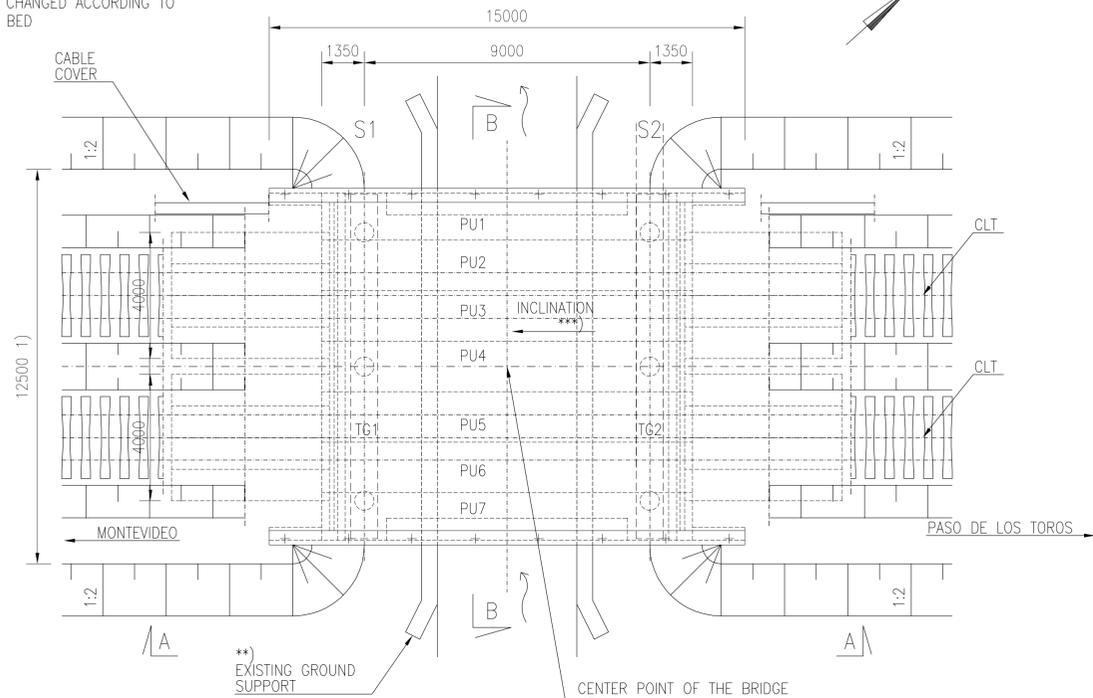


1) THE WIDTH OF THE TRACK BED 12.5 m  
IN THE END OF THE BRIDGE, AFTER 10 m  
WIDTH WILL BE CHANGED ACCORDING TO  
NORMAL TRACK BED

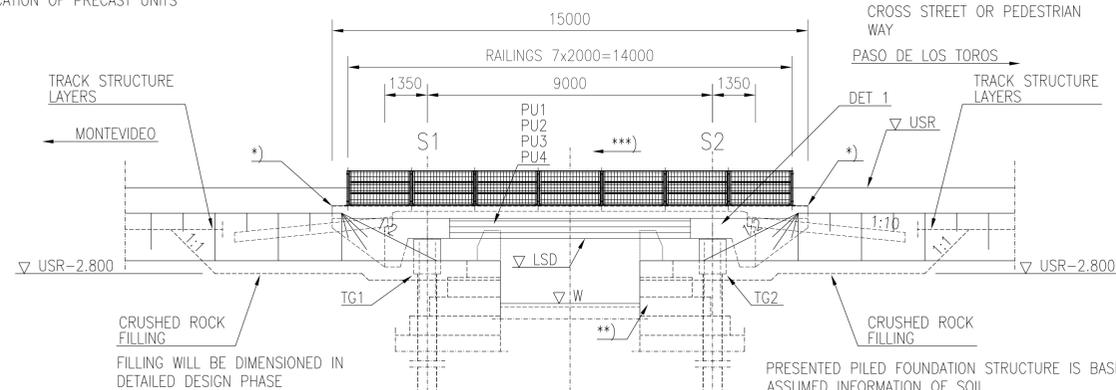
PREFABRICATED BRIDGE 2Tr 9 m 1:100



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

\*) THE LENGTH OF THE WING WALLS WILL BE  
VERIFIED IN DETAILED DESIGN PHASE OR BEFORE  
FABRICATION OF PRECAST UNITS

A - A 1:100



\*\*) REQUIRED PART OF EXISTING GROUND  
SUPPORTS WILL BE REMOVED

▽ LSD=10.000  
ESTIMATED  
DEPTH OF FOUNDATION  
DIMENSIONING IN DETAILED DESIGN PHASE  
ACCORDING TO SOIL INVESTIGATION

PRESENTED PILED FOUNDATION STRUCTURE IS BASED ON  
ASSUMED INFORMATION OF SOIL.  
RECOMMENDED PILING METHOD:  
IN-SITU PILES  
IN-SITU PILES (DRILLED PILES) ENABLE  
-TO DRIVE PILES THROUGH CURRENT STONE ABUTMENT  
-TO MAINTAIN REQUIRED PART OF GROUND SUPPORT  
-TO MINIMIZE EXCAVATION AND FILLING IN THE END OF  
THE BRIDGE  
-TO SHORTEN THE NEEDED CONSTRUCTION TIME

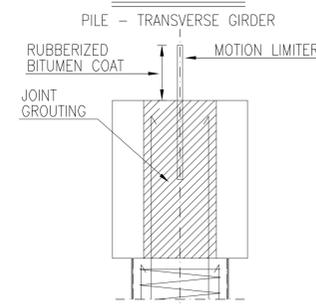
PU = PRECAST UNIT  
TG = TRANSVERSE GIRDER

