# FEDERAL AVIATION ADMINISTRATION FLIGHT STANDARDS SERVICE TAKEOFF MINIMUMS AND OBSTACLE DEPARTURE PROCEDURES (ODP) TITLE 14 CFR PART 97.37

Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL Altitudes are minimum altitudes unless otherwise indicated Ceilings are in feet above airport elevation. Distances are in nautical miles. Visibilities are in statute miles or feet RVR unless otherwise indicated.

CITY, STATEAIRPORTEFFECTIVE DATEAMDT NOBIG RAPIDS, MIROBEN-HOOD21 JUNE 20186A

### **TAKEOFF MINIMUMS:**

RWY 9: STANDARD.

RWY 14: 200-1 1/4 OR STANDARD WITH MINIMUM CLIMB OF 210 FT PER NM TO 1200. RWY 27: 300-1 1/2 OR STANDARD WITH MINIMUM CLIMB OF 400 FT PER NM TO 1200. RWY 32: 200-1 1/2 OR STANDARD WITH MINIMUM CLIMB OF 300 FT PER NM TO 1200.

## **TEXTUAL DEPARTURE PROCEDURES:**

#### **VISUAL CLIMB OVER AIRPORT:**

#### **TAKEOFF OBSTACLE NOTES:**

NOTE: **RWY 9:** LIGHTING 39 FT FROM DER, 77 FT RIGHT OF CENTERLINE, 946 FT MSL. LIGHTING 40 FT FROM DER, 77 FT LEFT OF CENTERLINE, 5 FT AGL/946 FT MSL. TREE 1880 FT FROM DER, 714 FT LEFT OF CENTERLINE, 992 FT MSL. TREE 4536 FT FROM DER, 1640 FT LEFT OF CENTERLINE, 1060 FT MSL. TREE 4611 FT FROM DER, 1567 FT LEFT OF CENTERLINE, 1063 FT MSL. TREE 4652 FT FROM DER, 1724 FT LEFT OF CENTERLINE, 1072 FT MSL. TREE 4738 FT FROM DER, 1523 FT LEFT OF CENTERLINE, 1074 FT MSL. TREE 4783 FT FROM DER, 1636 FT LEFT OF CENTERLINE, 120 FT AGL/1083 FT MSL. TREES BEGINNING 4858 FT FROM DER, 1497 FT LEFT OF CENTERLINE, UP TO 126 FT AGL/1090 FT MSL.

NOTE: **RWY 14**: TREE 73 FT FROM DER, 202 FT RIGHT OF CENTERLINE, 958 FT MSL. POLE, TREE, TRAVERSE WAY BEGINNING 77 FT FROM DER, 451 FT LEFT OF CENTERLINE, UP TO 959 FT MSL. TREES BEGINNING 94 FT FROM DER, 201 FT RIGHT OF CENTERLINE, UP TO 74 FT AGL/992 FT MSL. TREES BEGINNING 224 FT FROM DER, 425 FT LEFT OF CENTERLINE, UP TO 970 FT MSL. TREES, POLE BEGINNING 328 FT FROM DER, 123 FT LEFT OF CENTERLINE, UP TO 78 FT AGL/997 FT MSL. TREES BEGINNING 1197 FT FROM DER, 92 FT RIGHT OF CENTERLINE, UP TO 999 FT MSL. TREES BEGINNING 1322 FT FROM DER, 152 FT LEFT OF CENTERLINE, UP TO 1007 FT MSL. TREES BEGINNING 1624 FT FROM DER, 718 FT RIGHT OF CENTERLINE, UP TO 1002 FT MSL. TREES BEGINNING 1734 FT FROM DER, 52 FT RIGHT OF CENTERLINE, UP TO 1003 FT MSL. TREE 2721 FT FROM DER, 483 FT RIGHT OF CENTERLINE, 1013 FT MSL. TREES BEGINNING 2727 FT FROM DER, 487 FT RIGHT OF CENTERLINE, UP TO 1019 FT MSL. ANTENNA 5968 FT FROM DER, 2085 FT LEFT OF CENTERLINE, 1078 FT MSL.

