

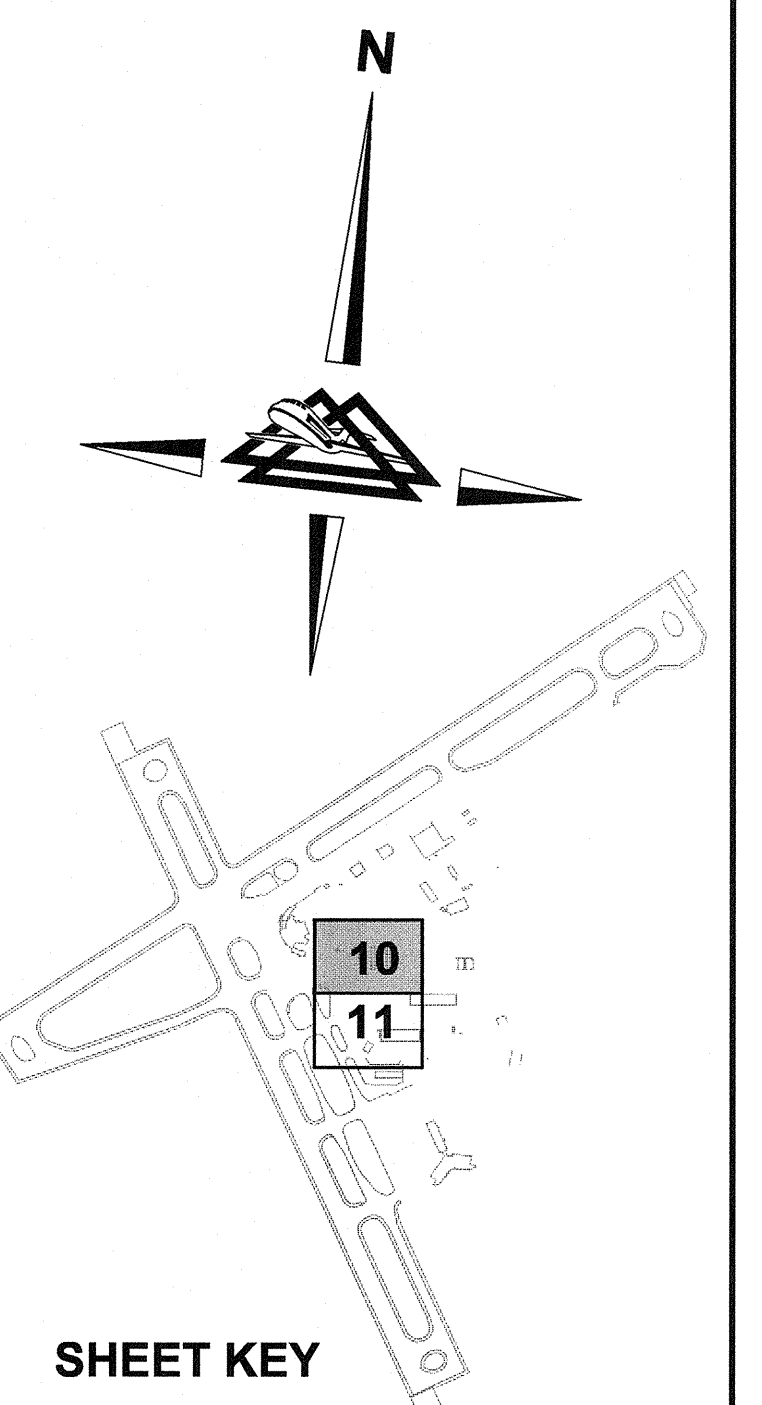
