

LAKE IN THE HILLS AIRPORT LAKE IN THE HILLS, ILLINOIS

CONSTRUCTION PLANS FOR LAKE IN THE HILLS AIRPORT

CONSTRUCT APRON FOR THE FUEL FACILITY RELOCATE FUEL FACILITY

ILLINOIS PROJECT: 3CK-4283



Matthew N. Demos
EXPIRES 11/30/13

811 Know what's below.
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www.illinois1call.com

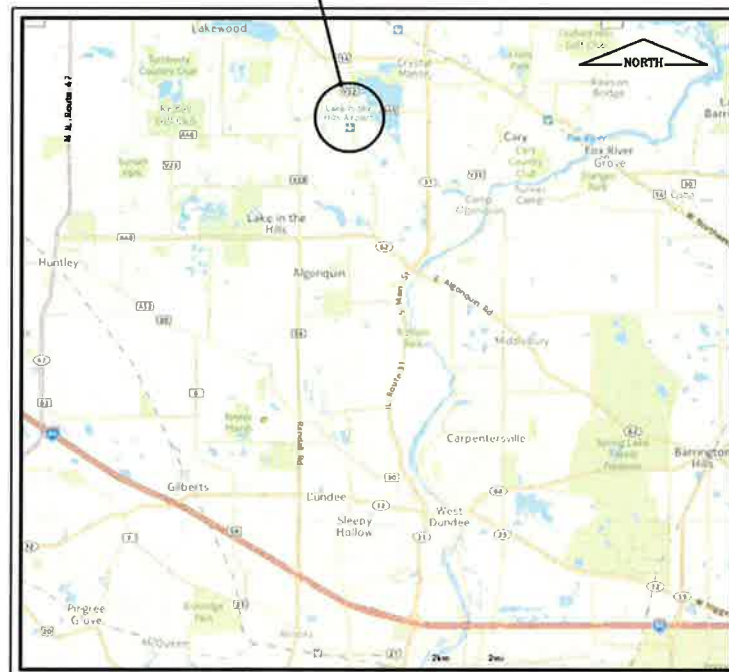
J.U.L.I.E.
JOINT UTILITY LOCATING
INFORMATION FOR EXCAVATORS

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.

CALL J.U.L.I.E. FOR UTILITY INFORMATION AT 811.

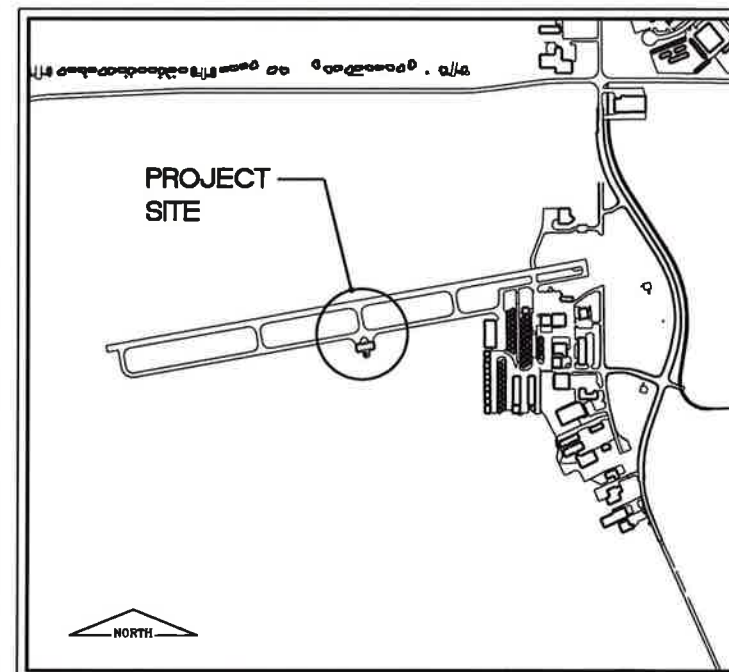
JULY 8, 2013

PROJECT
LOCATION



LOCATION MAP

PROJECT
SITE



SITE PLAN

CALL J.U.L.I.E.
BEFORE EXCAVATING
AT 811
LAKE IN THE HILLS AIRPORT
TOWNSHIP: T 43 N
RANGE: R 8 E
SECTION: 17
COUNTY: MCHENRY
TOWNSHIP: ALGONQUIN

DESIGN INFORMATION

DESIGN AIRCRAFT APPROACH CATEGORY B
DESIGN AIRCRAFT GROUP II (CITATION EXCEL)



CMT

CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS

13255-01
13255-02

SUBMITTED BY *Matthew N. Demos*

MATTHEW N. DEMOS, P.E.

DATE July 8 2013



LAKE IN THE HILLS AIRPORT
VILLAGE OF LAKE IN THE HILLS, ILLINOIS
8407 PYOTT ROAD
LAKE IN THE HILLS, ILLINOIS 60156
TELEPHONE: 847-960-7500

FILE: Quantities.dwg
 LAYOUT: Layout1
 UPDATE BY: Jim Ohse
 SURVEY BOOK #
 DATE: Wednesday, July 03, 2013 9:03:37 AM
 XREF DWG: tbcInt.dwg

SUMMARY OF QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	RECORD QUANTITY
CONSTRUCT APRON FOR THE FUEL FACILITY				
AR150510	ENGINEER'S FIELD OFFICE	LS	1	
AR150520	MOBILIZATION	LS	1	
AR152410	UNCLASSIFIED EXCAVATION	CY	250	
AR152442	OFFSITE BORROW EXCAVATION	CY	1,020	
AR156510	SILT FENCE	LF	670	
AR156520	INLET PROTECTION	EACH	8	
AR209608	CRUSHED AGG. BASE COURSE - 8"	SY	231	
AR209612	CRUSHED AGG. BASE COURSE - 12"	SY	923	
AR401610	BITUMINOUS SURFACE COURSE	TON	85	
AR403610	BITUMINOUS BASE COURSE	TON	140	
AR501508	8" PCC PAVEMENT	SY	212	
AR602510	BITUMINOUS PRIME COAT	GAL	300	
AR603510	BITUMINOUS TACK COAT	GAL	140	
AR620520	PAVEMENT MARKING - WATERBORNE	SF	530	
AR701512	12" RCP, CLASS IV	LF	185	
AR705900	REMOVE UNDERDRAIN	LF	50	
AR705902	REMOVE UNDERDRAIN END SECTION	EACH	1	
AR751411	INLET - TYPE A	EACH	1	
AR751540	MANHOLE 4'	EACH	2	
AR751550	MANHOLE 5'	EACH	1	
AR752412	PRECAST REINFORCED CONC. FES 12"	EACH	1	
AR800169	FUEL FARM ELECTRIC SERVICE	LS	1	
AR800194	REMOVE ELEVATED RETROREFLECTIVE MARKER	EACH	4	
AR901510	SEEDING	ACRE	0.60	
AR908510	MULCHING	ACRE	0.60	
AR910110	RDWY LIGHT POLE W/ FIXTURE	EACH	1	
AR910420	BOLLARD	EACH	20	
RELOCATE FUEL FACILITY				
* AR800012	REMOVE FUEL FARM	LS	1	
* AR800013	FUEL STORAGE TANK (100LL)	EACH	1	
* AR800014	FUEL STORAGE TANK (JET A)	EACH	1	
* AR800040	CREDIT CARD READER	EACH	1	
* AR800041	OIL/WATER SEPARATOR	EACH	1	
* AR800042	PLUG VALVE	EACH	2	
* AR800129	CONTAMINATED SOIL REMOVAL	CY	50	

* SPECIALTY PAY ITEM

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REVISIONS

NUMBER	BY	DATE

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

**LAKE IN THE HILLS AIRPORT
 LAKE IN THE HILLS, ILLINOIS
 CONSTRUCT APRON FOR THE FUEL FACILITY**

**INDEX TO SHEET
 SUMMARY OF QUANTITIES**

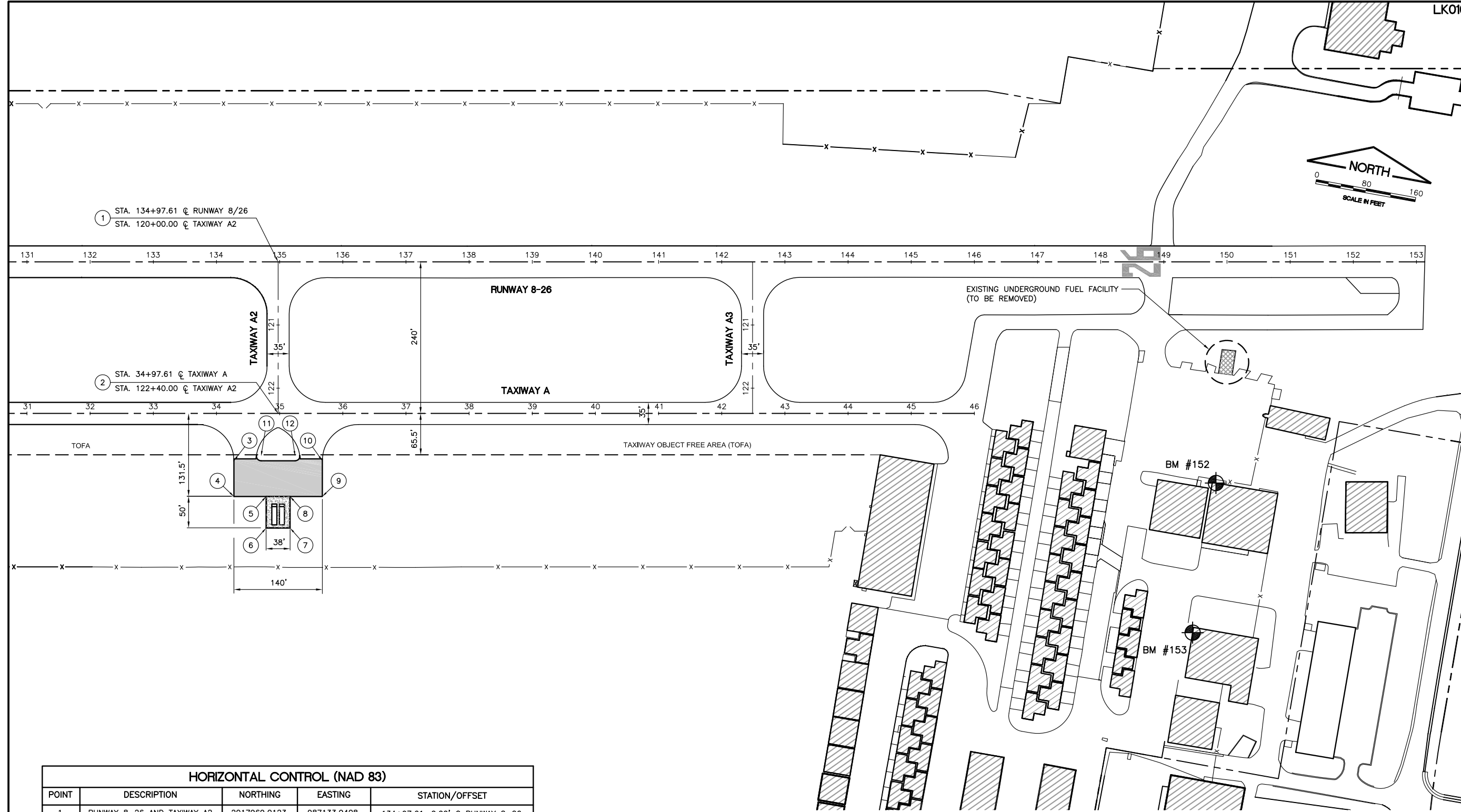
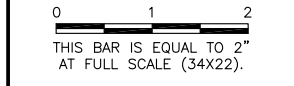
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 JOB No: 13255-01

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**LAKE IN THE HILLS AIRPORT
 LAKE IN THE HILLS, ILLINOIS
 CONSTRUCT APRON FOR THE FUEL FACILITY
 SITE PLAN/PROJECT CONTROL PLAN**

HORIZONTAL CONTROL (NAD 83)

POINT	DESCRIPTION	NORTHING	EASTING	STATION/OFFSET
1	RUNWAY 8-26 AND TAXIWAY A2	2017969.0123	987133.9408	134+97.61, 0.00' C. RUNWAY 8-26
2	TAXIWAY A2 AND TAXIWAY A	2017732.8773	987176.8404	34+97.61, 0.00' C. TAXIWAY A
3	N.W. CORNER OF NEW APRON	2017646.5730	987121.3739	34+27.61, 75.00' RT. C. TAXIWAY A
4	S.W. CORNER OF NEW APRON	2017590.9830	987131.4732	34+27.61, 131.50' RT. C. TAXIWAY A
5	N.W. CORNER OF NEW TANK PAD	2017600.0991	987181.6518	34+78.61, 131.50' RT. C. TAXIWAY A
6	S.W. CORNER OF NEW TANK PAD	2017550.9044	987190.5892	34+78.61, 181.50' RT. C. TAXIWAY A
7	S.E. CORNER OF NEW TANK PAD	2017557.6968	987227.9772	35+16.61, 181.50' RT. C. TAXIWAY A
8	N.E. CORNER OF NEW TANK PAD	2017606.8916	987219.0398	35+16.61, 131.50' RT. C. TAXIWAY A
9	S.E. CORNER OF NEW APRON	2017616.0077	987269.2184	35+67.61, 131.50' RT. C. TAXIWAY A
10	N.E. CORNER OF NEW APRON	2017671.5978	987259.1192	35+67.61, 75.00' RT. C. TAXIWAY A
11	RADIUS POINT (7.5' R)	2017661.6502	987162.4054	34+70.68, 67.5' RT. C. TAXIWAY A
12	RADIUS POINT (7.5' R)	2017671.2791	987215.4064	35+24.54, 67.5' RT. C. TAXIWAY A
6712	NGS PID DN6712 (NOT SHOWN)	2017968.1600	989135.8500	-
6713	NGS PID DN6713 (NOT SHOWN)	2016897.8900	988201.9300	-
6714	NGS PID DN6714 (NOT SHOWN)	2016381.6500	989443.5300	-

VERTICAL CONTROL TABLE (NAVD 88)









BENCHMARK #	DESCRIPTION	NORTHING	EASTING	ELEVATION
152	NGS PID NUMBER NH0152 NAVD 88 (ADJUSTED 6/1991) SET VERTICALLY IN THE NORTH FACE OF THE NORTHWEST CORNER OF THE CONCRETE FOUNDATION OF THE NORTH ONE OF TWO LARGE CONCRETE BLOCK HANGARS, 1-1/2 FEET EAST OF THE NORTHWEST CORNER, 1 FOOT ABOVE THE LEVEL OF THE GROUND, AND ABOUT LEVEL WITH THE ENTRANCE DRIVE.	-	-	886.80
153	NGS PID NUMBER NH0153 NAVD 88 (ADJUSTED 6/1991) SET VERTICALLY IN THE WEST FACE OF THE NORTHWEST CORNER OF THE CONCRETE FOUNDATION OF THE SOUTH ONE OF TWO LARGE CONCRETE BLOCK HANGARS, 1 FOOT SOUTH OF THE NORTHWEST CORNER, AND 1/2 FOOT ABOVE THE LEVEL OF CONCRETE RAMP.	-	-	886.58

- LEGEND**
- NEW BITUMINOUS APRON
 - NEW CONCRETE FUELING PAD
 - EXISTING BUILDING
 - EXISTING AIRPORT PROPERTY LINE
 - EXISTING FENCE
 - EXISTING BENCHMARK

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LEGEND

-  EXPEDITED WORK AREA
-  PROPOSED PAVEMENT
-  TEMPORARY CLOSED RUNWAY MARKER
-  AIRCRAFT MOVEMENT AREA
-  CONTRACTOR'S ACCESS/HAUL ROAD
-  LOW PROFILE BARRICADES WITH STEADY BURNING OR FLASHING RED LIGHTS AND SIGNS ("DO NOT ENTER" AND "AIRCRAFT MOVEMENT AREA" SIGN)
-  EXISTING FENCE
-  EXISTING AIRPORT PROPERTY LINE

SUGGESTED SEQUENCE OF CONSTRUCTION

- PLACE BARRICADES AS SHOWN OR AS DIRECTED BY THE ENGINEER IN PHASE 1 WORK AREAS.
- CONSTRUCT ALL IMPROVEMENTS IN PHASE 1.
- CLEAN PAVEMENTS, REMOVE BARRICADES AND OPEN FOR AIRCRAFT OPERATIONS.
- COORDINATE RELOCATION OF ANY AIRCRAFT IN WORK AREA (BY OTHERS) WITH RESIDENT ENGINEER AND AIRPORT MANAGER.
- PLACE BARRICADES AS DIRECTED IN PHASE 2 WORK AREA.
- REMOVE EXISTING UNDERGROUND GROUND FUEL TANKS (2), DISPENSER AND MISCELLANEOUS EQUIPMENT.
- RESTORE AREA IN PHASE 2 WORK AREA AND REMOVE BARRICADES.

CONSTRUCTION ENTRANCE AND HAUL ROUTE NOTES

1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAYS MUST BE REMOVED IMMEDIATELY.
2. CONTRACTOR SHALL FURNISH CONSTRUCTION SIGNS ON PYOTT ROAD AS REQUIRED BY MCHENRY COUNTY DOT. COST OF SIGNS SHALL BE INCIDENTAL TO THE CONTRACT.
3. COST OF MAINTAINING AND RESTORING ENTRANCE SHALL BE INCIDENTAL TO THE CONTRACT.
4. HAUL ROUTE TO BE CONSTRUCTED SO AS TO PROVIDE ACCESS TO THE SITE DURING ALL WEATHER CONDITIONS AND AT THE APPROXIMATE LOCATIONS SHOWN.
5. FROM THE CONSTRUCTION ENTRANCE TO THE WORK SITE A 50 FOOT WIDE STRIP SHALL BE CLEARED ALONG THE HAUL ROUTE. AVOIDING THE REMOVAL OF ANY TREES. THIS CLEARING IS NOT INCLUDED IN THE CONTRACT, BUT IS INCIDENTAL TO CONTRACT.
6. MAINTENANCE OF THE HAUL ROUTE IS THE RESPONSIBILITY OF THE CONTRACTOR AND AT THE DISCRETION OF THE RESIDENT ENGINEER.

POINT "A" CLOSEST POSSIBLE POINT TO RUNWAY 8-26
 EXISTING GROUND ELEV. 883.0
 LATITUDE: 42°12'22.16"
 LONGITUDE: 88°19'21.07"

MAXIMUM ANTICIPATED HEIGHT OF CONSTRUCTION EQUIPMENT: 20 FEET

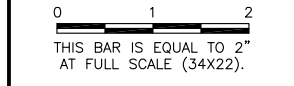
DESIGN AIRCRAFT APPROACH CATEGORY: B
DESIGN AIRPORT GROUP: II

MAXIMUM ANTICIPATED WINGSPAN OF ADG II = 79'
 TAXIWAY CENTERLINE TO OBJECT SEPERATION (TOFA) = 65.5'

NOTE - ALL PHASES:
 ALL EXISTING TAXIWAY AND RUNWAY AIRFIELD LIGHTING CIRCUITS, FAA CABLES AND OTHER AIRPORT ELECTRICAL CABLES SHALL REMAIN IN SERVICE UNTIL REPLACED AS ACCEPTABLE TO THE RESIDENT ENGINEER. ALL TEMPORARY CABLING AND SPLICING NECESSARY TO KEEP THE CIRCUITS IN OPERATION SHALL BE CONSIDERED INCIDENTAL TO CONTRACT.

