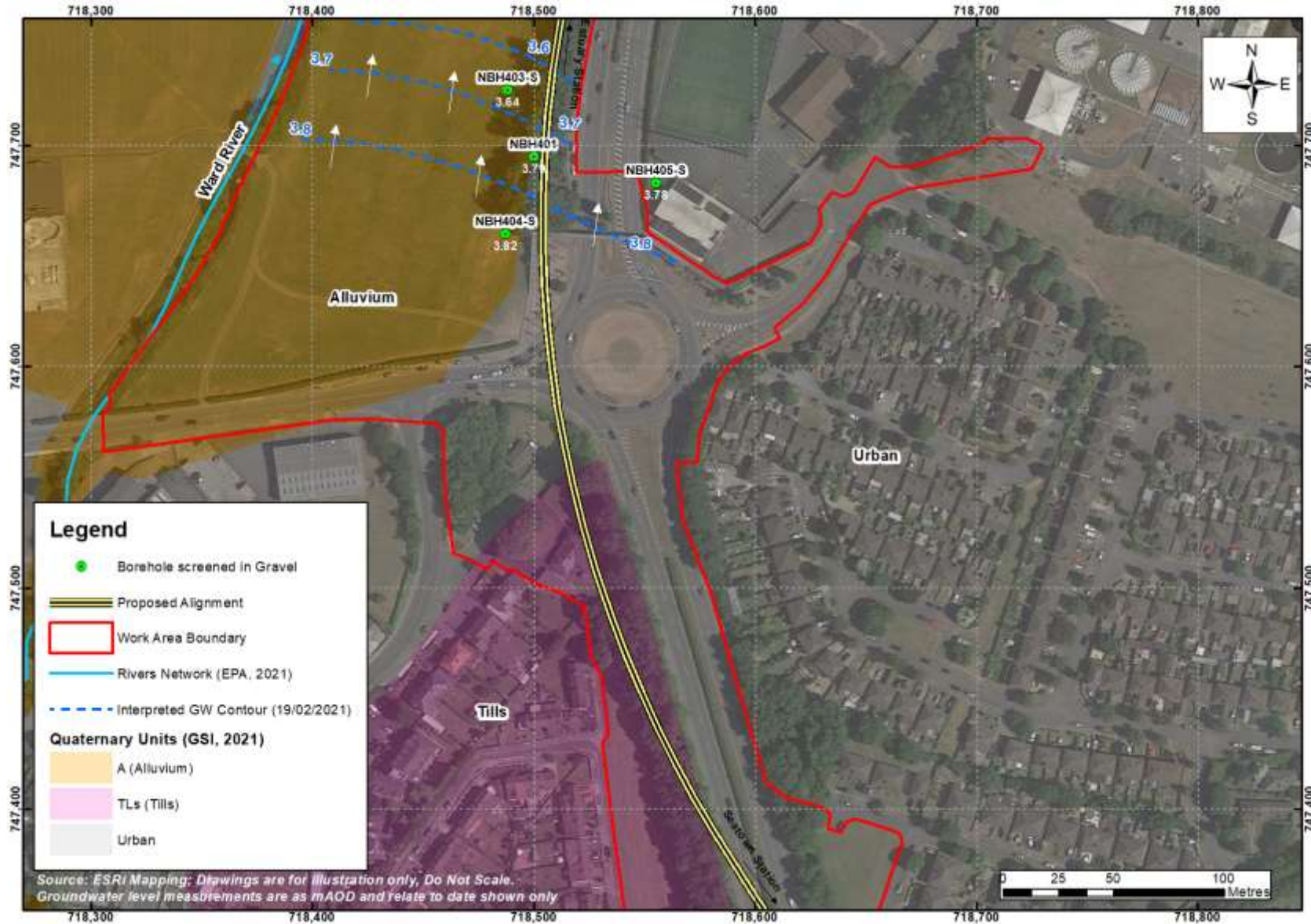


A19.5

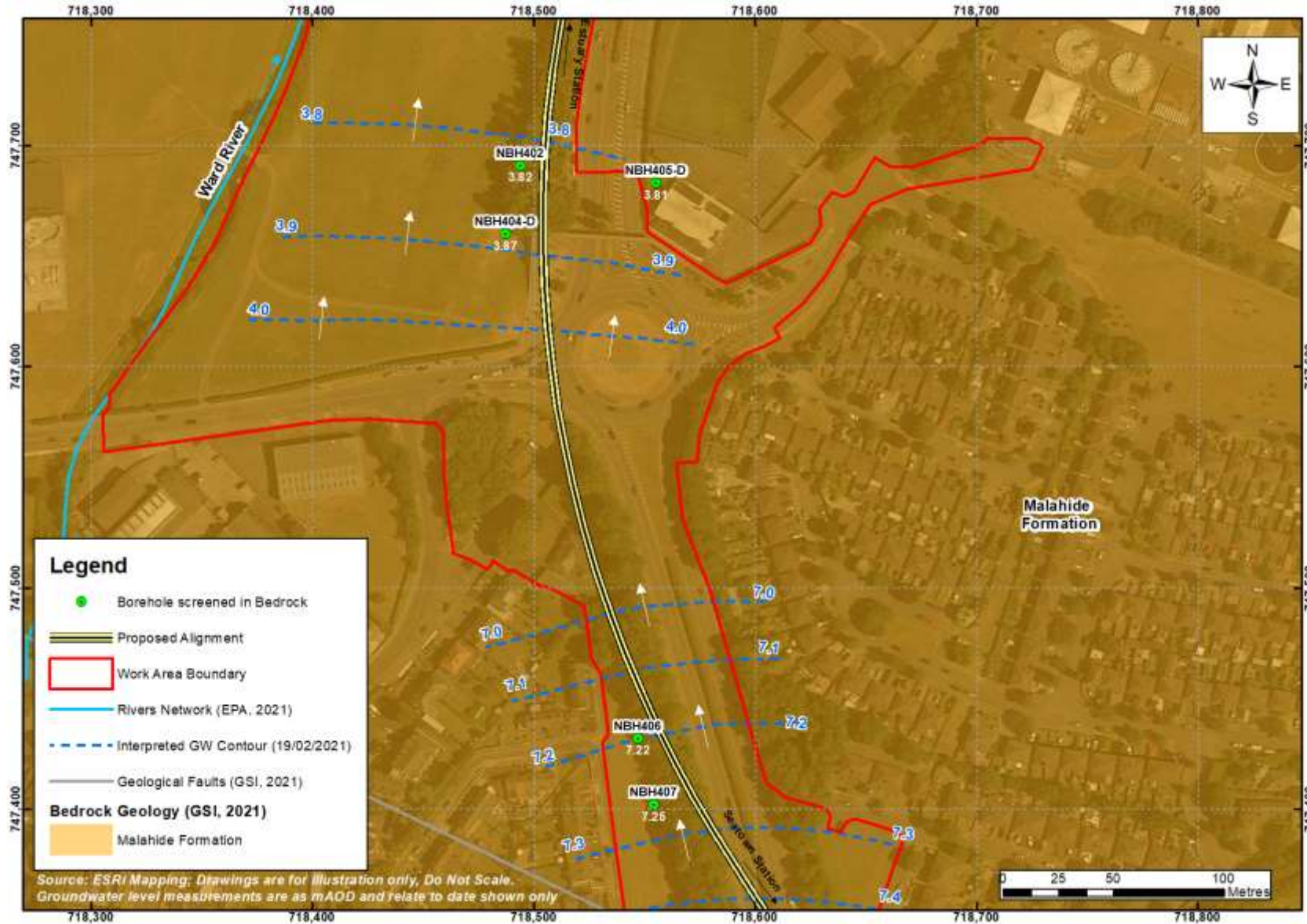
Groundwater Contour mapping

MetroLink:***Interpreted Groundwater Flow Mapping for key locations (R132 & proposed stations) within geographical zones: AZ1 to AZ4***Notes to drawings:

