A90/A96 HAUDAGAIN IMPROVEMENT

VOLUME 3 OF 6

EMPLOYER'S REQUIREMENTS

PART 3 – APPENDICES TO THE EMPLOYER'S REQUIREMENTS

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A90/A96 HAUDAGAIN IMPROVEMENT

CONTRACT NUMBER TS/MTRIPS/WKS/2017/04

CONTRACT WORKING ISSUE

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TRANSPORT SCOTLAND

A90/A96 HAUDAGAIN IMPROVEMENT

TS/MTRIPS/WKS/2017/04

CONTRACT WORKING ISSUE

VOLUME 3 OF 6

EMPLOYER'S REQUIREMENTS

PART 3 – APPENDICES TO THE EMPLOYER'S REQUIREMENTS

DOCUMENT ISSUE RECORD

I hereby confirm that this is the current version of the Employer's Requirements and supersedes all previous issues of such document by the Employer.

Signed .....

Name (Block capitals) .....

Date .....

Contractor .....

Copy of signed page shall be sent to, Transport Scotland, **[REDACTED]**

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1. APPENDICES TO THE EMPLOYER'S REQUIREMENTS

APPENDIX	DESCRIPTION
A	Requirements for Road(s)
B	Requirements for Principal Structure(s)
C	Certificates
D	Departures from Standards Proformas
E	Undertakers Notices
F	Local Council Design Standards and Guidelines
G	Not Used
H	Not Used
I	Consultation Matrix
J	Reinforced Soil Dimensional Tolerances and Deformation Limits
K	Stage 1 Safety Audit Report
L	Walking, Cycling and Horse-Riding Review Report
M	Amendments to Design Manual for Roads And Bridges And The Manual of Contract Documents For Highway Works
N	As Constructed Requirements
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P	Structures Design Statement
Q	Environmental Assessment Documents
R	Details of Additional Land Required by the Contractor for the Works
S	Statutory Orders and Schemes Schedules
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AA	Application for Approval to Proceed TS2010 Surface Course Stage 3 Trial
BB	Communication Protocol

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APPENDIX A

THIS IS APPENDIX A TO THE EMPLOYER'S REQUIREMENTS

REQUIREMENTS FOR ROAD(S)

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Table 1 - Requirements for Roads

Road Name	Road Located between Points (refer to note 1)	Category TD9 Table 4 of the DMRB	Type of Road TD9, TD27of the DMRB / Local Authority Standard	Minimum Carriageway Width (metres) (refer to note 2)	Hard shoulder/ Hardstrip Width (metres)		Minimum Verge Width (metres) (refer to note 3)		Kerb Required	Minimum Central Reserve Width (metres) (refer to Note 4)	Footway and/or Cycleway Width (metres) See Table 3	Design Speed (kph) *Indicative Speed Limit (mph)*
					Near-side	Off-side	Near-side	Off-side				
Trunk Roads												
A90 Northbound	R01 to R03	N/A	D2UAP (Refer to Note 11)	7.3	N/A	N/A	A/E	N/A	Yes	A/E	3.0	70A *40*
A90 Northbound	R03 to R04	N/A	D2UAP	7.3	N/A	N/A	A/E	N/A	Yes	A/E	A/E	70A *40*
A90 Northbound	R04 to R05	N/A	D2UAP	7.3	N/A	N/A	A/E	N/A	Yes	A/E	A/E	70A *40*
A90 Southbound	R06 to R04	N/A	D2UAP	A/E	N/A	N/A	A/E	N/A	Yes	A/E	A/E	70A *40*
A90 Southbound	R04 to R03	N/A	D2UAP	A/E	N/A	N/A	A/E	N/A	Yes	A/E	A/E	70A *40*
A90 Southbound	R03 to R02	N/A	D2UAP	A/E	N/A	N/A	A/E	N/A	Yes	A/E	A/E	70A *40*
A96 Eastbound	R07 to R09	N/A	D2UAP (Refer to Note 12	A/E	N/A	N/A	A/E	N/A	Yes	A/E	A/E	70A *40*

Road Name	Road Located between Points (refer to note 1)	Category TD9 Table 4 of the DMRB	Type of Road TD9, TD27of the DMRB / Local Authority Standard	Minimum Carriageway Width (metres) (refer to note 2)	Hard shoulder/ Hardstrip Width (metres)		Minimum Verge Width (metres) (refer to note 3)		Kerb Required	Minimum Central Reserve Width (metres) (refer to Note 4)	Footway and/or Cycleway Width (metres) See Table 3	Design Speed (kph) *Indicative Speed Limit (mph)*
					Near-side	Off-side	Near-side	Off-side				
A96 Eastbound	R09 to R10	N/A	D2UAP (Refer to Note 12	A/E	N/A	N/A	A/E	N/A	Yes	A/E	A/E	70A *40*
A96 Eastbound	R10 to R11	N/A	D2UAP (Refer to Note 12	A/E	N/A	N/A	A/E	N/A	Yes	A/E	A/E	70A *40*
A96 Westbound	R12 to R10	N/A	D2UAP	A/E	N/A	N/A	A/E	N/A	Yes	A/E	A/E	70A *40*
A96 Westbound	R10 to R09	N/A	D2UAP	A/E	N/A	N/A	A/E	N/A	Yes	A/E	A/E	70A *40*
A96 Westbound	R09 to R08	N/A	D2UAP	A/E	N/A	N/A	A/E	N/A	Yes	A/E	A/E	70A *40*

Road Name	Road Located between Points (refer to note 1)	Category TD9 Table 4 of the DMRB	Type of Road TD9, TD27of the DMRB / Local Authority Standard	Minimum Carriageway Width (metres) (refer to note 2)	Hard shoulder/ Hardstrip Width (metres)		Minimum Verge Width (metres) (refer to note 3)		Kerb Required	Minimum Central Reserve Width (metres) (refer to Note 4)	Footway and/or Cycleway Width (metres) See Table 3	Design Speed (kph) *Indicative Speed Limit (mph)*
					Near-side	Off-side	Near-side	Off-side				
Side Roads												
Dual Carriageway Link Road Westbound	L01 to L02	N/A	D2UAP	7.3	N/A	N/A	3.0	N/A	Yes	1.8	3.0	70A *40*
Dual Carriageway Link Road Eastbound	L02 to L01	N/A	D2UAP	7.3	N/A	N/A	4.0	N/A	Yes	1.8	4.0	70A *40*
Manor Avenue	L03 to L04	N/A	Aberdeen City Council Guidelines (General Access Road)	A/E	N/A	N/A	A/E	3.0	Yes	N/A	A/E (N/S) 3.0 (O/S)	30 *20*
Manor Avenue Service Road	L05 to L06	N/A	Aberdeen City Council Guidelines	A/E	N/A	N/A	A/E	A/E	Yes	N/A	A/E (N/S) A/E (O/S)	N/A *20*
Access to Manor Avenue	L07 to L08	N/A	Aberdeen City Council Guidelines (General Access Road)	7.3	N/A	N/A	3.0	3.0	Yes	N/A	3.0 (N/S) A/E (O/S)	30 *20*

Road Name	Road Located between Points (refer to note 1)	Category TD9 Table 4 of the DMRB	Type of Road TD9, TD27of the DMRB / Local Authority Standard	Minimum Carriageway Width (metres) (refer to note 2)	Hard shoulder/ Hardstrip Width (metres)		Minimum Verge Width (metres) (refer to note 3)		Kerb Required	Minimum Central Reserve Width (metres) (refer to Note 4)	Footway and/or Cycleway Width (metres) See Table 3	Design Speed (kph) *Indicative Speed Limit (mph)*
					Near-side	Off-side	Near-side	Off-side				
Re-aligned Manor Avenue	L09 to L10	N/A	Aberdeen City Council Guidelines (Local Distributor Road)	7.3	N/A	N/A	3.0	3.0	Yes	N/A	3.0 (N/S) 3.0 (O/S)	50 *30*
Logie Avenue - West	L11 to L12	N/A	Aberdeen City Council Guidelines (General Access Road)	6.0	N/A	N/A	2.0	2.0	Yes	N/A	2.0 (N/S) 2.0 (O/S)	30 *20*
Logie Avenue - West	L13 to L14	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Logie Avenue - East	L15 to L16	N/A	Aberdeen City Council Guidelines (General Access Road)	5.5	N/A	N/A	2.0	2.0	Yes	N/A	2.0 (N/S) 2.0 (O/S)	30 *20*

Road Name	Road Located between Points (refer to note 1)	Category TD9 Table 4 of the DMRB	Type of Road TD9, TD27of the DMRB / Local Authority Standard	Minimum Carriageway Width (metres) (refer to note 2)	Hard shoulder/ Hardstrip Width (metres)		Minimum Verge Width (metres) (refer to note 3)		Kerb Required	Minimum Central Reserve Width (metres) (refer to Note 4)	Footway and/or Cycleway Width (metres) See Table 3	Design Speed (kph) *Indicative Speed Limit (mph)*
					Near-side	Off-side	Near-side	Off-side				
Logie Terrace	L17 to L18	N/A	Aberdeen City Council Guidelines (General Access Road)	A/E	N/A	N/A	A/E	A/E	Yes	N/A	A/E (N/S) 2.0 (O/S)	30 *20*
Turning Areas												
Manor Avenue	T01	N/A	Aberdeen City Council Guidelines	5.5	N/A	N/A	2.0	2.0	Yes	N/A	2.0 (N/S) 2.0 (O/S)	N/A *20*
Logie Terrace	T02	N/A	Aberdeen City Council Guidelines	5.5	N/A	N/A	2.0	2.0	Yes	N/A	2.0 (N/S) 2.0 (O/S)	N/A *20*
Logie Avenue - East	T03	N/A	Aberdeen City Council Guidelines	5.5	N/A	N/A	2.0	2.0	Yes	N/A	2.0 (N/S) 2.0 (O/S)	N/A *20*
Logie Avenue - West	T04	N/A	Aberdeen City Council Guidelines	5.5	N/A	N/A	2.0	2.0	Yes	N/A	2.0 (N/S) 2.0 (O/S)	N/A *20*

NOTES TO TABLE 1

1. Reference Points are as identified on Drawing Number B1557630/CD/REF/001, as listed in Appendix 0/4 of the Specification.
2. Allowance shall be made for carriageway widening to accommodate vehicle swept paths, junction requirements and parking provision.
3. Additional verge width may be required to accommodate road restraint systems, drainage, utilities, footways, cycleways, visibility requirements and otherwise. Verge widths may include footways and cycleways where required.
4. Central reserves shall be widened locally to accommodate crossing points for pedestrians and cyclists and to accommodate visibility requirements.
5. "N/A" means not applicable. "A/E" means as existing.
6. Not Used
7. Not Used
8. Not Used
9. Aberdeen City Council Guidelines and Specifications for Roads within Residential and Industrial Developments 1998 'Aberdeen City Council Guidelines' are provided in Appendix F
10. "N/S" means nearside of carriageway. "O/S" means offside of carriageway. On roads where there is to be two-way traffic N/S relates to the direction of travel which corresponds with the increasing reference numbers (e.g. L03 – L04).
11. A90 Northbound to be widened between Reference Points R01 and R03 on approach to the Dual Carriageway Link Road / A90 North Anderson Drive Junction to provide an additional lane to cater for left-turn movements.
12. Existing combined cycle, bus and taxi lane on A96 Eastbound to be continued through the Dual Carriageway Link Road / A96 Auchmill Road Junction between Reference Points R07 and R012.

Table 2 – Requirements for Junctions

Junction Name	Junction Type	Junction Approach Roads	Minimum Number of Lanes at Stop Line	Traffic Signals	Pedestrian / Cyclist Crossing
Dual Carriageway Link Road / A90 North Anderson Drive Junction	Signal-Controlled T-Junction	A90 Northbound	3	Yes	See Table 6
		A90 Southbound	2	Yes	See Table 6
		Dual Carriageway Link Road Eastbound	3	Yes	See Table 6
Dual Carriageway Link Road / Re-aligned Manor Avenue / Logie Avenue Junction	Signal-Controlled Crossroad	Dual Carriageway Link Road Westbound	3	Yes	See Table 6
		Dual Carriageway Link Road Eastbound	3	Yes	See Table 6
		Re-aligned Manor Avenue	2	Yes	See Table 6
		Logie Avenue – West	2	Yes	See Table 6
Dual Carriageway Link Road / A96 Auchmill Road Junction	Signal-Controlled T-Junction	Dual Carriageway Link Road Westbound	2	Yes	See Table 6
		A96 Eastbound	3 (Refer to Note 4)	Yes	See Table 6
		A96 Westbound	2	Yes	See Table 6
A90 North Anderson Drive / Hilton Drive Junction	Signal-Controlled T - Junction	A90 Northbound	3	Yes	See Table 6
		A90 Southbound	2	Yes	See Table 6
		Hilton Drive	2 (Refer to Note 4)	Yes	See Table 6

NOTES TO TABLE 2:

1. Right-turns from the westbound carriageway of the Dual Carriageway Link Road to the eastbound carriageway of the A96 Auchmill Road shall not be permitted.
2. Right-turns from the southbound carriageway of the A90 North Anderson Drive to the westbound carriageway of the Dual Carriageway Link Road shall not be permitted.
3. Right-turns from the northbound carriageway of the A90 North Anderson Drive to Hilton Drive shall not be permitted.
4. Minimum number of lanes stated in Table 2 includes bus lane.

Table 3 - Requirements for Non-Motorised User (NMU) Routes

Reference Points (refer to Note 1)	**Route Type and Location**	**Min Width (metres)**	**Non-Motorised User Route Cross-section**	**Crossing Provision / Termination Details** **See Table 6**
N01 – N02	Off-carriageway shared footway/cycleway located in the verges of the A90 Northbound and the Dual Carriageway Link Road Westbound.	3.0	2.0 metres wide shared footway/cycleway plus 1.0 metre wide buffer strip between NMU route and carriageway.	Route to tie-in to existing footway at N01. Route to tie-in to new footway/cycleway and new footpath at N02.
N02 – N03	Off-carriageway shared footpath/cyclepath located between the Dual Carriageway Link Road and Manor Avenue.	3.0	3.0 metres wide shared footpath/cyclepath.	Route to tie in to shared footway/cycleway at N02. Route to tie in to shared footway/cycleway at N03.
N03 – N04	Off-carriageway shared footway/cycleway located in verge of Manor Avenue.	3.0	3.0 metres wide shared footway/cycleway.	Route to tie-in to new shared footpath/cyclepath at N03. Route to tie-in to crossing point C08.
N05 – N06	Off-carriageway shared footway/cycleway located in verge of Access to Manor Avenue.	3.0	3.0 metres wide shared footway/cycleway.	Route to tie-in to crossing point C08. Route to tie-in to shared footpath/cyclepath at N06.
N06 – N07	Off-carriageway shared footpath/cyclepath located in verge of Manor Avenue.	3.0	3.0 metres wide shared footpath/cyclepath.	Route to tie-in to new shared footway/cycleway at N06. Route to tie-in to new shared footway/cycleway at N07.

N07 – N08	Off-carriageway shared footway/cycleway located in verge of Manor Avenue.	4.0	3.0 metres wide shared footway/cycleway plus 1.0 metre wide buffer strip between NMU route and carriageway.	Route to tie-in to new shared footpath/cyclepath at N07. Route to tie-in to footway N08.
N02 – N09	Footway located in verge of Dual Carriageway Link Road Westbound, Re-aligned Manor Avenue and Access to Manor Avenue.	3.0	2.0 metres wide footway plus 1.0 metre wide buffer strip between NMU route and carriageway.	Route to tie-in to new shared footway/cycleway at N02. Route to crossing point C09.
N10 – N11	Footpath (including steps if required) located between Dual Carriageway Link Road and Manor Avenue.	2.0	2.0 metres wide footpath.	Route to tie-in to new footway at N10. Route to tie-in to new shared footpath/cyclepath at N11.
N03 – N12	Footway located in verge of Manor Avenue.	2.0	2.0 metres wide footway.	Route to tie-in to new shared footway/cycleway at N03. Route to tie-in to new footway at N12.
N12 – N13	Footway located in verge of Manor Avenue Service Road.	1.8	1.8 metre wide footway.	Route to tie-in to new footway at N12. Route to tie-in to existing footway at N13.

N14 – N15	Footpath (including steps if required) located between Access to Manor Avenue and Realigned Manor Avenue.	2.0	2.0 metres wide footpath.	Route to tie-in to new footway at N14. Route to tie-in to new footway at N15.
N16 – N07	Footway located in verge of Access to Manor Avenue and Realigned Manor Avenue.	3.0	2.0 metres wide footway plus 1.0 metre wide buffer strip between NMU route and carriageway.	Route to tie-in to crossing point C11. Route to tie-in to new shared footway/cycleway at N07.
N17 – N18	Footway located in verge of Realigned Manor Avenue and Dual Carriageway Link Road Westbound.	3.0	2.0 metres wide footway plus 1.0 metre wide buffer strip between NMU route and carriageway.	Route to tie-in to existing footway at N17. Route to tie-in to existing footway at N18.
N19 – N20	Footpath located between Re-aligned Manor Avenue and Logie Terrace.	2.0	2.0 metre wide footpath.	Route to tie-in to new footway at N19. Route to tie-in to new footway at N20.
N20 – N21	Footway located in verge of Logie Terrace.	2.0	2.0 metres wide footway.	Route to tie-in to new footway at N20. Route to tie-in to existing footway at N21.
N22 – N23	Footpath (including steps if required) located between Logie Place and Realigned Manor Avenue.	2.0	2.0 metres wide footpath.	Route to tie-in to new footway at N22. Route to tie-in to new footway at N23.
N24 – N25	Footpath between Re-aligned Manor Avenue and Logie Place.	2.0	2.0 metres wide footpath.	Route to tie-in to new footway at N24. Route to tie-in to new footway at N25.
N25 – N26	Footway located in verge of Logie Place.	2.0	2.0 metres wide footway.	Route to tie-in to new footway at N25. Route to tie-in to existing footway at N26.

