

MetroLink Oral Hearing – Module 1 February 2024

Tunnelling and Excavation Related Issues

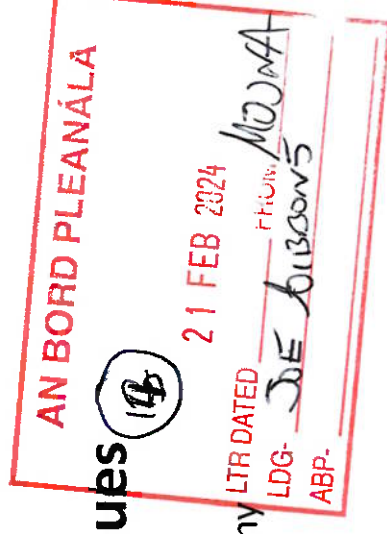
Statement prepared on Behalf of Mouna Unlimited Company

Statement presented by

Joe Gibbons

Director, Waterman Moylan Consulting Engineers

Chartered Civil Engineer with 38 years experience.



Land Ownership

The adjacent plan shows the land which are owned by Mouna, outlined in RED (the Site). The Site comprises two parcels of lands.

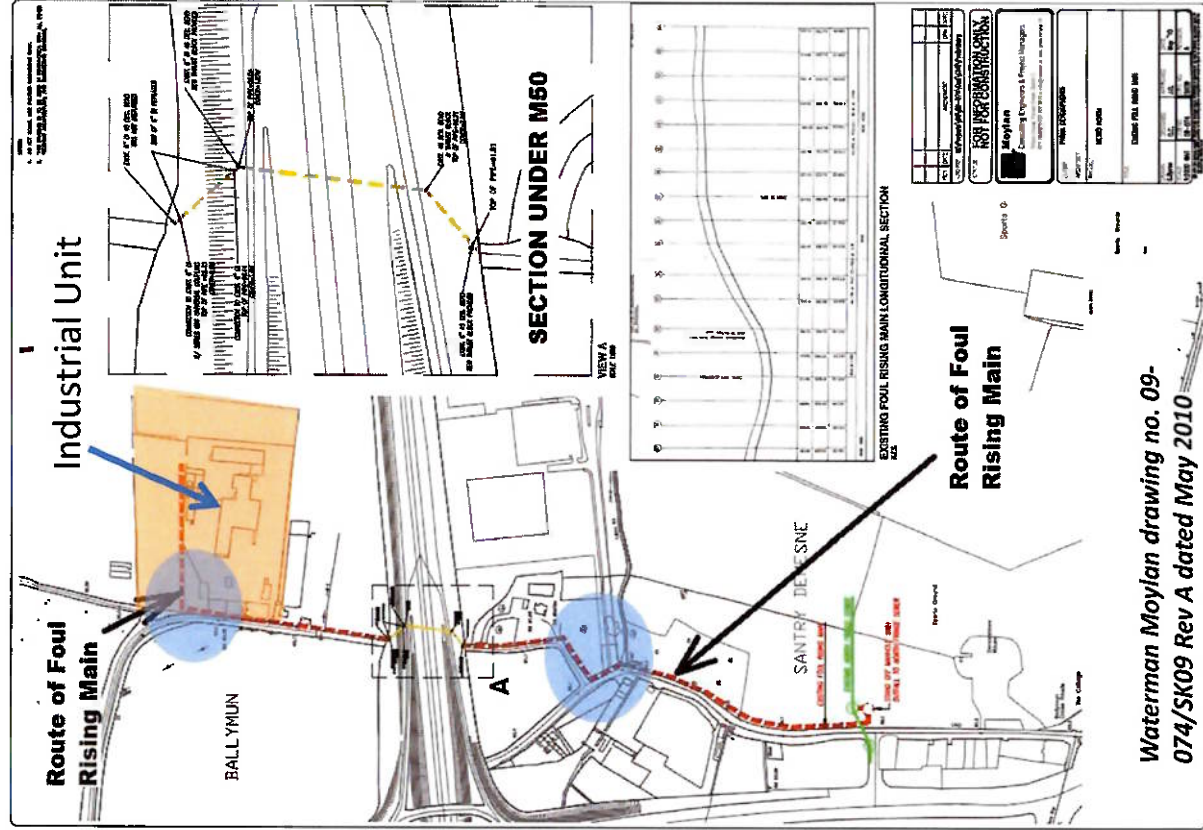
The first parcel of the Site has a permitted and established use as an abattoir and meat processing facility.

