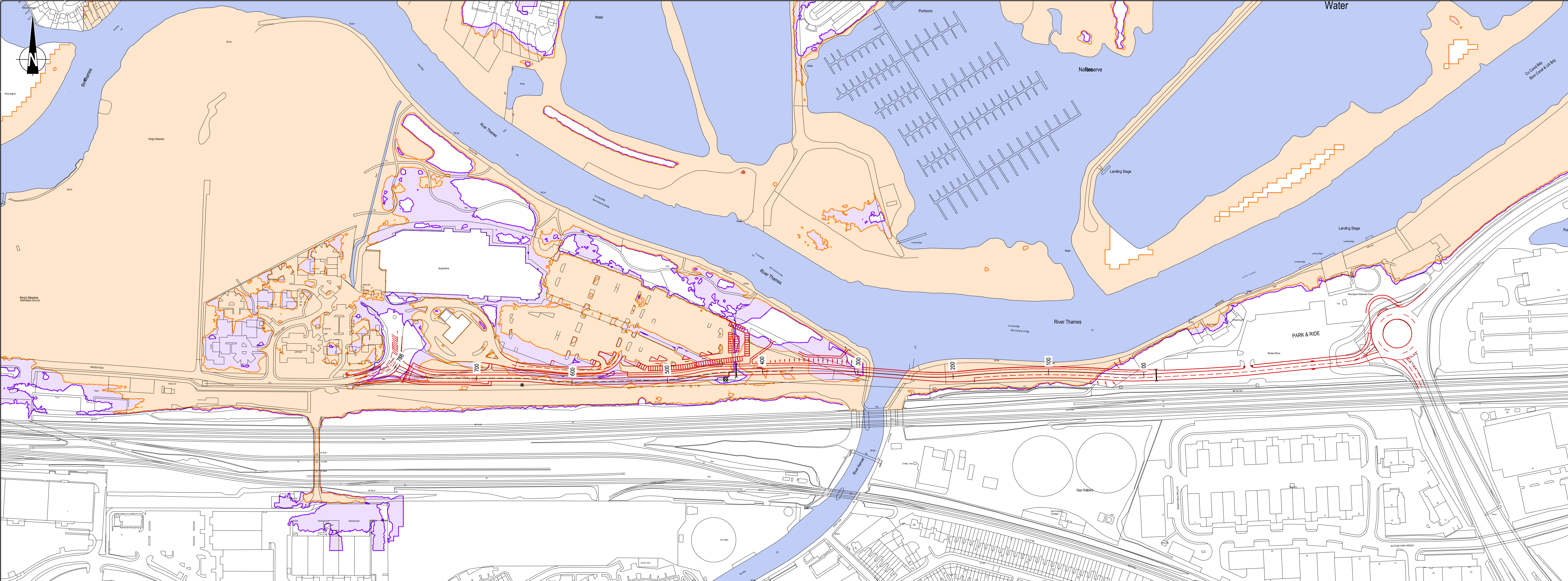
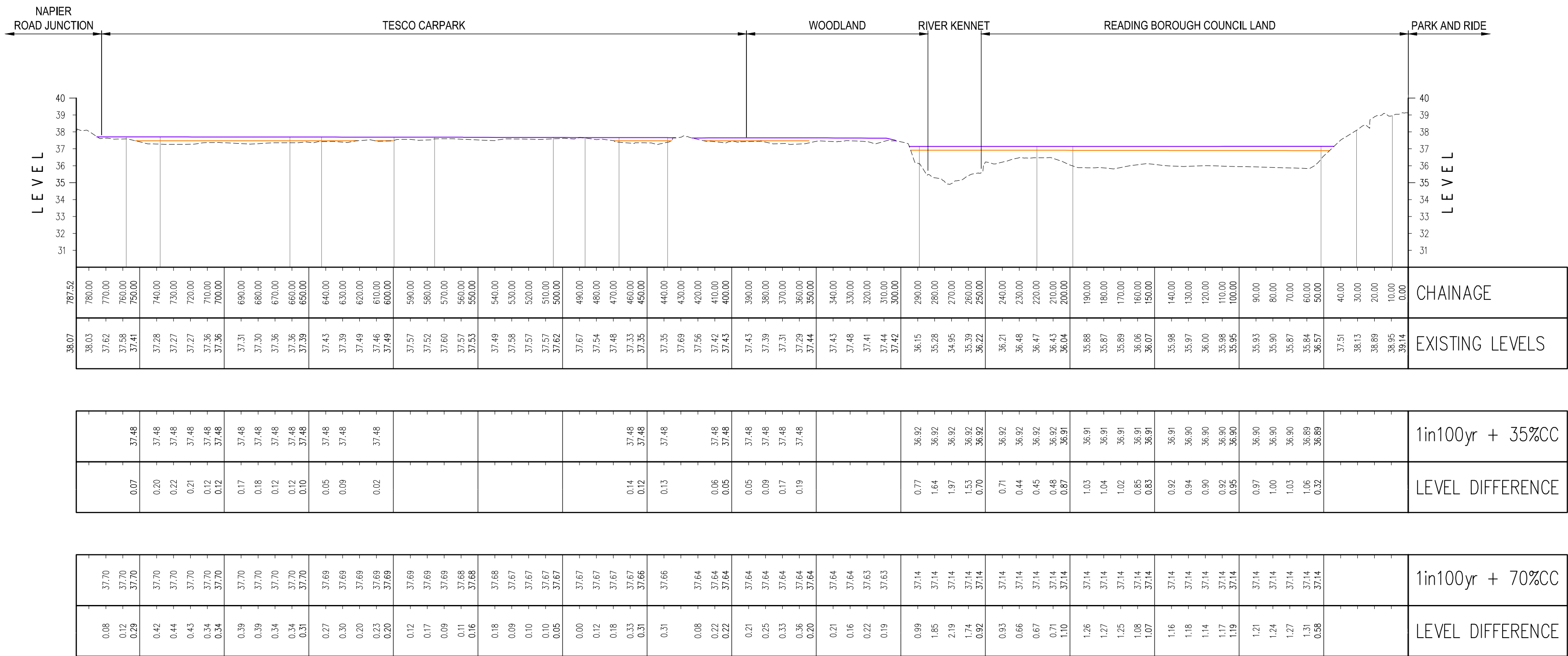




