OBSTRUCTION DATA SHEET

ODS 41
W. K. KELLOGG AIRPORT
BATTLE CREEK, MICHIGAN

DIGITIZED FROM

OC 41
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OBSTRUCTION DATA SHEET

The Obstruction Data Sheet (ODS) provides digital obstruction and runway data for use in aircraft arrival and departure planning. This information has been obtained using field survey and photogrammetric methods by the Photogrammetry Branch of the National Ocean Service in accordance with Federal Aviation Regulations Part 77 (FAR-77), "Objects Affecting Navigable Airspace" and FAA No. 405, "Specifications - Airport Obstruction Chart and Related Products."

The ODS is a derivative of the Airport Obstruction Chart (OC). The source OC is indicated on the ODS cover. All objects, both obstructing and nonobstructing, that carry an elevation on the OC are listed in the ODS. The ODS and the OC depict a representation of objects that existed at the time of the OC field survey.

ODS information is arranged as follows:

1. Objects located in an FAR-77 approach or primary and listed with the associated runway (reference runway).

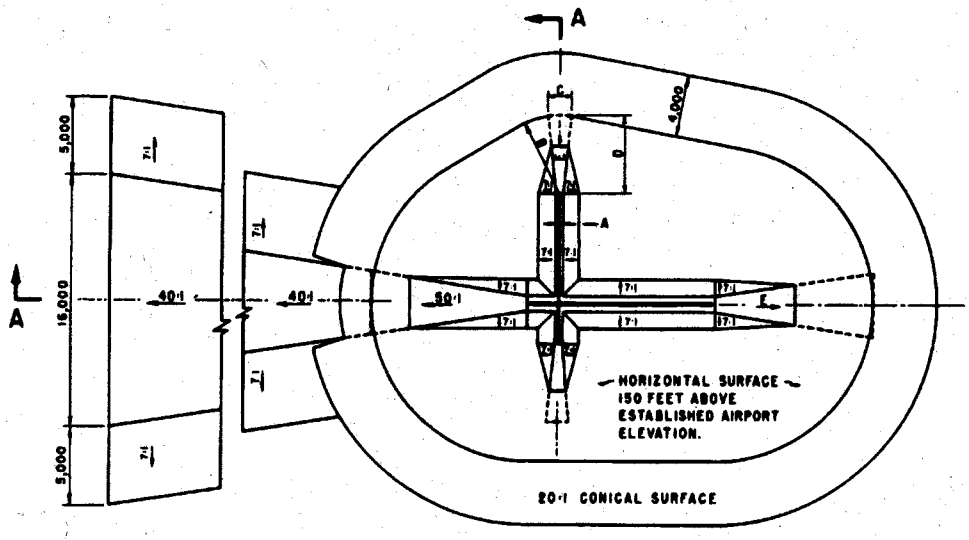
2. All objects not included in "1" above are listed with the Airport Reference Point (ARP).

3. Runway configuration and runway lengths, widths, and elevations are presented on the ODS last page.

The FAR-77 imaginary approach surfaces for which the obstruction surveys were performed are coded in the ODS as follows:

