

**MASTERPLAN FOR THE RESTORATION OF QUARRY HS30
SITE AT TA' DMEJREK, LIMITS OF SIGGIEWI**

PROJECT DESCRIPTION STATEMENT

Version I: May 2016

HS30 PDS

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Masterplan for the Restoration of Quarry HS30, at site at Ta'Dmejrek, limits of Siggiewi.

Project Description Statement.

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HS30 PDS

Quality Assurance

Masterplan for the Restoration of Quarry HS30, at site at Ta'Dmejrek, limits of Siggiewi.

Project Description Statement

May 2016

Report for: **Quarry operator; G Abdilla**

Revision Schedule

Rev:	Date:	Details:	Written by:	Checked by:	Approved by:
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MASTERPLAN FOR THE RESTORATION OF QUARRY HS30, SITE AT TA'DMEJREK, LIMITS OF SIGGIEWI

INTRODUCTION

1. This Project Description Statement (PDS) describes a master plan proposal for the post-operation restoration of a hardstone quarry, together with ancillary offices and services, currently located within Quarry HS 30 at Ta' Dmejrek, limits of Siggiewi. The ownership of the operator as well as the current quarry boundaries are delineated in figure 1.
2. The project is proposed by Ramel u Zrar Limited and the quarry operator G Abdilla, hereinafter referred together as 'the applicant'. The project is hereinafter referred to as 'the Scheme'.

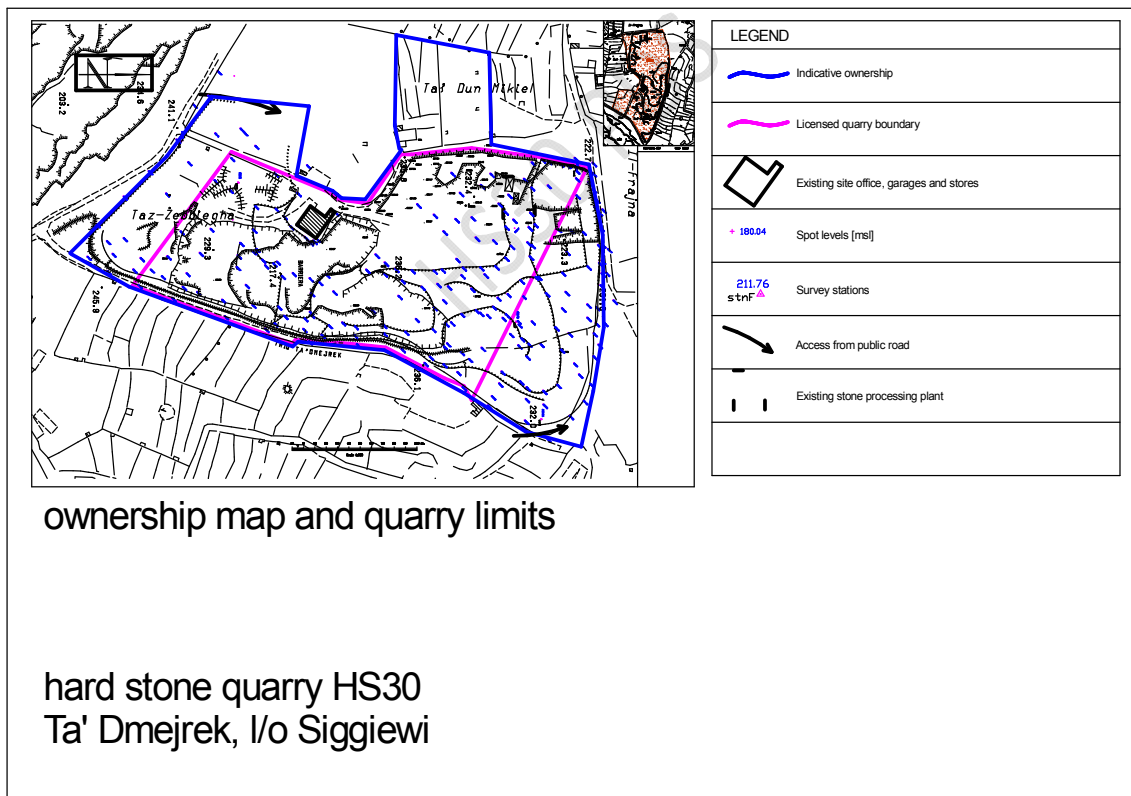


Figure 1 – Indicative ownership limits and licensed quarry boundary.

BACKGROUND

3. The applicant and his predecessors have been operating at Quarry HS 30 since the 1980's, under a valid police license for quarrying activity. The quarry boundaries as per police licence are indicated in figure 2, which compares the previous boundary with the current boundary. This figure also indicates the enforcement limits for comparison purposes.

