

## **Public Access in Relation to an Environmental Impact Assessment (EIA)**

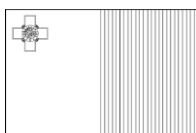
*Undertaking of the permitting activities including environmental  
impact studies and related actions for the Malta-Italy Gas  
pipeline interconnection*

### **Technical Report**

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CLIENT REF. NO: PA 08757/17  
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## **Table of Contents**

<b>1.0</b>	<b>Scope .....</b>	<b>1</b>
<b>2.0</b>	<b>Terms of Reference .....</b>	<b>8</b>
<b>3.0</b>	<b>Methodology.....</b>	<b>14</b>
3.1	Area of Influence.....	14
3.2	Study Methodology.....	16
<b>4.0</b>	<b>Existing Public Access .....</b>	<b>17</b>
<b>5.0</b>	<b>Impact Assessment.....</b>	<b>21</b>
5.1	Impact Significance .....	21
5.2	Impacts on Public Access .....	21
<b>6.0</b>	<b>Mitigation measures, residual impacts and monitoring.....</b>	<b>23</b>
6.1	Mitigation measures .....	23
6.2	Residual impacts .....	23
6.3	Monitoring .....	23
<b>7.0</b>	<b>Summary of Impacts.....</b>	<b>24</b>

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## List of Figures

---

Figure 1: Project schematic.....	3
Figure 2: Site plan showing the offshore route corridor .....	4
Figure 4: Site plan for the proposed Malta terminal and land reclamation area .....	5
Figure 4: Land reclamation at Delimara.....	6
Figure 5: Sections for the proposed Malta terminal.....	7
Figure 6: Area of Influence for this study .....	15
Figure 7: Existing public access arrangements in the Aol.....	18
Figure 8: FSU and jetty within existing exclusion zone .....	19
Figure 9: Existing road providing vehicular access .....	19
Figure 10: Dirt road connecting to surrounding land.....	20

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*Table of Tables*

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**Table 1: Summary of expected impacts of the proposed Scheme..... 24**

## 1.0 Scope

An Environmental Impact Assessment (EIA) is hereby being presented in relation to PA 08757/17. This application is entitled “*construction of the Malta-Italy gas pipeline EU Project of Common Interest, including a terminal station at DPS, an onshore HDD route through Delimara Peninsula and the laying of an offshore 22” diameter pipeline extending up to Gela, Sicily, Site at Delimara Power Station and offshore route within the Malta Territorial Waters, Delimara, Marsaxlokk, Malta*”.

This technical study identifies the public access in the area and assesses the impacts caused in relation to the Environmental Impact Assessment (EIA) for the proposed gas pipeline between Malta and Sicily. The terrestrial aspect of this study falls within the locality of Delimara, Marsaxlokk.

The study will focus on the Maltese part of the Scheme only i.e. the area of land reclamation at Marsaxlokk bay, the trenchless tunnel route through the Delimara peninsula and the offshore pipeline until the median line between Malta and Sicily.

The project shall connect Malta to the Trans-European Gas Network in Sicily. The primary aim of the project is to import gas from the Italian National Gas network via an approximately 159km long pipeline between Delimara (Malta) and Gela (Sicily) of which approximately 151km is subsea.<sup>1</sup> The length of the onshore pipeline section in Delimara is about 700m and will be connected to a new Terminal Plant by means of a trenchless construction method with the exit target point at approximately 42m below mean sea level. Although the preferred construction method is still under evaluation, the Front End Engineering Designers (FEED) have determined that the microtunnelling solution is the preferred option. A degree of preliminary trenching is required at the target offshore exit point at around 600m from the shoreline to facilitate the entry of the pipeline from the seafloor into the trenchless borehole. The seabed shall be reinstated after the 22” pipeline installation is completed. The water depth of the marine proportion of the site ranges from 42m (at the exit) to 158m at the deepest point and then it is buried from a depth shallower than 30m at the Gela side.

Once the project is implemented, the gas pipeline would provide a more reliable source to supply natural gas to Malta, eliminating the need for the Floating Storage Unit (FSU) recently installed to supply natural gas to the reciprocating internal combustion engine plant and the new gas turbines at the Delimara Power Station. The project will contribute to market integration and thus boost competitiveness. Use of sustainable energy will be supported by the project and will contribute towards the reduction of GHG emissions primarily from the LNG shipping and regasification process which currently take place as part of the FSU system.

<sup>1</sup> The project was confirmed as a “project of common interest” (PCI) and re-confirmed in the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> PCI lists.

The gas pipeline project shall be designed to operate in bidirectional mode with the first phase supplying gas from Sicily to Malta and depending on market developments, can in the future be used to supply gas from Malta to Italy. The phase 1 of the pipeline project, i.e. flow of gas from Italy to Malta, shall have an estimated capacity of approximately 1.2 billion standard cubic meters per year, with a guaranteed maximum flow of 141,000 Sm<sup>3</sup>/hour.

The pipe will make contact with land in Malta on the eastern side of the Delimara peninsula at a depth of approximately 42m below sea level. It will then transect the peninsula and connect to the Delimara Power Station via a trenchless excavation method. The Power Station needs to be extended in order to accommodate the additional infrastructures required for the operation of the pipeline. In order to do this, it is necessary to reclaim an area of 8,000m<sup>2</sup> from the sea.

The Sicilian terminal station will be constructed within the Gela municipality at 37°04'51.80"N; 14° 19'01.00"E. The onshore pipeline route in Sicily is expected to be 7km long, and confined within the Gela municipality. Since the pipeline shall cross two railway lines, a number of roads and the Gela-Ragusa ethylene pipeline, three block valve stations shall be installed onshore Sicily to isolate the pipeline sections as required by Italian legislation requirements.

On the Sicilian shore, several construction methodologies, including HDD are being considered by the FEED (Front End Engineer Design) contractor, Techfem/SPS. For mechanical protection purposes, the underwater pipeline shall be covered when passing through waters shallower than 30m, while in deeper waters, the pipeline shall be laid on the seabed. Since the entry point at the Delimara peninsula is at 42m depth, no coverage of the pipe is necessary in Malta. The pipeline route is located in relatively shallow waters on the Malta-Sicily underwater ridge. Such a route minimises stresses on the pipeline during both the laying of the pipe as well as during the operation of the pipeline itself.

