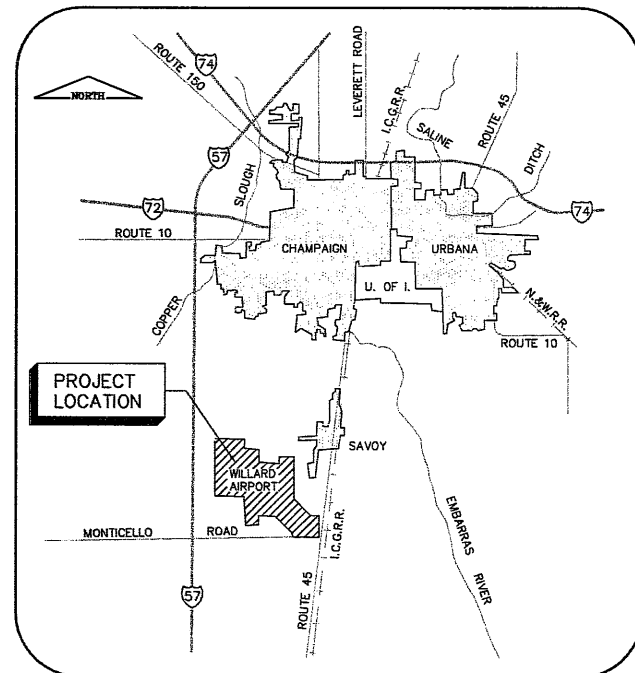


# CONSTRUCTION PLANS FOR UNIVERSITY OF ILLINOIS - WILLARD AIRPORT

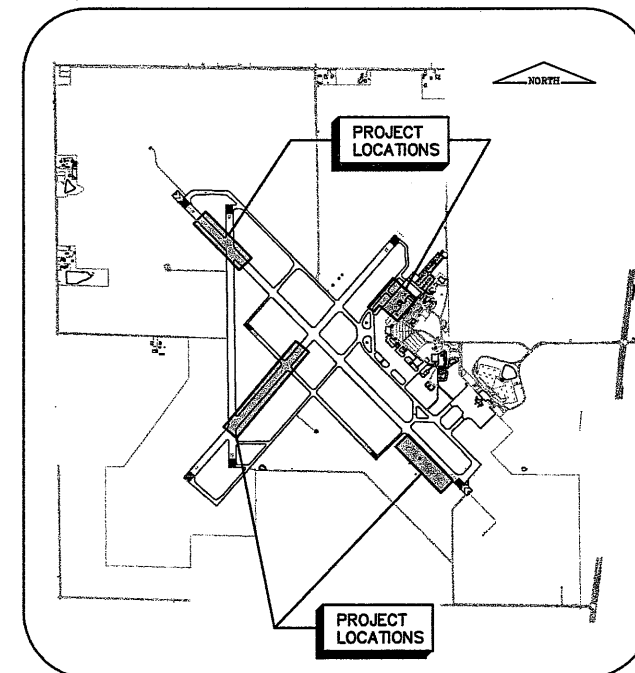
**ILLINOIS PROJECT CMI-3474  
A. I. P. PROJECT 3-17-0016-XX**

**REHABILITATE U OF I RAMP; REHABILITATE SELECT  
P.C.C. PANELS FOR RUNWAY 4/22 AND TAXIWAY D;  
REPLACE VASIS WITH PAPIs ON RUNWAY 14L/32R;  
MARK SURFACE PAINTED HOLDING POSITION SIGNS;  
INSTALL NEW RUNWAY GUARD LIGHTS AND NEW  
TAXIWAY GUIDANCE SIGNAGE**

APRIL 16, 2010



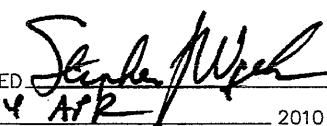

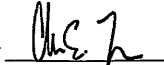
**LOCATION MAP**



**SITE PLAN**

CALL J.U.L.I.E.  
BEFORE EXCAVATING  
1-800-892-0123  
UNIVERSITY OF ILLINOIS - WILLARD AIRPORT  
TOWNSHIP: T 18 N  
RANGE: R B E  
COUNTY: CHAMPAIGN

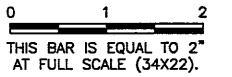
**APRON**  
DESIGN GROUP - GROUP II  
WINGSPAN - UP TO BUT NOT INCLUDING 49 FT.  
DESIGN APPROACH CATEGORY - B  
  
**PAVEMENT STRUCTURE DESIGN DATA**  
GROSS WEIGHT - 30,000 LBS.  
SINGLE WHEEL GEAR

GROUND CONTROL RADIO FREQUENCY - 121.8 ATIS FREQUENCY - 124.85 APPROXIMATE MAXIMUM HEIGHT OF EQUIPMENT ABOVE GROUND IS 25 FT.
<b>UNIVERSITY OF ILLINOIS WILLARD AIRPORT</b>  APPROVED:  DATE: <u>14 APR</u> 2010
 <div style="display: inline-block; vertical-align: middle;"> <b>CMT</b>          CRAWFORD MURPHY &amp; TILLY, INC.          CONSULTING ENGINEERS          License No. 184-000613           SUBMITTED BY:           DATE: <u>April 14, 2010</u> 2010          CMT JOB NUMBER 09059-03       </div>

**UN049**

REVISIONS

NUMBER	BY	DATE



SUMMARY OF QUANTITIES			
ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY
AR108158	1/C #8 5 KV UG CABLE IN UD	LF	3,365
AR109210	VAULT MODIFICATIONS	LS	1
AR110014	4" DIRECTIONAL BORE	LF	1,265
AR125442	TAXI GUIDANCE SIGN, 2 CHARACTER	EA	1
AR125443	TAXI GUIDANCE SIGN, 3 CHARACTER	EA	5
AR125444	TAXI GUIDANCE SIGN, 4 CHARACTER	EA	4
AR125447	TAXI GUIDANCE SIGN, 7 CHARACTER	EA	2
AR125450	TAXI GUIDANCE SIGN, 10 CHARACTER	EA	4
AR125451	TAXI GUIDANCE SIGN, 11 CHARACTER	EA	1
AR125565	SPLICE CAN	EA	2
AR125615	PAPI (L-880 SYSTEM)	EA	2
AR125904	REMOVE TAXI GUIDANCE SIGN	EA	16
AR125909	REMOVE VASI	EA	2
AR150510	ENGINEER'S FIELD OFFICE	LS	1
AR152410	UNCLASSIFIED EXCAVATION	CY	85
AR152480	SHOULDER ADJUSTMENT	SY	925
AR152540	SOIL STABILIZATION FABRIC	SY	4,600
AR156510	SILT FENCE	LF	850
AR209606	CRUSHED AGG. BASE COURSE - 6"	SY	550
AR209610	CRUSHED AGG. BASE COURSE - 10"	SY	4,200
AR401610	BITUMINOUS SURFACE COURSE	TON	570
AR401620	BIT. SURFACE COURSE, LEVELING	TON	1,080
AR401630	BITUMINOUS SURFACE TEST SECTION	EA	1
AR401650	BITUMINOUS PAVEMENT MILLING	SY	1,745
AR401655	BUTT JOINT CONSTRUCTION	SY	75
AR401900	REMOVE BITUMINOUS PAVEMENT	SY	900
AR401910	REMOVE & REPLACE BIT. PAVEMENT	SY	150
AR501506	6" PCC PAVEMENT	SY	11,460
AR501530	PCC TEST BATCH	EA	2
AR501540	PCC PAVEMENT GROOVING	SY	275
AR501906	6" PCC PAVEMENT REMOVAL	SY	7,310
AR501910	REMOVE & REPLACE PCC PAVEMENT	SY	460
AR501914	14" PCC PAVEMENT REMOVAL	SY	3,300
AR510510	TIE DOWN	EA	36
AR510515	GROUND RODS	EA	13
AR602510	BITUMINOUS PRIME COAT	GAL	155
AR603510	BITUMINOUS TACK COAT	GAL	1,135
AR620510	PAVEMENT MARKING	SF	27,910
AR620900	PAVEMENT MARKING REMOVAL	SF	500
AR701512	12" RCP, CLASS IV	LF	189
AR705524	4" PERFORATED UNDERDRAIN W/SOCK	LF	300
AR751410	INLET	EA	3
AR751912	REMOVE SPECIAL STRUCTURE	EA	1
AR800238	RUNWAY GUARD LIGHT	EA	22
AR800262	REFLECTIVE CRACK CONTROL - ISAC	LF	1,290
AR800263	REMOVE VAR. THICK. BIT. LEVELING COURSE	SY	7,310
AR800270	PREFORMED THERMOPLASTIC PAVEMENT MARKINGS	SF	6,150
AR800321	2-1/C #2 USE, 1 #8 GND IN 1" UD	LF	7,700
AR800322	2-1/C #4 USE, 1 #8 GND IN 1" UD	LF	19,300
AR901510	SEEDING	AC	0.5
AR904510	SODDING	SY	425
AR908510	MULCHING	AC	0.5

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5	CONSTRUCTION ACTIVITY PLAN INDEX
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17	U OF I RAMP - PROPOSED IMPROVEMENTS
18	U OF I RAMP - TYPICAL SECTIONS
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25	U OF I RAMP - TURFING PLAN
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49	SURFACE PAINTED HOLD POSITION SIGNS MARKING SCHEDULE

WILLARD AIRPORT  
 UNIVERSITY OF ILLINOIS  
 REHABILITATE U OF I RAMP AND P.C.C. PANELS  
 INDEX TO SHEETS AND SUMMARY OF QUANTITIES

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IL PROJ. NO.	CM-3474
AIP PROJ. NO.	3-17-0016-XX
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**GENERAL NOTES**

1. ALL RUNWAYS, TAXIWAYS AND APRONS SHALL BE KEPT OPEN TO AIRCRAFT TRAFFIC DURING CONSTRUCTION EXCEPT AS NOTED IN THE CONSTRUCTION ACTIVITY PLANS OR AS DIRECTED BY THE AIRPORT MANAGER.
2. ALL CONSTRUCTION TRAFFIC OPERATING ON OR CROSSING ACTIVE RUNWAYS, TAXIWAYS AND APRONS SHALL BE UNDER CONTROL OF A FLAGMAN IN RADIO CONTACT WITH FAA AIR TRAFFIC CONTROL TOWER PERSONNEL AT ALL TIMES. THE CONTRACTOR SHALL PROVIDE HIS OWN RADIOS.
3. WHEN CONFLICTS ARISE BETWEEN CONSTRUCTION ACTIVITIES AND AIRCRAFT OPERATIONS AND SAFETY, AIRCRAFT OPERATIONS AND SAFETY SHALL TAKE PRECEDENCE AND SHALL GOVERN. FINAL AUTHORITY IN THE APPROVAL OF CLOSING AND OPENING PAVEMENTS AND CONSTRUCTION SEQUENCING LIES WITH THE AIRPORT MANAGER.
4. THE CONTRACTOR SHALL STORE EQUIPMENT AND MATERIALS AT THE LOCATION SHOWN FOR THE "CONTRACTOR'S STAGING, STORAGE, PARKING SITE AND FIELD OFFICE".
5. BROKEN OR WASTE CONCRETE AND ASPHALT SHALL BE DISPOSED OF BY THE CONTRACTOR OFF AIRPORT PROPERTY, UNLESS DIRECTED BY THE AIRPORT MANAGER.
6. VEHICLES AND EQUIPMENT SHALL NOT BE ALLOWED WITHIN AREAS 80' FROM THE CENTERLINE OF ACTIVE TAXIWAYS OR 200' FROM THE CENTERLINE OF ACTIVE RUNWAYS.
7. ALL PAVEMENTS, DRIVES AND OTHER AREAS USED BY THE CONTRACTOR FOR HAUL ROADS AND STORAGE AREAS SHALL BE MAINTAINED AND REPAIRED IN KIND BY THE CONTRACTOR TO THE SATISFACTION OF AIRPORT MANAGER. NO ADDITIONAL COMPENSATION SHALL BE MADE TO THE CONTRACTOR FOR THIS WORK.
8. EXISTING TURF & AGRICULTURAL AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS OUTSIDE OF THE TURFING LIMITS SHALL BE COMPLETELY RESTORED BY HIM AT HIS EXPENSE TO THE SATISFACTION OF THE AIRPORT MANAGER.
9. THE CONTRACTOR SHALL THOROUGHLY CLEAN ALL CONSTRUCTION AREAS PRIOR TO OPENING TO AIR TRAFFIC.
10. REFER TO THE CONSTRUCTION ACTIVITY PLANS AND THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS CONCERNING COORDINATION OF CONSTRUCTION ACTIVITIES.
11. THE ARFF VEHICLES SHALL HAVE COMPLETE ACCESS TO THE ENTIRE AIRFIELD INCLUDING THE CLOSURE AREAS.
12. THE CONTRACTOR IS REQUIRED TO GIVE TEN FULL WORKING DAYS NOTICE TO THE AIRPORT MANAGER PRIOR TO CLOSING WORK AREAS TO AIRCRAFT.
13. AT THE PRECONSTRUCTION MEETING, CONTRACTOR SHALL SUPPLY THE AIRPORT MANAGER WITH PROPOSED CLOSURE AND PHASING DATES FOR HIS REVIEW AND APPROVAL. THE RESIDENT ENGINEER SHALL KEEP THE AIRPORT MANAGER ADVISED OF ANY PROPOSED CHANGES IN CLOSURE AND PHASING DATES.
14. ALL CONTRACTOR'S VEHICLES AND EQUIPMENT SHALL DISPLAY AN ORANGE AND WHITE CHECKED AVIATION FLAG, EXCEPT HAUL VEHICLES.
15. ANY VEHICLE OPERATING WITHIN A MOVEMENT AREA DURING THE HOURS OF DARKNESS SHOULD BE EQUIPPED WITH AN AMBER REVOLVING OR FLASHING DOME-TYPE LIGHT AS SPECIFIED IN THE SPECIAL PROVISIONS.
16. IF, DURING CONSTRUCTION, AN EMERGENCY IS DECLARED BY THE AIRPORT, THE CONTRACTOR SHALL IMMEDIATELY CLEAR THE PAVEMENT OF ALL VEHICLES, MEN AND EQUIPMENT.
17. THIS PROJECT WILL INVOLVE THE REDESIGNATION OF TAXIWAY D1 AND A2 TO TAXIWAY E AND TAXIWAY A1 TO TAXIWAY E1 AS SHOWN ON THE TAXIWAY GUIDANCE SIGN PLANS AND AIRFIELD SIGNAGE DETAIL SHEETS. IT SHOULD BE NOTED THAT ASIDE FROM THESE SHEETS, THE PLANS CONTAIN THE DESIGNATIONS AS THEY CURRENTLY EXIST. THE CONTRACTOR SHALL COORDINATE WITH THE AIRPORT MANAGER AND THE ATCT TO UNDERSTAND WHICH DESIGNATION IS IN EFFECT DURING CONSTRUCTION.

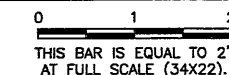
**CONTRACTOR'S ACCESS**

1. CONTRACTOR'S ACCESS SHALL BE AS FOLLOWS:
  - A. THE CONTRACTORS ACCESS TO THE WORK SHALL BE AS SHOWN ON THE SITE PLAN AND CONSTRUCTION ACTIVITY PLANS.
  - B. DURING ADVERSE WEATHER, THE CONTRACTOR SHALL MAKE PROVISIONS FOR ACCESS TO THE WORK SITE AT NO ADDITIONAL COST TO THE CONTRACT. NO EXTENSION OF CONTRACT TIME WILL BE CONSIDERED FOR DELAYS DUE TO LACK OF ADEQUATE ACCESS TO THE WORK.
  - C. THE CONTRACTOR SHALL INSTALL AND MAINTAIN A HEAVY-DUTY PADLOCK ON THE ACCESS GATE. HE SHALL PROVIDE KEYS FOR THIS PADLOCK TO THE ENGINEER, AIRPORT SECURITY AND MAINTENANCE SUPERVISOR. NO ADDITIONAL KEYS ARE TO BE DISTRIBUTED UNLESS AUTHORIZED BY THE AIRPORT MANAGER.
  - D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ALL CONSTRUCTION ACCESS GATES CLOSED & SECURED AT ALL TIMES INCLUDING WORK HOURS. IF THE CONTRACTOR CHOOSES TO LEAVE THE GATE OPEN, HE SHALL POST A COMPETENT, **FULL TIME SECURITY GUARD TO PREVENT UNAUTHORIZED ENTRIES**. THE CONTRACTOR SHALL REPLACE ANY UNSATISFACTORY SECURITY GUARDS IF SO DIRECTED BY THE AIRPORT MANAGER OR RESIDENT ENGINEER.
  - E. THE CONTRACTOR SHALL CLOSE AND LOCK THE ACCESS GATES UPON LEAVING THE SITE.
  - F. THROUGHOUT THE DURATION OF THE CONTRACT, ANY DAMAGE TO THE ACCESS GATES OR FENCING ADJACENT TO THE PROJECT SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE AIRPORT MANAGER.
  - G. ALL COSTS RELATING TO CONTRACTOR'S ACCESS AND SECURITY SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
  - H. THE CONTRACTOR SHALL STORE EQUIPMENT AND MATERIALS IN SUCH A WAY AS TO NOT DISTURB AGRICULTURAL AREAS OR VIOLATE THE PART 77 APPROACH AND PRIMARY SURFACES.
  - I. EMPLOYEE PERSONAL VEHICLES SHALL NOT BE ALLOWED BEYOND THE CONTRACTOR'S PARKING AREA. CONTRACTOR PERSONNEL SHALL PARK IN THE CONTRACTOR'S STORAGE AREA. PERSONNEL SHALL BE TRANSPORTED TO THE WORK SITE BY COMPANY OWNED VEHICLES.
  - J. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL ACCESS ROADS WITH THE APPROPRIATE AGENCY RESPONSIBLE FOR THE ROADWAY.
  - K. THE CONTRACTOR SHALL HAVE A VACUUM TYPE SWEEPER AVAILABLE AT ALL TIMES.
2. AN AREA WILL BE PROVIDED BY THE AIRPORT TO THE CONTRACTOR AS THE STAGING, STORAGE AND EMPLOYEE PARKING SITE, AT THE LOCATION SHOWN.
3. A LIST OF AUTHORIZED PERSONNEL PERMITTED TO USE THE GATE SHALL BE PROVIDED BY THE CONTRACTOR TO THE ENGINEER.
4. THE CONTRACTOR SHALL PROVIDE A SIGN AT THE ACCESS GATE SAYING "AUTHORIZED PERSONNEL ONLY".
5. ALL PERSONNEL ON THE AIRFIELD WILL BE REQUIRED TO SUBMIT A TEN YEAR BACKGROUND CHECK TO AIRPORT SECURITY.

**UN049**

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WILLARD AIRPORT  
UNIVERSITY OF ILLINOIS

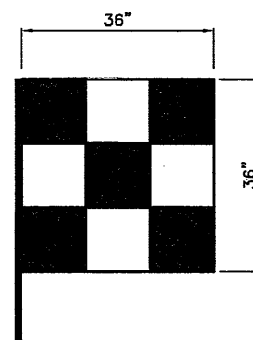
REHABILITATE U OF I RAMP AND P.C.C. PANELS

GENERAL NOTES

**CONTRACTOR'S RESPONSIBILITY FOR UTILITY SERVICE**

THE LOCATION OF UNDERGROUND UTILITIES AS INDICATED ON THE PLANS HAS BEEN OBTAINED FROM EXISTING RECORDS. NEITHER THE OWNER NOR THE ENGINEER ASSUMES ANY RESPONSIBILITY WHATEVER IN RESPECT TO THE ACCURACY, COMPLETENESS, OR SUFFICIENCY OF THE INFORMATION. THERE IS NO GUARANTEE, EITHER EXPRESSED OR IMPLIED, THAT THE LOCATIONS, SIZE AND TYPE OF MATERIAL OF EXISTING UNDERGROUND UTILITIES INDICATED ARE REPRESENTATIVE OF THOSE TO BE ENCOUNTERED IN THE CONSTRUCTION.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES, INCLUDING SERVICE CONNECTIONS TO UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANY OF HIS OPERATIONAL PLANS. THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR DETAILED INFORMATION AND ASSISTANCE IN LOCATING UTILITIES. IN THE EVENT AN UNEXPECTED UTILITY INTERFERENCE IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY COMPANY, THE OWNER AND THE ENGINEER. ANY SUCH MAINS AND/OR SERVICES DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED IMMEDIATELY AT HIS EXPENSE TO THE SATISFACTION OF THE OWNER AND THE ENGINEER.



**VEHICLE SIGNAL FLAG  
(ORANGE / WHITE)**

N.T.S.

GROUND CONTROL FREQUENCY 121.8 MHZ

MAXIMUM EQUIPMENT HEIGHT 25 FEET

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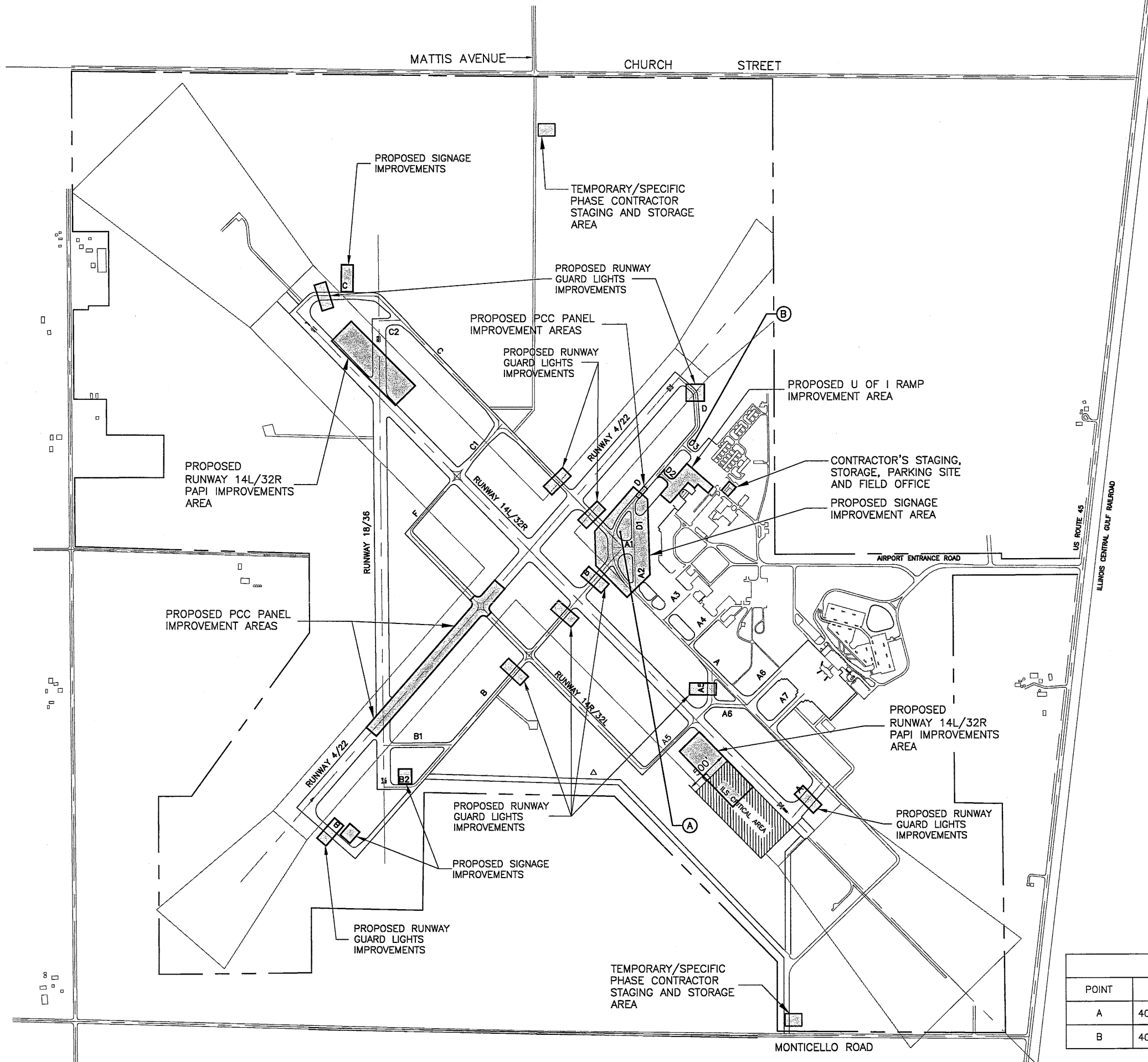
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AIP PROJ. NO.	3-17-0016-XX
SHEET	03 OF 49 SHEETS



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NUMBER	BY	DATE

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



**WILLARD AIRPORT  
 UNIVERSITY OF ILLINOIS  
 REHABILITATE U OF I RAMP AND P.C.C. PANELS  
 AIRPORT SITE PLAN**

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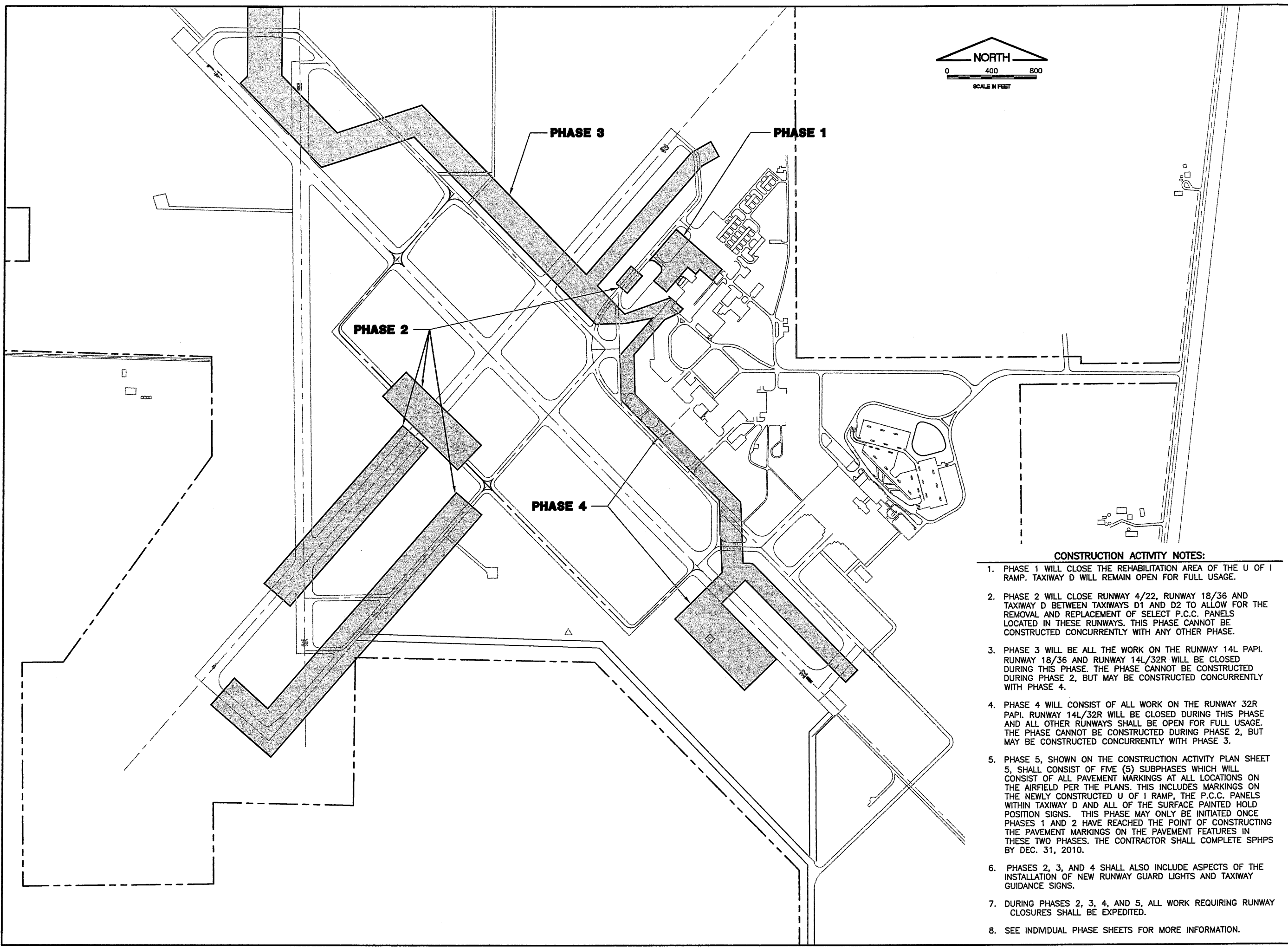
CRITICAL POINTS			
POINT	LATITUDE	LONGITUDE	ELEVATION
A	40° 02' 25.71"	88° 16' 21.32"	747.38
B	40° 02' 35.81"	88° 16' 10.47"	744.53



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NUMBER	BY	DATE

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



**CONSTRUCTION ACTIVITY NOTES:**

1. PHASE 1 WILL CLOSE THE REHABILITATION AREA OF THE U OF I RAMP. TAXIWAY D WILL REMAIN OPEN FOR FULL USAGE.
2. PHASE 2 WILL CLOSE RUNWAY 4/22, RUNWAY 18/36 AND TAXIWAY D BETWEEN TAXIWAYS D1 AND D2 TO ALLOW FOR THE REMOVAL AND REPLACEMENT OF SELECT P.C.C. PANELS LOCATED IN THESE RUNWAYS. THIS PHASE CANNOT BE CONSTRUCTED CONCURRENTLY WITH ANY OTHER PHASE.
3. PHASE 3 WILL BE ALL THE WORK ON THE RUNWAY 14L PAPI. RUNWAY 18/36 AND RUNWAY 14L/32R WILL BE CLOSED DURING THIS PHASE. THE PHASE CANNOT BE CONSTRUCTED DURING PHASE 2, BUT MAY BE CONSTRUCTED CONCURRENTLY WITH PHASE 4.
4. PHASE 4 WILL CONSIST OF ALL WORK ON THE RUNWAY 32R PAPI. RUNWAY 14L/32R WILL BE CLOSED DURING THIS PHASE AND ALL OTHER RUNWAYS SHALL BE OPEN FOR FULL USAGE. THE PHASE CANNOT BE CONSTRUCTED DURING PHASE 2, BUT MAY BE CONSTRUCTED CONCURRENTLY WITH PHASE 3.
5. PHASE 5, SHOWN ON THE CONSTRUCTION ACTIVITY PLAN SHEET 5, SHALL CONSIST OF FIVE (5) SUBPHASES WHICH WILL CONSIST OF ALL PAVEMENT MARKINGS AT ALL LOCATIONS ON THE AIRFIELD PER THE PLANS. THIS INCLUDES MARKINGS ON THE NEWLY CONSTRUCTED U OF I RAMP, THE P.C.C. PANELS WITHIN TAXIWAY D AND ALL OF THE SURFACE PAINTED HOLD POSITION SIGNS. THIS PHASE MAY ONLY BE INITIATED ONCE PHASES 1 AND 2 HAVE REACHED THE POINT OF CONSTRUCTING THE PAVEMENT MARKINGS ON THE PAVEMENT FEATURES IN THESE TWO PHASES. THE CONTRACTOR SHALL COMPLETE SPHPS BY DEC. 31, 2010.
6. PHASES 2, 3, AND 4 SHALL ALSO INCLUDE ASPECTS OF THE INSTALLATION OF NEW RUNWAY GUARD LIGHTS AND TAXIWAY GUIDANCE SIGNS.
7. DURING PHASES 2, 3, 4, AND 5, ALL WORK REQUIRING RUNWAY CLOSURES SHALL BE EXPEDITED.
8. SEE INDIVIDUAL PHASE SHEETS FOR MORE INFORMATION.

WILLARD AIRPORT  
 UNIVERSITY OF ILLINOIS

REHABILITATE U OF I RAMP AND P.C.C. PANELS  
 CONSTRUCTION ACTIVITY PLAN INDEX

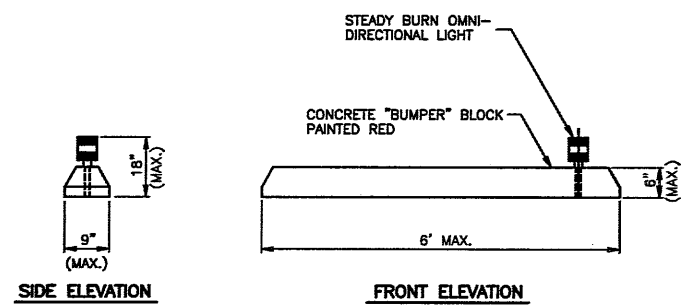
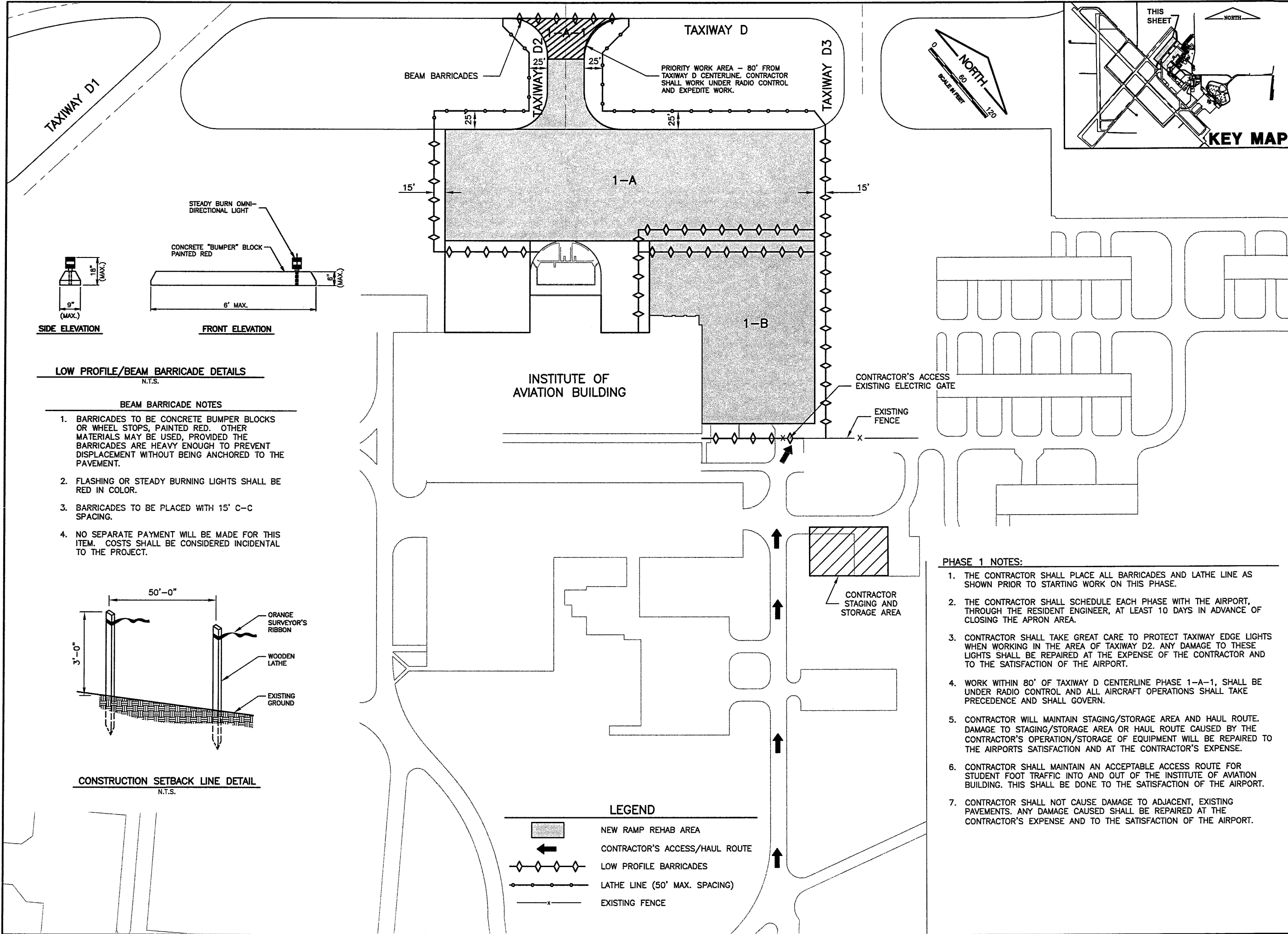
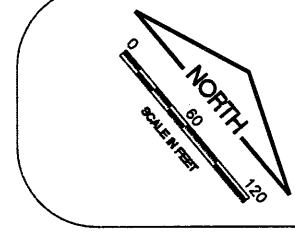
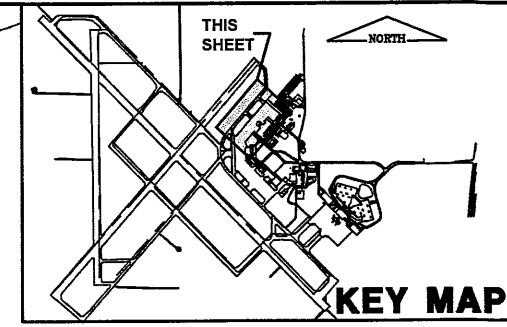
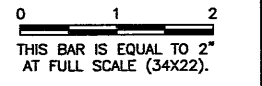
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SHEET 05 OF 49 SHEETS	

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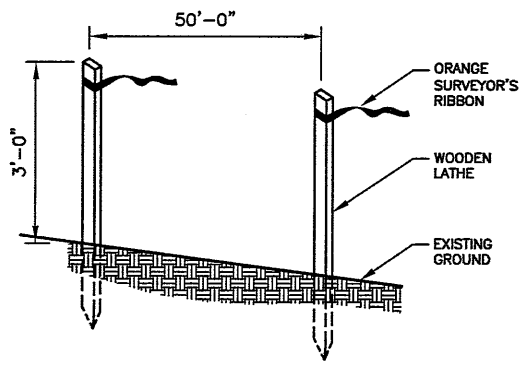
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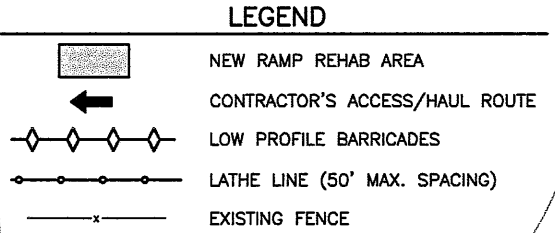
LOW PROFILE/BEAM BARRICADE DETAILS  
 N.T.S.

BEAM BARRICADE NOTES

1. BARRICADES TO BE CONCRETE BUMPER BLOCKS OR WHEEL STOPS, PAINTED RED. OTHER MATERIALS MAY BE USED, PROVIDED THE BARRICADES ARE HEAVY ENOUGH TO PREVENT DISPLACEMENT WITHOUT BEING ANCHORED TO THE PAVEMENT.
2. FLASHING OR STEADY BURNING LIGHTS SHALL BE RED IN COLOR.
3. BARRICADES TO BE PLACED WITH 15' C-C SPACING.
4. NO SEPARATE PAYMENT WILL BE MADE FOR THIS ITEM. COSTS SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.



CONSTRUCTION SETBACK LINE DETAIL  
 N.T.S.



PHASE 1 NOTES:

1. THE CONTRACTOR SHALL PLACE ALL BARRICADES AND LATHE LINE AS SHOWN PRIOR TO STARTING WORK ON THIS PHASE.
2. THE CONTRACTOR SHALL SCHEDULE EACH PHASE WITH THE AIRPORT, THROUGH THE RESIDENT ENGINEER, AT LEAST 10 DAYS IN ADVANCE OF CLOSING THE APRON AREA.
3. CONTRACTOR SHALL TAKE GREAT CARE TO PROTECT TAXIWAY EDGE LIGHTS WHEN WORKING IN THE AREA OF TAXIWAY D2. ANY DAMAGE TO THESE LIGHTS SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR AND TO THE SATISFACTION OF THE AIRPORT.
4. WORK WITHIN 80' OF TAXIWAY D CENTERLINE PHASE 1-A-1, SHALL BE UNDER RADIO CONTROL AND ALL AIRCRAFT OPERATIONS SHALL TAKE PRECEDENCE AND SHALL GOVERN.
5. CONTRACTOR WILL MAINTAIN STAGING/STORAGE AREA AND HAUL ROUTE. DAMAGE TO STAGING/STORAGE AREA OR HAUL ROUTE CAUSED BY THE CONTRACTOR'S OPERATION/STORAGE OF EQUIPMENT WILL BE REPAIRED TO THE AIRPORT'S SATISFACTION AND AT THE CONTRACTOR'S EXPENSE.
6. CONTRACTOR SHALL MAINTAIN AN ACCEPTABLE ACCESS ROUTE FOR STUDENT FOOT TRAFFIC INTO AND OUT OF THE INSTITUTE OF AVIATION BUILDING. THIS SHALL BE DONE TO THE SATISFACTION OF THE AIRPORT.
7. CONTRACTOR SHALL NOT CAUSE DAMAGE TO ADJACENT, EXISTING PAVEMENTS. ANY DAMAGE CAUSED SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE AND TO THE SATISFACTION OF THE AIRPORT.

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 CONSTRUCTION ACTIVITY PLAN  
 PHASE 1

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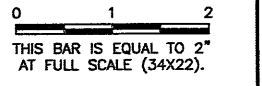
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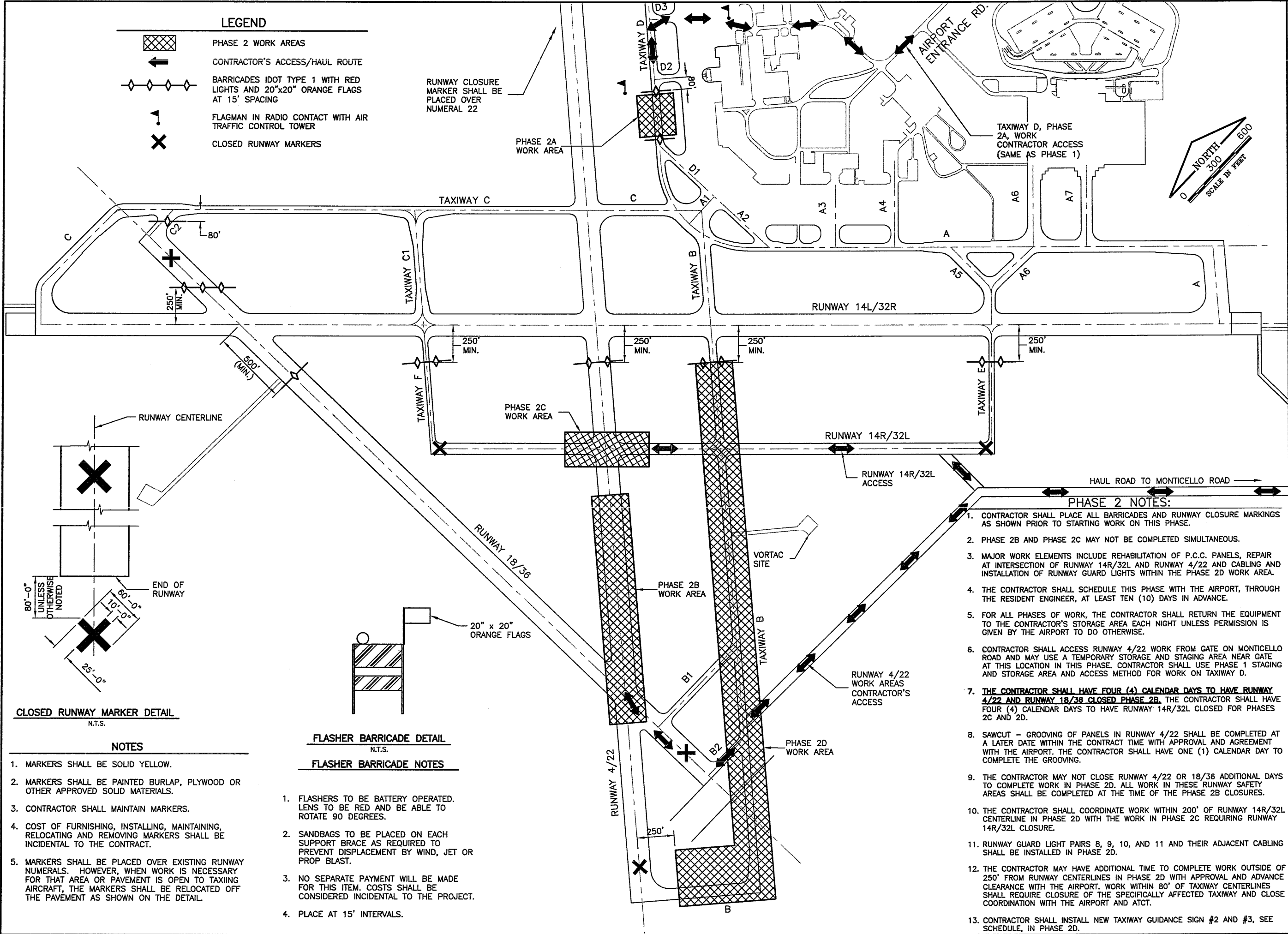
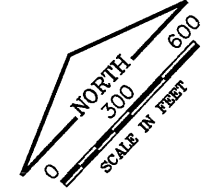
**LEGEND**

- PHASE 2 WORK AREAS
- CONTRACTOR'S ACCESS/HAUL ROUTE
- BARRICADES IDOT TYPE 1 WITH RED LIGHTS AND 20"x20" ORANGE FLAGS AT 15' SPACING
- FLAGMAN IN RADIO CONTACT WITH AIR TRAFFIC CONTROL TOWER
- CLOSED RUNWAY MARKERS

RUNWAY CLOSURE MARKER SHALL BE PLACED OVER NUMERAL 22

PHASE 2A WORK AREA

TAXIWAY D, PHASE 2A, WORK CONTRACTOR ACCESS (SAME AS PHASE 1)



**PHASE 2 NOTES:**

1. CONTRACTOR SHALL PLACE ALL BARRICADES AND RUNWAY CLOSURE MARKINGS AS SHOWN PRIOR TO STARTING WORK ON THIS PHASE.
2. PHASE 2B AND PHASE 2C MAY NOT BE COMPLETED SIMULTANEOUS.
3. MAJOR WORK ELEMENTS INCLUDE REHABILITATION OF P.C.C. PANELS, REPAIR AT INTERSECTION OF RUNWAY 14R/32L AND RUNWAY 4/22 AND CABLING AND INSTALLATION OF RUNWAY GUARD LIGHTS WITHIN THE PHASE 2D WORK AREA.
4. THE CONTRACTOR SHALL SCHEDULE THIS PHASE WITH THE AIRPORT, THROUGH THE RESIDENT ENGINEER, AT LEAST TEN (10) DAYS IN ADVANCE.
5. FOR ALL PHASES OF WORK, THE CONTRACTOR SHALL RETURN THE EQUIPMENT TO THE CONTRACTOR'S STORAGE AREA EACH NIGHT UNLESS PERMISSION IS GIVEN BY THE AIRPORT TO DO OTHERWISE.
6. CONTRACTOR SHALL ACCESS RUNWAY 4/22 WORK FROM GATE ON MONTICELLO ROAD AND MAY USE A TEMPORARY STORAGE AND STAGING AREA NEAR GATE AT THIS LOCATION IN THIS PHASE. CONTRACTOR SHALL USE PHASE 1 STAGING AND STORAGE AREA AND ACCESS METHOD FOR WORK ON TAXIWAY D.
7. **THE CONTRACTOR SHALL HAVE FOUR (4) CALENDAR DAYS TO HAVE RUNWAY 4/22 AND RUNWAY 18/36 CLOSED PHASE 2B.** THE CONTRACTOR SHALL HAVE FOUR (4) CALENDAR DAYS TO HAVE RUNWAY 14R/32L CLOSED FOR PHASES 2C AND 2D.
8. SAWCUT - GROOVING OF PANELS IN RUNWAY 4/22 SHALL BE COMPLETED AT A LATER DATE WITHIN THE CONTRACT TIME WITH APPROVAL AND AGREEMENT WITH THE AIRPORT. THE CONTRACTOR SHALL HAVE ONE (1) CALENDAR DAY TO COMPLETE THE GROOVING.
9. THE CONTRACTOR MAY NOT CLOSE RUNWAY 4/22 OR 18/36 ADDITIONAL DAYS TO COMPLETE WORK IN PHASE 2D. ALL WORK IN THESE RUNWAY SAFETY AREAS SHALL BE COMPLETED AT THE TIME OF THE PHASE 2B CLOSURES.
10. THE CONTRACTOR SHALL COORDINATE WORK WITHIN 200' OF RUNWAY 14R/32L CENTERLINE IN PHASE 2D WITH THE WORK IN PHASE 2C REQUIRING RUNWAY 14R/32L CLOSURE.
11. RUNWAY GUARD LIGHT PAIRS 8, 9, 10, AND 11 AND THEIR ADJACENT CABLING SHALL BE INSTALLED IN PHASE 2D.
12. THE CONTRACTOR MAY HAVE ADDITIONAL TIME TO COMPLETE WORK OUTSIDE OF 250' FROM RUNWAY CENTERLINES IN PHASE 2D WITH APPROVAL AND ADVANCE CLEARANCE WITH THE AIRPORT. WORK WITHIN 80' OF TAXIWAY CENTERLINES SHALL REQUIRE CLOSURE OF THE SPECIFICALLY AFFECTED TAXIWAY AND CLOSE COORDINATION WITH THE AIRPORT AND ATCT.
13. CONTRACTOR SHALL INSTALL NEW TAXIWAY GUIDANCE SIGN #2 AND #3, SEE SCHEDULE, IN PHASE 2D.

