

Appendix 03 Outline Earthmoving Plan



CONSTRUCTION AND ENVIRONMENTAL MANAGEMENT PLAN - OUTLINE EARTHMOVING PLAN

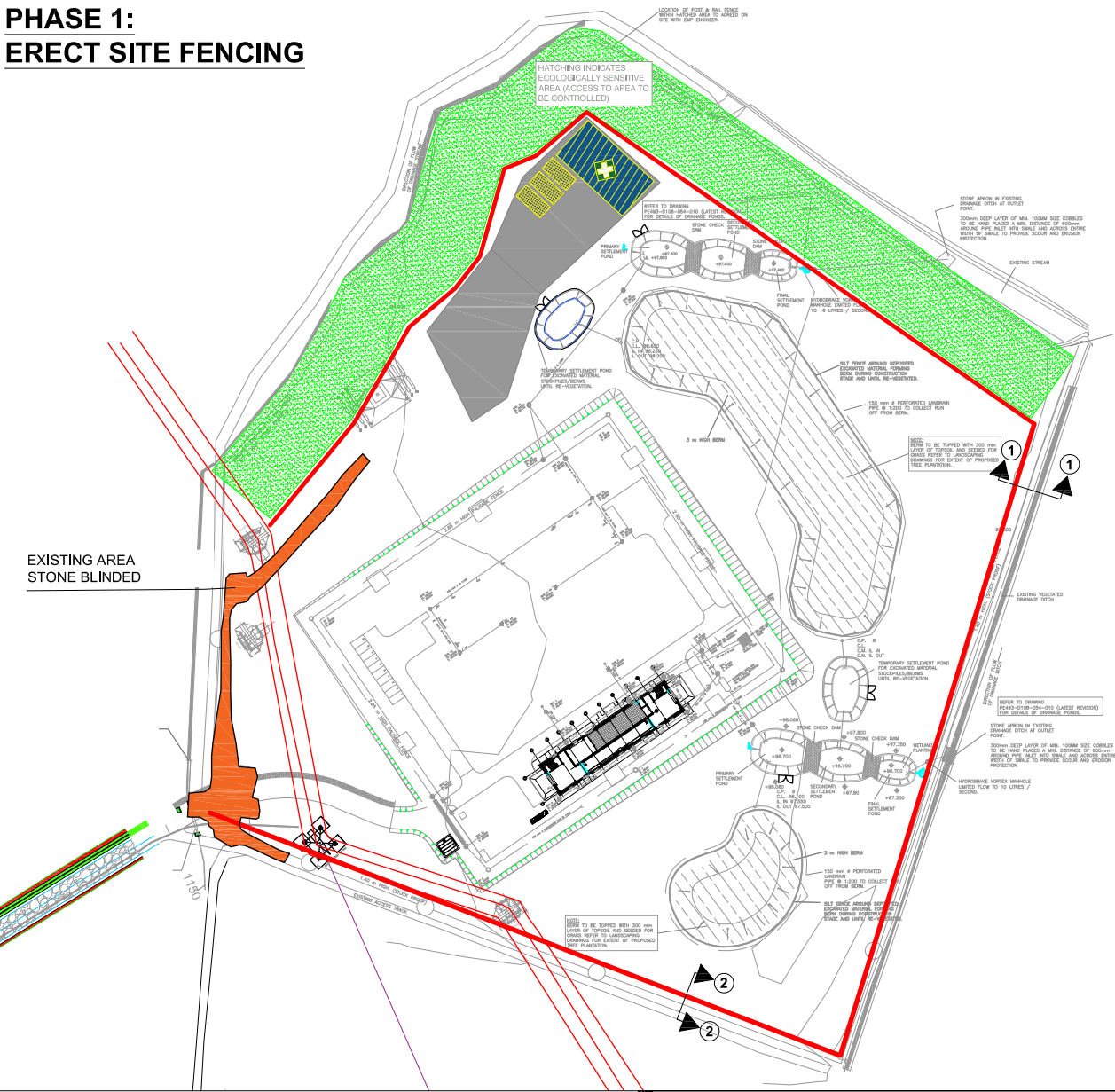
Project: Laois Kilkenny Electricity Reinforcement Project – Unit 1: A new 400kV/110kV Substation at Coolnabacky townland, Co. Laois.