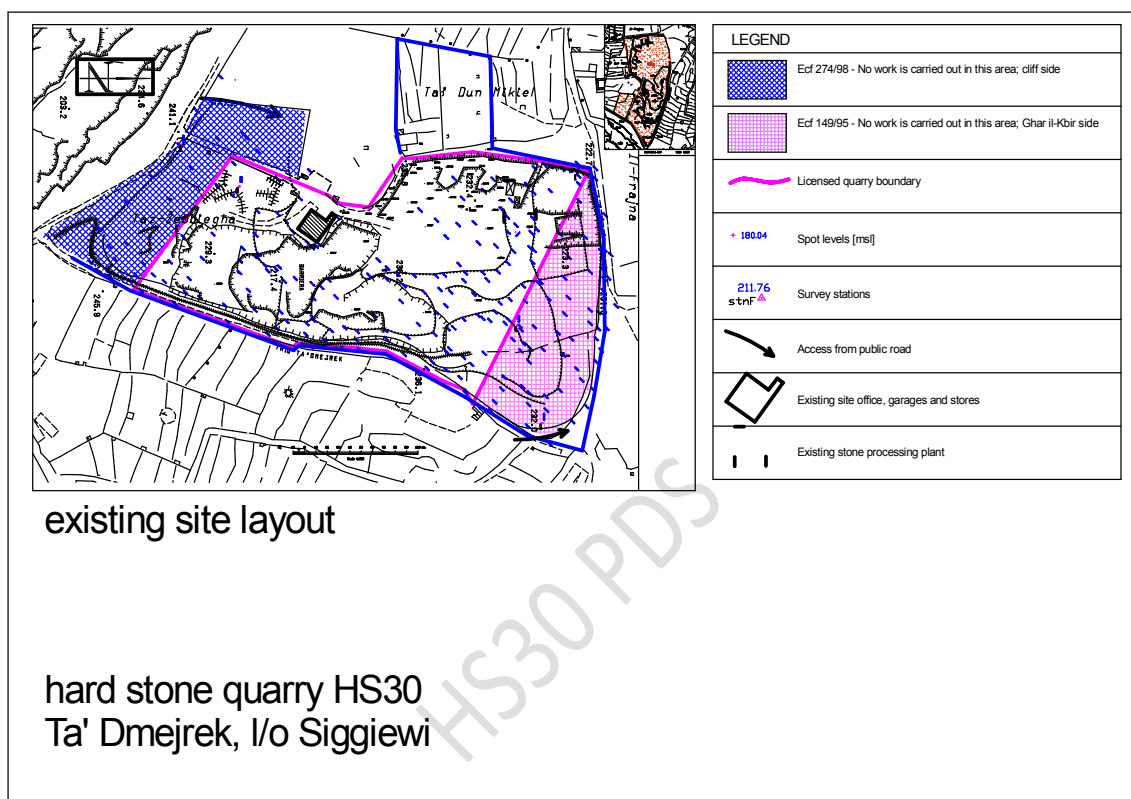


Figure 2: Existing licensed quarry and enforcement notices

4. The applicant has been legally operating from the Scheme Site and in addition the Site has been included as a hardstone quarry in the Minerals Local Plan issued by MEPA, and identified as hardstone quarry number 30.
5. Quarry HS 30 is identified in the *North West Local Plan 2006* as an active quarry as per drawing number map 5 North West Local Plan Hardstone quarries. Section 9 Minerals and Waste Management section 9.1.8 encourages ‘..positive restoration and after use is carefully planned and implemented throughout the life of the quarry, the land may become scarred and derelict.’ Policy ‘NWMW 1 After use’ states ‘Applications for development proposals involving the reuse of disused quarries may be considered favourably by MEPA. Additionally, a number of quarries, which are likely to be exhausted over the plan period, have been identified for restoration and after use. Possible uses in rural areas include agricultural land, viticulture, afforestation, commercial orchards, nature conservation uses and informal recreation/tourist facilities, and possible other uses identified through negotiation with MEPA. However, uses, which in the opinion of MEPA are not compatible with or create an adverse impact on the surrounding countryside, will not be permitted. Some quarries are

suitable for filling with excavation waste, which could form the first phase of site restoration. Submission and approval of a restoration plan shall be a prerequisite in all cases of quarry restoration.'

13.5 Landscape Change Section 13.5.4 'The restoration of a quarry can improve the landscape and offer opportunities for land uses complementary to the setting. The size of some quarried areas allows the opportunity to introduce new landscape features to add to the character of the area or create a new local identity. For example, new habitats could be created, within the context of a national trees and woodland programme.'

6. In December 2004, the applicant submitted to MEPA a full application PA 7213/04 for the extension of the quarry to a level of 190msl. The said application has been refused as per following reasons:
 - 1 The proposal cannot be considered further unless the following illegal development is removed and this in terms of policy circulars 2/96 and 2/98. The illegal development consists of quarrying outside the licensed boundary ECF 145/95 and ECF274/98.
 - 2 There is an objection by the Malta Resources Authority by letter dated 17 May, 2005 marked Red 16 in file.
 - 3 Where previous breaches have been identified, the Malta Environment and Planning Authority will require the operator to demonstrate how these breaches were, or will be, rectified. (Minerals Subject Plan Policy DC 04).
7. In 1998, the Planning Authority had issued an enforcement on a separate portion of the quarry, enforcement reference EC00274/98, and which enforcement notice states 'Ghandek zvilupp li jikkonsisti fi qtugh ta'blat fil-limiti ta'l-imsemmija barriera numru 30 u dan kollu f'propjeta protetta skond il-Gazetta tal-Gvern ta'Malta d-datata 25 ta'Gunju 1996.
8. In 1995, the Planning Authority had issued an enforcement on a separate portion of the quarry, enforcement reference EC00149/95, and which enforcement notice states 'Qieghed tagHSEL xoghol ta'skavar fil-barriera l-barra mil-limiti li suppost minghajr permess.'

OBJECTIVES OF THE SCHEME

9. The primary objective of the Scheme is to identify the way forward in this site since the existing enforcement notices are precluding any further development and restoration of the site. The said enforcement notices technically lie outside of the current quarry area as identified in the Minerals Local Plan. In addition, it is a state of fact that such areas were quarried mostly prior to the coming in force of the Planning Authority in 1992, and before any of the said areas were even scheduled. The presence of these enforcement notices is inhibiting any further planning of the site since the closure of such enforcement notices requires the infilling of the quarry which at the same time clashes with the principle activity of the quarry which is the extraction of mineral at the base.

It is regarded that a substantial portion of this quarry has been exhausted and there is no further scope of any vertical extension in this section as all the potential mineral has been extracted. In a smaller portion of the quarry lying to the west and

north-west portion, there is a substantial mineral volume to be extracted within the quarry limits as identified in the Minerals Plan.

The objective of this scheme is to identify the future of this site in terms of mineral extraction, closure of the enforcement notices and a quarry after use policy which will consist of part restoration to agricultural land, solar energy generation, construction of residences and garages for industrial use. These activities will restore the area, rationalise and consolidate the applicant's activities.

BENEFITS OF THE SCHEME

10. The Scheme has a number of benefits, including:
- Facilitating achievement of the policy objectives for the area as outlined in the *North West Local Plan 2006*, in allowing for the restoration of the site and the removal of an obnoxious industrial activity.
 - Rationalisation and optimization of the minerals in this site;
 - Improvement and enhancement of the environment and visual amenity of the area, through allowing for the eventual restoration and after use of Quarry HS 30 for amenity, nature conservation, residential, light business and energy generation purposes, in accordance with the Local Plan & SPED policy objectives, and in facilitating the comprehensive planning and holistic development of the Scheme Site; and
 - Optimizing extraction of all the potential mineral.

EXTRACTION OF ALL POTENTIAL MINERAL

11. As indicated in figure 1, the applicant owns adjacent land which is not scheduled, and which lies adjacent to the quarry in question on the west side.

The quality of the mineral in this area is regarded as having a high quality and it is considered viable from a technical and financial aspect as well as from an environmental aspect to extract all such mineral.

DESCRIPTION OF THE SCHEME

LOCATION OF THE SCHEME SITE

12. The location of the Scheme Site is shown on **Figure 1** above. The site is located at Ta' Dmejrek, in the limits of Siggiewi. The Scheme Site is located within the Siggiewi Local Council administrative area.

CHARACTERISTICS OF THE SCHEME SITE

13. The Scheme Site covers a total area of approximately 81,000m². There are a number of existing and permitted structures / activities on the site. These include an office complex, a series of garages, a stone processing plant, and various stores. These existing structures / activities occupy predominantly the northern and

southern portions of the site. The eastern portion of the site is predominantly exhausted and unused. The west portion of the site includes areas yet to be quarried.



Figure 3: Aerial view showing quarry HS30 adjacent to other third party quarries.

