

# A66 Northern Trans-Pennine project

Draft Construction  
Method and  
Management  
Statement

**Indicative  
schematic drawings**

**Volume 2**

**Appleby to Brough**



# A66 - Key Proposed Construction Activities (Phase 1 Works)

### Traffic Management for construction works

Traffic will be diverted and managed using traffic management to ensure the A66 remains moving and works can be undertaken safely.

Cut off ditch to piped under track

### Construction works - New underpass

To enable the works to be carried out while maintaining traffic on the existing A66 a temporary works retaining solution may be utilised to enable the construction works to be undertaken safely. The ground will be excavated to formation level and the underpass constructed, with earth being replaced above the underpass once completed. The new road with kerbs and drainage can then be installed.

Construction Work Area

Live A66 Traffic

### Construction works - Drainage culverts

Drainage works will be undertaken within the construction work area assisted by ground supports to ensure reduced traffic management and keep the A66 traffic flowing. The drainage is required to mitigate flooding and overloading the current drainage network.

Construction Work Area

Live A66 Traffic

### Construction works - New carriageway next to existing A66

With traffic maintained on the existing A66, construction works can take place on the new carriageway. Material will be excavated from the works location and moved to stockpile locations on the project. Material will be moved via eight wheel wagons or dump trucks with suitable routes established to minimise disruption to the A66. Kerbs, drainage and the new road can then be constructed with imported granular and asphalt material.

Construction Work Area

### Construction works - Access roads

To construct the access road, the surrounding land will need to be reduced and the material locally stockpiled. Once down to formation the new access road can be constructed from imported granular material, following the installation of kerbs and drainage.

**Important** - Some features shown on this drawing may be different from those shown in the Maps Books. The purpose of the drawings highlight elements of the construction works and where discrepancies with the Map Books exist, the Map Book versions should be regarded as showing the preliminary design.

### Legend

- Roads open & in public use
- Construction Work Area Phase 1
- Construction Work Area Phase 2

### Construction works - Attenuation ponds

To help manage groundwater on the scheme and mitigate the impacts of surface run-off overloading the existing drainage network, attenuation ponds are required. They will be constructed with minimal impacts on the live A66 and will further help biodiversity within the local area. Plant machinery will be used to excavate and line the attenuation pond.

Construction Work Area

### RESIDUAL DESIGN HAZARDS

(The following information has been collected from Preconstruction Information and the Arney Arup JV CDM Hazard Management Process.)

- Overhead Services.
- Underground Services.

### NOTES

- All levels are in metres above Ordnance Survey Datum.
- All dimensions are in metres unless otherwise stated.
- This drawing is to be read in conjunction with all other relevant drawings.

- ### KEY
- Red Line Boundary
  - Proposed Fence Line
  - Existing Layout
  - Proposed Layout
  - Highway Structure
  - Culvert
  - Cut-off drain
  - Earthworks
  - Pond
  - Footpath
  - Proposed Footpath
  - Abandoned Footpath
  - Bridleway
  - Proposed Bridleway
  - Abandoned Bridleway
  - Farm Track/Access
  - Proposed Gate
  - Compound/Storage Locations
  - Paved Area
  - Area of Outstanding Natural Beauty
  - Major Overhead Services
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  - Headwall
  - Pipe to Outfall
  - Cattle Grid
  - Hedge
  - MOD Helpaid
  - Proposed Vehicle Restraint System
  - Concrete Drainage Channel
  - Sign Position
  - Filter Drain
  - MOD Boundary Fence
  - Green Line Boundary
  - Potential Brough Hill Fair Site

Revision	Created	Checked	Reviewed	Approved	Authorised
dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy
P01.1					

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Project Name  
**A66 Northern Trans-Pennine**

Drawing Title  
**Appleby to Brough  
Option 2 - (Black-Blue-Black)  
General Arrangement  
Sheet 1 of 10**

Project Ref. No. | Stage | Scale | @ A0  
--- | PCF3 | 1:1000 | ---

Drawing Number  
Project | Originator | Volume |  
**HE565627 - AMY - HGN -**  
**S06 -DR-CH- 398001**  
Location | Type | Role | Number

Suitability | Suitability Description | Revision  
S0 | Initial non-contractual code | P01.1



# A66 - Key Proposed Construction Activities (Phase 1 Works)

### Construction works - Drainage ditches

To help improve water management around the A66 both from surface run-off and local rivers, streams and tributaries, a wide variety of ditches are proposed across the scheme. Material will be excavated and transported to be used within the scheme. The drainage will help mitigate flooding and improve biodiversity in the area.