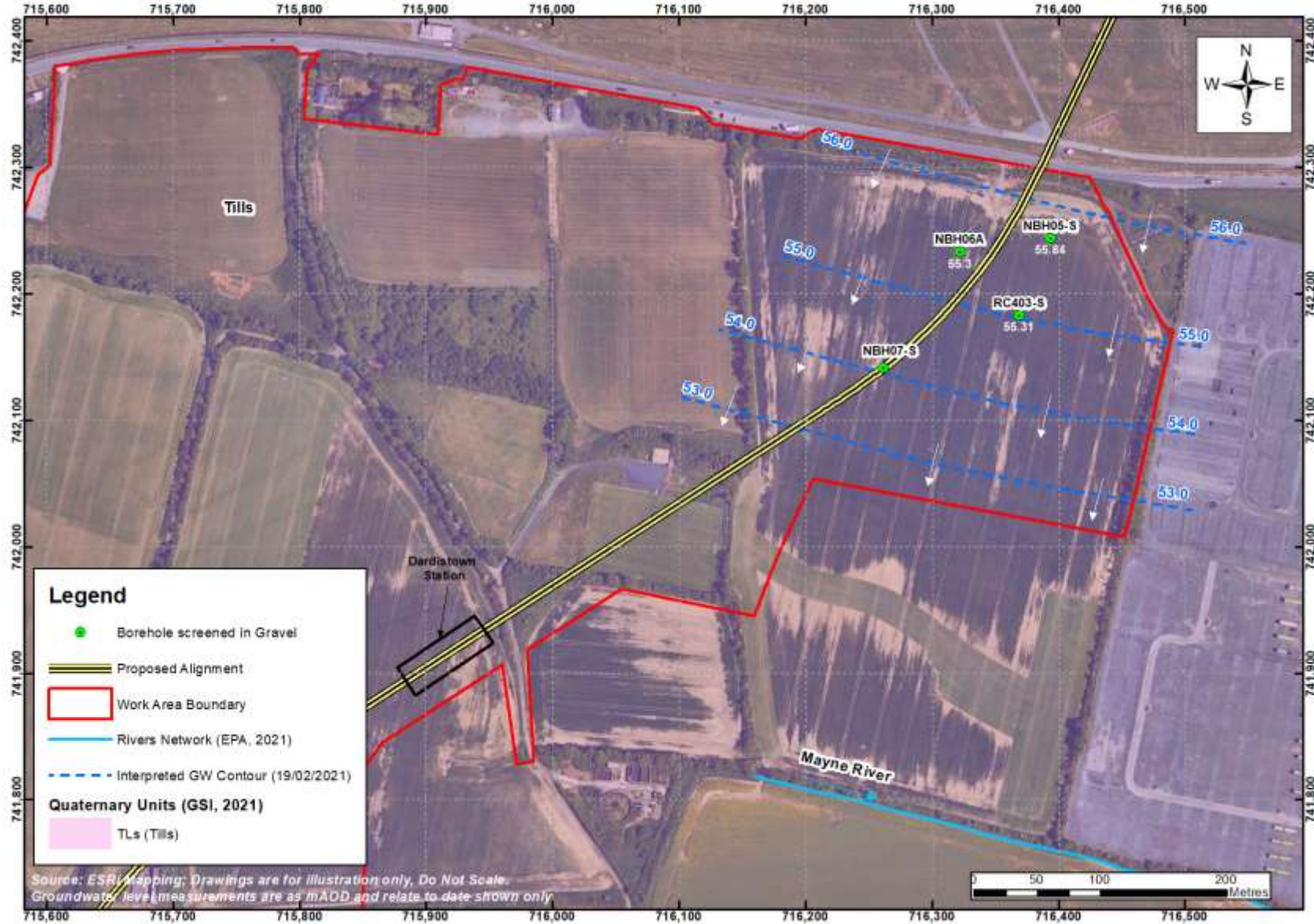
1. *Flow orientation is inferred, and is based on available static water levels (SWL) for [contemporary] monitoring wells screened predominantly within the Gravels (overburden) and separately within the underlying Bedrock (solid geology); i.e. limited control points.*
2. *Flow orientation as shown is also based on available geological logs as well as the datum (Malin Head) shown on those exploratory hole logs as a reference point for SWL measurements on the dates shown on the drawings presented.*
3. *Locations included below in the mapping exercise represent the only locations where sufficient monitoring well data exists/ was deemed viable to allow for 'representative' mapping to be created for this purpose.*
4. *Some information on SWLs was omitted due to the lack of potential 'tie in' of specific water levels to the overall interpreted flow path for that respective location (for example at Glasnevin for both overburden and bedrock wells, or at St. Stephen's Green due to 'old' wells - following confirmation of [inconsistent] SWLs as 'observations' in the field).*
5. *The interpreted flow paths relate to the monitoring date provided for same; changes in inferred flow path due to localised dewatering effects or tidal influence for example, may occur at any time in the local/ wider area.*



