

# CHICAGO EXECUTIVE AIRPORT WHEELING/PROSPECT HEIGHTS, ILLINOIS

## CONSTRUCTION PLANS FOR CHICAGO EXECUTIVE AIRPORT



### REHAB RUNWAY 34 HOLD APRON

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

ILLINOIS PROJECT: PWK-4181  
A.I.P. PROJECT: 3-17-0018-B47

DATE: APRIL 20, 2012

DESIGN AIRCRAFT: D III (GULFSTREAM 550)  
GROUND FREQUENCY: 121.7  
TOWER FREQUENCY: 119.9  
MAXIMUM EQUIPMENT HEIGHT = 25'

**CHICAGO EXECUTIVE AIRPORT**

TOWNSHIP: 42 NORTH      WHEELING TOWNSHIP  
RANGE: 11 EAST      SECTION: 13  
COOK COUNTY

**CMT**  
CRAWFORD MURPHY & TILLY, INC.  
CONSULTING ENGINEERS

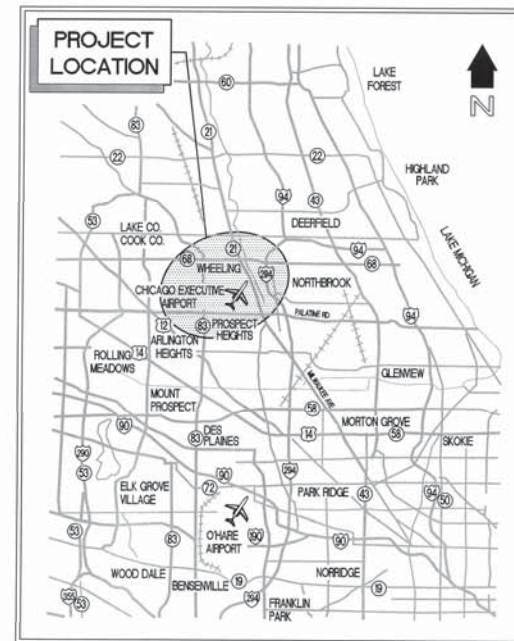
11290 0500  
MARC L. KATZ  
062-080385  
SITE OF ILLINOIS

SUBMITTED BY: [Signature]  
DATE: 4/26/2012

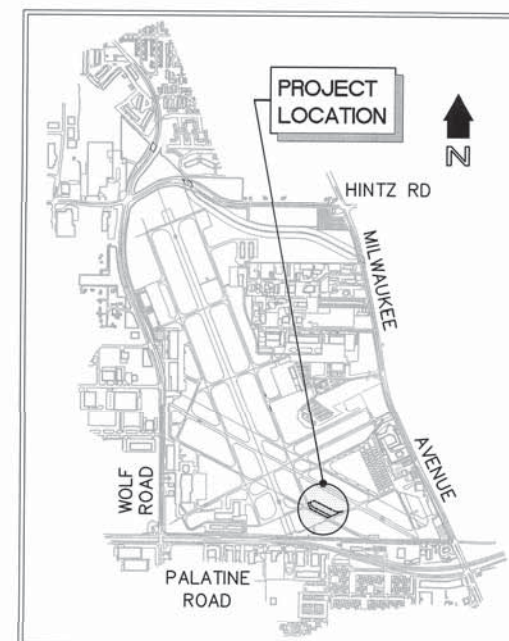
**CHICAGO EXECUTIVE AIRPORT**

APPROVED: [Signature] AIRPORT MANAGER  
DENNIS G. ROULEAU

DATE: 4/26/12



LOCATION MAP



SITE PLAN

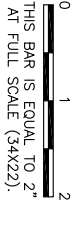
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# SUMMARY OF QUANTITIES

I.L. CONTRACT: **PA053**  
 I.L. LETTING ITEM: **11A**  
 I.L. PROJECT: **PWK-4181**  
 A.I.P. PROJECT: **3-17-0018-B47**

SURVEY BOOK # BOOK #		
NUMBER	BY	DATE



ITEM NO.	DESCRIPTION	UNIT	QUANTITY
AR108108	1/C #8 5KV UG CABLE	LF	2,290
AR110202	2" PVC DUCT, DIRECT BURY	LF	1,990
AR125415	MITL - BASE MOUNTED	EACH	22
AR125441	TAXI GUIDANCE SIGN, 1 CHARACTER	EACH	2
AR125443	TAXI GUIDANCE SIGN, 3 CHARACTER	EACH	2
AR125445	TAXI GUIDANCE SIGN, 5 CHARACTER	EACH	1
AR125461	TAXI GUIDANCE SIGN, SPECIAL	EACH	3
AR125901	REMOVE STAKE MOUNTED LIGHT	EACH	19
AR150510	ENGINEER'S FIELD OFFICE	LS	1
AR150520	MOBILIZATION	LS	1
AR152410	UNCLASSIFIED EXCAVATION	CY	2,580
AR152480	SHOULDER ADJUSTMENT	SY	220
AR152540	SOIL STABILIZATION FABRIC	SY	4,835
AR156510	SILT FENCE	LF	675
AR156520	INLET PROTECTION	EACH	8
AR208515	POROUS GRANULAR EMBANKMENT	CY	1,780
AR209604	CRUSHED AGG. BASE COURSE - 4"	SY	4,835
AR401610	BITUMINOUS SURFACE COURSE	TON	260
AR401650	BITUMINOUS PAVEMENT MILLING	SY	2,220
AR401900	REMOVE BITUMINOUS PAVEMENT	SY	4,770
AR401910	REMOVE & REPLACE BIT. PAVEMENT	SY	210
AR403610	BITUMINOUS BASE COURSE	TON	200
AR501510	10" PCC PAVEMENT	SY	4,770
AR501530	PCC TEST BATCH	EACH	1
AR603510	BITUMINOUS TACK COAT	GAL	580
AR620520	PAVEMENT MARKING - WATERBORNE	SF	1,800
AR620525	PAVEMENT MARKING - BLACK BORDER	SF	2,570
AR620595	TEMPORARY MARKING & REMOVAL	SF	525
AR620900	PAVEMENT MARKING REMOVAL	SF	1,365
AR701512	12" RCP, CLASS IV	LF	320
AR701900	REMOVE PIPE	LF	320
AR705506	6" PERFORATED UNDERDRAIN	LF	330
AR705900	REMOVE UNDERDRAIN	LF	360
AR751416	TYPE 1 INLET	EACH	3
AR751900	REMOVE INLET	EACH	3
AR800153	CONCRETE WASHOUT	LS	1
AR800154	REMOVE WOODEN TAXI GUIDANCE SIGN	EACH	9
AR901510	SEEDING	ACRE	0.30
AR908510	MULCHING	ACRE	0.30

**CHICAGO EXECUTIVE AIRPORT**  
**WHEELING/PROSPECT HEIGHTS, ILLINOIS**  
**REHAB RUNWAY 34 HOLD APRON**

**SUMMARY OF QUANTITIES**

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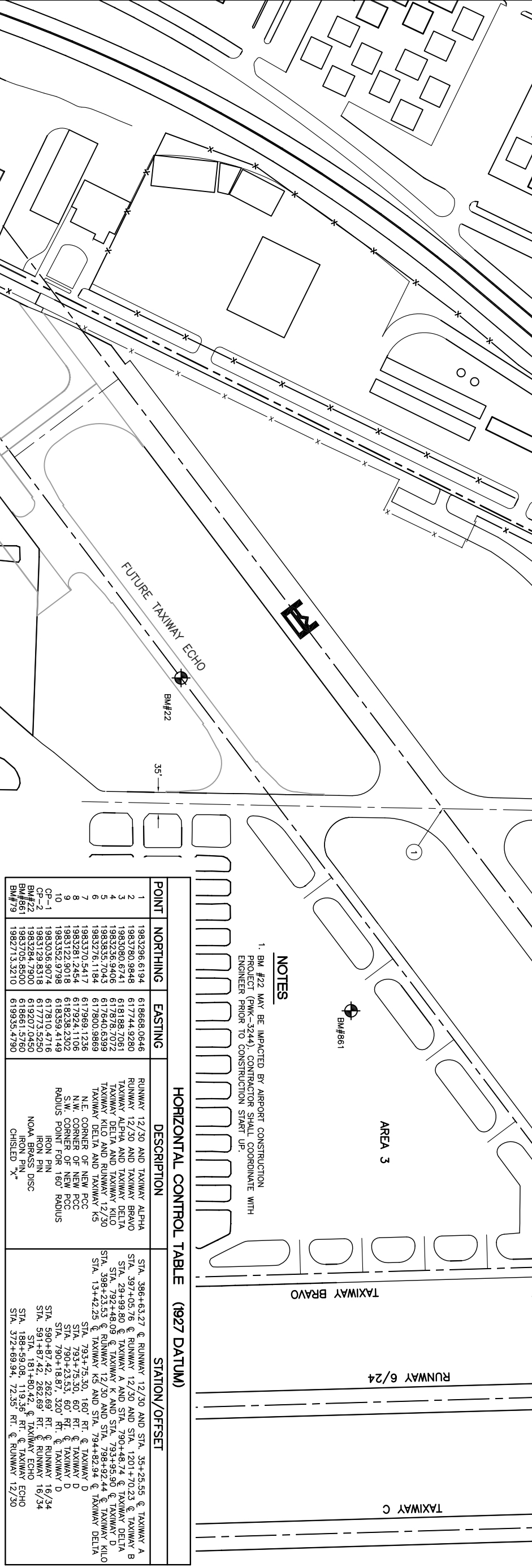
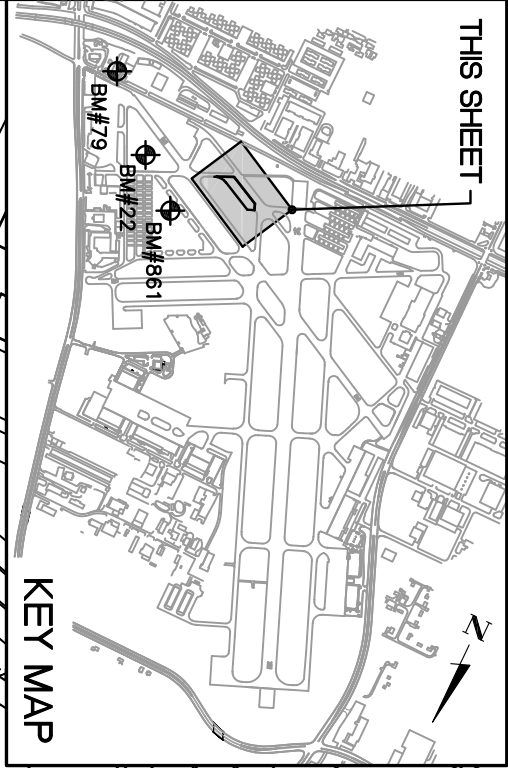
**CHICAGO EXECUTIVE AIRPORT**

DESIGN BY:	MLK
DRAWN BY:	JRO
CHECKED BY:	MLK
APPROVED BY:	DLP
DATE:	04/20/2012
JOB No:	11290-05
ILLINOIS PROJECT: PWK-4181	
A.I.P. PROJECT: 3-17-0018-B47	
SHEET 2 OF 21 SHEETS	

VERTICAL CONTROL TABLE (1929 DATUM)			
BM #	ELEVATION	LOCATION	DESCRIPTION
22	639.09	STA. 181+80.42, § TAXIWAY ECHO	NOA BRASS DISC
861	639.98	STA. 188+59.08, 119.36' RT. § TAXIWAY ECHO	IRON PIN
79	639.87	STA. 372+69.94, 72.35' RT. § RUNWAY 12/30	CHISLED "X"

**LEGEND**

	NEW 4" BITUMINOUS MILL AND REPLACEMENT
	NEW BITUMINOUS PAVEMENT REMOVAL AND 10" PCC REPLACEMENT
	NEW FULL DEPTH PAVEMENT REMOVAL AND REPLACEMENT
	EXISTING BENCHMARK
	EXISTING BUILDING
	EXISTING AIRFIELD FENCE
	AIRPORT PROPERTY LINE
	EXISTING CONTROL POINT



POINT	NORTHING	EASTING	DESCRIPTION	STATION/OFFSET
1	1983296.6194	618668.0846	RUNWAY 12/30 AND TAXIWAY ALPHA	STA. 386+63.27 § RUNWAY 12/30 AND STA. 354+25.55 § TAXIWAY A
2	1983780.9848	617744.9280	RUNWAY 12/30 AND TAXIWAY BRAVO	STA. 397+03.76 § RUNWAY 12/30 AND STA. 1201+70.23 § TAXIWAY B
3	1983080.6746	618188.7051	TAXIWAY ALPHA AND TAXIWAY DELTA	STA. 294+89.80 § TAXIWAY A AND STA. 790+48.24 § TAXIWAY DELTA
4	1983535.7043	617840.6399	TAXIWAY K AND RUNWAY 12/30	STA. 298+25.58 § TAXIWAY K AND STA. 798+82.94 § TAXIWAY K/O
5	1983276.1184	617880.9869	TAXIWAY DELTA AND TAXIWAY K5	STA. 13+42.25 § TAXIWAY K5 AND STA. 794+82.94 § TAXIWAY DELTA
6	1983770.5417	617989.1236	N.E. CORNER OF NEW PCC	STA. 793+75.30 160' RT. § TAXIWAY D
7	1983281.2454	617924.1106	N.W. CORNER OF NEW PCC	STA. 790+23.53 60' RT. § TAXIWAY D
8	1983122.9018	618238.2302	S.W. CORNER OF NEW PCC	STA. 790+18.87 320' RT. § TAXIWAY D
9	1983281.2454	617810.4716	RADIUS POINT FOR 160' RADIUS	STA. 590+87.42, 282.69' RT. § RUNWAY 16/34
10	1983036.9074	617773.5250	IRON PIN	STA. 591+87.42, 282.69' RT. § TAXIWAY ECHO
CP-1	1983129.8318	619207.0450	NOA BRASS DISC	STA. 181+80.42, § TAXIWAY ECHO
CP-2	1983284.7900	618661.5760	IRON PIN	STA. 188+59.08, 119.36' RT. § TAXIWAY ECHO
BM#22	1983284.7900	619207.0450	NOA BRASS DISC	STA. 181+80.42, § TAXIWAY ECHO
BM#861	1983705.8500	619935.4790	CHISLED "X"	STA. 372+69.94, 72.35' RT. § RUNWAY 12/30
BM#79	1982713.3210	619935.4790	CHISLED "X"	STA. 372+69.94, 72.35' RT. § RUNWAY 12/30

**NOTES**

1. BM #22 MAY BE IMPACTED BY AIRPORT CONSTRUCTION. PROJECT (PWK-3244). CONTRACTOR SHALL COORDINATE WITH ENGINEER PRIOR TO CONSTRUCTION START UP.

CONTRACT: PA053  
 LETTING ITEM: 11A  
 PROJECT: PWK-4181  
 A.I.P. PROJECT: 3-17-018-B47

**CHICAGO EXECUTIVE AIRPORT**  
**WHEELING/PROSPECT HEIGHTS, ILLINOIS**  
**REHAB RUNWAY 34 HOLD APRON**

**SITE PLAN / PROJECT CONTROL PLAN**

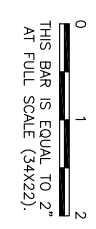
DESIGN BY: MLK  
 DRAWN BY: JRO  
 CHECKED BY: MLK  
 APPROVED BY: DLP  
 DATE: 04/20/2012  
 JOB No: 11290-05  
 ILLINOIS PROJECT: PWK-4181  
 A.I.P. PROJECT: 3-17-018-B47  
 SHEET 3 OF 21 SHEETS

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IL CONTRACT: PA053  
 IL LETTING ITEM: 11A  
 IL PROJECT: PWK-4181  
 A.I.P. PROJECT: 3-17-0018-847

NUMBER	BY	DATE

SURVEY BOOK # BOOK #	
REVISIONS	



**CHICAGO EXECUTIVE AIRPORT  
 WHEELING/PROSPECT HEIGHTS, ILLINOIS  
 REHAB RUNWAY 34 HOLD APRON**

**SEQUENCE OF CONSTRUCTION  
 PER AC 150/5370-2F  
 (LATEST EDITION)**

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JOB NO.:	11290-05
ILLINOIS PROJECT:	PWK-4181
A.I.P. PROJECT:	3-17-0018-847

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JOB NO.:	11290-05
ILLINOIS PROJECT:	PWK-4181
A.I.P. PROJECT:	3-17-0018-847

EXISTING CRITICAL AIRCRAFT AND REQUIRED SAFETY AREAS			
RUNWAY	16/34	12/30	6/24
APPROACH CATEGORY	D	B	B
DESIGN GROUP	III	II	I
DESIGN AIRCRAFT	GULFSTREAM 550	KING AIR B200	CESSNA 421
APPROACH SPEED	141 KNOTS	103 KNOTS	96 KNOTS
WINGSPAN	94 FEET	55 FEET	42 FEET
TAIL HEIGHT	25.8 FEET	15.0 FEET	11.6 FEET
STRENGTH (MGW)	90,500 LBS.	12,500 LBS.	7,450 LBS.
LENGTH	97 FEET	44 FEET	37 FEET
<b>AOA @ RUNWAY SAFETY AREA WIDTH (RSA)</b>	<b>500</b>	<b>150</b>	<b>120</b>
RUNWAY OBJECT FREE AREA WIDTH (ROFA)	800	500	400
AOA @ TAXIWAY SAFETY AREA WIDTH (TSA)	118	79	49
<b>TAXIWAY OBJECT FREE AREA WIDTH (TOFA)</b>	<b>166</b>	<b>131</b>	<b>89</b>

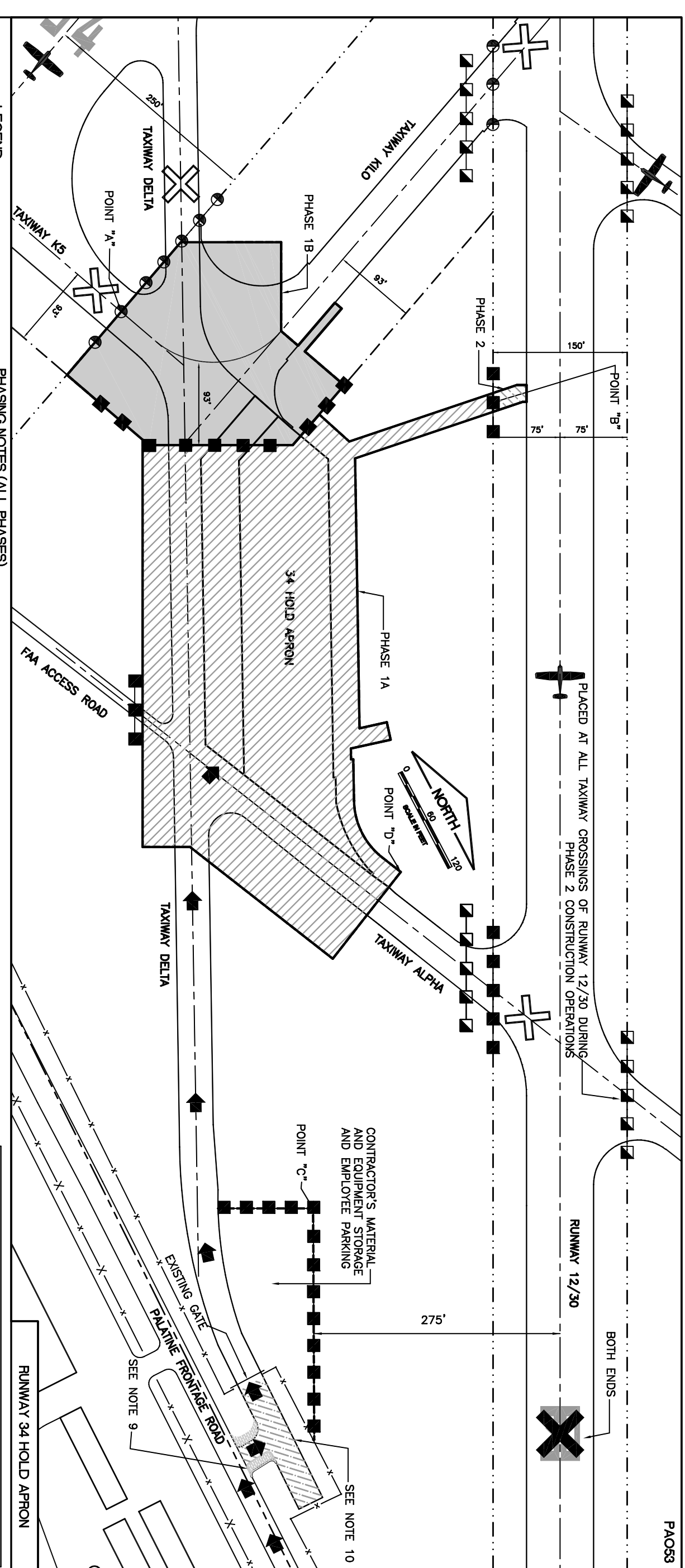
AOA = AIRCRAFT OPERATIONS AREA  
 DATA FROM 2009 OEA APPROVED ALP

WORK AREA	OPERATIONAL STATUS/ RESTRICTIONS
PHASE 1A WORK INSIDE TAXIWAY DELTA AND ALPHA SAFETY AREAS	TAXIWAY DELTA, EAST OF TAXIWAY KILO CLOSED. TAXIWAY ALPHA, SOUTH OF RUNWAY 12/30 CLOSED. RUNWAY 34 HOLD APRON CLOSED.
PHASE 1B WORK INSIDE TAXIWAY KILO, K5 AND DELTA SAFETY AREAS	TAXIWAY DELTA, EAST OF R/WY 16/34 CLOSED. TAXIWAY K5, EAST OF R/WY 16/34 CLOSED. TAXIWAY KILO, BETWEEN R/WY 12/30 AND TAXIWAY DELTA CLOSED.
PHASE 2 WORK INSIDE THE RUNWAY 12/30 SAFETY AREA	RUNWAY 12/30 CLOSED (WORK IN THIS PHASE SHALL BE EXPEDITED)

