

# VILLAGE OF LANSING LANSING, ILLINOIS

## CONSTRUCTION PLANS FOR LANSING MUNICIPAL AIRPORT REHABILITATE NORTH QUADRANT T-HANGAR PAVEMENTS AND ADDITIONAL TAXIWAYS



*D. Kyle Peabody*  
2-28-14  
EXPIRES 11-30-15

ILLINOIS PROJECT: IGQ-4297  
S.B.G. PROJECT: 3-17-SBGP-XX

FEBRUARY 28, 2014

13297-02

CRAWFORD, MURPHY & TILLY, INC.  
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SUBMITTED BY *D. Kyle Peabody*  
D. KYLE PEABODY, P.E.

DATE *February 28* 20*14*

DESIGN INFORMATION

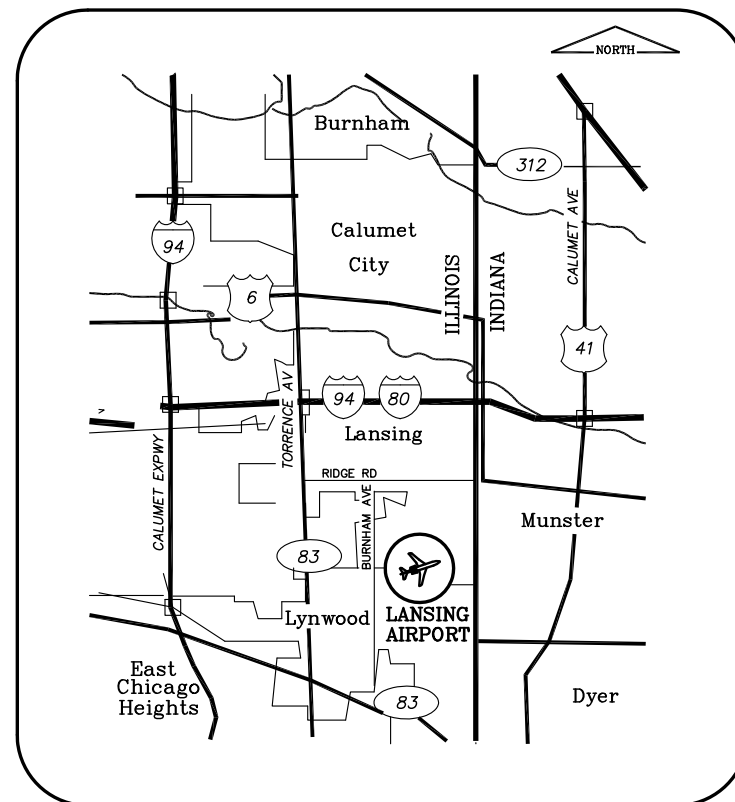
DESIGN AIRCRAFT APPROACH CATEGORY B  
DESIGN AIRCRAFT GROUP II

Know what's below.  
Call before you dig.

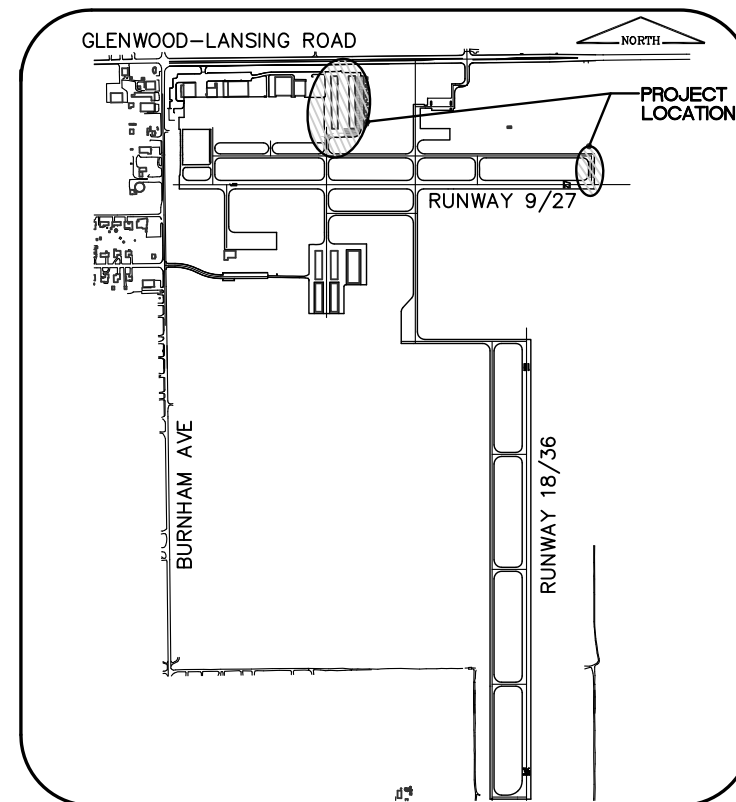
J.U.L.I.E.  
JOINT UTILITY LOCATING  
INFORMATION FOR EXCAVATORS  
www.illinois1call.com

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.



LOCATION MAP



SITE PLAN

LANSING MUNICIPAL AIRPORT

TOWNSHIP: 36 NORTH BLOOM TOWNSHIP  
RANGE: 15 EAST (SECTION: 8 AND 17)  
COOK COUNTY OPPOSITE GLENWOOD-LANSING ROAD

UNICOM RADIO FREQUENCY - 123.0

APPROVED BY *Norman Abbott* MAYOR  
NORMAN ABBOTT

APPROVED BY *John DeLaurentis* AIRPORT MANAGER  
JOHN DELAURENTIS

DATE *2-26-14*

**SUMMARY OF QUANTITIES**

ITEM NO.	DESCRIPTION	ESTIMATED QUANTITY	UNIT	RECORD QUANTITY
AR150510	ENGINEER'S FIELD OFFICE	1	LS	
AR150520	MOBILIZATION	1	LS	
AR150540	HAUL ROUTE	1	LS	
AR152410	UNCLASSIFIED EXCAVATION	2,600	CY	
AR152540	SOIL STABILIZATION FABRIC	5,300	SY	
AR156520	INLET PROTECTION	8	EACH	
AR208515	POROUS GRANULAR EMBANKMENT	230	CY	
AR208606	6" AGGREGATE BASE COURSE	5,050	SY	
AR209606	CRUSHED AGG. BASE COURSE - 6"	5,300	SY	
AR209650	AGGREGATE BASE PREPARATION	1,460	SY	
AR401610	BITUMINOUS SURFACE COURSE	570	TON	
AR401900	REMOVE BITUMINOUS PAVEMENT	6,500	SY	
AR403610	BITUMINOUS BASE COURSE	950	TON	
AR602510	BITUMINOUS PRIME COAT	1,950	GAL	
AR603510	BITUMINOUS TACK COAT	970	GAL	
AR620520	PAVEMENT MARKING - WATERBORNE	1,300	SF	
AR701008	8" PVC STORM SEWER	88	LF	
AR701010	10" PVC STORM SEWER	370	LF	
AR701900	REMOVE PIPE	450	LF	
AR705526	6" PERFORATED UNDERDRAIN	470	LF	
AR751412	INLET TYPE B	6	EACH	
AR751900	REMOVE INLET	4	EACH	

**INDEX TO SHEETS**

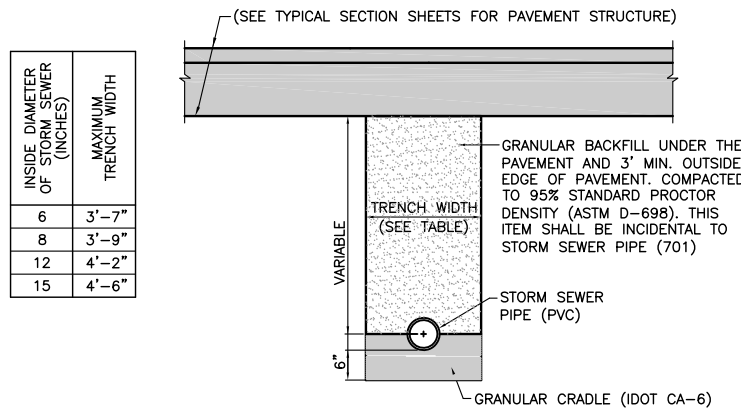
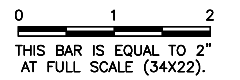
- COVER SHEET
- INDEX TO SHEETS / SUMMARY OF QUANTITIES / DETAILS
- SITE PLAN / PROJECT CONTROL PLAN
- SEQUENCE OF CONSTRUCTION GENERAL NOTES AND DETAILS
- SEQUENCE OF CONSTRUCTION PER AC 150/5370-2F (LATEST EDITION)
- STORM WATER POLLUTION PREVENTION PLAN NOTES
- TYPICAL SECTIONS
- EXISTING CONDITIONS/PROPOSED REMOVALS
- GRADING AND DRAINAGE PLAN
- PAVEMENT MARKING PLAN

LA039

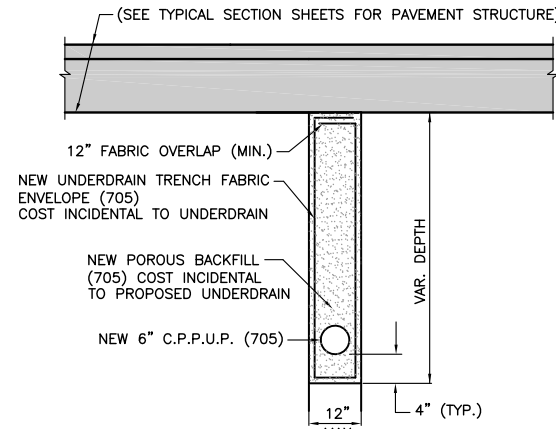
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 UPDATE BY: Adham Odeh  
 SURVEY BOOK #  
 DATE: Thursday, March 6, 2014 8:48:27 AM  
 XREF DWG: tbcInt.dwg  
 tb.dwg

**REVISIONS**

NUMBER	BY	DATE



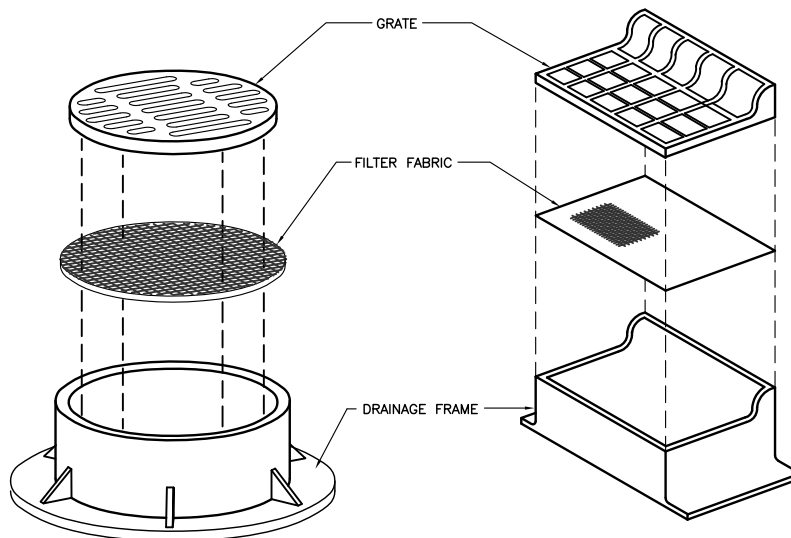
**TRENCH DETAILS - STORM SEWER**  
NOT TO SCALE



**UNDERDRAIN DETAIL - PAVED AREAS**  
N.T.S.

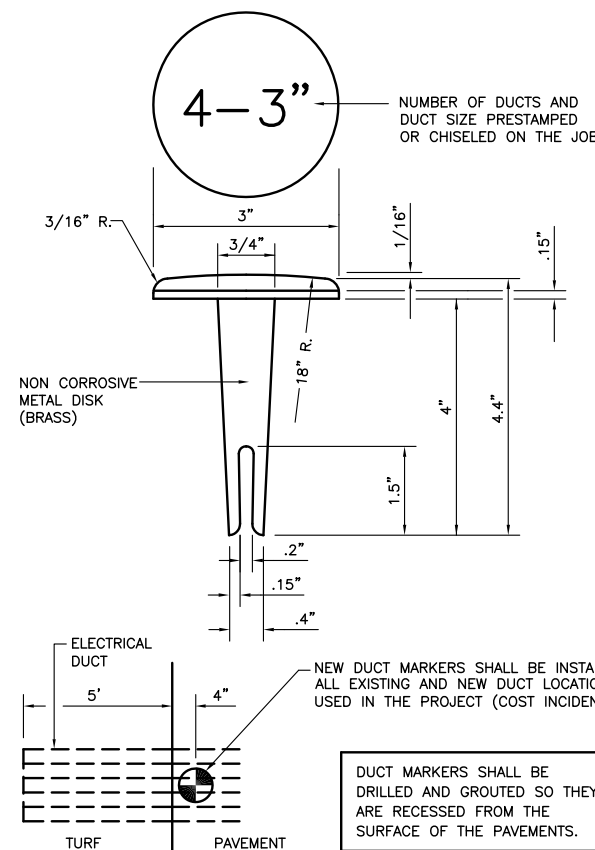
**UNDER DRAIN NOTES:**

- ALL UNDERDRAIN CONNECTIONS, TEES, BENDS, ETC. SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE UNDERDRAIN.
- UNDERDRAIN CONFLICTS WITH THE EXISTING CONDITIONS SHALL BE RESOLVED AND SHALL BE INCIDENTAL TO THE COST OF THE UNDERDRAIN.
- THE 6" UNDERDRAIN SHALL BE INSTALLED AFTER THE SUBGRADE IS COMPACTED.

