TOBIN

Newtownmoyaghy Road Improvement Scheme, Co. Meath

Surface Water Management RFI Response

BUILT ON KNOWLEDGE

Document Control Sheet	
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Client:	Meath County Council
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Rev	Description	Author	Date	Reviewer	Date	Approval	Date
A	Planning Issue	DMcH	12/05/2026	PC	13/05/2026	PC	13/05/2026

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1. INTRODUCTION

This Surface Water Management RFI response details control measures for avoiding, preventing or reducing impacts on the surface water environment during proposed construction, as identified in Natura Impact Statement (NIS) Chapter 8 (Mitigation measures) and associated technical appendices.

The objective of this document is to provide further information on strategies to manage rainwater runoff and prevent water pollution during the construction, operation of the proposed Newtownmoyaghy Road Improvement Scheme (proposed project).

The measures in the SWMP are consistent with those detailed within the Chapter 8 (Mitigation measures) of the NIS. This is a working document and will be finalised by the appointed Contractor following appointment and prior to commencing works on the proposed project to include any additional conditions stipulated by An Coimisiún Pleanála.

All of the content provided in this SWMP will be delivered by the appointed Contractor and its finalisation by the appointed Contractor will not affect the robustness and adequacy of the information presented here and relied upon in the Natura Impact Statement (NIS). Relevant guidelines were considered in the development of this surface water management plan.

1.1 OVERVIEW OF THE PROPOSED PROJECT

Meath County Council are proposing an upgrade of the existing Newtownmoyaghy Road, and a stream diversion, at Newtownmoyaghy in Co. Meath (the proposed development). The Newtownmoyaghy Road, is a local secondary road situated northeast of Kilcock, within the Meath County Council Local Authority Area. This road has become a bypass for vehicles to avoid traffic congestion in Kilcock and Maynooth, with an Annual Average Daily Traffic (AADT) figure of ca. 2,500. Refer to Site location Map included in Appendix A

Compaction from traffic and erosion from stream flood events has caused the existing road edge and verge to collapse in discreet sections into the Newtownmoyaghy Stream (EPA Code: 09N02; (also known as the Jenkinstown Stream), which is a tributary of the WFD waterbody Rye_Water_020 [WFD code: IE_EA_09R010300]), which runs adjacent to the road. This has become both a health and safety risk for road users and an environmental risk due to the release of hydrocarbons and other vehicle pollutants entering the adjacent stream via run-off. To resolve the issue, Meath County Council propose to carry out an open channel diversion, in order to facilitate the infilling of the existing stream and widening of the road and road verge. The road will then hold the potential to be developed into a shared cycle and pedestrian path in the future. Refer to Scheme Plan included Appendix A

2. OVERVIEW OF POTENTIAL IMPACTS

2.1 CONSTRUCTION PHASE

Site clearance, excavation activities and the stockpiling of material have the potential to result in sediment laden runoff, (from Surface Water) if not appropriately managed.

In addition, the proposed instream works within the Newtownmoyaghy Stream for the channel diversion if not managed (Section **Error! Reference source not found.**) could result in sediment and/or construction pollution discharging downstream, which could pose a significant risk to water quality both in the Newtownmoyaghy Stream and the Rye Water Valley/Carton SAC, which, as previously mentioned, is located at a hydrological distance of ca. 6km downstream from the proposed development site, as well as further downstream to the South Dublin Bay SAC, South Dublin Bay and River Tolka Estuary SPA, North Dublin Bay SAC and North Bull Island SPA, which are located in Dublin Bay, ca. 37km downstream.

Increased silt loading in watercourses can stunt aquatic plant growth, limit dissolved oxygen capacity and overall reduce the ecological quality of watercourses, with the most critical period associated with low flow conditions. Surface water runoff can also be contaminated by leaks and spills of fuel, oil or other construction material from construction vehicles/machinery if not appropriately managed. This could result in the degradation of water quality and impacts to aquatic fauna and flora.

2.2 OPERATIONAL PHASE

As outlined in Chapter 7 of the NIS, during operational phase there is a potential risk of degradation of water quality due to the potential release of hydrocarbons or sediment into the Newtownmoyaghy Stream could impact special conservation interests and/or their prey in the downstream intertidal and subtidal habitats in which these species forage. A decrease of prey could result in a decrease of the carrying capacity of the foraging habitats for the designated special conservation interest species. This could potentially affect the long-term population trend for these special conservation interest species and change their distribution range. A change in population trend and distribution could constitute a significant adverse effect.

3. SEDIMENT CONTROL MEASURES

Due to the proposed plan for instream works in the Newtownmoyaghy Stream and hydrological connectivity to three SACs and two SPAs, the implementation of mitigation measures for sediment and pollution control is necessary.

A precautionary approach has been taken with regards potential impacts on aquatic habitats and species, and mitigation measures have been proposed to avoid or reduce any potential for significant effects.

