


<b>Flight Procedure Tracking Form</b>		<b>Action:</b> FLIGHT CHECK	<b>Task Type:</b> SID	<b>Date Open:</b> 04/03/2015	<b>Task #:</b> 2015040132125313002	<b>Request #:</b> 20150401321253
<b>Procedure:</b> SID SHEAD (RNAV) ONE LAS VEGAS NV KLAS			<b>Airport ID:</b> KLAS	<b>Airport:</b> MC CARRAN INTL		<b>Reimbursable #:</b> NO
<b>City:</b> LAS VEGAS	<b>ST:</b> NV	<b>GPS #:</b>	<b>Estimated Chart Date:</b> 08/17/2017		<b>FICO #:</b> 1185908	
<b>Fac ID:</b> N/A		<b>Fac. Type:</b>		<b>Specialist:</b> PETER GUIMOND		
<b>Procedure Review</b>						
	<b>Rec'd</b>	<b>Rel'd</b>	<b>Full Name</b>	<b>Comments</b>		
<b>Lead:</b>	12/22/2016	04/17/2017	ROBERT HAMILTON	 <i>Digitally signed by</i> <b>ROBERT G HAMILTON</b> Jun 09, 2017		
<b>QA:</b>	04/17/2017	05/08/2017	ANDI LAU			
<b>Liaison:</b>	05/08/2017	05/08/2017	MARY MCDONALD			
<b>Procedure Comments:</b>			ENROUTE	<b>Remark Type:</b> INFORMATION		
<p>CONTACT: ROBERT HAMILTON, AJV-5422 LEAD, 405.954.4608</p> <p>ASSIGNED MAGVAR: KLAS: OLD 15E - NEW 11E.</p> <p>SPECIAL FLIGHT CHECK INSTRUCTIONS: ABBREVIATED AMDT, REQUEST TABLE TOP REVIEW.</p> <p>05/14/2017: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 04/17/2017. AMENDED COURSE TO MDDOG FROM 213.51 TO 213.59 IN TAKEOFF RUNWAY 26R DP ROUTE DESCRIPTION.</p> <p>06/09/2017: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 04/17/2017. AMENDED LONGITUDE OF WASTE FROM 1140425.72W TO 1150425.72W ON FAA FORM 8260-15C.</p> <p>6/20/2017: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 4/17/2017. 8260-15C RWYS 26L/26R CG CHANGED FROM 400 TO 470 TO MATCH 8260-15B.</p>						

## FIPC DME/DME FORM

<b>PROCEDURE:</b> SID,SHEAD (RNAV),ONE,LAS VEGAS,NV,KLAS,!		<b>AIRPORT NAME:</b> MC CARRAN INTL		<b>AIRPORT ID:</b> KLAS	<b>SPECIAL CONTROL NO:</b> SG-06-243-17
<b>FAC ID:</b> SHEAD1		<b>CITY:</b> LAS VEGAS		<b>ST:</b> NV	<b>ORIG CHART DATE:</b> 08/17/2017
<b>DFL TYPE:</b> PROC/D	<b>THIRD PARTY:</b> <input type="checkbox"/> YES	<b>EST. TIME ON SITE:</b> 1.0	<b>REIMB. NUMBER:</b>	<b>PTS TASK ID:</b> 2015040132125314001	

## PREFLIGHT NOTES

<b>REVIEWER:</b> scott a thompson	<b>DATE:</b> 06/19/2017			
<b>COMMENTS:</b> CPV result unsatisfactory: RWY8R: VA is coded for mag hdg 074.9; procedure specifies heading 078.93. Additional note: CG notes on 8260-15C for RWYs 26L and 26R (CG 400 ft per nm to 9000) do not match 8260-15B CG (470' per NM to 9000).	<b>CHECK ONE:</b> <input type="checkbox"/> FLT CK REQ <input type="checkbox"/> NFCR <input checked="" type="checkbox"/> REJECT			
	<table><tr><td></td><td><b>YES</b></td><td><b>NO</b></td></tr></table>		<b>YES</b>	<b>NO</b>
		<b>YES</b>	<b>NO</b>	
<b>CPV COMPLETE?</b> <table><tr><td></td><td><b>X</b></td></tr></table>		<b>X</b>		
	<b>X</b>			

## PROCEDURE RESULTS

<b>INSPECTION DATE:</b> 06/19/2017	<b>CREW #:</b> VN167	<b>N #:</b>	<b>INSTRUMENT PROCEDURE STATUS:</b> <input type="checkbox"/> SAT <input type="checkbox"/> SAT W/CHANGES <input checked="" type="checkbox"/> UNSAT	<b>ARINC CODING:</b> <input type="checkbox"/> SAT <input type="checkbox"/> SAT/GOLD <input checked="" type="checkbox"/> UNSAT
<b>FLIGHT INSPECTOR SIGNATURE:</b> scott a thompson @ 06/19/2017 14:14		<b>PRINTED NAME:</b> THOMPSON, SCOTT ANDREW		<b>NOTAM INITIATED?</b> <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<b>FLIGHT INSPECTOR REMARKS:</b> Unsatisfactory due to incorrect coding found during CPV process.				
<b>DME/DME STATUS:</b> <input type="checkbox"/> SAT <input type="checkbox"/> UNSAT	<b>SPECIALIST SIGNATURE:</b>		<b>PRINTED NAME:</b>	
<b>SPECIALIST REMARKS:</b>				

## IN-FLIGHT OBSTACLE REPORT

<b>OBSTRUCTION ID #:</b>	<b>COORDINATES OR LOCATION:</b>	<b>GNSS ALTITUDE (MSL):</b>	<b>BAROMETRIC ALTITUDE (MSL):</b>	<b>HEIGHT ABOVE GROUND LEVEL:</b>
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<b>FIPC DME/DME FORM</b>						
<b>PROCEDURE:</b> SID,SHEAD (RNAV),ONE,LAS VEGAS,NV,KLAS,!			<b>AIRPORT NAME:</b> MC CARRAN INTL		<b>AIRPORT ID:</b> KLAS	<b>SPECIAL CONTROL NO:</b> SG-05-082-17
<b>FAC ID:</b> SHEAD1		<b>CITY:</b> LAS VEGAS			<b>ST:</b> NV	<b>ORIG CHART DATE:</b> 08/17/2017
<b>DFL TYPE:</b> PROC/D	<b>THIRD PARTY:</b> <input type="checkbox"/> YES	<b>EST. TIME ON SITE:</b> 1.0	<b>REIMB. NUMBER:</b>	<b>PTS TASK ID:</b> 2015040132125313002		
<b>PREFLIGHT NOTES</b>						
<b>REVIEWER:</b>					<b>DATE:</b>	
<b>COMMENTS:</b>					<b>CHECK ONE:</b> <input type="checkbox"/> FLT CK REQ <input type="checkbox"/> NFCR <input type="checkbox"/> REJECT <div style="display: flex; justify-content: flex-end; align-items: center; gap: 10px;"> <div style="border-top: 1px solid black; width: 150px;"></div> <div style="border-top: 1px solid black; width: 40px; text-align: center;">YES</div> <div style="border-top: 1px solid black; width: 40px; text-align: center;">NO</div> </div>	
					<div style="display: flex; justify-content: flex-end; align-items: center; gap: 10px;"> <div style="border-top: 1px solid black; width: 150px;"></div> <div style="border-top: 1px solid black; width: 40px; text-align: center;">X</div> <div style="border-top: 1px solid black; width: 40px;"></div> </div>	
<b>PROCEDURE RESULTS</b>						
<b>INSPECTION DATE:</b> 06/14/2017	<b>CREW #:</b> VN888	<b>N #:</b>	<b>INSTRUMENT PROCEDURE STATUS:</b> <input type="checkbox"/> SAT <input type="checkbox"/> SAT W/CHANGES <input checked="" type="checkbox"/> UNSAT		<b>ARINC CODING:</b> <input type="checkbox"/> SAT <input type="checkbox"/> SAT/GOLD <input type="checkbox"/> UNSAT	
<b>FLIGHT INSPECTOR SIGNATURE:</b> elizabeth whaley @ 06/14/2017 08:50			<b>PRINTED NAME:</b> AVN, CREWMEMBER 2			<b>NOTAM INITIATED?</b> <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<b>FLIGHT INSPECTOR REMARKS:</b> The portion of the code that contains the routes are all labeled SHEAD8 and SHEAD9 instead of SHEAD1.						
<b>DME/DME STATUS:</b> <input type="checkbox"/> SAT <input type="checkbox"/> UNSAT	<b>SPECIALIST SIGNATURE:</b>				<b>PRINTED NAME:</b>	
<b>SPECIALIST REMARKS:</b>						
<b>IN-FLIGHT OBSTACLE REPORT</b>						
<b>OBSTRUCTION ID #:</b>	<b>COORDINATES OR LOCATION:</b>	<b>GNSS ALTITUDE (MSL):</b>	<b>BAROMETRIC ALTITUDE (MSL):</b>	<b>HEIGHT ABOVE GROUND LEVEL:</b>		

<b>FIPC DME/DME FORM</b>							
<b>PROCEDURE:</b> SID,SHEAD (RNAV),ONE,LAS VEGAS,NV,KLAS,!			<b>AIRPORT NAME:</b> MC CARRAN INTL		<b>AIRPORT ID:</b> KLAS	<b>SPECIAL CONTROL NO:</b> SG-05-082-17	
<b>FAC ID:</b> SHEAD1		<b>CITY:</b> LAS VEGAS			<b>ST:</b> NV	<b>ORIG CHART DATE:</b> 08/17/2017	
<b>DFL TYPE:</b> PROC/D	<b>THIRD PARTY:</b> <input type="checkbox"/> YES	<b>EST. TIME ON SITE:</b> 1.0	<b>REIMB. NUMBER:</b>		<b>PTS TASK ID:</b> 2015040132125313002		
<b>PREFLIGHT NOTES</b>							
<b>REVIEWER:</b>					<b>DATE:</b>		
<b>COMMENTS:</b>					<b>CHECK ONE:</b> <input type="checkbox"/> FLT CK REQ <input type="checkbox"/> NFCR <input type="checkbox"/> REJECT		
					<b>YES</b>		<b>NO</b>
					<b>CPV COMPLETE?</b>		<b>X</b>
<b>PROCEDURE RESULTS</b>							
<b>INSPECTION DATE:</b> 05/17/2017		<b>CREW #:</b> VN888	<b>N #:</b>	<b>INSTRUMENT PROCEDURE STATUS:</b> <input type="checkbox"/> SAT <input type="checkbox"/> SAT W/CHANGES <input checked="" type="checkbox"/> UNSAT		<b>ARINC CODING:</b> <input type="checkbox"/> SAT <input type="checkbox"/> SAT/GOLD <input type="checkbox"/> UNSAT	
<b>FLIGHT INSPECTOR SIGNATURE:</b> elizabeth whaley @ 05/17/2017 15:19			<b>PRINTED NAME:</b> AVN, CREWMEMBER 2				<b>NOTAM INITIATED?</b> <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<b>FLIGHT INSPECTOR REMARKS:</b> MDDOG fix Lat/Long does not match between Targets and procedure package.							
<b>DME/DME STATUS:</b> <input type="checkbox"/> SAT <input type="checkbox"/> UNSAT		<b>SPECIALIST SIGNATURE:</b>			<b>PRINTED NAME:</b>		
<b>SPECIALIST REMARKS:</b>							
<b>IN-FLIGHT OBSTACLE REPORT</b>							
<b>OBSTRUCTION ID #:</b>	<b>COORDINATES OR LOCATION:</b>		<b>GNSS ALTITUDE (MSL):</b>		<b>BAROMETRIC ALTITUDE (MSL):</b>		<b>HEIGHT ABOVE GROUND LEVEL:</b>

LAS VEGAS, NEVADA  
MC CARRAN INTL (LAS)

NEW

Rwys 1L/R: 1100-3 with minimum climb of 500' per NM to 6000.  
 Rwys 8L/R: Standard with minimum climb of 400' per NM to 8000.  
 Rwys 19L/R: Standard with minimum climb of 483' per NM to 9000.  
 Rwys 26L/R: Standard with minimum climb of 470' per NM to 9000.

