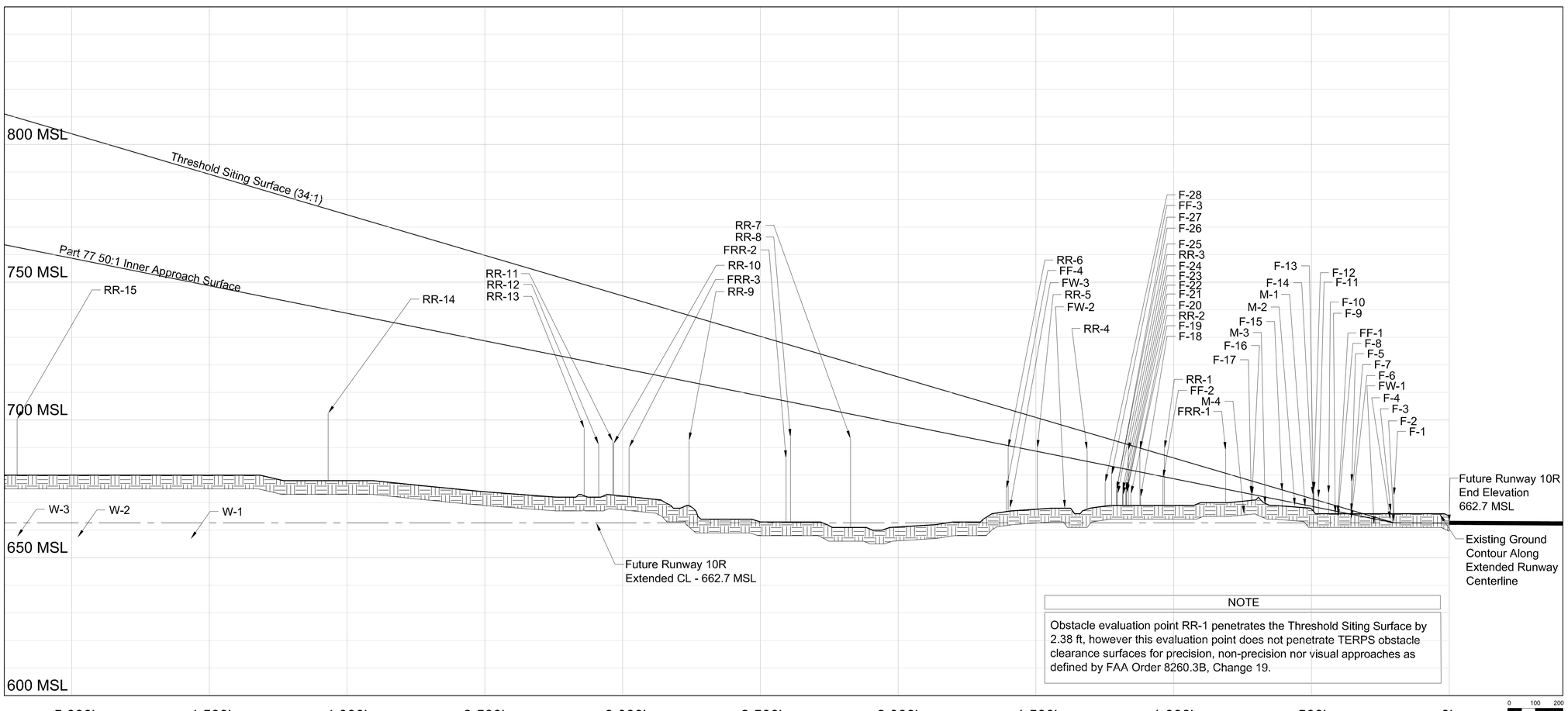