3.1 CONSTRUCTION PHASE MITIGATION MEASURES

Mitigation measures which will be implemented during the Construction Phase are detailed hereunder.

3.1.1 Mitigation Measures for Water Quality Effects

Due to the proposed plan for instream works in the Newtownmoyaghy Stream and hydrological connectivity to three SACs and two SPAs, the implementation of mitigation measures for sediment and pollution control is necessary.

A precautionary approach has been taken with regards potential impacts on aquatic habitats and species, and mitigation measures have been proposed to avoid or reduce any potential for significant effects.

3.1.1.1 Management of Sediment

The following mitigation measures for the management of sediment during construction phase are detailed in the PECR. These measures will be implemented during construction of the stream channel, road and junction accommodation works. The following measures will be carried out by the appointed Contractor to minimise and avoid the effects of sedimentation during the proposed Construction Phase.

- All construction works will be confined to the proposed development site boundary. No works will be undertaken outside of this area.
- Works within and adjacent to watercourses will be suspended during periods of heavy rainfall (i.e. greater than 10mm/hour or greater than 25mm in a 24-hour period);
- Prior to any excavation works commencing, silt fences will be erected by hand along the banks of the stream i.e. at the point where the new channel will join back with the Newtownmoyaghy Stream, to ensure sediment is prevented from travelling outside of the planning application boundary. Silt fences will also be installed between the interface of stockpiled material and the newly excavated channel to prevent silt from travelling from the stockpile into the new channel as shown in **Dwg Ref: 11434-2009 Earthworks**. All stockpiled material will be battered back (Slope of 1:2 or less) to reduce the rainfall erosion potential. Silt fencing locations are presented in Error! Reference source not found. **Ref: 11434-2009 Earthworks**. A permeable fabric (Hy-Tex Terraston Premium silt fence, or similar) will be used instead of mesh. The silt fences will be positioned to allow an appropriate working area but will not occur within areas prone to flood. The silt fencing will be erected as per the manufacturer's guidelines, under the ECoW supervision and will be maintained until all ground disturbance has ceased and vegetation re-established. Once installed, the silt fence will be inspected daily during

construction and more frequently during heavy rainfall events. The ECoW will also supervise the removal of the silt fences following the completion of the works.

- As stated in the PECR, Topsoil from excavation of the new channel will be stockpiled on site for reuse. The remaining excavated material deemed not suitable for reuse, will be removed off-site and disposed of at an appropriate permitted or licensed facility based on Waste Management Acts 1996 as amended.
- No direct discharge to the stream will be permitted at any time during the works. Any sediment collected by settlement tanks/silt fencing will be transported off site by a licensed waste operator for appropriate disposal.
- Once the silt fences are installed sandbags, wrapped in heavy gauge polythene will be positioned along both ends of the stream connection point, creating a barrier around the construction works. The sandbags will be lifted into place using a mechanical excavator.
- Instream works (on the new channel section) while not live and disconnected from the current channel) will be carried out during low flow, outside of the 1 in 10 -year flood event extents.
- Sedi-mats will be placed within the newly excavated channel, prior to the diversion of the stream. Sedi-mats will also be placed immediately downstream of the proposed development, to further prevent any sediment from travelling to any hydrologically connected designated sites, via the Newtownmoyaghy Stream. Sedi-mats will be removed after construction works have been completed.
- Excavations less than 10m from a watercourse should be covered with tarp or similar during high rainfall to avoid the creation of surface water with high concentrations of suspended solids that would require dewatering.
- Excavated materials temporarily stockpiled will be stored at least 10m away from watercourses and drainage paths during the divergence works to minimise generating sediment laden runoff during the works.
- Prior to the diversion, the newly excavated channel will act as a temporary silt pond. Once the silt has been cleared from the channel and new gravel has been installed, this will also reduce the likelihood of suspended solids being released in the new channel, once the diversion is complete.