NOTE: RNAV 1.

NOTE: RADAR required.

NOTE: For non-GPS equipped aircraft departing Rwy's 1L/R, 19L/R, 26L/R, LSV, BLD, BTY and TPH DMEs must be operational.

**NOTE:** For non-GPS equipped aircraft departing Rwy 8L/R, BLD, BTY and TPH DMEs must be operational.

D-ATIS

132.4

CLNC DEL

118.0

CPDLC

GND CON

121.1 270.8 (E of 1R/19L)

254.3 (W of 1R/19L)

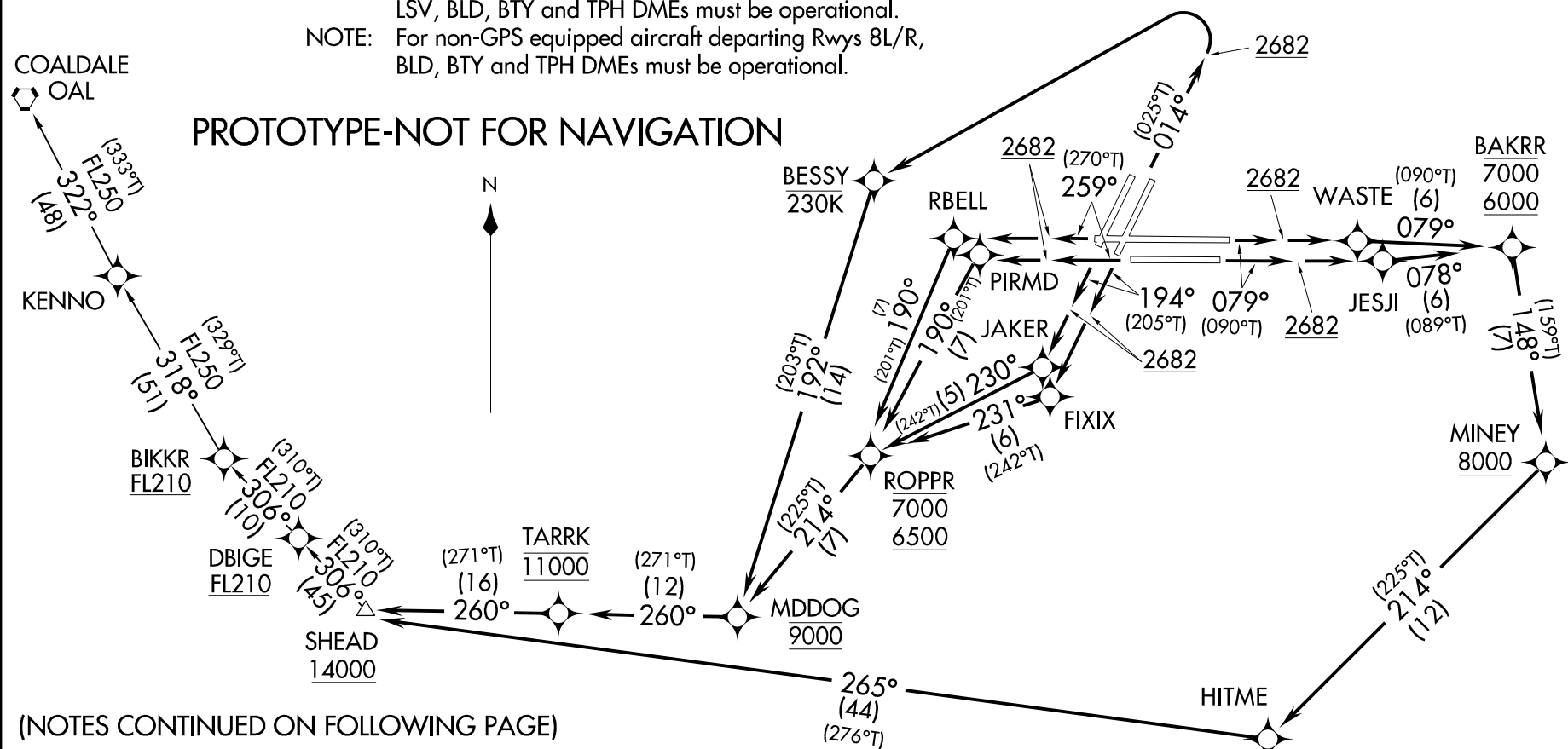
LAS VEGAS TOWER

118.75 257.8 (Rwys 1L/19R, 1R/19L)

(Rwys 7L/25R, 7R/25L)

EGAS DEP CON

N



NOTE: Chart not to scale.

AL-662 (FAA)

MC CARRAN INTL (LAS)  
LAS VEGAS, NEVADA

**NEW**

## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 1L/R: Climb heading 014° to 2682, then left turn direct BESSY, then on track 192° to cross MDDOG at 9000, then on track 260° to cross TARRK at 11000, then on track 260° to cross SHEAD at or above 14000. Thence. . . .

TAKEOFF RUNWAY 8L: Climb heading 079° to 2682, then direct WASTE, then on track 079° to cross BAKRR at or above 6000, at or below 7000, then on track 148° to cross MINEY at or above 8000, then on track 214° to HITME, then on track 265° to cross SHEAD at or above 14000. Thence. . . .

TAKEOFF RUNWAY 8R: Climb heading 079° to 2682, then direct JESJI, then on track 078° to cross BAKRR at or above 6000, at or below 7000, then on track 148° to cross MINEY at or above 8000, then on track 214° to HITME, then on track 265° to cross SHEAD at or above 14000. Thence. . . .

TAKEOFF RUNWAY 19L: Climb heading 194° to 2682, then direct FIXIX, then on track 231° to cross ROPPR at or above 6500, at or below 7000, then on track 214° to cross MDDOG at 9000, then on track 260° to cross TARRK at 11000, then on track 260° to cross SHEAD at or above 14000. Thence. . . .

TAKEOFF RUNWAY 19R: Climb heading 194° to 2682, then direct JAKER, then on track 230° to cross ROPPR at or above 6500, at or below 7000, then on track 214° to cross MDDOG at 9000, then on track 260° to cross TARRK at 11000, then on track 260° to cross SHEAD at or above 14000. Thence. . . .

TAKEOFF RUNWAY 26L: Climb heading 259° to 2682, then direct PIRMD, then on track 190° to cross ROPPR at or above 6500, at or below 7000, then on track 214° to cross MDDOG at 9000, then on track 260° to cross TARRK at 11000, then on track 260° to cross SHEAD at or above 14000. Thence. . . .

TAKEOFF RUNWAY 26R: Climb heading 259° to 2682, then direct RBELL, then on track 190° to cross ROPPR at or above 6500, at or below 7000, then on track 214° to cross MDDOG at 9000, then on track 260° to cross TARRK at 11000, then on track 260° to cross SHEAD at or above 14000. Thence. . . .

. . . .(Transition). Maintain FL190. Expect filed altitude 10 minutes after departure.

COALDALE TRANSITION (SHEAD1.OAL)

KENNO TRANSITION (SHEAD1.KENNO)

PROTOTYPE-NOT FOR NAVIGATION

(NOTES CONTINUED ON FOLLOWING PAGE)

**NEW**

(NOTES CONTINUED)

TAKEOFF OBSTACLE NOTES

- Rwy 1L: REIL 23' from DER, 153' left of centerline, 3' AGL/2090' MSL. Sign 1037' from DER, 695' left of centerline, 41' AGL/2125' MSL. Bldg 1556' from DER, 552' left of centerline, 2129' MSL. Bldg 1779' from DER, 649' left of centerline, 2147' MSL. Bldgs beginning 1907' from DER, 186' left of centerline, up to 2150' MSL. Bldgs beginning 1977' from DER, 214' left of centerline, up to 2150' MSL. Bldgs beginning 2095' from DER, 275' left of centerline, up to 83' AGL/2153' MSL. Bldgs beginning 3953' from DER, 1397' left of centerline, up to 162' AGL/2226' MSL. Bldg 4126' from DER, 1090' left of centerline, 2229' MSL. Bldg 4542' ft from DER, 1400' left of centerline, 183' AGL/2240' MSL. Bldg 4604' from DER, 1367' left of centerline, 186' AGL/2243' MSL.
- Rwy 1R: Bldg 609' from DER, 538' right of centerline, 28' AGL/2095' MSL. Sign 1336' DER, 447' right of centerline, 60' AGL/2122' MSL.
- Rwy 8L: Pole 744' from DER, 442' right of centerline, 30' AGL/2057' MSL. Tree 758' from DER, 168' right of centerline, 2068' MSL. Tree 767' from DER, 589' left of centerline, 2060' MSL. Tree 850' from DER, 184' left of centerline, 2067' MSL. Trees beginning 886' from DER, 371' right of centerline, up to 2074' MSL.
- Rwy 8R: Tower 1457' from DER, 848' right of centerline, 64' AGL/2097' MSL.
- Rwy 19L: Railroad, pole beginning 952' from DER, 322' left of centerline, up to 2215' MSL. RR 1043' from DER, 178' left of centerline, 2218' MSL. RR, pole beginning 1122' from DER, 19' left of centerline, up to 2219' MSL. RR 1166' from DER, 75' right of centerline, 2220' MSL. RR 1219' from DER, 235' right of centerline, 2222' MSL. RR 230' from DER, 281' right of centerline, 2223' MSL. Pole 1234' from DER, 178' left of centerline, 2221' MSL. RR 1241' from DER, 351' right of centerline, 2224' MSL. Rr 1246' from DER, 489' right of centerline, 2225' MSL. RR, pole beginning 1247' from DER, 11' right of centerline, up to 2226' MSL. Poles, tree, vehicles on road, sign, parking lot beginning 1392' from DER, 115' right of centerline, up to 36' AGL/2238' MSL. Tree, pole beginning 1410' from DER, 9' left of centerline, up to 2232' MSL. Tree 1819' from DER, 124' left of centerline, 2236' MSL. Pole, tree, vehicles on road beginning 1824' from DER, 9' right of centerline, up to 34' AGL/2242' MSL. Pole 1933' from DER, 623' right of centerline, 34' AGL/2243' MSL. Pole, tree beginning 1936' from DER, 55' right of centerline, up to 36' AGL/2245' MSL. Pole, tree, parking lot beginning 2036' from DER, 386' right of centerline, up to 35' AGL/2246' MSL. Pole, parking lot, tree, vehicles on road beginning 2133' from DER, 183' right of centerline, up to 36' AGL/2247' MSL. Sign, tree, parking lot, vehicles on road, pole, bldg beginning 2179' from DER, 27' right of centerline, up to 2256' MSL. Pole 2229' from DER, 578' left of centerline, 2238' MSL. Poles beginning 2332' from DER, 583' left of centerline, up to 2240' MSL. Sign, tree, pole, parking lot, bldg beginning 2381' from DER, 53' right of centerline, up to 41' SGL/2257' MSL. Bldg, tree, pole beginning 2466' from DER, 591' right of centerline, up to 38' AGL/2258' MSL. Bldg, tree, poles, utility box beginning 2505' from DER, 157' right of centerline, up to 38' AGL/2259' MSL. Pole, bldg beginning 2738' from DER, 20' left of centerline, up to 2251' MSL. Bldg, tree beginning 2739' from DER, 1134' right of centerline, up to 57' AGL/2279' MSL. Bldg, tree beginning 2766' from DER, 869' right of centerline, up to 57' AGL/2280' MSL. Bldg, tree beginning 2822' from DER, 1006' right of centerline, up to 58' AGL/2281' MSL. Bldgs, tree, poles beginning 2861' from DER, 665' right of centerline, up to 59' AGL/2282' MSL. Bldgs, pole beginning 3418' from DER, 884' right of centerline, up to 61' AGL/2284' MSL. Bldg, pole beginning 3515' from DER, 424' right of centerline, up to 59' AGL/2287' MSL. Sign 5292' from DER, 1688' right of centerline, 55' AGL/2309' MSL. Bldg, pole beginning 5596' from DER, 1758' left of centerline, up to 110' AGL/2334' MSL. Communication twr 5717' from DER, 781' right of centerline, 80' AGL/2327' MSL. Bldg 2 NM from DER, 2897' left of centerline, 236' AGL/2491' MSL. Bldgs beginning 2 NM from DER, 2936' left of centerline, up to 241' AGL/2494' MSL.