The proposed development, subject to the EIA and hereinafter referred to as the "Scheme", involves the following interventions (Figure 1):

- » Construction of a 22" diameter gas pipeline between Delimara, Malta and Gela Sicily
- » Land reclamation
- » Construction of a terminal station
- » Onshore tunnel route across the Delimara Peninsula



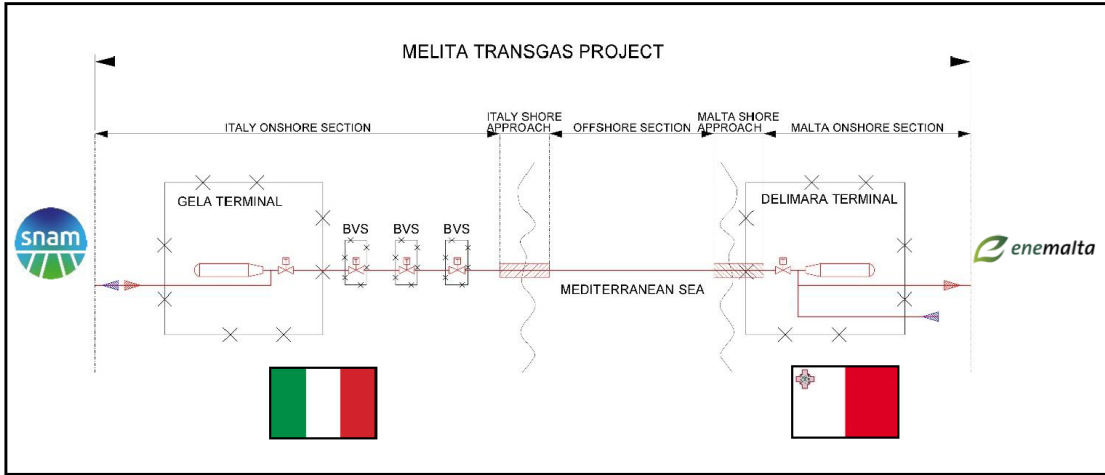


Figure 1: Project schematic

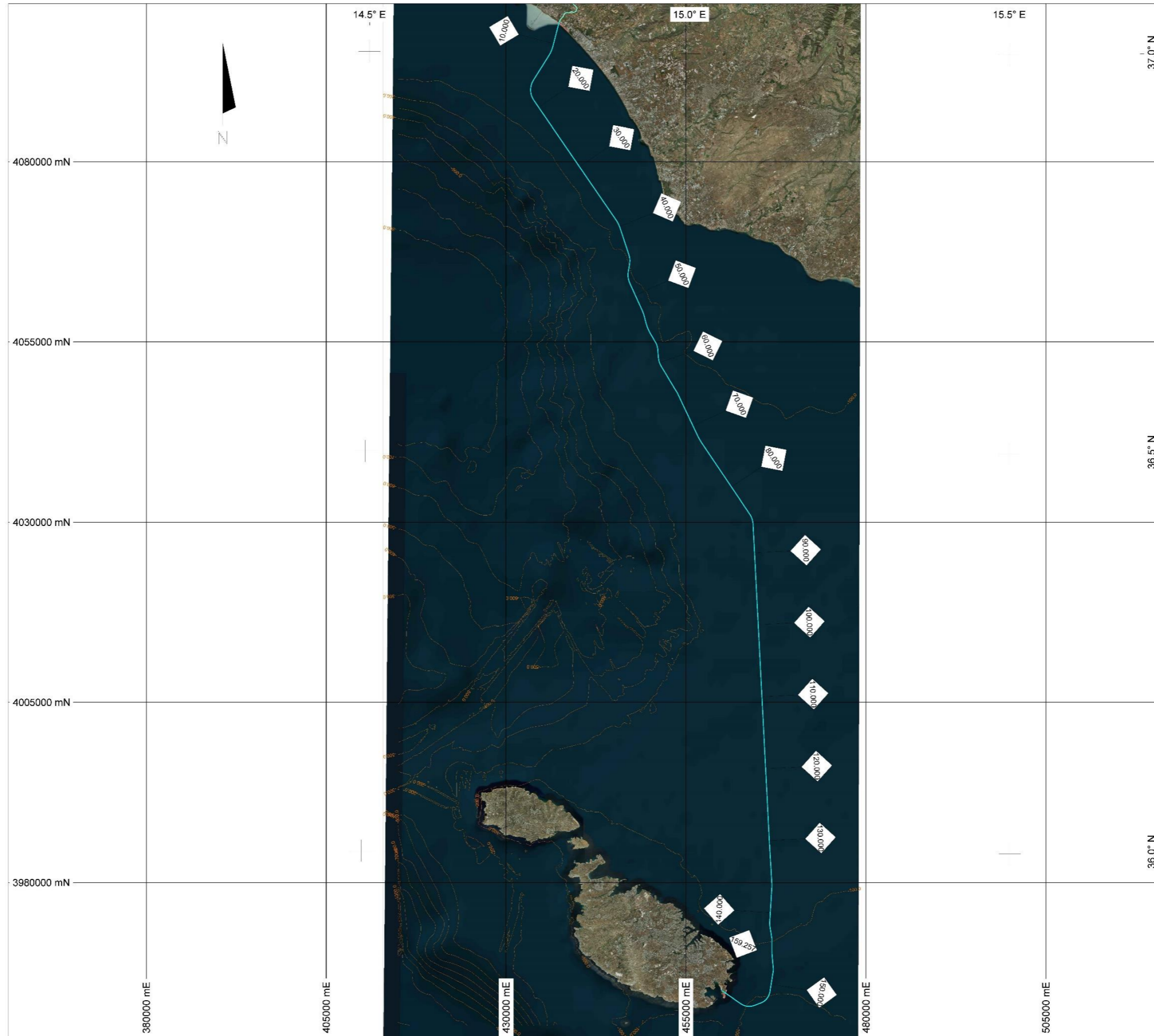
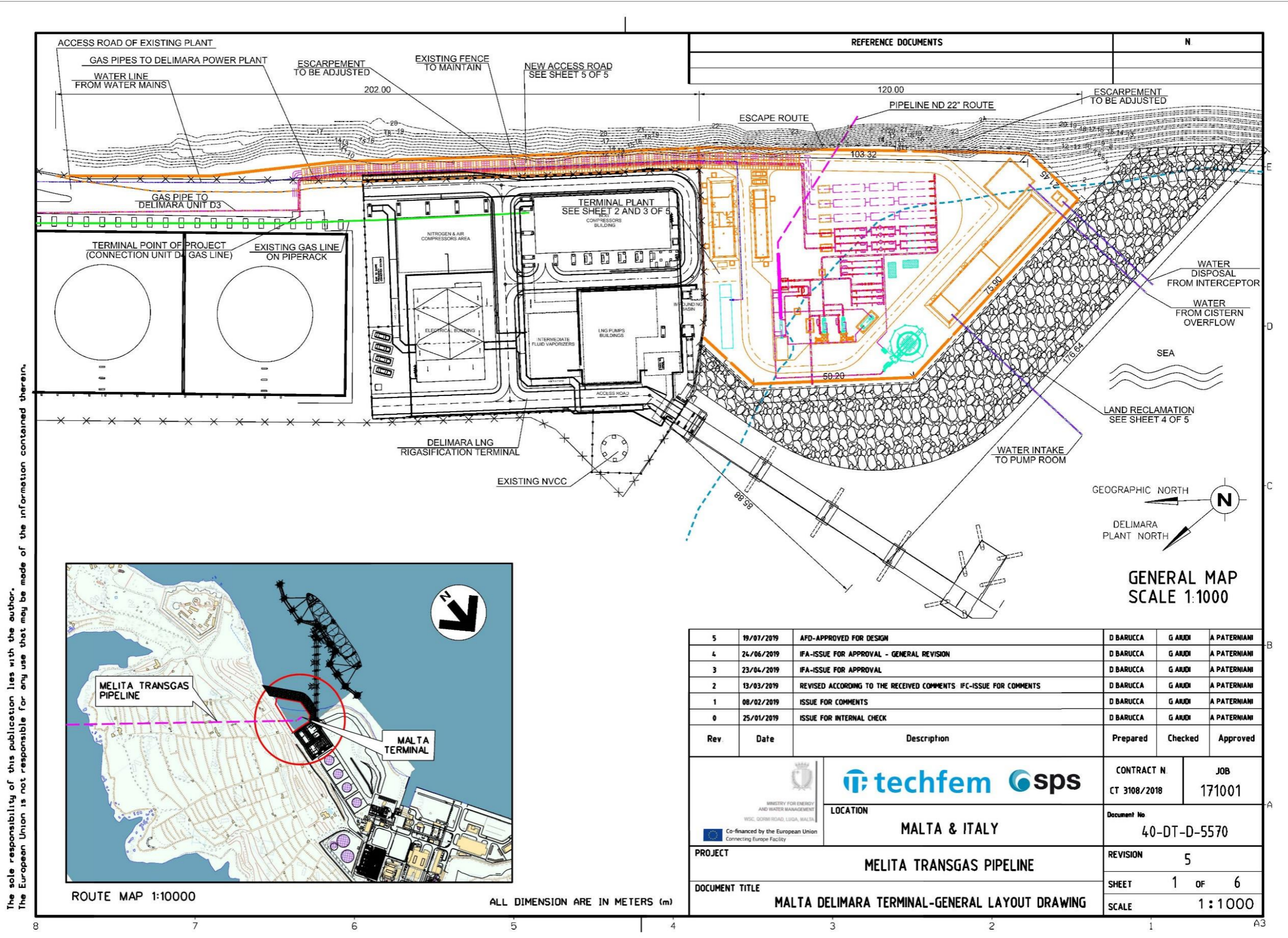


