

GENERAL NOTES:

1. THE CONTRACTOR SHALL LOCATE AND PROTECT EXISTING UTILITIES AND FACILITIES FROM DAMAGE BY EQUIPMENT OR PERSONNEL. THE CONTRACTOR SHALL CONTACT ALL UTILITY AND FACILITY AGENCIES FOR FIELD MARKING PRIOR TO BEGINNING CONSTRUCTION. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE UNDERGROUND UTILITIES. ALL UTILITIES AND FACILITIES ARE NOT NECESSARILY SHOWN.
- ANY UTILITIES OR FACILITIES DAMAGED DURING THE PROJECT BY THE CONTRACTOR'S MEN OR EQUIPMENT SHALL BE PROMPTLY REPAIRED AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL HAND DIG WHEN WITHIN THREE (3) FEET OF ANY KNOWN OR SUSPECTED UNDERGROUND UTILITY.
2. ALL DISTURBED AREAS, INCLUDING THE CONTRACTORS STAGING AREA, HAUL ROUTES, GRADING LIMITS, ETC. SHALL BE RESTORED TO A SMOOTH LINE AND GRADE WITH POSITIVE DRAINAGE. THE CONTRACTOR SHALL SEED AND MULCH ALL DISTURBED AREAS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS, LICENSES, ETC. REQUIRED BY LOCAL, STATE, AND FEDERAL AGENCIES.
4. CIVIL ENGINEERING OF THIS PROJECT WAS PROVIDED BY:

DELTA AIRPORT CONSULTANTS, INC.
9711 FARRAR COURT, SUITE 100
RICHMOND, VIRGINIA 23236

5. THE PROPERTY INFORMATION FOR THE PROJECT SITE IS LISTED BELOW:

Tax Number 6590101
Property Address 5202 AVIATION DR NW
Legal Description PARCEL 12 (607.090AC) AIRPORT
Owner Name ROANOKE REGIONAL AIRPORT
Owner 2 Name COMMISSION
Owner Address 5202 AVIATION DR NW
ROANOKE VA 24012
Neighborhood Number 660
Property Use 451-Comm/Indust-City
Zoning AD

6. THE OWNER RESERVES THE RIGHT TO CONTRACT AND PERFORM OTHER OR ADDITIONAL WORK ADJACENT TO AND WITHIN THE WORK AREA COVERED BY THIS CONTRACT. WHEN SEPARATE CONTRACTS ARE LET WITHIN THE LIMITS OF ANY ONE PROJECT, EACH CONTRACTOR SHALL CONDUCT HIS WORK SO AS NOT TO INTERFERE WITH OR HINDER THE PROGRESS OR THE COMPLETION OF THE WORK BEING COMPLETED BY OTHER CONTRACTORS. THE CONTRACTORS WORKING ON THE SAME PROJECT SHALL COOPERATE WITH EACH OTHER AS ORDERED BY THE ENGINEER. ANY ADDITIONAL EFFORT OR WORK REQUIRED FOR SUCH COORDINATION WITH OTHER CONTRACTORS SHALL BE INCIDENTAL TO THE PROJECT AND NO SEPARATE MEASUREMENT OR PAYMENT WILL BE MADE. REFERENCE IS DIRECTED TO SECTION 50-05 OF THE SPECIFICATIONS. IT IS ANTICIPATED THAT OTHER WORK MAY BE COMPLETED BY AN INDEPENDENT CONTRACTOR(S) DURING THE COURSE OF THIS PROJECT.
7. ALL PERSONNEL WORKING INSIDE THE SECURITY FENCE SHALL HAVE A VALID AIRPORT ISSUED SECURITY BADGE OR BE UNDER THE DIRECT SUPERVISION OF A PERSON WITH A BADGE. THE CONTRACTOR SHALL SUBMIT A SECURITY PLAN OUTLINING THE INSTALLATION AND PHASING OF SECURITY FENCE, METHODS OF MONITORING GATE OPENINGS, ETC.
8. THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE ON THE PROJECT FOR THE COMPLETE DURATION THAT IS OF A CAPACITY EQUAL TO OR IN EXCESS OF THE EXISTING DRAINAGE CONVEYANCES. THIS MAY REQUIRE TEMPORARY DITCHES, STRUCTURES OR PIPES, WHICH SHALL BE INCIDENTAL TO THE PROJECT.
9. THE CONTRACTOR IS ADVISED THAT AIRCRAFT MAINTENANCE OPERATIONS ARE CONDUCTED ADJACENT TO THE PROJECT. SPECIAL ATTENTION TO DUST CONTROL WILL BE REQUIRED DURING THE COURSE OF THE PROJECT.
10. ANY LISTED MANUFACTURER'S EQUIPMENT SHALL MEAN THAT LISTED ITEM OR AN APPROVED EQUIVALENT.
11. NO DEBRIS OF ANY NATURE SHALL BE ALLOWED IN ACTIVE AIRCRAFT OPERATIONS AREAS. ALL LOOSE MATERIALS (DIRT, STONE, PAVEMENT, FORMING, ETC.) MUST BE KEPT WITHIN THE LIMITS OF CONSTRUCTION. WHEN THE CONSTRUCTION BARRIERS ARE MOVED DURING CONSTRUCTION, THE CLEANUP OF THE AREAS OUTSIDE THE BARRIERS SHALL OCCUR IMMEDIATELY. IN ADDITION, NO LOOSE MATERIALS THAT COULD BLOW INTO AIRCRAFT OPERATIONS AREAS SHALL BE ALLOWED IN THE CONSTRUCTION AREA.
12. THE CONTRACTOR MAY WASTE EXCAVATED CLEAN SOILS ONLY ON AIRPORT AT A LOCATION DESIGNATED BY THE OWNER. ALL OTHER WASTE MATERIALS SHALL BE DISPOSED OF PROPERLY OFF SITE.
13. FLOOD ZONE INFORMATION:
SFHA IN
FIRM PANEL 51161C0022D
COMMUNITY 0130
FIPS 51770

