

STATE OF VERMONT AGENCY OF TRANSPORTATION



CONTRACT PLANS

THESE PLANS, DO NOT REFLECT
CHANGES MADE ON THE PROJECT.

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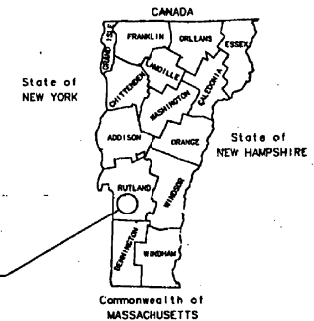
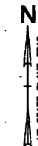
STANDARDS

AP-2 06/01/94
AP-3 06/01/94
AP-10 06/01/94

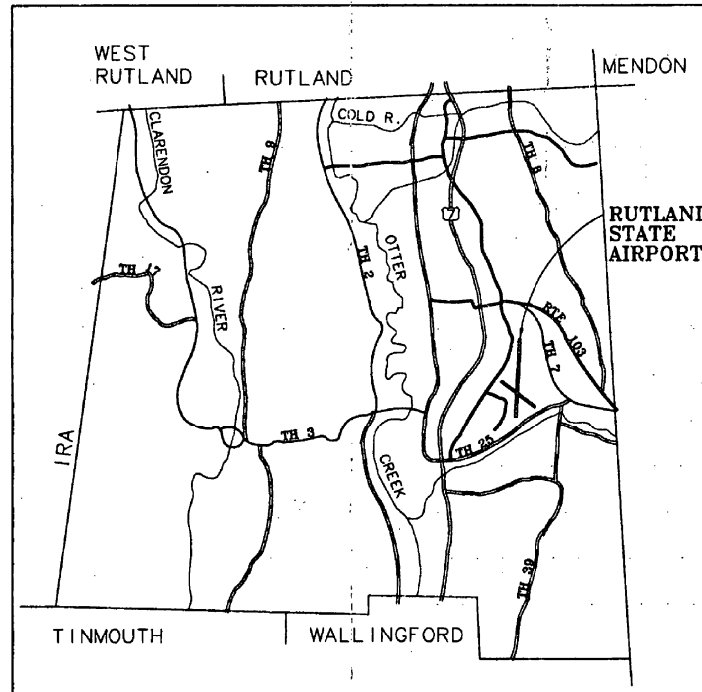
TABLE OF QUANTITIES		
ITEM NO.	DESCRIPTION	ESTIMATED QUANTITY
N/A	LOCALIZER SITE WORK	1 LUMP SUM
L-170	UTILITY COST ALLOWANCE	1 LUMP SUM
635.10	MOBILIZATION	1 LUMP SUM

PROPOSED IMPROVEMENTS RUTLAND STATE AIRPORT CLARENDON, VERMONT AIP NO. 3-50-0015-10 E.A. 043111

TO INCLUDE: LOCALIZER SITE PREPARATION



PROJECT SITE



LOCATION MAP

APPROXIMATE SCALE: 1" = 1 MILE

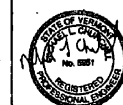
Date **NOV 03 1997**
 The Belden Company, Inc.
 Contractor
Robert D. Belden
 Signature
 Vice President
Alan S. Sweeney
 Secretary of Transportation's Signature

A.A.I.A. OF 1982 SECTION 509(d) ASSURANCES

IN COMPLIANCE WITH THE AIRPORT AND AIRWAYS IMPROVEMENT ACT OF 1982, SECTION 509 (d) AND THE SPONSOR'S CERTIFICATION, DATED [DATE], THESE PLANS AND SPECIFICATIONS HAVE BEEN PREPARED IN ACCORDANCE WITH CURRENT FAA STANDARDS IDENTIFIED IN F.A.A. PART 132. ANY DEVIATION FROM THE FAA STANDARD WERE APPROVED IN A LETTER BY THE FAA, DATED [DATE], AND ARE DISCUSSED IN THE ENGINEERING REPORT ACCOMPANYING THESE PLANS.

DESIGN ENGINEER

DATE



APPROVED *[Signature]* DATE **6-18-97**
 DIRECTOR OF RAIL, HIGHWAY & PUBLIC TRANSPORTATION
 DEPARTMENT OF TRANSPORTATION
 FEDERAL AVIATION ADMINISTRATION
 APPROVED *[Signature]* DATE _____
 CHIEF, AIRPORTS DIVISION

URS Greiner, Inc.

STATE OF VERMONT

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 (VAGT), AND THE FEDERAL AVIATION ADMINISTRATION (FAA).
2. THE PROJECT IS TO BE COMPLETED IN CONFORMANCE WITH THESE "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 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 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 SECURITY GUARD AT EACH DAILY 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 ON 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 AGENCY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE HAUL ROUTES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE HAUL ROUTES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE HAUL ROUTES.
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, SEED, 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 SPILL MATERIALS. THE MANNER IN WHICH WASTE AREAS ARE PLACED IN EXHIBMENTS SHALL BE AS SPECIFIED AND APPROVED BY THE ENGINEER. WASTE MATERIALS INCLUDE THOSE ITEMS WHICH ARE A DIRECT RESULT OF CONSTRUCTION TRASH (E.G. CURBS, 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 CONTRACT 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. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF CABLES DURING CONSTRUCTION. REPAIR OF CABLES DUE TO DAMAGE TO CONTRACTOR'S OPERATIONS MUST BE STARTED IMMEDIATELY AND COMPLETED ON THIS SHEET. UNLESS 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 SYSTEM - INTERRUPTION OF EXISTING AIRFIELD LIGHTING SYSTEM WILL NOT INCLUDE 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.
13. CONSTRUCTION LIMITS - ALL CONTRACTOR VEHICLES AND TRAFFIC (UNLESS OTHERWISE AUTHORIZED) SHALL REMAIN WITHIN THE BOUNDARIES OF 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 HIS PROJECT WORK ON THE PROJECT AT HIS OWN EXPENSE.
16. EXISTING TOPOGRAPHIC FIELD SURVEYS FOR THIS PROJECT AREA WERE PERFORMED BY LITTLE RIVER SURVEY CO. IN 1985 & 1987.
17. THE HORIZONTAL CONTROL ON THIS PROJECT IS TIED TO THE 1983 AND 1988 NATIONAL GEODETIC HORIZONTAL AND VERTICAL DATUM, RESPECTIVELY.

SAFETY REQUIREMENTS DURING CONSTRUCTION

- (A) FEDERAL AVIATION ADMINISTRATION (FAA) ADVISORY CIRCULAR (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
SUBSISTENT DISTRIBUTION OFFICE
AIRPORT EAST BUSINESS CENTER
3341 O 79TH AVE.
LANDOVER, MD 20785
- AND CAN BE REVIEWED AT THE OFFICES OF THE VERMONT AGENCY OF TRANSPORTATION, RAIL, AIR AND PUBLIC TRANSPORTATION DIVISION, NATIONAL LIFE BUILDING, MONTPELIER, VERMONT.
- (1) AC 150/5370-3, "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) RUNWAY PROTECTION ZONE (RPZ): A TRIANGULAR AREA CENTERED ON THE RUNWAY EXTENDING AT A POINT 500 FEET BEYOND THE END OF THE AREA USABLE FOR TAKEOFF OR LANDING. THE RPZ IS SHOWN ON THE GENERAL PROJECT LAYOUT PLAN.
 - (b) 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.
 - (c) 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, BUMPERS OR OTHER SIGNIFICANT SURFACE VARIATIONS OR OBJECTS OTHER THAN THOSE WHICH MUST BE THERE BECAUSE OF THEIR ESSENTIAL AERONAUTICAL FUNCTION. THE SAFETY AREA AREA REQUIRES THE CAPABILITY OF SUPPORTING MAINTENANCE VEHICLES AND AIRCRAFT RESCUE AND FIRE FIGHTING VEHICLES UNDER NORMAL (DRT) CONDITIONS.
 - (4) GENERAL SAFETY REQUIREMENTS
 - (a) 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 FAA 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.
 - (b) PROTECTION OF ALL PERSONS SHALL BE PROVIDED THROUGHOUT THE PROGRESS OF THE WORK. THE CONTRACTOR SHALL MAINTAIN SUCH A MANNER AS TO PROVIDE SAFE CONDITIONS FOR ALL WORKERS AND AGENCY PERSONNEL. THE SEQUENCE OF OPERATIONS 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.

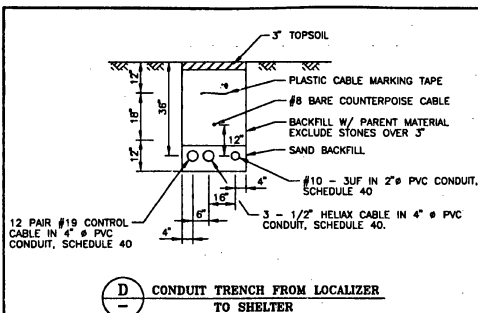
- (3) DURING PERFORMANCE OF THIS CONTRACT, THE AIRPORT RUNWAYS, TAXIWAYS, AND AIRCRAFT PARKING AREAS SHALL REMAIN IN USE BY AIRCRAFT TO THE MAXIMUM EXTENT POSSIBLE. ALL AIRCRAFT TRAFFIC IN THESE AREAS SHALL HAVE PRIORITY OVER CONTRACTOR'S TRAFFIC. THE OWNER RESERVES THE RIGHT TO ORDER THE CONTRACTOR 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 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.
- ### CONSTRUCTION AND FACILITIES MAINTENANCE
- (1) THE FOLLOWING ARE CONSIDERED SAFETY PROBLEMS AND/OR HAZARDOUS CONDITIONS CONTAINED HEREIN:
 - (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) SOUNDS 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 (NAVYADS).
 - (f) PAVEMENT DROP-OFFS - UPS (EITHER PERMANENT OR TEMPORARY) WHICH COULD CAUSE DAMAGE TO AIRCRAFT IF CROSSED AT NORMAL OPERATING SPEEDS. THE NORMAL MAXIMUM DROP-OFF OR UPS IS 1-1/2 INCHES.
 - (g) UNMARKED UTILITY, HAZARD, 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 FENCES, BARRICADES, AND TRAILERS, WHICH ARE 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 LIGHTS, OR DEGRADES VISIBILITY OF RUNWAY/TAXIWAY MARKINGS OR LIGHTING.
 - (l) INADEQUATE OR IMPROPER METHODS OF MARKING, BARRICADES, AND LIGHTING OF TEMPORARILY CLOSED PORTIONS OF THE AIRPORT OPERATIONS AREA.
 - (m) TRASH OR OTHER MATERIALS WITH FOREIGN OBJECT DAMAGE (FOD) POTENTIALS WHETHER ON RUNWAYS, TAXIWAYS, OR APRONS, OR IN RELATED SAFETY AREAS.
 - (n) INADEQUATE BARRICADE 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 VEHICLES. SUCH ACTIVITIES SHALL INCLUDE 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 VAGT WILL BE RESPONSIBLE FOR ISSUING APPROPRIATE NOTICE TO AIRMEN (NOTAM) CONCERNING CONSTRUCTION ACTIVITY ON THE AIRFIELD.
- (4) MOTORIZED VEHICLES
 - (a) THIS PROJECT INCLUDES WORK WITHIN THE AIRCRAFT OPERATIONS AREA (AOA).
 - (b) 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.
 - (c) 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.
 - (d) 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.
- (5) RADIO COMMUNICATIONS
 - (a) RADIO COMMUNICATIONS ARE REQUIRED BETWEEN THE CONTRACTOR'S REPRESENTATIVE AND RUTLAND UNICOM. RADIO CONTACT IS REQUIRED AT ALL TIMES.
 - (b) 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 CONTINUOUS 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.
- (6) DEBRIS
 - (a) 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.
 - (b) BARRICADES
- (7) GLAZING
 - (a) IN ACCORDANCE WITH THE SPECIFICATIONS, THE CONTRACTOR SHALL AT HIS OWN EXPENSE, FURNISH FLAGMAN AS NECESSARY TO CONTROL HIS TRAFFIC (UNLESS OTHERWISE DIRECTED BY THE ENGINEER).
 - (b) 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 ALL TIMES. THE CONTRACTOR'S VEHICLES OR PERSONNEL SHALL BE RESPONSIBLE FOR REMOVING RUNWAYS OR CLEAR ZONES WITHOUT PROPER AUTHORIZATION.

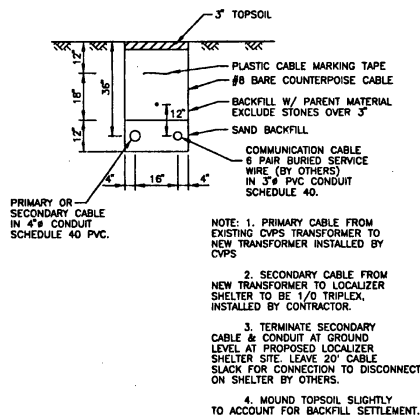
- (4) MISCELLANEOUS
 - (a) OPEN FLAME, WELDING OR TORCH CUTTING OPERATIONS ARE PROHIBITED UNLESS ADEQUATE FIRE AND SAFETY PRECAUTIONS HAVE BEEN TAKEN AND THE PROCEDURE PREVIOUSLY APPROVED BY THE ENGINEER.
 - (b) EQUIPMENT AND STOCKPILED MATERIAL SHALL BE CONFINED IN A MANNER TO PREVENT MOVEMENT RESULTING FROM AIRCRAFT JET BLAST OR WIND CONDITIONS IN EXCESS OF 10 KNOTS.
 - (c) THE CONTRACTOR SHALL PROVIDE BUCKETY TYPE CONSTRUCTION BARRICADES WITH FLASHING YELLOW LIGHTS AS SHOWN ON THE DRAWINGS TO DELINEATE THE WORK AREAS WHICH CLOSED TO AIRCRAFT TRAFFIC. OPEN TRENCHES, EXCAVATIONS AND STOCKPILED MATERIAL LOCATED IN THE AOA SHALL BE PROMINENTLY MARKED WITH ORANGE FLARES AND LIGHTED BY APPROVED LIGHT UNITS DURING HOURS OF LIMITED VISIBILITY AND DARKNESS.
 - (d) 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.
 - (e) MAXIMUM EQUIPMENT HEIGHT SHALL NOT EXCEED 15 FEET UNLESS PRIOR APPROVAL IS OBTAINED FROM THE ENGINEER.
 - (f) 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 AIRCRAFT ROADWAY POINT OR HAZARD ROUTE BY THE CONTRACTOR.
 - (g) ENTRANCE TO THE AIRFIELD IS SUBJECT TO SECURITY REGULATIONS. ALL PERSONNEL ENTERING THE AIRFIELD MUST OBTAIN AND DISPLAY SECURITY IDENTIFICATION BADGES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ASSURING THAT ALL OF HIS EMPLOYEES WHO HAVE UNDESIGNED ACCESS TO THE AIRFIELD, HAVE HAD A BACKGROUND CHECK PERFORMED ON THEM DATING BACK FIVE (5) YEARS VERIFYING REPRESENTATIONS MADE BY THE EMPLOYEE RELATING TO EMPLOYMENT.
 - (h) 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 APPLIED TO ALL SUBCONTRACTORS.
 - (i) 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 HAVE DIRECT CONTACT WITH AIRPORT OPERATIONS FOLLOWED BY NOTIFICATION TO THE RESIDENT ENGINEER AS SOON AS POSSIBLE.
 - (j) 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.
 - (k) IN ACCORDANCE WITH THE SPECIFICATIONS, FEDERAL WAGE RATES SHALL BE POSTED OUTSIDE THE SITE OFFICE IN A WEATHERPROOF ENCLOSURE.
- (5) UTILITIES
 - (a) UNDERGROUND UTILITIES: THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE CONSIDERED TO BE ONLY ESTIMATES. UTILITIES LOCATED DEEPER THAN 48 INCHES DEPTH 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.
 - (b) 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.
 - (c) THE FOLLOWING IS A LIST OF COMPANIES WITH POSSIBLE UTILITIES WITHIN THE CONSTRUCTION LIMITS.

UTILITY	DISPATCH	PHONE
UTILITY	1-800-225-4977	
OWS	1-800-846-2877	

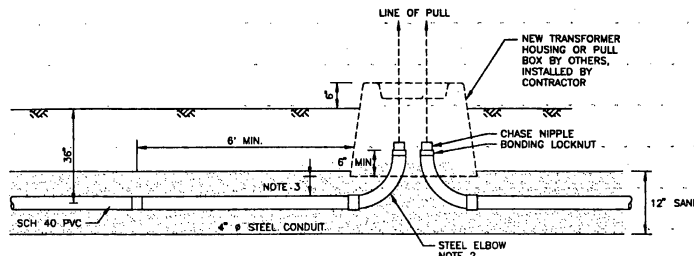
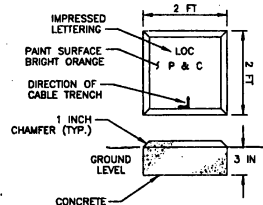
			
RUTLAND STATE AIRPORT CLERK, VERMONT		SAFETY NOTES	
Date 04/29/97	Drawn by J. M. M.	Check by J. M. M.	Approved by J. M. M.
3 MARCUS BOULEVARD ALBANY, NEW YORK			
3			



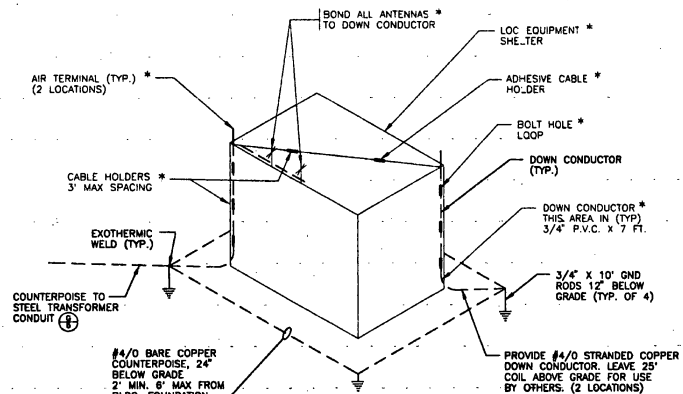
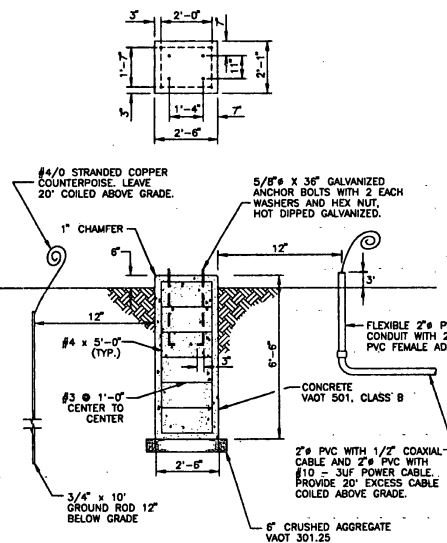
NOTE - PROVIDE 20' CABLE SLACK - EACH END OF ALL CABLES, FOR FUTURE CONNECTION - BY OTHERS. MOUND TOPSOIL SLIGHTLY TO ACCOUNT FOR BACKFILL SETTLEMENT.



NOTE: 1. PRIMARY CABLE FROM EXISTING CVPS TRANSFORMER TO NEW TRANSFORMER INSTALLED BY CVPS.
2. SECONDARY CABLE FROM NEW TRANSFORMER TO LOCALIZER SHELTER TO BE 1/0 TRIPLX, INSTALLED BY CONTRACTOR.
3. TERMINATE SECONDARY CABLE & CONDUIT AT GROUND LEVEL AT PROPOSED LOCALIZER SHELTER SITE. LEAVE 20' CABLE SLACK FOR CONNECTION TO DISCONNECT ON SHELTER BY OTHERS.
4. MOUND TOPSOIL SLIGHTLY TO ACCOUNT FOR BACKFILL SETTLEMENT.



NOTES:
1. ELBOWS TO BE ALIGNED TO ALLOW STRAIGHT PULL THROUGH BOX PAD OPENING
2. USE 90° ELBOWS
3. PROVIDE SUFFICIENT CLEARANCE SO BOX PAD DOES NOT CONTACT ELBOWS
4. INSTALL PULL WIRE IN CONDUIT (500# MIN RATING)
5. SEAL CONDUITS WITH APPROVED DUCT SEAL AFTER CABLES INSTALLED
6. BOND STEEL CONDUIT TO GROUND GRID. SEE DETAIL ①
7. PROVIDE DRAINAGE AWAY FROM TRANSFORMER HOUSING
8. PLACE 3" MIN SAND IN BOTTOM OF TRANSFORMER HOUSING
9. SEE DETAIL ① FOR ADDITIONAL DETAIL



GENERAL NOTES

1. ALL DISTURBED AREAS TO BE REGRADED, TOPSOILED (3" MIN.) LIMED, FERTILIZED, AND MULCHED.
2. CRUSHED AGGREGATE TO CONFORM TO VAOT SPECIFICATION 301.25
3. INSTALLATION OF UNDERGROUND CONDUIT AND COMMUNICATIONS CABLES TO CONFORM TO REQUIREMENTS OF THE LOCAL UTILITY (CVPS) & TELEPHONE Co. (NYNEX).



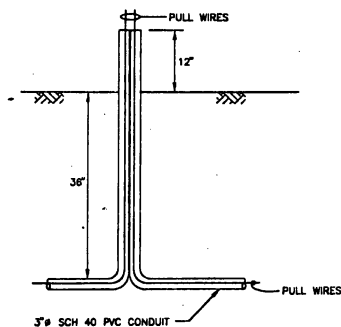
PROJECT NO.	DATE	DESIGNER
REV.	DATE	BY
JOB NO. 1002200		

RUTLAND STATE AIRPORT
CLANDON, VERMONT

LOCALIZER SITE DETAILS

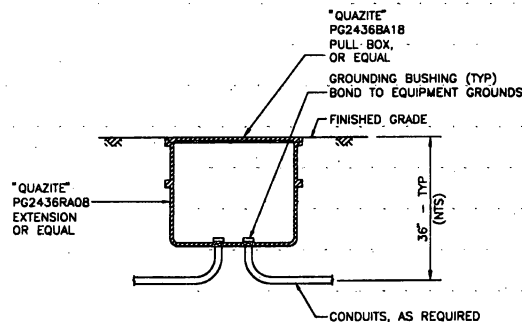
URS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

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Scale	Horizontal - Vertical	Horizontal - Vertical	Horizontal - Vertical
Date	04/09/91	Sheet	8 of 8
Sheet No.	5		



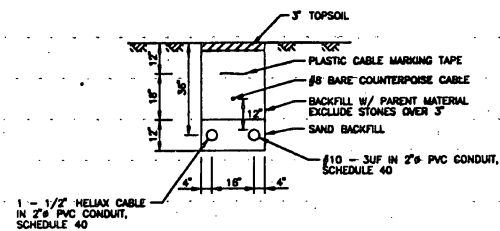
J TELEPHONE STUB-UP
SCALE: NONE

NOTE:
SEAL CONDUIT WITH APPROVED
DUCT SEAL AFTER PULL WIRES
ARE INSTALLED.

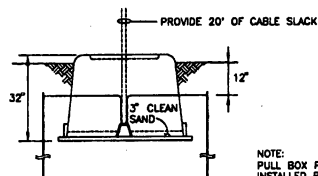
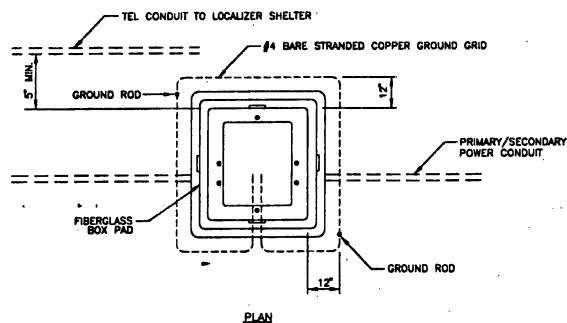


NOTE:
PROVIDE LOOPS IN HANDHOLES WHERE
NO SPLICES OCCUR. TERMINATE SPARE
CONVIAL CABLE IN HANDHOLE WITH 10
FEET OF EXTRA CABLE COILED AND TAPED.

**O POWER & COMMUNICATION
HANDHOLE DETAIL**
SCALE: 1"=1'-0"

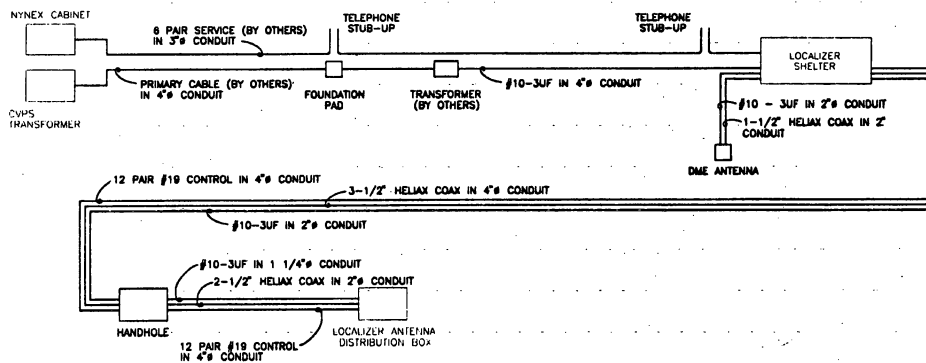


P CONDUIT TRENCH FROM DME TO SHELTER
SCALE: NONE



K PULL BOX DETAILS
SCALE: NONE

NOTE:
PULL BOX PROVIDED BY CVPS.
INSTALLED BY CONTRACTOR. ALL
GROUNDING WORK PROVIDED BY
CONTRACTOR. PROVIDED 5' MIN.
HORIZONTAL CLEARANCE BETWEEN
PULL BOX AND NEW TELEPHONE
CONDUIT ADJACENT TO PULL BOX.



Q WIRING DIAGRAM
SCALE: NONE

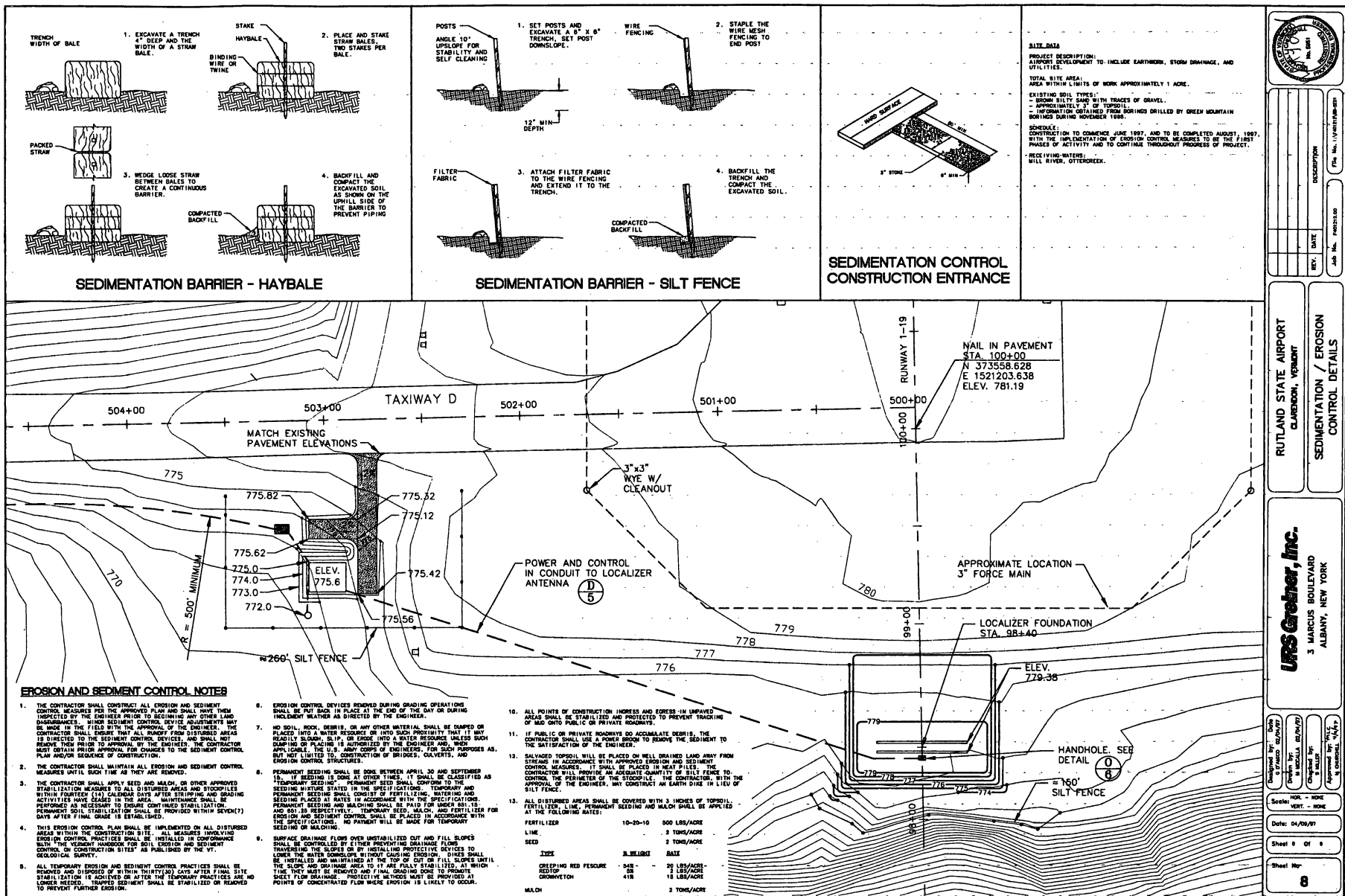


RUTLAND STATE AIRPORT
CLANDON, VERMONT

LOCALIZER SITE DETAILS

URS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

Designed by: Date: 04/04/97
Checked by: 04/04/97
Reviewed by: 04/04/97
Approved by: 04/04/97
Scale: 1/4"=1'-0"
Sheet 6 of 6
Sheet No: 6



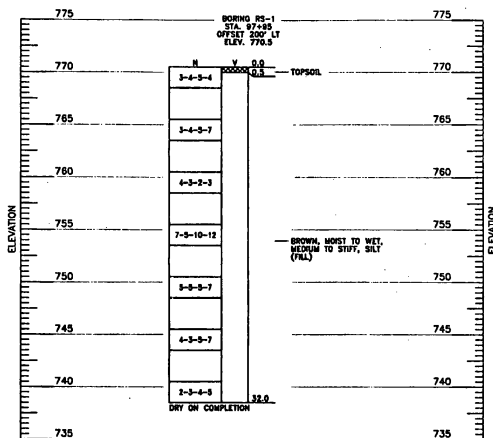
REV.	DATE	DESCRIPTION	BY	CHK

RUTLAND STATE AIRPORT
CLARION, VERMONT

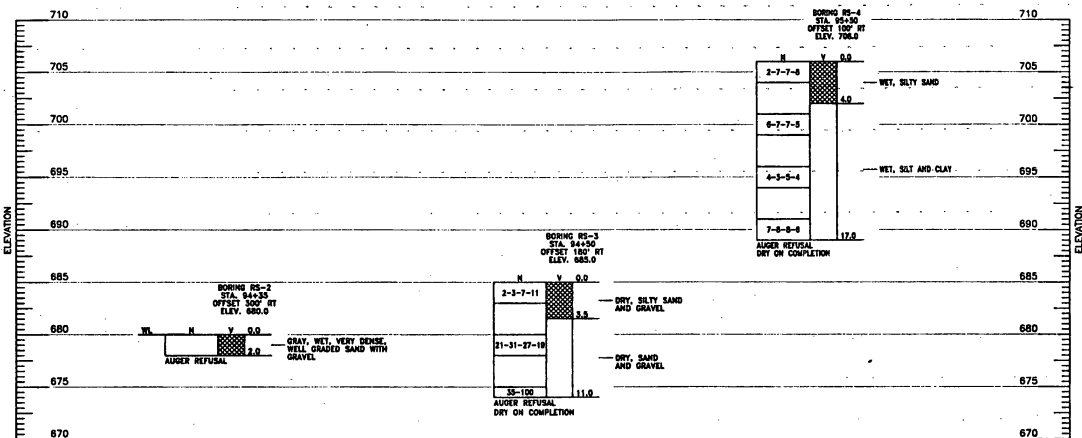
SEDIMENTATION / EROSION CONTROL DETAILS

URS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

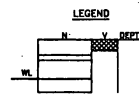
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Drawn by: [Signature]	Approved by: [Signature]
Scale: 1" = 40'	Date: 04/09/97
Sheet No: 8	Sheet 8 of 9



BORINGS AND DRIVE TESTS
SCALE: AS SHOWN



BORINGS AND DRIVE TESTS
SCALE: AS SHOWN



NOTE:

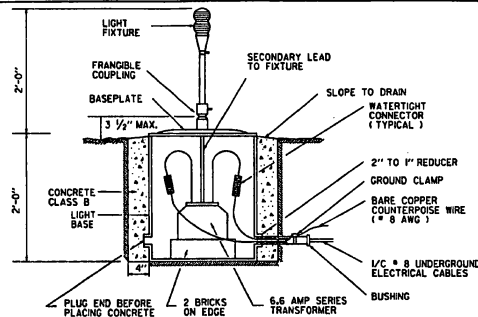
- BORINGS AND DRIVE TESTS WERE TAKEN IN NOVEMBER 1995, BY GREEN MOUNTAIN BORING.
 - N--BLOWS PER 8 INCH INCREMENT OF PENETRATION OF SAMPLING SPOON OR PENETRATION IN INCHES FOR THE INDICATED BLOWS OF A 140 LB. HAMMER FALLING 30". WHERE ROCK IS ENCOUNTERED, PERCENT CORE RECOVERY IS SHOWN. R.Q.D. IS SHOWN IN PARENTHESES.
- THE ROCK QUALITY DESIGNATION (R.Q.D.) IS BASED ON A MODIFIED CORE RECOVERY PROCEDURE WHICH, IN TURN, IS BASED INDIRECTLY ON THE NUMBER OF FRACTURES (EXCEPT THOSE DUE DIRECTLY TO DRILLING OPERATIONS) AND THE AMOUNT OF SOFTENING OR ALTERATION IN THE ROCK MASS AS OBSERVED IN THE ROCK CORES FROM A DRILL HOLE. INSTEAD OF COUNTING THE FRACTURES, AN INDIRECT MEASURE IS OBTAINED BY SUMMING THE TOTAL LENGTH OF CORE RECOVERED BY COUNTING ONLY THOSE PIECES OF HARD AND SOUND CORE WHICH ARE 4 INCHES OR GREATER IN LENGTH. THE RATIO OF THIS MODIFIED CORE RECOVERY LENGTH TO THE TOTAL CORE RUN LENGTH IS KNOWN AS THE R.Q.D.
- V--ALTERNATE SHADING INDICATES EXTENT OF SOIL OR ROCK LAYERS.
- WL--WATER-LEVEL READING AT COMPLETION OF BORING.

RUTLAND STATE AIRPORT
CLARENDON, VERMONT

BORING LOGS

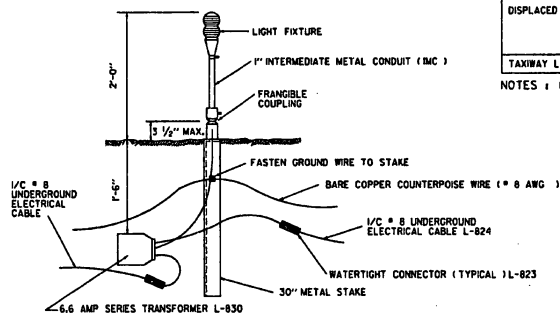
URS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

Designed by: Drawn by: Checked by: Approved by:	Date: Scale: Sheet # of #	Description: Date: File No. (if applicable):	
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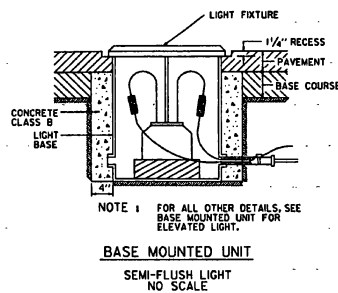
- NOTES:
1. PROVIDE 3 FEET OF SLACK IN CABLES AT TRANSFORMER.
 2. SEAL END OF CONDUIT (DUST SEAL).
 3. PROVIDE 1/2" PER FT. PITCH ON ALL CONDUITS

BASE MOUNTED UNIT
ELEVATED LIGHT
NO SCALE



- NOTES:
1. PROVIDE 3 FEET OF SLACK IN CABLES AT TRANSFORMER.
 2. 30" METAL STAKE SHALL BE MADE OF GALVANIZED STEEL ANGLE 2" x 2" x 1/4" WITH A SUITABLE TAPPED FITTING BOLTED AT THE TOP TO RECEIVE THE FRANGIBLE COUPLING.

STAKE MOUNTED UNIT
ELEVATED LIGHT
NO SCALE

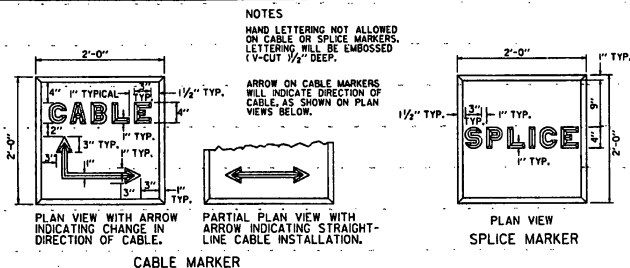


BASE MOUNTED UNIT
SEMI-FLUSH LIGHT
NO SCALE

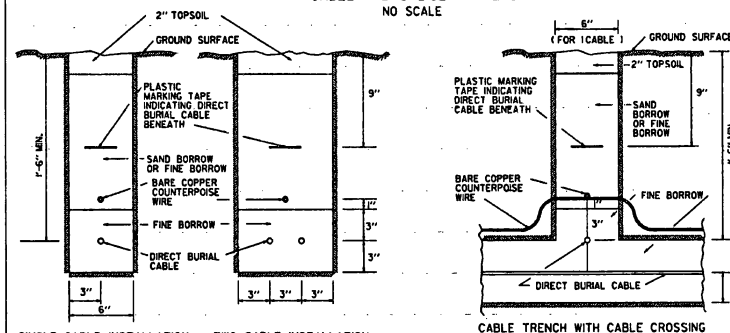
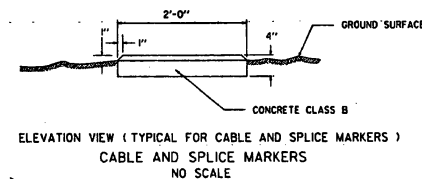
LIGHT LOCATION	LAMP		LENS
	MEDIUM INTENSITY	HIGH INTENSITY	
RUNWAY EDGE LIGHT	6.6A, 30W	6.6A, 100W	360° CLEAR/180° YELLOW
RUNWAY THRESHOLD LIGHT	6.6A, 45W	6.6A, 100W	180° RED/180° GREEN
DISPLACED THRESHOLD LIGHT	6.6A, 30/45W	6.6A, 100W	360° RED
		6.6A, 100W	180° RED/180° CLEAR
TAXIWAY LIGHT	6.6A, 30W		180° OBSCURED/180° GREEN 180° CLEAR/180° GREEN 360° BLUE

NOTES: 1. SEE PLAN SHEET FOR LENS/LIGHT TYPE.

NOTE: AIRPORT LIGHT BASES SHOULD BE CONSTRUCTED TO FAA SPECIFICATIONS. SEE CURRENT ADVISORY CIRCULAR.



NOTE: SEE STANDARD AP-3 FOR UNDERGROUND ELECTRICAL DUCT DETAILS.



NOTE: FOR MULTIPLE-CABLE INSTALLATIONS, PROVIDE 3" ADDITIONAL TRENCH WIDTH FOR EACH ADDITIONAL CABLE.

NOTE: UNDERGROUND ELECTRICAL CABLE SHOULD BE CONSTRUCTED TO FAA SPECIFICATION. SEE CURRENT ADVISORY CIRCULAR.

UNDERGROUND ELECTRICAL CABLE INSTALLATION
TRENCH DETAILS
(IN EARTH OR ROCK)
NO SCALE

REVISIONS AND CORRECTIONS
DEC. 15, 1981 - ORIGINAL APPROVAL DATE
MAR. 1, 1990 - SHEET UPDATED
JUNE 1, 1994 - REISSUED, WITHOUT CHANGE, UNDER NEW SIGNATURES.

APPROVED
DIRECTOR OF RAILROAD AND PUBLIC TRANSIT

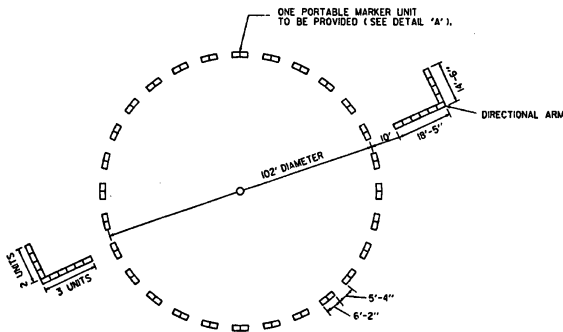
LIGHTING & ELECTRICAL DETAILS



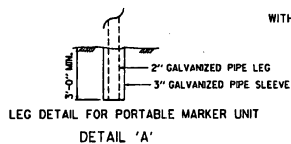
STANDARD
AP-2

NOTES

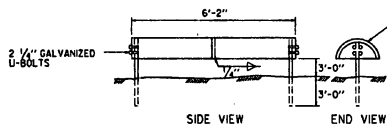
1. THE LOCATION OF THE PORTABLE MARKER UNIT SHALL BE AS ORDERED BY THE ENGINEER.
2. DIRECTIONAL ARMS ARE INSTALLED ONLY ON AIRPORTS WITH A NON-STANDARD TRAFFIC PATTERN (RIGHT-HAND PATTERN). WHEN INSTALLED, DIRECTIONAL ARMS WILL BE MAGNETICALLY ORIENTED TO THE RUNWAY AND WILL SHOW TRAFFIC PATTERN ON EACH RUNWAY.