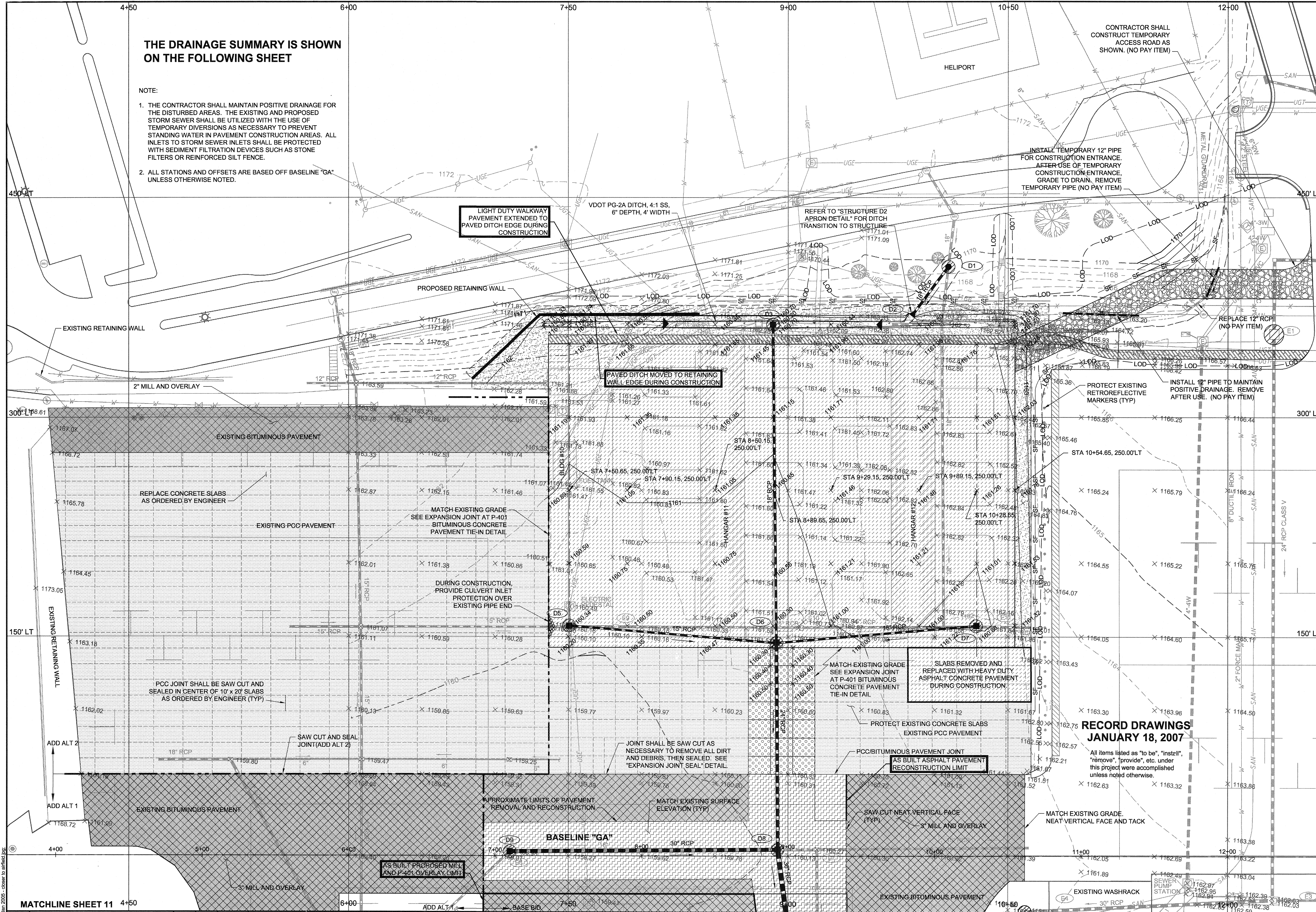
**ATTACHMENT A**  
**TOPOGRAPHY MAPS**