N27 – N28	Off-carriageway shared footway/cycleway located in the verge of Clifton Road and A90 Southbound.	A/E	Shared footway/cycleway with overall width as existing and to include 1.0 metre wide buffer strip between NMU route and carriageway.	Route to tie-in to existing footway at N27. Route to tie-in to existing footway at N28.
N29– N30	Footway located in verge of A90 Northbound and Dual Carriageway Link Road Eastbound.	3.0	2.0 metres wide footway plus 1.0 metre wide buffer strip between NMU route and carriageway.	Route to tie-in to existing footway at N29. Route to tie-in to new shared footway/cycleway at N30.
N30 – N31	Off-carriageway shared footway/cycleway located in verge of Dual Carriageway Link Road Eastbound.	4.0	3.0 metres wide shared footway/cycleway plus 1.0 metre wide buffer strip between NMU route and carriageway.	Signal controlled crossing point at junction with Logie Avenue – West (C15). Route to tie-in to new footway at N30. Route to tie-in to new footway at N31.
N32 – N33	Footway located in verge of Logie Avenue - West and Logie Avenue - East.	2.0	2.0 metres wide footway.	Route to tie-into new shared footway/cycleway at N32. Route to terminate at N33.
N34 – N35	Footpath located between Logie Avenue – East and A90 Northbound.	A/E	Footpath cross-section to match existing.	Route to tie-in to new footway at N34. Route to tie-in to existing footpath at N35.
N36 – N37	Footpath (including steps if required) located between Logie Avenue – East and A90 Northbound.	A/E	Footpath cross-section to match existing.	Route to tie-in to new footway at N36. Route to tie-in to existing footpath at N37.
N37 – N38	Footpath located between Logie Avenue – East and Logie Avenue – West.	2.0	2.0 metres wide footpath.	Route to tie-in to new footpath at N37. Route to tie-in to new footway at N38.

N39 – N40	Footpath located between Logie Avenue – West and Dual Carriageway Link Road Eastbound.	2.0	2.0 metres wide footpath.	Route to tie-in to new footway at N39. Route to tie-in to new shared footway/cycleway at N40.
N41 – N42	Footway located in verge of Logie Avenue – West.	2.0	2.0 metres wide footway.	Route to tie-into new shared footway/cycleway at N41. Route to terminate at N42.
N43 – N44	Footway located in verge of Manor Drive.	A/E	Footway cross-section to match existing.	Route to tie-in to existing footway at N43. Route to tie-in to exiting footway at N44.
N45 – N46	Footway located in verge of Manor Drive.	A/E	Footway cross-section to match existing.	Uncontrolled crossing points at access to Manor Park Caravan Park (C21) and access to properties 438/448 Auchmill Road (C22). Route to tie-in to existing footway at N40. Route to tie-in to new footpath at N46.
N46 – N18	Footpath located between Manor Drive and A96 Westbound.	2.0	2.0 metres wide footpath.	Route to tie-in to existing footway at N46. Route to tie-in to existing footway at N18.
N47 – N48	Footpath located between Manor Drive and Dual Carriageway Link Road Westbound.	2.0	2.0 metres wide footpath.	Route to tie-in to new footpath at N47. Route to tie-in to new footway at N48.
N31 – N49	Footway located in verge of A96 Westbound.	3.0	2.0 metres wide footway plus 1.0 metre wide buffer strip between NMU route and carriageway.	Uncontrolled crossing point at junction with access to property at 871 Great Northern Road (C26). Route to tie-in to shared footway/cycleway at N31. Route

				to tie-in to existing footway at N49.
N50 – N51	Footway located in the verge of Manor Avenue	2.0	2.0 metres wide footway.	Route to tie-in to crossing point C07. Route to tie-in to existing footway at N51.

NOTES TO TABLE 3:

1. Reference point locations identified on drawing B1557630/CD/REF/001, as listed in Appendix 0/4 of the Specification.
2. All widths stated in Table 3 are minimum dimensions
3. Location of steps to be agreed with the Engineer.
4. The connection detail between new and existing NMU routes at tie-in points shall be agreed with Aberdeen City Council.
5. 'A/E' means as existing.
6. Footway widths shall be increased at bus lay-bys in accordance with Transport Scotland's 'Roads for All: Good Practice Guide for Roads'

Table 4. Requirement for Accesses

Reference Point(s).	Name and/or Approximate Location	Minimum Width (metres)	Surfaced / Unsurfaced	Minimum verge Widths (metres)	Further Details
A01 – A02	Access track serving property at 871 Great Northern Road.	3.5	Surfaced	1.0	Refer to Note 6
A03– A04	Access track serving SuDS feature (if required).	3.5	Surfaced	1.0	Refer to Note 7
A05 – A06	Access track serving properties at 438/440 Auchmill Road	3.0	Surfaced	1.0	Refer to Note 3
A07 – A08	Access serving Manor Park Caravan Park.	10.3	Surfaced	N/A	Refer to Note 5
A09 – A10	Access serving 73 Manor Avenue.	3.0	Surfaced	1.0	Refer to Note 4

NOTES TO TABLE 4:

1. Reference point locations identified on drawing B1557630/CD/REF/001, as listed in Appendix 0/4 of the Specification.
2. Minimum pavement construction shall be in accordance with Section 4.2.7 in Parts 1 and 2.
3. Maximum permitted longitudinal gradient shall be 10%.
4. Maximum permitted longitudinal gradient shall be 20%, however the Contractor shall endeavour to minimise the gradient if it is practicable to do so.
5. Access shall be designed to accommodate 18 metres long low loader as detailed in Section 4.2.1.9 of Part 2.
6. Access shall be designed to accommodate 7.170 metres long rigid light goods vehicle as detailed in Section 4.2.1.9 of Part 2.
7. Access shall be designed to accommodate 7.170 metres long rigid light goods vehicle as detailed in Section 4.2.1.9 of Part 2. Maximum permitted longitudinal gradient shall be 10%.

Table 5. Requirement for Lay-Bys

Reference Point(s).	Name and/or Approximate Location	Minimum Width (metres)	Minimum Back Length (metres)	Minimum Taper Length (metres)	Minimum verge Widths (metres)
LB01	Bus lay-by on Proposed Link Road westbound carriageway approx. Ch. 385.	3.6	12	20	N/A
LB02	Bus lay-by on Proposed Link Road eastbound carriageway approx. Ch. 325.	3.6	12	20	N/A
LB03	Bus lay-by on Proposed Link Road eastbound carriageway approx. Ch. 140.	3.6	12	20	N/A
LB04	Bus lay-by on Auchmill Road westbound carriageway, approx. Ch. 160.	3.6	12	20	N/A

NOTES TO TABLE 5:

1. Reference point locations identified on drawing B1557630/CD/REF/001, as listed in Appendix 0/4 of the Specification.
2. Minimum width has been measured from the edge of carriageway line to the kerb line of the lay-by bay.

Table 6. Requirement for Crossing Points

Reference Point(s).	Description	Crossing Type
C01	Existing crossing point on Hilton Drive to be upgraded.	Uncontrolled crossing
C02	Existing crossing point on Hilton Drive to be upgraded.	Puffin crossing
C03	Existing crossing point on Hilton Drive to be upgraded.	Uncontrolled crossing
C04	Existing crossing point on A90 to be upgraded.	Puffin crossing
C05	New controlled crossing on A90	Toucan crossing
C06	New controlled crossing on Dual Carriageway Link Road	Toucan crossing
C07	New uncontrolled crossing on Manor Avenue (across Manor Avenue Service Road).	Uncontrolled crossing
C08	Existing crossing point on Manor Avenue (across Wilkie Avenue) to be upgraded.	Uncontrolled crossing
C09	Existing crossing point on Access to Manor Avenue (across Manor Avenue Service Road) to be upgraded.	Uncontrolled crossing
C10	New uncontrolled crossing on Access to Manor Avenue.	Uncontrolled crossing
C11	New uncontrolled crossing on Access to Manor Avenue.	Uncontrolled crossing
C12	New uncontrolled crossing on Realigned Manor Avenue.	Uncontrolled crossing
C13	New controlled crossing on Realigned Manor Avenue.	Puffin crossing
C14	New controlled crossing on Dual Carriageway Link Road.	Puffin crossing.
C15	New controlled crossing on Logie Avenue - West	Toucan crossing.
C16	New controlled crossing on Dual Carriageway Link Road.	Puffin crossing.
C17	New uncontrolled crossing on Logie Avenue – East.	Uncontrolled crossing.
C18	New uncontrolled crossing on Logie Avenue – East.	Uncontrolled crossing.

C19	New uncontrolled crossing on Logie Avenue – West.	Uncontrolled crossing.
C20	New uncontrolled crossing on Manor Drive.	Uncontrolled crossing.
C21	New uncontrolled crossing on Manor Drive (across access to Manor Park Caravan Park).	Uncontrolled crossing.
C22	New uncontrolled crossing on Manor Drive (across access serving properties at 438/440 Auchmill Road).	Uncontrolled crossing.
C23	New controlled crossing on A90.	Puffin crossing
C24	New controlled crossing on Dual Carriageway Link Road.	Toucan crossing.
C25	New controlled crossing on A90.	Toucan crossing.
C26	New uncontrolled crossing on A90 Westbound (across access service property at 871 Great Northern Road).	Uncontrolled crossing.

NOTES TO TABLE 6:

1. Reference point locations identified on drawing B1557630/CD/REF/001, as listed in Appendix 0/4 of the Specification.

Table 7. Requirement for Fences

Fence Located between Points (refer to Note 1)	Fence Type	Typical Detail Reference
F01 to F02	Estate Fencing	B1557630/CD/SD/F1
F03 to F04	Estate Fencing	B1557630/CD/SD/F1
F05 to F06	Estate Fencing	B1557630/CD/SD/F1
F07 to F08	Estate Fencing	B1557630/CD/SD/F1
F09 to F10	Estate Fencing	B1557630/CD/SD/F1
F11 to F12	Estate Fencing	B1557630/CD/SD/F1
F12 to F13	Garden Fencing	To Match Existing
F14 to F15	Estate Fencing	B1557630/CD/SD/F1
F16 to F17	Estate Fencing	B1557630/CD/SD/F1
F18 to F19	Garden Fencing	To Match Existing
F20 to F21	Garden Fencing	To Match Existing
F21 to F22	Estate Fencing	B1557630/CD/SD/F1
F22 to F23	Acoustic Barrier	N/A
F23 to F24	Estate Fencing	B1557630/CD/SD/F1
F22 to F25	Garden Fencing	To Match Existing
F26 to F27	Garden Fencing	To Match Existing
F28 to F29	Garden Fencing	To Match Existing
F30 to F31	Acoustic Barrier	N/A
F31 to F32	Estate Fencing	B1557630/CD/SD/F1
F32 to F33	Garden Fencing	To Match Existing
F29 to F34	Acoustic Barrier	N/A
F34 to F35 to F36 to F34	Estate Fencing	B1557630/CD/SD/F1
F37 to F38	Garden Fencing	B1557630/CD/SD/F2

NOTES TO TABLE 7:

1. Reference point locations identified on drawing B1557630/CD/REF/002, as listed in Appendix 0/4 of the Specification.

Table 8. Requirement for Gates

Gate Location	Gate Type	Typical Detail Reference
G01	Vehicular Access Gate	To Match Existing
G02	Pedestrian Access Gate	To Match Existing
G03	Pedestrian Access Gate	To Match Existing
G04	Pedestrian Access Gate	To Match Existing
G05	Pedestrian Access Gate	To Match Existing
G06	Pedestrian Access Gate	To Match Existing
G07	Pedestrian Access Gate	To Match Existing
G08	Pedestrian Access Gate	To Match Existing
G09	Pedestrian Access Gate	To Match Existing
G10	Vehicular Access Gate	B1557630/CD/SD/G4 – G4
G11	Vehicular Access Gate	To Match Existing
G12	Pedestrian Access Gate	To Match Existing
G13	Pedestrian Access Gate	To Match Existing
G14	N/A	Not Required
G15	N/A	Not Required
G16	N/A	Not Required
G17	Pedestrian Access Gate	To Match Existing
G18	Pedestrian Access Gate	To Match Existing
G19	Vehicular Access Gate	To Match Existing
G20	Pedestrian Access Gate	To Match Existing
G21	Vehicular Access Gate	To Match Existing
G22	Vehicular Access Gate	B1557630/CD/SD/G3 – G3
G23	Vehicular Access Gate	B1557630/CD/SD/G1 – G1
G24	Pedestrian Access Gate	B1557630/CD/SD/F2 – G2

NOTES TO TABLE 8:

1. Reference point locations identified on drawing B1557630/CD/REF/002, as listed in Appendix 0/4 of the Specification.

APPENDIX B

THIS IS APPENDIX B TO THE EMPLOYER'S REQUIREMENTS

REQUIREMENTS FOR PRINCIPAL STRUCTURE(S)

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Appendix B - Requirements for Principal Structure(s)
Table 1

Structure Reference Number	Structure Title	Approximate Chainage / Location	Description and Purpose of Structure	Minimum Cross-sectional/Internal Dimensions (metres)	Design Check Category	Required Live Loading	Abnormal Indivisible Load	Live Road Traffic to be Carried.	Vehicle Parapet Type (where required)	Services & Service Ducts to be provided
S01	Retaining Wall No 1	At intersection of Dual Carriageway Link Road and A96 Auchmill Road	New structure to support the new link road and A96 Auchmill Road above adjacent properties	N/A	Category 3 - As per BD2 of DMRB	LM1 and LM2 in accordance with BS EN 1991-2 & its UK National Annex.	LM3 SV80, SV100 and SV196 in accordance with BS EN 1991-2 & its UK National Annex.	For all permitted classes of vehicular traffic, cyclists and pedestrians	As per TD 19	[REDACTED]
S02	Retaining Wall No 2	Manor Avenue	New structure to support the new access to Manor avenue above a car parking layby	N/A	Category 3 - As per BD2 of DMRB	LM1 and LM2 in accordance with BS EN 1991-2 & its UK National Annex	LM3 SV80 and SV100 in accordance with BS EN 1991-2 & its UK National Annex.	For all permitted classes of vehicular traffic, cyclists and pedestrians	As per TD 19	[REDACTED]
S03	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	[REDACTED]
S04	Scatter Burn Culvert	Manor Drive	New access chamber for connection of road drainage to existing culvert	3.0m diameter to access chamber	Category 3 - As per BD2 of DMRB	LM1 and LM2in accordance with BS EN 1991-2 & its UK National Annex	LM3 SV80 and SV100 in accordance with BS EN 1991-2 & its UK National Annex.	For all permitted classes of vehicular traffic, cyclists and pedestrians	None	[REDACTED]

NOTES TO TABLE 1

1. Reference Points are as identified on Drawing Number B1557630/CD/REF/001, as listed in Appendix 0/4 of the Specification.

APPENDIX C

THIS IS APPENDIX C TO THE EMPLOYER'S REQUIREMENTS

CERTIFICATES

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APPENDIX C

CERTIFICATES

Description	Reference
Design Interim Certificate: Structures	DICS
Design Check Interim Certificate: Structures	DCICS
Design Certificate: Structures	DCS
Design Check Certificate: Structures	DCCS
Design Interim Certificate: Earthworks	DIC( )
Design Check Interim Certificate: Earthworks	DCIC( )
Design Certificate: Earthworks	DC( )
Design Check Certificate: Earthworks	DCC( )
Design Interim Certificate: Road Restraint Systems	DIC(B)
Design Check Interim Certificate: Road Restraint Systems	DCIC(B)
Design Certificate: Road Restraint Systems	DC(B)
Design Check Certificate: Road Restraint Systems	DCC(B)
Design Interim Certificate: Other Part(s) of Design or Design Elements	DIC( )
Design Check Interim Certificate: Other Part(s) of Design or Design Elements	DCIC( )
Design Certificate: Other Part(s) of Design or Design Elements	DC( )
Design Check Certificate: Other Part(s) of Design or Design Elements	DCC( )
Interim Construction Certificate	ICC
Final Construction Certificate	FCC
Interim Post Construction Certificate	IPCC
Final Post Construction Certificate	FPCC
Consultation Certificate	CNC
Road Safety Audit Certificate	RSAC
Stage 2 Road Safety Audit Certificate: For Temporary Traffic Management Schemes	RSAC(TTM2)
Stage 3 Road Safety Audit Certificate: For Temporary Traffic Management Schemes	RSAC(TTM3)
Temporary Works Certificate	TWC
Provenance Certificate	PC

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DESIGN INTERIM CERTIFICATE: STRUCTURES

CERTIFICATE NO: DICS.....……..……..

1. We hereby certify to the Employer in respect of the design of the following part of the Design or Design Element namely

.....……..(Name of Structure)

that reasonable professional skill and care has been taken by us with a view to securing that the part of the Design or Design Element:-

i. complies with the Employer's Requirements.

ii. has been accurately translated into the construction drawings and bar bending schedules bearing the unique numbers listed below:

iii. is not detrimental to the whole Design or Design Element and shall not affect the completion of the Design Certificate(s).

We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Employer and Contractor.

Signed: .....…….. Firm: .....….....
DESIGNER (Team leader for Designer)

Name (Block Capitals): .....…… …. Date: .....……..…….....

Signed:.....…..…… Firm: .....….....
CONTRACTOR (Agent).

Name (Block Capitals): .....……..... Date: ...…….....