SEGMENTED CIRCLE LAYOUT
WITH DIRECTIONAL ARMS

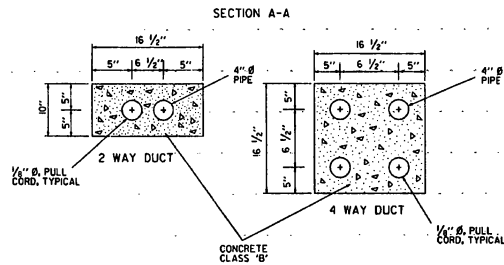


LEG DETAIL FOR PORTABLE MARKER UNIT
DETAIL 'A'



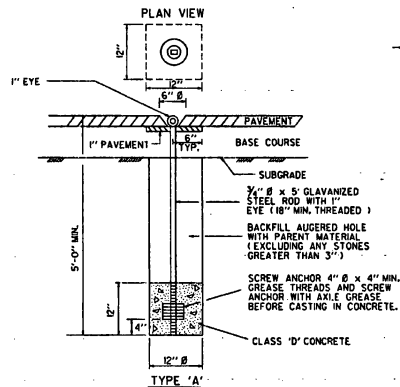
SEGMENTED CIRCLE MARKER UNIT

PORTABLE UNIT HAS LEGS OF 2" Ø GALVANIZED PIPE OR 1 1/2" x 3/4" L (GALV.).

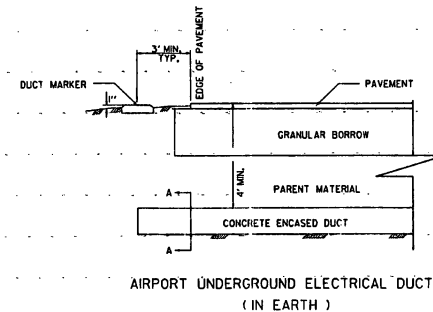


ALL DUCTS, EXCEPT STEEL CONDUIT, INSTALLED UNDER RUNWAYS, TAXIWAYS, APRONS, AND OTHER PAVED AREAS SHALL BE ENCASED IN A CONCRETE ENVELOPE

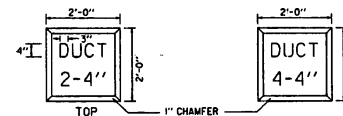
SEE STANDARD AP-2 FOR DIRECT BURIAL CABLE DETAILS.



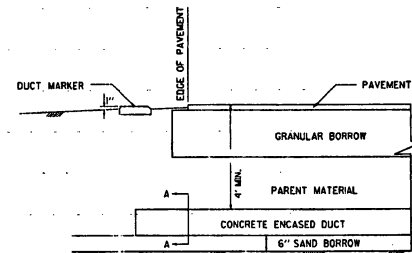
AIRCRAFT TIE DOWN ANCHOR



AIRPORT UNDERGROUND ELECTRICAL DUCT
(IN EARTH)



DUCT MARKERS



AIRPORT UNDERGROUND ELECTRICAL DUCT
(IN ROCK)

- NOTES
1. LETTERING ON DUCT MARKERS TO BE EMBOSSED, "V" CUT, 1/2" DEEP.
 2. HAND LETTERING NOT ALLOWED

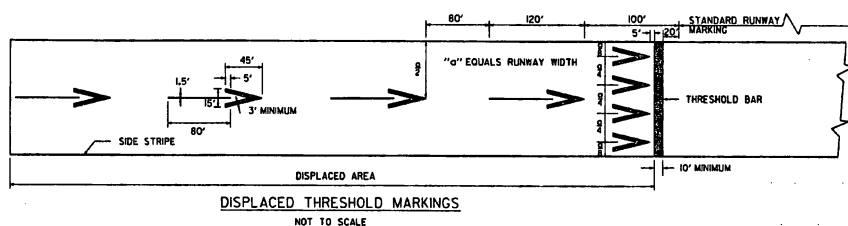
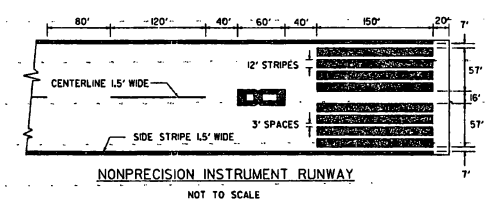
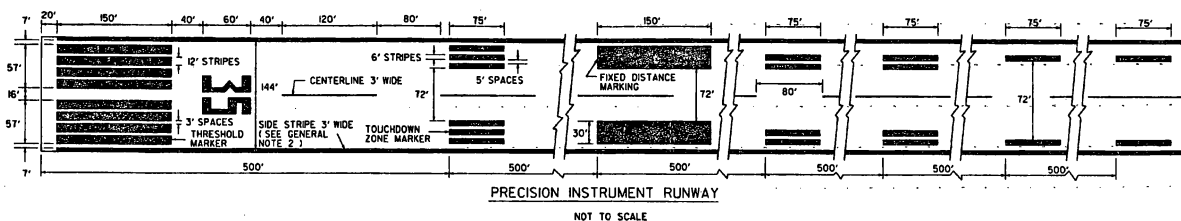
REVISIONS AND CORRECTIONS
DEC. 15, 1981 - ORIGINAL APPROVAL DATE
MAR. 5, 1990 - SHEET UPDATED
JUNE 1, 1994 - REISSUED, WITHOUT CHANGE, UNDER NEW SIGNATURES.

APPROVED
APPROVED FOR THIS PROJECT
END/OR DESIGN IMPLEMENTATION
FINAL FINAL APPROVAL PENDING.
108
DIRECTOR OF RAIL, AIR AND PUBLIC TRANSIT

MISCELLANEOUS AIRPORT DETAILS

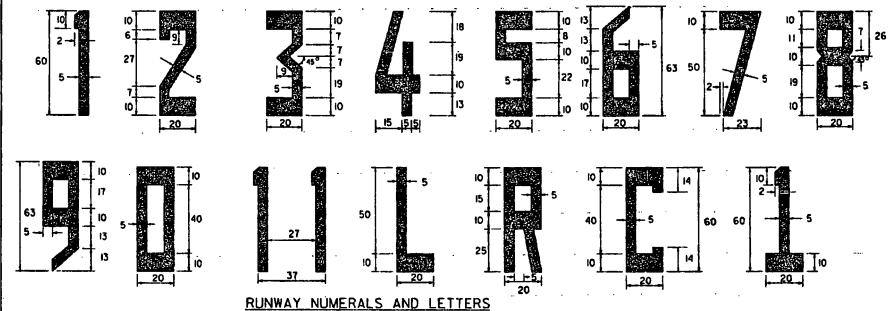


STANDARD
AP-3



NOTES

1. FOUR ARROWHEADS ARE PLACED SYMMETRICALLY ACROSS RUNWAY WITH UNIFORM LATERAL SPACING AS INDICATED.
2. ALL MARKINGS IN THE DISPLACED AREA ARE YELLOW EXCEPT THE THRESHOLD BAR WHICH IS WHITE.
3. RUNWAY SIDE STRIPES, WHEN USED ON THE RUNWAY, EXTEND INTO THE DISPLACED AREA.



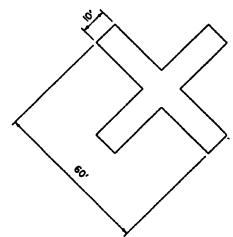
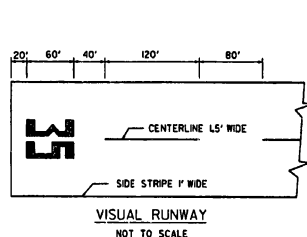
NOTES

1. ALL LETTERS AND NUMERALS, EXCEPT THE NUMBER ELEVEN AS SHOWN, ARE HORIZONTALLY SPACED 15 FEET APART.
2. DIMENSIONS ARE EXPRESSED IN FEET.
3. THE NUMERAL ONE, WHEN USED ALONE, CONTAINS A HORIZONTAL BAR TO DIFFERENTIATE IT FROM THE RUNWAY CENTERLINE MARKING.

GENERAL NOTES

1. ALL RUNWAY MARKINGS ARE WHITE EXCEPT IN THE DISPLACED THRESHOLD AREA AND NON FULL STRENGTH SHOULDER MARKINGS.
2. FOR RUNWAYS LESS THAN 150' IN WIDTH, THE WIDTH OF THE MARKINGS, SPACES BETWEEN MARKINGS, AND DISTANCE OF MARKINGS FROM THE RUNWAY EDGE ARE CHANGED PROPORTIONALLY.
3. ADJUSTMENTS TO THE LENGTH OF THE CENTERLINE STRIPES AND GAPS, WHERE NECESSARY TO ACCOMMODATE THE RUNWAY LENGTH, ARE MADE NEAR THE RUNWAY MIDPOINT.
4. ALL RUNWAY MARKINGS ARE TO BE STRIATED WITH ALL STRIPES AND SPACES EQUAL IN WIDTH (4" TO 6").

NOTE:
MARKING OF RUNWAY SHOULD BE
BASED ON FAA SPECIFICATIONS.
SEE CURRENT FAA ADVISORY CIRCULAR.



- TEMPORARY
CLOSED RUNWAY MARKER NOTES:
1. MARKERS TO BE YELLOW PLYWOOD OR SNOW FENCE.
 2. MARKERS TO BE SUBSIDIARY TO OTHER PAVEMENT.
 3. MARKERS TO BE PLACED OVER RUNWAY NUMERALS OR OFF THE RUNWAY ENDS AS APPLICABLE.
 4. MARKERS TO BE ANCHORED TO THE SATISFACTION OF THE ENGINEER.

REVISIONS AND CORRECTIONS

JUNE 29, 1982 - ORIGINAL APPROVAL DATE
MAR. 5, 1990 - SHEET UPDATED
JUNE 1, 1994 - REISSUED, WITHOUT CHANGE,
UNDER NEW SIGNATURE.

APPROVED

APPROVED FOR THIS PROJECT
AND/OR DESIGN IMPLEMENTATION
THRU FINAL APPROVAL PENDING.

DIRECTOR OF RAIL, AIR AND PUBLIC TRANSIT

RUNWAY MARKING DETAILS



STANDARD
AP-10

STATE OF VERMONT
AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENTS
RUTLAND STATE AIRPORT
CLARENDON, VERMONT
AIP NO. 3-50-0015-11
E.A. 043111

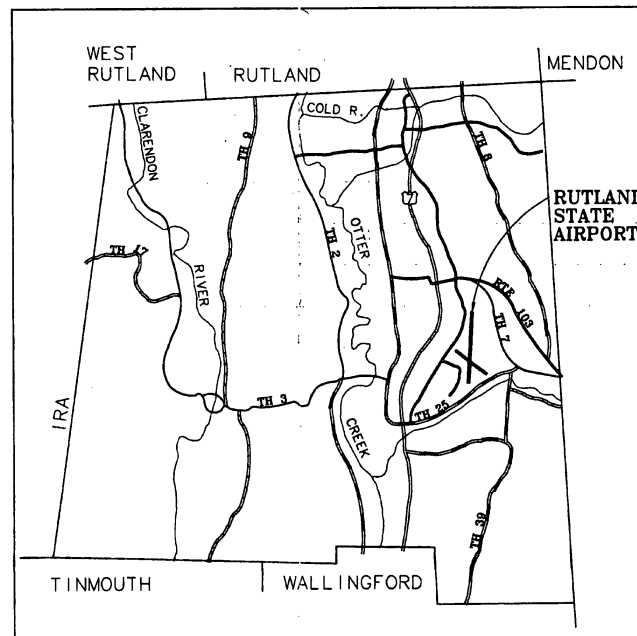
TO INCLUDE: REHABILITATE, LIGHT & MARK RUNWAY 1-19 (100'x5000') &
RELOCATE LOCALIZER AND SHELTER

INDEX OF SHEETS

- 1 TITLE SHEET
- 2 QUANTITY SUMMARY
- 3A&3B DRAINAGE SUMMARY
- 4 GENERAL PROJECT LAYOUT
- 5 GENERAL CONSTRUCTION AND SAFETY NOTES
- 6 PHASING PLAN, NOTES
- 7-9 TYPICAL SECTIONS AND DETAILS
- 10-12 RUNWAY 1-19 PROFILE
- 13 TAXIWAY C,D,E & RUNWAY 13-13 PROFILE
- 14-18 PAVING PLANS AND GEOMETRIC LAYOUT
- 19-23 GRADING & DRAINAGE PLANS
- 24 DRAINAGE DETAILS
- 25 EROSION CONTROL DETAILS
- 26 PAVEMENT MARKING PLAN
- 27-30 RUNWAY LIGHTING PLANS
- 31-33 RUNWAY LIGHTING DETAILS
- 34 VASI MOUNTING DETAILS
- 35-41 ODALS DETAILS
- 42-44 BORING LOGS
- 45 LOCALIZER/DME BUILDING RELOCATION
- 46-57 RUNWAY 1-19 CROSS SECTIONS
- 58-59 TAXIWAY D X-SECTIONS
- 60-65 LOCALIZER REFERENCE DRAWINGS

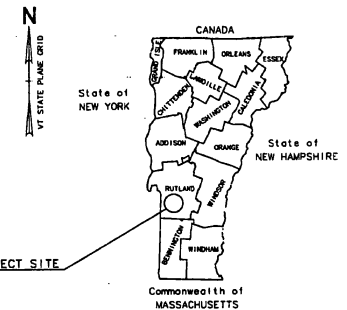
VAOT STANDARD DRAWINGS

- AP-3 DUCT AND DUCT MARKER DETAILS
- AP-10 RUNWAY MARKING DETAILS
- AP-11 TAXIWAY MARKING DETAILS
- B-5 EMBANKMENTS ON EARTH SLOPE
- D-2 REINFORCED CONCRETE HEADWALL
- D-6 REINFORCED CONCRETE DROP INLET W/ GRATE
- D-11 CAST IRON GRATE-TYPE A
- D-16 ENERGY DISSIPATOR FOR CULVERTS
- E-100 CONSTRUCTION APPROACH SIGNS
- E-121 STANDARD SIGN PLACEMENT



LOCATION MAP

APPROXIMATE SCALE : 1" = 1 MILE



DATE: JUL 01 1997
 J. R. McDonald Inc.
 Designer
 J. R. McDonald
 Engineer
 J. R. McDonald
 Secretary of Transportation's Engineer

A.A.I.A. OF 1982 SECTION 509(d) ASSURANCES

IN COMPLIANCE WITH THE AIRPORT AND AIRWAYS IMPROVEMENT ACT OF 1982, SECTION 509 (d) AND THE SPONSOR'S CERTIFICATION, DATED 5/5/97, THESE PLANS AND SPECIFICATIONS HAVE BEEN PREPARED IN ACCORDANCE WITH CURRENT FAA STANDARDS IDENTIFIED IN F.A.A. PART 152. ANY DEVIATION FROM THE FAA STANDARD WERE APPROVED IN A LETTER BY THE FAA, DATED 5/5/97, AND ARE DISCUSSED IN THE ENGINEERING REPORT ACCOMPANYING THESE PLANS.

DESIGN ENGINEER: [Signature] DATE: 5/5/97

URS Greiner, Inc.



STATE OF VERMONT
 APPROVED: [Signature] DATE: 5-18-97
 DIRECTOR OF HIGHWAY & PUBLIC TRANSPORTATION
 DEPARTMENT OF TRANSPORTATION
 FEDERAL AVIATION ADMINISTRATION
 APPROVED: [Signature] DATE: _____
 CHIEF, AIRPORT DIVISION

QUANTITY SHEET

SUMMARY OF ESTIMATED QUANTITIES				
QUANTITIES GRAND TOTAL	UNIT	ITEMS	ITEM NO.	ROUNDING
12	EA	CLEARING - LARGE TREES	201.16	
112,000	CY	COMMON EXCAVATION	203.15	
250	CY	SOLID ROCK EXCAVATION	203.16	
23,000	CY	GRANULAR BORROW	203.32	
23,000	SY	FINE GRADE	203.40	
7,000	CY	TRENCH EXCAVATION OF EARTH	204.20	
100	CY	TRENCH EXCAVATION OF ROCK	204.21	
4,000	SY	COLD PLANING	210.10	
350	CY	SUBBASE OF GRAVEL, COURSE GRADED	301.25	
70	CY	SUBBASE OF GRAVEL, FINE GRADED	301.26	
180	TON	BITUMINOUS CONCRETE PAVEMENT	408.25	
13,000	TON	BIT. CONCRETE PAVEMENT (P-401) (P658-34)	408.25 MOD. 1	
500	LF	JOINT SEALER, HOT POURED	524.11	
8,500	LF	CRACK REPAIR, TYPE I (P605)	524.11 MOD. 1	
7,000	LF	CRACK REPAIR, TYPE II (P605)	524.11 MOD. 2	
2,000	LF	CRACK REPAIR, TYPE III (P605)	524.11 MOD. 3	
1	EA	RELOCATE LOCALIZER	528.20 MOD. 1	
1,300	LF	15" CSP, 0.079"	601.0011	
675	LF	15" RCP, CLASS IV	601.0811	
5	EA	15" CSP, END SECTION	601.6010	
1	EA	15" RCP, END SECTION	601.6810	
9	EA	CONCRETE DI/CB W/ CAST IRON FRAME & GRATE	604.10	
10	EA	CHANGE ELEVATION OF D.I./C.B.	604.40	
9,200	LF	6" UNDERDRAIN	605.10	
500	LF	6" UNDERDRAIN CARRIER PIPE	605.20	
38	EA	UNDERDRAIN FLUSHING BASINS	605.95	
24	HOUR	ALL PURPOSE EXCAVATOR RENTAL, TYPE I	606.25	
100	MGAL	DUST CONTROL WITH WATER	609.10	
40	CY	STONE FILL, TYPE II	613.11	
1,150	LF	3" PVC SEWER PIPE	628.35	
1	LS	TRANSFER TO NEW SYSTEM - SANITARY SEWER	628.42	
1	LS	FIELD OFFICE - ENGINEERS	631.10	
1	LS	MOBILIZATION	635.10	
58,000	LF	6" WHITE LINE (P620)	646.20 MOD. 1	
3,600	LF	6" YELLOW LINE (P620)	646.21 MOD. 1	
2	EA	SYMBOL (1) (P620)	646.30 MOD. 1	
1	EA	SYMBOL (9) (P620)	646.30 MOD. 2	
24,000	LF	6" TEMPORARY WHITE LINE (P620)	646.60 MOD. 1	
3,000	LF	6" TEMPORARY YELLOW LINE (P620)	646.61 MOD. 1	
4	EA	TEMPORARY SYMBOL (1) (P620)	646.70 MOD. 1	
2	EA	TEMPORARY SYMBOL (9) (P620)	646.70 MOD. 2	
2,000	SF	REMOVAL OF EXIST. PAV'T MARKING (P621)	646.82	
20,000	SY	GEOTEXTILE FOR ROADBED SEPARATOR	649.11	
10,000	SY	GEOTEXTILE FOR UNDERDRAIN TRENCH	649.41	
600	SY	GEOTEXTILE FOR SILT FENCE	649.51	
2,800	LB	SEED	651.15	
24,000	LB	FERTILIZER	651.18	
95	TON	AGRICULTURAL LIMESTONE	651.20	
500	EA	HAY BALES FOR EROSION CONTROL	651.26	
1	TON	MULCH	651.25	
12,800	CY	TOPSOIL (2")	651.35	
500	SY	EROSION MATTING	654.10	
1	EA	RELOCATE ODALS #1R & #1L (L-125)	678.16 MOD. 1	
1	EA	RELOCATE ODALS UNIT #3 (L-102)	678.17 MOD. 1	
1	EA	RELOCATE ODALS UNIT #20 (L-102)	678.17 MOD. 2	
23,500	LF	2" DIA. PVC ELECTRICAL CONDUIT (L-110)	678.21 MOD. 1	
1	EA	TOWER FOR ODALS UNIT #3 (L-103)	679.45 MOD. 1	
1	EA	TOWER FOR ODALS UNIT #20 (L-103)	679.45 MOD. 2	
6,100	CY	CRUSHED AGGREGATE BASE COURSE (P-209)	854.04	
16,000	LF	CABLE TRENCH (L-108)	864.04	
29,000	LF	1/2" #8, 500 OR 5000V, L-824C (L-108)	864.05	
7,000	LF	1/2" #4, 500V, L-824C (L-108)	864.05 MOD. 2	
2,500	LF	6 PAIR #19 CONTROL CABLE (L-108)	864.05 MOD. 3	
16,500	LF	#8 OR #6 COUNTERPOISE (L-108)	864.06 MOD. 1	
1	LS	INSTALLATION OF VAULT EQUIPMENT (L-109)	864.07	
180	LF	4 WAY x 4" DIA. UG ELECTRICAL DUCT (L-110)	864.09	
69	EA	MIRLS, BASE MOUNTED (L-125)	864.10	
3	EA	MIRLS, BASE MOUNTED, IN PAV'T (L-125)	864.10 MOD. 1	
13	EA	MIRLS, BASE MOUNTED (L-125)	864.11	
1	EA	RELOCATE VASI-4 (L-125)	864.12 MOD. 1	
1	EA	TEMPORARY THRESHOLD (L-125 & P-620)	864.15 MOD. 1	
20	EA	RELOCATE AIRFIELD SIGNS (L-125)	864.14 MOD. 1	
1	LS	TESTING EQUIPMENT - CONCRETE	631.16	
1	LS	TESTING EQUIPMENT - BITUMINOUS	631.17	
1	LS	FIELD OFFICE - TELEPHONE (N.A.B.T.)	631.25	

EARTH WORK SUMMARY			
LOCATION	TOTAL EXCAVATION	TOTAL EMBANKMENT	
TAXIWAY "D"	3,950 cy	5,572 cy	
RUNWAY 1-19			
-STA. 98+50 - 111+50	18,736		
-STA. 111+50 - 157+40	183,551	87,265	
SUBTOTALS	106,237	92,637	
RNDG. (4%)	5,763	13,762	FACTORED FILL (15%)
TOTALS	112,000	106,762	
	cy	cy	



DESIGNED BY	DATE
CHECKED BY	DATE
APPROVED BY	DATE

RUTLAND STATE AIRPORT
CLARENDON, VERMONT

QUANTITY SUMMARY

URS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

DESIGNED BY	DATE
CHECKED BY	DATE
APPROVED BY	DATE
Scale	HOR. - NONE VERT. - NONE
Date	6/4/97
Sheet	2 OF 65
Sheet No	2

DRAINAGE QUANTITY SHEET

[illegible]

URS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

RUTLAND STATE AIRPORT
CLARENDON, VERMONT

DRAINAGE SUMMARY

REV.	DATE	DESCRIPTION
Job No. 740212.00		File No. 1740212/00-01



DRAINAGE QUANTITY SHEET

CULVERTS AND STORM DRAINS									
LOCATION		SIZE & TYPE	LENGTH	FLOW LINE		TRENCH EXCAVATION CY	REMARKS		
BEGIN	END			INLET	OUTLET				
D1 100	300' LT 116+55	15" CSP	100'	778.00	777.50	45	15" MES W/ STONE FILL, TYPE II • OUTLET		
D1 101	430' LT 100+80	15" RSP	230'	777.04	784.20	100	15" ES W/ STONE FILL, TYPE II • OUTLET		
D1 102	D1 103	15" CSP	225'	777.80	775.90	140			
D1 103	CB 104	15" RCP	295'	775.80	774.00	220			
D1 105	150' RT 155+93	15" CSP	90'	755.80	728.0	35	15" MES W/ STONE FILL, TYPE II • OUTLET		
D1 106	168' LT 155+93	15" CSP	80'	775.80	738.0	45	15" MES W/ STONE FILL, TYPE II • OUTLET		
CB 107	CB 108	15" CSP	340'	778.0	774.6	230			
CB 108	CB 109	15" CSP	335'	774.55	771.60	225			
202' LT 121+40	202' LT 121+88	15" CSP	48'	782.34	782.28	N.A.	15" MES • INLET & OUTLET		
						1040 cy	SUBTOTAL		
UNDERDRAIN									
LOCATION		SIZE & TYPE	LENGTH	FLOW LINE		TRENCH EXCAVATION CY	REMARKS		
BEGIN	END			INLET	OUTLET				
M32	78' RT 100+72	6" UD	220 LF	774.7		163			
FB1	55' RT 102+80	6" UD	250 LF	776.02		185			
FB2	55' RT 105+30	6" UD	250 LF	776.84		185			
FB3	55' RT 107+80	6" UD	250 LF	777.23		130			
FB4	55' RT 108+55	6" UD	175 LF	777.94					
FB5	55' RT 112+88	6" UD	170 LF	778.68		126			
FB6	55' RT 114+80	6" UD	250 LF	778.12		185			
FB7	55' RT 117+10	6" UD	250 LF	779.54		185			
FB8	55' RT 119+60	6" UD	250 LF	780.08					
FB9	55' RT 121+00	6" UD	360 LF	781.34		268			
FB10	55' RT 124+60	6" UD	250 LF	780.67		50			
FB11	55' RT 127+10	6" UD	250 LF	780.24		50			
FB12	55' RT 128+80	6" UD	250 LF	779.80		50			
FB13	55' RT 132+10	6" UD	250 LF	778.64		50			
FB14	55' RT 134+80	6" UD	250 LF	777.43		50			
FB15	55' RT 137+10	6" UD	250 LF	778.21		50			
FB16	55' RT 139+80	6" UD	250 LF	774.98		50			
FB17	55' RT 142+10	6" UD	250 LF	773.77		185			
FB18	55' RT 144+80	6" UD	250 LF	772.50		130			
FB19	55' RT 147+10	6" UD	175 LF	771.20					
M758	81' RT 148+75			770.20					
140' RT 150+00				771.3			CONNECT TO EXISTING PVC UNDERDRAIN		
						2275 cy	SUBTOTAL		

LOCATION	SIZE & TYPE	LENGTH	FLOW LINE		TRENCH EXCAVATION CY	REMARKS
			INLET	OUTLET		
150' RT 151+80	6" g UD	150 LF		757.50	104	OUTLET TO DAYLIGHT, STONE FILL, TYPE II ● OUTLET
M33	79' LY 100+74			774.70		
FB20	55' LT 102+80	6" g UD 220 LF	776.02		163	
FB21	55' LT 105+30	6" g UD 250 LF	776.64		185	
FB22	55' LT 107+80	6" g UD 250 LF	777.23		185	
FB23	55' LT 110+20	6" g UD 240 LF	778.08		177	
FB24	55' LY 112+68		779.10			
FB25	55' LT 114+60	6" g UD 184 LF	779.00		144	
FB26	55' LT 117+10	6" g UD 250 LF	779.54		185	
FB27	55' LT 119+80	6" g UD 250 LF	780.06		185	
FB28	55' LT 122+10	6" g UD 250 LF	780.55		185	
FB29	55' LY 124+80	6" g UD 250 LF	780.86		50	
FB30	55' LT 127+10	6" g UD 250 LF	780.63		50	
FB31	55' LT 129+60	6" g UD 250 LF	779.81		50	
FB32	55' LT 132+10	6" g UD 250 LF	778.64		50	
FB33	55' LT 134+80	6" g UD 250 LF	777.43		50	
FB34	55' LT 137+10	6" g UD 250 LF	778.21		50	
FB35	55' LT 139+80	6" g UD 250 LF	774.99		50	
FB36	55' LT 142+10	6" g UD 250 LF	773.77		185	
FB37	55' LY 144+80	6" g UD 250 LF	772.50		185	
FB38	55' LT 147+10	6" g UD 281 LF	771.20		208	
M73	78' LY 148+91		789.50			
FB25	55' LT 114+80	6" g CARRIER 240 LF	779.00		112	
D1 100	202' LY 116+50	6" g CARRIER 158 LF	778.00			
FB5	55' RT 112+88	6" g CARRIER 158 LF			115	
D1 102	202' LY 113+48		778.0		2853 cy	SUBTOTAL
TOTALS					8168	TOTAL
15" g CSP		1280 LF			332	RNDG
15" g RCP		550 LF			6500 cy	TOTAL
6" g UD		9200 LF				
6" g CARRIER PIPE		400 LF				
15" g RCP ES		1 EA.				
15" g CSP		5 EA.				

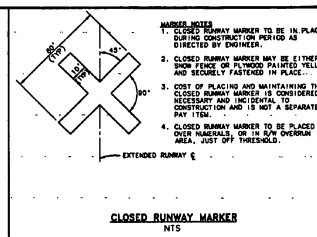
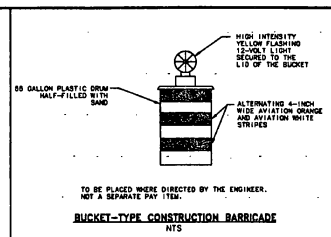
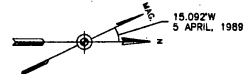
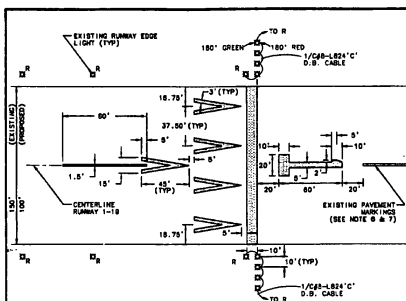


RUTLAND STATE AIRPORT
 CLARKSON, VERMONT
 JOB NO. 1300-0015-11

DRAINAGE SUMMARY
 DATE: 6/9/97
 DRAWN BY: [Signature]
 CHECKED BY: [Signature]
 APPROVED BY: [Signature]

URS Greiner, Inc.
 3 MARCUS BOULEVARD
 ALBANY, NEW YORK

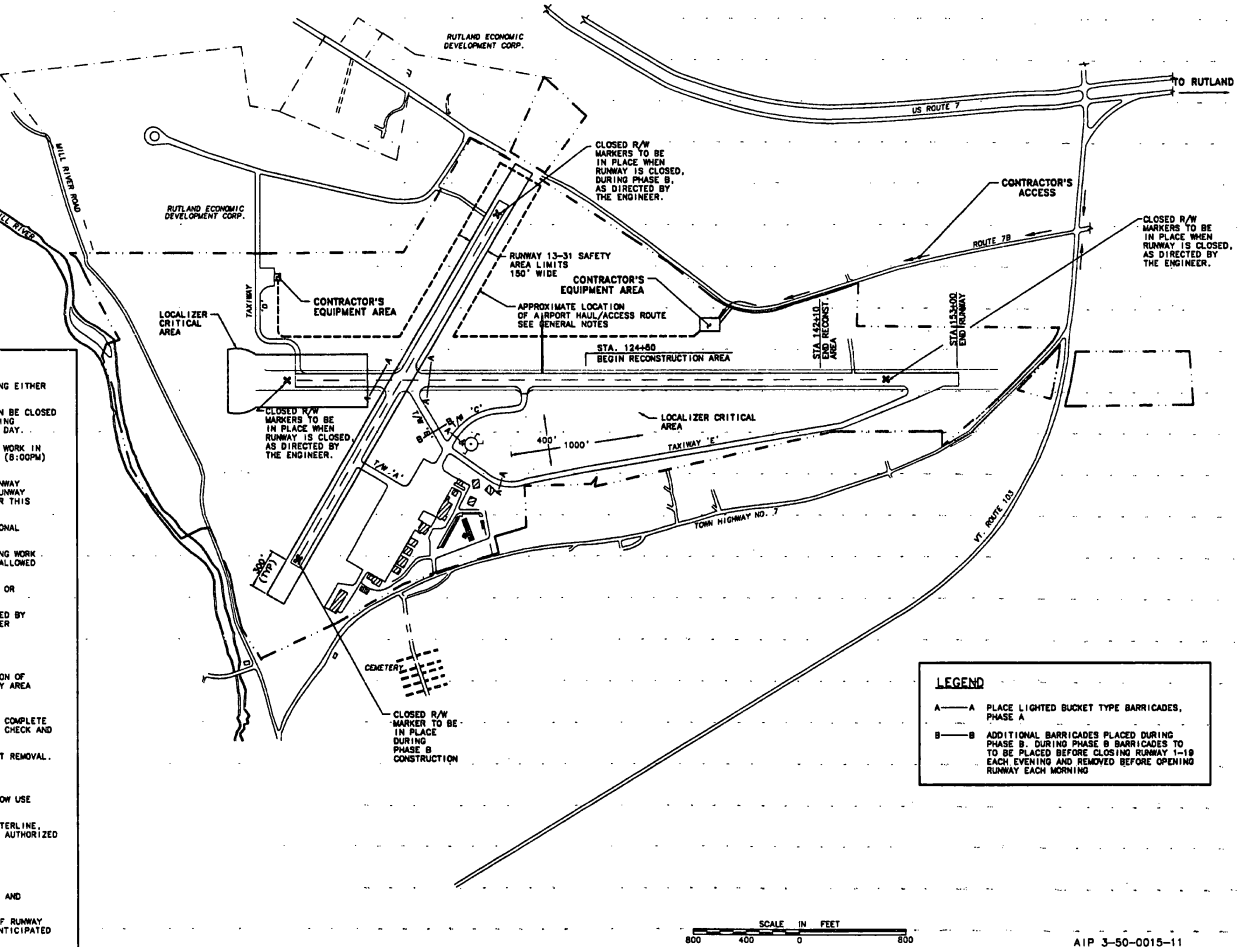
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 Scale: VERT - 1"=10'
 Date: 6/9/97
 Sheet 3 of 88
 Sheet No. 38



- GENERAL NOTES:**
1. CONTRACTOR'S MAIN ACCESS TO SITE TO BE FROM ROUTE 78.
 2. CONTRACTOR TO PROVIDE FLAG PERSON AT HAUL / ACCESS ROUTE CROSSING OF RUNWAY 13-31 SAFETY AREA, WHEN RUNWAY 13-31 IS OPERATIONAL.
 3. FLAGPERSON TO CONTROL ACCESS WITHIN RUNWAY 13 SAFETY AREA. NO GROUND VEHICLE TRAFFIC WILL BE ALLOWED TO ENTER RUNWAY SAFETY AREA WHEN AIRCRAFT ARE APPROACHING OR DEPARTING RUNWAY 13.
 4. FLAGPERSON IS TO HAVE AERONAUTICAL RADIO CAPABLE OF TRANSMITTING AND RECEIVING ON RUTLAND UNICOM FREQUENCY 122.8 MHz.
 5. HAUL ROUTE TO BE GRADED AND RETURNED TO TURF UPON COMPLETION OF PROJECT.
 6. WASTE AREAS TO GRADE & SEED, PROVIDE EROSION CONTROL AS DIRECTED BY THE ENGINEER.

- NOTES**
1. ALL MARKINGS TO BE PAINTED WHITE.
 2. EIGHT (8) TEMPORARY HIGH INTENSITY RUNWAY THRESHOLD LIGHTS (CONFORMING TO FAA SPECIFICATIONS L-100) TO BE INSTALLED AS SHOWN - SEE SHEET 31.
 3. TEMPORARY THRESHOLD LIGHTS TO BE STAKE OR CAN MOUNTED AT CONTRACTOR'S OPTION. EXISTING THRESHOLD LIGHTS MAY BE USED AT RELOCATED THRESHOLD AT CONTRACTOR'S OPTION. (SEE ELECTRICAL DETAILS - SHEET 38).
 4. WHILE PREPARING TEMPORARY THRESHOLD, CLOSED RUNWAY MARKERS TO BE IN PLACE OVER NUMERALS 1, 10 AND 15. RUNWAY 13-31 TO BE OPEN.
 5. REMOVE EXISTING PAINT WHICH CONTRASTS WITH TEMPORARY PLAN BY SANDBLAST OR WATERBLAST TO THE SATISFACTION OF THE ENGINEER.
 6. TEMPORARY MARKINGS TO BE PAID FOR UNDER ITEM 846.80, 846.81 AND 846.70.
 7. TEMPORARY RELOCATED THRESHOLD WILL BE USED IF A TEMPORARY DISPLACED THRESHOLD IS NECESSARY, AS DETERMINED BY THE ENGINEER. IF THE TEMPORARY RELOCATED THRESHOLD IS REQUIRED, THERE WILL BE NO PAYMENT FOR THIS ITEM IF THE TEMPORARY RELOCATED THRESHOLD IS NOT REQUIRED BY THE AIRPORT, AS DETERMINED BY THE ENGINEER. THERE WILL BE NO PAYMENT FOR UNDER ITEM L-100.
 8. SPACING SHOWN FOR THE EXISTING 150' WIDE RUNWAY. REDUCE SPACING PROPORTIONALLY FOR 100' WIDE RUNWAY.
- TEMPORARY RELOCATED THRESHOLD DETAIL (ITEM L-100)**
SCALE: 1"=50'

- PHASING NOTES**
1. ALL WORK ON THE RUNWAY RECONSTRUCTION PROJECT WILL BE ACCOMPLISHED DURING EITHER PHASE A OR PHASE B.
 2. RUNWAY 1-19 WILL BE CLOSED TO AIR TRAFFIC DURING PHASE A. THE RUNWAY CAN BE CLOSED FOR UP TO 30 CALENDAR DAYS. RUNWAY 13-31 IS TO BE OPEN AT ALL TIMES DURING PHASE A WORK. WORK DURING PHASE A CAN BE CARRIED OUT UP TO 24 HOURS PER DAY.
 3. WORK DURING PHASE B MUST BE COMPLETED WITHIN NINETY (90) CALENDAR DAYS. WORK IN THE RUNWAY SAFETY AREAS WILL BE ALLOWED ONLY BETWEEN THE HOURS OF 20:00 (8:00PM) TO 08:00 (8:00AM).
 4. WHENEVER WORK IS SCHEDULED WITHIN THE RUNWAY 13-31 SAFETY AREA, THIS RUNWAY MUST BE CLOSED. AT LEAST 48 HOURS NOTICE IS REQUIRED PRIOR TO CLOSING RUNWAY 13-31. CLOSE COORDINATION WITH THE AIRPORT MANAGER IS NECESSARY WHENEVER THIS RUNWAY IS SCHEDULED TO BE CLOSED.
 5. ALL WORK MUST COMPLY WITH THE REQUIREMENTS OF A.C. 150/5370-2C, OPERATIONAL SAFETY DURING CONSTRUCTION, (SEE CONSTRUCTION AND SAFETY NOTES).
 6. THE CONTRACTOR MUST SUBMIT A SCHEDULE TO THE ENGINEER PRIOR TO COMMENCING WORK ON THE AIRPORT. THIS SCHEDULE IS TO BE UPDATED WEEKLY. NO WORK WILL BE ALLOWED OUTSIDE THE AREAS INCLUDED IN THE APPROVED SCHEDULE.
 7. WORK OUTSIDE THE RUNWAY SAFETY AREAS CAN BE ACCOMPLISHED DURING PHASE A OR PHASE B.
 8. PRIOR TO OPENING THE RUNWAYS TO AIR TRAFFIC, THE RUNWAY WILL BE INSPECTED BY THE CONTRACTOR AND ENGINEER. INSPECTIONS WILL BE SCHEDULED FOR 07:00 AFTER NIGHTLY SHUT DOWN.
- PHASE A**
1. RECONSTRUCT RUNWAY 1-19 FROM STATION 124+00 TO 142+10. BEGIN CONSTRUCTION OF RUNWAY SAFETY AREAS, 300' LEFT AND RIGHT OF RUNWAY CENTERLINE AND SAFETY AREA OVERLAYS, STATION 134+00 TO 136+00.
 2. RELOCATE ONE ANTENNA. RELOCATE LOCALIZER AND SHELTER. THIS WORK IS TO BE ACCOMPLISHED AS SOON AS POSSIBLE TO ALLOW FOR FAA TO COMPLETE ALL MODIFICATIONS AS WORK USE, AS WELL AS PERFORM THE NECESSARY FLIGHT CHECK AND PUBLISH THE NEW APPROACH PLATES.
 3. NO WORK ALLOWED SOUTH OF INTERSECTION WITH RUNWAY 13-31 OTHER THAN PAV'T REMOVAL.
- PHASE B**
1. OVERLAY RUNWAY 1-19. TAPER OVERLAY AT THE END OF EACH DAY'S WORK TO ALLOW USE BY AIR TRAFFIC.
 2. COMPLETE WORK IN RUNWAY SAFETY AREAS, 300' LEFT AND RIGHT OF RUNWAY CENTERLINE, AND IN SAFETY AREA OVERLAYS. WORK SOUTH OF R/W 13-31 CANNOT BEGIN UNTIL AUTHORIZED BY THE ENGINEER, AFTER LOCALIZER FLIGHT CHECK.
 3. COMPLETE DRAINAGE WORK.
 4. COMPLETE TAXIWAY D.
 5. INSTALL/RELOCATE RUNWAY LIGHTING AND SIGNAGE RELOCATIONS, RELOCATE VASI AND OALS.
 6. NO SIGNIFICANT EXCAVATION OR GRADING ACTIVITIES WILL BE ALLOWED SOUTH OF RUNWAY INTERSECTION UNTIL FAA COMPLETES FLIGHT CHECK OF RELOCATED LOCALIZER (ANTICIPATED WITHIN TWO (2) WEEKS OF START OF PHASE B WORK).



