



PROJECT DESCRIPTION STATEMENT

at Triq ir-Ramla, Maghtab, l/o Naxxar.

To sanction construction of a batching plant, shelter for heavy vehicles, a mechanic's workshop and office space.

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1 Introduction

- 1.1.1 The Project Description Statement (PDS) has been prepared to justify the undertaken activities and proposed a course of action for the area understated by this report. The report was prepared with the guidance of Regulation 5(1) of the Environmental Impact Assessment Regulations, 2007 (L.N. 114/2007). The report will also provide an overview of works undertaken to demonstrate how there are in-line with established practices and to show that the end result is in agreement with the desired actions sought by all parties, together with a detailed description of the resources required to complete the development.
- 1.1.2 Tal-Maghtab Construction Co. Ltd. has proposed to sanction the installation of a concrete batching plant for the production of concrete on approximately 4835 sq.mts. of land located at Triq ir-Ramla, Maghtab l/o Naxxar. The site is owned by Mr. Dennis Baldacchino and who is the applicant with I.D. 396663M and will also be managing the operations of the concrete batching plant. The adjacent land uses and natural landscape are sensitive to this type of development and therefore works must be carried out in a controlled manner to avoid causing a needless nuisance to the surrounding natural landscape.
- 1.1.3 The project consists of the sanctioning, for the construction of a concrete batch plant, complete with office space, aggregate storage area, truck, and auto parking, concrete truck washout basin, concrete silos and concrete mixing plant, laboratory, steel reinforced concrete products fabrication area, and a batch plant control room. The primary use at the site would be the production of ready-mix concrete,

wholesale aggregate sale and the fabrication of precast concrete products and concrete steel reinforcement.

1.1.4 This document is divided into the following sections:

- 1 *The introduction*, describing the purpose, and organization of the document, and who is responsible for development;
- 2 *Project Information*, regarding the project, including a brief description of the project location, general land use designation and zoning, identification of surrounding land uses and description of environmental factors that are potentially affected by the project;
- 3 *Projection description* of the proposal providing a detailed description of the proposed project to be sanctioned;
- 4 *Potential environmental impacts and mitigation measures*, describing the environmental setting and issues in response to the existing and proposed development.

2 Project Objectives

2.1.1 The objective for the proposed course of action to be able to continue making use of the site are the following. These must show that the existing development is also in line with these objectives, whereas otherwise indicate a proposed course of action for the development and continued use of the site.

Objective 1: Access requires such industrial development to be located where there is access from a collector or arterial road and where heavy traffic is not routed through residential areas sensitive to such developments. The project is to be located in an area that contains only sparse rural houses and is near similar uses and major access roads planned for such use.

Objective 2: Compatibility with surrounding land uses, encouraging infill of existing utilized sites and areas and ensure the proposed development will not result in significant impacts to adjacent land uses. The site is currently an active concrete batch plant and environmental impacts are existing on site and can be mitigated.

Objective 3: The proposed project of mixing concrete should not carry potential hazardous pollutants exceeding limits and any waters that mix with concrete batches that are being discharged into the environment by incorporating Best Performance Standards (BPS) into project operations.

Objective 4: Building structures appropriately located on site and screening of storage and operation areas to minimize visual impacts and enhance the quality of the environment.

Objective 5: Promote economic development and employment opportunities in appropriate locations within allowable limits.

Objective 6: The proposed project is meant to implement a business plan by operating and constructing a facility which is economical, technologically and environmentally feasible. Tal-Maghtab Construction Co. Ltd. already possesses the required expertise in the field and would not be prudent to shift to other businesses, whilst contributing to the production of their supply.

Objective 7: The proposed sanctioning of the existing batch plant would also minimize the cost of relocation to other sites which would increase operational costs.

Objective 8: Increase availability of construction material to support local construction projects.

3 The current situation on site

- 3.1.1 The project site is located in a rural settlement near the Maghtab and ta' I-Ghallis landfill. The site is surrounded by other industrial uses, agricultural land, and other residential uses. The nearest single-family homes are two to three storey high located on either side of the project site.
- 3.1.2 The siting of the concrete batching plant has been carefully examined. The present location is considered the ideal location in terms of environmental and visual impacts. It is situated far away from existing and proposed surrounding sensitive receivers. It is foreseen the proposed buildings and topographical situation present on site can reduce the negative impacts, and screen parts of the existing development. However this advantage to reduce the visual impact may not be guaranteed.
- 3.1.3 The site is devoid of vegetation, with the exception of two small trees. The project site was heavily disturbed and is located in an area that historically been used for industrial purposes. Recent site improvements have seen the construction of a sheltering canopy for site works related to manufacturing of steel reinforcement products for construction works related to the production of concrete on site and other construction sites across the island.



Figure 01: Location of site in Maghtab, Malta, I/o Naxxar.



Figure 02: Location of site in Maghtab.



Figure03: Existing situation onsite.



Figure04: Existing situation onsite.

4 Land use and Planning

4.1 Planning Context

- 4.1.1 The project sites fall within Naxxar Coastal and Rural Environmental Constraints Map (NAM11), Area Policy Map of the Central Malta Local Plan (2006). The surrounding agricultural land is classified under policy CG24 that seeks to protect agricultural land from adverse development. It denotes that only development sensitive to these areas should be permitted and shall not affect negatively the quality of water resources, soil, and landscape, and shall not devalue if scientific, ecological and archaeological value.
- 4.1.2 Furthermore, the site is classified as falling within a settlement outside development zone as defined by policy CG02. This settlement of Maghtab is identified as a category 2 rural settlement and is indicated in Planning Control Maps NAB7 (2006). The extents of the settlement can also be seen on Planning Authority's Geoserver (2018). Policy CG02 notes that a number of different uses apart from farmhouses exist within the settlement, including batching plants, plant yards, garage industries, residential units, animal husbandry farms and a number of buildings that are in a dilapidated state.
- 4.1.3 The proposal must also adhere to broader objectives as outlined in the Strategic Plan for the Environment and Development (SPED, 2015). These are Thematic Objective 1, 6, and 10 to safeguard the environment from unnecessary development, mitigate air and noise pollution, and good transport standards to minimize negative environmental impacts, especially on protected areas. In addition to these urbanized areas must

make good of energy and water in an efficient manner and provide a pleasant and liveable place, in line with Urban Objective 4 of the SPED.

- 4.1.4 The rural environment is further protected by Rural Objective 3 and 4. These mandates that incompatible uses should not be permitted and located to already developed areas suitable for such uses. This must be done without compromising the quality of the rural environment and landscape.