KEY:

- PROPOSED MASS RAPID TRANSIT ROUTE
- 1 in 100 (1%) ANNUAL PROBABILITY PLUS 35% ALLOWANCE FOR CLIMATE CHANGE FLOOD EXTENT
- 1 in 100 (1%) ANNUAL PROBABILITY PLUS 70% ALLOWANCE FOR CLIMATE CHANGE FLOOD EXTENT
- WATER BODY



SCALE: H 1:2000, V 1:200. DATUM: 30.000

NOTES:

- EXISTING GROUND LEVEL INFORMATION BASED ON EA LIDAR DATA.
- TOPOGRAPHIC SURVEY PROVIDED BY MK SURVEYS DRAWING No. 22109 DATED APRIL 2016.
- MODELLED FLOOD LEVELS EXTRACTED FROM ENVIRONMENT AGENCY RIVER THAMES (READING COMPLEX CHANGE) FLOOD ALLEVIATION STUDY (COMPLETED JUNE 2011) - 2D HYDRAULIC MODEL OBTAINED UNDER LICENCE BY READING BOROUGH COUNCIL. ASSOCIATED MODELLED FLOOD EXTENTS REFINED USING LIDAR GROUND LEVEL DATA.
- LONG SECTION STATES MAXIMUM FLOOD DEPTH TO MODELLED 1in100 ANNUAL PROBABILITY PLUS ALLOWANCE FOR CLIMATE CHANGE FLOOD EVENTS.

Mark	Revision	Date	Drawn	Chkd	Appd

SCALING NOTE: Do not scale from this drawing. If in doubt, ask.
UTILITIES NOTE: The position of any existing public or private sewers, utility services, plant or apparatus shown on this drawing is believed to be correct, but no warranty to this is expressed or implied. Other such plant or apparatus may also be present but not shown. The Contractor is therefore advised to undertake his own investigation where the presence of any existing sewers, services, plant or apparatus may affect his operations.

