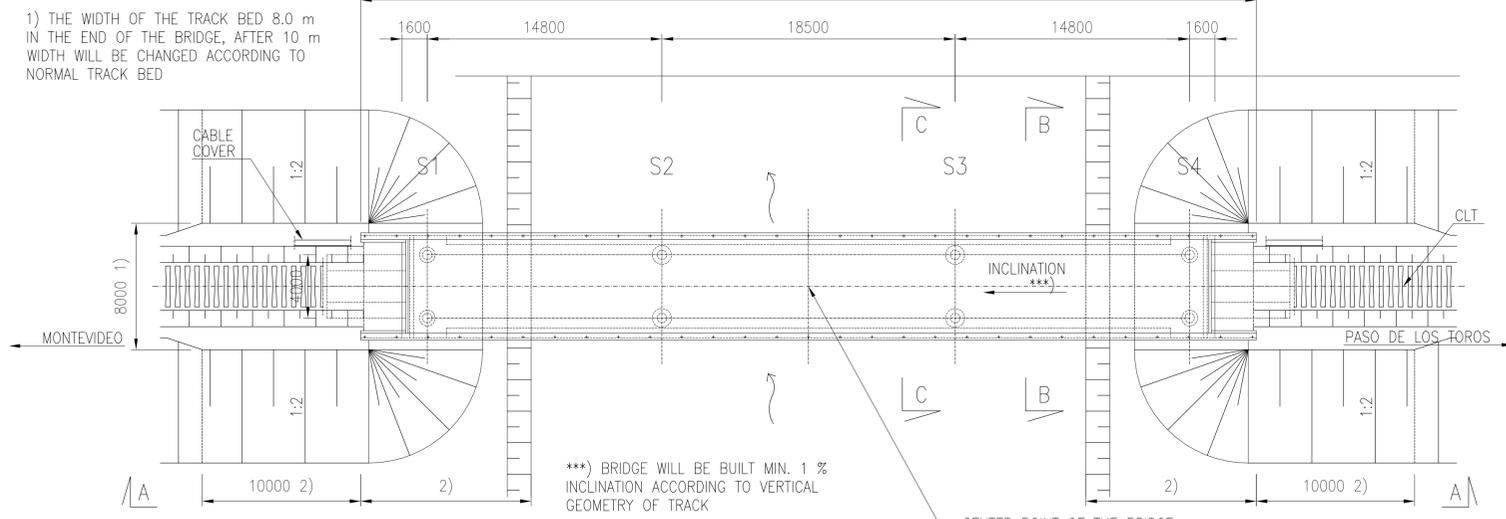
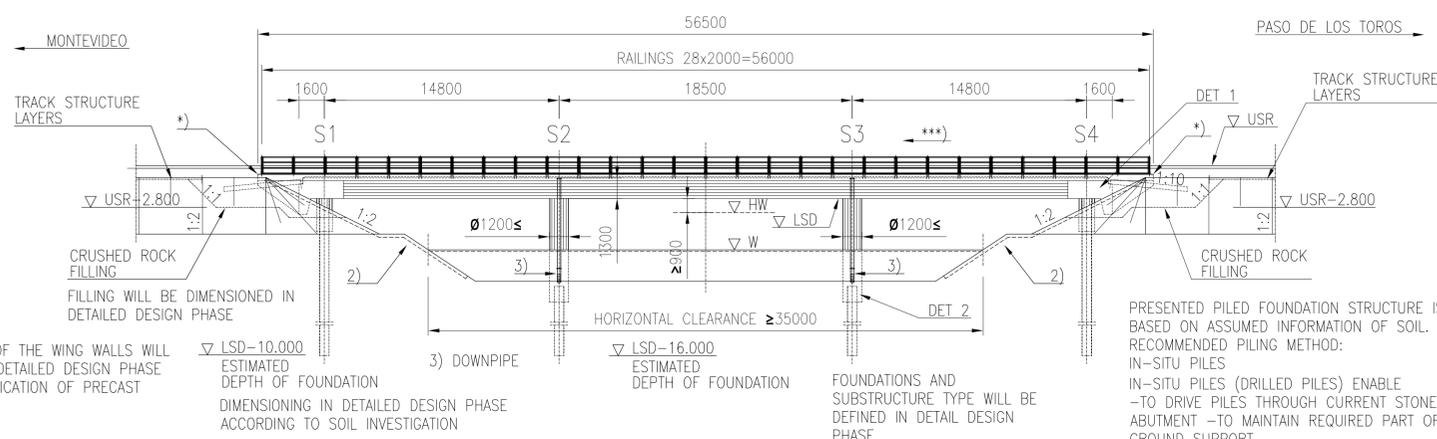


UNDERPASS BRIDGE 1:200

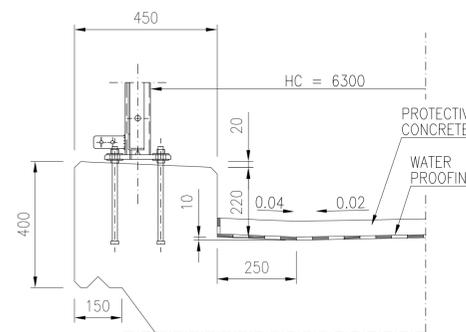
CISP 48,10 m



A - A 1:200

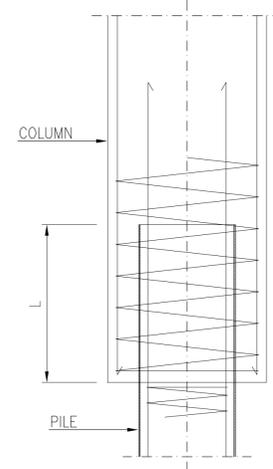


EDGE BEAM 1:10



DET 2 1:20

JONTS PILE - COLUMN



POSSIBLE REINFORCING AND L (LENGTH OF SPLICE) WILL BE DIMENSIONED IN DETAILED DESIGN PHASE

ESTIMATED AMOUNT OF CONCRETE  
PILES: 22 m<sup>3</sup>  
COLUMNS: 36 m<sup>3</sup>  
SUPERSTRUCTURE: 421 m<sup>3</sup>

