



ESIA Update for Kasulu Sugar Project, Tanzania

Supplementary Lenders Information
Package

PREPARED FOR



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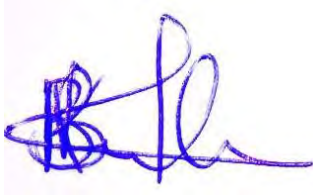
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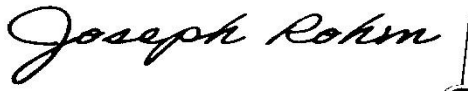
ESIA Update for Kasulu Sugar Project, Tanzania

Supplementary Lenders Information Package

0707620



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ACRONYMS AND ABBREVIATIONS

Acronyms	Description
CFP	Chance Find Procedure
E&S	Environment and Social
ECDP	Effluent Control Discharge Plan
EDL	Effluent Discharge License
EHS	Environment Health and Safety
EIA	Environmental Impact Assessment
EMCA	Environmental Management and Coordination Act
EP	Equator Principles
ERM	Environmental Resources Management East Africa Limited
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
GHG	Greenhouse Gases
GIS	Geographic Information System
GRM	Grievance Redress Mechanism
IBP	International Best Practice
ICP	Informed Consultation Participation
IFC	International Finance Corporation
ILO	International Labour Organization
KDC	Kasulu District Council
KSP	Kasulu Sugar Plantation
kV	Kilovolt
MW	Megawatt
MPM	Mufindi Paper Mills
NEMC	National Environment Management Council
OECD	Organization for Economic Cooperation and Development
PSs	Performance Standards
SEP	Stakeholder Engagement Plan
TCD	Tonnes of Cane per Day
TWBO	Tanganyika Water Basin Office
TIC	Tanzania Investment Council
WBG	World Bank Group

1. INTRODUCTION

1.1 PROJECT CONTEXT

Mufindi Paper Mills Limited (MPM or the Proponent) and Horizon Africa (the Client) commissioned ERM Consulting Tanzania Limited (ERM) to undertake a Gap Analysis of the Environmental and Social Impact Assessment (ESIA) Report carried out in 2022 for the proposed Sugar Plantation and Production Plant located in Kasulu District, Kigoma Region Tanzania (the Project), and therefore update the ESIA Report to meet international requirements.

A Gap Analysis Report was therefore prepared by ERM in October 2023 which screened the 2022 ESIA against the International Finance Corporation's Performance Standards on Environmental and Social Sustainability, 2012 (IFC PSs) and identified Environment and Social (E&S) risks and impacts of varying materiality (high, medium, and low). This Document is therefore a Supplementary Lender Information Pack (SLIP), designed to address the material risks and impacts, such that the E&S information available as part of the financing package is acceptable to the international financial institutions approached by Horizon Africa.

1.2 CONTENT OF THE SLIP

The SLIP is divided into the following Chapters and Appendices outlined in Table 1.1 below and should therefore be read in conjunction with the 2022 ESIA report (PaulSam, 2022) and the ESIA Gap Analysis (ERM, 2023).

TABLE 1.1 STRUCTURE AND CONTENT OF THIS SLIP

Section	Contents
Chapter 1	<i>Introduction</i> Provides a brief description of the Project background and context and describes the purpose and the structure of this information pack.
Chapter 2	<i>Project Description</i> Provides general Project information and a detailed description of the proposed activities and associated project facilities and suppliers.
Chapter 3	<i>Policy, Legal and Institutional Framework</i> Presents the legal framework applicable to this agricultural projects and International Finance Institution context. It also includes a Permitting Matrix.
Chapter 4	<i>Stakeholder Engagement</i> Provides a summary of stakeholder engagement undertaken during the 2022 EISA and introduces the Kasulu Sugar Plantation Project Stakeholder Engagement Plan commitments
Chapter 5	<i>Baseline Environment</i> Describes the key components of the existing physical, biological, and socio-economic environment that could potentially be affected by the Project.
Chapter 6	<i>Impact Assessment and Proposed Mitigation Measures</i> Describes and assesses the potential impacts related to phase 1 activities and operations of the Kasulu Sugar Plantation Project on the affected physical, biological, and socio-economic environments.
Chapter 7	<i>Environmental and Social Management and Monitoring Plan (ESMMP)</i>

Section	Contents
	Presents the ESMMP prepared for the proposed Project, which sets out the implementation, management, and control of the mitigation measures, as well as the monitoring and reporting requirements.
Appendices	Appendix A: MPM Certificate of Occupancy Appendix B: MPM Water Use Permits Appendix C: MPM Certificate of Registration of Factory/Workplace Appendix D: Resettlement Documentation Appendix E: Stakeholder Engagement Plan Appendix F: Climate Change Risk Assessment Appendix G: Greenhouse Gas Assessment Appendix H: Site Photos Appendix I: Baseline Reports Appendix J: ERM Gap Analysis Report, 2023

1.3 PROJECT BACKGROUND

MPM intends to establish sugarcane plantations and a production plant in nine villages namely Kitanga, Kiyungwe, Heru Ushingo, Nyarugusu, Nyamidaho, Mvugwe, Kumkambati, Kuntundu and Kigadye. The villages are located in three wards, specifically Kitanga, Heru Ushingo and Nyamidaho in Kasulu District Council, Kigoma Region, Tanzania.

The aim of the Project is to produce sugar to meet the existing national sugar demand in Tanzania and export the excess to various countries. The Project will be developed on approximately (approx.) 37,662 hectares (ha) and will be accessed from either Kigoma town via the Kasulu-Makere road, from Tabora through Uvinza-Kasulu-Makere road or from Kahama through Kibondo-Kasulu-Makere- road. (see [Figure 1.1](#) below for the Project location).