2. Receipt of this Certificate is acknowledged

Signed: .....……..... Date: .....….....
on behalf of the ENGINEER

DESIGN CHECK INTERIM CERTIFICATE: STRUCTURES

CERTIFICATE NO: DCICS.....……..……..

1. We hereby certify to the Employer in respect of the design of the following part of the Design or Design Element namely

   .....……..……..……..(Name of Structure)

   that reasonable professional skill and care has been taken by us with a view to securing that the part of the Design or Design Element:-

   i. complies with the Employer's Requirements.

   ii. has been accurately translated into the construction drawings and bar bending schedules bearing the unique numbers listed below:

   iii. is not detrimental to the whole Design or Design Element and shall not affect the completion of the Check Certificate(s).

   We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Employer and Contractor.

   Signed: .....…… Firm: .....….....
   CHECKER (Team leader for Checker)

   Name (Block Capitals): ..... Date: .....…….....

   Signed:.....…….....…... Firm: .....….....
   CONTRACTOR (Agent)

   Name (Block Capitals): ..... Date: .....…….....

2. Receipt of this Certificate is acknowledged

   Signed: .....……..... Date: .....….....
   on behalf of the ENGINEER

DESIGN CERTIFICATE: STRUCTURES

CERTIFICATE NO: DCS.....……..……..

1. We hereby certify to the Employer in respect of the design of the following part of the Design or Design Element namely

.....……..…… (Name of Structure)

that reasonable professional skill and care has been taken by us with a view to securing that the part of the Design or Design Element:-

i. complies with the Employer's Requirements.

ii. has been accurately translated into the construction drawings and bar bending schedules bearing the unique numbers listed below:

iii. is not detrimental to the whole Design or Design Element.

We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Employer and Contractor.

Signed: .....……..…….. Firm.....
DESIGNER (Team leader for Designer)

Name (Block Capitals): .....…….. Date: .....……..…….....

Signed:.....……..…….. Firm.....……..…….....
CONTRACTOR (Agent)

Name (Block Capitals): ..... Date: .....……..…….....

2 Receipt of this Certificate is acknowledged

Signed: .....……..…… Date: .....
on behalf of the ENGINEER

DESIGN CHECK CERTIFICATE: STRUCTURES

CERTIFICATE NO: DCCS.....……

1. We hereby certify to the Employer in respect of the check of the following part of the Design or Design Element namely

   .....……..……. (Name of Structure)

   that reasonable professional skill and care has been taken by us in carrying out the independent check of the part of the Design or Design Element in accordance with the procedures described in the Design Manual for Roads and Bridges with a view to securing that the part of the Design or Design Element:-

   i. complies with the Employer's Requirements.

   ii. has been accurately translated into the construction drawings and bar bending schedules bearing the unique numbers listed below:

   iii. is not detrimental to the whole Design or Design Element.

   We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Employer and Contractor.

   Signed: .....…… Firm: .....
   CHECKER (Team leader for Checker)

   Name (Block Capitals): ..... Date: .....……

   Signed:.....…….. Firm: .....….....
   CONTRACTOR (Agent)

   Name (Block Capitals): ..... Date: .....…….....

2. Receipt of this Certificate is acknowledged

   Signed: .....……..…….. Date: .....….....
   on behalf of the ENGINEER

DESIGN INTERIM CERTIFICATE: EARTHWORKS

CERTIFICATE NO: DIC( )*…….

1. We hereby certify to the Employer in respect of the check of the following further divided part of the Design or Design Element namely

.....……(Name of further divided part of the Earthworks)

.....……(Name of part of Earthworks or Earthwork's Element)

that reasonable professional skill and care has been taken by us with a view to securing that the further divided part of the Design or Design Element:-

i. complies with the Employer's Requirements.

ii. has been designed in accordance with the required Design Basis documents listed and dated below.

iii. has been accurately translated into the construction drawings and other Design documents bearing the unique numbers listed below:

iv. is not detrimental to the Whole Design or Design Element and shall not affect the completion of the Design Certificate(s).

v. has been the subject of a Geotechnical Design Report and that the conclusions of that report have been taken into account in the further divided part of the Design or Design Element.

We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Employer and Contractor.

Signed: .....…….... Firm.....
DESIGNER (Team leader for Designer)

Name (Block Capitals): ..... Date: .....…….

Signed:.....…….... Firm.....
CONTRACTOR (Agent)

Name (Block Capitals): ..... Date: .....…….....

2 Receipt of this Certificate is acknowledged

Signed: ..... Date: .....
on behalf of the ENGINEER

* Insert Description of part of Design or Design Element:

Earthworks	(E)	Piling	(P)
Grouting Works	(G)		

DESIGN CHECK INTERIM CERTIFICATE: EARTHWORKS

CERTIFICATE NO: DCIC( )*.....

1. We hereby certify to the Employer in respect of the check of the following further divided part of the Design or Design Element namely

.....(Name of further divided part of the Earthworks)

.....(Name of part of Earthworks or Earthwork's Element)

that reasonable professional skill and care has been taken by us in carrying out the independent check of the Design or Design Element (including the Geotechnical Design Report referred to in (v) below) with a view to securing that the further divided part of the Design or Design Element:-

i. complies with the Employer's Requirements.

ii. has been checked in accordance with the required Design Basis documents listed and dated below.

iii. has been accurately translated into the construction drawings and other design documents bearing the unique numbers listed below:

iv. is not detrimental to the whole Design or Design Element and shall not affect the completion of the Check Certificate(s).

v. has been the subject of a Geotechnical Design Report and that the conclusions of that report have been taken into account in the further divided part of the Design or Design Element.

We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Employer and Contractor.

Signed: ..... Firm.....
CHECKER (Team leader for Checker)

Name (Block Capitals): ..... Date: .....

Signed:..... Firm.....
CONTRACTOR (Agent)

Name (Block Capitals): ..... Date: .....

2. Receipt of this Certificate is acknowledged

Signed: ..... Date: .....
on behalf of the ENGINEER

* Insert Description of part of Design or Design Element:

Earthworks	(E)	Piling	(P)
Grouting Works	(G)		

DESIGN CERTIFICATE: EARTHWORKS

CERTIFICATE NO: DC( )*.....

1. We hereby certify to the Employer in respect of the design of the following part of the Design or Design Element namely

   .....(Name of Earthworks or Earthwork's Element)

   that reasonable professional skill and care has been taken by us with a view to securing that the part of the Design or Design Element:-

   i. complies with the Employer's Requirements.

   ii. has been designed in accordance with the required Design Basis documents listed and dated below.

   iii. has been accurately translated into the construction drawings and other Design documents bearing the unique numbers listed below:

   iv. is not detrimental to the whole Design or Design Element.

   v. has been the subject of a Geotechnical Design Report and that the conclusions of that report have been taken into account in the Design or Design Element.

   We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Employer and Contractor.

   Signed: ..... Firm.....
   DESIGNER (Team leader for Designer)

   Name (Block Capitals): ..... Date: .....

   Signed:..... Firm.....
   CONTRACTOR (Agent)

   Name (Block Capitals): ..... Date: .....

2. Receipt of this Certificate is acknowledged

   Signed: ..... Date: .....
   on behalf of the ENGINEER

   * Insert Description of part of Design or Design Element:

Earthworks	(E)	Piling	(P)
Grouting Works	(G)		

DESIGN CHECK CERTIFICATE: EARTHWORKS

CERTIFICATE NO: DCC( )*.....

1. We hereby certify to the Employer in respect of the check of the following part of the Design or Design Element namely

.....(Name of Earthworks or Earthwork's Element)

that reasonable professional skill and care has been taken by us in carrying out the independent check of the Design or Design Element (including the Geotechnical Design Report referred to in (v) below) with a view to securing that the part of the Design or Design Element:-

i. complies with the Employer's Requirements.

ii. has been checked in accordance with the required Design Basis documents listed and dated below.

iii has been accurately translated into the construction drawings and other Design documents bearing the unique numbers listed below:

iv. is not detrimental to the whole Design or Design Element.

v. has been the subject of a Geotechnical Design Report and that the conclusions of that report have been taken into account in the Design or Design Element.

We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Employer and Contractor.

Signed:..... Firm.....
CHECKER (Team leader for Checker)

Name (Block Capitals): ..... Date: .....

Signed:..... Firm.....
CONTRACTOR (Agent)

Name (Block Capitals): ..... Date:…… .....

2. Receipt of this Certificate is acknowledged

Signed: ..... Date: .....
on behalf of the ENGINEER

* Insert Description of part of Design or Design Element:

Earthworks	(E)	Piling	(P)
Grouting Works	(G)		

DESIGN INTERIM CERTIFICATE: ROAD RESTRAINT SYSTEMS

CERTIFICATE NO: DIC(B).....

1. We hereby certify to the Employer in respect of the design of the following further divided part of the Design or Design Element namely

.....(Name of further divided part of Road Restraint System or Road Restraint System Element)

.....(Name of part of Road Restraint System or Road Restraint System Element)

that reasonable professional skill and care has been taken by us with a view to securing that the further divided part of the Design or Design Element:-

i. complies with the Employer's Requirements.

ii. has been accurately translated into the construction drawings and other Design documents bearing the unique numbers listed below:

iii. is not detrimental to the whole Design or Design Element and shall not affect the completion of the Design Certificate(s).

iv. that all aspects of the Design or Design Element of the Road Restraint System on the Contract have been developed by means of a risk assessment approach.

We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Employer and Contractor.

Signed: ..... Firm.....
DESIGNER (Team leader for Designer)

Name (Block Capitals): ..... Date: .....

Signed:..... Firm.....
CONTRACTOR (Agent)

Name (Block Capitals): ..... Date: .....

2. Receipt of this Certificate is acknowledged

Signed: ..... Date: .....
on behalf of the ENGINEER

DESIGN CHECK INTERIM CERTIFICATE: ROAD RESTRAINT SYSTEMS

CERTIFICATE NO: DCIC(B).....

1. We hereby certify to the Employer in respect of the check of the following further divided part of the Design or Design Element namely

.....(Name of further divided part of Road Restraint System or Road Restraint System Element)

.....(Name of part of Road Restraint System or Road Restraint System Element)

that reasonable professional skill and care has been taken by us in carrying out the independent check of the Design or Design Element with a view to securing that the further divided part of the Design or Design Element:-

i. complies with the Employer's Requirements.

ii. has been accurately translated into the construction drawings and other design documents bearing the unique numbers listed below:

iii. is not detrimental to the whole Design or Design Element and shall not affect the completion of the Check Certificate(s).

iv. that all aspects of the Design or Design Element of the Road Restraint System in the Contract have been developed by means of a risk assessment approach.

We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Employer and Contractor.

Signed: .....…….Firm.....….....
CHECKER (Team leader for Checker)

Name (Block Capitals): ..... Date: .....……...

Signed:.....…….. Firm.....….....
CONTRACTOR (Agent)

Name (Block Capitals): ..... Date: .....…….....

2. Receipt of this Certificate is acknowledged

Signed: .....……..... Date: .....….....
on behalf of the ENGINEER

DESIGN CERTIFICATE: ROAD RESTRAINT SYSTEM

CERTIFICATE NO: DC(B)…….....

1. We hereby certify to the Employer in respect of the design of the following part of the Design or Design Element namely

.....(Name of part of Road Restraint System or Road Restraint System Element)

that reasonable professional skill and care has been taken by us with a view to securing that the further divided part of the Design or Design Element:-

i. complies with the Employer's Requirements.

ii. has been accurately translated into the construction drawings and other Design documents bearing the unique numbers listed below:

iii. is not detrimental to the whole Design or Design Element and shall not affect the completion of the Design Certificate(s).

iv. that all aspects of the Design or Design Element of the Road Restraint System in the Contract have been developed by means of a risk assessment approach.

We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Employer and Contractor.

Signed: ..... Firm.....
DESIGNER (Team leader for Designer)

Name (Block Capitals): ..... Date: .....

Signed:..... Firm.....
CONTRACTOR (Agent)

Name (Block Capitals): ..... Date: .....

2. Receipt of this Certificate is acknowledged

Signed: ..... Date: .....
on behalf of the ENGINEER

DESIGN CHECK CERTIFICATE: ROAD RESTRAINT SYSTEMS

CERTIFICATE NO: DCC(B).....

1. We hereby certify to the Employer in respect of the check of the following part of the Design or Design Element namely

.....(Name of part of Road Restraint System or Road Restraint System Element)

that reasonable professional skill and care has been taken by us in carrying out the independent check of the part of the Design or Design Element with a view to securing that the part of the Design or Design Element:-

i. complies with the Employer's Requirements.

ii. has been accurately translated into the construction drawings and other Design documents bearing the unique numbers listed below:

iii. is not detrimental to the whole Design or Design Element

iv. that all aspects of the Design or Design Element of the Road Restraint System in the Contract have been developed by means of a risk assessment approach.

We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Employer and Contractor.

Signed: ..... …… Firm.....
CHECKER (Team leader for Checker)

Name (Block Capitals): ..... Date: .....

Signed:..... Firm.....
CONTRACTOR (Agent)

Name (Block Capitals): ..... Date: .....

2. Receipt of this Certificate is acknowledged

Signed: ..... Date: .....
on behalf of the ENGINEER

DESIGN INTERIM CERTIFICATE: OTHER PART(S) OF THE DESIGN OR DESIGN ELEMENT
CERTIFICATE NO: DIC( )*.....

1. We hereby certify to the Employer in respect of the design of the following further divided part of the Design or Design Element namely

   .....(Name of further divided part of Design or Design Element)

   .....(Name of part of Design or Design Element)

   that reasonable professional skill and care has been taken by us with a view to securing that the further divided part of the Design or Design Element:-

   i. complies with the Employer's Requirements.

   ii. has been accurately translated into the construction drawings and other Design documents bearing the unique numbers listed below.

   iii. is not detrimental to the whole Design or Design Element and shall not affect the completion of the Design Certificate(s).

   We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Employer and Contractor.

   Signed: ..... Firm: .....
   DESIGNER (Team leader for Designer)

   Name (Block Capitals): ..... Date: .....

   Signed:..... Firm: .....
   CONTRACTOR (Agent)

   Name (Block Capitals): ..... Date: .....

2. Receipt of this Certificate is acknowledged

   Signed: ..... Date: .....
   on behalf of the ENGINEER

   * Insert Description of part of Design or Design Element:

Fencing and Environmental Barriers	(F)	Electrical Installation	(I)
Drainage	(D)	Communication Systems	(C)
Road Pavements	(P)	Environmental and Landscape	(E)
Road Layout	(R)	Undertakers	(U)
Kerb, Footways and Paved Areas	(K)	Private Apparatus Owners	(O)
Signs and Road Markings	(S)	Accommodation Works	(A)
Lighting	(L)		

DESIGN CHECK INTERIM CERTIFICATE: OTHER PART(S) OF THE DESIGN OR DESIGN ELEMENT

CERTIFICATE NO: DCIC( )*.....

1. We hereby certify to the Employer in respect of the check of the following further divided part of the Design or Design Element namely

……..…….....(Name of further divided part of Design or Design Element)

.....……..……..(Name of part of Design or Design Element)

that reasonable professional skill and care has been taken by us in carrying out the independent check of the Design or Design Element with a view to securing that the further divided part of the Design or Design Element.

i. complies with the Employer's Requirements.

ii has been accurately translated into the construction drawings and other design documents bearing the unique numbers listed below:

iii. is not detrimental to the whole Design or Design Element and shall not affect the completion of the Check Certificate(s).

We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Employer and Contractor.

Signed: .....……..... Firm: .....
CHECKER (Team leader for Checker)

Name (Block Capitals): ..... Date: .....…….....

Signed:.....……..... Firm: .....
CONTRACTOR (Agent)

Name (Block Capitals): .....…… Date: .....…….....

2. Receipt of this Certificate is acknowledged

Signed: .....……..... Date: .....
on behalf of the ENGINEER

* Insert Description of part of Design or Design Element:

Fencing and Environmental Barriers	(F)	Electrical Installation	(I)
Drainage	(D)	Communication Systems	(C)
Road Pavements	(P)	Environmental and Landscape	(E)
Road Layout	(R)	Undertakers	(U)
Kerb, Footways and Paved Areas	(K)	Private Apparatus Owners	(O)
Signs and Road Markings	(S)	Accommodation Works	(A)
Lighting	(L)		

DESIGN CERTIFICATE: OTHER PART(S) OF THE DESIGN OR DESIGN ELEMENT
CERTIFICATE NO: DC( )*.....

1. We hereby certify to the Employer in respect of the design of the following part of the Design or Design Element namely:

….....……(Name of Part of the Design or Design Element)

that reasonable professional skill and care has been taken by us with a view to securing that the part of the Design or Design Element:-

i. complies with the Employer's Requirements.

ii has been accurately translated into the construction drawings and other design documents bearing the unique numbers listed below:

iii. is not detrimental to the whole Design or Design Element.

We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Employer and Contractor.

Signed: .....…….... Firm: .....
DESIGNER (Team leader for Designer)

Name (Block Capitals): ..... Date: .....…….....

Signed:.....…….. Firm: .....
CONTRACTOR (Agent)

Name (Block Capitals): ..... Date: .....

2. Receipt of this Certificate is acknowledged

Signed: .....…….... Date: .....
on behalf of the ENGINEER

* Insert Description of part of Design or Design Element:

Fencing and Environmental Barriers	(F)	Electrical Installation	(I)
Drainage	(D)	Communication Systems	(C)
Road Pavements	(P)	Environmental and Landscape	(E)
Road Layout	(R)	Undertakers	(U)
Kerb, Footways and Paved Areas	(K)	Private Apparatus Owners	(O)
Signs and Road Markings	(S)	Accommodation Works	(A)
Lighting	(L)		

DESIGN CHECK CERTIFICATE: OTHER PART(S) OF THE DESIGN OR DESIGN ELEMENT
CERTIFICATE NO: DCC( )*.....

