



**PA 5484/03: CREATION OF STABILISED SLOPES  
AND CAR PARKING**

**AT**

**RABA' TA' WARA IS-SUR,  
IT-TELGHA TAL-BELT,  
RABAT (GHAWDEX)**

***TERMS OF REFERENCE***

FOR THE PREPARATION OF AN

***ENVIRONMENTAL PLANNING STATEMENT***

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**2<sup>nd</sup> MAY 2007**

TERMS OF REFERENCE FOR THE PREPARATION OF AN  
ENVIRONMENTAL PLANNING STATEMENT FOR THE PROPOSED

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**Note 1:** *“Environmental Impact Assessment is the process of identifying, predicting, evaluating and mitigating the biophysical, social and other relevant effects of development proposals prior to major decisions being taken and commitments made”* (IAIA, 1999)<sup>1</sup>. The EPS is to document clearly and impartially the impacts of the proposal, the proposed mitigation measures and impact significance. In accordance with best practice, this shall be carried with professionalism, rigour, fairness, objectivity, impartiality and balance.

**Note 2:** The Malta Environment and Planning Authority (MEPA) reserves the right to request additional studies should the findings of the EIA not be sufficient to adequately inform the decision making process or if the EIA identifies matters which should be subject to further (or new) studies.

All requirements set out in these terms of reference must be complied with. If there are any sections that the consultant deems that they are not relevant to this study, the consultant shall inform MEPA accordingly fully justifying his/her reasoning.

Should, during the process of the EIA the consultant discover that any environmental feature, not included in these Terms of Reference needs to be studied, the consultant shall inform MEPA immediately, justifying his/her reasoning.

**Note 3:** Difficulties, including technical difficulties and lack of information, encountered by the consultants in compiling the required information shall be made clear. All references to published works and sources of information shall be duly acknowledged. No material may be incorporated by reference unless it is reasonably available for inspection by potentially interested persons within the consultation period. Any material which is based on proprietary data which is not available shall not be incorporated by reference.

**Note 4:** Experts contributing to the EIA should be specifically asked to consider impact interactions and to communicate information between each other.

**Note 5:** Important reference texts in this case are to include Subject Plans, Local Plans, etc.

**Note 6:** A list of all permits, licenses and other forms of authorization (other than the development planning permit) which must be obtained by the applicant in terms of

<sup>1</sup> International Association for Impact Assessment (IAIA). (1999). *Principles of Environmental Impact Assessment Best Practice*. Document published by the IAIA in cooperation with the Institute of Environmental Assessment, UK.

any other law in implementing the development if permission is granted must be included in the EPS. If consultants are uncertain whether an authorization is necessary, they shall so indicate in the EPS.

**Note 7:** Following the review of the EPS, MEPA usually submits comments to the EIA consultants for further clarifications. Once the consultants respond to these comments to the satisfaction of MEPA, a second draft of the EPS, that includes these clarifications, must be prepared. MEPA will only accept an Addendum containing these clarifications if the clarifications are few or where the EPS is still easy to follow with the Addendum.

**Note 8:** Any requirement for confidentiality of any section of the EPS must be justified and a formal request in this regard must be submitted to MEPA. Should MEPA grant confidentiality for specified sections, alternate material that excludes confidential details must be provided for public consultation.

An Environmental Planning Statement (EPS) is to be prepared for the proposed creation of stabilized slopes and car park (PA 05484/03) required by the Environmental Impact Assessment Regulations, 2007, (Article 3[7]). The components of the EPS are to be:

- i. A **Coordinated Assessment Report**, in conformity with Sections 1 - 5 and their contents as outlined below. This report should describe the project in its totality; and
- ii. A **Separate Appendix** containing all original survey reports as prepared by individual consultants for specific topics.
- iii. A separate **Non-Technical Summary** of all sections of the technical report (to be also provided in digital format and in both the Maltese and English languages). This summary should include any assumptions made in the made report; key features of the site (including surroundings) and proposed development; key impacts and any proposed mitigation measures to minimize costs (externalities) and maximise benefits arising from the proposed development. Technical terms, lists of data and detailed explanations of scientific reasoning should, where possible, be avoided.
- iv. A **digital copy of the first draft of** all elements of the EPS, which includes all the above, including any plans, maps, photographs, graphs, and any other contents of graphical/visual nature contained within the EPS. Once the EPS has been certified a **digital copy of the certified document** is to be submitted to MEPA.
- v. Conformity with sub-Regulations 28 and 29 of the EIA Regulations (refer to Appendix 1 to these Terms of Reference).

## **1.0 DESCRIPTION OF THE PROPOSED DEVELOPMENT**

The description of the proposed development is to include consideration of the aspects outlined below. This description must take into account the entire proposal and any ancillary facilities connected with, or arising due to, the project (such as any infrastructure required). Where relevant, this section should include maps, plans and diagrams.

