Lower Thames Crossing map books

The three map books for Supplementary Consultation contain plans of the proposed changes to the project under the following headings:

- Map book 1: General Arrangements (layout plans)
- Map book 2: land use plans
- Map book 3: engineering plans

These plans show the changes we have made since our statutory consultation in 2018 and are published for the purposes of the Supplementary Consultation on the project. The proposals are therefore subject to change due to consultation feedback and further design development.

The plans run from the A2 in the south to the M25 in the north. Identically numbered sheets in the different map books show the same area, for example sheet 3 shows the A2/LTC junction in map books 1 and 2.

Map book 1: General Arrangements
The General Arrangements show the proposed details of the project including:

- Permanent works and construction compounds
- Environment mitigation
- Utilities diversions
- Development boundary
- Open space and replacement land

**Permanent works**
Compulsory purchase of land or compulsory acquisition of permanent rights will be required along the route of the road, for re-connecting local roads and for associated structures like drainage ponds and tunnel control building. In some land parcels, only the acquisition of subsoil will be required.

**Temporary works**
Temporary use of land is needed for the project’s construction works and to provide sufficient space to do so safely. The plans show land that may be required temporarily for the main construction compounds at the tunnel entrances north and south of the River Thames and at various locations along the route. We will also require permanent and temporary rights over land to divert utilities such as gas pipelines, electricity cables and water pipes. Any land that is only required temporarily will be returned to its previous use wherever possible once construction has been completed.

**Compensation land**
Compensation land may include environmental protection measures such as habitat creation and for flood compensation. This land may also need to be compulsorily acquired permanently or be subject to permanent rights.

**Replacement land**
Land is also included in respect of the replacement of special category land such as open space, or common land which is being compulsorily acquired or in which permanent rights are sought. This replacement land may also need to be compulsorily acquired permanently or be subject to permanent rights.

Map book 2: land use plans
The land use plans show the areas we are seeking powers to compulsorily acquire land or permanent rights. They also show the land we require temporary rights to use in order to construct and operate the project.

Areas we may need to purchase include the land required for the permanent works, temporary works and compensation land.

Map book 3: engineering plans
This book contains engineering drawings in the following order:

- The plan and profile drawings which detail the vertical and horizontal road alignment
- The junction arrangements showing the proposed layout
- The cross sections throughout the route showing the lanes and earthworks

The plan and profile drawings show the highway details of the route in plan and profile (level above or below existing ground). The drawings are split into two views with the plan on the top and profile underneath.

The profile gives the road level in relation to existing ground at a given chainage*. An exaggerated scale is used in the profile to help show the differences in levels and gradients of the design. The profile also shows where existing roads and public rights of way cross over or under the route.

All levels are given in relation to the ordnance datum level** the profile reference level might be different on each drawing.

- Chainage measures the distance along the route in metres
- Above Ordnance Datum level (AOD) is a measurement above mean sea level taken from a reference point at Newlyn in Cornwall.

Large maps
Large maps that cover a greater area have also been produced which detail the same information.

These are:

- Environmental constraints – 1 sheet
- Land use – 1 sheet
- Project profile – 1 sheet
- General Arrangements – 6 sheets (larger coverage)
NOTES

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2. All dimensions are in metres unless stated otherwise.
3. All levels are in metres relative to the Ordnance Datum.
4. For scheme location refer to Plan and Profile General Plan.
5. Profile uses an exaggerated scale of 1 horizontal: 10 vertical
NOTES
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LEGEND - PLAN
- Structure
- Retaining wall
- EA Emergency area

LEGEND - PROFILE
- Route Vertical Alignment
- Existing Ground Profile
- Structure - Bridge
- Structure - Underpass

PROFILE

DATUM = +77.0

NOTES
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LEGEND - PLAN
- Structure
- Retaining wall
- EA Emergency area

LEGEND - PROFILE
- LTC Vertical Alignment
- Existing Ground Profile
- Structure - Bridge
- Structure - Underpass

NOTES
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DATUM = +59.0

PLAN AND PROFILE SHEET 3a

PROPOSALS FOR CONSULTATION
LOWER THAMES CROSSING SUPPLEMENTARY CONSULTATION
NOTES
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1+750
1+500
2+000
2+250

DATUM = +10.0

Thong Lane green bridge

MATCH LINE
MATCH LINE
MATCH LINE
MATCH LINE

Thong Lane green bridge

Thong Lane green bridge

Tunnel Portal

Tunnel Portal at CH 2+240

Removable barrier
for emergency purposes

Thong

Not Scale

DATUM = +10.0

Thong Lane

MATCH LINE

Tunnel control building

Removable barrier
for crossover

NOTES
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5. Profile uses an exaggerated scale of 1 horizontal : 10 vertical.