1. We hereby certify to the Employer in respect of the check of the following part of the Design or Design Element namely:

.....(Name of Design Element)

that reasonable professional skill and care has been taken by us in carrying out the independent check of the part of the Design or Design Element with a view to securing that the part of the Design or Design Element:-

i. complies with the Employer's Requirements.

ii has been accurately translated into the construction drawings and other design documents bearing the unique numbers listed below:

iii. is not detrimental to the whole Design or Design Element.

We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Employer and Contractor.

Signed: ..... Firm: .....
CHECKER (Team leader for Checker)

Name (Block Capitals): ..... Date: .....

Signed:..... Firm: .....
CONTRACTOR (Agent)

Name (Block Capitals): ..... Date: ……

2. Receipt of this Certificate is acknowledged

Signed: ..... Date:.....
on behalf of the ENGINEER

* Insert Description of part of Design or Design Element:

Fencing and Environmental Barriers	(F)	Electrical Installation	(I)
Drainage	(D)	Communication Systems	(C)
Road Pavements	(P)	Environmental and Landscape	(E)
Road Layout	(R)	Undertakers	(U)
Kerb, Footways and Paved Areas	(K)	Private Apparatus Owners	(O)
Signs and Road Markings	(S)	Accommodation Works	(A)
Lighting	(L)		

INTERIM CONSTRUCTION CERTIFICATE

CERTIFICATE NO: ICC .....……..

This Certificate is in respect of the period from …….....……...to.....……….....

1. We hereby certify to the Employer that we have supervised the construction of the Works during the period to which this Certificate relates and that we have exercised reasonable professional skill and care with a view to securing that the parts of the Works set out below have been constructed in accordance with the requirements of the Design

   The parts of the Works referred to in this Certificate are:

   .....……..

   .....……..

   .....……

   We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Employer and Contractor.

   Signed: .....…..……..... Firm: .....
   DESIGNER (Team leader for Designer)

   Name (Block Capitals): ..... Date: .....…….....

   Signed:.....….....……..... Firm: .....
   CONTRACTOR (Agent)

   Name (Block Capitals): .....…. Date: .....…….....

2 Receipt of this Certificate is acknowledged

   Signed: .....……..... Date: .....
   on behalf of the ENGINEER

FINAL CONSTRUCTION CERTIFICATE

CERTIFICATE NO: FCC.....……..

1. We hereby certify to the Employer that we have supervised with reasonable professional skill and care the construction and completion of the Design or Design Element namely:

   .....…….....(Name of Design or Design Element)

   with a view to securing that it has been constructed in accordance with the requirements of the Design.

   We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Employer and Contractor.

   Signed: .....…….....…….... Firm: .....…….....
   DESIGNER (Team leader for Designer)

   Name (Block Capitals): ..... Date: .....…….....

   Signed:.....…….... Firm: ...….....…….....
   CONTRACTOR (Agent)

   Name (Block Capitals): ..... Date: .....…….....

2. Receipt of this Certificate is acknowledged

   Signed: ..... Date: .....
   on behalf of the ENGINEER

INTERIM POST CONSTRUCTION CERTIFICATE

CERTIFICATE NO: IPCC…….....

This Certificate is in respect of the period from .....to..……..... within the Period of

Maintenance for the .....……..……

1. We hereby certify to the Employer that we have supervised the correction of defects of the relevant parts of the Works during the period to which this Certificate relates and that we have exercised reasonable professional skill and care with a view to securing that parts of the Works set out below have been corrected to accord with the Design.

   The parts of the Works referred to in this certificate are:

   .....……..…….....

   .....……..…….....

   .....……..…….....

   .....……..…….....

   .....……..…….....

   .....……..……..

   We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Employer and Contractor.

   Signed: .....……..…….....……..... Firm: .....…….....
   DESIGNER (Team leader for Designer)

   Name (Block Capitals): .....Date: .....……..…….....

   Signed:.....……..……..... Firm: .....…….....…….....
   CONTRACTOR (Agent)

   Name (Block Capitals): ..... Date: .....……..…….....

2. Receipt of this Certificate is acknowledged

   Signed: .....……..……..... Date: .....
   on behalf of the ENGINEER

FINAL POST CONSTRUCTION CERTIFICATE

CERTIFICATE NO: FPCC.....

1. We hereby certify to the Employer in respect of:

.....….....….....(Name of part of the Design or Design Element)

that we have supervised with reasonable professional skill and care the correction of defects of the above named parts of the Works with a view to securing that it has been corrected to accord with the requirements of the Design.

We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Employer and Contractor.

Signed: .....….....…… Firm: .....….....
DESIGNER (Team leader for Designer)

Name (Block Capitals): .....Date: .....…….....

Signed:.....…….... Firm: ...….....….....
CONTRACTOR (Agent)..

Name (Block Capitals): .....Date: .....…….....

2. Receipt of this Certificate is acknowledged

Signed: .....…….... Date: .....
on behalf of the ENGINEER

CONSULTATION CERTIFICATE

CERTIFICATE NO: CNC…….....

CONSULTATION WITH .....…….....(*Name of Consultee*)

1. We hereby certify to the Employer in respect of:

   .....……...(Name of part of Design or Design Element)

   that we have consulted with .....…….....(*Name of Consultee*) and have ascertained that they have no objections to the part of Design or Design Element as described on the construction documents listed in Part 2 below.

   We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Employer and Contractor.

   Signed: .....…..…….…… Firm: .....
   DESIGNER (Team leader for Designer)

   Name (Block Capitals): ..... Date: .....……

   Signed:.....…….…… Firm: .....
   CONTRACTOR (Agent).

   Name (Block Capitals): ..... Date:..…….....

2. LIST OF CONSTRUCTION DOCUMENTS

3. DECLARATION BY .....…….....(*Name of Consultee*)

   On behalf of .....…….....I confirm that:

   (i) consultations referred to above have been completed,

   (ii) (*Name of Consultee*) has no objection to the Design or Design Element as described on the Construction Documents listed in Part 2 above, and

   (iii) the Construction Documents listed in Part 2 above meet all known requirements

   Signed:
   .....…….....

   Name (Block Capitals): .....…… Date: ....…….....

   (duly authorised to sign on behalf of .....…….....(*Name of Consultee)*

   Date: .....……..

   Receipt of this Certificate is acknowledged

   Signed: .....……Date: .…….....
   on behalf of the ENGINEER

ROAD SAFETY AUDIT CERTIFICATE

CERTIFICATE NO: RSAC…….....

This Certificate refers to the Stage.....** Road Safety Audit applicable to Zone of Interest Number.....**

.....……..…….....……

.....……..…….....……

.....……..…….....……

1. We hereby certify to the Employer that all the safety issues raised in the audit report have been addressed by:

   (i)* incorporating all / some* of the recommendations of the audit report in the Design or Design Element (Reference: .....***).
   and*
   (ii)* adopting alternative solutions that have been agreed by the audit team and have been incorporated in the Design or Design Element (Reference: .....***).
   and*
   (iii)* incorporating in the Design or Design Element the decision of the arbitrator (as defined in Design Manual for Roads and Bridges) with respect to the issues detailed in the exception report (Reference .....***).

   We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Employer and Contractor.

   Signed: .....…… Firm: .....
   DESIGNER (Team leader for Designer)

   Name (Block Capitals): ..... Date: .....…….....

   Signed:.....……. Firm: .....
   CONTRACTOR (Agent)

   Name (Block Capitals): .....… Date: .....…….....

2. Receipt of this Certificate is acknowledged

   Signed: .....……..... Date: .....
   on behalf of the ENGINEER

   * Delete as appropriate
   ** Insert appropriate references
   *** Insert report and/or associated correspondence references and report item numbers

STAGE 2 ROAD SAFETY AUDIT CERTIFICATE FOR TEMPORARY TRAFFIC MANAGEMENT SCHEMES.

CERTIFICATE NO: RSAC(TTM2)…….

This Certificate refers to the Stage 2 Road Safety Audit of the Temporary Traffic Management Schemes* referred to on Drawing Number(s)**

.....……..…….....

.....……..…….....

.....……..…….....

1. We hereby certify to the Employer that all the safety issues raised in the audit report have been addressed by:

   (i)* incorporating all / some* of the recommendations of the audit report in the Design or Design Element (Reference: .....***).
   and*
   (ii)* adopting alternative solutions that have been agreed by the audit team and have been incorporated in the Design or Design Element (Reference: .....***).
   and*
   (iii)* incorporating in the Design or Design Element the decision of the arbitrator (as defined in Design Manual for Roads and Bridges) with respect to the issues detailed in the exception report (Reference .....***).

   We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Employer and Contractor.

   Signed: .....…….....……..... Firm: ……
   DESIGNER (Team leader for Designer)

   Name (Block Capitals): .....…Date: ....……..…….....

   Signed:.....……..…….....Firm:.....….....
   CONTRACTOR (Agent)

   Name (Block Capitals): .....…Date: ....……..…….....

2. Receipt of this Certificate is acknowledged

   Signed: .....…….....……..…….....Date: .....….....
   on behalf of the ENGINEER

   * Delete as appropriate
   ** Insert appropriate references
   *** Insert report and/or associated correspondence references and report item numbers

STAGE 3 ROAD SAFETY AUDIT CERTIFICATE FOR TEMPORARY TRAFFIC MANAGEMENT SCHEMES.

CERTIFICATE NO: RSAC(TTM3)……..

This Certificate refers to the Stage. 3 Road Safety Audit of the Temporary Traffic Management Schemes referred to on Drawing Number(s)**

.....

.....

.....

1. We hereby certify to the Employer that all the recommendations of the audit have been incorporated in the Design or Design Element (Reference .....***).

   We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Employer and Contractor.

   Signed: .....Firm: .....
   DESIGNER (Team leader for Designer)

   Name (Block Capitals): .....Date: .....

   Signed:.....Firm: .....
   CONTRACTOR (Agent)

   Name (Block Capitals): ..... Date: .....

2. Receipt of this Certificate is acknowledged

   Signed: ..... Date: .....
   on behalf of the ENGINEER

   ** Insert appropriate references
   *** Insert report and/or associated correspondence references and report item numbers

TEMPORARY WORKS CERTIFICATE

CERTIFICATE NO: TWC……

1. We hereby certify to the Employer that the preparation of the design of Temporary Works comprising

   (Description of Temporary Works)

   has been carried out with reasonable professional skill and care with a view to securing that:

   i) it has been designed in accordance with the following standards:

   ii) The design has been successfully translated into Temporary Works Drawings bearing the unique numbers:

   We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Employer and Contractor

   Signed: …….. Firm: ……
   CONTRACTOR (Agent)

   Name (Block Capitals): ..... Date: .....……

2. We have carried out an independent check of the Contractors proposals with reasonable professional skill and care with a view to securing that they are satisfactory for the proper discharge of his responsibilities under the Contract for the safety of the said parts of the Works and without detriment to the Works.

   Signed: …….. Firm: ……..
   TEMPORARY WORKS CHECKER
   (Director or Partner)

   Name (Block Capitals): ..... Date: .....……

3. Receipt of this Certificate is acknowledged

   Signed:…… Date: ……
   On behalf of the ENGINEER

PROVENANCE CERTIFICATE

CERTIFICATE NO: PC……..……

1. We hereby certify that the provenance/origin of the United Kingdom native plant stock incorporated in the Works are as identified in the Plant Schedule contained in Annex 1 of this certificate.

   We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Employer and Contractor.

   Signed:* …… Firm: ……..……..……..……
   DESIGNER (Team leader for Designer)

   Name (Block Capitals): ..... Date: .....…….....

   Signed:.....…….....…….Firm: .....….....…….....
   CONTRACTOR (Agent)

   Name (Block Capitals): ..... Date: .....…….....

2. Receipt of this Certificate is acknowledged

   Signed: .....……..…….....Date: ....…….....….....
   on behalf of the ENGINEER

   *Delete as appropriate

ANNEX 1 TO PROVENANCE CERTIFICATE **CERTIFICATE NO:- PC……..**

BOTANICAL NAME	QUANTITY	FORM/AGE	HEIGHT (cm)	ZONE OF PROVENANCE AND LOCATION	APPROXIMATE DATE PROPAGATION MATERIAL COLLECTED	NURSERY OR NURSERIES AT WHICH THE PLANTS HAVE BEEN GROWN
……	……	……	……...	……	……	……
……	……	……	……...	……	……	……
……	……	……	……...	……	……	……
……	……	……	……	……	……	……
……	……	……	……	……	……	……
……	……	……	……	……	……	……
……	……	……	……	……	……	……
……	……	……	……	……	……	……
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APPENDIX D

THIS IS APPENDIX D TO THE EMPLOYER'S REQUIREMENTS

DEPARTURES FROM STANDARDS PROFORMAS

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Application for Departure from Standards

Design Manual for Roads and Bridges Volumes 1, 2 and 3 (Structures) Proforma

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DEPARTURE FROM STANDARDS
(Bridges and other Highway Structures)

Name of Project _____
Name of Bridge or Structure _____
Structure Reference Number _____

TRANSPORT SCOTLAND

APPLICATION FOR DEPARTURE FROM STANDARDS Design Manual for Roads and Bridges VOLUMES 1 TO 3 (STRUCTURES)

APPLICANT:

PROJECT TITLE:

DEPARTURE No:

STRUCTURE REF:

SUBMISSION DATE:

1. List of Supporting Documentation:

Standards:

Drawings:

Other:

2. Description of Proposed Departure:
(Include details of Design Manual for Roads and Bridges Standards and Clause numbers which are being departed from)

3. Designer/Assessor Justification:
(Include reasons why existing Design Manual for Roads and Bridges Standards are inappropriate)

4. Cost Implications:
(Include an estimate of cost savings to Transport Scotland as well as the effect on future maintenance costs)

4.1 Construction Costs

4.2 Maintenance Costs

5. Applicant Design Team Leader Declaration:

I declare that reasonable professional skill and care have been exercised in the preparation of this Departure submission.

Signed:

Name:

Date:

6. Transport Scotland Bridges Branch Comments and Recommendation:

Signed:

Name:

Date:

DEPARTURE FROM STANDARDS
(Bridges and other Highway Structures)

Name of Project _____
Name of Bridge or Structure _____
Structure Reference Number _____

7. Transport Scotland Chief Bridges Engineer Recommendation:

The above Departure is Approved/Rejected

Signed:

Name:

Date:

Application for Departure from Standards

Design Manual for Roads and Bridges Volume 6 (Road Geometry) Proforma

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APPLICANT : _____

PROJECT TITLE : _____

DEPARTURE NO. : .....

PROJECT DETAILS	
General description of project	
Route Strategy	
Road Category & Type	
Proposed Carriageway Cross Section	
Design Speed Proposed	
Future Traffic Flows & Composition	

DESCRIPTION OF DEPARTURE	
Location and Chainage	
Departure Type	
Design Manual for Roads and Bridges Reference	
Required Standard	
Standard Provided	
Associated Departures or Relaxations	
Drawing Nos.	

APPLICANT : .....

PROJECT TITLE :

DEPARTURE NO. :

JUSTIFICATION	
Detailed Justification	
Safety Implications	
Structural Integrity	

ESSENTIAL COMPENSATORY MEASURES	
Compensatory Measures	

APPENDIX E

THIS IS APPENDIX E TO THE EMPLOYER'S REQUIREMENTS

UNDERTAKERS' NOTICES

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APPENDIX E

UNDERTAKERS' NOTICES

Undertakers' Notices containing indicative utility diversions have been provided for information only. The Contractor shall be responsible for the Design, construction, completion and maintenance of all Privately and Publicly Owned Services and Supplies in accordance with Specification Appendix 1/16 within the Employer's Requirements.

