# CONSTRUCTION PLANS TAYLORVILLE MUNICIPAL AIRPORT

TAYLORVILLE, CHRISTIAN COUNTY, ILLINOIS

**CONSTRUCT RUNWAY 9-27** 

# SCOPE OF WORK

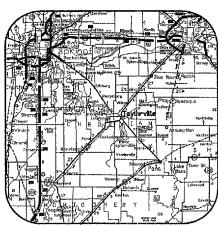
THIS PROJECT CONSISTS OF THE CONSTRUCTION OF A NEW 3,500 FT. X 60 FT. EAST-WEST RUNWAY WITH A CONNECTING TAXIWAY SYSTEM. ASSOCIATED WORK INCLUDES BUILDING DEMOLITION, CLEARING, GRUBBING, GRADING, DRAINAGE, PAVING, LIGHTING, MARKING, SEEDING, MULCHING, AND THE REMOVAL AND REPLACEMENT OF THE AIRPORT'S ELECTRICAL VAULT.

# **ALTERNATE "A"**

ALTERNATE "A" CONSISTS OF A 5" PCC PAVEMENT WITH A 4" AGGREGATE SUBBASE AND LIME MODIFIED SUBGRADE PROCESSING.

# **ALTERNATE "B"**

ALTERNATE "B" CONSISTS OF A 1-1/2" BITUMINOUS SURFACE COURSE, 2-1/2" BITUMINOUS BASE COURSE, 6" OF AGGREGATE SUBBASE AND LIME MODIFIED SUBGRADE PROCESSING.



LOCATION MAP

ILL PROJ. TAZ-3166 A.I.P. PROJ. 3-17-0100-B7

LATITUDE: 39° 32' 03" LONGITUDE: 89° 19' 40" ELEVATION: 622.0' M.S.L. DATE: MARCH 25, 2005

FOR ELECTRICAL DESIGN









CITY OF TAYLORYILLE

TA001

**TOTAL SHEETS: 127** 

TAYLORVILLE MUNICIPAL AIRPORT TAYLORVILLE, ILLINOIS

HANSON

INDEX TO SHEETS

4	2	

	INDEX TO SHEETS					
SHEET NO.	DESCRIPTION	SHEET NO.	DESCRIPTION			
1	COVER SHEET	65	VAULT LIGHTING AND RECEPTACLE PLAN			
2	INDEX TO SHEETS	66	PROPOSED AIRPORT ELECTRICAL VAULT WALL ELEVATIONS			
3	SUMMARY OF QUANTITIES	67	PROPOSED VAULT ELECTRICAL ONE-LINE DIAGRAM SHEET 1			
4	PROPOSED SAFETY PLAN	68	PROPOSED VAULT ELECTRICAL ONE-LINE DIAGRAM SHEET 2			
5	PROPOSED FIELD TILE INVESTIGATION	69	PANEL SCHEDULES AND DETAILS			
6	PROPOSED STORMWATER POLLUTION PREVENTION PLAN	70	HIGH VOLTAGE WIRING SCHEMATIC			
7	PROPOSED STORMWATER POLLUTION PREVENTION DETAILS	71	AIRFIELD LIGHTING WIRING SCHEMATIC			
8	PROPOSED CLEARING PLAN	72	RELAY PANEL DETAIL			
9	PROPOSED CONSTRUCTION PLAN STA. 100+00 TO STA. 116+00	73	ELECTRICAL DETAILS			
10	PROPOSED CONSTRUCTION PLAN STA. 116+00 TO STA. 135+00	74	LEGEND PLATE SCHEDULE AND TRANSFORMER WIRING DIAGRAMS			
11	PROPOSED CONSTRUCTION NOTES PROPOSED BITUMINOUS TYPICAL SECTIONS	75 76	ELECTRICAL AND GROUNDING DETAILS  PROPOSED ELECTRICAL SITE PLAN FOR ADMIN. BUILDING			
12	PROPOSED PORTLAND CEMENT CONCRETE TYPICAL SECTIONS	77	MISC. AIRFIELD EQUIPMENT ELECTRICAL ONE—LINE			
14	PROPOSED FORIDARD CEMENT CONCRETE THICAL SECTIONS  PROPOSED RUNWAY 9-27 PLAN & PROFILE STA. 96+00 TO STA. 110+00	78	ADMIN-BLDG. ELEVATION AND APRON LIGHTING CONTROLS			
15	PROPOSED RUNWAY 9-27 PLAN & PROFILE STA. 110+00 TO STA. 122+00	79	PROPOSED SITE FENCING PLAN			
16	PROPOSED RUNWAY 9-27 PLAN & PROFILE STA. 122+00 TO STA. 136+00	80	PROPOSED FRONTAL AREA FENCING PLAN			
17	PROPOSED RUNWAY 9-27 PLAN & PROFILE STA. 136+00 TO STA. 138+00	81	PROPOSED RUNWAY CROSS-SECTIONS STA. 97+00 TO STA. 99+00			
18	PROPOSED TAXIWAY "D" PLAN & PROFILE STA. 8+00.00 TO STA. 19+57.48	82	PROPOSED RUNWAY CROSS—SECTIONS STA. 99+50 TO STA. 101+50			
19	PROPOSED TURN AROUND PLAN & PROFILE STA. 300+30 TO STA. 305+00	83	PROPOSED RUNWAY CROSS-SECTIONS STA. 102+00 TO STA. 104+00			
20	PROPOSED DITCH PLAN & PROFILE STA. 353+07 TO STA, 367+00	84	PROPOSED RUNWAY CROSS-SECTIONS STA. 104+50 TO STA. 106+50			
21	PROPOSED DITCH PLAN & PROFILE STA. 367+00 TO STA. 372+00	85	PROPOSED RUNWAY CROSS-SECTIONS STA. 107+00 TO STA. 109+00			
22	PROPOSED DRAINAGE PLAN	86	PROPOSED RUNWAY CROSS-SECTIONS STA. 109+50 TO STA. 112+00			
23	Proposed drainage notes and details	87	PROPOSED RUNWAY CROSS-SECTIONS STA. 112+50 TO STA. 115+00			
24	PROPOSED DRAINAGE PIPE NO. 1 & 2 PLAN & PROFILE	88	PROPOSED RUNWAY CROSS-SECTIONS STA. 115+50 TO STA. 118+00			
25	PROPOSED DRAINAGE PIPE NO. 3 & 4 PLAN & PROFILE	89	PROPOSED RUNWAY CROSS-SECTIONS STA. 118+50 TO STA. 121+00			
26	PROPOSED RUNWAY UNDERDRAIN PLAN & PROFILE STA. 96+00 TO STA. 110+00	90	PROPOSED RUNWAY CROSS-SECTIONS STA. 121+50 TO STA. 124+00			
27	PROPOSED RUNWAY UNDERDRAIN PLAN & PROFILE STA. 110+00 TO STA. 122+00	91	PROPOSED RUNWAY CROSS—SECTIONS STA. 124+50 TO STA. 125+50			
28	PROPOSED RUNWAY UNDERDRAIN PLAN & PROFILE STA. 122+00 TO STA. 135+03	92	PROPOSED RUNWAY CROSS-SECTIONS STA. 126+00 TO STA. 127+00			
29	PROPOSED TAXIWAY UNDERDRAIN PLAN & PROFILE STA. 8+30 TO STA. 19+20.50	93	PROPOSED RUNWAY CROSS-SECTIONS STA. 127+50 TO STA. 128+00			
30	Proposed turn around underdrain plan & Profile Sta. 300+30 to Sta. 305+00	94	PROPOSED RUNWAY CROSS-SECTIONS STA. 128+50 TO STA. 129+00			
31	Proposed underdrain notes and details	95	PROPOSED RUNWAY CROSS—SECTIONS STA. 129+50 TO STA. 130+00			
32	PROPOSED STAKING PLAN STA. 97+00 TO STA. 105+00	96	PROPOSED RUNWAY CROSS—SECTIONS STA. 130+50 TO STA. 131+00			
33	PROPOSED STAKING PLAN STA. 105+00 TO STA. 121+00	97	PROPOSED RUNWAY CROSS—SECTIONS STA. 131+50 TO STA, 132+00			
34	PROPOSED STAKING PLAN STA. 121+00 TO STA. 129+00	98	PROPOSED RUNWAY CROSS—SECTIONS STA. 132+50 TO STA. 133+00			
35	PROPOSED STAKING PLAN STA. 129+00 TO STA. 138+50	99	PROPOSED RUNWAY CROSS—SECTIONS STA. 133+50 TO STA. 133+67			
36	PROPOSED STAKING PLAN STA. 11+50 TO STA. 15+50	100	PROPOSED RUNWAY CROSS—SECTIONS STA. 134+00 TO STA. 135+50			
37	PROPOSED STAKING PLAN STA. 15+50 TO STA. 19+20+50	101	PROPOSED RUNWAY CROSS-SECTIONS STA. 136+00 TO STA. 138+50			
38	PROPOSED STAKING PLAN STA. 353+07 TO STA. 371+25	102	PROPOSED TAXIWAY CROSS-SECTIONS STA. 8+30 TO STA. 9+36			
39	PROPOSED STAKING PLAN STA. 87+65 TO STA. 93+60	103	PROPOSED TAXIWAY CROSS-SECTIONS STA. 9+50 TO STA. 12+00			
40	PROPOSED SEEDING PLAN	104	PROPOSED TAXIWAY CROSS-SECTIONS STA. 12+50 TO STA. 14+00			
41	PROPOSED JOINTING PLAN STA. 100+00 TO STA. 106+00	105	PROPOSED TAXIWAY CROSS—SECTIONS STA. 14+50 TO STA. 16+00			
42	PROPOSED JOINTING PLAN STA. 106+00 TO STA. 122+00	106	PROPOSED TAXIWAY CROSS-SECTIONS STA. 16+08.50 TO STA. 18+33			
43	PROPOSED JOINTING PLAN STA. 122+00 TO STA. 135+00	107	PROPOSED TAXIWAY CROSS—SECTIONS STA. 18+58.08 TO STA. 19+20.50			
44	PROPOSED JOINTING PLAN STA. 8+00.00 TO STA. 17+96.84	108	PROPOSED TURN AROUND CROSS—SECTIONS STA. 300+30 TO STA. 302+50			
45	PROPOSED JOINTING PLAN STA. 17+96.84 TO STA. 19+20.50	109	PROPOSED TURN AROUND CROSS—SECTIONS STA. 302+63.88 TO STA. 304+11.27			
46	PROPOSED JOINTING DETAILS	110	PROPOSED TURN AROUND CROSS—SECTIONS STA. 304+39.77 TO STA. 305+01.77			
47	PROPOSED MARKING PLAN STA. 100+00 TO STA. 116+00	111	PROPOSED DITCH CROSS-SECTIONS STA. 353+04 TO STA. 354+00 PROPOSED DITCH CROSS-SECTIONS STA. 354+50 TO STA. 356+00			
49	PROPOSED MARKING PLAN STA. 116+00 TO STA. 135+00 PROPOSED ELECTRICAL PLAN STA. 100+00 TO STA. 116+00	113	PROPOSED DITCH CROSS-SECTIONS STA. 356+50 TO STA. 358+00			
50	PROPOSED ELECTRICAL PLAN STA. 110+00 TO STA. 115+00  PROPOSED ELECTRICAL PLAN STA. 116+00 TO STA. 135+00	113	PROPOSED DITCH CROSS-SECTIONS STA. 358+08 TO STA. 359+50			
51	PROPOSED ELECTRICAL HOMERUN PLAN	115	PROPOSED DITCH CROSS-SECTIONS STA. 330+00 TO STA. 339+30  PROPOSED DITCH CROSS-SECTIONS STA. 360+00 TO STA. 361+50			
52	PROPOSED ELECTRICAL DETAILS	116	PROPOSED DITCH CROSS-SECTIONS STA. 362+00 TO STA. 363+00			
53	PROPOSED ELECTRICAL DETAILS	117	PROPOSED DITCH CROSS-SECTIONS STA. 363+50 TO STA. 365+00			
54	PROPOSED ELECTRICAL NOTES	118	PROPOSED DITCH CROSS-SECTIONS STA. 365+50 TO STA. 367+00			
55	PROPOSED ELECTRICAL NOTES	119	PROPOSED DITCH CROSS-SECTIONS STA. 367+50 TO STA. 369+00			
56	WIND CONE ELEVATION DETAIL	120	PROPOSED DITCH CROSS-SECTIONS STA. 369+50 TO STA. 371+00			
57	REIL INSTALLATION DETAIL	121	PROPOSED DITCH CROSS-SECTIONS STA. 371+50 TO STA. 372+00			
58	PROPOSED PLASI DETAILS & NOTES	122	PROPOSED CROSS-SECTIONS RUNWAY 18-36 DITCH LINE STA. 278+50 TO STA. 279+50			
59	ELECTRICAL LEGEND AND ABBREVIATIONS	123	PROPOSED CROSS-SECTIONS RUNWAY 18-36 DITCH LINE STA. 279+70.73 TO STA. 281+00			
60	EXISTING AIRPORT ELECTRICAL VAULT SITE PLAN	124	PROPOSED CROSS-SECTIONS RUNWAY 18-36 DITCH LINE STA. 281+50 TO STA. 282+00			
61	EXISTING AIRPORT ELECTIRCAL VAULT LAYOUT AND ELEVATIONS	125	PROJECT EARTHWORK VOLUME TABLE BITUMINOUS ALTERNATE			
62	EXISTING AIRPORT ELECTRICAL VAULT ELECTRICAL ONE-LINE	126	PROJECT EARTHWORK VOLUME TABLE PCC ALTERNATE			
63	PROPOSED AIRPORT ELECTRICAL VAULT SITE PLAN	127	PROJECT EARTHWORK VOLUME TABLES SITE			
64	PROPOSED AIRPORT ELECTRICAL VAULT EQUIPMENT PLAN					

	SUMMARY OF QUANTITIES									
ITEM NO.	DESCRIPTION	UNIT	AS AWARDED	AS BUILT QUANTITIES	ITEM NO.	DESCRIPTION	UNIT	AS AWARDED QUANTITIES	AS BUILT QUANTITIES	
	BASE BID	<del>1</del>	<u> </u>	1	ALTERNATE "A"					
AR107408	L-806 WIND CONE-8' LIGHTED	EA.	2	T	AS152410	UNCLASSIFIED EXCAVATION	C.Y.	73,026	Ţ	
AR107900	REMOVE WIND CONE	EA.	1		AS209510	CRUSHED AGGREGATE BASE COURSE	TON	7,200		
AR108158	1/C #8 5 KV UG CABLE IN UD	LF.	15,408		AS501505	5" PCC PAVEMENT	S.Y.	29,563		
AR108656	3/C #6 600 V UG CABLE IN UD	L.F.	31,150		AS501530	PCC TEST BATCH	EACH	1		
AR109100	CONSTRUCT ELECTRICAL VAULT	L.S.	1			ALTEDNIATE "D"				
AR109200	INSTALL ELECTRICAL EQUIPMENT	L.S.	1			ALTERNATE "B"				
AR109901	REMOVE ELECTRICAL VAULT	L.S.	1		AT152410	UNCLASSIFIED EXCAVATION	C.Y.	73,391		
AR110014	4" DIRECTIONAL BORE	LF.	1,142		AT201610	BITUMINOUS BASE COURSE	TON	4,491		
AR110502	2-WAY CONCRETE ENCASED DUCT	LF.	41		AT201630	BITUMINOUS BASE TEST SECTION	EACH	1		
AR110504	4-WAY CONCRETE ENCASED DUCT	L.F.	72		AT209510	CRUSHED AGGREGATE BASE COURSE	TON	10,588		
AR110610	ELECTRICAL HANDHOLE	EA.	2		AT401610	BITUMINOUS SURFACE COURSE	TON	2,661		
AR125410	MITL-STAKE MOUNTED	EA.	57		AT401630	BITUMINOUS SURFACE TEST SECTION	EACH	1		
AR125415	MITL-BASE MOUNTED	EA.	5		AT602510	BITUMINOUS PRIME COAT	GAL.	10,741		
AR125444	TAXI GUIDANCE SIGN, 4 CHARACTER	EA.	2		AT603510	BITUMINOUS TACK COAT	GAL.	1,497		
AR125446	TAXI GUIDANCE SIGN, 6 CHARACTER	EA.	2							
AR125505	MIRL, STAKE MOUNTED	EA.	26							
AR125510	MIRL, BASE MOUNTED	EA.	9							
AR125540	MI THRESHOLD LIGHT STAKE MTD	EA.	14							
AR125610	REILS	PAIR	2							
AR125630	PLASI	EA	2							
AR150510	ENGINEER'S FIELD OFFICE	L.S.	1							
AR150540	HAUL ROUTE	L.S.	1							
AR151450	CLEARING AND GRUBBING	AC.	13							
AR152610	BUILDING DEMOLITION	L.S.	1							
AR155540	BY-PRODUCT LIME	TON	1,173							
AR155616	SOIL PROCESSING-16"	S.Y.	31,277							
AR156510	SILT FENCE	L.F.	2,750							
AR156511	DITCH CHECK	EA.	23							
AR156512	BALES	EA.	40							
AR156520	INLET PROTECTION	EA.	2							
AR156530	TEMPORARY SEEDING	AC	23							
AR156531	EROSION CONTROL BLANKET	S.Y.	12,328							
AD1ECE AO	BIDDAD	CV	270	1						

S.Y.

L.F.

L.F. EA.

L.F. S.F. S.F.

L.F.

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2 1,042 2

203 13,582

5,711

120 228

160

500

500 25

3,700 10 111

5

6 45 45

10,091 500

10,497

	DATE REVISION				
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TAYLORVILLE MUNICIPAL AIRPC TAYLORVILLE, ILLINOIS

HANSON

CONSTRUCT RUNWAY 9-27

3 3 of 127 sheets

SUMMARY OF QUANTITIES

AR156540

AR161510

AR161624

AR162504

AR162605 AR162624

AR162900

AR620520

AR620525

AR701515

AR701518

AR701536

AR705526

AR705546

AR705548

AR705550

AR705630 AR751410

AR752415

AR752418

AR752636

AR800152 AR800429

AR800575

AR800576

AR800578

AR901510

AR908510

CLASS C FENCE CLASS C GATE-24'

CLASS E FENCE 4'

CLASS E GATE-24'

REMOVE CLASS E FENCE
PAVEMENT MARKING-WATERBORNE

6" PERFORATED UNDERDRAIN W/SOCK 6" NON PERFORATED UNDERDRAIN

8" NON PERFORATED UNDERDRAIN

10" NON PERFORATED UNDERDRAIN

PRECAST REINFORCED CONC. FES 15"
PRECAST REINFORCED CONC. FES 18"

Underdrain inspection hole

CONCRETE HEADWALL 36"

WEED CONTROL LIGHT RING

EXPLORATORY TRENCH

INSTALL GROUND ROD

LIME AND FERTILIZE

SEEDING MULCHING

FIELD TILE TRACING

CLASS E GATE-5'

BLACK BORDER

15" RCP CLASS IV 18" RCP CLASS IV

36" RCP CLASS IV

INLET

# HEIGHT OF CONSTRUCTION EQUIPMENT

THE MAXIMUM ANTICIPATED HEIGHT OF THE CONSTRUCTION EQUIPMENT WILL BE 25 FEET. THE TALLEST EQUIPMENT IS EXPECTED TO BE A SEMI

#### HAUL ROUTE AND VEHICLE PARKING

THE CONTRACTOR WILL USE THE DESIGNATED HAUL ROUTE AND PARKING AREA AS SHOWN ON THIS SHEET. THE PROPOSED PARKING AREA WILL BE APPROXIMATELY 200' X 200'. THE CONTRACTOR WILL BE REQUIRED TO MAINTAIN THE PROPOSED HAUL ROUTE AND PARKING AREA THROUGHOUT THE COURSE OF THE PROJECT. ANY AREAS DAMAGED OUTSIDE OF THESE AREAS WILL BE REPAIRED BY THE CONTRACTOR AND AT THE CONTRACTOR'S OWN EXPENSE. AT THE CONCLUSION OF THE PROJECT THE CONTRACTOR WILL RESTORE IT TO ITS' ORIGINAL STATE. RESTORATION OF THE HAUL ROUTE AND PARKING AREA WILL BE CONSIDERED INCIDENTAL TO ITEM AR150540 - HAUL ROUTE AND NO ADDITIONAL COMPENSATION WILL BE

#### CONTRACTOR RESPONSIBILITIES

THE CONTRACTOR'S EQUIPMENT PARKING AND STORAGE AREA WILL BE AS SHOWN ON THIS SHEET. THE CONTRACTOR'S EMPLOYEES WILL PARK THEIR VEHICLES IN THIS AREA. ONLY CONTRACTOR VEHICLES WILL BE ALLOWED OUTSIDE THIS AREA.

THE CONTRACTOR AND HIS EMPLOYEES WILL BE RESTRICTED TO THE WORK AREA AND ALL OTHER AREAS OF THE AIRPORT ARE "OFF LIMITS" TO THEM.

NO UNPROTECTED TRENCHES OR HOLES, WITHIN 200' OF 18-36 WHEN IT IS CLOSED AND BEING READIED TO REOPEN, WILL REMAIN OPEN OVERNIGHT. IF A HOLE OR TRENCH IS TO REMAIN OPEN IT MUST BE PROTECTED WITH BARRICADES OR CONES AT THE DISCRETION OF THE RESIDENT ENGINEER.

# RUNWAY AND TAXIWAY CLOSURE

RUNWAY 18-36 WILL REQUIRE CLOSURE ANYTIME WORK IS BEING COMPLETED WITHIN 200-FT OF ITS CENTERLINE. A TAXIWAY WILL REQUIRE CLOSURE ANYTIME WORK IS COMPLETED WITHIN 66 FT OF THE TAXIWAY CENTERLINE. THE CONTRACTOR WILL BE REQUIRED TO NOTIFY THE AIRPORT MANAGER NO LESS THAN 48 HOURS IN ADVANCE OF THE INTENDED CLOSURE TO ENSURE AN ADEQUATE AMOUNT OF TIME IS AVAILABLE TO ISSUE A NOTICE TO AIRMEN (NOTAM) REGARDING THE CLOSURE AND THE EXISTENCE OF EQUIPMENT IN THE AREA. THE NOTAM WILL BE ISSUED BY AIRPORT PERSONNEL. DURING TIMES OF CLOSURE THE WORK WITHIN THE 200-FT OFFSET AREA IS TO BE EXPEDITED TO MINIMIZE THE LENGTH OF THE CLOSURE, AND NO CLOSURE OF RUNWAY 18-36 WILL BE ALLOWED FROM 5 P.M. EACH FRIDAY UNTIL THE FOLLOWING MONDAY AT 7 A.M. ALL WORK INCLUDED IN OPENING AND CLOSING THE RUNWAY WILL BE CONSIDERED INCIDENTAL TO THE PROJECT AND NO ADDITIONAL COMPENSATION WILL BE

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**BUILDINGS** 

4) MAINTENANCE OF THE CROSSES DURING THE CLOSING PERIOD.

(TO BE

# STEPS TO OPEN RUNWAY OR TAXIWAY

1) THE PAVEMENT WILL BE SWEPT BY A POWER BROOM TO REMOVE ANY AND ALL DEBRIS FROM THE PAVEMENT.

2) THE AREA WITHIN 200 FEET OF A RUNWAY CENTERLINE AND 66 FEET OF A TAXIWAY CENTERLINE MUST BE SMOOTH GRADED WITH A 1% - 5% SLOPE AWAY FROM THE PAVEMENT EDGE. THE PAVEMENT EDGE DROP-OFF CAN NOT EXCEED 3 INCHES. NO HOLES OR MOUNDS WILL BE PERMITTED WITHIN THE AREA.

3) ALL PERSONNEL AND EQUIPMENT WILL BE OUT OF THE 200 FEET AND 66 FEET LIMITS.

4) ALL RUNWAY AND TAXIWAY LIGHTING CIRCUITS WILL BE

5) RUNWAY AND TAXIWAY CENTERLINE MARKING, IF OBLITERATED, WILL BE REMARKED.

6) THE CLOSED PAVEMENTS WILL BE VISUALLY INSPECTED BY AIRPORT PERSONNEL PRIOR TO OPENING. THE CONTRACTOR WILL MAKE ANY CORRECTIONS REQUIRED AS A RESULT OF THE INSPECTION.

# 150-ENGINEER'S FIELD OFFICE NOTES

THE PROPOSED ENGINEER'S FIELD OFFICE WILL BE FURNISHED, MAINTAINED, AND REMOVED IN ACCORDANCE WITH ITEM AR150510 "ENGINEER'S FIELD OFFICE" AS STATED ON PAGE 168 OF THE SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS, ADOPTED JULY 1, 2004.

THE LOCATION OF THE PROPOSED ENGINEER'S FIELD OFFICE WILL BE DETERMINED AT THE PRE-CONSTRUCTION MEETING.

THE ENGINEERING FIRM WILL MAKE PAYMENT FOR ALL LONG DISTANCE TELEPHONE CALLS IN EXCESS OF ONE HUNDRED DOLLARS (\$100.00) PER MONTH.

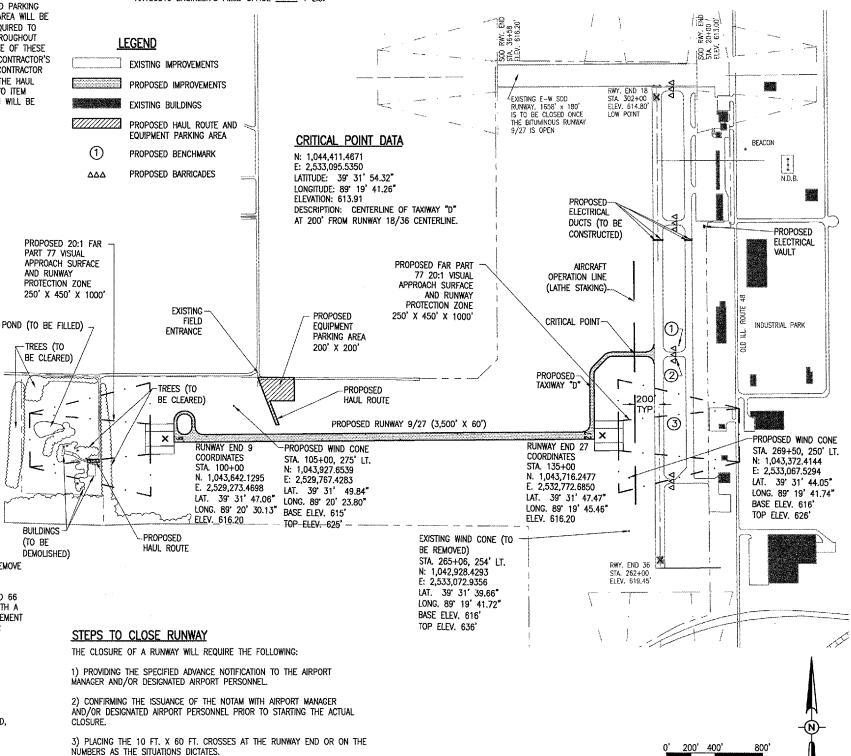
THE PROPOSED ENGINEER'S FIELD OFFICE WILL BE PAID FOR UNDER ITEMS: AR150510 ENGINEER'S FIELD OFFICE \_\_\_\_\_ 1 L.S.

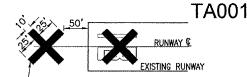
	BENCHMARK DATA					
NO.	DESCRIPTION	ELEV.				
1	"TAYPORT", STAINLESS STEEL ROD	614.22				
2	CHISELED "□" ON SW CORNER OF CONC. PAD, "36-18" SIGN	616.05				
3	CHISELED "[]" ON SW CORNER OF CONC. PAD OF DROP INLET	616.05				

HALF SIZE SCALE:

#### EROSION CONTROL

THIS PROJECT WILL DISTURB MORE THAN 1 ACRE OF LAND, THEREFORE AN N.P.D.E.S. PERMIT WILL BE REQUIRED.





DETAIL OF CROSS FOR CLOSED RUNWAY "NOT TO SCALE"

YELLOW IN COLOR

COST OF CONSTRUCTING, PLACING, MAINTAINING AND REMOVING CROSSES WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED. THE CROSSES WILL BE YELLOW IN COLOR AND SHALL BE MADE OF A SUITABLE MATERIAL AS APPROVED BY THE RESIDENT ENGINEER. THE CROSSES WILL BE PLACED OVER THE NUMERALS AND SECURED IN A MANNER APPROVED BY THE RESIDENT ENGINEER. THE PROPOSED CROSSES WILL BE PLACED EACH DAY THE RUNWAY IS CLOSED AND REMOVED WHEN THE RUNWAY IS RE-OPENED. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE PLACEMENT AND REMOVAL OF THE CROSSES. NO ADDITIONAL COMPENSATION WILL BE

WHEN THE EAST-WEST RUNWAY BEGINS TO LOOK LIKE A RUNWAY, CROSSES WILL BE PLACED 50' OFF THE END OF THE EAST-WEST RUNWAY.

#### J.U.L.I.E. INFORMATION

COUNTY	CHRISTIAN
CITY	TAYLORVILLE
TOWNSHIP	TAYLORVILLE
SECTION NO	32
ADDRESS	TAYLORVILLE MUNICIPAL AIRPOR
	R.R. 3, BOX 364
	TAYLORVILLE, 11 62568

#### UTILITY NOTE

THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES AND AGENCIES WHICH HAVE LINES OR CONDUITS IN THE PROPOSED WORK AREA. ALL LINES AND CONDUITS SHALL BE LOCATED AND IDENTIFIED FOR DEPTH BEFORE ANY EXCAVATION BEGINS. THE CONTRACTOR WILL CALL J.U.L.I.E (1-800-892-0123) TO ACCOMPLISH THE ABOVE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO IDENTIFY ALL UNDERGROUND NON-JULIE UTILITIES LOCATED WITHIN THE PROPOSED CONSTRUCTION LIMITS. THESE UNDERGROUND IMPROVEMENTS WILL BE LOCATED AT THE CONTRACTOR'S OWN EXPENSE PRIOR TO THE START OF CONSTRUCTION ACTIVITIES.

#### PROPOSED SAFETY PLAN

GENERAL -- THE TAYLORVILLE MUNICIPAL AIRPORT IS COMPRISED OF A NORTH-SOUTH RUNWAY AND A SOD STRIP. THE PROPOSED CONSTRUCTION WILL NECESSITATE CLOSING THE NORTH-SOUTH RUNWAY ANY TIME THE CONTRACTOR IS WORKING WITHIN 200' OF THE RUNWAY CENTERLINE. THE RUNWAY WILL BE CLOSED ONLY DURING THE CONSTRUCTION DAY. AT THE END OF EACH CONSTRUCTION DAY THE CONTRACTOR WILL SMOOTH GRADE ALL AREAS WITHIN THE SAFETY AREA TO THE SATISFACTION OF THE RESIDENT ENGINEER AND RE-OPEN THE RUNWAY. ALL WORK INCLUDED IN OPENING AND CLOSING THE RUNWAY WILL BE CONSIDERED INCIDENTAL TO THE PROJECT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

IDENTIFICATION - WHEN THE CONTRACTORS VEHICLES AND EQUIPMENT ARE ON THE AIRPORT THEY SHALL BE PROPERLY MARKED WITH THREE (3') FOOT SQUARE CHECKERED FLAGS (INTERNATIONAL ORANGE AND WHITE). THE CONTRACTOR WILL ALSO PROVIDE WORKERS WITH SOME TYPE OF TAG OR GARMENT TO IDENTIFY THE PERSON AS BEING PART OF THE CONSTRUCTION

RADIO CONTROL - THE CONTRACTOR WILL BE REQUIRED TO BE IN TWO-WAY RADIO CONTACT (122.80 MHz.) WITH THE AIRPORT UNICOM. THIS WILL KEEP THE CONTRACTOR IN CONSTANT CONTACT WITH THE TAYLORVILLE MUNICIPAL AIRPORT AND ENABLE THE AIRPORT TO IMMEDIATELY CONTACT THE CONTRACTOR IN CASE OF AN AERONAUTIC EMERGENCY THAT WOULD REQUIRE ACTION BY THE CONTRACTOR AND/OR HIS PERSONNEL.

# BARRICADES, TRAFFIC CONES, AND LATHE STAKING

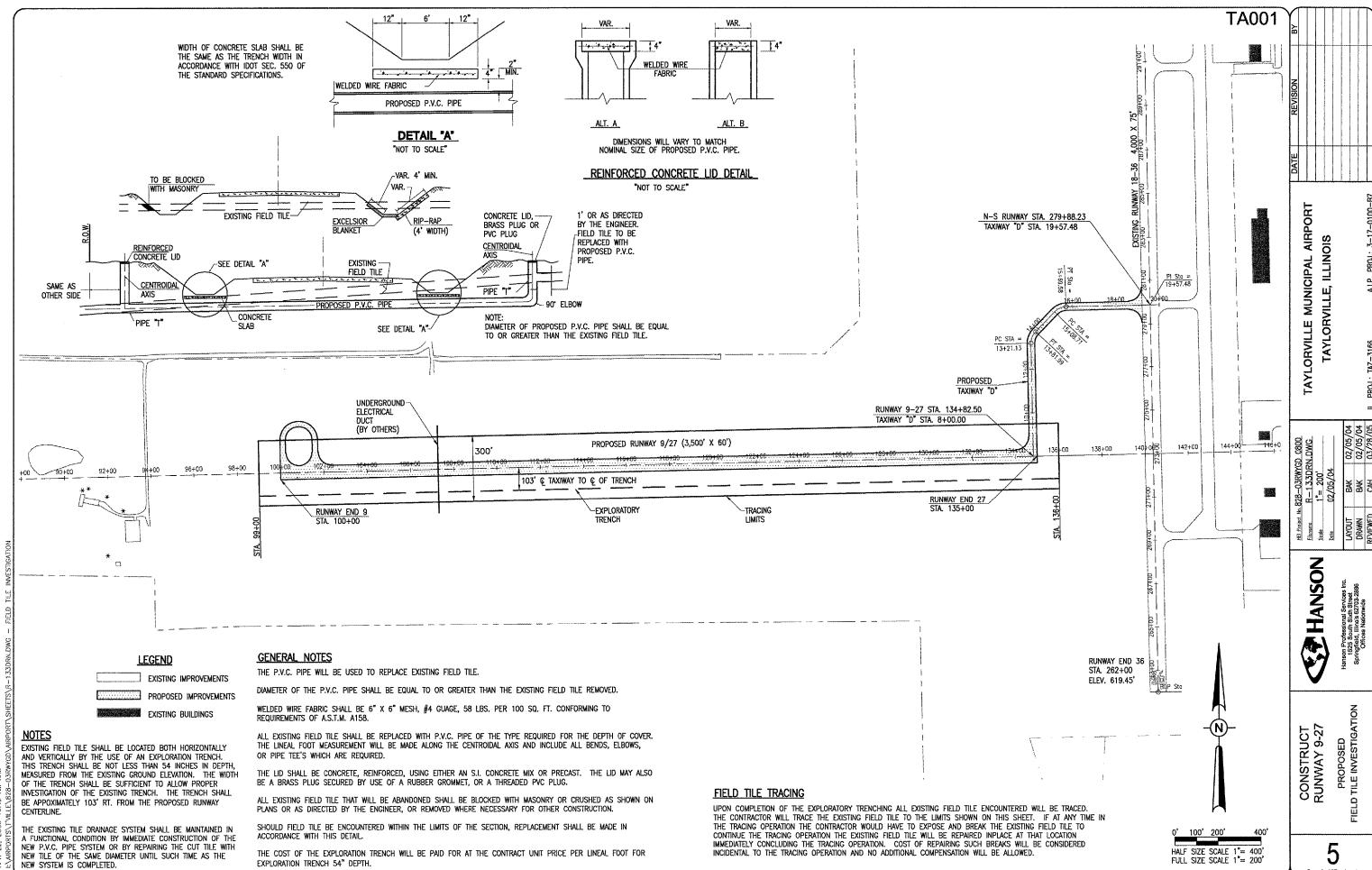
IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO PLACE AND MAINTAIN BARRICADES, TRAFFIC CONES, AND LATHE STAKING AS SHOWN AND AT THE DISCRETION OF THE THE RESIDENT ENGINEER. THE BARRICADES ON THE TAXIWAYS WILL BE REMOVED WHILE RUNWAY 18-36 IS OPEN AND ERECTED UPON THE RUNWAY CLOSURE. THE BARRICADES WILL BE EQUIPPED WITH RED FLASHING OR STEADY BURN LIGHTS AND 20" SQUARE ORANGE FLAGS. THE CONTRACTOR WILL BE REQUIRED TO PLACE LATHE STAKING AT THE AIRCRAFT OPERATIONAL LIMIT, THE 200-FT OFFSET FROM RUNWAY 18-36, TO PROVIDE A VISUAL INDICATION TO THE WORKERS AND DRIVERS IN THE AREA THE BOUNDARY TO WHICH THEY MUST REMAIN BEHIND WHILE RUNWAY 18-36 IS ACTIVE

THE BARRICADES, CONES, AND LATHE STAKING, THEIR MAINTENANCE, PLACEMENT, AND REMOVAL WILL BE CONSIDERED AS AN INCIDENTAL ITEM TO THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE

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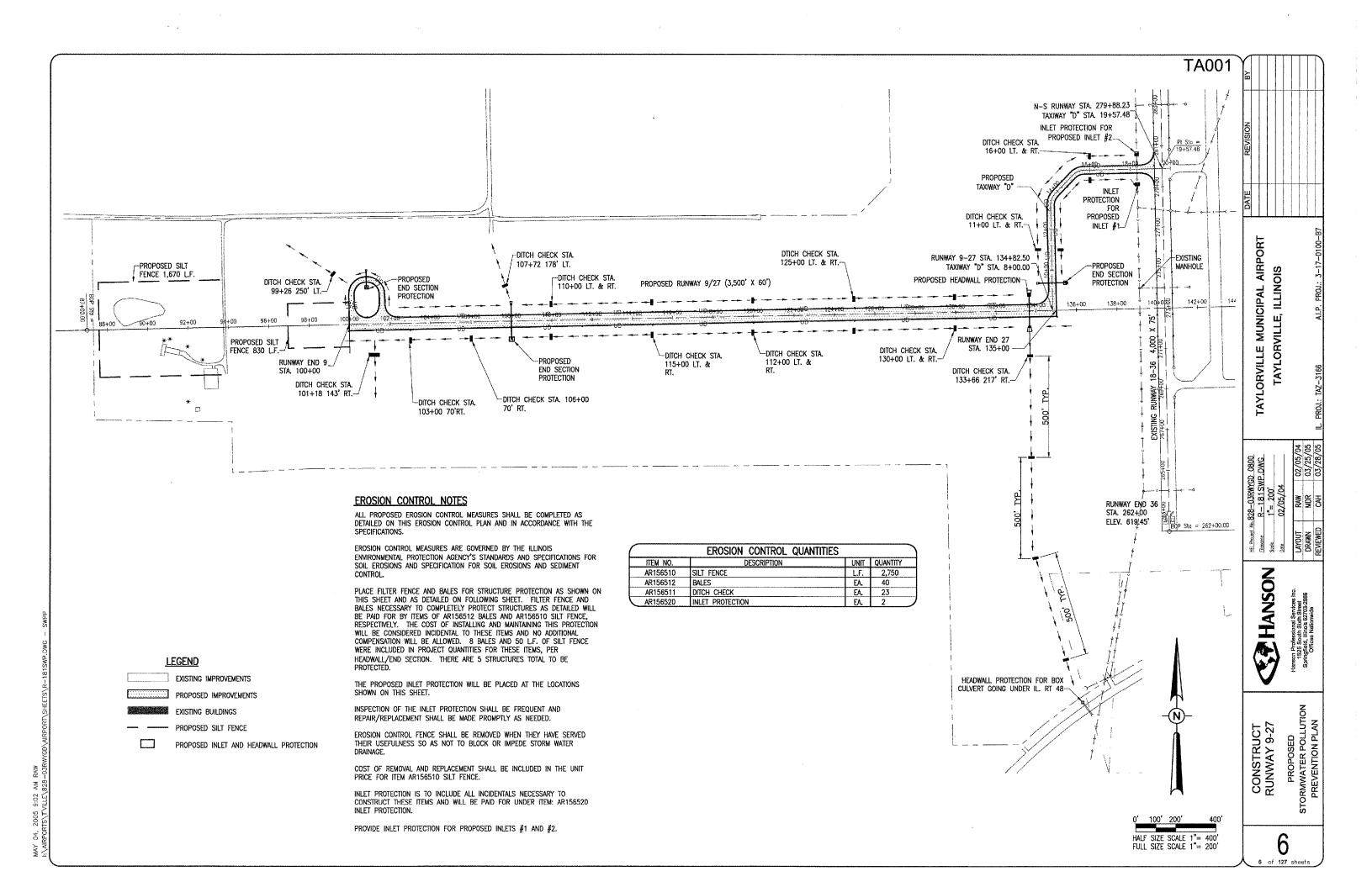
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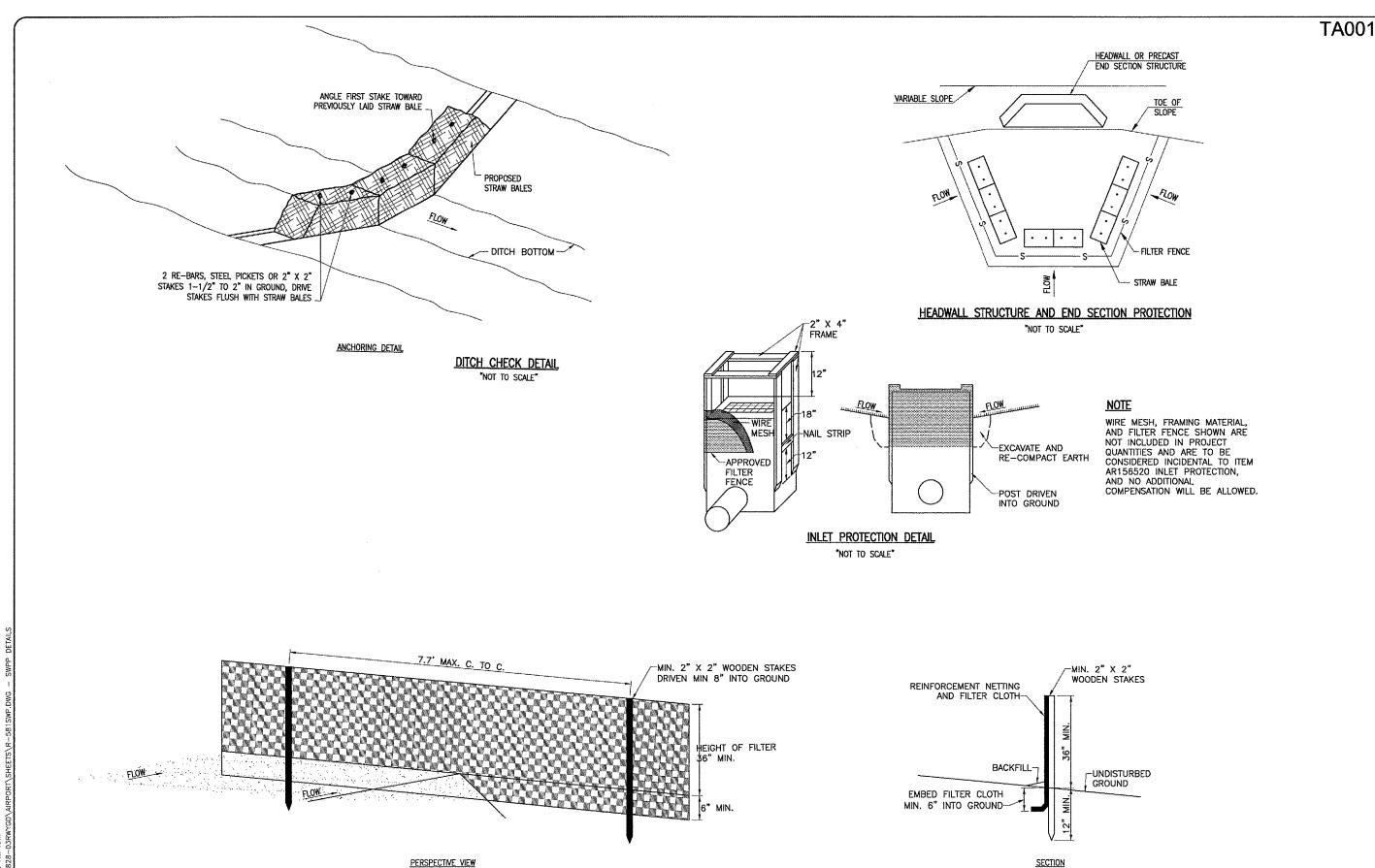
CONSTRUCT RUNWAY 9-27



of 127 sheets

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FILTER FENCE DETAIL "NOT TO SCALE"

TAYLORVILLE MUNICIPAL AIRPORT TAYLORVILLE, ILLINOIS

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PROPOSED STORMWATER POLLUTION PREVENTION DETAILS CONSTRUCT RUNWAY 9-27

#### 151450-CLEARING AND GRUBBING NOTES

THE AREAS DESIGNATED FOR CLEARING AND GRUBBING ARE SHOWN ON THIS SHEET. ALL OF THESE AREAS ARE LOCATED ON EXISTING AIRPORT PROPERTY OR WITHIN THE LIMIT OF AN EXISTING AVIGATION EASEMENT. ALL TREES WITHIN THE LIMITS SHOWN WILL BE REMOVED UNDER THIS ITEM AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR REMOVING INDIVIDUAL TREES.

ALL CLEARING AND GRUBBING WILL BE LOCATED AND MARKED BY THE RESIDENT ENGINEER. IF A TREE IS LOCATED ON THE PROPERTY LINE THEN THE TREE WILL BE INCLUDED IN THE CLEARING.

ALL AREAS DESIGNATED FOR CLEARING AND GRUBBING ARE SHOWN ON THIS SHEET AS!

TWO WEEKS BEFORE BEGINNING CLEARING AND GRUBBING OPERATIONS THE CONTRACTOR WILL NOTIFY ADJACENT LAND OWNERS AS TO WHAT HIS CONSTRUCTION METHODS WILL BE.

IF PERMITTED BY THE PERTINENT GOVERNING AUTHORITIES, THE CONTRACTOR MAY BURN AND BURY THE CLEARED TREES ON AIRPORT PROPERTY. IF BURNING AND BURIAL IS NOT PERMITTED, THE CONTRACTOR MUST DISPOSE OF THE TREES OFF THE AIRPORT PROPERTY. THE BURNING AND BURIAL LOCATION OF THE TREES WILL BE APPROVED BY THE ENGINEER.

THERE WILL BE AT LEAST THREE FEET OF EARTH PLACED OVER THE BURIED MATERIAL. ALL BURIAL AREAS WILL BE GRADED AND SEEDED.

ALL AREAS BEING CLEARED AND GRUBBED WILL BE SMOOTH GRADED AND SEEDED. AREAS CLEARED WITHIN THE AVIGATION EASEMENT WILL BE SEEDED WITH THE NATIVE GRASS MIXTURE SHOWN ON THIS SHEET AND AS DESCRIBED. AREAS ON THE AIRPORT SIDE OF THE AVIGATION EASEMENT WILL BE SEEDED IN ACCORDANCE WITH ITEM 901 "SEEDING". THE QUANTITY OF SEEDING REQUIRED IN ALL THE AREAS OF CLEARING AND GRUBBING IS TO BE CONSIDERED INCIDENTAL TO ITEM AR151450, UNLESS OTHERWISE NOTED, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

THE EXISTING EARTH BERM LOCATED EAST OF A PORTION OF THE PROPOSED CLEARING, AS SHOWN, IS TO REMAIN FOLLOWING ALL EARTH GRADING AND TREE CLEARING AND GRUBBING. IF THE BERM IS DESTROYED DURING THE COURSE OF COMPLETING THE CLEARING IT WILL BE RECONSTRUCTED TO THE PRE-CONSTRUCTION PROPORTIONS AT THE CONTRACTOR'S EXPENSE AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED. THE CONTRACTOR WILL RECORD THE LOCATION AND SIZE OF THE BERM PRIOR TO THE START OF THE CLEARING IN THIS AREA IN ORDER TO EASILY RECONSTRUCT THE BERM ACCURATELY SHOULD

THE CONTRACTOR WILL CLEAR AND GRUB IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

CLEARING, GRUBBING AND DISPOSAL OF THE DESIGNATED AREAS WILL BE PAID FOR UNDER: ITEM AR151450 "CLEARING AND GRUBBING"\_\_\_\_\_\_\_ 13 ACRES.

# ELECTRICAL EQUIPMENT REMOVAL NOTES

ON THE PROPERTY SHOWN THERE ARE RESIDENTIAL ELECTRICAL ITEMS THAT WILL REQUIRE REMOVAL PRIOR TO OR AFTER THE BUILDING DEMOLITION. THESE INCLUDE, BUT MAY NOT BE LIMITED TO: A SATELLITE DISH AND FOUNDATION, FLECTRICAL METERS AND SERVICES, AND PRIVATE LIGHT POLES. ITEM AR152610-BUILDING DEMOLITION WILL INCLUDE THE ENTIRE REMOVAL OF THESE ITEMS AND PROPER DISPOSAL OF THE ITEMS OFF THE

ALL LABOR, MATERIALS, EQUIPMENT, AND OTHER COSTS REQUIRED TO REMOVE AND DISPOSE OF THE ELECTRICAL ITEMS ON THE PROPERTY, WILL BE CONSIDERED INCIDENTAL TO AR152610-BUILDING DEMOLITION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED. THE CONTRACTOR SHALL VISUALLY INSPECT THE SITE PRIOR TO BID TO ENSURE THEY ARE FAMILIAR WITH THE EQUIPMENT TO BE REMOVED.

	SITE REMOVAL QUANTITIES			_
 ITEM NO.	DESCRIPTION	UNIT	QUANTITY	
AR151450	CLEARING AND GRUBBING	ACRE	13	
AR152610	BUILDING DEMOLITION	LS	1	$\overline{\mathcal{I}}$

# **EXISTING POND REMOVAL NOTES**

THE DRAINAGE OF THE POND WILL REQUIRE REMOVAL OF THE EARTH MATERIAL FORMING THE DAM AT A RATE OF NO GREATER THAN 2 FT/DAY TO ALLOW THE POND TO DRAIN GRADUALLY AND NOT INUNDATE ADJACENT PROPERTIES WITH THE ENTIRE VOLUME OF WATER CONTAINED IN THE POND. ONCE DRAINAGE OF THE POND IS COMPLETE, EARTH MATERIAL OBTAINED FROM WITHIN THE AIRPORT PROPERTY WILL BE USED TO FILL THE AREA OF THE POND TO GRADES SHOWN. ON THE STAKING PLAN. THE EARTH MATERIAL WILL BE COMPACTED TO AVOID FUTURE SETTLEMENT. THE POND IS WITHIN THE GRADING LIMITS SHOWN ON THE STAKING PLAN AND WILL THEREFORE BE SEEDED ACCORDINGLY, AS SHOWN.

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ALL LABOR, MATERIALS, AND EQUIPMENT REQUIRED TO DRAIN AND GRADE THE POND WILL BE CONSIDERED INCIDENTAL TO ITEM AR152410-UNCLASSIFIED EXCAVATION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

#### **BUILDING DEMOLITION NOTES**

THE EXISTING HOUSE AND SHEDS, AND THEIR CONCRETE FOUNDATIONS AS SHOWN ON THIS SHEET WILL BE REMOVED AND DISPOSED OF OFF THE AIRPORT SITE. ALL MATERIALS WILL BE HANDLED AND DISPOSED OF ACCORDING TO FEDERAL STATE, AND LOCAL REGULATIONS.

THE FOUNDATIONS WILL BE REMOVED TO AT LEAST 24" BELOW HE EXISTING SURROUNDING GROUND. THE FOUNDATIONS WILL

HE EXISTING WOODEN FENCE SHOWN WILL BE REMOVED AS ART OF ITEM AR152610 - BUILDING DEMOLITION AND NO DDITIONAL COMPENSATION WILL BE ALLOWED.

NY HOLE LEFT FROM THE FOUNDATION REMOVAL WILL BE LLED IN WITH EARTH MATERIAL. THE EARTH MATERIAL WILL COMPACTED TO AVOID FUTURE SETTLEMENT.

WO WELLS AND TWO SEPTIC SYSTEMS WILL REQUIRE CLOSURE CCORDING TO FEDERAL, STATE, AND LOCAL REGULATIONS.

HE AREA DISTURBED DURING THE DEMOLITION WILL BE MOOTH GRADED, LIMED, FERTILIZED, SEEDED & MULCHED IN CCORDANCE WITH ITEMS 901 AND 908.

HE DEMOLITION OF THE HOUSE, SHEDS, FOUNDATIONS AND ENCE STRUCTURES; FURNISHING & PLACING EARTH MATERIAL; LOSURE OF THE WELLS AND SEPTIC SYSTEMS, WILL ALL BE AID FOR UNDER ITEM:

R152610 - BUILDING DEMOLITION, PER L.S.

# NATIVE GRASS SEED MIX

BIG BLUE STEM	4	LB/ACRI
LITTLE BLUE STEM	5	LB/ACRI
SIDE-OATS GRAMA	5	LB/ACRE
WILD RYE	1	LB/ACRI
SWITCH GRASS	1	LB/ACRI
INDIAN GRASS	2	LB/ACRI
ANNUAL RYEGRASS	25	LB/ACRE
SPRING OATS	25	LB/ACRE
PERENNIAL RYEGRASS	15	LB/ACRE

EED SHALL BE SOWN WITH A RANGELAND TYPE GRASS DRILL

FRTILIZER WILL NOT BE NECESSARY.

EED BED PREPARATION AND ALLOWABLE WIND CONDITIONS WILL AS DESCRIBED BY ITEM AR901-SEEDING.

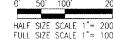
LOWABLE SEEDING DATES FOR THIS MIXTURE SHALL BE FROM AY 15 TO JUNE 30 AND OCTOBER 15 TO DECEMBER.

# LEGEND

PROPOSED IMPROVEMENTS

CLEARING AND GRUBBING LIMITS

--- LIMIT OF AVIGATION FASEMENT





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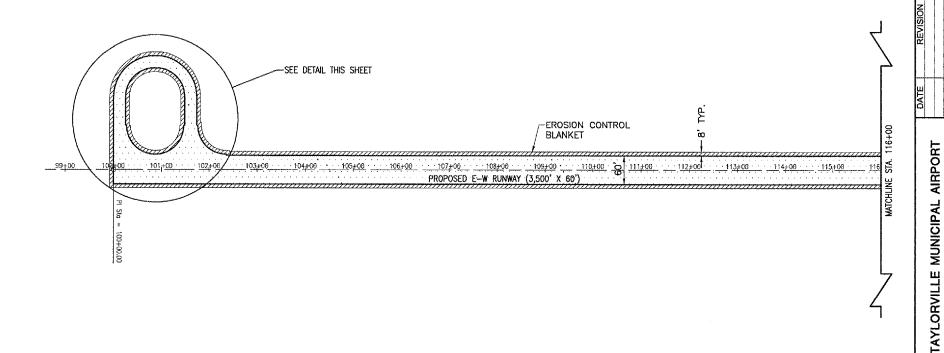
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CONSTRUCT RUNWAY 9-27

8 127

LIMIT OF TREE CLEARING AND GRUBBING EXISTING POWER- POLES (TO BE REMOVED BY OTHERS)  EXISTING POWER- POLES (TO BE REMOVED BY OTHERS)		EXISTING POWER POLE W/CUT WIRE (10 BE REMOVED) BY OTHERS)  THE PAR ADO  ANY FILL BE  TWO ACC  THE FEN THE
EXISTING SATELLITE DISH & CONCRETE PAD (TO BE REMOVED)  EXISTING HOUSE &	LIMIT OF TREE CLEARING AND GRUBBING  95-100 95-100 95-100 100 101-100 102-100 102-100 102-100 104-50   RUNWAY END 9 STA. 100+00  EXISTING BARN (TO BE REMOVED)	AR  103-03 105-03 107-09-9 108+00 109-1 BIG  EXISTING POWER  POLE (TO BE REMOVED BY OTHERS)  EXISTING POWER  POLE (TO BE REMOVED BY FER
FOUNDATION (TO BE REMOVED)  EXISTING TELEPHONE PEDESTAL (TO BE REMOVED BY OTHERS)  EXISTING POWER POLES (TO BE REMOVED BY OTHERS)  LIMIT OF AVIGATION EASEMENT  STA 185+82.43 585.62 RT	EXISTING WOODEN FENCE (TO BE REMOVED)  EXISTING SHED (TO BE REMOVED)  -EXISTING TREE REMOVAL  STA *97+93.59- *704.45 **R.  *709.14' RT.	OTHERS)  SEE BE  ALL MAY  EXISTING POWER POLE (TO BE REMOVED BY OTHERS)



DETAIL "A" SCALE 1" = 50

(	CONSTRUCTION	N LAYOUT COOR	DINATES	`
POINT NO.	NORTHING	EASTING	STATION	OFFSET
1	1043612.1363	2529274.1051	100+00.00	30.0° RT.
2	1043792.0959	2529270.2933	301+50.00	12.5' LT.
3	1043792.6253	2529295.2877	301+50.00	12.5° RT.
4	1043793.8959	2529355.2743	301+81.45	72.5' RT.
5	1043853.8825	2529354.0037	302+63.88	12.5' RT.
6	1043878.8769	2529353.4743	302+63.88	12.5' LT.
7	1043878.9616	2529357.4734	302+63.88	12.5' LT.
8	1043853.9672	2529358.0028	302+63.88	12.5' RT.
9	1043793.9806	2529359.2734	303+42.81	72.5' RT.
10	1043795.2512	2529419.2599	303+81.77	12.5' RT.
11	1043795.7806	2529444.2543	303+81.77	12.5' LT.
12	1043735.9513	2529358.5021	300+92.00	74.5' RT.
13	1043734.6383	2529296.5160	300+92.00	12.5' RT.
14	1043737.2642	2529420,4882	304+39.77	12.5' RT.
15	1043739.1066	2529507.4687	304+39.77	74.5' LT.
16	1043737.7936	2529445.4826	304+39.77	12.5° LT.
17	1043677.1205	2529508.7816	102+36.00	30.0' LT.
18	1043642.1295	2529273.4698	100+00.00	CENTERLINE

BASE BID CONSTRUCTION QUANTITIES						
ITEM NO.	DESCRIPTION	UNIT	QUANTITY			
AR155540	BY-PRODUCT LIME	TON	1,173			
AR155616	SOIL PROCESSING-16"	S.Y.	31,277			
A	ALTERNATE "A" CONSTRUCTION QUANTITIES					
AS152410	UNCLASSIFIED EXCAVATION	C.Y.	71,511			
AS209510	CRUSHED AGGREGATE BASE COURSE	TON	7,200			
AS501505	5" PCC PAVEMENT	S.Y.	29,563			
AS501530	PCC TEST BATCH	EACH	1			
Α	Lternate "B" construction quan	TITIES				
AT152410	UNCLASSIFIED EXCAVATION	C.Y.	71,876			
AT201610	BITUMINOUS BASE COURSE	TON	4,491			
AT201630	BITUMINOUS BASE TEST SECTION	EACH	1			
AT209510	CRUSHED AGGREGATE BASE COURSE	TON	10,588			
AT401610	BITUMINOUS SURFACE COURSE	TON	2,661			
AT401630	BITUMINOUS SURFACE TEST SECTION	EACH	1			
AT602510	BITUMINOUS PRIME COAT	GAL.	10,741			
AT603510	BITUMINOUS TACK COAT	GAL.	1,497			

# 155-LIME-MODIFIED SUBGRADE NOTES:

THE PROPOSED LIME-MODIFIED SUBGRADE SHALL BE COMPLETED IN ACCORDANCE WITH ITEM 155 "LIME TREATED SUBGRADE" AS STATED ON PAGE 32 OF THE SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS, ADOPTED JULY 1, 2004.

THIS ITEM OF WORK SHALL CONSIST OF CONSTRUCTING A 16" DEEP COURSE OF A MIXTURE OF SOIL, LIME AND WATER IN ACCORDANCE WITH THE RATES AND METHODS DESIGNED IN THE SPECIFICATIONS (EITHER THE WET OR DRY METHODS IS ACCEPTABLE).

THE SUBGRADE WILL BE CUT PRIOR TO LIME-MODIFICATION.

ANY SWELL WILL BE REMOVED BY THE CONTRACTOR AND DISPOSED OF ON THE AIRPORT SITE AS DIRECTED BY THE RESIDENT ENGINEER. NO ADDITIONAL

THE LIME-MODIFIED SUBGRADE SHALL BE CUT TO FINISHED ELEVATION UPON COMPLETION (0.05+) IN ACCORDANCE TO SECTION 152-2.11 OF THE SPECIFICATIONS. THE LIME-MODIFIED SUBGRADE WILL BE WET CURED FOR 2

TO 1.5' OUTSIDE OF THE PROPOSED PAVEMENT SURFACE ON BOTH SIDES.

THE LIME-MODIFIED SUBGRADE WILL BE COMPACTED IN ACCORDANCE WITH

SOIL WEIGHT AT MAXIMUM DENSITY. THE ACTUAL AMOUNT WILL BE DETERMINED PRIOR TO THE START OF CONSTRUCTION, BUT SHALL NOT EXCEED 6% BY WEIGHT. THE COST OF LIME WILL BE PAID FOR UNDER ITEM

CUBIC FOOT. THEREFORE, THE MAXIMUM TONNAGE OF LIME WILL BE 1,173

A REAL TIME DRY DENSITY WILL BE ESTIMATED AT 94% OF THE EARTH

RESULTS SHOWING OPTIMUM DENSITY AND MOISTURE FOR THE LIME MODIFIED

THE PROPOSED LIME-MODIFIED SUBGRADE WILL BE PAID FOR UNDER ITEMS: AR155616 SOIL PROCESSING-16"\_\_\_\_\_31,277 S.Y.

# AR209-CRUSHED AGGREGATE BASE COURSE NOTES

THE CRUSHED AGGREGATE BASE COURSE (209) SHALL BE PLACED IN ACCORDANCE WITH ITEM 209 "CRUSHED AGGREGATE BASE COURSE" AS STATED ON PAGE 45 OF THE SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS, ADOPTED JULY 1, 2004.

THE CRUSHED AGGREGATE BASE COURSE MATERIAL (CA-6) WILL BE USED TO CONSTRUCT A BASE COURSE FOR THE PROPOSED PAVEMENT SECTION. THE CRUSHED AGGREGATE BASE COURSE MATERIAL WILL BE 6" IN DEPTH FOR A BITUMINOUS SECTION OR 5" IN DEPTH FOR A PCC SECTION, AND COMPACTED TO NOT LESS THAN 95 PERCENT

THE PROPOSED AGGREGATE FOR THE BASE COURSE MATERIAL SHALL MEET THE REQUIREMENTS OF GRADATION "B" IN TABLE 1 OF THE SUPPLEMENTAL SPECIFICATIONS.

209-3.2 EQUIPMENT. ADD THE FOLLOWING PARAGRAPHS TO THIS

"PROVISIONS SHALL BE MADE BY THE CONTRACTOR FOR FURNISHING WATER AT THE PLANT AND AT THE SITE OF THE WORK BY EQUIPMENT OF AMPLE CAPACITY AND OF SUCH DESIGN AS TO ASSURE UNIFORM MIXING AND APPLICATION."

THE CONTRACTOR WILL PROVIDE THE RESIDENT ENGINEER A PROCTOR CURVE SHOWING OPTIMUM DENSITY AND MOISTURE FOR THE SUPPLIED BASE COURSE MATERIAL PRIOR TO THE PLACEMENT OF THE MATERIAL.

THE COMPACTION CONTROL TEST TO BE USED SHALL BE FAA COMPACTION CONTROL TEST T-611 FOR AIRCRAFT WEIGHING LESS

209-4.1. DELETE THE FIFTH SENTENCE AND REPLACE IT WITH THE FOLLOWING:

"IF AT THE TIME THE AGGREGATES ARE WEIGHED THEY CONTAIN MORE THAN SIX (6) PERCENT OF ABSORBED AND FREE MOISTURE BY WEIGHT, A DÉDUCTION FOR THE MOISTURE IN EXCESS OF THIS AMOUNT SHALL BE MADE IN DETERMINING THE PAY QUANTITY."

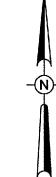
# AR152-UNCLASSIFIED EXCAVATION NOTES:

UNCLASSIFIED EXCAVATION SHALL BE ACCOMPLISHED BY MEANS OF SELECT GRADING OF THE EARTHEN MATERIAL. USABLE TOPSOIL SHALL BE PLACED ON ALL SHOULDERS AND PROPOSED TURF AREAS AND THE MATERIALS ENCOUNTERED IN THE LOWER HORIZONS WILL BE UTILIZED TO FORM THE FILLS NECESSARY TO ACHIEVE THE PROPOSED GRADES.

EXCAVATION SHALL BE PAID FOR ONLY ONCE. STOCKPILING OF TOPSOIL FOR LATER REUSE AND REDISTRIBUTION, IF NECESSARY, SHALL BE DONE AT THE CONTRACTOR'S EXPENSE. NO PAYMENT WILL BE ALLOWED FOR DOUBLE HANDLING OF ANY MATERIAL.

THE AVAILABLE TOPSOIL WILL BE DISTRIBUTED UNIFORMLY OVER THE PROPOSED TURF AREAS. THE EXCAVATION NECESSARY TO ACHIEVE THE UNIFORM DEPTH OF TOPSOIL IS TO BE CONSIDERED INCIDENTAL TO ITEM 152410 - UNCLASSIFIED EXCAVATION AND NO ADDITONAL COMPENSATION WILL BE ALLOWED.

THE COMPACTION OF THE TOP 16" OF MATERIAL BENEATH PAVEMENT AREAS TO BE PROCESSED WILL BE COMPACTED TO A MINIMUM DENSITY OF 92% OF THE MAXIMUM  $\frac{1}{2}$ 



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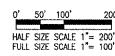
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# **LEGEND**

PROPOSED IMPROVEMENTS

PROPOSED EROSION CONTROL BLANKET



CONSTRUCT RUNWAY 9-27

HANSON

9 of 127 sheets

PAYMENT WILL BE MADE FOR REMOVAL OF SWELL.

THE CONTRACTOR WILL LIME-MODIFY THE SUBGRADE FROM THE CENTERLINE

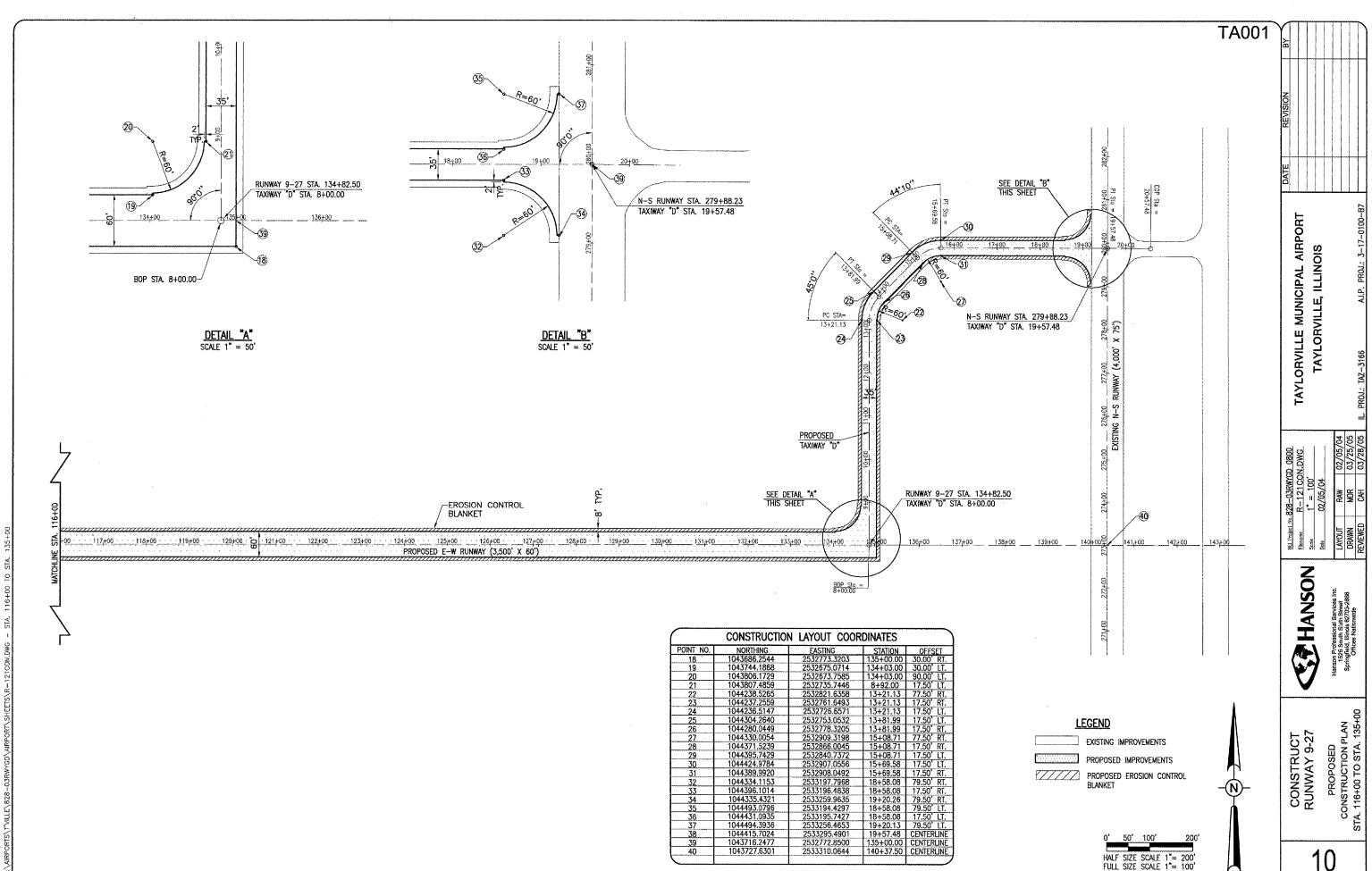
PROCEDURES FOR AIRCRAFT WEIGHING LESS THAN 60,000 POUNDS.

THE LIME, BY-PRODUCT LIME (CODE L), WAS CALCULATED AT 6% OF THE DRY

THE SOIL TEST INDICATES AN AVERAGE SOIL WEIGHT OF 104.2 POUNDS PER

IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO FURNISH PROCTOR

AR155540 BY-PRODUCT LIME\_\_\_\_



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THE BITUMINOUS BASE COURSE (201) SHALL BE PLACED IN ACCORDANCE WITH ITEM AR201002 "BITUMINOUS BASE COURSE-METHOD II" AS STATED ON PAGE 193 OF THE SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS, ADOPTED JULY 1, 2004.

THIS ITEM OF WORK SHALL CONSIST OF CONSTRUCTING ONE LIFT OF BITUMINOUS BASE COURSE (2-1/2 INCH DEPTH) ON THE PROPOSED CRUSHED AGGREGATE BASE COURSE FOR THE PROPOSED RUNWAY, TAXIWAY, AND TURN AROUND

THE PROPOSED BITUMINOUS BASE COURSE WILL BE DESIGNED TO A MARSHALL DESIGN OF LESS THAN 60,000 POUNDS.

#### 602-BITUMINOUS PRIME COAT NOTES:

THE BITUMINOUS PRIME COAT (602) SHALL BE PLACED IN ACCORDANCE WITH ITEM AR602 "BITUMINOUS PRIME COAT" AS STATED ON PAGE 58 OF THE SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS, ADOPTED JULY 1, 2004.

THE PROPOSED BITUMINOUS PRIME COAT SHALL BE PLACED ON THE PROPOSED AGGREGATE BASE COURSE PRIOR TO THE PLACEMENT OF THE FIRST LIFT OF PROPOSED BITUMINOUS BASE COURSE. THE PROPOSED AGGREGATE BASE COURSE SHALL HAVE A PRIME COAT OF BITUMINOUS MATERIAL APPLIED AT A RATE OF 0.35 GAL/SY..