PROTOTYPE-NOT FOR NAVIGATION

(NOTES CONTINUED ON FOLLOWING PAGE)

## (NOTES CONTINUED)

**NEW**TAKEOFF OBSTACLE NOTES (CONTINUED)

- Rwy 19R: Grd 60' from DER, 475' right of centerline, 2186' MSL. Grd 151' from DER, 529' right of centerline, 2190' MSL. Bldg 194' from DER, 444' right of centerline, 9' AGL/2199' MSL. Navaid 262' from DER, 408' right of centerline, 14' AGL/2206' MSL. Vehicles on road, grd, control box beginning 348' from DER, 42' right of centerline, up to 2208' MSL. Pole, vehicles on road beginning 503' from DER, 434' right of centerline, up to 2218' MSL. pole, sign, vehicles on road, flag pole, fence beginning 592' from DER, 277' right of centerline, up to 37' AGL/2234' MSL. Signs, parking lot, vehicles on road, bldg, pole, tree beginning 844' from DER, 266' right of centerline, up to 41' AGL/2240' MSL. Tower, fence, vehicles on road, sign beginning 961' from DER, 175' right of centerline, up to 41' AGL/2243' MSL. T-L twr, vehicles on road, railroad, pole, rr crossing signal control box, parking lot beginning 1132' from DER, 8' right of centerline, up to 47' AGL/2249' MSL. railroad 1219' from DER, 701' left of centerline, 2222' MSL. Railroad 1230' from DER, 656' left of centerline, 2223' MSL. railroad 1240' from DER, 585' left of centerline, 2224' MSL. Railroad 1246' from DER, 448' left of centerline, 2225' MSL. railroad, pole beginning 1247' from DER, 76' left of centerline, up to 2226' MSL. Poles, tree, vehicles on road, sign beginning 1392' from DER, 15' left of centerline, up to 36' AGL/2238' MSL. Poles, tree, parking lot, bldg beginning 1726' from DER, 11' right of centerline, up to 2254' MSL. Pole, tree beginning 1823' from DER, 78' left of centerline, up to 34' AGL/2242' MSL. Pole 1933' from DER, 313' left of centerline, 34' AGL/2243' MSL. Pole, tree beginning 1935' from DER, 12' left of centerline, up to 36' AGL/2245' MSL. Pole, tree beginning 2036' from DER, 5' left of centerline, up to 35' AGL/2246' MSL. Poles, bldg, tree beginning 2043' from DER, 221' right of centerline, up to 2255' MSL. Pole, tree beginning 2133' from DER, 19' left of centerline, up to 36' AGL/2247' MSL. Tree, poles, sign, bldg beginning 2146' from DER, 14' right of centerline, up to 2259' MSL. Pole, bldg, tree beginning 2234' from DER, 12' left of centerline, up to 35' AGL/2249' MSL. pole, tree beginning 2335' from DER, 88' left of centerline, up to 36' AGL/2250' MSL. Sign, tree, poles, bldg beginning 2381' from DER, 37' left of centerline, up to 41' AGL/2257' MSL. pole, bldgs, tree beginning 2496' from DER, 5' right of centerline, up to 2274' MSL. Bldg beginning 2739' from DER, 196' right of centerline, up to 57' AGL/2279' MSL. Bldg, tree beginning 2766' from DER, 73' right of centerline, up to 57' AGL/2280' MSL. bldg beginning 2767' from DER, 44' left of centerline, up to 36' AGL/2258' MSL. Bldg, tree beginning 2822' from DER, 68' right of centerline, up to 58' AGL/2281' MSL. Bldg, tree beginning 2861' from DER, 126' right of centerline, up to 59' AGL/2282' MSL. Bldgs, tree beginning 2893' from DER, 6' right of centerline, up to 2288' MSL. Bldg beginning 2895' from DER, 2' left of centerline, up to 39' AGL/2262' MSL. bldgs, tree bldg beginning 3032' from DER, 301' right of centerline, up to 61' AGL/2290' MSL. bldgs, tree, pole beginning 3076' from DER, 58' right of centerline, up to 61' AGL/2291' MSL. bldgs, sign, poles beginning 3459' from DER, 287' right of centerline, up to 74' AGL/2302' MSL. Bldg 3495' from DER, 53' left of centerline, 52' AGL/2278' MSL. Communication twr 5717' from DER, 156' left of centerline, 80' AGL/2327' MSL.
- Rwy 26L: Bldg 1002' from DER, 250' left of centerline, 6' AGL/2183' MSL. Railroad, pole beginning 1857' from DER, 793' left of centerline, up to 2215' MSL. Railroad 2068' from DER, 796' left of centerline, 2218' MSL. pole, railroad beginning 2148' from DER, 800' left of centerline, up to 2221' MSL. Tree, railroad beginning 2376' from DER, 780' left of centerline, up to 2232' MSL. Tree, railroad beginning 2528' from DER, 751' left of centerline, up to 2233' MSL. Pole 2861' from DER, 811' left of centerline, 36' AGL/2238' MSL. Pole 3167' from DER, 1144' left of centerline, 34' AGL/2242' MSL. Pole 3171' from DER, 1091' left of centerline, 34' AGL/2243' MSL. Pole 3313' from DER, 1200' left of centerline, 35' AGL/2246' MSL. Sign, T-L twr beginning 3672' from DER, 145' left of centerline, up to 2256' MSL. Pole, bldg beginning 4223' from DER, 1389' left of centerline, up to 2274' MSL. bldg 4554' from DER, 1593' left of centerline, 2277' MSL. Bldg 4687' from DER, 1685' left of centerline, 53' AGL/2279' MSL. Bldg 4719' from DER, 1754' left of centerline, 61' AGL/2290' MSL. Bldg 4954' from DER, 1694' left of centerline, 61' AGL/2291' MSL. Trnsn twr 5469' from DER, 1056' left of centerline, 2297' MSL. Pole 5879' from DER, 1519' left of centerline, 2309' MSL. Pole 6019' from DER, 2022' right of centerline, 101' AGL/2309' MSL. Pole 1 NM from DER, 1720' left of centerline, 46' AGL/2311' MSL. Pole 1 NM from DER, 1922' left of centerline, 45' AGL/2311' MSL. Tower 1.1 NM from DER, 1843' left of centerline, 80' AGL/2332' MSL. Pole 1.8 NM from DER, 1817' left of centerline, 131' AGL/2435' MSL.
- Rwy 26R: Navaids, bldg beginning 533' from DER, 367' left of centerline, up to 14' AGL/2206' MSL. Navaids beginning 533' from DER, on centerline, up to 5' AGL/2195' MSL. Vehicles on road beginning 666' from DER, crossing left and right of centerline, up to 2208' MSL. Pole 785' from DER, 592' left of centerline, 2218' MSL. pole, tree beginning 786' from DER, 8' left of centerline, up to 2220' MSL. Trees beginning 821' from DER, 49' right of centerline, up to 25' AGL/2214' MSL. Pole, sign, tree, bldg beginning 873' from DER, 347' left of centerline, up to 37' AGL/2234' MSL. Trees beginning 952' from DER, 48' right of centerline, up to 2233' MSL. Pole, tree, railroad beginning 1093' from DER, 531' left of centerline, up to 38' AGL/2237' MSL. Trees beginning 1559' from DER, 555' right of centerline, up to 2259' MSL. Tree, bldg, railroad beginning 1812' from DER, 191' left of centerline, up to 2246' MSL. Bldg 2501' from DER, 881' left of centerline, 2254' MSL. Poles beginning 3002' from DER, 543' left of centerline, up to 44' AGL/2271' MSL. Poles beginning 3005' from DER, 743' left of centerline, up to 48' AGL/2277' MSL. Pole 3116' from DER, 1022' right of centerline, 101' AGL/2309' MSL. Sign 3339' from DER, 278' left of centerline, up to 2286' MSL. Communication twr 4521' from DER, 704' right of centerline, 2332' MSL. Sign 1.3 NM from DER, 2649' left of centerline, 80' AGL/2384' MSL. Pole 1.5 NM from DER, 2801' left of centerline, 100' AGL/2444' MSL. Pole 1.6 NM from DER, 2832' left of centerline, up to 100' AGL/2455' MSL. Pole, communication twr beginning 1.7 NM from DER, 2068' left of centerline, up to 100' AGL/2463' MSL. Pole 1.7 NM from DER, 2845' left of centerline, 135' AGL/2469' MSL. Transmission twr 2.1 NM from DER, 3453' left of centerline, 134' AGL/2490' MSL.

PROTOTYPE-NOT FOR NAVIGATION



SHEAD NINE DEPARTURE (RNAV)  
(SHEAD9.SHEAD) 30APR15

LAS VEGAS, NEVADA  
MC CARRAN INTL (LAS)

**TOP ALTITUDE:  
FL190**

### TAKEOFF MINIMUMS

Rwys 1L/R: 1100-3 with minimum climb of 500' per NM to 6000.  
Rwys 7L/R: Standard with minimum climb of 400' per NM to 8000.  
Rwys 19L/R: Standard with minimum climb of 483' per NM to 9000.  
Rwys 25L/R: Standard with minimum climb of 470' per NM to 9000.

NOTE: Rwys 1L/R do not exceed 230 KIAS until BESSY.

NOTE: DME/DME/IRU or GPS required.

NOTE: RNAV 1.

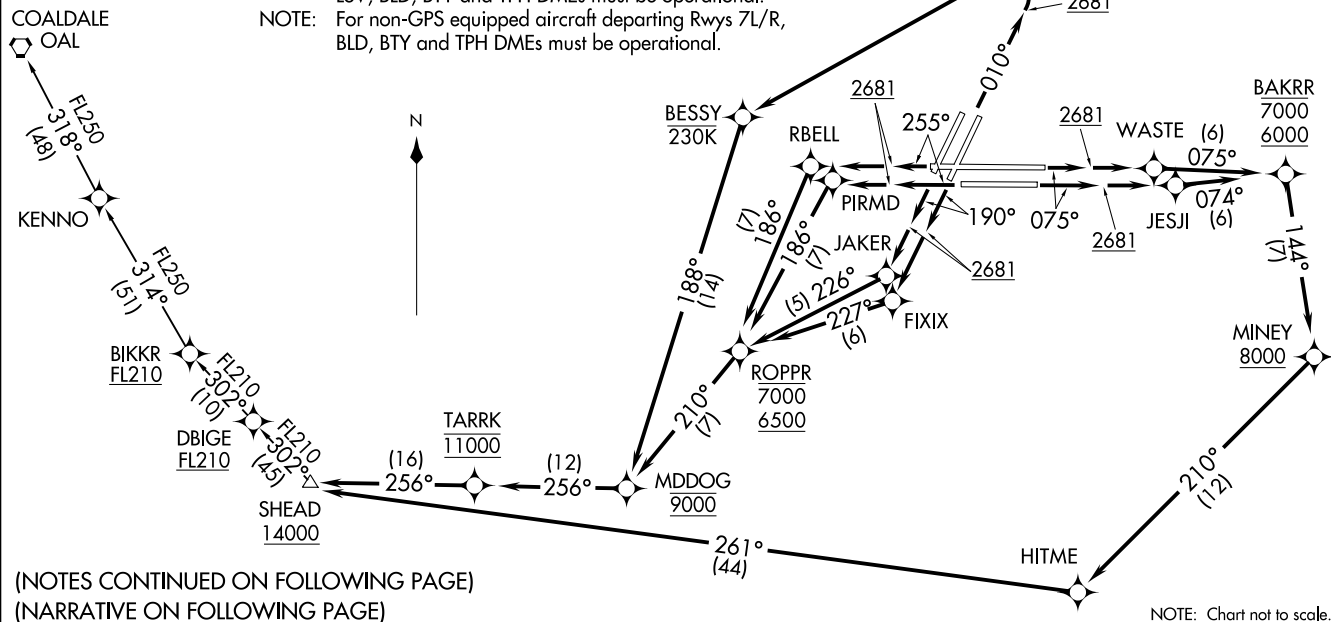
NOTE: RADAR required.

