Peter Moor
Northamptonshire County Council
Planning Services
One Angel Square
Northampton
NN1 1ED

14/00086/CCDFUL

23 February 2018

Dear Mr Moor,

Daventry Development Link - Non Material Amendment for Structures

In the run up to and during construction, a number of changes have been made to the structures on the A45 Daventry Development Link scheme. These changes have come from the detailed design being completed but also following a number of value engineering initiatives to ensure the scheme remained affordable. This note considers the changes at each structure.

WHILTON BROOK BRIDGE

The approved planning drawings have been assessed against the latest construction drawings. The Bridge is a structure over a watercourse and the key parameters relate in the main to the hydraulic performance of the bridge to prevent flooding. As such the Flood Risk Assessment approved at planning has also been reviewed to ensure that critical dimensions and levels have been maintained in the latest design. The following sections list these critical dimensions and it can be seen that the minimum criteria has been met in all cases.

Drawings

- Approved Planning drawing 10583574-SOR/7003/01 Rev L
- Current Construction Drawing 70025111-STR-7003-001 Rev C02

Span

- Bridge span on planning drawing = 19.0m
- Bridge span on construction drawing = 19.8m

Headroom

- Headroom clearance on the planning drawing = 3.3m
- Minimum headroom clearance as confirmed in the Environment Agency correspondence to the Flood Risk Assessment for maintenance = 3.0m
- Minimum Headroom noted on the construction drawing = 3.0m

Levels

- Minimum soffit level in the Flood Risk Assessment at planning = 83.0m AOD
- Lowest soffit level on the construction drawing = 83.246m AOD

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Green Lane Business Park
Tewkesbury, Gloucestershire
GL20 8SJ
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Miscellaneous Features

The flood study includes 4 mammal crossings, each 600mm diameter. The planning drawing shows 6 mammal crossings, each 900mm diameter. However these are not on the construction drawings and they are not mentioned in either the Environmental Statement or the Ecological Mitigation Masterplan and so are assumed to be unnecessary. Any reduction in the hydraulic performance due to the mammal tunnels being omitted is more than compensated by the increase in the bridge span.

Approvals and Checks

A CATII check for the structure is completed and the Approval in Principal is signed off the Technical Approval Authority.

The following planning conditions relate to Whilton Bridge:

Number	Planning Condition	Status
2	Unless otherwise agreed in writing by the Planning Authority and except as otherwise required by conditions attached to this planning permission the development hereby permitted shall be carried out in accordance with the approved plans/reports listed in the attached schedule.	Approval Sought for the changes listed above and to replace drawing number 10583574-SOR/7003/01 Rev L with 70025111-STR-7003-001 Rev C02.

BROCKHALL ROAD BRIDGE

The approved planning drawings have been assessed against the latest construction drawings. The bridge structure takes the Brockhall Road over the new Daventry Development Link Road providing a minimum 5.3m clearance. The main difference is the move from a three span to a single span structure by replacing the two piers with reinforced earth abutments. The final design provides a more economic solution due to the reduced overall bridge span length by removing two spans.

Drawings

- Approved Planning drawing 10583574-SOR/7004/01 Rev G
- Current Construction Drawing 70025111-STR-7004-001 Rev C02

Span

- Bridge span on planning drawing = two 12.5m back spans and one 17.5m main span
- Bridge span on construction drawing = 21.4m single span

Headroom

- The headroom of 5.3m above the new road is provided in the new design

Abutments, Piers and Deck

The ribbed concrete leaf pier has been replaced with reinforced soil abutments with a blockwork finish. The 600mm deep steel beams have been replaced with 900mm deep precast concrete beams.

Approvals and Checks

A CATII check for the structure is completed and the Approval in Principal is signed off the Technical Approval Authority.

The following planning condition relate to Brockhall Bridge:

Number	Planning Condition	Status
2	Unless otherwise agreed in writing by the Planning Authority and except as otherwise required by conditions attached to this planning permission the development hereby permitted shall be carried out in accordance with the approved plans/reports listed in the attached schedule.	Approval Sought for the changes listed above and to replace drawing number 10583574-SOR/7004/01 Rev G with 70025111-STR-7004-001 Rev C02.

BRINGTON ROAD BRIDGE

The approved planning drawings have been assessed against the latest construction drawings. The bridge structure takes the Brington Road over the new Daventry Development Link Road providing a minimum 5.3m clearance. The main difference is the move from a three span to a single span structure by replacing the two piers with reinforced earth abutments. The final design provides a more economic solution due to the reduced overall bridge span length by removing two spans.

Drawings

- Approved Planning drawing 10583574-SOR/7005/01 Rev E
- Current Construction Drawing 70025111-STR-7005-001 Rev C02

Span

- Bridge span on planning drawing = two 14.5m back spans and one 21m main span
- Bridge span on construction drawing = 22.6m single span

Headroom

- The headroom of 5.3m above the new road is exceeded in the new design.

Abutments, Piers and Deck

The ribbed concrete leaf pier has been replaced with reinforced soil abutments with a blockwork finish. The 800mm deep steel beams have been replaced with 900mm deep precast concrete beams.

Approvals and Checks

A CATII check for the structure is completed and the Approval in Principal is signed off the Technical Approval Authority.

