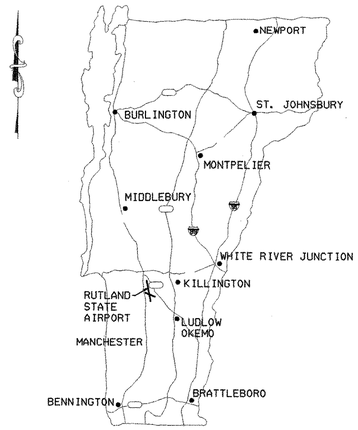
# STATE OF VERMONT
# AGENCY OF TRANSPORTATION

# PROPOSED IMPROVEMENTS
# RUTLAND STATE AIRPORT
# CLARENDON, VERMONT
# AIR 04-3172-CONTRACT-2
# A.I.P. 3-50-0015-
# FEBRUARY 2006

PROJECT DESCRIPTION:

(1) CONSTRUCT AND MARK AIRCRAFT PARKING APRON (3600 SY)
(2) CONSTRUCT, MARK AND SIGN CONNECTING TAXIWAY (30 FEET WIDE)

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**VAOT STANDARD DRAWINGS**

| | |
|---|---|
| AP-11 | 6-1-1994 |
| D-2 | 6-1-1994 |
| D-3 | 6-1-1994 |
| D-4 | 6-1-1994 |
| D-15 | 6-1-1994 |
| E-100 | 1-2-2004 |
| E-121 | 8-8-1995 |

RECORD PLANS

CONTRACTOR: BELDON COMPANY, INC – RUTLAND, VT

RESIDENT ENGINEER: CHRIS BUMP

CONSTRUCTION BEGAN: JUNE 12, 2006

CONSTRUCTION COMPLETE: JULY 19, 2007

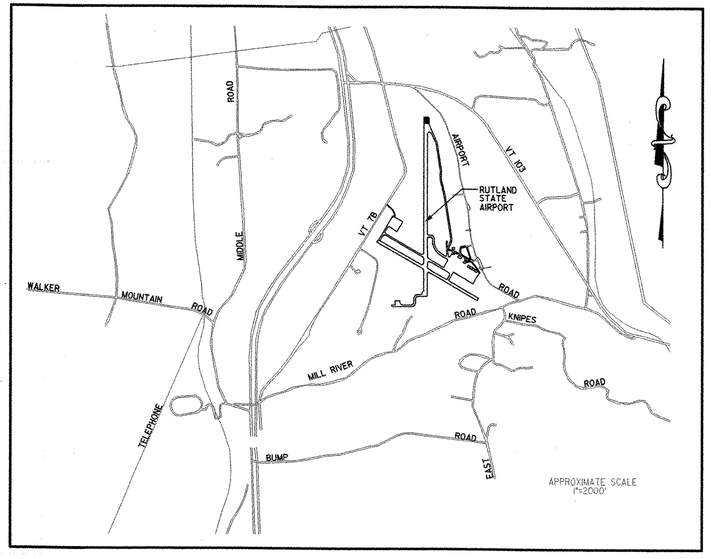
RECORD PLANS BY: CHRIS BUMP & JUDY GILMORE

I HEREBY CERTIFY THAT ALL THE CONSTUCTION REQUIRED BY THIS SET OF DRAWINGS HAS BEEN ACCOMPLISHED AS INDICATED HEREIN.

BY Judy Gilmore FOR RESIDENT ENGINEER

DATE 12 MARCH 2008

NOTE: Any further information concerning final quantities, amounts or other details relative to this project may be found at Central Files in the electronic archives.




LOCATION MAP
NTS

**DESIGN CERTIFICATION**

THESE PLANS AND SPECIFICATIONS HAVE BEEN PREPARED IN ACCORDANCE WITH CURRENT FAA STANDARDS IDENTIFIED IN ADVISORY CIRCULAR CHECKLIST, AC 00-2.12, DATED JULY, 2004. DEVIATIONS FROM FAA STANDARDS ARE DISCUSSED IN THE ENGINEER'S REPORT, DATED FEBRUARY 2005.

J. D. Comis PE
URS CORPORATION

16 February 2006
DATE

**STANDARD NOTE**

THESE PLANS ARE SUBJECT TO SUCH ENGINEERING CHANGES AS MAY BE REQUIRED BY THE FEDERAL AVIATION ADMINISTRATION OR THE DIRECTOR OF OPERATIONS DIVISION.

CONSTRUCTION IS TO CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATION FOR CONSTRUCTION, DATED 2001, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON JANUARY 3, 2001 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

STATE OF VERMONT
GERARD W. D'AMICO
NO. 3017
REGISTERED
PROFESSIONAL ENGINEER

PLANS PREPARED BY:

URS

URS CORPORATION
28 CORPORATE DRIVE, SUITE 200
CLIFTON PARK, NY 12065
PH# (518) 688-0015

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

APPROVED _____ DATE _____

DIRECTOR, OPERATIONS DIVISION

APPROVED _____ DATE 2/21/06

PROJECT MANAGER : SCOTT G. FORTNEY

PROJECT NAME : CLARENDON

PROJECT NUMBER : AIR 04-3172-C2

SHEET 1 OF 27 SHEETS

2/16/2006
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# QUANTITY SHEET

**STATE OF VERMONT**
**AGENCY OF TRANSPORTATION**

## SUMMARY OF ESTIMATED QUANTITIES

| EROSION CONTROL | AVIATION | FULL CE ITEMS | QUANTITIES GRAND TOTAL | UNIT | ITEMS | ITEM NO. | ROUNDING |
|---|---|---|---|---|---|---|---|
| | 12,250 | | 12,250 | CY | COMMON EXCAVATION | 203.15 | |
| | 2,000 | | 2,000 | CY | SOLID ROCK EXCAVATION | 203.16 | |
| | 3,200 | | 3,200 | CY | GRANULAR BORROW (MOD.- P-154) | 203.32 | |
| | 3,600 | | 3,600 | SY | FINE GRADING SUBGRADE | 203.40 | |
| | 320 | | 320 | CY | TRENCH EXCAVATION OF EARTH | 204.20 | |
| | 40 | | 40 | CY | TRENCH EXCAVATION OF ROCK | 204.21 | |
| | 500 | | 500 | SY | DRILLING AND BLASTING OF SOLID ROCK SUBGRADE | 205.20 | |
| | 650 | | 650 | SY | COLD PLANING- BITUMINOUS PAVEMENT | 210.10 | |
| | | | | | | | |
| | 700 | | 700 | CY | SUBBASE OF GRAVEL (MOD. - P-208) | 301.15 | |
| | 250 | | 250 | CY | SUBBASE OF DENSE GRADED CRUSHED STONE | 301.35 | |
| | | | | | | | |
| | 600 | | 600 | TON | BITUMINOUS CONCRETE PAVEMENT (PG 58-34) | 406.25 | |
| | | | | | | | |
| | | | | | | | |
| | 100 | | 100 | LF | JOINT SEALER, HOT POURED | 524.11 | |
| | | | | | | | |
| | 100 | | 100 | LF | 15" CPEP | 601.0910 | |
| | 1 | | 1 | EA | 15" CPEPES | 601.7010 | |
| | 1 | | 1 | EA | PRECAST REINFORCED CONCRETE CATCH BASIN W/ CAST IRON GRATE | 604.20 | |
| | 450 | | 450 | LF | 6" UNDERDRAIN | 605.10 | |
| | 3 | | 3 | EA | UNDERDRAIN FLUSHING BASIN | 605.95 | |
| | 60 | | 60 | HOUR | ALL PURPOSE EXCAVATOR RENTAL, TYPE I | 608.25 | |
| | 70 | | 70 | HOUR | POWER BROOM RENTAL | 608.30 | |
| | 10 | | 10 | MGAL | DUST CONTROL WITH WATER | 609.10 | |
| | 20 | | 20 | CY | STONE FILL, TYPE I | 613.10 | |
| 70 | | | 70 | CY | STONE FILL, TYPE I (MOD.-CONSTRUCTION ENTRANCE) | 613.10 | |
| | | | | | | | |
| 10,000 | | | 10,000 | LF | SNOW FENCE (MOD. - PDF) | 620.70 | |
| | 600 | | 600 | HOUR | FLAGGERS | 630.15 | |
| | | 1 | 1 | LS | FIELD OFFICE - ENGINEERS | 631.10 | |
| | | 1 | 1 | LS | TESTING EQUIPMENT - CONCRETE | 631.16 | |
| | | 1 | 1 | LS | TESTING EQUIPMENT - BITUMINOUS | 631.17 | |
| | | 1 | 1 | LU | FIELD OFFICE - TELEPHONE (NABI) | 631.25 | |
| | 1 | | 1 | LS | MOBILIZATION/DEMOBILIZATION | 635.11 | |
| | | | | | | | |
| | 150 | | 150 | SF | REMOVAL OF EXISTING PAVEMENT MARKINGS | 646.85 | |
| | 3600 | | 3600 | SY | GEOTEXTILE FOR ROADBED SUBGRADE SEPARATOR | 649.11 | |
| | 450 | | 450 | SY | GEOTEXTILE FOR UNDERDRAIN TRENCH LINING | 649.41 | |
| 500 | | | 500 | SY | GEOTEXTILE FOR SILT FENCE | 649.51 | |
| | | | | | | | |
| 215 | | | 215 | LB | SEED | 651.15 | |
| 1500 | | | 1500 | LB | FERTILIZER | 651.18 | |
| 6 | | | 6 | TON | AGRICULTURAL LIMESTONE | 651.20 | |
| 6 | | | 6 | TON | HAY MULCH | 651.25 | |
| 1000 | | | 1000 | CY | TOPSOIL | 651.35 | |
| | | | | | | | |
| 1 | | | 1 | LS | EROSION PREVENTION AND SEDIMENT CONTROL PLAN | 652.10 | |
| 24 | | | 24 | HR | MONITORING EROSION PREVENTION AND SEDIMENT CONTROL PLAN | 652.20 | |
| 1 | | | 1 | LU | MAINTENANCE OF EROSION PREVENTION AND SEDIMENT CONTROL PLAN (NABI) | 652.30 | |
| 5500 | | | 5500 | SY | EROSION MATTING | 654.10 | |
| | | | | | | | |
| | 200 | | 200 | LF | ELECTRICAL CONDUIT (2") (PVC) | 678.21 | |
| | | | | | | | |
| | 9 | | 9 | EA | AIRCRAFT TIE DOWN ANCHOR, TYPE A | 854.07 | |
| | 650 | | 650 | SF | P-620, RUNWAY AND TAXIWAY PAINTING | 864.03 | |
| | 200 | | 200 | LF | L-108, CABLE TRENCH | 864.04 | |
| | 600 | | 600 | LF | L-108, I/C #8 L-824 TYPE C, 5KV | 864.05 | |
| | 500 | | 500 | LF | L-108, #8 COUNTERPOISE WIRE (MOD.-#6) | 864.06 | |
| | 4 | | 4 | EA | L-125, TAXIWAY GUIDANCE SIGN | 864.14 | |

## DETAILED SUMMARY OF QUANTITIES

| QUANTITIES | UNIT | ITEMS |
|---|---|---|

## DETAILED SUMMARY OF QUANTITIES

| QUANTITIES | UNIT | ITEMS |
|---|---|---|

PROJECT NAME: **CLARENDON**
PROJECT NUMBER: **AIR 04-3172-C2**

FILE NAME: 38397036sheet2.dgn
PROJECT MANAGER: S. FORTNEY
DESIGNED BY: R. DEWEY
**QUANTITY SHEET**

PLOT DATE: 2/16/2006
DRAWN BY: R. DEWEY
CHECKED BY: G. D'AMICO
SHEET 2 OF 27

## PROJECT DESCRIPTION

(1) CONSTRUCT AND MARK AIRCRAFT PARKING APRON (3600 SY)
(2) CONSTRUCT, MARK AND SIGN CONNECTING TAXIWAY (30' WIDE).

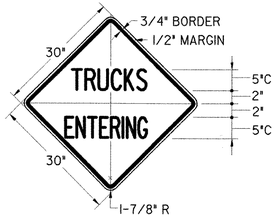
## NOTES

1. TWO (2) TRUCK ENTERING SIGNS TO BE PLACED ON ROUTE 7B APPROXIMATELY 150' AND 75' FROM THE CONTRACTOR'S ENTRANCE TO THE AIRPORT IN EACH DIRECTION. SIGNS TO BE PLACED AT LEAST 8' OFF ROADWAY EDGE OF PAVEMENT. PAYMENT TO BE INCIDENTAL TO ITEM 635.11 MOBILIZATION/ DEMOBILIZATION
2. NORTH REFERS TO THE VERMONT COORDINATE SYSTEM BASED NGS MONUMENTS RUTLAND CBL 100 E AND RUTLAND CBL 650.
3. ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) BASED UPON NGS BENCH MARK RUTLAND CBL 100 E HOLDING THE PUBLISHED ELEVATION OF 783.36.
4. COORDINATES SHIFTED FROM NAD 83 VERMONT STATE PLANE (VSP) U.S. FT. ADD 1,500,000 TO THE X COORDINATE AND 300,000 TO THE Y COORDINATE TO RETURN TO THE VSP COORDINATE SYSTEM

BENCHMARK #1 DISK 650M, 1979
374614.055N, 1521821.019E
ELEVATION 782.54

BENCHMARK #2 DISK 1105, 1987
378552.173N, 1520976.989E
ELEVATION 773.79

BENCHMARK #3 R.R. SPIKE IN PAVEMENT
375740.432N, 1520314.989E
ELEVATION 780.22

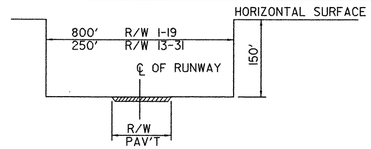



### COLORS

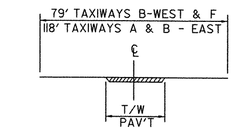
TEXT & BORDER - BLACK (NON-REFLECT.)
BACKGROUND - YELLOW (REFLECT.)

E-121 STANDARD SIGN PLACEMENT
E-100 CONSTRUCTION APPROACH SIGNS

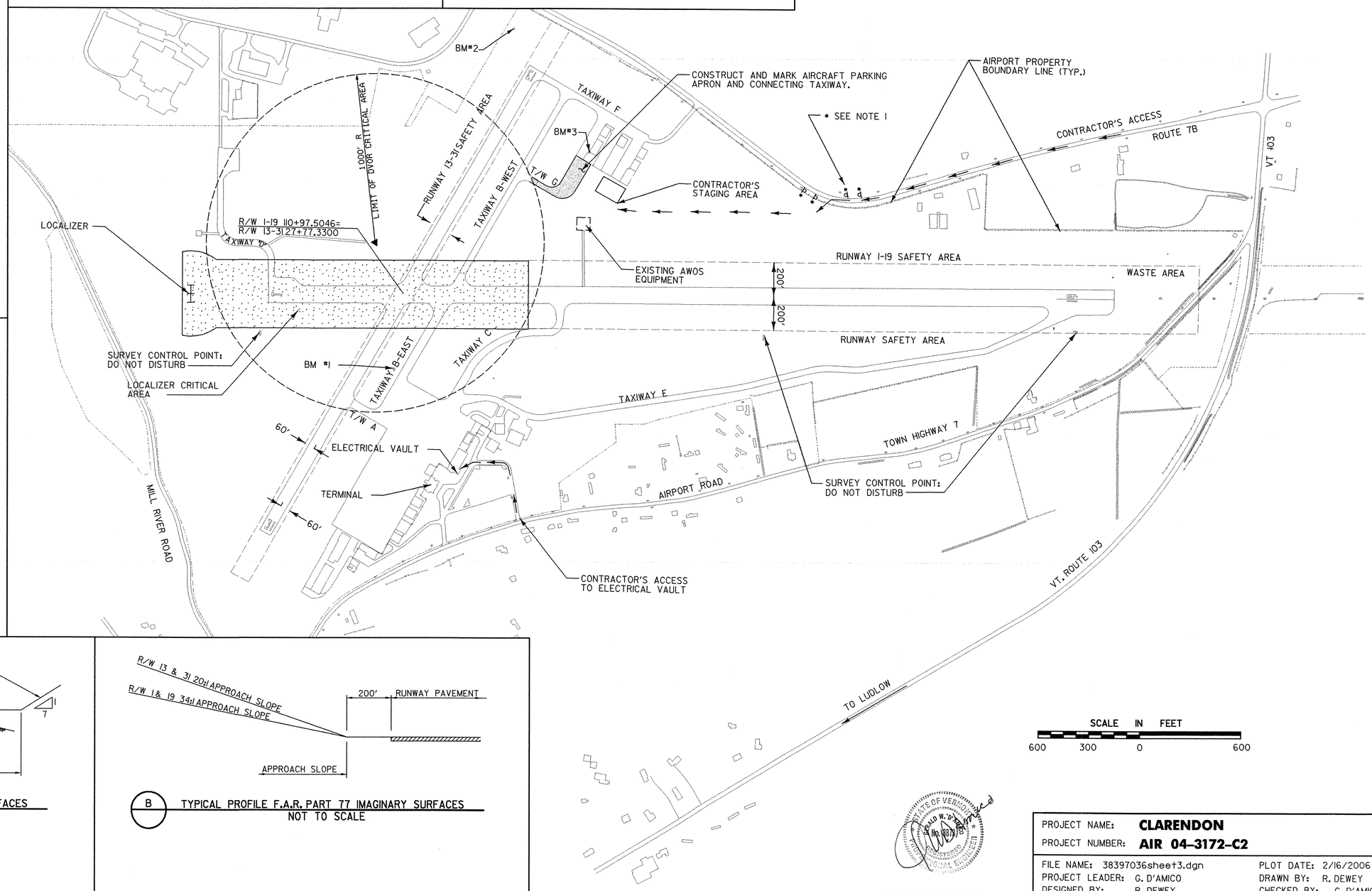
**TRUCKS ENTERING WARNING SIGN**

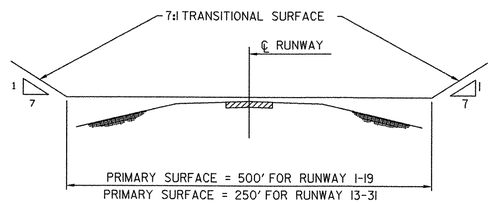



C RUNWAY OBSTACLE FREE ZONE TYPICAL SECTION
SCALE = NONE




D TAXIWAY SAFETY AREA
SCALE = NONE




A TYPICAL SECTION F.A.R. PART 77 IMAGINARY SURFACES
NOT TO SCALE




B TYPICAL PROFILE F.A.R. PART 77 IMAGINARY SURFACES
NOT TO SCALE

**DATUM**
VERTICAL NAVD 88
HORIZONTAL NAD 83

STATE OF VERMONT
DONALD W. D'AMICO
No. 13377
REGISTERED PROFESSIONAL ENGINEER

**AIP 3-50-0015**

PROJECT NAME: **CLARENDON**
PROJECT NUMBER: **AIR 04-3172-C2**

FILE NAME: 38397036sheet3.dgn
PROJECT LEADER: G. D'AMICO
DESIGNED BY: R. DEWEY
**GENERAL PROJECT LAYOUT**
PLOT DATE: 2/16/2006
DRAWN BY: R. DEWEY
CHECKED BY: G. D'AMICO
SHEET 3 OF 27

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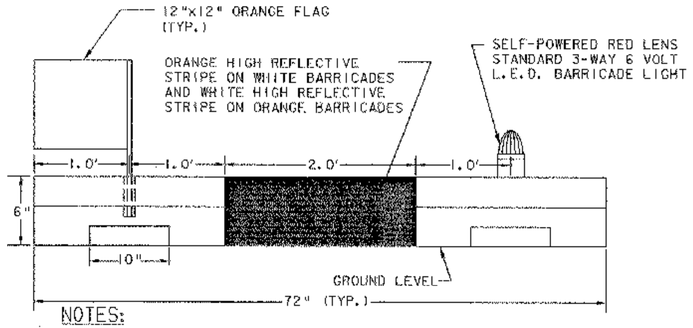



NOTES:

1. BARRICADE CONSTRUCTED OF HIGH IMPACT, UV-RESISTANT POLYETHYLENE.
2. EACH UNIT SHALL INCLUDE RED STANDARD 3-WAY LIGHT, 12" ORANGE FLAG AND 3M HIGH REFLECTIVE ORANGE TAPE.
3. BARRICADES SHALL BE PLACED AS SHOWN UNLESS OTHERWISE DIRECTED BY THE RESIDENT ENGINEER.
4. FOR ADDITIONAL INFORMATION ON CLOSED RUNWAY MARKERS AND LOW PROFILE BARRICADES, REFER TO THE FOLLOWING:
   a. WWW.AIRPORTNAC.COM
   b. WWW.TMCSAFETY.COM
   c. WWW.TRAFFICSAFETYEQUIPMENT.COM
   d. WWW.EMEDCO.COM
   e. WWW.MULTI-BARRIER.COM
5. CONSTRUCTION BARRICADES ARE NOT A SEPARATE PAY ITEM. PAYMENT FOR FURNISHING, MAINTAINING, INSTALLING AND REMOVING WHEN NO LONGER NEEDED ARE TO BE INCIDENTAL TO ITEM 635.11 MOBILIZATION/DEMOBILIZATION.

## LOW PROFILE CONSTRUCTION BARRICADE

NO SCALE

TO BE PLACED WHERE DIRECTED BY THE ENGINEER. SHOWN AS THE SYMBOL "X-X-X" ON PLAN.

(1) BARRICADES REQUIRED DURING EXCAVATION AND PLACING BASE AND SUBBASE COURSE

(2) BARRICADES REQUIRED DURING PAVING OPERATIONS AND INSTALLATION OF TAXIWAY SIGNS

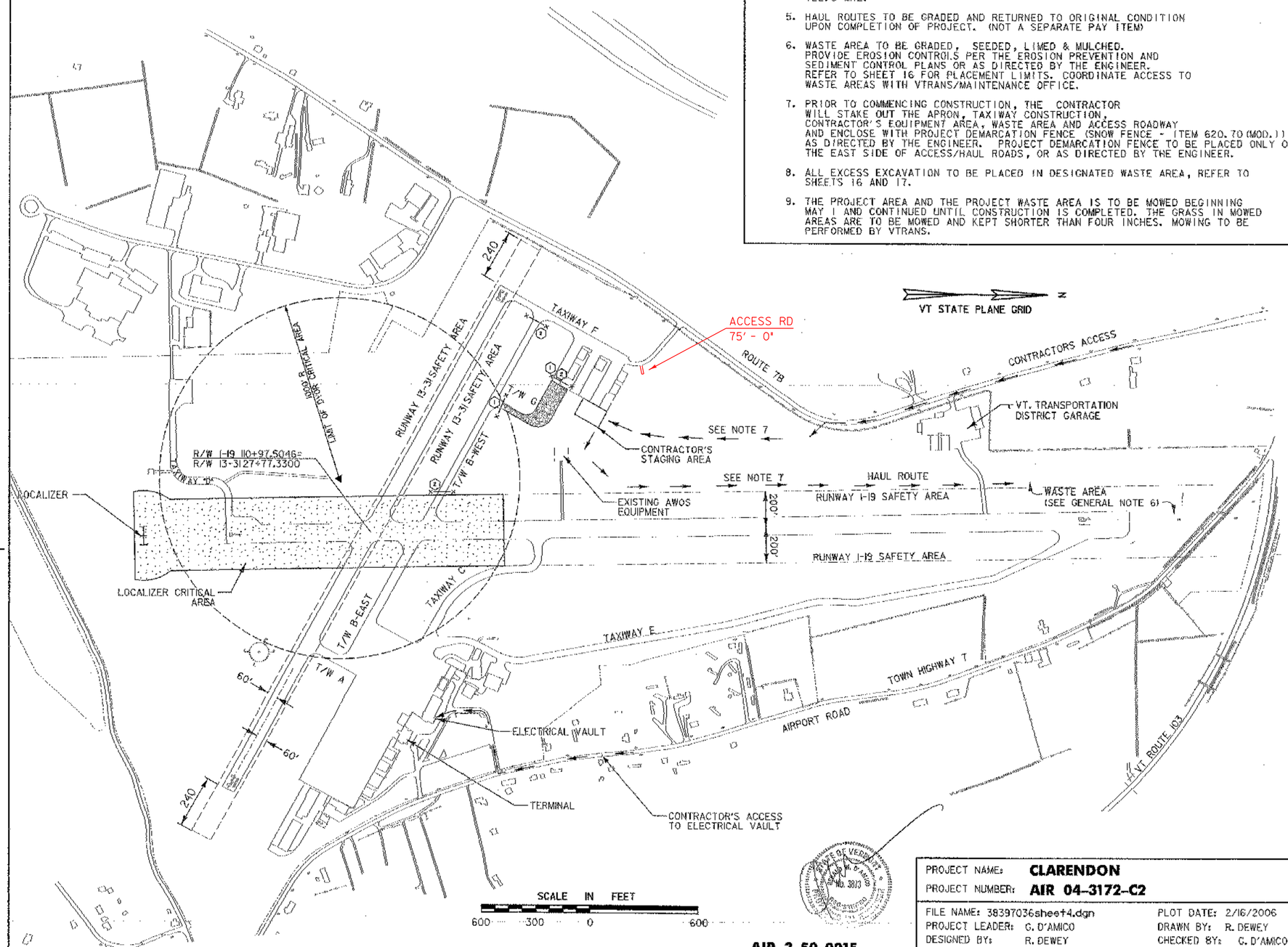
CONSTRUCTION NOTES

1. ALL WORK MUST BE COORDINATED WITH THE RESIDENT ENGINEER AND THE AIRPORT MANAGER. RUNWAY CLOSURES REQUIRE COORDINATION WITH AIRLINE AND NOTIFICATION TO FAA/AIR TRAFFIC. ONLY ONE RUNWAY MAY BE CLOSED AT ANY ONE TIME.
   SEE DETAIL (D/18) FOR CLOSED RUNWAY MARKER.
2. WHENEVER LARGE AIRCRAFT ARE USING RUNWAY 1-19, THE CONTRACTOR WILL BE DIRECTED TO REMOVE MEN AND EQUIPMENT A MINIMUM OF 150 FEET OFF THE RUNWAY EDGE OF PAVEMENT.
3. IF EXCAVATION IS REQUIRED WITHIN THE RUNWAY SAFETY AREAS, THE RUNWAY WILL HAVE TO BE CLOSED AS DIRECTED BY THE ENGINEER. RUNWAY 1-19 MUST BE OPEN WHEN EVER THE AIRLINE OR LARGE AIRCRAFT ARE LANDING OR TAKING OFF. COORDINATE ANY TEMPORARY CLOSURES WITH AIRPORT MANAGEMENT AND THE FBO. REFER TO SHEET 5, GENERAL CONSTRUCTION AND SAFETY NOTES FOR ADDITIONAL REQUIREMENTS.
4. CONSTRUCTION EQUIPMENT WILL NOT BE ALLOWED TO CROSS RUNWAY 1-19, UNLESS APPROVED BY THE AIRPORT MANAGER.
5. COORDINATE WORK ALONG TAXIWAYS "B" AND "F" WITH AIRPORT MANAGER. THESE TAXIWAYS WILL HAVE TO BE CLOSED WHEN WORK IS ONGOING WITHIN THE TAXIWAY SAFETY AREA.
6. WORK WITHIN THE LOCALIZER AND DVOR CRITICAL AREA WILL REQUIRE COORDINATION WITH FAA/FLIGHT PROCEDURES DIVISION. CONTRACTOR TO COORDINATE WORK IN THESE AREAS WITH RESIDENT ENGINEER AND AIRPORT MANAGER.

