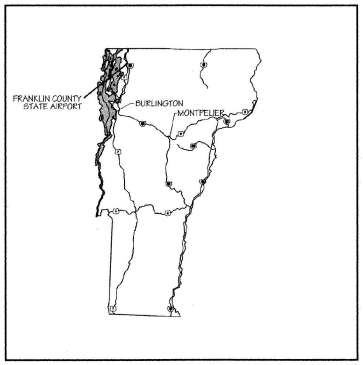
FRANKLIN COUNTY STATE AIRPORT
HIGHGATE, VERMONT

PROPOSED IMPROVEMENTS TO INCLUDE
INSTALLATION OF AUTOMATED WEATHER OBSERVATION STATIONS
(AWOS)

FRANKLIN AIR 04-3144 C/1



LOCATION MAP

SHEET	TITLE
1	TITLE SHEET
2	QUANTITIES, PHASING NOTES, MISC DETAILS
3	CONSTRUCTION AND SAFETY NOTES
4	AWOS SITE PLAN
5	SITE LAYOUT PLAN
6	ELECTRICAL DETAILS
7	FOUNDATION LAYOUT PLAN
8	MAIN SENSOR SUITE FOUNDATION
9	10-METER WIND TOWER FOUNDATION
10	10-METER WIND TOWER WITH WIND SENSOR INSTALLATION
11	CENTRAL DATA PROCESSING STATION

VAOT STANDARD DRAWINGS

1	EROSION CONTROL DETAILS T-1
2	EROSION CONTROL DETAILS T-2
3	DRIVE GATE FOR WOVEN WIRE FENCE F-1
4	CHAIN LINK FENCE (TYPE I) F-2
5	CHAIN LINK FENCE (TYPE II) F-3
6	CHAIN LINK FENCE (TYPE III) F-4

INDEX OF SHEETS

RECORD PLANS

CONTRACTOR: NECCO INC. WAITSFIELD, VT.

RESIDENT ENGINEER: D. WARNER

CONSTRUCTION BEGAN:

CONSTRUCTION COMPLETE: NOVEMBER 5, 2001

RECORD PLANS BY: R. RICHERT

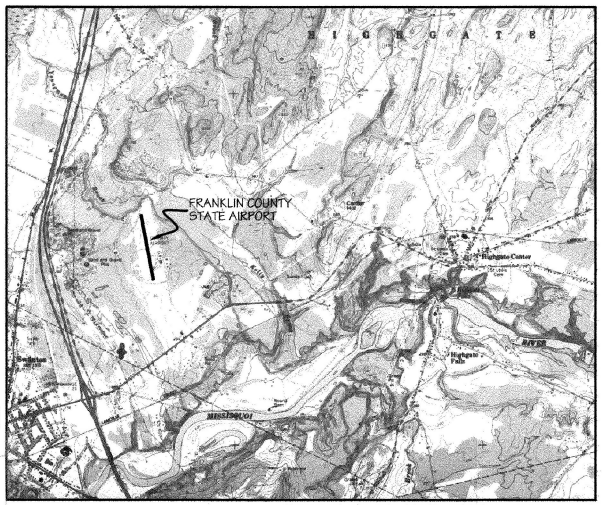
I HEREBY CERTIFY THAT ALL THE CONSTUCTION REQUIRED BY THIS SET OF DRAWINGS HAS BEEN ACCOMPLISHED AS INDICATED HEREIN.

BY _____ RESIDENT ENGINEER

DATE Oct 19, 2004

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

BUILT AS DESIGNED



FRANKLIN COUNTY STATE AIRPORT LOCATION MAP

THESE PLANS AND SPECIFICATIONS HAVE BEEN PREPARED IN ACCORDANCE WITH CURRENT FAA STANDARDS IDENTIFIED IN F.A.R. PART 152.

Andrew H Tom — 5/7/01

DESIGN ENGINEER — DATE

DUFRESNE-HENRY, INC

SUBMITTED BY Andrew H Tom

SENIOR PROJECT MANAGER

DATE 5/7/01

VERMONT AGENCY OF TRANSPORTATION

APPROVED BY David C Dix

DIRECTOR, MAINTENANCE & AVIATION DIVISION

DATE 5/17/01

OFFICES:
No. Springfield, Vermont
Montpelier, Vermont
South Burlington, Vermont
Willsboro, New York
Claremont, New Hampshire
Manchester, New Hampshire
Portland, Maine
Presque Isle, Maine
Westford, Massachusetts
Greenfield, Massachusetts
Boston, Massachusetts
Port Charlotte, Florida
Sarasota, Florida
Newburgh, New York
Pawling, New York
Rochester, New York
Saratoga Springs, New York

ENGINEERING DISCIPLINES
Civil
Electrical
Environmental
Industrial
Mechanical
Solid Waste
Structural
Transportation
Wastewater
Water

ASSOCIATED DISCIPLINES
Construction Management
Site Assessments
Surveying
Wastewater Contract Operations

APPLIED SCIENCES
Geologic
Hydrologic
Water Quality

LANDSCAPE ARCHITECTURE
Public Involvement Strategies
Market & Fiscal Impact Analysis
Waterfront Master Planning
Visual Impact Assessment
Harbor Management Planning
Local, State and Federal Permitting

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www.dufresne-henry.com

No.	Description	By	Date

AWOS INSTALLATION
FRANKLIN AIR 04-3144 C/1

FRANKLIN COUNTY STATE AIRPORT
AWOS INSTALLATION

VERMONT

HIGHGATE

REGISTERED VERMONT ENGINEER No. 6486 ANDREW H. TOMS PROFESSIONAL ENGINEER

Project No.	819066
Proj. Manager	AHT
Proj. Designer	AHT
Drawn By	DHF
Checked By	MC
Scale	NTS
Approved	MC
Date	04-04-01

1

Sheet 1 of 11

D AWOS 1

Item	Description	Unit	Quantity
201.10	Clearing and Grubbing	Lump Sum	1
201.10	Clearing and Grubbing (Mod.)	Lump Sum	1
203.15	Common Excavation	Cu Yd	18
203.16	Solid Rock Excavation	Cu Yd	5
203.17	Unclassified Excavation	Cu Yd	5
203.32	Granular Borrow	Cu Yd	15
204.30	Granular Backfill for Structures	Cu Yd	5
301.35	SUBBASE OF DENSE GRADED STONE	Cu Yd	5
501.30	Concrete, Class C	Cu Yd	10
507.15	Reinforcing Steel	LB	350
609.10	Dust Control with Water	Cu Yd	20
616.35	Treated Timber Curb	Lin Ft	24
620.11	Chain Link Fence 4 feet high	Lin Ft	29
620.12	Chain Link Fence 6 feet high	Lin Ft	72
620.15	Gate for Chain Link Fence 4 feet high	Lin Ft	3
620.16	Gate for Chain Link Fence 6 feet high	Lin Ft	8
620.20	Bracing Assembly for Chain Link Fence	Ea	6
620.21	Bracing Assembly for Chain Link Fence	Ea	6
631.16	Testing Equipment - Concrete	Lump Sum	1
635.10	Mobilization	Lump Sum	1
636.15	Utility System (Mod.)	Lump Sum	1
649.31	Geotextile under Stone Fill	Sq Yd	45
651.15	Seed	LB	25
651.18	Fertilizer	LB	250
651.20	Agricultural Limestone	Ton	0.5
651.25	Mulch	Ton	0.5
651.26	Hay Bales for Erosion Control	Ea	15
651.35	Topsoil	Cu Yd	5
654.10	Erosion Matting	Sq Yd	50

QUANTITIES

EROSION AND SEDIMENT CONTROL NOTES:

1. THE CONTRACTOR SHALL CONSTRUCT ALL EROSION AND SEDIMENT CONTROL MEASURES PER THE APPROVED PLAN AND CONSTRUCTION SEQUENCE; AND SHALL HAVE THEM INSPECTED BY THE ENGINEER PRIOR TO BEGINNING ANY OTHER LAND DISTURBANCES. MINOR SEDIMENT CONTROL DEVICE LOCATION ADJUSTMENTS MAY BE MADE IN THE FIELD WITH THE APPROVAL OF THE ENGINEER. THE CONTRACTOR MUST OBTAIN PRIOR APPROVAL FOR CHANGES TO THE SEDIMENT CONTROL PLAN AND/OR SEQUENCE OF CONSTRUCTION.

2. THE CONTRACTOR SHALL MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES UNTIL SUCH TIMES AS THEY ARE REMOVED.

3. THE CONTRACTOR SHALL APPLY SEED AND MULCH, OR OTHER APPROVED STABILIZATION MEASURES TO ALL DISTURBED AREAS AND STOCKPILES WITHIN FORTY EIGHT (48) HOURS OF FINAL DISTURBANCE.

