

ArupTransport

Tyne and Wear Passenger Transport Authority

New Tyne Crossing

Proof of Evidence on Engineering

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APPENDICES

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APPENDIX A

**Alterations to the Road,
Pedestrian and Cycle
Networks**

ALTERATIONS TO THE ROAD, PEDESTRIAN AND CYCLE NETWORKS**Streets Subject To Street Works And Alteration Of Layout**

<i>(1) Area</i>	<i>(2) Street Subject to Works</i>
In the Metropolitan Borough of North Tyneside	<p>Existing A19 northbound realigned in position and level to accommodate access for northbound traffic from toll plaza.</p> <p>Existing roundabout junction at southern end of A 19; Carriageway realigned to facilitate link to local highway network from toll plaza for north bound traffic.</p> <p>Link road (south side) between the roundabout on the southern end of the A19 and the roundabout at the southern end of the Howdon bypass; Delineation kerbing required to close part of existing junction.</p> <p>Existing toll plaza; Reconfigured to accommodate new toll plaza. Access to all existing tunnel facilities to be maintained.</p> <p>East Howdon bypass -Northbound carriageway; Kerbing removed to accommodate new access to tunnel staff facility and access to local highway network from emergency turn back area.</p> <p>Roundabout at junction of East Howdon bypass and Howdon Road; Kerbing removed to accommodate new public transport link.</p>
In the Metropolitan Borough of South Tyneside	<p>Chaytor Street -North side of junction with Ferry Street; Kerbing and footway altered to form new junction.</p> <p>Chaytor Street -North side at junction with Commercial Road; New kerbing and footway provided across junction with Commercial Road.</p> <p>Curlew Road -West end at junction with Tyne Street; Demarcation kerbing and turning facility required.</p> <p>Chaytor Street -Between Commercial Road and Ferry Street junctions; pedestrian crossing to be constructed to facilitate footpath link.</p> <p>Commercial Road -To the front of properties 45 to 50; carriageway width reduced and new carriageway introduced (at reduced width) to maintain access to properties.</p> <p>Ferry Street -east side at junction with Ormonde Street new kerb and footway provided across former junction.</p> <p>Ferry Street -East side slightly north of Grange Road junction; Kerbing and footway removed to facilitate new junction.</p> <p>Staple Road -East side; Kerbing and footway provided across former junction with Stanley Street.</p> <p>Stanley Street -West end, turning facility required</p> <p>Howard Street at existing A 19 overbridge; carriageway realigned to accommodate new bridge Footpaths and bus stopping facility to be replaced.</p> <p>A185 from existing roundabout junction adjacent to St Paul's Estate, south to new roundabout on A185 on the western end of the River Don overbridge; Carriageway and footways to be realigned to accommodate new layout.</p> <p>Western arm of existing roundabout at junction of A185 and A19; Realigned to provide off-slip to new compact spiral junction.</p> <p>Existing A19 carriageways both north and southbound; Various accommodation works required to provide new carriageways.</p> <p>Existing and southbound; Realigned in position and level to accommodate new tunnel access.</p>

STREETS TO BE STOPPED UP**Part 1: Streets For Which A Substitute Is To Be Provided**

<i>(1) Area</i>	<i>(2) Street to be stopped up</i>	<i>(3) Extent of stopping up</i>	<i>(4) New street to be provided</i>
In the Metropolitan Borough of North Tyneside	A19 Trunk road- Southbound carriageway including verge and embankment.	Between points NT1A and NS2 and points NT1B and NS2.	Work Nos. 1A, 1B and 2D(part).
	A19 Trunk road- northbound carriageway including verge and embankment.	Between points NS4 and NS3A and points NS4 and NT3B.	Work No. 2A
	A19 Roundabout.	From point NS2 in a clockwise direction to the point NS2.	Work Nos. 2A(part), 2D(part) and 2E(part)
	To the extent that it comprises a street the toll plaza from tunnel portal to A19 roundabout.	Between points NS5 and NS6.	Work No. 2C
	Footpath/Cycleway (Route 72) on land east of A19 trunk road.	Between points NSF4 and NSF5.	Footpath/Cycleway to be provided between points NSF4 and A1 and between points A2 and NSF5.
In the Metropolitan Borough of South Tyneside	Tyne Street	Between points SS1 and SS2 and between points SS3 and SS4	Work Nos. 6B and 6C
	Curlew Road	Between points SS4 and SS5	Work No. 6B and 6C
	Commercial Road	Between points SS4 and SS6	Work No. 6B and 6C
	Chaytor Street	Between points SS28 and SS29	WorkNo.6D
	Footpaths/cycleway (Route 7) north of Tyne Street, south of River Tyne.	Area SSF1	Footpath to be provided between points B1 and B3; and footpath to be provided between points B2 and B3
	Footpaths in landscaped area bounded by Commercial Road, Chaytor Street, Tyne Street and the former Ferry Street.	Area SSF2.	
	Footways in area bounded by Ferry Street, Ormonde Street and Commercial Road.	Area SSF3	Footpath to be provided between points B4 and B5; and footpath to be provided between points B6 and B7.
	Commercial Road.	Between points SS7 & SS8.	
	Ormonde Street.	Between points SS8 & SS9.	

<i>(1) Area</i>	<i>(2) Street to be stopped up</i>	<i>(3) Extent of stopping up</i>	<i>(4) New street to be provided</i>
	Footway between Ferry Street and Dunn Street School	Between points SSF4 And SSF5	WorkNo.6F
	Footway, carriageway and verge of Howard Street.	Between points SS18 and SS19.	Work Nos. 7G, 7H and 7J.
	Footway, carriageway and verge of Priory Road.	Between points SS20 and SS21.	Work Nos. 7F and 7E (Part).
	Footway, carriageway and verge of A185.	Between points SS22 and SS23.	Work Nos. 7E (Part) and 7M.
	To the extent that it comprises a street the footway, carriageway and verge of A19 and Tyne Tunnel approach road.	Between points SS 16 and SS17.	Work Nos. 7A (Part), 7B (Part), 7K (Part), 7L(Part), 7Q(Part) and 7R(Part).
	Existing roundabout at Junction of A185, A19 etc.	From point SS 17 clockwise to same position.	Work Nos. 7A (Part), 7B (Part), 7K (Part), 7L (Part), 7M (Part), 7R (Part), and 7S (Part).
	Footway, carriageway and verge on A185.	Between points SS24 and SS25.	Work Nos. 7S (Part) and 7T.
	Footway, carriageway and verge on A19.	Between points SS26 and SS27.	Work Nos.7A (Part), 7K (Part), 7R (Part), 7U(Part) and 7V.
	Footway linking A185 to south side of Howard Street	Between points SSF8 and SSF9.	Work Nos. 7E(Part). 7G (Part) and 7M (Part).
	Link footway from, footway linking A185 to south side of Howard Street, to roundabout at junction of Howard Street, Priory Road and A185.	Between points SSF10 and SSF11.	Work Nos. 7E (Part), 7G (Part) and 7M (Part).

STREETS TO BE STOPPED UP**Part II: Streets For Which No Substitute Is To Be Provided**

<i>(1) Area</i>	<i>(2) Street to be affected</i>	<i>(3) Extend of stopping up</i>
In the Metropolitan Borough of North Tyneside	Footpath adjacent to the A19 trunk road southbound carriageway.	Between points NSF1 and NSF2.
	Footpath between A19 trunk road and Howdon Bypass.	Between points NSF2 and NSF3.
In the Metropolitan Borough of South Tyneside	Stanley Street carriageway and footway.	Between points SS 10 and SS11.
	Street or highway west of Stothard Street.	Between points SSI2, SSI3, SSI4 and SSI5
	Footpath linking south side of Salem	Between SSF6 and SSF7.

	Street to carriageway extending westward from north end of Stothard Street.	
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Streets to be temporarily stopped up

<i>(1)</i> Area	<i>(2)</i> Street to be stopped up	<i>(3)</i> Extent of temporary stopping up
In the Metropolitan Borough of North Tyneside.	Footway/cycleway on land east of A19 trunk road.	Between points NTF1, NTF2 and NSF4.
	Access track on land east of A19 trunk road.	Between points NT1 and NT2.
	A187 East Howdon Bypass and roundabout (part of).	Between points NT3 and NT4.
	A187 East Howdon Bypass.	Between points NT5 and NT6.
	Link road between A19 roundabout and A187 East Howdon Bypass roundabout.	Between points NT7 and NT8.
	Tyne View Terrace.	Between points NT9 and NT10.
In the Metropolitan Borough of South Tyneside.	Quayside walkway on southern banks of River Tyne.	Between STF1 and STF2.
	Chaytor Street.	Between points ST1 and ST2.
	Ferry Street – footpath on eastern side.	Between STF3 and STF4.
	Staple Road – footpath on eastern side.	Between STF4 and STF5.
	High Street.	Between ST3 and ST4.
	Dee Street – footpath on eastern side.	Between STF6 and STF7.
	Salem Street.	Between ST5 and ST6.

APPENDIX B

Land to be Acquired

LAND TO BE ACQUIRED

The parcel references and reasons for acquisition are to be read in conjunction with the two attached plans 57621/0A-CSK-086 and 57621/OA-CSK-087 in Appendix H.

PARCEL NUMBER	WHY REQUIRED
019;048;048.06;048.09;102;105;106;107;107.01;111;113;114.02;114.03;114.08;116;116.01;117;118;122;112.04;123;126;129;131.03;133;133.01;133.02;142.01;148;169.03;170.13;188;500;501;502;503;504;505;506;507;508;509;510;511;512;513;514;515;516;517;	A =Land taken to enable construction of tunnel – cut and cover and enabling works to existing tunnel. – Coloured blue horizontal hatches
050;051;301;302;400;401;	B =Area used for excavation, removal and transportation of material from rivers. Used for storage of tunnel units. Working area. – Coloured Blue Dashed.
042.01;042.04;042.05;042.06;042.07;044;044.01;045;046;048;048.03;048.04;048.05;048.06;048.07;048.08;048.09;049.01;049.02;050;051;052;053;054;	C =Land used for accommodation works – Coloured Pink Cross
002;002.03;002.07;003;004;005;010;019;048;048.06;048.09;101;102;102.03;105;105.04;105.05;105.06;106;107;107.01;109;111;113;114.02;114.03;114.05;114.06;114.08;116;116.01;117;118;122;122.04;123;126;129;134;135;142.01;144;153;169.06;188;207;208;208.01;208.02;210;211;213;500;501;502;503;504;505;506;507;508;509;510;511;512;513;514;515;516;517;	D =Land used temporarily for contractors area, material storage, site compound and working area- Coloured Green Hatched.
048.03;048.04;048.06;048.09;107;112;113;122.01;122.02;122.03;123;126;132;134;133.01;133.02;142;143;144;149;150;151;152;	E =Properties demolished – Coloured Red Stippled.