NO PORTION OF THE SUBJECT PROPERTY IS LOCATED WITHIN THE LIMITS OF A 100 YEAR FLOOD BOUNDARY AS DESIGNATED BY CURRENT FEMA MAPS.

14. THE CONTRACTOR SHALL MAINTAIN ALL TEMPORARY CONSTRUCTION ENTRANCES SUCH THAT MUD IS NOT TRACKED ONTO VEHICLE ROADWAYS.
15. THE CONTRACTOR SHALL MAINTAIN ALL PAVED ROADS DURING CONSTRUCTION, KEEPING THEM CLEAR OF ALL DEBRIS. ANY DEBRIS MUST BE CLEARED IMMEDIATELY.
16. UPON COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL REPAIR ANY PAVEMENTS DAMAGED BY THE CONTRACTOR'S OPERATIONS. NO SEPARATE PAYMENT WILL BE MADE FOR PAVEMENT REPAIR NECESSARY DUE TO THE CONTRACTOR'S OPERATIONS.
17. THE CONTRACTOR SHALL ATTEND A PRE-POUR MEETING WITH THE ENGINEER PRIOR TO THE BUILDING FOUNDATION POUR. ENGINEER SHALL VERIFY FINISHED FLOOR ELEVATIONS PRIOR TO FOUNDATION AND SLAB POUR.
18. THE CONTRACTOR SHALL ATTEND A PRE-PAVING MEETING WITH THE ENGINEER A MINIMUM OF TWO (2) WEEKS PRIOR TO START OF ALL PAVING OPERATIONS. THE PAYING FOREMAN SHALL BE PRESENT AT THE MEETING. THE CONTRACTOR SHALL BE PREPARED TO DISCUSS HIS PROPOSED LAYDOWN/PAVING PLAN.
19. THE CONTRACTOR SHALL PROVIDE A FINISHED PAVEMENT SURFACE FREE OF PONDING WATER. ALL AREAS OF PONDING WATER SHALL BE REPAIRED AS ORDERED BY THE ENGINEER (NO SEPARATE PAY ITEM).