The following planning condition relate to Brington Bridge:

Number	Planning Condition	Status
2	Unless otherwise agreed in writing by the Planning Authority and except as otherwise required by conditions attached to this planning permission the development hereby permitted shall be carried out in accordance with the approved plans/reports listed in the attached schedule.	Approval Sought for the changes listed above and to replace drawing number 10583574-SOR/7005/01 Rev E with 70025111-STR-7005-001 Rev C02

HOLLANDSTONE FARM CULVERTS

The planning application included a single 6.8m high and 8.3m wide structure containing an open watercourse 3m wide and a raised concrete trackway for the farm access. The construction drawings separate these into two separate structures, a 5.5m by 5.5m farm culvert adjacent to a 2.0m high by 3.0m wide culvert for the Watercourse.

Drawings

- Approved Planning drawing 10583574-SOR/7006/01 Rev E
- Current Construction Drawing 70025111-STR-7006-001 Rev C03

Critical Dimensions

- Culvert Dimensions at planning 3.0m wide and 1.575m high (including 'Gabion Soft Invert')
- At planning the watercourse was open within a larger culvert to be used as a farm access culvert.
- The current construction drawing shows two separate structures. The watercourse culvert and the farm access culvert. The new watercourse culvert is 3.0m wide and 2.0m high (including 'Gabion Soft Invert').
- The critical dimensions required by the Bedford Combined Internal Drainage Board was that the culvert provided the same capacity as the upstream M1 culvert which is a brick arch 3.4m wide at the base by 1.7m high (Culvert area increased from 4.5m^2 to 6m^2).

Wingwalls

The ribbed concrete wingwalls have been replaced with plain concrete wingwalls, aligned straight rather than tapered away from the track and watercourse. The wingwalls and culvert are finished with gabion baskets to remain within the limits of the available land.

Approvals and Checks

A CATII check for the structure is completed and the Approval in Principal is signed off the Technical Approval Authority.

The following planning condition relate to Hollandstone Farm Culvert:

Number	Planning Condition	Status
2	Unless otherwise agreed in writing by the Planning Authority and except as otherwise required by conditions attached to this planning permission the development hereby permitted shall be carried out in accordance with the approved plans/reports listed in the attached schedule.	Approval Sought for the changes listed above and to replace drawing number 10583574-SOR/7006/01 Rev E with 70025111-STR-7006-001 Rev C03

UPPER HEYFORD ROAD BRIDGE

The approved planning drawings have been assessed against the latest construction drawings. The bridge structure takes the Upper Heyford Road over the new Daventry Development Link Road providing a minimum 5.3m clearance. The main difference is the move from a three span to a single span structure by replacing the two piers with reinforced earth abutments. The final design provides a more economic solution due to the reduced overall bridge span length by removing two spans.

Drawings

- Approved Planning drawing 10583574-SOR/7007/01 Rev E
- Current Construction Drawing 70025111-STR-7007-001 Rev C02

Span

- Bridge span on planning drawing = two 12.5m back spans and one 17.5m main span
- Bridge span on construction drawing = 21.4m single span

Headroom

- The headroom of 5.3m above the new road is exceeded in the new design.

Abutments, Piers and Deck

The ribbed concrete leaf pier has been replaced with reinforced soil abutments with a blockwork finish. The 600mm deep steel beams have been replaced with 900mm deep precast concrete beams.

Approvals and Checks

A CATII check for the structure is completed and the Approval in Principal is signed off the Technical Approval Authority.

The following planning condition relate to Upper Heyford Bridge:

Number	Planning Condition	Status
2	Unless otherwise agreed in writing by the Planning Authority and except as otherwise required by conditions attached to this planning permission the development hereby permitted shall be carried out in accordance with the approved plans/reports listed in the attached schedule.	Approval Sought for the changes listed above and to replace drawing number 10583574-SOR/7007/01 Rev E with 70025111-STR-7007-001 Rev C02

HOLLANDSTONE FARM CROSSING

The in-situ concrete culvert on the planning drawing has been replaced with a pre-cast concrete culvert of slightly larger dimensions. Gabion aprons on entry and exit and gabion wingwalls have been included in the detailed design.

Drawings

- Approved Planning drawing 10583574-SOR/7008/01 Rev E
- Current Construction Drawing 70025111-STR-7008-002 Rev C02

Critical Dimensions

- Culvert Dimensions at planning 4.0m wide and between 1.475m and 1.325m high.
- The dimensions on the current design are 4.0m wide and 1.5m high (including a 200mm gabion soft invert.

Approvals and Checks

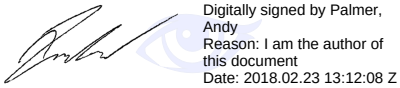
A CATI check for the structure is completed.

The following planning condition relates to Hollandstone Farm Crossing:

Number	Planning Condition	Status
2	Unless otherwise agreed in writing by the Planning Authority and except as otherwise required by conditions attached to this planning permission the development hereby permitted shall be carried out in accordance with the approved plans/reports listed in the attached schedule.	Approval Sought for the changes listed above and to replace drawing number 10583574-SOR/7008/01 Rev E with 70025111-STR-7008-001 Rev C02

The discharge of planning conditions for the Green Bridge and Dodmoor Bridge are covered by separate applications for the discharge of planning conditions as they have specific conditions requiring the submission and approval of the detailed design.

Yours sincerely



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Andrew Palmer
Associate