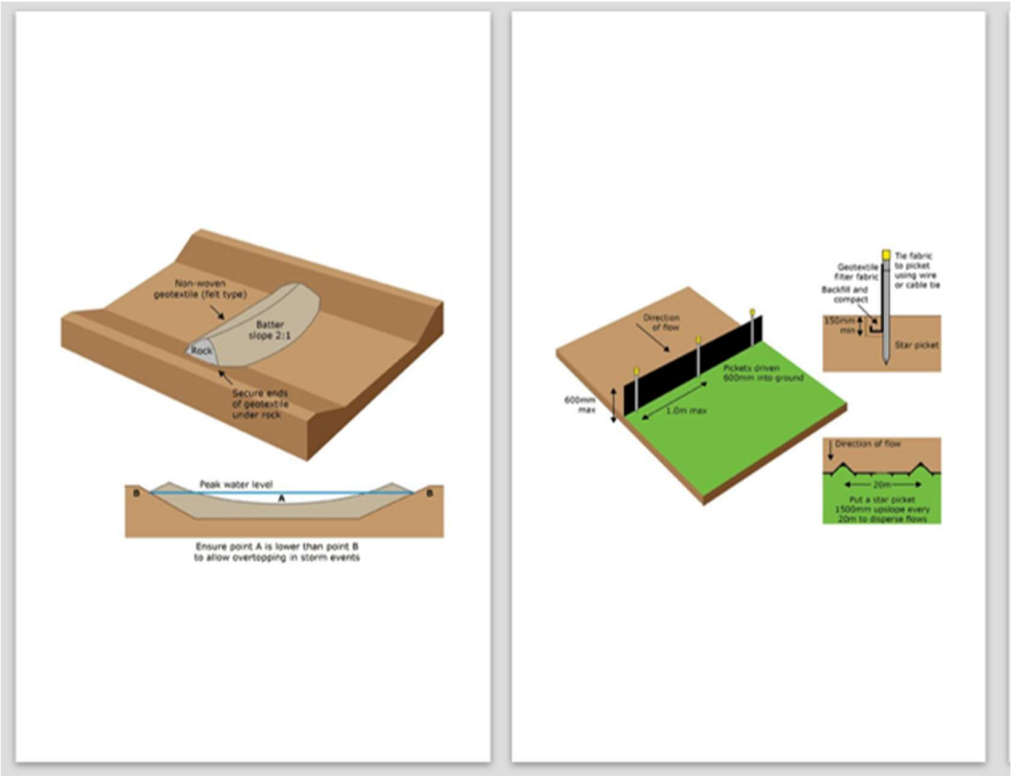


Figure 1 silt fence examples (Source: Guidelines for Environmental Management, EPA Australia, 2004)

3.1.1.2 Management of Construction Pollution

The following mitigation measures for the management of construction pollution are detailed in the PECR. These measures will be implemented during construction of the stream channel, road and junction accommodation works.

The following measures will be carried out by the appointed Contractor to minimise and avoid the effects of water pollution during the Construction Phase.

- An emergency plan to deal with accidental spillages will be drawn up, which all site personnel must adhere to and receive training in.
- Spill-kits and hydrocarbon absorbent packs will be stored in the cabin of all construction vehicles. All machine operators and site staff will be fully trained in the use of this equipment.
- All machinery will be regularly maintained and checked for leaks. Services will not be undertaken within 50m of a surface water conduit. Servicing must be undertaken on level, hard surfaced designated areas.
- Re-fuelling of construction equipment and the addition of hydraulic oil or lubricants to vehicles / equipment will take place in a designated hard surface, bunded area, on-site, more than 50m away from the Newtownmoyaghy Stream. If it is not possible to bring machinery to the refuelling point, fuel will be delivered in a double-skinned mobile fuel bowser. A drip tray will be used beneath the fill point during refuelling operations in order to contain any spillages that may occur.
- All waste will be removed from the site and disposed of by an approved waste contractor in accordance with prevailing waste management regulations.

- On completion of the works, all apparatus, plant, tools, offices, sheds, surplus materials, rubbish and temporary erections or works of any kind will be removed from the site.
- Water runoff from constructed roads and hardstanding areas will be intercepted by the silt curtains, to prevent increased sediment loading to the channel.
- All works will comply with the guidance set out in the guidance document entitled: '*Control of Water Pollution from Construction Sites. Guidance for Consultants and Contractors (C532)*' (CIRIA, 2001).

3.1.1.3 Protection of Aquatic Life

The following mitigation measures for the protection of aquatic life are detailed in the PECR. These measures will be implemented during construction of the stream channel, road and junction accommodation works.

- All works will adhere to IFI 'Guidelines on Protection of Fisheries during Construction Works in and Adjacent to Waters' (IFI, 2016).
- Instream works will only occur outside of the Annual Close Season during the permitted summer period of July-September inclusive, outside the 1 in 10-year flood event extents.
- The addition of the imported certified clean gravel to the new channel will not only stabilize the stream bed and reduce levels of suspended solids during the stream diversion, but it will also add habitat value for aquatic life within the new stream. The addition of pools and boulders to the new stream design will also enhance the stream for aquatic life by creating a richer diversity of resting places.
- During the bunding of the existing Newtownmoyaghy Stream via sandbagging, fish salvage will be undertaken along the old channel (under licence using electrofishing techniques by certified personnel) and translocation of any fish present will take place to the watercourse directly downstream of the proposed development. The licence is issued under Section 14 of the Fisheries (Consolidation) Act, 1959 as substituted by Section 4 of the Fisheries (Amendment) Act, 1962. Records of all translocated fish must be obtained.
- The diversion of the flow from the old channel to the new channel will be managed in a gradual fashion, over the course of two days. This will ensure the continued flow of the stream.
- Any silt contaminated water from the works area must be treated prior to discharge.
- The channel will be graded, and topsoil placed and reseeded in early June and stabilized as necessary with a geocore/geojut material. This will prevent erosion of the banks and siltation of the watercourse.
- Direct access to the Newtownmoyaghy Stream by Construction Phase vehicles should not occur, and any crossing of the stream should be done so via the installation of a temporary clear span structure.

