Project Description Statement

To restore an exhausted soft stone quarry (No.13) into an open storage area with extensive soft landscaping areas

Iklin, Malta

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1.0 Introduction

1.1 This Project Description Statement (PDS) has been prepared to serve as planning justification for the proposed development in development permission application (PA/03432/06), submitted by Mr Deguara (herein referred as the applicant). The report was drafted in line with Regulation 5(1) of the Environmental Impact Assessment Regulations, 2007 (L.N. 114/2007).

1.2 The applicant intends to restore an exhausted soft stone quarry (No.13) into an open storage area with extensive soft landscaping areas at the area known as Tat-Tabib, L-Iklin. The restoration of the exhausted parts of the quarry in question will be infilled. The area has in the past been used for quarrying activities. Most of these quarries have been restored and converted to other industrial uses, open storage areas and construction yards. Most of the neighbouring land uses are indeed land uses which cannot be located elsewhere.

1.3 The document provides:

- Details of the person wishing to carry out the development;
- A description of the different project aspects and its general objectives;
- An indication of the proposed project phasing;
- Indication of the alternatives considered;
- A description of the present and surrounding land uses together with a description their environmental characteristics;
- Description of the services, water, foul water sewers, runoff water drainage and energy sources available on site;
- Estimates of the number of persons to be employed;
- Indication of construction and waste management practices during construction and operation;
- Proposed access arrangements, traffic impact and parking provision requirements;
- Indication of the major environmental impacts likely to be generated by the project, including reference to cumulative impacts, proposals for mitigating the negative effects of the development.

1.4 Where possible baseline investigations have been prepared in accordance with the subsidiary legislation and regulations with a view to mitigate the impacts of the proposed development and provide ample information to the assessment team, in order to assist the latter and enable them to have a good understanding of all aspects of the proposed scheme.

1.5 The development site and the study area considered in this study has been identified in Figure One. It is anticipated that this document provides a basis for discussion, which may gradually evolve into detailed architectural, planning, environmental and engineering studies should the authorities deem this necessary. The report strives to provide enough information to make sure that impacts generated are easily anticipated and further studies are not envisaged.

1.6 As is shown in the Architect's drawings (Annex 01), the proposed project involves the reclamation of a soft stone quarry into a landscaped area, open storage facility (7160m^2) [1], construction of administration and support facilities (700m^2) and parking spaces.

1.7 The site abuts on Triq il-Ħwawar, off Triq tal-Balal at the outskirts of Naxxar (Triq il-Ħarrub) to Triq Għargħur, which in turn links the B'Kara By-pass and San Ġwann.

1.8 A Traffic Impact Statement (TIS) evaluated the predicted impacts on the transport network of the proposed facility. Following the assessment of the swept path of vehicles through Triq il-Ħwawar, it emerged that a wide range of vehicles can manoeuvre from the west end of Triq il-Ħwawar (from Triq il-Ħarrub) to the site. Emergency vehicles and heavy goods vehicles (HGV) not longer than 10 metres, coming from Triq tal-Balal can access the site with ease. This is the preferred route rather than having HGVs making use of Triq il-Ħwawar from the residential area.

[1] Unless otherwise stated numbers are rounded to the nearest digit.

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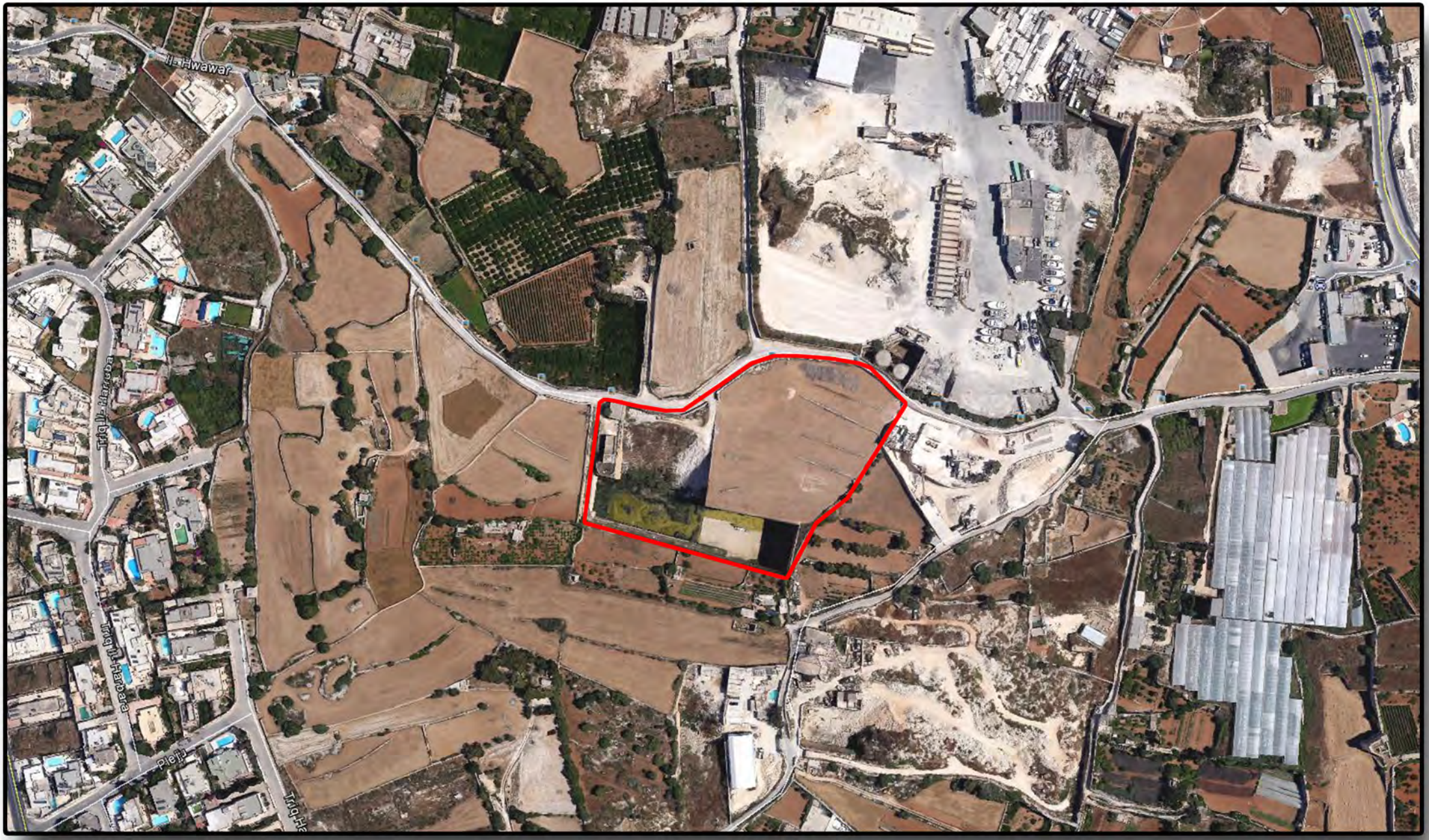

2.0 Applicants' Details

2.1 Mr Deguara will also be operating and managing the proposed development in the event that the applied-for development permission is issued. The architect responsible for the design and construction works is Perit Edward F. Bencini (herein referred as *Perit*). Copies of the drawings submitted by the architect are included in Appendix One.

2.2 The company will employ 3 full time employees, varying between heavy plant operators, drivers and labourers.

3.0 The Proposal

3.1 The proposal is planned in line with the broad strategic objectives of the Structure Plan policy MIN 13 (1990) and SPED.

3.2 Indeed, the rationale of the proposal orbits around the fact that the site in question presented a fine opportunity to restore an exhausted quarry through infilling, and locate proposals that cannot be located within conventional industrial or commercial areas. The site presents an opportunity to accommodate the parking of heavy good vehicles (HGVs) as indicated in the Policy Guidance - Areas for Open Storage (2005). It is widely acknowledged that it would be wasteful to locate such uses in an industrial and undesirable to situate these in or near commercial and/or residential areas, because of a number of impacts associated with them, namely noise and visual impacts, which is also why such uses are commonly referred to as obnoxious industries.

3.3 The planned development is in line with the criteria of the policy framework as it has been considered in a manner to have regard to its adjacent uses through the design, location (below road level) and scale in order to mitigate adverse impact, and shall not exceed the minimum height required for operational needs.

3.4 The proposed operations will have all the abatement measures in place for dust and noise although the equipment will be of the latest available technology. The fact that operations will occur below road level will be largely hidden from view from the public road and serve as an abatement measure to possible noise emissions. All efforts have been made to mitigate visual impact of the proposed development.

3.5 The proposal also includes parking provision in accordance with established parking standards, where ample space is available and no formal arrangement is needed, given that there will be no visitors anticipated.

3.6 Structure Plan policy MIN 13 envisages that within exhausted quarries, obnoxious uses, such as the development proposal under consideration, should be regarded favourably as a suitable after use and should be given priority over other development types. Such an after use, we believe, can positively contribute towards the restoration of the quarry area, provided a number of measures are implemented and their upkeep secured.

3.7 As quarries may be considered key generators of waste, the proximity of such developments within quarries in the area (and neighbouring Xwieki), restoration through infilling sealing off the surface to prevent any possible leaching to underground water.

3.8 As seen in Figure One, the site currently can be described as an exhausted soft stone quarry with potential to accommodate the proposed development. The surrounding vegetation is typical of these environments bordering quarries.

3.9 The site is accessed from Triq il-Ħwawar and Triq tal-Balal with the latter being the preferred option. The road fronting the site has historically served to access the quarries on either side of the road. IN the immediate vicinity of the site there is a boatyard, at least 3 construction yards, 3 open storage areas and ancillary offices and a nightclub/club.

3.10 As illustrated in this report, the applicant seeks to diversify the business, seeking to provide a better service, internalise the negative impacts from the using inert waste to infill the exhausted quarry.

3.11 The project being proposed can best be described by making reference to the Perit's drawings.

3.12 Planting within the site will be in accordance to the Guidelines on Trees, Shrubs and Plants for Planting and Landscaping in the Maltese Islands (2002).

3.13 The objective is to achieve a functional area which is finished to high standards and which portrays the way in which the service industry is departing from their traditionally ad hoc facilities to an organised open yard plant which makes efficient use of space and respects the environment through carefully siting of equipment.

3.14 The sensitive siting of the administration, support units and general management of the site, especially in terms controlled access and waste management procedures, should not be underestimated. There are no environmental constraints affecting the site.

3.15 The proposed after use does not deter the amenity of the adjacent uses and is surely not in conflict with the latter, which surround the development area. In line with the general Structure Plan policies and SPED which repeals the former, and others governing this subject matter, the applicant believes that this exhausted quarry is adequate to accommodate an open storage area.

3.16 The open storage area will therefore be paved, in order to prevent leaching, allow for runoff water to be collected swiftly in an oil/water separator and recycled. In addition, this would reduce the dust from passing vehicles and be more practical in wet weather, avoiding mud to be transported outside the site.