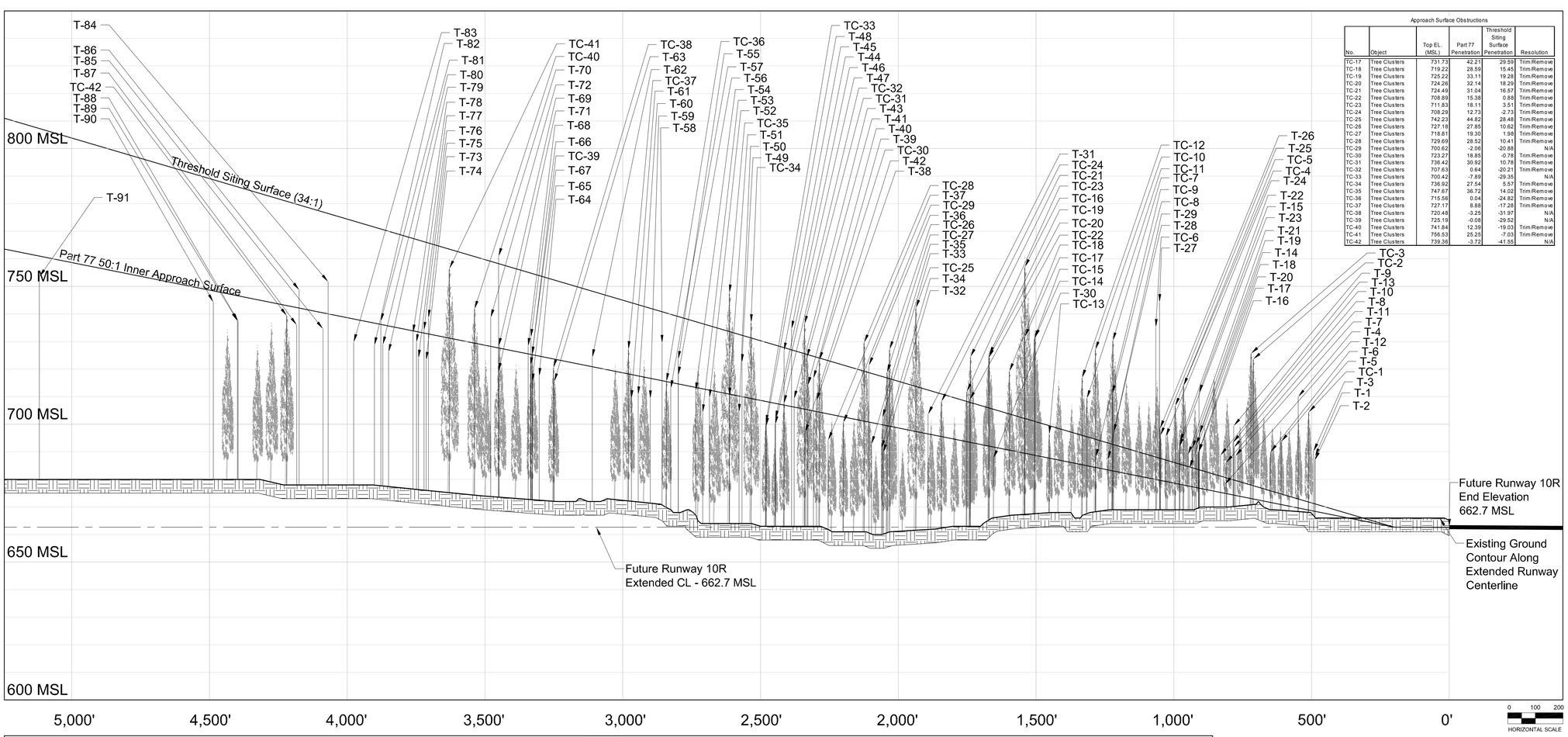