PARCEL NUMBER	WHY REQUIRED
002.05;020;021;022;023;024;025;026;027;028;029;030;031;032;033;034;035;036;037;038;039;040;115.01;115.02;115.03;115.04;115.05;115.06;115.07;115.08;115.09;120;121;124.01;124.02;125;125.01;127;127.01;127.02;128;135;136;137;138;138.01;138.02;138.03;139;145;146;153;154;155;155.01;156;157;158;159;160;161;162;162.01;162.02;163;166;167;171;172;173;174;175;176;177;178;179;180;181;182;183;184;185;186;187;195.01;195.02;195.03;195.04;195.05;196;197;198;199;200;201;202;	F=Land to be used for surveying of existing properties – Coloured Purple Hatched.
048;048.04;301;302;	G=Area taken for construction of tunnel in river – Coloured blue cross Hatched.
001.07;001.11;001.12;001.13;001.14;001.15;001.16;001.17;001.18;001.19;001.20;019.02;019.03;042;042.01;042.06;107;114;114.02;114.03;114.04;114.05;114.06;114.07;114.08;114.09;114.10;115.10;115.11;116;118;122.02;123.03;129;129.01;163;165;165.01;189;205;205.01;205.02;001.14;001.15;001.16;001.17;001.18;001.19;001.20;	H=Land within LLAU, outside LOD that is not directly affected but maybe used during construction works, working area, traffic management and mitigation works. – Coloured Yellow Hatched.
001;001.03;001.07;001.10;001.17;006;010;015;015.04;015.05;016;016.04;016.05;017.01;018.01;019;101;101.01;101.02;101.03;101.04;102;103;104;105;105.06;106;107;107.01;108;109;109.01;110;110.01;111;112;114.02;114.04;115;115.01;115.10;116.01;123.02;123.03;126;129;129.01;169;169.03;169.04;169.05;169.06;169.07;188;189;190;191;193;193.01;194;195;205;205.02;206;	J=Land taken for construction, realignment of roads, toll plazas, car park and buildings – Coloured Orange Hatched.

SUMMARY OF REPUTED LAND OWNERSHIP AND INTERESTS

The following information is extracted from the Book of Reference and is for information purposes only

PARTY	PARCEL NO
A J McCaffery, 24 Abbey Drive, Jarrow NE32 3QG	302
A.R.T. Associates Limited	048; 048.06
Alan Careless and Doreen Careless, 38 Epinay Walk, Jarrow, Tyne and Wear NE32 3BL	195.05
AMEC Civil Engineering Limited t/a AMEC Marine	048; 048.06; 049; 051
AMEC plc	048; 048.03; 048.04; 048.05; 048.06; 048.07; 048.08; 048.09; 049; 049.01; 049.02; 050; 051
AMEC Services Limited	048; 048.03; 048.04; 048.05; 048.07; 048.08; 049; 049.01; 49.02; 050
Andrew Chapelhowe, 17 Brinkburn Street, East Howdon, Wallsend, Tyne and Wear NE28 0JJ	026
Andrew William Gallagher, 41 Stothard Street, Jarrow, Tyne and Wea	180
Anthony Hughes, 31 Stothard Street, Jarrow	178
Anthony McNally and Gillian Ann McNally, 101 Prince Consort Street, Jarrow, Tyne and Wear (as to unhatched area and subsoil of hatched area)	180
Arena Engineering GB Limited	048.04; 048
As to eleventh floor flat (Number 41) Melvyn Churchill, 41 Monastery Court, Jarrow, Tyne and Wear NE32 5UY	125.01
As to fourth floor flat (number 15) Mr A Chapman, 15 Monastery Court, Jarrow, Tyne and Wear NE32 5UY	125.01
As to fourth floor flat (Number 15) Mr J L Storey, 37 Delacour Road, Blaydon, Tyne and Wear NE21 4AP.	125.01
As to ground floor flat (4 North Court) Nancy Palmer and Sheila Anderson, 4 North Court, Jarrow	124.02
Automated Cleaners	048; 048.05

PARTY	PARCEL NO
Barry Richardson and Kerry Richardson, 7 to 9 Stothard Street, Jarrow, Tyne and Wear NE32 3AN (as to unhatched area and subsoil of hatched area)	172
Brenda Amott, Denise Amott and Robert N Amott, (as to unhatched area and subsoil of hatched area)	040
Bushel, Nichol, Wawn,	048.05
Bushell Nicol and Wawn,	048
C Hewitt, 47 Cambridge avenue, Hebburn NE31 2RX	302
Christine Hay, 39 Keats Walk, South Shields, Tyne and Wear NE32 5NB (as to unhatched area and subsoil of hatched area)	178
Christine Lerway-day, 9 Bridgewood, Heathway, East Horsley, Surrey KT24 5ET (as to unhatched area and subsoil of hatched area)	182
Christine Sinnett, 9 Brinkburn Street, East Howdon, Wallsend, Tyne and Wear NE28 0JJ	024
Clare E Yeaman and James Leaman 21 Brinkburn Street, East Howdon, Wallsend, Tyne and Wear NE28 0JJ	027
Clophilde Marie Robinson, 4 Common Hill, Saffron Walden, Essex CB10 1JG	174
Colin Gibson, 88 AIn Street, Hebburn, Tyne and Wear NE31 1XT (as to unhatched area and subsoil of hatched area)	176
Cookson Group Plc	042.01;045
D and J Blakey, 21 Malton Court, Jarrow NE32 3JL	302
David Thompson and Melba Irene Thompson, Kalydon, Bywell Road, Cleadon, Tyne and Wear	182
Deborah Barrass, 13 Brinkburn Street, East Howdon, Wallsend, Tyne and Wear NE28 0JJ	025
Dennis Marshall and Marlene Violet Marshall, 59 Commercial Road, Jarrow, Tyne and Wear NE32 3PX	121
Derek Mee Parker, 25 Brinkburn Street, East Howdon, Wallsend, Tyne and Wear NE28 0JJ	028
Duke of Northumberland's estate (in respect of easement)	019; 019.02
Dunn Street County Junior and Infants School	129

PARTY	PARCEL NO
Durham Diocesan Board of Education	123; 162; 162.01; 162.02
Edmund Reynolds 53 Brinkburn Street, East Howdon, Wallsend, Tyne and Wear NE28 0JJ	035
Edmund Reynolds 53 Brinkburn Street, East Howdon, Wallsend, Tyne and Wear (as to unhatched area and subsoil of hatched area)	035
Ellen Home, 33 Stothard Street, Jarrow, Tyne and Wear NE32 3AN	178
Ellis Evans, Gemma Evans and Karen Evans, 15 Brinkburn Street, East Howdon, Wallsend, Tyne and Wear NE28 0JJ	025
Enfield Properties Limited (as to unhatched area and subsoil of hatched area)	171
Enterprise Inns Plc	019.03
Ernest E Pygall and Dorothy R Pygall, 47 Brinkburn Street, East Howdon, Wallsend, Tyne and Wear NE28 0JJ (as to unhatched area and subsoil of hatched area)	033
F Owens, 38 Oxford Avenue, Donwell, Washington NE37 1AB	302
Floor Cleaning Machines Ltd	048; 048.07
Frank Crane, City Cars, 141 Lobley Hill Road, Team Valley Trading Estate, Gateshead NE8 4YJ	113
Frederick Gray, 5 Stothard Street, Jarrow	171
G Gough, 37 The Crescent, Jarrow NE32 5NG	302
Geoffrey Scott and Denise Joan Scott, 31 Stothard Street, Jarrow, Tyne and Wear NE32 3AN	178
Global Analytical Solutions Limited	048; 048.06
Gregson and Company (in respect of easement)	049
Gwen Nolan, Gwionen, 5 Ashfield Court, High Spenn, Rowlands Gill, Tyne and Wear	185
Herbert Klaus Dieter Troger and Christina Troger, 255 Commercial Road, Byker, Newcastle upon Tyne NE6 2EB	138.03
Highways Agency (as to highway surface)	001; 001.12; 001.14; 001.15; 001.17; 001.19; 001.20; 015.04; 016.04; 169.05;

PARTY	PARCEL NO
Hilaire Muchiso 65 Brinkburn Street, East Howdon, Wallsend, Tyne and Wear NE28 0JJ Vacant	038
Hogg Engineering Limited	045;048; 048.07
Ian Michael Kirby and Joanne Mary Kirby, 41 Epinay Walk, Jarrow, Tyne and Wear NE32 3BL	198
In respect of part ground, first and second floor flat known as 256 High Street, Jarrow Herbert Klaus Dieter Troger and Christina Troger, 255 Commercial Road, Byker, Newcastle upon Tyne NE6 2EB	138
In respect of part ground, first and second floor flat known as 260 High Street, Jarrow Thomas Roberts and Joan Roberts, 260 High Street, Jarrow, Tyne and Wear	138
Inchcape Shipping Service Ltd	048; 048.06
Ingrid McCoy, 59 Stothard Street, Jarrow	185
J Connor, 16 Stirling Avenue, Jarrow NE32 4JT	302
J Elliott, 77 St Marks Way, South Shields NE33 4QL	302
James Conner and Rose Conner, 51 Commercial Road, Jarrow, Tyne and Wear NE32 3PX	120
James McGeary, 47 Stothard Street, Jarrow	182
James William Cairns, 49 Stothard Street, Jarrow, Tyne and Wear	182
Jarrow Cross Church of England Controlled Primary School,	123.02
Jarrow Cross Church of England Controlled Primary School, Ormonde Street, Jarrow NE23 3BP	123
Jarrow Parochial Church Council, c/o Mrs Guy, 61 Hylton Road, Jarrow NE32 5DN	162.01
Jeff Crowe and Jackie Fielding, 39 Stothard Street, Jarrow, Tyne and Wear NE32 3AN	180
Jeff Kris Scorer, 5 Brinkburn Street, East Howdon, Wallsend, Tyne and Wear NE28 0JJ	023
Jennie Scullion and Lawrence Scullion, 35 Epinay Walk, Jarrow, Tyne and Wear NE32 3BL	202
John E Amos, 49 Brinkburn Street, East Howdon, Wallsend, Tyne and Wear, NE28 0JJ	034