14. The *North West Local Plan 2006* identifies the Scheme Site as lying within a quarry area.

DESCRIPTION OF THE GENERAL SURROUNDINGS

15. A detailed land use survey of the area surrounding the Scheme Site was carried out in May 2016. The land uses in the area are illustrated in Figure 4, which shows detailed land use of the area surrounding the Scheme Site.

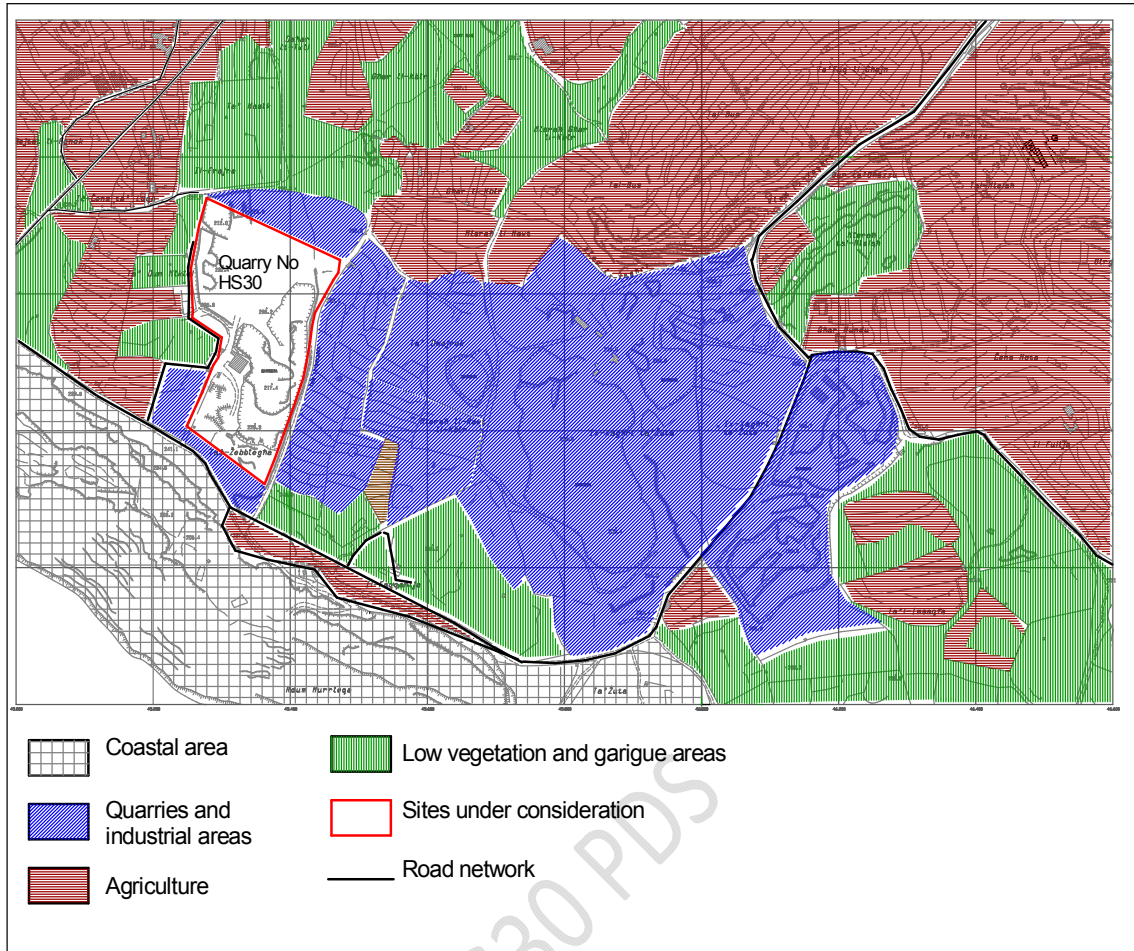


Figure 4: Site and adjacent land use

16. The predominant land uses in the immediate vicinity of the Scheme Site are industrial, mineral extraction and agricultural. The industrial uses are primarily construction-related, concrete production, asphalt concrete production, mineral extraction, mineral processing, storage and warehousing.
17. There are substantial areas in the vicinity of the Scheme Site which are in a natural state. To the south of the site, there are the cliff areas which are scheduled as per Level 2. The quarry is buffered on the south side from the coastal cliffs by a portion of land scheduled as Level 3, and which forms part of the Site. This latter area is identified with the enforcement ECF 274/98 mentioned in section 7. On the north side the quarry is buffered from Ghar il-Kbir from an area of the quarry which is identified with the enforcement ECF 149/95 mentioned in section 8 above.
18. The wider area consists of hardstone quarries numbers 31, 4, 30 and 1 as well as the following industrial activity:
 - Concrete batching plant
 - Stone processing plant
 - Aggregate storage
 - Cement silos,
 - Bitumen storage
 - Production of asphalt concrete

Stores

The said activities are concentrated to the east side of the quarry.

19. The site is bordered on the north and west side are bordered with agricultural land and abandoned karst land.

PLANNING POLICY CONTEXT

20. The planning policy relevant to the Scheme is set out in the *Strategic Plan for Environment and Protection [SPED 2015]* superseding the *Structure Plan for the Maltese Islands [1990]* and the *North West Local Plan 2006*. The *Minerals Subject Plan 2002* and the *DEVELOPMENT CONTROL DESIGN POLICY, GUIDANCE AND STANDARDS 2015* are also relevant.

Strategic Plan for Environment and Protection [SPED 2015]

21. This section reviews the Strategic Plan policies relevant to the Scheme. The policies with relevance to the Scheme are:

Introduction – Background to the Plan

22. **POLICY 1.10** *The legislation ..stipulates that the SPED shall be based on an integrated planning system that ensures the sustainable management of land and sea resources together with the protection of the environment.*

23. **Environment**

POLICY 2.25: *One natural resource that has been exploited over the years is limestone. The limited size of the Maltese islands, high population density and the extraction methods have resulted in enviable conflicts between mineral extraction and tourism, industrial, commercial and residential development and the preservation of natural and cultural resources. Permanent damage to ecology and landscape is a significant threat, whilst dust emissions from quarry operations affect agriculture and health. Since only a few exhausted quarries have been restored to beneficial after -use compatible with their location, the current situation is considered to lead to unsustainable use of resources. In addition, the wastage of mineral resources at the extraction stage and lack of re-use/recycling is leading to problems of waste disposal. Higher standards are required to promote the re-use of construction and demolition material in construction industry.*

24. **Socio Economic Development**

Thematic Objective 1

Policy 5. Achieving a wider mix of compatible uses on land and sea.

Policy 7. Increasing green space.

25. **Thematic Objective 6**

Policy 2. Identifying and designating pollution hotspots including air and water quality, noise and land contamination, and focusing resources for positive action and improvement.

26. **Thematic Objective 7**

Policy 1: Considering further mineral extraction preferably through extensions of existing quarries provided that there is no unacceptable adverse impact on protected areas and species.