NOTE: For non-GPS equipped aircraft departing Rwys 1L/R, 19L/R, 25L/R, LSV, BLD, BTY and TPH DMEs must be operational.

NOTE: For non-GPS equipped aircraft departing Rwys 7L/R, BLD, BTY and TPH DMEs must be operational.

**OLD**

ATIS 132.4  
CLNC DEL 118.0  
CPDLC  
GND CON  
121.1 270.8 (E of 1R/19L)  
121.9 254.3 (W of 1R/19L)  
LAS VEGAS TOWER  
118.75 257.8 (Rwys 1L/19R, 1R/19L)  
119.9 257.8 (Rwys 7L/25R, 7R/25L)  
LAS VEGAS DEP CON  
125.9 307.25



NOTE: Chart not to scale.

(SHEAD9.SHEAD) 16091  
SHEAD NINE DEPARTURE (RNAV)

SI-662 (FAA)

MC CARRAN INTL (LAS)  
LAS VEGAS, NEVADA

▼

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 1L/R: Climb heading 010° to 2681, then left turn direct BESSY, then on track 188° to cross MDDOG at 9000, then on track 256° to cross TARRK at 11000, then on track 256° to cross SHEAD at or above 14000. Thence. . . .

TAKEOFF RUNWAY 7L: Climb heading 075° to 2681, then direct WASTE, then on track 075° to cross BAKRR at or above 6000, at or below 7000, then on track 144° to cross MINEY at or above 8000, then on track 210° to HITME, then on track 261° to cross SHEAD at or above 14000. Thence. . . .

TAKEOFF RUNWAY 7R: Climb heading 075° to 2681, then direct JESJI, then on track 074° to cross BAKRR at or above 6000, at or below 7000, then on track 144° to cross MINEY at or above 8000, then on track 210° to HITME, then on track 261° to cross SHEAD at or above 14000. Thence. . . .

TAKEOFF RUNWAY 19L: Climb heading 190° to 2681, then direct FIXIX, then on track 227° to cross ROPPR at or above 6500, at or below 7000, then on track 210° to cross MDDOG at 9000, then on track 256° to cross TARRK at 11000, then on track 256° to cross SHEAD at or above 14000. Thence. . . .

TAKEOFF RUNWAY 19R: Climb heading 190° to 2681, then direct JAKER, then on track 226° to cross ROPPR at or above 6500, at or below 7000, then on track 210° to cross MDDOG 9000, then on track 256° to cross TARRK at 11000, then on track 256° to cross SHEAD at or above 14000. Thence. . . .

TAKEOFF RUNWAY 25L: Climb heading 255° to 2681, then direct PIRMD, then on track 186° to cross ROPPR at or above 6500, at or below 7000, then on track 210° to cross MDDOG at 9000, then on track 256° to cross TARRK at 11000, then on track 254° to cross SHEAD at or above 14000. Thence. . . .

TAKEOFF RUNWAY 25R: Climb heading 255° to 2681, then direct RBELL, then on track 186° to cross ROPPR at or above 6500, at or below 7000, then on track 210° to cross MDDOG at 9000, then on track 256° to cross TARRK at 11000, then on track 256° to cross SHEAD at or above 14000. Thence. . . .

. . . .(Transition). Maintain FL190. Expect filed altitude 10 minutes after departure.

COALDALE TRANSITION (SHEAD9.OAL)  
KENNO TRANSITION (SHEAD9.KENNO)

TAKEOFF OBSTACLE NOTES

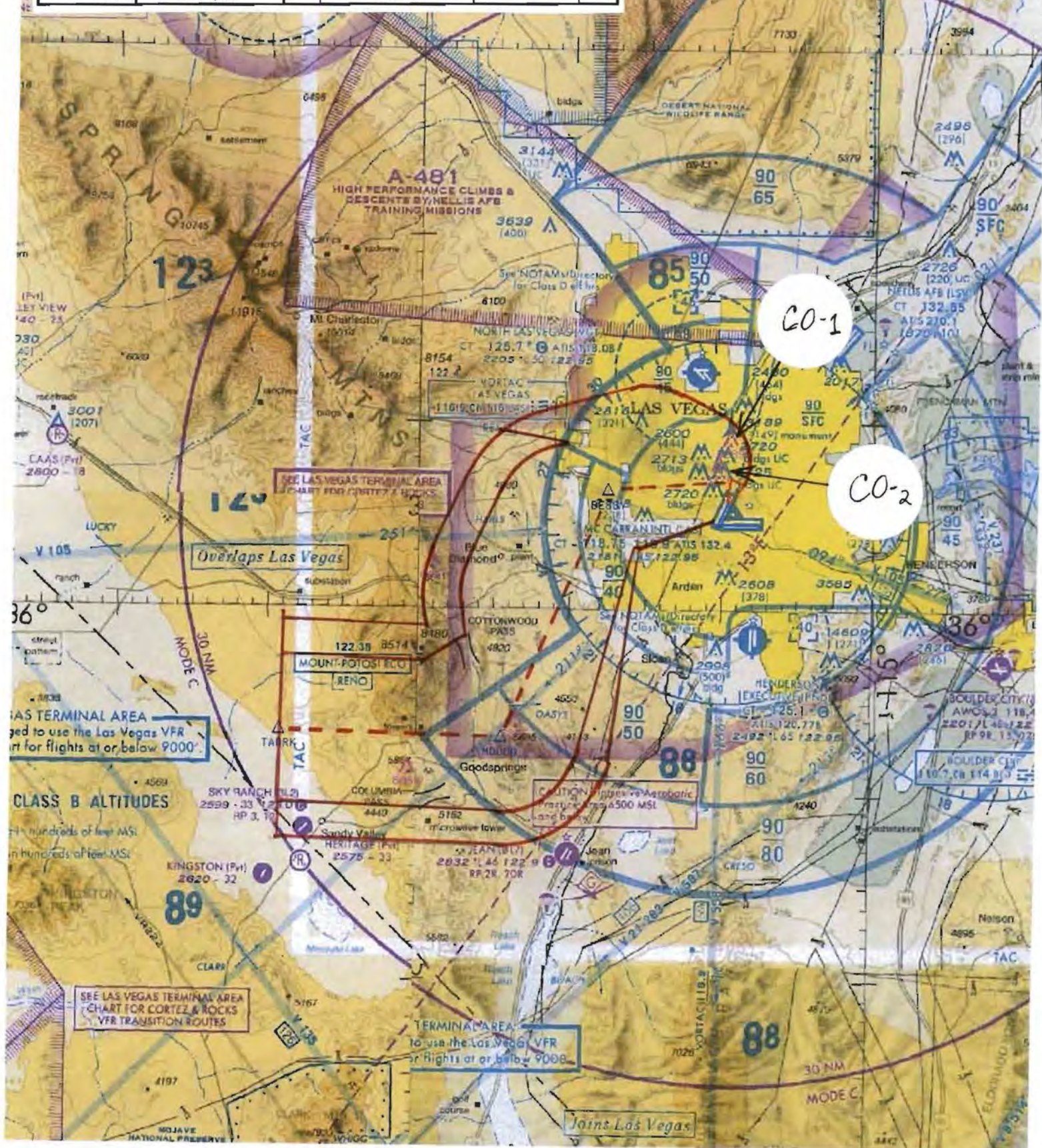
- Rwy 1L: Building 1508' from DER, 463' left of centerline, 71' AGL/2146' MSL. Pole 453' from DER, 283' left of centerline, 38' AGL/2118' MSL. Sign 1042' from DER, 694' left of centerline, 35' AGL/2124' MSL.
- Rwy 1R: Sign 1331' from DER, 448' right of centerline, 60' AGL/2120' MSL. Vents 604' from DER, 539' right of centerline, up to 17' AGL/2095' MSL.
- Rwy 7L: Trees 761' from DER, left and right of centerline, up to 42' AGL/2074' MSL. Pole 747' from DER, 442' right of centerline, 25' AGL/2057' MSL.
- Rwy 7R: Tower 1457' from DER, 847' right of centerline, 65' AGL/2096' MSL.
- Rwy 19L: Multiple buildings, trees and poles 1394' from DER, 251' right of centerline, up to 96' AGL/2284' MSL. Sign 2181' from DER, 1062' right of centerline, 36' AGL/2236' MSL.
- Rwy 19R: Trees 1563' from DER, 329' left of centerline, up to 55' AGL/2236' MSL. Multiple buildings, signs and poles 197' from DER, 59' right of centerline, up to 75' AGL/2291' MSL.
- Rwy 25L: Multiple poles, sign and buildings 1003' from DER, 145' left of centerline, up to 97' AGL/2291' MSL. Tree 2837' from DER, 1008' left of centerline, 72' AGL/2230' MSL. Railroad 2564' from DER, 773' left of centerline, 66' AGL/2223' MSL.
- Rwy 25R: Multiple poles and trees 533' from DER, 1' left of centerline, up to 271' AGL/2457' MSL. Building 1822' from DER, 652' left of centerline, 59' AGL/2238' MSL. Roads 669' from DER, 17' right of centerline, up to 29' AGL/2208' MSL.



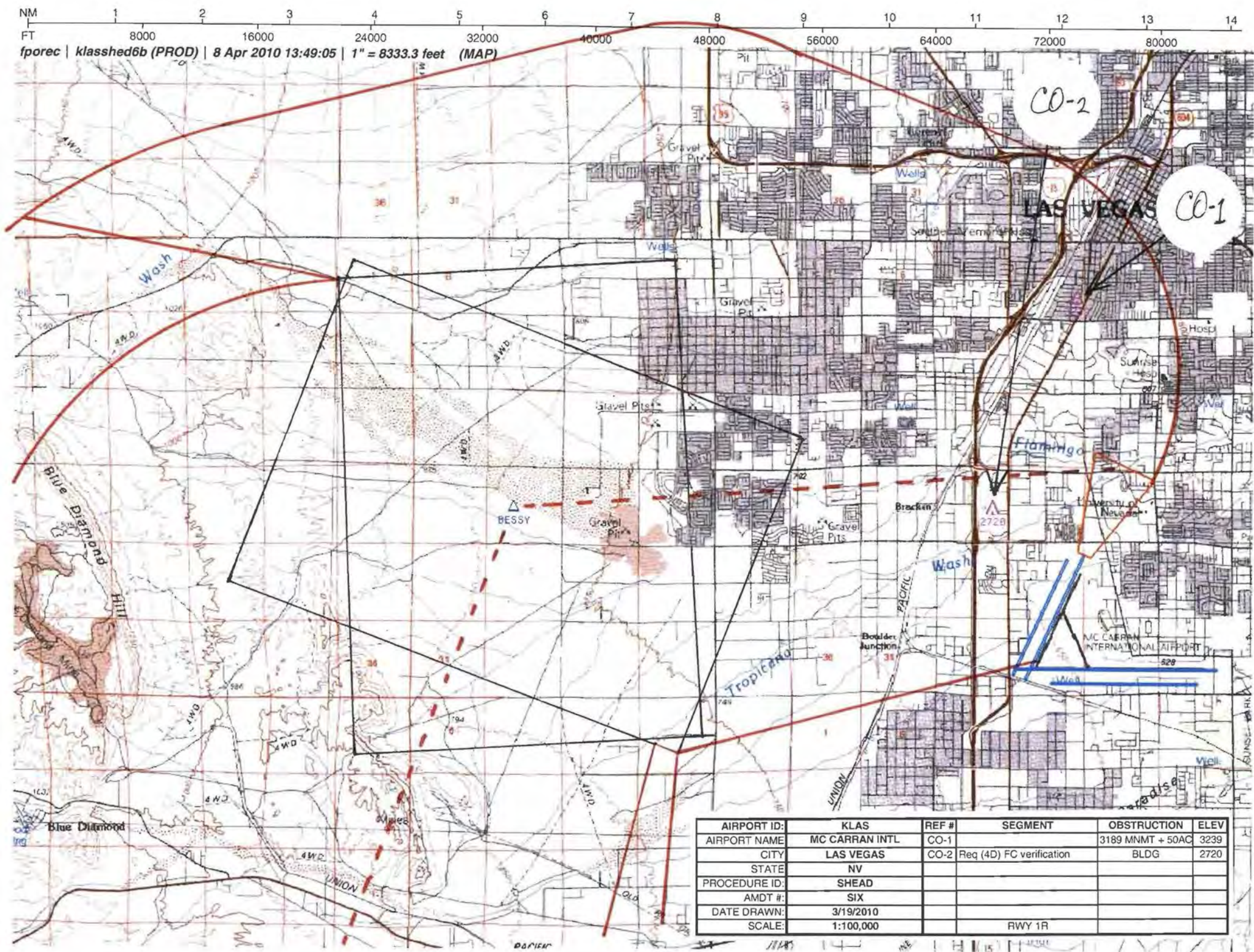
NM 7 14 21 28 36 42 49  
 FT 42000 84000 126000 168000 21000 252000 294000

fporec | klasshed6a (PROD) | 8 Apr 2010 12:42:43 | 1" = 41666.7 feet (MAP)