PARTY	PARCEL NO
John Richardson, 43 Epinay Walk, Jarrow, Tyne and Wear NE32 3BL	195.02
John Thomas Ashcroft and Maureen Bernadette Ashcroft, 45 Stothard Street, Jarrow, Tyne and Wear NE32 3AW (as to unhatched area and subsoil of hatched area)	181
Jorvar Singh Rei and Harjinder Singh Rei, 213 High Street, Jarrow, Tyne and Wear	146
Jorvar Singh Rei and Harjinder Singh Rei, 213 High Street, Jarrow, Tyne and Wear	143
Joyce Bell, 69 Brinkburn Street, East Howdon, Wallsend, Tyne and Wear NE28 0JJ	039
Jugjit Singh Ladhra, 883 Welbeck Road, Walker, Newcastle upon Tyne (as to subsoil)	114.09
K Canham, 111 Hedgeley Road, Hebburn NE31 1HB	302
K Snell, 3 Kniross Court, Bill Quay, Felling	302
Keith Brittan, 36 Epinay Walk, Jarrow, Tyne and Wear NE32 3BL	201
Kelvin Conway, 7 Brinkburn Street, East Howdon, Wallsend, Tyne and	023
Kingston Housing Plc	038
Kingston Housing Plc	039
Kirsty Knott, 41 Brinkburn Street, East Howdon, Wallsend, Tyne and Wear NE28 0JJ	032
Lee Walker, 19 Brinkburn Street, East Howdon, Wallsend, Tyne and Wear NE28 0JJ	026
Leslie John Elderfield and Lillian Elderfield, 229 High Street, Jarrow.	157
Linda Angus, The Bungalow, High Flatworth, North Shields, Tyne and Wear NE29 7UZ (as to unhatched area and subsoil of hatched area)	032
Linda Lambert and James Western Lambert, 44 Epinay Walk, Jarrow, Tyne and Wear	197
Lisa Hulford, 61 Brinkburn Street, East Howdon, Wallsend, Tyne and Wear NE28 0JJ	037
London and City Estates Limited (as to unhatched area and subsoil of hatched area)	186
London and City Estates Limited (as to unhatched area and subsoil of hatched area)	187

PARTY	PARCEL NO
M J Taylor, 51 Breamish Street, Jarrow NE32 5SO	302
Macaw Engineering Limited	048; 048.06
Mammoet UK Limited	042.06;048; 048.08; 052; 053;054
Margaret Blakey, 2 Mitford Street, East Howdon, Wallsend, Tyne and Wear NE28 0JL	021
Margaret Brown, 31 Brinkburn Street, East Howdon, Wallsend, Tyne and Wear NE28 0JJ	029
Margaret Faulkner, 45 Brinkburn Street, East Howdon, Wallsend, Tyne and Wear NE28 0JJ	033
Margaret K. Porthouse, 11 Brinkburn Street, East Howdon, Wallsend, Tyne and Wear NE28 0JJ	024
Margaret Vaughan, 3 Brinkburn Street, East Howdon, Wallsend, Tyne and Wear NE28 0JJ	022
Mark Flowers, 43 Brinkburn Street, East Howdon, Wallsend, Tyne and Wear, NE28 0JJ	032
Mary Smith, 45 Hawthorn Drive, Hedworth Town Farm Estate, Jarrow NE32 4EQ (as to unhatched area and subsoil of hatched area)	185
Maurice Martin and Margaret Martin, 55 Stothard Street, Jarrow, Tyne and Wear NE32 3AW (as to unhatched area and subsoil of hatched area)	184
Maurice Martin and Margaret Martin, 55 Stothard Street, Jarrow, Tyne and Wear NE32 3AW	184
Mindmachine Associates Limited	048;048.06
Mr Allan Henderson, 37 Brinkburn Street, East Howdon, Wallsend, Tyne and Wear NE28 0JJ (as to unhatched area and subsoil of hatched area)	031
Mr E Mooney, 256 High Street, Jarrow, Tyne and Wear	138; 138.03
Mr John James Francis Welsh, 17 Bideford Gardens, Jarrow, Tyne and Wear (as to unhatched area and subsoil of hatched area)	179
Mr or Mrs or both Baker, 29 Brinkburn Street, East Howdon, Wallsend, Tyne and Wear NE28 0JJ	029
Mr Stuart J Pinder, 13 Stothard Street, Jarrow NE32 3AN	173
Mrs Maureen McVeigh, 43 Stothard Street, Jarrow, Tyne and Wear NE32 3AW	181

PARTY	PARCEL NO
Newcastle City Council.	301
Nexus	001;001.03; 001.10; 001.16; 194; 206
Nexus as successor to The British Railways Board (in respect of easement)	003; 004; 005; 006
Nikolaos Mantalios and Patricia Sylvia Mantalios, 27 Stothard Street, Jarrow, Tyne and Wear	177
Norman Davison and Marie Davison, 51 Stothard Street, Jarrow, Tyne and Wear NE32 3AW (as to unhatched area and subsoil of hatched area)	183
Norson Services Limited	048
North Tyneside Metropolitan Borough Council	001;001.11;001.14;001.15;001.18;002;002.01;002.03;002.04;002.06;003;004;005;005.05;006;010;015;015.05;016; 017.01;018.01;019; 019.01; 019.02;019.03;020;021;022;023;024;025;026;027;028;029;030;031;032;033;034;035;036;037;038;039;040;041;042;042.01;042.05;042.06;042.07;045
Northern Control Technology Limited	048; 048.06
Northern Electric Distribution Limited	001.13;044.01;048.09;101.03;132;169.04;208.01;208.02
Northumbrian Water Limited	001;001.07;001.12;002.03;002.06;003;004;005;006;010;015;016;019;019.01;041;042;048;049;049.01;050;051;102.03;107;115;123;169;169.06;193.01;301;302
Osprey Shipping Limited	048; 048.04; 048.05
P Dunn, 50 Trent Drive, Calf Close Estate, Jarrow NE32 4DY	302
P McDonagh and Mary P McDonagh, 15 Stothard Street, Jarrow	174
Partnership, United Artists Communications (Tyneside) Limited,	101.02
Paul Murphy 55 Brinkburn Street, East Howdon, Wallsend, Tyne and Wear NE28 0JJ	035
Peter Anthony Page and Frances Page, 39 Epinay Walk, Jarrow, Tyne and Wear NE32 3BL	199
Peter Brown, 29 Stothard Street, Jarrow, Tyne and Wear NE32 5AB (as to unhatched area and subsoil of hatched area)	177
Peter William Greenslade, 14 The Close, Lanchester, County Durham	171
Philip Gibson, 25 Stothard Street, Jarrow NE32 3AN	176

PARTY	PARCEL NO
Pipex Limited	048; 048.06
Port of Tyne Authority	042.07;048;048.03; 048.04;048.05; 048.06; 048.07; 048.08; 048.09; 049; 049.02; 050; 051
Premier Transline Hire Limited	049; 049.01
R Cuniff, 16 Julian Street, South Shields, NE33 2EP	302
R Johnson, 38 Blackpool Parade, Lukes Lane NE31 2AF	302
R Lesner, 135 Durham Drive, Fellgate Estate, Jarrow NE32 4QZ	302
R Peel, 16 Gloucester Place, Cleaton, South Shields NE34 6PX	302
R Spottiswood, 41 Aidbrough Street, South Shields NE34 9AW	302
Railtrack Plc (In Railway Administration)	205.01;205.02
Reverend William Wealds Bell, Randolph Street, Jarrow, NE32 3AQ	162.02
RMC (UK) Limited	207; 208;210
Robert A Robson and Alyson Vaughan, 1 Brinkburn Street, East Howdon, Wallsend, Tyne and Wear NE28 0JJ	022
Rodney Walter Askew and Marilyn Jane Askew, 14 Stanhope Road, South Shields, Tyne and Wear NE32 3AN (as to unhatched area and subsoil of hatched area)	174
Rohm and Haas (UK) Limited	101.01; 101.03; 101.04; 109; 109.01; 110; 110.01
Ronald Joseph Heaney, Sean Simon Heaney, Siobhan Heaney-Irving and James Guthrie c/o 5 Back Albion Road, North Shields, Tyne and Wear NE30 1PU (as to unhatched area and subsoil of hatched area)	021; 022; 023; 024; 025; 026; 027; 028; 029; 030; 036
Rosborne Property Management	038;039
S Mason, 7 Huxley Close, Biddick Hall, South Shields NE34 9JS	302
Samuel Smith Old Brewery (Tadcaster) (as to unhatched area and subsoil of hatched area)	128
Sharkey Catering Company Limited	048; 048.06