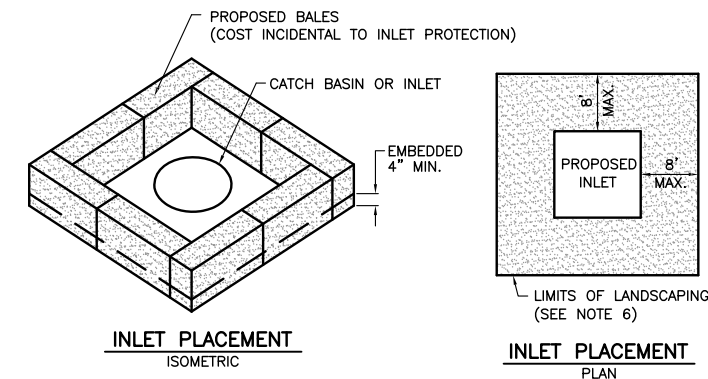
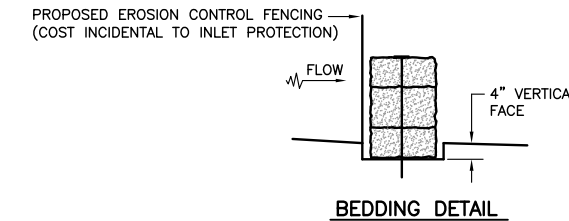


**DRAINAGE STRUCTURE FILTER WRAP**  
N.T.S.

- FILTER WRAP TO BE PLACED IN ALL SLOPE BOX INLETS, INLETS, MANHOLES, TRENCH DRAINS AND CATCH BASINS LOCATED IN PAVED AREAS AND NONPAVED AREAS.
- FABRIC SHALL BE IN CONFORMANCE WITH ARTICLE 1080.03 OF THE IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION 2012.
- FABRIC SHALL OVERLAY FRAME BY 2" (MIN.).
- CONTRACTOR SHALL CLEAR DEBRIS AND SILT AS REQUIRED FROM FABRIC TO MAINTAIN DRAINAGE THROUGH THE STRUCTURE.
- FABRIC SHALL REMAIN IN PLACE UNTIL COMPLETION OF PAVEMENT REHABILITATION.
- COST OF FILTER WRAP AND MAINTENANCE SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.



**DUCT MARKER DETAIL**  
NOT TO SCALE



**STORM INLET SEDIMENT TRAP DETAIL - TURF AREAS**

**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 INLET PROTECTION/DITCH CHECK.
- AFTER FINAL APPROVAL OF THE ENGINEER, STRAW BALES MAY BE REMOVED. CONTRACTOR SHALL PLACE SOD, EXCELSIOR BLANKET WITH SEED OR KNITTED STRAW MAT WITH SEED OVER THE DISTURBED AREAS. COST INCIDENTAL TO INLET PROTECTION.

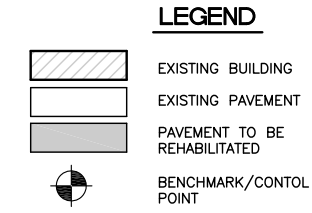
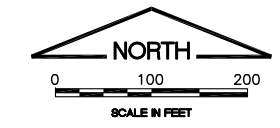
**LANSING MUNICIPAL AIRPORT**  
**LANSING, ILLINOIS**  
**REHABILITATE NORTH QUADRANT T-HANGER**  
**PAVEMENTS & ADDITIONAL TAXIWAYS**  
**INDEX TO SHEETS / SUMMARY**  
**OF QUANTITIES / DETAILS**

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APPROVED BY:	DKP
DATE:	02/28/14
JOB No:	13297-02-00
ILL. PROJECT: IGQ-4297 S.B.G. PROJECT: 3-17-SPGP-XX	
SHEET	2 OF 10 SHEETS

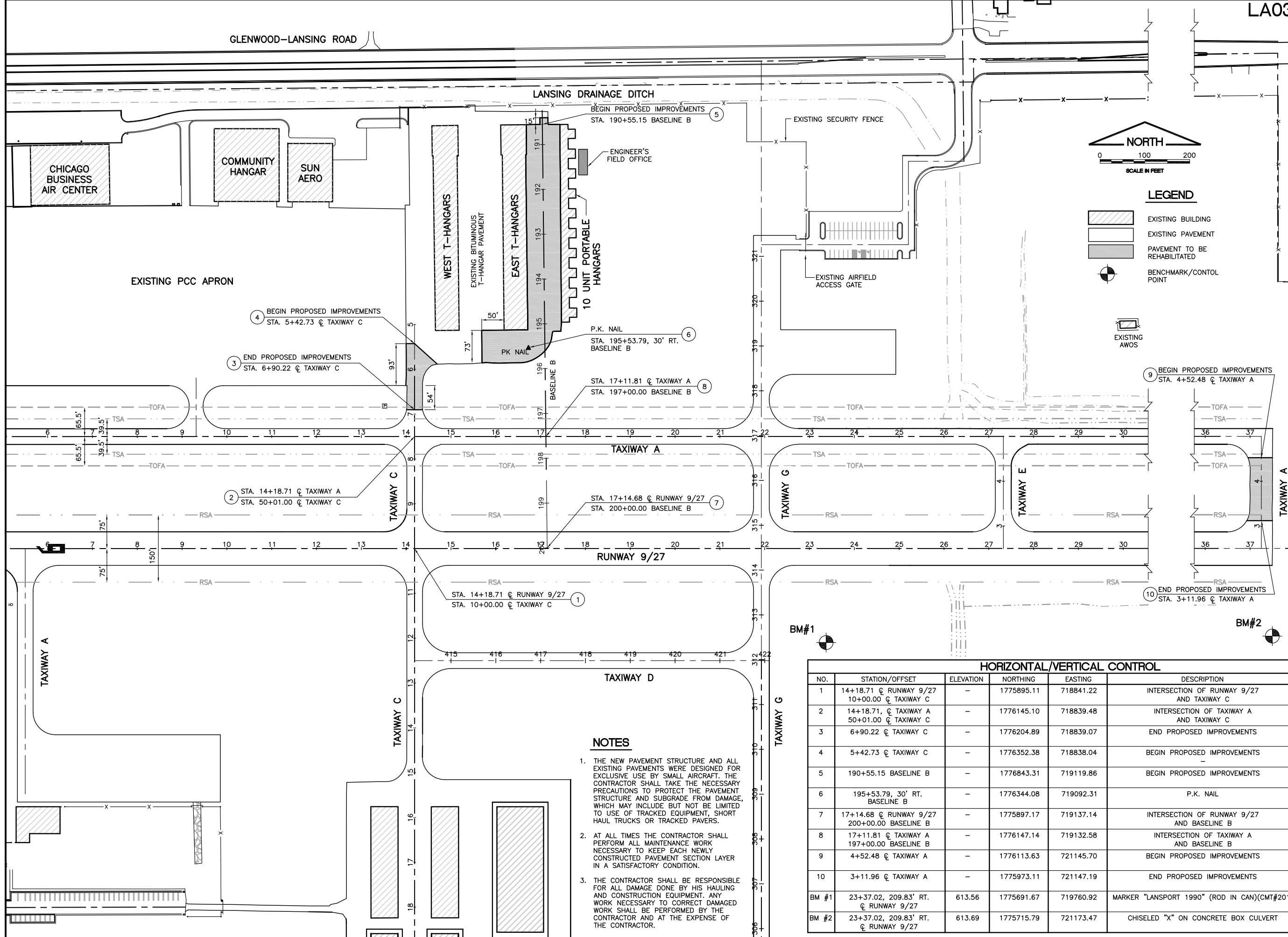
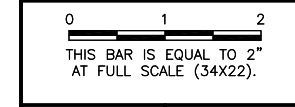
GLENWOOD-LANSING ROAD

LANSING DRAINAGE DITCH



REVISIONS

NUMBER	BY	DATE



**LANSING MUNICIPAL AIRPORT  
 LANSING, ILLINOIS  
 REHABILITATE NORTH QUADRANT T-HANGAR  
 PAVEMENTS & ADDITIONAL TAXIWAYS  
 SITE PLAN / PROJECT CONTROL PLAN**

- 1. STA. 14+18.71 @ TAXIWAY A  
 STA. 50+01.00 @ TAXIWAY C
- 2. STA. 14+18.71 @ RUNWAY 9/27  
 STA. 10+00.00 @ TAXIWAY C
- 3. END PROPOSED IMPROVEMENTS  
 STA. 6+90.22 @ TAXIWAY C
- 4. BEGIN PROPOSED IMPROVEMENTS  
 STA. 5+42.73 @ TAXIWAY C
- 5. BEGIN PROPOSED IMPROVEMENTS  
 STA. 190+55.15 BASELINE B
- 6. P.K. NAIL  
 STA. 195+53.79, 30' RT.  
 BASELINE B
- 7. STA. 17+14.68 @ RUNWAY 9/27  
 STA. 200+00.00 BASELINE B
- 8. STA. 17+11.81 @ TAXIWAY A  
 STA. 197+00.00 BASELINE B
- 9. BEGIN PROPOSED IMPROVEMENTS  
 STA. 4+52.48 @ TAXIWAY A
- 10. END PROPOSED IMPROVEMENTS  
 STA. 3+11.96 @ TAXIWAY A

**NOTES**

- THE NEW PAVEMENT STRUCTURE AND ALL EXISTING PAVEMENTS WERE DESIGNED FOR EXCLUSIVE USE BY SMALL AIRCRAFT. THE CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS TO PROTECT THE PAVEMENT STRUCTURE AND SUBGRADE FROM DAMAGE, WHICH MAY INCLUDE BUT NOT BE LIMITED TO USE OF TRACKED EQUIPMENT, SHORT HAUL TRUCKS OR TRACKED PAVERS.
- AT ALL TIMES THE CONTRACTOR SHALL PERFORM ALL MAINTENANCE WORK NECESSARY TO KEEP EACH NEWLY CONSTRUCTED PAVEMENT SECTION LAYER IN A SATISFACTORY CONDITION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE DONE BY HIS HAULING AND CONSTRUCTION EQUIPMENT. ANY WORK NECESSARY TO CORRECT DAMAGED WORK SHALL BE PERFORMED BY THE CONTRACTOR AND AT THE EXPENSE OF THE CONTRACTOR.