DATUM
VERTICAL NAVD 88
HORIZONTAL NAD 83

## GENERAL NOTES

1. CONTRACTOR'S MAIN ACCESS TO SITE TO BE FROM ROUTE 7B.
2. CONTRACTOR TO PROVIDE FLAG PERSON AT HAUL/ACCESS ROUTE WHEN CROSSING ACTIVE APRONS OR TAXIWAYS OR WHEN DIRECTED BY THE ENGINEER.
3. FLAGPERSON TO CONTROL ACCESS WITHIN RUNWAY AND TAXIWAY SAFETY AREAS, NO GROUND VEHICLE TRAFFIC WILL BE ALLOWED TO ENTER RUNWAY SAFETY AREAS WHEN AIRCRAFT ARE APPROACHING OR DEPARTING RUNWAY 1-19.
4. FLAGPERSON IS TO HAVE AN AERONAUTICAL RADIO CAPABLE OF TRANSMITTING AND RECEIVING ON UNICOM FREQUENCY 122.8 MHZ.
5. HAUL ROUTES TO BE GRADED AND RETURNED TO ORIGINAL CONDITION UPON COMPLETION OF PROJECT. (NOT A SEPARATE PAY ITEM)
6. WASTE AREA TO BE GRADED, SEEDED, LIMED & MULCHED. PROVIDE EROSION CONTROLS PER THE EROSION PREVENTION AND SEDIMENT CONTROL PLANS OR AS DIRECTED BY THE ENGINEER. REFER TO SHEET 16 FOR PLACEMENT LIMITS. COORDINATE ACCESS TO WASTE AREAS WITH VTRANS/MAINTENANCE OFFICE.
7. PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR WILL STAKE OUT THE APRON, TAXIWAY CONSTRUCTION, CONTRACTOR'S EQUIPMENT AREA, WASTE AREA AND ACCESS ROADWAY AND ENCLOSE WITH PROJECT DEMARCATION FENCE (SNOW FENCE - ITEM 620.70 (MOD.)) AS DIRECTED BY THE ENGINEER. PROJECT DEMARCATION FENCE TO BE PLACED ONLY ON THE EAST SIDE OF ACCESS/HAUL ROADS, OR AS DIRECTED BY THE ENGINEER.
8. ALL EXCESS EXCAVATION TO BE PLACED IN DESIGNATED WASTE AREA, REFER TO SHEETS 16 AND 17.
9. THE PROJECT AREA AND THE PROJECT WASTE AREA IS TO BE MOWED BEGINNING MAY 1 AND CONTINUED UNTIL CONSTRUCTION IS COMPLETED. THE GRASS IN MOWED AREAS ARE TO BE MOWED AND KEPT SHORTER THAN FOUR INCHES. MOWING TO BE PERFORMED BY VTRANS.




AIP 3-50-0015

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|---|---|
| PROJECT NAME: | **CLARENDON** |
| PROJECT NUMBER: | **AIR 04-3172-C2** |
| FILE NAME: 38397036sheet4.dgn | PLOT DATE: 2/16/2006 |
| PROJECT LEADER: G. D'AMICO | DRAWN BY: R. DEWEY |
| DESIGNED BY: R. DEWEY | CHECKED BY: G. D'AMICO |
| **CONSTRUCTION PHASING PLAN** | SHEET 4 OF 27 |

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# GENERAL CONSTRUCTION AND SAFETY NOTES

## GENERAL NOTES

1. THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT PLANS AND SPECIFICATIONS AND ANY RULES, REGULATIONS, STANDARDS OR SPECIFICATIONS REFERENCED THEREIN. THE PROJECT IS SUBJECT TO INSPECTION BY REPRESENTATIVES OF THE VERMONT AGENCY OF TRANSPORTATION (VTRANS), AND THE FEDERAL AVIATION ADMINISTRATION (FAA).

2. THE PROJECT IS TO BE COMPLETED IN CONFORMANCE WITH THE 'CONSTRUCTION PHASING PLANS AND NOTES,' AS CONTAINED IN THE PLANS, AND SHALL BE CONSTRUCTED IN A TIMELY MANNER IN ACCORDANCE WITH THE CONTRACTOR'S APPROVED PROJECT SCHEDULE. THE SCHEDULE SHALL PROVIDE FOR COMPLETION OF THE PHASES AS SHOWN ON THE PLANS AND DESCRIBED IN THE CONTRACT SPECIFICATIONS.

3. THE CONTRACTOR IS EXPECTED TO MEET COMPLETION OF CRITICAL PORTIONS OF THE PROJECT AND OPEN THOSE SEGMENTS TO TRAFFIC BY THE SPECIFIED TIMES AND TO COMPLETE THE ENTIRE PROJECT ON TIME.

4. RUTLAND STATE AIRPORT WILL BE IN OPERATION DURING THE CONSTRUCTION OF THIS PROJECT. COORDINATION OF ALL WORK WITH THE AIRPORT MANAGER & THE PROJECT RESIDENT ENGINEER IS MANDATORY TO MINIMIZE IMPACTS ON AIRPORT OPERATIONS.

5. CONSTRUCTION AND MAINTENANCE OPERATIONS BY OTHERS MAY OCCUR CONCURRENTLY AND AT TIMES IN THE VICINITY OF CONSTRUCTION ASSOCIATED WITH THIS PROJECT. THE CONTRACTOR SHALL COORDINATE HIS OPERATIONS AND COOPERATE WITH MAINTENANCE CREWS AND OTHER CONTRACTORS WORKING ON THE AIRPORT.

6. ACCESS TO THE SITE - THE CONTRACTOR'S ACCESS POINTS TO THE SITE ARE SHOWN ON THE GENERAL PROJECT LAYOUT PLAN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL VEHICLES AND PERSONNEL WHO ENTER THROUGH THESE ACCESS POINTS. THE CONTRACTOR SHALL MAINTAIN A FLAGGER AT EACH GATE BEING USED AT ALL TIMES WHILE CONSTRUCTION IS UNDERWAY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL ACCESS POINTS BEING USED AT THE END OF EACH CONSTRUCTION DAY OR WHEN ACCESS POINTS ARE UNATTENDED.

7. HAUL ROUTES - APPROXIMATE LOCATION OF HAUL ROUTES ON THE AIRPORT SITE ARE SHOWN ON THE PHASING PLANS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE OFF-SITE HAUL ROUTES (STATE OR TOWN HIGHWAYS) WITH THE APPROPRIATE OWNER WHO HAS JURISDICTION OVER THE AFFECTED ROUTE. ON-SITE 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 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 RESPONSIBILITY AND SHALL BE APPROVED BY THE ENGINEER PRIOR TO COMMENCING THE WORK. EXISTING ACCESS ROADS TO AIRPORT FACILITIES SHALL REMAIN OPEN AND MAINTAINED AT ALL TIMES.

8. CONTRACTOR'S STAGING AREAS - AN AREA WILL BE MADE AVAILABLE FOR CONTRACTOR'S MOBILIZATION AND STORAGE. THIS AREA IS SHOWN ON THE GENERAL PROJECT LAYOUT. THE CONTRACTOR'S STAGING AREA SHALL BE GRADED, TOPSOILED, SEEDED, AND MULCHED UPON COMPLETION OF USE, AT THE CONTRACTOR'S EXPENSE.

9. DISPOSAL AREA - WASTE AREAS WILL BE MADE AVAILABLE FOR THE DISPOSAL OF THE CONTRACTOR'S SPOIL MATERIALS. THE MANNER IN WHICH MATERIALS ARE PLACED IN EMBANKMENTS SHALL BE AS SPECIFIED AND APPROVED BY THE ENGINEER. WASTE MATERIALS INCLUDE THOSE ITEMS WHICH ARE A DIRECT RESULT OF CONSTRUCTION. TRASH (I.E. CUPS, CANS, ETC.) SHALL BE DISPOSED OF THROUGH PROPER SANITARY METHODS.

10. SAFETY - THE CONTRACTOR SHALL CONDUCT HIS ACTIVITIES IN A SAFE MANNER AS SPECIFIED IN THE SECTION TITLED, 'SAFETY REQUIREMENTS DURING CONSTRUCTION' ON THIS SHEET.

11. PROTECTION OF AND REPAIR OF DAMAGE TO EXISTING CABLES - LOCATION OF KNOWN EXISTING AIRPORT UNDERGROUND CABLES ARE SHOWN ON THE PLANS AND MUST BE VERIFIED BY THE CONTRACTOR. REPAIR OF CABLES DAMAGED DUE TO CONTRACTOR'S OPERATIONS MUST BE STARTED IMMEDIATELY AND CONTINUED UNTIL COMPLETED. ALL SUCH REPAIRS SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS AND SHALL BE AT THE CONTRACTOR'S EXPENSE. WHEN FAA CABLES ARE DAMAGED, REPAIRS SHALL BE DONE IN ACCORDANCE WITH FAA REQUIREMENTS AND IN THE PRESENCE OF AN FAA REPRESENTATIVE. THE FAA MAY ELECT TO HAVE THE REPAIR PERFORMED BY OTHERS IN WHICH CASE THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAYING THE INCURRED COSTS OF REPAIRS.

12. EXISTING AIRFIELD LIGHTING SYSTEMS - INTERRUPTION OF EXISTING AIRFIELD LIGHTING SYSTEMS NOT INCLUDED IN THIS PROJECT SHALL NOT BE PERMITTED. ALL AIRFIELD LIGHTING CIRCUITS AFFECTED BY THIS PROJECT SHALL BE MAINTAINED BY THE CONTRACTOR DURING OPERATIONAL PERIODS IN ACCORDANCE WITH THE SPECIFICATIONS AND/OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL TEST THE RUNWAY LIGHTING SYSTEM EACH DAY PRIOR TO ENDING WORK TO ENSURE THAT ALL SYSTEMS ARE IN WORKING ORDER.

13. CONSTRUCTION LIMITS - ALL CONTRACTOR VEHICLES AND TRAFFIC (UNLESS OTHERWISE AUTHORIZED) SHALL REMAIN WITHIN THE DESIGNATED CONSTRUCTION LIMITS OR HAUL ROUTES. CONSTRUCTION, STORAGE AND STOCKPILING LIMITS ARE FURTHER DEFINED IN THE SECTION TITLED, 'SAFETY REQUIREMENTS DURING CONSTRUCTION' ON THIS SHEET.

14. PORTABLE FLOODLIGHTING - THE CONTRACTOR SHALL PROVIDE PORTABLE FLOODLIGHTING WHEN REQUIRED FOR CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL PROVIDE SUFFICIENT UNITS SO THAT ALL WORK AREAS ARE ILLUMINATED TO A LEVEL OF 5 HORIZONTAL FOOT CANDLES. THE LIGHTING LEVELS SHALL BE CALCULATED AND MEASURED IN ACCORDANCE WITH THE CURRENT STANDARDS OF THE ILLUMINATION ENGINEERING SOCIETY.

15. THE CONTRACTOR SHALL OBTAIN ALL THE PERMITS AND LICENSES REQUIRED FOR THE PROJECT WORK AT HIS OWN EXPENSE.

16. TOPOGRAPHIC FIELD SURVEYS FOR THIS PROJECT AREA WERE PERFORMED BY URS CORPORATION. IN DECEMBER, 2004.

17. THE HORIZONTAL CONTROL ON THIS PROJECT IS TIED TO THE 1983 AND 1988 NATIONAL GEODETIC HORIZONTAL AND VERTICAL DATUM, RESPECTIVELY.

18. ELECTRICAL WORK MUST BE PERFORMED BY A VERMONT LICENSED MASTER ELECTRICAN OR JOURNEYMAN TYPE-S WITH PROPER ENDORSEMENT. A WORK NOTICE MUST BE OBTAINED AND THE COMPLETED WORK MUST BE IN COMPLIANCE WITH NFPA 70-1999 AND THE 1999 VERMONT ELECTRICAL SAFETY RULES. UPON COMPLETION OF THE WORK, CONTACT THE VERMONT ELECTRICAL INSPECTOR @ 802-786-0071 TO SCHEDULE A FINAL INSPECTION.

## SAFETY REQUIREMENTS DURING CONSTRUCTION

(A) FEDERAL AVIATION ADMINISTRATION (FAA) ADVISORY CIRCULARS (AC), ORDERS AND FEDERAL AVIATION REGULATIONS (FAR).

THE FOLLOWING PUBLICATIONS CONTAIN DEFINITIONS/DESCRIPTIONS OF CRITICAL AIRPORT OPERATING AREAS. THE AREAS DEFINED BELOW PERTAIN TO AIRFIELD SAFETY REQUIREMENTS AND ARE REFERENCED THROUGHOUT THE CONTRACT DOCUMENTS. COPIES OF THESE PUBLICATIONS ARE AVAILABLE THROUGH THE FAA OR CAN BE ORDERED BY MAIL FROM:

U.S. DEPARTMENT OF TRANSPORTATION
SUBSEQUENT DISTRIBUTION OFFICE
ARDMORE EAST BUSINESS CENTER
3341 Q 75TH AVE.
LANDOVER, MD. 20785

AND CAN BE REVIEWED AT THE OFFICES OF THE VERMONT AGENCY OF TRANSPORTATION.

(1) AC 150/5370-2, 'OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION', CURRENT EDITION.

(2) FAR PART 77 'OBJECTS AFFECTING NAVIGABLE AIRSPACE, CURRENT EDITION:

(3) AC 150/5300-13, 'AIRPORT DESIGN', CURRENT EDITION, ESTABLISHES DESIGN, OPERATIONAL, AND MAINTENANCE STANDARDS FOR AIRPORTS. STANDARD TERMS USED IN THE CONTRACT PLANS AND SPECIFICATIONS ARE DEFINED BELOW:

(A) OBSTACLE FREE ZONE (OFZ) - A VOLUME OF SPACE WHICH IS FREE OF ALL FIXED OBJECTS AND CLEAR OF VEHICLES IN THE PROXIMITY OF AN AIRPLANE CONDUCTING AN APPROACH, MISSED APPROACH, LANDING, TAKEOFF, OR DEPARTURE. AN OFZ TYPICAL SECTION IS SHOWN ON THE GENERAL PROJECT LAYOUT PLAN.

(B) RUNWAY PROTECTION ZONE (RPZ): A TRAPEZOIDAL AREA CENTERED ON THE RUNWAY BEGINNING AT A POINT 200 FEET BEYOND THE END OF THE AREA USEABLE FOR TAKEOFF OR LANDING.

(C) OBJECT FREE AREA (OFA): A TWO DIMENSIONAL GROUND AREA SURROUNDING RUNWAYS, TAXIWAYS, AND TAXILANES WHICH IS CLEAR OF OBJECTS EXCEPT FOR OBJECTS WHOSE LOCATION IS FIXED BY FUNCTION.

(D) SAFETY AREA - THE SURFACE ADJACENT TO RUNWAYS, TAXIWAYS, AND TAXILANES OVER WHICH AIRCRAFT SHOULD, IN DRY WEATHER, BE ABLE TO CROSS AT NORMAL SPEEDS WITHOUT INCURRING SIGNIFICANT DAMAGE. A SAFETY AREA IS GRADED, DRAINED AND COMPACTED. IT IS FREE OF ANY HOLES, TRENCHES, BUMPS OR OTHER SIGNIFICANT SURFACE VARIATIONS OR OBJECTS OTHER THAN THOSE WHICH MUST BE THERE BECAUSE OF THEIR ESSENTIAL AERONAUTICAL FUNCTION. THE SAFETY AREA REQUIRES THE CAPABILITY OF SUPPORTING MAINTENANCE VEHICLES AND AIRCRAFT RESCUE AND FIRE FIGHTING VEHICLES UNDER NORMAL (DRY) CONDITIONS.

(B) GENERAL SAFETY REQUIREMENTS

(1) THE CONTRACTOR SHALL ACQUAINT HIS SUPERVISORS AND EMPLOYEES WITH THE AIRPORT ACTIVITY AND OPERATIONS THAT ARE INHERENT TO RUTLAND STATE AIRPORT AND SHALL CONDUCT HIS CONSTRUCTION ACTIVITIES TO CONFORM TO ALL ROUTINE AND EMERGENCY AIR TRAFFIC REQUIREMENTS AND GUIDELINES FOR SAFETY SPECIFIED HEREIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL SAFETY DEVICES AS REQUIRED FOR THE PROTECTION OF HIS PERSONNEL.

(2) PROTECTION OF ALL PERSONS SHALL BE PROVIDED THROUGHOUT THE PROGRESS OF THE WORK. THE WORK SHALL PROCEED IN SUCH A MANNER AS TO PROVIDE SAFE CONDITIONS FOR ALL WORKERS AND AGENCY PERSONNEL. THE SEQUENCE OF OPERATION SHALL BE SUCH THAT MAXIMUM PROTECTION IS AFFORDED TO INSURE THAT PERSONNEL AND WORKERS IN THE WORK AREA ARE NOT SUBJECT TO ANY DANGEROUS CONDITIONS.

(3) DURING PERFORMANCE OF THIS CONTRACT, THE AIRPORT RUNWAYS, TAXIWAYS, AND AIRCRAFT PARKING APRONS SHALL REMAIN IN USE BY AIRCRAFT TO THE MAXIMUM EXTENT POSSIBLE. ALL AIRCRAFT TRAFFIC ON THESE AREAS SHALL HAVE PRIORITY OVER CONTRACTOR'S TRAFFIC. THE OWNER RESERVES THE RIGHT TO ORDER THE CONTRACTOR AT ANY TIME TO VACATE ANY AREA NECESSARY TO MAINTAIN SAFE AIRCRAFT OPERATIONS. USE OF AREAS NEAR THE CONTRACTOR'S WORK WILL BE CONTROLLED TO MINIMIZE DISTURBANCE TO THE CONTRACTOR'S OPERATION. THE CONTRACTOR SHALL NOT ALLOW EMPLOYEES, SUBCONTRACTORS, SUPPLIERS, OR ANY OTHER UNAUTHORIZED PERSON TO ENTER OR REMAIN IN ANY AIRPORT AREA WHICH WOULD BE HAZARDOUS TO PERSONS OR TO AIRCRAFT OPERATIONS.

(4) ALL WORK TO BE PERFORMED WHICH IS CLOSE TO AN ACTIVE RUNWAY, TAXIWAY OR APRON SHALL BE PERFORMED WHEN THE RUNWAY, TAXIWAY OR APRON IS NOT IN USE. SUCH WORK SHALL BE ACCOMPLISHED ONLY WITH PRIOR PERMISSION FROM THE ENGINEER AND AIRPORT MANAGER. REQUESTED CLOSINGS SHALL BE DIRECTED TO THE ENGINEER AT LEAST 48 HOURS IN ADVANCE.

(C) CONSTRUCTION AND FACILITIES MAINTENANCE

(1) THE FOLLOWING ARE CONSIDERED SAFETY PROBLEMS AND/OR HAZARDS:

(A) TRENCHES, HOLES, OR EXCAVATION ON OR ADJACENT TO AN ACTIVE RUNWAY TAXIWAY, TAXIWAY OR APRON OR PUBLIC ROADWAY.

(B) UNMARKED/UNLIGHTED HOLES OR EXCAVATION IN ANY APRON, OPEN TAXIWAY, OPEN TAXILANE, OR RELATED SAFETY AREA.

(C) MOUNDS OR PILES OF EARTH, CONSTRUCTION MATERIALS, TEMPORARY STRUCTURES, OR OTHER OBJECTS IN THE VICINITY OF ANY OPEN RUNWAY, TAXIWAY, TAXILANE, OR IN ANY RELATED SAFETY, APPROACH, OR DEPARTURE AREA.

(D) VEHICLES OR EQUIPMENT, WHETHER OPERATING OR IDLE, ON ANY OPEN RUNWAY, TAXIWAY, TAXILANE, OR IN ANY RELATED SAFETY, APPROACH, OR DEPARTURE AREA.

(E) VEHICLES, EQUIPMENT, EXCAVATION, STOCKPILES, OR OTHER MATERIALS WHICH COULD INTERFERE WITH ELECTRONIC SIGNALS FROM RADIOS OR ELECTRONIC NAVIGATIONAL AIDS (NAVAIDS).

(F) PAVEMENT DROP-OFFS - LIPS (EITHER PERMANENT OR TEMPORARY, WHICH COULD CAUSE DAMAGE TO AIRCRAFT IF CROSSED AT NORMAL OPERATING SPEEDS. THE NORMAL MAXIMUM DROP-OFF OR LIP IS 1-1/2 INCHES.

(G) UNMARKED UTILITY, NAVAID, WEATHER SERVICE, RUNWAY LIGHTING, OR OTHER POWER OR SIGNAL CABLES THAT COULD BE DAMAGED DURING CONSTRUCTION.

(H) OBJECTS, WHETHER OR NOT MARKED OR FLAGGED, OR ACTIVITIES ANYWHERE ON OR IN THE VICINITY OF THE AIRPORT WHICH COULD BE DISTRACTING, CONFUSING, OR ALARMING TO PILOTS DURING AIRCRAFT OPERATIONS.

(I) UNFLAGGED/UNLIGHTED LOW VISIBILITY ITEMS SUCH AS TALL CRANES, DRILLS, AND THE LIKE ANYWHERE IN THE VICINITY OF ACTIVE RUNWAYS, OR IN ANY APPROACH OR DEPARTURE AREA.

(J) MISLEADING OR MALFUNCTIONING OBSTRUCTION LIGHTS OR UNLIGHTED/UNMARKED OBSTRUCTIONS IN THE APPROACH TO ANY ACTIVE RUNWAY.

(K) WATER, SNOW, DIRT, DEBRIS, OR OTHER TRANSIENT ACCUMULATION WHICH TEMPORARILY OBSCURES PAVEMENT MARKINGS OR PAVEMENT EDGES, OR DEROGATES VISIBILITY OF RUNWAY/TAXIWAY MARKINGS OR LIGHTING.

(L) INADEQUATE OR IMPROPER METHODS OF MARKING, BARRICADING, AND LIGHTING OF TEMPORARILY CLOSED PORTIONS OF THE AIRPORT OPERATIONS AREA.

(M) TRASH OR OTHER MATERIALS WITH FOREIGN OBJECT DAMAGE (FOD) POTENTIAL; WHETHER ON RUNWAYS, TAXIWAYS, OR APRONS; OR IN RELATED SAFETY AREAS.

(N) INADEQUATE BARRICADING OR OTHER MARKING WHICH IS PLACED TO SEPARATE CONSTRUCTION OR MAINTENANCE AREAS FROM OPEN AIRCRAFT OPERATING AREAS.

(O) FAILURE TO CONTROL UNAUTHORIZED VEHICLE AND HUMAN ACCESS TO ACTIVE AIRCRAFT OPERATING AREAS.

(P) FAILURE TO MAINTAIN RADIO COMMUNICATION BETWEEN CONSTRUCTION/MAINTENANCE VEHICLES AND RUTLAND UNICOM.

(Q) CONSTRUCTION/MAINTENANCE ACTIVITIES OR MATERIALS WHICH COULD HAMPER THE RESPONSE OF AIRCRAFT RESCUE AND FIRE FIGHTING (ARFF) EQUIPMENT FROM REACHING ALL AIRCRAFT OR ANY PART OF THE RUNWAY/TAXIWAY SYSTEM, RUNWAY APPROACH AND DEPARTURE AREAS AND AIRCRAFT PARKING LOCATIONS.

(R) BIRD ATTRACTANTS ON AIRPORT SUCH AS: EDIBLES (FOOD SCRAPS, ETC.), MISCELLANEOUS TRASH, OR PONDED WATER.

(2) THE CONTRACTOR SHALL CONDUCT ACTIVITIES SO AS NOT TO VIOLATE ANY SAFETY STANDARDS CONTAINED HEREIN. THE CONTRACTOR SHALL INSPECT ALL CONSTRUCTION AND STORAGE AREAS AS OFTEN AS NECESSARY AND PROMPTLY TAKE ALL STEPS NECESSARY TO PREVENT/REMEDY ANY UNSAFE OR POTENTIALLY UNSAFE CONDITIONS OR ACTIVITIES DISCOVERED.

(3) VTRANS WILL BE RESPONSIBLE FOR ISSUING APPROPRIATE NOTICE TO AIRMEN (NOTAM) CONCERNING CONSTRUCTION ACTIVITY ON THE AIRFIELD.

(D) MOTORIZED VEHICLES

THIS PROJECT INCLUDES WORK WITHIN THE AIRCRAFT OPERATIONS AREA (AOA). ONLY THOSE VEHICLES AND EQUIPMENT NECESSARY FOR THE WORK TO PROGRESS MAY ENTER THE A.O.A. ALL PERMITTED VEHICLES SHALL BE EQUIPPED WITH A FLASHING AMBER (YELLOW) DOME-TYPE LIGHT, MOUNTED ON TOP OF THE VEHICLE AND OF SUCH INTENSITY TO CONFORM TO LOCAL CODES FOR MAINTENANCE AND EMERGENCY VEHICLES. ALL VEHICLES OPERATING WITHIN THE AIRFIELD BOUNDARY SHALL BE IDENTIFIED WITH A SIGN ON EACH SIDE OF THE VEHICLE BEARING THE CONTRACTOR'S NAME IN 12-INCH MINIMUM LETTER HEIGHT.
VEHICLES MAKING ONLY OCCASIONAL VISITS TO THE JOB SITE ARE EXEMPT FROM THE IDENTIFICATION REQUIREMENTS CONTAINED HEREIN ABOVE PROVIDED THAT THEY ARE ESCORTED INTO, THROUGH, AND OUT OF THE AIRPORT AREA BY A PROPERLY IDENTIFIED VEHICLE.

(E) RADIO COMMUNICATIONS

RADIO COMMUNICATIONS ARE REQUIRED BETWEEN THE CONTRACTOR'S REPRESENTATIVE AND RUTLAND UNICOM. RADIO CONTACT IS REQUIRED AT ALL TIMES WHILE THE CONTRACTOR HAS PERSONNEL AND EQUIPMENT ON THE PROJECT SITE AND WHILE THEY ARE IN AN ACTIVE AIR OPERATIONS AREA (AOA) OF THE AIRPORT. RADIOS SHALL BE FURNISHED BY THE CONTRACTOR AND SHALL BE CAPABLE OF TRANSMITTING AND RECEIVING AT A GROUND CONTROL FREQUENCY OF 122.8 MHZ. THIS FREQUENCY IS TO BE UTILIZED WHEN CROSSING ACTIVE FACILITIES. SUFFICIENT RADIOS SHALL BE ON SITE AND OPERATING AT ALL TIMES SO THAT INSTRUCTIONS OR COMMUNICATIONS MAY BE DISPATCHED TO ALL CREWS AND/OR EQUIPMENT WORKING IN AN ACTIVE AOA.

(F) DEBRIS

DEBRIS, WASTE, AND LOOSE MATERIAL (INCLUDING DUST AND DIRT) CAPABLE OF CAUSING DAMAGE TO AIRCRAFT LANDING GEAR OR PROPELLERS, OR BEING INGESTED IN JET ENGINES, SHALL NOT BE ALLOWED ON ACTIVE AIRCRAFT MOVEMENT AREAS OR ADJACENT GRASSED AREAS. MATERIALS OBSERVED TO BE WITHIN THESE AREAS SHALL BE REMOVED IMMEDIATELY BY THE CONTRACTOR. THE CONTRACTOR SHALL BE REQUIRED TO HAVE A SWEEPING MACHINE AND OPERATOR ON SITE AND READY AT ALL TIMES DURING CONSTRUCTION ACTIVITY. WHERE TRAVEL ON OR ACROSS RUNWAYS, RAMP AREAS, TAXIWAYS, OR AIRCRAFT APRONS IS REQUIRED, THE CONTRACTOR SHALL PROVIDE ADEQUATE PERSONNEL AND EQUIPMENT TO KEEP SUCH SURFACES CLEAR OF DEBRIS.