4.2 Permitted and surrounding land uses.

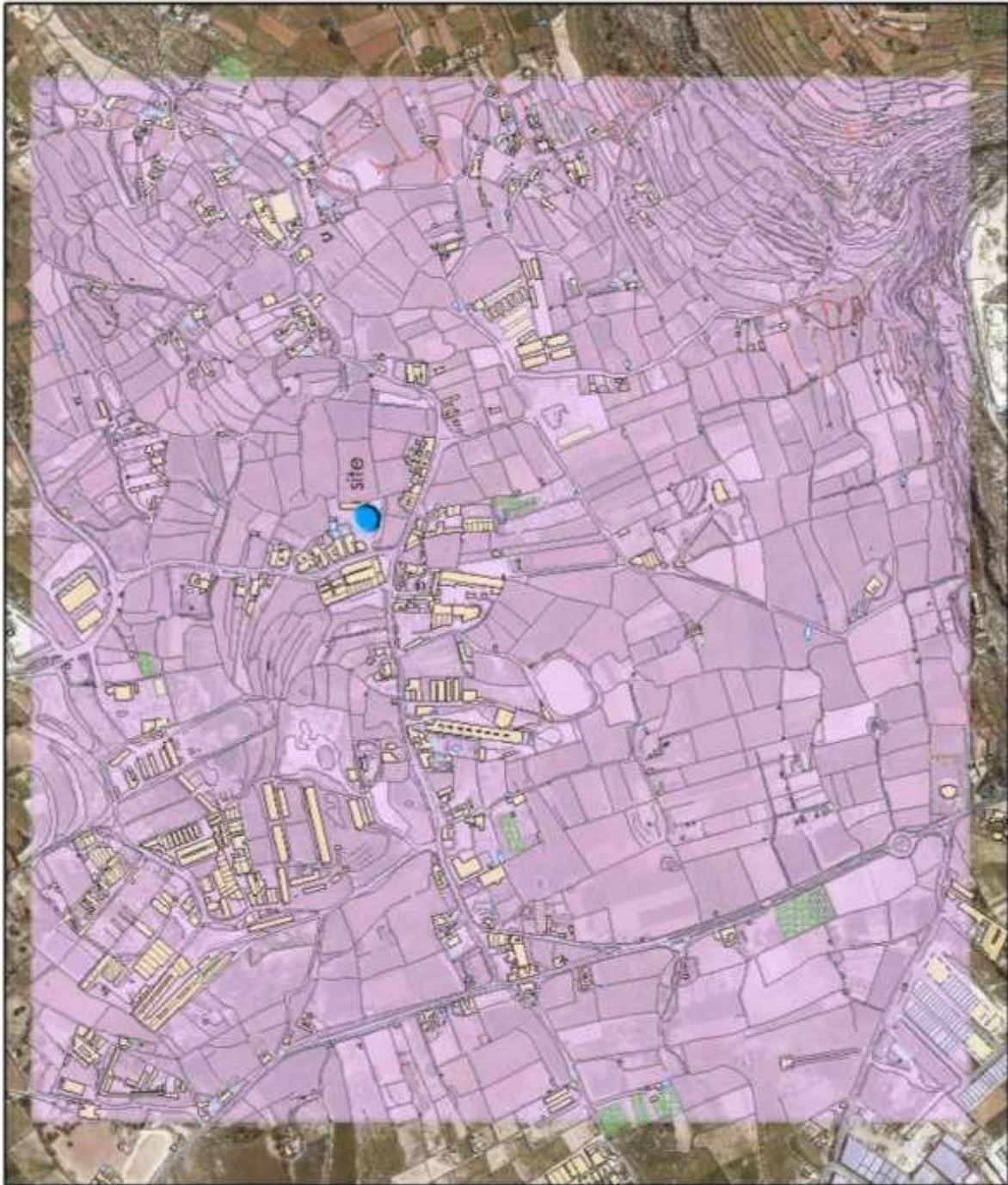


Figure 05: Maghtab settlement extents.

- 4.2.1 Other residential areas near the site include mixed residential, commercial, and industrial uses. The setting summarizes the existing conditions at appropriate scales and identifies applicable plans and technical information for the particular issue area.
- 4.2.2 Adjacent uses to the north of the site include agricultural land and small rural residential units of two storeys. Further away from the residences is the Ghallis Landfill, Maghtab Terminal Facility, and other Civic Amenity sites. The southern parts of the site are bounded by a vacant field covered in soil at Triq ir-Ramla corner with Triq Santa Marija. Recently the site, owned by tal-Maghtab Construction Co. Ltd. would be developed into a mixed-use development with underground parking spaces for heavy vehicles used by the same company and accessed from the same batch plant. This will be dealt with in a separate application.
- 4.2.3 Opposite the street, there is a food factory with stores, garages, and bulk gas storage. Other buildings opposite the site across Triq ir-Ramla are in a dilapidated state. Vast amounts of farms related to animal husbandry are described in the land use map and are spread across the settlement. Other areas and building have been converted into rural houses surrounded by agricultural land and open spaces.
- 4.2.4 Other uses located at Triq Santa Marija related to similar industries are other manufacturing areas and storage for concrete and precast units as shown by the land use map submitted for the purpose of the application. Other obnoxious uses not suitable for urban areas have also been described in the land use map, such as petrol stations, boat yards, and civic amenity sites amongst other uses.