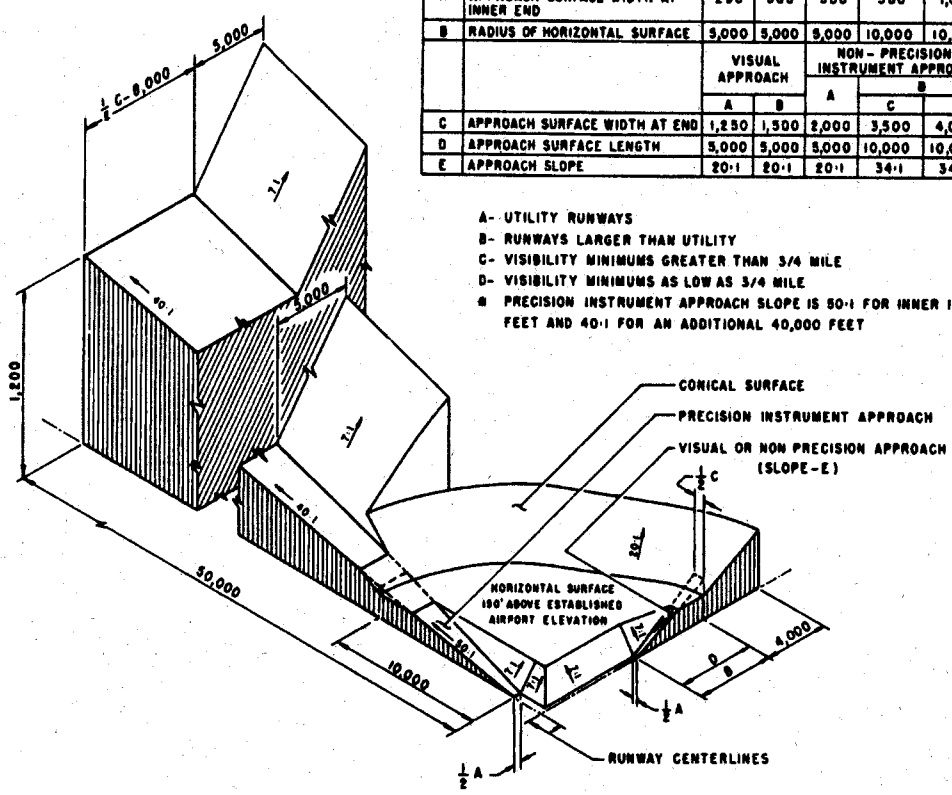
A(V) ..... Utility runway - visual approach only
A(NP) .... Utility runway - nonprecision instrument approach
B(V) ..... Nonutility runway - visual approach only
C ..... Nonutility runway - nonprecision instrument approach with visibility minimums greater than 3/4 mile
D ..... Nonutility runway- nonprecision instrument approach with visibility minimums as low as 3/4 mile
PIR ..... Precision instrument runway
SUPLC .... Supplemental C underlying a B(V)

FAR-77 imaginary surface dimensions are defined on page 2 of this report.



DIM	ITEM	DIMENSIONAL STANDARDS (FEET)					
		VISUAL RUNWAY		NON-PRECISION INSTRUMENT RUNWAY			PRECISION INSTRUMENT RUNWAY
		A	B	A	B		
					C	D	
A	WIDTH OF PRIMARY SURFACE AND APPROACH SURFACE WIDTH AT INNER END	250	500	500	500	1,000	1,000
B	RADIUS OF HORIZONTAL SURFACE	5,000	5,000	5,000	10,000	10,000	10,000
		VISUAL APPROACH		NON-PRECISION INSTRUMENT APPROACH			PRECISION INSTRUMENT APPROACH
		A	B	A	B		
					C	D	
C	APPROACH SURFACE WIDTH AT END	1,250	1,500	2,000	3,500	4,000	16,000
D	APPROACH SURFACE LENGTH	5,000	5,000	5,000	10,000	10,000	*
E	APPROACH SLOPE	20:1	20:1	20:1	34:1	34:1	*

A- UTILITY RUNWAYS
B- RUNWAYS LARGER THAN UTILITY
C- VISIBILITY MINIMUMS GREATER THAN 3/4 MILE
D- VISIBILITY MINIMUMS AS LOW AS 3/4 MILE
* PRECISION INSTRUMENT APPROACH SLOPE IS 50:1 FOR INNER 10,000 FEET AND 40:1 FOR AN ADDITIONAL 40,000 FEET



ISOMETRIC VIEW OF SECTION A-A

FAR-77 CIVIL AIRPORT IMAGINARY SURFACES

ANNOTATION OF ODS DATA FORMAT

OC XXXX

AIRPORT ELEVATION XXXX

X[1] X[2] XXXX/XXXX[3] XXXXXX.XXX[4] XXXXXXX.XXX[4] XXXXXXX[5] XXXX/XXXX[6] XXXXXX.XXX[7] XXXXXXX.XXX[7]