NOTE

Obstacle evaluation point RR-1 penetrates the Threshold Siting Surface by 2.38 ft, however this evaluation point does not penetrate TERPS obstacle clearance surfaces for precision, non-precision nor visual approaches as defined by FAA Order 8260.3B, Change 19.



NOTES

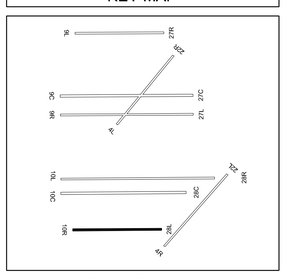
1) WITH THE EXCEPTION OF ROAD, RAIL, AND WATER, ONLY OBJECTS WITH TOP ELEVATIONS LOCATED 10FT BELOW THE PART 77 SURFACE AND HIGHER ARE IDENTIFIED. FUTURE OBJECTS AND ROAD, RAIL AND WATER OBJECT EVALUATION POINTS ARE IDENTIFIED REGARDLESS OF CLEARANCE HEIGHT TO THE PART 77 SURFACE.
2) OBJECTS UNDER THE PART 77 TRANSITIONAL SURFACES ARE ONLY IDENTIFIED IN THE PLAN VIEW. THEY DO NOT APPEAR IN THE APPROACH SURFACE PROFILE VIEW.
3) ALL TOP ELEVATIONS OF ROAD AND RAIL OBJECT EVALUATION POINTS INCLUDE MOBILE OBJECT CLEARANCE HEIGHTS AS DEFINED BY 14 CFR PART 77.
4) FUTURE ROADS AND RAILROADS ARE IDENTIFIED IN THE PLAN AND PROFILE VIEWS. THE LOCATION AND ELEVATION OF FUTURE ROADS AND RAILROADS DEPICTED IS PRELIMINARY AND SUBJECT TO CHANGE. THE ELEVATION OF FUTURE OBJECTS WILL BE DETERMINED DURING THE ENGINEERING/DESIGN PHASE IN ACCORDANCE WITH FAA REQUIREMENTS.
5) FUTURE NAVIGATIONAL AIDS HAVE NOT BEEN ASSESSED AS PART OF THIS ANALYSIS. THE LOCATION AND ELEVATION OF EACH FUTURE SYSTEM COMPONENT DEPICTED ON THIS DRAWING WILL BE COORDINATED, CONTROLLED, AND ULTIMATELY APPROVED BY THE FAA THROUGHOUT THE ENGINEERING DESIGN REVIEW (EDR) AND IMPLEMENTATION PROCESS.
6) IN GENERAL TERMS, OBJECTS WITHIN THE OBJECT FREE AREAS (OFA) ARE TO BE REMOVED. TREES OUTSIDE THE OFA THAT PENETRATE THE PART 77 50:1 SURFACE HAVE THE OPTION TO BE "TRIMMED OR REMOVED AND ARE LISTED AS "TRIM/REMOVE". GENERALLY, BUILDINGS WITHIN THE RUNWAY PROTECTION ZONES (RPZ) AND WITHIN AIRPORT PROPERTY ARE ALSO SLATED TO BE REMOVED. ALL OTHER OBJECTS WITHIN AIRPORT PROPERTY THAT DO NOT PENETRATE THE APPROACH SURFACE MAY BE REMOVED FOR OTHER PURPOSES, HOWEVER FOR PURPOSES OF THE APPROACH DRAWINGS THEY ARE LISTED AS NOT APPLICABLE "N/A". THE RESOLUTION FOR OBJECTS OUTSIDE AIRPORT PROPERTY THAT PENETRATE THE PART 77 50:1 SURFACE IS THE PLACEMENT OF AN OBSTRUCTION LIGHT (OL) ON THE OBJECT.
7) SOURCE: O'HARE INTERNATIONAL AIRPORT PHOTOGRAMMETRY, MARTINEZ CORPORATION, NOVEMBER 20, 2001.

LEGEND

TREE CLUSTER - PLAN VIEW (NOTE: Circle represents the maximum penetration in the cluster)

TREE CLUSTER - PROFILE VIEW (NOTE: Vertical line represents the maximum penetration in the cluster)