(G) FLAGGER

IN ACCORDANCE WITH THE SPECIFICATIONS, THE CONTRACTOR SHALL FURNISH FLAGGERS AS NECESSARY TO CONTROL HIS TRAFFIC ONTO THE SITE, AND AT LOCATIONS ON THE AIRFIELD WHERE AIRCRAFT AND CONSTRUCTION EQUIPMENT CONFLICT. WHEN DIRECTED BY THE ENGINEER THE CONTRACTOR SHALL STATION A FLAGGER AT THE CONSTRUCTION ENTRANCE TO PREVENT INADVERTENT ACCESS BY UN-AUTHORIZED VEHICLES AND INDIVIDUALS.

ALL CONTRACTOR VEHICLES THAT ARE REQUIRED TO CROSS ACTIVE RUNWAYS, RUNWAY SAFETY AREAS, TAXIWAYS AND APRONS SHALL DO SO UNDER THE DIRECT CONTROL OF A COMPETENT FLAGMAN WHO IS IN DIRECT RADIO CONTACT WITH GROUND CONTROL. ALL AIRCRAFT TRAFFIC ON RUNWAYS, TAXIWAYS, AND APRONS SHALL HAVE PRIORITY OVER CONTRACTOR'S TRAFFIC. AT NO TIME SHALL THE CONTRACTOR'S VEHICLES OR PERSONNEL BE ALLOWED TO ENTER OR CROSS ACTIVE RUNWAYS OR CLEAR ZONES WITHOUT PROPER AUTHORIZATION.

(H) MISCELLANEOUS

(1) OPEN FLAME, WELDING OR TORCH CUTTING OPERATIONS ARE PROHIBITED UNLESS ADEQUATE FIRE AND SAFETY PRECAUTIONS HAVE BEEN TAKEN AND THE PROCEDURE PREVIOUSLY APPROVED BY THE ENGINEER.

(2) EQUIPMENT AND STOCKPILED MATERIAL SHALL BE CONSTRAINED IN A MANNER TO PREVENT MOVEMENT RESULTING FROM AIRCRAFT JET BLAST OR WIND CONDITIONS IN EXCESS OF 10 KNOTS.

(3) THE CONTRACTOR SHALL PROVIDE LOW PROFILE CONSTRUCTION BARRICADES WITH FLASHING RED LIGHTS AS SHOWN ON THE DRAWINGS TO DELINEATE THE WORK AREAS WHEN CLOSED TO AIRPORT TRAFFIC. OPEN TRENCHES, EXCAVATIONS AND STOCKPILED MATERIAL LOCATED IN THE AOA SHALL BE PROMINENTLY MARKED WITH ORANGE FLAGS AND LIGHTED BY APPROVED LIGHT UNITS DURING HOURS OF LIMITED VISIBILITY AND DARKNESS.

(4) ALL MATERIALS AND EQUIPMENT WHEN NOT IN USE SHALL BE PLACED IN APPROVED AREAS WHERE THEY WILL NOT CONSTITUTE A HAZARD TO AIRCRAFT OPERATIONS AND NOT PENETRATE CLEARANCE SURFACES. EQUIPMENT SHALL BE PARKED AT THE STAGING AREA WHEN NOT IN USE.

(5) MAXIMUM EQUIPMENT HEIGHT SHALL NOT EXCEED 15 FEET UNLESS PRIOR APPROVAL IS OBTAINED FROM THE ENGINEER.

(6) UPON COMPLETION OF ANY STAGE/PHASE OF WORK, THE ENGINEER WILL ARRANGE A PHYSICAL INSPECTION OF THE AREA WITH AIRPORT OPERATIONS PERSONNEL PRIOR TO OPENING ANY PORTION OF A RUNWAY, RAMP AREA OR AIRPORT ROADWAY THAT HAS BEEN CLOSED FOR WORK OR USED FOR A CROSSING POINT OR HAUL ROUTE BY THE CONTRACTOR.

(7) ENTRANCE TO THE AIRFIELD IS SUBJECT TO SECURITY REQUIREMENTS.

(8) THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH A CURRENT LIST OF ALL EMPLOYEES WORKING ON THE AIRPORT. THE LIST SHALL BE MAINTAINED CURRENT BY THE CONTRACTOR AND APPLIES TO ALL SUBCONTRACTORS.

(9) EXCEPT FOR EMERGENCIES, ALL CONTACT WITH AIRPORT PERSONNEL SHALL BE MADE THROUGH THE RESIDENT ENGINEER. FOR EMERGENCIES INVOLVING SAFETY (INJURIES, FIRES, SECURITY BREACHES, ETC.) THE CONTRACTOR SHALL MAKE DIRECT CONTACT WITH AIRPORT OPERATIONS FOLLOWED BY NOTIFICATION TO THE RESIDENT ENGINEER AS SOON AS POSSIBLE.

(10) 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.

(11) IN ACCORDANCE WITH THE SPECIFICATIONS, FEDERAL WAGE RATES SHALL BE POSTED OUTSIDE THE SITE FIELD OFFICE IN A WEATHERPROOF ENCLOSURE.

(I) UTILITIES

(1) UNDERGROUND UTILITIES: THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE CONSIDERED TO BE ONLY ESTIMATED LOCATIONS. ALL UTILITY LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCING CONSTRUCTION. IN THE EVENT ANY UTILITY IS DAMAGED THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAYING FOR INCURRED COSTS OF REPAIRS.

(2) UTILITIES NOTIFICATION: AT LEAST TWO WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION OPERATIONS IN AN AREA WHICH MAY INVOLVE UNDERGROUND UTILITY FACILITIES, THE CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER, AND THE OWNER OF EACH UNDERGROUND UTILITY FACILITY AFFECTED.

(3) THE FOLLOWING IS A LIST OF COMPANIES WITH POSSIBLE UTILITIES WITHIN THE CONSTRUCTION LIMITS.

| UTILITY | PHONE NUMBER |
|---|---|
| DIGSAFE | 1-888-DIG-SAFE |
| CVPS | 1-800-649-2877 |
| VTRANS - AIRPORT MANAGER | 1-802-786-8881 |
| FAA/FACILITIES | 1-802-951-6704 |

DATUM
VERTICAL NAVD 88
HORIZONTAL NAD 83

AIP 3-50-0015

PROJECT NAME: **CLARENDON**
PROJECT NUMBER: **AIR 04-3172-C2**

FILE NAME: 38397036sheet5.dgn
PROJECT LEADER: G. D'AMICO
DESIGNED BY: R. DEWEY
**GENERAL CONSTRUCTION & SAFETY NOTES**
PLOT DATE: 2/16/2006
DRAWN BY: R. DEWEY
CHECKED BY: G. D'AMICO
SHEET 5 OF 27

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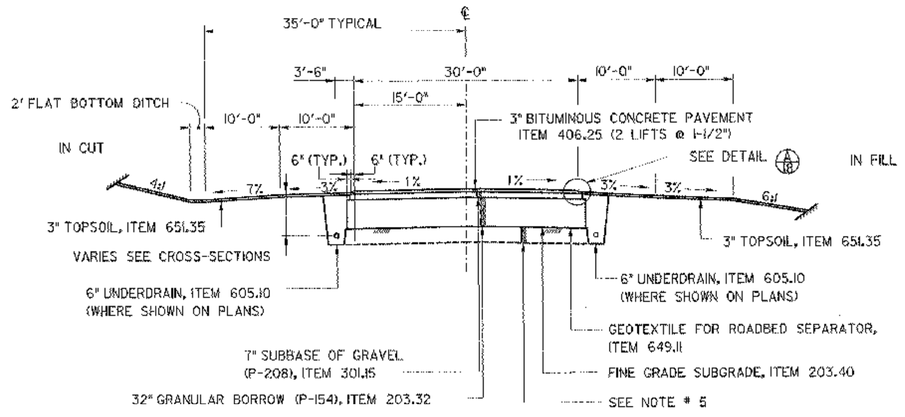
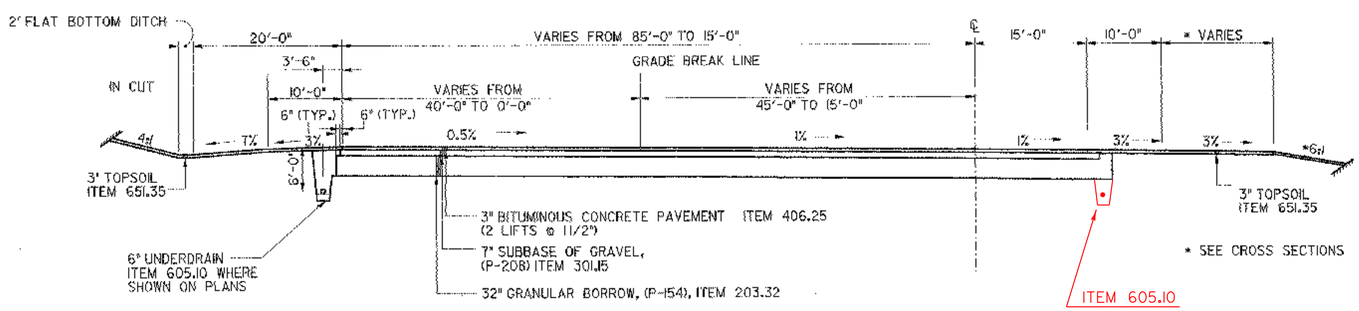



## TAXIWAY "G" TYPICAL

STA. 606+05.35 TO 607+05.75
N.T.S.




## APRON EXPANSION AREA

STA. 603+05.34 TO 606+05.35
N.T.S.

ITEM 605.10
6" UNDERDRAIN
2.5' X 2.5' TRENCH
STA 606+07 - C.B. @ STA 603+15.91, 35.81' RT
(INCLUDE 2 FLUSHING BASINS @ STA 606+07
EDGE OF PAVEMENT). CHANGE ORDER #1

## GENERAL NOTES

1. SUBGRADE UNDER AREAS TO BE PAVED SHALL BE COMPACTED TO 100% DENSITY, AASHTO T-99, ASTM D-698
2. BITUMINOUS TACK COAT (EMULSIFIED ASPHALT, RS-1) SHALL BE APPLIED BETWEEN LIFTS OF BITUMINOUS CONCRETE PAVEMENT AT A RATE OF 0.01 TO 0.03 GAL/SY WHEN DIRECTED BY THE ENGINEER (NOT A SEPARATE PAY ITEM).
3. SEED, ITEM 651.15, SHALL BE APPLIED AS DIRECTED BY ENGINEER. THE SEED MIXTURE SHALL CONFORM TO:

| % WT | LBS / A | | PUR % | GERM |
|---|---|---|---|---|
| 20 | 14 | TALL FESCUE (K-31) | 95 | 85 |
| 10 | 7 | PERENNIAL RYE GRASS | 95 | 85 |
| 1 | 1 | MEDIUM RED CLOVER | 95 | 85 |
| 2 | 2 | EMPIRE BIRDS FOOT TREFOIL | 98 | 85 |
| 22 | 15 | CLIMAX TIMOTHY | 95 | 85 |
| 25 | 17 | CREEPING RED FESCUE | 98 | 85 |
| 10 | 7 | ANNUAL RYE | 95 | 85 |
| 10 | 7 | ORCHARD GRASS | 95 | 85 |
| 100 | 70 | | | |

THE SEED MIXTURE SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS WEED SEED.

4. FERTILIZER, ITEM 651.18, FORMULA 10-20-10 SHALL BE USED WITH SEED. ITEM 651.15, SHALL BE APPLIED AT THE RATE OF 500 LBS / ACRE.

   AGRICULTURAL LIMESTONE, ITEM 651.20, SHALL BE APPLIED AT THE RATE OF 2 TONS/ACRE OR AS DIRECTED BY ENGINEER.

   HAY MULCH, ITEM 651.25, SHALL BE PLACED ON EARTH SLOPES AT THE RATE OF 2 TONS/ACRE.

   TOPSOIL, ITEM 651.35, SHALL BE USED WITH SEED, ITEM 651.15, AS DIRECTED BY THE ENGINEER.

5. UNDERCUT AND BACKFILL WITH SUBBASE OF DENSE GRADED CRUSHED STONE, ITEM 301.35 WHEN DIRECTED BY THE ENGINEER.
6. ALLOWABLE THICKNESS TOLERANCES:

| | |
|---|---|
| SUBGRADE | ± 1/2" |
| CONTROLLED MATERIAL | ± 1/2" |
| PAVEMENT | ± 3/16" |
| BASE COURSE | ± 1/2" |

7. PAY LIMITS FOR SEED, LIME, FERTILIZER & MULCH ARE EQUAL TO THE APPROVED CONSTRUCTION LIMITS.
8. GRANULAR BORROW (P-154), ITEM 203.32, SHALL LIMIT % PASSING .02MM TO 3 % (NON FROST SUSCEPTIBLE). THE COMPACTION REQUIREMENT IS 100% DENSITY, ASTM D 698.

DATUM
VERTICAL NAVD 88
HORIZONTAL NAD 83

AIP 3-50-0015

PROJECT NAME: **CLARENDON**
PROJECT NUMBER: **AIR 04-3172-C2**

FILE NAME: 38397036sheet6.dgn
PROJECT LEADER: G. D'AMICO
DESIGNED BY: R. DEWEY
**TYPICAL SECTIONS**
PLOT DATE: 2/16/2006
DRAWN BY: R. DEWEY
CHECKED BY: G. D'AMICO
SHEET 6 OF 27

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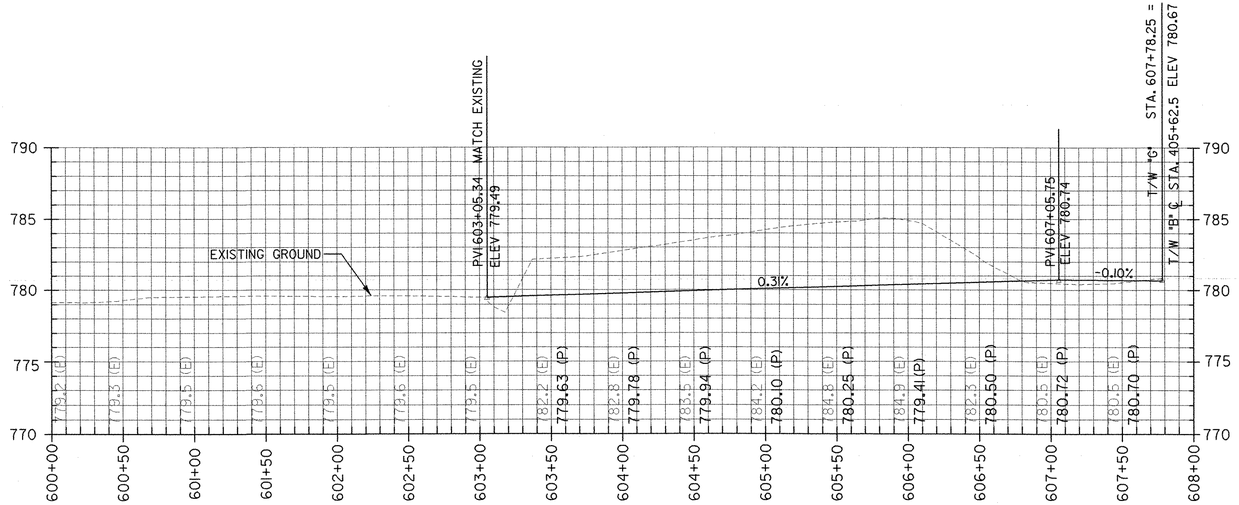
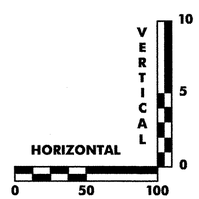
NOTES

1. SEE TAXIWAY INTERSECTION GRADING PLAN (SHEET 10) FOR MORE DETAILS.




## TAXIWAY G PROFILE

(E) - EXISTING
(P) - PROPOSED



AIP 3-50-0015

| DATUM | |
|---|---|
| VERTICAL | NAVD 88 |
| HORIZONTAL | NAD 83 |

PROJECT NAME: **CLARENDON**
PROJECT NUMBER: **AIR 04-3172-C2**

FILE NAME: 38397036sheet7.dgn
PROJECT LEADER: G. D'AMICO
DESIGNED BY: R. DEWEY
**TAXIWAY G PROFILE**

PLOT DATE: 2/16/2006
DRAWN BY: R. DEWEY
CHECKED BY: G. D'AMICO
SHEET 7 OF 27

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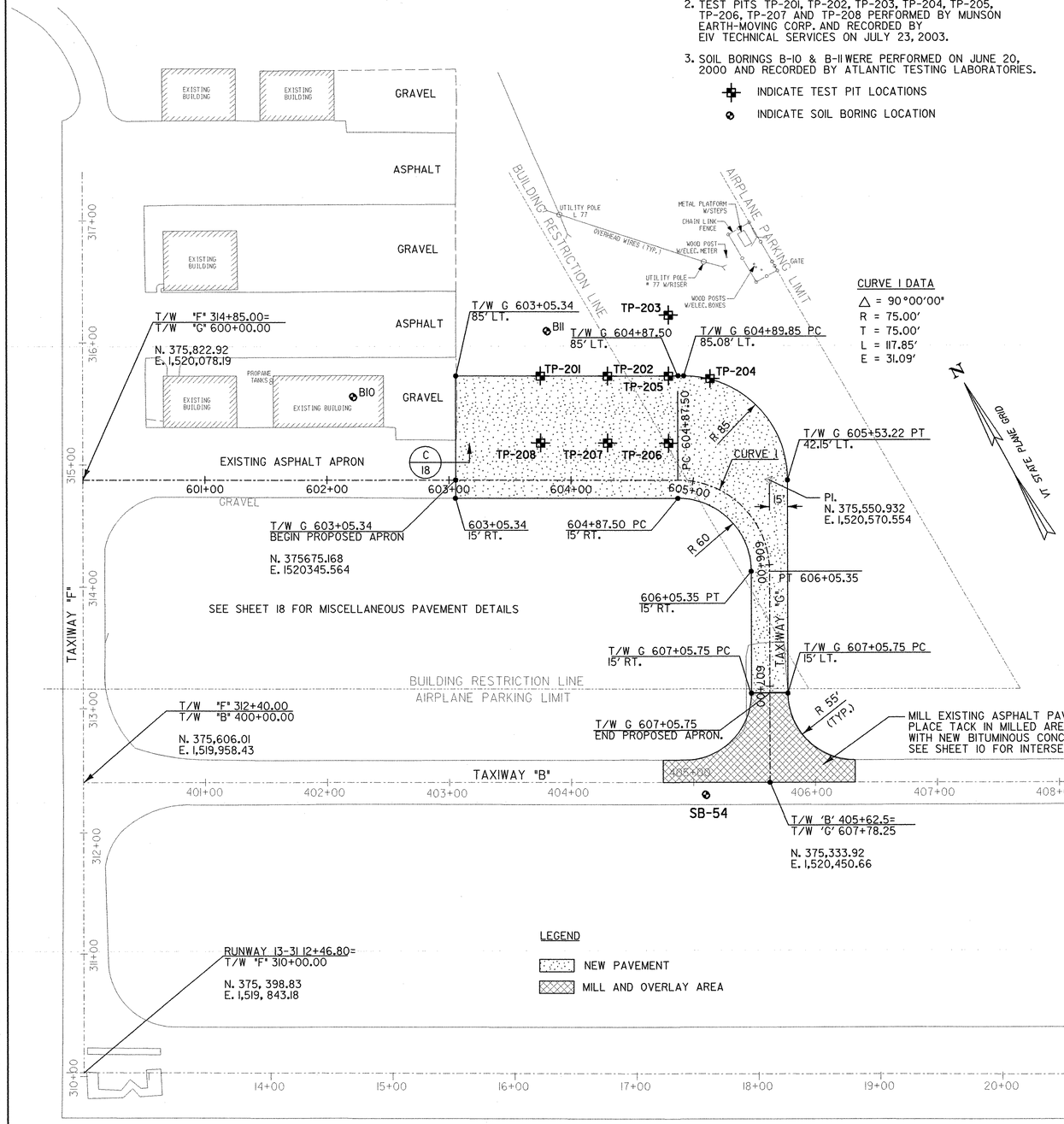
NOTES:

1. SOIL BORING 54 WAS TAKEN ON 23, APRIL 23, 2001 BY GREEN MOUNTAIN BORINGS.
2. TEST PITS TP-201, TP-202, TP-203, TP-204, TP-205, TP-206, TP-207 AND TP-208 PERFORMED BY MUNSON EARTH-MOVING CORP. AND RECORDED BY EIV TECHNICAL SERVICES ON JULY 23, 2003.
3. SOIL BORINGS B-10 & B-11 WERE PERFORMED ON JUNE 20, 2000 AND RECORDED BY ATLANTIC TESTING LABORATORIES.

⊕ INDICATE TEST PIT LOCATIONS

◇ INDICATE SOIL BORING LOCATION




CURVE 1 DATA

△ = 90°00'00"
R = 75.00'
T = 75.00'
L = 117.85'
E = 31.09'

LEGEND

NEW PAVEMENT

MILL AND OVERLAY AREA

0 50 100

SCALE IN FEET

## TEST PIT DATA

**TP-201**
85' LT.
603+75

0 — 3" TOPSOIL
DARK BROWN VERY FINE STONY LOAM, HIGH CONCENTRATIONS OF SILT, NO WATER BUT LARGE BOULDERS 3"-108"
108"-117" FRANGIBLE ROCK
117" — SOLID ROCK

**TP-202**
85' LT
604+30

0 — 3" TOPSOIL
DARK BROWN VERY FINE STONY LOAM, HIGH CONCENTRATIONS OF SILT, NO WATER BUT LARGE BOULDERS 3"-108"
117" — FRANGIBLE ROCK

**TP-203**
135'
604+80

0 — 3" TOPSOIL
DARK BROWN VERY FINE STONY LOAM, HIGH CONCENTRATIONS OF SILT, NO WATER BUT LARGE BOULDERS 3"-108"
108" — FRANGIBLE BUT SOLID ROCK

**TP-204**
85'
605+00

0 — 3" TOPSOIL
DARK BROWN VERY FINE STONY LOAM, HIGH CONCENTRATIONS OF SILT, NO WATER BUT LARGE BOULDERS 3"-84"
FRANGIBLE ROCK 84"-108"
108" — SOLID ROCK

**TP-205**
85' LT.
604+80

0 — 3" TOPSOIL
DARK BROWN VERY FINE STONY LOAM, HIGH CONCENTRATIONS OF SILT, NO WATER ABUNDANCE OF COBBLES 3"-84"
FRANGIBLE ROCK 84"-120"
120" — SOLID ROCK

**TP-206**
30' LT
604+80

0 — 3" TOPSOIL
DARK BROWN VERY FINE STONY LOAM, HIGH CONCENTRATIONS OF SILT, NO WATER BUT LARGE BOULDERS 3"-84"
FRANGIBLE ROCK 84"-120"
120" — SOLID ROCK

**TP-207**
30'
604+30

0 — 3" TOPSOIL
DARK BROWN VERY FINE STONY LOAM, HIGH CONCENTRATIONS OF SILT, LARGE COBBLES
42" — SOLID ROCK

**TP-208**
30'
603+75

0 — 3" TOPSOIL
DARK BROWN VERY FINE STONY LOAM, HIGH CONCENTRATIONS OF SILT, NO WATER BUT LARGE BOULDERS
FRANGIBLE ROCK
84" — SOLID ROCK

**SB-54**
10' RT.
405+10

0'
2' 4/3/5/7
3.5' REFUSAL

**B-10**
220' RT.
'F' 315+55

7" — TOPSOIL & ORGANIC MATERIAL
2' — BROWN SILT, SOME SILTS, CLAY & SANDS, TRACE OF GRAVEL (WET NON-PLASTIC)
(SATURATED NON PLASTIC)
COBBLES (7'-12')
12'

**B-11**
380' RT.
'F' 316+10

7" — TOPSOIL & ORGANIC MATERIAL
3.6' — BROWN SILT, SOME SAND, TRACE OF GRAVEL (MOIST TO WET)
BROWN SILT, SOME SAND, LITTLE MF GRAVEL (SATURATED, NON PLASTIC)
SOME ROCK FRAGMENTS
12'

**DATUM**

VERTICAL NAVD 88

HORIZONTAL NAD 83

AIP 3-50-0015

PROJECT NAME: **CLARENDON**

PROJECT NUMBER: **AIR 04-3172-C2**

FILE NAME: 38397036sheet8.dgn
PROJECT LEADER: G. D'AMICO
DESIGNED BY: R. DEWEY
**PAVING & GEOMETRIC LAYOUT PLAN**

PLOT DATE: 2/16/2006
DRAWN BY: R. DEWEY
CHECKED BY: G. D'AMICO
SHEET 8 OF 27

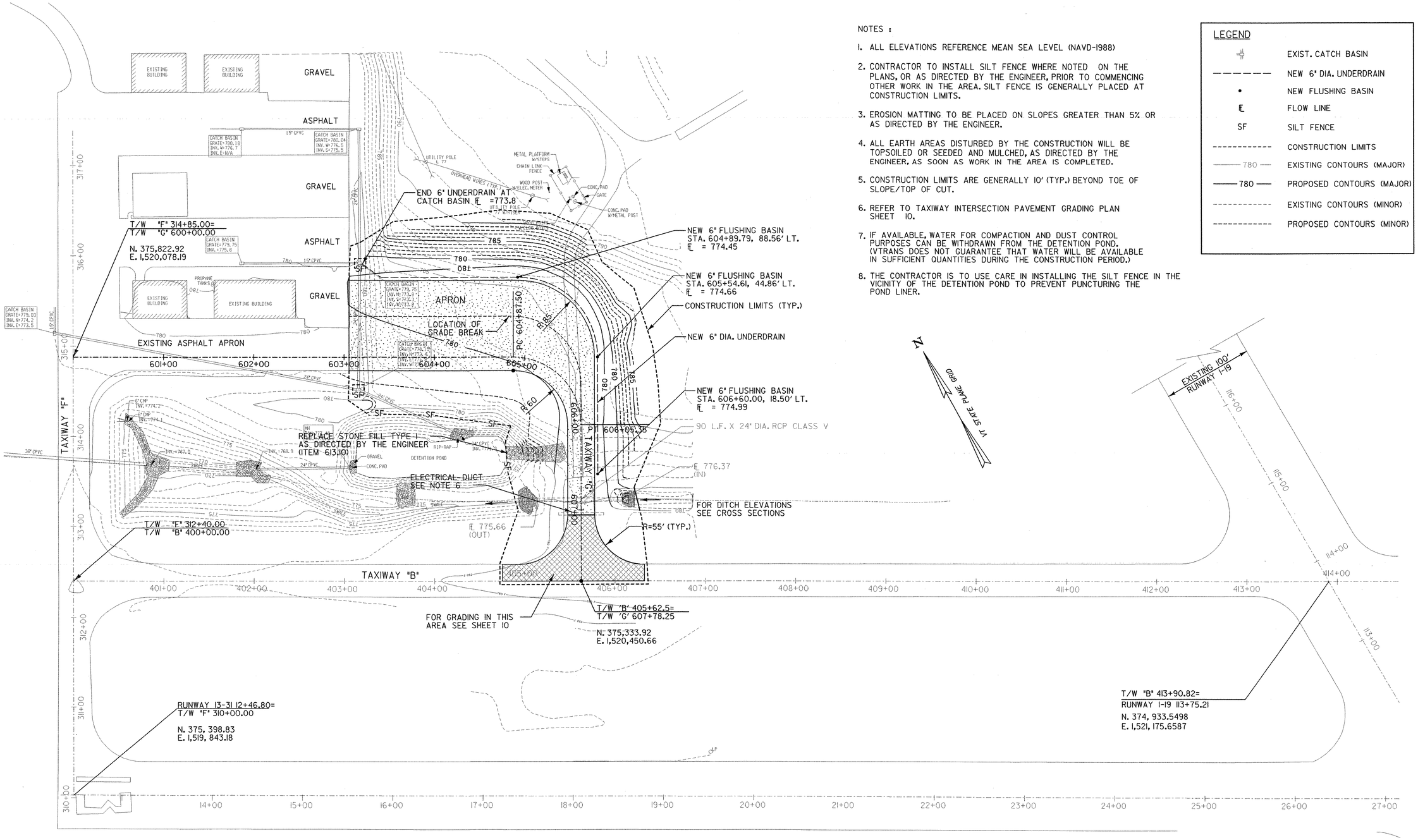
P:\38397036\Civil\Sheet\February 2006 Submission\38397036sheet8.dgn

NOTES :

1. ALL ELEVATIONS REFERENCE MEAN SEA LEVEL (NAVD-1988)
2. CONTRACTOR TO INSTALL SILT FENCE WHERE NOTED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER, PRIOR TO COMMENCING OTHER WORK IN THE AREA. SILT FENCE IS GENERALLY PLACED AT CONSTRUCTION LIMITS.
3. EROSION MATTING TO BE PLACED ON SLOPES GREATER THAN 5% OR AS DIRECTED BY THE ENGINEER.
4. ALL EARTH AREAS DISTURBED BY THE CONSTRUCTION WILL BE TOPSOILED OR SEEDED AND MULCHED, AS DIRECTED BY THE ENGINEER, AS SOON AS WORK IN THE AREA IS COMPLETED.
5. CONSTRUCTION LIMITS ARE GENERALLY 10' (TYP.) BEYOND TOE OF SLOPE/TOP OF CUT.
6. REFER TO TAXIWAY INTERSECTION PAVEMENT GRADING PLAN SHEET 10.
7. IF AVAILABLE, WATER FOR COMPACTION AND DUST CONTROL PURPOSES CAN BE WITHDRAWN FROM THE DETENTION POND. (VTRANS DOES NOT GUARANTEE THAT WATER WILL BE AVAILABLE IN SUFFICIENT QUANTITIES DURING THE CONSTRUCTION PERIOD.)
8. THE CONTRACTOR IS TO USE CARE IN INSTALLING THE SILT FENCE IN THE VICINITY OF THE DETENTION POND TO PREVENT PUNCTURING THE POND LINER.