Policy 2: Ensuing the phased extraction of minerals and restoration of quarries.

Policy 3. Identifying appropriate after uses for disused n quarries particularly the development of solar farms as a support to Energy policy.

Policy 4. Promoting rain water harvesting provided that there is no unacceptable adverse impact on protected areas and species.

27. **Thematic Objective 8**

Climate change

Policy 3. Supporting the integration of small scale renewable energy infrastructure into the design of buildings.

Overall conclusion:

The scheme identifies potential land to the west for mineral to be extracted, following which all mineral extraction, and stone processing plant will be removed. This will facilitate the eventual restoration and after use of the quarry for less onerous purposes, amenity and nature conservation purposes, in accordance with the North West Local Plan provisions.

The Scheme is therefore likely to positively address issues of visual intrusion, noise, vibration, atmospheric pollution, high HGV traffic, and other amenity issues arising from quarrying and quarrying-related activities. The Scheme is also likely to improve the natural heritage and environmental characteristics of the area. Nevertheless, issues related to visual intrusion, noise, vibration, traffic generation, and other issues of general disturbance caused by the construction and operation of the Scheme could be addressed in detail through the EIA process, if they are deemed to be relevant, and an EIA is requested.

The North West Malta Local Plan, 2006

28. This section reviews the North West Local Plan policies relevant to the Scheme. As mentioned, the Scheme Site is identified as an active quarry with designation number 30 Area - see **Figure 5** of the North West Local Plan.

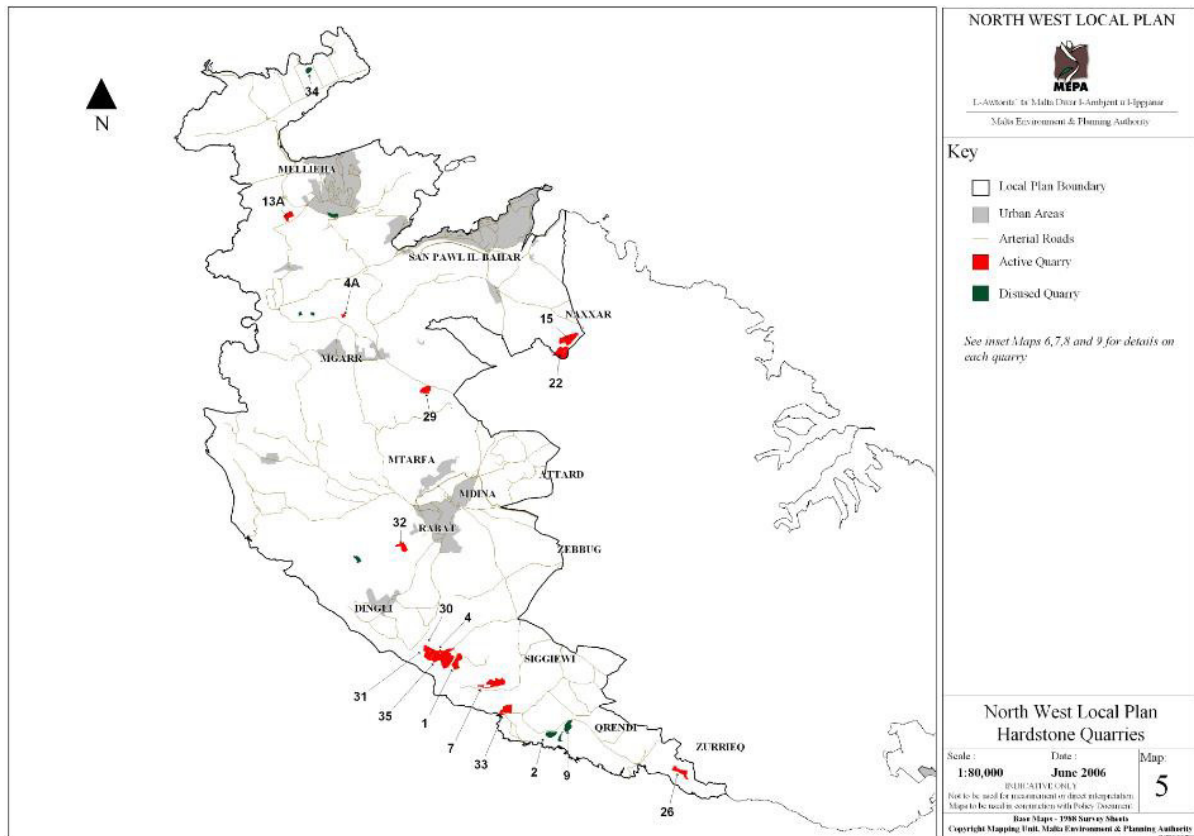


Figure 5: North West Hardstone Quarries (extracted from the North West Local Plan, 2006)

29. **POLICY NWCM 5 Concrete Batching Plants** There is a presumption against the development of new batching plants within the Local Plan area. However, MEPA may give permission for the relocation of an existing plant to a working hardstone quarry. Any development is to comply with all the following criteria: -
- The location of the proposed development is to be within a working hardstone quarry which benefits from a licence and development permit;
 - the development does not cause a significant additional adverse impact on the local amenity of the area and the surrounding environment;
 - the provision of a bank guarantee or similar provision in order to secure the removal of plant and machinery, restoration of the quarry and mitigating measures to reduce adverse impact on the local amenity upon completion of workings; and
 - the submission and approval of a scheme for restoration and after use of the quarry which is compatible with adjacent uses and mitigates any existing adverse impact on the amenity of the area. MEPA will encourage the submission of schemes for the restoration and after use of existing batching plants, which are compatible with adjacent uses and mitigate any existing impacts on the amenity of the area and the surrounding environment.
30. **POLICY NWMW I - After use:** Applications for development proposals involving the reuse of disused quarries may be considered favourably by MEPA. Additionally, a number of quarries, which are likely to be exhausted over the plan period, have been identified for restoration and after use. Possible uses in rural areas include agricultural land, viticulture, afforestation, commercial orchards, nature conservation uses and informal

recreation/tourist facilities, and possible other uses identified through negotiation with MEPA.

Minerals Subject Plan, 2002

35. The Minerals Subject Plan, which covers a 10-year period from 2000 to 2010, puts in place a comprehensive framework to provide for the future supply of minerals and to control the impacts of extraction. The Plan also establishes environmental protection as a priority, including in relation to the reclamation, restoration and after use of exhausted quarries. The policies and recommendations of the Minerals Subject Plan informed the policy framework of the subsequent North West Local Plan. The Scheme takes account of the provisions of the Minerals Subject Plan.

DEVELOPMENT CONTROL DESIGN POLICY, GUIDANCE AND STANDARDS 2015

36. This policy document is relevant to the Scheme in terms of building design, access, parking requirements, and amenity. The Scheme takes account of the provisions of this policy document.