The Project will be implemented in three phases over a period of seven years as follows:

- **Phase One:** preparation and development of sugarcane plantations, mobilization of material and equipment, clearing of access roads, water intake, construction of sugarcane nursery, workshop buildings, offices, and residential building. This will be implemented during the first three years.
- **Phase Two:** establishment of a sugar processing factory, will be implemented in a period of two years.
- **Phase Three:** expansion of the sugar processing factory, set-up, and operationalization of the ethanol plant as well as associated investments. This phase will be implemented over a period of two years.

It is however important to note that the ESIA Report and SLIP are for Phase One and Phase two of Project development and it is assumed that additional ESIA's will be undertaken for Phase Three by the Proponent, in line with both national legislation and international best practice (IBP).

FIGURE 1.1 SITE LOCATION



1.4 LAND OWNERSHIP

The MPM Project Site has been leased from the Government of Tanzania through the Tanzania Investment Centre (TIC). The lease agreement was issued on 20 October 2021 and will remain valid for 99 years. The lease agreements are attached in Appendix A (Certificate of Occupancy) of this SLIP. The lease was issued under the following special conditions:

- Maintain the land for only farming.
- Use Group 'R' use class (a) and (c) as Group 'R' use class (a) and (c)¹ as defined in the National Urban Planning (Use Groups and Use Classes) Regulations, 2018.
- Demarcate the boundaries of the land to the satisfaction of the Kasulu District Council and maintain the demarcation so that the boundaries are always easily identifiable.
- Preserve the environment, specifically protect the soil, preserve soil fertility, and prevent soil erosion on the land and use the land so as not to cause soil erosion within and outside the boundaries.
- Protect/maintain the beacons on the land throughout the term of the lease.

1.4.1 BACKGROUND TO THE PROJECT LAND OWNERSHIP

Stakeholders consulted during an ERM site visit in October 2023 highlighted that the current KSP area was initially under the ownership of the Mvugwe Village Council as per the Village Land Act of 1999, and later changed ownership to Kasulu District Council (KDC) for investments purposes under Tanzania Investment Council (TIC). Due to the prolonged wait of a prospecting investor to occupy the area and with no visible boundaries allocated, the surrounding communities encroached the area for agricultural activities.

Between 2021 and 2022 KDC identified a prospective investor and began the relocation of informal settlers in the TIC area prior to signing the lease agreements with MPM to develop the Project. Documentation indicates that a total of 472 households were resettled in the KSP area, and a total of 1,000 ha was allocated for compensation to affected households in line with national regulations. Individual affected households received three acres of land for farming as well as one plot (35 x 35 feet) for building a residential structure in Mkuyuni area. Copies of correspondence attached in Appendix D of this Report indicate that TIC requested MPM to pay for the sensitization undertaken by the local administration and village representatives, as well as for the relocation process in December 2021). However, this process was not documented and only a summary of the payments made has been provided.

Kasulu District Council with support from MPM later surveyed and registered all 472 households in Mkuyuni area and developed a land use plan for the area which was then registered as a village through the official registration process. Most households have already received necessary documentation although others are yet to receive due to delays associated with title deeds processing.

¹ Use Group 'R' defines use class (a) cultivation of crops, horticulture, viticulture, floriculture, plant stirpiculture including medicinal and cosmetic herbs; and use class (c) farm homesteads. carrying out of activities in use class (a) and (b) associated with residential accommodation; and use class (b) rearing of cattle, goats, sheep, piggeries, poultry, rabbits, dogs, horses, and animal stirpiculture.

More relocation of households was undertaken in early 2023 by KDC to informal settlers occupying Kitengera area, to discourage informal settlements that were emerging in the area. MPM reported that the resettlement was conducted by the relevant authorities of the Government. MPM as a lessee of the land indicated that they have no control over the compensation process by the Government of Tanzania. MPM reported that all the PAPs have been relocated in through the government led relocation process in compliance with the national legislations

2. PROJECT DESCRIPTION

This *Chapter* provides a general description of the Project and presents an overview of the key elements and activities involved in the construction and operation phases, as well as resource requirements and Project schedule.

2.1 INTRODUCTION

The proposed Project activities will be implemented in three phases as indicated below:

- Phase One (2022-2024): will constitute investments in land development, irrigation facilities and related infrastructure and development of land in cultivatable area into sugarcane farming. Sugarcane farming is expected to employ the sub-surface drip irrigation technology to effectively irrigate the land after development. This would be followed by planting improved varieties of sugarcane into a commercial crop. After year 3, further investments in irrigation and infrastructure would continue, in line with the progress of sugar factory installations. During the October 2023 site visit undertaken by ERM, it was confirmed that Phase One activities commenced.
- Phase Two (2024-2026): construction of sugar factory with an installed capacity of 9,000 tonnes of cane crushed per day (TCD), with an expandable capacity to 15,000 TCD to coincide with the cane development and availability. The Sugar Factory is expected to be commissioned and operational from Year 4. The development of the factory will also result in co-generation of power, by using bagasse (generated out of sugarcane crushing operation) as fuel in the boiler. The power generated, after internal consumption at the sugar factory, would have excess power that can be exported to the state grid on a commercial basis.
- Phase Three (2026 onwards): Further cane development and ramping up of sugar factory production volumes and capacity utilisation.

2.2 EXISTING PROJECT CONDITIONS

The Proponent intends to develop the 37,662 ha of land progressively in line with the Project phases. The Project is currently in Phase One of the development on plot no. 215 (See *Figure 2.1*), and the Proponent has already begun site clearance, deployment of required tools and machinery for the land clearance work, recruitment of construction crew, development of temporary worker camps, construction of access roads for Nursery A, and deployment of construction materials to the Project site. The Nursery Area of 100 ha has already been developed and Nursery B is in the process of implementation. MPM has engaged the following contractors: Netafim Supplier of Irrigation Equipment, and Materials and Technology and Fair Construction Limited for internal road construction. These contractors will be responsible for Phase One activities with supervision from the Project Proponent's management.

[illegible]

Figure 2.2 – Figure 2.12 present the maps and layout designs for the Project.

