

**RESIDUAL DESIGN HAZARDS**  
 (The following information has been collected from Preconstruction Information and the AmeyArup CDM Hazard Management Process.)


- LEGEND**
- Significant environmental issues
  - Site of Special Scientific Interest (SSSI)
  - Inventory of Gardens and Designed Landscapes
  - Scheduled Monuments
  - x Inventory of Historic Battlefields
  - Category A Listed Building
- Environmental appraisal impact**
- Major Adverse Impact alignment section
  - Moderate Adverse Impact alignment section
  - Minor Adverse Impact alignment section

P02	Final	AC	JC	FM	NH	AF
		17/04/18	18/04/18	18/04/18	18/04/18	18/04/18
P01	Draft	AC	JC	FM	NH	AF
		10/04/2018	11/04/2018	11/04/2018	12/04/2018	13/04/2018
Revision	Revision details	Created	Checked	Reviewed	Approved	Authorised
		dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

Designer  
 Precision House  
 McNeill Drive  
 Motherwell  
 ML1 4UR



Client  
 58 Port Dundas Road  
 Glasgow  
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Project Name  
**A96 Dualling: East of Huntly to Aberdeen**

Drawing Title  
**First Fix Environmental Appraisal of Alignment BN01**

Project Ref. No. 250002-92	Stage Stage 2	Scale : 1:25,000 Dimensions :	@A1
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Drawing Number  
 Project | Originator | Volume |  
**A96PEA - AMAR - EGN -**  
**CB - DR-EN - 000001**  
 Location | Type | Role | Number

Suitability S4	Suitability Description Fit for Stage Approval	Revision P02
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Alignment	Landscape and visual impact	Landscape and visual commentary	Water	Water commentary	Ecology	Ecology commentary	People and community	People and community commentary	Noise	Noise commentary	Air quality	Air quality commentary	Cultural heritage	Cultural heritage commentary	Plans and policies	Plans and policies commentary	Soil and geology	Soil and geology commentary
BN01-001		The appraisal has identified 68% of the alignment as having Major adverse impacts on landscape character. The major adverse impacts occur in the north of the alignment where a large structure will be required to cross the River Urie and in the south where a second large structure will be required to cross the River Don. There would be impacts on high quality undesignated landscape with cuttings and embankments greater than 15m depth/height.		Route crosses the extensive floodplain of the River Urie (ch.550m) and River Don (ch.1360m) - these crossings are not perpendicular to flow (major adverse). Potential for active morphology at these crossings (moderate adverse). Potential requirement for realignment of River Urie upstream of crossing (moderate adverse). Route crosses extensive floodplain of Iles Burn (ch.2300m) and is perpendicular to flow (moderate adverse).		Two significant watercourse crossings (River Don and Lochter Burn) as well as a few minor watercourse crossings. Northern end minimally cuts into a sensitive area identified as an ancient woodland mosaic with a good habitat connection across the current A96, and skims the River Urie. It is assumed that no realignment of the watercourses is needed.		The following lie within the alignment: Bourie Works Industrial Park (Ch. 5-300), off the B9170 on Cherry Croft, Mains of Invermay (1-700), and East Cottage, Lethenty (Ch. 4-250) lies partially within the alignment. No community facilities lie within the alignment. Alignment passes through areas of class 3.1 agricultural land with some larger pockets north of Inverurie. The agricultural land is predominantly Class 3.2 but there is also pockets of 4.1. No Class 1 or 2 land.		There is minor or negligible potential change to level of the existing noise climate, resulting from the introduction of new roads and rerouting of existing traffic. Minor changes to the noise climate may take place, and these are identified upon communities with a relative high population count. There are also a number of Local Development Plan (LDP) allocations within 300m of the proposed alignment including OP1 (Urlyside Phase 2 - 150 homes), OP8 (Urlyside Phase 2 Allocation: 465 homes), OP3 (Phase 2 - Portstown Allocation: 250 homes), and OP9 (Portstown Phase 1 Allocation: 175 homes). In total, there could be up to 1040 homes affected by the new scheme.		In relation to baseline, all routes are beneficial because the alignment is moved away from Inverurie which is high density land-use into areas of low density land use with good background air quality. None of the routes are major beneficial because some new exposures would occur for each route. The route is <200m from Inverurie, Port Elphinstone and Kintore settlement areas so is classed as minor beneficial.		