- PHASING NOTES (ALL PHASES)**
- THE INTENT OF THE PHASING PLANS IS TO MINIMIZE THE IMPACT OF CONSTRUCTION ON THE OPERATION OF THE AIRPORT. THE CONTRACTOR SHALL CONSTRUCT ON THE PROJECT IN CONSECUTIVE PHASES AS OUTLINED IN THE PLANS UNLESS OTHERWISE APPROVED BY THE ENGINEER.
  - PRIOR TO REOPENING A CLOSED RUNWAY, THE ENTIRE RUNWAY SAFETY AREA MUST MEET FAA CRITERIA. FAA CRITERIA REQUIRES THAT THERE BE NO 3' OBSTRUCTIONS OR OBSTACLES. THE TAXIWAY PAVEMENT SHALL BE 3' LOWER AND TEMPORARY WIDENING OF BASE COURSE AND BITUMINOUS CONCRETE WILL BE REQUIRED TO MEET CRITERIA. ALL NECESSARY TEMPORARY MEASURES SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
  - THE CONTRACTOR SHALL SUBMIT A CONSTRUCTION SCHEDULE. STRICT ADHERENCE TO THE APPROVED SCHEDULE WILL BE ENFORCED TO AVOID CONFLICTS WITH OTHER CONSTRUCTION ACTIVITIES ON THE AIRPORT AND THE ADVERSE EFFECTS THEY COULD HAVE ON AIRPORT OPERATIONS.
  - THE CONTRACTOR SHALL COORDINATE CLOSELY WITH THE AIRPORT STAFF TO SCHEDULE THE RUNWAY/TAXIWAY CLOSURES. ITEMS SUCH AS THE EXTENDED WEATHER FORECAST, MATERIAL AVAILABILITY, EQUIPMENT DEPENDABILITY AND MANPOWER AVAILABILITY SHALL BE DISCUSSED PRIOR TO SCHEDULING THESE CRITICAL CLOSURES. THE AIRPORT MANAGER AND THE CONTRACTOR SHALL MUTUALLY AGREE ON THE EXACT DATES AND TIMES OF THE CLOSURE(S).
  - CONTRACTOR MUST MAINTAIN ACCESS TO ALL ACTIVE AND OPEN AREAS AT ALL TIMES. THE CONTRACTOR SHALL RELOCATE EQUIPMENT AT NO ADDITIONAL COST TO THE CONTRACT TO ALLOW AIRCRAFT TO PASS.
  - ANY TEMPORARY FENCING THAT MAY BE REQUIRED TO SECURE THE AREA DUE TO CONSTRUCTION ACTIVITIES SHALL BE 6' CHAIN LINK FENCE AND SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
  - ANY DAMAGE CAUSED BY CONTRACTOR HAUL OPERATIONS OVER EXISTING PAVED SURFACES SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT.
  - CONTRACTOR SHALL RESTORE ALL HAUL ROUTES AND MATERIAL AND EQUIPMENT STORAGE AREAS TO PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE ENGINEER AND AIRPORT MANAGER.
  - CONTRACTOR SHALL WHEN THE CONSTRUCTION ENTRANCE USING 12" PGE (209), 8" CRUSHED AGGREGATE (209) AND 6" HMA BASE COURSE (403) TEMPORARY WIDENING TO BE REMOVED AT CONCLUSION OF PROJECT AND SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
  - CONTRACTOR SHALL REPAIR 2" BITUMINOUS MILL AND OVERLAY PAVEMENT MARKING SHALL MATCH EXISTING MARKINGS.
  - ANY TAXIWAY CLOSURE EXCEEDING 3 CALENDAR DAYS MUST HAVE TEMPORARY TAXIWAY CLOSURE MARKERS LOCATED AT THE RUNWAY R.S.A. PRIOR TO THE BARRIADGES AS SHOWN. THE MARKERS SHALL BE PAINTED MARKINGS AND SHALL BE IN ACCORDANCE WITH SECTION 620 OF THE SPECIFICATIONS, AND OF THE DIMENSIONS PER THE DETAIL ON SHEET 5. THE PLACEMENT AND REMOVAL OF THE TAXIWAY CLOSURE MARKERS AND MARKING SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT, REGARDLESS OF THE NUMBER OF TIMES PLACED OR REMOVED.
- PHASE 1: SUGGESTED SEQUENCE OF CONSTRUCTION**
- MARK TAXIWAY OBJECT FREE AREA (T.O.F.A.) AND RUNWAY SAFETY AREA (R.S.A.) WITH LATHE AND RIBBON AND PLACE BARRIADGES AS SHOWN OR AS DIRECTED BY THE ENGINEER.
  - REMOVE PAVEMENT MARKING AND PLACE TEMPORARY MARKINGS AS SHOWN ON SHEET 9.
  - REMOVE BITUMINOUS PAVEMENT AND EXCAVATE TO SUBGRADE.
  - WILL EXISTING BITUMINOUS PAVEMENT.
  - REMOVE EXISTING DRAINAGE AND PLACE NEW DRAINAGE.
  - PLACE PGE AND CRUSHED AGGREGATE BASE COURSE.
  - CONSTRUCT PCC PAVEMENT AND PLACE 4" BITUMINOUS PAVEMENT.
  - REPLACE STAKE MOUNTED LIGHTS, WOODEN TAXI GUIDANCE SIGNS AND TAXIWAY CIRCUIT.
  - ADJUST SHOULDERS AND RESTORE WITH SEEDING AND MULCHING.
  - PLACE PAVEMENT MARKING.
  - CLEAN PAVEMENTS AND REMOVE BARRIADGES. OPEN TAXIWAYS ALPHA, DELTA, KILO AND K5
- PHASE 2: SUGGESTED SEQUENCE OF CONSTRUCTION**
- PLACE RUNWAY CLOSED MARKERS ON BOTH ENDS OF RUNWAY 12/30 AND PLACE BARRIADGES AT THE SAFETY AREA OF EACH CROSSING TAXIWAY.
  - INSTALL ELECTRICAL CONDUIT AND CABLE.
  - RESTORE TRENCH WITH SEED AND MULCH.
  - CLEAN PAVEMENTS, REMOVE RUNWAY CLOSED MARKERS AND BARRIADGES, REOPEN RUNWAY 12/30.

**LEGEND**

- PHASE 1A WORK AREA
- PHASE 1B WORK AREA
- PHASE 2 WORK AREA
- 2" BITUMINOUS MILL AND OVERLAY
- TEMPORARY PAVEMENT WIDENING
- AIRCRAFT MOVEMENT AREA
- BARRIADGE WITH FLASHING LIGHTS AND SIGNS PHASE 1A (DO NOT ENTER AND AIRCRAFT MOVEMENT AREA)
- BARRIADGE WITH FLASHING LIGHTS AND SIGNS PHASE 1B (DO NOT ENTER AND AIRCRAFT MOVEMENT AREA)
- BARRIADGE WITH FLASHING LIGHTS AND SIGNS PHASE 2 (DO NOT ENTER AND AIRCRAFT MOVEMENT AREA)
- RUNWAY SAFETY AREAS
- TAXIWAY OBJECT FREE AREA
- CONTRACTOR'S ACCESS/HAUL ROAD
- RUNWAY CLOSED MARKERS (TO BE PLACED ON BOTH ENDS OF RUNWAY 12/30 DURING PHASE 2)
- TAXIWAY CLOSURE MARKER (YELLOW) (TO BE PLACED ON TAXIWAYS AS SHOWN FOR TAXIWAY CLOSURES EXCEEDING THREE (3) DAYS - SEE NOTE 11)

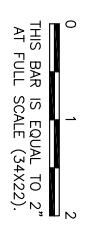




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 I.L. LETTING ITEM: **11A**  
 I.L. PROJECT: **PWK-4181**  
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SURVEY BOOK # BOOK #

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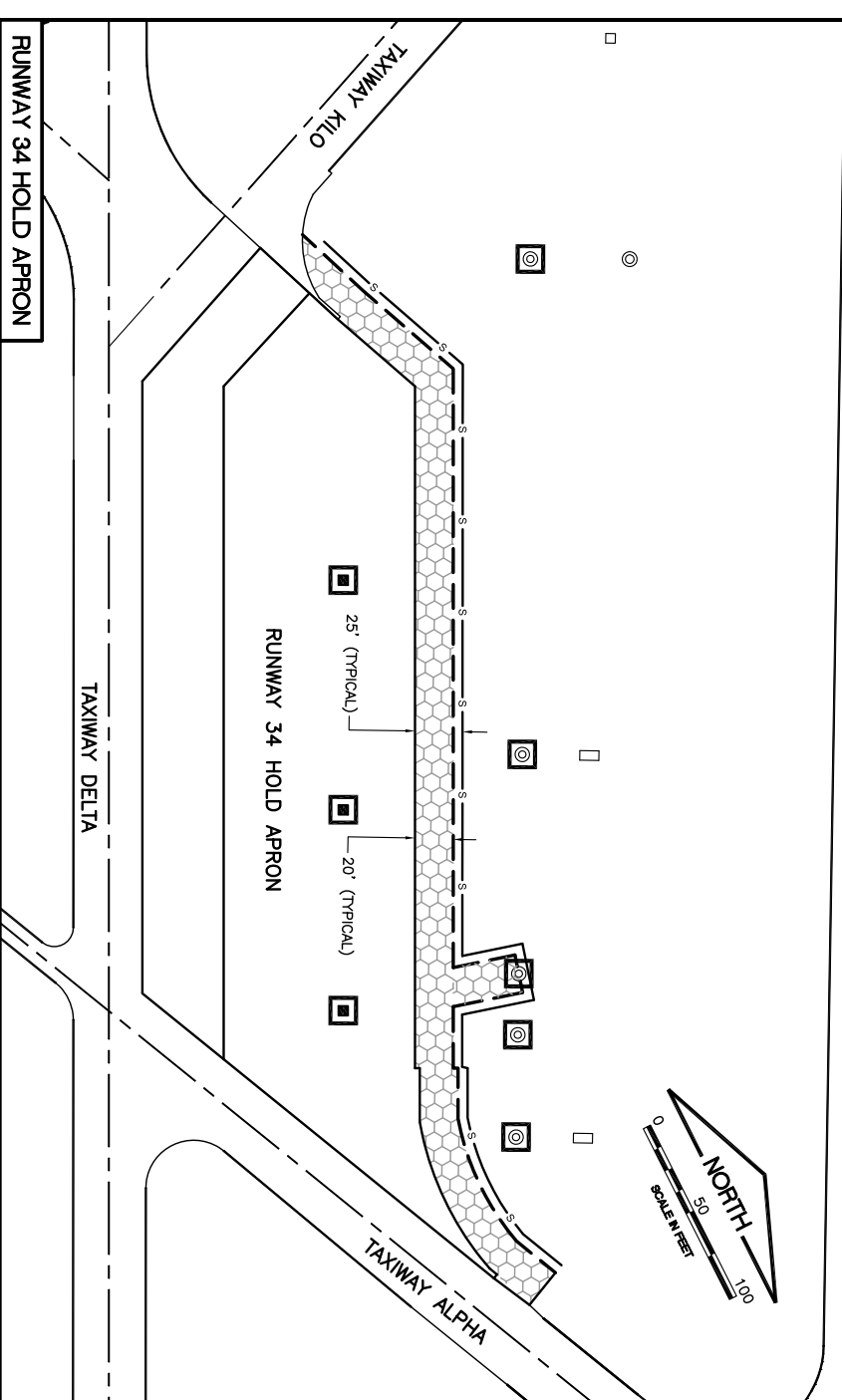
**CHICAGO EXECUTIVE AIRPORT**  
**WHEELING/PROSPECT HEIGHTS, ILLINOIS**  
**REHAB RUNWAY 34 HOLD APRON**

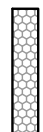
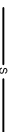




**STORM WATER POLLUTION PREVENTION**  
**PLAN AND NOTES**


**GMT**  
 CRAWFORD, MURPHY & TILLY, INC.  
 CONSULTING ENGINEERS  
 License No. 184-000613



DESIGN BY:	MLK
DRAWN BY:	JRO
CHECKED BY:	MLK
APPROVED BY:	DLP
DATE:	04/20/2012
JOB No.:	11290-05
ILLINOIS PROJECT: PWK-4181	
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SHEET	6 OF 21 SHEETS



- LEGEND**
-  NEW SEED AND MULCHING
  -  NEW SILT FENCE
  -  NEW GRADING LIMITS
  -  NEW INLET PROTECTION/SEDIMENT TRAP
  -  NEW INLET
  -  EXISTING MANHOLE/INLET/SLOPE BOX

**STORM WATER POLLUTION PREVENTION PLAN**

THE FOLLOWING PLAN IS ESTABLISHED AND INCORPORATED IN THE PROJECT TO DIRECT THE CONTRACTOR IN THE PLACEMENT OF TEMPORARY EROSION CONTROL SYSTEMS AND TO PROVIDE A STORM WATER POLLUTION PREVENTION PLAN FOR COMPLIANCE WITH NPDES.

THE PURPOSE OF THIS PLAN IS TO MINIMIZE EROSION WITHIN THE CONSTRUCTION SITE AND TO LIMIT SEDIMENTS FROM LEAVING THE SITE BY UTILIZING PROPER TEMPORARY EROSION CONTROL SYSTEMS AND PROVIDING GROUND COVER WITHIN A REASONABLE AMOUNT OF TIME.

CERTAIN EROSION CONTROL FACILITIES SHALL BE INSTALLED BY THE CONTRACTOR AT THE BEGINNING OF CONSTRUCTION. OTHER ITEMS SHALL BE INSTALLED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER ON A CASE BY CASE SITUATION DEPENDING ON THE CONTRACTOR'S SEQUENCE OF ACTIVITIES, TIME OF YEAR, AND EXPECTED WEATHER CONDITIONS.

THE CONTRACTOR SHALL INSTALL PERMANENT EROSION CONTROL SYSTEMS AND SEEDING WITHIN A TIMEFRAME SPECIFIED HEREIN AND AS DIRECTED BY THE ENGINEER, THEREFORE MINIMIZING THE AMOUNT OF AREA SUSCEPTIBLE TO EROSION AND REDUCING THE AMOUNT OF TEMPORARY SEEDING, WHICH WILL BE THE CONTRACTOR'S COST. THE ENGINEER WILL DETERMINE IF ANY TEMPORARY EROSION CONTROL SYSTEMS SHOWN IN THE PLAN CAN BE DELETED AND IF ANY ADDITIONAL TEMPORARY EROSION CONTROL SYSTEMS, WHICH ARE NOT INCLUDED IN THIS PLAN, SHALL BE ADDED. THE CONTRACTOR SHALL PERFORM ALL WORK AS DIRECTED BY THE ENGINEER AND AS SHOWN ON THE PLANS.

**SITE DESCRIPTION**

THE FOLLOWING IS A DESCRIPTION OF THE CONSTRUCTION ACTIVITY WHICH IS THE SUBJECT OF THIS PLAN:

THIS PROJECT CONSISTS OF REHABILITATION OF THE RUNWAY 34 HOLD APRON AT THE CHICAGO EXECUTIVE AIRPORT. THE PROJECT INCLUDES EARTH EXCAVATION, ELECTRICAL WORK, VARIOUS PAVEMENT ITEMS AND OTHER MISCELLANEOUS CONSTRUCTION WORK.

THE FOLLOWING IS A DESCRIPTION OF THE INTENDED SEQUENCE OF MAJOR ACTIVITIES WHICH WILL DISTURB SOILS FOR MAJOR PORTIONS OF THE CONSTRUCTION SITE, SUCH AS GRUBBING, EXCAVATION AND GRADING:

1. PLACEMENT MAINTENANCE, REMOVAL AND PROPER CLEAN-UP OF TEMPORARY EROSION CONTROL, SUCH AS PERIMETER SILT FENCE AND INLET PROTECTION.
2. PAVEMENT MILLING, PAVEMENT REMOVAL AND REPLACEMENT.
3. EXCAVATION AND EMBANKMENT WILL BE COMPLETED WITHIN THE PROJECT LIMITS TO GRADE OUT FOR THE PROPOSED CONSTRUCTION.
4. PAVEMENT CONSTRUCTION.
5. ELECTRICAL INSTALLATION, SHOULDER ADJUSTMENTS, FINAL GRADING AS NEEDED AND OTHER MISCELLANEOUS ITEMS.
6. PLACEMENT OF PERMANENT EROSION CONTROL, SUCH AS SEEDING AND MULCHING.

AREA OF CONSTRUCTION SITE

THE TOTAL AREA OF THE CONSTRUCTION SITE IS ESTIMATED TO BE 1.80 ACRES OF WHICH 0.30 ACRES WILL BE DISTURBED BY EXCAVATION, GRADING AND OTHER ACTIVITIES.

**OTHER REPORTS, STUDIES AND PLANS, WHICH AID IN THE DEVELOPMENT OF THE STORM WATER POLLUTION PREVENTION PLAN AS REFERENCED DOCUMENTS:**

1. INFORMATION OF THE SOILS AND TERRAIN WITHIN THE SITE WAS OBTAINED FROM TOPOGRAPHIC SURVEYS AND SOIL BORINGS THAT WERE UTILIZED FOR THE DEVELOPMENT OF THE PROPOSED TEMPORARY EROSION CONTROL SYSTEMS.
  2. PROJECT PLAN DOCUMENTS, SPECIFICATION AND SPECIAL PROVISIONS, AND PLAN DRAWINGS INDICATING DRAINAGE PATTERNS AND APPROPRIATE SLOPES ANTICIPATED AFTER GRADING ACTIVITIES WERE UTILIZED FOR THE PROPOSED PLACEMENT OF THE TEMPORARY EROSION CONTROL SYSTEMS.
- DRAINAGE, TRIBUTARIES AND SENSITIVE AREAS RECEIVING RUNOFF FROM THIS CONSTRUCTION SITE:**
- THE CONSTRUCTION SITE DRAINS INTO THE DES PLAINES RIVER THROUGH A STORM SEWER SYSTEM.

**CONTROLS--EROSION CONTROLS AND SEDIMENT CONTROL**

DESCRIPTION OF STABILIZATION PRACTICES AT THE BEGINNING OF CONSTRUCTION:

1. THE DRAWINGS SPECIFICATIONS AND SPECIAL PROVISIONS WILL ENSURE THAT EXISTING VEGETATION IS PRESERVED WHERE ATTAINABLE AND DISTURBED PORTIONS OF THE SITE WILL BE STABILIZED. STABILIZATION PRACTICES INCLUDE SEEDING AND MULCHING AS DIRECTED BY THE ENGINEER. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 7 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.
2. AS SOON AS REASONABLE ACCESS IS AVAILABLE TO ALL LOCATIONS WHERE WATER DRAINS AWAY FROM THE PROJECT, TEMPORARY DITCH CHECKS, INLET PROTECTION AND PERIMETER SILT FENCE SHALL BE INSTALLED AS CALLED OUT IN THE PLAN AND DIRECTED BY THE ENGINEER.
3. THIS PLAN HAS BEEN PREPARED TO COMPLY WITH THE PROVISIONS OF THE NPDES PERMIT NUMBER ILR10, ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY FOR STORM WATER DISCHARGES FROM CONSTRUCTION SITE ACTIVITIES.

**DESCRIPTION OF STABILIZATION PRACTICES DURING CONSTRUCTION:**

DURING CONSTRUCTION, AREAS OUTSIDE THE CONSTRUCTION LIMITS AS OUTLINED PREVIOUSLY HEREIN SHALL BE PROTECTED. THE CONTRACTOR SHALL NOT USE THIS AREA FOR STAGING (EXCEPT AS DESCRIBED ON THE PLANS AND DIRECTED BY THE ENGINEER), PARKING OF VEHICLES OR CONSTRUCTION EQUIPMENT, STORAGE OF MATERIALS, OR OTHER CONSTRUCTION RELATED ACTIVITIES.

1. WITHIN THE CONSTRUCTION LIMITS, AREAS WHICH MAY BE SUSCEPTIBLE TO EROSION AS DETERMINED BY THE ENGINEER SHALL REMAIN UNDISTURBED UNTIL FULL SCALE CONSTRUCTION IS UNDERWAY TO PREVENT UNNECESSARY SOIL EROSION.
2. EARTH STOCKPILES SHALL BE TEMPORARILY SEEDDED, AT THE CONTRACTOR'S EXPENSE, IF THEY ARE TO REMAIN UNUSED FOR MORE THAN FOURTEEN DAYS.
3. AS CONSTRUCTION PROCEEDS, THE CONTRACTOR SHALL INSTITUTE THE FOLLOWING AS DIRECTED BY THE ENGINEER:

A. PLACE TEMPORARY EROSION CONTROL FACILITIES AT LOCATIONS SHOWN ON THE PLANS.

B. CONSTRUCT DITCHES AND PROVIDE TEMPORARY EROSION CONTROL SYSTEMS.

C. BUILD NECESSARY EMBANKMENT AT CULVERT/STORM SEWER LOCATIONS AND THEN EXCAVATE AND PLACE PIPE.

D. EXCAVATED AREAS AND EMBANKMENT AREAS SHALL BE PERMANENTLY SEEDDED IMMEDIATELY AFTER FINAL GRADING. IF NOT, THEY SHALL BE TEMPORARILY SEEDDED, AT THE CONTRACTOR'S COST, IF NO CONSTRUCTION ACTIVITY IN THE AREA IS PLANNED FOR SEVEN DAYS.

4. CONSTRUCTION EQUIPMENT SHALL BE STORED AND FUELED ONLY AT DESIGNATED LOCATIONS. ALL NECESSARY MEASURES SHALL BE TAKEN TO CONTAIN ANY FUEL OR POLLUTANT IN ACCORDANCE WITH EPA WATER QUALITY REGULATIONS. LEAKING EQUIPMENT OR SUPPLIES SHALL BE IMMEDIATELY REPAIRED OR REMOVED FROM THE SITE.