REVISIONS

NUMBER	BY	DATE



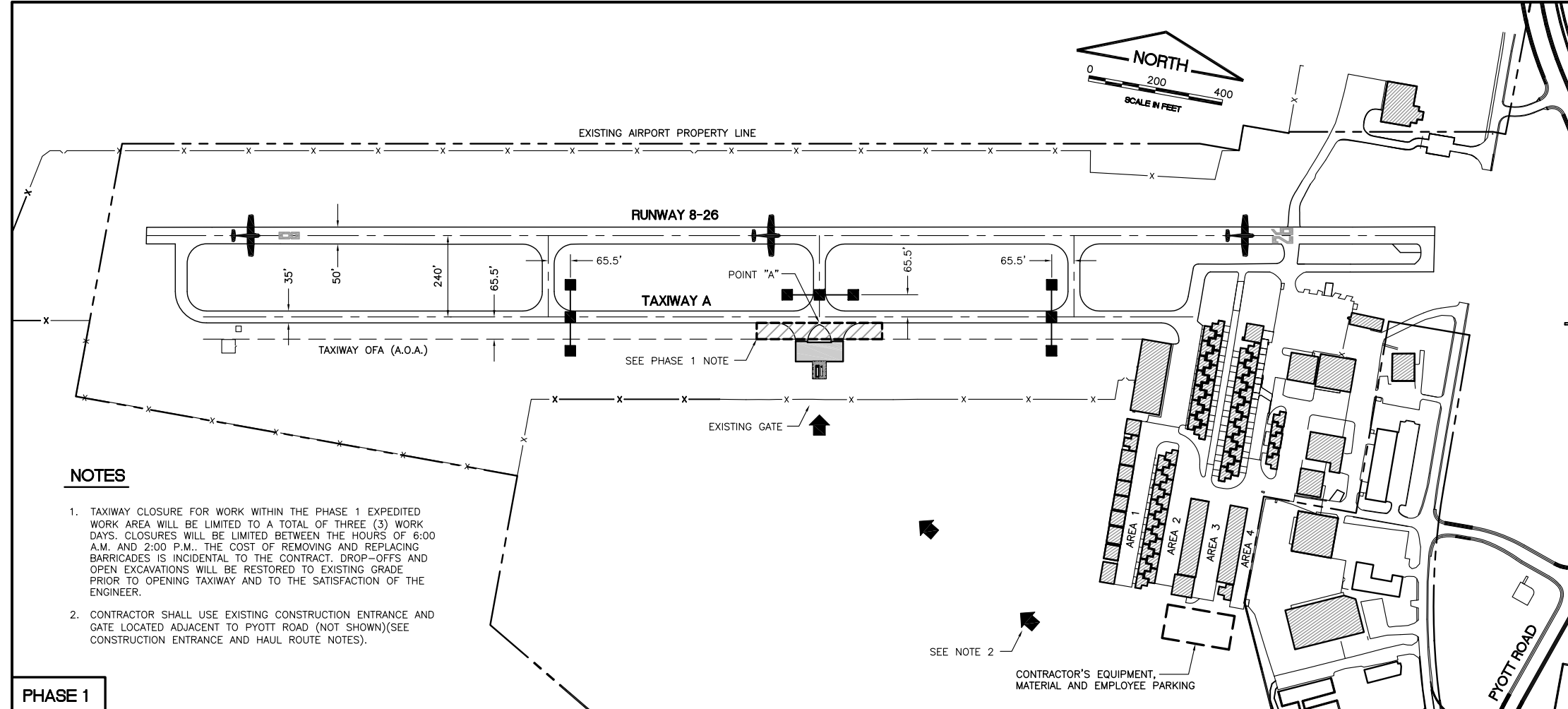
LAKE IN THE HILLS AIRPORT
LAKE IN THE HILLS, ILLINOIS
CONSTRUCT APRON FOR THE FUEL FACILITY

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

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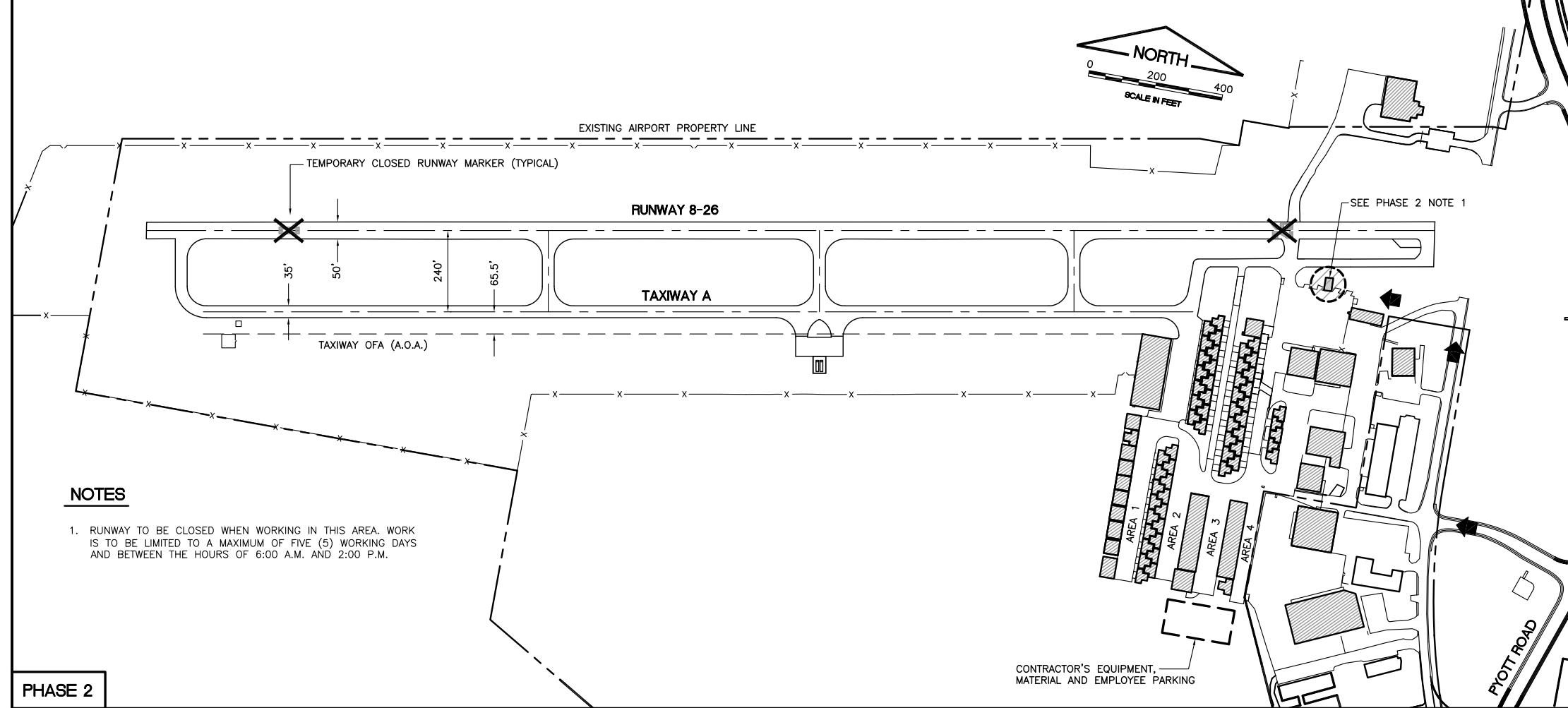
FINAL



NOTES

1. TAXIWAY CLOSURE FOR WORK WITHIN THE PHASE 1 EXPEDITED WORK AREA WILL BE LIMITED TO A TOTAL OF THREE (3) WORK DAYS. CLOSURES WILL BE LIMITED BETWEEN THE HOURS OF 6:00 A.M. AND 2:00 P.M.. THE COST OF REMOVING AND REPLACING BARRICADES IS INCIDENTAL TO THE CONTRACT. DROP-OFFS AND OPEN EXCAVATIONS WILL BE RESTORED TO EXISTING GRADE PRIOR TO OPENING TAXIWAY AND TO THE SATISFACTION OF THE ENGINEER.
2. CONTRACTOR SHALL USE EXISTING CONSTRUCTION ENTRANCE AND GATE LOCATED ADJACENT TO PYOTT ROAD (NOT SHOWN)(SEE CONSTRUCTION ENTRANCE AND HAUL ROUTE NOTES).

PHASE 1



NOTES

1. RUNWAY TO BE CLOSED WHEN WORKING IN THIS AREA. WORK IS TO BE LIMITED TO A MAXIMUM OF FIVE (5) WORKING DAYS AND BETWEEN THE HOURS OF 6:00 A.M. AND 2:00 P.M.

PHASE 2

GENERAL NOTES

- THE SUGGESTED SEQUENCE OF CONSTRUCTION SHOWN IS INTENDED TO ALLOW FOR THE ORDERLY CONSTRUCTION OF THE PROPOSED IMPROVEMENTS WHILE MAINTAINING AIRCRAFT ACCESS AT ALL TIMES. THE PHASING SHOWN IS A SUGGESTED SEQUENCE OF CONSTRUCTION ONLY. THIS SEQUENCE MAY BE MODIFIED HOWEVER, ALTERNATE STAGING PLANS MUST MAINTAIN AIRPORT OPERATIONS TO THE SATISFACTION OF THE AIRPORT MANAGER AND RESIDENT ENGINEER AND BE APPROVED BY THE DIVISION OF AERONAUTICS AND FEDERAL AVIATION ADMINISTRATION.
- ALL OPERATIONS SHALL BE IN CONFORMANCE WITH AC 150/5370-2F (LATEST EDITION) **OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION**.
- CONTRACTOR'S EQUIPMENT SHALL BE STORED IN THE EQUIPMENT AND MATERIAL STORAGE/STAGING AREA WHEN CONSTRUCTION IS NOT IN PROGRESS.
- THE AIRPORT MANAGER IN CONSULTATION WITH THE RESIDENT ENGINEER SHALL HAVE FINAL SAY IN THE APPROVAL OF THE CONSTRUCTION OPERATING SEQUENCE AS IT RELATES TO PEDESTRIAN, VEHICULAR AND AIRCRAFT SAFETY.
- ALL EXISTING PAVEMENTS, DRIVES OR ANY OTHER AREAS USED AS A HAUL ROAD OR STORAGE AREA BY THE CONTRACTOR SHALL BE RESTORED IN KIND TO THEIR PRE-CONSTRUCTION CONDITION OR TO THE SATISFACTION OF THE RESIDENT ENGINEER AND AIRPORT MANAGER. THE COST OF MAINTAINING, REPAIRING OR CONSTRUCTING THESE PAVEMENTS AND AREAS SHALL BE INCIDENTAL TO THE CONTRACT. EXISTING AREAS OUTSIDE THE PROJECT LIMITS WHICH ARE DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY HIM AT HIS EXPENSE TO THE SATISFACTION OF THE RESIDENT ENGINEER AND THE AIRPORT MANAGER.
- THE CONTRACTOR SHALL KEEP ALL TRUCKS, EQUIPMENT AND MATERIALS OFF OF THE EXISTING TAXIWAYS, APRONS AND RUNWAYS OUTSIDE OF THE PROJECT LIMITS EXCEPT AS SHOWN OR WITH THE PRIOR PERMISSION OF THE RESIDENT ENGINEER.
- WORK PERFORMED BY THE CONTRACTOR OUTSIDE OF DAYLIGHT HOURS SHALL BE DONE UNDER SUFFICIENT ARTIFICIAL LIGHTING TO ALLOW FOR PROPER CONSTRUCTION METHODS AND INSPECTIONS. LIGHT SHALL CONSIST OF MOVABLE POLE MOUNTED FLOODLIGHTS AND/OR SPOTLIGHTS OF SUFFICIENT NUMBER TO ILLUMINATE THE WORK AREA. VEHICLE HEADLIGHTS WILL BE ALLOWED ONLY IN ADDITION TO OTHER LIGHTS MENTIONED ABOVE. LIGHTING SHALL BE AS APPROVED BY THE RESIDENT ENGINEER AND SHALL NOT BE USED IF THEY AFFECT FLIGHT SAFETY. CONTRACTOR'S WORK HOURS SHALL BE IN ACCORDANCE WITH LOCAL ORDINANCES.
- THE CONTRACTOR SHALL PROVIDE PORTABLE FLOOD LIGHTING FOR NIGHTTIME CONSTRUCTION. SUFFICIENT UNITS SHALL BE PROVIDED SO THAT WORK AREAS ARE ILLUMINATED TO A LEVEL OF FIVE HORIZONTAL FOOT CANDLES. THE LIGHTING LEVELS SHALL BE CALCULATED AND MEASURED IN ACCORDANCE WITH THE CURRENT STANDARDS OF THE ILLUMINATION ENGINEERING SOCIETY. LIGHTS SHALL BE POSITIONED SO AS NOT TO INTERFERE WITH AIRPORT OPERATIONS.
- THE CONTRACTOR WILL BE REQUIRED TO HAVE A SWEEPER AVAILABLE FOR USE AT ALL TIMES. WHEN ACTIVE AIRFIELD PAVEMENTS ARE UTILIZED AS HAUL ROADS BY THE CONTRACTOR, MATERIAL TRACKED ON TO THE PAVEMENT SHALL BE CONTINUALLY REMOVED WITH SAID SWEEPER. THIS SWEEPING SHALL NOT BE PAID FOR SEPERATELY BUT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- MATERIALS REMOVED FROM THE PROJECT WILL BE DISPOSED OF OFF AIRPORT PROPERTY, UNLESS NOTED OTHERWISE.
- PAYMENT FOR TRAFFIC CONTROL INCLUDING, BUT NOT LIMITED TO BARRICADES, SIGNING, RUNWAY CLOSED MARKERS (SUPPLIED BY AIRPORT), AIR OPERATIONS AREA (A.O.A.) LATHE AND RIBBON, ETC. SHALL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT. BARRICADES WITH TWO ORANGE FLAGS (20" x 20") ON EACH BARRICADE SHALL BE PLACED AT THE LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. BARRICADES SHALL BE WEIGHTED TO PREVENT BLOWING OVER. BARRICADES SHALL HAVE A STEADY BURN OR FLASHING RED LIGHT. BARRICADE INSTALLATION WILL BE REQUIRED PRIOR TO ACCESS TO THE A.O.A. BY CONTRACTOR'S WORKERS, EQUIPMENT OR MATERIAL. SIGNS SHALL BE PLACED AT EACH TAXIWAY/RUNWAY CLOSURE LOCATION AND SHALL BE ATTACHED TO THE BARRICADES. EACH BARRICADE LOCATION SHALL CONSIST OF ONE "DO NOT ENTER" SIGN AND ONE "AIRCRAFT MOVEMENT AREA" SIGN. SIGNS SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT. THE CONTRACTOR SHALL SUPPLY AND USE AS DIRECTED BY THE AIRPORT, REFLECTIVE LOW PROFILE TYPE BARRICADES. ALL BARRICADES SHALL BE PLACED OUTSIDE OF ACTIVE SAFETY AREAS.
- THE CONTRACTOR SHALL CONTACT THE AIRPORT MANAGER THROUGH THE RESIDENT ENGINEER FOURTEEN (14) WORKING DAYS IN ADVANCE OF THE START OF CONSTRUCTION SO THAT THE APPROPRIATE NOTAMS MAY BE ISSUED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ALL CONSTRUCTION ACCESS GATES CLOSED DURING NON WORKING HOURS. THE CONTRACTOR SHALL PROVIDE A SIGN AT THE ACCESS GATE SAYING "AUTHORIZED PERSONNEL ONLY". THE CONTRACTOR SHALL CLOSE AND LOCK THE ACCESS GATE UPON LEAVING THE SITE. THROUGHOUT THE DURATION OF THE CONTRACT, ANY DAMAGES TO THE ACCESS ROAD, ACCESS GATE OR FENCING ADJACENT TO THE PROJECT SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE RESIDENT ENGINEER. ALL COST RELATING TO CONTRACTOR'S ACCESS AND SECURITY SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- CONTRACTOR WILL BE REQUIRED TO PUT AIRPORT FLAGS AND HAVE BEACON LIGHTS ON ALL EQUIPMENT AT ALL TIMES DURING CONSTRUCTION. SEE FLAG DETAIL.
- IN THE CASE OF AN EMERGENCY, CONTRACTOR SHALL NOTIFY AIRPORT MANAGER AND THE RESIDENT ENGINEER IMMEDIATELY.
- DURING ADVERSE WEATHER, THE CONTRACTOR SHALL MAKE PROVISIONS FOR ACCESS TO THE WORK 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.
- THE TALLEST PIECE OF CONSTRUCTION EQUIPMENT IS ANTICIPATED TO BE AN ASPHALT/STONE TRUCK WHICH HAS A MAXIMUM HEIGHT OF 20 FEET IN A DUMP POSITION.
- IF RUNWAY NUMERALS ARE PRESENT DURING CONSTRUCTION THEN CONTRACTOR SHALL PLACE CLOSED RUNWAY MARKER OVER NUMERALS AS DETAILED.
- THE AIRPORT WILL BE IN OPERATION DURING THE CONSTRUCTION OF THIS PROJECT. COORDINATION OF WORK WITH THE AIRPORT IS MANDATORY SO AS TO MINIMIZE IMPACTS ON AIRPORT OPERATIONS.
- APPROXIMATE LOCATION OF HAUL ROUTES ON THE AIRPORT SITE ARE SHOWN ON THE GENERAL PROJECT LAYOUT AND THE PHASING PLANS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE OFF-SITE HAUL ROUTES (STATE HIGHWAYS, COUNTY ROADS OR CITY STREETS) WITH THE APPROPRIATE OWNER WHO HAS JURISDICTION OVER THE AFFECTED ROUTE. ON-SITE ROADS USED AS HAUL ROUTES SHALL BE MAINTAINED BY THE CONTRACTOR AND SHALL BE RESTORED AT THE CONTRACTOR'S EXPENSE TO THEIR ORIGINAL CONDITION UPON COMPLETION OF BEING USED AS A HAUL ROUTE. THE BEFORE AND AFTER CONDITION OF ON-SITE HAUL ROUTES SHALL BE JOINTLY INSPECTED AND DETERMINED BY THE CONTRACTOR AND THE ENGINEER. FENCING, DRAINAGE AND OTHER MISCELLANEOUS CONSTRUCTION REQUIRED TO CONSTRUCT TEMPORARY HAUL ROUTES OR ACCESS POINTS ON THE AIRPORT WILL BE THE CONTRACTOR'S TOTAL RESPONSIBILITY AND SHALL BE APPROVED BY THE ENGINEER PRIOR TO THE WORK. ALL ON-SITE ACCESS ROADS TO AIRPORT FACILITIES SHALL REMAIN OPEN AND MAINTAINED AT ALL TIMES.
- MOBILIZATION/EQUIPMENT STORAGE AREA WILL BE MADE AVAILABLE FOR CONTRACTOR'S MOBILIZATION AND STORAGE AS SHOWN ON THE PLANS. THIS AREA SHALL BE RESTORED TO THE ORIGINAL CONDITION UPON COMPLETION OF THE PROJECT AT THE CONTRACTOR'S EXPENSE.