Client: ESB Engineering and Major Projects

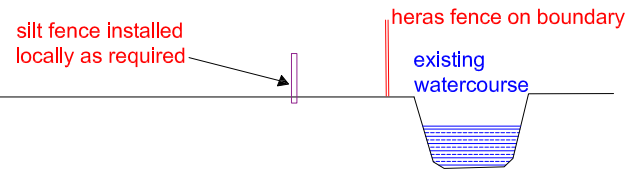
PHASE 1: ERECT SITE FENCING

SEQUENCE OF WORKS

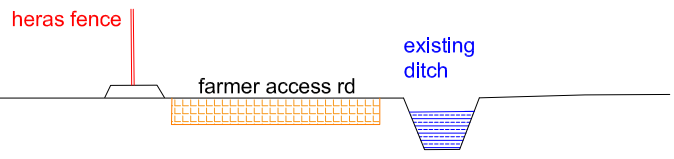
- Install heras fence along ecologically sensitive area and perimeter of site.
- Erect silt fencing locally as required.



SECTION 1 ALONG WATER COURSE



SECTION 2 ALONG FARMER ACCESS RD



KEY PLAN

OGL SURVEY

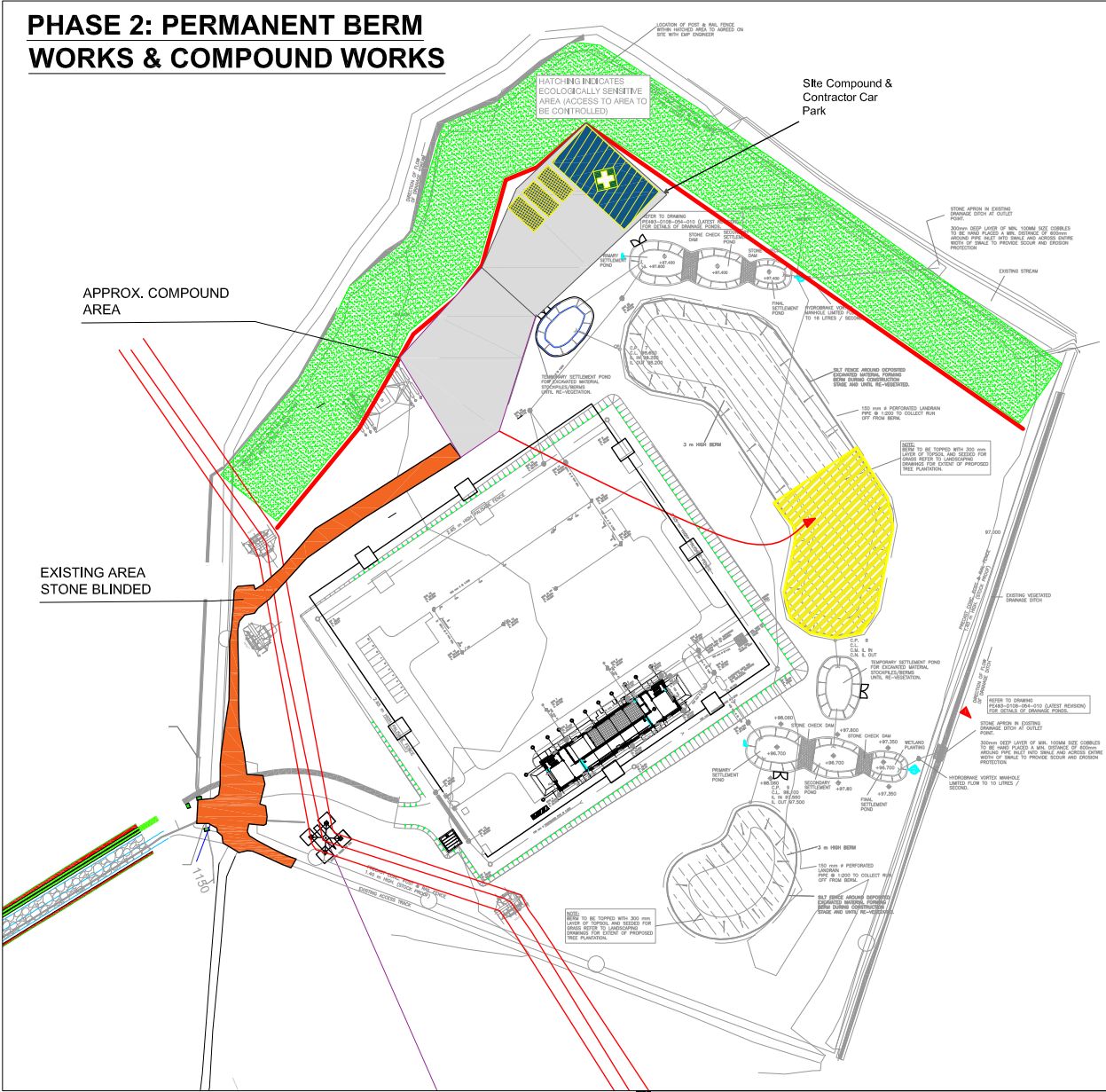
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| Email: tomasz.urbanski@kilwex.ie | Date : | Page 73 of 371 | |
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PHASE 2: PERMANENT BERM WORKS & COMPOUND WORKS