THE PROPOSED BITUMINOUS PRIME COAT WILL BE PAID FOR UNDER ITEM: AR602510 BITUMINOUS PRIME COAT \_\_\_\_\_ 10,741 GAL.

# AR401-BITUMINOUS SURFACE COURSE NOTES

THE BITUMINOUS SURFACE COURSE (401) SHALL BE PLACED IN ACCORDANCE WITH ITEM AR401002 "BITUMINOUS SURFACE COURSE-METHOD II" AS STATED ON PAGE 253 OF THE SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS, ADOPTED JULY 1, 2004.

THIS ITEM OF WORK SHALL CONSIST OF CONSTRUCTING ONE LIFT OF BITUMINOUS SURFACE COURSE (1-1/2 INCH DEPTH) ON THE PROPOSED BITUMINOUS BASE COURSE FOR THE PROPOSED RUNWAY EXTENSION.

THE PROPOSED BITUMINOUS SURFACE COURSE WILL BE DESIGNED TO A MARSHALL DESIGN OF LESS THAN 60,000 POUNDS.

401-4.9 ADD THE FOLLOWING TO THIS SECTION:

WHEN HAND SPREADING IS PERMITTED. THE MIXTURE WILL BE DISTRIBUTED AND SPREAD USING HAND TOOLS. WHEN THE WORK IS COMPLETED, THE LAYER WILL HAVE THE REQUIRED THICKNESS AND CONFORM TO THE GRADE AND SURFACE CONTOUR SHOWN ON THE PLANS.

401-4.12 SHAPING EDGES. ADD THE FOLLOWING TO THIS PARAGRAPH:

ALL PAVEMENT EDGES (LONGITUDINAL RADIUS, AND PAVEMENT ENDS) MUST BE LEFT IN PROPER ALIGNMENT AS SHOWN ON THE PLANS, THIS MAY BE ACCOMPLISHED BY THE TRIMMING METHOD OUTLINED ABOVE OR AT THE CONTRACTOR'S OPTION BY SAWING AFTER THE PAVING HAS BEEN COMPLETED. NO ADDITIONAL COMPENSATION WILL BE MADE IF THE SAWING METHOD IS USED.

# 603-BITUMINOUS TACK COAT NOTES:

THE BITUMINOUS TACK COAT (603) SHALL BE PLACED IN ACCORDANCE WITH ITEM AR603 "BITUMINOUS TACK COAT" AS STATED ON PAGE 62 OF THE SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS, ADOPTED JULY 1, 2004.

THE PROPOSED BITUMINOUS TACK COAT SHALL BE PLACED ON THE PROPOSED BITUMINOUS PAVEMENT PRIOR TO THE PLACEMENT OF THE NEXT LIFT OF PROPOSED BITUMINOUS SURFACE COURSE. THE PROPOSED BITUMINOUS PAVEMENT SHALL HAVE A TACK COAT OF BITUMINOUS MATERIAL APPLIED AT A RATE OF 0.05 GAL/SY..

603-1.2 QUANTITY OF MATERIAL

AS PER TABLE 1 LOCATED ON PAGE 66 OF THE SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS, ADOPTED JANUARY 1, 2003.

603-2.1 BITUMINOUS MATERIAL.

AS PER TABLE 1 LOCATED ON PAGE 66 OF THE SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS, ADOPTED JULY 1, 2004.

603-3.1 WEATHER LIMITATIONS.

AS PER TABLE 1 LOCATED ON PAGE 66 OF THE SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS, ADOPTED JULY 1, 2004.

603-3.3 APPLICATION OF BITUMINOUS MATERIAL.

AS PER TABLE 1 LOCATED ON PAGE 66 OF THE SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS, ADOPTED JULY 1, 2004.

THE PROPOSED BITUMINOUS TACK COAT WILL BE PAID FOR UNDER ITEM: AR603510 BITUMINOUS TACK COAT \_\_\_\_\_ 1,497 GAL.

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PROPOSED CONSTRUCTION NOTES CONSTRUCT RUNWAY 9-27

11 of 127 sheets

501-PCC PAVING NOTES:

THE PROPOSED 5 INCH PCC CONCRETE SHALL COMPLY WITH ITEM AR501002 - PORTLAND CEMENT CONCRETE PAVEMENT - METHOD II. DESIGNED FOR AIRCRAFT WEIGHT LESS THAN

IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ALL QA/QC TESTING. THIS WILL INCLUDE THE MAKING OF THE CONCRETE TEST CYLINDERS AND THE TRANSPORTING OF THE CYLINDERS TO THE CERTIFIED TESTING LABORATORY.

# 156-EROSION CONTROL BLANKET NOTES:

THIS ITEM SHALL CONSIST OF FURNISHING, TRANSPORTING AND PLACING EROSION CONTROL BLANKET AT THE LOCATIONS SHOWN AND IN ACCORDANCE WITH THE DETAILS ON THE CONSTRUCTION PLANS. THE EROSION CONTROL BLANKET WILL BE PLACED ALONG ALL PROPOSED PAVEMENT EDGES AND DISTURBED SHOULDERS ADJACENT TO EXISTING PAVEMENT, AS WELL AS DOWN THE FLOW LINE OF THE PROPOSED PRIMARY DITCH.

MATERIALS SHALL MEET THE REQUIREMENTS OF THE FOLLOWING ARTICLES OF SECTION 1000 -MATERIALS, ILLINOIS DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, JANUARY 1, 2002.

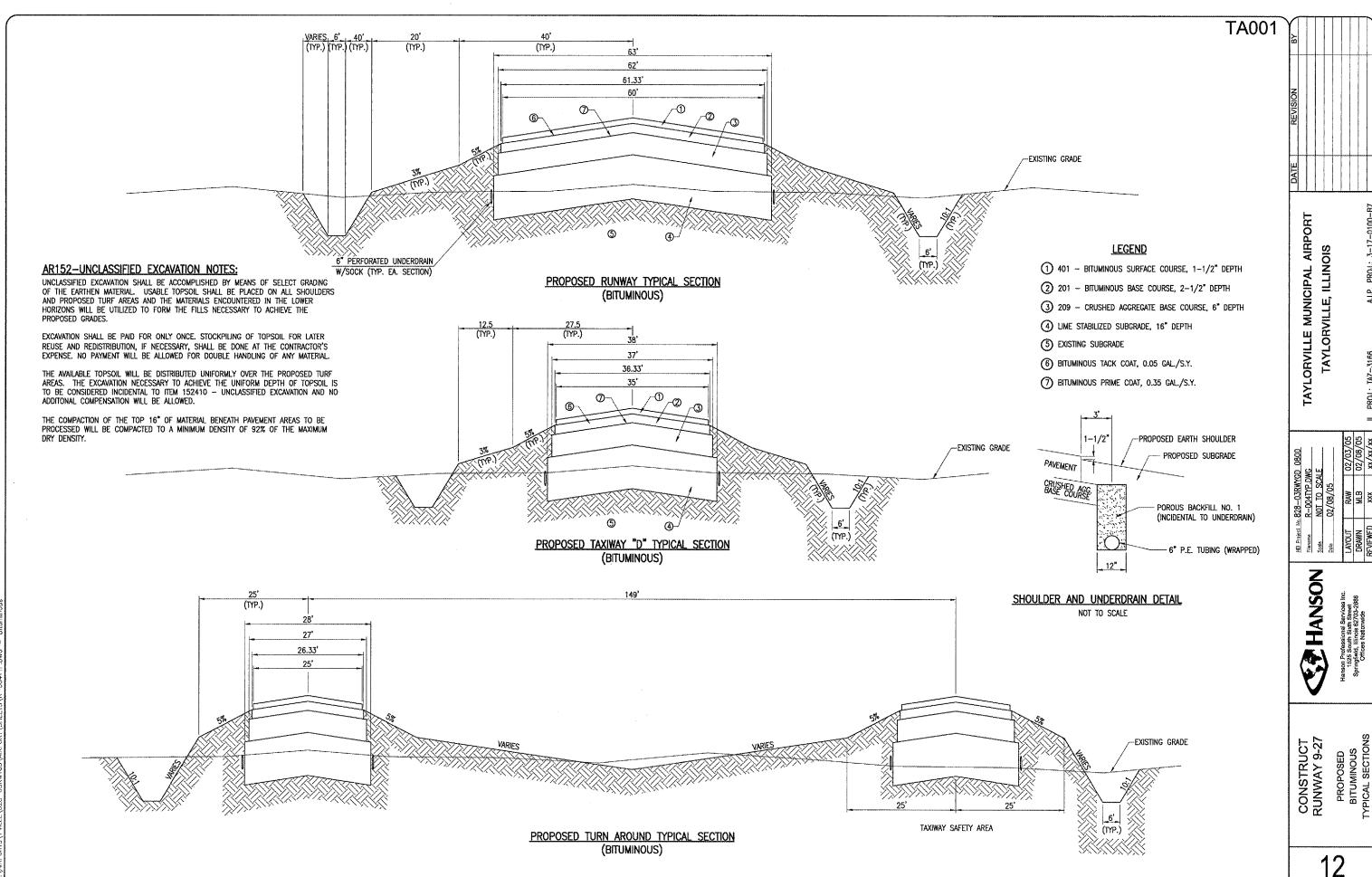
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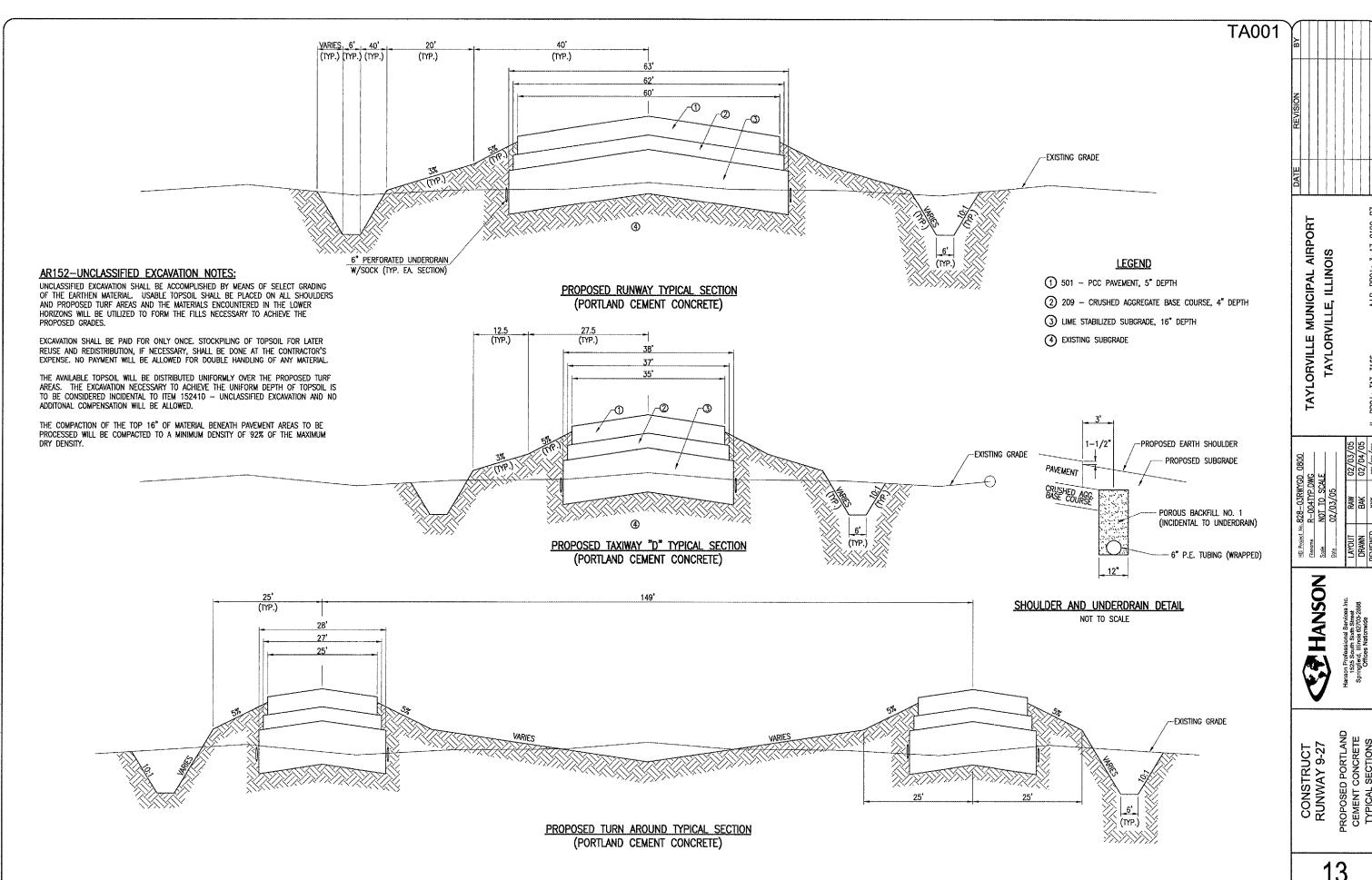
(A) EXCELSIOR BLANKET 1081.10(C) (B) WIRE STAPLES 1081.10(D)

THE BLANKET SHALL BE PLACED WITHIN 24 HOURS AFTER SEEDING OPERATIONS HAVE BEEN COMPLETED ON THE AREAS SPECIFIED. PRIOR TO PLACING THE BLANKET, THE AREAS TO BE COVERED SHALL BE RELATIVELY FREE OF ALL ROCKS OR CLODS OVER 1-1/2 INCH IN DIAMETER, AND ALL STICKS OR OTHER FOREIGN MATERIAL WHICH WILL PREVENT THE CLOSES CONTACT OF THE BLANKET WITH THE SEED BED. IF, AS A RESULT OF RAIN, THE PREPARED SEED BED BECOMES CRUSTED OR ERODED, OR IF ERODED PLACES, RUTS OR DEPRESSIONS EXIST FOR ANY REASON, THE CONTRACTOR WILL BE REQUIRED TO REWORK THE SOIL UNTIL IT IS SMOOTH AND TO RESEED SUCH AREAS WHICH ARE REWORKED, AFTER THE AREA HAS BEEN PROPERLY SHAPED, FERTILIZED AND SEEDED, THE BLANKET SHALL BE LAID OUT FLAT, EVENLY AND SMOOTHLY, WITHOUT

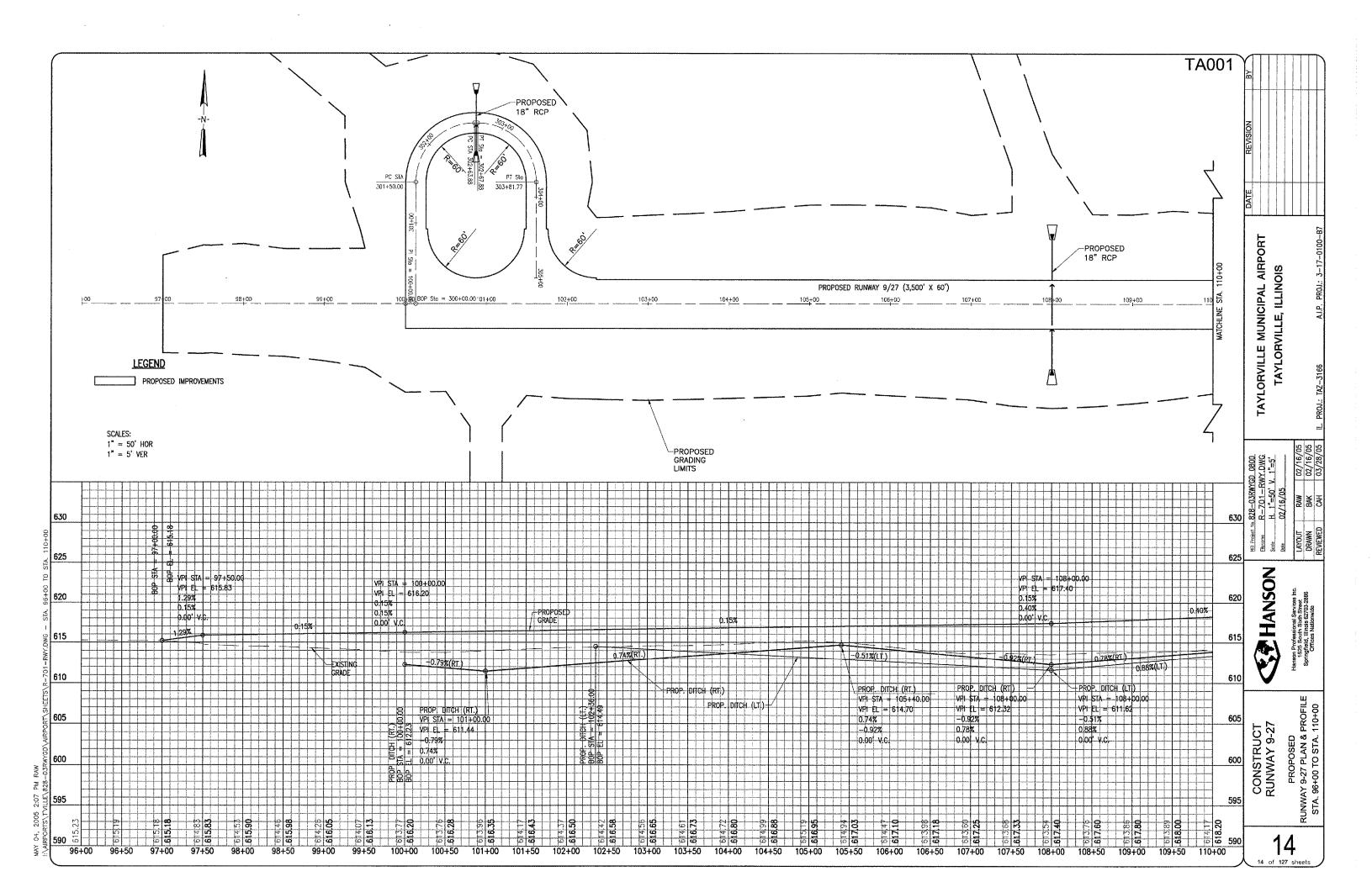
PLACING AND ANCHORING THE BLANKETS IN DITCHES AND ON SLOPES SHALL BE AS BE IN ACCORDANCE TO THE MANUFACTURERS RECOMMENDATIONS.

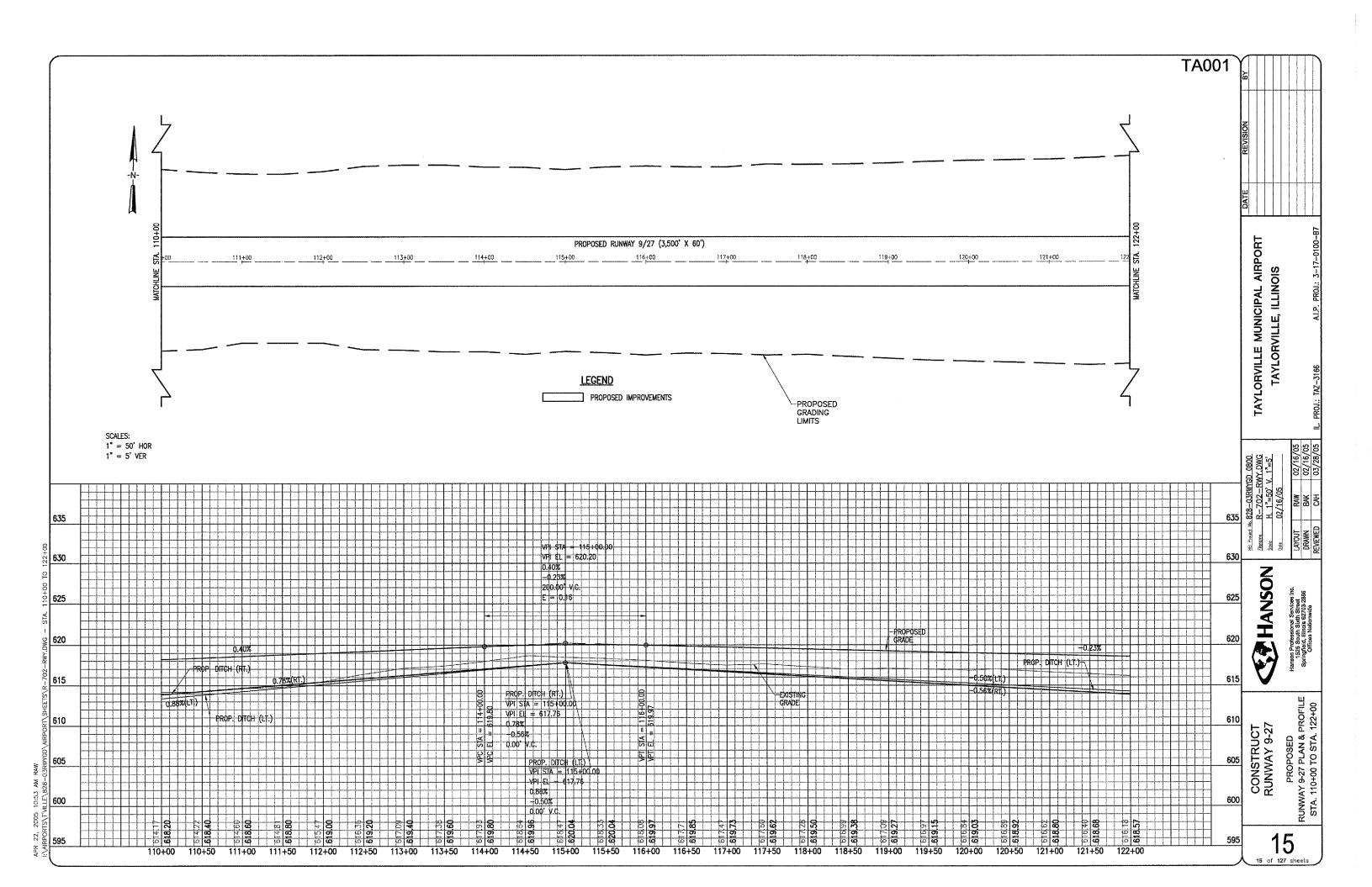
THE PROPOSED EROSION CONTROL BLANKET WILL BE PAID FOR UNDER ITEM: AR156531 - EROSION CONTROL BLANKET \_\_\_\_\_ 12,328 SY.

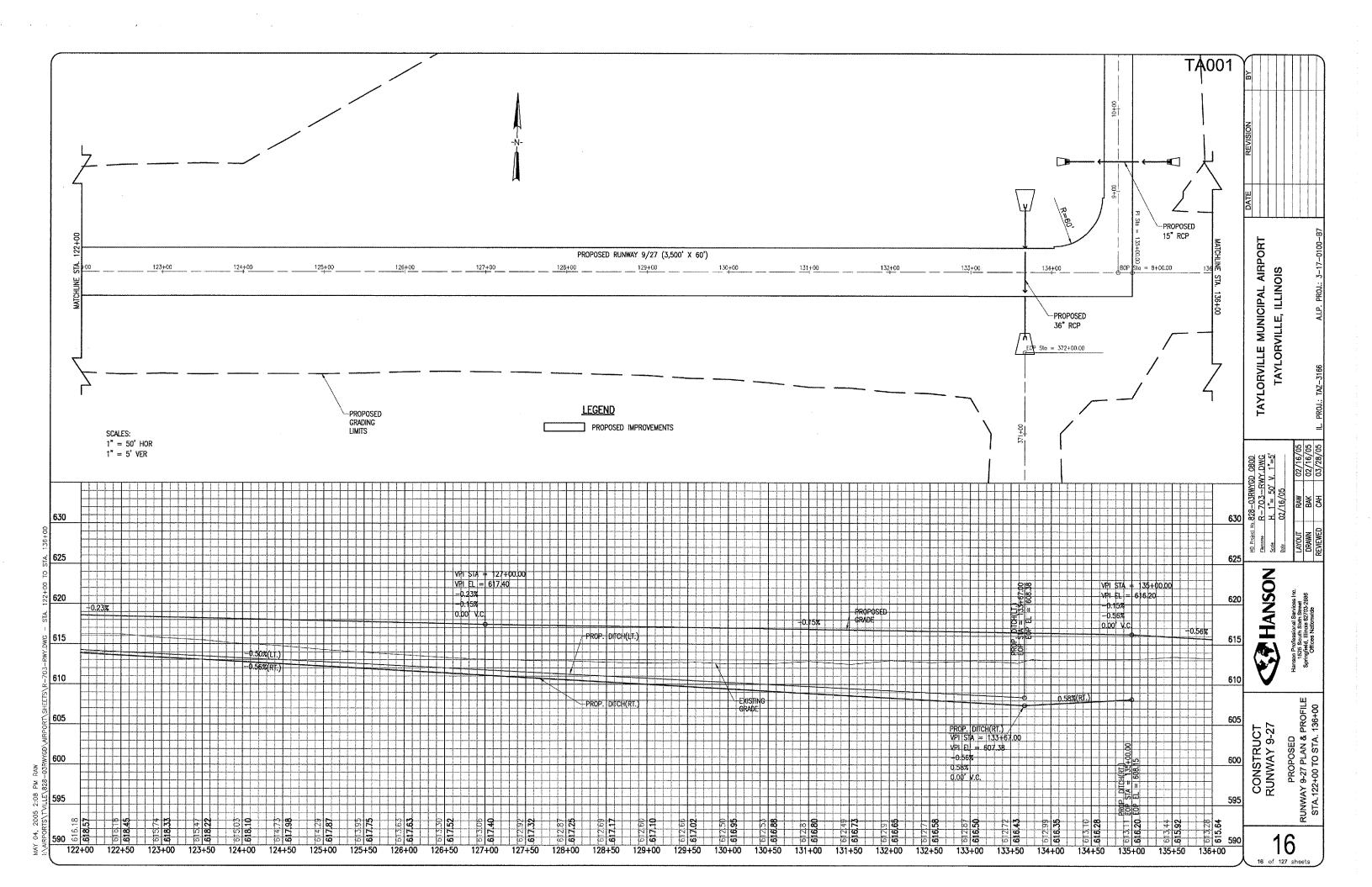


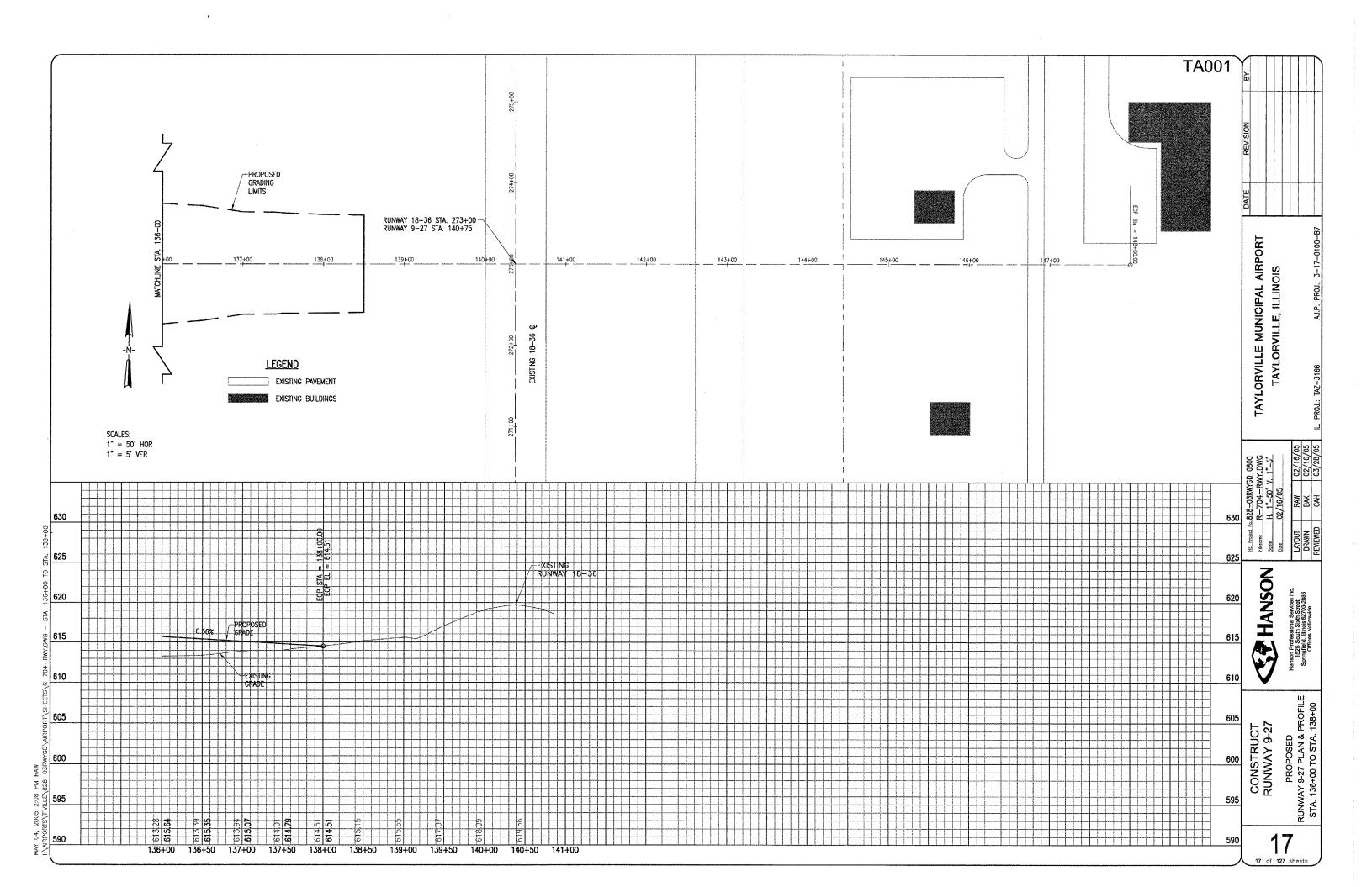


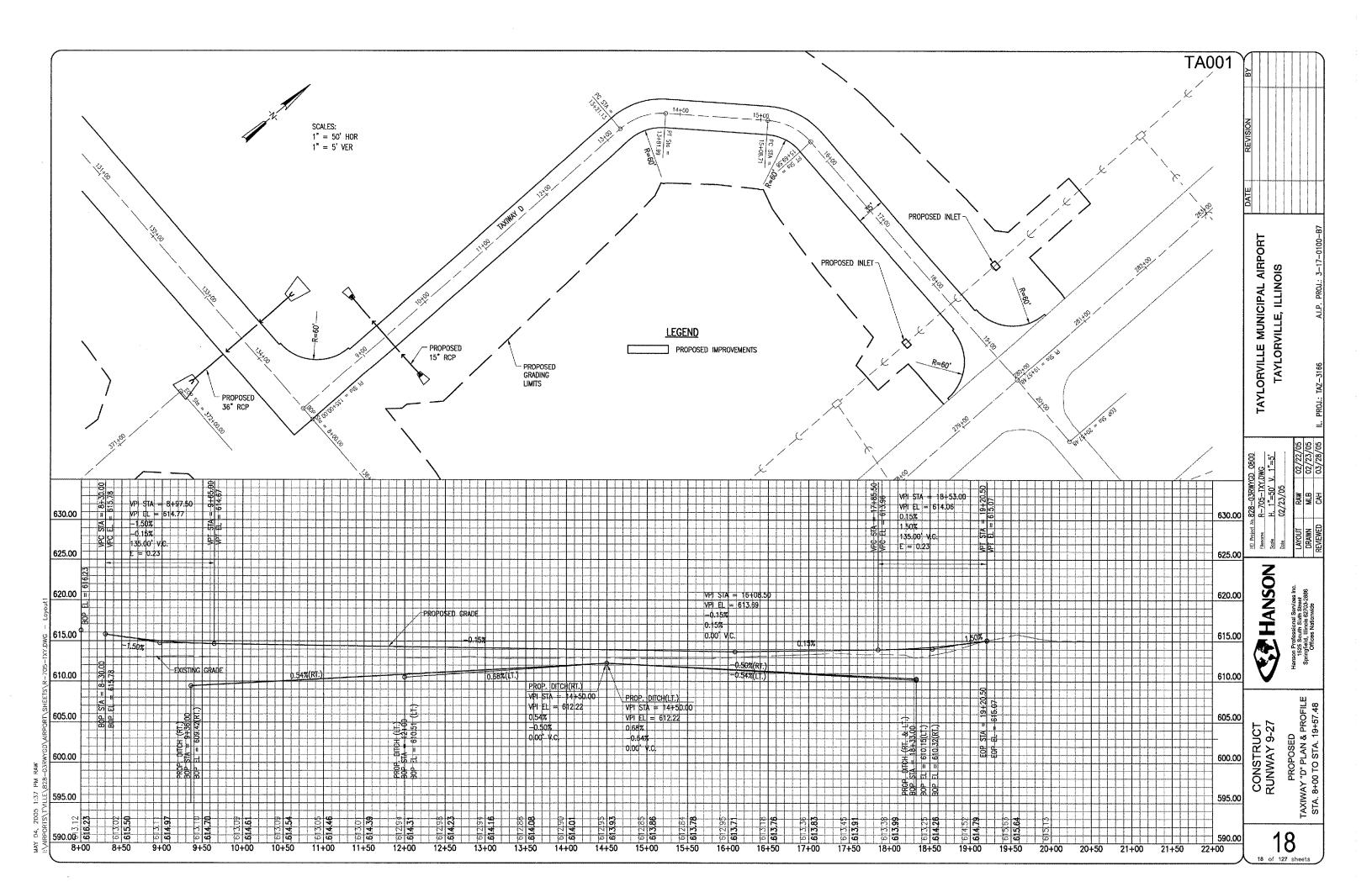
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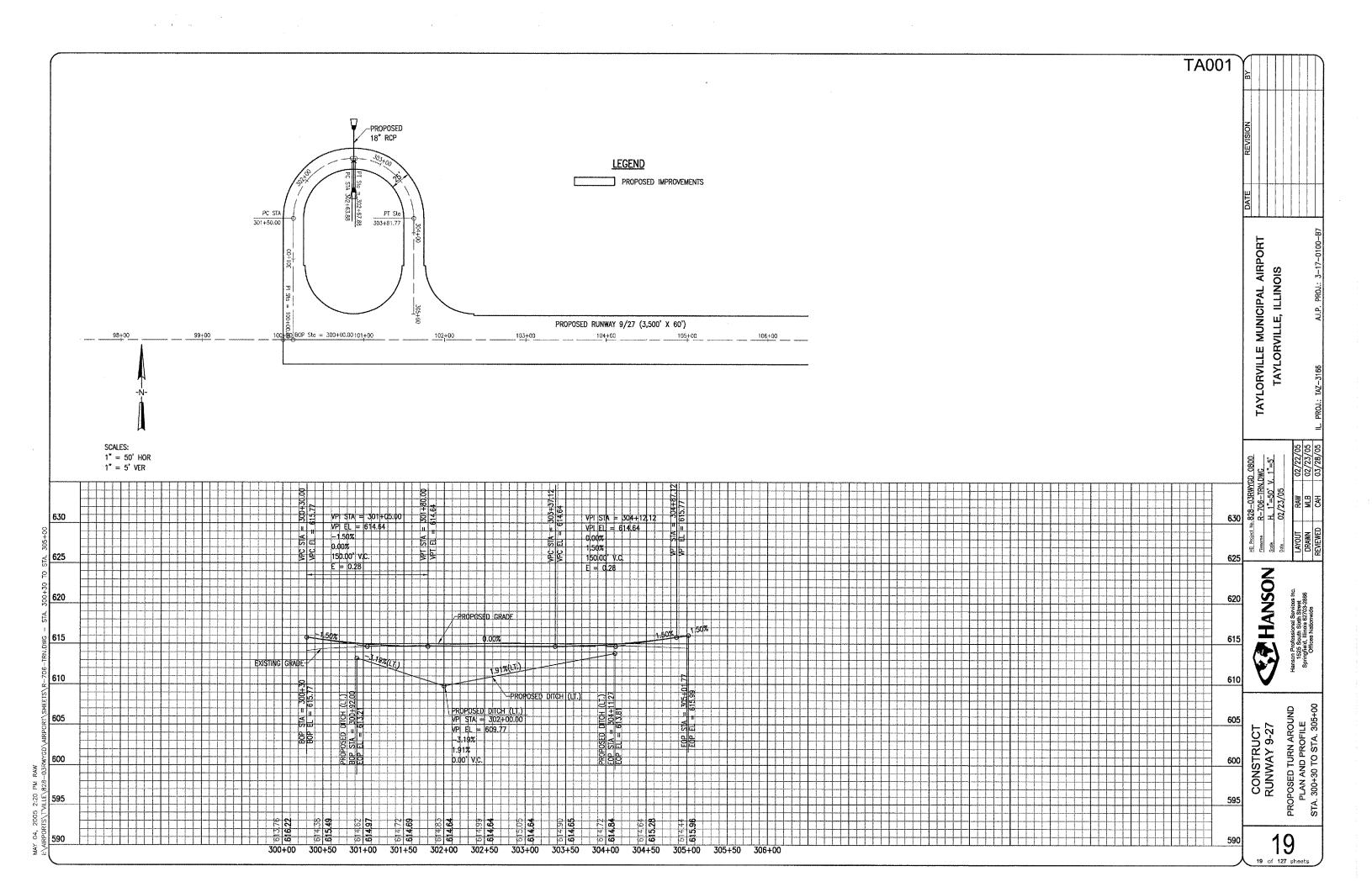


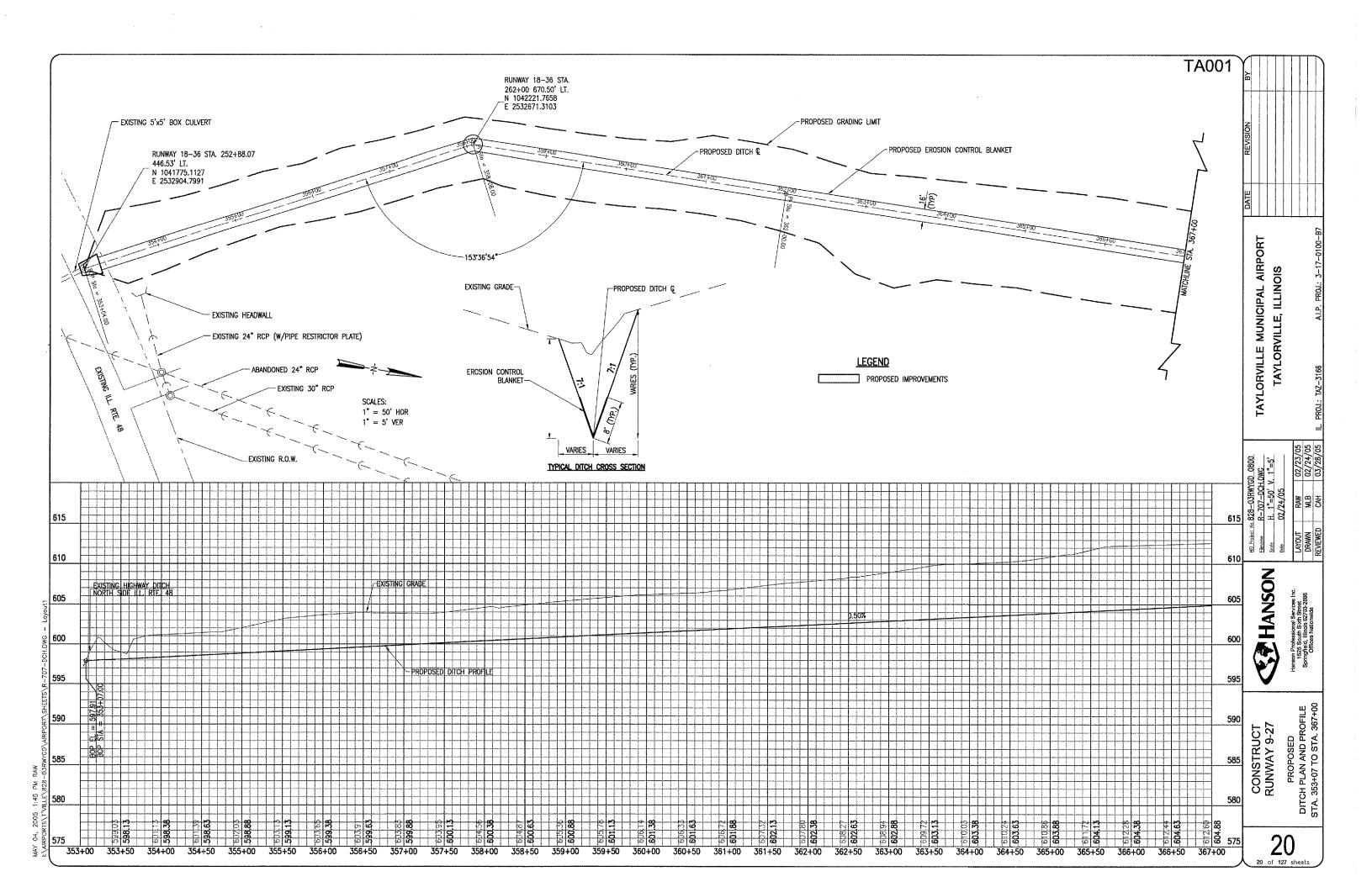


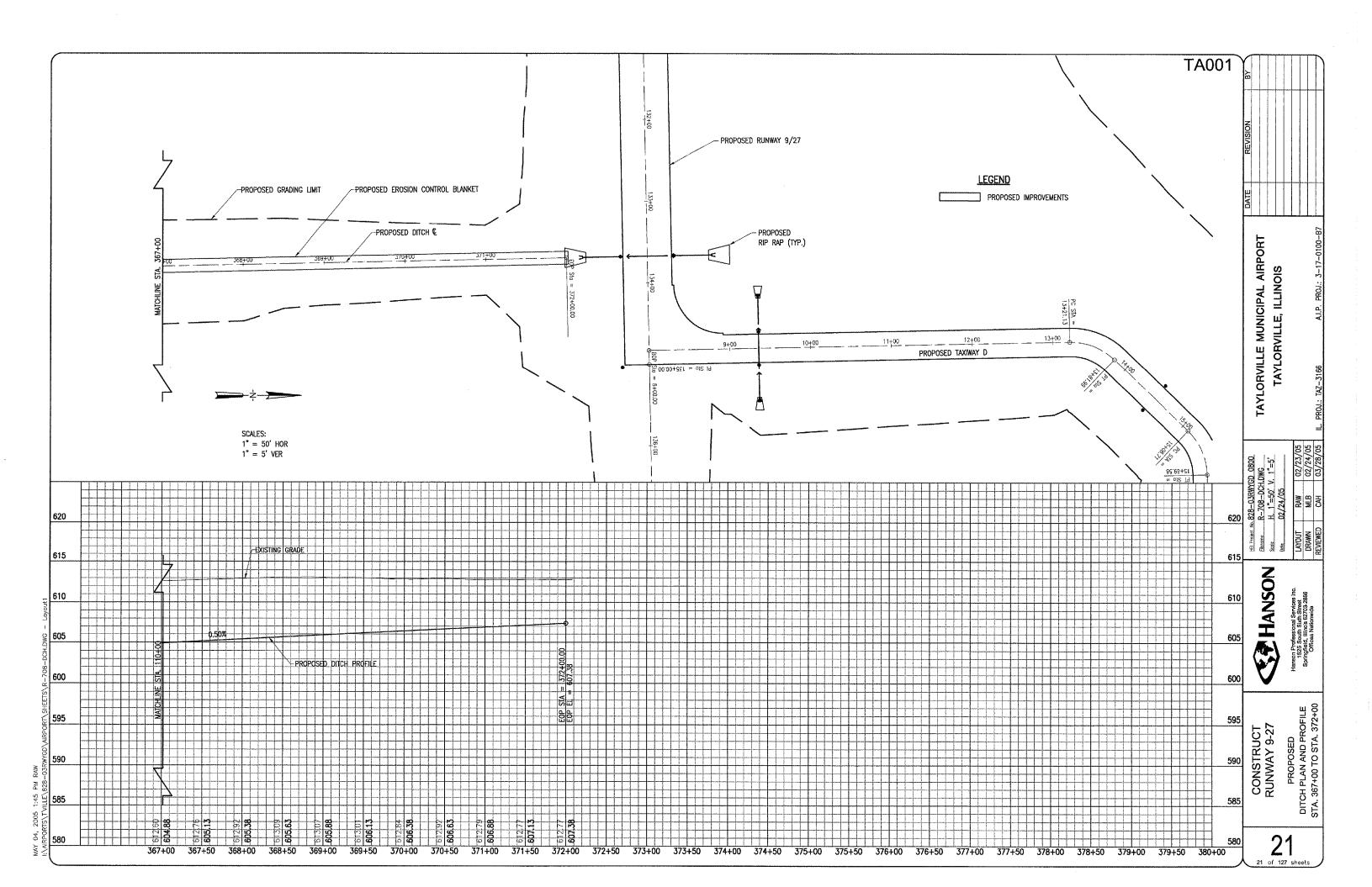


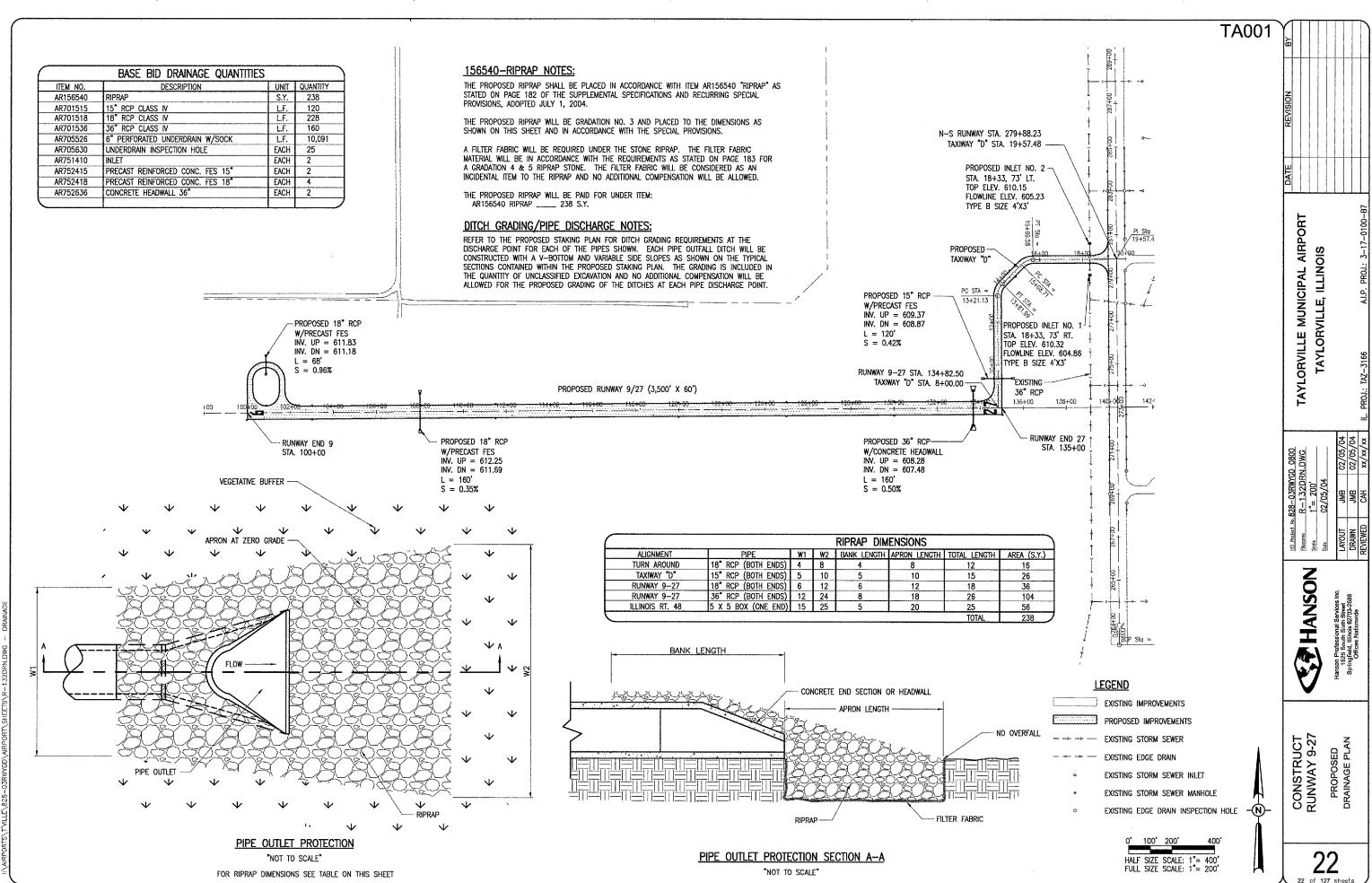




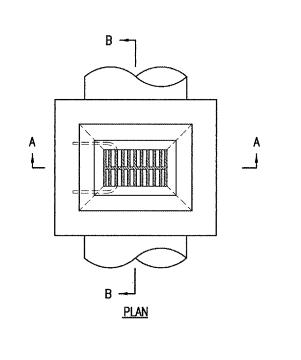








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# **INLET NOTES**

INLET TO BE CONSTRUCTED OF STRUCTURAL P.C. CONCRETE. THE CONTRACT UNIT PRICE PER INLET SHALL INCLUDE THE FRAME, GRATE AND STEPS IN PLACE AND COMPLETE PER UNIT.

1/2" CHAMFER TO BE USED ON ALL EXPOSED CORNERS OF INLETS. BARS TO BE INSTALLED 2" FROM FACE OF WALLS.

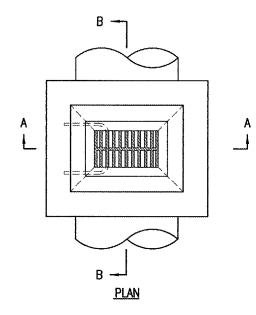
THE FRAME AND GRATE SHALL BE NEENAH R-3475 OR APPROVED EQUAL.

INLET STEPS SHALL BE NEENAH R-1982-I, OR APPROVED EQUAL, INSTALLED 15" CENTER-TO-CENTER. THE COST OF THE STEPS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR EACH INLET.



# REINFORCING STEEL BAR TYPE

REINFORCING BARS SCHEDULE								
TYPE	QUANTITY	DIMEN	SIONS	CIZE	APPROX. WT. OF			
HE	PER INLET	Α	В	SIZE	BARS IN INLET			
A	4	4'-4"	3'-0"	#5	43.1			



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MUNICIPAL AIRPORT

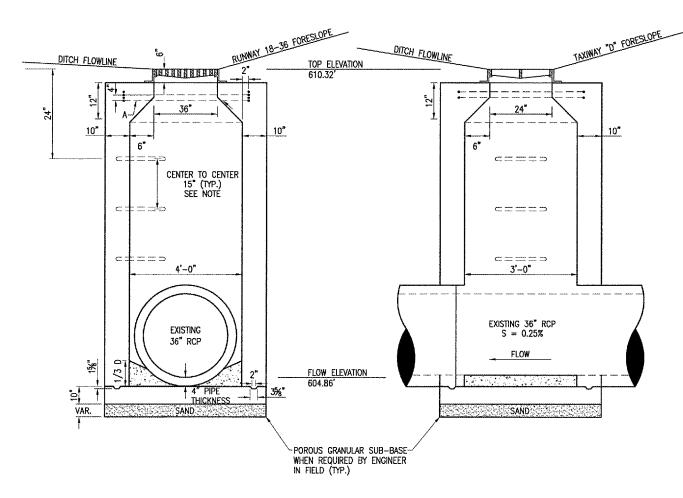
TAYLORVILLE

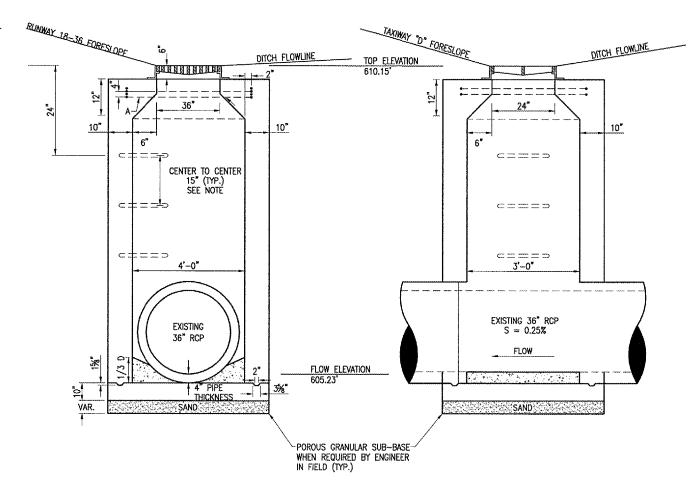
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# HEADWALL DETAIL

THE PROPOSED 36" PCC HEADWALLS WILL BE CONSTRUCTED ACCORDING IDOT STANDARD 542101 — REINFORCED CONCRETE END SECTIONS FOR PIPE CULVERTS 15" TO 36" AT RIGHT ANGLES WITH ROADWAY.





SECTION A-A

SECTION B-B

SECTION A-A

SECTION B-B

PROPOSED INLET NO. 1

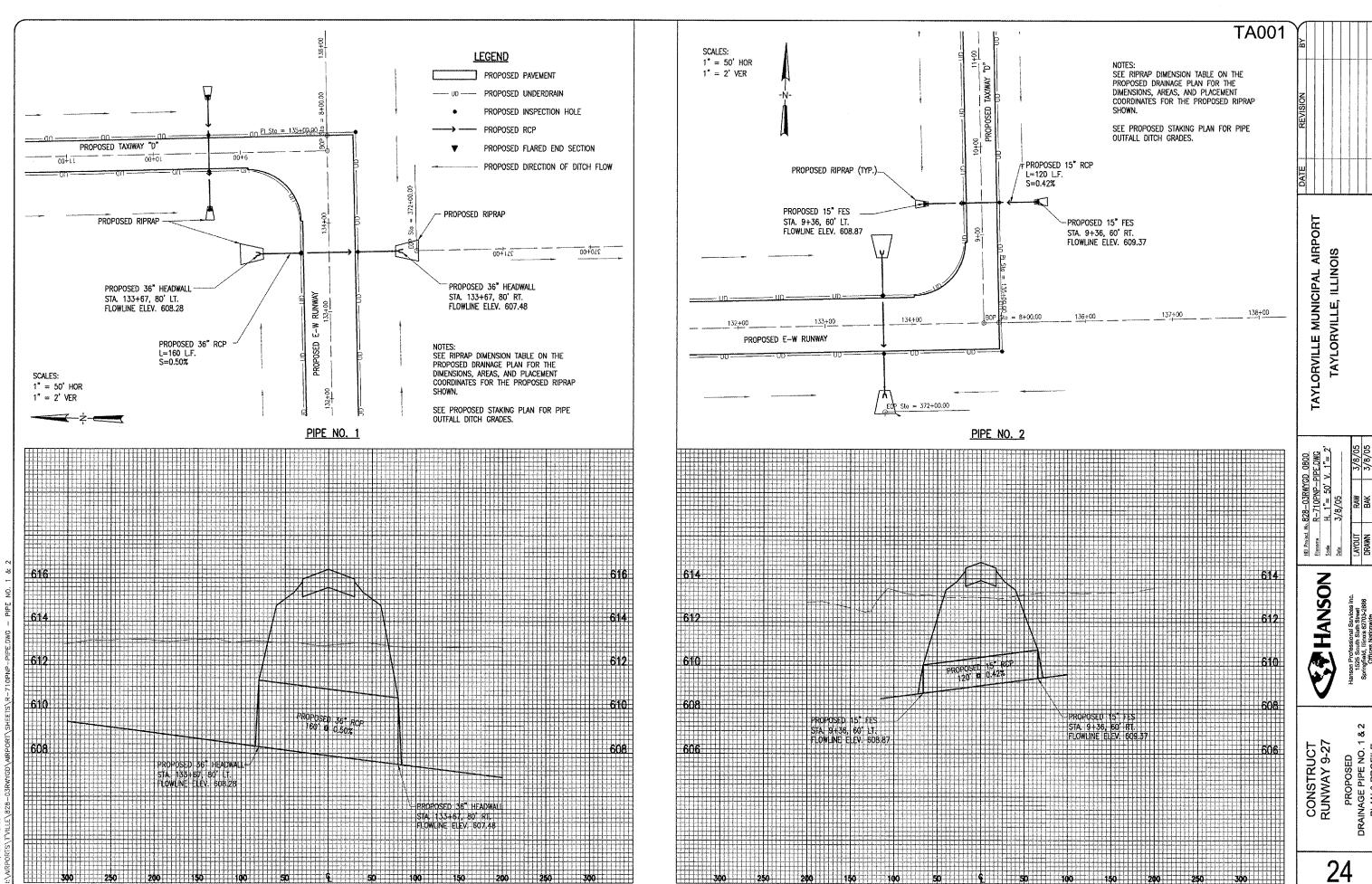
PROPOSED INLET NO. 2

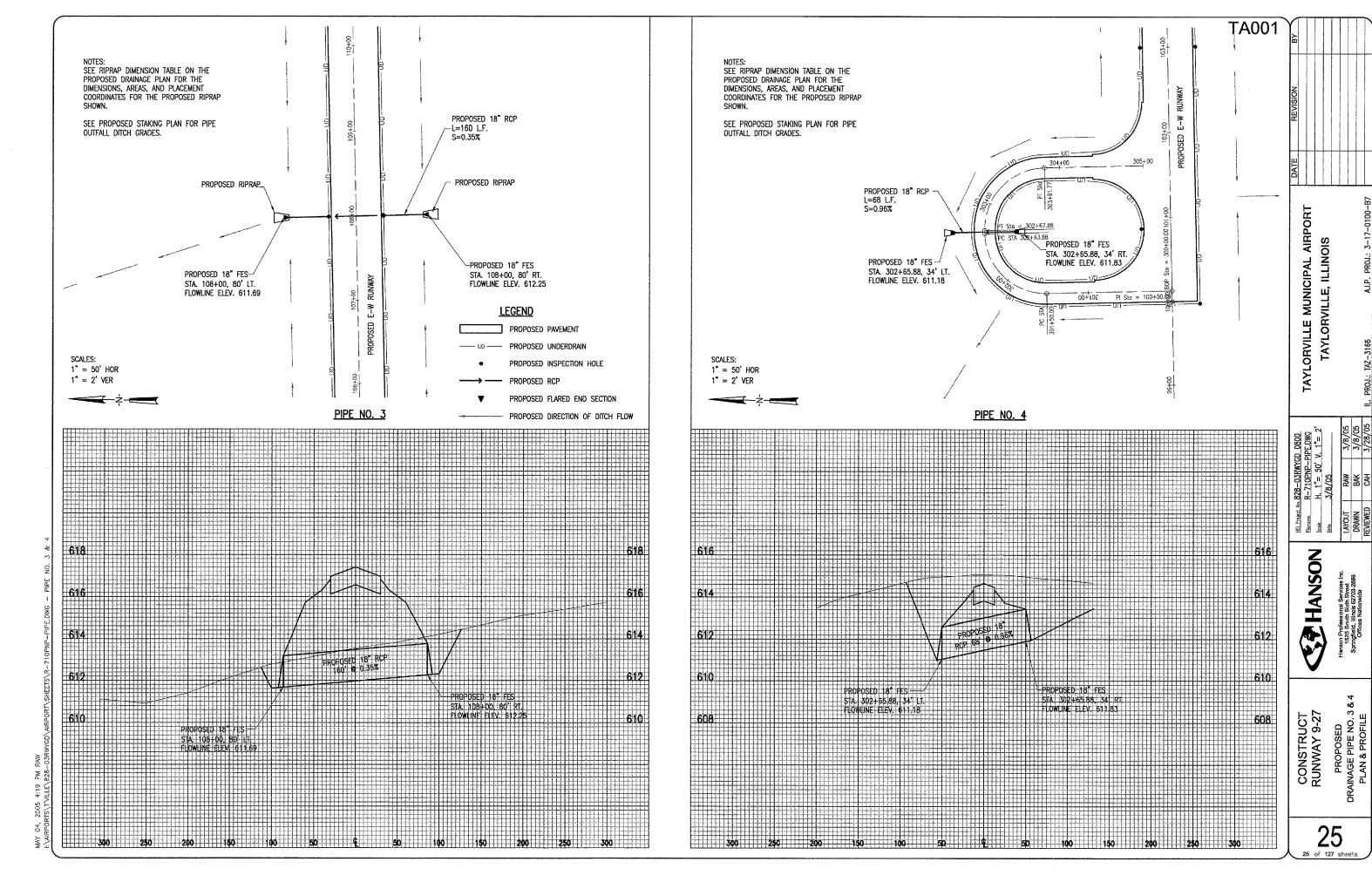
CONSTRUCT
RUNWAY 9-27
PROPOSED DRAINAGE
NOTES AND
DETAILS

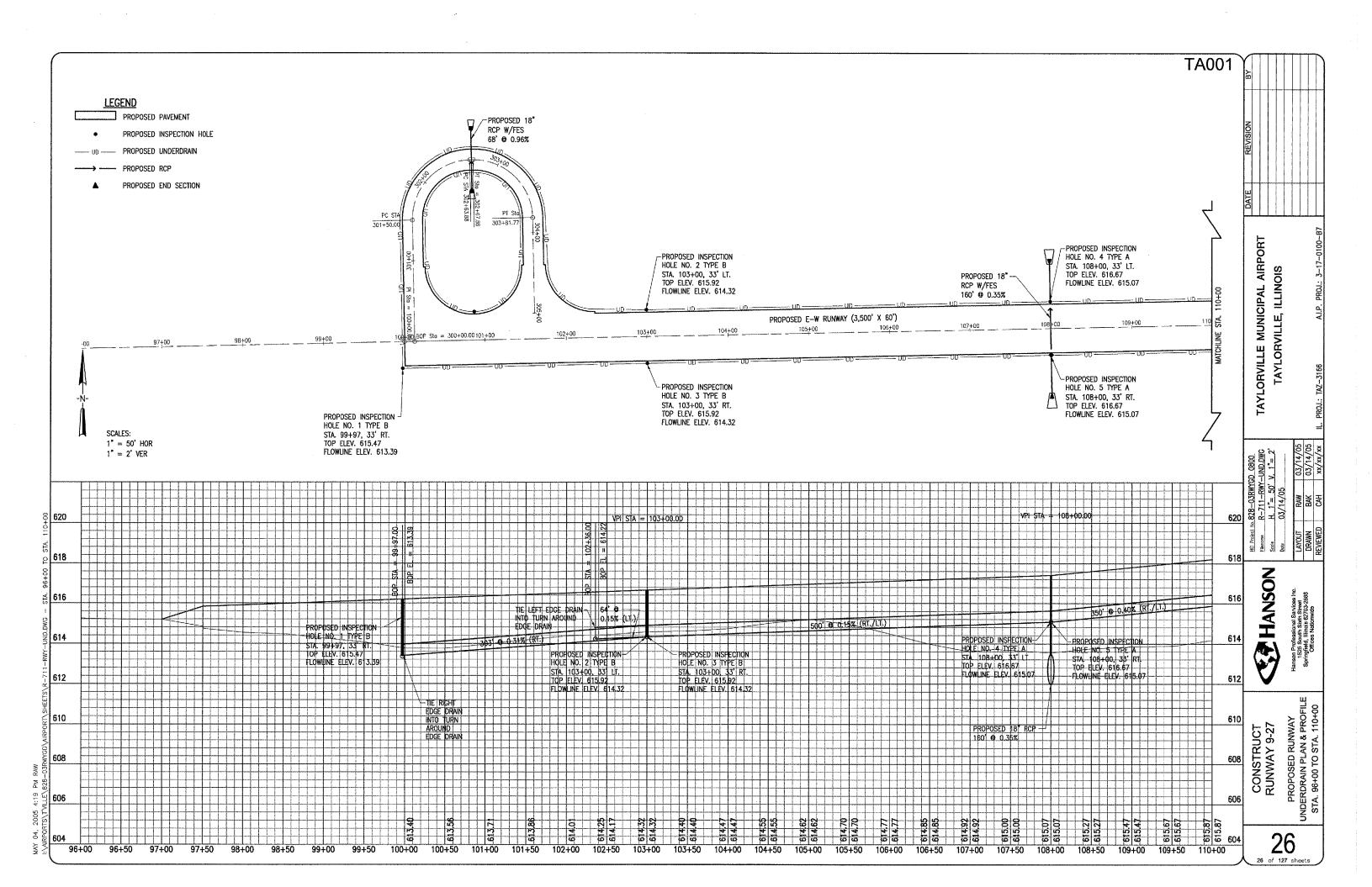
HANSON

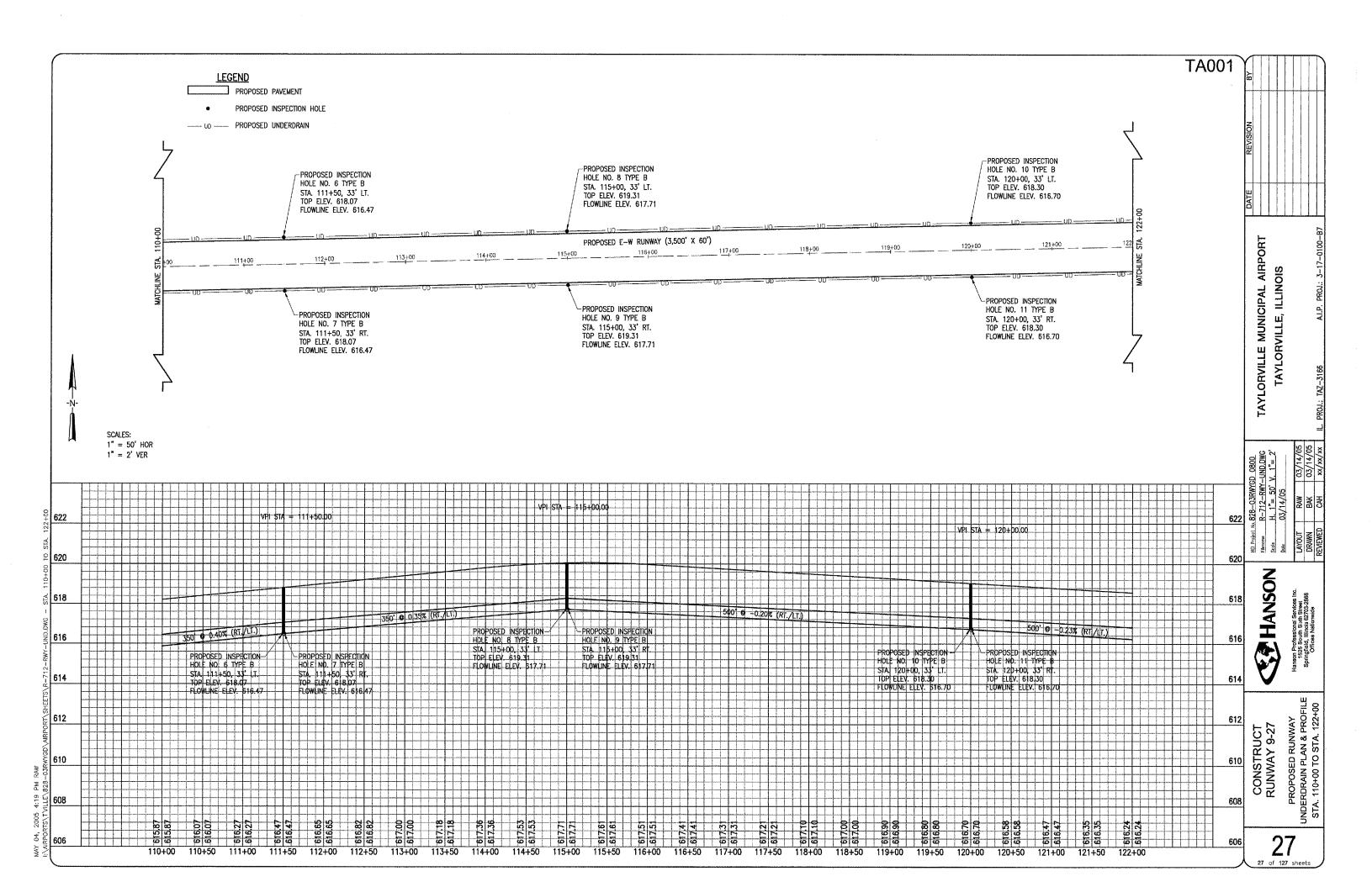
23 23 of 127 sheets

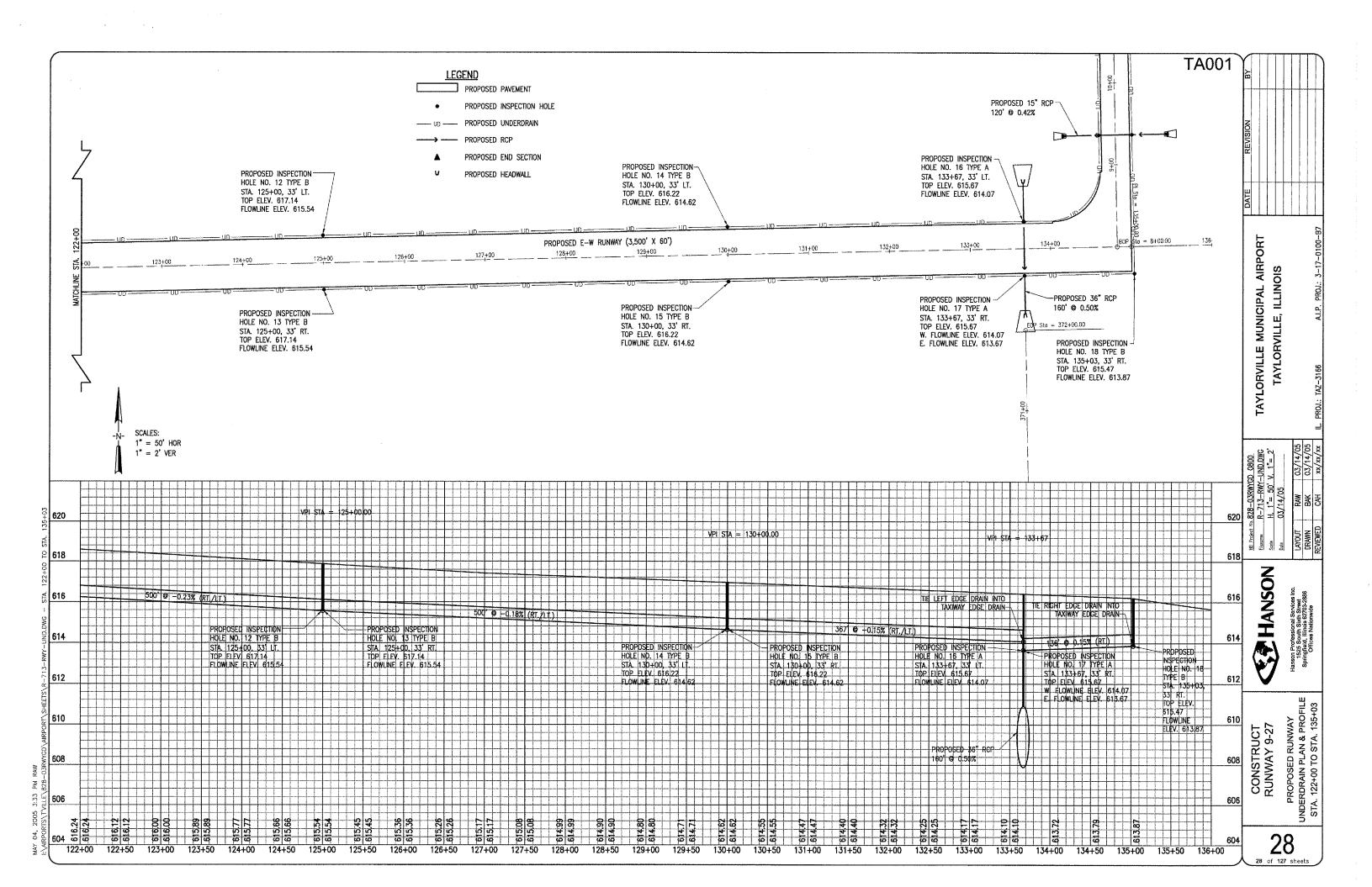
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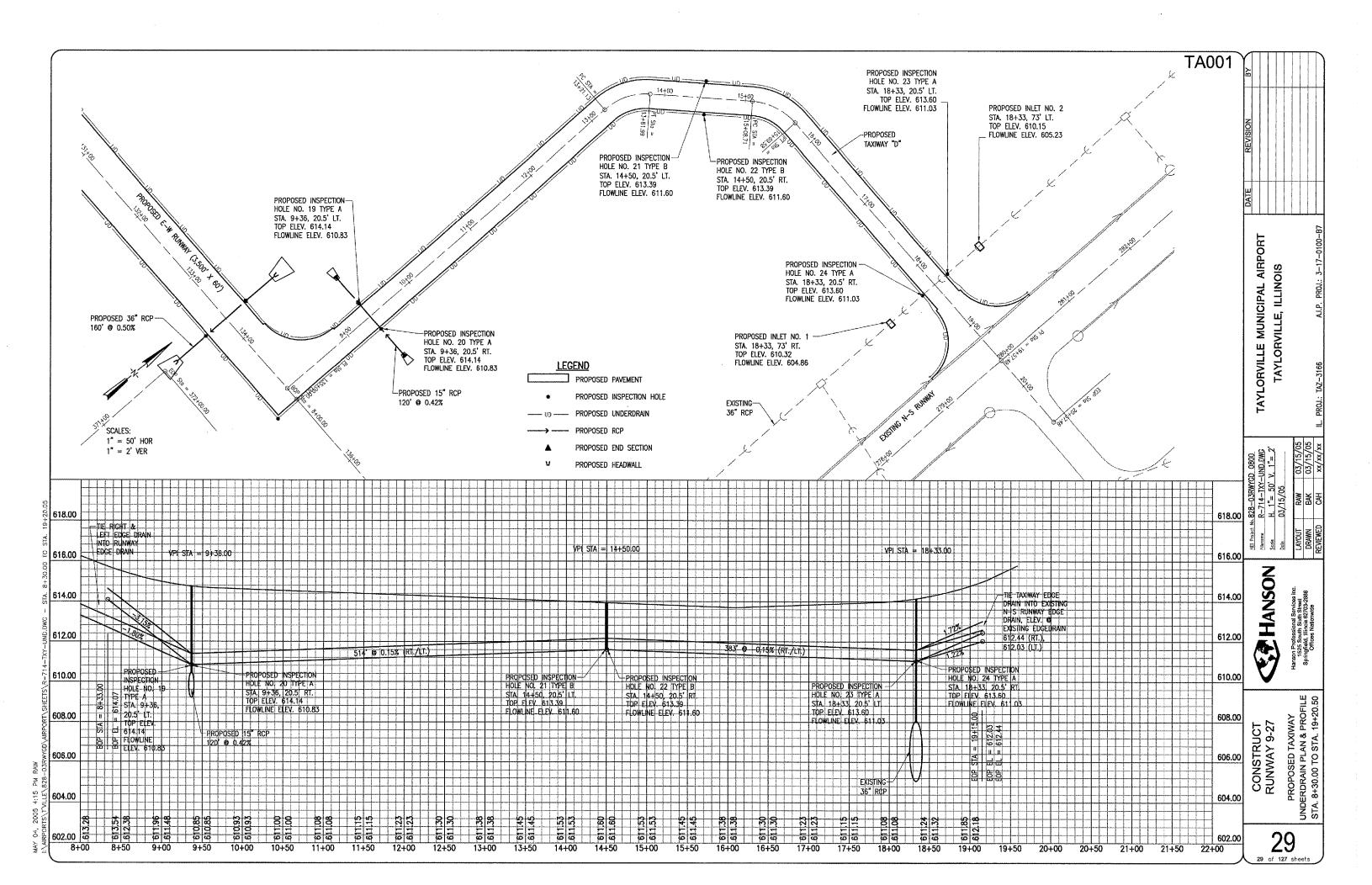


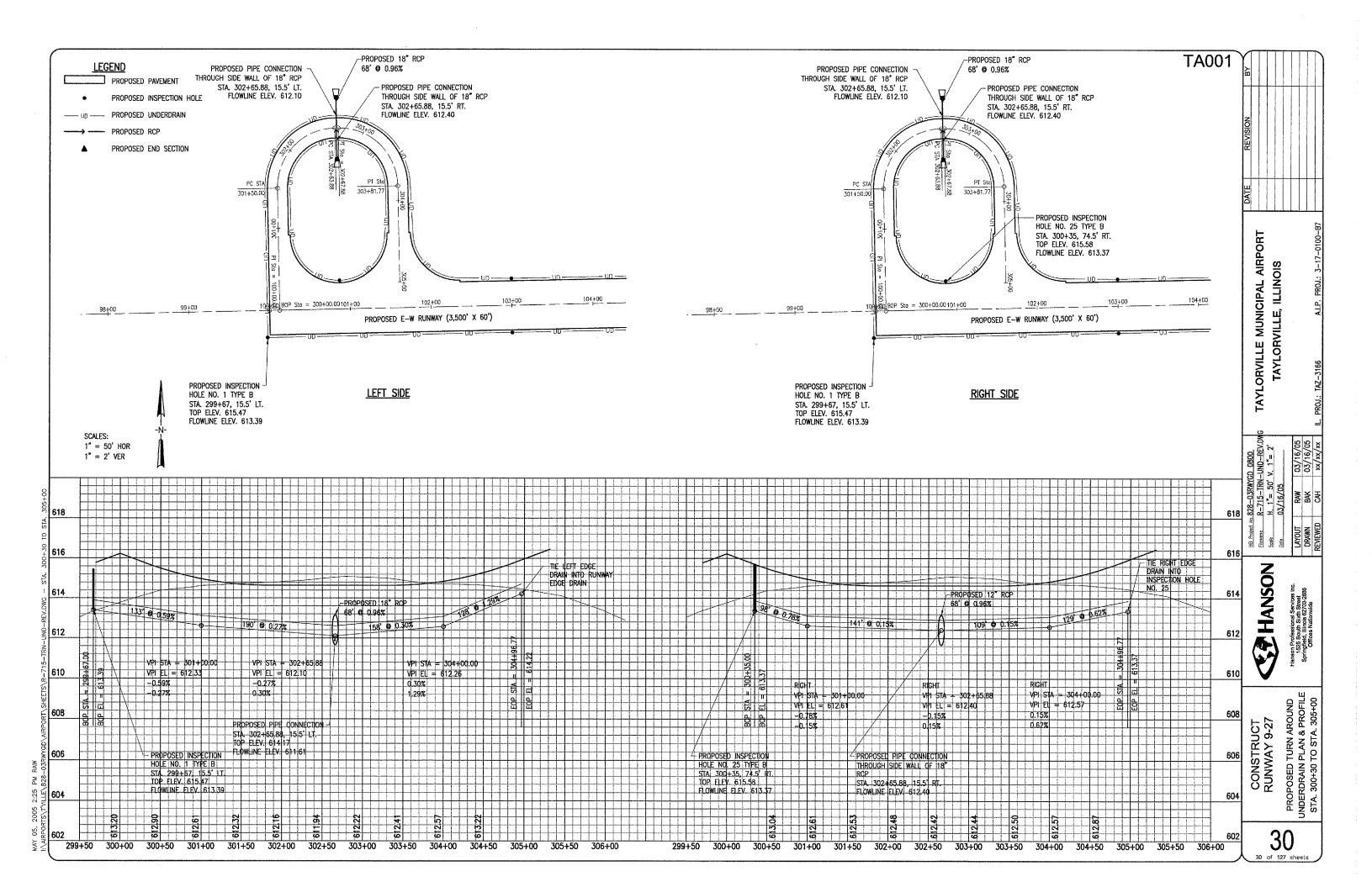






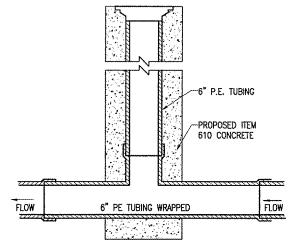






# CAST IRON FRAME AND COVER

NEENAH R-6013, DEETER 1810, EAST JORDAN 2790-6 OR APPROVED EQUAL



# INSPECTION HOLE-TYPE B

#### 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 6" 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 12 IN. THE BOTTOM OF THE TRENCH SHALL BE COMPACTED IN A MANNER MEETING THE APPROVAL OF THE

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

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. THE PIPE UNDER PROPOSED PAVEMENT, PLUS 10 FT ON EITHER SIDE, WILL BE BACKFILLED WITH POROUS BACKFILL TO THE ORIGINAL GROUND ELEVATIONS OR TO THE SUBGRADE ELEVATION IF THE FILL HAS BEEN CONSTRUCTED PRIOR TO THE

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

"THE EDGE DRAIN TRENCH WILL BE BACKFILLED WITH POROUS BACKFILL NO. 1 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 QUANTITY OF POROUS BACKFILL WILL BE CONSIDERED INCIDENTAL TO THE INSTALLATION OF ITEM AR705526 AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

THE PROPOSED UNDERDRAIN PIPE WILL BE PAID FOR UNDER ITEM: AR705526 6" PERFORATED UNDERDRAIN W/SOCK\_\_\_\_ 10,091 L.F.