AIRPORT ID:	KLAS	REF #	SEGMENT	OBSTRUCTION	ELEV
AIRPORT NAME:	MC CARRAN INTL	CO-1		3189 MNMT + 50AC	3239
CITY:	LAS VEGAS	CO-2	Req (4D) FC verification	BLDG	2720
STATE:	NV				
PROCEDURE ID:	SHAD				
AMDT #:	SIX				
DATE DRAWN:	3/19/2010				
SCALE:	1:500,000		RWY 1L		



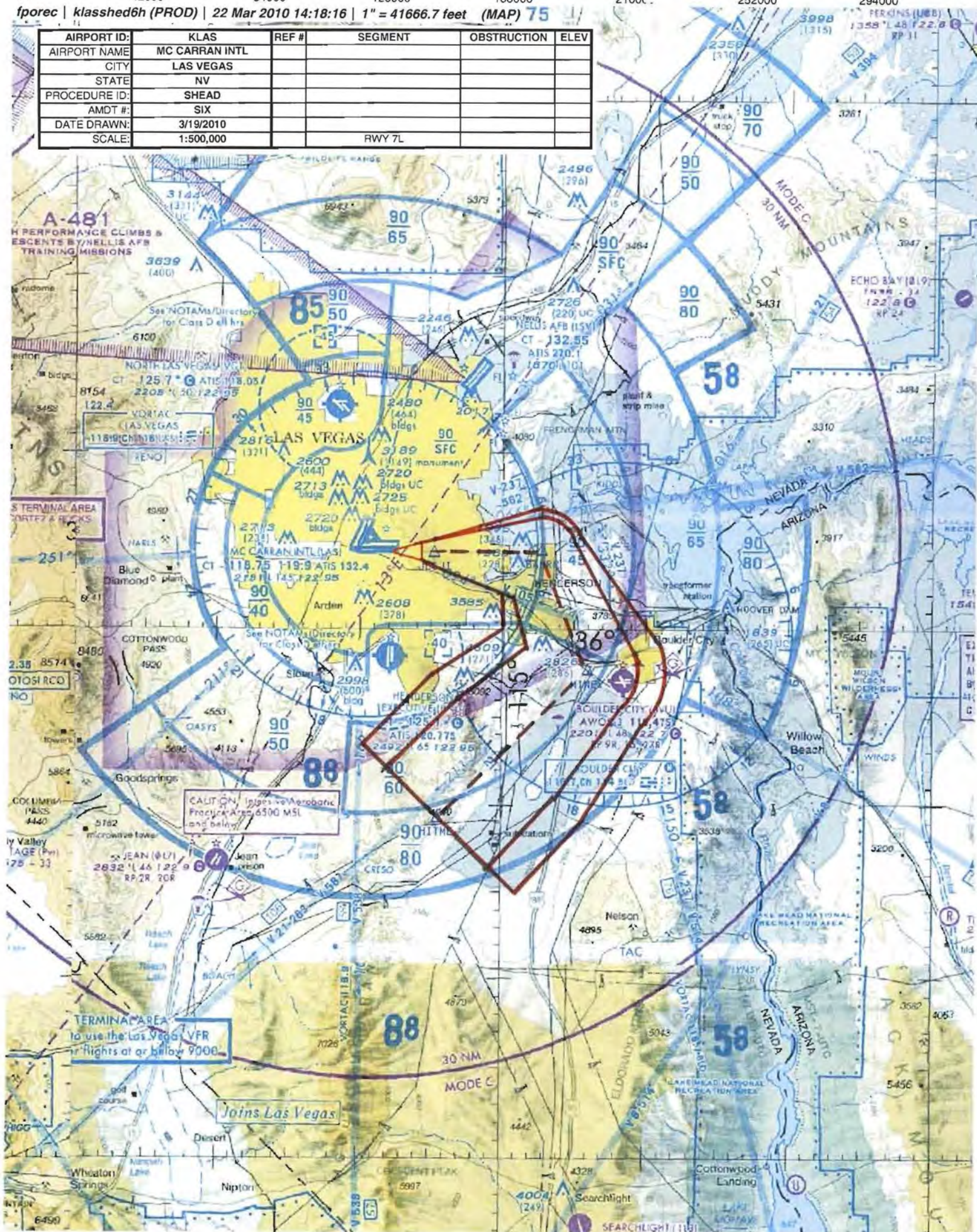




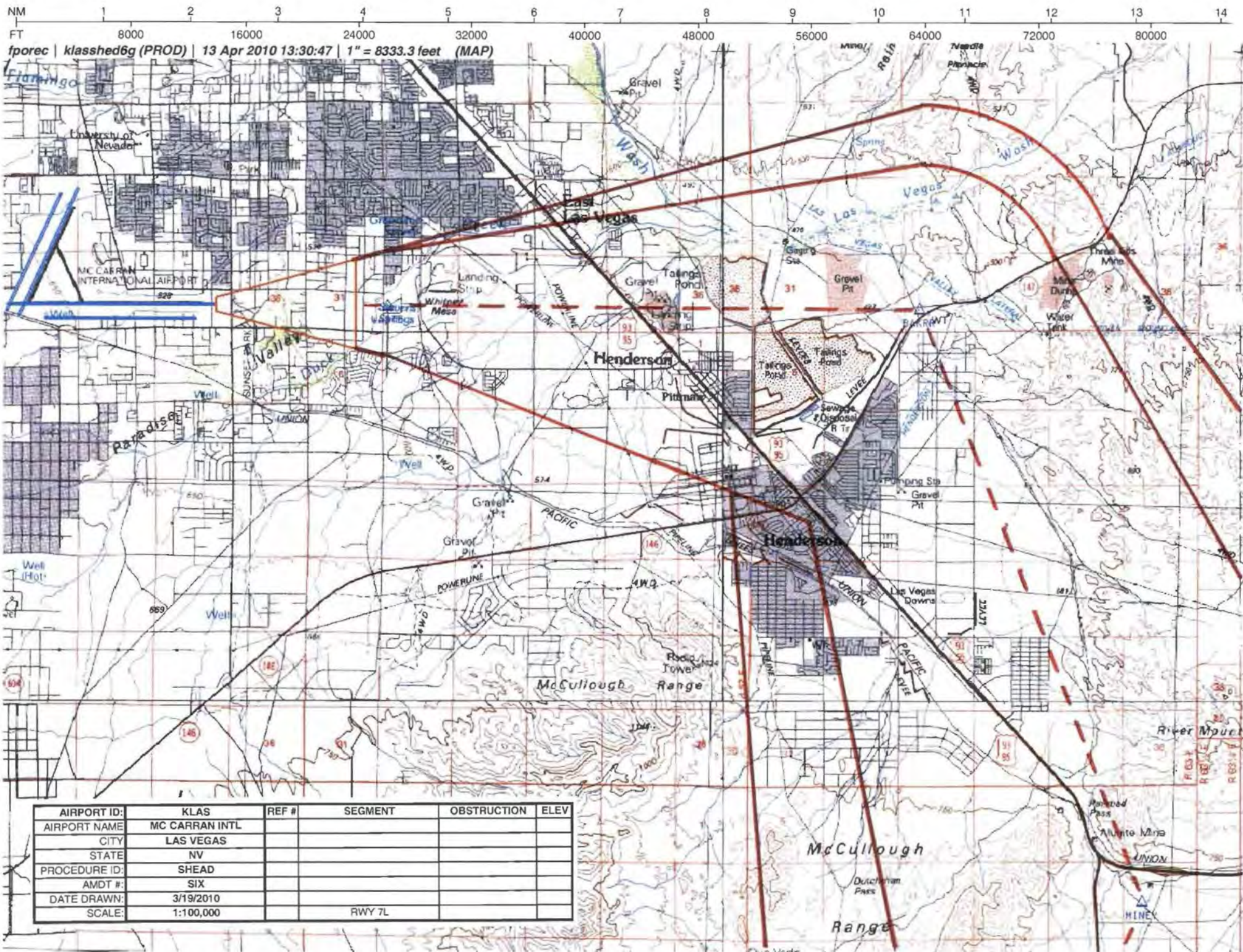


fporec | klasshed6h (PROD) | 22 Mar 2010 14:18:16 | 1" = 41666.7 feet (MAP) 75

AIRPORT ID:	KLAS	REF #	SEGMENT	OBSTRUCTION	ELEV
AIRPORT NAME	MC CARRAN INTL				
CITY	LAS VEGAS				
STATE	NV				
PROCEDURE ID:	SHEAD				
AMDT #:	SIX				
DATE DRAWN:	3/19/2010				
SCALE:	1:500,000		RWY 7L		