Figure 2: Offshore pipeline general route



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Figure 3: Site plan for the proposed Malta terminal and land reclamation area

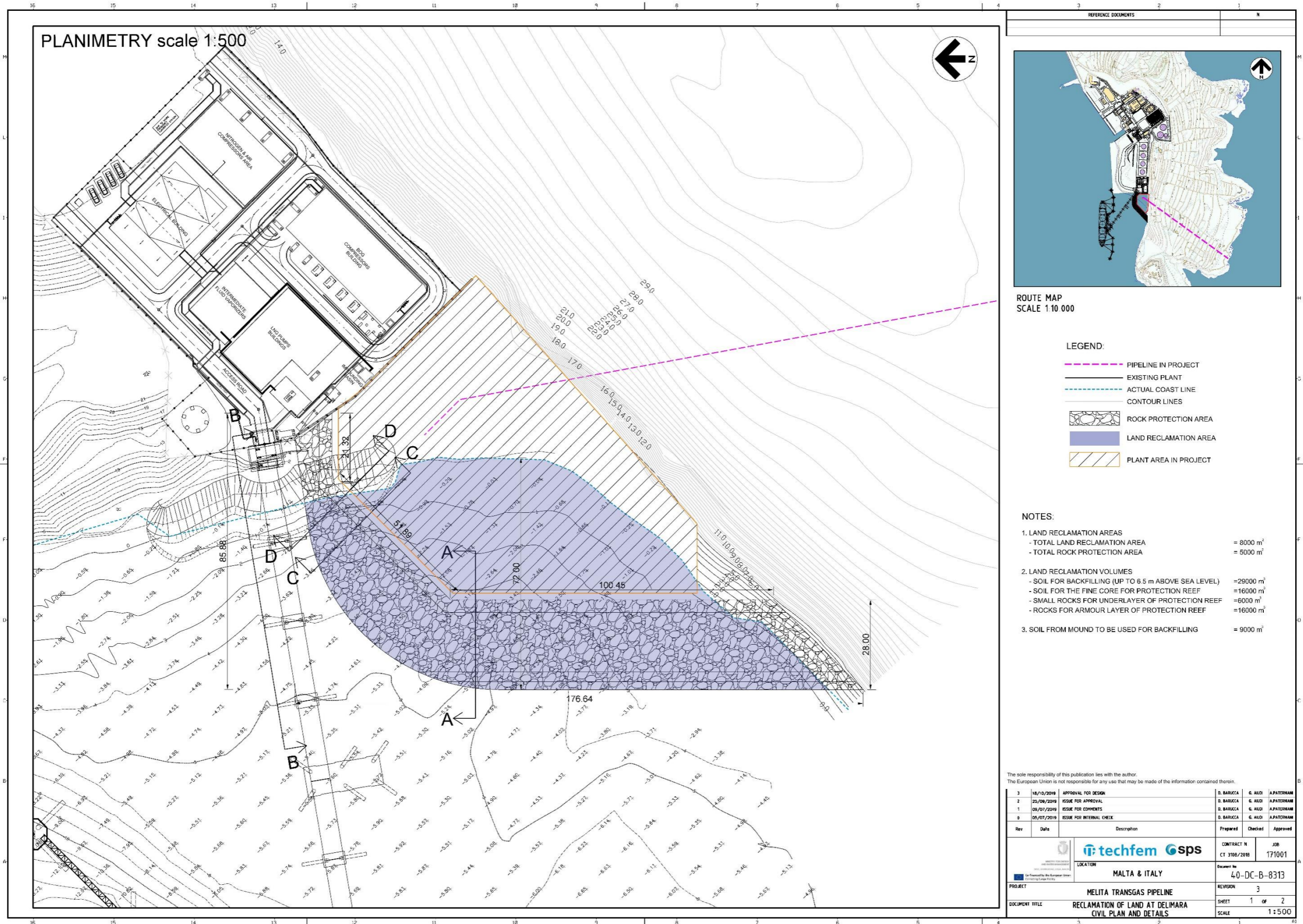


Figure 4: Land reclamation at Delimara

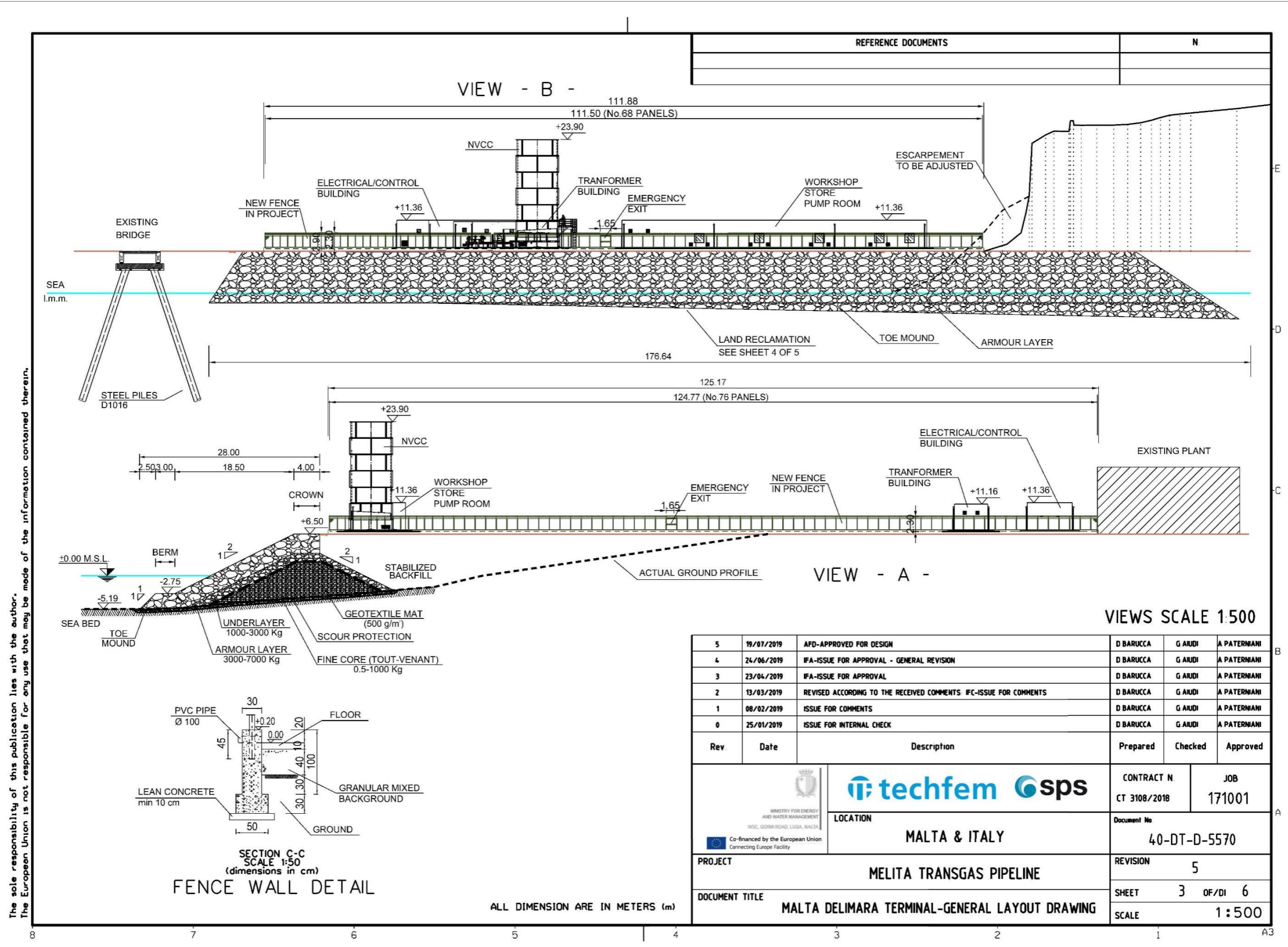


Figure 5: Sections for the proposed Malta terminal

## 2.0 Terms of Reference

The Terms of Reference related to the study on land/sea cover and land/sea uses for the EIA issued by ERA in March 2018 are:

### 3.0 A DESCRIPTION OF THE SITE AND ITS SURROUNDINGS (I.E. ENVIRONMENTAL BASELINE)

*This description is identified by the area of influence depicted in Figure 6. This description shall include:*

#### 3.11 Public Access

*The assessment should identify the current public access arrangements (particularly the accessibility of the countryside, coast, and public open spaces), including existing footpaths and other public access routes, and should clearly indicate whether these would be affected and how.*