### **1.1 Justification for the Proposal**

#### *1.1.1 Objectives*

A description shall be provided of the environmental, social and economic objectives which the development will seek to address, and whether such objectives stem from current international obligations and national, regional or local policy, plans and guidance.

#### *1.1.2 Demand*

A description of the **current and expected demand** for proposed car park. This shall explain how the proposal (its size and nature) will address this demand. The social implications with respect to the current and expected demand for the proposed car park should also be taken into consideration.

#### *1.1.3 Future developments*

Future developments/needs of the proposed car park shall also be addressed.

### **1.2 A Description of the Physical Characteristics and Features of the Project including Constructional Features**

1.2.1 Description of the proposed development and details of the proposed site layout showing the design (size, area, proposed elevations [scale 1:500]), external appearance, location of all buildings, if any and proposed access arrangements.

1.2.2 Land use requirements for construction and operation. Site details should be identified, including land take required for facilities ancillary to the proposal, site preparation works, excavations and disposal of surplus material. Proposed facilities (including infrastructure, servicing facilities, security etc.) in terms of size, area, height and volume, proposed elevations, layout, method of construction, etc.

1.2.3 Proposed project management arrangements, including expected duration of construction, time of year to be carried out, types and quantities of raw materials including water, energy, stone and other resources to be consumed, retained and disposed of and its location. Identification of the routes that construction vehicles will use to and from the site, the number and size of construction vehicles and their respective frequency of use, and the time of day when construction traffic is likely to be heaviest.

1.2.4 A landscaping scheme [to include hard and soft landscaping (*scale 1:500*)] for the proposal is to be provided. This shall aim to mitigate the negative visual impact of the proposal during construction and operation on the

adjacent and more distant landscape, with particular reference to the Cittadella fortifications. Details with respect to planting locations, tree/shrub type/species, age of specimens to be used, planting methods, phasing (during construction and operation) and overall management of the scheme should be included. The scheme should also include provisions for securing the healthy growth of the plants. Landscaping should follow the provisions outlined in MEPA's document entitled, "*Guidelines on Trees, Shrubs and Plants for Planting and Landscaping in the Maltese Islands*". Submissions required shall be made at the appropriate scale and level of detail and include colour photomontages taken from points agreed with the MEPA and submitted on A4 (at least). Refer to Section 4.5 for details.

### **1.3 A Description of the Operational Features of the Project**

- 1.3.1 Residues and emissions by source, type, quantity, composition and concentration. These should include estimated noise levels; distribution of dust arising from the construction of the proposal, on site disposals and from waste transport; discharges to water (e.g. discharges from storage tanks, fuel spillages, fuel emissions and storm water run-off); emissions to air<sup>2</sup> (including volatile organic compounds, sulphur oxides, nitrogen oxides, carbon monoxide and carbon dioxide); vibration, light, and other deposits/residues into land and soil; their disposal and/or reuse.
- 1.3.2 Water storage and runoff water management (including facilities for storage and eventual use of storm water runoff) should also be described.

### **1.4 Waste Management<sup>3</sup>**

1.4.1 This section shall cover all waste streams, where appropriate, and target the following stages of the project:

- The Site Clearance Phase;
- The Excavation phase; and
- Construction Phase.

N.B Information and waste analysis estimates requested below under section 1.4.2 'General Requirements', should be presented separately for the three different phases of the project.

#### **1.4.2 General Requirements:**

1.4.2.1 A general policy statement and commitment by the developer to reduce waste generation and minimise landfill disposal where possible.<sup>4</sup>

1.4.2.2 Identify the processes or activities (resulting from the project in question) that would result in waste generation;

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<sup>2</sup> This should include:

- the identification of the sources contributing to air pollution;
- proposed mitigation measure for pollutant generation, with special attention to dust emissions; and,
- proposed monitoring programme to verify non-exceedance of limit values, with special attention to sensitive receptors.

<sup>3</sup> The Waste Management Section (WMS) is aimed at identifying the waste management requirements which will arise from the project, as well as proposing solutions how this waste should be managed using the Best Practicable Environmental Options.

<sup>4</sup> Every possible effort should be made to minimise waste generated and to divert waste generated from the project to reuse/recycling, rather than disposal.