LEGEND

- EXIST. CATCH BASIN
- NEW 6" DIA. UNDERDRAIN
- NEW FLUSHING BASIN
- ℄ FLOW LINE
- SF SILT FENCE
- CONSTRUCTION LIMITS
- 780 EXISTING CONTOURS (MAJOR)
- 780 PROPOSED CONTOURS (MAJOR)
- EXISTING CONTOURS (MINOR)
- PROPOSED CONTOURS (MINOR)




DATUM
VERTICAL NAVD 88
HORIZONTAL NAD 83

0 50 100
SCALE IN FEET

STATE OF VERMONT · DONALD W. D'AMICO · NO. 3873 · REGISTERED PROFESSIONAL ENGINEER

AIP 3-50-0015

PROJECT NAME: **CLARENDON**
PROJECT NUMBER: **AIR 04-3172-C2**

FILE NAME: 38397036sheet9.dgn
PROJECT LEADER: G. D'AMICO
DESIGNED BY: R. DEWEY
**GRADING & DRAINAGE PLAN**
PLOT DATE: 2/16/2006
DRAWN BY: R. DEWEY
CHECKED BY: G. D'AMICO
SHEET 9 OF 27

P:\38397036\Civil\Sheet\February 2006 Submission\38397036sheet9.dgn

BUILDING

GRAVEL

ASPHALT

DETENTION POND

780

780 F.

603+00

604+00

605+00

606+00

607+00

PC 604+87.50

PT 606+05.35

TAXIWAY "G"

780

785

775

780.74

780.59

780.59

780.74

STA 607+25 18.74' RT
ELEV. 780.54

STA 607+25 "B" 18.74' LT
ELEV. 780.54

19.67'

1.0%

1.0%

STA 405+25.37 "B" 28.25' LT =
STA 607+50.10 "G" 37.34' RT
ELEV. 780.40

31.77'

27.41'

780.26

0.8%

780.70

0.7%

STA 406+00 "B" 28.25' LT =
STA 607+50.10 "G" 37.34' LT
ELEV. 780.51

1.0%

0.7%

779.15 779.39 779.70 779.69

779.44 779.68 779.93 780.18 781.12

+50

403+00

+50

TAXIWAY "B"

404+00

+50

405+00

MATCH EXISTING +50 PAVEMENT

406+00

ELEVATIONS

+50

407+00

+50

408+00

T/W 'B' 405+62.5=
T/W 'G' 607+78.25

18 F

20 10 0 20

SCALE IN FEET

N

VT STATE PLANE GRID

LEGEND

| | |
|---|---|
| 780 | EXISTING CONTOURS (MAJOR) |
| 780 | PROPOSED CONTOURS (MAJOR) |
| | EXISTING CONTOURS (MINOR) |
| | PROPOSED CONTOURS (MINOR) |
| | INDICATES AREA OF MILLING AND RESURFACING |
| | INDICATES NEW ASPHALT PAVEMENT |
| • 780.26 | PROPOSED SPOT ELEVATION |
| ○ 779.69 | EXISTING ELEVATIONS |

**DATUM**

VERTICAL NAVD 88

HORIZONTAL NAD 83

AIP 3-50-0015

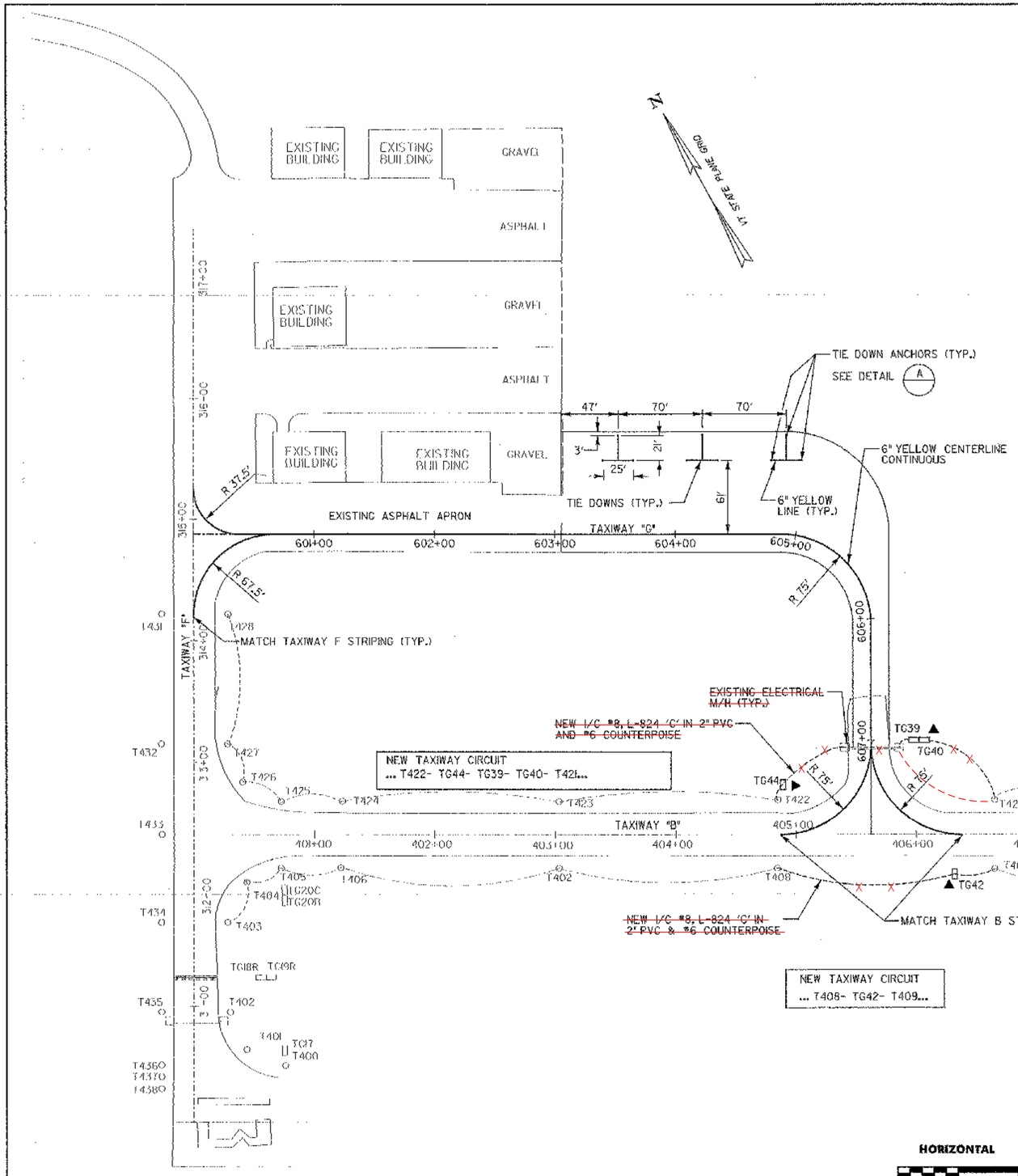
PROJECT NAME: **CLARENDON**

PROJECT NUMBER: **AIR 04-3172-C2**

FILE NAME: 38397036sheet10.dgn
PROJECT LEADER: G. D'AMICO
DESIGNED BY: R. DEWEY
**TAXIWAY INTERSECTION GRADING PLAN**

PLOT DATE: 2/16/2006
DRAWN BY: R. DEWEY
CHECKED BY: G. D'AMICO
SHEET 10 OF 27

P:\38397036\Civil\Sheet\February 2006 Submission\38397036sheet10.dgn

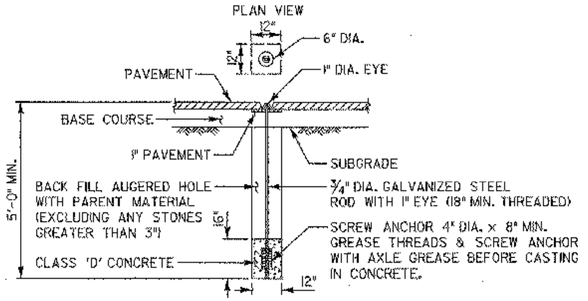



| SIGN SCHEDULE | | | | | | |
|---|---|---|---|---|---|---|
| SIGN | LEGEND | COLOR | TYPE | LOCATION | REMARKS | PAY ITEM |
| TG18R | CL | (W/R) (BLANK) | MANDATORY | 45' RT. 311+25 | TO REMAIN | — |
| TG19R | d | (Y/B) (BLANK) | LOCATION | 48' RT. 311+25 | TO REMAIN | — |
| TG39 | G | (Y/B) | LOCATION | 35' LT. 607+00 | NEW | 864.14 |
| TG40 | B G | (B/Y) (BLANK) | DIRECTION | 40' LT. 607+00 | NEW | 864.14 |
| TG44 | G B | (B/Y) (BLANK) | DIRECTION | 37.5' RT. 404+89 | NEW | 864.14 |
| TG42 | G B | (BLANK) (B/Y) | DIRECTION | 37.5' RT. 406+32.5 | NEW | 864.14 |
| TG20B | B | (BLANK) (Y/B) | LOCATION | 45' RT. 400+72.5 | TO REMAIN | — |
| TG20C | F B | (BLANK) (B/Y) | DIRECTION | 40' LT. 400+72.5 | TO REMAIN | — |

NOTES:

1. ALL SIGNS TO BE L-858, SIZE I (18" PANEL WITH 12" LEGEND), STYLE 2, CLASS 2.

2. COLORS
   Y/B = YELLOW LEGEND ON BLACK BACKGROUND
   B/Y = BLACK LEGEND ON YELLOW BACKGROUND




NOTE:
3 ANCHORS PER TIEDOWN PLACED AT THE ENDS OF TIEDOWN MARKINGS

## A AIRCRAFT TIE DOWN ANCHOR, TYPE A
ITEM 854.07
N.T.S.

| LEGEND | |
|---|---|
| ○ T419 | EXISTING TAXIWAY LIGHTS (MITLS) |
| ⊔ TG21 | EXISTING TAXIWAY GUIDANCE SIGN |
| ▭ TG40 | NEW TAXIWAY GUIDANCE SIGN |
| ▲ | NEW ⅝" dia. X 8' COPPER CLAD GROUND ROD |
| -------- | EXISTING UNDERGROUND ELECTRICAL |
| -------- | PROPOSED UNDERGROUND ELECTRICAL |

NOTES

1. TAXIWAY MARKINGS SHALL CONFORM TO AC 150/5340-1H AND VTRANS STANDARD DRAWING AP-11.
2. ALL TAXIWAY MARKINGS SHALL BE YELLOW, REFLECTIVE USING GLASS BEADS.
3. REMOVE PAVEMENT MARKINGS THAT CONFLICT WITH NEW PAVEMENT MARKINGS. PAYMENT TO BE MADE UNDER ITEM 646.85

HORIZONTAL
0 50 100
SCALE IN FEET

DATUM
VERTICAL NAVD 88
HORIZONTAL NAD 83

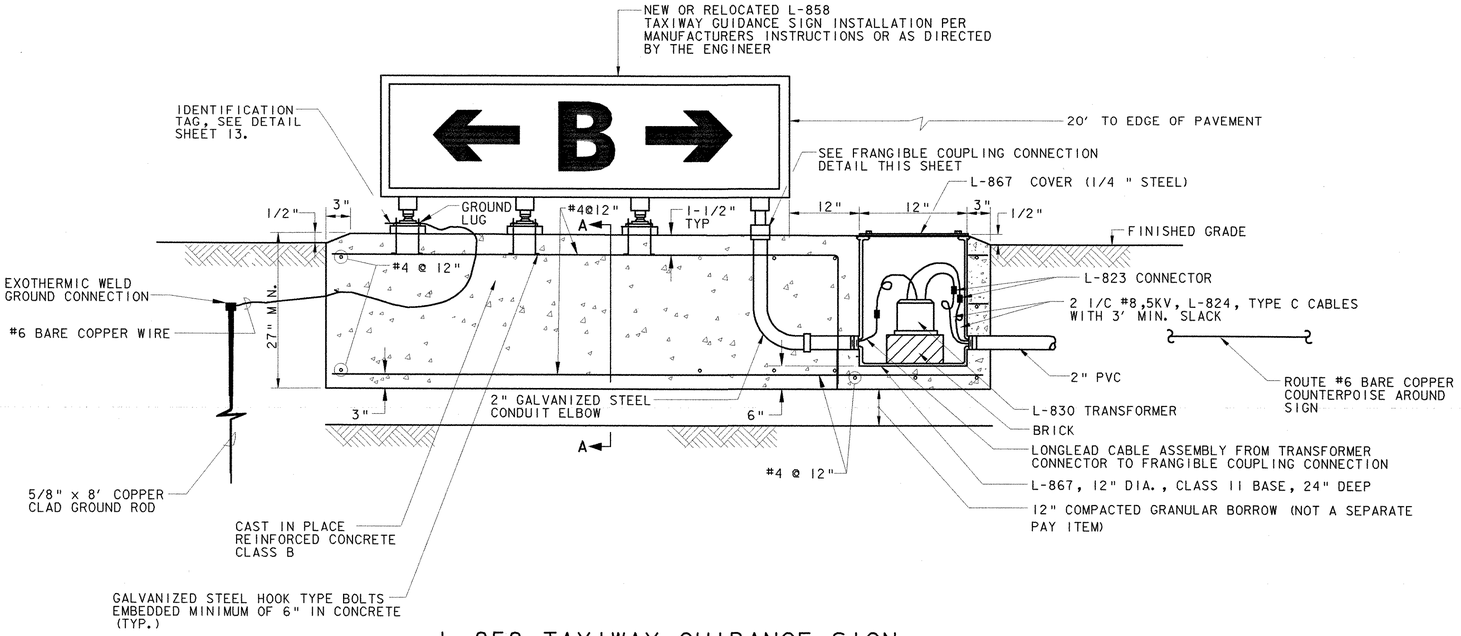
STATE OF VERMONT REG. NO. 2,679 REGISTERED ENGINEER

AIP 3-50-0015

PROJECT NAME: **CLARENDON**
PROJECT NUMBER: **AIR 04-3172-C2**

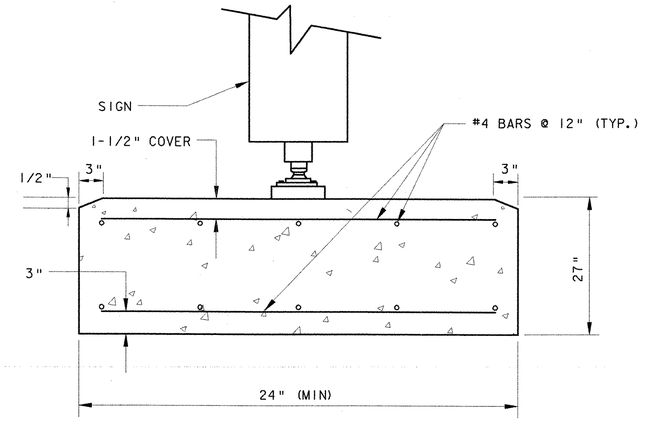
FILE NAME: 38397036sheet11.dgn
PROJECT LEADER: G. D'AMICO
DESIGNED BY: R. DEWEY
PLOT DATE: 2/16/2006
DRAWN BY: R. DEWEY
CHECKED BY: G. D'AMICO
**APRON & TAXIWAY MARKING & SIGN PLAN**
SHEET 11 OF 27

P:\38397036\Civil\Sheet\February 2006 Submittal\38397036sheet11.dgn



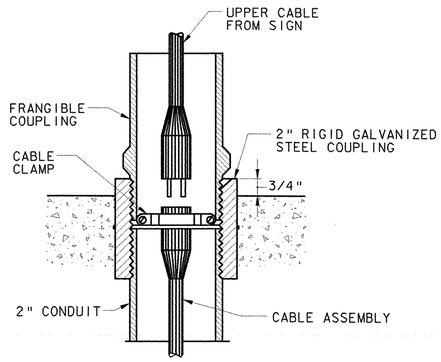

## L-858 TAXIWAY GUIDANCE SIGN

NOT TO SCALE




## TAXIWAY GUIDANCE SIGN SECTION A-A

NOT TO SCALE




## FRANGIBLE COUPLING CONNECTION DETAIL

NOT TO SCALE

**DATUM**

VERTICAL NAVD 88

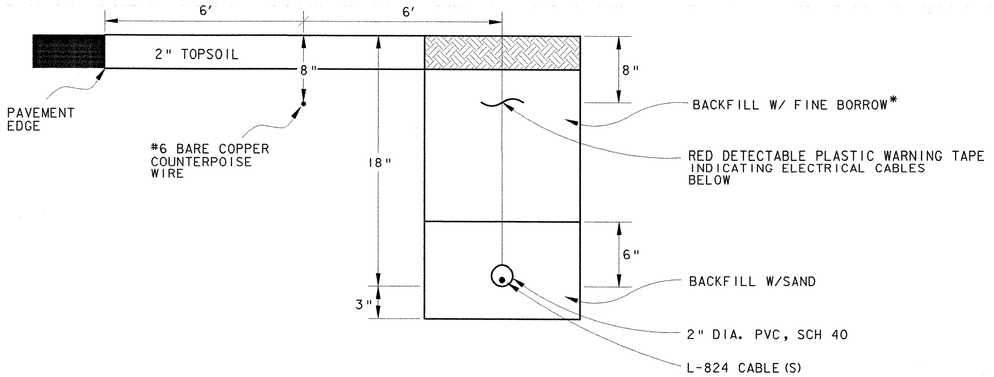
HORIZONTAL NAD 83

STATE OF VERMONT
DONALD W. KAMILL
NO. 3873
REGISTERED PROFESSIONAL ENGINEER

**AIP 3-50-0015**

| | |
|---|---|
| PROJECT NAME: | **CLARENDON** |
| PROJECT NUMBER: | **AIR 04-3172-C2** |
| FILE NAME: 38397036sheet12.dgn | PLOT DATE: 2/16/2006 |
| PROJECT LEADER: G. D'AMICO | DRAWN BY: R. DEWEY |
| DESIGNED BY: R. DEWEY | CHECKED BY: G. D'AMICO |
| **AIRFIELD LIGHTING DETAILS** | SHEET 12 OF 27 |

P:\38397036\Civil\Sheet\February 2006 Submission\38397036sheet12.dgn




*FINE BORROW-MATERIAL REASONABLY FREE FROM LOAM, CLAY OR ORGANIC MATERIAL, MAXIMUM SIZE = 1/2 "

NOTE:
ADDITIONAL CONDUITS MAY BE PLACED IN SAME TRENCH @ 3" SPACING. MAX. NUMBER OF CABLES / CONDUIT PER N.E.C.

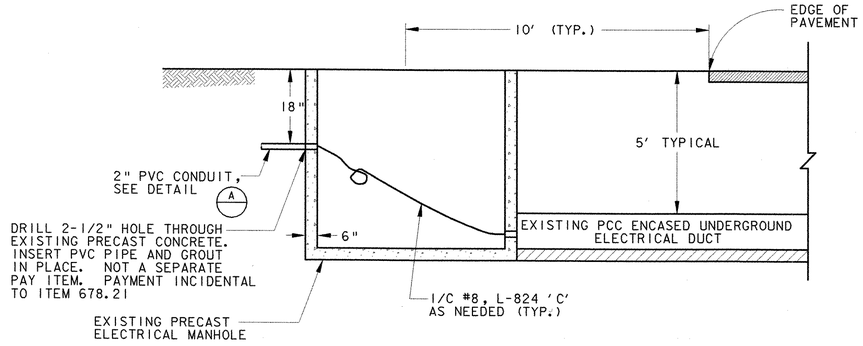
WHERE CABLE IS INSTALLED ADJACENT TO PAVEMENT, COUNTERPOISE IS INSTALLED 8-INCHES BELOW FINISHED GRADE AND INSTALLED HALF THE DISTANCE FROM THE EDGE OF PAVEMENT TO THE DUCT.

WHERE CABLE IS NOT INSTALLED ADJACENT TO PAVEMENT, COUNTERPOISE IS INSTALLED 4-INCHES MINIMUM ABOVE DUCT OR TO A HEIGHT WHERE THE DUCT IS PROTECTED WITH A 45 DEGREE ZONE OF PROTECTION BELOW THE COUNTERPOISE.

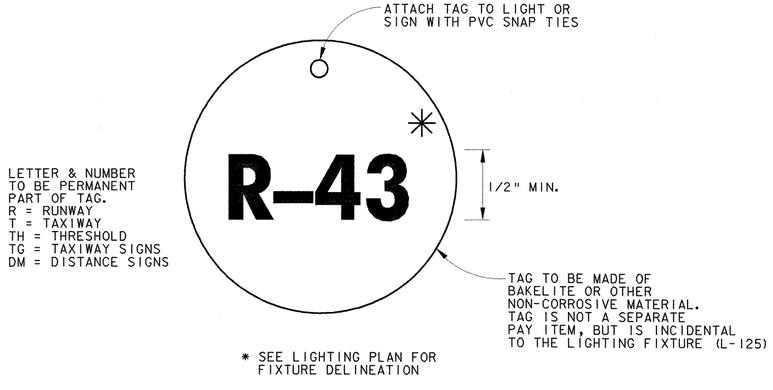
EXCAVATION FOR THE INSTALLATION OF COUNTERPOISE WIRE TO BE INCIDENTAL TO ITEM 864.06

A CONDUIT TRENCH DETAIL (TYP)
SCALE: NONE L-108

NOTES:
1. WHERE NECESSARY, HAND EXCAVATE AROUND EXISTING DUCT. EXISTING CABLES MAY BE DIRECT BURIAL.
2. SEE VTRANS STANDARD DRAWING D-15 FOR PRE-CAST ELECTRICAL MANHOLE DETAILS.