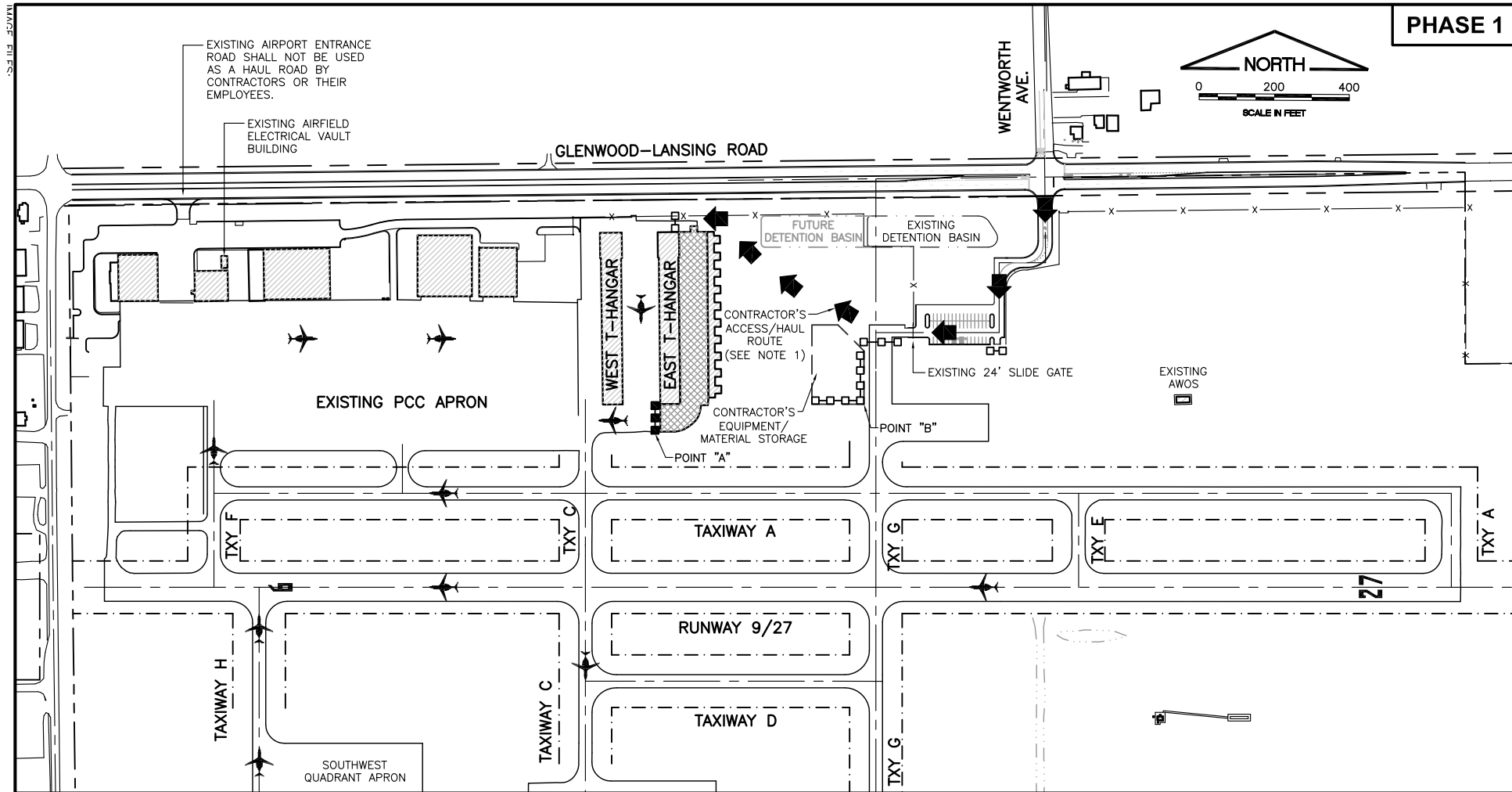
**HORIZONTAL/VERTICAL CONTROL**

NO.	STATION/OFFSET	ELEVATION	NORTHING	EASTING	DESCRIPTION
1	14+18.71 @ RUNWAY 9/27 10+00.00 @ TAXIWAY C	-	1775895.11	718841.22	INTERSECTION OF RUNWAY 9/27 AND TAXIWAY C
2	14+18.71, @ TAXIWAY A 50+01.00 @ TAXIWAY C	-	1776145.10	718839.48	INTERSECTION OF TAXIWAY A AND TAXIWAY C
3	6+90.22 @ TAXIWAY C	-	1776204.89	718839.07	END PROPOSED IMPROVEMENTS
4	5+42.73 @ TAXIWAY C	-	1776352.38	718838.04	BEGIN PROPOSED IMPROVEMENTS
5	190+55.15 BASELINE B	-	1776843.31	719119.86	BEGIN PROPOSED IMPROVEMENTS
6	195+53.79, 30' RT. BASELINE B	-	1776344.08	719092.31	P.K. NAIL
7	17+14.68 @ RUNWAY 9/27 200+00.00 BASELINE B	-	1775897.17	719137.14	INTERSECTION OF RUNWAY 9/27 AND BASELINE B
8	17+11.81 @ TAXIWAY A 197+00.00 BASELINE B	-	1776147.14	719132.58	INTERSECTION OF TAXIWAY A AND BASELINE B
9	4+52.48 @ TAXIWAY A	-	1776113.63	721145.70	BEGIN PROPOSED IMPROVEMENTS
10	3+11.96 @ TAXIWAY A	-	1775973.11	721147.19	END PROPOSED IMPROVEMENTS
BM #1	23+37.02, 209.83' RT. @ RUNWAY 9/27	613.56	1775691.67	719760.92	MARKER "LANSFORT 1990" (ROD IN CAN)(CMT#201)
BM #2	23+37.02, 209.83' RT. @ RUNWAY 9/27	613.69	1775715.79	721173.47	CHISELED "X" ON CONCRETE BOX CULVERT

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ILL. PROJECT: IGQ-4297 S.B.G. PROJECT: 3-17-SPGP-XX	
SHEET 3 OF 10 SHEETS	



**PHASE 1**



**SUGGESTED SEQUENCE OF CONSTRUCTION**

**LA039**

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 FILE: 04\_IGQ-Pvt Rehab-seq-1.dwg  
 LAYOUT: Layout 1  
 UPDATE BY: Adham Odeh  
 SURVEY BOOK #  
 DATE: Thursday, March 6, 2014 9:51:40 AM  
 XREF DWG: tb.dwg  
 Base-txy.dwg  
 tbcint.dwg

**PHASE 1**

- COORDINATE CLOSURES WITH RESIDENT ENGINEER AND AIRPORT MANAGER.
- PLACE BARRICADES AS SHOWN.
- MILL EXISTING BITUMINOUS PAVEMENT AND EXCAVATE TO SUBGRADE.
- REMOVE EXISTING STORM SEWER AND REPLACE WITH NEW STORM SEWER.
- CONSTRUCT 6" AGGREGATE BASE COURSE (208) AND 6" CRUSHED AGGREGATE BASE COURSE (209).

**PHASE 2**

- COORDINATE CLOSURES WITH RESIDENT ENGINEER AND AIRPORT MANAGER.
- DEACTIVATE RUNWAY 9/27 EDGE LIGHTING AND PLACE TEMPORARY RUNWAY CLOSURE MARKERS. (SEE NOTE 2)
- DEACTIVATE OR COVER TAXIWAY EDGE LIGHTS AND SIGN PANELS FOR TEMPORARY CLOSED TAXIWAYS.
- MILL REMAINING EXISTING BITUMINOUS PAVEMENT AREAS.
- PREPARE EXISTING AGGREGATE BASE AND PROOF ROLL.
- APPLY PRIME COAT AND CONSTRUCT BITUMINOUS BASE COURSE AND BITUMINOUS SURFACE COURSE.
- APPLY PAVEMENT MARKING AND RESTORE DISTURBED TURF AREAS.
- CLEAN PAVEMENTS AND REMOVE BARRICADES AND RUNWAY MARKERS.
- COORDINATE OPENING OF PAVEMENTS WITH RESIDENT ENGINEER AND AIRPORT MANAGER.

WORK AREA	ALLOWABLE WORK PERIOD	OPERATION STATUS/RESTRICTIONS
PHASE 1 PORTION OF T-HANGAR PAVEMENT REHABILITATION	NO RESTRICTIONS	RUNWAY 9/27 AND RUNWAY 18/36 OPEN EAST T-HANGAR - EAST "UNITS" CLOSED EAST T-HANGAR - WEST "UNITS" OPEN ALL TAXIWAYS OPEN
PHASE 2 ALL NEW PAVEMENT REHABILITATION AREAS	BEGIN WORK AFTER PHASE 1 ITEM 209 IS CONSTRUCTED OTHERWISE NO RESTRICTIONS	RUNWAY 9/27 CLOSED RUNWAY 18/36 OPEN EAST T-HANGAR "UNITS" ALL CLOSED WEST T-HANGAR - EAST "UNITS" CLOSED WEST T-HANGAR - WEST "UNITS" OPEN TAXIWAYS - PARTIAL CLOSURES AS SHOWN ON PLANS

**NOTES**

- CONTRACTOR SHALL PLACE AND COMPACT ALL BITUMINOUS PAVEMENT TO BE REMOVED (ITEM 401650 BITUMINOUS PAVEMENT MILLING) AT THE CONTRACTOR'S HAUL ROAD LOCATION IN THE TURF AREA. THE HAUL ROUTE SHALL BE CONSTRUCTED WITH BITUMINOUS PAVEMENT MILLINGS TO A 12" DEPTH AND 20' WIDTH, GRADED TO MATCH THE PRIOR EXISTING GROUNDLINE AND COMPACTED TO THE SATISFACTION OF THE RESIDENT ENGINEER. THE EXCAVATION AND PLACEMENT OF MILLINGS SHALL BE DONE ON THE SAME DAY. THE EXCAVATED MATERIAL SHALL NOT BE STOCKPILED ONSITE. THE TOTAL NOT TO EXCEED AMOUNT ON THE UNCLASSIFIED EXCAVATION ON THE HAUL ROUTE IS 460 CY. SHOULD THE EXCAVATION EXCEED THIS LIMIT, IT SHALL BE AT NO ADDITIONAL COST TO THE CONTRACT. THE HAUL ROUTE SHALL BE REGRADED AT THE END OF THE CONTRACT. THE CONTRACTOR SHALL NOT FILL ABOVE THE EXISTING GROUNDLINE WITH ANY MATERIALS. THE LOCATION TO BE DETERMINED BY RESIDENT ENGINEER AND AIRPORT MANAGER.
- CONTRACTOR SHALL TURN OFF RUNWAY 9/27 EDGE LIGHTING REGULATOR AND LOCK-OUT / TAG-OUT CIRCUIT BREAKER AND CUTOUT INSIDE THE VAULT. CONTRACTOR SHALL COORDINATE ACCESS TO THE VAULT WITH THE AIRPORT MANAGER / RESIDENT ENGINEER.