- LEGEND**
- A — A PLACE LIGHTED BUCKET TYPE BARRICADES, PHASE A
 - B — B ADDITIONAL BARRICADES PLACED DURING PHASE B. DURING PHASE B BARRICADES TO BE PLACED BEFORE CLOSING RUNWAY 1-19 EACH EVENING AND REMOVED BEFORE OPENING RUNWAY EACH MORNING

RUTLAND STATE AIRPORT
CLARENDON, VERMONT

PHASING PLAN, NOTES

URS Greiner, Inc.
60 JACOBUS AVENUE
ALBANY, NEW YORK

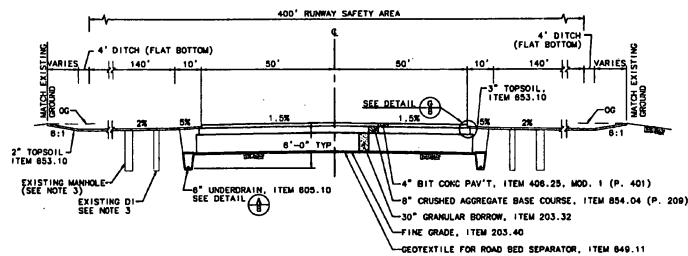
Designed by: **URS Greiner, Inc.**
Checked by: **URS Greiner, Inc.**
Approved by: **URS Greiner, Inc.**

Scale: HORIZ. - 1" = 400'
VERT. - 1" = 10'

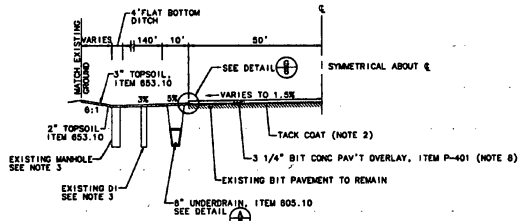
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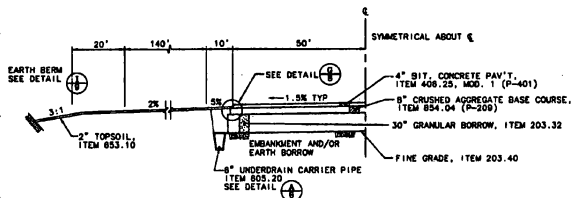
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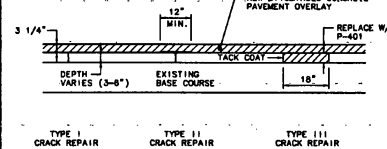
A PROPOSED TYPICAL SECTION R/W 1-19
STA 125+00 TO 142+00
SCALE = NONE



B PROPOSED TYPICAL SECTION R/W 1-19
STA 103+00 TO 124+00
SCALE = NONE

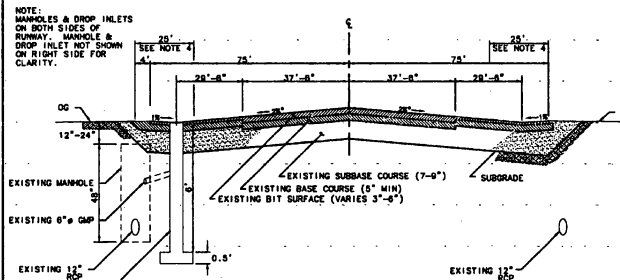


C PROPOSED TYPICAL SECTION R/W 1-19
STA 160+00 TO 163+00
SCALE = NONE

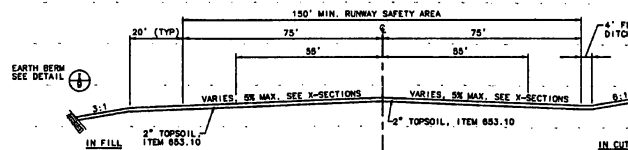


G EXISTING RUNWAY PAVEMENT CRACK REPAIRS
SCALE = NONE

- NOTES: 1. PRIOR TO PLACING NEW BITUMINOUS CONCRETE PAVEMENT OVERLAY, PAVEMENT CRACKS TO BE REPAIRED OR REPAIRED, AS FOLLOWS:
- TYPE I CRACK REPAIR: CRACKS LESS THAN 3/4" IN WIDTH TO BE ROUTED AND SEALED WITH HOT POURED JOINT SEALING FILLER. PAVEMENT TO BE MADE UNDER ITEM 524.11 MOD. 1, TYPE I CRACK REPAIR (P-605).
- TYPE II CRACK REPAIR: CRACKS BETWEEN 3/4" AND 1 1/4" IN WIDTH TO BE ROUTED SEALED WITH HOT POURED JOINT SEALING FILLER. PRIOR TO PLACING OVERLAY CRACKS BETWEEN 1/2" AND 1 1/4" SHALL BE COVERED WITH A PAVEMENT REINFORCEMENT MATERIAL SUCH AS PAVE-REIN TM OR APPROVED EQUAL. PAYMENT TO BE MADE UNDER ITEM 524.11 MOD. 2 (P-605).
- TYPE III CRACK REPAIR: CRACKS OVER 1 1/4" IN WIDTH TO BE CUT OUT, EXISTING BIT. CONC. PAVEMENT (8") ON EITHER SIDE OF THE CRACK TO BE REMOVED, BASE MATERIAL RE-COMPACTED, AND NEW BITUMINOUS CONCRETE PAVEMENT (CONFORMING TO ITEM 408.25 MOD. 1 P-401) REPLACED. PAYMENT TO BE MADE UNDER ITEM 524.11, MOD. 3 (P-605).
2. DETERMINATION OF USE OF TYPE I, TYPE II, OR TYPE III CRACK REPAIR WILL BE AS DIRECTED BY THE ENGINEER.
3. CRACK SURVEY IN DEC. 1988 REVEALED APPROXIMATELY 17,000 LF OF CRACKS WHICH NEEDED REPAIR, APPROXIMATELY 10% TYPE III, APPROXIMATELY 50% TYPE II AND APPROXIMATELY 40% TYPE I.



E EXISTING TYPICAL SECTION
RUNWAY 1-19
SCALE = NONE



D RUNWAY SAFETY AREA BEYOND RUNWAY
THRESHOLD - TYPICAL SECTIONS
STA 100+00 TO 103+00
STA 153+00 TO 156+00
SCALE = NONE

GENERAL NOTES

- SUBGRADE UNDER AREAS TO BE PAVED TO BE COMPACTED TO 100% DENSITY AS PER AASHTO T-180.
- BITUMINOUS TACK COAT (EMULSIFIED ASPHALT, RS-1) TO 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.)
- REMOVAL OF EXISTING MANHOLES AND DROP INLETS, TO BE PAID UNDER ITEM 203.18 SOLID ROCK EXCAVATION. (3 CY PER EACH UNIT REMOVED). EXISTING DRAINAGE LINES TO BE ABANDONED IN PLACE. PIPES TO BE PLUGGED EACH END WITH CONCRETE BEFORE BACKFILLING. PAYMENT TO BE SUBSIDIARY TO REMOVAL OF MANHOLES AND DROP INLETS.
- EXISTING BITUMINOUS PAVEMENT 60"-75" EACH SIDE OF CENTERLINE TO BE REMOVED. PAYMENT TO BE MADE UNDER ITEM 203.15, COMMON EXCAVATION. AREA TO BE GRADED, TOPSOILED AND SEEDED.
- ALL EXCAVATION TO BE PAID FOR UNDER ITEM 203.18, COMMON EXCAVATION OR 203.16 SOLID ROCK EXCAVATION.
- SEED, ITEM 851.16 TO BE APPLIED AS DIRECTED BY ENGINEER.

QTY	UNIT	NAME	QTY	UNIT
3.33	2	CROWN VETCH	97	75
50.00	30	CREEPING RED FESCUE	98	85
8.33	5	TIMOTHY	99	85
18.67	10	PERN. RYE GRASS	95	85
8.33	5	ALFALFA (VAR. SARANAG)	98	85
8.33	5	BIROSCOT TRIFOLI	98	85
5.00	3	(VAR. EMPIRE)	92	85
100.00	80			

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

FERTILIZER, ITEM 851.15, FORMULA 10-20-10 TO BE USED WITH SEED, ITEM 851.15, APPLIED AT THE RATE 17 500 LBS / ACRE.

AGRICULTURAL LIMESTONE, ITEM 851.20, TO BE APPLIED AT RATE OF 2 TONS / ACRE OR AS DIRECTED BY ENGINEER.

HAY MULCH, ITEM 851.25, TO BE PLACED ON EARTH SLOPES AT THE RATE OF 2 TONS / ACRE.

TOPSOIL, ITEM 851.35, TO BE USED WITH SEED, ITEM 851.15, AS DIRECTED BY THE ENGINEER.

ALLOWABLE THICKNESS TOLERANCES:

SUBGRADE 2 1/2"

CONTROLLED MATERIAL 2 1/2"

PAVEMENT 2 3/8"

BASE COURSE 2 1/2"

7. BITUMINOUS CONCRETE PAVEMENT DESIGN BASED ON PERFORMANCE GRADED ASPHALT - USE PG 66-34 IN ACCORDANCE WITH AASHTO DESIGNATION M91.

8. MINIMUM OVERLAY DEPTH IS 2 INCHES - MILL EXISTING PAVEMENT GRADED ASPHALT - WHEN NECESSARY TO ACHIEVE MINIMUM THICKNESS.

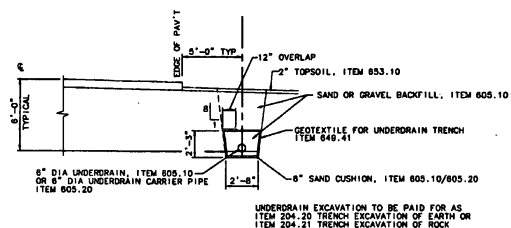


DATE	DESCRIPTION	FILE NO.	DATE

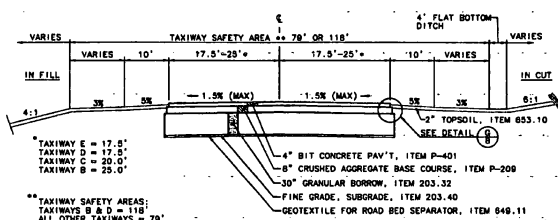
RUTLAND STATE AIRPORT
CLARENDON, VERMONT

URS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

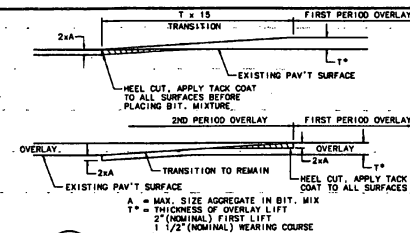
Designed by	Drawn by	Checked by	Approved by
Scale	Scale	Scale	Scale
Notes	Notes	Notes	Notes
Notes	Notes	Notes	Notes
Notes	Notes	Notes	Notes
Notes	Notes	Notes	Notes



A
6\"/>

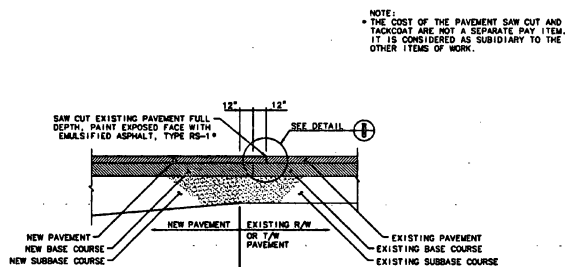


B
PROPOSED TAXIWAY TYPICAL SECTION
SCALE = NONE

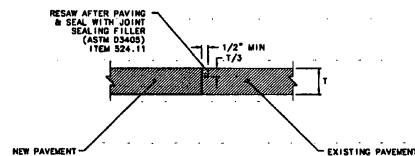


C
PAVEMENT OVERLAY TRANSITIONS
SCALE = NONE

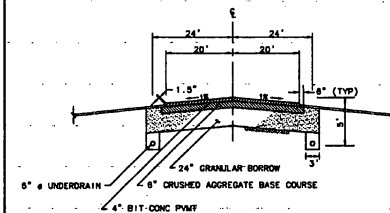
1. OVERLAY OPERATION TO PROCEED FROM SOUTH TO NORTH
2. OVERLAY TO BE COMPLETED FULL WIDTH OF RUNWAY ON EACH EVENING WORK.
3. PLACEMENT OF PAVEMENT OVERLAY TO TERMINATE EACH NIGHT TO ALLOW SUFFICIENT TIME FOR PLACEMENT OF TEMPORARY MARKING AND CLEANUP PRIOR TO RE-OPENING THE RUNWAY.
4. AT THE END OF EACH NIGHT'S WORK, TRANSITION RAMPS TO BE CONSTRUCTED TO PROVIDE TRANSITION FROM COMPLETED COURSE OF THE OVERLAY TO THE EXISTING PAVEMENT.



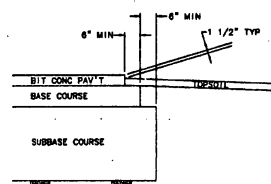
D
BUTT JOINT DETAIL
SCALE = NONE



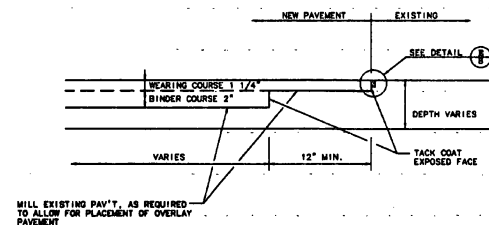
E
SAWCUT DETAIL
SCALE = NONE



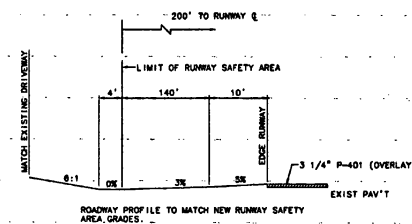
F
EXISTING TYPICAL SECTION TAXIWAY 'C'
SCALE = NONE



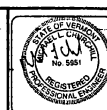
G
PAVEMENT SECTION EDGE (TYP.)
SCALE = NONE



H
OVERLAY BUTT JOINT DETAIL
SCALE = NONE



I
MAINTENANCE DRIVEWAY PROFILE
STA 145+03E LEFT
SCALE = NONE



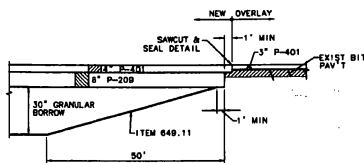
REV.	DATE	DESCRIPTION	FIG. NO.	INVENTOR

RUTLAND STATE AIRPORT
CLARENDON, VERMONT

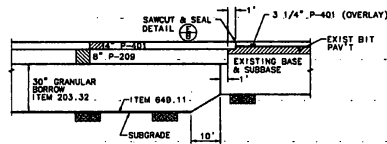
TYPICAL SECTIONS & DETAILS

URS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

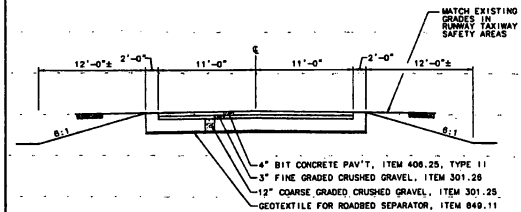
Designed by: JRM	Checked by: JRM
Drawn by: JRM	Checked by: JRM
Scale: AS NOTED	Scale: AS NOTED
Date: 5/5/97	Date: 5/5/97
Sheet 9 of 93	Sheet No. 8



C
9
PROPOSED SUBGRADE TRANSITION
R/W STA 124+50 TO 125+00
T/W D STA 501+00 TO 500+50
SCALE = NONE

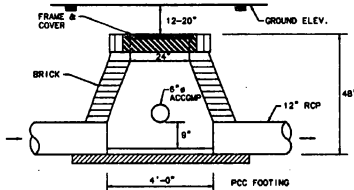


D
9
PROPOSED SUBGRADE TRANSITION
STA 142+00 TO 142+10
STA 149+90 TO 150+00
SCALE = NONE

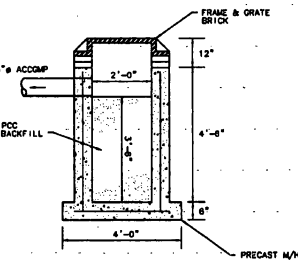


(DRIVE AT 500+600: RT IS 10' WIDE)
(DRIVE AT 121+600: LT REMAINS 11' WIDE)

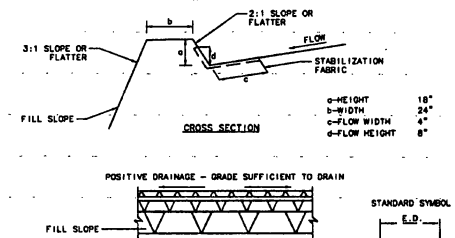
E
9
TYPICAL DRIVEWAY SECTION
SCALE = NONE



F
9
EXISTING MANHOLE DETAIL
TYPICAL
SCALE = NONE

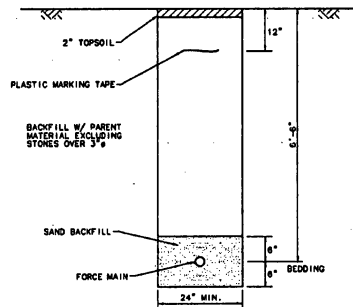


G
9
EXISTING DROP INLETS DETAIL
TYPICAL
SCALE = NONE

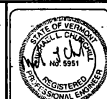


1. BERMS SHALL BE COMPACTED BY EARTH-MOVING EQUIPMENT.
2. TOP MAY BE WIDER AND SIDE SLOPES MAY BE FLATTER
3. BERMS TO BE CONSTRUCTED ALONG TOP OF SLOPE OUTSIDE RUNWAY SAFETY AREA OVERRUN.

I
9
EARTH BERM
SCALE = NONE



J
9
TRENCH DETAIL
SCALE = NONE



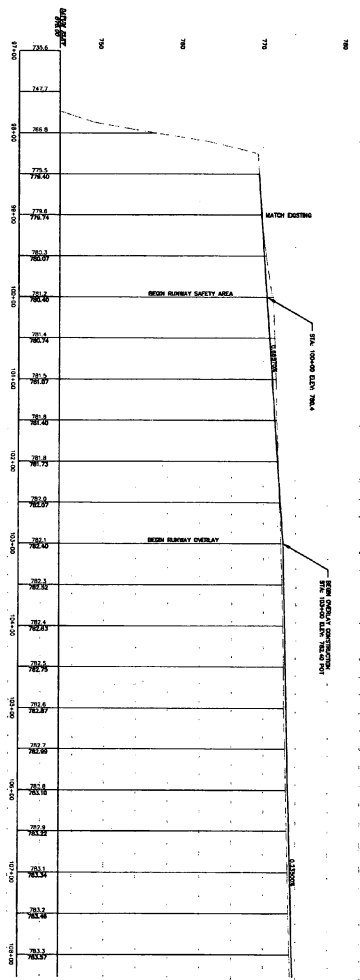
REV.	DATE	DESCRIPTION	FILE NO.

RUTLAND STATE AIRPORT
CLARENDON, VERMONT

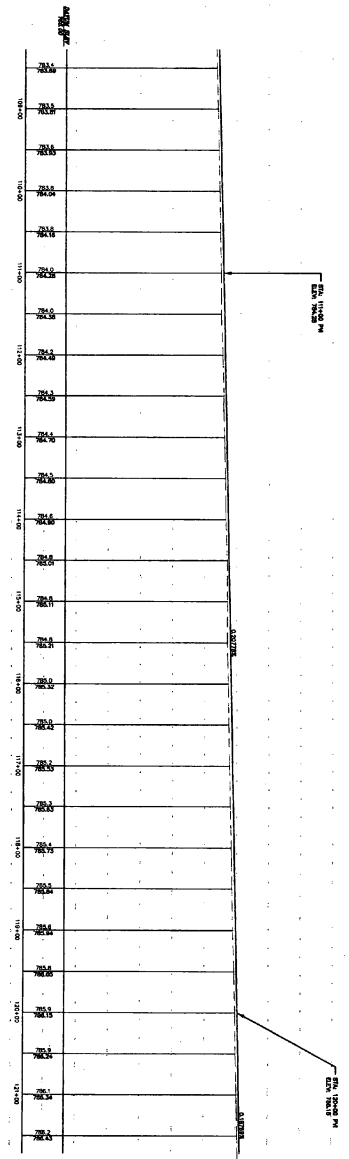
TYPICAL SECTIONS & DETAILS

URS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

Designed by:	3/8/97
Checked by:	3/8/97
Drawn by:	3/8/97
In Charge:	3/8/97
Approved by:	3/8/97
Scale:	AS SHOWN
Date:	5/8/97
Sheet #	OF 45
Sheet No.	9



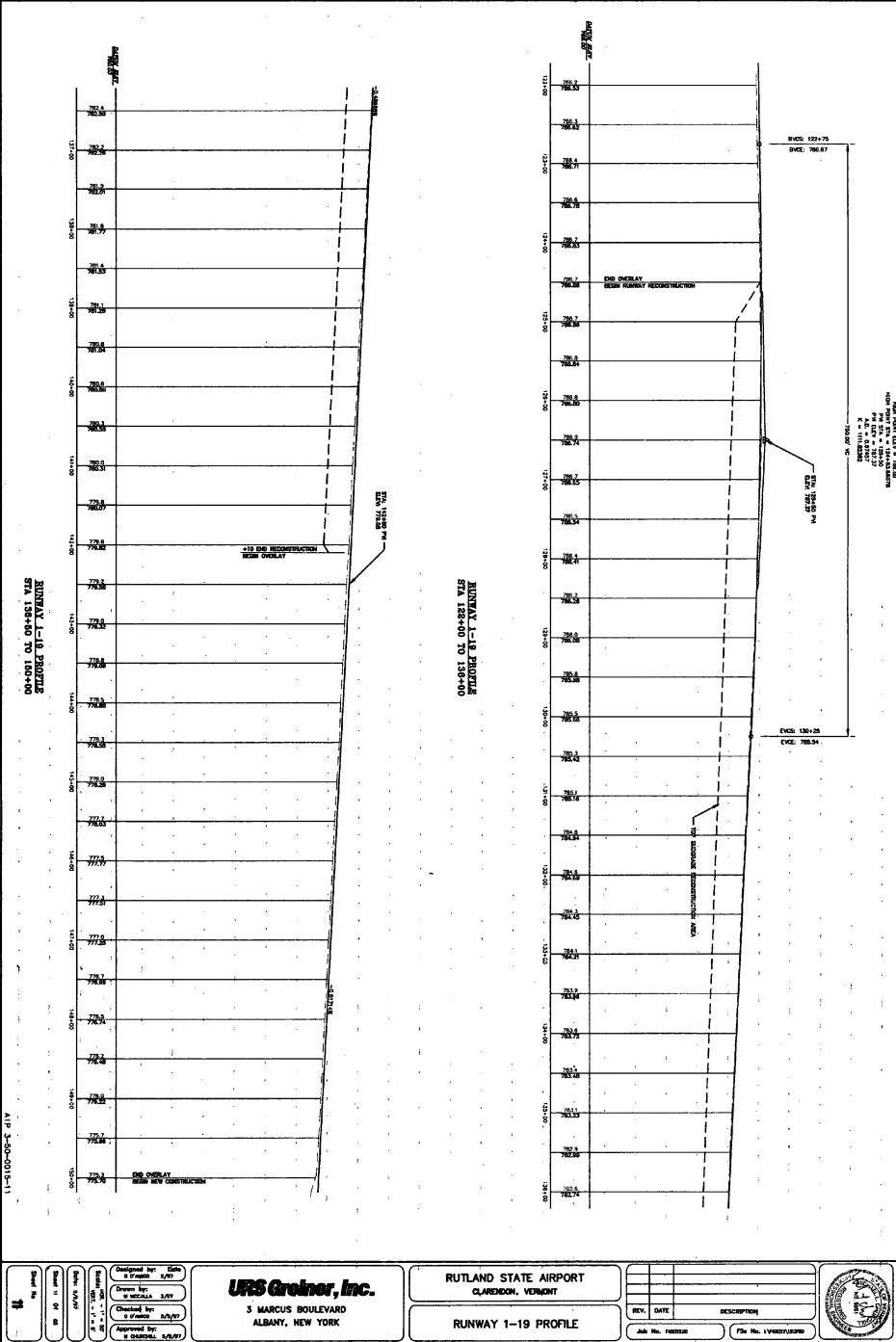
RUNWAY 1-18 PROFILE
STA 84+00 TO 108+00

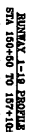


RUNWAY 1-19 PROFILE
STA 108+00 TO 124+00

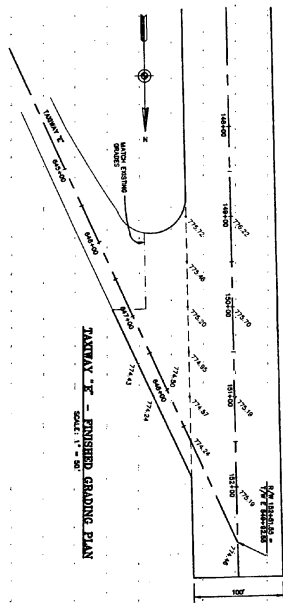
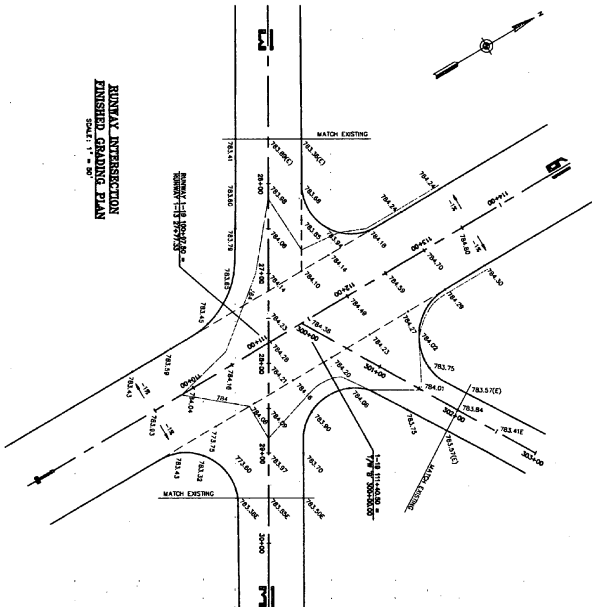
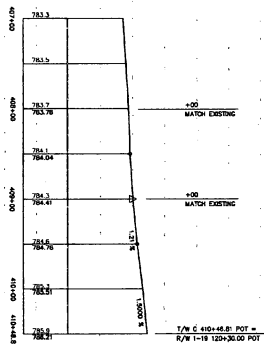
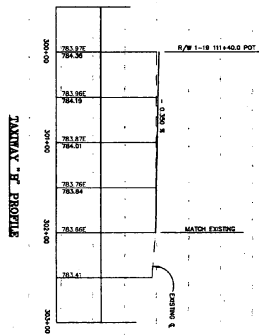
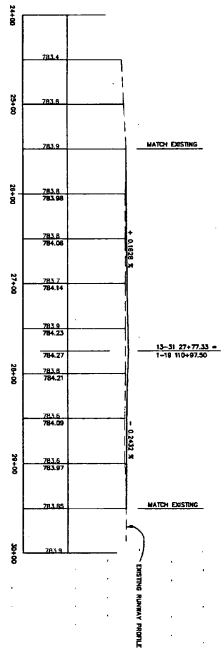
	URS Greiner, Inc. 3 MARCUS BOULEVARD ALBANY, NEW YORK		RUTLAND STATE AIRPORT CLARENDON, VERMONT RUNWAY 1-19 PROFILE		
	Designed by:	John A. Foss	DATE:	3/97	
	Drawn by:	M. MICHAEL	DATE:	3/97	
	Checked by:	R. Foss	DATE:	3/97	
Approved by: R. Foss		Job No. 000008		File No. 1-19-000008	

AIP 3-50-015-11





RUNWAY 1-19 PROFILE



AIP 3-20-2013-11

Drawn by: W. M. G. 3/97 Checked by: W. M. G. 3/97 Approved by: W. M. G. 3/97	URS Greiner, Inc. 3 MARCUS BOULEVARD ALBANY, NEW YORK	RUTLAND STATE AIRPORT CLANDON, VERMONT		
		TAXIWAYS - RUNWAY 13-31 PROFILES		
Sheet No. 2 Total Sheets: 2	Job No. 10000000 File No. 10000000	REV. DATE DESCRIPTION		

MATCH LINE SHEET 15

180320Z
3 1/4" OVERLAY
CONSTRUCT NEW PAVEMENT SECTION
APPROXIMATE LIVING OF PAVEMENT
SECTION EXISTING IN THE 20.1'S
CROSS SECTION
MARKET 433
DROP INLET 433
EXISTING RAINWAY L/S (TO BE REMOVED)
EXT. LIGHTING R/LAND
R*
SAR CUT EXISTING PAV'T TO FORM NEW
RAILROAD

NOTES:
1. EXISTING RUNWAY 1-18 IS 160' WIDE.
NEW RUNWAY TO BE 100' WIDE.

MATCH LINE SHEET 17

124+00 END OVERLAY
BEGIN RUNWAY RECONSTRUCTION

URS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

RUTLAND STATE AIRPORT
CLARENDON, VERMONT

PAVING PLAN & GEOMETRIC LAYOUT

REV.	DATE	DESCRIPTION

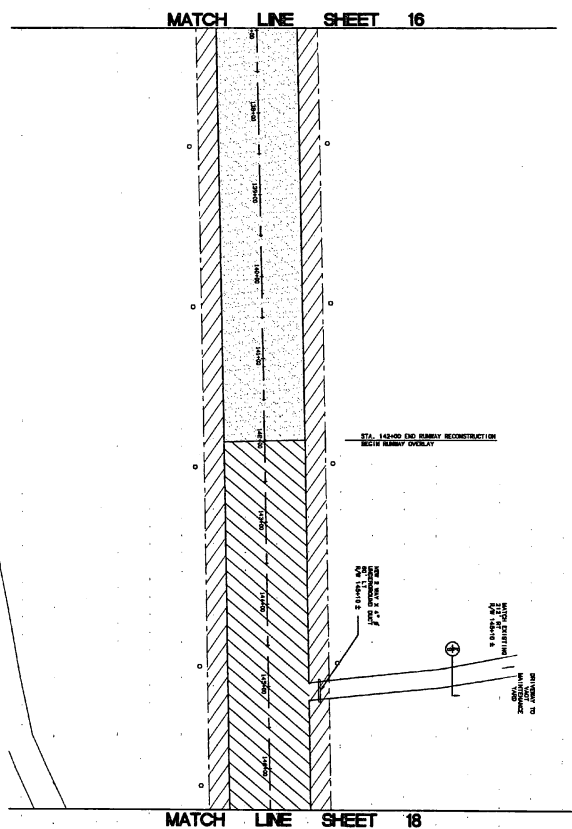
Job No. 1401712.00

File No.

File No. 11-V-001748-000



NOTE:
1. EXISTING RUNWAY 1-19 IS 150' WIDE
NEW RUNWAY TO BE 100' WIDE.



PAVING PLAN & GEOMETRIC LAYOUT

REV.	DATE	DESCRIPTION
Job No. 140513.00		File No. 1-140513-0004



MATCH LINE SHEET 17

148-67 DD RUMBLE OVERLAY

15.3+00 END RUMBLE CONSTRUCTION

AIRPORT ROAD

15-07746

☒ 3/4" ORIENTAL
☒ CONTRACT NEW PAVEMENT SECTION
☒ APPROXIMATE LIMITS OF PAVEMENT
☒ REPAIRS ARE INDICATED IN ITEM 633.15
☒ CORNER ENHANCEMENT
☐ 643 MAKEHOLE 633
☐ 033 DROP INLET 643
☐ EXISTING RAINWAY LIGHTS (TO BE REMOVED)
☐ SEE LISTING PLANS
☒ R* SAW CUT EXISTING PAV'T TO FORM NEW
☐ MODULUS

URS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

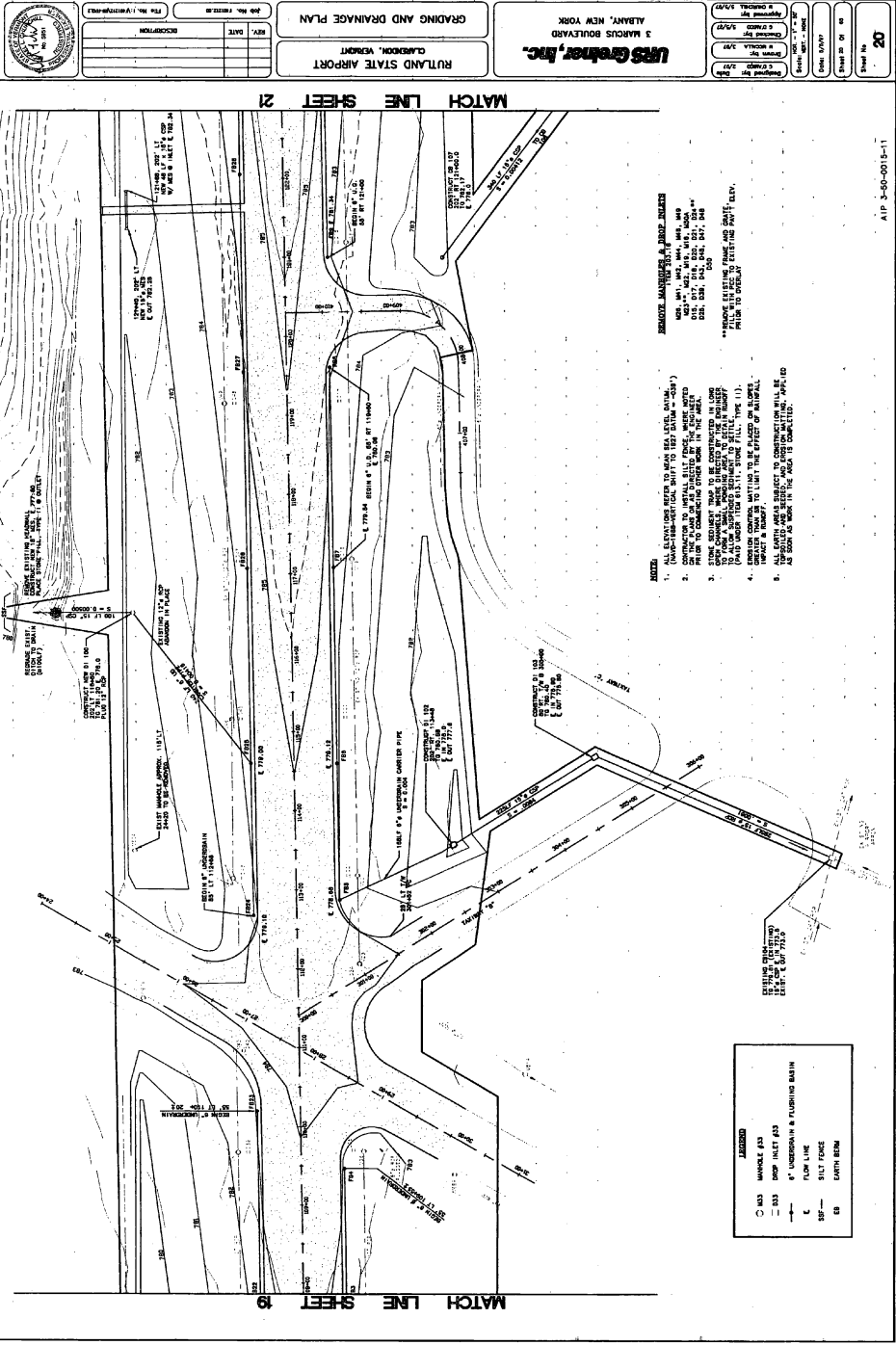
RUTLAND STATE AIRPORT
CLARENDON, VERMONT

PAVING PLAN & GEOMETRIC LAYOUT

REV.	DATE	DESCRIPTION
Job No. 645212.00		File No. 11-645212-00-1



AIP 3-50-0015-1



AIP 3-50-0015-11

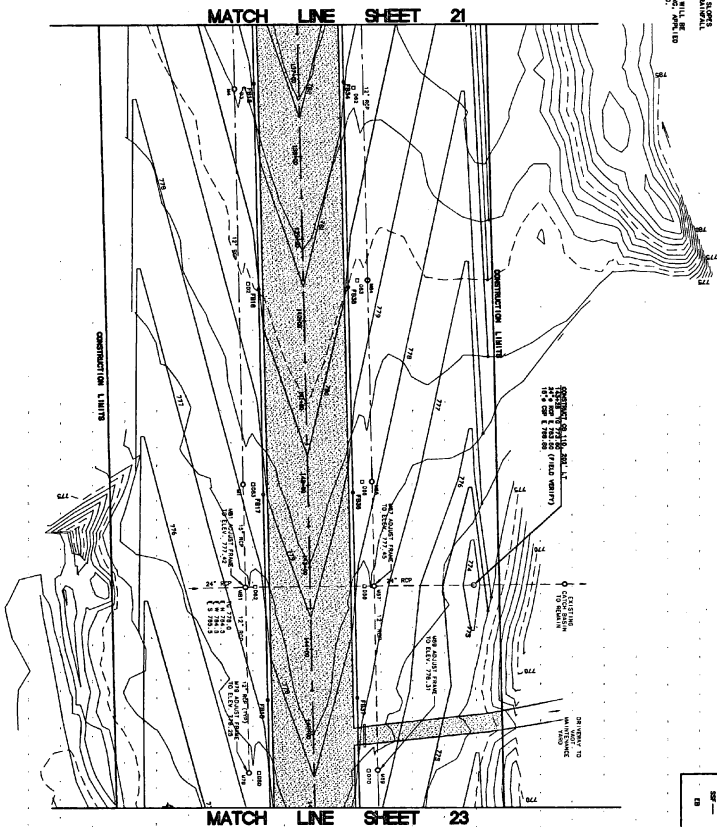
- NOTES**
1. ALL EXISTING DATA TO BE USED AS A GUIDE ONLY.
 2. CONSTRUCTION TO BE IN ACCORDANCE WITH THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, AS APPLICABLE TO THE STATE OF VERMONT.
 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND RIGHTS OF WAY FROM THE APPROPRIATE AGENCIES.
 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND RIGHTS OF WAY FROM THE APPROPRIATE AGENCIES.
 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND RIGHTS OF WAY FROM THE APPROPRIATE AGENCIES.
 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND RIGHTS OF WAY FROM THE APPROPRIATE AGENCIES.

PROPOSED ELEVATIONS & SPACING
 (1) 10' SPACING
 52.00, 52.00, 52.00, 52.00, 52.00
 52.00, 52.00, 52.00, 52.00, 52.00

PROPOSED ELEVATIONS & SPACING
 (1) 10' SPACING
 52.00, 52.00, 52.00, 52.00, 52.00
 52.00, 52.00, 52.00, 52.00, 52.00

LEGEND

○ EXIST. MANHOLE P.O.D.
 □ EXIST. DRAIN P.O.D.
 — 4" UNDERDRAIN & FLASHING DRAIN
 — 6" FLOW LINE
 — SILT FENCE
 — EARTH REMOVAL



URS Greiner, Inc.
 3 MARCUS BOULEVARD
 ALBANY, NEW YORK

RUTLAND STATE AIRPORT
 CLARENDON, VERMONT
GRADING AND DRAINAGE PLAN

REV.	DATE	DESCRIPTION



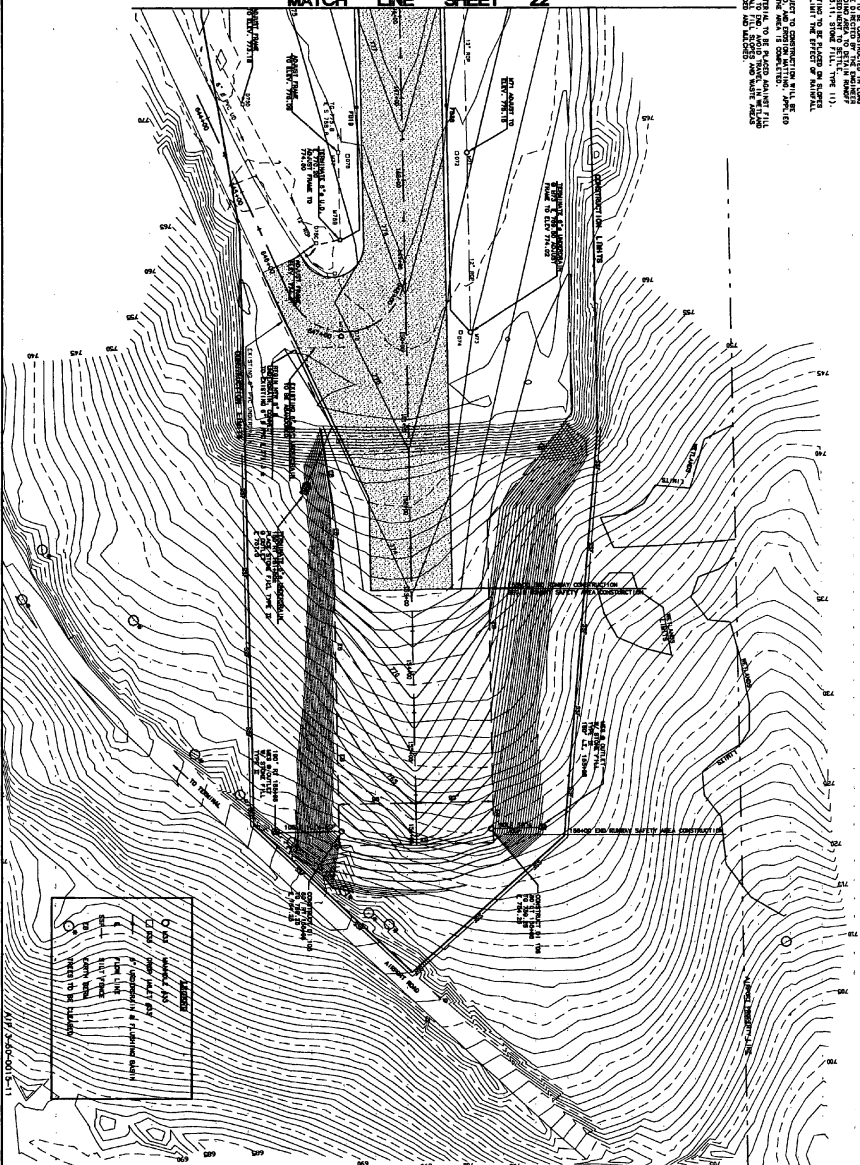
Designed by C. J. Greiner	Check by C. J. Greiner
Drawn by J. J. Greiner	Approved by J. J. Greiner
Date 5/9/97	Date 5/9/97

MATCH LINE SHEET 22

- NOTES**
1. EXISTING GRADE TO REMAIN FOR THE AIRPORT.
 2. EXISTING GRADE TO REMAIN FOR THE AIRPORT.
 3. EXISTING GRADE TO REMAIN FOR THE AIRPORT.
 4. EXISTING GRADE TO REMAIN FOR THE AIRPORT.
 5. EXISTING GRADE TO REMAIN FOR THE AIRPORT.
 6. EXISTING GRADE TO REMAIN FOR THE AIRPORT.