NOTE: RWY 27: TREE, LIGHTING, TERRAIN BEGINNING 2 FT FROM DER, 112 FT RIGHT OF CENTERLINE, UP TO 5 FT AGL/1001 FT MSL. LIGHTING 9 FT FROM DER, 112 FT LEFT OF CENTERLINE, 991 FT MSL. TREE 240 FT FROM DER, 472 FT LEFT OF CENTERLINE, 999 FT MSL. TREE 544 FT FROM DER, 544 FT LEFT OF CENTERLINE, 1012 FT MSL. TREE 725 FT FROM DER, 659 FT LEFT OF CENTERLINE, 1038 FT MSL. TREE 745 FT FROM DER, 628 FT RIGHT OF CENTERLINE, 1010 FT MSL. TREES BEGINNING 912 FT FROM DER, 192 FT RIGHT OF CENTERLINE, UP TO 1018 FT MSL. TREES BEGINNING 1160 FT FROM DER. 460 FT RIGHT OF CENTERLINE, UP TO 1059 FT MSL, TREES BEGINNING 1275 FT FROM DER. 97 FT RIGHT OF CENTERLINE, UP TO 1062 FT MSL. TREE 1442 FT FROM DER, 120 FT LEFT OF CENTERLINE, 1050 FT MSL. TREES BEGINNING 1858 FT FROM DER, 157 FT LEFT OF CENTERLINE, UP TO 1059 FT MSL. TREE 1970 FT FROM DER, 312 FT LEFT OF CENTERLINE, 1072 FT MSL. TREES BEGINNING 1976 FT FROM DER, 231 FT RIGHT OF CENTERLINE, UP TO 1066 FT MSL. TREE 2046 FT FROM DER, 902 FT LEFT OF CENTERLINE, 1084 FT MSL. TREES BEGINNING 2054 FT FROM DER, 11 FT LEFT OF CENTERLINE, UP TO 1111 FT MSL. TREE 2054 FT FROM DER, 721 FT LEFT OF CENTERLINE, 1095 FT MSL.TREE 2063 FT FROM DER, 748 FT RIGHT OF CENTERLINE, 1087 FT MSL. TREES, BUILDING, POLE BEGINNING 2065 FT FROM DER, 35 FT RIGHT OF CENTERLINE, UP TO 1104 FT MSL. TREES BEGINNING 2209 FT FROM DER, 14 FT LEFT OF CENTERLINE, UP TO 1118 FT MSL. TREES, POLE BEGINNING 2605 FT FROM DER, 62 FT LEFT OF CENTERLINE, UP TO 1121 FT MSL. TREE 2777 FT FROM DER, 898 FT LEFT OF CENTERLINE, 1124 FT MSL. TREES BEGINNING 2816 FT FROM DER, 413 FT LEFT OF CENTERLINE, UP TO 1126 FT MSL. TREES, POLE BEGINNING 2849 FT FROM DER, 165 FT LEFT OF CENTERLINE, UP TO 1127 FT MSL. TREES BEGINNING 2929 FT FROM DER, 994 FT LEFT OF CENTERLINE, UP TO 1136 FT MSL. TREES, POLE BEGINNING 3029 FT FROM DER, 166 FT LEFT OF CENTERLINE, UP TO 1138 FT MSL. TREES, POLE, SIGN BEGINNING 3165 FT FROM DER, 25 FT LEFT OF CENTERLINE, UP TO 1146 FT MSL. POLE, TREES BEGINNING 3383 FT FROM DER, 53 FT RIGHT OF CENTERLINE, UP TO 1108 FT MSL. TREES, POLE BEGINNING 3645 FT FROM DER, 37 FT RIGHT OF CENTERLINE, UP TO 1124 FT MSL. SIGN, TREES, POLE BEGINNING 3902 FT FROM DER, 33 FT RIGHT OF CENTERLINE, UP TO 1132 FT MSL. TREES BEGINNING 4227 FT FROM DER, 408 FT RIGHT OF CENTERLINE, UP TO 1137 FT MSL. TREES BEGINNING 4558 FT FROM DER, 171 FT RIGHT OF CENTERLINE, UP TO 1138 FT MSL. TREES BEGINNING 4703 FT FROM DER, 163 FT LEFT OF CENTERLINE, UP TO 1152 FT MSL. TREES BEGINNING 4716 FT FROM DER, 164 FT RIGHT OF CENTERLINE, UP TO 1153 FT MSL. TREES BEGINNING 4761 FT FROM DER, 1 FT LEFT OF CENTERLINE, UP TO 1167 FT MSL. TREES BEGINNING 4817 FT FROM DER, 93 FT RIGHT OF CENTERLINE, UP TO 1155 FT MSL. TREES BEGINNING 5498 FT FROM DER, 42 FT LEFT OF CENTERLINE, UP TO 1171 FT MSL. TREE 5546 FT FROM DER, 636 FT RIGHT OF CENTERLINE, 1156 FT MSL. TREES BEGINNING 5627 FT FROM DER, 202 FT RIGHT OF CENTERLINE, UP TO 1162 FT MSL. TREES BEGINNING 5716 FT FROM DER, 2 FT LEFT OF CENTERLINE, UP TO 1176 FT MSL. TREES BEGINNING 5854 FT FROM DER, 258 FT LEFT OF CENTERLINE, UP TO 1183 FT MSL. TREES BEGINNING 5858 FT FROM DER, 13 FT LEFT OF CENTERLINE, UP TO 94 FT AGL/1185 FT MSL. TREES BEGINNING 6036 FT FROM DER, 70 FT RIGHT OF CENTERLINE, UP TO 1167 FT MSL. TREES BEGINNING 1 NM FROM DER, 162 FT RIGHT OF CENTERLINE, UP TO 1168 FT MSL. VERTICAL STRUCTURE 1.2 NM FROM DER, 1391 FT RIGHT OF CENTERLINE, 100 FT AGL/1196 FT MSL.