SEQUENCE OF WORKS

- Increase / enhance existing access route and hard standing for new access route & compound
- Install silt fencing to perimeter of proposed permanent berm
- Excavate and install land drain and catchpits to perimeter of proposed permanent berm. Excavated spoil to be stored with footprint of permanent berm.
- Strip topsoil in compound area as required and and move excavated spoil to berm. Stone up compound area as required.

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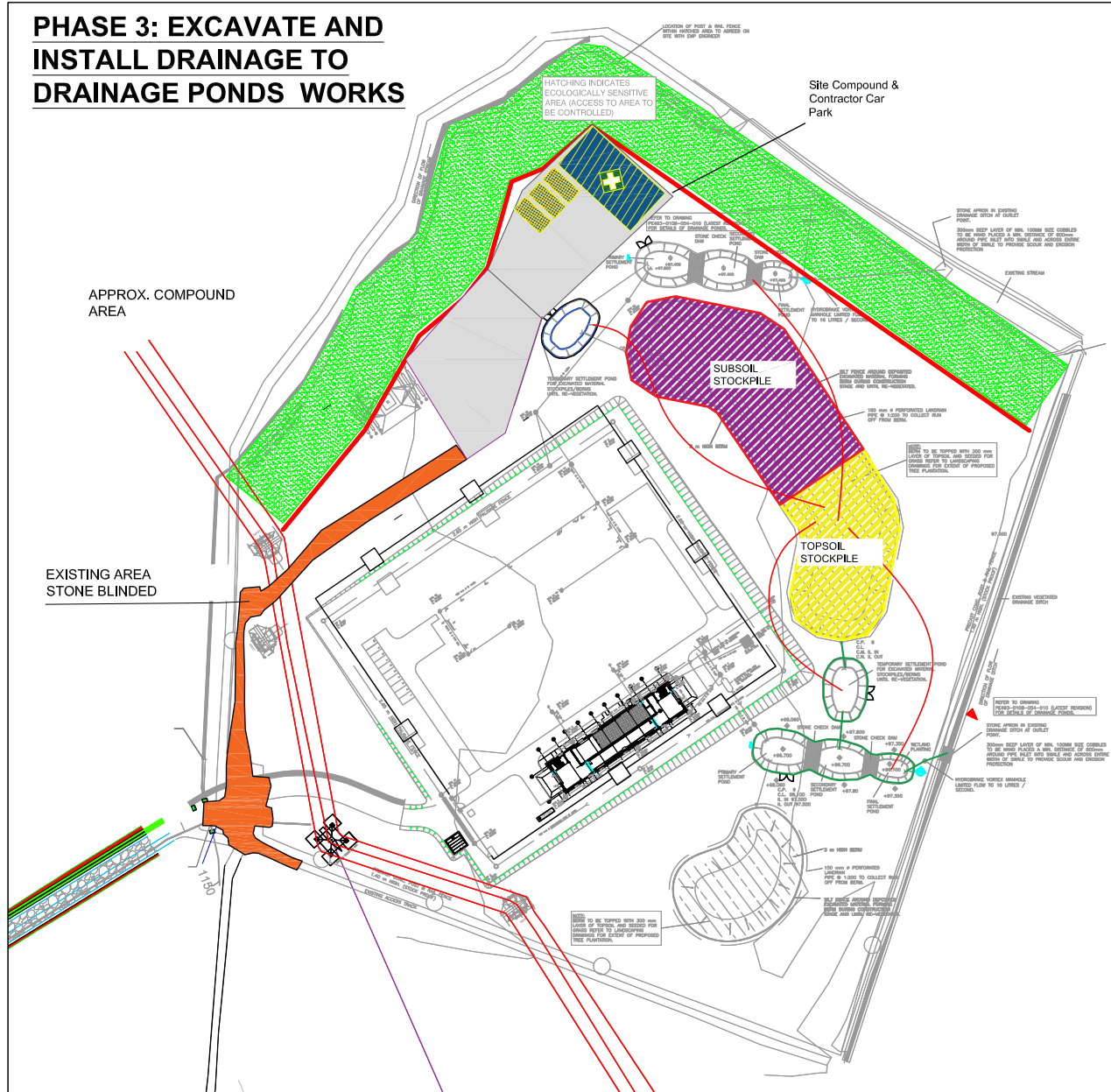
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PHASE 3: EXCAVATE AND INSTALL DRAINAGE TO DRAINAGE PONDS WORKS