**CLOSED RUNWAY MARKER DETAIL**

N.T.S.

**NOTES**

1. MARKERS SHALL BE SOLID YELLOW.
2. MARKERS SHALL BE PAINTED BURLAP, PLYWOOD OR OTHER APPROVED SOLID MATERIALS.
3. CONTRACTOR SHALL MAINTAIN MARKERS.
4. COST OF FURNISHING, INSTALLING, MAINTAINING, RELOCATING AND REMOVING MARKERS SHALL BE INCIDENTAL TO THE CONTRACT.
5. MARKERS SHALL BE PLACED OVER EXISTING RUNWAY NUMERALS. HOWEVER, WHEN WORK IS NECESSARY FOR THAT AREA OR PAVEMENT IS OPEN TO TAXIING AIRCRAFT, THE MARKERS SHALL BE RELOCATED OFF THE PAVEMENT AS SHOWN ON THE DETAIL.

**FLASHER BARRICADE DETAIL**

N.T.S.

**FLASHER BARRICADE NOTES**

1. FLASHERS TO BE BATTERY OPERATED. LENS TO BE RED AND BE ABLE TO ROTATE 90 DEGREES.
2. SANDBAGS TO BE PLACED ON EACH SUPPORT BRACE AS REQUIRED TO PREVENT DISPLACEMENT BY WIND, JET OR PROP BLAST.
3. NO SEPARATE PAYMENT WILL BE MADE FOR THIS ITEM. COSTS SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.
4. PLACE AT 15' INTERVALS.

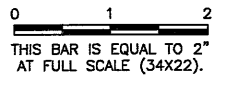
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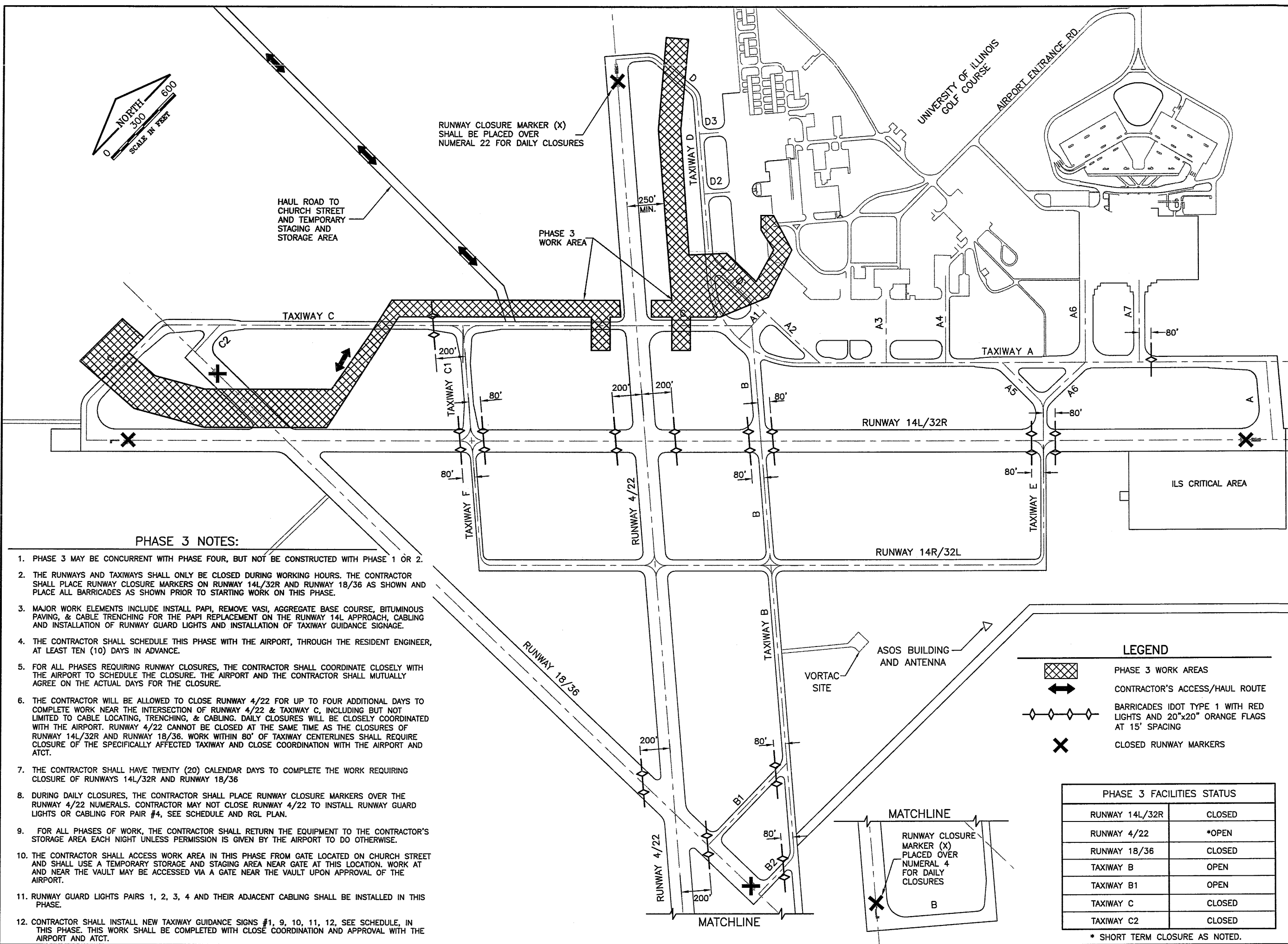
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PHASE 3 FACILITIES STATUS	
RUNWAY 14L/32R	CLOSED
RUNWAY 4/22	*OPEN
RUNWAY 18/36	CLOSED
TAXIWAY B	OPEN
TAXIWAY B1	OPEN
TAXIWAY C	CLOSED
TAXIWAY C2	CLOSED

\* SHORT TERM CLOSURE AS NOTED.

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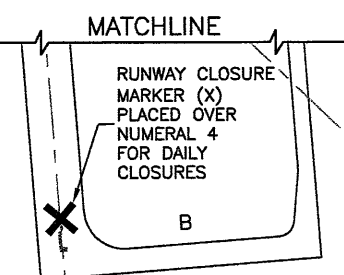
**LEGEND**

	PHASE 3 WORK AREAS
	CONTRACTOR'S ACCESS/HAUL ROUTE
	BARRICADES IDOT TYPE 1 WITH RED LIGHTS AND 20"x20" ORANGE FLAGS AT 15' SPACING
	CLOSED RUNWAY MARKERS

**PHASE 3 FACILITIES STATUS**

RUNWAY 14L/32R	CLOSED
RUNWAY 4/22	*OPEN
RUNWAY 18/36	CLOSED
TAXIWAY B	OPEN
TAXIWAY B1	OPEN
TAXIWAY C	CLOSED
TAXIWAY C2	CLOSED

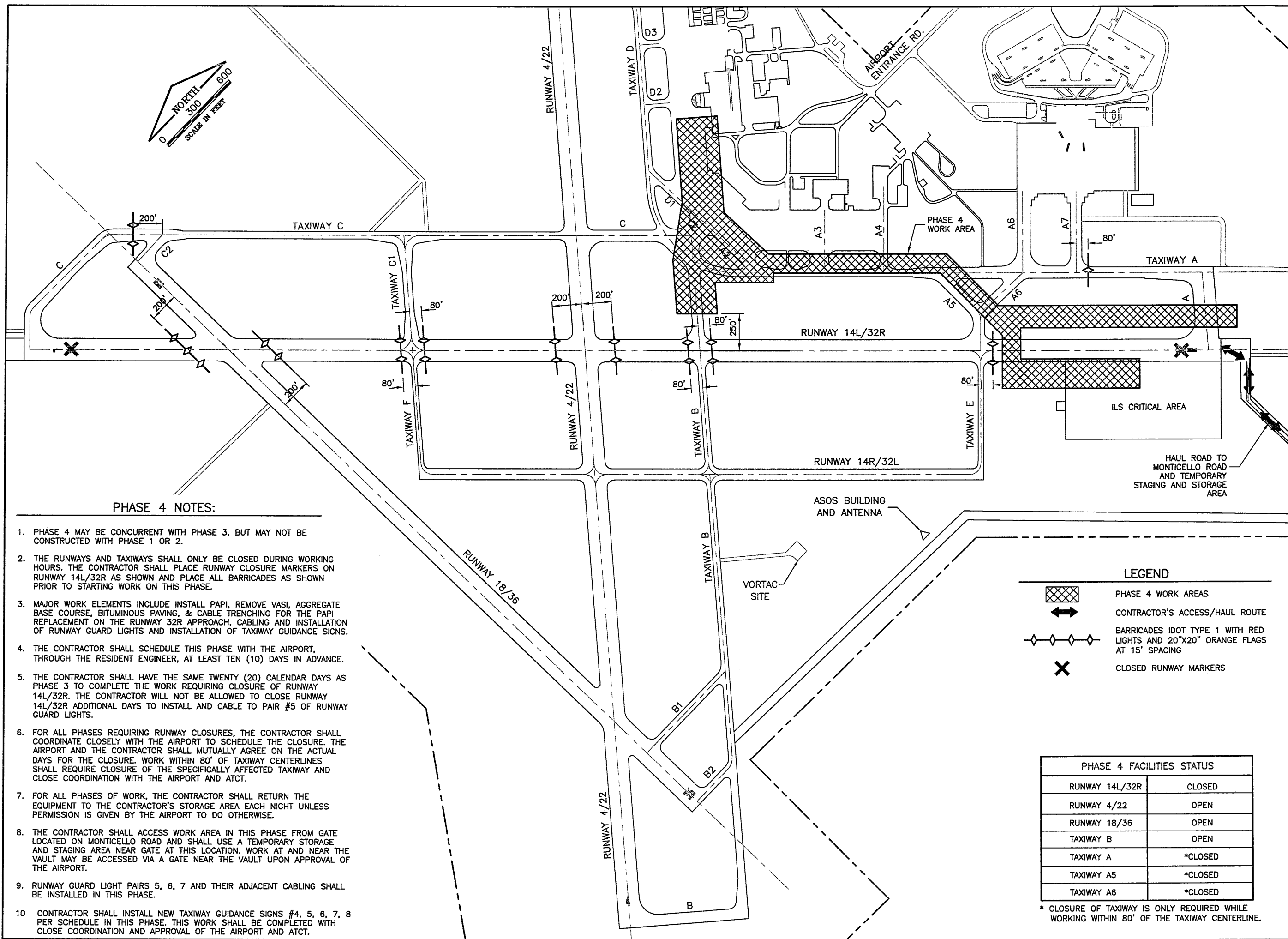
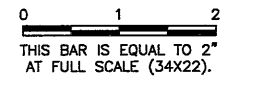
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
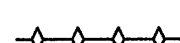

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**PHASE 4 NOTES:**

1. PHASE 4 MAY BE CONCURRENT WITH PHASE 3, BUT MAY NOT BE CONSTRUCTED WITH PHASE 1 OR 2.
2. THE RUNWAYS AND TAXIWAYS SHALL ONLY BE CLOSED DURING WORKING HOURS. THE CONTRACTOR SHALL PLACE RUNWAY CLOSURE MARKERS ON RUNWAY 14L/32R AS SHOWN AND PLACE ALL BARRICADES AS SHOWN PRIOR TO STARTING WORK ON THIS PHASE.
3. MAJOR WORK ELEMENTS INCLUDE INSTALL PAPI, REMOVE VASI, AGGREGATE BASE COURSE, BITUMINOUS PAVING, & CABLE TRENCHING FOR THE PAPI REPLACEMENT ON THE RUNWAY 32R APPROACH, CABLING AND INSTALLATION OF RUNWAY GUARD LIGHTS AND INSTALLATION OF TAXIWAY GUIDANCE SIGNS.
4. THE CONTRACTOR SHALL SCHEDULE THIS PHASE WITH THE AIRPORT, THROUGH THE RESIDENT ENGINEER, AT LEAST TEN (10) DAYS IN ADVANCE.
5. THE CONTRACTOR SHALL HAVE THE SAME TWENTY (20) CALENDAR DAYS AS PHASE 3 TO COMPLETE THE WORK REQUIRING CLOSURE OF RUNWAY 14L/32R. THE CONTRACTOR WILL NOT BE ALLOWED TO CLOSE RUNWAY 14L/32R ADDITIONAL DAYS TO INSTALL AND CABLE TO PAIR #5 OF RUNWAY GUARD LIGHTS.
6. FOR ALL PHASES REQUIRING RUNWAY CLOSURES, THE CONTRACTOR SHALL COORDINATE CLOSELY WITH THE AIRPORT TO SCHEDULE THE CLOSURE. THE AIRPORT AND THE CONTRACTOR SHALL MUTUALLY AGREE ON THE ACTUAL DAYS FOR THE CLOSURE. WORK WITHIN 80' OF TAXIWAY CENTERLINES SHALL REQUIRE CLOSURE OF THE SPECIFICALLY AFFECTED TAXIWAY AND CLOSE COORDINATION WITH THE AIRPORT AND ATCT.
7. FOR ALL PHASES OF WORK, THE CONTRACTOR SHALL RETURN THE EQUIPMENT TO THE CONTRACTOR'S STORAGE AREA EACH NIGHT UNLESS PERMISSION IS GIVEN BY THE AIRPORT TO DO OTHERWISE.
8. THE CONTRACTOR SHALL ACCESS WORK AREA IN THIS PHASE FROM GATE LOCATED ON MONTICELLO ROAD AND SHALL USE A TEMPORARY STORAGE AND STAGING AREA NEAR GATE AT THIS LOCATION. WORK AT AND NEAR THE VAULT MAY BE ACCESSED VIA A GATE NEAR THE VAULT UPON APPROVAL OF THE AIRPORT.
9. RUNWAY GUARD LIGHT PAIRS 5, 6, 7 AND THEIR ADJACENT CABLING SHALL BE INSTALLED IN THIS PHASE.
10. CONTRACTOR SHALL INSTALL NEW TAXIWAY GUIDANCE SIGNS #4, 5, 6, 7, 8 PER SCHEDULE IN THIS PHASE. THIS WORK SHALL BE COMPLETED WITH CLOSE COORDINATION AND APPROVAL OF THE AIRPORT AND ATCT.

**LEGEND**

-  PHASE 4 WORK AREAS
-  CONTRACTOR'S ACCESS/HAUL ROUTE
-  BARRICADES IDOT TYPE 1 WITH RED LIGHTS AND 20"x20" ORANGE FLAGS AT 15' SPACING
-  CLOSED RUNWAY MARKERS

**PHASE 4 FACILITIES STATUS**

FACILITY	STATUS
RUNWAY 14L/32R	CLOSED
RUNWAY 4/22	OPEN
RUNWAY 18/36	OPEN
TAXIWAY B	OPEN
TAXIWAY A	*CLOSED
TAXIWAY A5	*CLOSED
TAXIWAY A6	*CLOSED

\* CLOSURE OF TAXIWAY IS ONLY REQUIRED WHILE WORKING WITHIN 80' OF THE TAXIWAY CENTERLINE.

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 PHASE 4**

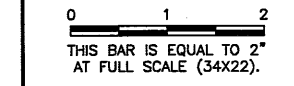
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 PHASE 5**

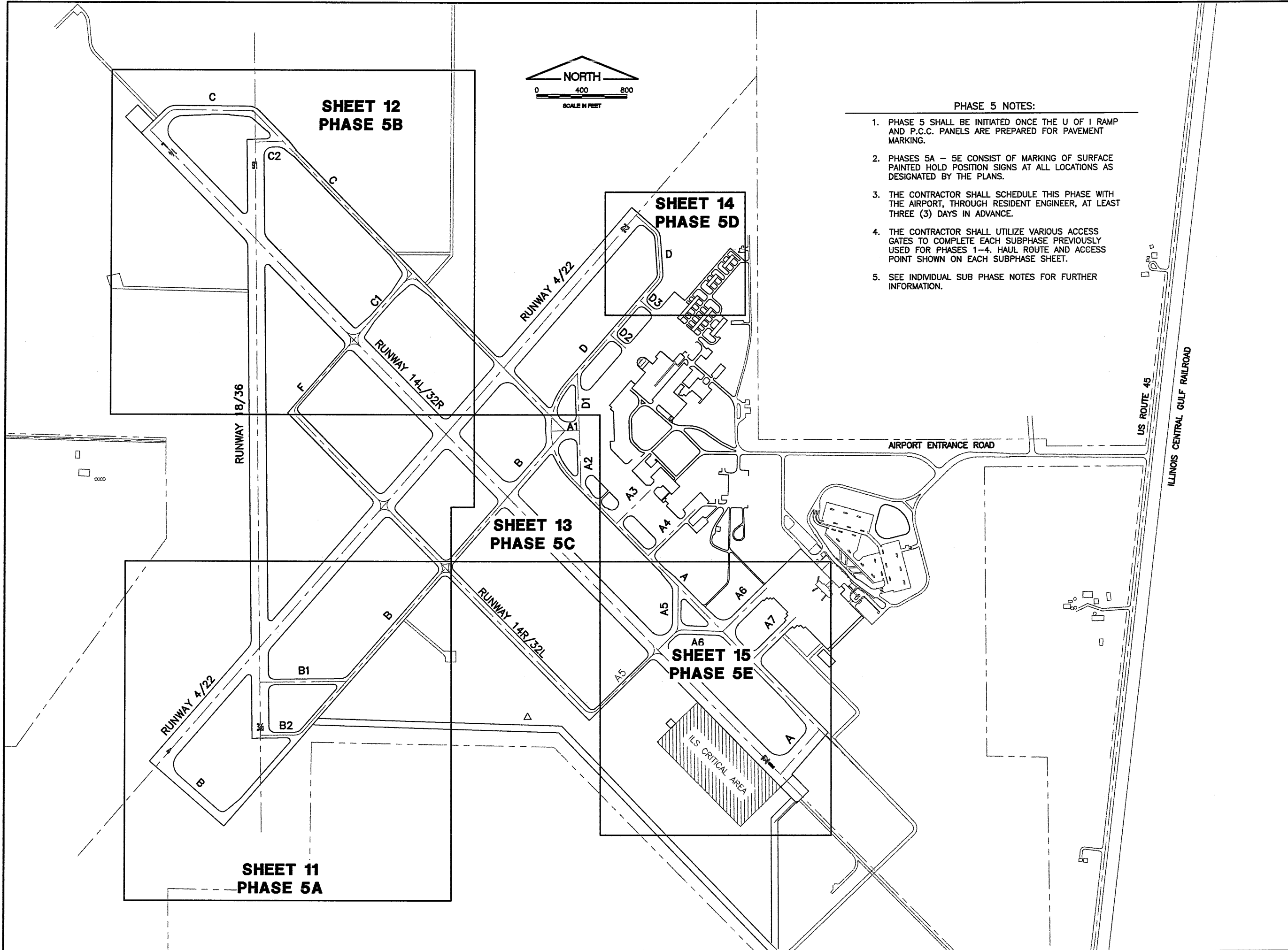
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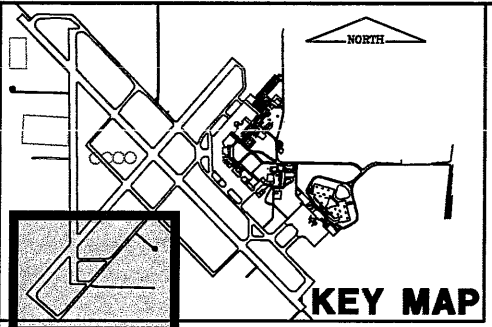
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- PHASE 5 NOTES:**
1. PHASE 5 SHALL BE INITIATED ONCE THE U OF I RAMP AND P.C.C. PANELS ARE PREPARED FOR PAVEMENT MARKING.
  2. PHASES 5A - 5E CONSIST OF MARKING OF SURFACE PAINTED HOLD POSITION SIGNS AT ALL LOCATIONS AS DESIGNATED BY THE PLANS.
  3. THE CONTRACTOR SHALL SCHEDULE THIS PHASE WITH THE AIRPORT, THROUGH RESIDENT ENGINEER, AT LEAST THREE (3) DAYS IN ADVANCE.
  4. THE CONTRACTOR SHALL UTILIZE VARIOUS ACCESS GATES TO COMPLETE EACH SUBPHASE PREVIOUSLY USED FOR PHASES 1-4. HAUL ROUTE AND ACCESS POINT SHOWN ON EACH SUBPHASE SHEET.
  5. SEE INDIVIDUAL SUB PHASE NOTES FOR FURTHER INFORMATION.





**KEY MAP**

THIS SHEET

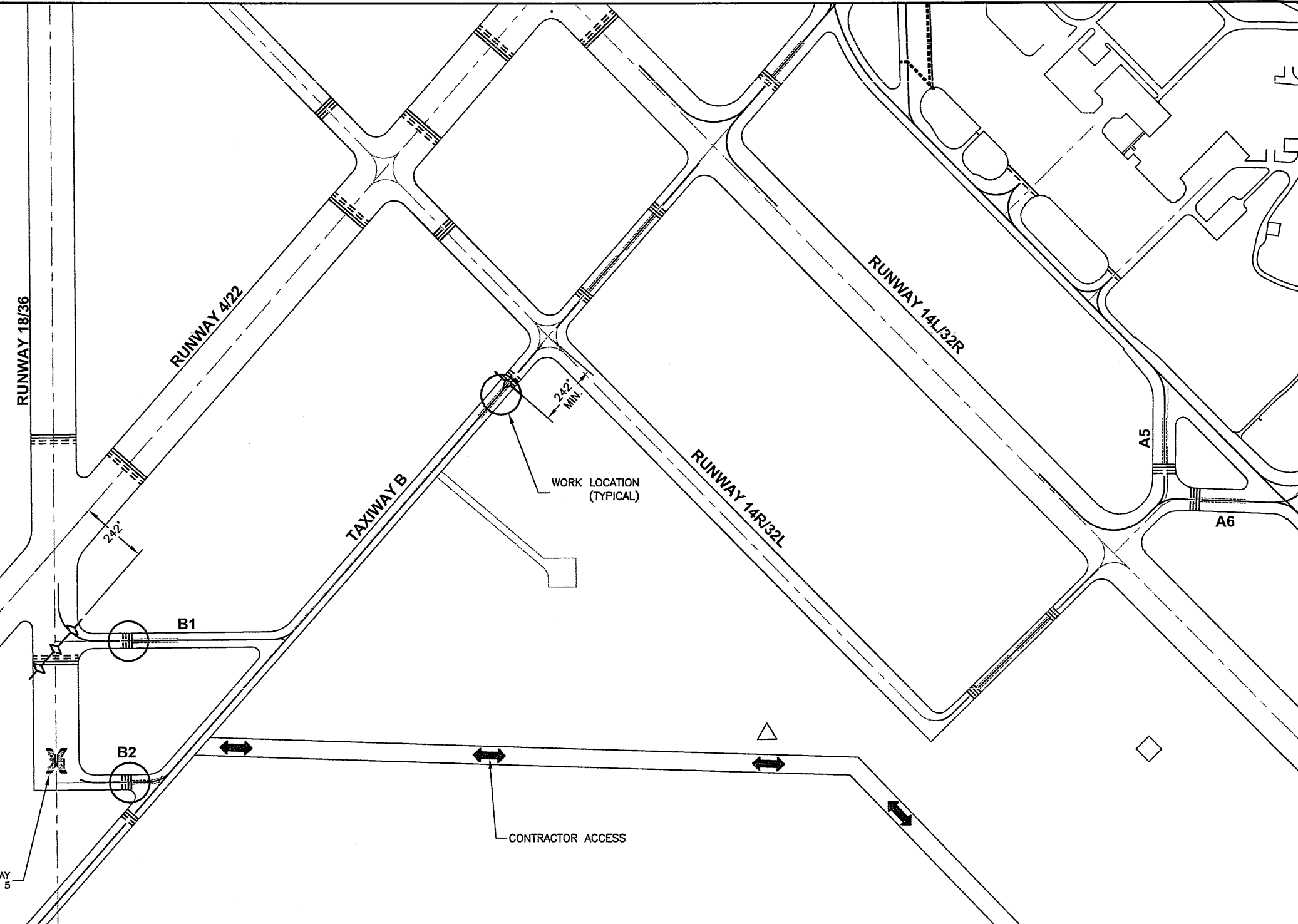
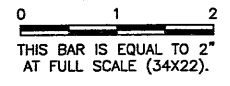
**PHASE 5A NOTES**

1. ALL BARRICADES TO BE IN PLACE AS SHOWN PRIOR TO BEGINNING WORK.
2. CONTRACTOR WILL NOT BE ALLOWED PAST THE BARRICADE LINES WITHOUT PRIOR APPROVAL FROM THE ATCT.
3. ALL WORK IN THIS PHASE MUST BE COMPLETED AND THE AREAS DRY PRIOR TO REMOVING THE BARRICADES AND MOVING TO THE NEXT PHASE.
4. THE CONTRACTOR SHALL SCHEDULE WORK IN THIS PHASE WITH THE AIRPORT AND THE ATCT THROUGH THE RESIDENT ENGINEER PRIOR TO STARTING WORK.
5. RUNWAY 18/36 TO BE CLOSED WHEN WORKING ON TAXIWAYS B1 & B2. SEE CONSTRUCTION ACTIVITY PLAN PHASE 2 SHEET FOR RUNWAY CLOSURE REQUIREMENTS AND MARKER DETAIL.
6. ALL EQUIPMENT TRAVELING TO AND FROM WORK SITE SHALL BE ESCORTED BY A VEHICLE IN CONTACT WITH THE ATCT AT ALL TIMES.
7. HOLD POSITION LINES LOCATED IN RUNWAYS SHALL NOT BE REMARKED.

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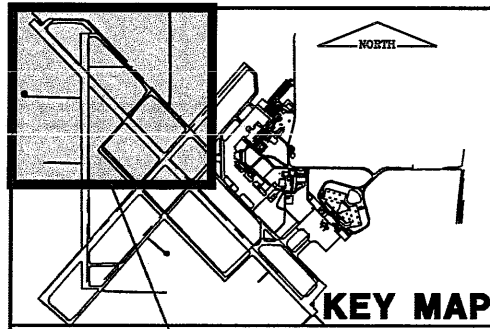
**LEGEND**

- BARRICADES IDOT TYPE 1 WITH RED LIGHTS AND 20"X20" ORANGE FLAGS AT 15' SPACING
- CONTRACTOR ACCESS
- FLAGGER
- WORK AREA
- RUNWAY CLOSURE MARKER
- ENHANCED TAXIWAY CENTERLINE AND RUNWAY HOLD POSITION MARKING

PHASE 5A FACILITIES STATUS	
OPEN	CLOSED
RUNWAY 4/22	TXY. B SOUTH OF RWY. 14R/32L
RUNWAY 14L/32R	TAXIWAY B1
RUNWAY 14R/32L	TAXIWAY B2
TAXIWAY A	RUNWAY 18/36
TAXIWAY A1 THROUGH TXY. A7	
TAXIWAY B NORTH OF RWY. 14R/32L	
TAXIWAY C	
TAXIWAY C1	
TAXIWAY C2	
TAXIWAY D	
TAXIWAY D1 THROUGH TWY. D3	

- WORK INCLUDES:**
1. NEW SURFACE PAINTED HOLD POSITION SIGNS. SEE MARKING SCHEDULE AND DETAIL SHEETS.
  2. REMARKING EXISTING RUNWAY HOLD POSITION LINES & ENHANCED TAXIWAY CENTERLINES.

HAUL ROAD TO MONTICELLO ROAD



THIS SHEET

**WORK INCLUDES:**

1. NEW SURFACE PAINTED HOLD POSITION SIGNS.
  2. REMARKING EXISTING RUNWAY HOLD POSITION LINES AND ENHANCED TAXIWAY CENTERLINES.
- SEE MARKING SCHEDULE AND DETAIL SHEETS.

**LEGEND**

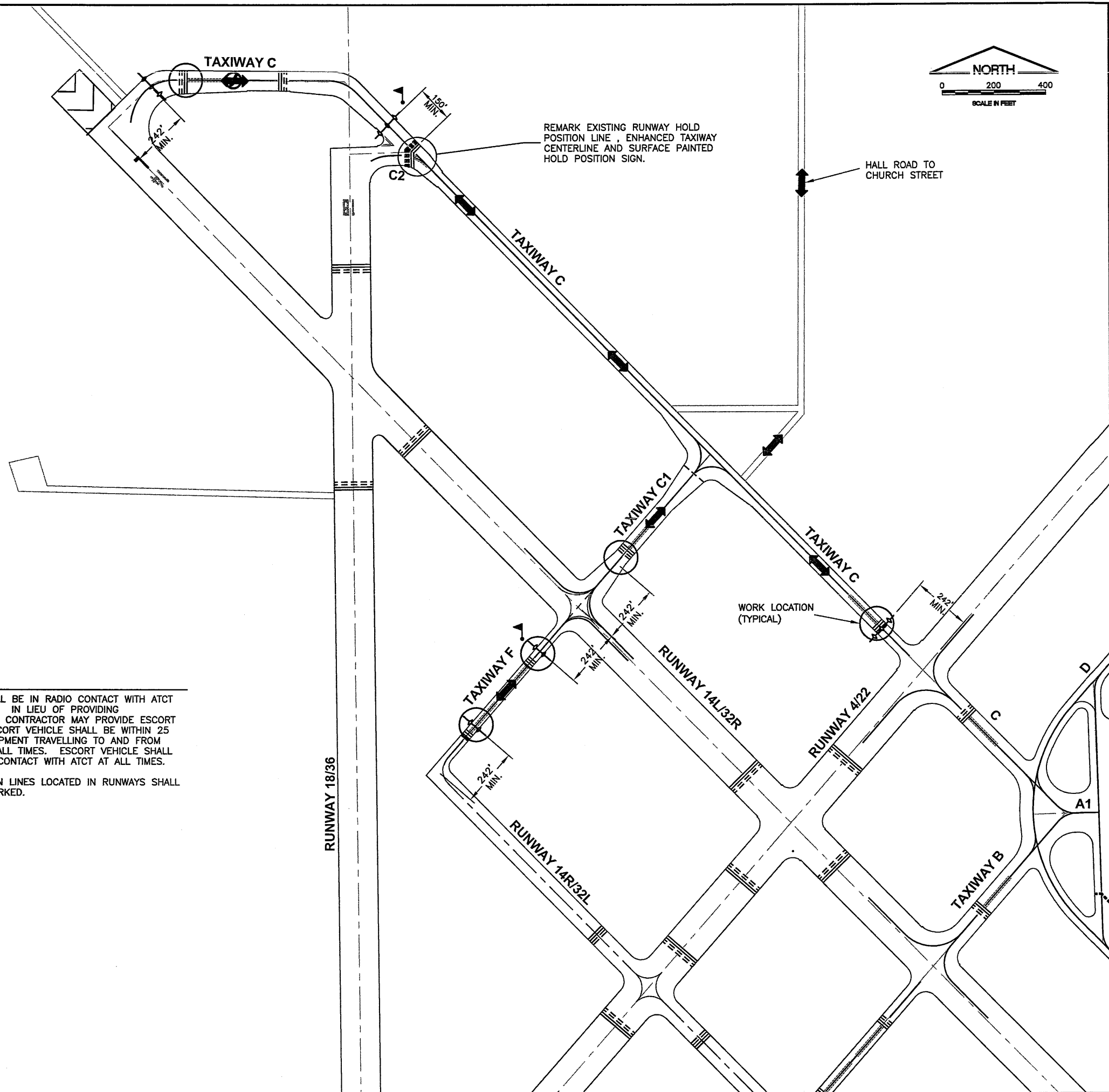
- BARRICADES IDOT TYPE 1 WITH RED LIGHTS AND 20"x20" ORANGE FLAGS AT 15' SPACING
- CONTRACTOR ACCESS
- FLAGGER
- WORK AREA
- RUNWAY CLOSURE MARKER
- ENHANCED TAXIWAY CENTERLINE AND RUNWAY HOLD POSITION MARKING

**PHASE 5B NOTES**

1. ALL BARRICADES TO BE IN PLACE AS SHOWN PRIOR TO BEGINNING WORK.
2. CONTRACTOR WILL NOT BE ALLOWED PAST THE BARRICADE LINES WITHOUT PRIOR APPROVAL FROM THE ATCT.
3. ALL WORK IN THIS PHASE MUST BE COMPLETED AND THE AREAS DRY PRIOR TO REMOVING THE BARRICADES AND MOVING TO THE NEXT PHASE.
4. THE CONTRACTOR SHALL SCHEDULE WORK IN THIS PHASE WITH THE AIRPORT AND THE ATCT THROUGH THE RESIDENT ENGINEER.
5. FLAGGER SHALL BE IN RADIO CONTACT WITH ATCT AT ALL TIMES. IN LIEU OF PROVIDING FLAGPERSONS, CONTRACTOR MAY PROVIDE ESCORT VEHICLE. ESCORT VEHICLE SHALL BE WITHIN 25 FEET OF EQUIPMENT TRAVELLING TO AND FROM THE SITE AT ALL TIMES. ESCORT VEHICLE SHALL BE IN RADIO CONTACT WITH ATCT AT ALL TIMES.
6. HOLD POSITION LINES LOCATED IN RUNWAYS SHALL NOT BE REMARKED.

**PHASE 5B FACILITIES STATUS**

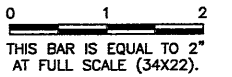
OPEN	CLOSED
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RUNWAY 14L/32R	TAXIWAY C1
RUNWAY 14R/32L	TAXIWAY C2
RUNWAY 18/36	
TAXIWAY A	
TAXIWAY A1 THROUGH TXY. A7	
TAXIWAY B	
TAXIWAY B1	
TAXIWAY B2	
TAXIWAY C FROM RWY. 4/22 TO TXY. A1	
TAXIWAY D	
TAXIWAY D1 THROUGH TWY. D3	



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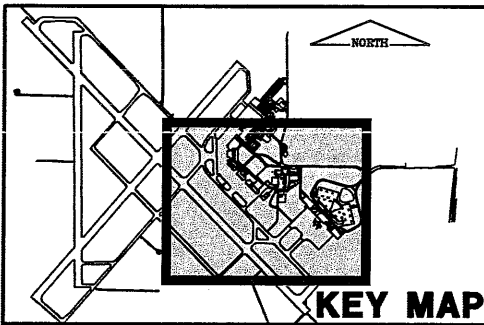
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KEY MAP

THIS SHEET

**WORK INCLUDES:**

1. NEW SURFACE PAINTED HOLD POSITION SIGNS.
  2. REMARKING EXISTING RUNWAY HOLD POSITION LINES AND ENHANCED TAXIWAY CENTERLINES.
- SEE MARKING SCHEDULE AND DETAIL SHEETS.

**LEGEND**

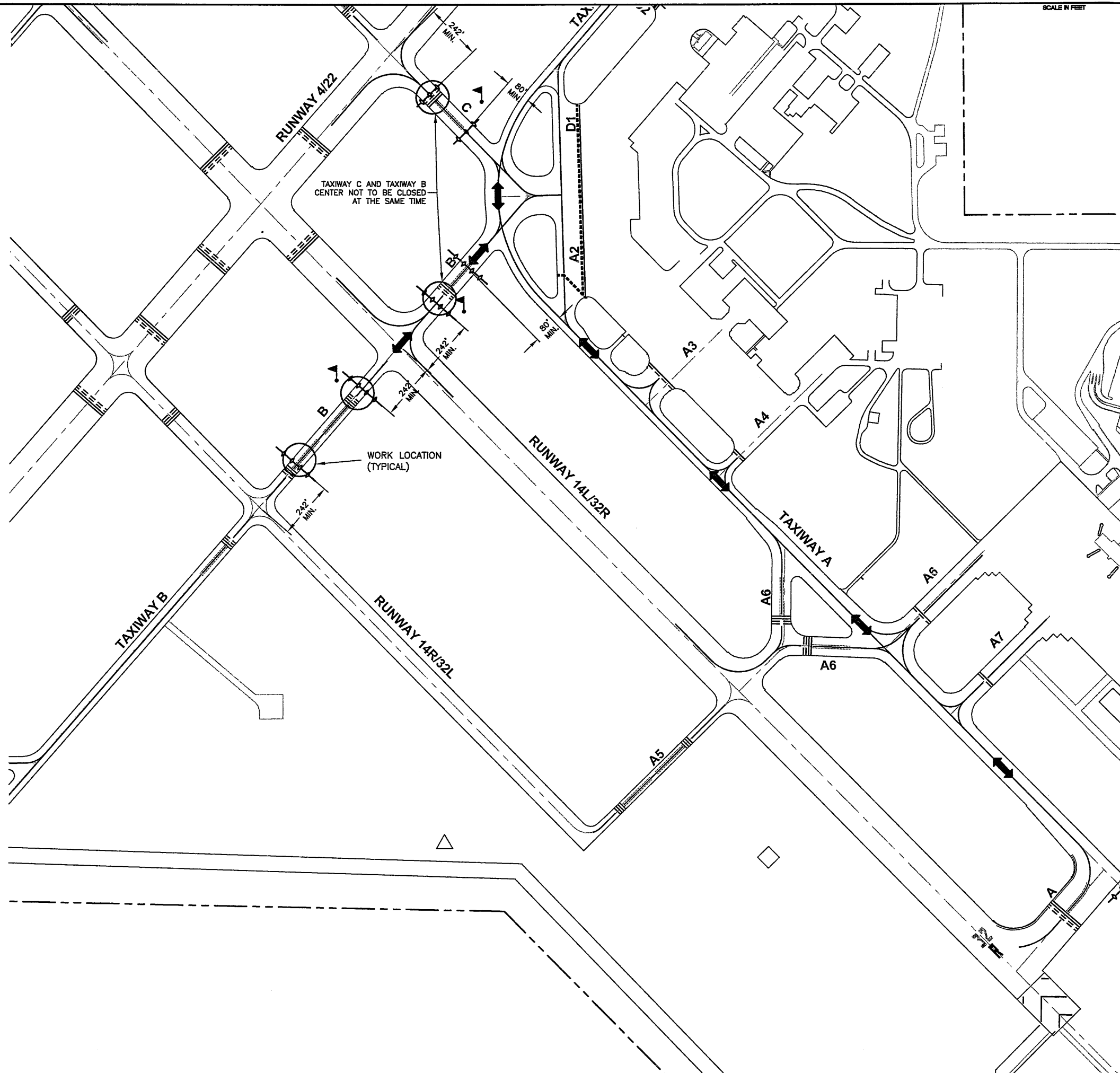
- BARRICADES IDOT TYPE 1 WITH RED LIGHTS AND 20"X20" ORANGE FLAGS AT 15' SPACING
- CONTRACTOR ACCESS
- FLAGGER
- WORK AREA
- RUNWAY CLOSURE MARKER
- ENHANCED TAXIWAY CENTERLINE AND RUNWAY HOLD POSITION MARKING

**PHASE 5C NOTES**

1. ALL BARRICADES TO BE IN PLACE AS SHOWN PRIOR TO BEGINNING WORK.
1. CONTRACTOR WILL NOT BE ALLOWED PAST THE BARRICADE LINES WITHOUT PRIOR APPROVAL FROM THE ATCT.
2. ALL WORK IN THIS PHASE MUST BE COMPLETED AND THE AREAS DRY PRIOR TO REMOVING THE BARRICADES AND MOVING TO THE NEXT PHASE.
3. THE CONTRACTOR SHALL SCHEDULE WORK IN THIS PHASE WITH THE AIRPORT AND THE ATCT THROUGH THE RESIDENT ENGINEER PRIOR TO STARTING WORK.
4. FLAGGER SHALL BE IN RADIO CONTACT WITH ATCT AT ALL TIMES. IN LIEU OF PROVIDING FLAGPERSONS, CONTRACTOR MAY PROVIDE ESCORT VEHICLE. ESCORT VEHICLE SHALL BE WITHIN 25 FEET OF EQUIPMENT TRAVELLING TO AND FROM THE SITE AT ALL TIMES. ESCORT VEHICLE SHALL BE IN RADIO CONTACT WITH ATCT AT ALL TIMES.
5. HOLD POSITION LINES LOCATED IN RUNWAYS SHALL NOT BE REMARKED.

**PHASE 5C FACILITIES STATUS**

OPEN	CLOSED
RUNWAY 4/22	TXY. C SE OF RWY. 4/22
RUNWAY 14L/32R	TAXIWAY B FROM TXY. A TO
RUNWAY 14R/32L	RWY. 14R/32L
RUNWAY 18/36	
TAXIWAY A	
TAXIWAY A1 THROUGH TXY. A7	
TAXIWAY B SW OF RWY. 14R/32L	
TAXIWAY B1	
TAXIWAY B2	
TAXIWAY C NW OF RWY. 4/22	
TAXIWAY C1	
TAXIWAY C2	
TAXIWAY D	
TAXIWAY D1 THROUGH TWY. D3	

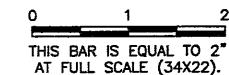


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 PLOT DATE: 4/15/2010 5:21 PM  
 CMI-SitePlanGeo  
 Mark

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**WILLARD AIRPORT**  
**UNIVERSITY OF ILLINOIS**  
**REHABILITATE U OF I RAMP AND P.C.C. PANELS**  
**CONSTRUCTION ACTIVITY PLAN**  
**PHASE 5C**

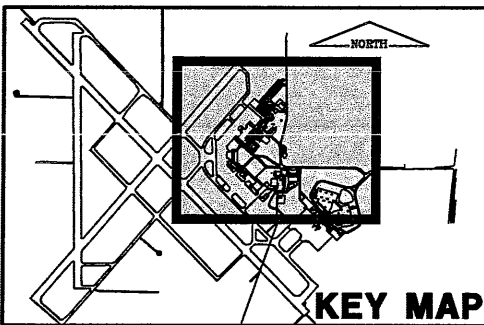
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 APPROVED BY: CET

DATE: 04-16-2010  
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IL PROJ. NO. CMI-3474  
 AIP PROJ. NO. 3-17-0016-XX

SHEET 13 OF 49 SHEETS



THIS SHEET

- WORK INCLUDES:**
1. NEW SURFACE PAINTED HOLD POSITION SIGNS.
  2. REMARKING EXISTING RUNWAY HOLD POSITION LINES AND ENHANCED TAXIWAY CENTERLINES.
- SEE MARKING SCHEDULE AND DETAIL SHEETS.

**LEGEND**

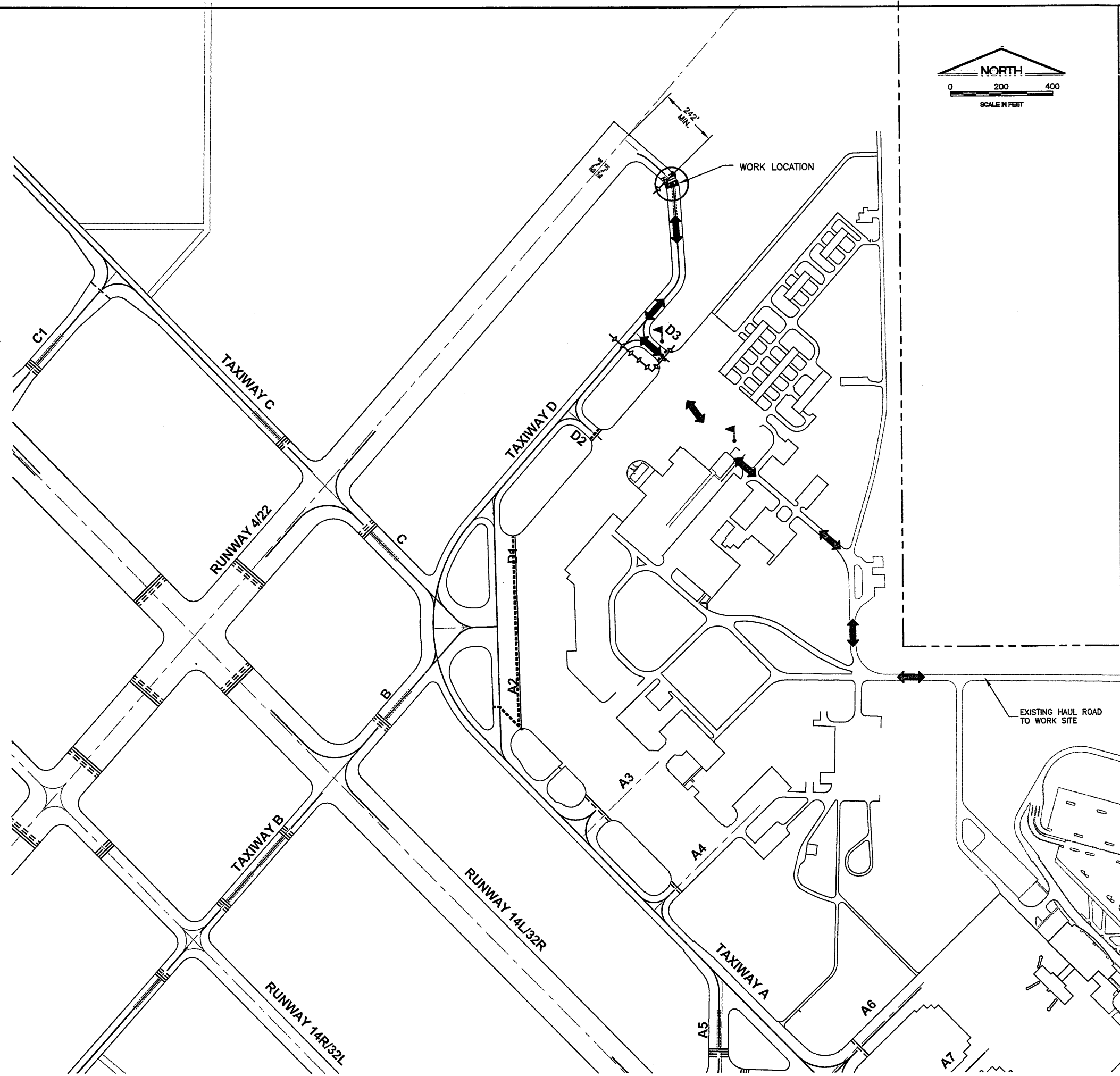
- BARRICADES IDOT TYPE 1 WITH RED LIGHTS AND 20"x20" ORANGE FLAGS AT 15' SPACING
- CONTRACTOR ACCESS
- FLAGGER
- WORK AREA
- RUNWAY CLOSURE MARKER
- ENHANCED TAXIWAY CENTERLINE AND RUNWAY HOLD POSITION MARKING

**PHASE 5D**

1. ALL BARRICADES TO BE IN PLACE AS SHOWN PRIOR TO BEGINNING WORK.
1. CONTRACTOR WILL NOT BE ALLOWED PAST THE BARRICADE LINES WITHOUT PRIOR APPROVAL FROM THE ATCT.
2. ALL WORK IN THIS PHASE MUST BE COMPLETED AND THE AREAS DRY PRIOR TO REMOVING THE BARRICADES AND MOVING TO THE NEXT PHASE.
3. THE CONTRACTOR SHALL SCHEDULE WORK IN THIS PHASE WITH THE AIRPORT AND THE ATCT THROUGH THE RESIDENT ENGINEER PRIOR TO STARTING WORK.
4. ALL EQUIPMENT TRAVELING TO AND FROM THE WORK SITE SHALL BE ESCORTED BY A VEHICLE IS RADIO CONTACT WITH THE ATCT AT ALL TIMES.
5. HOLD POSITION LINES LOCATED IN RUNWAYS SHALL NOT BE REMARKED.

**PHASE 5D FACILITIES STATUS**

OPEN	CLOSED
RUNWAY 4/22	
RUNWAY 14L/32R	
RUNWAY 14R/32L	TAXIWAY D NE OF TXY. D2
RUNWAY 18/36	TAXIWAY D3
TAXIWAY A	
TAXIWAY A1 THROUGH TXY. A7	
TAXIWAY B	
TAXIWAY B1	
TAXIWAY B2	
TAXIWAY C	
TAXIWAY C1	
TAXIWAY C2	
TAXIWAY D SW OF TXY.D3	
TAXIWAY D1 THROUGH TWY. D2	

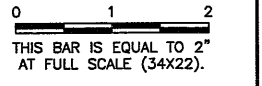


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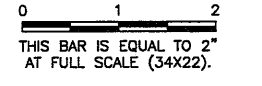
**WILLARD AIRPORT**  
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**CONSTRUCTION ACTIVITY PLAN**  
**PHASE 5D**

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SHEET 14 OF 49 SHEETS	

**UN049**

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NUMBER	BY	DATE



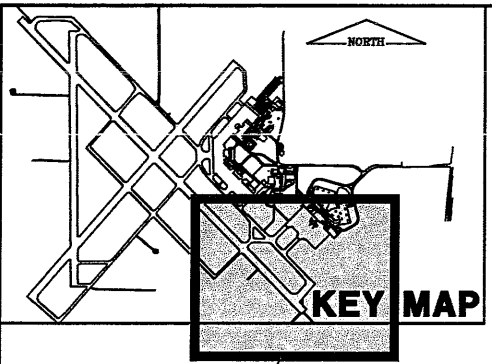
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 CONSTRUCTION ACTIVITY PLAN  
 PHASE 5E**

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AIP PROJ. NO.	3-17-0016-XX
SHEET	15 OF 49 SHEETS



THIS SHEET

- WORK INCLUDES:**
1. NEW SURFACE PAINTED HOLD POSITION SIGNS.
  2. REMARKING EXISTING RUNWAY HOLD POSITION LINES AND ENHANCED TAXIWAY CENTERLINES.
- SEE MARKING SCHEDULE AND DETAIL SHEETS.