- LOCATION OF KNOWN EXISTING AIRPORT UNDERGROUND CABLES ARE SHOWN ON THE PLANS AND MUST BE VERIFIED BY THE CONTRACTOR. REPAIR OF DAMAGED CABLE MUST BE STARTED IMMEDIATELY AND CONTINUED UNTIL COMPLETED. ALL SUCH REPAIRS SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS, OR AS DIRECTED BY THE OWNER OF THE CABLE OR FACILITY, AND SHALL BE AT THE CONTRACTOR'S EXPENSE. IF FAA CABLES ARE DAMAGED, REPAIRS SHALL BE DONE FROM PREVIOUS EXISTING TERMINATION POINT TO NEXT EXISTING TERMINATION POINT IN ACCORDANCE WITH FAA REQUIREMENTS AND IN THE PRESENCE OF A FAA REPRESENTATIVE. THE OWNER MAY ELECT TO HAVE THE REPAIR PERFORMED BY OTHERS IN WHICH CASE THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAYING THE INCURRED COSTS OF REPAIRS.
- COORDINATION MEETINGS - THE CONTRACTOR SHALL CONDUCT WEEKLY COORDINATION MEETINGS TO DISCUSS WORK AREAS AND SCHEDULING, ETC. WITH THE RESIDENT ENGINEER, AIRPORT OPERATIONS, FAA, AND OTHER APPROPRIATE OFFICIALS. MINUTES FROM THE WEEKLY MEETINGS SHALL BE PREPARED BY THE CONTRACTOR, FURNISHED TO ALL ATTENDEES PRIOR TO THE SUBSEQUENT MEETING, AND KEPT ON FILE AT THE FIELD OFFICE. THE COORDINATION MEETING COSTS SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.
- THE CONTRACTOR SHALL PROVIDE THE PHONE NUMBERS OF THREE PERSONNEL, INCLUDING THE PROJECT SUPERINTENDENT, WHO MAY BE CONTACTED IN AN EMERGENCY. PERSONNEL SHALL BE ON CALL 24 HOURS PER DAY FOR MAINTAINING AIRPORT HAZARD LIGHTING AND BARRICADES.
- DRAINAGE MODIFICATIONS SHALL BE SEQUENCED TO PROVIDE POSITIVE DRAINAGE AT ALL TIMES AT NO ADDITIONAL COST TO THE CONTRACT.
- CONTRACTOR PERSONNEL, VEHICLES, EQUIPMENT AND BARRICADES SHALL NOT BE ALLOWED WITHIN THE TAXIWAY / TAXILANE OBJECT FREE AREA (TOFA) OF ACTIVE TAXIWAYS / TAXILANES AND THE RUNWAY SAFETY AREA (RSA) OF ACTIVE RUNWAYS.
- CONTRACTOR SHALL STORE EQUIPMENT AND MATERIALS IN SUCH A MANNER AS NOT TO VIOLATE FEDERAL AVIATION ADMINISTRATION PART 77 IMAGINARY SURFACES OR RUNWAY AND TAXIWAY SAFETY AREAS.
- ALL EXISTING TAXIWAY AND RUNWAY AIRFIELD LIGHTING CIRCUITS, FAA CABLES AND OTHER ELECTRICAL CABLES SHALL REMAIN IN SERVICE AT ALL TIMES. ALL EXISTING LIGHTING AND VAULT EQUIPMENT SHALL REMAIN IN SERVICE UNTIL PROPOSED IMPROVEMENTS ARE INSTALLED AND OPERATIONAL, UNLESS OTHERWISE APPROVED BY THE RESIDENT ENGINEER. ANY CABLES DAMAGED BY THE CONTRACTOR SHALL BE IMMEDIATELY REPAIRED AT HIS EXPENSE. ANY NECESSARY TEMPORARY JUMPER CABLES SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- COORDINATION BY THE CONTRACTOR WITH THE EXISTING UTILITIES SHALL BE COMPLETED BEFORE CONSTRUCTION IS STARTED. CONTRACTOR IS REFERRED TO SECTION 50-17 OF THE STANDARD SPECIFICATIONS AND THE SPECIAL PROVISIONS FOR SPECIFIC REQUIREMENTS. THE LOCATION OF UNDERGROUND UTILITIES AS INDICATED ON THE PLANS HAVE BEEN OBTAINED FROM EXISTING RECORDS. NEITHER THE OWNER OR THE DESIGN ENGINEER ASSUME ANY RESPONSIBILITY WHATSOEVER 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 MATERIAL OF EXISTING UNDERGROUND UTILITIES AS INDICATED ARE REPRESENTATIVE OF THOSE TO BE ENCOUNTERED DURING 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 RESIDENT ENGINEER AND THE AIRPORT MANAGER. ANY SUCH MAINS AND/OR SERVICES DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED IMMEDIATELY AT HIS EXPENSE TO THE SATISFACTION OF THE RESIDENT ENGINEER AND AIRPORT MANAGER.
- ALL AIRFIELD LIGHTING AND LIGHTING GUIDANCE SYSTEMS (NAVAIDS) LOCATED WITHIN AND IMMEDIATELY ADJACENT TO THE CONTRACTORS WORK ZONE SHALL BE CHECKED FOR OPERATIONAL CONDITION PRIOR TO THE DEPARTURE FROM THE AIRPORT WITH THE AIRPORT MANAGER. ANY DEFECIENCIES IN THESE SYSTEMS DUE TO THE ACTS OF CONTRACTOR OR HIS SUBCONTRACTORS, SUPPLIERS OR CONSULTANTS SHALL BE REPAIRED IMMEDIATELY.

CONTRACTOR CROSSING RUNWAY/TAXIWAY/TAXILANE/APRON AIR OPERATIONS AREA (A.O.A.)

- ANYTIME THE CONTRACTOR IS REQUIRED TO UTILIZE OR CROSS ACTIVE AIRFIELD PAVEMENTS FOR ACCESS TO AND FROM THE WORK ZONE, A FULL TIME CROSSING GUARD IN RADIO CONTACT WITH AIR TRAFFIC SHALL BE FURNISHED BY THE CONTRACTOR FOR MOVEMENTS OF VEHICLES OR EQUIPMENT TO AND FROM THE WORK ZONE. THE RADIO OPERATOR SHALL BE FAMILIAR WITH AIRPORT GROUND CONTROL PROCEDURES AND DEMONSTRATE KNOWLEDGE OF SAME TO THE AIRPORT. THE AIRPORT RESERVES THE RIGHT TO APPROVE THE CROSSING GUARDS. THE CONTRACTOR SHALL PROVIDE THEIR OWN RADIOS. THIS COST SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAYMENT OF MUNICIPAL FINES (\$750 PER OCCURENCE) DUE TO AIRFIELD INCURSIONS BY HIS EMPLOYEES, SUBCONTRACTORS, SUPPLIERS, CONSULTANTS AND/OR AGENTS.
- ANY PAVEMENT DAMAGED BY CONTRACTOR'S OPERATIONS SHALL BE REPAIRED IMMEDIATELY BY HIM TO THE SATISFACTION OF THE RESIDENT ENGINEER AND AIRPORT MANAGER AT NO ADDITIONAL COST TO THE OWNER. PAVEMENT SHALL BE CONTINUALLY SWEEPED TO PROVIDE DEBRIS FREE SURFACE DURING ALL HAUL ROAD OPERATIONS. THIS COST SHALL NOT BE PAID SEPERATELY BUT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- WORK WITHIN THE A.O.A. SHALL BE EXPEDITED. ANY DROP OFF SHALL BE ADEQUATELY LIGHTED, SIGNED AND BARRICADED. NO MATERIAL SHALL BE STOCKPILED WITHIN THE A.O.A. SHOULD IT BE NECESSARY FOR THE CONTRACTOR TO TEMPORARILY RELOCATE MEN AND EQUIPMENT TO ALLOW AIRCRAFT TO PASS, THEY SHALL DO SO AT NO EXTRA COST TO THE PROJECT. THE CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER AND AIRPORT MANAGER TEN (10) WORKING DAYS IN ADVANCE OF ANY PLANNED CONSTRUCTION WITHIN THESE LIMITS.

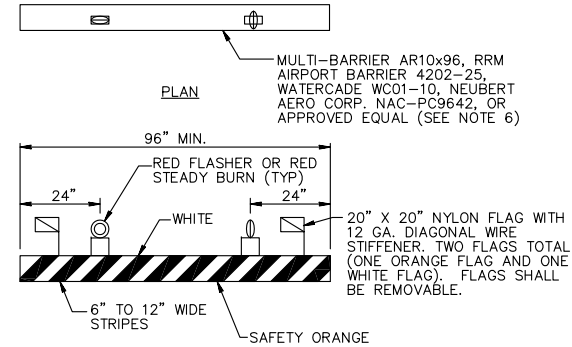
LIMITATIONS ON CONSTRUCTION WITHIN RUNWAY SAFETY AREA (RSA) AND TAXIWAY OBJECT FREE AREA (TOFA)

RUNWAYS:

THE CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER AND AIRPORT MANAGER TEN (10) WORKING DAYS IN ADVANCE OF ANY PLANNED CONSTRUCTION WITHIN THESE LIMITS. WORK SHALL BE EXPEDITED IN THESE AREAS AND AT THE END OF EACH WORKING DAY THESE AREAS SHALL BE SMOOTHLY GRADED TO ALLOW THE RUNWAY TO BE REOPENED. IF NECESSARY STEEL PLATES SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR TO COVER ANY OPEN TRENCHES OR EXCAVATION WITHIN THE RSA IF DURING RUNWAY CLOSURE AN EMERGENCY IS DECLARED, THE CONTRACTOR SHALL IMMEDIATELY CLEAR THE RUNWAY OF ALL VEHICLES, MEN AND EQUIPMENT. REFERENCE TABLE ON PREVIOUS SHEET FOR SAFETY AREA WIDTHS.

TAXIWAYS:

ANY WORK WITHIN TAXIWAY OBJECT FREE AREA (TOFA) WILL REQUIRE A TAXIWAY CLOSURE. WORK WITHIN THE TOFA SHALL BE EXPEDITED. ANY DROP OFF SHALL BE ADEQUATELY LIGHTED, SIGNED AND BARRICADED. NO MATERIAL SHALL BE STOCKPILED WITHIN THE TOFA. SHOULD IT BE NECESSARY FOR THE CONTRACTOR TO TEMPORARILY RELOCATE EQUIPMENT TO ALLOW AIRCRAFT TO PASS, THEY SHALL DO SO AT NO EXTRA COST TO THE PROJECT. THE CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER AND AIRPORT MANAGER FIVE (5) WORKING DAYS IN ADVANCE OF ANY PLANNED CONSTRUCTION WITHIN THESE LIMITS. REFERENCE TABLE ON PREVIOUS SHEET FOR OBJECT FREE AREA WIDTHS. NO DROP-OFFS OR OPEN EXCAVATIONS WILL BE ALLOWED WITHIN THE TAXIWAY SAFETY AREAS OF OPEN TAXIWAYS.

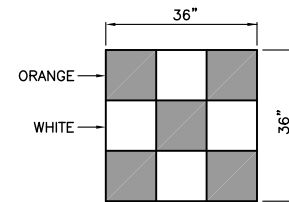


LOW PROFILE LIGHTED BARRICADE

NOT TO SCALE

BARRICADE NOTES:

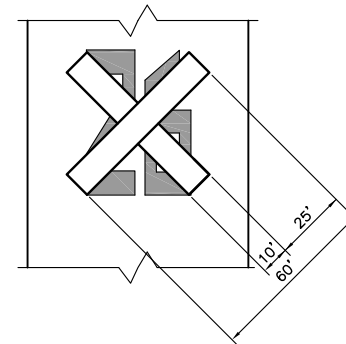
- FLASHER OR STEADY BURN LIGHTS SHALL BE BATTERY OR SOLAR POWER OPERATED. LENS SHALL BE RED AND BE ABLE TO ROTATE 90°.
- FACING OF BARRICADE SHALL BE COVERED WITH REFLECTIVE TAPE OR PAINT.
- BARRICADES TO BE PLACED WITH A MAXIMUM OF 10' SPACING CENTER TO CENTER BETWEEN RED LIGHTS ALONG OPERATIONAL PAVEMENT ADJACENT TO CONSTRUCTION AS DIRECTED BY THE RESIDENT ENGINEER. ALTERNATE FLASHER OR STEADY BURN LENSES SO THAT EVERY OTHER LENS IS ROTATED 90°.
- FLASHER OR STEADY BURN LIGHTS SHALL BE SECURED TO THE BARRICADES, AS APPROVED BY THE RESIDENT ENGINEER.
- BARRICADES SHALL BE OF LOW MASS, EASILY COLLAPSIBLE UPON CONTACT WITH AN AIRCRAFT OR ANY OF ITS COMPONENTS, AND WEIGHTED TO AVOID BEING BLOWN OVER.
- BARRICADES SHALL BE OF A COMMERCIAL DESIGN.
- THE CONTRACTOR MUST FURNISH NINE (9) OF THE REQUIRED LOW PROFILE BARRICADES TO THE AIRPORT AT THE END OF THE PROJECT. COST OF THESE BARRICADES THAT BECOME PROPERTY OF THE AIRPORT IS CONSIDERED INCIDENTAL TO THE CONTRACT.



CONSTRUCTION EQUIPMENT AND TRUCK SIGNAL FLAG

NOT TO SCALE

CONTRACTOR SHALL PLAN AND PERFORM HIS WORK SO AS NOT TO INTERFERE OR HINDER THE PROGRESS, WORK OR HAUL ROAD ACCESS OF OTHER CONTRACTORS (SEE STANDARD SPECIFICATIONS SECTION 30-05). THE PRIME CONTRACTOR WILL BE RESPONSIBLE TO COORDINATE CONSTRUCTION ACTIVITIES AND ACCESS BETWEEN ALL ON-SITE CONTRACTORS SUBCONTRACTORS.



ON PAVEMENT CLOSED RUNWAY MARKER DETAIL

ON PAVEMENT - NO SCALE

CLOSED RUNWAY MARKER DETAIL NOTES

- CLOSED RUNWAY MARKERS ARE YELLOW AND WILL BE SUPPLIED BY THE AIRPORT.
- CONTRACTOR SHALL MAINTAIN AND RELOCATE MARKERS AS SHOWN ON THE PLANS OR AS NEEDED TO FACILITATE CONSTRUCTION
- MARKERS ON PAVEMENT SHALL BE PLACED OVER EXISTING RUNWAY NUMERALS AS SHOWN.
- COST OF INSTALLING, MAINTAINING, REMOVING AND RETURNING MARKERS TO THE AIRPORT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- DURING VARIOUS PHASES OF WORK, IT WILL BE NECESSARY TO CLOSE RUNWAYS TO AIR TRAFFIC ON A TEMPORARY BASIS AS COORDINATED WITH THE AIRPORT AND TOWER PERSONNEL. THE CONTRACTOR SHALL MARK THE RUNWAYS TO BE CLOSED BY PLACING A YELLOW CROSS AT THE LOCATION AND DIMENSIONS DETAILED ON THIS SHEET. THE CROSSES ARE SHOWN ON THE RESPECTIVE RUNWAYS ACCORDING TO THE VARIOUS PHASES OF WORK AS DELINEATED IN THE SUGGESTED SEQUENCE OF CONSTRUCTION.

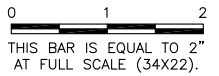
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UPDATE BY: Jim Ohse
SURVEY BOOK #
DATE: Wednesday, July 03, 2013 9:09:35 AM
XREF DWG: tbcint.dwg

REVISIONS

NUMBER	BY	DATE



**LAKE IN THE HILLS AIRPORT
LAKE IN THE HILLS, ILLINOIS
CONSTRUCT APRON FOR THE FUEL FACILITY**

**SEQUENCE OF CONSTRUCTION
GENERAL NOTES AND DETAILS**

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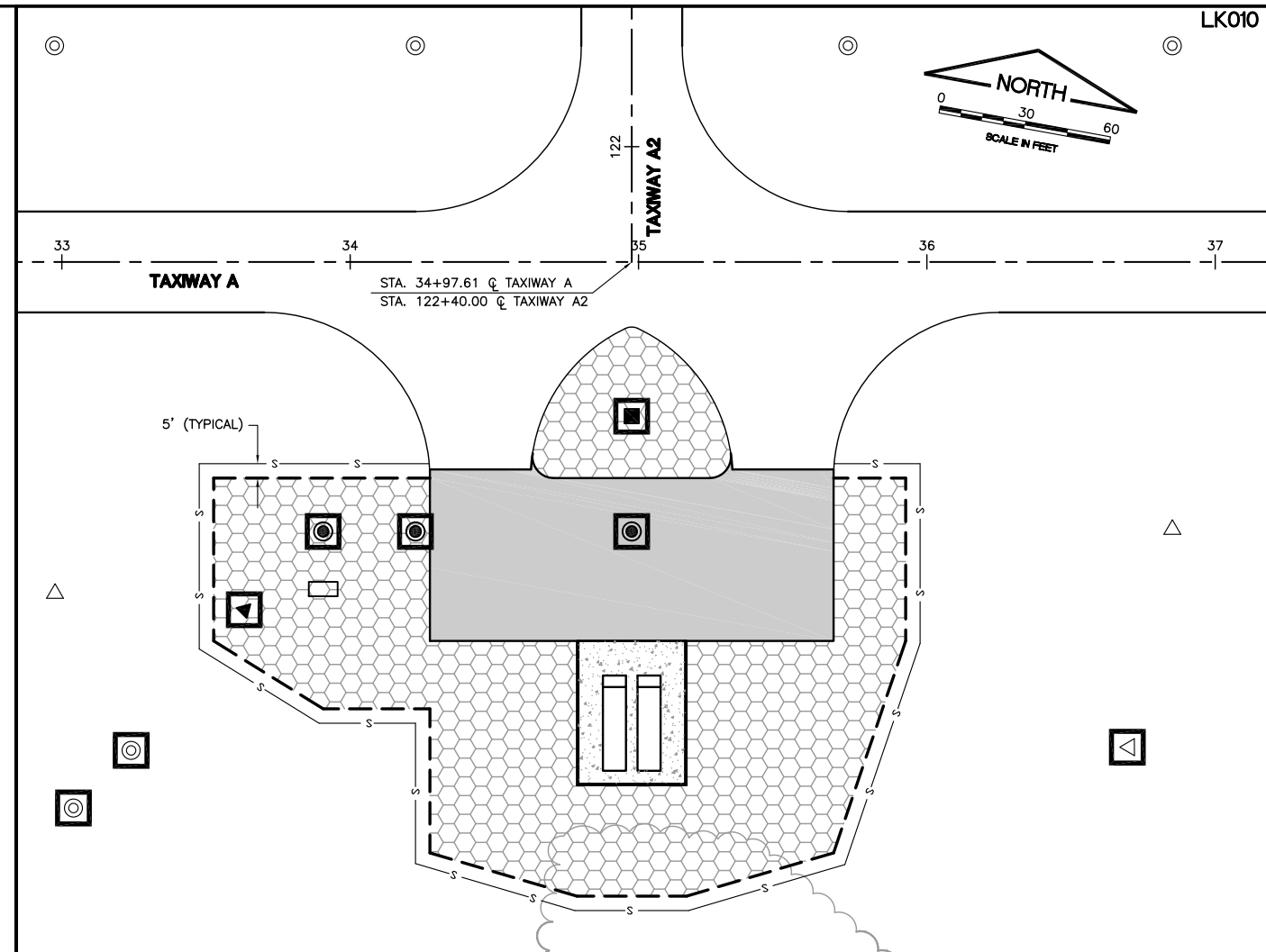
FINAL

LEGEND

- NEW PCC PAVEMENT
- NEW BITUMINOUS PAVEMENT
- NEW SEED AND MULCHING
- NEW SILT FENCE
- NEW GRADING AND LANDSCAPING LIMITS
- NEW INLET PROTECTION/SEDIMENT TRAP
- NEW MANHOLE/INLET
- EXISTING MANHOLE/INLET
- NEW FLARED END SECTION
- EXISTING FLARED END SECTION

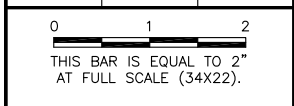
NOTE

1. ANY EXCAVATION, TURFING OR GROUND DISTURBED OUTSIDE THE LANDSCAPING LIMITS SHALL BE REPAIRED BY THE CONTRACTOR TO ITS ORIGINAL CONDITION. THE COST OF REPAIRING THE GROUNDLINE SHALL BE INCIDENTAL TO THE CONTRACT.



REVISIONS

NUMBER	BY	DATE



**LAKE IN THE HILLS AIRPORT
 LAKE IN THE HILLS, ILLINOIS
 CONSTRUCT APRON FOR THE FUEL FACILITY**

**STORMWATER POLLUTION PREVENTION
 PLAN AND NOTES**

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 THE CONSTRUCTION OF AN APRON FOR A NEW FUEL FACILITY AT THE LAKE IN THE HILLS AIRPORT. THE PROJECT INCLUDES EARTH EXCAVATION AND EMBANKMENT, ELECTRICAL WORK, VARIOUS PAVEMENT ITEMS, REMOVAL OF UNDERGROUND FUEL STORAGE TANKS, INSTALLATION OF TWO (2) AST'S 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 EXCAVATION AND GRADING:

1. PLACEMENT, MAINTENANCE, REMOVAL AND PROPER CLEAN-UP OF TEMPORARY EROSION CONTROL. SUCH AS PERIMETER SILT FENCE AND INLET PROTECTION.
2. EXCAVATION AND EMBANKMENT WILL BE COMPLETED WITHIN THE PROJECT LIMITS TO GRADE OUT FOR THE PROPOSED PAVEMENT IMPROVEMENTS.
3. PAVEMENT CONSTRUCTION.
4. ELECTRICAL INSTALLATION, INSTALLATION OF FUEL FACILITY TANKS, FINAL GRADING AS NEEDED AND OTHER MISCELLANEOUS ITEMS.
5. 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 1.60 ACRES OF WHICH 1.60 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 APPROXIMATE 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 CRYSTAL CREEK 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 SEEDED, AT THE CONTRACTORS 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 SEEDED IMMEDIATELY AFTER FINAL GRADING. IF NOT, THEY SHALL BE TEMPORARILY SEEDED, 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 SEEDED 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 RESEEDDED.

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.