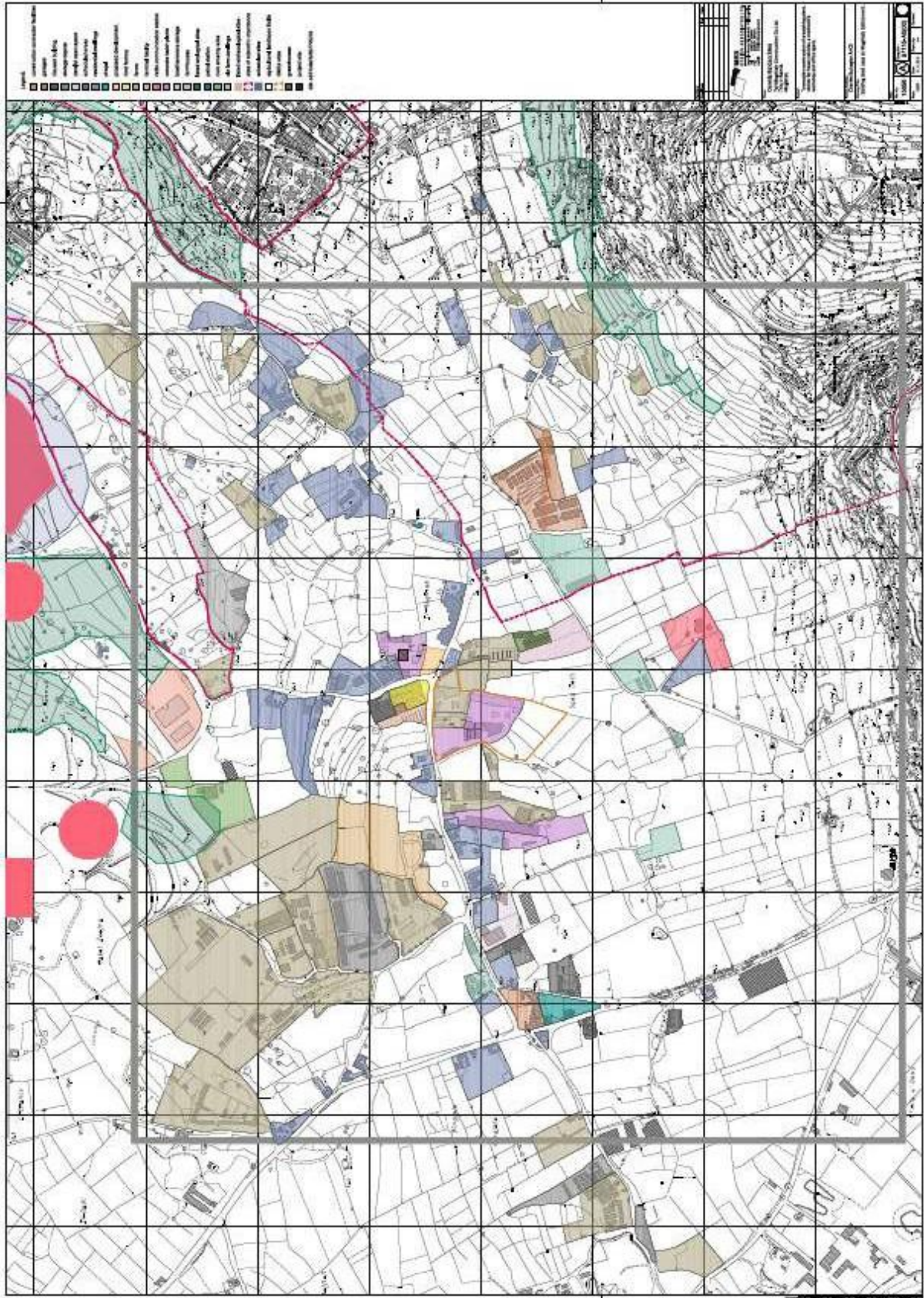


Figure 06: Maghtab settlement land uses (not to scale).

5 Project Operations

- 5.1.1 The proposed project would acquire sand and aggregate materials used in making the concrete. This material would be transported to the site using tipper trucks. Powdered cement would be transported to the site with a bulk transport truck.
- 5.1.2 During its operation, the plant will produce ready-mix concrete through a series of processes mixing aggregates, sand, and cement, in a dry-mix production. First, aggregates and sand are loaded into the batch plant bins. The 20 cu. mt. storage bins release aggregates and sand into the weighing hopper. All aggregates and sand are weighed for each batch of concrete. Simultaneously, cement is released from the storage silo through a material valve into the cement weigh hopper. About 75% of the concrete mixing water is metered into the ready-mix truck prior to loading of the aggregates, sand, and cement. Next, the aggregate and sand are released from the weigh hopper and delivered to the ready-mix truck via a belt conveyor. As the aggregates are being loaded into the truck, cement is released from the cement weigh hopper and into the read-mix truck. After all the aggregates and sand are loaded, the truck mixes the concrete mixes the concrete, then moves to a wash station for cleaning of any latent solid material that might be on outside of the truck.
- 5.1.3 The silo capacity is specified at 50 cubic meters. The actual operation of the plant will be subject to the issuance of an Environmental Permit and Nature's Permit. When the land use for the batch plant expires, thereafter the need for such a concrete batching plant would be re-

visited. There are a total of two cement silos of 50 cubic meters each. Cement is directly pumped from the road tankers brought on site into the cement silos.

5.1.4 Aggregate would be transferred to storage bins, located overhead composed from four compartments to the mixer plant that supplies aggregates from chute directly beneath the storage bins into the mixing plant. 1,000-litre IBC container tanks for water storage would serve the project and is available on site.

5.1.5 The Certified Ready-Mix Concrete Plant will provide testing as and shall comply with specifications and procedures according to appropriate tests and standards:

- Sieve Analysis of Fine and Coarse Aggregates (BS EN 12620:2013 in accordance with BS EN 206-1);
- Total Moisture Content of Aggregate by Drying (BS 812-109:1990);
- Wire-Cloth Sieves for Testing Purposes (BS 410);
- Weighing Devices used in the Testing of Materials (AASHTO M 231).

5.1.6 Only certifies cement and fly-ash products are allowed.

5.1.7 Moisture probe checks and gradation testing shall also be carried out for different aggregate samples. Suitable admixtures may be utilized to control air entraining and water content of concrete.

5.1.8 There will be approximately 3-5 employees at the batch plant facility, and a further 5-7 employees working at the office on site.

5.1.9 Concrete production on site is estimated to range between 30-120 cu.mts per hour of ready-mix concrete. Emission projections are estimated below and relate to ready-mix concrete production processes and materials. Control device includes the use of shrouds, conveyor belt covers, and rubber linings/covers amongst other possible measures.

<i>Particulate Matters (PM)</i>	<i>PM(tons/yr)</i>	<i>PM10 (tons/yr)</i>
<i>Min</i>	6.905	3.312
<i>Max</i>	27.626	13.249

5.1.10 Other toxic and hazardous air pollutants that could be emitted from the batch plant are; Selenium compounds, Phosphorus, Nickel metal, Manganese compounds, Lead, Soluble Chromate Compounds, Cadmium and compounds, Beryllium metal, and Arsenic Compounds. The emissions of hazardous and toxic substances range between a minimum of 0.0023kg/day to a maximum of 0.01kg/day, under projected work rates. These emissions would result solely from the production of ready-mix concrete on site.

5.1.11 Estimated air pollution for vehicles on site for 500 hours of operations:

<i>Air Pollutant Emitted</i>	<i>Emissions (tons/yr)</i>
<i>Particulate Matter (PM)</i>	0.13
<i>Particulate Matter (PM10)</i>	0.13
<i>Particulate Matter (PM2.5)</i>	0.13
<i>Nitrogen Oxide (NOx)</i>	1.78

<i>Carbon Monoxide (CO)</i>	0.38
<i>Volatile Organic Compounds (VOC)</i>	0.14

5.1.12 Estimated likely Greenhouse Gas emissions from vehicles on site for 500 hours of operations:

<i>Greenhouse Gas Emitted</i>	<i>Emissions on CO2e (tons/yr)</i>
<i>Carbon Dioxide (CO2)</i>	62.31
<i>Methane (CH4)</i>	0.07
<i>Nitrous Oxide (N2O)</i>	0.16

5.1.13 To protect sensitive receptors from excessive noise operations all equipment and machinery will be provided with silencers and noise suppression devices in accordance with BS 5228: Part 1: Noise Control on Construction and Open Sites - Code of Practice for Basic Information and Procedure for Noise Control. To ensure compliance with regulations, equipment, and sound power levels have to be declared, and quality control procedures established to ensure compliance with regulations that must conform to the Environment Management Construction Site Regulations, 2007 (L.N. 295 of 2007), as amended by L.N. 358 of 2007 and L.N. 371 of 2007, and L.N. 64 of 2002 that transposes EU Directive 2004/14/EC regulating permissible noise emissions. Structures siting built on site also serve as a measure to attenuate noise propagation into surrounding areas.