Part of the first parcel of the Site is presently occupied on a temporary basis by Frylite (a Vegetable oil supply and recycling business) employing some 50 personnel.

The second parcel of the Site is a wastewater treatment plant which has a registered right of way. This registered right of way passes through the location of the proposed Dardistown depot.

Mouna also own a private pumping station and private foul water rising main, shown by a blue broken line on the adjacent image.





DETAILS OF EXISTING RISING MAIN

Impact of Proposed Excavation Works on Site

The private foul water rising main, discharges wastewater southwards under the M50 to the existing foul water public sewer at the entrance to Northwood/Santry Demesne. Details are shown on the adjacent plan.

Details of this rising main were furnished to TII during the consultation process.

Mouna and its tenant Frylite are dependent upon the foul water rising main which currently serves the Site.

This is a key asset and piece of infrastructure for the continued operation of the Site and it is essential that it is maintained operational at all times.

The excavation works proposed require that the private rising main be diverted at 2 no. locations.

For reference, the areas to be diverted are circled blue on the adjacent plan.

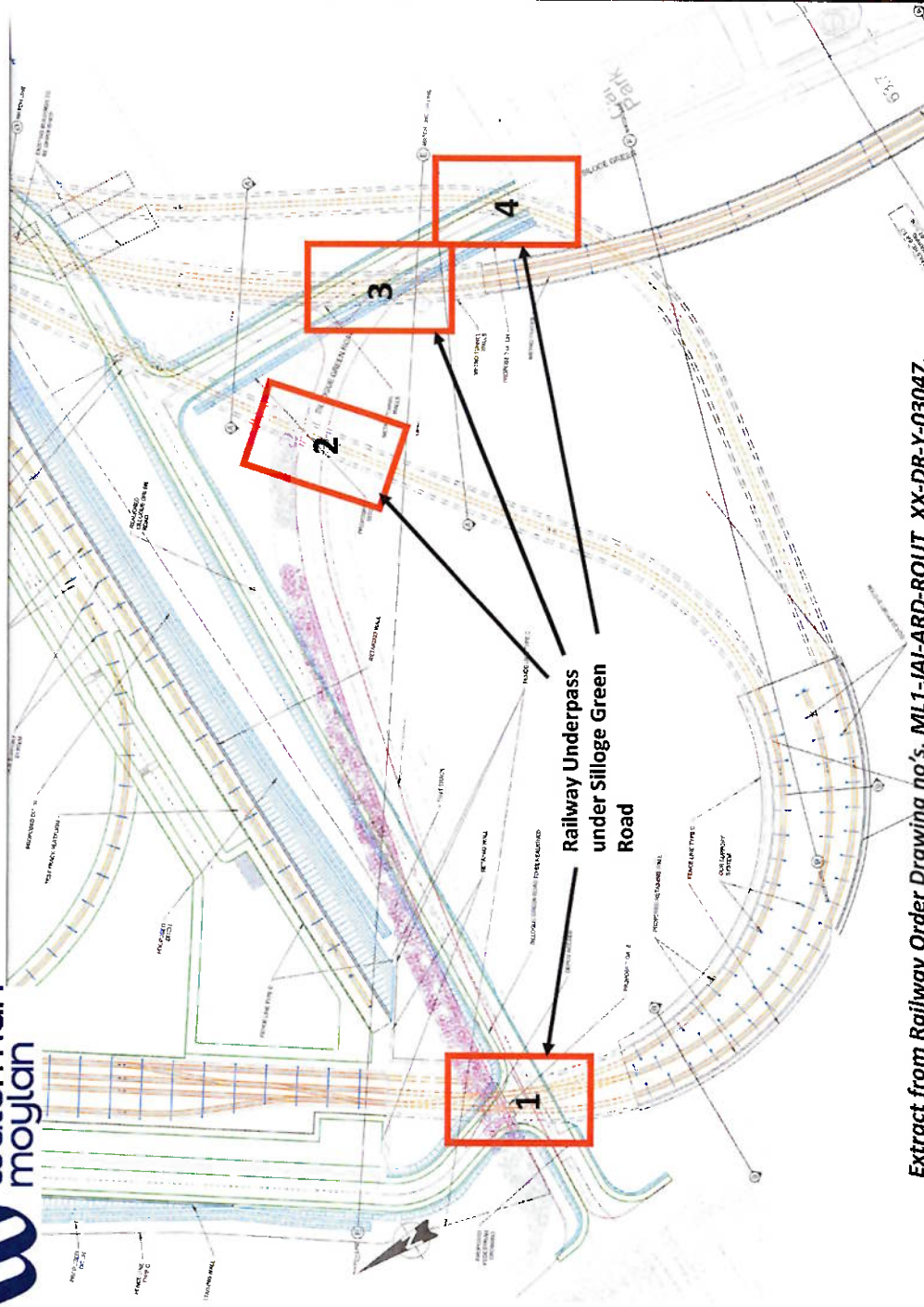
It is proposed to excavate 4 no. cut and cover railway tunnels along the existing access road to the Site. These are shown numbered on the adjacent drawing