PARTY	PARCEL NO
Sharon Smith, 67 Stothard Street, Jarrow	187
Shell (UK) Limited	205; 205.01
Shepherd Offshore Plc	207; 208; 208.01; 208.02; 210
South Tyneside Metropolitan Borough Council.	102;103;105;105.06;106;107;107.01;108;111;113;114;114.02;114.03; 114.04;114.05;114.06;114.07;114.08;114.09;114.10;115;115.01;115.02;115.03;115.04; 115.05;115.06;115.07;115.08;115.09;115.10;115.11;116.01;117;118;122;122.01;122.02 ;122.03;122.04;123;123.02;123.03;124.01;124.02;125;125.01;127;127.01;127.02;128;1 29;129.01;131;131.02;131.03;132;133;133.01;133.02;134;135;136;137;138;138.01;138 .02;138.03;139;142;142.01;143;144;145;146;149;150;151;152;153;154;155;155.01;156 ;158;161;165;165.01;166;167;169;169.03;169.07;170.13;171;172;173;174;175;176;177 ;178;179;180;181;182;183;184;185;186;187;188;190;189;191;193;193.01;195;195.01;1 95.03;195.04;200;211;213;302;500;501;502;503;504;505;506;507;508;509;510;511;51 2;513;514;515;516;517
Stephen Eastwold 63, Stothard Street, Jarrow	186
Sustrans Limited	013
Suzanne L Brown and Kevin Rickman, 19 to 21 Stothard Street, Jarrow	175
Team Fostering North East Limited	048;048.05
The Church Commissioners for England	302
The National Grid Company Plc (in respect of easement)	302
The Residential Organisation Limited (as to unhatched area and subsoil of hatched area)	038;039
The Vicar, Churchwardens and Parochial Church Council of Jarrow c/o Reverend K Hunt,	162
Theresa Kelly, 61 Stothard Street, Jarrow, Tyne and Wear	185
Thomas Roberts and Joan Roberts, 260 High Street, Jarrow, Tyne and Wear	138.01
Transco Plc	002;002.03;004;010;049;104;105.04;105.05
Tyne and Wear Passenger Transport Authority	001;001.07;001.13;001.14;001.15;001.17;001.19;001.20;013;014;015; 015.04;015.05;016;016.04;016.05;042.05;044;044.01;101;101.02;112;116;116.01;126; 148;159;160; 163; 169.04; 169.05; 169.06;400;401

PARTY	PARCEL NO
Tyneside Cable Limited	101.02
Unknown	002.07;034;037; 042.04;046; 186;205
Wayne Hays and William Mann, 48 Harton Lane, South Shields, Tyne and Wear NE34 0EE	176
Wilfred John Nellist 1 Meldon Street, East Howdon, Wallsend, Tyne and Wear (as to unhatched area and subsoil of hatched area)	034;041
William Wilson and Doreen Wilson, 45 Epinay Walk, Jarrow, Tyne and Wear NE32 3BL	196
Young Mens Christian Association,	144
Zinat Fazel and Akber Ali Fazal Somji, 780A Stratford Road, Sparkhill, Birmingham B11 4BP (as to unhatched area and subsoil of hatched area)	173; 175

APPENDIX C

Description of Works

DESCRIPTION OF WORKS

Refer to Drawings OA-CL-500 to 509 which accompanied the Draft order (CD3) for the location of these works.

In the Metropolitan Borough of North Tyneside -	
Work No.	Description
1A	Widening of the existing A19 trunk road to create extra lane on approach to toll plaza.
1B	New toll plaza vehicular area including toll booths, vehicle inspection area and layby for holding special vehicles (i.e. wide loads)
1C	A road for public transport to allow direct access to the tunnel avoiding toll booths.
1D	A road connecting the toll plaza to the East Howdon Bypass for rejected vehicles and access for tunnel staff from the bypass.
1E	New administration building and staff/visitor car parking area required for tunnel operations.
1F	An emergency crossover to give emergency service vehicles access to the existing tunnel through the administration area avoiding the southbound toll plaza.
1G	A retaining wall required as road goes down into the tunnel.
1H	A retaining wall required as road goes down into the tunnel.
2A	Widening and realignment of existing A19 trunk road to create additional northbound lane.
2B	A crossover for use when one of the tunnels is closed for maintenance or emergencies.
2C	A realignment of existing toll plaza.
2D	A realignment of existing A19, A19 roundabout (part of) and entrance to existing toll plaza used to separate southbound traffic and giving a temporary inspection area before entering the plaza during 2-way working of existing tunnel.
2E	A realignment of existing A19 roundabout to allow northbound traffic access to local road network.

3A	A tunnel and road formed using cut and cover construction.
3B	A vertical escape shaft from the existing road tunnel added as an additional safety measure.
4A	A tunnel (of the immersed tube type) and road.
4B	Remodelling of Howdon Basin comprising: -new quay extension and sheet pile retaining wall around the Howdon Basin as part of the mitigation works as a result of the new tunnel.
4C	New quay extension as part of the mitigation works.
4D	Rock armour ship protection to immersed tube tunnel.
In the Metropolitan Borough of South Tyneside -	
Work No.	Description
5	A tunnel (of the immersed tube type) and road.
6A	A tunnel and road formed using cut and cover construction.
6B	A loop road (part realignment of Tyne Street) around the Pedestrian Tunnel building as part of the local improvement works.
6C	A road from the loop road around the Pedestrian Tunnel building to the new roundabout on Chaytor Street.
6D	A realignment of Chaytor Street with a new roundabout for access down to the Pedestrian Tunnel building.
6E	A vertical escape shaft from the existing tunnel added as an additional safety measure.
6F	A new road connecting Friar Way to Ferry Street as part of local improvement works.
6G	A ventilation building, connecting ventilation tunnel, retaining wall and hard landscaping required as part of the tunnel works.
7	A road interchange to replace the existing interchange comprising: -

7A	A realignment and improvement of A19 trunk road including new carriageway, to connect existing tunnel to existing northbound carriageway of A19. Including crossover area for use when one of the tunnels is closed.
7B,C & D	A road bridge and road over the new A19 layout for local traffic wanting to go north through the tunnel. See also 7A and 7C.
7E	A realignment and enlargement of existing Howard St (A185)/Priory Road (B1297) roundabout to allow additional leg for local traffic wanting to go north through the tunnel.
7F	A realignment of Priory Road (B1297) required as part of the work relating to the roundabout enlargement works.
7G	A realignment of Howard Street (A185) required as part of the roundabout enlargement works and replacement of the Howard Street bridge.
7H	A road bridge and road to replace the existing Howard Street (A185) bridge, required to give extra span over the A19 trunk road.
7J	A realignment of Howard Street (A185) required to tie in the new Howard Street bridge to the existing road.
7K	A realignment and improvement of the A19 trunk road including new carriageway to connect new tunnel to existing southbound carriageway of A19
7L	A slip road to allow southbound traffic access to the local network and layby area for vehicles rejected at the inspection area.
7M	A realignment and improvement to A185 link road required as part of the work relating to the roundabout enlargement works (7E).
7N	A retaining wall to support existing land west of the new highway layout required due to the change in levels
7P	A retaining wall to support existing land west of the new highway layout required due to the change in levels
7Q	Buildings, parking and waiting areas required for tunnel operations.
7R	A slip road to allow northbound traffic wanting access to the local network and to take vehicles off the A19 to the inspection area prior to entering the tunnel.
7S	A roundabout at west-end of Straker Street to allow interconnection of local traffic with the A19 southbound.
7T	A realignment of Straker Street (A185) required to tie in with the new roundabout.
7U & V	A link/slip road giving access to the A19 southbound from the new roundabout.

7W	A realignment of the north east wing wall of the Metro railway bridge required to give clearance for the new slip road.
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APPENDIX D

**Schedule of Utility
Diversions**

SCHEDULE OF UTILITY DIVERSIONS**Northumbrian Water - Sewerage**

Chainage	Asset	Dia	Material	Depth	Ground Level	Tunnel Asset	Obvert	Invert	Proposed Ground Level
200	Interceptor				23.0-29.0	Road Widening at Northern Toll Plaza			23.0-23.921
800	Relief Sewer			8.1 (at manhole)	1.4-0.9	Cut and Cover Tunnel	4.625	-3.265	8.5
800	375			2.04(at manhole)	7	Cut and Cover Tunnel	4.625	-3.265	8.5
800	Production	1560		6.74	1.3	Cut and Cover Tunnel	4.625	-3.265	8.5
850	Surface Water	225		2.12 (at Manhole)	6.9	Cut and Cover Tunnel	1.625	-6.625	8
850	Combined	225		3.97	3.6	Cut and Cover Tunnel	1.625	-6.625	8
875	Combined				6.7	Cut and Cover Tunnel	0	-7	6.7
1425	Combined	450X750 egg	concrete	5.35	11.5	Cut and Cover Tunnel	-7.2	-15.2	12
1425	Combined	150		3.85	11.5	Cut and Cover Tunnel	-7.2	-15.2	12
1500	Combined	225	vc	1.8	13	Cut and Cover Tunnel	-3.2	-11.5	13
1625	Interceptor	1500	concrete		16.76	Cut and Cover Tunnel	3.725	-4.75	16.76
1900	Combined	600		4.55	17	Cut and Cover Tunnel	13.584	5.334	17
1950	Combined	600x800	brick	4	16	Cut and Cover Tunnel	14.004	5.754	16
1950	Combined			2.22	16	Cut and Cover Tunnel	14.004	5.754	16
1950	Foul			4	16	Cut and Cover Tunnel	14.004	5.754	16
2000	Combined	225		2.3	15.3	Cut and Cover Tunnel	14.2	6	16

Northumbrian Water - Water**Northern Electric - Electricity**

Chainage	Asset	Dia	Material	Chainage	Asset	Dia	Material
850	Main	200	MOPVC	800	Multiple Cables		
1425	Main	150		805	Multiple Cables		
1425-1450	Main	150		875	Press SubStation		
1525	Main	225		1415	Multiple Cables		
1620	Service Main	150		1525	Multiple Cables		
1920	Main	100		1650	Multiple Cables		
1930	Main	150		1875	Jarrow Albion SubStation		
1930-1975	Main	100		1875-1975	Multiple Cables		

Transco - Gas**telecoms -BT**

Chainage	Asset	Dia	Material	Chainage	Asset	Dia	Material
425	High Pressure Main	450		850	Multiple Cables		
430	Medium Pressure Main	355	PE	1925	Multiple Cables		
650	High Pressure Main	450	ST	1950	service		
875	Service Main	180	Pe				
875	Service Main	200	Co				
1425	Main	600	CI				
1425	Medium Pressure Main	300	ST				
1425	Medium Pressure Main	300	DI				
1425	Medium Pressure Main	500	ST				
1425	Service Pipe	32	PE				
1625	Service Main	150					
1925		450	CI				
1925		150	DI				
1925-1975		90	PE				
1950		90	PE				
1975		90	PE				
1980		75	ST				