4. THIS EROSION CONTROL PLAN SHALL BE IMPLEMENTED ON ALL DISTURBED AREAS WITHIN THE CONSTRUCTION SITE. ALL MEASURES INVOLVING EROSION CONTROL PRACTICES SHALL BE INSTALLED IN CONFORMANCE WITH "THE VERMONT HANDBOOK FOR SOIL EROSION AND SEDIMENT CONTROL ON CONSTRUCTION SITES" AS PUBLISHED BY THE VERMONT GEOLOGICAL SURVEY.

5. DURING THE PERIOD OF CONSTRUCTION ACTIVITY, ALL EROSION MEASURES SHALL BE MAINTAINED BY THE CONTRACTOR. AT THE COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE THE TRANSFER OF MAINTENANCE RESPONSIBILITIES, IF REQUIRED, TO THE VERMONT AGENCY OF TRANSPORTATION (VAOT).

6. ALL TEMPORARY EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE REMOVED AND DISPOSED OF WITHIN THIRTY (30) CALENDAR DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY PRACTICES ARE NO LONGER NEEDED. TRAPPED SEDIMENT SHALL BE STABILIZED OR REMOVED TO PREVENT FURTHER EROSION.

7. EROSION CONTROL DEVICES REMOVED DURING GRADING OPERATIONS SHALL BE PUT BACK IN PLACE AT THE END OF THE DAY OR DURING INCLEMENT WEATHER AS DIRECTED BY THE ENGINEER.

8. IF APPLICABLE, STREAMS INCLUDING BED AND BANKS SHALL BE STABILIZED IMMEDIATELY AFTER CHANNEL WORK IS COMPLETED, INTERRUPTED, OR STOPPED.

9. NO SOIL, ROCK DEBRIS, OR ANY OTHER MATERIAL SHALL BE DUMPED OR PLACED INTO A WATER RESOURCE OR INTO SUCH PROXIMITY THAT IT MAY READILY SLOUGH, SLIP, OR ERODE INTO A WATER RESOURCE UNLESS SUCH DUMPING OR PLACING IS AUTHORIZED BY THE ENGINEER AND, WHEN APPLICABLE, BY THE U.S. ARMY CORPS OF ENGINEERS, FOR SUCH PURPOSES AS, BUT NOT LIMITED TO, CONSTRUCTION OF BRIDGES, CULVERTS, AND EROSION CONTROL STRUCTURES.

10. PERMANENT SEEDING SHALL BE DONE BETWEEN APRIL 30 AND SEPTEMBER 15. IF SEEDING IS DONE AT OTHER TIMES, IT SHALL BE CLASSIFIED AS "TEMPORARY SEEDING". PERMANENT SEED SHALL CONFORM TO THE SEEDING MIXTURE STATED IN THE SPECIFICATIONS. TEMPORARY AND PERMANENT SEEDING SHALL CONSIST OF FERTILIZING, WATERING AND SEEDING PLACED AT RATES IN ACCORDANCE WITH THE SPECIFICATIONS. PERMANENT SEEDING AND MULCHING SHALL BE PAID FOR UNDER 651.15 AND 651.25 RESPECTIVELY. TEMPORARY SEED, MULCH, AND FERTILIZER FOR EROSION AND SEDIMENT CONTROL SHALL BE PLACED IN ACCORDANCE WITH THE SPECIFICATIONS. NO PAYMENT WILL BE MADE FOR TEMPORARY SEEDING OR MULCHING.

11. SURFACE DRAINAGE FLOWS OVER UNSTABILIZED CUT AND FILL SLOPES SHALL BE CONTROLLED BY EITHER PREVENTING DRAINAGE FLOWS TRAVERSING THE SLOPES OR BY INSTALLING PROTECTIVE DEVICES TO LOWER THE WATER DOWN THE SLOPE WITHOUT CAUSING EROSION. DIKES SHALL BE INSTALLED AND MAINTAINED AT THE TOP OF CUT OR FILL SLOPES UNTIL THE SLOPE AND DRAINAGE AREA TO IT ARE FULLY STABILIZED, AT WHICH TIME THEY MUST BE REMOVED AND FINAL GRADING DONE TO PROMOTE SHEET FLOW DRAINAGE. PROTECTIVE METHODS MUST BE PROVIDED AT POINTS OF CONCENTRATED FLOW WHERE EROSION IS LIKELY TO OCCUR.

12. ALL POINTS OF CONSTRUCTION INGRESS AND EGRESS IN UNPAVED AREAS SHALL BE STABILIZED AND PROTECTED TO PREVENT TRACKING OF MUD ONTO PUBLIC OR PRIVATE ROADWAYS.

13. IF PUBLIC OR PRIVATE ROADWAYS DO ACCUMULATE DEBRIS, THE CONTRACTOR SHALL USE A POWER BROOM TO REMOVE THE SEDIMENT TO THE SATISFACTION OF THE ENGINEER.

14. SALVAGED TOPSOIL WILL BE PLACED ON WELL DRAINED LAND AWAY FROM STREAMS IN ACCORDANCE WITH APPROVED EROSION AND SEDIMENT CONTROL MEASURES. IT SHALL BE PLACED IN NEAT PILES. THE CONTRACTOR WILL PROVIDE AN ADEQUATE QUANTITY OF SILT FENCE TO CONTROL THE PERIMETER OF THE STOCKPILE. THE CONTRACTOR, WITH THE APPROVAL OF THE ENGINEER, MAY CONSTRUCT AN EARTH DIKE IN LIEU OF SILT FENCE.

15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DUST RISING FROM CONSTRUCTION OPERATIONS. DUST CONTROL, USING WATER, 609.10 WILL BE APPLIED WHENEVER DUST IS A PROBLEM OR WHEN ORDERED BY THE ENGINEER.

PHASING NOTES:

GENERAL

All work to be completed within Phase I, and II.

All work must comply with the requirements of FAA AC 150/5370-2C, Operational Safety During Construction. See General Construction and Safety Notes for additional information.

The contractor must submit a schedule to the Engineer prior to commencing work on the airport. This schedule is to be upgraded weekly. No work will be allowed outside the areas included in the approved schedule.

PHASE I

All work on Phase I to be completed with 45 calendar days of notice to proceed.

Runway 1-19 is to be opened at all times during the project except as required to install underground utilities. No work shall be allowed within the Runway 1-19 primary surface without authorization from the Engineer. Work within the Runway 1-19 primary surface will require that the runway be closed. At least 48 hours notice is required prior to closing the runway.

CONSTRUCTION INCLUDES:

Installation of underground utilities to provide 30A 120V/240V power for the AWOS, improve and expand existing farm road to the AWOS, clear and grub in areas shown and clear only in areas shown, construct concrete structures to support 30' AWOS wind sensor tower and AWOS components, install AWOS system and appurtenances, install AWOS data link from sensor site to terminal/hangar building using UHF radio link. Install central data platform and VHF antenna at terminal/hangar building.

PHASE II

All work on Phase II to be completed with 30 calendar days of notice to proceed.

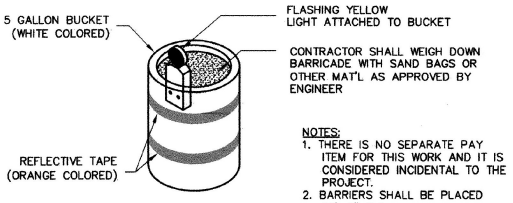
Runway 1-19 is to be opened at all times during the project. No work shall be allowed within the Runway 1-19 primary surface without authorization from the Engineer.

CONSTRUCTION INCLUDES:

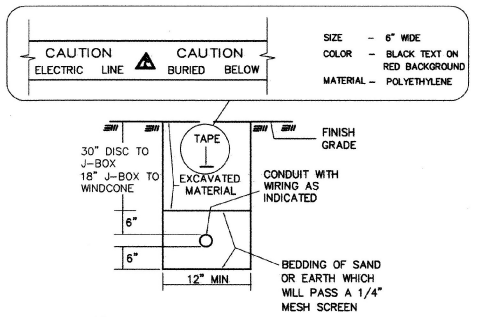
Testing, calibration, and certification of the AWOS system.

SPECIAL NOTE:

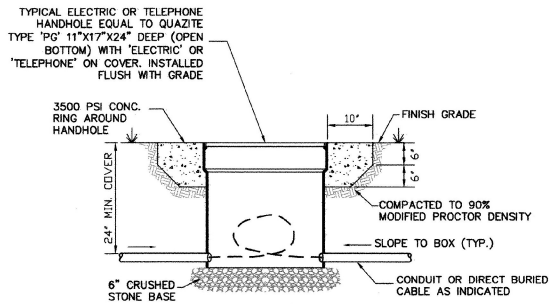
The Contractor's attention is drawn to the single and double hatched areas within the inner AWOS Critical Area depicted on Sheet 4. Prior to any earth disturbance, the contractor shall mark flag or fence the outer limit of the area to be cut and stumped (single hatching). No removal of stumps is to take place in the area which is double hatched; trees are to be clear cut only in this area. No clearing or any type of disturbance may occur immediately north of the double hatched area as this area is archeologically sensitive.