This alignment may have a significant impact upon the setting of Keith Hall Inventory Garden and Designed Landscape (GDL), as it runs around the eastern side of the GDL, on land that is slightly more elevated than the GDL. This alignment has the potential to impact upon the key views south from Category A Listed Bourie House (Listed Building - LB2819). The alignment runs in close proximity to the Inventory Historic Battlefield of the Battle of Harlaw and may impact on its setting.		Route entirely outwith settlement boundaries and LDP allocations. Southern most section immediately adjacent to land safeguarded by employment use by LDP at the north of Kintore. The route also passes in close proximity to LDP allocated housing opportunity sites along the northern edge of Inverurie. In terms of committed development it does pass within close proximity to small scale committed developments including a 200kg Explosive Storage Bunker and 10th Deto Annex at Schlumberger Depot Hillhead Of Lethenty.		Large stretches of prime agricultural land, with some contaminated land (railway, tanks, former canal), and small areas of mineral resources.
BN01-002		The appraisal has identified 59% of the alignment as having Minor or Moderate adverse impacts with 41% resulting in Major adverse impacts. The overall rating of Major reflects the fact that there are along stretches of cutting some of which reach a maximum depth of >30m and loss of woodland that contributes to landscape character. While chainages with Major adverse impacts are relatively short and spaced widely apart they result in intensive impacts in a small area.		Route crosses the extensive floodplain of the River Urie (ch.550m), Iles Burn (ch.2800) and River Don (ch.13900m) - these crossings are not perpendicular to flow (major adverse). Route crosses the extensive floodplain of the Lochter Burn (ch.4600m) and is perpendicular to flow (moderate adverse). Potential for active morphology at the crossings of the Lochter Burn and River Don (moderate adverse).		Cuts through a network of small ancient woodland sites. One major crossing of the River Don. The alignment is weaving through a network of small ancient woodland parcels and across a number of minor watercourses. Northern end fragments a sensitive area identified as an ancient woodland mosaic with a good habitat connection across the current A96, and crosses the River Urie.		The following properties lie within the alignment: The Lodge (Pitcaple Castle), The Stables (No's 1 - 4 at Pitcaple Castle) (Ch. +350), and Hillhead of Lethenty (Ch. 3-750). Guanhil, Pitcaple (Ch. 2-420) and two properties at Millview, Lethenty (Ch. 4-100) fall partially within the alignment. No community facilities lie within the alignment. Southern section of alignment is predominantly agricultural land of class 3.2 with small areas of 3.1. Larger pockets of 3.1 north of Inverurie, but also pockets of 4.1. No Class 1 or 2.		There is minor or negligible potential change to level of the existing noise climate, resulting from the introduction of new roads and/or rerouting of existing traffic. Minor increase to the noise climate may take place upon communities with a relative medium population count. Additionally, a number of LDP allocations are potentially affected by the proposed alignment including OP7 (Urlyside Phase 2 150 homes), OP8 (Urlyside Phase 2 Allocation: 465 homes), OP3 (Phase 2 Portstown Allocation: 250 homes), and OP9 (Portstown Phase 1 Allocation: 175 homes). For a total of 1040 homes.		In relation to baseline, all routes are beneficial because the alignment is moved away from Inverurie which is high density land-use into areas of low density land use with good background air quality. None of the routes are major beneficial because some new exposures would occur for each route. Routes which are outside 100m of new agglomerations (10 people or more) are classed as moderate beneficial. This applies to 002, 003, 003A and 004A.		This alignment may have a significant impact upon the setting of Pitcaple Castle (LB2820) as it runs through the non-inventory GDL which forms the Castle's setting. The alignment also runs through the non-inventory GDL which forms the setting for Bourie House (LB2819). This alignment has the potential to impact upon the setting of the Hill of Selbie cairn (Scheduled Monument - SM12343). The alignment may have an impact on the setting of Keith Hall Inventory GDL, as it would run on the eastern side of the GDL on land which is at a higher elevation. The alignment runs in close proximity to the Inventory Historic Battlefield of the Battle of Harlaw and may impact on its setting.		Route entirely outwith settlement boundaries and LDP allocations. Southern most section immediately adjacent to land safeguarded by employment use by LDP at the north of Kintore.		Large stretches of prime agricultural land, some contaminated land (railway, worked ground, infilled ground), and mineral resources.