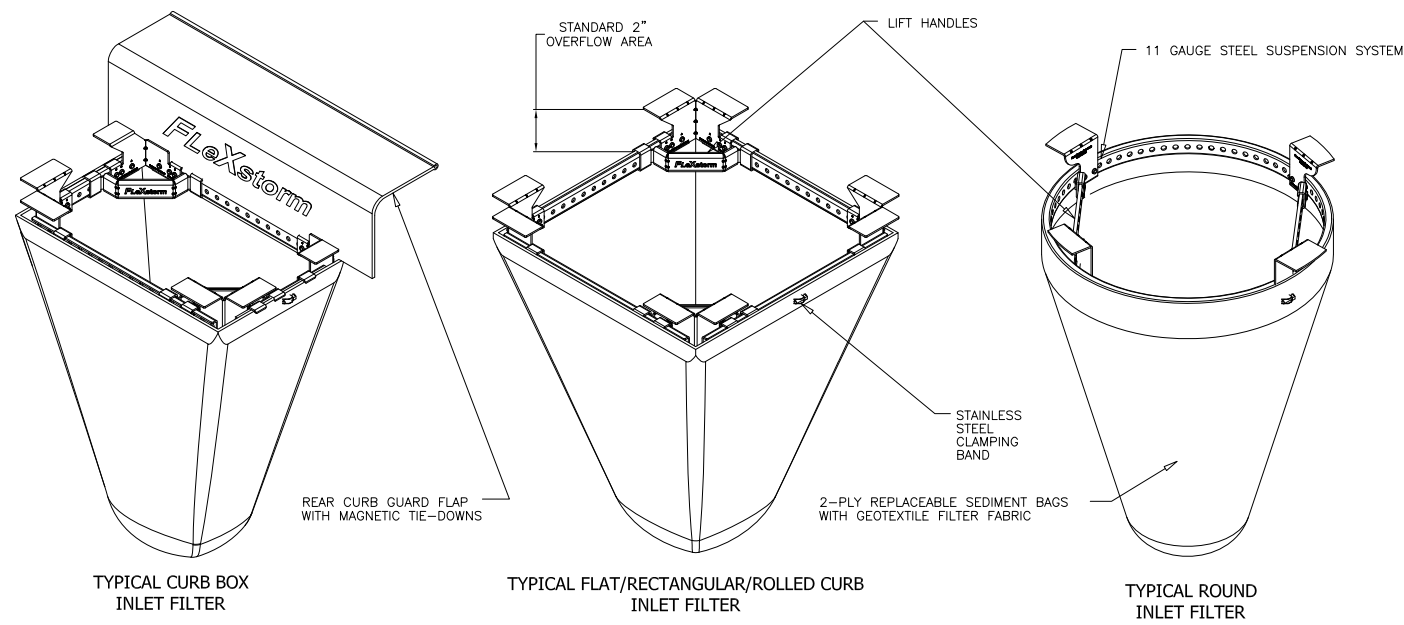
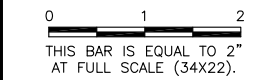
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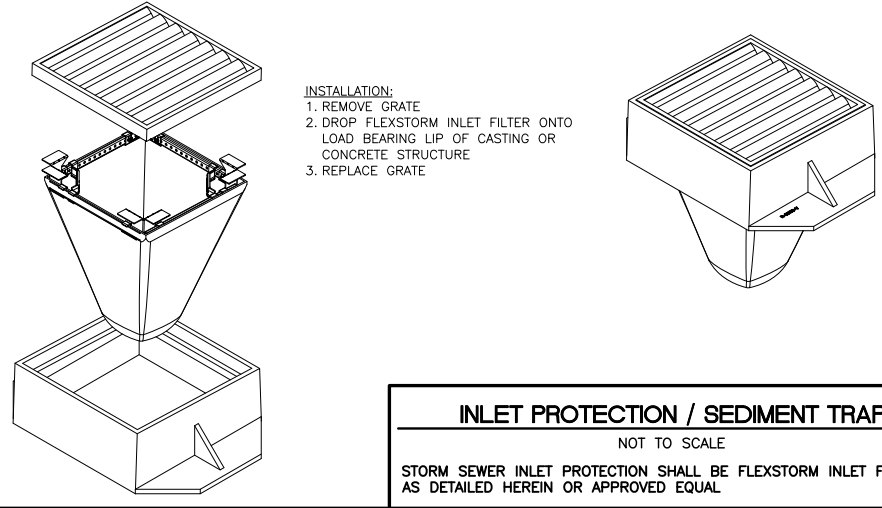
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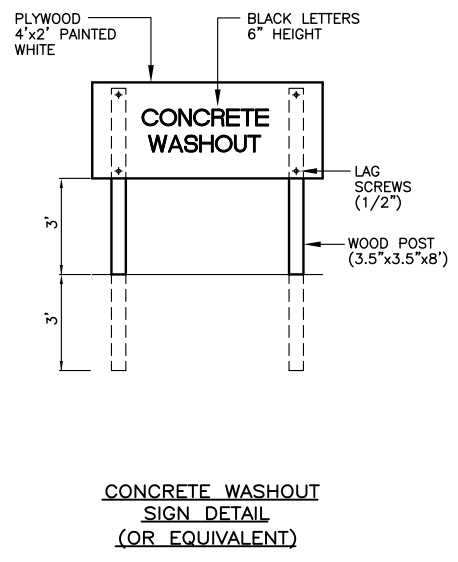


IPP Flexstorm Inlet Filter Specifications			
Material Property	Test Method	Value (min ave)	
> Inner Filter Bag Specs (2 ft³ min vol)			
Grab Tensile	ASTM D 4632	100 lbs	200 lbs
Puncture Strength	ASTM D 4833	65 lbs	90 lbs
Trapezoidal Tear	ASTM D 4533	45 lbs	75 lbs
UV Resistance	ASTM D 4355	70% at 500 hrs	90%
App Open Size (AOS)	ASTM D 4751	70 sieve (.212 mm)	40 sieve (.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; 11 Gauge; Zinc Plated	ASTM A 576	Tensile Strength > 58,000 psi; Yield Strength > 36,000 psi	

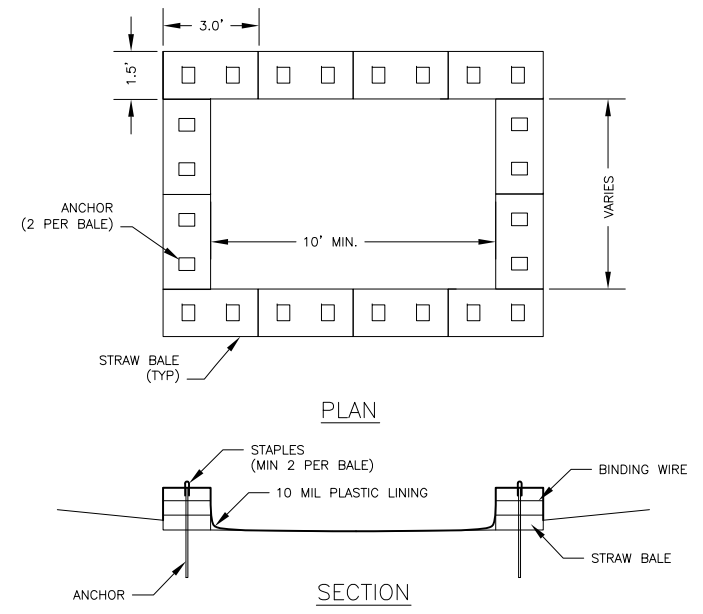


**LAKE IN THE HILLS AIRPORT
 LAKE IN THE HILLS, ILLINOIS
 CONSTRUCT APRON FOR THE FUEL FACILITY**

**STORMWATER POLLUTION
 PREVENTION PLAN DETAILS - SHEET 1**

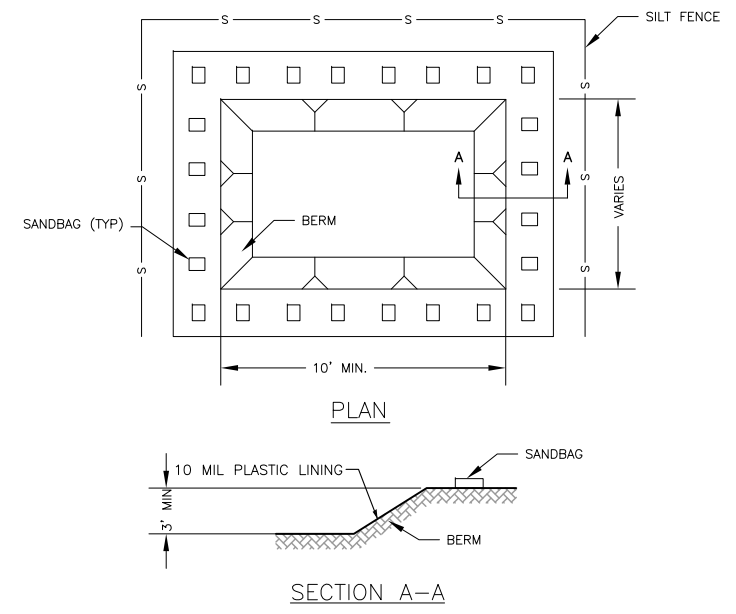


**CONCRETE WASHOUT
 SIGN DETAIL
 (OR EQUIVALENT)**



ABOVE GROUND TEMPORARY WASHOUT

- NOTES:**
- CONTRACTOR SHALL DETERMINE LOCATION AND SIZE OF WASHOUT.
 - WASHOUT SIZE AND LOCATION SHALL BE APPROVED BY THE ENGINEER.
 - 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.
 - 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.
 - MEDIA SHALL BE REMOVED AND DISPOSED OF AT A LEGAL OFF-SITE LOCATION WHEN THE FACILITY HAS REACHED 50% CAPACITY.
 - UPON COMPLETION OF CONCRETE OPERATIONS, THE CONCRETE WASHOUT AND ALL MATERIALS CONTAINED WITHIN SHALL BE DISPOSED OF AT A LEGAL OFF-SITE LOCATION.



BELOW GROUND TEMPORARY WASHOUT

- NOTES:**
- CONTRACTOR SHALL DETERMINE LOCATION AND SIZE OF WASHOUT.
 - WASHOUT SIZE AND LOCATION SHALL BE APPROVED BY THE ENGINEER.
 - SANDBAGS SHALL BE INSTALLED TO 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.
 - 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.
 - THE TEMPORARY WASHOUT FACILITY SHALL BE SURROUNDED BY SILT FENCE ON ALL SIDES.
 - 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.
 - MEDIA SHALL BE REMOVED AND DISPOSED OF AT A LEGAL OFF-SITE LOCATION WHEN THE FACILITY HAS REACHED 50% CAPACITY.
 - 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**

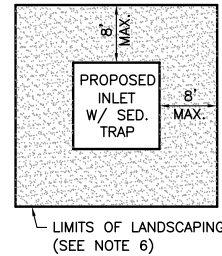
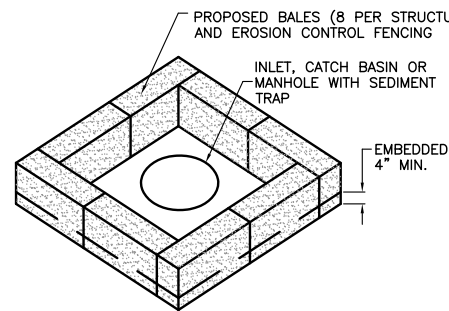
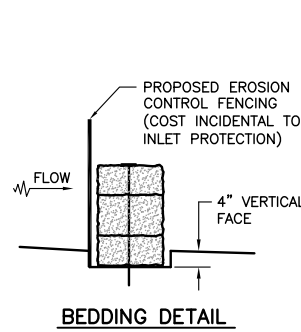
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SHEET 7 OF 18 SHEETS

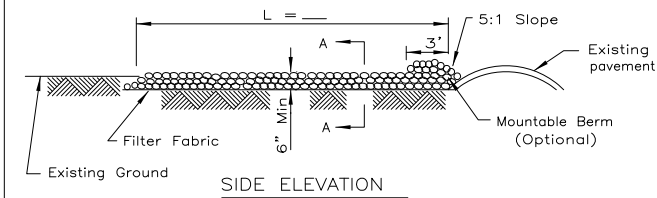
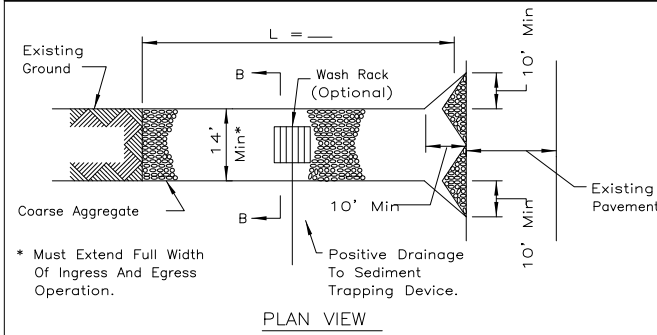


INLET PROTECTION (INLET/MANHOLES)
N.T.S.

NOTES

- BALES SHALL BE PLACED AT THE TOE OF SLOPE OR ON A CONTOUR AND IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
- EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4 INCHES, AND PLACED SO THE BINDINGS ARE HORIZONTAL.
- 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.
- INSPECTION SHALL BE FREQUENT AND REPAIR / REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
- 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.
- AFTER FINAL APPROVAL OF THE ENGINEER, STRAW BALES MAY BE REMOVED. CONTRACTOR SHALL RESTORE TURF, PLACE SEED AND MULCH OVER THE DISTURBED AREAS, COST INCIDENTAL TO INLET PROTECTION.

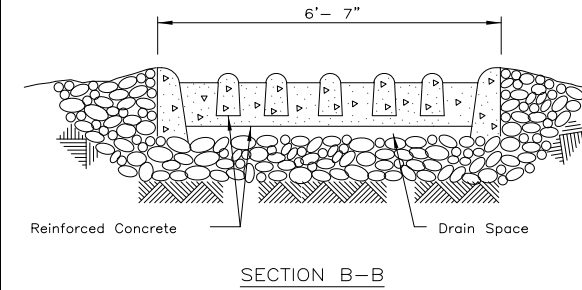
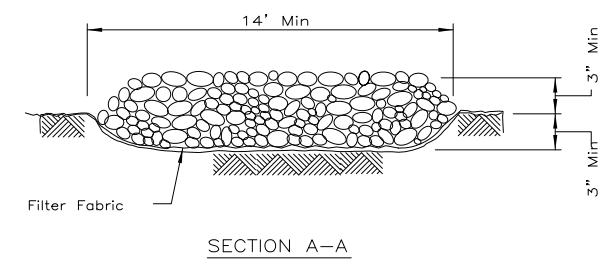
STABILIZED CONSTRUCTION ENTRANCE PLAN



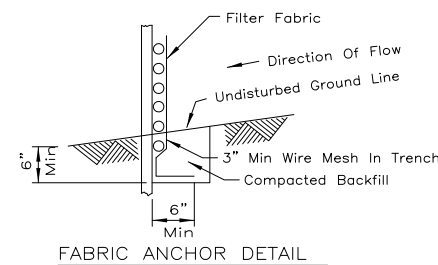
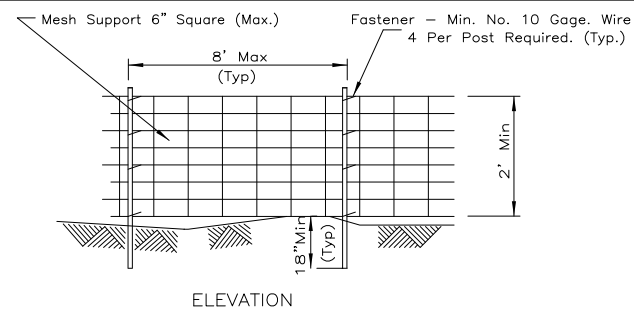
- NOTES:**
- Filter fabric shall meet the requirements of material specification 592 GEOTEXTILE, Table 1 or 2, Class 1 or 2 and shall be placed over the cleared area prior to the placing of rock.
 - Rock or reclaimed concrete shall meet one of the following IDOT coarse aggregate gradation, CA-1, CA-2, CA-3 or CA-4 and be placed according to construction specification 25 ROCKFILL using placement Method 1 and Class III compaction.
 - Any drainage facilities required because of washing shall be constructed according to manufacturers specifications.
 - If wash racks are used they shall be installed according to the manufacturer's specifications.

REFERENCE Project _____		STANDARD DWG. NO. IL-630	REFERENCE Project _____		STANDARD DWG. NO. IL-630
Designed _____ Date _____		SHEET 1 OF 2	Designed _____ Date _____		SHEET 2 OF 2
Checked _____ Date _____		DATE 8-18-94	Checked _____ Date _____		DATE 8-18-94
Approved _____ Date _____			Approved _____ Date _____		

STABILIZED CONSTRUCTION ENTRANCE PLAN



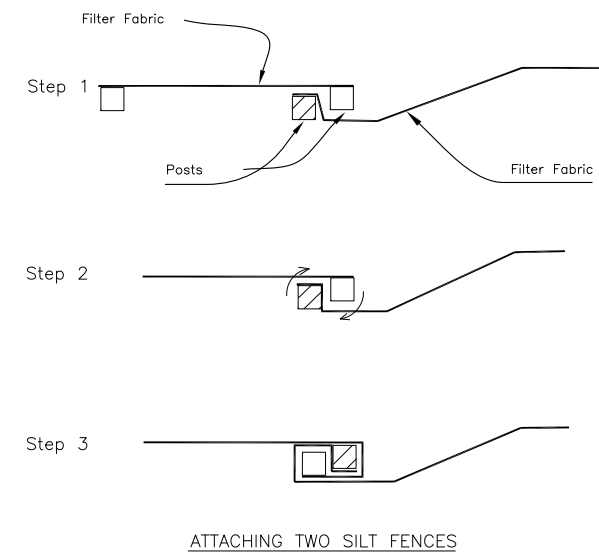
SILT FENCE WITH WIRE SUPPORT PLAN



- NOTES:**
- Wires of mesh support shall be min. gage no. 12.
 - 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.
 - Filter fabric shall meet the requirements of material specification 592 Geotextile Table 1 or 2, Class 1 with equivalent opening size of at least 30 for nonwoven and 50 for woven.
 - Fence posts shall be either standard steel post or wood post with a minimum cross-sectional area of 3.0 sq. in.

REFERENCE Project _____		STANDARD DWG. NO. IL-620W	REFERENCE Project _____		STANDARD DWG. NO. IL-620(W)
Designed _____ Date _____		SHEET 1 OF 2	Designed _____ Date _____		SHEET 2 OF 2
Checked _____ Date _____		DATE 3-3-95	Checked _____ Date _____		DATE 1-29-99
Approved _____ Date _____			Approved _____ Date _____		

SILT FENCE



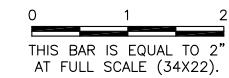
- NOTES:**
- Place the end post of the second fence inside the end post of the first fence.
 - Rotate both posts at least 180 degrees in a clockwise direction to create a tight seal with the fabric material.
 - Drive both posts a minimum of 18 inches into the ground and bury the flap.