B CONDUIT DUCT DETAIL (TYP)
SCALE: NONE




C FIXTURE IDENTIFICATION TAG (TYP)
SCALE: NONE

DATUM
VERTICAL NAVD 88
HORIZONTAL NAD 83

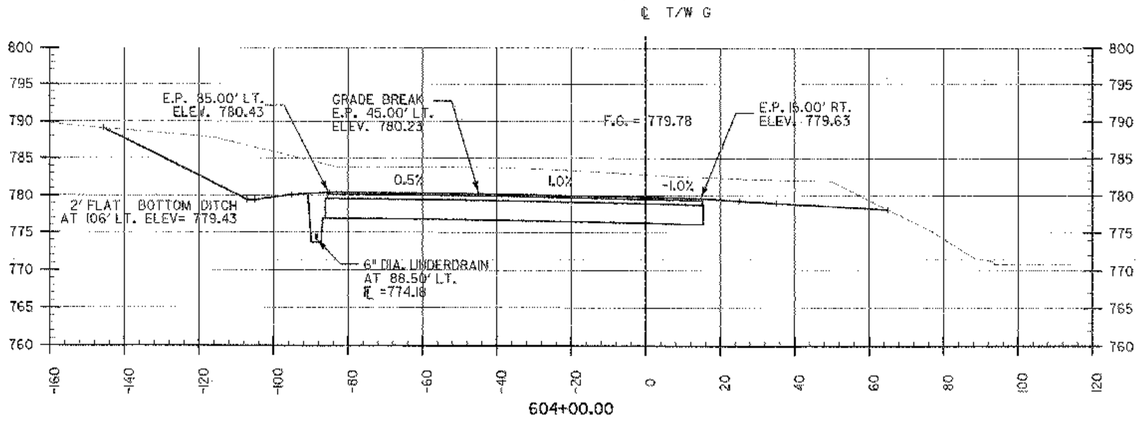
STATE OF VERMONT DAVID W. D'AMICO No. 3873 REGISTERED PROFESSIONAL ENGINEER

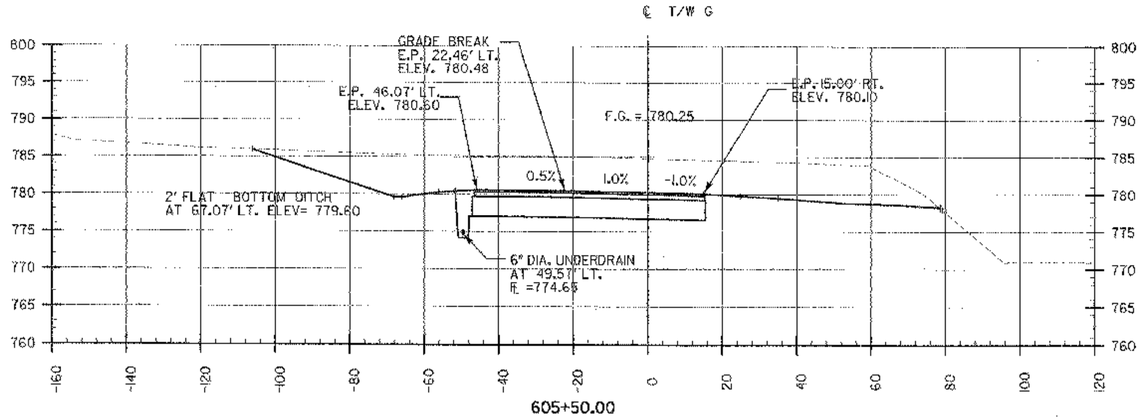
AIP 3-50-0015

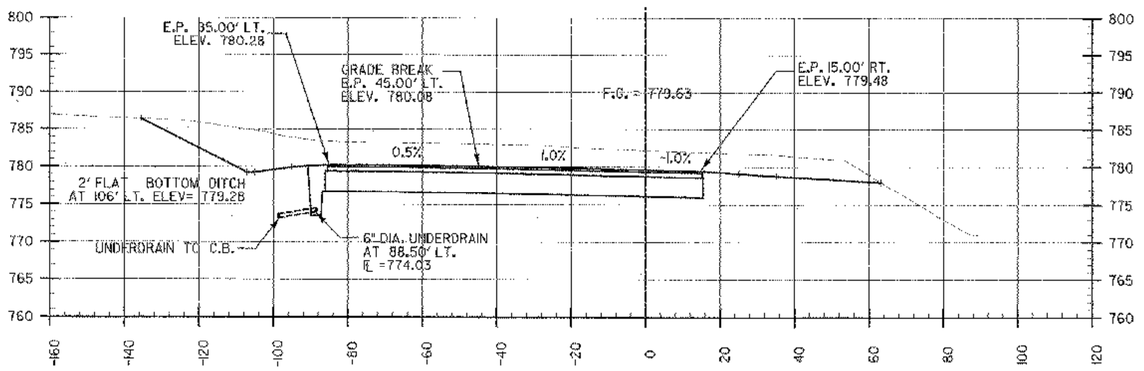
PROJECT NAME: **CLARENDON**
PROJECT NUMBER: **AIR 04-3172-C2**

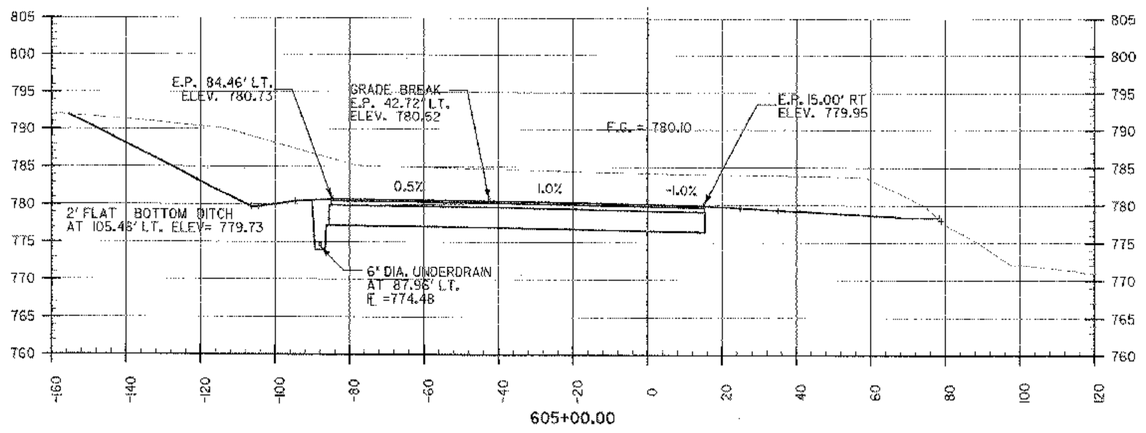
FILE NAME: 38397036sheet13.dgn
PROJECT LEADER: G. D'AMICO
DESIGNED BY: R. DEWEY
**AIRFIELD LIGHTING DETAILS**
PLOT DATE: 2/16/2006
DRAWN BY: R. DEWEY
CHECKED BY: G. D'AMICO
SHEET 13 OF 27

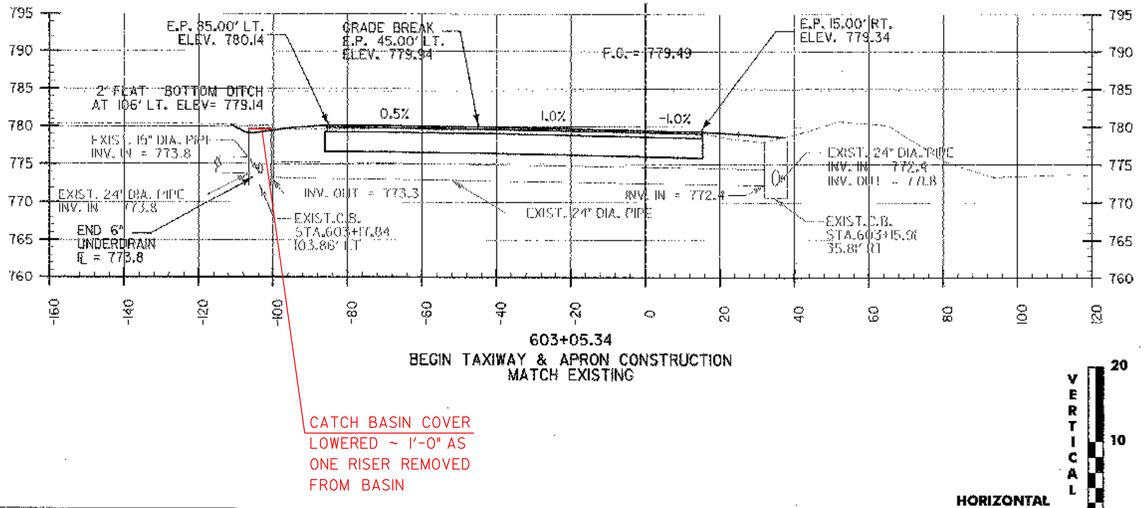
P:\38397036\Civil\Sheet\February 2006 Submission\38397036sheet13.dgn

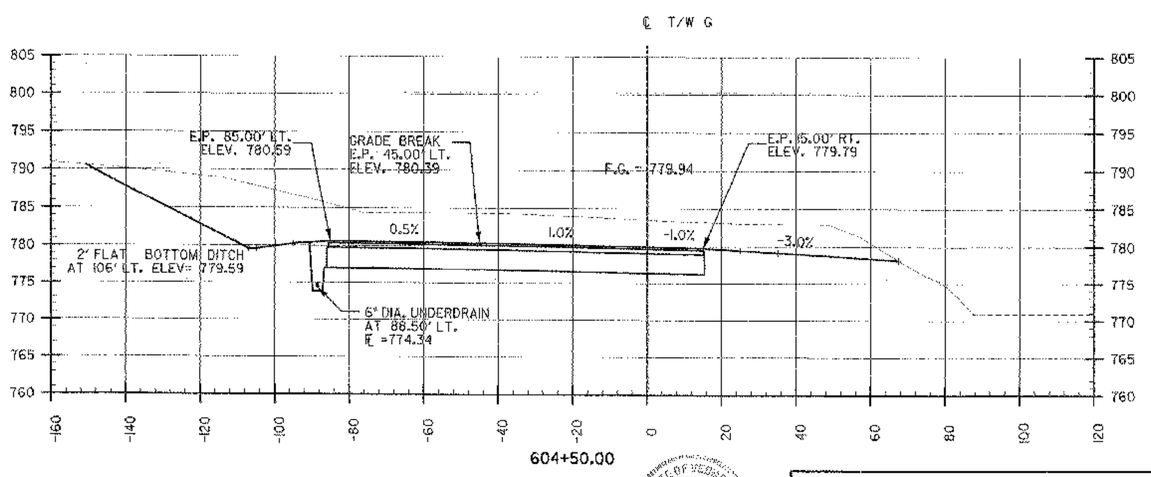


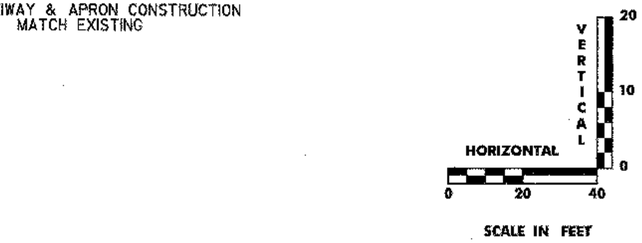




DATUM
VERTICAL NAVD 88
HORIZONTAL NAD 83

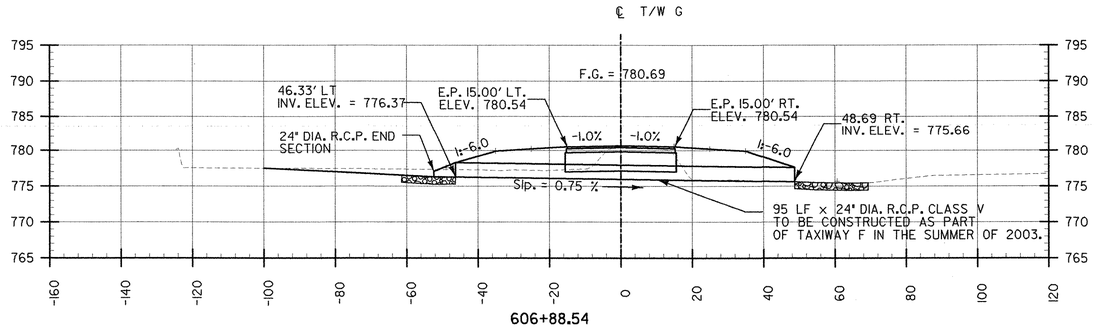
AIP 3-50-0015

PROJECT NAME: **CLARENDON**
PROJECT NUMBER: **AIR 04-3172-C2**

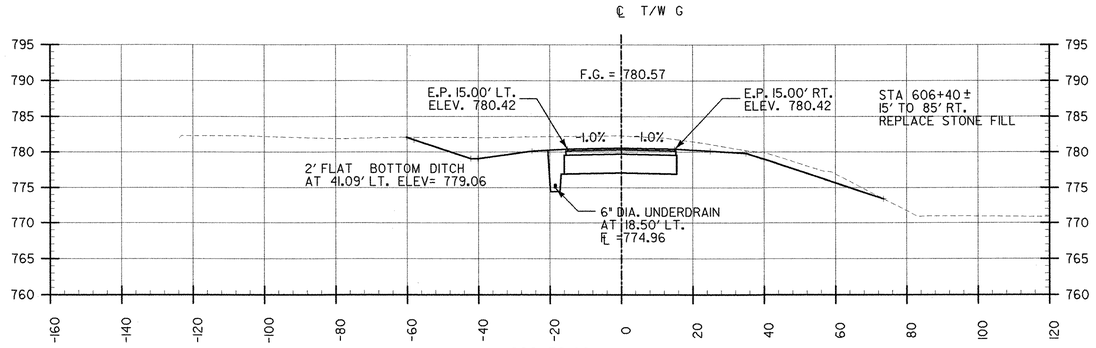
FILE NAME: 38397036sheet14.dgn
PROJECT LEADER: G. D'AMICO
DESIGNED BY: R. DEWEY
**TAXIWAY G CROSS SECTIONS**

PLOT DATE: 2/16/2006
DRAWN BY: R. DEWEY
CHECKED BY: G. D'AMICO
SHEET 14 OF 27

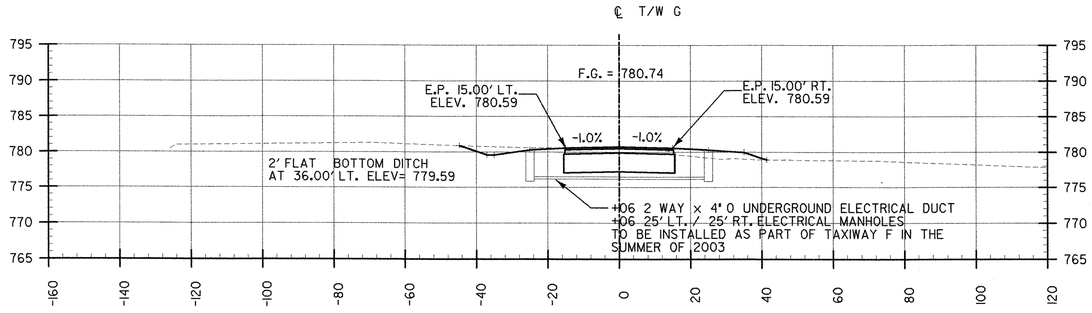
P:\38397036\Civil\Sheet\February 2006 Submission\38397036sheet14.dgn



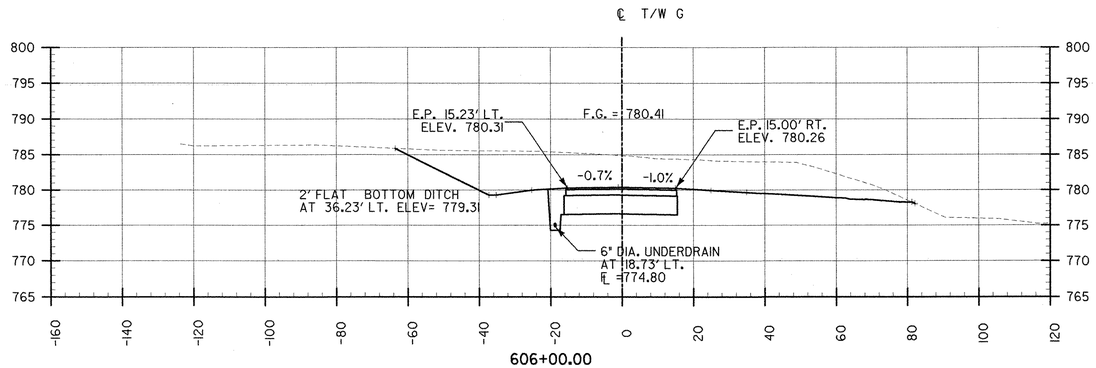

606+88.54



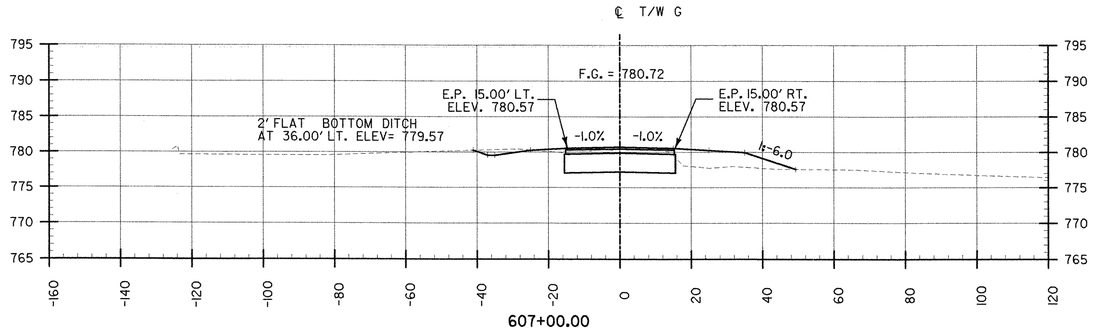

606+50.00




607+05.75
END TAXIWAY G CONSTRUCTION
MATCH TAXIWAY B




606+00.00




607+00.00

VERTICAL 0 10 20
HORIZONTAL 0 20 40

SCALE IN FEET

AIP 3-50-0015

DATUM
VERTICAL NAVD 88
HORIZONTAL NAD 83

PROJECT NAME: **CLARENDON**
PROJECT NUMBER: **AIR 04-3172-C2**

FILE NAME: 38397036sheet15.dgn
PROJECT LEADER: G. D'AMICO
DESIGNED BY: R. DEWEY
**TAXIWAY G CROSS SECTIONS**

PLOT DATE: 2/16/2006
DRAWN BY: R. DEWEY
CHECKED BY: G. D'AMICO
SHEET 15 OF 27

P:\38397036\Civil\Sheet\February 2006 Submission\38397036sheet15.dgn

## LEGEND

| | |
|---|---|
| 700 | EXISTING CONTOUR |
| 700 | PROPOSED CONTOUR |
| | APPROX. GRADING LIMITS |
| SF SF | SILT FENCE |
| EB EB | EARTH BERM |
| | PROPERTY LINE |
| | WETLAND BOUNDRY |

VT STATE PLANE GRID

N

FAA CONTROL BUILDING

STONE FILL TYPE I

100 L.F. 15" DIA. CPEP WITH END SECTION AT OUTLET F = 738, S = 0.30 FT/FT

FL = 738 ±

15" CMP

RUNWAY SAFETY AREA

PROPOSED WASTE MATERIAL DISPOSAL AREA

PROPOSED CATCH BASIN W/TYPE "D" GRATE
F.G.= 760.2
INV. OUT = 756.2
STA. 155+09
OFFSET 178' LEFT
OR AS DIRECTED BY THE ENGINEER

EXISTING MALSR FOUNDATION

EXISTING ODALS

AIRPORT ROAD

VT.103

TO LUDLOW

200

RUNWAY SAFETY AREA

0 40 80
SCALE IN FEET

## NOTES

1. ALL ELEVATIONS REFER TO MEAN SEA LEVEL DATUM NAVD-1988
2. CONTRACTOR TO INSTALL SILT FENCE, WHERE NOTED ON PLAN OR DIRECTED BY ENGINEER, PRIOR TO COMMENCING OTHER CONSTRUCTION
3. ALL EARTH AREAS SUBJECT TO CONSTRUCTION WILL BE TOPSOILED , SEEDED AND EROSION MATTING PLACED AS DIRECTED, AS SOON AS WORK IN THE AREA IS COMPLETED. EXISTING TOPSOIL IN PROPOSED WASTE AREA TO BE STRIPPED AND STOCKPILED (ITEM 203.15) PRIOR TO PLACING WASTE MATERIAL. UPON COMPLETION OF PLACING WASTE, RE PLACE TOPSOIL (ITEM 651.35), PLACE SEED (ITEM 651.15) LIME (ITEM 651.20), FERTILIZER (ITEM 651.18) AND MULCH (ITEM 651.25). EROSION MATTING (ITEM 654.10) TO BE PLACED ON SLOPES GREATER THAN 5%.
4. EARTH BERM, SEE DETAIL (E/18) TO BE PLACE ON THE TOP SLOPE OF FILL IN WASTE AREA
5. MINIMIZE WETLAND AND WETLAND BUFFER AREA DISTURBANCE. WORK IN WETLANDS APPROVED IN UNITED STATES CORP OF ENGINEERS PERMIT # 200202661, DATED 12/18/03

**DATUM**

VERTICAL NAVD 88

HORIZONTAL NAD 83

STATE OF VERMONT W. PAIGE

**AIP 3-50-0015**

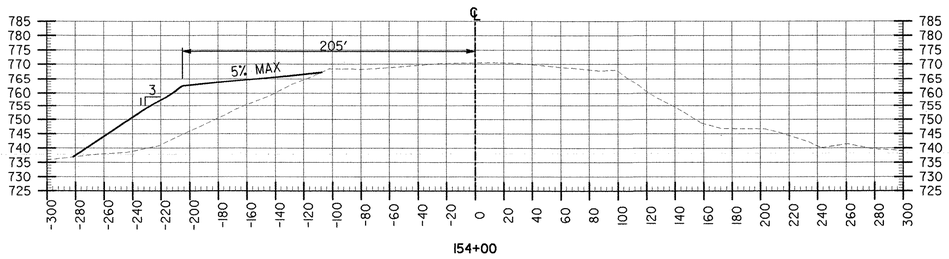
PROJECT NAME: **CLARENDON**

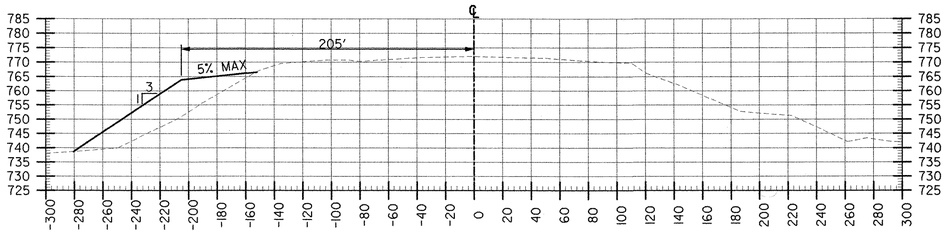
PROJECT NUMBER: **AIR 04-3172-C2**

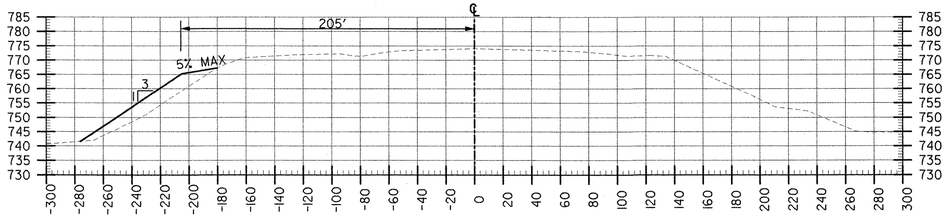
FILE NAME: 38397036sheet16.dgn
PROJECT LEADER: G. D'AMICO
DESIGNED BY: R. DEWEY
**WASTE AREA LAYOUT**

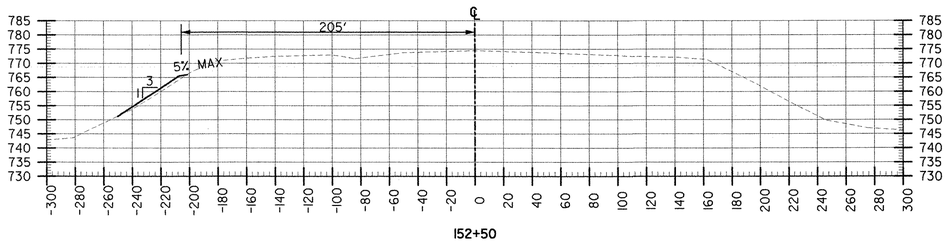
PLOT DATE: 2/16/2006
DRAWN BY: R. DEWEY
CHECKED BY: G. D'AMICO
SHEET 16 OF 27

P:\38397036\Civil\Sheet\February 2006 Submission\38397036sheet16.dgn

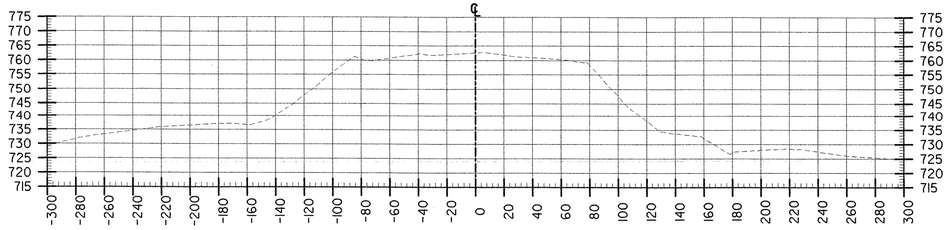


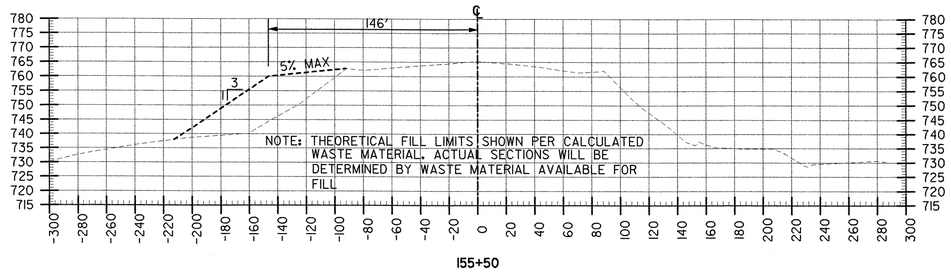



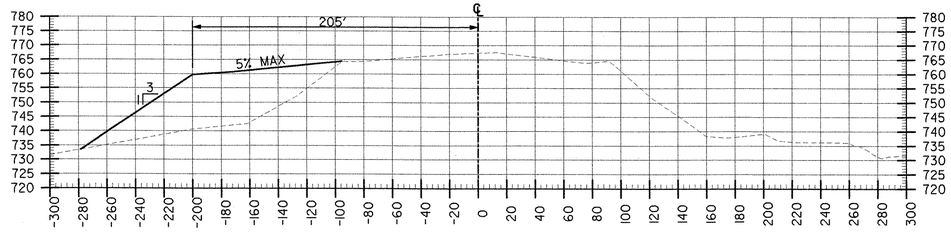



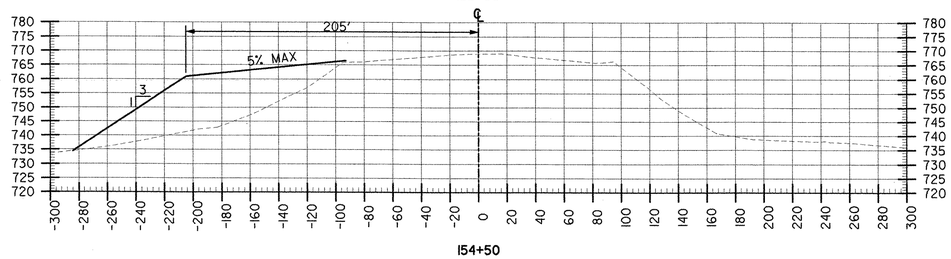



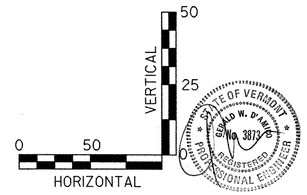

NOTE:
EARTH BERM TO BE CONSTRUCTED AT THE TOP OF SLOPE. SEE DETAIL (E/18)




AIP 3-50-0015

| DATUM | |
|---|---|
| VERTICAL | NAVD 88 |
| HORIZONTAL | NAD 83 |

PROJECT NAME: **CLARENDON**
PROJECT NUMBER: **AIR 04-3172-C2**

| | | | |
|---|---|---|---|
| FILE NAME: | 38397036sheet17.dgn | PLOT DATE: | 2/16/2006 |
| PROJECT LEADER: | G. D'AMICO | DRAWN BY: | R. DEWEY |
| DESIGNED BY: | R. DEWEY | CHECKED BY: | G. D'AMICO |
| **WASTE AREA CROSS SECTIONS** | | SHEET 17 | OF 27 |

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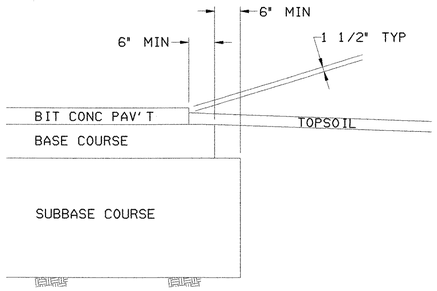
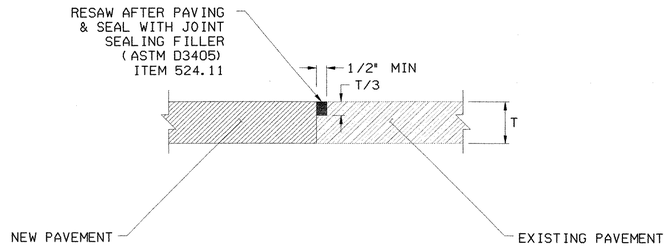
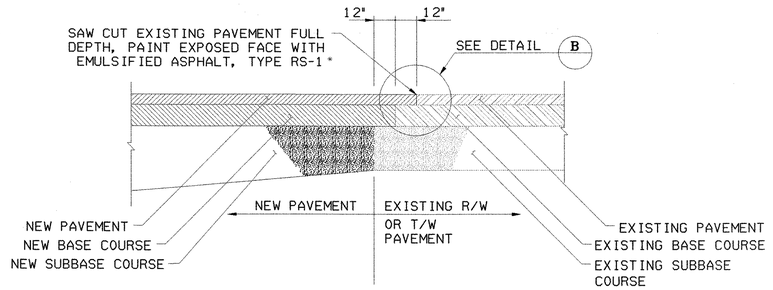



A PAVEMENT SECTION EDGE (TYP.)
SCALE = NONE

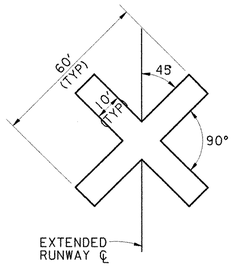



B SAWCUT DETAIL
SCALE = NONE

NOTE:
* THE COST OF THE PAVEMENT SAW CUT AND TACK COAT ARE NOT A SEPARATE PAY ITEM. IT IS CONSIDERED AS INCIDENTAL TO THE OTHER ITEMS OF WORK.