DESCRIPTION OF THE SCHEME

37. The Scheme envisages a masterplan for the full extraction of all potential mineral by extending the current quarry to the west side, thereby extracting all material within the quarry boundary as well as within an adjacent area belonging to the applicant. During this phase, the existing offices and stores will be demolished so as to facilitate mineral extraction. The said offices and stores will be relocated. Following all potential mineral extraction, decommissioning of the stone processing plant [crushers and all other associated plant and machinery] will be carried out.
38. Specifically, the proposed Scheme outlines a zoning regime for the Scheme Site which identifies dedicated areas for a range of uses, taking account of the existing and permitted uses on the site and the characteristics of the site. The zoning regime also takes account of the policy objectives for the site as outlined in the SPED, North Harbour Local Plan and current planning issues including the current enforcement notices.
39. **Figures 6-9** illustrates the layout plan for the Scheme Site with the envisaged zoning/phasing regime. This phasing is required in order to address the enforcement notices and proceed with the mineral extraction as well as restore the site.

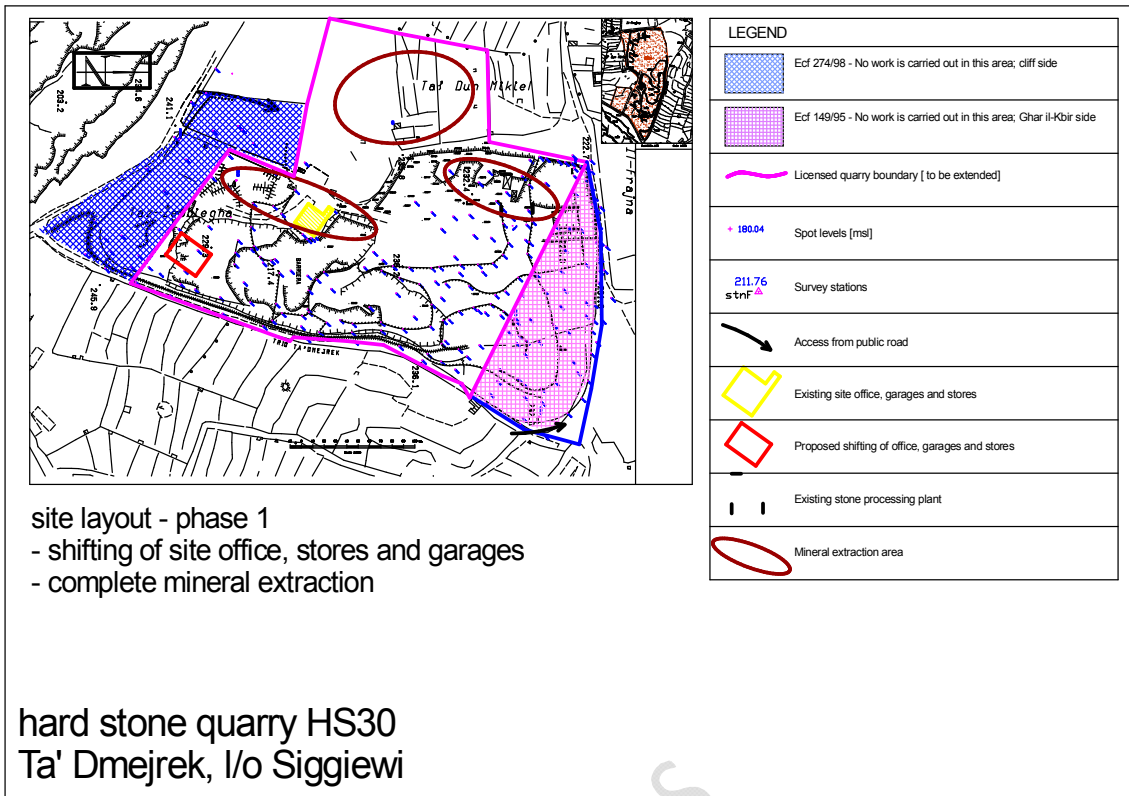


Figure 6 – Phase 1

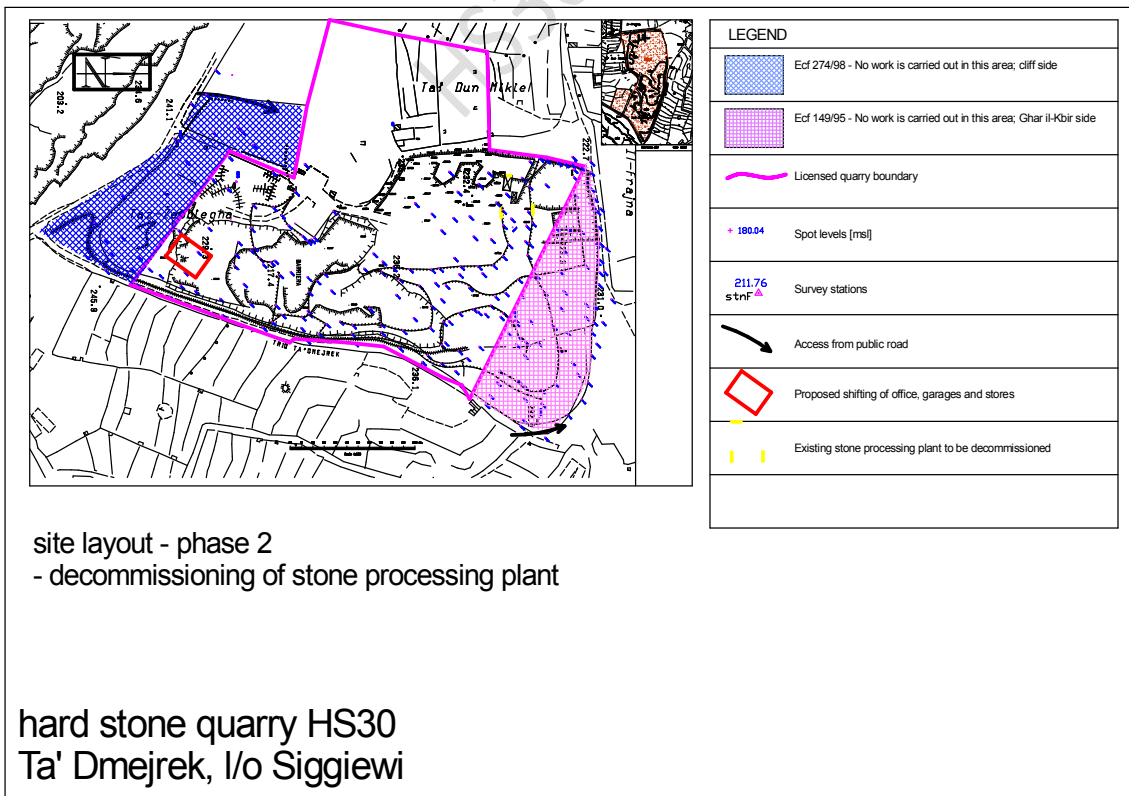


Figure 7 – Phase 2

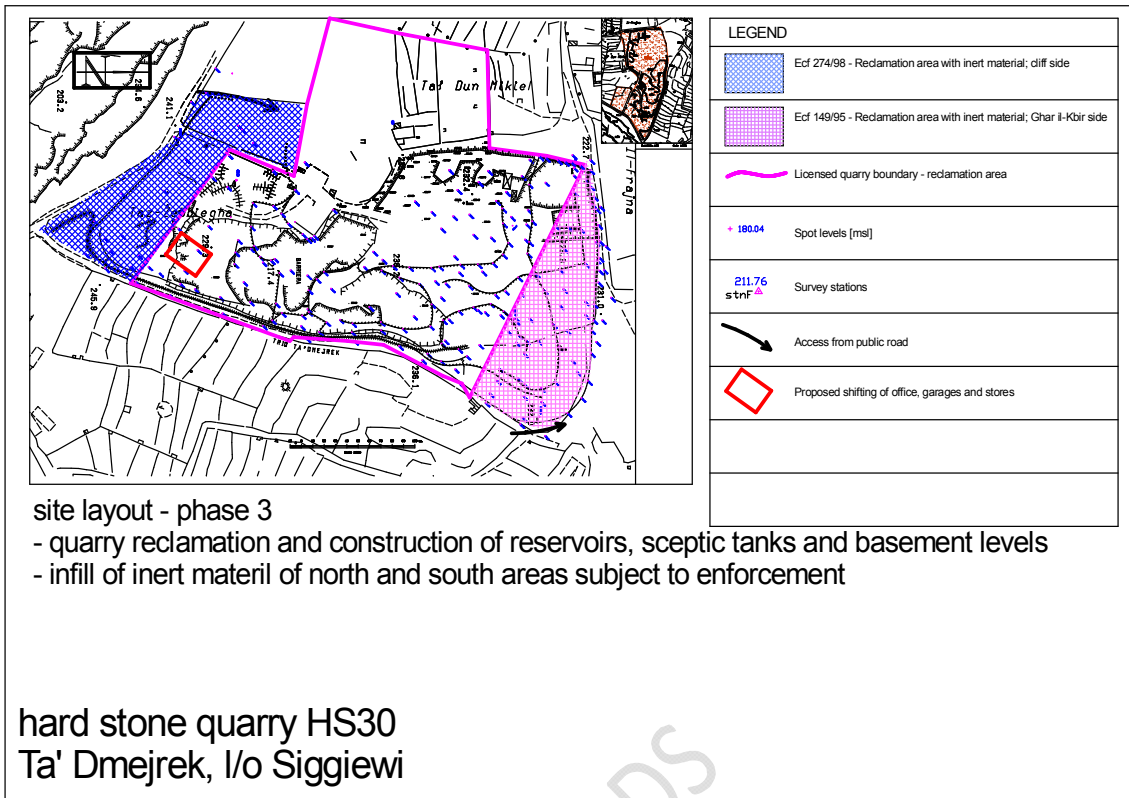


Figure 8 – Phase 3

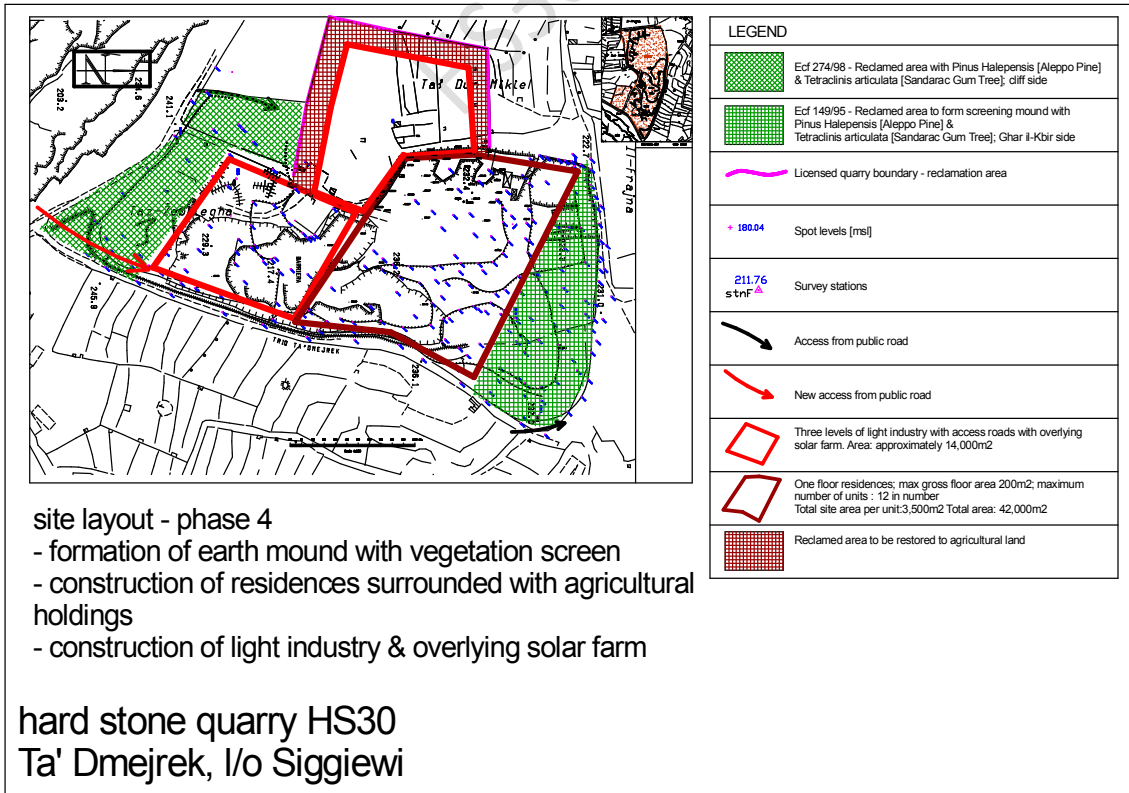


Figure 9 – Phase 4

Figure 6: Proposed Layout of the Scheme Site

40. The zoning regime identifies dedicated areas for a range of uses, as follows:
 Infill of site with inorganic waste consisting of selected fill;
 Supply and lay of organic soil;
 Construction of residential units with surrounding agricultural land;
 Construction of light industry garages for light industry and general storage purposes. Construction of an open yard for storage and parking;
 Construction of a solar farm for renewable power generation;
 The planting of trees especially indigenous trees carefully selected and designed so as to blend with the karst environment of the area.
41. The Layout Plan also identifies the location of underground parking areas and underground reservoirs.
42. The details of the scale, height and character of the new buildings will be addressed in the development application(s) to be submitted subsequent to this masterplan. However, in all respects the design of the new buildings / structures will have regard to the scale, height and character of the commitment and site characteristics on site. Importantly, the height of all new buildings / structures will be carefully designed so as to have a maximum height of one floor for the residences and all the other uses having no height above the adjoining land, so as to reduce visibility.
43. The zoning regime takes account of existing soft landscaping / planting on the Scheme Site, and envisages the introduction of new planting / soft landscaping areas in order to visually integrate the new development. A proposed belt of soft landscaping is proposed on the north side of the site so as to screen off the Ghar il-Kbir complex. It is proposed that a soft mound is formed and a soft landscaping belt of approximately five metres all along the northern site boundary is created; the Proposed planting will be *Cupressus leylandii* trees. This mound and soft landscaping belt will address the enforcement notice.
 A similar soft landscaping belt will be established in the southern part and will address the enforcement notice in this area.
44. The Scheme envisages the construction of a rubble wall, all along the road frontage (southern boundary) of the Scheme Site, where there is currently only a wall along part of this boundary.