#### **INSPECTION HOLE NOTES**

DIAMETER OF PIPE AS SPECIFIED.

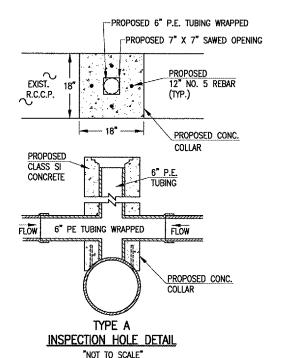
TOP OF INSPECTION HOLES SHALL BE 2" ABOVE FINISH GROUND LINE AT LOCATION

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

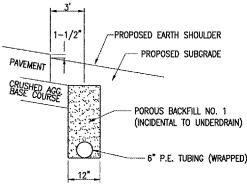
THE CONCRETE SHALL BE STRUCTURAL PORTLAND CEMENT CONCRETE (NON-REINFORCED)

THE QUANTITY OF POROUS BACKFILL WILL BE CONSIDERED INCIDENTAL TO THE INSTALLATION OF AR705526 AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

THE PROPOSED UNDERDRAIN INSPECTION HOLES WILL BE PAID FOR UNDER ITEM AR705530 UNDERDRAIN INSPECTION HOLE 25 EACH.



Base bid underdrain quantities		TIES		
ITEM NO.	DESCRIPTION	UNIT	QUANTITY	
AR705526	6" PERFORATED UNDERDRAIN W/SOCK	L.F.	10,091	
AR705630	UNDERDRAIN INSPECTION HOLE	EA	25	



UNDERDRAIN DETAIL NOT TO SCALE

AIRPORT - 6" P.E. TUBING (WRAPPED)

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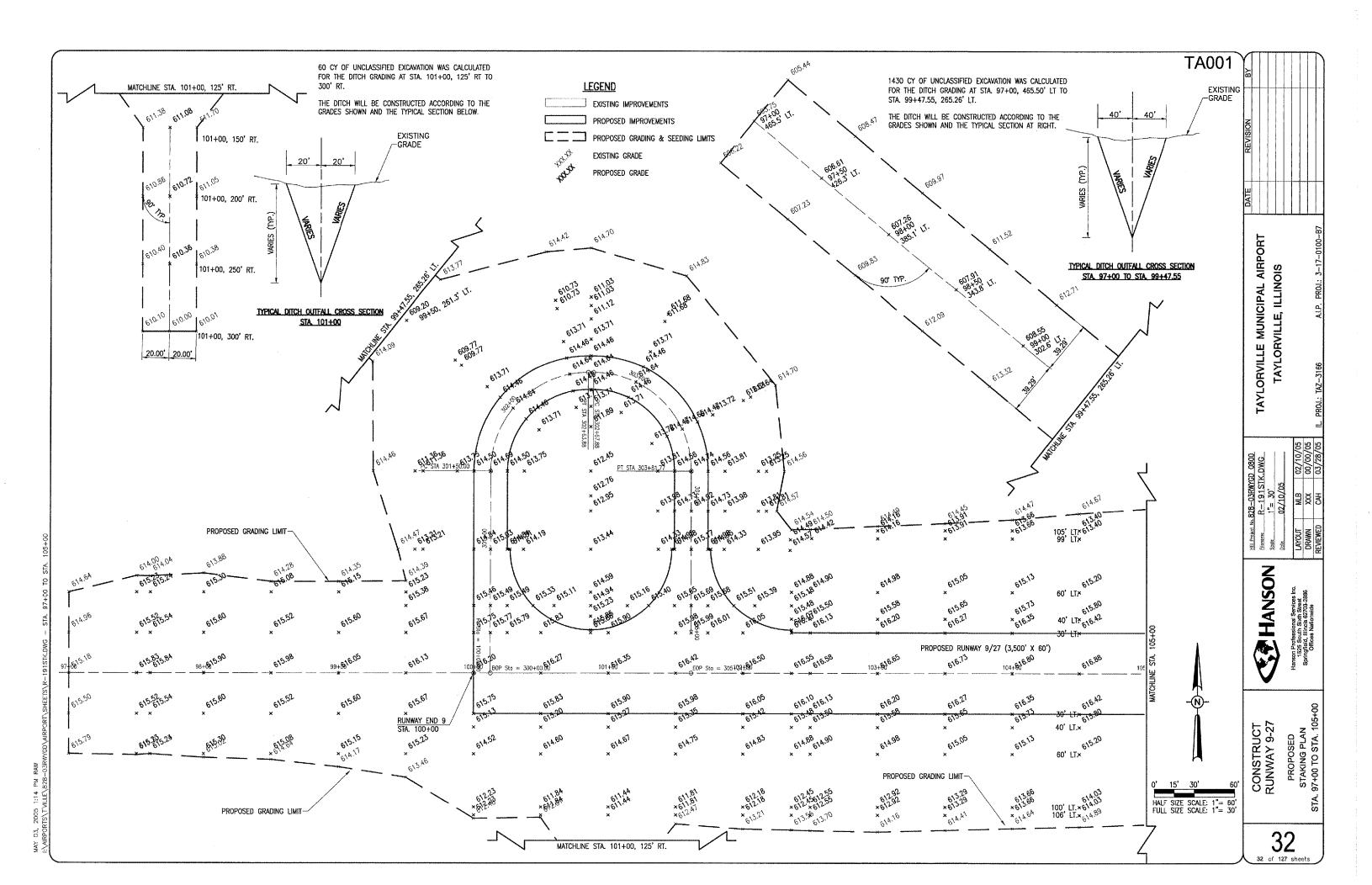
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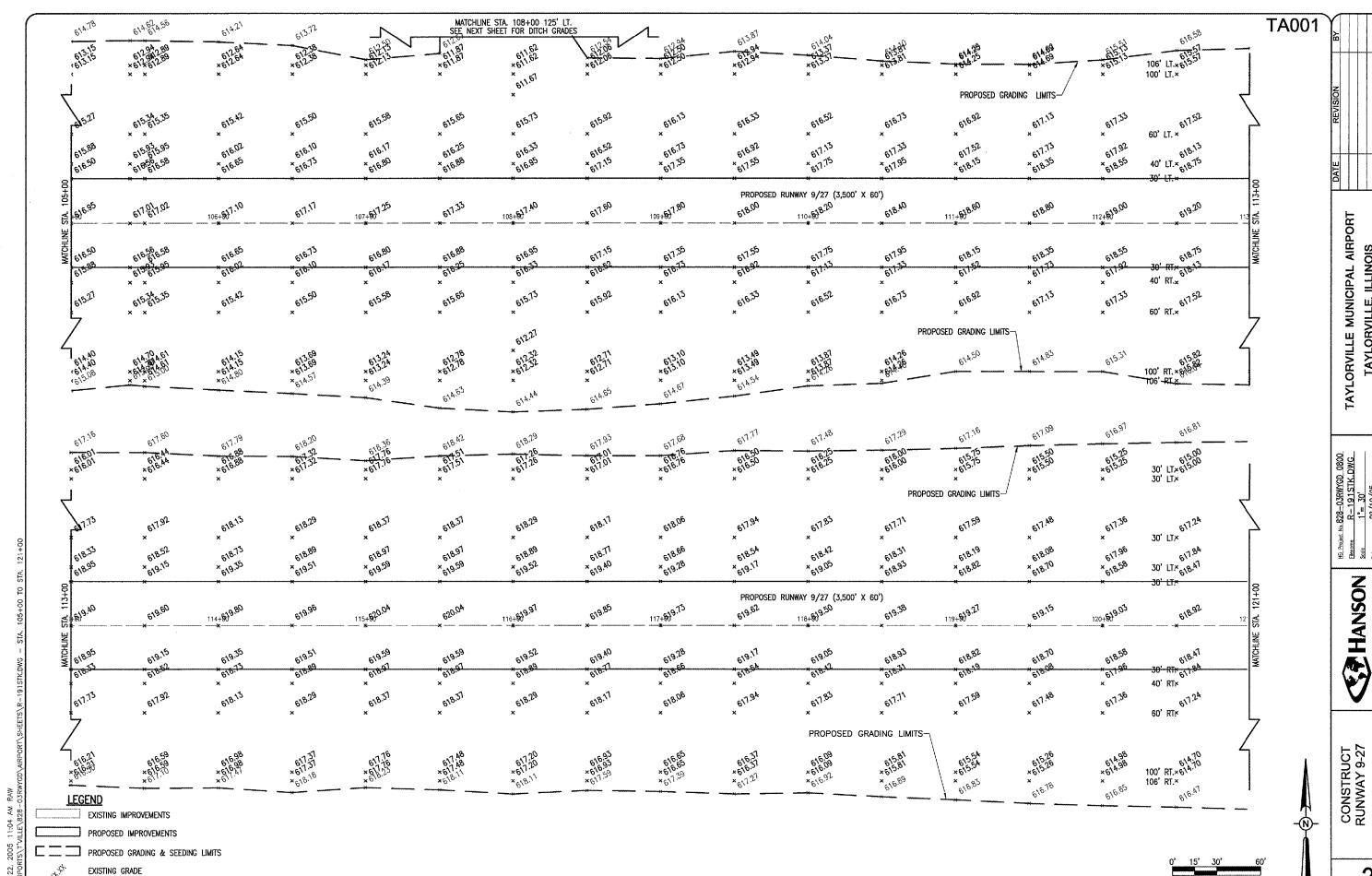
CONSTRUCT RUNWAY 9-27

PROPOSED UNDERDRAIN NOTES AND DETAILS

31 of 127 sheets

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PROPOSED GRADE

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

CONSTRUCT RUNWAY 9-27

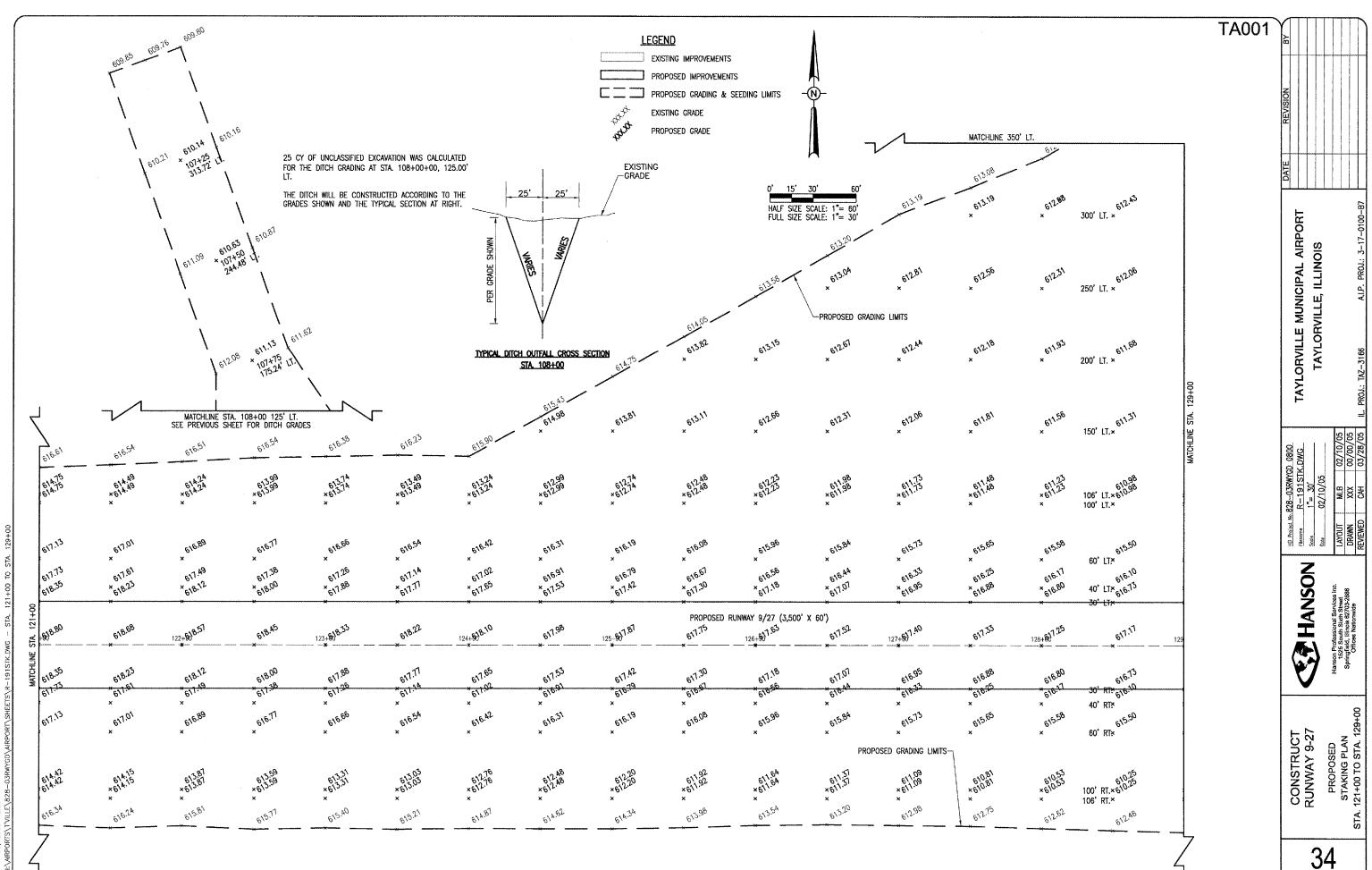
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PROPOSED STAKING PLAN 105+00 TO STA. 121+00

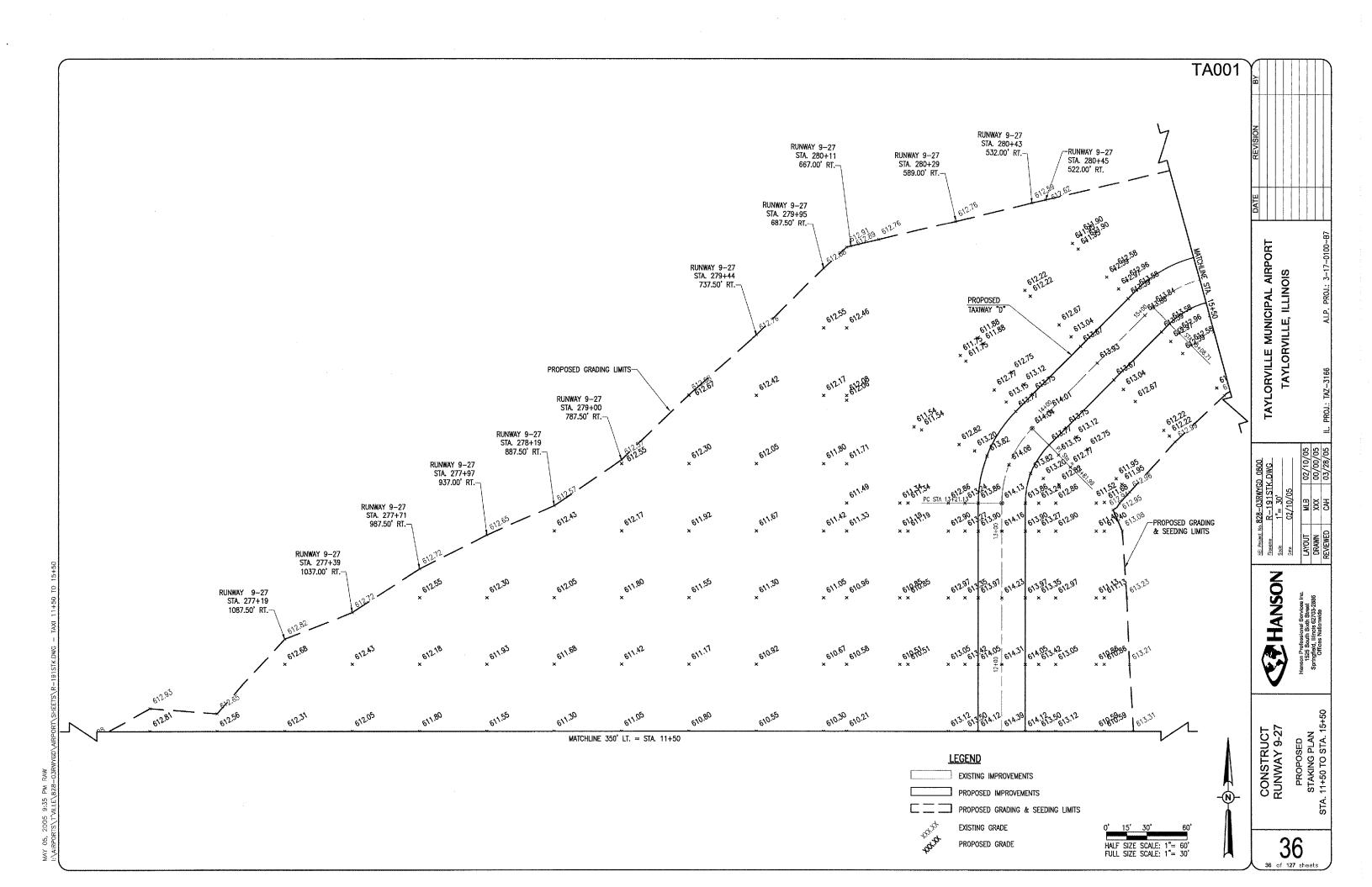
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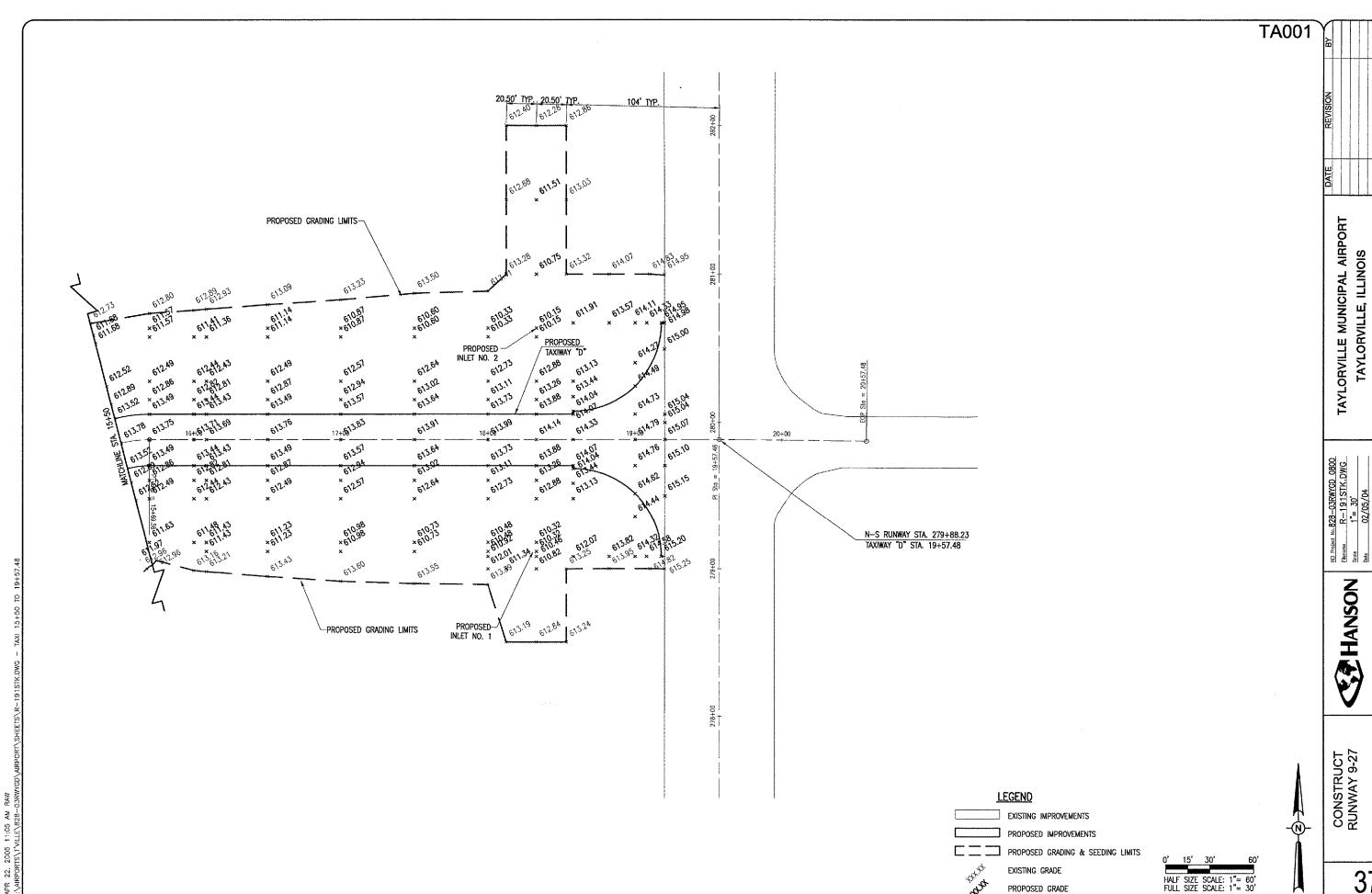
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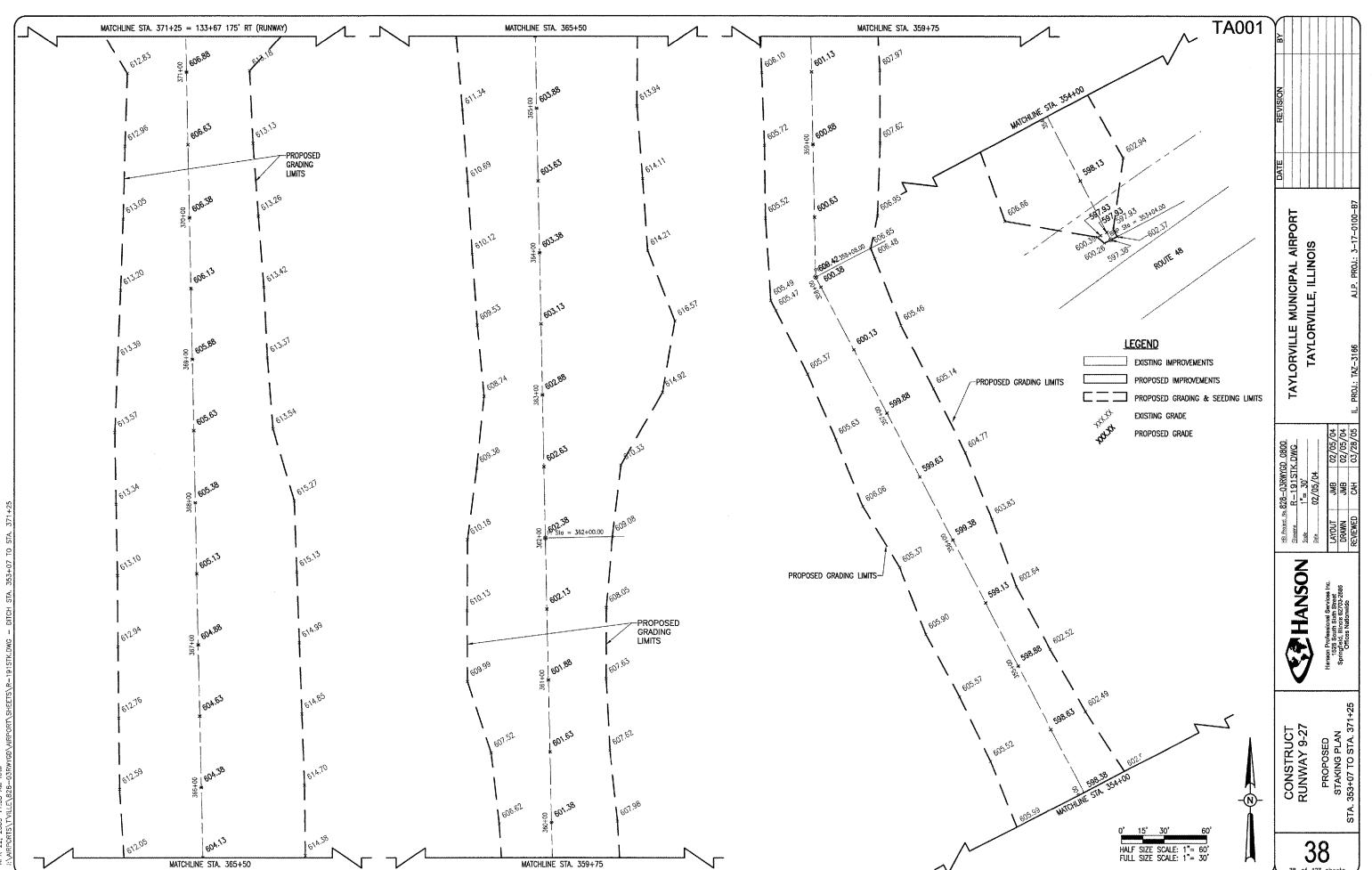


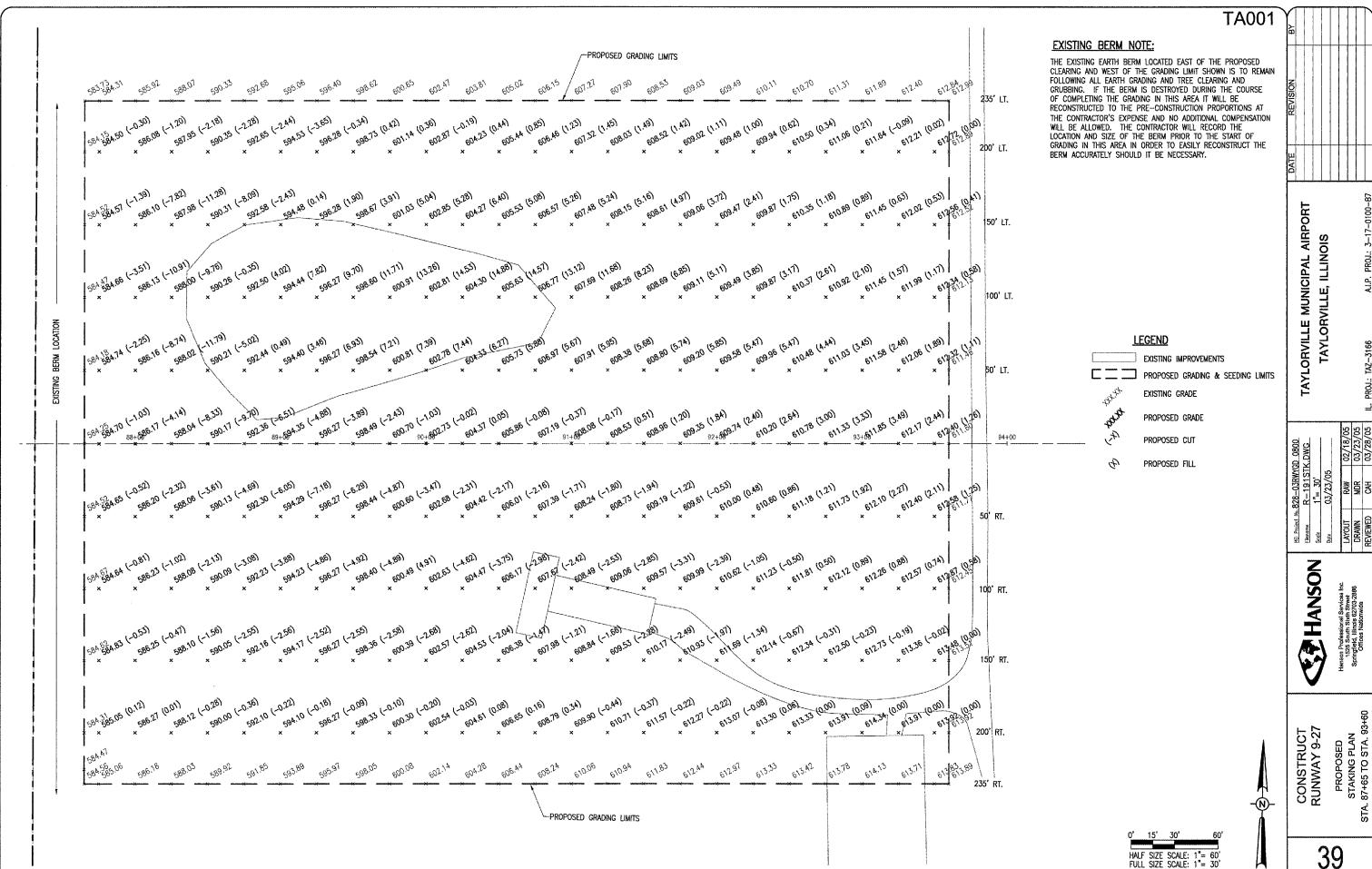




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PROPOSED GRADE





-(34)

(33)

(38)

908 MULCHING NOTES THE PROPOSED MULCHING SHALL BE ACCOMPLISHED IN ACCORDANCE WITH ITEM 908 "MULCHING" AS STATED ON PAGE 127 OF THE SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS, ADOPTED JULY 1, 2004. THIS ITEM SHALL CONSIST OF THE FURNISHING, TRANSPORTING, AND PLACING MULCH OVER THE SEEDED AREA. DISTURBED AREAS OUTSIDE THE SEEDING LIMITS SHALL ALSO BE MULCHED AND PARTICIPATION WILL BE THE SAME AS FOR SEEDED AREAS.

908-3.4 STRUCTURE CLEANING: AFTER THE PROPOSED MULCH HAS BEEN APPLIED, THE CONTRACTOR WILL CLEAN THE MULCH OFF ALL STRUCTURES (DRAINAGE, ELECTRICAL,

CTR. 100' R

(42)

RUNWAY END 9

STA. 100+00

**LEGEND** 

EXISTING IMPROVEMENTS PROPOSED SEEDING AREA

PROPOSED LIME AND FERTILIZE ONLY AREA

	BASE BID SEEDING QUANTITIES		
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
AR156530	TEMPORARY SEEDING	AÇ.	23
AR800578	LIME AND FERTILIZE	AC.	6
AR901510	SEEDING	AC.	45
AR908510	MULCHING	AC.	45

TEMPORARY SEEDING WILL BE COMPLETED AS NECESSARY TO MINIMIZE THE AMOUNT OF EXPOSED ERODABLE SURFACE AREA WITHIN THE PROJECT LIMITS. SEED SHALL CONSIST OF OATS FROM MARCH 1 TO JULY 31 AND WINTER WHEAT FROM AUGUST 1 TO NOVEMBER 15. SEED BED PREPARATION SHALL NOT BE REQUIRED IF THE SOIL IS IN A LOOSE CONDITION. LIGHT DISKING SHALL BE DONE IF THE SOIL IS HARD PACKED OR CAKED. FERTILIZER NUTRIENTS WILL NOT BE REQUIRED. UNLESS OTHERWISE NOTED THE TEMPORARY SEED WILL BE APPLIED IN ACCORDANCE TO SUPPLEMENTAL AND RECURRING SPECIAL PROVISIONS DATED JULY 1, 2004. 908-2.1 MULCH MATERIAL: THE CONTRACTOR WILL FURNISH HYDROMULCH AS THE TYPE A QUANTITY OF 23 ACRES WAS ESTABLISHED FOR BID HOWEVER MORE OR LESS MAY BE NECESSARY OVER THE COURSE OF THE PROJECT. OF MULCH MATERIAL TO BE USED ON THIS PROJECT. THE PROPOSED TEMPORARY SEEDING WILL BE PAID FOR UNDER ITEM: AR156530 TEMPORARY SEEDING \_\_\_\_\_ 23 ACRES LIGHTS, ETC.). N-S RUNWAY STA. 279+88.23 DATE MULCHING COMPLETED\_ TAXIWAY "D" STA. 19+57.48 THE PROPOSED MULCHING WILL BE PAID FOR UNDER ITEMS: AR908510 MULCHING \_\_\_\_\_ 45 ACRES AREA OF LIME AND-FERTILIZE ONLY = 6 AC. PROPOSED YAWIXAT. PROPOSED RUNWAY 9/27 (3,500' X 60') (20)RUNWAY END 27 STA. 135+00

-PROPOSED SEEDING

LIMITS

156 TEMPORARY SEEDING NOTES

# AR800578 - LIME AND FERTILIZE NOTES

-PROPOSED SEEDING

AREA = 7 ACRES \*

ALL DISTURBED AREAS LOCATED WITHIN THE BOUNDARY SHOWN AND LABELED ON THE DRAWING AS THE PROPOSED LIME AND FERTILIZE ONLY LIMIT WILL BE LIMED AND FERTILIZED IN ACCORDANCE WITH THESE NOTES AND THE SPECIAL PROVISION FOR AR901510 - SEEDING. ALL AREAS OUTSIDE THE DESIGNATED SEEDING LIMITS AND THE LIME AND FERTILIZE LIMITS, THAT ARE EXISTING AREAS USED FOR AGRICULTURAL PURPOSES, AND ARE DISTURBED OVER THE COURSE OF THE PROJECT WILL ALSO BE LIMED AND FERTILIZED BUT AT THE CONTRACTOR'S OWN EXPENSE.

THE PROPOSED LIME WILL BE ACCOMPLISHED BY INCORPORATING AGRICULTURAL LIME INTO THE SOIL AT A RATE OF 2 TON/ACRE.

THE PROPOSED FERTILIZING WILL BE ACCOMPLISHED BY INCORPORATING A FERTILIZER CONTAINING THE FOLLOWING INTO

TOTAL NITROGEN: 18% AVAILABLE PHOSPORIC ACID: 24% WATER-SOLUBLE POTASH: 6%

THE ABOVE WILL BE APPLIED AT A RATE OF 420 LBS/ACRE AND WILL BE REQUIRED TO BE INCORPORATED TO A MINIMUM DEPTH OF 3 INCHES.

THE COST OF ALL MATERIALS, LABOR, AND EQUIPMENT NECESSARY TO COMPLETE THIS TASK WILL BE CONSIDERED INCIDENTAL TO ITEM AR800578 - LIME AND FERTILIZE AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

DATE LIME COMPLETED DATE FERTILIZER COMPLETED .

THE PROPOSED LIME AND FERTILIZER WILL BE PAID FOR UNDER ITEMS: AR800578 LIME AND FERTILIZE \_\_\_\_\_ 6 ACRES

			SEE	DING AREA	LOCATIONS		·	
POINT	STATION	OFFSET	POINT	STATION	OFFSET	POINT	STATION	OFFSET
1	19+21 (TXY)	140' LT.	19	133+07 (RWY)	203' RT.	37	93+60 (RWY)	235' RT.
2	18+54 (TXY)	140' LT.	20	132+71 (RWY)	154' RT.	38	97+20 (RWY)	153' RT.
3	18+54 (TXY)	212' LT.	21	133+43 (RWY)	153' LT.	39	100+80 (RWY)	153' RT.
4	18+13 (TXY)	212' LT.	22	124+37 (RWY)	153° LT.	40	100+80 (RWY)	300' RT.
5	18+13 (TXY)	140' LT.	23	108+11 (RWY)	153' LT.	41	101+20 (RWY)	300' RT.
6	19+20 (TXY)	100' RT.	24	107+25 (RWY)	392' LT.	42	101+20 (RWY)	153' RT.
7	18+54 (TXY)	100' RT.	25	106+75 (RWY)	374° LT.	43	364+50 (DTCH)	75' RT.
8	18+54 (TXY)	138' RT.	26	107+55 (RWY)	153 <b>'</b> LT.	44	364+50 (DTCH)	100' RT.
9	18+14 (TXY)	138' RT.	27	102+62 (RWY)	153' LT.	45	362+50 (DTCH)	100' RT.
10	18+14 (TXY)	100' RT.	28	99+75 (RWY)	292' LT.	46	362+50 (DTCH)	55' RT.
11	17+03 (TXY)	100' RT.	29	97+25 (RWY)	498' LT.	47	358+22 (DTCH)	60' LT.
12	14+67 (TXY)	140' LT.	30	96+75 (RWY)	437' LT.	48	357+95 (DTCH)	55' RT.
13	14+10 (TXY)	198' LT.	31	99+25 (RWY)	231' LT.	49	353+50 (DTCH)	60° LT.
14	138+52 (RWY)	153' LT.	32	99+13 (RWY)	153' LT.	50	353+04 (DTCH)	5' LT.
15	138+52 (RWY)	153' RT.	33	97+20 (RWY)	153' LT.	51	353+04 (DTCH)	5' RT.
16	137+83 (RWY)	153' LT.	34	93+60 (RWY)	235' LT.	52	353+50 (DTCH)	55' RT.
17	135+10 (RWY)	153' RT.	35	87+65 (RWY)	235' LT.	53	105+00 (RWY)	275' LT.
18	134+42 (RWY)	203' RT.	36	87+65 (RWY)	235' RT.			

-PROPOSED SEEDING

AREA = 38 ACRES

RUNWAY END 36 STA. 262+00 ELEV. 619.45' (49) HALF SIZE SCALE 1"= 400

CONSTRUCT RUNWAY 9-27

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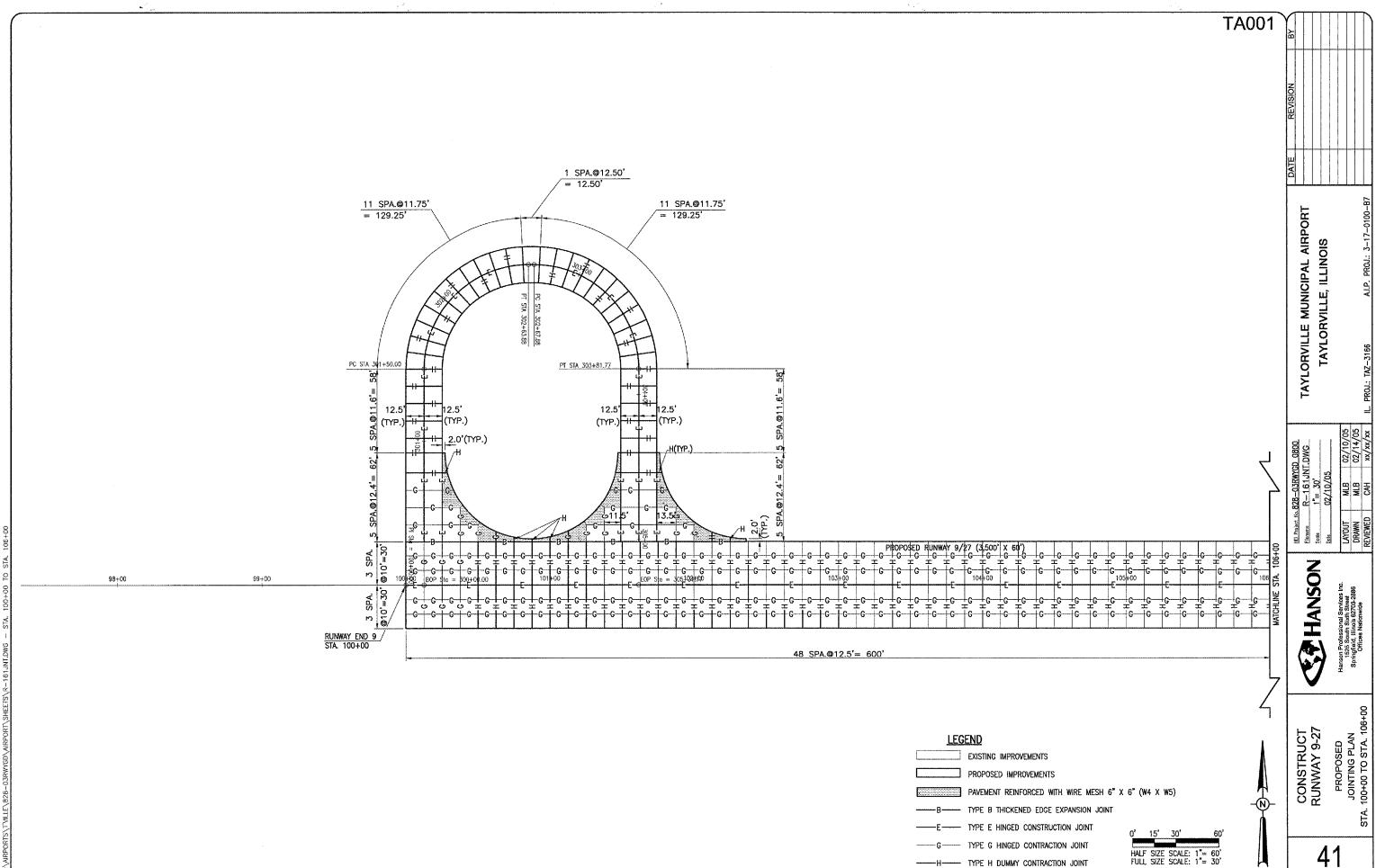
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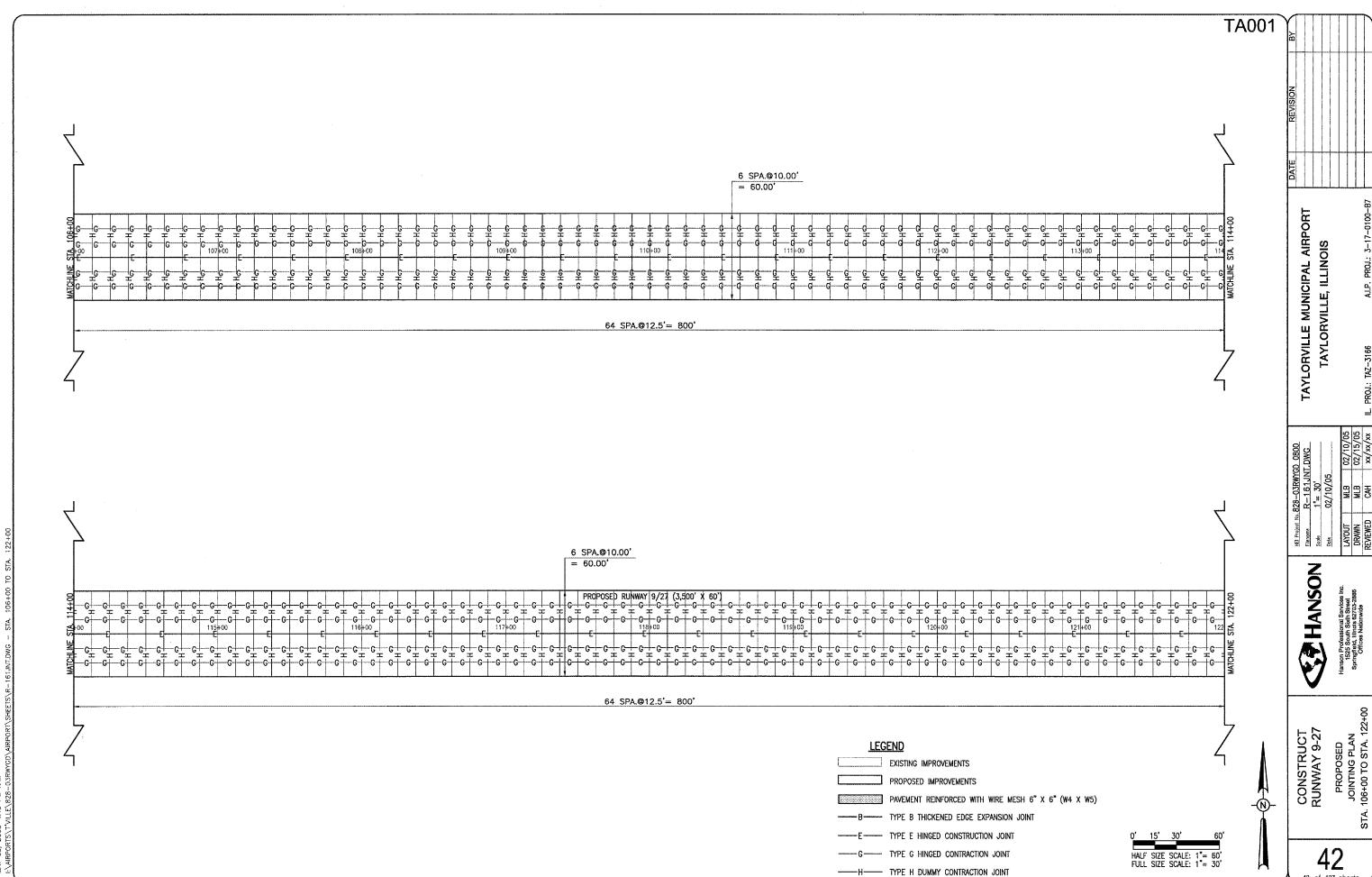
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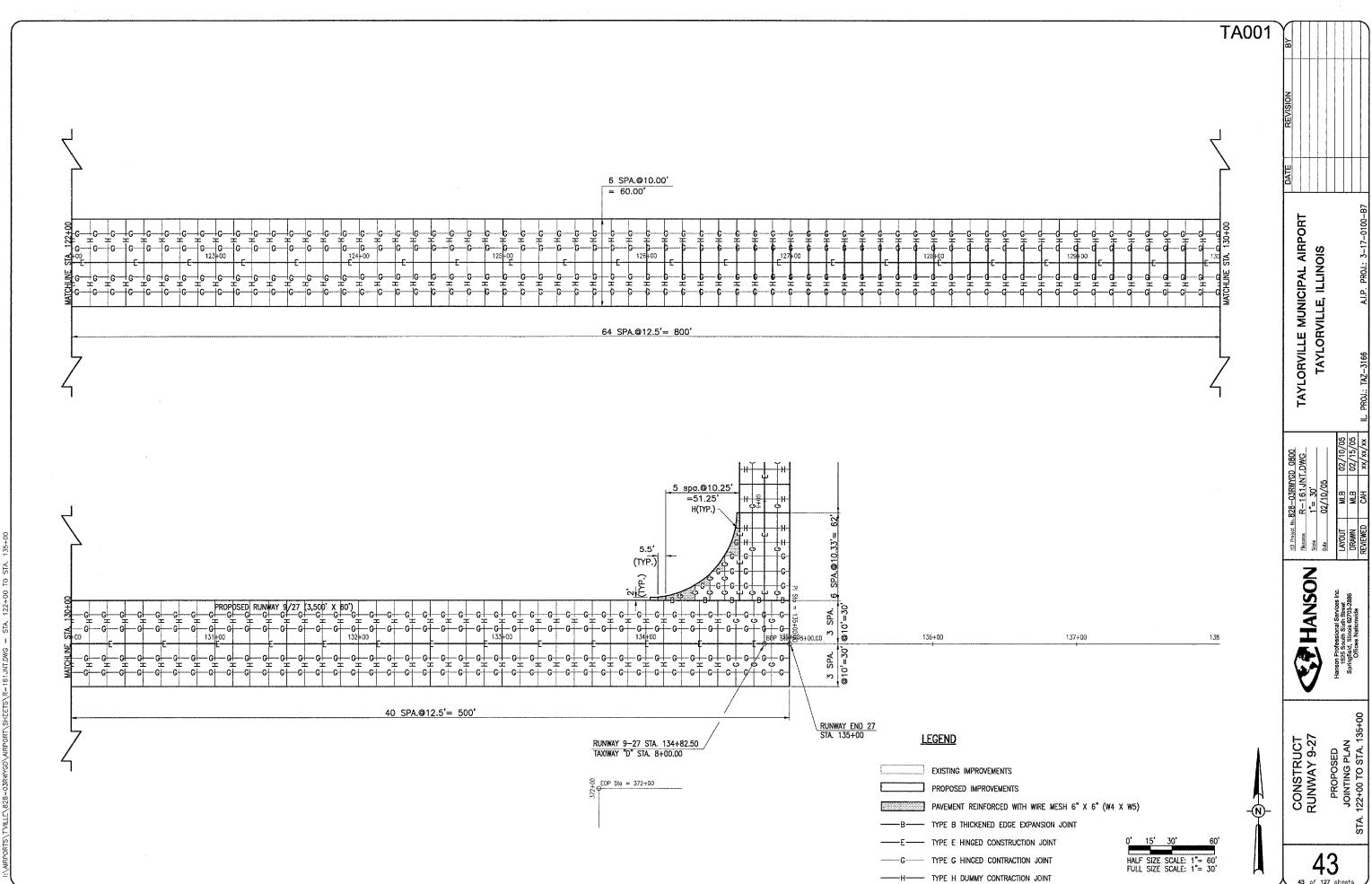
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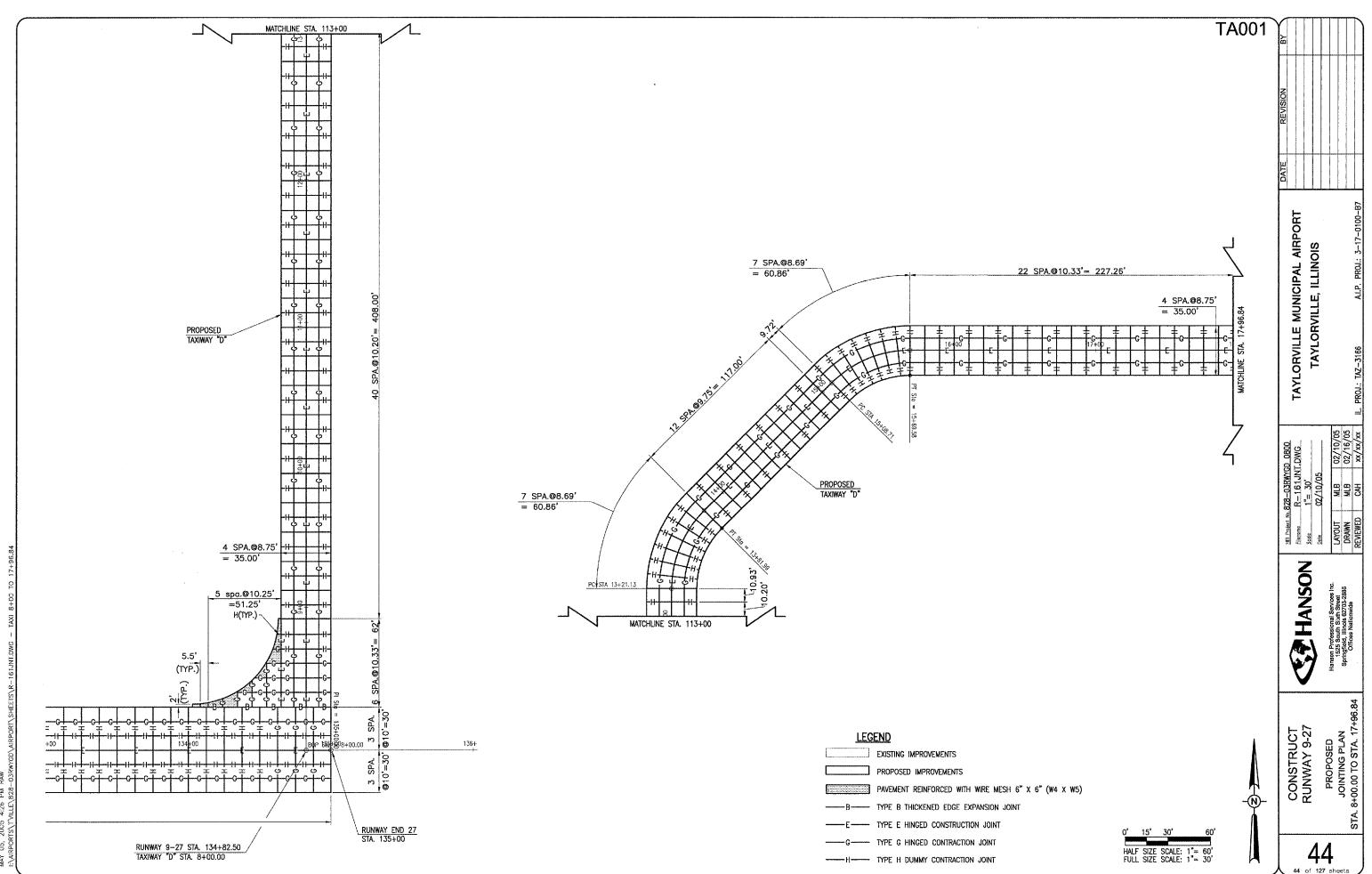
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TA001 6 SPA.@10.33'= 62' 5 SPA.@ 10.50'=52.50' △6 SPA.@10.3'=62' 20+00 PROPOSED TAXIWAY "D" N-S RUNWAY STA. 279+88.23 TAXIWAY "D" STA. 19+57.48 **LEGEND** EXISTING IMPROVEMENTS PROPOSED IMPROVEMENTS PAVEMENT REINFORCED WITH WIRE MESH 6" X 6" (W4 X W5) - TYPE B THICKENED EDGE EXPANSION JOINT TYPE E HINGED CONSTRUCTION JOINT HALF SIZE SCALE: 1"= 100' FULL SIZE SCALE: 1"= 50' -- TYPE G HINGED CONTRACTION JOINT

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TAYLORVILLE MUNICIPAL AIRPORT TAYLORVILLE, ILLINOIS

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CONSTRUCT RUNWAY 9-27

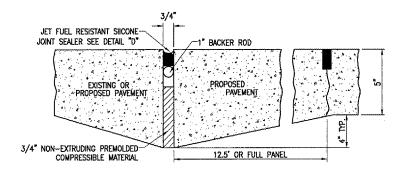
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SEE DETAIL "A" ---see detail "b" TYPE H DUMMY TYPE E - HINGED TYPE G HINGED

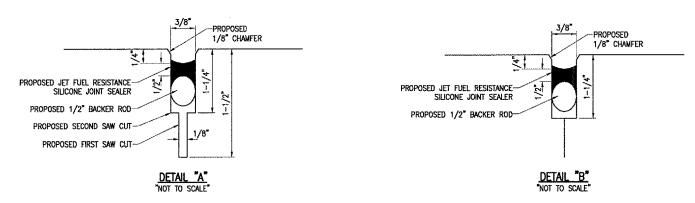
**CONTRACTION JOINTS** 

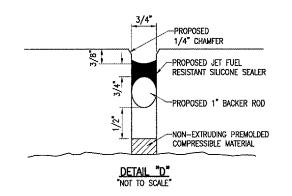
CONSTRUCTION JOINTS



# TYPE-8 THICKENED EDGE EXPANSION JOINT

## **EXPANSION JOINT**





# JOINTING NOTES

ALL EXPOSED JOINT EDGES SHALL BE EDGED WITH AN APPROVED TOOL HAVING A RADIUS OF  $1/4^{\circ}$  OR STONED TO PRODUCE THE  $1/8^{\circ}$  CHAMFER.

ALL LONGITUDINAL AND TRANSVERSE CONTRACTION AND CONSTRUCTION JOINTS SHALL BE SAMED.

ALL TIE-BARS SHALL BE SECURELY HELD IN PLACE BY SUPPORT PINS OR OTHER METHODS TO PREVENT SHIFTING DURING AND AFTER CONCRETE PLACEMENT. SUPPORT PINS SHALL BE OF SUFFICIENT LENGTH TO PENETRATE AT LEAST 6" INTO THE SUBGRADE.

ALL TIE-BARS SHALL BE PLACED AT A POINT NOT EXCEEDING 15" OR CLOSER THAN 6" FROM A TRANSVERSE, CONTRACTION, EXPANSION, OR CONSTRUCTION JOINT AND SPACED 36" ON CENTERS AND SHALL BE NO. 4 DEFORMED BARS, 20" IN LENGTH.

ALLOWABLE TOLERANCES FOR GROOVE DEPTH WILL BE +1/8" FOR CONSTRUCTION JOINTS AND + 1/4" FOR CONTRACTION JOINTS.

TIE-BARS LOCATED IN THE CONSTRUCTION JOINTS WILL BE DRILLED AND EPOXYED IN PLACE. THE EPOXIED MATERIAL MUST BE APPROVED BY THE ILLINOIS DIVISION OF AERONAUTICS.

THE COST OF ALL TIE-BARS, SAWING, AND SEALING SHALL BE INCLUDED IN THE COST OF THE P.C.C. PAVEMENT.

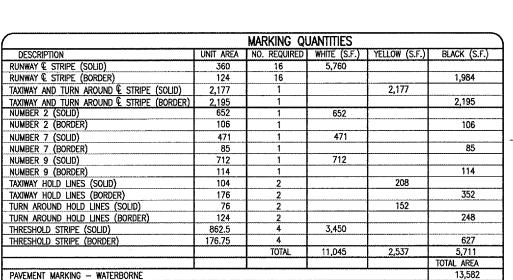
PRIOR TO PLACING ADJACENT PAVEMENT SECTIONS, THE VERTICAL EDGE SHALL BE CHECKED FOR TRUENESS IF THE FACE IS BURRED OR IRREGULAR, THE CONTRACTOR SHALL GRIND, STONE OR SAW THE FACE A MINIMUM OF  $2^{\circ}$  IN DEPTH TO PRODUCE A SMOOTH AND

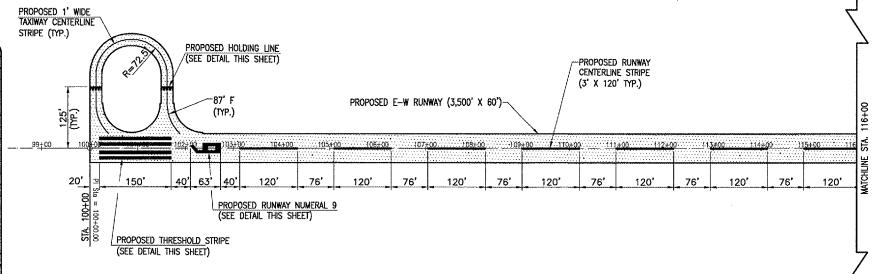
WHEN CONSTRUCTING "FILL-IN" PAYEMENT LANES THE CONTRACTOR SHALL USE BELTING OR OTHER PROTECTIVE MATERIAL FOR THE PAYING MACHINE TO TRAVEL ON AND WILL ROPE THE TRANSPERCE PAYER. THE TRANSVERSE JOINTS.

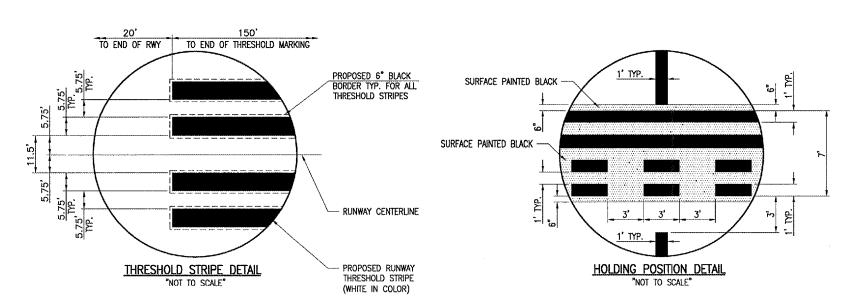
JOINT SEALANT SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS ITEM 501-2.5.

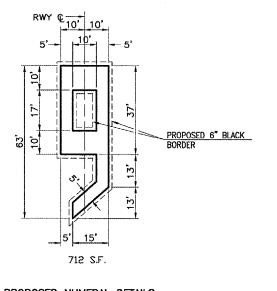
CURING COMPOUND WILL BE AS SPECIFIED IN THE SPECIFICATIONS, ITEM 501-3.17 AND SHALL BE APPROVED PRIOR TO THE PAYING OPERATION BY THE ENGINEER.

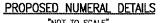
ALL NON-ALIGNED EDGES WILL BE SAWED FULL DEPTH.



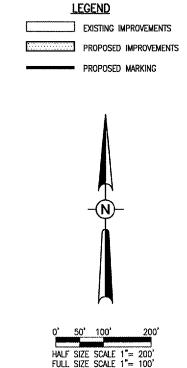








"NOT TO SCALE"



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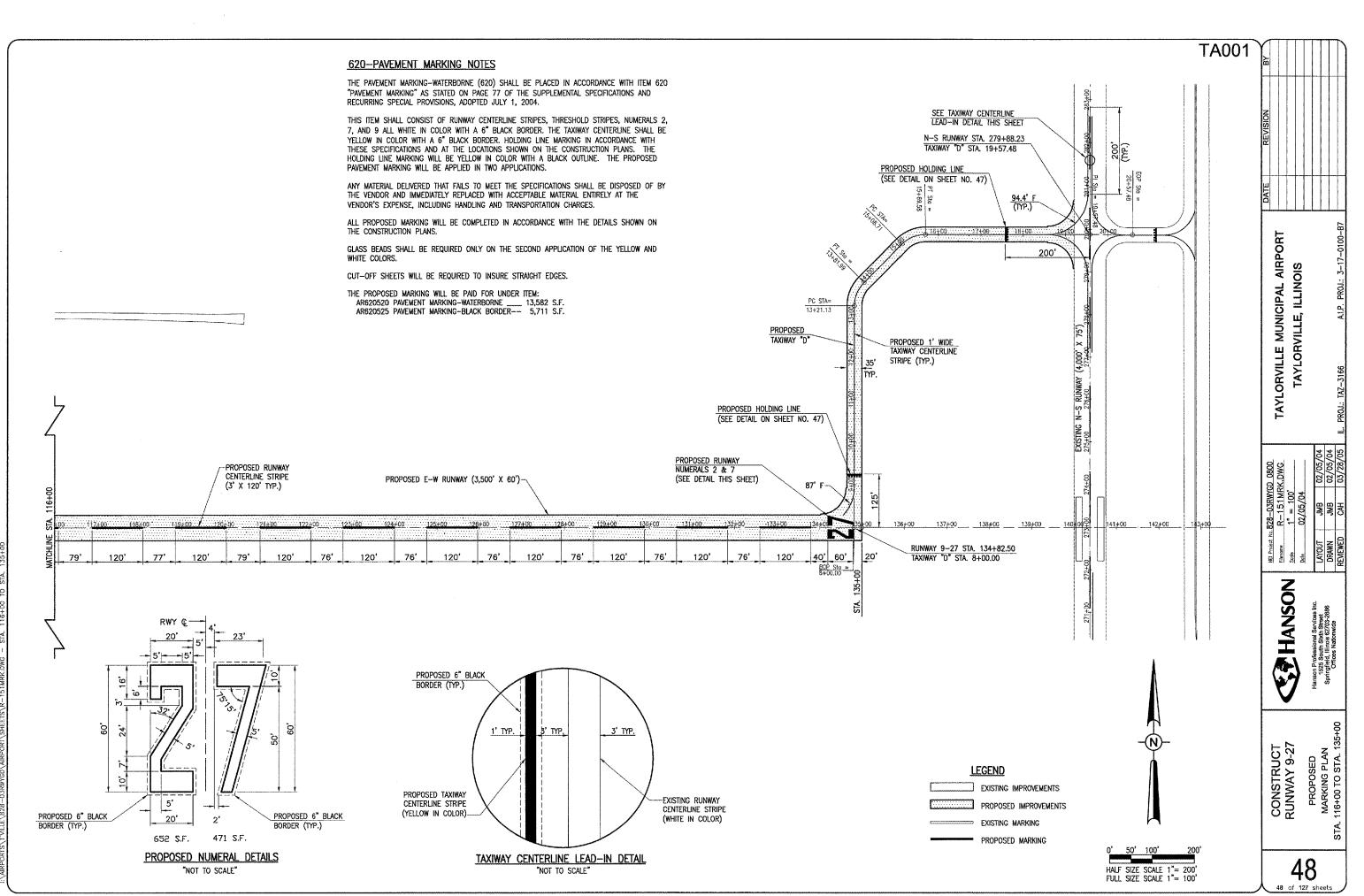
PROPOSED MARKING PLAN . 100+00 TO STA. 116+00 CONSTRUCT RUNWAY 9-27

HANSON

TAYLORVILLE MUNICIPAL AIRPORT TAYLORVILLE, ILLINOIS

47 of 127 sheets

PAVEMENT MARKING - BLACK BORDER



05, 2005 4:49 PM RAW

THE PROPOSED CONCRETE ENCASED ELECTRICAL DUCT WILL BE CONSTRUCTED IN ACCORDANCE WITH ITEM 110 "INSTALLATION OF AIRPORT UNDERGROUND ELECTRICAL DUCT" AS STATED ON PAGE 148 OF THE SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS, ADOPTED JULY 1, 2004.