C BUTT JOINT DETAIL
SCALE = NONE

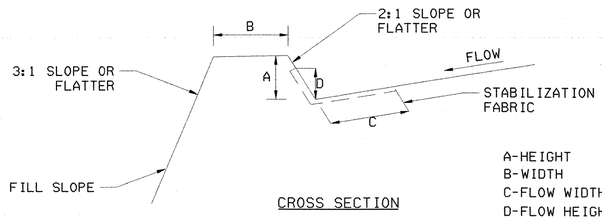



## CLOSED RUNWAY MARKER

### MARKER NOTES

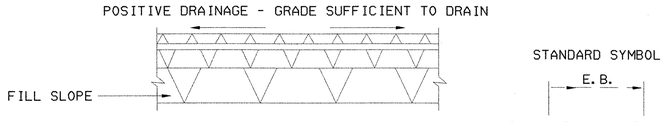
1. CLOSED RUNWAY MARKERS TO BE IN PLACE DURING CONSTRUCTION WHENEVER A RUNWAY IS CLOSED, AS DIRECTED BY ENGINEER.
2. CLOSED RUNWAY MARKER TO BE DURABLE YELLOW VINYL COATED WINDSCREEN MATERIAL. RE-USEABLE TEMPORARY "X" MARKERS ARE AVAILABLE FROM NACCI-877-NAC-ARPT OR WWW.AIRPORTNAC.COM. SECURELY FASTENED IN PLACE.
3. COST OF PLACING AND MAINTAINING THE CLOSED RUNWAY MARKER IS CONSIDERED NECESSARY AND INCIDENTAL TO CONSTRUCTION AND IS NOT A SEPARATE PAY ITEM.
4. CLOSED RUNWAY MARKER TO BE PLACED OVER NUMERALS, OR IN R/W OVERRUN AREA, JUST OFF THRESHOLD, AS DIRECTED BY THE ENGINEER.
5. AT COMPLETION OF CONTRACT, THE TEMPORARY X-MARKERS WILL BECOME THE PROPERTY OF THE AIRPORT.

D CLOSED RUNWAY MARKER
SCALE = NONE



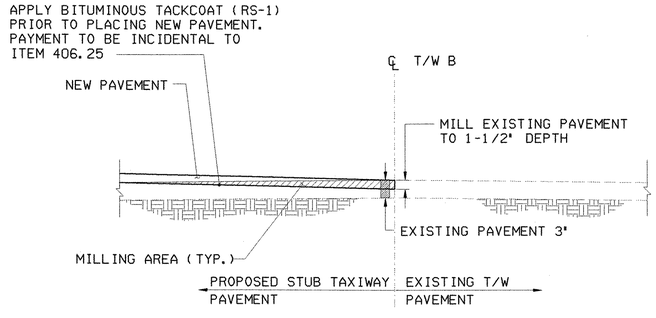

CROSS SECTION

| | |
|---|---|
| A-HEIGHT | 18" |
| B-WIDTH | 24" |
| C-FLOW WIDTH | 4" |
| D-FLOW HEIGHT | 8" |




1. BERMS SHALL BE COMPACTED BY EARTH-MOVING EQUIPMENT.
2. TOP MAY BE WIDER AND SIDE SLOPES MAY BE FLATTER
3. CONSTRUCTION OF EARTH BERM IS NOT A SEPARATE PAY ITEM, BUT IS CONSIDERED INCIDENTAL TO ITEM 203.15.

E EARTH BERM
SCALE = NONE




F MILLING & RESURFACING DETAIL
SCALE = NONE

**DATUM**
VERTICAL NAVD 88
HORIZONTAL NAD 83

STATE OF VERMONT * GIULIA W. D'AMICO * No. 3873 * REGISTERED PROFESSIONAL ENGINEER

**AIP 3-50-0015**

| | |
|---|---|
| PROJECT NAME: | **CLARENDON** |
| PROJECT NUMBER: | **AIR 04-3172-C2** |
| FILE NAME: 38397036sheet18.dgn | PLOT DATE: 2/16/2006 |
| PROJECT LEADER: G. D'AMICO | DRAWN BY: R. DEWEY |
| DESIGNED BY: R. DEWEY | CHECKED BY: G. D'AMICO |
| **MISCELLANEOUS DETAILS** | SHEET 18 OF 27 |

P:\38397036\Civil\Sheet\February 2006 Submission\38397036sheet18.dgn

STATE OF VERMONT
AGENCY OF TRANSPORTATION

# EROSION CONTROL NARRATIVE

## DESCRIPTION OF PROJECT

This project will involve the following:

Construct, Mark and Sign a new Aircraft Parking Apron (3,600 SY) for light aircraft. The new aircraft parking apron will provide 3 aircraft tiedowns. In addition, this project will also consist of constructing a connecting taxiway G from the new apron (30 feet wide) to taxiway B-West, and the placement of excavated spoil material in a designated waste area.

The total area of disturbance = 3.5 Acres
(Apron Construction Area = 2.0 Acres; Waste Area = 1.25 Acres; Other Disturbed Area = 0.25 Acres)

## SITE INVENTORY AND ANALYSIS

### SITE DRAINAGE CHARACTERISTICS:

The property surrounding the apron site consists of well established vegetation with moderate slopes of various grasses, shrubs and trees. Storm water is generally collected through a series of open ditches and closed drainage and conveyed to a detention pond located between the new apron and taxiway B-west in the northwest quadrant of the airfield. The storm water is then discharged through a series of ditches and drainage pipe to an inlet of an existing 15" RCP under Route 7B.

The proposed waste area is presently open meadow grassland adjacent to the primary runway. The area slopes from the edge of the runway safety area at slopes of 1:2. The area drains northerly to a 6' culvert under Rte. 103.

### DRAINAGE, WATERWAYS, BODIES OR WATER:

There are a total of 18 wetlands located on the Rutland State Airport property. The area of the Northwest apron has no jurisdictional wetlands located within the vicinity however, there is a pond that provides detention to stormwater runoff that is eventually discharged into Otter Creek by means of open channels, culverts and pipes. The area designated as 'Proposed Waste Material Disposal Area' is located at the northerly end of the airfield west of Runway 19 safety area. There are Wet Meadow type wetlands located within the vicinity of the proposed waste area.

### TOPOGRAPHY, EXISTING ROADS, BUILDINGS, UTILITIES:

The proposed apron area is located in open flat grassland area adjacent to an existing aircraft apron and hangar area. An aircraft hangar (2,500 to 4,000 SF) is adjacent to the proposed apron area.

Both the proposed apron and the proposed waste material disposal sites are presently open grasslands adjacent to active aircraft movement areas. There are several aircraft hangers ranging from 2500 to 4000 square feet that are located adjacent to the new aircraft parking apron.

### VEGETATION:

The airfield generally consists of open meadow grasslands that is routinely mowed.

The area of the proposed apron is currently open grassland.

### SOILS:

The Soil Survey of Rutland County, Vermont (1984) identifies the soil at the proposed apron area as Paxton fine sandy loam, 2 to 8 percent slopes, and Galway-Nellis-Farmington Complex, 3 to 8 percent slopes.

The erodability factor = 0.32

### SENSITIVE RESOURCE AREAS:

There are no rare, threatened, or endangered species located within the proposed apron project area. However, the VANR recommends that the airport delay grass mowing and construction during the nesting season for the grasshopper sparrow, a State listed threatened species. The Vermont Agency of Transportation intends to mow both the proposed apron area and the waste area beginning in May to discourage these grassland birds from nesting in the project area. ( Per the memorandum of understanding between VTRANS and VANR).

In addition, there are no floodplains, or historic, architectural, cultural, and archaeological resources within the proposed project area.

There is a small 'wet meadow' type wetland (class 3 wetland) located in the vicinity of the waste area. Work within and adjacent to this wetland has been approved under permits obtained from the U.S. Army Corps of Engineers (#200202661) and the VT Agency of Natural Resources (CUD # 2003-473)

Surrounding area meadows have been designated as habitat for grassland birds. VT ANR/ DEC and the Department of Fish and Wildlife requires that both the project and waste areas be mowed from May 1, to completion of construction. Grass in the mowed areas to be kept less than 4" in height.

### PROXIMITY TO NATURAL OR MAN-MADE WATER FEATURES:

The apron is located north of a stormwater detention pond and drainage swale, which carries stormwater off Airport, eventually flowing to the Otter Creek.

## TEMPORARY EROSION PREVENTION & SEDIMENT CONTROL

'Project Demarcation Fencing,' denoted -PDF- on the plans, will be placed to delineate the limits the contractor can access with construction equipment. This measure limits the area that can be exposed to erosion.

Seeding, mulching and biodegradable erosion control matting, or an equivalent product, will be utilized on all slopes steeper than 1:3 that are not lined with stone fill. Areas at the end of Runway 19 will require this technique. These slopes shall be stabilized within 48 hours of reaching final grade or during intermittent phases of construction activity.

All exposed slopes shall be temporarily mulched. Any slopes to be exposed for several days prior to final grading shall be mulched. The forecast of rainfall events shall also trigger protection of exposed slopes.

Temporary measures to control sediment transport include:

Silt fence will be installed as shown on the plans to prevent sediment transport to down gradient areas. Each line of silt fence will be placed with the ends turned slightly uphill to create a ponding effect should water try to run along the fencing and around the ends. The maximum slope length beween separate runs of silt fence is (100'). Silt fence shall be installed prior to any upslope earthwork.

Temporary measures such as silt fence shall be checked regularly for accumulation of sediment. Sediment build-up shall be removed when the level of sediment reaches one-half the height of the control measure. Sediments shall be disposed of in an approved area such that they will not be subject to erosion or impact other resource areas.

A stabilized construction entrance to the project site and staging area may be required as determined by the Engineer. The minimum size of a stabilized construction entrance is (12'x50'). See typical detail on 'Erosion & Sediment Control Details' sheet 26 for materials and construction method to be utilized when constructing a stabilized entrance.

## PERMANENT EROSION CONTROL MEASURES

Permanent erosion control measures to be utilized include:

Grass, or other suitable ground cover will be established outside of the roadway limits where stone lining has not been specified. All disturbed areas are to be seeded and mulched promptly upon achieving final grade using the seeding formula for rural areas.

## GENERAL EROSION & SEDIMENT CONTROL GUIDELINES

The Erosion Control Plans are meant as a guideline for preventing erosion and controlling sediment transport. The work outlined in this narrative consists of applying measures throughout the life of the project to control erosion and minimize the sedimentation of receiving waters. The measures include stabilization and structural practices, storm water controls and other pollution prevention controls.

Coordinate the installation, use, and removal of erosion and sediment control measures with construction activities to ensure economical, effective and continuous erosion and sediment control. Employ temporary stabilization practices in incremental stages as construction proceeds. The contractor will use additional erosion control measures as necessitated by the sequence of construction and as directed by the engineer. See section 105.23 of the Vermont AOT Standard Specifications for Construction, dated 2001 and Section 652 of the Special Provisions.

Install all erosion and sediment control measures as shown in the Erosion Control Plan or as directed by the Engineer. Do not modify the type, size or location of any control or practice without approval from the Engineer. Any changes shall be noted on the plans, in a weekly inspection report, and reported to the appropriate authority in a timely manner. Inspect all control measures weekly and after each rainfall event. Make repairs as necessary or as directed by the Engineer.

Preventing initial soil erosion is much more effective than treating eroded sediment. Therefore, stabilize all disturbed areas promptly after construction activity has temporarily or permanently ceased. Temporary vegetation shall be established if the area is to be without construction activity for a period of 14 days. Perimeter control measures shall be installed following clearing, but prior the start of any grubbing or grading activity, install other temporary controls in incremental stages as construction proceeds.

Maintaining vegetated buffers along stream banks, wetlands or other sensitive areas is a crucial erosion and sediment control measure that should be established wherever possible.

Control only sediment-laden runoff generated by the project site. Collect and route clean off site runoff around or through the project site using diversion berms, diversion channels, culverts and/or temporary pipes.

Do not allow construction equipment to operate on the down slope side of perimeter control measures.

## FINAL CONDITIONS SITE PLAN

Refer to sheets 9 of 27 and 16 of 27 for final conditions plans. All silt fence and temporary erosion cotrol measures to be removed prior to acceptance of the project.

DATUM
VERTICAL NAVD 88
HORIZONTAL NAD 83

STATE OF VERMONT · GERALD W. D'AMICO · No. 3873 · REGISTERED PROFESSIONAL ENGINEER

AIP 3-50-0015

SHEET NAME: EROSION CONTROL NARRATIVE

PROJECT NAME: **CLARENDON**
PROJECT NUMBER: **AIR 04-3172-C2**

| | |
|---|---|
| FILE NAME: 38397036sheet19 | PLOT DATE: 2/16/2006 |
| PROJECT LEADER: G. D'AMICO | DRAWN BY: R. DEWEY |
| DESIGNED BY: R. DEWEY | CHECKED BY: G. D'AMICO |
| EROSION PREVENTION & SEDIMENT CONTROL | SHEET 19 OF 27 |

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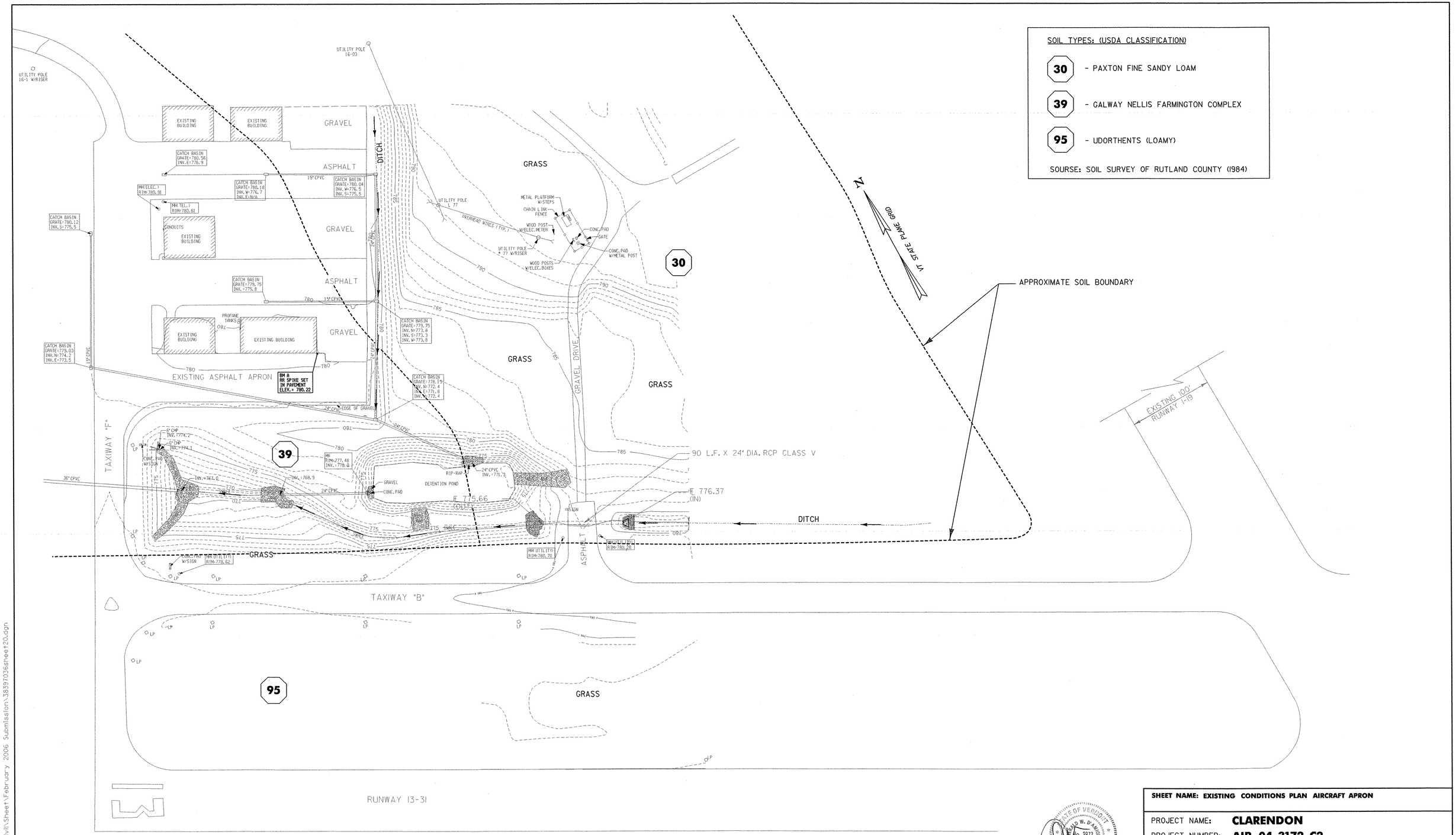



SOIL TYPES: (USDA CLASSIFICATION)

- **30** - PAXTON FINE SANDY LOAM
- **39** - GALWAY NELLIS FARMINGTON COMPLEX
- **95** - UDORTHENTS (LOAMY)

SOURSE: SOIL SURVEY OF RUTLAND COUNTY (1984)

**DATUM**

VERTICAL NAVD 88

HORIZONTAL NAD 83

HORIZONTAL

0 50 100

SCALE IN FEET

STATE OF VERMONT · DONALD W. D'AMICO · No. 3873 · REGISTERED PROFESSIONAL ENGINEER

**AIP 3-50-0015**

**SHEET NAME: EXISTING CONDITIONS PLAN AIRCRAFT APRON**

PROJECT NAME: **CLARENDON**

PROJECT NUMBER: **AIR 04-3172-C2**

| | |
|---|---|
| FILE NAME: 38397036sheet20 | PLOT DATE: 2/16/2006 |
| PROJECT LEADER: G. D'AMICO | DRAWN BY: R. DEWEY |
| DESIGNED BY: R. DEWEY | CHECKED BY: G. D'AMICO |
| EROSION PREVENTION & SEDIMENT CONTROL | SHEET 20 OF 27 |

P:\38397036\Civil\Sheet\February 2006 Submission\38397036sheet20.dgn

NOTE :

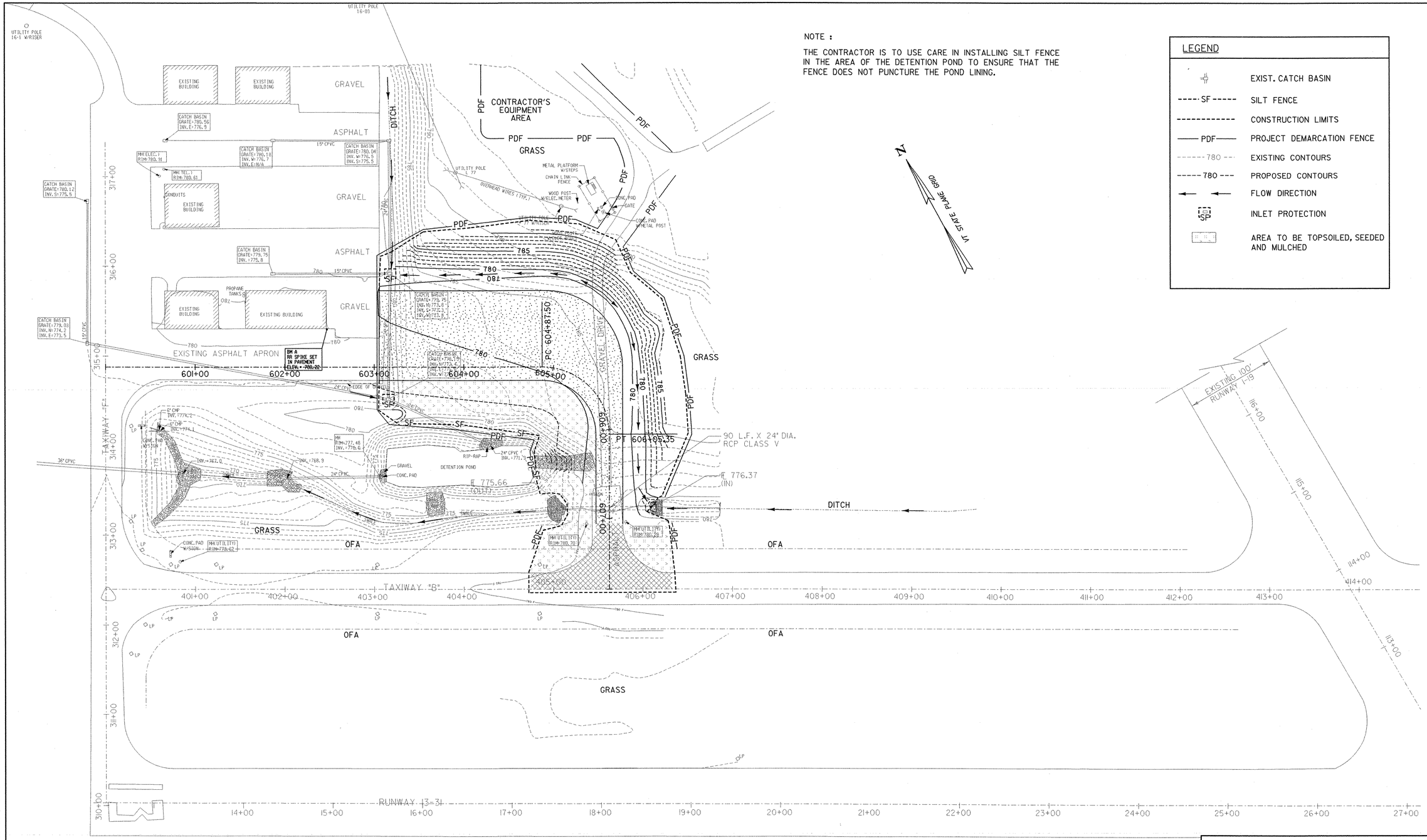
THE CONTRACTOR IS TO USE CARE IN INSTALLING SILT FENCE IN THE AREA OF THE DETENTION POND TO ENSURE THAT THE FENCE DOES NOT PUNCTURE THE POND LINING.

LEGEND

- EXIST. CATCH BASIN
- SF — SILT FENCE
- CONSTRUCTION LIMITS
- PDF — PROJECT DEMARCATION FENCE
- 780 — EXISTING CONTOURS
- 780 — PROPOSED CONTOURS
- FLOW DIRECTION
- SP — INLET PROTECTION
- AREA TO BE TOPSOILED, SEEDED AND MULCHED

N

VT STATE PLANE GRID




HORIZONTAL
0 50 100
SCALE IN FEET

DATUM
VERTICAL NAVD 88
HORIZONTAL NAD 83

STATE OF VERMONT GERALD W. D'AMICO No. 3873 REGISTERED PROFESSIONAL ENGINEER

AIP 3-50-0015

**SHEET NAME: EROSION PREVENTION & SEDIMENT CONTROL PLAN**

PROJECT NAME: **CLARENDON**
PROJECT NUMBER: **AIR 04-3172-C2**

FILE NAME: 38397036sheet21 | PLOT DATE: 2/16/2006
PROJECT LEADER: G. D'AMICO | DRAWN BY: R. DEWEY
DESIGNED BY: R. DEWEY | CHECKED BY: G. D'AMICO
EROSION PREVENTION & SEDIMENT CONTROL | SHEET 21 OF 27

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VT STATE PLANE GRID

N

APPROXIMATE SOIL BOUNDARY

FAA CONTROL BUILDING

GRASS

64

RUNWAY SAFETY AREA

200

EL = 738' ±

CMP

30

DITCH

TREES

AIRPORT ROAD

VT.103

EXISTING MALSR FOUNDATION

EXISTING ODALS

STONE WALL

GRAVEL DRIVE

SHRUBS

WETLAND

TO LUDLOW

150+00 151+00 152+00 153+00 154+00 155+00 156+00 157+00 158+00 159+00 160+00 161+00 162+00

SOIL TYPES: (USDA CLASSIFICATION)

30 - PAXTON FINE SANDY LOAM

64 - USDA - STOCKBRIDGE GRAVELLY SILT LOAM

SOURSE: SOIL SURVEY OF RUTLAND COUNTY (1984)

0 40 80

SCALE IN FEET

DATUM

VERTICAL NAVD 88

HORIZONTAL NAD 83

STATE OF VERMONT
DAVID W. D'AMICO
No. 3873
REGISTERED PROFESSIONAL ENGINEER

AIP 3-50-0015

**SHEET NAME: EXISTING CONDITIONS PLAN WASTE AREA**

PROJECT NAME: **CLARENDON**

PROJECT NUMBER: **AIR 04-3172-C2**

| | |
|---|---|
| FILE NAME: 38397036sheet22 | PLOT DATE: 2/16/2006 |
| PROJECT LEADER: G. D'AMICO | DRAWN BY: R. DEWEY |
| DESIGNED BY: R. DEWEY | CHECKED BY: G. D'AMICO |
| EROSION PREVENTION & SEDIMENT CONTROL | SHEET 22 OF 27 |

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## LEGEND

- 700 — EXISTING CONTOUR
- 700 — PROPOSED CONTOUR
- APPROX. GRADING LIMITS
- SF — SILT FENCE
- WETLAND BOUNDRY
- WETLAND BUFFER ZONE
- PDF — PROJECT DEMARCATION FENCE
- FLOW DIRECTION

IMPACTS WITHIN BUFFER SHALL BE MINIMIZED

EXISTING FENCE LINE

FAA CONTROL BUILDING

WETLAND BUFFER ZONE

STONE FILL TYPE I

100 L.F. 15" DIA. CPEP WITH END SECTION AT OUTLET FL = 738, S = 0.30 FT/FT

FL = 738 ±

TMP

RUNWAY SAFETY AREA

PROPOSED WASTE MATERIAL DISPOSAL AREA

VT STATE PLANE GRID

PROPOSED CATCH BASIN F.G.= 760.2 INV. OUT = 756.2 STA. 155+09 OFFSET 178' LEFT

EXISTING MALSR FOUNDATION

EXISTING ODALS

EXISTING ODALS

DITCH

VT.103

WETLAND BUFFER ZONE

GRAVEL DRIVE

TO LUDLOW

GRAVEL DRIVE

RUNWAY SAFETY AREA

200

200

150+00 151+00 152+00 153+00 154+00 155+00 156+00 157+00 158+00 159+00 160+00 161+00 162+00

0 40 80

SCALE IN FEET

NOTE:

PROJECT HAS RECEIVED BOTH ACOE 404 PERMIT AND ANR CONDITIONAL USE DETERMINATION FOR WORK IN WETLANDS AND WETLAND BUFFERS

## NOTES

1. ALL ELEVATIONS REFER TO MEAN SEA LEVEL DATUM NAVD-1998
2. CONTRACTOR TO INSTALL SILT FENCE, WHERE NOTED ON PLAN OR DIRECTED BY ENGINEER, PRIOR TO COMMENCING OTHER CONSTRUCTION
3. ALL EARTH AREAS SUBJECT TO CONSTRUCTION WILL BE TOPSOILED , SEEDED AND EROSION MATTING PLACED AS DIRECTED, AS SOON AS WORK IN THE AREA IS COMPLETED. EXISTING TOPSOIL IN PROPOSED WASTE AREA TO BE STRIPPED AND STOCKPILED (ITEM 203.15) PRIOR TO PLACING WASTE MATERIAL. UPON COMPLETION OF PLACING WASTE, RE PLACE TOPSOIL (ITEM 651.35), PLACE SEED (ITEM 651.15) LIME (ITEM 651.20), FERTILIZER (ITEM 651.18) AND MULCH (ITEM 651.25). EROSION MATTING (ITEM 654.10) TO BE PLACED ON SLOPES GREATER THAN 5%.
4. ALL DISTURBED AREAS TO BE TOPSOILED, SEEDED AND MULCHED