*Wherever any new or altered arrangements are proposed, these should be clearly identified and their environmental implications should also be indicated.*

### 4.0 ASSESSMENT OF ENVIRONMENTAL IMPACTS AND ENVIRONMENTAL RISKS

*All likely significant effects and risks posed by the proposed project on the environment during all relevant phases (including construction/excavation/demolition, operation and decommissioning) should be assessed in detail, taking into account the information emerging from Sections 1, 2 and 3 above. Apart from considering the project on its own merits (i.e. if taken in isolation), the assessment should also take into account the wider surrounding context and should consider the limitations and effects that the surrounding environmental constraints, features and dynamics may exert on the proposed development, thereby identifying any incompatibilities, conflicts, interferences or other relevant implications that may arise if the project is implemented.*

*In this regard, the assessment should address the following aspects, as applicable for any category of effects or for the overall evaluation of environmental impact, addressing the worst-case scenario wherever relevant:*

- 1. An exhaustive identification and description of the envisaged impacts;*
- 2. The magnitude, severity and significance of the impacts;*
- 3. The geographical extent/range and physical distribution of the impacts, in relation to: site coverage; the features located in the site surroundings; whether the impacts are short-, medium- or long-range; and any transboundary impacts (i.e. impacts affecting other countries);*
- 4. The timing and duration of the impacts (whether the impact is temporary or permanent; short-, medium- or long-term; and reasonable quantification of timeframes);*
- 5. Whether the impacts are reversible or irreversible (including the degree of reversibility in practice and a clear identification of any conditions, assumptions and pre-requisites for reversibility);*

6. *A comprehensive coverage of direct, indirect, secondary and cumulative impacts, including:*
  - *interactions (e.g. summative, synergistic, antagonistic, and vicious-cycle effects) between impacts;*
  - *interactions or interference with natural or anthropogenic processes and dynamics;*
  - *cumulation of the project and its effects with other past, present or reasonably foreseeable developments, activities and land uses and with other relevant baseline situations; and*
  - *wider impacts and environmental implications arising from consequent demands, implications and commitments associated with the project (including: displacement of existing uses; new or increased pressures on the environment in the surroundings of the project, including pressures which may be exacerbated by the proposal but of which effects may go beyond the area of influence; and impacts of any additional interventions likely to be triggered or necessitated by situations created, induced or exacerbated by the project);*
7. *Whether the impacts are adverse, neutral or beneficial;*
8. *The sensitivity and resilience of resources, environmental features and receptors vis-à-vis the impacts;*
9. *Implications and conflicts vis-à-vis environmentally-relevant plans, policies and regulations;*
10. *The probability of the impacts occurring; and*
11. *The techniques, methods, calculations and assumptions used in the analyses and predictions, and the confidence level/limits and uncertainties vis-à-vis impact prediction.*

*The impacts that need to be addressed are detailed further in the sub-sections below.*

#### **4.1 Effects of the environment aspects identified in Section 3**

*The assessment should thoroughly identify and evaluate the impacts and implications of the project on all the relevant environmental aspects identified in Section 3 above, also taking into account the various considerations outlined in the respective sections.*

*With regards to Section 3.4 and 3.5 above, the ecological status of the area in question is to be evaluated, taking into consideration the definition of status by relevant EU Policy, and assessing the extent to which the project will cause deterioration in status or compromise the achievement of good status in line with Article 4(7) of the EU Water Framework Directive.*

#### **4.2 Impacts related to Climate Change and Climate Change Adaptation**

*The assessment should address the following aspects, as relevant:*

1. *The contribution of the project to greenhouse gas (GHG) emissions and climate change, including:*
  - i. *The direct, indirect and off-site GHG emissions and related impacts during all relevant phases of the project, including those arising as a result of the electrical power demand of the project;*
  - ii. *Any massive GHG emissions that may occur as a consequence of accidents or malfunctions;*

- iii. *The impacts of the proposal on carbon sinks (e.g. wooded/afforested areas, agricultural soils, landfills, wetlands, and marine environments);*
  - iv. *The components of the project that are expected to contribute to renewable energy generation on site or to a reduction in GHG emissions through substitution of current generation facilities, including a quantification and critique of their reliability and actual net contribution to climate change mitigation as well as an identification of the impacts of such components on other aspects of the environment (e.g. landscape, land take, avifauna); and*
  - v. *The implications of the project and its operations and ancillary demands on National GHG emission targets.*
2. *The implications of climate change on the proposal, including:*
- i. *The aspects/elements of the project that are likely to be affected by changes or variability in climate-related parameters (e.g. temperature, humidity, weather patterns, sea level, etc.);*
  - ii. *The potential impacts that such changes may have on the proposal, including any possible impacts resulting from changes to multiple parameters; and*
  - iii. *The adaptability of the project and its components and operations vis-à-vis the relevant climate change parameters and trends.*

#### **4.3 Environmental risk**

*The assessment should also address, in sufficient detail, any relevant environmental risk (including major-accident scenarios such as contamination, emissions, blast, flooding, major spillages, etc.) likely to result in environmental damage or deterioration. The range of accident scenarios considered should exhaustively cover, as relevant:*

- 1. *one-time risks (e.g. during construction or decommissioning works);*
- 2. *recurrent risks during project operation; and*
- 3. *risks associated with extreme events (e.g. effect of earthquakes or natural disasters on the project).*

*The assessment should include, as relevant: a quantification of the risk magnitude and probability; and risk analysis vis-à-vis any hazardous materials stored, handled, or generated on site or transported to/from the site.*

**Note:** *Should the proposal fall within the scope of the Seveso/COMAH regulations, a stand-alone Risk Assessment may be required, to the satisfaction of the relevant Competent Authority. In such instances, separate Terms of Reference are issued for the Risk Assessment.*

Following a formal request to CPD by MEW dated 20<sup>th</sup> March 2018, CPD indicated that at EIA stage, it is too premature to present an update to the safety report, risk assessments and internal emergency plan. Ongoing meetings are held with Comah competent authority and safety report, Internal and External Emergency plans will be updated at IPPC stage.