FUTURE AIRFIELD KEY MAP



Transitional Surface Obstructions

No.	Object	Top EL. (MSL)	Part77 Penetration	Threshold Siting Surface Penetration	Resolution
TF-1	Fence	672.40	-6.19	-7.11	N/A
TF-2	Fence	672.37	-3.04	-7.84	N/A
TFF-1	Future-Fence	672.00	-0.19	-0.20	N/A
TFF-2	Future-Fence	679.00	-58.21	-58.23	N/A
TFF-3	Future-Fence	674.00	-31.91	-33.68	N/A
TFF-4	Future-Fence	674.00	-36.63	-38.94	N/A
TFF-5	Future-Fence	685.00	-77.59	-80.54	N/A
TFF-6	Future-Fence	682.00	-2.36	-11.23	N/A
TFF-7	Future-Fence	683.00	-79.54	-90.34	N/A
TFRR-1	Future-Railroad	688.00	-5.57	-5.58	N/A
TFRR-2	Future-Railroad	690.00	-72.39	-99.08	N/A
TFW-1	Future-Water	662.00	-4.07	-4.08	N/A
TFW-2	Future-Water	667.00	-95.58	-112.03	N/A
TRR-1	Railroad	700.98	-39.06	-39.06	N/A
TRR-2	Railroad	686.64	-63.31	-63.31	N/A
TRR-3	Railroad	690.01	-14.96	-14.97	N/A
TRR-4	Railroad	690.11	-19.06	-19.06	N/A
TRR-5	Railroad	697.85	-34.13	-34.14	N/A
TRR-6	Railroad	688.19	-36.42	-36.43	N/A
TRR-7	Railroad	687.49	-71.08	-71.09	N/A
TRR-8	Railroad	687.83	-74.79	-75.24	N/A
TRR-9	Railroad	687.01	-75.59	-76.83	N/A
TRR-10	Railroad	688.43	-24.60	-27.37	N/A
TRR-11	Railroad	688.09	-28.66	-32.43	N/A
TRR-12	Railroad	693.07	-69.54	-74.45	N/A
TRR-13	Railroad	688.45	-26.55	-31.59	N/A
TRR-14	Railroad	688.50	-26.30	-33.60	N/A
TRR-15	Railroad	690.46	-40.66	-48.32	N/A
TRR-16	Railroad	694.94	-49.34	-58.25	N/A
TRR-17	Railroad	691.22	-71.31	-98.47	N/A
TT-1	Tree	676.23	4.17	3.75	Trim/Remove
TT-2	Tree	675.93	3.88	3.20	Trim/Remove
TT-3	Tree	679.21	3.98	2.64	Trim/Remove
TT-4	Tree	700.42	22.82	20.20	Trim/Remove
TT-5	Tree	695.03	11.74	7.35	Trim/Remove
TT-6	Tree	696.23	14.35	9.57	Trim/Remove
TT-7	Tree	723.26	4.16	-2.26	Trim/Remove
TT-8	Tree	715.10	31.23	23.21	Trim/Remove
TT-9	Tree	706.27	-2.27	-11.21	N/A
TT-10	Tree	722.44	-9.09	-20.12	N/A
TT-11	Tree	701.42	-1.76	-14.90	N/A
TT-12	Tree	702.27	-0.32	-14.33	N/A
TT-13	Tree	692.12	-7.09	-23.41	N/A
TT-14	Tree	721.83	15.55	-1.74	Trim/Remove
TT-15	Tree	711.15	-8.22	-25.68	N/A
TT-16	Tree	729.26	-0.75	-20.13	N/A
TT-17	Tree	725.44	-9.25	-28.92	N/A
TT-18	Tree	723.58	-6.87	-26.75	N/A
TT-19	Tree	701.71	-4.09	-24.00	N/A
TT-20	Tree	710.11	0.71	-20.53	Trim/Remove
TT-21	Tree	712.35	-3.35	-25.60	N/A
TT-22	Tree	703.70	-6.52	-28.85	N/A
TT-23	Tree	713.74	-9.76	-32.34	N/A
TT-24	Tree	732.07	-9.07	-31.96	N/A
TT-25	Tree	733.51	-6.35	-29.67	N/A
TT-26	Tree	707.33	-8.42	-31.92	N/A
TT-27	Tree	737.24	-8.96	-33.68	N/A
TT-28	Tree	722.81	2.56	-23.54	Trim/Remove
TT-29	Tree	735.66	-2.18	-29.25	N/A
TT-30	Tree	740.64	2.87	-24.89	Trim/Remove
TT-31	Tree	733.96	2.20	-25.61	Trim/Remove
TT-32	Tree	717.81	-9.29	-37.10	N/A
TT-33	Tree	740.62	6.56	-23.06	Trim/Remove
TT-34	Tree	718.42	-9.11	-39.34	N/A
TT-35	Tree	721.56	-9.68	-40.70	N/A
TT-36	Tree	730.77	-9.86	-42.46	N/A
TT-37	Tree	734.46	-4.29	-38.58	N/A
TTC-1	Tree Clusters	726.05	46.23	45.06	Trim/Remove
TTC-2	Tree Clusters	712.96	12.21	9.48	Trim/Remove
TTC-3	Tree Clusters	686.54	9.39	6.60	Trim/Remove
TTC-4	Tree Clusters	705.51	29.84	24.92	Trim/Remove
TTC-5	Tree Clusters	705.90	18.13	9.83	Trim/Remove
TTC-6	Tree Clusters	725.11	33.24	23.63	Trim/Remove
TTC-7	Tree Clusters	721.97	17.26	6.64	Trim/Remove
TTC-8	Tree Clusters	711.06	17.08	2.59	Trim/Remove
TTC-9	Tree Clusters	703.48	1.13	-13.39	Trim/Remove
TTC-10	Tree Clusters	738.76	22.57	6.38	Trim/Remove
TTC-11	Tree Clusters	717.69	4.88	-16.66	Trim/Remove
TW-1	Waterway	656.78	-105.74	-144.01	N/A