The following notices are provided in a separate document:

Date	Utility Company	NRSWA Appendix Reference	Notes

[REDACTED]

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APPENDIX F

THIS IS APPENDIX F TO THE EMPLOYER'S REQUIREMENTS

LOCAL COUNCIL DESIGN STANDARDS AND GUIDELINES

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APPENDIX F

LOCAL COUNCIL DESIGN STANDARDS AND GUIDELINES

(included in the Information Pack)

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APPENDIX G

THIS IS APPENDIX G TO THE EMPLOYER'S REQUIREMENTS

DESIGN LOADING FOR VARIABLE MESSAGE SIGNS

[NOT USED]

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APPENDIX H

THIS IS APPENDIX H TO THE EMPLOYER'S REQUIREMENTS

STRUCTURES DESIGN BASIS

[NOT USED]

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APPENDIX I

THIS IS APPENDIX I TO THE EMPLOYER'S REQUIREMENTS

CONSULTATION MATRIX

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ER Part 2 Section	Description	Current Consultee(s)
1.7	Temporary Traffic Management Schemes	Aberdeen City Council Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED] BEAR Scotland Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED] Transport Scotland Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Police Scotland Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED]
1.8	Network Rail	Network Rail Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED]
3.1.1	Permanent Fencing and Accommodation Works Fencing	Transport Scotland Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED]
3.2.2	Water Environment Approvals	Scottish Environment Protection Agency (SEPA) Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED]
3.2.2	Planning Regulations	Aberdeen City Council Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED]

ER Part 2 Section	Description	Current Consultee(s)
3.2.3	Working Hours and Control of Noise and Vibration	Aberdeen City Council Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED]
3.4.1	Maintenance of Existing Public Roads within the Site	Aberdeen City Council Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED] BEAR Scotland Ltd Contact Person: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED]
3.6.1	Provision of Accommodation Works	Not Used
3.7.1	Alterations to Public and Private Roads, Accesses and Public/Private Rights of Way	Aberdeen City Council Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED] Aberdeen City Council Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED]
3.8.1	Site Security	Police Scotland Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED]

ER Part 2 Section	Description	Current Consultee(s)
4.1.2	Design for the Side Roads	Aberdeen City Council Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED]
4.2.1.6	Provision for Non-Motorised Users	Aberdeen City Council Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED]
4.2.1.10	Parking	Aberdeen City Council Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED]
4.2.2.1	Site Clearance (Trunk Roads and Side Roads)	Aberdeen City Council Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED]
4.2.2.2	Site Clearance (Side Roads)	Not Used
4.2.2.3	Site Clearance (Timber/Trees)	Not Used
4.2.3.2	Permanent Fencing	Transport Scotland Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED]
4.2.4.1	Anti-glare Screens	Aberdeen City Council Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED]

ER Part 2 Section	Description	Current Consultee(s)
4.2.4.2	Road Restraint Systems	Aberdeen City Council Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED]
4.2.5.1	Drainage Design	SEPA Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED]
4.2.5.2	Connection to Drainage Network	Aberdeen City Council Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED]
4.2.5.3	Design of Side Road Drainage	Aberdeen City Council Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED]
4.2.5.4	Discharge of water	Scottish Environment Protection Agency (SEPA) Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Scottish Water Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] BEAR Scotland Ltd Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED]

ER Part 2 Section	Description	Current Consultee(s)
4.2.5.9	Watercourse diversions	Aberdeen City Council Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED] Scottish Environment Protection Agency (SEPA) Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED]
4.2.5.10	Flood Prevention and Pollution Control	Scottish Environment Protection Agency (SEPA) Contact: [REDACTED] Email: [REDACTED] Aberdeen City Council Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED]
4.2.5.11	Maintenance Access Routes	Aberdeen City Council Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED]
4.2.7.1	Side Road Pavement Design	Aberdeen City Council Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED]
4.2.8.1	Kerbing	Aberdeen City Council Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED]

ER Part 2 Section	Description	Current Consultee(s)
4.2.8.1	Footpaths, footpaths and combined footways / cycle tracks (Side roads)	Aberdeen City Council Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED]
4.2.8.3	Positioning of in-line bus stops and associated street furniture	Aberdeen City Council Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED]
4.2.8.4	Positioning of refuse collection hardstanding's and associated kerbs, paved areas and street furniture	Aberdeen City Council Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED]
4.2.9.1	Signs, road markings etc. (Side Roads)	Aberdeen City Council Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED]
4.2.9.2	Maintaining existing signing	Transport Scotland, Trunk Roads and Bus Operations Contact: [REDACTED] Email: [REDACTED] Telephone number: [REDACTED] BEAR Scotland Ltd Contact: [REDACTED] Telephone: [REDACTED] Email: [REDACTED] Address: [REDACTED] Aberdeen City Council Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED]

ER Part 2 Section	Description	Current Consultee(s)
4.2.9.4	Tourist Information Signs	Aberdeen City Council Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED]
4.2.9.6	Chart Nodes	Not Used
4.2.9.6	Traffic Signals	Aberdeen City Council Contact: [REDACTED] Email: [REDACTED] Telephone number: [REDACTED] Address: [REDACTED]
4.2.10.1	Provision of road lighting	Aberdeen City Council Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED]
4.2.10.2	Maintenance of existing road lighting	Transport Scotland, Trunk Roads and Bus Operations Contact: [REDACTED] Email: [REDACTED] Telephone number: [REDACTED] BEAR Scotland Ltd Contact: [REDACTED] Email: [REDACTED] Tel: [REDACTED] Address: [REDACTED] Aberdeen City Council Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED]

ER Part 2 Section	Description	Current Consultee(s)
4.2.10.3	Road lighting requirements	Aberdeen City Council Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED]
4.2.10.4	Lighting Design	Aberdeen City Council Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED]
4.2.10.14	Road lighting labelling	Aberdeen City Council Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED]
4.2.10.15	Temporary Lighting	Aberdeen City Council Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED]
4.3.1.1	Structures affecting Aberdeen City Council road network	Aberdeen City Council Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED]
4.3.1.2	Structures adjacent to watercourses	Scottish Environment Protection Agency (SEPA) Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED]

ER Part 2 Section	Description	Current Consultee(s)
4.3.1.3	Structures – location of Apparatus	BT Openreach Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Scottish Water Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Scottish and Southern Energy Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Scotland Gas Networks Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Vodafone Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Trafficmaster Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] City Fibre Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED]
4.3.12.1	Paint systems to steelwork	Transport Scotland (Bridges Branch) Contact: [REDACTED] Telephone: [REDACTED] Email: [REDACTED]
4.3.14.1	Reinforced Soil Structures	Aberdeen City Council Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED]

ER Part 2 Section	Description	Current Consultee(s)
4.4.3.1	Landscape Architect	Transport Scotland Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED]
4.4.3.2	Archaeologist	Transport Scotland's Historic Environment Advisor Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED]
4.4.4.6	Air quality/reduction of dust	Aberdeen City Council Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED]
4.4.4.7	Re-use of Materials	Scottish Environment Protection Agency (SEPA) Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED]
4.4.4.9	Water quality & drainage	Scottish Environment Protection Agency (SEPA) Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Aberdeen City Council Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED]
4.4.4.10	Monitoring water quality	Scottish Environment Protection Agency (SEPA) Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED]
4.4.4.12	Planning policies and consents	Aberdeen City Council Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED]

ER Part 2 Section	Description	Current Consultee(s)
4.4.4.13	Protected species & Sites	Scottish Natural Heritage (SNH) Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED]
4.4.4.14	Cultural Heritage	Transport Scotland's Historic Environment Advisor Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Historic Environment Scotland Contact Person: [REDACTED] Email: [REDACTED] Telephone number: [REDACTED] Aberdeenshire Council Archaeologist Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED]
4.4.4.27	Disruption during construction	Aberdeen City Council Contact: Contact: [REDACTED] Telephone: [REDACTED] Email: [REDACTED] Address: [REDACTED]
4.4.5.3	Landscape Design	Transport Scotland Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED]
4.4.9.2	Planting Design	Transport Scotland Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED]
4.4.12.2	Footpaths within landscape areas	Aberdeen City Council Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED]

ER Part 2 Section	Description	Current Consultee(s)
4.4.12.3	Play Areas	Aberdeen City Council Contact: [REDACTED] Email: [REDACTED] Telephone:[REDACTED] Address: [REDACTED]
4.7.1	Contaminated land	Scottish Environment Protection Agency (SEPA) Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Aberdeen City Council Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED]
4.8.1.4	Requirements for Intelligent Transport Systems	Aberdeen City Council Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED]
4.8.2.2	CCTV equipment	Aberdeen City Council Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED]
4.8.3	Automatic Number Plate Recognition	Aberdeen City Council Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED]
4.8.4.2	Power Supply to ITS equipment	Aberdeen City Council Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED]

ER Part 2 Section	Description	Current Consultee(s)
4.8.5.4	Ducting	Aberdeen City Council Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Address: [REDACTED]
4.8.6	Vehicle Detection Facilities.	Transport Scotland Contact Person: [REDACTED] Email: [REDACTED] Telephone: [REDACTED]
5.1	Apparatus and Private Apparatus	BT Openreach Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Scottish Water Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Scottish and Southern Energy Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Scottish Gas Networks Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Vodafone Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] Trafficmaster Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED] City Fibre Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED]
6.3.1.1	Compliance Surveys	Transport Scotland, Trunk Roads & Bus Operations Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED]

ER Part 2 Section	Description	Current Consultee(s)
7.5.1	Inventory requirements	Transport Scotland (Asset Management Branch of Trunk Roads and Bus Operations) Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED]
8.12	Departures from Standard	Transport Scotland, Trunk Roads and Bus Operations Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED]
8.12	Proposals to depart	Aberdeen City Council Contact: [REDACTED] Email: [REDACTED] Telephone: [REDACTED]

Notes:

1. SEPA – Scottish Environment Protection Agency.
2. SNH – Scottish Natural Heritage

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APPENDIX J

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REINFORCED SOIL DIMENSIONAL TOLERANCES AND DEFORMATION LIMITS

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APPENDIX J

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REINFORCED SOIL DIMENSIONAL TOLERANCES AND DEFORMATION LIMITS

REINFORCED SOIL STRUCTURES - DESIGN VALUES OF CONSTRUCTION MOVEMENT TOLERANCES TO BE EQUALLED OR BETTERED

To be agreed with the Engineer during the Tender Period and included with the Tender

Tolerances for faces of retaining walls and abutments	
Location of plane of Structure	**Tolerance ± 50 mm**
Verticality	± [REDACTED]mm per metre height [REDACTED]
Bulging (vertical)	± [REDACTED]mm in [REDACTED] m template
Bowing (horizontal)	± [REDACTED]mm in [REDACTED] m template
Steps at Joints	± [REDACTED]mm
Alignment along top	± [REDACTED]mm for reference alignment

Serviceability limits on post construction internal strains for bridge abutments and retaining walls	
Structure	**Strain (percent)**
Bridge Abutments	[REDACTED]
Walls	[REDACTED]

Minimum vertical movement capacities required for facing system to cope with vertical internal settlement of reinforced fill	
Structure form	**Minimum vertical movement capacity**
Discrete Panels	Joint closure of [REDACTED] relative to panel height

The Designer shall state the Design Values used in the Structure Design Statement for each reinforced soil structure

Methodology for Measuring Tolerances
The Designer shall define the methodology to be used in the Structure Design Statement for each reinforced soil structure.

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APPENDIX K

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STAGE 1 ROAD SAFETY AUDIT REPORT

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APPENDIX L

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WALKING, CYCLING AND HORSE-RIDING REVIEW REPORT

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APPENDIX M

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AMENDMENTS TO THE DESIGN MANUAL FOR ROADS AND BRIDGES AND THE MANUAL OF CONTRACT DOCUMENTS FOR HIGHWAY WORKS

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APPENDIX M

AMENDMENTS TO THE DESIGN MANUAL FOR ROADS AND BRIDGES AND THE MANUAL OF CONTRACT DOCUMENTS FOR HIGHWAY WORKS

SEDD/SE/TS INTERIM AMENDMENTS

SEDD INTERIM AMENDMENT NO 11	Manual of Contract Documents for Highway Works (MCHW); The Housing Grants, Construction and Regeneration Act 1996
SEDD INTERIM AMENDMENT NO 12	Manual of Contract Documents for Highway Works (MCHW); Volume 1: Appendix A: Sector Scheme 14 (for the Production of Asphalt Mixes)
SEDD INTERIM AMENDMENT NO 13	Manual of Contract Documents for Highway Works (MCHW); Supply of Goods and Services by Local Authorities
SEDD INTERIM AMENDMENT NO 14	Manual of Contract Documents for Highway Works (MCHW); Aggregates Levy
SE INTERIM AMENDMENT 16	Manual of Contract Documents for Highway Works (MCHW); Sustainability in Construction – the Considerate Constructors Scheme
SE INTERIM AMENDMENT 18	Manual of Contract Documents for Highway Works (MCHW); the Use of the Saturation Ageing Tensile Stiffness (SATS) Test
TS INTERIM AMENDMENT 20	Interim Management Strategy for Concrete Half-Joint Deck Structures
TS INTERIM AMENDMENT 21	Principal and General Inspection of Sign / Signal Gantries, and Gantries with Low Handrails or Open Mesh Flooring (BD 63/94 and BA 63/94).
TS INTERIM AMENDMENT 22	Implementation Of New Reinforcement Standards (BS 4449:2005, BS 4482:2005, BS 4483: 2005 and BS 8666:2005).
TS INTERIM AMENDMENT 23	Implementation Of BS8500-1:2006 Concrete – Complementary British Standard To BS EN 206-1.
TS INTERIM AMENDMENT 24	Guidance On Implementing Results Of Research On Bridge Deck Waterproofing
TS INTERIM AMENDMENT 25	Assessment And Upgrading Of Existing Vehicle Parapets
TS INTERIM AMENDMENT 26	The Anchorage Of Reinforcement And Fixings In Hardened Concrete

TS INTERIM AMENDMENT 27	Implementation Of Construction (Design And Management) 2007 And The Withdrawal Of SD 10/05 and SD 11/05
TS INTERIM AMENDMENT 28	Certification of Combined Kerb and Drainage Products
TS INTERIM AMENDMENT 29	Identification of 'Particularly at Risk' Supports
TS INTERIM AMENDMENT 30	The Use of Foamed Concrete
TS INTERIM AMENDMENT 32	Clarification on the deflection of permanent formwork during the construction of trunk road bridges
TS INTERIM AMENDMENT 33	Guidance on the use of various documents relating to General & Principal Inspections for Trunk Road Structures
TS INTERIM AMENDMENT 34	Guidance on the use of High Friction Surfacing at Signalised Pedestrian Crossings on single carriageway Trunk Roads
TS INTERIM AMENDMENT 35	Guidance on the Introduction of Transport Scotland TS 2010 surface course specification
TS INTERIM AMENDMENT 36	Guidance on structural safety reporting relating to the Scottish Trunk Road Network
TS INTERIM AMENDMENT 37	Design of Single 2+1 single roads
TS INTERIM AMENDMENT 38	Temporary Barrier Decision Tool (TBDT)
TS INTERIM AMENDMENT 39	Use of Eurocodes for the Design of Bridges and Road Related Structures
TS INTERIM AMENDMENT 42	Temporary Cover Plates Over Bridge Expansion Joints
TS INTERIM AMENDMENT 43	Strategy for the Repair/Replacement of Joints
TS INTERIM AMENDMENT 44	Simplified Design Method for the Crack, Seat and Overlay Method – Notes for Guidance
TS INTERIM AMENDMENT 45	Management of Abnormal Loads 28 3 14
TS INTERIM AMENDMENT 46	Structures Inspector Competencies and Certification
TS INTERIM AMENDMENT 47	Adoption of IAN 154
TS INTERIM AMENDMENT 48	Adoption of IAN 156/16R1

INTERIM ADVICE NOTES

INTERIM ADVICE NOTE 73/06 Revision 1 (2009)	Design Guidance for Road Pavement Foundations

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APPENDIX N

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AS CONSTRUCTED REQUIREMENTS

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APPENDIX N

AS CONSTRUCTED REQUIREMENTS

General Requirements
The As Constructed Requirements shall be as described in Section 7 of Part 1.

Road Design Criteria
A suitable format for the recording of the Roads Design Criteria referred to in Section 7 of Part 1 is contained within this Appendix.

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AS CONSTRUCTED REQUIREMENTS
ROADS DESIGN CRITERIA

Scheme Name:
Scheme Identifier:

1. Horizontal Geometry

Transition curve design basis

Minimum radius ……..metres with percent superelevation

Minimum sight distance ……..metres

Road layout design basis

Curve Number	Length (metres)	Radius (metres)	Crossfall (percent)

2. Vertical Geometry

Road layout design basis

Curve Number	Length (metres)	K Value

3. Pavement Design

Initial traffic (commercial vehicles/day)

Designed growth rate (percent)

Designed traffic (commercial vehicles/day)

Pavement Type ……..

If alternative design, state departure

APPENDIX O

THIS IS APPENDIX O TO THE EMPLOYER'S REQUIREMENTS

SCHEDULE OF SUPPLEMENTARY REQUIREMENTS

[NOT USED]

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APPENDIX P

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STRUCTURES DESIGN STATEMENT

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Name of Project:
Name of Bridge or Structure:
Structure Ref No's:

1 ROAD DETAILS

1.1 Type of road

1.2 Permitted traffic speed [2]

1.3 Existing restrictions [3]

2 SITE DETAILS

2.1 Obstacle crossed

3 PROPOSED STRUCTURE

3.1 Description of Structure and design working life [4]

3.2 Structural type

3.3 Foundation type (including any special measures or associated works such as ground treatment or mine workings consolidation to take account of any problems identified in Section 6 below)

3.4 Span arrangements

3.5 Articulation arrangements

3.6 Classes and levels [5D]

3.6.1 Consequence class

3.6.2 Reliability class

3.6.3 Inspection level

3.7 Road restraint systems requirements

3.8 Proposed arrangements for future maintenance and inspection / Inspection for Assessment [1]

3.8.1 Traffic management

3.8.2 Arrangements for future maintenance and inspection of structure. Access arrangements to structure.

3.8.3 Intrusive or further investigations proposed [A]

3.9 Environment and sustainability

3.10 Durability. Materials and finishes [1,6D] / Materials strengths assumed and basis of assumptions [1,6A]

.

3.11 Risks and hazards considered for design, execution, maintenance and demolition Consultation with and/or agreement from Principal Designer [7]

3.12 Proposed arrangements for execution [D]

3.12.1 Construction of Structure

3.12.2 Traffic management

3.12.3 Service diversions

3.12.4 Interface with existing Structures

3.13 Year of construction [A]

3.14 Reason for assessment [A]

3.15 Part of Structure to be assessed [A]

4 DESIGN CRITERIA

4.1 Actions

4.1.1 Permanent actions

4.1.2 Snow, wind and thermal actions

4.1.3 Actions relating to normal traffic under AW regulations and C&U regulations [8D, 8A]

4.1.4 Actions relating to General Order Traffic Under STGO regulations [9D]

4.1.5 Footway or footbridge variable actions

4.1.6 Actions relating to Special Order Traffic, provision for exceptional abnormal indivisible loads including location of vehicle track on deck cross-section [10]

4.1.7 Accidental actions

4.1.8 Actions during execution

4.1.9 Any special actions not covered above [11]

4.2 Heavy or high load route requirements and arrangements being made to preserve the route, including any provisions for future heavier loads or future widening [12]

4.3 Minimum headroom provided

4.4 Authorities consulted and any special conditions required

4.5 Standards and documents

4.5.1 Technical Standards Schedule

See Annex A

4.5.2 Additional relevant Standards and publications

4.6 Proposed Departures from Standards given in 4.5

See Annex C

4.7 Proposed methods for dealing with aspects not covered by Standards in 4.5

5 STRUCTURAL ANALYSIS

5.1 Methods of analysis proposed for superstructure, substructure and foundations [14]

5.2 Description and diagram of idealised Structure to be used for analysis

See Annex B.