**LEGEND**

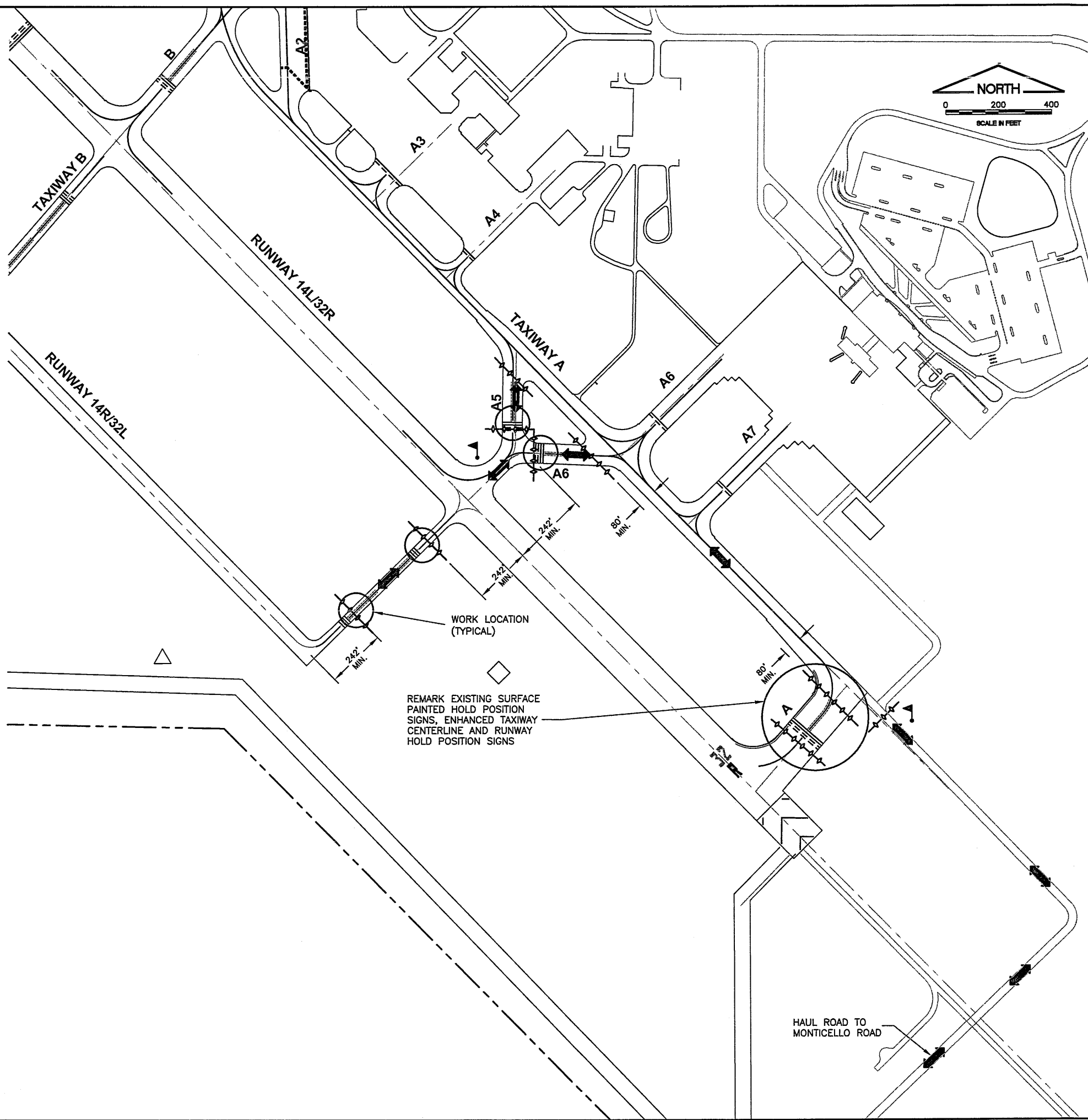
- BARRICADES IDOT TYPE 1 WITH RED LIGHTS AND 20"x20" ORANGE FLAGS AT 15' SPACING
- CONTRACTOR ACCESS
- FLAGGER
- WORK AREA
- RUNWAY CLOSURE MARKER
- ENHANCED TAXIWAY CENTERLINE AND RUNWAY HOLD POSITION MARKING

**PHASE 5E NOTES**

1. AN ESCORT SHALL REMAIN IN RESPONSIBLE CONTROL OF ALL CONTRACTOR PERSONNEL AND EQUIPMENT AT ALL TIMES. THE ESCORT SHALL REMAIN IN CONSTANT CONTACT W/ATCT PERSONNEL.
2. ALL WORK IN AN AREA MUST BE COMPLETED AND THE AREAS DRY PRIOR TO REMOVING THE BARRICADES AND MOVING TO THE NEXT WORK AREA.
3. THE CONTRACTOR SHALL SCHEDULE WORK IN THIS PHASE DAILY WITH THE AIRPORT AND THE ATCT THROUGH THE RESIDENT ENGINEER PRIOR TO STARTING WORK.
4. ESCORT SHALL BE IN RADIO CONTACT WITH ATCT AT ALL TIMES.
5. THE CONTRACTOR SHALL NEVER HAVE TAXIWAYS A, A5 AND A6 ALL CLOSED AT THE SAME TIME.
6. HOLD POSITION LINES LOCATED IN RUNWAYS SHALL NOT BE REMARKED.

**PHASE 5E FACILITIES STATUS**

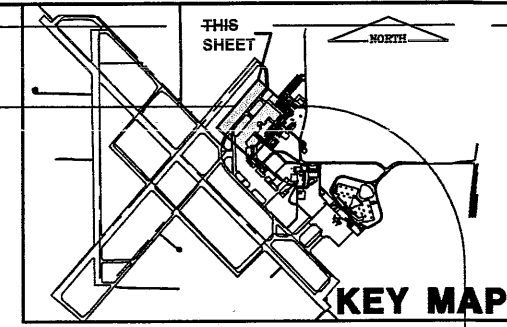
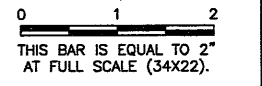
OPEN	CLOSED
RUNWAY 4/22	
RUNWAY 14L/32R	
RUNWAY 14R/32L	
RUNWAY 18/36	
TAXIWAY A	
TAXIWAY A1 THROUGH TXY. A4	
TAXIWAY A6 FROM TXY. A TO AIR CARRIER APRON	
TAXIWAY A7	
TAXIWAY B	
TAXIWAY B1	
TAXIWAY B2	
TAXIWAY C	
TAXIWAY C1	
TAXIWAY C2	
TAXIWAY D	
TAXIWAY D1 THROUGH TWY. D3	
	TXY'S. A5 AND A6 FROM TXY. A TO RWY. 14R/32L
	TXY. A TO RWY. 14L/32R



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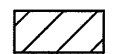

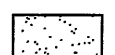
**TAXIWAY D**

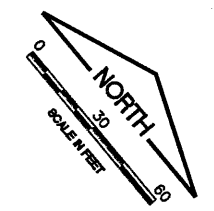
FULL DEPTH SAWCUT  
 STA. 1+00  
 BASELINE B

BASELINE B

**LEGENDS**

**EXISTING STRUCTURE**

-  6" PCC PAVEMENT  
VAR. THICKNESS BIT. LEVELING COURSE  
8-9" PCC PAVEMENT
-  8" PCC PAVEMENT  
AGGREGATE BASE COURSE
-  VAR. THICKNESS BITUMINOUS RAMP  
(3"-8") OVER (8-9") PCC PAVEMENT



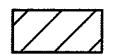

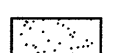
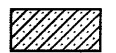
**TAXIWAY D2**

2" MIN. DEPTH  
 SAWCUT ALONG  
 JOINT BETWEEN  
 TAXIWAY D AND D2

REMOVE EXISTING BITUMINOUS  
 RAMP (3"-8") VARIABLE DEPTH

REMOVE PCC SURFACE AND  
 VARIABLE THICKNESS  
 BITUMINOUS BOND BREAKER

**REMOVALS**

-  EXISTING 6" PCC PAVEMENT AND  
VAR. THICKNESS BOND BREAKER  
TO BE REMOVED - 8-9" PCC  
PAVEMENT BELOW TO REMAIN
-  EXISTING 6" PCC PAVEMENT,  
VAR. DEPTH BOND BREAKER AND  
UNDERLYING (8"-9") PCC  
PAVEMENT TO BE COMPLETELY  
REMOVED
-  EXISTING BITUMINOUS RAMP TO  
BE REMOVED - 8-9" PCC  
PAVEMENT BELOW TO REMAIN
-  EXISTING BITUMINOUS RAMP AND  
- (8"-9") PCC PAVEMENT  
BELOW TO BE REMOVED FULL  
DEPTH

2" MINIMUM DEPTH  
 SAWCUT AT EDGE  
 OF RAMP REMOVAL

BASELINE A

8" SAWCUT

VARIABLE  
 DEPTH  
 SAWCUT

FULL DEPTH SAWCUT

8" SAWCUT

FULL DEPTH REMOVAL

FULL DEPTH SAWCUT

SEE GENERAL NOTES SHEET "CONTRACTOR'S  
 RESPONSIBILITY FOR UTILITY SERVICE."

CONTRACTOR SHALL UTILIZE EXTREME CARE WHEN  
 REMOVING PAVEMENT ADJACENT TO BUILDING. THE  
 CONTRACTOR SHALL NOT DAMAGE BUILDING OR  
 BUILDING DOWN SPOUTS DURING CONSTRUCTION.

EXISTING  
 PAVEMENT TO  
 REMAIN

EXISTING  
 APRON DRAIN  
 TO BE REMOVED

FULL DEPTH  
 REMOVAL

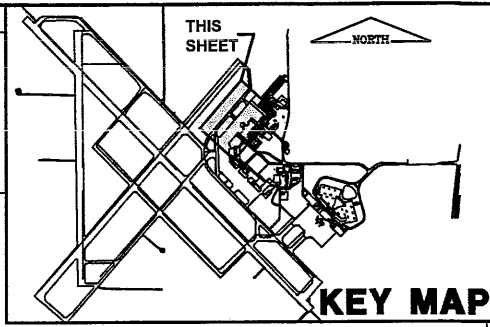
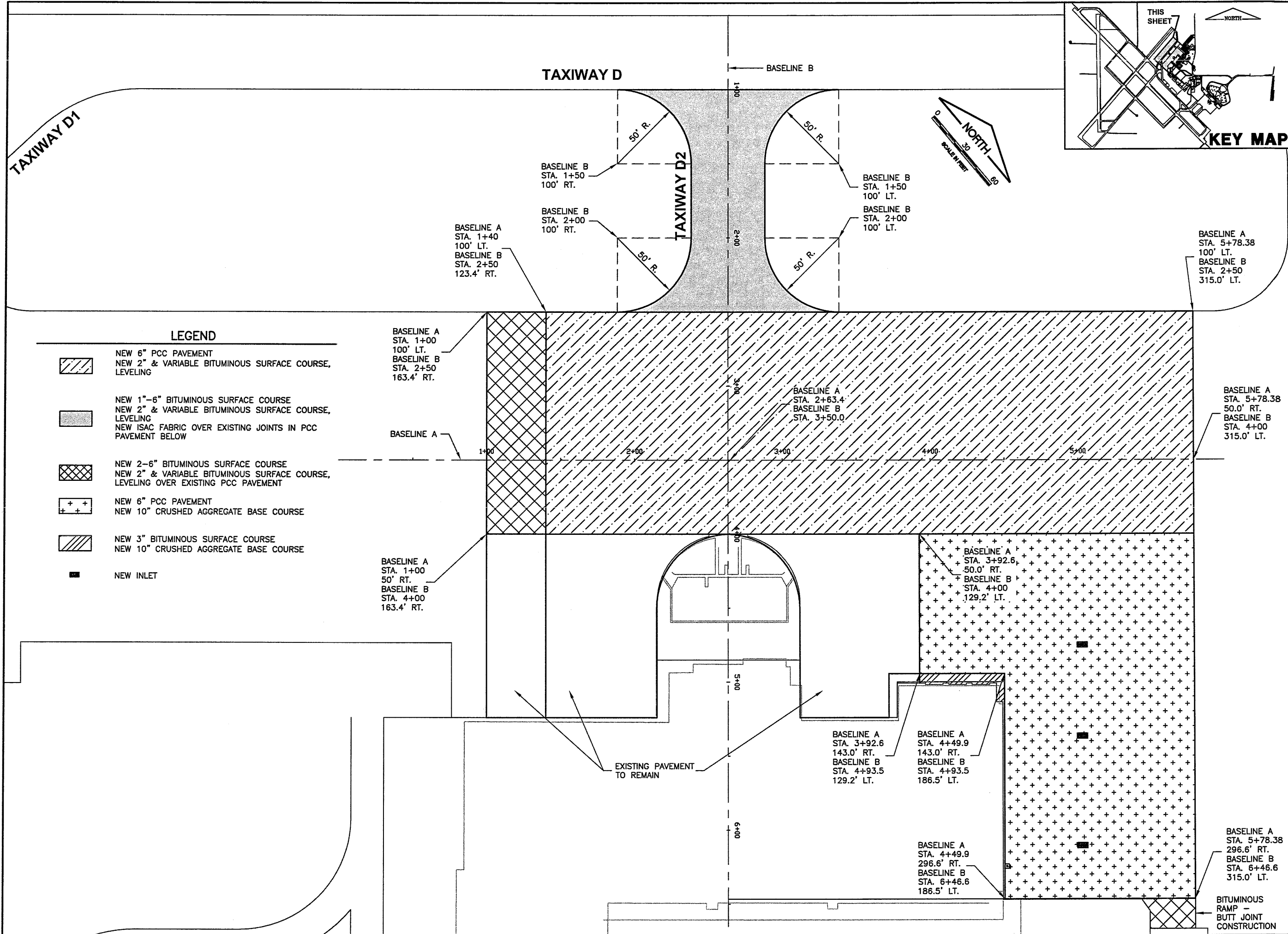
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 UNIVERSITY OF ILLINOIS

REHABILITATE U OF I RAMP AND P.C.C. PANELS  
 U OF I RAMP - EXISTING CONDITIONS  
 AND REMOVALS

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SHEET 16 OF 49 SHEETS	

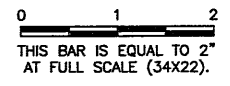




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 PLOT DATE: 4/15/2010 5:28 PM  
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 CMI-SitePlanGeo  
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**LEGEND**

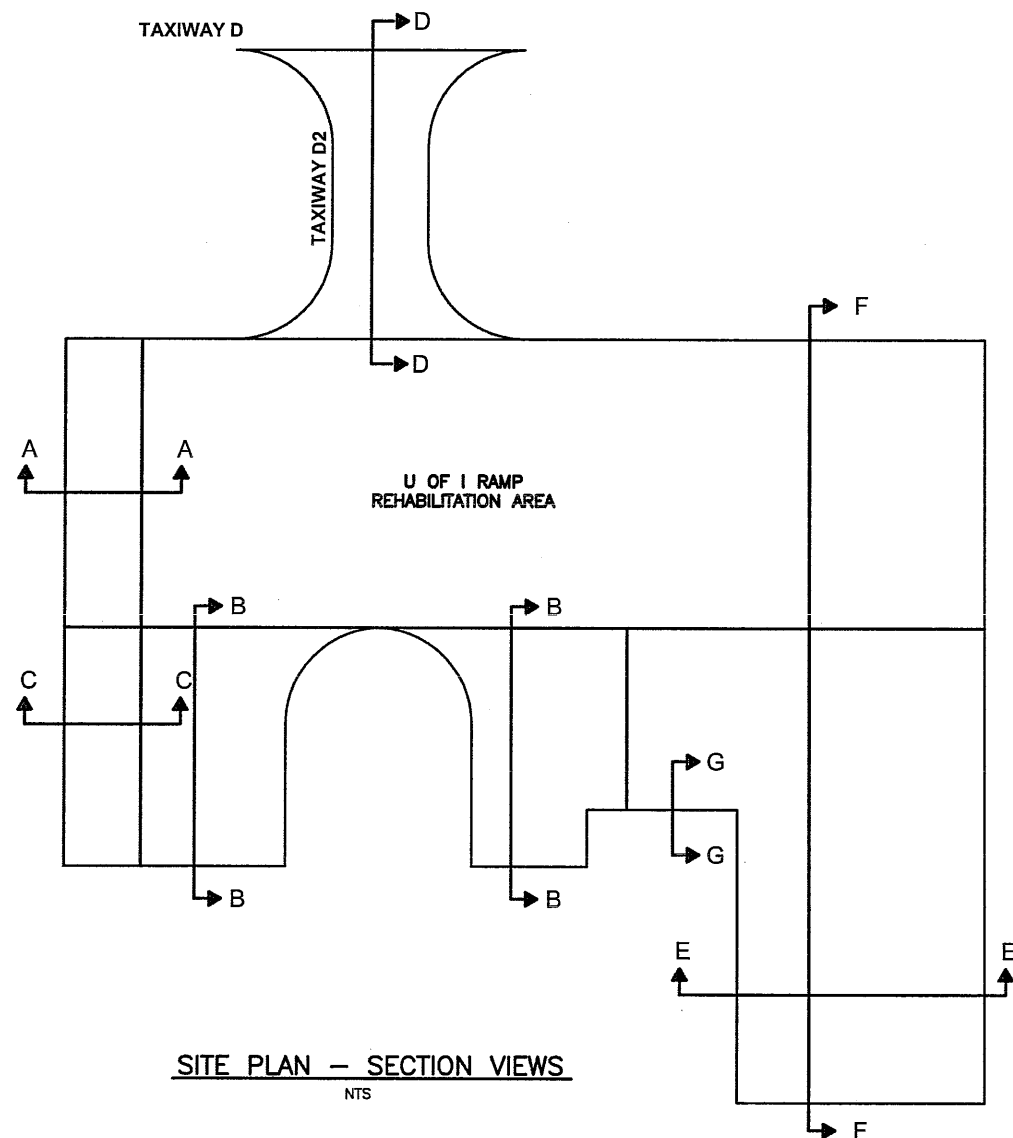
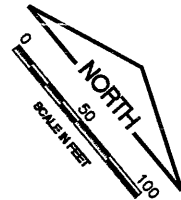
- NEW 6" PCC PAVEMENT  
NEW 2" & VARIABLE BITUMINOUS SURFACE COURSE,  
LEVELING
- NEW 1"-6" BITUMINOUS SURFACE COURSE  
NEW 2" & VARIABLE BITUMINOUS SURFACE COURSE,  
LEVELING
- NEW 2-6" BITUMINOUS SURFACE COURSE  
NEW 2" & VARIABLE BITUMINOUS SURFACE COURSE,  
LEVELING OVER EXISTING PCC PAVEMENT
- NEW 6" PCC PAVEMENT  
NEW 10" CRUSHED AGGREGATE BASE COURSE
- NEW 3" BITUMINOUS SURFACE COURSE  
NEW 10" CRUSHED AGGREGATE BASE COURSE
- NEW INLET

WILLARD AIRPORT  
 UNIVERSITY OF ILLINOIS  
 REHABILITATE U OF I RAMP AND P.C.C. PANELS  
 U OF I RAMP - PROPOSED IMPROVEMENTS

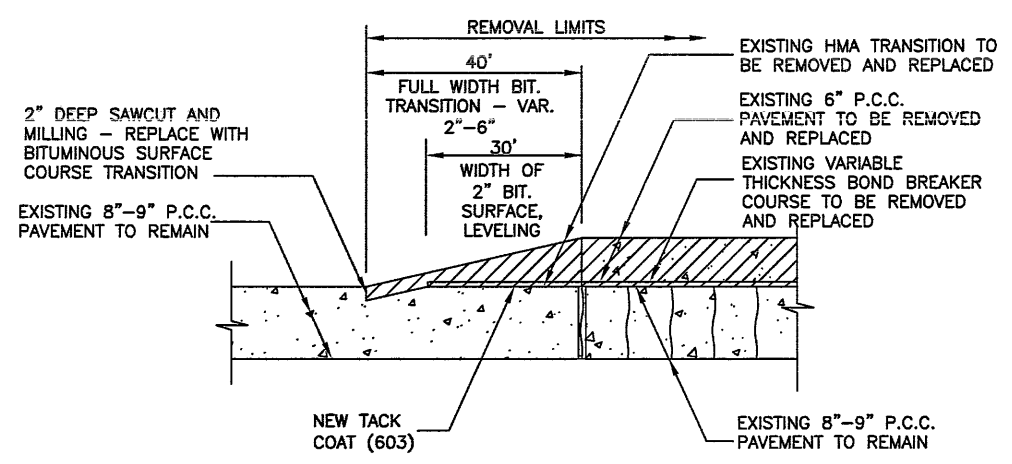
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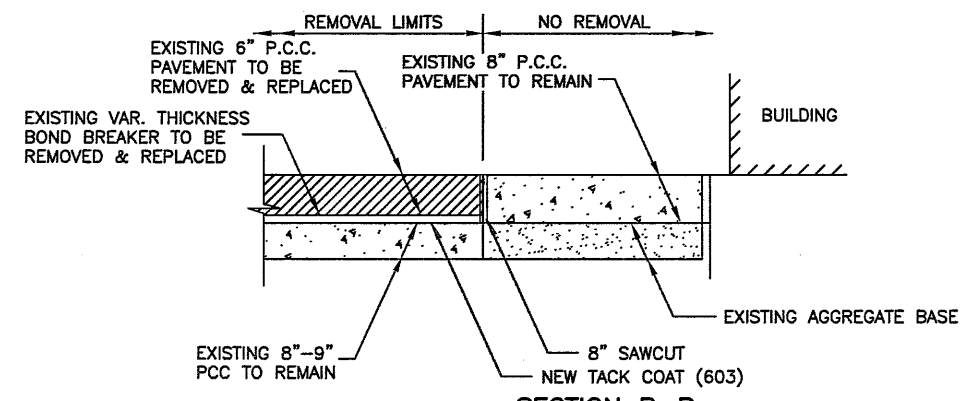
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AIP PROJ. NO. 3-17-0016-XX	
SHEET 17 OF 49 SHEETS	



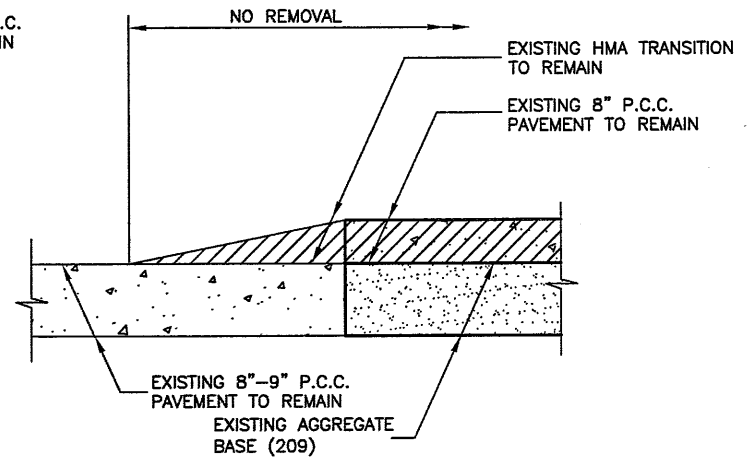
SITE PLAN - SECTION VIEWS  
NTS



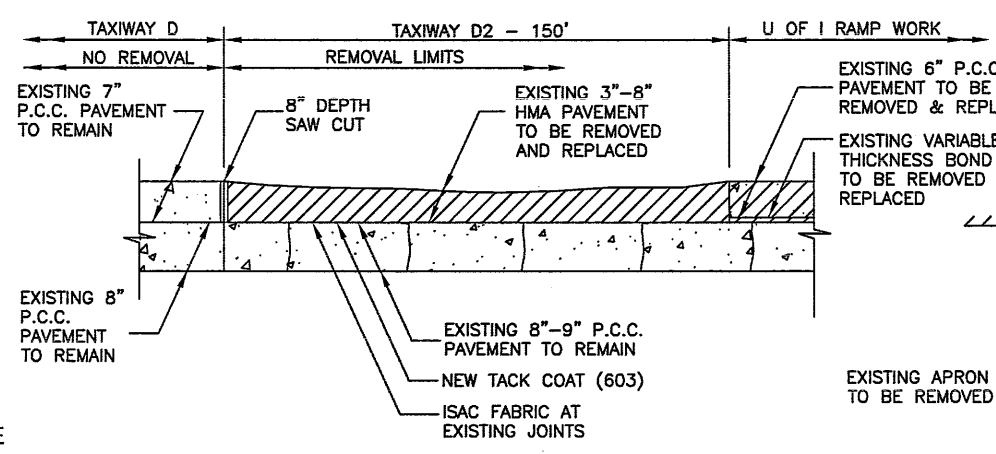
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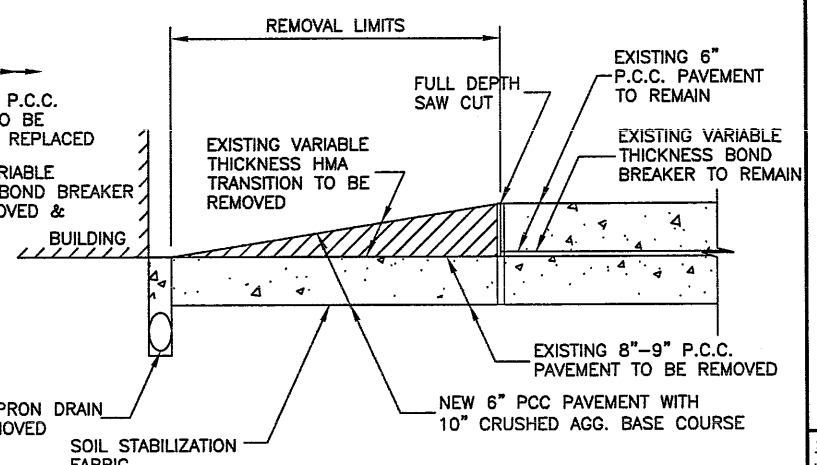
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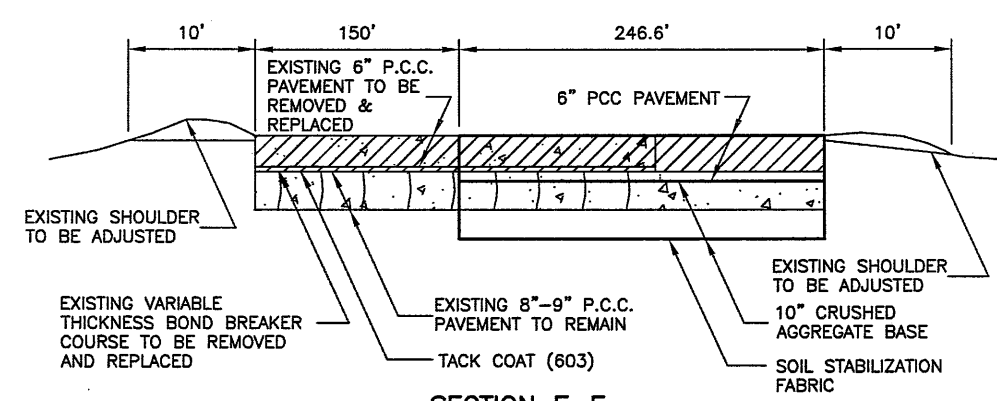
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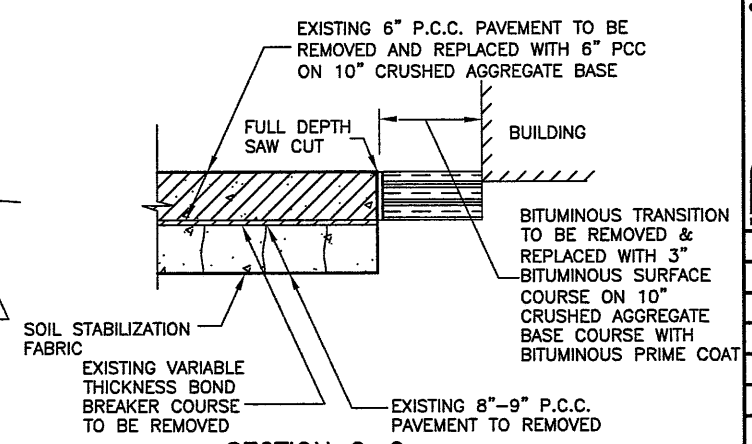
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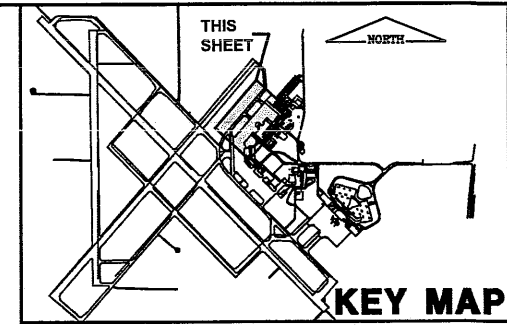
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SECTION F-F  
NTS



SECTION G-G  
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KEYMAP  
CMI-SitePlanGeo  
BASE\_PROP-Geo  
CMIALIGN

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

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U OF I RAMP - TYPICAL SECTIONS

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SHEET	18 OF 49 SHEETS

BASELINE B, STA. 1+00.00  
 N: 1229314.5579, E: 1001713.7307

BASELINE A STA. 2+63.40  
 BASELINE B STA. 3+50.00  
 N:1229150.5400, E:1001902.4053

BASELINE A STA. 5+98.90  
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BASELINE A STA. 0+00  
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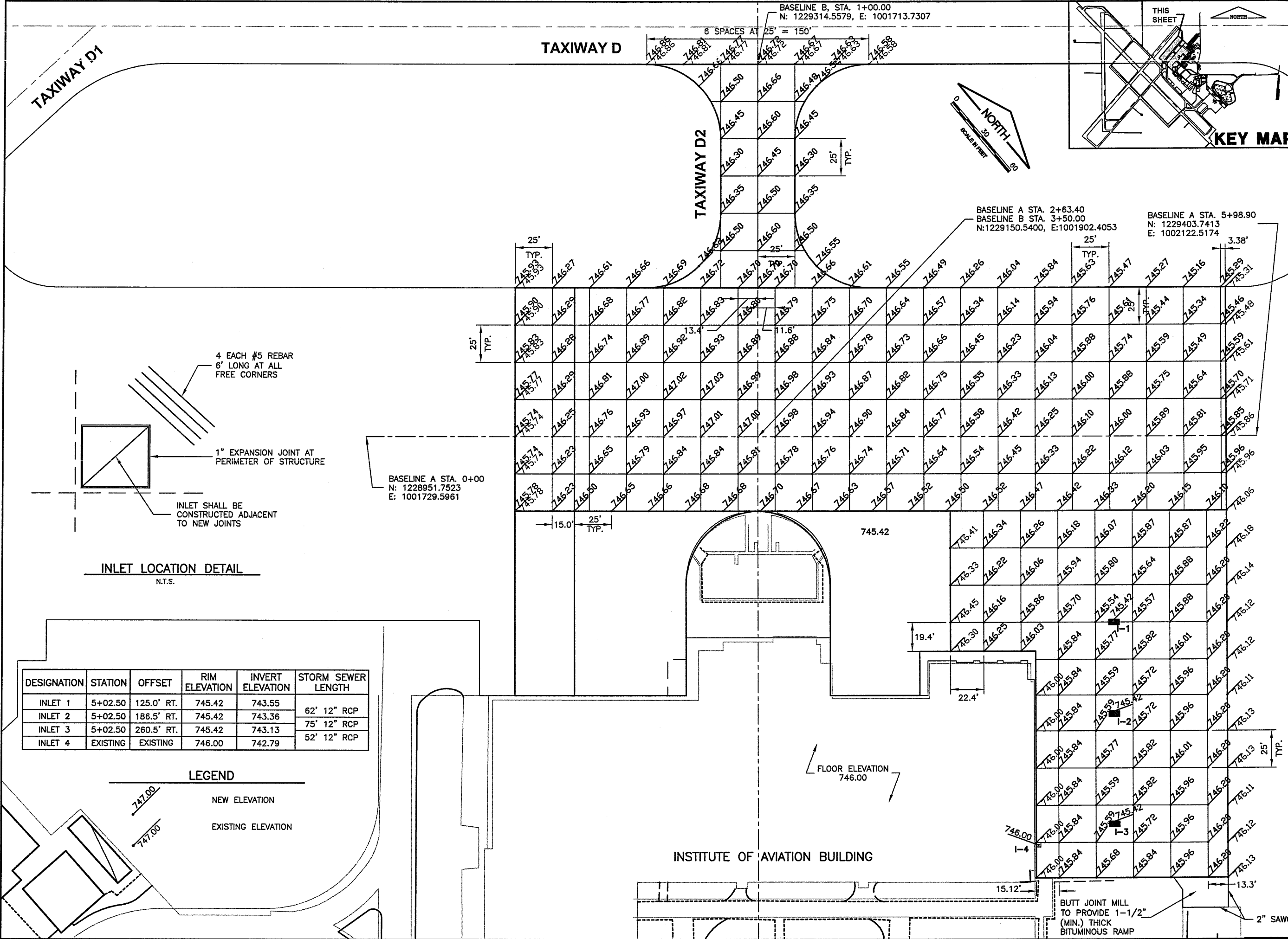
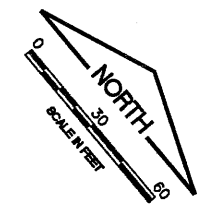
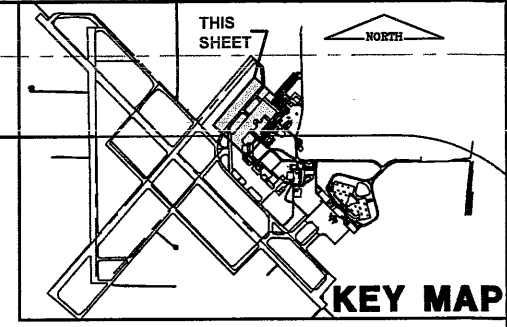
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 KEYMAP  
 CMI-SitePlanGeo  
 BASE\_PROP-GEO  
 CMALIGN  
 CmiBase

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



4 EACH #5 REBAR  
 6' LONG AT ALL  
 FREE CORNERS

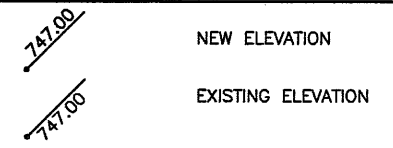
1" EXPANSION JOINT AT  
 PERIMETER OF STRUCTURE

INLET SHALL BE  
 CONSTRUCTED ADJACENT  
 TO NEW JOINTS

INLET LOCATION DETAIL  
 N.T.S.

DESIGNATION	STATION	OFFSET	RIM ELEVATION	INVERT ELEVATION	STORM SEWER LENGTH
INLET 1	5+02.50	125.0' RT.	745.42	743.55	62' 12" RCP
INLET 2	5+02.50	186.5' RT.	745.42	743.36	75' 12" RCP
INLET 3	5+02.50	260.5' RT.	745.42	743.13	52' 12" RCP
INLET 4	EXISTING	EXISTING	746.00	742.79	

LEGEND



INSTITUTE OF AVIATION BUILDING

FLOOR ELEVATION  
 746.00

BUTT JOINT MILL  
 TO PROVIDE 1-1/2"  
 (MIN.) THICK  
 BITUMINOUS RAMP

WILLARD AIRPORT  
 UNIVERSITY OF ILLINOIS

REHABILITATE U OF I RAMP AND P.C.C. PANELS  
 U OF I RAMP STAKING PLAN

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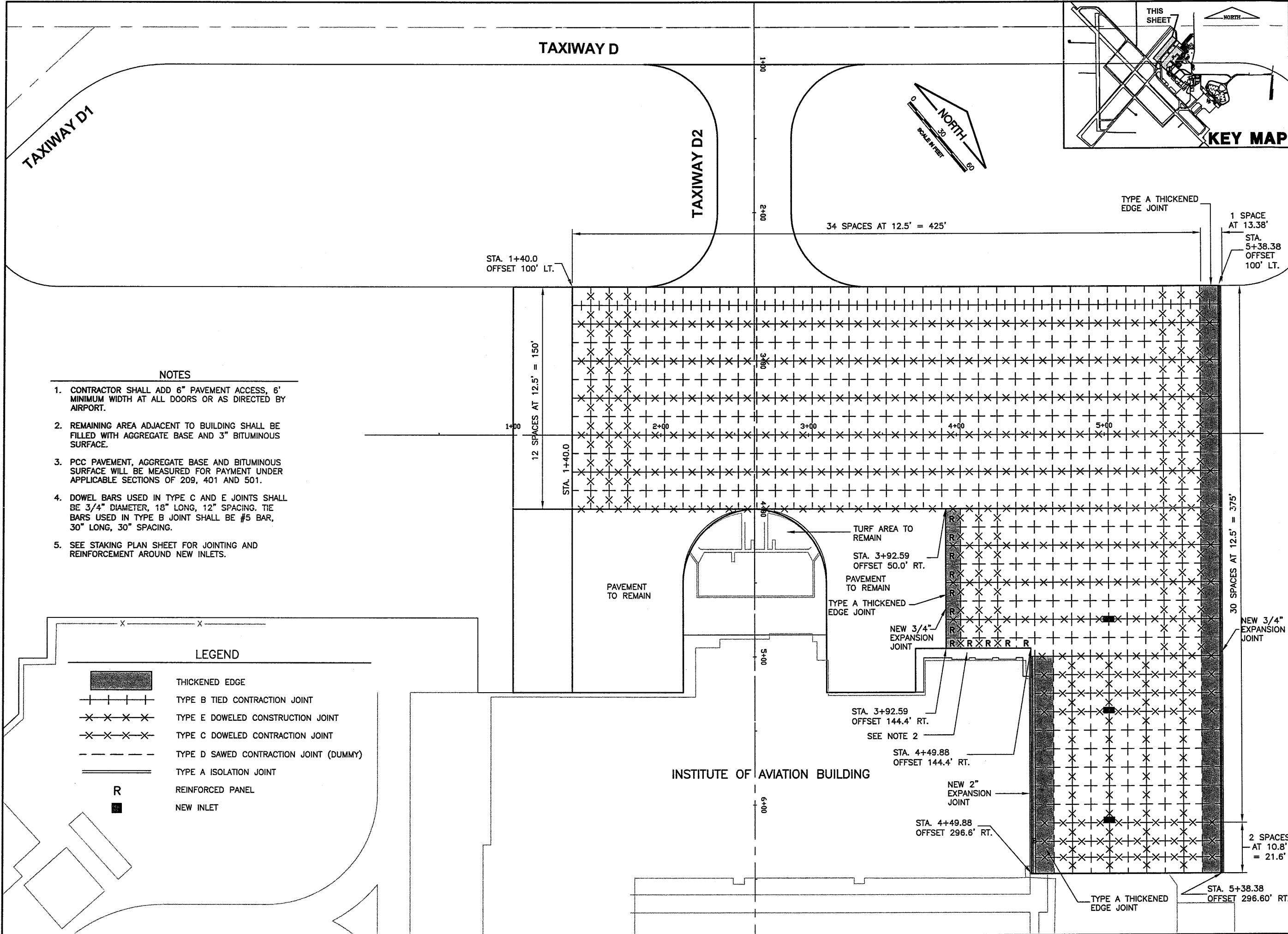
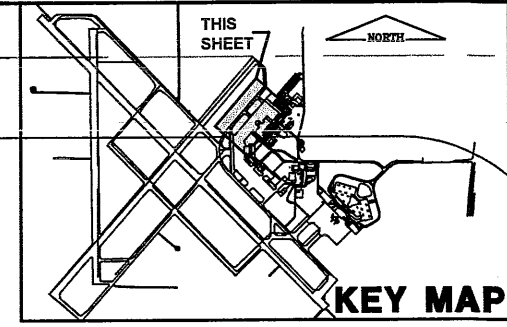
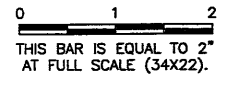
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IL PROJ. NO.	CMI-3474
AIP PROJ. NO.	3-17-0016-XX
SHEET	19 OF 49 SHEETS

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NOTES

- CONTRACTOR SHALL ADD 6" PAVEMENT ACCESS, 6' MINIMUM WIDTH AT ALL DOORS OR AS DIRECTED BY AIRPORT.
- REMAINING AREA ADJACENT TO BUILDING SHALL BE FILLED WITH AGGREGATE BASE AND 3" BITUMINOUS SURFACE.
- PCC PAVEMENT, AGGREGATE BASE AND BITUMINOUS SURFACE WILL BE MEASURED FOR PAYMENT UNDER APPLICABLE SECTIONS OF 209, 401 AND 501.
- DOWEL BARS USED IN TYPE C AND E JOINTS SHALL BE 3/4" DIAMETER, 18" LONG, 12" SPACING. THE BARS USED IN TYPE B JOINT SHALL BE #5 BAR, 30" LONG, 30" SPACING.
- SEE STAKING PLAN SHEET FOR JOINTING AND REINFORCEMENT AROUND NEW INLETS.

LEGEND

- THICKENED EDGE
- TYPE B TIED CONTRACTION JOINT
- TYPE E DOWELED CONSTRUCTION JOINT
- TYPE C DOWELED CONTRACTION JOINT
- TYPE D SAWED CONTRACTION JOINT (DUMMY)
- TYPE A ISOLATION JOINT
- REINFORCED PANEL
- NEW INLET

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 U OF I RAMP JOINTING PLAN

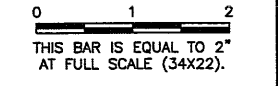
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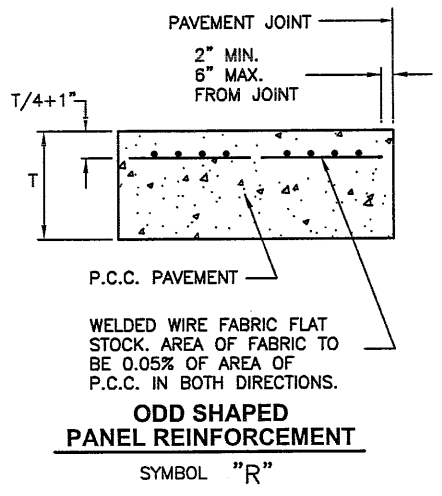
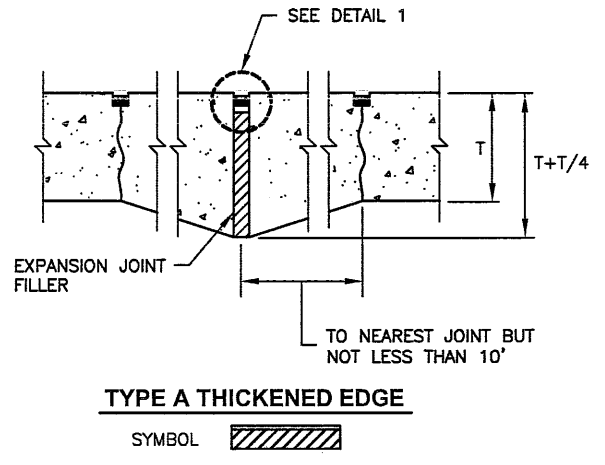
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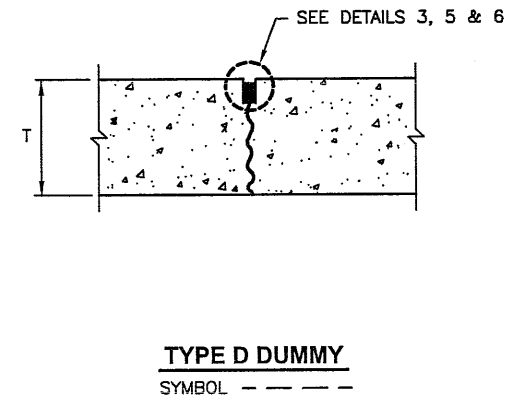
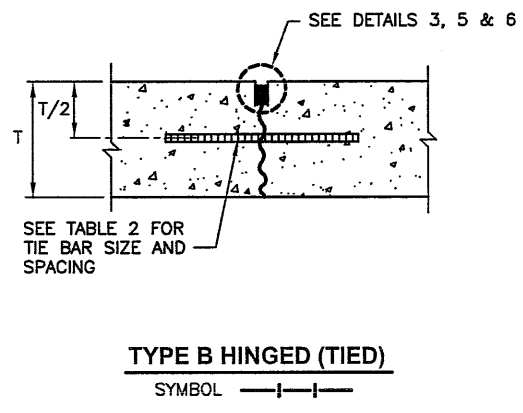
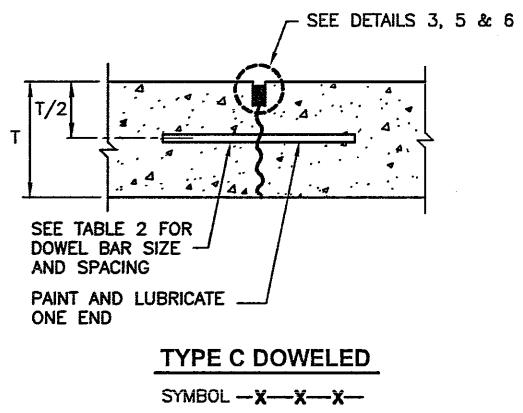
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PAVEMENT THICKNESS T - INCHES	DEPTH OF CONTRACTION JOINT INITIAL SAW CUT I, INCHES I=(T/3) ±1/4"
5	1.67"
6	2.00"
7	2.33"
8	2.67"
9	3.00"
10	3.33"
11	3.67"
12	4.00"
13	4.33"
14	4.67"
15	5.00"
16	5.33"
17	5.67"
18	6.00"

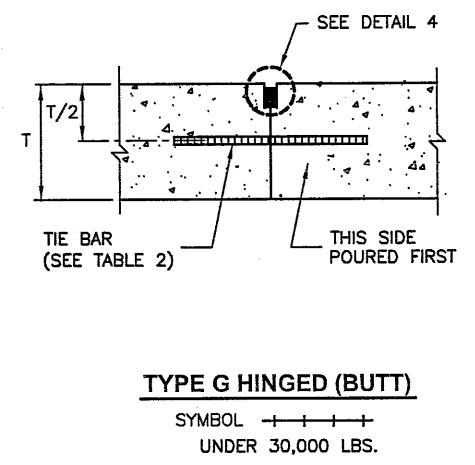
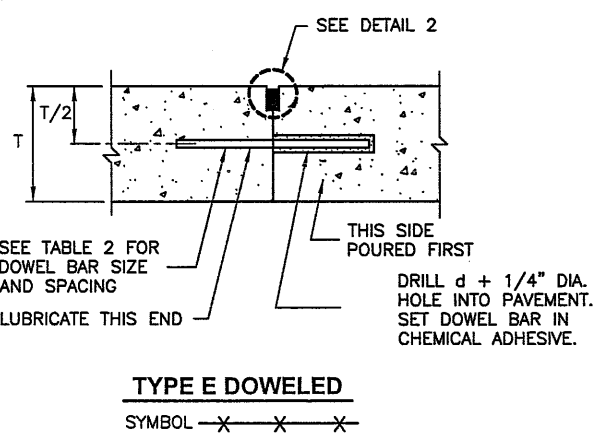
**ISOLATION JOINTS**



**CONSTRUCTION JOINTS**



**CONTRACTION JOINTS**



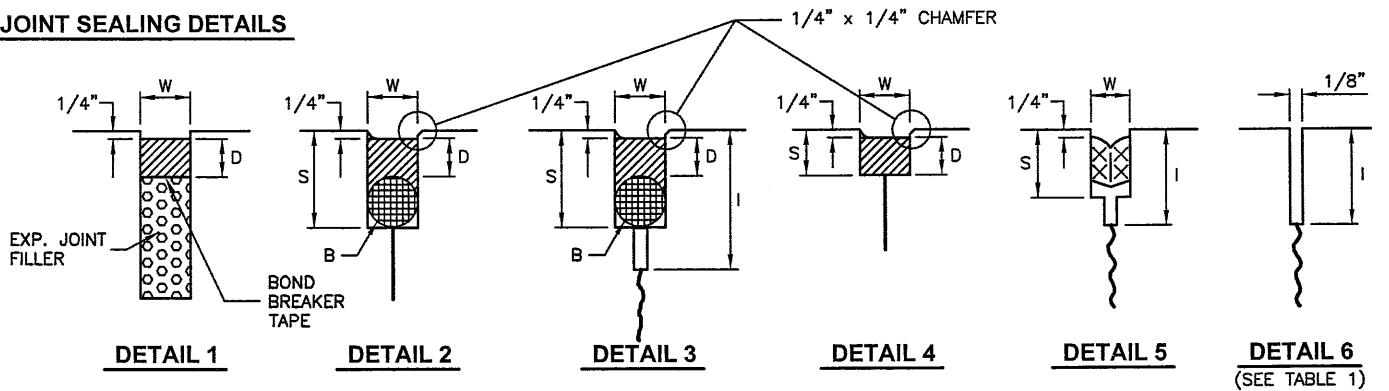
PAVEMENT THICKNESS T - INCHES	DOWEL BAR DETAILS			TIE BAR DETAILS		
	DIA.	LENGTH	SPACING	BAR SIZE	LENGTH	SPACING
5	5/8"	12"	12"	#4	24"	30"
6	3/4"	18"	12"	#5	30"	30"
7	3/4"	18"	12"	#5	30"	30"
8	1"	19"	12"	#5	30"	30"
9	1"	19"	12"	#5	30"	30"
10	1"	19"	12"	#5	30"	30"
11	1"	19"	12"	#5	30"	30"
12	1"	19"	12"	#5	30"	30"
13	1 - 1/4"	20"	15"	#5	30"	30"
14	1 - 1/4"	20"	15"	#5	30"	30"
15	1 - 1/4"	20"	15"	#5	30"	30"
16	1 - 1/4"	20"	15"	#5	30"	30"
17	1 - 1/2"	20"	18"	#5	30"	30"
18	1 - 1/2"	20"	18"	#5	30"	30"

**JOINT NOTES**

- ALL EDGES OF NEW SLABS, FREE STANDING OR CLOSURE, SHALL BE EDGED WITH AN APPROVED TOOL HAVING A RADIUS OF 1/8" TO 1/4" TO FACILITATE SAWING OF THE SEALANT RESERVOIR. A RADIUS > 1/4" WILL NOT BE ACCEPTABLE.
- THE INITIAL SAWCUT FOR ALL LONGITUDINAL & TRANSVERSE CONTRACTION JOINTS SHALL BE SAWS AS SOON AS POSSIBLE AFTER PLACEMENT OF THE PAVEMENT.
- ALL TIE BARS & MESH SHALL BE SECURELY HELD IN PLACE BY SUPPORT PINS OR OTHER APPROVED METHODS TO PREVENT SHIFTING DURING & AFTER CONCRETE PLACEMENT.
- TIE BARS SHALL BE DEFORMED BARS IN CONFORMANCE WITH THE SPECIFICATIONS.
- THE INITIAL SAWCUT SHALL BE MADE TO THE 1/8" WIDTH INDICATED. INITIAL SAWING TO THE DIMENSIONS OF THE SECOND SAWCUT WILL NOT BE ALLOWED.