APPENDIX E

**Comparison of Safety
Features**

TABLE 1: COMPARISON OF SAFETY FEATURES

Country		It	Fr	Sw	G	A	N	UK	NL	S
	Available national guidelines:	0 (1)	1	1	2	9	2	2	5	1
Category	Element									
Structural conditions	Emergency lanes and lay by	Ø	O	O	A,1	A,6	A,1	A,1	O	O
	Turning area	Ø	O	O	O	A,6	A,1	O	O	O
	Walkways	Ø	O	O	O	O	A,1	A,1	O	O
	Emergency cross passages, pedestrian	Ø	A,1	A,1	O	O	A,1	A,1	A,n	A,1
	Cross passages, rescue vehicles	Ø	A,1	A,1	O	O	A,1	A,	O	O
	Separate exits and emergency lanes	Ø	A,1	A,1	A,1	O	A,1	O	A,n	O
	Vehicle height control	Ø	O	O	O	A,6	A,1	O	A,n	A,1
Escape and guidance facilities	Emergency evacuation lights	Ø	A,1	A,1	O	O	A,1	A,1	A,n	O
	Emergency exit signs	Ø	O	A,1	A,1	O	A,1	O	O	A,1
Fire ventilation	Fire ventilation	Ø	O	A,1	O	O	O	A,1	X,n	A,1
Communication alert system	Emergency telephone	Ø	A,1	A,1	A,1	A,7	A,1	A,1	A,n	A,1
	Radio broadcast	Ø	A,1	A,1	O	X,8	A,1	A,1	A,n	A,1
	Leaky feeder system	Ø	O	O	O	O	O	O	O	O
	"Traffic loops"	Ø	O	O	O	O	O	A,1	O	O
	CCTV/ITV	Ø	A,1	A,1	O	A,7	A,1	A,1	A,n	A,1
	Fire alarm push bottom	Ø	O	O	A,1	A,7	A,1	A,1	A,n	A,1
	fire/ smoke detector	Ø	O	O	A,1	A,7	O	A,1	O	A,1
	Loadspeakers	Ø	O	O	O	O	O	A,1	A,n	A,1
	Evacuation alarm light/ sound	Ø	O	O	O	O	A,1	A,	O	A,1
	24 hour surveillance	Ø	A,1	O	O	O	O	O	O	O
Fire fighting equipment	Fire extinguisher	Ø	A,1	A,1	A,1	A,7	A,1	A,1	A,n	A,1
	Fire hydrant	Ø	A,1	A,1	O	O	A,1	A,1	A,n	A,1
	Sprinklers	Ø	O	A,1	O	O	O	O	O	A,1
Traffic regulation	Signals (traffic lights)	Ø	A,1	A,1	O	O	A,1	A,1	A,n	A,1
	Barriers (manual/automatic)	Ø	O	A,1	O	O	A,1	O	A,n	A,1
	Variable message signs	Ø	O	O	O	O	A,1	A,1	O	A,1
	lane control signals	Ø	O	O	O	O	O	O	O	A,1
Other	Velocity monitors for wind	Ø	O	A,1	O	O	O	O	O	O
	Traffic counter/ congestion detector	Ø	O	O	O	O	O	A,1	O	A,1
	Emergency power supply	Ø	O	A,1	O	O	A,1	A,1	A,n	A,1
	Fire insulation	Ø	O	O	O	O	O	O	O	O
	Lights	Ø	O	O	O	X,4	X,1	A,	A,n	A,1
	Draining	Ø	O	O	O	O	A,1	A,1	O	A,1

Legend:	No available guidelines	Ø
	No requirements, very little information	O
	Normative information	A
	Detailed information or models	X
	Reference to national guideline n	,n

Source: Niels Peter Hoj, FIT European Thematic Network. Fire Safety Design, Road Tunnels, Draft December 2002.

APPENDIX F

Schedule of Bridges

NEW TYNE TUNNEL – STRUCTURES**1. Existing structures possibly affected by the works**

REF	Name of structure / Location	Assumed or Reputed Ownership / Maintenance	Description	Highway loading	Information available	Effect of works on structure
E1a	Metro Bridge over A19 (North Side)	NEXUS	Steel through plate girder. 2 spans		No information	Impact protection to existing columns will be required, since carriageway beneath may need to be wider than at present, and the existing columns are not strong enough to resist impact.
E1	Riverside railway bridge over A19 Used for pedestrians/cyclists	NTMBC	Steel through plate girder. 2 spans		Drawings obtained from NTMBC	Forms part of the national cycle network. It is used for occasional vehicle access. Impact protection to existing columns will be required, since carriageway beneath will be wider than at present, and the existing columns are not strong enough to resist impact.
E2	South approach retaining walls – open cut	TT	Possibly cantilever walls or trough structure		No structural drawings found with TT or STMBC	Part of the side walls will be demolished to accommodate the widened approach carriageway. Part of the open cut will be covered over. Cut and cover tunnel will be constructed behind existing wall.
E3	South approach retaining walls – sun visor	TT	Precast props across retained cut on north side		North side (only) sun visor drawings from TT.	The sun visor at the south approach may act as a prop to the cut retaining walls. Assume that the structure is similar to the north approach sun visor. The sun visor structure will be retained. See proposed new structure P4
E4	St Paul's Bridge. (Howard Street)	STMBC	RC slab single span. Pinned portal. Founded on piles		Drawings obtained from STMBC	To be demolished and replaced for widening of cutting. See proposed structure P5. Note hinges at base of abutments therefore restraint to be provided during demolition.
E5	Mineral line railway bridge. Over tunnel roundabout	Railtrack/ Shell	RC box girder. 6 spans 1300 dia columns.		Drawings obtained from STMBC.	Appears to be in good condition. The new slip roads to replace the roundabout will be threaded between the piers of the bridge. The columns

							have been checked for vehicle collision impact loads. No impact protection is required. Effect of loading ground adjacent to columns should be assessed
E6	Metro bridge (South side) over A19	NEXUS		Steel through plate girder. 2 spans			Impact protection to columns will be required. An additional lane on the A19 may be fitted in below the bridge by narrowing of footway. Modifications to the north east wing wall to suit the new alignment will be required.
E7 E8 E9	Tunnel roundabout structures. Southern half of tunnel roundabout carriageway is on structures	STMBC		3 types of structure RC slabs on piles Raft structure Composite deck	HA + HB	Drawings obtained from STMBC. STMBC inspection reports when published (Spring 2000)	Inspection and assessment being carried out by S Tyneside. Water ingress at movement joints has caused damage to structure. Further investigation of state of concrete required. Assessment report is being produced. These will need to be modified/extended to support the new road arrangement.
E10	River Don A185 Viaduct	STMBC		RC slab /Composite deck. 9 spans. Simply supported.	HA + HB	Drawings obtained from STMBC	This will need to be modified to accommodate the new alignment, with the north end span being widened.
E11	River Don culvert under Metro line	NEXUS		Twin bore concrete culvert		Drawings obtained from STMBC	Options will not affect structure.
E12	Bilton Hall Bridge	Highways Agency/ Autolink		3 span precast concrete beams.	HA + 22 units HB	Drawings and assessment / inspection reports obtained from AUTO	Structure damaged by fire in 1993 and 1998. Extensive investigation and subsequently repairs carried out. The structure may be required to accommodate an additional lane of the A19.
E13	Piled carriageway – A19 southern approaches to tunnel roundabout	Highways Agency/ Autolink		RC slabs on piles		Drawings obtained from AUTO	The A19 carriage way between the Tunnel roundabout and Bilton Hall Bridge is founded on small diameter piles.

MAINTENANCE / OWNERSHIP AUTHORITIES

STMBC - SOUTH TYNESIDE METROPOLITAN BOROUGH COUNCIL

NTMBC - NORTH TYNESIDE METROPOLITAN BOROUGH COUNCIL

NEXUS - TYNE AND WEAR METRO AUTHORITY

AUTO - AUTOLINK A19 DBFO MAINTAINING AUTHORITY

RAIL - RAILTRACK

TT - TYNE TUNNELS (TWPTA)

SHELL - SHELL UK JARROW TERMINAL

2. PROPOSED NEW STRUCTURES

REF	Name / location of structure	Illustrative Description of proposed structure	Method of construction
P1	Not used.		
P2a P2b P2c	North approach retained open cut.	Secant piled wall as continuation of cut and cover section. Permanent propping may be included where clearances to carriageway permit.	Cutting will pass very close to realigned Howdon by-pass. The difference in levels will require a high retaining structure. One carriageway of the by pass will have to be closed during construction. Substation for tunnel plant will be incorporated in a recess in the wall. The crossover over the existing tunnel is a shallow cut which, with L-shaped walls.
P3	Not used.		
P4	South approach retaining wall modifications.	Part of existing open cut will be roofed over. New sun visor structure may be required.	Precast units placed on existing walls. New lengths of wall to replace existing sections which have to be demolished will be required.
P5	Replacement for St Paul's Bridge. (Howard Street diversion)	Single square span continuous highway bridge with 2 metre footpaths each side.	Bridge will be supported on the cut and cover tunnel on one side and a new abutment behind the existing wall on the other. See existing structure E4.
P6	South approach loop access bridge.	Four span three lane highway bridge. Grade separated carriageway.	The new bridge will span across the existing tunnel access and south side inspection area. It will serve as access the tunnel from Howard Street and access to Howard Street area from A19 Northbound.
P7 P8	Retaining walls to retain Epinay Walk and Mineral line Railway embankment for southern approach loop	Movements to be limited to minimise effect on railway embankment and houses.	Retaining walls may be up to 6.5m high. Movement of rail embankment to be minimised.
P9	Retaining wall / Wing wall associated with existing bridge E9	Wing wall renewal / modifications to retain metro embankment adjacent to existing structure E9. Movements to be limited to minimise effect on railway embankment.	Retaining walls may be up to 5m high. Movement of rail embankment to be minimised.
P10 P11 P12	New piled stretches of carriageway at tunnel roundabout.	New highway piled structure for southern approach/A185 roundabout associated with existing E7, E8 and E9.	Piled structures, including short span bridge spanning over existing services, modification to existing piled structures, and widening of end of existing River Don Bridge.