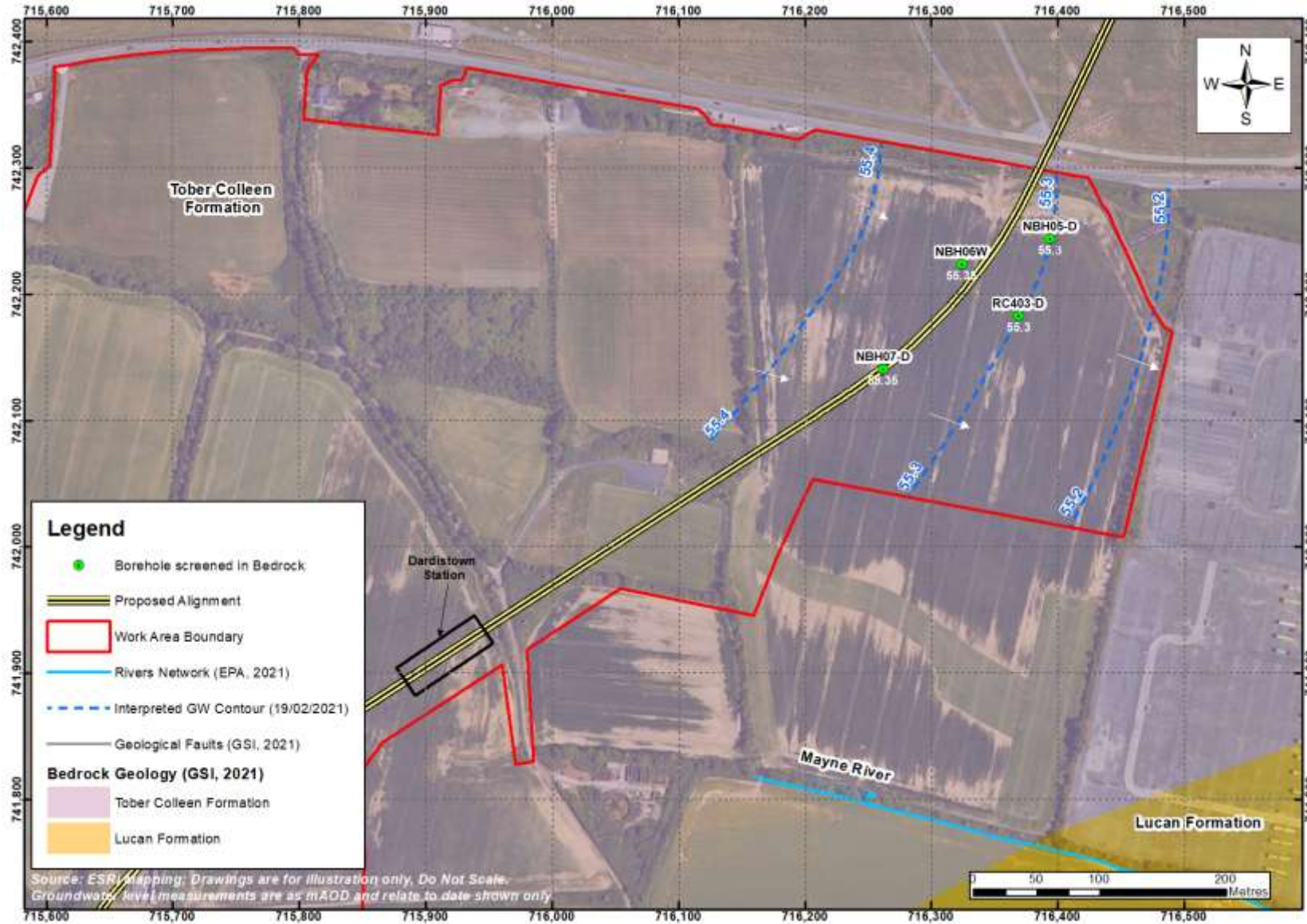
Map 1 – AZ1: Swords at R132 – Overburden (Gravels) only



Map 2 – AZ1: Swords at R132 – Bedrock only (combining South and North monitoring well sites)



