

Mitigation planting

A mixture of woodland, grassland and scrubland is proposed within and around the depot and loops to provide visual screening, replace lost woodland and increase biodiversity across the site. This option requires full removal of two parcels of woodland, both designated as priority habitat and Local Wildlife Sites:

- i. The woodland parcel to the north of the mainline, south of Lower Salden Farm (full removal);
- ii. The woodland parcel to the north of the mainline, west of Whaddon Road (full removal).

These woodland parcels are notable elements in the landscape and the removal will open up views of the proposed depot site until proposed mitigation planting has matured.

Where receptors are particularly close to the site, larger woodland planting blocks are proposed. Planting of semi-mature trees could be considered but would need an enhanced establishment maintenance programme.

Landscaping

Land volume estimates: Cut: 314,735m³ | Fill: 141,640m³ | Net: 173,640m³ (Cut)

Given the need for a level depot site and with the existing site topology rising from south to north and from east to west, Option 3 requires a lower level of landscape cutting to accommodate the maintenance building at the eastern end and stabling sidings at the western end of the site.

Retaining walls: Total length: 1,337m. Option 3 proposes a retaining wall along an 850m portion of the westbound passing to the south of the railway east of Whaddon Road. A 357m length of retaining wall is proposed directly north of the railway adjacent to Salden Place to accommodate the depot reception track with a further 130m of retaining wall along the reception road within the main depot site. The wall height would vary as required but the maximum height is expected to be approximately 3.5m high.

Drainage and outfalls

Drainage of groundwater - For all options, surface water is collected from across the site via the drainage system and conveyed southeast to the outfall near Whaddon road, mimicking the existing rainwater run-off. The proposed drainage system for Option 3 requires four ponds, two swales and a total of 10 culverts with a combined estimated attenuation volume 27,663m³.

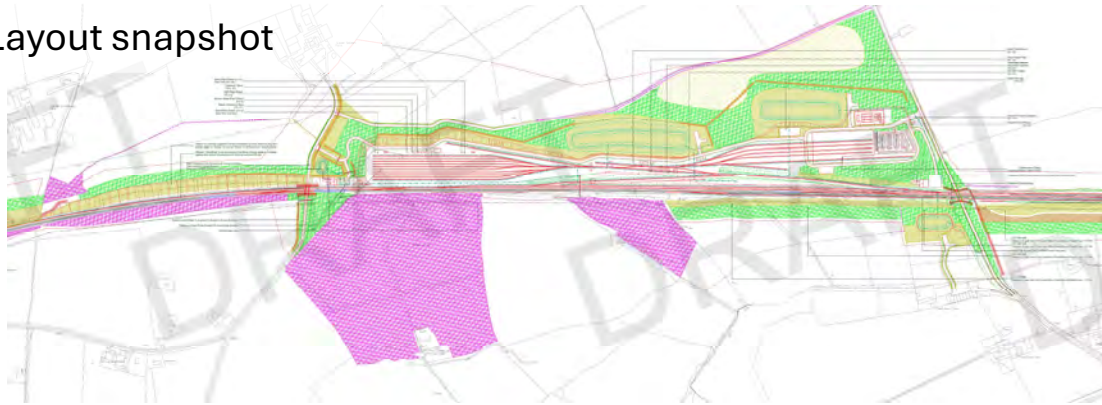
Flood risk – Site does not fall within any Environment Agency (EA) Flood Zones (FZ) but it does have isolated areas of ponding and a number of small flow routes within as shown on EA Flooding from Surface Water maps. Areas are not extensive, however runoff from the site and routing of flows from the north to under the existing railway will be required. Flood risk can be managed through the drainage design which would route flows to drainage basins, around the site or under the site through the existing culverts under the existing railway.

Foul water storage and discharge - The storage of foul water and options for discharge are still under consideration for all three options. For all options, engagement with utility companies and local authorities would inform an agreed foul water strategy.

Depot Operations

It is currently assumed that most train movements to and from the depot will be in the Cambridge direction. Option 3, with the reception track leading east, has a clear operational efficiency benefit with trains from Cambridge able to enter directly to the stabling yard. Whilst Option 3 currently only has one entry point from the east, which introduces resilience risk, further entry points and a western head shunt would be feasible and would be considered in any further design were this option progressed.

Layout snapshot



Option Description

Option 3 locates the maintenance building at the eastern end of the site adjacent to Newton Approach/Whaddon Road and the stabling sidings at the western end of the site adjacent Salden Lane. A reception track connects the depot to the existing mainline at the east to allow direct access to the stabling sidings for trains entering from the Cambridge direction. Trains entering from the Oxford direction would need to do so via a turnback manoeuvre on this reception track. The reception track would pass beneath Newton Approach/ Whaddon Road requiring the bridge deck to be replaced. The eastbound freight passing loop is located to the north of the mainline, passing under Swan's Way and Salden Lane, with both bridges proposed to be replaced with wider decks to accommodate the additional lines underneath. The westbound freight passing loop would be located to the south of the mainline passing over Trenches underpass, which would require an extension, and under the proposed widened Newton Approach/Whaddon Road.

Roads, Bridges and Public Rights of Way

Swan's Way: The road bridge is proposed to be replaced on its existing alignment with traffic diverted along other roads during construction.

Salden Lane: The road bridge is proposed to be replaced by a new structure located roughly 100m west of the existing alignment. The construction works would be phased to maintain continuous access to Lower Salden Farm and avoid diversion of the NCN 51 byway.

Whaddon Road: The road bridge is proposed to be replaced on its existing alignment with traffic diverted along other roads during construction. The works would be phased separately to the replacement of the road bridge at Swan's way to avoid simultaneous closure of both roads.

Trenches Underpass: The underpass is proposed to be extended along its existing alignment. During construction pedestrians would be diverted to an alternative route.

NCN 51 Byway / Weasel lane – Option 3 would require diversion of the byway around the proposed depot stabling and maintenance shed. This would be phased to avoid closure of the route

Utility Impacts

Utilities along Salden Lane bridge - There are three existing services (water, power and telecoms) which cross Salden Lane bridge and would be impacted. For Option 3, those utilities would remain in the existing bridge whilst provision for the utilities is provided in the new offline bridge. Services would then be switched over to utilities in the new bridge.

High-pressure Gas - Diversion of the asset is assumed not to be required for all three options. For all three options, the high-pressure gas main running parallel to the railway at the south would be protected during construction and operation of the realigned railway.