Approach Surface Obstructions

No.	Object	Top EL. (MSL)	Part77 Penetration	Threshold Siting Surface Penetration	Resolution
F-1	Fence	672.51	9.81	9.80	Remove
F-2	Fence	662.77	0.05	0.04	Remove
F-3	Fence	666.59	3.66	3.55	Remove
F-4	Fence	663.85	0.87	0.74	Remove
F-5	Fence	677.31	11.53	10.08	Remove
F-6	Fence	664.21	-1.61	-3.08	Remove
F-7	Fence	666.75	0.92	-0.55	Remove
F-8	Fence	664.70	-2.08	-4.00	Remove
F-9	Fence	665.97	-1.00	-3.01	Remove
F-10	Fence	673.24	5.79	3.55	Remove
F-11	Fence	671.68	3.49	0.90	Remove
F-12	Fence	674.42	5.89	3.14	Remove
F-13	Fence	674.57	6.02	3.27	Remove
F-14	Fence	672.74	4.15	1.38	Remove
F-15	Fence	674.03	3.21	-0.61	Remove
F-16	Fence	672.76	-0.25	-5.10	Remove
F-17	Fence	673.06	-0.01	-4.89	Remove
F-18	Fence	671.94	-9.17	-17.83	N/A
F-19	Fence	673.09	-8.72	-17.71	N/A
F-20	Fence	673.34	-8.78	-17.92	N/A
F-21	Fence	673.78	-8.34	-17.48	N/A
F-22	Fence	674.41	-7.77	-16.93	N/A
F-23	Fence	672.66	-9.73	-18.99	N/A
F-24	Fence	674.38	-8.03	-17.31	N/A
F-25	Fence	673.08	-9.69	-19.14	N/A
F-26	Fence	674.51	-8.34	-17.82	N/A
F-27	Fence	674.63	-8.22	-17.70	N/A
F-28	Fence	677.36	-6.31	-16.18	N/A
FF-1	Future-Fence	666.00	-0.79	-2.72	N/A
FF-2	Future-Fence	679.00	-0.48	-8.37	N/A
FF-3	Future-Fence	680.00	-3.20	-12.85	N/A
FF-4	Future-Fence	675.00	-15.85	-29.09	N/A
FRR-1	Future-Railroad	689.00	14.07	8.32	N/A
FRR-2	Future-Railroad	686.00	-20.84	-41.61	N/A
FRR-3	Future-Railroad	690.00	-28.24	-54.37	N/A
FW-1	Future-Water	662.00	-2.15	-2.83	N/A
FW-2	Future-Water	668.00	-18.60	-29.85	N/A
FW-3	Future-Water	668.00	-22.59	-35.72	N/A
M-1	Misc-Rec	668.47	-0.69	-3.73	Remove
M-2	Misc-Rec	668.77	-1.13	-4.51	Remove
M-3	Misc-Pile	669.25	-2.81	-7.22	Remove
M-4	Misc-Rec	665.89	-7.71	-12.84	N/A
RR-1	Railroad	689.59	10.22	2.38	See Note
RR-2	Railroad	689.29	8.13	-0.56	N/A
RR-3	Railroad	688.86	6.86	-2.22	N/A
RR-4	Railroad	689.07	4.08	-6.41	N/A
RR-5	Railroad	689.76	1.16	-11.03	N/A
RR-6	Railroad	689.98	-0.73	-13.91	N/A
RR-7	Railroad	693.24	-8.92	-27.48	N/A
RR-8	Railroad	693.76	-12.75	-33.37	N/A
RR-9	Railroad	692.49	-21.39	-45.47	N/A
RR-10	Railroad	691.42	-27.95	-54.61	N/A
RR-11	Railroad	692.24	-27.18	-53.87	N/A
RR-12	Railroad	691.04	-29.39	-56.56	N/A
RR-13	Railroad	696.93	-24.56	-52.23	N/A
RR-14	Railroad	702.43	-37.66	-74.07	N/A
RR-15	Railroad	700.35	-62.31	-109.35	N/A
W-1	Waterway	656.80	-93.25	-134.35	N/A
W-2	Waterway	657.37	-100.89	-145.87	N/A
W-3	Waterway	657.65	-104.99	-152.03	N/A