THIS ITEM OF WORK SHALL CONSIST OF FURNISHING AND INSTALLING 2-WAY & 4-WAY CONCRETE ENCASED ELECTRICAL DUCTS AT THE LOCATIONS SHOWN ON THE CONSTRUCTION PLANS.

THE CONCRETE ENCASED DUCTS WILL BE PLACED FOLLOWING THE SOIL PROCESSING AND APPLICATION OF THE LIME. THE TOPS OF THE PROPOSED DUCTS WILL BE PLACED 12" BELOW THE BOTTOM OF THE PROPOSED AGGREGATE BASE OR A MINIMUM OF 18" BELOW THE SURFACE OF THE FINISHED

THE PROPOSED ELECTRICAL DUCT WILL BE PAID FOR UNDER ITEMS: AR110502 2-WAY CONCRETE ENCASED DUCT 41 LF.
AR110504 4-WAY CONCRETE EMCASED DUCT 72 LF.

# **REIL NOTES**

THE CONTRACTOR SHALL FURNISH AND INSTALL THE PROPOSED POWER CABLES FOR THE EXISTING & PROPOSED REIL'S AS SHOWN ON THE CONSTRUCTION PLANS. THE CABLE WILL BE TRENCHED AT A MINIMUM DEPTH OF 18".

THE PROPOSED POWER CABLES SHALL BE NO. 6, 600 VOLT, TYPE C, 3/C UNDERGROUND CABLE.

THE CONTRACTOR SHALL ALSO FURNISH AND INSTALL THE POWER AND CONTROL CABLES BETWEEN THE MASTER AND SLAVE REIL UNITS. THE SIZE, TYPE AND NUMBER OF CABLES TO BE INSTALLED BETWEEN THE REIL UNITS WILL BE AS PER THE MANUFACTURER'S RECOMMENDATIONS.

THE CABLE TRENCH SHALL BE BACKFILLED, COMPACTED TO PREVENT FUTURE SETTLEMENT AND LIMED, FERTILIZED AND SEEDED IN ACCORDANCE WITH ITEM 901 "SEEDING".

# **ELECTRICAL NOTES**

ALL PROPOSED CABLE WILL BE LOCATED 12' FROM THE PAVEMENT EDGE UNLESS OTHERWISE STATED BY THE RESIDENT ENGINEER.

ALL PROPOSED CABLE WILL BE PLACED 18" BELOW THE PROPOSED GRADE.

THE PROPOSED ELECTRICAL CABLE WILL BE NO. 8, 5000 V., 1/C, TYPE C UNDERGROUND CABLE IN

IN AREAS WHERE THERE IS A CONGESTION OF CABLES OR WHERE THE PROPOSED CABLE CROSSES AN EXISTING CABLE, THE PROPOSED CABLE WILL BE HAND DUG INTO PLACE. AT ALL OTHER LOCATIONS, THE PROPOSED CABLE IN UNIT DUCT MAY BE EITHER TRENCHED OR PLOWED INTO PLACE. THE TRENCHING AND/OR PLOWING WILL BE CONSIDERED INCIDENTAL TO THE PROPOSED CABLE AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

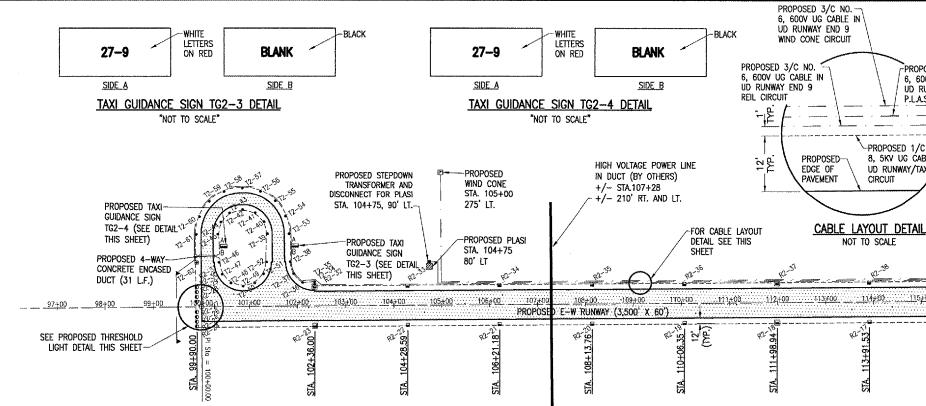
ALL CABLE SHOWN BY A ( ----- ) DASHED LINE ARE EXISTING CIRCUITS THAT ARE NOT PART OF THIS CONTRACT. THE LOCATION OF THESE CABLES ARE APPROXIMATE AND FOR INFORMATIONAL PURPOSES ONLY. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND IDENTIFY THESE EXISTING CIRCUITS PRIOR TO THE INSTALLATION OF THE PROPOSED CARLE. ANY DAMAGE TO THE EXISTING CIRCUITS SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE RESIDENT ENGINEER AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

ALL PROPOSED LIGHTS WILL BE PLACED 10' FROM THE PAVEMENT EDGE UNLESS SHOWN OTHERWISE.

ALL PROPOSED LIGHTS WILL BE CONSTRUCTED AT THE LOCATION SHOWN ON THIS SHEET AND IN ACCORDANCE WITH THE DETAILS SHOWN ON SHEET 53 AND THE SPECIFICATIONS.

DURING CONSTRUCTION. THE EXISTING RUNWAY AND TAXIWAY LIGHTING CIRCUITS MAY BE INOPERABLE DURING THE DAY. HOWEVER, THE CIRCUIT WILL BE FUNCTIONING AT THE END OF THE CONSTRUCTION DAY. THE CONTRACTOR WILL DO WHATEVER IS NECESSARY TO HAVE THE CIRCUITS ACTIVE AT THE END OF THE CONSTRUCTION DAY. THE WORK WILL BE CONSIDERED AS PART OF THE LIGHTING INSTALLATION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

THE RUNWAY LIGHTS ON 9-27, TAXIWAY LIGHTS ON TAXIWAY "D", AND TAXIWAY LIGHTS ON THE TURN AROUND ARE ALL ON ONE ELECTRICAL CIRCUIT.

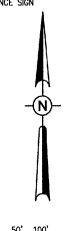


THE LOCATION, SIZE AND TYPE OF MATERIAL OF EXISTING UNDERGROUND UTILITIES INDICATED ON THE PLANS IS NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT OR COMPLETE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES, INCLUDING SERVICE CONNECTIONS TO UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES OF HIS OPERATIONAL PLANS AND SHALL OBTAIN FROM THE RESPECTIVE UTILITY COMPANIES DETAILED INFORMATION AND ASSISTANCE RELATIVE TO 40' TYP. THE LOCATION OF THEIR FACILITIES AND THE WORKING SCHEDULE OF THE COMPANIES FOR REMOVAL OR ADJUSTMENT WHERE REQUIRED. IN THE EVENT AN UNEXPECTED UTILITY INTERFERENCE IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY COMPANY OF JURISDICTION. THE ENGINEER SHALL ALSO BE IMMEDIATELY NOTIFIED. ANY SUCH MAINS AND SERVICES SHALL BE RESTORED TO SERVICE AT ONCE AND PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT. 1,82,30 CALL J.U.L.I.E. FOR UTILITY INFORMATION AT 1-800-892-0123.

TEA CUP TUR	NAROUND LIGHT	COORDINATES
LIGHT NO.	NORTHING	EASTING
T2-34	1043692.1171	2529508.4640
T2-35	1043697,1160	2529508.3581
T2-36	1043695,2856	2529483.3912
T2-37	1043713,1952	2529464.7065
T2-38	1043738.0478	2529457.4799
T2-39	1043795.0395	2529409.2622
T2-40	1043819.8920	2529402.0355
T2-41	1043837.8016	2529383.3508
T2-42	1043843.9271	2529356.2150
T2-43	1043836.6581	2529329.3629
T2-44	1043817.9733	2529311.4533
T245	1043792.8371	2529305,2855
T2-46	1043734.8924	2529308.5133
T2-47	1043710.0399	2529315.7399
T2-48	1043692,1303	2529334.4247
T249	1043685.9625	2529359.5609
T250	1043693.1891	2529384.4134
T2-51	1043711.8739	2529402.3230
T2-52	1043737.0101	2529408,4909
T2-53	1043795.9924	2529454,2521
T2-54	1043832,1860	2529446,2524
T2-55	1043862.5632	2529425.0109
T2~56	1043882.4994	2529393.7615
T2-57	1043888.9170	2529355,2621
T2-58	1043880.8750	2529317.0690
T2-59	1043859.6337	2529286.6919
72-60	1043828,3844	2529266.7557
T2-61	1043791,8841	2529269.2956
12-62	1043733.8971	2529261.5238

**LEGEND** PROPOSED IMPROVEMENTS PROPOSED CONCRETE ENCASED DUCT ----- PROPOSED 1/C NO. 8 UG CABLE IN UD PROPOSED 3/C NO. 6 UG CABLE IN UD PROPOSED RUNWAY THRESHOLD LIGHT PROPOSED STAKE MOUNTED RUNWAY LIGHT PROPOSED BASE MOUNTED RUNWAY LIGHT PROPOSED P.L.A.S.I. PROPOSED REIL PROPOSED WIND CONE PROPOSED STAKE MOUNTED TAXIWAY LIGHT

PROPOSED BASE MOUNTED TAXIWAY LIGHT PROPOSED TAXI GUIDANCE SIGN



50' 100' HALF SIZE SCALE 1"= 200 FULL SIZE SCALE 1"= 100

10' TYP.

PROPOSED RUNWAY END 9 THRESHOLD LIGHT DETAIL NOT TO SCALE

40' TYP.

49 of 127 sheet

TA001

PROPOSED 3/C NO.

UD RUNWAY FND 9

P.L.A.S.I. CIRCUIT

-PROPOSED 1/C NO.

8, 5KV UG CABLE IN

UD RUNWAY/TAXIWAY

CIRCUIT

NOT TO SCALE

1.14+00

6. 600V UG CABLE IN

ILLINO

AYLORVILLE,

MUNICIPAL

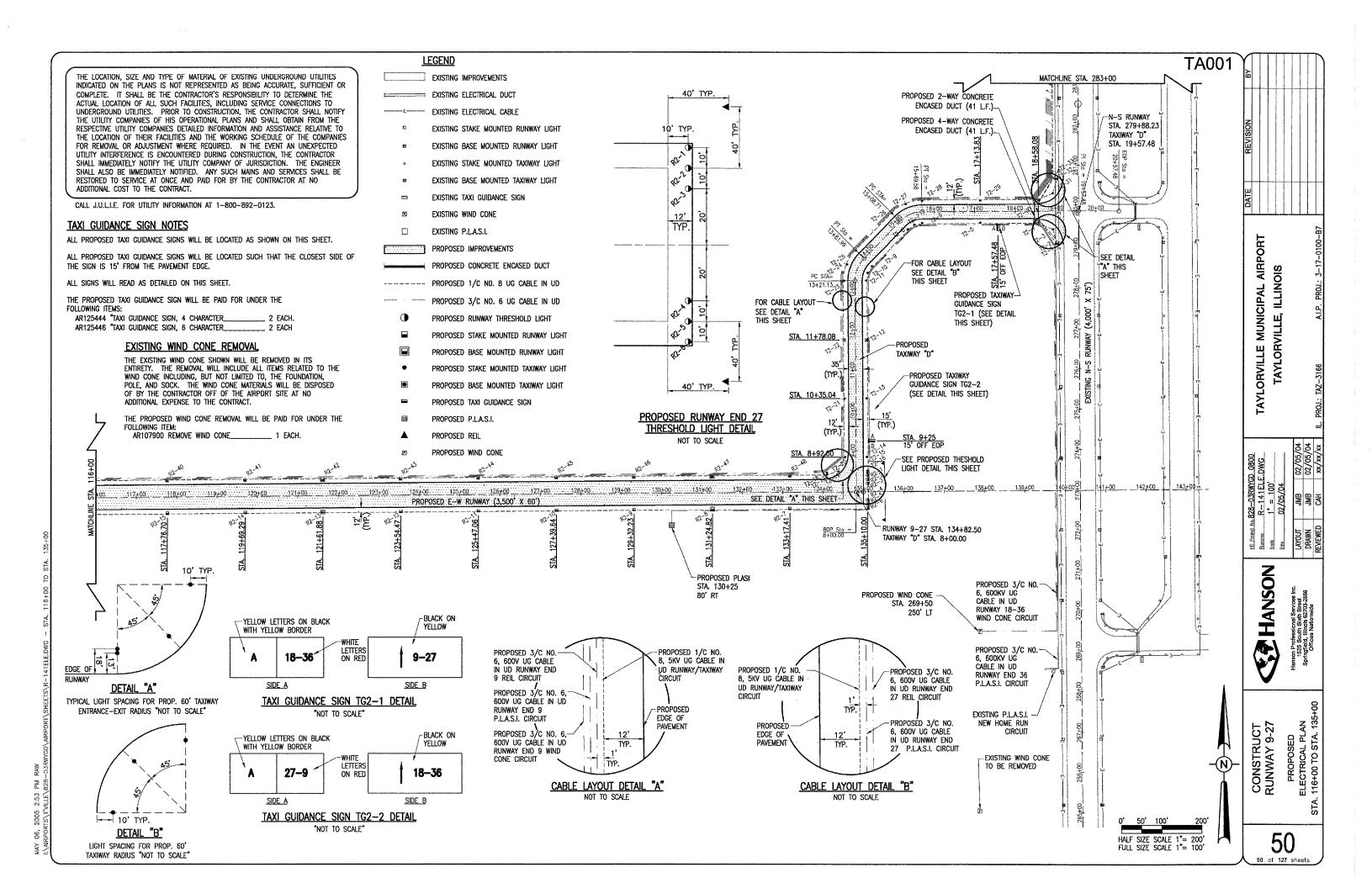
TAYLORVILLE

HANSON

CONSTRUCT RUNWAY 9-27

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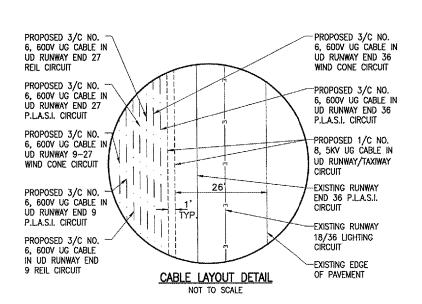
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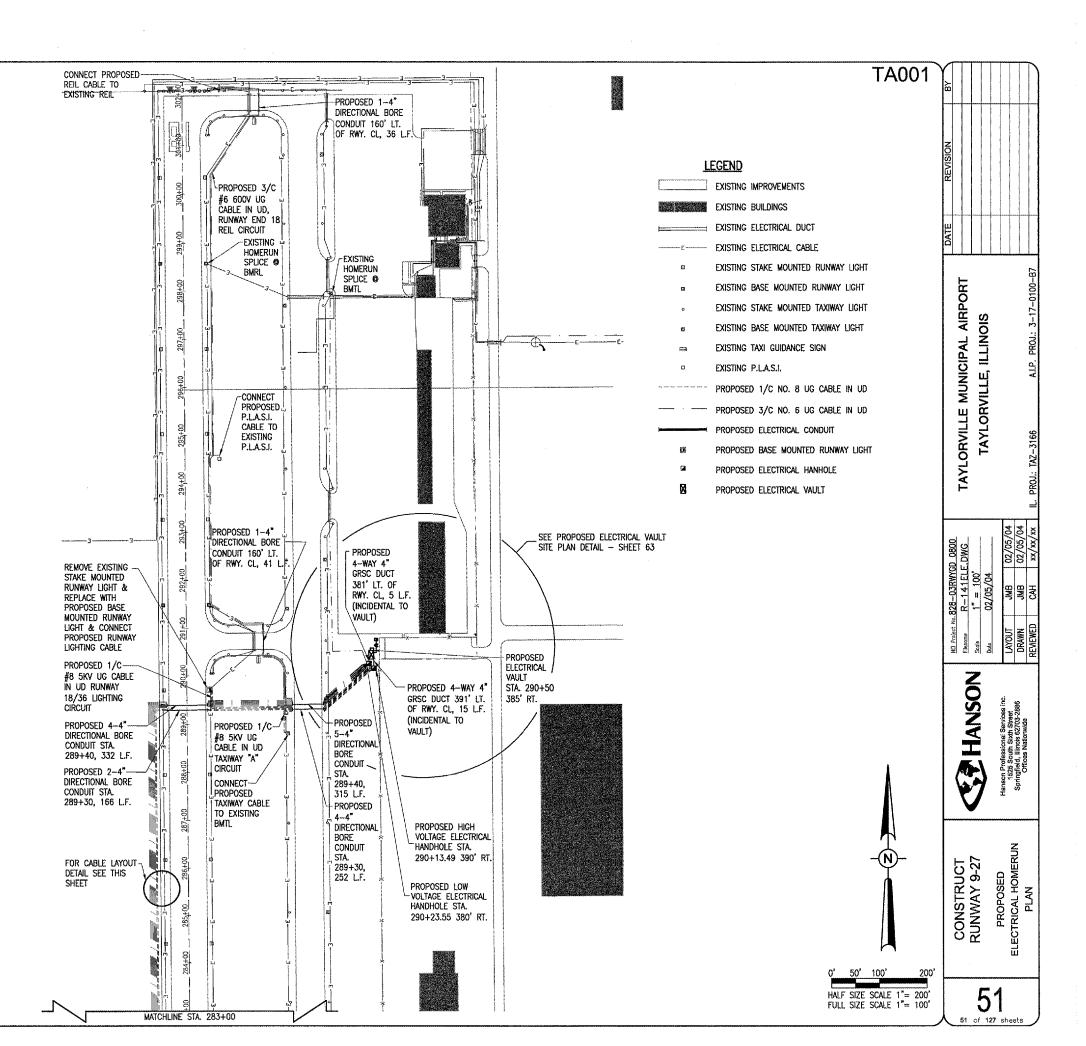


THE LOCATION, SIZE AND TYPE OF MATERIAL OF EXISTING UNDERGROUND UTILITIES INDICATED ON THE PLANS IS NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT OR COMPLETE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES, INCLUDING SERVICE CONNECTIONS TO UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES OF HIS OPERATIONAL PLANS AND SHALL OBTAIN FROM THE RESPECTIVE UTILITY COMPANIES DETAILED INFORMATION AND ASSISTANCE RELATIVE TO THE LOCATION OF THEIR FACILITIES AND THE WORKING SCHEDULE OF THE COMPANIES FOR REMOVAL OR ADJUSTMENT WHERE REQUIRED. IN THE EVENT AN UNEXPECTED UTILITY INTERFERENCE IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY COMPANY OF JURISDICTION. THE ENGINEER SHALL ALSO BE IMMEDIATELY NOTIFIED. ANY SUCH MAINS AND SERVICES SHALL BE RESTORED TO SERVICE AT ONCE AND PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT.

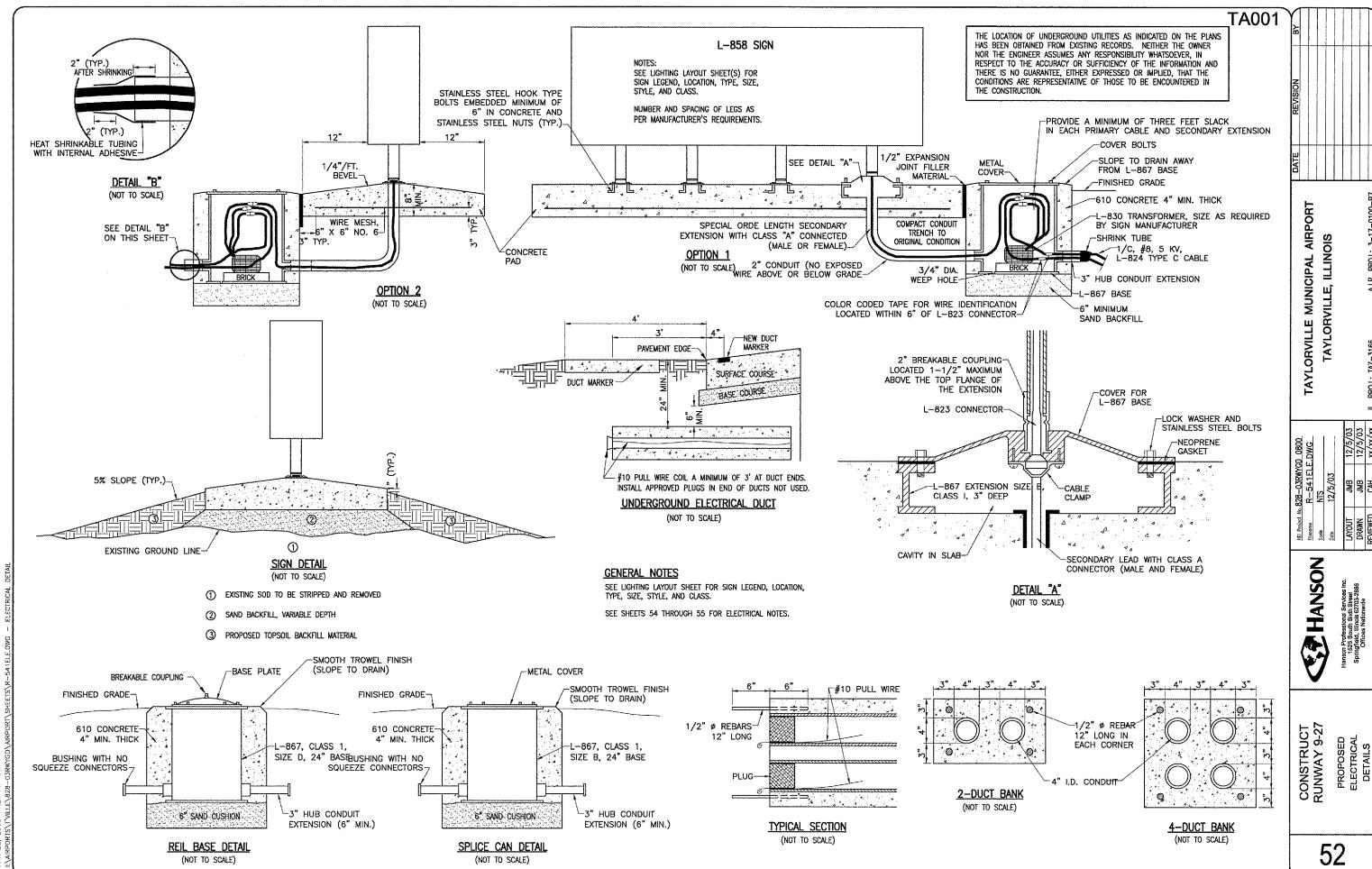
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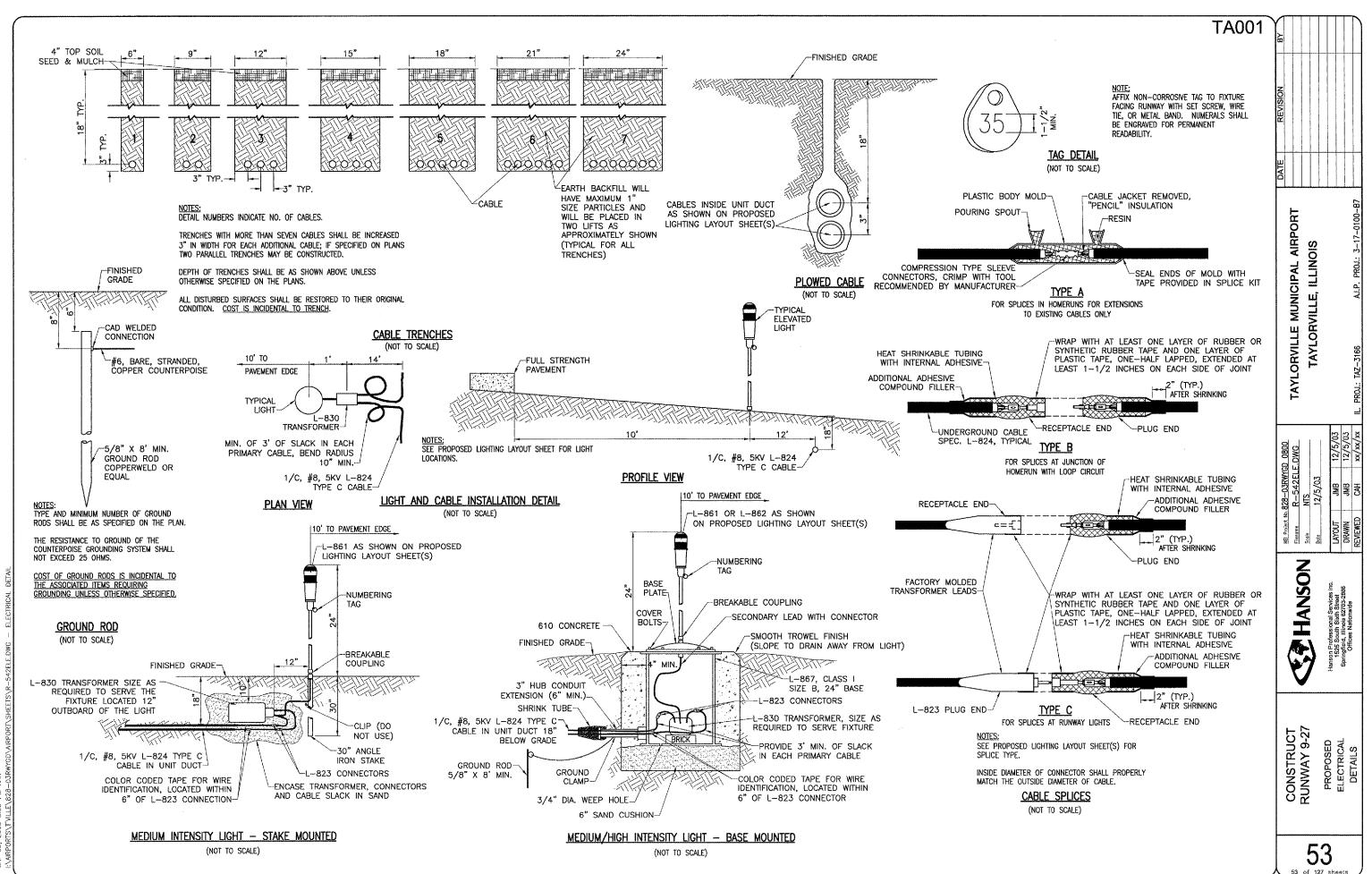
	BASE BID ELECTRICAL QUANTITI	ES	
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
AR107408	L-806 WIND CONE-8' LIGHTED	L.S	2
AR107900	REMOVE WIND CONE	L.S.	1
AR108158	1/C #8 5 KV UG CABLE IN UD	L.F.	15,408
AR108656	3/C #6 600 V UG CABLE IN UD	L.F.	31,150
AR109100	CONSTRUCT ELECTRICAL VAULT	L.S.	1
AR109200	INSTALL ELECTRICAL EQUIPMENT	L.S.	1
AR109901	REMOVE ELECTRICAL VAULT	L.S.	1
AR110014	4" DIRECTIONAL BORE	LF.	1,142
AR110502	2-WAY CONCRETE ENCASED DUCT	L.F.	41
AR110504	4-WAY CONCRETE ENCASED DUCT	L.F.	72
AR110610	ELECTRICAL HANDHOLE	EA.	2
AR125410	MITL-STAKE MOUNTED	EA.	57
AR125415	MITL-BASE MOUNTED	EA.	5
AR125444	TAXI GUIDANCE SIGN, 4 CHARACTER	EA.	2
AR125446	TAXI GUIDANCE SIGN, 6 CHARACTER	EA.	2
AR125505	MIRL, STAKE MOUNTED	EA.	26
AR125510	MIRL, BASE MOUNTED	EA.	9
AR125540	MI THRESHOLD LIGHT STAKE MTD	EA.	14
AR125610	REILS	PAIR	2
AR125630	PLASI	EA	2
▲ AR800576	INSTALL GROUND ROD	EA	5 /





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- 2. THE CONTRACTOR SHALL ASCERTAIN THAT ALL LIGHTING SYSTEM COMPONENTS FURNISHED BY HIM, INCLUDING FAA APPROVED EQUIPMENT, ARE COMPATIBLE IN ALL RESPECTS WITH EACH OTHER AND THE REMAINDER OF THE NEW/EXISTING SYSTEM. ANY NONCOMPATIBLE COMPONENTS FURNISHED BY THIS CONTRACTOR SHALL BE REPLACED BY HIM AT NO ADDITIONAL COST TO THE AIRPORT SPONSOR WITH A SIMILAR UNIT, APPROVED BY THE ENGINEER (DIFFERENT MODEL OR DIFFERENT MANUFACTURE) THAT IS COMPATIBLE WITH THE REMAINDER OF THE AIRPORT LIGHTING SYSTEM.
- IN CASE THE CONTRACTOR ELECTS TO FURNISH AND INSTALL
  AIRPORT LIGHTING EQUIPMENT REQUIRING ADDITIONAL WIRING,
  TRANSFORMERS, ADAPTERS, MOUNTINGS, ETC., TO THOSE SHOWN
  ON THE DRAWINGS AND/OR LISTED IN THE SPECIFICATION, ANY
  COST FOR THESE ITEMS SHALL BE INCIDENTAL TO THE
  EQUIPMENT COST.
- 4. THE CONTRACTOR INSTALLED EQUIPMENT (INCLUDING FAA APPROVED) SHALL NOT GENERATE ANY ELECTROMAGNETIC INTERFERENCE IN THE EXISTING AND/OR NEW COMMUNICATIONS, WEATHER, AIR NAVIGATION, AND AIR TRAFFIC CONTROL EQUIPMENT. ANY EQUIPMENT GENERATING SUCH INTERFERENCE SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST WITH THE EQUIPMENT MEETING THE APPLICABLE SPECIFICATIONS AND NOT GENERATING ANY INTERFERENCE.
- WHEN A SPECIFIC TYPE, STYLE, CLASS, ETC. OF FAA APPROVED EQUIPMENT IS SPECIFIED ONLY THAT TYPE, STYLE, CLASS, WILL BE ACCEPTABLE, EVEN THOUGH EQUIPMENT OF OTHER TYPES STYLES, CLASSES, ETC. MAY BE APPROVED.
- 6. ANY AND ALL INSTRUCTIONS FROM THE ENGINEER TO THE CONTRACTOR REGARDING CHANGES IN OR DEVIATIONS FROM THE PLANS AND SPECIFICATIONS SHALL BE IN WRITING WITH COPIES SENT TO THE AIRPORT SPONSOR AND THE FAA FIELD OFFICE (ADD/AFO). THE CONTRACTOR SHALL NOT ACCEPT ANY VERBAL INSTRUCTIONS FROM THE RESIDENT ENCINEER REGARDING ANY CHANGES FROM THE PLANS AND SPECIFICATIONS.
- 7. A MINIMUM OF THREE COPIES OF THE INSTRUCTION BOOK SHALL BE SUPPLIED WITH EACH DIFFERENT TYPE OF EQUIPMENT. THE BOOKS DESCRIBING A MORE SOPHISTICATED TYPE OF EQUIPMENT, SUCH AS REGULATORS, PAPI, REIL, ETC. AS A MINIMUM SHALL CONTAIN THE FOLLOWING:
  - A. A DETAILED DESCRIPTION OF THE OVERALL, EQUIPMENT AND ITS INDIVIDUAL COMPONENTS.
  - B. THEORY OF OPERATION INCLUDING THE FUNCTION OF EACH COMPONENT.
  - C. INSTALLATION INSTRUCTIONS.
  - D. START-UP INSTRUCTIONS.
  - E. PREVENTATIVE MAINTENANCE REQUIREMENTS.
  - F. CHART FOR TROUBLE-SHOOTING.
  - G. COMPLETE POWER AND CONTROL DETAILED WIRING DIAGRAM(S), SHOWING EACH CONDUCTOR/
    CONNECTION/COMPONENT "BLACK" BOXES ARE NOT ACCEPTABLE. THE DIAGRAM OF THE NARRATIVE SHALL SHOW VOLTAGE/CURRENTS/WAVE SHAPES AT STRATEGIC LOCATIONS TO BE USED WHEN CHECKING AND/OR TROUBLE—SHOOTING THE EQUIPMENT. WHEN THE EQUIPMENT HAS SEVERAL MODES OF OPERATION, SUCH AS SEVERAL BRIGHTNESS STEPS, THESE PARAMETERS SHALL BE INDICATED FOR ALL DIFFERENT MODES.
  - H. PARTS LIST WHICH WILL INCLUDE ALL MAJOR AND MINOR COMPONENTS SUCH AS RESISTORS, DIODES, ETC. IT SHALL INCLUDE A COMPLETE NOMENCLATURE OF EACH COMPONENT AND, IF APPLICABLE, THE NAME OF ITS MANUFACTURE AND THE CATALOG NUMBER. L. SAFETY INSTRUCTIONS.

# POWER AND CONTROL NOTES

- 1. STENCIL ALL ELECTRICAL EQUIPMENT TO IDENTIFY FUNCTION, CIRCUIT VOLTAGE AND PHASE. WHERE THE EQUIPMENT CONTAINS FUSES, ALSO STENCIL. THE FUSE OR FUSE LINK AMPERE RATING. WHERE THE EQUIPMENT DOES NOT HAVE SUFFICIENT STENCILING AREA, THE STENCILING SHALL BE DONE ON THE WALL NEXT TO THE UNIT. THE LETTERS SHALL BE ONE INCH HIGH AND PAINTED IN WHITE OR BLACK TO PROVIDE THE HIGHEST CONTRAST WITH THE BACKGROUND.
- 2. COLOR CODE ALL PHASE WIRING BY THE USE OF COLORED WIRE INSULATION AND/OR COLORED TAPE. WHERE TAPE IS USED, THE WIRE INSULATION SHALL BE BLACK, BLACK AND RED SHALL BE USED FOR SINGLE—PHASE, THREE WIRE SYSTEMS AND BLACK, RED AND BLUE SHALL BE USED FOR THREE—PHASE SYSTEMS. NEUTRAL CONDUCTORS, SIZE NO. 6 AWG OR SMALLER, SHALL BE IDENTIFIED BY A CONTINUOUS WHITE OR NATURAL GRAY OUTER FINISH ALONG ITS ENTIRE LENGTH. NEUTRAL CONDUCTORS LARGER THAN NO. 6 AWG SHALL BE IDENTIFIED EITHER BY A CONTINUOUS WHITE OR NATURAL GRAY OUTER FINISH ALONG ITS ENTIRE LENGTH OR BY THE USE OF WHITE TAPE AT ITS TERMINATIONS AND INSIDE ACCESSIBLE WIREWAYS.
- ALL BRANCH CIRCUIT CONDUCTORS CONNECTED TO A PARTICULAR PHASE SHALL BE IDENTIFIED WITH THE SAME COLOR. THE COLOR CODING SHALL BE EXTENDED TO THE POINT OF UTILIZATION.
- IN CONTROL WIRING THE SAME COLOR SHALL BE USED THROUGHOUT THE SYSTEM FOR THE SAME FUNCTION, SUCH AS 10%, 30%, 100% BRIGHTNESS CONTROL, ETC.
- LOW VOLTAGE (600 V.) AND HIGH VOLTAGE (5000 V.) CONDUCTORS SHALL BE INSTALLED IN SEPARATE WIREWAYS.
- NEATLY LACE WIRING IN DISTRIBUTION PANELS, WIREWAYS, SWITCHES AND JUNCTION/PULL BOXES.
- 7. THE MINIMUM SIZE OF PULL/JUNCTION BOXES, REGARDLESS OF THE QUANTITY AND SIZE OF THE CONDUCTORS SHOWN, SHALL BE AS FOLLOWS:
  - A. IN STRAIGHT PULLS THE LENGTH OF THE BOX SHALL NOT BE LESS THAN EIGHT TIMES THE TRADE DIAMETER OF THE LARGER CONDUIT. THE TOTAL AREA (INCLUDING THE CONDUIT CROSS—SECTIONAL AREA) OF A BOX END SHALL BE AT LEAST 3 TIMES GREATER THAN THE TOTAL TRADE CROSS—SECTIONAL AREA OF THE CONDUITS TERMINATING AT THE END.
  - B. IN ANGLE PULLS OR 'U' PULLS THE DISTANCE BETWEEN EACH CONDUIT ENTRY INSIDE THE BOX AND THE OPPOSITE WALL OF THE BOX SHALL NOT BE LESS THAN SIX (6) TIMES THE TRADE DIAMETER DIAMETER OF THE LARGEST CONDUIT. THIS DISTANCE SHALL BE INCREASED FOR ADDITIONAL ENTRIES BY THE AMOUNT OF THE SUM OF THE DIAMETERS OF ALL OTHER CONDUIT ENTRIES ON THE SAME WALL AS THE BOX. THE DISTANCE BETWEEN CONDUIT ENTRIES ENCLOSING THE SAME CONDUCTOR SHALL NOT BE LESS THAN SIX TIMES THE TRADE DIAMETER OF THE LARGEST CONDUIT.
- A RUN OF CONDUIT BETWEEN TERMINATIONS AT EQUIPMENT ENCLOSURES, SQUARE DUCTS AND PULL/JUNCTION BOXES, SHALL NOT CONTAIN MORE THAN THE EQUIVALENT OF FOUR QUARTER BENDS (360 DEGREES TOTAL), INCLUDING THOSE BENDS LOCATED IMMEDIATELY AT THE TERMINATIONS, CAST, CONDUIT TYPE OUTLETS SHALL NOT BE TREATED AS PULL/JUNCTION BOXES.
- EQUIPMENT CABINETS SHALL NOT BE USED AS PULL/JUNCTION BOXES.
   ONLY WIRING TERMINATING AT THE EQUIPMENT SHALL BE BROUGHT INTO THESE FACI OSURES.
- SPLICES AND JUNCTION POINTS SHALL BE PERMITTED ONLY IN JUNCTION BOXES, DUCTS EQUIPPED WITH REMOVABLE COVERS, AND AT EASILY ACCESSIBLE LOCATIONS.
- CIRCUIT BREAKERS IN POWER DISTRIBUTION PANEL(S) SHALL BE THERMAL—MAGNETIC MOLDED CASE, PERMANENT TRIP WITH 100 AMPERE, MINIMUM FRAME.
- 12. DUAL LUGS SHALL BE USED WHERE TWO (2) WIRES, SIZE NO. 6 OR LARGER, ARE TO BE CONNECTED TO THE SAME TERMINAL.

13. ALL WALL MOUNTED EQUIPMENT ENCLOSURES SHALL BE MOUNTED ON WOODEN MOUNTING BOARDS, AND/OR GALVANIZED STEEL

14. WOODEN EQUIPMENT MOUNTING BOARDS SHALL BE PLYWOOD, EXTERIOR TYPE, 3/4 INCH, MINIMUM, THICKNESS, BOTH SIDES PAINTED WITH ONE COAT OF PRIMER AND TWO COATS OF GRAY OIL—BASED PAINT.

- RIDGID STEEL CONDUIT SHALL BE USED THROUGHOUT THE INSTALLATION UNLESS OTHERWISE SPECIFIED. THE MINIMUM TRADE SIZE SHALL BE 3/4 INCH.
- ALL RIGID CONDUIT SHALL BE TERMINATED AT CONSTANT CURRENT REGULATORS WITH A SECTION (10" MINIMUM) OF FLEXIBLE CONDUIT.
- 17. UNLESS OTHERWISE SHOWN, ALL EXPOSED CONDUITS SHALL BE RUN PARALLEL TO OR AT RIGHT ANGLES WITH THE LINES OF THE STRUCTURE
- ALL STEEL CONDUITS, FITTINGS, NUTS, BOLTS, ETC. SHALL BE GALVANIZED.
- USE CONDUIT BUSHINGS AT EACH CONDUIT TERMINATION. WHERE NO. 4 AWG OR LARGER UNDERGROUND WIRE IS INSTALLED, USE INSUITATED BUSHINGS.
- 20. USE DOUBLE LOCK NUTS AT EACH CONDUIT TERMINATION.
- 21. WRAP ALL PRIMARY AND SECONDARY POWER TRANSFORMER
  CONNECTIONS WITH SUFFICIENT LAYERS OF INSULTING TAPE AND
  COVER WITH INSULATING VARNISH FOR FULL VALUE OF CABLE
  INSULATION VOLTAGE
- UNLESS OTHERWISE NOTED, ALL INDOOR SINGLE CONDUCTOR CONTROL WIRING SHALL BE NO. 12 AWG.
- THE FOLLOWING SHALL APPLY TO RELAY/CONTACTOR PANELS/ENCLOSURES:
  - A. ALL COMPONENTS SHALL BE MOUNTED IN DUST PROOF ENCLOSURE(S) WITH VERTICALLY HINGED COVERS.
  - B. THE ENCLOSURE(S) SHALL HAVE AMPLE SPACE FOR THE CIRCUIT COMPONENTS, TERMINAL BLOCKS AND INCOMING AND INTERNAL WIRING.
  - C. ALL CONTROL CONDUCTOR TERMINATIONS SHALL BE OF THE OPEN—EYE CONNECTOR/SCREW TYPE. SOLDERED CLOSED—EYE TERMINATIONS, OR TERMINATIONS WITHOUT CONNECTORS ARE NOT ACCEPTABLE.
  - D. WHEN THE ENCLOSURE COVER IS OPENED, ALL CIRCUIT COMPONENTS, WIRING AND TERMINALS SHALL BE EXPOSED AND ACCESSIBLE WITHOUT REMOVAL OF ANY PANELS, COVERS, ETC., EXCEPT THOSE COVERING HIGH VOLTAGE COMPONENTS.
  - E. ACCESS TO, OR REMOVAL OF A CIRCUIT COMPONENT OR TERMINAL BLOCK WILL NOT REQUIRE THE REMOVAL OF ANY OTHER CIRCUIT COMPONENT OR TERMINAL BLOCK.
  - F. EACH CIRCUIT COMPONENT SHALL BE CLEARLY IDENTIFIED INDICATING ITS CORRESPONDING NUMBER SHOWN ON THE DRAWINGS AND ITS FUNCTION.
  - G. A COMPLETE WIRING DIAGRAM (SCHEMATIC DIAGRAM) SHALL BE MOUNTED ON THE INSIDE OF THE COVER. THE DIAGRAM SHALL REPRESENT EACH CONDUCTOR BY A SEPARATE LINE.
  - H. THE DIAGRAM SHALL IDENTIFY EACH CIRCUIT COMPONENT AN NUMBERING AND COLOR OF EACH TERMINAL CONDUCTOR AND TERMINAL.
  - I. ALL WIRING SHALL BE NEATLY TRAINED AND LACED.
  - J. MINIMUM WIRE SIZE SHALL BE NO. 12 AWG.

DATE REVISION BY

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12/5/03

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HANSON Hanson Professional Services Inc. 1928 South Sixet Street

9-27

CONSTRUCT
RUNWAY 9-27
PROPOSED
ELECTRICAL
NOTES

## FIELD LIGHTING NOTES

- UNLESS OTHERWISE NOTED, ALL UNDERGROUND FIELD POWER MULTIPLE AND SERIES CIRCUIT CONDUCTORS WHETHER DEB OR IN DUCT/CONDUIT SHALL BE FAA APPROVED L-824 TYPE. INSULATION VOLTAGE AND SIZE SHALL BE AS SPECIFIED.
- 2. NO COMPONENTS OF PRIMARY CIRCUIT SUCH AS CABLE, CONNECTORS AND TRANSFORMERS SHALL BE BROUGHT ABOVE GROUND AT EDGE LIGHTS, SIGNS, REIL, PAPI, ETC.
- 3. THERE SHALL BE NO EXPOSED POWER/CONTROL CABLES BETWEEN THE POINT WHERE THEY LEAVE THE UNDERGROUND (DEB OR L-867 BASES) AND WHERE THEY ENTER THE EQUIPMENT (SUCH AS TAXIWAY SIGNS, PAPI, REIL, ETC.) ENCLOSURES. THESE CABLES SHALL BE ENCLOSED IN RIGID CONDUIT OR IN FLEXIBLE, WATERTIGHT CONDUIT WITH BREAKABLE COUPLING(S) AT THE GRADE OR THE HOUSING COVER, AS SHOWN IN APPLICABLE DETAILS.
- 4. THE JOINTS OF THE L-823 PRIMARY CONNECTORS SHALL BE WRAPPED WITH AT LEAST ONE LAYER OF RUBBER OR SYNTHETIC RUBBER TAPE AND ONE LAYER OF PLASTIC TAPE, ONE-HALF LAPPED, EXTENDING AT LEAST 1-1/2 INCHES ON EACH SIDE OF THE JOINT, AS SHOWN ON SHEET NO. 21.
- 5. THE CABLE ENTRANCE INTO THE FIELD-ATTACHED L-823 CONNECTORS SHALL BE ENCLOSED BY A HEAT-SHRINKABLE TUBING WITH CONTINUOUS INTERNAL ADHESIVE, AS SHOWN ON SHEET NO.
- 6. L-823 TYPE II, TWO-CONDUCTOR SECONDARY CONNECTORS SHALL BE CLASS 'A' (FACTORY MOLDED).
- 7. THERE SHALL BE NO SPLICES IN THE SECONDARY CABLE(S) WITHIN THE STEMS OF A RUNWAY/TAXIWAY EDGE/THRESHOLD LIGHTING FIXTURE AND THE WIREWAYS LEADING TO TAXIWAY SIGNS AND PAPI/REIL EQUIPMENT.
- 8. ELECTRICAL INSULATING GREASE SHALL BE APPLIED WITHIN THE L-823, SECONDARY, TWO CONDUCTOR CONNECTORS TO PREVENT WATER ENTRANCE. THESE CONNECTORS SHALL NOT BE
- 9. DEB ISOLATION TRANSFORMERS SHALL BE BURIED AT A DEPTH OF TEN (10") INCHES ON A LINE CROSSING THE LIGHT AND PERPENDICULAR TO THE RUNWAY/TAXIWAY CENTERLINE AT A LOCATION TWELVE (12") INCHES FROM THE LIGHT OPPOSITE FROM THE RUNWAY/TAXIWAY.
- 10. A SLACK OF THREE (3") FEET, MINIMUM, SHALL BE PROVIDED IN THE PRIMARY CABLE AT EACH TRANSFORMER/CONNECTOR TERMINATION, AT STAKE-MOUNTED LIGHTS, THE SLACK SHALL BE LOOSELY COILED IMMEDIATELY BELOW THE ISOLATION
- 11. DIRECTION OF PRIMARY CABLES SHALL BE IDENTIFIED BY COLOR CODING AS FOLLOWS: WHEN FACING LIGHT WITH BACK TO PAVEMENT, CABLE TO THE LEFT IS CODED RED AND CABLE TO RIGHT IS CODED BLUE. THIS APPLIES TO STAKE MOUNTED LIGHTS AND BASE MOUNTED LIGHTS WHERE THE BASE HAS ONLY
- 12. L-867 BASES SHALL BE SIZE B, 24" DEEP, CLASS I, UNLESS OTHERWISE NOTED.
- 13. BASE MOUNTED BREAKABLE COUPLINGS SHALL NOT HAVE WEEP HOLES TO THE OUTSIDE. PLUGGED UP HOLES SHALL NOT BE ACCEPTABLE. IT SHALL BE A 1/4" DIAMETER, MINIMUM, OR EQUIVALENT OPENING FOR DRAINAGE FROM THE SPACE AROUND THE SECONDARY CONNECTOR INTO THE L-867 BASE.
- 14. THE ELEVATION OF THE BREAKABLE COUPLING GROOVE SHALL NOT EXCEED 1-1/2" ABOVE THE EDGE OF THE COVER IN CASE OF BASE MOUNTED COUPLINGS, OR THE TOP OF THE STAKE IN CASE OF STAKE MOUNTED COUPLINGS.

- 15. WHERE THE BREAKABLE COUPLING IS NOT AN INTEGRAL PART OF THE LIGHT FIXTURE STEM OR MOUNTING LEG, A BEAD OF SILICON SEAL SHALL BE APPLIED COMPLETELY AROUND LIGHT STEM OR WIREWAY AT BREAKABLE COUPLING TO PROVIDE A WATERTIGHT SEAL.
- 16. TOPS OF THE STAKES SUPPORTING LIGHT FIXTURES SHALL BE FLUSH WITH THE SURROUNDING GRADE.
- 17. PLASTIC LIGHTING FIXTURE COMPONENTS, SUCH AS LAMP HEADS, STEMS. BREAKABLE COUPLINGS, BASE COVERS, BRACKETS, STAKES, SHALL NOT BE ACCEPTABLE.
- 18. THE TOLERANCE FOR THE HEIGHT OF RUNWAY/TAXIWAY EDGE LIGHTS SHALL BE: ONE (1) INCH. IN CASE OF STAKE MOUNTED LIGHTS, THE SPECIFIED LIGHTING FIXTURE HEIGHT SHALL BE MEASURED BETWEEN THE TOP OF THE STAKE AND THE TOP OF THE LENS. IN CASE OF BASE MOUNTED LIGHTS, THE SPECIFIED LIGHTING FIXTURE HEIGHT SHALL BE MEASURED BETWEEN THE TOP OF THE BASE FLANGE AND THE TOP OF THE LENS, THUS INCLUDING THE BASE COVER, THE FRANGIBLE COUPLING, THE STEM, THE LAMP HOUSING AND THE LENS.
- 19. THE TOLERANCE FOR THE LATERAL SPACING (LIGHT LANE TO RUNWAY/TAXIWAY CENTERLINE) OF RUNWAY/TAXIWAY EDGE LIGHTS SHALL BE ONE (1) INCH. THIS ALSO APPLIES AT INTERSECTIONS TO LATERAL SPACING BETWEEN LIGHTS OF A RUNWAY/TAXIWAY AND THE INTERSECTING RUNWAY/TAXIWAY.
- 20. ENTRANCES INTO L-867 BASES SHALL BE SEALED WITH HEAT SHRINK AS SHOWN IN DETAIL "B" ON SHEET NO. 20.
- 21. GALVANIZED/PAINTED EQUIPMENT/COMPONENT SURFACES SHALL NOT BE DAMAGED BY DRILLING, FILING, ETC. DRAIN HOLES IN METAL TRANSFORMER HOUSINGS SHALL BE MADE BEFORE GAI VANIZING.
- 22. EDGE LIGHT NUMBERING TAGS SHALL BE FACING THE PAVEMENT.
- 23. CABLE/SPLICE/DUCT MARKERS SHALL BE PRECAST CONCRETE OF THE SIZE SHOWN. LETTERS/NUMBERS/ARROWS FOR THE LEGEND TO BE IMPRESSED INTO THE TOPS OF THE MARKERS SHALL BE PRE-ASSEMBLED AND SECURED IN THE MOLD BEFORE THE CONCRETE IS POURED. LEGEND INSCRIBED BY HAND IN WET CONCRETE SHALL
- 24. ALL UNDERGROUND CABLE RUNS SHALL BE IDENTIFIED BY CABLE MARKERS AT 200 FEET MAXIMUM SPACING, WITH AN ADDITIONAL MARKER AT EACH CHANGE OF DIRECTION OF THE CABLE RUN. CABLE MARKERS SHALL BE INSTALLED IMMEDIATELY ABOVE THE
- 25. THERE SHALL BE NO SPLICES BETWEEN THE ISOLATION TRANSFORMERS. L-823 CONNECTORS ARE ALLOWED AT TRANSFORMER CONNECTIONS ONLY, UNLESS OTHERWISE SHOWN.
- 26. APPLY AN OXIDE INHIBITING, ANTI-SEIZING COMPOUND TO ALL SCREWS, NUTS AND BREAKAGE COUPLING THREADS.
- 27. LOCATIONS OF ENDS OF ALL UNDERGROUND DUCTS SHALL BE IDENTIFIED BY DUCT MARKERS.
- 28. WHERE A PARALLEL, CONSTANT VOLTAGE PAPI SYSTEM IS PROVIDED, THE "T" SPLICES SHALL BE OF THE CAST TYPE.
- 29. CONCRETE USED FOR SLABS, FOOTINGS, BACKFILL AROUND TRANSFORMER HOUSINGS, MARKINGS, ETC. SHALL BE 3000 PSI,
- 30. ALL POWER AND CONTROL CABLES IN MAN/HAND HOLES SHALL BE TAGGED. USE EMBOSSED COPPER STRIPS TO BE ATTACHED AT BOTH ENDS TO THE CABLE BY THE USE OF PLASTIC STRAPS. MINIMUM OF TWO TAGS SHALL BE PROVIDED ON EACH CABLE IN A MAN/HAND HOLE-ONE AT THE CABLE ENTRANCE AND ONE AT THE CABLE EXIT.

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### GROUNDING NOTES

- 1. ALL GROUND CONNECTIONS TO GROUND RODS, BUSSES, PANELS, ETC. SHALL BE MADE WITH PRESSURE TYPE SOLDERLESS LUGS AND GROUND CLAMPS SOLDERED OR BOLT AND WASHER TYPE CONNECTIONS ARE NOT ACCEPTABLE. CLEAN ALL METAL SURFACES BEFORE MAKING GROUND CONNECTIONS. CONNECTIONS TO GROUND RODS SHALL BE EXOTHERMIC WELD WHERE SPECIFIED HEREIN.
- 2. TOP OF GROUND RODS SHALL BE TEN (10) INCHES BELOW GRADE, UNLESS SPECIFIED OTHERWISE HEREIN, FOR RESPECTIVE APPLICATIONS.
- THE RESISTANCE TO GROUND OF THE VAULT GROUNDING SYSTEM WITH THE COMMERCIAL POWER LINE NEUTRAL DISCONNECTED SHALL NOT EXCEED 10 OHMS.

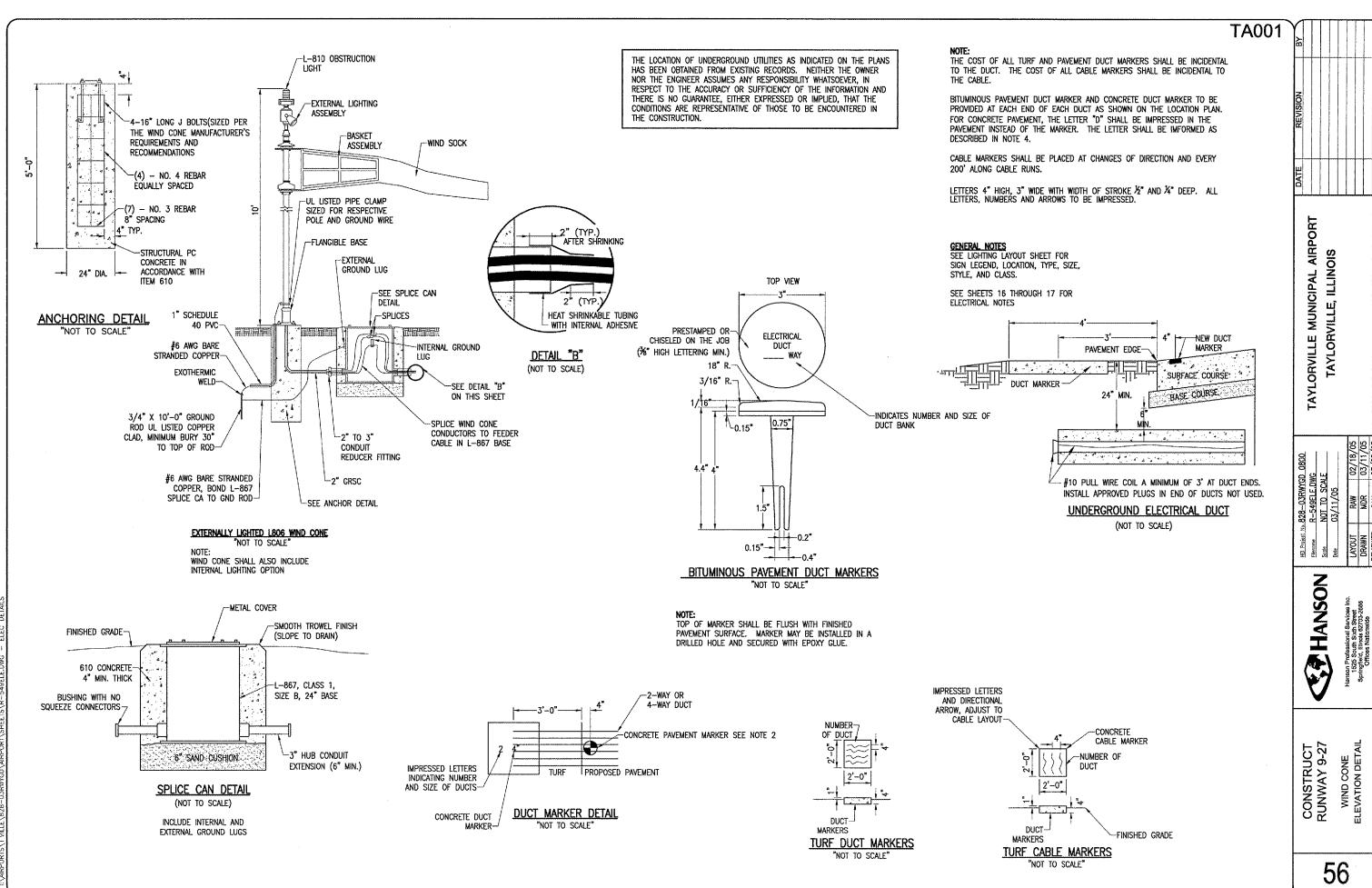
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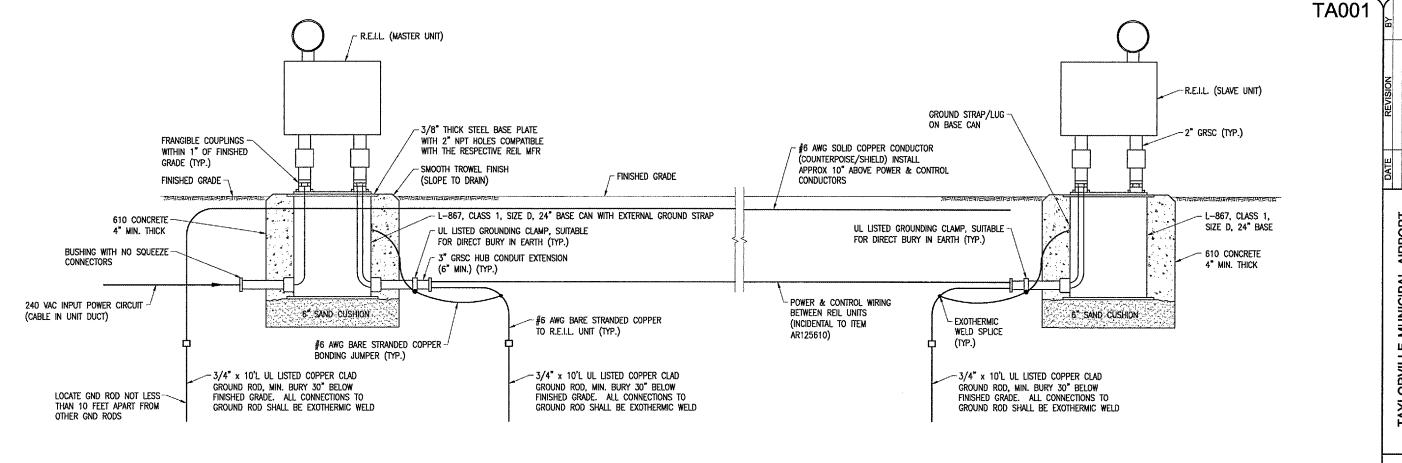
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CONSTRUCT RUNWAY 9-27





REIL INSTALLATION DETAIL NOT TO SCALE

# NOTES

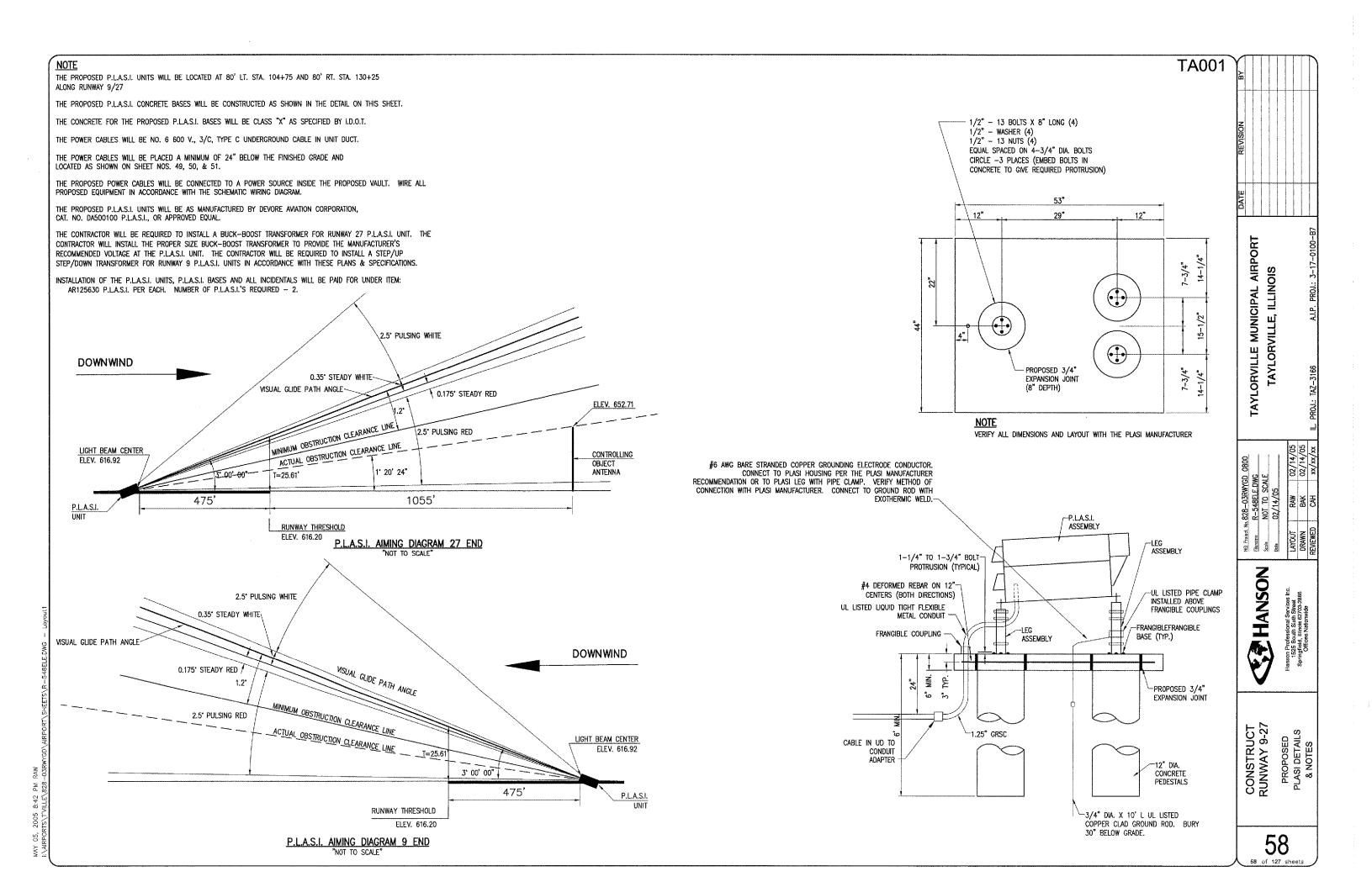
- 1. VERIFY INSTALLATION & WIRING REQUIREMENTS WITH THE RESPECTIVE REIL MANUFACTURER.
- 2. REILS SHALL BE AIMED AT ANGLE 10 DEGREES VERTICALLY AND TOED OUT 15 DEGREES FROM THE LINE PARALLEL TO THE RUNWAY CENTERLINE.
- 3. REILS SHALL BE PAID FOR UNDER ITEM AR125610.

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REIL INSTALLATION DETAIL

CONSTRUCT RUNWAY 9-27



ELECTRICAL LEGEND - ONE-LINE DIAGRAM

CABLE TERMINATOR/LUG

TRANSFORMER

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	ELECTRICAL LEGEND - SCHEMATIC
	NORMALLY OPEN (N.O.) CONTACT
<del>-11-</del>	NORMALLY CLOSED (N.C.) CONTACT
(3)	STARTER COIL, * = STARTER NUMBER
OL	OVERLOAD RELAY CONTACT
(R)	CONTROL RELAY, * = CONTROL RELAY NUMBER
<b>®</b>	RELAY, * = RELAY NUMBER
000	TOGGLE SWITCH / 2 POSITION SWITCH
OFF AUTO	2-position selector switch
HAND T AUTO XOO OOX	3-Position selector switch (H-O-A Shown)
17	2 POLE DISCONNECT SWITCH
144	3 POLE DISCONNECT SWITCH
<del>_</del>	PHOTOCELL
-(1)	TERMINAL BLOCK, * = TERMINAL NUMBER
	DEVICE TERMINAL, * = DEVICE TERMINAL NUMBER
	INTERNAL PANEL WIRING
	FIELD WIRING
	FUSE
GND	GROUND BUS OR TERMINAL
S/N	NEUTRAL BUS
Ť	GROUND, GROUND ROD
0 0	INDUSTRIAL CONTROL RELAY OR LIGHTING CONTACTOR
CCR	S1 CUTOUT HANDLE REMOVED
CCR FFF LOAD	S1 CUTOUT HANDLE INSERTED
25%	N.O. THERMAL SWITCH
٠,5	N.C. THERMAL SWITCH

	ELECTRICAL ABBREVIATIONS
A.F.F.	ABOVE FINSHED FLOOR
A, AMP	AMPERES
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BKR	BREAKER
C	CONDUIT
СВ	CIRCUIT BREAKER
СКТ	CIRCUIT
CR	CONTROL RELAY
cu	COPPER
DPDT	DOUBLE POLE DOUBLE THROW
DPST	DOUBLE POLE SINGLE THROW
EM	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
ENCL	ENCLOSURE
EP	EXPLOSION PROOF
ES	EMERGENCY STOP
ETN	ELAPSE TIME METER
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFI	GROUND FAULT INTERRUPTER
GND	GROUND
GRSC	GALVANIZED RIGID STEEL CONDUIT
HID	HIGH INTENSITY DISCHARGE
HOA	HAND OFF AUTOMATIC
HP	HORSEPOWER
HPS	HIGH PRESSURE SODIUM
3	JUNCTION BOX
KVA	KILOVOLT AMPERE(S)
KW	KILOWATTS
lc .	LIGHTING CONTACTOR
LTFMC	LIQUID TIGHT FLEXIBLE METAL CONDUIT (UL LISTED)
LP	LIGHTING PANEL
MAX	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MCM	THOUSAND CIRCLUAR MIL
MDP	MAIN DISTRIBUTION PANEL
мн	METAL HALIDE
MIN	MINIMUM
MLO	MAIN LUGS ONLY
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OHE	OVERHEAD ELECTRIC
OL	OVERLOAD
P8	PULL BOX
PC	PHOTO CELL
PDB	POWER DISTRIBUTION BLOCK

PNL.

PANEL

ELI	ELECTRICAL ABBREVIATIONS (CONTINUED)					
RCPT	RECEPTACLE					
R	RELAY					
S	STARTER					
SPD	SURGE PROTECTION DEVICE					
SPST	SINGLE POLE SINGLE THROW					
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR					
TYP	TYPICAL.					
UG	UNDERGROUND					
UGE	Underground Electric					
٧	VOLTS					
₩/	₩пн					
₩/0	WITHOUT					
WP	WEATHER PROOF					
XFER	TRANSFER					
XFMR	TRANSFORMER					

	AIRPORT EQUIPMENT ABBREVIATIONS
CCR	CONSTANT CURRENT REGULATOR
MIRL	MEDIUM INTENSITY RUNWAY LIGHT
MITL.	MEDIUM INTENSITY TAXIWAY LIGHT
NDB	NON-DIRECTIONAL BEACON
PAPI	PRECISION APPROACH PATH INDICATOR
LASI	PULSE LIGHT APPROACH SLOPE INDICATOR
REIL	RUNWAY END IDENTIFIER LIGHT
VASI	VISUAL APPROACH SLOPE INDICATOR
WC	WIND CONE

	ELECTRICAL LEGEND — PLANS
	CONDUIT (EXPOSED)
	CONDUIT OR UNIT DUCT (CONCEALED OR BURIED)
	DUCT
—ε—	BURIED/UNDERGROUND ELECTRIC
UGE	Underground Electric
ОНЕ	OVERHEAD ELECTRIC
•–¤	POLE MOUNTED HID FIXTURE
<b>÷</b>	Duplex convenience receptacle, 120V, single phase, grounding type, 48" a.f.f. except as noted
ю о •	WALL OR CEILING MT'D. JUNCTION BOX. CONFIGURATION VARIES WITH USE
<b>4</b> D	SINGLE THROW DISCONNECT SWITCH
423	SINGLE THROW, FUSIBLE DISCONNECT SWITCH
403	ENCLOSED CIRCUIT BREAKER
œ	CONTROL PANEL
<b>Ø</b>	MOTOR. ESTIMATED H.P. AS INDICATED.
•	MOTOR
◨	TRANSFORMER
٥	ELECTRIC UTILITY METER
	ENCLOSURE
	CIRCUIT BREAKER PANEL-SEE SCHEDULES
•	GROUND ROD
	LONG SLASHES INDICATE NEUTRAL. SHORT SLASHES INDICATE HOT OR SWITCHED LEG. G == SEPARATE GROUND WIRE,
PRE_X	HOMERUN TO PANEL PNL A INDICATES PANEL 1,3,5 INDICATES CIRCUIT NUMBERS
\$	SINGLE POLE SWITCH
\$ OR \$1	Fractional HP Starter
G	CONTACTOR
	SURFACE MOUNTED OR CHAIN HUNG FLUORESCENT FIXTURE
юо	WAUL OR CEILING MT'D. INCANDESCENT OR HID FIXTURE.