5.1.14 The site shall have all first aid equipment required in cases of emergency, hand-held fire extinguishers, sand buckets, and pill kits will be installed at strategic locations.

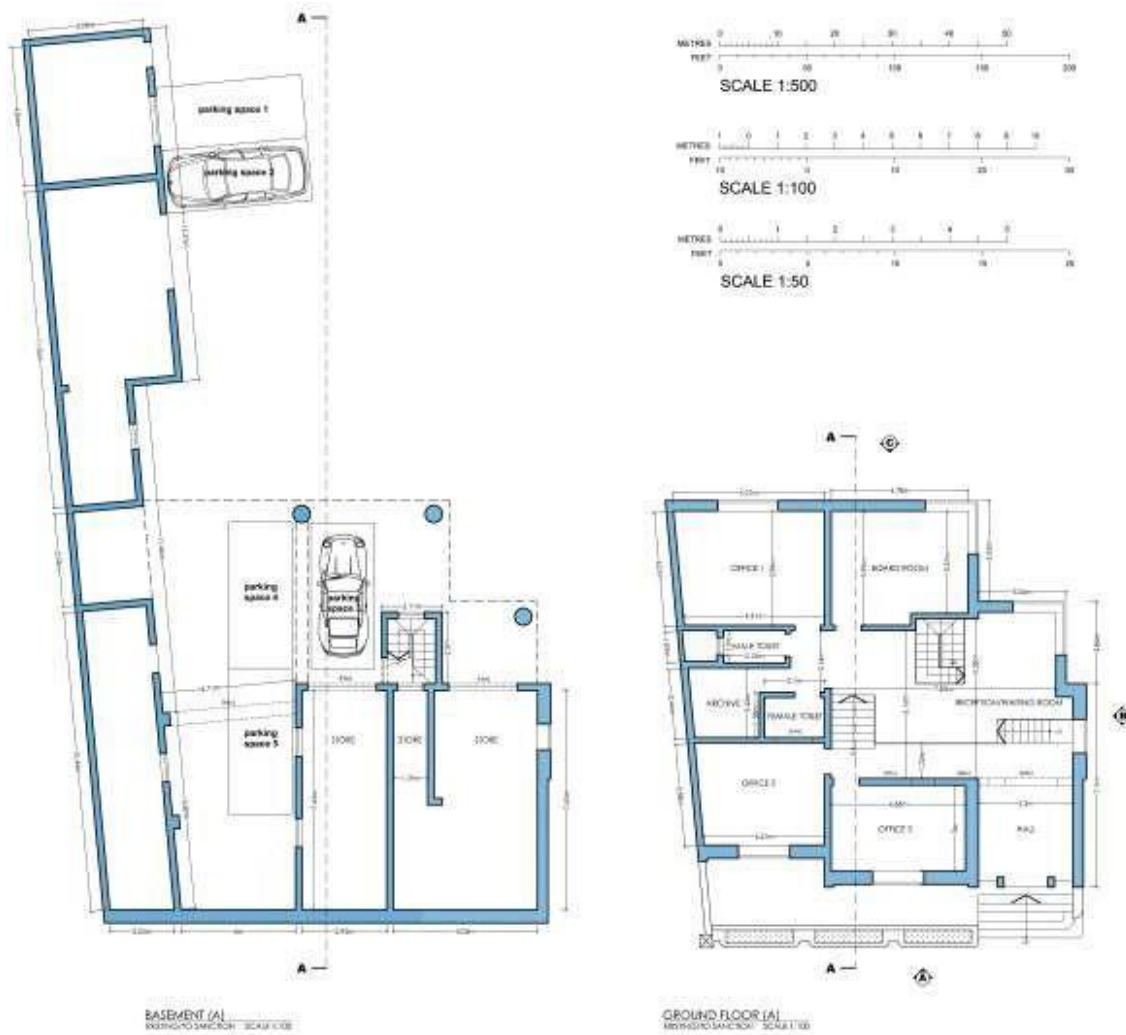


Figure 07: Site offices. (not to scale).

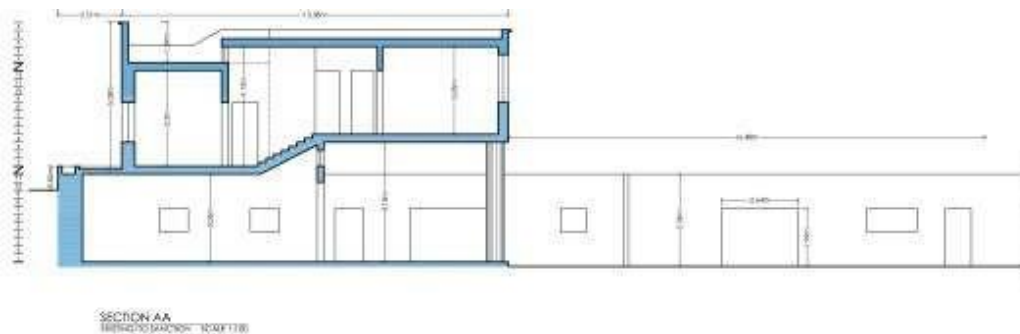


Figure 08: Site offices. (not to scale).