A/2 TYPICAL SAFETY BARRICADE
NOT TO SCALE



B/2 TYPICAL CONDUIT TRENCH SECTION
NOT TO SCALE



C/2 TYPICAL HAND-HOLE DETAIL
NOT TO SCALE

Dufresne-Henry
Saratoga Springs, New York
Tel. (518) 587-3416 • FAX (518) 581-1384
www.dufresne-henry.com

By	Date

Description	Rev.

AWOS INSTALLATION
FRANKLIN AIR 04-3144 C/I

FRANKLIN COUNTY STATE AIRPORT
QUANTITIES, PHASING NOTES, MISC. DETAILS

HIGHGATE VERMONT

STATE OF VERMONT JOSEPH H. HUNT No. 9486 REGISTERED PROFESSIONAL ENGINEER

Project No.	8190666
Proj Manager	AHT
Proj Designer	AHT
Drawn By	DHC
Checked By	MC
Scale	NTS
Approved	MC
Date	04-01-01

2

Sheet 2 of 11
D AWOS 2

GENERAL NOTES

1. THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT PLANS AND SPECIFICATIONS REFERENCED THEREIN. THE PROJECT IS SUBJECT TO INSPECTION BY REPRESENTATIVES OF THE VERMONT AGENCY OF TRANSPORTATION (VAOT).

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 SPECIFIED AIRFIELD SEGMENTS TO TRAFFIC BY THE STATED TIMES AND TO COMPLETE THE ENTIRE PROJECT ON TIME.

4. FRANKLIN COUNTY STATE AIRPORT WILL BE IN OPERATION DURING THE CONSTRUCTION OF THIS PROJECT. COORDINATION OF ALL WORK WITH THE AIRPORT MANAGER AND THE PROJECT RESIDENT ENGINEER IS MANDATORY SO AS 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 SHEET 4.

7. HAUL ROUTES – APPROXIMATE LOCATION OF HAUL ROUTES ON THE AIRPORT SITE ARE SHOWN ON SHEET 4. IT SHALL BE THE CONTRACTORS 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 JOINTLY INSPECTED AND DETERMINED BY THE CONTRACTOR AND THE ENGINEER. FENCING, DRAINAGE, GRADING AND OTHER MISCELLANEOUS CONSTRUCTION REQUIRED TO CONSTRUCT TEMPORARY HAUL ROUTES OR ACCESS POINTS ON THE AIRPORT WILL BE THE CONTRACTOR'S 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 STORAGE AREAS – AN AREA WILL BE MADE AVAILABLE FOR CONTRACTOR'S MOBILIZATION AND STORAGE. THIS AREA IS SHOWN ON THE SHEET 4. THE CONTRACTOR'S STORAGE AREA SHALL BE GRADED, TOPSOILED, SEEDED, AND MULCHED UPON COMPLETION OF USE, AT THE CONTRACTOR'S EXPENSE.

9. SAFETY – THE CONTRACTOR SHALL CONDUCT HIS ACTIVITIES IN A SAFE MANNER AS SPECIFIED IN THE SECTION TITLED, "SAFETY REQUIREMENTS DURING CONSTRUCTION" ON THE SHEET.

10. PROTECTION OF EXISTING AIRPORT UNDERGROUND CABLES AS SHOWN ON THE PLANS IS THE RESPONSIBILITY OF THE CONTRACTOR. THE LOCATION OF THESE UTILITIES 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 COST OF REPAIRS.

11. 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.

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

13. 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.

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

15. EXISTING TOPOGRAPHIC FIELD SURVEYS FOR THIS PROJECT AREA WERE PERFORMED BY LITTLE RIVER SURVEY CO. IN 1998.

16. THE HORIZONTAL CONTROL ON THIS PROJECT IS TIED TO THE NAD 1983 AND NAVD 1988.

17. THE CONTRACTOR'S ATTENTION IS DRAWN TO THE SPECIAL NOTE ON SHEET 2.

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 AVENUE
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.

(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 ARE REQUIRED 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 FRANKLIN COUNTY 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 ANY OPEN RUNWAY OR IN RUNWAY OR TAXIWAY SAFETY AREAS.

(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 CALEDONIA AND HARTNESS 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) THE VAOT 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). 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 FRANKLIN 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 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. ALL COSTS OF THE ABOVE WORK AND EQUIPMENT NECESSARY SHALL BE SUBSIDIARY TO ALL OTHER CONTRACT ITEMS.

G. FLAGMEN

IN ACCORDANCE WITH THE SPECIFICATIONS, THE CONTRACTOR SHALL AT HIS OWN EXPENSE, FURNISH FLAGMEN AS NECESSARY TO CONTROL HIS TRAFFIC (UNLESS OTHERWISE DIRECTED BY THE ENGINEER). 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 FLAGMEN WHO IS IN DIRECT RADIO CONTACT WITH FRANKLIN UNICOM/ CTAF ON THE FREQUENCY OF 122.8 MHZ. 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 BUCKET TYPE CONSTRUCTION BARRICADES WITH FLASHING YELLOW 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.

(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 LOCATIONS 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) ACT. NO. 86 OF 1987 (30 VSA CHAPTER 86) (DIG SAFE) REQUIRES THAT NOTICE BE GIVEN PRIOR TO MAKING AN EXCAVATION. IT IS SUGGESTED THAT THE CONTRACTOR TELEPHONE 1-888-344-7233 AT LEAST 48 HOURS BEFORE, AND NOT MORE THAN 30 DAYS BEFORE, BEGINNING ANY EXCAVATION AT ANY LOCATION.

(3) 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 PROJECT RESIDENT ENGINEER, AND THE OWNER OF EACH UNDERGROUND UTILITY FACILITY AFFECTED.