BN01-003		The appraisal has identified 55% of the alignment as having Moderate or Major adverse impacts with 24% of the alignment resulting in Major impacts. The overall rating of Moderate is given as the impacts relate primarily to earthworks and structures rather than loss of woodland.		Route crosses the extensive floodplain of the River Don (ch.15500m) - this crossing is not perpendicular to flow (major adverse). Route crosses the extensive floodplain of the River Urie (ch.450m) and Lochter Burn (ch.4000 and ch.5500m) - these crossings are perpendicular to flow (moderate adverse). Potential for active morphology at the crossings of the Lochter Burn and River Don (moderate adverse).		Cuts through Sunnybrae Moss Local Nature Conservation Site (LNCS) and likely the network of other wetland and fen habitats within the local area. Northern end fragments sensitive area identified as an ancient woodland mosaic with a good connection across the current A96.		Pitcaple Environmental Project and The Buzzard Café (Ch. 0-600) are community facilities that lie within the alignment. One property lies within the alignment: Christavric (Ch. 3-350). Southern section of alignment predominantly 3.2 with small areas of 3.1. Larger pockets of 3.1 north of Inverurie, but also pockets of 4.1. No Class 1 or 2.		There is noticeable potential decrease to level of the existing noise climate in Inverurie resulting from the introduction of new roads and rerouting of existing traffic. However, changes to the noise climate may take place upon communities with a relative high population count, which are located close to the new roads.		In relation to baseline, all routes are beneficial because the alignment is moved away from Inverurie which is high density land-use into areas of low density land use with good background air quality. None of the routes are major beneficial because some new exposures would occur for each route. Routes which are outside 100m of new agglomerations (10 people or more) are classed as moderate beneficial. This applies to 002, 003, 003A and 004A.		The alignment cuts across the non-designated designed landscape surrounding Pitcaple Castle and would cause Major Adverse Impact to its setting, and would pose a potential risk to consent. The alignment would run in close proximity to the non-inventory GDL which forms the setting for Bourie House (LB2819), and may impact on its setting. The alignment runs in close proximity to the Inventory Historic Battlefield of the Battle of Barra and may have an impact on its setting.		Route entirely outwith settlement boundaries and LDP allocations. Southern most section immediately adjacent to land safeguarded by employment use by LDP at the north of Kintore.		Small areas of peat, large stretches of prime agricultural land, contaminated land (railway), and small areas of mineral resources.