The abovementioned mitigation measures for water quality effects will ensure protection of aquatic life.

3.2 Operational Phase Water Pollution Control

Surface water runoff from the Newtownmoyaghy Road will be filtered through a standard filter drain, which consists of gravel filled trenches with a 400mm diameter slotted pipe at the base installed along the new roadside edge (Newtownmoyaghy Road). The water flowing to this drain (i.e. surface water runoff such as rainwater) will be directed through a petrol interceptor

before being discharged to the Newtownmoyaghy Stream from an outlet head wall. The standard filtered drain and petrol interceptor will prevent the risk of traces of hydrocarbons directly entering the watercourse, thus reducing downstream pollution. Roadside maintenance will be carried out by the County Council to ensure there is no blockage of the filter drains and that the drains are effectively functioning for their specified purpose.

4. WATER QUALITY MEASURES

Specific water quality measures in relation to sediment, concrete and fuel management are detailed below.

4.1 CONCRETE

During the construction phase, concrete will primarily be supplied as ready-mixed material from local batching plants, delivered in sealed concrete trucks. The use of ready-mixed deliveries significantly reduces environmental risks associated with large-scale on-site batching.

Upon delivery, only the truck chute will be rinsed on site using the minimum necessary volume of water. Full washout of trucks will occur at the batching plant, where appropriate facilities are already in place. Water from chute rinsing will be directed into a temporary lined, impermeable containment area. These areas will be excavated and lined with an impermeable membrane to prevent ground contamination. Residual solids and liquids will be collected and removed by a licensed waste contractor.

Although surplus concrete following a pour is unlikely, any excess will be returned and disposed of off-site at the concrete production facility. Localised mixing for minor works, such as blockwork, will be conducted only as required. Any small volumes of leftover concrete from these tasks will be disposed of in the designated on-site concrete washout area.

4.2 FUELS, OILS AND CHEMICALS – SPILL CONTROL

The following will be employed on the proposed site:

1. Fuels and chemicals will be stored within bunded areas as appropriate to guard against potential accidental spills or leakages. The bund area will have a volume of at least 110% of the volume of such materials stored.
2. Store all containers of oil and fuel in a secure, bunded area.
3. Regularly check tanks, containers and bunds for damage and leaks.
4. Supervise all fuel and oil deliveries.
5. Lock containers and tanks when not in use.
6. Seek advice from a line manager before disposing of waste fuel or oil, or contaminated spill granules or absorbent mats – all contaminated materials to be disposed of in the appropriate manner.
7. Liaise with a line manager to organise removal of contaminated water from bunds and trays by an appropriate contractor.
8. Do not store fuel and oil, or carry out refuelling, within 50 m of a watercourse.
9. All on-site refuelling will be carried out by a trained competent operative. Use a funnel when refuelling small plant. Use an automatic shut off or pistol grip delivery system when refuelling plant.
10. Clear up and report all spillages immediately.
11. Place a drip tray or absorbent mat under all static plant and mobile plant during fuelling.
12. Mobile measures such as drip trays and fuel absorbent mats kept with all plant and bowsers and will be used as required during all refuelling operations.
13. A spill kit will be stored with the bowser and the person operating the bowser will be trained in their use.

14. All equipment and machinery will have regular checking for leakages and quality of performance and will carry spill kits.
15. Any servicing of vehicles will be confined to designated and suitably protected areas such as construction compounds.
16. Additional drip trays and spill kits will be kept available on the proposed wind farm site, to ensure that any spills from vehicles are contained and removed off-site.

5. SURFACE WATER MONITORING

Details of the proposed surface water monitoring and maintenance activities are provided in this section of the SWMP. Operational phase monitoring is not required, as the risk of contamination during this phase is considered low.

The Contractor will retain records of all monitoring and maintenance activities carried out during the construction phase.

5.1 RECORDING AND REPORTING

As outlined in the NIS Section 8.1.1, a suitably qualified Ecological Clerk of Works (ECoW) will be appointed by the Contractor. The ECoW will be available for the duration of the Construction Phase and will ensure that all mitigation measures outlined within this report are implemented during the proposed construction works. The ECoW will monitor the sediment / turbidity levels (e.g. by using a turbidity tube) downstream of the works. The ECoW will take baseline samples before works commence, take daily samples during instream works, and after works have finalised as appropriate and in liaison with the Contractor.

