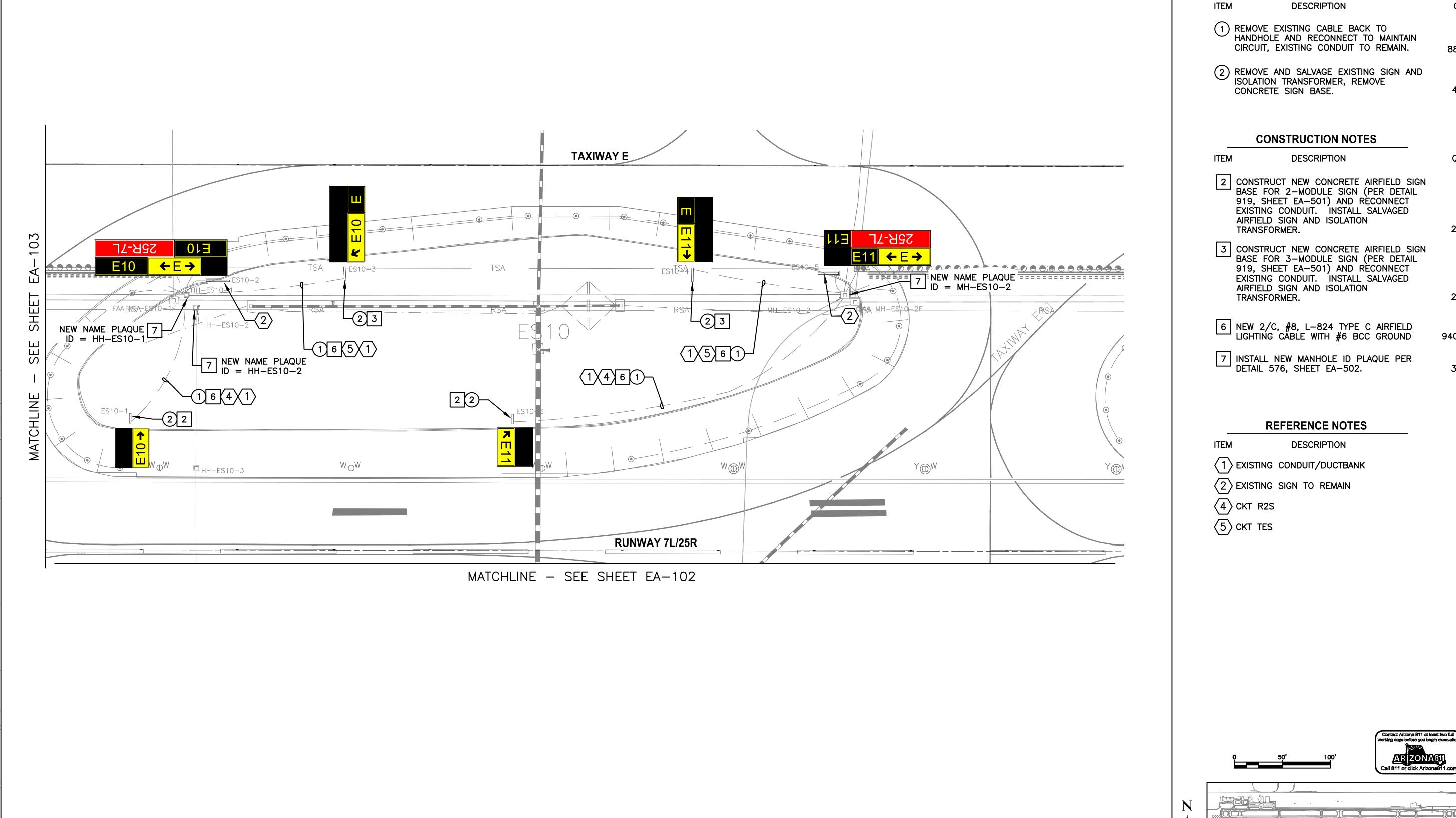
ADJUSTMENT & REMOVAL NOTES

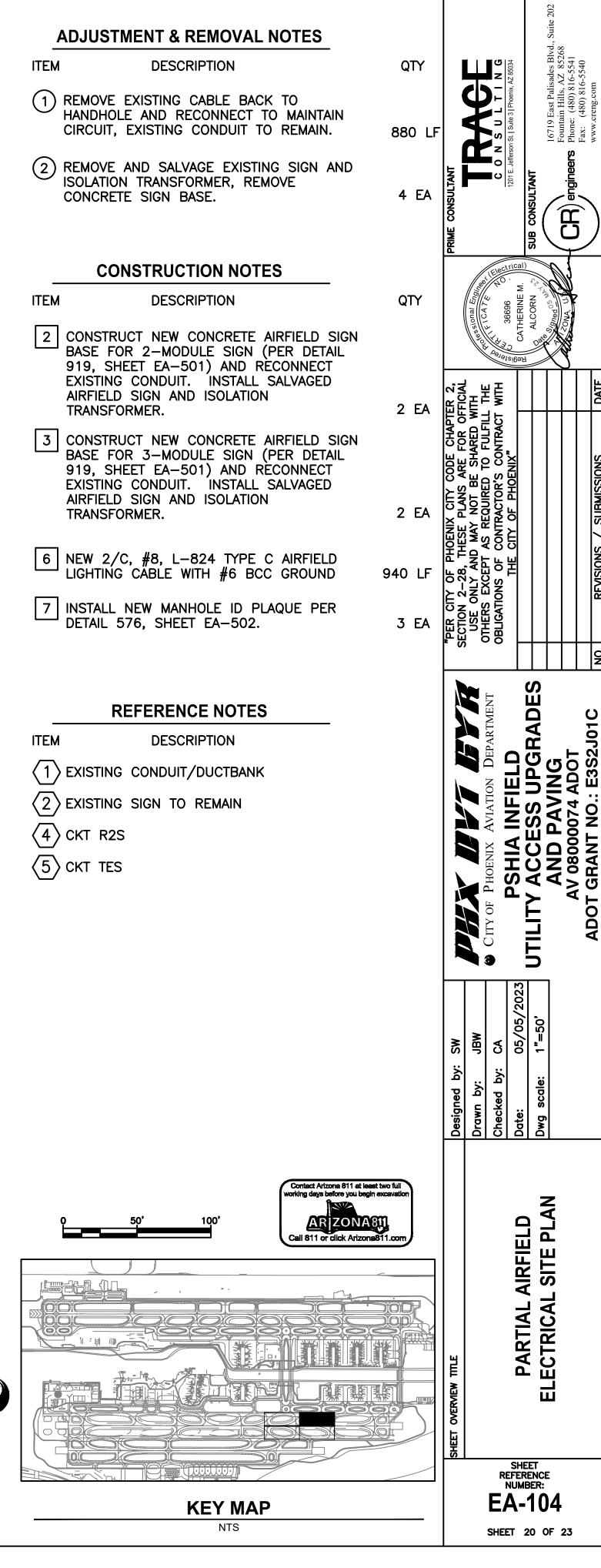