5. THE RESIDENT ENGINEER SHALL INSPECT THE PROJECT DAILY DURING CONSTRUCTION ACTIVITIES. INSPECTION SHALL ALSO BE DONE WEEKLY AND AFTER RAINS OF 1/2" OR GREATER OR EQUIVALENT SNOWFALL AND DURING WINTER SHUTDOWN PERIOD.

6. SEDIMENT COLLECTED DURING CONSTRUCTION OF THE VARIOUS TEMPORARY EROSION CONTROL SYSTEMS SHALL BE DISPOSED OF ON SITE ON A REGULAR BASIS AS DIRECTED BY THE ENGINEER. THE COST OF THIS MAINTENANCE SHALL BE INCLUDED IN THE UNIT BID PRICE FOR UNCLASSIFIED EXCAVATION AND EROSION CONTROL ITEMS.

7. THE TEMPORARY EROSION CONTROL SYSTEMS SHALL BE REMOVED AS DIRECTED BY THE ENGINEER AFTER USE IS NO LONGER NEEDED OR NO LONGER FUNCTIONING. THE COST OF THIS REMOVAL SHALL BE INCLUDED IN THE UNIT BID PRICE FOR VARIOUS TEMPORARY EROSION CONTROL PAY ITEMS.

**DESCRIPTION OF STRUCTURAL PRACTICES AFTER FINAL GRADING:**

1. TEMPORARY EROSION CONTROL SYSTEMS SHALL BE LEFT IN PLACE WITH PROPER MAINTENANCE UNTIL PERMANENT EROSION CONTROL IS IN PLACE AND WORKING PROPERLY AND ALL PROPOSED TURF AREAS ARE SEEDDED AND ESTABLISHED.
2. ONCE PERMANENT EROSION CONTROL SYSTEMS AS PROPOSED IN THE PLANS ARE FUNCTIONAL AND ESTABLISHED, TEMPORARY ITEMS SHALL BE REMOVED, CLEANED UP, AND DISTURBED TURF RESEDED.

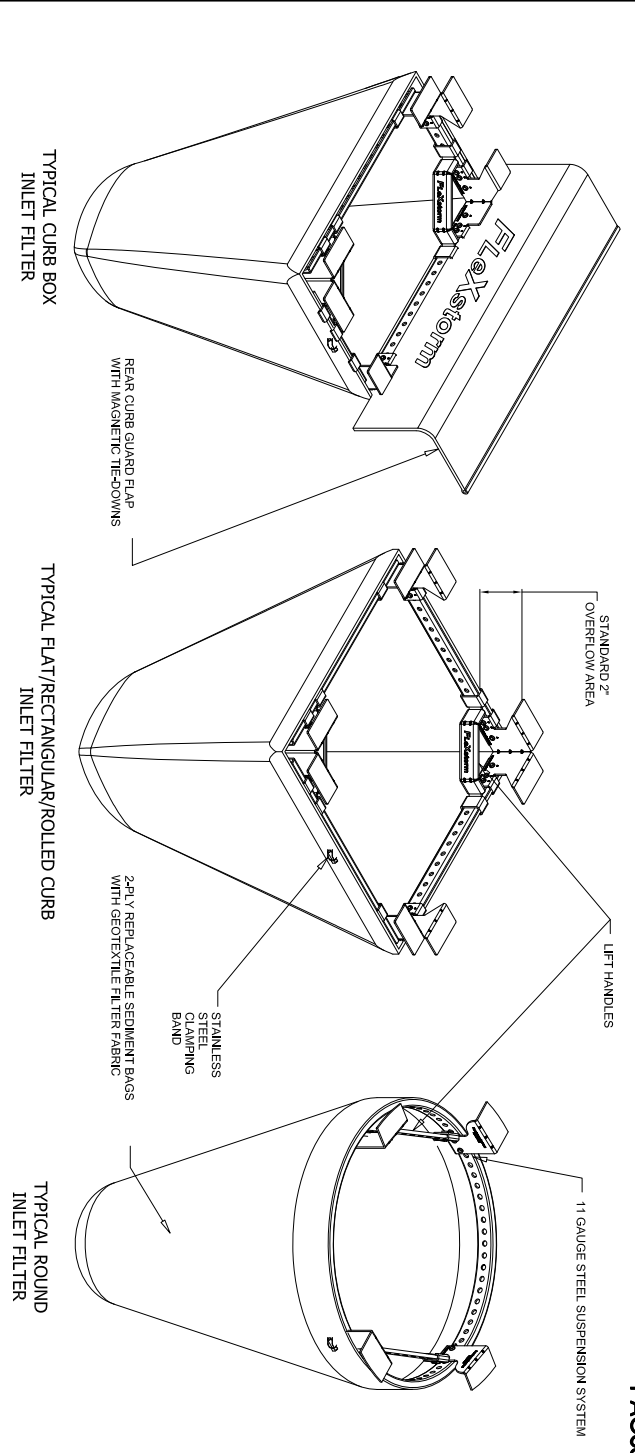
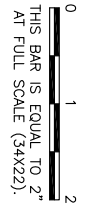
**MAINTENANCE AFTER CONSTRUCTION**

CONSTRUCTION IS COMPLETE AFTER FINAL ACCEPTANCE BY THE ILLINOIS DIVISION OF AERONAUTICS. MAINTENANCE UP TO THIS DATE WILL BE REQUIRED BY THE CONTRACTOR.

IL CONTRACT: PA053  
 IL LETTING ITEM: 11A  
 IL PROJECT: PWK-4181  
 A.I.P. PROJECT: 3-17-0018-847

SURVEY BOOK # BOOK #

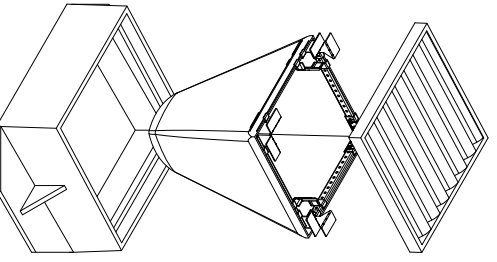
NUMBER	BY	DATE



IPP Flexstorm Inlet Filter Specifications

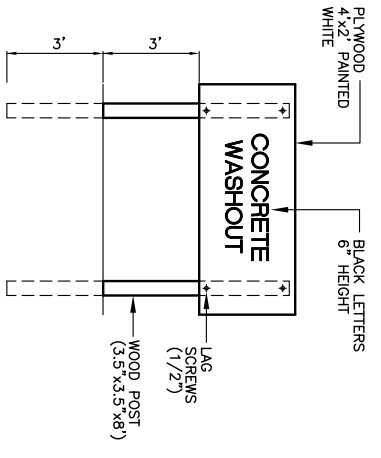
Material Property	Test Method	Value (min ave)
> Inner Filter Bag Specs (2 ft <sup>3</sup> min vol)		
Grab Tensile	ASTM D 4632	Non-Woven 100 lbs Woven Mono 200 lbs
Puncture Strength	ASTM D 4833	65 lbs 90 lbs
Trapezoidal Tear	ASTM D 4533	45 lbs 75 lbs
UV Resistance	ASTM D 4355	70% at 500 hrs 90%
App Open Size (AOS)	ASTM D 4751	70 sieve (212 mm) (425 mm)
Permittivity	ASTM D 4491	2.0 /sec 2.1/sec
Water Flow Rate	ASTM D 4491	145 gpm/sqft 145 gpm/sqft
> Polyester Outer Reinforcement Bag Specifications		
Weight	ASTM D 3776	4.55 oz/sqyd +/-15%
Thickness	ASTM D 1777	.040 +/- .005
> Frame Construction		
A36 Structural Steel:	ASTM A 576	Tensile Strength > 58,000 psi; Yield Strength > 36,000 psi
11 Gauge, Zinc Plated		

- INSTALLATION:
1. REMOVE GRATE
  2. DROP FLEXSTORM INLET FILTER ONTO LOAD BEARING LIP OF CASTING OR CONCRETE STRUCTURE
  3. REPLACE GRATE

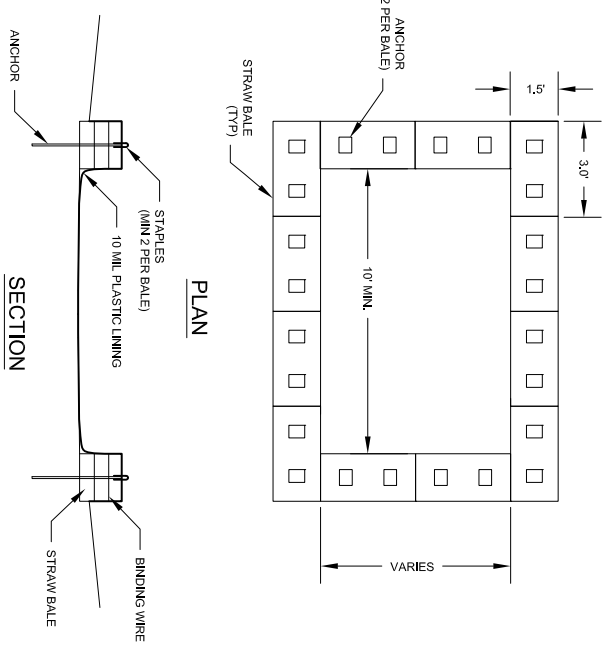


INLET PROTECTION / SEDIMENT TRAP

NOT TO SCALE  
 STORM SEWER INLET PROTECTION SHALL BE FLEXSTORM INLET FILTERS AS DETAILED HEREIN OR APPROVED EQUAL.

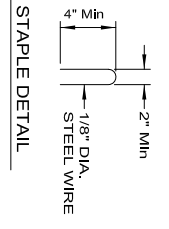


CONCRETE WASHOUT SIGN DETAIL (OR EQUIVALENT)

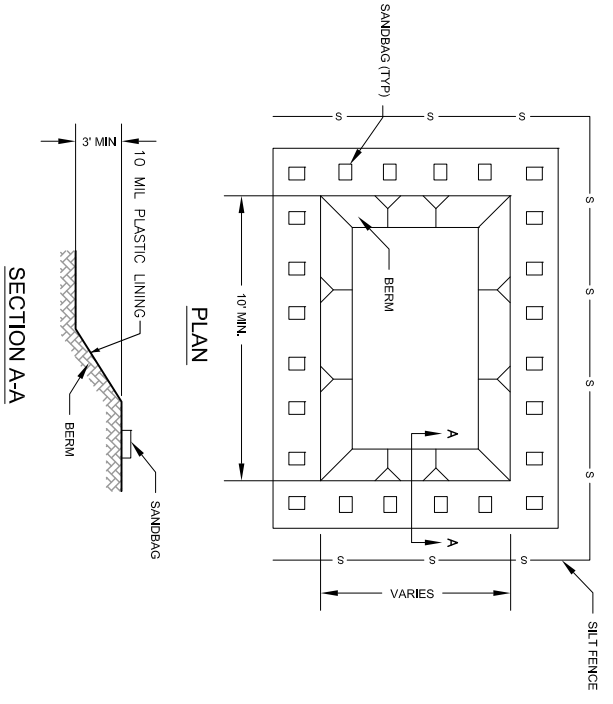


ABOVE GROUND TEMPORARY WASHOUT

- NOTES:
1. CONTRACTOR SHALL DETERMINE LOCATION AND SIZE OF WASHOUT.
  2. WASHOUT SIZE AND LOCATION SHALL BE APPROVED BY THE ENGINEER.
  3. A CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 20 FEET OF THE TEMPORARY CONCRETE WASHOUT FACILITY. AT A MINIMUM, THE SIGN SHALL READ "CONCRETE WASHOUT IN 6" TALL LETTERS.
  4. INSPECTION SHALL OCCUR ONCE PER WEEK AND DAILY DURING CONCRETE OPERATIONS. REPAIR/REPLACEMENT OF THE FACILITY SHALL BE MADE SUCH THAT CONCRETE WASTE IS CONTAINED.
  5. MEDIA SHALL BE REMOVED AND DISPOSED OF AT A LEGAL OFF-SITE LOCATION WHEN THE FACILITY HAS REACHED 50% CAPACITY.
  6. UPON COMPLETION OF CONCRETE OPERATIONS, THE CONCRETE WASHOUT AND ALL MATERIALS CONTAINED WITHIN SHALL BE DISPOSED OF AT A LEGAL OFF-SITE LOCATION.



STAPLE DETAIL



BELOW GROUND TEMPORARY WASHOUT

- NOTES:
1. CONTRACTOR SHALL DETERMINE LOCATION AND SIZE OF WASHOUT.
  2. WASHOUT SIZE AND LOCATION SHALL BE APPROVED BY THE ENGINEER.
  3. ANCHOR THE LINING, THE NUMBER OF SANDBAGS SHALL BE DETERMINED BY THE CONTRACTOR, THE CONTRACTOR SHALL ADD SANDBAGS SO AS TO MAINTAIN ANCHORING OF THE LINING.
  4. A CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 20 FEET OF THE TEMPORARY CONCRETE WASHOUT FACILITY. AT A MINIMUM, THE SIGN SHALL READ "CONCRETE WASHOUT IN 6" TALL LETTERS.
  5. THE TEMPORARY WASHOUT FACILITY SHALL BE SURROUNDED BY SILT FENCE ON ALL SIDES.
  6. INSPECTION SHALL OCCUR ONCE PER WEEK AND DAILY DURING CONCRETE OPERATIONS. REPAIR/REPLACEMENT OF THE FACILITY SHALL BE MADE SUCH THAT CONCRETE WASTE IS CONTAINED.
  7. MEDIA SHALL BE REMOVED AND DISPOSED OF AT A LEGAL OFF-SITE LOCATION WHEN THE FACILITY HAS REACHED 50% CAPACITY.
  8. UPON COMPLETION OF CONCRETE OPERATIONS, THE CONCRETE WASHOUT AND ALL MATERIALS CONTAINED WITHIN SHALL BE DISPOSED OF AT A LEGAL OFF-SITE LOCATION.

CONCRETE WASHOUT NOT TO SCALE

CHICAGO EXECUTIVE AIRPORT  
 WHEELING/PROSPECT HEIGHTS, ILLINOIS  
 REHAB RUNWAY 34 HOLD APRON

STORM WATER POLLUTION  
 PREVENTION PLAN DETAILS - SHEET 1

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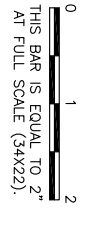
**CHICAGO EXECUTIVE AIRPORT**

DESIGN BY: MLK  
 DRAWN BY: JRO  
 CHECKED BY: MLK  
 APPROVED BY: DLP  
 DATE: 04/20/2012  
 JOB No.: 11290-05

ILLINOIS PROJECT: PWK-4181  
 A.I.P. PROJECT: 3-17-0018-847  
 SHEET 7 OF 21 SHEETS

I.L. CONTRACT: **PA053**  
 I.L. LETTING ITEM: **11A**  
 I.L. PROJECT: **PWK-4181**  
 A.I.P. PROJECT: **3-17-0018-B47**

SURVEY BOOK # BOOK #		
NUMBER	BY	DATE



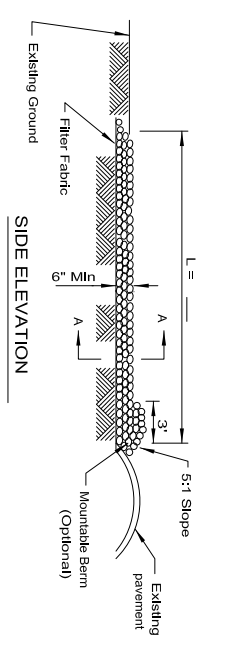
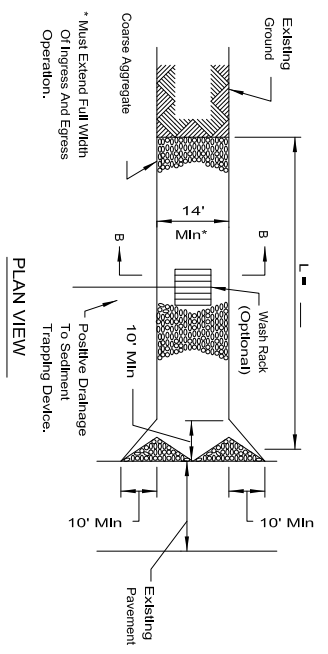
**CHICAGO EXECUTIVE AIRPORT**  
**WHEELING/PROSPECT HEIGHTS, ILLINOIS**  
**REHAB RUNWAY 34 HOLD APRON**  
  
**STORM WATER POLLUTION**  
**PREVENTION PLAN DETAILS - SHEET 2**

**CMT**  
 CRAWFORD, MURPHY & TILLY, INC.  
 CONSULTING ENGINEERS  
 License No. 184-000613

**CHICAGO EXECUTIVE AIRPORT**

DESIGN BY:	MLK
DRAWN BY:	JRO
CHECKED BY:	MLK
APPROVED BY:	DLP
DATE:	04/20/2012
JOB No.:	11290-05
ILLINOIS PROJECT:	PWK-4181
A.I.P. PROJECT:	3-17-0018-B47
SHEET	8 OF 21 SHEETS

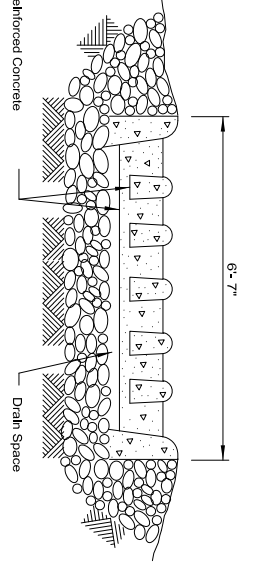
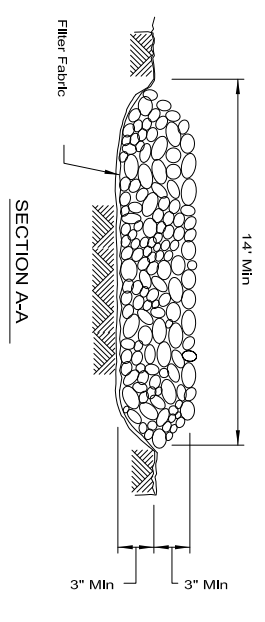
**STABILIZED CONSTRUCTION ENTRANCE PLAN**



**NOTES:**

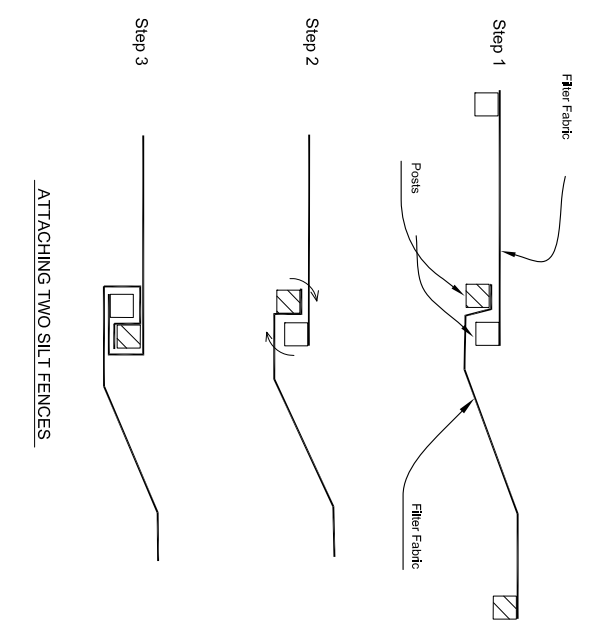
1. Filter fabric shall meet the requirements of material specification 592 GEOTEXTILE, Table 1 or 2, Class 1, or and stabilize placed over the cleared area prior to the placing of rock.
2. Rock or reclaimed concrete shall meet one of the following IDOT coarse aggregate gradation, CA-1, CA-2, CA-3, or CA-4 and be placed according to construction specification 29 ROCKFILL using Placement Method 1 and Class calibration.
3. Any drainage facilities required because of washing shall be constructed according to manufacturer's specifications.
4. If wash racks are used they shall be installed according to the manufacturer's specifications.

**STABILIZED CONSTRUCTION ENTRANCE PLAN**



REFERENCE Project	DATE	DATE	DATE
Designed			
Checked			
Approved			

**SILT FENCE**

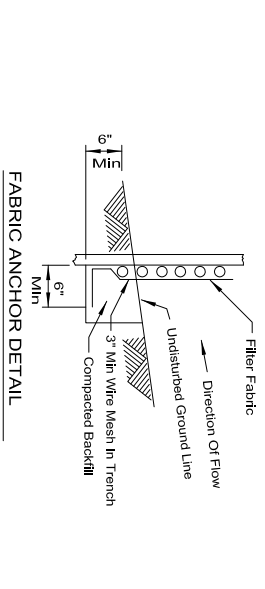
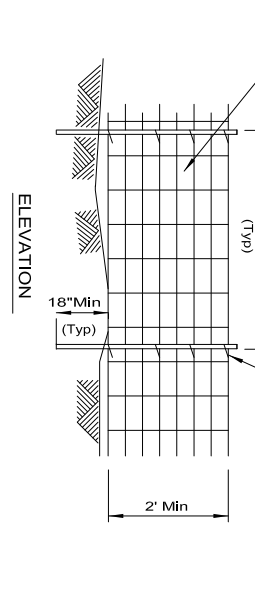


**NOTES:**

1. Place the end post of the second fence inside the end post of the first fence.
2. Rotate both posts at least 180 degrees in a clockwise direction to create a tight seal with the fabric material.
3. Drive both posts a minimum of 18 inches into the ground and bury the flap.