EXISTING GRADE TO REMAIN FOR THE AIRPORT.

EXISTING GRADE TO REMAIN FOR THE AIRPORT.



URS Greiner, Inc.
3 MARCUS BOULEVARD
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RUTLAND STATE AIRPORT
CLARENDON, VERMONT

GRADING AND DRAINAGE PLAN

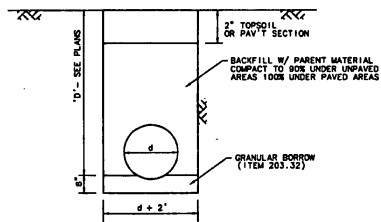


REV.	DATE	DESCRIPTION

Job No. 100101-01

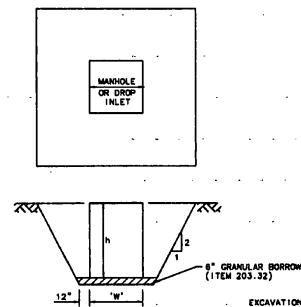
Designed by: S. J. FORD
Drawn by: M. MICHAEL
Checked by: S. J. FORD
Approved by: S. J. FORD

Sheet No. 22



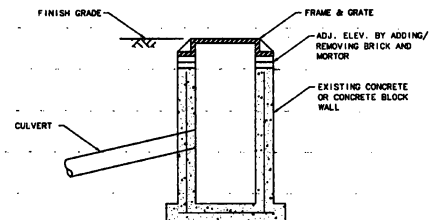
EXCAVATION TO BE PAID UNDER ITEM 204.20,
TRENCH EXCAVATION OF EARTH OR ITEM 204.21
EXCAVATION OF ROCK

A
24 CULVERT IN TRENCH - TYPICAL
SCALE = NONE

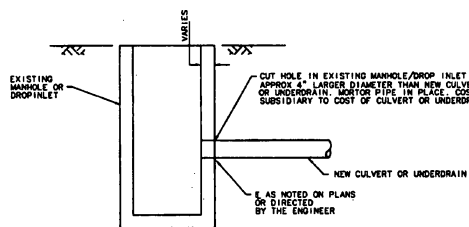


EXCAVATION TO BE PAID UNDER
ITEM 203.19 COMMON EXCAVATION OR
ITEM 203.16 ROCK EXCAVATION

B
24 DROP INLET/MANHOLE PLACEMENT
(TYPICAL)
SCALE = NONE



C
24 CHANGE ELEVATION OF MANHOLE
OR DROP INLET
SCALE = NONE



D
24 CULVERT/UNDERDRAIN INSTALLATION IN
EXISTING MANHOLE OR DROP INLET
SCALE = NONE



DATE	DESCRIPTION	FILE NO.

RUTLAND STATE AIRPORT
CLARENDON, VERMONT

DRAINAGE DETAILS

URS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

Designed by:	Date:
Checked by:	3/2/97
Drawn by:	3/2/97
Reviewed by:	3/2/97
Approved by:	3/2/97

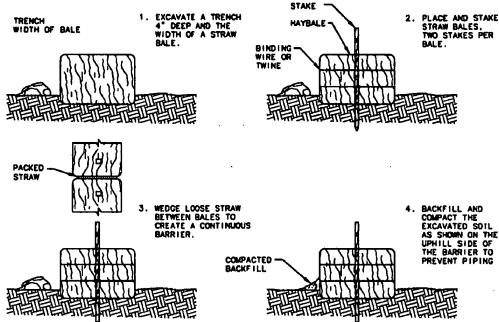
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VS - AS SHOWN

Date: 6/8/97

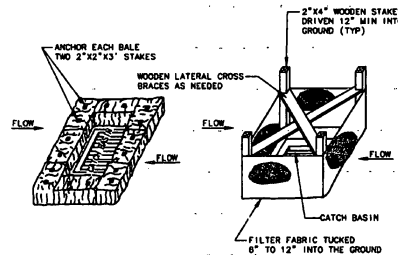
Sheet 24 Of 85

Sheet No

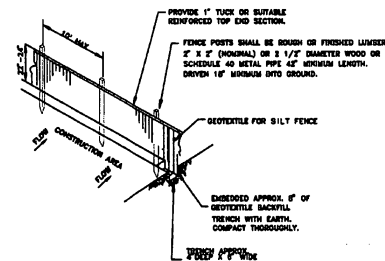
24



SEDIMENTATION BARRIER - HAYBALE
ITEM 65126

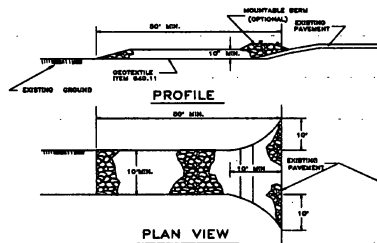


SEDIMENTATION CONTROL INLET PROTECTION
ITEM 65126 ITEM 649.51



- NOTE:**
1. GEOTEXTILE FABRIC TO BE FASTENED SECURELY TO FENCE POST BY USE OF WIRE TIE, 3 FASTENERS PER POST.
 2. ENDS OF INDIVIDUAL ROLLS OF GEOTEXTILE SHALL BE SECURELY FASTENED TO A CORNER POST OR OVERLAPPED 1' (MIN).
 3. TO BE PLACED AT LOCATIONS SHOWN ON PLANS OR AS ORDERED BY THE ENGINEER.

SLOPE SILT FENCE (S.S.F.)
NOT TO SCALE



CONSTRUCTION SPECIFICATIONS

1. STONE - SUBBASE OF CRUSHED AGGREGATE, COURSE GRADED ITEM 801-25.
2. LENGTH - AS REQUIRED, BUT NOT LESS THAN 50 FEET.
3. THICKNESS - NOT LESS THAN TEN (10) INCHES.
4. WIDTH - TEN (10) FEET MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5. GEOTEXTILE - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PUMPED UNDER THE ENTRANCE. IF PUMPING IS IMPRACTICAL, A MOUNTAINABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEAROUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. PERIODIC INSPECTION AND MAINTENANCE SHALL BE PROVIDED AFTER HEAVY USE AND/OR RAIN.
9. THIS ENTRANCE WILL BE CONSTRUCTED AT LOCATIONS SHOWN ON THE PLANS AND/OR WHERE ORDERED BY THE ENGINEER.
10. THE LOCATION AND NUMBER OF STABILIZED CONSTRUCTION ENTRANCES WILL BE APPROVED BY THE ENGINEER.

STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE

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 SHALL ENSURE THAT ALL RUNOFF FROM DISTURBED AREAS IS DIRECTED TO THE SEDIMENT CONTROL DEVICES, AND SHALL NOT REMOVE ANY EROSION OR SEDIMENT CONTROL MEASURES WITHOUT PRIOR PERMISSION FROM 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 FOURTEEN (14) CALENDAR DAYS AFTER STRIPPING AND GRADING ACTIVITIES HAVE CEASED IN THE AREA. MAINTENANCE SHALL BE PERFORMED AS NECESSARY TO ENSURE CONTINUED STABILIZATION. PERMANENT SOIL STABILIZATION SHALL BE PROVIDED WITHIN SEVEN (7) DAYS OF ESTABLISHMENT OF FINAL GRADE.
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, OR CONSTRUCTION SITES AS PUBLISHED BY THE VT. GEOLOGICAL SURVEY.
5. DURING THE PERIOD OF CONSTRUCTION ACTIVITY, ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED BY THE CONTRACTOR, AT THE COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL MAINTAIN THE TRAILER OF MAINTENANCE RESPONSIBILITY, IF REQUIRED, TO THE VY AGENCY OF TRANSPORTATION.
6. ALL TEMPORARY EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE REMOVED AND DIVERTED WITHIN THIRTY (30) 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. STREAMS INCLUDING BEDS AND BANKS SHALL BE RESTABILIZED IMMEDIATELY AFTER CHANNEL WORK IS COMPLETED, INTERRUPTED, OR STOPPED.
9. NO LOGS, BRACKS, DEBRIS, OR ANY OTHER MATERIAL SHALL BE DUMPED OR PLACED INTO A WATER COURSE OR INTO SUCH PROXIMITY THAT IT MAY BEADILY SLODGE, SLIP, OR ERODE INTO THE WATER. THE ENGINEER SHALL BE ADVISED OF ANY SUCH ACTS BY THE ENGINEER, AND WHEN APPLICABLE, THE U.S. ARMY CORPS OF ENGINEERS, FOR SUCH PURPOSES AS, BUT NOT LIMITED TO, CONSTRUCTION OF BRIDGES, DAMS, 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 ON SHEET 7. 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 FLOW OVER UNSTABILIZED CUT AND FILL SLOPES SHALL BE CONTROLLED BY EITHER PREVENTING DRAINAGE FLOW TRAVELING THE SLOPES OR BY INSTALLING PROTECTIVE DEVICES TO LIMIT THE WATER COMING IN CONTACT WITH THE SLOPES. SUCH DEVICES SHALL BE MAINTAINED AT THE TOP OF CUT OR FILL SLOPES UNTIL THE SLOPE AND DRAINAGE AREA TO IT ARE FULLY STABILIZED. AT ALL TIMES THE DEVICES MUST BE MAINTAINED AND SHALL BE SORE TO PROMOTE SHEET FLOW DRAINAGE. PROTECTIVE DEVICES 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 ROADWAYS 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 DUNE IN L.I.O.D. OF SILT FENCE.

SITE DATA

PROJECT DESCRIPTION:
AIRPORT DEVELOPMENT TO INCLUDE PAVING, CLEARING AND GRUBBING, EARTHWORK, STORM DRAINAGE, AND UTILITIES.

TOTAL SITE AREA:
AREA WITHIN LIMITS OF WORK APPROX. 48 ACRES.

EXISTING SOIL TYPES:
- BROWN SILTY SAND WITH TRACES OF GRAVEL
- INFORMATION OBTAINED FROM BORINGS BY GREEN MOUNTAIN BORING DURING NOVEMBER 1999

SCHEDULE:
CONSTRUCTION TO COMMENCE SUMMER 1997, AND TO BE COMPLETED FALL, 1997, WITH THE UNDERSTANDING OF EROSION CONTROL MEASURES TO BE THE FIRST PHASE OF ACTIVITY AND TO CONTINUE THROUGHOUT PROGRESS OF PROJECT.

RECEIVING WATER:
MILL RIVER, OTTER CREEK



DATE	DESCRIPTION	FILE NO.

RUTLAND STATE AIRPORT
CLARKSBURG, VERMONT

SEDIMENTATION / EROSION CONTROL DETAILS

URS Geotner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

Designed by 6/1/97	Drawn by 6/1/97	Checked by 6/1/97	Approved by 6/1/97
Scale: HORIZ. - NONE VERT. - NONE	Date: 6/1/97	Sheet: 25 OF 48	Sheet No. 25

SIGN SCHEDULE			
SIGN	LEGEND	NEW LOCATION	REMARKS
TO #1	D-1	37.5' RT 502+50	RELOCATE EXISTING
TO #2	D-2	70' LT 103+00	RELOCATE EXISTING
TO #3	D-3	70' LT 109+48	RELOCATE EXISTING
TO #4	D-4	70' RT 109+48	RELOCATE EXISTING
TO #5	D-5	20' OFF E.O.P.	TO REMAIN
TO #6	D-6	30' OF E.O.P.	TO REMAIN
TO #7	D-7	70' RT 112+86.0	RELOCATE EXISTING
TO #8	D-8	80' RT 112+86.0	RELOCATE EXISTING
TO #9	D-9	70' LT 112+86.0	RELOCATE EXISTING
TO #10	D-10	70' RT 110+88.0	RELOCATE EXISTING
TO #11	D-11	70' RT 121+00.0	RELOCATE EXISTING
TO #12	D-12	250' LT 145+10 ±	RELOCATE EXISTING
TO #13	D-13	70' RT 148+74.8	RELOCATE EXISTING
TO #14	D-14	57.5' LT 30+08.8	RELOCATE EXISTING
TO #14A	D-14A	57.5' LT 30+08.8	RELOCATE EXISTING
TO #15	D-15	57.5' LT 35+48.0	RELOCATE EXISTING
TO #15A	D-15A	57.5' LT 35+48.0	RELOCATE EXISTING
TO #16	D-16	45' LT 303+88 ±	TO REMAIN
TO #17	D-17	55' LT 303+88 ±	TO REMAIN
DM #1	M-1	85' LT 143+00	RELOCATE EXISTING
DM #2	M-2	85' LT 133+00	RELOCATE EXISTING
DM #3	M-3	85' LT 123+00	RELOCATE EXISTING
DM #4	M-4	85' LT 113+00	RELOCATE EXISTING

NOTE: (1) PRIOR TO COMMENCING CONSTRUCTION, CONTRACTOR IS TO INSPECT ALL SIGNS AND REPORT ANY DAMAGE TO THE ENGINEER. CONTRACTOR WILL BE RESPONSIBLE FOR ALL DAMAGE TO SIGNS AFTER INSPECTION. A COMPLETE WORKING SIGN SYSTEM WILL BE REQUIRED UPON SIGNAGE RELOCATION.

(2) BACK SIDE OF SIGNS TO #1 TO TO #17 ARE BLACK (S)

(3) CONTRACTOR TO REMOVE 4 SIGNS ALONG TAXIWAY "C". SIGNS #28, 30, 33 & 34 TO BE TURNED OVER TO AIRPORT MAINTENANCE. REMOVE TRANSFORMERS AND SPICE CABLES TOGETHER. SEAL BASE CAN. COST TO BE INCLUDED IN ITEM 864.16 MOD. 1, RELOCATE AIRFIELD SIGNS (C-125).

RELOCATE LOCALIZER SHELTER, ITEM L-200, ON PEASTONE FOUNDATION AND ONE ANTENNA ON CONCRETE FOUNDATION PREPARED BY OTHERS. CONNECT SECONDARY POWER AND TELEPHONE CABLES. RF CABLES TO BE CONNECTED BY OTHERS.

NEW 1/2" X 4" X 1/2" US ELECTRICAL DUCT

RELOCATE LOCALIZER ANTENNA ON CONCRETE FOUNDATION, PREPARED BY OTHERS.

LEGEND

- EXISTING RUNWAY AND TAXIWAY LIGHTS
- EXISTING TAXIWAY SIGNS
- NEW THRESHOLD LIGHTS (180° GREEN / 180° RED LENS)
- NEW TAXIWAY LIGHTS (BLUE FILTER)
- NEW RUNWAY LIGHTS (CLEAR LENS)
- NEW RUNWAY LIGHTS (180° CLEAR / 180° AMBER LENS)
- TO #1 RELOCATED TAXIWAY SIGN
- ▬ UNDERGROUND CONCRETE ENCASED DUCT & MARKERS
- ▲ 8/8" x 8" COPPERCLAD GROUND ROD
- RELOCATED GOALS

NOTES

- ALL RUNWAY & THRESHOLD LIGHTS (MIRLS) AND TAXIWAY LIGHTS (MITLS) TO BE MEDIUM INTENSITY (0.8 AMP, 3 STEP).
- EXISTING RUNWAY 1-18 MIRLS TO BE REMOVED AND STORED ON THE AIRPORT AT THE DIRECTION OF THE ENGINEER.
- ALL RUNWAY, THRESHOLD, & TAXIWAY LIGHTS AND CABLES TO BE PLACED 10' OFF EDGE OF PAVEMENT.
- ALL RUNWAY AND TAXIWAY LIGHTS TO BE NUMBERED CONSECUTIVELY AS SHOWN.
- MULTIPLE CONDUCTOR RUNS SHALL BE IN SAME CONDUIT AND/OR TRENCH WHERE POSSIBLE.
- RUNWAY EDGE LIGHTS, TO BE L-881 (30W) QUARTZ (EITHER CLEAR LENS OR CLEAR/AMBER LENS), EXCEPT R45, R46 & R60 A TO BE IN PAVEMENT EDGE LIGHTS, L-880C (45W).
- ALL TAXIWAY LIGHTS TO BE L-881T (30W) INCANDESCENT. (BLUE FILTER)
- RUNWAY THRESHOLD LIGHTS TH1 THRU TH3 TO BE L-881 SE (120W) QUARTZ (RED/GREEN FILTER).
- RUNWAY THRESHOLD LIGHTS TH36 THRU TH43 TO BE L-881 E (45W) QUARTZ (RED/GREEN FILTER)
- CONCRETE BASES FOR EXISTING SIGNS TO BE REMOVED DURING CONSTRUCTION/ GRADING OF RUNWAY SAFETY AREAS.

MATCH LINE SHEET 28



REV.	DATE	DESCRIPTION	BY	CHK

RUTLAND STATE AIRPORT
CLARENDON, VERMONT

RUNWAY LIGHTING PLANS

URS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

Checked by: URS	Drawn by: URS	Checked by: URS	Approved by: URS
Date: 6/9/97	Scale: NOR. - 1" = 50'	Sheet: 27	Of: 60
Sheet No. 27			

MATCH LINE SHEET 27

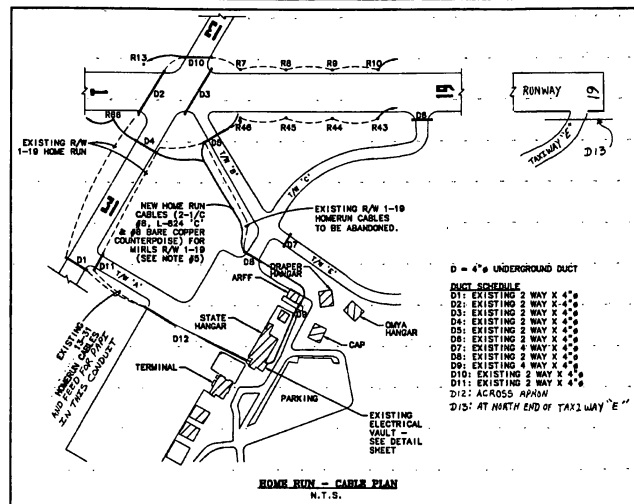
NOTES:

1. ALL RUNWAY & THRESHOLD LIGHTS (MIRLS) AND TAXIWAY LIGHTS (MITLS) TO BE MEDIUM INTENSITY (0.8 AMP, 3 STEP).
2. EXISTING RUNWAY 1-19 MIRLS INCLUDING BASE AND CONDUIT (TO THE EXTENT POSSIBLE) TO BE REMOVED AND STORED ON THE AIRPORT AT THE AIRPORT AT THE DIRECTION OF THE ENGINEER.
3. ALL RUNWAY, THRESHOLD, & TAXIWAY LIGHTS AND CABLES TO BE PLACED 10' OFF EDGE OF PAVEMENT.
4. ALL RUNWAY AND TAXIWAY LIGHTS TO BE NUMBERED CONSECUTIVELY AS SHOWN.
5. MULTIPLE CONDUCTOR RUNS SHALL BE IN SAME CONDUIT AND/OR TRENCH WHERE POSSIBLE.
6. RUNWAY EDGE LIGHTS, TO BE L-801 (30W) QUARTZ (EITHER CLEAR LENS OR CLEAR/AMBER LENS), EXCEPT R45, R46 & R86 A TO BE IN PAVEMENT EDGE LIGHTS, L-800C (40W).
7. ALL TAXIWAY LIGHTS TO BE L-801T (30W) INCANDESCENT. (BLUE FILTER)
8. RUNWAY THRESHOLD LIGHTS TH1 THRU TH3 TO BE L-801 SE (120W) QUARTZ (RED/GREEN FILTER).
9. RUNWAY THRESHOLD LIGHTS TH36 THRU TH43 TO BE L-801 E (40W) QUARTZ (RED/GREEN FILTER).
10. CONCRETE BASES FOR EXISTING SIGNS TO BE REMOVED DURING CONSTRUCTION/ GRADING OF RUNWAY SAFETY AREAS.
11. R #118, #119, #147, #148 TO REMAIN IN PLACE.

NOTE:

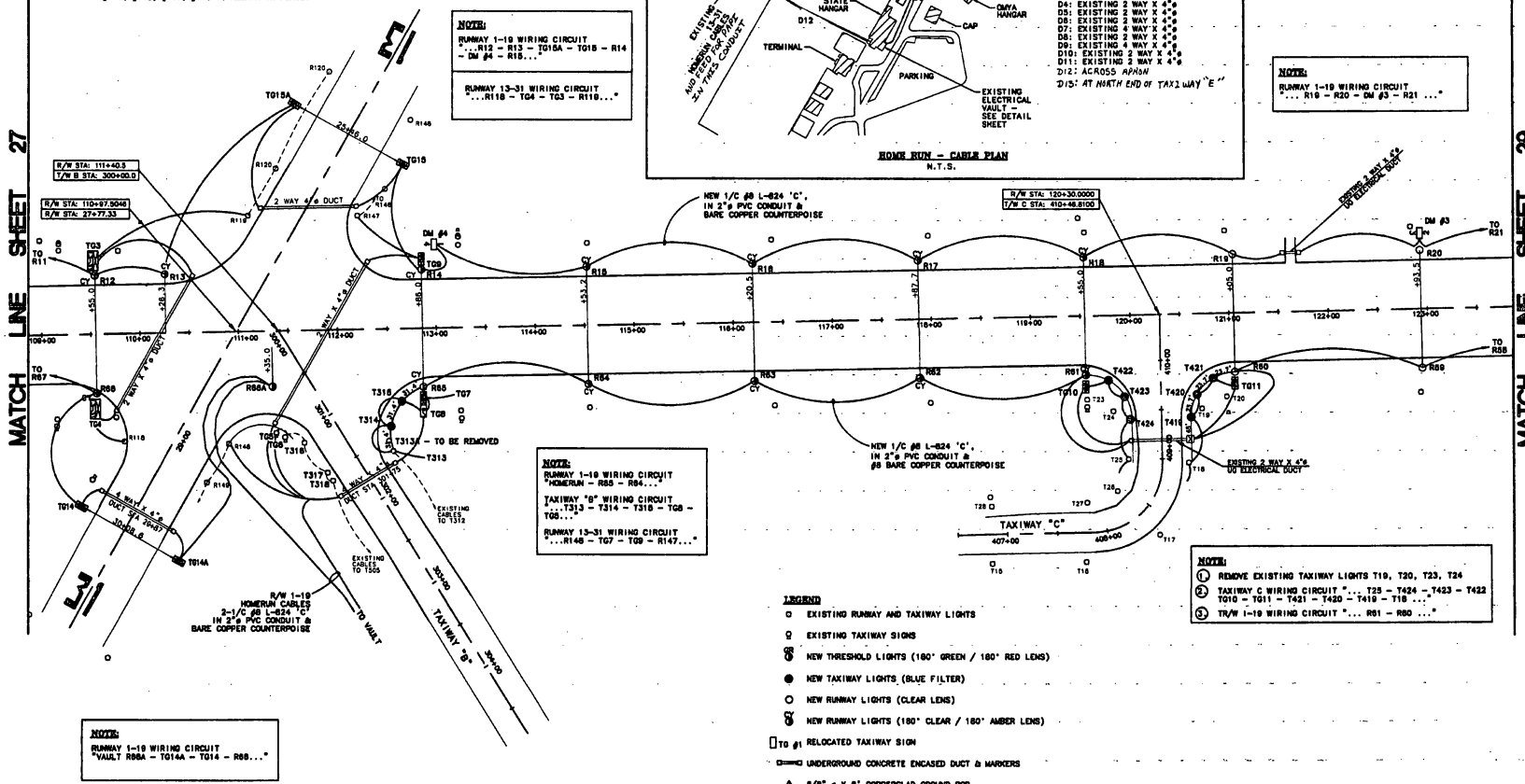
RUNWAY 1-19 WIRING CIRCUIT
...R18 - R19 - T015A - T016 - R14
- DM #4 - R15...

RUNWAY 13-31 WIRING CIRCUIT
...R118 - T04 - T05 - R119...



NOTE:

RUNWAY 1-19 WIRING CIRCUIT
...R18 - R20 - DM #3 - R21...



NOTE:

RUNWAY 1-19 WIRING CIRCUIT
VAULT R86A - T014A - T014 - R88...

MATCH LINE SHEET 29



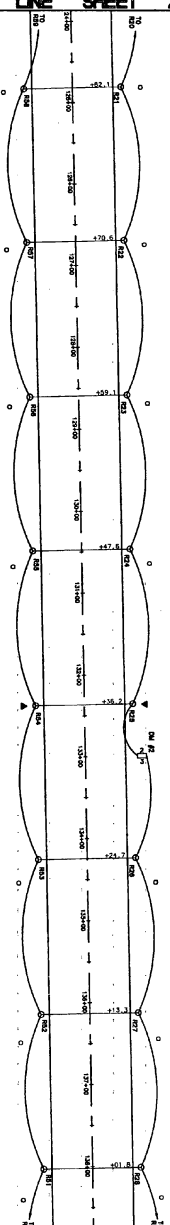
REV.	DATE	DESCRIPTION

RUTLAND STATE AIRPORT
CLARENDON, VERMONT

RUNWAY LIGHTING PLAN

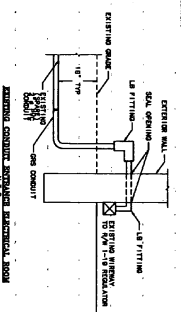
URS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

Designed by	John
Checked by	John
Drawn by	John
Scale	1" = 50'
Sheet	28 of 43
Sheet No	28



- [illegible]

NOTE:
RUNWAY 1-10 WIRING CIRCUIT
...R20 - CM #2 - R20...



EQUIPMENT SPECIFICATIONS

①	1, 825, 10 KW, 6.6 AMP (240 V) (MW)
②	1, 825, 7.5 KW, 6.6 AMP (240 V) HEVI DUTY REGULATOR.
③	1, 825, 7.5 KW, 6.6 AMP (240 V) ABB-ALVARO REGULATOR.
④	1, 825, 7.5 KW, 6.6 AMP (240 V) ABB-ALVARO REGULATOR.

RUTLAND STATE AIRPORT
CLARENDON, VERMONT

RUNWAY LIGHTING PLANS

RUNWAY LIGHTING PLANS

REV.	DATE	DESCRIPTION
Job No. 601212		File No. 10/20/2000



NOTES:

- ALL RUNWAY & THRESHOLD LIGHTS (MIRLS) AND TAXIWAY LIGHTS (MITLS) TO BE MEDIUM INTENSITY (0.6 AMP, 3 STEP).
- EXISTING RUNWAY 1-19 MIRLS TO BE REMOVED AND STORED ON THE AIRPORT AT THE DIRECTION OF THE ENGINEER.
- ALL RUNWAY, THRESHOLD, & TAXIWAY LIGHTS AND CABLES TO BE PLACED 10' OFF EDGE OF PAVEMENT.
- ALL RUNWAY AND TAXIWAY LIGHTS TO BE NUMBERED CONSECUTIVELY AS SHOWN.
- MULTIPLE CONDUCTOR RUNS SHALL BE IN SAME CONDUIT AND/OR TRENCH WHERE POSSIBLE.
- RUNWAY EDGE LIGHTS: TO BE L-881 (30W) QUARTZ (EITHER CLEAR LENS OR CLEAR/AMBER LENS), EXCEPT R46, R48 & R68 A TO BE IN PAVEMENT EDGE LIGHTS, L-880C (45W).
- ALL TAXIWAY LIGHTS TO BE L-881T (30W) INCANDESCENT. (BLUE FILTER)
- RUNWAY THRESHOLD LIGHTS TH1 THRU TH3 TO BE L-881 SE (120W) QUARTZ (RED/GREEN FILTER).
- RUNWAY THRESHOLD LIGHTS TH38 THRU TH43 TO BE L-881 E (45W) QUARTZ (RED/GREEN FILTER).
- CONCRETE BASES FOR EXISTING SIGNS TO BE REMOVED DURING CONSTRUCTION/ GRADING OF RUNWAY SAFETY AREAS.
- EXISTING ODALS AND VASI FOUNDATIONS TO BE REMOVED. PAYMENT TO BE MADE UNDER ITEM 204-21, TRENCH EXCAVATION OF ROCK @ 2 CY/EACH FOUNDATION.
- SEE SHEETS 39-41 FOR ODALS DETAILS.
- SEE SHEET 34 FOR VASI DETAILS.
- EXISTING ODALS & VASI CABLES ARE DIRECT BURIAL. HAND DIGGING WILL BE REQUIRED AROUND THESE CABLES. POWER TO ODALS AND VASI ARE SUPPLIED FROM FAA EQUIPMENT BUILDING NORTH OF RUNWAY ON VT 103. CONTRACTOR TO COORDINATE WITH FAA MAINTENANCE AT 502-881-6723.

NOTE:

RUNWAY 1-19 WIRING CIRCUIT
...R30 - DM #1 - R31 - T012 - R32 ...

NEW 1/2" Ø L-824 "C",
IN 2" Ø PVC CONDUIT &
BARE COPPER COUNTERPOISE

RELOCATED DOWNING
VASI
100' RT
143+00

EXISTING DOWNING VASI

EXISTING VASI CABLES TO BE ABANDONED

EXISTING UPDOWN VASI

EXISTING VASI CABLES TO BE ABANDONED

EXISTING DOWNING VASI

EXISTING UPDOWN VASI

EXISTING VASI CABLES TO BE ABANDONED

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EXISTING VASI CABLES TO BE ABANDONED

EXISTING DOWNING VASI

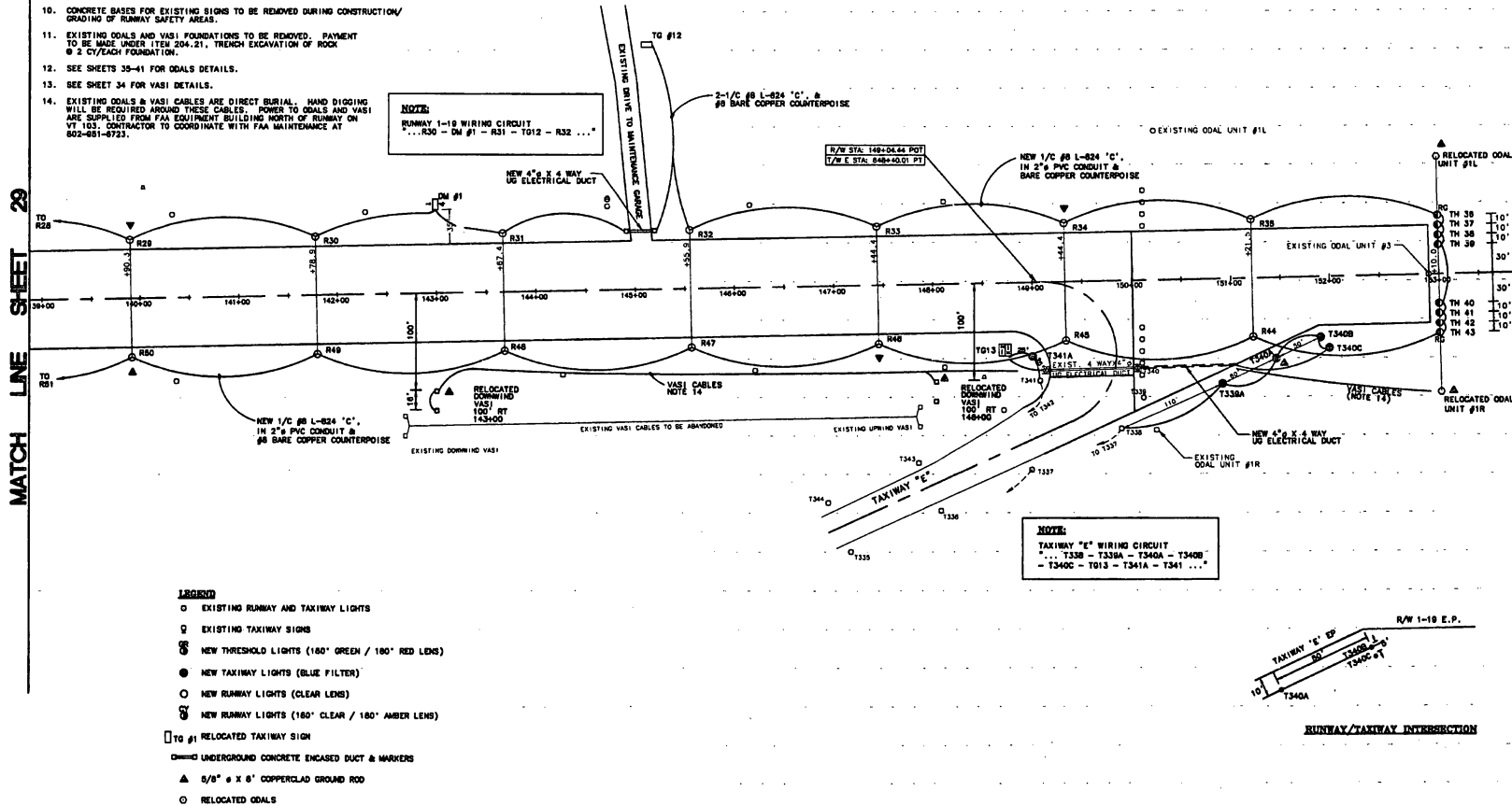
EXISTING UPDOWN VASI

EXISTING VASI CABLES TO BE ABANDONED

EXISTING DOWNING VASI

GRADE SCHEDULE

UNIT #	EXISTING LOCATION	REMARKS
R	150' RT 150+206	RELOCATE TO 125' RT 153+10
1L	150' LT 150+206	RELOCATE TO 125' LT 153+10
2	153+006	REMOVE EXISTING ODAL & TOWER
3	156+006	MODIFY TOWER AND L.I.R. MAST. TO ELEVATION 772.0. RE-USE ODAL UNIT #2.
20	156+006	INSTALL NEW TUBULAR STEEL TOWER AND L.I.R. MAST. RE-USE ODAL UNIT #2.



REV.	DATE	DESCRIPTION	FILE NO.

RUTLAND STATE AIRPORT
CLAREMONT, VERMONT

RUNWAY LIGHTING PLANS

URS Gocher, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

Designed by R. J. Gocher	Checked by J. Gocher	Drawn by J. Gocher	Approved by J. Gocher
Scale: HORIZ. - 1" = 50'	Scale: VERT. - NONE	Date: 6/6/97	Sheet 30 OF 60
Sheet No. 30			



REV.	DATE	DESCRIPTION

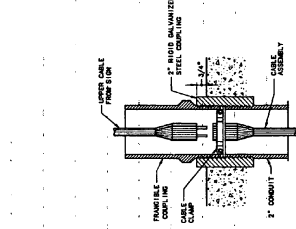
RUNWAY LIGHTING DETAILS
RUTLAND STATE AIRPORT
CLAMBOCK, VERMONT

URS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

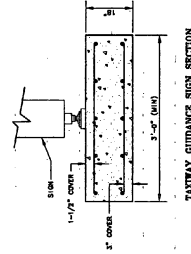
Approved by:	Checked by:	Drawn by:	Scale:

Sheet No. 16

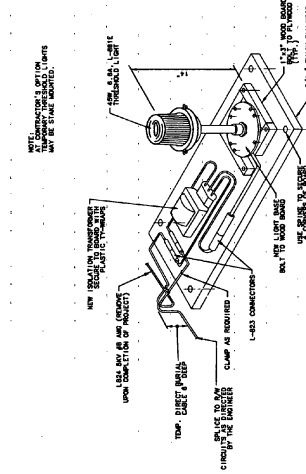
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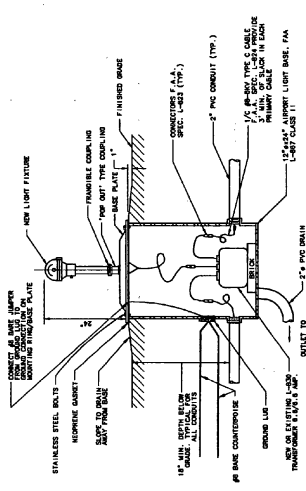
FRANGIBLE COUPLING
CONNECTION DETAIL
NOT TO SCALE



TAXIWAY GUIDANCE SIGN SECTION
NOT TO SCALE

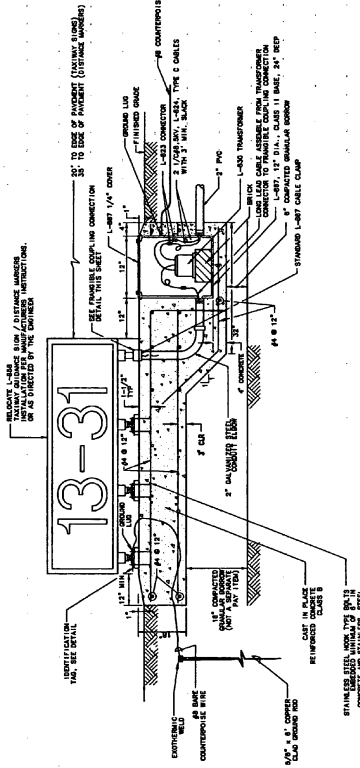


TEMPORARY THRESHOLD LIGHT
NOT TO SCALE

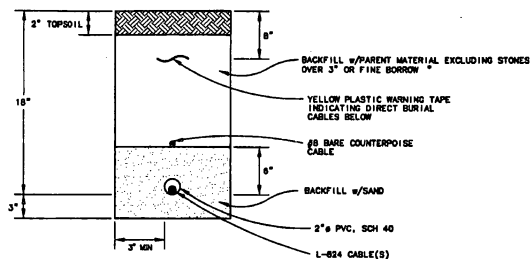


TYPICAL REVERSED EDGE LIGHT
NOT TO SCALE

NOTE:
1. BASE PLATE SHALL BE 1/2\"/>



L-858 TAXIWAY GUIDANCE SIGN
NOT TO SCALE

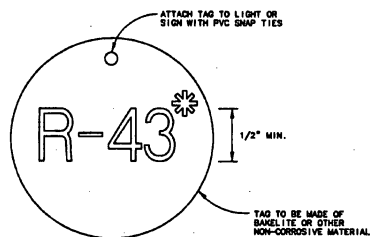


NOTE:
ADDITIONAL CONDUITS MAY BE
PLACED IN SAME TRENCH @ 3"
SPACING. MAX. NUMBER OF
CABLES / CONDUIT PER M.E.C.

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

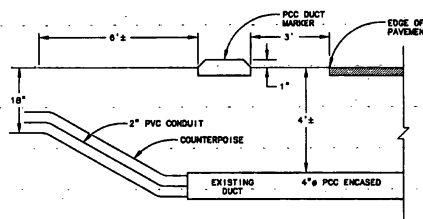
CONDUIT TRENCH DETAIL (TYP)
NOT TO SCALE

LETTER & NUMBER
TO BE PERMANENT
PART OF TAG.
R = RUNWAY
T = TAXIWAY
TH = THRESHOLD
TO = TAXIWAY SIGN
DM = DISTANCE SIGN



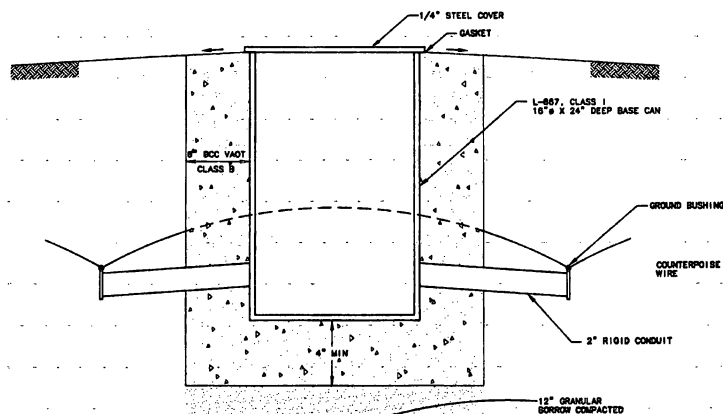
*SEE LIGHTING PLAN FOR
FIXTURE DELINEATION

FIXTURE IDENTIFICATION TAG (TYP)
NOT TO SCALE

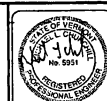


NOTE:
1. PLACE 2" PVC CONDUIT & COUNTERPOISE
IN EXISTING 4" POC ENCASED DUCT.
FULL LENGTH. USE EXISTING SPARE
(EMPTY) DUCT IF AVAILABLE.
2. HAND EXCAVATE AROUND EXISTING DUCT.
EXISTING CABLES MAY BE DIRECT BURIAL.
3. REPLACE EXISTING POC DUCT MARKERS,
AS SHOWN.