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

CVPS 1-800-649-2877

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No.	Description	By	Date

STATE OF VERMONT — TIMOTHY H. TOMEI — No. 6484 — REGISTERED PROFESSIONAL ENGINEER

AWOS INSTALLATION
FRANKLIN AIR 04-3144 C/I

FRANKLIN COUNTY STATE AIRPORT
CONSTRUCTION AND SAFETY NOTES

VERMONT

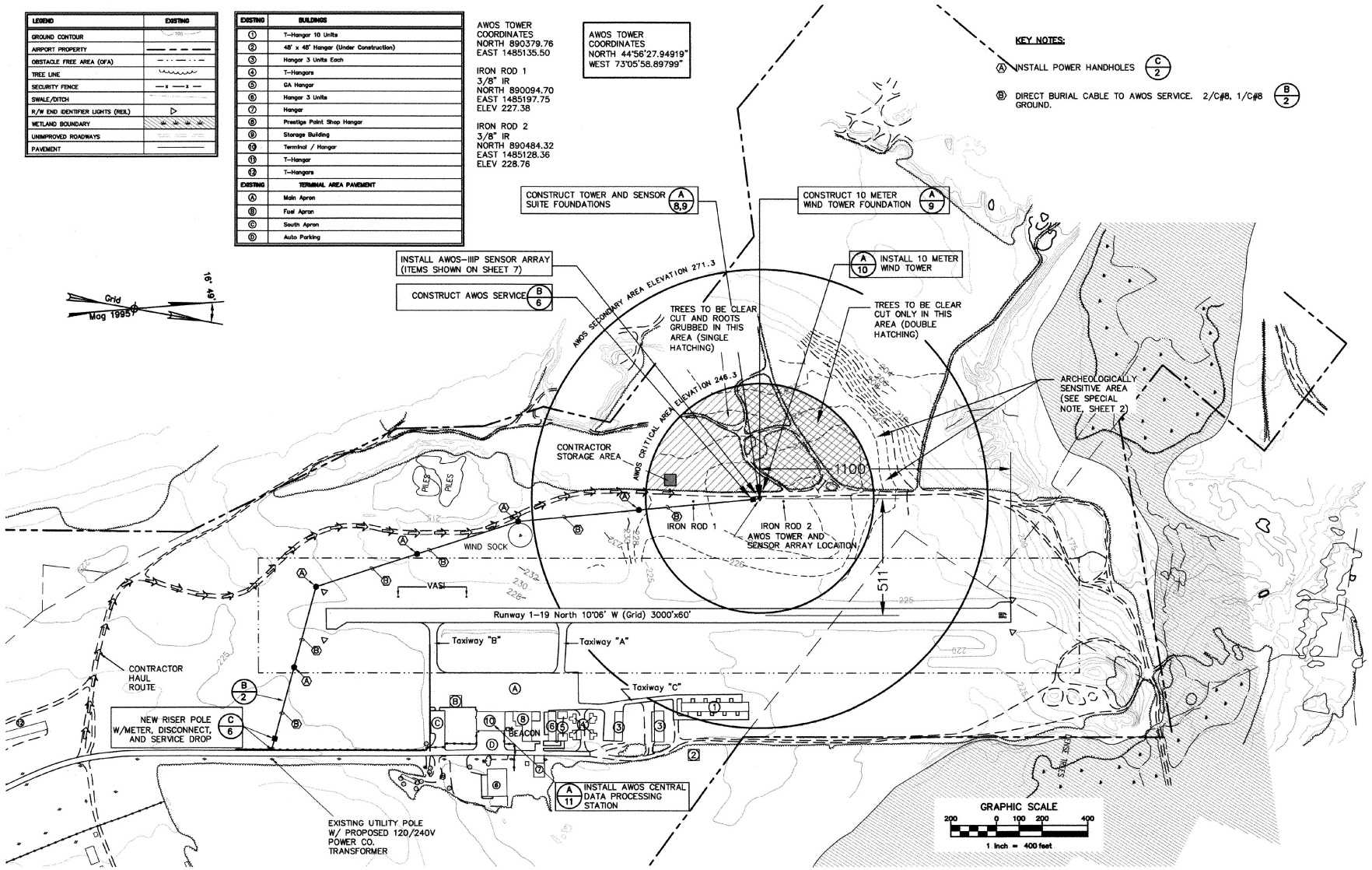
HIGHGATE

Project No.	8190606
Proj Manager	AMT
Proj Designer	AMT
Drawn By	DMC
Checked By	MC
Scale	NTS
Approved	MC
Date	06-07-01

3

Sheet 3 of 11

D AWOS 3



NOTES:

1. Horizontal Datum NAD 83 (1986) International Feet.
2. Vertical Datum NAVD 88 International Feet.
3. Existing easement & property lines based on "Airport Property Map" prepared for VAOT by Clough Harbour Associates March 1999.

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No.	Description	By	Date

AWOS INSTALLATION
FRANKLIN AIR 04-3144 C/1

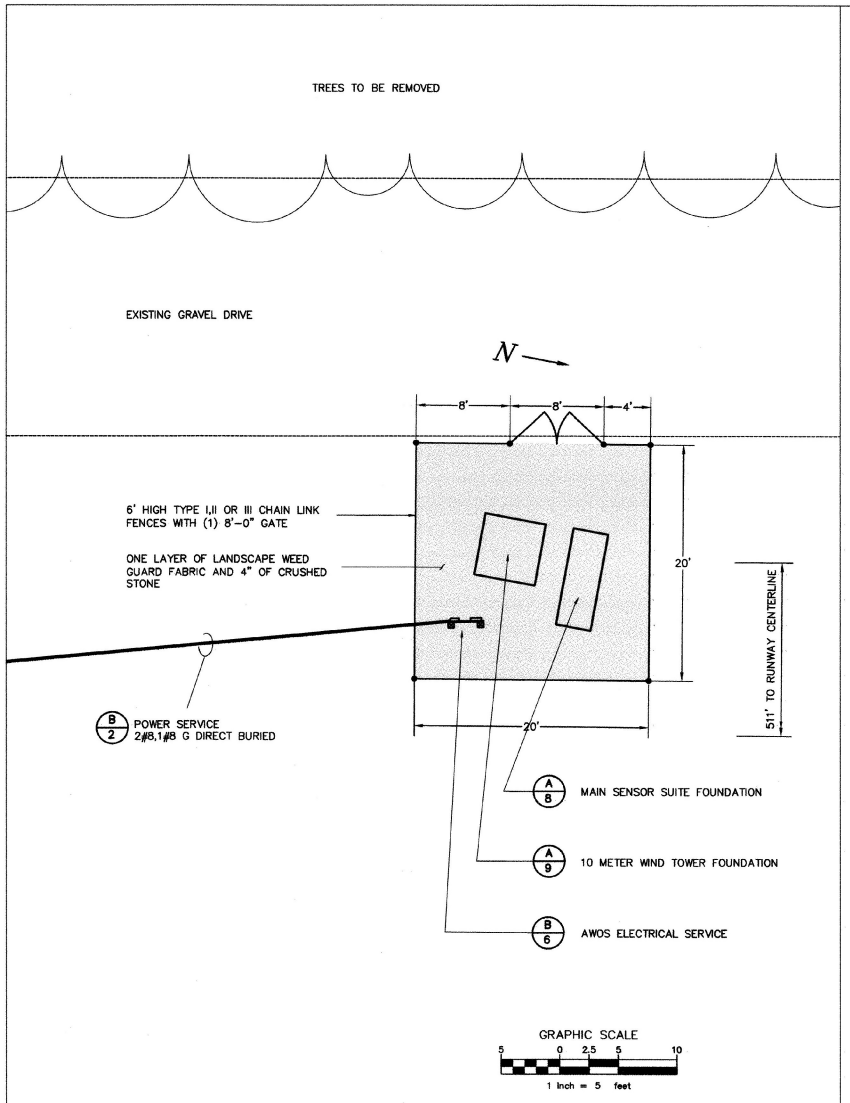
FRANKLIN COUNTY STATE AIRPORT
AWOS SITE PLAN

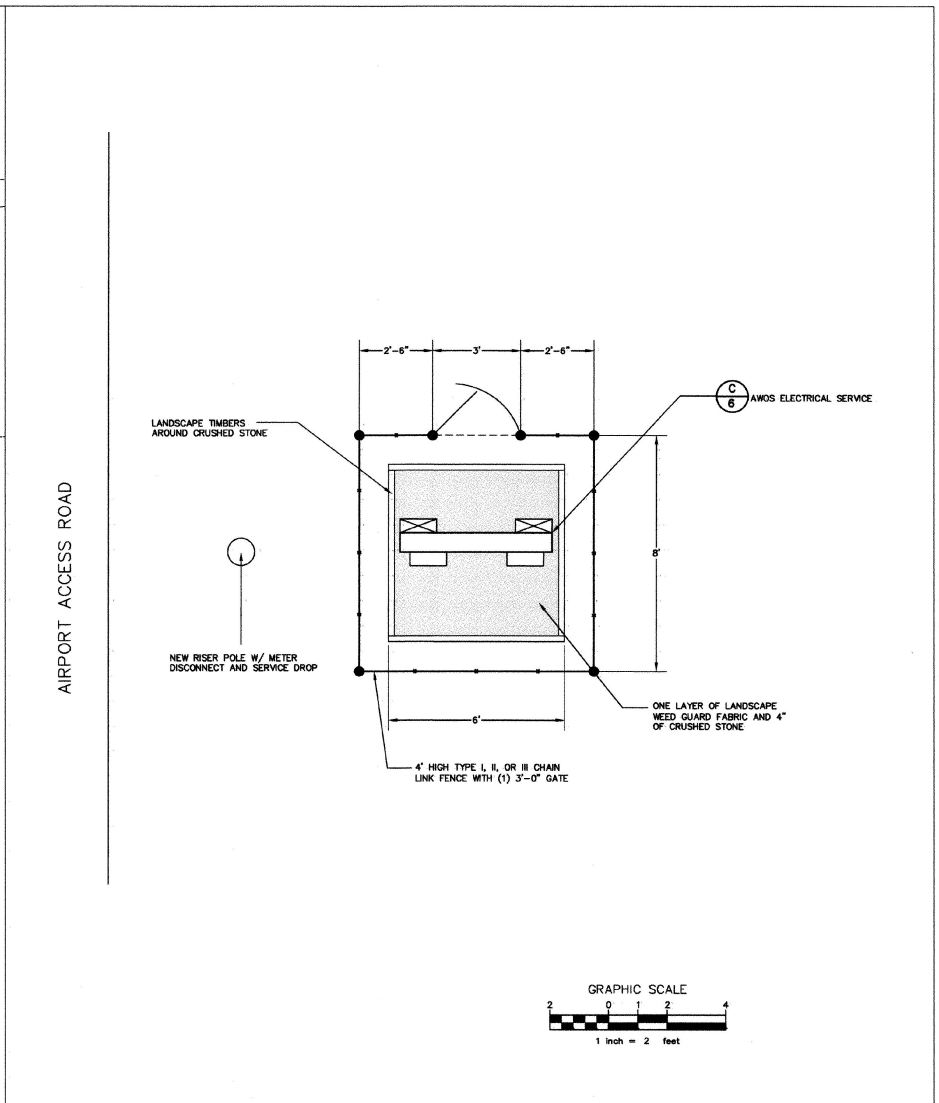
VERMONT
HIGHGATE

Project No.	8190806
Proj Manager	AHT
Proj Designer	AHT
Drawn By	DHC
Checked By	MC
Scale	AS SHOWN
Approved	MC
Date	05-07-01