SEQUENCE OF WORKS

- Excavate and install drainage runs between berm, ponds and outfalls (i.e. works to North & South settlement ponds). Remove all unused spoil to berm area (as indicated) - refer to Phase 4 drawing for step by step.
- Excavate ponds to formation level and remove spoil to berm area (as indicated)

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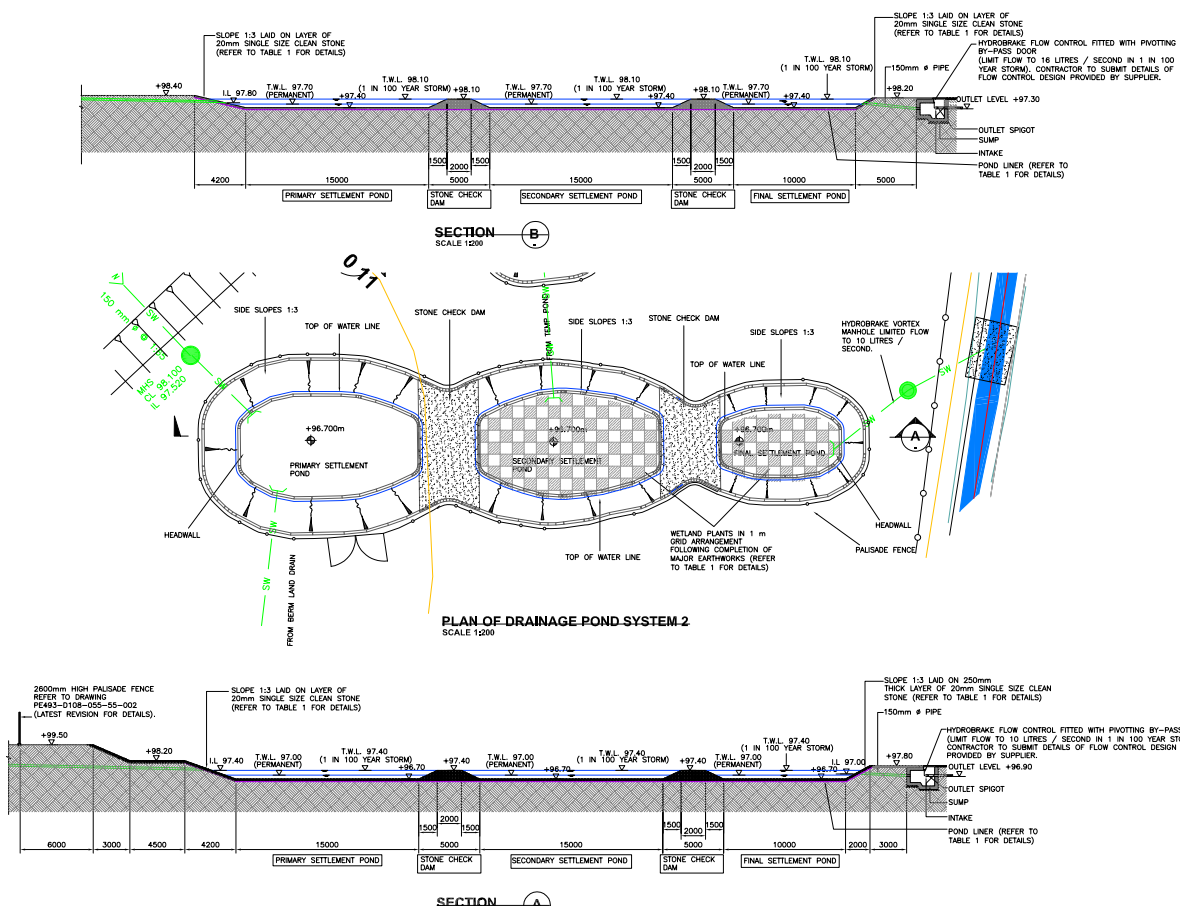
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PHASE 4: DRAINAGE POND SYSTEM BECOMES OPERATIONAL



SEQUENCE OF WORKS

- Excavate & install pipe work from watercourse to hydro brake MH
- Construct precast MH with hydro brake
- Excavate and install drainage run from hydro brake MH to final settlement pond
- Excavate to formation levels of drainage ponds and dispose of excavated material in berm area.
- Install geotextile & stone in accordance with drawing number PE493-D108-054-010-005
- Excavate and install pipe work to temporary pond
- Excavate to formation levels of temporary drainage pond and dispose of excavated material in berm area.
- Connect pond system to stone apron area in watercourse outlet PtSW03 as per drawing no. PE493-D108-054-010-005
- NOTE: It is not expected that groundwater (water table) will be encountered during this sequence of works. However, if groundwater is encountered it shall be mechanically pumped to a temporary settlement tank (Silbuster or similar). Water will be discharged from the settlement tank to a suitable location on site (away from any watercourse) to free drain onto the ground.