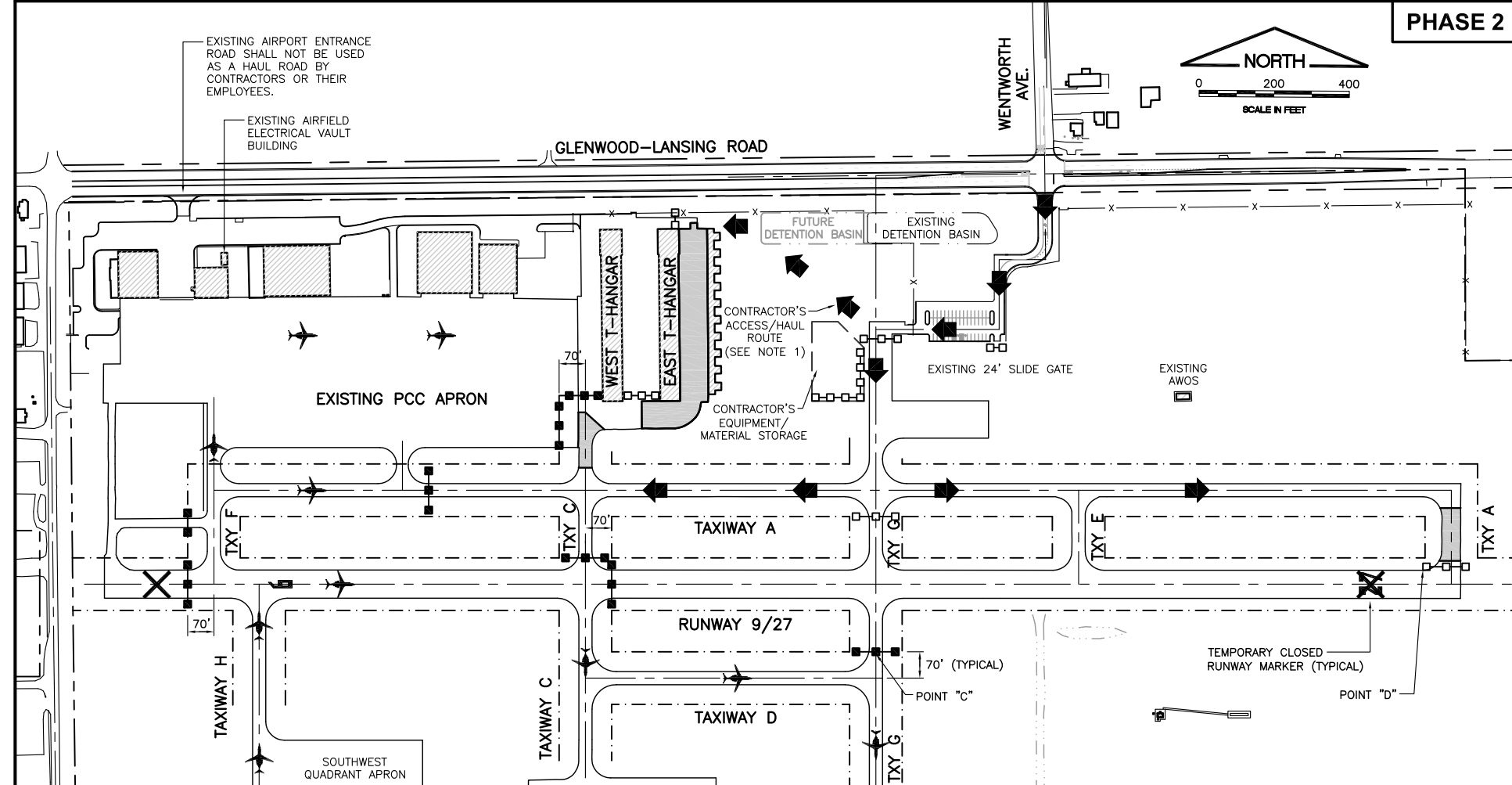
**LEGEND**

- PHASE 1 WORK AREA
- PHASE 2 WORK AREA
- EXISTING BUILDING
- EXISTING AIRPORT PROPERTY LINE
- EXISTING 6' CLASS E FENCE
- CONTRACTOR'S ACCESS/HAUL ROUTE
- AIR OPERATIONS AREA (A.O.A.)  
ACTIVE RUNWAY 75' CENTERLINE TO A.O.A.  
ACTIVE TAXIWAY 65.5' CENTERLINE TO A.O.A.  
ACTIVE TAXILANE 57.5' CENTERLINE TO A.O.A.
- AIRCRAFT MOVEMENT AREA
- TEMPORARY CLOSED RUNWAY MARKER
- LOW PROFILE BARRICADES WITH RED LIGHTS AND SIGNS "DO NOT ENTER" AND "AIRCRAFT MOVEMENT AREA"
- LOW PROFILE OR IDOT TYPE II BARRICADES WITH RED LIGHTS AND SIGNS "DO NOT ENTER" AND "AIRCRAFT MOVEMENT AREA"

**DESIGN AIRCRAFT APPROACH CATEGORY: B**  
**DESIGN AIRPORT GROUP: II**  
 RUNWAY 9/27 SAFETY AREA TOTAL WIDTH = 150'  
 TAXIWAY CENTERLINE TO OBJECT SEPARATION = 65.5'  
 TAXILANE CENTERLINE TO OBJECT SEPARATION = 57.5'

POINT "A" NEAREST POINT ON CONSTRUCTION SITE TO RUNWAY 9/27 OFFSET FROM CENTERLINE LATITUDE: 41°32'27.63" (NAD 83) LONGITUDE: 87°31'59.99" (NAD 83) EXISTING ELEVATION: 613.13	POINT "B" NEAREST POINT ON CONSTRUCTION SITE TO RUNWAY 9/27 OFFSET FROM CENTERLINE LATITUDE: 41°32'28.39" (NAD 83) LONGITUDE: 87°31'52.68" (NAD 83) EXISTING ELEVATION: 614.50
POINT "C" NEAREST POINT ON CONSTRUCTION SITE TO RUNWAY 9/27 OFFSET FROM CENTERLINE LATITUDE: 41°32'21.74" (NAD 83) LONGITUDE: 87°31'52.28" (NAD 83) EXISTING ELEVATION: 616.20	POINT "D" NEAREST POINT ON CONSTRUCTION SITE TO RUNWAY 18/36 OFFSET FROM CENTERLINE LATITUDE: 41°32'23.91" (NAD 83) LONGITUDE: 87°31'33.12" (NAD 83) EXISTING ELEVATION: 616.02

MAXIMUM ANTICIPATED HEIGHT OF EQUIPMENT - 25'

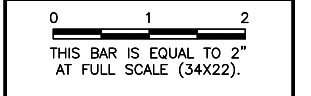


**PHASE 2**



**REVISIONS**

NUMBER	BY	DATE



**LANSING MUNICIPAL AIRPORT  
 LANSING, ILLINOIS  
 REHABILITATE NORTH QUADRANT T-HANGAR  
 PAVEMENTS & ADDITIONAL TAXIWAYS  
 SEQUENCE OF CONSTRUCTION  
 GENERAL NOTES AND DETAILS**

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CHECKED BY:	DKP
APPROVED BY:	DKP
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JOB No:	13297-02-00
ILL. PROJECT: IGQ-4297 S.B.G. PROJECT: 3-17-SPGP-XX	
SHEET 4 OF 10 SHEETS	



**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 SEPARATELY 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, 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 25 FEET IN A DUMP POSITION.
- IF RUNWAY NUMERALS ARE PRESENT DURING CONSTRUCTION THEN CONTRACTOR SHALL PLACE CLOSED RUNWAY MARKER OVER NUMERALS AS DETAILED, OTHERWISE PLACE RUNWAY CLOSED MARKER IN TURF AT ENDS OF RUNWAY 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 APROPRIATE 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, GRADING 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 DEFICIENCIES 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 (\$500 PER OCCURRENCE) 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 SEPARATELY 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.

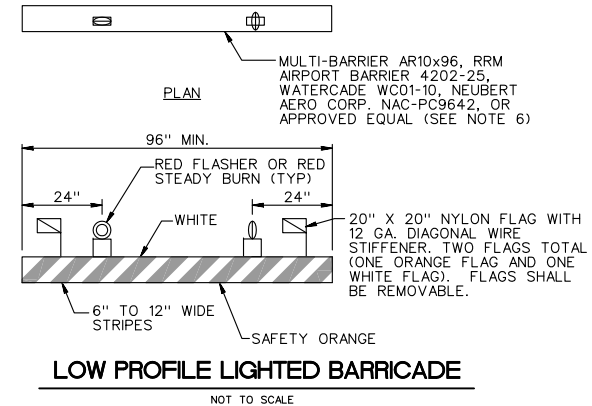
**LIMITATIONS ON CONSTRUCTION WITHIN RUNWAY SAFETY AREA (RSA) AND TAXIWAY OBJECT FREE AREA (TOFA)**

**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. AT LEAST ONE OF THE RUNWAYS SHALL REMAIN IN OPERATION AT ALL TIMES. 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 / TAXILANES:**

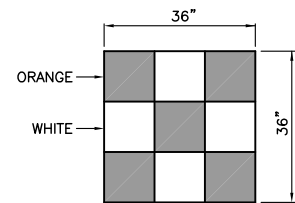
ANY WORK WITHIN TAXIWAY / TAXILANE OBJECT FREE AREA (TOFA) WILL REQUIRE A TAXIWAY / TAXILANE CLOSURE. WORK WITHIN THE TOFA SHALL BE EXPEDITED. ANY DROP OFF SHALL BE ADEQUATELY LIGHTED, SIGNED AND BARRICADED. NO MATERIAL SHALL BE STOCKPILED WITHIN THE TOFA. SHOULD IT BE NECESSARY FOR THE CONTRACTOR TO 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 / TAXILANE SAFETY AREAS OF OPEN TAXIWAYS / TAXILANES.



**LOW PROFILE LIGHTED BARRICADE**

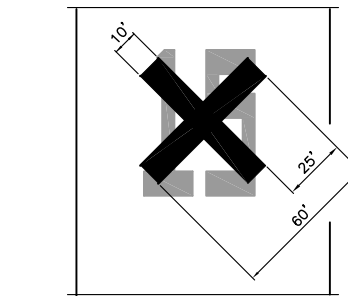
**BARRICADE NOTES:**

- 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.

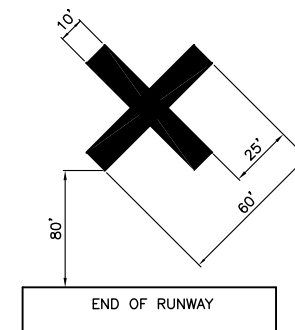


**CONSTRUCTION EQUIPMENT AND TRUCK SIGNAL FLAG**

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 50-05). THE PRIME CONTRACTOR WILL BE RESPONSIBLE TO COORDINATE CONSTRUCTION ACTIVITIES AND ACCESS BETWEEN ALL ON-SITE CONTRACTORS SUBCONTRACTORS.



**ON PAVEMENT TEMPORARY CLOSED RUNWAY MARKER DETAIL**



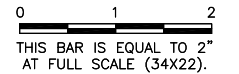
**OFF PAVEMENT TEMPORARY CLOSED RUNWAY MARKER DETAIL**

**CLOSED RUNWAY MARKER DETAIL NOTES**

- CLOSED RUNWAY MARKERS SHALL BE YELLOW.
- MARKERS SHALL BE MATERIAL APPROVED BY THE ENGINEER.
- 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 FURNISHING, INSTALLING, MAINTAINING AND REMOVING MARKERS 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.

**REVISIONS**

NUMBER	BY	DATE



**LANSING MUNICIPAL AIRPORT  
LANSING, ILLINOIS  
REHABILITATE NORTH QUADRANT T-HANGAR  
PAVEMENTS & ADDITIONAL TAXIWAYS  
SEQUENCE OF CONSTRUCTION  
PER AC 150/5370-2F (LATEST EDITION)**

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S.B.G. PROJECT: 3-17-SPGP-XX

# 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 REHABILITATING THE NORTH QUADRANT T-HANGAR PAVEMENTS ALONG WITH TAXIWAY A AND C CONNECTORS AT THE LANSING MUNICIPAL AIRPORT. THE PROJECT INCLUDES EXCAVATION, EMBANKMENT, DRAINAGE, PAVEMENT ITEMS AND OTHER MISCELLANEOUS CONSTRUCTION WORK.

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

1. EXCAVATION AND EMBANKMENT WILL BE COMPLETED WITHIN THE PROJECT LIMITS TO GRADE OUT FOR THE CONSTRUCTION HAUL ROUTE, PROPOSED DRAINAGE AND PAVEMENT IMPROVEMENTS.
2. STORM SEWER AND UNDERDRAIN INSTALLATION ALONG WITH STORM SEWER MANHOLE INSTALLATION.
3. PLACEMENT, MAINTENANCE, REMOVAL OF INLET PROTECTIONS.
4. PAVEMENT CONSTRUCTION.
5. PAVEMENT MARKING

## AREA OF CONSTRUCTION SITE

THE TOTAL AREA OF THE CONSTRUCTION SITE IS ESTIMATED TO BE 1.6 ACRES WHICH 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 LANSING DRAINAGE DITCH THROUGH A STORM SEWER SYSTEM.