APPENDIX G

**Design and
Construction
Programmes**

APPENDIX H

Drawings

DRAWINGS

DRAWINGS REFERENCED FROM THE ENVIRONMENTAL STATEMENT

Figure 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 5.1, 11.3, 11.4

DRAWINGS TO BE REFERRED TO IN SUPPORT OF APPENDIX B – LAND TO BE ACQUIRED

57621/OA-CSK-086

57621/OA-CSK-087

GENERAL DRAWINGS

PH-SL-700

PH-SL-701

PH-SL-712

PH-SL-713

APPENDIX I
**Summary of Objections
and Responses**

SUMMARY OF OBJECTIONS AND RESPONSES

OBJ: 1

Mrs Sinnett, 9 Brinkham Street

Issue	Description	Response
<ul style="list-style-type: none"> • Access 	<ul style="list-style-type: none"> • Effect on public transport (bus) during construction. • She is concerned that she will be faced with a long walk to her home in Wallsend, from the Metro, if a Bus Service is not available. 	<p>Temporary arrangements. This point is covered in the ES at 5.5.2. It will be governed by the Traffic Management Plan produced as required by the Code of Construction Practice. The Concessionaire will need to consult with Bus Operators to establish what is required and what is feasible during construction bearing in mind the need to maintain the level of services currently in existence, or provide alternative means of transport. Information on temporary alterations to bus routes and any impacts on the timing will need to be prepared and issued to public.</p> <p>Permanent arrangements (See section 5.5.5 of ES) Benefits include a dedicated public transport link for south- bound route and reduced congestion around tunnel portals. Minor modifications to existing routes are required to reflect the reconfigured junctions at either end but envisaged that following completion of the tunnel bus services will be very similar to existing service. Bus operators are supportive of the scheme and investigating opportunities to enhance their services when congestion relieved and journey times become more reliable.</p>

OBJ: 2

Mr J Connor, 16 Stirling Avenue

Issue	Description	Response
<ul style="list-style-type: none"> • Closure of park • Access to Motor Boat 	<p>Mr Connor objects to the closure of the riverside park in South Tyneside, and his loss of vehicular access to the Jarrow Motor Boat Club, which moors in the river to the rear of the park.</p>	<p>The river-side park will be closed to the public during the duration of the construction works (about 3 years). It will however be re-instated post construction.</p> <p>Discussions are being held with the Jarrow Motor Boat Club with the objective of relocating it to moorings at the Royal Quays for the duration of Construction; he can park there. Upon completion of the development, the MBC will be transferred back to moorings in the vicinity of the park.</p>

OBJ: 3

Miss G Storey, 9 Seine Court

Issue	Description	Response
<ul style="list-style-type: none"> • Epinay Walk 	<p>Miss Storey objects to the permanent acquisition of land to the east of Epinay Walk (the location of the Jarrow Junction).</p>	<p>It is true that the construction of the junction to the south of Howard Street, will affect the green space outside Epinay Walk. It is not however, 'Green Belt' and is not Public Open Space although it does provide a play area. Although there will be some loss of space, this will be partially compensated for by new open space, made available on the northern side of Howard Street, by the partial bridging over of the existing tunnel.</p> <p>The choice of the Jarrow junction, over the only other option (the 'Simonside option') was made on the grounds of a lower adverse environmental effect to a fewer number of nearby residents. It is also less costly, and by its very nature, is more compact for traffic and causes less pollution.</p> <p>Some area will remain however between the Epinay Walk houses and the wall which will be erected beside the road. This boundary will be designed to minimise any adverse noise effects and may include planting.</p>

OBJ: 10

Mr L Perks, 40 Cragside, Whitley Bay

Issue	Description	Response
<ul style="list-style-type: none"> • Footpaths and Cycleways • Safety 	<p>Mr Perks has submitted an objection letter and a Statement of Case which includes additional points. The response below covers the issues raised in the SoC.</p> <p>Mr Perks objects to the proposals on a number of grounds including: -</p> <p>1a) Consequences of damage to the local roads, footpaths, cycleways and other rights of way. He seeks assurance that adequate and timely advance notices and signposting will be provided on diversion routes</p> <p>1b) Should be adequate measures to</p>	<p>The Code of Construction Practice deals with these issues.</p> <p>Measures have been taken to stipulate which cycle and pedestrian routes are required, both during</p>

	<p>maintain safety during construction.</p> <p>1c) Non-car routes should be safer and more accessible on completion of the NTC. (Above items included in Statement of Case, separate from original letter)</p> <p>2.) He queries the provision of crossing places for cyclists and pedestrians especially at roundabouts.</p> <p>7) Concern about the effect on designated cycle routes (notably route 72) both during and after construction.</p> <p>Mr Perks earlier letter commented on the adverse effects of a new road through the Hebburn/Pelaw riverside park</p>	<p>construction and afterwards. Details summarised in section 4.3 of proof and routes shown on Figures 3.5, 3.6, 11.3 and 11.4 of the ES</p> <p>Section 6 of my proof deals with safety generally and includes specific comment on public safety during construction which is covered by the CoCP. This requires that the TWPTA/CONCESSIONAIRE will comply with the relevant statutory provisions in respect of safety and will be required to carry out the works in such a way as to ensure the safety of the public and workers. The provisions of the Health and Safety at Work etc Act 1974 will be followed in all cases.</p> <p>Non car routes are generally public routes (foot, cycle way and public rights of way) and therefore subject to approval by the relevant highway authority. Safety is considered as an issue before these routes are adopted.</p> <p>Bus operators are considering opportunities to increase services following removal of congestion and achieving greater reliability on journey times .</p> <p>2.) Discussions have already been held with the local highway authorities, North and South Tyneside with regard to the provision of crossing points over highways. At the present time the Reference Design is a preliminary layout. When the detail design is carried out by the Concessionaire, he will be required to agree these details with the highway authorities.</p> <p>7) The development will affect both cycle routes and footpaths, both temporarily during construction and subsequently. This is covered in Section 4.3 of my Proof of Evidence. These temporary stopping ups, diversions during construction, and any permanent diversions are shown on the application plans. Any diversions will be planned and implemented in such a way as to cause minimum disturbance to users. During construction, all will be constructed and maintained in a safe manner.</p> <p>This park is not affected by these proposals</p>
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OBJ: 13**Mr C Hall (North Tyneside Cycling Club)**

Issue	Description	Response
Effect on riverside park	Objects to development within Riverside Park (Hebburn to Pelaw Park), rather than NTC	The proposals for a new road through Hebburn-Pelaw Park do not form part of the proposals submitted by the TWPTA. If this proposal were to come forward it would be subject to its own determination process. The current proposal does affect the open space between Curlew Road and the south bank of the Tyne. This area would be reinstated on completion of the works.

OBJ: 19**Mr L Scullion, 20 The Foxhills**

Issue	Description	Response
<ul style="list-style-type: none"> Access and Safety 	Mr Scullion is a co-owner of 35 Epinay Walk. Impact on reduced access during construction.	Mr Scullion will not be affected by construction in the access to the property. The limits of land to be acquired or used here, are shown solely for the purpose of entering properties to survey them in advance of construction work. There are no proposals to close or restrict access to Epinay Walk, Debussy Court or other access to the estate from Monkton Terrace.

OBJ: 25**Mr A Murray, 12 Burnside Road**

Issue	Description	Response
<ul style="list-style-type: none"> Safety 	Mr Murray finds using the existing tunnel unpleasant. He would prefer a bridge to be built. He does not object to a second crossing in principle.	The provision of a second crossing of whatever type would still mean that the existing tunnel remains in operation for northbound traffic, but its nature will improve markedly, as it becomes one-way instead of two-way. It will be significantly safer when operated as a one way carriageway. The options of a bridge for the new crossing were examined at an earlier stage of the planning but were rejected due to the costs and engineering difficulties in meeting the requirements of navigation on the River Tyne. Refer also to the evidence of Mr John Miller and Mr Malcolm Simpson.

OBJ: 28
A Reynard and M Bond, 162 Mowbray Road, South Shields

Issue	Description	Response
<ul style="list-style-type: none"> Safety 	Increased traffic on Mowbray Road	Mowbray Road is remote from the New Tyne Crossing, and any increases in traffic will be due to a number of factors, such as increased car ownership in the area. Safety on urban roads is a significant problem.

OBJ: 37
Mrs J Kirby, 41 Epinay Walk, Jarrow

Issue	Description	Response
<ul style="list-style-type: none"> Epinay Walk 	Mrs Kirby is concerned that the proximity of the Jarrow junction will affect the Epinay walk area. In particular she is concerned about the loss of the play area	It is true that there will be a loss of green area near the Epinay Walk houses. New area is available to the north of Howard Street In addition, the new road, in a cutting near the houses, will be screened from them, by a wall, which will attenuate the noise and planting.

OBJ: 86
Mrs M McVeigh, 43 Stothard Street, Jarrow

Issue	Description	Response
<ul style="list-style-type: none"> Subsidence 	Mrs McVeigh objects on the grounds that she does not know how potential subsidence problems at her property will be dealt with.	If a property is close to an area of construction where activities might be severe enough to potentially cause subsidence, then they will be surveyed in advance of the work. In the unlikely event of problems arising to the rear of Mrs McVeigh's property, then this advance baseline survey will enable the extent to be seen, and remedial action taken. All construction work near properties will be planned to alleviate, or minimise any effects of construction.
<ul style="list-style-type: none"> Pedestrian Access 	She is also concerned about pedestrian access during construction.	Roads and footpaths in the vicinity of Stothard Street will be affected by the construction of the tunnel. During construction, some roads (and their footways) will be stopped up for varying periods of time, but adequate and reasonable diversions will be in place. Any such works will be dependent on a "Traffic Management Plan" being prepared by the concessionaire and agreed with STMB and the Police. The plan will require the Concessionaire to construct, maintain and sign any diversion in a safe and clean manner.