45. There is currently one vehicular access points into the Scheme Site – located along the road frontage on the southern perimeter. The Scheme envisages the retention of this access points and the potential opening of an additional access point, also on the southern perimeter (see **Figures 6-9**).
46. Currently, car parking within the site is provided at surface level, in a relatively haphazard manner, with no specifically dedicated parking area(s). It is envisaged that staff parking facilities will be consolidated, and provided underground, (see **Figure 9**). The scale of the car parking provision, and details of the parking areas, will be addressed in the development application(s) to be submitted subsequent to this masterplan.

Services

47. Electricity and mains water utility services required to accommodate the Scheme are readily available on or near the Scheme Site.

The Scheme envisages no significant changes to the utility servicing arrangements in relation to electricity.

48. In relation to water, new reservoirs are envisaged, with the intention to facilitate the collection and reuse of rainwater.
Details of the rain water management system(s) will be addressed in the development application(s) to be submitted subsequent to this masterplan.
49. There are no connections to the sewerage network. It is envisaged that an additional new tanks will be installed to accommodate the new development. Details of the location and construction of these septic tanks will be addressed in the development application(s) to be submitted subsequent to this masterplan.

RESOURCES

Raw Materials

50. **Table I** shows the estimated amounts of the principal raw materials it is envisaged will be used in the construction of the new processing and manufacturing plant on the Scheme Site.

Table I: Raw Materials

Raw materials	Estimated amount
Concrete	3500m ³
Masonry	10000m ²
Steel	50tonnes

Energy

51. The energy consumption envisaged by the Scheme is unlikely to be significantly different from what is currently the combined consumption of the existing processing plant in Quarry HS30 and the existing plants on the Scheme Site. Current cumulative consumption is approximately 15,000 units. The proposed consumption is planned to consist of 75% from the main grid and 25% generated from the proposed solar farm; the number and location of these panels will be addressed in the development application(s) submitted subsequent to this masterplan.
52. There are currently two generators on site. All generators will be retained as back-up power units.

Water

53. The current water consumption is solely limited to the office consumption and general plant washing. The proposed water consumption envisaged by the Scheme is likely to increase by approximately 50%. The current site contains extensive open land with very little hard surfaces, and hence all rain water is absorbed within the ground terrain. The proposed scheme will increase the hard surface area, and hence there will be increased capacity to collect and store rain water; the use of recycled water for the all activities and for landscaping will therefore increase.
54. The annual mains water consumption of the Scheme is estimated to be approximately 200,000 litres.

Given the additional water reservoirs proposed for the Scheme Site (see paragraph 55 below), it is envisaged that the percentage usage of mains water will not be significantly increased; it is envisaged that approximately 7,000,000 litres of recycled water will be used annually.

55. Storm water run-off from the Scheme Site will be channelled into underground reservoirs. There additional reservoirs will be accommodated in the new development.

Waste Management

Construction Phase

56. Waste generated from the dismantling of the existing facilities is dealt with separately under paragraphs 60 - 62 below, which specifically address the decommissioning of the plant and offices.