The excavation of the tunnels will impact on access to Site.

The tunnel at location No. 4, which is located within the Site, will directly impact the private foul water rising main.

TII proposes to divert the private foul water rising main at this location to facilitate excavation of the tunnel.

There is also a proposal to divert the private foul water rising main south of the M50 motorway to facilitate excavation works.



Extract from Railway Order Drawing no's. ML1-JAI-ARD-ROUT_XX-DR-Y-03047, ML1-JAI-ARD-ROUT_XX-DR-Y-03048 and ML1-JAI-ARD-ROUT_XX-DR-Y-03049

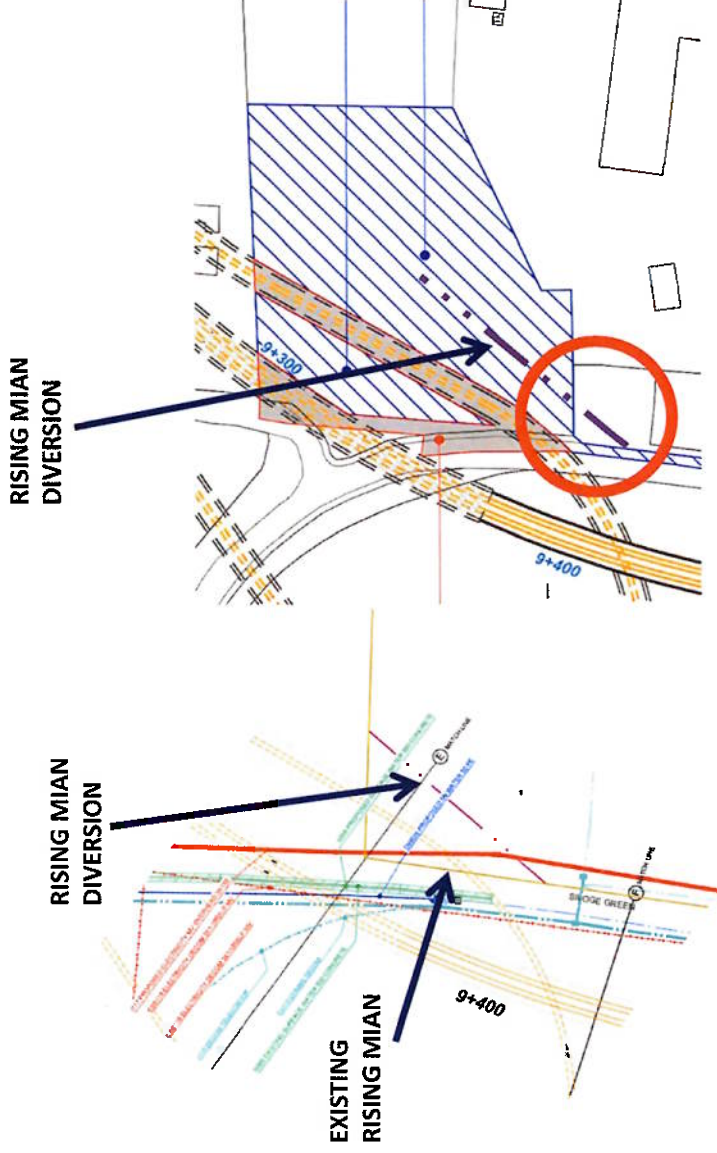
Impact of the proposed excavation works on rising main

It is proposed to divert the rising main in order to construct the railway tunnel.