5.3 Assumptions intended for calculation of structural element stiffness

5.4 Proposed range of soil parameters to be used in the design / assessment [1] of earth retaining elements [D, 15A]

6 GEOTECHNICAL CONDITIONS

6.1 Geotechnical Category of Structure (BS EN 1997-1) [D]

6.2 Acceptance of recommendations of the Geotechnical Design Report to be used in the design / assessment [1] and reasons for any proposed changes

6.3 Summary of design for highway Structure in the Geotechnical Design Report

6.4 Differential settlement to be allowed for in the design / assessment [1] of the Structure (including reference to settlements at interface between Structure and earthworks)

6.5 If the Geotechnical Design Report is not yet available, state when the results are expected and list the sources of information used to justify the preliminary choice of foundations [16]

6.6 Tolerances for reinforced soil Structures (face angle >70 degrees) (including methodology for measurement) [D]

7 CHECKING

7.1 Proposed Category [D, A] and Design Supervision Level [D]

Category 3 and Design Supervision Level DSL3.

7.2 Name of proposed Category 3 Checker

8 DRAWINGS AND DOCUMENTS

8.1 List of drawings (including numbers) and documents accompanying the submission [17]

ANNEX A - Technical Standards Schedule [18D, 18A]

ANNEX B - Diagram of idealised structural analysis model

ANNEX C - Departures from Standards

ANNEX D - Drawings

9 THE ABOVE ACCURATELY REFLECTS THE ASSUMPTIONS USED FOR DESIGN / ASSESSMENT [1] OF THIS STRUCTURE

Signed _____

Name _____
Design Team Leader

Engineering Qualifications _____ [19]

Name of Organisation _____

Date _____

Notes

D. Indicates clauses to be used in Design SDS only.

A. Indicates clauses to be used in Assessment SDS only.

1. Delete as appropriate.

2. For a bridge, give over and/or under.

3. Include weight, height, width and any environmental restrictions at or adjacent to the bridge.

4. The design working life of the structure, including temporary structure, and replaceable structural parts shall be given. They shall be expressed as a number of years rather than a range of years. A design working life shall be based on the Design Manual for Roads and Bridges if stated. Otherwise it may be based on the guidance given in the Overseeing Organisation's current requirements for the use of Eurocodes for the design of highway structures.

5D State the classes and levels for the whole structure, as well as those for the individual main structural elements if higher or lower. See the Overseeing Organisation's current requirements for the use of Eurocodes for the design of highway structures. Refer to BS EN 1990:2002 + A1:2005 cl. B3, B4 and B5 for further information.

6D For concrete Structures, give applicable exposure classes for particular structural elements as stated in TS IA 23. For all material strengths given, list the relevant codes/standards.

6A Give material strengths from record drawings or intrusive investigation. For all material strengths given, list the relevant codes/standards.

7. List only risks and hazards that would not be apparent to an experienced and competent Contractor or are likely to require special attention to manage them effectively. Where possible and practicable, the identified potential risks and hazards shall be eliminated or minimised during the design stage. The Principal Contractor shall confirm that the Principal Designer has reviewed the risks and hazards identified in this SDS and is satisfied.

8D. e.g. Load Models 1 or 2, BS EN 1991-2.

8A e.g. Assessment Loading

9D. e.g. SV model vehicle in Load Model 3, BS EN 1991-2

9A e.g. HB or SV loading

10D e.g. SOV model vehicle in Load Model 3, BS EN 1991-2 or individual vehicle which includes the following information as applicable:

- *a) Gross weight of the vehicle in tonnes and vehicle type and number;*
- *b) Axle load and spacing (longitudinally and transversely);*
- *c) Air cushion in tonnes over area applied in m x m; and*
- *d) Single or twin tyres and wheel contact areas.*

11 e.g. seismic action, atmospheric icing, floating debris etc.

12. The heavy or high load route requirements should be confirmed with Transport Scotland.

13 Not Used

14 List the main structural elements for superstructure, substructure and foundation.

15A For assessment of existing Structures, where no such geotechnical information is available, suggested earth pressure coefficient values given in relevant Design Manual for Roads and Bridges parts should be used instead.

16. When the Geotechnical Design Report becomes available, an addendum to the SDS, covering section 6, must be submitted to the Employer. The addendum must have its own sections 8 and 9 to provide a list of drawings, documents and signatures.

17. Where appropriate, also include:

- *a) Relevant extracts from the Geotechnical Design Report;*
- *b) Methods of dealing with aspects not covered by Standards; and*
- *c) Relevant correspondence and documents from consultations.*

18D The relevant Design Standards are given in Annex A below to this Appendix P.

18A The relevant Assessment Standards are given in the Design Manual for Roads and Bridges.

19. CEng, MICE, MIStructE or equivalent.

STRUCTURES DESIGN STATEMENT

ANNEX A

Technical Standards Schedule for Works Design

It is the responsibility of the complier of the Structures Design Statement and/or the design or check certificate compiler to ensure that the Standards, references and clauses used - including amendments and corrigenda are relevant and current at the Base Date.

Documents in italics are under preparation at the time of publication of this document.

All Standards and Documents not used shall be struck through.

Schedule of Documents Relating to Design of Highway Bridges and Structures using Structural Eurocodes

British Standards (non-conflicting with Structural Eurocodes)	
BS 4449:2005+A3:2016	Steel for the reinforcement of concrete
BS 8002:2015	Code of practice for earth retaining structures
BS 8004:2015	Code of practice for foundations
BS 8006-1:2010 + A1:2016	Code of practice for strengthened/reinforced soils and other fills
BS 8500-1:2015 + A1:2016	Concrete – Complementary British Standard to BS EN 206: Method of specifying and guidance for the specifier
BS EN 206:2013 + A1:2016	Concrete – Specification, performance, production and conformity
BS EN 1317-1:2010	Road restraint systems – Part 1 – Terminology and general criteria for test methods
BS EN 1317-2:2010	Road restraint systems – Part 2 – Performance classes, impact test acceptance criteria and test methods for safety barriers including vehicle parapets
BS EN 1317-3:2010	Road restraint systems – Part 3 – Performance classes, impact test acceptance criteria and test methods for crash cushions
DD ENV 1317-4: 2002	Road restraint systems – Part 4 – Performance classes, impact test acceptance criteria and test methods for terminals and transitions of safety barriers
BS EN 1317-5:2007 + A2:2012	Road restraint systems – Part 5 – Product requirements and evaluation of conformity for vehicle restraint systems
PD CEN/TR 16949:2016	Road Restraint System – Pedestrian restraint system - Pedestrian parapets
Draft prEN 1317-7	Road restraint systems - Part 7: Performance classes, impact test acceptance criteria and test methods for terminals of safety barriers
PD CEN/TS 1317-8:2012	Road restraint systems - Part 8: Motorcycle road restraint systems which reduce the impact severity of motorcyclist collisions with safety barriers
BS EN 10080:2005	Steel for the reinforcement of concrete – Weldable reinforcing steel - General

BS EN 14388:2015	Road traffic noise reducing devices – Specifications
BS EN 15050:2007 + A1:2012	Precast concrete products. Bridge elements

Structural Eurocodes	
BS EN 1990:2002 + A1:2005	Eurocode: Basis of structural design
NA to BS EN 1990:2002 + A1:2005	UK National Annex to Eurocode: Basis of structural design
BS EN 1991-1-1:2002	Eurocode 1: Actions on structures. Part 1-1: General Actions: Densities, self-weight, imposed load for buildings
NA to BS EN 1991-1-1:2002	UK National Annex to Eurocode 1: Actions on structures. Part 1-1: General Actions. Densities, self-weight, imposed load for buildings
BS EN 1991-1-3:2003 + A1:2015	Eurocode 1: Actions on structures - Part 1-3: General Actions: Snow loads
NA + A1:2015 to BS EN 1991-1-3:2003 + A1:2015	UK National Annex to Eurocode 1: Actions on structures. Part 1-3: General Actions. Snow loads
BS EN 1991-1-4:2005 + A1:2010	Eurocode 1: Actions on structures – Part 1-4: General Actions: Wind actions
NA to BS EN 1991-1-4:2005 + A1:2010	UK National Annex to Eurocode 1: Actions on structures. Part 1-4: General Actions. Wind actions
BS EN 1991-1-5:2003	Eurocode 1: Actions on structures – Part 1-5: General Actions: Thermal actions
NA to BS EN 1991-1-5:2003	UK National Annex to Eurocode 1: Actions on structures. Part 1-5: General Actions. Thermal actions
BS EN 1991-1-6:2005	Eurocode 1: Actions on structures – Part 1-6: General Actions: Actions during execution
NA to BS EN 1991-1-6:2005	UK National Annex to Eurocode 1: Actions on structures. Part 1-6: General Actions. Actions during execution
BS EN 1991-1-7:2006 + A1:2014	Eurocode 1: Actions on structures – Part 1-7: General Actions: Accidental actions
NA + A1:2014 to BS EN 1991-1-7:2006 + A1:2014	UK National Annex to Eurocode 1: Actions on structures. Part 1-7: General Actions. Accidental actions
BS EN 1991-2:2003	Eurocode 1: Actions on structures – Part 2: Traffic loads on bridges
NA to BS EN 1991-2:2003	UK National Annex to Eurocode 1: Actions on structures. Part 2: Traffic loads on bridges
BS EN 1992-1-1:2004 + A1:2014	Eurocode 2: Design of concrete structures – Part 1-1: General rules and rules for buildings

Structural Eurocodes	
NA + A2:2004 to BS EN 1992-1-1:2004 + A1:2014	UK National Annex to Eurocode 2: Design of concrete structures – Part 1-1: General rules and rules for buildings
BS EN 1992-2:2005	Eurocode 2: Design of concrete structures – Part 2: Concrete bridges – Design and detailing rules
NA to BS EN 1992-2:2005	UK National Annex to Eurocode 2: Design of concrete structure – Part 2: Concrete bridges – Design and detailing rules
BS EN 1992-3:2006	Eurocode 2: Design of concrete structures – Part 3: Liquid retaining and containment structures
NA to BS EN 1992-3:2006	UK National Annex to Eurocode 2: Design of concrete structures – Part 3: Liquid retaining and containment structures
BS EN 1993-1-1:2005 + A1:2014	Eurocode 3: Design of steel structures – Part 1-1: General rules and rules for buildings
NA + A1:2014 to BS EN 1993-1-1:2005 + A1:2014	UK National Annex to Eurocode 3: Design of steel structure – Part 1-1: General rules and rules for buildings
BS EN 1993-1-3:2006	Eurocode 3: Design of steel structures – Part 1-3 General rules – Supplementary rules for cold-formed members and sheeting
NA to BS EN 1993-1-3:2006	UK National Annex to Eurocode 3: Design of steel structures – Part 1-3: General rules – Supplementary rules for cold-formed members and sheeting
BS EN 1993-1-4:2006 + A1:2015	Eurocode 3: Design of steel structures – Part 1-4: General rules – Supplementary rules for stainless steels
NA + A1:2015 to BS EN 1993-1-4:2006 + A1:2015	UK National Annex to Eurocode 3: Design of steel structures – Part 1-4: General rules – Supplementary rules for stainless steels
BS EN 1993-1-5:2006	Eurocode 3: Design of steel structures – Part 1-5: Plated structural elements
NA + A1:2016 to BS EN 1993-1-5:2006	UK National Annex to Eurocode 3: Design of steel structure – Part 1-5: Plated structural elements
BS EN 1993-1-6:2007	Eurocode 3: Design of steel structures – Part 1-6 Strength and stability of shell structures
BS EN 1993-1-7:2007	Eurocode 3: Design of steel structure – Part 1-7: Plated structures subject to out of plane loading
BS EN 1993-1-8:2005	Eurocode 3: Design of steel structures – Part 1-8: Design of joints
NA to BS EN 1993-1-8:2005	UK National Annex to Eurocode 3: Design of steel structures – Part 1-8: Design of joints
BS EN 1993-1-9:2005	Eurocode 3: Design of steel structures – Part 1-9: Fatigue
NA to BS EN 1993-1-9:2005	UK National Annex to Eurocode 3: Design of steel structures – Part 1-9: Fatigue
BS EN 1993-1-10:2005	Eurocode 3: Design of steel structures – Part 1-10: Material toughness and through-thickness properties

Structural Eurocodes	
NA to BS EN 1993-1-10:2005	UK National Annex to Eurocode 3: Design of steel structures – Part 1-10: Material toughness and through-thickness properties
BS EN 1993-1-11:2006	Eurocode 3: Design of steel structures – Part 1-11: Design of structures with tension components
NA to BS EN 1993-1-11:2006	UK National Annex to Eurocode 3: Design of steel structures – Part 1-11: Design of structures with tension components
BS EN 1993-1-12:2007	Eurocode 3: Design of steel structures – Part 1-12: Additional rules for the extension of EN 1993 up to steel grades S 700
NA to BS EN 1993-1-12:2007	UK National Annex to Eurocode 3: Design of steel structures – Part 1-12: Additional rules for the extension of EN 1993 up to steel grades S 700
BS EN 1993-2:2006	Eurocode 3: Design of steel structures – Part 2: Steel bridges
NA+ A1:2012 to BS EN 1993-2:2006	UK National Annex to Eurocode 3: Design of steel structures – Part 2: Steel bridges
BS EN 1993-5:2007	Eurocode 3: Design of steel structures – Part 5: Piling
NA + A1:2012 to BS EN 1993-5:2007	UK National Annex to Eurocode 3: Design of steel structures – Part 5: Piling
BS EN 1994-1-1:2004	Eurocode 4: Design of composite steel and concrete structures – Part 1-1: General rules and rules for buildings
NA to BS EN 1994-1-1:2004	National Annex to Eurocode 4: Design of composite steel and concrete structures – Part 1-1: General rules and rules for buildings
BS EN 1994-2:2005	Eurocode 4: Design of composite steel and concrete structures – Part 2: General rules and rules for bridges
NA to BS EN 1994-2:2005	National Annex to Eurocode 4: Design of composite steel and concrete structures – Part 2: General rules and rules for bridges
BS EN 1995-1-1:2004 + A2:2014	Eurocode 5: Design of timber structures – Part 1-1: General – Common rules and rules for buildings
NA to BS EN 1995-1-1:2004 + A1:2008	UK National Annex to Eurocode 5: Design of timber structures – Part 1-1: General – Common rules and rules for buildings
BS EN 1995-2:2004	Eurocode 5: Design of timber structures – Part 2: Bridges
NA to BS EN 1995-2:2004	UK National Annex to Eurocode 5: Design of timber structures – Part 2: Bridges
BS EN 1996-1-1:2005 + A1:2012	Eurocode 6: Design of masonry structures – Part 1-1: General rules for reinforced and unreinforced masonry structures
NA to BS EN 1996-1-1:2005 + A1:2012	UK National Annex to Eurocode 6: Design of masonry structures – Part 1:-1 General rules for reinforced and unreinforced masonry structures
BS EN 1996-2:2006	Eurocode 6: Design of masonry structures – Part 2: Design considerations, selection of materials and execution of masonry

Structural Eurocodes	
NA to BS EN 1996-2:2006	UK National Annex to Eurocode 6: Design of masonry structures – Part 2: Design considerations, selection of materials and execution of masonry
BS EN 1996-3:2006	Eurocode 6: Design of masonry structures – Part 3: Simplified calculation methods for unreinforced masonry structures
NA + A1:2014 to BS EN 1996-3:2006	UK National Annex to Eurocode 6: Design of masonry structures – Part 3: Simplified calculation methods for unreinforced masonry structures
BS EN 1997-1:2004 + A1:2013	Eurocode 7: Geotechnical design – Part 1: General rules
NA + A1:2014 to BS EN 1997-1:2004 + A1:2013	UK National Annex to Eurocode 7: Geotechnical design – Part 1: General rules
BS EN 1997-2:2007	Eurocode 7: Geotechnical design – Part 2: Ground investigation and testing
NA to BS EN 1997-2:2007	UK National Annex to Eurocode 7: Geotechnical design – Part 2: Ground investigation and testing
BS EN 1998-1:2004 + A1:2013	Eurocode 8: Design of structures for earthquake resistance – Part 1: General rules, seismic actions and rules for buildings
NA to BS EN 1998-1:2004	Eurocode 8: Design of structures for earthquake resistance – Part 1: General rules, seismic actions and rules for buildings
BS EN 1998-2:2005 + A2:2011	Eurocode 8: Design of structures for earthquake resistance – Part 2: Bridges
NA to BS EN 1998-2:2005	UK National Annex to Eurocode 8: Design of structures for earthquake resistance – Part 2: Bridges
BS EN 1998-5:2004	Eurocode 8: Design of structures for earthquake resistance - Part 5: Foundations, retaining structures and geotechnical aspects
NA to BS EN 1998-5:2004	UK National Annex to Eurocode 8: Design of structures for earthquake resistance - Part 5: Foundations, retaining structures and geotechnical aspects
BS EN 1999-1-1:2007 + A2:2013	Eurocode 9: Design of aluminium structures– Part 1-1: General structural rules
NA to BS EN 1999-1-1:2007 + A1:2009	UK National Annex to Eurocode 9: Design of aluminium structures – Part 1-1: General structural rules
BS EN 1999-1-3:2007 + A1:2011	Eurocode 9: Design of aluminium structures – Part 1-3: Structures susceptible to fatigue
NA to BS EN 1999-1-3:2007 + A1:2011	UK National Annex to Eurocode 9: Design of aluminium structures – Part 1-3: Structures susceptible to fatigue
BS EN 1999-1-4:2007 + A1:2011	Eurocode 9: Design of aluminium structures – Part 1-4 Cold formed structural sheeting