## SEDIMENTATION AND EROSION CONTROL NOTES

THE WILL/SOUTH COOK SOIL AND WATER CONSERVATION DISTRICT (SWCD) IS RESPONSIBLE FOR CONDUCTING SITE VISITS AND VERIFYING THAT THE PRACTICES ARE WORKING PROPERLY AND DETERMINE IF ADDITIONAL PRACTICES ARE NEEDED FOR BETTER SOIL EROSION AND SEDIMENT CONTROL. IF ADDITIONAL PRACTICES ARE DEEMED NECESSARY BY THE SWCD THE CONTRACTOR WILL IMPLEMENT THE PRACTICES IN A TIMELY MANNER. THE ADDITIONAL PRACTICES (IF REQUIRED) SHALL BE COORDINATED WITH THE RESIDENT ENGINEER BEFORE WORK BEGINS.

THE WILL/SOUTH COOK SOIL AND WATER CONSERVATION DISTRICT MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITIES, AND ONE WEEK PRIOR TO FINAL INSPECTION.

THE SOIL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE INSPECTED WEEKLY AND AFTER 1/2 INCH OF RAIN OR MORE BY THE RESIDENT ENGINEER.

ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ARE REFERENCED FROM THE ILLINOIS URBAN MANUAL.

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 POSSIBLE 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.

AS SOON AS REASONABLE ACCESS IS AVAILABLE TO ALL LOCATIONS WHERE WATER DRAINS AWAY FROM THE PROJECT, INLET PROTECTION AND PERIMETER SILT FENCE SHALL BE INSTALLED AS CALLED OUT IN THE PLANS OR AS DIRECTED BY THE ENGINEER.

THIS PLAN HAS BEEN PREPARED TO COMPLY WITH THE PROVISIONS OF THE NPDES PERMIT NUMBER 1LR10, 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. BUILD NECESSARY EMBANKMENT AT STORM SEWER LOCATIONS AND THEN EXCAVATE AND PLACE PIPE.
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. 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.
6. 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:

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.

ONCE PERMANENT EROSION CONTROL SYSTEMS AS PROPOSED IN THE PLANS ARE FUNCTIONAL AND ESTABLISHED, TEMPORARY ITEMS SHALL BE REMOVED, CLEANED UP, AND DISTURBED TURF RESEEDED.

## 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.

## CONTRACTORS

1. THE STORM WATER POLLUTION PREVENTION PLAN MUST CLEARLY IDENTIFY FOR EACH MEASURE IDENTIFIED IN THE PLAN, THE CONTRACTOR(S) OR SUBCONTRACTOR(S) THAT WILL IMPLEMENT THE MEASURE. ALL CONTRACTORS AND SUBCONTRACTORS IDENTIFIED IN THE PLAN MUST SIGN A COPY OF THE CERTIFICATION STATEMENT IN PARAGRAPH 2 BELOW IN ACCORDANCE WITH PART VI.G (SIGNATORY REQUIREMENTS) OF THIS PERMIT. ALL CERTIFICATIONS MUST BE INCLUDED IN THE STORM WATER POLLUTION PREVENTION PLAN EXCEPT FOR OWNERS THAT ARE ACTING AS CONTRACTOR.
2. CERTIFICATION STATEMENT. ALL CONTRACTORS AND SUBCONTRACTORS IDENTIFIED IN A STORM WATER POLLUTION PREVENTION PLAN IN ACCORDANCE WITH PARAGRAPH 1 ABOVE SHALL SIGN A COPY OF THE FOLLOWING CERTIFICATION STATEMENT BEFORE CONDUCTING ANY PROFESSIONAL SERVICE AT THE SITE IDENTIFIED IN THE STORM WATER POLLUTION PREVENTION PLAN:

"I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS AND CONDITIONS OF THE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT (1LR10) THAT AUTHORIZES THE STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE CONSTRUCTION SITE IDENTIFIED AS PART OF THIS CERTIFICATION."

THE CERTIFICATION MUST INCLUDE THE NAME AND TITLE OF THE PERSON PROVIDING THE SIGNATURE IN ACCORDANCE WITH PART VI.G OF THIS PERMIT; THE NAME, ADDRESS AND TELEPHONE NUMBER OF THE CONTRACTING FIRM; THE ADDRESS (OR OTHER IDENTIFYING DESCRIPTION) OF THE SITE; AND THE DATE THE CERTIFICATION IS MADE.

## CONTRACTOR CERTIFICATION

"I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS AND CONDITIONS OF THE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT (1LR10) THAT AUTHORIZES THE STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE CONSTRUCTION SITE IDENTIFIED AS PART OF THIS CERTIFICATION."

## GENERAL CONTRACTOR

\_\_\_\_\_  
SIGNATURE TITLE DATE

\_\_\_\_\_  
COMPANY

LA039

K:\Lansing\13297-02\_N.QuadRehabPH2\Draw\Sheets  
FILE: 06\_IGQ-Pvt Rehab-swppp.dwg  
LAYOUT: Layout1  
UPDATE BY: Adham Odeh  
SURVEY BOOK #  
DATE: Wednesday, March 5, 2014 9:15:02 AM  
XREF DWG: tbcint.dwg  
tb.dwg

## REVISIONS

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

LANSING MUNICIPAL AIRPORT  
LANSING, ILLINOIS

REHABILITATE NORTH QUADRANT T-HANGAR  
PAVEMENTS & ADDITIONAL TAXIWAYS

STORM WATER POLLUTION PREVENTION  
PLAN NOTES

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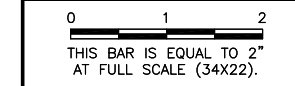


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CHECKED BY: DKP  
APPROVED BY: DKP  
DATE: 02/28/14  
JOB No: 13297-02-00

IL PROJECT: IGQ-4297  
S.B.G. PROJECT: 3-17-SPGP-XX

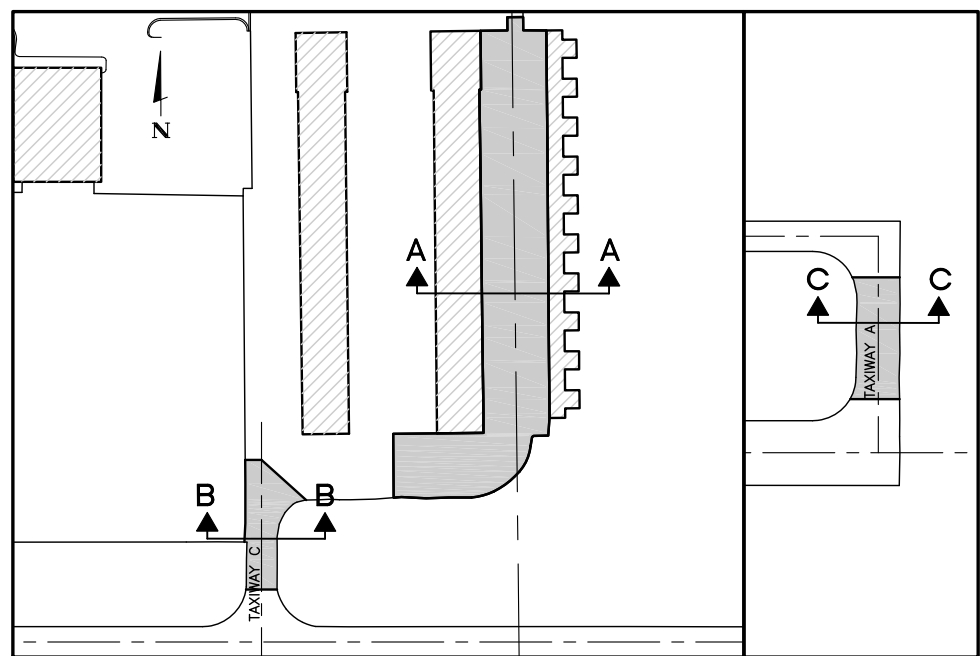
SHEET 6 OF 10 SHEETS

REVISIONS		
NUMBER	BY	DATE

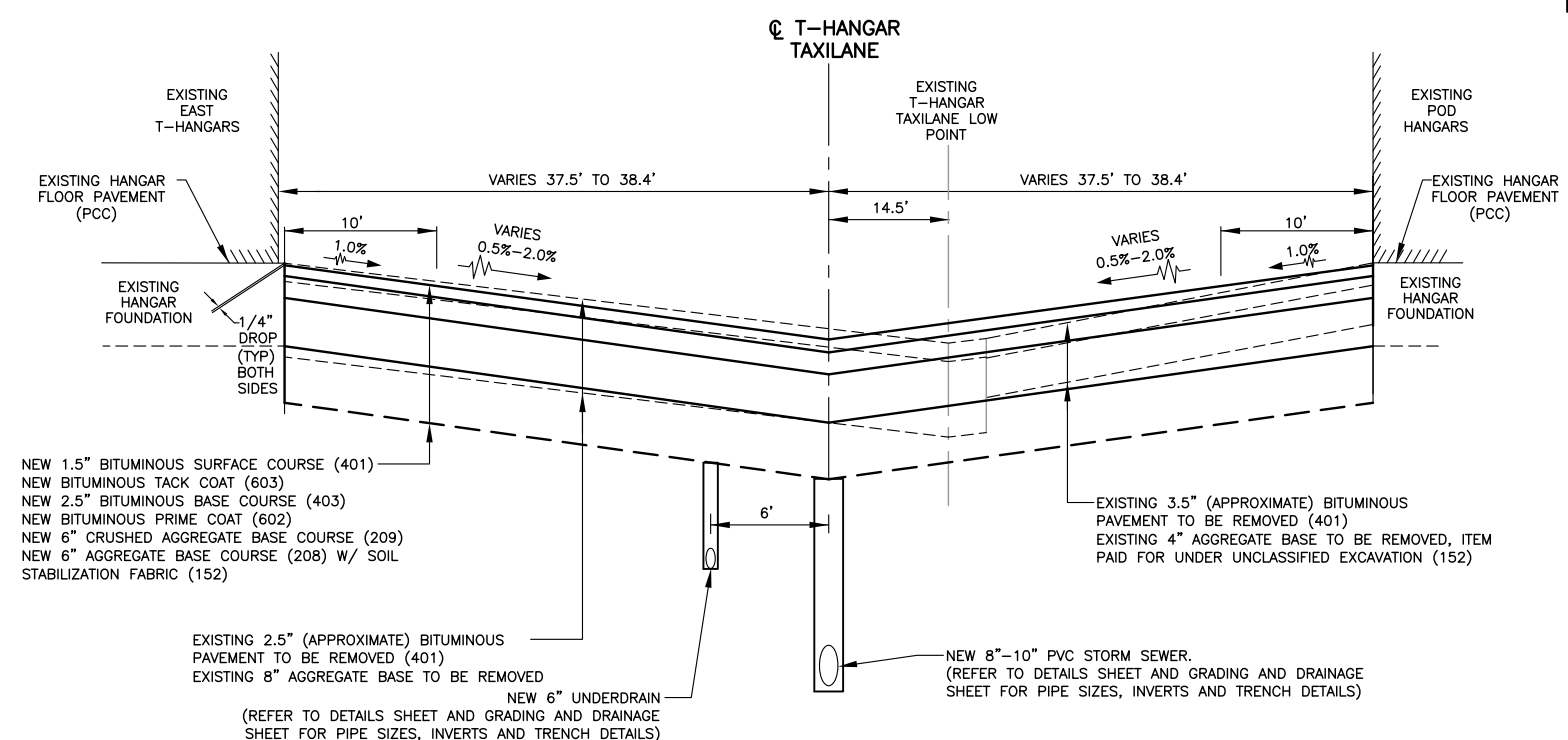


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 REHABILITATE NORTH QUADRANT T-HANGAR  
 PAVEMENTS & ADDITIONAL TAXIWAYS**