The land take required for the diversion of the rising main does not appear to be included in the property plans (circled red) circulated as part of the application

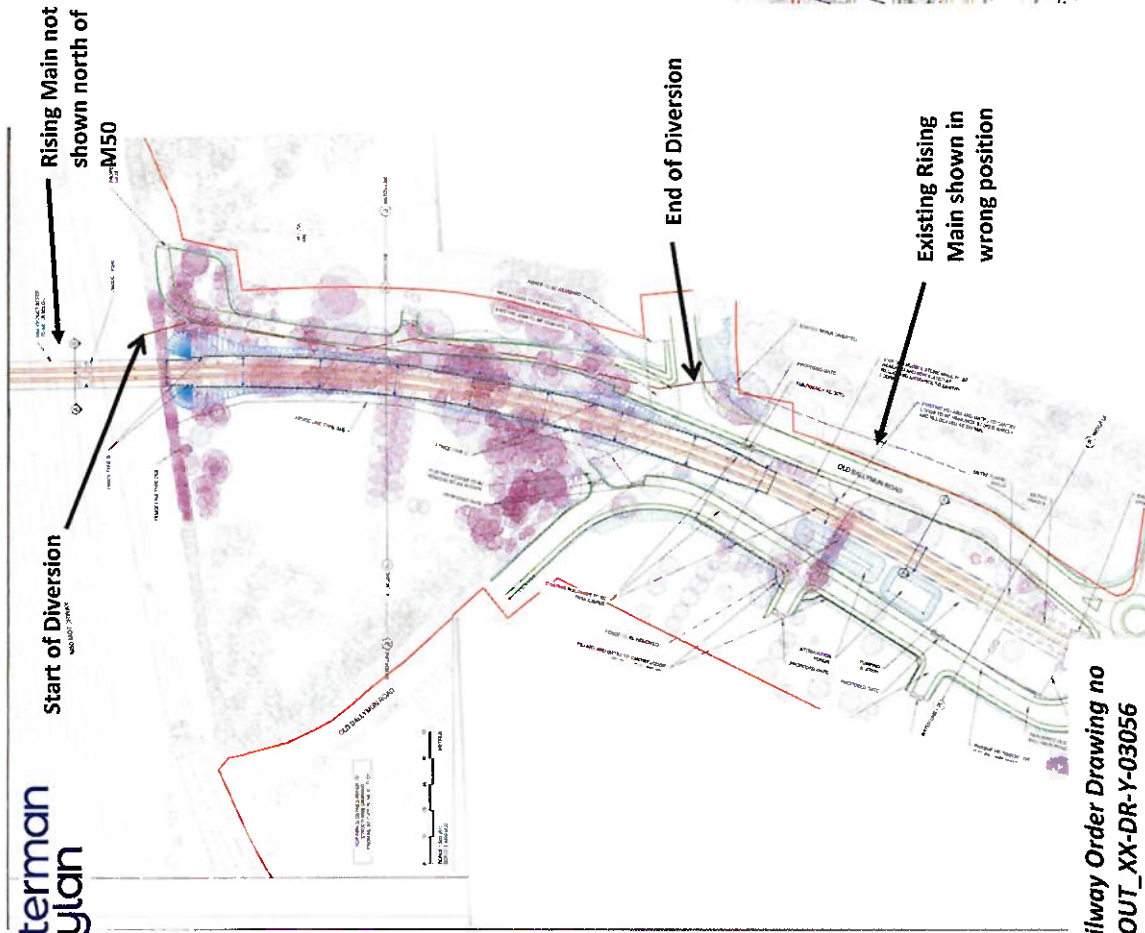
If TII were to try to divert the main within the temporary land take it will be near impossible to construct the tunnel without damage to the rising main due to its close proximity.

Mouna and Frylite have grave concerns that the lack of adequate space to divert the private rising main will give rise to potential for damage to the rising main which will impact the operation of the Site.