	DETAIL 1	DETAIL 2	DETAIL 3	DETAIL 4	DETAIL 5
	HOT/ COLD POUR	HOT/ COLD POUR	HOT/ COLD POUR	HOT/ COLD POUR	PRE-FORMED
W=WIDTH OF SEALANT RESERVOIR (IN.)	1	1/2	1/2	1/2	3/8 (COM-PRESSED)
D=DEPTH OF SEALANT RESERVOIR (IN.)	1	1/2	1/2	1/2	N/A
B=BACKER ROD DIAMETER (IN.)	N/A	5/8	5/8	N/A	N/A
S=SECOND SAWCUT DEPTH (IN.) MINIMUM	N/A	1-3/8	1-3/8	3/4	1-1/2

**JOINT SEALING DETAILS**



N.I.C. = NOT IN CONTRACT

**TAXIWAY D**

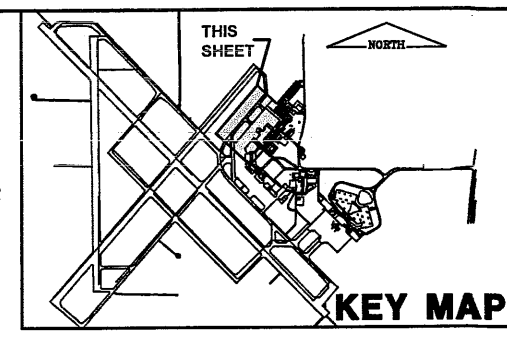
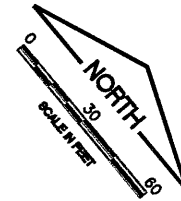
TAXIWAY D1

TAXIWAY D2

TAXIWAY D CENTERLINE

**LEGEND**

- ⊙ NEW TIE DOWN
- NEW GROUND ROD

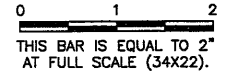


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 PLOT DATE: 4/15/2010 5:29 PM  
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 BASE\_PROP-MARKING  
 BASE\_PROP-GEO  
 CMIALIGN

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**NOTES**

1. AIRPORT WILL DETERMINE FINAL LOCATION OF AIRCRAFT PARKING POSITIONS BEFORE CONTRACTOR INSTALLS TIE DOWNS.
2. SEE MISCELLANEOUS DETAILS SHEET FOR TIEDOWN LAYOUT.

NEW MOVEMENT/NON-MOVEMENT AREA BOUNDARY MARKING - SEE MISCELLANEOUS DETAILS SHEET

NEW 12" TAXIWAY CENTERLINE (YELLOW) WITH 6" BLACK BORDER (BOTH SIDES) - SEE MISCELLANEOUS DETAILS SHEET

NEW 4" PARKING POSITION MARKING (YELLOW)

MATCH NEW MARKINGS WITH EXISTING

MATCH NEW MARKINGS WITH EXISTING

NEW PARKING POSITIONS TO MATCH UP WITH EXISTING ON ADJACENT EXISTING PAVEMENT

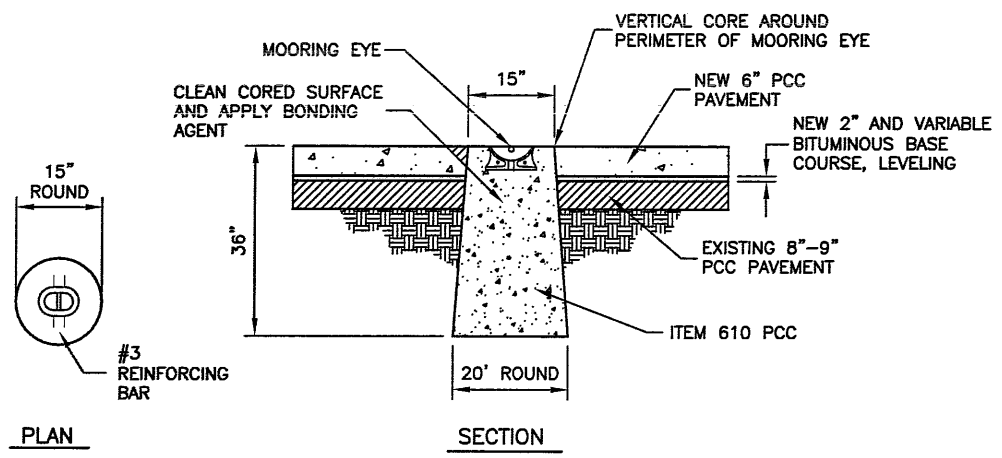
MATCH NEW MARKINGS WITH EXISTING

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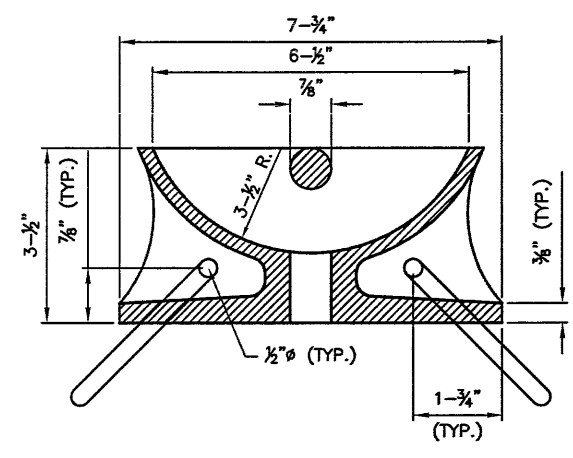
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NOTE: THE MOORING EYE SHALL BE INSTALLED AFTER PAVING OPERATIONS ARE COMPLETE.

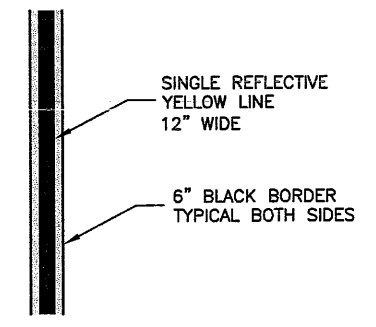
MOORING EYE IN PAVEMENT DETAIL



SECTION B-B

**MOORING NOTES**

1. MOORING CASTINGS SHALL BE NEENAH SEMI-STEEL AIRPORT MOORING EYE CATALOG NO. R3490 OR APPROVED EQUIVALENT.
2. ANCHOR RODS SHALL BE #3 DEFORMED REBAR, 15" LONG AND SHALL BE BENT DOWNWARD AT 45 DEGREES.
3. THE MOORING EYE SHALL BE INSTALLED AFTER PAVING OPERATIONS ARE COMPLETE BY CORING THROUGH NEW PAVEMENT.

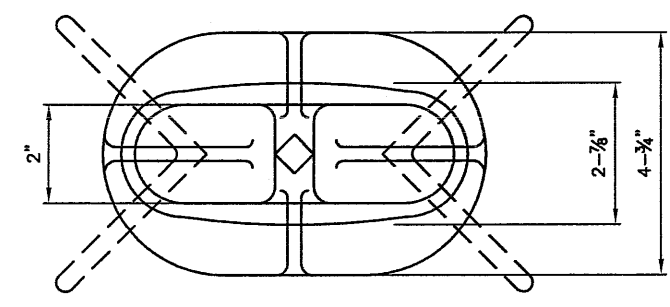
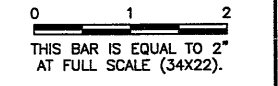


TAXIWAY CENTERLINE MARKING (CONTINUOUS)

N.T.S.

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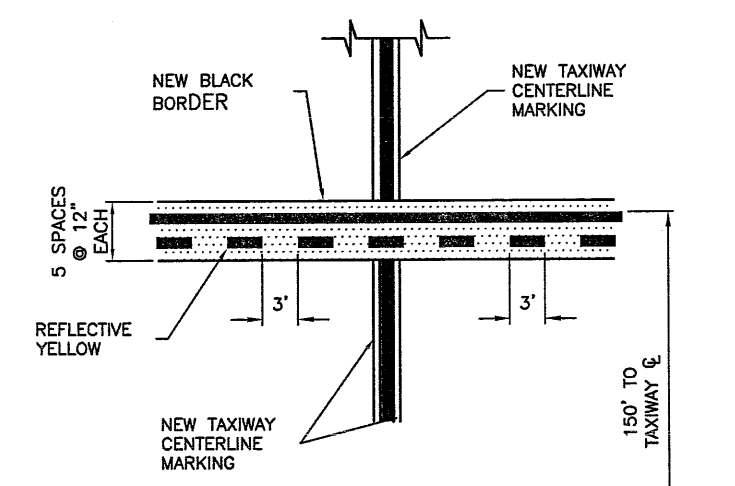
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MOORING EYE DETAILS

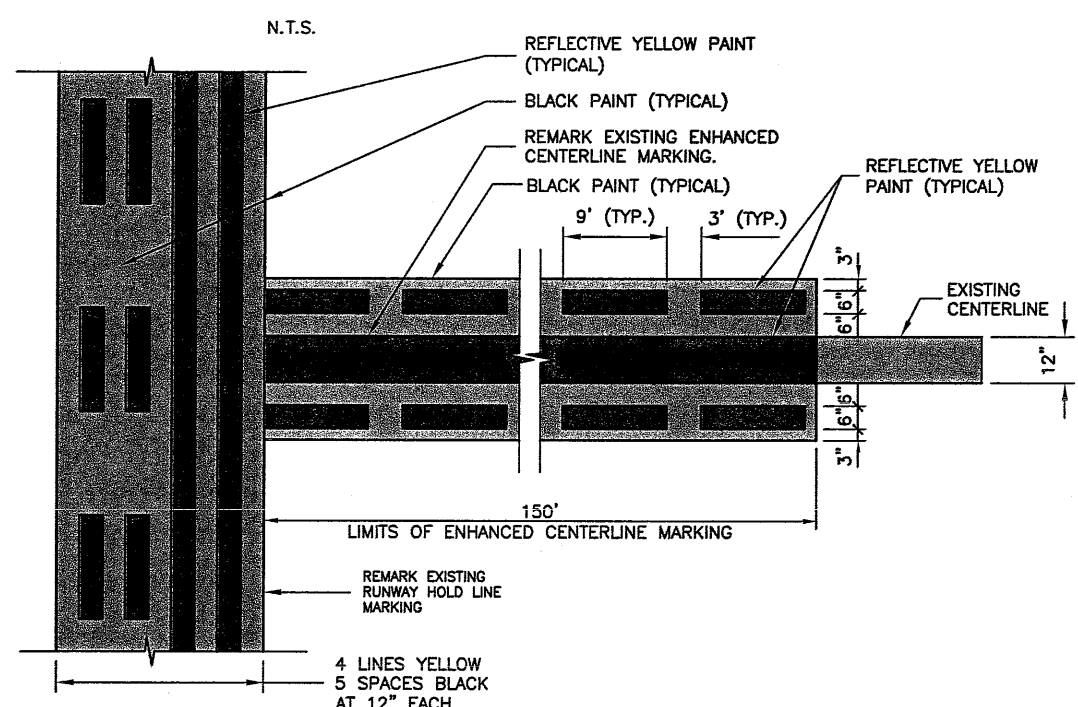
N.T.S.

IN PCC PAVEMENT THE MOORING EYES SHALL BE CONSTRUCTED IN PCC PAVEMENT MINIMUM 2' FROM CLOSEST JOINT.

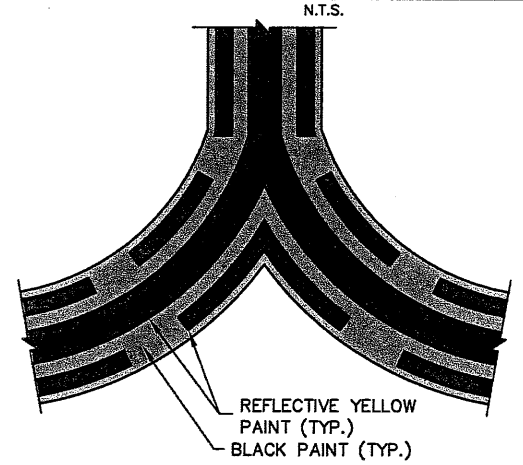


NON-MOVEMENT/MOVEMENT BOUNDARY MARKING

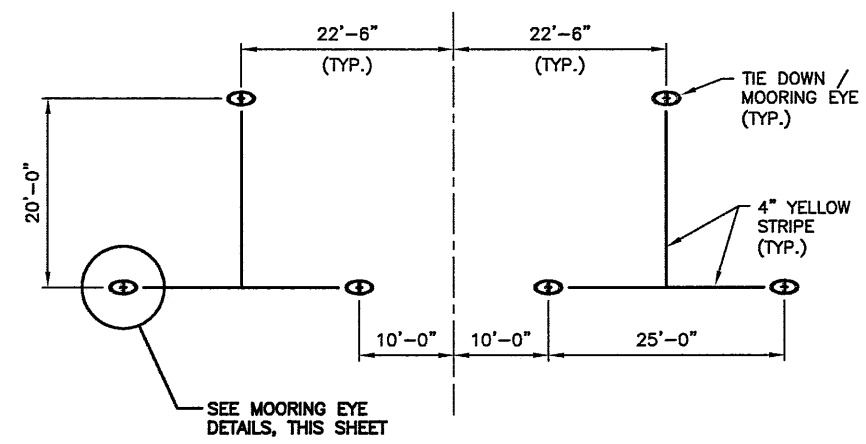
N.T.S.



ENHANCED TAXIWAY CENTERLINE - STRAIGHT SECTION

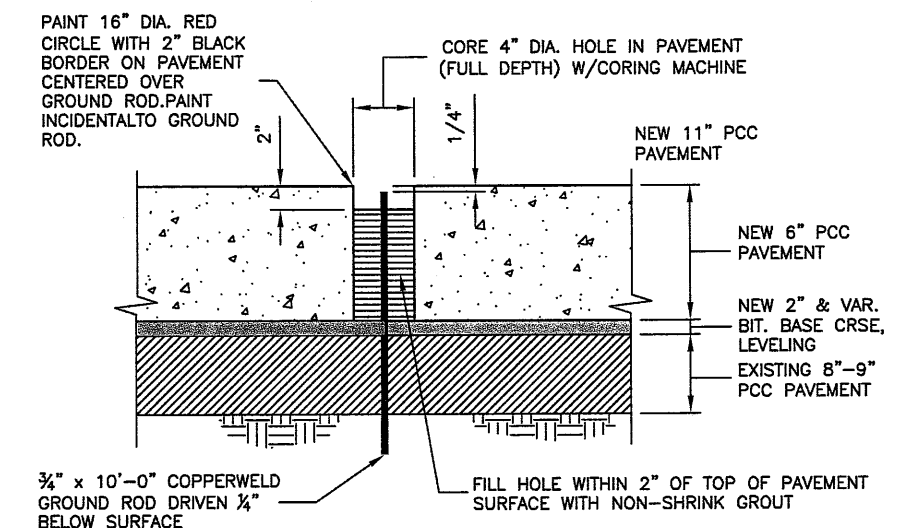


ENHANCED TAXIWAY CENTERLINE - CONVERGENCE SECTION



TIE DOWN LAYOUT

N.T.S.



GROUNDING POINT DETAIL

N.T.S.

NOTE: THERE MUST BE NO PARTIAL DASHED LINES LESS THAN 9- FEET (2.74 m) AT THE POINT OF CONVERGENCE. THE FIRST INSIDE DASHED LINES MUST BE ALIGNED WITH THE OUTSIDE DASHED LINES - STARTING AND STOPPING WITH THE DASHED LINES ON THE OUTSIDE, AS SHOWN.

RUNWAY HOLD LINE AND ENHANCED TAXIWAY CENTERLINE MARKINGS

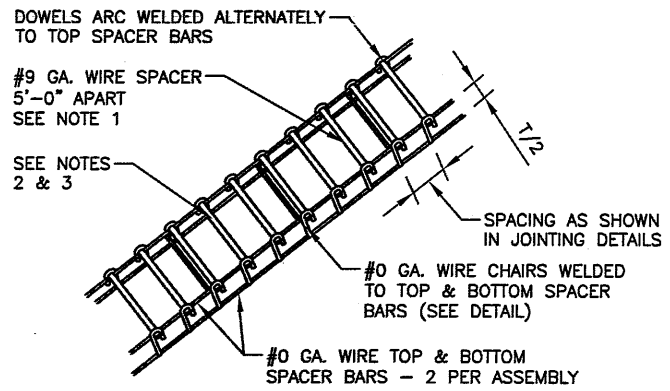
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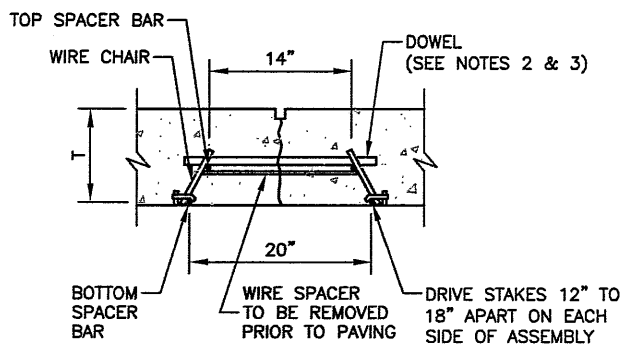
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U OF I RAMP - PAVING AND MISCELLANEOUS DETAILS

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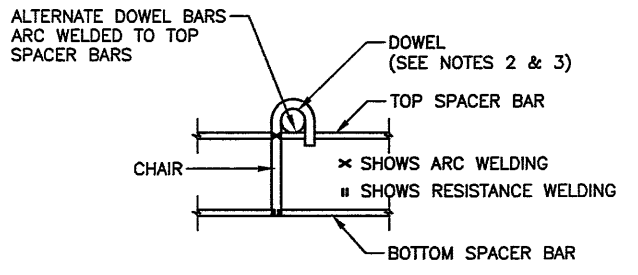
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**DOWEL BASKET ASSEMBLY DETAIL**



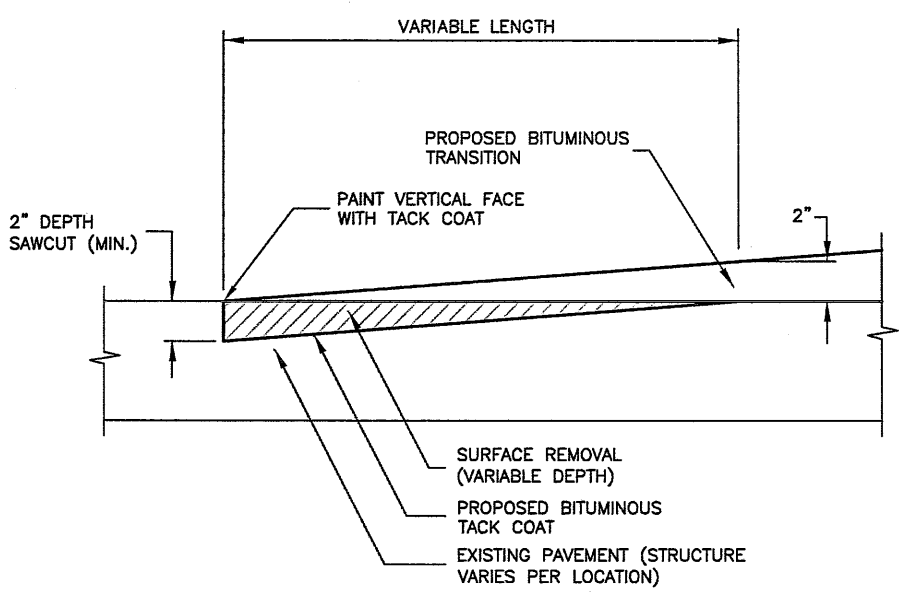
**DOWEL BAR INSTALLATION DETAIL**



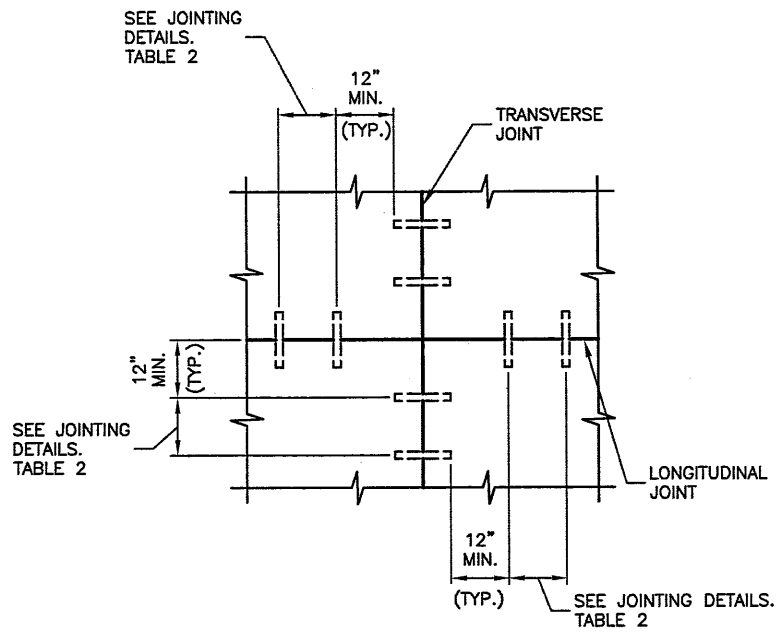
**TYPICAL DOWEL BASKET ELEVATION  
 DETAIL SHOWING CHAIR**

- DOWEL BASKET NOTES**
- #9 GA. WIRE SPACER BAR ARC WELDED TO THE BOTTOM OF TOP SPACER BAR. (MAY BE MECHANICALLY ATTACHED IN LIEU OF WELDING) 3 REQUIRED PER UNIT. THIS WIRE MUST BE CUT OR REMOVED PRIOR TO PAVING.
  - DOWEL BAR DIAMETER, LENGTH & SPACING SHALL BE AS SHOWN IN TABLE 2.
  - DOWELS SHALL BE EPOXY COATED FULL LENGTH OF DOWEL IMMEDIATELY PRIOR TO PAVING, THE FREE END OF EACH DOWEL SHALL BE LUBRICATED OR OILED, FOR HALF THE LENGTH OF THE DOWEL.

**DOWEL BASKET DETAILS**  
 N.T.S.



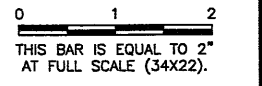
**BUTT JOINT DETAIL**  
 N.T.S.



**DOWEL PLACEMENT DETAIL**  
 N.T.S.

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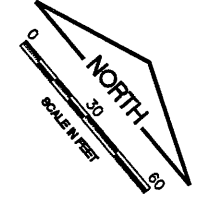
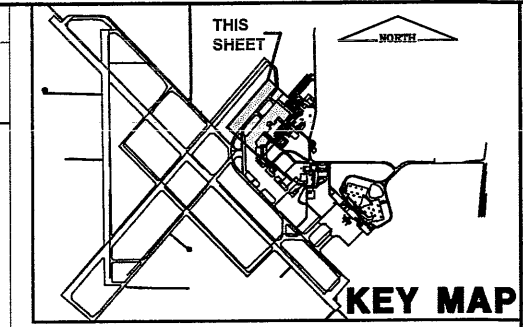
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0 1 2  
 THIS BAR IS EQUAL TO 2'  
 AT FULL SCALE (34X22).

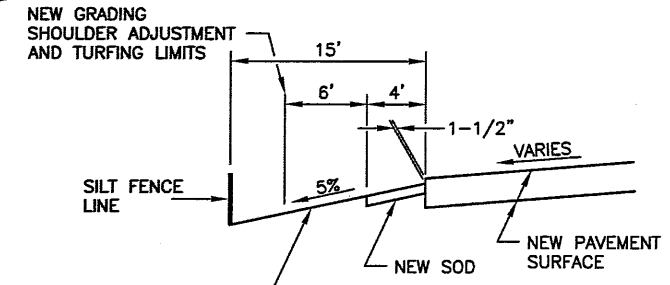


TAXIWAY D

TAXIWAY D1

TAXIWAY D2

U OF I RAMP REHABILITATION AREA



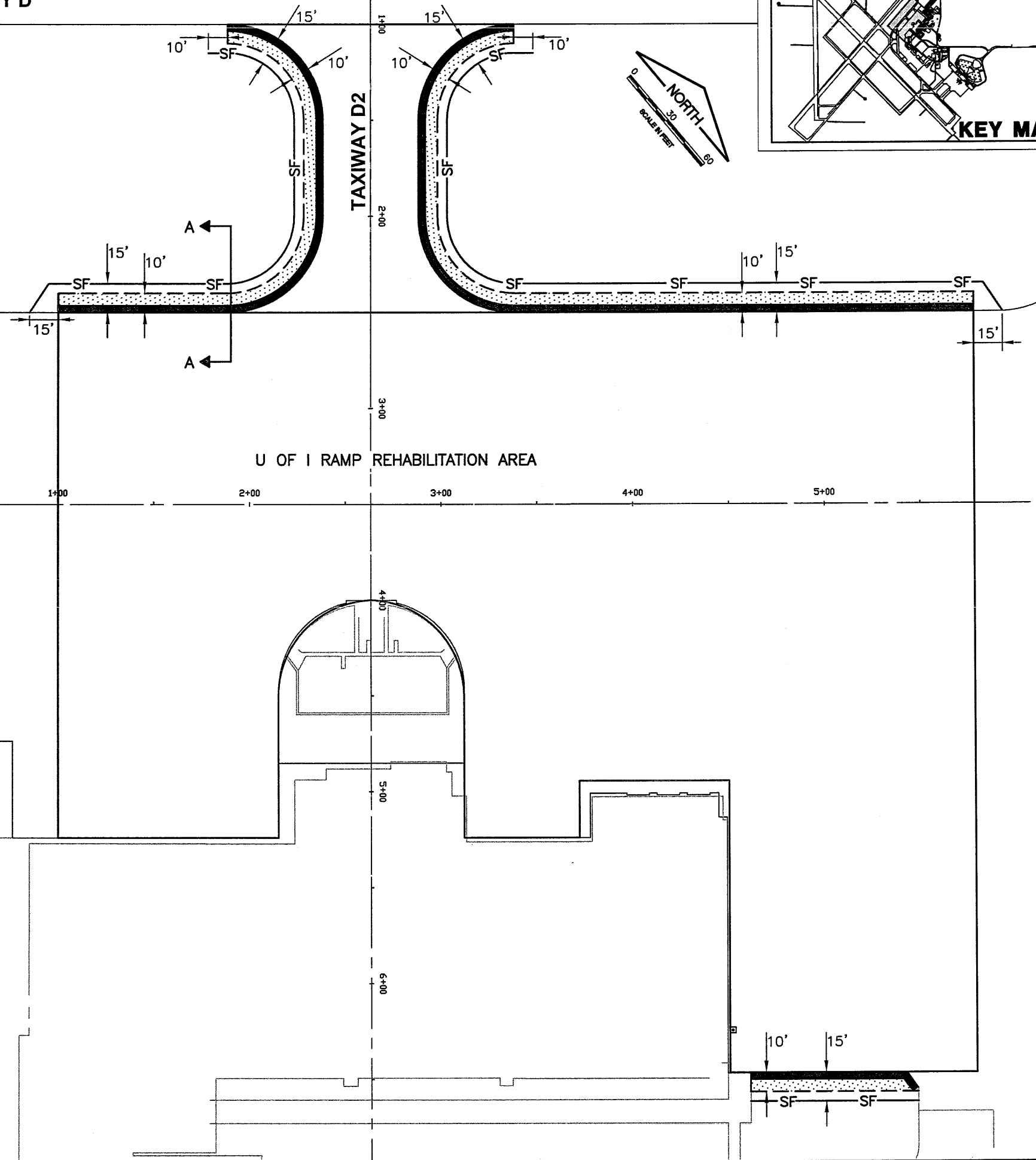
SECTION A-A  
 TYPICAL  
 NTS

LEGEND

- NEW ITEM AR904510 SODDING
- LIMITS OF GRADING, SEEDING AND MULCHING: ITEMS AR152480, AR901510 AND AR908510
- NEW ITEM AR156510 SILT FENCE

NOTES

1. SILT FENCE TO BE INSTALLED NO CLOSER THAN 15' FROM THE EDGE OF PAVEMENT.
2. NEW SOD TO BE 4' IN WIDTH.
3. CONTRACTOR SHALL BE REQUIRED TO MAINTAIN THE SILT FENCE UNTIL THE NEW TURF IS COMPLETELY ESTABLISHED.
4. AFTER THE NEW TURF IS ESTABLISHED, THE CONTRACTOR SHALL REMOVE AND DISCARD THE SILT FENCE OFF AIRPORT PROPERTY. THE TRENCHLINE SHALL BE FULLY CLOSED AND RESTORED TO THE SATISFACTION OF THE AIRPORT. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE SILT FENCE.
5. SHOULDER ADJUSTMENT SHALL CONSIST OF GRADING AND SMOOTHING SOIL WITHIN 10' OF THE EDGE OF THE NEW PAVEMENT SURFACE, ENSURING THERE IS A MINIMUM 1-1/2" EDGE DROP BETWEEN EDGE OF NEW PAVEMENT AND EMBANKMENT MATERIAL. IN NO CASE WILL A DROP EXCEEDING 2-1/2" BE PERMITTED.
6. THE CONTRACTOR SHALL TAKE GREAT CARE WHEN GRADING, SEEDING AND MULCHING NEAR TAXIWAY EDGE LIGHTS ALONG TAXIWAY D2. ANY LIGHTS DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR TO THE SATISFACTION OF THE AIRPORT.



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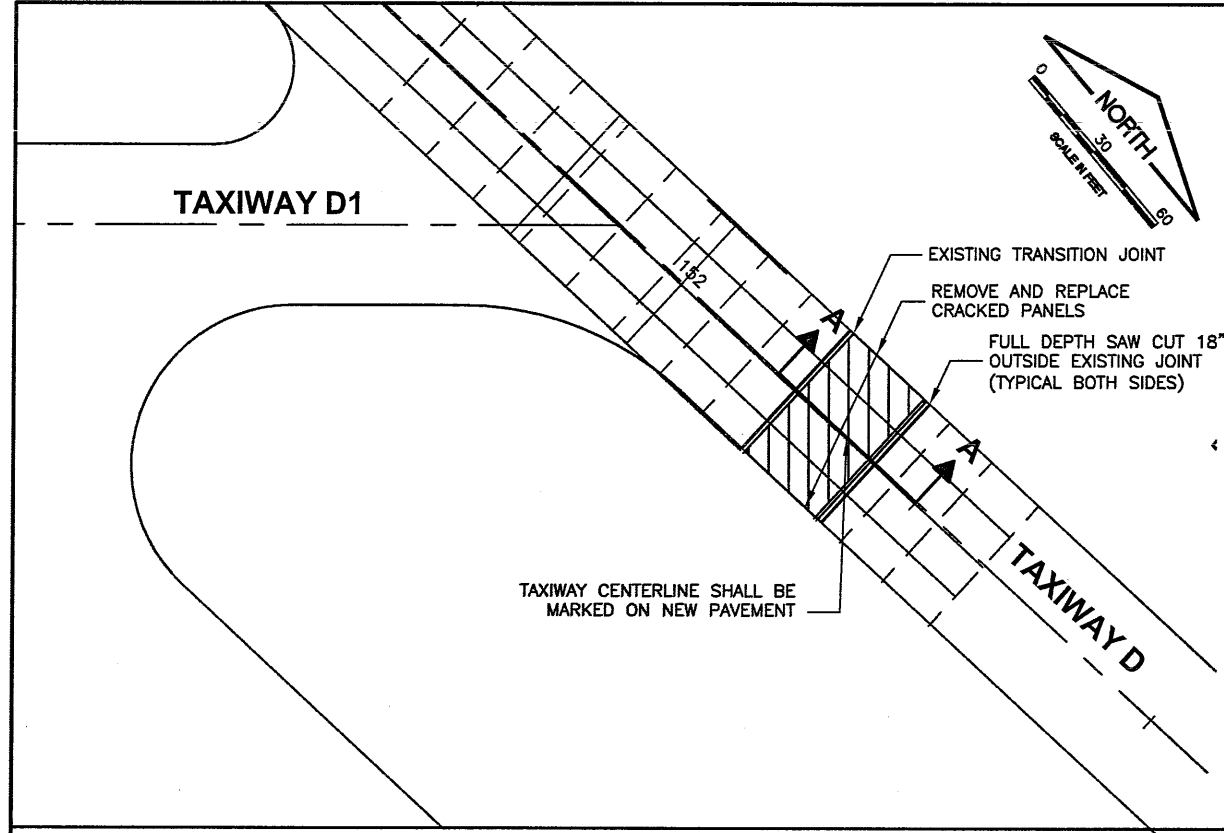
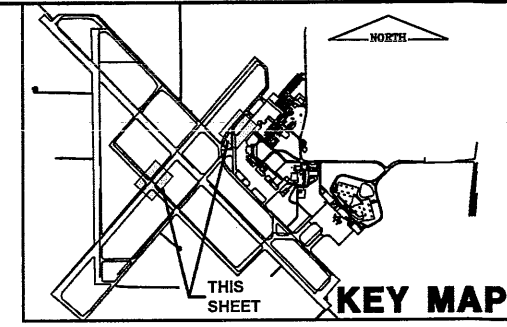
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SHEET 25 OF 49 SHEETS	

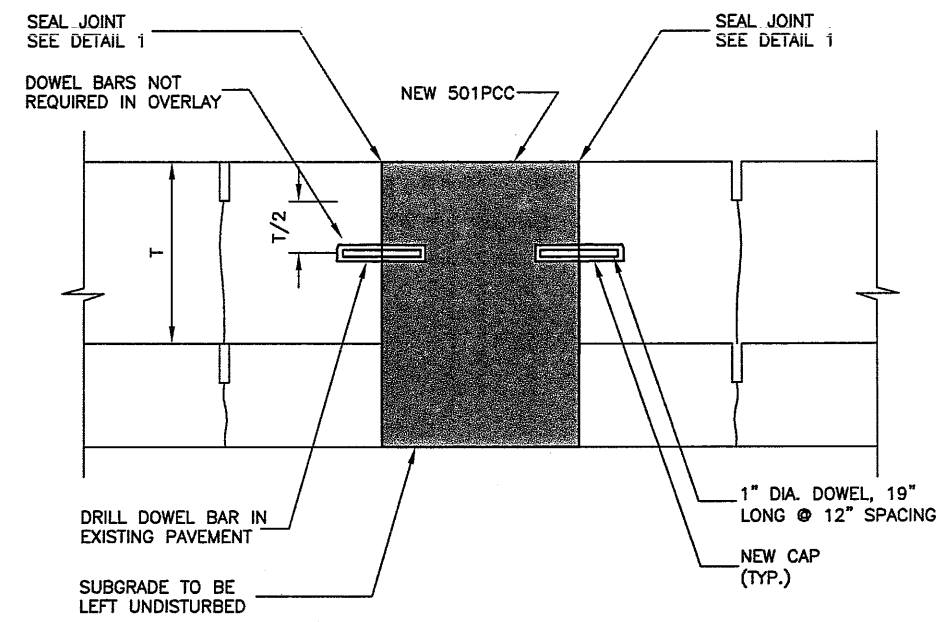
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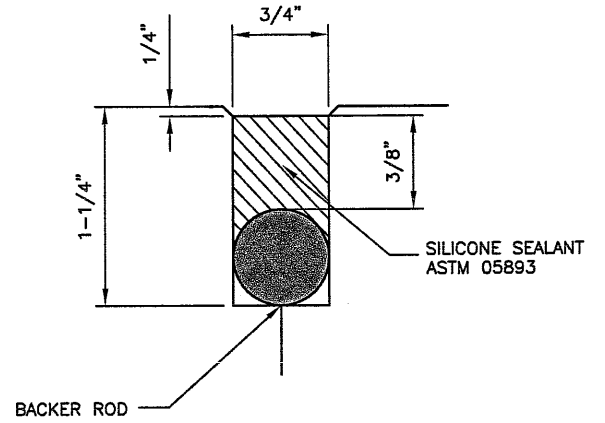
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 AT FULL SCALE (34X22).



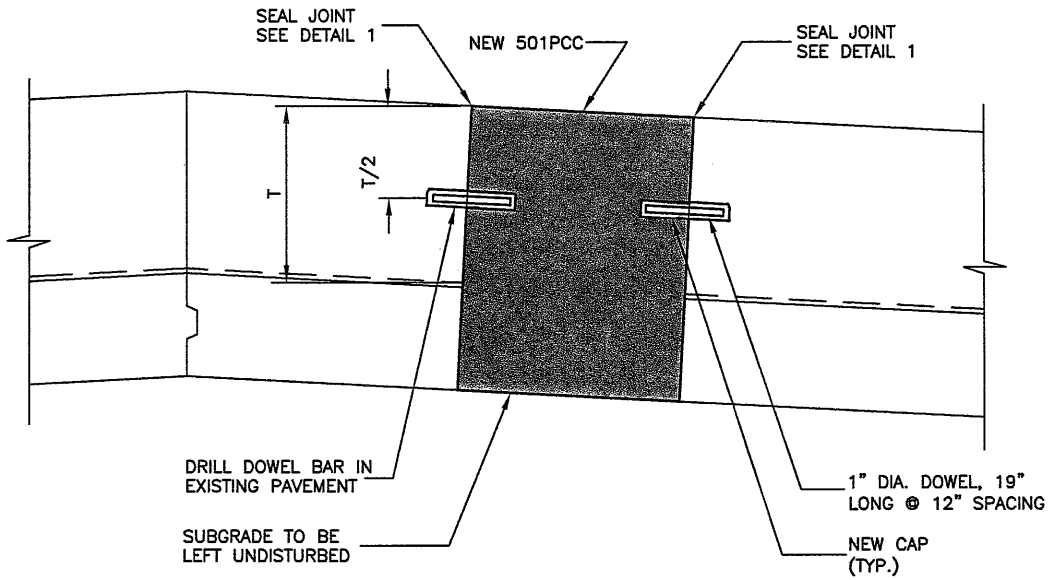
EXISTING PLAN VIEW - TAXIWAY D  
 NTS



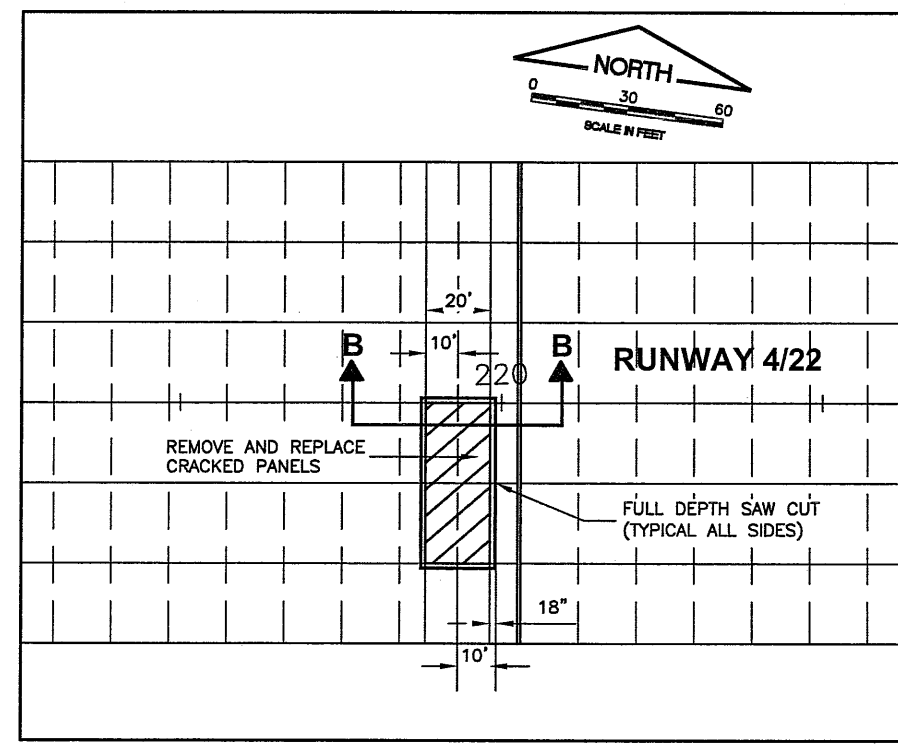
REPLACEMENT SECTION A-A  
 NTS



JOINT SEALANT DETAIL 1  
 NTS



REPLACEMENT SECTION B-B  
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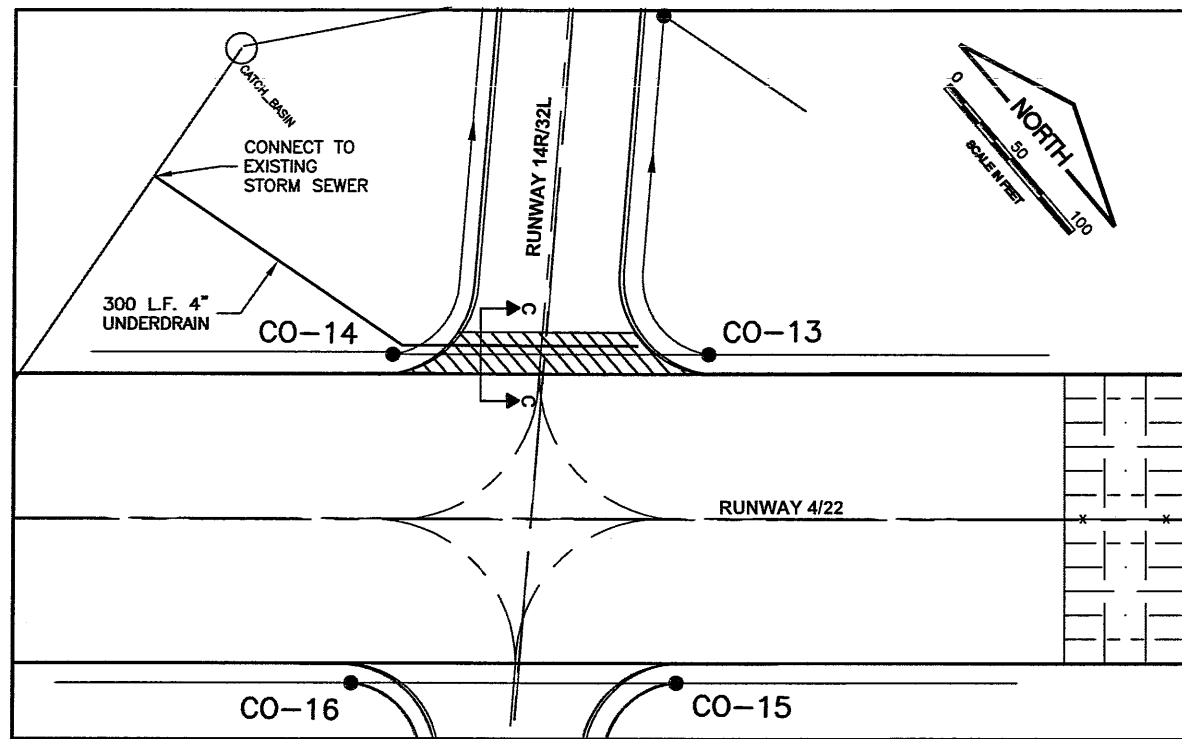
EXISTING PLAN VIEW - RUNWAY 4/22  
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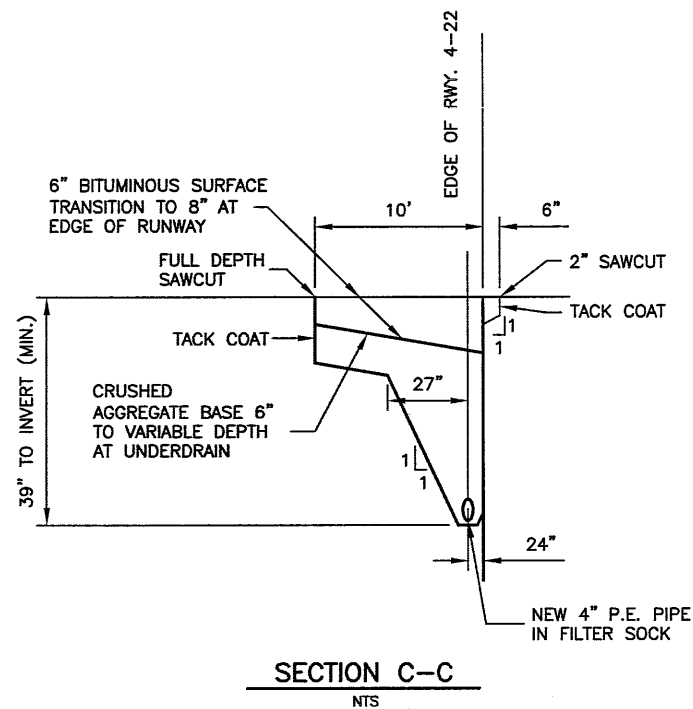
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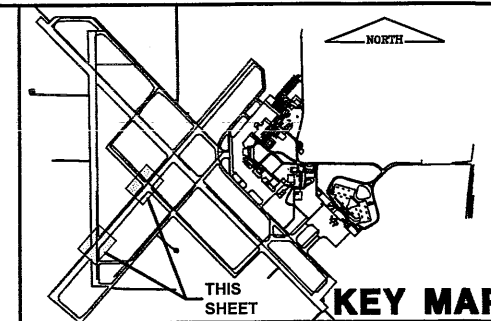
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IL PROJ. NO. CMI-3474	
AIP PROJ. NO. 3-17-0016-XX	
SHEET 26 OF 49 SHEETS	



