

APPENDIX F:

ROAD UPGRADES

Aarons Pass Road

Ref (Downer Route Survey and Road Upgrade Assessment)	Chainage (km) (Direction of travel east to west from the Castlereagh Hwy)	Issue	Proposed Road Upgrade Requirement
3.1	0	Line of sight is an issue when turning across traffic	Traffic management - escorts stopping oncoming traffic
3.2	0		
	0.4		
3.3	1		Remove two trees on RHS and level corner on both sides
	2.2	Culvert require. Drainage issues on LHS of road. Single cell culvert 375 diameter	
3.4	2.5		Fill and cut to widen on LHS required
3.5	2.8		Fill and level on outside of corner
3.6	3		Remove approx. two trees on right and level corner
3.7	3.1		Remove the two trees indicated and level.
3.8	3.8	Survey required	Crest of hill needs to suit vertical curve R 200.
3.9	3.9		Remove approx five trees and level inside of corner
3.10	5.3	Survey required	Crest to suit vertical curve R200.
	6.5	Culvert require. Drainage issues on LHS of road. Single cell culvert 375 diameter	
3.11	6.6		Remove approx. five trees and fill in and level inside of corner. Fence post may need to be moved approx one to two metres.
3.12	6.9	Survey required	Incline and decline of hill to suit maximum grade 15% crest to suit vertical curve R200.
3.13	7.3		Fill in RHS of corner to edge of vegetation
3.14	7.7		Fill in RHS of corner and level camber.
3.15	8.1		Remove the two trees indicated
	8.2	Existing culvert requires widening with fill LHS and trees removed. Needs headwalls added	
	8.4	Culvert needs widening, 1 tree removed	
3.16	9.1		Fill in and level RHS of corner
3.17	10.7	Fenceline on shoulder of road, may need to be moved possible property acquisition required	Remove trees/bushes and fill in inside of corner and extend culvert underneath to suit.
3.18	10.9		Fill in and level RHS of corner

Ref (Downer Route Survey and Road Upgrade Assessment)	Chainage (km) (Direction of travel east to west from the Castlereagh Hwy)	Issue	Proposed Road Upgrade Requirement
3.19	11	Fenceline on shoulder of road, may need to be moved possible property acquisition required	Remove trees on inside corner and level, extend culvert underneath to suit.
	11.6	tree requires removal	
3.20	12		Remove trees and level RHS of corner
3.21	12.5	Survey required	Crest to suit R200.
3.22	12.9		Level out on RHS. Fill in to level up camber on LHS
3.23	13		Remove RHS embankment and approx. ten trees. Move fence post. Widen road on LHS as far as possible without tree removal.
3.24	13.2	Fencepost right on edge of road may need to be moved possible property acquisition required	Remove approx. fifteen trees and level.
3.25	15.3		Remove approx. six trees and level corner.
3.26	15.4	Removal of trees required	Fill and level corner.
3.27	15.7		Remove approx. four trees and level inside of corner.
3.28	16		Culvert - Road and drainage needs widening to at least 6 metres (this is generally the case from this point on to the proposed site entry).
	16.4	Widen culvert	
	16.6	Widen culvert	
	16.8	Widen culvert	
	16.9	Widen culvert	
	17.1	Widen culvert	
3.29	17.3		Causeway appears suitable, however maximum axle loading to be determined.
	17.7	Widen culvert	
	17.8	Widen culvert	
3.30	17.9	Significant erosion problem, scour protection and energy dissipation needed on downstream side of causeway. Suggest spillway type arrangement	Causeway is founded on poor sub layer will crack under load. Recommend full replacement.
	18.9	Widen culvert	
	19	Widen culvert	
3.31	19.2	Replace causeway	Causeway paving is cracked suggesting poor sub grade. Suggest replacing sub grade and repaving
	19.4	Widen culvert	
	19.5	Significant EEC vegetation marker noted in this area for 3km either direction	
	19.6	Widen culvert	
3.32	19.6		Site entrance. End of survey.
	19.9	Widen culvert	

Bombandi Road – Road Upgrades

1. Installation of five [5] heavy duty grids with end assemblies and gates at the locations of the existing grids.
2. Installation of two [2] culverts at approximately 200 metres and 500 metres from the Castlereagh Highway.
3. Maintenance of the used section of Bombandi Road for the duration of the Lease.
4. Establish a new access (“Eldon Court Laneway to Switching Station”) point from Bombandi Road approximately 80m west from the Eldon Court driveway and which is approximately 1.5 km west from the Castlereagh Highway.