3.17 All external walls will be built in a manner to blend with the surrounding rural environment. The objective is to achieve a functional area which is finished to high standards and which portrays the way in which the modern needs can be accommodated without taking up 'greenfield' (undeveloped) land and by restoring an exhausted quarry to an adequate after use. This is a departure from ad hoc parking areas for HGVs, often resulting in negative impacts to their surroundings, to an organised one which uses previously disturbed land (brownfield sites), making efficient use of space and respecting the environment.

3.18 The proposal is believed to improve the area in general through the abatement of dust, mostly generated by the passage of HGVs through the paving of vehicular accesses and circulation routes, removing and replacing alien invasive vegetation species with indigenous trees and increasing planting whenever the opportunity arises. The maximisation of space and sensitive siting of the open storage area, the completion of the quarry restoration and general management of the site, especially in terms controlled access and waste management procedures, should not be discounted.

3.19 There are no environmental constraints affecting the site, and Local plan Policy thrust for these areas encourages the reuse and rehabilitation of quarries in these areas. The proposed after use does not deter the amenity of the adjacent quarrying uses and is surely not in conflict with the latter.

3.20 As indicated in policy Structure Policy MIN 13 which although superseded by SPED still contains focused policy thrust that should be considered "In addition to the traditional uses of agriculture and horticulture, worked out quarries can be considered for obnoxious industry, storage, aquaculture and recreational facilities". In addition disused quarries are considered ideal sites for the parking of heavy vehicles, plant and machinery. Clearly, such after use is actively encouraged.

3.21 As already remarked in this report, disused quarries present a prime opportunity for the siting of 'obnoxious' development (including the parking of HGVs) as these cannot be considered as conventional land Outside Development Zone (ODZ), owning to past extraction activities. In addition, the site being considered in this report is not affected by environmental or scheduling constraints and is not hampered by poor access arrangements.

3.22 The Structure Plan recognises the strong demand for appropriate siting for such uses and advocates the designation of sites, in the different local plans (Structure Plan policy IND 9).

3.23 Moreover and perhaps more importantly the Environment and Planning Review Tribunal have already through their decision in APL 400/12 reinforced the fact that this proposal is well within the parameters of the Areas for Open Storage policy.

ECONOMIC OBJECTIVES

3.24 In terms of economic objectives, the proposal is intended to meet the high demand for similar sites, as reiterated in this report. The industry has always been encumbered with the lack of appropriately sited trailer parks and sites for the parking of HGVs. Land within industrial areas is not appropriate as such use does not encourage any productive use of the land and it is a waste in terms of return on premium while within other urban areas there is resistance to their siting. This has been

acknowledged in the Policy Guidance (2005) on open storage areas and in 1990 through the Structure Plan (MIN 15, IND 9 and supporting text in BEN 5). Legal Notice 50 of 1979 Motor Tractor Regulations (as subsequently amended between 1979 and 2003 stipulates that: "No person shall stop, whether temporarily or otherwise, and leave unattended, or shall park any motor tractor and/or trailer or any heavy commercial vehicle or other commercial vehicle loaded with a container or leave a container in any road, yard, area or open space whether enclosed o otherwise other than in an authorized parking place or at an authorized container storage depot."

3.25 Such uses make economic sense as the supply is very limited while the demand is very high. This may be witness by the many applications for this type of developments.

PROJECT FEASIBILITY

3.26 The applicant is assumed to have considered the project feasibility and viability and also sought to tap into this sector after considering the high demand for such a use.

3.27 The project will convert an area which is currently disused into a modern open storage area, in line with planning policies governing the subject matter and with regard to mitigating any environmental impacts this may have. In terms of the return of such after use, the proposal would clearly be more profitably than leaving it in its current state. Moreover, restoring the site to agriculture, would not be as viable since the impacts from the neighbouring quarrying activities would surely have an impact on the crop quality and yields rendering the activity unviable

SOCIAL OBJECTIVES

3.28 The proposed development should, bring about significant improvements to the area in terms of its reuse of previously underutilised site adding substantial value to the overall area, including environmental benefits which have been outlined above and the removal of illegally parking large vehicles on-street to the general enhancement of residential areas elsewhere.

3.29 For the reasons discussed previously in this report, we believe that the proposal will not have any noticeable adverse impact on the quality of life of people/operators in its surroundings. On the contrary. The development may result in new employment opportunities for the local communities.

4.0 Project Phasing

4.1 The whole project is to be developed in one phase. Given the nature and scale of the development and the fact that the applicants will carry out all the works necessary on site, the quality and timely completion of the development is almost certain. Works shall be such as to minimise the disruption to surrounding activities and maintain high environmental and safety standards.

4.2 Clearly, commencement of works shall depend on the date of issue of the full development permission from MEPA. It is estimated that the works will be completed in about 9 months, which would include backfilling, construction and finishing works.

5.0 Alternatives

5.1 When choosing the site, much depends on the availability sites for sale, in the private sector. Once a site fulfils a number of criteria which are deemed important to the client, namely adequate size, access, willingness of the owners to sell and understandably the price, the site is shortlisted.

5.2 The development site was selected by the applicant since it fulfilled all the criteria above, but also presented a number of advantages making it a suitable candidate for the siting of an open storage area as an appropriate after use of the disused quarry, as it is in line with the policies regulating the use of disused quarries.

5.3 The site is in close proximity to the arterial road network, has no environmental constraints, has well planned flooring techniques which make the surfaces impermeable, is hidden from view and is at an adequate distance from sensitive receptors, making the perceived negative externalities hardly noticeable. Located near other active quarries also means that soft stone and associated products are easily available reducing the need to travel and shortening journeys, lessening therefore traffic impact, noise and off-site emissions.

5.4 No other sites were available, nor did they present the same advantages, making the site in question the most appropriate location for the proposed development.

5.5 There are no alternatives in terms of other sites to be considered although variations to the layout and landscaping of areas and measures to mitigate potential impacts can be considered.

5.6 The scheme prepared by the Perit has been formulated on the basis that the site would satisfy the needs of the applicant but also mitigate potential impacts through design. The submitted plans (Appendix One) reflect the optimum considered following discussions with applicant, design team and consultants and the provision of alternative arrangements is therefore not seen relevant to this project.

6.0 Surrounding land uses

6.1 The development site lies in the northern periphery of Iklin local council boundary (Figure One). The area has a number of open storage areas, construction/plant yards, boat yard, industrial garage complexes and other associated uses.

6.2 The site is mostly accessed through Triq tal Balal, an approach route that has been used for neighbouring quarries and industrial developments. The frequency of use of these lanes is not such that there are often conflicts and there is good forward visibility.

6.3 All neighbouring land uses have been identified in Figure Two.

6.4 A site investigation was carried to gather information on land cover and the related ecological characteristics of the site and its environs. It was confirmed that within the site, vegetation is sparse.

6.5 Most of the study area is characterised by ground cover typical of disturbed habitats (ruderals/opportunistic species) from past quarrying activities, backfilling operations and passage of Heavy Goods Vehicles (HGVs). Active quarrying areas had no or very little vegetation. The older mounds of backfilling sloping towards the active quarrying areas are characterised by high coverage of vegetation, namely Fennel (*Foeniculum vulgare*), Perennial Wall Rocket (*Diplotaxis tenuifolia*), Wild Carrot (*Daucus carota*) and Shrub Tobacco (*Nicotiana glauca*). The more recent deposited material are colonised by an assemblage of species tolerant of frequent disturbance.

6.6 Sparse tree presence was noted in the immediate vicinity of the quarry, with the majority being Eucalyptus trees.

6.7 Colonies of vegetation that seem to have established themselves include amongst others, Boar Thistle (*Galactites tomentosa*), Smooth Sow-Thistle (*Sonchus oleraceus*), Animated Oat (*Avena sterilis*), Crown Daisy (*Chrysanthemum coronarium*), Castor Oil Tree (*Ricinus comminis),* Hare's-tail Barley (*Hordeum leporinum*), Common Awn-Grass (*Stipa capensis*), Fennel (*Foeniculum vulgare*), Perennial Wall Rocket (*Diplotaxis tenuifolia*), Pellitory-of-the-wall (*Parietaria judaica*), Spiny Asparagus (*Asparagus aphyllus*), Wild Carrot (*Daucus carota*), Shrub Tobacco (*Nicotiana glauca*), Cape Sorrel (Oxalis pes-caprae) and Squirting Cucumber (*Ecballium elaterium*).

6.8 The disturbance of the surface soil cover, the deposition of waste stockpiles, plant and machinery movements and vehicle flows assist the spread of opportunistic, ruderal species that characterise the disturbed ground. These species, have a short life cycle, propagate readily, and are the first to colonise disturbed or vacated ground and displace local, indigenous species. These species have established themselves around the development site and are present all over the study area.

6.9 The presence of conspicuous faunal species was also noted, these included the Moorish geckos (*Tarentola mauretanica*) and Maltese Wall Lizard (*Podarcis maltensis)*.