Map 3 – AZ2: Dardistown area (Portal 2) - Overburden (Gravels) only



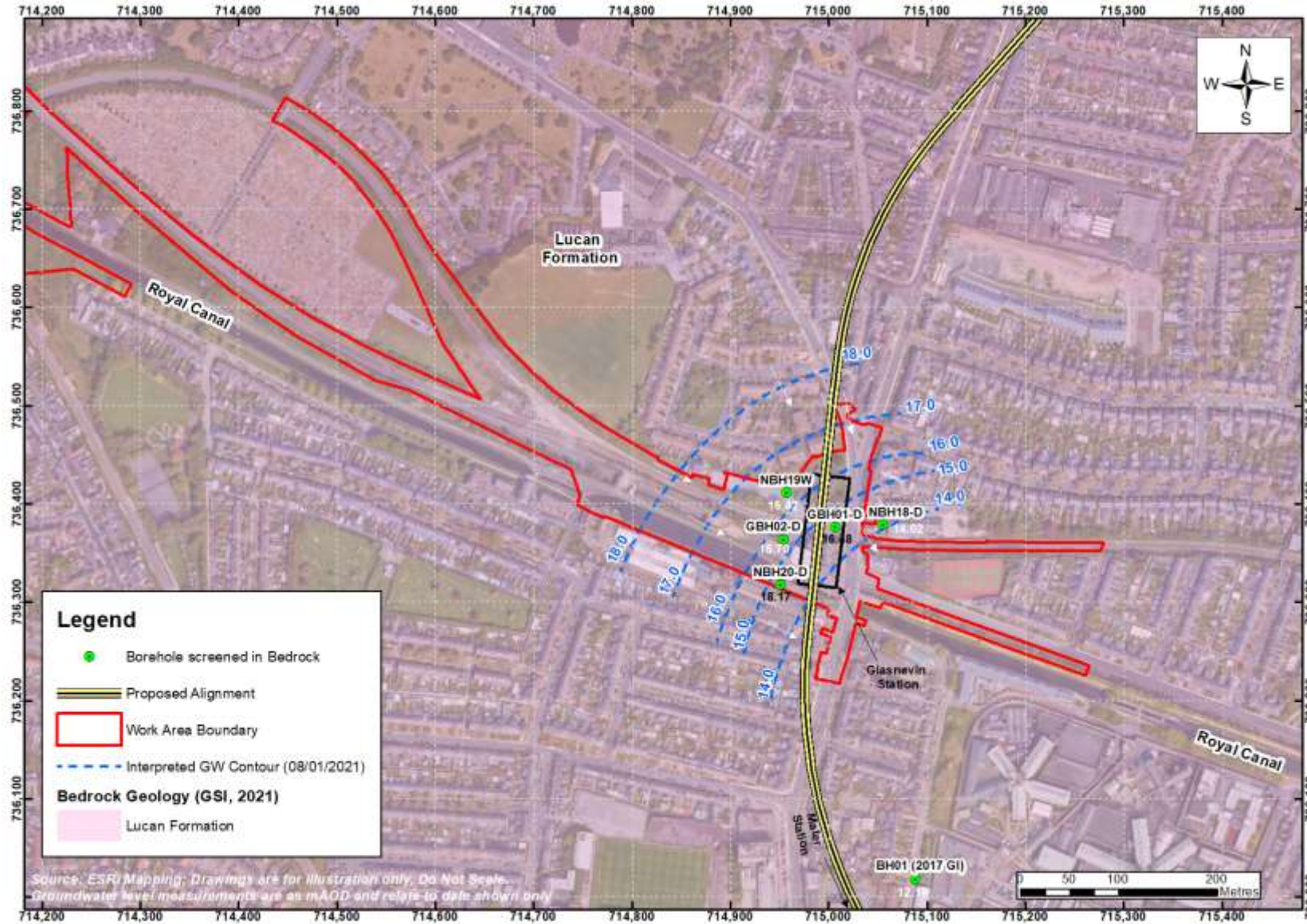