1+750
1+500
2+000
2+250

DATUM = +10.0

Thong Lane green bridge

MATCH LINE
MATCH LINE
MATCH LINE
MATCH LINE

Thong Lane green bridge

Thong Lane green bridge

Tunnel Portal

Tunnel Portal at CH 2+240

Removable barrier
for emergency purposes

Thong

Not Scale

DATUM = +10.0

Thong Lane

MATCH LINE

Tunnel control building

Removable barrier
for crossover

NOTES
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1+750
1+500
2+000
2+250

DATUM = +10.0

Thong Lane green bridge

MATCH LINE
MATCH LINE
MATCH LINE
MATCH LINE

Thong Lane green bridge

Thong Lane green bridge

Tunnel Portal

Tunnel Portal at CH 2+240

Removable barrier
for emergency purposes

Thong

Not Scale

DATUM = +10.0

Thong Lane

MATCH LINE

Tunnel control building

Removable barrier
for crossover

NOTES
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1+750
1+500
2+000
2+250

DATUM = +10.0

Thong Lane green bridge

MATCH LINE
MATCH LINE
MATCH LINE
MATCH LINE

Thong Lane green bridge

Thong Lane green bridge

Tunnel Portal

Tunnel Portal at CH 2+240

Removable barrier
for emergency purposes

Thong

Not Scale

DATUM = +10.0

Thong Lane

MATCH LINE

Tunnel control building

Removable barrier
for crossover

NOTES
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3. All levels are in metres relative to the Ordnance Datum.
4. For scheme location refer to Plan and Profile General Plan.
5. Profile uses an exaggerated scale of 1 horizontal : 10 vertical.
Proposed Levels

Horizontal

Ground Levels

Vertical

Chainage

DATUM = -23.0

NOTES

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4. For scheme location refer to Plan and Profile General Plan.
5. Profile uses an exaggerated scale of 1 horizontal : 5 vertical

LEGEND - PLAN

Structure
Retaining wall
EA Emergency area

LEGEND - PROFILE

LTC Vertical Alignment
Existing Ground Profile
Structure - Bridge
Structure - Underpass

LEGEND - PLAN

Structure
Retaining wall
EA Emergency area

LEGEND - PROFILE

LTC Vertical Alignment
Existing Ground Profile
Structure - Bridge
Structure - Underpass
LEGEND - PLAN
- Structure
- Retaining wall
- EA Emergency area

LEGEND - PROFILE
- LTC Vertical Alignment
- Existing Ground Profile
- Structure - Bridge
- Structure - Underpass

NOTES
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DATUM = -49.0

North Kent Railway
Thames and Medway Canal

LTC NB tunnel 3 Lanes
LTC SB tunnel 3 Lanes

PROPOSALS FOR CONSULTATION
LOWER THAMES CROSSING
SUPPLEMENTARY CONSULTATION

PLAN AND PROFILE
SHEET 7
Tunnel control building

Removable barrier for emergency purposes

Maintenance access road at 7.65m AOD for LTC flood protection

Existing water course to be diverted

Retaining walls to tunnel portal

Legend - Plan
- Structure
- Retaining wall
- EA - Emergency area

Legend - Profile
- LTC Vertical Alignment
- Existing Ground Profile
- Structure - Bridge
- Structure - Underpass

NOTES
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0
5
10
20
50
100
200
0
5
10
20
50
100
200
HORIZONTAL SCALE
VERTICAL SCALE
SCALE 1:250 (A1)
SCALE 1:500 (A3)
METRES
SCALE 1:5000 (A3)
METRES

Proportional representation of the project area.
**Notes:**
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5. Profile uses an exaggerated scale of 1 horizontal : 10 vertical.

**LEGEND - PLAN**
- Structure
  - Retaining wall
  - EA - Emergency area
- Structure - Bridge
- Structure - Underpass

**LEGEND - PROFILE**
- LTC Vertical Alignment
- Existing Ground Profile
- Structure - Bridge
- Structure - Underpass

**DATUM = -27.0**

**PROPOSALS FOR CONSULTATION**

**PLAN AND PROFILE**

**SHEET 9**

**NOTES**

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5. Profile uses an exaggerated scale of 1 horizontal : 10 vertical.

**LEGEND - PLAN**
- Structure
- Retaining wall
- EA - Emergency area
- Structure - Bridge
- Structure - Underpass

**LEGEND - PROFILE**
- LTC Vertical Alignment
- Existing Ground Profile
- Structure - Bridge
- Structure - Underpass

---

**DATUM** = -10.0

**Proposed Levels**

**Horizontal**
- CH 8+500
- CH 8+750
- CH 9+000
- CH 9+250
- CH 9+500
- CH 10+000

**Vertical**
- CH 9+000
- CH 9+500
- CH 10+000
- CH 8+500

**MATCH LINE**

---

**POINTS**

**Muckingford Rd realignment**

**False cutting**
- 4m above LTC

Access to properties maintained by new road

---

**PROPOSALS FOR CONSULTATION**

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**PLAN AND PROFILE**

**Sheet 10**

---

**Drawing title**

**Client**

**Project**

LOWER THAMES CROSSING
SUPPLEMENTARY CONSULTATION

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**Scale**
- HORIZONTAL SCALE: 1:250 (A1)
- VERTICAL SCALE: 1:500 (A3)
- METRES