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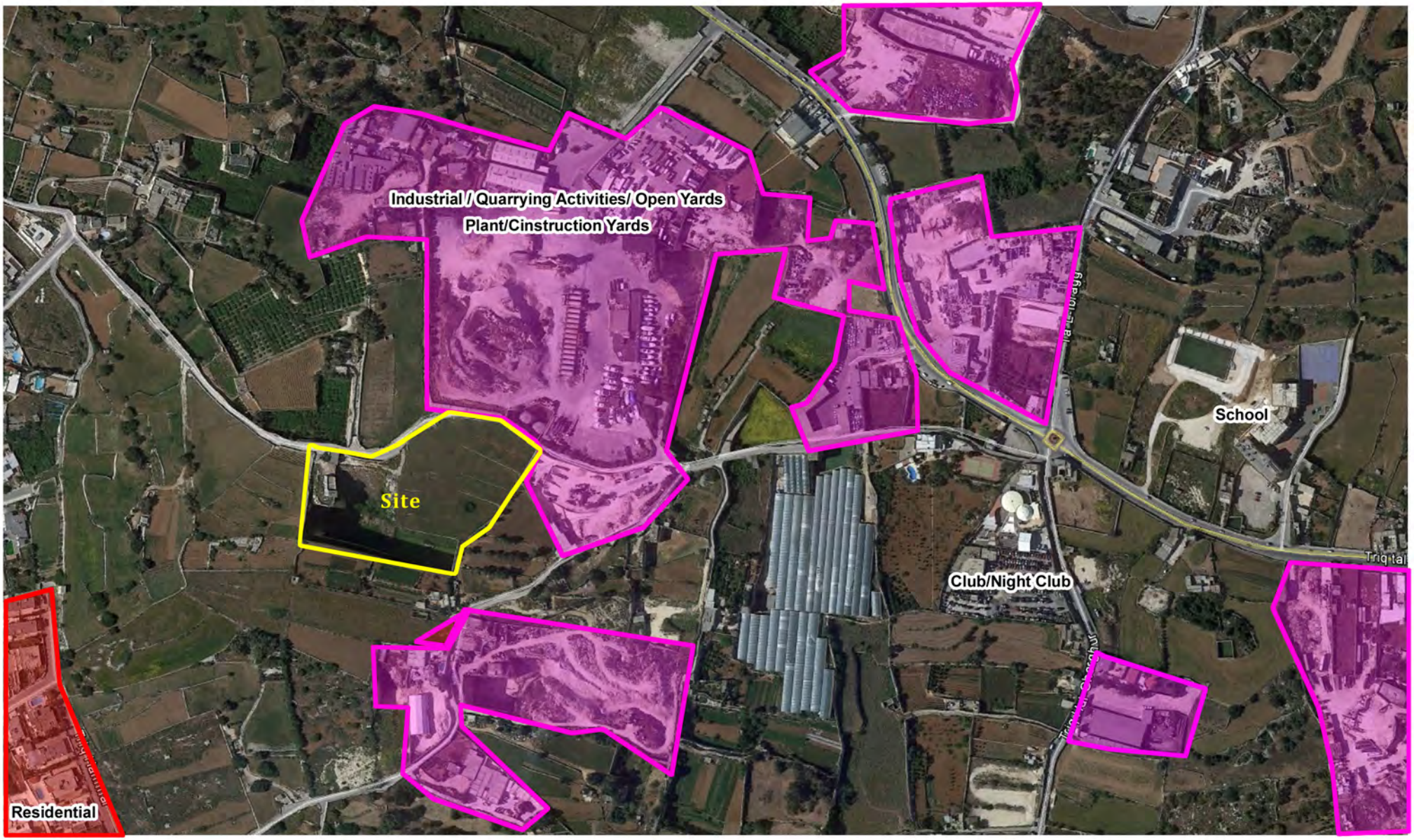
FIGURE TWO – EXISTING LAND USES



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7.0 Utilities

7.1 The site is connected to the existing power grid, water supply and telephone networks, which are already available in the area.

7.2 The general principle for the provision of telecommunications, power, and potable water is that the utility provider installs a main connection point for the development at a location to be agreed between the parties. The applicant will construct the on-site infrastructure which will be run underground.

7.3 Should the need arise, the applicant shall be in contact with the various utility service providers and the Local Council, in order to ensure the seamless incorporation of the rest of the development with the existing infrastructural networks, should planning permission be granted.

7.4 If necessary, water supply will be provided directly from the Water Services Corporation (WSC). Water for irrigation and second class uses will be provided by grey water harvested of storm water and grey water from the development site. Consideration will also be given to the provision of separate storage for firefighting.

7.5 Likewise, sewage will be collected via a gravity system, into a cesspit which will pre-treat wastes with biocides prior to it being emptied. This will be arranged through service agreement, say once a week, by waste management contractors equipped with specialised servicing bowsers (among other things, designed to prevent spills when treated wastes is pumped out of the cesspit).

7.6 Electricity will be brought to site via the existing connection.

8.0 Employment

8.1 The proposed development is expected to provide a better environment to the already 3 full time employees within the company.

8.2 The project may also have result in increased employment opportunities in the nearby localities, given that the company employs individuals with varying capabilities and areas of expertise.

8.3 Current on-site operating hours are from 0700 to 1530. The site never operates during hours of darkness.

9.0 Construction & Waste

CONSTRUCTION PHASE

9.1 Vehicles, during the construction phase, can be accommodated on site and satisfying the minimum geometrical standards for adequate vehicle circulation, particular to enter and exit the site in a forward gear. During this construction traffic will access and exit the site through Triq il-Balal.

9.2 There is ample space on site to make sure that the works are undertaken without disrupting plant operations and posing a danger to on site personnel. The scale of the development is considered relatively minor. All practical measures shall be applied to reduce waste as much as possible, for obvious financial and environment protection considerations. Despite the small scale of the development careful consideration of the Best Practicable Environmental Options (BPEO) has been made. The BPEO has been introduced and defined by the Royal Commission on Environmental Pollution as "the option that provides the most benefits or the least damage to the environment, as a whole, at acceptable cost, in the long term as well as the short term".

9.3 The focus in this case was on the waste hierarchy, hence identifying targets for the preference for waste management routes, with reduction at source being preferred to re-use, and re-use preferred to recovery via recycling. It is understood that disposal is the least preferred option, nevertheless it is recognised that that there may be circumstances with respect to financial costs, environmental impact and practicability which may result in the choice of these options at odds with the hierarchy. Furthermore, in practice, since not all wastes can follow the mentioned routes at the top of the hierarchy and some residual wastes must be disposed at landfill and other authorised sites.

9.4 Indicative thresholds have been set, in an effort to significantly reduce the amount of residual waste that may be disposed. In this case it is believed that at almost all the waste generated on site during the construction phase can be recovered.

9.5 Notwithstanding the environmental benefits and new legislation in this regard, circumstances are such that unnecessary dumping of waste has important pecuniary considerations that influence the outcome and economic feasibility projects and should not be underestimated.

9.6 There will be no storage of chemicals, oils, fuels and other hazardous substances on site.

9.7 Construction works will, in accordance with the provisions of the Environmental Management Construction Site Regulations (Legal Notice 295/2007), be carried out in a manner that causes the least nuisance by ensuring that the provisions included under Schedule I, II, III and IV of the

Environmental Management Construction Site Regulations (Legal Notice 295/2007) are adhered to.

9.8 All on-site personnel will be made aware of the health and safety requirements. Site safety information will be disseminated and best practice routines employed throughout the period of construction. The site will have all the necessary first aid equipment in case of emergencies, together with emergency telephone numbers. Hand held fire extinguishers, sand buckets and spill kits will be installed at strategic areas.

9.9 There will be no demolition or significant construction works and it is therefore expected that waste quantities will be contained. Very little waste will be generated during construction and finishing phases, since unused materials, such as tiles, can usually be returned to the respective suppliers.

9.10 Any waste will be collected, separated at source and temporarily stored in skips to be disposed of or reused accordingly.

SITE BACKFILLING PHASE

9.11 It is expected that the backfilling operations would require about 96,000m^3 of construction and demolition waste, most of which will be brought to the site from different parts of the island but could also come, given the high rate of wastage in limestone extraction, from neighbouring quarries.

9.12 Dust dispersion is intrinsic to every construction project. Nevertheless, works will be in line with Environmental Management Construction Site Regulations, 2007 (L.N. 295 of 2007). The site backfilling phase is prone to dust dispersion and therefore it will not be unnecessarily protracted.

9.13 This phase will only take a few weeks using a mechanical shovel. This will involve about 3800 HGV trips to the site.

CONSTRUCTION PHASE

9.14 About 3,400 tonnes of building materials including steel, concrete, stone blocks, plastic, membranes and glass would be required to construct the proposed open storage area, requiring about 140 HGV trips over the rest of the construction period. It is very important to note that some of the building materials will be brought from sites in the proximity of the proposed works and therefore would not result in extensive additional trips for transit of building materials.

9.15 Construction itself should require a crane for the placing of concrete slabs, and a couple of tipper trucks with high-up attachments to transport screeds and lift hollow bricks to where these are required. A concrete mixer truck and a concrete pump would be employed to layout the floors and paved areas.

9.16 Constant monitoring of works during this phase will ensure that works are carried out in conformity to best practice methodologies and in line with Environmental Management Construction Site Regulations, 2007 (L.N. 295 of 2007) to protect the surroundings. Vehicular access will be restricted to areas where these are needed and care will be taken to make sure that any oil or fuel leakages are detected immediately and remedial action promptly taken. This will greatly minimise any leaching or contamination.

9.17 Spill kits will be kept on site and will be used to tackle the very limited chances of accidental spillages from machinery or trucks on site (EWC 13 02 04* - mineral based chlorinated, engine, gear and lubricating oils, 13 02 05* - non mineral based chlorinated engine, gear and lubricating oils, 13 02 06* - synthetic engine, gear and lubricating oils, 13 02 07* -readily biodegradable engine, gear and lubricating oils, 13 02 08* - other engine, gear and lubricating oils, 13 07 01* - fuel oil and diesel, 13 07 02* - petrol, 13 07 03 -other fuels including mixtures). Such protocol will also be

adopted during the operational phase of the development. The quantities of these hazardous liquids are negligible, so much so that even if in the remote circumstance that these are not timely detected there is no real possibility that leaching occurs.

9.18 Run-off of rainwater from the site during the site backfilling and initial construction phases will be left to percolate naturally through the ground. Once the concrete floors and paved areas are completed, the site will be rendered impermeable and the on-site reservoir will be used to collect run-off water.

9.19 Keeping in mind the site context, all practical measures will be taken to reduce the possibility of carrying of mud from site onto the public roads, until the ground is stabilised. Should the need arise appropriate wheel washing facilities (power washing), placed at the site access and ensure the wheels are clean of mud. Although not anticipated, given the small scale of the development, a programme for regular (daily) cleaning of the approach roads may be implemented. This will be done in accordance with the provisions of the Environmental Management Construction Site Regulations (Legal Notice 295/2007) governing this aspect of the works.

9.20 Works will be carried out as per permit conditions and regulations on operating hours which will generally be 0800 – 1700.

9.21 Noise levels shall be within acceptable levels in accordance with BS 5228: Part 1: 1984: Noise Control on Construction and Open Sites – Code of Practice for Basic Information and Procedure for Noise Control. In line with existing legislation in order to reduce noise emissions from construction machinery, all equipment will be provided with effective silencers and noise-suppression devices as prescribed by law.

9.22 All barriers, lighting and signs will be provided to aid traffic management within the site and ensure that Health and Safety protocols are maintained at all times and to prevent unauthorised access on site. Signs and mentioned provisions shall be regularly checked, adequately maintained and updated as necessary.

9.23 Mobile prefabricated sanitary facilities will suffice to satisfy the needs of those working on site. As indicated earlier in this report, such systems require regular servicing, usually twice a week, by third party waste management contractors equipped with specialised servicing bowsers (among other things, designed to prevent spills when treated wastes are pumped out of the portable cubicles). These cubicles will have to be placed somewhere safe so they would be protected from potential accidents, e.g. being hit by heavy vehicles.

9.24 Although it is not anticipated to pose any noticeable impacts, this report attempts to draw an estimation of the possible wastes during construction below giving some detail of the different waste streams anticipated):

- Concrete (EWC 17 01 01): <3t (recovered/reutilised);

- Wood (EWC 17 02 01): <0.2t (shuttering is reused, negligible quantities and sold to third parties);
- Bituminous Mixtures (EWC 17 03 01*): <0.1t (will be stored in apposite containers and disposed of appropriately)
- Bituminous Mixtures (EWC 17 03 02): <0.2t
- Plastic (EWC 17 02 03): <0.2t (Sheeting will be made to measure and only negligible lengths of off cuts may result);
- Iron and Steel (EWC 17 04 05): approx. <0.5t (sold to waste brokers for export and subsequent recycling);
- Cables (EWC 17 04 11): <0.2t (most of which will be reused)
- Others (EWC 17 09 04): Negligible

9.25 All of the waste will be either reused/recycled or sold off to third parties (authorised waste brokers) for eventual export for recovery and recycling. Only a very negligible amount will be disposed of in authorised facilities.