Extract from Railway Order Drawing no.
P0100011S2TXDR303_XXPATIIML
(Received from TII by email on 02/02/2024)

Extract from Railway Order Drawing no.
ML1-JAI-URD-ROUT_XX-DR-Y-01048



Extract from Railway Order Drawing no
ML1-JAI-ARD-ROUT_XX-DR-Y-03056

Impact on Existing Private Rising Main

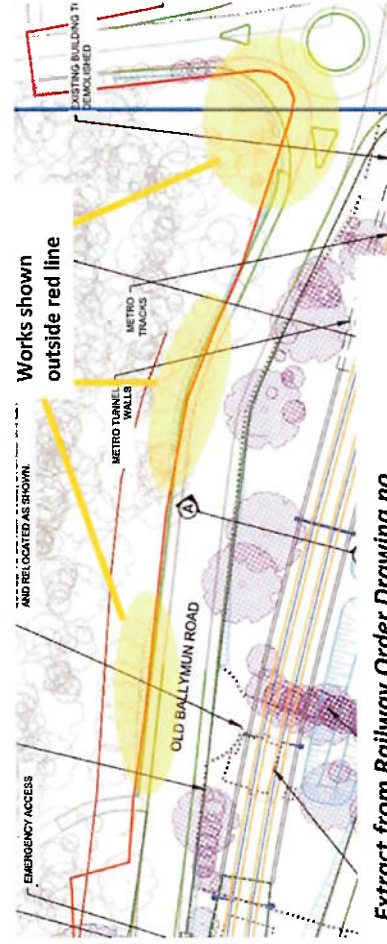
The second diversion is south of the M50. TII has provided us with a drawing for the proposed diversion.

The drawing is lacking in detail.

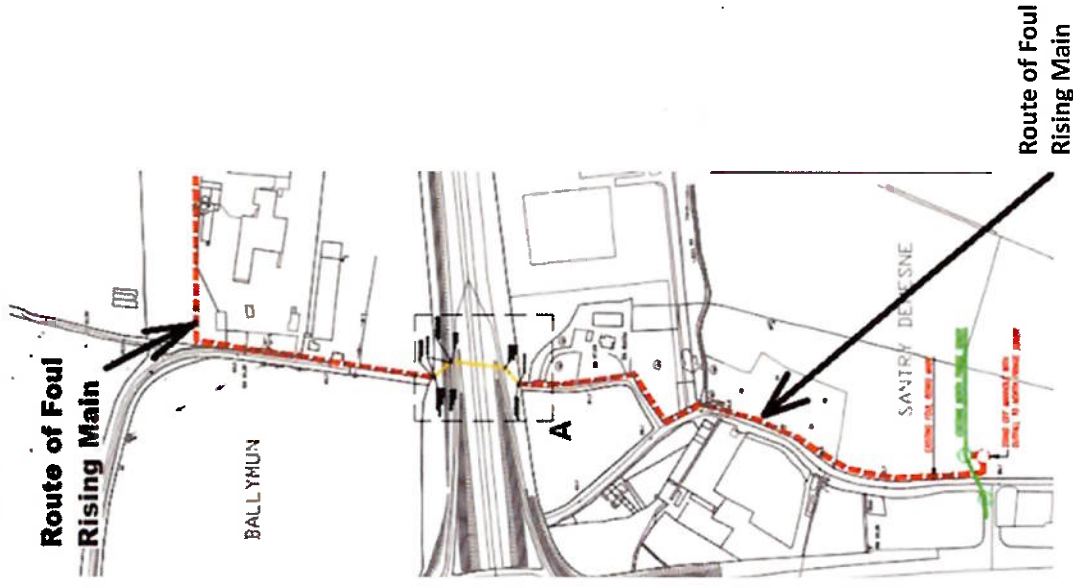
The existing private rising main crossing the M50 and to the North of the M50 is not shown and the impact of the proposed works has not been considered.

The existing private rising main which is indicated to the south of the proposed diversion would appear to be shown in the incorrect position.

Some of the works shown on drawing no. ML1-JAI-ARD-ROUT_XX-DR-Y-03056 appear to be outside the red line.



Extract from Railway Order Drawing no
ML1-JAI-ARD-ROUT_XX-DR-Y-03056 (rotated 90 degrees)



Impact of the proposed excavation works on our Clients rising main

We would highlight Mouna and Frylite's requirements to ensure that the private foul water rising main is maintained operational at all times, as this is essential to the commercial viability of the Site.