4

Sheet 4 of 11
D AWOS 4





A/5 AWOS TOWER AND SENSOR ARRAY LOCATION SITE LAYOUT DETAIL
SCALE = 1"-5'

B/5 AWOS SERVICE DROP SITE LAYOUT DETAIL
SCALE = 1"-2'

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AWOS INSTALLATION
FRANKLIN AIR 0403.044 D/1

VERMONT

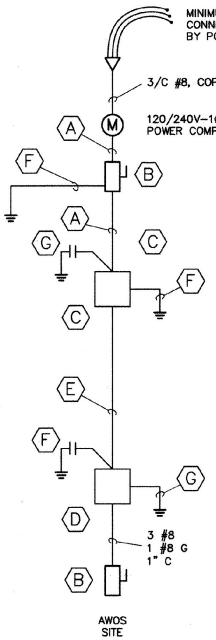
FRANKLIN COUNTY STATE AIRPORT
SITE LAYOUT PLAN

HIGHGATE

Project No.	8193066
Proj. Manager	AHT
Proj. Designer	AHT
Drawn By	DNF
Checked By	MC
Scale	NTS
Approved	MC
Date	6547-01

5

Sheet 5 of 11
D AWOS 5



KEYNOTES

A. 3#8, XHHW, 1#8 GND, 2" PVC CONDUIT

B. 60A/2P DISCONNECT W/SOLID NEUTRAL AND GROUND LUG, HEAVY DUTY, NEMA 3R ENCLOSURE, FUSED @ 40 AMPS

C. 7.5KVA STEP UP TRANSFORMER ENCAPSULATED DRY TYPE 120/240-600 VOLTS. EQUAL TO ACME #T-2-53615-1S, W/(2) 5% FCBN TAPS. CONNECT OUTPUT TO H1 & H3 (570 VOLTS), GROUND H1

D. 7.5KVA STEP DN TRANSFORMER ENCAPSULATED DRY TYPE 600-120/240 VOLTS. EQUAL TO ACME #T-2-53615-1S, W/(2) 5% FCBN TAPS. CONNECT INPUT TO H1 & H2 (540 VOLTS), GROUND H1

E. (2) 1/C #8 USE CABLE, (1) #8 DIRECT BURIED

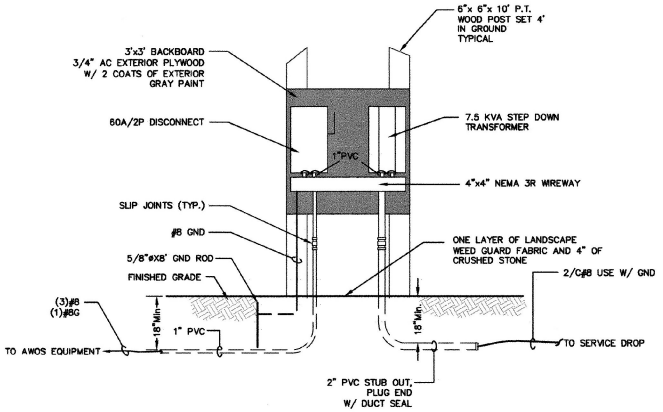
F. #8 GROUND AND 5/8"øX8' COPPER CLAD GND ROD. EXOTHERMIC WELD GND WIRE TO GND ROD

G. HARDWIRED SURGE ARRESTER. CONNECT ON 600 VOLT SIDE OF TRANSFORMER PER MANUFACTURES REQUIREMENTS, EQUAL TO SQUARE D #SDSA 3650

NOTES

1. INSTALLATION SHALL BE IN STRICT COMPLIANCE WITH POWER COMPANY REQUIREMENTS WHETHER INDICATED OR NOT
2. ALL CONDUCTORS ARE COPPER

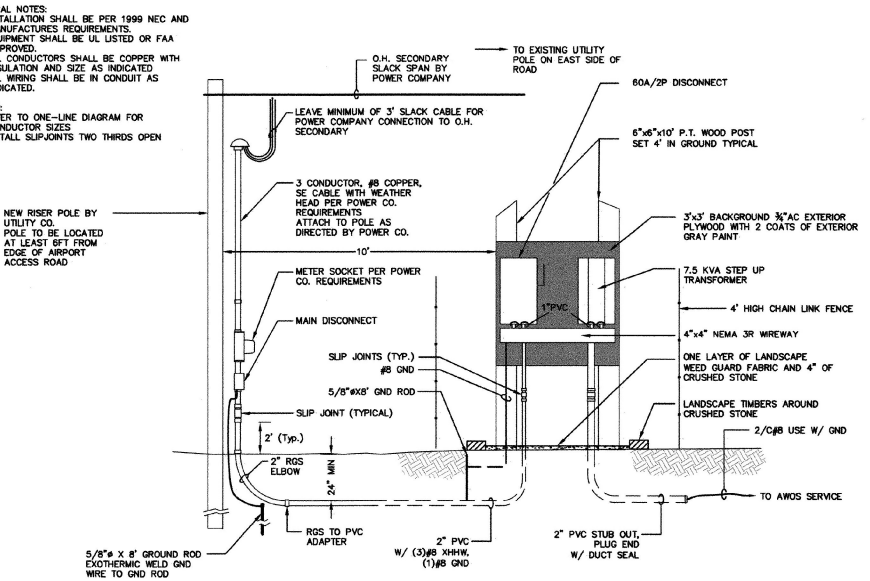
A/6 ONE-LINE DIAGRAM
NOT TO SCALE



B/6 AWOS SERVICE ELEVATION
NOT TO SCALE

GENERAL NOTES:
1. INSTALLATION SHALL BE PER 1999 NEC AND MANUFACTURES REQUIREMENTS.
2. EQUIPMENT SHALL BE UL LISTED OR FAA APPROVED.
3. ALL CONDUCTORS SHALL BE COPPER WITH INSULATION AND SIZE AS INDICATED
4. ALL WIRING SHALL BE IN CONDUIT AS INDICATED.