BN01-003A		The appraisal has identified 27% of the alignment as having Moderate or Major adverse impacts with a total of 20% having a Major adverse impact. The Major adverse impact occurs at Pitcaple and is a result of the combined impacts of a 1.25km section of the alignment where there will be a new structure crossing the River Urie, cuttings of greater than 15m, loss of woodland and potential impacts on the contribution of cultural heritage features to landscape character. The overall rating is therefore Moderate adverse.		Route crosses the extensive floodplain of the River Urie (ch.450m) - this crossing is not perpendicular to flow (major adverse). Route crosses the extensive floodplain of the Lochter Burn (ch.5000m) and is perpendicular to flow (moderate adverse). Potential for active morphology at this crossing (moderate adverse).		Northern end fragments a sensitive area identified as an ancient woodland mosaic with a good habitat connection across the current A96.		There are no community facilities or private properties within the alignment. Areas of 3.1, 3.2 and 4.1 along alignment.		Potential noticeable decrease to level of current noise climate at Inverurie, resulting from rerouting traffic via new roads. The increase to noise from the new roads, potentially impacts only communities with a relative low population count.		In relation to baseline, all routes are beneficial because the alignment is moved away from Inverurie which is high density land-use into areas of low density land use with good background air quality. None of the routes are major beneficial because some new exposures would occur for each route. Routes which are outside 100m of new agglomerations (10 people or more) are classed as moderate beneficial. This applies to 002, 003, 003A and 004A.		The alignment cuts across the non-designated designed landscape surrounding Pitcaple Castle and would cause Major Adverse Impact to its setting, and would pose a potential risk to consent. The alignment runs in close proximity to the Inventory Historic Battlefield of the Battle of Barra and may have an impact on its setting.		Route entirely outwith settlement boundaries and LDP allocations.		Geological Site of Special Scientific Interest (SSSI), small areas of peat, large stretches of prime agricultural land, contaminated land (railway, landfill, made ground), and small areas of mineral resources.
BN01-003B		The appraisal indicates 69% of the alignment as having Moderate or Major adverse impacts. Major adverse impacts are predicted for 43% of the alignment due to a combination of effects on Kinmuck, loss of woodland and sections of cutting and embankment >10m in depth and height. The large structure across the River Don also results in a Major adverse impact on landscape and a Moderate adverse impact on views across the River Don. The overall rating is therefore Major due to the amount of the alignment with a rating of Major.		No crossings of extensive floodplain by this route. A number of crossings of watercourses with floodplain <100m wide.		One significant watercourse crossing over the River Don.		Hogholm Farm Stables (Ch. 3-900) lies partially within alignment. The following properties lie partially within the alignment: Hogholm Farmhouse (Ch. 1-900), New House, Burnside (Ch. 1-650), Whitehills Croft, Keith Hall (Ch. 0-500), The Friends Cottage, Kinmuck (Ch. 1-800), Bankhead Croft, Kinmuck (Ch. 1-750), Lindores, Kinmuck (Ch. 1-800). Alignment passes through two small areas of 3.1, but is predominantly Class 3.2.		Potential noticeable decrease to level of current noise climate at Inverurie, resulting from rerouting traffic via new roads. The increase to noise from the new roads, potentially impacts only communities with a relative low population count.		In relation to baseline, all routes are beneficial because the alignment is moved away from Inverurie which is high density land-use into areas of low density land use with good background air quality. None of the routes are major beneficial because some new exposures would occur for each route. Route is <200m from Kinmuck settlement area, so is classed as minor beneficial.		Friend's Meeting House and Friend's Cottage (LB9141) is located within this sub-option. It would be possible to move the alignment to ensure that there is no direct impact on the Listed Building. The use of this sub-option would have a significant impact upon the setting of Friend's Meeting House and Friend's Cottage (LB9141) due to its immediate proximity to the building. This sub-option runs in close proximity to Balshan House (LB9140) and its surrounding GDL.		Route entirely outwith settlement boundaries and LDP allocations, but passes adjacent to Kinmuck Settlement boundary.		Small areas of prime agricultural land, and small areas of mineral resources.