Mouna has very grave concerns that the private rising main has not been properly detailed on the railway order drawings, despite the fact that the details for this rising main were issued to TII by Mouna.

The lack of attention in the railway order to this essential piece of infrastructure gives rise to potential for damage to the rising main during excavation works which will have a significant impact upon the operation of the Site

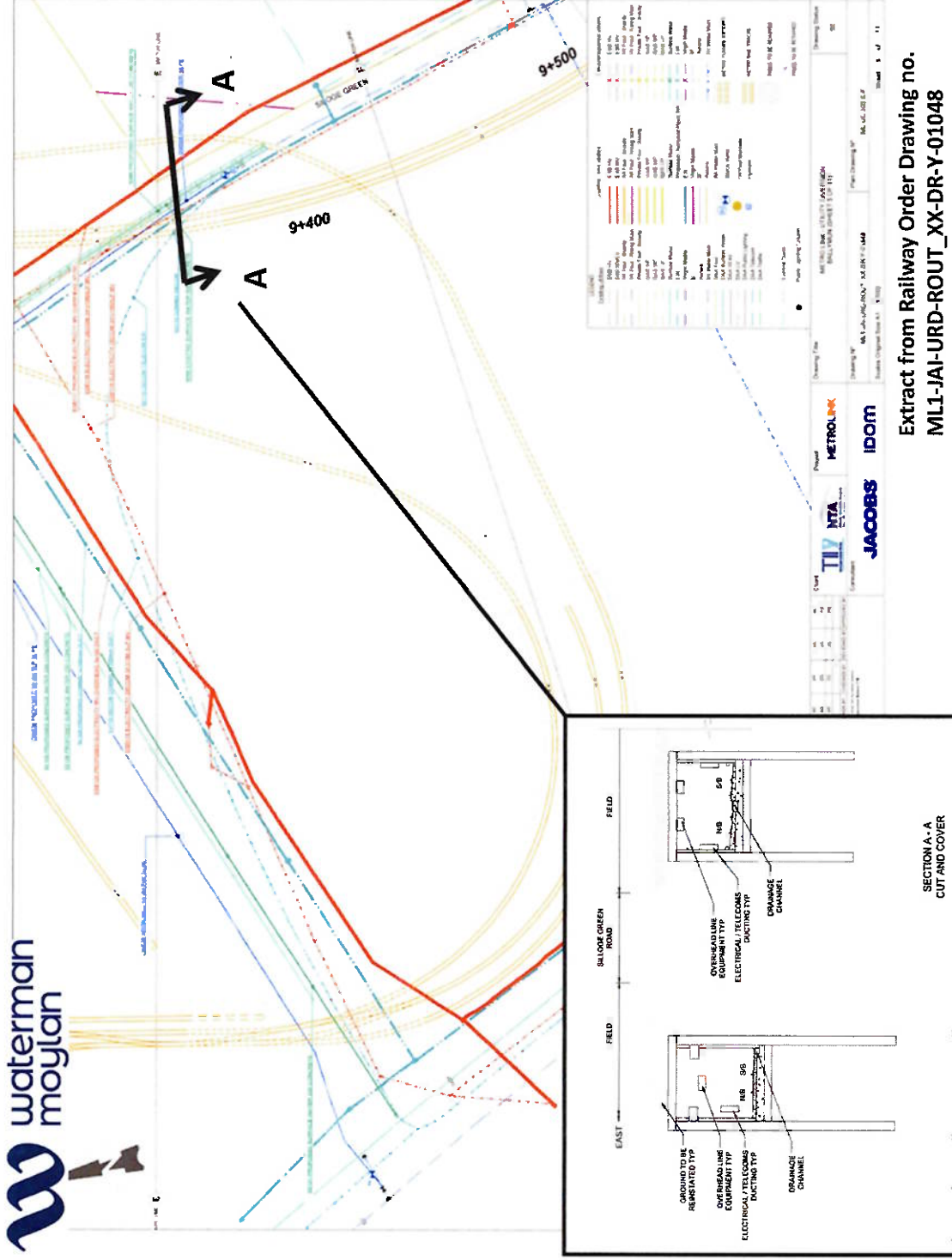
These concerns in relation to the integrity of the rising main are informed by the fact that the rising main was previously damaged during the construction of M50

Impact of Excavation Works on Existing Services

The proposed excavation works associated with the railway tunnels will impact the existing services which serve the Site. The applicant has provided plan details for the proposed utility diversions. It is essential that the services to the Site be maintained over an extended construction period . It is unclear how this can be achieved without a detailed construction plan and method statement.