**THE DRAINAGE SUMMARY IS SHOWN ON THE FOLLOWING SHEET**

**NOTE:**

1. THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE FOR THE DISTURBED AREAS. THE EXISTING AND PROPOSED STORM SEWER SHALL BE UTILIZED WITH THE USE OF TEMPORARY DIVERSIONS AS NECESSARY TO PREVENT STANDING WATER IN PAVEMENT CONSTRUCTION AREAS. ALL INLETS TO STORM SEWER INLETS SHALL BE PROTECTED WITH SEDIMENT FILTRATION DEVICES SUCH AS STONE FILTERS OR REINFORCED SILT FENCE.
2. ALL STATIONS AND OFFSETS ARE BASED OFF BASELINE "GA" UNLESS OTHERWISE NOTED.



**SHEET KEY**

**LEGEND**

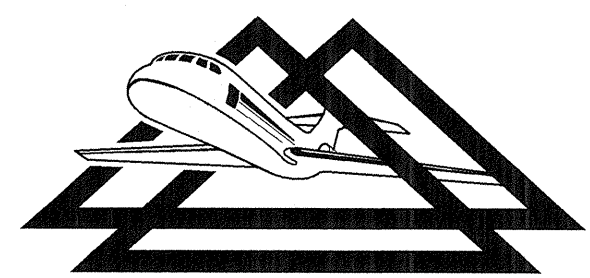
- EXISTING PULLCAN
- EXISTING SIGN
- EXISTING ELECTRICAL MANHOLE
- EXISTING RUNWAY LIGHT
- EXISTING TAXIWAY LIGHT
- BORING LOCATION
- EXISTING ELEVATION
- PROPOSED ELEVATION
- EXISTING MANHOLE
- PROPOSED MANHOLE
- EXISTING DROP INLET
- PROPOSED DROP INLET
- CHECK DAM (CD 3.20)
- PROPOSED ENDWALL/HEADWALL
- PROPOSED FLARED END SECTION
- STONE CULVERT INLET PROTECTION (CIP 3.08)
- PROPOSED INLET PROTECTION (IP 3.07)
- ALTERNATE AREA LIMITS
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED TEMPORARY CONTOUR
- GLIDE SLOPE CRITICAL AREA
- EXISTING DUCT
- EXISTING FIBER OPTIC
- EXISTING FENCE
- EXISTING STORM DRAIN
- PROPOSED STORM DRAIN
- LIMITS OF DISTURBANCE
- PROPOSED SILT FENCE (SF 3.05)
- PROPOSED RETAINING WALL
- HEAVY DUTY ASPHALT CONCRETE PAVEMENT
- PROPOSED MILL AND P-401 OVERLAY
- PCC PAVEMENT - SAW AND SEAL JOINTS
- CONCRETE PAVEMENT RECONSTRUCTION
- ASPHALT PAVEMENT RECONSTRUCTION
- TEMPORARY CONSTRUCTION ENTRANCE
- PROPOSED SOD
- LIGHT DUTY WALKWAY PAVEMENT
- PROPOSED PAVED DITCH

**RECORD DRAWINGS JANUARY 18, 2007**

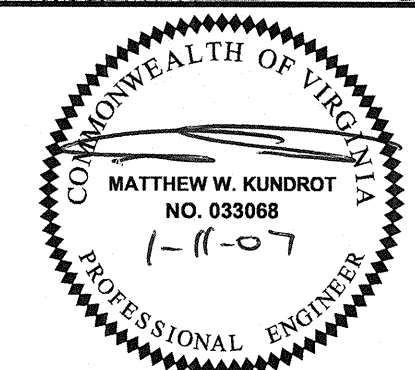
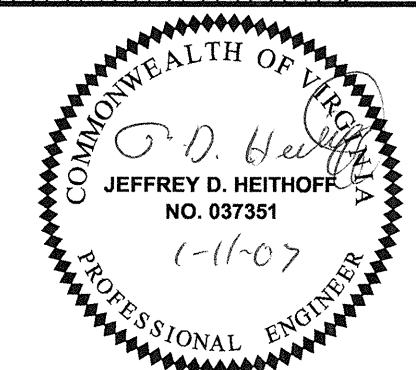
All items listed as "to be", "install", "remove", "provide", etc. under this project were accomplished unless noted otherwise.