Approach Surface Obstructions

No.	Object	Top EL. (MSL)	Part77 Penetration	Threshold Siting Surface Penetration	Resolution
T-1	Tree	688.36	19.91	17.21	Trim/Remove
T-2	Tree	687.00	18.54	15.84	Trim/Remove
T-3	Tree	690.18	21.63	18.87	Trim/Remove
T-4	Tree	709.96	40.29	37.01	Remove
T-5	Tree	693.72	22.82	18.96	Trim/Remove
T-6	Tree	689.90	18.22	13.99	Remove
T-7	Tree	688.53	14.31	8.88	Remove
T-8	Tree	691.64	17.31	11.84	Remove
T-9	Tree	699.44	25.10	19.62	Remove
T-10	Tree	693.46	19.06	13.56	Remove
T-11	Tree	686.10	11.20	5.46	Remove
T-12	Tree	678.17	3.17	-2.62	Remove
T-13	Tree	688.76	13.45	7.52	Remove
T-14	Tree	696.68	19.85	13.20	Remove
T-15	Tree	711.48	34.59	27.92	Remove
T-16	Tree	689.91	13.02	6.34	Remove
T-17	Tree	689.90	12.99	6.31	Remove
T-18	Tree	692.40	15.32	8.56	Remove
T-19	Tree	691.21	13.86	6.96	Remove
T-20	Tree	684.12	6.56	-0.43	Remove
T-21	Tree	689.05	11.40	4.37	Trim/Remove
T-22	Tree	693.66	15.41	8.09	Remove
T-23	Tree	691.87	13.57	6.23	Remove
T-24	Tree	695.57	16.29	8.48	Remove
T-25	Tree	695.96	16.30	8.32	Trim/Remove
T-26	Tree	698.51	18.82	10.82	Trim/Remove
T-27	Tree	744.22	64.49	56.47	Trim/Remove
T-28	Tree	697.12	14.06	4.48	Trim/Remove
T-29	Tree	687.27	3.80	-5.98	Trim/Remove
T-30	Tree	687.67	-4.12	-17.81	N/A
T-31	Tree	703.64	7.10	-8.82	Trim/Remove
T-32	Tree	689.79	-9.99	-27.45	N/A
T-33	Tree	702.47	2.63	-14.85	Trim/Remove
T-34	Tree	691.25	-8.67	-26.19	N/A
T-35	Tree	692.74	-7.90	-25.76	N/A
T-36	Tree	721.37	20.54	2.60	Trim/Remove
T-37	Tree	694.26	-9.53	-28.86	N/A
T-38	Tree	708.56	3.92	-15.82	Trim/Remove
T-39	Tree	716.64	11.78	-8.06	Trim/Remove
T-40	Tree	714.18	8.92	-11.10	Trim/Remove
T-41	Tree	724.34	19.02	-1.04	Trim/Remove
T-42	Tree	697.00	-8.46	-28.58	N/A
T-43	Tree	709.22	2.96	-17.54	Trim/Remove
T-44	Tree	734.60	28.16	7.57	Trim/Remove
T-45	Tree	726.67	19.68	-1.17	Trim/Remove
T-46	Tree	701.99	-5.63	-26.76	N/A
T-47	Tree	699.96	-7.67	-28.81	N/A
T-48	Tree	699.39	-8.90	-30.35	N/A
T-49	Tree	722.45	12.41	-9.87	Trim/Remove
T-50	Tree	704.42	-5.83	-28.21	N/A
T-51	Tree	710.37	-0.58	-23.29	N/A
T-52	Tree	709.66	-2.74	-26.13	N/A
T-53	Tree	704.25	-8.65	-32.28	N/A
T-54	Tree	712.18	-1.23	-25.09	N/A