OBJ: 87**Mr J Strong, 43 Auburn Gardens, Newcastle upon Tyne**

Issue	Description	Response
<ul style="list-style-type: none"> Severance 	He is concerned that the route of the tunnel would sever the 'Hebburn to Pelaw' riverside park.	The provision of the New Tyne Crossing will not affect the Hebburn-Pelaw park, which is some way to the west.

OBJ: 97**Wendy Love, Living Streets (ex-Pedestrian Association), 1 Linden Terrace, Benton, Newcastle upon Tyne**

Issue	Description	Response
<ul style="list-style-type: none"> Visual appearance Access 	<p>Mrs Wendy Love objects on behalf of Living Streets.</p> <p>She is concerned that the land acquisition for the toll area to the southbound tunnel will adversely impact on East Howden and Jarrow, which need regeneration not social exclusion.</p> <p>That the new crossing would create an environment that is inhospitable to bicycle and local residents.</p>	<p>The new toll area to the north of the southbound – tunnel portal, takes land from the disused tip site between the A19 and the East Howdon bypass. The land is presently unused and derelict. The proposals do not directly impinge on East Howdon, and will be hidden, in cut, from the residents of the village.</p> <p>It is true that certain pedestrian and cycle routes will be affected by the development. These interruptions are shown on the TWA application documents. Details of diverted routes will be discussed and agreed with the relevant authorities. Safety and minimisation of diversion length will be paramount considerations.</p> <p>The park to the south of the Tyne will be re-built after construction, and will provide an enhanced setting for the re-established pedestrian and cycle routes.</p>

OBJ: 110**Mrs Scullion, 35 Epinay Walk**

Issue	Description	Response
<ul style="list-style-type: none"> Access 	Reduced access for disabled persons to house and estate.	The proposed Jarrow Junction impinges on the open area between the front houses of Epinay Walk, and the A19 (in front of Mrs Scullions' property). The road will be about 12m from the row of houses at its closest point, existing ground level. The difference in level will be retained by a wall, which will be extended about ground to provide noise attenuation and screening. Planting will also be undertaken.

<ul style="list-style-type: none"> • Damage 	<p>Possible damage to house and loss of value.</p>	<p>Mrs Scullion’s access to her property is from the entrance to the estate from Monkton Terrace with access to her back door from Debussy Court and the front door of her house from Epinay Walk adjacent to the works. None of these access routes have been proposed to be closed in the powers taken in this order and thus there will be no restriction to her access.</p> <p>As her property is close to an area of construction, the TWPTA have applied for powers to gain access to her house to survey it. In the unlikely event of damage arising from subsidence or other cause, then the Concessionaire will be able to establish the extent and any necessary remedial work undertaken.</p>
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OBJ: 116

Michelle Whitworth, Chairperson Tyne Bikes

Issue	Description	Response
<ul style="list-style-type: none"> • Access <p>The proposed tunnel may require a new road through the Hebburn Pelaw park.</p> <p>All traffic must start and finish on local roads, where members and others cycle. Such impacts have not been addressed.</p>	<p>Tyne Bikes object on a number of grounds. The engineering aspects are dealt with here:</p>	<p>Cycles and Pedestrians will not be able to use the vehicular tunnels, as at present. They will continue to use the existing cycle and pedestrian tunnels, which are dedicated for their use. The southern entrance to these tunnels is being enhanced in the development, to provide easier access for pedestrians and cyclists and for public transport vehicles and their passengers. This improvement will “open up” the entrance, making it easier and clearer to access, for all users. The vehicular tunnels permit traffic to access and egress both the local highway and trunk road system.</p> <p>Any consideration of a new road through the Hebburn/Pelaw park is not included in the TWA application, and is outside the jurisdiction of the Public Inquiry.</p> <p>The development will affect both cycle routes and footpaths, both temporarily during construction and subsequently. This is covered in Section 4.3 of my Proof of Evidence. These temporary stopping ups, diversions during construction, and any permanent diversions are shown on the application plans. Any diversions will be planned and implemented in such a way as to cause minimum disturbance to users. During construction, all will be maintained in a safe manner.</p>

OBJ 163

Northumbrian Water Ltd

Issue	Description	Response
	<p>Northumbrian Water Ltd (NWL) does not object to the scheme in principle. NWL makes a number of points concerned with protecting their water supply and sewerage systems from the temporary and permanent works</p> <ul style="list-style-type: none"> • NWL consider there is a lack of information in order to consider impact on “two systems” or how alterations will be carried out. • NWL have concern that there has been insufficient consideration of traffic access to Howdon works and impact on sludge movements by road and by ship. • NWL systems are complicated and need to consider as a whole, not in parts. • NWL wish to approve alterations to their systems. NWL to be highly involved or have control of design, feasibility studies and material selection. NWL are concerned that any alterations to their systems should be efficient in operation. • They have particular concern about the impact on the ‘Interceptor’ and the ‘Syphon’ • Application has not considered costs sufficiently. • NWL have concerns about <ul style="list-style-type: none"> ○ Traffic impact assessment ○ Air Quality – NWL have taken 	<p>Meetings with NWL have been held and an agreement to satisfy their concerns has been drafted but not concluded yet. The use of the New Roads and Streets Work Act (1991) (NRSWA) where applicable is also being discussed with NWL. I have discussed the general position regarding NWL in sections 3.61-3.65 of this proof.</p> <ul style="list-style-type: none"> • Preliminary information on the likely services to be affected has been discussed with NWL staff. Only the Concessionaire will have the detail of his construction methods and construction sequence to examine the impact on the systems and agree the necessary mitigation works with NWL • The need for NWL to have vehicular access to their Howdon works has been recognised and assurances given that this will be provided. The need for NWL to have river access for their sludge vessels has also been recognised. Other than the installation of the immersed tunnel units no affect upon their vessels is considered likely. • The need to consider the impact on the system, rather than on individual pipes etc is recognised • The need for NWL to approve any alterations (temporary or permanent) to their infrastructure is recognised. NWL can advise on efficiency as part of the approval process • The works on the ‘Interceptor’ are required because of the alignment of the tunnel. This will

	<p>action in the past to reduce the odours from their plant. NWL have concern that any odours arising from the works (in particular the dredging in the river) might be attributed to them.</p> <ul style="list-style-type: none"> ○ The proposed amount of land required for the works 	<p>require planning and approval as described above, at the detail design stage. There are no works planned that would directly affect the 'Syphon'. Part of the 'Syphon' lies beneath the eastern extremity of the LLAU in the river and the need for the Concessionaire not to affect this is recognised.</p> <ul style="list-style-type: none"> ● NWL's concerns over their costs have been recognised and these will be addressed via the NRSWA process and the agreement between the parties ● I respond as follows <ul style="list-style-type: none"> ○ I have responded to NWL's concerns about their access above ○ I believe the land shown to be required is the minimum necessary to safely construct the works. We will continue to discuss the particular concerns of NWL with them in order to alleviate their concerns
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OBJ: 167
RMC, Mercantile Dock, Jarrow

Issue	Description	Response
<ul style="list-style-type: none"> ● RMC do not consider it necessary for the TWPTA to acquire the land ● Alternative land is available, applicant not shown RMC land is essential ● If site is required, then not all of site is required, only part. 	<p>RMC operate from the Mercantile Dock</p>	<p>Numerous discussions have been held with RMC and an Agreement is being drafted but has not been signed. The TWPTA and Arup are working with RMC to produce a scheme that resolves RMC's concerns</p> <ul style="list-style-type: none"> ● TWPTA are proposing to lease the land required by agreement ● The TWPTA has considered alternative sites for the temporary storage of materials (refer paragraphs 2.22-2.23 of this proof) and concluded this site is the preferred option ● The discussions with RMC and the draft agreement indicated that only the eastern part of the site will be used, allowing RMC to continue to operate from the remainder of their site

OBJ 185
Pamela Woolner, 2 Wansbeck Street, Chopwell

Issue	Description	Response
• Safety	Increase in Traffic Accidents	The creation of a new tunnel and the diverting of the traffic into two, one way, flows will significantly reduce both the likelihood of, and hazards arising from, traffic accidents within the tunnels. The improvements to the road junctions immediately north and south of the tunnel will also improve road safety in these areas. Refer Section 7 of my proof for further information.
• Construction	Affect of construction on residents.	There will be temporary effects on residents during construction. These will have to be controlled by the contractor as I describe in Sections 5.2 and 7 of my proof.

OBJ 348
Teaside Green Party, Peter Goodwin, 49 Church Howle Crescent, Marske by Sea, Redcarr TS11 7ES

Issue	Description	Response
• Safety	Increase in Traffic Accidents	The creation of a new tunnel and the diverting of the traffic into two, one way, flows will significantly reduce both the likelihood of, and hazards arising from, traffic accidents within the tunnels. The improvements to the road junctions immediately north and south of the tunnel will also improve road safety in these areas. Refer Section 7 of my proof for further information.