Map 4 – AZ2: Dardistown area (Portal 2) – Bedrock only



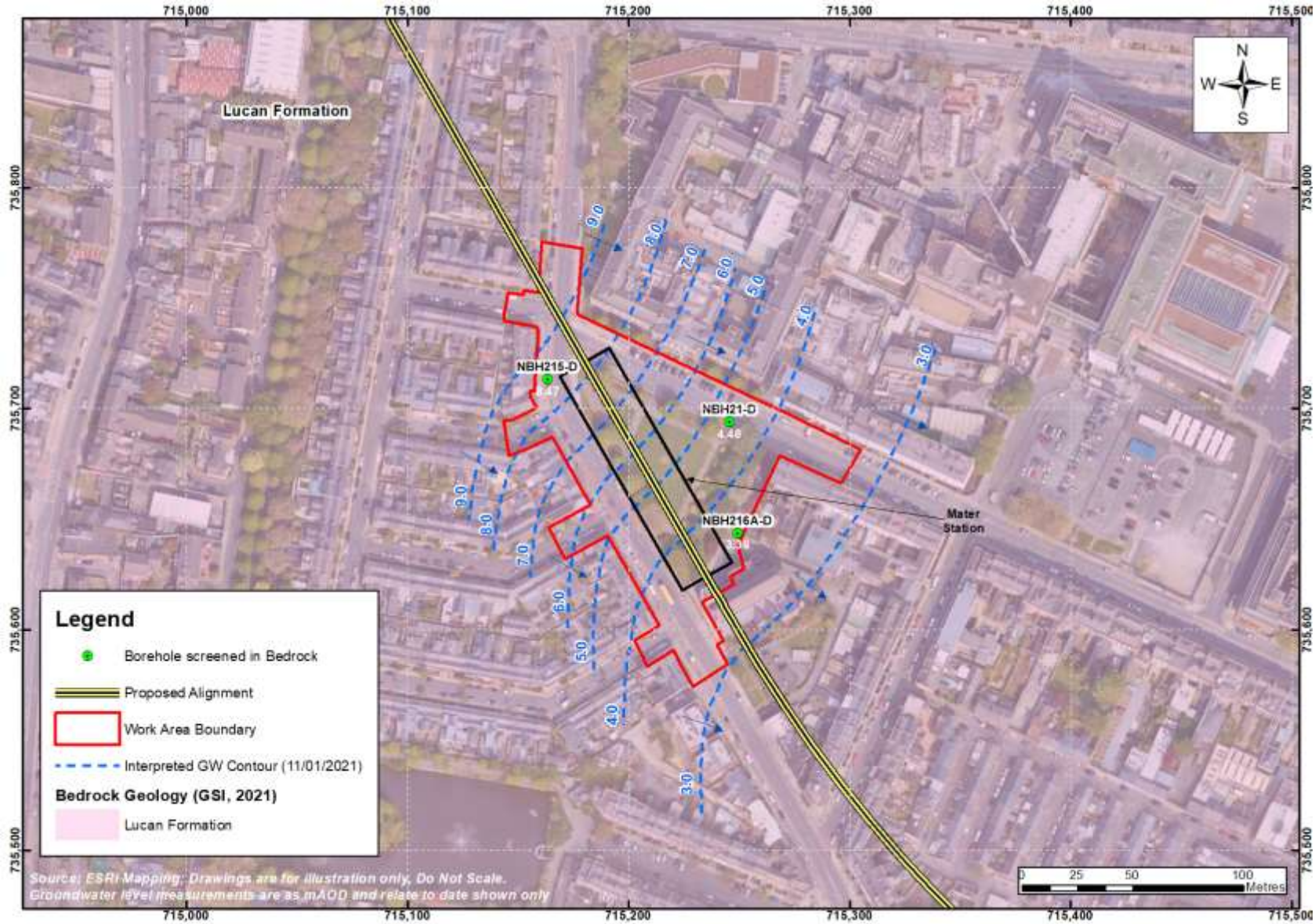
Map 5 – AZ4: Griffith Park – Bedrock only