### Construction works - New carriageway next to existing A66

With traffic maintained on the existing A66, construction works can take place on the new carriageway. Material will be excavated from the works location and moved to stockpile locations on the project. Material will be moved via eight wheel wagons or dump trucks with suitable routes established to minimise disruption to the A66. Kerbs, drainage and the new road can then be constructed with imported granular and asphalt material.

### Construction works - Attenuation pond

To help manage groundwater on the scheme and mitigate the impacts of surface run-off overloading the existing drainage network, attenuation ponds are required. They will be constructed with minimal impacts on the live A66 and will further help biodiversity within the local area. Plant machinery will be used to excavate and line the attenuation pond.

### Legend

- Roads open & in public use
- Construction Work Area Phase 1
- Construction Work Area Phase 2

**Important** - Some features shown on this drawing may be different from those shown in the Maps Books. The purpose of the drawings highlight elements of the construction works and where discrepancies with the Map Books exist, the Map Book versions should be regarded as showing the preliminary design.

### RESIDUAL DESIGN HAZARDS

(The following information has been collected from Preconstruction Information and the Arney Arup DJV CDM Hazard Management Process.)

- Overhead Services.
- Underground Services.

### NOTES

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### KEY

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- MOD Helpad
- Proposed Vehicle Restraint System
- Concrete Drainage Channel
- Sign Position
- Filter Drain
- MOD Boundary Fence
- Green Line Boundary
- Potential Brough Hill Fair Site

Revision	Created	Checked	Reviewed	Approved	Authorised
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P01.1					

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Project Name  
 A66 Northern Trans-Pennine

Drawing Title  
 Appleby to Brough  
 Option 2 - (Black-Blue-Black)  
 General Arrangement  
 Sheet 2 of 10

Project Ref. No. | Stage | Scale | @ A0  
 --- | PCF3 | 1:1000 | M

Drawing Number  
 Project | Originator | Volume |  
 HE565627 - AMY - HGN -  
 S06 -DR-CH-407002  
 Location | Type | Role | Number

Suitability | Suitability Description | Revision  
 S0 | Initial non-contractual code | P01.1



# A66 - Key Proposed Construction Activities (Phase 1 Works)

**Legend**

- Roads open & in public use
- Construction Work Area Phase 1
- Construction Work Area Phase 2

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

- Overhead Services.
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**NOTES**

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**Construction works - New carriageway next to existing A66**

With traffic maintained on the existing A66, construction works can take place on the new carriageway. Material will be excavated from the works location and moved to stockpile locations on the project. Material will be moved via eight wheel wagons or dump trucks with suitable routes established to minimise disruption to the A66. Kerbs, drainage and the new road can then be constructed with imported granular and asphalt material.

**Construction works - Underpass construction**

To reduce traffic movements across the A66, an underpass is to be constructed. This will be excavated into the ground with temporary works required to keep the A66 traffic live whilst ensuring future traffic management is restricted to keep the road moving. The structure will be constructed below ground and then buried to ensure it blends into the surroundings. The new road can then be constructed above to enable the westbound new section of road to be completed.

**Construction works - Attenuation pond**

To help manage groundwater on the scheme and mitigate the impacts of surface run-off overloading the existing drainage network, attenuation ponds are required. They will be constructed with minimal impacts on the live A66 and will further help biodiversity within the local area. Plant machinery will be used to excavate and line the attenuation pond.

Revision	Created	Checked	Reviewed	Approved	Authorised
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P01.1	---	---	---	---	---

Revision details

Revision	Created	Checked	Reviewed	Approved	Authorised
---	---	---	---	---	---
P01.1	---	---	---	---	---

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Project Name  
**A66 Northern Trans-Pennine**

Drawing Title  
**Appleby to Brough Option 2 - (Black-Blue-Black) General Arrangement Sheet 3 of 10**

Project Ref. No. | Stage | Scale: 1:1000 | @ A0  
 --- | PCF3 | Dimensions: M

Drawing Number  
 Project | Originator | Volume |  
**HE565627 - AMY - HGN -**  
**S06 -DR-CH-416003**  
 Location | Type | Role | Number

Suitability | Suitability Description | Suitability Revision  
 S0 | Initial non-contractual code | P01.1



# A66 - Key Proposed Construction Activities (Phase 1 Works)

**Legend**

- Roads open & in public use
- Construction Work Area Phase 1
- Construction Work Area Phase 2

**Important** - Some features shown on this drawing may be different from those shown in the Maps Books. The purpose of the drawings highlight elements of the construction works and where discrepancies with the Map Books exist, the Map Book versions should be regarded as showing the preliminary design.

**Construction works - Underpass Construction**

To assist non motorists to cross the new A66, an underpass will be constructed. This work is likely to be undertaken away from live traffic with the current A66 maintaining traffic flows. The ground will be lower using excavation plant and the material relocated to stockpiles. The new underpass can then be constructed and suitably backfilled to enable the new A66 to be constructed over the top.