Structural Eurocodes	
NA to BS EN 1999-1-4:2007	UK National Annex to Eurocode 9: Design of aluminium structures – Part 1-4: Cold formed structural sheeting

BSI Published Documents (To be used with Structural Eurocodes)) ***For guidance only unless clauses are otherwise specified in BD 100/16 Annex B***	
PD 6704	Guidance on the design of structures to the UK National Annex to *BS EN 1990*
PD 6688-1-1:2011	Background paper to the UK National Annex to BS EN 1991-1-1
PD 6688-1-4: 2015	Background information to the National Annex to BS EN 1991-1-4 and additional guidance
PD 6688-1-5	Background paper to the UK National Annex to BS EN 1991-1-5
PD 6688-1-7: 2009 + A1:2014	Recommendations for the design of structures to BS EN 1991-1-7
PD 6688-2:2011	Background to the National Annex to BS EN 1991-2
PD 6687-1:2010	Background paper to the National Annexes to BS EN 1992-1 and BS EN 1992-3
PD 6687-2:2008	Recommendations for the design of structures to BS EN 1992-2:2005
PD 6695-1-9:2008	Recommendations for the design of structures to BS EN 1993-1-9
PD 6695-1-10: 2009	Recommendations for the design of structures to BS EN 1993-1-10
PD 6695-2:2008 + A1:2012	Recommendation for the design of bridges to BS EN 1993
PD 6695-5	Background paper to the UK National Annex to BS EN 1993-5
PD 6705-2:2010 + A1:2013	Recommendations for the execution of steel bridges to BS EN 1090-2
PD 6696-2:2007 + A1:2012	Background paper to BS EN 1994-2 and the UK National Annex to BS EN 1994-2
PD 6697 2010	Recommendations for the design of masonry structures to BS EN 1996-1-1 and BS EN 1996-2
PD 6694-1:2011	Recommendations for the design of structures subject to traffic loading to BS EN 1997-1
PD 6698: 2009	Recommendations for the design of structures for earthquake resistance to BS EN 1998
PD 6702-1:2009	Recommendations for the design of aluminium structures to BS EN 1999

BSI Published Documents (To be used with Structural Eurocodes)) ***For guidance only unless clauses are otherwise specified in BD 100/16 Annex B***	
PD 6705-3:2009	Recommendations for the execution of aluminium structures to BS EN 1090-3
PD 6703: 2009	Structural Bearings - Guidance on the use of structural bearings

Execution Standards	
BS EN 1090-1:2009 + A1:2011	Execution of steel structures and aluminium structures – Part 1: Requirements for conformity assessment of structural components
BS EN 1090-2: 2008 + A1:2011	Execution of steel structures and aluminium structures – Part 2: Technical requirements for the execution of steel structures
BS EN 1090-3:2008	Execution of steel structures and aluminium structures – Part 3: Technical requirements for aluminium structures
BS EN 13670:2009	Execution of concrete structures

The Manual of Contract Documents for Highway Works (MCDHW)
Volume 1: Specification for Highway Works
Volume 2: Notes for Guidance on the Specification for Highway Works
Volume 3: Highway Construction Details

Design Manual for Roads and Bridges (Design Manual for Roads and Bridges) **General Requirements, Standards (GD Series)**	
GD 01/15	Introduction to the Design Manual for Roads and Bridges
GD 02/16	Quality Management Systems for Highway Design
GD 04/12	Standards for Safety Risk Assessment on the Strategic Road Network
GD 05/16	Asbestos Management in Trunk Road Assets

Design Manual for Roads and Bridges (Design Manual for Roads and Bridges) **Bridges and Structures, Advice Notes (BA Series)**	
BA 26/94	Expansion Joints for use in Highway Bridge Decks

Design Manual for Roads and Bridges (Design Manual for Roads and Bridges) **Bridges and Structures, Advice Notes (BA Series)**	
BA 28/92	Evaluation of Maintenance Costs in Comparing Alternative Designs for Highway Structures
BA 41/98	The Design and Appearance of Bridges
BA 47/99	Waterproofing and Surfacing of Concrete Bridge Decks
BA 67/96	Enclosure of Bridges
BA 82/00	Formation of Continuity Joints in Bridge Decks
BA 85/04	Coatings for Concrete Highway Structures & Ancillary Structures
BA 87/04	Management of Corrugated Steel Buried Structures
BA 92/07	The Use of Recycled Concrete Aggregates in Structural Concrete

Bridges and Structures, Standards (BD Series)	
BD 7/01	Weathering Steel for Highway Structures
BD 10/97	Design of Highway Structures in Areas of Mining Subsidence
BD 12/01	Design of Corrugated Steel Buried Structures with Spans greater than 0.9 metres and up to 8.0 metres
BD 29/17	Design Criteria for Footbridges
BD 33/94	Expansion Joints for use in Highway Bridge Decks
BD 35/14	Quality Assurance Scheme for Paints and Similar Protective Coatings
BD 36/92	Evaluation of Maintenance Costs in Comparing Alternative Designs for Highway Structures
BD 43/03	The Impregnation of Reinforced and Prestressed concrete Highway Structures using Hydrophobic Pore-Lining Impregnants
BD 45/93	Identification Markings of Highway Structures
BD 47/99	Waterproofing and Surfacing of Concrete Bridge Decks
BD 51/14	Portal and Cantilever Signs / Signal Gantries
BD 62/07	As-built, Operational and Maintenance Records for Highway Structures
BD 65/14	Design Criteria for Collision Protection Beams
BD 67/96	Enclosure of Bridges
BD 78/99	Design of Road Tunnels
BD 82/00	Design of Rigid Buried Pipes
BD 90/05	Design of FRP Bridges and Highway Structures
BD 91/04	Unreinforced Masonry Arch Bridges

Bridges and Structures, Standards (BD Series)	
BD 94/17	Design of Minor Structures
BD 100/16	The Use of Eurocodes for the Design of Highway Structures

Traffic Engineering and Control, Standards and Advice Notes (TD and TA Series)	
TD 9/93	Highway Link Design
TD 19/06	Requirement for Road Restraint Systems
TD 27/05	Cross Sections and Headroom
TD 36/93	Subways for Pedestrians and Cyclists, Layout and Dimensions
TD 89/08	Use of Passively Safe Signposts, Lighting Columns & Traffic Signal Posts to BS EN 12767

Highways, Advice Notes (HA Series)	
HA 66/95	Environmental Barriers – Technical Requirements
HA 107/04	Design of Outfall and Culvert Details

Highways, Standards (HD Series)	
HD 22/08	Managing Geotechnical Risk
HD 45/09	Road Drainage and Water Environment

Transport Scotland Interim Amendments	
TS IA 22	Transport Scotland Interim Amendment No 22: Implementation of New Reinforcement Standards (BS 4449:2005, BS 4482:2005, BS 4483: 2005 and BS 8666:2005)
TS IA 23 Revision 3	Transport Scotland Interim Amendment No 23: Implementation of BS 8500-1:2006 Concrete – Complimentary British Standard to BS EN 206-1
TS IA 24	Transport Scotland Interim Amendment No 24: Guidance on implementing results on research on bridge deck waterproofing
TS IA 25	Transport Scotland Interim Amendment No 25: Assessment and upgrading of existing vehicle parapets
TS IA 26	Transport Scotland Interim Amendment No 26: The Anchorage of Reinforcement & Fixings in Hardened Concrete
TS IA 30	Transport Scotland Interim Amendment No 30: The Use of Foamed Concrete
TS IA 32	Transport Scotland Interim Amendment No 32: The Deflection of Permanent Formwork

TS IA 39	Use of Eurocodes for the Design of Bridges and Road Related Structures
TS IA 42	Transport Scotland Interim Amendment No 42: Temporary Cover Plates Over Bridge Expansion Joints
TS IA 43	Transport Scotland Interim Amendment No 43: Strategy for the Repair/Replacement of Joints
TS IA 45	Transport Scotland Interim Amendment No 45: Management of Abnormal Loads 28 3 14
TS IA 46	Transport Scotland Interim Amendment No 46: Structures Inspector Competencies and Certification

Miscellaneous	
CIRIA C543	Bridge Detailing Guide
CIRIA C660	Early-age Thermal Crack Control in Concrete
CIRIA C686	Safe Access for Maintenance and Repair
CIRIA C760	Guidance on embedded retaining wall design

STRUCTURES DESIGN STATEMENT

ANNEX B

Diagram of idealised structural analysis model

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STRUCTURES DESIGN STATEMENT

ANNEX C

Departures from Standard

[REDACTED]

STRUCTURES DESIGN STATEMENT

ANNEX D

Drawings

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APPENDIX Q

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ENVIRONMENTAL ASSESSMENT DOCUMENTS

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LIST OF ENVIRONMENTAL ASSESSMENT DOCUMENTS

1. A90/A96 HAUDAGAIN IMPROVEMENT DMRB Stage 3 Environmental Statement – June 2015

2. EC DIRECTIVE 97/11 ENVIRONMENTAL IMPACT ASSESSMENT (SCOTLAND) REGULATIONS 20111999 (as amended) Roads (Scotland) Act 1984 - RECORD OF DETERMINATION - A90/A96 Haudagain Improvement – August 2014

3. EC DIRECTIVE 97/11 ENVIRONMENTAL IMPACT ASSESSMENT (SCOTLAND) REGULATIONS 20111999 (as amended) Roads (Scotland) Act 1984 - RECORD OF DETERMINATION - A90/A96 Haudagain Improvement – Anticipated 2017

4. Other assessments for information
    a. Phase 1 Archaeological Trial Trenching Report, 2017
    b. A90/A96 Haudagain Bat Survey, 2017
    c. Revised Flood Risk Assessment, 2017

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APPENDIX R

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DETAILS OF ADDITIONAL LAND REQUIRED BY THE CONTRACTOR FOR THE WORKS

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APPENDIX S

THIS IS APPENDIX S TO THE EMPLOYER'S REQUIREMENTS

STATUTORY ORDERS AND SCHEME SCHEDULES

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APPENDIX S

STATUTORY ORDERS AND SCHEME SCHEDULES

The Statutory Orders relevant to the Contract are:

Title	Drawing No
The A90 & A96 Trunk Roads (Haudagain Improvement) Compulsory Purchase Order 2017	Key Plan and CPO Sheets 1 to 11 (including 2a to 10a),
Plan Of The Certificate Of The Scottish Ministers Relative To The A90 & A96 Trunk Roads (Haudagain Improvement) Compulsory Purchase Order 2017 Exchange Land	N/A
The A90 & A96 Trunk Roads (Haudagain Improvement) (Side Roads) Order 2017	Key Plan, Legend and Plans SR1 to SR3
The A90 & A96 Trunk Roads (Middlefield Place to Auchmill Terrace) Detrunking Order 2017	Plan DT1
The A90 Trunk Road (Charleston to Blackdog) Detrunking (Variation) Order 2017	Key Plan, Legend and Plans DT1 to DT4
The A96 Trunk Road (Dyce Drive to Haudagain Roundabout) Detrunking (Variation) Order 2017	N/A

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APPENDIX T

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DEFECT REPORTING

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APPENDIX T

DEFECT REPORTING

Defect Reporting

The Employer proposes to have a maintenance handover meeting two months prior to the issuing of the Certificate of Completion.

A suitable format for defect reporting during the Maintenance Period is contained within this Appendix.

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A90/A96 HADAGAIN IMPROVEMENT

DEFECT REPORT NO. …… DATE……..

PART A

1. Location of defect ……..
2. Link……Section…….CH/X-Sec ……
3. Description of Location ……..
4. Date of inspection by **ROADS AUTHORITY** ……
5. Description of defect……
   ……..……..
6. Immediate action taken **Permanent Repair** **Temporary Repair** **Report Only**
7. Date permanent repair to be completed……
8. Report attached YES NO
9. Brief description of repair required……
   ……..
10. Is occupation of the carriageway required to effect repairs? YES NO
11. Defect repair to be carried out by [*CONTRACTOR]* **ROADS AUTHORITY** by the date specified at 7 above
    NB: Where *[CONTRACTOR]* requires to occupy the carriageway to carry out repairs then arrangements to programme the occupation shall be made with **ROADS AUTHORITY**.

PART B

12. Is the defect third party damage? YES NO
13. Is the defect due to the Contractor's liability? YES NO

The EMPLOYER considers that the cost of carrying out these necessary repairs should be met by:-
THIRD PARTY *[CONTRACTOR]* **ROADS AUTHORITY**
Signed for **EMPLOYER**……Date……..

PART C

14. Permanent Repair of the defect was carried out by:-
    [*CONTRACTOR]* **ROADS AUTHORITY**
    on……(Date)
    Signed for *[CONTRACTOR]*/**ROADS AUTHORITY** …… Date…….

PART D

EMPLOYER confirms the cost of carrying out permanent repair should be met by:-
THIRD PARTY *[CONTRACTOR]* **ROADS AUTHORITY**

Signed for **EMPLOYER**……Date……..

CONTACT DETAILS

[CONTRACTOR]
FAX
EMAIL
[ROADS AUTHORITY]
FAX
EMAIL
[TRUNK ROAD MANAGEMENT AND MAINTENANCE CONTRACTOR]
FAX
EMAIL

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APPENDIX U

THIS IS APPENDIX U TO THE EMPLOYER'S REQUIREMENTS

TRAFFIC VOLUMES

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APPENDIX U PART 1

PROCEDURE FOR DEMONSTRATING COMPLIANCE WITH THE JUNCTION REQUIREMENTS AND JUNCTION PERFORMANCE INDICATORS

Assessment Procedure

The Contractor shall provide to the Employer the Linsig junction assessment model(s) developed for the proposed scheme, the pre-defined output report and the Excel based results summary table, as provided in the Information Room, to demonstrate compliance with the junction requirements set out in the Contract and the Junction Performance Indicators in APPENDIX U PART 2.

The instructions regarding the extraction and analysis of the Junction Performance Indicators ("JPI"s) are outlined in APPENDIX U PART 3 along with provision of the Junction Compliance Models. The process provides a consistent framework for the assessment of the operational performance of the Contractor's scheme design, and shall compare this design against the benchmark of the values established within the JPIs given in APPENDIX U PART 2 with respect to:

1. Degree of Saturation (per approach arm lane);
2. Mean Maximum Queue lengths (per approach arm lane);
3. Practical Reserve Capacity (per junction);
4. Total Delay (per junction).

Each of these elements shall be submitted and assessed using the Excel based results summary table provided.

The Linsig junction assessment model will contain four demand scenarios in total covering the 2018 and 2033 AM and PM peak hours. For each scenario there is a separate JPI analysis Excel based results summary table, covering the above mentioned four JPI indicators.

As more up to date traffic forecast information becomes available, the demand scenarios included in the Linsig junction assessment model will be updated by the Employer and then provided to the contractor. In addition to the demand update to the model, revised benchmark values shall be provided by the Employer that reflect the updates made to the traffic demand scenarios.
The Contractor should then repeat the processes detailed in APPENDIX U PART 2 and APPENDIX U PART 3 using the revised model and benchmark values.

This assessment will be used to inform the signal timings to be used on the day of opening with a view to making minor subsequent adjustments to best suit the traffic patterns on the ground and fully optimise the signals.

APPENDIX U PART 2

JUNCTION PERFORMANCE INDICATORS

This APPENDIX U PART 2 presents the required operational Junction Performance Indicators (JPIs) derived from analysing the results from the Scheme Performance Benchmark Models that have been developed using the LINSIG Version 3.2.39.0 software.

The Excel workbooks, used to summarise the JPIs from the model, are included as electronic files within the Information Room. Instructions on how to assess the junction performance of proposed junctions included in the New Works are contained within APPENDIX U PART 3.

For each junction, operational JPIs are required for the traffic forecast demand scenario traffic flows that are specified in the supplied Linsig junction assessment input files included in the Information Room.

JPI Definitions

The operational performance of the modelled area is based on the four sets of JPIs described in APPENDIX U PART 1, utilising the Linsig models that are supplied.

JPI1 – the degree of saturation per lane on each junction approach arm
This is defined as the maximum degree of saturation allowed on each lane of each approach arm within each of the separate AM and PM peak modelled periods.

JPI2 – the mean maximum queue length per lane on each junction approach arm
This is defined as the maximum queue length per lane allowed on each lane of each approach arm within each of the separate AM and PM peak modelled periods. These are tabulated in the supplied Excel Workbook for each scenario.

JPI3 – the practical reserve capacity per junction
This is defined as the minimum practical reserve capacity allowed for each of the signalised junctions in the separate AM and PM peak modelled periods.

JPI4 – total delay allowed per junction
This is defined as the maximum total delay allowed for each junction as a whole in the separate AM and PM peak modelled periods.

Model Files

When using the supplied Scheme Performance Benchmark Model, no changes to the pre-defined traffic flow inputs shall be made.

APPENDIX U PART 3

CONTRACT JUNCTION COMPLIANCE TRAFFIC MODELS AND ASSOCIATED INSTRUCTIONS AND ANALYSIS WORKBOOKS

The following Contract Junction Compliance Model will be provided:

(i) A90 / A96 Haudagain Junction Improvement Model

There is one analysis workbook provided for the A90 / A96 Haudagain Junction Improvement Model. All model coding, running, analysis and any other associated modelling work shall be undertaken using LINSIG Version 3.2.39.0.