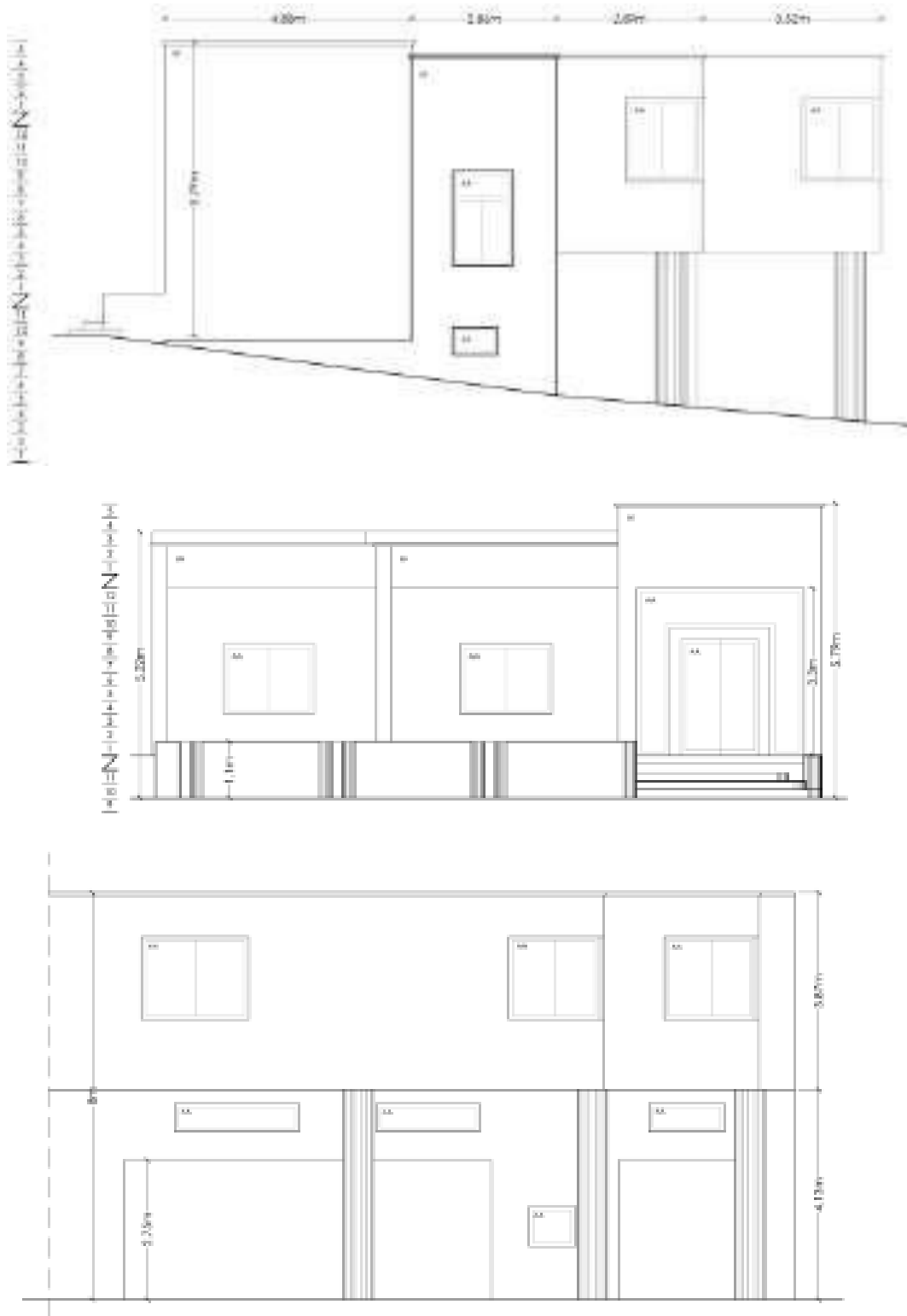


Figure 09: Site offices. (not to scale).

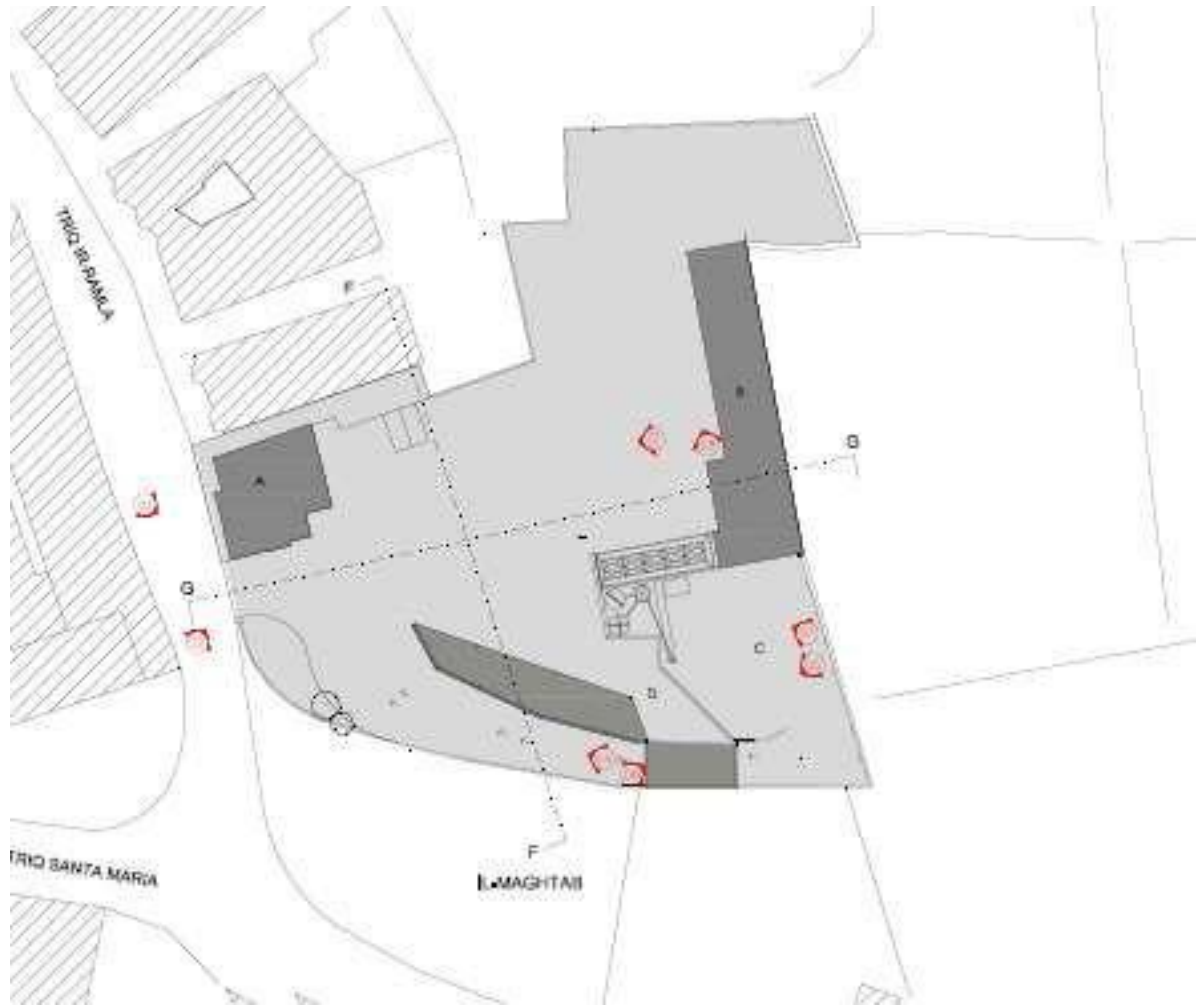


Figure 10: Block Plan. (not to scale).