KEY PLAN

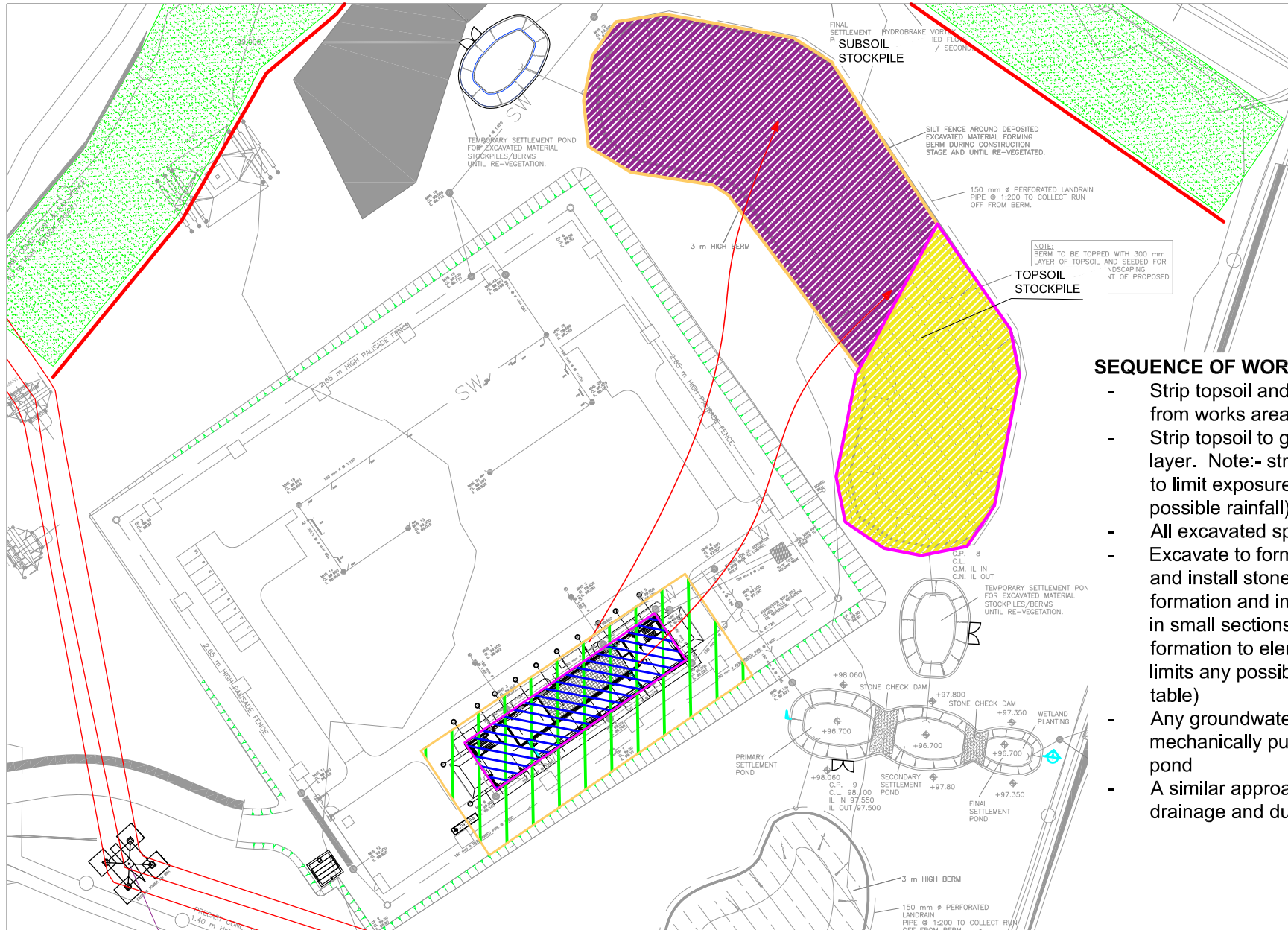
1. All levels are in meters related to Ordnance datum Malin Head OSGM15
2. All co-ordinates are related to Irish Transverse Mercator Grid (ITM) and are in meters
3. Drawings are not to be scaled

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PHASE 5: 110kV BUILDING FOOTPRINT EXCAVATION WORKS



SEQUENCE OF WORKS

- Strip topsoil and stone up proposed haul routes from works area (green hatch) to berm area.
- Strip topsoil to green hatched area and install stone layer. Note:- strip and stone areas in small sections to limit exposure of formation to elements (i.e. possible rainfall)
- All excavated spoil to be removed to berm area
- Excavate to formation of 110kV building footprint and install stone buildup. Note: Excavate to formation and importing of stone will be carried out in small sections. This will limit exposure of formation to elements (i.e. possible rainfall) and limits any possible exposure to groundwater (water table)
- Any groundwater encountered shall be mechanically pumped to the temporary settlement pond
- A similar approach will be taken when carrying out drainage and ducting works