OBJECT	LAT	LONG	A[8]	EL[9]	AGL[10]	HAR[11]	HAT[11]	HAA[11]	DEND[12]	DTHR[12]	DCLN[12]	PNTR[13]
XXXXXXXXXXX	XXXXXX.XXX	XXXXXXX.XXX	XX	XXXX	XXXX	XXX	XXX	XXX	XXXXX	XXXXX	XXXX	XXXX
XXXXXXXXXXX	XXXXXX.XXX	XXXXXXX.XXX	XX	XXXX	XXXX	XXX	XXX	XXX	XXXXX	XXXXX	XXXX	XXXX

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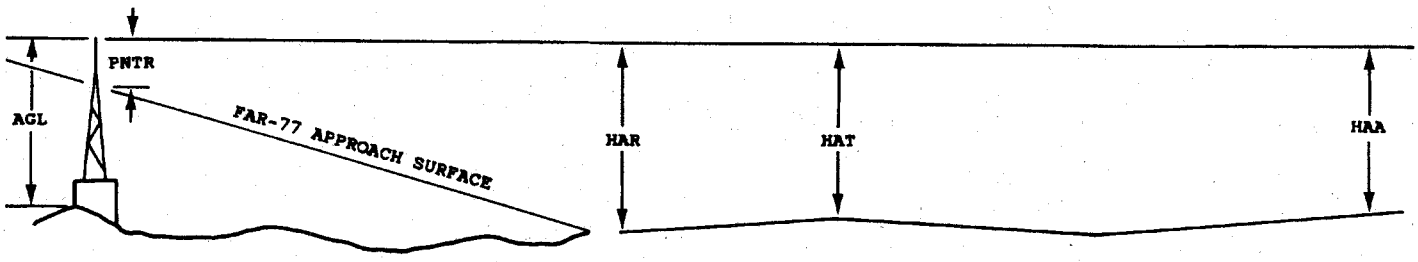
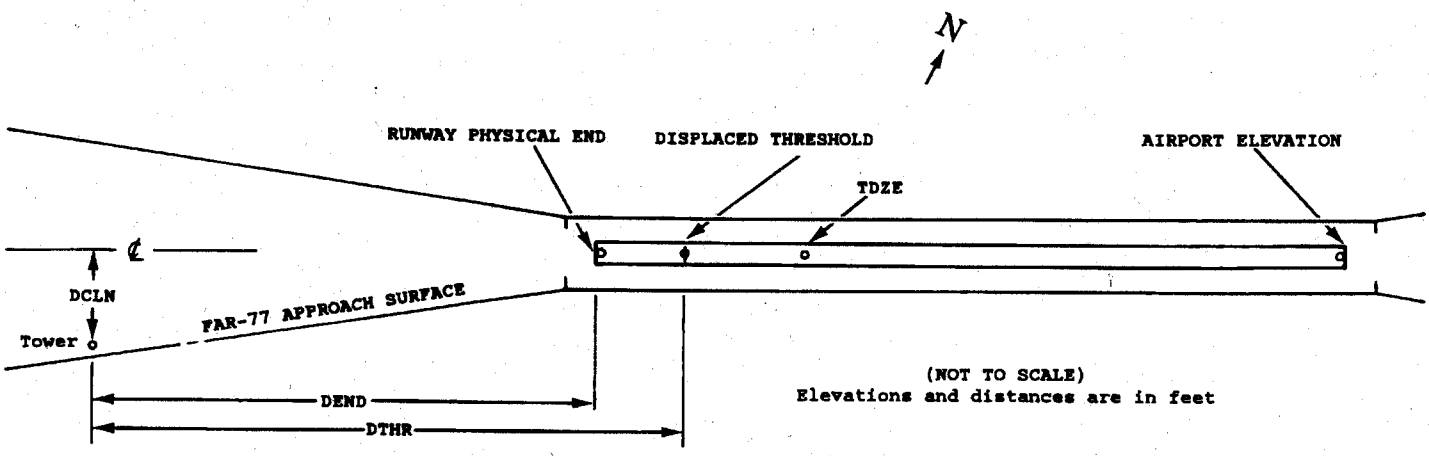




(NOT TO SCALE)
Elevations and distances are in feet

EXPLANATION OF FOOTNOTES

1 Data block identifier. If a runway number is entered (reference runway), this data block will contain data pertinent to the reference runway and to objects in the FAR-77 approach and primary areas of the reference runway. If ARP is entered, this data block will contain the ARP position and data relative to all objects not in an FAR-77 approach or primary area.