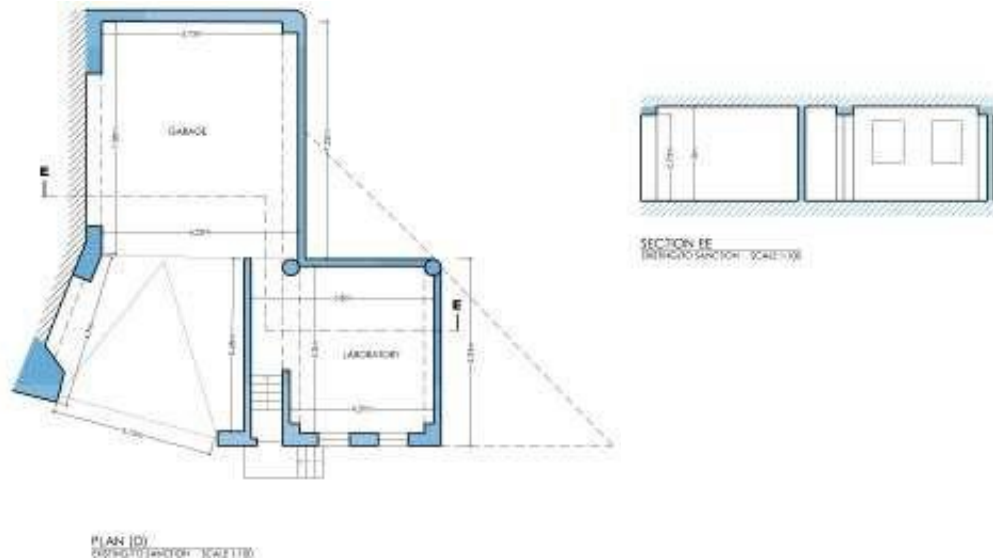


Figure 11: Garage and Laboratory. (not to scale).

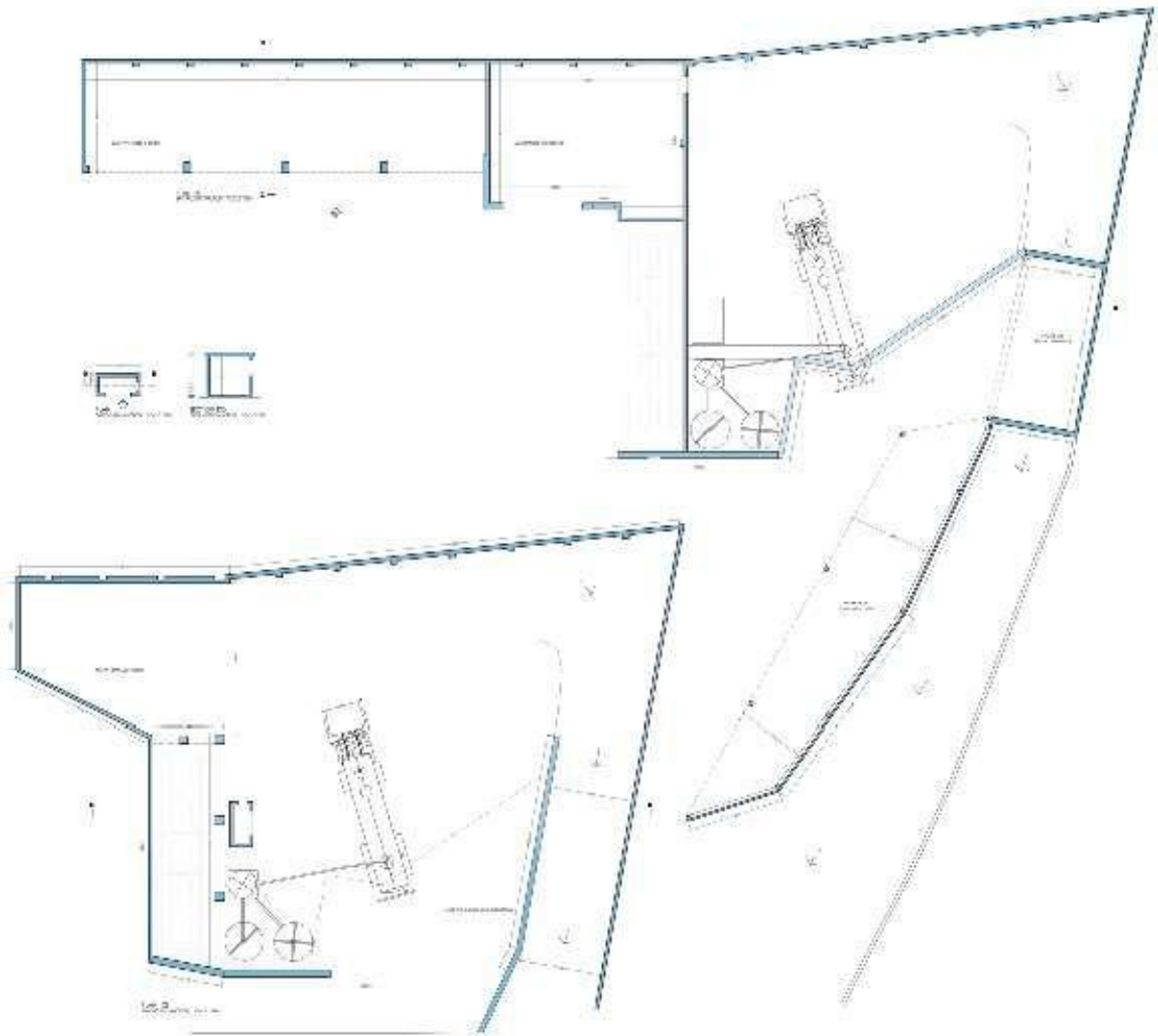


Figure 12: Batch Plant. (nottoscale).

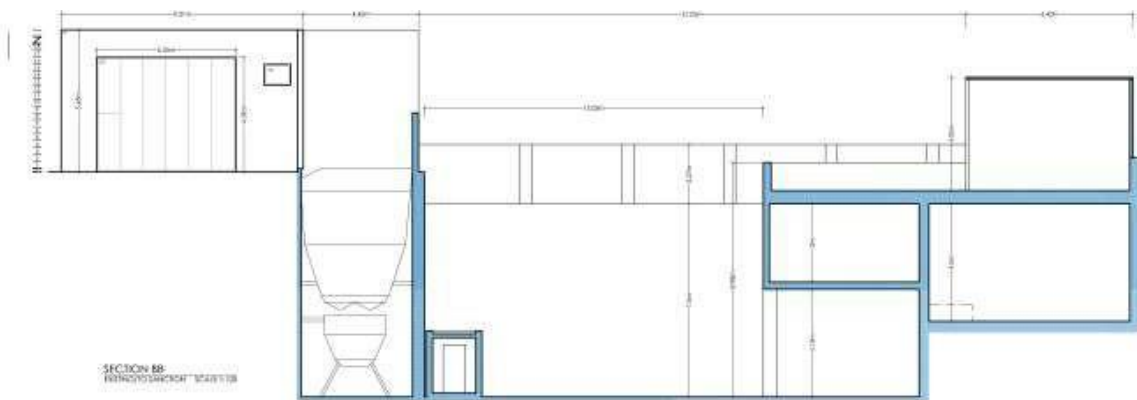


Figure 13: Batch Plant. (nottoscale).