SCALE: 1"=30' FEET

9711 Farrar Court, Suite 100  
 Richmond, Virginia 23236  
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 www.deltaairport.com



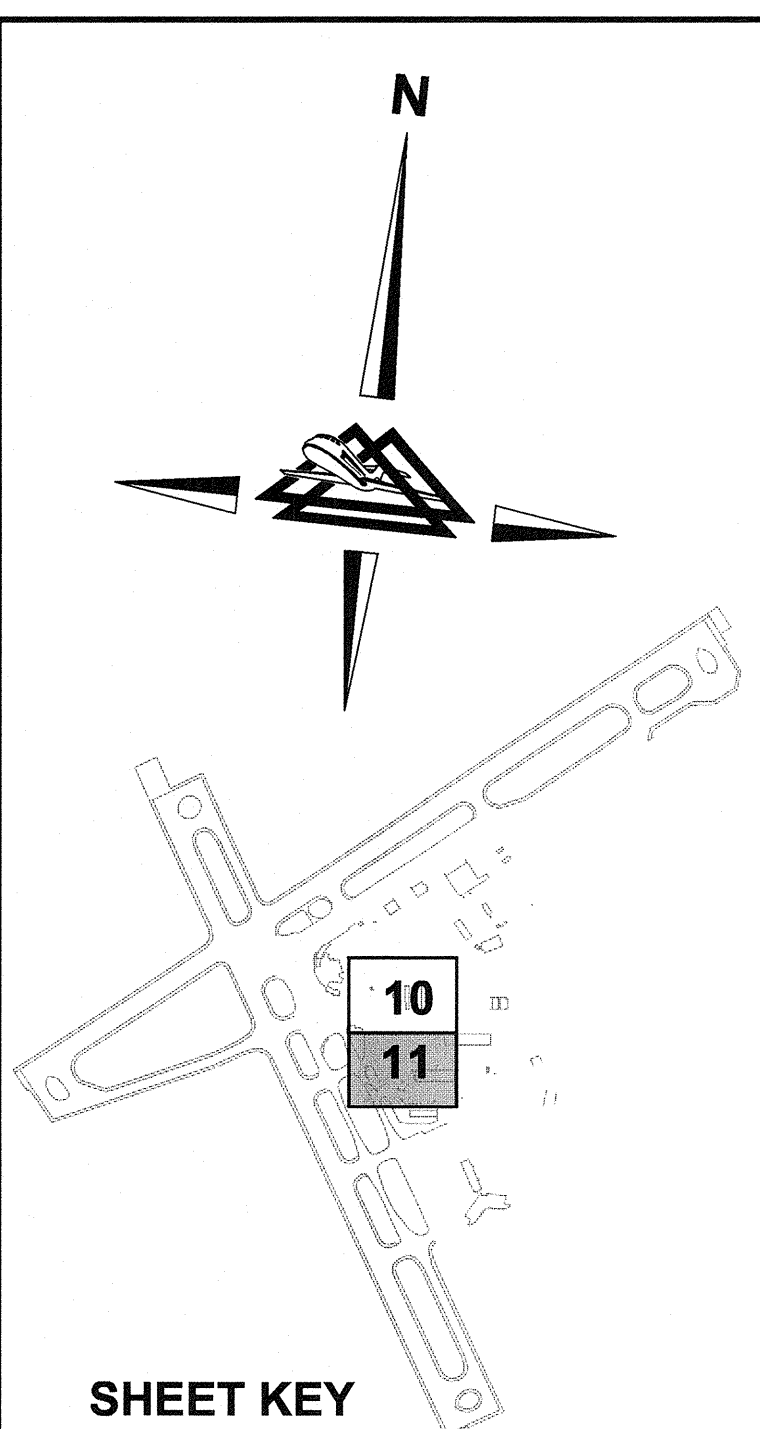
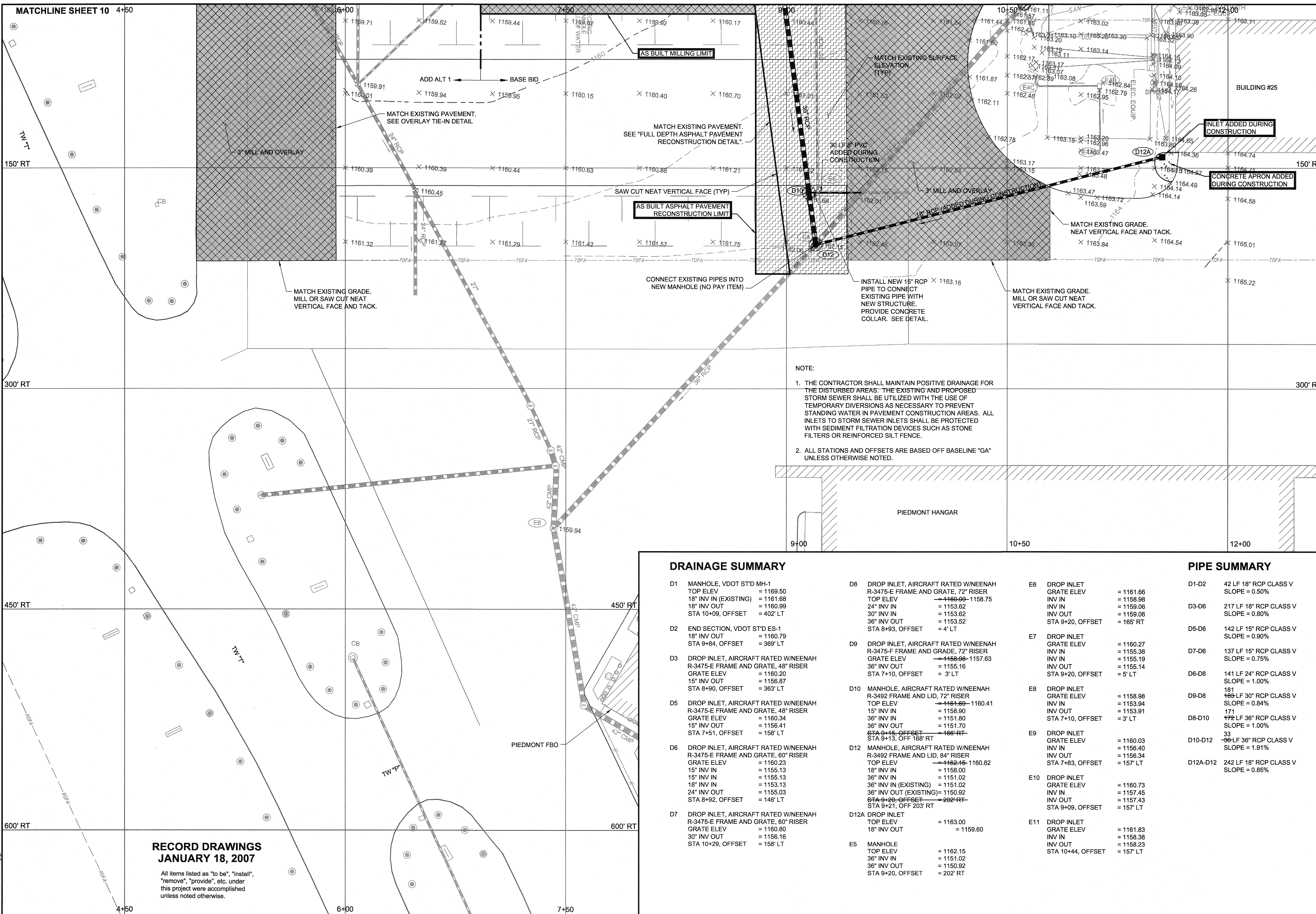
**DELTA AIRPORT CONSULTANTS, INC.**