T-55	Tree	723.61	8.95	-15.51	Trim/Remove
T-56	Tree	717.91	3.24	-21.22	Trim/Remove
T-57	Tree	713.01	-2.20	-26.91	N/A
T-58	Tree	729.44	13.60	-11.41	Trim/Remove
T-59	Tree	709.29	-7.41	-32.83	N/A
T-60	Tree	710.75	-6.82	-32.64	N/A
T-61	Tree	709.39	-8.68	-34.74	N/A
T-62	Tree	724.26	3.34	-24.05	Trim/Remove
T-63	Tree	715.52	-8.15	-36.84	N/A
T-64	Tree	717.45	-7.31	-36.51	N/A
T-65	Tree	715.37	-9.90	-39.35	N/A
T-66	Tree	731.57	6.21	-23.28	Trim/Remove
T-67	Tree	721.30	-4.09	-33.59	N/A
T-68	Tree	728.31	2.75	-26.84	Trim/Remove
T-69	Tree	728.35	0.64	-29.95	Trim/Remove
T-70	Tree	760.98	33.27	2.68	Trim/Remove
T-71	Tree	719.27	-8.44	-39.03	N/A
T-72	Tree	738.71	10.43	-20.43	Trim/Remove
T-73	Tree	738.55	5.75	-27.24	Trim/Remove
T-74	Tree	723.29	-9.67	-42.73	N/A
T-75	Tree	734.14	1.02	-32.13	Trim/Remove
T-76	Tree	724.04	-9.49	-42.82	N/A
T-77	Tree	729.68	-3.99	-37.39	N/A
T-78	Tree	733.19	-0.73	-34.24	N/A
T-79	Tree	726.16	-9.53	-43.88	N/A
T-80	Tree	728.87	-7.24	-41.79	N/A
T-81	Tree	737.34	1.08	-33.54	Trim/Remove
T-82	Tree	728.61	-8.12	-42.96	N/A
T-83	Tree	729.77	-8.46	-44.00	N/A
T-84	Tree	751.72	11.64	-24.77	Trim/Remove
T-85	Tree	734.62	-5.84	-42.44	N/A
T-86	Tree	748.76	6.57	-30.84	Trim/Remove
T-87	Tree	736.00	-6.37	-43.86	N/A
T-88	Tree	737.41	-9.21	-48.70	N/A
T-89	Tree	737.55	-9.12	-48.64	N/A
T-90	Tree	744.33	-4.08	-44.42	N/A
T-91	Tree	753.52	-7.53	-53.81	N/A
TC-1	Tree Clusters	704.37	35.46	32.54	Remove
TC-2	Tree Clusters	723.62	50.69	45.88	Remove
TC-3	Tree Clusters	725.73	52.63	47.74	Remove
TC-4	Tree Clusters	713.98	35.99	28.79	Trim/Remove
TC-5	Tree Clusters	706.69	28.10	20.62	Remove
TC-6	Tree Clusters	735.19	55.18	47.04	Remove
TC-7	Tree Clusters	730.37	47.25	37.64	Trim/Remove
TC-8	Tree Clusters	711.21	28.05	18.43	Trim/Remove
TC-9	Tree Clusters	688.08	3.72	-6.47	Trim/Remove
TC-10	Tree Clusters	727.06	42.68	32.47	Trim/Remove
TC-11	Tree Clusters	709.41	24.41	13.91	Trim/Remove
TC-12	Tree Clusters	716.91	31.56	20.91	Trim/Remove
TC-13	Tree Clusters	696.44	8.70	-3.08	Trim/Remove
TC-14	Tree Clusters	731.49	42.73	30.46	Trim/Remove
TC-15	Tree Clusters	731.04	42.23	29.94	Trim/Remove
TC-16	Tree Clusters	757.07	67.56	54.94	Trim/Remove

