

**HOLIDAY INN AIRPORT HOTEL**  
**Plaine Magnien**

**ENVIRONMENTAL IMPACT ASSESSMENT**  
**TABLE OF CONTENTS**

<b>EXECUTIVE SUMMARY .....</b>	<b>1</b>
<b>TABLE OF CONTENTS .....</b>	<b>3</b>
<b>CHAPTER 1: PROJECT OVERVIEW &amp; JUSTIFICATION .....</b>	<b>8</b>
<b>1.1 PROJECT OVERVIEW .....</b>	<b>8</b>
<b>1.2 HOTEL CONCEPT .....</b>	<b>8</b>
<b>1.3 JUSTIFICATION OF THE AIRPORT HOTEL .....</b>	<b>9</b>
1.3.1 TOURISM DEVELOPMENT IN MAURITIUS .....	9
<b>1.4 LEGAL AND ADMINISTRATIVE FRAMEWORK.....</b>	<b>10</b>
1.4.1 ENVIRONMENT PROTECTION ACT 2002 AS AMENDED IN 2008.....	10
1.4.1.1 <i>Environmental Regulations</i> .....	10
1.4.2 NATIONAL DEVELOPMENT STRATEGY 2003.....	10
1.4.2.1 <i>Planning Policy Guidance 2004</i> .....	11
1.4.3 THE GRAND PORT/SAVANNE DCA OUTLINE PLANNING SCHEME 2006.....	11
1.4.4 ROAD TRAFFIC ACT.....	11
1.4.5 LAND CONVERSION PERMIT .....	11
1.4.6 MAURICE ÎLE DURABLE PROJECT (MID).....	11
1.4.7 SSR INTERNATIONAL AIRPORT SAFEGUARDING .....	11
<b>1.5 PROJECT MILESTONES.....</b>	<b>12</b>
<b>1.6 IMPLEMENTATION SCHEDULE.....</b>	<b>12</b>
<b>CHAPTER 2: PROMOTERS AND PROJECT ORGANISATION .....</b>	<b>13</b>
<b>2.1 THE PROMOTER.....</b>	<b>13</b>
<b>2.2 HOLIDAY INN .....</b>	<b>13</b>
<b>2.3 PROMOTER’S REPRESENTATIVE .....</b>	<b>14</b>
<b>2.4 PROFESSIONAL SERVICES.....</b>	<b>14</b>
2.4.1 PROJECT DEVELOPER: .....	14
2.4.2 PROJECT MANAGER .....	14
2.4.3 ARCHITECT .....	14
2.4.4 QUANTITY SURVEYOR.....	14
2.4.5 STRUCTURAL AND INFRASTRUCTURE ENGINEERS .....	15
2.4.6 ELECTRICAL ENGINEER .....	15
2.4.7 HVAC (HEATING, VENTILATION, AND AIR CONDITIONING) AND WET SERVICES.....	15
2.4.8 ENVIRONMENTAL SERVICES AND WASTEWATER TREATMENT .....	15
2.4.9 ENVIRONMENTAL LIAISON .....	15
<b>2.5 THE PROJECT SITE.....</b>	<b>15</b>
2.5.1 SITE LOCATION.....	15
2.5.2 SITE OWNERSHIP .....	15
2.5.3 SITE PLAN AND TOPOGRAPHY .....	15
2.5.4 SITE OCCUPANCY .....	16
<b>2.6 ALTERNATIVES TO SITE .....</b>	<b>16</b>