**STABILIZED CONSTRUCTION ENTRANCE PLAN**

**SILT FENCE WITH WIRE SUPPORT PLAN**



**NOTES:**

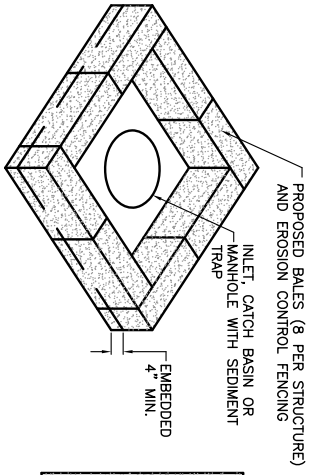
1. Wires of mesh support shall be min. gauge no. 12.
2. Temporary sediment fence shall be installed prior to any grading work in the area to be protected. They shall be maintained throughout the construction period and removed in conjunction with the final grading and site stabilization.
3. Filter fabric shall meet the requirements of material specification 592 Geotextile Table 1 or 2, Class 1 with equivalent filtering size of at least 30 for nonwoven and 50 for woven.
4. Fence posts shall be either standard steel post or wood post with a minimum cross-sectional area of 3.0 sq. in.

REFERENCE Project	DATE	DATE	DATE
Designed			
Checked			
Approved			

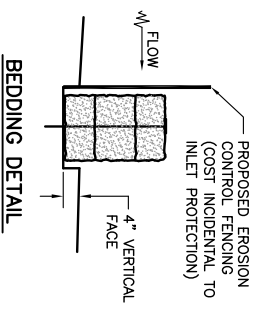
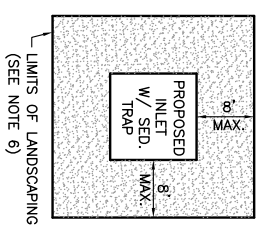
**NOTES**

1. BALES SHALL BE PLACED AT THE TOE OF SLOPE OR ON A CONTOUR AND IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4 INCHES, AND PLACED SO THE BINDINGS ARE HORIZONTAL.
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER TWO STAKES OR REBARS DRIVEN THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY Laid BALE AT AN ANGLE TO FORCE THE BALES TOGETHER. STAKES SHALL BE DRIVEN FLUSH WITH THE BALE.
4. INSPECTION SHALL BE FREQUENT AND REPAIR / REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE. COST OF REMOVAL / REPLACEMENT TO BE INCLUDED IN UNIT PRICE FOR BALES.
6. AFTER FINAL APPROVAL OF THE ENGINEER, STRAW BALES MAY BE REMOVED. CONTRACTOR SHALL PLACE SEED AND MULCH OVER THE DISTURBED AREAS. COST INCIDENTAL TO BALES.

**INLET PLACEMENT**



**INLET PLACEMENT**



**INLET PROTECTION (INLET/MANHOLES)**

N.T.S.

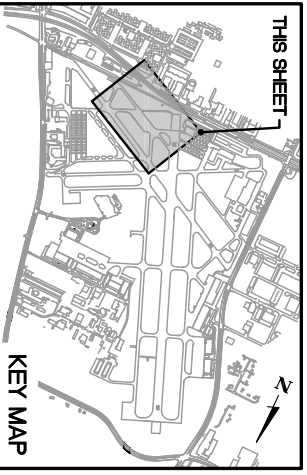
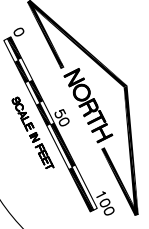
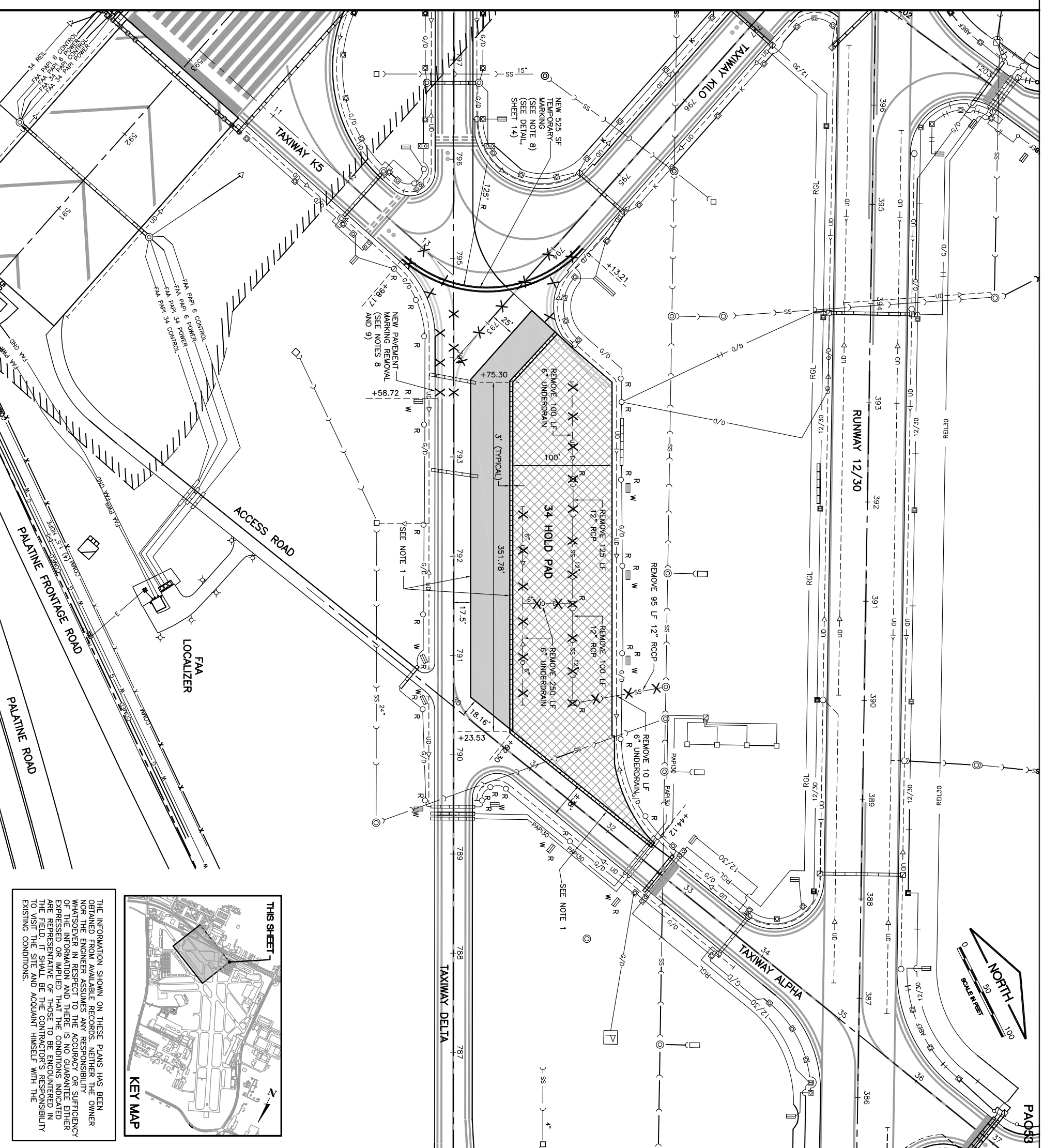


**LEGEND**

- EXISTING FULL DEPTH BITUMINOUS PAVEMENT REMOVAL AND REPLACEMENT
- EXISTING 4" BITUMINOUS MILL AND REPLACEMENT
- EXISTING BITUMINOUS PAVEMENT REMOVAL AND PCC REPLACEMENT
- EXISTING MANHOLE/INLET
- EXISTING SLOPE BOX
- EXISTING UNDERDRAN COLLECTION STRUCTURE
- EXISTING UNDERDRAN
- EXISTING STORM SEWER
- EXISTING STAKE MOUNTED TAXIWAY LIGHT
- EXISTING BASE MOUNTED TAXIWAY LIGHT
- EXISTING BASE MOUNTED RUNWAY LIGHT
- EXISTING TAXI GUIDANCE SIGN
- EXISTING WINDSOCK
- EXISTING RETROREFLECTIVE MARKER
- EXISTING PAVEMENT MARKING
- EXISTING REIL LIGHT
- EXISTING ELECTRICAL HANDHOLE
- EXISTING RUNWAY 30 REIL CIRCUIT
- EXISTING RUNWAY 12/30 CIRCUIT
- EXISTING TAXIWAY CIRCUIT
- EXISTING TAXIWAY CIRCUIT
- EXISTING TAXIWAY CIRCUIT
- EXISTING ELECTRICAL DUCT
- EXISTING WOODEN TAXI GUIDANCE SIGN
- EXISTING RUNWAY 30 PAPI CIRCUIT
- EXISTING 4-BOX PAPI SYSTEM
- EXISTING FAA CABLES
- EXISTING AIRFIELD FENCE
- EXISTING AIRPORT PROPERTY LINE
- EXISTING EACH ITEM TO BE REMOVED
- EXISTING LINEAR FOOT ITEM REMOVAL
- EXISTING RUNWAY 18/34 CIRCUIT
- EXISTING RUNWAY 6/24 CIRCUIT
- EXISTING RUNWAY GUARD LIGHT CIRCUIT
- EXISTING ELEVATED RUNWAY GUARD LIGHT
- EXISTING GAS UTILITY
- EXISTING WATERMAIN
- AIR OPERATIONS AREA
- NEW TEMPORARY MARKING AND REMOVAL

**NOTES**

1. THE EXISTING PAVEMENT TO BE REMOVED SHALL BE SAWED FULL DEPTH AROUND PERIMETER OF THE REMOVAL LIMITS. COST OF SAWCUTTING AND DISPOSAL OF PAVEMENT SHALL BE CONSIDERED INCIDENTAL TO THE ITEM.
2. IN AREAS WHERE REMOVED UNDERDRAN OR STORM SEWER IS BELOW LIMITS OF PROPOSED PAVEMENTS, TRENCH SHALL BE BACKFILLED WITH COMPACTED CRUSHED AGGREGATE BACKFILL (209). COST OF BACKFILLING SHALL BE INCIDENTAL TO UNDERDRAN OR STORM SEWER REMOVAL.
3. ITEMS REMOVED DUE TO PROPOSED PAVEMENT REMOVAL WILL NOT BE PAID FOR SEPARATELY BUT WILL BE CONSIDERED INCIDENTAL TO DISCLOSED EXCAVATION UNLESS OTHERWISE NOTED ON THE PLANS.
4. PAVEMENT ADJACENT TO THE REMOVAL LIMITS DAMAGED DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT HIS EXPENSE. THESE AREAS SHALL BE SAWED TO A UNIFORM WIDTH.
5. EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO BEGINNING PAVEMENT REMOVAL OPERATIONS.
6. THE TAXIWAY LIGHTS AND TRANSFORMERS TO BE REMOVED SHALL BE TURNED OVER TO THE AIRPORT.
7. ANY TEMPORARY CABLING REQUIRED FOR THIS PROJECT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
8. NEW PAVEMENT MARKING REMOVAL AND TEMPORARY PAVEMENT MARKING SHALL BE COMPLETED PRIOR TO ANY TEMPORARY WORK TAKING PLACE. PLACEMENT AND REMOVAL OF TEMPORARY MARKING SHALL BE PAID UNDER ITEM A6620595.
9. PAVEMENT MARKING REMOVAL SHALL BE PERFORMED USING THE WATER BLASTING METHOD ONLY.



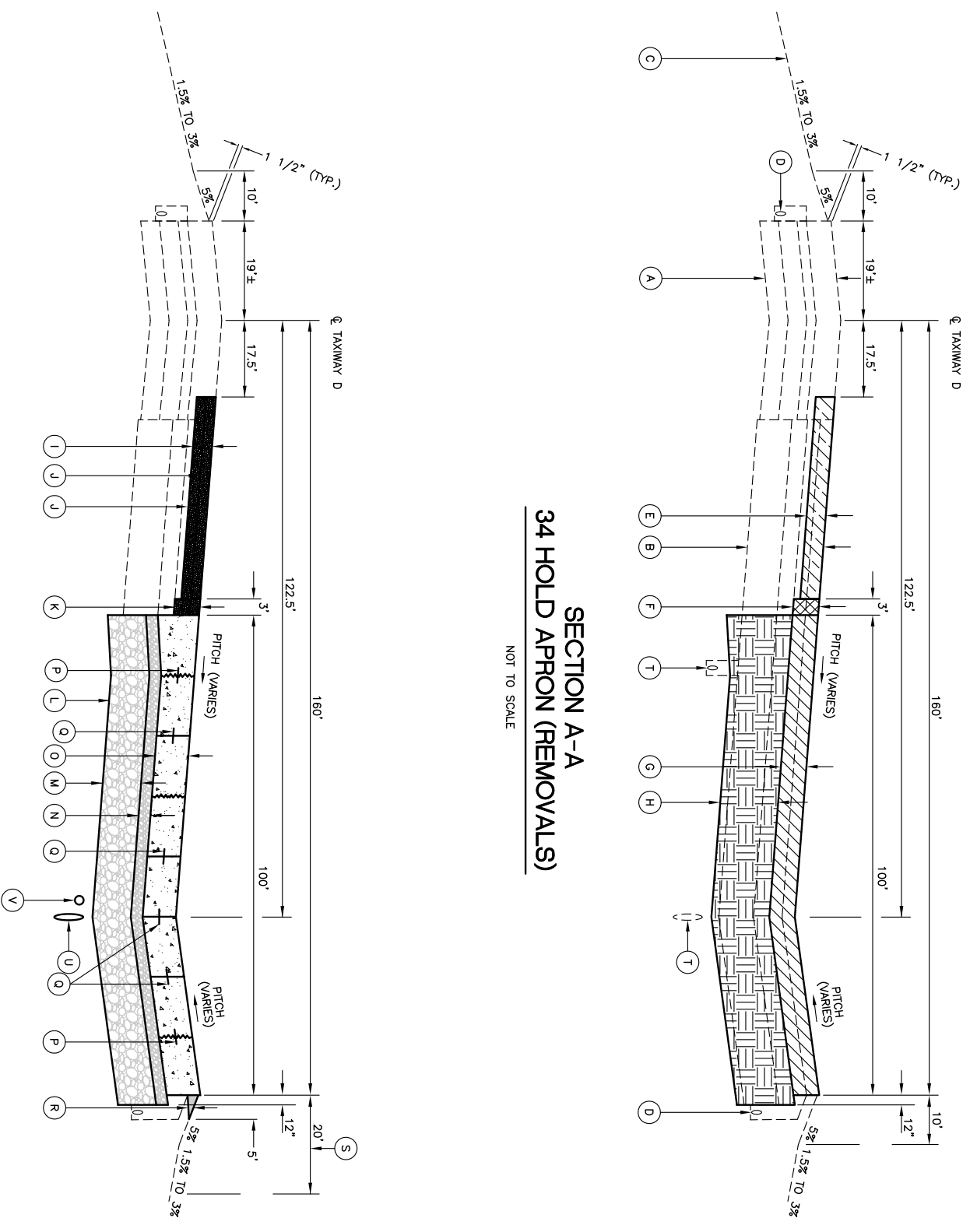
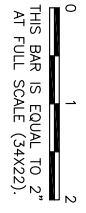
**THIS SHEET**

THE INFORMATION SHOWN ON THESE PLANS HAS BEEN OBTAINED FROM AVAILABLE RECORDS. NEITHER THE OWNER NOR THE ENGINEER ASSUMES ANY RESPONSIBILITY WHATSOEVER IN RESPECT TO THE ACCURACY OR SUFFICIENCY OF THE INFORMATION AND THERE IS NO GUARANTEE EITHER EXPRESSED OR IMPLIED THAT THE CONDITIONS INDICATED ARE REPRESENTATIVE OF THOSE TO BE ENCOUNTERED IN THE FIELD. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ASSESS THE SITE AND ACCORDANT HIMSELF WITH THE EXISTING CONDITIONS.

<p>CONTRACT: <b>PA053</b></p> <p>LETTING ITEM: <b>11A</b></p> <p>PROJECT: <b>PWK-4181</b></p> <p>A.I.P. PROJECT: <b>3-17-0018-B47</b></p>	<p>SURVEY BOOK # <b>BOOK #</b></p> <p>REVISIONS</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>NUMBER</th> <th>BY</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	NUMBER	BY	DATE				<p>THIS BAR IS EQUAL TO 2" AT FULL SCALE (3/4X22).</p>	<p><b>CHICAGO EXECUTIVE AIRPORT</b>  <b>WHEELING/PROSPECT HEIGHTS, ILLINOIS</b>  <b>REHAB RUNWAY 34 HOLD APRON</b></p> <p><b>EXISTING CONDITIONS/PROPOSED REMOVALS</b></p>
NUMBER	BY	DATE							
<p>DESIGN BY: <b>MLK</b></p> <p>DRAWN BY: <b>JRO</b></p> <p>CHECKED BY: <b>MLK</b></p> <p>APPROVED BY: <b>DLP</b></p> <p>DATE: <b>04/20/2012</b></p> <p>JOB No: <b>11290-05</b></p> <p>ILLINOIS PROJECT: <b>PWK-4181</b></p> <p>A.I.P. PROJECT: <b>3-17-0018-B47</b></p>	<p>Copyright CMT, Inc.</p> <p><b>CMT</b>          CRAWFORD, MURPHY &amp; TILLY, INC.          CONSULTING ENGINEERS          License No. 184-000613</p> <p><b>CHICAGO EXECUTIVE AIRPORT</b></p>	<p>DESIGN BY: <b>MLK</b></p> <p>DRAWN BY: <b>JRO</b></p> <p>CHECKED BY: <b>MLK</b></p> <p>APPROVED BY: <b>DLP</b></p> <p>DATE: <b>04/20/2012</b></p> <p>JOB No: <b>11290-05</b></p> <p>ILLINOIS PROJECT: <b>PWK-4181</b></p> <p>A.I.P. PROJECT: <b>3-17-0018-B47</b></p>							
<p>SHEET <b>9</b> OF <b>21</b> SHEETS</p>									

I.L. CONTRACT: **PA053**  
 I.L. LETTING ITEM: **11A**  
 I.L. PROJECT: **PWK-4181**  
 A.I.P. PROJECT: **3-17-0018-B47**

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NUMBER	BY	DATE



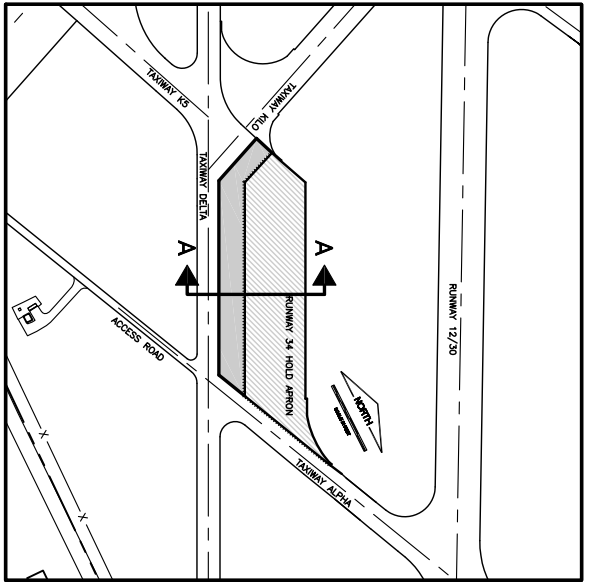
**SECTION A-A  
34 HOLD APRON (REMOVALS)**

NOT TO SCALE

**SECTION A-A  
34 HOLD APRON (IMPROVEMENTS)**

NOT TO SCALE

- LEGEND**
- A EXISTING 2" BITUMINOUS SURFACE COURSE (401)
  - B EXISTING 6-1/2" BITUMINOUS BASE COURSE (403)
  - C EXISTING GRANULAR BASE
  - D EXISTING SUBGRADE
  - E EXISTING 2" BITUMINOUS SURFACE COURSE (401)
  - F EXISTING 6" BITUMINOUS BASE COURSE (403)
  - G EXISTING 5" CRUSHED AGGREGATE BASE COURSE (209)
  - H EXISTING 11" SUBBASE COURSE (154)
  - I EXISTING GROUNDLINE
  - J EXISTING UNDERDRAIN
  - K NEW 4" BITUMINOUS PAVEMENT MILLING (AR401650)
  - L NEW REMOVE AND REPLACE BITUMINOUS PAVEMENT +/- 8" (AR401910)
  - M NEW BITUMINOUS PAVEMENT REMOVAL +/- 8" (AR401900)
  - N NEW UNCLASSIFIED EXCAVATION 18" (AR152410)
  - O NEW 2" BITUMINOUS SURFACE COURSE (AR401610)
  - P NEW 2" BITUMINOUS BASE COURSE (AR403610)
  - Q NEW BITUMINOUS TACK COAT (AR603510)
  - R NEW 2" BITUMINOUS SURFACE COURSE (401)
  - S NEW 6" BITUMINOUS BASE COURSE (403)
  - T NEW BITUMINOUS PRIME/TACK COAT BETWEEN EACH LIFT (602/603) SHALL BE PAID FOR AS AR401910
  - U NEW SOIL STABILIZATION FABRIC (AR152540)
  - V NEW 12" POROUS GRANULAR EMBANKMENT (AR208515)
  - W NEW 4" CRUSHED AGGREGATE BASE COURSE (AR209604)
  - X NEW 10" PCC PAVEMENT (AR501510)
  - Y NEW TIE BAR (501)
  - Z NEW DOWEL BAR (501)
  - AA NEW SHOULDER ADJUSTMENT (AR152480)
  - AB LIMITS OF SEEDING AND MULCHING (901 AND 908)
  - AC EXISTING STORM SEWER/UNDERDRAIN TO BE REMOVED (701/705)
  - AD NEW STORM SEWER (701)
  - AE NEW 6" PERFORATED PVC UNDERDRAIN (705)



**KEY MAP**

**CHICAGO EXECUTIVE AIRPORT  
WHEELING/PROSPECT HEIGHTS, ILLINOIS  
REHAB RUNWAY 34 HOLD APRON**

**TYPICAL SECTIONS**

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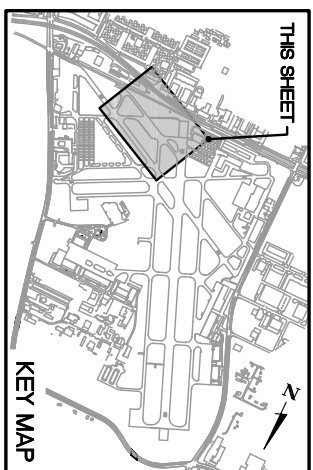
**CHICAGO EXECUTIVE AIRPORT**