<b>CONSTRUCT GA APRON</b>		AIP NO. 3-51-0045-037	JOB NO. VA 04056
<b>GRADING &amp; DRAINAGE</b>		DRAWN BY: PJW	SHEET 10
<b>ROANOKE REGIONAL AIRPORT</b>		DESIGNED BY: JMTM	OF 25
SCALE: 1"=30'	DATE: JULY 2004		

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NO.	REVISIONS	BY	APP.	DATE
1	ADDENDUM NO. ONE (1)	JMTM	JDH	7/22/04



- ### SHEET KEY
- #### LEGEND
- EXISTING PULLCAN
  - EXISTING SIGN
  - EXISTING ELECTRICAL MANHOLE
  - EXISTING RUNWAY LIGHT
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  - PROPOSED ENDWALL/HEADWALL
  - PROPOSED FLARED END SECTION
  - STONE CULVERT INLET PROTECTION (CIP 3.06)
  - PROPOSED INLET PROTECTION (IP 3.07)

NOTE:

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### DRAINAGE SUMMARY

D1	MANHOLE, VDOT STD MH-1 TOP ELEV = 1169.50 18" INV IN (EXISTING) = 1161.66 18" INV OUT = 1160.99 STA 10+09, OFFSET = 402' LT	D8	DROP INLET, AIRCRAFT RATED W/NEENAH R-3475-E FRAME AND GRATE, 72" RISER TOP ELEV = 1158.75 24" INV IN = 1153.82 30" INV IN = 1153.82 36" INV IN = 1153.52 STA 8+93, OFFSET = 4' LT	E6	DROP INLET GRATE ELEV = 1161.66 INV IN = 1158.98 INV IN = 1159.06 INV OUT = 1159.06 STA 9+20, OFFSET = 165' RT
D2	END SECTION, VDOT STD ES-1 18" INV OUT = 1160.79 STA 9+84, OFFSET = 369' LT	D9	DROP INLET, AIRCRAFT RATED W/NEENAH R-3475-F FRAME AND GRATE, 72" RISER GRATE ELEV = 1155.63 36" INV IN = 1155.16 STA 7+10, OFFSET = 3' LT	E7	DROP INLET GRATE ELEV = 1160.27 INV IN = 1155.38 INV IN = 1155.19 INV OUT = 1155.14 STA 9+20, OFFSET = 5' LT
D3	DROP INLET, AIRCRAFT RATED W/NEENAH R-3475-E FRAME AND GRATE, 48" RISER GRATE ELEV = 1160.20 15" INV OUT = 1156.87 STA 8+90, OFFSET = 363' LT	D10	MANHOLE, AIRCRAFT RATED W/NEENAH R-3492 FRAME AND LID, 72" RISER TOP ELEV = 1160.41 15" INV IN = 1158.90 36" INV IN = 1151.80 36" INV OUT = 1151.70 STA 9+13, OFF 168' RT	E8	DROP INLET GRATE ELEV = 1158.98 INV IN = 1153.94 INV OUT = 1153.91 STA 7+10, OFFSET = 3' LT
D5	DROP INLET, AIRCRAFT RATED W/NEENAH R-3475-E FRAME AND GRATE, 48" RISER GRATE ELEV = 1160.34 15" INV OUT = 1156.41 STA 7+51, OFFSET = 158' LT	D12	MANHOLE, AIRCRAFT RATED W/NEENAH R-3492 FRAME AND LID, 84" RISER TOP ELEV = 1160.82 18" INV IN = 1158.00 36" INV IN = 1151.02 36" INV IN (EXISTING) = 1151.02 36" INV OUT (EXISTING) = 1150.92 STA 8+20, OFFSET = 202' RT STA 9+21, OFF 203' RT	E9	DROP INLET GRATE ELEV = 1160.03 INV IN = 1156.40 INV OUT = 1156.34 STA 7+83, OFFSET = 157' LT
D6	DROP INLET, AIRCRAFT RATED W/NEENAH R-3475-E FRAME AND GRATE, 60" RISER GRATE ELEV = 1160.23 15" INV IN = 1155.13 15" INV IN = 1155.13 18" INV IN = 1153.13 24" INV OUT = 1155.03 STA 8+92, OFFSET = 146' LT	D12A	DROP INLET TOP ELEV = 1163.00 18" INV OUT = 1159.60	E10	DROP INLET GRATE ELEV = 1160.73 INV IN = 1157.45 INV OUT = 1157.43 STA 9+09, OFFSET = 157' LT
D7	DROP INLET, AIRCRAFT RATED W/NEENAH R-3475-E FRAME AND GRATE, 60" RISER GRATE ELEV = 1160.80 30" INV OUT = 1156.16 STA 10+29, OFFSET = 158' LT	E5	MANHOLE TOP ELEV = 1162.15 36" INV IN = 1151.02 36" INV OUT = 1150.92 STA 9+20, OFFSET = 202' RT	E11	DROP INLET GRATE ELEV = 1161.83 INV IN = 1158.38 INV OUT = 1158.23 STA 10+44, OFFSET = 157' LT