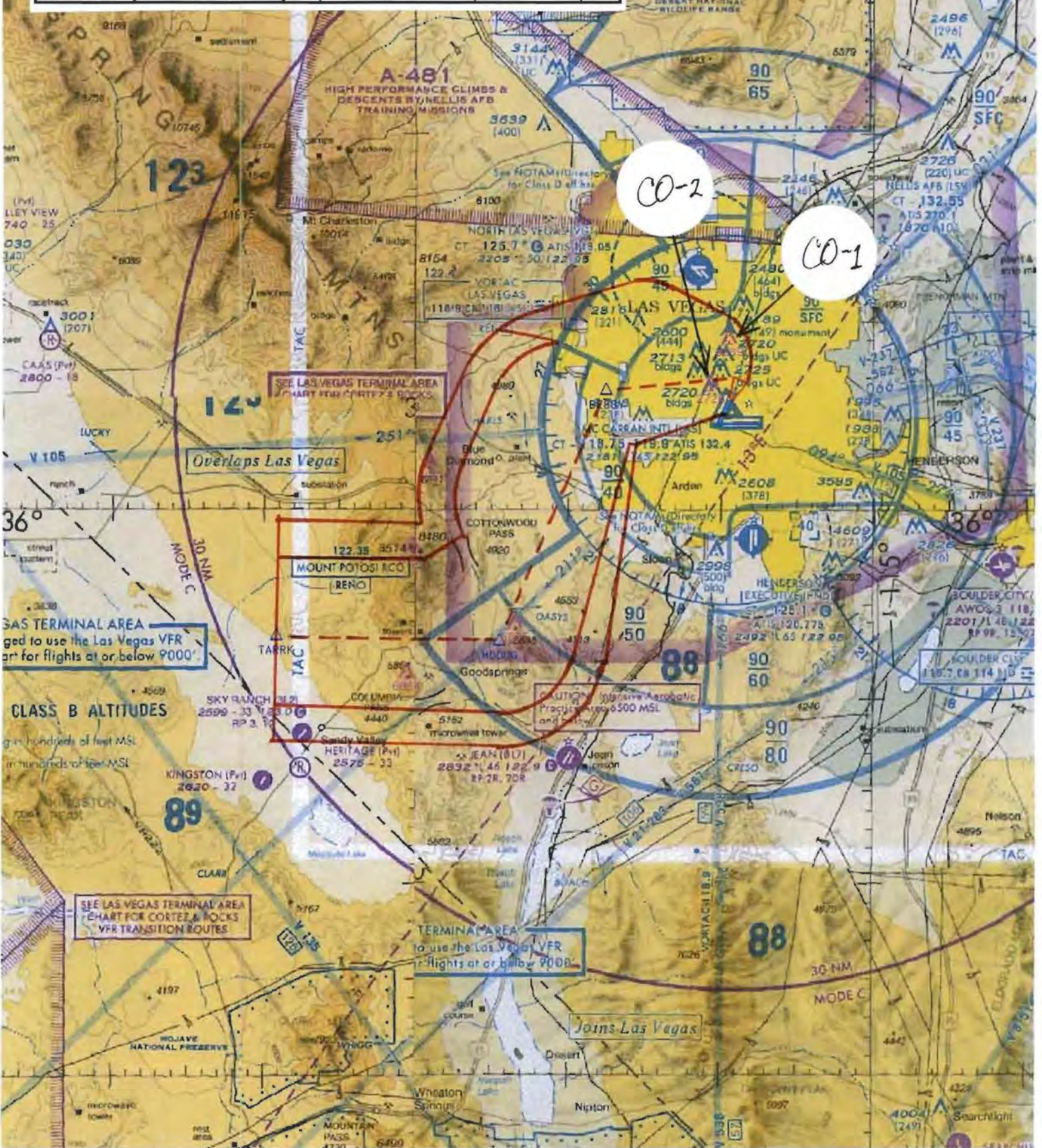






fporec | klasshed6b (PROD) | 8 Apr 2010 13:48:35 | 1" = 41666.7 feet (MAP)

AIRPORT ID:	KLAS	REF #	SEGMENT	OBSTRUCTION	ELEV
AIRPORT NAME	MC CARRAN INTL	CO-1		3189 MNMT + 50AC	3239
CITY	LAS VEGAS	CO-2	Req (4D) FC verification	BLDG	2720
STATE	NV				
PROCEDURE ID:	SHEAD				
AMDT #:	SIX				
DATE DRAWN:	3/19/2010				
SCALE:	1:500,000		RWY 1R		

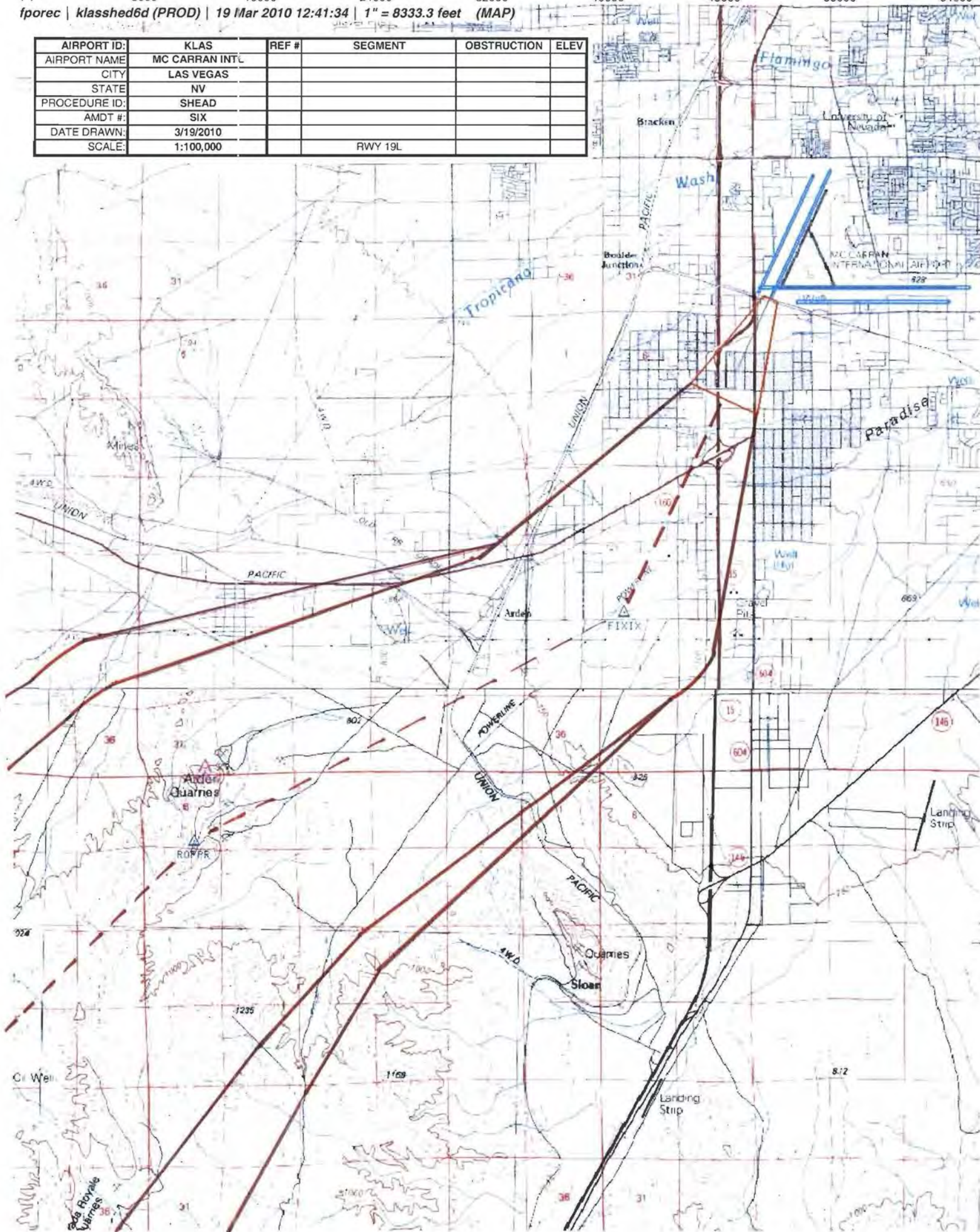




NM 1 2 3 4 5 6 7 8 9 10  
 FT 8000 16000 24000 32000 40000 48000 56000 64000

fporec | klasshed6d (PROD) | 19 Mar 2010 12:41:34 | 1" = 8333.3 feet (MAP)

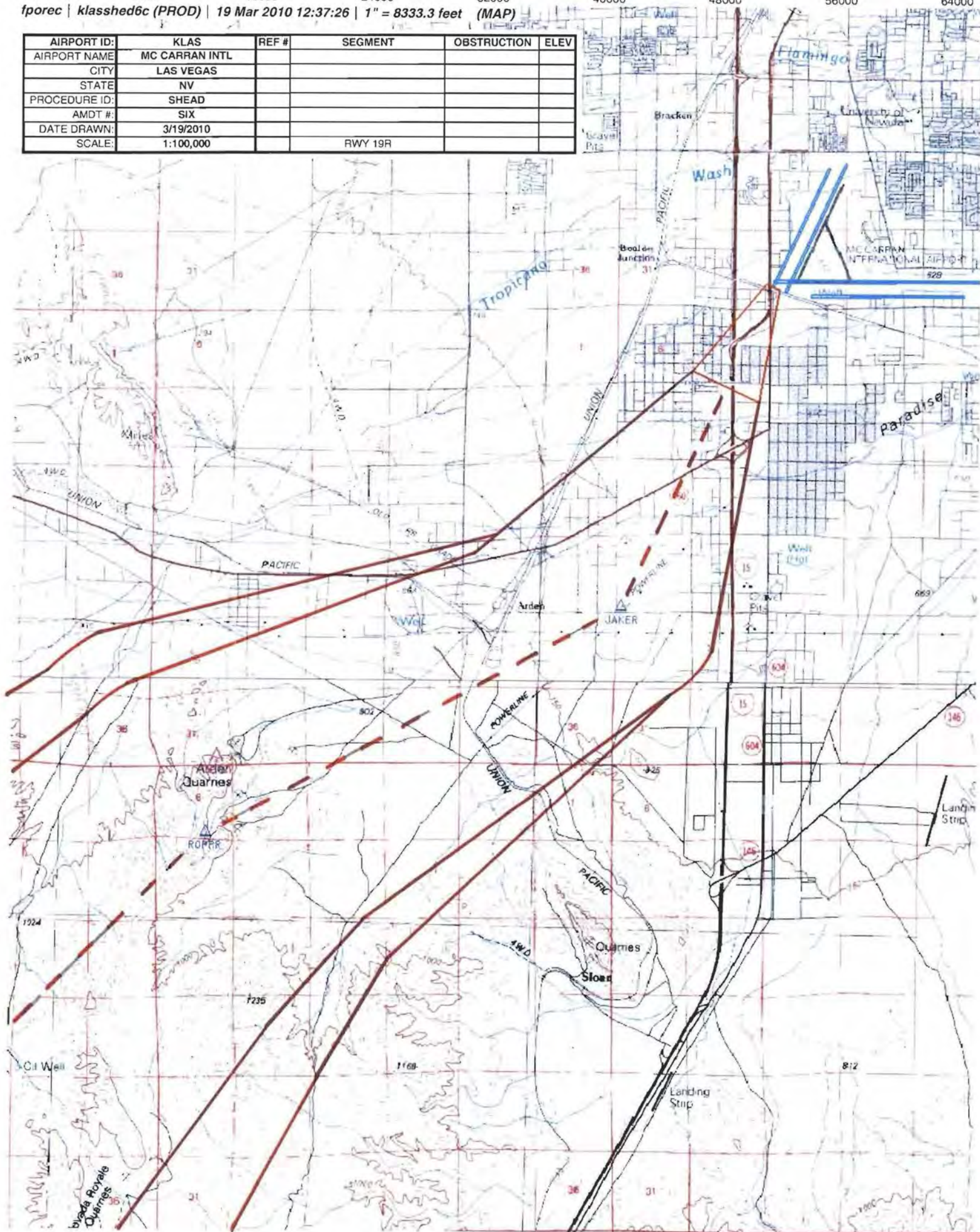
AIRPORT ID:	KLAS	REF #	SEGMENT	OBSTRUCTION	ELEV
AIRPORT NAME	MC CARRAN INTL				
CITY	LAS VEGAS				
STATE	NV				
PROCEDURE ID:	SHEAD				
AMDT #:	SIX				
DATE DRAWN:	3/19/2010				
SCALE:	1:100,000		RWY 19L		





NM 1 2 3 4 5 6 8 9 10  
 FT 8000 16000 24000 32000 40000 48000 56000 64000  
 fporec | klasshed6c (PROD) | 19 Mar 2010 12:37:26 | 1" = 8333.3 feet (MAP)

AIRPORT ID:	KLAS	REF #	SEGMENT	OBSTRUCTION	ELEV
AIRPORT NAME	MC CARRAN INTL				
CITY	LAS VEGAS				
STATE	NV				
PROCEDURE ID:	SHEAD				
AMDT #:	SIX				
DATE DRAWN:	3/19/2010				
SCALE:	1:100,000		RWY 19R		





fporec | klasshed6c (PROD) | 19 Mar 2010 12:36:49 | 1" = 41666.7 feet (MAP)

AIRPORT ID:	KLAS	REF #	SEGMENT	OBSTRUCTION	ELEV
AIRPORT NAME	MC CARRAN INTL	CO-2		8671 AAO + 50AC	8721
CITY	LAS VEGAS				
STATE	NV				
PROCEDURE ID:	SHEAD				
AMDT #:	SIX				
DATE DRAWN:	3/19/2010				
SCALE:	1:500,000		RWY 19R		

