PROPOSED 4" PE TUBING EDGE DRAIN

2.5' (TYP.)

PROPOSED EDGE OF PAVEMENT

I.H. #1 – TYPE C
STA. 120+00, 52.50' LT.
TOP ELEV. 460.65'
FLOW ELEV. 457.65'

800' @ 0.30%

2.5' (TYP.)

12.83' (TYP.)

RUNWAY 9–27

121+00 122+00 123+00 124+00 125+00 126+00 127+00

EXISTING PAVEMENT WIDTH
PROPOSED PAVEMENT WIDTH
75'
100'

MATCHLINE STA. 127+00

I.H. #2 – TYPE C
STA. 122+00, 52.50' RT.
TOP ELEV. 460.11'
FLOW ELEV. 457.11'

600' @ 0.31%

2.5' (TYP.)

12.83' (TYP.)

BOP Sta = 120+00.00

DRAINAGE QUANTITIES

ITEM NUMBER	DESCRIPTION	UNIT	QUANTITY
AR705410	POROUS BACKFILL	C.Y.	679
AR705524	4" PERFORATED UNDERDRAIN W/SOCK	L.F.	8,685
AR705630	UNDERDRAIN INSPECTION HOLE	EACH	23

0' 15' 30' 60'

FULL SIZE SCALE: 1"= 30'
HALF SIZE SCALE: 1"= 60'

N

705–UNDERDRAIN NOTES:

THE PROPOSED UNDERDRAIN PIPE WILL BE CONSTRUCTED IN ACCORDANCE WITH ITEM 705 "PIPE UNDERDRAINS FOR AIRPORTS" AS STATED ON PAGE 109 OF THE SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS, ADOPTED JULY 1, 2004.

THIS ITEM OF WORK SHALL CONSIST OF FURNISHING AND INSTALLING 4" P.E. TUBING (WRAPPED) AND UNDERDRAIN INSPECTION HOLES AT THE LOCATIONS AND TO THE GRADES SHOWN ON THE CONSTRUCTION PLANS.

705-3.3 LAYING AND INSTALLING PIPE. REVISE THIS SECTION AS FOLLOWS:

"PIPE DRAINS SHALL BE INSTALLED AT THE LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE RESIDENT ENGINEER. THE PIPE SHALL BE BEDDED IN THE UNDERLYING MATERIAL TO A DEPTH NOT LESS THAN 10 PERCENT OF THE EXTERNAL DIAMETER OF THE PIPE, AND WHERE TRENCHING IS REQUIRED, THE TRENCH SHALL HAVE A WIDTH OF NOT LESS THAN 12 IN. THE BOTTOM OF THE TRENCH SHALL BE COMPACTED IN A MANNER MEETING THE APPROVAL OF THE ENGINEER.

JOINTS AND FITTINGS MAY BE ASSEMBLED WITHOUT GASKETS OR SOLVENT CEMENT IF THE JOINT IS SAND TIGHT AND THE SPIGOT ENTERS THE SOCKET NOT LESS THAN 1/3 OF THE SOCKET DEPTH FOR SOLVENT CEMENT JOINTS AND FULL-DEPTH FOR ELASTOMERIC GASKET JOINTS.

NO PIPE SHALL BE PLACED IN THE TRENCH UNTIL IT AND THE PREPARED FOUNDATION HAVE BEEN APPROVED BY THE RESIDENT ENGINEER. THE PIPE SHALL BE LAID SO THAT THE FLOWLINE WILL BE AT THE GRADE SHOWN ON THE PLANS OR ESTABLISHED BY THE RESIDENT ENGINEER. THE PERMISSIBLE MINIMUM COVER OVER A PIPE SHALL BE 6 IN.

LAYING OF PIPES SHALL COMMENCE AT THE OUTLET END AND PROCEED TOWARD THE INLET END WITH THE PIPES TRUE TO LINE AND GRADE.

THE ENDS OF THE PIPE SHALL BE CAREFULLY CLEANED BEFORE THEY ARE PLACED, AND SHALL BE PLACED TO AVOID UNNECESSARY HANDLING ON THE FOUNDATION. AS EACH LENGTH OF PIPE IS LAID, THE ENDS OF THE PIPE SHALL BE PROTECTED TO PREVENT THE ENTRANCE OF ANY MATERIAL.

