

**TYPICAL CROSS-SECTION**  
**M 1:50**

**SECTION 1-1**

rock bolts according to support category

theoretical excavation line

shotcrete with wire mesh according to support category

water proofing system

1

rock bolts according to support category

concrete lining C25/30 according to structural requirement

rock bolts according to support category

empty conduits

shaft axis

intermediate concrete wall C25/30 according to structural requirement

drilling for dewatering (as required)

groundwater collecting pipe Steel pipe Ø200

drilling for dewatering (as required)

circular collecting pipe PVC pipe Ø 50, perforated

0.40

R6.00

exhaust air duct  
A = 54.74 m²

fresh air duct  
A = 54.74 m²

1

shaft 2 head building

exhaust air

fresh air

app. 3500

ventilation shaft

intermediate concrete walls

contact area for inner lining

30

10

40

40

40

40

40

40

382

**SECTION T-1**  
1:50

empty conduits

water proofing system

concrete lining C25/30 according to structural requirement

intermediate concrete walls C25/30

shotcrete with wire mesh according to support category

theoretical excavation line

rock bolts according to support category

contact area for inner lining

drilling for dewatering (as required)

rock bolts according to support category

exhaust air duct  
 $A = 54.74 \text{ m}^2$

shaft axis

fresh air duct  
 $A = 54.74 \text{ m}^2$

groundwater collecting  
Steel pipe Ø200 with niches for revision

drilling for dewatering (as required)

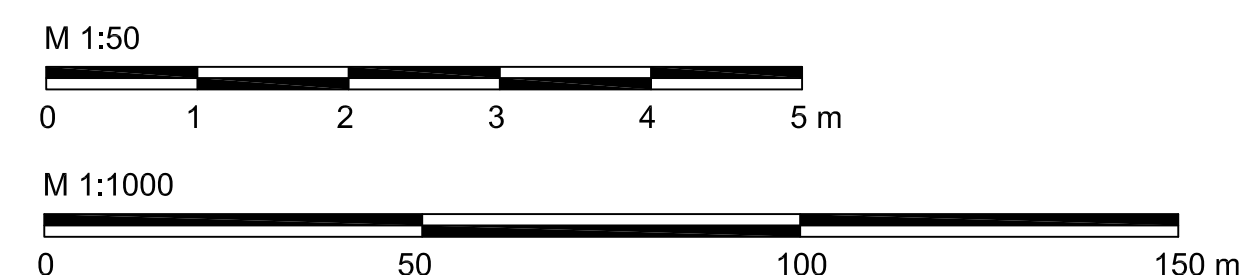
circular collecting pipe  
PVC pipe Ø50, perforated

0.40 5.88 0.25 3.98 0.20 1.70 0.40

0.40 6.00 6.00 0.40

0.40 12.00 0.40

12.80

[illegible]

CLIENT



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(Ministry of Road Transport & Highways, Govt. of India)

**Executive Director - III**  
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India

PROJECT

**CONSTRUCTION, OPERATION AND MAINTENANCE OF 2-LANE  
BI-DIRECTIONAL ZOJILA TUNNEL WITH PARALLEL ESCAPE  
(EGRESS) TUNNEL INCLUDING APPROACHES ON SRINAGAR-LEH  
SECTION CONNECTING NH-1 AT KM 95.00 AND AT KM 118.00 IN  
THE STATE OF JAMMU & KASHMIR**

ZOJILA TUNNEL

## CONTENT

## TENDER DRAWINGS

TYPICAL CROSS SECTION SHAFT 1&2

00	2013-03-31	MBu	CFI	AGo	PRELIMINARY TUNNEL DESIGN PHASE II
REV	DATE	DESIG.	DRAWN	APPROVED	MODIFICATION

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THE POWER OF W

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	DATE	NAME
DESIGNED	2013-03-31	BURGSTALLER
DRAWN	2013-03-31	FINMBINGER
CHECKED	2013-03-31	GORICKI
PROJECT NO.:	8482B	REV.: 00
DRAWING NO.:	TR482B II-ZOT VEN-01-12-00	SCALE: 1 : 50, 1 : 1000