FINISHING PHASE

9.26 The final phase of the project will be the finishing of the development. All measures discussed in the previous sections to reduce waste and dispose of it appropriately will clearly be applied during this phase as well. By now protocols will be well established and clear to all site personnel.

9.27 Although an indication of the quantities of potential waste generated during this phase is estimated and given below, when considering that most of the unused material can be returned, reused elsewhere or stored for future maintenance the waste disposed of will be negligible. Such materials include:

- Glass (EWC 17 02 02): Negligible (only breakages);
- Tiles & Ceramics (EWC 17 01 03): <0.2t (unused/unopened boxes returned, while others will be kept for possible maintenance)
- Insulation Materials (EWC 17 06 04): <0.1t
- Gypsum (EWC 17 08 02): Negligible
- Others (EWC 17 09 04): Negligible

OPERATIONAL PHASE

9.28 During the operational stage of the development, it is anticipated that there will be some degree of municipal waste, owing to the employees on site, water runoff from precipitation and cleaning activities. Again one must stress that the drive to reduce, reuse, recycle and recover will not be relinquished during the operational stages of the development for obvious pecuniary considerations. As a consequence, the generation of waste will be minimised as much as possible. There will be very little change from the protocols already in place.

9.29 Municipal waste shall be collected in the conventional manner, and disposed of appropriately through a third party contractor or taken to an authorised facility.

9.30 As mentioned earlier in this brief report, surface water runoff will be filtered, given the possibility that this will be contaminated with oil and fuel, and later collected and conserved in the reservoir. This water will be reused on site for a number of applications requiring second class water and irrigation. The same applies for the excess water from the washing operations which is mixed with detergents, wax, oil and dirt residues. This water will drain and be filtered through an oil/water separator and finally find itself in the reservoir.

9.31 Spill kits will be strategically placed on site to make sure that spills of fuels and oils are addressed as soon as they occur. Staff will be trained on the procedures to adopt, the use of this equipment and the methods of disposal of the charged kits in apposite containers usually supplied with the kits.

9.32 All wastes associated with the open storage operations may be varied, however this will be collected separately in apposite containers that are clearly labelled and stored until they are collected by a licensed waste carrier. These 'bins' will be within the site precincts as they need to be protected from the climatic elements and will be adequately bunded and ventilated, as appropriate.

MONITORING

9.33 Monitoring of waste management practices will be conducted by the Project Management Team in general adherence to Environmental Management Construction Site Regulations 2007, which set out best practice requirements for development sites.

9.34 The scope of this report is not to reiterate the contents of the current legislation but to indicate the way forward and make sure that practices follow best practice. The prime objective of such regulations, namely the Environmental Management Construction Site Regulations, is to limit

environmental degradation through appropriate construction management practices in order to cause least nuisance to neighbours, minimising risk to workers and safeguarding private and public property.

9.35 These regulations apply to all the phases of the construction such as backfilling, land levelling, construction and ancillary activities that include travel to the construction site, and travel on access roads to and from the construction site. The Schedules within the Regulations provide requirements for reducing nuisance to neighbouring developments through: erection of a site notice containing details of the owner, site manager, architect, and contractor; conditions for cutting of stone and bricks on site; transportation of loose material; obstruction of pavements; hazards to vehicular traffic; cleaning of the site and its immediate vicinity; rodent control; hoardings around development sites; covered ways and barricades; safe passage past the site; nuisance abatement including construction times; and control of dust emissions. Technical guidelines and specifications are also provided for minimisation of noise and vibration levels, health and hygiene including waste management, hazardous materials handling, and point source pollution from storm water.

10.0 Access Arrangements

10.1 The site is and will continue to be accessed through Triq tal-Balal. The existing access arrangements will remain largely unchanged and will not result in any parking demand.

10.2 The proposal does not warrant alternative arrangements in terms of transport.

10.3 The anticipated traffic to and from the site (5 vph) is not considered significant and will not result in any noticeable impact to the neighbouring road network, which will result in capacity issues. The scale of the development is such that it does not require a Traffic Impact Assessment (TIA).

11.0 Potential Impacts

11.1 Notwithstanding, the fact that the proposal is an acceptable after use of the quarry as has been discussed at length, most of the policies on the subject envisage that such a development would only be considered favourably if it does not give rise to overriding adverse impacts.

11.2 The potential for adverse environmental and social impacts, associated with similar developments may exist and must be identified. This report will look into these various potential negative externalities and where these are indeed a concern, it suggests adequate mitigation measures to address such impacts. Impacts of agricultural land, flora and fauna and social impacts arising through noise, vibration and visual intrusion have been considered in this report.

ARCHAEOLOGY AND CULTURAL HERITAGE

11.3 The proposal does not have any adverse impact on archaeological or cultural assets on site or in the vicinity.

11.4 In an effort to improve the rural landscape in the area boundary walls have been constructed with random rubble to maintain the traditional attributes that impart identify and encourage biodiversity.

NATURE CONSERVATION AND LAND TAKE UP

11.5 The proposed open storage area and ancillary administration block are situated on a site which was previously used as a quarry. This has encouraged the promulgation of opportunistic, ruderal species that characterise disturbed ground and most of which identified in Section 6 of this report.

11.6 The site does not fall within an area of ecological and scientific value which merit protection. The site is made of what is in essence an exhausted quarry, which only supported a host of opportunistic plant species as the absence of top soil within the site do not favour vegetation.

11.7 No special geological features have been noted in the area. The site is hidden from view and in order to protect the rural landscape and night skies, the applicants will ensure that the development does not give rise to light pollution as only the minimum security lighting will be lit during the night. Care will be taken in the choice of luminaries to minimise glare and at the same time prevent the waste of energy.

11.8 This proposal will ensure that the site area is completely restored into a modern organised yard, which will exploit all opportunities for landscaping and augmenting indigenous trees in the area. It is our opinion that the proposed development will bring about improvements to the area.

11.9 The proposal is in line with SMLP policy SMCO 8, has no cesspit (only mobile sanitary facilities will be used), and includes a reservoir, within the backfilled material which makes adequate provision for the collection and storage of run-off water. The proposal will have an oil/water separator to prohibit disposal of harmful effluents into the sewer.

11.10 The CMLP actively considers the use of disused quarries for such purposes which are difficult to site, as it acknowledges their undeniable contribution to the local economy.

11.11 The proposed development is not considered to involve any land take up of previously undeveloped land, since as mentioned in the foregoing sections of this report, the land on which it stands, is a disused/exhausted quarry which, at the moment, is considered ill-suited for restoring to agriculture as it would not have maximised its potential, with doubts over the actual success of any agriculture produce yields.

11.12 The strong demand for the proposed use is widely acknowledged by the policy documents, including the Structure Plan, regulating this subject matter. Moreover, the site is not affected by any designations which limit reuse be it scheduling protection in terms of ecology, scientific features, landscape, geology and agriculture.

11.13 It is believed that the proposed development will in fact help secure the maintenance and enhancement of the area, including the surrounding road network. It is our opinion that such disused quarries provide an opportunity to relieve the development pressure for development in open countryside, which would inevitably conflict with any landscape and ecological features of the particular area.

POTENTIAL SPILLAGE OF FUEL, SPENT OILS AND BATTERIES

11.14 There are no storage tanks on site and the only possibility of fuel and/or oil spillages will only result from the HGVs visiting the site. Notwithstanding, spill kits will be kept on site and will be used to tackle the very limited chances of accidental spillages on site. The subsequent charged absorbent blankets will be disposed of in an authorised waste disposal facility.

11.15 Precautions will be taken in the HGV parking area to address potential spillages of spent oils, acids and fuels. Spent oils and fuels will be collected in containers placed on bunded pallets which can hold 110% of the capacity of the said container. Moreover, as explained earlier, the concrete floor of these areas will be covered with an epoxy liner to make it impermeable and therefore, potential spills will be tackled and cleaned without even the danger of even the remotest leaching danger. In the circumstances, given the negligible quantities that may be on site prior to collection from authorised third party waste brokers/carriers/operators, in the event of accidental spillages, even if these were to be undetected

(which is highly unlikely), there is no chance of contamination, considering that under the impermeable concrete flooring there are more than 5m of backfilling inert material which acts as an absorbent material that prevents any seepage.

11.16 Spent lead-acid batteries will be stored in an acid-resistant container and collected by a permitted third party waste broker/carrier for subsequent export where these will be treated and recycled.

AIR QUALITY

11.17 Conventionally, in such a context, air quality is affected by quarrying activities and traffic emissions and the passage of HGVs.

11.18 It is clear that the amount of dust resulting from these activities is heavily influenced by the prevailing winds, distance from sensitive receptors, topology and on-site mitigation measures. It is important to recognise that day to day variability in wind speed, wind direction, and rainfall are amongst the most important elements in determining the likelihood of nuisance dust impacts. It is generally accepted that the presence of precipitation (rainfall) mitigates the generation of dust. For dust nuisance to occur the wind conditions need to be over approximately 5.5 m/s in dry conditions. Accordingly, the risk of dust nuisance is generally greater in the drier summer months. Under average wind conditions (mean wind speed of 2-6 m/sec), these particles, which comprise around 95% of total dust emissions typically settle out within 100m of the emission source.

11.19 Dust or particles falling onto vegetation can physically smother the leaves affecting photosynthesis, respiration and transpiration. Excessive dust deposition could alter the soil characteristics, thereby affecting growth and soil fertility. Such aspects affect crop quality and yields.

11.20 Unlike most of the neighbouring sites, the proposal will not generate any particulates associated with the excavation, cutting, facing and transport of limestone, even though on site observations show that this does not constitute a potentially significant source of impact within different quarries in the area, probably given the depth of the quarry floor. The nature of soft stone particles, the extraction methods adopted and the absence of blasting, are all factors that limit dust dispersion relative to hard stone quarries.

11.21 The adjacent infilling activities do not manifest wide dispersion of dust, except for dust/mud carried by HGVs to and from the quarrying areas, which may indicate the absence of or inadequate wheel washing practices. It must be said that dust is intrinsic to quarrying operations and new work practices are being employed by the industry to minimise the inconvenience that quarrying developments give rise to.

11.22 With the construction of the open storage area through the paving of the quarry floor, dust generation will indeed be greatly reduced if not eliminated.