Drawing Issue Status

FOR INFORMATION

EAST READING, MASS RAPID TRANSIT
PBA MODELLED 35 AND 70 CLIMATE
CHANGE FLOOD EVENTS
IMPACT ON FLUVIAL FLOODPLAIN

Client

Reading Borough Council
Working better with you

Date of 1st Issue
29.06.17

A1 Scale
1:2000

Drawing Number
28791/4001/010

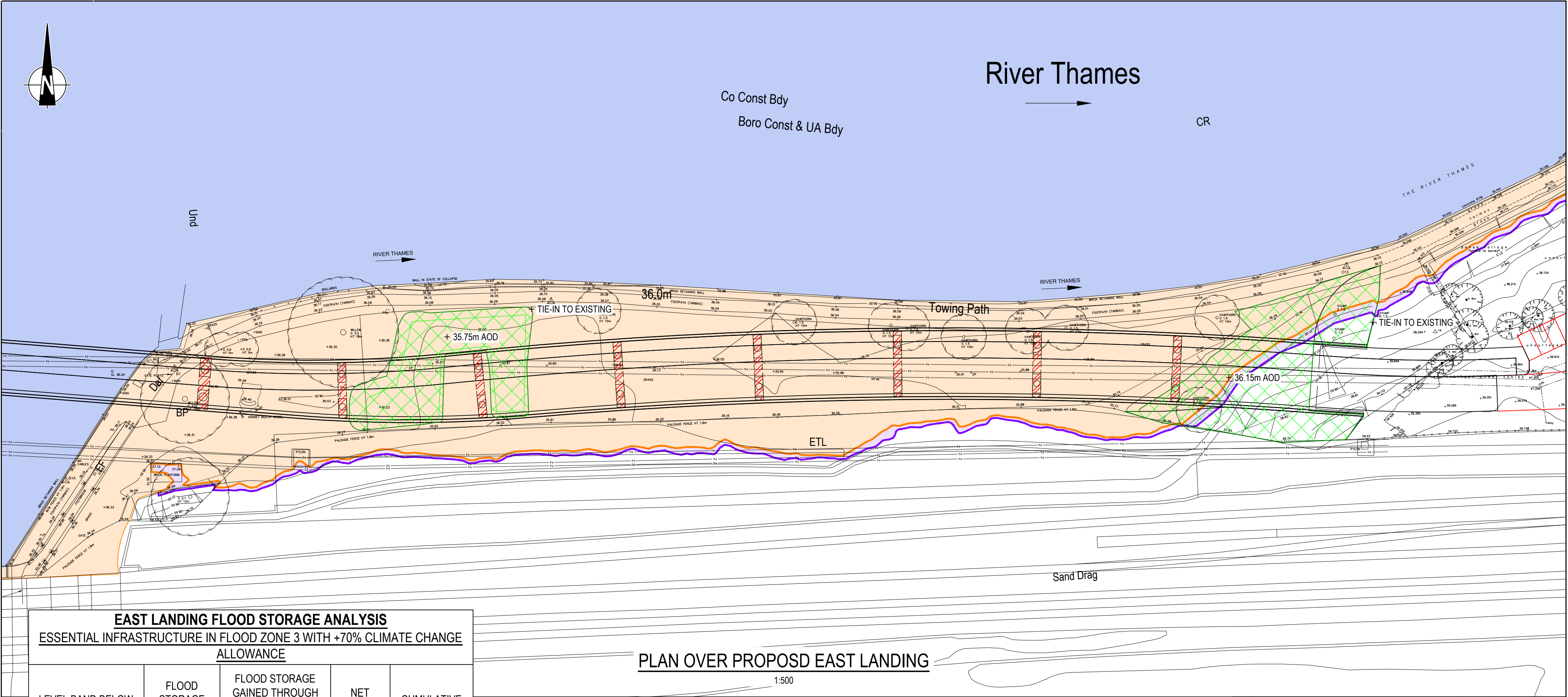
Designed
GD

Checked
RF

Approved
GD

Revision
01

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READING
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EAST LANDING FLOOD STORAGE ANALYSIS					
ESSENTIAL INFRASTRUCTURE IN FLOOD ZONE 3 WITH +70% CLIMATE CHANGE ALLOWANCE					
LEVEL BAND BELOW FLOOD LEVEL (mm)	FLOOD STORAGE IMPACT OF PILLARS (m³)	FLOOD STORAGE GAINED THROUGH GROUND REMODELLING AREA (m³)	NET STORAGE (m³)	CUMULATIVE STORAGE (m³)	
0 - 100	- 14.09	+ 21.67	+ 7.58	+ 242.25	
100 - 200	- 14.09	+ 23.35	+ 9.26	+ 234.67	
200 - 300	- 14.08	+ 25.11	+ 11.03	+ 225.41	
300 - 400	- 14.09	+ 26.81	+ 12.72	+ 214.38	
400 - 500	- 14.09	+ 28.58	+ 14.49	+ 201.66	
500 - 600	- 14.08	+ 30.31	+ 16.23	+ 187.17	
600 - 700	- 13.83	+ 32.05	+ 18.22	+ 170.94	
700 - 800	- 12.76	+ 34.27	+ 21.51	+ 152.72	
800 - 900	- 11.71	+ 37.73	+ 26.02	+ 131.21	
900 - 1000	- 10.67	+ 41.30	+ 30.63	+ 105.19	
1000 - 1100	- 10.07	+ 10.11	+ 0.04	+ 74.56	
1100 - 1200	- 6.84	+ 20.25	+ 13.41	+ 74.52	
1200 - 1300	- 2.06	+ 32.97	+ 30.91	+ 61.11	
1300 - 1400	- 0.01	+ 30.21	+ 30.20	+ 30.20	
1400 - 1500	- 0.00	+ 0.00	+ 0.00	+ 0.000	