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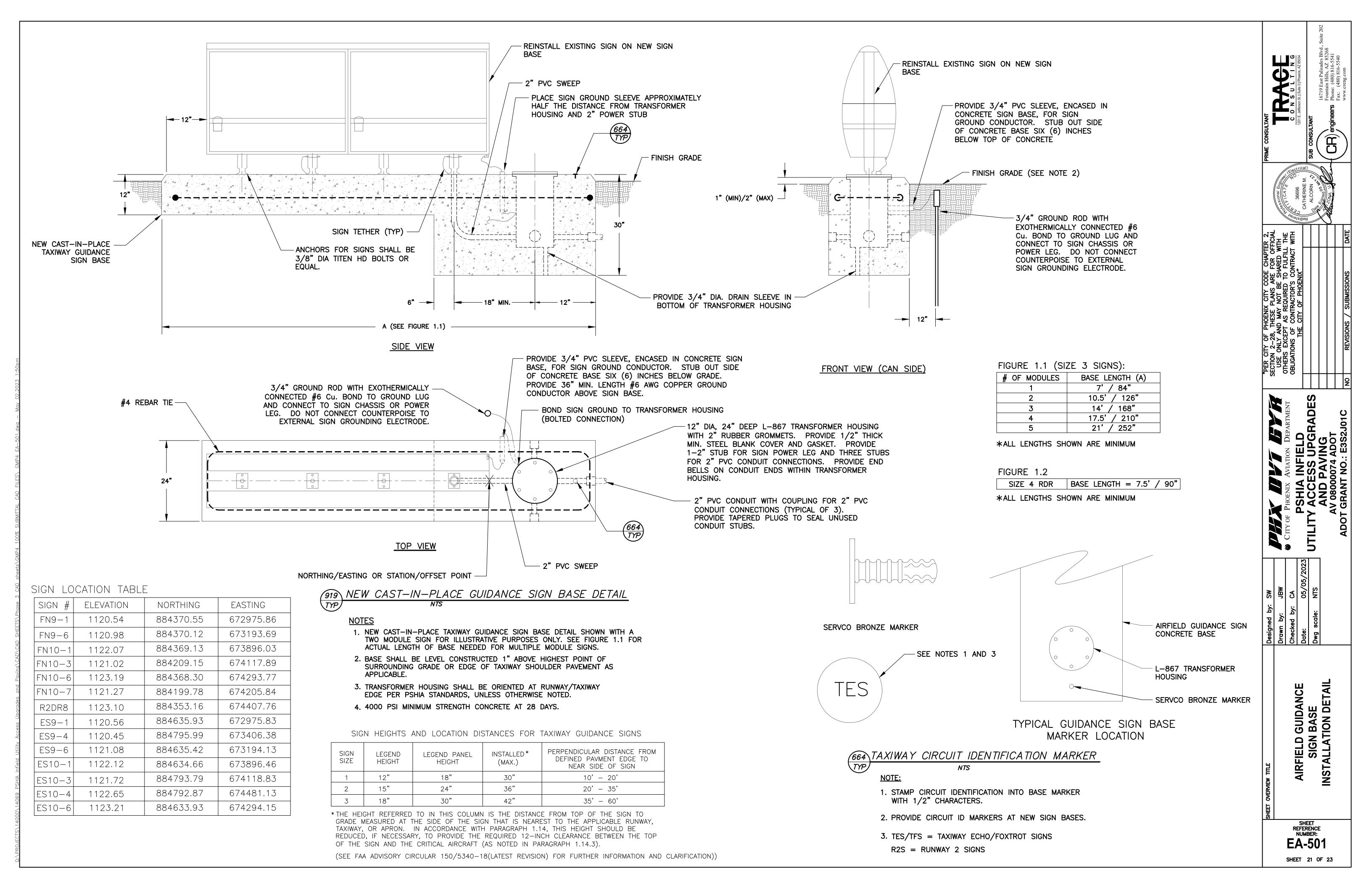
1) REMOVE EXISTING CABLE BACK TO HANDHOLE AND RECONNECT TO MAINTAIN CIRCUIT, EXISTING CONDUIT TO REMAIN.