ESTIMATED AMOUNT OF CONCRETE  
PILES: 17 m<sup>3</sup>  
TRANSVERSE GIRDER: 20 m<sup>3</sup>  
SUPERSTRUCTURE: 109 m<sup>3</sup>

ESTIMATED REINFORCING STEEL  
PILES: 1800 kg  
TRANSVERSE GIRDER: 200 kg/m<sup>3</sup> (CONCRETE)  
SUPERSTRUCTURE: 190 kg/m<sup>3</sup> (CONCRETE)  
TRANSITION SLABS: 325 kg/m<sup>3</sup> (CONCRETE)

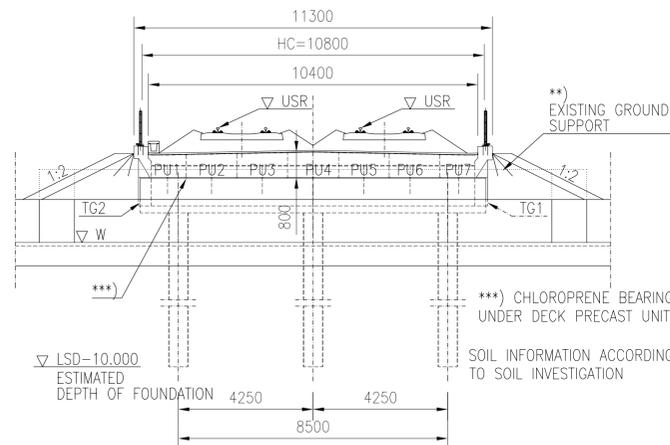
PROTECTIVE CONCRETE: 3 kg/m<sup>2</sup>

JOINTS 1:20



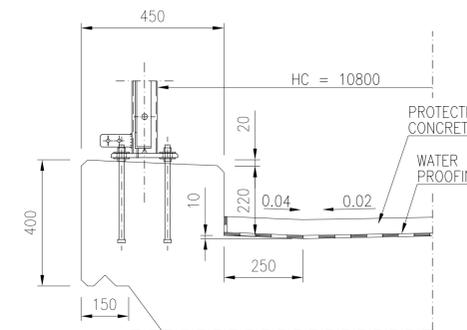
POSSIBLE REINFORCING WILL BE  
DIMENSIONED IN DETAILED DESIGN  
PHASE

B - B 1:100

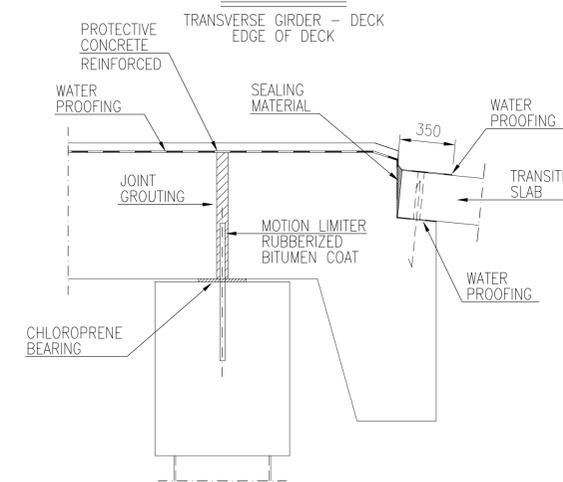


\*\*) CHLOROPRENE BEARING  
UNDER DECK PRECAST UNITS  
SOIL INFORMATION ACCORDING  
TO SOIL INVESTIGATION

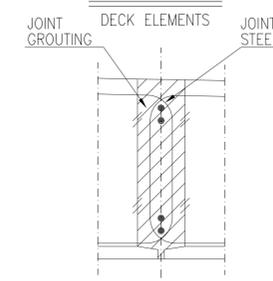
EDGE BEAM 1:10



DET 1 1:20



JOINTS 1:10



ELEMENTS ARE JOINED TOGETHER TO  
STRENGTHEN THE DECK STRUCTURE

REINFORCING STEELS IN JOINTS WILL  
BE DEFINED IN DETAIL DESIGN PHASE

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

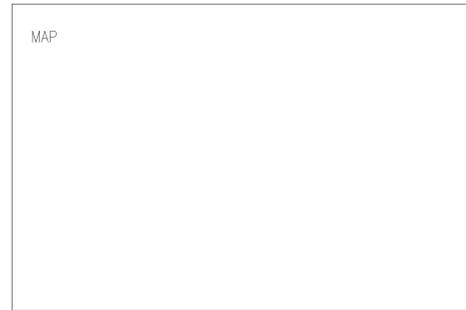
CONSTRUCTIONAL STEEL: S355 J2, HOT-DIP ZINC COATED

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



BRIDGE TYPE	PREFABRICATED BRIDGE
SPANS	1.35 m + 9.00 m + 1.35 m
HORIZONTAL CLEAR SPAN	—
VERTICAL CLEARANCE	—
HORIZONTAL CLEARANCE	10,80 m

VERSION  
23.10.2017

Revision	Explanation	Date	Designer	Date	Acceptor
Customer	MINISTERIO DE TRANSPORTE Y OBRAS PÚBLICAS		Project Railway Project		
Supplier	VR TRACK		Design phase Pre-engineering, Phase 2		
Drawer	23.10.2017	Ilkka Tiito	Content Prefabricated bridge 9 m Double track Preliminary general drawing Km+m +-+		
Designer	23.10.2017	Ilkka Tiito	Loading LM71-25		
Supervisor	23.10.2017	Reima Niklander	Coordinate and elevation reference system WGS 84 UTM 21		
Accept.	-	-	Railway line		
Cust. acc.	-	-	Archive Type Number Rev. Sheet		
			RB - 1		