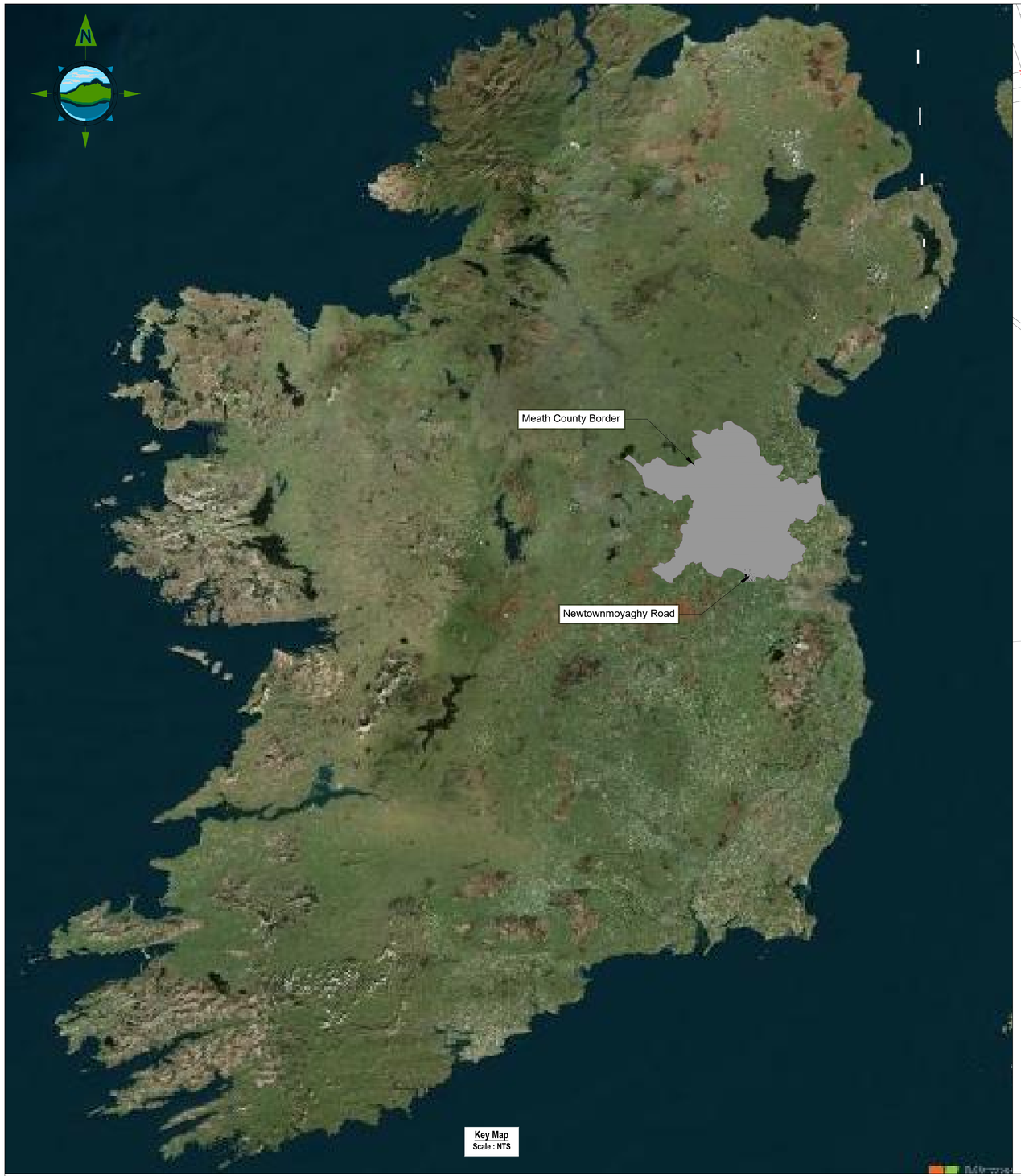
APPENDIX A

PLANNING DRAWINGS

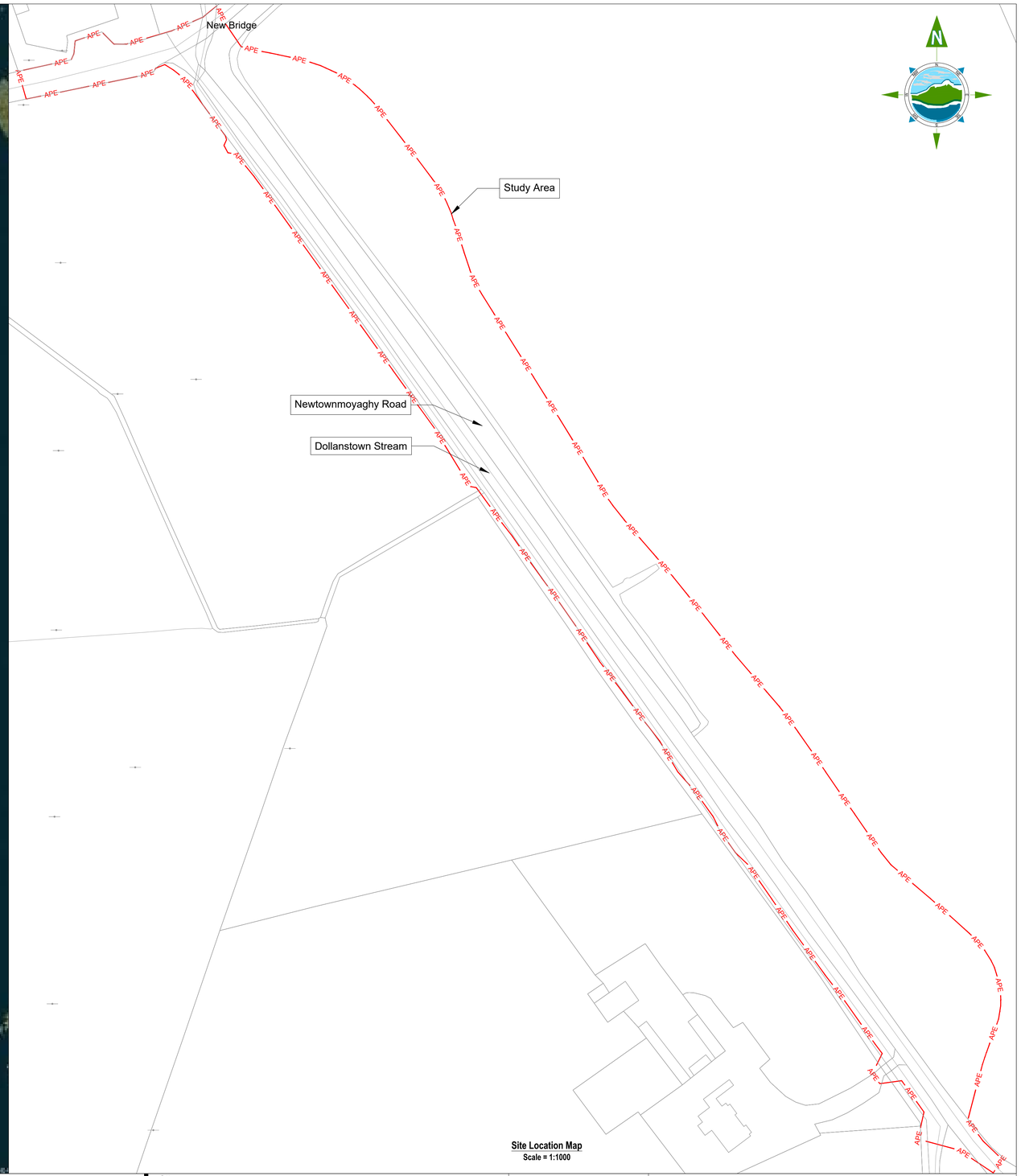
11434-2000 SITE LOCATION

11434-2001 SCHEME PLAN

11434-2009 EARTHWORKS PLAN



Key Map
Scale : NTS



Site Location Map
Scale = 1:1000