BN01-004		The appraisal indicates 58% of the alignment as having Moderate or Major adverse impacts. Major impacts occur along 25% of the alignment with the most severe impacts being at Lawel Hill where there is a 1km stretch of embankment with maximum height >10m leading to a 1km section of cutting with maximum depth of >35m within a high sensitivity undesignated landscape.		Route crosses the extensive floodplain of the River Don (ch.22500m) and is perpendicular to flow (moderate adverse). Potential for active morphology at this crossing (moderate adverse). Route crosses the extensive floodplain of the Lochter Burn (ch.9500m) and is perpendicular to flow (moderate adverse). Crossing of River Urie occurs where floodplain is <100m wide (minor adverse).		The alignment cuts over watercourses which feed into Burnhead Moss LNCS (designated for its wetland habitats), and cuts through Pitcurry Moss LNCS which supports uncommon plants. Northern end cuts through several larger woodland blocks, including ancient woodland, which currently form a good habitat corridor across the current A96.		The following properties lie within the alignment: West Lodge Leagie (Ch. 0-000), Glenburn Cottage (Ch. 11-800), and Balraig (Ch. 20-450) falls partially within the alignment. Farm buildings also lie within the alignment at Sniwkaid (Ch. 16-450) and to the east of Kinmuck (Ch. 18-450). Agricultural land is predominantly 3.2 with three areas of 3.1, and also areas of 4.1 and 5.3.		There is noticeable potential decrease to level of the existing noise climate in Inverurie resulting from the introduction of new roads and rerouting of existing traffic. However, changes to the noise climate may take place upon communities with a relative high population count, which are located close to the new roads.		In relation to baseline, all routes are beneficial because the alignment is moved away from Inverurie which is high density land-use into areas of low density land use with good background air quality. None of the routes are major beneficial because some new exposures would occur for each route. Route is <200m from Kinmuck and Daviot settlement areas, so is classed as minor beneficial.		Stoneyhill cairn (SM12343) is situated within the alignment. It would be possible to move the alignment to ensure that there is no direct impact on the SM. The alignment is very close to Stoneyhill cairn and would have a significant adverse effect on its setting. The alignment runs in close proximity to Pitcurry cairn (SM12302) and may have an impact on its setting. The alignment would run in the immediate vicinity of Balshan House (LB9140) and the Inventory GDL which forms its setting. The proximity of the alignment to the House and GDL would result in a significant impact on its setting. The alignment runs in close proximity to the Inventory Historic Battlefield of the Battle of Barra and may have an impact on its setting. The alignment would run through the centre of the non-inventory GDL which forms the setting for Leagie House Hotel, and may have a significant impact on its setting and on the setting of other associated Listed Buildings. The alignment would be visible in the key view to the south-east from House of Daviot (LB2792) affecting its setting.		Route entirely outwith settlement boundaries and LDP allocations, but passes adjacent to Kinmuck and Daviot Settlement boundaries. The route does pass through a number of sites which are subject to planning permission for small numbers of houses.		Large area of peat, large stretches of prime agricultural land, contaminated land (railway, tank, former canal), and mineral resources.
BN01-004A		The appraisal indicates 27% of the alignment as having Major adverse impacts primarily as a result of the combined effects at Pitcaple where there is a cutting >15m and at Lumhart Hill where there is also a cutting >15m. The overall rating is Moderate adverse as the majority of the alignment results in Minor adverse impacts.		Route crosses the extensive floodplain of the River Urie (ch.850m) - the crossing is not perpendicular to flow (most of the route upstream of the crossing point is parallel to the channel within the floodplain) (major adverse). Potential for river realignment at this location.		Northern end fragments a sensitive area identified as an ancient woodland mosaic with a good connection across the current A96.		The following fall within the alignment: Home Farm Pitcaple (Ch. 0-000), and The Stores at Pitcaple Quarry (Ch. 0-900). An outbuilding at Pitcaple Castle also lies partially within the alignment (Ch. 0-750). Agricultural land is predominantly 3.2 with three areas of 3.1, and also areas of 4.1 and 5.3.		Potential noticeable decrease to level of current noise climate at Inverurie, resulting from rerouting traffic via new roads. The increase to noise from the new roads, potentially impacts only communities with a relative low population count.		In relation to baseline, all routes are beneficial because the alignment is moved away from Inverurie which is high density land-use into areas of low density land use with good background air quality. None of the routes are major beneficial because some new exposures would occur for each route. Routes which are outside 100m of new agglomerations (10 people or more) are classed as moderate beneficial. This applies to 002, 003, 003A and 004A.		The sub-option cuts across the non-designated designed landscape surrounding Pitcaple Castle and would cause Major Adverse Impact to its setting and would pose a potential risk to consent.		Route entirely outwith settlement boundaries and LDP allocations.		Small areas of peat, small areas of prime agricultural land, contaminated land (railway), and small areas of mineral resources.