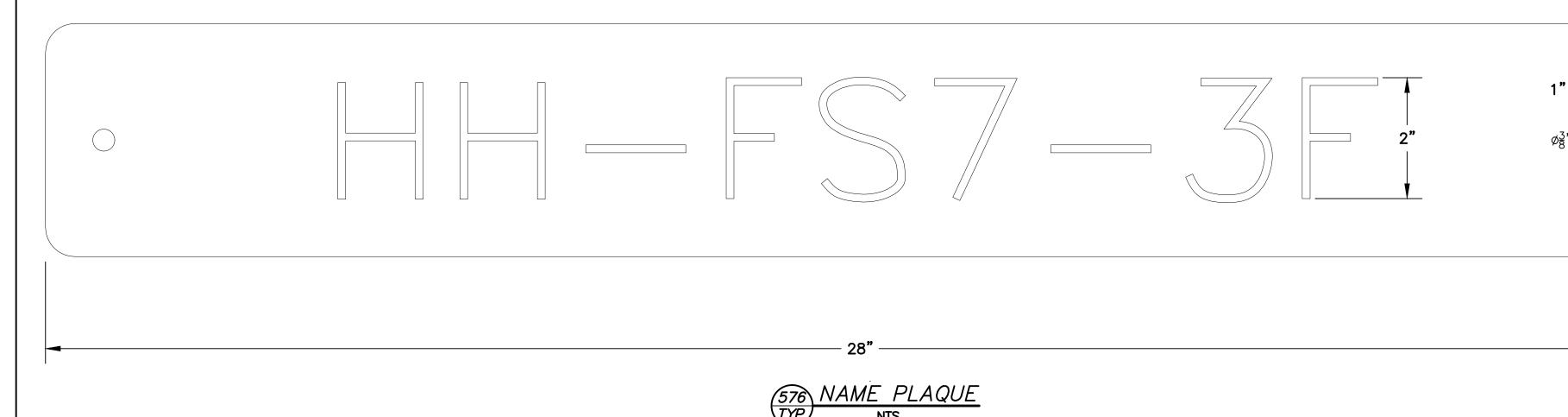
QTY

560 LF









## NOTES:

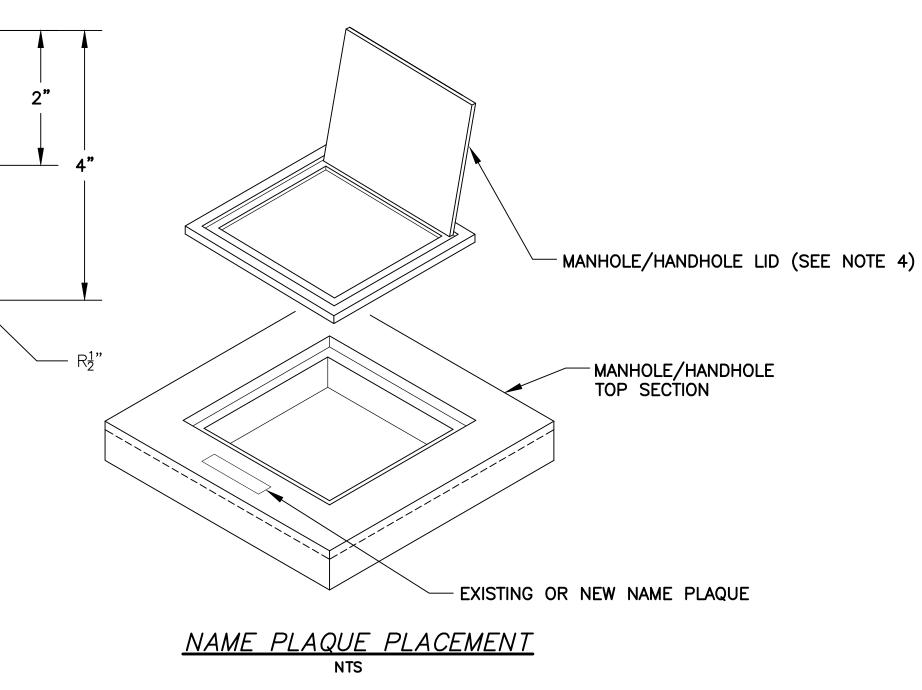
- 1. NAME PLAQUE IS TO BE 4" IN HEIGHT, 28" IN WIDTH, AND 1/8" THICK. THE NAME PLAQUE SHALL BE ALUMINUM.
- 2. LETTERING IS TO BE 2" IN HEIGHT, AND 1 1/4" IN WIDTH.
  LETTERING IS TO BE CENTERED VERTICALLY AND HORIZONTALLY
  ON THE PLAQUE.
- 3. LETTERING SHOULD BE CUT BY A COMPUTER—AIDED PLASMA CUTTER, OR SIMILAR DEVICE, TO INSURE THE EDGES ARE STRAIGHT AND CLEAN.
- 4. 3/8" DIA. HOLES WILL BE PROVIDED ON BOTH ENDS, TO ALLOW THE USE OF CONCRETE ANCHOR SCREWS, TO ATTACH TO THE CONCRETE TOP SECTION OF THE MANHOLE/HANDHOLE.
- 5. EXISTING AIRFIELD ELECTRICAL MANHOLE/HANDHOLE ID NAME PLAQUES SHALL BE REMOVED FROM EXISTING LIDS FOR REINSTALLATION ON NEW MANHOLE/HANDHOLE LIDS
- 6. NEW NAME PLAQUES ARE REQUIRED WHERE NEW MANHOLE/HANDHOLE DESIGNATIONS HAVE BEEN ASSIGNED.
- 7. REFER TO CIVIL PLAN SHEETS FOR MANHOLE/HANDHOLE LOCATIONS AND ELEVATIONS.