Collating data into the JPI Workbook

All JPI data shall be extracted from the LINSIG model output and used to populate the summary tables provided in the Excel JPI Workbook. For all model scenarios, the following spreadsheet shall be used:

(i) A90 A96 Haudagain Junction Improvement _JPIs .xlsx;

Degree of Saturation (JPI1)

Under each scenario (forecast year and time period), the columns marked 'JPI 1: DoS (%) - Your Model' should be populated with the Contractor's model Degree of Saturation (DoS) values. The adjacent columns compare the Contractor's model values to those from the Scheme Performance Benchmark Model. The worksheet indicates if the performance of the Contractor's model is satisfactory for each lane on each junction approach arm included.
Upon completion of the above analysis, the Excel Workbook shall be saved.

Mean Maximum Queue (JPI2)

Under each scenario (forecast year and time period), the columns marked 'JPI 2: MMQ (PCU) – Your Model' should be populated with the Contractor's model Mean Maximum Queue (MMQ) values. The adjacent columns compare the Contractor's model values to those from the Scheme Performance Benchmark Model. The worksheet indicates if the performance of the Contractor's model is satisfactory for each lane on each junction approach arm included.
Upon completion of the above analysis, the Excel Workbook shall be saved.

Practical Reserve Capacity (JPI3)

The column labelled 'Your Results' in the table named 'JPI 3: Practical Reserve Capacity (%)' should be populated with the relevant values from the Contractor's model. The adjacent columns compare the Contractor's model values to those from the Scheme Performance Benchmark Model. The worksheet indicates if the performance of the Contractor's model is satisfactory for each junction included.
Upon completion of the above analysis, the Excel Workbook shall be saved.

Total Delay (JPI4)

The column labelled 'Your Results' in the table named 'JPI 4: Total Delay (pcuHr)' should be populated with the relevant values from the Contractor's model. The adjacent columns compare the Contractor's model values to those from the Scheme Performance Benchmark Model. The worksheet indicates if the performance of the Contractor's model is satisfactory for each junction included.
Upon completion of the above analysis, the Excel workbook shall be saved.

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APPENDIX V

THIS IS APPENDIX V TO THE EMPLOYER'S REQUIREMENTS

PROPERTIES AND STRUCTURES REQUIRING CONDITION SURVEYS

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APPENDIX V

PROPERTIES AND STRUCTURES REQUIRING CONDITION SURVEYS

The following properties and structures require Schedule of Condition Surveys in accordance with the "Guide to surveys and inspections of buildings and associated structures", The Institution of Structural Engineers, 2008:

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APPENDIX W

THIS IS APPENDIX W TO THE EMPLOYER'S REQUIREMENTS

PROCEDURE FOR STRUCTURES ASSESSMENT

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APPENDIX W

PROCEDURE FOR STRUCTURES ASSESSMENT

(Note: This procedure shall only be used with structures with a minimum Assessed Live Load (ALL) capacity of 40 tonnes and minimum HB capacity in accordance with BD37/01: Section 4.1. The Employer does not warrant the accuracy of any assessment reports. Structures with an assessed live load capacity below 40 tonnes, and/or HB capacity below the BD37/01 requirements, will require to be demolished/strengthened at the Contractor's expense.)

W1 The assessment of an existing Structure with a minimum ALL capacity of 40 tonnes and HB capacity in compliance with BD 37/01, which is to be widened or otherwise modified, shall be carried out in accordance with the flowchart below and the following procedure:

(a) analyse the existing Structure to determine the load effects (moments, shears etc) the loading being in accordance with current assessment standards;

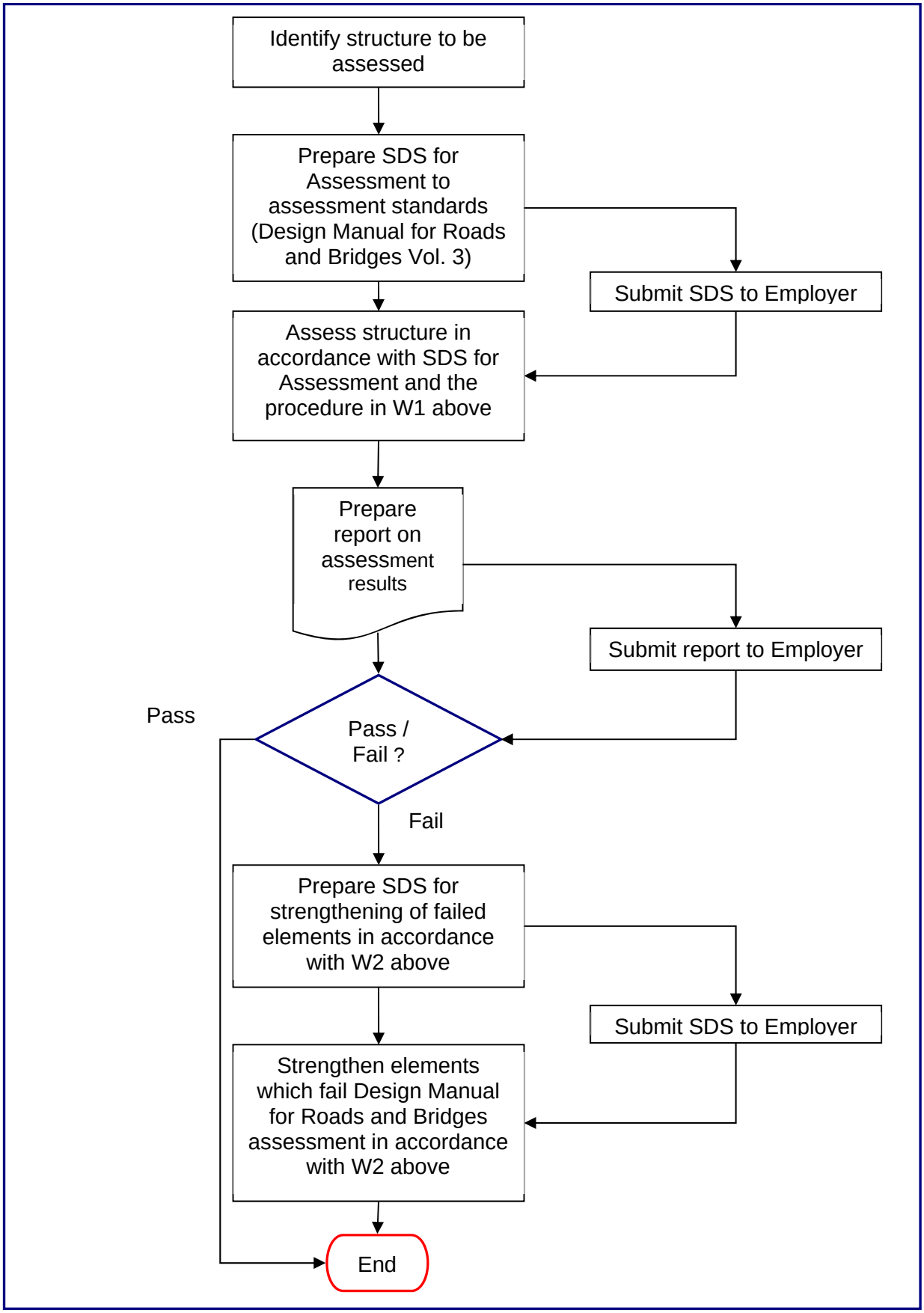
(b) analyse the Structure to determine the load effects (moments, shears etc) following widening or modification, the loading on the whole Structure being in accordance with current assessment standards;

(c) analyse the Structure to determine the load effects (moments, shears etc) following widening or modification, the loading on the whole Structure being in accordance with current Eurocode design standards.

(d) in relation to that part of the existing Structure to be retained and incorporated in the modified / widened Structure, provided the load effects determined in (b) above are no more adverse than those determined in (a) above, no strengthening need be carried out on the part of the existing Structure to be retained; and

(e) in relation to that part of the existing Structure to be retained and incorporated in the modified / widened Structure, where the load effects determined in (b) above are more adverse than those determined in (a) above, the part of the existing Structure to be retained and in which the load effects have become more adverse due to the proposed widening / modification shall be strengthened to carry the load effects determined in (c) above. Those parts of the existing Structure in which the load effects have not increased need not be strengthened;

W2 All works to existing Structures which are to be widened or otherwise modified shall be designed to accommodate the load effects determined in accordance with current Eurocode design standards.



Flowchart for the assessment/strengthening of existing structure

APPENDIX X

THIS IS APPENDIX X TO THE EMPLOYER'S REQUIREMENTS

LIST OF WATERCOURSE DIVERSIONS

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APPENDIX Y

THIS IS APPENDIX Y TO THE EMPLOYER'S REQUIREMENTS

ROCK ENGINEERING GUIDES TO GOOD PRACTICE: ROAD ROCK SLOPE EXCAVATION (PUBLISHED PROJECT REPORT PPR 556, JUNE 2000)

AND

ROCK ENGINEERING GUIDES TO GOOD PRACTICE: ROAD ROCK SLOPE REMEDIAL AND MAINTENANCE WORKS (PUBLISHED PROJECT REPORT PPR 555, JUNE 2000)

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APPENDIX Z

THIS IS APPENDIX Z TO THE EMPLOYER'S REQUIREMENTS

EARTHWORKS DESIGN STATEMENT

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APPENDIX AA

THIS IS APPENDIX AA TO THE EMPLOYER'S REQUIREMENTS

APPLICATION FOR APPROVAL TO PROCEED TS2010 SURFACE COURSE STAGE 3 TRIAL

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Application for Approval to Proceed
TS2010 Surface Course stage 3 trial

Contract Name	*Main Contractor*	*MTRIPS Project Manager*	*Engineer's Project Manager*

Site details

Site description	*SCRIM Site Category*	*TS2010 Site Class*	*Trial section(s)*	*Start chainage*	*End chainage*	*length*

Asphalt Supplier	*Laying Contractor*	*Production plant(s)*

System Proposal

TS2010 Ref No.	*Description*	*Type of Bond Coat*	

Transport Scotland approval to proceed granted	**Yes/No**		
Signed:			
Printed Name		**To be completed by:-**	**Contractor**
Date:			**Transport Scotland**

Please e-mail to: [REDACTED] Asset Management Branch, TRBO, Transport Scotland, for completion.
Completed form must be submitted to the Engineer prior to commencement of the stage 3 trial.

APPENDIX BB

THIS IS APPENDIX BB TO THE EMPLOYER'S REQUIREMENTS

COMMUNICATION PROTOCOL

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APPENDIX BB

COMMUNICATION PROTOCOL

This protocol has been established to facilitate effective public communications around the delivery of the A90/A96 Haudagain Improvement Project, a major transport infrastructure project.

Adhering to this protocol will help to ensure stakeholder engagement is effectively delivered and external messaging is accurate, coordinated and timed to support the project.

1. Project Roles and Responsibilities

1.1.1 The Employer is responsible for delivering the project on behalf of Scottish Ministers as a key part of the Scottish Government's programme of investment in Scotland's infrastructure.

1.1.2 The Contractor has entered into a contract with the Employer, on behalf of Scottish Ministers and is responsible for the design, construction, completion and maintenance of the Project.

2. Communication Roles and Responsibilities

2.1.1 The roles and responsibilities section shall take into account the responsibilities and obligations of each organisation mentioned in the above paragraphs.

2.1.2 The Employer is responsible for communicating the strategic and Ministerial importance of this investment and accounting for the progress of the project to Scottish Ministers. The Employer must demonstrate to Ministers that the project is being effectively delivered and that public money is being spent efficiently.

2.1.3 The Employer is responsible for ensuring progress is externally communicated to the project's stakeholders and the wider public. It is also responsible for managing and mitigating reputational risks to the Employer and the Scottish Government associated with the project delivery.

2.1.4 The Employer will manage and ensure delivery of the overall communications strategy for the project, including the delegation of responsibilities to the contractor and ensuring the contractor adheres to agreed standards and constraints.

2.1.5 The core requirements for all communications, actions and community liaison by the Contractor is to protect the reputation of the Project, the Employer and the Contractor, and Scottish Government and Ministers.

2.1.6 The contractor's community liaison officer shall be responsible for liaison with community and businesses affected by its work on the project, including the distribution of operational information, responding to operational enquiries and dealing with complaints and ensuring affected parties receive timely information regarding operational activities.

2.1.7 The contractor will be responsible for ensuring that all staff (including all sub-contractor staff) adhere to the communications protocols.

2.1.8 The Contractor shall supply the Employer with a Communications Implementation Plan specifying how he will fulfil the communication requirements of the Project.

3. Communications Governance & Protocol

3.1.1 A regular Communications Group meeting will be established on a monthly basis, or at other intervals as required, which will comprise of representation from the Employer's project team, the Employer's Strategic Communications Manager and possibly other communications representatives from the Employer and any technical or communications consultants working on its behalf; and the contractor including the Community Liaison Officer(s). This will be to review status and progress of project communications and plan forward communications handling.

3.1.2 The Employer shall be responsible for all communications and briefings undertaken on all aspects of the project with the following stakeholder audiences including, but not necessarily limited to:

- Elected members (MSPs, MPs, Councillors)
- Operational stakeholders (utilities, emergency services etc)
- Statutory consultee bodies (including community councils)
- Environmental groups
- Industry stakeholders
- Campaign groups
- Business stakeholders (Chambers of Commerce etc)

3.1.3 The Contractor will seek permission from Transport Scotland before engaging with any of these audiences.

3.1.4 The Contractor shall co-operate with Transport Scotland and provide whatever information Transport Scotland reasonably requires in order to respond to enquiries from the public, media or other stakeholders.

3.1.5 The Contractor's Communications Implementation plan shall include the contact persons database which lists contact details for all stakeholders. The contact persons database shall be subject to review throughout the construction of the project.

3.2 Enquiries & Complaints

3.2.1 The Contractor shall be required to respond to all enquiries or complaints within 24 hours of receiving the enquiry or complaint, giving a holding response if necessary. All enquiries shall be logged within 24 hours of receipt in the contact persons database. The log shall be reviewed at Communications Meetings.

3.2.2 The Contractor shall be required to provide information to assist in responding to correspondence including Ministerial letters, Parliamentary Questions and Freedom of Information Requests. The Contractor shall be required to respond within 3 working days of receiving the request.

3.3 Media

3.3.1 As the contracting authority, the Employer shall be responsible for all media matters (including social media), in the first instance. The Employer will act as the first point of contact for the media and shall act on behalf of the contractor and themselves in relation to the project.

3.3.2 The Contractor shall be required to work closely with the Employer in dealing with the media on any matter that relates directly to the Project or indirectly, via the Contractor or to any other part of the Employer, Scottish Ministers or Scottish Government. Timescales are often narrow and a timeous response from the Contractor will be required within the timescale provided.

3.3.3 The Employer will ensure that appropriate liaison with the Contractor is undertaken, and as far, and where possible, the Contractor is privy to the final response issued. It should be understood that media timescales, including social media, will not always permit that to happen prior to issuing a response.

3.3.4 All materials and statements being issued to the media or to the parties mentioned above at paragraph 3.2 will be cleared by the Employer in the following way:

Stage 1 – Employee's Project Team

- Strategic Communications Manager
- Project Manager
- Team Leader, Discrete Projects

- Followed by Community Liaison Officer

Stage 2 – Employee's Senior Management Team (if Employee deems it necessary)

- Head of Construction
- Head of Special Projects
- Director of Major Transport Infrastructure Projects

Stage 3 – Scottish Ministers (if Employee deems it necessary)

- Minister for Transport and Islands

3.3.5 The Contractor shall not seek media attention without prior consultation and agreement from the Employer.

3.4 Communications & Advertising

3.4.1 The Employer shall be responsible for issuing all news releases, social media messaging or statements or other media engagement including those relating to traffic management.

3.4.2 Should there be a failure to agree on a communication then the Employer shall retain overall approval on behalf of Scottish Ministers.

3.4.3 The Contractor shall be required to submit material and statements, in line with timescales below, to the Strategic Communications Manager who will manage the process on their behalf. In the absence of the Strategic Communications Manager, the Project Manager should be contacted unless otherwise informed. Should the Contractor wish to issue communication they shall in the first instance consult with the Employer intimating the purpose and content of the communication. The Contractor shall not issue the communication until consent on the copy is given by the Employer.

3.4.4 All subcontractors of the Contractor who wish to issue communication in respect to the Project will need to seek the Employers permission. The sub-contractor should liaise with the Contractor and seek their agreement prior to approaching the Employer.

3.4.5 Images to be used for communication and/or publicity should always be supplied by the Contractor at 300dpi and a size in megabytes. In relation to images for the website, they must be no less than 72dpi.

3.4.6 All photographic images to be used for internal and external distribution will require written consent to be obtained from those featured in the pictures. Consent has to be obtained either before or during the event. If someone does not want to give consent , then that is entirely fair and their wishes must be respected.

3.4.7 The quantity of advertising to be produced will be agreed with the Employer. All material produced on the project for public consumption shall be produced in accordance with the Employer's Corporate Branding Guidelines.

3.4.8 The Employer has its own established branding, with project specific branding developed for some projects. This branding should continue to be used.

3.5 Timescales

3.5.1 The Employer is bound by the following timescales for issuing responses on behalf of or to the following stakeholders. The Contractor may be required to provide information for the response and shall ensure that sufficient resources are available to meet the following timescales (in business days) -:

- Ministers - 3 days
- Chief Executive - 3 days
- FOI – 5 days
- Official response - 5 days

3.5.2 The Contractor shall be responsible for notifying owners/occupiers and businesses affected by its work. The Contractor shall provide all communication in respect of stakeholder notification to The Employer within 21 days of the date of work to commence. The distribution of operational information shall require approval from The Employer prior to issue.

3.5.3 Newsletter content shall be provided to the Employer for approval not less than 14 days prior to the planned publication date.

3.5.4 All advertising content and layout shall be prepared by the Contractor and submitted to the Employer for agreement and approval, a minimum of 21 days prior to the intended date of publication.

3.5.5 The content and placement of advertising shall be submitted to the Employer for approval 20 days prior to the intended date of publication.