11.23 Water residues on site are confined to run-off accumulating from washing operations and rainfall, most of which will be drained into the filtration system and collected for second class water uses and irrigation of landscaped areas. The total run off for the site is estimated to less than 300m^3. Keeping in mind a high evapotranspiration rate for the Maltese Islands estimated at 60%, this would not represent any noticeable impact.

11.24 Traffic flows in the area are very modest. Once completed it can be safely said that in this context and in terms of air quality, monitoring of Benzene $N0_2$ and PM_{10}, relative to baseline data will indicate that the operations have an insignificant impact, if any at all, on local air quality.

NOISE AND VIBRATION

11.25 A reconnaissance of the site and surrounding area was conducted to understand and measure the ambient noise environment and contributory noise sources.

11.26 The ambient noise in the immediate vicinity is influenced by traffic associated with the approach road. The operations proposed on site do not produce high noise levels. Noise associated with the passage of trucks will only be concentrated during the morning and afternoon peaks. These will only audible in the immediate vicinity of the site and will not constitute a noticeable impact.

11.27 All vehicles will be kept in good state of repair, fitted with appropriate acoustic suppression equipment and serviced regularly to minimise exhaust and noise emissions, not only to minimise noise on site, but also to conform to the Environmental Management Construction Site Regulations, 2007 (L.N. 295 of 2007), when conducting building works on the various building sites.

11.28 There is no possibility, given the nature of the development that noise will be audible from over 30m away in normal conditions. Given the distance of the nearest residential development noise from the development will not be perceived.

11.29 During the construction phase (backfilling), noise will likely be generated from the additional truck traffic in and out of the site, yet this would not result in a net increase in the background noise heard from Triq tal-Balal.

11.30 Clearly, the further from the source the lower the noise impact. Given that the noise from the proposed open storage area is not audible at about 30m away, it can be safely said that the development, particularly at the most sensitive receptors will have no noticeable impact, in line with the provisions of the Minerals Subject Plan (DC 17).

11.31 In addition to proposed open storage area is below street level which adds to the noise abatement measures. As a result visual impact was also mitigated.

11.32 Ground borne vibrations are not of a particular concern in the area. The backfill material is such that it absorbs vibration very well and no ground vibration is perceived by the passage of HGVs over irregularities in the road surface.

VISUAL IMPACT AND LANDSCAPE

11.33 The objectives of landscape assessment are to evaluate the present landscape and to identify and evaluate anticipated positive and negative externalities from the proposed development. The main sources of visual impact arising from the administration building.

11.34 As mentioned in a number of occasions in this brief report the floor level of the proposed yard is at least 6m below street level, and the roof of the said administration building is 3.5m below street. Indigenous tree species will be planted and maintained.

11.35 These will screen the development internally but such an effort cannot be appreciated from the street since the site is not visible from the said public view. None of the site is exposed.

11.36 From site inspections the site has no bearing on the landscape and visual characteristics. It will have no adverse visual impact on any sensitive receptors (those looking towards the site), relating to the actual or perceived visible changes of the character and quality of the landscape.

11.37 As such the Zone of Visual Influence (ZVI), is limited to a few metres from the site, where only the rubble boundary wall will be visible.

11.38 As planned the development is invisible to the main receptors, considered to be the workers and motorists in immediate surroundings and residents in the area.

11.39 The impact is considered to be insignificant and there would be no change in the landscape not even in the immediate surroundings.

12.0 Summary

12.1 The report has done through the main aspects of the development and examined the possible impacts of the latter. The purpose of this last section of the report is to provide a summary of the key aspects of the development, the potential impacts on its surroundings.

12.2 It was clearly established that the development is in accordance to all the policy documents governing the subject matter. Indeed it was shown that these policies, namely Structure Plan policy MIN 13 (1990), the *Code of Practice for Quarrying Work and Restoration* (approved by the Planning Authority in March 1993) and *the Minerals Subject Plan* (2003), encourage the development of what are regarded as obnoxious / storage industries in such areas in favour of development of previously undeveloped land (greenfield sites) in open countryside which would be highly undesirable.

12.3 The fact that the development is wholly below street level has been a significant step towards the attenuation of noise and visual impact and is a clear indication that all practical steps have been taken to make sure that the proposed development does not have any noticeable impacts on its surroundings.

12.4 The proposed development will not result in a net increase over the existing situation. The plant will reduce the dust emissions in the area and will render the site impermeable to prevent even remote possibilities of leaching, enhancing the possibilities of water harvesting for use as second class water. Other measures reflecting good practice include the building of walls in weathered stone and boundary walls in random rubble to resemble vernacular rural architecture and structures. Landscaping opportunities are to be exploited whenever these exist and alien species replaced by indigenous ones. Working methods will be employed during the construct ion and operations phases of the development to make sure that dust emissions and noise pollution are kept to a minimum, such as observing the provisions of the with Environmental Management Construction Site Regulations, 2007 (L.N. 295 of 2007), covering of aggregates and building materials during transit, wheel washing and routine programme of cleaning should the need arise.

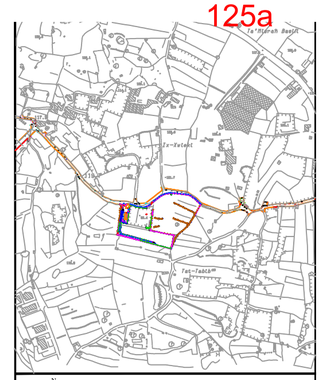
12.5 As have been seen in this report, the development will not have any impact on ecology, agriculture, cultural heritage, landscape, amongst others. All impacts are clearly identified and we believe that these are adequately addressed and anticipated. Consequently, we believe that there will be no need of further studies in this regard, especially given an understanding of the site and the context in which it is located.

Appendix 1

125a

Plans (not to scale)

125a



Site plan not to scale

LEGEND

- Existing Building
- Wall
- Quary rock face
- Rubble wall

- 00.00 Levels Top Rock Quarry
- 00.00 Levels Top Soil
- 00.00 Levels Existing

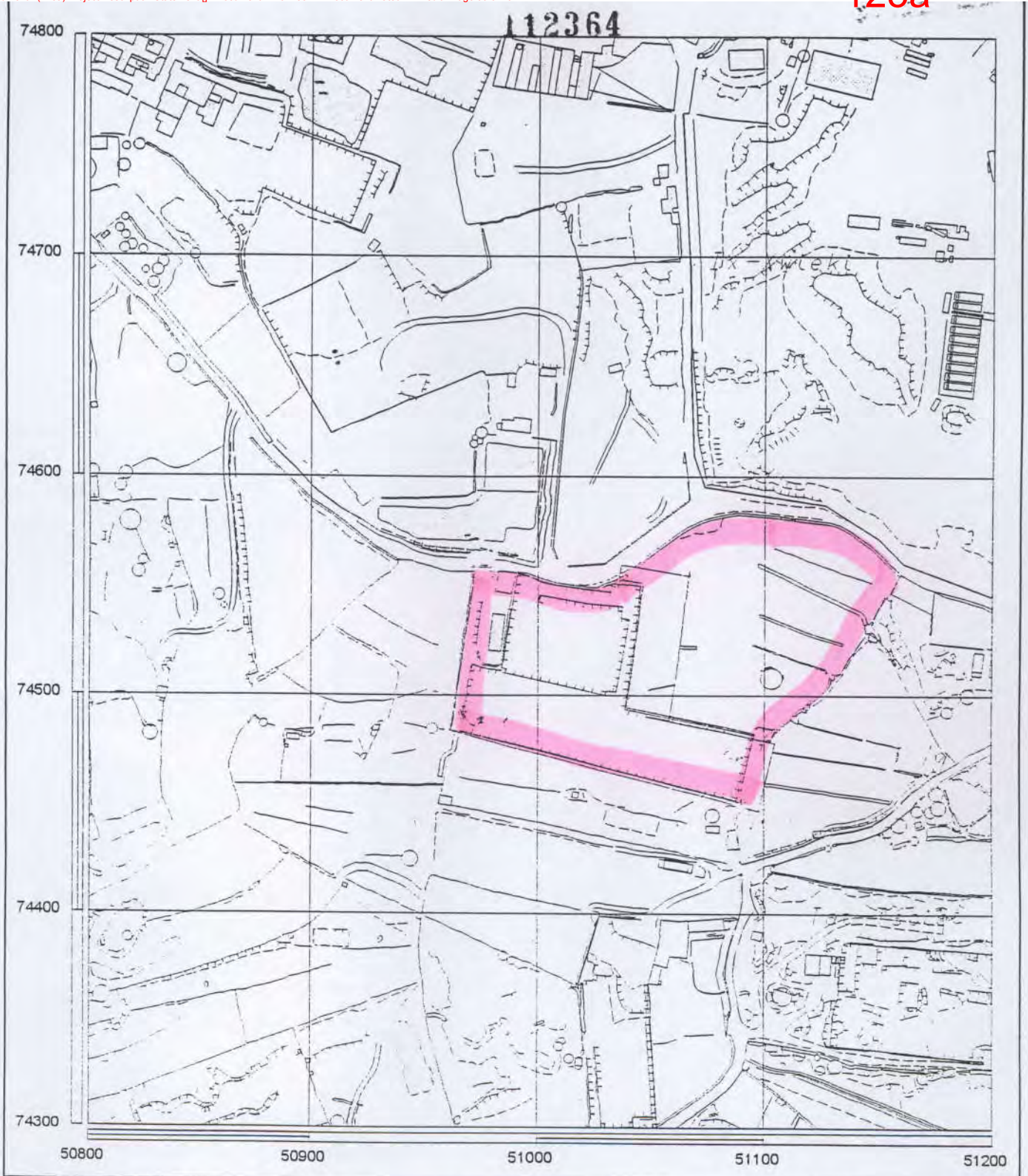
Levels are in meters with reference to the contour line shown in the survey sheet.