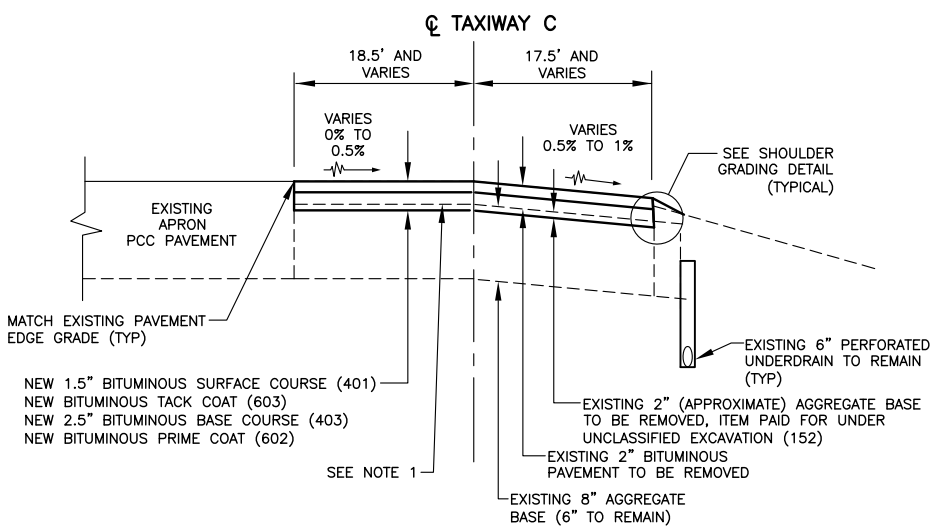
**TYPICAL SECTIONS**



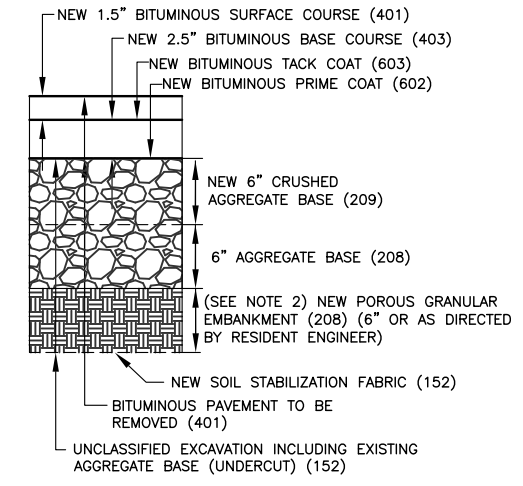
**KEY MAP**



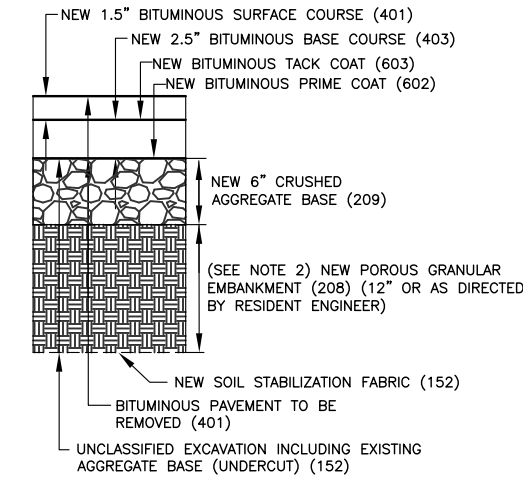
**T-HANGAR PAVEMENT  
TYPICAL SECTION A-A**  
NOT TO SCALE



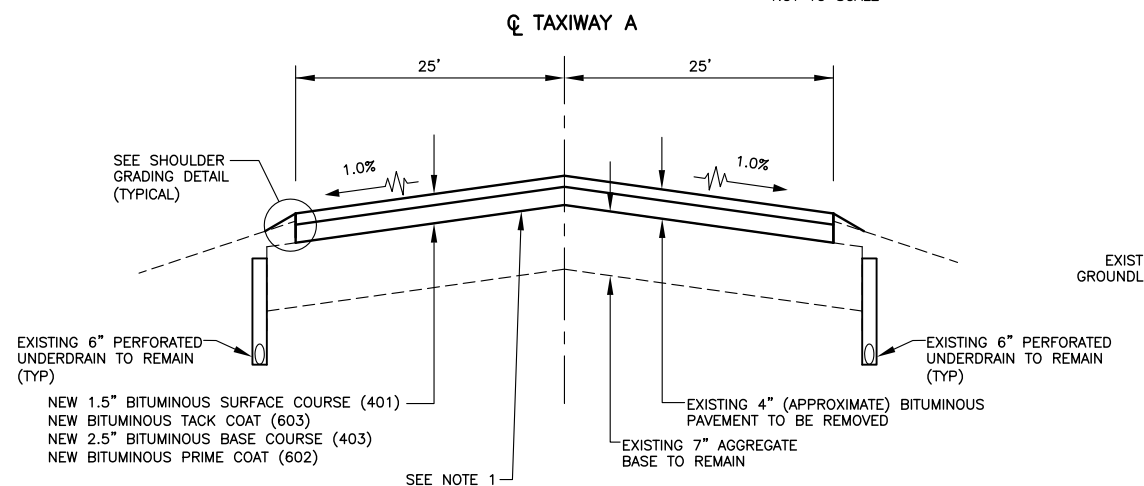
**TAXIWAY C CONNECTOR  
TYPICAL SECTION B-B**  
NOT TO SCALE



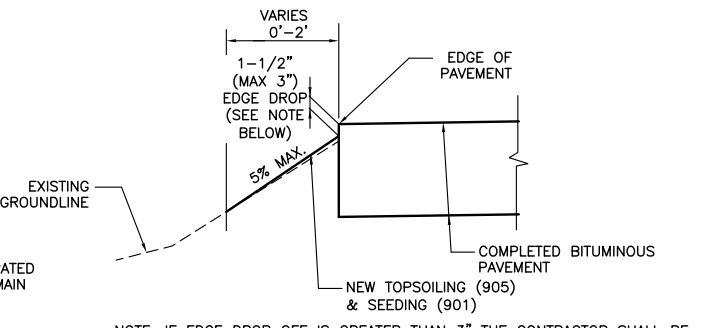
**STABILIZATION TYPICAL SECTION - T-HANGAR PVTs**  
NOT TO SCALE



**STABILIZATION TYPICAL SECTION TXY PVTs**  
NOT TO SCALE



**TAXIWAY A CONNECTOR  
TYPICAL SECTION C-C**  
NOT TO SCALE



**SHOULDER GRADING DETAIL**  
NOT TO SCALE

**NOTES:**

1. THE CONTRACTOR SHALL REGRADE AND RECOMPACT EXISTING CRUSHED AGGREGATE BASE COURSE, INCLUDING ANY REQUIRED BASE REMOVAL TO GRADE TO 4" SECTION FOR PROPOSED PAVEMENT STRUCTURE, AT TAXIWAY CONNECTORS C & A PAVEMENT REMOVAL AREAS PER SPECIFICATION 209650, AGGREGATE BASE PREPARATION. THIS ITEM ONLY APPLIES TO EXISTING AGGREGATE BASE COURSE TO REMAIN AND IS NOT NEEDED FOR NEW BASE INSTALLED BETWEEN T-HANGARS.
2. LOCATIONS FOR FURNISHING AND PLACING POROUS GRANULAR EMBANKMENT SHALL BE AS THE FIELD CONDITIONS WARRANT AT THE TIME OF CONSTRUCTION. THIS MATERIAL IS INTENDED TO REPAIR SOFT SUBGRADE AS DIRECTED BY THE RESIDENT ENGINEER. NO ADJUSTMENT IN UNIT PRICE WILL BE ALLOWED FOR AN INCREASE OR DECREASE IN QUANTITIES. EXCAVATION OF THE SOFT SUBGRADE SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR UNCLASSIFIED EXCAVATION. (REFER TO STABILIZATION TYPICAL SECTION)
3. THE PCC FLOOR ENDS APPROXIMATELY AT HANGAR DOORS / EXTENDS JUST OUTSIDE HANGAR DOOR. THE CONTRACTOR SHALL PROTECT THIS PAD, ANY DAMAGE DONE TO PCC PAVEMENT DURING CONSTRUCTION SHALL BE RESTORED IN-KIND BY CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT.

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**LEGEND**

- EXISTING BITUMINOUS PAVEMENT TO BE REHABILITATED / REMOVED
- EXISTING INLET/MANHOLE
- EXISTING FLARED END SECTION
- EXISTING SLOPE BOX
- EXISTING STORM SEWER AND SIZE
- EXISTING UNDERDRAIN COLLECTION STRUCTURE
- EXISTING FIRE HYDRANT
- EXISTING UNDERGROUND COMED ELECTRIC LINE
- EXISTING OVERHEAD COMED ELECTRIC LINE
- EXISTING UTILITY POLE
- EXISTING HANGAR MOUNTED LIGHT
- EXISTING TELEPHONE
- EXISTING 6' FENCE
- EXISTING LANSING DRAINAGE DITCH
- EXISTING UNDERDRAIN
- EXISTING WATERMAIN
- EXISTING GUARDRAIL
- EXISTING BASE MOUNTED MEDIUM INTENSITY TAXIWAY LIGHT
- EXISTING STAKE MOUNTED MEDIUM INTENSITY TAXIWAY LIGHT
- SOIL BORING
- PAVEMENT CORE
- REMOVAL ITEM
- STRUCTURE TO BE REMOVED

