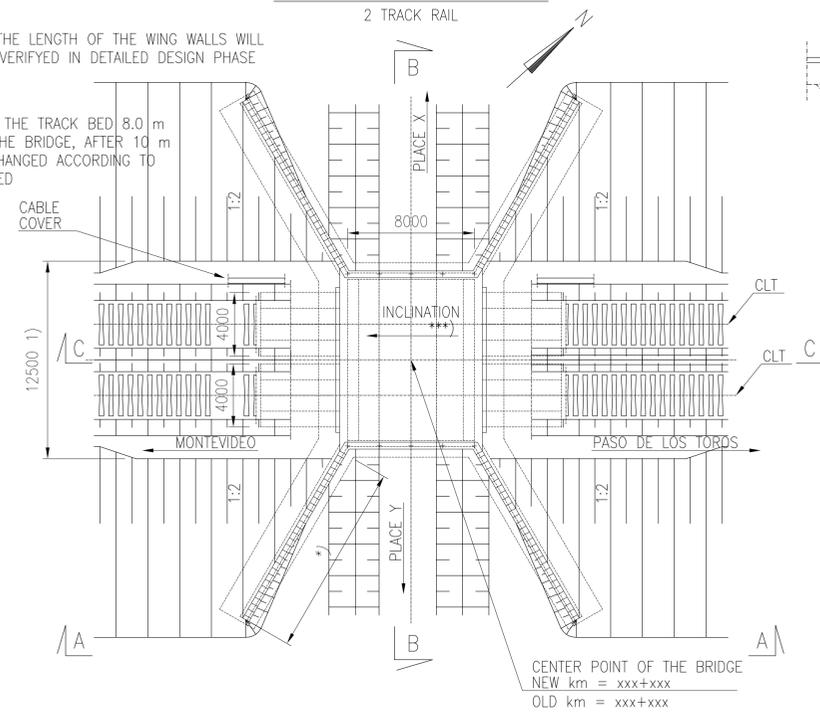


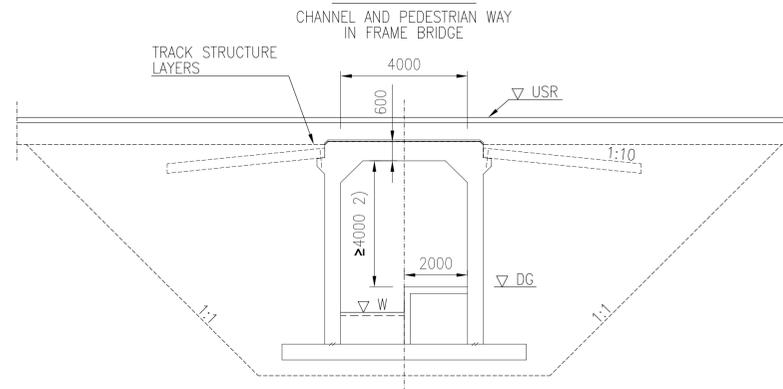
FRAME BRIDGE 8 m 1:200

\*) THE LENGTH OF THE WING WALLS WILL BE VERIFIED IN DETAILED DESIGN PHASE

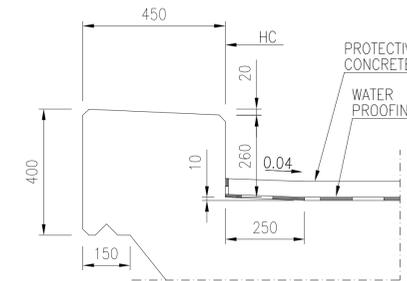
1) THE WIDTH OF THE TRACK BED 8.0 m IN THE END OF THE BRIDGE, AFTER 10 m WIDTH WILL BE CHANGED ACCORDING TO NORMAL TRACK BED



C - C 1:100



EDGE BEAM 1:10



ESTIMATED AMOUNT OF CONCRETE  
FOUNDATION SLAB: 132 m<sup>3</sup>  
FRAME: 279 m<sup>3</sup>