- 1.4.2.3 Identify all possible waste streams expected to be generated. This section shall also include wastes generated from any ancillary facilities required on the site and wastes which may arise in the form of accidental spillages and leakages from the operation of on-site machinery;
- 1.4.2.4 The relevant European Waste Catalogue Code for each waste stream identified, as per schedule 1, and the corresponding H code (if applicable) for each waste stream as per schedule 2, of the Waste Management (Permit and Control) Regulations as published by LN 337 of 2001, should be submitted;
- 1.4.2.5 The projected quantities for each type of waste (details of assumptions made and the methodologies adopted for achieving such estimates should also be included);
- 1.4.2.6 Impacts of the waste streams to be generated;
- 1.4.2.7 An assessment of alternatives for proposed management of the waste streams identified which should include:
- a) Measures to be taken for the separation of the different waste streams identified, on site;
  - b) Infrastructural elements required for the temporary storage and management of waste on site;
  - c) Measures to be adopted to ensure protection of the surrounding environment from such wastes whilst these are being stored on site;
  - d) Measures to be adopted in the event of accidental spillages occurring on site;
  - e) An assessment of alternatives for proposed offsite management/disposal of the waste streams identified. This should include an assessment of the environmental and public health implications of such alternatives, from which the best preferred environmental options for waste management should be recommended. Information on waste management facilities and waste contractors/operators proposed shall also be provided. It must be shown that all waste streams are disposed of in sites duly permitted for that particular waste stream; and
  - f) A description of the means of transportation to be used to remove waste from site of the scheme. This should also include information on measures to be taken to protect the surrounding environment during transport of waste/s.
- 1.4.2.8 Layout plan (to scale) of site indicating and adequately labelled:
- o All temporary waste management infrastructures required including bunded areas for storage of waste fuels and fuels to be used on site, wheel-wash facilities, ablution facilities etc, as applicable; and
  - o Flow of surface water runoff, as laid to falls to containment tanks etc, as applicable.
- 1.4.2.9 Cross-section (to scale) of all waste management infrastructure required, if applicable.

## 1.5 Consideration of alternatives

### 1.5.1 *Alternative Technologies*

An assessment of the alternative technologies (including during site clearance, construction and operation) should be considered. This section should contain a detailed explanation of the proposed technology to be utilized (including slope stabilization) and an assessment of alternative technologies which can be used to achieve the objectives of the proposed development. The information shall be presented in tabular format indicating technologies and associated environmental impacts, in sufficient detail.

### 1.5.2 *Alternative Layouts*

An identification of the proposed layouts (including the proposed layout and other suitable layouts) for the car park, based upon the possibilities and constraints posed by physical characteristics and features of the project, its operational features, and land-use requirements. A description of each layout and site-specific environmental impacts shall be provided. This section should also include the zero option, that is, an assessment of the way the site would develop if it were left in its natural state.

1.5.3 Findings on the environmental impacts of alternative technologies shall be combined with those on the environmental characteristics and environmental impacts for each alternative layout for the proposed car park. This will enable the identification of best technology/layout combinations. The technical and planning reasons why a particular technology and a layout were selected in preference to all the others must be clearly explained. The discussion should cover site clearance, construction, operation and distribution aspects.

## 2.0 A DESCRIPTION OF THE PROPOSED SITE AND ITS SURROUNDINGS

**Note 9:** This description is identified by the area of influence for each relevant parameter. The area of influence for each parameter shall be determined by the consultants who shall also justify the extent of the chosen area of influence. This must be **APPROVED** by the Malta Environment and Planning Authority prior to commencement of the EIA. This description should include:

### 2.1 **Landscape, topography and visual assessment**

Landscape characterisation of the area and visual amenity of the area. 'Non-visual' aspects of the development should also be considered and include those impacts which reduce the possibility for the public to enjoy the landscape including emissions, noise, etc.

### 2.2 **Land use**

Both of the site and the surrounding areas, including settlements, workplaces, places of worship, commercial, recreational, and other uses. Details including nature and magnitude, proximity to site etc. should be included.

### **2.3 Geology, Geomorphology, Hydrogeology and Hydrology**

This study shall include an analysis of the geological, geomorphological, hydrogeological and hydrological features found on site and in relation to the Cittadella stability. A detailed description of the geological/geotechnical investigation can be found in Appendix 2.

A hydrological study of the site shall include: details, baseline surveys and characterisation of sites' hydrological conditions. Baseline surveys on characteristics of aquifers including aquifer properties, sources of recharge of groundwater, pumping and abstraction, characteristics of watercourses, flood patterns, other discharges and withdrawals, water quality, catchment areas and drainage patterns, run-off including volume and route taken by run-off, and established groundwater protection zones including proximity to water catchment areas particularly those used for drinking water and irrigation and proximity to groundwater abstraction sources, wells, springs etc. should be carried out.

### **2.4 Archaeological sites and historical/cultural features**

Architectural and historical heritage, and other cultural assets, such as elements of vernacular or rural architecture (e.g. rubble walls, huts, wells, irrigation channels, farmhouses etc.) shall be identified, making reference also to scheduled property. Refer to Appendix 3 for such Terms of Reference.