# NOTES:

- 1. ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN CONFORMANCE WITH NFPA 70 (MOST CURRENT ISSUE IN FORCE), THE RESPECTIVE EQUIPMENT MANUFACTURER'S DIRECTIONS AND ALL OTHER APPLICABLE LOCAL CODES, LAWS, ORDINANCES, AND REQUIREMENTS IN FORCE. ANY INSTALLATIONS WHICH VOID THE U.L. USTING, ETL LISTING (OR OTHER THIRD PARTY LISTING) AND/OR THE MANUFACTURER'S WARRANTY OF A DEVICE SHALL NOT BE PERMITTED.
- CONTRACTOR SHALL COORDINATE WORK AND ANY POWER OUTAGES WITH THE RESPECTIVE FACILITY OWNER PERSONNEL AND THE AIRPORT MANAGER,
- 3. COLOR CODE PHASE AND NEUTRAL CONDUCTOR INSULATION FOR NO. 6 AWG OR SMALLER. PROVIDE COLORED INSULATION OR COLORED MARKING TAPE FOR PHASE AND NEUTRAL CONDUCTORS FOR NO. 4 AWG AND LARGER. INSULATED GROUND CONDUCTORS SHALL HAVE GREEN COLORED INSULATION FOR ALL CONDUCTOR AWG AND/OR KCMIL. STANDARD COLORS FOR POWER WIRING AND BRANCH CIRCUITS SHALL BE AS FOLLOWS:

VAC,	1 PHASE,	3	WIRE
	BLACK		
	RED		
	WHITE		
	GREEN		
	VAC,	BLACK RED WHITE	RED WHITE

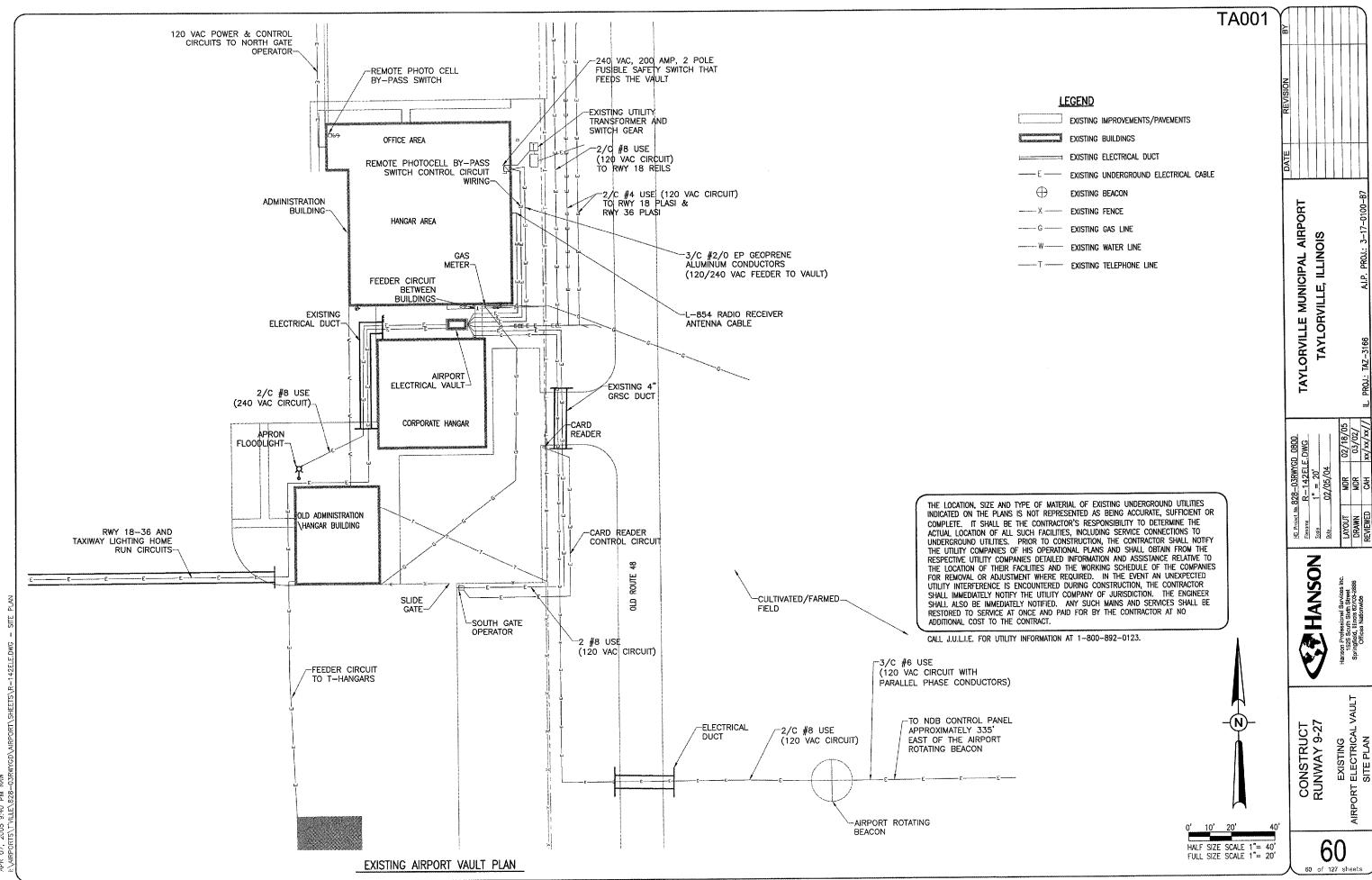
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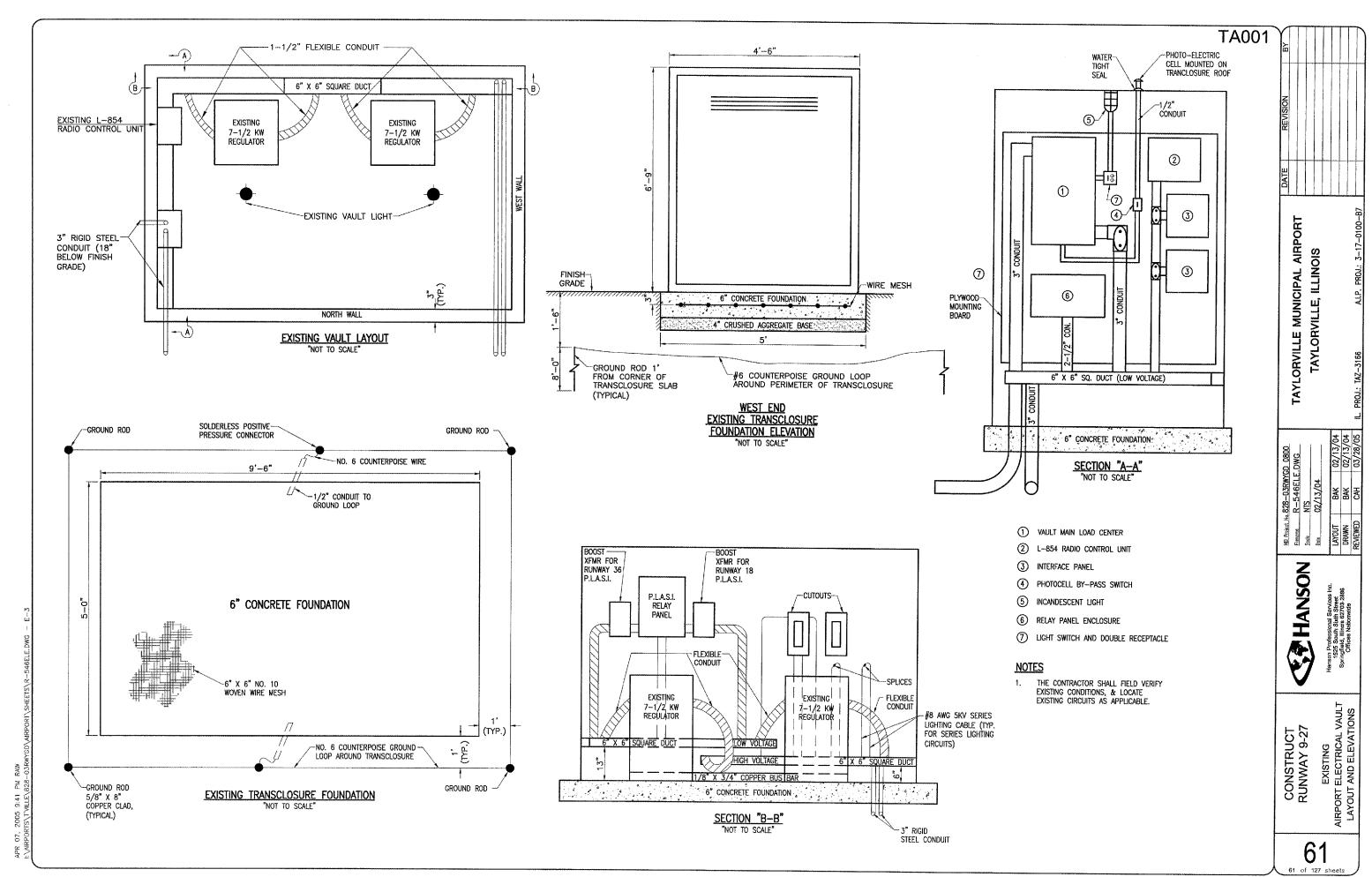
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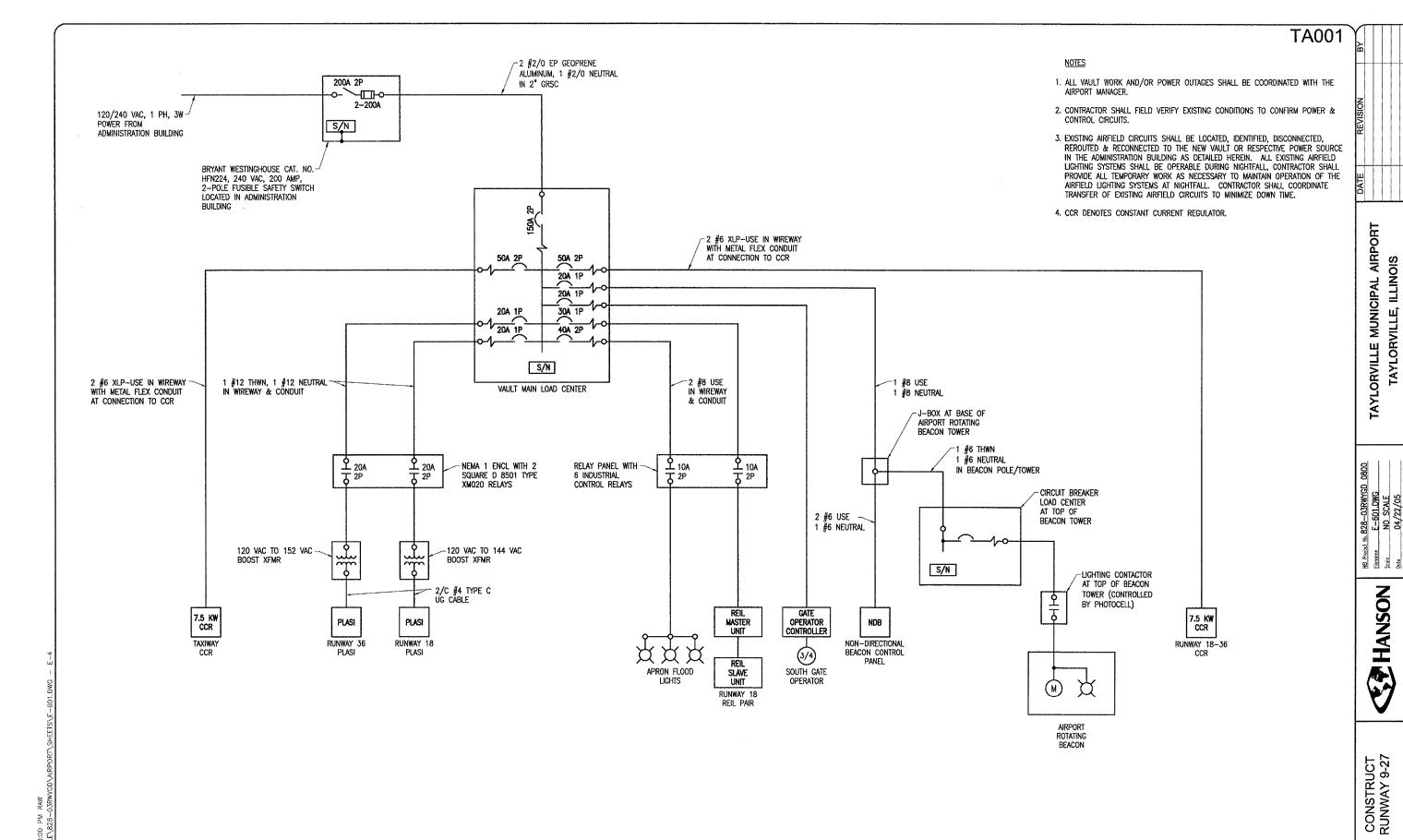
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CONSTRUCT RUNWAY 9-27 ELECTRICAL LEGEND





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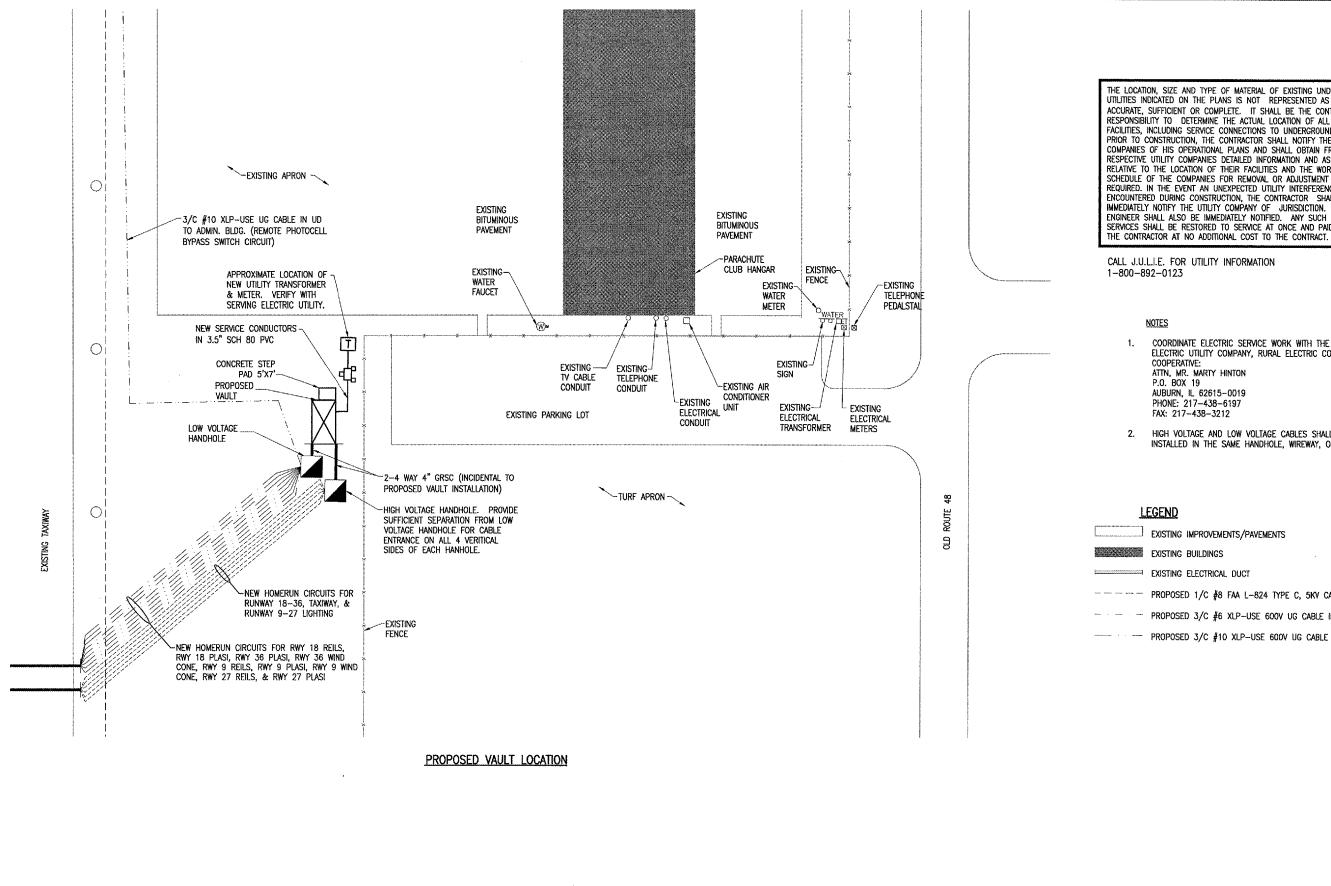


EXISTING VAULT ELECTRICAL ONE-LINE DIAGRAM

62 of 127 sheet

EXSITING
AIRPORT ELECTRICAL VAULT
ELECTRICAL ONE-LINE

(E-4)



THE LOCATION, SIZE AND TYPE OF MATERIAL OF EXISTING UNDERGROUND UTILITIES INDICATED ON THE PLANS IS NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT OR COMPLETE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES, INCLUDING SERVICE CONNECTIONS TO UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES OF HIS OPERATIONAL PLANS AND SHALL OBTAIN FROM THE RESPECTIVE UTILITY COMPANIES DETAILED INFORMATION AND ASSISTANCE RELATIVE TO THE LOCATION OF THEIR FACILITIES AND THE WORKING SCHEDULE OF THE COMPANIES FOR REMOVAL OR ADJUSTMENT WHERE REQUIRED. IN THE EVENT AN UNEXPECTED UTILITY INTERFERENCE IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY COMPANY OF JURISDICTION. THE ENGINEER SHALL ALSO BE IMMEDIATELY NOTIFIED. ANY SUCH MAINS AND SERVICES SHALL BE RESTORED TO SERVICE AT ONCE AND PAID FOR BY

TA001

CALL J.U.L.I.E. FOR UTILITY INFORMATION

- COORDINATE ELECTRIC SERVICE WORK WITH THE SERVING ELECTRIC UTILITY COMPANY, RURAL ELECTRIC CONVENIENCE
- HIGH VOLTAGE AND LOW VOLTAGE CABLES SHALL NOT BE INSTALLED IN THE SAME HANDHOLE, WIREWAY, OR DUCT.

EXISTING IMPROVEMENTS/PAVEMENTS

--- PROPOSED 1/C #8 FAA L-824 TYPE C, 5KV CABLE IN UD

- PROPOSED 3/C #6 XLP-USE 600V UG CABLE IN UD

PROPOSED 3/C #10 XLP-USE 600V UG CABLE IN UD

HANSON

MUNICIPAL AIRPORT

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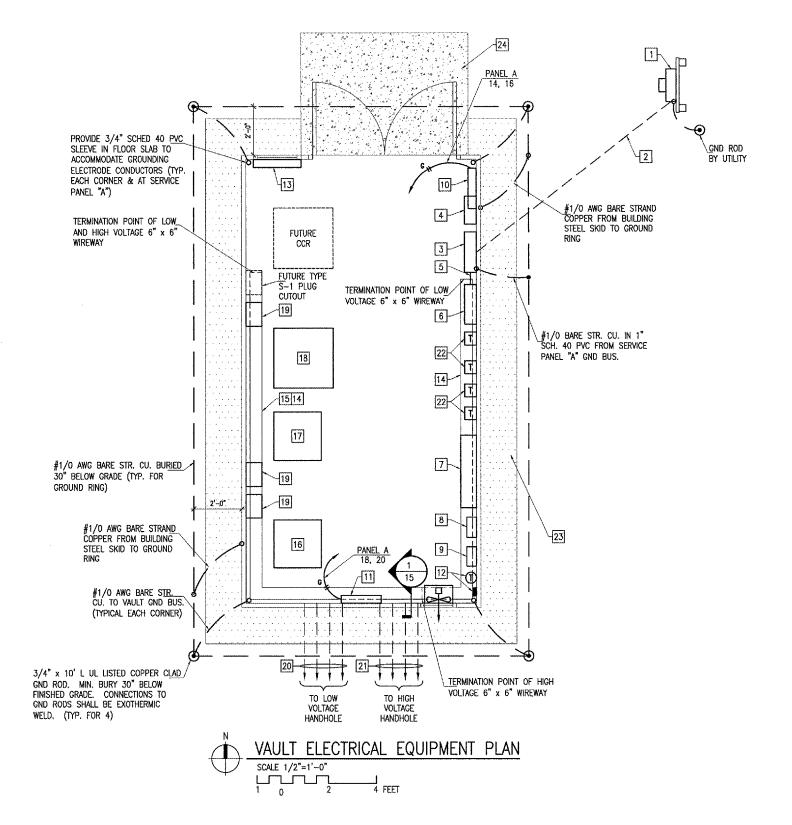
PROPOSED T ELECTRICAL VAULT SITE PLAN CONSTRUCT RUNWAY 9-27

63 63 of 127 sheets

HALF SIZE SCALE 1"= 40' FULL SIZE SCALE 1"= 20'

AIRPORT

/r =\



KEYED NOTES

- 1 ELECTRIC UTILITY METER WITH DOUBLE THROW SWITCH AND SUPPORT STRUCTURE FURNISHED AND INSTALLED BY SERVING ELECTRIC UTILITY COMPANY. VERIFY LOCATION WITH ELECTRIC UTILITY.
- 2 #500 MCM XHHW, 1 #500 MCM XHHW NEUTRAL IN 3.5" SCHEDULE 80 PVC FROM UTILITY METER BASE TO SERVICE PANEL A. VERIFY LOCATION OF UTILITY METER WITH SERVING ELECTRIC UTILITY COMPANY.
- 3 SERVICE PANEL A, SEE PANEL A SCHEDULE.
- 4 AC SURGE PROTECTOR/TVSS, SEE NEW VAULT ELECTRICAL ONE LINE DIAGRAM.
- 5 2 #1 THWN, 1 #1 THWN NEUTRAL, 1 #6 GND IN 2" GRSC FROM SERVICE PANEL A TO PANEL B.
- 6 PANEL B, SEE PANEL B SCHEDULE.
- 7 RELAY PANEL WITH PHOTOCELL BYPASS SWITCH. SEE AIRFIELD LIGHTING WIRING SCHEMATIC AND RELAY PANEL DETAIL.

  MOUNT PHOTOCELL ON ROOF. FIELD VERIFY LOCATION FOR PROPER CONTROL AND OPERATION.
- 8 L--854 RADIO CONTROL UNIT WITH JUNCTION BOXES BELOW. EXTEND RADIO ANTENNA CABLE AND MOUNT ANTENNA ON THE ROOF AS REQUIRED FOR PROPER OPERATION.
- RELAY INTERFACE PANELS FOR RUNWAY 9-27 CCR, TAXIWAY CCR, AND RUNWAY 18-36 CCR. SEE AIRFIELD LIGHTING WIRING SCHEMATIC FOR WIRING REQUIREMENTS.
- ELECTRIC WALL HEATER EH-1, 3000 WATT, 240 VAC, 1 PHASE, SUITABLE FOR SURFACE MOUNTING WITH INTEGRAL THERMOSTAT, Q-MARK MODEL CWH3407, OR APPROVED EQUAL. BOTTOM OF HEATER SHALL BE 3" ABOVE THE UPPER FLECTRICAL WIRFWAY.
- ELECTRIC WALL HEATER EH-2, 2000 WATT, 240 VAC, 1 PHASE, SUITABLE FOR SURFACE MOUNTING WITH INTEGRAL THERMOSTAT, Q-MARK MODEL CWH3404, OR APPROVED EQUAL. BOTTOM OF HEATER SHALL BE 3" ABOVE THE UPPER FLECTRICAL WIREWAY.
- EXHAUST FAN EF-1, 2000 CFM AT .25" STATIC PRESSURE WITH 1/3 HP, 120 VAC MOTOR, COOK MODEL 20S10D, OR APPROVED EQUAL. INCLUDE WALL HOUSING WITH GUARD, GRAVITY BACK DRAFT DAMPER, ALUMINUM WEATHER-HOOD PAINTED TO MATCH BUILDING EXTERIOR, STAINLESS STEEL INSECT SCREEN, AND FRACTIONAL HP ELECTRICAL DISCONNECT. INSTALL FAN AS HIGH AS POSSIBLE. PROVIDE 120 VAC THERMOSTAT WITH CONTACTOR AND AUTO-OFF-MANUAL CONTROL SWITCH AT 48" AFF. MOUNT THERMOSTAT ON 2" THICK INSULATED BASE. SEE EXHAUST FAN CONTROL SCHEMATIC FOR WIRING REQUIREMENTS.
- INTAKE LOUVER L-1, 24" WIDE BY 48" HIGH INTAKE LOUVER WITH STAINLESS STEEL INSECT SCREEN, 120 VAC MOTORIZED DAMPER WITH LIMIT SWITCH, KYNAR FINISH MATCHING BUILDING EXTERIOR, RUSKIN MODEL ELF375DX, OR APPROVED EQUAL. SEE EXHAUST FAN CONTROL SCHEMATIC FOR WIRING REQUIREMENTS.
- 6" BY 6" LOW VOLTAGE WIREWAY. LABEL "LOW VOLTAGE" EVERY 4 FEET. INSTALL ABOVE HIGH VOLTAGE WIREWAY.
- 6" BY 6" HIGH VOLTAGE WIREWAY. LABEL "HIGH VOLTAGE" EVERY 4 FEET. INSTALL BELOW LOW VOLTAGE WIREWAY.
- 16 RUNWAY 18-36 CONSTANT CURRENT REGULATOR. SEE GENERAL NOTE 1.
- [17] TAXIWAY CONSTANT CURRENT REGULATOR, SEE GENERAL NOTE 1.
- 18 RUNWAY 9-27 CONSTANT CURRENT REGULATOR. SEE GENERAL NOTE 1.
- 19 SERIES PLUG CUTOUT TYPE S-1 WITH ENCLOSURE. SEE GENERAL NOTES 1 AND 2.
- 20 4-4" GRSC FROM LOW VOLTAGE WIREWAY TO LOW VOLTAGE HANDHOLE.
- 21 4-4" GRSC FROM HIGH VOLTAGE WIREWAY TO HIGH VOLTAGE HANDHOLE.
- [22] BOOST TRANSFORMERS AND STEP--UP TRANSFORMER. SEE ELEVATION VIEW.
- VEGETATION BARRIER CONSISTING OF A MIN. 3" PEA GRAVEL SURFACE OVER FILTER OR LANDSCAPING FABRIC.

  PROPOSED SURFACE TREATMENT WILL COVER ENTIRE AREA BENEATH VAULT STRUCTURE AS WELL AS 18" AROUND THE PERIMETER OF THE BUILDING EDGE. THE STONE AND FABRIC AS WELL AS ANY EQUIPMENT AND LABOR REQUIRED TO COMPLETE THIS TASK WILL BE CONSIDERED INCIDENTAL TO THE INSTALLATION OF THE PROPOSED ELECTRICAL VAULT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- ENTRANCE PAD CONSTRUCTED OF 6" CONCRETE SLAB W/6X6-W5XWS WELDED WIRE FABRIC ON A COMPACTED SUBGRADE. MINIMUM DIMENSIONS OF PAD WILL BE 7"Wx5"Dx6"H, SLOPED AT A MIN. OF 0.5"/FT AWAY FROM THE VAULT ENTRANCE. PCC USED TO CONSTRUCT THE PAD WILL CONFORM TO ITEM 610. ALL MATERIALS, LABOR AND EQUIPMENT USED TO CONSTRUCT THE PAD INCLUDING ANY GRADING REQUIRED WILL BE CONSIDERED INCIDENTAL TO THE CONSTRUCTION OF THE PROPOSED ELECTRICAL VAULT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

### GENERAL NOTES

- 1. SEE "NEW VAULT ELECTRICAL ONE LINE DIAGRAM" FOR LOW VOLTAGE INPUT POWER WIRING REQUIREMENTS TO CCR'S (CONSTANT CURRENT REGULATORS). SEE "HIGH VOLTAGE WIRING SCHEMATIC" FOR CCR OUTPUT WIRING REQUIREMENTS. SEE "AIRFIELD LIGHTING WIRING SCHEMATIC" FOR CCR CONTROL WIRING REQUIREMENTS. PROVIDE 5 FEET MINIMUM CLEAR WORKING SPACE IN FRONT OF EACH CCR AND EACH SERIES PLUG CUTOUT.
- CONSTANT CURRENT REGULATORS AND THEIR RESPECTIVE SERIES PLUG CUTOUTS SHALL BE CLEARLY LABELED TO IDENTIFY THE RESPECTIVE REGULATOR DESIGNATION, RUNWAY OR TAXIWAY SERVED, POWER SOURCE OR CIRCUIT, AND VOLTAGE SYSTEM.
- 3. SEE ELEVATION VIEWS FOR ADDITIONAL INFORMATION ON PROPOSED EQUIPMENT LAYOUTS.
- 4. COORDINATE CONDUIT & SLEEVE ENTRANCES THROUGH FLOOR SLAB AND WALLS

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itegral The Upper	DRVILLE MUNICIPAL AIR TAYLORVILLE, ILLINOIS	
S10D, OR ER-HOOD	VYLORVILLE MUNICIPAL AIRPORT TAYLORVILLE, ILLINOIS	J.: TAZ-3166
SEE EXHAUST	≱	::

Soule 1/2"=1"-0"

Jose xX/XX/XX

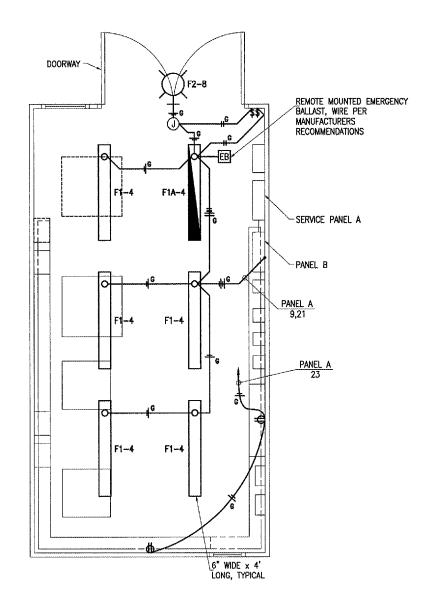
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DRAWN MAE 2/23/05

HANSOI anson Professional Services Inc. 12-555 South Street Servindfield, Illinois 8277922888

CONSTRUCT
RUNWAY 9-27
PROPOSED
PORT ELECTRICAL VAULT
EQUIPMENT PLAN

64



Å.	VAULT	LIGHTING	&	RECEPTACLE	PLAN
U)	SCALE 1/2"	=1'-0"			
T			L		
	1 0	2	4 FEI	ET	

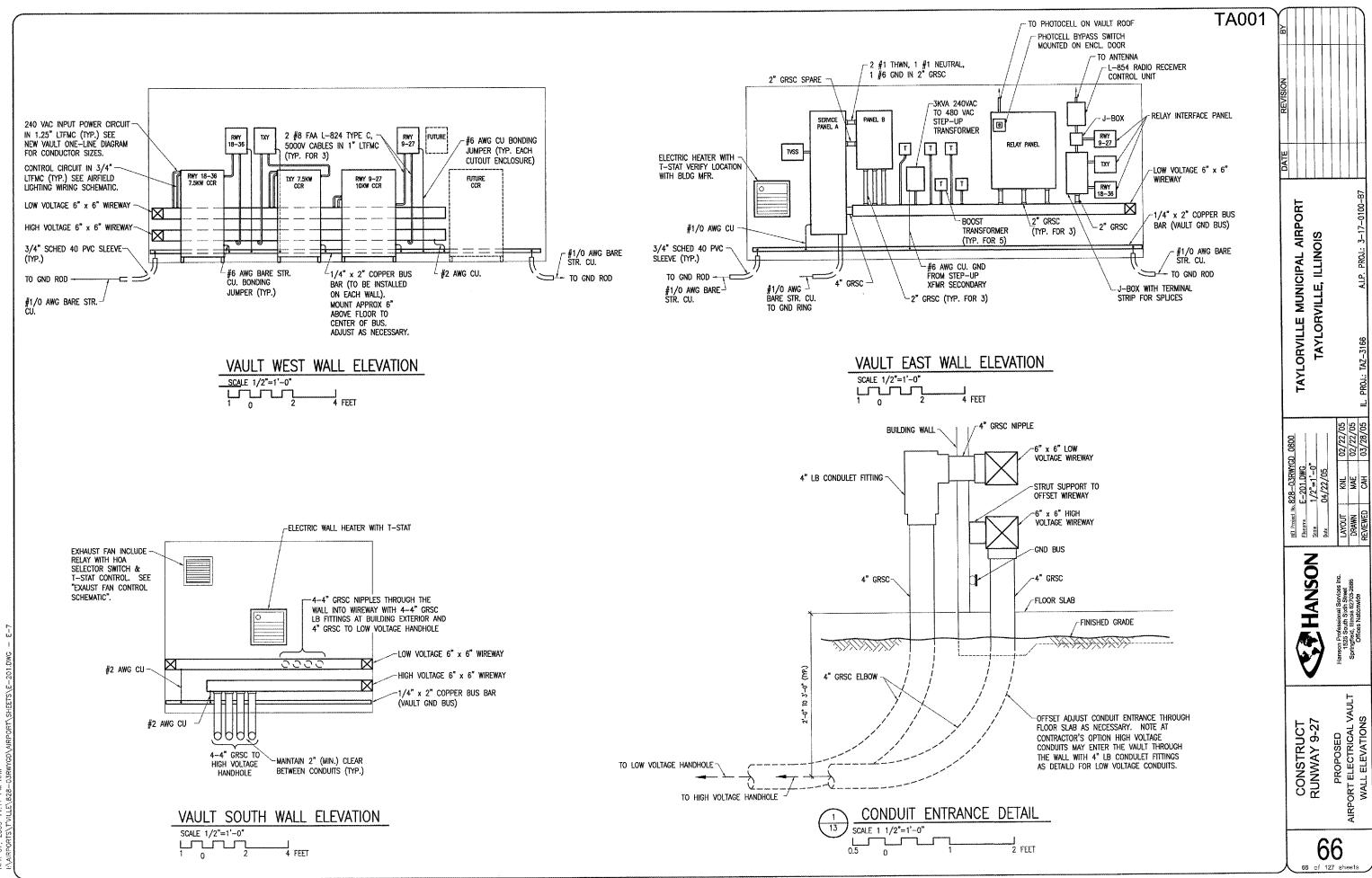
	LIGHTING FIXTURE SCHEDULE							
fixt. Type		MANUFACTURER & CATALOG NO.	LAMPS/ WATTS	VOLTS	MOUNTING	REMARKS		
F1	GASKETED INDUSTRIAL FLUORESCENT LIGHT FIXTURE,	DMW-2-32-AR-120-	2-32W T8 4100K 59 TOTAL INPUT WATIS			PROVIDE WET LOCATION FITTINGS INSTALLED IN TOP OF FIXTURE.		
F1A	BALLAST CAPABLE OF OPERATING 2 LAMPS FOR 90	DMW-2-32-AR-120- CW-GEB1ORS-WLF	2-32W TB 4100K 59 TOTAL INPUT WATTS			PROVIDE WET LOCATION FITTINGS INSTALLED IN TOP OF FIXTURE.		
F2	COMPACT FLUORESCENT WALL-PAK, ONE PIECE INJECTION MOLDED UV STABILIZED POLYCARBONATE HOUSING, HIGH PERFORMANCE SPECULAR ANODIZED SEGMENTED REFLECTOR, ONE PIECE HIGH TEMPURATURE SILICONE CASKET, MEDIUM BRONZE FINISH, HIGH POWERFACTOR ELECTRONIC BALLAST WITH LESS THAN OR EQUAL TO 10% THD, UL LISTED FOR WET LOCATIONS, FUSED.	TWA-42TRT-120-SF-	1-42W TRT 4100K 47 TOTAL INPUT WATTS		SURFACE TO WALL ABOVE EXTERIOR DOOR APPROXIMATELY 4 INCHES ABOVE TOP OF DOOR FRAME.	CONNECT TO WALL SWITCH LOCATED ON THE INSIDE OF THE BUILDING.		

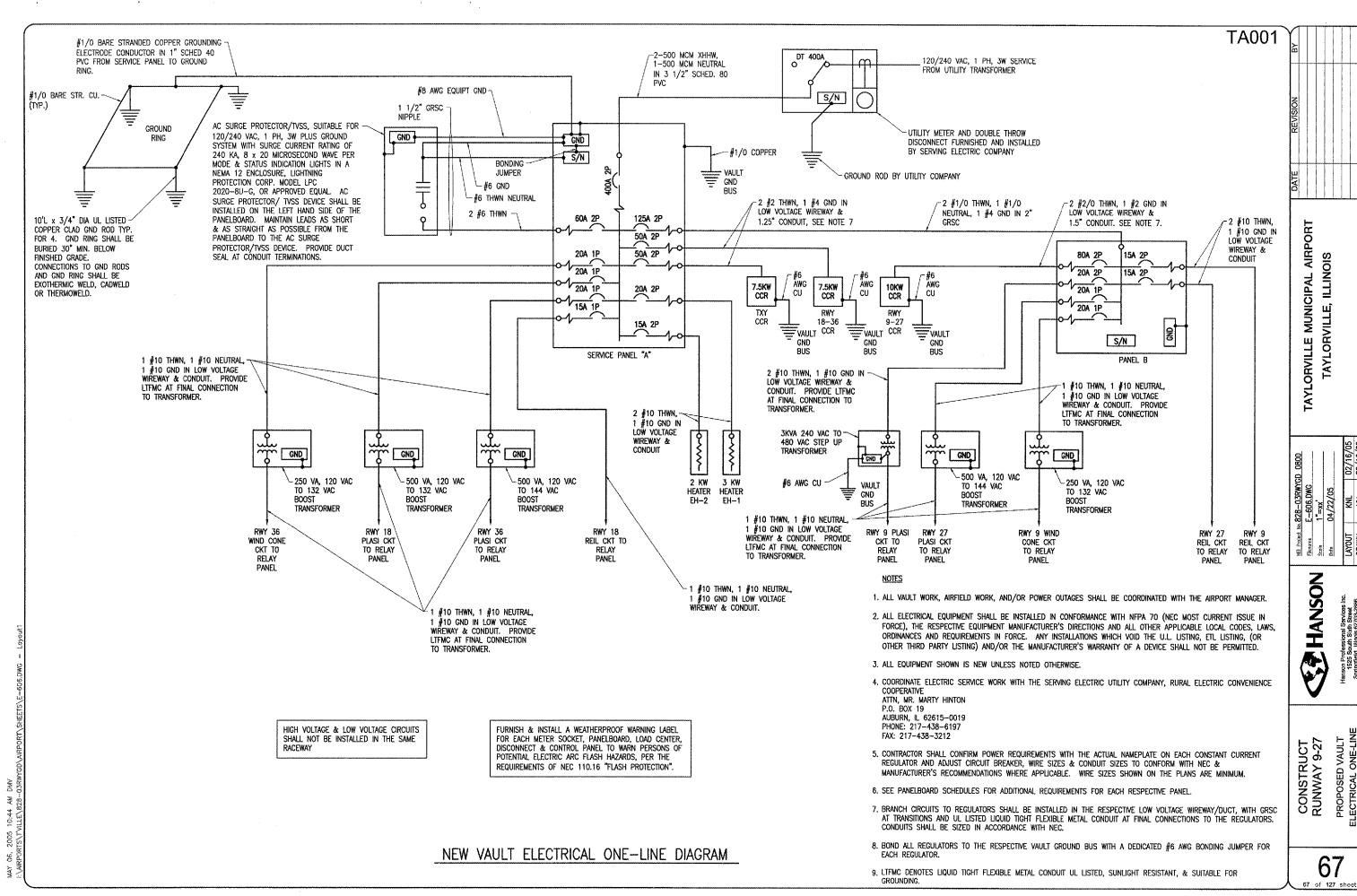
NOTE 15 AMP & 20 AMP BRANCH CIRCUITS FOR LIGHTING & RECEPTACLES SHALL USE #12 AWG THWN (MIN.).

TAYLORVILLE MUNICIPAL AIRPORT TAYLORVILLE, ILLINOIS

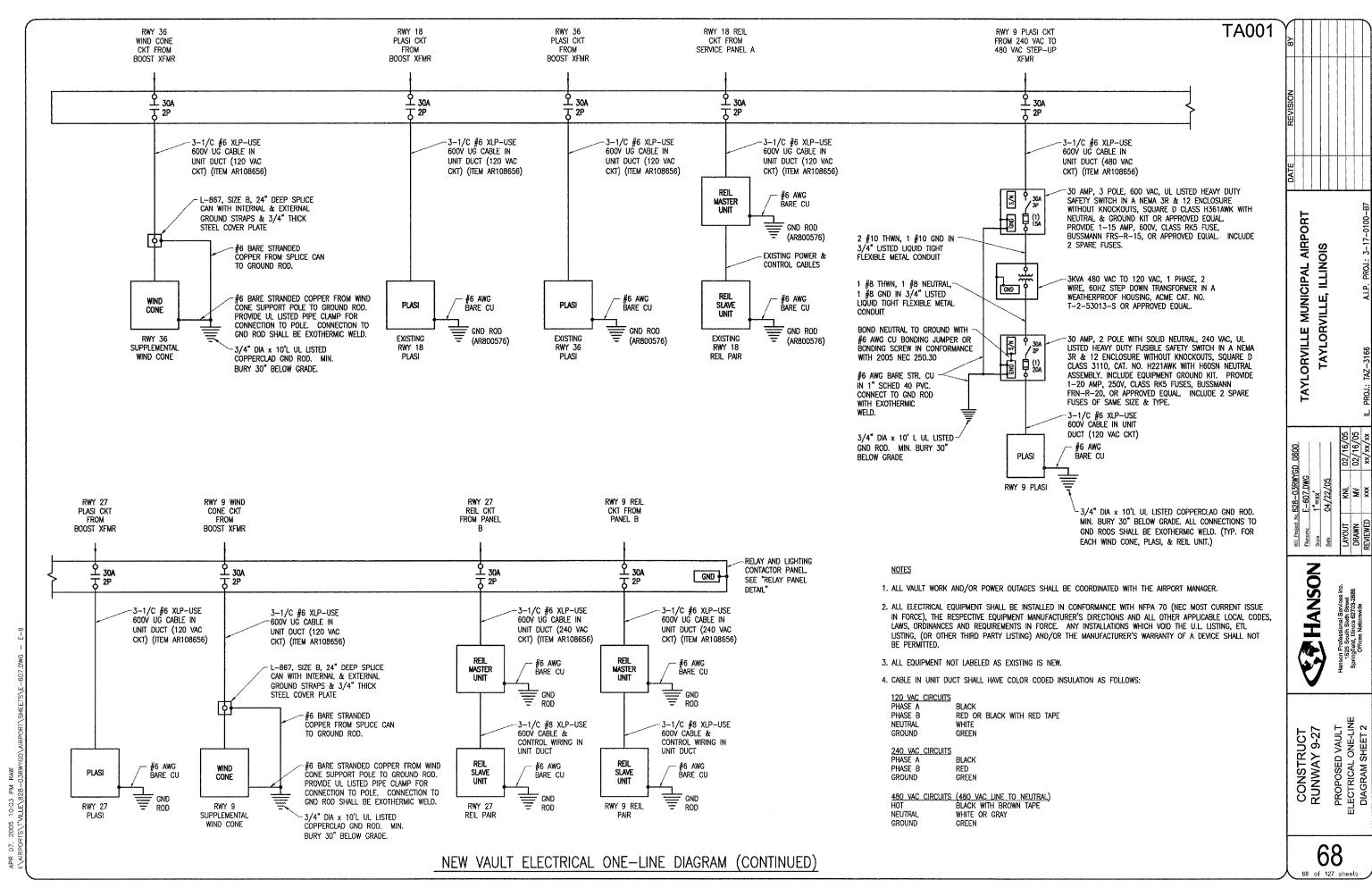
Harron Professional Services Inc.

CONSTRUCT
RUNWAY 9-27
VAULT LIGHTING AND
RECEPTACLE PLAN





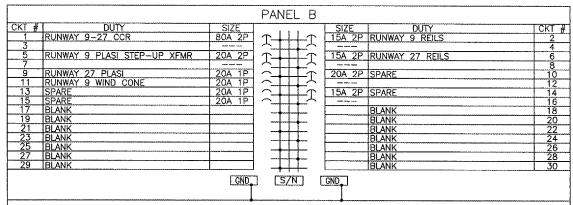
PROPOSED VAULT ELECTRICAL ONE-LINE DIAGRAM SHEET 1



400 AMP, 120/240 VAC, 1 PHASE, 3 WIRE, 42 CIRCUIT PANELBOARD WITH 400 AMP, 2 POLE MAIN BREAKER WITH 22,000 AIC AT 240 VAC IN A NEMA 1 ENCLOSURE. INCLUDE SEPARATE GROUND BAR KITS. ALL BRANCH BREAKERS SHALL BE BOLT-ON TYPE WITH 22,000 AIC AT 120/240 VAC. PANELBOARD SHALL BE SQUARE D CAT. NO. NQOD42L400CU WITH NQOD2400LAMB MAIN BREAKER KIT IN A NEMA 1 ENCLOSURE, OR APPROVED EQUAL.

#### NOTES

- 1. PANELBOARD BUS SHALL BE COPPER.
- 2. INCLUDE ENGRAVED PHENOLIC LEGEND PLATE LABELED "SERVICE PANEL A, 120/240 VAC, 1 PHASE, 3 WIRE". INCLUDE ADDITIONAL LEGEND PLATE FOR THE MAIN BREAKER LABELED "SERVICE BREAKER".



225 AMP, 120/240 VAC, 1 PHASE, 3 WIRE, 30 CIRCUIT PANELBOARD WITH MAIN LUCS IN A NEMA 1 ENCLOSURE. INCLUDE SEPARATE GROUND BAR KITS. ALL BRANCH BREAKERS SHALL BE BOLT-ON TYPE WITH 22,000 AIC AT 120/240 VAC. PANELBOARD SHALL BE SQUARE D CAT. NO. NQOD30L225CU OR APPROVED EQUAL.

#### NOTES

- 1. PANELBOARD BUS SHALL BE COPPER.
- 2. INCLUDE ENGRAVED PHENOLIC LEGEND PLATE LABELED "PANEL B, 120/240 VAC, 1 PHASE, 3 WIRE, FED FROM SERVICE PANEL A".

# CIRCUIT BREAKER IN RESPECTIVE PANELBOARD SIZED FOR THE NEUTRAL RESPECTIVE FAN MOTOR AUTO X00 C 120VAC 15A #12 THWN (TYP.) FAN DAMPER LIMIT MOTOR SWITCH **WHERE** APPLICABLE) 120V THERMOSTAT. MOUNT T-STAT ON 2" THICK INSULATED BASE AT 48" A.F.F. DAMPER MOTOR

# EXHAUST FAN CONTROL SCHEMATIC

### OTES

- 1. GROUND WIRES REQUIRED BUT NOT SHOWN FOR CLARITY.
- 2. ALL WIRING SHALL BE #12 THWN MINIMUM.
- PROVIDE A NEMA 1 ENCLOSURE SIZED AS REQUIRED TO INSTALL THE CONTACTOR, HOA SELECTOR SWITCH & TERMINALS.
- 4. PROVIDE LEGEND PLATE FOR THE CONTACTOR AND FRACTIONAL HP MOTOR STARTER IDENTIFYING THE LOAD SERVED AND THE POWER SOURCE.
- 5. VERIFY MOTOR HORSEPOWERS AND FULL LOAD AMPS WITH THE RESPECTIVE MANUFACTURER. CONTRACTOR SHALL COORDINATE MOTOR CIRCUIT BREAKER, CONTACTOR, FRACTIONAL HP STARTER, OVERLOADS, WIRE SIZES, CONDUIT SIZES, ETC. FOR THE RESPECTIVE EQUIPMENT FURNISHED, PER NEC & MANUFACTURER'S RECOMMENDATIONS. COORDINATE FAN & LOUVER INSTALLATION WITH BUILDING MFR.
- 6. INTAKE LOUVERS SHALL OPEN AND EXHAUST FAN SHALL OPERATE WHEN SPACE TEMP EXCEEDS 85'F (ADJUSTABLE). EXHAUST FAN SHALL OPERATE ONLY WHEN DAMPER HAS PROVED "OPEN". IN MANUAL MODE DAMPER SHALL REMAIN OPEN AND FAN SHALL RUN CONTINUOUSLY.

## LEGEND

- 1 120VAC, NEMA SIZE 0 (MINIMUM), 1 POLE, FULL VOLTAGE CONTACTOR IN A NEMA 1 ENCLOSURE, SQUARE D CLASS 8502, TYPE SBG5V02 OR APPROVED EQUAL. INCLUDE H-O-A SELECTOR SWITCH WITH EACH CONTACTOR.
- (2) FRACTIONAL HORSEPOWER MOTOR MANUAL STARTER, SQUARE D MANUAL STARTER WITH HANDLE/GUARD/LOCK OFF, IN NEMA 1 ENCLOSURE CLASS 2510, TYPE FG5 OR APPROVED EQUAL. INCLUDE MELTING ALLOY TYPE THERMAL OVERLOADS SIZED AS REQUIRED TO PROTECT THE RESPECTIVE MOTOR. 120VAC MOTORS SHALL HAVE SINGLE POLE STARTERS.

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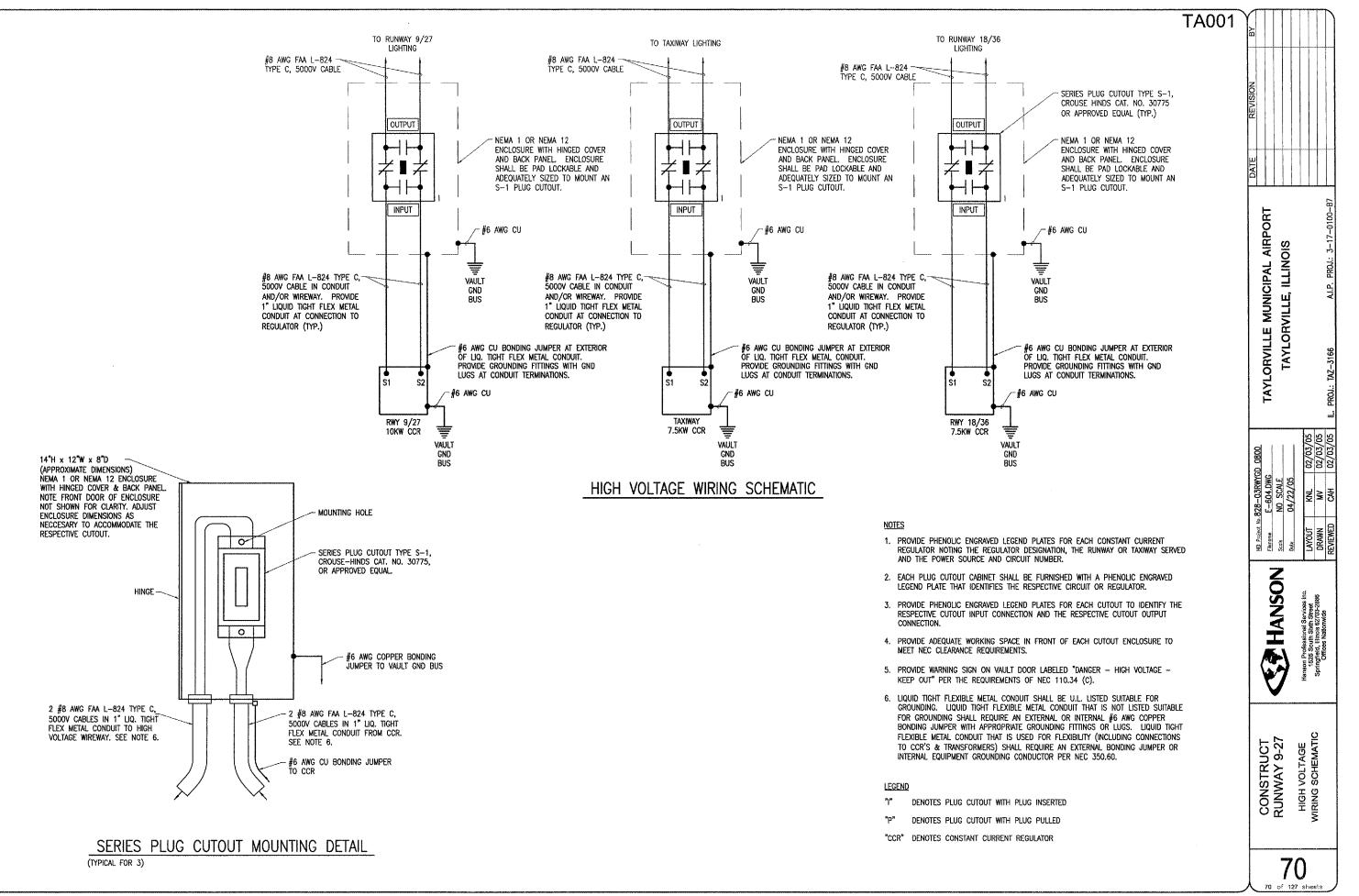
TAYLORVILLE MUNICIPAL AIRPORT TAYLORVILLE, ILLINOIS

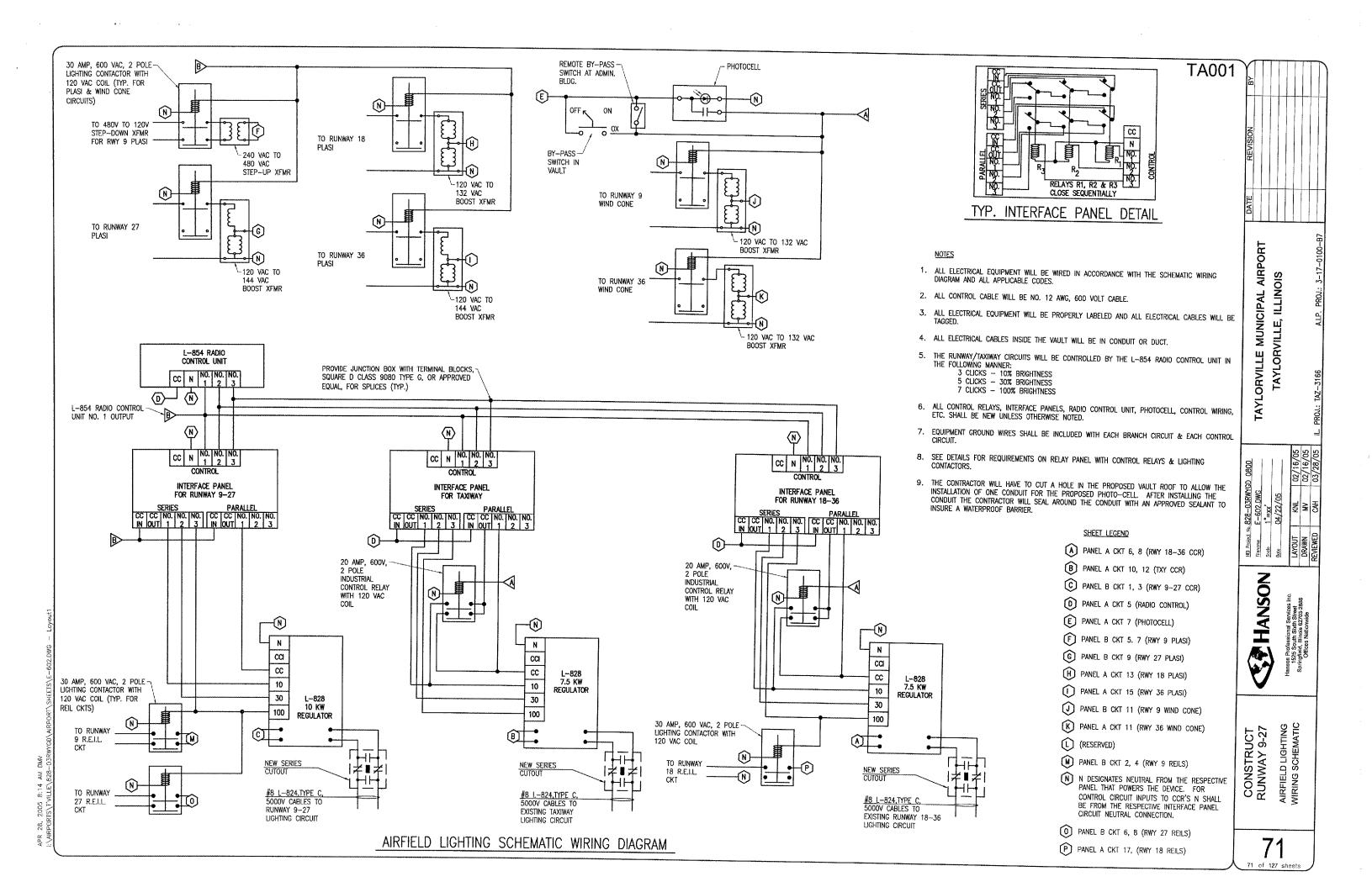
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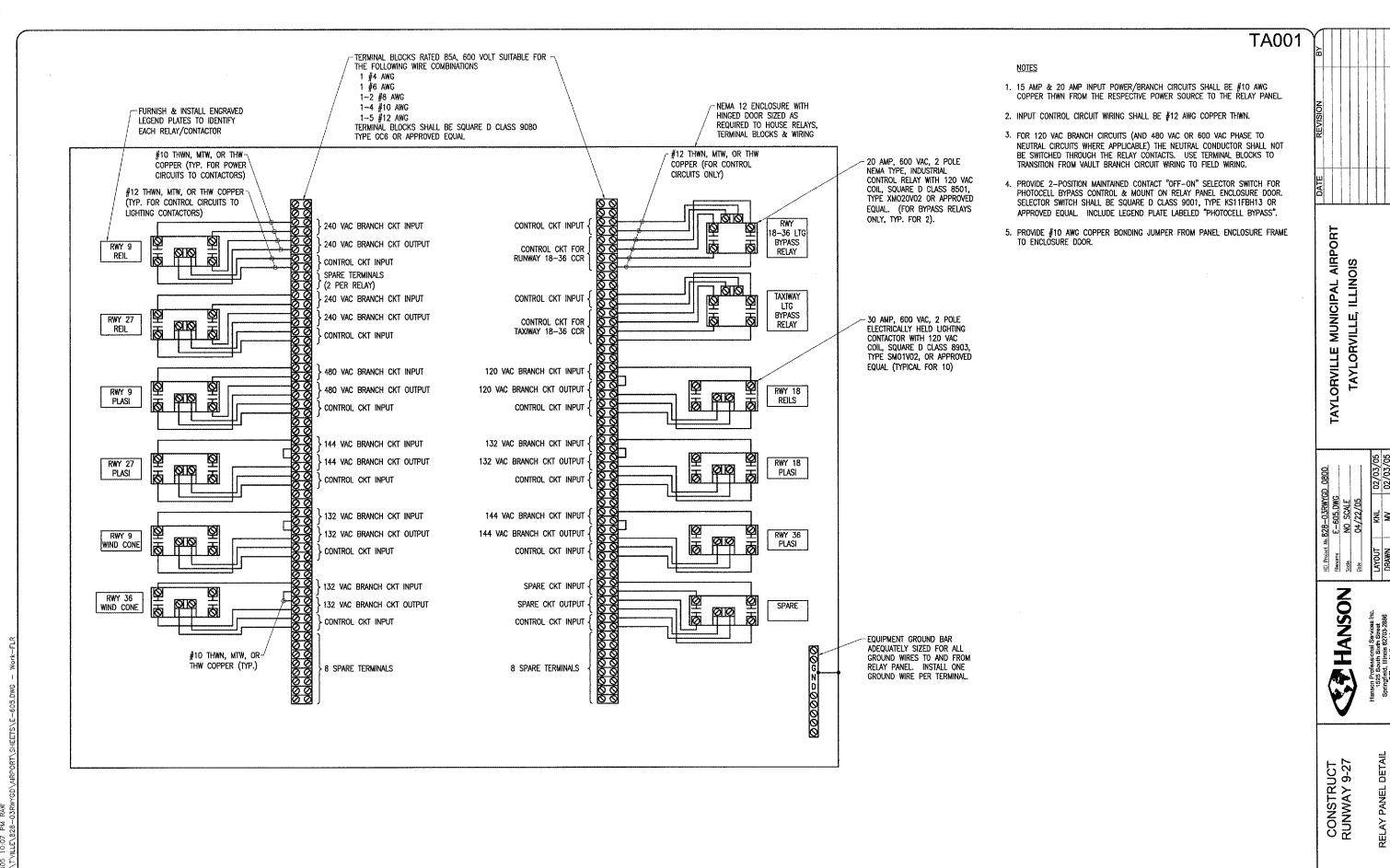
Hanson Professional Saviose Inc.

CONSTRUCT
RUNWAY 9-27
PANEL SCHEDULES
& DETAILS

60







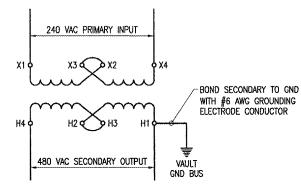
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(E-14)

#### NOTES

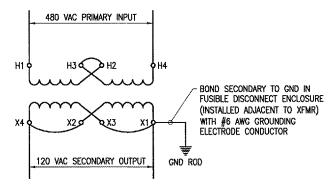
- 1. SEE VAULT ELECTRICAL ONE—LINE DIAGRAMS FOR ADDITIONAL INFORMATION ON EQUIPMENT AND WIRING.
- 2. FIELD VERIFY LOCATION OF STEP-DOWN TRANSFORMER INSTALLATION WITH RESIDENT ENGINEER.
- 3. LIQUID TIGHT FLEXIBLE METAL CONDUIT SHALL BE U.L. LISTED SUITABLE FOR GROUNDING AND SUNLIGHT RESISTANT.

RUNWAY 9 PLASI STEP-DOWN TRANSFORMER ELEVATION



NOTES: CONFIRM WIRING WITH RESPECTIVE TRANSFORMER MFR.

240 VAC TO 480 VAC STEP UP TRANSFORMER CONNECTION DIAGRAM FOR ACME T-2-53013-S TRANSFORMER



NOTES: CONFIRM WIRING WITH RESPECTIVE TRANSFORMER MFR.

480 VAC TO 120 VAC STEP DOWN TRANSFORMER CONNECTION DIAGRAM FOR ACME T-2-53013-S TRANSFORMER

ILLINOIS MUNICIPAL TAYLORVILLE, TAYLORVILLE

TA001

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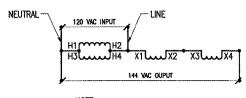
CONSTRUCT RUNWAY 9-27

ELECTRICAL DETAILS

VAULT LEGEND PLATE SCHEDULE	
DEVICE	LABEL
SERVICE PANELBOARD "A"	SERVICE PANEL "A" 120/240 VAC, 1 PH, 3 W
MAIN BREAKER IN SERVICE PANEL "A"	SERVICE DISCONNECT
PANELBOARD "B"	PANEL "B" 120/240 VAC, 1 PH, 3 W
RUNWAY 18-36 CCR	RUNWAY 18-36
TAXIWAY CCR	NORTH-SOUTH TAXIWAY
RUNWAY 9-27 CCR	RUNWAY 9-27
CUTOUT ENCLOSURE FOR RUNWAY	RUNWAY 18-36 CUTOUT
CUTOUT ENCLOUSRE FOR TAXIWAY	NORTH-SOUTH TAXIWAY
CUTOUT ENCLOSURE FOR RUNWAY 9-27	RUNWAY 9-27 CUTOUT
EACH CUTOUT INPUT SIDE CONNECTION	INPUT
EACH CUTOUT OUTPUT SIDE CONNECTION	OUTPUT
RADIO INTERFACE PANEL FOR RUNWAY 18-36	RUNWAY 18-36
RADIO INTERFACE PANEL FOR TAXIWAY	NORTH-SOUTH TAXIWAY
RADIO INTERFACE PANEL FOR RUNWAY 18-36	RUNWAY 9-27
RELAY PANEL	RELAY PANEL FOR AIRFIELD LIGHTING EQUIPMENT
STEP-UP TRANSFORMER FOR RUNWAY 9 PLASI	STEP-UP XFMR RWY 9 PLASI 240 V TO 480 V
PRIMARY DISCONNECT FOR STEP-DOWN TRANSFORMER SERVING RUNWAY 9 PLASI	STEP-DOWN XFMR DISCONNECT, 480V FED FROM VAULT
SETP-DOWN TRANSFORMER FOR RUNWAY 9 PLASI	STEPDOWN XFMR RWY 9 PLASI 480 V TO 120 V
SECONDARY DISCONNECT FOR STEP-DOWN TRANSFORMER SERVING RUNWAY 9 PLASI	RWY 9 PLASI DISCONNECT, 120V
BOOST TRANSFORMER FOR RUNWAY 18 PLASI	RWY 18 PLASI
BOOST TRANSFORMER FOR RUNWAY 36 PLASI	RWY 36 PLASI
BOOST TRANSFORMER FOR RUNWAY 27 PLASI	RWY 27 PLASI
BOOST TRANSFORMER FOR RUNWAY 36 WIND CONE	RWY 36 WIND CONE
BOOST TRANSFORMER FOR RUNWAY 9 WIND CONE	RWY 9 WIND CONE
LOW VOLTAGE WIREWAY (PROVIDE 4 LEGEND PLATES 1/2" HIGH BLACK LETTERS WHITE BACKGROUND)	LOW VOLTAGE
HIGH VOLTAGE WIREWAY (PROVIDE 4 LEGEND PLATES 1/2" HIGH BLACK LETTERS WHITE BACKGROUND)	HIGH VOLTAGE
VAULT GROUND BUS (PROVIDE 4 LEGEND PLATES 1/2" HIGH WHITE LETTERS GREEN BACKGROUND)	VAULT GROUND BUS

132 VAC OUPUT NOTE: CONFIRM WIRING WITH RESPECTIVE TRANSFORMER MFR.

120 VAC TO 132 VAC BOOST TRANSFORMER CONNECTION DIAGRAM FOR SQUARE D CAT. NO. 250SV43B OR CAT. NO. 500SV43B TRANSFORMER



NOTE: CONFIRM WIRING WITH RESPECTIVE TRANSFORMER MFR.

120 VAC TO 144 VAC BOOST TRANSFORMER CONNECTION DIAGRAM FOR SQUARE D CAT. NO. 500SV43B TRANSFORMER

TAYLORVILLE MUNICIPAL AIRPORT TAYLORVILLE, ILLINOIS

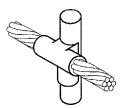
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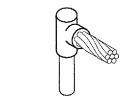
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CONSTRUCT RUNWAY 9-27

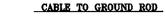
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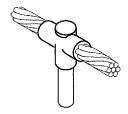
NOTE: LEGEND PLATES SHALL BE WEATHERPROOF ENGRAVED PLASTIC OR PHENOLIC MATERIAL, 1/4" HIGH BLACK LETTERS ON A WHITE BACKGROUND UNLESS NOTED OTHERWISE. SECURE WITH WEATHERPROOF ADHESIVE AND MACHINE SCREWS, FURNISH ADDITIONAL LEGEND PLATES WHERE REQUIRED BY CODE, FOR ADDITIONAL EQUIPMENT, AS DETAILED HEREIN ON THE PLANS, AND AS NOTED IN THE SPECIAL PROVISION SPECIFICATIONS.



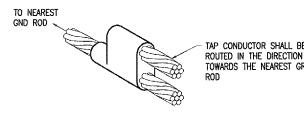


CABLE TO GROUND ROD





CABLE TO GROUND ROD



CABLE TO CABLE HORIZONTAL PARALLEL TAP

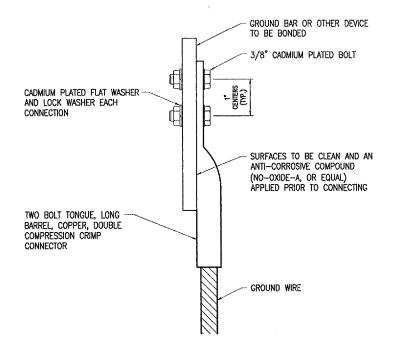
TAP CONDUCTOR SHALL BE

TOWARDS THE NEAREST GROUND

#### DETAIL NOTES

- EXOTHERMIC WELDS SHALL BE CADWELD AS MANUFACTURED BY ERICO PRODUCTS, SOLON, OHIO OR THERMOWELD AS MANUFACTURED BY CONTINENTAL INDUSTRIES, TULSA, OKLAHOMA. VERIFY PROPER SIZES, TYPES, AND REQUIREMENTS FOR THE RESPECTIVE APPLICATION WITH THE MANUFACTURER, AND INSTALL PER
- 2. FOR APPLICATIONS TO METAL SURFACES THAT ARE LESS THAN 3/16" THICK CONTACT THE EXOTHERMIC WELD MANUFACTURER FOR DIRECTION AND INSTRUCTION ON EXOTHERMIC WELD INSTALLATION TO THE RESPECTIVE
- 3. FOR APPLICATIONS TO GALVANIZED STEEL OR PAINTED STEEL, REMOVE GALVANIZING AND/OR PAINT & CLEAN THE SURFACE TO EXPOSE BARE STEEL BEFORE MAKING EXOTHERMIC WELD CONNECTION.
- 4. INDIVIDUAL GROUNDING ELECTRODE CONDUCTORS SHALL NOT BE INSTALLED IN METAL CONDUIT. INSTALL GROUNDING ELECTRODE CONDUCTORS IN SCHED 40 PVC CONDUIT AS REQUIRED IN FOUNDATIONS, FOR PROTECTION, WHERE ENTERING ENCLOSURES, ETC.

### EXOTHERMIC WELD DETAILS

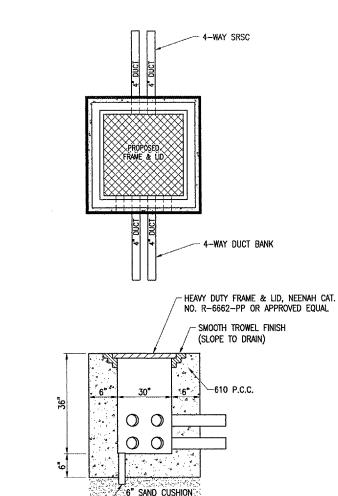


2 HOLE LONG BARREL COMPRESSION LUG TABLE		
WIRE SIZE	BURNDY CAT. NO.	THOMAS & BETTS CAT. NO.
#6 AWG STRANDED	YA6C-2TC38	256-30695-1158
#2 AWG STRANDED	YA2C-2TC38	256-30695-1160
#1/0 AWG STRANDED	YA25-2TC38	256-30695-1162
#2/0 AWG STRANDED	YA26~2TC38	256~30695-1116
#3/0 AWG STRANDED	YA27-2TC38	54816BE

#### NOTES

- ALL CONNECTIONS TO GROUND BUS BAR SHALL BE WITH 2 HOLE TONGUE LONG BARREL COMPRESSION LUGS BOLTED TO THE BUS BAR.
- 2. GROUND WIRE CONNECTIONS TO EQUIPMENT SHALL BE WITH 2 HOLE TONGUE LONG BARREL COMPRESSION LUGS BOLTED TO THE DEVICE OR WITH THE RESPECTIVE EQUIPT MANUFACTURER'S LUG OR TERMINAL WHERE APPLICABLE.
- 3. GROUNDING ELECTRODE CONDUCTORS, BONDING JUMPERS, & INDIVIDUAL GROUND WIRES SHALL NOT BE INSTALLED IN METAL CONDUIT.
- 4. ALL CONNECTIONS SHALL BE COATED WITH A CORROSION PREVENTATIVE COMPOUND (NO-OXIDE-A, OR EQUAL) BEFORE JOINING. ALL COPPER BUS BARS SHALL BE CLEANED PRIOR TO MAKING CONNECTIONS TO REMOVE SURFACE OXIDATION. CLEAN SURFACES, OF RESPECTIVE DEVICES TO BE BONDED, TO BARE METAL, PER NEC 250-12.

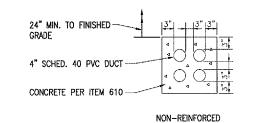
### GROUNDING LUG CONNECTION DETAIL



2" SCHED 40 PVC DRAIN PIPE

LIDS FOR LOW VOLTAGE HANDHOLES SHALL BE LABELED "LOW VOLTAGE". LIDS FOR HIGH VOLTAGE HANDHOLES SHALL BE LABELED "HIGH VOLTAGE". COORDINATE LETTERING WITH MFR.

## ELECTRICAL HANDHOLE DETAIL



NOTES:

1.) ALL DIMENSIONS ARE MINIMUM.