NOTES:
1. REFER TO ONE-LINE DIAGRAM FOR CONDUCTOR SIZES
2. INSTALL SLIPJOINTS TWO THIRDS OPEN



C/6 AWOS SERVICE DROP ELEVATION
NOT TO SCALE

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VERMONT

AWOS INSTALLATION
FRANKLIN AIR 04-3144 C/1

FRANKLIN COUNTY STATE AIRPORT
ELECTRICAL DETAILS

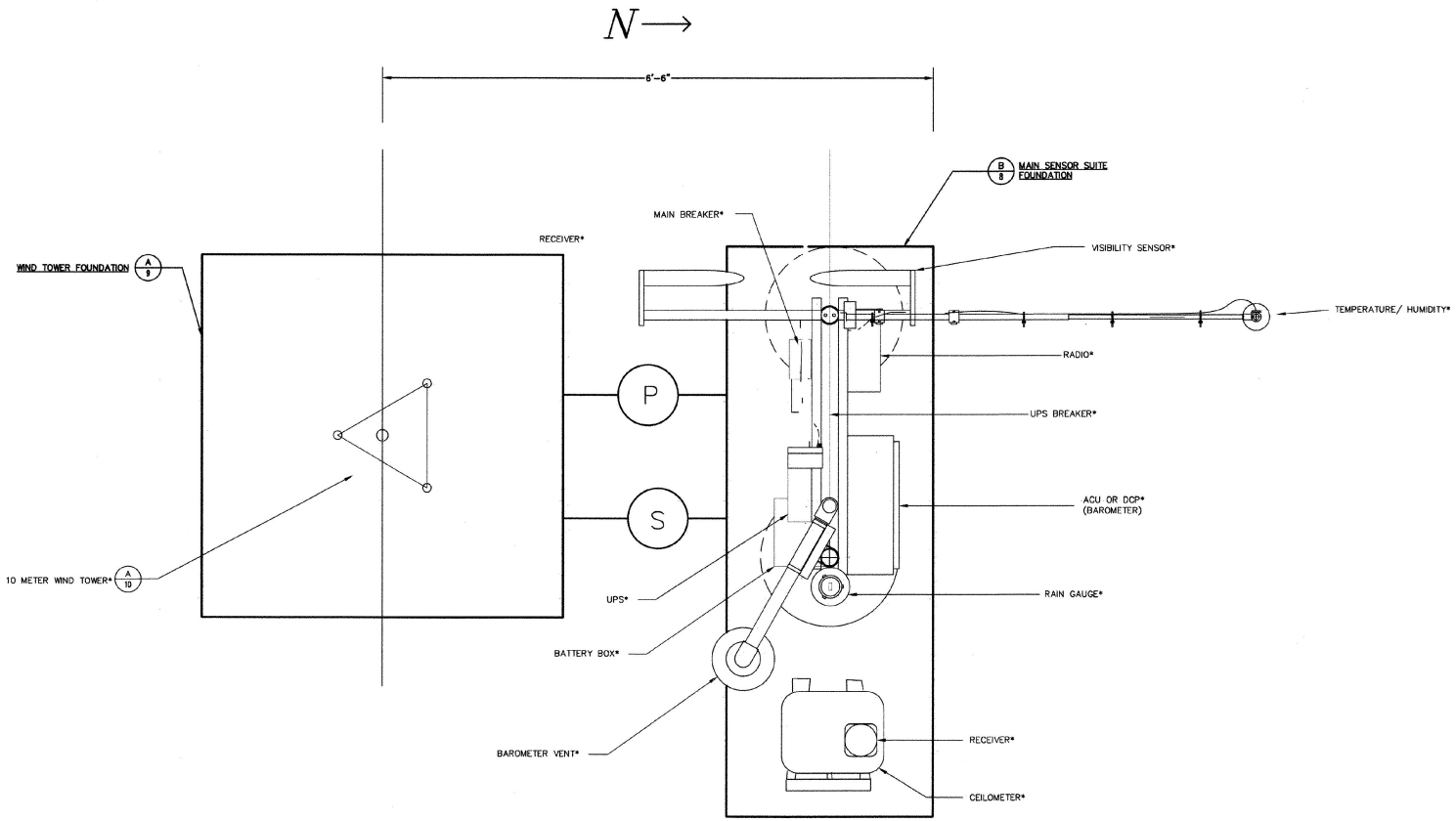
HIGHGATE

STATE OF VERMONT — JOSEPH H. TOPHAM — No. 8496 — REGISTERED PROFESSIONAL ENGINEER

Project No.	8190066
Proj. Manager	AHT
Proj. Designer	AHT
Drawn By	DMF
Checked By	MC
Scale	NTS
Approved	MC
Date	05-07-21

6

Sheet 6 of 11
D AWOS 6



S — SIGNAL CABLE RUN IN CONDUIT

P — POWER CABLE RUN IN CONDUIT

NOTE:
ITEMS INDICATED THUS * ARE BEING PROVIDED BY VAISALA INC., ARTAIS DIVISION UNDER A SEPARATE CONTRACT.

A/7 FOUNDATION LAYOUT PLAN
NOT TO SCALE

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AWOS INSTALLATION
FRANKLIN AIR 04-3144 C/1

FRANKLIN COUNTY STATE AIRPORT
FOUNDATION LAYOUT PLAN

HIGHGATE VERMONT

STATE OF VERMONT — MICHAEL J. CARBONNEAU — No. 9496 — REGISTERED PROFESSIONAL ENGINEER

Project No.	8100656
Proj. Manager	AHT
Proj. Designer	AHT
Drawn By	DMF
Checked By	MC
Scale	NTS
Approved	MC
Date	05-07-01

7

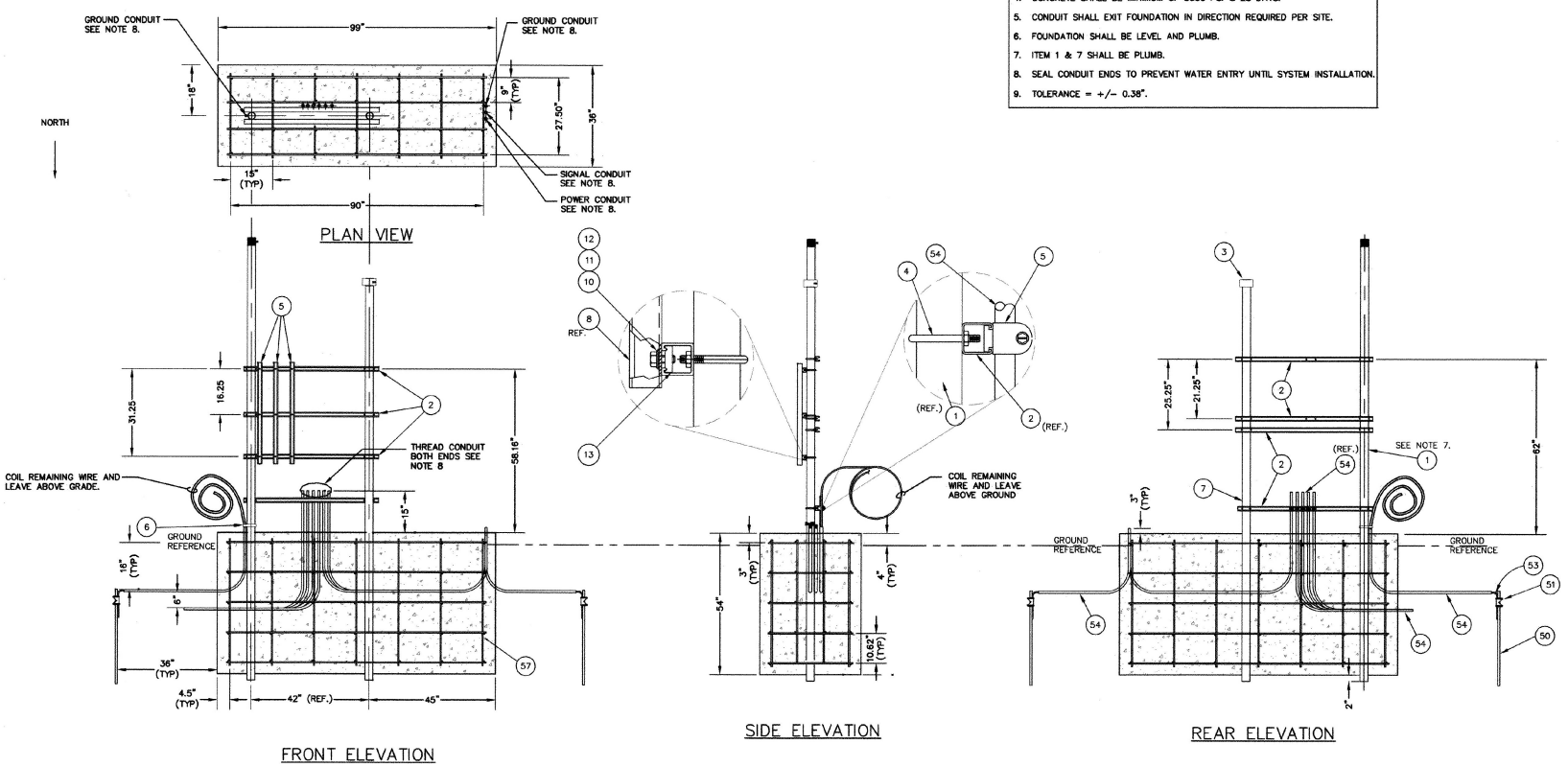
Sheet 7 of 11
D AWOS 7

Items To Be Supplied by Contractor			
Item	Description	Recommended Manufacturer Name and Part Number	Quantity Required
50	Ground Rod, 3/4"DIA	Robbins #9710	2 EA
51	Ground Clamp	Robbins #98B	2 EA
53	Ground Wire, 2AWG Copper	Rohn #CW2ST	20 Ft.
54	Rigid Galv. St. Conduit, 3/4"DIA	Allied #Rigid 3/4"	As Required
57	Reinforced Steel Bar 15M	Parker Steel International #4	254 Ft.

Items Supplied by Vaisala Inc., Artais Division					
Item	Number	REV	Description	QTY	U/M
1	39-22893	0	Pipe 2.5x156 T.O.E. White	1	EA
2	51-22892	1	Strut 48" White	7	EA
3	39-22888	0	Cap, Pipe 2 1/2" Sch 40 White	1	EA
4	45-22883	0	Clamp, U-Bolt 2 1/2" W/O Strap	14	EA
5	45-21378	0	Clamp, Pipe 3/4 GRC and IMC	5	EA
6	45-21280	0	Clamp, Ground 2-4 DIA Aluminum	1	EA
7	39-22894	0	Pipe 2.5x142 T.O.E. White	1	EA
8	70-22297	0	Strut 36" Painted	3	EA
10	45-21041	0	Bolt, Hex 3/8-16x1 SS	6	EA
11	42-21063	0	Washer, Lock Split 3/8 SS	6	EA
12	45-21059	0	Washer, Flat 3.8 SS	6	EA
13	45-21663	0	Nut, Top Grip W/ Spring 3/8-16 Galv.	6	EA

FOUNDATION TO BE ORIENTATED AS SHOWN, DUE TO THE VISIBILITY SENSOR. THE SUN MAY NOT SHINE DIRECTLY INTO THE RECEIVER OPTICS.