| KEY PLAN |
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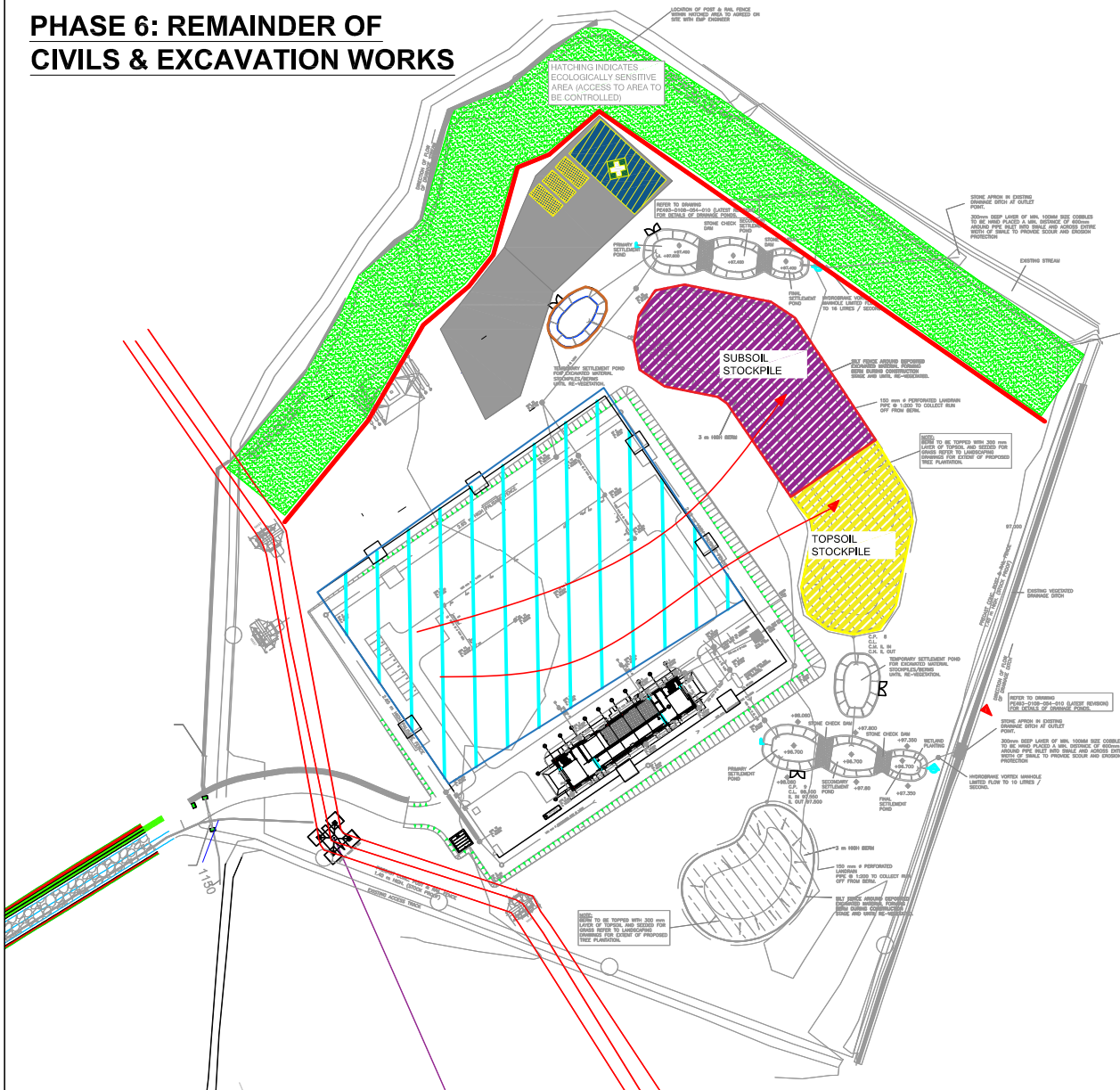
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PHASE 6: REMAINDER OF CIVILS & EXCAVATION WORKS



SEQUENCE OF WORKS

- Excavate and install all drainage and ducting works.
- Excavate for and construct foundations to 400kV building and transformer bases.
- Similar to previous stages, all works will be planned such that exposed sections of excavations are reduced/controlled to limit risk of exposure to elements and possible groundwater (water table)

| KEY PLAN |
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| OGL SURVEY |
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