### **2.5 Ecology**

The ecological study should include:

- a) A study to describe the ecology of the area and its surroundings. This should be supplemented with adequate maps, plans and / or photographs of the habitat types, as necessary; and
- b) A report of any protected, endangered, rare, unique, endemic or otherwise important species found in the area in question<sup>5</sup>.

### **2.6 Noise and Vibration**

Information on the prevailing background noise levels both in terms of frequency and intensity should be given. This baseline survey should follow parameters given in BS4142:1997. Locations for monitoring background noise should be chosen bearing in mind the following:

- Other existing noise sources in the area, including traffic;
- Other potential noise sources in the area, including new developments;
- Sensitive receptors, residential areas, schools, hospitals, etc.;
- Sensitive recreational areas in the vicinity;
- Features that might shield noise, topographical, vegetation, etc.

These locations must be approved by the MEPA **prior** to commencement of the EPS.

### **2.7 Any other relevant environmental features.**

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<sup>5</sup> Reference is to be made to the relevant local and international nature protection legislation and the Red DataBook for the Maltese Islands.



### 3.0 PLANNING, POLICIES AND LEGISLATION

- 3.1 The relevance of Maltese Legislation and Maltese Planning Policy (notably the Structure Plan and Local Plans for the surrounding areas) and its compatibility (or otherwise) with the development or its impacts should be described and analysed. In particular, policies on the following should be noted: cultural heritage, conservation areas and zones, protected buildings and sites, areas of natural beauty, areas of scientific, ecological, archaeological, agricultural, architectural, historical, antiquarian or artistic value<sup>6</sup>, aquifer protection and run-off, transport policies (including parking standards), marine protection.
- 3.2 Policies of other ministries will provide an important context for the proposed development. Reference should also be made to environmental regulations, policies concerning waste treatment, transport, public health, agriculture and tourism, where relevant.
- 3.3 International polices or conventions which may affect the site or area. For instance details about compliance with European Union regulations, directives and conventions should also be considered, their relevance to the project highlighted, as well as how compliance will be achieved.

### 4.0 ASSESSMENT OF ENVIRONMENTAL IMPACTS AND RISKS OF THE PROPOSED DEVELOPMENT

**Note 10:** All significant impacts of and risks posed by the proposed project **during construction and during operation**, should be assessed, given the environmental characteristics of the site outlined in Section 1 and 2 and the policies outlined in Section 3. A descriptive and quantitative analysis (including magnitudes and timing) of the impacts of the proposed development should be made, and presented in summary chart format. The various techniques, methods and assumptions used in the analysis and predictions should be outlined.

It is recommended that impact assessment should include:

- i. Description of the impact;
- ii. Magnitude and significance;
- iii. Duration (temporary or permanent);
- iv. Extent (in relation to site coverage and surroundings and associated features);
- v. Direct or indirect impact;
- vi. Adverse or beneficial;
- vii. Reversible or irreversible effects of the impact and extent or irreversibility as well as description of any associated conditions/assumptions for irreversibility;
- viii. Sensitivity of resources to impacts;
- ix. Probability of impact occurring;

<sup>6</sup> The Cittadella area is declared as a potential Site of Community Interest (pSCI) under the Habitats Directive and a Special Area of Conservation (SAC) in terms of the Flora, Fauna and Natural Habitats Protection Regulations of 2006 (LN 311 of 2006).

The Cittadella is also an Area of High Landscape Value, an Area of Archaeological Importance, and also, the whole of the Cittadella as well as the hill on which it stands are Important Archaeological Sites. The Cittadella is also scheduled under the Development Planning Act.

- x. Confidence level/limits to impact prediction;
- xi. Scope of mitigation/enhancement; and
- xii. Residual impacts.

**Worse case scenarios should be assessed where relevant.**

The impacts may include:

**4.1 Effects on Land**

Including the physical effect of the development on the surrounding area and its topography e.g. via earth-moving, soil stability and erosion. Stability of the site should be seriously taken into consideration given the nature of the site and should also consider any excavations that have already occurred on site.

**4.2 Effect on Land uses**

This assessment shall first consider the proposed development in isolation and assess the impacts arising from the various proposed activities upon each other.

This assessment shall then consider the proposed development in a wider context and assess the effects of the proposed development upon the surrounding land uses (including quarrying activities, batching activities, the airport runway, etc.) and the effects of the surrounding land uses upon the proposed development.

Specific reference to sensitive receptors should be made.

**4.3 Effects on Geology, Hydrogeology and Hydrology**

This should assess the effects of the development on geology, hydrogeology and hydrology. Details with respect to the geological assessment are in Appendix 2.