2 For the reference runway, the lowest FAR-77 approach surface for which an obstruction survey was performed. (More than one surface may be surveyed).

3 Elevation at approach end of reference runway/touchdown zone elevation

4 Latitude and longitude at approach end of reference runway

5 Geodetic azimuth of reference runway reckoned from north

6 Elevation at reference runway displaced threshold/touchdown zone elevation

7 Latitude and longitude at reference runway displaced threshold

8 Accuracy codes:

Horizontal (Ft.)	Vertical (Ft.)
1 = 20	A = 2
2 = 40	B = 5
	C = 20

9 Elevation above mean sea level (MSL) at top of object. This value includes 15 feet added to noninterstate roads, 17 feet added to interstate roads, and 23 feet added to railroad tracks.

10 Height above ground level (AGL). AGL's are provided only for manmade objects <u>appearing on the OC</u> and equal to or greater than 200 feet AGL. AGL accuracy is 10 feet.

11 HAA - Height above airport
HAR - Height above approach end of reference runway
HAT - Height above reference runway touchdown zone elevation

12 DEND - Distance along reference runway centerline from point nearest to object (perpendicular) to approach end of runway
DTHR - Distance along reference runway centerline from point nearest to object (perpendicular) to displaced threshold
DCLN - Distance left (L) or right (R) of reference runway centerline as observed facing forward in a landing aircraft

A negative value for DEND or DTHR indicates that object is in primary on roll-out side of zero distance point.

13 PNTR - Penetration of indicated FAR-77 approach or primary surface (See footnote 2).

OC0041

AIRPORT ELEVATION 952

5 C 952/ 952 421744.642 -851557.520 423527.

OBJECT	LAT	LONG	A	EL	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
OL GS	421847.84	-851432.01	1A	962		10	10	10	-9058		400R	33
OL AMOM	421806.59	-851525.80	1A	949		-3	-3	-3	-3249		251R	9
TREE	421747.37	-851601.46	1A	966		14	14	14	-3		405L	14
OL LOC	421737.09	-851606.76	1A	960		8	8	8	1033		7R	-17
POLE	421732.01	-851614.88	1A	980		28	28	28	1825		95L	-20
TREE	421726.52	-851612.75	1A	991		39	39	39	2125		399R	-18
TREE	421717.97	-851630.25	1A	1040		88	88	88	3652		16R	-14

23 PIR 929/ 929 421857.373 -851427.423 2223628.

OBJECT	LAT	LONG	A	EL	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
TREE	421747.37	-851601.46	1A	966		37	37	14	-9999		405R	14
OL AMOM	421806.59	-851525.80	1A	949		20	20	-3	-6753		251L	9
OL GS	421847.84	-851432.01	1A	962		33	33	10	-944		400L	33
OL POLE	421906.81	-851420.93	1A	948		19	19	-4	1033		288R	3
BLDG	421903.62	-851415.20	1A	941		12	12	-11	1087		248L	-6
TREE	421908.80	-851422.41	1A	953		24	24	1	1107		506R	6
POLE	421905.65	-851410.45	1A	953		24	24	1	1480		371L	-1
TREE	421904.79	-851407.01	1A	969		40	40	17	1591		620L	12
TREE	421914.60	-851419.10	1A	963		34	34	11	1707		720R	4
TREE	421907.54	-851406.06	1A	975		46	46	23	1845		484L	13
TREE	421908.70	-851359.41	1A	992		63	63	40	2269		773L	22
TREE	421918.61	-851403.03	1A	996		67	67	44	2823		107R	15