Approach Surface Obstructions

No.	Object	Top EL. (MSL)	Part77 Penetration	Threshold Siting Surface Penetration	Resolution
TC-17	Tree Clusters	731.73	42.21	29.59	Trim/Remove
TC-18	Tree Clusters	719.22	28.59	15.45	Trim/Remove
TC-19	Tree Clusters	725.22	33.11	19.28	Trim/Remove
TC-20	Tree Clusters	724.26	32.14	18.29	Trim/Remove
TC-21	Tree Clusters	724.49	31.04	16.57	Trim/Remove
TC-22	Tree Clusters	708.89	15.38	0.88	Trim/Remove
TC-23	Tree Clusters	711.83	18.11	3.51	Trim/Remove
TC-24	Tree Clusters	708.29	12.73	-2.73	Trim/Remove
TC-25	Tree Clusters	742.23	44.82	28.48	Trim/Remove
TC-26	Tree Clusters	727.18	27.85	10.62	Trim/Remove
TC-27	Tree Clusters	718.81	19.30	1.98	Trim/Remove
TC-28	Tree Clusters	729.69	28.52	10.41	Trim/Remove
TC-29	Tree Clusters	700.62	-2.06	-20.88	N/A
TC-30	Tree Clusters	723.27	18.85	-0.76	Trim/Remove
TC-31	Tree Clusters	736.42	30.92	10.78	Trim/Remove
TC-32	Tree Clusters	707.63	0.64	-20.21	Trim/Remove
TC-33	Tree Clusters	700.42	-7.89	-29.35	N/A
TC-34	Tree Clusters	736.92	27.54	5.57	Trim/Remove
TC-35	Tree Clusters	747.67	36.72	14.02	Trim/Remove
TC-36	Tree Clusters	715.56	0.04	-24.82	Trim/Remove
TC-37	Tree Clusters	727.17	8.88	-17.28	Trim/Remove
TC-38	Tree Clusters	720.48	-3.25	-31.97	N/A
TC-39	Tree Clusters	725.19	-0.08	-29.52	N/A
TC-40	Tree Clusters	741.84	12.39	-19.03	Trim/Remove
TC-41	Tree Clusters	756.53	25.25	-7.03	Trim/Remove
TC-42	Tree Clusters	739.36	-3.72	-41.55	N/A

No	Revisions	Date

O'Hare Modernization Program
Rosemarie S. Andolino
Executive Director

CHICAGO AIRPORT SYSTEM
John A. Roberson
Commissioner

FUTURE RUNWAY 10R
INNER APPROACH SURFACE (3 of 4)

O'Hare International Airport

MAGNETIC NORTH DEGINATION 4.2.8' W (AUGUST 1, 2005)
TRUE NORTH

DRAWN BY: MNT
CHECKED BY: FG
PREPARED BY: Ricondo & Associates, Inc.
September 2005
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