CONDUIT/DUCT DETAIL (TYP)
NOT TO SCALE



ELECTRICAL HANDHOLE (TYP)
NOT TO SCALE



DATE	DESCRIPTION	FILE NO.

RUTLAND STATE AIRPORT CLARENDON, VERMONT
RUNWAY LIGHTING DETAILS

URS Greiner, Inc. 3 MARCUS BOULEVARD ALBANY, NEW YORK
--

Designed by: C. J. P. / 3/97	Checked by: J. P. / 3/97	Scale: H = N/A V = N/A
Drawn by: J. P. / 3/97	Approved by: J. P. / 3/97	Date: 6/5/97
Sheet 32 Of 65	Sheet No.	



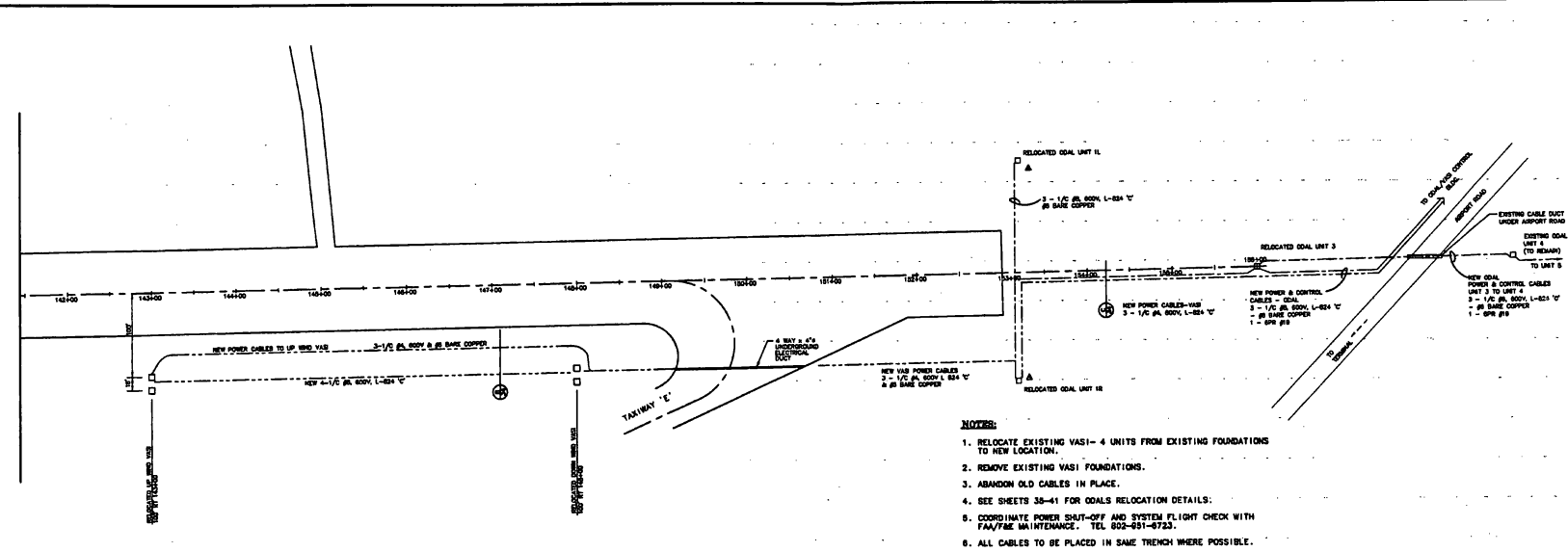
REV.	DATE	DESCRIPTION
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5	11/10/77	ISSUED FOR CONSTRUCTION
6	11/10/77	ISSUED FOR CONSTRUCTION
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8	11/10/77	ISSUED FOR CONSTRUCTION
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RUTLAND STATE AIRPORT
CLARENDON, VERMONT

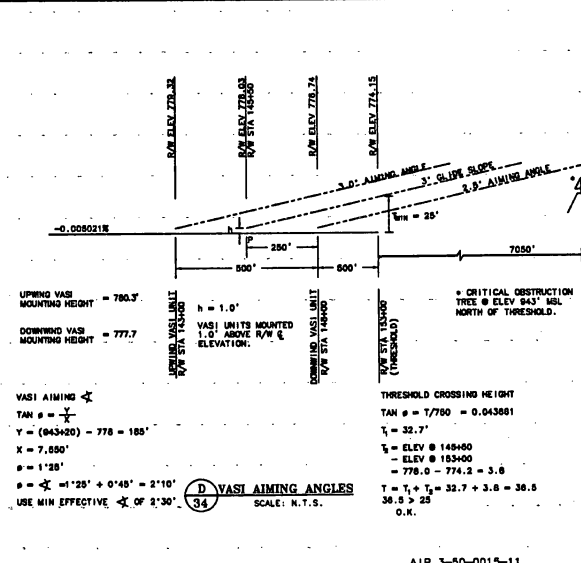
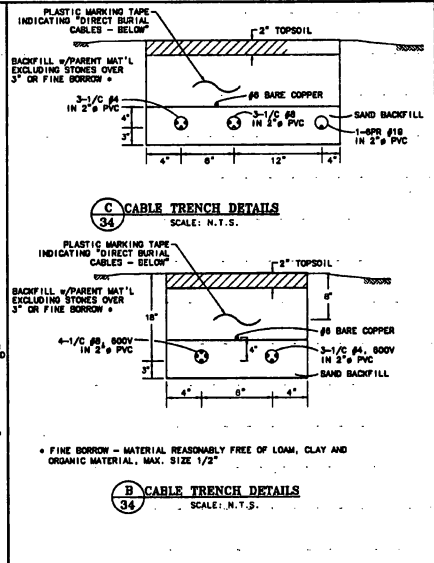
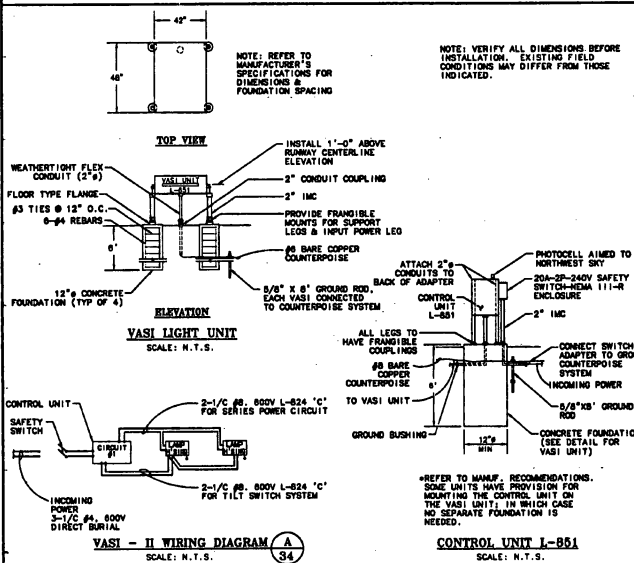
ELECTRICAL PLANS
VASI MOUNTING DETAILS

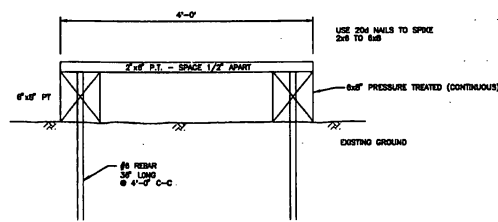
Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

Designed by	CH
Checked by	CH
Drawn by	CH
Scale	AS NOTED
Date	5/1/77
Sheet	34 of 66
Sheet No	34

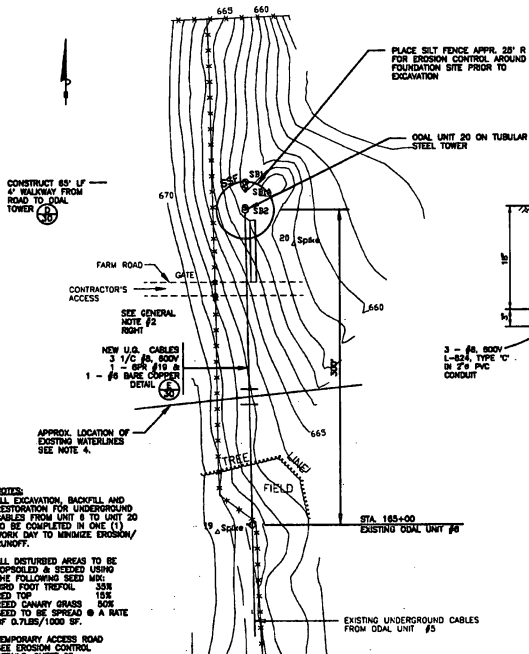


ODAL & VASI - CABLES
SCALE: 1"=40'



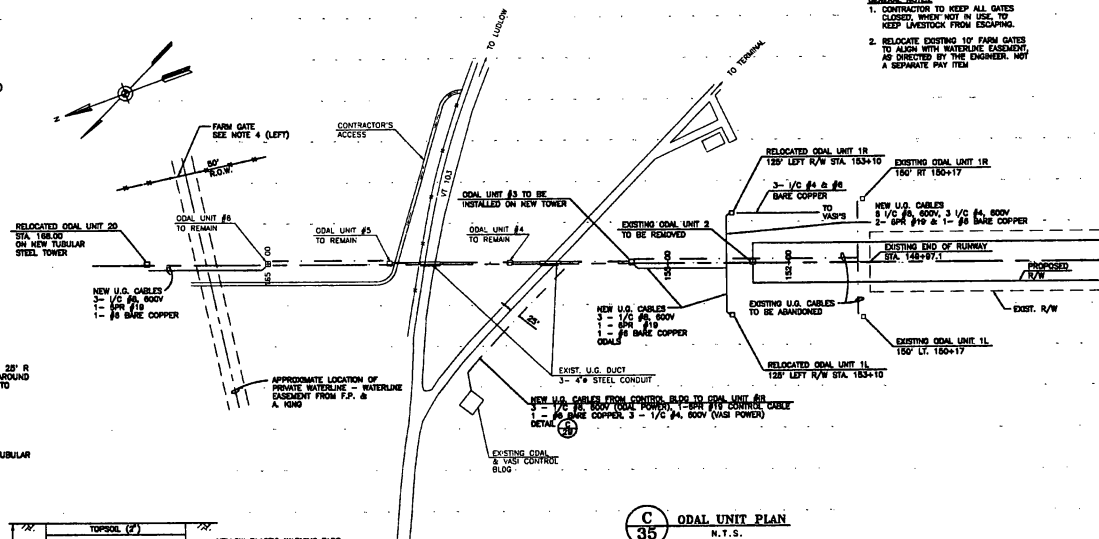


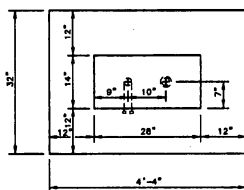
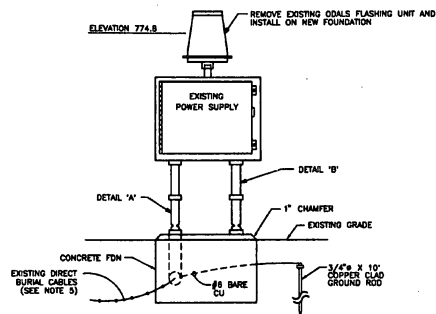
D 35 WALKWAY DETAIL
N.T.S.



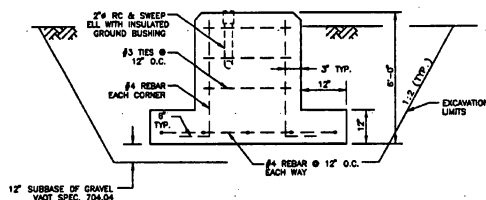
A 35 ODAL UNIT 20
SCALE: 1" = 50'

- NOTES:**
1. ALL EXCAVATION, BACKFILL AND RESTORATION FOR UNDERGROUND CABLES FROM UNIT 8 TO UNIT 20 TO BE COMPLETED IN ONE (1) WORK DAY TO MINIMIZE EROSION/RUNOFF.
 2. ALL DISTURBED AREAS TO BE TOPSOILED & SEEDING USING THE FOLLOWING REED MIX: 80% FINE TOPSOIL - 30% RED TOP SOIL - 30% RED CANARY GRASS - 50% SEED TO BE SPREAD @ A RATE OF 0.75 LB/1000 SF.
 3. TEMPORARY ACCESS ROAD SEE EROSION CONTROL DETAILS SHEET 25.
 4. PLACE 2 1/2" P.S. SLEEVES, APPROX. 9" BELOW GRADE PARALLEL TO EXISTING WATERLINE. NOT A SEPARATE PAY ITEM.

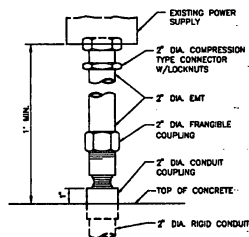




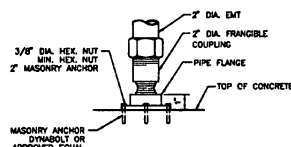
DETAIL 2



DETAIL 3



DETAIL 4

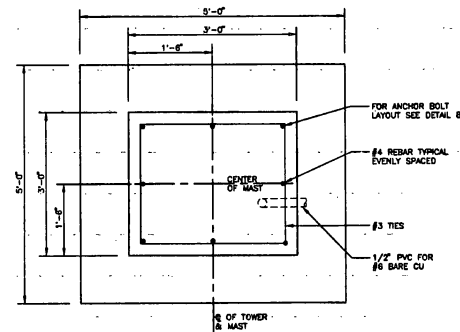


DETAIL 5

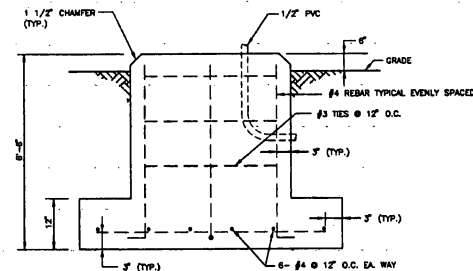
ODALS FOUNDATION DETAILS
ODALS UNITS #1R & #1L
125' LT & RT OF STA. 153+20

NOTES:

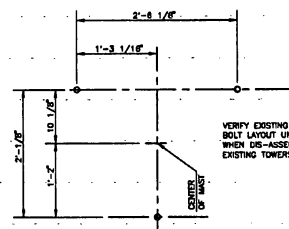
1. EXISTING FOUNDATIONS UNITS #2 & #3 TO BE ABANDONED IN PLACE.
2. ODALS ELECTRICAL CABLES TO BE RE-ROUTED TO NEW LOCATION.
3. EXISTING ODALS UNITS TO BE REMOVED FROM EXISTING FOUNDATIONS AND PLACED ON NEW FOUNDATIONS.
4. ALL CONCRETE TO BE CLASS B, CONFORMING TO SECTION 501. STRUCTURAL CONCRETE, VAST SPECIFICATIONS.
5. EXISTING UNDERGROUND (DIRECT BURIAL CABLES) 3-1/2\"/>
6. USE ANTI-SEIZE COMPOUND ON ALL THREADS.
7. ALL ANCHOR BOLTS, NUTS & WASHERS SHALL BE HOT DIP GALVANIZED PER ASTM - 13 & ASTM - 325.



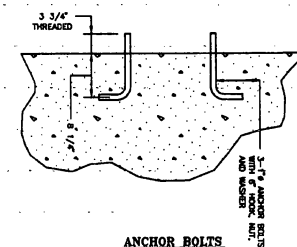
DETAIL 6



DETAIL 7

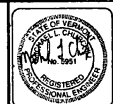


ANCHOR BOLT PLAN
 DETAIL 8



ANCHOR BOLTS
 DETAIL 9

ODALS FOUNDATION DETAILS
UNIT #3
STATION 156+00

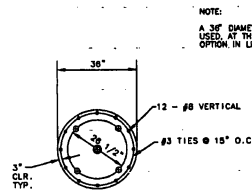
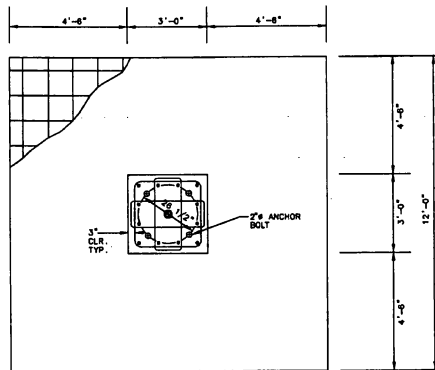


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RUTLAND STATE AIRPORT
 CLARENDON, VERMONT
ODALS FOUNDATION DETAILS

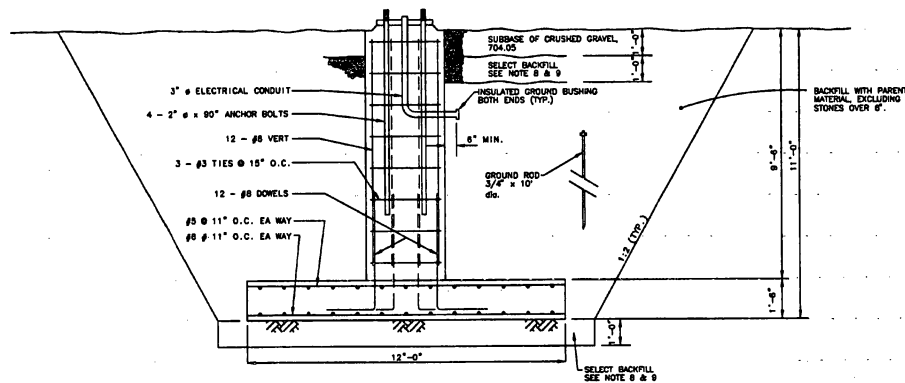
URS Greiner, Inc.
 3 MARCUS BOULEVARD
 ALBANY, NEW YORK

Checked by: J. J. J.	Scale: AS SHOWN
Drawn by: J. J. J.	Date: 4/1/97
Reviewed by: J. J. J.	Sheet 36 OF 60
	Sheet No. 36



36" DIA. FOUNDATION PIER

NOTE:
A 36" DIAMETER PIER MAY BE USED, AT THE CONTRACTOR'S OPTION IN LIEU OF THE SQUARE PIER.



FOUNDATION NOTES

1. CONCRETE TO CONFORM TO VAOT SPECIFICATIONS SECTION 501 - STRUCTURE CONCRETE, CLASS A.
2. REINFORCING STEEL TO CONFORM TO VAOT SPECIFICATIONS SECTION 507 - REINFORCING STEEL. STEEL TO BE ASTM A615, GRADE 60, EXCEPT STIRRUPS AND TIES TO BE GRADE 40.
3. REINFORCEMENT SHALL BE TIED SECURELY IN PLACE BEFORE PLACING CONCRETE USING APPROVED CHAIRS AND SPACERS. NO BARS SHALL BE CUT OR OMITTED IN THE FIELD WITHOUT THE APPROVAL OF THE ENGINEER. USE PLASTIC TIPPED ACCESSORIES IN CONCRETE EXPOSED TO WEATHER, WATER OR VIEW.
4. THE CONTRACTOR SHALL INSTALL ALL ANCHORS, BOLTS, PLATES, NAILERS, SLOTS, CHAIRS, PIPE SLEEVES, ETC., AS REQUIRED BY OTHER TRADES. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS BEFORE SETTING SCREDS AND FORMS.
5. FOOTINGS SHALL REST ON SUITABLE UNDISTURBED SOIL OR COMPACTED GRANULAR FILL HAVING A MINIMUM BEARING CAPACITY OF 3000 PSF. THE ENGINEER SHALL BE NOTED PROMPTLY OF ANY WEAK STRATA, WATER CONDITIONS OR OTHER POOR BEARING CONDITIONS.
6. UNLESS OTHERWISE NOTED, ALL FOOTINGS AND PIERS SHALL BE CENTERED UNDER SUPPORT MEMBERS.
7. CONCRETE TEMPERATURES DURING THE FIRST SEVEN DAYS SHALL BE MAINTAINED BETWEEN 50 F AND 90 F. RAPID DRYING MUST BE PREVENTED. ALL SURFACES SHALL BE KEPT CONTINUOUSLY MOIST FOR A MINIMUM OF SEVEN DAYS.
8. BACKFILLING AGAINST PIERS SHALL BE DONE BY PLACING LEVEL LAYERS ALL AROUND THE PIER. PIERS MUST BE AT LEAST SEVEN DAYS OLD BEFORE BACKFILLING.
9. SELECT BACKFILL SHALL:
 - A. CONFORM TO VAOT 704.04.
 - B. BE PLACED IN MAXIMUM 6" LEVEL LIFTS AND COMPACTED TO 90 % MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT AS DEFINED BY ASTM D-1557.
10. CONTRACTOR TO DESIGN, FURNISH AND INSTALL ALL TEMPORARY SHEETING, SHORING AND BRACING NECESSARY TO COMPLETE THE CONSTRUCTION.
11. THE CONTRACTOR SHALL PROVIDE THE NECESSARY EQUIPMENT AND Dewater THE SITE TO FACILITATE CONSTRUCTION AND SAFE WORKING CONDITIONS.
12. SHOP DRAWINGS PREPARED IN ACCORDANCE WITH ACI STANDARDS SHALL BE REQUIRED FROM THE CONTRACTOR FOR REINFORCING STEEL PRIOR TO CONSTRUCTION.
13. DESIGN LOADS:

MOMENT	=	228 K-FT.
VERTICAL SHEAR	=	6250 LBS.
HORIZONTAL SHEAR	=	4380 LBS.



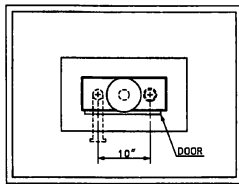
PROJECT NO.	DATE
DESCRIPTION	FILE NO.
REV.	DATE
APP. NO.	DATE

RUTLAND STATE AIRPORT
CLARENDON, VERMONT

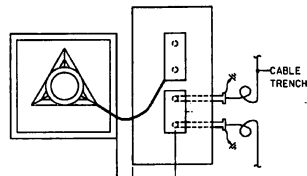
ODALS TOWER FOUNDATION DETAILS

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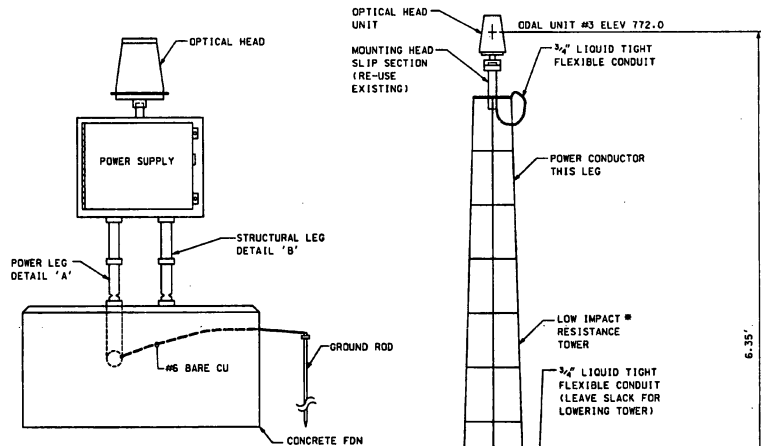
Designed by	Checked by
D. P. ANDERSON	D. P. ANDERSON
Drawn by	Checked by
M. BOWEN	D. P. ANDERSON
Scale: 1/8" = 1'-0"	Scale: 1/8" = 1'-0"
Date: 8/9/97	Date: 8/9/97
Sheet 27 Of 60	Sheet No.
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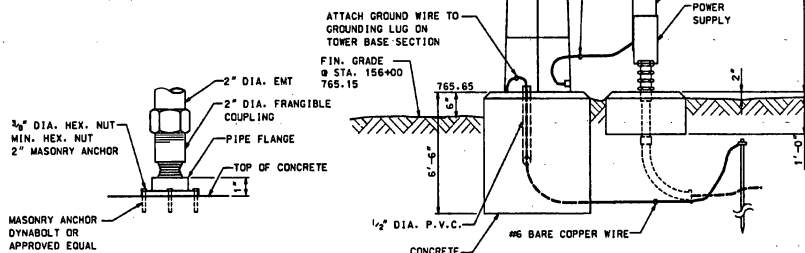
PLAN
N.T.S.



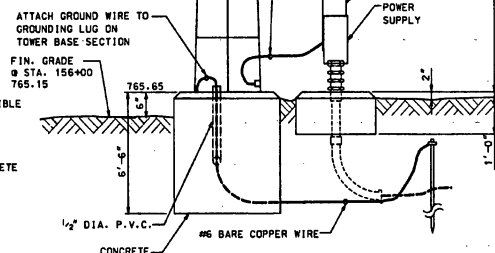
PLAN
N.T.S.



ELEVATION
ODALS UNIT 1R & 1L
N.T.S.

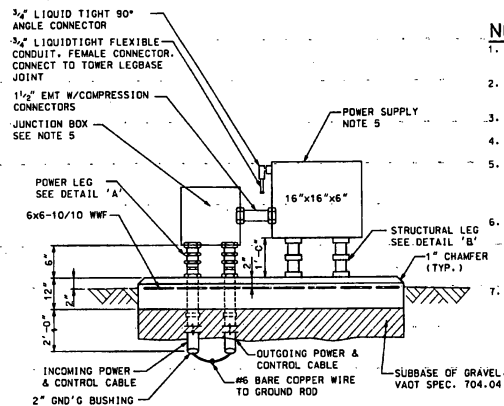


STRUCTURAL LEG-DETAIL 'B'
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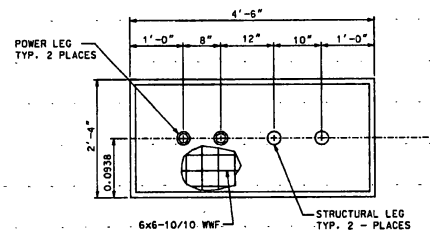


ELEVATION
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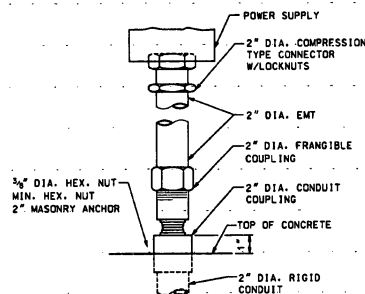
ODAL UNIT #3
• REUSE EXISTING TOWER-
ADJUST TO HEIGHT



ELEVATION
N.T.S.



PLAN
EQUIPMENT PAD FOUNDATION DETAILS



STRUCTURAL LEG-DETAIL 'A'
N.T.S.

NOTES:

1. REFER TO FACILITY LAYOUT PLAN FOR LIGHT FIXTURE ELEVATIONS.
2. REFER TO SHEET 35' FOR TOP ELEVATION OF CONCRETE FOUNDATION.
3. REFER TO CABLE LAYOUT PLAN FOR ROUTING.
4. USE ANTI-SEIZE COMPOUND ON ALL PIPE THREADS.
5. RELOCATE ALL EXISTING EQUIPMENT. RE-USE TO THE EXISTENT POSSIBLE. CONTRACTOR TO SUPPLY NEW PCC FOUNDATIONS AND ALL CONDUIT, FITTINGS, CABLES, ETC.
6. CONTRACTOR TO INSPECT ALL EQUIPMENT PRIOR TO RELOCATING. EXISTING DAMAGE TO BE NOTED. CONTRACTOR WILL BE RESPONSIBLE FOR REPLACING OR REPAIRING ALL DAMAGE CAUSED BY HIS FORCES DURING RELOCATION & RE-INSTALLATION.
7. CONTRACTOR TO VERIFY NEW ODAL UNIT ELEVATION AND TOWER HEIGHT PRIOR TO INSTALLATION.



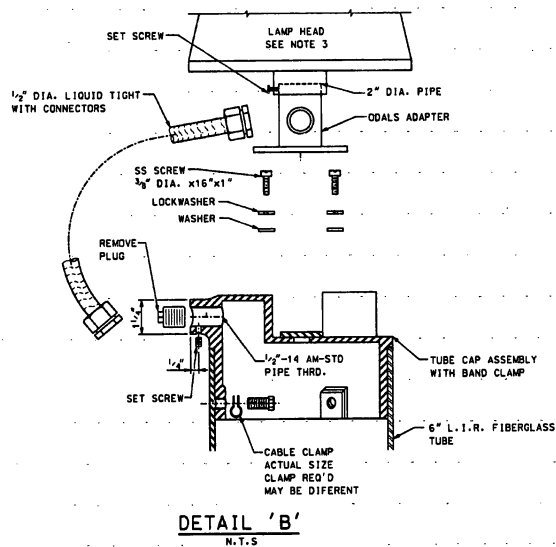
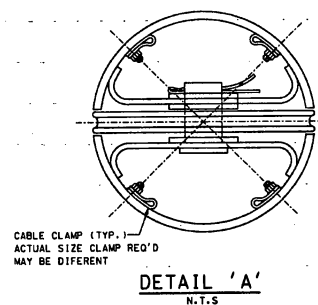
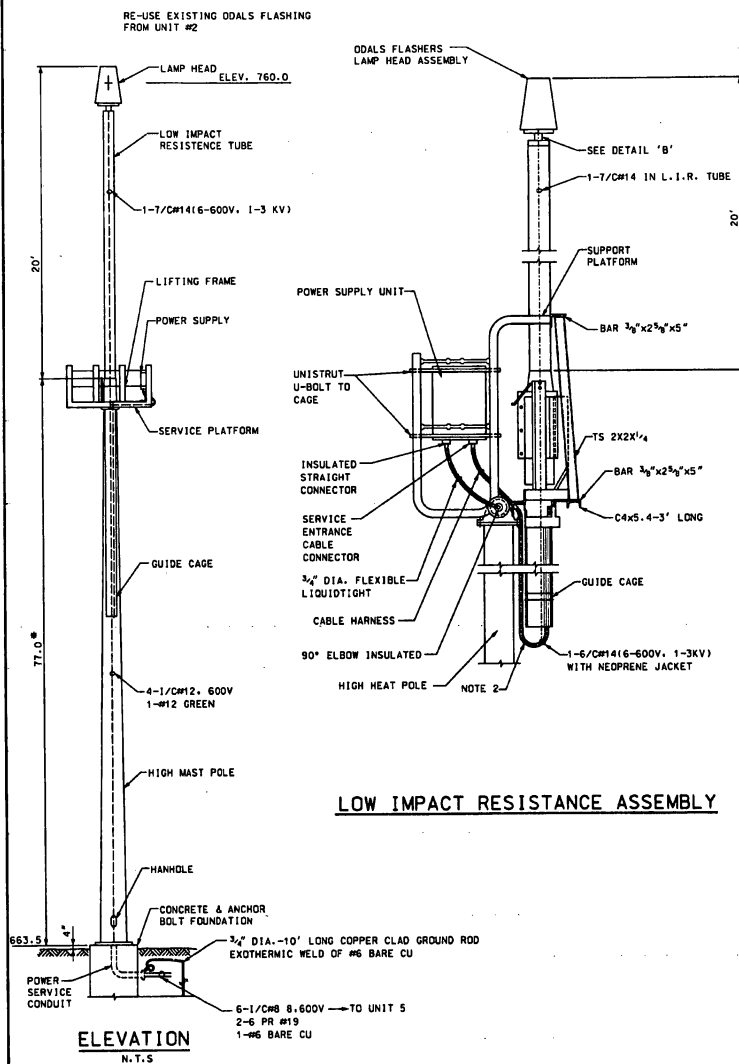
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RUTLAND STATE AIRPORT
CLARENDON, VERMONT

ODALS - FLASHER MOUNTING
DETAILS

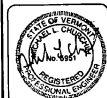
URS Greiner, Inc
3 MARCUS BOULEVARD
ALBANY, NEW YORK

Drawn By: J.P. JONES	Scale: N.T.S.
Checked By: J.P. JONES	Date: 5/5/97
Approved By: J.P. JONES	Sheet 38 OF 68
	Sheet No
	38



NOTES:

1. MAKE ALL TERMINATIONS IN HANDHOLE USING WIRE NUTS OR BURNDY CONNECTORS AND LEAVE 3' OF SLACK. TAG ALL CONTROL CABLES IN HANDHOLES OR JUNCTION BOXES SHALL BE TAGGED AS TO ORIGIN OR DESTINATION AND COLOR CODED (POWER) OR NUMBERED (CONTROL).
2. TIE CABLE HARNESS EVERY 3' TO TOWER OR GUIDE CAGE FROM CONTROL BOX TO BOTTOM OF CAGE USING BLACK WEATHER RESISTANT CABLE TIES TYPE PLT. FROM BOTTOM OF GUIDE CAGE TO LIR TUBE LEAVE LOOSE. SEE DETAIL 'A' FOR CONNECTION AT LIR TUBE.
3. FOR LAMP HEAD LEVELING PROCEDURE SEE MANUFACTURE INSTRUCTION MANUAL (TI 6350.47).
4. HIGH MAST TOWER FOR ODAL UNIT 20 ONLY.



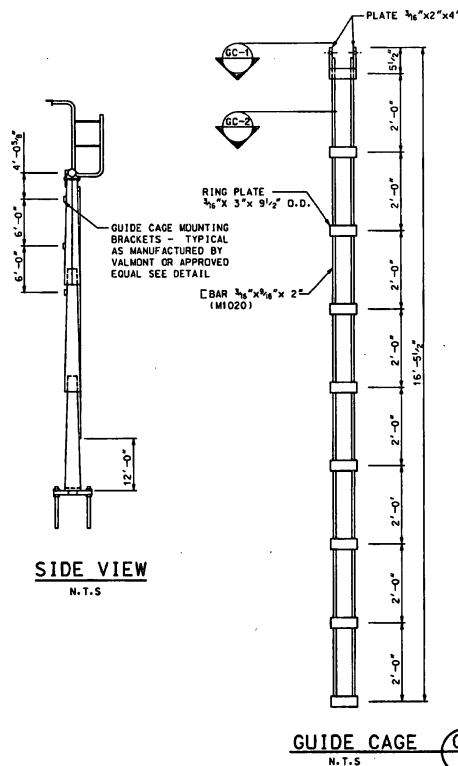
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RUTLAND STATE AIRPORT
CLARENDON, VERMONT

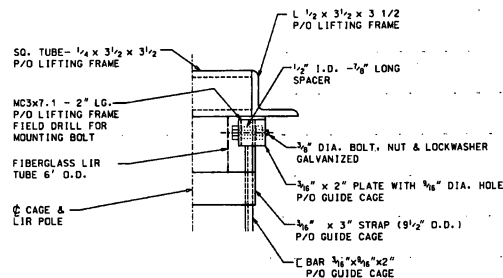
ODALS UNIT #20
WIRING AND EQUIPMENT MOUNTING

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3 MARCUS BOULEVARD
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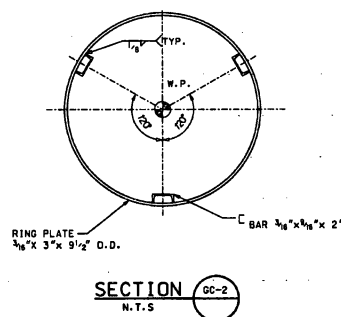
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Date:	5/5/97
Sheet No.	39



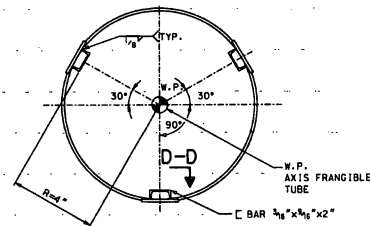
SIDE VIEW
N.T.S.



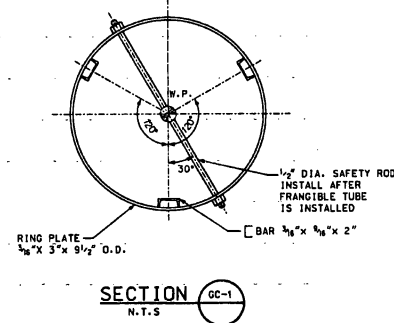
GUIDE CAGE MOUNTING DETAIL
SCALE: 3" = 1'-0"



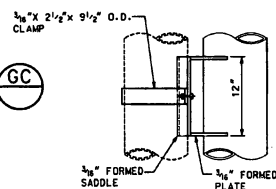
SECTION GC-2
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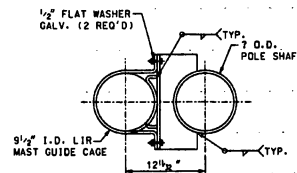
SECTION GC-1
N.T.S.



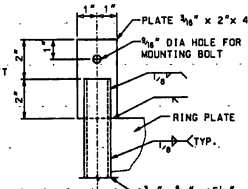
SECTION GC-1
N.T.S.



SIDE VIEW



TOP VIEW



SECTION D-D
N.T.S.

GUIDE CAGE MOUNTING BRACKET
N.T.S.

REV.	DATE	DESCRIPTION	FILE NO. PROJECT

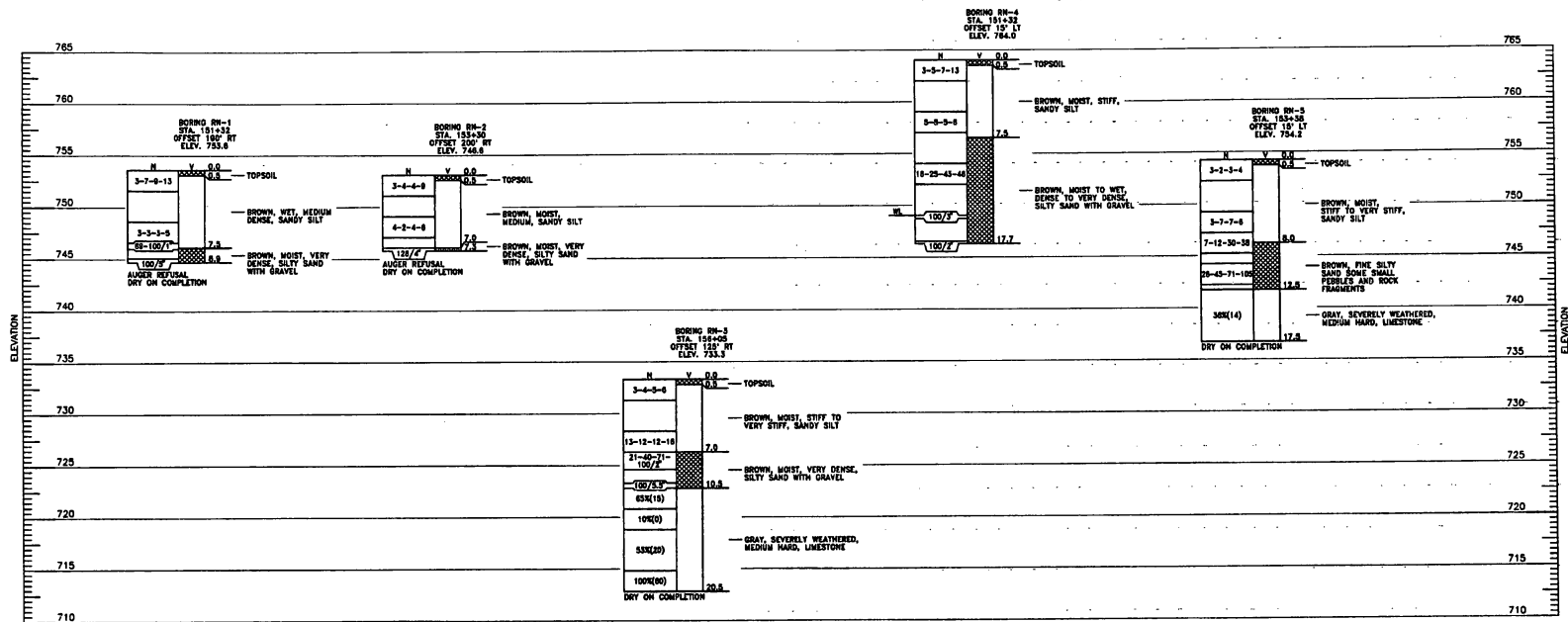
RUTLAND STATE AIRPORT
 CLARENDON, VERMONT

ODALS UNIT #6
L.I.R. GUIDE CAGE DETAILS

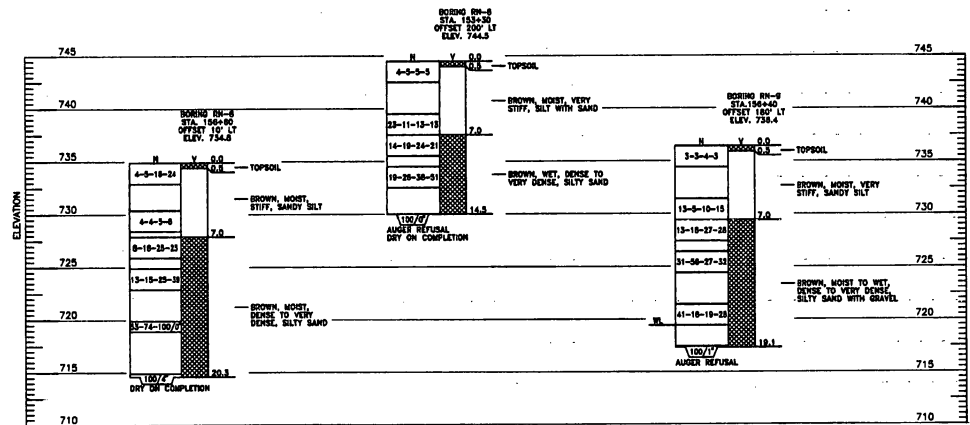
URS Greiner, Inc
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DESIGNED BY	E.P. MILES	CHKD BY	JMT	DATE	1/1/82
DESIGNED BY		CHKD BY		DATE	
DESIGNED BY		CHKD BY		DATE	
DESIGNED BY		CHKD BY		DATE	

SOCIETY AS NOTED
 DATED 5/5/97
 SHEET NO. OF 65
40

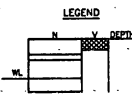


BORINGS AND DRIVE TESTS
SCALE: AS SHOWN



BORINGS AND DRIVE TESTS
SCALE: AS SHOWN

NOTE:
1.) BORINGS AND DRIVE TESTS WERE TAKEN IN NOVEMBER 1995, BY GREEN MOUNTAIN BORING.
2.) N= BLOWS PER 6 INCH INCREMENT OF PENETRATION OF SAMPLING SPOON OR PENETRATION IN INCHES FOR THE INDICATED BLOWS OF A 140 LB. HAMMER FALLING 30". WHERE ROCK IS ENCOUNTERED, PERCENT CORE RECOVERY IS SHOWN. R.Q.D. IS SHOWN IN PARENTHESES.
THE ROCK QUALITY DESIGNATION (R.Q.D.) IS BASED ON A MODIFIED CORE RECOVERY PROCEDURE WHICH, IN TURN, IS BASED INDIRECTLY ON THE NUMBER OF FRACTURES (EXCEPT THOSE DUE DIRECTLY TO DRILLING OPERATIONS) AND THE AMOUNT OF SOFTENING OR ALTERATION IN THE ROCK MASS AS OBSERVED IN THE ROCK CORES FROM A DRILL HOLE. INSTEAD OF COUNTING THE FRACTURES, AN INDIRECT MEASURE IS OBTAINED BY SUMMING THE TOTAL LENGTH OF CORE RECOVERED BY COUNTING ONLY THOSE PIECES OF HARD AND SOUND CORE WHICH ARE 4 INCHES OR GREATER IN LENGTH. THE RATIO OF THIS MODIFIED CORE RECOVERY LENGTH TO THE TOTAL CORE RUN LENGTH IS KNOWN AS THE R.Q.D.
V-ALTERNATE SHADING INDICATES EXTENT OF SOIL OR ROCK LAYERS.
WL-WATER LEVEL READING AT COMPLETION OF BORING.