OBJ 358
Mr John d'Eguille Turvey, 13 Beckenham Avenue, East Boldon

Issue	Description	Response
• Pedestrian and Cycle routes.	Mr Turvey makes a number of points in his objection to the development, and also makes other points in his Statement of Case Impact of proposal on pedestrian and cycle routes.	The response to his concerns about the engineering issues is as follows: - The development will affect both cycle routes and footpaths, both temporarily during construction and subsequently. This is covered in Section 4.3 of my Proof of Evidence. These temporary stopping ups, diversions during construction, and any permanent diversions are shown on the application plans. Any diversions will be planned and implemented in such a way as to cause minimum disturbance to users. During construction, all will be constructed and maintained in a safe manner. In accordance with CoCP Concessionaire will be required to produce a Traffic Management Plan. See Section 4.3 of my proof.
• Hebburn/	Concern about a new Hebburn-Pelaw road	The proposals for a new road through this park do not form part of the proposals submitted by

Pelaw park.	through the park.	the TWPTA. If this proposal were to come forward it would be subject to its own determination process.
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**OBJ 381
Shepard Offshore, 52 Dean Street, Newcastle upon Tyne**

Issue	Description	Response
<ul style="list-style-type: none"> Lack of information. 	<p>They are represented by Winskell and Winskell. They make several points mainly relating to the effect of the tunnel on their Client's land, tenanted by RMC Ltd.</p> <ul style="list-style-type: none"> There is a lack of detailed information 	<p>The proposals for use of the land will be developed in detail by the Concessionaire. At this stage we are only able to identify that the land is required for storage of materials and the approximate manner in which they may be stored. I describe the selection of the site in Section 2.22 of my proof.</p>
<ul style="list-style-type: none"> Contamination 	<ul style="list-style-type: none"> Contamination of Client's property 	<p>The land is required temporarily for the storage of dredged sands and gravels from the river bed. The method of excavation of these from the river bed, are given in Chapter 4 of my evidence. Storage will be need for approximately 9-12 months, depending on the Concessionaires programme. These sands and gravels are not likely to be contaminated, as they arise from well below the levels in the river that might possibly contain such contaminants.</p>
<ul style="list-style-type: none"> Land acquisition 	<ul style="list-style-type: none"> Reasons for requiring land 	<p>The need for acquiring the land is described in Section 2.22 of my proof. Discussions have been and are being held with his tenants, RMC Ltd. These relate to the need for, extent and other features of the proposed use of the land to store dredged materials. If the land is eventually required by the Concessionaire, then detailed proposals will be made at that time.</p>

OBJ 382
Tyne Crossings Alliance (TCA) Mr P Winch

Issue	Description	Response
<ul style="list-style-type: none"> • Cost 	<p>The TCA makes numerous objections to the development, in four separate memoranda.</p> <p>MEMO 1</p> <ul style="list-style-type: none"> • Query on veracity of cost estimate 	<p>The Application documents (Appendix 7) give details of the Capital Cost in the form specified in the Transport and Works Act (Note 10 (3)(b)). This capital cost is £138.94m in year 2000 (2nd quarter prices).</p> <p>My proof of evidence outlines how the Capital Costs have been built up and structured, and the allowances that were made.</p> <p>The costs that have been allowed for are costs of different items of construction, cost of preliminaries and other such overall items, cost of accommodation works, acquisition and compensation, allowances for risk, utilities dimension costs and Professional Advisors fees.</p> <p>The total is well within the range of civil engineering works costs being reported.</p>
<ul style="list-style-type: none"> • Public Transport 	<p>MEMO 4</p> <p>Prioritise use of existing tunnel for emergency, public transport and freight</p>	<p>Public transport will have dedicated access through the toll booths on the northern side of the river. Because there will be much more capacity in the tunnel, public transport, police and emergency services will have much better access and use of the tunnel than at present.</p>
<ul style="list-style-type: none"> • Safety 	<ul style="list-style-type: none"> • Increased accidents will occur due to more traffic and overtaking on dual carriageways. • Can provide escape routes without second tunnel. If escape routes not provided to old tunnel-more unsafe. If provided more cost. 	<p>The existing two way tunnel has many features which make it inherently less safe than a one way tunnel. The safety of the existing tunnel has been reported on two occasions by ADAC (Allgemeiner Deutscher Automobil-Club ev), which noted certain features, which were below current standards. Despite this the management of operations and management in the tunnel, has been of a sufficiently high quality to overcome these differences.</p> <p>The feature that gives rise to most risk is the two way traffic, which because of the high volumes leads to a high risk of collision.</p> <p>With the construction of the new tunnel, traffic will become one-way in each, thereby increasing</p>

<ul style="list-style-type: none"> Jarrow Junction 	<p>Representatives at a public meeting organised by the Alliance, commented that the connection from the Jarrow Junction to the A19 Northbound (tunnel traffic) was unsafe because any incidents would cause congestion making access by rescue services unreliable</p>	<p>safety greatly. The existing tunnel has been adversely criticised by the ADAC report in that it has no escape passage or refuges.</p> <p>Chapter 3.28 of my Proof of Evidence outlines the planned improvements to the existing tunnel, one of which is to provide emergency escape shafts on each side of the river. The new tunnel has no direct connection to the existing, as they are at different levels and it would be very costly and difficult to engineer cross-connections.</p> <p>To comply with modern safety standards, it is desirable that the existing tunnel is provided with means of escape for occupants of vehicles in the event of need. This applies whether a second tunnel is built or not.</p> <p>This comment from a public meeting is noted. The junction shown in the application plans is at preliminary design stage only. The Concessionaire will be responsible for the detailed design, and the obtaining of the necessary approvals from the relevant highway authority. The preliminary design has been discussed with local councils and the emergency services and no significant issues have arisen that cannot be addressed at the detail design.</p> <p>When the Concessionaire takes over the operation of the new and existing tunnels, he will be responsible for agreeing the operational and emergency incident procedures with the Emergency Services (including Police) in further detail. These procedures will also be subject to review by the Tunnel Design Safety Consultation Group.</p>
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OBJ: 384
St Paul's Area Residents Association

Issue	Description	Response
<ul style="list-style-type: none"> Duration of works 	<p>The objection is made that the construction period is excessive.</p>	<p>The estimated construction period for the works is 36 months. This has been based on our knowledge of construction works of this complexity, elsewhere. The period estimated is not unusual. Concessionaires will be encouraged to reduce this period in their proposals.</p>
<ul style="list-style-type: none"> Construction 	<p>Construction will affect residents through noise, vibration, dust etc.</p>	<p>There will be temporary effects on residents during construction. These will have to be controlled by the contractors as I describe in Sections 5.21 and 7 of my proof.</p>
<ul style="list-style-type: none"> Access 	<p>Disruption to Public Access to St Paul's</p>	<p>The need for access across the tunnel alignment during construction has been recognised and I</p>

	Area.	outline the provisions made in Section 5 of my proof, Section 11 of the Environmental Statement (CD5) also provides information on this. Of particular importance to the St Paul's Residents Association members is the requirement on the Concessionaire to maintain the High Street as a means of pedestrian and vehicle access at all times.
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OBJ:385

Highways Agency

Issue	Description	Response
	<ul style="list-style-type: none"> • Definition of Interfaces between ownerships is not satisfactory <ul style="list-style-type: none"> ◦ termination of A19 North Bank ◦ termination of points with A19 on South Bank • Termination of works does not correspond to proposed stopping up • North Bank – temporary stopping up inappropriate propose use of TRO S14 • Book of Reference does not accurately reflect land ownership • Access to crossovers required 	<ul style="list-style-type: none"> • At a meeting with the Highways Agency revised interfaces were discussed and agreed. These have subsequently also been agreed with North and South Tyneside Councils • Agreement with the Highways Agency has been reached on this issue • Agreement with the Highways Agency has been reached on this issue • Ongoing discussions are taking place with the Highways Agency to resolve the land ownership issues. • The Highways Agency and the TWPTA have agreed to permit access to each others crossovers Agreement is being drafted, but has not been completed

OBJ: 414

Mr James Curry, 75 Crowhall Towers, Gateshead NE10 0NG

Issue	Description	Response
<ul style="list-style-type: none"> • Pedestrian and Cyclists 	Proposes a new Pedestrian and Cycle Bridge.	The existing Pedestrian and Cycle tunnels provide a dedicated link for those users already. They are free of charge and the TWPTA is committed that they remain so. As this facility exists there was no need to consider additional structures for these users at this location.
	Access roads to tunnel unsuitable for	It is proposed to improve the southern access to the Pedestrian and Cycle tunnels. The location of the entrances to the Pedestrian and Cycle Tunnels are remote from the A19, thus

	cyclists.	ensuring separation of the different modes of transport. The Pedestrian and Cycle tunnels are already accessible from local roads, not the trunk highway and this is unchanged by the proposals.
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OBJ: 454

English Welsh and Scottish Railway

Issue	Description	Response
<ul style="list-style-type: none"> Jarrow Branch Line 	EWS have written concerning their access to the Jarrow branch Line and bridge. They are concerned about restrictions to their operations and the affect upon the bridge	Discussions have been held with EWS and an agreement is being drafted. Agreement has been reached on protection to the bridge and the timing and notice of any closures if required

OBJ: 502

Environment Agency

Issue	Description	Response
	The Environment Agency's (EA) Statement of Case raised a number of Engineering issues	Discussions have been held with the Environment Agency (EA) to review their concerns and try to reach agreement. These discussions are ongoing.
<ul style="list-style-type: none"> Works in river 	<ul style="list-style-type: none"> Water Resources Act (1991) S109 consent required for works in main river 	<ul style="list-style-type: none"> The Concessionaire will need to apply for necessary consents for both the temporary and permanent works
<ul style="list-style-type: none"> Flood Risk 	EA to examine proposals to confirm no affect on flood defence and there will not be increased flood risk.	<ul style="list-style-type: none"> EA have been provided with evidence that there is no affect on flood defences anticipated. Concessionaire will need to confirm at detail design. EA are now satisfied that flood risk will not arise or can be managed
<ul style="list-style-type: none"> Disposal of Effluent 	No consideration of impact of disposal of liquid effluent from construction. Consents not sought.	<ul style="list-style-type: none"> The Concessionaire will need to seek any necessary consents required and in so doing will need to satisfy the Agency's concerns
<ul style="list-style-type: none"> Water Quality 	The EA have sought measures to protect the water quality during works in the river	The proposed monitoring measures are described in the Environmental proof. The Concessionaire will need to make adequate proposals to protect the watercourses when applying for the consents to construct the works.

OBJ: 605

Shell International Ltd

Issue	Description	Response
<ul style="list-style-type: none"> • Jarrow Branch Line • Road access 	<p>Shell were concerned about their rail access to their premises</p> <ul style="list-style-type: none"> • Possible affect on rail bridge during construction • Closure of road network/impact on business 	<p>Shell's concerns are the subject of an ongoing discussion with the TWPTA. In particular: -</p> <ul style="list-style-type: none"> • Agreement has been reached on protection to the bridge and the timing and notice of any closures if required • Shell have been given necessary assurances on their continued access to the public highway network