#### **4.4 Effects on Human Populations resulting from impacts on the environment**



*This assessment should also identify any impacts of the development on the surrounding and visiting population (e.g. effects on public health or on socio-economic considerations), that may result from impacts on the environment. In the case of health-related effects, reference should be made to published epidemiological and other studies, as relevant, and the views of the Environmental Health Directorate should be sought.*

#### **4.5 Transboundary Impacts and Other Environmental Effects**

*The impacts whose area of influence reaches one or more neighbouring countries (affected country, i.e. Italy), should be described and assessed according to their nature and characteristics (e.g. direct and indirect, temporary or permanent, continuous or intermittent, reversible or irreversible, positive or negative, short- medium- or long-term, their magnitude, their mitigation and compensability, their transboundary nature, accumulation and synergies with other impacts).*

*Impacts should be identified for the construction, operation and decommissioning phases of the project, including all ancillary developments.*

*Any other environmental effects deemed relevant to the project but not fitting within any of the above sections should also be identified and assessed.*

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

#### **5.1 Mitigation Measures**

*A clear identification and explanation of the measures envisaged to prevent, eliminate, reduce or offset (as relevant) the identified significant adverse effects of the project during all relevant phases including construction, operation and decommissioning [see **Section 1.2.3** above]. Such measures could include technological features; operational management techniques; enhanced site-planning and management; aesthetic measures; conservation measures; reduction of magnitude of project; and health and safety measures. Particular attention should be given to mitigation of impacts on the marine resources and of conflicts between the different uses on site.*

*As a general rule, mitigation measures for construction-phase impacts should be packaged as a holistic Construction Management Plan (CMP). Whilst the detailed workings of the CMP may need to be devised at a later stage (e.g. after the final design of the project has been approved and/or after a contractor has been appointed), the key parameters that the CMP must adhere to for proper mitigation need to be identified in the EIA. Broadly similar considerations also apply vis-à-vis operational-phase impacts [which may need to be mitigated through an operational permit] and decommissioning-phase impacts [see **Section 5.4** below], where relevant.*

*Mitigation measures for accident/risk scenarios should be packaged as a holistic plan that includes the integration of failsafe systems into the project design as well as well-defined contingency measures.*

*The recommended measures should be feasible, realistically implementable to the required standards and in a timely manner, effective and reliable, and reasonably exhaustive. They should not be dependent on factors that are beyond the developer's and ERA's control or which would be difficult to monitor, implement or enforce. The actual scope for, and feasibility of, effective prevention or mitigation should also be clearly indicated, also identifying all potentially important pre-requisites, conditionalities and side-effects.*

### **5.2 Residual Impacts**

*Any residual impacts [i.e. impacts that cannot be effectively mitigated, or can only be partly mitigated, or which are expected to remain or recur again following exhaustive implementation of mitigation measures] should also be clearly identified.*

### **5.3 Additional Measures**

*Compensatory measures (i.e. measures intended to offset, in whole or in part, the residual impacts) should also be identified, as reasonably relevant. Such measures should be not considered as an acceptable substitute to impact avoidance or mitigation.*

*If the assessment also identifies beneficial impacts on the environment, measures to maximise the environmental benefit should also be identified.*

*In both instances, the same practical considerations as indicated vis-à-vis mitigation measures should also apply.*

### **5.4 Decommissioning Plan**

*A decommissioning plan (DP) should also be proposed to address the following circumstances, as relevant:*

- 1. Removal of any temporary or defined-lifetime development (or of any structures, infrastructure or land use required temporarily in connection with it) upon the expiry of their permitted duration; and*
- 2. Removal of the development (or of any secondary developments, infrastructure or land use ancillary to it) in the event of redundancy, cessation of operations, serious default from critical mitigation measures, or other overriding situations that may emerge in future.*

*The DP should also include, as relevant, a phasing-out plan, proposals for site remediation or decontamination, and methodological guidance on site reinstatement or appropriate after-use.*

### **5.5 Monitoring Programme**

*A realistic and enforceable programme for effective monitoring of those works envisaged to have an adverse or uncertain impact. The monitoring programme should include:*

- 1. Details regarding type and frequency of monitoring and reporting, including spot checks;*

2. *The parameters that will be monitored, their units of measurement, the monitoring indicators to be used; and standard analytical methods in line with relevant EU policy;*
3. *An effective indication of the required action to address any exceedances, risks, mitigation failures or non-compliances for each monitoring parameter;*
4. *An evaluation of forecasts, predictions and measures identified in the EIA; and*
5. *An indication of the nature and extent of any additional investigations (including EIAs or ad hoc detailed investigations, if relevant) that may be required in the event of any contingencies, unanticipated impacts, or impacts of larger magnitude or extent than predicted.*

*The programme should address all relevant stages, as follows:*

- a) *Where relevant, monitoring of preliminary on-site investigations that may entail significant disturbance or damage to site features (e.g. marine environment in terms of the benthos, or any works that require prior site clearance or any significant destructive sampling);*  
*[Note: Official written consent from the competent authorities (e.g. Superintendence of Cultural Heritage) may also be required for such interventions.]*
- b) *Monitoring of the construction phase, including the situation before initiation of works (including site clearance), during appropriate stages of progress, and after completion of works;*
- c) *Monitoring of the operational phase, except where otherwise directed by ERA (e.g. where monitoring would be more appropriately integrated into an operating permit)(including monitoring of the marine environment in terms of the benthos, water quality and other sensitive receptors); and*
- d) *Where relevant, monitoring of the decommissioning phase, including the situation before initiation of works, during appropriate stages of progress, and after completion of works.*

### **5.6 Identification of required authorisations**

*The assessment should also identify all environmentally-relevant permits, licences, clearances and authorisations (other than the development permit to which this EIA is ancillary) which must be obtained by the applicant in order to effectively implement the project if development permission is granted. Any uncertainty, as to whether any of these pre-requisites is applicable to the project, should be clearly stated.*

#### **Note on Sections 5.1 to 5.6 above:**

*The expected effects, the proposed measures, the residual impacts, the proposed monitoring etc. should also be summarised in a user-friendly itemised table that enables the reader to easily relate the various aspects to each other. An indicative specimen table is attached in **Appendix 4** - attached to Method Statement as Appendix 1.*

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### **3.0 Methodology**

#### **3.1 Area of Influence**

The Area of Influence (AoI) will include the footprint of the site on land, along with a surrounding 100m buffer zone, as mapped in Figure 6. 100m was chosen as the maximum limit for the buffer zone since it includes the footprint of the development and the extents of encroachments of the Scheme into the surrounding natural terrain during the construction and operational phases.