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APPROVED BY:	DLP
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JOB No.:	11290-05
ILLINOIS PROJECT:	PWK-4181
A.I.P. PROJECT:	3-17-0018-B47

SHEET 10 OF 21 SHEETS

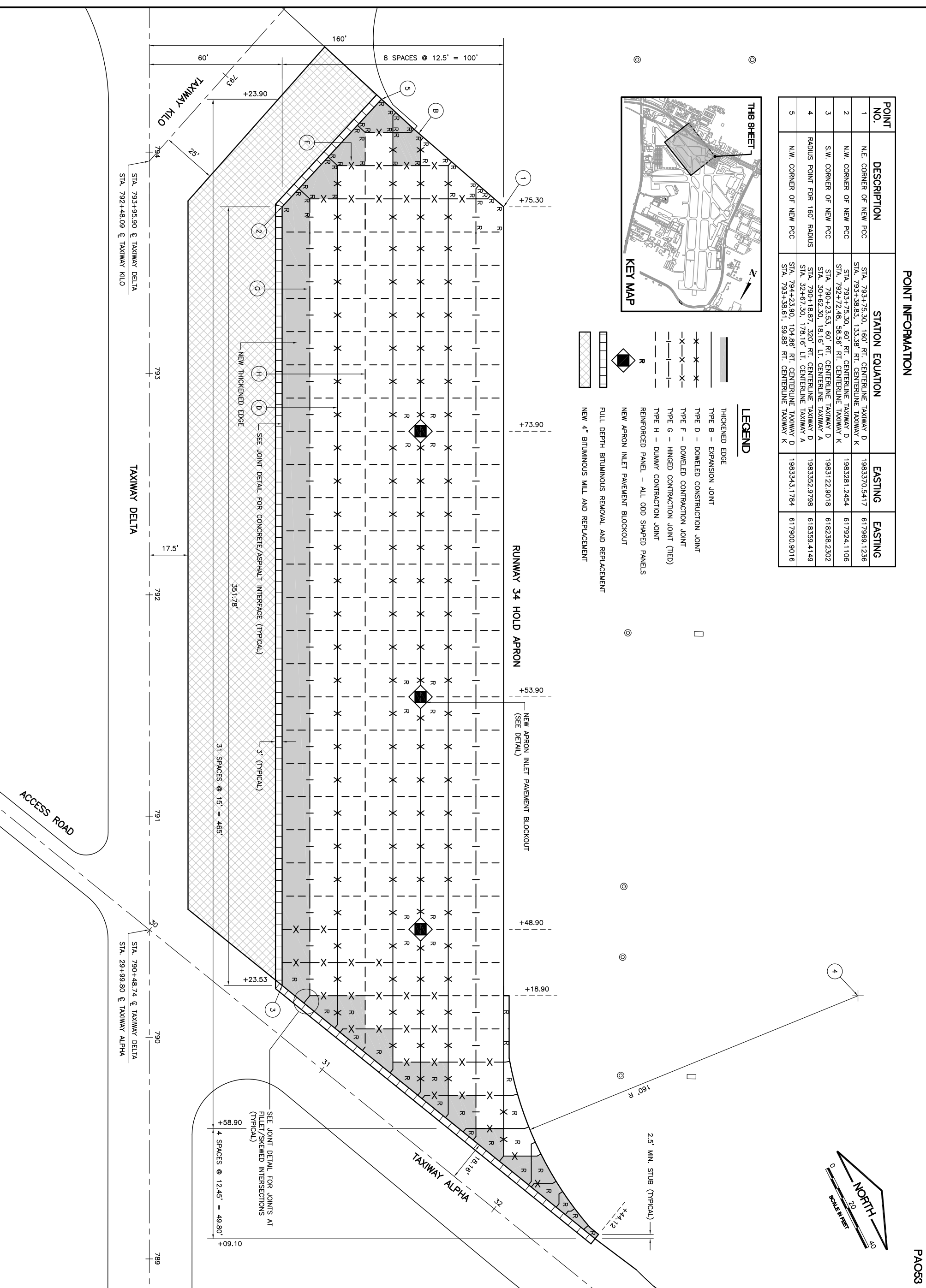
POINT INFORMATION

POINT NO.	DESCRIPTION	STATION EQUATION	EASTING	EASTING
1	N.E. CORNER OF NEW PCC	STA. 793+75.30, 160' RT. CENTERLINE TAXIWAY D STA. 793+38.83, 133.38 RT. CENTERLINE TAXIWAY K	1983370.5417	617989.1236
2	N.W. CORNER OF NEW PCC	STA. 793+75.30, 60' RT. CENTERLINE TAXIWAY D STA. 792+72.48, 58.56' RT. CENTERLINE TAXIWAY K	1983281.2454	617924.1106
3	S.W. CORNER OF NEW PCC	STA. 790+23.53, 60' RT. CENTERLINE TAXIWAY D STA. 30+62.30, 18.16' LT. CENTERLINE TAXIWAY A	1983122.9018	618238.2302
4	RADIUS POINT FOR 160' RADIUS	STA. 790+18.87, 320' RT. CENTERLINE TAXIWAY D STA. 794+23.90, 104.86' RT. CENTERLINE TAXIWAY A STA. 32+67.30, 178.16' LT. CENTERLINE TAXIWAY D	1983352.9798	618359.4149
5	N.W. CORNER OF NEW PCC	STA. 793+38.61, 59.88' RT. CENTERLINE TAXIWAY K	1983343.1784	617900.9016



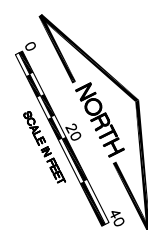
LEGEND

- THICKENED EDGE
- TYPE B - EXPANSION JOINT
- TYPE D - DOWELED CONSTRUCTION JOINT
- TYPE F - DOWELED CONTRACTION JOINT
- TYPE G - HINGED CONTRACTION JOINT (TIED)
- TYPE H - DUMMY CONTRACTION JOINT
- REINFORCED PANEL - ALL ODD SHAPED PANELS
- NEW APRON INLET PAVEMENT BLOCKOUT
- FULL DEPTH BITUMINOUS REMOVAL AND REPLACEMENT
- NEW 4" BITUMINOUS MILL AND REPLACEMENT



PA053

I.L. CONTRACT: PA053  
 I.L. LETTING ITEM: 11A  
 I.L. PROJECT: PWK-4181  
 A.I.P. PROJECT: 3-17-0018-847



0 1 2  
 THIS BAR IS EQUAL TO 2"  
 AT FULL SCALE (3/4X22).

NUMBER	BY	DATE

CHICAGO EXECUTIVE AIRPORT  
 WHEELING/PROSPECT HEIGHTS, ILLINOIS  
 REHAB RUNWAY 34 HOLD APRON

PAVEMENT JOINTING PLAN

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**CHICAGO EXECUTIVE AIRPORT**

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CHECKED BY:	MLK
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DATE:	04/20/2012
JOB No.:	11290-05
ILLINOIS PROJECT:	PWK-4181
A.I.P. PROJECT:	3-17-0018-847
SHEET	11 OF 21 SHEETS

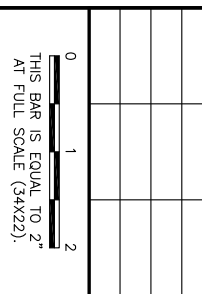
**JOINT NOTES**

1. 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.
2. THE INITIAL SAWCUT FOR ALL LONGITUDINAL AND TRANSVERSE CONTRACTION JOINTS SHALL BE SAWS AS SOON AS POSSIBLE AFTER PLACEMENT OF THE PAVEMENT. SAWING OF LONGITUDINAL CONTRACTION JOINTS ADJACENT TO THE THICKENED EDGES SHALL BE GIVEN PRIORITY OVER OTHER LONGITUDINAL JOINT SAWING.
3. ALL DOWEL BARS SHALL BE SECURELY HELD IN PLACE BY MEANS OF A DOWEL BAR ASSEMBLY OR MECHANICALLY INSTALLED PER ARTICLE 420.05, JOINTS OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION," WHICH MANDATES THAT THEY WILL REMAIN PARALLEL TO THE PAVEMENT LINES. THE DOWEL BAR ASSEMBLY OR MECHANICAL METHOD SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.
4. ALL THE BARS AND MESH SHALL BE SECURELY HELD IN PLACE BY SUPPORT PINS OR PLACED BY OTHER APPROVED METHODS TO PREVENT SHIFTING DURING AND AFTER CONCRETE PLACEMENT.
5. THE BARS SHALL BE DEFORMED STEEL BARS AND CONFORM TO THE REQUIREMENTS OF ASTM A706, EXCEPT THAT RAIL STEEL BARS, GRADE 50 OR 60, SHALL NOT BE USED FOR THE BARS THAT ARE TO BE BENT OR RE-STRAIGHTENED DURING CONSTRUCTION. THE BARS DESIGNATED AS GRADE 40 IN ASTM A706 CAN BE USED FOR CONSTRUCTION REQUIRING BENT BARS.
6. THE INITIAL SAWCUT SHALL BE MADE TO THE 1/8" WIDTH INDICATED. INITIAL SAWING TO THE DIMENSION OF THE SECOND SAWCUT WILL NOT BE ALLOWED.
7. JOINTS SHALL BE DRY AND CLEAN BEFORE SEALING OPERATIONS BEGIN.
8. COST OF ALL JOINT SAWING, CLEANING AND SEALING OF NEW CONCRETE PAVEMENT SHALL BE CONSIDERED INCIDENTAL TO THE ASSOCIATED PAY ITEM AND NO SEPARATE PAYMENT SHALL BE MADE.
9. SHOULD THE POURING OPERATIONS REQUIRE THE INSERTION OF AN INTERMEDIATE HEADER, A DOWEL BASKET ASSEMBLY OR OTHER APPROVED METHOD OF DOWEL BAR PLACEMENT SHALL BE REQUIRED.
10. DOWEL BASKET ASSEMBLIES MEETING IDOT APPROVAL MAY BE PROPOSED BY THE CONTRACTOR TO BE APPROVED BY THE ENGINEER. DOWELS IN THE APPROVED BASKET ASSEMBLIES SHALL CONFORM TO TABLE 2.
11. CONTRACTOR SHALL CONSTRUCT A 1/4" CHAMFER ON ALL CONCRETE JOINTS PER THE DETAIL ON THIS SHEET AT NO ADDITIONAL COST.

CONTRACT: PA053  
 LETTING ITEM: 11A  
 PROJECT: PWK-4181  
 A.I.P. PROJECT: 3-17-0018-847

NUMBER	REVISIONS	BY	DATE

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**CHICAGO EXECUTIVE AIRPORT  
 WHEELING/PROSPECT HEIGHTS, ILLINOIS  
 REHAB RUNWAY 34 HOLD APRON**

**PAVEMENT JOINTING DETAILS**

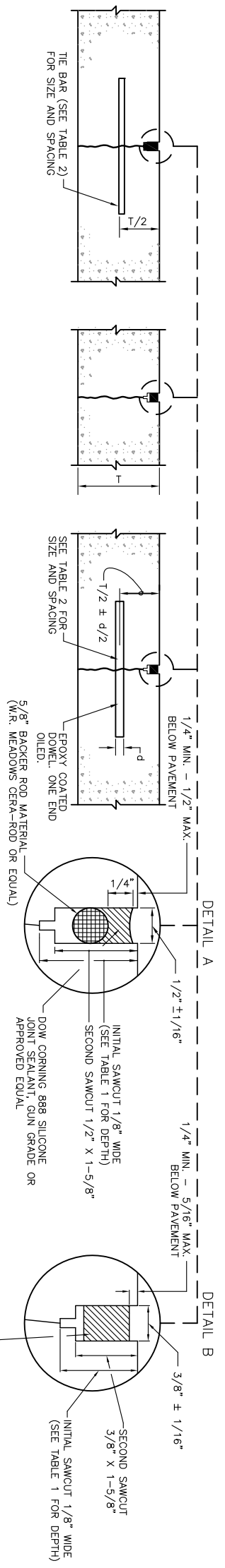
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 CHECKED BY: MLK  
 APPROVED BY: DLP

DATE: 04/20/2012  
 JOB No.: 11290-05  
 ILLINOIS PROJECT: PWK-4181  
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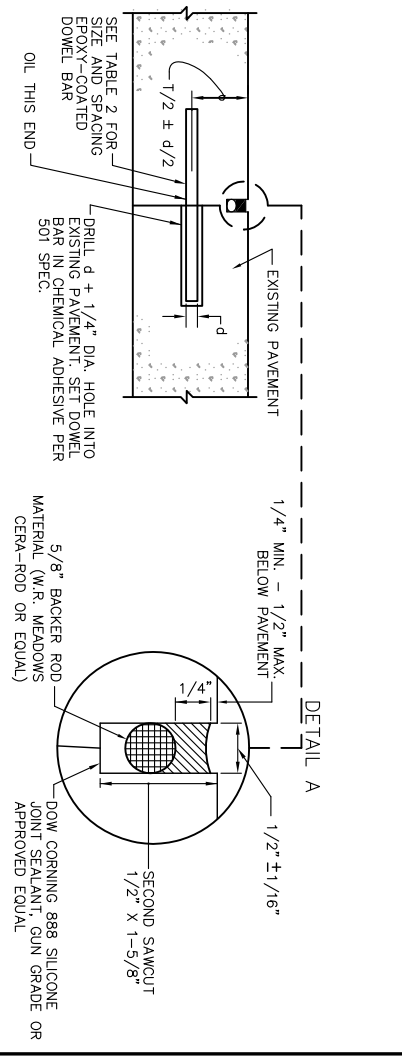


**TYPE G HINGED (TIED)**  
 SYMBOL —|—

**TYPE H DUMMY**  
 SYMBOL —|—

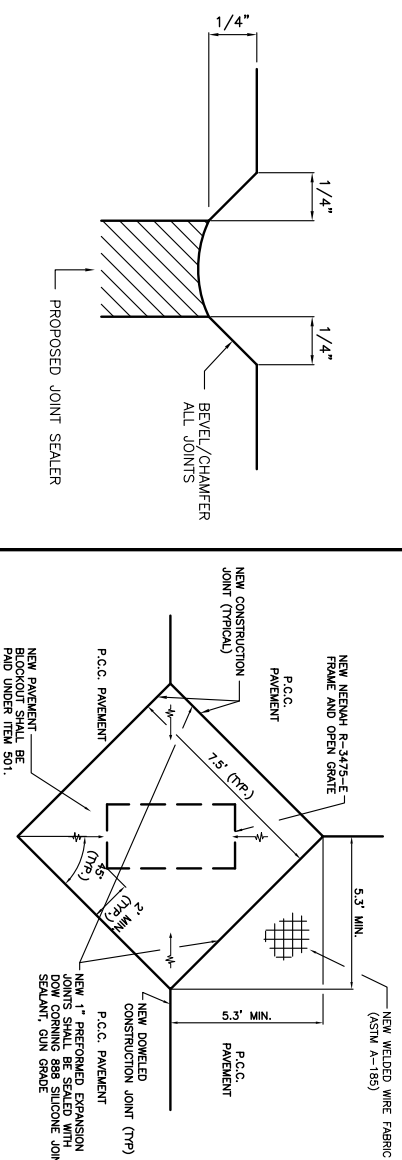
**TYPE F DOWELED**  
 SYMBOL —x—x—

NOTE: CONTRACTOR SHALL HAVE THE OPTION OF USING DETAIL A OR DETAIL B BUT NOT A COMBINATION OF BOTH



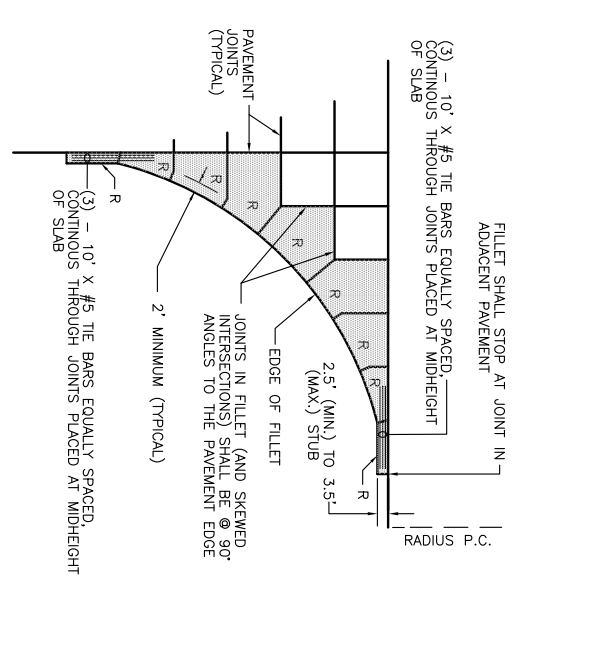
**TYPE D DOWELED**  
 SYMBOL —x—x—

**CHAMFER/BEVEL JOINT DETAIL**  
 NOT TO SCALE



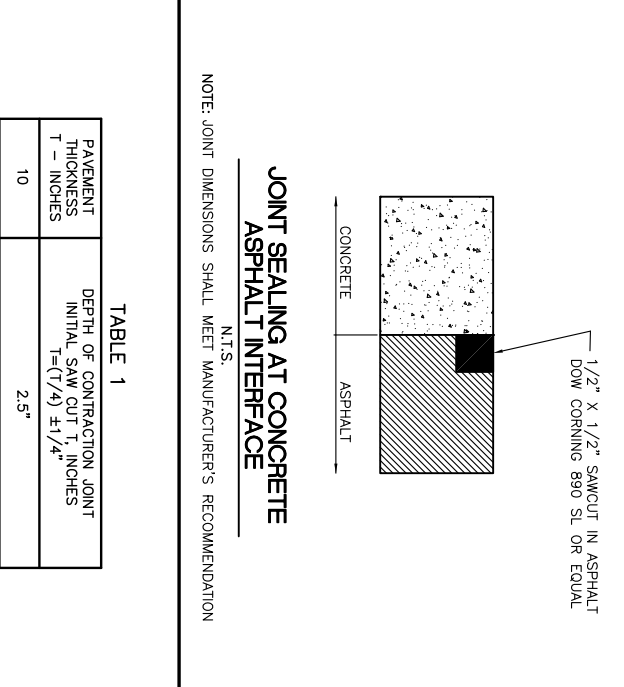
**APRON INLET PAVEMENT  
 BLOCKOUT DETAIL**  
 N.T.S.

NOTE: ABOVE BLOCKOUT SHALL BE CONSTRUCTED FOR ALL APRON INLETS



**FILLET DETAIL  
 AND FILLET REINFORCING LAYOUT**  
 N.T.S.

Ⓢ DENOTES ODD SHAPED REINFORCED PANELS TO BE REINFORCED WITH DEFORMED WIRE FABRIC AS SHOWN ON THIS SHEET. ALL NON RECTANGULAR SHAPED PANELS SHALL BE REINFORCED. (REINFORCEMENT NOT SHOWN)



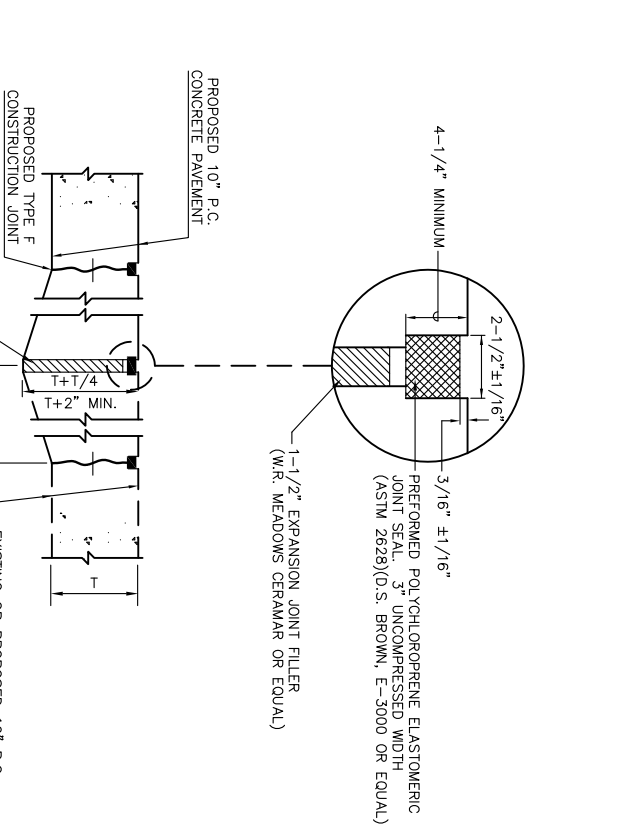
**TABLE 1**

PAVEMENT THICKNESS T - INCHES	DEPTH OF CONTRACTION JOINT INITIAL SAW CUT 1, INCHES	2.5"
10		

**TABLE 2**

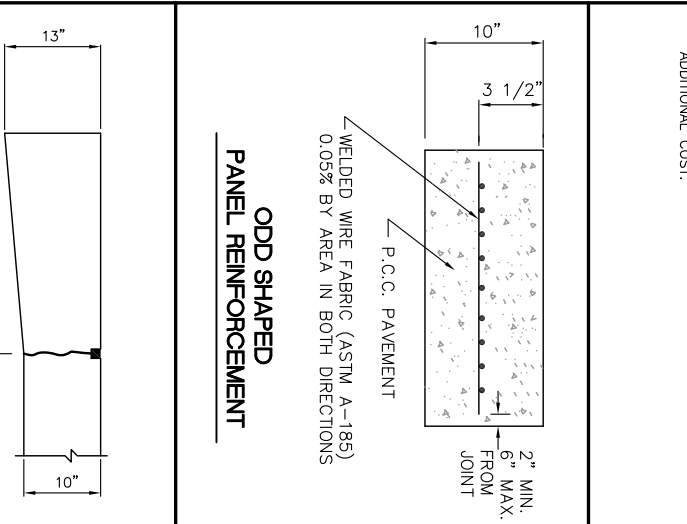
DOWEL BAR DETAILS		TIE BAR DETAILS	
PAVEMENT THICKNESS T - INCHES	DIA. (d)	LENGTH	SPACING
10	1"	19"	12"

**DIMENSION TABLES**



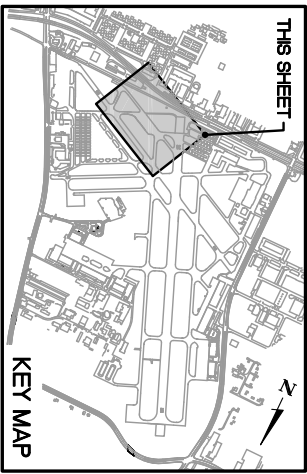
**TYPE B EXPANSION**  
 SYMBOL —|—

**EXPANSION JOINTS**



**THICKENED EDGE**  
 SYMBOL —|—

**ODD SHAPED  
 PANEL REINFORCEMENT**

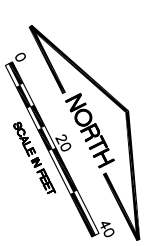


THIS SHEET

KEY MAP

**LEGEND**

- ○ □ EXISTING STORM SEWER STRUCTURE
- ○ EXISTING ELEVATION
- ○ NEW TYPE 1 INLET
- NEW REMOVE AND REPLACE BITUMINOUS PAVEMENT - FULL DEPTH
- ▨ NEW 4" BITUMINOUS MILL AND REPLACE
- ▨ NEW 10" PCC PAVEMENT
- 632 — NEW CONTOUR
- - - 630 - - - EXISTING CONTOUR



PA053

I.L. CONTRACT: PA053  
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0 1 2  
 THIS BAR IS EQUAL TO 2"  
 AT FULL SCALE (34X22).