**NOTES**

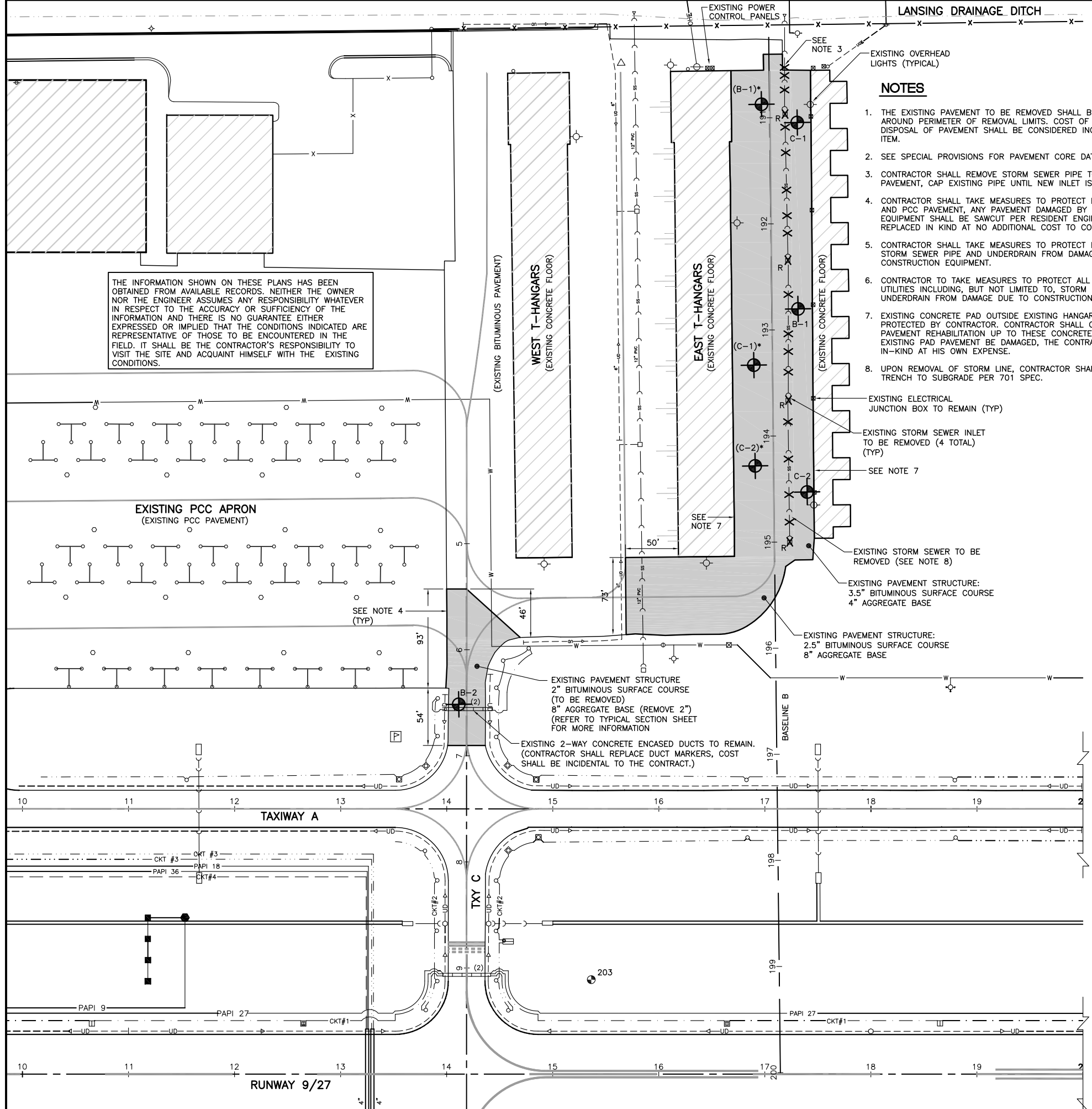
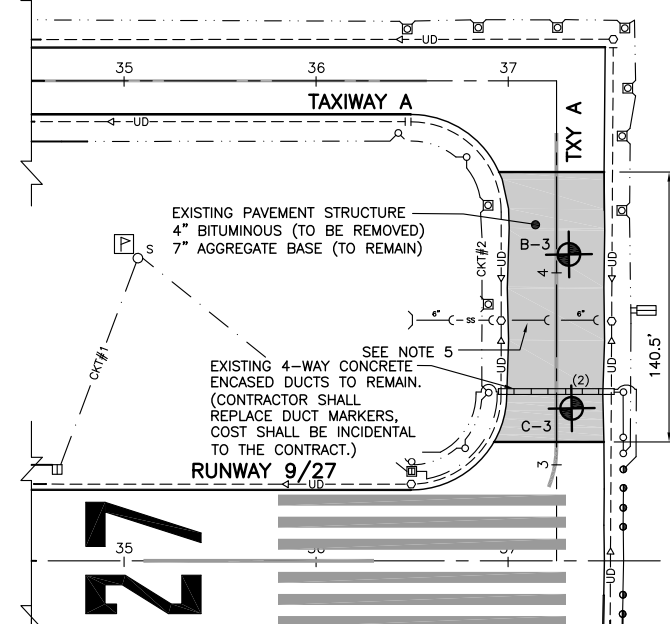
1. THE EXISTING PAVEMENT TO BE REMOVED SHALL BE SAWED FULL DEPTH AROUND PERIMETER OF REMOVAL LIMITS. COST OF SAWCUTTING AND DISPOSAL OF PAVEMENT SHALL BE CONSIDERED INCIDENTAL TO THE ITEM.
2. SEE SPECIAL PROVISIONS FOR PAVEMENT CORE DATA AND BORING LOGS.
3. CONTRACTOR SHALL REMOVE STORM SEWER PIPE TO EDGE OF PAVEMENT, CAP EXISTING PIPE UNTIL NEW INLET IS INSTALLED.
4. CONTRACTOR SHALL TAKE MEASURES TO PROTECT EXISTING BITUMINOUS AND PCC PAVEMENT, ANY PAVEMENT DAMAGED BY CONTRACTORS EQUIPMENT SHALL BE SAWCUT PER RESIDENT ENGINEER LAYOUT AND REPLACED IN KIND AT NO ADDITIONAL COST TO CONTRACT.
5. CONTRACTOR SHALL TAKE MEASURES TO PROTECT EXISTING AND NEW STORM SEWER PIPE AND UNDERDRAIN FROM DAMAGE DUE TO CONSTRUCTION EQUIPMENT.
6. CONTRACTOR TO TAKE MEASURES TO PROTECT ALL UNDERGROUND UTILITIES INCLUDING, BUT NOT LIMITED TO, STORM SEWER PIPE AND UNDERDRAIN FROM DAMAGE DUE TO CONSTRUCTION EQUIPMENT.
7. EXISTING CONCRETE PAD OUTSIDE EXISTING HANGAR FACE SHALL BE PROTECTED BY CONTRACTOR. CONTRACTOR SHALL COMPLETE PROPOSED PAVEMENT REHABILITATION UP TO THESE CONCRETE PADS. SHOULD THE EXISTING PAD PAVEMENT BE DAMAGED, THE CONTRACTOR SHALL REPLACE IN-KIND AT HIS OWN EXPENSE.
8. UPON REMOVAL OF STORM LINE, CONTRACTOR SHALL FILL AND COMPACT TRENCH TO SUBGRADE PER 701 SPEC.

THE INFORMATION SHOWN ON THESE PLANS HAS BEEN OBTAINED FROM AVAILABLE RECORDS. NEITHER THE OWNER NOR THE ENGINEER ASSUMES ANY RESPONSIBILITY WHATEVER 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 VISIT THE SITE AND ACQUAINT HIMSELF WITH THE EXISTING CONDITIONS.

**GEOTECHNICAL LAYOUT TABLE**

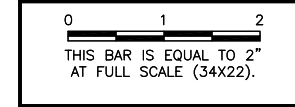
BORING NO.	ELEVATION	BITUMINOUS PAVEMENT THICKNESS (IN)	AGGREGATE BASE THICKNESS (IN)
B-1	613.30	3	4
B-2	614.50	4	10
B-3	615.88	4.5	5
C-1	613.33	4.75	4
C-2	613.35	3.5	4
C-3	615.87	4.25	4
(B-1)*	613.11	2.5	7.5
(C-1)*	613.39	2.2	7
(C-2)*	613.29	2.1	5

\* SOIL BORINGS / CORES WERE TAKEN FROM PRIOR GEOTECHNICAL INVESTIGATION COMPLETE 12/13/2007



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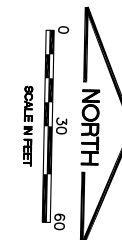


**LANSING MUNICIPAL AIRPORT  
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 REHABILITATE NORTH QUADRANT T-HANGAR  
 PAVEMENTS & ADDITIONAL TAXIWAYS  
 EXISTING CONDITIONS/  
 PROPOSED REMOVALS**

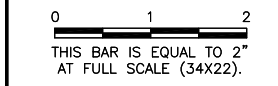
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SHEET	8 OF 10 SHEETS





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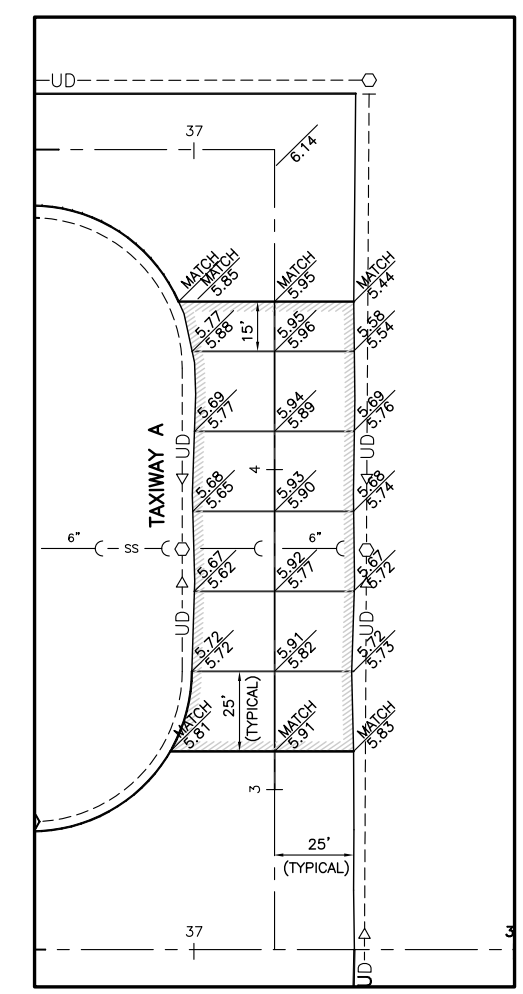
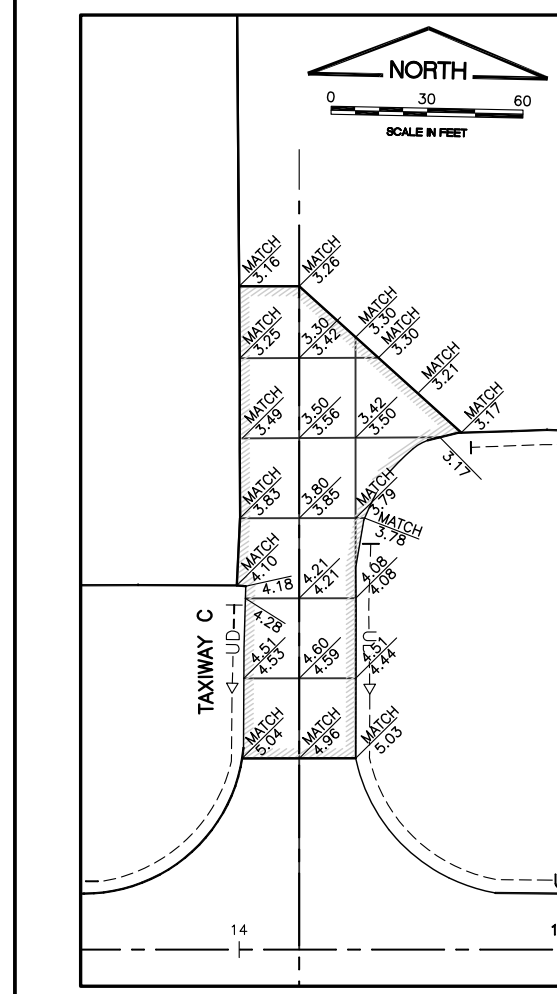
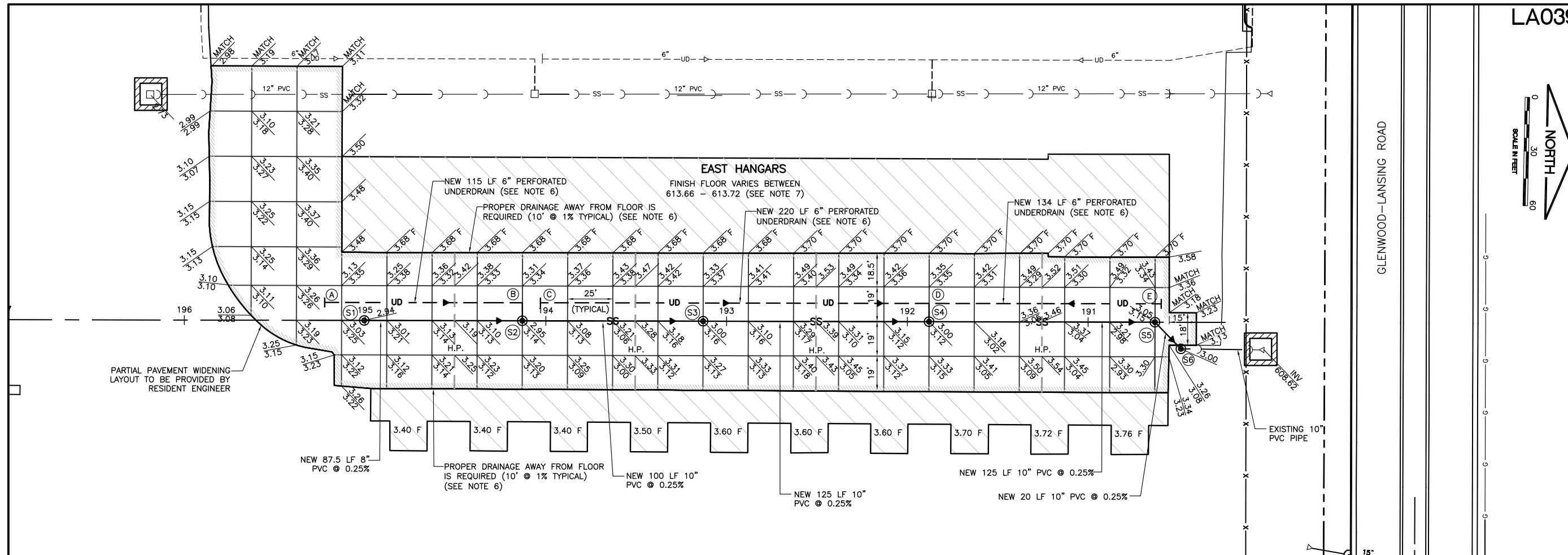
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 PAVEMENTS & ADDITIONAL TAXIWAYS**