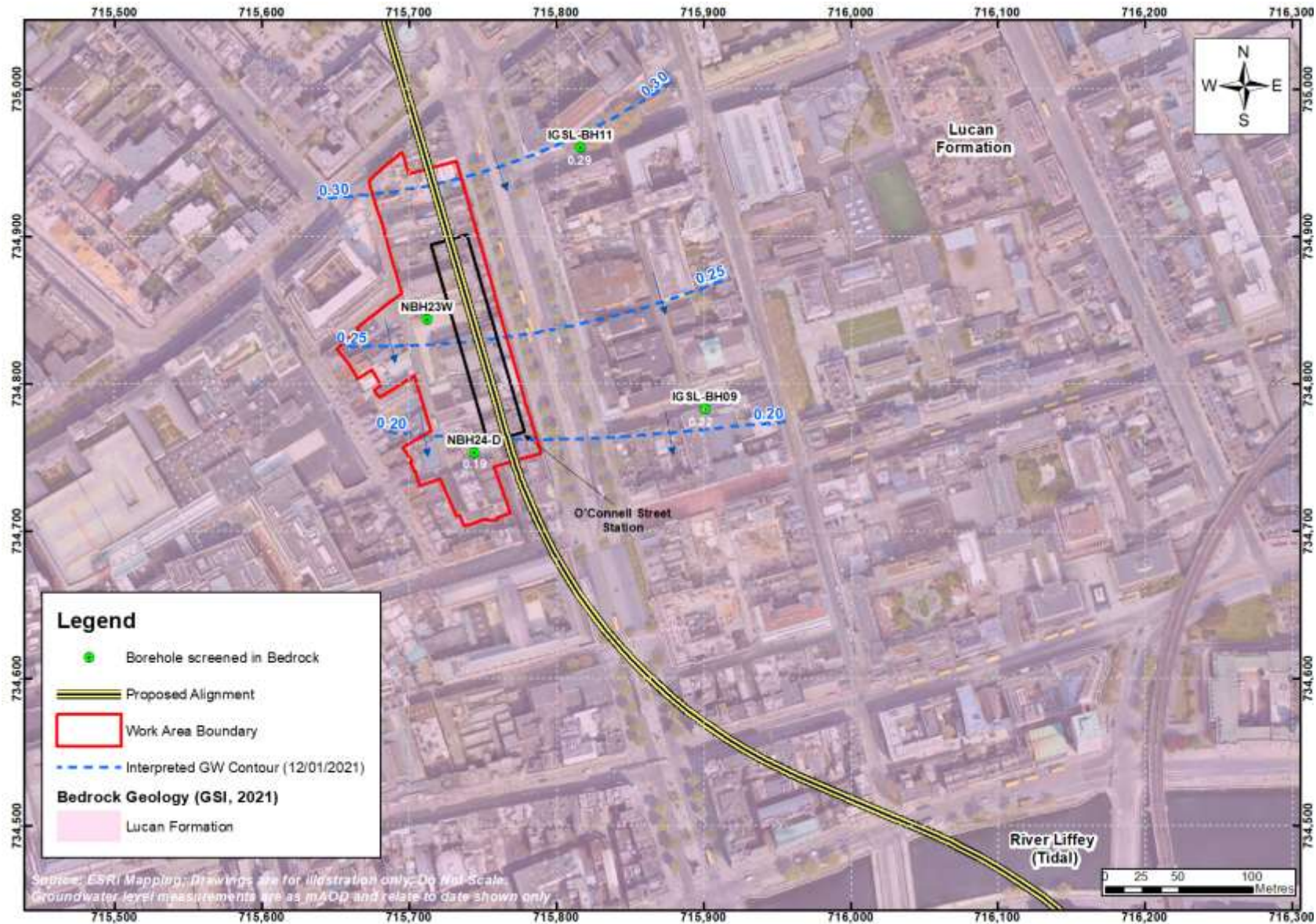
Map 6 – AZ4: Glasnevin – Overburden (Gravels) only