ESTIMATED REINFORCING STEEL  
FOUNDATION SLAB: 100 kg  
FRAME: 190 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 2 x 4 x 1.0 m x 5,0 m  
OR CAST IN SITU 2 x 2 x 4,0 m x 5,0 m  
CONCRETE C35/45

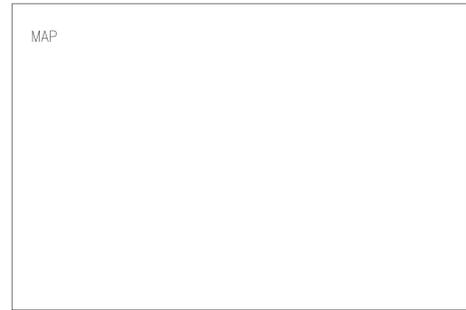
CONSTRUCTIONAL STEEL: S355 J2, HOT-DIP ZINC COATED

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

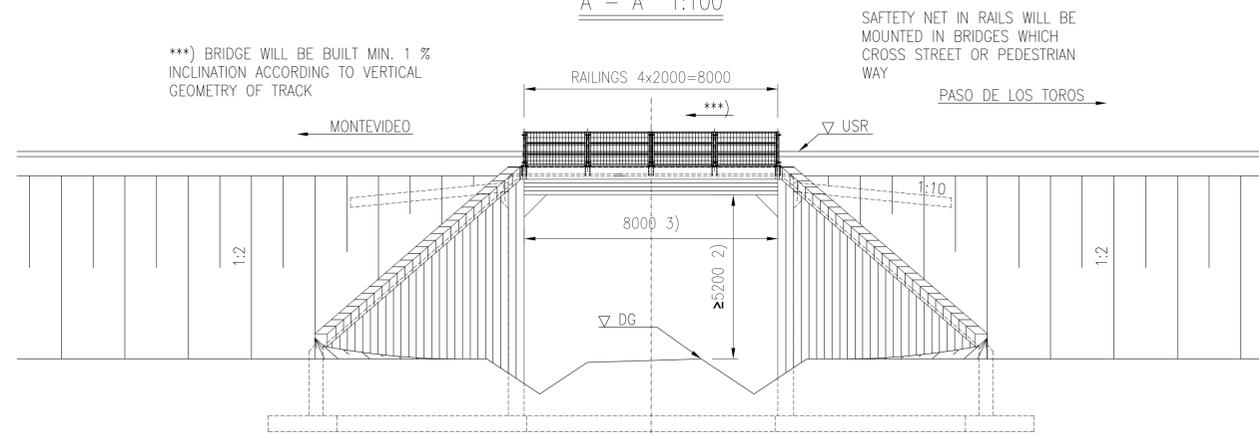
SURFACE STRUCTURE: WATER PROOFING MATERIAL 10 mm  
PROTECTIVE CONCRETE 50 mm  
BALLAST 550 mm

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



A - A 1:100



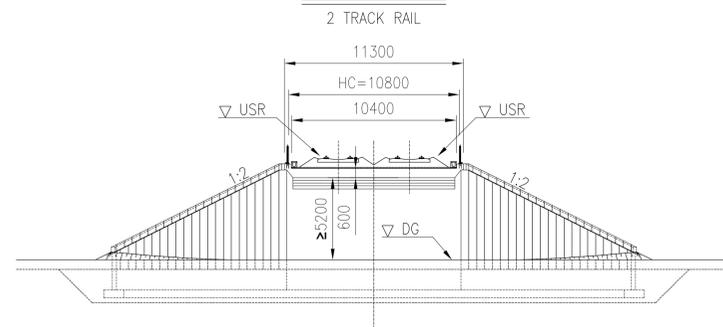
\*\*\*) BRIDGE WILL BE BUILT MIN. 1 % INCLINATION ACCORDING TO VERTICAL GEOMETRY OF TRACK