The impact assessment shall also describe whether the development will have any impacts upon, or have a risk on the mean sea level aquifer and any other water resources, permanent and/or temporary changes to the hydrologic regime of any watercourses traversing or adjacent to the site and any changes to the hydrogeologic regime. The impact on the surface water drainage pattern shall also be mapped and illustrate the expected surface water drainage pattern.

The impacts on the surrounding area and property which may potentially result in a change in the surface water drainage pattern shall be clearly described, with particular reference to the impacts on the water quality, both during construction and operation.

This assessment shall also establish the effects of the proposed project's water features on the surrounding hydrology.

**4.4 Effects on architectural, archaeological and other human artefacts of historical and/or cultural value, and/or scheduled property**

The visual and physical impact on the cultural landscape shall be assessed (see Section 4.5). The visual and physical impact on the heritage assets and

archaeological remains (whether on surface or buried) shall also be assessed (Refer to Appendix 3).

#### **4.5 Effects on Visual and Landscape Character**

This assessment should refer to both the proposed carpark and any other ancillary developments associated with them. A zone of visual influence should be established and significant viewpoints identified and agreed with MEPA.

Including views into the site and colour photomontages of the proposed development should be included.

Submissions required shall be made at the appropriate scale and level of detail and include colour photomontages taken from points **agreed** with the MEPA and submitted on A4 (at least). Photomontages are to be taken from a height of 1.7m above ground level (unless specific obstacles justify heightening the viewing point – in which case this should be made clear in the document submitted or unless MEPA asks for a different viewing height which may include aerial shots). Photomontages are to show the proposed interventions superimposed on the existing landscape, not only adjacent to the site. The landscaping scheme that is being proposed should be included in the photomontage and the maturity of the landscaping scheme as shown (which shall not be less than 5 years after planting) shall be indicated (See Section 1.2.7).

Apart from the photomontage itself, the following are required:

- A copy of the base photograph used in the preparation of the photomontage (this should enable a comparison of the situation as existing and as proposed - hence the size of the photograph depicting the situation as at present is to be of the same size as the photomontage);
- Date when the base photograph was taken; and
- A site map indicating the exact positions from where the photographs were taken and to which the photomontages should cross-refer.

Given the absence of local guidelines on landscape assessment it is recommended to use 'Guidelines for Landscape and Visual Impact Assessment, 2<sup>nd</sup> Edition', published by SPON Press, 2002 and edited by The Landscape Institute and the Institute of Environmental Management & Assessment. Reference should also be made to the MEPA's 'Draft Landscape Assessment Study' that can be downloaded from the MEPA's website ([www.mepa.org.mt](http://www.mepa.org.mt)).

#### **4.6 Effects of Noise and Vibrations**

This shall include an assessment of maximum noise levels (worse case scenario) expected to be generated, including effects of noise and vibrations on the surrounding community/noise-sensitive receptors arising during the excavation, site clearance, construction and the operational stages of the proposal. The assessment of the effects of vibrations should taking into consideration the stability of the site, the Cittadella fortifications and the surrounding community arising during the construction and operation of the proposed development.

The assessment should also consider road traffic associated with the construction (including heavy construction vehicles e.g. cranes, lorries and machinery) and the operational phases of the proposed development.

Noise sensitive receptors should be identified and agreed with MEPA. It is recommended that BS4142:97 is used for the noise assessment and BS6472 (relating to human exposure to vibration) and BS7385 (covering the effects on buildings) is used when studying vibration.

#### **4.7 Effects on Ecology**

This study shall include an assessment of the potential impacts of the proposed project on the ecology of the site and its surroundings.

#### **4.8 Assessment of exterior lighting**

This assessment shall include the layout and technologies used in the exterior lighting scheme. This assessment shall justify the need of the light and proposed alternative layouts/technologies to maximize the efficiency of the exterior lighting scheme. This assessment shall also aim to minimise glare (the blinding light which is a danger to motorists/pedestrians), light trespass (light straying into an area where it is not desired or required) and sky glow (caused by light directed upwards).

#### **4.9 Other environmental effects**

Other environmental effects other than those identified in sections 4.1 – 4.8 shall be described and their impacts assessed.

#### **4.10 Secondary impacts**

Mainly arising from the extraction and consumption of resources necessary to implement the project, as well as from developments supporting the project (e.g. new roads, sewers, power lines, pipelines, telecommunications), such as water, energy, construction materials, and the resultant need (if any) of development of new supplies.

#### **4.11 Cumulative effects**

This section shall refer to all the impacts of all the aspects of the development and shall assess:

- the effects resulting from the **interaction of separate effects** listed above as well as any other relevant impacts, and
- the impacts of the project viewed in terms of other projects (i.e., not in isolation), including existing and proposed.

#### **4.12 Interaction between any of the foregoing**

Experts contributing to the EIA should be specifically asked to consider impact interactions and to communicate information between each other. In addition, any environmental components not listed in the Directive or Regulations that are likely to be affected should not be discounted.