<b>2.7 THE HOTEL PROJECT MASTER PLAN.....</b>	<b>16</b>
2.7.1 ARCHITECTURAL DETAILS.....	16
2.7.2 HOTEL BUILDING AREAS.....	16
2.7.3 CONFORMITY WITH PROVISIONS OF GRAND PORT DISTRICT COUNCIL OUTLINE SCHEME .....	17
2.7.4 CONFORMITY WITH PROVISIONS OF PLANNING GUIDANCE .....	17
2.7.4.1 Site Coverage.....	18
2.7.4.2 Set-back from side Site boundaries.....	18
2.7.4.3 Parking Space.....	18
2.7.4.4 Building Heights .....	18
2.7.4.5 Footprint Minimization.....	18
2.7.5 RESTAURANT AND BAR LOUNGE .....	18
2.7.6 CONFERENCE AND BANQUETING FACILITIES .....	18
2.7.7 GUEST LEISURE ACTIVITIES .....	19
2.7.7.1 Swimming Pool .....	19
2.7.7.2 Health and Spa.....	19
2.7.7.3 Sports and Fitness Centre.....	19
2.7.8 TECHNICAL YARD .....	19
2.7.9 STAFF CANTEEN AND STAFF FACILITIES .....	19
<b>2.8 PROJECT UTILITY AND INFRASTRUCTURE REQUIREMENTS.....</b>	<b>19</b>
2.8.1 POTABLE WATER.....	19
2.8.1.1 Potable Water Requirements.....	19
2.8.1.2 Potable Water System .....	20
2.8.2 ELECTRICITY .....	21
2.8.2.1 Electricity Requirements.....	21
2.8.2.2 HV/LV Transformers.....	22
2.8.2.3 Standby Power Generator.....	22
2.8.4 FIRE AND SAFETY SYSTEM .....	23
2.8.5 AIR CONDITIONING CHILLER SYSTEM.....	23
2.8.6 PRODUCTION OF HOT WATER.....	23
2.8.6.1 Waste heat recovery Energy.....	23
2.8.6.2 Solar Energy .....	24
2.8.6.3 Electrical Energy .....	24
2.8.6.4 Summary of Energy Requirements .....	24
2.8.7 TELECOMMUNICATIONS .....	24
2.8.8 WASTEWATER TREATMENT SYSTEM .....	24
2.8.8.1 Guiding Principles for the Design of the WWTP .....	25
2.8.8.2 Design Criteria .....	25
2.8.8.3 Performance Standards for the Wastewater Treatment Plant.....	26
2.8.8.4 Reuse of Treated Effluent and Disposal of Excess Sludge .....	26
2.8.8.5 Sewer collector network.....	26
2.8.9 STORM WATER COLLECTION AND DISPOSAL.....	26
2.8.10 ROAD INFRASTRUCTURE.....	27
2.8.11 PARKING AREAS .....	27
2.8.11.1 Visitors and Guests .....	27
2.8.11.2 Staff and Hotel Employees .....	28
2.8.11.3 Taxi stand and Kiosk.....	28
<b>2.9 SOLID WASTE MANAGEMENT.....</b>	<b>28</b>
<b>2.10 BOUNDARY WALLS SURROUNDING THE HOTEL SITE.....</b>	<b>29</b>
<b>CHAPTER 3: NATURAL ENVIRONMENT OF SITE.....</b>	<b>30</b>
<b>3.1 INTRODUCTION.....</b>	<b>30</b>
<b>3.2 CLIMATE.....</b>	<b>30</b>
3.2.1 RAINFALL.....	31
3.2.2 AIR TEMPERATURE.....	32
3.2.3 FREE SURFACE EVAPORATION .....	32
3.2.4 WIND.....	33
3.2.4.1 Surface wind data.....	33

3.2.4.2	<i>Site Exposure to Winds</i> .....	33
3.2.5	RELATIVE HUMIDITY.....	34
3.2.6	SUNSHINE HOURS.....	34
<b>3.3</b>	<b>LOCAL AIR QUALITY</b> .....	<b>34</b>
<b>3.4</b>	<b>SITE ACOUSTIC ENVIRONMENT</b> .....	<b>35</b>
3.4.1	AIRCRAFT NOISE.....	35
3.4.2	LOCAL NOISE REGULATIONS.....	36
<b>3.5</b>	<b>GENERAL GEOLOGY</b> .....	<b>36</b>
<b>3.6</b>	<b>GENERAL PEDOLOGY</b> .....	<b>37</b>
<b>3.7</b>	<b>GEOTECHNICAL INVESTIGATION</b> .....	<b>37</b>
3.7.1	GROUND CONDITIONS.....	37
3.7.2	PERCOLATIONS TESTS.....	38
3.7.3	GROUND WATER LEVEL.....	38
<b>3.8</b>	<b>SURFACE HYDROLOGY AND HYDROGEOLOGY</b> .....	<b>38</b>
3.8.1	REGIONAL SURFACE HYDROLOGY.....	39
3.8.2	HYDROGEOLOGY.....	39
<b>3.9</b>	<b>FLORA AND FAUNA</b> .....	<b>39</b>
3.9.1	SITE FLORA.....	39
3.9.2	SITE FAUNA.....	40
<b>3.10</b>	<b>ENVIRONMENTALLY SENSITIVE AREAS (ESA)</b> .....	<b>40</b>
3.10.1	THE BLUE BAY MARINE PARK.....	40
3.10.2	MARE AUX SONGES ARCHEOLOGICAL SITE.....	41
3.10.3	BOREHOLE 548.....	41
<b>CHAPTER 4:</b>	<b>THE BUILT ENVIRONMENT OF THE PROJECT</b> .....	<b>42</b>
<b>4.1</b>	<b>EXISTING REGIONAL SETTLEMENTS AND POPULATION</b> .....	<b>42</b>
<b>4.2</b>	<b>LIMITS OF SETTLEMENT BOUNDARIES AS PER OUTLINE SCHEME</b> .....	<b>42</b>
<b>4.3</b>	<b>REGIONAL INDUSTRIAL ACTIVITY</b> .....	<b>42</b>
4.3.1	AGRICULTURE.....	42
4.3.2	OMNICANE SUGAR CLUSTER AT LA BARAQUE.....	42
4.3.3	POULTRY FARMING.....	44
<b>4.4</b>	<b>TOURISM</b> .....	<b>44</b>
<b>4.5</b>	<b>SSR INTERNATIONAL AIRPORT</b> .....	<b>45</b>
4.5.1	SYNERGY BETWEEN SSR INTERNATIONAL AIRPORT AND THE HIAH.....	45
4.5.2	HEIGHT RESTRICTIONS DUE TO PROXIMITY WITH AIRPORT RUNWAY.....	45
<b>4.6</b>	<b>PUBLIC AMENITIES</b> .....	<b>45</b>
4.6.1	SOCIAL INFRASTRUCTURE.....	45
4.6.2	PUBLIC BEACHES.....	45
4.6.2.1	<i>La Cambuse Public Beach</i> .....	45
4.6.2.2	<i>Blue Bay Public Beach</i> .....	45
<b>4.7</b>	<b>ROAD INFRASTRUCTURE</b> .....	<b>46</b>
<b>4.8</b>	<b>PUBLIC SERVICES AND UTILITIES</b> .....	<b>46</b>
4.8.1	DOMESTIC WATER SUPPLY.....	46
4.8.2	ELECTRICITY SUPPLY, TRANSMISSION AND DISTRIBUTION.....	46
4.8.3	TELECOMMUNICATIONS.....	47
<b>4.9</b>	<b>SEWERAGE</b> .....	<b>47</b>
<b>4.10</b>	<b>SOLID WASTE DISPOSAL</b> .....	<b>47</b>