57. Waste generated from the construction of the new stone processing is expected to be minimal. Rather the new works will at first consist in the reclamation of the quarry as directed by ERA and PA. Any material that does not qualify as inert material (vegetative matter or other non-inert material) will be deposited at an appropriate waste management facility, as directed by PA, ERA or WasteServ (Malta) Ltd.

Operational Phase

58. Wastes generated from the operation of the Scheme will take the form of oils and lubricants, oily rags, and vehicle and electrical parts, generated from the use and maintenance of plant and vehicles, together with foul water from the sanitary facilities, and municipal-type wastes from the administration and technical offices and the residences and workers' recreational areas (including packaging waste, for example, plastic, glass, metal, cartons, and paper, and kitchen waste, including waste oil). All of these wastes will be separated and appropriately disposed of by licensed waste contractors engaged by the operator, in accordance with the relevant regulations.

QUARRY EXHAUSTION AND DECOMMISSIONING OF EXISTING PLANT

59. The quarry decommission will be carried out in stages. The quarry still contains a substantial volume of mineral which still has to be extracted. The volume area still to be excavated lies in the west side of the quarry and lies within the quarry limits as identified by the PA and the Minerals Subject Plan. Prior to the start of mineral excavation, the existing quarry offices and garages will have to be relocated so as to enable the administrative operation of the quarry. Following the relocation of the offices, garages and stores, the existing hardstone mineral can be extracted up to the quarry depths as established by the PA , ERA and MRA.

The first phase which will consist in the relocation of the offices and mineral extraction is envisaged to be carried out over a period of approximately five years.

The decommissioning of the crushers will be carried out after the completion of the quarry infill with recycled/demolished material, since it is envisaged that the crushers might be required to crush some of the incoming material so as to ensure better material volume and size, and which will result in better compaction and an optimum infill volume.

This second phase is anticipated to last between five and ten years.

Dismantling / Demolition and Site Clearance

60. Wastes generated during dismantling / demolition and site clearance in relation to the existing processing and manufacturing plant will primarily consist of construction and demolition waste (C&D). It is envisaged that approximately 2,000 tonnes of C&D waste will be generated through the demolition and clearing of the plant.
61. The existing buildings will be stripped of any remaining fittings, in preparation for demolition. Fittings, including doors, windows, electrical equipment, rainwater pipes, etc., will be carefully removed and properly segregated according to their constituent materials (wood, aluminium, metal, plastic, glass, etc.). Any hazardous wastes will be placed in appropriate containers and managed in line with the hazardous waste consignment permit regulations. All hazardous wastes will be treated or disposed of in accordance with the hazardous waste consignment permit. Any asbestos cement elements (e.g. drainpipes), if present, will be collected separately and handled by a licensed asbestos contractor for disposal abroad.
62. As directed by MEPA, the remainder of the inert material will either be retained within the quarry, to be used as fill in its restoration, or transported off-site to an appropriate facility. Again, any material that does not qualify as inert material (vegetative matter or other non-inert material / contaminated / hazardous material) will be deposited at an appropriate waste management facility, as directed by PA or Wasteserv (Malta) Ltd.