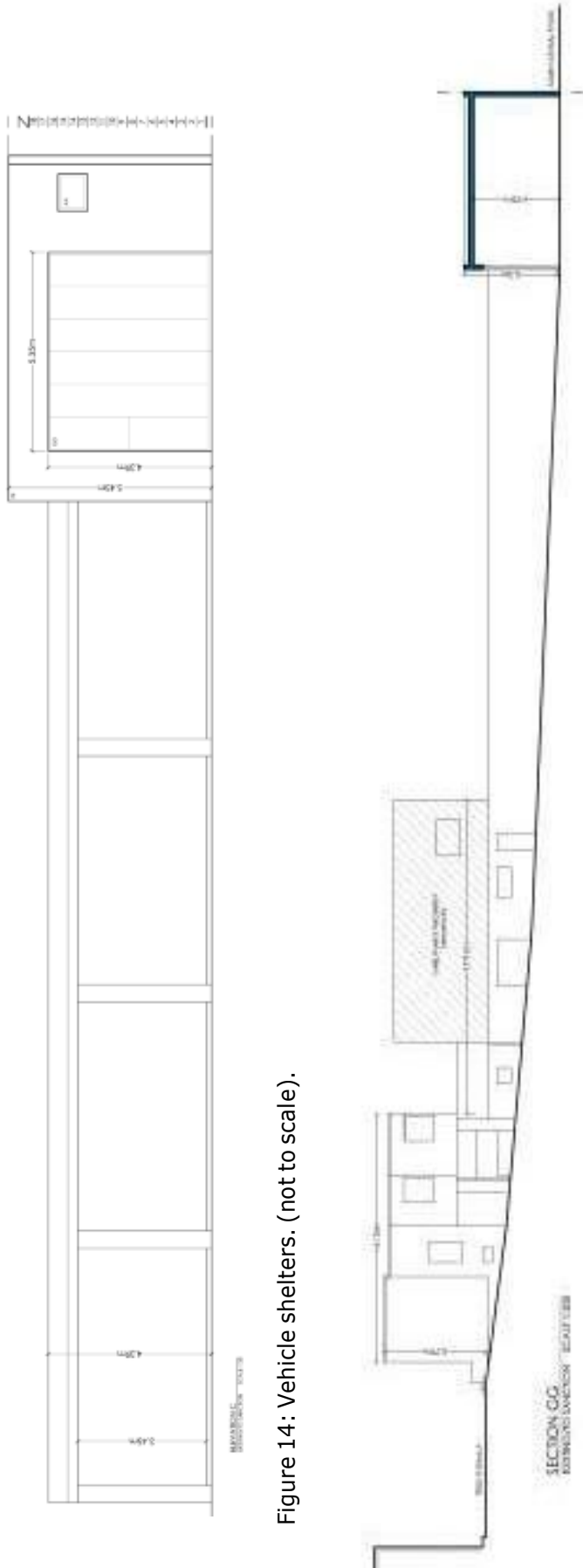


Figure 14: Vehicle shelters. (not to scale).

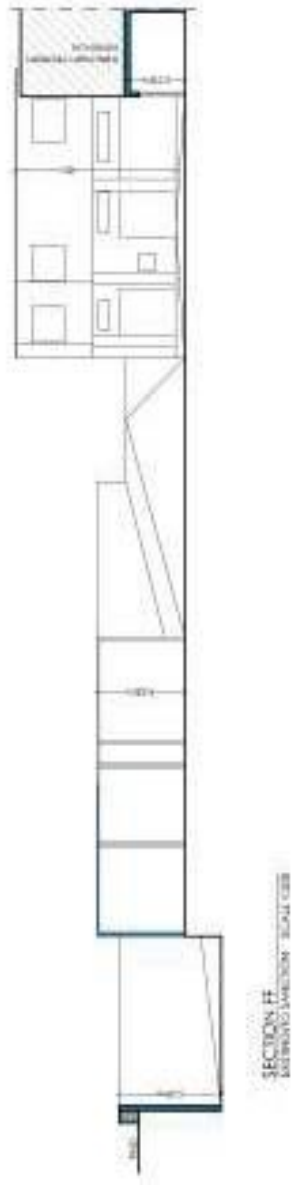


Figure 15: Site sections. (not to scale).

5.2 Site management and infrastructural services

- 5.2.1 Infrastructural services of the batch plant include, amongst other things, the following services.
- 5.2.2 **Lighting:** For site security and safety, lighting may be introduced on site. For lighting attached to the structures or buildings and for pole lighting, lighting fixtures would be shielded, oriented downwards, and mounted a maximum of 30 feet high.
- 5.2.3 **Fire suppression:** Fire extinguisher shall be kept on site located at suitable locations across the entire site. Additionally, fire protection services will be provided by the Civil Protection Department (CPD).
- 5.2.4 **Water supply:** The water system currently consists of a 50mm potable water main that provides water to the existing water points, installed to the office building and shop building for domestic use in restrooms and drinking water. This line would also be used for batch concrete, wetting aggregate piles and truck washout. A backflow device would be required.
- 5.2.5 **Wastewater:** the project would have a total of two restrooms in the office building, which will use a sewer line in the range of 100mm to 192mm diameter connected to the manhole in Triq ir-Ramla.

- 5.2.6 **Electricity:** The site uses a three-phase electrical power supply which would be connected across the site. The power supply line is buried once the line crosses the site of the street. The total requested power for the site is 33kVA.
- 5.2.7 If required the supplicant shall be in contact with the service providers for electricity and water to connect the area with the rest of the infrastructural systems.
- 5.2.8 Spent oils and fuels shall be placed on pallets and stored into containers which can hold 110% of the said capacity. Spent lead-acid batteries will be stored into acid resistant containers and collected by an authorized waste broker for disposal at an appropriate site.
- 5.2.9 Waste generated on site has to be segregated into different types of wastes during its operation. Waste resulting from construction materials will be stockpiled on site beneath canopies. This will consist of timber, steel, aluminum, and rubber, and can be mixed with inert waste. The management of waste has to follow Waste Management Regulations as published by L.N. 22 of 2009 and L.N. 184 of 2011. These must be in accordance with the European Waste Catalogue, which prescribes the types of wastes and suitable destinations for the wastes. Wastes that cannot be recycled will be disposed of by certified contractors at an appropriate certified facility. Thus, adequate waste management strategies and environmental impact mitigation measures must be in accordance with S.L. 549.63 on Waste Regulations 2011 that regulates Waste Management Plans, Permits, and Controls in Malta, and L.N. 337 of 2001 and the Environment Protection Act 2011.