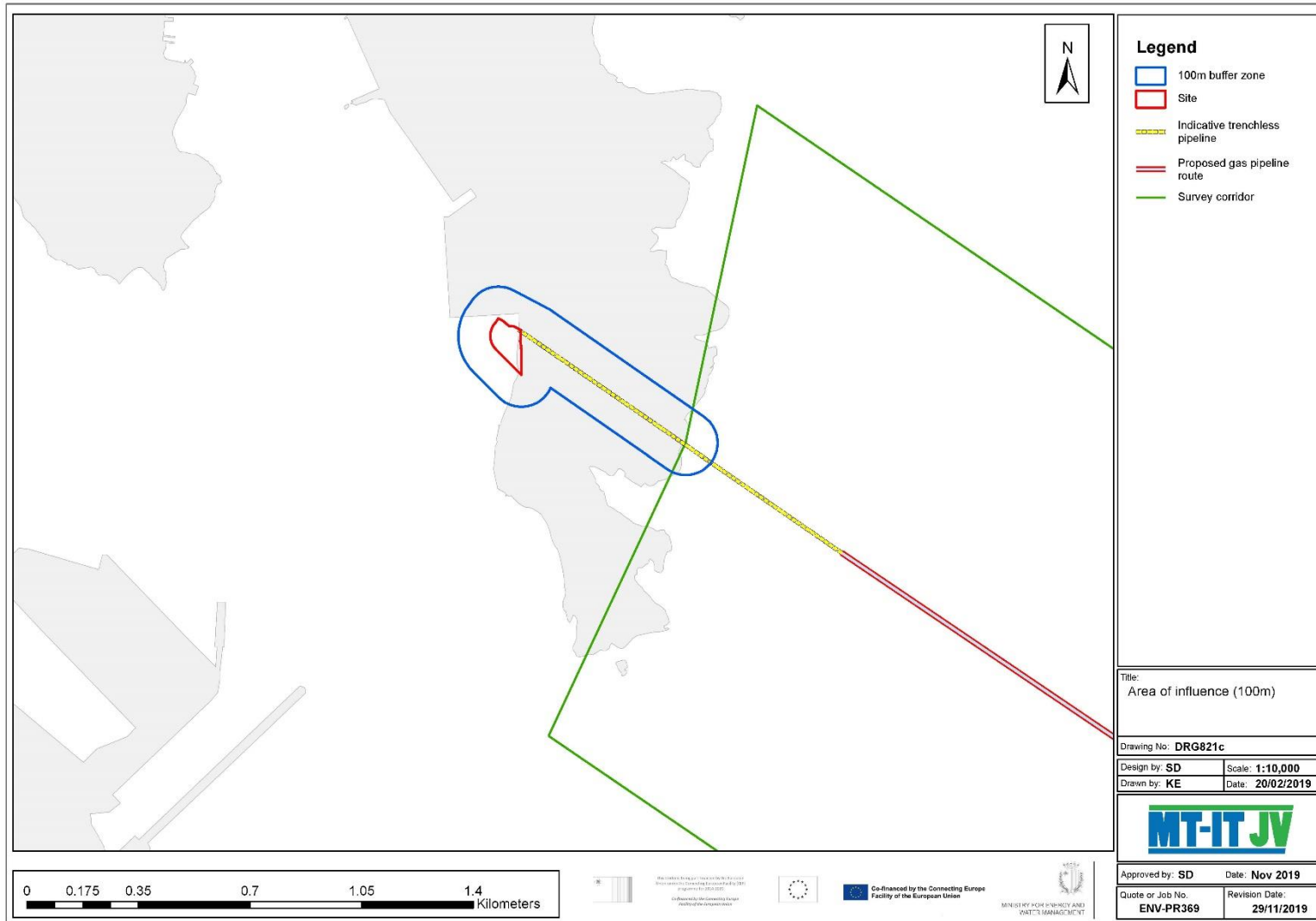


Figure 6: Area of Influence for this study

### **3.2 Study Methodology**

The public access investigation has been structured to be undertaken as a desktop study with a supporting field visit to validate the data collated. It will seek to address the following objective:

- » To compile a description of the current public access arrangements that presently exist within the terrestrial and marine AoI and to analyse how they will be affected by the Scheme.

The literature review will include the analysis of satellite images from sources such as Landsat/Copernicus (Google Earth). Since such services are often not representative of real-time arrangements, the information obtained from the desktop study will be verified on site. Verification will be represented by means of photographic evidence.

Geographic Information Systems (GIS) software will be used to map the existing and proposed changes to public access routes.

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## **4.0 Existing Public Access**

The existing public access features of the onshore aspect of the project are mapped in Figure 7. The site earmarked for the Delimara Terminal Plant and the surrounding marine area is currently inaccessible as it forms part of the exclusion zone for the jetty of the floating storage unit (FSU) which brings liquefied natural gas (LNG) to the Delimara Power Station. The FSU and jetty are shown in Figure 8.



Figure 7: Existing public access arrangements in the AoI





*Figure 8: FSU and jetty within existing exclusion zone*

The area along the pipeline route is currently accessible to vehicles from Marsaxlokk through the bidirectional narrow road, as shown in Figure 9. Although this road is tarmacked, potholes dot the entire road, forcing vehicles to drive at a slow speed. Its accessibility is further limited by the limited width of the bidirectional road. Dirt roads provide vehicular accessibility from this road to the surrounding land, as shown in Figure 10.



*Figure 9: Existing road providing vehicular access*



*Figure 10: Dirt road connecting to surrounding land*

Pedestrian access is restricted by the lack of a pavement along the entirety of the road, meaning pedestrians must walk on the road itself. This is typical of country roads. The remainder of the AoI is private land used for agricultural and/or residential purposes, and is therefore inaccessible to the public.