EXISTING PLAN VIEW - RUNWAY 4/22  
NTS

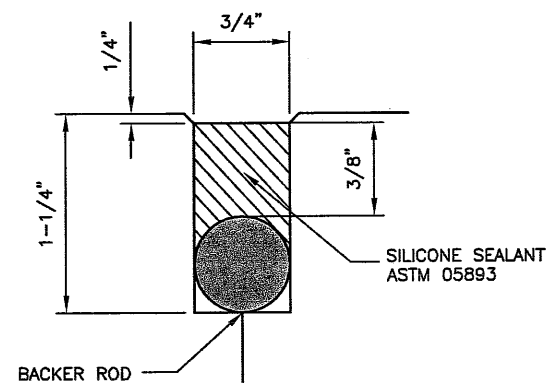


SECTION C-C  
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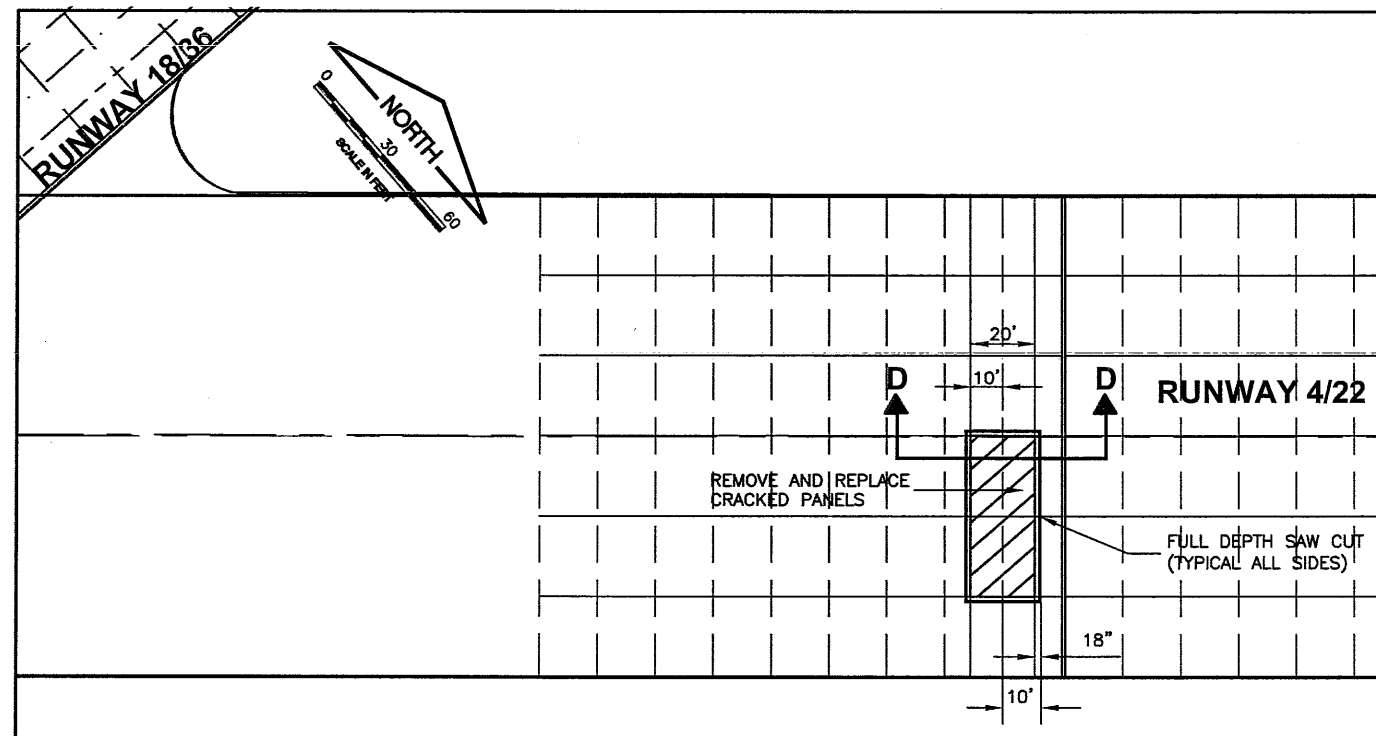


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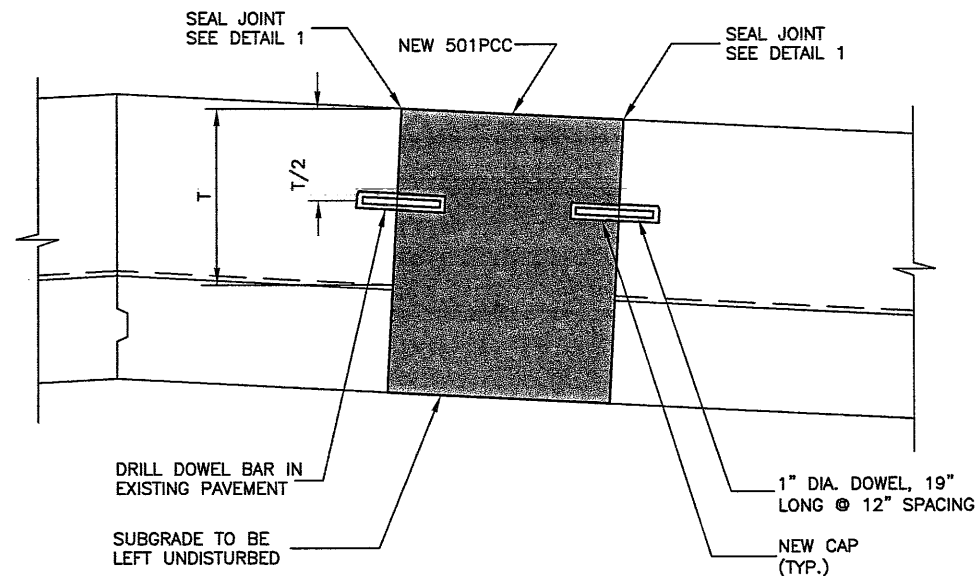
1. REMOVAL OF ALL EXISTING, DETERIORATED PAVEMENT MATERIAL TO NEW UNDERDRAIN DEPTH AS DETAILED SHALL BE PAID FOR UNDER ITEM AR401910 REMOVE & REPLACE BIT. PAVEMENT.
2. REPLACEMENT OF BITUMINOUS PAVEMENT, INCLUDING BITUMINOUS TACK COAT AND BITUMINOUS SURFACE COURSE AS DETAILED SHALL BE PAID FOR UNDER THEIR RESPECTIVE ITEMS.
3. ALL CRUSHED AGGREGATE SHALL BE PAID FOR UNDER ITEM AR209606 CRUSHED AGG. BASE COURSE - 6\"/>



JOINT SEALANT DETAIL 1  
NTS



EXISTING PLAN VIEW - RUNWAY 4/22  
- RUNWAY 18/36 INTERSECTION  
NTS

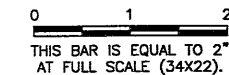


REPLACEMENT SECTION D-D  
NTS

K:\Champaign\0905903\Draw\Sheets  
FILE: 4-22 PCC PANEL REHAB.dwg  
UPDATE BY: Andrew Huebner  
PLOT DATE: 4/16/2010 10:40 AM  
KEYMAP  
CMI-SitePlanGeo  
BASE\_PROP-GEO  
CMIALIGN  
EXISTING  
CAALLY  
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P.C.C. PANEL REHABILITATION DETAILS 2

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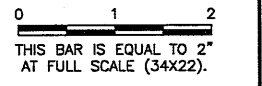
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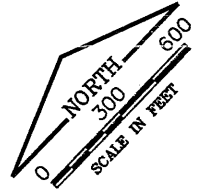
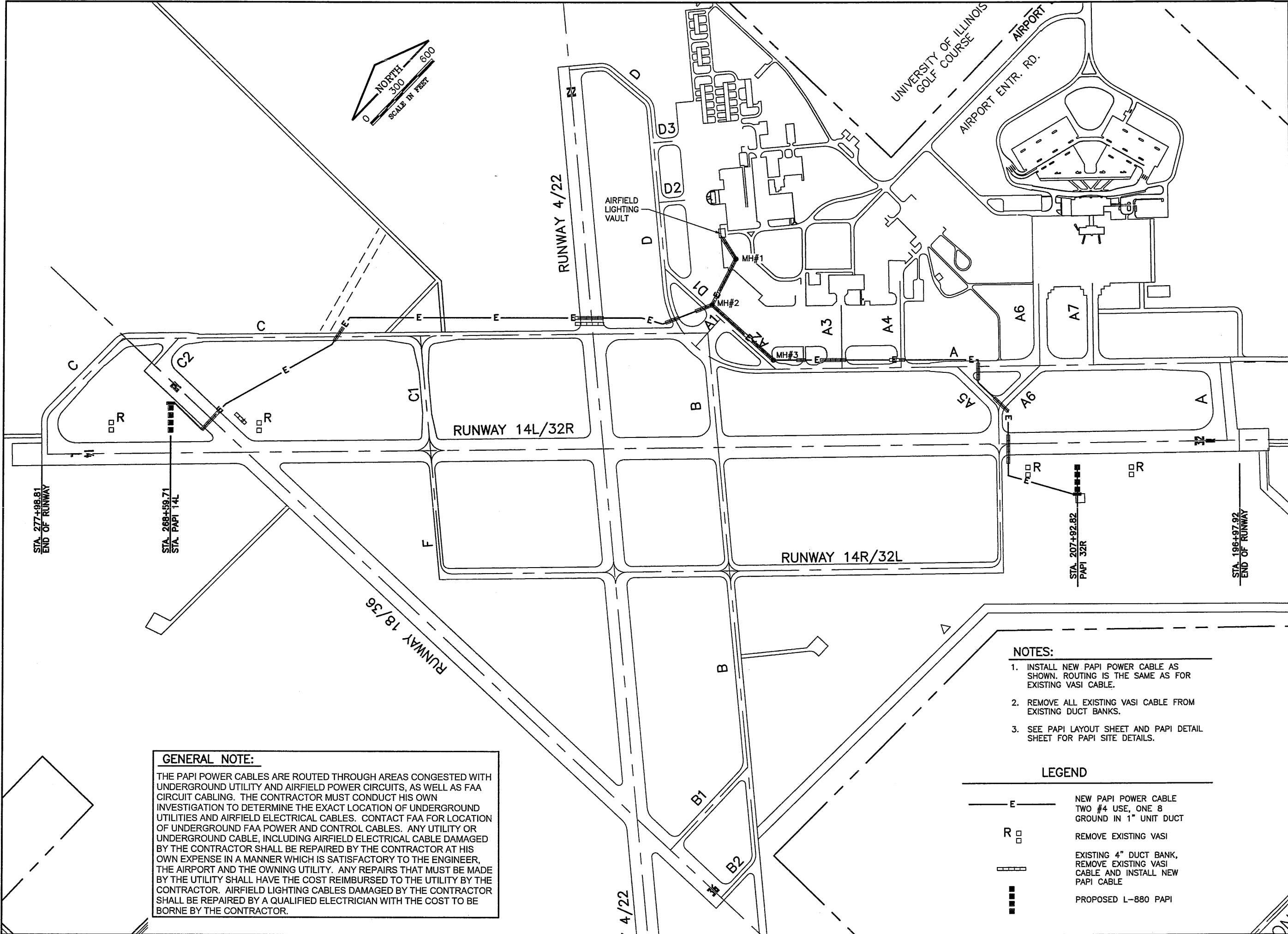
**REHABILITATE U OF I RAMP AND P.C.C. PANELS  
 PAPI SITE PLAN**

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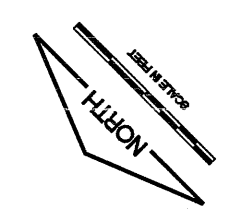
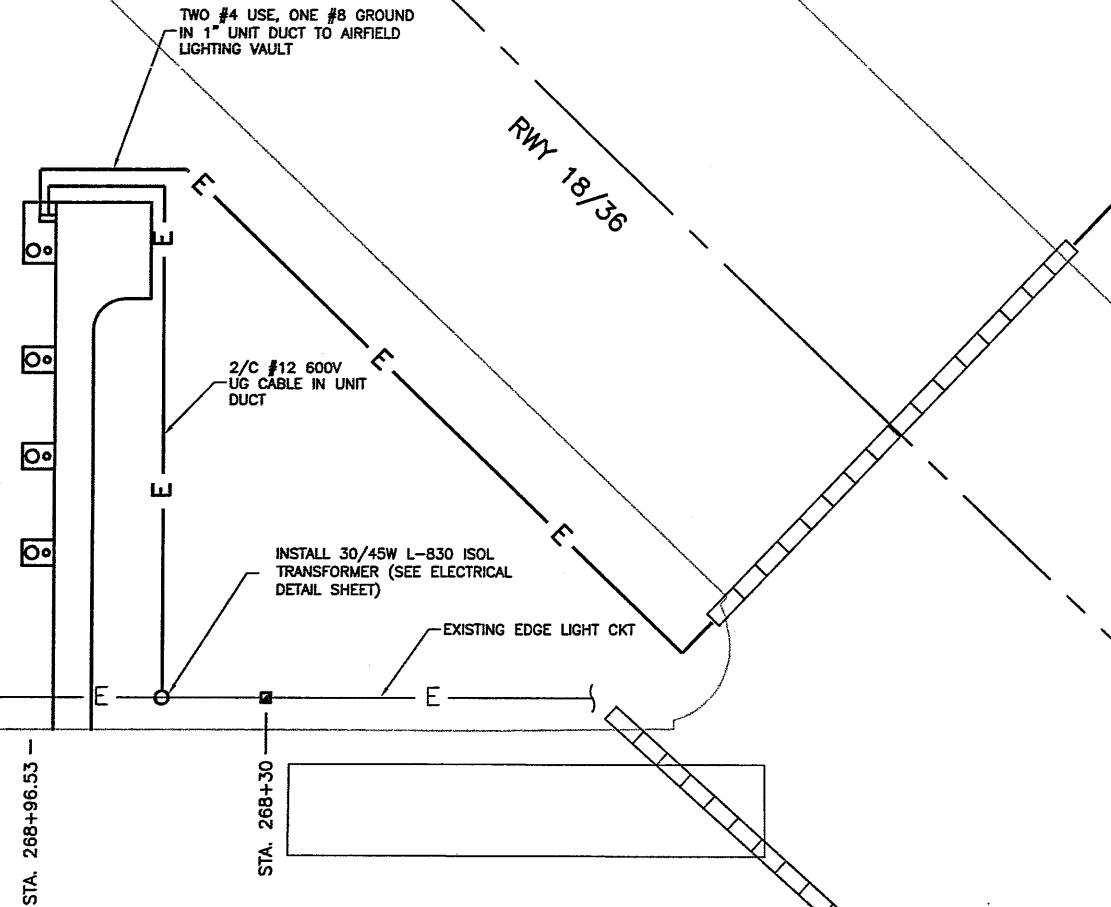
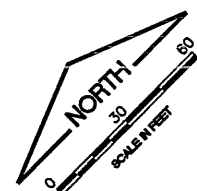


**GENERAL NOTE:**  
 THE PAPI POWER CABLES ARE ROUTED THROUGH AREAS CONGESTED WITH UNDERGROUND UTILITY AND AIRFIELD POWER CIRCUITS, AS WELL AS FAA CIRCUIT CABLING. THE CONTRACTOR MUST CONDUCT HIS OWN INVESTIGATION TO DETERMINE THE EXACT LOCATION OF UNDERGROUND UTILITIES AND AIRFIELD ELECTRICAL CABLES. CONTACT FAA FOR LOCATION OF UNDERGROUND FAA POWER AND CONTROL CABLES. ANY UTILITY OR UNDERGROUND CABLE, INCLUDING AIRFIELD ELECTRICAL CABLE DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE IN A MANNER WHICH IS SATISFACTORY TO THE ENGINEER, THE AIRPORT AND THE OWNING UTILITY. ANY REPAIRS THAT MUST BE MADE BY THE UTILITY SHALL HAVE THE COST REIMBURSED TO THE UTILITY BY THE CONTRACTOR. AIRFIELD LIGHTING CABLES DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED BY A QUALIFIED ELECTRICIAN WITH THE COST TO BE BORNE BY THE CONTRACTOR.

- NOTES:**
1. INSTALL NEW PAPI POWER CABLE AS SHOWN. ROUTING IS THE SAME AS FOR EXISTING VASI CABLE.
  2. REMOVE ALL EXISTING VASI CABLE FROM EXISTING DUCT BANKS.
  3. SEE PAPI LAYOUT SHEET AND PAPI DETAIL SHEET FOR PAPI SITE DETAILS.

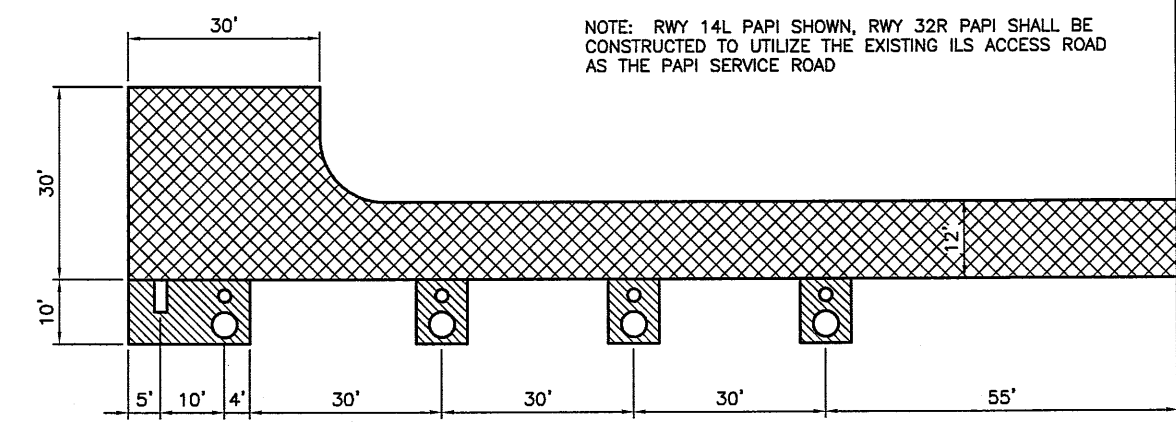
**LEGEND**

	NEW PAPI POWER CABLE TWO #4 USE, ONE 8 GROUND IN 1" UNIT DUCT
	REMOVE EXISTING VASI
	EXISTING 4" DUCT BANK, REMOVE EXISTING VASI CABLE AND INSTALL NEW PAPI CABLE
	PROPOSED L-880 PAPI



- NEW 4" BITUMINOUS SURFACE ON NEW 6" AGGREGATE BASE COURSE/SOIL STABILIZATION FABRIC INCLUDING 8" EXCAVATION - 6" BEYOND DIMENSIONS SHOWN ON ALL SIDES
- NEW 6" AGGREGATE BASE ON NEW SOIL STABILIZATION FABRIC INCLUDING 6" EXCAVATION AROUND NEW PAPI BASES

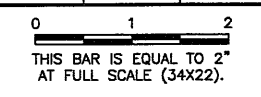
NOTE: RWY 14L PAPI SHOWN, RWY 32R PAPI SHALL BE CONSTRUCTED TO UTILIZE THE EXISTING ILS ACCESS ROAD AS THE PAPI SERVICE ROAD



PAVING DETAIL - RUNWAY 14L PAPI

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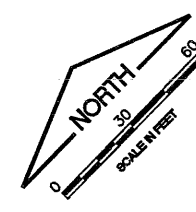
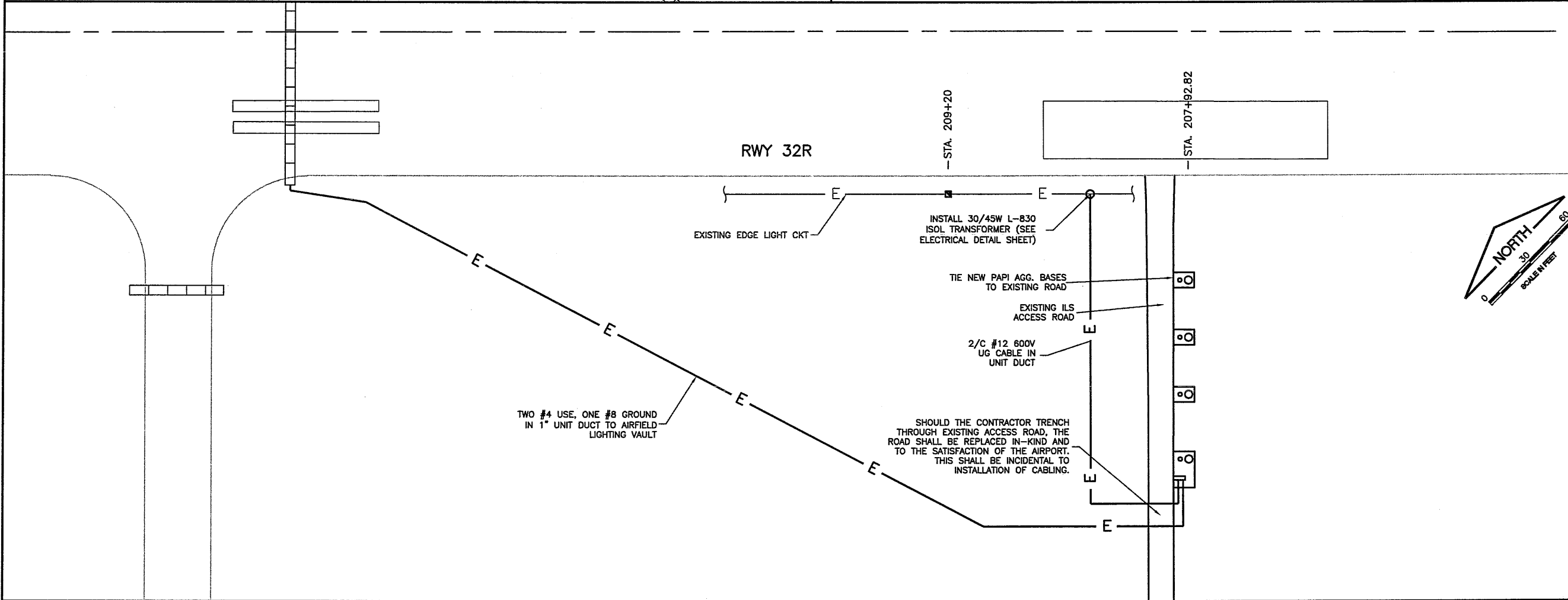


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PAPI LAYOUT

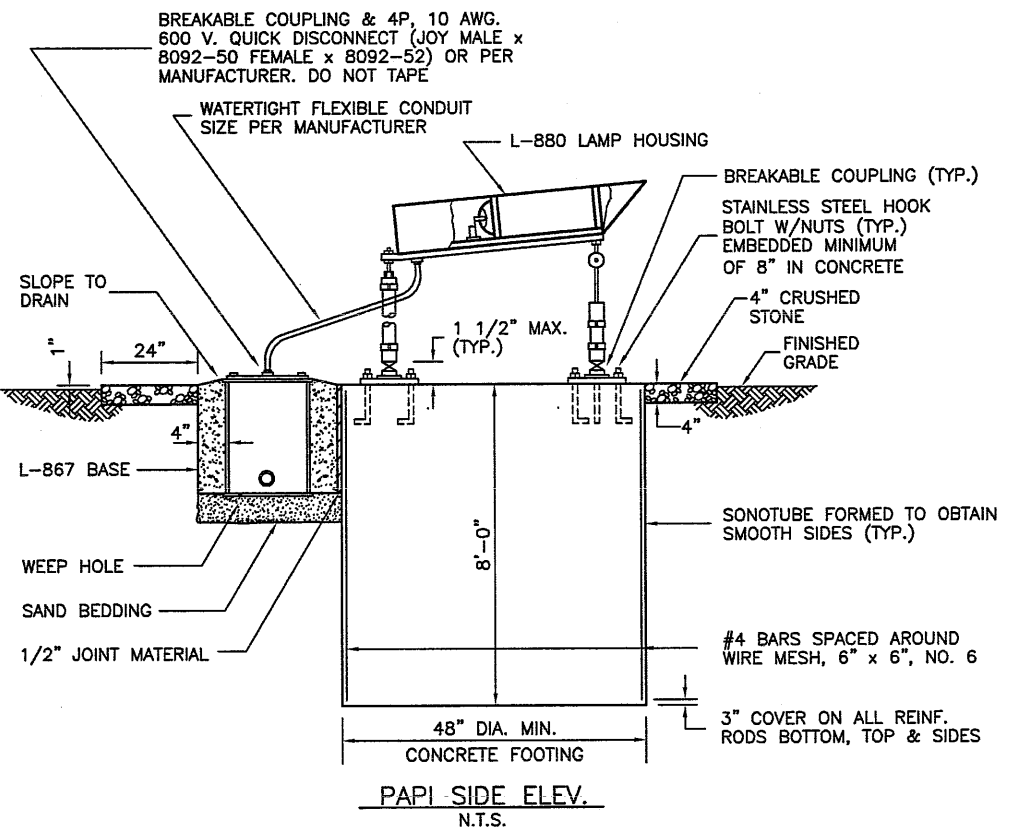
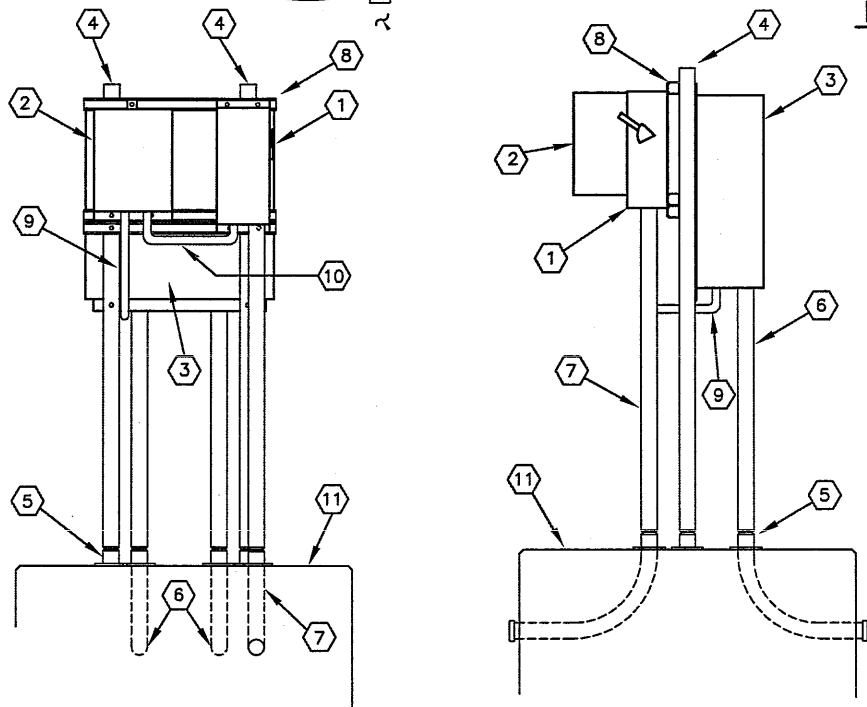
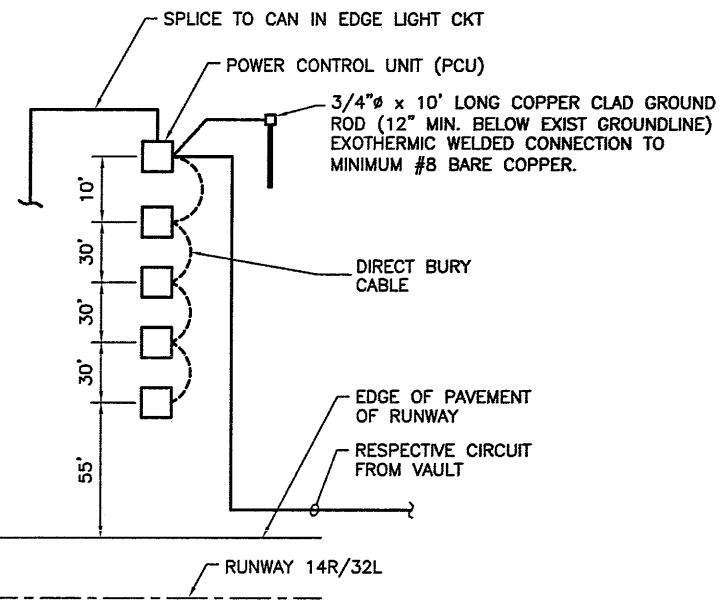
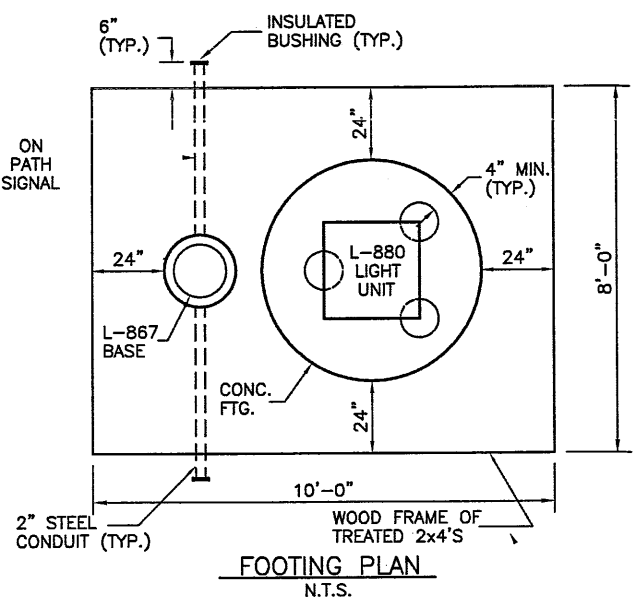
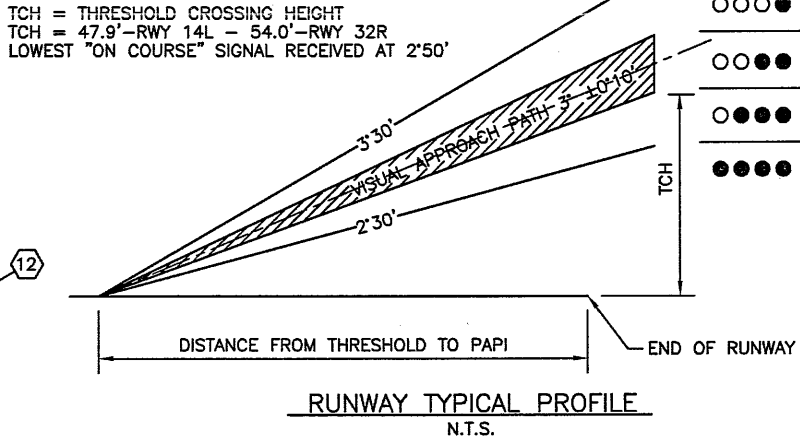
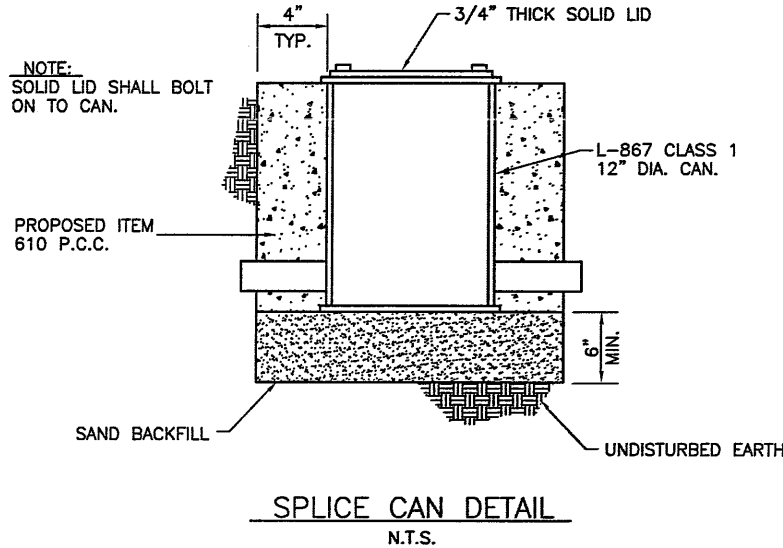
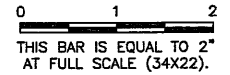
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SHEET 29 OF 49 SHEETS	



**UN049**

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**RUNWAY 14 PAPI PLAN VIEW DETAIL**  
N.T.S.

**KEYED NOTES**

- 1 HEAVY DUTY FUSIBLE DISCONNECT, 600VAC, 1PHASE, 30A, NEMA 3R. SQUARE D H361AWK OR EQUAL.
- 2 3KVA, 240x480V-120/240V, 1PHASE, NEMA 3R GENERAL PURPOSE TRANSFORMER. SQUARE D 3S1F OR EQUAL. STEP DOWN 480V TO 120/240V.
- 3 PAPI POWER & CONTROL UNIT, WITH PHOTOCCELL AND RUNWAY EDGE LIGHT INTERLOCK RELAY.
- 4 2" GALVANIZED EMT LEGS WITH TOPS CAPPED.
- 5 FRANGIBLE COUPLINGS & FLOOR FLANGES. SEE PAPI INSTALLATION DETAILS FOR HOOK BOLT INSTALLATION IN FOOTING.
- 6 TWO 2" GRS CONDUITS. ONE FOR PAPI LIGHT HOUSING POWER & ONE FOR CONTROL CABLES. CABLES PER MANUFACTURER'S INSTRUCTIONS.
- 7 TWO #4 USE, ONE #8 GROUND IN 2" GRS CONDUIT FOR 480VAC POWER CABLES FROM ELECTRICAL VAULT.
- 8 1-5/8" X 1-5/8" GALVANIZED STRUT.
- 9 TWO #12 THWN & ONE #12 GND IN 3/4" GRS CONDUIT. FROM TRANSFORMER SECONDARY TO PAPI POWER & CONTROL UNIT.
- 10 TWO #12 THWN & ONE #12 GND IN 3/4" GRS CONDUIT. FROM FUSIBLE DISCONNECT TO TRANSFORMER PRIMARY.
- 11 CONCRETE FOOTING. SEE PAPI INSTALLATION DETAILS FOR REQUIREMENTS.
- 12 3/4" DIA. BY 10 FT. LONG COPPER CLAD GROUND ROD WITH #6 SOLID BARE COPPER GROUND CABLE ATTACHED BY EXOTHERMIC WELDING. OTHER END OF CABLE TERMINATES ON GROUND LUG IN DISCONNECT AND CONTINUES ON TO TRANSFORMER AND PAPI POWER & CONTROL UNIT GROUND LUGS.

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

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

RUNWAY	32R	14L
HEIGHT GROUP USED FOR SITING	3	3
THRESHOLD STATIONING	196+97.92	277+98.81
THRESHOLD ELEVATION	749.65	755.00
THRESHOLD CROSSING HEIGHT	54.0'	47.9'
STATION FOR MIDPOINT OF PROJECTORS	207+92.82	268+59.71
GLIDE PATH ANGLE *	3'	3'
ELEVATION @ OF APERTURE	746.20	753.65
ELEVATION OF FOUNDATION	***	**

\* THE VISUAL GLIDE PATH ANGLE IS THE CENTER OF THE ON COURSE ZONE AND IS MEASURED FROM THE HORIZONTAL  
 \*\* VARIES DEPENDING ON BOX UNIT FROM 748.42 TO 749.20  
 \*\*\* VARIES DEPENDING ON BOX UNIT FROM 742.76 TO 742.04

**FOUNDATIONS:**

FOUNDATIONS FOR MOUNTING LIGHT BOXES SHALL BE MADE OF ITEM 610 CONCRETE. ALL LIGHT BOXES SHALL BE FRANGIBLY MOUNTED TO THE FOUNDATION.

**AZIMUTHAL AIMING:**

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

**MOUNTING HEIGHT TOLERANCES:**

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

**TOLERANCE ALONG LINE PERPENDICULAR TO RUNWAY:**

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

**LATERAL SPACING**

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

**PAPI INSTALLATION DETAIL**  
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PAPI DETAILS

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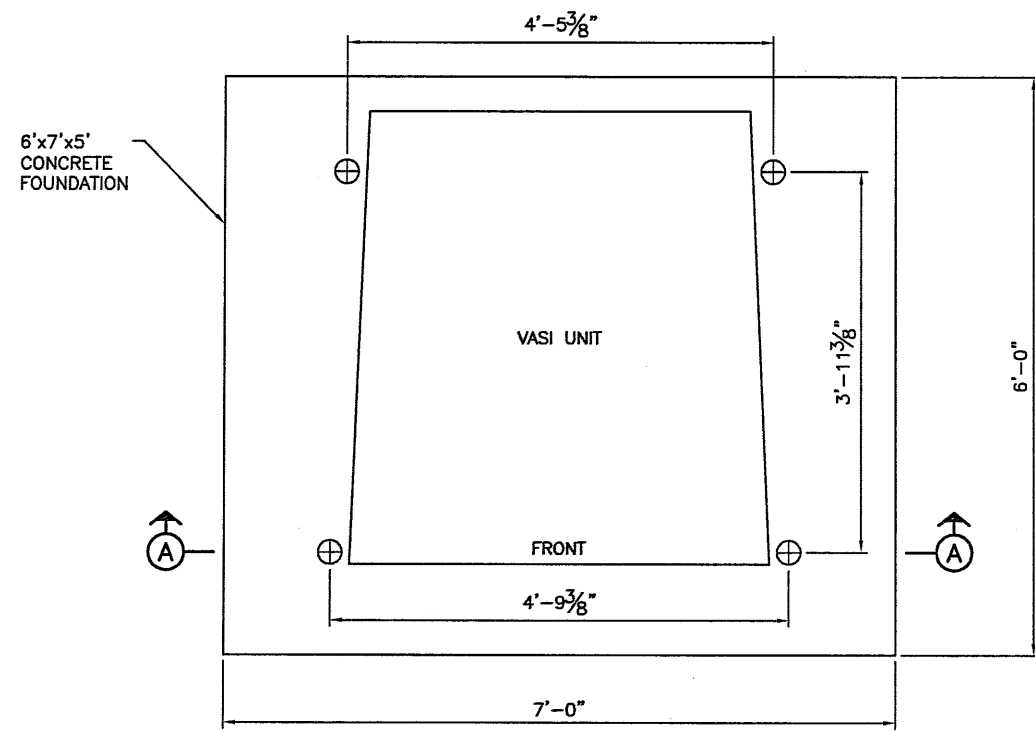


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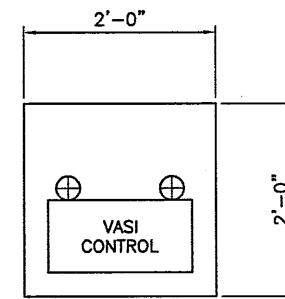
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0 1 2  
 THIS BAR IS EQUAL TO 2"  
 AT FULL SCALE (34X22).



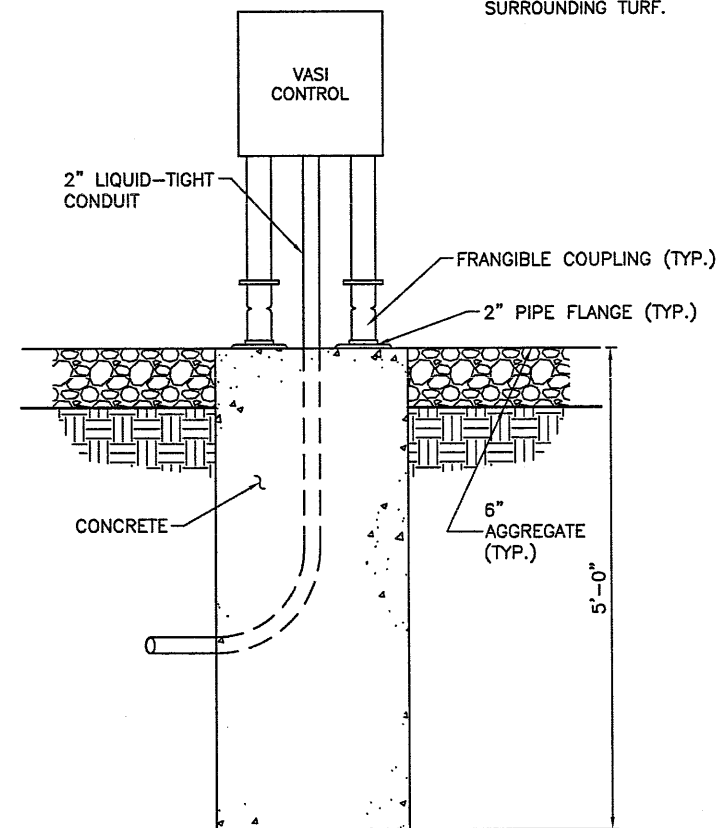
**PLAN VIEW**  
N.T.S.



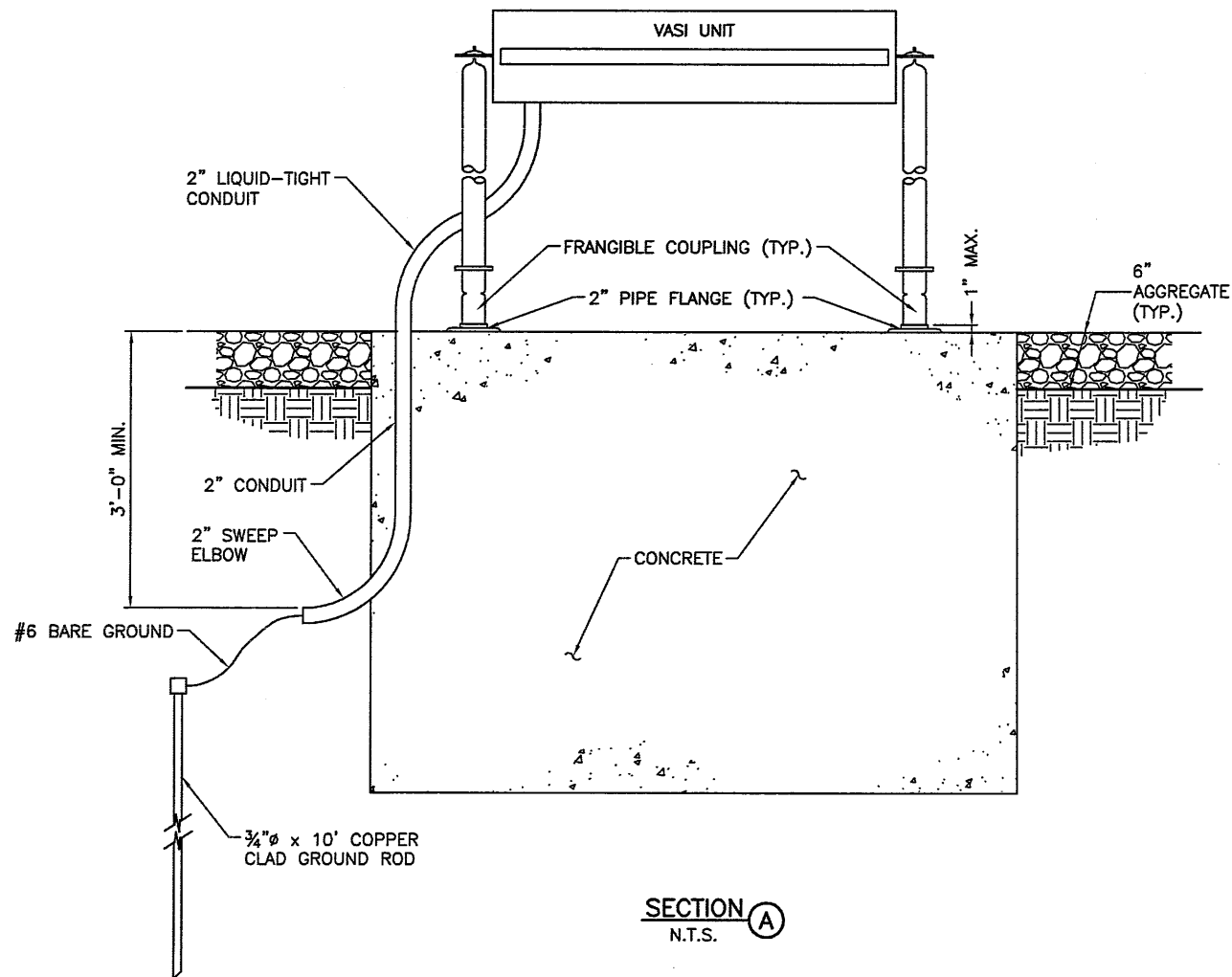
**PLAN VIEW**  
N.T.S.

**NOTES**

1. EACH VASI REMOVAL INCLUDES (4) VASI UNITS AND (1) CONTROL UNIT
2. BACKFILL AND COMPACT AT EACH REMOVAL WITH CLEAN EARTH AND SEED TO MATCH SURROUNDING TURF.



**ELEVATION**  
N.T.S.



**SECTION A**  
N.T.S.

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 VASI REMOVAL DETAILS

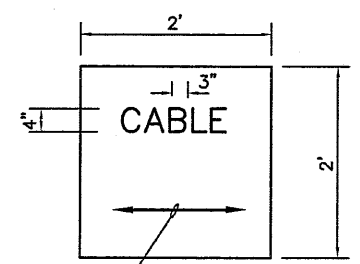
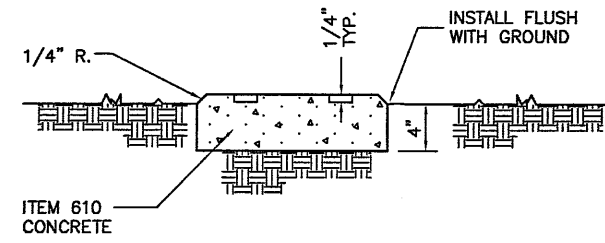
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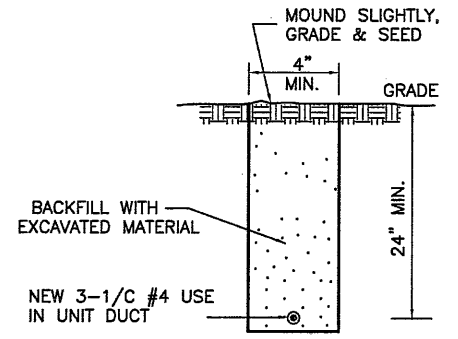
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**NOTES:**

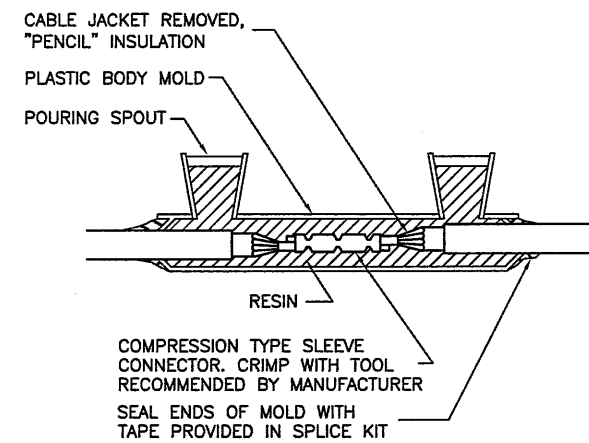
- 1.) CABLE MARKERS SHALL BE INSTALLED AT ALL BENDS AND EVERY 200' ALONG THE HOMERUN.
- 2.) THE COST OF FURNISHING AND INSTALLING NEW MARKERS SHALL BE INCIDENTAL TO THE ASSOCIATED ITEMS.
- 3.) A MARKER CONFORMING TO THIS DETAIL MARKED "SPLICE" SHALL BE INSTALLED AT ALL SPLICE LOCATIONS NOT IN LIGHT CANS OR MANHOLES.



**TURF CABLE / SPLICE MARKER**  
 N.T.S.

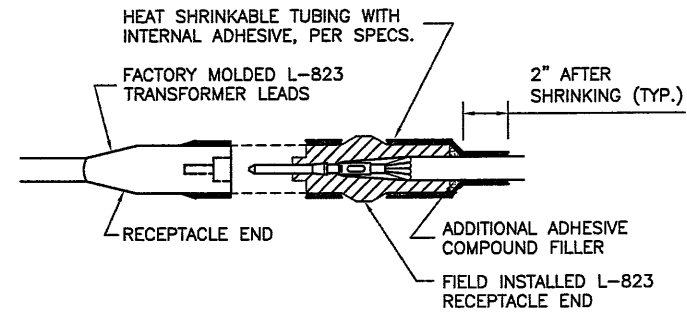


**CABLE TRENCHED IN SOIL**  
 N.T.S.



FOR IN-LINE CONNECTIONS OF EXISTING CABLES CUT DURING CONSTRUCTIONS.

**TYPE A**



FOR SPLICES AT ISOLATION TRANSFORMERS.

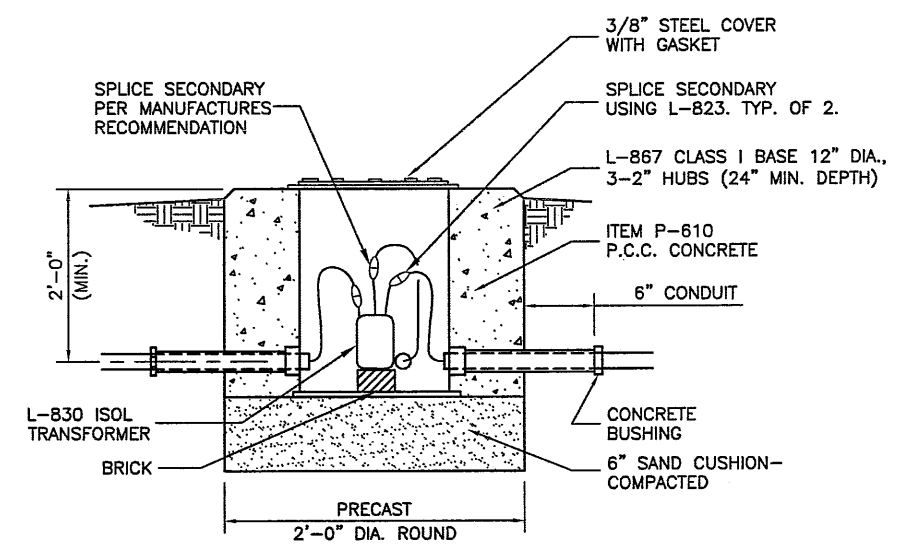
**TYPE C AND D**

**CABLE SPLICES**

N.T.S.