**Construction works - New carriageway next to existing A66**

With traffic maintained on the existing A66, construction works can take place on the new carriageway. Material will be excavated from the works location and moved to stockpile locations on the project. Material will be moved via eight wheel wagons or dump trucks with suitable routes established to minimise disruption to the A66. Kerbs, drainage and the new road can then be constructed with imported granular and asphalt material.

**Construction works - Drainage culverts**

Drainage works will be undertaken within the construction work area assisted by ground support systems where required. With the A66 maintained on the existing route, the construction works can be undertaken efficiently. The drainage is required to mitigate flooding and overloading the current drainage network.

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

- Overhead Services.
- Underground Services.

**NOTES**

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Revision	Created	Checked	Reviewed	Approved	Authorised
---	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy
P01.1					

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Project Name  
**A66 Northern Trans-Pennine**

Drawing Title  
**Appleby to Brough  
 Option 2 - (Black-Blue-Black)  
 General Arrangement  
 Sheet 4 of 10**

Project Ref. No. | Stage | Scale | @ A0  
 --- | PCF2 | 1:1000 | M

Drawing Number  
 Project | Originator | Volume |  
**HE565627 - AMY - HGN -**  
 S06 -DR-CH- 424204  
 Location | Type | Role | Number

Suitability | Suitability Description | Revision  
 S0 | Initial non-contractual code | P01.1



# A66 - Key Proposed Construction Activities (Phase 1 Works)

**Legend**

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- Construction Work Area Phase 1
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**Construction works - New carriageway construction**

With traffic maintained on the existing A66, construction works can take place on the new carriageway. Material will be excavated from the works location and moved to stockpile locations on the project. Material will be moved via eight wheel wagons or dump trucks with suitable routes established to minimise disruption to the A66. Kerbs, drainage and the new road can then be constructed with imported granular and asphalt material.

**Construction works - Access road**

The access road will be constructed with little impact on the live A66 due to the setback distance from the road. Earth will be excavated along the required routes and imported material placed and compacted after kerbs and drainage have been installed. Existing vegetation and trees will be maintained where possible to minimise the impacts of construction.

**Construction works - Drainage culverts**

Drainage works will be undertaken within the construction work area assisted by ground supports to ensure reduced traffic management and keep the A66 traffic flowing. The drainage is required to mitigate flooding and overloading the current drainage network.

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

- Overhead Services.
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Revision	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy
P01.1					

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Project Name  
 A66 Northern Trans-Pennine

Drawing Title  
 Appleby to Brough  
 Option 2 - (Black-Blue-Black)  
 General Arrangement  
 Sheet 5 of 10

Project Ref. No. Stage Scale: 1:1000 @ A0  
 --- PCF3 Dimensions: M

Drawing Number  
 Project | Originator | Volume |  
 HE565627 - AMY - HGN -  
 S06 -DR-CH-433205  
 Location | Type | Role | Number

Suitability Suitability Description Revision  
 S0 Initial non-contractual code P01.1



# A66 - Key Proposed Construction Activities (Phase 1 Works)

**Legend**

- Roads open & in public use
- Construction Work Area Phase 1
- Construction Work Area Phase 2

**Construction works - New Access Roads**

To enable the access road to be constructed, it is likely that the existing hill side will need to be re-profiled to ensure it is safe. Material will be excavated and stored in allocated stockpiles ready for re-use where suitable. Once at formation, the new access road can be constructed from imported granular material and asphalt, after undertaking the kerbs and drainage works.

**Construction works - Access roads**

To construct access roads, the surrounding land will need to be reduced and the material locally stockpiled. Once up to formation using suitable fill material, the new access road can be constructed from imported granular material, after undertaking the kerbs and drainage works.

**Construction works - Attenuation pond**

To help manage groundwater on the scheme and mitigate the impacts of surface run-off overloading the existing drainage network, attenuation ponds are required. They will be constructed with minimal impacts on the live A66 and will further help biodiversity within the local area. Plant machinery will be used to excavate and line the attenuation pond.

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Revision	Created	Checked	Reviewed	Approved	Authorised
---	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy
P01.1					

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Project Name  
 A66 Northern Trans-Pennine

Drawing Title  
 Appleby to Brough  
 Option 2 - (Black-Blue-Black)  
 General Arrangement  
 Sheet 6 of 10

Project Ref. No. Stage Scale : 1:1000 @ A0  
 --- PCF3 Dimensions : M

Drawing Number  
 Project | Originator | Volume |  
 HE565627 - AMY - HGN -  
 S06 -DR-CH-441206  
 Location | Type | Role | Number

Suitability  
 S0 Initial non-contractual code P01.1