

|                        |                      |              |   | Park West to Houston Station<br>SCR Bridge (OBC1)  |   |
|------------------------|----------------------|--------------|---|--|---|
|                        |                      | Requirements | Four tracks   | Intervention   | Assessment  |
| Options Level 1 (PC 1) | Option 0: Do Nothing | Engineering  | Feasibility<br>Geometrical fitness for intervention<br>Safety<br>Four tracking Park West-Houston<br>Electrification of DART+ tracks<br>Vertical electrical clearance in structures<br>Bridge Design Standards<br>Keep current functionality of roads<br>Investment guidelines and programme for DART+ | Leave As Is  | Fail<br>Four Tracking Project Requirement not achieved.<br>Electrification Project Requirement not achieved.<br>Overhead Electrical Clearance Requirement not achieved.<br>Compatible with the investment guidelines and programme for DART+<br>No impact on Environmental sites of National of International significance.   |
|                        | Option 1: Do Minimum | Engineering  | Feasibility<br>Geometrical fitness for intervention<br>Safety<br>Four tracking Park West-Houston<br>Electrification of DART+ tracks<br>Vertical electrical clearance in structures<br>Bridge Design Standards<br>Keep current functionality of roads<br>Investment guidelines and programme for DART+ | Four Tracking<br>Electrification<br>No Pway or Structural Intervention   | Fail<br>Four Tracking Project Requirement not achieved.<br>Electrification Project Requirement not achieved.<br>Overhead Electrical Clearance Requirement not achieved.<br>Compatible with the investment guidelines and programme for DART+<br>No impact on Environmental sites of National of International significance.   |
|                        | Option 2             | Engineering  | Feasibility<br>Geometrical fitness for intervention<br>Safety<br>Four tracking Park West-Houston<br>Electrification of DART+ tracks<br>Vertical electrical clearance in structures<br>Bridge Design Standards<br>Keep current functionality of roads<br>Investment guidelines and programme for DART+ | Four Tracking<br>Electrification<br>Concept Design with Track Lowering Only<br>(Concept Design included)   | Pass<br>This would require a minimum track lowering of 1.650m. This track lowering is difficult to achieve from a technical perspective in terms of track gradients and longitudinal drainage but it is considered feasible.<br>Compatible with the investment guidelines and programme for DART+<br>No impact on Environmental sites of National of International significance.  |
|                        | Option 3             | Engineering  | Feasibility<br>Geometrical fitness for intervention<br>Safety<br>Four tracking Park West-Houston<br>Electrification of DART+ tracks<br>Vertical electrical clearance in structures<br>Bridge Design Standards<br>Keep current functionality of roads<br>Investment guidelines and programme for DART+ | Four Tracking<br>Electrification<br>Concept Design with Vertical clearance absorbed<br>by Increased Road Levels (50%) and Track<br>Lowering (50%)                  | Fail<br>This would require a minimum road level increase and track lowering of 0.825m. This track lowering is difficult to achieve from a technical perspective in terms of track gradients and longitudinal drainage but it is considered feasible.<br>This would require a minimum road level increase and track lowering of 0.825m. This level of road level increase at OBC1 would require extensive works to the junction and to the approach roads. It is not a feasible solution in terms of maintaining the functionality of roads.<br>Compatible with the investment guidelines and programme for DART+<br>No impact on Environmental sites of National of International significance. |
|                        | Option 4             | Engineering  | Feasibility<br>Geometrical fitness for intervention<br>Safety<br>Four tracking Park West-Houston<br>Electrification of DART+ tracks<br>Vertical electrical clearance in structures<br>Bridge Design Standards<br>Keep current functionality of roads<br>Investment guidelines and programme for DART+ | Four Tracking<br>Electrification<br>Overwidened Portal with Track Lowering Only  | Pass<br>This would require a minimum track lowering of 1.781m. This track lowering is difficult to achieve from a technical perspective in terms of track gradients and longitudinal drainage but it is considered feasible.<br>Compatible with the investment guidelines and programme for DART+<br>No impact on Environmental sites of National of International significance.  |
|                        | Option 5             | Engineering  | Feasibility<br>Geometrical fitness for intervention<br>Safety<br>Four tracking Park West-Houston<br>Electrification of DART+ tracks<br>Vertical electrical clearance in structures<br>Bridge Design Standards<br>Keep current functionality of roads<br>Investment guidelines and programme for DART+ | Four Tracking<br>Electrification<br>Overwidened Portal with Vertical clearance<br>absorbed by Increased Road Levels (50%) and<br>Track Lowering (50%)              | Fail<br>This would require a minimum road level increase and track lowering of 0.890m. This track lowering is difficult to achieve from a technical perspective in terms of track gradients and longitudinal drainage but it is considered feasible.<br>This would require a minimum road level increase and track lowering of 0.890m. This level of road level increase at OBC1 would require extensive works to the junction and to the approach roads. It is not a feasible solution in terms of maintaining the functionality of roads.<br>Compatible with the investment guidelines and programme for DART+<br>No impact on Environmental sites of National of International significance. |
|                        | Option 6             | Engineering  | Feasibility<br>Geometrical fitness for intervention<br>Safety<br>Four tracking Park West-Houston<br>Electrification of DART+ tracks<br>Vertical electrical clearance in structures<br>Bridge Design Standards<br>Keep current functionality of roads<br>Investment guidelines and programme for DART+ | Four Tracking<br>Electrification<br>Retain Existing Bridge and New Cut & Cover (C&C)<br>Tunnel for One Track on North Side.<br>Track Lowering Only                 | Pass<br>This would require a maximum track lowering of 3.0m at the cut-and-cover structure.<br>Compatible with the investment guidelines and programme for DART+<br>No impact on Environmental sites of National of International significance.   |
|                        | Option 7             | Engineering  | Feasibility<br>Geometrical fitness for intervention<br>Safety<br>Four tracking Park West-Houston<br>Electrification of DART+ tracks<br>Vertical electrical clearance in structures<br>Bridge Design Standards<br>Keep current functionality of roads<br>Investment guidelines and programme for DART+ | Four Tracking<br>Electrification<br>Concept Design with Vertical clearance absorbed<br>by Increased Road Levels and Track lowering<br>(Other than 50/50 split)     | Pass<br>This would require a road level increase of 0.2m and a minimum track lowering of 1.450m. This track lowering is difficult to achieve from a technical perspective in terms of track gradients and longitudinal drainage but it is considered feasible.<br>This would require a road level increase of 0.2m and a minimum track lowering of 1.450m.<br>Compatible with the investment guidelines and programme for DART+<br>No impact on Environmental sites of National of International significance.  |
|                        | Option 8             | Engineering  | Feasibility<br>Geometrical fitness for intervention<br>Safety<br>Four tracking Park West-Houston<br>Electrification of DART+ tracks<br>Vertical electrical clearance in structures<br>Bridge Design Standards<br>Keep current functionality of roads<br>Investment guidelines and programme for DART+ | Four Tracking<br>Electrification<br>Overwidened Portal with Vertical clearance<br>absorbed by Increased Road Levels and Track<br>Lowering (Other than 50/50 split) | Pass<br>This would require a road level increase of 0.2m and a minimum track lowering of 1.581m. This track lowering is difficult to achieve from a technical perspective in terms of track gradients and longitudinal drainage but it is considered feasible.<br>This would require a road level increase of 0.2m and a minimum track lowering of 1.581m.<br>Compatible with the investment guidelines and programme for DART+<br>No impact on Environmental sites of National of International significance.  |