---

---

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Proposed Levels

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Ground Levels

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Chainage

<table>
<thead>
<tr>
<th>Horizontal</th>
<th>Vertical</th>
</tr>
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<tbody>
<tr>
<td>CH 10+000</td>
<td>L=1094</td>
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<td>L=949</td>
</tr>
<tr>
<td>CH 12+000</td>
<td>L=894</td>
</tr>
</tbody>
</table>

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LEGEND - PLAN
- Structure
- Retaining wall
- EA
- Emergency area

LEGEND - PROFILE
- A13 Alignment
- Existing Ground Profile
- Structure - Bridge
- Structure - Underpass

NOTES
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PROPOSALS FOR CONSULTATION
LOWER THAMES CROSSING
SUPPLEMENTARY CONSULTATION
PLAN AND PROFILE
SHEET 13
Footpath FP 136 realignment

8.1
6.5
5.6
5.9
7.4
9.7
L=40.0 R=1300.0
L=140.0
P=0.9%L=692.7

False cutting 2m above LTC

Legend - Plan
- Structure
- Retaining wall
- EA - Emergency area

Legend - Profile
- LTC Vertical Alignment
- Existing Ground Profile
- Structure - Bridge
- Structure - Underpass

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LEGEND - PLAN

LEGEND - PROFILE

Profile

DATUM = 48.0

Proposed Levels

Horizontal

Vertical

Ground Levels

Chalkage

PROFILES

SCALE 1:250 (A1)
SCALE 1:500 (A3)
METRES

SCALE 1:5000 (A3)
METRES

Plan

Profile

Plan and Profile

Sheet 16

Proposals for Consultation

Lower Thames Crossing
Supplementary Consultation

New Build (NB)
Westbound (WB)
Eastbound (EB)
Southbound (SB)
Proposed Levels

Horizontal

Vertical

Ground Levels

Chainage

The Wilderness

North Road B186 realignment

False cutting 4m above LTC

False cutting 5m above LTC

North Road B186 realignment

Legend - Plan

- Structure
- Retaining wall
- EA
- Emergency area

Legend - Profile

- LTC Vertical Alignment
- Existing Ground Profile
- Structure - Bridge
- Structure - Underpass

Datum = +5.00

Profile

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Scale 1:250 (A1)
Scale 1:500 (A3)
Scale 1:5000 (A3)


Ordnance Survey 100030649
### Proposed Levels

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<td>-1.5%</td>
<td>L=210.2</td>
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</tbody>
</table>

**LEGEND - PLAN**

- Structure
- Retaining wall
- EA Emergency area

**LEGEND - PROFILE**

- LTC Vertical Alignment
- Existing Ground Profile
- Structure - Bridge
- False cut out 5m above LTC

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---

**LEGEND - PROFILE**

- LTC NB 3 lanes
- LTC SB 2 lanes
- Works lie in with M25 4 lanes
- False cut out 5m above LTC
- EA Emergency area

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LEGEND:

- Structures

Shorne Ridgeway

A2 two lanes Eastbound

A2 two lanes Westbound

A289 and A2 traffic join A2 Connector Road westbound adjacent to M2

M2 widened to dual 4 lanes

M2 to LTC, A2, Gravesend and M25

HS1

A289 southbound joins A2 westbound

A289 traffic joins M2 southbound

M2 connection to A289

M2 widened to dual 4 lanes

A2 westbound

A2 to Rochester

A289 traffic joins

M2 southbound

To Higham

A289

To Rochester

M2

Strood

To Higham

To Rochester

Shorne

M2 J1

M2

Ridgeway

A289

A289

Park Pale

A2 eastbound connects to A289

PROPOSALS FOR CONSULTATION

M2 JUNCTION

LOWER THAMES CROSSING
SUPPLEMENTARY CONSULTATION
LEGEND:
- Proposed ground level
- Existing ground level

NOTES:
1. All dimensions are in metres unless stated otherwise.

TYPICAL CROSS SECTION ALONG M2/A2
TYPICAL CROSS SECTION IN CHALK CUTTING

LEGEND:
- Proposed ground level
- Existing ground level

NOTES
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**NOTES:**
1. All dimensions are in metres unless stated otherwise.

**LEGEND:**
- Proposed ground level
- Riverbed level

**TYPICAL CROSS SECTION THROUGH THE TUNNEL**

- Water level = 3.47m
- 16.4m diameter
- Depth of tunnel: 36.63m
- Pedestrian cross passage for emergency use
- Northbound Tunnel
- Southbound Tunnel
- Lane 1: 3.65
- Lane 2: 3.70
- Lane 3: 3.65
- Lane 3: 3.65
- Lane 2: 3.70
- Lane 1: 3.65
- 32.10
NOTES
1. All dimensions are in metres unless stated otherwise.

LEGEND:
- Proposed ground level
- Existing ground level
LEGEND:

- Proposed ground level
- Existing ground level

NOTES

1. All dimensions are in metres unless stated otherwise.
LEGEND:
- Proposed ground level
- Existing ground level

NOTES
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