# SEE NOTE 3

# 920 RUNWAY DISTANCE REMAINING SIGN — REMOTE MOUNT NTS

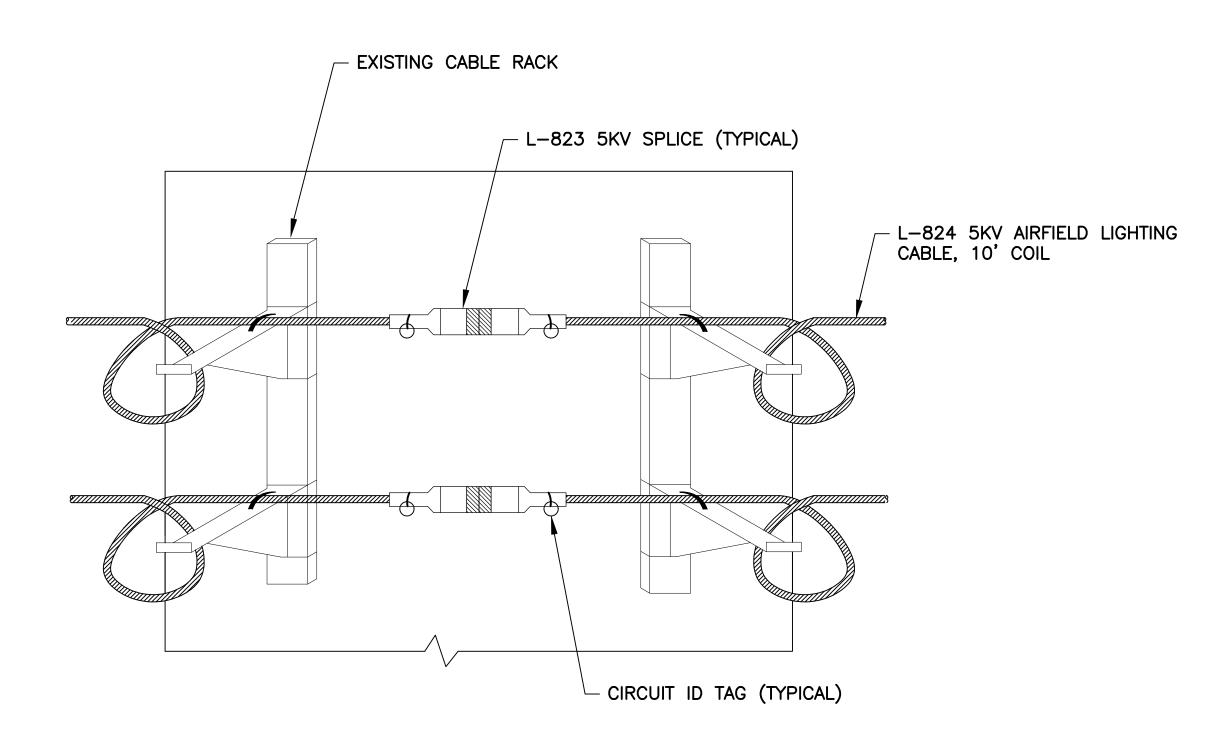
#### NOTES:

- 1. REINSTALL EXISTING RUNWAY DISTANCE REMAINING SIGN ON NEW CONCRETE SIGN BASE.
- 2. PROVIDE AND INSTALL NEW GROUND ROD WITH #6 COPPER GROUND AT SIGN. BOND TO TRANSFORMER HOUSING AND SIGN.
- 3. STAMP CIRCUIT IDENTIFICATION INTO MARKER WITH 1/2" CHARACTERS.



#### NOTES:

- 1. PLACE NAME PLAQUE ON THE FRONT OF THE MANHOLE/HANDHOLE, AS THE LID OPENS.
- 2. NAME PLAQUE IS TO BE CENTERED HORIZONTALLY AND VERTICALLY, AS SHOWN.
- 3. REMOVAL AND REINSTALLATION OF NAME PLAQUES IS CONSIDERED INCIDENTAL TO THE INSTALLATION OF NEW HAND HOLE LIDS.
- 4. ALL HATCH/LID HINGES SHALL BE ORIENTED ON RUNWAY OR TAXIWAY SIDE OF STRUCTURE.