In the cut and cover sections of the railway tunnels (See section A-A opposite) the cover over the tunnel appears to be minimal. Mouna would have very serious concerns regarding any future services that they may have to install to service their existing or any proposed new development on their land.

It is assumed that there will be restrictions to works above the tunnels. Mouna would seek provision for future services to avoid the need to excavate over the railway tunnels post completion.





Road Access –Impact Due to Excavation of Cut and Cover Tunnels

There is only a single access roadway serving the Site which is along Silloge Green Road.

The Rail Order proposes to construct cut and cover rail tunnels at 4 no. locations along this roadway.

The excavation of the cut and cover tunnels will adversely impact the ability to access the Site over what is indicated by TII as an extended construction period.

To address this issue, TII is proposing to construct a temporary access road to maintain access to the Site during the construction of the cut and cover tunnels.

Temporary Access Road during excavation

The temporary access road is to be provided through the Dardistown Station Main Construction Compound (Shown hatched blue).

Mouna and Frylite, their employees and visitors will effectively be required to use a construction access road to gain access to their property. Heavy construction vehicles will travel along this road and will also cross the road.

This gives rise to very serious concerns regarding the safety of Mouna, Frylite, their employees and visitors accessing the Site along a construction access route, which will have a large amount of heavy construction traffic movements.

The submitted documents make reference to Road Safety Audits being carried out on the proposed roads, which form part of the railway order; however, details of the actual Road Safety Audits have not been provided. It would be expected that a Road Safety Audit be undertaken for this temporary road.



IMAGE 1

Extract from Railway Order Drawing no.



IMAGE 2

Extract from Railway Order Drawing no.
ML1-JAI-CRO-MS06_GF-DR-Y-00005

Temporary Access Road during excavations – Road Safety

The temporary access road will provide a new junction onto the R108 as shown opposite in the extract from the Railway Order for the duration of excavations

It can be seen from the extract that the junction will be obstructed by the chevron taper markings associated with the right turn pocket to the south.

It will be necessary to reduce the length of the taper to facilitate this new junction. The reduction in Taper Length is likely to result in the taper being non-compliant with current road design standards.

The junction radii are very large, assumed to be for the purpose of accommodating large construction vehicles. This creates increase width of road for pedestrians to cross which in turn increases risk to pedestrians.

Again, as previously highlighted, we would expect that a road safety audit be carried out to identify Road Safety issues associated with the current design. The design as currently presented raises serious concerns for the safety of our Clients, their employees and visitors. Particularly those arriving on foot or cycling.



Extract from Railway Order Drawing no.
ML1-JAI-CRO-MS06_GF-DR-Y-00005

CONCLUDING REMARKS

The Excavation of 4 no. tunnels under the existing access to the Site will adversely impact existing services to the property. It is essential to Mouna and Frylite's operation on the Site that these services need to be maintained at all times.

The existing private foul water rising main serving the Site needs to be maintained and operational at all times. Drawings provided for the diversion of the existing foul rising main are lacking in detail. Mouna and Frylite have serious and genuine concerns that the lack of detail associated with this rising main will result in damage to the main during the excavation works with adverse implications for operations at the Site.

Excavation works will require the provision of temporary access to the Site. The proposed temporary access is through a construction compound which will have high volumes of heavy construction traffic movements and will endanger the safety of Mouna/Frylight's employees and visitors using this temporary access road to access the Site. To date, these concerns have not been adequately addressed.

Road Safety Audits are not included with the Railway Order documentation, notwithstanding that the EIAR makes a reference to Road Safety Audits having been carried out. On the temporary access road, the junction onto the R108 is challenging due to the existing road layout and markings together with the large radii and long crossing distances for pedestrians. We would seek to receive a copy of the Road Safety Audit for the temporary access road.