**NOTES**

1. INSIDE DIAMETER OF CONNECTOR SHALL PROPERLY MATCH THE OUTSIDE DIAMETER OF CABLE.
2. THE COST OF FURNISHING AND INSTALLING ALL SPLICE MATERIALS SHALL BE INCIDENTAL TO THE ASSOCIATED CABLE ITEMS.
3. THE CONTRACTOR SHALL HAVE A MINIMUM OF TWO (2) TYPE A SPLICE KITS ON THE JOB SITE AT ALL TIMES FOR EMERGENCY REPAIRS.

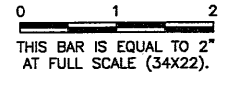


**SPLICE CAN DETAIL ( TYP. OF 2 )**

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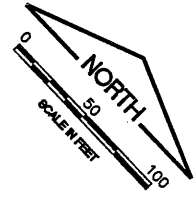
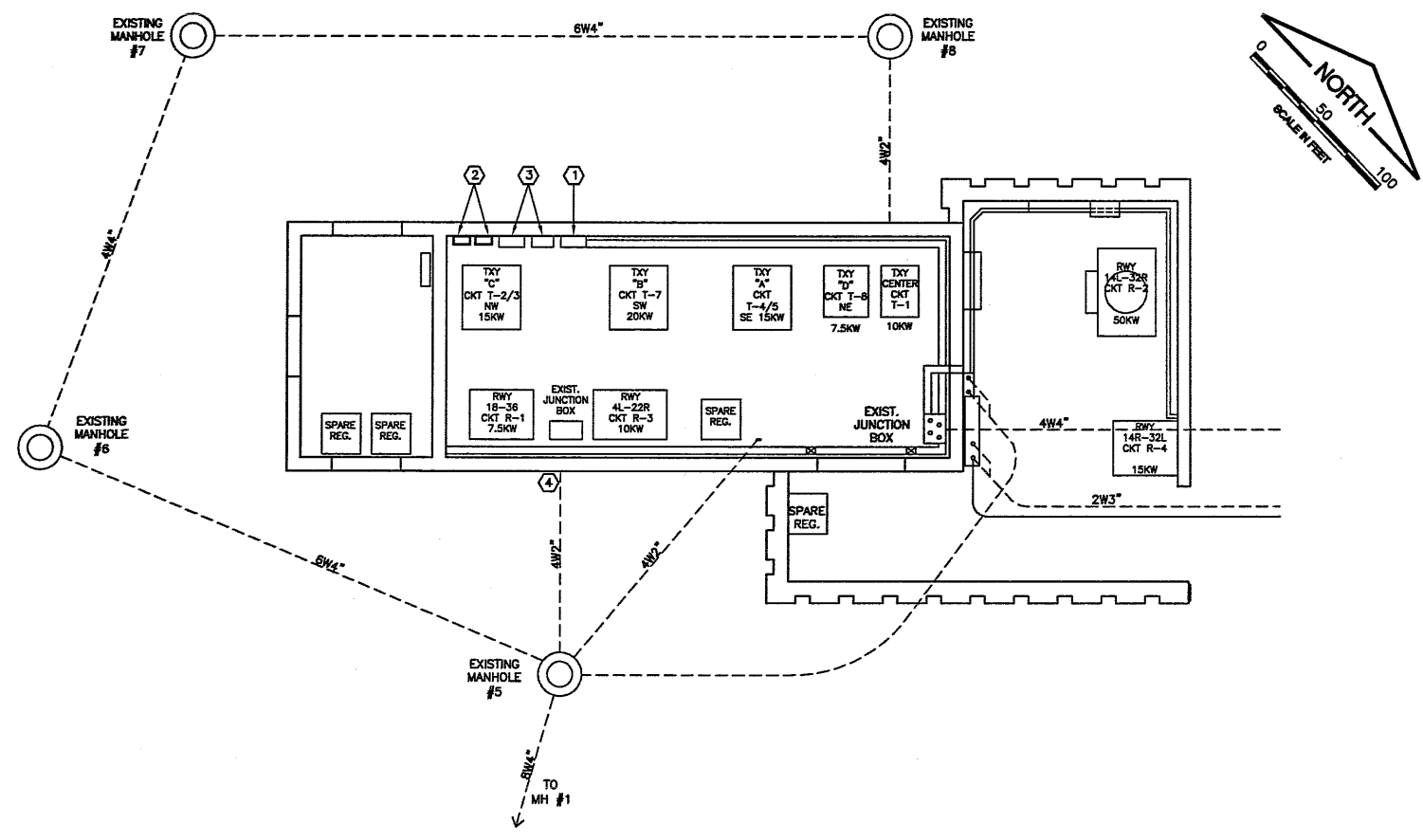
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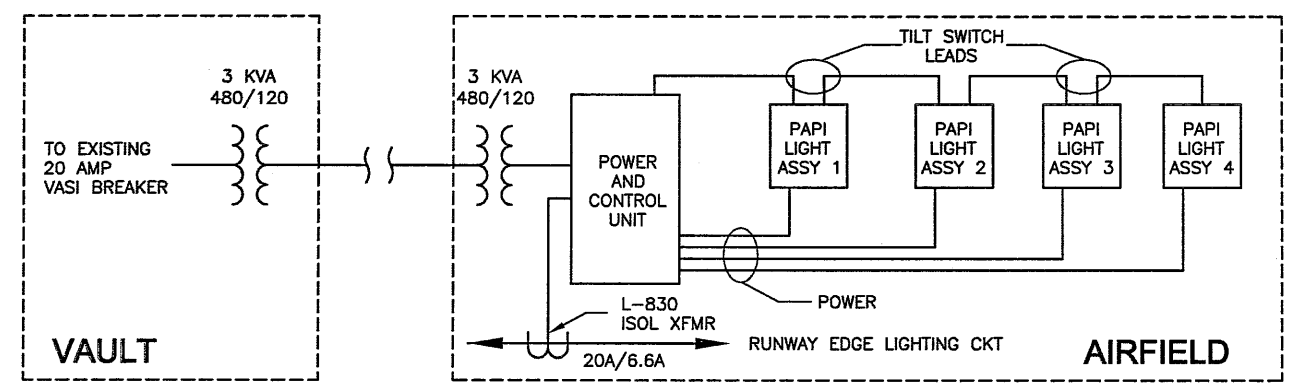
**KEYED NOTES**

- ① EXISTING GENERAL ELECTRIC 120/240V DISTRIBUTION PANELBOARD #1. MAKE MODIFICATIONS AS SHOWN IN PANELBOARD SCHEDULE.
- ② INSTALL TWO NEW TRANSFORMERS FOR PAPI 14 & PAPI 32 POWER, 3 KVA, 240 X 480V - 120/240V, SINGLE-PHASE, 3-WIRE, SQUARE D 3S1F, OR EQUIVALENT. WIRE TRANSFORMERS AS "STEP-UP" TRANSFORMERS TO STEP UP THE 240V POWER FROM PANELBOARD #1 TO 480V POWER TO PAPI SITE. WIRING FROM TRANSFORMERS TO PANELBOARD #1 SHALL BE TWO #12, ONE #12 GROUND IN 3/4" GRS CONDUIT.
- ③ EXISTING VASI EQUIPMENT TO BE DISCONNECTED AND REMOVED, INCLUDING CONDUIT AND WIRING.
- ④ INSTALL NEW PAPI 14, PAPI 32, RUNWAY GUARD LIGHT CKT #1 AND RUNWAY GUARD LIGHT CKT #2 IN EXISTING DUCT BANKS WHEREVER POSSIBLE TO EQUIPMENT IN THE FIELD. WIRING SHALL BE AS FOLLOWS:
  - PAPI 14 480V, FROM STEP-UP TRANSFORMER: TWO #4 USE, ONE #8 GROUND. INSTALL IN 1" GRS CONDUIT INSIDE VAULT AND IN 1" UNIT DUCT OUTSIDE VAULT.
  - PAPI 32 480V, FROM STEP-UP TRANSFORMER: TWO #4 USE, ONE #8 GROUND. INSTALL IN 1" GRS CONDUIT INSIDE VAULT AND IN 1" UNIT DUCT OUTSIDE VAULT.
  - RUNWAY GUARD LIGHT (RGL) CKT #1, FROM EXISTING PANELBOARD #1: TWO #4 USE, ONE #8 GROUND. INSTALL IN 1" GRS CONDUIT INSIDE VAULT AND IN 1" UNIT DUCT OUTSIDE VAULT.
  - RUNWAY GUARD LIGHT (RGL) CKT #2, FROM EXISTING PANELBOARD #1: TWO #2 USE, ONE #8 GROUND. INSTALL IN 1" GRS CONDUIT INSIDE VAULT AND IN 1" UNIT DUCT OUTSIDE VAULT. NOTE THAT A PORTION OF THE RGL CKT #2 IN THE FIELD SHALL BE TWO #4, ONE #8 GROUND IN 1" UNIT DUCT. SEE RUNWAY GUARD LIGHT SITE PLAN FOR ADDITIONAL INFORMATION.

**NOTES:**

CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS BEFORE COMMENCING WORK.

**ELECTRICAL VAULT PROPOSED CHANGES**



**PAPI BLOCK DIAGRAM (TYP. OF 2)**  
 N.T.S.

4/15/2010  
5:33 PM  
**WILLARD AIRPORT ELECTRICAL VAULT**

PANEL DESIGNATION: Panel #1		TYPE: EXISTING GENERAL ELECTRIC	
LOCATION: North Wall of Vault		POLE: 42	
VOLTS: 120/240		3	
PHASE: SINGLE		SURFACE	
		AMPS: 225	
		MAIN CIRCUIT BREAKER: 225A-2P	

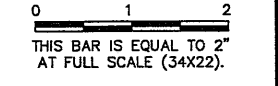
CKT NO.	LOAD	BREAKER SIZE	POLE NO.	BREAKER SIZE	LOAD	CKT NO.
1	REIL 13 CONTROL, RADIO	20A-1P	1	2	15A-1P	2
3	REIL 4 CONTROL	20A-1P	3	4	15A-1P	4
5	SPARE	20A-1P	5	6	15A-1P	6
7	SPARE	20A-1P	7	7	50A-1P	7
9	REIL 22 CONTROL	20A-1P	9	10	30A-2P	10
11	SPARE	20A-1P	11	12	---	---
13	SPARE	20A-1P	13	14	50A-2P	14
15	PANEL 2 (small room vault west end)	100A-2P	15	16	---	---
---	---	---	17	18	40A-2P	18
19	CENTER TWY REG, Ckt T-1	60A-2P	19	20	---	---
---	---	---	21	22	50A-2P	---
23	NW-VASI-FEED PAPI 14 (NOTE 2)	20A-2P	23	24	---	---
---	---	---	25	26	30A-2P	---
27	SE-VASI-FEED PAPI 32 (NOTE 2)	20A-2P	27	28	---	---
---	---	---	29	30	20A-1P	---
31	RGL CKT #1 (NOTE 3)	20A-2P	31	32	---	---
---	---	---	33	34	---	---
35	RGL CKT #2 (NOTE 3)	20A-2P	35	35	---	---
---	---	---	37	38	---	---
39	---	---	39	40	---	---
41	---	---	41	42	---	---

**NOTES**

- 1.) EXISTING PANELBOARD SCHEDULE SHOWN IS BASED ON BEST AVAILABLE INFORMATION. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS BEFORE PROCEEDING WITH ANY MODIFICATIONS.
- 2.) EXISTING VASI FEEDER CIRCUIT BREAKERS TO BECOME NEW PAPI FEEDER CIRCUIT BREAKERS. CONTRACTOR SHALL REVISE EXISTING PANELBOARD SCHEDULE. PROVIDE A NEW TYPED PANELBOARD SCHEDULE.
- 3.) INSTALL TWO NEW 20A, 2P FEEDER CIRCUIT BREAKERS FOR NEW RUNWAY GUARD LIGHT (RGL) CIRCUITS. CONTRACTOR SHALL REVISE EXISTING PANELBOARD SCHEDULE. PROVIDE A NEW TYPED PANELBOARD SCHEDULE.

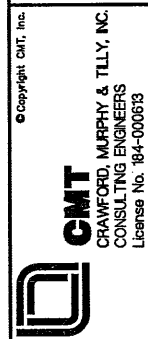
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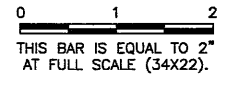
REHABILITATE U OF I RAMP AND P.C.C. PANELS  
VAULT DETAILS



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REHABILITATE U OF I RAMP AND P.C.C. PANELS  
 RUNWAY GUARD LIGHT SITE PLAN

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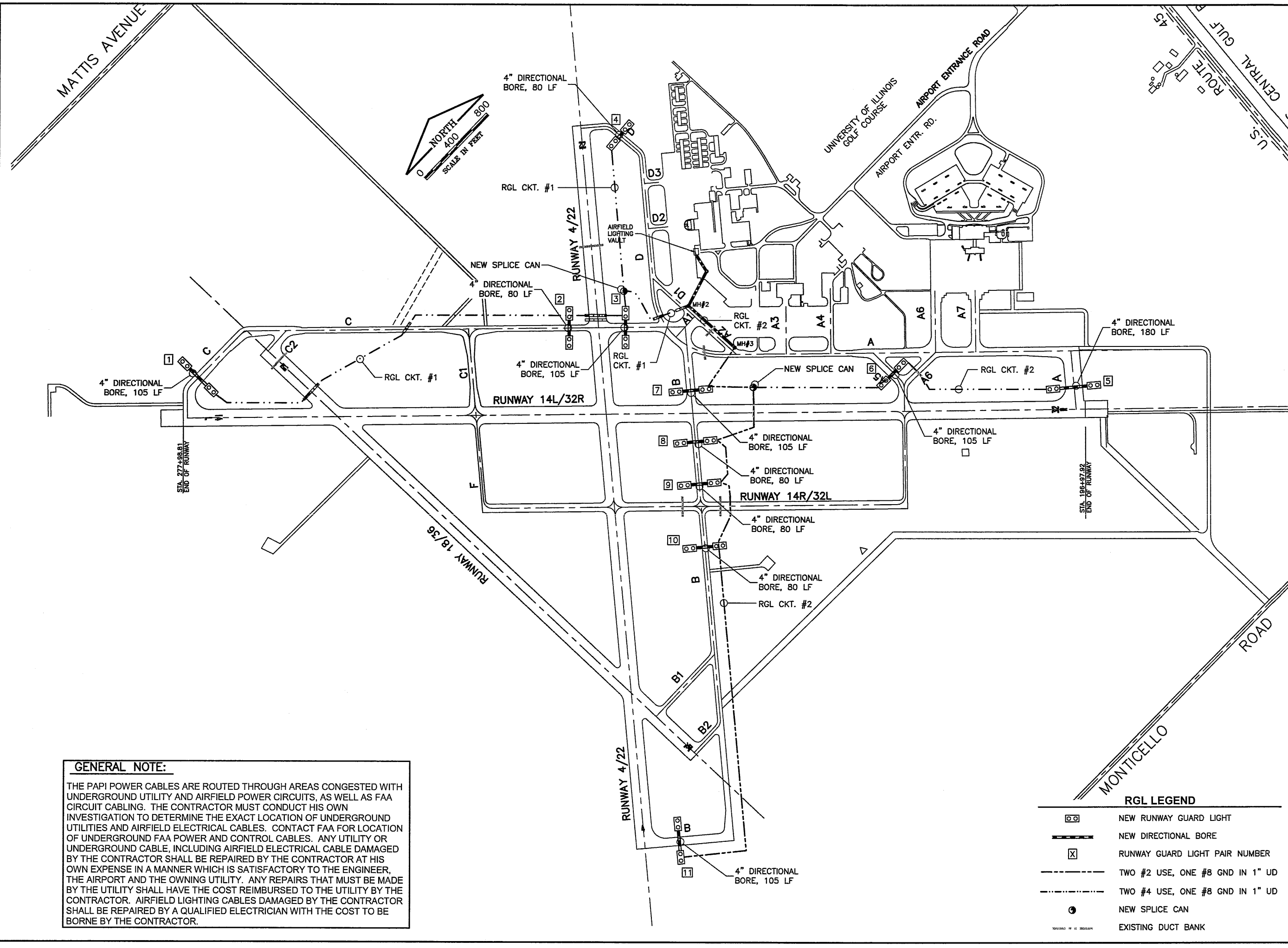
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SHEET	34 OF 49 SHEETS

**RGL LEGEND**

- NEW RUNWAY GUARD LIGHT
- NEW DIRECTIONAL BORE
- RUNWAY GUARD LIGHT PAIR NUMBER
- TWO #2 USE, ONE #8 GND IN 1" UD
- TWO #4 USE, ONE #8 GND IN 1" UD
- NEW SPLICE CAN
- EXISTING DUCT BANK

**GENERAL NOTE:**

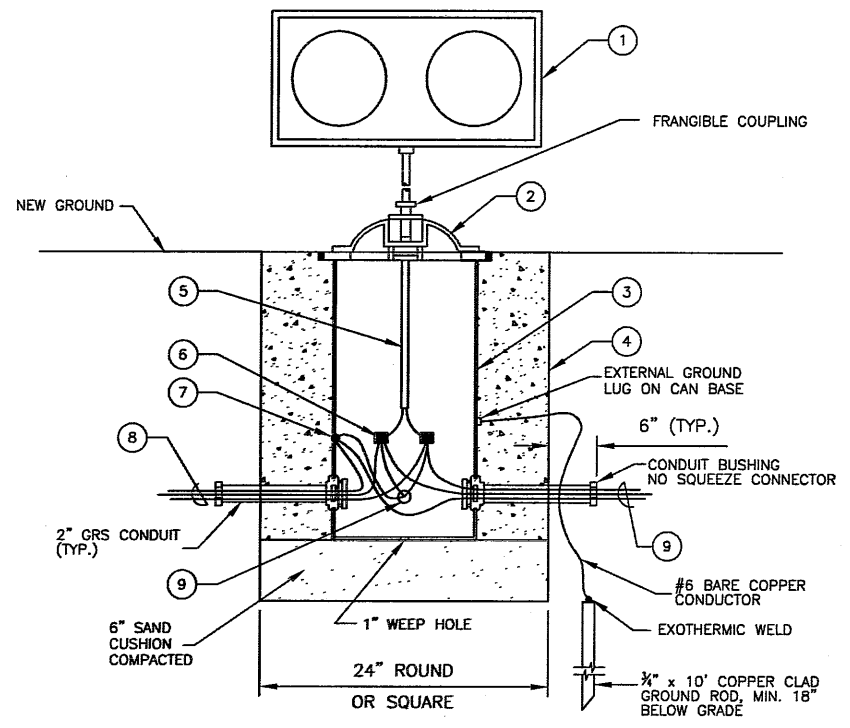
THE PAPI POWER CABLES ARE ROUTED THROUGH AREAS CONGESTED WITH UNDERGROUND UTILITY AND AIRFIELD POWER CIRCUITS, AS WELL AS FAA CIRCUIT CABLING. THE CONTRACTOR MUST CONDUCT HIS OWN INVESTIGATION TO DETERMINE THE EXACT LOCATION OF UNDERGROUND UTILITIES AND AIRFIELD ELECTRICAL CABLES. CONTACT FAA FOR LOCATION OF UNDERGROUND FAA POWER AND CONTROL CABLES. ANY UTILITY OR UNDERGROUND CABLE, INCLUDING AIRFIELD ELECTRICAL CABLE DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE IN A MANNER WHICH IS SATISFACTORY TO THE ENGINEER, THE AIRPORT AND THE OWNING UTILITY. ANY REPAIRS THAT MUST BE MADE BY THE UTILITY SHALL HAVE THE COST REIMBURSED TO THE UTILITY BY THE CONTRACTOR. AIRFIELD LIGHTING CABLES DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED BY A QUALIFIED ELECTRICIAN WITH THE COST TO BE BORNE BY THE CONTRACTOR.



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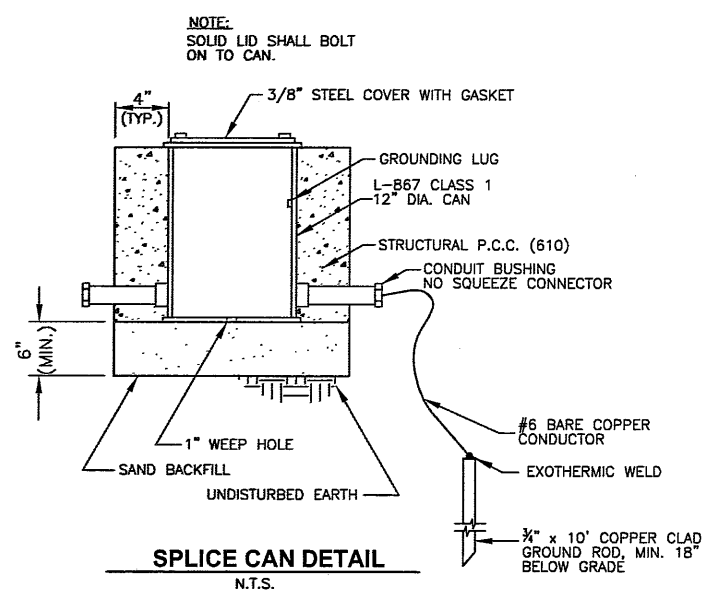
0 1 2  
 THIS BAR IS EQUAL TO 2" AT FULL SCALE (34X22).



**RUNWAY GUARD LIGHT INSTALLATION**  
(VOLTAGE POWERED)  
N.T.S.

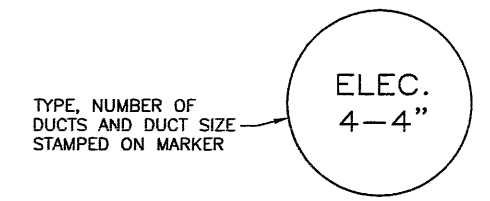
**NOTES:**

- ① L-804 RUNWAY GUARD LIGHT (RGL), MODE 2 (240V) WITH PHOTOCELL, NOT MONITORED, 100W/6.6A INCANDESCENT LAMPS, TRAFFIC SIGNAL YELLOW.
- ② SPECIAL BASE PLATE, SUPPLIED WITH RUNWAY GUARD LIGHT.
- ③ L-867B LIGHT BASE.
- ④ CONCRETE.
- ⑤ CONNECTOR AND PIGTAIL, SUPPLIED WITH RUNWAY GUARD LIGHT.
- ⑥ WATERPROOF TAPED SPLIT BOLT SPLICE (TYP. OF TWO).
- ⑦ LIGHT BASE GROUND TERMINAL. CONNECT ALL GROUND WIRES TO HERE.
- ⑧ TWO #2 OR TWO #4 USE (240V), ONE #8 GROUND IN 1" UNIT DUCT, TO VAULT OR TO NEXT PAIR OF RUNWAY GUARD LIGHTS. SEE SITE PLAN FOR ADDITIONAL INFORMATION.
- ⑨ TWO #12 USE (240V), ONE #12 GROUND, TO RUNWAY GUARD LIGHT ON OPPOSITE SIDE OF TAXIWAY. INCIDENTAL TO INSTALLATION OF RUNWAY GUARD LIGHTS.

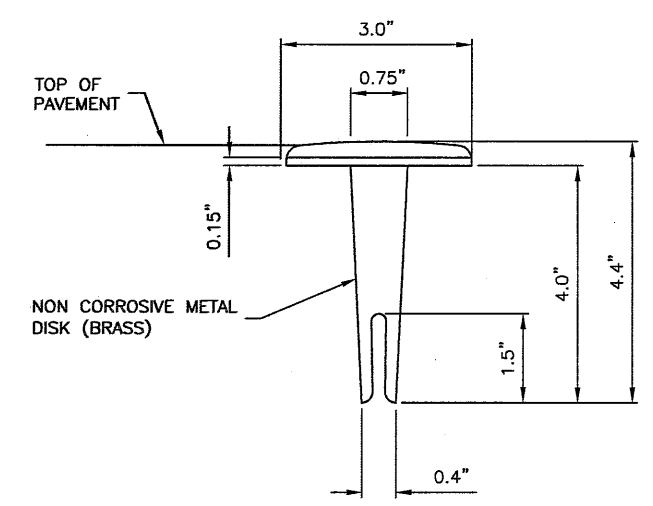


**SPLICE CAN DETAIL**  
N.T.S.

NOTE: GROUND ROD IS INCIDENTAL TO SPLICE CAN PAY ITEM

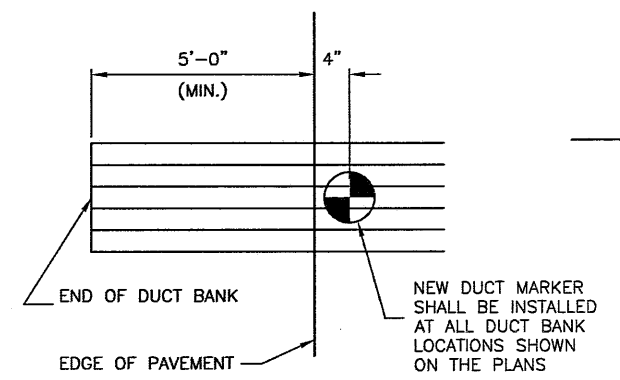


**PLAN**



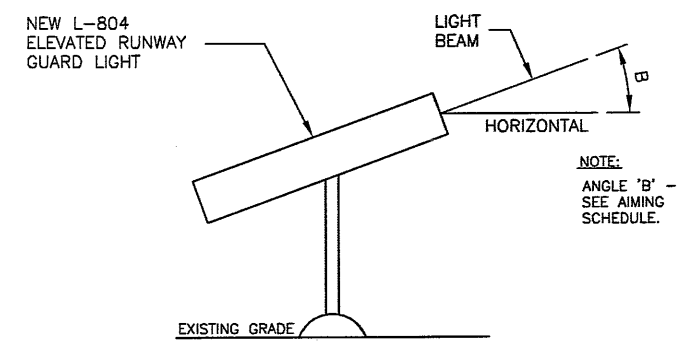
**SECTION**

**DUCT MARKER DETAILS**  
N.T.S.



**MARKER PLACEMENT**

DUCT MARKERS SHALL BE RECESSED AND GROUTED INTO THE PAVEMENTS.



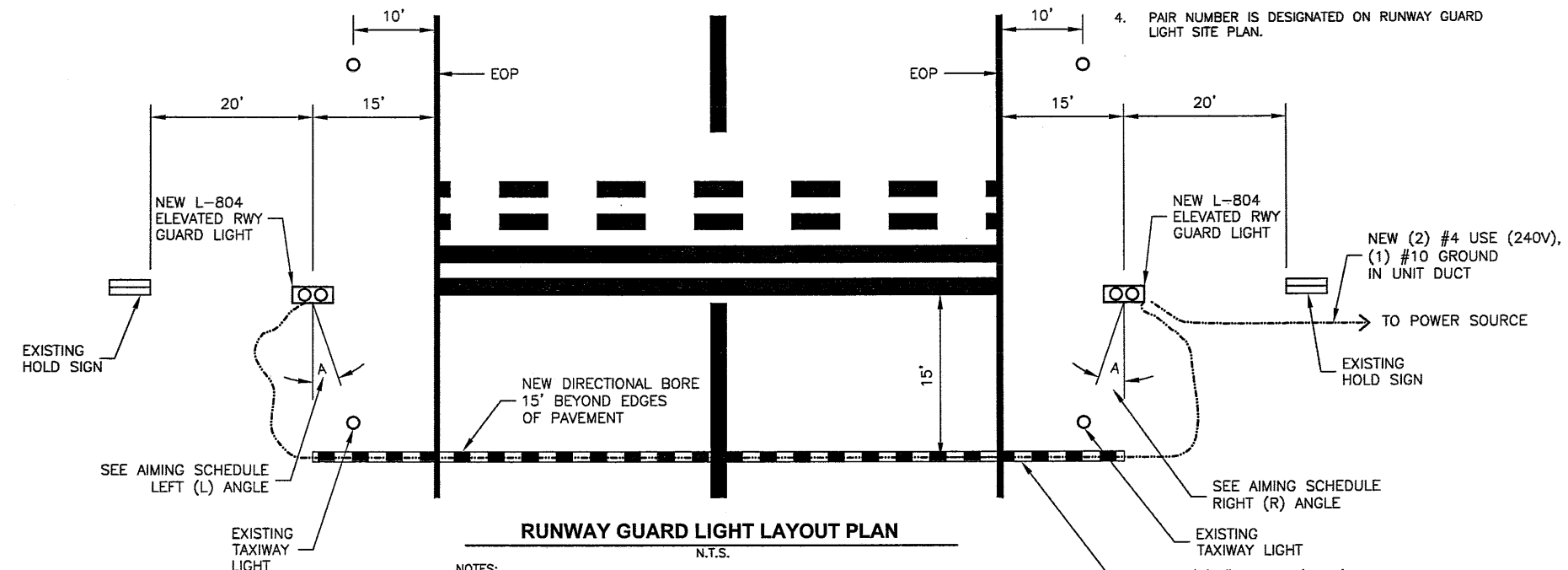
**RUNWAY GUARD LIGHT AIMING DETAIL**  
N.T.S.

**RUNWAY GUARD LIGHT AIMING SCHEDULE**

PAIR NUMBER	L	∠A	R	∠B
1	20.9'	16.7'	5'	5'
2	12.9'	12.9'	5'	5'
3	16.7'	16.7'	5'	5'
4	7.5'	31.4'	5'	5'
5	34.6'	19.5'	5'	5'
6	16.7'	16.7'	5'	5'
7	16.7'	16.7'	5'	5'
8	12.9'	12.9'	5'	5'
9	12.9'	12.9'	5'	5'
10	12.9'	12.9'	5'	5'
11	16.7'	16.7'	5'	5'

**NOTES:**

1. ∠A IS ANGLE UNIT SHOULD BE AIMED TOWARD TAXIWAY CENTERLINE AND IS SYMMETRICAL ABOUT THE TAXIWAY CENTERLINE.
2. ∠B IS ANGLE UNIT SHOULD BE AIMED UPWARD FROM THE HORIZONTAL AND IS THE SAME FOR EACH UNIT IN EVERY PAIR OF RUNWAY GUARD LIGHTS.
3. LEFT (L) AND RIGHT (R) ARE DESIGNATED BY LOOKING TOWARD THE RUNWAY FROM THE HOLD SIDE OF THE HOLD LINE.
4. PAIR NUMBER IS DESIGNATED ON RUNWAY GUARD LIGHT SITE PLAN.



**RUNWAY GUARD LIGHT LAYOUT PLAN**  
N.T.S.

**NOTES:**

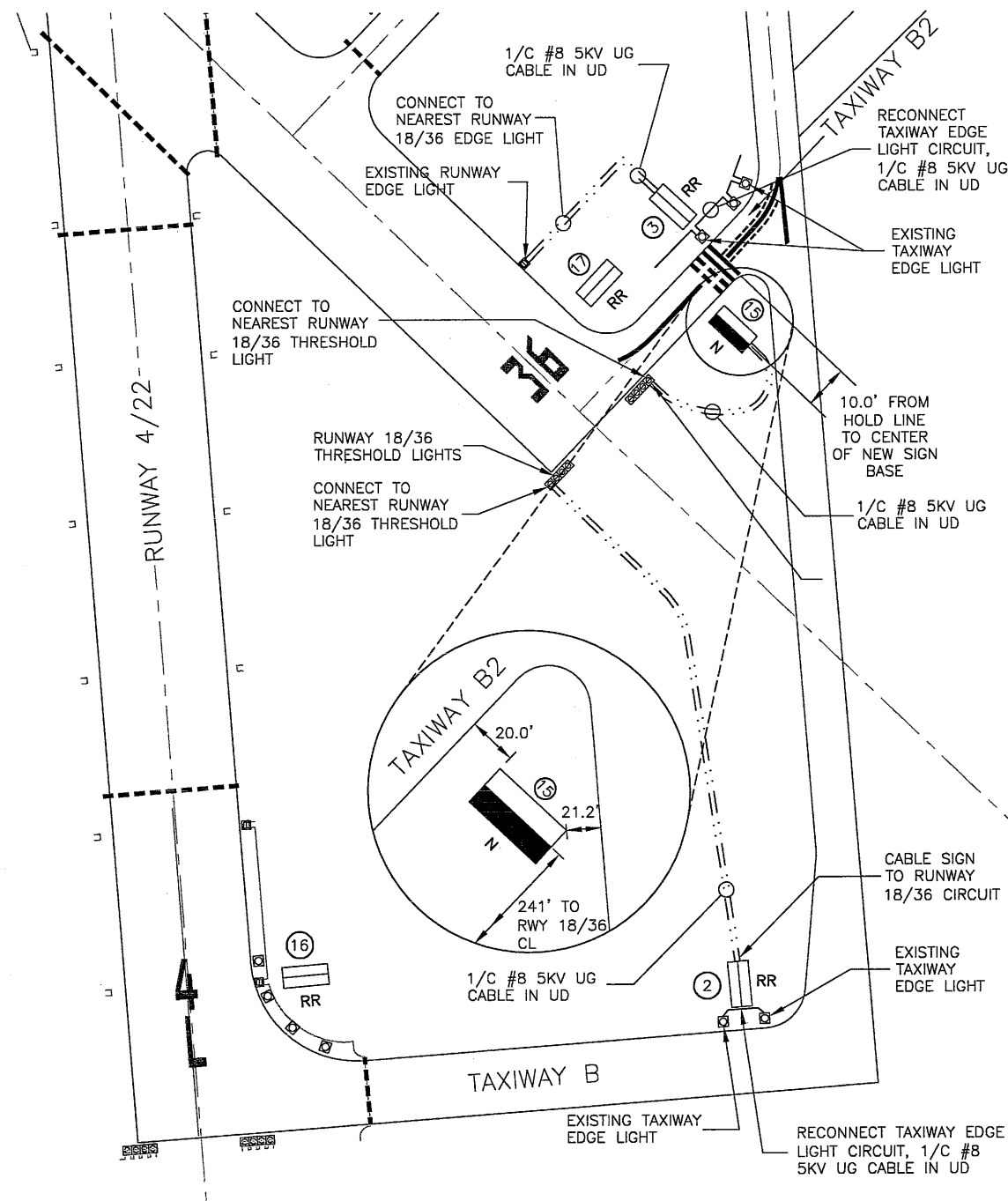
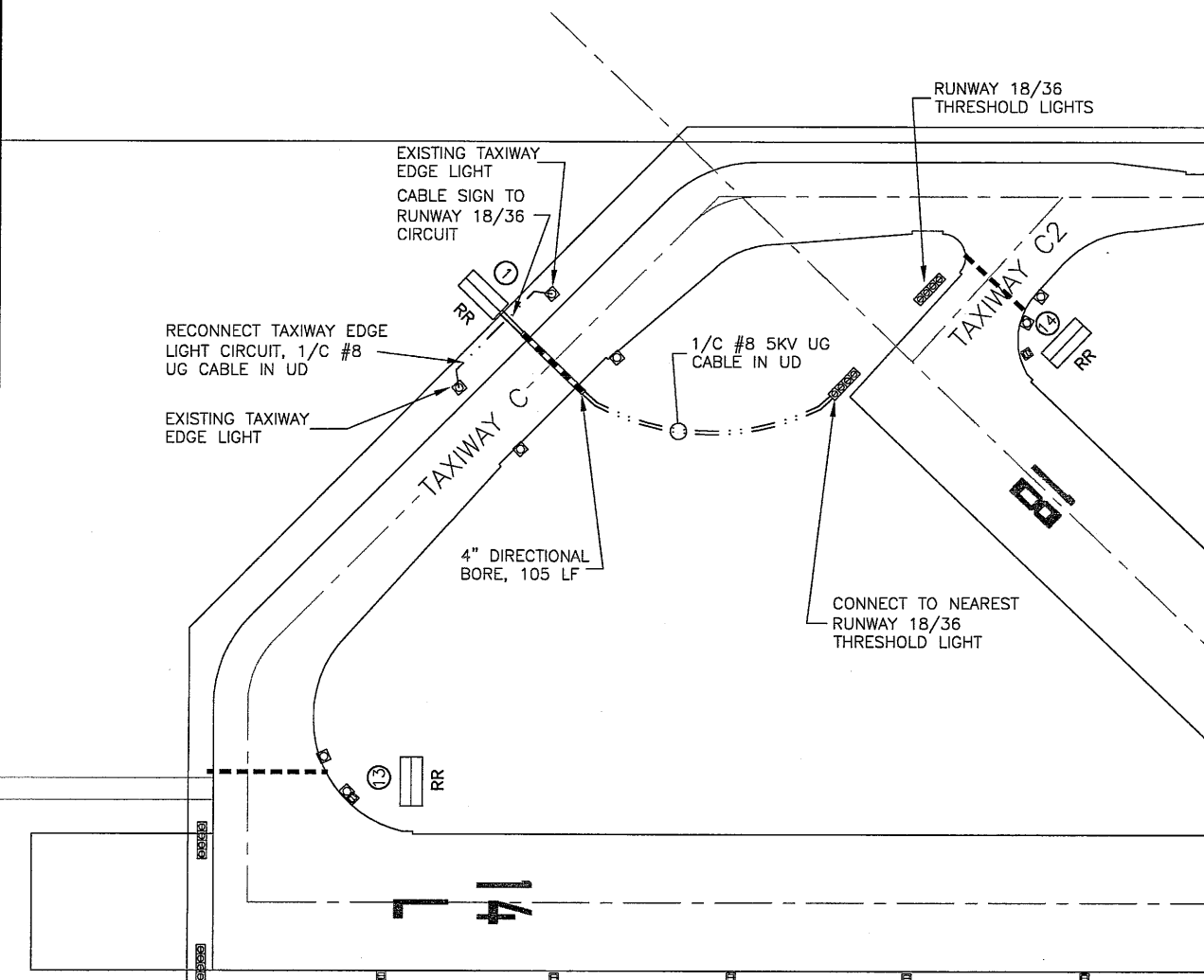
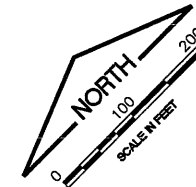
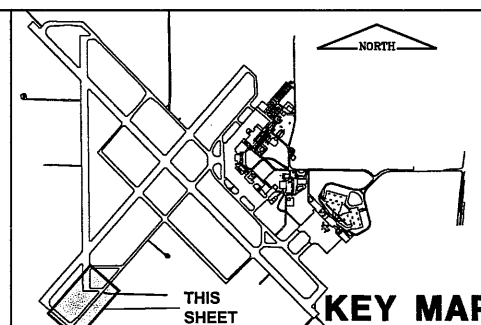
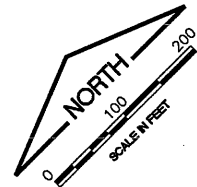
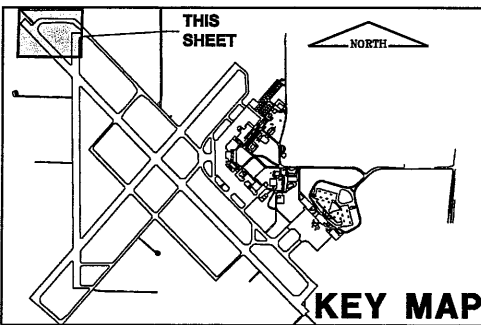
1. LOCATION OF DIRECTIONAL BORE MAY VARY TO AVOID EXISTING UTILITIES.
2. ANGLE 'A' - SEE AIMING SCHEDULE.

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REHABILITATE U OF I RAMP AND P.C.C. PANELS  
RUNWAY GUARD LIGHTS DETAILS

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SHEET 35 OF 49 SHEETS	



LEGEND

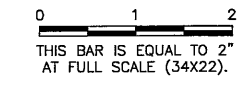
- RR REMOVE EXISTING SIGN AND REPLACE WITH NEW SIGN
- N NEW SIGN
- ① SIGN NUMBER (SEE SIGNAGE SCHEDULE)
- NEW CABLE  
1/C #8 5KV UG CABLE IN UD
- NEW DIRECTIONAL BORE
- ⊙ EXISTING RUNWAY THRESHOLD LIGHT
- ⊞ EXISTING RUNWAY EDGE LIGHT
- ⊠ EXISTING TAXIWAY EDGE LIGHT

K:\Champaign\0905903\Draw\Sheets  
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 UPDATE BY: Andrew Huebner  
 PLOT DATE: 4/15/2010 6:06 PM  
 geo  
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 TAXIWAY GUIDANCE SIGN PLAN 1

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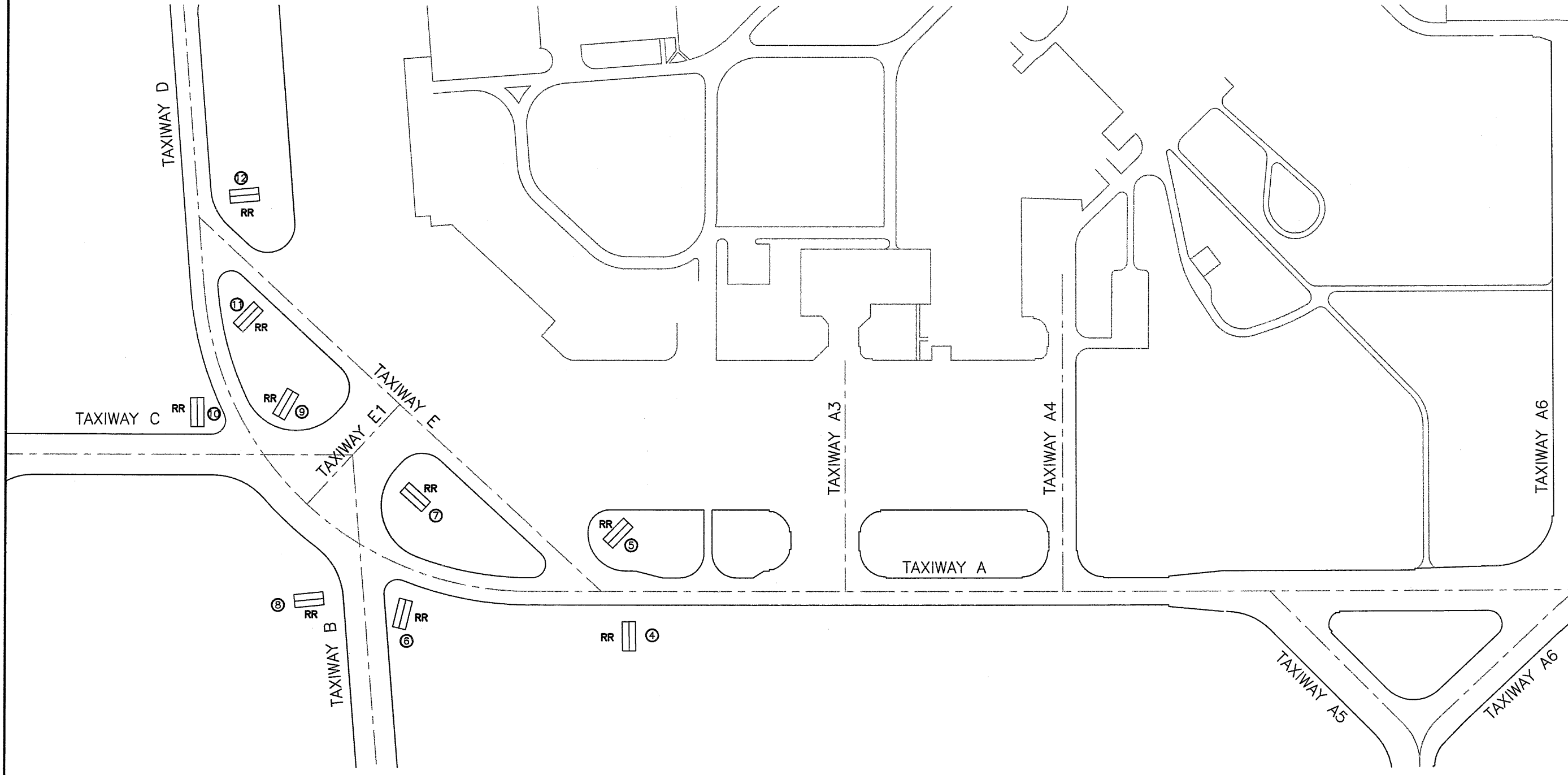
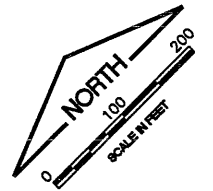
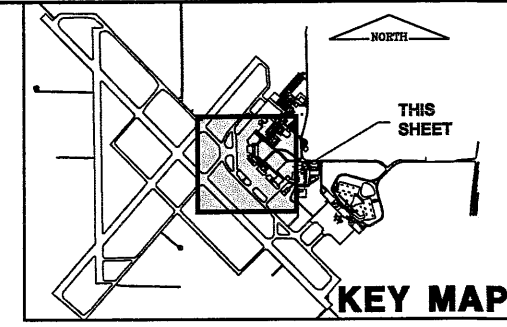
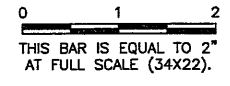


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SHEET	36 OF 49 SHEETS

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LEGEND

- RR REMOVE EXISTING SIGN AND REPLACE WITH NEW SIGN
- ④ SIGN NUMBER (SEE SIGNAGE SCHEDULE)

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 TAXIWAY GUIDANCE SIGN PLAN 2

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AIP PROJ. NO.	3-17-0016-XX
SHEET	37 OF 49 SHEETS

**SIGNAGE SCHEDULE**

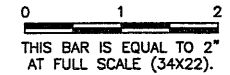
SIGN #	SIDE	NEW SIGN LEGEND	WHITE WITH BLACK OUTLINE ON RED BACKGROUND	BLACK LEGEND ON YELLOW BACKGROUND	YELLOW LEGEND ON BLACK BACKGROUND	NUMBER OF CHARACTERS	NOTES	EXISTING SIGN LEGEND
1	E W	14L ↑ 18-APCH	18-APCH	14L ↑		7	NEW SIGN	18-APCH
2	SE NW	4 ↑ 36-APCH	36-APCH	4 ↑		7	NEW SIGN	36-APCH
3	E W	36 B2	36		B2	4	NEW SIGN	B2 36
4	SE NW	A E ↗ A		E ↗	A A	3	NEW SIGN	A A2 ↗
5	S N	E E ↘ A ↘		↘ A ↘	E E	4	NEW SIGN	A2 ↘ A ↘
6	SE NW	↘ B ↘ C A D ↗ E1 → A		↘ B ↘ C D ↗ E1 →	A A	10	NEW SIGN	↘ B ↘ C D ↗
7	E W	↘ A ↘ B E1 C ↗ D ↘ ← U OF I FBO ↗		↘ A ↘ B C ↗ D ↘ ← U OF I FBO ↗	E1	11	NEW SIGN	↘ B C ↗ D ↘ ← U OF I FBO ↗
8	NE SW	4 ↑ ← C ↘ D B E1 ↗ A ↘		4 ↑ ← C ↘ D E1 ↗ A ↘	B D	10	NEW SIGN	4 ↑ ↘ D A1 ↗ A ↘
9	S N	D ↘ E1 A ↑ D B ↗ C ↘		↘ E1 A ↑ B ↗ C ↘	D D	10	NEW SIGN	↘ A B ↗ C ↘
10	SE NW	14L ↑ ← D E1 ↑ C A ↗ B →		14L ↑ ← D E1 ↑ A ↗ B →	C	10	NEW SIGN	14L ↑ ← D A1 ↑ A ↗
11	S N	E ↘ D ↗ E		↘ D ↗	E E	4	NEW SIGN	D1 ↘ D ↗
12	NE SW	↘ E D D		↘ E	D D	3	NEW SIGN	↘ D1 D D
13	NW SE	14L C →		C →	14L	3	NEW SIGN	C →
14	N S	18 C2 →		C2 →	18	3	NEW SIGN	C2 →
15	E W	B2 36	36		B2	4	NEW SIGN	NO EXISTING SIGN
16	NE SW	← B 4		← B	4	2	NEW SIGN	← B
17	N S	← B2 36		← B2	36	3	NEW SIGN	← B2

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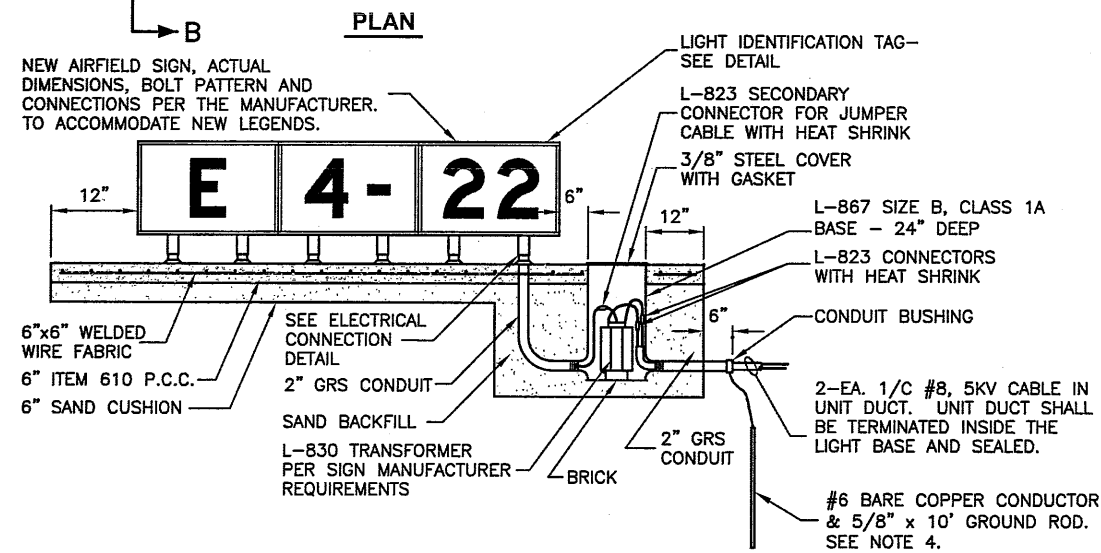
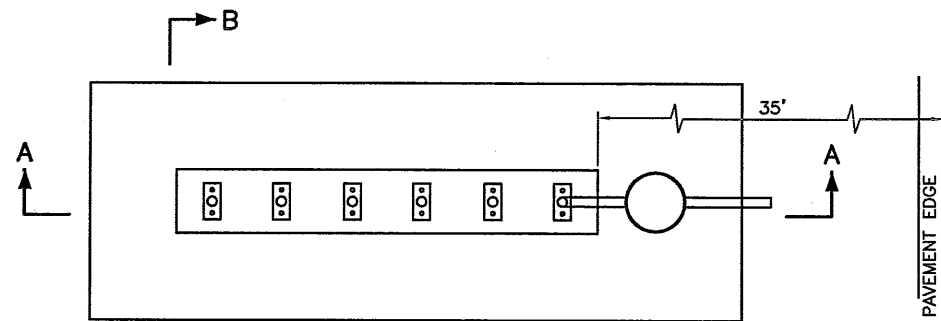
REHABILITATE U OF I RAMP AND P.C.C. PANELS  
AIRFIELD SIGNAGE DETAIL

**AIRFIELD SIGN NOTES**

1. TRANSFORMER WATTAGE SHALL BE AS REQUIRED BY SIGN MANUFACTURER.
2. SIGN LEGEND SHALL BE AS SHOWN IN THE PLANS.
3. SIGNS SHALL BE SIZE 2, STYLE 2, CLASS 2.