Predictions of impact interaction will nearly always involve a greater degree of uncertainty than prediction of impacts on individual components. This should be referred to in the EIA rather than ignored.

## **5.0 DESIGN OF MITIGATION MEASURES, IDENTIFICATION OF RESIDUAL IMPACTS AND MONITORING PROGRAMME**

### **5.1 Mitigation measures**

This should include a description of the measures envisaged to prevent, minimise and where possible offset any significant adverse effects on the environment of the project, (including reference to consideration of alternatives in Section 1.5 above). Such measures could include technological features; operational management techniques; enhanced site-planning and management; aesthetic measures; conservation measures; reduction of magnitude of project; and health and safety measures.

### **5.2 Residual impacts**

Any residual impacts, that is those impacts that cannot be mitigated or those remaining impacts following implementation of mitigation measures, should also be described, quantified and presented in a tabular format.

### **5.3 Monitoring**

The consultants must propose a monitoring program which should take into account monitoring of those features that are considered to be impacted negatively or the impact on which is uncertain. The program must be proposed at different stages: before, during and after construction. Details regarding type of and frequency of monitoring must also be given. This program shall include an audit and evaluation of forecasts, predictions and mitigation measures made in the EPS.

**Environmental Impact Assessment Regulations, 2001  
Regulation 28 and Regulation 29 of the EIA Regulations, 2001**

**Regulation 28**

**List of Consultants (Extract from the EIA Regulations)**

**28. (1)** The environmental impact statement shall list the registration number and the names of the consultants and contributors responsible for the preparation of the environmental impact statement, environmental survey reports, appendices, non-technical summary and other components of the statement.

**(2)** The consultants who are responsible for a particular analysis, including analysis in the environmental survey reports, shall be identified.

**(3)** All consultants and contributors employed in the environmental impact assessment shall sign a declaration stating that the particular study (or part thereof) was solely carried out by them. This signed declaration shall be included with each environmental survey report included with the environmental impact statement.

**Signed declaration in accordance with Regulation 28 (3)**

Director General  
MEPA

I \_\_\_\_\_, who carried out the study (or part thereof) on \_\_\_\_\_ for the EIA of PA 05484/03 for the proposed \_\_\_\_\_, hereby declare that such study was solely carried out by me.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

*This declaration is to be included with each environmental survey report included with the EPS.*

**Regulation 29**

**Conflict of Interest (extract from the EIA Regulations)**

**29. (1)** In the interest of fairness, objectivity and the avoidance of bias, all consultants shall be required to sign and abide by a declaration that they have no personal or financial interest in the proposed development.

**(2)** The Director of Planning and the Director of the Department shall not approve consultants or consultancy firms that are in any way associated with any company, association or grouping that has any direct or indirect personal, association or grouping that has any direct or indirect personal, professional or financial interest in the proposed development.

**(3)** The Director of Planning and the Director of the Department shall not approve any environmental impact statement or environmental planning statement produced by a consultant or group of consultants, one or more of whom does not comply with the provisions of sub-regulations (1) or (2) of this regulation.

**Signed Declaration in accordance with Regulation 29 (1)**

Director General  
MEPA

I \_\_\_\_\_, hereby declare that I have no personal or financial interest in the proposed development, namely \_\_\_\_\_.

Moreover, I declare that I am not in any way associated with any individual, company, association or grouping that has any direct or indirect, personal, professional or financial interest in the abovementioned proposed development.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

*Such declaration is to be sent to MEPA when proposing the list of EIA Consultants prior to their approval or otherwise.*

## **APPENDIX 2: GEOTECHNICAL/GEOLOGICAL SITE INVESTIGATION**

### **2.1 Purpose of Survey**

The purpose of the survey is to investigate the hydrology, geological/geotechnical nature and geometry of the ground for the purpose of obtaining sufficient information for the purpose of recommending the most suited engineering solution to the prevailing ground geomechanical and hydrodynamic characteristics. The study shall assess the proposed development in relation to the historical Cittadella stability.

### **2.2 Recommended Study**

#### **2.2.1 Preliminary Considerations**

It is recommended to carry out a topographic survey and a detailed geotechnical investigation of the slope prior to any further excavation and surfacing in addition to the earth works that shall be necessary to produce the proposed parking spaces and stabilised slopes. It is further recommended to monitor for any ground movements using inclinometers over a minimum period of one year from the completion of the proposed works.

The hydrology and stability of the clay/soil slope shall also be investigated prior to undertaking of further construction works.

For the purpose of ensuring that the proposed development will not be subject to failure as a result of swelling and shrinking of the clay layer it is recommended that any further development at the site in question be preceded by a detailed geotechnical site investigation which should make available sufficient information for the purpose of recommending the most suited engineering solution to the prevailing ground geomechanical and hydrodynamic characteristics in conjunction with the proposed construction works.