NOTE: RWY 32: TERRAIN 20 FT FROM DER, 242 FT RIGHT OF CENTERLINE, 933 FT MSL. TREES, TERRAIN BEGINNING 28 FT FROM DER, 342 FT LEFT OF CENTERLINE, UP TO 936 FT MSL. TREE 196 FT FROM DER, 225 FT LEFT OF CENTERLINE, 5 FT AGL/938 FT MSL. TREE 347 FT FROM DER, 563 FT LEFT OF CENTERLINE, 942 FT MSL. LIGHTING 469 FT FROM DER, 387 FT RIGHT OF CENTERLINE, 946 FT MSL. LIGHTING 668 FT FROM DER, 6 FT RIGHT OF CENTERLINE, 950 FT MSL. TREE 696 FT FROM DER, 676 FT LEFT OF CENTERLINE, 951 FT MSL. WIND INDICATOR 993 FT FROM DER, 519 FT LEFT OF CENTERLINE, 11 FT AGL/958 FT MSL. TREE 1965 FT FROM DER, 834 FT RIGHT OF CENTERLINE, 994 FT MSL. TREE 2117 FT FROM DER, 658 FT RIGHT OF CENTERLINE, 1002 FT MSL. TREES BEGINNING 2244 FT FROM DER, 548 FT RIGHT OF CENTERLINE, UP TO 1012 FT MSL. TREES BEGINNING 2436 FT FROM DER, 409 FT RIGHT8

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CITY, STATE **AIRPORT EFFECTIVE DATE** AMDT NO BIG RAPIDS, MI **ROBEN-HOOD** 6A 21 JUNE 2018