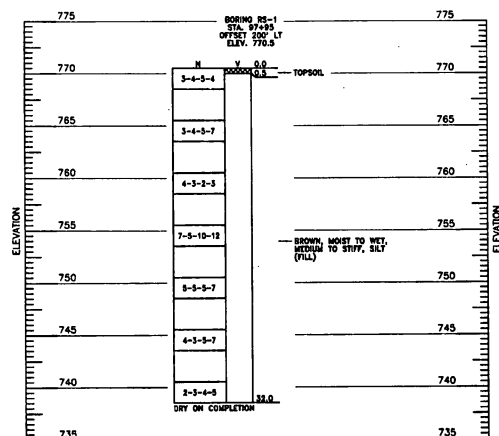


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SCALE	PROJECT NO.	DATE

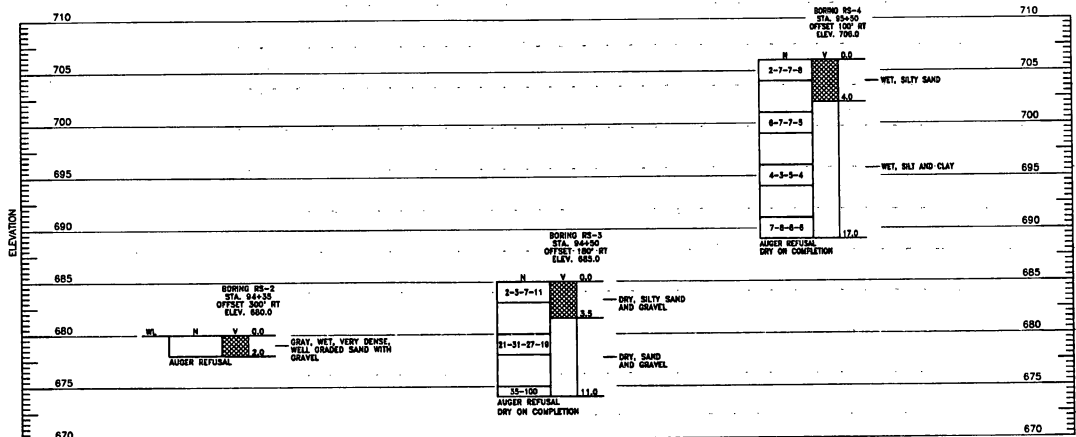
RUTLAND STATE AIRPORT
CLARENDON, VERMONT

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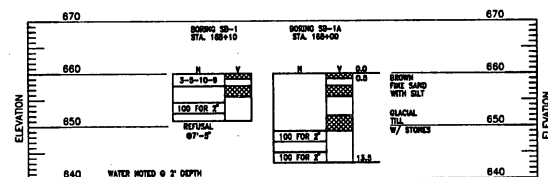
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SHEET	43 OF 68
SHEET NO.	43



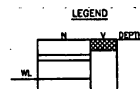
BORINGS AND DRIVE TESTS
SCALE: AS SHOWN



BORINGS AND DRIVE TESTS
SCALE: AS SHOWN



BORINGS AND DRIVE TESTS
SCALE: AS SHOWN



NOTE:

- 1.) BORINGS AND DRIVE TESTS WERE TAKEN IN NOVEMBER 1995, BY GREEN MOUNTAIN BORING.
- 2.) N-BLOWS PER 8 INCH INCREMENT OF PENETRATION OF SAMPLING SPOON OR PENETRATION IN INCHES FOR THE INDICATED BLOWS OF A 140 LB. HAMMER FALLING 30". WHERE ROCK IS ENCOUNTERED, PERCENT CORE RECOVERY IS SHOWN. R.Q.D. IS SHOWN IN PARENTHESES.

THE ROCK QUALITY DESIGNATION (R.Q.D.) IS BASED ON A MODIFIED CORE RECOVERY PROCEDURE WHICH, IN TURN, IS BASED INDIRECTLY ON THE NUMBER OF FRACTURES (EXCEPT THOSE DUE DIRECTLY TO DRILLING OPERATIONS) AND THE AMOUNT OF SOFTENING OR ALTERATION IN THE ROCK MASS AS OBSERVED IN THE ROCK CORES FROM A DRILL HOLE. INSTEAD OF COUNTING THE FRACTURES, AN INDIRECT MEASURE IS OBTAINED BY SUMMING THE TOTAL LENGTH OF CORE RECOVERED BY COUNTING ONLY THOSE PIECES OF HARD AND SOUND CORE WHICH ARE 4 INCHES OR GREATER IN LENGTH. THE RATIO OF THIS MODIFIED CORE RECOVERY LENGTH TO THE TOTAL CORE RUN LENGTH IS KNOWN AS THE R.Q.D.

V-ALTERNATE SHADING INDICATES EXTENT OF SOIL OR ROCK LAYERS.
WL-WATER LEVEL READING AT COMPLETION OF BORING.



DESIGNED BY	CHECKED BY	DATE
DRAWN BY	APPROVED BY	DATE
SCALE	NO. OF SHEETS	SHEET NO.

RUTLAND STATE AIRPORT
CLANDON, VERMONT

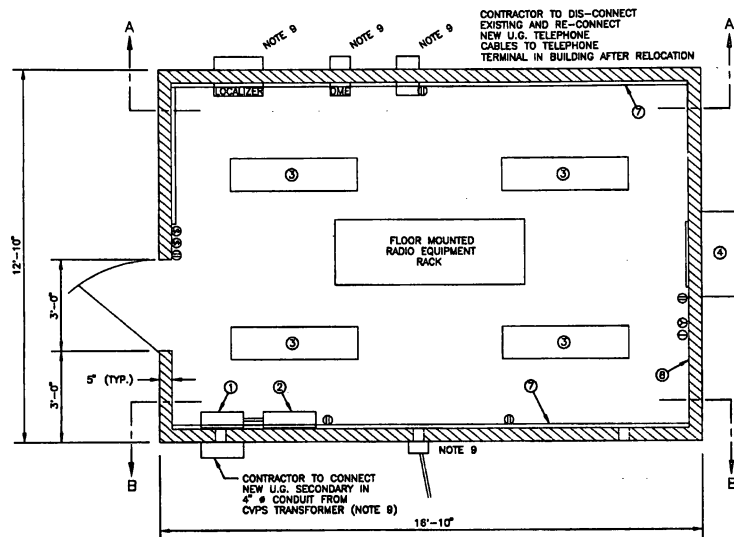
BORING LOGS

URS Greiner, Inc.

3 MARCUS BOULEVARD
ALBANY, NEW YORK

DESIGNED BY	CHECKED BY	DATE
DRAWN BY	APPROVED BY	DATE
SCALE	NO. OF SHEETS	SHEET NO.

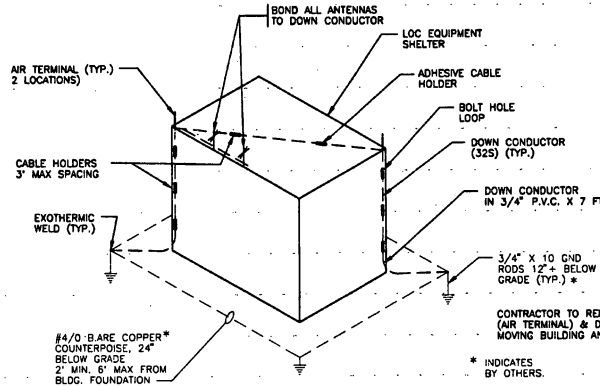
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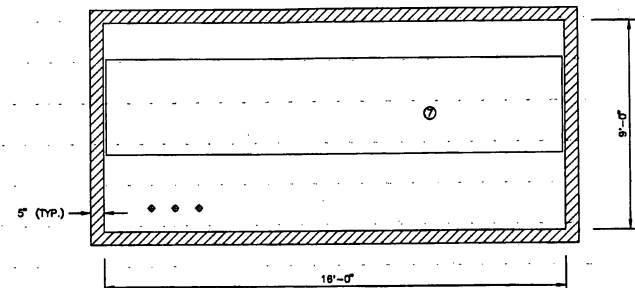
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SCALE: NONE

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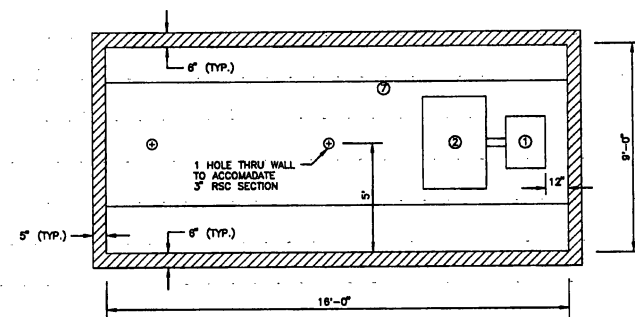
1. NEMA 1 ENCLOSURE, FUSED 2 POLE, SOLID NEUTRAL, DEAD FRONT, 400 AMP DISCONNECT SWITCH.
2. NEMA 1 ENCLOSURE, 1 PHASE, 3-WIRE, 5/N, 120/240 VOLT, 400 AMP MAIN BREAKER WITH NEUTRAL ALL BOLT ON BREAKERS.
3. FLUORESCENT LIGHT FIXTURE.
4. AIR CONDITIONER - WALL MOUNTED.
5. EXTERIOR DOOR.
6. HEAVY DUTY, WEATHER PROOF, EXTERIOR WALL LIGHT MOUNTED ABOVE DOOR.
7. 3/4 IN. PLYWOOD BOLTED TO WALL.
8. PAINTED DRYWALL INTERIOR.
9. EXISTING SHELTER IS A PRE-CAST CONCRETE UNIT COMPLETE WITH WALLS, FLOOR & CEILING EXISTING BUILDING ON A PEASTONE BASE. CONTRACTOR TO DISCONNECT ALL CABLES & CONDUIT AT EXISTING LOCATION BEFORE RELOCATING SHELTER.
10. ALL LOOSE MATERIALS TO BE PACKAGED AND MOVED SEPARATELY. SECURE ALL EQUIPMENT PRIOR TO RELOCATING SHELTER. REMOVE ROOF MOUNTED ANTENNAS.
11. BUILDING/SHELTER TO BE LIFTED AND TRANSPORTED TO NEW SITE AS A COMPLETE UNIT.
12. BUILDING/SHELTER TO BE POSITIONED AT NEW LOCATION AS SHOWN ON SITE PLAN OR AS DIRECTED BY THE ENGINEER. CONNECT NEW CABLES AND CONDUITS AT NEW SITE. NEW CABLES AND CONDUITS BY OTHERS. COORDINATE TELEPHONE AND POWER CABLES WITH PHONE AND UTILITY COMPANIES. COORDINATE FAA CABLE CONNECTIONS WITH FAA/FAE CONTACT JAMES CAULFIELD, (817) 238-7462.
13. CONTRACTOR TO REMOVE ELECTRICAL CABLING, & PEASTONE FOUNDATION FOR EXISTING SITE. CONTRACTOR TO REMOVE EXISTING FOUNDATION FOR LOCALIZER & DME. AREA TO BE REGRADED, TOPSOILED AND SEEDED. COST OF THIS WORK TO BE INCLUDED IN COST OF ITEM 529.20 MOD 1.



LIGHTNING PROTECTION DETAILS
SCALE: NONE



SECTION "A-A"
SCALE: NONE



SECTION "B-B"
SCALE: NONE

LEGEND

- ③ LIGHT SWITCH, 4'-6" ABOVE FLOOR
- ① DUPLEX RECEPTACLE, 4' ABOVE FLOOR
- ② 240 VOLT RECEPTACLE, 4' ABOVE FLOOR
- ① 240 VOLT LINE THERMOSTAT

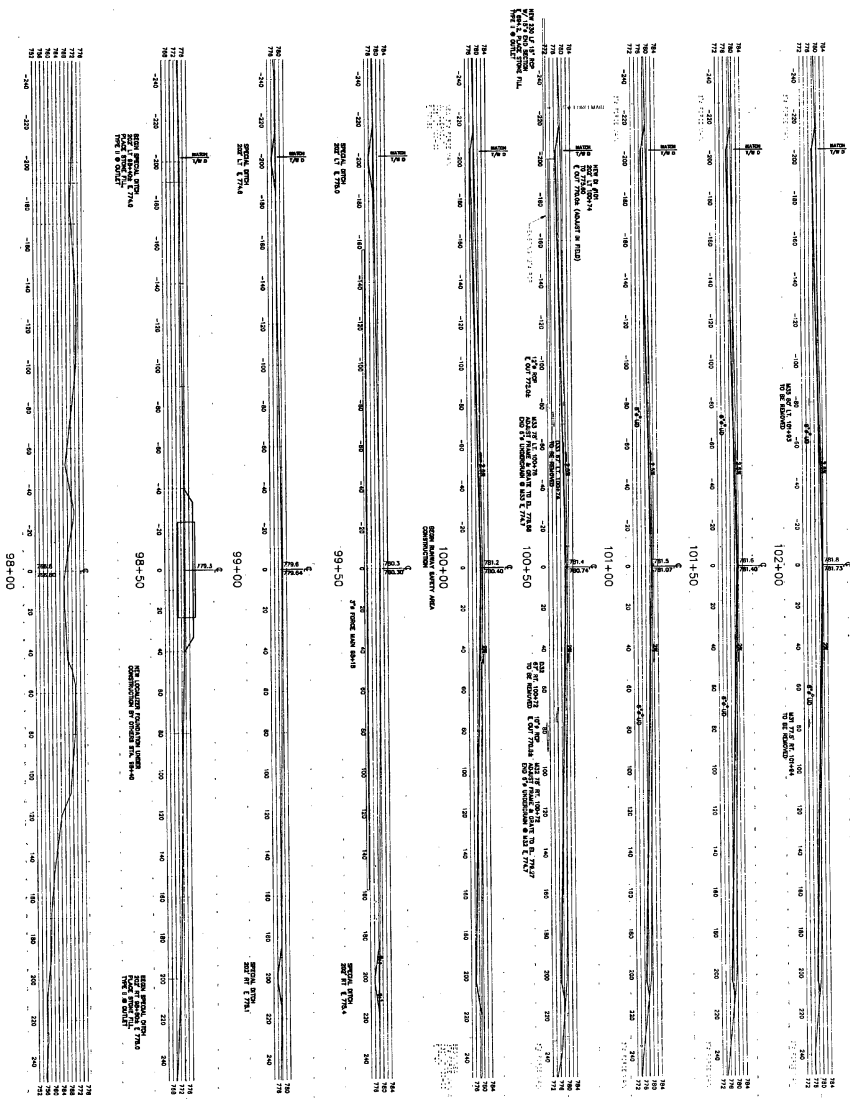


REV.	DATE	DESCRIPTION	FILE NO.
1	5/8/97	ISSUED FOR PERMIT	11542

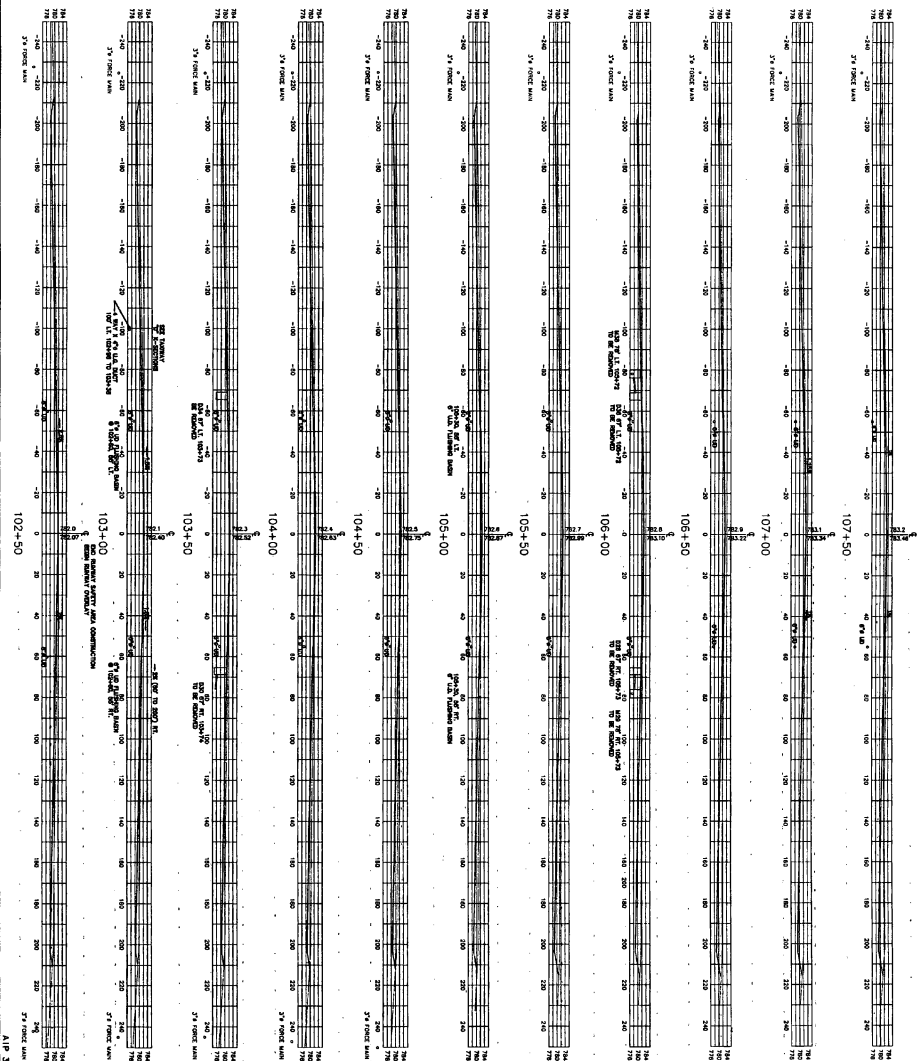
RUTLAND STATE AIRPORT
CLANDON, VERMONT
LOCALIZER/DME RUNWAY 19
POWER AND CONTROL BUILDING

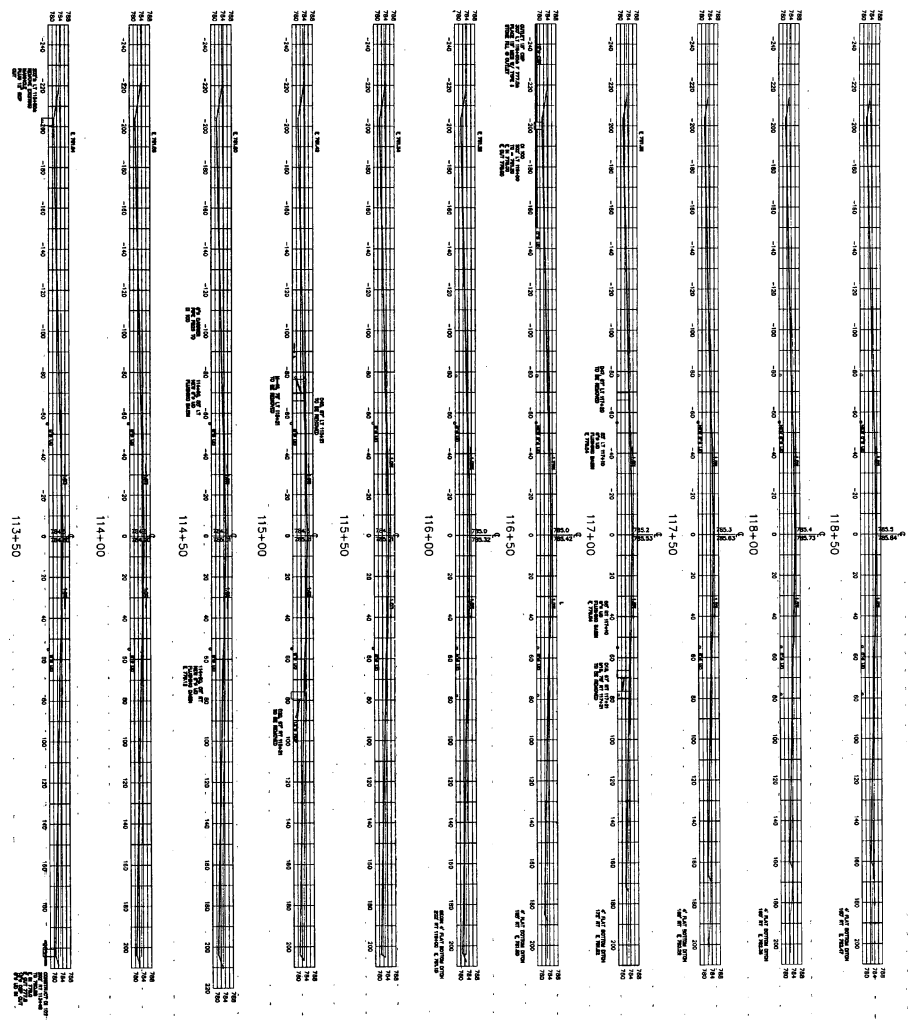
URS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

Designed by:	5/8/97
Drawn by:	5/8/97
Checked by:	5/8/97
Approved by:	5/8/97
Scale:	NOL - 1" = 4'
Sheet No.	48 OF 65
Sheet No.	45



URS Greiner, Inc. 3 MARCUS BOULEVARD ALBANY, NEW YORK		RUTLAND STATE AIRPORT CLARENDON, VERMONT RUNWAY CROSS SECTIONS		
Drawn by: C. J. Greiner 1/2/71	Checked by: S. J. Greiner 5/2/71	REV. DATE 1 1/2/71	DESCRIPTION Runway Cross Sections	
Date: 1/2/71	Scale: 1" = 100'	Job No.: 417-001-11	File No.: 417-001-11	
Sheet: 1 of 1	Total: 1 of 1	Author: C. J. Greiner	Engineer: S. J. Greiner	





ALP 3-50-003-11

URS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

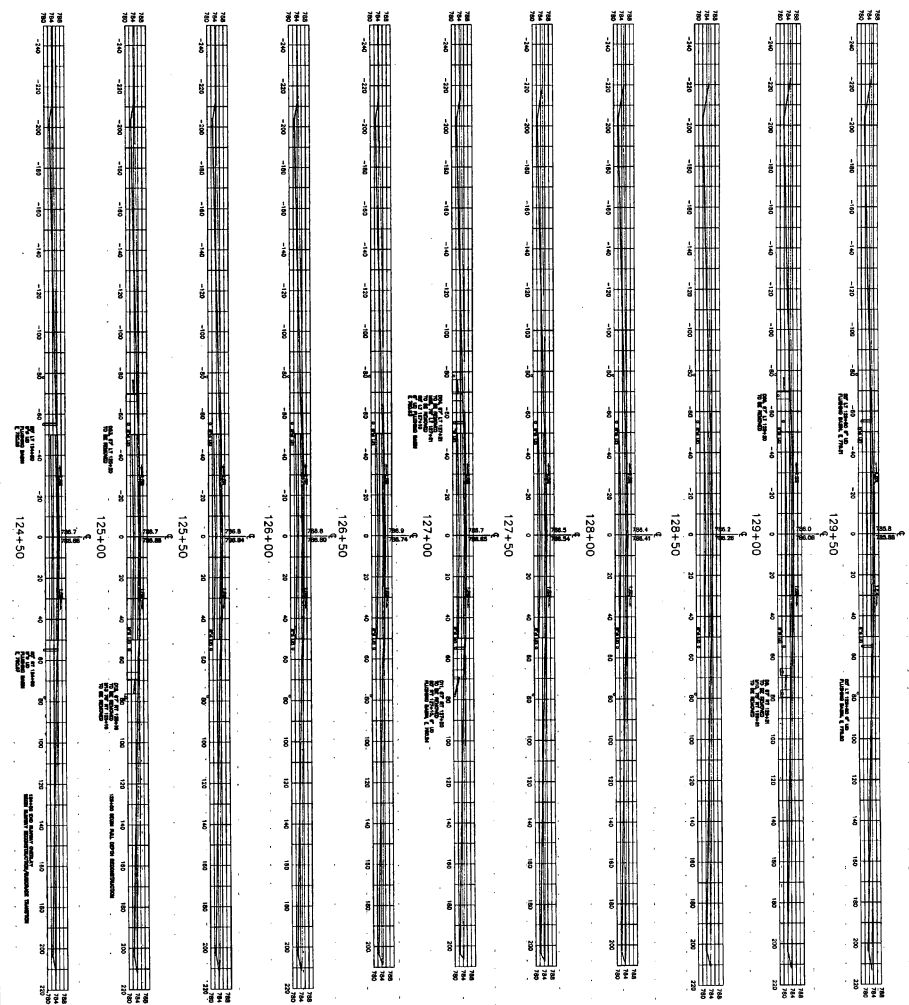
RUTLAND STATE AIRPORT
CLARENDON, VERMONT

RUNWAY CROSS SECTIONS

REV.	DATE	DESCRIPTION

Designed by: **URS**
Reviewed by: **URS**
Checked by: **URS**
Approved by: **URS**

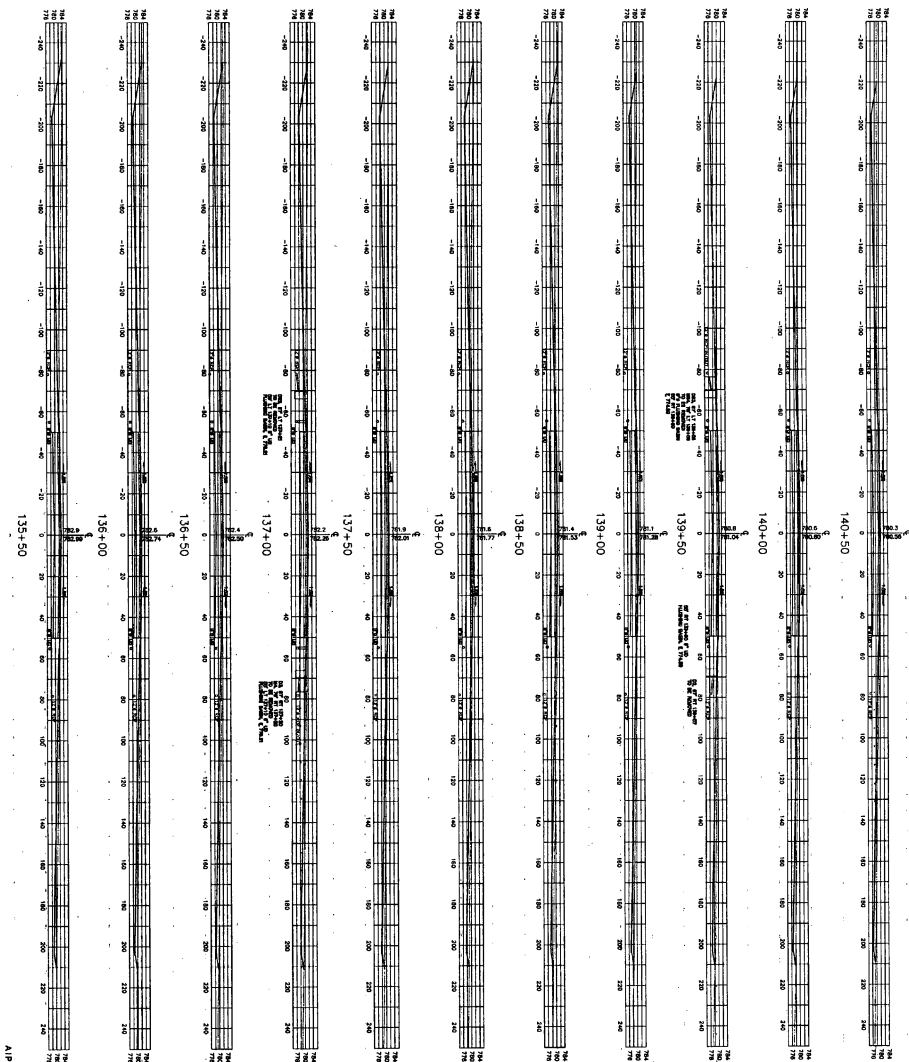
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A.P. 3-50-015-11

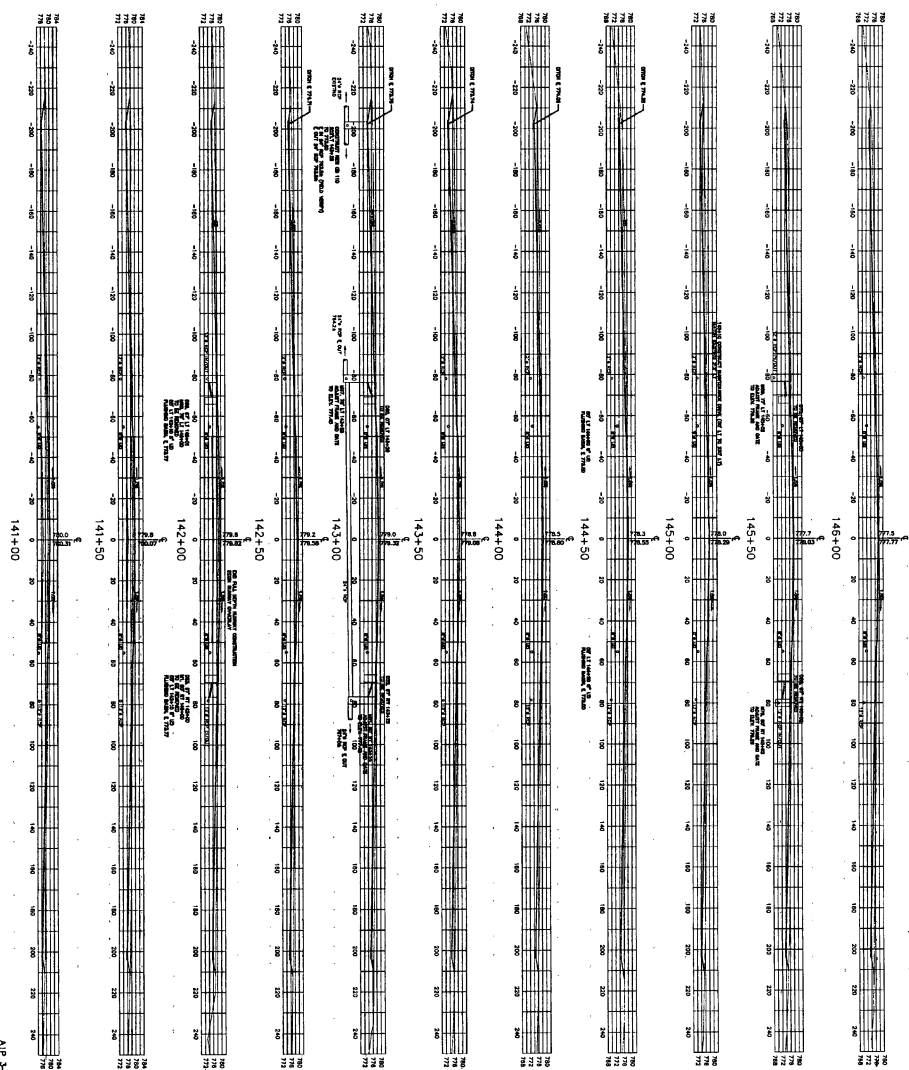
UPS Greiner, Inc. 3 MARCUS BOULEVARD ALBANY, NEW YORK		RUTLAND STATE AIRPORT CLARENDON, VERMONT RUNWAY CROSS SECTIONS		
Designed by J. J. Greiner 3/2/07	Drawn by J. J. Greiner 3/2/07	REV. DATE 1 11/07	DESCRIPTION Runway Cross Sections	
Checked by J. J. Greiner 3/2/07	Approved by J. J. Greiner 3/2/07	Job No. 11111	Title No. 11111	
Scale 1" = 100'	Date 3/2/07	Sheet 1 of 10	Total 10	

52



ALP 3-00-0015-11

88 3-00-0015-11	Designed by: URS Greiner, Inc. 3 MARCUS BOULEVARD ALBANY, NEW YORK	RUTLAND STATE AIRPORT CLARENDON, VERMONT RUNWAY CROSS SECTIONS	REV. DATE DESCRIPTION 1 1/1/01 1/1/01 2 1/1/01 1/1/01	Job No. 00000000-00 File No. 00000000-00
	Checked by: URS Greiner, Inc. 3 MARCUS BOULEVARD ALBANY, NEW YORK	1/1/01	1/1/01	1/1/01
	Approved by: URS Greiner, Inc. 3 MARCUS BOULEVARD ALBANY, NEW YORK	1/1/01	1/1/01	1/1/01
	1/1/01	1/1/01	1/1/01	



Sheet No. 34	Designed by C. E. HARRIS	Date 5/8/87
	Drawn by M. HARRIS	Date 5/8/87
	Checked by C. E. HARRIS	Date 5/8/87
	Approved by C. E. HARRIS	Date 5/8/87

URS Greiner, Inc.
 3 MARCUS BOULEVARD
 ALBANY, NEW YORK

RUTLAND STATE AIRPORT
 CLARENDON, VERMONT

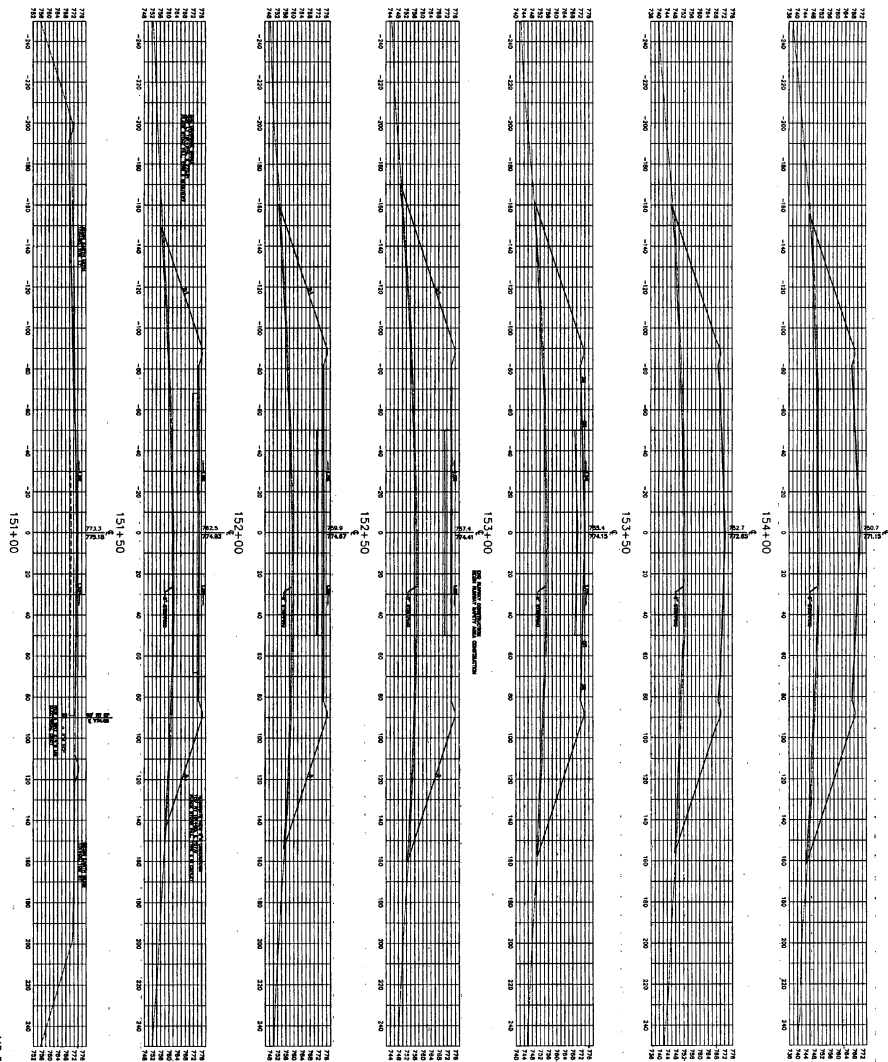
RUNWAY CROSS SECTIONS

REV.	DATE	DESCRIPTION

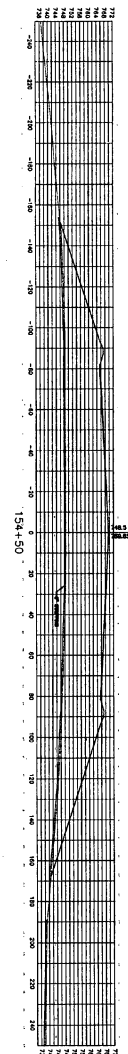
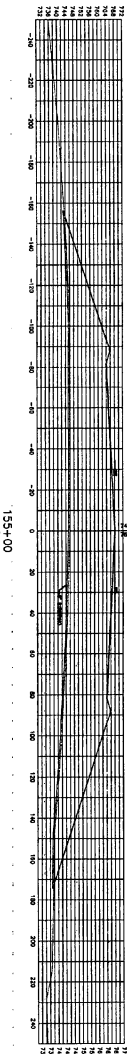
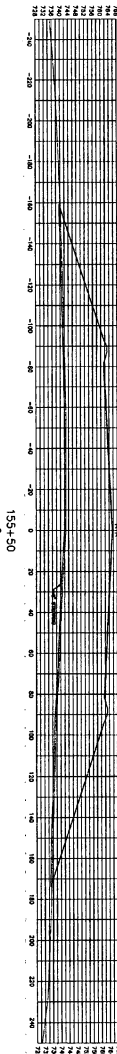
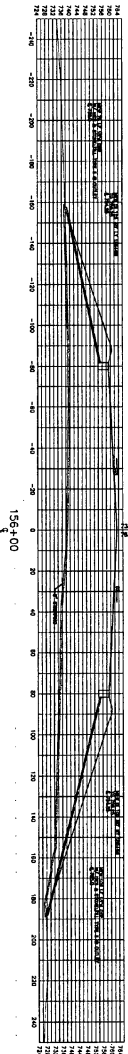
Job No. **900100**

File No. **900100/000-00**

A/P 3-50-015-11



38 SHEET NO.	Designed by: URS 2/2/00							
	Drawn by: W. M. M. M. 3/2/00							
	Checked by: W. M. M. M. 3/2/00							
	Approved by: W. M. M. M. 3/2/00							
URS Corporation, Inc. 3 MARCUS BOULEVARD ALBANY, NEW YORK								
RUTLAND STATE AIRPORT CLARENDON, VERMONT								
RUNWAY CROSS SECTIONS								
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REV.	DATE	DESCRIPTION						



REV.	DATE	DESCRIPTION

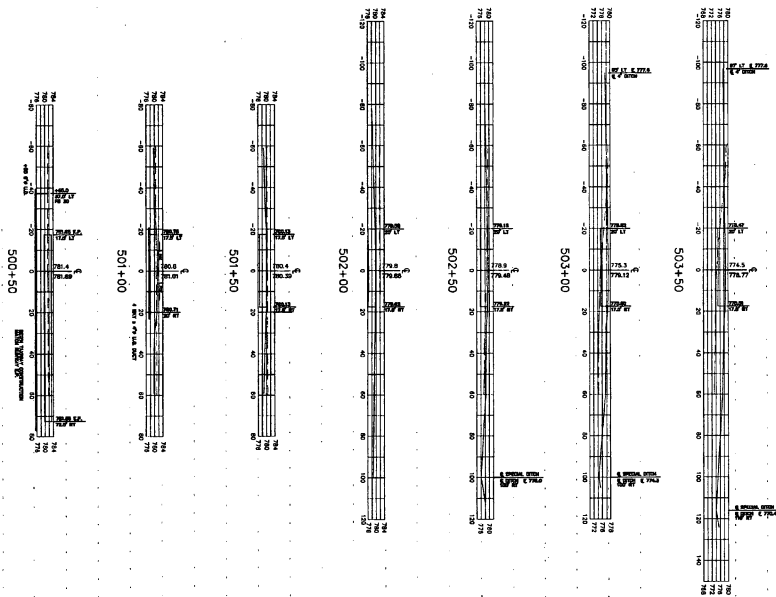
RUTLAND STATE AIRPORT
CLARENDON, VERMONT