- 152.47	+ 394.72	+ 242.25
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- KEY:
- PROPOSED FLOOD STORAGE LOST - (PILLARS)
 - AREA OF EXISTING GROUND REMODELLED FOR COMPENSATION
 - 1 in 100 (1%) ANNUAL PROBABILITY PLUS 35% ALLOWANCE FOR CLIMATE CHANGE FLOOD EXTENT
 - 1 in 100 (1%) ANNUAL PROBABILITY PLUS 70% ALLOWANCE FOR CLIMATE CHANGE FLOOD EXTENT
 - WATER BODY

CONSTRUCTION (DESIGN & MANAGEMENT) REGULATIONS 2015 (CDM REGULATIONS 2015)

THE PROPOSED CONCEPTUAL FLOOD RISK MITIGATION MEASURES ARE BASED ON THE FOLLOWING INFORMATION AVAILABLE AT THE TIME:

- TOPOGRAPHIC SURVEY PROVIDED BY MK SURVEYS DRAWING No. 22109 DATED APRIL 2016.
- MODELLED FLOOD LEVELS EXTRACTED FROM ENVIRONMENT AGENCY RIVER THAMES (READING COMPLEX CHANGE) FLOOD ALLEVIATION STUDY (COMPLETED JUNE 2011) - 2D HYDRAULIC MODEL OBTAINED UNDER LICENCE BY READING BOROUGH COUNCIL.
- PROPOSALS TAKEN FROM PBA 3D CAD GROUND MODEL, AS PER DETAILS DISPLAYED IN PBA DRAWING 28791/2009/CIV/004 GENERAL ARRANGEMENT PHASE 1 - PHASE A AND PBA DRAWING 28791/2009/CIV/005 GENERAL ARRANGEMENT PHASE 1 - PHASE B.

AT THIS CONCEPT DESIGN STAGE IT HAS NOT BEEN POSSIBLE TO ELIMINATE ALL THE HEALTH AND SAFETY RISKS AND RESIDUAL RISKS TO THE PROPOSED GROUND WORKS, FOR EXAMPLE, IN RELATION TO THE LOCATION OF UNDERGROUND UTILITIES, GROUND CONDITIONS AND SLOPE STABILITY. SUCH RESIDUAL RISKS NEED TO BE MITIGATED AGAINST BY THE CLIENT AND COMMUNICATED TO FUTURE DESIGN TEAMS SO THAT AN ATTEMPT CAN BE MADE TO DESIGN THEM OUT AS THE DETAILED DESIGN IS PROGRESSED AND SITE CONSTRAINTS ARE FULLY UNDERSTOOD. ANY RISKS THAT ARE NOT DESIGNED OUT DURING THE DETAILED DESIGN STAGE MUST BE COMMUNICATED FURTHER TO THE CONSTRUCTION TEAM AND END USER SO THAT ADEQUATE MITIGATION MEASURES CAN BE PLANNED FOR AND MANAGED.

- NOTES:
- TOPOGRAPHIC SURVEY PROVIDED BY MK SURVEYS DRAWING No. 22109 DATED APRIL 2016.
 - MODELLED FLOOD LEVELS EXTRACTED FROM ENVIRONMENT AGENCY RIVER THAMES (READING COMPLEX CHANGE) FLOOD ALLEVIATION STUDY (COMPLETED JUNE 2011) - 2D HYDRAULIC MODEL OBTAINED UNDER LICENCE BY READING BOROUGH COUNCIL.
 - LONG SECTION STATES MAXIMUM FLOOD DEPTH TO MODELLED 1in100 ANNUAL PROBABILITY PLUS ALLOWANCE FOR CLIMATE CHANGE FLOOD EVENTS.

Mark	Revision	Date	Drawn	Chkd	Appd
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Drawing Issue Status					
FOR INFORMATION					
EAST READING, MASS RAPID TRANSIT					
FLOOD STORAGE ANALYSIS EAST LANDING					
Client					
					
					
Date of 1st Issue		Designed	Drawn		
29.06.2017		☐	GD		
A2 Scale		Checked	Approved		
AS SHOWN		RF	☐		
Drawing Number		Revision			
28791/4001/011		☐			

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