For the purpose of the proposed study the applicant shall nominate a qualified geotechnical consultant who shall be capable of taking in hand the necessary site investigation works and making recommendations for an engineered solution. The said recommendations shall also make provisions for monitoring of the structures comprising the proposed development for a sufficient time span in the process of construction works and succeeding completion of all construction works.

#### **2.2.2 Slope Stability**

The geological assessment shall:

- describe and map, on an appropriate scale, the geology, topography, and drainage patterns of the Project area;
- provide an orthophoto as a base for a biophysical map of the study area, for the mapping of terrain, soils and other environmental components in the context of an ecological land classification;
- describe and map the soil and overburden types in the construction site areas and new service areas, and relate these materials to their suitability for soil salvage and reclamation;
- provide an evaluation of the sensitivity of soil materials and landforms in the Project area to erosion;



- identify the components of the car park development that have the potential to affect geology, terrain and soils;
- describe the nature and significance of the anticipated changes to the pre-development topography, elevation, drainage patterns and soils that will result from surface disturbance at the car park site and service road extension;
- assess comparatively the options of either reclaiming the service road extension or of leaving this extension unreclaimed for future alternative use;
- provide a soil management plan to ensure proper soil salvage, storage and replacement when required for reclamation at the construction site (landscaping, etc.) and new service road areas; and,
- identify residual impacts and their significance on geology, terrain and soils in the areas disturbed and reclaimed by developer, considering also the context of previous construction works in the study area.

### **2.3 Monitoring**

This assessment shall also include a programme for the monitoring of ground/slope movements (including the use inclinometers) for a period of at least one calendar year from termination of construction works.

### **2.4 Conclusion**

The report shall conclude with a risk/stability assessment and recommendations in respect of the proposed interventions and mitigation measures within the area considered by the proposed development and the immediate area of influence.

## **APPENDIX 3: TERMS OF REFERENCE FOR THE PREPARATION OF ARCHAEOLOGY/CULTURAL HERITAGE ASSETS**

### **1.0 Objectives**

The purpose of the Report of Survey is to provide a comprehensive and exhaustive study on the cultural heritage assets and features, consisting of immovable or immovable objects of artistic, architectural, historical, archaeological, ethnographic, palaeontological and geological importance as per Cultural Heritage Act (2002). The report shall:

- a) Identify, document and present all relevant information about cultural heritage assets within the area of study;
- b) To describe and analyse the cultural landscape;
- c) Assess the cultural heritage significance of each feature and of the area of study;
- d) Propose statutory and physical protection of the individual features and of the site; and
- e) Propose mitigation of impacts arising from proposed development and a monitoring programme during construction and operation of the development.

The survey and report should be specific to the identification, assessment and valorisation of the cultural heritage value of the features within the area of study, irrespective of land ownership and any proposed development.

### **2.0 Area of Study**

The area of study will include:

- a. the footprint of the proposed project,
- b. a 1000 metre radius around (a),
- c. access roads that may require modification,
- d. a 50 metre radius around modifications in (c),
- e. the viewshed of the project.

### **3.0 Contents**

#### **3.1. Studies and Surveys**

##### **3.1.1. Desk-top Study**

The desktop study shall seek to collate information about the cultural assets present, events that have taken place, the cultural relevance of the site throughout history, and the archaeological potential within the area of study. This study shall include:

- a) Reference to existing literature, old manuscripts, reports of previous discoveries;
- b) Study of toponyms;
- c) Analysis of cartographic, photographic, and other graphic material; and
- d) A bibliography of sources consulted.

### **3.1.2. Site Survey**

A surface survey within the area of study shall:

- a) Identify and record surface features, also noting their condition. An attempt shall be made to describe typologies of cultural features, including rubble walls. Typologies should be based on form, materials, technology, use intention, possible dating/phasing, and other architectural details that enable the distinction of one type from the other;
- b) Identify and record pottery scatters. However, the collection of pottery shards is not allowed;
- c) Recording of the features on a map (scale 1:2500); and
- d) The investigation of potential archaeology (buried or surface) should be considered as a reserved matter and as directed by the Superintendence of Cultural Heritage.

### **3.1.3. Recording Specifications**

Relevant information for each feature shall be presented data cards as supplied by the MEPA (specimen attached at the end of this document). Each feature should be individually identified with a consecutive reference number. The individual specific reference number shall be used throughout the report when cross referencing with maps, photos data cards and text. The information on each card for each feature shall include:

- a) Short description.
- b) Co-ordinates recorded up to 5 digits for each northings and eastings based in the local/UTM grid reference.
- c) Locality and address.
- d) Site indicated on a map to a scale of 1:2500
- e) Photographs
- f) Scaled diagram/sketch
- g) The significance of each feature, with a proposed grading following Structure Plan UCO and ARC policies.
- h) Existing and/or proposed legislative and physical protection.
- i) Current and proposed use/enhancement.
- j) Bibliographical references.
- k) Name of surveyors and date of compilation.