# CABLE RACKING DETAIL

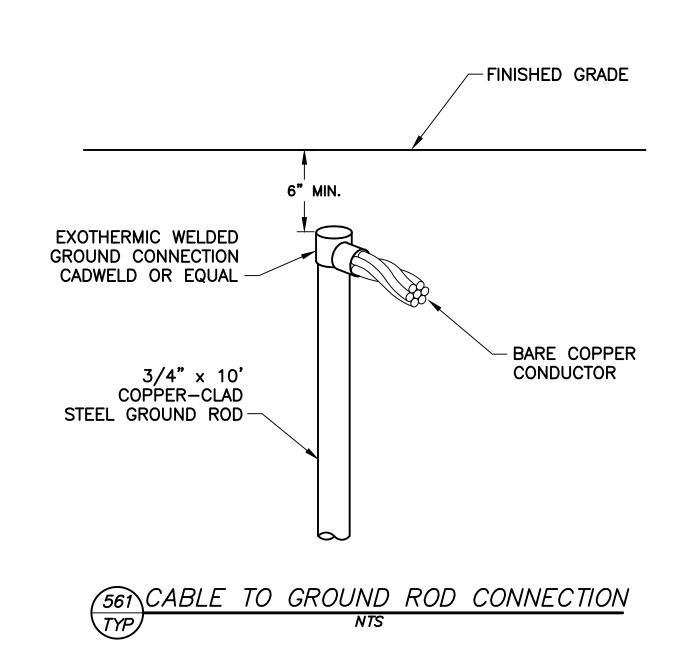
#### NOTES:

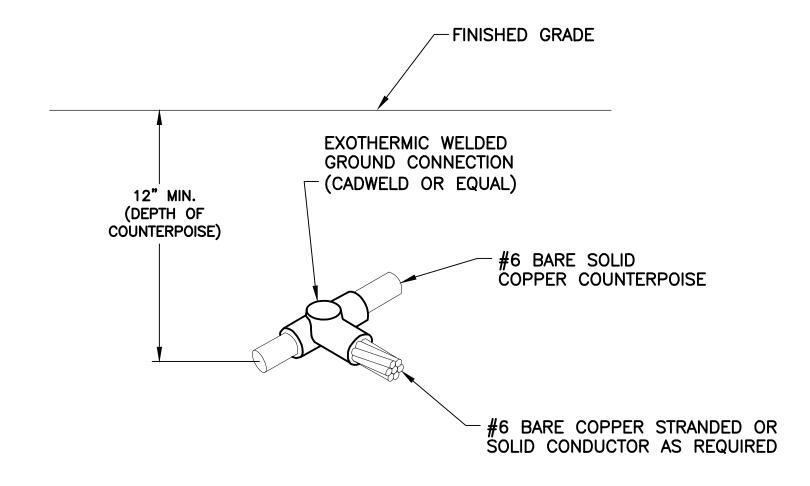
- CONTRACTOR SHALL RACK NEW CABLES IN EXISTING HANDHOLES. PROVIDE CIRCUIT ID TAGS AND COLOR IDENTIFICATION TO MATCH EXISTING.
- 2. PROVIDE NEW L-823, PRIMARY CONNECTOR KITS FOR NEW CABLES.



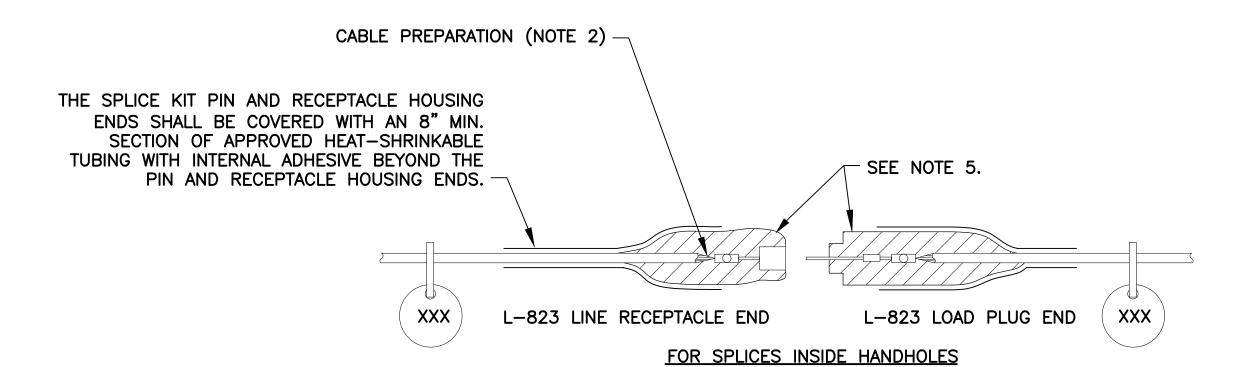
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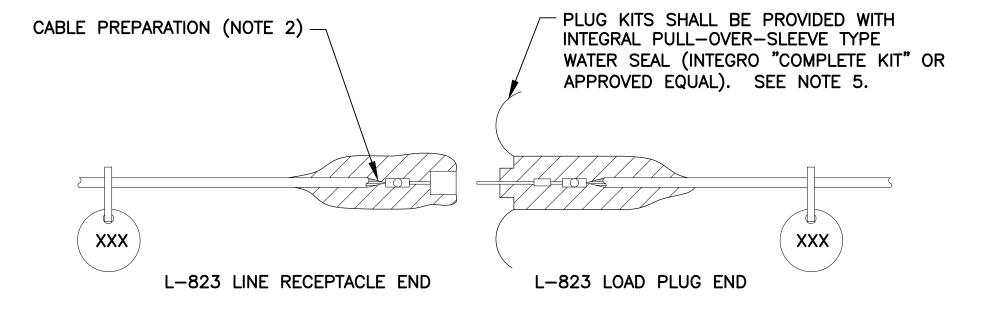
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(766) COUNTERPOISE TO CABLE CONNECTION DETAIL