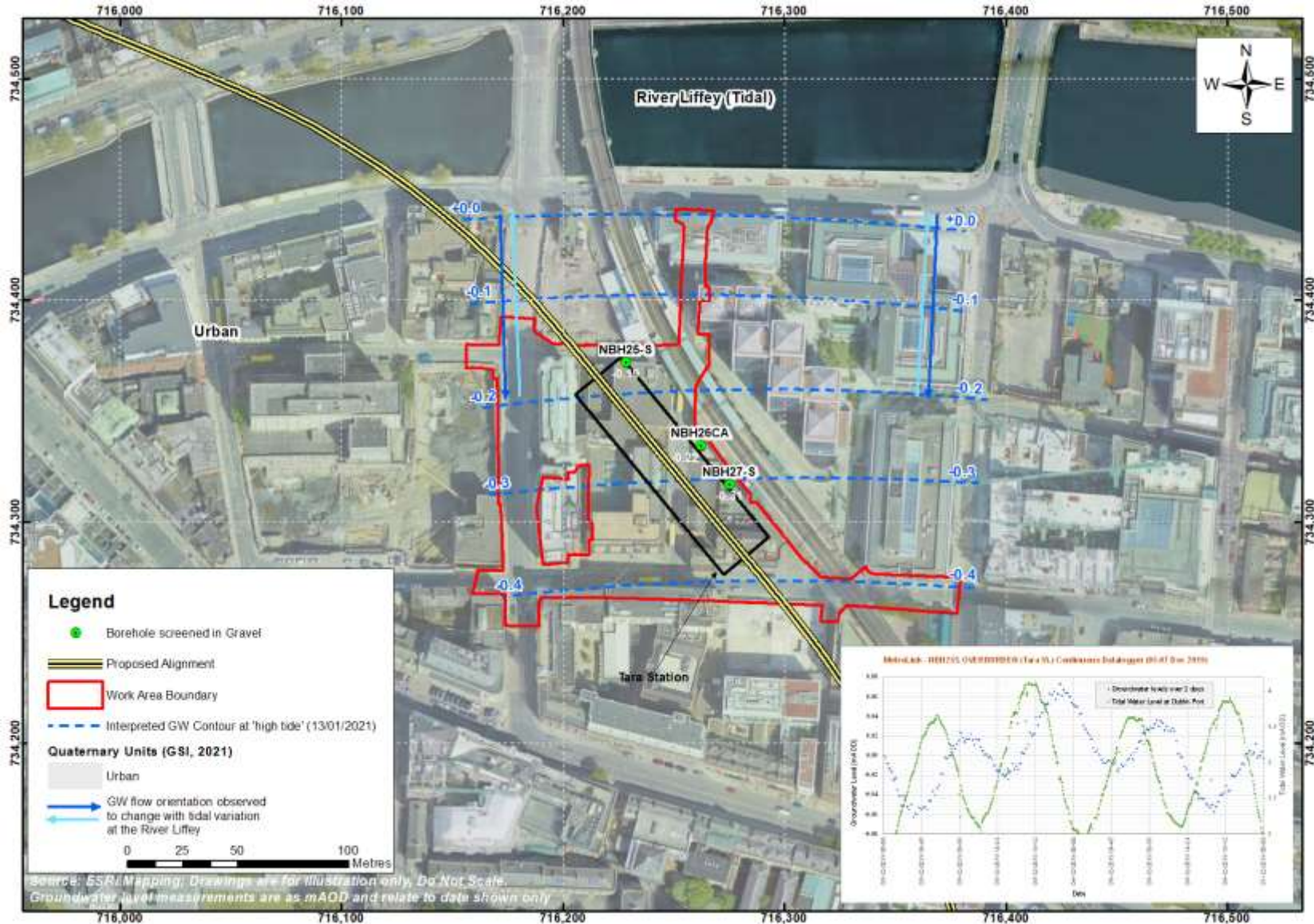
Map 7 – AZ4: Glasnevin – Bedrock only



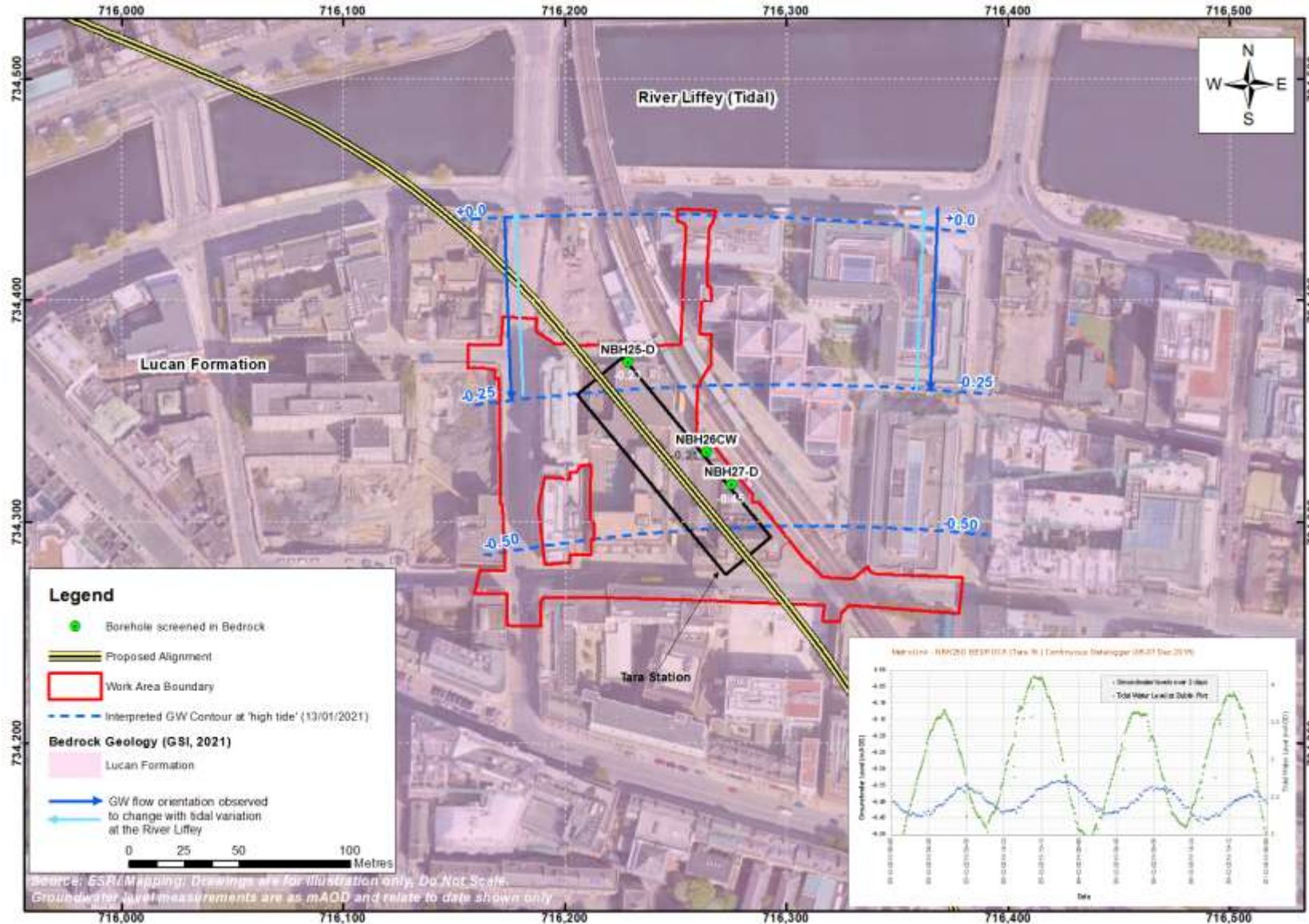
Map 8 – AZ4: Mater – Bedrock only



Map 9 – AZ4: O'Connell Street – Bedrock only



Map 10 – AZ4: Tara Street – Overburden (Gravels) only; map at high tide, flow is therefore N-S on date shown



Map 11 – AZ4: Tara Street – Bedrock only; map at high tide, flow is therefore N-S on date shown



Map 12 – AZ4: St. Stephen's Green – Bedrock only