NOTES
1. ALL DIMENSIONS IN ENGLISH (INCHES) UNLESS SPECIFIED OTHERWISE.
2. PULL STRINGS SHALL BE PLACED IN ALL CONDUIT.
3. FOUNDATION SIZE AND DEPTH BASED ON SOIL CONDITION OF A CBR 4.0.
4. CONCRETE SHALL BE MINIMUM OF 3000 PSI @ 28 DAYS.
5. CONDUIT SHALL EXIT FOUNDATION IN DIRECTION REQUIRED PER SITE.
6. FOUNDATION SHALL BE LEVEL AND PLUMB.
7. ITEM 1 & 7 SHALL BE PLUMB.
8. SEAL CONDUIT ENDS TO PREVENT WATER ENTRY UNTIL SYSTEM INSTALLATION.
9. TOLERANCE = +/- 0.38".



A/8 MAIN SENSOR SUITE FOUNDATION
NOT TO SCALE

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AWOS INSTALLATION
FRANKLIN AIR 04-3144 C/1

FRANKLIN COUNTY STATE AIRPORT
MAIN SENSOR SUITE FOUNDATION

HIGHGATE

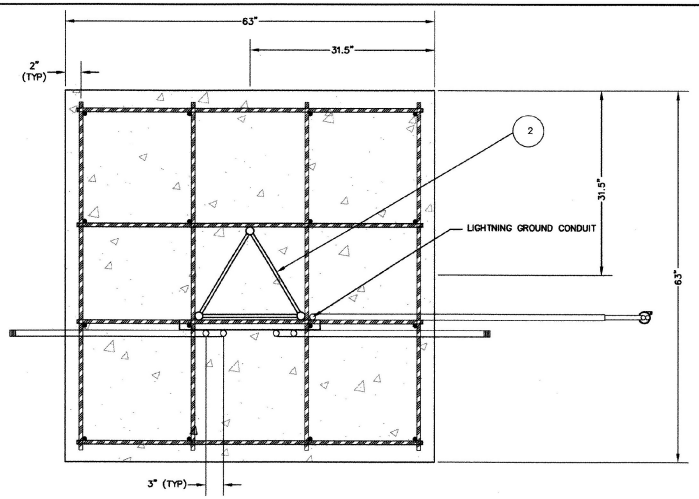
STATE OF VERMONT · MICHAEL H. CAS · No. 14486 · REGISTERED PROFESSIONAL ENGINEER

Project No.	8190066
Proj. Manager	AMT
Proj. Designer	AMT
Drawn By	DMF
Checked By	MC
Scale	NTS
Approved	MC
Date	05-07-01

8

Sheet 8 of 11
D AWOS 7

NORTH



PLAN VIEW

NOTES

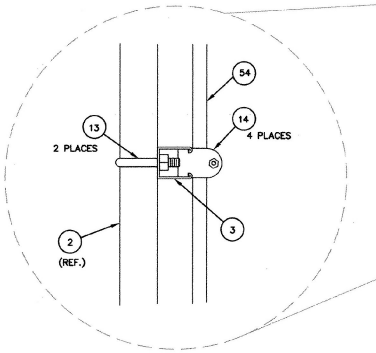
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2. PULL STRINGS SHALL BE PLACED IN ALL CONDUIT.
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5. CONDUIT SHALL EXIT FOUNDATION IN DIRECTION REQUIRED PER SITE.
6. FOUNDATION SHALL BE LEVEL AND PLUMB.
7. TOWER AND CONDUIT SHALL BE PLUMB.
8. SEAL TOWER AND CONDUIT ENDS TO PREVENT WATER ENTRY UNTIL SYSTEM INSTALLATION.
9. TOLERANCE = +/- 0.38".

Items To Be Supplied by Contractor

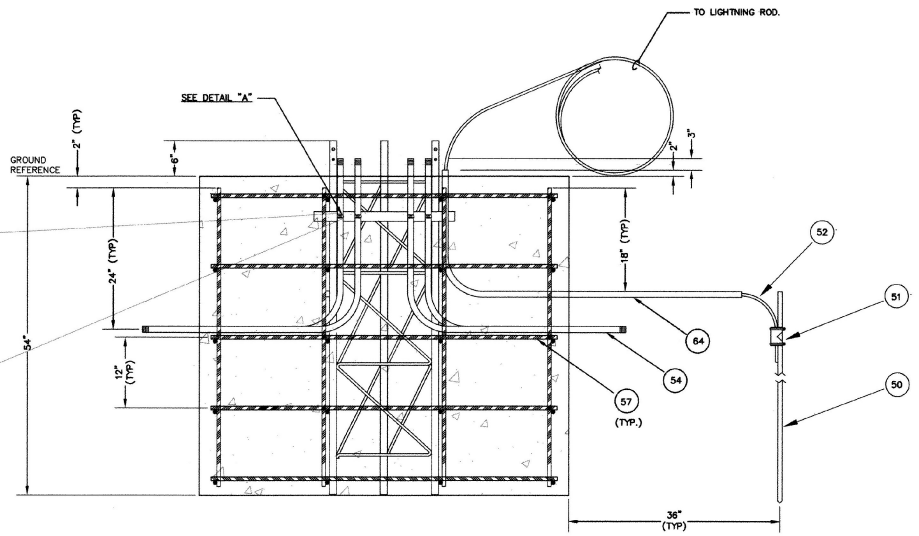
Item	Description	Recommended Manufacturer Name and Part Number	Quantity Required
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51	Ground Clamp	Robbins #98B	2 EA
52	Ground Wire, 2/0 Copper	Rohn #CW 2/0ST	40 Ft.
54	Rigid Galv. St. Conduit, 3/4"DIA	Allied #Rigid 3/4"	As Required
57	Reinforced Steel Bar 15M	Parker Steel International #4	258 Ft.
64	Nonmetallic Tubing 3/4"	Carflex #15107	10 Ft.

Items Supplied by Vaisala Inc., Artais Division

Item	Part No.	Description	QTY	U/M
2	72-21957	Tower Base Short 5' (18")	1	EA
3	51-22371	Strut, 24" Cut	1	EA
13	45-21271	U-Bolt 1"x3.75" Overall Length SS	2	EA
14	45-21378	Clamp, Pipe 3/4 GRC and IMC	4	EA



DETAIL "A"



FRONT ELEVATION

A/9 10 METER WIND TOWER FOUNDATION
NOT TO SCALE

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Engineering Corporation
Saratoga Springs, New York
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No.	Description	By	Date

VERMONT

AWOS INSTALLATION
FRANKLIN MUNICIPAL AIRPORT (5A3) 44° 42' 01"

FRANKLIN COUNTY STATE AIRPORT
10-METER WIND TOWER FOUNDATION

HIGHGATE

STATE OF VERMONT — ANDREW F. THIBO — No. 6486 — REGISTERED PROFESSIONAL ENGINEER

Project No.	8150066
Proj. Manager	AHT
Proj. Designer	AHT
Drawn By	DNF
Checked By	MC
Scale	NTS
Approved	MC
Date	05/07/01

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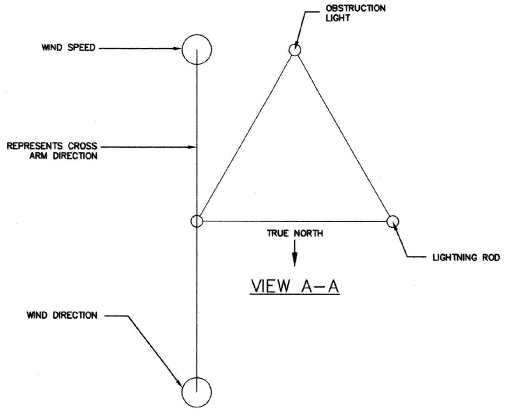
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Items Supplied by Vaisala Inc., Artais Division				
A WIND TOWER				
Item	Part No.	Description	QTY	U/M
1	72-22465	Tower, (45G) 10' Section 18" Painted	3	E/A
2	39-22418	Pipe 1" x 59.5" GS Painted White Toe	1	E/A
3	45-22196	Tube Cap 1-1/4" ID LDPE Black	3	E/A
4	45-21278	Clamp, Conduit 1-1/2 W/Nuts Zinc	2	E/A
5	72-22465A	Tower Bolt 5/16-18x2.375" W/Nut for Wind	9	E/A
6	72-22465B	Tower Bolt 7/16-14x2.5" W/Nut for Wind	9	E/A
7	45-21279	Clamp, Conduit 1 W/Nuts Zinc	2	E/A
8	45-21277	Clamp, U-Bolt 1-1/4 with Strap	8	E/A
9	12-22111	Light Bulb, Ruggedized 116-A21	2	E/A
10	73-22110	Obstruction Light, Double	1	E/A