20. THE CONTRACTOR SHALL ENSURE THAT POSITIVE DRAINAGE IS PROVIDED FROM ALL FINISHED SURFACES TO DRAINAGE CONVEYANCES.
21. THE CONTRACTOR SHALL INSTALL SANITARY SEWER MANHOLES AT ALL POINTS OF DIRECTION CHANGE. REFERENCE IS DIRECTED TO THE WESTERN VIRGINIA WATER AUTHORITY (WVWA) WATER AND SEWER DESIGN AND CONSTRUCTION STANDARDS, LATEST EDITION AND THE WVWA WATER AND SEWER DETAILS (WWW.WESTERNVAVATER.ORG).
22. THE CONTRACTOR SHALL SOD ALL DISTURBED, UNPAVED AREAS.
23. THE CONTRACTOR SHALL APPLY A FUEL RESISTANT, COAL-TAR EMULSION SEAL COAT CONFORMING TO THE REQUIREMENTS OF ASTM D 490, GRADE 1 1/2. OIL AND WATER GAS TAR SHALL NOT BE USED EVEN THOUGH THEY COMPLY WITH ASTM D 490.
24. THE CONTRACTOR SHALL SUBMIT ALL RELEVANT CALCULATIONS AND SPECIFICATIONS, SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE COMMONWEALTH OF VIRGINIA, FOR THE OIL-WATER SEPARATOR TO THE WVWA.
25. THE CONTRACTOR SHALL SUBMIT A COPY OF ALL DESIGN PLANS AND CALCULATIONS TO THE OWNER/ENGINEER FOR APPROVAL. ONCE APPROVED, THE CONTRACTOR SHALL OBTAIN ALL NECESSARY APPROVALS AND PERMITS.

METAL BUILDING DESIGN LOADS:

1. SNOW LOAD 30 PSF
2. DESIGN FLOOR LIVE LOAD AS REQUIRED FOR AIRCRAFT (MIN. 200 PSF)
3. DESIGN WIND LOAD
A. BASIC WIND SPEED 90 MPH
B. WIND IMPORTANCE FACTOR I = 1.0
C. WIND EXPOSURE C
4. DESIGN SEISMIC LOAD
A. SEISMIC IMPORTANCE FACTOR 1.0
B. SITE CLASS D (TO BE VERIFIED BY GEOTECHNICAL ENGINEER)

CONSTRUCTION PROCEDURE REQUIREMENTS:

1. **RIGHT-OF-WAY EXCAVATION PERMIT** - PRIOR TO THE COMMENCEMENT OF ANY DIGGING, ALTERATION OR CONSTRUCTION WITHIN THE PUBLIC RIGHT-OF-WAY (STREETS, ALLEYS, PUBLIC EASEMENTS), A RIGHT-OF-WAY EXCAVATION PERMIT SHALL BE APPLIED FOR AND OBTAINED BY THE CONTRACTOR FROM THE CITY OF ROANOKE.
2. **LAND DISTURBANCE PERMIT** - AN APPROVED EROSION AND SEDIMENT CONTROL PLAN FOR ANY BORROW/FILL SITES ASSOCIATED WITH THE PROJECT MUST BE SUBMITTED PRIOR TO THE ISSUANCE OF A LAND DISTURBANCE PERMIT.
3. **PLANS AND PERMITS** - A COPY OF THE PLANS AS APPROVED BY THE CITY (SIGNED BY THE PROPER CITY OFFICIALS) AND ALL PERMITS ISSUED BY THE CITY SHALL BE AVAILABLE AT THE CONSTRUCTION SITE AT ALL TIMES.
4. **LOCATION OF UTILITIES** - THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.
5. **CONSTRUCTION ENTRANCE** - THE CONTRACTOR SHALL INSTALL AN ADEQUATE CONSTRUCTION ENTRANCE FOR ALL CONSTRUCTION RELATED EGRESS FROM THE SITE. SIZE AND COMPOSITION OF CONSTRUCTION ENTRANCE SHALL BE AS SHOWN ON THE PLANS.
6. **STREETS TO REMAIN CLEAN** - IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSURE THAT THE PUBLIC STREET ADJACENT TO THE CONSTRUCTION ENTRANCE REMAINS FREE OF MUD, DIRT, DUST, AND/OR ANY TYPE OF CONSTRUCTION MATERIALS OR LITTER AT ALL TIMES.
7. **BARRICADES/DITCHES** - THE CONTRACTOR SHALL MAINTAIN THE INTEGRITY OF ALL EXCAVATED DITCHES AND SHALL FURNISH AND ENSURE THAT ALL BARRICADES PROPER AND NECESSARY FOR THE SAFETY OF THE PUBLIC ARE IN PLACE.
8. **SEWER AND PAVEMENT REPLACEMENT** - CONSTRUCTION OF SANITARY SEWERS AND THE REPLACEMENT OF PAVEMENT SHALL BE IN ACCORDANCE WITH APPROVED STANDARDS AND SPECIFICATIONS OF THE CITY OF ROANOKE AND THE WESTERN VIRGINIA WATER AUTHORITY.
9. **APPROVED PLANS/CONSTRUCTION CHANGES** - ANY CHANGE OR VARIATION FROM CONSTRUCTION DESIGN AS SHOWN ON THE OFFICIALLY APPROVED PLANS SHALL BE APPROVED BY THE EROSION AND SEDIMENT CONTROL AGENT PRIOR TO SAID CHANGES OR VARIATION IN CONSTRUCTION BEING MADE.
10. **FINAL ACCEPTANCE/CITY** - THE OWNER OR DEVELOPER SHALL FURNISH THE CITY OF ROANOKE'S PLANNING BUILDING AND DEVELOPMENT DEPARTMENT WITH A FINAL CORRECT SET OF AS-BUILT DRAWINGS PRIOR TO FINAL ACCEPTANCE BY THE CITY.