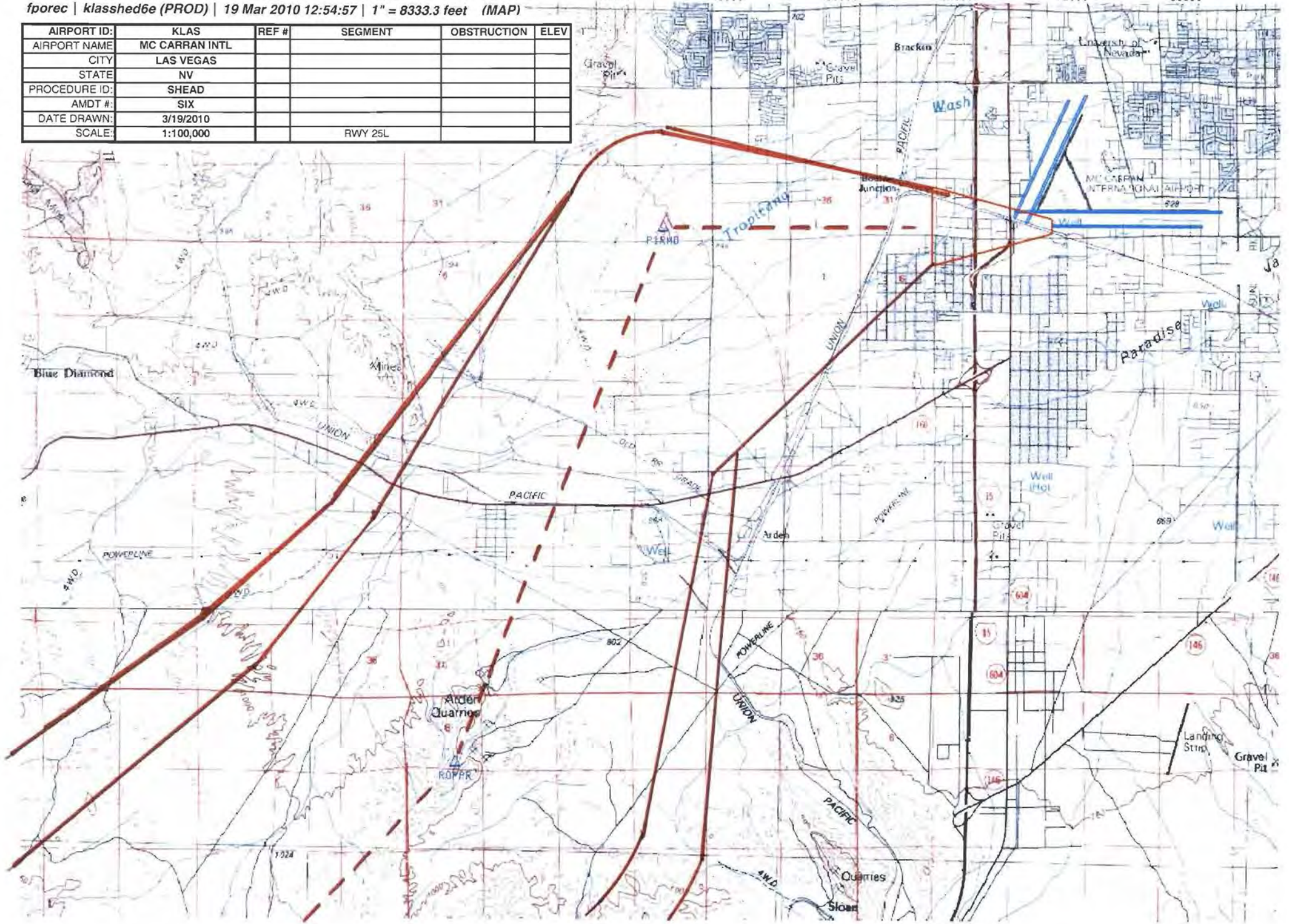




NM 1 2 3 4 5 6 7 8 9 10 11 12 13 14  
FT 8000 16000 24000 32000 40000 48000 56000 64000 72000 80000

fporec | klasshed6e (PROD) | 19 Mar 2010 12:54:57 | 1" = 8333.3 feet (MAP)

AIRPORT ID:	KLAS	REF #	SEGMENT	OBSTRUCTION	ELEV
AIRPORT NAME	MC CARRAN INTL				
CITY	LAS VEGAS				
STATE	NV				
PROCEDURE ID:	SHEAD				
AMDT #:	SIX				
DATE DRAWN:	3/19/2010				
SCALE:	1:100,000		RWY 25L		





fporec | klasshed6e (PROD) | 19 Mar 2010 12:54:15 | 1" = 41666.7 feet (MAP)

AIRPORT ID:	KLAS	REF #	SEGMENT	OBSTRUCTION	ELEV
AIRPORT NAME	MC CARRAN INTL	CO-2		8671 AAO + 50AC	8721
CITY	LAS VEGAS				
STATE	NV				
PROCEDURE ID:	SHEAD				
AMDT #:	SIX				
DATE DRAWN:	3/19/2010				
SCALE:	1:500,000		RWY 25L		

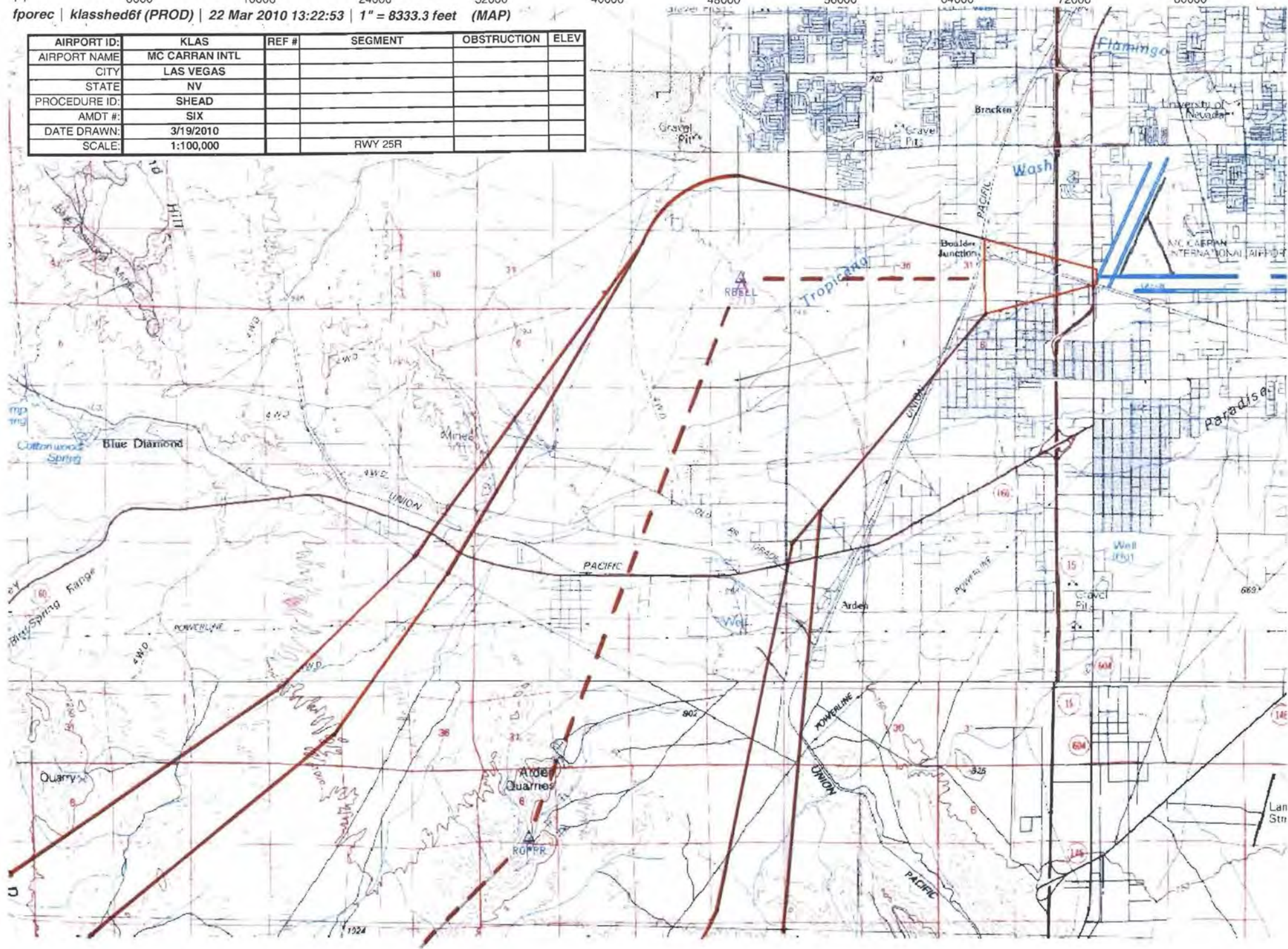




NM 1 2 3 4 5 6 7 8 9 10 11 12 13 14  
FT 8000 16000 24000 32000 40000 48000 56000 64000 72000 80000

fporec | klasshed6f (PROD) | 22 Mar 2010 13:22:53 | 1" = 8333.3 feet (MAP)

AIRPORT ID:	KLAS	REF #	SEGMENT	OBSTRUCTION	ELEV
AIRPORT NAME	MC CARRAN INTL				
CITY	LAS VEGAS				
STATE	NV				
PROCEDURE ID:	SHEAD				
AMDT #:	SIX				
DATE DRAWN:	3/19/2010				
SCALE:	1:100,000		RWY 25R		

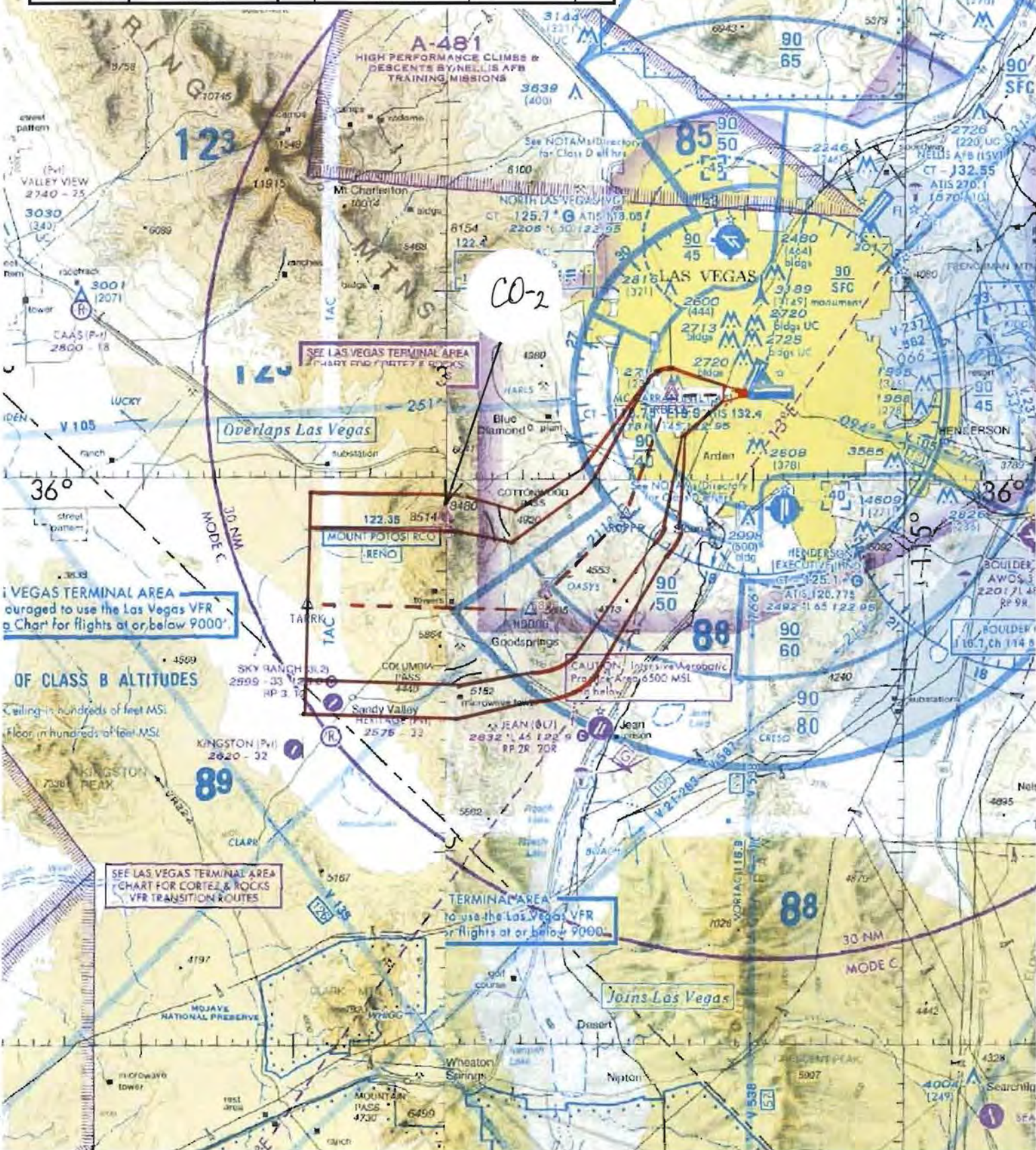




NM 7 14 21 28 3 42 49  
 FT 42000 84000 126000 168000 210000 252000 294000

fporec | klasshed6f (PROD) | 19 Mar 2010 12:57:11 | 1" = 41666.7 feet (MAP)