TOPOGRAPHIC SURVEY of land at Xwieki l/o Naxxar

Locality :	Naxxar
Location :	Xwieki Area
Client :	Anglu Deguara
Date :	March 2015
Unit Scale :	1 Unit = 1 Mtr
Drawing Scale :	1:500

125a

12364



Malta Environment & Planning Authority

Mapping Unit Site Plan, Scale 1:2500

St. Francis Ravelin
Floriana
PO Box 200, Valletta
Tel:21240976 Fax:21224846
www.mepa.org.mt

MEPA

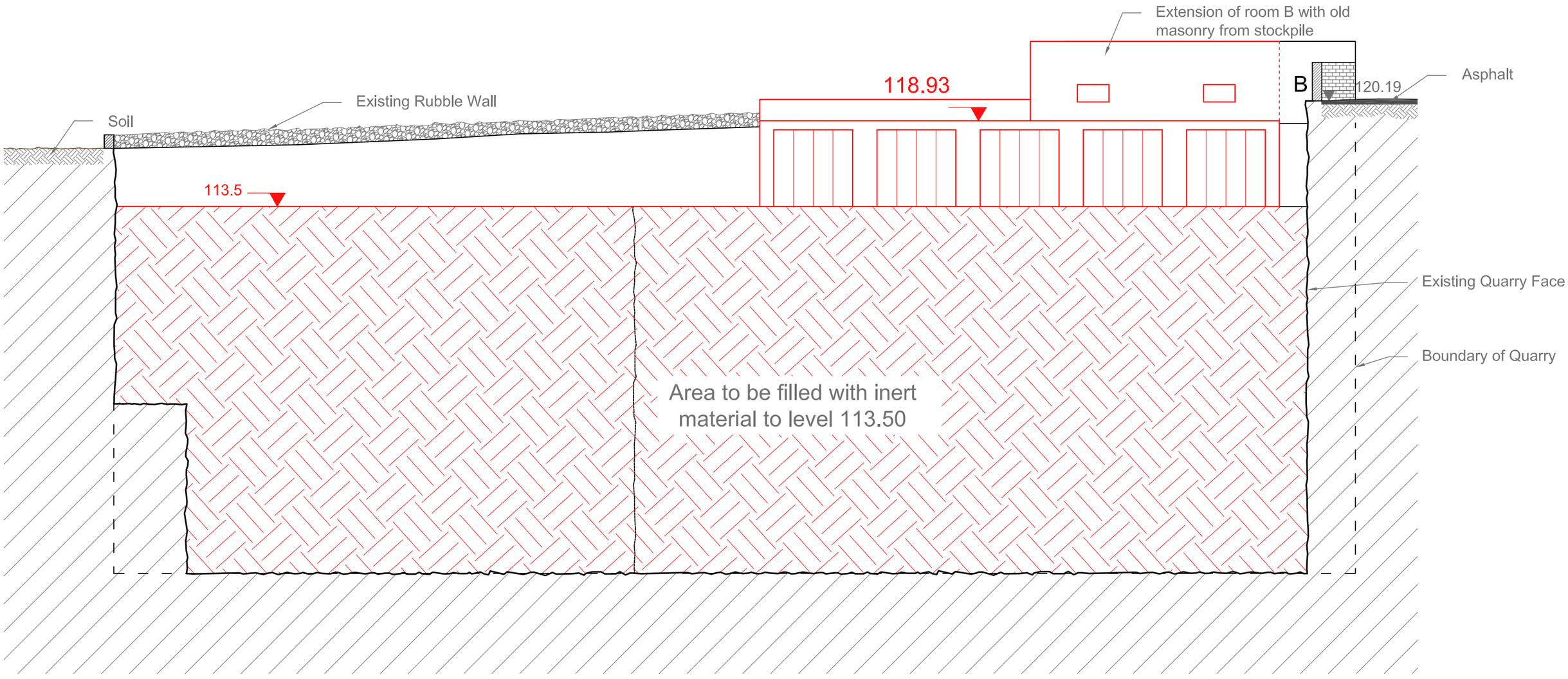
Part of Survey Sheet(s): 505740 505745 510740 510745

Date Issued:- 23/3/04

- The numbered lines indicate 100m intervals on a U.T.M. grid
- This site plan is not to be used for interpretation or scaling of scheme alignments
- Users noting additions or corrections to this map are kindly requested to inform the Mapping Unit

 Vat Reg. No.: 1281-6708 Form No.:MU 002

125a



Proposed Elevation A

Construction Phase

Scale 1:250

TO CONSTRUCT

TO DEMOLISH

1m 0.5 0 2 4 6 8 10 12 14 16 18 20 22 24m

Scale 1:250

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PROPOSED DEVELOPMENT: Xwieki Quarry

Job No.: 5070/03/EB

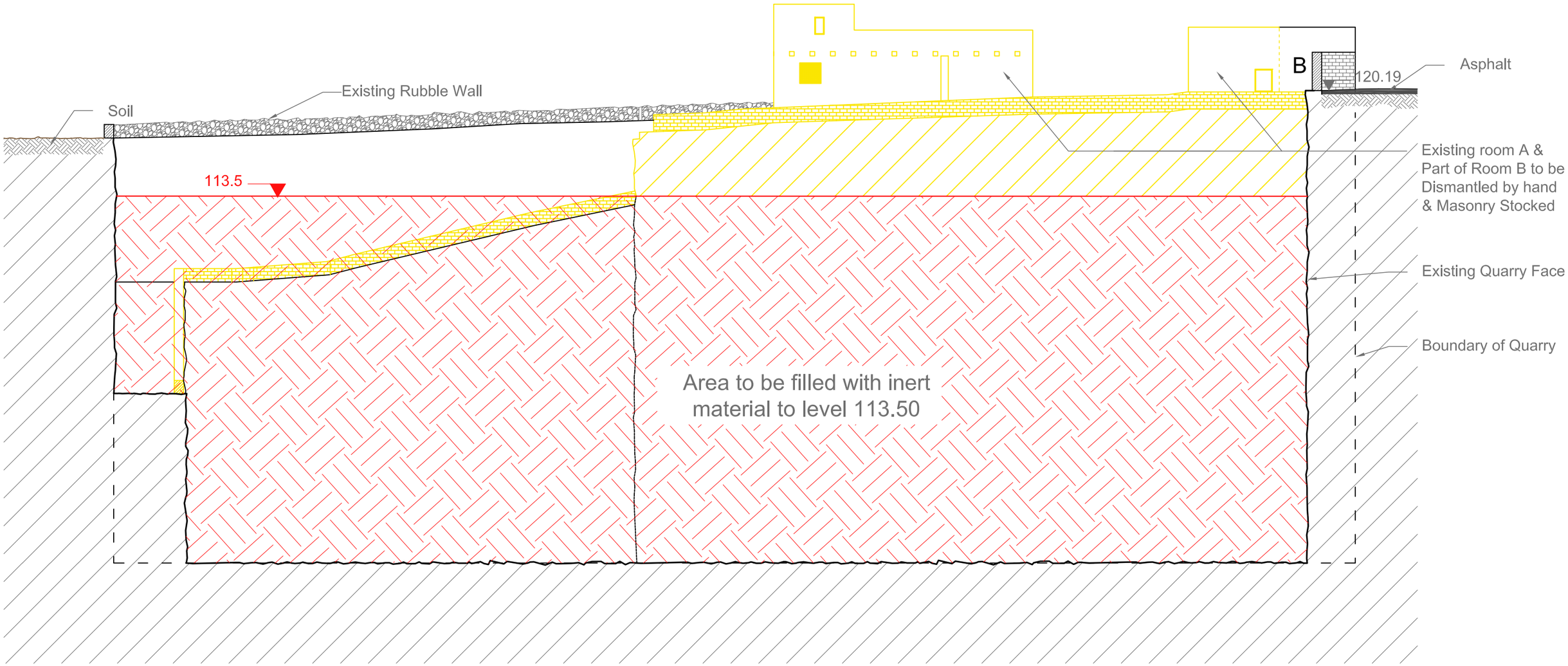
Drawing Title: Construction Phase Proposed Elevation A

Revisions:

Drawn by	Date	Scale	Drawing No.
J.C.	24/04/2015	1:250	DR_10

Checked by: E.B.

125a



Proposed Elevation A

Demolition Phase

Scale 1:250

TO CONSTRUCT

TO DEMOLISH

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Scale 1:250

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PROPOSED DEVELOPMENT: Xwieki Quarry

Job No.: 5070/03/EB

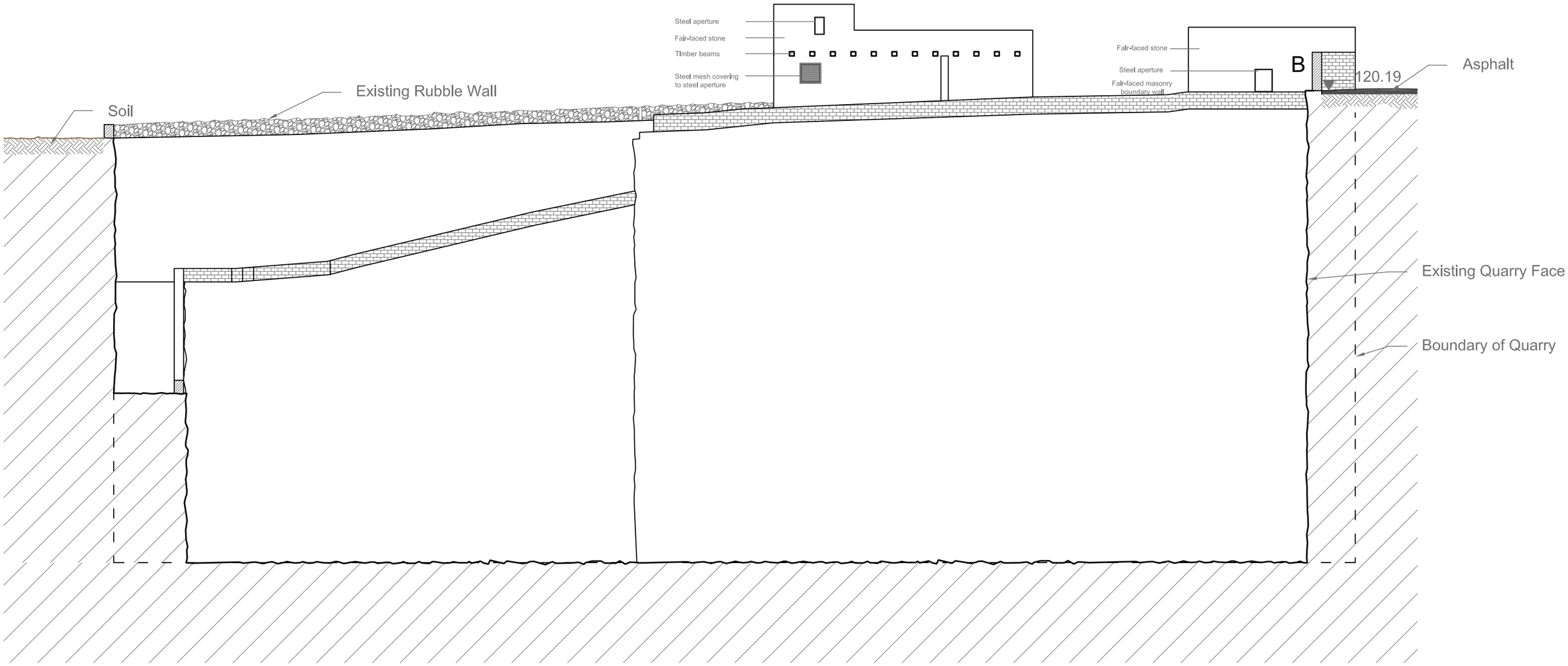
Drawing Title: Excavation & Demolition Phase
Proposed Elevation A

Revisions:

Drawn by	Date	Scale	Drawing No.
J.C.	24/04/2015	1:250	DR_9

Checked by: E.B.