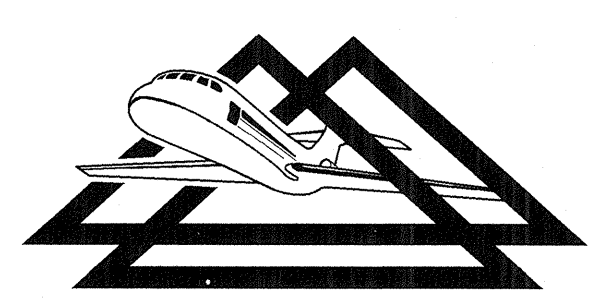
### PIPE SUMMARY

D1-D2	42 LF 18" RCP CLASS V SLOPE = 0.50%
D3-D6	217 LF 18" RCP CLASS V SLOPE = 0.80%
D5-D6	142 LF 15" RCP CLASS V SLOPE = 0.90%
D7-D6	137 LF 15" RCP CLASS V SLOPE = 0.75%
D6-D8	141 LF 24" RCP CLASS V SLOPE = 1.00%
D9-D8	169 LF 30" RCP CLASS V SLOPE = 0.84%
D8-D10	171 LF 36" RCP CLASS V SLOPE = 1.00%
D10-D12	33 LF 36" RCP CLASS V SLOPE = 1.91%
D12A-D12	242 LF 18" RCP CLASS V SLOPE = 0.85%

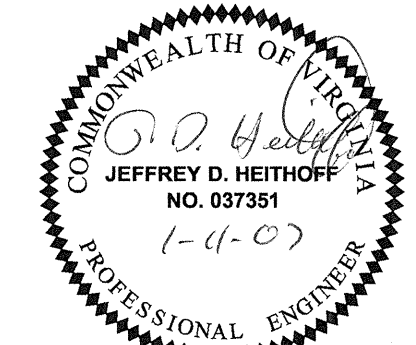
**RECORD DRAWINGS  
JANUARY 18, 2007**

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CONSULTANTS, INC.**



**CONSTRUCT GA APRON**  
**GRADING & DRAINAGE**  
**ROANOKE REGIONAL AIRPORT**

AIP NO. 3-51-0045-037	JOB NO. VA 04056
DRAWN BY: PJW	SHEET <b>11</b>
DESIGNED BY: JMTM	OF <b>25</b>
SCALE: 1"=30'	DATE: JULY 2004

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NO.	REVISIONS	BY	APP.	DATE
1	ADDENDUM NO. ONE (1)	JMTM	JDH	7/22/04