REFERENCE Project _____		STANDARD DWG. NO. IL-620(W)	REFERENCE Project _____		STANDARD DWG. NO. IL-620(W)
Designed _____ Date _____		SHEET 2 OF 2	Designed _____ Date _____		SHEET 2 OF 2
Checked _____ Date _____		DATE 1-29-99	Checked _____ Date _____		DATE 1-29-99
Approved _____ Date _____			Approved _____ Date _____		

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LAYOUT: Layout1
UPDATE BY: Jim Ohse
SURVEY BOOK #
DATE: Thursday, June 27, 2013 2:26:47 PM
XREF DWG: tbcint.dwg

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LAKE IN THE HILLS AIRPORT
LAKE IN THE HILLS, ILLINOIS
CONSTRUCT APRON FOR THE FUEL FACILITY

STORMWATER POLLUTION
PREVENTION PLAN DETAILS - SHEET 2

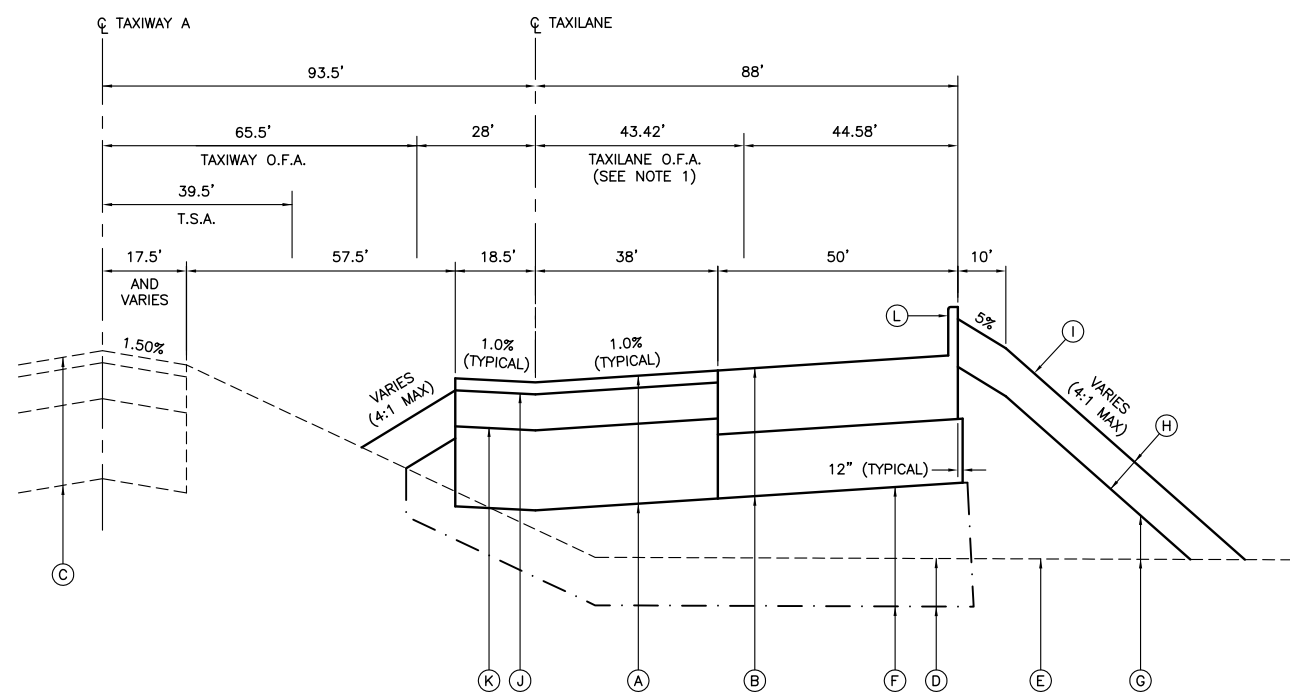
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SHEET 8 OF 18 SHEETS

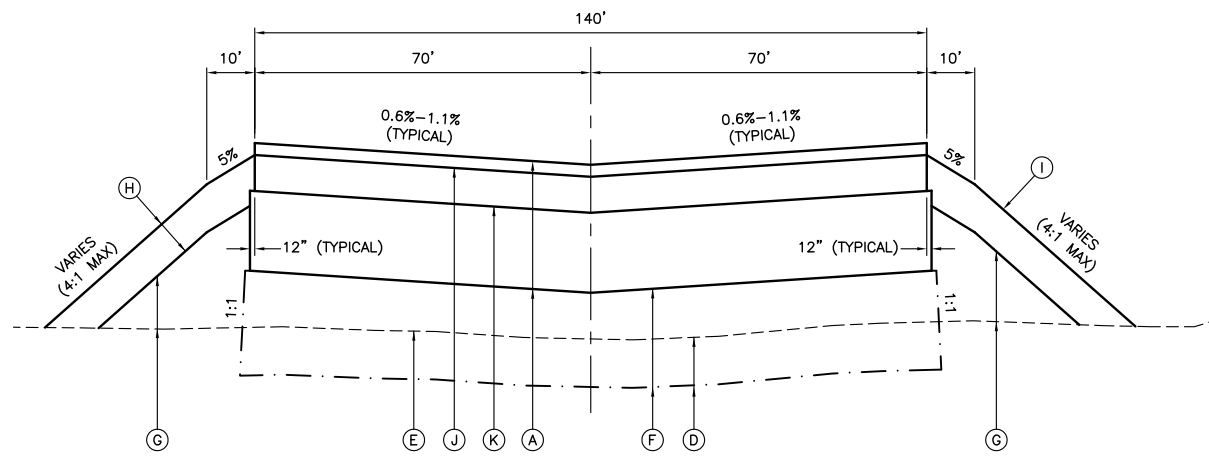
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 SURVEY BOOK #
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TYPICAL SECTION A-A
 NOT TO SCALE

NOTES

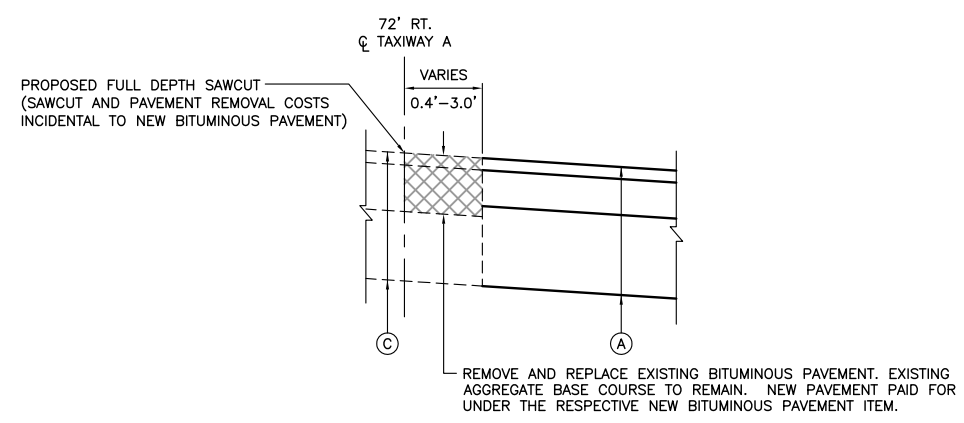
- TAXILANE OBJECT FREE AREA (OFA) WAS MODIFIED PER FAA AC 150/5300-13A AND ENGINEERING BRIEF NO. 78 BASED ON AIRPORT CRITICAL AIRCRAFT WINGSPAN OF 55.7'.
- WELDED WIRE FABRIC (WWF) REINFORCEMENT PLACED AT T/3 BELOW TOP OF PCC PAVEMENT, AND PLACED SECURELY ON CHAIR SUPPORTS. WELDED WIRE FABRIC SIZE AND SPACING SHALL BE 6X6 - W12 X W12 MINIMUM. COST OF WWF AND JOINTING (TOOLED) INCIDENTAL TO NEW PCC PAVEMENT.



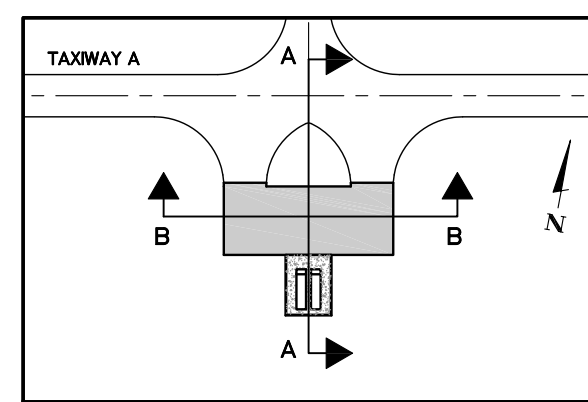
TYPICAL SECTION B-B
 NOT TO SCALE

LEGEND

- (A) NEW APRON PAVEMENT STRUCTURE
 1-1/2" BITUMINOUS SURFACE COURSE (401)
 2-1/2" BITUMINOUS BASE COURSE (403)
 12" CRUSHED AGGREGATE BASE COURSE (209)
- (B) NEW FUEL TANK PAD
 8" PORTLAND CEMENT CONCRETE (501) (SEE NOTE 2)
 8" CRUSHED AGGREGATE BASE COURSE (209)
- (C) EXISTING PAVEMENT STRUCTURE
 1-1/2" BITUMINOUS SURFACE COURSE (401)
 4-1/2" BITUMINOUS BASE COURSE (403)
 10" CRUSHED AGGREGATE BASE COURSE (209)
- (D) NEW 6" AVERAGE TOPSOIL STRIPPING (152)
- (E) EXISTING GROUNDLINE
- (F) NEW EMBANKMENT FILL (152)
- (G) NEW SHOULDER FILL (152)
- (H) NEW 6" TOPSOIL PLACEMENT (905)
- (I) NEW SEEDING AND MULCHING (901 AND 908)
- (J) NEW BITUMINOUS TACK COAT (603)
- (K) NEW BITUMINOUS PRIME COAT (602)
- (L) NEW 6" MONOLITHIC BARRIER CURB (INCIDENTAL TO 8" PCC PAVEMENT)

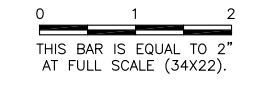


**EXISTING TAXIWAY PAVEMENT REMOVAL DETAIL
 ADJACENT TO NEW PAVEMENT**
 NOT TO SCALE



KEY MAP

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NUMBER	BY	DATE

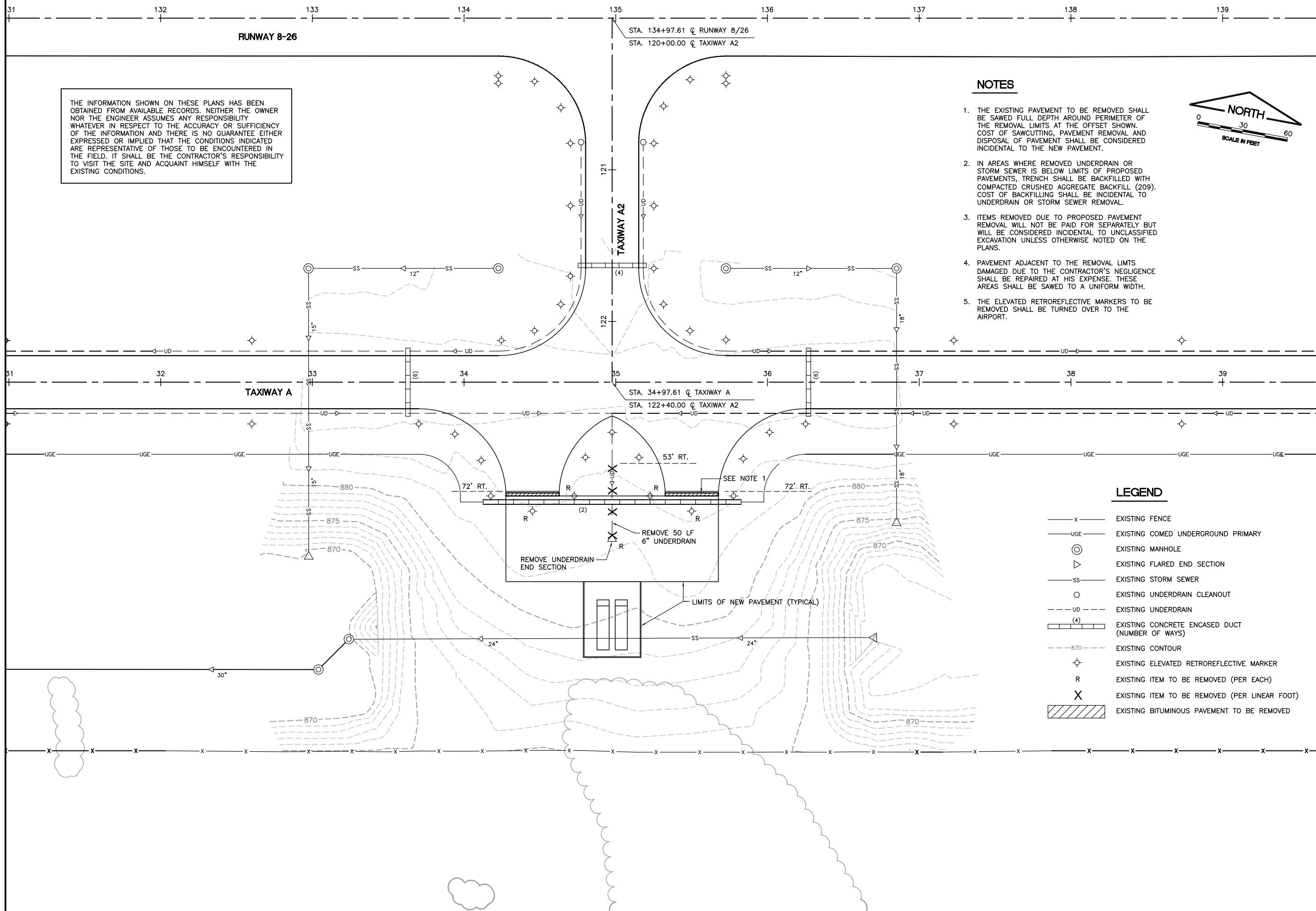


**LAKE IN THE HILLS AIRPORT
 LAKE IN THE HILLS, ILLINOIS
 CONSTRUCT APRON FOR THE FUEL FACILITY**
TYPICAL SECTIONS

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NOTES

1. THE EXISTING PAVEMENT TO BE REMOVED SHALL BE SAWS FULL DEPTH AROUND PERIMETER OF THE REMOVAL LIMITS AT THE OFFSET SHOWN. COST OF SAWCUTTING, PAVEMENT REMOVAL AND DISPOSAL OF PAVEMENT SHALL BE CONSIDERED INCIDENTAL TO THE NEW PAVEMENT.
2. IN AREAS WHERE REMOVED UNDERDRAIN 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 UNDERDRAIN OR STORM SEWER REMOVAL.
3. ITEMS REMOVED DUE TO PROPOSED PAVEMENT REMOVAL WILL NOT BE PAID FOR SEPARATELY BUT WILL BE CONSIDERED INCIDENTAL TO UNCLASSIFIED 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 SAWS TO A UNIFORM WIDTH.
5. THE ELEVATED RETROREFLECTIVE MARKERS TO BE REMOVED SHALL BE TURNED OVER TO THE AIRPORT.



REVISIONS		
NUMBER	BY	DATE

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

LEGEND

- x — EXISTING FENCE
- UGE — EXISTING COMED UNDERGROUND PRIMARY
- ⊙ EXISTING MANHOLE
- ▷ EXISTING FLARED END SECTION
- SS — EXISTING STORM SEWER
- EXISTING UNDERDRAIN CLEANOUT
- - - UD - - - EXISTING UNDERDRAIN
- (4) EXISTING CONCRETE ENCASED DUCT (NUMBER OF WAYS)
- - - 870 - - - EXISTING CONTOUR
- ⬠ EXISTING ELEVATED RETROREFLECTIVE MARKER
- R EXISTING ITEM TO BE REMOVED (PER EACH)
- X EXISTING ITEM TO BE REMOVED (PER LINEAR FOOT)
- ▨ EXISTING BITUMINOUS PAVEMENT TO BE REMOVED

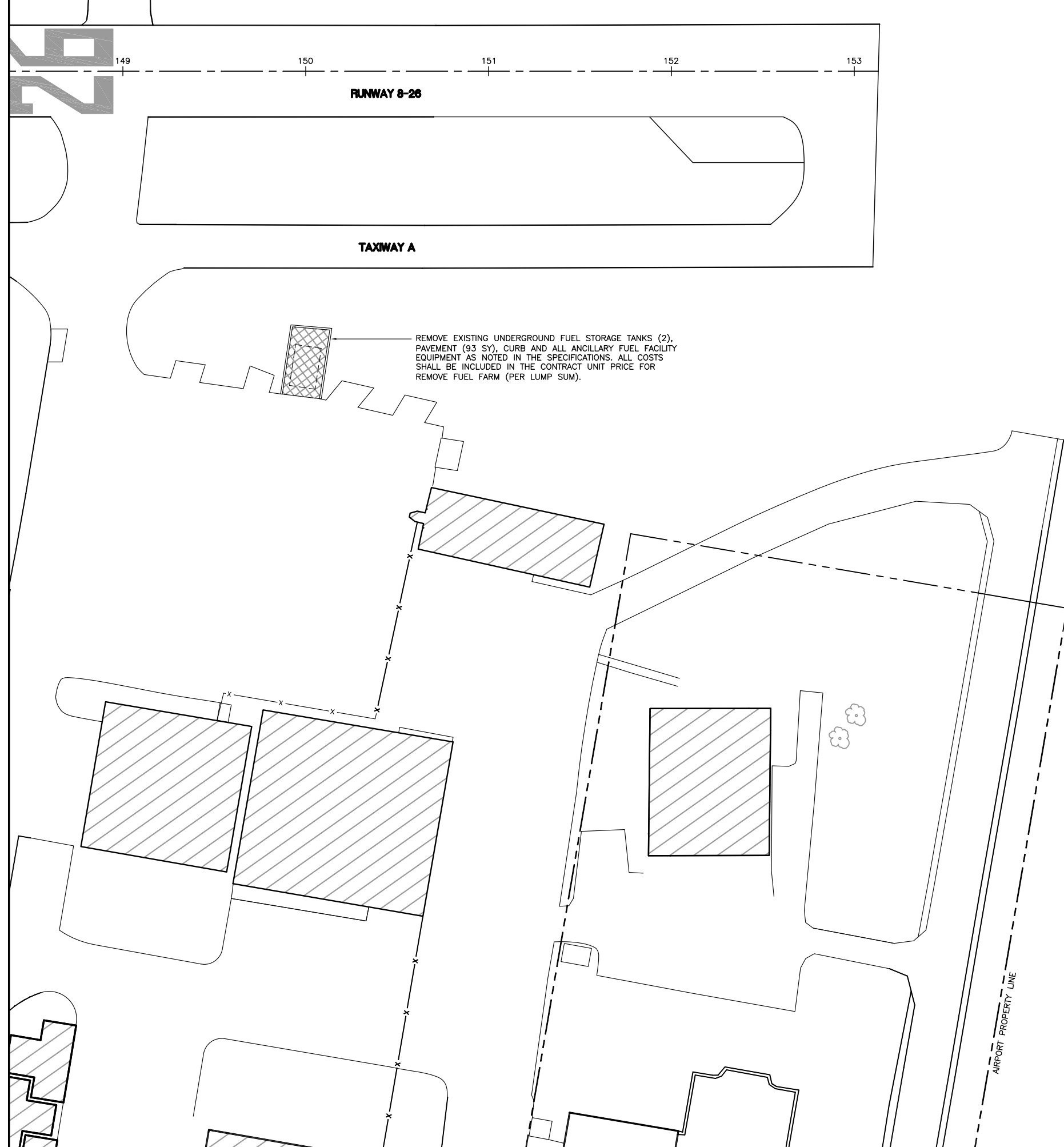
LAKE IN THE HILLS AIRPORT
LAKE IN THE HILLS, ILLINOIS
CONSTRUCT APRON FOR THE FUEL FACILITY

EXISTING CONDITIONS AND PROPOSED
REMOVALS - APRON

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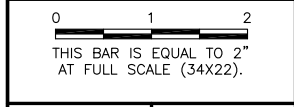
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**LAKE IN THE HILLS AIRPORT
 LAKE IN THE HILLS, ILLINOIS
 CONSTRUCT APRON FOR THE FUEL FACILITY
 EXISTING CONDITIONS AND PROPOSED
 REMOVALS - FUEL FARM**

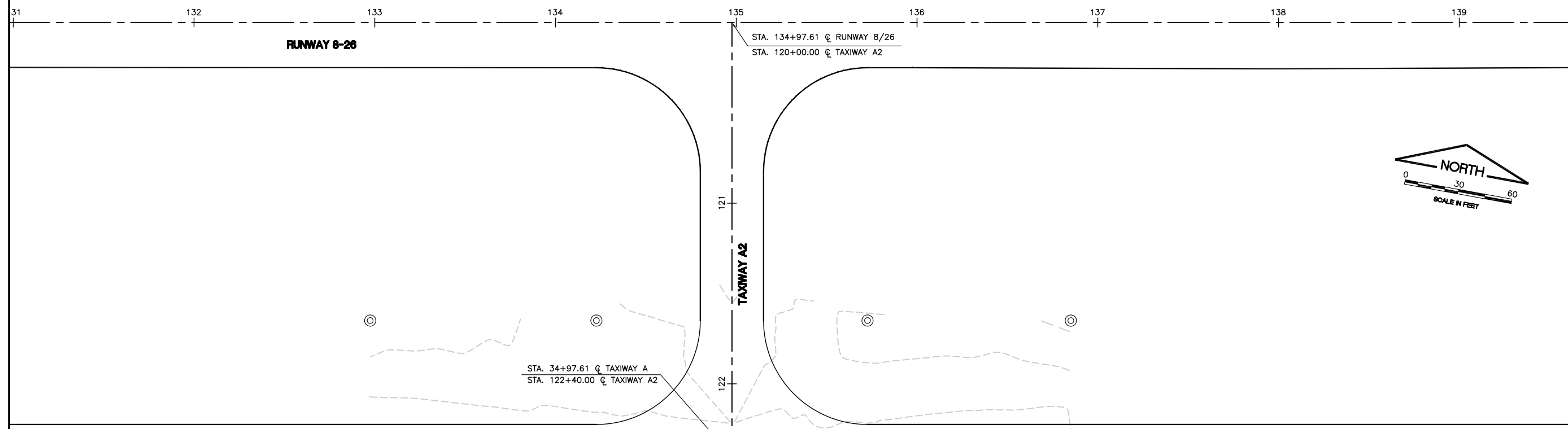
- LEGEND**
- x — EXISTING FENCE
 - ⊙ EXISTING MANHOLE
 - ▷ EXISTING FLARED END SECTION
 - ss — EXISTING STORM SEWER
 - EXISTING UNDERDRAIN CLEANOUT
 - - - ud - - - EXISTING UNDERDRAIN
 - (4) EXISTING CONCRETE ENCASED DUCT (NUMBER OF WAYS)
 - ⊕ EXISTING ELEVATED RETROREFLECTIVE MARKER
 - R EXISTING ITEM TO BE REMOVED (PER EACH)
 - X EXISTING ITEM TO BE REMOVED (PER LINEAR FOOT)
 - - - - - EXISTING AIRPORT PROPERTY LINE
 - ▨ EXISTING BITUMINOUS PAVEMENT TO BE REMOVED

- 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. ITEMS REMOVED DUE TO PROPOSED PAVEMENT REMOVAL WILL NOT BE PAID FOR SEPARATELY BUT WILL BE CONSIDERED INCIDENTAL TO UNCLASSIFIED EXCAVATION UNLESS OTHERWISE NOTED ON THE PLANS.
 3. 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.