FIGURE 2.2 PROJECT MASTER PLAN

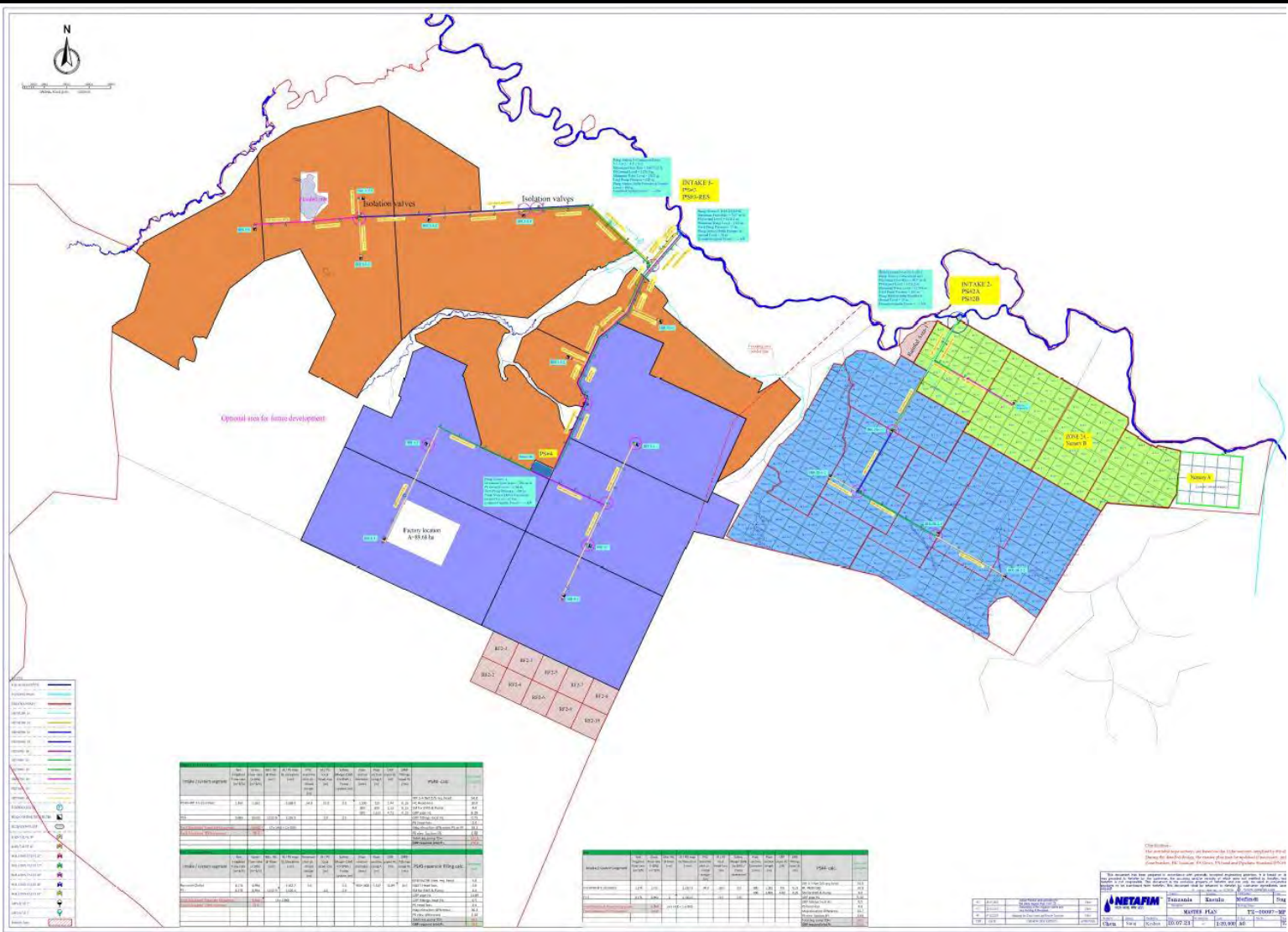


FIGURE 2.3 LAYOUT SHOWING LOCATION OF CANE NURSERY, OFFICE AND WORKSHOP PREMISES

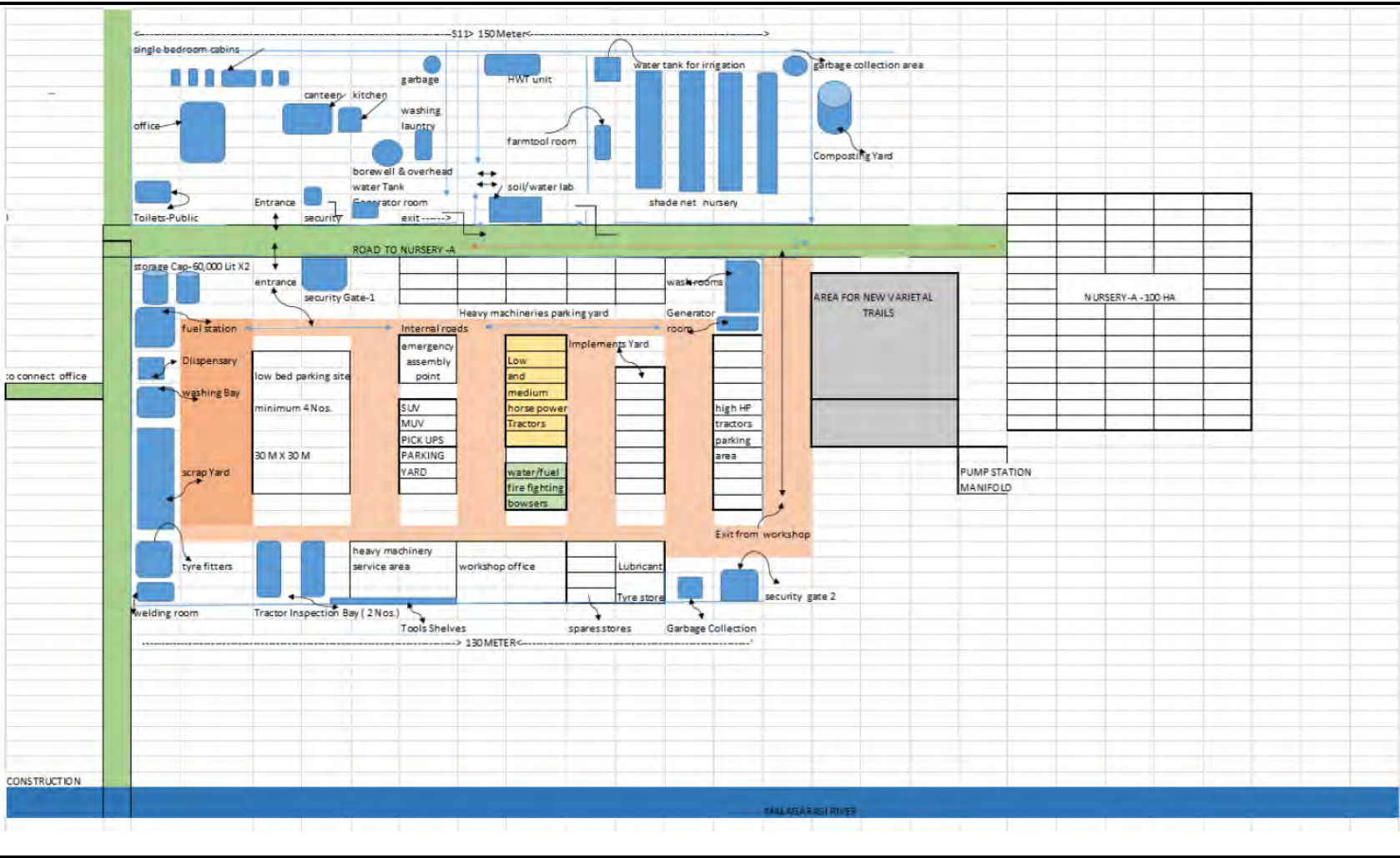


FIGURE 2.4 NURSERY A IRRIGATION DESIGN

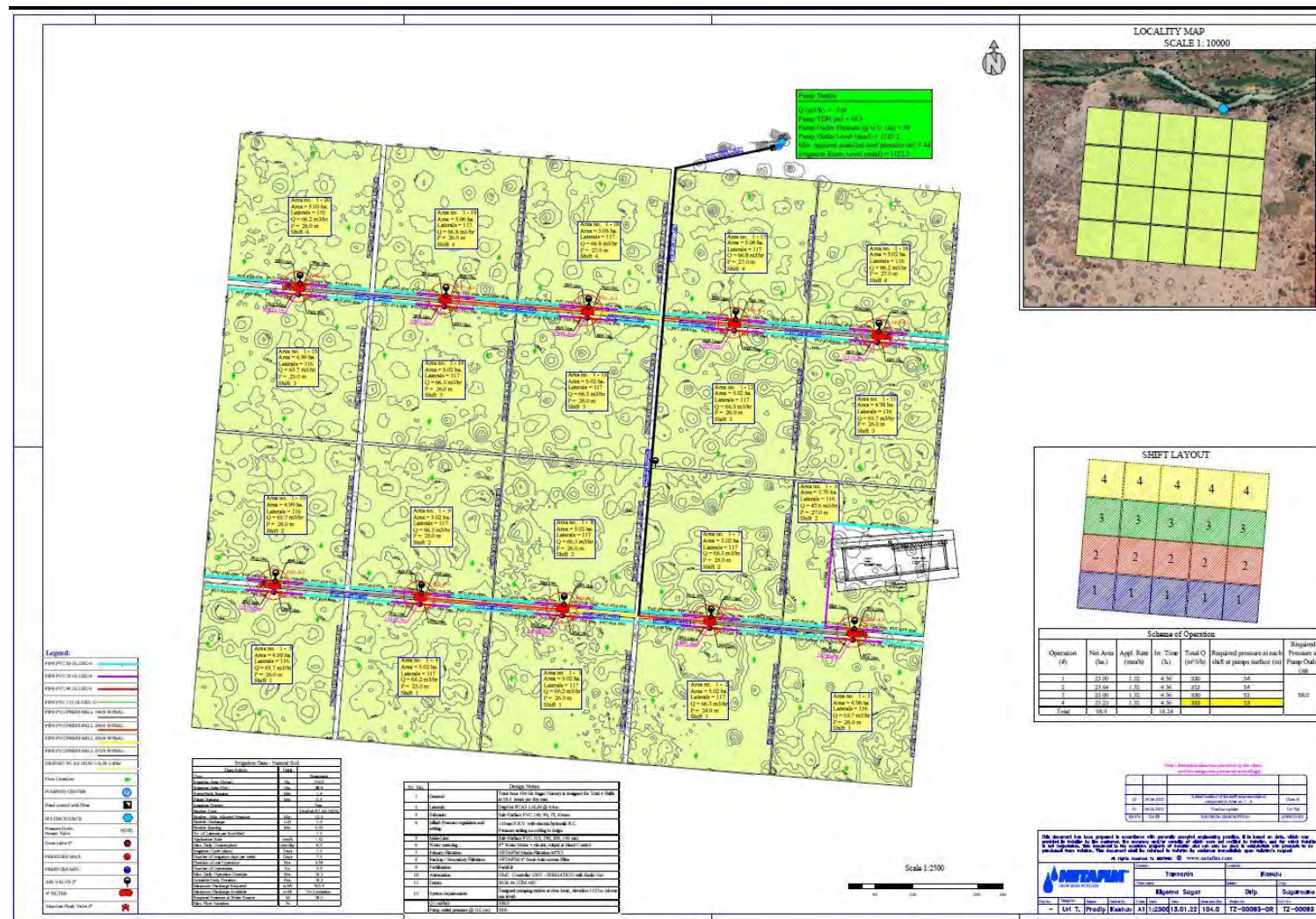
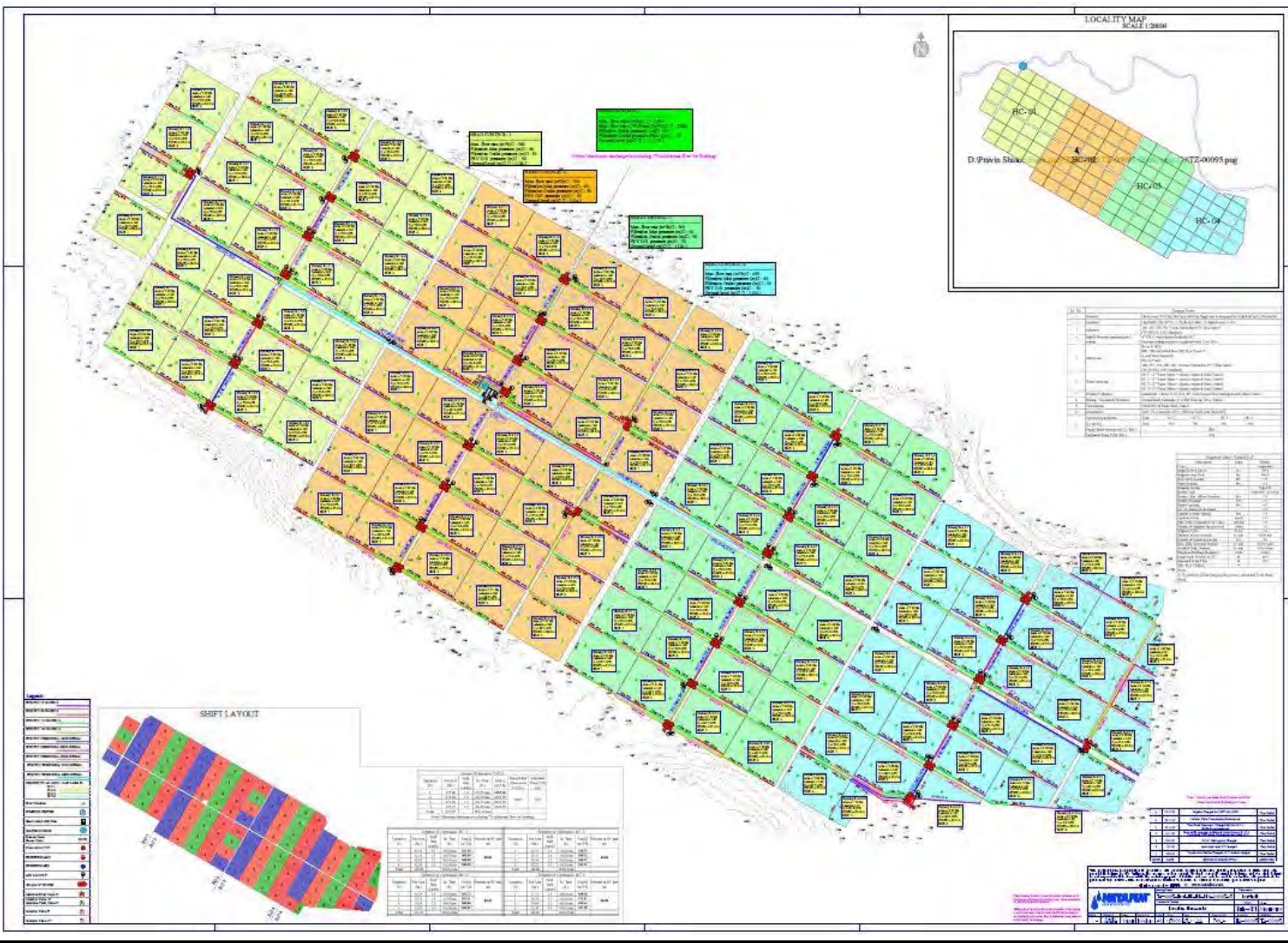


FIGURE 2.5 NURSERY B IRRIGATION DESIGN



LAYOUT NURSERY-B(700HA)

TYPICAL ROAD JUNCTION
Scale: 1:25

LEGEND

- 600MM SINGLE PIPE CULVERT
- 600MM DOUBLE PIPE CULVERTS
- 600MM TRIPLE PIPE CULVERTS