ESTIMATED PRESTRESSING STEEL  
SUPERSTRUCTURE: 23 kg/m<sup>3</sup> (CONCRETE)

ESTIMATED REINFORCING STEEL  
PILES: 2400 kg  
COLUMNS: 260 kg/m<sup>3</sup> (CONCRETE)  
SUPERSTRUCTURE: 180 kg/m<sup>3</sup> (CONCRETE)  
TRANSITION SLABS: 325 kg/m<sup>3</sup> (CONCRETE)

PROTECTIVE CONCRETE: 3 kg/m<sup>2</sup>

CONCRETE: C35/45  
Cmin=40 mm

REINFORCING STEEL: B500B  
REINFORCING MESH: B500K

PILES / FOUNDATION: DRILLED PILES D610x14,2 S355J2H

TRANSITION SLABS: PREFABRICATED TRANSITION SLABS  
2 x 4 x 1.0 m x 5,0 m  
OR CAST IN SITU 2 x 4,0 m x 5,0 m  
CONCRETE C35/45

CONSTRUCTIONAL STEEL: S355 J2, HOT-DIP ZINC COATED

RAILING / FENCE: h = 1.1 m  
S355J2H  
HORIZONTAL LINE LOAD 1,0 KN/m  
VERTICAL POINT LOAD 1,0 KN

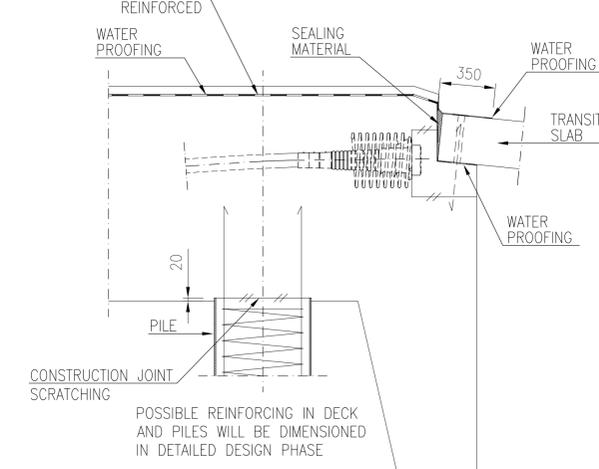
SURFACE STRUCTURE: WATER PROOFING MATERIAL 10 mm  
PROTECTIVE CONCRETE 50 mm  
BALLAST 550 mm

FILLING: REQUIREMENTS ACCORDING TO TRACK INTERMEDIATE LAYER

CLT = CENTER LINE of the TRACK  
HC = HORIZONTAL CLEARANCE  
LSD = LOWER SURFACE of the DECK  
USR = UPPER SURFACE of the RAIL

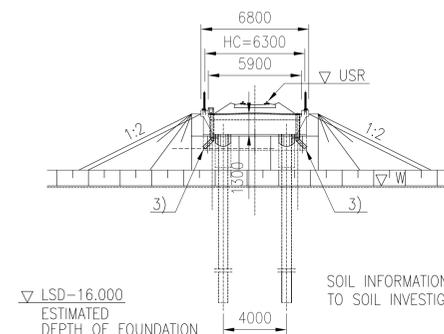
DET 1 1:20

PILE - DECK CONNECTION  
EDGE OF DECK

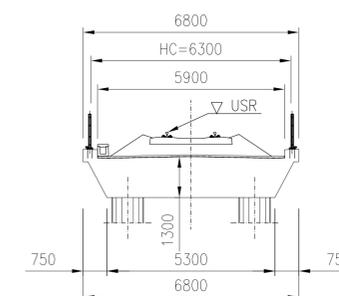


POSSIBLE REINFORCING IN DECK AND PILES WILL BE DIMENSIONED IN DETAILED DESIGN PHASE

B - B 1:200



B - B 1:100



BRIDGE TYPE	PRESTRESSED CONCRETE BRIDGE	
	CONTINUOUS CANTILEVER PLATE	
SPANS	1.60m + 14.80m + 18.50m + 14.80m + 1.60m	
HORIZONTAL CLEAR SPAN	—	VERTICAL CLEARANCE —
HORIZONTAL CLEARANCE	6.30 m	

VERSION  
23.10.2017

Revision	Explanation	Date	Designer	Date	Acceptor
Customer	Project		Railway Project		
		MINISTERIO DE TRANSPORTE Y OBRAS PÚBLICAS			
Design phase Pre-engineering, Phase 2		Content Railway bridge CISP 48 m prestressed Preliminary general drawing Km+m +-+			
Supplier 		Loading LM71-25			
Drawer	23.10.2017	Ilkka Tiito	Coordinate and elevation reference system WGS 84 UTM 21		
Designer	23.10.2017	Ilkka Tiito	Railway line		
Supervisor	23.10.2017	Reima Nikander	Archive Type Number Rev. Sheet		
Accept.	-	-	RB xxxx - 1		
Cust. acc.	-	-			