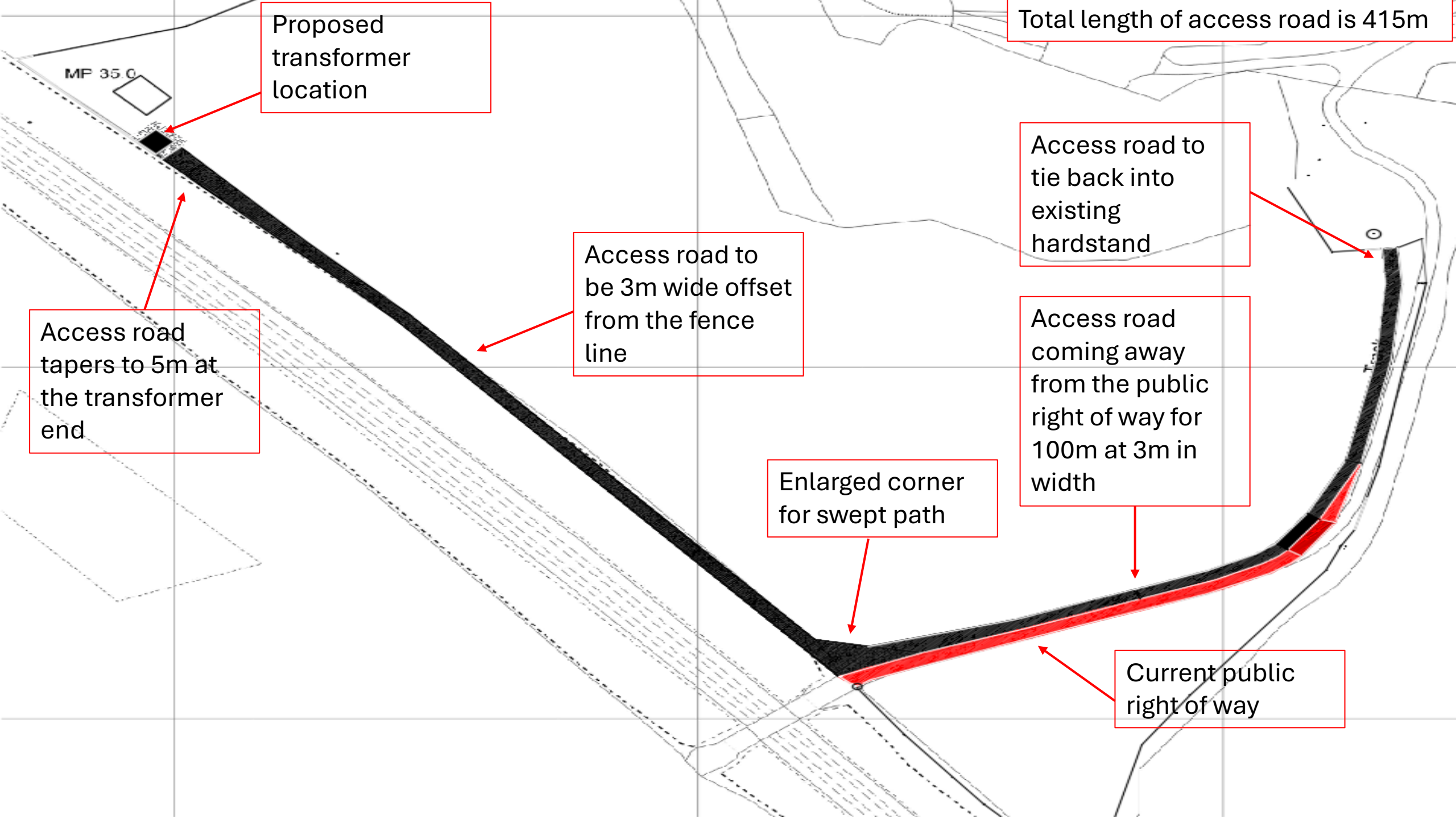




Total length of access road is 415m

Proposed transformer location

Access road to tie back into existing hardstand

Access road to be 3m wide offset from the fence line

Access road tapers to 5m at the transformer end

Access road coming away from the public right of way for 100m at 3m in width

Enlarged corner for swept path

Current public right of way

- Top 400 mm of poor soil removed and replaced with compacted subgrade
- Traffic: 28T, 3-axle rigid wagon
- Road type: Unbound granular layers (stone only)
- Design life: 20 years
- Materials: Well-graded crushed stone, Type 1 MOT, Type 2/3 granular

Updated Design Table: After Excavation & Reinstatement

Layer	Material	Thickness (mm)
Wearing Layer	Well-graded crushed stone (Type 1)	100
Upper Sub-base	Type 1 MOT	200
Lower Sub-base	Type 2/3 granular	150

Justification for Installation of a New Haul Road

The installation of a new haul road is required to facilitate the safe and efficient access of a 28-tonne (28T) wagon for servicing the proposed transformer. The following points outline the key reasons for this requirement:

1.Access for Heavy Equipment

The proposed transformer installation necessitates the use of a 28T wagon for delivery and positioning. The existing site access routes are not designed to accommodate vehicles of this size and weight, which poses significant logistical and safety challenges.

2.Ground Bearing Capacity Limitations

California Bearing Ratio (CBR) testing conducted on-site has confirmed that the current ground conditions are inadequate to withstand the loads imposed by a 28T wagon. The measured CBR values fall below the threshold required for heavy haulage, indicating a high risk of surface failure, rutting, and potential structural damage to the existing access arrangement.

3.Operational and Safety Considerations

Attempting to use the existing access route without reinforcement would increase the likelihood of vehicle immobilisation, ground collapse, and potential damage to critical infrastructure. This could lead to project delays, increased costs, and safety hazards for personnel and equipment.

4.Compliance with Engineering Standards

Industry best practices and engineering standards dictate that haul roads supporting heavy vehicles must be designed to meet specific load-bearing and stability criteria. Installing a purpose-built haul road ensures compliance with these standards and mitigates risks associated with inadequate ground conditions.

5.Long-Term Asset Protection

A properly constructed haul road will not only support the immediate transformer installation but also provide a durable access route for future maintenance activities, reducing lifecycle costs and improving operational reliability.