- 600MM FOUR PIPE CULVERTS
- 18** CULVERT NUMBERING
- ROADS
- DRAINAGE (E TO N) 4M WIDTH
- DRAINAGE (A-B-C-D TO E) 4M WIDTH
- DRAINAGE (D1,D2,D3 TO R604) 4M WIDTH
- DRAINAGE (A-Q1 TO Q2) 4M WIDTH
- EXTERNAL DRAINAGE (φ TO Q4) (4M AND 6M WIDTH)
- FRAINAGE (R TO NI)-4M WIDTH
- EXISTING DRAINAGE CANAL
- EMBANKMENT OFF SET 15M FROM PERMETER ROAD

NOTES

1. Nursery B- divided into 2 parts, by referring B2 Haulage Road
2. Nursery B- Haulage Road B2 north side farm
Nursery B- Haulage Road B2 South side farm
3. From Haulage Road B2 North side farm- Rain water drained through field canals, collected into collection canal which is along the north perimeter Road
4. From Haulage Road B2 South side farm- Rain water drained through field canals, collected through collection canals which is along with haulage road B2 south side

NOTES

6. Except the collection Canals D1 & D2, all are field Canals
7. Field Canals are along the primary Roads, along the Secondary Road
8. NPFC-D1 = North Perimeter Road-D1
SPFC-D1 = South Perimeter Road-D1