## CONCRETE ENCASED DUCT DETAIL

(4-WAY SHOWN)

75 75 of 127 sheets

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CONSTRUCT RUNWAY 9-27

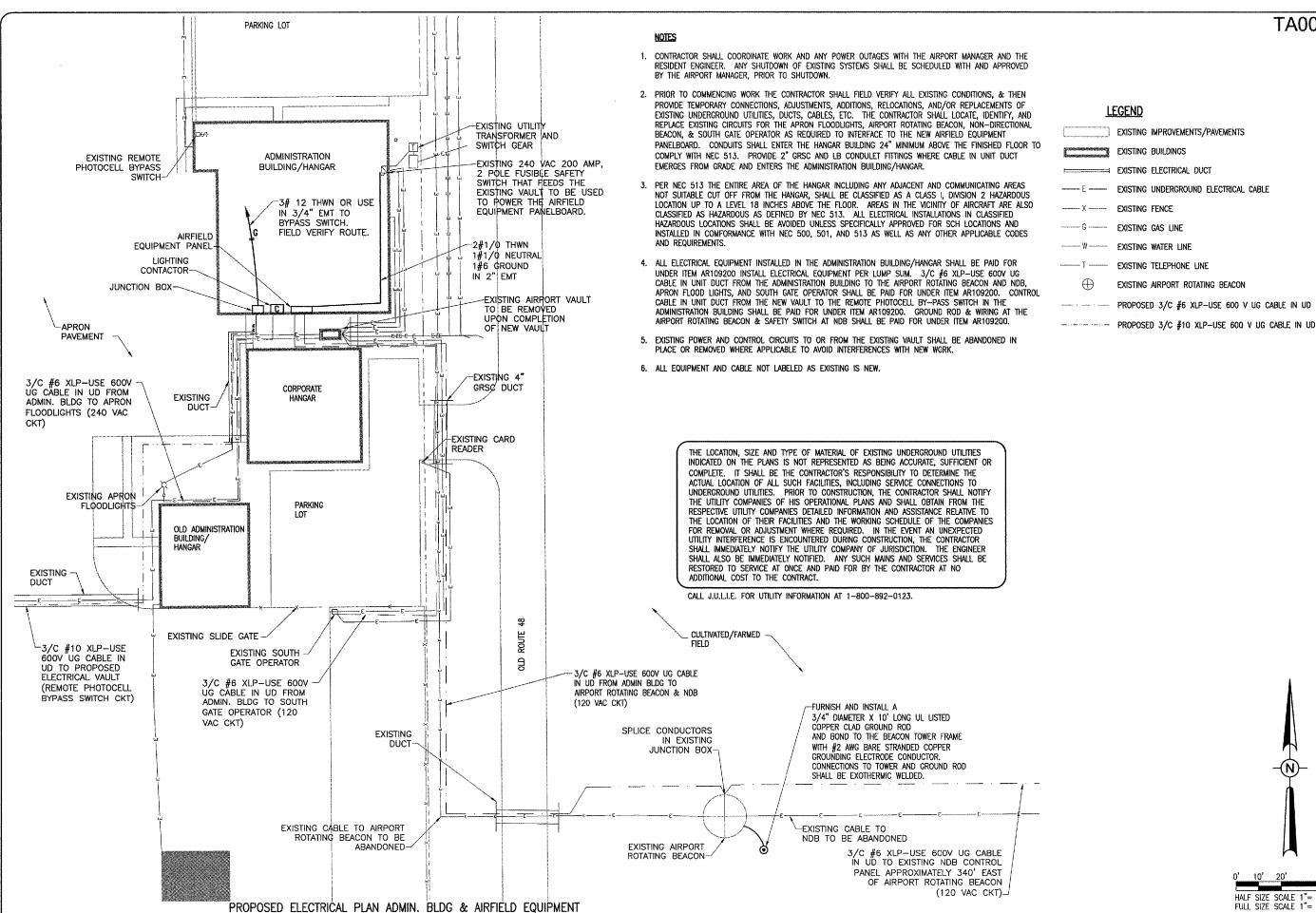
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TAYLORVILLE MUNICIPAL AIRPORT

TAYLORVILLE, ILLINOIS

(E-17)

ELECTRICAL AND ROUNDING DETAIL



## **LEGEND** EXISTING IMPROVEMENTS/PAVEMENTS

EXISTING BUILDINGS EXISTING ELECTRICAL DUCT ----- E ---- EXISTING UNDERGROUND ELECTRICAL CABLE EXISTING FENCE ----- G ----- EXISTING GAS LINE EXISTING WATER LINE EXISTING TELEPHONE LINE EXISTING AIRPORT ROTATING BEACON PROPOSED 3/C #6 XLP-USE 600 V UG CABLE IN UD

HALF SIZE SCALE 1"= 40"

TA001

**AIRPORT** 

MUNICIPAL

TAYLORVILLE

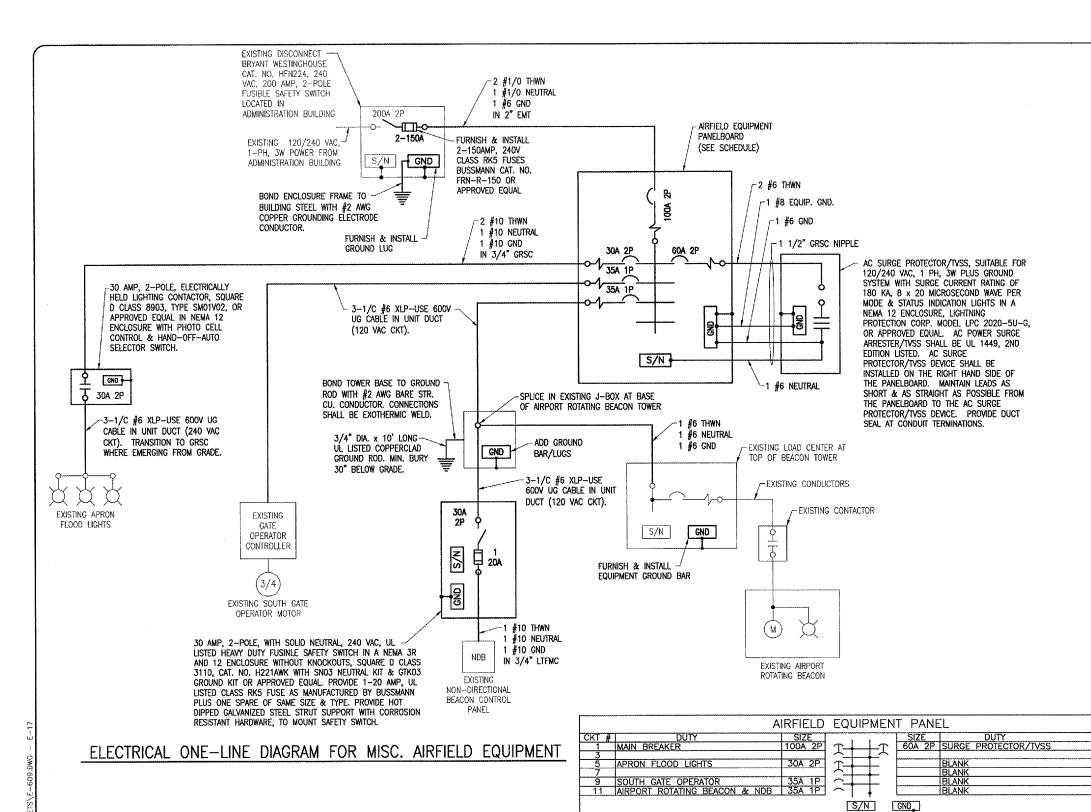
ILLINOIS

TAYLORVILLE,

HANSON CONSTRUCT RUNWAY 9-27

76

PROPOSED ELECTRICAL SITE PLAN FOR ADMIN. BLDG.



100 AMP, 120/240 VAC, 1 PHASE, 3 WIRE, 12 CIRCUIT PANELBOARD WITH 100 AMP, 2 POLE MAIN BREAKER IN A NEMA 1 ENCLOSURE. INCLUDE

SEPARATE GROUND BAR KIT. ALL BREAKERS SHALL BE BOLT-ON TYPE WITH 10,000 AIC AT 120/240 VAC. PANELBOARD SHALL BE SQUARE D

2, PANELBOARD SHALL BE INSTALLED ON THE SOUTH WALL OF THE ADMINISTRATION/HANGAR BUILDING LOCATED BETWEEN THE SOUTH EXIT

3. INCLUDE PHENOLIC ENGRAVED LEGEND PLATE LABELED "AIRFIELD EQUIPMENT PANEL, 120/240 VAC, 1PH, 3W".

DOORWAY & COLUMN, LOCATE PANEL SO THAT CONDUITS EXITING THE BUILDING WILL BE IN THE TURF AREA NEAR THE EXISTING VAULT. BOTTOM OF PANEL ENCLOSURE SHALL NOT EXTEND INTO THE AREA 24" ABOVE THE HANGAR FLOOR TO COMPLY WITH NEC 513.

CAT. NO. NQOD12M100CU, OR APPROVED EQUAL.

1. PANELBOARD BUS SHALL BE COPPER.

NOTES

**ELECTRICAL NOTES** 

1. ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN CONFORMANCE WITH NFPA 70 (MOST CURRENT ISSUE IN FORCE), THE RESPECTIVE EQUIPMENT MANUFACTURER'S DIRECTIONS AND ALL OTHER APPLICABLE LOCAL CODES, LAWS, ORDINANCES, AND REQUIREMENTS IN FORCE. ANY INSTALLATIONS WHICH VOID THE U.L. LISTING, ETL LISTING (OR OTHER THIRD PARTY LISTING) AND/OR THE MANUFACTURER'S WARRANTY OF A DEVICE SHALL NOT BE PERMITTED.

TA001

**AIRPORT** 

MUNICIPAL

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TAYLORVILLE,

2. PER NEC 513 THE ENTIRE AREA OF THE HANGAR INCLUDING ANY ADJACENT AND COMMUNICATING AREAS NOT SUITABLE CUT OFF FROM THE HANGAR, SHALL BE CLASSIFIED AS A CLASS I, DMISION 2 HAZARDOUS LOCATION UP TO A LEVEL 18 INCHES ABOVE THE FLOOR. AREAS IN THE VICINITY OF AIRCRAFT ARE ALSO CLASSIFIED AS HAZARDOUS AS DEFINED BY NEC 513. ALL ELECTRICAL INSTALLATIONS IN CLASSIFIED HAZARDOUS LOCATIONS SHALL BE AVOIDED UNLESS SPECIFICALLY APPROVED FOR SUCH LOCATIONS AND INSTALLED IN CONFORMANCE WITH NEC 500, 501, AND 513 AS WELL AS ANY OTHER APPLICABLE CODES AND REQUIREMENTS

- 3. CONTRACTOR SHALL COORDINATE NEW WORK AND ANY POWER OUTAGES TO EXISTING EQUIPMENT WITH THE RESPECTIVE OWNER & THE AIRPORT MANAGER.
- 4. ALL EQUIPMENT NOT LABELED AS EXISTING IS NEW.
- EXISTING POWER/FEEDER CABLES TO VAULT, APRON FLOOD LIGHTS, SOUTH GATE OPERATOR, AIRPORT ROTATING BEACON, AND NON-DIRECTIONAL BEACON SHALL BE REMOVED OR ABANDONED IN PLACE AND REPLACED WITH NEW CABLE AS DETAILED
- 6. CONDUITS FROM AIRFIELD EQUIPMENT PANELBOARD TO RESPECTIVE AIRFIELD EQUIPMENT SHALL EXIT THE ADMINISTRATION BUILDING/HANGAR 24" MINIMUM ABOVE
- 7. ALL WORK SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER ITEM AR109200.
- 8. LIFMC DENOTES LIQUID TIGHT FLEXIBLE METAL CONDUIT UL LISTED, SUNLIGHT RESISTANT, AND SUITABLE FOR GROUNDING

AIRFIELD EQUIPT. LEGEND PLATE SCHEDULE		
DEVICE	LABEL	
200 AMP FUSIBLE DISCONNECT THAT FEEDS THE AIRFIELD EQUIPMENT PANELBOARD	DISCONNECT AIRFIELD EQUIPT. PANEL 120/240 VAC, 1 PH, 3W 150 AMP MAX FUSE	
AIRFIELD EQUIPMENT PANELBOARD	AIRFIELD EQUIPT. PANEL 120/240 VAC, 1 PH, 3 W FED FROM 200 AMP DISCONNECT AT NE CORNER OF HANGAR	
Apron Flood Lighting Control Panel	APRON FLOOD LIGHTING CONTROLLER 120/240 VAC, 1 PH, 3 W	
SOUTH GATE OPERATOR	SOUTH GATE OPERATOR 120 VAC, 1 PH, 2 W FED FROM AIRFIELD EQUIPT. PANEL IN ADMIN/HANGAR BLDG	
J-BOX AT AIRPORT ROTATING BEACON	120 VAC, 1 PH, 2 W FED FROM AIRFIELD EQUIPT. PANEL IN ADMIN/HANGAR BLDG	
SAFETY SWITCH AT NON-DIRECTIONAL BEACON	NDB 120 VAC, 1 PH, 2 W FED FROM AIRFIELD EQUIPT, PANEL IN ADMIN/HANGAR BLDG THROUGH J-BOX AT BEACON	

NOTE; LEGEND PLATES SHALL BE WEATHERPROOF ENGRAVED PLASTIC BACKGROUND UNLESS NOTED OTHERWISE. SECURE WITH WEATHERPROOF ADHESIVE AND MACHINE SCREWS. FURNISH ADDITIONAL EQUIPMENT, AS DETAILED HEREIN ON THE PLANS, AND AS NOTED IN

DEVICE	LABEL
200 AMP FUSIBLE DISCONNECT THAT FEEDS THE AIRFIELD EQUIPMENT PANELBOARD	DISCONNECT AIRFIELD EQUIPT. PANEL 120/240 VAC, 1 PH, 3W 150 AMP MAX FUSE
airfield equipment Panelboard	AIRFIELD EQUIPT. PANEL 120/240 VAC, 1 PH, 3 W FED FROM 200 AMP DISCONNECT AT NE CORNER OF HANGAR
APRON FLOOD LIGHTING CONTROL PANEL	APRON FLOOD LIGHTING CONTROLLER 120/240 VAC, 1 PH, 3 W
SOUTH GATE OPERATOR	SOUTH GATE OPERATOR 120 VAC, 1 PH, 2 W FED FROM AIRFIELD EQUIPT. PANEL IN ADMIN/HANGAR BLDG
J-BOX AT AIRPORT ROTATING BEACON	120 VAC, 1 PH, 2 W FED FROM AIRFIELD EQUIPT. PANEL IN ADMIN/HANGAR BLDG
Safety Switch at Non-Directional Beacon	NDB 120 VAC, 1 PH, 2 W FED FROM AIRFIELD EQUIPT. PANEL IN ADMIN/HANGAR BLDG THROUGH J-BOX AT BEACON

OR PHENOLIC MATERIAL, 1/4" HIGH BLACK LETTERS ON A WHITE LEGEND PLATES WHERE REQUIRED BY CODE, FOR ADDITIONAL THE SPECIAL PROVISION SPECIFICATIONS.

FURNISH & INSTALL A WEATHERPROOF WARNING LABEL

FOR EACH METER SOCKET, PANELBOARD, LOAD CENTER,

DISCONNECT & CONTROL PANEL TO WARN PERSONS OF

POTENTIAL ELECTRIC ARC FLASH HAZARDS, PER THE

REQUIREMENTS OF NEC 110.16 "FLASH PROTECTION".

of 127 sheet

DEQUIPMENT ONE-LINE

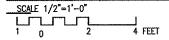
MISC. AIRFIELD E ELECTRICAL C

(E-19)

CONSTRUCT RUNWAY 9-27

### /8 /PHOTOCELL #14 AWG THWN MIN. FF ON 3 ~[2] #10 THWN MIN.-10A #6 AWG XLP-USE 4 47 -#10 THWN #10 THWN (MIN.) FROM 120/240VAC, TO APRON FLOOD **1**7 1PH, 3W AIRFIELD LIGHTS EQUIPMENT PANELBOARD #10 GND MIN.-6 (GREEN INSULATION)

### AIRFIELD EQUIPTMENT PANELBOARD ELEVATION



#### ELECTRICAL NOTES

- ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN CONFORMANCE WITH NFPA 70 (MOST CURRENT ISSUE IN FORCE), THE RESPECTIVE EQUIPMENT MANUFACTURER'S DIRECTIONS AND ALL OTHER APPLICABLE LOCAL CODES, LAWS, ORDINANCES, AND REQUIREMENTS IN FORCE. ANY INSTALLATIONS WHICH VOID THE U.L. LISTING, ETL LISTING (OR OTHER THIRD PARTY LISTING) AND/OR THE MANUFACTURER'S WARRANTY OF A DEVICE SHALL NOT BE PERMITTED.
- 2. PER NEC 513 THE ENTIRE AREA OF THE HANGAR INCLUDING ANY ADJACENT AND COMMUNICATING AREAS NOT SUITABLE CUT OFF FROM THE HANGAR, SHALL BE CLASSIFIED AS A CLASS I, DMISION 2 HAZARDOUS LOCATION UP TO A LEVEL 18 INCHES ABOVE THE FLOOR. AREAS IN THE VICINITY OF AIRCRAFT ARE ALSO CLASSIFIED AS HAZARDOUS AS DEFINED BY NEC 513. ALL ELECTRICAL INSTALLATIONS IN CLASSIFIED HAZARDOUS LOCATIONS SHALL BE AVOIDED UNLESS SPECIFICALLY APPROVED FOR SUCH LOCATIONS AND INSTALLED IN CONFORMANCE WITH NEC 500, 501, AND 513 AS WELL AS ANY OTHER APPLICABLE CODES AND DEPOLIPMENTS.
- CONTRACTOR SHALL COORDINATE NEW WORK AND ANY POWER OUTAGES TO EXISTING EQUIPMENT WITH THE RESPECTIVE OWNER & THE AIRPORT MANAGER.
- 4. ALL EQUIPMENT NOT LABELED AS EXISTING IS NEW.
- 5. GRSC DENOTES GALVANIZED RIGID STEEL CONDUIT (HEAVY WALL).
- 6. EMT DENOTES ELECTRICAL METALLIC TUBING (THIN WALL CONDUIT).
- 7. FIELD VERIFY CONDUIT & CABLE ROUTING.

# CONTROL PANEL FOR APRON FLOOD LIGHTS

### KEYED NOTES

- UL LISTED NEMA 12 PAINTED STEEL CONTROL PANEL ENCLOSURE ADEQUATELY SIZED TO HOLD THE RESPECTIVE COMPONENTS AND EQUIPMENT AS MANUFACTURED BY HOFFMAN OR APPROVED EQUAL INCLUDE LEGEND PLATE LABELED "APRON FLOOD LIGHTING CONTROLLER 120/240 VAC, 1 PH, 3 W". MOUNT PANEL ENCLOSURE TO RESPECTIVE BUILDING WALL WITH HOT DIPPED GALVANIZED STEEL STRUT SUPPORT.
- [2] 30 AMP, 600 VAC, 2 POLE ELECTRICALLY HELD LIGHTING CONTACTOR WITH 120 VAC COIL, SQUARE D CLASS 8903, TYPE SM01V02, OR APPROVED EQUAL.
- THREE-POSITION MAINTAINED CONTACT "HAND-OFF-AUTO" SELECTOR SWITCH, HEAVY DUTY, WATERTIGHT/OIL TIGHT (NEMA 4/13), SQUARE D CLASS 9001, TYPE KS43FBH13 OR APPROVED EQUAL. INCLUDE LEGEND PLATE LABELED "AUTO-OFF-ON". MOUNT SELECTOR SWITCH ON ENCLOSURE DOOR.
- FUSING FOR CONTROL WIRING SHALL BE 10 AMP, 600 VAC, BUSSMANN CATALOG FNQ-R-10, OR APPROVED EQUAL, WITH FUSE BLOCKS, WITH BOX LUG TERMINALS, SIZED AS REQUIRED FOR THE RESPECTIVE APPLICATION. INCLUDE HARDWARE FOR MOUNTING. PROVIDE ONE BOX (5 MINIMUM QUANTITY) OF EACH TYPE AND SIZE OF FUSE, UPON COMPLETION OF THE JOB FOR USE AS SPARES.
- CONTROL WIRING SHALL BE SIZED AS REQUIRED PER NEC MINIMUM #14 AWG TYPE MTW, THW, OR THWN, COPPER. TERMINAL BLOCKS FOR CONTROL WIRING SHALL BE 600 VOLT, WITH AMPERAGE RATINGS IN CONFORMANCE WITH NEC TABLE 310-16 USING 75 DEGREE C WIRE FOR THE RESPECTIVE WIRE LUG RANGE, BOX LUG TYPE, SQUARE D CLASS 9080, TYPE G, OR APPROVED EQUAL.
- 6 EQUIPMENT GROUNDING BAR: PROVIDE A GROUNDING BAR MOUNTED AND BONDED INSIDE THE PANEL ENCLOSURE, ADEQUATELY SIZED TO ACCOMMODATE ALL GROUND CONDUCTORS TO OR FROM THE CONTROL PANEL. TERMINATE ONE GROUND WIRE PER LUG/TERMINAL.
- 7 TERMINAL BLOCKS FOR FEEDER CIRCUITS SHALL BE SQUARE D CLASS 9080, TYPE GC6, OR APPROVED EQUAL SIZED AS REQUIRED FOR THE RESPECTIVE CONDUCTORS.
- B PHOTOCELL RATED 2000 WATTS AT 120 VAC, WITH OFF DELAY, AND -40 DEGREE C TO 60 DEGREE C OPERATING TEMPERATURE RANGE, TORK MODEL NO. 2101, OR APPROVED EQUAL. PHOTOCELL SHALL BE MOUNTED JUST ABOVE ROOF LEVEL OF RESPECTIVE BUILDING WHERE CONTROL PANEL IS INSTALLED. PHOTOCELL SHALL FACE NORTH.

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SIPAL AIRPOF ILLINOIS

TAYLORVILL

MUNICIPAL

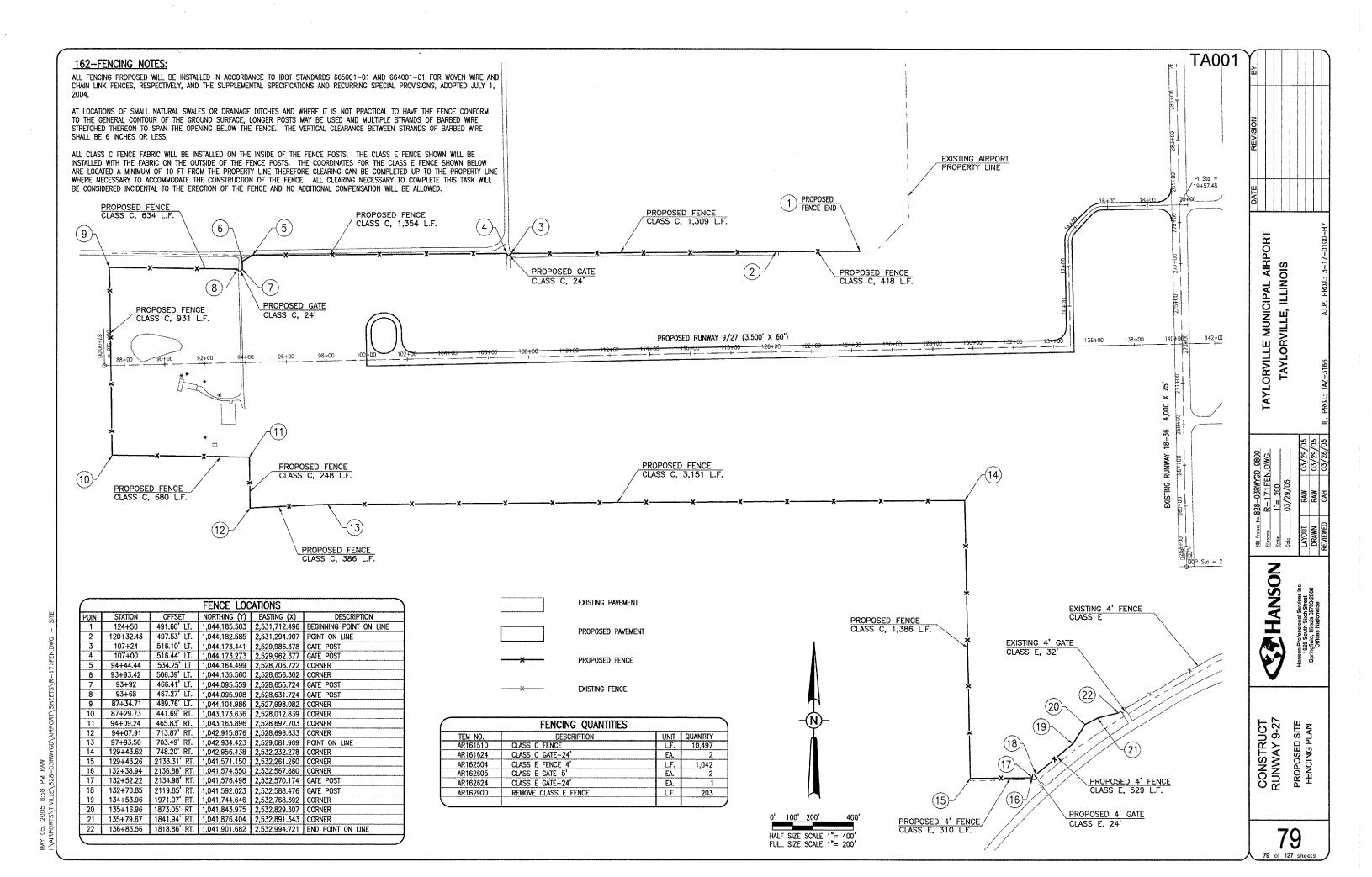
TAYLORVILLE

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CONSTRUCT
RUNWAY 9-27
ADMIN. BLDG. ELEVATION &
APRON LIGHTING CONTROLS

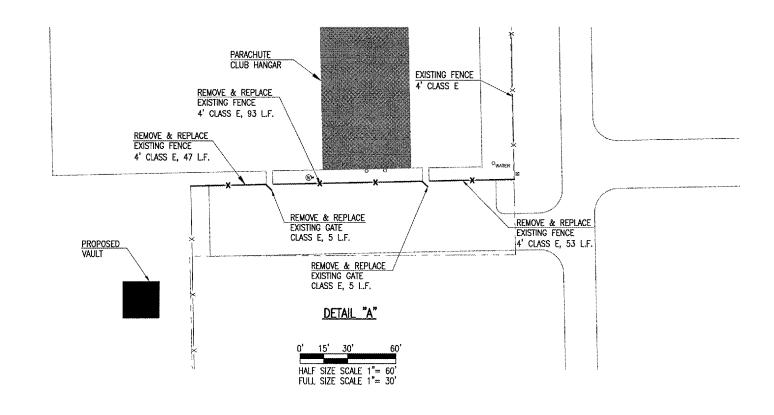
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78 of 127 sheet

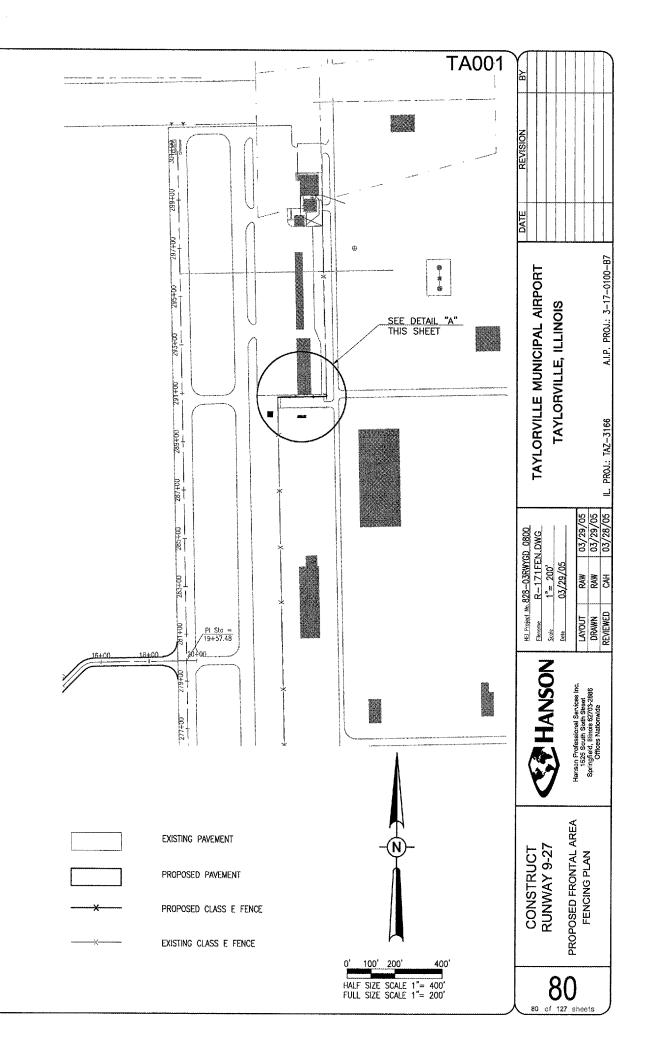
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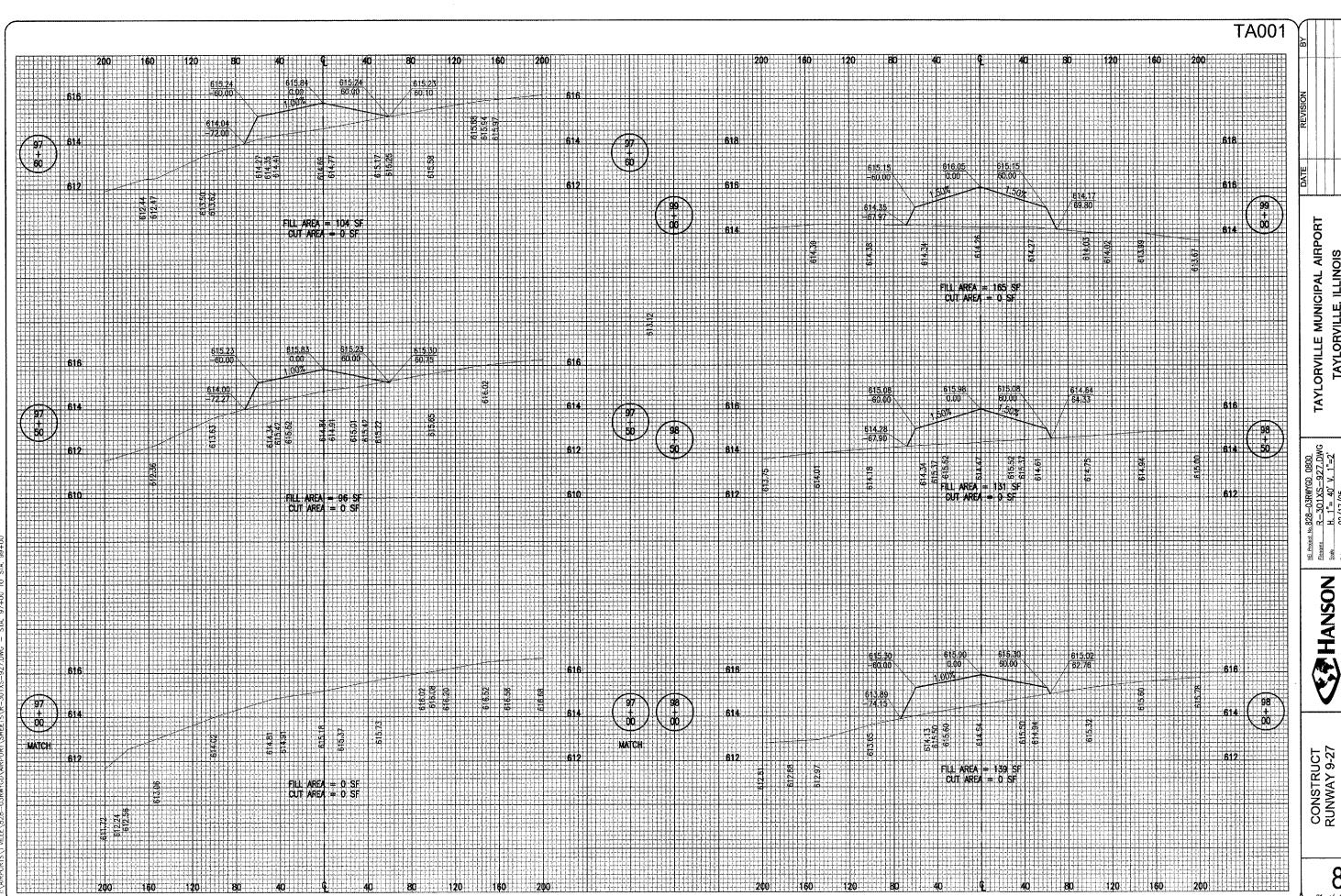


ALL FENCING PROPOSED WILL BE INSTALLED IN ACCORDANCE TO IDOT STANDARDS 665001-01 AND 664001-01 FOR WOVEN WIRE AND CHAIN LINK FENCES, RESPECTIVELY, AND THE SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS, ADOPTED JULY 1, 2004.

THE COST OF REMOVING TWO EXISTING CLASS E GATES SHALL BE INCIDENTAL TO ITEM AR162900 -- REMOVE CLASS E FENCE AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED. THE LENGTH OF THE GATES IS INCLUDED IN THE LENGTH OF CLASS E FENCE REMOVAL SHOWN IN THE SUMMARY OF QUANTITIES.



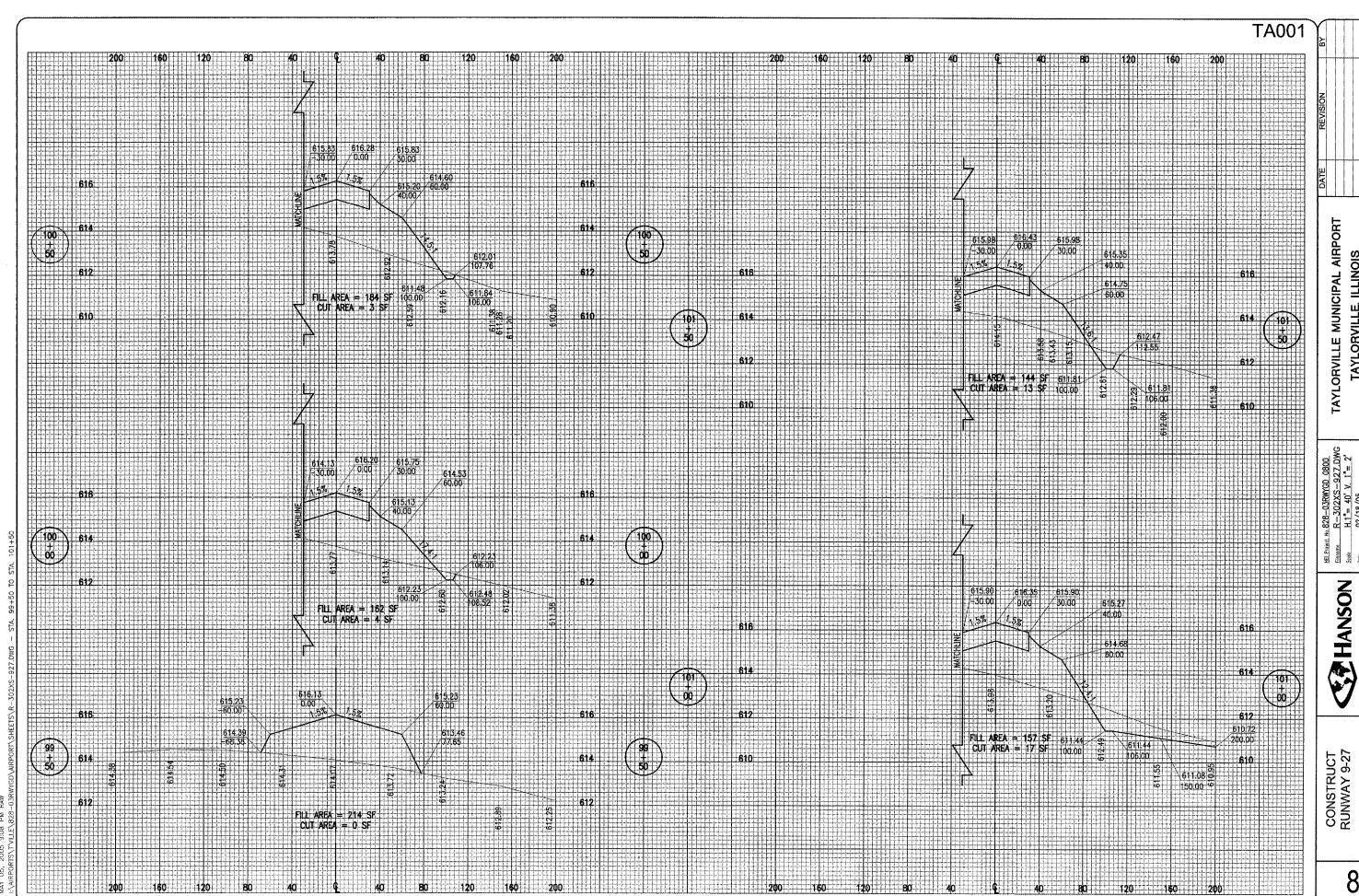




CONSTRUCT
RUNWAY 9-27
PROPOSED RUNWAY
CROSS-SECTIONS
STA. 97+00 TO STA. 99+00

81

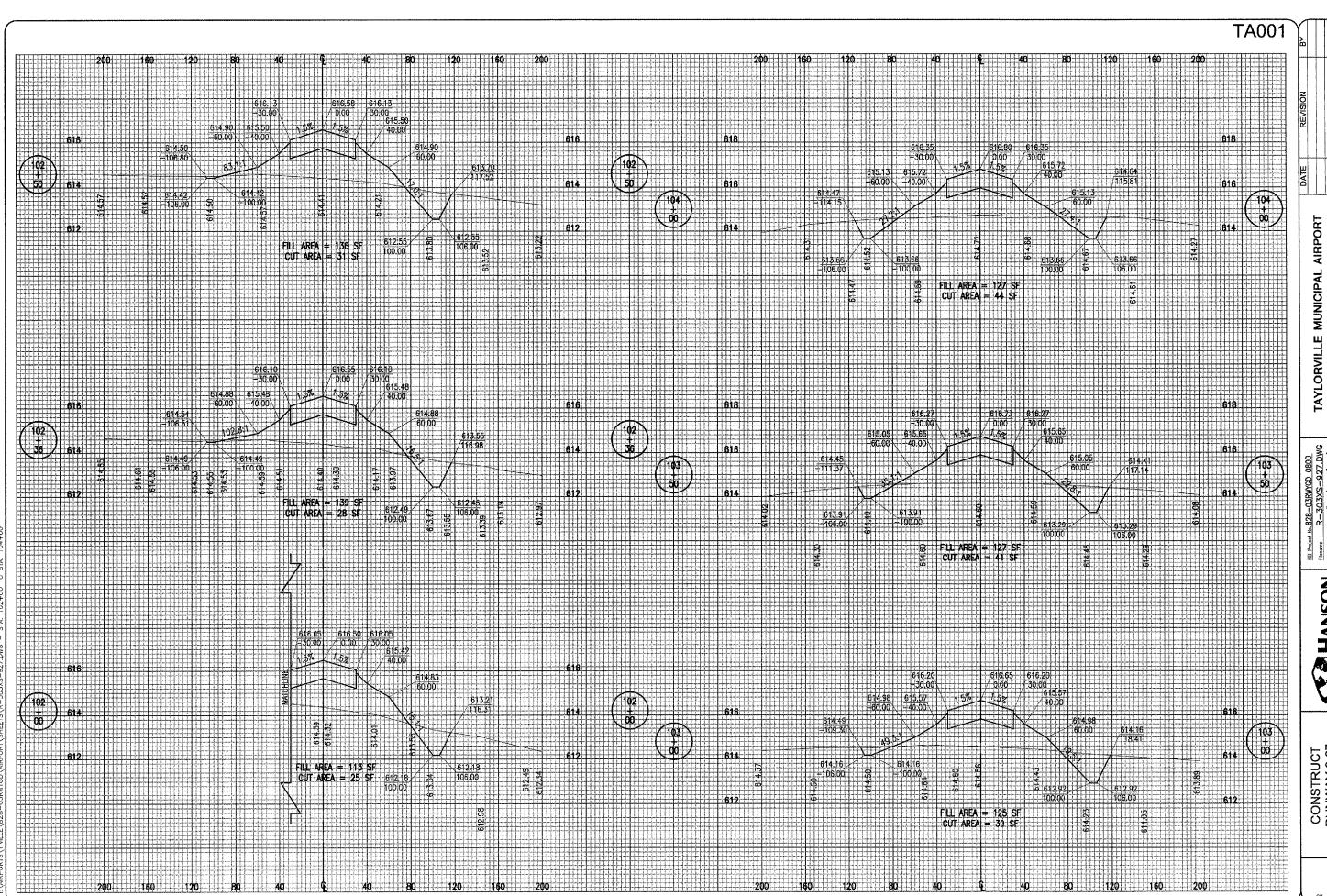
TAYLORVILLE, ILLINOIS



TAYLORVILLE MUNICIPAL AIRPORT TAYLORVILLE, ILLINOIS

HANSON

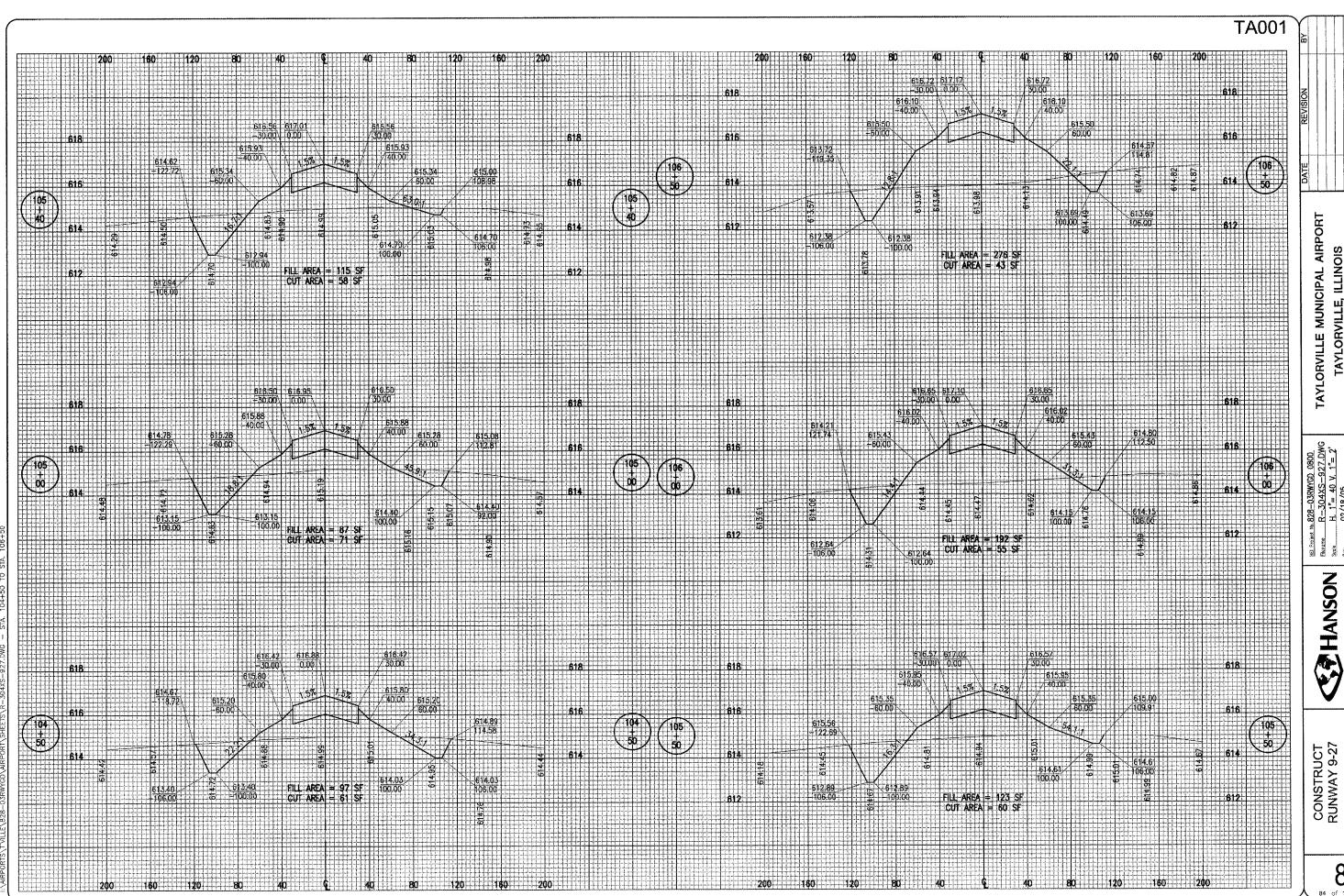
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TAYLORVILLE, ILLINOIS

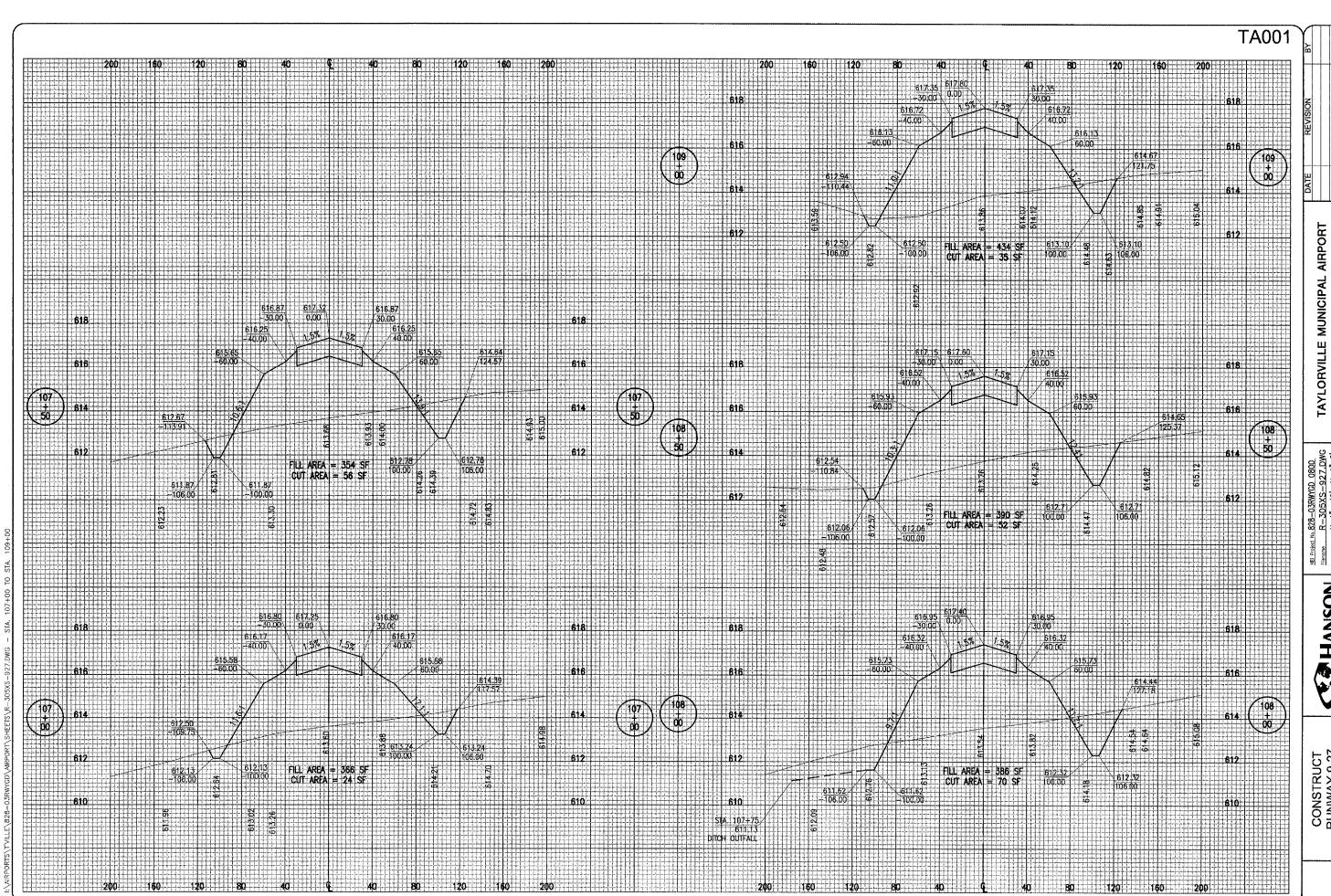
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CONSTRUCT RUNWAY 9-27 PROPOSED RUNWAY CROSS-SECTIONS TA. 102+00 TO STA. 104+00

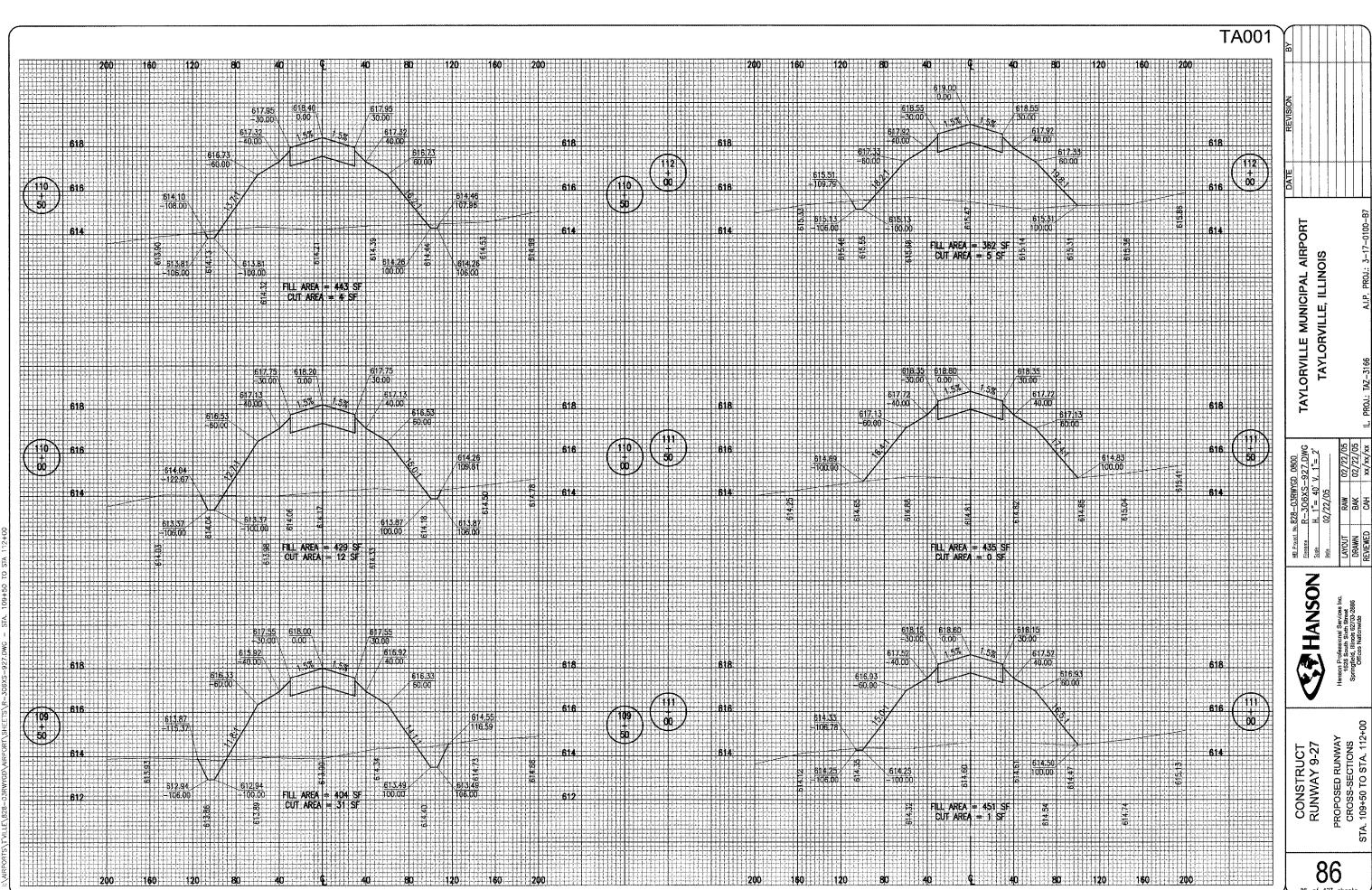


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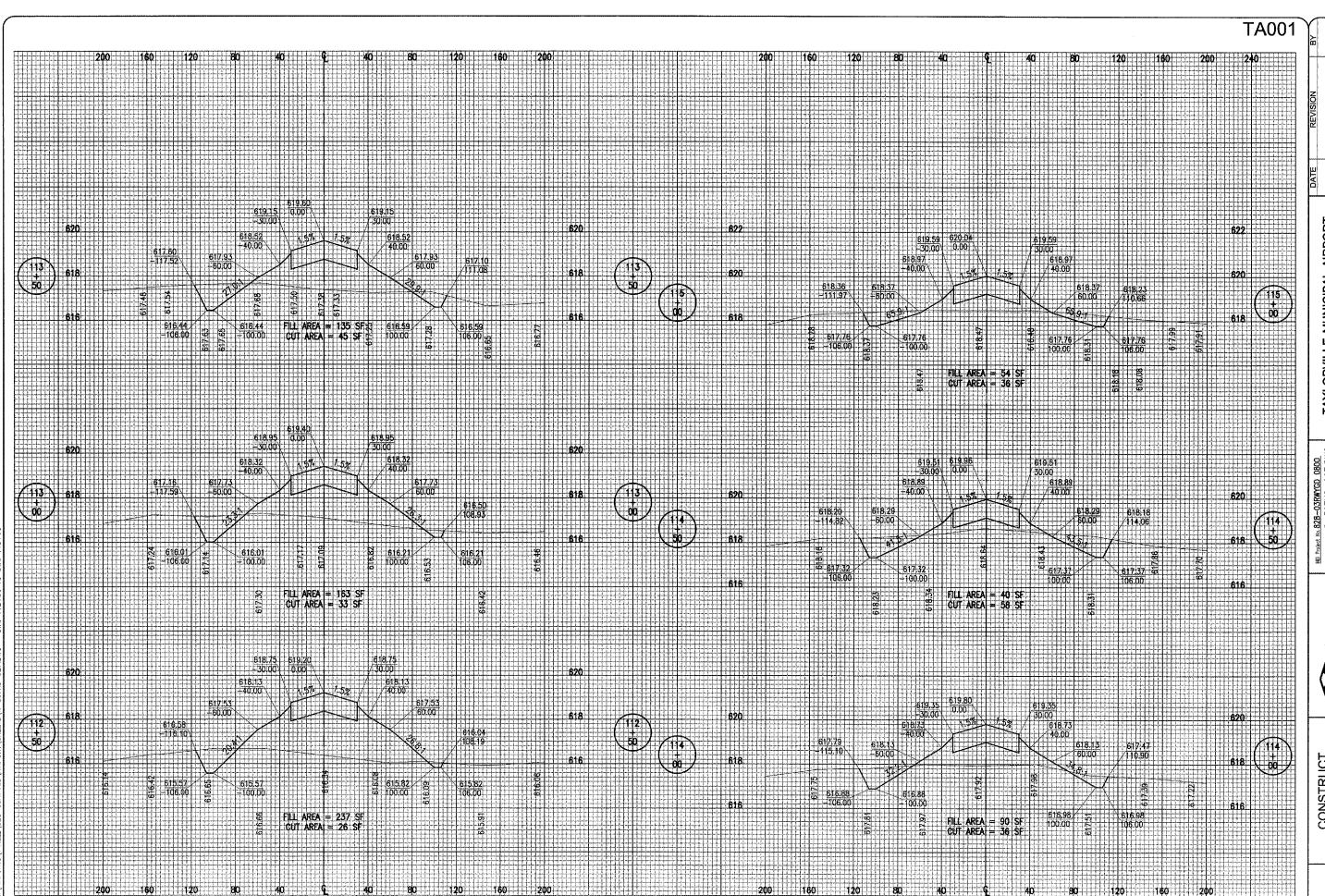
PROPOSED RUNWAY CROSS-SECTIONS A, 104+50 TO STA. 106+5



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Filename R—305XS—927.DWG
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Dote 02/18/05 HANSON PROPOSED RUNWAY CROSS-SECTIONS TA. 107+00 TO STA 109+00 CONSTRUCT RUNWAY 9-27 85 85 of 127 sheets



TAYLORVILLE, ILLINOIS



TAYLORVILLE MUNICIPAL AIRPORT
TAYLORVILLE, ILLINOIS

HED Project No. 828—03FWYGD 0800
Filtename R.—30.7X.S.—927., DW
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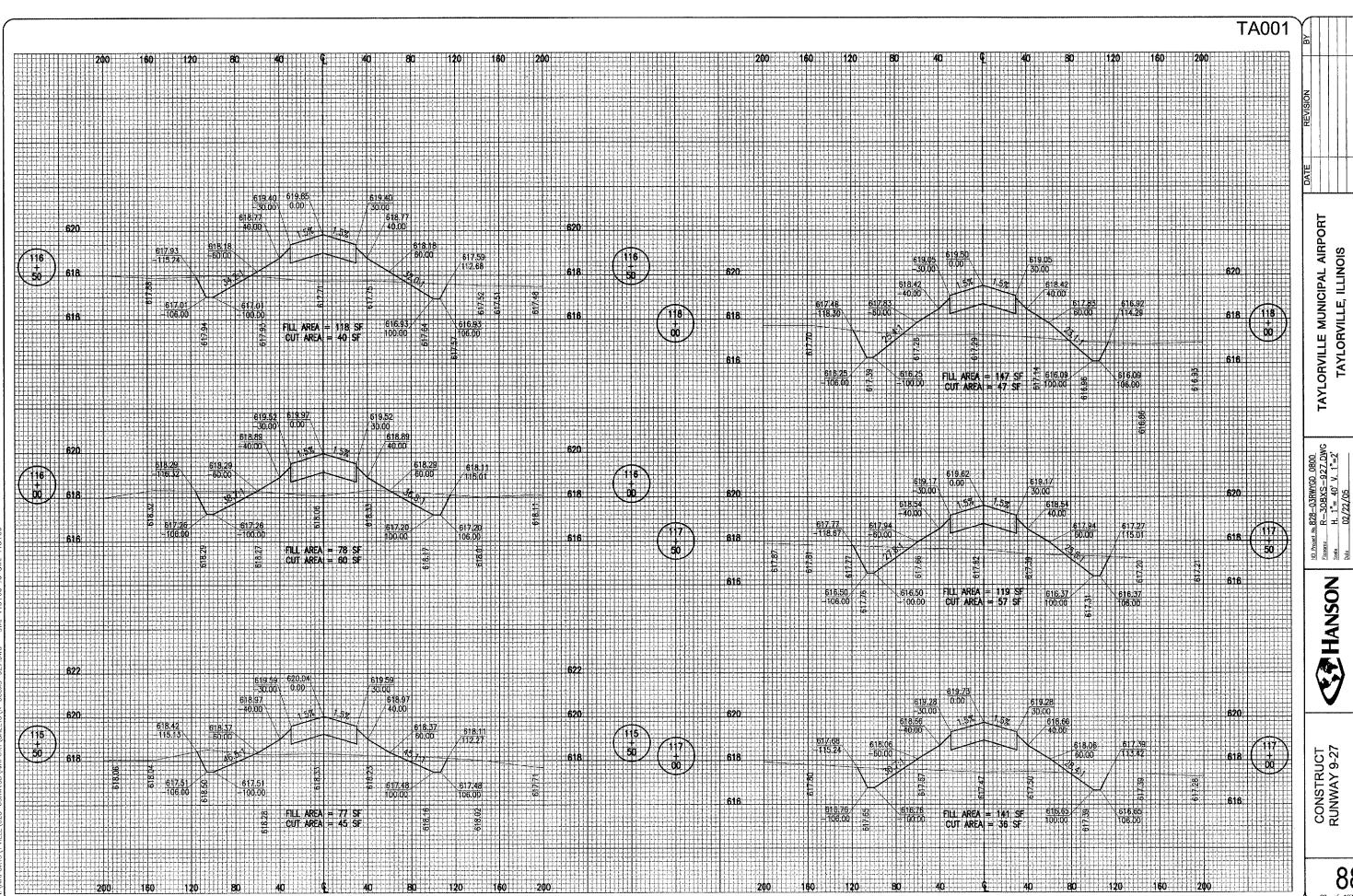
Hanson Professional Services Inc.

T Hanson Prote 1825 Sc Springfield, Office Co.

CONSTRUCT
RUNWAY 9-27
PROPOSED RUNWAY
CROSS-SECTIONS
TA. 112+50 TO STA. 115+00

87

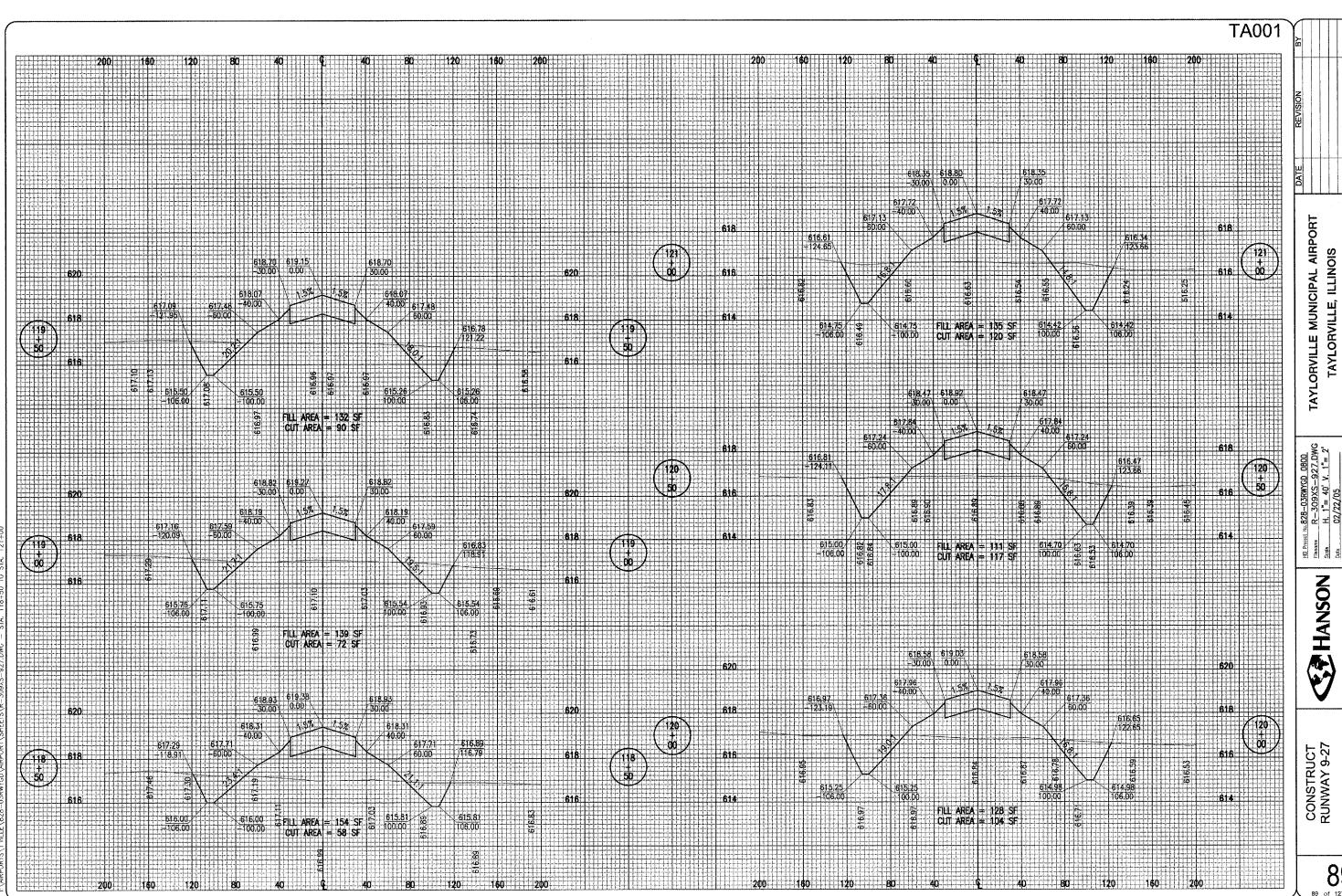
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PROPOSED RUNWAY CROSS-SECTIONS 7A, 115+50 TO STA. 118+0 CONSTRUCT RUNWAY 9-27

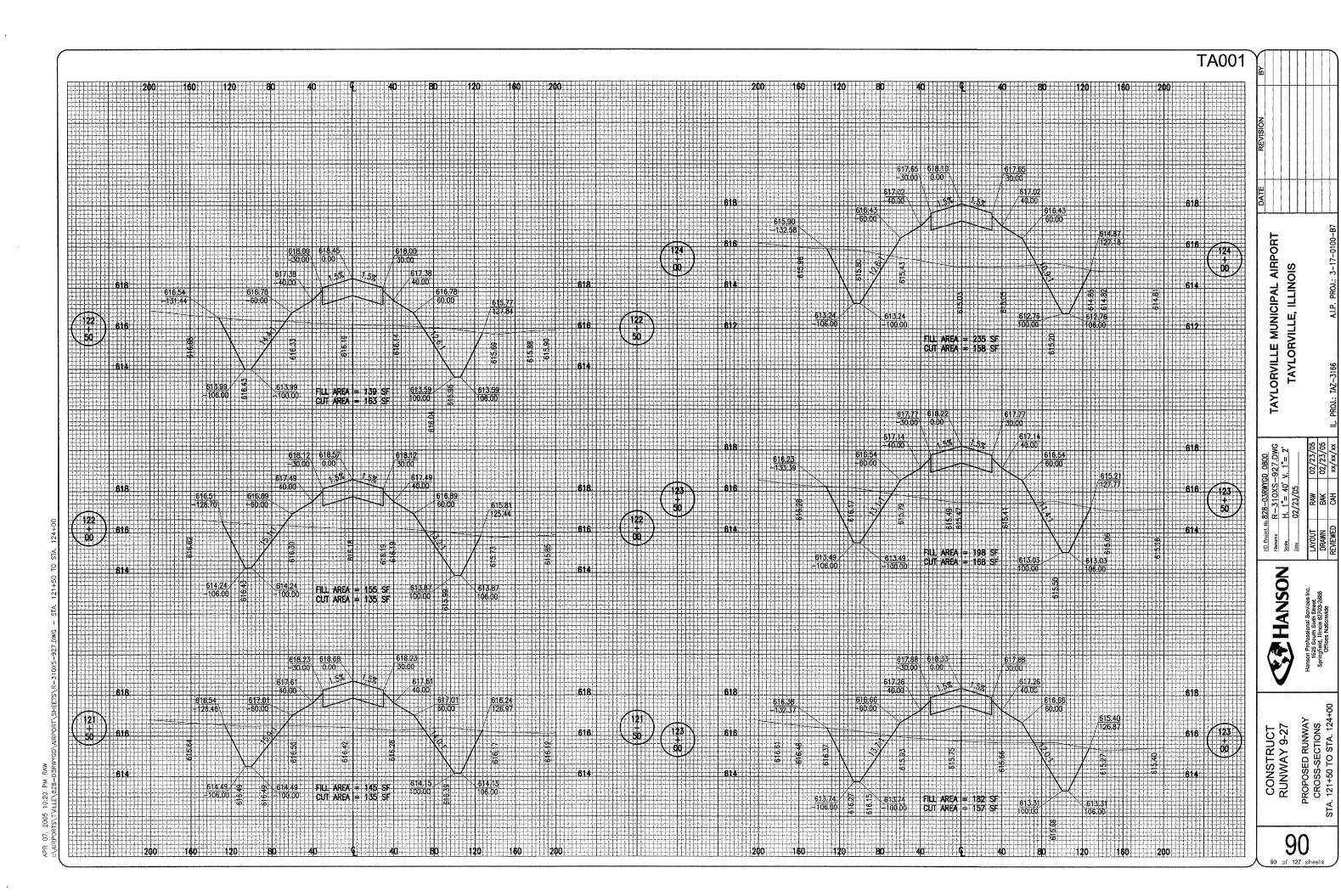
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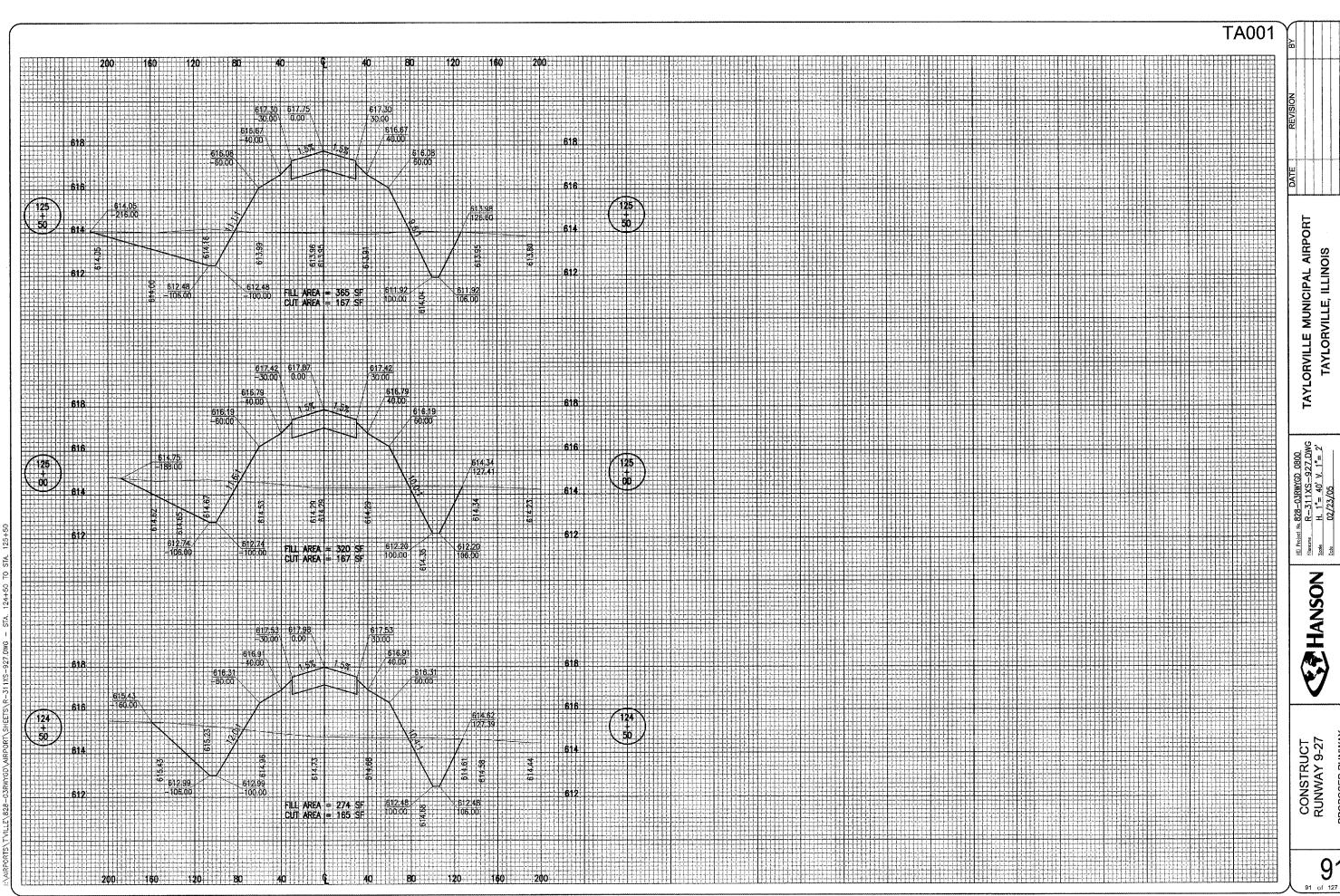
TAYLORVILLE, ILLINOIS