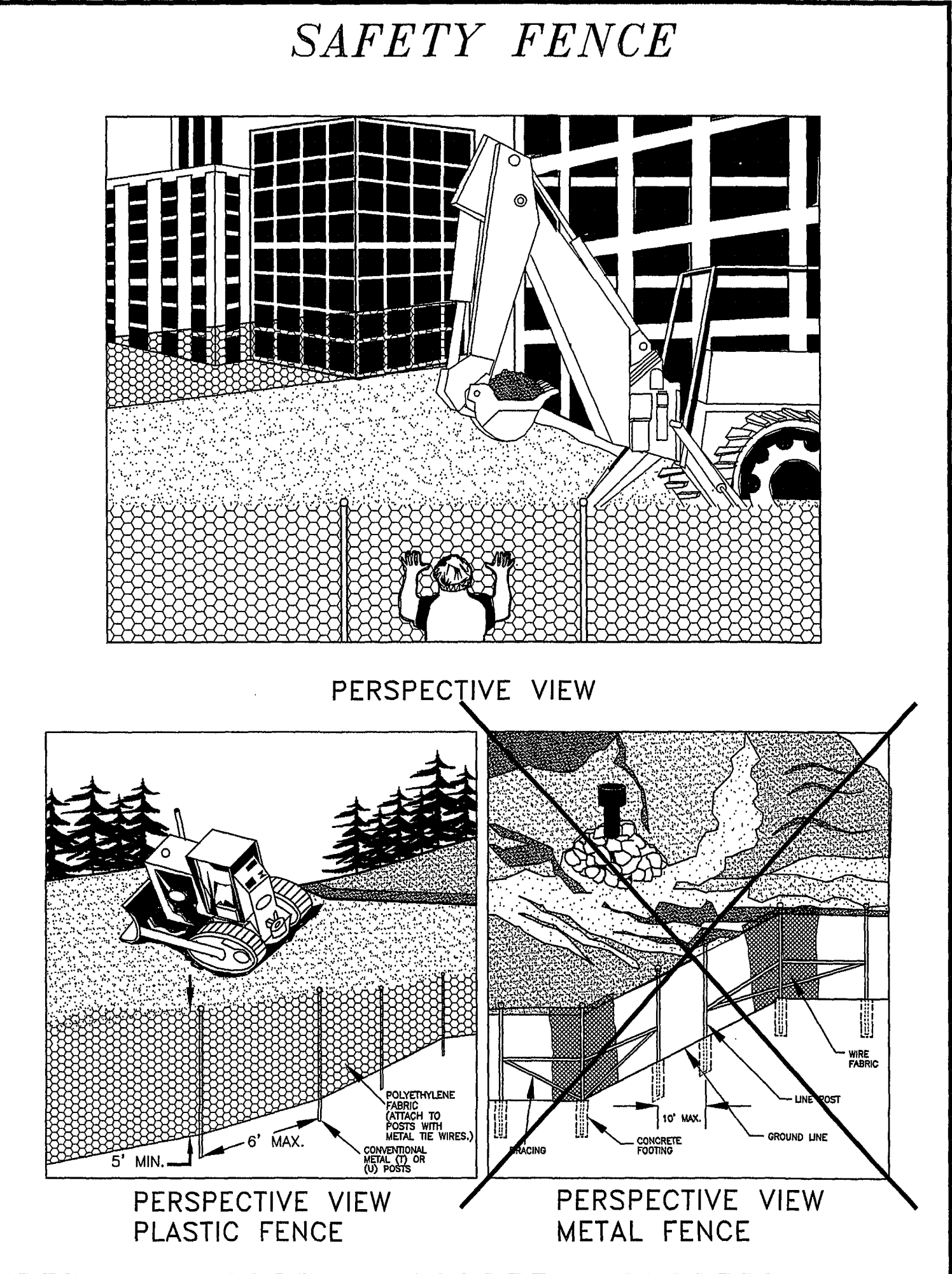
GENERAL PHASING NOTES:

1. CONTRACT TIME: 150 CALENDAR DAYS
THE CONTRACT TIME OF 150 CALENDAR DAYS INCLUDES ALL CONTRACT WORK.

LIQUIDATED DAMAGES: \$500.00 PER DAY
2. THE CONTRACTOR SHALL SUBMIT A DETAILED CPM PROJECT SCHEDULE TO THE ENGINEER A MINIMUM OF TWO (2) WEEKS PRIOR TO THE PRECONSTRUCTION CONFERENCE. THE SCHEDULE SHALL CLEARLY DELINEATE THE PROPOSED WORK AREAS, THE NUMBER OF DAYS ANTICIPATED FOR THE COMPLETION OF EACH AREA, THE CRITICAL PATH, AND THE CRITICAL ACTIVITIES.
3. FOR EACH DAY OR ANY PORTION THEREOF THAT WORK IS NOT COMPLETED AFTER THE CALENDAR DAY LIMIT, LIQUIDATED DAMAGES IN THE AMOUNT OF \$500 PER CALENDAR DAY SHALL BE ASSESSED TO THE CONTRACTOR.
4. THE INTENT OF THE PHASING PLAN IS TO MINIMIZE THE IMPACT OF CONSTRUCTION ON THE OPERATIONS OF THE AIRPORT. VARIATIONS TO THE PHASING PLAN MUST BE SUBMITTED BY THE CONTRACTOR IN WRITING AND APPROVED BY THE AIRPORT.
5. PRIOR TO REOPENING PAVED AREAS TO TRAFFIC, THE AREA SHALL BE THOROUGHLY CLEANED (VACUUMED) OF ALL DEBRIS.
6. CONSTRUCTION BARRICADES SHALL BE PLACED AS INDICATED ON THE PLANS OR AS ORDERED BY THE ENGINEER. BARRICADES SHALL BE PLACED TO MARK ALL OPEN EXCAVATIONS, PAVEMENT DROP-OFFS, OR OTHER HAZARDOUS CONDITIONS ADJACENT TO ACTIVE TAXILANES.
7. TEMPORARY SEDIMENT EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO LAND DISTURBANCE ACTIVITIES IN WORK AREAS AND SHALL BE ADJUSTED AS REQUIRED THROUGHOUT CONSTRUCTION.
8. SOME OF THE WORK ON THIS PROJECT INVOLVES ACCESS THROUGH THE AIRPORT SECURITY FENCE. ANY OPENINGS IN THE FENCE REQUIRED FOR CONSTRUCTION ACCESS SHALL BE MANNED WITH A BADGED AND TRAINED SECURITY GUARD CHECKING BADGES AT ALL TIMES DURING WORK IN THE RESPECTIVE AREA. ALL SECURITY GUARDS SHALL BE PROVIDED BY THE CONTRACTOR. THE CONTRACTOR SHALL ALSO PROVIDE AND MAINTAIN EACH SECURITY GUARD WITH AN OPERABLE PORTABLE PHONE AT ALL TIMES FOR IMMEDIATE NOTIFICATION TO AIRPORT SECURITY OF ANY UNAUTHORIZED ENTRY INTO THE AIRPORT PROPERTY. THESE PROVISIONS SHALL BE NO SEPARATE PAY ITEMS.
9. TEMPORARY STOP WORK ORDERS SHALL BE PERMITTED ONLY WHEN AIRFIELD PAVEMENTS ASSOCIATED WITH THE PROJECT ARE FULLY OPERATIONAL.
11. WRITTEN ADVANCE NOTICE IS REQUIRED FOR ALL WORK WITHIN THE AIRPORT SECURITY FENCE. ADVANCE NOTICE SHALL BE TWO (2) WEEKS, WITH THREE (3) DAY CONFIRMATION AND 24 HOUR CONFIRMATION PRIOR TO START OF WORK. THIS NOTICE IS REQUIRED FOR THE AIRPORT TO FILE NECESSARY NOTICES TO AIRMEN (NOTAMS).
11. REFERENCE SHEET 9 OF 13 "MISCELLANEOUS DETAILS" FOR DETAILS PERTAINING TO THE GENERAL PHASING NOTES.