RUNWAY CROSS SECTIONS

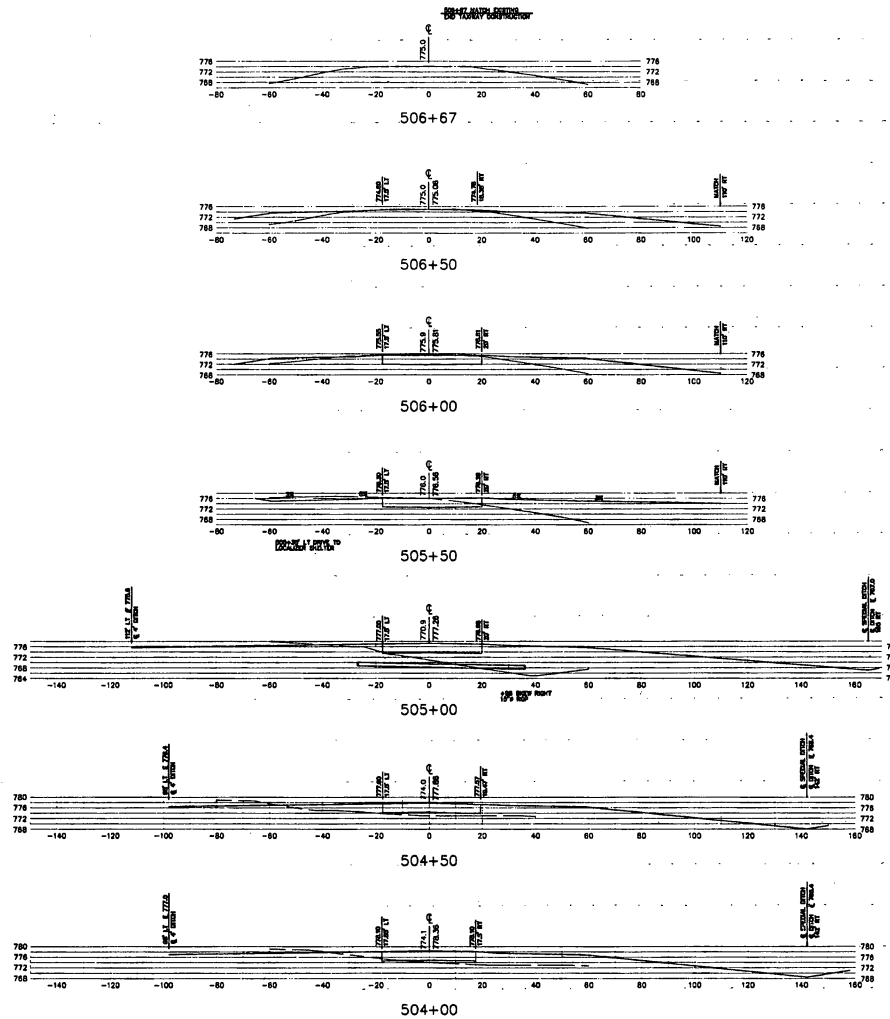
URS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

Designed by: Date: 2/97
 Drawn by: M. W. G. 2/97
 Checked by: M. W. G. 2/97
 Approved by: M. W. G. 2/97

Sheet No. 57



88 SHEET NO. TOTAL NO. OF SHEETS DATE DRAWN BY CHECKED BY APPROVED BY	DESIGNED BY: B.M. 6/1/65	URS Greiner, Inc. 3 MARCUS BOULEVARD ALBANY, NEW YORK	RUTLAND STATE AIRPORT CLANDON, VERMONT		
	DRAWN BY: B.M. 6/1/65		TAXIWAY CROSS SECTIONS		
	CHECKED BY: B.M. 6/1/65		REV. DATE DESCRIPTION		
	APPROVED BY: B.M. 6/1/65		JOB NO. 1000000000 FILE NO. 1000000000		



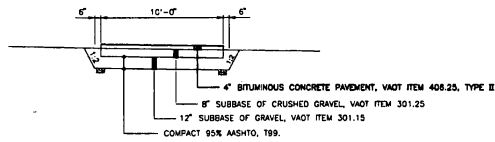
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RUTLAND STATE AIRPORT
CLAREMONT, VERMONT

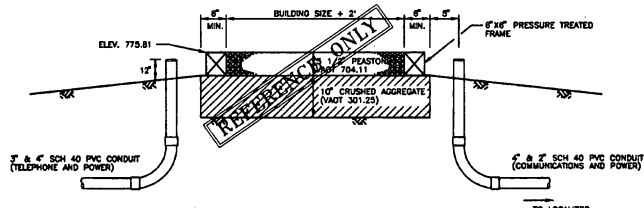
TAXIWAY CROSS SECTIONS

URS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

Designed by C. F. WARD	Drawn by M. BODOLLA	Checked by C. F. WARD	Approved by M. BODOLLA
Scale: HORIZ. - 1" = 20'			
Scale: VERT. - 1" = 20'			
Date: 8/8/97			
Sheet 38 Of 38			
Sheet No 59			

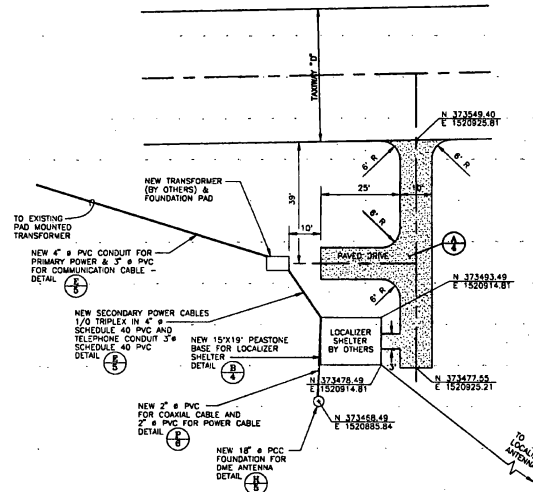


A GRAVEL DRIVE
SCALE: NONE



NOTE: PROVIDE 20' CABLE SLACK - EACH END OF ALL CABLES.
SEAL CONDUITS WITH APPROVED DUCT SEAL AFTER INSTALLATION
OF CABLES OR PULL WIRES.

B LOCALIZER SHELTER FOUNDATION
SCALE: NONE



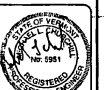
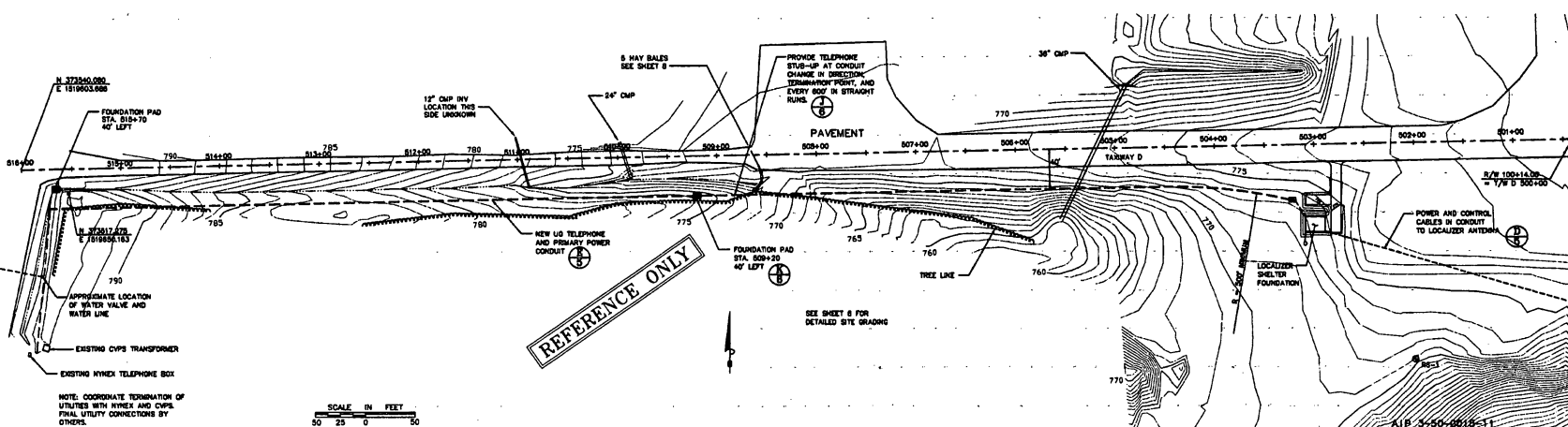
C SITE DETAIL - LOCALIZER SHELTER
SCALE: NONE

NOTES:

1. CONTRACTOR TO RELOCATE EXISTING LOCALIZER SHELTER ONTO EXISTING PEASTONE FOUNDATION IN ACCORDANCE WITH SPECIFICATION SECTION L-200.
2. CONTRACTOR TO MAKE FINAL ELECTRICAL CONNECTIONS AT TRANSFORMER TO SECONDARY POWER CABLES, FROM SECONDARY POWER CABLES TO THE POWER PANEL INSIDE THE LOCALIZER SHELTER, AND FROM THE POWER PANEL TO THE LOCALIZER ANTENNA ARRAY.
3. CONTRACTOR TO MAKE FINAL COMMUNICATIONS (TELEPHONE) CONNECTIONS FROM TELEPHONE CABINET ADJACENT TO LOCALIZER SHELTER TO THE CONTROL INTERFACE BOX MOUNTED ON EXTERIOR OF BUILDING.
4. FAA TO MAKE ALL COAXIAL CABLE CONNECTIONS.
5. CONTRACTOR TO EXTEND SHELTER DRIVEWAY AS SHOWN ON SHEET 14. CONTRACTOR TO PAVE SHELTER DRIVEWAY.

NOTES:

1. SITE PREPARATION: EXCAVATE TOPSOIL TO GOOD BEARING SOIL. COMPACT SUBGRADE, AND CRUSHED AGGREGATE TO 85%.
2. PEASTONE LAYER TO BE LEVEL.
3. SHELTER RELOCATION BY OTHERS.
4. SEE DETAIL (C) FOR BUILDING GROUNDING DETAILS.



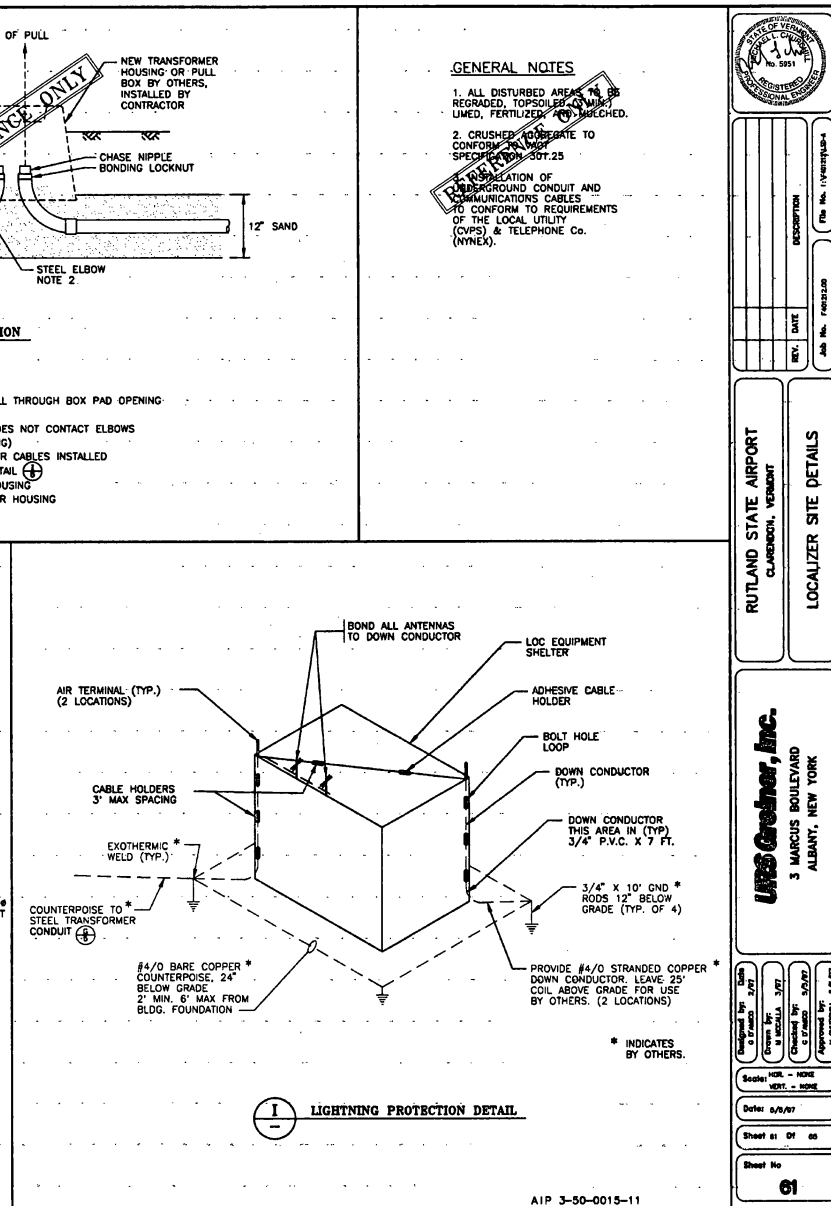
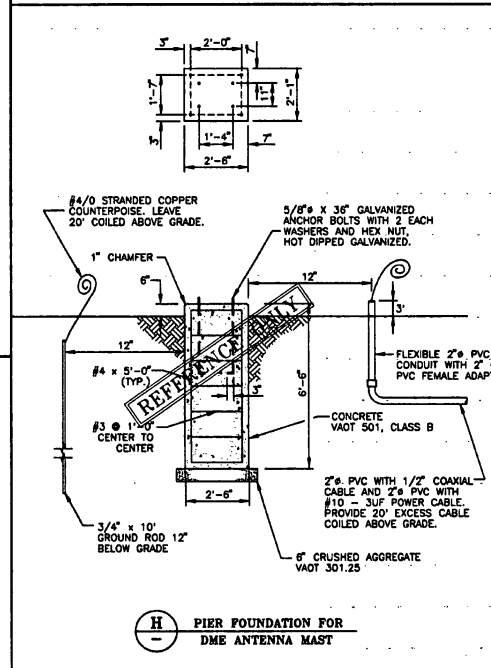
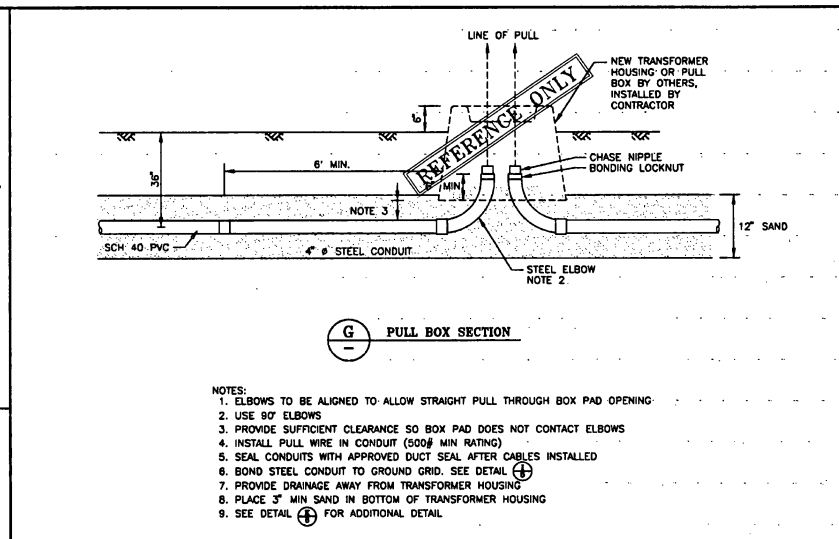
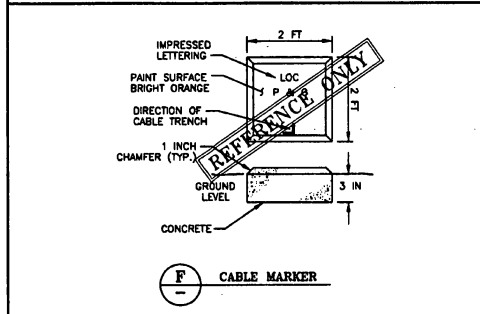
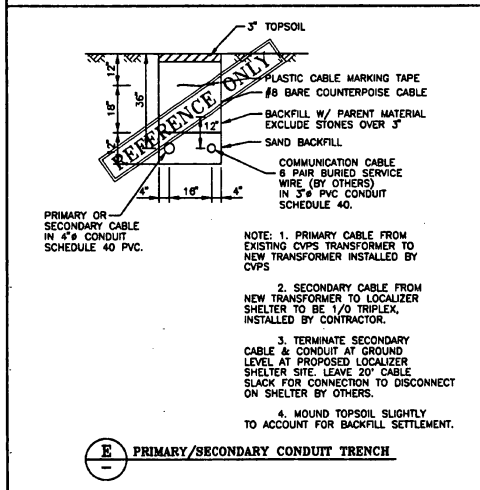
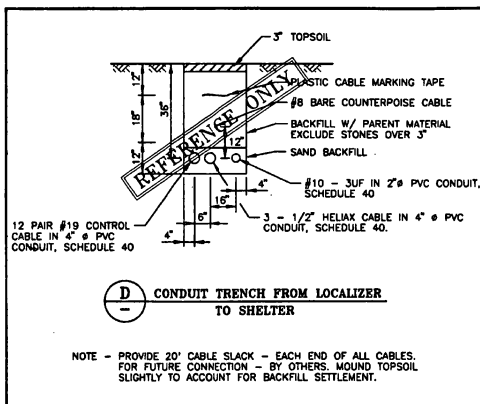
REV.	DATE	DESCRIPTION	FILE NO.

RUTLAND STATE AIRPORT
CLAREMONT, VERMONT

LOCALIZER RELOCATION - SITE PLAN

LWS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

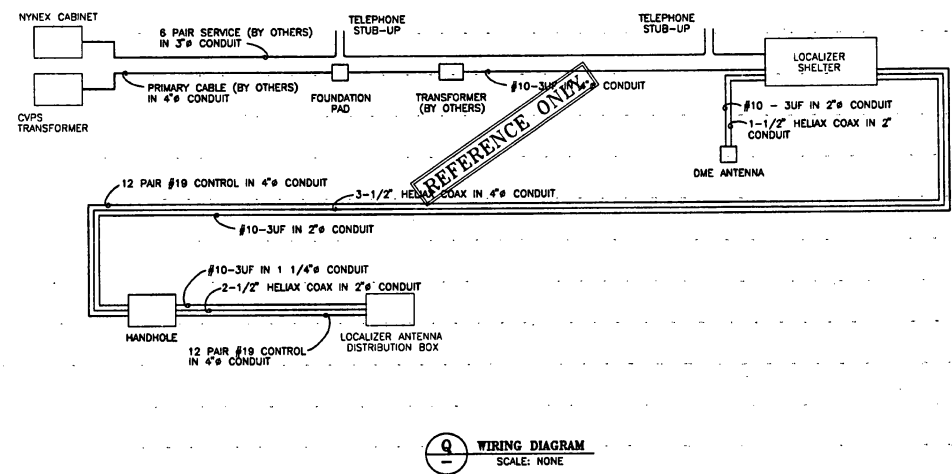
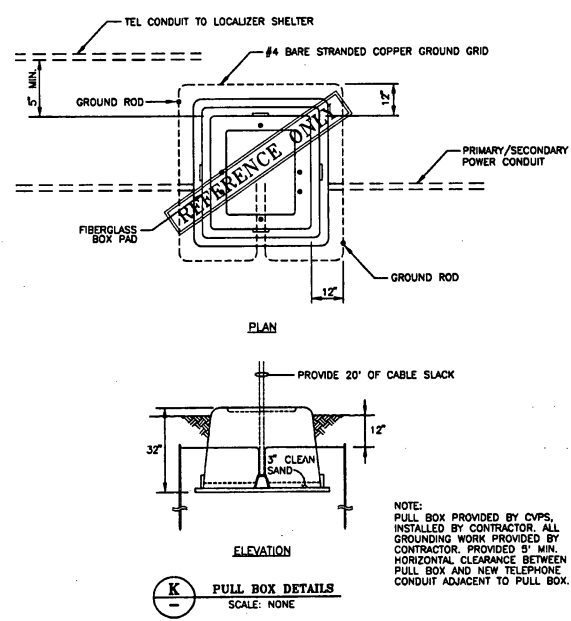
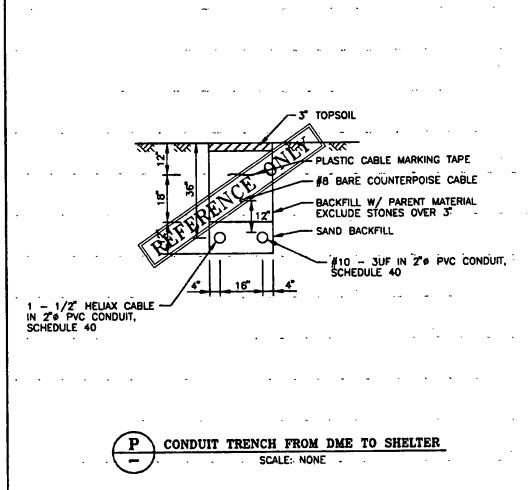
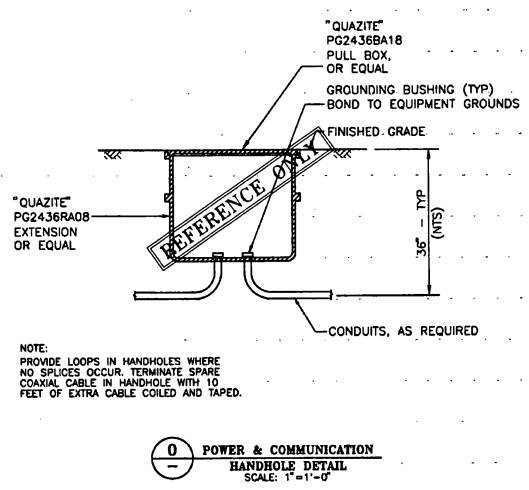
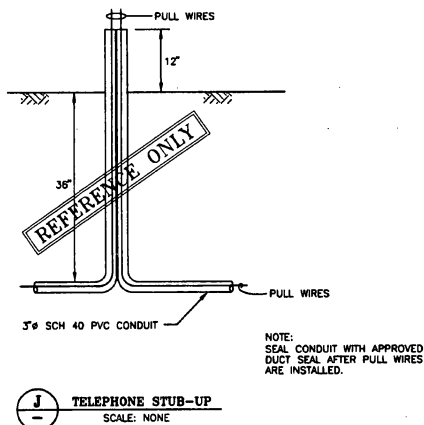
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Scale:	HORIZ. - 1" = 80'	VERT. - NONE	
Date:	6/9/87		
Sheet no. of 66			
Sheet No.	60		



GENERAL NOTES

1. ALL DISTURBED AREAS TO BE REGRADED, TOPSOILED, SEED, MULCHED, LIMED, FERTILIZED, ETC. BY OTHERS.
2. CRUSHED AGGREGATE TO CONFORM TO SPECIFICATION 307.25.
3. INSTALLATION OF UNDERGROUND CONDUIT AND COMMUNICATIONS CABLES TO CONFORM TO REQUIREMENTS OF THE LOCAL UTILITY (CVPIS) & TELEPHONE Co. (NYNEX).

PROJECT NO.	17-0000000-00
DATE	REV.
DESCRIPTION	
RUTLAND STATE AIRPORT CLARENDON, VERMONT	
LOCALIZER SITE DETAILS	
URS Greiner, Inc. 3 MARCUS BOULEVARD ALBANY, NEW YORK	
Checked by: [Signature] Date: 3/1/07	Drawn by: [Signature] Date: 3/1/07
Scale: [Blank] Date: 3/1/07	Sheet: 01 of 00 Sheet No: 01



DESCRIPTION	REV.	DATE	JOB NO. 11-00000000-4

RUTLAND STATE AIRPORT
CLAREMONT, VERMONT

LOCALIZER SITE DETAILS

URS Greiner, Inc.
3 MARCUS BOULEVARD
ALBANY, NEW YORK

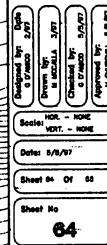
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Sheet 62 of 62					
Sheet No					

62

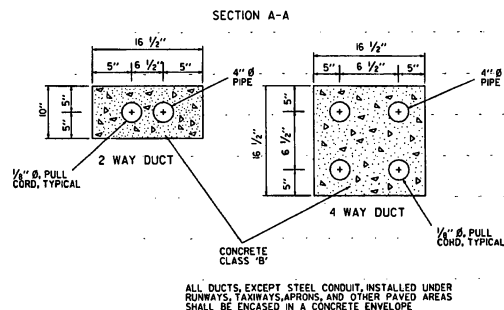
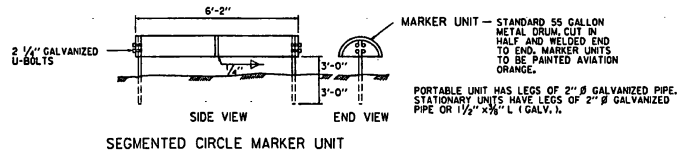
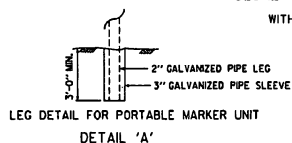
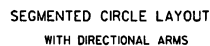
RECEIVING WATERS:
MILL RIVER, OTTERCREEK

- [illegible]

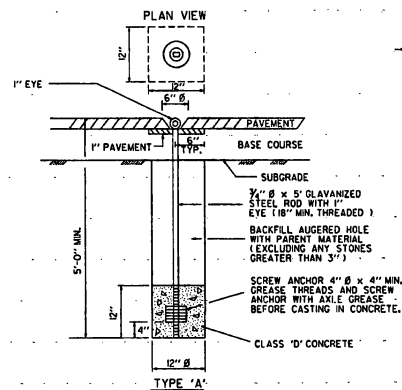
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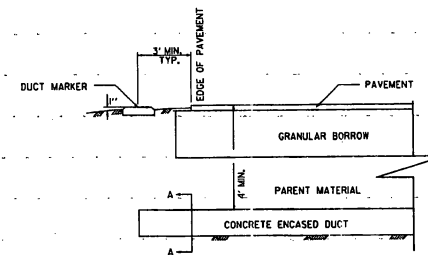
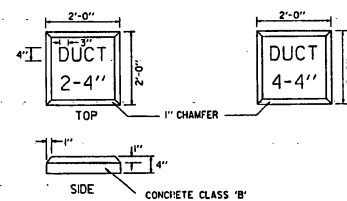
1. THE LOCATION OF THE PORTABLE MARKER UNIT SHALL BE AS ORDERED BY THE ENGINEER.
2. DIRECTIONAL ARMS ARE INSTALLED ONLY ON AIRPORTS WITH A NON-STANDARD TRAFFIC PATTERN (RIGHT-HAND PATTERN). WHEN INSTALLED, DIRECTIONAL ARMS WILL BE MAGNETICALLY ORIENTED TO THE RUNWAY AND WILL SHOW TRAFFIC PATTERN ON EACH RUNWAY.



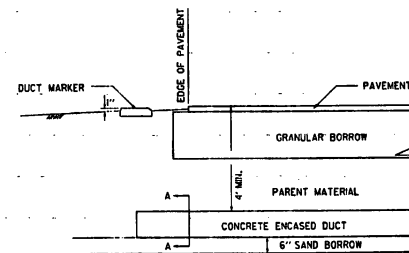
SEE STANDARD AP-2 FOR
DIRECT BURIAL CABLE DETAILS.



AIRCRAFT TIE DOWN ANCHOR

AIRPORT UNDERGROUND ELECTRICAL DUCT
(IN EARTH)

DUCT MARKERS



AIRPORT UNDERGROUND ELECTRICAL DUCT
(IN ROCK)

- NOTES
1. LETTERING ON DUCT MARKERS TO BE EMBOSSED, 'V' CUT, 1/2 " DEEP.
 2. HAND LETTERING NOT ALLOWED.

REVISIONS AND CORRECTIONS

DEC. 15, 1981 - ORIGINAL APPROVAL DATE
MAR. 5, 1990 - SHEET UPDATED
JUNE 1, 1994 - REISSUED, WITHOUT CHANGE,
UNDER NEW SIGNATURES.

APPROVED

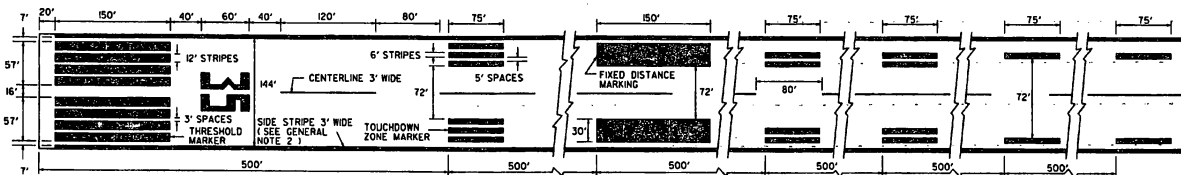
APPROVED FOR THIS PROJECT
AND/OR DESIGN IMPLEMENTATION
FHWA FINAL APPROVAL PENDING.

W. S. Simpson
DIRECTOR OF RAIL, AIR AND PUBLIC TRANSIT

MISCELLANEOUS AIRPORT DETAILS

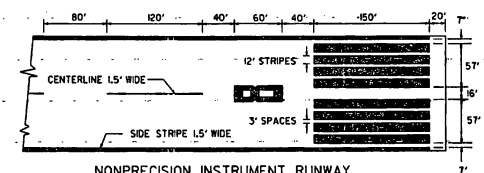


STANDARD
AP-3



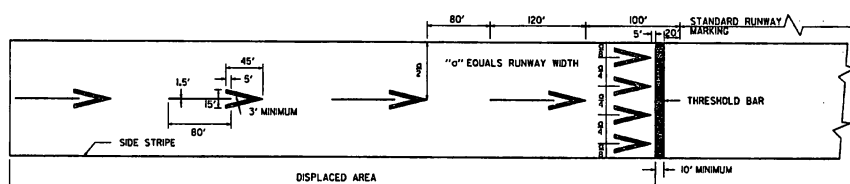
PRECISION INSTRUMENT RUNWAY

NOT TO SCALE



NONPRECISION INSTRUMENT RUNWAY

NOT TO SCALE

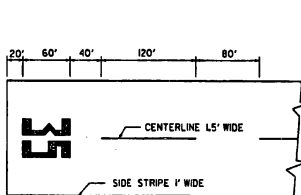


DISPLACED THRESHOLD MARKINGS

NOT TO SCALE

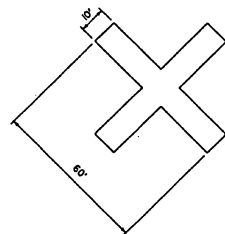
NOTES

1. FOUR ARROWHEADS ARE PLACED SYMMETRICALLY ACROSS RUNWAY WITH UNIFORM LATERAL SPACING AS INDICATED.
2. ALL MARKINGS IN THE DISPLACED AREA ARE YELLOW EXCEPT THE THRESHOLD BAR WHICH IS WHITE.
3. RUNWAY SIDE STRIPES, WHEN USED ON THE RUNWAY, EXTEND INTO THE DISPLACED AREA.



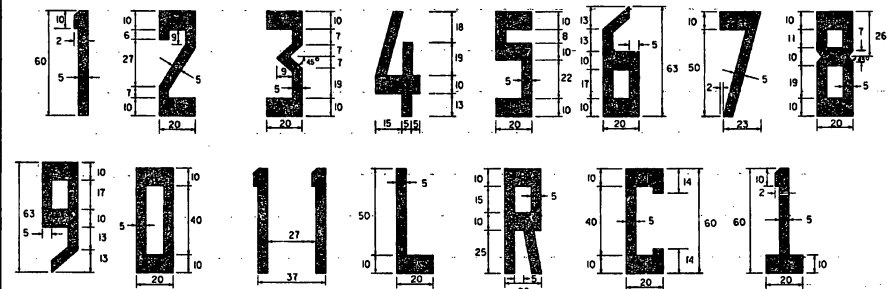
VISUAL RUNWAY

NOT TO SCALE



TEMPORARY
CLOSED RUNWAY MARKER

- TEMPORARY
CLOSED RUNWAY MARKER NOTES :
1. MARKERS TO BE YELLOW PLYWOOD OR SNOW FENCE.
 2. MARKERS TO BE SUBSIDIARY TO OTHER PAY ITEMS.
 3. MARKERS TO BE PLACED OVER RUNWAY NUMERALS OR OFF THE RUNWAY ENDS AS APPLICABLE.
 4. MARKERS TO BE ANCHORED TO THE SATISFACTION OF THE ENGINEER.



RUNWAY NUMERALS AND LETTERS

NOTES

1. ALL LETTERS AND NUMERALS, EXCEPT THE NUMBER ELEVEN AS SHOWN, ARE HORIZONTALLY SPACED 15 FEET APART.
2. DIMENSIONS ARE EXPRESSED IN FEET.
3. THE NUMERAL ONE, WHEN USED ALONE, CONTAINS A HORIZONTAL BAR TO DIFFERENTIATE IT FROM THE RUNWAY CENTERLINE MARKING.

GENERAL NOTES

1. ALL RUNWAY MARKINGS ARE WHITE EXCEPT IN THE DISPLACED THRESHOLD AREA AND NON FULL STRENGTH SHOULDER MARKINGS.
2. FOR RUNWAYS LESS THAN 150' IN WIDTH, THE WIDTH OF THE MARKINGS, SPACES BETWEEN MARKINGS, AND DISTANCE OF MARKINGS FROM THE RUNWAY EDGE ARE CHANGED PROPORTIONALLY.
3. ADJUSTMENTS TO THE LENGTH OF THE CENTERLINE STRIPES AND GAPS, WHERE NECESSARY TO ACCOMMODATE THE RUNWAY LENGTH, ARE MADE NEAR THE RUNWAY MIDPOINT.
4. ALL RUNWAY MARKINGS ARE TO BE STRIATED WITH ALL STRIPES AND SPACES EQUAL IN WIDTH (4" TO 6").

NOTE :
MARKING OF RUNWAY SHOULD BE
BASED ON FAA SPECIFICATIONS.
SEE CURRENT FAA ADVISORY CIRCULAR.

REVISIONS AND CORRECTIONS

JUNE 29, 1982 - ORIGINAL APPROVAL DATE
MAR. 5, 1990 - SHEET UPDATED
JUNE 1, 1994 - RE-ISSUED, WITHOUT CHANGE,
UNDER NEW SIGNATURE.

APPROVED

APPROVED FOR THIS PROJECT
AND/OR DESIGN IMPLEMENTATION
THRU FINAL APPROVAL FOLDING.

DIRECTOR OF RAIL, AIR AND PUBLIC TRANSIT

RUNWAY MARKING DETAILS



STANDARD
AP-10

MAR. 1, 1990 - SHEET UPDATED
JUNE 1, 1994 - REISSUED, WITHOUT CHANGE,
UNDER NEW SIGNATURE.

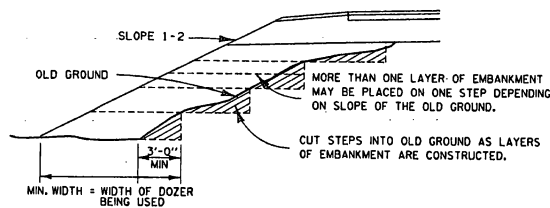
APPROVED FOR THIS PROJECT
AND/OR DESIGN IMPLEMENTATION.
FHWA FINAL APPROVAL PENDING.

1083
DIRECTOR OF RAIL, AIR AND PUBLIC TRANSIT

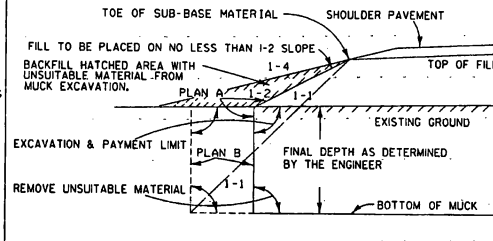
TAXIWAY AND APRON MARKING DETAILS



STANDARD
AP-11

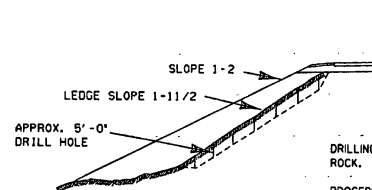


METHOD FOR CONSTRUCTING AN EMBANKMENT
ON EARTH SLOPE



GENERAL NOTES:
THE MUCK OR UNSUITABLE MATERIAL SHALL BE EXCAVATED TO THE NEAT LINES SHOWN ON THE PLANS OR AS DETERMINED BY THE ENGINEER.
EXCAVATION AND PAYMENT LIMIT WILL BE DETERMINED FROM EITHER PLAN "A" OR PLAN "B", WHICHEVER PRODUCES THE GREATER WIDTH IN A GIVEN MUCK AREA.
BACKFILL MATERIAL MUST MEET THE REQUIREMENTS SET FORTH UNDER MUCK EXCAVATION, SECTION 203

TYPICAL NEAT PAY LINES FOR
MUCK EXCAVATION

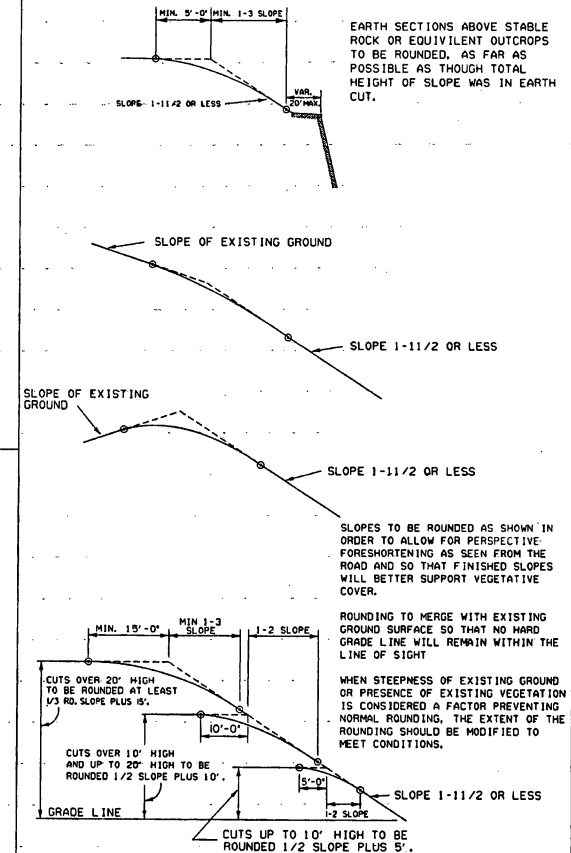


DRILLING AND BLASTING OF SOLID ROCK.

PROCEDURE TO BE FOLLOWED WHEN LEDGE SLOPE ON OLD GROUND IS BETWEEN A 1-1 AND A 1-5 SLOPE.

ALL HOLES TO BE APPROXIMATELY 5'-0" DEEP, HOLES TO BE IN ROWS, SPACED AND STAGGERED AS SHOWN IN DRILL PATTERN, OR AS DIRECTED BY THE ENGINEER, SEE SECTION 205

A METHOD FOR PREPARING LEDGE SLOPE
BEFORE CONSTRUCTING AN EMBANKMENT



TYPICAL SLOPE ROUNDDING

REVISIONS AND CORRECTIONS

DEC. 6, 1971 - ORIGINAL APPROVAL DATE
JUNE 1, 1994 - REISSUED, WITHOUT CHANGE,
UNDER NEW SIGNATURES.

APPROVED

APPROVED FOR THIS PROJECT
(AND/OR DESIGN IMPLEMENTATION,
PRIOR FINAL APPROVAL, PENDING.)