**DATUM**

VERTICAL NAVD 88

HORIZONTAL NAD 83

STATE OF VERMONT — DAVID W. D'AMICO — No. 3813

**AIP 3-50-0015**

**SHEET NAME: EROSION PREVENTION & SEDIMENT COTROL PLAN**

PROJECT NAME: **CLARENDON**

PROJECT NUMBER: **AIR 04-3172-C2**

| | |
|---|---|
| FILE NAME: 38397036sheet23 | PLOT DATE: 2/16/2006 |
| PROJECT LEADER: G. D'AMICO | DRAWN BY: R. DEWEY |
| DESIGNED BY: R. DEWEY | CHECKED BY: G. D'AMICO |
| EROSION PREVENTION & SEDIMENT CONTROL | SHEET 23 OF 27 |

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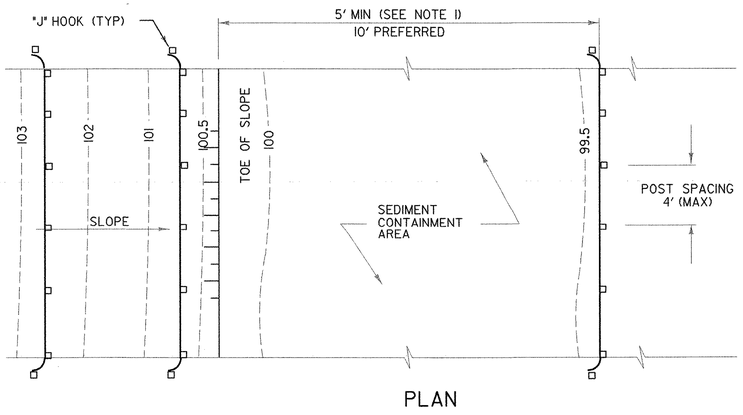
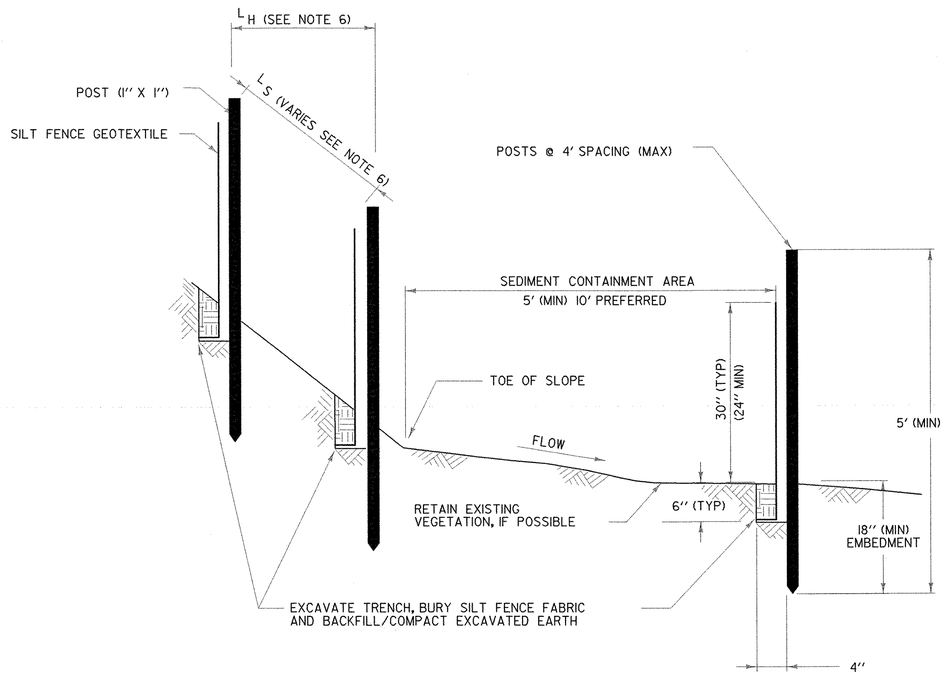
# SILT FENCE




PLAN




SECTION

SILT FENCE - TEMPORARY

## APPLICATION NOTES:

A. THE PRIMARY PURPOSE OF SILT FENCE IS TO REDUCE RUNOFF VELOCITY AND TRAP SEDIMENT. VELOCITY IS REDUCED, WATER IS IMPOUNDED BEHIND THE MEASURE, AND SEDIMENT FALLS OUT OF SUSPENSION.

B. SILT FENCE SHALL BE INSTALLED ON A LINE OF EQUAL ELEVATION (CONTOUR). IT MAY BE INSTALLED AT INTERMEDIATE POINTS UP SLOPES AS WELL AS AT THE BOTTOM, AS SHOWN IN THE DETAIL.

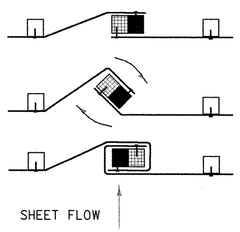
C. SILT FENCE SHALL NOT BE USED ACROSS CONCENTRATED FLOW.

## GENERAL NOTES:

1. SILT FENCE SHALL GENERALLY BE PLACED A MINIMUM OF 5 FEET BEYOND TOE OF SLOPE, 10 FEET PREFERRED, TO PROVIDE ADEQUATE AREA FOR SEDIMENT STORAGE AND FACILITATE MAINTENANCE OF SEDIMENT CONTAINMENT AREA.
2. ALL ENDS SHALL BE 'J' HOOKED TO TRAP SEDIMENT.
3. IN AREAS WITH TWO SLOPES, SILT FENCE SHALL BE USED TO ERECT A DAM AND TRAP SEDIMENT AT THE BASE OF THE STEEPER SLOPE.
4. THE BOTTOM EDGE OF SILT FENCE SHALL BE BURIED A MINIMUM OF 6 INCHES BELOW GROUND, AND KEYED IN 4 INCHES. THE FENCE SHALL BE INSTALLED WITH THE POSTS ON THE DOWNSTREAM SIDE OF THE FABRIC.
5. MAXIMUM DRAINAGE AREA TRIBUTARY TO 100 FEET OF SILT FENCE SHALL BE 0.25 ACRES.
6. THE FOLLOWING ARE MAXIMUM SLOPE LENGTHS FOR THESE MEASURES:

| CONSTRUCTED SLOPE | SLOPE LENGTH (LS) FT | HORIZONTAL LENGTH (LH) FT |
|---|---|---|
| 3 : 1 | 80 | 75 |
| 4 : 1 | 130 | 125 |
| 5 : 1 | 200 | 200 |
| > 5 : 1 | 250 | 250 |

7. MEASURES SHALL BE INSPECTED EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM EVENT GREAT ENOUGH TO CAUSE WATER TO LEAVE THE CONSTRUCTION SITE.
8. MEASURES SHALL BE CLEANED AND REPAIRED AS NEEDED. SEDIMENT SHALL BE REMOVED WHEN ACCUMULATION REACHES ONE-HALF OF THE MEASURE HEIGHT. SEDIMENT SHALL BE DISPOSED OF AS UNSUITABLE MATERIAL.
9. SILT FENCE SHALL BE REMOVED WHEN THE AREA HAS BEEN STABILIZED. AT TIME OF REMOVAL OF THE SILT FENCE, THE DISTURBED AREA SHALL BE REPAIRED AND STABILIZED. PAYMENT TO BE INCIDENTAL TO ITEM 649.51
10. PAYMENT FOR INSTALLATION OF SILT FENCE SHALL BE MADE UNDER THE GEOTEXTILE FOR SILT FENCE ITEM 649.51.
11. PAYMENT FOR MONITORING SILT FENCE SHALL BE MADE UNDER THE MONITORING EROSION PREVENTION & SEDIMENT CONTROL PLAN ITEM 652.20.
12. PAYMENT FOR MAINTAINING SILT FENCE SHALL BE MADE UNDER THE MAINTENANCE OF EROSION PREVENTION & SEDIMENT CONTROL PLAN ITEM 625.30, UNLESS MAINTENANCE IS REQUIRED DUE TO POOR INSTALLATION PRACTICES.




1. PLACE THE END POST OF ONE FENCE INSIDE THE END POST OF THE OTHER FENCE.
2. ROTATE BOTH POSTS AT LEAST 180 DEGREES IN A CLOCKWISE DIRECTION TO CREATE A TIGHT SEAL WITH THE FABRIC MATERIAL
3. DRIVE BOTH POSTS 18 INCHES INTO THE GROUND AND BURY THE FLAP IN THE TRENCH.

SPLICING DETAIL

**DATUM**
VERTICAL NAVD 88
HORIZONTAL NAD 83

STATE OF VERMONT GENARO W. D'AMICO No. 3873 REGISTERED PROFESSIONAL ENGINEER

**AIP 3-50-0015**

**SHEET NAME: EROSION PREVENTION & SEDIMENT CONTROL DETAILS SILT FENCE**

PROJECT NAME: **CLARENDON**
PROJECT NUMBER: **AIR 04-3172-C2**

FILE NAME: 38397036sheet24 PLOT DATE: 2/16/2006
PROJECT LEADER: G. D'AMICO DRAWN BY: R. DEWEY
DESIGNED BY: R. DEWEY CHECKED BY: G. D'AMICO
EROSION PREVENTION & SEDIMENT CONTROL SHEET 24 OF 27

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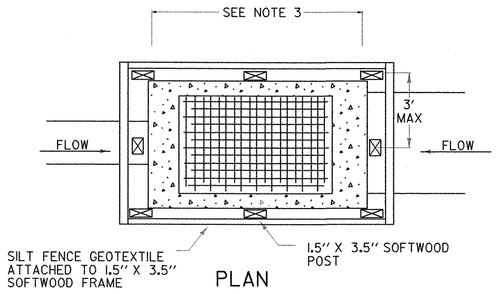
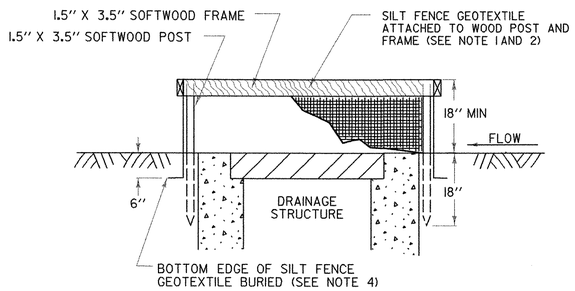



PLAN




SECTION

SILT FENCE DROP INLET PROTECTION

# DROP INLET PROTECTION

## APPLICATION NOTES:

A. THE PRIMARY PURPOSE OF DRAINAGE STRUCTURE INLET PROTECTION IS TO PREVENT SEDIMENT FROM ENTERING A DRAINAGE SYSTEM BY PONDING WATER WHICH ALLOWS SEDIMENT TO FALL OUT OF SUSPENSION.

B. THESE EXAMPLES OF DROP INLET PROTECTION ARE NOT INTENDED FOR USE ON GRADES. ON GRADE THEY MAY CAUSE WATER TO BYPASS THE STRUCTURE, CREATING ADDITIONAL EROSION OR FLOODING.

C. POSSIBLE MODIFICATIONS FOR USE ON GRADE INCLUDE ADDING A BERM DOWNSTREAM OF THE INLET TO CREATE PONDING. CHECK DAMS MAY ALSO BE USED UPSTREAM OF THE INLET TO SLOW VELOCITIES.

## GENERAL NOTES:

1. THE TOP OF THE INLET PROTECTION SHALL BE SET AT THE MAXIMUM DESIRED WATER LEVEL, BASED ON FIELD LOCATION AND CONDITIONS.

2. SILT FENCE GEOTEXTILE SHALL BE A SINGLE CONTINUOUS PIECE TO ELIMINATE JOINTS.

3. SPACE SILT FENCE POSTS EVENLY AROUND INLET WITH A MAXIMUM SPACING OF 3 FEET. DRIVE POSTS A MINIMUM OF 18 INCHES INTO GROUND. WIRE MESH MAY BE REQUIRED BEHIND GEOTEXTILE TO PROVIDE SUPPORT.

4. SILT FENCE GEOTEXTILE SHALL BE EMBEDDED A MINIMUM OF 6 INCHES AND BACKFILLED. GEOTEXTILE SHALL BE SECURELY FASTENED TO POSTS AND FRAME.

5. MEASURES SHALL BE INSPECTED EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM EVENT GREAT ENOUGH TO CAUSE WATER TO LEAVE THE CONSTRUCTION SITE.

6. MEASURES SHALL BE CLEANED AND REPAIRED AS NEEDED, SEDIMENT SHALL BE REMOVED WHEN ACCUMULATION REACHES ONE-HALF OF THE MEASURE HEIGHT. SEDIMENT SHALL BE DISPOSED OF AS UNSUITABLE MATERIAL.

7. PAYMENT OF INLET PROTECTION SHALL BE MADE UNDER GEOTXTILE FOR SILT FENCE, ITEM 649.5IITEM INCLUDED IN THE CONTRACT PLANS. THE COST OF FURNISHING, PLACING, AND INSTALLING THE SOFTWOOD FRAME AND POSTS ARE INCIDENTAL TO ITEM 649.5I.

8. PAYMENT FOR MONITORING INLET PROTECTION SHALL BE MADE UNDER THE MONITORING EROSION PREVENTION & SEDIMENT CONTROL PLAN ITEM 652.20.

9. PAYMENT FOR MAINTAINING INLET PROTECTION SHALL BE MADE UNDER MAINTENANCE OF EROSION PREVENTION & SEDIMENT CONTROL PLAN ITEM 652.30, UNLESS MAINTENANCE IS REQUIRED DUE TO POOR INSTALLATION PRACTICES.

**DATUM**
VERTICAL NAVD 88
HORIZONTAL NAD 83

STATE OF VERMONT
DAVID W. D'AMICO
No. 3813
REGISTERED
PROFESSIONAL ENGINEER

**AIP 3-50-0015**

**SHEET NAME: EROSION PREVENTION & SEDIMENT CONTROL DETAILS DROP INLET PROTECTION**

PROJECT NAME: **CLARENDON**
PROJECT NUMBER: **AIR 04-3172-C2**

FILE NAME: 38397036sheet25 PLOT DATE: 2/16/2006
PROJECT LEADER: G. D'AMICO DRAWN BY: R. DEWEY
DESIGNED BY: R. DEWEY CHECKED BY: G. D'AMICO
EROSION PREVENTION & SEDIMENT CONTROL SHEET 25 OF 27

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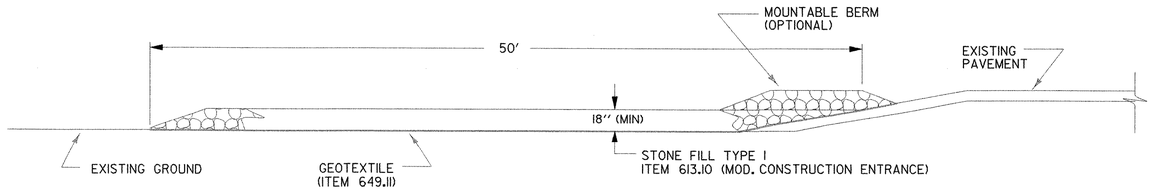
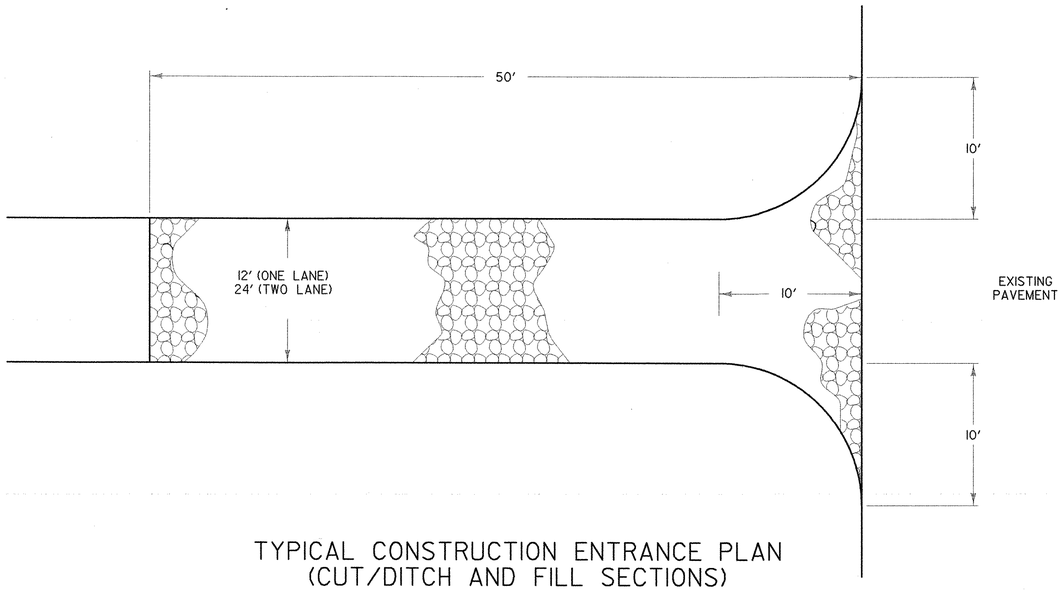



TYPICAL CONSTRUCTION ENTRANCE PROFILE
(CUT AND DITCH SECTIONS)




TYPICAL CONSTRUCTION ENTRANCE PLAN
(CUT/DITCH AND FILL SECTIONS)

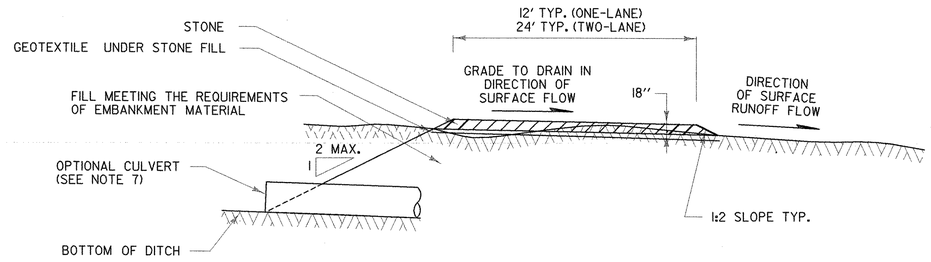
# STABILIZED CONSTRUCTION ENTRANCE

## APPLICATION NOTES:

A. THE PURPOSE OF A STABILIZED CONSTRUCTION ENTRANCE IS TO REDUCE OR ELIMINATE THE TRACKING OF SEDIMENT ONTO PUBLIC RIGHTS OF WAY OR STREETS.

## GENERAL NOTES:

1. STONE SIZE - USE CLEAN STONE WITH GRADATION BETWEEN 2 INCHES AND 4 INCHES .
2. LENGTH - 50 FEET (MIN)
3. THICKNESS - 18 INCHES (MIN)
4. WIDTH - 12 FEET (MIN)
5. GEOTEXTILE UNDER STONE WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE FILL.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE AS DIRECTED BY THE ENGINEER. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. PROPOSED DRAINAGE PIPES SHALL BE SIZED WITH SUFFICIENT CAPACITY TO CARRY DITCH FLOWS. ALTERNATIVE WAYS OF TRANSPORTING DITCH DRAINAGE ACROSS CONSTRUCTION ENTRANCES MAY BE PROPOSED BY THE CONTRACTOR FOR APPROVAL BY THE ENGINEER.
8. WHEN WASHING OF VEHICLE IS NECESSARY, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. MEASURES SHALL BE INSPECTED EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM EVENT GREAT ENOUGH TO CAUSE WATER TO LEAVE THE CONSTRUCTION SITE.
10. MAINTENANCE- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
11. AT THE TIME OF REMOVAL OF THE STABILIZED CONSTRUCTION ENTRANCE THE DISTURBED AREA SHALL BE REPAIRED AND STABILIZED.
12. PAYMENT OF THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE MADE UNDER APPLICABLE ITEMS INCLUDED IN THE CONTRACT PLANS.
13. PAYMENT FOR MONITORING STABILIZED CONSTRUCTION ENTRANCES SHALL BE MADE UNDER THE MONITORING EROSION PREVENTION & SEDIMENT CONTROL PLAN ITEM 652.20.
14. PAYMENT FOR MAINTAINING THE CONSTRUCTION ENTRANCE SHALL BE MADE UNDER THE MAINTENANCE OF EROSION PREVENTION & SEDIMENT CONTROL PLAN ITEM 652.30, UNLESS MAINTENANCE IS REQUIRED DUE TO POOR INSTALLATION PRACTICES.




TYPICAL CONSTRUCTION ENTRANCE SECTION

**DATUM**
VERTICAL NAVD 88
HORIZONTAL NAD 83

STATE OF VERMONT
BERNARD W. D'AMICO
No. 3012
REGISTERED
PROFESSIONAL ENGINEER

**AIP 3-50-0015**

**SHEET NAME: EROSION PREVENTION & SEDIMENT CONTROL DETAILS CONSTRUCTION ENTRANCE**

PROJECT NAME: **CLARENDON**
PROJECT NUMBER: **AIR 04-3172-C2**

| | |
|---|---|
| FILE NAME: 38397036sheet26 | PLOT DATE: 2/16/2006 |
| PROJECT LEADER: G. D'AMICO | DRAWN BY: R. DEWEY |
| DESIGNED BY: R. DEWEY | CHECKED BY: G. D'AMICO |
| EROSION PREVENTION & SEDIMENT CONTROL | SHEET 26 OF 27 |

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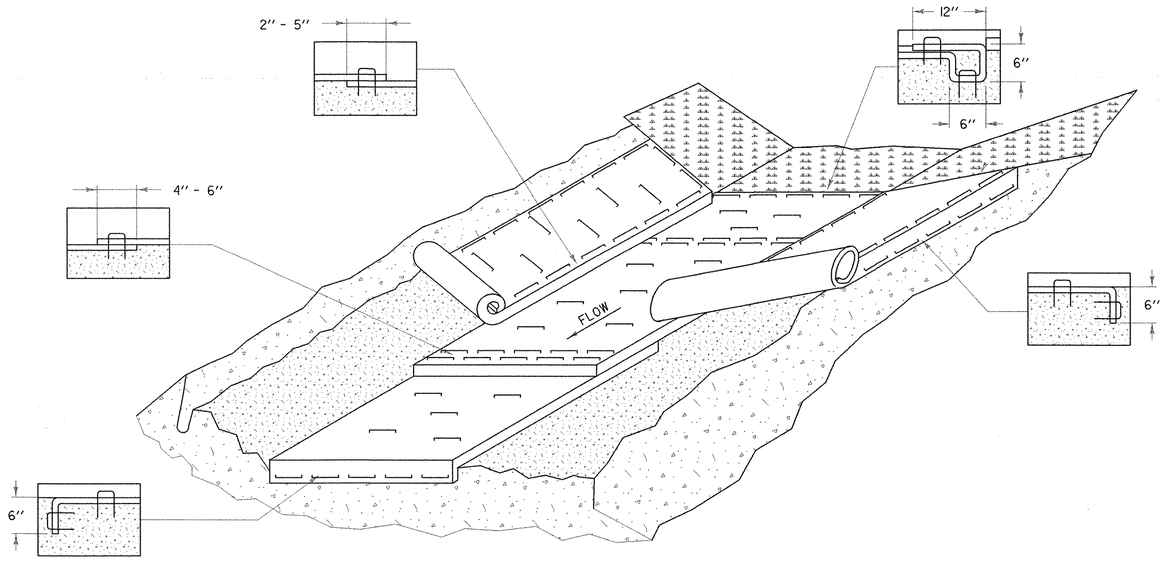



## EROSION PROTECTION FOR DITCHES

### APPLICATION NOTES:

A. THE PURPOSE OF LINING THE DITCH WITH EROSION MATTING IS TO REDUCE EROSION AND AID THE ESTABLISHMENT OF VEGETATION AT LOW VELOCITIES.

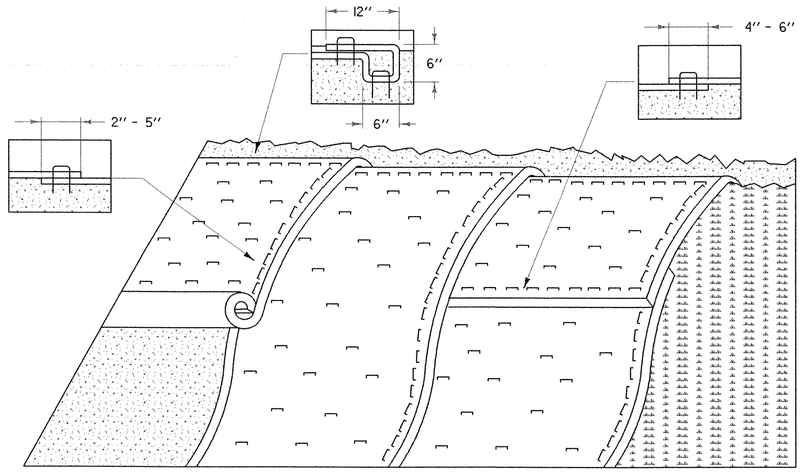
B. THE FOLLOWING CHARTS SHALL BE USED TO DETERMINE THE APPROPRIATE EROSION CONTROL MEASURE:

| DITCH AND CHANNEL PROTECTION | |
|---|---|
| SLOPE | LINING |
| < 1% | GRASS |
| 1% TO 4 % | EROSION MATTING |
| 4 % TO 10 % | STONE FILL, TYPE I |
| > 10 % | STONE FILL, TYPE II |

| STONE FILL THICKNESS | |
|---|---|
| STONE FILL TYPE | THICKNESS |
| TYPE I | 1 FT |
| TYPE II | 2 FT |

### GENERAL NOTES:

1. WATER MAY NEED TO BE DIVERTED TO ALLOW PROPER MATTING INSTALLATION.
2. GRADE AND SMOOTH CHANNEL TO PROVIDE GOOD MATTING TO SOIL SURFACE CONTACT.
3. APPLY FERTILIZER, LIME, AND SEED PRIOR TO PLACING MATTING.
4. INSTALL MATTING IN THE CENTER OF THE CHANNEL, IN THE DIRECTION OF THE WATER FLOW.
5. INSTALL MATTING ON THE SIDE SLOPES OF THE CHANNEL, OVERLAPPING THE CENTER MAT.
6. ANCHOR MATTING AS SHOWN, UTILIZING ANCHOR STAPLES. STAPLE PLACEMENT SHALL BE DETERMINED BY THE MANUFACTURER'S INTALLATION INSTRUCTIONS.
7. MEASURES SHALL BE INSPECTED EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM EVENT GREAT ENOUGH TO CAUSE WATER TO LEAVE THE CONSTRUCTION SITE.
8. MEASURES SHALL BE REPAIRED AND RESTAPLED AS NECESSARY TO ENSURE PROPER FUNCTION.
9. PAYMENT FOR INSTALLATION OF MATTING SHALL BE MADE UNDER ITEM 654.10 EROSION MATTING
10. PAYMENT FOR MONITORING EROSION CONTROL MATTING SHALL BE MADE UNDER THE MONITORING EROSION PREVENTION & SEDIMENT CONTROL PLAN, ITEM 652.20
11. PAYMENT FOR MAINTAINING DITCH PROTECTION SHALL BE MADE UNDER MAINTENANCE OF EROSION PREVENTION & SEDIMENT CONTROL PLAN, ITEM 652.30, UNLESS MAINTENANCE IS REQUIRED DUE TO POOR INSTALLATION PRACTICES.