Rev	Date	Description	By	Chkd.
A	27/06/24	Planning Issue	DMcH	RM

Client: comhairle chontae na mí / meath county council

Project: Newtownmoyaghy Road Improvement Scheme

Title: Site Location

Sheet 1 of 1

Prepared by: DMcH
Checked: RM
Date: 27/06/24
Project Director: J.O'F
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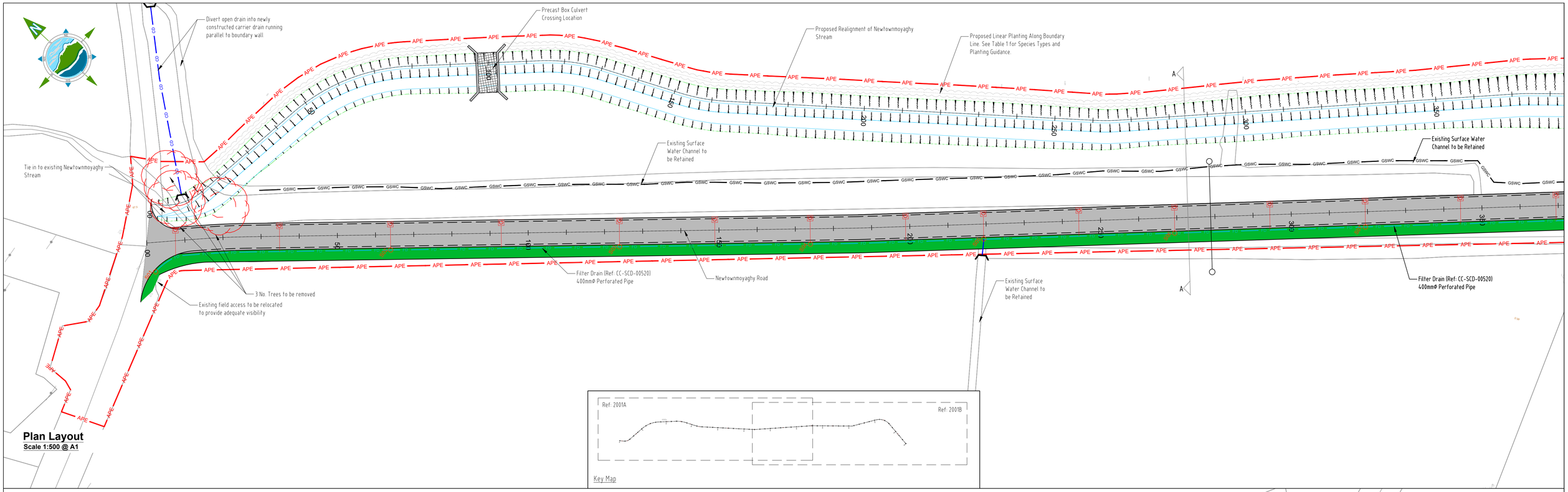
Revision: A



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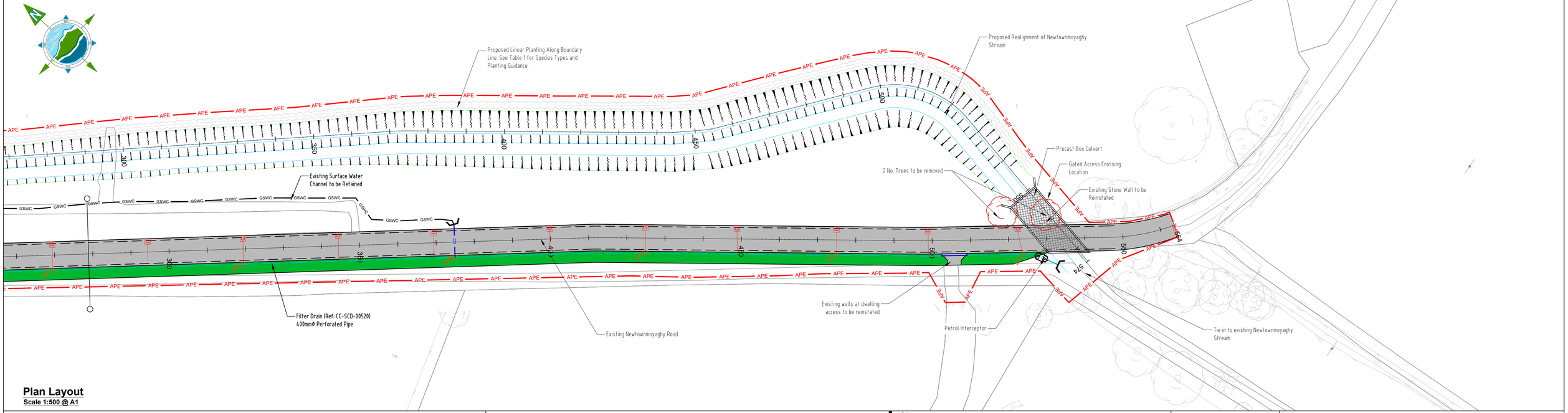

Plan Layout
Scale 1:500 @ A1

Legend:

- Newtownmoyaghy Road
- Verge
- Temporary APE

Rev	Date	Description	By	Chkd.
A	27/06/24	Planning Issue	DMcH	PC

Client: Meath County Council

Project: Newtownmoyaghy Road Improvement Scheme

Title: Scheme Plan

Prepared by: DMcH
Checked: PC
Date: June 24
Project Director: J. O' Flaherty
Drawing Status: Planning Issue
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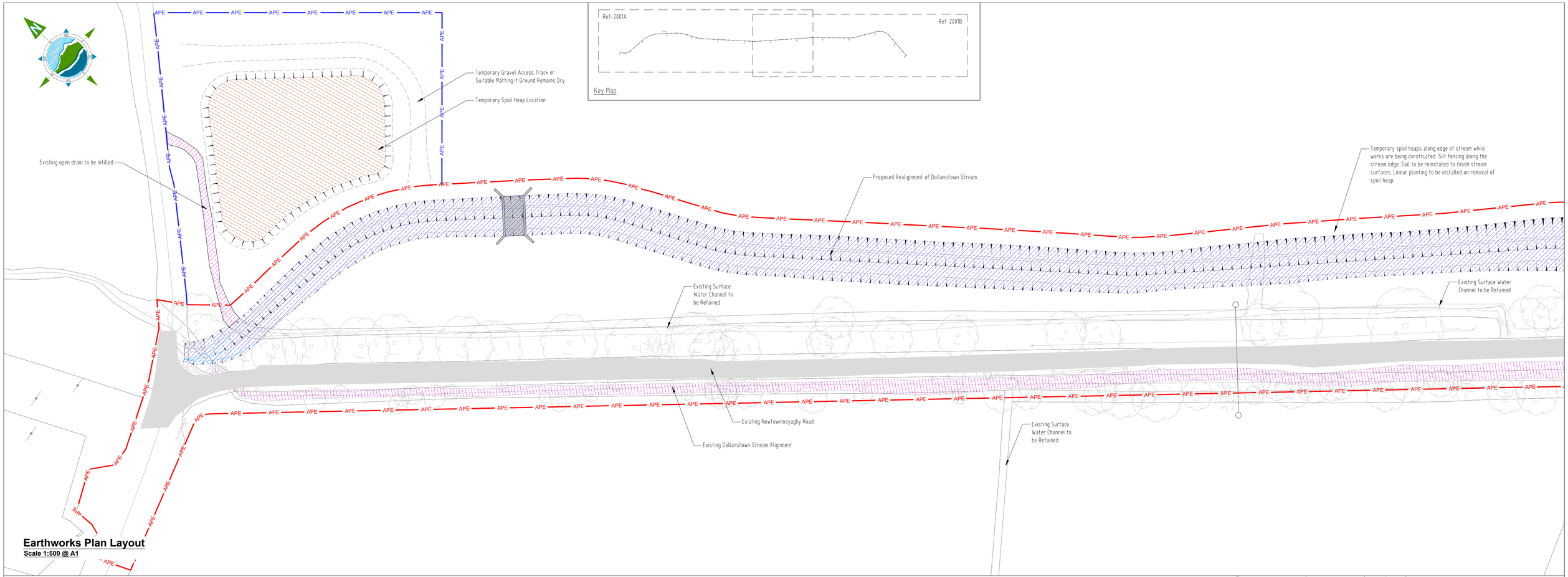
Drawing No.: 11434-2001

Revision: A



Earthworks Plan Layout
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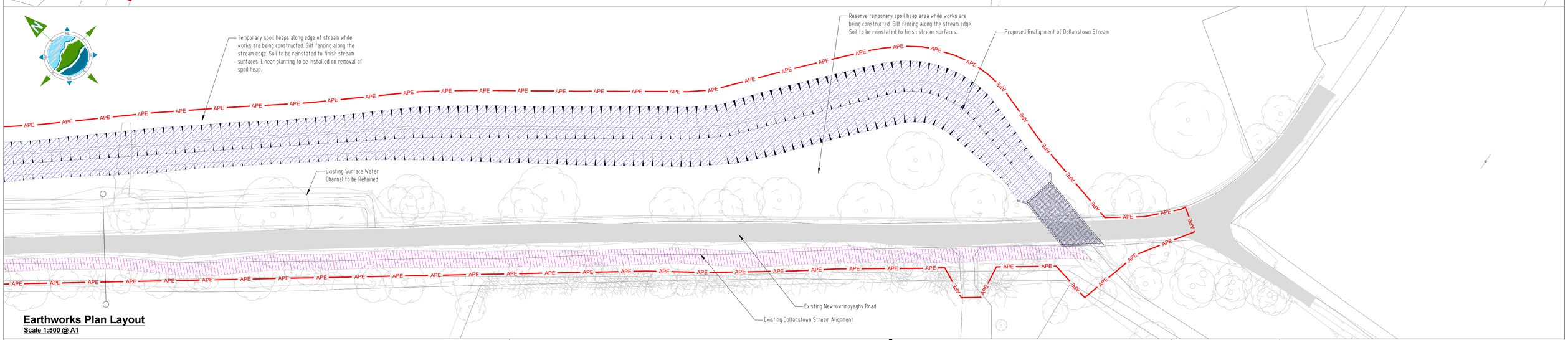

Earthworks Plan Layout
Scale 1:500 @ A1

Legend:

- Existing Road
- Existing Stream to be infilled
- Proposed Stream to be Excavated
- Proposed Zone for Stockpile of Materials
- Area Provide by Employer
- Temporary APE

Rev	Date	Description	By	Chkd.
A	27/06/24	Planning Issue	DMcH	PC

Client: Meath County Council
comhairle chontae na mí / meath county council

Project: Newtownmoyaghy Road Improvement Scheme

Title: Earthworks Plan

Prepared by: DMcH
Checked: PC
Date: June 24
Project Director: J. O' Flaherty
Drawing Status: Planning Issue
Scale @ A1: As Shown

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Drawing No.: 11434-2009

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