SAFTETY NET IN RAILS WILL BE MOUNTED IN BRIDGES WHICH CROSS STREET OR PEDESTRIAN WAY

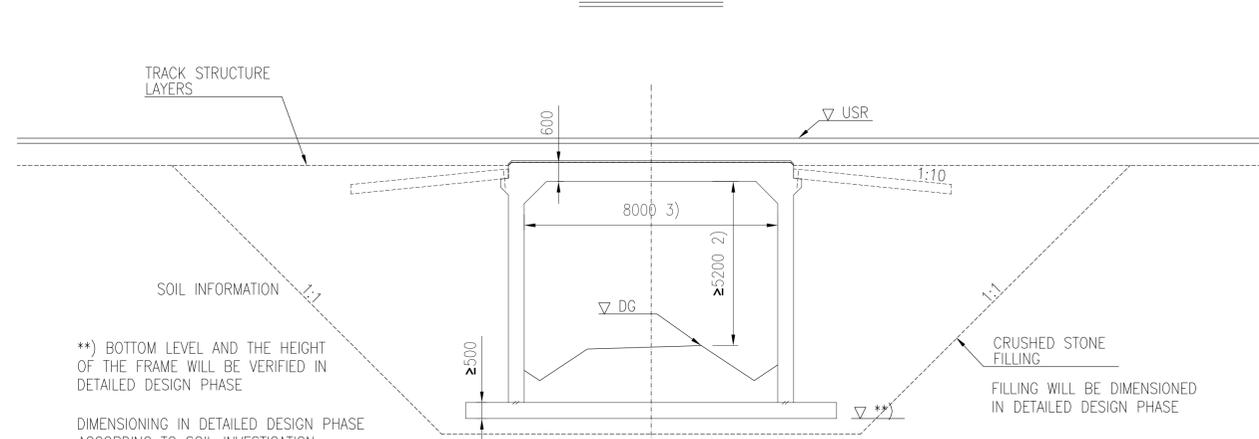
FRAME BRIDGE OVER CHANNEL  
EROSION PROTECTION IN EMBANKMENTS:  
CONCRETE REVETMENT 10 m OUTSIDE OF WING WALLS  
EROSION PROTECTION UNDER FOUNDATION:  
FLOW UNDER FOUNDATION SLAB IS PREVENTED BY BENTONITE FABRIC OR COATED PLATE

2) PEDESTRIAN WAY: 4.0 m  
3) PEDESTRIAN WAY: 4.0 m

B - B 1:200



C - C 1:100



\*\* ) BOTTOM LEVEL AND THE HEIGHT OF THE FRAME WILL BE VERIFIED IN DETAILED DESIGN PHASE

DIMENSIONING IN DETAILED DESIGN PHASE ACCORDING TO SOIL INVESTIGATION

BRIDGE TYPE	FRAME BRIDGE
SPANS	4.0...8.0m
HORIZONTAL CLEAR SPAN	—
VERTICAL CLEARANCE	—
HORIZONTAL CLEARANCE	10.80 m

VERSION  
23.10.2017

Revision	Explanation	Date	Designer	Date	Acceptor
Customer	<b>MINISTERIO DE TRANSPORTE Y OBRAS PÚBLICAS</b>	Project <b>Railway Project</b>			
Supplier		Design phase <b>Pre-engineering, Phase 2</b> Content <b>Railway bridge Frame bridge 2 track Preliminary general drawing Km+m +-+</b>			
Drawer	23.10.2017	Ilkka Tiito	Loading LM71-25		
Designer	23.10.2017	Ilkka Tiito	Coordinate and elevation reference system WGS 84 UTM 21		
Supervisor	23.10.2017	Reima Niklander	Railway line		
Accept.	-	-	Archive	Type	Number
Cust. acc.	-	-	UP	xxxx	1