**GRADING AND DRAINAGE PLAN**

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SHEET	9 OF 10 SHEETS



DRAINAGE STRUCTURE SCHEDULE					
STRUCTURE ID	TYPE	BASELINE B STATION	RIM	INVERT	NOTES
S1	TYPE B INLET W/ TYPE 1 FRAME AND OPEN LID	195+00.50	612.94	N: NEW 8", 610.31	-
S2	TYPE B INLET W/ TYPE 1 FRAME AND OPEN LID	194+13.02	612.95	S: NEW 8" PVC, 610.10 N: NEW 10" PVC, 610.10 W: NEW 6" UD, 610.81	TIE IN PROPOSED UNDERDRAIN
S3	TYPE B INLET W/ TYPE 1 FRAME AND OPEN LID	193+13.02	613.00	S: NEW 10" PVC, 609.86 N: NEW 10" PVC, 609.76	-
S4	TYPE B INLET W/ TYPE 1 FRAME AND OPEN LID	191+88.02	613.00	S: NEW 10" PVC, 609.46 N: NEW 10" PVC, 609.36 W: NEW 6" UD, 610.55	TIE IN PROPOSED UNDERDRAIN
S5	TYPE B INLET W/ TYPE 1 FRAME AND OPEN LID	190+63.00	613.05	S: NEW 10" PVC, 609.05 N: NEW 10" PVC, 609.00	-
S6	TYPE B INLET W/ TYPE 1 FRAME AND OPEN LID	190+51.35 14.71' LT.	613.00	SE: NEW 10" PVC, 608.95 N: EXISTING 10" PVC, 608.93	TIE INTO EXISTING 10" PVC PIPE

UNDERDRAIN INFORMATION TABLE			
POINT	DESCRIPTION	SLOPE	INVERT
(A)	NEW 6" PERFORATED UNDERDRAIN	0.25%	611.10 (HIGH POINT)
(B)	NEW 6" PERFORATED UNDERDRAIN		610.83*
(C)	NEW 6" PERFORATED UNDERDRAIN	0.25%	611.10 (HIGH POINT)
(D)	NEW 6" PERFORATED UNDERDRAIN		610.57*
(E)	NEW 6" PERFORATED UNDERDRAIN	0.25%	610.91 (HIGH POINT)

\* INVERT OF UNDERDRAIN @ NEW STORM INLET TIE-IN IS SHOWN ON DRAINAGE STRUCTURE SCHEDULE.

**LEGEND**

- NEW ELEVATION (613.03)
- EXISTING ELEVATION (613.10) (ADD 610 TO OBTAIN GRADE)
- EXISTING FLOOR ELEVATION
- PROPOSED HIGH POINT
- NEW BITUMINOUS PAVEMENT
- NEW MANHOLE
- NEW STORM SEWER
- NEW 6" UNDERDRAIN
- EXISTING SLOPE BOX/INLET/MANHOLE
- EXISTING END SECTION
- EXISTING FLARED END SECTION
- EXISTING STORM SEWER
- EXISTING UNDERDRAIN
- EXISTING CONTOUR
- NEW INLET PROTECTION (SEE NOTE 3)

**NOTE**

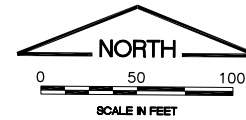
- ANY EXCAVATION OR GROUND DISTURBED OUTSIDE THE LANDSCAPING LIMITS SHALL BE REPAIRED BY THE CONTRACTOR. THE COST OF REPAIRING THE GROUNDLINE SHALL BE INCIDENTAL TO THE CONTRACT.
- PAVEMENT TIE-IN EDGES HAVE ONLY ONE ELEVATION CALLED OUT WHICH ARE EXISTING ELEVATIONS WHICH THE CONTRACTOR SHALL BE MATCHED.
- CONTRACTOR SHALL INSTALL INLET PROTECTION ON NEW STRUCTURES/EXISTING STRUCTURES AS DIRECTED BY ENGINEER IN ADDITION CONTRACTOR SHALL, IF NEEDED, PLACE ADDITIONAL EROSION CONTROL MATERIAL TO THE SATISFACTION OF THE ENGINEER. ANY ADDITIONAL EROSION CONTROL MEASURES TAKEN SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- PVC PIPE SHALL BE SDR 26 MINIMUM, CONTRACTOR SHALL PROTECT PIPE DURING CONSTRUCTION FROM ANY DAMAGE.
- T-HANGAR PAVEMENTS SHALL BE CONSTRUCTED TO MATCH EXISTING GRADES UNLESS NOTED OTHERWISE. ALL PAVEMENTS SHALL BE GRADED TO DRAIN.
- UNDERDRAIN AND STORM SEWER SHALL BE INSTALLED IN SEPARATE TRENCHES. FOR CLARITY UNDERDRAIN IS DRAWN W/ LARGER OFFSET FROM STORM SEWER. TYPICAL OFFSET BETWEEN UNDERDRAIN AND STORM SEWER IS 6".
- CONTRACTOR SHALL CONSTRUCT NEW BITUMINOUS PAVEMENT 1/4" LOWER THAN FLOOR ELEVATION. CONTRACTOR SHALL CONSTRUCT POSITIVE DRAINAGE AWAY FROM HANGAR FLOOR. IF WATER DRAINS INTO HANGAR FLOOR, CONTRACTOR SHALL REPAIR AREAS TO OBTAIN POSITIVE DRAINAGE AWAY FROM HANGAR FLOOR TO THE SATISFACTION OF THE RESIDENT ENGINEER AND AIRPORT MANAGER.

IMAGE FILES:

LANSING DRAINAGE DITCH

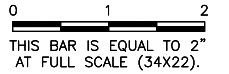
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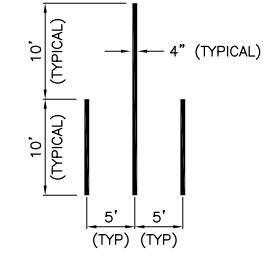
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PROPOSED 6" YELLOW TAXIWAY CENTERLINE MARKING (TYPICAL)

LEGEND

-  T-HANGAR / TAXIWAY PAVEMENT REHABILITATION
-  EXISTING PAVEMENT MARKING
-  PROPOSED PAVEMENT MARKING



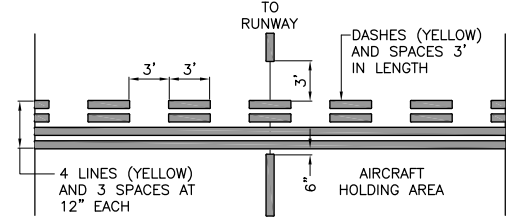
HANGAR LEAD-IN LINES

NOT TO SCALE

NOTE: EXACT LOCATION TO BE COORDINATED WITH RESIDENT ENGINEER AND AIRPORT MANAGER.

PAVEMENT MARKING NOTES

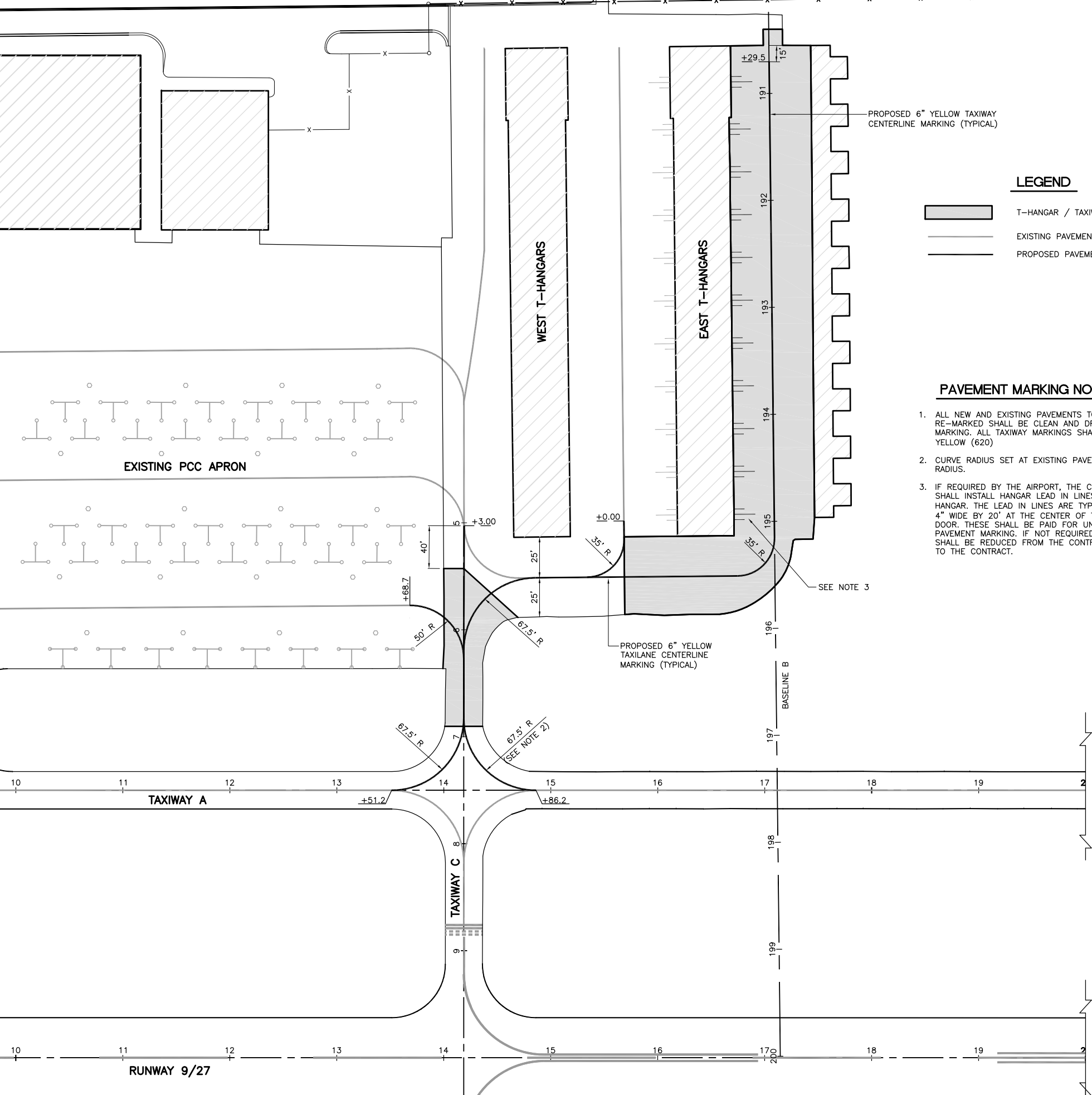
- ALL NEW AND EXISTING PAVEMENTS TO BE MARKED OR RE-MARKED SHALL BE CLEAN AND DRY PRIOR TO MARKING. ALL TAXIWAY MARKINGS SHALL BE REFLECTIVE YELLOW (620)
- CURVE RADIUS SET AT EXISTING PAVEMENT MARKING RADIUS.
- IF REQUIRED BY THE AIRPORT, THE CONTRACTOR SHALL INSTALL HANGAR LEAD IN LINES FOR EAST HANGAR. THE LEAD IN LINES ARE TYPICALLY THREE (3) 4" WIDE BY 20' AT THE CENTER OF THE HANGAR DOOR. THESE SHALL BE PAID FOR UNDER ITEM 620 PAVEMENT MARKING. IF NOT REQUIRED, THE QUANTITY SHALL BE REDUCED FROM THE CONTRACT AT NO COST TO THE CONTRACT.



RUNWAY HOLDING POSITION MARKER

NO SCALE

ALL HOLDING POSITION MARKERS SHALL HAVE 6" WIDE BLACK BORDER.



LANSING MUNICIPAL AIRPORT  
LANSING, ILLINOIS  
REHABILITATE NORTH QUADRANT T-HANGAR  
PAVEMENTS & ADDITIONAL TAXIWAYS

PAVEMENT MARKING PLAN

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