## EROSION PREVENTION FOR SIDE SLOPES

### APPLICATION NOTES:

A. THE PURPOSE OF MATTING ON SIDE SLOPES IS TO REDUCE EROSION AND AID THE STABLISHMENT OF VEGETATION

B. EROSION CONTROL MATTING SHALL BE USED FOR THE FOLLOWING REASONS:

- SIDE SLOPES > 5%
- AREAS WHERE SEED AND MULCH WILL NOT STAY IN PLACE ALONE
- WHERE SEEDING IS OUTSIDE THE GROWING SEASON.

### GENERAL NOTES:

1. GRADE AND SMOOTH THE SLOPE TO PROVIDE GOOD MATTING TO SOIL SURFACE CONTACT.
2. APPLY FERTILIZER, LIME, AND SEED PRIOR TO PLACING MATTING.
3. ANCHOR MATTING AS SHOWN, UTILIZING ANCHOR STAPLES. STAPLE PLACEMENT SHALL BE DETERMINED BY THE MANUFACTURER'S INTALLATION INSTRUCTIONS.
4. UNROLL MATTING VERTICALLY DOWN SLOPE IN THE DIRECTION OF WATER FLOW.
5. OVERLAP UPPER MATTING OVER LOWER MATTING AS SHOWN.
6. OVERLAP ADJACENT MATTING AS SHOWN.
7. CUT EXCESS MATTING AT END OF SLOPE AND ANCHOR THE END.
8. MEASURES SHALL BE INSPECTED EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM EVENT GREAT ENOUGH TO CAUSE WATER TO LEAVE THE CONSTRUCTION SITE.
9. MATTING SHALL BE REPAIRED AND RESTAPLED AS NECESSARY TO ENSURE PROPER FUNCTION.
10. PAYMENT FOR INSTALLATION OF MATTING SHALL BE MADE UNDER ITEM 654.10 EROSION MATTING
11. PAYMENT FOR MONITORING EROSION CONTROL MATTING SHALL BE MADE UNDER THE MONITORING EROSION PREVENTION & SEDIMENT CONTROL PLAN ITEM 652.20
12. PAYMENT FOR MAINTAINING SLOPE PROTECTION SHALL BE MADE UNDER MAINTENANCE OF EROSION PREVENTION & SEDIMENT CONTROL PLAN ITEM 652.30, UNLESS MAINTENANCE IS REQUIRED DUE TO POOR INSTALLATION PRACTICES.

**DATUM**
VERTICAL NAVD 88
HORIZONTAL NAD 83

STATE OF VERMONT · GERALD W. D'AMICO · No. 3873 · REGISTERED PROFESSIONAL ENGINEER

**AIP 3-50-0015**

**SHEET NAME: EROSION PREVENTION & SEDIMENT CONTROL DETAILS DITCH & SLOPE PROTECTION**

PROJECT NAME: **CLARENDON**
PROJECT NUMBER: **AIR 04-3172-C2**

| | |
|---|---|
| FILE NAME: 38397036sheet27 | PLOT DATE: 2/16/2006 |
| PROJECT LEADER: G. D'AMICO | DRAWN BY: R. DEWEY |
| DESIGNED BY: R. DEWEY | CHECKED BY: G. D'AMICO |
| EROSION PREVENTION & SEDIMENT CONTROL | SHEET 27 OF 27 |

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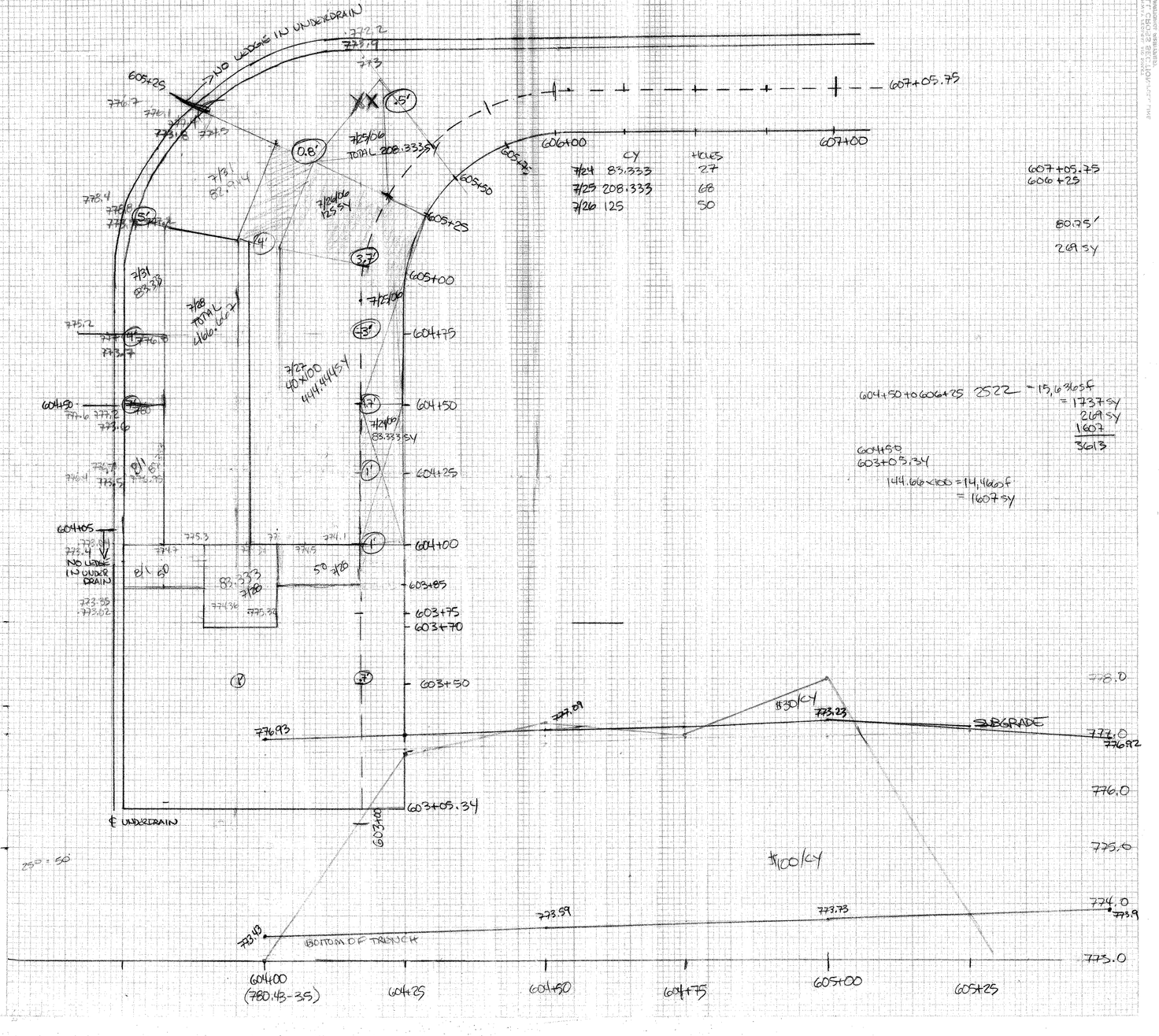
CLARENDON AIR 04-3172 C/2
BY P. REED

CLARENDON AIR 04-3172 C/2
BY: P.REED - HTA

ITEM 205.20
DRILLING AND BLASTING OF SOLID ROCK SUBGRADE




| | CY | TRUCKS |
|---|---|---|
| 7/24 | 83.333 | 27 |
| 7/25 | 208.333 | 68 |
| 7/26 | 125 | 50 |

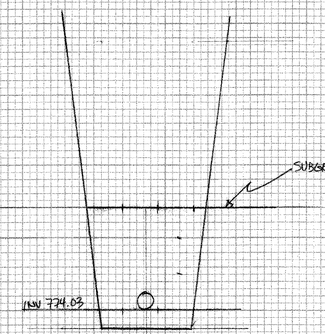
607+05.75
606+25
80.75'
269 SY

604+50 to 606+25 2522 = 15,163.05 SF
= 1737 SY
269 SY
1607
3613

604+50
603+05.34
144.66 x 100 = 14,466 SF
= 1607 SY

PLATE 3-1: CULL CROSS SECTION
HIGHWAY FEDERAL AID SHEET

STA. 603+50




95'LT 90'LT 88'LT 85'LT 80'LT

TRENCH EXCAV. EARTH

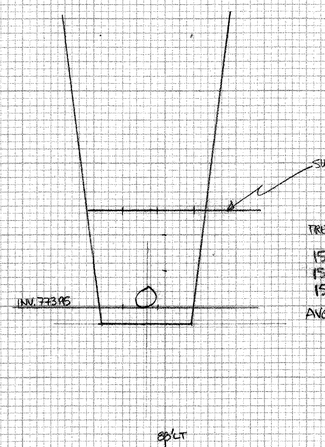
156
158
160

9,796 SF

AVG. 158(0.062) = 9,796 ✓

JDG
12/7-06

STA. 603+25




95'LT 90'LT 85'LT 80'LT

TRENCH EXCAV. EARTH

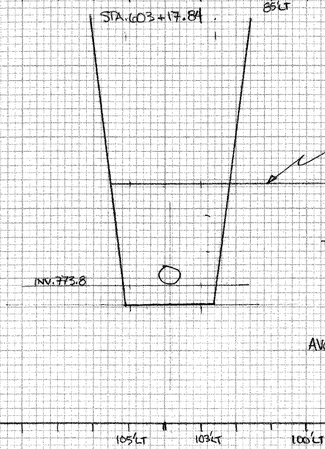
153
155
151

9,486 SF

AVG. 153(0.062) = 9,486 ✓

JDG
12/7-06

STA. 603+17.84




110'LT 105'LT 103'LT 100'LT 95'LT

TRENCH EXCAV. EARTH

163
159
162

10,003 SF

AVG. 161.333 (0.062) = 10.003 ✓

JDG
12/7-06

1" = 50'

0 1 2'

CLARENDON AIR 04-3172 C/2

STA. 604+25

TRENCH EXCAV. ROCK

131
132 8.164 SF
132

AVG 131.667(0.062) = 8.164 ✓ JDG 12/7-06

TRENCH EXCAV. EARTH

15
16 0.992 SF
17

AVG. 16(0.062) = 0.992 ✓ JDG 12/7-06

LEDGE LINE

LEDGE

SUBGRADE LINE

INV. 777.86

100'LT

OLD GROUND

98.5'LT

80'LT

STA. 604+00

SUBGRADE

SUBGRADE LINE

TRENCH EXCAV. EARTH

162
162 10.044 SF
162

AVG. 162(0.062) = 10.004 10.044 JDG 12/7-06

INV. 777.79

100'LT

90'LT

88.5'LT

85'LT

80'LT

STA. 603+75

SUBGRADE LINE

TRENCH EXCAV. EARTH

155
154 9.590 SF
155

AVG. 154.667(0.062) = 9.589 ✓ JDG 12/7-06

INV. 774.10

90'LT

88.5'LT

85'LT

80'LT

SOLID ROCK EXCAV.

75
75 4.671 SF
76

AVG 75.334(0.062) = 4.671 ✓ JDG 12/7-06

STA. 605+00

LEDGE

SUBGRADE

INV. 774.98

80'LT

TRENCH EXCAV. ROCK

152
151 9.383
151

AVG 151.334(0.062) = 9.383 ✓ JDG 12/7-06

90'LT

87.96'LT

80'LT

STA. 604+75

TRENCH EXCAV. EARTH

8
8 0.517 SF
9

AVG. 8.334(0.062) = 0.517 ✓ JDG 12/7-06

SUBGRADE

LEDGE

INV. 774.41

100'LT

90'LT

88.23'LT

84.73'LT

80'LT

STA. 604+50

LEDGE

SUBGRADE

INV. 774.34

SOLID ROCK EXCAV.

29
29 1.798 SF
29

AVG 29(0.062) = 1.798 ✓ JDG 12/7-06

TRENCH EXCAV. ROCK

155
153 9.569 SF
155

AVG. 154.334(0.062) = 9.569 ✓ JDG 12/7-06

100'LT

90'LT

88.5'LT

80'LT

STA. 605+75

SUBGRADE

INV. 774.72

TRENCH EXCAV. EARTH

127
126 7.812 SF
125

AVG. 126(0.062) = 7.812 ✓ JDG 12/7-06

80'LT

40'LT

34.15'LT

30'LT

STA. 605+50

SUBGRADE

LEDGE

INV. 774.65

TRENCH EXCAV. EARTH

142
140 8.763 SF
142

AVG. 141.333(0.062) = 8.763 ✓ JDG 12/7-06

50'LT

49.57'LT

40'LT

STA. 605+25

TRENCH EXCAV. EARTH

127
125 7.771 SF
124

AVG. 125.333(0.062) = 7.771 ✓ JDG 12/7-06

SUBGRADE

LEDGE

INV. 774.56

TRENCH EXCAV. ROCK

21
22 1.323 SF
21

AVG. 21.334(0.062) = 1.323 JDG 12/7-06

80'LT

70'LT

68.34'LT

60'LT

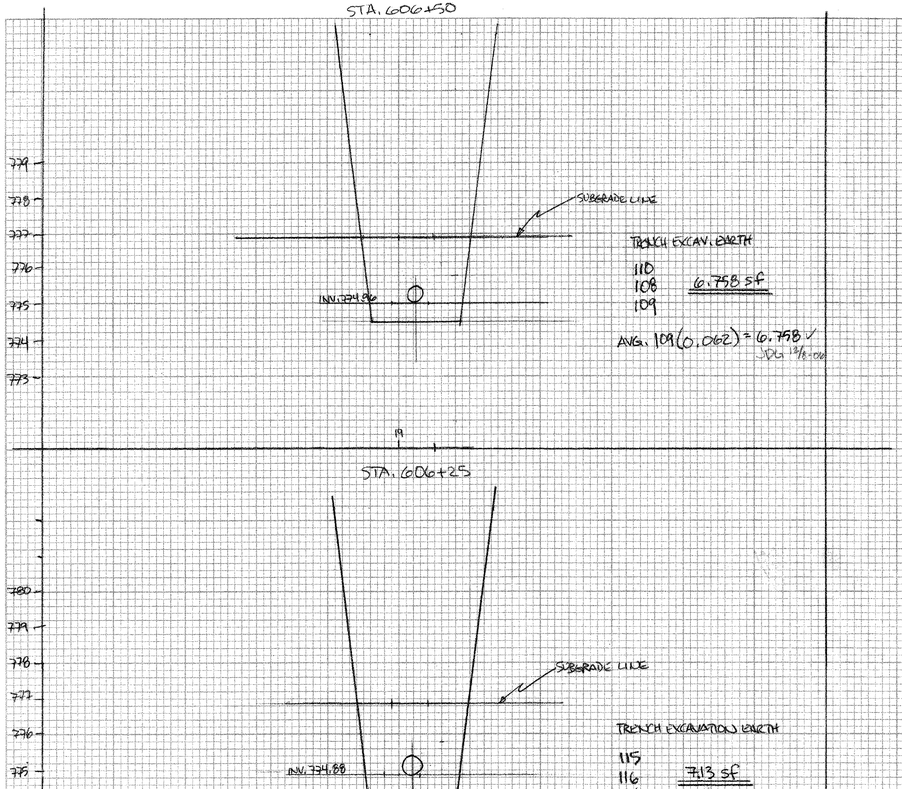
CLARENDON AVE 04-3172 C/2

SCALE: 1 INCH = 2 FEET

Trench Rock + Earth

FINAL PLAN
SURVEY
DRAWN
TRACED
DETAILED
CHECKED
QUANTITIES
STA-INSET
SHEET
CHECKED
VOL
STA
DATE

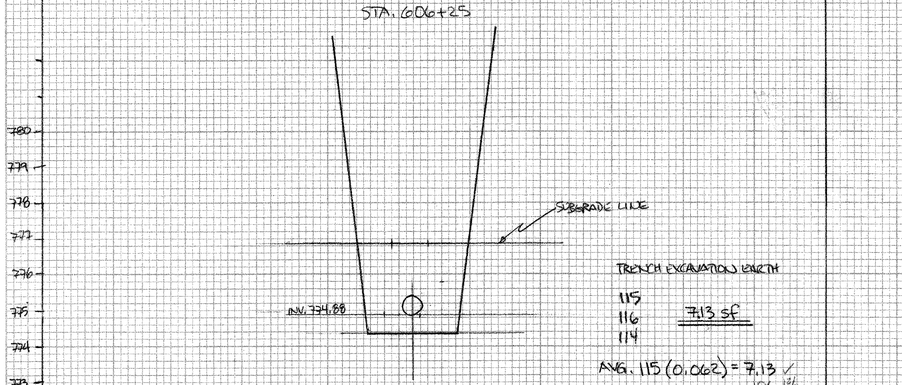
STA. 606+50




TRENCH EXCAV. EARTH
110
108 6.758 SF
109

AVG. 109(0.062) = 6.758 ✓
JDG 12/18-06

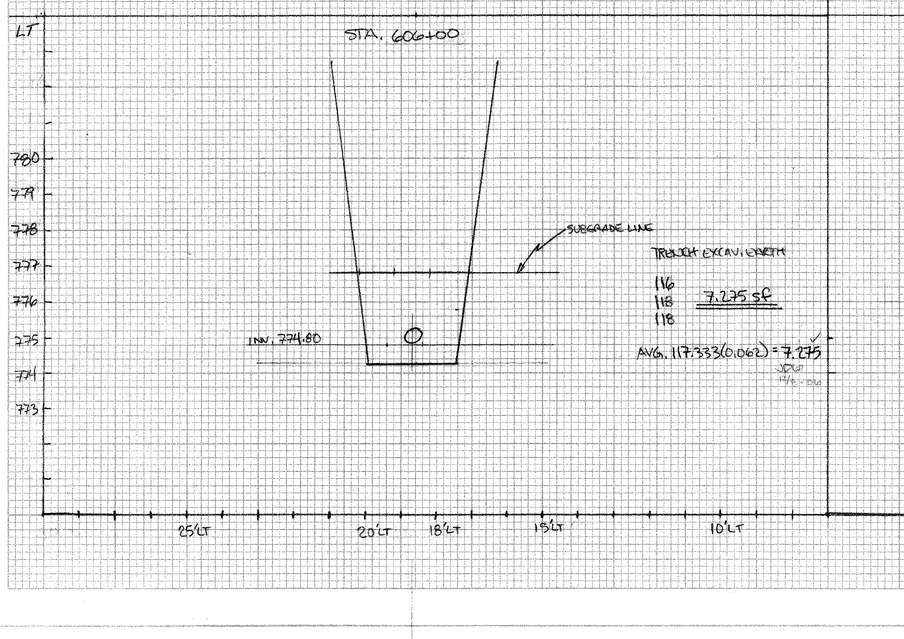
STA. 606+25




TRENCH EXCAVATION EARTH
115
116 7.13 SF
114

AVG. 115(0.062) = 7.13 ✓
JDG 12/18-06

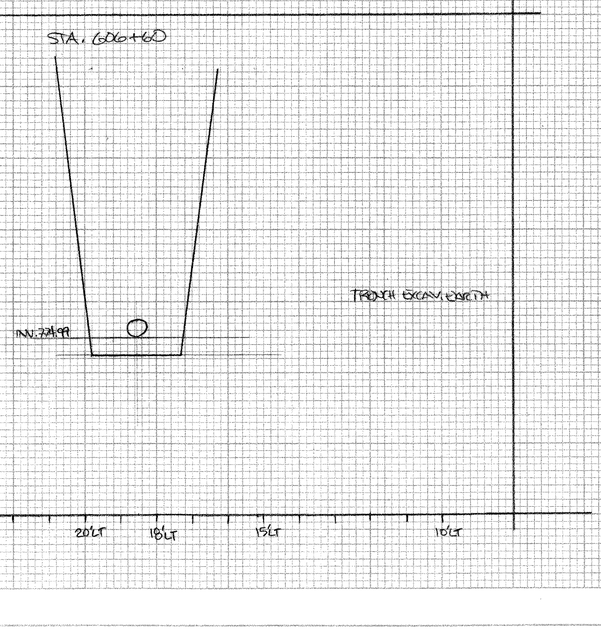
STA. 606+00




TRENCH EXCAV. EARTH
116
118 7.275 SF
118

AVG. 117.333(0.062) = 7.275 ✓
JDG 12/18-06

STA. 606+60




TRENCH EXCAV. EARTH

CLARENDON AIR 04-3172 C/2

STATE 3-LANE CROSS SECTION/PROFILE
HIGHWAY NUMBER VIA SHEET

STA. 603+05.34

STA. 603+25

STA. 603+50

COMMON EXCAV.
216 37 7
220 36 8
220 36 8
AVG. 216.7 + 36.3 + 7.7 = 262.7 ✓
PLANIMETER READINGS

(262.7)(1.55) = 408 SF ✓
Ved MCP 11-29-06

COMMON EXCAV.
AVG. 377 375 375 379
PLANIMETER READINGS

(377)(1.55) = 584 SF ✓
Ved MCP 11-29-06

COMMON EXCAV.
AVG. 657 650 665 657
PLANIMETER READINGS

1.55 PLANIMETER FACTOR
6.57 × 1.55 = 1018 SF ✓
MCP 11-29-06

LEDGE
ORIGINAL GROUND
SUBGRADE
FINISH GRADE - PAVEMENT
FINISH GRADE - EARTH

F.G.

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 | 10 20 30 40 50 60 70 80
LEFT RIGHT

SCALE: 1 INCH = 10 FEET

CLARENDON AVE 04-3172 C/2

BY: P.REED - HTA

PLAN Jed by MCP & CKD 11-29-06

PLAN VIEW
PROFILE
CROSS SECTIONS
TYPICAL SECTIONS
QUANTITIES
DETAILS
STRUCTURES
SIGNING
PAVEMENT MARKING
TRAFFIC CONTROL
TRAFFIC SIGNAL
UTILITIES
DRAINAGE
LANDSCAPING
ROADSIDE DEVELOPMENT

PLATE 3-LAND CROSS SECTION/UTILITY LINE

STA. 603+75

800
790
780
770
760
750

COMMON EXCAV:
AVG 720 / 718 / 723 / 712 > PLANIMETER READINGS

(718)(1.55) = 1113 SF JDG 12/7-06

STA. 604+00

800
790
780
770
760
750

COMMON EXCAV.
AVG 767 / 772 / 774 / 776 > PLANIMETER READINGS

772 × 1.55 = 1196.6 ≈ 1197 ✓ JDG 12/7-06

STA. 604+25

800
790
780
770
760

COMMON EXCAV.
AVG 817 / 812 / 821 / 816 > PLANIMETER READINGS

(817)(1.55) = 1266 SF JDG 12/7-06

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 LEFT ℄ 10 RIGHT 20 30 40 50 60 70 80

CLARENDON AIR 04-3172 C/2

SCALE: 1 INCH = 10 FEET

BY: P. REED - HTA

PLATE 3-HALL CROSS SECTION-CENTER LINE

STA. 604+50

STA. 604+75

STA 605+00

COMMON EXCAV.
AVG. 872, 874, 880 > PLANIMETER READINGS

SOLID ROCK EXCAV. - ROADBED
AVG. 30.667 (16P) 31, 30, 31 > PLANIMETER READINGS

876 X 1.55 = 1358
768 11-29-06

30.667 X 1.55 = 47.53
768 11-29-06

COMMON EXCAV.
AVG. 946 941, 945, 951 > PLANIMETER READINGS

954 [illegible]

946 X 1.55 = 1466
768 11-29-06

943 X 1.55 = 1462
768 11-29-06

COMMON EXCAV.
AVG 943 946, 959, 947 > PLANIMETER READINGS

SOLID ROCK EXCAV. - ROADBED
AVG 3 3, 3, 3 > PLANIMETER READINGS

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90

LEFT RIGHT

CLARENDON AIR 04-3172 C/2

SCALE: 1 INCH = 10 FEET

BY: P.REED - HTA

Planimeter [illegible] by [illegible] CKD 11-[illegible]

PLATE 3-LIGHT CHORD SECTION-LIGHT LINE
HIGHWAY MEDIAN VIA SWALE

STA. 605+25

790

800
790
780
770
760
750

COMMON EXCAV.

AVG. 762 ✓ — 761, 762, 762 → PLANIMETER READINGS

Verified

(762)(1.55) = 1181 JDG 12/7-06

STA. 605+50

800
790
780
770
760
750

COMMON EXCAV.

AVG. 642 ✓ — 643, 642, 642 → PLANIMETER READINGS

CKD 11/29/06

(642)(1.55) = 995 SF JDG 12/7-06

STA. 605+75

800
790
780
770
760
750

UNDERCUT 2' AND REPLACED WITH SUBBASE OR DENSE GRADED CRUSHED STONE TO STA. 606+00

4½' x 2 = 96 SF

RED 11-29-06

58, 58, 59 → AVG. PLANIMETER READING, 58.33 SY

COMMON EXCAV.

AVG. 582 ✓ — 579, 586, 580 → PLANIMETER READINGS

EARTH TRENCH 4 FT AVG. 5.33

CKD 11/29/06

(582)(1.55) + 96 = 998 SF CB 12-7-06

Plan ✓ JDG & CKB 11-29-06

SCALE: 1 INCH = 10 FEET

CLARENDON AIR 04-3172 C/2

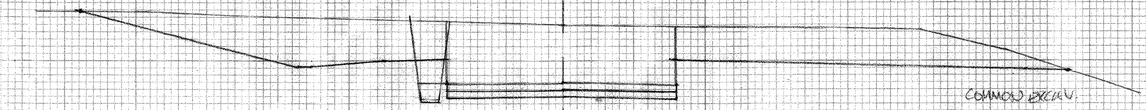
BY: P. REED - HTA

DESIGNED — DRAWN — CHECKED — QUANTITIES — NOTE BOOK — DATE — SCALE — VERIFIED — APPROVED

ORIGINAL
VOID
STATE BOOK
PAGE NO.
CONTRACT
DESIGNED
DRAWN
CHECKED
QUANTITIES
APPROVED
DATE
NO.
DATE
BY
REVISIONS

LATE 3-LANE CROSS SECTION-LOOP LINE

STA. 660+00



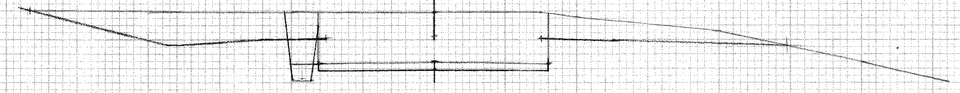
COMMON EXCAV.

AVG. 481 | 484 | 484 | 476 | PLANIMETER READINGS

477 ~~482~~

(481)(1.55) = 746 SF

STA. 655+25



COMMON EXCAV.

AVG. 289 | 287 | 290 | 290 | PLANIMETER READINGS

~~292~~ ~~296~~

(289)(1.55) = 448 SF

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90

CLARENDON AIR 04-3172 C/2

SCALE: 1 INCH = 10 FEET

BY: P. REED - HTA

Load Plan 4/03 11-25-96

PLATE 3-LOUT CHOSEN SECTION/LOUT LINE

STA. 606+50

STA. 606+75

STA. 607+00

STA. 607+05.75

760 770 780 790 800

COMMON EXCAV

Avg. 180 ✓ (181, 182, 178) PLANIMETER READINGS

Jeff Plan 08 11-29-06

(180)(1.55) = 279 SF ✓ CKD 11/7/06

COMMON EXCAV.

76
83
80

Avg. 80

(80)(1.55) = 125 SF ✓ JDG 12/7-06

75
69
75

Avg. 73

(73)(1.55) = 113 SF ✓ CKD 12/7/06

EXISTING GRADE

60 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80

SCALE: 1 INCH = 10 FEET

CLARENDON AIR 04-3172 C/2

BY: P. REED - HTA

JANUARY 2008 SURVEY

STATUS: PRELIMINARY

DESIGNED DATA

DRAWN

CHECKED

QC

FIELD BOOK

SHEET

DATE