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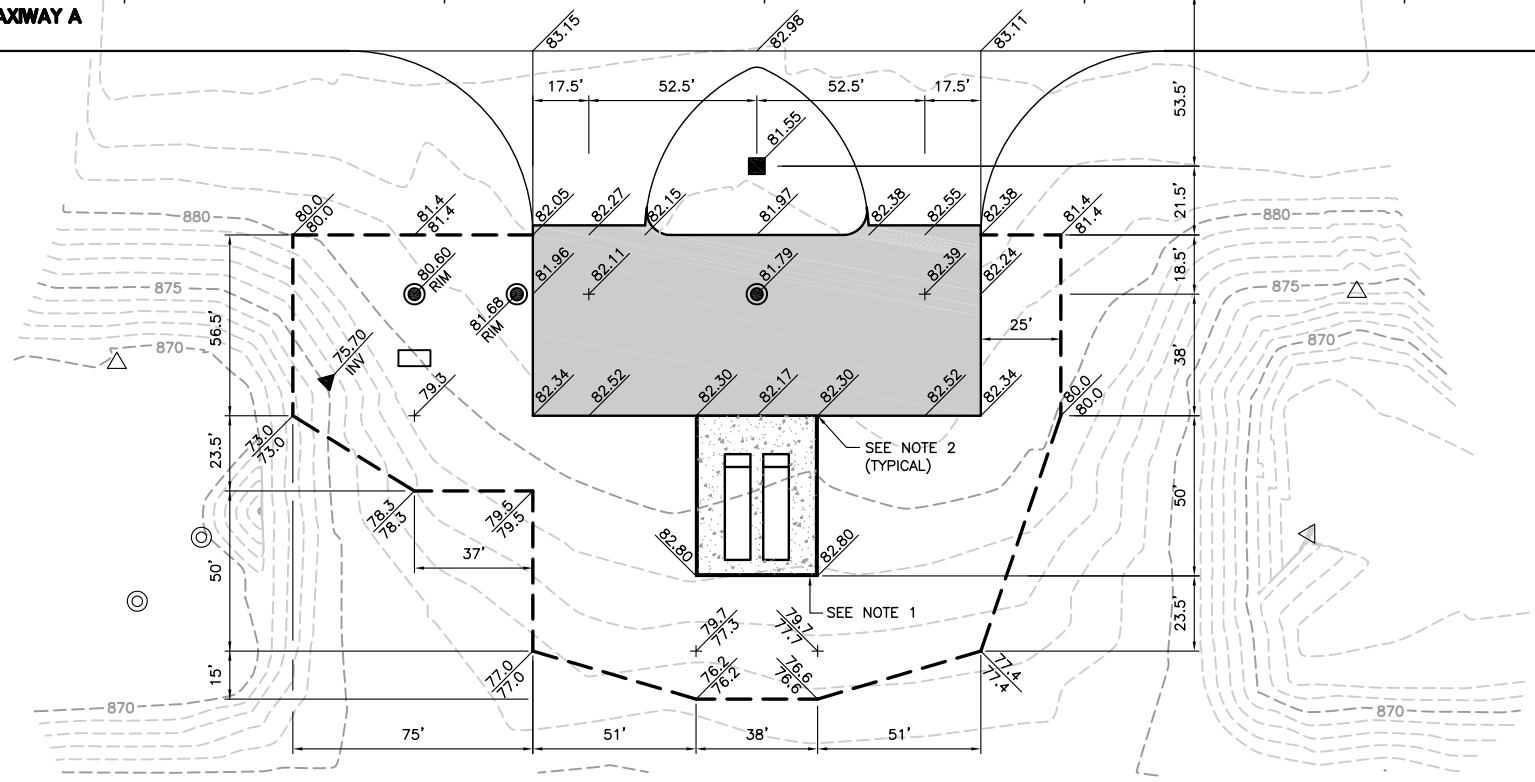
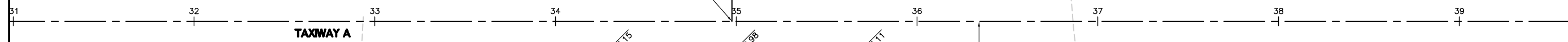
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0 1 2
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NOTES

- FOR BACK OF CURB ELEVATIONS, ADD 6" TO THE PAVEMENT ELEVATION SHOWN.
- CONTRACTOR SHALL TRANSITION THE NEW BARRIER CURB 3' TO MATCH FLUSH WITH THE NEW BITUMINOUS APRON (2 LOCATIONS).

LEGEND

- NEW PCC PAVEMENT
- NEW BITUMINOUS PAVEMENT
- LIMITS OF GRADING
- NEW MANHOLE/INLET
- NEW OIL/WATER SEPARATOR
- NEW FLARED END SECTION
- NEW ELEVATION
- EXISTING ELEVATION (ADD 800.00 FOR U.S.G.S. DATUM)
- EXISTING MANHOLE
- EXISTING FLARED END SECTION
- EXISTING FENCE
- EXISTING CONTOUR

LAKE IN THE HILLS AIRPORT
 LAKE IN THE HILLS, ILLINOIS
 CONSTRUCT APRON FOR THE FUEL FACILITY
 GRADING PLAN

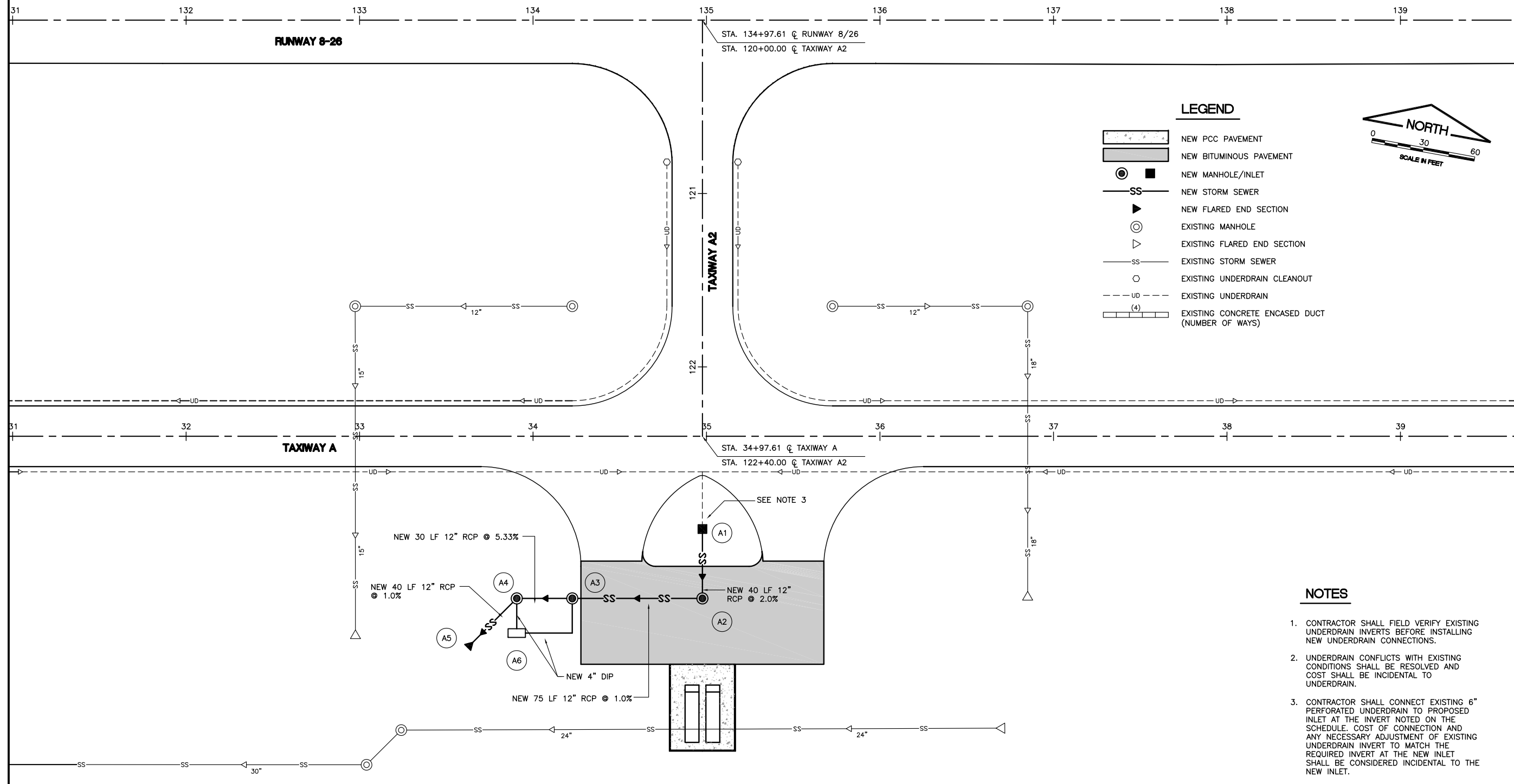
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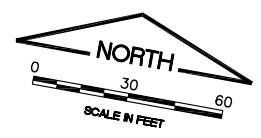
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 LAYOUT: Layout1
 UPDATE BY: Jim Ohse
 SURVEY BOOK #
 DATE: Wednesday, July 03, 2013 9:11:43 AM
 XREF DWG: tbcInt.dwg
 LITH Fuel base.dwg



LEGEND

- NEW PCC PAVEMENT
- NEW BITUMINOUS PAVEMENT
- NEW MANHOLE/INLET
- NEW STORM SEWER
- NEW FLARED END SECTION
- EXISTING MANHOLE
- EXISTING FLARED END SECTION
- EXISTING STORM SEWER
- EXISTING UNDERDRAIN CLEANOUT
- EXISTING UNDERDRAIN
- EXISTING CONCRETE ENCASED DUCT (NUMBER OF WAYS)



REVISIONS

NUMBER	BY	DATE

0 1 2
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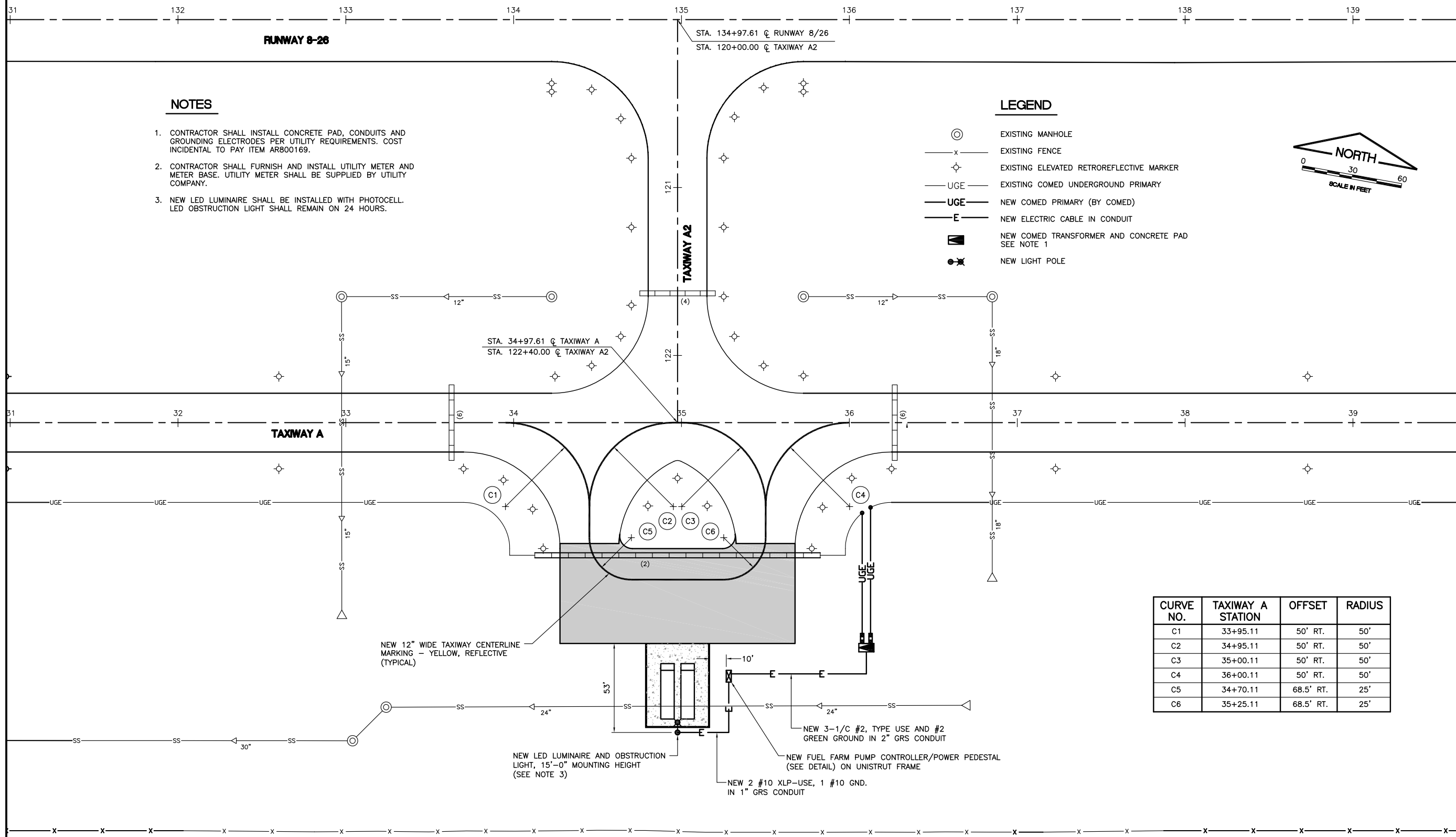
**LAKE IN THE HILLS AIRPORT
 LAKE IN THE HILLS, ILLINOIS
 CONSTRUCT APRON FOR THE FUEL FACILITY
 DRAINAGE PLAN**

- NOTES**
- CONTRACTOR SHALL FIELD VERIFY EXISTING UNDERDRAIN INVERTS BEFORE INSTALLING NEW UNDERDRAIN CONNECTIONS.
 - UNDERDRAIN CONFLICTS WITH EXISTING CONDITIONS SHALL BE RESOLVED AND COST SHALL BE INCIDENTAL TO UNDERDRAIN.
 - CONTRACTOR SHALL CONNECT EXISTING 6" PERFORATED UNDERDRAIN TO PROPOSED INLET AT THE INVERT NOTED ON THE SCHEDULE. COST OF CONNECTION AND ANY NECESSARY ADJUSTMENT OF EXISTING UNDERDRAIN INVERT TO MATCH THE REQUIRED INVERT AT THE NEW INLET SHALL BE CONSIDERED INCIDENTAL TO THE NEW INLET.

DRAINAGE SCHEDULE				
STRUCTURE NO.	LOCATION	DESCRIPTION	RIM	INVERTS
A1	STA. 34+97.60, 53.5' RT. CENTERLINE TAXIWAY A	NEW TYPE A INLET WITH TYPE 8 GRATE	881.55	6" (N) = 880.10 12" (S) = 879.60
A2	STA. 34+97.60, 93.5' RT. CENTERLINE TAXIWAY A	NEW TYPE A-4 MANHOLE WITH 2' SUMP & TYPE 1 FRAME & OPEN LID	881.79	12" (N) = 878.75 12" (W) = 878.65
A3	STA. 34+22.60, 93.5' RT. CENTERLINE TAXIWAY A	NEW TYPE A-4 MANHOLE WITH TYPE 1 FRAME AND CLOSED LID	881.68	12" (E) = 877.90 12" (W) = 877.90 4" (S) = 877.40
A4	STA. 33+92.60, 93.3' RT. CENTERLINE TAXIWAY A	NEW TYPE A-5 MANHOLE WITH TYPE 1 FRAME AND CLOSED LID	880.60	12" (E) = 876.30 12" (SW) = 876.10 4" (S) = 876.30
A5	STA. 33+64.00, 122' RT. CENTERLINE TAXIWAY A	NEW 12" CONCRETE FLARED END SECTION WITH GRATE	-	875.70
A6	SEE OIL/WATER SEPARATOR DETAIL SHEET	NEW 1000 GALLON OIL/WATER SEPARATOR	880.10	SEE OIL/WATER SEPARATOR DETAIL SHEET

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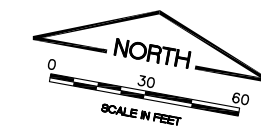


NOTES

1. CONTRACTOR SHALL INSTALL CONCRETE PAD, CONDUITS AND GROUNDING ELECTRODES PER UTILITY REQUIREMENTS. COST INCIDENTAL TO PAY ITEM AR800169.
2. CONTRACTOR SHALL FURNISH AND INSTALL UTILITY METER AND METER BASE. UTILITY METER SHALL BE SUPPLIED BY UTILITY COMPANY.
3. NEW LED LUMINAIRE SHALL BE INSTALLED WITH PHOTOCELL. LED OBSTRUCTION LIGHT SHALL REMAIN ON 24 HOURS.