Remediation

63. The activity carried out in connection with the existing stone processing plant makes it unlikely that any remediation of the site will be necessary. Any oils or fuels are delivered to the site in drums / containers, all of which are stored on site in a secure area, which has a concrete floor. The likelihood of spills/ dispersions resulting in contamination of the site, even localised, is minimal. If, following inspection, the floor of the storage area is found to include evidence of past spills / surface contamination, it will be dismantled / demolished separately for offsite treatment / disposal.

Site Reinstatement

64. The reinstatement of the area vacated by the existing stone processing plant will be undertaken through the eventual restoration of the whole of Quarry HS30. As mentioned, and in accordance with the Local Plan policy objectives for the area, the area will be restored and it's after use will be for light industry, renewable energy generation, storage, residential/amenity and nature conservation purposes.

CONSTRUCTION TIMING

65. As mentioned, it is envisaged that the relocation of the offices, quarry extraction, plant decommissioning, quarry infill, construction works and installation of solar farm will be phased. A detailed Gantt program of works including the critical path will be included with the development application so as to highlight the critical tasks and so as to also establish the site risks.

MACHINERY

66. The machinery that will be required during the construction of the Scheme is estimated to comprise the following, as described in **table 2**.

Plant / machinery	Numbers	Use
Wheel loaders	2	Demolition / clearance of existing plant
Tracked loaders	2	
Bulldozers	2	
Excavators	2	Construction of new plant
Tower cranes	1	
Wheel loaders	2	
Tracked loaders	2	
Bulldozers	2	
Delivery trucks	2	
Bulk trailers	2	

EMPLOYMENT POPULATION

67. The Scheme is expected to employ up to 10 personnel on the site at any one time during the construction stage.
68. The relocation of the stone processing plant will not envisage any increase in the number of persons employed in the business. The proposed final scheme is envisaged to provide an employment of approximately 50 personnel.

POTENTIAL ENVIRONMENTAL IMPACTS

69. Environmental impacts can be both negative as well as positive, and their assessment is important so as to better define the effects that a proposal may have on its receiving environment. In order for the environmental impacts of a project to be properly defined and analysed, an EIA process will normally need to be undertaken, complete with an identification of impacts, the determination of their significance, a

- comparison with the baseline conditions, and consideration of alternatives. The need for an EIA is however dependent on the screening of the likely impacts.
70. At this stage in the process, a preliminary list of the potentially significant environmental impacts of the Scheme can be identified. The list identifies only those impacts that may be significant. The level of significance would need to be assessed as part of an EIA if the screening exercise concludes that one is required.
71. The potential impacts of the Scheme are considered to be:
- Impacts on geology and geomorphology, from site excavation.* The Scheme envisages the construction of basement parking areas, basement garages, underground reservoirs, septic tanks and foundations. Given the scale and nature of the excavation, it is unlikely that the impact on geology and geomorphology will be significant since the site is already excavated.
- Impacts arising from construction activities,* in relation to noise, vibration, dust, and surface water management. These potential impacts, arising during construction of the new works, and the dismantling of the existing plant in Quarry HS30 are likely to be short-term and temporary. The construction activities will be carried out in such a manner so as to minimize any disturbance. Nevertheless, the potential impacts from construction activities will be addressed in the Construction Management Plan (CMP), which will be submitted with the planning application.
- Traffic impacts,* both during construction (including heavy-vehicle traffic) and during the operation of the Scheme. Construction traffic impacts are likely to be minimal; it is expected that the majority of the inert material generated from the dismantling of the existing plant and excavated material will remain within quarry HS 30, and HGV traffic required for construction of the new works is unlikely to be significant. Post construction traffic is also anticipated to be minimal. Nevertheless, the potential impacts from construction traffic will be addressed in the CMP.
- Impacts from waste,* generated during the construction and operation of the Scheme. The dismantling of the existing plant will generate a relatively substantial amount of C&D waste. However, it is expected that the majority of the inert material generated from the demolition and clearance of the site will remain within Quarry HS30, to be used as infill in its restoration.
- Impacts on landscape and visual amenity,* through the consolidation of the stone processing activities within HSI, and through the subsequent restoration of Quarry HS30. The consolidation of the processing works is deemed beneficial in terms of quarry operations. In addition, the site views as a result of the new works and restoration works will be greatly improved especially as a result of the re-creation of the site terracing and the proposed soft landscaping.

Moreover, the masterplan takes account of the need to appropriately screen and visually integrate the new development, having regard to the site constraints and characteristics; this will be achieved through attention to the scale, height and character of the new buildings / structures in the context of the prevailing development context, and through the landscaping treatment on the site boundaries.

Hence, the Scheme will serve to overall improve and enhance the landscape and visual amenity of the wider area in this visually sensitive location. It is likely that the impact on landscape and visual amenity will be significantly positive despite the increased development on the Scheme Site.

Social Impact. The Scheme will serve to relocate an obnoxious activity, and will facilitate through this relocation the restoration and after use of an area in long-term use.

The eventual cessation of quarrying activities, and the distancing of the processing plant, should serve to improve amenity in relation to dust, noise and vibration emissions, HGV traffic activity, and other associated disturbance. The after use of Quarry HS30 is designed to ensure a sustainable development for work, residential, amenity and nature conservation purposes should also serve as a positive addition to the recreational infrastructure in the area. Hence, the Scheme is likely to have a significantly positive social impact.

CUMULATIVE IMPACTS

72. The primary objective of the Scheme is to relocate the existing stone processing plant, to allow for the eventual rehabilitation and restoration of the quarry for amenity and nature conservation purposes. The cumulative impacts of the Scheme, in allowing for the restoration of Quarry HS30, are likely to be largely positive, particularly in the context of the impacts on landscape and visual amenity, as well as social impacts.

MITIGATION PROPOSALS

73. Potential mitigation measures will include:
- Careful consideration of the placing, scale, height and detailed design of the new buildings / structures, and to the landscaping proposals, in order to ensure that the visual amenity of the surrounding area is optimised;
 - Careful attention to the management of the construction phase (including the dismantling and decommissioning of the existing plant), and the putting in place of a robust CMP, in order to minimise emissions to air, noise, vibration, and ensure proper surface water management; and
 - Careful attention to the management of HGV traffic during the construction phase (including the dismantling and decommissioning of the existing plant), and the putting in place of a Traffic Management Plan, in order to ensure that traffic movements to / from the site are optimised so as to minimise emissions to air and traffic noise.

HS30 PDS