**CHICAGO EXECUTIVE AIRPORT**  
**WHEELING/PROSPECT HEIGHTS, ILLINOIS**  
**REHAB RUNWAY 34 HOLD APRON**

**GRADING PLAN**

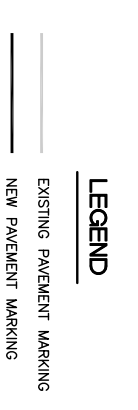
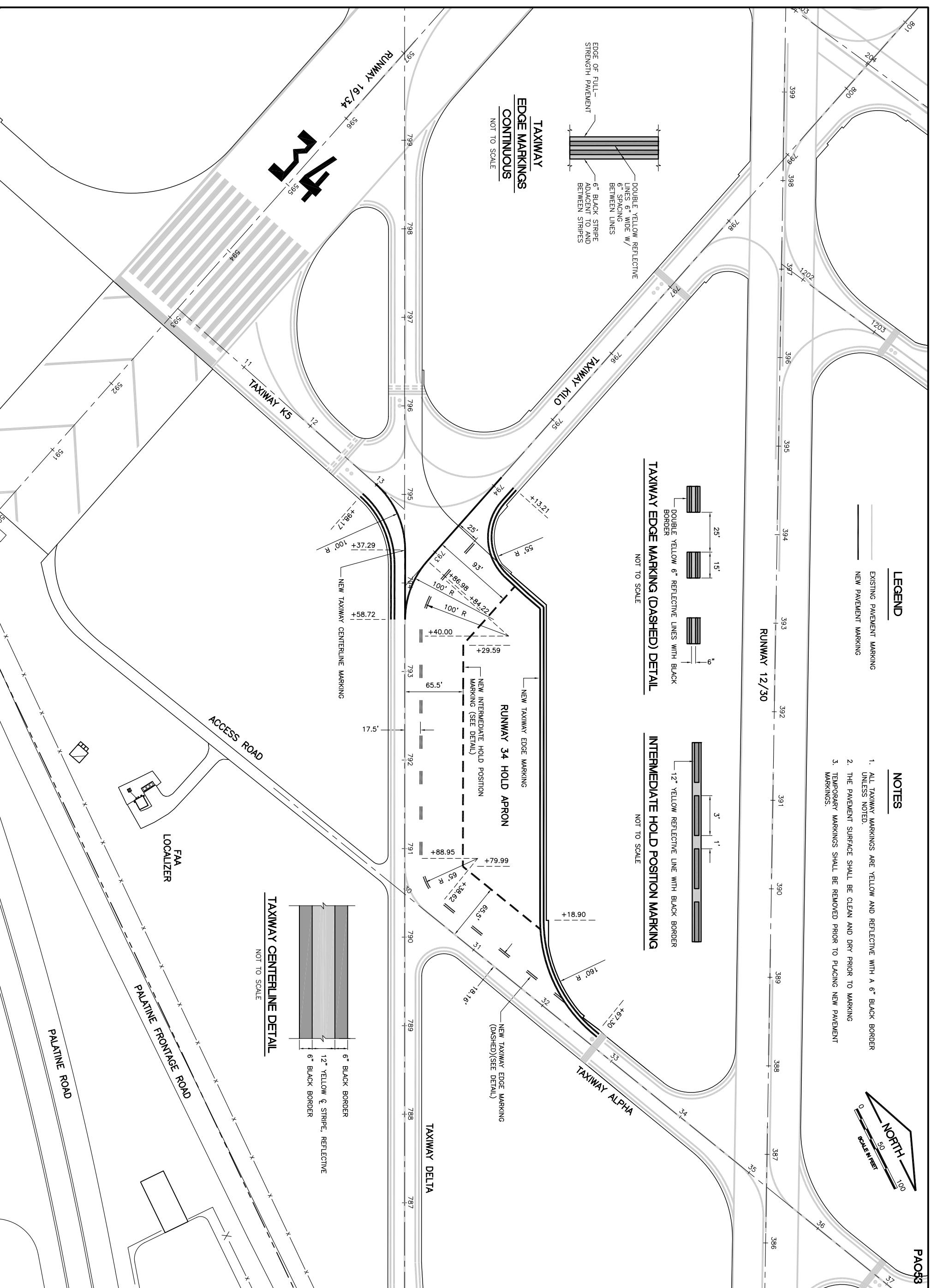


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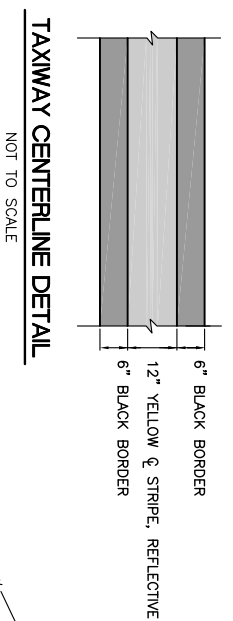
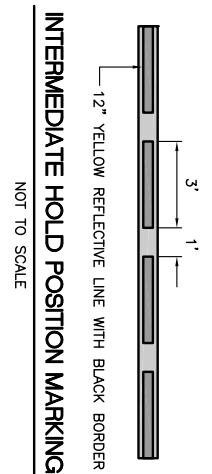
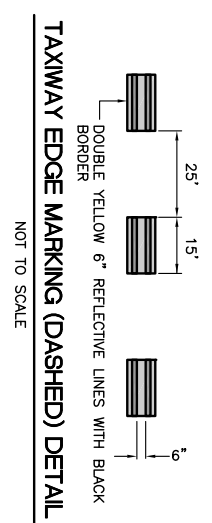
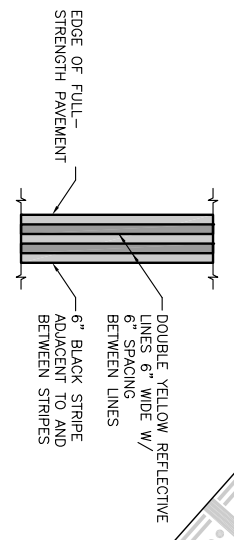
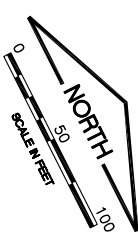
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A.I.P. PROJECT:	3-17-018-B47
SHEET	13 OF 21 SHEETS



- NOTES**
1. ALL TAXIWAY MARKINGS ARE YELLOW AND REFLECTIVE WITH A 6" BLACK BORDER UNLESS NOTED.
  2. THE PAVEMENT SURFACE SHALL BE CLEAN AND DRY PRIOR TO MARKING
  3. TEMPORARY MARKINGS SHALL BE REMOVED PRIOR TO PLACING NEW PAVEMENT MARKINGS.

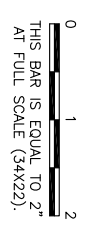


PA053

IL CONTRACT: PA053  
 IL LETTING ITEM: 11A  
 IL PROJECT: PWK-4181  
 A.I.P. PROJECT: 3-17-0018-847

SURVEY BOOK # BOOK #

NUMBER	BY	DATE



CHICAGO EXECUTIVE AIRPORT  
 WHEELING/PROSPECT HEIGHTS, ILLINOIS  
 REHAB RUNWAY 34 HOLD APRON

**PAVEMENT MARKING PLAN**

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SHEET 14 OF 21 SHEETS

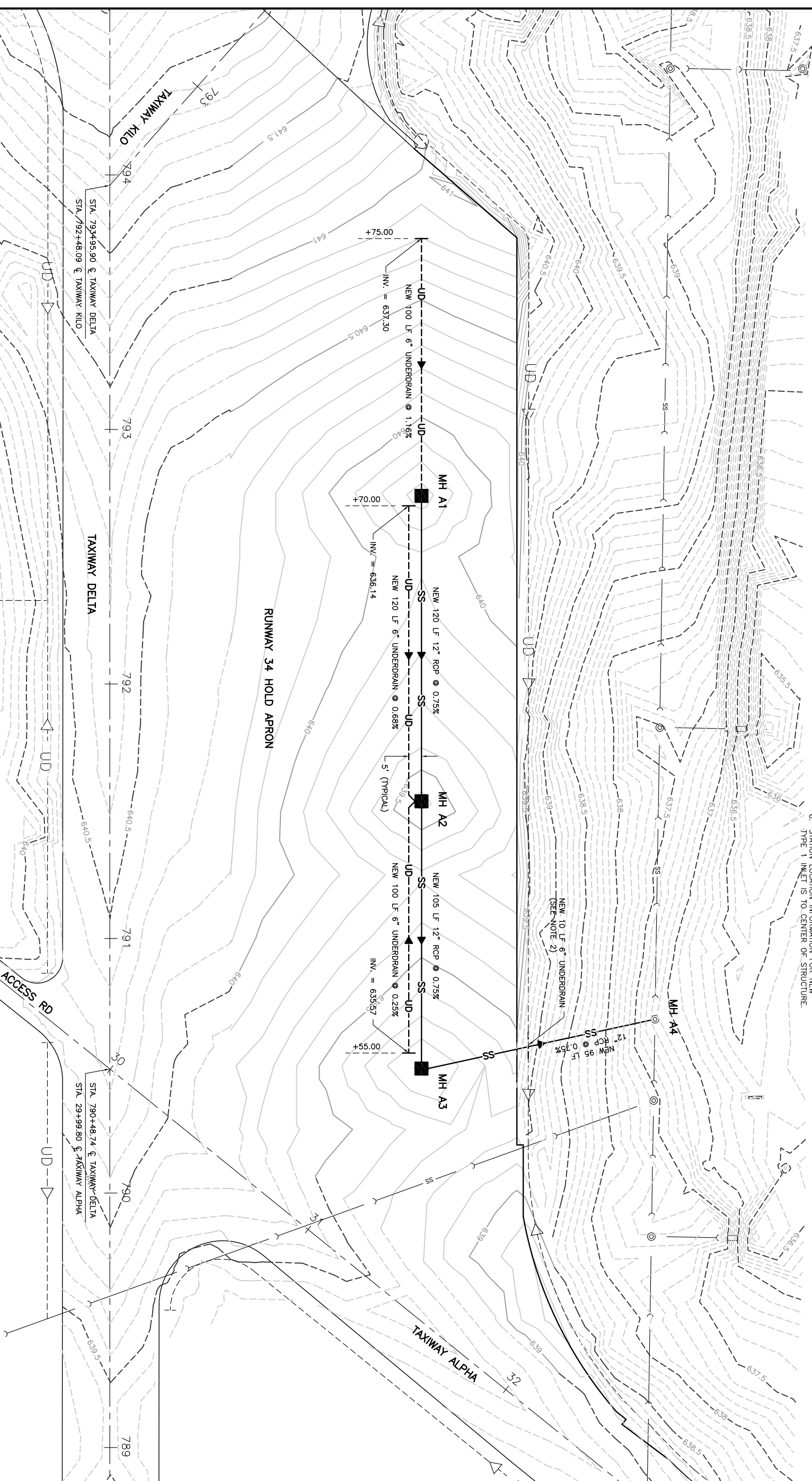
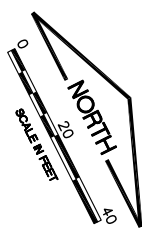
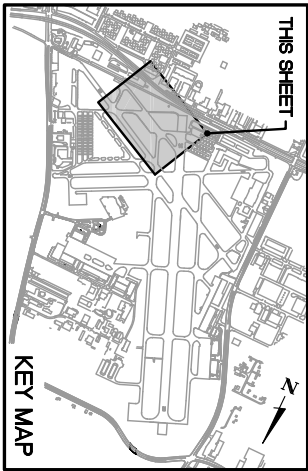
**NEW DRAINAGE SCHEDULE**

STRUCTURE	LOCATION	DESCRIPTION	RIM	INVERTS
MH A1	STA. 792+73.90, 122.5' RT. @ TAXIWAY DELTA	NEW TYPE 1 INLET W/ NEMAH R-3475-E	639.64	NEW 12" (E) = 634.81 NEW 6" (N) = 636.14
MH A2	STA. 791+43.30, 122.5' RT. @ TAXIWAY DELTA	NEW TYPE 1 INLET W/ NEMAH R-3475-E FRAME AND GRATE	639.36	NEW 12" (E) = 633.83 NEW 12" (W) = 633.91 NEW 6" (E) = 635.33 NEW 6" (W) = 635.33
MH A3	STA. 790+48.90, 122.5' RT. @ TAXIWAY DELTA	NEW TYPE 1 INLET W/ NEMAH R-3475-E	639.07	NEW 12" (N) = 632.96 NEW 12" (W) = 633.04
MH A4	STA. 790+68.26, 214.29' RT. @ TAXIWAY DELTA	EXISTING 5' MANHOLE W/ TYPE 1 OPEN LID	(EXISTING) 637.10	EXISTING 18" (W) = 632.00 EXISTING 18" (E) = 632.05 EXISTING 12" (S) = 632.25 NEW 12" (S) = 632.25

**LEGEND**

- UD--- EXISTING UNDERDRAIN
- UD--- EXISTING UNDERDRAIN COLLECTION STRUCTURE
- UD--- NEW 6" PERFORATED PVC UNDERDRAIN
- UD--- EXISTING STORM STRUCTURE
- SS--- EXISTING STORM SEWER
- SS--- NEW STORM SEWER
- SS--- NEW TYPE 1 INLET
- SS--- NEW CONTOUR
- SS--- EXISTING CONTOUR
- SS--- NEW UNDERDRAIN CAP

- NOTES**
- CONTRACTOR SHALL FIELD VERIFY EXISTING UNDERDRAIN INVERTS BEFORE INSTALLING NEW UNDERDRAIN CONNECTIONS.
  - ALL UNDERDRAIN CONNECTIONS, CORING INTO STRUCTURES, TEES, BENDS, CAPS, ETC. SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE UNDERDRAIN.
  - INSTALLATION OF NEW ELECTRICAL DUCTS/CONDUITS TO BE CLEAR OF UNDERDRAIN, COST INCIDENTAL.
  - UNDERDRAIN CONFLICTS WITH EXISTING CONDITIONS SHALL BE RESOLVED AND COST SHALL BE INCIDENTAL TO UNDERDRAIN.
  - REMOVAL OF EXISTING STORM SEWER MANHOLE/INLET CONCRETE BENCHES, CORING AND CONCRETE COLLARS TO FACILITATE CONNECTIONS OF NEW STORM SEWER PIPE SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE PIPE.
  - STATION LOCATION INFORMATION FOR NEW TYPE 1 INLET IS TO CENTER OF STRUCTURE.

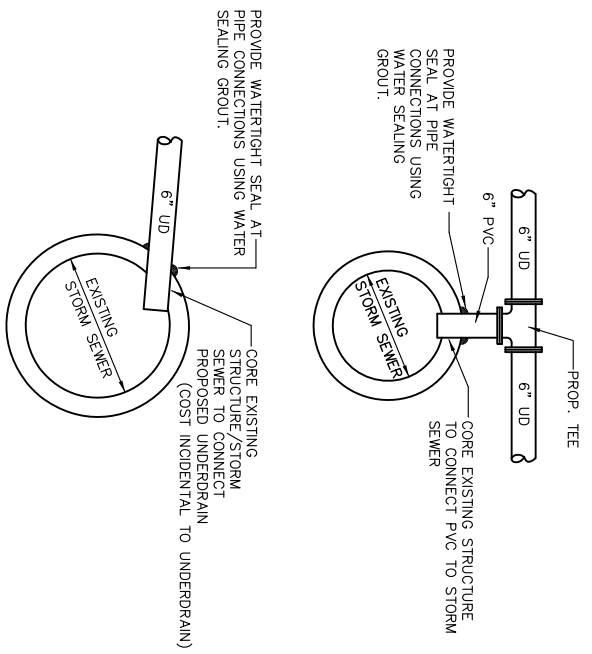
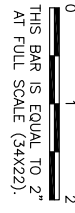


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 IL LETTING ITEM: **11A**  
 IL PROJECT: **PWK-4181**  
 A.I.P. PROJECT: **3-17-0018-B47**

SURVEY BOOK #	BOOK #

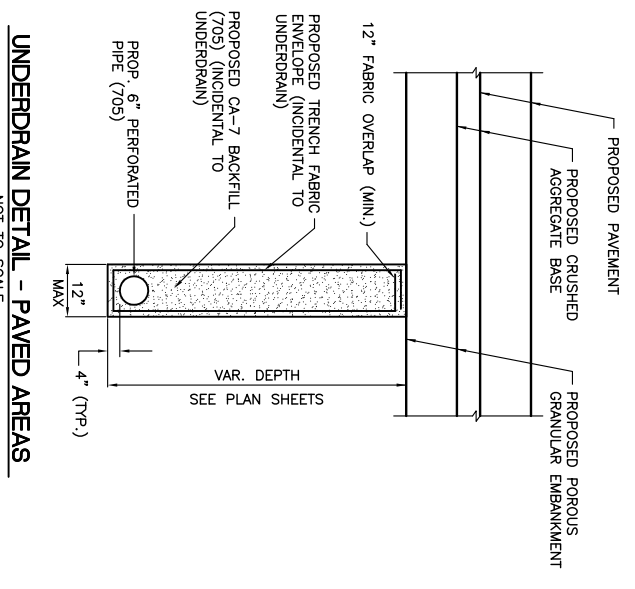
  

NUMBER	BY	DATE



**UNDERDRAIN CONNECTION DETAILS**

NOT TO SCALE  
 UNDERDRAIN CONNECTIONS AND FITTINGS, TEES AND ELBOWS USED FOR PROPOSED STRUCTURES AND STORM SEWERS / EXISTING STRUCTURES AND STORM SEWERS SHALL BE CONSIDERED INCIDENTAL TO THE PROPOSED UNDERDRAIN.



**UNDERDRAIN DETAIL - PAVED AREAS**

NOT TO SCALE

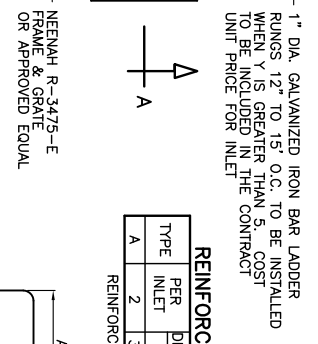
**NOTES**

1. THE 6" UNDERDRAIN SHALL BE INSTALLED AFTER THE SUBGRADE IS COMPACTED.
2. THE SPOILS FROM THE 6" UNDERDRAIN CONSTRUCTION SHALL BE REMOVED DAILY FROM THE SURFACE OF THE CRUSHED AGGREGATE BASE.

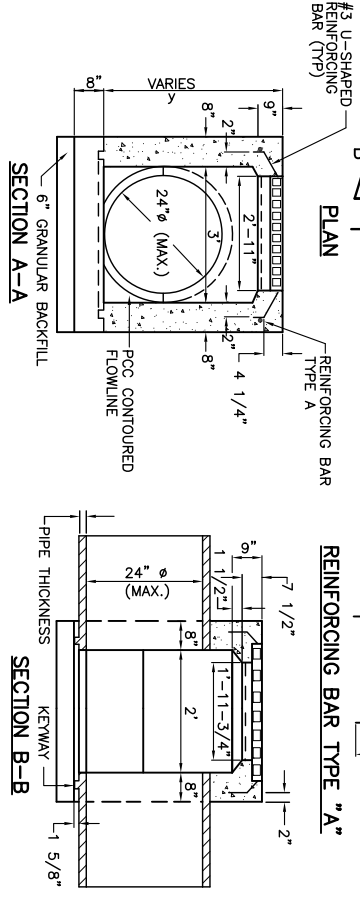
**REINFORCING BAR SCHEDULE**

TYPE	PER INLET	DIMENSIONS	APPROX. WT. OF BARS IN INLET
A	2	3'4" x 2'4"	#5 16.7

REINFORCING STEEL BARS TYPES



**REINFORCING BAR TYPE "A"**



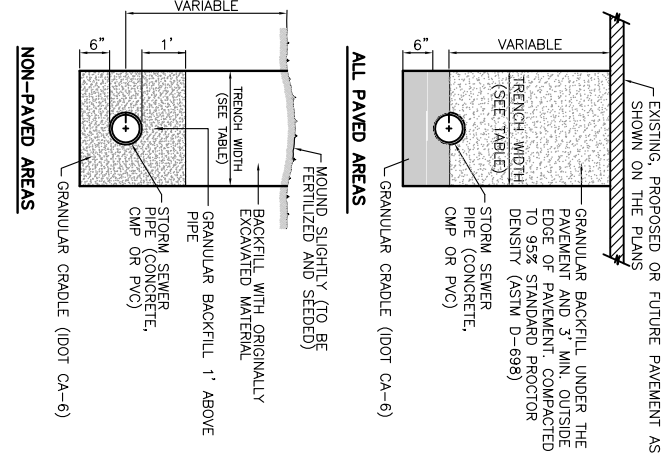
**NOTES**

1. 1/2" CHAMFER TO BE USED ON ALL EXPOSED CORNERS ON INLETS. BARS TO BE INSTALLED 2" FROM FACE OF WALL.
2. INLET TO BE CONSTRUCTED OF STRUCTURAL P.C. CONCRETE. THE CONTRACT UNIT PRICE FOR INLET SHALL INCLUDE THE GRATE AND FRAME AS SPECIFIED.