125a



Existing Elevation A

Scale 1:250

1m 0.5 0 2 4 6 8 10 12 14 16 18 20 22 24m

Scale 1:250

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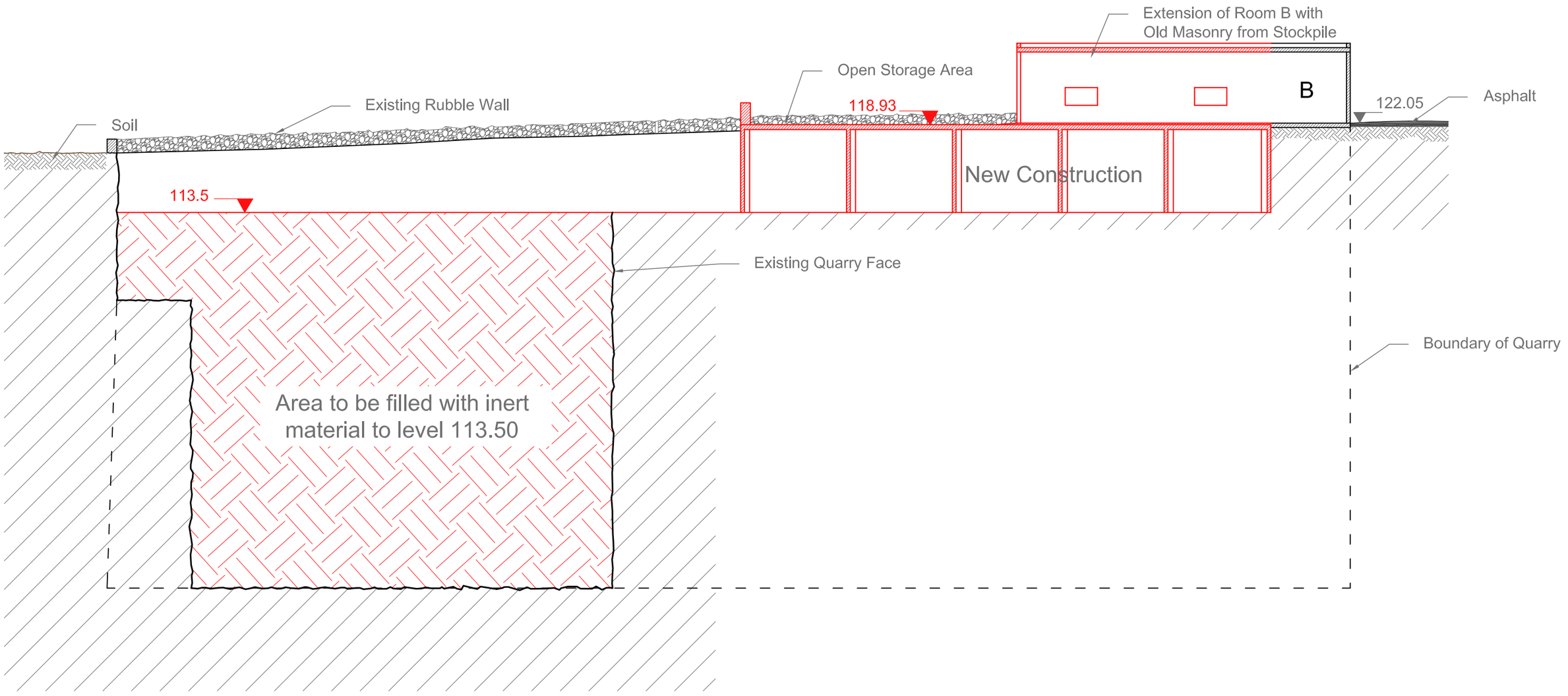
PROPOSED DEVELOPMENT	Job No.
Xwieki Quarry	5070/03/EB

Drawing Title: Existing Elevation A

Revisions

Drawn by / Checked by	Date	Scale	Drawing No.
J.C. / E.B.	24/04/2015	1:250	DR_8

125a



Proposed Section Z

Construction Phase

Scale 1:250

TO CONSTRUCT

TO DEMOLISH

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Scale 1:250

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PROPOSED DEVELOPMENT: Xwieki Quarry

Job No.

Drawing Title: Construction Phase Proposed Section Z

Revisions

Drawn by	Date	Scale	Drawing No.
J.C. Checked by E.B.	24/04/2015	1:250	DR_7

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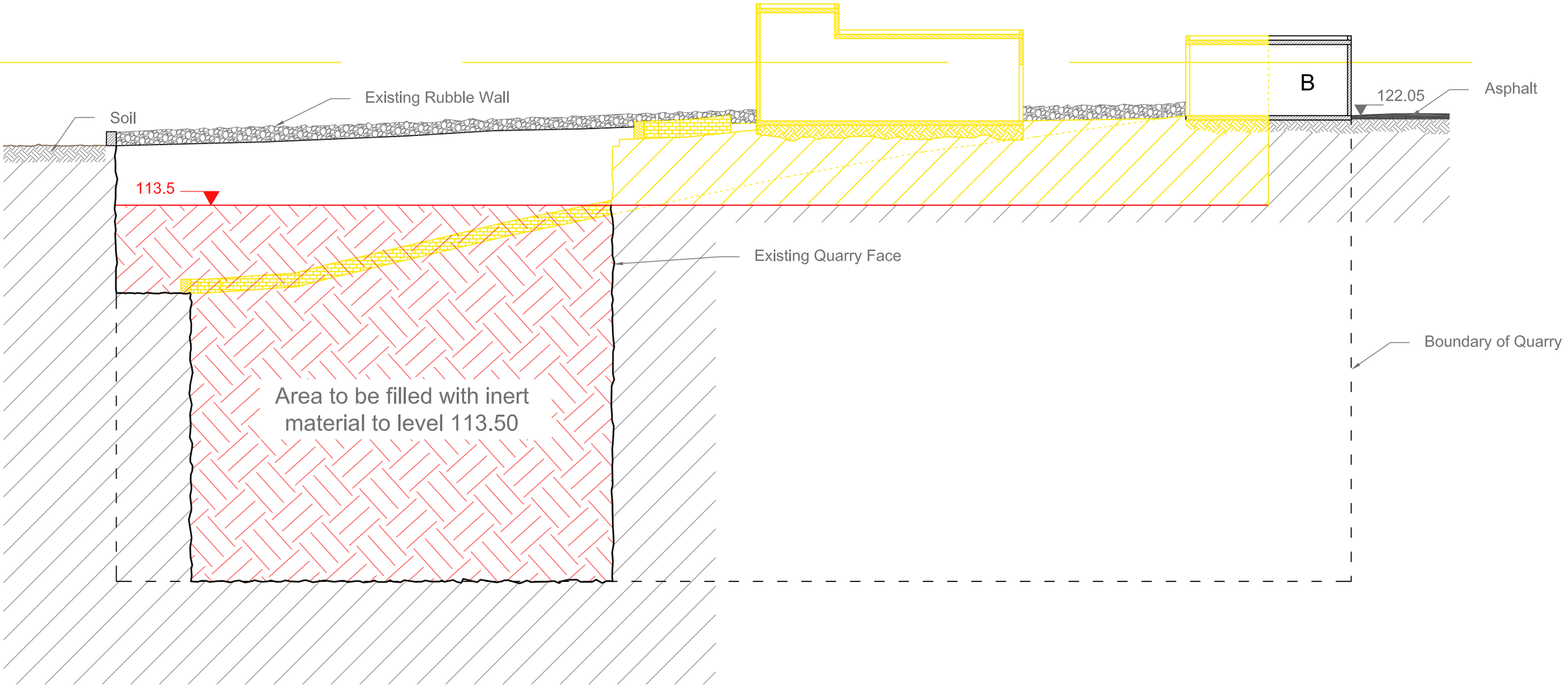

Proposed Section Z

Excavation Phase

Scale 1:250

TO CONSTRUCT

TO DEMOLISH

1m 0.5 0 2 4 6 8 10 12 14 16 18 20 22 24m

Scale 1:250

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PROPOSED DEVELOPMENT: Xwieki Quarry

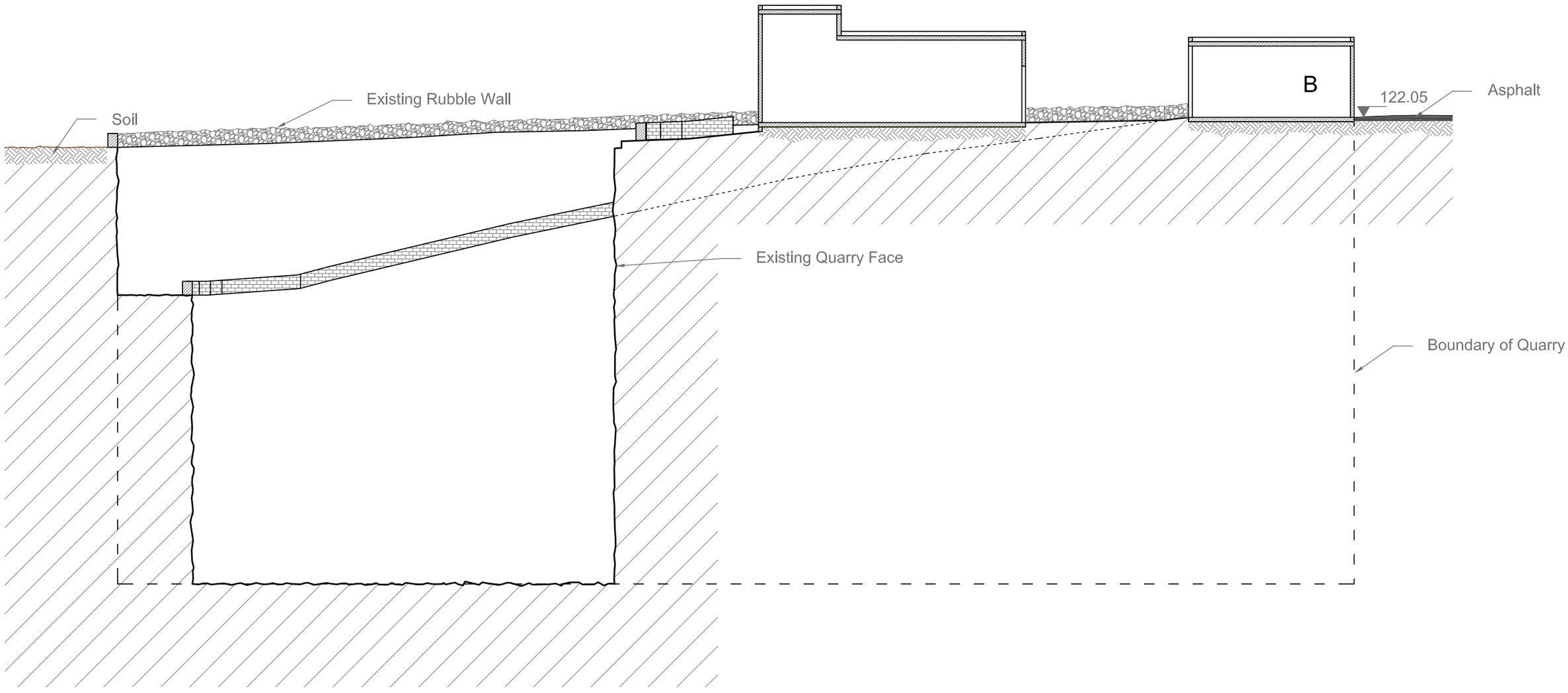
Job No.: 5070/03/EB

Drawing Title: Proposed Excavation & Demolition Phase Section Z

Revisions:

Drawn by / Checked by	Date	Scale	Drawing No.
J.C. / E.B.	24/04/2015	1:250	DR_6

125a



Existing Section Z

Scale 1:250

TO CONSTRUCT

TO DEMOLISH

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Scale 1:250

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PROPOSED DEVELOPMENT	Job No.
Xwieki Quarry	5070/03/EB

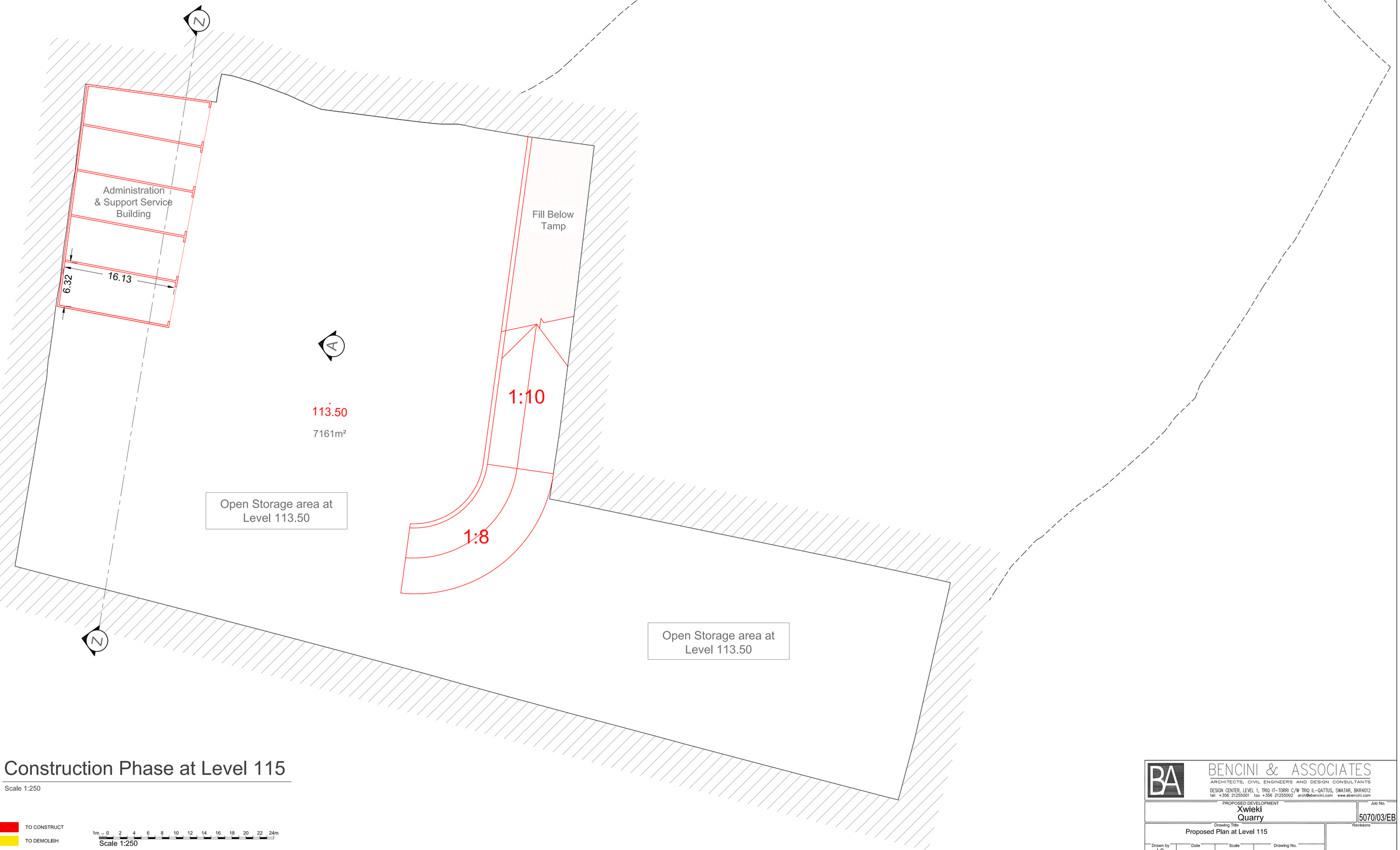
Drawing Title: Existing Section Z

Revisions

Drawn by	Date	Scale	Drawing No.
J.C.	24/04/2015	1:250	DR_5

Checked by: E.B.

Total Area of Quarry: 7162m²
Upper Level Office : 160m²
Administration & Support Service Building: 556m²



Construction Phase at Level 115

Scale 1:250

TO CONSTRUCT
TO DEMOLISH

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Scale 1:250

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PROPOSED DEVELOPMENT
Xwieki
Quarry

Job No.
5070/03/EB

Drawing Title
Proposed Plan at Level 115

Revisions

Drawn by	Date	Scale	Drawing No.
J.C.	24/04/2015	1:250	DR_04
Checked by E.B.			

Total Area of Quarry: 7162m²
Upper Level Office : 160m²
Administration & Support Service Building: 556m²

Sliding Gate

N

119.95

road

120.17

120.17

B

Main Office

Extension of room B with old masonry from stockpile

Agricultural Zone

Administration & Support Service Building below

(Straight length) 47m

1:10

A

0.60m

10.20m

(Arch length) 23m

1:8

Open Storage area at Level 113.50

Open Storage area at Level 113.50

N

Construction Phase at Level 121

Scale 1:250

TO CONSTRUCT

TO DEMOLISH

1m 0 2 4 6 8 10 12 14 16 18 20 22 24m

Scale 1:250

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PROPOSED DEVELOPMENT
Xwieki
Quarry

Job No.
5070/03/EB

Drawing Title
Proposed Plan at Level 121

Revisions

Drawn by	Date	Scale	Drawing No.
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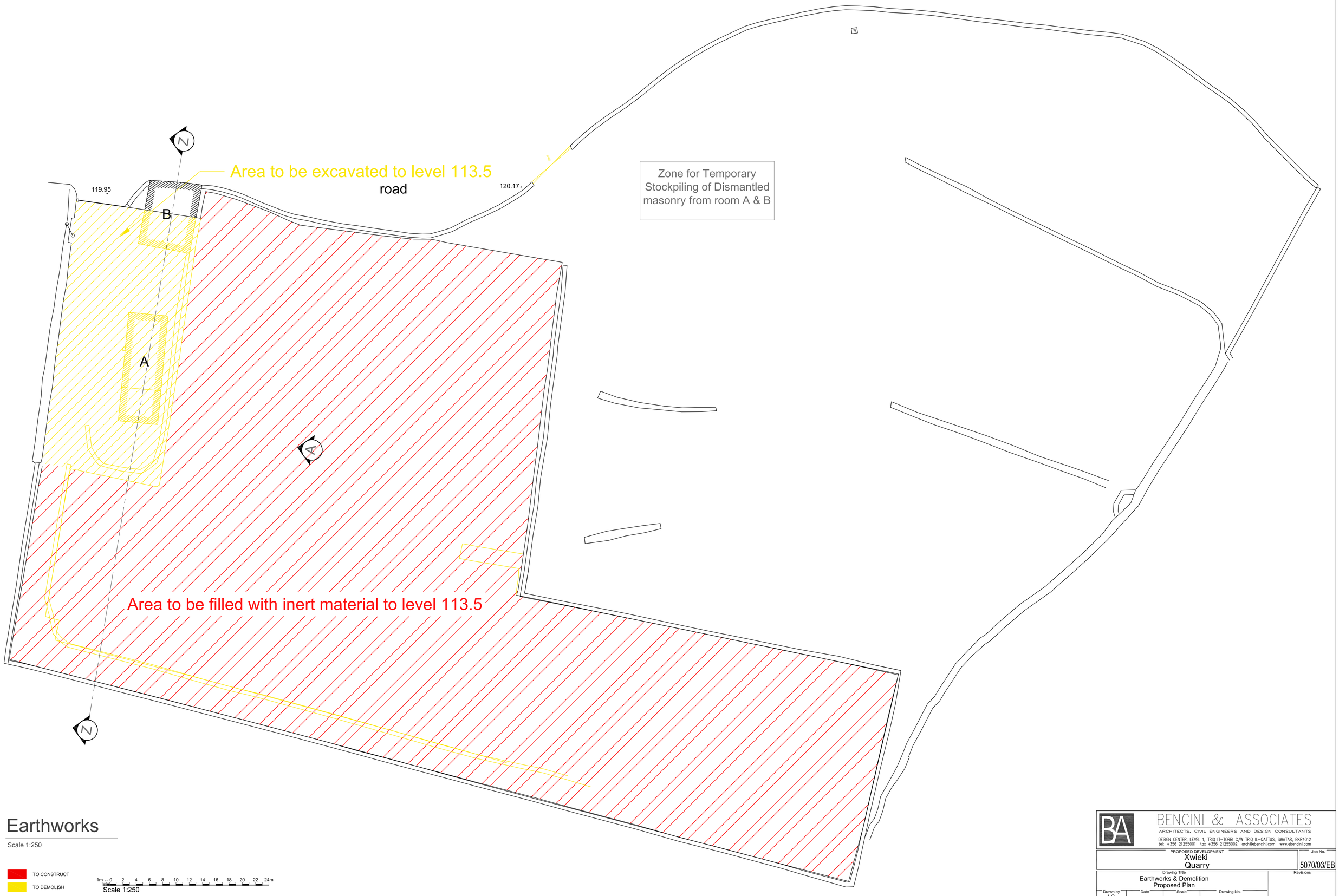
Checked by E.B.



Earthworks

Scale 1:250

TO CONSTRUCT

TO DEMOLISH

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Scale 1:250

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PROPOSED DEVELOPMENT				Job No.
Xwieki Quarry				5070/03/EB
Drawing Title				Revisions
Earthworks & Demolition Proposed Plan				
Drawn by: J.C. / Checked by: E.B.	Date: 24/04/2015	Scale: 1:250	Drawing No.: DR_02	

Site Survey

Scale 1:250

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Scale 1:250

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PROPOSED DEVELOPMENT	Job No.
Xwieki Quarry	5070/03/EB

Drawing Title	Revisions
Site Survey	

Drawn by	Date	Scale	Drawing No.
J.C.	24/04/2015	1:250	DR_01

Checked by: E.B.