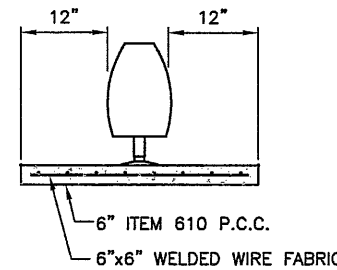
**NOTES**

1. SIGN SCHEDULE IS SUBJECT TO FAA APPROVAL OF THE SIGNAGE PLAN.
2. CHANGES TO NEW LEGENDS MAY OCCUR SUBJECT TO 1 ABOVE.
3. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS WITH NEW LEGENDS FOR APPROVAL PRIOR TO STARTING MANUFACTURE.
4. SHOP DRAWINGS SHALL CORRESPOND TO THE LATEST, FAA APPROVED AND CERTIFIED SIGNAGE AND MARKING PLAN.

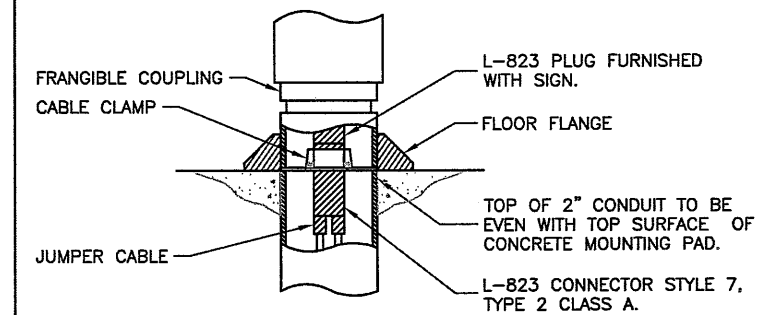


**SECTION A-A**

**L-858 AIRFIELD SIGN DETAILS**  
N.T.S.



**SECTION B-B**

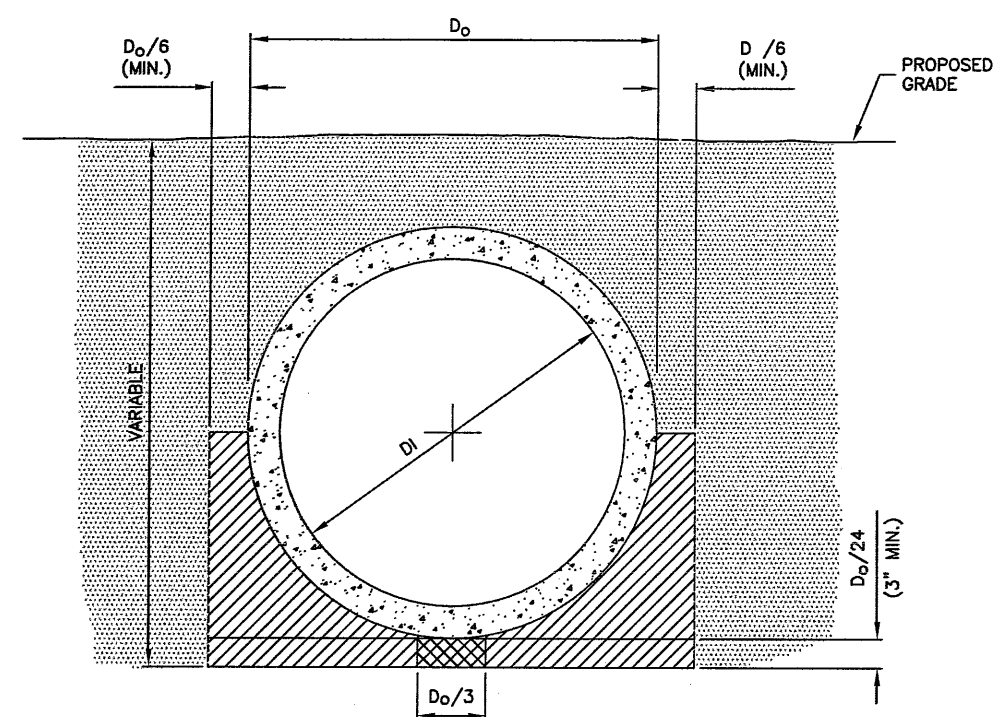


**ELECTRICAL CONNECTION DETAIL**

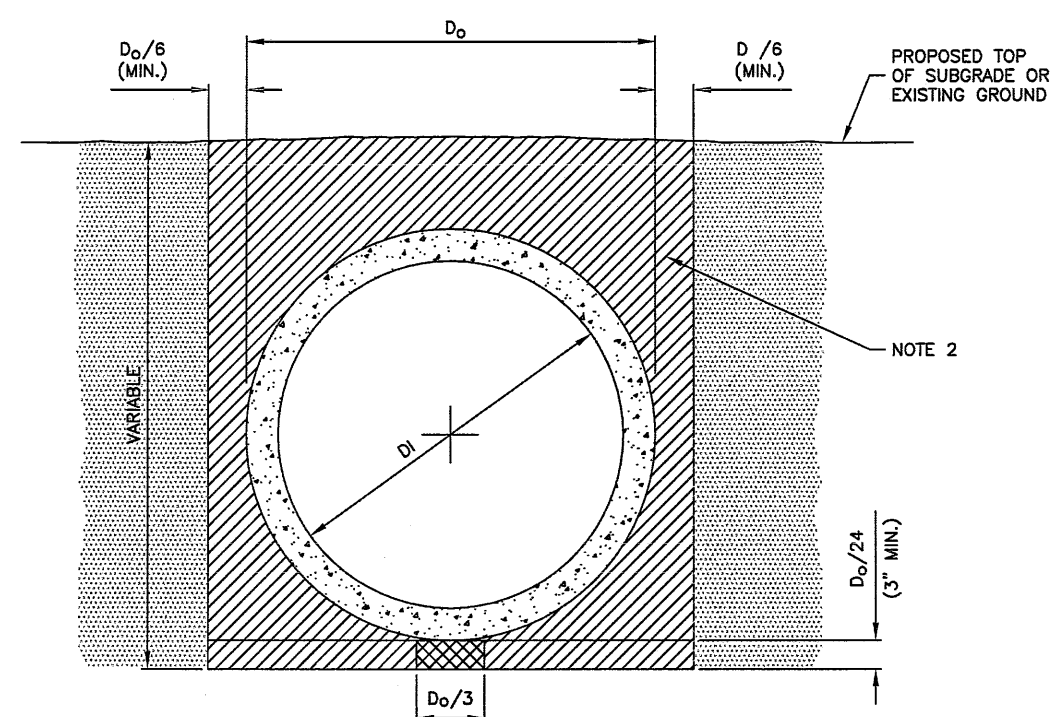
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SHEET	38 OF 49 SHEETS



**STANDARD TRENCH INSTALLATION  
 NON-PAVED AREA**  
 N.T.S.



**STANDARD TRENCH INSTALLATION  
 PROPOSED PAVED AREA**  
 N.T.S.

**TRENCH INSTALLATION LEGEND**

- DRAINAGE CONDUIT MATERIAL—CONCRETE
- MIDDLE BEDDING LOOSELY PLACED UNCOMPACTED BEDDING
- HAUNCH AND OUTER BEDDING COMPACTION— TO ENGINEER'S SATISFACTION OR 95% STANDARD PROCTOR
- LOWER SIDE AND OVERFILL COMPACTION— SAME AS EMBANKMENT REQUIREMENTS

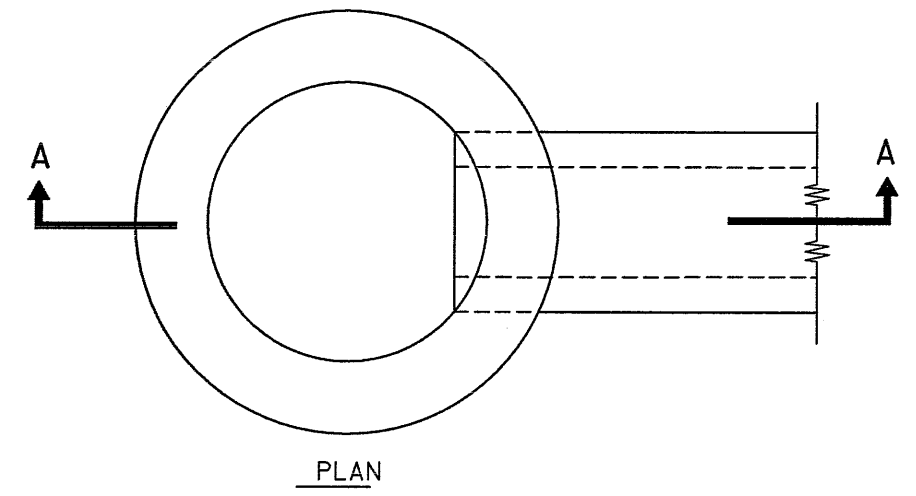
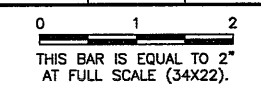
$D_o$  PIPE OUTSIDE DIAMETER  
 $D_i$  PIPE INSIDE DIAMETER

- TRENCH INSTALLATION NOTES**
- BEDDING SHOWN IS IN ACCORDANCE WITH "STANDARD EMBANKMENT INSTALLATIONS", STANDARD INSTALLATION & BEDDING FACTORS FOR THE INDIRECT DESIGN METHOD (DESIGN DATA 40), AMERICAN CONCRETE PIPE ASSOCIATION.
  - BACKFILL TO EXTEND 3' BEYOND EDGES OF PROPOSED PAVEMENT.

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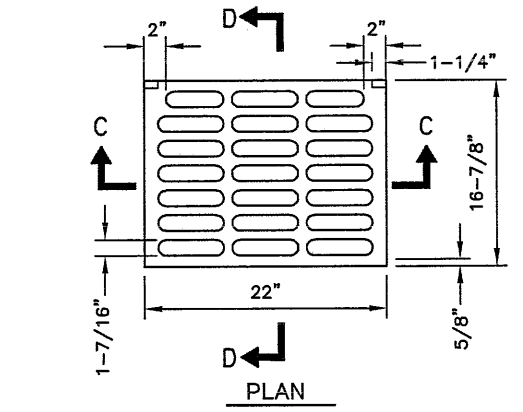
NUMBER	BY	DATE



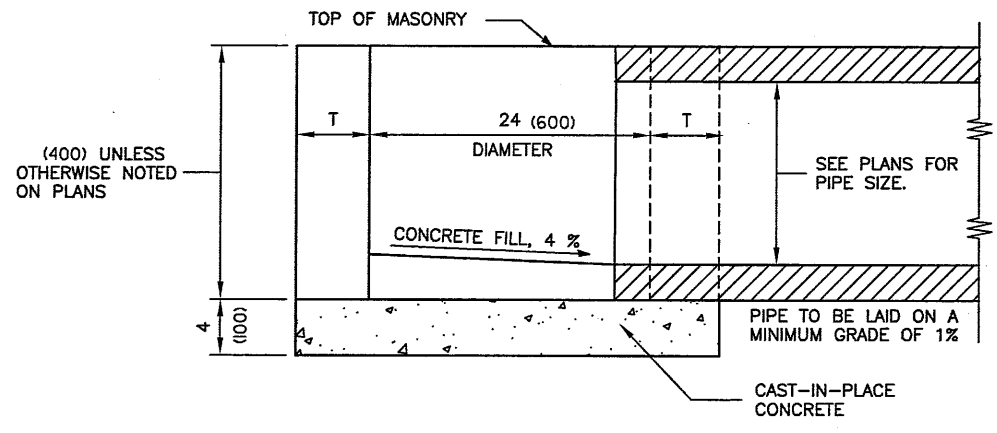
**PLAN**

ALTERNATE MATERIALS FOR WALLS	T
BRICK MASONRY	8 (200)
CAST-IN-PLACE CONCRETE	6 (150)
CONCRETE MASONRY UNIT	5 (125)
PRECAST REINFORCED CONCRETE SECTION	3 (75)

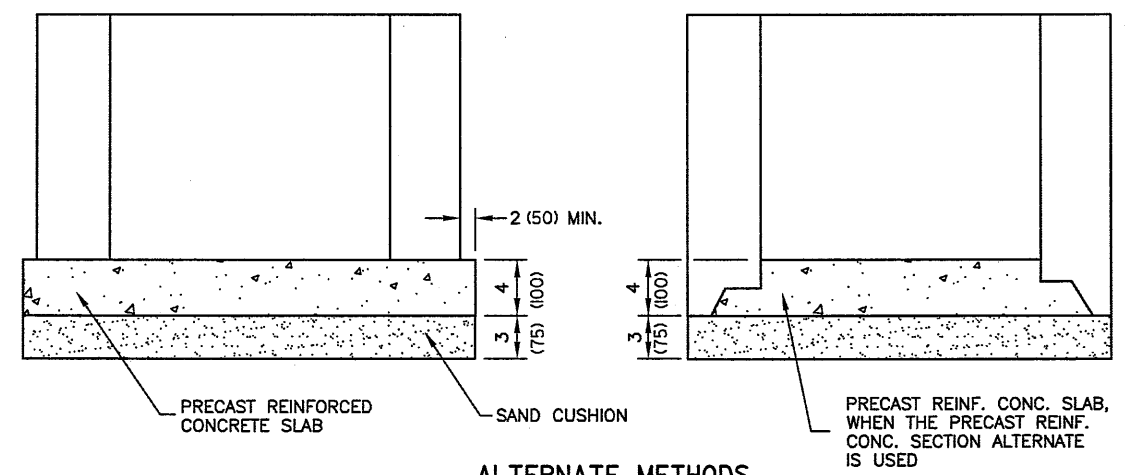
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.



**PLAN**

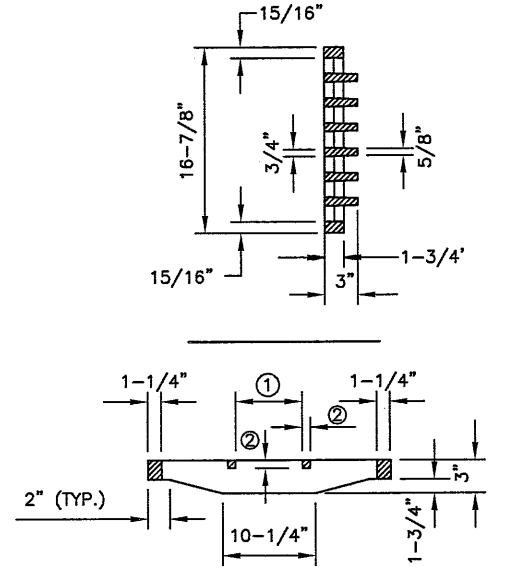


**SECTION A-A**



**ALTERNATE METHODS**

**INLET - TYPE A**  
 STANDARD 602301-02  
 N.T.S.



**TYPE 3 CAST GRATE**

- ① = 6" TYP.
- ② = 3/4" TYP.

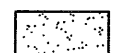
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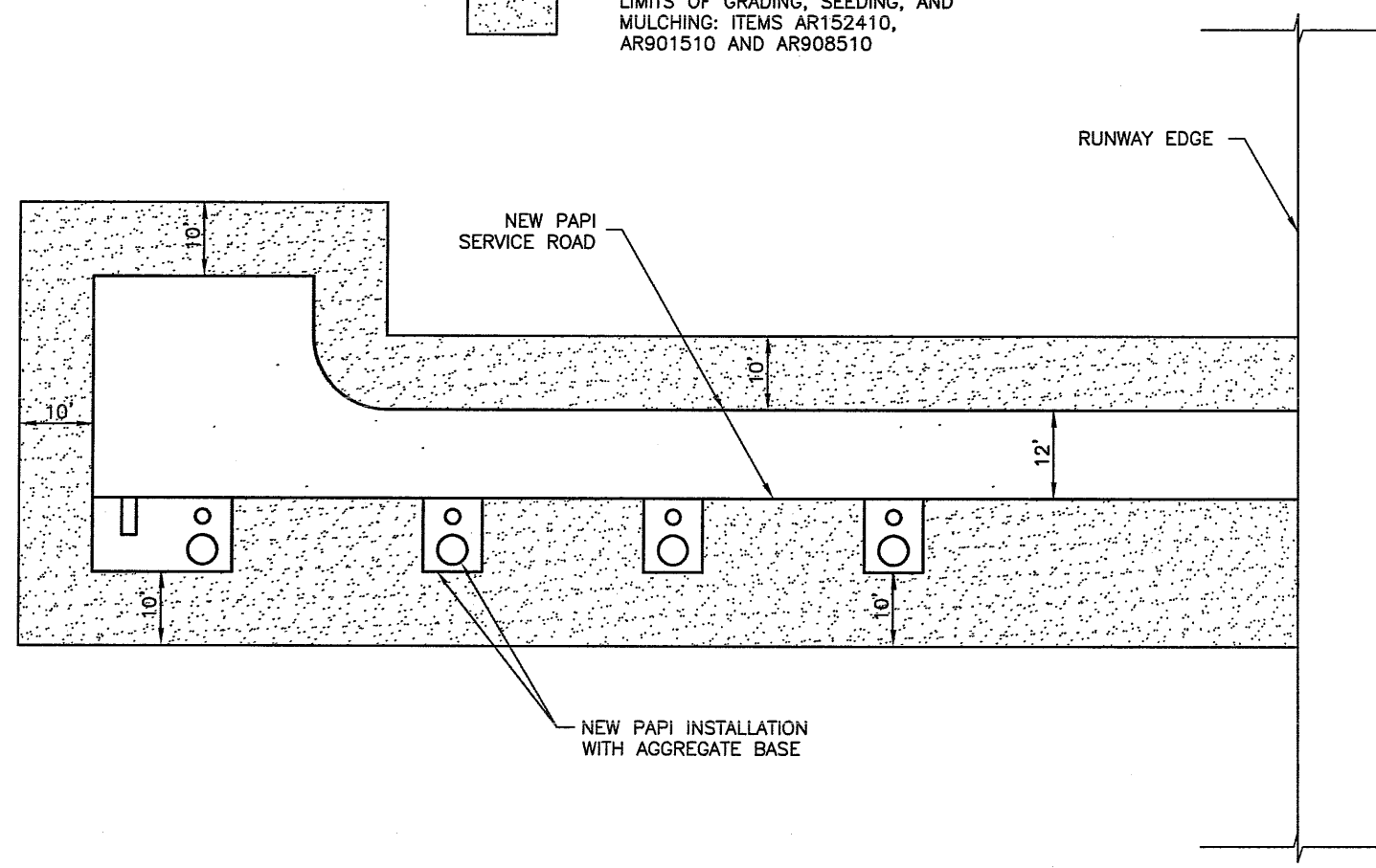
REHABILITATE U OF I RAMP AND P.C.C. PANELS  
 DRAINAGE DETAILS

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DATE:	04-16-2010
JOB No:	0905903
IL PROJ. NO.	CMI-3474
AIP PROJ. NO.	3-17-0016-XX
SHEET	39 OF 49 SHEETS

**LEGEND**

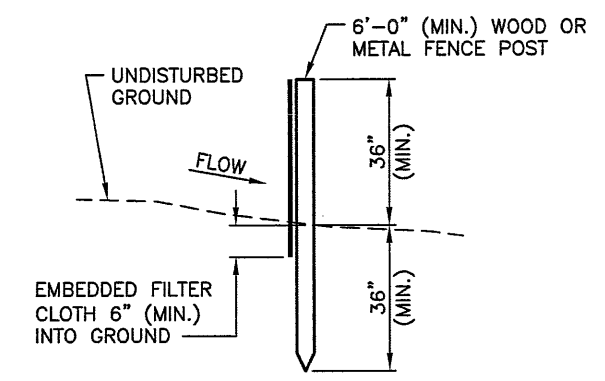
 LIMITS OF GRADING, SEEDING, AND MULCHING: ITEMS AR152410, AR901510 AND AR908510



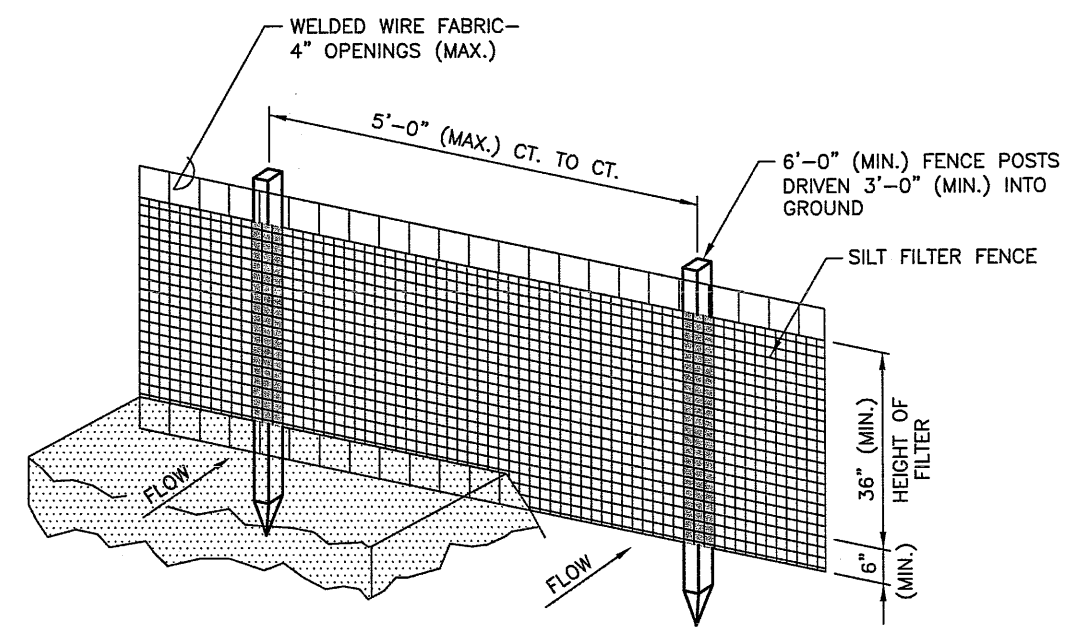
**PAPI TURFING DETAIL – RUNWAY 14L APPROACH**  
 N.T.S.

**NOTES**

1. RESTORATION AND TURFING OF DISTURBED AREAS BEYOND LIMITS SHOWN (SUCH AS CABLING, VASI REMOVAL, ACCESS, STAGING, ETC.) SHALL BE INCIDENTAL TO THE PROJECT.
2. CONTRACTOR SHALL USE SOIL EXCAVATED FOR THE AGGREGATE BASE FOR EMBANKMENT AROUND THE NEW PAPI BASES AND SERVICE ROAD WITHIN THE GRADING LIMITS SHOWN. EXCESS EXCAVATION SHALL BE HAULED OFF-SITE.
3. FOR PAPI ON RUNWAY 32R APPROACH, EXISTING ILS ACCESS ROAD SHALL BE USED IN PLACE OF A NEW PAPI SERVICE ROAD AS SHOWN IN THIS DETAIL. HOWEVER, SEEDING AND MULCHING SHALL BE PAID FOR AS DETAILED, 10' FROM ROADWAY.



**SECTION**



**PERSPECTIVE VIEW**

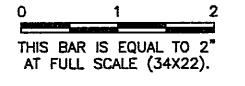
**EROSION CONTROL FABRIC FENCE DETAIL**  
 N.T.S.

**NOTES**

1. WELDED WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WELDED WIRE FENCE WITH TIES SPACED EVERY 12".
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY 6" MINIMUM AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE. MAINTENANCE, WHICH INCLUDES THE REPLACEMENT OF DAMAGED FENCE, SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE EROSION CONTROL FENCE.

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 EROSION CONTROL DETAILS

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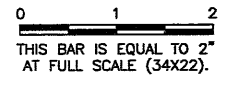
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APPROVED BY:	CET
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JOB No:	0905903
IL PROJ. NO.	CM1-3474
AIP PROJ. NO.	3-17-0016-XX
SHEET	40 OF 49 SHEETS



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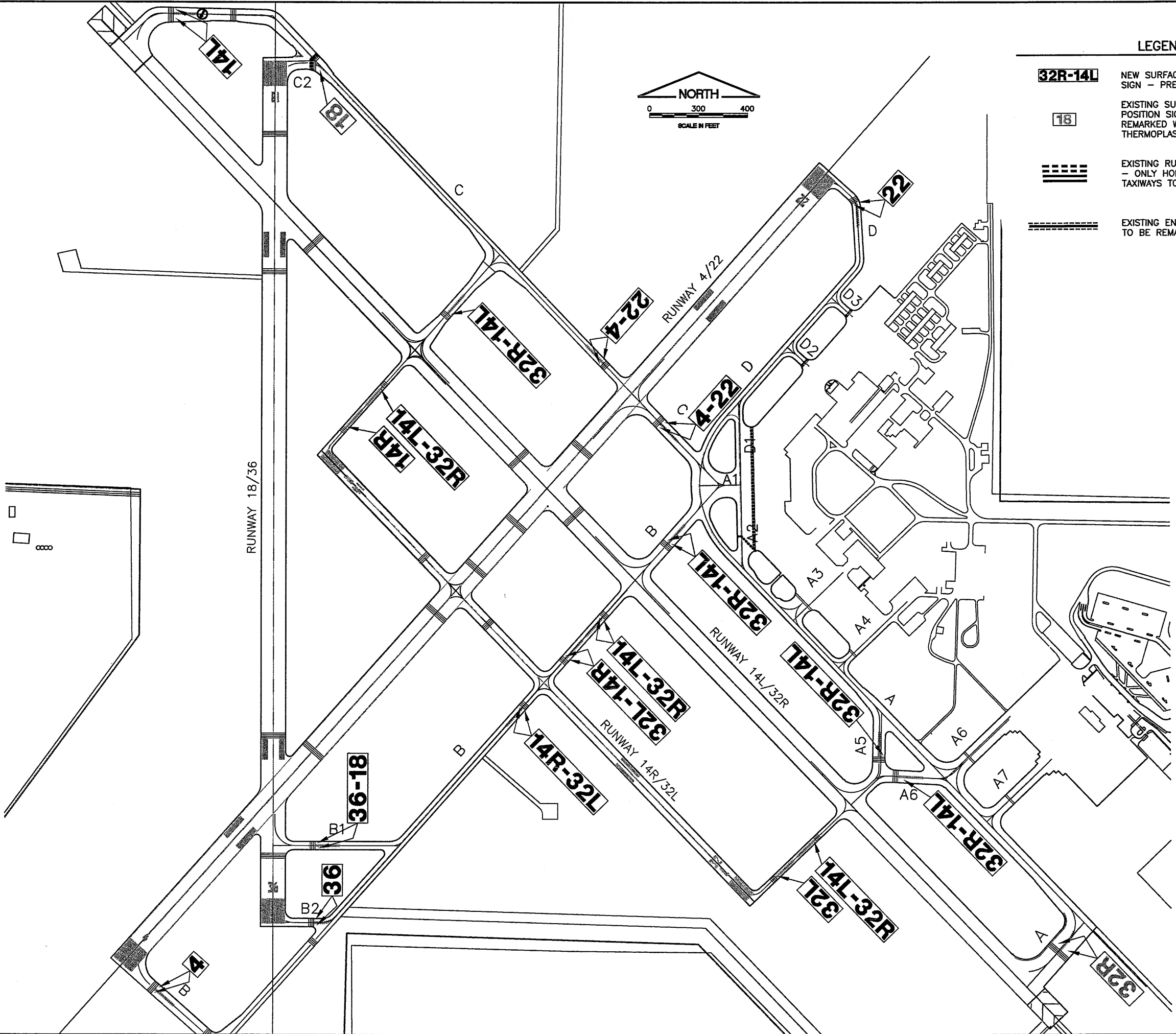
REVISIONS

NUMBER	BY	DATE



**LEGEND**

- 32R-14L** NEW SURFACE PAINTED HOLD POSITION SIGN - PREFORMED THERMOPLASTIC
- 18** EXISTING SURFACE PAINTED HOLD POSITION SIGN - TO BE REMOVED AND REMARKED WITH PREFORMED THERMOPLASTIC
- EXISTING RUNWAY HOLD POSITION SIGN - ONLY HOLD POSITION SIGNS ON TAXIWAYS TO BE REMARKED
- EXISTING ENHANCED TAXIWAY CENTERLINE TO BE REMARKED



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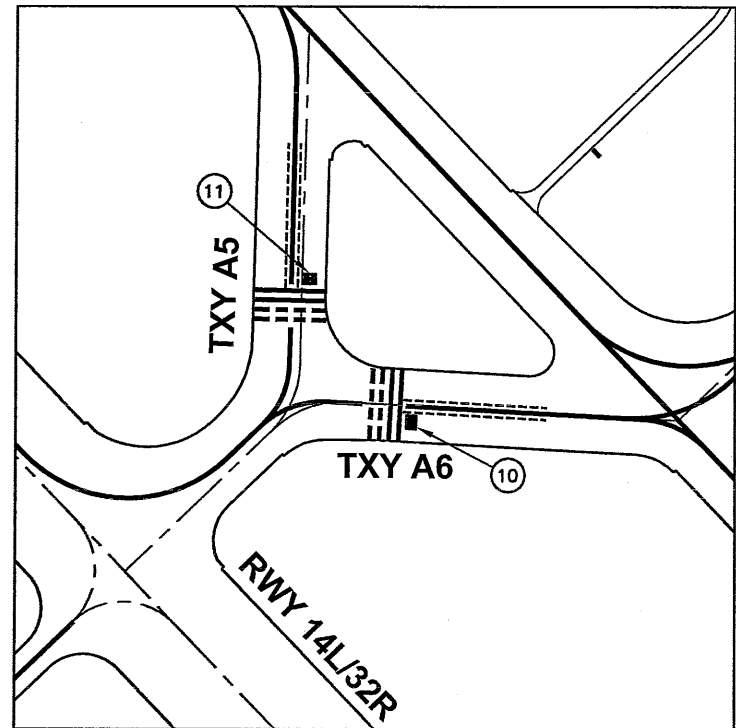
REHABILITATE U OF I RAMP AND P.C.C. PANELS  
 SURFACE PAINTED HOLD POSITION SIGNS  
 SITE PLAN INDEX

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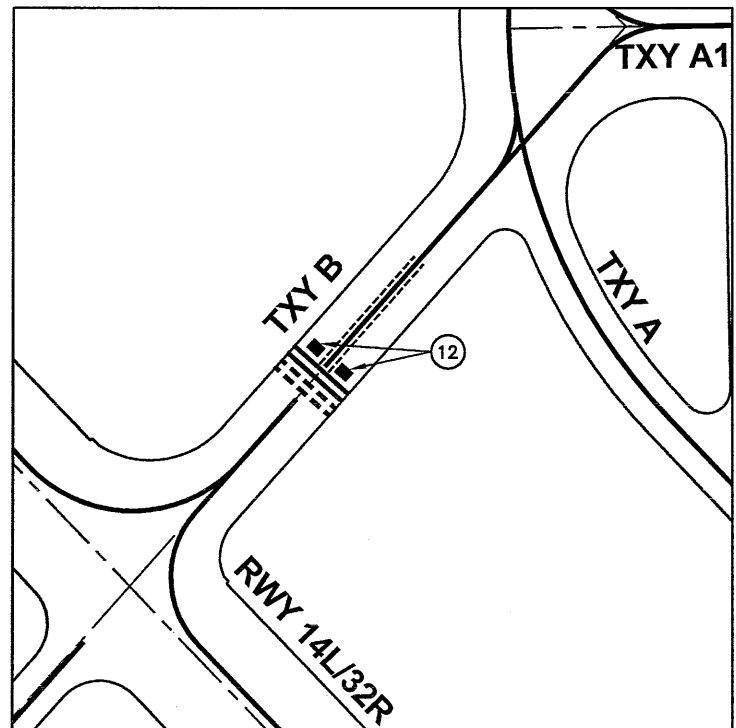


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JOB No:	0905903

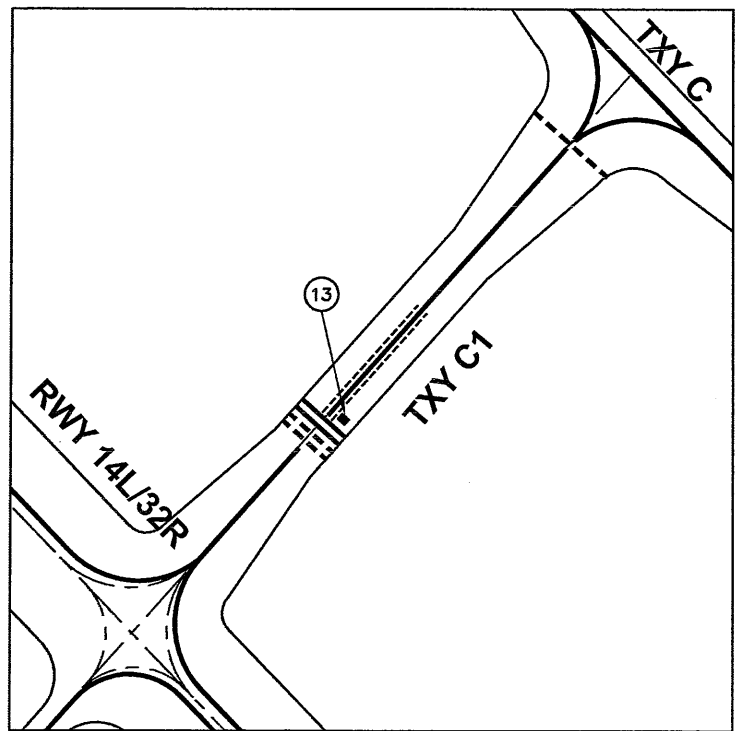
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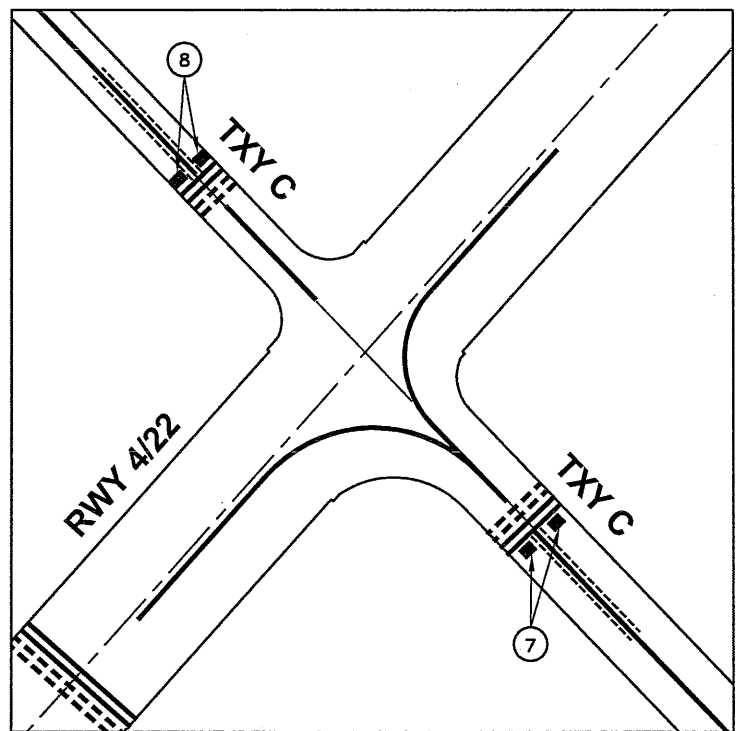
TAXIWAY A5 & A6 - RUNWAY 14L/32R



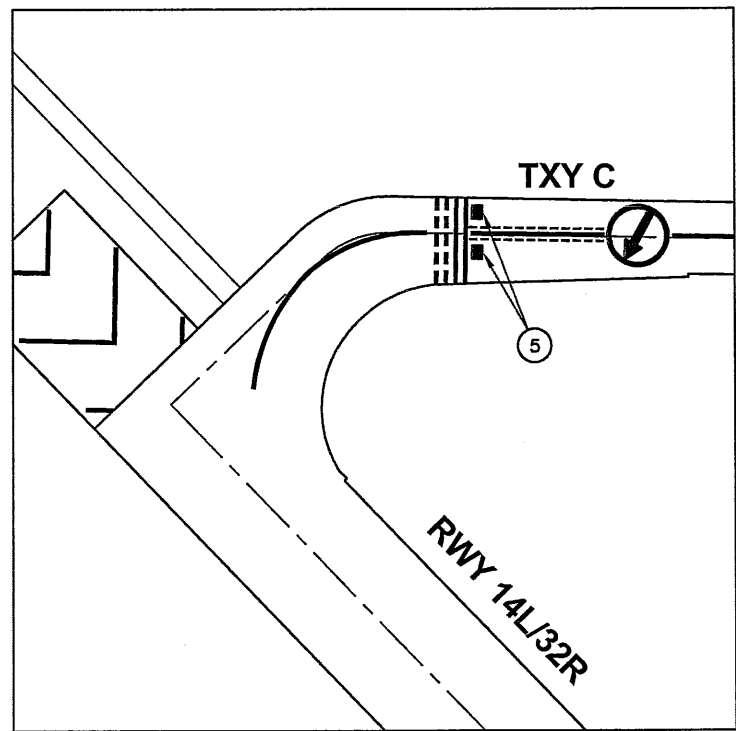
TAXIWAY B - RUNWAY 14L/32R



TAXIWAY C1 - RUNWAY 14L/32R



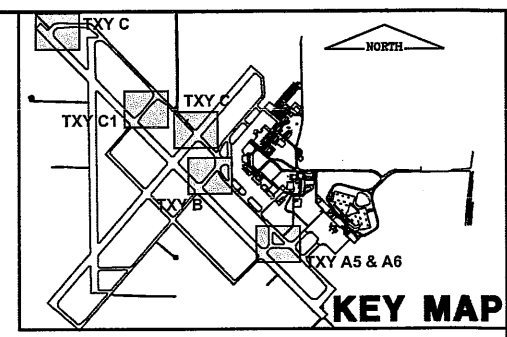
TAXIWAY C - RUNWAY 4/22



TAXIWAY C - RUNWAY 14L/32R

**NOTES:**

1. THE SURFACE PAINTED HOLD POSITION MARKINGS SHOWN ARE USED TO EXPRESS THE APPROXIMATE LOCATIONS. SEE MARKING DETAILS AND MARKING SCHEDULE FOR MARKING DIMENSIONS AND LOCATIONS.
2. ALL SURFACE PAINTED HOLD POSITION MARKINGS PLACED SHALL CONFORM TO THE REGULATIONS SET FORTH IN THE FAA ADVISORY CIRCULAR AC 150/5340-1, LATEST ISSUE.



**LEGEND**

- MARKING NUMBER - SEE DETAILS AND SCHEDULE FOR FURTHER INFORMATION
- NEW SURFACE PAINTED HOLD POSITION MARKING
- EXISTING RUNWAY HOLD POSITION LINE - TO BE REMARKED
- EXISTING ENHANCED TAXIWAY CENTERLINE - TO BE REMARKED

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 MARKING-WRONG COORD  
 Mark  
 2005

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NUMBER	BY	DATE

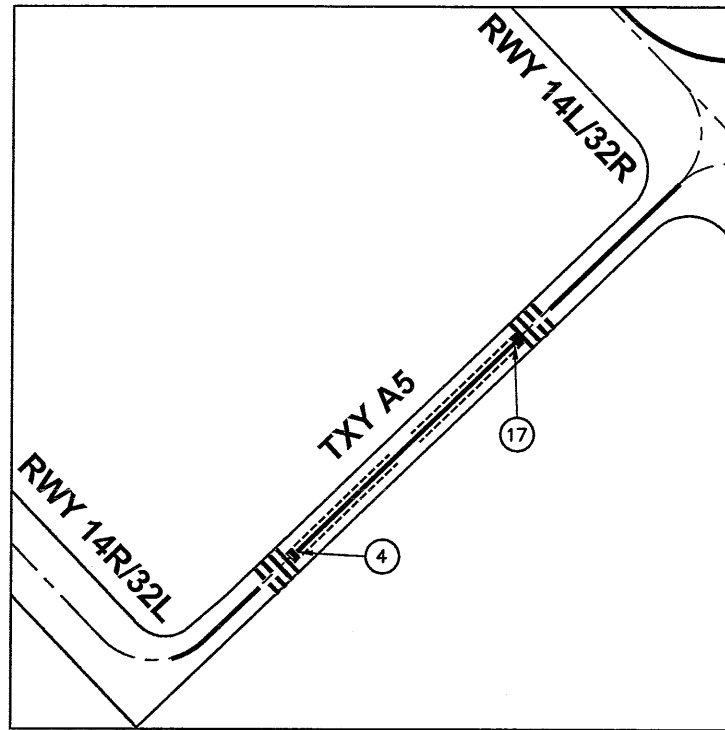
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 AT FULL SCALE (34x22).

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UNIVERSITY OF ILLINOIS

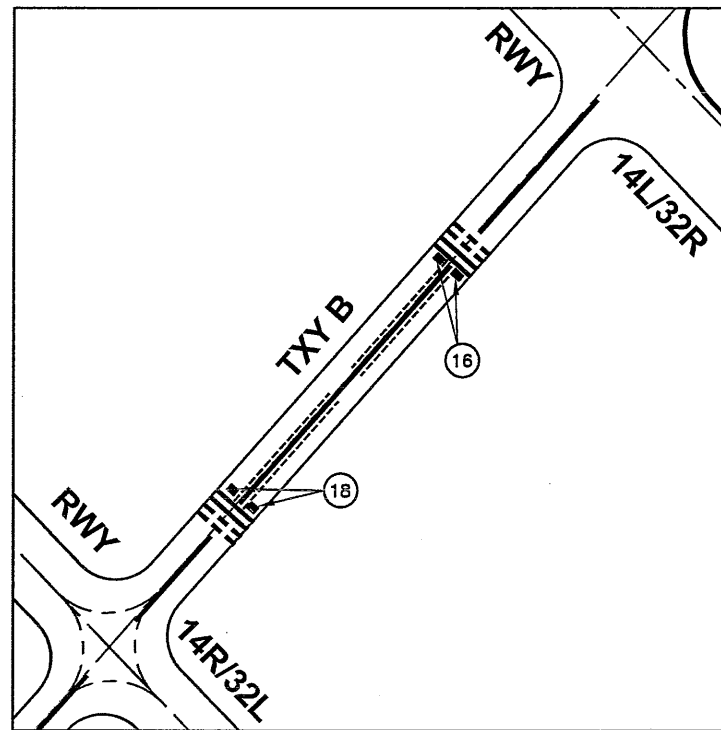
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MARKING PLAN 1 -  
SURFACE PAINTED HOLD POSITION SIGNS

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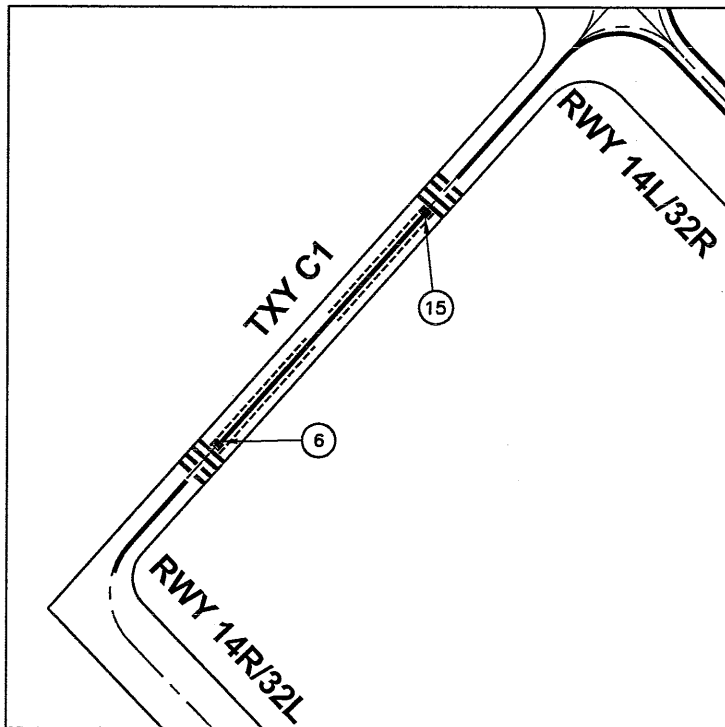
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IL PROJ. NO. CMI-3474 AIP PROJ. NO. 3-17-0016-XX	
SHEET 42 OF 49 SHEETS	



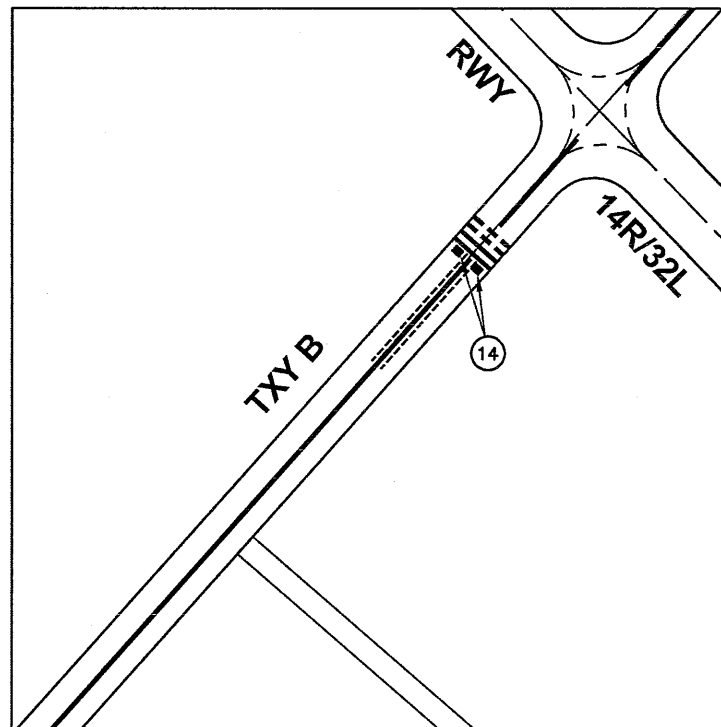
TAXIWAY A5 - RUNWAY 14L/32R & 14R/32L



TAXIWAY B - RUNWAY 14L/32R & 14R/32L



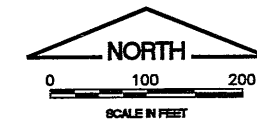
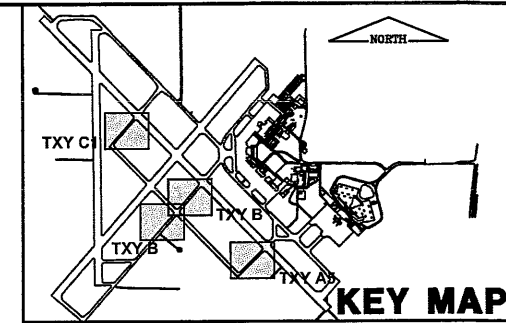
TAXIWAY C1 - RUNWAY 14L/32R & 14R/32L



TAXIWAY B - RUNWAY 14R/32L

**NOTES:**

1. THE SURFACE PAINTED HOLD POSITION MARKINGS SHOWN ARE USED TO EXPRESS THE APPROXIMATE LOCATIONS. SEE MARKING DETAILS AND MARKING SCHEDULE FOR MARKING DIMENSIONS AND LOCATIONS.
2. ALL SURFACE PAINTED HOLD POSITION MARKINGS PLACED SHALL CONFORM TO THE REGULATIONS SET FORTH IN THE FAA ADVISORY CIRCULAR AC 150/5340-1, LATEST ISSUE.