OF CENTERLINE, UP TO 1031 FT MSL. TREES BEGINNING 2529 FT FROM DER, 125 FT RIGHT OF CENTERLINE, UP TO 1035 FT MSL. POLE 2659 FT FROM DER, 1104 FT LEFT OF CENTERLINE, 1000 FT MSL. TREES, POLE BEGINNING 2666 FT FROM DER, 44 FT LEFT OF CENTERLINE, UP TO 1026 FT MSL. LIGHTING, TREES BEGINNING 2979 FT FROM DER, 613 FT LEFT OF CENTERLINE, UP TO 59 FT AGL/1027 FT MSL. TREES BEGINNING 3289 FT FROM DER, 401 FT LEFT OF CENTERLINE, UP TO 1033 FT MSL. TREE 4265 FT FROM DER, 756 FT LEFT OF CENTERLINE, 1041 FT MSL. TREES BEGINNING 4273 FT FROM DER, 318 FT LEFT OF CENTERLINE, UP TO 1053 FT MSL. TREE 4503 FT FROM DER, 703 FT RIGHT OF CENTERLINE, 1053 FT MSL. TREES BEGINNING 4558 FT FROM DER, 418 FT LEFT OF CENTERLINE, UP TO 1088 FT MSL. TREES BEGINNING 4774 FT FROM DER, 372 FT LEFT OF CENTERLINE, UP TO 1092 FT MSL. TREES BEGINNING 4825 FT FROM DER, 461 FT LEFT OF CENTERLINE, UP TO 1096 FT MSL. TREE 4929 FT FROM DER, 117 FT RIGHT OF CENTERLINE, 1067 FT MSL. TREES BEGINNING 4930 FT FROM DER, 65 FT LEFT OF CENTERLINE, UP TO 91 FT AGL/1103 FT MSL. TREES BEGINNING 5038 FT FROM DER, 277 FT LEFT OF CENTERLINE, UP TO 92 FT AGL/1107 FT MSL. TREE 5057 FT FROM DER, 367 FT RIGHT OF CENTERLINE, 1073 FT MSL. TREE 5084 FT FROM DER, 521 FT RIGHT OF CENTERLINE, 1075 FT MSL. TREE 5096 FT FROM DER, 165 FT LEFT OF CENTERLINE, 88 FT AGL/1110 FT MSL. TREES BEGINNING 5102 FT FROM DER, 15 FT LEFT OF CENTERLINE, UP TO 92 FT AGL/1118 FT MSL. TREES BEGINNING 5103 FT FROM DER, 13 FT RIGHT OF CENTERLINE, UP TO 1100 FT MSL. TREE 5375 FT FROM DER, 279 FT RIGHT OF CENTERLINE, 1111 FT MSL. TREES BEGINNING 5393 FT FROM DER, 50 FT RIGHT OF CENTERLINE, UP TO 99 FT AGL/1113 FT MSL. TREES BEGINNING 5704 FT FROM DER, 177 FT LEFT OF CENTERLINE, UP TO 1119 FT MSL. TREE 5862 FT FROM DER, 142 FT LEFT OF CENTERLINE, 1121 FT MSL. TREES BEGINNING 5886 FT FROM DER, 37 FT LEFT OF CENTERLINE, UP TO 1122 FT MSL. TREES BEGINNING 5997 FT FROM DER, 126 FT LEFT OF CENTERLINE, UP TO 1127 FT MSL, TREES BEGINNING 6045 FT FROM DER, 19 FT LEFT OF CENTERLINE, UP TO 104 FT AGL/1128 FT MSL, TREE 1.2 NM FROM DER, 1914 FT LEFT OF CENTERLINE, 1119 FT MSL.

CONTROLLING	OBSTACLES:
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RWY 14: 1078 FEET MSL ANTENNA 434225.44N/0852827.03W.

RWY 27: 1146 FEET MSL TREE 434316.50N/0853142.70W (CLIMB GRADIENT/CLIMB-TO ALTITUDE), 1196 FEET MSL VERTICAL STRUCTURE 434342.47N/0853245.11W (CEILING/VISIBILITY).

RWY 32: 1118 FEET MSL TREE 434400.05N/0853045.44W (CLIMB GRADIENT/CLIMB-TO ALTITUDE), 1128 FEET MSL TREE 434407.57N/0853053.03W (CEILING), 1119 FEET MSL TREE 434407.63N/0853121.64W (VISIBILITY).

#### **REMARKS:**

		Digita	ally signed b	by			
FLIGHT INSPECTED BY: ROBERT G HAMILTON  PATRICK MURRAY May 02, 2018						OFFICE SYMBOL: FICO	<u>DATE</u> : 04/20/2018
DEVELOPED I		CENTRELL	.A) <b>F</b>	ROBERT G	signed by HAMILTON 2, 2018	OFFICE SYMBOL: AJV-5413	<b>DATE:</b> 11/07/2017
APPROVED B GEORGE E. D	R	Digitally si <b>OBERT G F</b> May 02,	HAMILTON			OFFICE SYMBOL: AJV-5410	DATE:
REQUIRED EF	FECTIVE	DATE:					
COORDINATE	D WITH:						
A4A A	LPA	<u>AOPA</u>	<u>APA</u>	<u>HAI</u>	<u>NBAA</u>		
	$\boxtimes$	$\boxtimes$			$\boxtimes$		
OTHER:							

#### **CHANGES - REASONS:**

1. RWY 14 ADDED CEILING/VISIBILITY AND CLIMB GRADIENT - NEW CONTROLLING OBSTACLE IDENTIFIED IN THE ICA.

2. UPDATED TAKEOFF OBSTACLE NOTES ALL RUNWAYS - SURVEY.