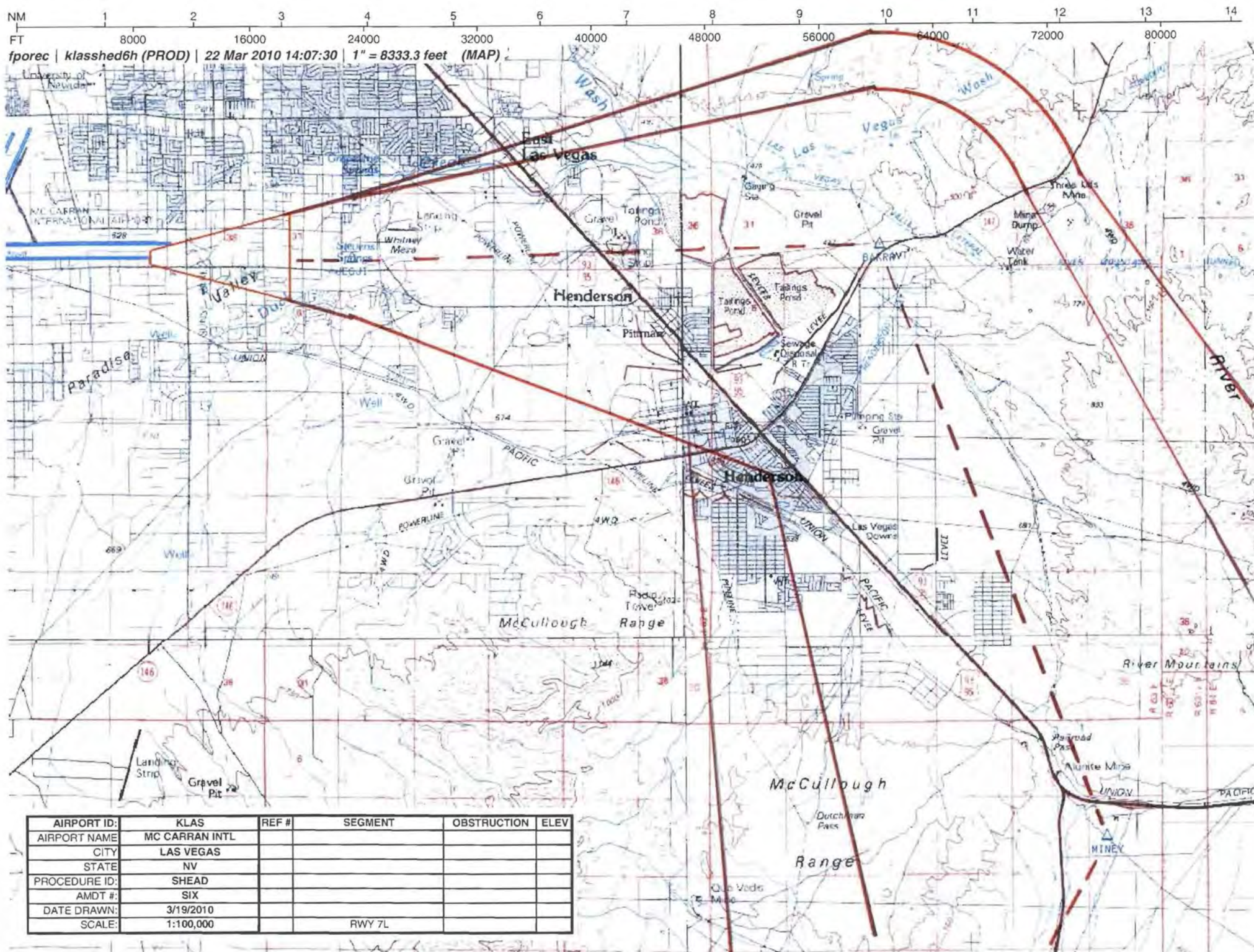
AIRPORT ID:	KLAS	REF #	SEGMENT	OBSTRUCTION	ELEV
AIRPORT NAME	MC CARRAN INTL	CO-2		8671 AAO + 50AC	8721
CITY	LAS VEGAS				
STATE	NV				
PROCEDURE ID:	SHEAD				
AMDT #:	SIX				
DATE DRAWN:	3/19/2010				
SCALE:	1:500,000		RWY 25R		













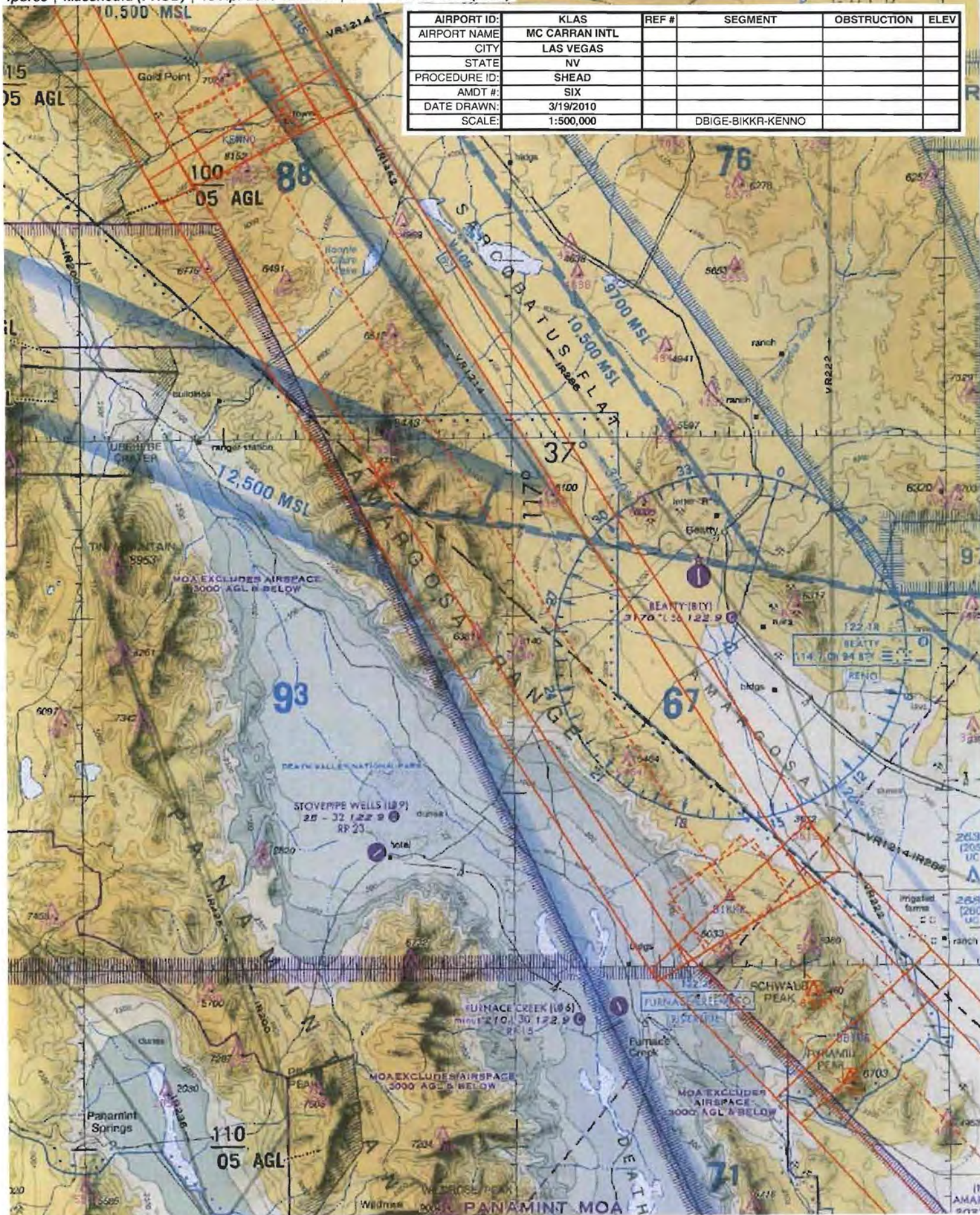




NM 7 14 21 28 36 42 49  
 FT 42000 84000 126000 168000 21000 252000 294000

fporec | klasshedfd (PROD) | 13 Apr 2010 12:27:24 | 1" = 41666.7 feet (MAP)

AIRPORT ID:	KLAS	REF #	SEGMENT	OBSTRUCTION	ELEV
AIRPORT NAME:	MC CARRAN INTL				
CITY:	LAS VEGAS				
STATE:	NV				
PROCEDURE ID:	SHEAD				
AMDT #:	SIX				
DATE DRAWN:	3/19/2010				
SCALE:	1:500,000		DBIGE-BIKKR-KENNO		





NM 7 14 21 28 3 42 49  
 FT 42000 84000 126000 168000 210000 252000 294000  
 iporec | klasshedfd (PROD) | 19 Mar 2010 12:09:52 | 1" = 41666.7 feet (MAP)

AIRPORT ID:	KLAS	REF #	SEGMENT	OBSTRUCTION	ELEV
AIRPORT NAME:	MC CARRAN INTL				
CITY:	LAS VEGAS				
STATE:	NV				
PROCEDURE ID:	SHEAD				
AMDT #:	SIX				
DATE DRAWN:	10/27/2009				
SCALE:	1:500,000		SHEAD - DBIGE		





fporec | klassshedfd (PROD) | 13 Apr 2010 12:26:33 | 1" = 41666.7 feet (MAP)

AIRPORT ID:	KLAS	REF #	SEGMENT	OBSTRUCTION	ELEV
AIRPORT NAME	MC CARRAN INTL				
CITY	LAS VEGAS				
STATE	NV				
PROCEDURE ID:	SHEAD				
AMDT #:	SIX				
DATE DRAWN:	3/19/2010				
SCALE:	1:500,000		KENNO - OAL VORTAC		







NM 7 14 21 28 3 42 49  
 FT 42000 84000 126000 168000 210000 252000 294000

fporec | klasshed6d (PHC) | 19 Mar 2010 12:40:42 | 1" = 41666.7 feet (MAP)

AIRPORT ID:	KLAS	REF #	SEGMENT	OBSTRUCTION	ELEV
AIRPORT NAME	MC CARRAN INTL	CO-2		8671 AAO + 50AC	8721
CITY	LAS VEGAS				
STATE	NV				
PROCEDURE ID:	SHEAD				
AMDT #:	SIX				
DATE DRAWN:	3/19/2010				
SCALE:	1:500,000		RWY 19L		