<b>CHAPTER 5: IMPACTS ASSESSMENT AND MITIGATION MEASURES.....</b>	<b>48</b>
<b>5.1 INTRODUCTION.....</b>	<b>48</b>
<b>5.2 IMPACTS AT PROJECT CONCEPTUAL STAGE.....</b>	<b>48</b>
5.2.1 SITE SELECTION, HISTORY AND PRESENT STATUS.....	48
5.2.2 AESTHETICS AND VISUAL IMPACTS.....	49
<b>5.3 THE DEMOLITION AND SITE CLEARANCE PHASES .....</b>	<b>49</b>
5.3.1 DEMOLITION OF THE EXISTING BUILDING AND INFRASTRUCTURE.....	49
5.3.1.1 <i>The Nature of the Impact</i> .....	49
5.3.1.2 <i>Mitigating measures</i> .....	49
5.3.2 REMOVAL OF TREES WITHIN THE FOOTPRINT OF THE BUILDINGS .....	50
<b>5.4 CONSTRUCTION PHASE.....</b>	<b>51</b>
5.4.1 SOLID WASTES .....	51
5.4.1.1 <i>The Nature of the Impact</i> .....	51
5.4.1.2 <i>Mitigating Measures</i> .....	51
5.4.2 GENERATION OF BIOLOGICAL POLLUTION.....	51
5.4.2.1 <i>From demolition of existing septic tank/absorption pit</i> .....	51
5.4.2.2 <i>By Contractor Staff on Site</i> .....	52
5.4.3 SPILLAGE OF HYDROCARBON WASTES .....	53
5.4.3.1 <i>Nature of the Impact and receptors</i> .....	53
5.4.3.2 <i>Mitigating measures</i> .....	53
5.4.4 GENERATION OF DUST.....	53
5.4.4.1 <i>Nature of the Impact and receptors</i> .....	53
5.4.4.2 <i>Mitigating measures</i> .....	53
<b>5.5 THE OPERATION PHASE.....</b>	<b>54</b>
5.5.1 SOLID WASTES MANAGEMENT.....	54
5.5.1.1 <i>Nature of the Impact</i> .....	54
5.5.1.2 <i>Mitigating measures</i> .....	54
5.5.2 GENERATION OF WASTEWATER.....	55
5.5.2.1 <i>Nature of Impacts</i> .....	55
5.5.2.2 <i>Mitigating measures</i> .....	55
5.5.3 RISKS OF HYDROCARBON SPILLAGE FOR STAND-BY STORAGE TANK.....	57
5.5.3.1 <i>Nature of the Impact</i> .....	57
5.5.3.2 <i>Mitigating measures</i> .....	57
5.5.4 ATMOSPHERIC POLLUTION BY STAND-BY STACK GASES .....	58
5.5.4.1 <i>Source of the Impact</i> .....	58
5.5.4.2 <i>Nature of Impact and Impact Receptors</i> .....	58
5.5.4.3 <i>Intensity of Impact</i> .....	59
5.5.4.4 <i>Mitigating Measures</i> .....	59
5.5.5 NOISE .....	59
5.5.5.1 <i>Origin</i> .....	59
5.5.5.2 <i>The Impact and Impact Receptors</i> .....	59
5.5.5.3 <i>Mitigating Measures</i> .....	60
5.5.6 INCREASED DEMAND ON PUBLIC UTILITIES .....	60
5.5.6.1 <i>Water</i> .....	60
5.5.6.2 <i>Electricity</i> .....	61
5.6.7 TRAFFIC ACCESS AND ON-SITE PARKING FACILITY .....	63
5.6.7.1 <i>Origin and Mechanism of the Impact</i> .....	63
5.6.7.2 <i>Intensity of the Impacts</i> .....	63
5.6.7.3 <i>Mitigating Measures</i> .....	64
5.6.8 TELECOMMUNICATIONS .....	64
5.6.9 STORM WATER.....	64
5.6.9.1 <i>Origin and Mechanism of the Impact</i> .....	64
5.6.9.2 <i>Impact</i> .....	64
5.6.9.3 <i>Mitigation Measures</i> .....	65
<b>5.7 SOCIO-ECONOMIC IMPACTS .....</b>	<b>65</b>