LEGEND

- ⊙ EXISTING MANHOLE
- x — EXISTING FENCE
- ⊕ EXISTING ELEVATED RETROREFLECTIVE MARKER
- UGE — EXISTING COMED UNDERGROUND PRIMARY
- UGE — NEW COMED PRIMARY (BY COMED)
- E — NEW ELECTRIC CABLE IN CONDUIT
- ⏏ NEW COMED TRANSFORMER AND CONCRETE PAD SEE NOTE 1
- ⦿ NEW LIGHT POLE



REVISIONS

NUMBER	BY	DATE

0 1 2
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**LAKE IN THE HILLS AIRPORT
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 CONSTRUCT APRON FOR THE FUEL FACILITY
 ELECTRICAL AND MARKING PLAN**

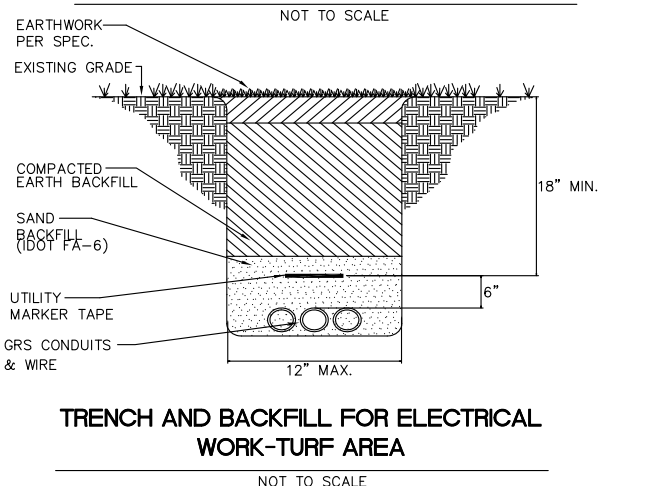
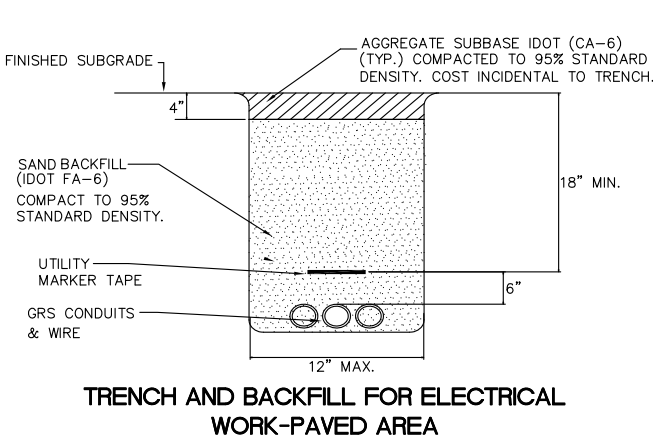
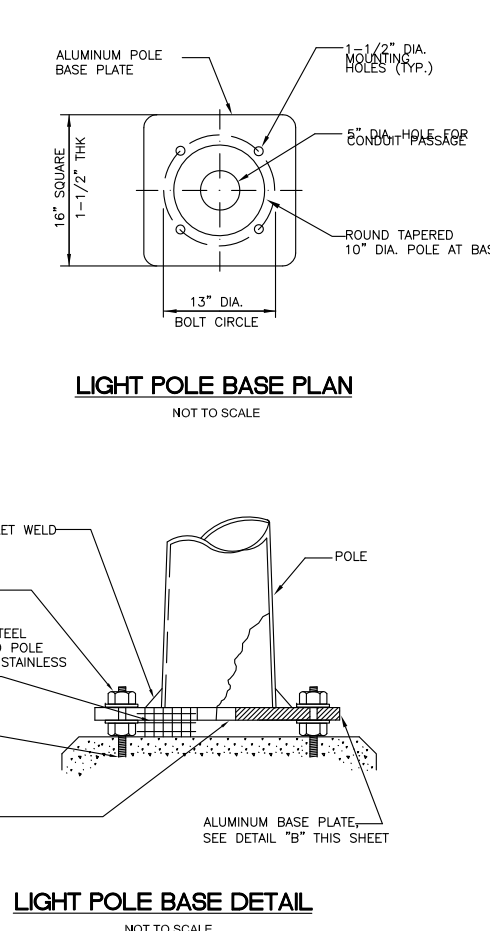
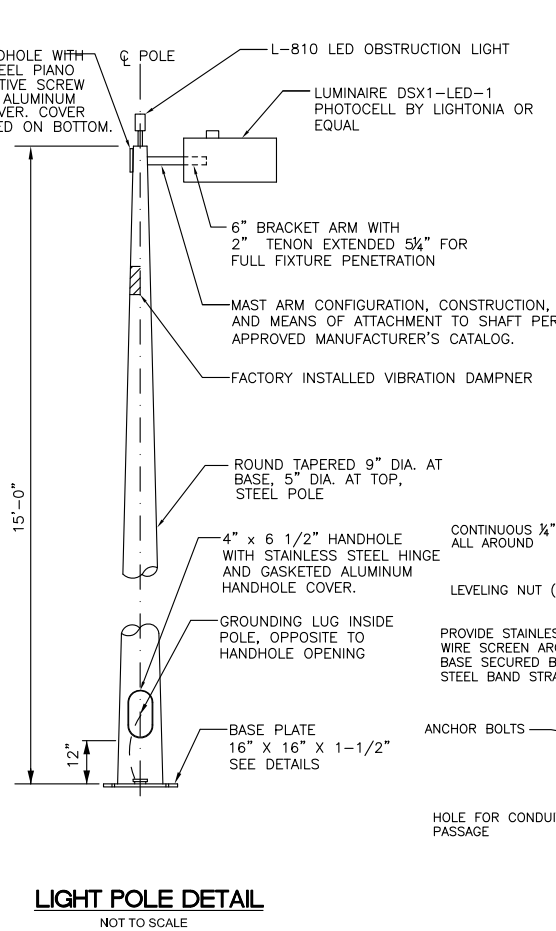
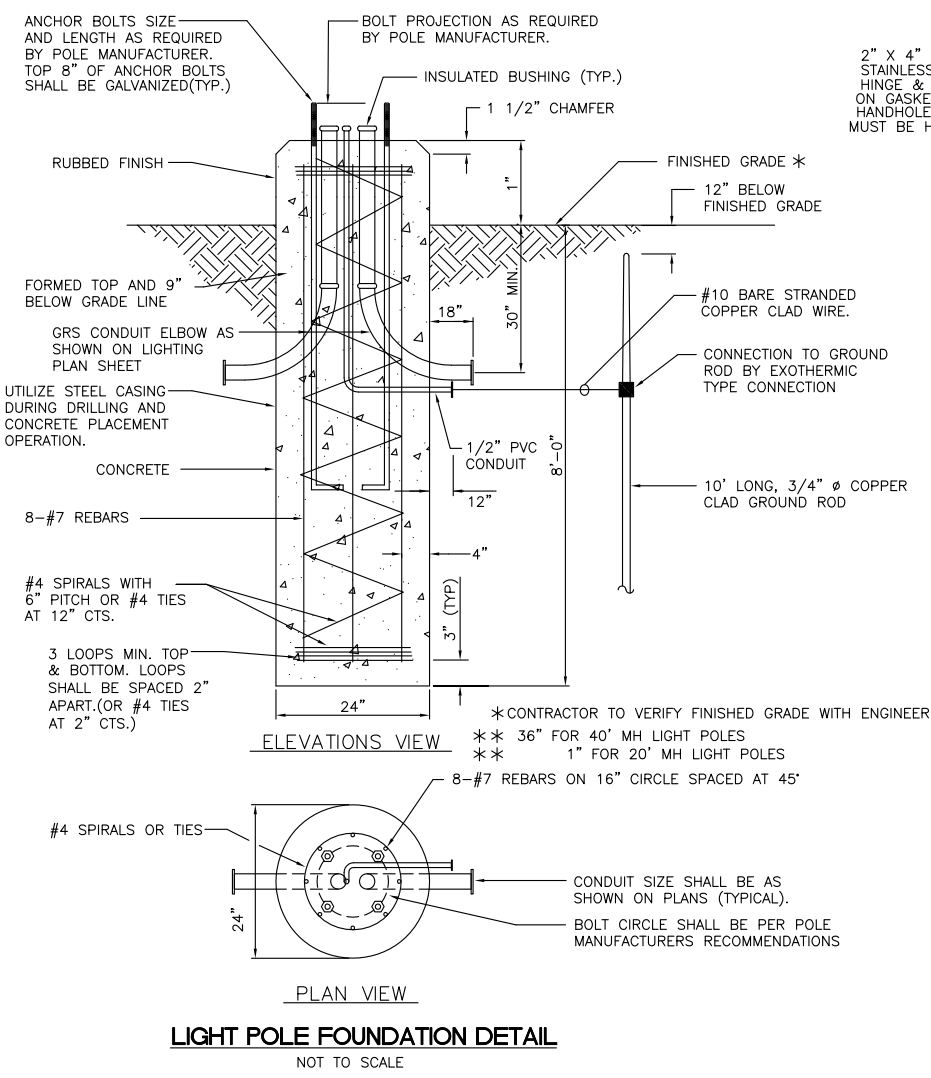
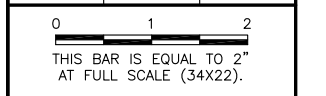
CURVE NO.	TAXIWAY A STATION	OFFSET	RADIUS
C1	33+95.11	50' RT.	50'
C2	34+95.11	50' RT.	50'
C3	35+00.11	50' RT.	50'
C4	36+00.11	50' RT.	50'
C5	34+70.11	68.5' RT.	25'
C6	35+25.11	68.5' RT.	25'

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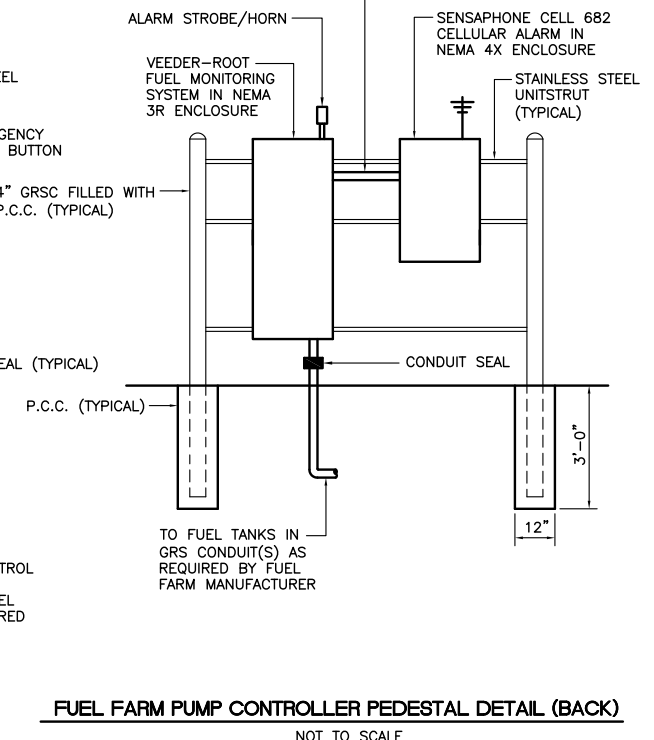
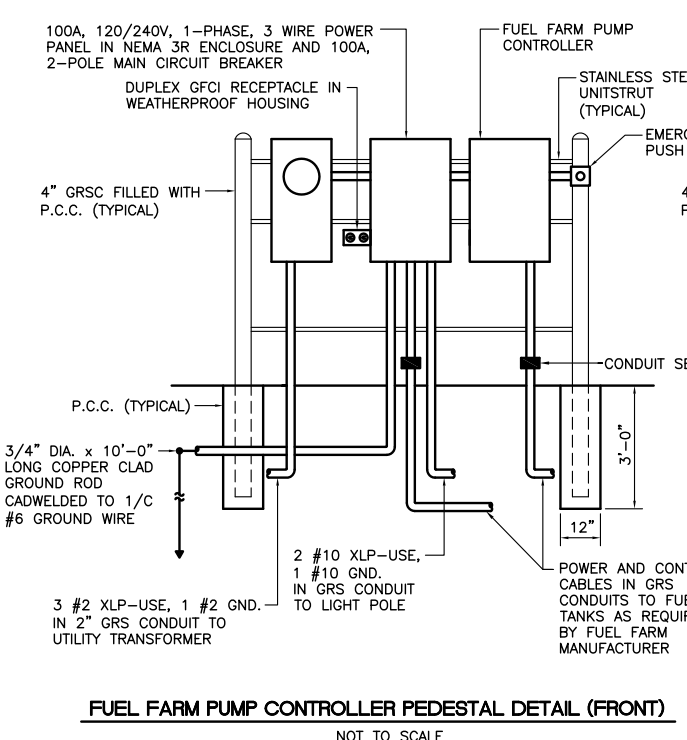
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 DRAWN BY: JRO
 CHECKED BY: MND
 APPROVED BY: MND
 DATE: 07/08/13
 JOB No: 13255-01

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POWER PANEL SCHEDULE														
PANEL DESIGNATION: PP-1				BOND NEUTRAL AND GROUND BAR: YES				POLE: 20						
LOCATION: FUEL FARM POWER PEDESTAL				NEUTRAL BUS RATING: 100%				SHORT CIRCUIT RATING: 18KA						
MFR & TYPE: SQUARED D OR EQUAL				SERVICE ENTRANCE RATED: YES				SERIES OR FULLY RATED: SERIES						
TVSS & DISCONNECT REQUIRED: NO														
VOLTS: 120/240				MOUNTING: SURFACE				BUS RATING (AMPS): 100						
PHASE: 1				ENCL RATING: NEMA 3R				BUS: COPPER OR ALUMINUM						
WIRE: 3				XFMR CAPACITY:				MAIN CIRCUIT BREAKER: 100A, 2-POLE						
CKT NO.	LOAD	BREAKER SIZE	LOAD AMPS	USAGE FACTOR	PHASE AMPS		POLE NO.	PHASE AMPS		USAGE FACTOR	LOAD AMPS	BREAKER SIZE	LOAD	CKT NO.
1	AREA LIGHT AND OBSTRUCTION LIGHT	20/1	3	0.5	1.5		1 2	0.8		0.4	2	20/1	CONVENIENCE OUTLET	2
3	SENSAPHONE CELL 682	20/1	1	1			3 4			0.5	18	30/2	FUEL FARM PUMP	4
5	VEEDER-ROOT	20/1	1	1	1		5 6	9		0.5	18			6
7	CARD READER	20/1	1	1			7 8		0.4	0.4	1	20/1	FUEL FARM PUMP CONTROLLER	8
9	SPARE 20 A CB	20/1	0	1	0		9 10	0		1	0	20/1	SPARE 20 A CB	10
11	SPARE 20 A CB	20/1	0	1	0		11 12	0		1	0	20/1	SPARE 20 A CB	12
13	SPARE 20 A CB	20/1	0	1	0		13 14	0						14
15	SPARE 20 A CB	20/1	0	1	0		15 16	0						16
17	SPARE 20 A CB	20/1	0	1	0		17 18	0						18
19	SPARE 20 A CB	20/1	0	1	0		19 20	0						20
SECTION TOTAL:					2.5	2		9.8	9.4					
MINIMUM MAIN CIRCUIT BREAKER AMPS: 12					PHASE TOTAL AMPS: 12.3 11.4				TOTAL USAGE LOAD: 2844 VA					
					PHASE TOTAL VA: 1476 1368				MIN. XFMR VA: 3555 VA					



**LAKE IN THE HILLS AIRPORT
 LAKE IN THE HILLS, ILLINOIS
 CONSTRUCT APRON FOR THE FUEL FACILITY**

ELECTRICAL DETAILS

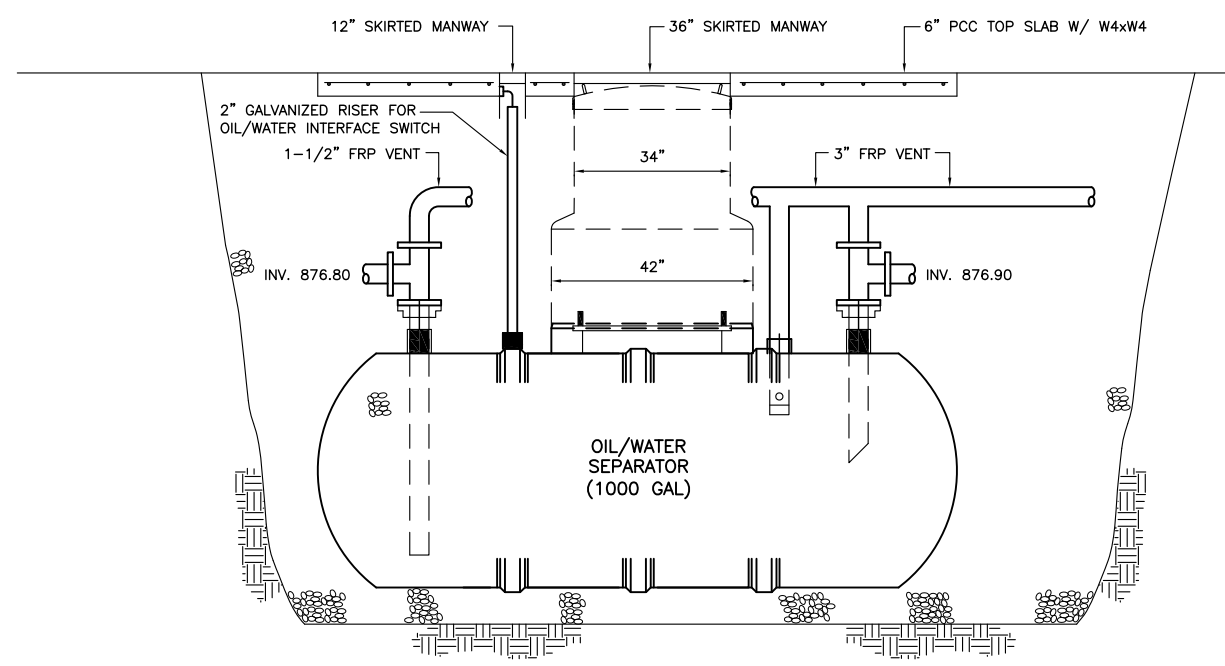
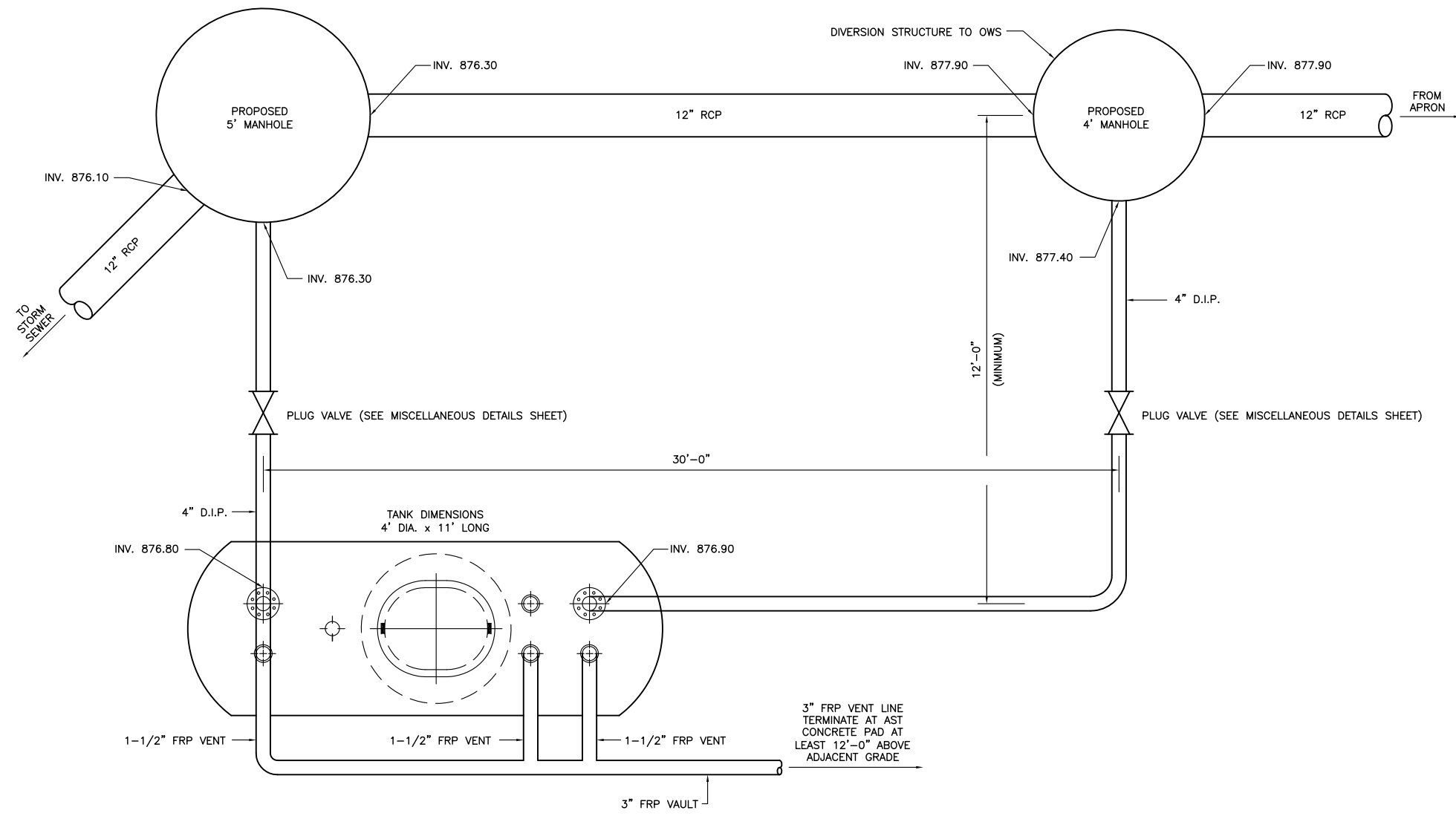
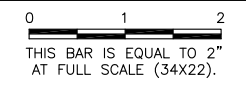
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JOB No:	13255-01

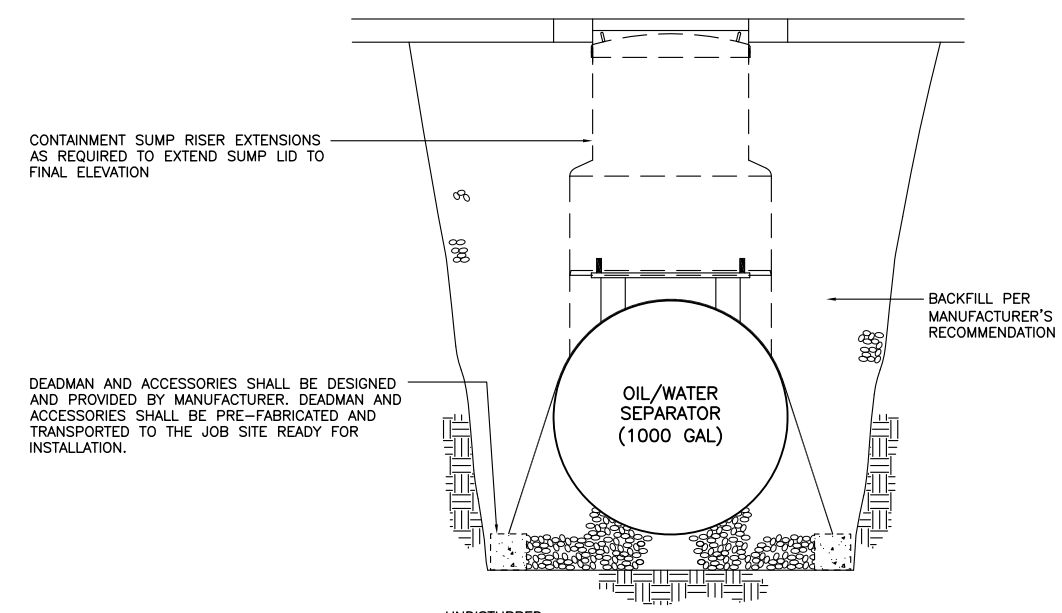
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ELEVATION

NOTE: DEADMAN AND STRAPS OMITTED FOR CLARITY.