LONGITUDINAL LAPS SHALL BE PLACED AT THE SIDES AND SEPARATE SECTIONS OF PIPE SHALL BE JOINED WITH TIGHTLY-DRAWN, APPROVED CONNECTING BANDS.

THE TRENCH SHALL BE BACKFILLED WITH SELECT MATERIAL, MEETING THE APPROVAL OF THE ENGINEER, PLACED IN 8 IN. LAYERS, LOOSE MEASUREMENT, AND COMPACTED TO THE ENGINEER'S SATISFACTION.

705-3.6 BACKFILLING; ADD THE FOLLOWING TO THIS SECTION:

"THE EDGE DRAIN TRENCH WILL BE BACKFILLED WITH POROUS BACKFILL (CA-14 OR CA-16) IN ACCORDANCE WITH THE DETAIL ON THE CONSTRUCTION PLANS. THE POROUS BACKFILL WILL BE COMPACTED IN ACCORDANCE WITH THE SPECIFICATION SET FORTH FOR GRANULAR MATERIAL BACKFILL."

THE PROPOSED UNDERDRAIN PIPE WILL BE PAID FOR UNDER ITEMS:
AR705410 POROUS BACKFILL_____ 679 C.Y.
AR705524 4" PERFORATED UNDERDRAIN W/SOCK___ 8,685 L.F.
AR705530 UNDERDRAIN INSPECTION HOLE_____ 23 EACH

INSPECTION HOLE NOTES

DIAMETER OF PIPE AS SPECIFIED.

TOP OF INSPECTION HOLES SHALL BE 1" BELOW ADJACENT PAVEMENT EDGE.

1/2" CHAMFER TO BE USED ON ALL EXPOSED EDGES OF INSPECTION HOLES.

THE CONCRETE SHALL BE STRUCTURAL PORTLAND CEMENT CONCRETE (NON- REINFORCED)

30" (TYP.)

EXISTING BITUMINOUS PAVEMENT

2" 401
3" 201
3" 201
3" 201

CAST IRON FRAME AND COVER

8" 209
8" 209

SUBGRADE

4"ø
12" W.

610 CONCRETE
POROUS BACKFILL

VARIES

TYPICAL SECTION FOR INSPECTION HOLE
"NOT TO SCALE"

30" (TYP.)

EXISTING BITUMINOUS PAVEMENT

2" 401
3" 201
3" 201
3" 201

8" 209
8" 209

SUBGRADE

4"ø
12" W.

POROUS BACKFILL

VARIES

TYPICAL SECTION FOR EDGE DRAINS
"NOT TO SCALE"

CAST IRON FRAME AND COVER

6" TYP.

PROPOSED ITEM 610

4" PE TUBING WRAPPED

INSPECTION HOLE–TYPE A
"NOT TO SCALE"

PROPOSED 4" P.E. TUBING WRAPPED
PROPOSED 7" X 7" SAWED OPENING

EXIST. R.C.C.P.

18"

PROPOSED 12" NO. 5 REBAR (TYP.)

18" SQUARE OR 2' SONITUBE

PROPOSED CONC. COLLAR

PROPOSED CLASS SI CONCRETE

4" P.E. TUBING

FLOW

4" PE TUBING WRAPPED

PROPOSED CONC. COLLAR

INSPECTION HOLE DETAIL–TYPE B
"NOT TO SCALE"

10"
6-1/2"

1-1/4"
5-1/2"
6-3/4"

2-1/2"

CAST IRON FRAME AND COVER
NEENAH R-6013, DEETER 1810, EAST JORDAN 2790-6 OR APPROVED EQUAL

10"
18"

2'-10"±
18"±

4" P.E. TUBING (WRAPPED)

PLUG FOR FUTURE EXPANSION

FLOW 4" PIPE (Y)

INSPECTION HOLE–TYPE C
"NOT TO SCALE"

LEGEND

☐	EXISTING PAVEMENT
▨	PROPOSED PAVEMENT WIDENING
→	PROPOSED UNDERDRAINS
●	PROPOSED INSPECTION HOLE
⊳	EXISTING R.C.C.P.