## 5.0 Impact Assessment

The potential impacts arising from the construction and operation of the Scheme on the existing public access has been evaluated in line with the Method Statement, as outlined in the following subsection.

### 5.1 Impact Significance

For each of the identified potential impacts, the following information will be provided:

- » Description of impact;
- » Policy importance of impact (Local, National, International);
- » Extent of effect;
- » Duration of impact (temporary / permanent);
- » Adverse or beneficial impact;
- » Reversible / irreversible impact;
- » Sensitivity of receptors;
- » Probability of impact occurring (certain, likely, uncertain, unlikely, remote); and
- » Scope for mitigation / enhancement (very good, good, none).

Based on the above criteria, a summary of the significance of the impact will be put forward in terms of whether the impact is considered not significant, of minor significance, of moderate significance, or of major significance:

- » **Not significant:** the proposed project is likely to have no effect on the existing public access of the area within the Aol;
- » **Minor significance:** the Scheme is envisaged to impact on the public access of the area within the Aol in such a way that is involves minimal work to be fixed or changed to integrate within the proposed development;
- » **Moderate Significance:** the scheme is envisaged to impact on the public access of the area within the Aol in such a way that it involves some work to be fixed or changed to integrate within the proposed development;
- » **Major significance:** the proposed development will affect the public access in ways that would require major planning and works.

Any mitigation measures envisaged to prevent, minimise and where possible offset any significant adverse effects on the environment of the project shall be included in the report. Any residual impacts expected following the implementation of the mitigation measures shall be described and quantified. A feasible monitoring programme will also be compiled, for the pre-, during and post-construction phases, including frequency of the proposed monitoring scheme. This monitoring programme will also incorporate measures to be considered during the decommissioning phase of the proposed development, as highlighted in the decommissioning plan that is being requested in the Terms of Reference issued by ERA.

### 5.2 Impacts on Public Access

During construction, some impacts on public access may arise due to the increase in heavy vehicles in the area, therefore affecting nearby residents/visitors. However, this impact is

considered to be of minor significance since heavy vehicles will be making use of Triq il-Power Station to access the site.

Additional minor impacts may originate from the transportation of the equipment/ machinery and vessels to the site, since they would temporarily limit accessibility. This is considered to be of negligible significance since vehicles will make use of Triq il-Power Station, and the impact is temporary in nature. No other impacts are envisaged during the excavation phase and installation of the onshore portion of the pipeline, since the pipe will be at a depth of at least 30m below ground level.

Land reclamation works are necessary to construct a breakwater which will be backfilled with material generated from the rock cutting activities. The level of the reclaimed land (8,000m<sup>2</sup>, of which 5,000m<sup>2</sup> is the total rock protection area) will be raised to 6.5m above mean sea level in order to bring it to the same level as the surrounding land. This portion of the shore forms part of the existing exclusion zone for the FSU, and therefore it is not open to the public. No changes to the shore portion of the exclusion zone are envisaged.

During the installation of the pipeline along the offshore route, segments of marine areas will be temporarily taken up by the barge. This will cause minor impacts on the accessibility of the area, since the extent at any given point is considered to be small.

One of the primary objectives of the Scheme is to enable the removal of the existing FSU in the Marsaxlokk Bay by creating a permanent source of natural gas. Once the infrastructure is removed, the present exclusion zone may be modified and reduced. This reduction in exclusion zone would increase the accessibility of the area by vessels, therefore serving as a beneficial impact of minor significance.

In order to facilitate the accessibility of the Terminal Facility Operator within the Delimara Power Station, the cliffs leading to the proposed terminal station will be trimmed and stabilised to create a road that is wide enough for vehicular access. Although this is an integral part of the design of the project, public access will not be affected by the proposed access arrangements as all changes will be internalised within the confines of the Delimara Power Station.

A summary of the envisaged impacts on the current infrastructure and utilities in the area are outlined in Table 1.

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## **6.0 Mitigation measures, residual impacts and monitoring**

### **6.1 Mitigation measures**

During the onshore construction phase, the only applicable mitigation measure is the use of arterial roads such as Triq il-Power Station for access to the site. This will minimise impacts on residents/visitors.

During the offshore construction works and pipeline installation, a notice to mariners should be issued to advise the public of the location of works and how to proceed safely.

### **6.2 Residual impacts**

Residual impacts are considered to be negligible-minor in significance.

### **6.3 Monitoring**

No monitoring is necessary since no adverse impacts are envisaged on public access.

7.0 Summary of Impacts

Table 1: Summary of expected impacts of the proposed Scheme

Impact type and source			Impact receptor		Effect & Scale							Probability of impact occurring (Inevitable/ Likely/ Unlikely/ Remote/ Uncertain)	Overall impact significance	Proposed mitigation measures	Residual impact significance	Other requirements
Impact type	Specific intervention leading to impact	Project phase (construction/ operation/ decommissioning)	Receptor type	Sensitivity & resilience toward impact	Direct/ Indirect/ Cumulative	Beneficial/ Adverse	Severity	Physical/ geographic extent of impact	Short-/ Medium-/ Long-term	Temporary (indicate duration) / Permanent	Reversible (indicate ease of reversibility) / Irreversible					
Reduced terrestrial accessibility	Movement of heavy vehicles	Construction	Marsaxlokk inhabitants and tourists	Low	Direct	Adverse	Low	Immediate surroundings	Long	Permanent	Irreversible	Inevitable	Minor	Use of arterial roads such as Triq il-Power Station	Negligible	N/A
Reduced marine accessibility	Temporary take up of marine areas	Construction	Pipeline route	Low	Direct	Adverse	Low	Immediate surroundings	Long	Permanent	Irreversible	Inevitable	Minor	Application for notice to mariners	Negligible	N/A
Take-up of coastline	Land reclamation	Operation	Marsaxlokk inhabitants and tourists	Low	Direct	Adverse	Low	Immediate surroundings	Long	Permanent	Irreversible	Inevitable	Minor	N/A	Minor	N/A
Removal/ modification of existing exclusion zone	Decommissioning of FSU	Operation	Vessels and general public	Low	Direct	Beneficial	Low	Immediate surroundings	Long	Permanent	Irreversible	Likely	Minor	N/A	N/A	N/A