FIGURE 2.7 INTAKE 2 DEVELOPMENT PLAN

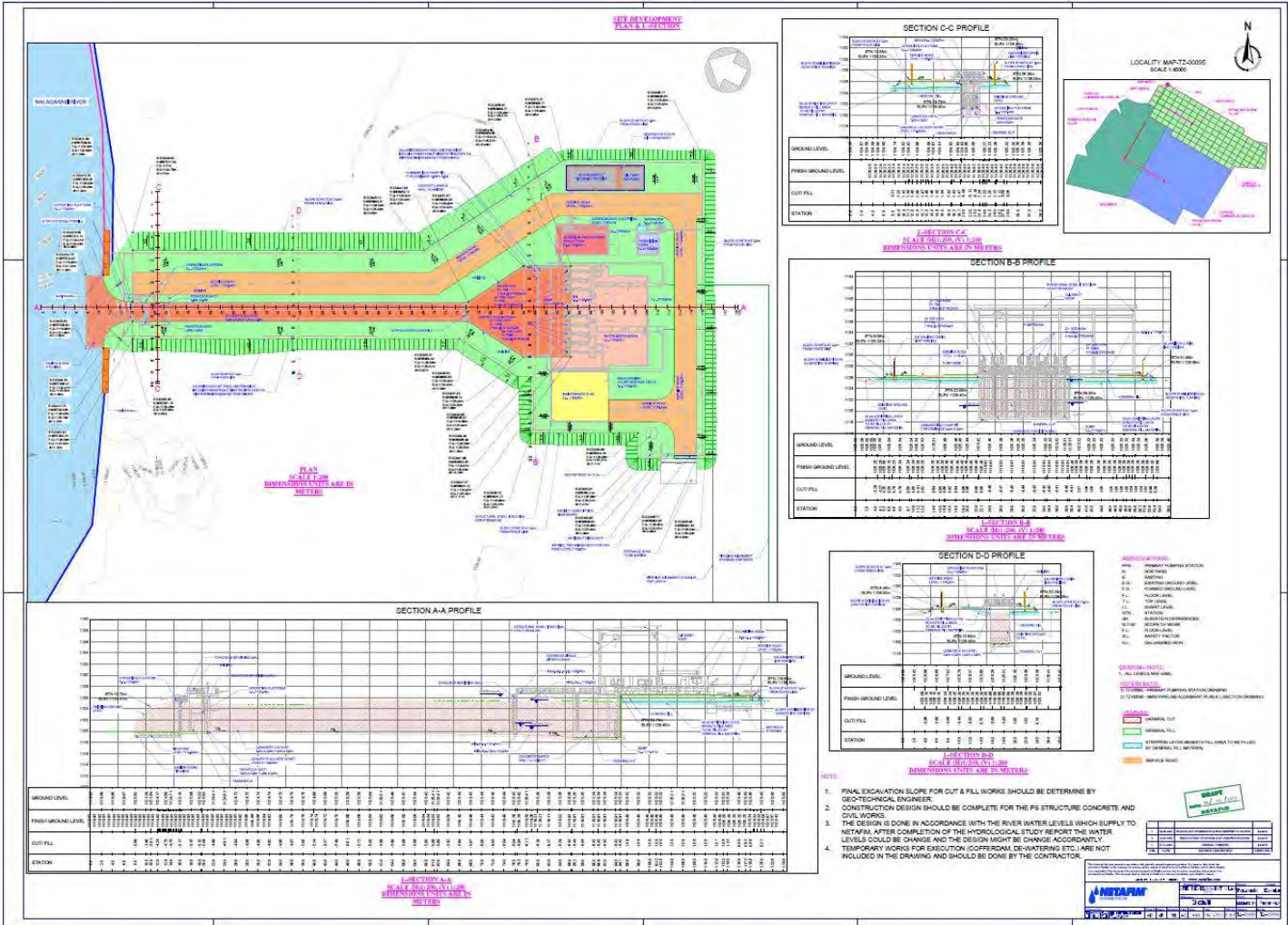


FIGURE 2.8 INTAKE 2 SITE DEVELOPMENT PLAN