ELECTRICAL NOTES:

1. COORDINATE (AT LEAST 48 HOURS IN ADVANCE) INTERRUPTION OF SERVICE TO ACTIVE ELECTRICAL CIRCUITS WITH THE OWNER. ANY DAMAGE TO EXISTING AIRPORT CIRCUITS CAUSED BY THE CONTRACTOR'S EQUIPMENT OR PERSONNEL SHALL BE PROMPTLY REPAIRED, BY THE CONTRACTOR, AT THE CONTRACTOR'S EXPENSE.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES PRIOR TO THE BEGINNING OF CONSTRUCTION.
3. THE CONTRACTOR SHALL LOCATE ALL UTILITIES DURING CONSTRUCTION, AND HAND DIG WHEN WITHIN THREE (3) FEET OF ANY KNOWN OR SUSPECTED UNDERGROUND UTILITY.
4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL INVENTORY ALL LIGHTS, FIXTURES, SIGNS, ETC. WITHIN THE PROJECT LIMITS. THE CONTRACTOR SHALL ADVISE THE ENGINEER, IN WRITING, OF ANY DAMAGED LIGHT FIXTURES, SIGNS, OR UTILITIES PRIOR TO THE BEGINNING OF CONSTRUCTION.
5. THE LOCATION OF ALL UTILITIES SHOWN IS APPROXIMATE ONLY AND SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE BEGINNING CONSTRUCTION. NOT ALL UTILITIES ARE NECESSARILY SHOWN.



SOURCE: CONWED PLASTICS
VDOT ROAD AND BRIDGE STANDARDS
VA. DSWC

PLATE. 3.1-1

TEMPORARY SAFETY FENCE
NTS

NOTE:

1. TEMPORARY SAFETY FENCE SHALL BE INSTALLED AT LOCATIONS SHOWN ON THE PLANS AND AS ORDERED BY THE ENGINEER. TEMPORARY SAFETY FENCE SHALL MEET THE FOLLOWING MINIMUM REQUIREMENTS. SUBMIT FENCE SAMPLE TO ENGINEER.

| PHYSICAL PROPERTY | TEST | REQUIREMENTS |
|---------------------------|-----------|-----------------------------------|
| RECOMMENDED COLOR | N/A | "INTERNATIONAL" ORANGE |
| TENSILE YIELD | ASTM D638 | AVERAGE 2000 LBS. PER 4 FT. WIDTH |
| ULTIMATE TENSILE STRENGTH | ASTM D638 | AVERAGE 2000 LBS. PER 4 FT. WIDTH |
| ELONGATION AT BREAK (%) | ASTM D638 | GREATER THAN 1000% |
| CHEMICAL RESISTANCE | N/A | INERT TO MOST CHEMICALS AND ACIDS |

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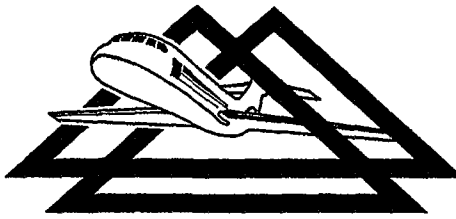
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| 1 | ADDENDUM NO. ONE (1) | PJW | MWK | 7/17/07 | |
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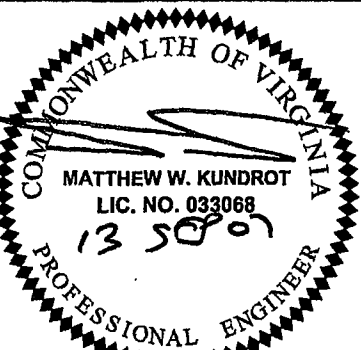
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|--------------------------|------------------|-----------------|------------------|
| CONSTRUCT HANGARS | AIP NO. NON-AIP | | JOB NO. VA 07007 |
| GENERAL NOTES & DETAILS | DRAWN BY: PJW | | SHEET 3 OF 13 |
| | DESIGNED BY: JKB | | |
| ROANOKE REGIONAL AIRPORT | SCALE: NONE | DATE: JUNE 2007 | |