5.7.1	AT CONSTRUCTION STAGE .....	65
5.7.2	AT OPERATION PHASE.....	65
5.7.2.1	<i>National Economy</i> .....	65
5.7.2.2	<i>Impact on Employment</i> .....	66
5.7.2.3	<i>Peripheral Economic Impacts</i> .....	66
<b>CHAPTER 6: ENVIRONMENT MONITORING PLAN.....</b>		<b>67</b>
<b>6.1</b>	<b>INTRODUCTION.....</b>	<b>67</b>
<b>6.2</b>	<b>SCOPE OF THE ENVIRONMENTAL MONITORING PROGRAMME.....</b>	<b>67</b>
<b>6.3</b>	<b>ENVIRONMENTAL REPORTING .....</b>	<b>68</b>
6.3.1	DURING CONSTRUCTION PHASE .....	68
6.3.2	DURING OPERATIONAL PHASE .....	68
<b>6.4</b>	<b>ENVIRONMENTAL ACTION PLAN.....</b>	<b>68</b>
<b>6.5</b>	<b>EMP AT CONSTRUCTION PHASE.....</b>	<b>68</b>
<b>6.6</b>	<b>EMP AT OPERATION PHASE .....</b>	<b>68</b>
<b>CHAPTER 7: CONCLUSIONS.....</b>		<b>76</b>
<b>APPENDIX A: LAND OWNERSHIP .....</b>		<b>78</b>
•	CERTIFICATE OF INCORPORATION .....	78
•	LAND SURVEYOR'S PLAN .....	78
•	NOTARY CERTIFICATE .....	78
•	LETTER OF INTENT FROM OMNICANE LTD .....	78
<b>APPENDIX B: CORRESPONDENCES, APPLICATIONS, CLEARANCES .....</b>		<b>79</b>
•	MINISTRY OF ENVIRONMENT AND SUSTAINABLE DEVELOPMENT .....	79
•	DISTRICT COUNCIL: APPROVAL OF OPP .....	79
•	DEPARTMENT OF CIVIL AVIATION .....	79
•	APPLICATION TO CWA .....	79
•	APPLICATION TO CEB .....	79
•	LETTER OF INTENT FROM OMNICANE LTD ON TREATED EFFLUENT .....	79
<b>APPENDIX C: ARCHITECTURAL DRAWINGS.....</b>		<b>80</b>
<b>APPENDIX D: LAYOUT PLANS .....</b>		<b>81</b>
•	LAYOUT OF POTABLE WATER STORAGE AND TREATMENT SYSTEM.....	81
•	LAYOUT OF AIR CONDITIONING CHILLER UNITS ON ROOF OF HOTEL MAIN BUILDING .....	81
•	SUN SHADING.....	81
<b>APPENDIX E: STORM WATER MANAGEMENT REPORT.....</b>		<b>82</b>
<b>APPENDIX F: WINDROSES AT PLAISANCE.....</b>		<b>83</b>
<b>APPENDIX G: NOISE SURVEY REPORT .....</b>		<b>84</b>
<b>APPENDIX H: GEOTECHNICAL INVESTIGATION REPORT .....</b>		<b>85</b>
<b>APPENDIX I: FLORA SURVEY REPORT FROM MSIRI.....</b>		<b>86</b>