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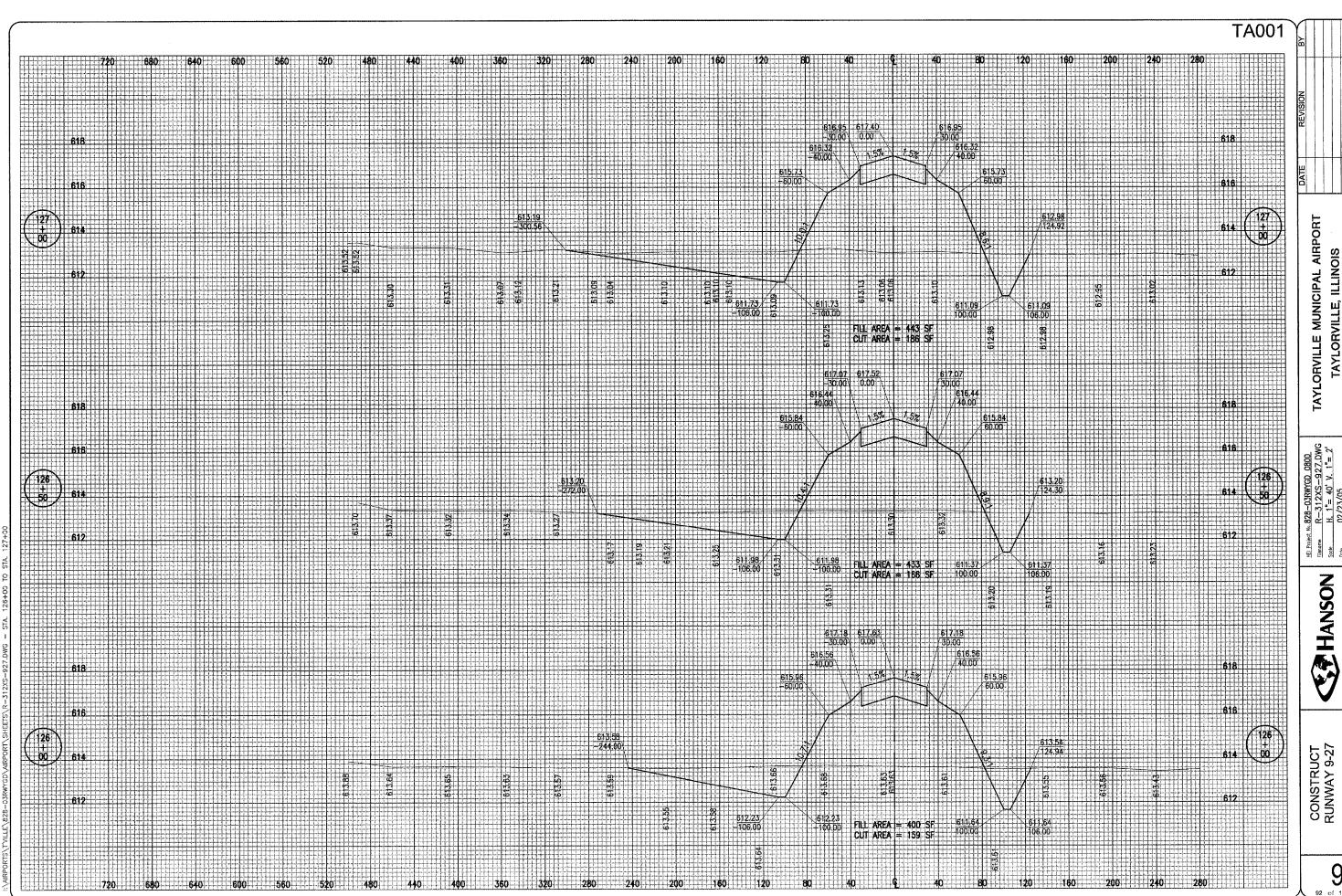
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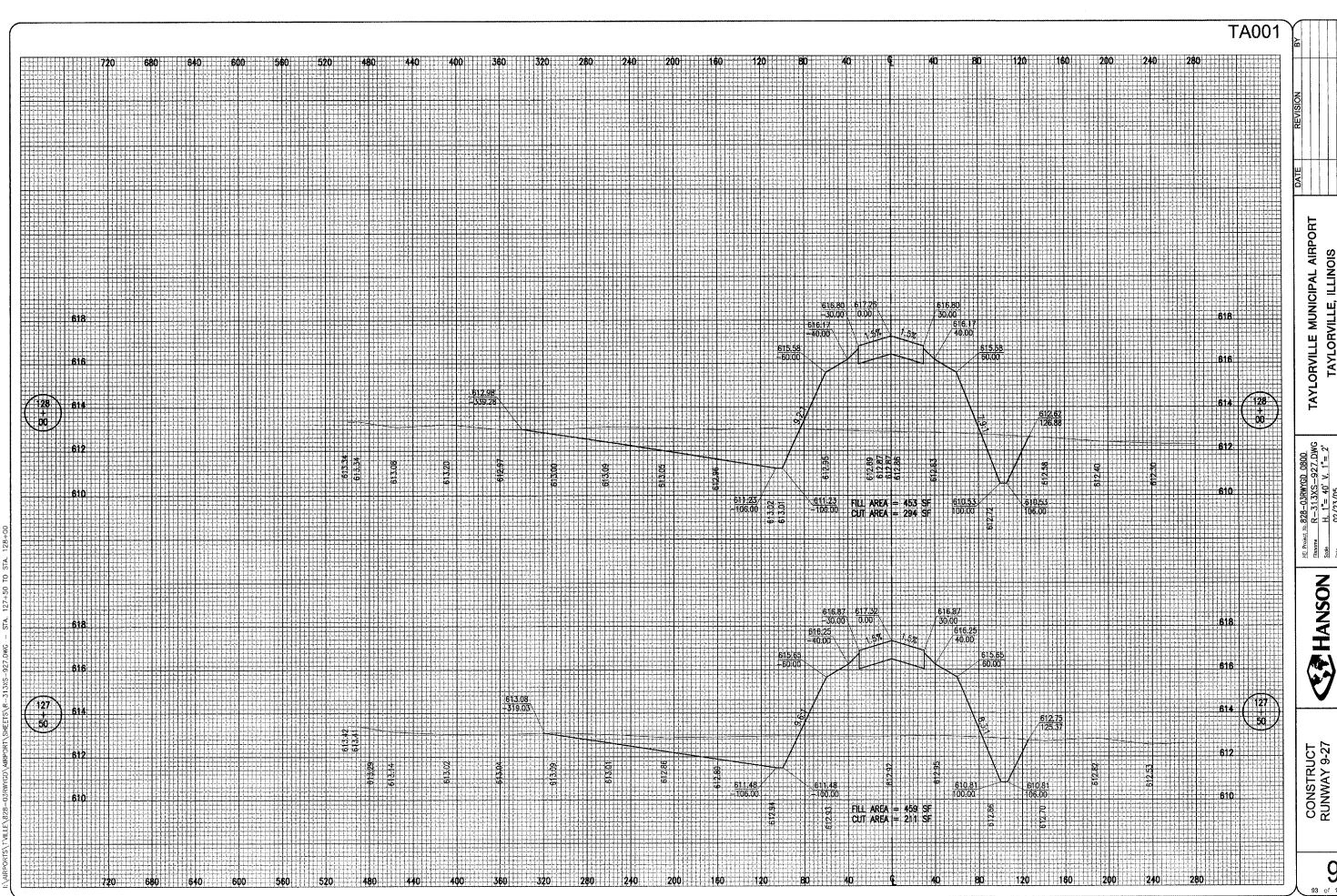
PROPOSED RUNWAY CROSS-SECTIONS FA. 124+50 TO STA. 125+50



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PROPOSED RUNWAY CROSS-SECTIONS FA. 126+00 TO STA. 127+00

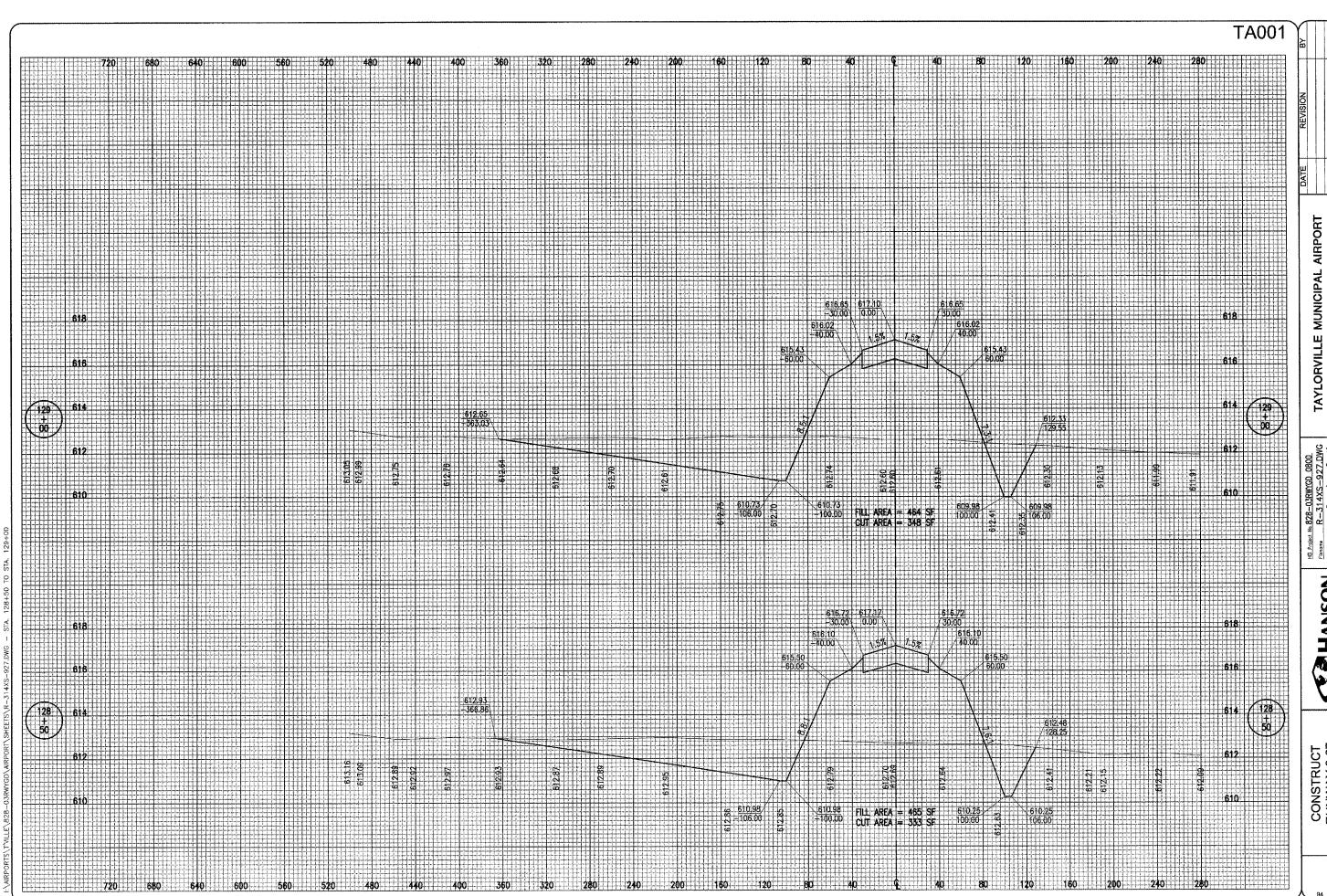


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Sode H, 1"= 40' V, 1"= 2'
Date 02/23/05

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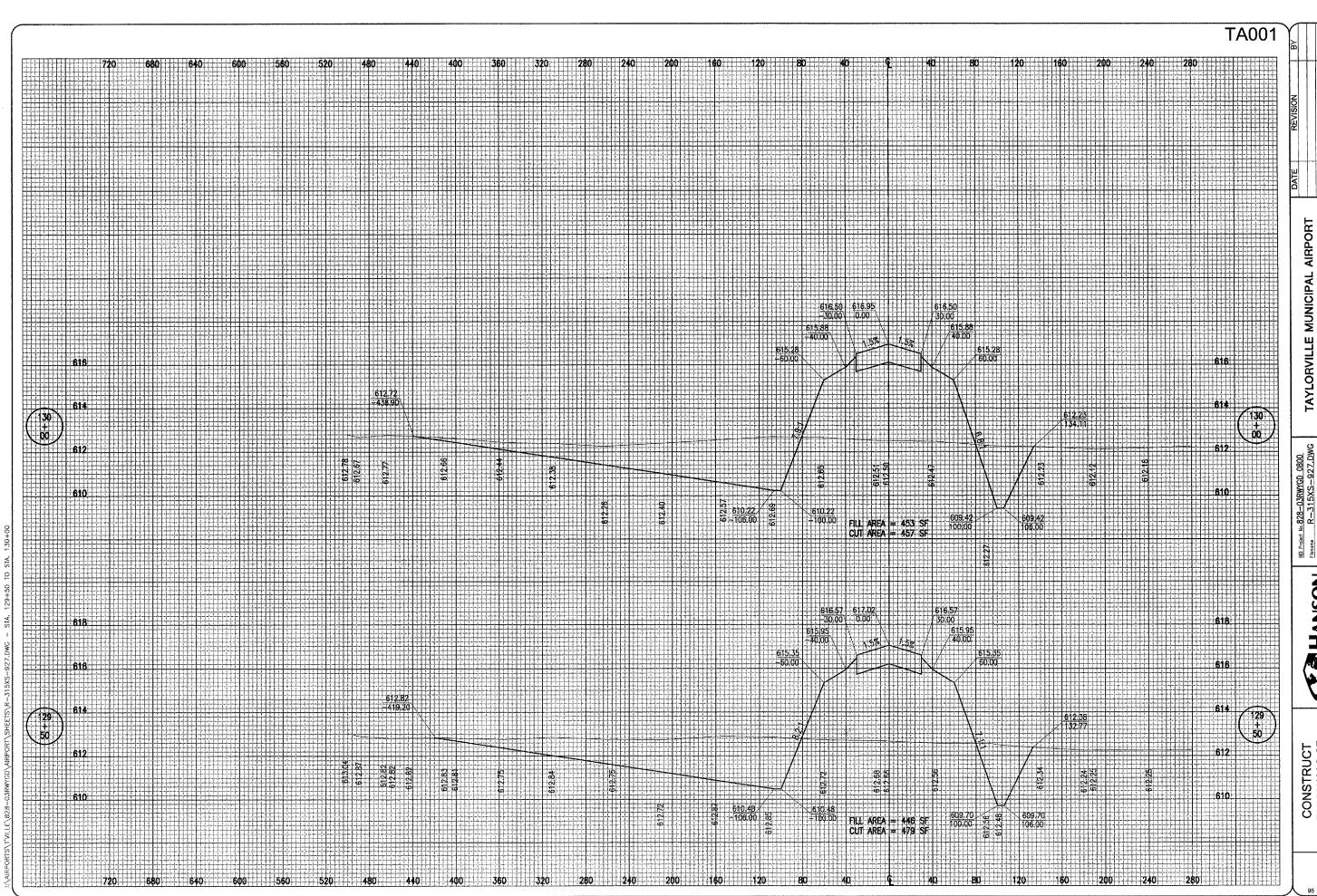
PROPOSED RUNWAY CROSS-SECTIONS FA. 127+50 TO STA. 128+00



TAYLORVILLE, ILLINOIS me R-314XS-927.DWG
H, 1\* 40' V, 1\* 2'
02/23/05

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PROPOSED RUNWAY CROSS-SECTIONS TA. 128+50 TO STA. 129+00 CONSTRUCT RUNWAY 9-27

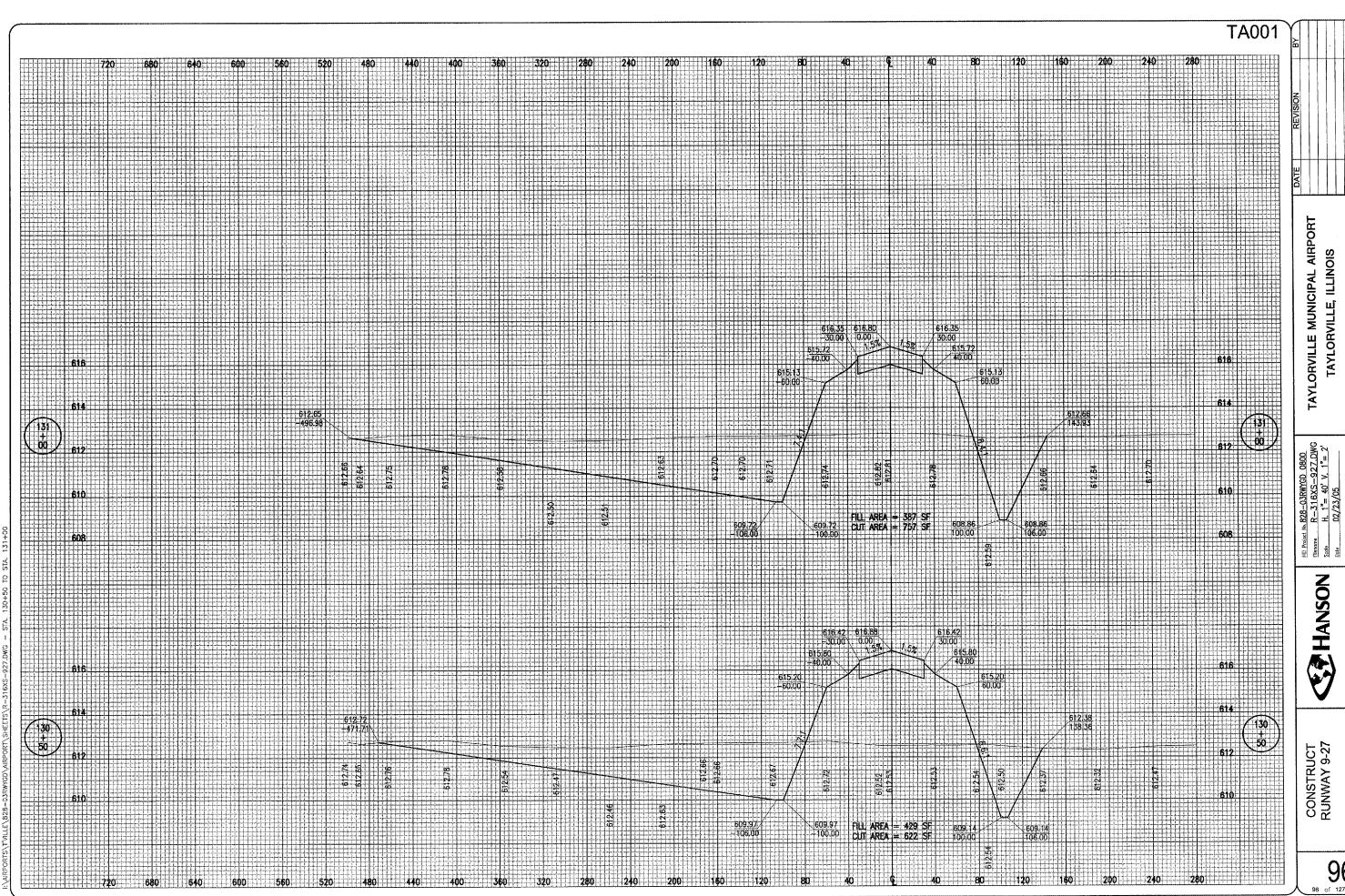


TAYLORVILLE MUNICIPAL AIRPORT TAYLORVILLE, ILLINOIS

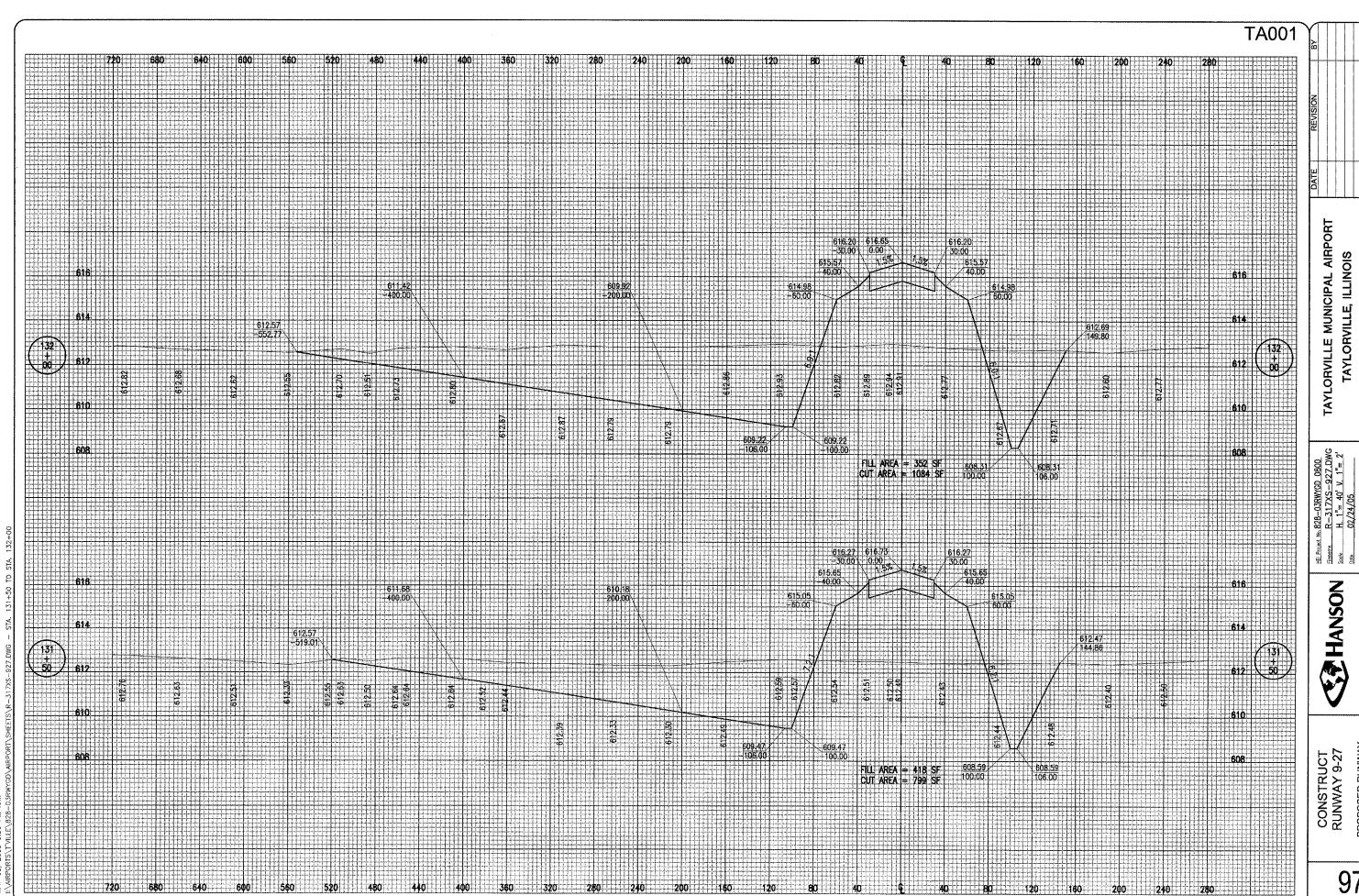
HB Froject No 828-03RWYGD 0800
Filesome R-315.XS-927.DWG
5509 H, 1\*= 40' V, 1\*= 2'
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HANSON

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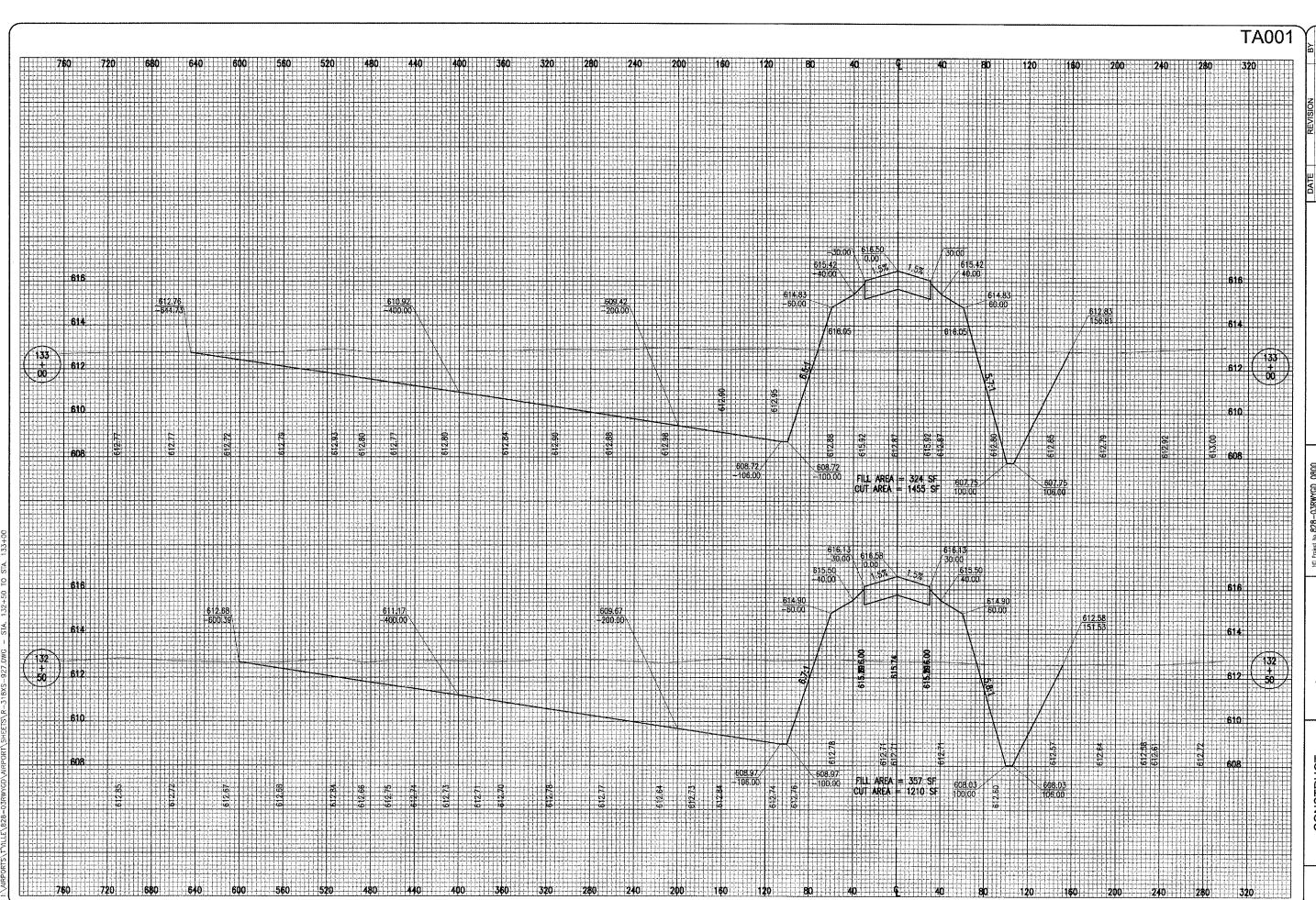
PROPOSED RUNWAY CROSS-SECTIONS FA, 130+50 TO STA, 131+00 CONSTRUCT RUNWAY 9-27



TAYLORVILLE MUNICIPAL AIRPORT TAYLORVILLE, ILLINOIS

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PROPOSED RUNWAY CROSS-SECTIONS STA, 131+50 TO STA, 132+00



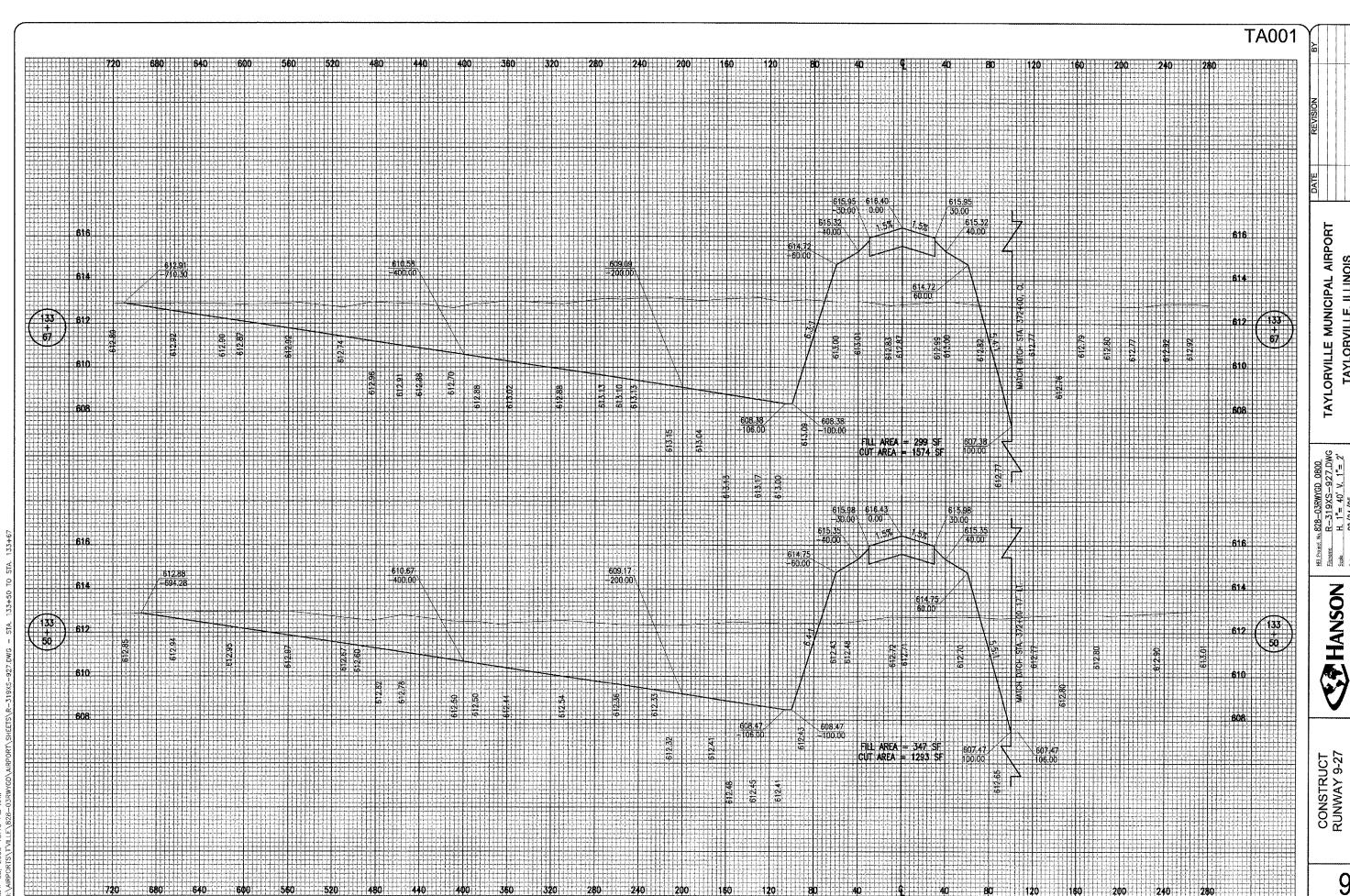
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HE Project No. 828—03RWYGD 0800
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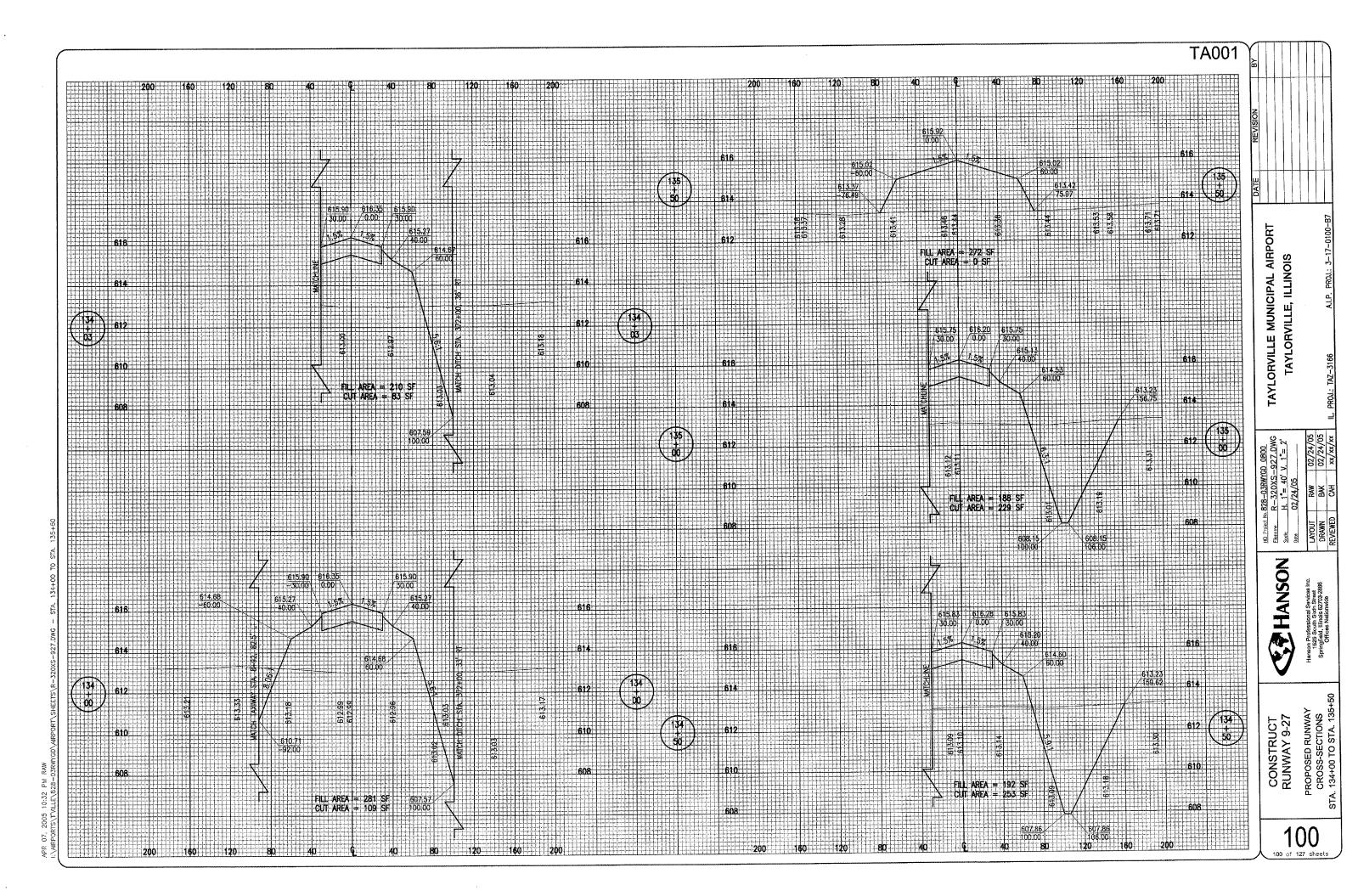
CONSTRUCT
RUNWAY 9-27
PROPOSED RUNWAY
CROSS-SECTIONS
STA. 132+50 TO STA. 133+00

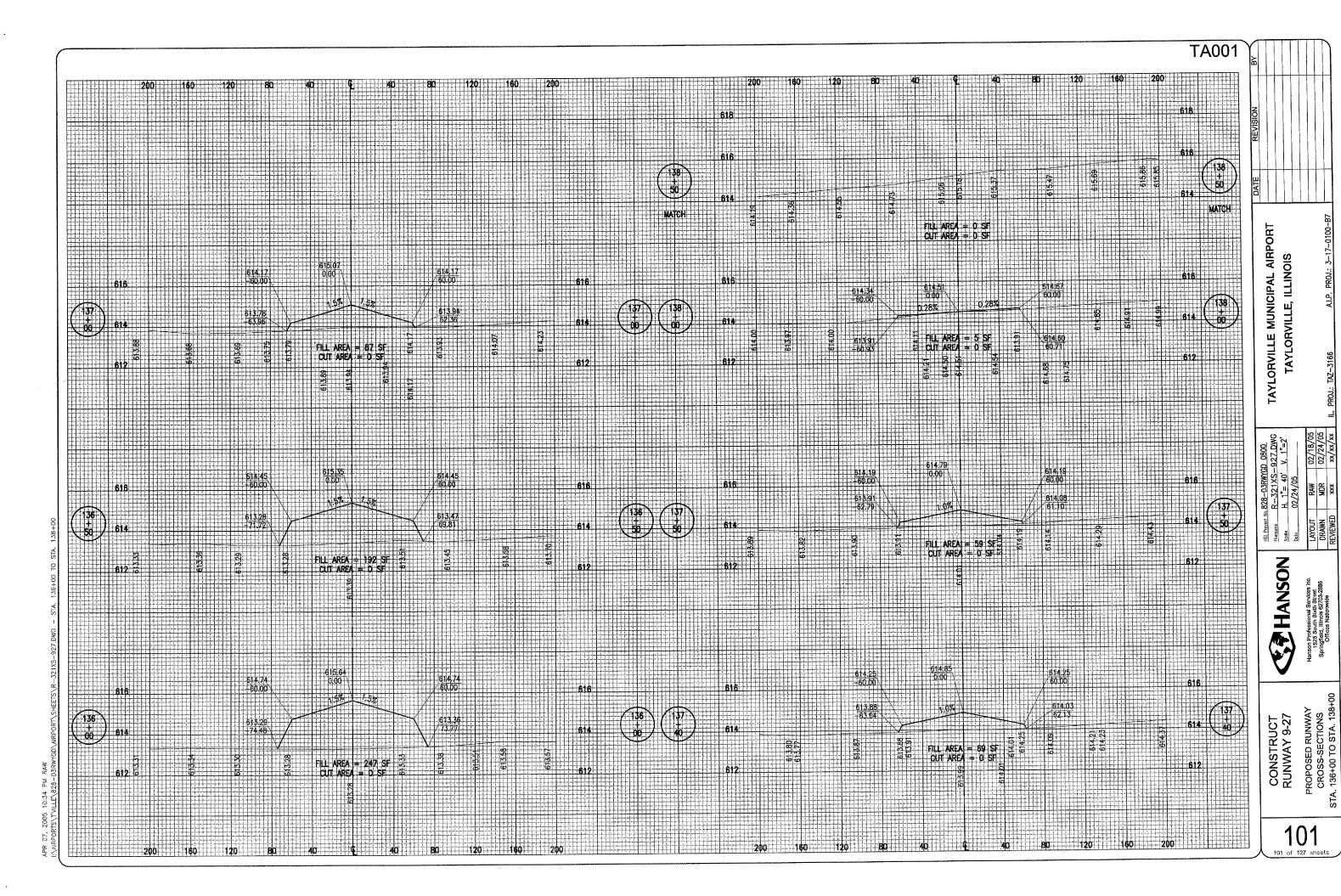
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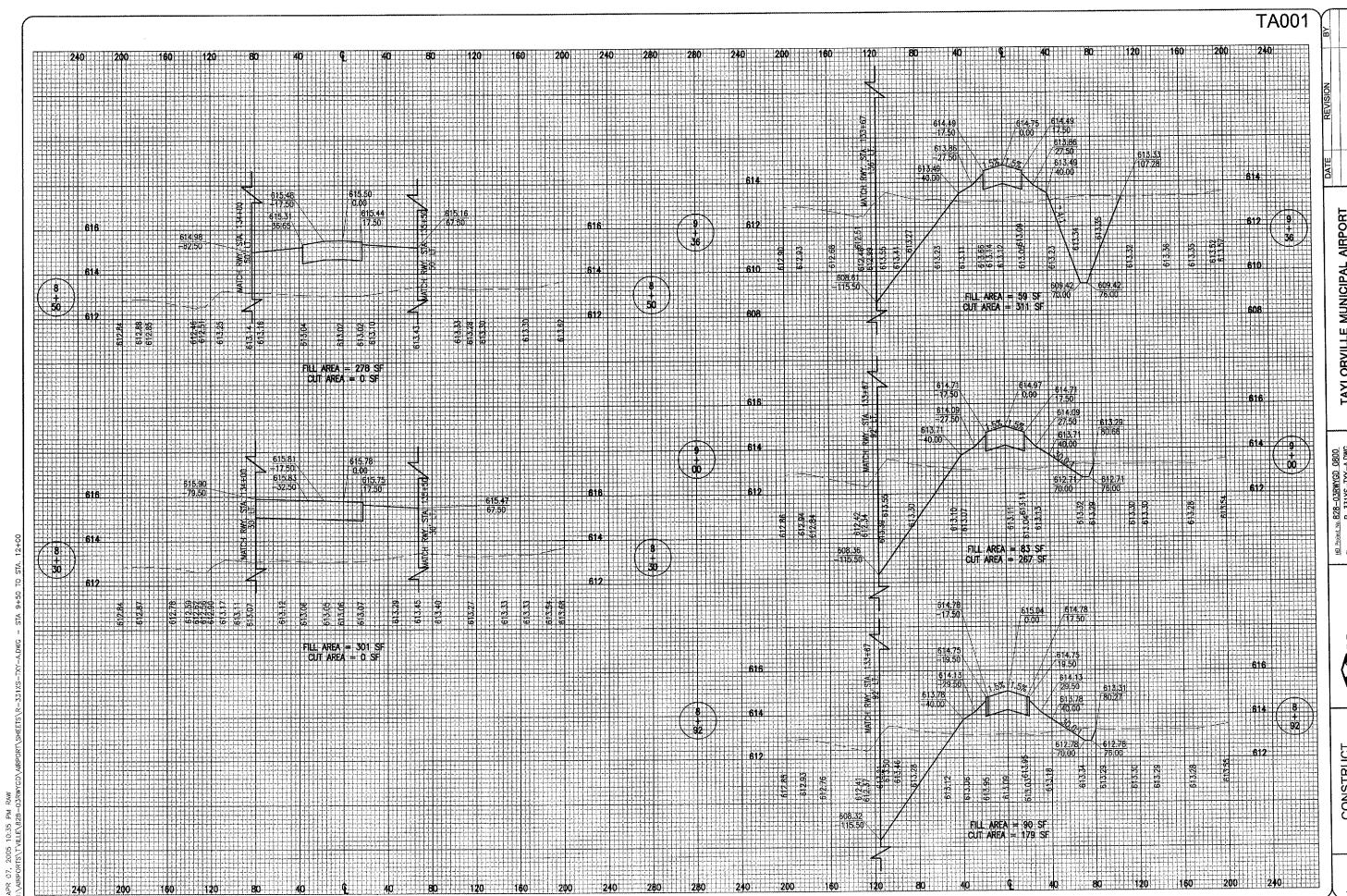


TAYLORVILLE MUNICIPAL AIRPORT TAYLORVILLE, ILLINOIS <sup>66,</sup> 828-03RWYGD 0800 R-319XS-927.DWG H. 1"= 40' V. 1"= 2' 02/24/05 HEI Proje Filename Scole Hanson Professional Services Inc. 1525 South Sixth Street Springfield, Illinois 62703-2886 Offices Nationwide

PROPOSED RUNWAY CROSS-SECTIONS STA. 133+50 TO STA. 133+67





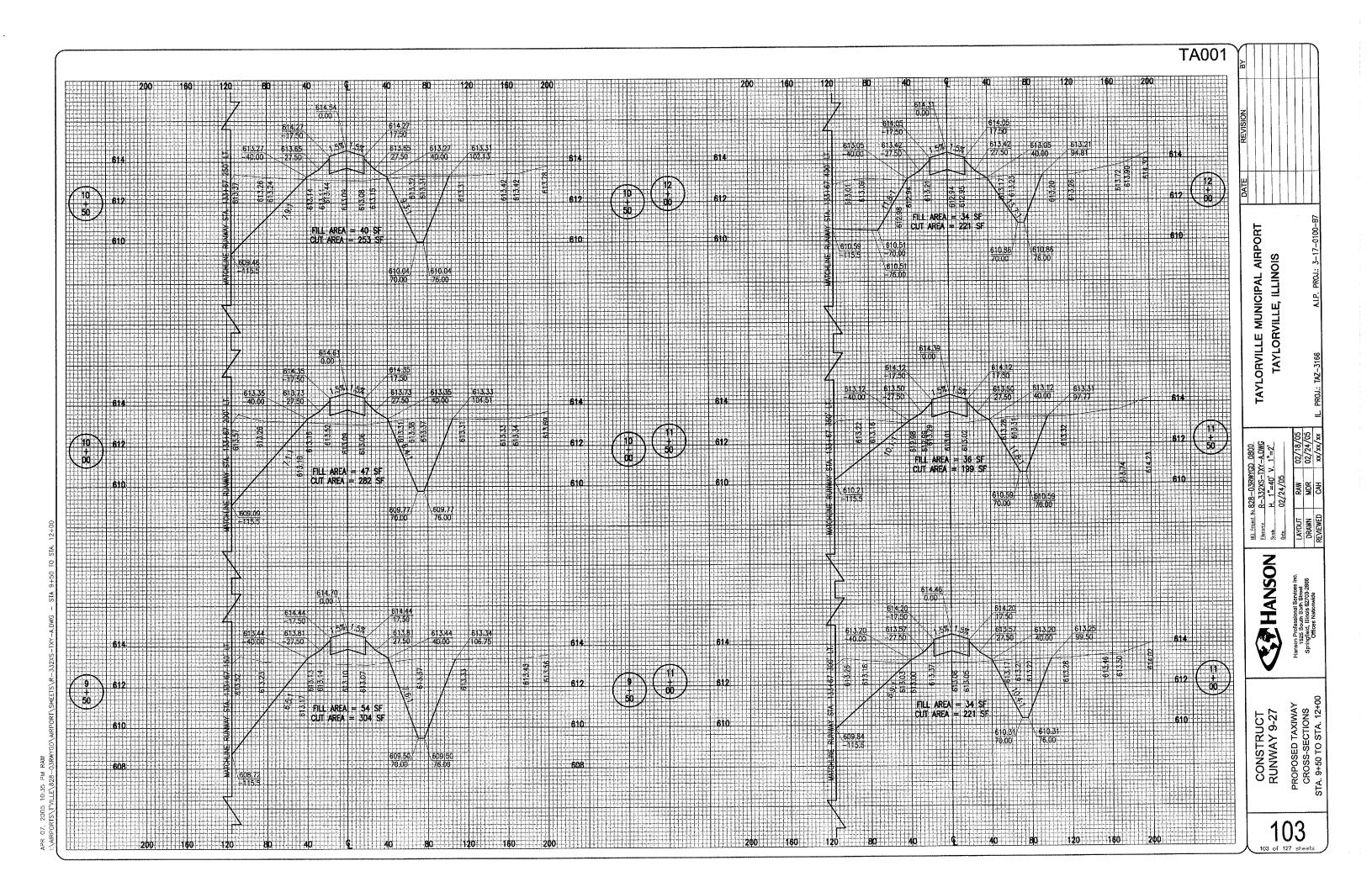


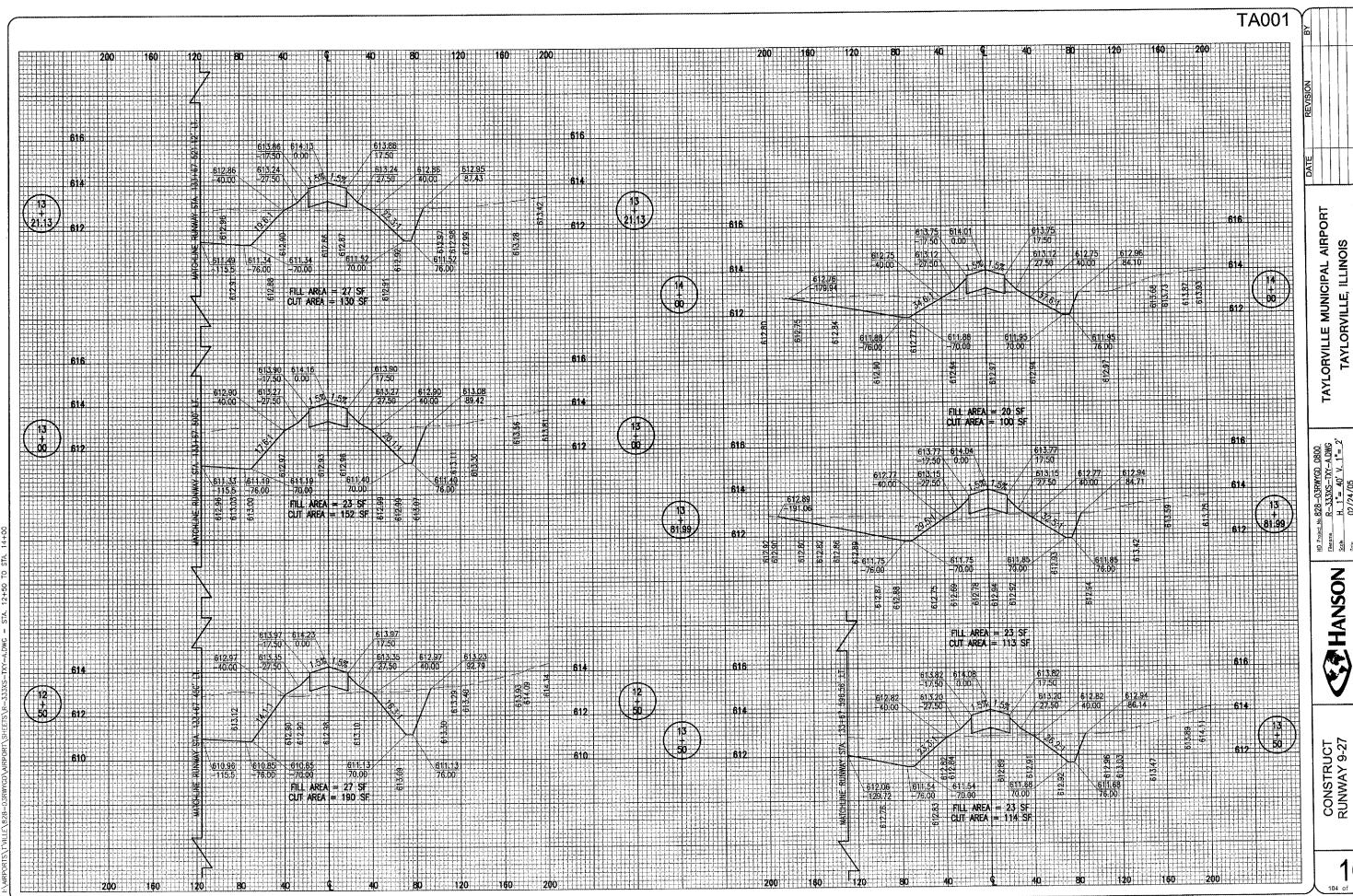
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Scale H. 1"=40' V. 1"=2'
Data 02/24/05

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CONSTRUCT RUNWAY 9-27

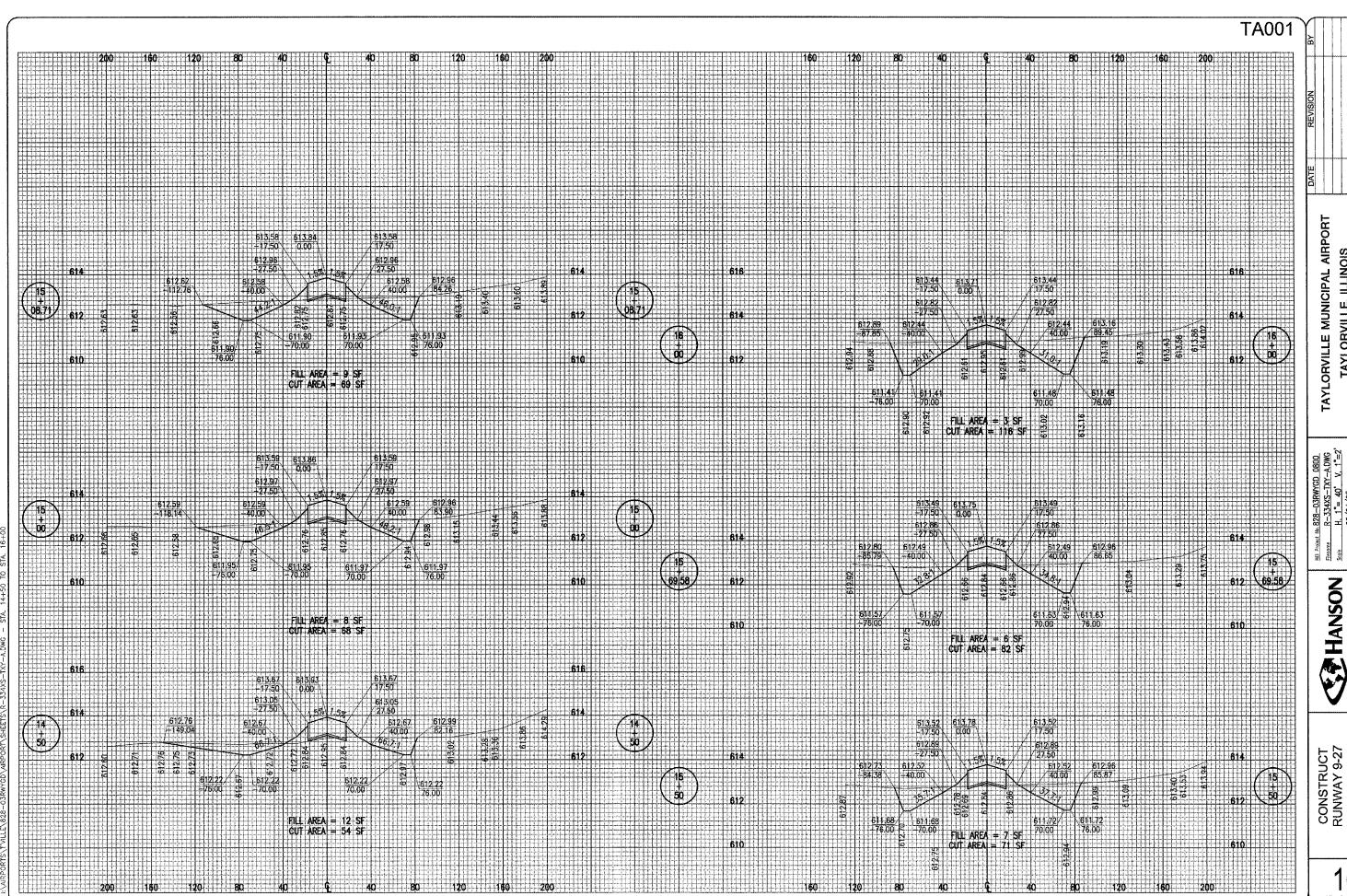
PROPOSED TAXIWAY CROSS-SECTIONS STA, 8+30 TO STA, 9+36



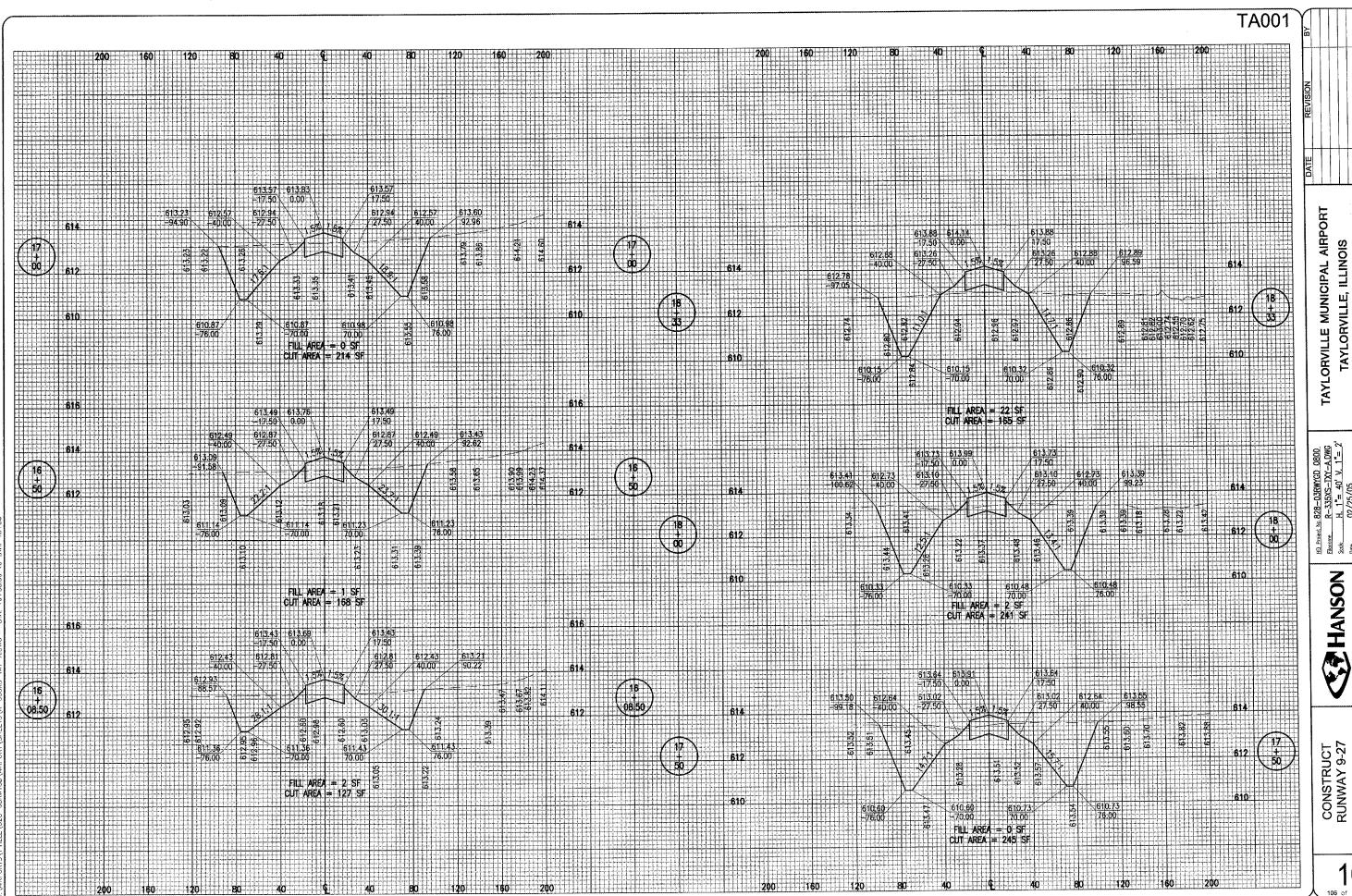


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CONSTRUCT RUNWAY 9-27

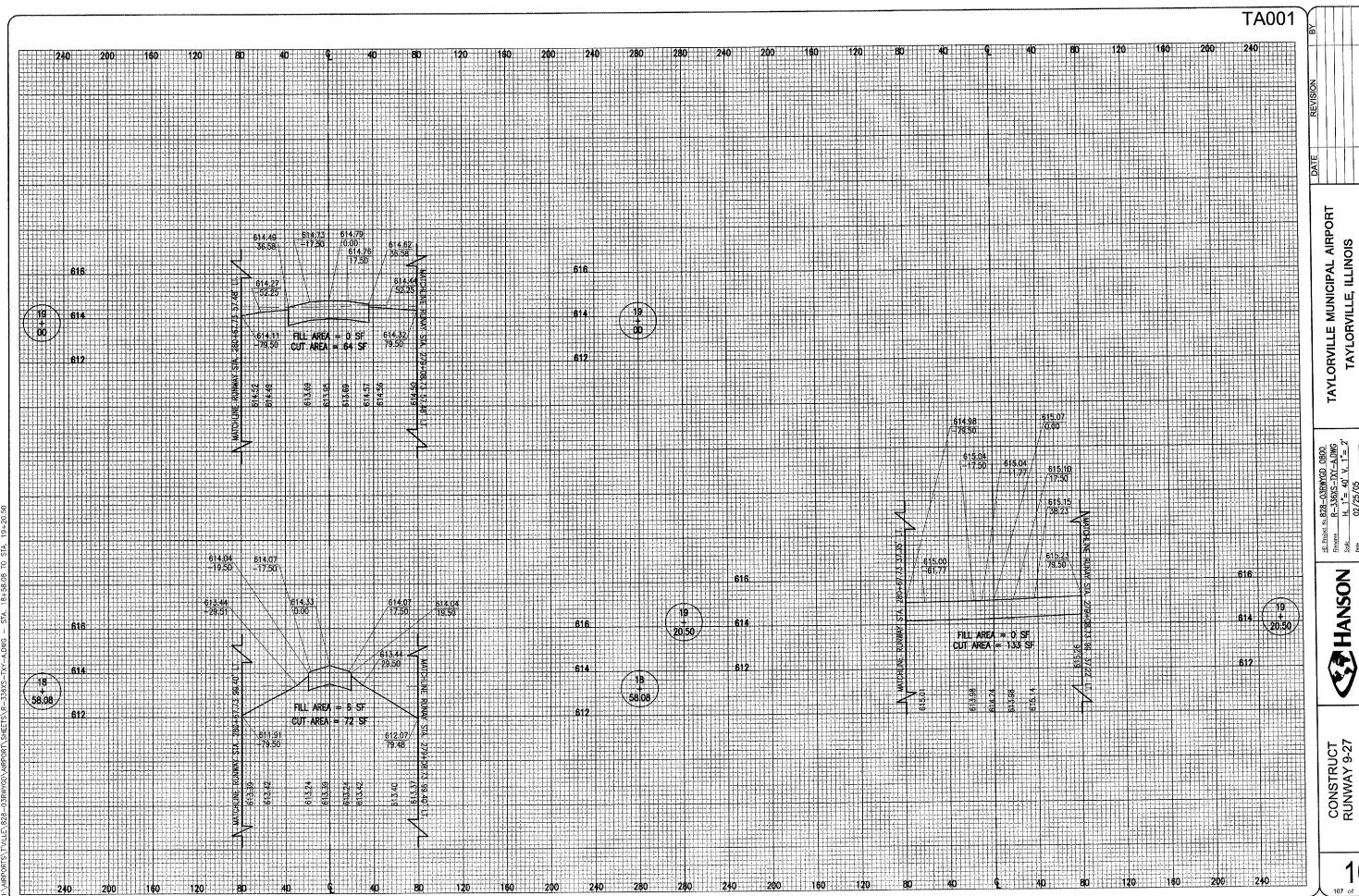


PROPOSED TAXIWAY CROSS-SECTIONS 3TA. 14+50 TO STA. 16+00 CONSTRUCT RUNWAY 9-27

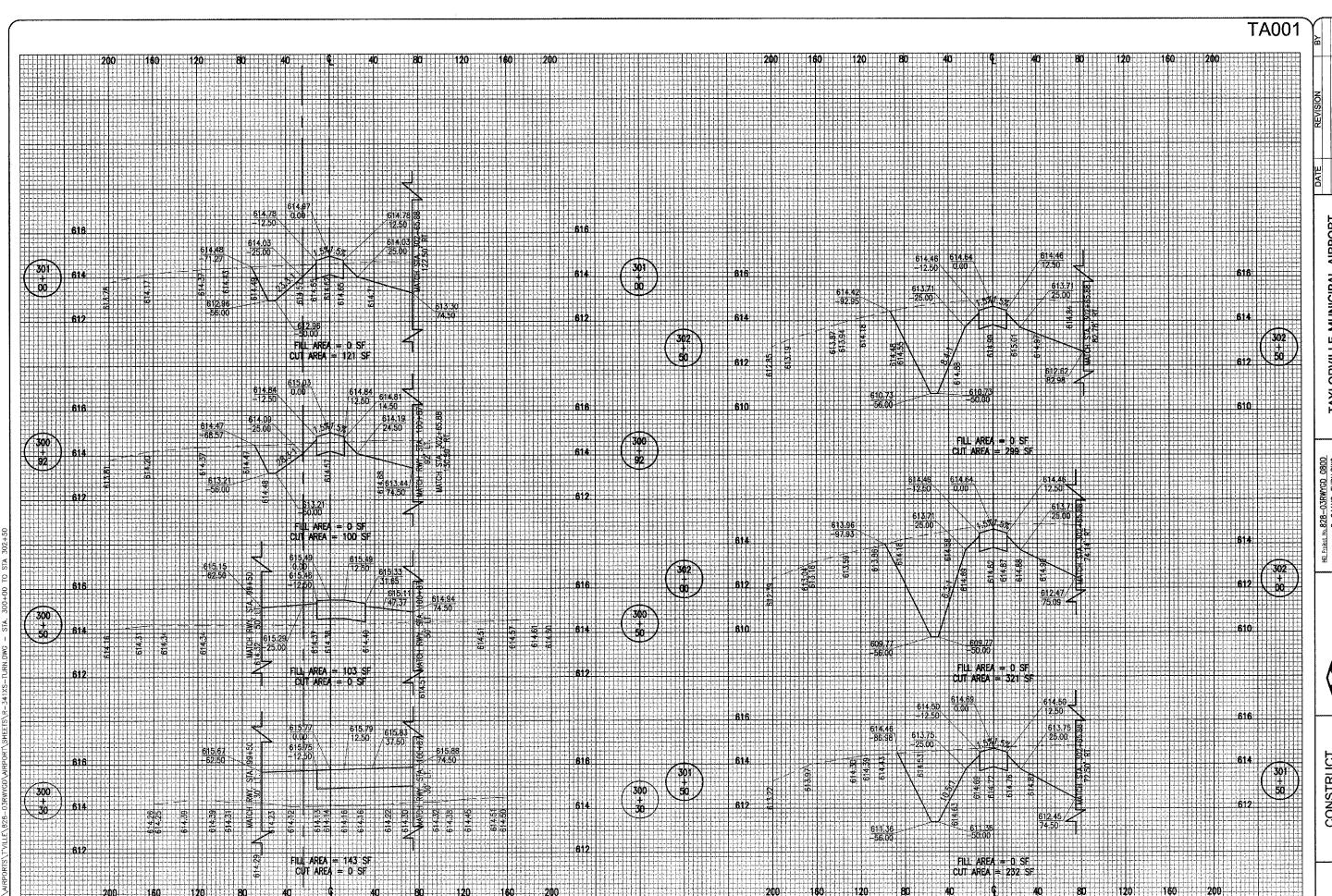


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CONSTRUCT RUNWAY 9-27



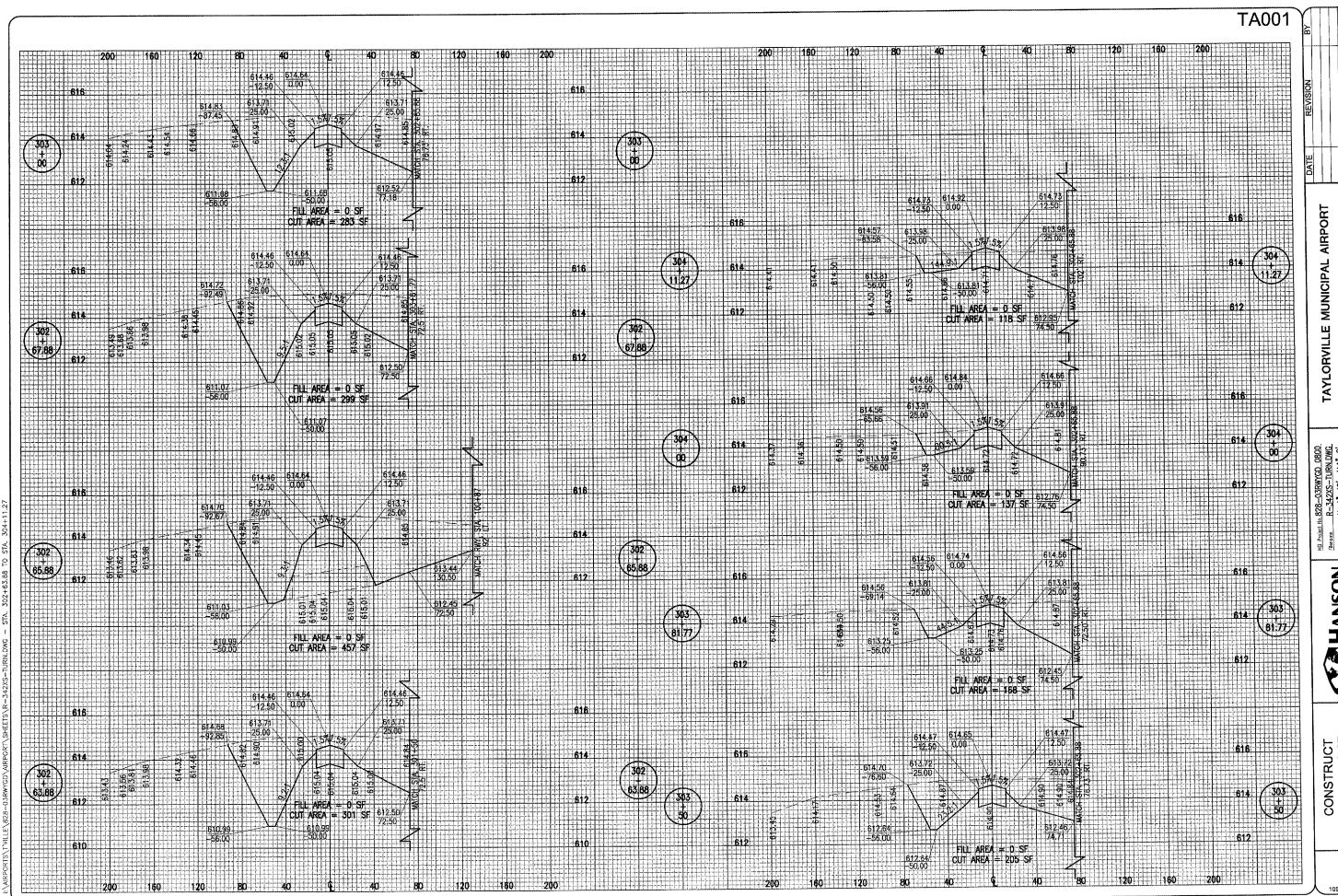
HANSON CONSTRUCT RUNWAY 9-27



TAYLORVILLE MUNICIPAL AIRPORT TAYLORVILLE, ILLINOIS HANSON PROPOSED TURN AROUND CROSS-SECTIONS STA, 300+00 TO STA. 302+50 CONSTRUCT RUNWAY 9-27