6 Transportation and Access to Site

- 6.1.1 The proposed batch plant would operate from 8:00 a.m. to 4:00 p.m. during weekdays. The office premises located on site would also operate using the same operational hours with occasional weekend operations.
- 6.1.2 While the batch plant would not operate after hours, mixer trucks would be returned to the site.
- 6.1.3 2 mixer trucks would deliver concrete from the batch plant to customers on a daily basis.
- 6.1.4 Approximately 5-7 daily mixer truck trips would be made with these trucks, supplying concrete to construction sites located across Malta. This would result in 1,000 to 1,330 deliveries a year.
- 6.1.5 The average concrete is 5 cu. mts., however, the ready-mix trucks can haul up to 8 cu.mts. per delivery.
- 6.1.6 During summer it is foreseen an increase in deliveries of ready-mix trucks ranging from 14 deliveries a day during September and October to as low as 1 to 2 deliveries per day during winter days, depending on the amount of concrete ordered for that particular day.
- 6.1.7 Approximately 6-20 daily in-bound truck trips of 20 cu.mts. each would occur for delivery of aggregate and sand and 1-3 daily in-bound truck trips would deliver cement to the site, at 95 cu. mts. per trip. These values

are determined by the rate of concrete production, as highlighted before. Practical figures of the actual situation on site indicate that likely prediction of trips would be in the range of about 1 weekly in-bound truck trips for cement delivery on site and, approximately 1-2 in-bound truck trips for sand and aggregate.

6.1.8 5 automobile parking spaces are provided on site for office workers. Heavy vehicles parking spaces would be located in the service garage located on site. There is additional space on site for additional parking spaces to be used by other workers working on site and by visitors.

6.1.9 All travel ways, parking, staging and material storage areas would be surfaced with concrete.

6.1.10 The road that provides access to the site is Triq ir-Ramla, Maghtab and connects Triq il-Kosta to Triq is-Salina. The road is a fully improved frontage with sidewalks, and underground electrical and water services. Streetlights are also in place.

7 Environmental Impacts

7.1 Qualitative Effects and Mitigation Proposals

7.1.1 Since the development has already taken place and the applicant proposes to sanction an existing development, it is only possible to assess impacts post-construction. The impacts listed in this report are of the existing potential impacts on the environment and of the proposed development. The mitigation measures proposed by this report provide a datum with respect to which the development scheme could be assessed and developed.

7.1.2 The visual and geomorphic impact is a function of the size of operations and siting of the equipment and buildings on site. Given that the site has already been excavated to existing levels one can assess the present impacts. Proper siting of the batching operations on site can mitigate the negative impacts such as noise, dust, ecology, landscape, water, and visual impacts. The latter is effected by the topographical levels of the site and of the surrounding environment. The development height and landforms should complement each other and aim to mitigate negative visual impacts, noise and dust pollution as a result of the operations of the batch plant. The development should attain a good design as a response to the intrinsic functional requirements of the development, and the ecological and geomorphological characteristics of the site and of the surrounding environment. The development site can be perceived by those making use of the site itself and the surrounding environment, workers, commuters and residents making use of adjacent roads and fields, whereby the boundary walls

and surrounding buildings screen large tracts of the site operations taking place. As such the visual impact is not significant since this has been restricted by the design and planning of the development being sanctioned and operations and in view of the existing similar commitments in close proximity.

7.1.3 The impacts associated with land use changes are effectively a loss of open space with soft landscaping and agricultural land. Most of the site is with hard landscaping, surfaced with a cementitious mixture to prevent dangerous leakages and seepage into underlying geological strata. Thus, impacts related to the land use of the site, for storage and use of heavy vehicles and plants utilized would exist if the proposal is located in areas not outside development zone. It is foreseen there should be the water supply for uses related to watering of trees, washing of vehicles from dust, mud, and for daily office consumption. The water will be filtered by evapotranspiration and residues collected into suitable bins for disposal or recycling. Given the current situation on site, it is unlikely there would be a significant impact on water and fresh water tables.

7.1.4 The impacts associated with noise generated from operating equipment and trucks can be mitigated by topographic areas and vegetated areas. EU Directive 2004/14/EC governs that maximum noise emissions in the environment by equipment used outdoors and this has been transposed in the Maltese Law by L.N. 64 of 2002. Hence under these regulations, equipment sound-power levels have been declared, and quality control procedures established to ensure compliance with legislation. Noisy equipment must be located away from residential

areas and control devices employed to reduce noise and dust generation such as noise deadening structures. Noisy operations should be restricted to timeframes stipulated in applicable legislation and must conform to the Environmental Management Construction Site Regulations, 2007 (L.N. 295 of 2007). Workers must be protected from noise by means of hearing protectors.

- 7.1.5 Dust may be created from, drilling activities, truck traffic, material movements on site and screening. The amount of dust depends on the type and size of operations, dust control measure adopted, working practices, air quality, moisture contents, quality of rock and cement, and on the prevailing wind. Mitigation measures include good housekeeping, pressurized water for cleaning of vehicles, control of vehicle speeds, and construction of high boundary walls and plantings. Conveyor belts must be kept covered at all times and use of dust shrouds on trucks to suppress dust. The use of respirators and mouth filter masks must be used to screen the workers from inhaling the dust. The nuisance of dust is greater in drier conditions and in wind conditions over 5.5 m/s. Dust deposition onto neighboring agricultural soil and vegetation cover can affect the evapotranspiration rates, photosynthesis, and soil fertility. Emissions from vehicles in the form of NO₂, PM₁₀, and Benzene, will have a slight impact on air quality due to emissions into the air. This can be mitigated by reducing engine revs, using vehicles equipped with the latest technology, and by means of screens and barriers around areas and point source emissions.

8 Summary

- 8.1.1 The report has established a clear course of action for the continued development and operation of the already existing concrete batching plant at Maghtab, in order to be able to sanction an already undertaken development. Through the identification of possible environmental impacts, the likelihood of environmental nuisance will be mitigated as much as possible.
- 8.1.2 The report has clearly established the policy framework within which such development should take place. These policy document mandates in favor of such development which regarded as an obnoxious industry to be located in an area that does not hinder other uses and affect negatively the countryside. The report highlights that policies, such as the Strategic Plan for the Environment and Development (SPED, 2015) and the Central Malta Local Plan (2006) policy CG02 encourage the development of such site into uses outlined by this report using appropriate means and measures.
- 8.1.3 A number of measures taken to reduce the environmental impacts of the development will seek to mitigate the negative visual impact and attenuate noise. In fact, the principal activities will take place at a level well screened by adequate boundary walls and topographical barriers. The emissions of dust will be partly controlled by appropriate devices and vehicle washing to prevent dust and residues migrating to nearby roads and land.

8.1.4 A clear course of action is highlighted by this report and all impacts are identified and addressed by mitigation measures in light of the context of the site. Good working practices will be employed where possible during all phases of operations to ensure dust and noise are mitigated and controlled in an effective manner, such as by observing the provisions made with the Environmental Management Construction Site Regulations, 2007 (L.N. 295 of 2007), covering building materials and site cleaning.