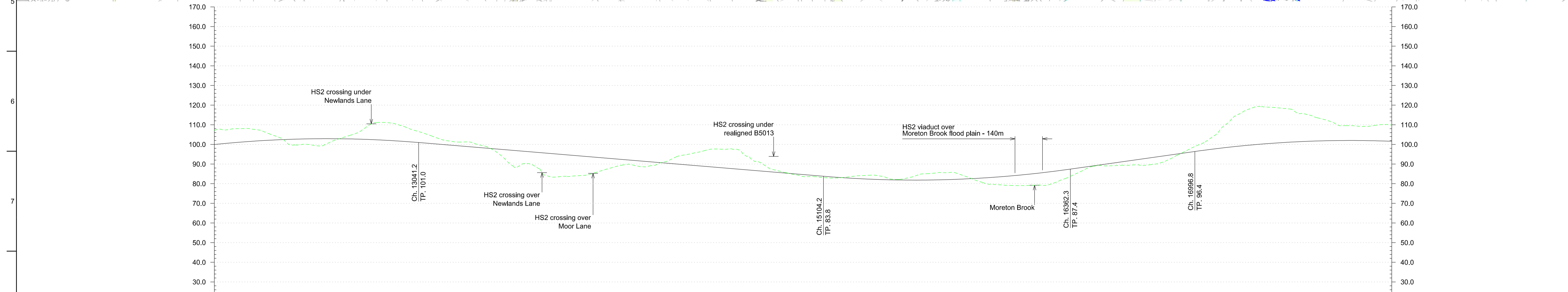


Plan  
Scale 1:10,000 @ A1



Profile  
Scale H:1:10,000 V:1:1000 @ A1

Chainage	12+000	12+100	12+200	12+300	12+400	12+500	12+600	12+700	12+800	12+900	13+000	13+100	13+200	13+300	13+400	13+500	13+600	13+700	13+800	13+900	14+000	14+100	14+200	14+300	14+400	14+500	14+600	14+700	14+800	14+900	15+000	15+100	15+200	15+300	15+400	15+500	15+600	15+700	15+800	15+900	16+000	16+100	16+200	16+300	16+400	16+500	16+600	16+700	16+800	16+900	17+000	17+100	17+200	17+300	17+400	17+500	17+600	17+700	17+800	17+900	18+000						
Horizontal Alignment	R=16000.0m L=9088.4m																																																																		
Vertical Alignment	L=1160.4m R=56000m										L=2062.9m G=-0.83%										L=1258.1m R=56000m										L=634.6m G=1.41%								L=1254.0m R=56000m																												
Existing Level	107.1	107.0	106.0	107.7	104.7	99.7	99.6	101.6	104.9	110.5	110.9	107.8	104.6	101.7	101.3	98.2	90.6	90.2	83.9	83.7	84.4	87.4	88.8	88.5	91.2	89.6	94.7	88.8	86.9	87.5	84.8	89.7	85.8	83.6	83.1	83.1	84.1	83.8	82.3	81.9	81.8	84.9	85.7	84.7	81.1	79.4	79.0	79.3	81.2	85.5	89.3	89.3	90.8	89.6	90.0	94.2	99.1	104.7	114.4	119.0	118.8	117.2	114.3	111.2	109.5	109.5	109.7
Proposed Track Level	100.0	100.9	101.6	102.2	102.6	102.9	102.9	102.8	102.4	102.0	101.3	100.5	99.6	98.8	98.0	97.1	96.3	95.5	94.6	93.8	93.0	92.1	91.3	90.5	89.6	88.8	88.0	87.1	86.3	85.5	84.6	83.8	83.1	83.1	82.5	82.1	81.9	81.8	82.0	82.3	82.8	83.5	84.3	85.4	86.6	88.0	89.4	90.8	92.2	93.6	95.0	96.4	97.8	99.1	100.6	101.2	101.7	101.9	102.0	101.9	101.6						
Cut and Fill	-7.1	-7.1	-6.1	-2.5	+2.9	+3.3	+1.3	-2.1	-8.1	-8.9	-6.5	-4.1	-2.1	-2.5	-0.2	+6.5	+6.1	+11.6	+10.9	+9.4	+5.6	+2.3	+2.8	-0.7	-5.1	-8.1	-9.5	-7.7	-3.4	-0.3	+1.0	+0.7	0.0	-1.6	-1.7	-0.4	-3.1	-3.7	-2.4	+1.7	+4.1	+5.3	+6.1	+5.4	+2.5	+0.1	+1.5	+2.6	+3.6	+0.8	-2.7	-6.9	-15.5	-19.1	-18.2	-16.0	-12.6	-9.3	-7.5	-7.6	-8.1						
Maximum Speed	400 km/h																																																																		

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**Key Environmental Features Legend**

- World Heritage Site
- Ramsar
- Special Areas of Conservation
- Special Protection Areas
- SSSI
- National Nature Reserves
- Area of Outstanding Natural Beauty
- National Park
- Scheduled Monuments
- Registered Parks and Gardens
- Historical Battlefields
- Active and/or Authorised Landfill
- Historical Landfill
- Flood Zone 3

**Legend**

- Alignment Centreline
- Viaduct / Tunnel / Fully Retained Cutting
- Major Contour
- Minor Contour
- Node
- Railway Cutting
- Railway Embankment
- Highway Cutting
- Highway Embankment

Retained structures will be used at depths of 15m or greater

Issue	Date	By	Chkd	Appd
P5	23.11.12	JA	RC	TW
P4	19.11.12	VS	RC	TW
P3	16.11.12	VS	RC	TW
P2	30.10.12	AS	RC	TW
P1	18.10.12	AS	RC	TW

Client

Job Title  
HS2 West Midlands to Manchester  
Initial Preferred Route  
December 2012

Scale at A1  
1:10000

Discipline  
Rail

Drawing Title  
Route HSM03  
Plan and Profile  
Sheet 3 of 7

Drawing Status  
-

Drawing No  
HS2-MSG-MR0-ZZ-DR-RT-60303

Job No  
277592

Issue  
P5

MOTT MACDONALD SCOTT WILSON GRIMSHAW