SECTION

OIL/WATER SEPARATOR

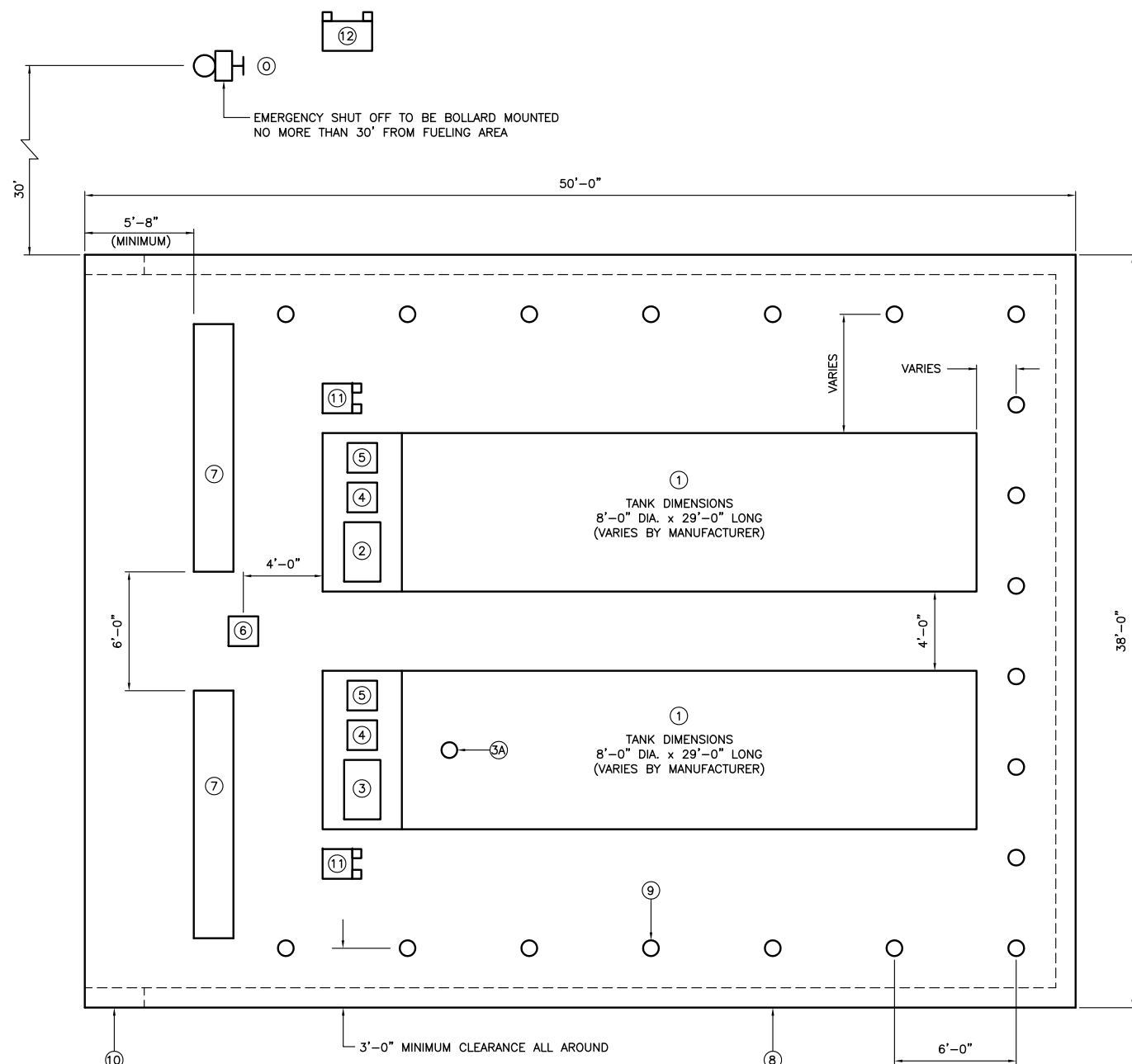
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**LAKE IN THE HILLS AIRPORT
 LAKE IN THE HILLS, ILLINOIS
 CONSTRUCT APRON FOR THE FUEL FACILITY
 OIL/WATER SEPARATOR DETAILS**

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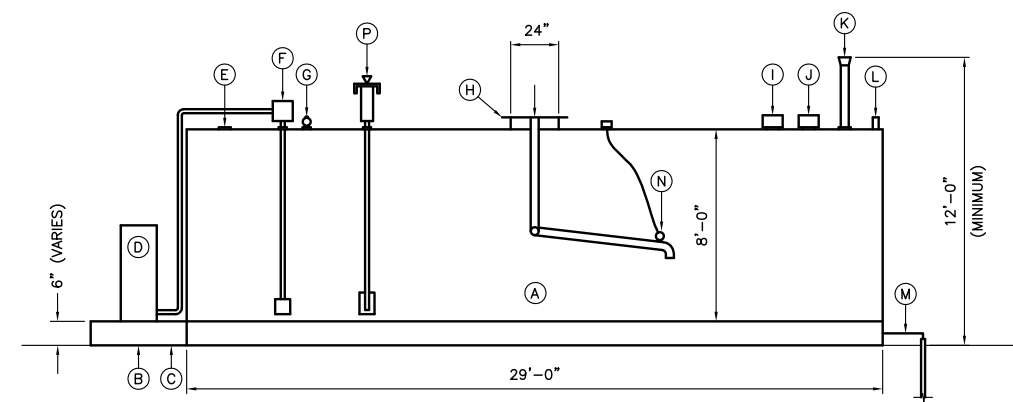


FUEL TANK INSTALLATION PLAN
 SCALE: 1/4" = 1'-0"

- ① ABOVE GROUND STORAGE TANK, 10,000 GALLON CAPACITY, 2 REQUIRED. U.L. 2085 LISTED, 2-HOUR FIRE RATED. SKID MOUNTED WITH INTEGRAL EXTERIOR LADDER ACCESS. ONE TANK SUITABLE FOR STORAGE OF JET A AND THE OTHER SUITABLE FOR STORAGE OF AVIATION GASOLINE, 100LL. TANK TO BE SUPPLIED WITH ALL REQUIRED STICKERS AND PLACARDS AS REQUIRED BY ILLINOIS DEPARTMENT OF TRANSPORTATION, DIVISION OF AERONAUTICS AND ILLINOIS OFFICE OF THE STATE FIRE MARSHAL.
- ② FUEL PUMPS/FILTRATION/SEPARATOR SYSTEM. JET A TANK ONLY. FILTER FUEL GOING INTO TANK (100-200 GPM) AND FOR DISPENSING DIRECTLY INTO AIRCRAFT (20-25 GPM).
- ③ FUEL DISPENSING CABINET. AV GAS COMPATIBLE, MECHANICAL DISPENSER, 22 GPM (MINIMUM) DELIVERY RATE. MECHANICAL REGISTRATION, SINGLE PRODUCT MODEL WITH SHEAR VALVE.
- ③A SUBMERSIBLE PUMP (AVGAS TANK ONLY) 3/4 HP, 60HZ, SINGLE PHASE, SIZED PER TANK DIMENSIONS. HARD PIPED TO DISPENSER WITH SHEAR VALVE.
- ④ HOSE REEL, HAND OPERATED, WITH UP TO 50 FEET OF 1" DIAMETER COMPATIBLE FUEL HOSE, AND OVER-WING FUELING NOZZLE.
- ⑤ STATIC GROUNDING REEL, SPRING OPERATED WITH UP TO 50 FT. OF CABLE.
- ⑥ CREDIT CARD READER CAPABLE OF READING MAJOR CREDIT CARDS, PEDESTAL MOUNTED, THERMAL PRINTER, INTERNAL DATA LOGGER, CAPABLE OF CONTROLLING TWO UNITS INSTALLED. INCLUDE CELLULAR MODEM.
- ⑦ IDOT TEMPORARY CONCRETE BARRIERS, STANDARD 704001-07, MARKED WITH 2" ORANGE/WHITE REFLECTIVE TAPE AT TOP (FACING APRON) AS APPROVED BY THE ENGINEER. COST OF BARRIERS INCIDENTAL TO THE CONTRACT AND TURNED OVER TO AIRPORT.
- ⑧ CONCRETE SLAB WITH MONOLITHIC 6" INTEGRAL CURB.
- ⑨ STEEL PIPE BOLLARDS, SCHEDULE 40 STEEL FILLED WITH PORTLAND CEMENT CONCRETE. SEE MISCELLANEOUS DETAILS SHEET
- ⑩ CONCRETE CURB TAPER (3 FEET)(TYPICAL OF TWO)
- ⑪ CLASS 40B, 20 LB FIRE EXTINGUISHER IN SURFACE MOUNTED CABINET
- ⑫ VEEDER ROOT TANK MONITORING PANEL IN WEATHER RESISTANT ENCLOSURE

GENERAL NOTES

1. CONTRACTOR TO BE LICENSED BY ILLINOIS OFFICE OF THE STATE FIRE MARSHAL AND AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION. CONTRACTOR SHALL SUBMIT PERMIT APPLICATION UPON NOTICE TO PROCEED OF CONTRACT WORK.
2. ALL TANKS SHOWN ARE ASSUMED TO BE BOX-TYPE SKID MOUNTED ALONG THE ENTIRE LENGTH. IF THE CONTRACTOR WISHES TO PROVIDE AN ALTERNATE TYPE, CONTRACTOR SHALL BE RESPONSIBLE FOR ADDITIONAL FOUNDATION DESIGN AND FOR COLLECTION OF ALL NECESSARY DATA TO DESIGN SAME AT NO ADDITIONAL COST TO OWNER.
3. NEW FUEL FARM SHALL BE INSTALLED, INSPECTED AND OPERATIONAL BEFORE TAKING OLD FUEL FARM OFF LINE.

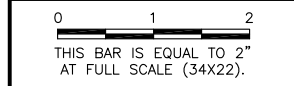


TANK ELEVATION PLAN
 SCALE: 1/4" = 1'-0"

- Ⓐ ABOVE GROUND STORAGE TANK, 10,000 GALLON CAPACITY, 2 REQUIRED. U.L. 2085 LISTED, 2-HOUR FIRE RATED. SKID MOUNTED WITH INTEGRAL EXTERIOR LADDER ACCESS. ONE TANK SUITABLE FOR STORAGE OF JET A AND THE OTHER SUITABLE FOR STORAGE OF AVIATION GASOLINE, 100LL. TANK TO BE SUPPLIED WITH ALL REQUIRED STICKERS AND PLACARDS AS REQUIRED BY ILLINOIS DEPARTMENT OF TRANSPORTATION, DIVISION OF AERONAUTICS AND ILLINOIS OFFICE OF THE STATE FIRE MARSHAL.
- Ⓑ FUEL PUMP/FILTRATION/SEPARATOR SPILL CONTAINER, 7-1/2 GALLON MINIMUM CAPACITY. ONE PER TANK. MAY EITHER BE FREE STANDING OR INTEGRALLY MOUNTED ON TANK BY MANUFACTURER.
- Ⓒ INTEGRAL SPILL PAN EXTENDING BENEATH DISPENSER, HOSE AND STATIC REEL.
- Ⓓ FUEL DISPENSING CABINET. AV GAS TANKS ONLY. REMOTE DISPENSER UNIT, 22 GPM (MINIMUM) DELIVERY RATE. MECHANICAL REGISTRATION, SINGLE PRODUCT MODEL, WITH SHEAR VALVE.
- Ⓔ 4-INCH SPARE OPENING, NPT. ONE SPARE OPENING TO BE PROVIDED WITH LOCKING CAP. ADDITIONAL SPARE FITTINGS TO BE PLUGGED.
- Ⓕ SUBMERSIBLE PUMP, AVGAS TANK ONLY, 3/4 HP, 60HZ, 1ø SIZED PER TANK DIMENSIONS, HARD PIPE TO DISPENSER WITH SHEAR VALVE.
- Ⓖ TANK LEVEL MONITORING GAGE, MECHANICAL, CLOCK STYLE.
- Ⓗ EXTERNAL TANK MANYWAY. 22-INCH OPENING WITH 24-INCH BOLTING COVER.
- Ⓘ INTERSTITIAL SPACE EMERGENCY VENT. 8-INCH MINIMUM DIAMETER, OR AS REQUIRED BY OSFM.
- Ⓙ PRIMARY TANK EMERGENCY VENT. 8-INCH MINIMUM DIAMETER, OR AS REQUIRED BY OSFM.
- Ⓚ PRIMARY TANK VENT, 2-INCH, FLAME ARRESTING VENT CAP.
- Ⓛ INTERSTITIAL SPACE LEAK SENSOR, MECHANICAL LEVEL INDICATOR.
- Ⓜ GROUNDING ROD, 3/8 INCH DIAMETER X 10 FT. LONG, ONE PER TANK. INSTALLED WITHIN 3 FT. OF TANK AND CONNECTED BY ONE-SHOT EXOTHERMIC WELD ON EACH END AND #2 COPPER CONDUCTOR.
- Ⓝ FLOATING SUCTION. 4" DIAMETER ALUMINUM FLOAT AND PIPING W/ S.S. TEST CABLE. MOUNT ON SUBMERSIBLE PUMP FOR AVGAS. MOUNT ON MAN WAY FOR JET A.
- Ⓞ EMERGENCY SHUT OFF SWITCH. LOCATED NO MORE THAN 30' FROM TANKS ON BOLLARD.
- Ⓟ MAGNETOSTRICTIVE TANK MONITORING PROBE, 1 PER TANK, COMPATIBLE WITH STORED PRODUCT.

REVISIONS

NUMBER	BY	DATE



**LAKE IN THE HILLS AIRPORT
 LAKE IN THE HILLS, ILLINOIS
 CONSTRUCT APRON FOR THE FUEL FACILITY
 ABOVE GROUND FUEL TANK DETAILS**

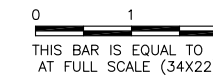
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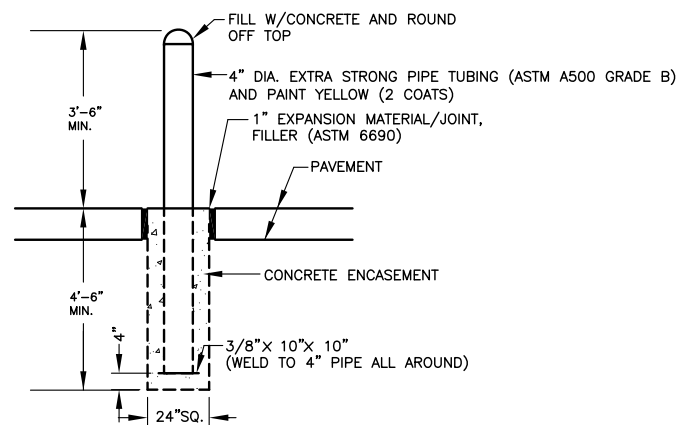
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MISCELLANEOUS DETAILS

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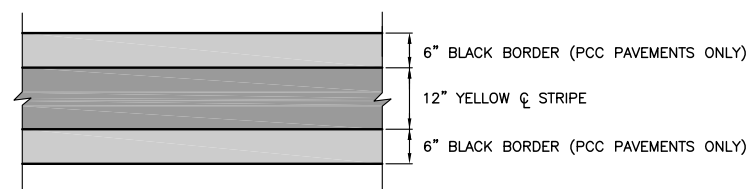
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VEHICULAR BARRIER DETAIL
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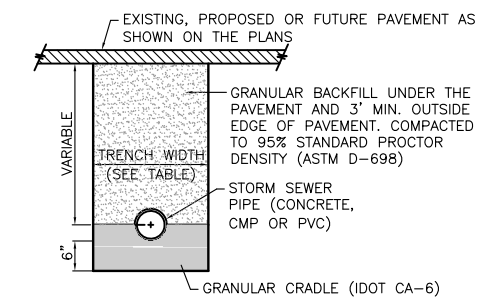
NOTES:

1. LOCATION OF UNDERGROUND UTILITIES SHALL BE COORDINATED WITH VEHICULAR BARRIERS TO AVOID ANY CONFLICTS.

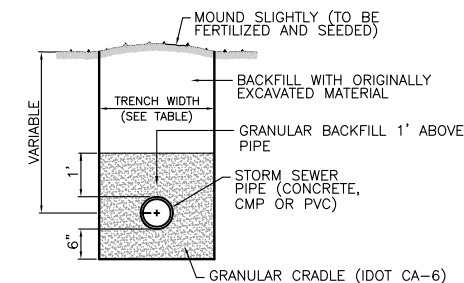


TAXIWAY CENTERLINE DETAIL
 NOT TO SCALE

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"



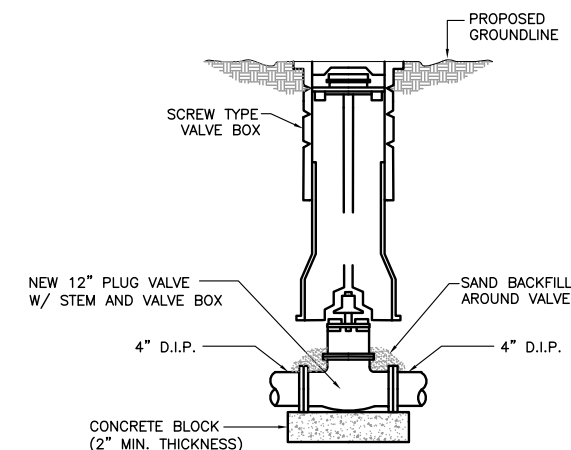
ALL PAVED AREAS



NON-PAVED AREAS

TRENCH DETAILS

NOT TO SCALE



PLUG VALVE DETAIL

NOT TO SCALE