**STORM SEWER/UNDERDRAIN NOTES**

1. CONTRACTOR SHALL FIELD VERIFY EXISTING STORM SEWER/UNDERDRAIN INVERTS BEFORE INSTALLING PROPOSED PIPE, CONNECTIONS AND ORDERING MATERIALS.
2. ALL UNDERDRAIN CONNECTIONS, CORING INTO STRUCTURES, TEES, BENDS, STORM SEWER ETC. SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE UNDERDRAIN.
3. UNDERDRAIN SLOPES FOLLOW EDGE OF PAVEMENT SLOPE UNLESS OTHERWISE NOTED.
4. INSTALL PROPOSED ELECTRICAL DUCTS/CONDUITS TO BE CLEAR OF UNDERDRAIN, COST INCIDENTAL.
5. UNDERDRAIN CONFLICTS WITH EXISTING CONDITIONS SHALL BE RESOLVED AND COST SHALL BE INCIDENTAL TO UNDERDRAIN.
6. PRIOR TO ORDERING AND INSTALLING ALL FIELD TILE REPLACEMENT PIPE, THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION AND INVERTS OF EXISTING FIELD TILE CONNECTIONS. ADJUSTMENTS SHALL BE MADE AS NECESSARY AT NO ADDITIONAL COST TO THE CONTRACT.
7. CORING OF DRAINAGE STRUCTURE AND REMOVAL OF EXISTING STORM SEWER MANHOLE/INLET CONCRETE BENCHES TO FACILITATE CONNECTIONS OF PROPOSED STORM SEWER PIPE SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE PIPE.

INSIDE DIAMETER OF STORM SEWER (INCHES)	MAXIMUM TRENCH WIDTH	MAXIMUM PAVEMENT REMOVAL WIDTH
6	3'-7"	5'-7"
8	3'-9"	5'-9"
12	4'-2"	6'-2"
15	4'-6"	6'-6"
18	4'-9"	6'-9"
21	5'-0"	7'-0"
24	5'-4"	7'-4"
27	5'-7"	7'-7"
30	5'-11"	7'-11"
36	6'-6"	8'-6"
42	7'-1"	9'-1"
48	7'-8"	9'-8"
54	8'-3"	10'-3"
60	8'-10"	10'-10"
66	9'-5"	11'-5"
72	10'-0"	12'-0"
78	10'-7"	12'-7"
84	11'-2"	13'-2"
90	11'-9"	13'-9"
96	12'-4"	14'-4"
102	12'-11"	14'-11"
108	13'-6"	15'-6"



**CHICAGO EXECUTIVE AIRPORT  
 WHEELING/PROSPECT HEIGHTS, ILLINOIS  
 REHAB RUNWAY 34 HOLD APRON**

**DRAINAGE DETAILS**

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**CHICAGO EXECUTIVE AIRPORT**

DESIGN BY:	MLK
DRAWN BY:	JRO
CHECKED BY:	MLK
APPROVED BY:	DLP
DATE:	04/20/2012
JOB No.:	11290-05

ILLINOIS PROJECT: **PWK-4181**  
 A.I.P. PROJECT: **3-17-0018-B47**

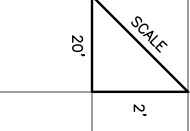
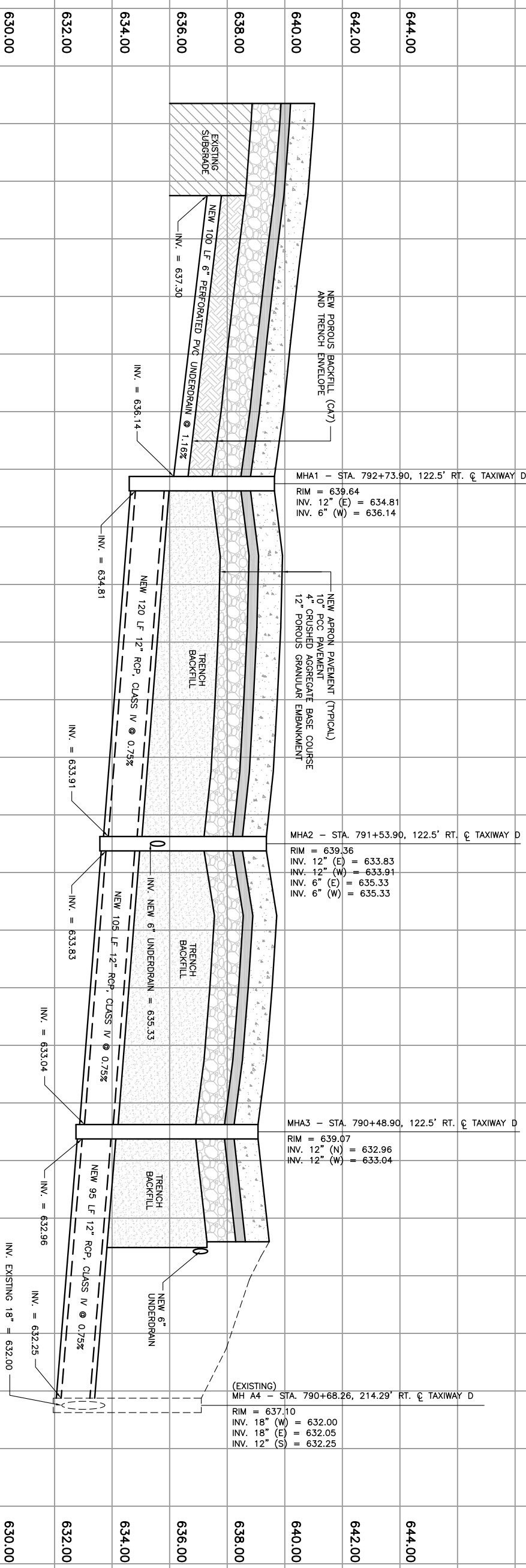
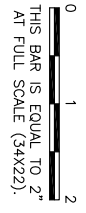
SHEET **16** OF **21** SHEETS



I.L. CONTRACT: **PA053**  
 I.L. LETTING ITEM: **11A**  
 I.L. PROJECT: **PWK-4181**  
 A.I.P. PROJECT: **3-17-0018-B47**

SURVEY BOOK # BOOK #

NUMBER	BY	DATE



**CHICAGO EXECUTIVE AIRPORT**  
**WHEELING/PROSPECT HEIGHTS, ILLINOIS**  
**REHAB RUNWAY 34 HOLD APRON**

**STORM SEWER PROFILE**

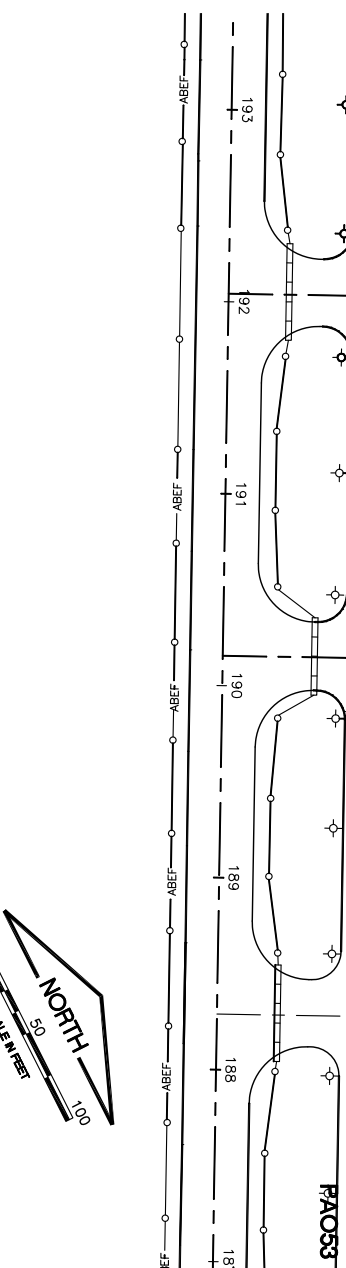
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**CHICAGO EXECUTIVE AIRPORT**

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ILLINOIS PROJECT:	PWK-4181
A.I.P. PROJECT:	3-17-0018-B47
SHEET	17 OF 21 SHEETS

AIRFIELD SIGNAGE SCHEDULE						
NEW SIGN NUMBER	NEW SIGN FACE	NEW SIGN LEGEND	NEW SIGN TYPE	NEW SIGN LOCATION	NEW SIGN NUMBER	NEW SIGN FACE
S1	N	KNV7B *	0	STA. 792+68.68, 185' RT. ☐ TAXIWAY DELTA	S5	N
S2	N	KNV7B ***	0	STA. 791+80.85, 185' RT. ☐ TAXIWAY DELTA	S6	N
S3	N	KNV7B ***	0	STA. 790+94.88, 185' RT. ☐ TAXIWAY DELTA	S7	E
S4	E	KNV7B ***	2,3	STA. 791+68.44, 43.51' LT. ☐ TAXIWAY DELTA	S8	E

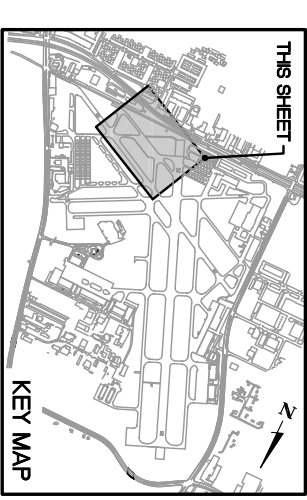


CONTRACT: PA053
LETTING ITEM: 11A
PROJECT: PWK-4181
A.I.P. PROJECT: 3-17-0018-847
SURVEY BOOK # BOOK #
REVISIONS
NUMBER BY DATE

- NEW SIGN TYPE LEGEND**
- 0 - BLANK PANEL - BLACK
  - 1 - RUNWAY/TAXIWAY HOLDLINE - WHITE LEGEND ON RED BACKGROUND
  - 2 - LOCATION SIGN - YELLOW LEGEND ON BLACK BACKGROUND
  - 3 - DIRECTION/INFORMATION SIGN - BLACK LEGEND ON YELLOW BACKGROUND

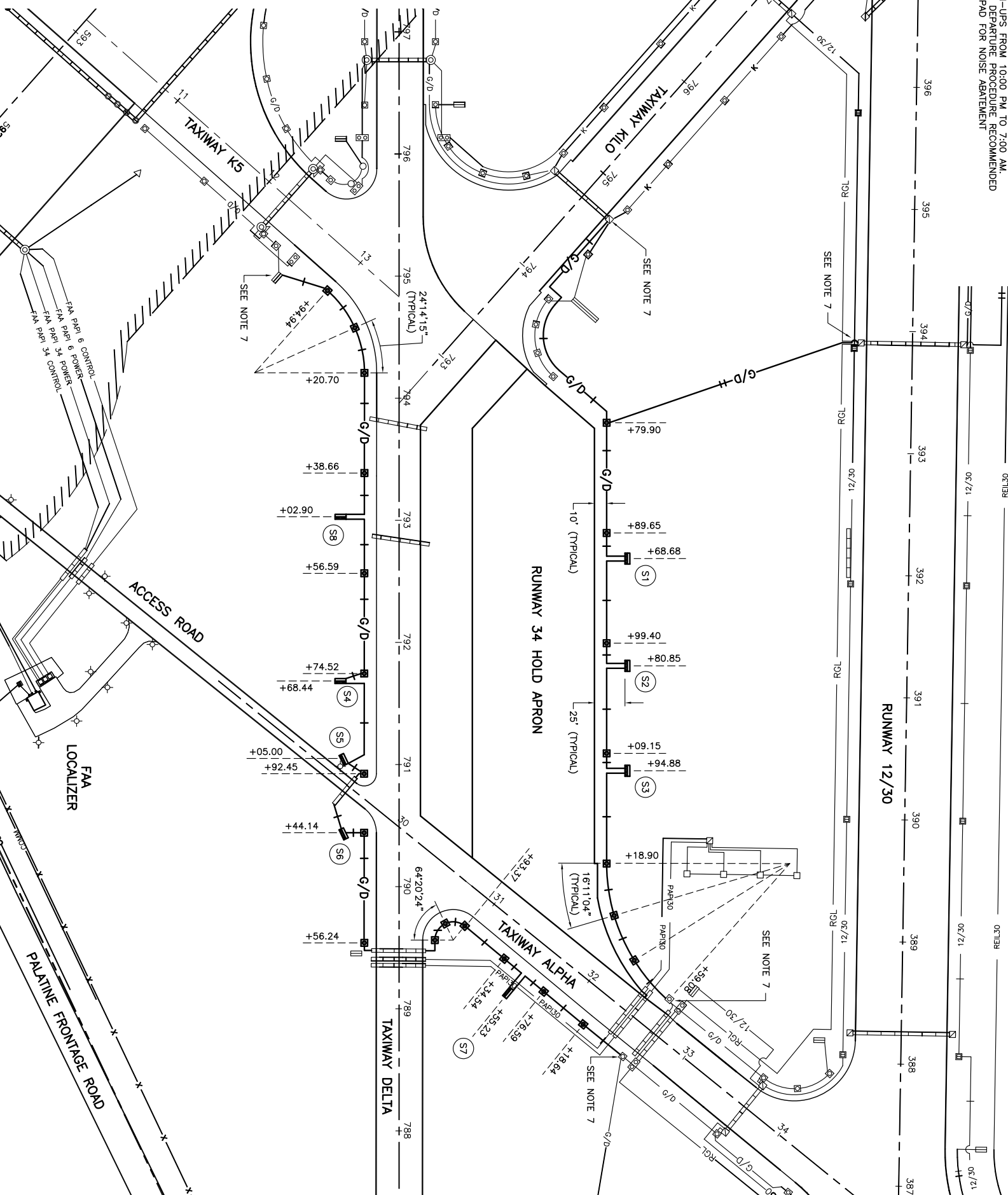
\* NO ENGINE RUN-UPS FROM 10:00 PM TO 7:00 AM.  
 \*\* NBAA CLOSE-IN DEPARTURE PROCEDURE RECOMMENDED  
 \*\*\* HOLD 190° ON PAD FOR NOISE ABATEMENT

- LEGEND**
- ☐ EXISTING BASE MOUNTED MEDIUM INTENSITY TAXIWAY LIGHT
  - ⊙ EXISTING BASE MOUNTED/IN-PAVEMENT HIGH INTENSITY RUNWAY LIGHT
  - ☐ EXISTING AIRFIELD GUIDANCE SIGN
  - EXISTING CONDUIT/DUCT BANK
  - ⊙ EXISTING ELECTRIC MANHOLE
  - ⊙ EXISTING ELECTRIC HANDHOLE
  - 16/34 EXISTING RUNWAY 16/34 CIRCUIT
  - REL EXISTING REIL CABLES
  - FAA-E EXISTING FAA CABLES
  - RGL EXISTING RUNWAY GUARD LIGHT CIRCUIT
  - ☐ NEW BASE MOUNTED MEDIUM INTENSITY QUARTZ TAXIWAY LIGHT
  - ☐ NEW AIRFIELD GUIDANCE SIGN
  - NEW 1/C #8, 5KV, L-824, TYPE C CABLE IN 2" PVC CONDUIT, DIRECT BURIED
  - NUMBER OF TICK MARKS INDICATE NUMBER OF CABLES



**ELECTRICAL / LIGHTING NOTES**

1. SEE EXISTING CONDITIONS FOR LIGHTING REMOVALS.
2. ALL EXISTING TAXIWAY AND RUNWAY AIRFIELD LIGHTING CIRCUITS, FAA CABLES AND OTHER AIRPORT ELECTRICAL CABLES SHALL REMAIN IN SERVICE UNTIL REPLACED AS DIRECTED BY THE RESIDENT ENGINEER. ALL TEMPORARY CABLING AND SPLICING SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
3. AT ANY LOCATION WHERE THE NEW DUCT OR CABLE ROUTE CROSSES AN EXISTING UTILITY, THE CONTRACTOR SHALL HAND EXCAVATE AND LOCATE THE EXISTING UTILITY PRIOR TO TRENCHING. COST OF LOCATING ALL EXISTING UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT.
4. THE LOCATION OF EXISTING UTILITIES ARE APPROXIMATE. THE CONTRACTOR SHALL OPEN THE ENTIRE TRENCH BETWEEN MANHOLES BEFORE ANY CONDUIT IS LAID TO ASCERTAIN THE EXISTENCE AND POSITION OF ANY OBSTRUCTIONS.
5. CONTRACTOR SHALL COORDINATE THE LOCATION OF THE EXISTING AND PROPOSED UTILITIES PRIOR TO INSTALLATION OF THE PROPOSED UNIT DUCTS, CONDUITS AND DUCT BANKS. ANY DAMAGES TO EXISTING UTILITIES SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
6. CONTRACTOR SHALL PROVIDE PULL WIRE FOR ALL DUCT BANKS AND CAP THE UNUSED DUCT BANKS FOR FUTURE USE.
7. CONTRACTOR SHALL CONNECT EXISTING CABLE TO NEW CABLE IN SIGN/LIGHT/MANHOLE/HANDHOLE/SPICE CAN. COST OF CONNECTION SHALL BE INCIDENTAL TO THE CABLE.
8. NO 90 DEGREE BENDS WILL BE ALLOWED IN CONDUIT.
9. CONTRACTOR SHALL CORE HOLES INTO EXISTING MANHOLES/HANDHOLES AS REQUIRED. THE COST OF CORING AND GROUTING SHALL BE INCIDENTAL TO THE INSTALLATION OF THE PROPOSED CABLE OR DUCT.
10. ALL LIGHTS SHALL HAVE QUARTZ LAMPS. ALL SIGNS SHALL BE LED.
11. AT EXISTING DUCT BANKS THAT FAIL WITHIN THE NEW PAVEMENT, THE CONTRACTOR SHALL STAMP OR OTHERWISE MARK THE DUCT LOCATION WITHIN THE PAVEMENT, AS DIRECTED BY THE RESIDENT ENGINEER.
12. ALL SPLICES SHALL BE WATERPROOF. COST OF SPLICES SHALL BE INCIDENTAL TO THE COST OF THE CABLE.
13. REMOVAL OF AIRFIELD LIGHTING CIRCUIT CABLE WHERE CALLED OUT IN PLANS SHALL BE CONSIDERED INCIDENTAL TO INSTALLATION OF NEW CABLE.