13 SUPLC 920/ 927 421851.007 -851516.528 1260530.

OBJECT	LAT	LONG	A	EL	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
RAILROAD	421852.26	-851525.20	1A	940		20	13	-12	601		281R	8
TREE	421854.73	-851529.63	1A	974		54	47	22	1017		275R	30
TREE	421856.78	-851529.81	1A	977		57	50	25	1151		116R	29
TREE	421905.21	-851532.18	1A	1002		82	75	50	1797		469L	35
TREE	421902.22	-851537.21	1A	982		62	55	30	1924		2L	11
TREE	421907.51	-851540.54	1A	1001		81	74	49	2442		287L	15

OC0041

AIRPORT ELEVATION 952

31 C 930/ 930 421822.871 -851424.537 3060605.

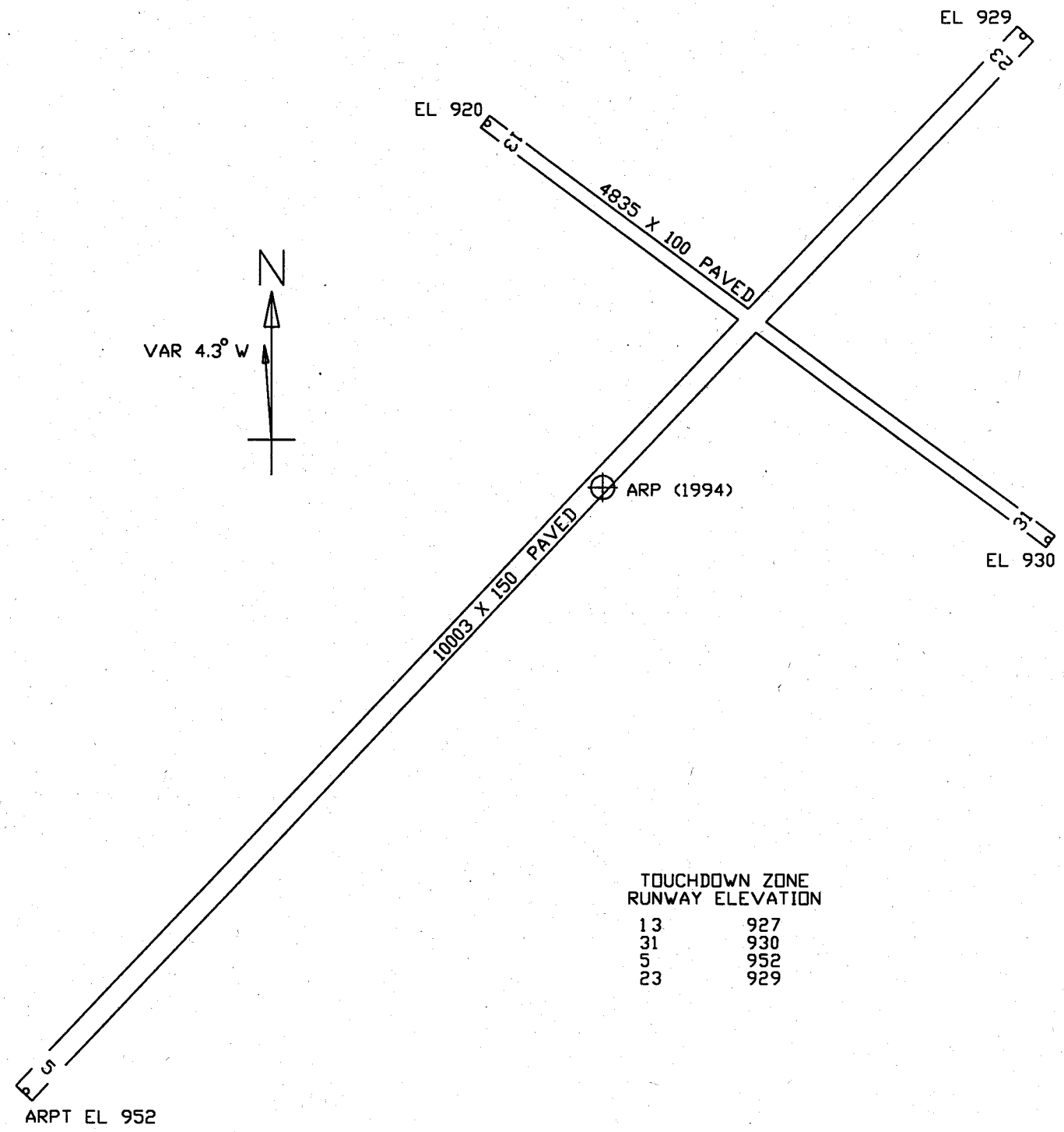
OBJECT	LAT	LONG	A	EL	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
FENCE	421820.55	-851420.22	1A	936		6	6	-16	401		1R	0
ROAD (N)	421819.83	-851418.79	1A	945		15	15	-7	530		6R	5
LIGHT	421817.00	-851418.55	1A	946		16	16	-6	714		215L	1
TREE	421817.93	-851416.18	1A	955		25	25	3	802		34L	7
TREE	421815.44	-851417.83	1A	955		25	25	3	850		311L	6
TREE	421813.38	-851409.55	1A	967		37	37	15	1476		113L	0
TREE	421810.17	-851407.30	1A	989		59	59	37	1804		276L	12
TREE	421807.71	-851354.09	1A	1017		87	87	65	2753		108R	12