### **3.2. Statutory Protection**

Reference shall be made to local heritage conservation legislation, international conventions and charters, Structure Plan policies, Local Plans, Scheduling and other relevant documents related to the protection of cultural heritage.

### **3.3. Description and Assessment of Impacts**

All significant impacts and risks posed by the proposed project, **both during construction and during operation**, shall be assessed.

The impacts may include:

- a) Visual impact on the cultural landscape; and
- b) Impact on the heritage assets and archaeological remains (whether on the surface of buried).

### **3.4. Mitigation Measures**

This should include a description of the measures envisaged to prevent, minimise and where possible offset any significant adverse effects on the cultural heritage

assets and their setting by the project, (including reference to consideration of alternatives). Such measures could include technological features; operational management techniques; enhanced site planning and management; aesthetic measures; conservation measures; reduction of magnitude of project; and health and safety measures.

### **3.5. Monitoring**

A long-term monitoring programme of the impacts of the development on the cultural heritage assets and their setting shall be proposed. This shall include data gathering on the quality and progress of critical heritage features identified in the previous section, and spot checks. Therefore the following are required:

- a) A monitoring programme during any necessary scientific archaeological investigations, provided official written consent is obtained from the Superintendence of Cultural Heritage;
- b) A monitoring programme during site clearance, excavation and construction; and,
- c) A monitoring programme during operation.

### **3.6 Further requests from Superintendence of Cultural Heritage**

#### *Methodology*

- The cultural evaluation may include desktop research, topographic survey and remote sensing as necessary. The evaluation techniques must not include collection of material, excavation or any other activity, which would impact physically on the cultural heritage resource, in violation of heritage legislation.
- Any features of cultural heritage identified are to be promptly reported to the Superintendent of Cultural Heritage and should be left undisturbed, as per heritage legislation.
- The features of cultural heritage identified are to be described and plotted with grid references, on Data Capture Sheets, the design of which should be approved in advance by the Superintendence of Cultural Heritage. The Data Capture Sheets will be presented as an appendix. The analysis of the features will be included in the main report.
- The analysis should indicate where further investigations by the Superintendence of Cultural Heritage might be necessary.
- This analysis should be holistic, and must treat the cultural landscape in its integrity. Attention should be given to the relationships between features of cultural heritage and their landscape context.
- This analysis should include a study of visual impacts, paying particular attention to:
  - a) existing relationships (including visual and spatial) between cultural features,
  - b) visual impact of the project on the landscape.
- The consultant is to discuss and identify strategy and methodology with the Superintendence of Cultural Heritage or his delegate, prior to the start of the evaluation.
- The consultant shall maintain close communication with the Superintendence of Cultural Heritage throughout the evaluation, which may result in changes in strategy and/or methodology in the course of the evaluation.

### *Limits of Authorisation*

Any form of investigation or prospecting which may have a material impact on the cultural heritage, (including collection of artefacts during field walking, or excavation), can only be undertaken by the Superintendence of Cultural Heritage.

#### **4.0 Academic Competence**

The survey and report shall be undertaken by suitably qualified person/s holding a degree in archaeology.

#### **5.0 Photographic and Cartographic Evidence**

Photographic and cartographic evidence taken during the site investigations shall be submitted to the Malta Environment and Planning Authority and to the National Archives with due credits for record keeping purposes.

<b>MEPA</b> PTOTECTIVE INVENTORY OF THE MALTESE CULTURAL HERITAGE HERITAGE DATA CAPTURE SHEET				Ref. No.	
Location		Category		Type	
Eastings		Northings		Feature	
S.S. No. 1		S.S. No. 2		Description	
S.S. No. 3		S.S. No. 4			
Date					
Neg. No.		Film No.			
Present Utilization					
Existing Legal Protection		GN. Number		GN. Date	
Comments					
Buffer Zone		A		B	
Eastings		C		D	
Northings		E		Others	
Site Map					
Scale 1 : 2500					

**Archaeological Characteristics – Sketch/Scaled drawings:**

<b>Condition:</b>	<b>Degree of Protection (Structure Plan policies UCO7 or ARC 2):</b>
<b>State of Security:</b>	<b>Proposed Utilization:</b>
<b>Basic Bibliography:</b>	
<b>Compiled by:</b> <b>Checked by:</b> <b>Date:</b>	<b>Revised by:</b> <b>Checked by:</b> <b>Date:</b>