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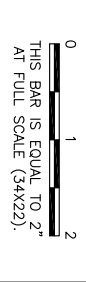
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**CHICAGO EXECUTIVE AIRPORT**

DESIGN BY: MLK  
 DRAWN BY: JRO  
 CHECKED BY: MLK  
 APPROVED BY: DLP  
 DATE: 04/20/2012  
 JOB NO: 11290-05  
 ILLINOIS PROJECT: PWK-4181  
 A.I.P. PROJECT: 3-17-0018-847  
 SHEET 18 OF 21 SHEETS

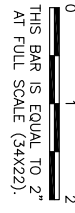
**CHICAGO EXECUTIVE AIRPORT  
 WHEELING/PROSPECT HEIGHTS, ILLINOIS  
 REHAB RUNWAY 34 HOLD APRON**

**LIGHTING AND SIGNAGE PLAN**



I.L. CONTRACT: **PA053**  
 I.L. LETTING ITEM: **11A**  
 I.L. PROJECT: **PWK-4181**  
 A.I.P. PROJECT: **3-17-0018-847**

SURVEY BOOK # BOOK #		
NUMBER	BY	DATE



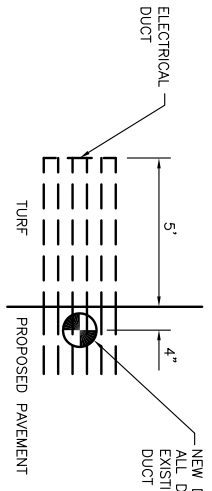
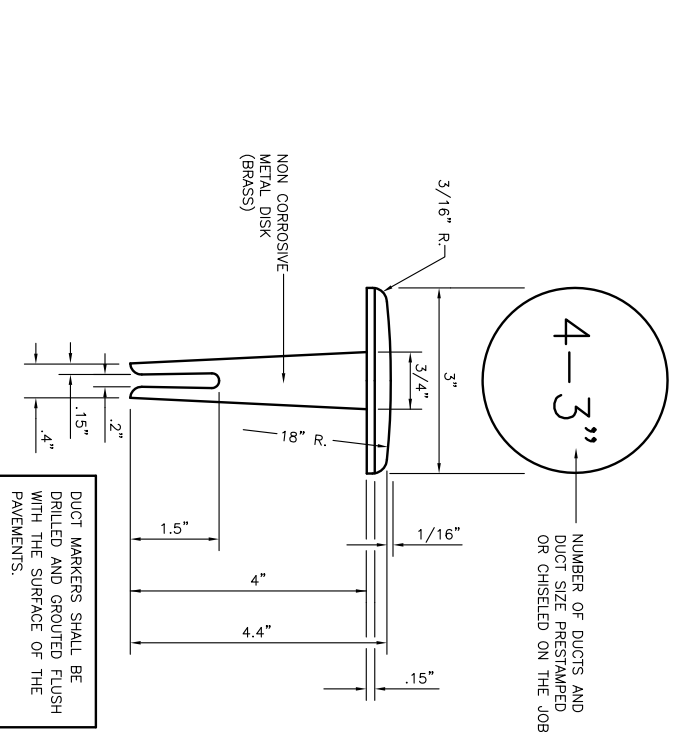
**CHICAGO EXECUTIVE AIRPORT**  
**WHEELING/PROSPECT HEIGHTS, ILLINOIS**  
**REHAB RUNWAY 34 HOLD APRON**

**ELECTRICAL DETAILS - SHEET 1**

  
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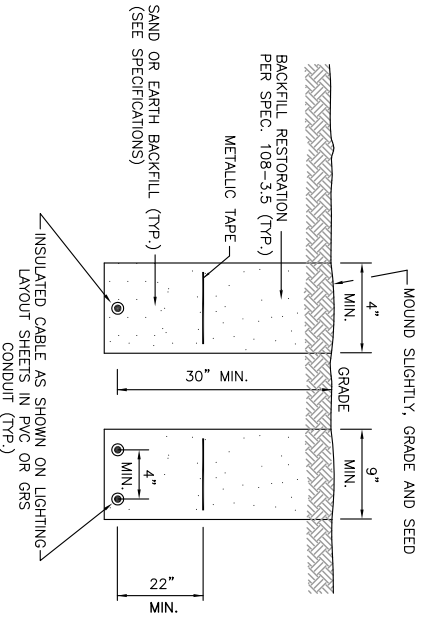


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CHECKED BY:	MLK
APPROVED BY:	DLP
DATE:	04/20/2012
JOB No.:	11290-05
ILLINOIS PROJECT:	PWK-4181
A.I.P. PROJECT:	3-17-0018-847
SHEET	19 OF 21 SHEETS



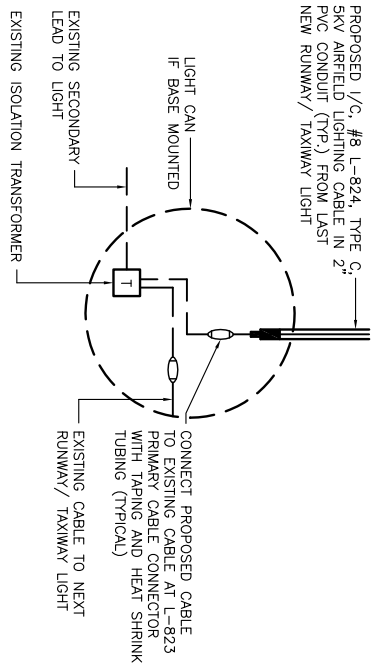
**DUCT MARKER DETAIL**  
NOT TO SCALE

**TURF AREA CABLE TRENCH DETAIL**  
NOT TO SCALE



**NOTES**

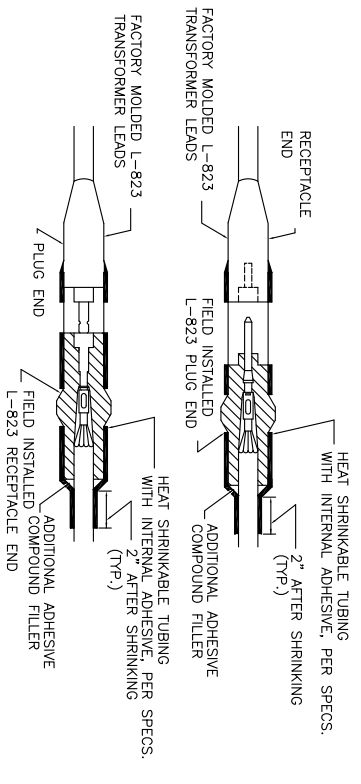
- TRENCHES WITH MORE THAN 2 CABLES SHALL BE INCREASED 3" IN WIDTH FOR EACH ADDITIONAL CABLE. IF SPECIFIED ON PLANS, TWO PARALLEL TRENCHES MAY BE CONSTRUCTED.
- DEPTH OF TRENCHES SHALL BE AS SHOWN UNLESS OTHERWISE SPECIFIED ON THE PLANS.
- SAND BACKFILL SHALL BE USED IF THE EXISTING SOIL DOES NOT MEET THE BACKFILL REQUIREMENTS.
- ALL DISTURBED SURFACES SHALL BE RESTORED TO THEIR ORIGINAL CONDITION. COST IS INCIDENTAL.



**RUNWAY/TAXIWAY LIGHTING CIRCUIT CONNECTION DETAIL**  
NOT TO SCALE

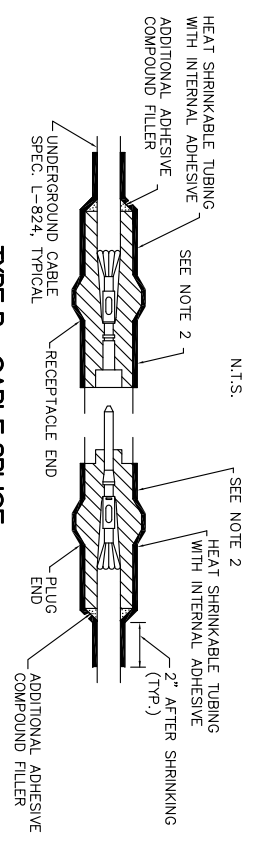
**TYPE C AND D - CABLE SPLICE**

FOR SPLICES AT  
RUNWAY/TAXIWAY LIGHTS AND SIGNS



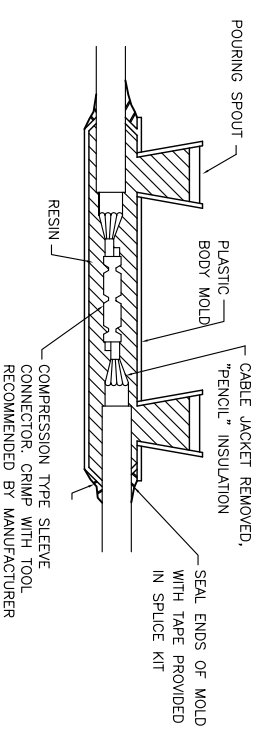
**TYPE B - CABLE SPLICE**

FOR SPLICES FOR USE AT JUNCTION OF  
HOMERUN WITH LOOP CIRCUIT  
N.I.S.



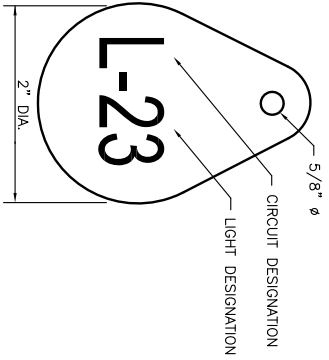
**TYPE A - CABLE SPLICE**

FOR SPLICES IN HOMERUNS AND FOR EXTENSIONS  
TO EXISTING CABLES ONLY



**NOTES**

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



**LIGHT IDENTIFICATION DETAIL**  
NOT TO SCALE

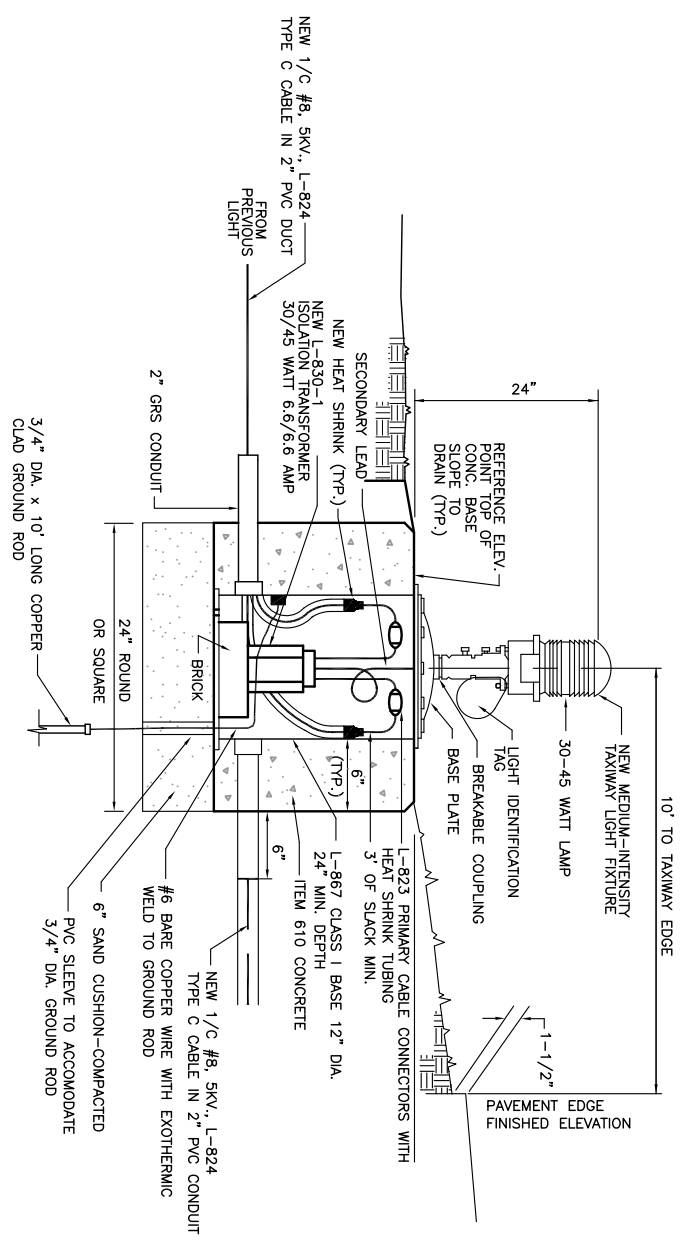
**NOTES**

- INSTALL A NON-CORROSIVE DISC OF 2" MINIMUM DIAMETER WITH THE NUMBER PERMANENTLY STAMPED ON THE OUTSIDE ENGRAVED UNDER THE HEAD OF THE BASE PLATE BOLT OR ATTACHED TO LIGHT FLANGE WITH A SET SCREW.
- NUMERALS SHOWN ARE FOR ILLUSTRATIVE PURPOSES ONLY. ALL EXISTING AND PROPOSED TAXIWAY AND RUNWAY LIGHTS AND SIGNS SHALL BE TAGGED AS DIRECTED BY THE RESIDENT ENGINEER. ALL LIGHTS ON EXISTING CIRCUITS THAT HAVE LIGHTING IMPROVEMENTS (PROPOSED OR RELOCATED LIGHTS) SHALL BE RETAGGED.
- COST OF TAGGING LIGHTS SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

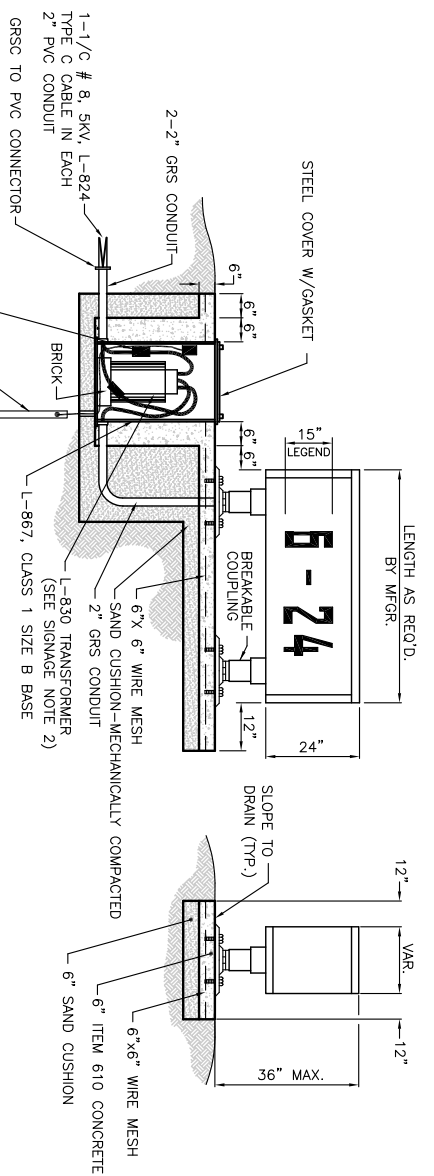
I.L. CONTRACT: **PA053**  
 I.L. LETTING ITEM: **11A**  
 I.L. PROJECT: **PWK-4181**  
 A.I.P. PROJECT: **3-17-0018-847**

**GENERAL NOTES**

1. TRANSFORMER HOLDER MAY BE ANY COMMERCIALY AVAILABLE BRICK.
2. BREAKING GROOVE COUPLINGS SHALL NOT BE OVER 1" ABOVE GROUND LINE.
3. ISOLATION TRANSFORMERS COME WITH A FACTORY INSTALLED PLUG (TYPE 1, CLASS A, STYLE 2) AND RECEPTACLE (TYPE 1, CLASS A, STYLE 9). A TYPE 1, CLASS B, STYLE 3 PLUG AND TYPE 1, CLASS B, STYLE 10 RECEPTACLE SHALL BE INSTALLED ON THE 1/C, No. 8, 5000 V., L-824 TYPE C CABLES FOR CONNECTION TO EACH TRANSFORMER.
4. TO FURTHER REDUCE THE POSSIBILITY OF WATER/MOISTURE ENTRANCE INTO THE CONNECTOR BETWEEN THE CABLE AND THE FIELD ATTACHED CONNECTOR, IT IS REQUIRED THAT A HEAT SHRINKABLE TUBING WITH INTERNAL ADHESIVE BE APPLIED OVER THE ENTIRE CABLE CONNECTOR.
5. ALL LIGHTS, CABLES AND TRANSFORMERS TO BE REMOVED SHALL REMAIN THE PROPERTY OF THE AIRPORT. AT THE DISCRETION OF THE AIRPORT MANAGER THE CONTRACTOR MAY BE REQUIRED TO DISPOSE OF THESE MATERIALS OFFSITE.
6. DUCT MARKERS SHALL BE INSTALLED AT EVERY NEW DUCT AND AT EVERY EXISTING DUCT USED FOR THIS PROJECT.



**NEW BASE MOUNTED MEDIUM INTENSITY TAXIWAY LIGHT**  
NOT TO SCALE



**NEW LED AIRFIELD GUIDANCE SIGN L-858**  
NOT TO SCALE

**SIGNAGE NOTES**

1. ALL SIGNS ARE 2-SIDED LED SIGNS. STYLE 2 AND CLASS 2 AS MANUFACTURED BY ADB OR APPROVED EQUAL.
2. TRANSFORMER WATTAGE AS RECOMMENDED BY MANUFACTURER FOR LED SIGNS.
3. LIGHTED SIGNS SHALL BE BASE MOUNTED ONLY.
4. THE NUMBER OF MODULES PER SIGN SHALL BE AS RECOMMENDED BY THE MANUFACTURER.
5. CONTRACTOR SHALL SUBMIT DETAILED SHOP DRAWING INCLUDING SIGN, COLOR, SIZE AND PROPOSED LEGEND, IN ENOUGH DETAIL AND DETERMINE PROPOSED SPACING AND OTHER INFORMATION REQUIRED BY SPECIAL PROVISIONS. CONTRACTOR TO VERIFY PROPOSED SIGN LOCATIONS AND ORIENTATIONS WITH RESIDENT ENGINEER PRIOR TO INSTALLATION.

CHICAGO EXECUTIVE AIRPORT  
 WHEELING/PROSPECT HEIGHTS, ILLINOIS  
 REHAB RUNWAY 34 HOLD APRON

**ELECTRICAL DETAILS - SHEET 2**

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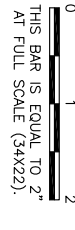
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JOB No.:	11290-05
ILLINOIS PROJECT:	PWK-4181
A.I.P. PROJECT:	3-17-0018-847
SHEET	20 OF 21 SHEETS

IL CONTRACT: PA053  
 IL LETTING ITEM: 11A  
 IL PROJECT: PWK-4181  
 A.I.P. PROJECT: 3-17-0018-847

SURVEY BOOK # BOOK #

REVISIONS

NUMBER	BY	DATE



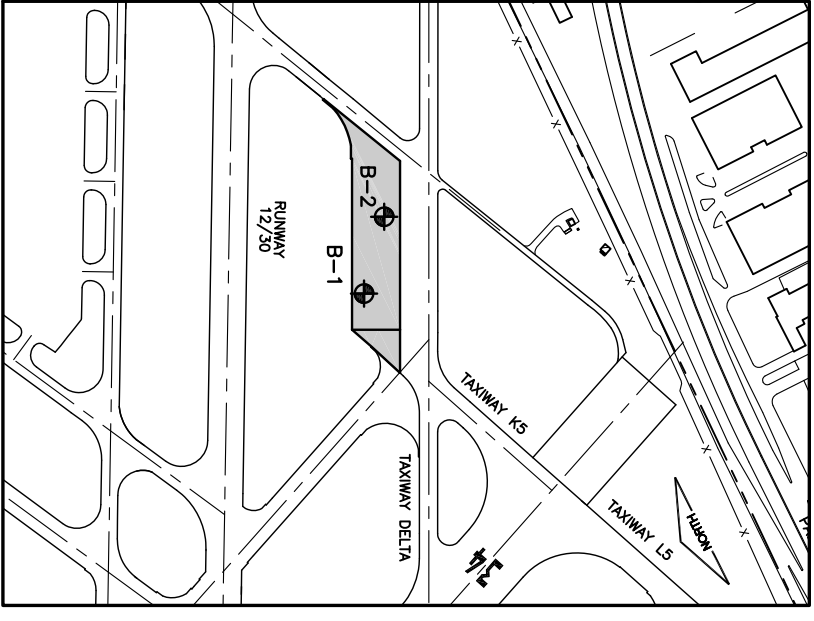
CHICAGO EXECUTIVE AIRPORT  
 WHEELING/PROSPECT HEIGHTS, ILLINOIS  
 REHAB RUNWAY 34 HOLD APRON

ENGINEERING INFORMATION

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CHECKED BY:	MLK
APPROVED BY:	DLP
DATE:	04/20/2012
JOB No.:	11290-05
ILLINOIS PROJECT:	PWK-4181
A.I.P. PROJECT:	3-17-0018-847
SHEET	21 OF 21 SHEETS



**LOG OF BORING NO. B-02**

Client: Murphy & Tilly, Inc.  
 Project Location: Wheeling/Prospect Heights, Illinois  
 Project Description: Rehabilitation of Runway 34 and Area 3 to the South  
 Underlined Compressive Strength: 100#/FT<sup>2</sup>  
 Calculated Helix/Torque: 100#/FT<sup>2</sup>

DEPTH (ft.) BELOW GROUND SURFACE	SAMPLE NUMBER	SAMPLE TYPE	SAMPLE DISTANCE	SAMPLE RECOVERY	DESCRIPTION OF MATERIAL	GROUND SURFACE ELEVATION	STANDARD 1% PENETRATION (BLDN#/FT)	WATER CONTENT %	UNSATURATED SWELLING (%)
1.00	1 AS1	12.0" ASPHALT, 10.0" CRUSHED STONE	10'	100%		883.8			
2.00	2 SB2	CLAYEY GRAVEL, 8" STONE-BROWN & GRAY-FINE SAND (S&G)	10'	100%					
3.00	3 SB3	LEAN CLAY with SAND-BROWN & GRAY-VERY SOFT to hard (S&G) FILL	10'	100%					
4.00	4 SB4	LEAN CLAY-BROWN & GRAY-VERY SOFT (S&G)	10'	100%					
5.00	5 SB5	SANDY SILT-GRAY-medium dense (S&G)	10'	100%					
TOTAL									

DESIGN LEVEL OBSERVATIONS:  
 Bore Log for this boring - 4.5' ✓  
 Underlined Compressive Strength - 100#/FT<sup>2</sup> ✓  
 END OF BORING

Soils Laboratory, Inc.  
 3800 S. Halsted Street, Chicago, IL 60608  
 Phone: (773) 486-1100  
 Fax: (773) 486-1101  
 Website: www.soils-lab.com

BORING STARTED: February 14, 2012  
 BORING COMPLETED: February 14, 2012  
 DRAWN: DLP-JR  
 CHECKED: MLK  
 JOB No. 11290-05  
 SHEET 1 OF 1

**LOG OF BORING NO. B-01**

Client: Murphy & Tilly, Inc.  
 Project Location: Wheeling/Prospect Heights, Illinois  
 Project Description: Rehabilitation of Runway 34 and Area 3 to the South  
 Underlined Compressive Strength: 100#/FT<sup>2</sup>  
 Calculated Helix/Torque: 100#/FT<sup>2</sup>

DEPTH (ft.) BELOW GROUND SURFACE	SAMPLE NUMBER	SAMPLE TYPE	SAMPLE DISTANCE	SAMPLE RECOVERY	DESCRIPTION OF MATERIAL	GROUND SURFACE ELEVATION	STANDARD 1% PENETRATION (BLDN#/FT)	WATER CONTENT %	UNSATURATED SWELLING (%)
1.00	1 AS1	12.0" ASPHALT, 8.0" CRUSHED STONE	10'	100%		538.8			
2.00	2 SB2	LEAN CLAY with SAND-BROWN-VERY SOFT to hard (S&G) FILL	10'	100%					
3.00	3 SB3	SANDY SILTY CLAY with GRAVEL-GRAY-VERY SOFT (S&G)	10'	100%					
4.00	4 SB4	CLAYEY SAND & GRAVEL-GRAY-medium dense (S&G/S&G)	10'	100%					
5.00	5 SB5	CLAYEY SAND & GRAVEL-GRAY-medium dense (S&G/S&G)	10'	100%					
TOTAL									

DESIGN LEVEL OBSERVATIONS:  
 Bore Log for this boring - 4.5' ✓  
 Underlined Compressive Strength - 100#/FT<sup>2</sup> ✓  
 END OF BORING

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BORING STARTED: February 14, 2012  
 BORING COMPLETED: February 14, 2012  
 DRAWN: DLP-JR  
 CHECKED: MLK  
 JOB No. 11290-05  
 SHEET 1 OF 1