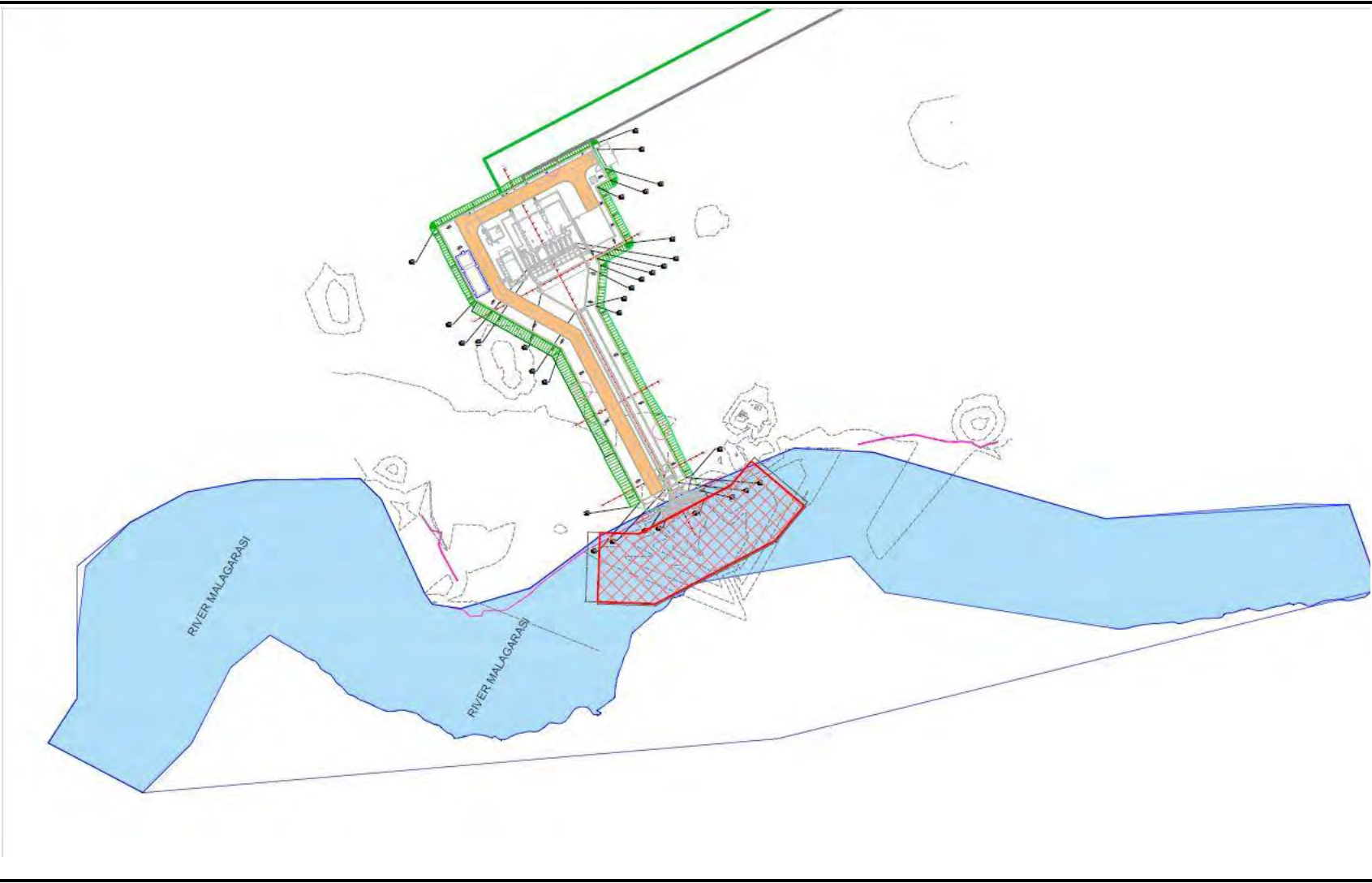
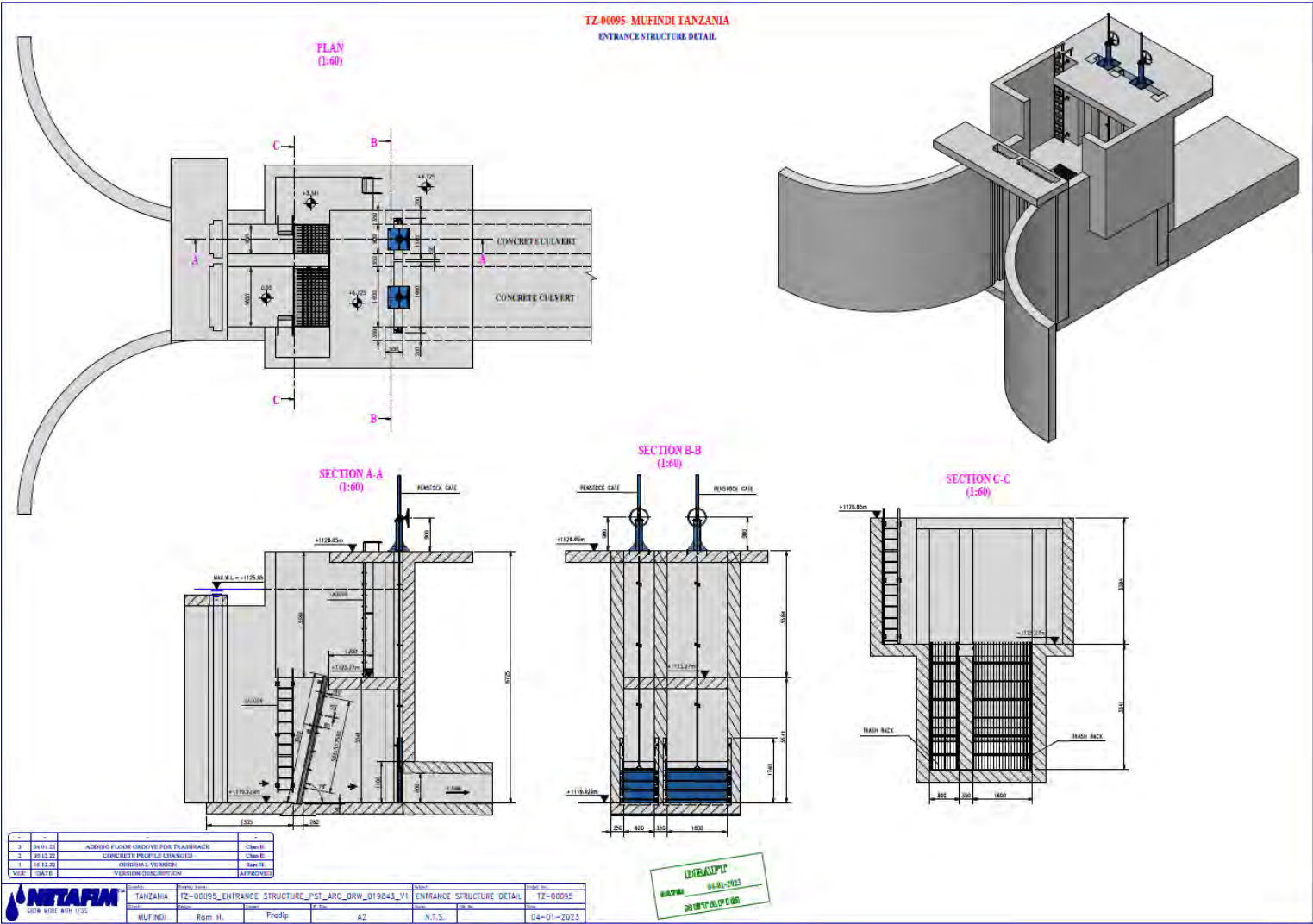


FIGURE 2.9 INTAKE 2 ENTRANCE STRUCTURE PENSTALK STRUCTURE



IMPORTANT NOTE:

- 1) ALL CONCRETE AND STEEL ELEMENTS WHICH PRESENT IN THIS LAYOUT NEED TO BE CALCULATED AND DESIGN BY CERTIFIED CONSTRUCTION ENGINEER. THE FINAL DRAWING SHOULD BE SENT TO NETAFIM FOR REVIEW.
- 2) THE PUMP STATION WAS DESIGNED ACCORDING TO THE WATER LEVELS WHICH PRESENTED IN THE HYDROLOGICAL SURVEY FROM DATE : 15.07.2012.
- 3) STRUCTURE FOUNDATION DESIGN AND LAND DEVELOPMENTS WORKS SHOULD BE DEFINE BY CERTIFIED GEOMECHANICAL ENGINEER BASED ON SOIL TEST REPORTS.
- 4) ALL TEMPORARY WORKS WHICH ARE REQUIRED FOR THE PURPOSE OF EXECUTION (DEWATERING, COFFERDAMS, EXCAVATIONS ETC) SHOULD BE UNDER THE CONTRACTOR SCOPE OF WORK. THE CONTRACTOR SHOULD PREPARE WORK PLAN AND DRAWINGS FOR THE EXECUTION STAGES.

The drawing includes several key components:

- Plan View:** Shows the overall footprint of the pump station, including a large rectangular building with internal room divisions, a long narrow structure, and various smaller structures like storage tanks labeled "AIR STORAGE". A yellow box with the text "will be updated later" points to a specific area.
- Section A-A (1:100):** A vertical cross-section showing the internal structure and foundation details of one of the buildings.
- Elevation View:** A side view of the pump station complex, showing the relationship between the main building, the long structure, and the external infrastructure like cranes and access roads.
- Annotations:** Various dimensions, labels, and notes are scattered throughout the drawing to specify construction requirements.
- Legend:** Located at the bottom left, it defines symbols used in the drawing, such as "GRAVEL", "CONCRETE", and "STEEL".

FIGURE 2.11 PRIMARY PUMPING STATION - CONCRETE

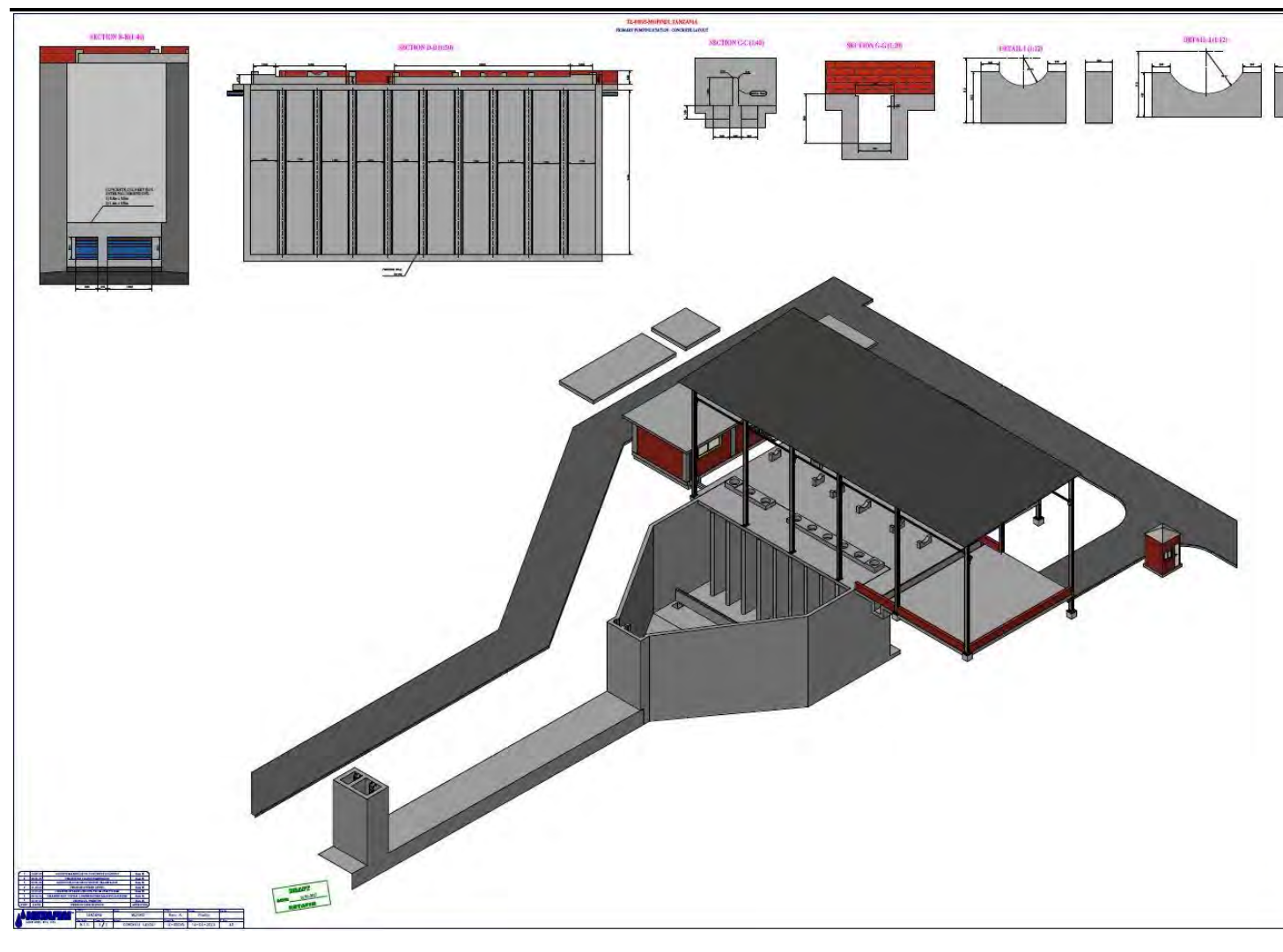


FIGURE 2.12 FACTORY DESIGN AND LAYOUT