**LEGEND**

- MARKING NUMBER - SEE DETAILS AND SCHEDULE FOR FURTHER INFORMATION
- NEW SURFACE PAINTED HOLD POSITION MARKING
- EXISTING RUNWAY HOLD POSITION LINE - TO BE REMARKED
- EXISTING ENHANCED TAXIWAY CENTERLINE - TO BE REMARKED

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 2005

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REVISIONS

NUMBER	BY	DATE

0 1 2  
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 AT FULL SCALE (34X22).

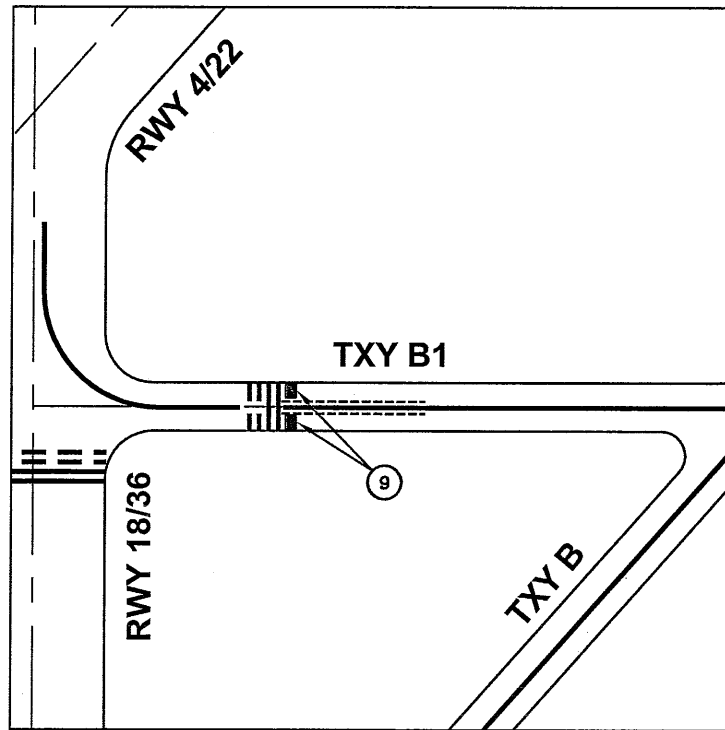
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 MARKING PLAN 2 -  
 SURFACE PAINTED HOLD POSITION SIGNS

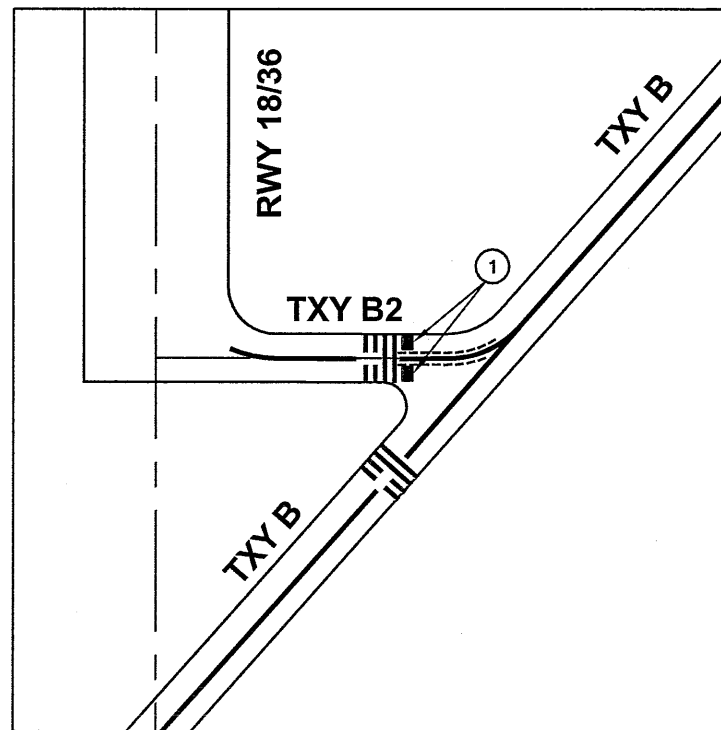
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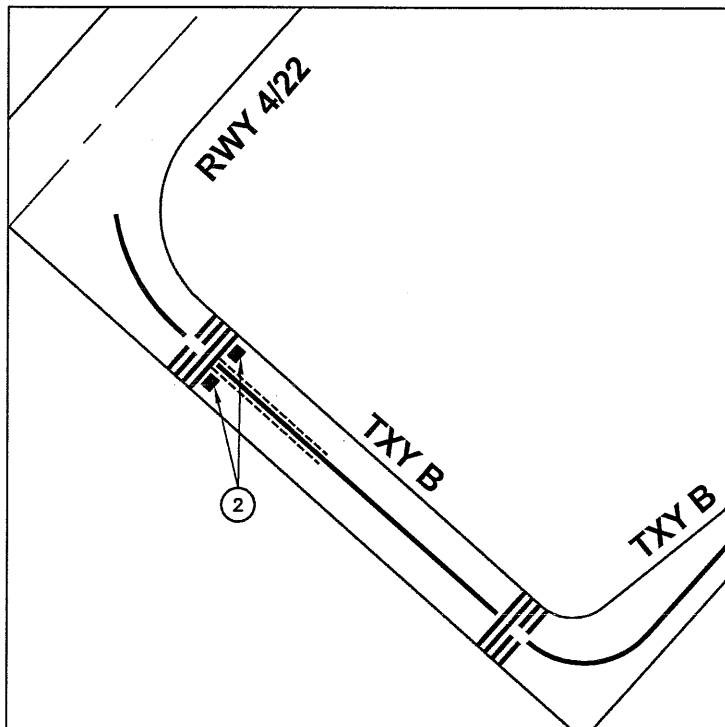
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SHEET	43 OF 49 SHEETS



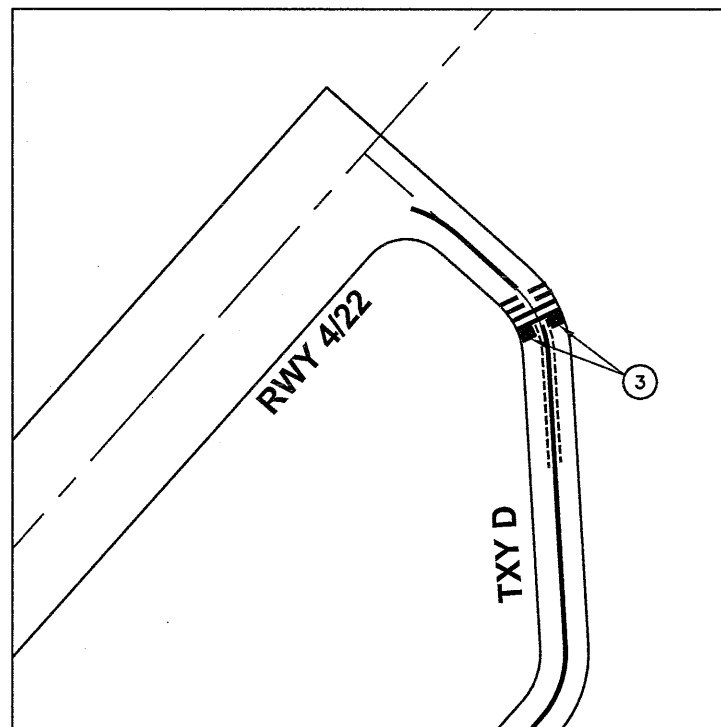
**TAXIWAY B1 - RUNWAY 18/36**



**TAXIWAY B2 - RUNWAY 18/36**



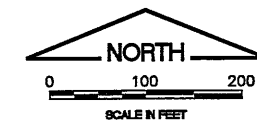
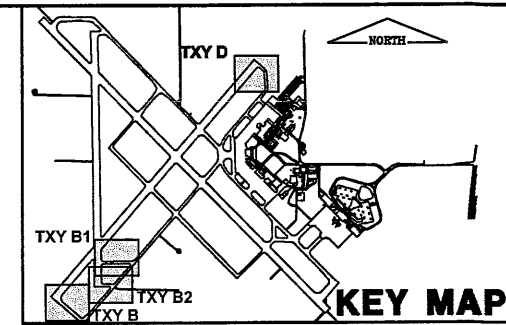
**TAXIWAY B - RUNWAY 4/22**



**TAXIWAY D - RUNWAY 4/22**

**NOTES:**

1. THE SURFACE PAINTED HOLD POSITION MARKINGS SHOWN ARE USED TO EXPRESS THE APPROXIMATE LOCATIONS. SEE MARKING DETAILS AND MARKING SCHEDULE FOR MARKING DIMENSIONS AND LOCATIONS.
2. ALL SURFACE PAINTED HOLD POSITION MARKINGS PLACED SHALL CONFORM TO THE REGULATIONS SET FORTH IN THE FAA ADVISORY CIRCULAR AC 150/5340-1, LATEST ISSUE.



**LEGEND**

- MARKING NUMBER - SEE DETAILS AND SCHEDULE FOR FURTHER INFORMATION
- NEW SURFACE PAINTED HOLD POSITION MARKING
- EXISTING RUNWAY HOLD POSITION LINE - TO BE REMARKED
- EXISTING ENHANCED TAXIWAY CENTERLINE - TO BE REMARKED

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 MARKING-WRONG COORD  
 Mark  
 2005

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**REVISIONS**

NUMBER	BY	DATE

0 1 2  
 THIS BAR IS EQUAL TO 2"  
 AT FULL SCALE (34x22).

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 MARKING PLAN 3 -  
 SURFACE PAINTED HOLD POSITION SIGNS

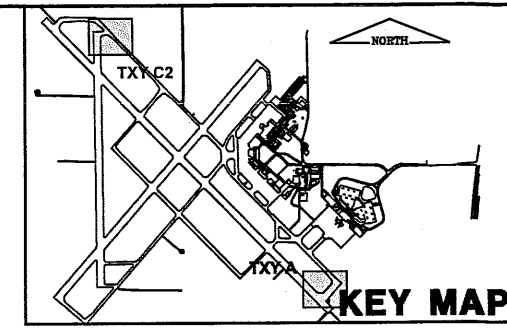
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SHEET	44 OF 49 SHEETS

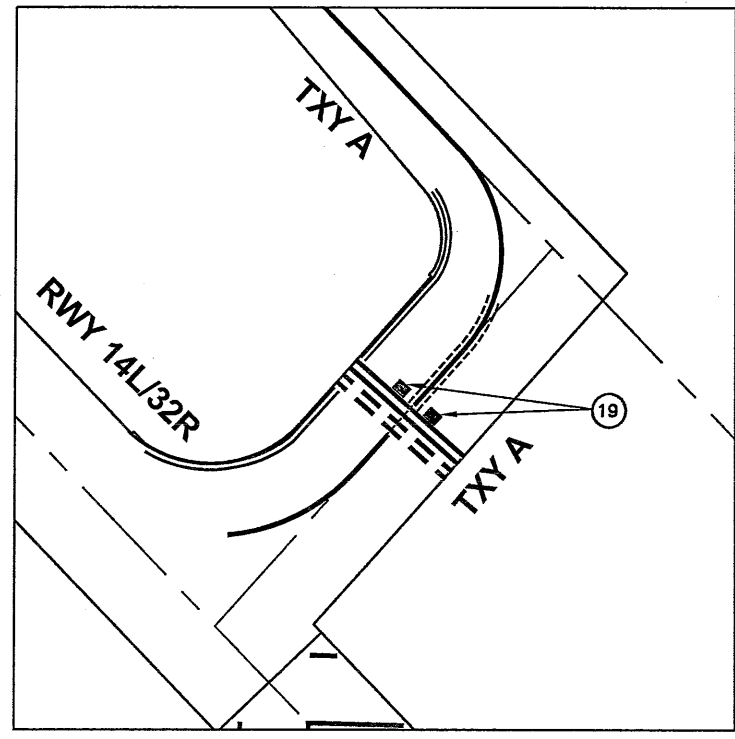
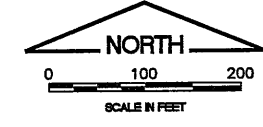
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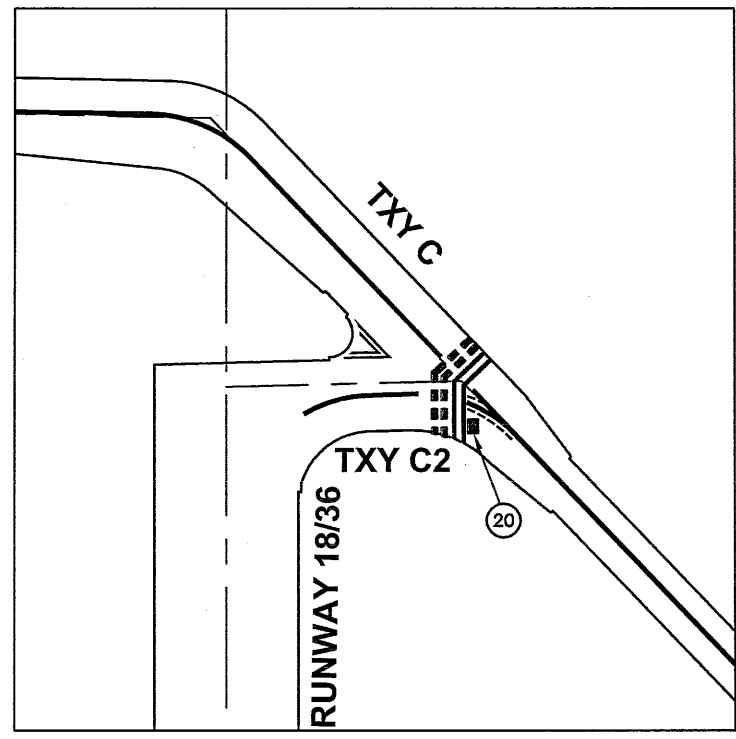
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 THIS BAR IS EQUAL TO 2"  
 AT FULL SCALE (34X22).



- NOTES:**
1. AT THESE TWO LOCATIONS THE EXISTING SURFACE PAINTED HOLD POSITION SIGNS SHALL BE REMOVED BEFORE MARKING THE NEW PREFORMED THERMOPLASTIC PAVEMENT MARKINGS.
  2. THE SURFACE PAINTED HOLD POSITION MARKINGS SHOWN ARE USED TO EXPRESS THE APPROXIMATE LOCATIONS. SEE MARKING DETAILS AND MARKING SCHEDULE FOR MARKING DIMENSIONS AND LOCATIONS.
  3. ALL SURFACE PAINTED HOLD POSITION MARKINGS PLACED SHALL CONFORM TO THE REGULATIONS SET FORTH IN THE FAA ADVISORY CIRCULAR AC 150/5340-1, LATEST ISSUE.



**TAXIWAY A - RUNWAY 14L/32R**



**TAXIWAY C2 - RUNWAY 18/36**

**LEGEND**

	MARKING NUMBER - SEE DETAILS AND SCHEDULE FOR FURTHER INFORMATION
	EXISTING SURFACE PAINTED HOLD POSITION MARKING - TO BE REMOVED AND REMARKED WITH PREFORMED THERMOPLASTIC MARKINGS
	EXISTING RUNWAY HOLD POSITION LINE - TO BE REMARKED
	EXISTING ENHANCED TAXIWAY CENTERLINE - TO BE REMARKED

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 MARKING PLAN 4 -  
 SURFACE PAINTED HOLD POSITION SIGNS

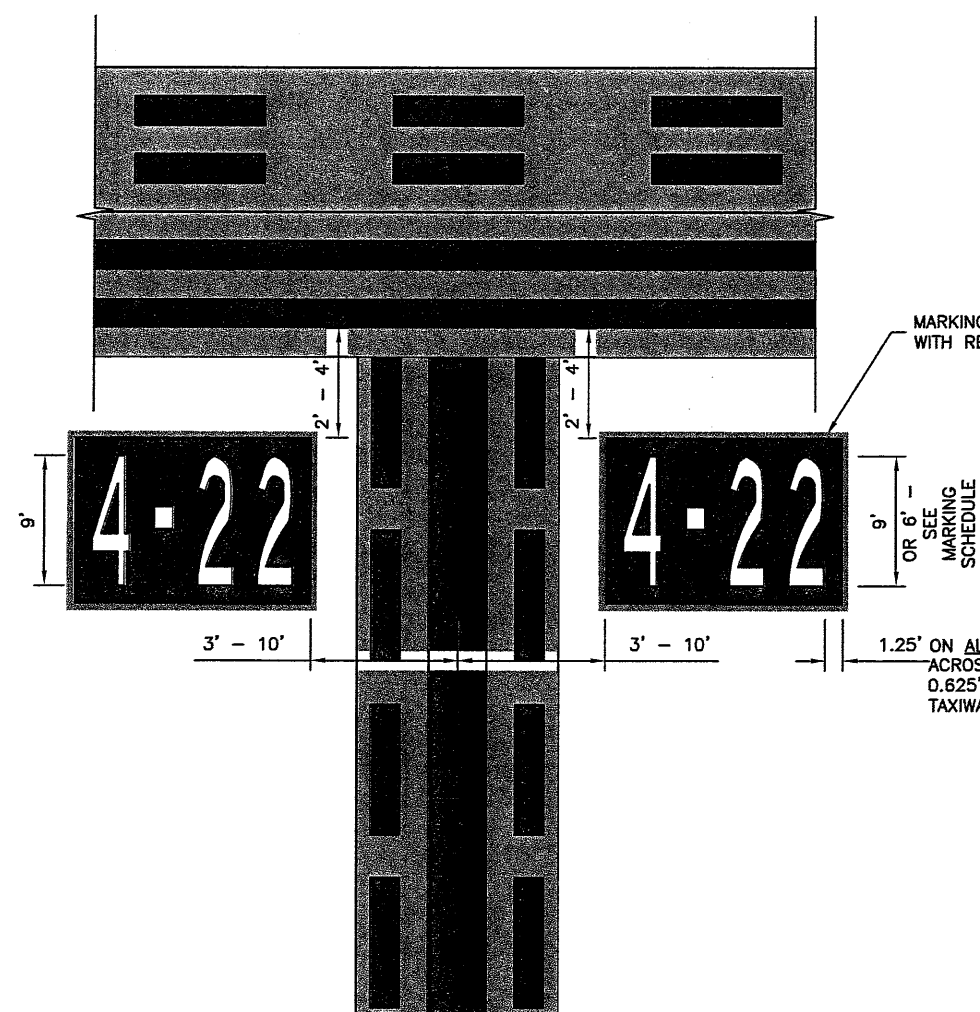
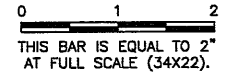
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SHEET	45 OF 49 SHEETS

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NUMBER	BY	DATE



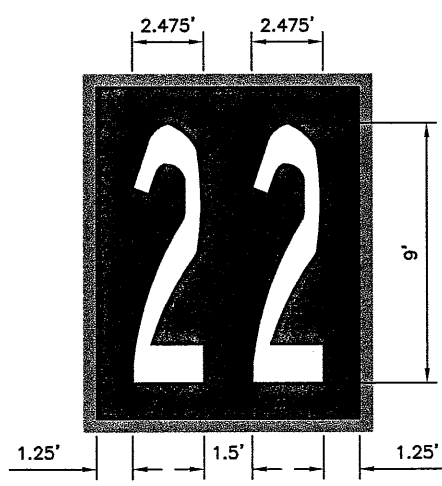
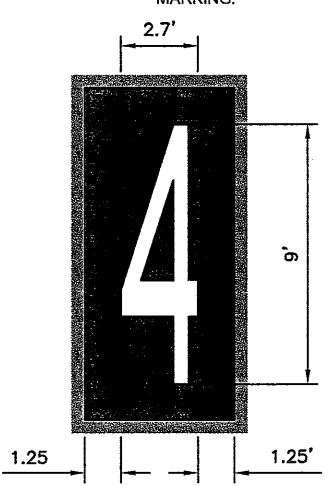
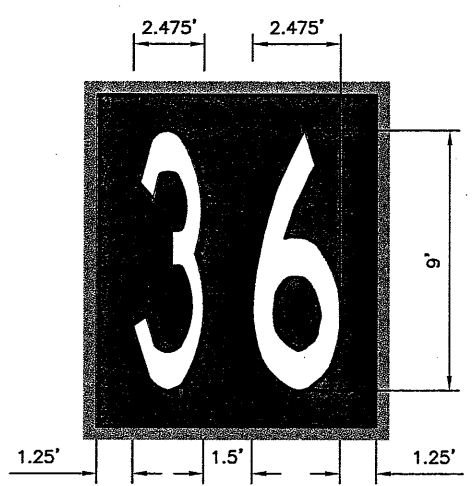
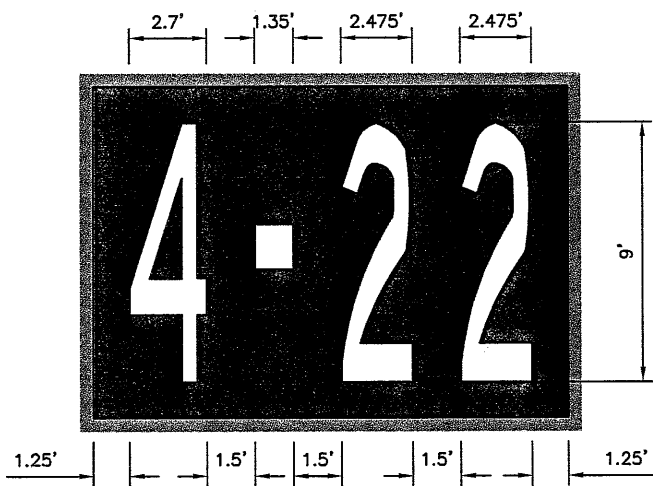
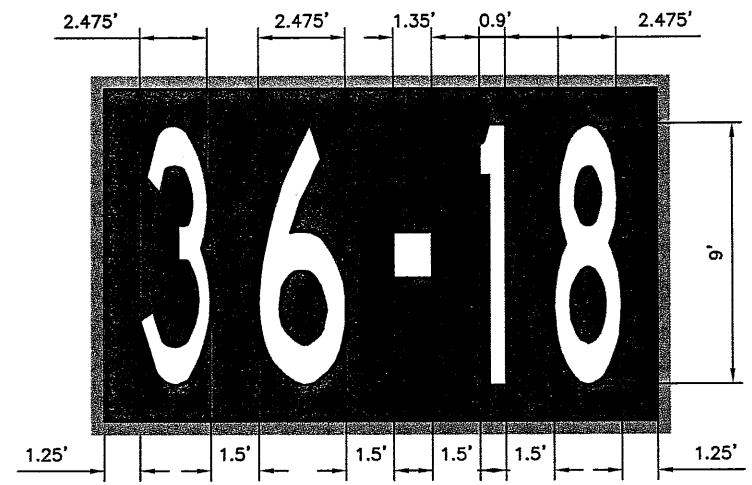
MARKINGS SHALL HAVE WHITE LETTERS WITH RED BACKGROUND AND 6" BLACK BORDER

OR 6" - SEE MARKING SCHEDULE

1.25' ON ALL SIDES AND SIZES NOT ACROSS TAXIWAY CENTERLINE 0.625' FOR SIGNS ACROSS TAXIWAY CENTERLINE

NOTES:

1. THE DASH USED WITH 9' TALL NUMBERS AND LETTERS SHALL BE 1.575' TALL AND 1.35' WIDE.
2. THE DASH USED WITH 6' TALL NUMBERS AND LETTERS SHALL BE 1.05' TALL AND 0.90' WIDE.
3. THE NUMBERS AND LETTERS USED SHALL CONFORM IN STYLE AND APPEARANCE TO THOSE USED IN APPENDIX 1 OF THE FAA AIRPORT ADVISORY CIRCULAR 150/5340-1J.
4. ON A CURVED TAXIWAY, THE MARKING SHALL REMAIN PARALLEL TO THE HOLD LINE MARKING.
5. THE SURFACE PAINTED HOLDING POSITION MARKING SHALL BE 3' TO 10' FROM THE CENTER OF THE CENTERLINE AND AT LEAST 2' FROM THE EDGE OF THE TAXIWAY. THESE SHALL BE MEASURED TO THE CLOSEST CORNER OF THE RED BACKGROUND OF THE SURFACE PAINTED HOLDING POSITION MARKING.



SURFACE PAINTED HOLDING POSITION SIGNS

NTS

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 SURFACE PAINTED HOLD POSITION SIGNS  
 MARKING DETAILS 1

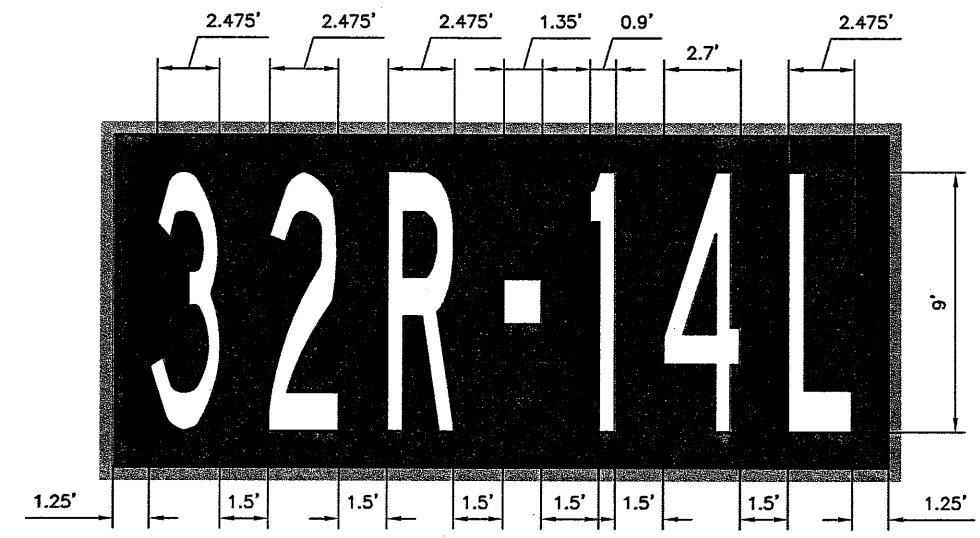
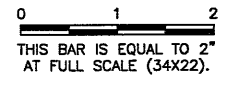
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IL PROJ. NO.	CMI-3474
AIP PROJ. NO.	3-17-0016-XX
SHEET	46 OF 49 SHEETS

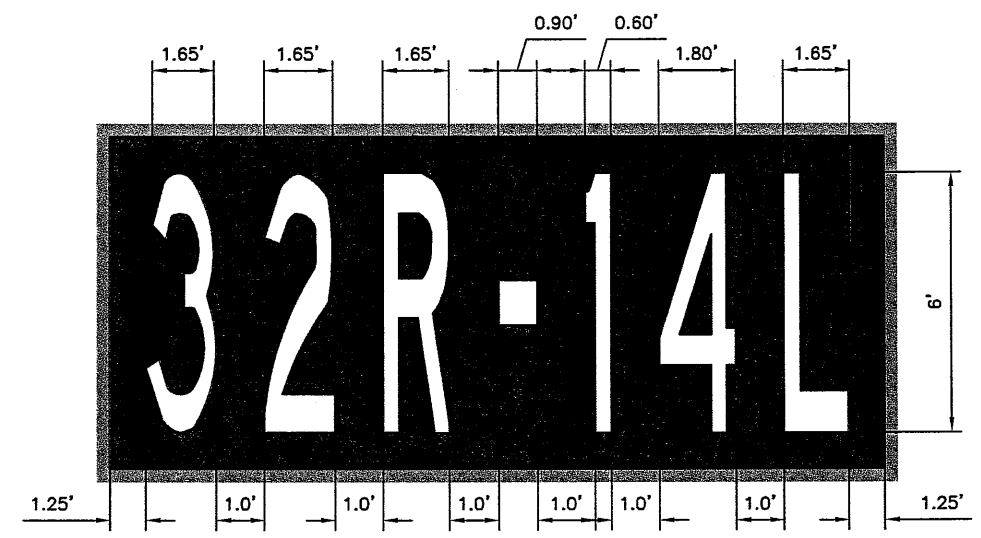
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REVISIONS

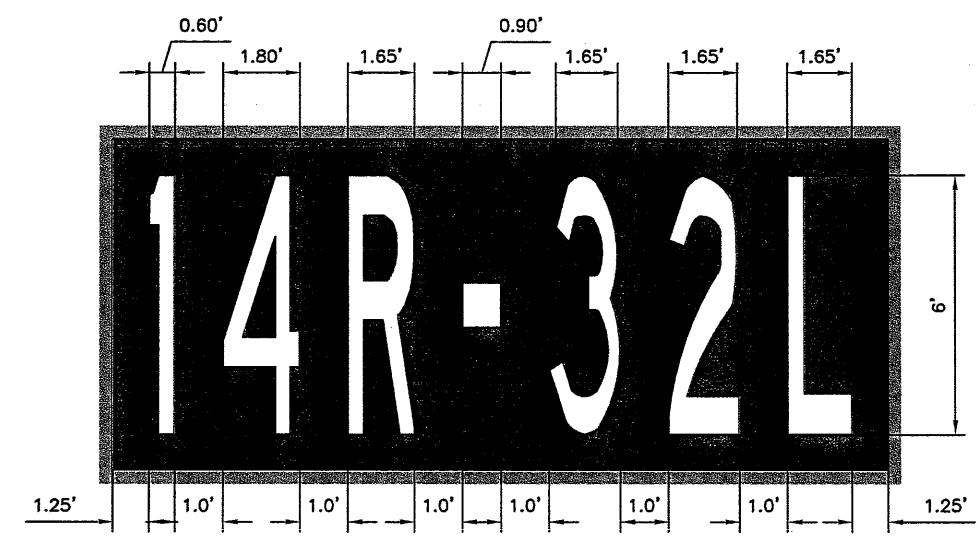
NUMBER	BY	DATE



9' LETTERS & NUMBERS SIGN  
 NTS



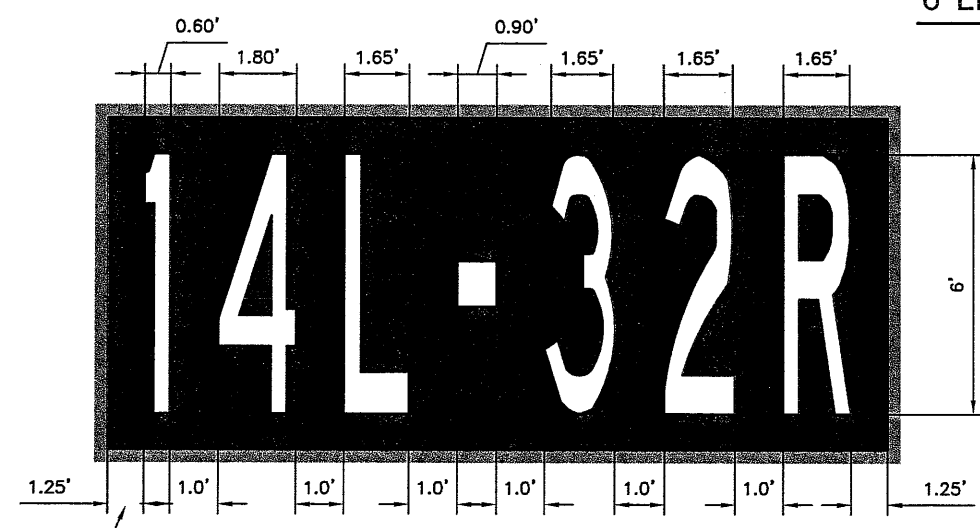
6' LETTERS & NUMBERS SIGN  
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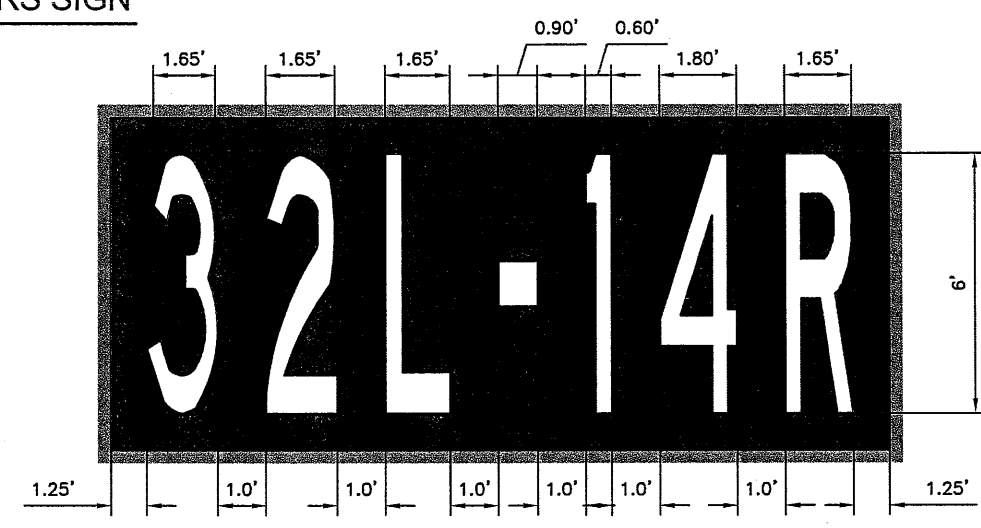
6' LETTERS & NUMBERS SIGN  
 NTS

NOTES:

1. THE DASH USED WITH 9' TALL NUMBERS AND LETTERS SHALL BE 1.575' TALL AND 1.35' WIDE.
2. THE DASH USED WITH 6' TALL NUMBERS AND LETTERS SHALL BE 1.05' TALL AND 0.90' WIDE.
3. THE NUMBERS AND LETTERS USED SHALL CONFORM IN STYLE AND APPEARANCE TO THOSE USED IN APPENDIX 1 OF THE FAA AIRPORT ADVISORY CIRCULAR 150/5340-1J.
4. ON A CURVED TAXIWAY, THE MARKING SHALL REMAIN PARALLEL TO THE HOLD LINE MARKING.
5. THE SURFACE PAINTED HOLDING POSITION MARKING SHALL BE 3' TO 10' FROM THE CENTER OF THE CENTERLINE AND AT LEAST 2' FROM THE EDGE OF THE TAXIWAY. THESE SHALL BE MEASURED TO THE CLOSEST CORNER OF THE RED BACKGROUND OF THE SURFACE PAINTED HOLDING POSITION MARKING.



6' LETTERS & NUMBERS SIGN  
 NTS



6' LETTERS & NUMBERS SIGN  
 NTS

0.625' FOR MARKINGS  
 ACROSS TAXIWAY  
 CENTERLINE

SURFACE PAINTED HOLDING POSITION SIGNS  
 NTS

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 SURFACE PAINTED HOLD POSITION SIGNS  
 MARKING DETAILS 2

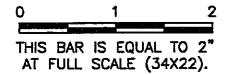
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SHEET	47 OF 49 SHEETS

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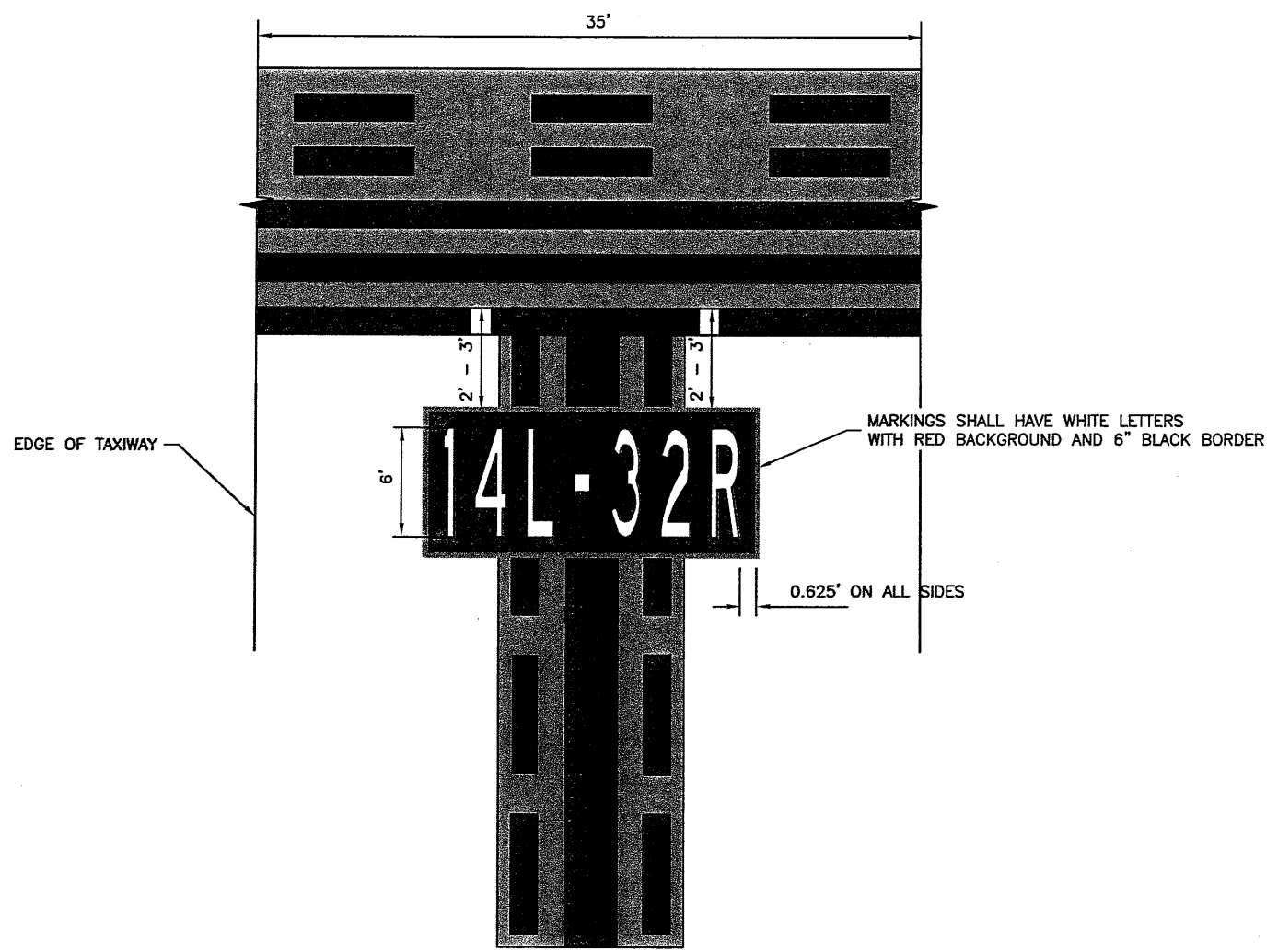
REVISIONS

NUMBER	BY	DATE

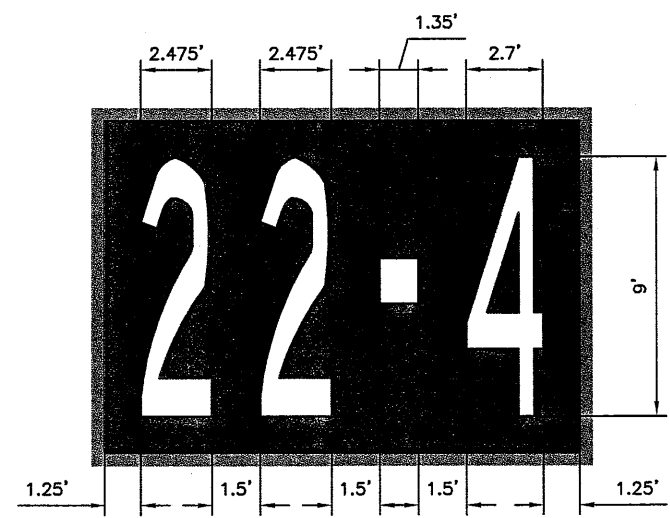


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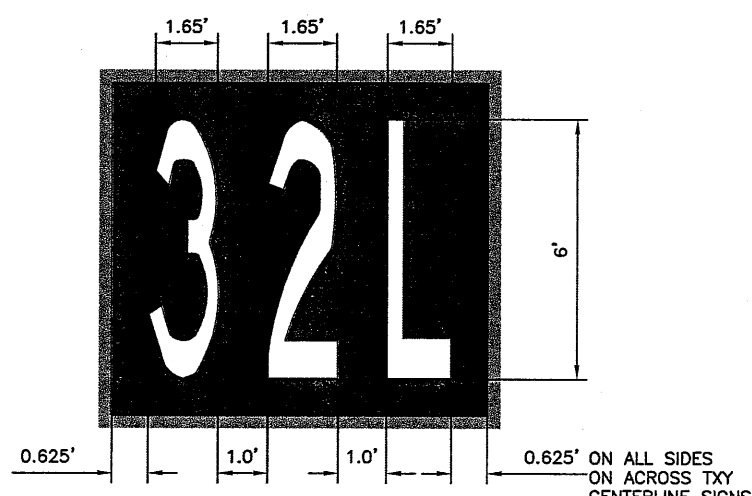
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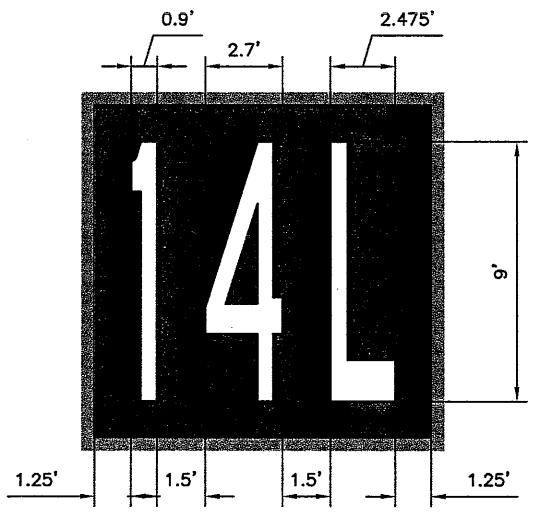
ACROSS TAXIWAY CENTERLINE MARKING DETAIL  
 NTS



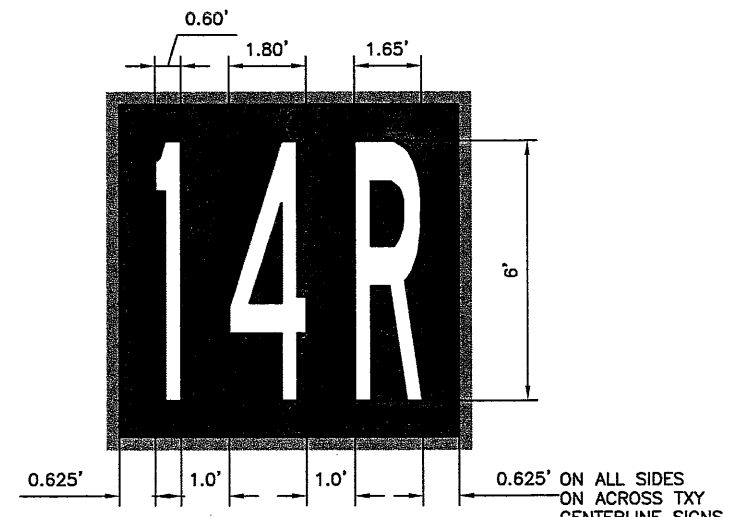
9' LETTERS & NUMBERS SIGN  
 NTS



6' LETTERS & NUMBERS SIGN  
 NTS



9' LETTERS & NUMBERS SIGN  
 NTS



6' LETTERS & NUMBERS SIGN  
 NTS

SURFACE PAINTED HOLDING POSITION SIGNS  
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 MARKING DETAILS 3

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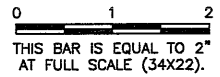
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REVISIONS

NUMBER	BY	DATE



SURFACE PAINTED HOLDING POSITION SIGNS MARKING SCHEDULE								
MARK #	MARKING LEGEND	TAXIWAY HOLDING SHORT	LOCATION ON TAXIWAY	WHITE LEGEND ON RED BACKGROUND WITH BLACK BORDER	NUMBER OF CHARACTERS	MARKING DIMENSION	RUNWAY HOLDING	NOTES
1	36	TAXIWAY B2	BOTH SIDES OF TXY CENTERLINE	36	2	12.5' H X 10.0' W	RWY 18/36	NEW HOLDING POSITION MARKING
2	4	TAXIWAY B	BOTH SIDES OF TXY CENTERLINE	4	1	12.5' H X 6.2' W	RWY 4/22	NEW HOLDING POSITION MARKING
3	22	TAXIWAY D	BOTH SIDES OF TXY CENTERLINE	22	2	12.5' H X 10.0' W	RWY 4/22	NEW HOLDING POSITION MARKING
4	32L	TAXIWAY A5	ACROSS TXY CENTERLINE	32L	3	8.3' H X 8.3' W	RWY 14R/32L	NEW HOLDING POSITION MARKING
5	14L	TAXIWAY C	BOTH SIDES OF TXY CENTERLINE	14L	3	12.5' H X 12.6' W	RWY 14L/32R	NEW HOLDING POSITION MARKING
6	14R	TAXIWAY C1	ACROSS TXY CENTERLINE	14R	3	8.3' H X 8.3' W	RWY 14R/32L	NEW HOLDING POSITION MARKING
7	4-22	TAXIWAY C	BOTH SIDES OF TXY CENTERLINE	4-22	4	12.5' H X 17.0' W	RWY 4/22	NEW HOLDING POSITION MARKING
8	22-4	TAXIWAY C	BOTH SIDES OF TXY CENTERLINE	22-4	4	12.5' H X 17.0' W	RWY 4/22	NEW HOLDING POSITION MARKING
9	36-18	TAXIWAY B1	BOTH SIDES OF TXY CENTERLINE	36-18	5	12.5' H X 19.2' W	RWY 18/36	NEW HOLDING POSITION MARKING
10	32R-14L	TAXIWAY A6	LEFT SIDE OF TXY CENTERLINE	32R-14L	7	12.5' H X 27.4' W	RWY 14L/32R	NEW HOLDING POSITION MARKING
11	32R-14L	TAXIWAY A5	LEFT SIDE OF TXY CENTERLINE	32R-14L	7	12.5' H X 27.4' W	RWY 14L/32R	NEW HOLDING POSITION MARKING
12	32R-14L	TAXIWAY B	BOTH SIDES OF TXY CENTERLINE	32R-14L	7	12.5' H X 27.4' W	RWY 14L/32R	NEW HOLDING POSITION MARKING
13	32R-14L	TAXIWAY C1	LEFT SIDE OF TXY CENTERLINE	32R-14L	7	9.5' H X 19.4' W	RWY 14L/32R	NEW HOLDING POSITION MARKING
14	14R-32L	TAXIWAY B	BOTH SIDES OF TXY CENTERLINE	14R-32L	7	9.5' H X 19.4' W	RWY 14R/32L	NEW HOLDING POSITION MARKING
15	14L-32R	TAXIWAY C1	ACROSS TXY CENTERLINE	14L-32R	7	8.3' H X 18.2' W	RWY 14L/32R	NEW HOLDING POSITION MARKING
16	14L-32R	TAXIWAY B	BOTH SIDES OF TXY CENTERLINE	14L-32R	7	9.5' H X 19.4' W	RWY 14L/32R	NEW HOLDING POSITION MARKING
17	14L-32R	TAXIWAY A5	ACROSS TXY CENTERLINE	14L-32R	7	8.3' H X 18.2' W	RWY 14L/32R	NEW HOLDING POSITION MARKING
18	32L-14R	TAXIWAY B	BOTH SIDES OF TXY CENTERLINE	32L-14R	7	9.5' H X 19.4' W	RWY 14R/32L	NEW HOLDING POSITION MARKING
19	32R	TAXIWAY A	BOTH SIDES OF TXY CENTERLINE	32R	3	12.5' H X 13.9' W	RWY 14L/32R	REMARK EXISTING HOLD POSITION SIGN
20	18	TAXIWAY C2	LEFT SIDE OF TXY CENTERLINE	18	2	12.5' H X 8.4' W	RWY 18/36	REMARK EXISTING HOLD POSITION SIGN

NOTES:

- ALL SIGNS SHALL HAVE A 6" BLACK BORDER ON ALL SIDES.
- MARKING DIMENSIONS ARE THE HEIGHT AND THE WIDTH OF THE RED BACKGROUND PLUS THE REQUIRED 6" BLACK BORDER ON ALL SIDES OF THE SURFACE PAINTED HOLDING POSITION SIGN.
- ALL NEW AND REMARKED EXISTING SURFACE PAINTED HOLDING POSITION SIGNS SHALL BE PREFORMED THERMOPLASTIC MARKINGS.
- EXISTING ENHANCED TAXIWAY CENTERLINE MARKINGS AND RUNWAY HOLD POSITION LINES WILL BE REMARKED AT THE SAME TIME THE SURFACE PAINTED HOLDING POSITION SIGNS SHALL BE MARKED. THESE MARKINGS SHALL BE REMARKED IN ACCORDANCE WITH THE ITEM 620 AND WILL NOT BE PREFORMED THERMOPLASTIC MARKINGS.

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SURFACE PAINTED HOLD POSITION SIGNS  
MARKING SCHEDULE

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