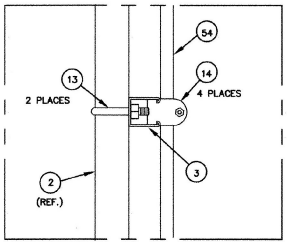
Items Supplied by Vaisala Inc., Artais Division				
B WIND SENSOR				
Item	Part No.	Description	QTY	U/M
13	04-WAA151	Anemometer	1	E/A
14	04-WAV151	Wind Vane	1	E/A
15	70-22796-0	Wind Crossarm Assembly 58' Cable	1	E/A
16	70-22341-0	PCA, ISI AD Wind	1	E/A
17	39-21378	Plug, Schedule 80 1 1/2PVC	1	E/A
18	45-22200	Conduit Coupling 1-1/2"	1	E/A
19	45-22418	Reducer Bushing, 1 1/2-1	1	E/A
20	45-21375	Cord Grip 0.170 - 0.470 DIA W/O Nut	1	E/A
21	45-22398	Reducer Bushing, 3/4 - 1/2	1	E/A
22	45-22195	Conduit Coupling 3/4" Galvanized	1	E/A

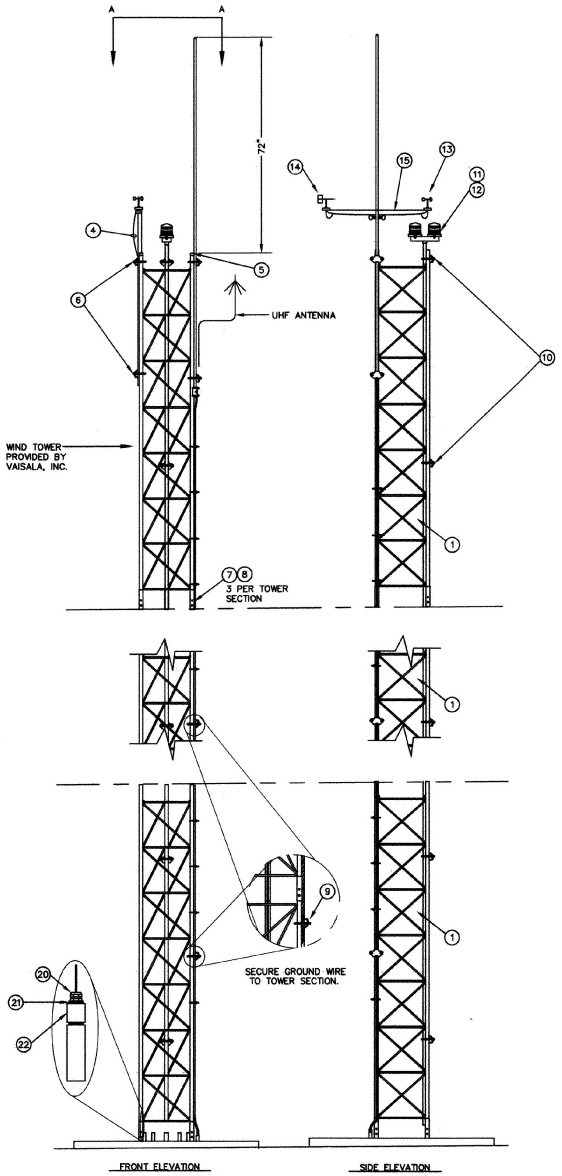
Items to be Supplied by Contractor				
B WIND SENSOR				
Item	Part No.	Description	QTY	U/M
55	N/A	Cable Tie 9.5 UV Resistant	12	E/A

NOTES:
1. ITEMS 4 THROUGH 9 ARE PART OF 02-22827
2. ITEM 55 CABLE TIE 9.5 UV RESISTENT (QTY: 12) NOT SUPPLIED BY VAISALA ARTAIS DIVISION
3. ITEM 10 IS INSTALLED IN THE ISI MODULE
4. UHF ANTENNA AND FITTINGS TO BE SUPPLIED BY VAISALA, INC.



VIEW A-A





A/10 10 METER WIND TOWER COMPLETE
NOT TO SCALE

Dufresne-Henry
Saratoga Springs, New York
Tel. (518) 587-3416 • FAX (518) 581-1384
www.dufresne-henry.com

Rev	Description	By	Date

VERMONT

AWOS INSTALLATION
FRANKLIN AIR 04-3144 C/1

FRANKLIN COUNTY STATE AIRPORT
10-METER WIND TOWER
WITH WIND SENSOR INSTALLATION

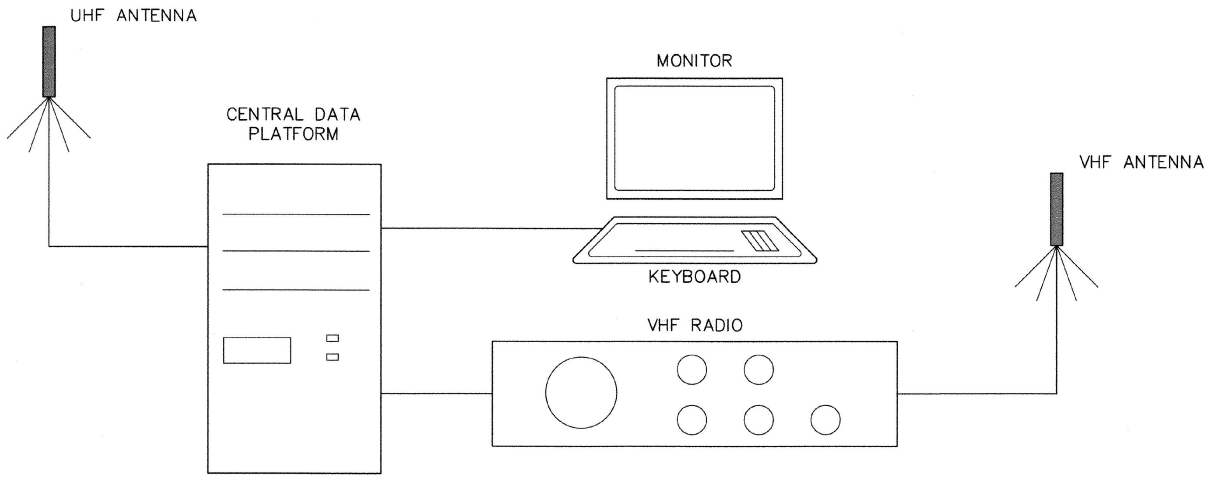
HIGHGATE

STATE OF VERMONT · WILLIAM H. HUMPHRIES · No. 6486 · REGISTERED PROFESSIONAL ENGINEER

Project No.	8100006
Proj. Manager	AHT
Proj. Designer	AHT
Drawn By	DMF
Checked By	MC
Scale	NTS
Approved	MC
Date	05-07-21

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NOTES:

1) THE UHF AND VHF ANTENNA ARE TO BE INSTALLED ON THE ROOF OF THE TERMINAL/HANGAR BUILDING (LOCATION (10) SHEET 4). EXACT LOCATION TO BE ADVISED BY THE ENGINEER.

2) CENTRAL DATA PROCESSING STATION HARDWARE, INCLUDING CENTRAL DATA PLATFORM, VHF RADIO, KEYBOARD, MONITOR, ETC. WILL BE LOCATED IN THE ADMINISTRATIVE AREA OF THE TERMINAL/HANGAR BUILDING. EXACT LOCATIONS WILL BE ADVISED BY THE AIRPORT MANAGER TO SUIT HIS REQUIREMENTS.

3) ALL CENTRAL DATA PROCESSING STATION ITEMS, INCLUDING VHF AND UHF ANTENNAS, WILL BE SUPPLIED BY VAISALA, INC.

A/11 AWOS CENTRAL DATA PROCESSING STATION SYSTEM SCHEMATIC
NOT TO SCALE

Dufresne-Henry
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By	Date	Description	Rev.

VERMONT

AWOS INSTALLATION
FRANKLIN AIR 04-3144 C/1

FRANKLIN COUNTY STATE AIRPORT
CENTRAL DATA PROCESSING STATION

HIGHGATE

STATE OF VERMONT — REGISTERED PROFESSIONAL ENGINEER — No. 5486 — MICHAEL J. CAREY

Project No.	8150066
Proj. Manager	AMT
Proj. Designer	AMT
Drawn By	DeH
Checked By	MC
Scale	NTS
Approved	MC
Date	05-07-21

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Sheet 11 of 11
D AWOS 7