OC0041

AIRPORT ELEVATION 952

ARP 421826.201 -851505.327

OBJECT	LAT	LONG	A	EL	AGL	HAA	MAG BEARING	DISTANCE
VORTAC	421835.28	-851508.37	1A	954		2	35020	947
OL AMOM	421833.75	-851436.55	1A	942		-10	7449	2293
OL WSK	421847.50	-851453.19	1A	944		-8	2714	2341
ROD ON OL TMOM	421844.77	-851431.28	1A	946		-6	5759	3174
TREE	421852.61	-851531.90	1A	976		24	32732	3336
FENCE	421823.76	-851420.46	1A	935		-17	9829	3380
TREE	421757.04	-851528.68	1A	993		41	21501	3434
TREE	421814.52	-851417.95	1A	967		15	11239	3751
TREE	421812.96	-851415.29	1A	974		22	11355	3992
TREE	421802.67	-851549.42	1A	1011		59	23835	4081
TREE	421820.75	-851411.52	1A	998		46	10204	4081
OL ON APBN ON TANK	421907.19	-851505.47	1A	1032		80	409	4150
ANT ON OL ATCT	421849.20	-851418.49	1A	997		45	6048	4220
TREE	421807.85	-851409.50	1A	987		35	11810	4588
TREE	421758.47	-851553.95	1A	1010		58	23646	4608
TREE	421816.47	-851401.26	1A	1002		50	10551	4913
TREE	421745.37	-851543.53	1A	1010		58	21905	5032
TREE	421754.69	-851600.27	1A	1028		76	23637	5217
TREE	421737.17	-851547.53	1A	1032		80	21653	5890
TREE	421748.56	-851605.81	1A	1000		48	23419	5930
TREE	421745.30	-851608.93	1A	1003		51	23324	6324
TREE	421733.68	-851553.49	1A	1043		91	21832	6432
TREE	421906.75	-851359.04	1A	996		44	5447	6454
TREE	421909.00	-851356.21	1A	999		47	5427	6763
OL TANK	421908.50	-851639.09	1A	1099	207	147	30536	8244
ANT ON OL TWR	421905.57	-851313.40	1A	1096	209	144	6856	9306
TREE	421832.11	-851737.15	1A	1103		151	27718	11423
TREE	421843.68	-851742.87	1A	1131		179	28248	11969
ANT ON OL MCWV TWR	421904.61	-851219.39	1A	1069		117	7657	13059



TOUCHDOWN ZONE RUNWAY	ELEVATION
13	927
31	930
5	952
23	929

W. K. KELLOGG AIRPORT

BATTLE CREEK, MICHIGAN

(NOT TO SCALE)

(ELEVATIONS AND DISTANCES IN FEET)