#### FOR SPLICES INSIDE CANS

#### <u>NOTES</u>

- 1. PROVIDE MALE AND FEMALE L-823 CONNECTORS AS REQUIRED ON EACH CONDUCTOR IN EACH BASE, HANDHOLE, OR MANHOLE TO ALLOW ISOLATION OF HOMERUN CIRCUIT, NO STRAIGHT-THROUGH ALLOWED.
- 2. ALL CABLE ENDS SHALL BE PREPARED WITH THE USE OF A TAPERING TOOL SPECIFICALLY DESIGNED FOR USE WITH L-824 CABLES.
- 3. PLUG AND RECEPTACLE END FITTINGS SHALL BE CRIMPED ONTO THE CONDUCTOR BY USE OF AN AIRPORT PERSONNEL ACCEPTED RATCHETING TYPE CRIMPING TOOL.
- 4. AT THE POINT OF CONNECTION WITH THE EXISTING FIELD CIRCUITS, INSTALL NEW L-823 PLUGS ON BOTH THE NEW AND EXISTING CABLES. VERIFY INSULATION TYPES OF BOTH NEW & EXISTING CABLES AND COORDINATE WITH TERMINATION KITS TO ASSURE PROPER AND WATERPROOF FIT.
- 5. INSTALL THREE (3) TAPE LAYERS OVER L-823 CONNECTIONS AFTER PULLING SLEEVE OVER COMPLETE KIT (SCOTCH OR EQUAL):
  1ST LAYER 33+ VINYL ELECTRICAL TAPE
  2ND LAYER 130C RUBBER SPLICING TAPE
  3RD LAYER 33+ VINYL ELECTRICAL TAPE
- 6. THERE SHALL BE NO SPLICES BETWEEN LIGHTS, ONLY IN BASES OR HANDHOLES.
- 7. PROVIDE AND INSTALL NON-CONDUCTIVE CIRCUIT IDENTIFICATION TAGS ATTACHED TO EACH SIDE OF ALL CONNECTOR KITS.
- 8. ON THE CABLES FOR THE RUNWAY AND SIGNAGE CIRCUITS, TAPE FROM THE BACK END OF THE CONNECTOR KIT ONTO CABLE FOR 3" EACH, RED THEN WHITE PHASE TAPE FOR SIGNS, RED ONLY PHASE TAPE FOR RUNWAY EDGE LIGHTS, FOR FASTER IDENTIFICATION AND MATCH EXISTING MANHOLE LAYOUTS.
- 9. ON THE CABLES FOR THE TAXIWAY AND SIGNAGE CIRCUITS, TAPE FROM THE BACK END OF THE CONNECTOR KIT ONTO CABLE FOR 3" EACH, BLUE THEN WHITE PHASE TAPE FOR SIGNS, BLUE ONLY PHASE TAPE FOR TAXIWAY EDGE LIGHTS, FOR FASTER IDENTIFICATION AND MATCH EXISTING MANHOLE LAYOUTS.



S AND DETAILS SPLICING A

> SHEET REFERENCE NUMBER:

**EA-503** 

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