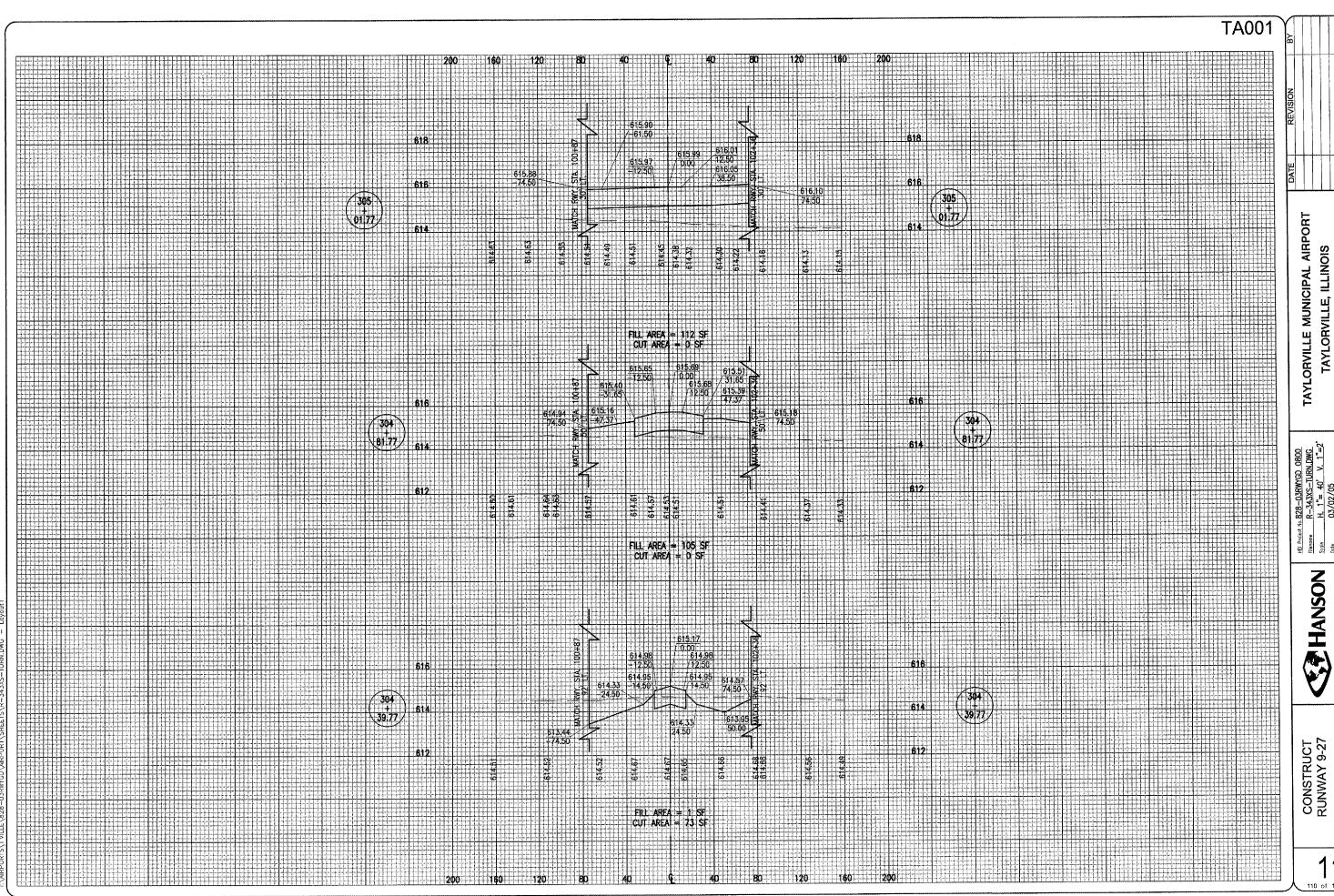
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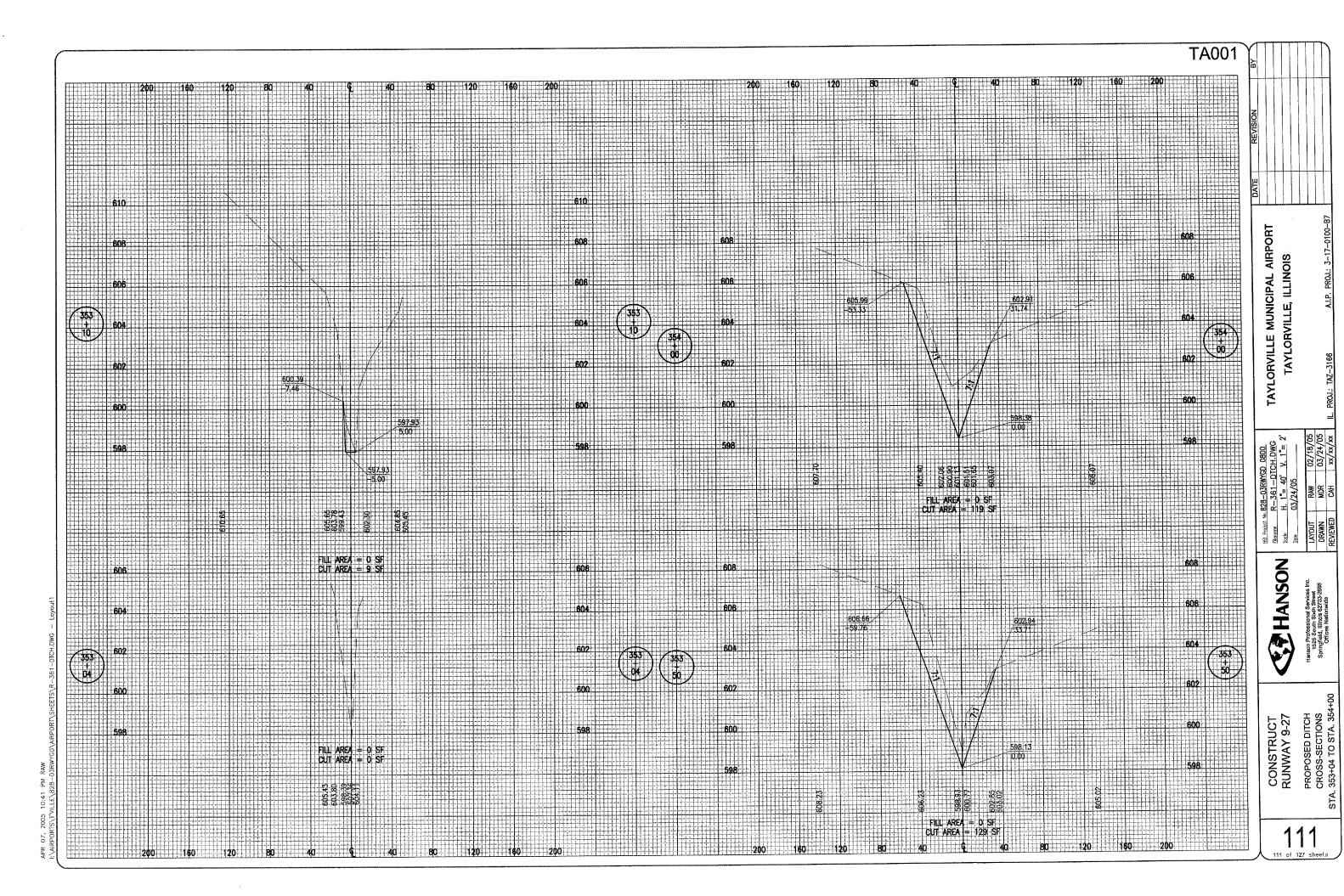


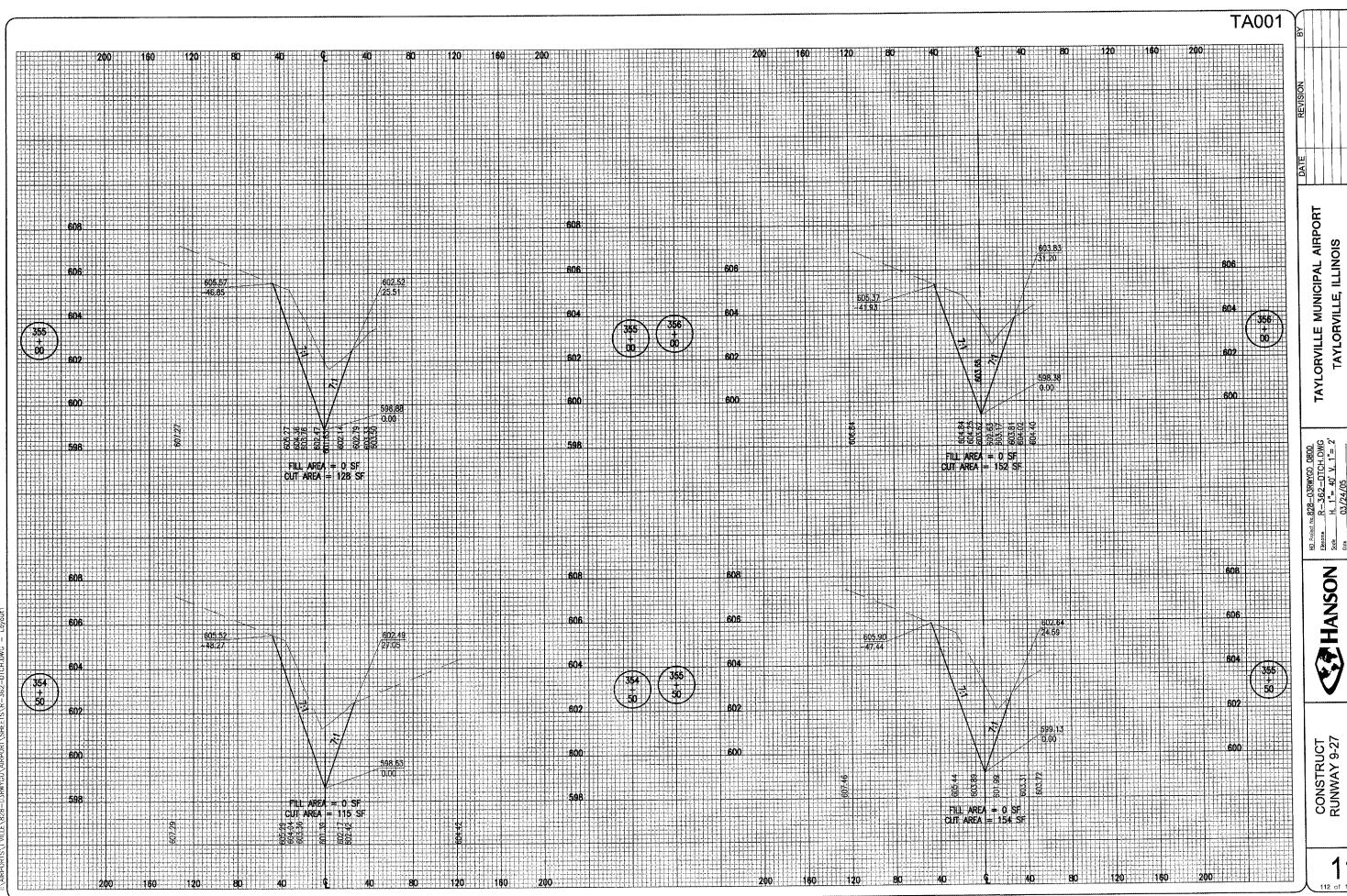
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CONSTRUCT RUNWAY 9-27

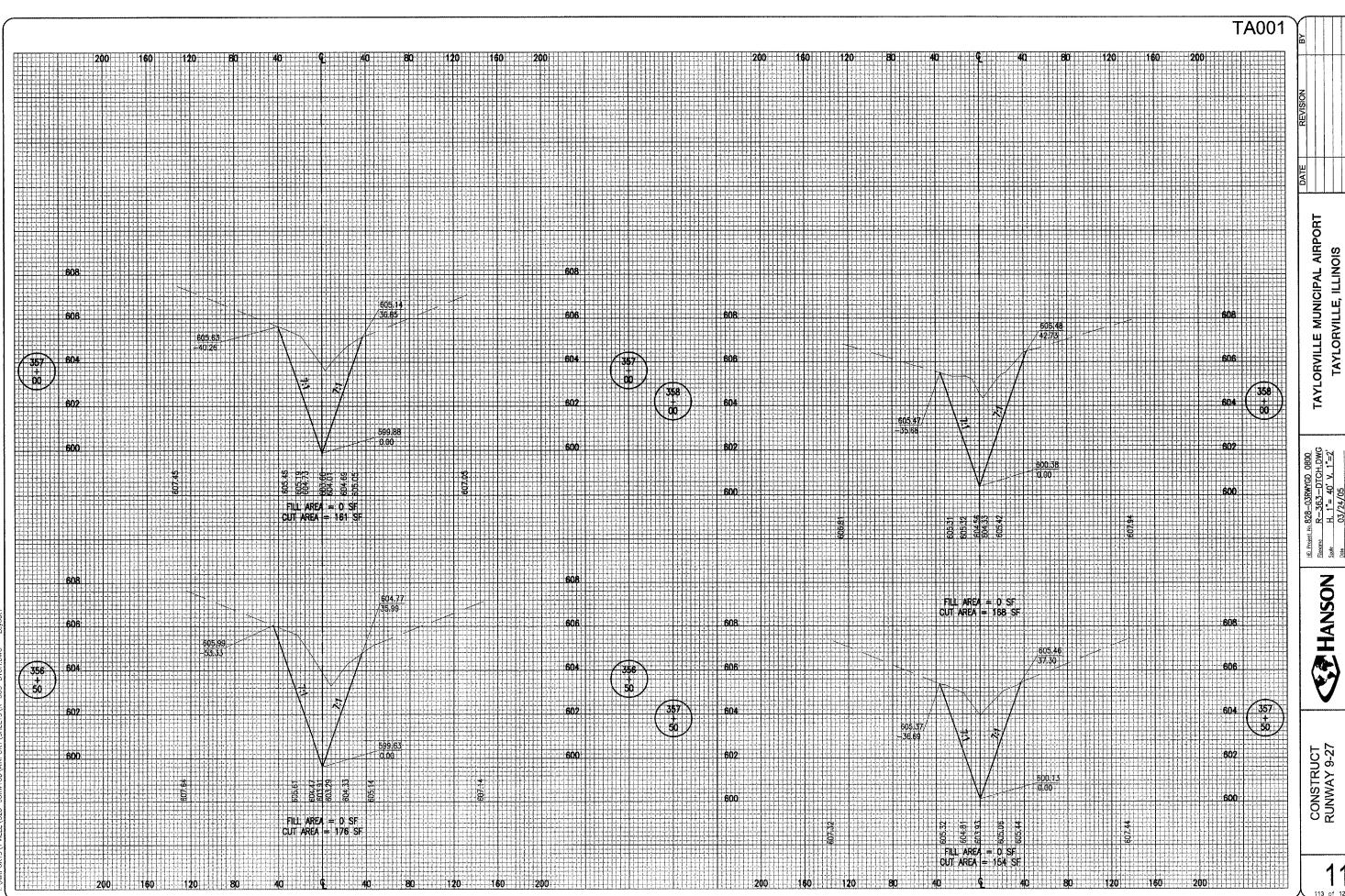


PROPOSED TURNAROUND CROSS-SECTIONS A. 304+39.77 TO STA. 305+01.77





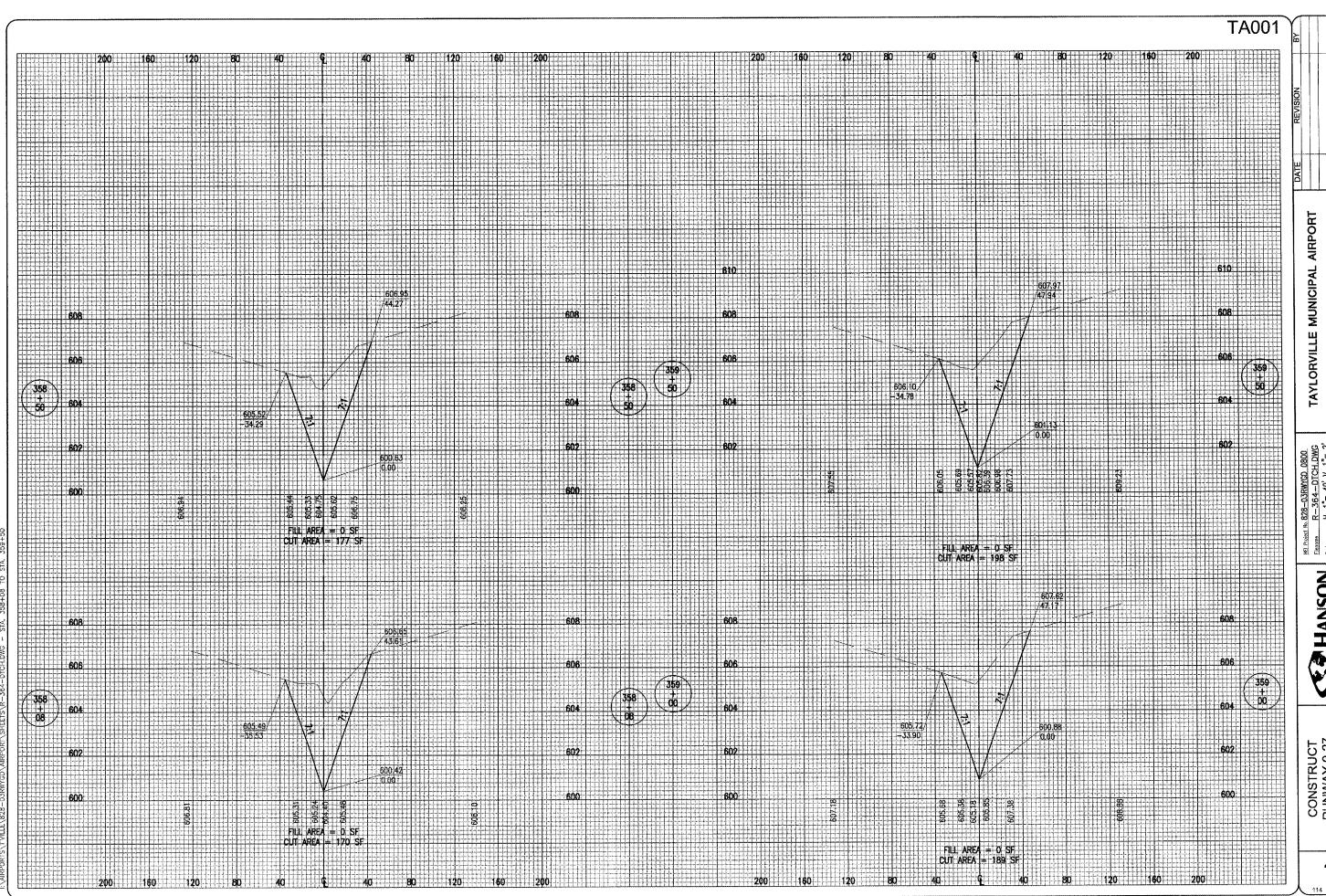
PROPOSED DITCH CROSS-SECTIONS . 354+50 TO STA. 356+00



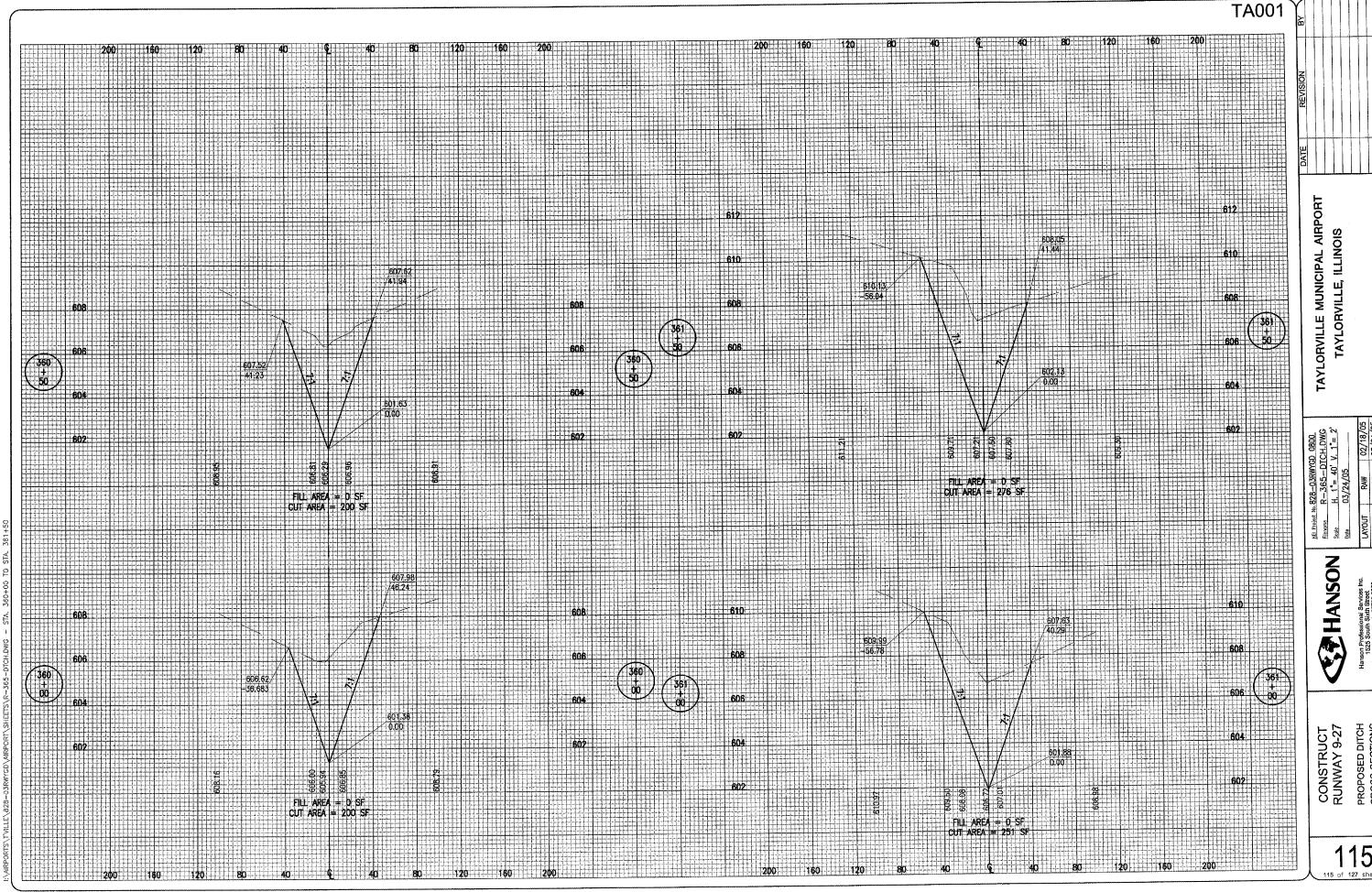
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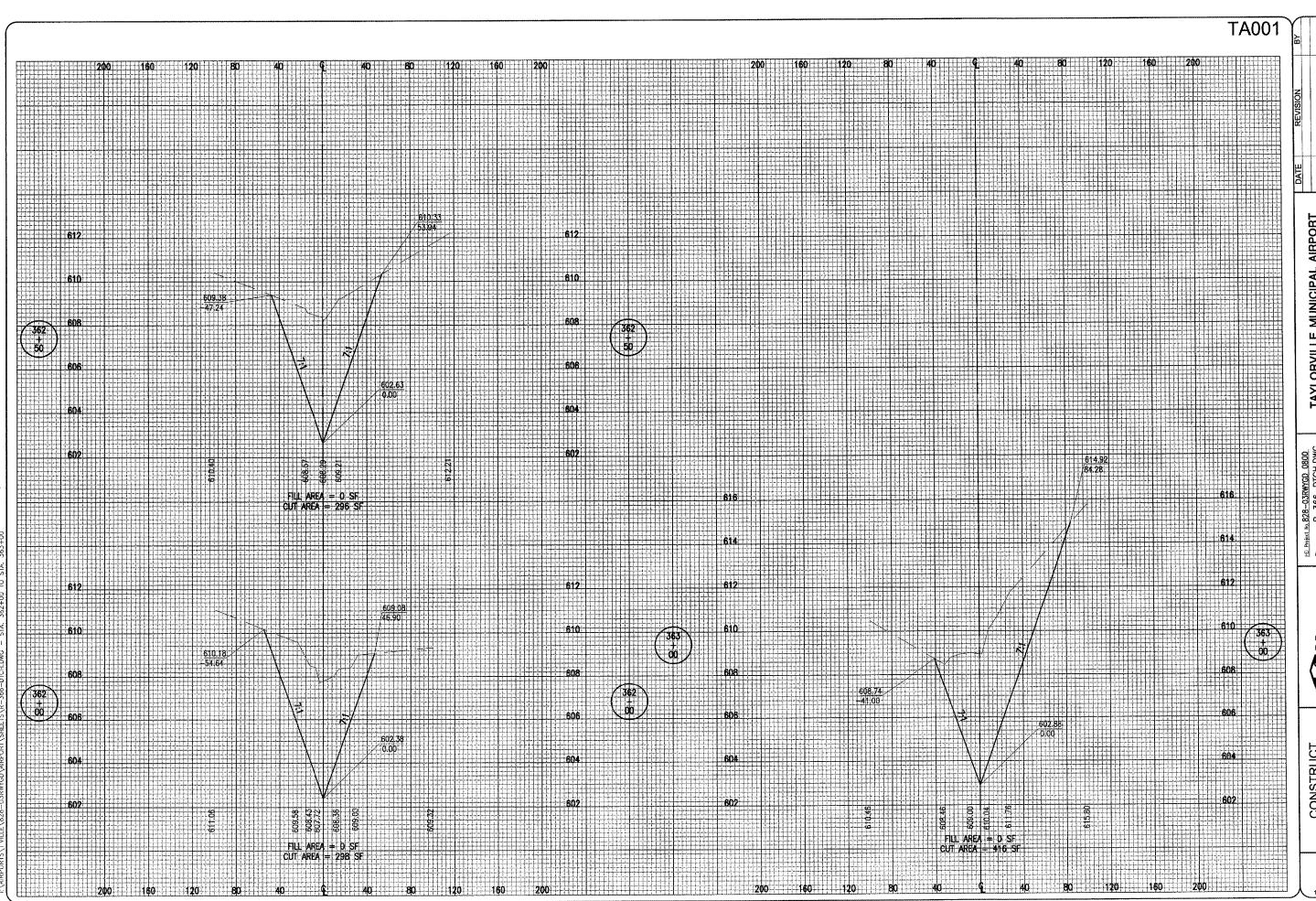
Renorm R—363—DTCH, DWG
Stole H, 1"= 40" V, 1"=2"

Date 03/24/05 MDR RA HANSON PROPOSED DITCH CROSS-SECTIONS 1. 356+50 TO STA. 358+00 CONSTRUCT RUNWAY 9-27



TAYLORVILLE, ILLINOIS HB Project In 828—03RWCQD 0800
Fleature R—364—DTCH.DWG
Soule H. 1"= 40' V. 1"= 2'
Inte 03/24/05 **HANSON** CONSTRUCT RUNWAY 9-27

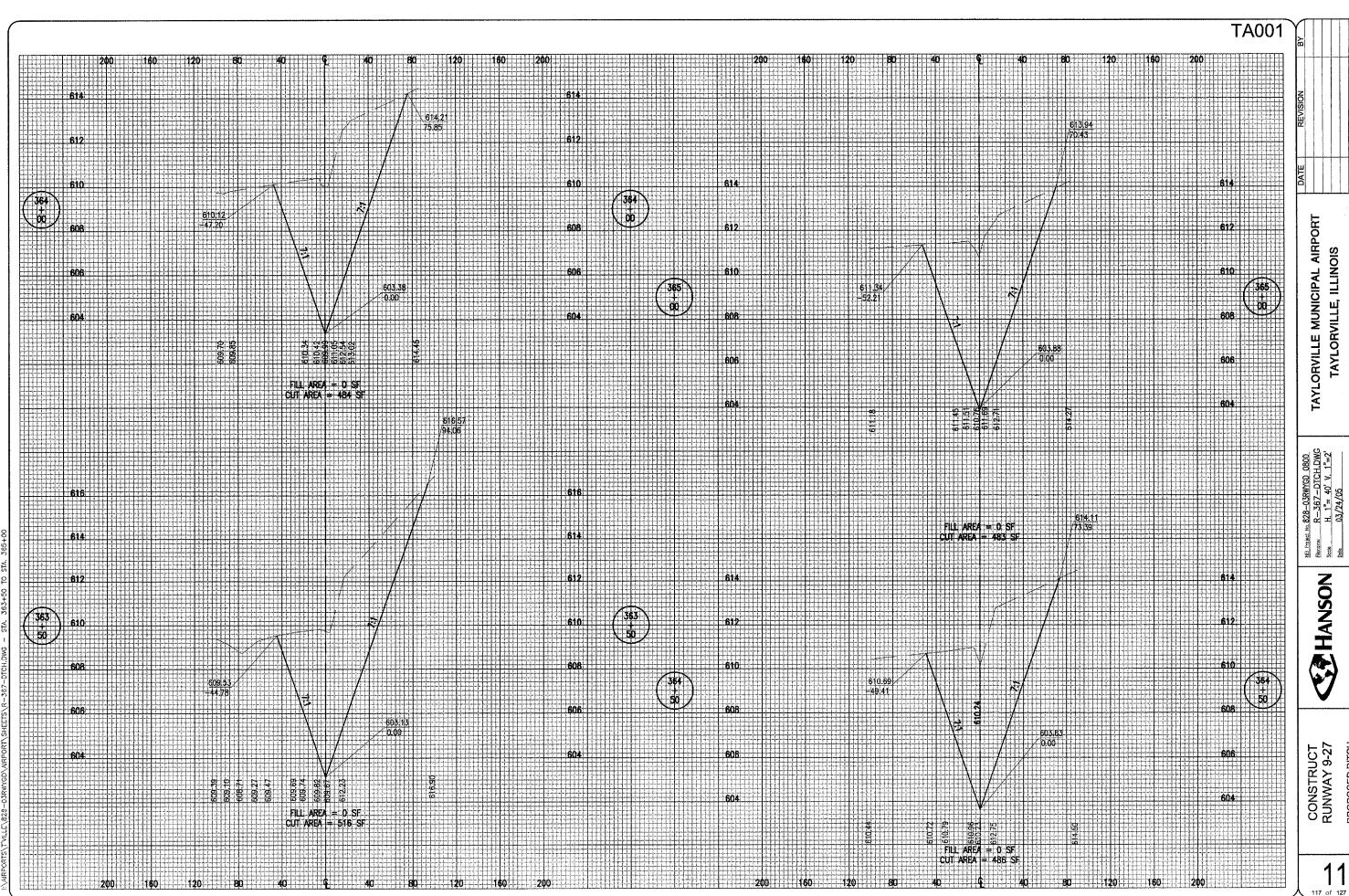




TAYLORVILLE MUNICIPAL AIRPORT TAYLORVILLE, ILLINOIS

HANSON

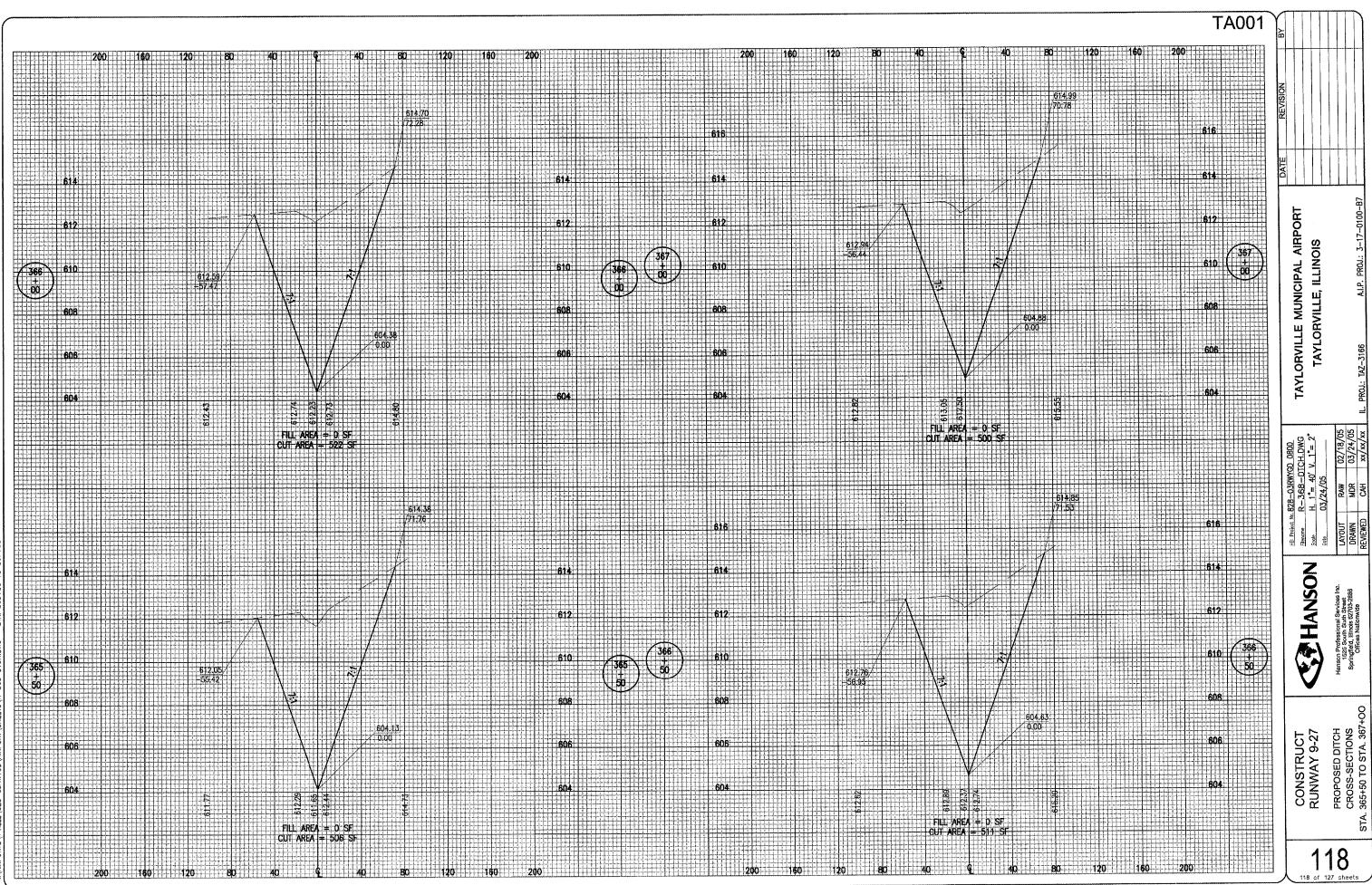
CONSTRUCT RUNWAY 9-27

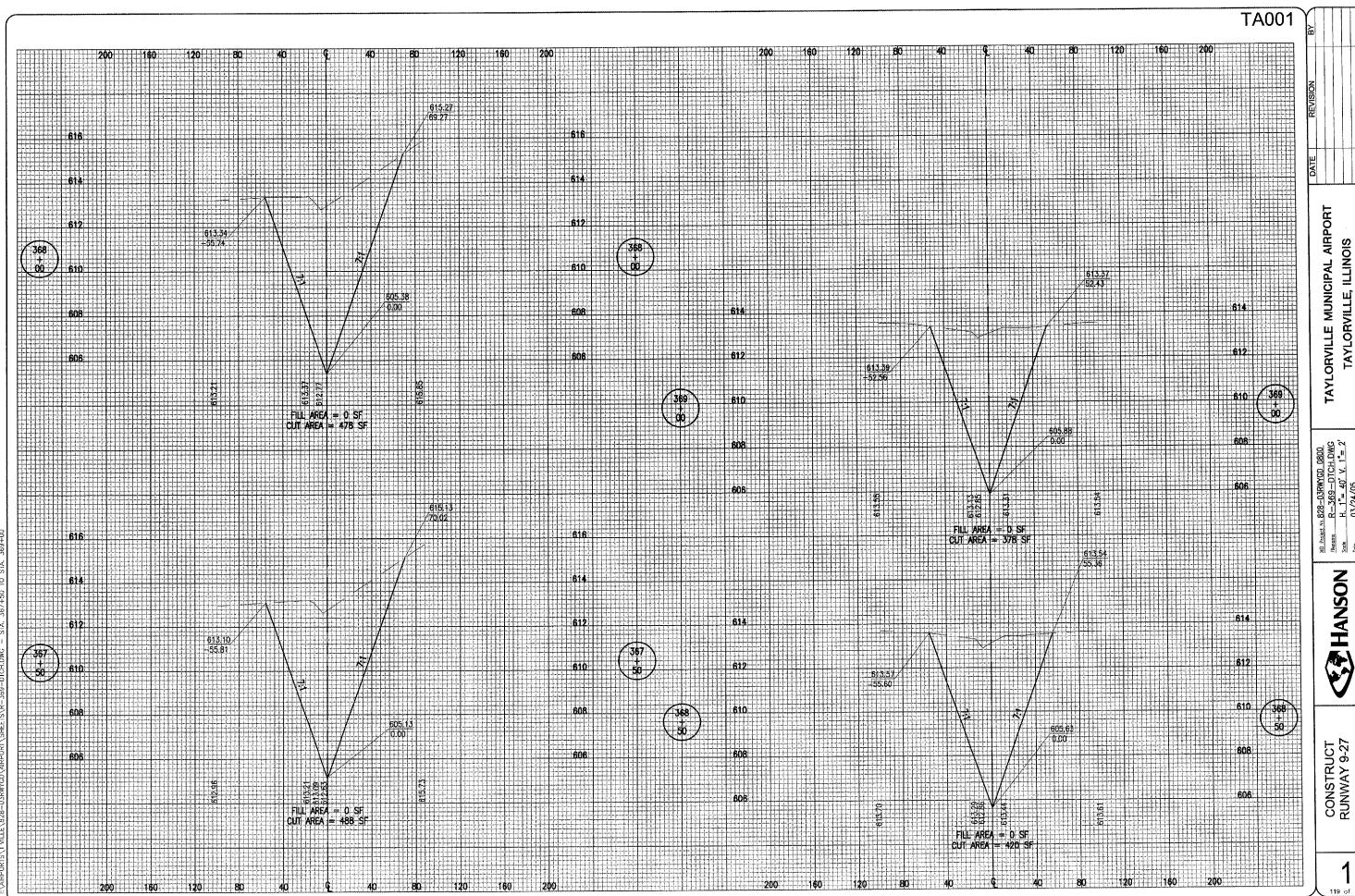


CONSTRUCT RUNWAY 9-27 PROPOSED DITCH CROSS-SECTIONS 3, 363+50 TO STA, 365+00

TAYLORVILLE, ILLINOIS

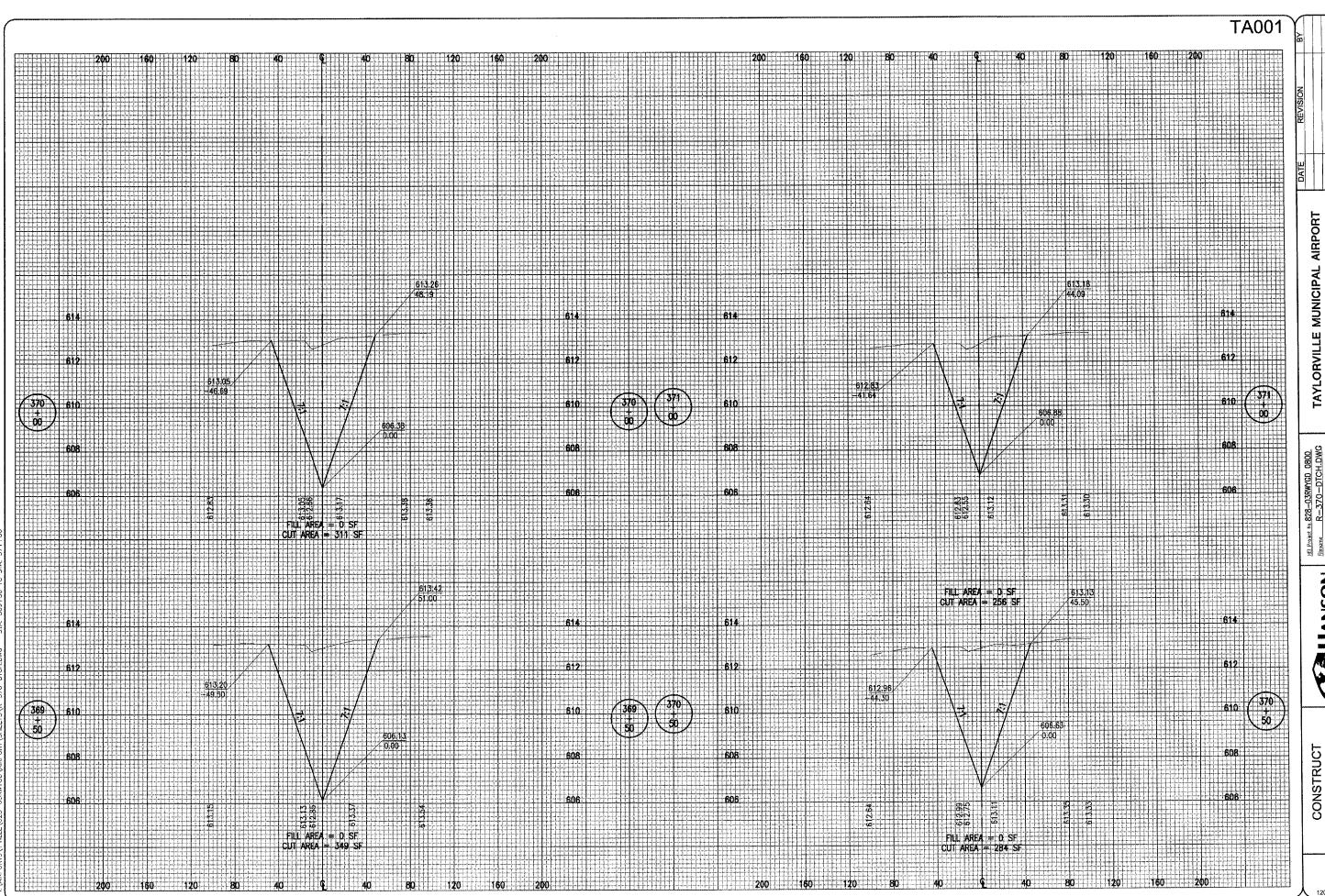
117 of 127 sheet





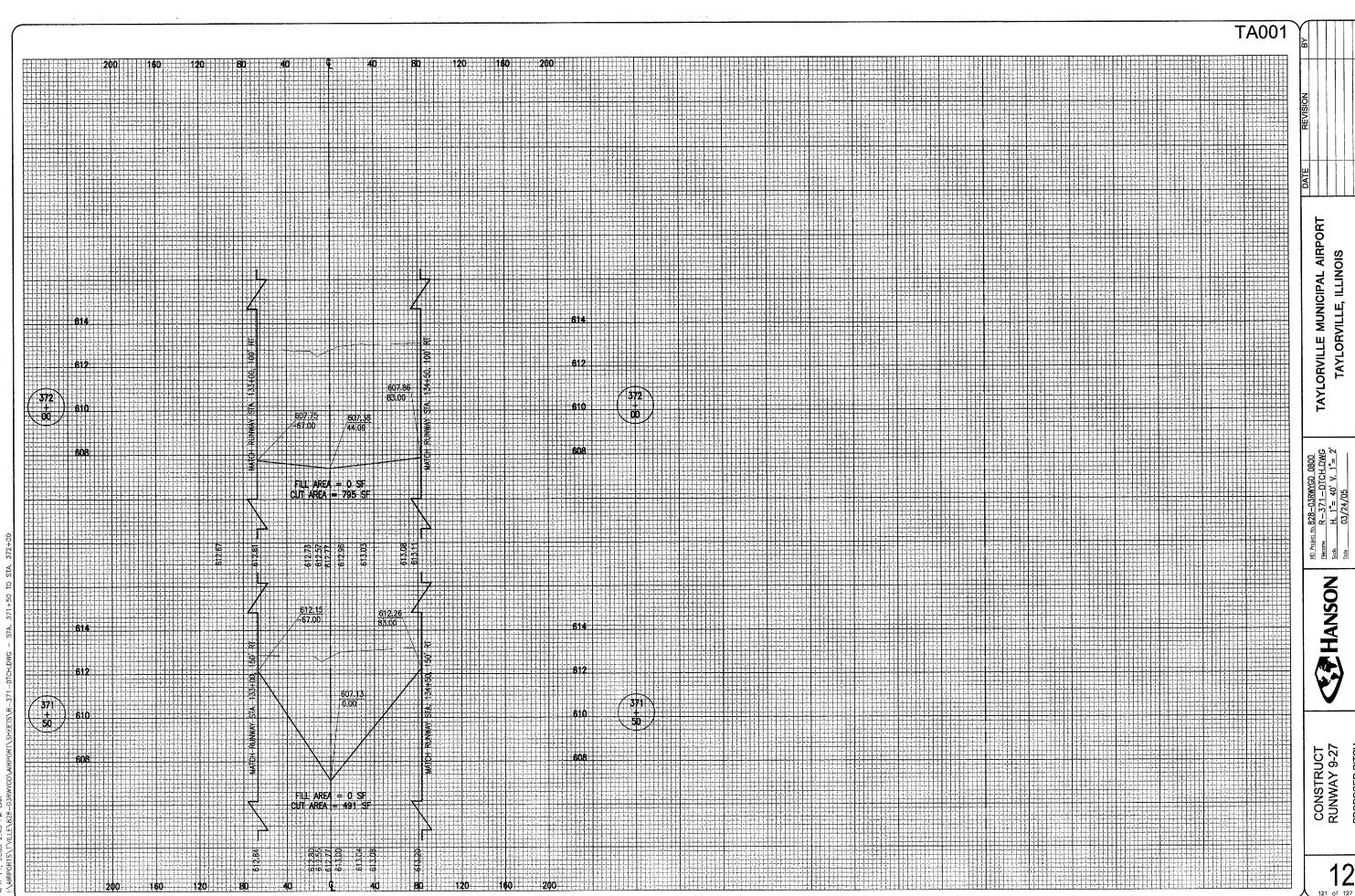
TAYLORVILLE, ILLINOIS HANSON

PROPOSED DITCH CROSS-SECTIONS . 367+50 TO STA. 369+00



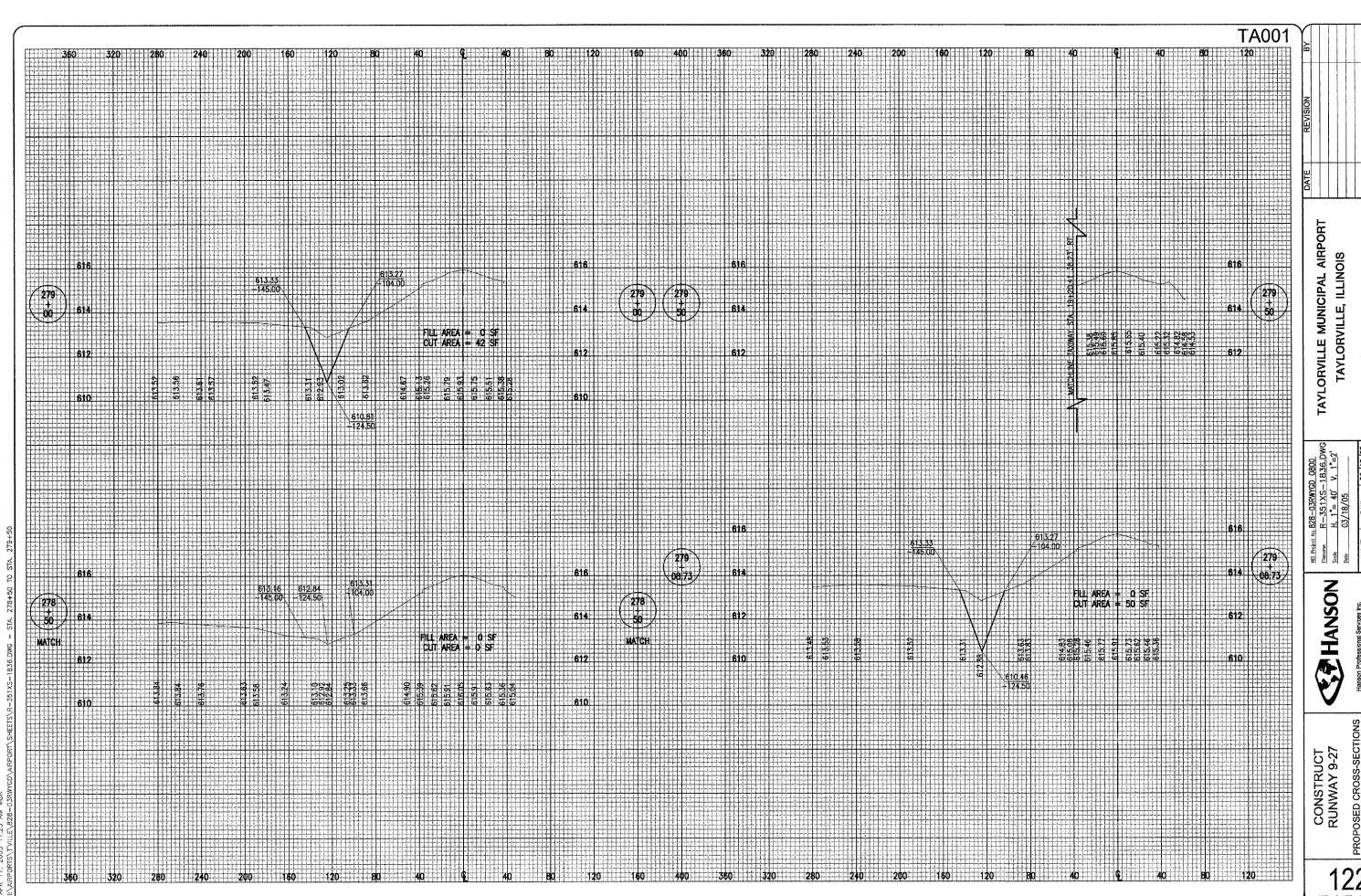
HE Project No. 828—03RWYGD 0800 Flexone R—370—DTCH.DWG Spale H. 1\*= 40' V. 1\*= 2' Date 03/24/05 HANSON PROPOSED DITCH CROSS-SECTIONS . 369+50 TO STA. 371+00 CONSTRUCT RUNWAY 9-27

TAYLORVILLE, ILLINOIS



TAYLORVILLE, ILLINOIS

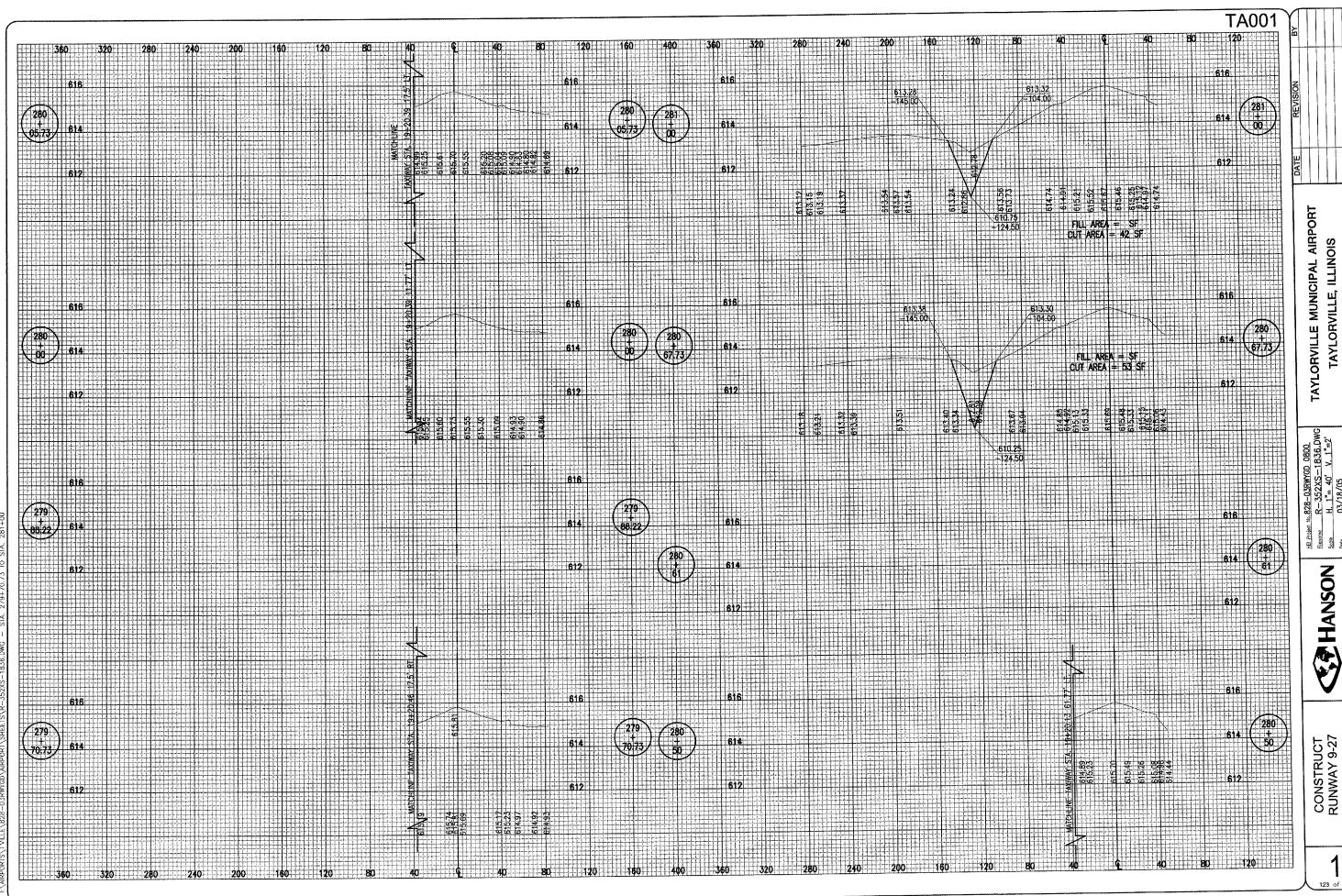
PROPOSED DITCH CROSS-SECTIONS .. 371+50 TO STA. 372-



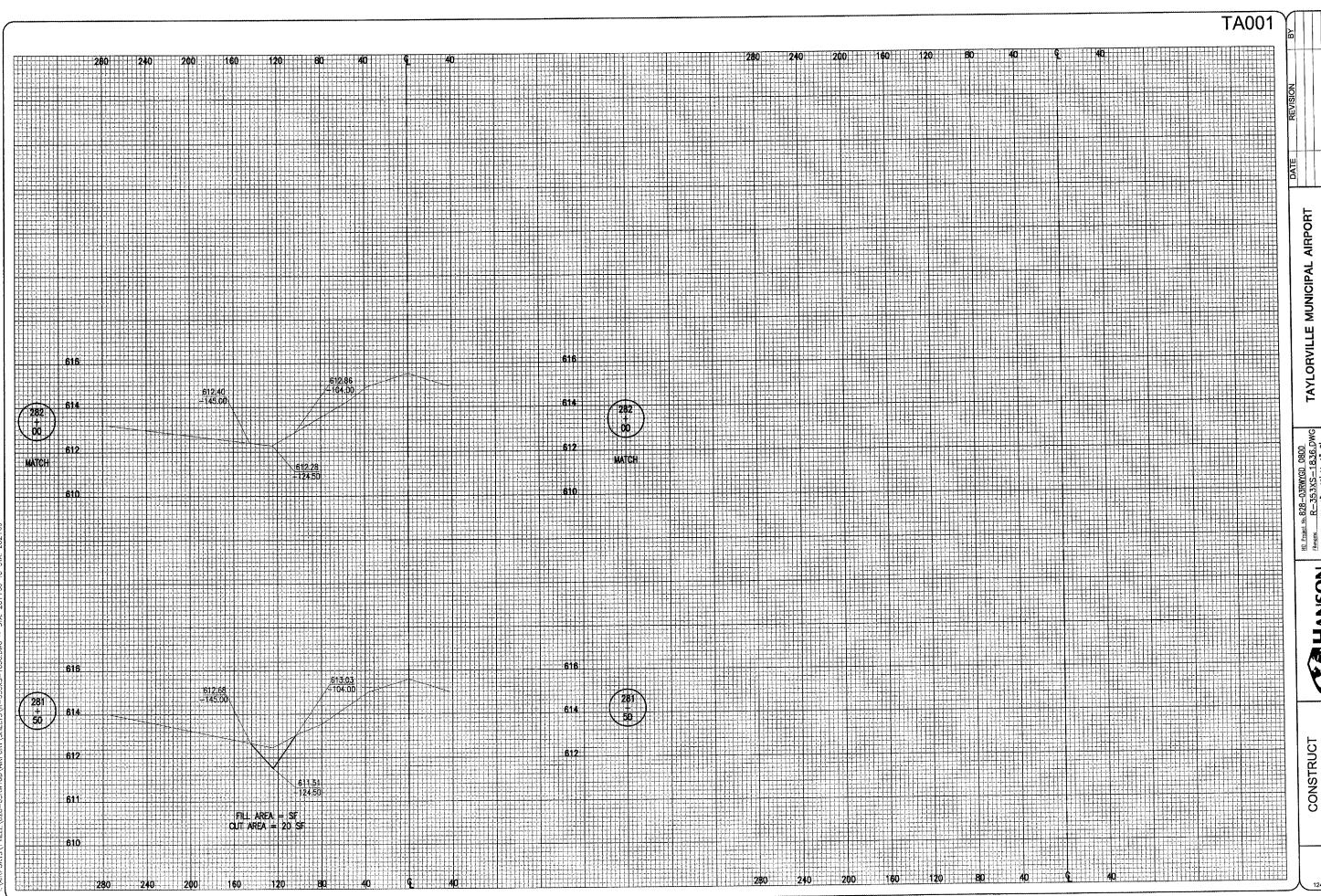
CONSTRUCT RUNWAY 9-27

PROPOSED CROSS-SECTIONS RUNWAY 18-36 DITCH LINE STA. 278+50 TO STA. 279+50 122 122 of 127 sheets

RAW MDR CAH



CONSTRUCT RUNWAY 9-27



CONSTRUCT

RUNWAY 9-27

RUNWAY 9-27

PARSON

ROSED CROSS-SECTIONS

Harson Professional Services Inc.
1525 South Steps Strate Springfield, Illinois 82703-2386

DRAWN

RAW 18-36 DITCH LINE

Springfield, Illinois 82703-2386

DRAWN

RAW 02/17/05

TAYLORVILLE, ILLINOIS

124 124 of 127 sheets

# TA001

### EARTHWORK VOLUMES FOR RUNWAY 9-27 - BITUMINOUS

STATION	CUT AREA	FILL AREA	CUT VOL.	FILL VOL.
	S.F.	S.F.	C.Y.	C.Y.
97+00	0	0		
97+50	0	96	0	89
97+60	0	104	0	37
98+00	0	139	0	180
98+50	0	131	0	250
99+00	0	165	0	274
99+50	0	214	0	351
100+00	4	162	4	348
100+50	3	184	6	320
101+00	17	157	19	316
101+50	13	144	28	279
102+00	25	113	35	238
102+36	28	139	35	168
102+50	31	136	15	71
103+00	39	125	65	242
103+50	41	127	74	233
104+00	44	127	79	235
104+50	61	97	97	207
105+00	71	87	122	170
105+40	58	115	96	150
105+50	60	123	22	44
106+00	57	192	108	292
106+50	50	276	99	433
107+00	32	365	76	594
107+50	69	353	94	665
108+00	86	385	144	683
108+50	67	389	142	717
109+00	47	433	106	761
109+50	40	402	81	773
110+00	17	426	53	767
110+50	8	439	23	801
111+00	1	450	8	823
111+50	0	435	1	819
112+00	5	362	5	738
112+50	29	236	31	554
113+00	36	163	60	369
113+50	48	135	78	276
114+00	37	90	79	208
114+50	59	41	89	121
115+00	36	54	88	88
115+50	45	77	75	121
116+00	60	78	97	144
116+50	40	118	93	181
117+00	36	141	70	240
117+50	57	119	86	241
118+00	47	147	96	246
118+50	58	154	97	279
119+00	72	139	120	271
119+50	90	132	150	251
120+00	104	128	180	241
120+50	117	111	205	221
121+00	120	135	219	228
121+50	135	145	236	259
122+00	135	155	250	278
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#### EARTHWORK VOLUMES FOR RUNWAY 9-27 - BITUMINOUS

STATION	CUT AREA	FILL AREA	CUT VOL.	FILL VOL.
	S.F.	S.F.	C.Y.	C.Y.
122+00	135	155	070	070
122+50	163	139	276	272
123+00	157	182	296	297
123+50	168	198	301	352
124+00	158	235	302	401
124+50	165	274	299	471
125+00	167	320	307	550
125+50	167	365	309	634
126+00	159	400	302	708
126+50	166	433	301	771
127+00	186	443	326	811
127+50	211	459	368	835
128+00	294	453	468	844
128+50	333	465	581	850
129+00	348	464	631	860
129+50	479	446	766	843
130+00	479	453	867	832
130+50	622	433	999	817
131+00	757	387	1277	756
131+50			1441	745
132+00	799	418	1744	713
	1084	352	2124	656
132+50	1210	357	2468	631
133+00	1455	324	2544	621
133+50	1293	347	903	203
133+67	1574	299	1140	354
134+00	291	281	31	27
134+03	265	210	451	350
134+50	253	192	446	352
135+00	229	188	212	426
135+50	0	272	0	481
136+00	0	247	0	406
136+50	0	192	0	258
137+00	0	87	0	116
137+40	0	69	0	24
137+50	0	59	0	59
138+00	0	5	0	5
138+50	0	0		
TOTAL.			26,512	36,220
IVIAL	1		20,012	00,220

## EARTHWORK VOLUMES FOR TAXIWAY "D" - BITUMINOUS

STATION	CUT AREA	FILL AREA	CUT VOL.	FILL VOL.
	S.F.	S.F.	C.Y.	C.Y.
8+30	0	301		
8+50	0	278	0	214
8+92	179	90	139	286
9+00	267	83	66	26
9+36	311	59	385	95
9+50	304	54	159	29
10+00	282	47	543	94
10+50	253	40	495	81
11+00	221	34	439	69
11+50	199	36	389	65
12+00	221	34	389	65
12+50	190	27	381	56
13+00	152	23	317	46
13+21.13	130	27	110	20
13+50	114	23	130	27
13+81.99	113	23	134	27
14+00	100	20	71	14
14+50	54	12	143	30
15+00	68	8	113	19
15+08.71	69	9	22	3
15+50	71	7	107	12
15+69.58	82	6	55	5
16+00	116	3	112	5
16+08.50	127	2	38	1
16+50	168	1	227	2
17+00	214	Ö	354	1
17+50	245	0	425	0
18+00	243	2	450	2
18+33	165	22	248	15
18+58.08	72	6	110	13
19+00	64	0	106	5
1920.50	133	0	75	0
1520.00	133			
			6,732	1,324

#### EARTHWORK VOLUMES FOR RUNWAY TURNAROUND — BITUMINOUS

STATION	CUT AREA	FILL AREA	CUT VOL.	FILL VOL.
	S.F.	S.F.	C.Y.	C.Y.
300+30	0	143	0	91
300+50	0	103		***************************************
300+92	100	0	78 33	80
301+00	121	0		0
301+50	232	0	327	0
302+00	321	0	512	0
302+50	299	0	574	0
302+63.88	301	0	154	0
302+65.88	457	0	28	0
302+67.88	299	0	28	0
303+00	283	0	346	0
303+50	205	0	452	0
303+81.77	168	0	219	0
304+00	137	0	103	0
304+11.27	118	0	53	0
304+39.77	73	1	101	1
304+81.77	0	105	57	82
305+01.77	0	112	0	80
	L	1,2	l	
TOTAL			3,065	335

152-UNCLASSIFIED EXCAVATION NOTES: UNCLASSIFIED EXCAVATION SHALL BE ACCOMPLISHED BY MEANS OF SELECT GRADING OF THE EARTHEN MATERIAL. USABLE TOPSOIL SHALL BE PLACED ON ALL SHOULDERS AND PROPOSED TURF AREAS AND THE MATERIALS ENCOUNTERED IN THE LOWER HORIZONS WILL BE UTILIZED TO FORM THE FILLS NECESSARY TO ACHIEVE THE PROPOSED GRADES.

EXCAVATION SHALL BE PAID FOR ONLY ONCE. STOCKPILING OF TOPSOIL FOR LATER REUSE AND REDISTRIBUTION, IF NECESSARY, SHALL BE DONE AT THE CONTRACTOR'S EXPENSE. NO PAYMENT WILL BE ALLOWED FOR DOUBLE HANDLING OF ANY MATERIAL.

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THE COMPACTION OF THE TOP 16" OF MATERIAL BENEATH PAVEMENT AREAS TO BE PROCESSED WILL BE COMPACTED TO A MINIMUM DENSITY OF 92% OF THE MAXIMUM DRY DENSITY.

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TAYLORVILLE MUNICIPAL AIRPORT TAYLORVILLE, ILLINOIS

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PROJECT EARTHWORK
VOLUME TABLE
BITUMINOUS ALTERNATE CONSTRUCT RUNWAY 9-27

125 of 127 sheets

# TA001

### EARTHWORK VOLUMES FOR RUNWAY 9-27 - PCC

STATION	CHT AREA	FILL AREA	CUT VOL.	FILL VOL.
( ),,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	S.F.	S.F.	C.Y.	C.Y.
97+00	0	0	0.1.	0.1.
97+50	0	96	0	89
97+60	0	104	0	37
98+00	0	139	0	180
98+50	0	131	0	250
99+00		165	0	274
99+50	0	214	0	351
100+00	4	167	4	353
100+50	3	189	6	330
101+00	17	162	19	325
101+50	13	149	28	288
102+00	25	118	35	247
102+36	28	144	35	175
102+50	31	141	15	74
102+30	39	130	65	251
103+50	41	132	74	243
104+00	44	132	79	244
104+50			97	217
105+00	61	102	122	180
105+40	71	92	96	157
105+40	58	120	22	46
105+50	60	128	108	301
106+00	57 50	197	99	443
		281	76	603
107+00	32	370	94	674
107+50	69	358	144	693
108+00 108+50	86	390	142	726
	67	394	106	770
109+00 109+50	47	438	81	782
<b></b>	40	407	53	776
110+00	17	431	23	710
110+50	8	444	8	832
111+00	1	455	1	829
111+50 112+00	5	440 367	5	747
112+50	29	241	31	563
113+00	36	168	60	379
113+50	48	140	78	285
114+00	37	95	79	218
114+50	59	46	89	131
115+00	36	59	88	97
115+50	45	82	75	131
116+00	60	83	97	153
116+50	40	123	93	191
117+00	36	146	70	249
117+50	57	124	86	250
118+00	47	152	96	256
118+50	58	152	97	288
119+00	72	144	120	281
119+50	90		150	260
120+00	104	137 133	180	250
120+00	117	116	205	231
121+00			219	237
121+50	120	140	236	269
121+50	135 135	150 160	250	287
122700	100	100		
l				

#### EARTHWORK VOLUMES FOR RUNWAY 9-27 - PCC

STATION	CUT AREA	FILL AREA	CUT VOL.	FILL VOL.
	S.F.	S.F.	C.Y.	C.Y.
122+00	135	160	276	281
122+50	163	144		
123+00	157	187	296	306
123+50	168	203	301	361
124+00	158	240	302	410
124+50	165	279	299	481
125+00	167	325	307	559
125+50	167	370	309	644
126+00	159	405	302	718
126+50	166	438	301	781
127+00	186	448	326	820
127+50	211	464	368	844
128+00	294	458	468	854
128+50	333	470	581	859
129+00	348	469	631	869
129+50	479	451	766	852
130+00	457	458	867	842
130+50	622	434	999	826
131+00	757	392	1277	765
131+50	799	423	1441	755
132+00	1084	357	1744	722
132+50	1210	362	2124	666
133+00	1455	329	2468	640
133+50	1293	352	2544	631
133+67	1574	304	903	207
134+00	109	286	1029	361
134+03	83	215	11	28
134+50	253	197	292	359
135+00	229	193	446	361
135+50	0	272	212	431
136+00	0	247	0	481
136+50	0	192	0	406
137+00	0	87	0	258
137+00	0	69	0	116
137+50	0	59	0	24
138+00	0	5	0	59
138+50	0	0	0	5
130730	U			
	r			
TOTAL			26,222	36,877

## EARTHWORK VOLUMES FOR TAXIWAY "D" - PCC

STATION	CUT AREA	FILL AREA	CUT VOL.	FILL VOL.
	S.F.	S.F.	C.Y.	C.Y.
8+30	0	309	0	219
8+50	0	283		
8+92	179	93	139	292
9+00	267	86	66	27
9+36	311	62	385	99
9+50	304	57	159	31
10+00	282	50	543	99
10+50	253	43	495	86
11+00	221	37	439	74
11+50	199	39	389	70
12+00	221	37	389	70
12+50	190	30	381	62
13+00	152	26	317	52
13+21.13	130	30	110	22
13+50	114	26	130	30
13+81.99	113	26	134	31
14+00	100	23	71	16
14+50	53	14	142	34
15+00	67	10	111	22
15+08.71	68	11	22	3
15+50	70	9	106	15
15+69.58	81	7	55	6
16+00	113	3	109	6
16+08.50	124	2	37	1
16+50	165	1	222	2
17+00	211	0	348	1
17+50	242	0	419	0
18+00	238	2	444	2
18+33	165	25	246	17
18+58.08	70	8	109	15
19+00	58	0	99	6
1920.50	120	0	68	0
	7 444 347			·
TOTAL			6,686	1,411

#### EARTHWORK VOLUMES FOR RUNWAY TURNAROUND - PCC

STATION	CUT AREA	FILL AREA	CUT VOL.	FILL VOL.
	S.F.	S.F.	C.Y.	C.Y.
300+30	0	150		95
300+50	0	107	0	178
300+92	98	0	76	
301+00	119	0	32	178
301+50	230	0	323	178
302+00	319	0	508	178
302+50	297	0	570	178
302+63.88	299	0	153	178
302+65.88	455	0	28	178
302+67.88	297	0	28	178
303+00	281	0	344	178
303+50	203	0	448	178
303+81.77	166	0	217	178
304+00	135	0	102	178
304+11.27	116	0	52	178
304+39.77	71	1	99	179
304+81.77			55	265
305+01.77	0	110 125	0	352
303+01.77	0	123		
TOTAL		.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	3,036	352
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TAYLORVILLE MUNICIPAL AIRPORT TAYLORVILLE, ILLINOIS

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PROJECT EARTHWORK VOLUME TABLE PCC ALTERNATE CONSTRUCT RUNWAY 9-27

126 of 127 sheets

## EARTHWORK VOLUMES FOR PRIMARY DITCH

353+04 353+10 353+50 354+00 354+50	S.F. 0 9	S.F. 0	C.Y.	C.Y.
353+10 353+50 354+00 354+50	9			1
353+50 354+00 354+50			1	0
354+00 354+50	100	0	102	0
354+50	129	0	230	Ö
	119	0	217	0
700.00	115	0	225	0
355+00	128	0	261	0
355+50	154	0	283	0
356+00	152	0	304	0
356+50	176	0	312	0
357+00	161	0	292	0
357+50	154	0	298	0
358+00	168	0	50	0
358+00	170	0	270	0
358+50	177	0	340	0
359+00	189	0	359	0
359+50	198	0	369	0
360+00	200	0	370	0
360+50	200	0	417	0
361+00	251	0	488	0
361+50	276	0	531	0
362+00	298	0	550	0
362+50	296	0	659	0
363+00	416	0	863	0
363+50	516	0	926	0
364+00	484	0	898	0
364+50	486	0	897	0
365+00	483	0	916	0
365+50	506	0	952	0
366+00	511	0	956	0
366+50	511	0	935	0
367+00	500	0	915	0
367+50	488	0	895	0
368+00 368+50	478	0	832	0
369+00	420 378	0	739	O
369+50	349	0	674	0
370+00	311	0	612	0
370+50	284	0	551	0
371+00	256	0	500	0
371+50	491	0	692	O
372+00	795	0	1191	0
	,			
TOTAL			21,868	0
TOTAL			21,000	<u> </u>

#### EARTHWORK VOLUMES FOR RUNWAY 18-36 DITCH

STATION	CUT AREA	FILL AREA	CUT VOL.	FILL VOL.
	\$.F.	Ş.F.	C.Y.	C.Y.
278+50	0	0	39	0
279+00	42	0		
279+08.73	50	0	15	0
279+50	0	0	38	0
279+70.73	0	0	0	0
279+88.22	0	0	0	0
280+00	0	0	0	0
280+05.73	0	0	0	0
280+50	0	0	0	0
280+67.73	53	0	17	0
281+00	42	0	57	0
281+50	20	0	57	0
282+00	0	0	19	0
		***************************************	l	
TOTAL.			242	0

#### EARTHWORK VOLUMES FOR POND/SITE GRADING

STATION	CUT AREA	FILL AREA	CUT VOL.	FILL VOL
	S.F.	S.F.	C.Y.	C.Y.
TOTAL	_		13,457	16,631

REFER TO DEPTHS OF CUT AND FILL SHOWN ON THE STAKING PLAN FOR VOLUME CALCULATION.

## EARTHWORK VOLUMES FOR DITCH OUTFALL GRADING

STATION	CUT AREA	FILL AREA	CUT VOL.	FILL VOL.
	S.F.	S.F.	C.Y.	C.Y.
99+47.55	_		1430	0
101+00			60	0
108+00	-	_	25	0
TOTAL			1515	0

TAYLORVILLE, ILLINOIS MUNICIPAL

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PROJECT EARTHWORK
VOLUME TABLES
SITE CONSTRUCT RUNWAY 9-27

127 of 127 sheets

THE SHRINKAGE LOSS FACTOR FOR THE EARTHWORK VOLUME PERTAINING TO THE CONSTRUCTION OF THE BITUMINOUS ALTERNATE WAS CALCULATED AT APPROXIMATELY

THE SHRINKAGE LOSS FACTOR FOR THE EARTHWORK VOLUME PERTAINING TO THE CONSTRUCTION OF THE PCC ALTERNATE WAS CALCULATED AT APPROXIMATELY 32%.

IF SURPLUS MATERIAL REMAINS FOLLOWING THE FINAL GRADING IT WILL BE DISPERSED UNIFORMLY ON THE PROJECT SITE AND WITHIN THE PROJECT GRADING LIMITS IN A WAY THAT WILL NOT NEGATIVELY AFFECT THE SITE DRAINAGE. IF ADDITIONAL EARTH MATERIAL IS NECESSARY TO OBTAIN THE GRADES PROPOSED IT WILL BE OBTAINED BY ADDITIONAL SIDE SLOPE GRADING OF THE PRIMARY DITCH. THE ADDITIONAL GRADING WILL BE PERFORMED IS SUCH A WAY TO PROVIDE SMOOTH CONTOURS ALONG THE PROPOSED DITCH.

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