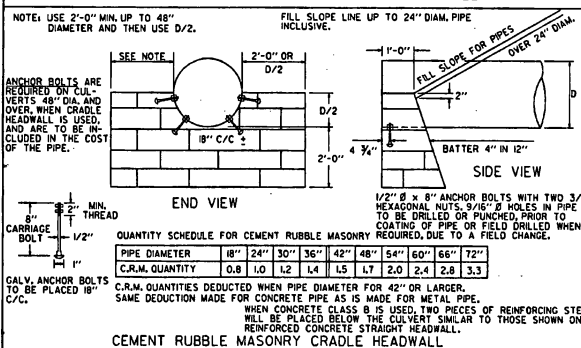
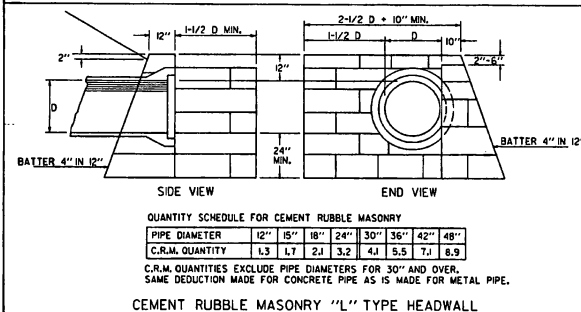
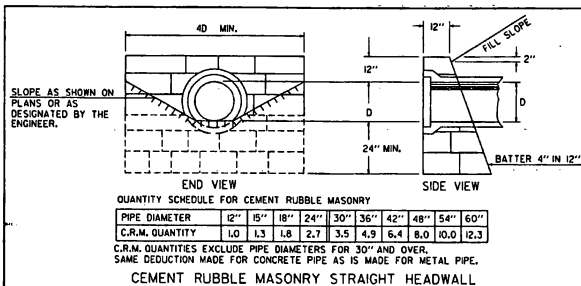
Stephen D. McArthur, P.E.
DIRECTOR OF ENGINEERING

John D. Murphy, P.E.
DESIGN ENGINEER

EMBANKMENT ON EARTH SLOPE
EMBANKMENT ON ROCK SLOPE
MUCK EXCAVATION
TYPICAL SLOPE ROUNDDING



STANDARD
B-5



REVISIONS AND CORRECTIONS

DEC. 6, 1971 - ORIGINAL APPROVAL DATE

MAR. 8, 1972 - CHANGED ANCHOR BOLTS FROM 10" L TO 8" CARRIAGE

DEC. 16, 1976 - NOTE ADDED ON REINFORCING STEEL FOR CRADLE HEADWALLS

OCT. 30, 1985 - REVISED TO CONFORM TO 1986 SPECIFICATIONS

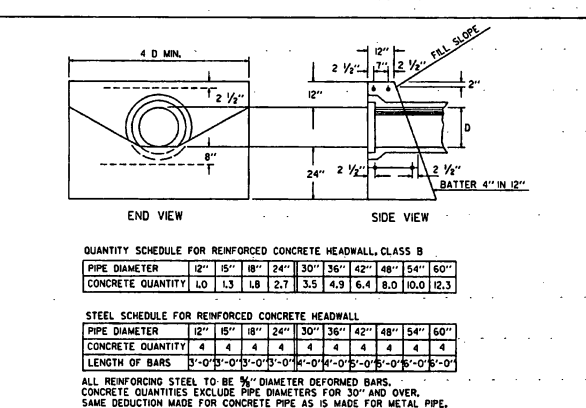
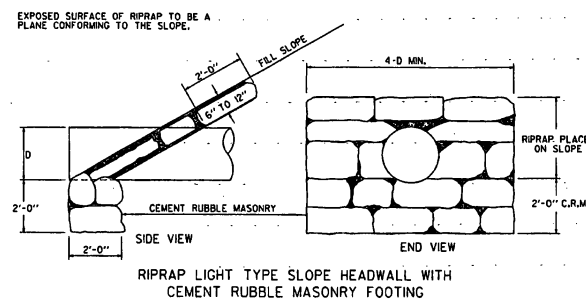
JUNE 1, 1994 - REISSUED WITHOUT CHANGE, UNDER NEW SIGNATURES.

APPROVED

APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION, PERVA FINAL APPROVAL PENDING.

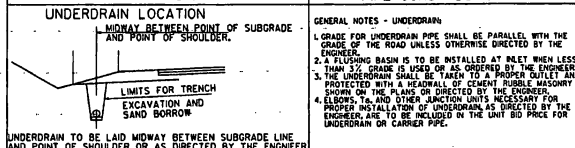
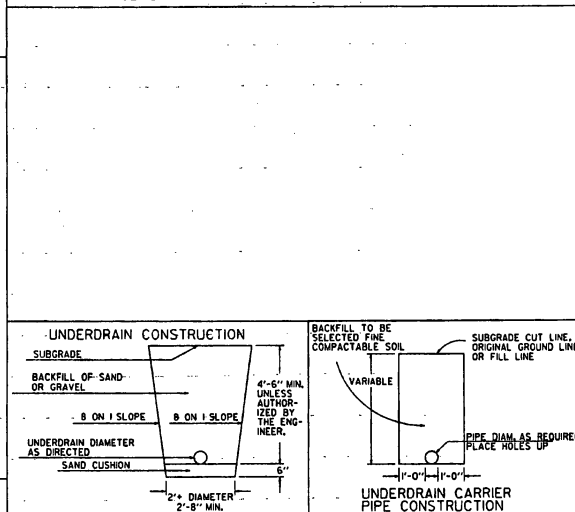
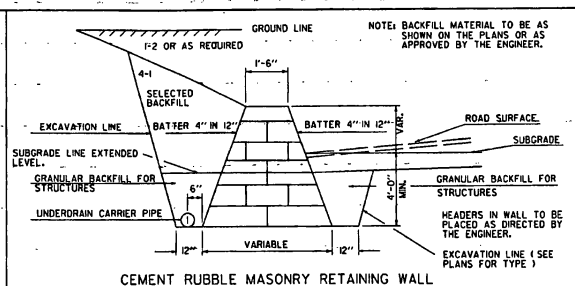
Steve D. McArthur, Jr.
DIRECTOR OF ENGINEERING

John D. Murphy, Jr.
DESIGN ENGINEER



GENERAL NOTES - HEADWALLS:

1. THE HEIGHT OF HEADWALLS ON DRIVEWAY PIPES IS TO BE REDUCED TO 6" ABOVE THE TOP OF PIPE.
2. BELL AND SPOUT PIPE IS TO BE LAID WITH THE BELL UPSTREAM.
3. HEADWALL QUANTITIES, FOR THE SAME TYPE HEADWALLS ON PIPES OF EQUAL DIAMETER, ARE THE SAME FOR BOTH CONCRETE AND METAL PIPE. LENGTH OF HEADWALLS ARE BASED ON INSIDE DIAMETER OF PIPES.
4. THE NECESSITY OF CONSTRUCTING A FLOOR AT THE ENTRANCE TO AN L TYPE HEADWALL SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER AND ANY INSTALLATION THEREOF SHALL BE AT HIS DIRECTION.

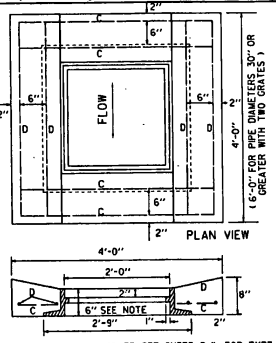


CEMENT RUBBLE MASONRY HEADWALLS & RETAINING WALL RIPRAP LIGHT TYPE SLOPE HEADWALL REINFORCED CONCRETE HEADWALL UNDERDRAIN & CARRIER PIPE CONSTRUCTION DETAILS

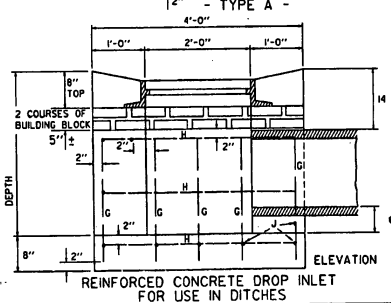
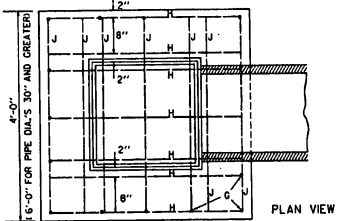


STANDARD

D - 2



NOTE: FRAME SHOWN IS FOR TYPE A GRATE, SEE SHEET D-11. FOR TYPE B GRATE AND FRAME, SEE SHEET D-16 (EXCEPT THE FRAME DEPTH DIMENSION SHALL BE 6" I. TOP FOR REINFORCED CONCRETE DROP INLET WITH GRATE FOR USE IN DITCHES)



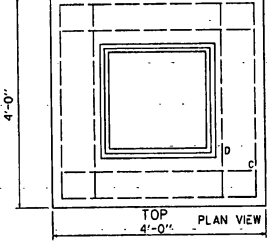
REINFORCED CONCRETE DROP INLET FOR USE IN DITCHES

STEEL SCHEDULE											
4'x4' DROP INLET TYPE A						4'x6' DROP INLET WITH TWO GRATES TYPE B					
DEPTH	C	LENGTH	H	LENGTH	D	DEPTH	C	LENGTH	H	LENGTH	D
3'-0"	15	2'-0"	22	3'-0"	8	3'-0"	17	3'-0"	22	3'-0"	8
4'-0"	15	2'-0"	22	3'-0"	8	4'-0"	17	3'-0"	22	3'-0"	8
5'-0"	15	2'-0"	22	3'-0"	8	5'-0"	17	3'-0"	22	3'-0"	8
6'-0"	15	2'-0"	22	3'-0"	8	6'-0"	17	3'-0"	22	3'-0"	8
7'-0"	15	2'-0"	22	3'-0"	8	7'-0"	17	3'-0"	22	3'-0"	8
8'-0"	15	2'-0"	22	3'-0"	8	8'-0"	17	3'-0"	22	3'-0"	8

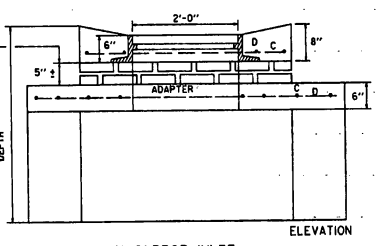
STEEL AND CONCRETE QUANTITIES											
4'x4' DROP INLET TYPE A						4'x6' DROP INLET WITH ONE GRATE TYPE C					
DEPTH	CONC.	STEEL	CONC.	STEEL	CONC.	DEPTH	CONC.	STEEL	CONC.	STEEL	CONC.
3'-0"	1.7	180	2.1	228	2.8	3'-0"	1.7	180	2.1	228	2.8
4'-0"	2.1	180	2.1	228	2.8	4'-0"	2.1	180	2.1	228	2.8
5'-0"	2.1	180	2.1	228	2.8	5'-0"	2.1	180	2.1	228	2.8
6'-0"	2.1	180	2.1	228	2.8	6'-0"	2.1	180	2.1	228	2.8
7'-0"	2.1	180	2.1	228	2.8	7'-0"	2.1	180	2.1	228	2.8
8'-0"	2.1	180	2.1	228	2.8	8'-0"	2.1	180	2.1	228	2.8

FOR 2nd 30" PIPE DEDUCT 0.18 C.Y. FOR 2nd 42" PIPE DEDUCT 0.36 C.Y. OR 0.18 FOR 1 PIPE FOR 2nd 48" PIPE DEDUCT 0.47 C.Y. OR 0.24 FOR 1 PIPE

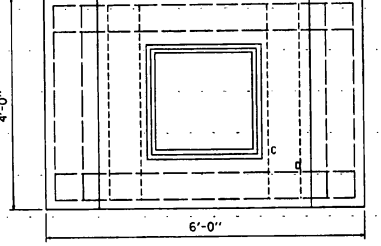
ALL REINFORCING STEEL TO BE NO. 5 DEFORMED BARS, EVENLY SPACED WITH A MAXIMUM SPACING OF 12" C/C. ALL STEEL TO HAVE 2 INCH MIN. COVER. DROP INLET TO BE CONSTRUCTED IN ACCORDANCE WITH STRUCTURAL CONCRETE, SECTION 501. GRATES TO CONFORM TO DROP INLETS, CATCH BASINS, AND MANHOLES, SECTION 604. FURNISHING AND LAYING OF BRICKS FOR ADJUSTING ELEVATION OF GRATE SHALL BE INCLUDED IN UNIT BID PRICE FOR CONCRETE, CLASS B, PAY ITEM 501.25, AND THEIR VOLUME TO BE INCLUDED IN THE FINAL QUANTITIES. MORTAR, TYPE II, TO BE USED AS JOINT FILLER AND LAYING OF BRICK. FOR PIPES OF 30" OR MORE IN DIAMETER, ALLOWANCE SHALL BE MADE FOR THE OPENING IN COMPUTING CONCRETE VOLUMES. THIS DEDUCTION WILL BE BASED ON THE RATED DIAMETER OF THE PIPE USED, WITH THE SAME DEDUCTION FOR CONCRETE AND METAL PIPE. ABOVE TABLES INDICATE DEDUCTION FOR ONE PIPE.



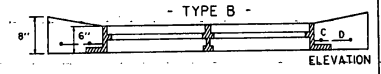
- TYPE D -



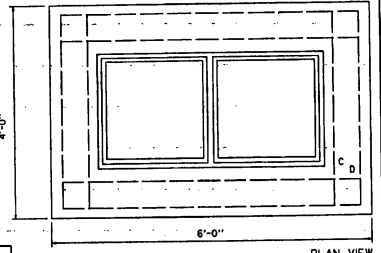
4'x6' DROP INLET WITH 4'x4' TOP TOP WITH ONE CAST IRON GRATE



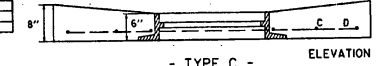
TOP AND ADAPTER PLAN VIEW



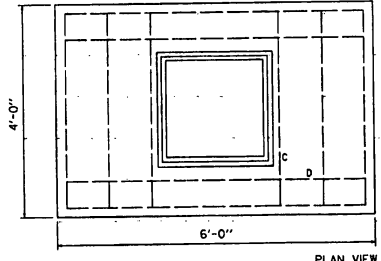
- TYPE B -



4'x6' DROP INLET TOP WITH TWO CAST IRON GRATES



- TYPE C -



4'x6' DROP INLET TOP WITH ONE CAST IRON GRATE

STEEL AND CONCRETE QUANTITIES											
4'x4' DROP INLET WITH ONE GRATE TYPE D						4'x6' DROP INLET WITH ONE GRATE WITH 4'x4' TOP TYPE E					
DEPTH	CONC.	STEEL	CONC.	STEEL	CONC.	DEPTH	CONC.	STEEL	CONC.	STEEL	CONC.
3'-0"	1.7	180	2.1	228	2.8	3'-0"	1.7	180	2.1	228	2.8
4'-0"	2.1	180	2.1	228	2.8	4'-0"	2.1	180	2.1	228	2.8
5'-0"	2.1	180	2.1	228	2.8	5'-0"	2.1	180	2.1	228	2.8
6'-0"	2.1	180	2.1	228	2.8	6'-0"	2.1	180	2.1	228	2.8
7'-0"	2.1	180	2.1	228	2.8	7'-0"	2.1	180	2.1	228	2.8
8'-0"	2.1	180	2.1	228	2.8	8'-0"	2.1	180	2.1	228	2.8

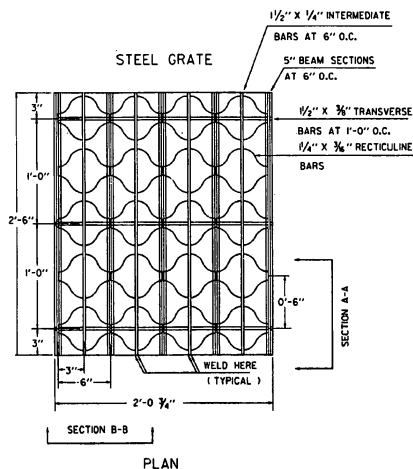
REVISIONS AND CORRECTIONS
APR. 4, 1973 - ORIGINAL APPROVAL
JUNE 1, 1994 - REISSUED, WITHOUT CHANGE, UNDER NEW SIGNATURES.

APPROVED
[Signature]
DIRECTOR OF ENGINEERING
[Signature]
DESIGN ENGINEER

REINFORCED CONCRETE DROP INLET WITH GRATE FOR USE IN DITCHES



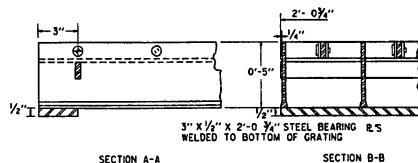
STANDARD
D-6



GRATE SIZE SINGLE 24 3/4" X 30"
DOUBLE 24 3/4" X 54"

WEIGHT 95 LBS OR MORE
GRATES SHALL BE CAPABLE OF SUPPORTING H-20 (32,000 LB.
AXLE LOAD) INCLUDING 30% IMPACT.

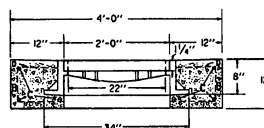
UNIT STRESSES (LBS PER SQ. IN.)	18,000	20,000
MAIN BAR PARALLEL TO TRAFFIC H-20	49"	53"
MAIN BAR PERPENDICULAR TO TRAFFIC H-20	39"	42"



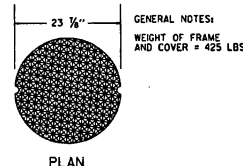
CAST IRON COVER WITH FRAME

BAR NO.	LENGTH
B 4	8" 3'-8" 8"
C 6	3'-8" STRAIGHT
D 4	3'-8" STRAIGHT

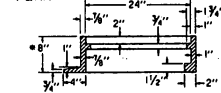
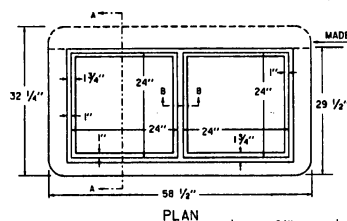
ALL REINFORCING STEEL TO BE NO. 5 DEFORMED BARS



ELEVATION



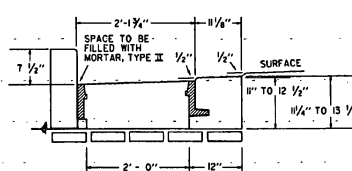
PLAN



SECTION A-A

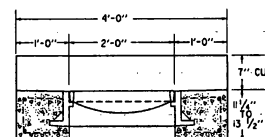
RECTANGULAR CAST IRON FRAME FOR TWO 24" SQUARE CAST IRON GRATES

CAST IRON GRATE WITH FRAME



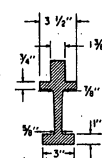
ELEVATION OF REINFORCED CONCRETE DROP INLET WITH VERTICAL GRANITE CURB AND 3 FLANGE CAST IRON FRAME FOR CAST IRON GRATE

SEE STANDARD D-9 FOR CONCRETE VOLUME, REINFORCING STEEL SCHEDULE, AND CURB JOINT DETAIL.

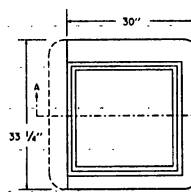


ELEVATION

WEIGHT OF 3 FLANGED FRAME AND GRATE
GRATE FRAME 220 LBS
FRAME 260 LBS
TOTAL 480 LBS



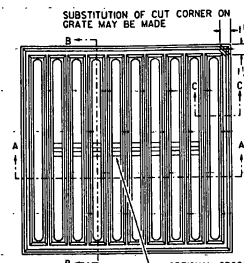
SECTION B-B



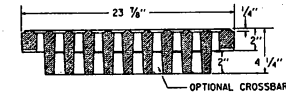
PLAN

SQUARE CAST IRON FRAME FOR CAST IRON GRATE TYPE A

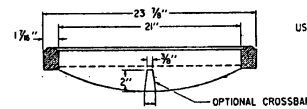
CAST IRON GRATE, TYPE A



PLAN



SECTION A-A



SECTION B-B

USE OF THE TYPE A GRATE IS PROHIBITED WHERE BICYCLE TRAFFIC IS EXPECTED

THIS FRAME TO BE PLACED IN DROP INLET TOP BEFORE CONCRETE IS POURED. 4 FLANGES UNLESS OTHERWISE INDICATED. FRAMES TO BE FURNISHED WITH 3 FLANGES WHEN USED IN CONJUNCTION WITH CURB OR AS DIRECTED BY THE ENGINEER.

REVISIONS AND CORRECTIONS

DEC. 6, 1971 - ORIGINAL APPROVAL
APR. 25, 1972 - CAST IRON COVER CHANGED FROM SQUARE TO CIRCULAR
SEPT. 4, 1980 - OPTIONAL CROSSBAR ADDED TO A GRATE; NOTE ADDED TO A GRATE FRAME DETAIL
AUG. 25, 1981 - NOTE ADDED RESTRICTING USE OF TYPE A GRATE
JUNE 1, 1994 - REISSUED, WITHOUT CHANGES, UNDER NEW SIGNATURES.

APPROVED

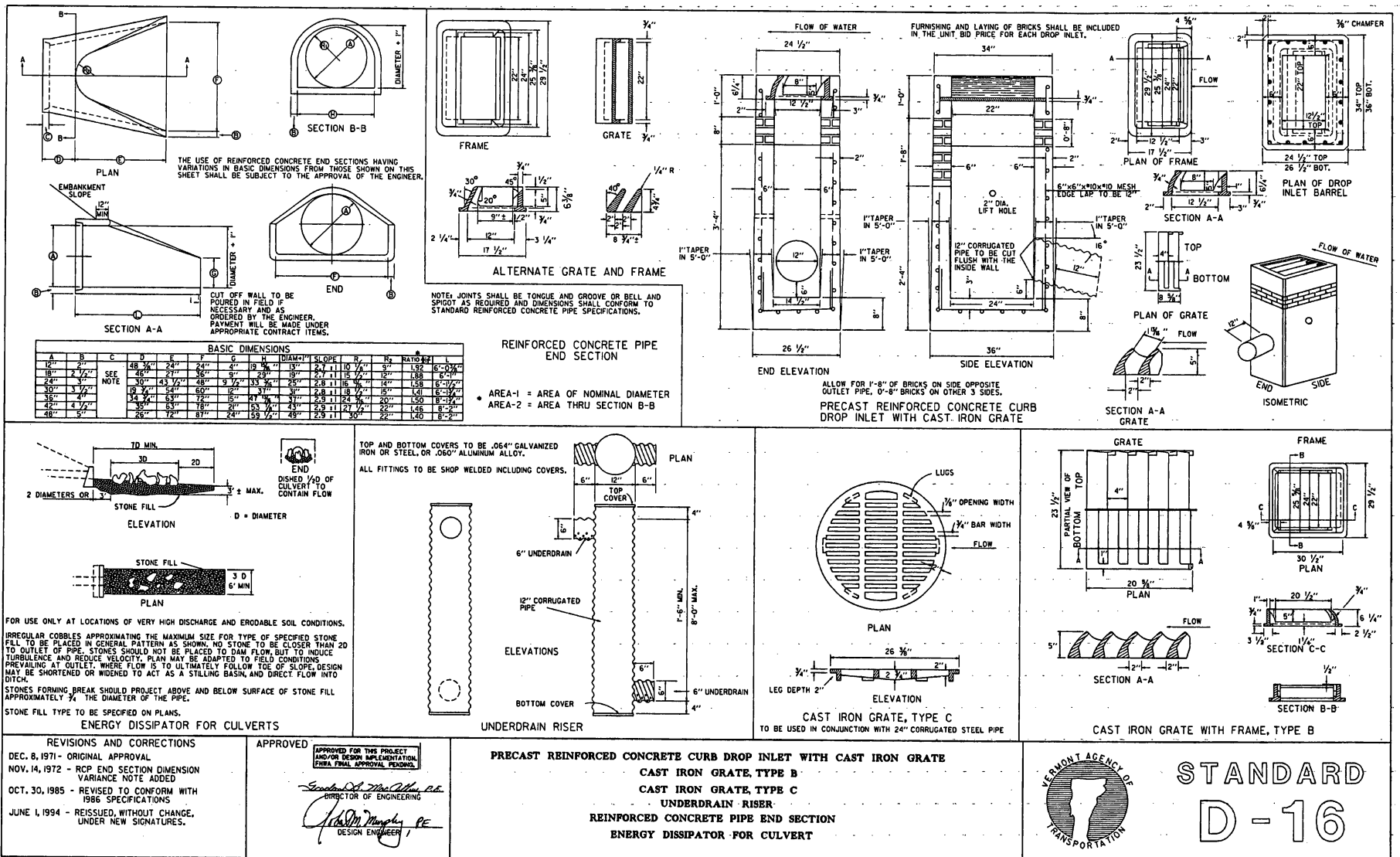
APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION FINAL APPROVAL PENDING.

John D. Murphy, PE
DIRECTOR OF ENGINEERING
DESIGN ENGINEER

STEEL GRATE
CAST IRON GRATE TYPE A
CAST IRON COVER



STANDARD
D-11



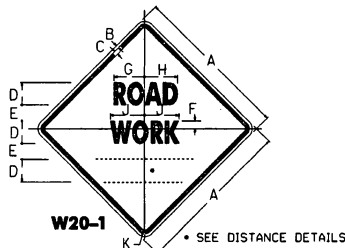
REVISIONS AND CORRECTIONS
DEC. 8, 1971 - ORIGINAL APPROVAL
NOV. 14, 1972 - RCP END SECTION DIMENSION VARIANCE NOTE ADDED
OCT. 30, 1985 - REVISED TO CONFORM WITH 1986 SPECIFICATIONS
JUNE 1, 1994 - REISSUED, WITHOUT CHANGE, UNDER NEW SIGNATURES.

APPROVED
APPROVED FOR THIS PROJECT
AND/OR DESIGN IMPLEMENTATION,
FINAL APPROVAL REQUIRED.
Director of Engineering
Design Engineer

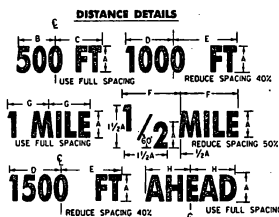
PRECAST REINFORCED CONCRETE CURB DROP INLET WITH CAST IRON GRATE
CAST IRON GRATE, TYPE B
CAST IRON GRATE, TYPE C
UNDERDRAIN RISER
REINFORCED CONCRETE PIPE END SECTION
ENERGY DISSIPATOR FOR CULVERT



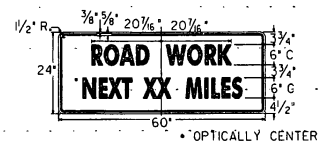
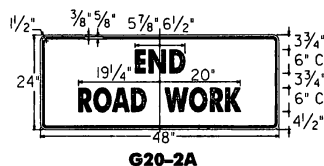
STANDARD
D-16



SIGN	A	B	C	D	E	F	G	H	J	K
MIN.	30	1/4	3/4	40	2 3/4	2 3/4	6 3/4	7	7 3/4	1 1/4
STD.	30	3/4	7/8	50	3 3/4	2 3/4	6 3/4	8 3/4	9	2 1/4
SPECIAL	40	1 1/4	7/8	70	4 3/4	4 3/4	11 3/4	12 3/4	12 3/4	3



DIMENSIONS (INCHES)							
A	B	C	D	E	F	G	H
40	8 3/4	8 3/4	8 3/4	9	9	7 3/4	8 3/4
50	10 3/4	10 3/4	10 3/4	11 1/4	11 1/4	9 3/4	10 3/4
70	14 3/4	14 3/4	14 3/4	15 3/4	15 3/4	13 3/4	14 3/4



THIS SIGN TO BE USED WHEN PROJECT LENGTH EXCEEDS 2 MILES OR AS REQUESTED BY THE RESIDENT ENGINEER. SHOW MILEAGE TO NEAREST 1/4 MILE USING FRACTIONS, NOT DECIMALS. HAND LETTERING OF MILEAGE WILL NOT BE ALLOWED.

NOTES

THE SIGNS SHOWN ON THIS SHEET ARE INTENDED FOR USE IN PROVIDING ADVANCE WARNING AND INFORMATION ON CONSTRUCTION PROJECTS OVER WHICH TRAFFIC WILL BE DIVERTED OR WHERE APPROACH SIGNS OR OTHER TYPES OF ADVANCE SIGNING OR CONTROL ARE NECESSARY. THE PLANS AND/OR THE SPECIFICATIONS FOR THE PROJECT WILL DEFINE THE DETAILS OF THE SIGNS AND DEVICES REQUIRED. FOR ON-PROJECT CONSTRUCTION SIGNS, REFER TO APPROPRIATE STANDARD SHEETS.

APPLICATION OF STANDARDS

SINCE IT IS NOT POSSIBLE TO PRESCRIBE DETAILED STANDARDS OF APPLICATION FOR ALL OF THE SITUATIONS THAT MAY CONCEIVABLY ARISE ON A CONSTRUCTION PROJECT, REFERENCE SHALL BE MADE TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" FOR THE PRINCIPLES, PROCEDURES, AND STANDARDS THAT WILL BE REQUIRED IN CONNECTION WITH ADVANCE WARNING AND ON-PROJECT CONSTRUCTION SIGNS AND BARRIAGES. THE SIGNS SHOWN IN E-101 AND E-102 REPRESENT A SAMPLE OF THOSE MORE COMMONLY USED.

LOCATION

THE SIGNS SHALL BE LOCATED AS DETAILED ON THIS SHEET OR AS OTHERWISE SHOWN ON THE PLANS. THEY SHALL APPEAR AT EACH END OF THE HIGHWAY UNDER CONSTRUCTION AND ON ALL INTERSECTING PUBLIC HIGHWAYS. THE EXACT PLACEMENT OF ANY SIGN WILL DEPEND UPON THE ALIGNMENT INTENDED TO INDICATE THE SEQUENCE TO BE FOLLOWED AND THE APPROPRIATE SPACING TO BE OBSERVED. THE ENGINEER SHALL DETERMINE THE EXACT LOCATIONS.

DESIGN

LETTERS, DIGITS, ARROWS, SPACING AND TEXT DIMENSIONS SHALL CONFORM WITH THE "STANDARD ALPHABET FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS" AND DESIGNS PRESCRIBED IN THE STANDARD HIGHWAY SIGNS AS SPECIFIED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES ADOPTED BY THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMIN.

MATERIAL

THE SIGN BASE MATERIAL USED FOR THE SIGNS ON THIS SHEET MAY BE ANY OF THE FOLLOWING, WITH MINIMUM THICKNESS AS NOTED.

FLAT SHEET ALUMINUM	0.125 INCHES
HIGH DENSITY POLYMER PLASTIC	7/8 INCHES
GALVANIZED SHEET STEEL	1/4 GAGE

REFLECTORIZATION

ALL REFLECTORIZED MATERIAL SHALL CONSIST OF TYPE IIB OR TYPE III SHEETING.

COLORS

THE COLORS SHALL CONFORM WITH THE STANDARD COLORS ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS AND APPROVED BY THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION. COLORS SHOWN ON THIS SHEET CONSIST OF BLACK TEXT AND BORDER ON A REFLECTORIZED ORANGE BACKGROUND.

INSTALLATION

THE SIGNS SHALL BE ERECTED BEFORE THE START OF ANY WORK AND SHALL BE COVERED UNTIL WORK COMMENCES. DURING PERIODS OF INACTIVITY, OR UPON COMPLETION OF THE WORK, THE SIGNS MAY BE REMOVED UPON COMPLETION OF THE WORK AT THE DISCRETION OF THE ENGINEER. EACH SIGN SHALL BE ERECTED IN A NEAT AND WORKMANLIKE MANNER ON POSTS SET SECURELY IN THE GROUND. THE BOTTOM OF A SIGN SHALL BE AT LEAST 7 FEET ABOVE THE EDGE OF PAVEMENT, AND THE NEAREST EDGE OF A SIGN SHALL BE AT LEAST 6 FEET OUTSIDE THE SHOULDER OR 4 FEET OUTSIDE THE CURB OR 2 FEET OUTSIDE THE CURB OR SIDEWALK. THE INSTALLATION OF SIGNS SHALL BE SUBJECT TO APPROVAL OF THE ENGINEER. IN URBAN AREAS, THE BOTTOM OF THE SIGN SHALL BE AT LEAST 7 FEET ABOVE THE SIDEWALK.

NOTES CONT.

MAINTENANCE

SIGNS SHALL BE MAINTAINED IN A CLEAN AND LEGIBLE CONDITION SATISFACTORY TO THE ENGINEER. THEY SHALL BE COMPLETELY VISIBLE TO APPROACHING TRAFFIC AT ALL TIMES. THEY SHALL BE KEPT PLUMB AND LEVEL, AND ALWAYS PRESENT A NEAT APPEARANCE. DAMAGED, DEFACED, OR DIRTY SIGNS SHALL BE REPAIRED, CLEANED OR REPLACED AS ORDERED BY THE ENGINEER.

OVERLAY

THE COST OF FURNISHING, INSTALLING, MAINTAINING AND REMOVING ALL CONSTRUCTION APPROACH SIGNS WILL BE CONSIDERED INCIDENTAL WORK PERTAINING TO THE PROJECT AS A WHOLE AND SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR VARIOUS ITEMS INVOLVED IN THE CONTRACT. DURING ALL PHASES OF CONSTRUCTION THE REQUIREMENTS SET FORTH IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" SHALL BE MET. WHEN THE PROJECT IS CLOSED DOWN FOR TEMPORARY PERIODS THE SIGNS SHALL BE COVERED IN A WORKMANLIKE MANNER.

SIGN COVERS

SIGN COVERS SHALL CONSIST OF A PANEL PAINTED FLAT BLACK, THE SAME SIZE AS THE SIGN IT COVERS. THE PANEL SHALL BE OF WOOD, PLYWOOD, HARDSHORE OR ANY MATERIAL SATISFACTORY TO THE ENGINEER. NO MATERIAL WILL BE APPROVED THAT WILL DETERIORATE BY EXPOSURE TO THE WEATHER DURING THE PROJECT. MOUNTING OF THE PANEL SHALL BE DONE IN SUCH A WAY AS NOT TO DAMAGE THE SIGN FACE MATERIAL.

CONTRACTORS SHALL COORDINATE THEIR SIGNING ACTIVITIES WITH OTHER CONTRACTORS WITHIN THE PROJECT LIMITS, AS DIRECTED BY THE REGIONAL CONSTRUCTION ENGINEER.

SIGN POSTS

WHERE CONSTRUCTION SIGN INSTALLATIONS ARE NOT PROTECTED BY GUARD RAIL OR OTHER APPROVED TRAFFIC BARRIER, THE POSTS ON WHICH THE SIGNS ARE MOUNTED SHALL BE YIELDING METAL POSTS AS DESIGNATED IN THE SERIES OF STANDARD DRAWINGS OR YIELDING WOODEN POSTS IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:

WOODEN POSTS ARE ACCEPTABLE FOR USE WITH CONSTRUCTION SIGNS. THESE POSTS SHALL HAVE A UNIFORM CROSS-SECTION AND SHALL BE MADE FROM GRADE 2, DRY-SOFT SOUTHERN YELLOW PINE OR ANOTHER EQUIVALENT SOFTWOOD. AN ACCEPTABLE EQUIVALENT SOFTWOOD SHALL HAVE AN EXTREME FIBER STRESS NOT TO EXCEED 1400 PSI AND A TENSILE STRENGTH NOT TO EXCEED 90 PSI SPECIFICATION. DESIGN VALUES FOR WOOD CONSTRUCTION AND RELATED SUPPLEMENT, DATED 1986.

AS ESTABLISHED BY THE NATIONAL FOREST PRODUCTS ASSOCIATION IN THEIR NATIONAL DESIGN THE FOLLOWING ARE CONSIDERED TO BE ACCEPTABLE WOODEN POSTS:

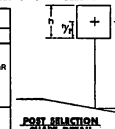
- 4" X 4" (ACTUAL DIMENSIONS ARE 3.5" X 3.5")
A) ACCEPTABLE FOR SINGLE OR DUAL POSTS INSTALLATION WITH NO MODIFICATIONS.
- 4" X 6" (ACTUAL DIMENSIONS ARE 3.5" X 5.5")
A) ACCEPTABLE FOR SINGLE POST INSTALLATIONS ONLY WHEN MODIFIED BY DRILLING TWO 1 1/2" DIAMETER HOLES, ONE AT 4" AND THE OTHER 18" ABOVE THE GROUND LINE AND PERPENDICULAR TO THE ROADWAY CENTERLINE.
- 6" X 6" (ACTUAL DIMENSIONS ARE 5.5" X 5.5")
A) ACCEPTABLE FOR SINGLE POST INSTALLATIONS ONLY WHEN MODIFIED BY DRILLING TWO 2" DIAMETER HOLES, ONE AT 4" AND THE OTHER AT 18" ABOVE THE GROUND LINE AND PERPENDICULAR TO ROADWAY CENTERLINE.
- 6" X 8" (ACTUAL DIMENSIONS ARE 5.5" X 7.5")
A) ACCEPTABLE FOR SINGLE POST INSTALLATIONS ONLY WHEN MODIFIED BY DRILLING TWO 3" DIAMETER HOLES, ONE AT 4" AND THE OTHER AT 18" ABOVE THE GROUND LINE AND PERPENDICULAR TO THE ROADWAY CENTERLINE.

ADDITIONAL DESIGN CRITERIA

THE LONGER DIMENSION OF THE POST(S), SUCH AS THE 6" X 6" DIMENSION OF THE 4" X 6" POST, SHALL BE PLACED PARALLEL TO THE ROADWAY CENTERLINE. ALL WOODEN POSTS SHALL HAVE AN EMBEDMENT DEPTH OF 4 FEET. NO CROSS-BRACING OR BACK-BRACING TO KEEP THE POSTS PLUMB WILL BE ALLOWED. CONCRETE FOUNDATIONS, COLLARS, OR SOIL BEARING PLATES ARE NOT PERMITTED. CONSTRUCTION SIGNS SHALL BE PLACED ON TWO OR MORE POSTS WHEN ANY OF THE FOLLOWING CONDITIONS GOVERN:

- THE SIGN WIDTH (HORIZONTAL DIMENSIONS FOR DIAMOND SHAPED SIGNS) EXCEEDS 3 1/2 FEET.
- THE EXPOSED SIGN AREA OF ANY SINGLE SIGN OR ASSEMBLY EXCEEDS 12 1/2 SQ. FEET.
- THE SV OF A SINGLE POST IS EXCEEDED. (SEE THE POST SELECTION CHART BELOW).

WOOD POST SELECTION CHART	
SIGN AREA (FT ²) X HEIGHT (FT) < SV (SELECTION VALUE)	DESIGN CRITERIA
POST SIZE	SV
4" X 4"	64
4" X 6"	147
6" X 6"	216
6" X 8"	309
	ALLOWABLE BENDING STRESS



OTHER STDS. REQUIRED:



**STANDARD
E-100**

REVISIONS AND CORRECTIONS

MAY 26, 1989 - DATE OF ORIGINAL ISSUE
OCT 24, 1992 - REVISED WOOD POST REQUIREMENTS, ADDED SIGN DETAILS, & REVISED TITLE BLOCK

AUG 08, 1995 - MINOR NOTE REVISIONS
JAN 06, 1997 - MINOR NOTE AND DIMENSION REVISIONS

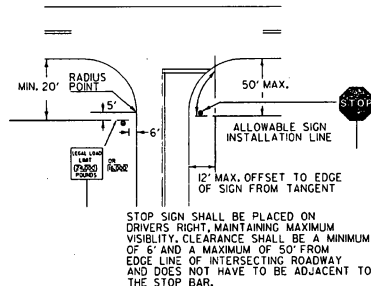
APPROVED

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DIRECTOR OF ENGINEERING

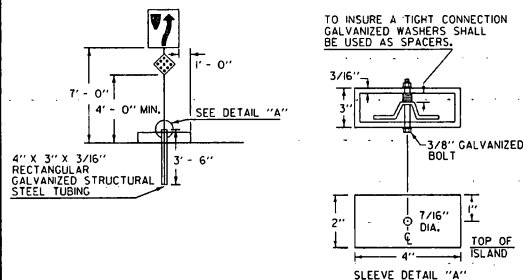
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DIRECTOR OF CONSTRUCTION AND MAINTENANCE

CONSTRUCTION APPROACH SIGNS

/trsf/std/std000.dgn : std000J

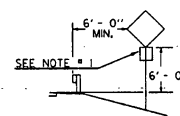
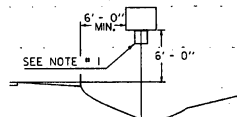
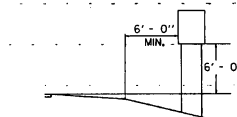


LEGAL LOAD LIMIT AND STOP SIGNS AT INTERSECTIONS WITH TOWN HIGHWAYS

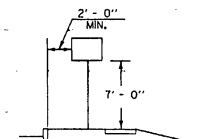
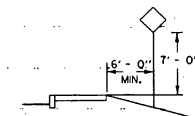


SIGNS ON MEDIAN ISLANDS IN THE LINE OF TRAFFIC

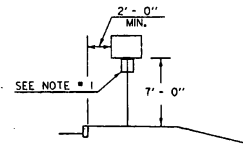
INCREASE VERTICAL CLEARANCE TO 7' IN AREAS OF FREQUENT ROADSIDE PARKING OR PEDESTRIAN ACTIVITY



RURAL



IF SUFFICIENT CLEARANCE IS NOT AVAILABLE BETWEEN CURB AND SIDEWALK MOUNT SIGN BEHIND SIDEWALK AS SHOWN AT TOP. CHECK FOR ADEQUATE R.O.W..



URBAN

NOTES:

1. IN BOTH RURAL AND URBAN LOCATIONS, IF A SECONDARY SIGN IS MOUNTED BELOW ANOTHER SIGN, THE MINIMUM CLEARANCE MAY BE REDUCED BY ONE FOOT.
 2. IN RURAL AREAS WITH NO OR MINIMAL SHOULDER, THE LATERAL CLEARANCE TO THE EDGE OF A SIGN SHOULD BE A MINIMUM OF 12' FROM THE EDGE OF THE TRAVELED WAY.
 3. ALSO SEE OTHER STANDARD SHEETS FOR MOUNTING CLEARANCE AND SPACING OF DESTINATION AND ROUTE MARKER ASSEMBLIES AND TOWN LINE SIGNS.
- POST REFERENCE:
REFER TO THE DETAILS ON THE APPROPRIATE STANDARD DRAWING FOR INFORMATION CONCERNING THE PROPER MOUNTING OF SIGNS ON APPROPRIATE POSTS.

OTHER STDS. E-160 E-161 E-162 E-163 E-164
REQUIRED:

REVISIONS AND CORRECTIONS
JAN. 23, 1995 - DATE OF ORIGINAL ISSUE
AUG. 08, 1995 - VARIOUS MINOR NOTE REVISIONS

APPROVED

Scott D. McCall
DIRECTOR OF ENGINEERING

David A. Ross
TRAFFIC AND SAFETY ENGINEER

**STANDARD SIGN PLACEMENT
CONVENTIONAL ROAD**



**STANDARD
E-121**

/traf/std/std02.dgn : std02LI