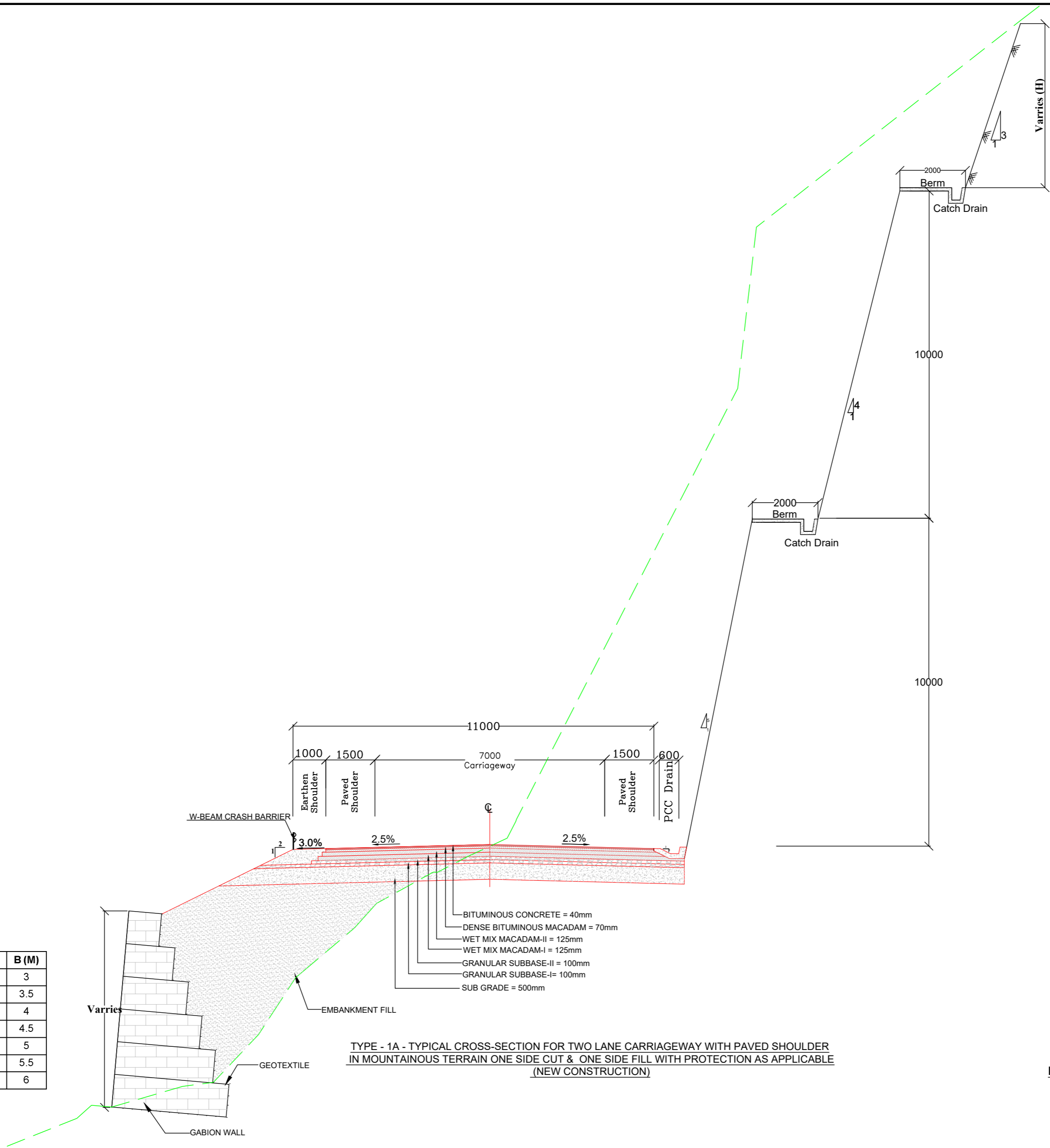
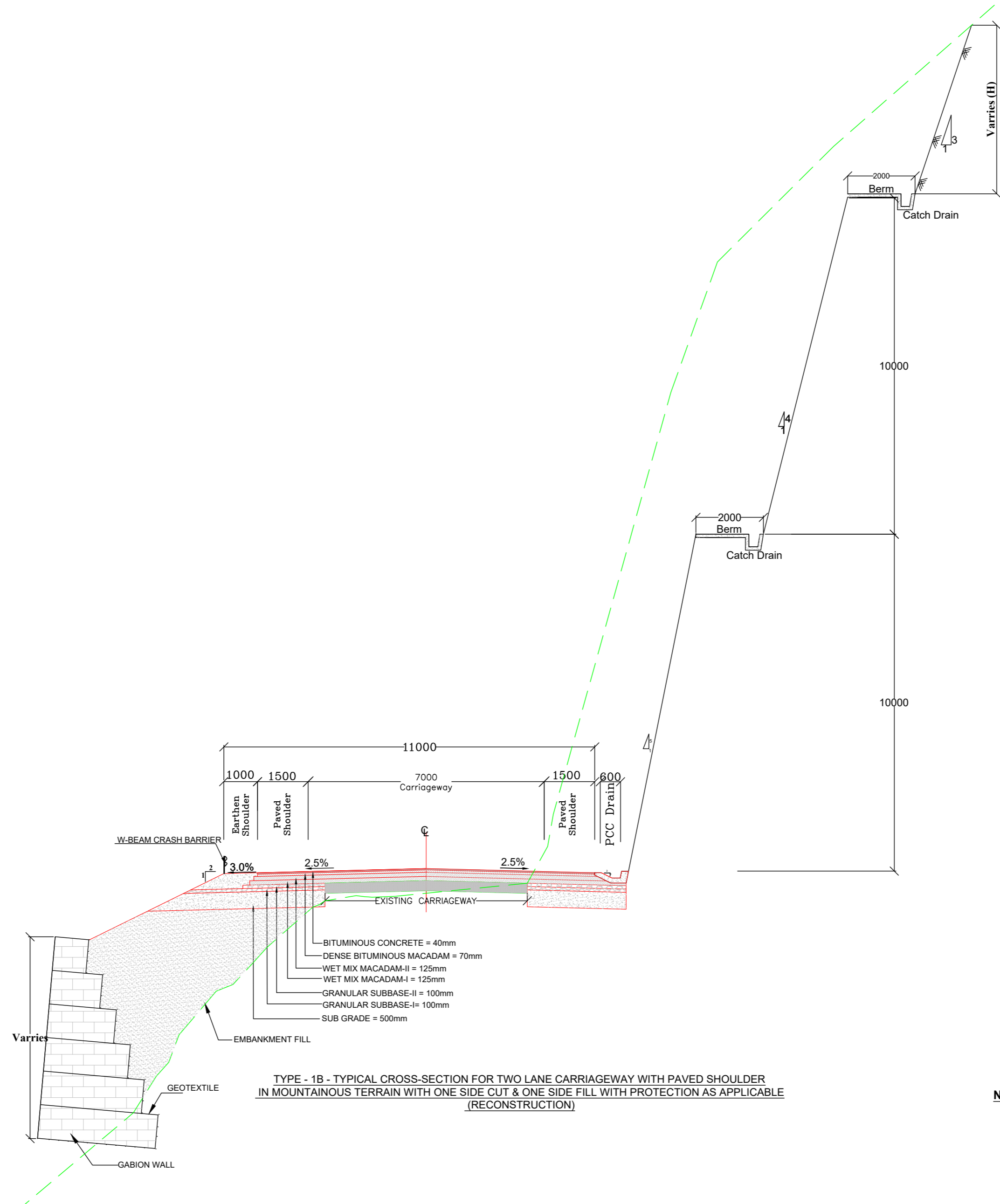


# **TYPICAL CROSS SECTION**

NO. OF COURSES	H (M)	B (M)
5	4	3
6	5	3.5
7	6	4
8	7	4.5
9	8	5
10	9	5.5
11	10	6



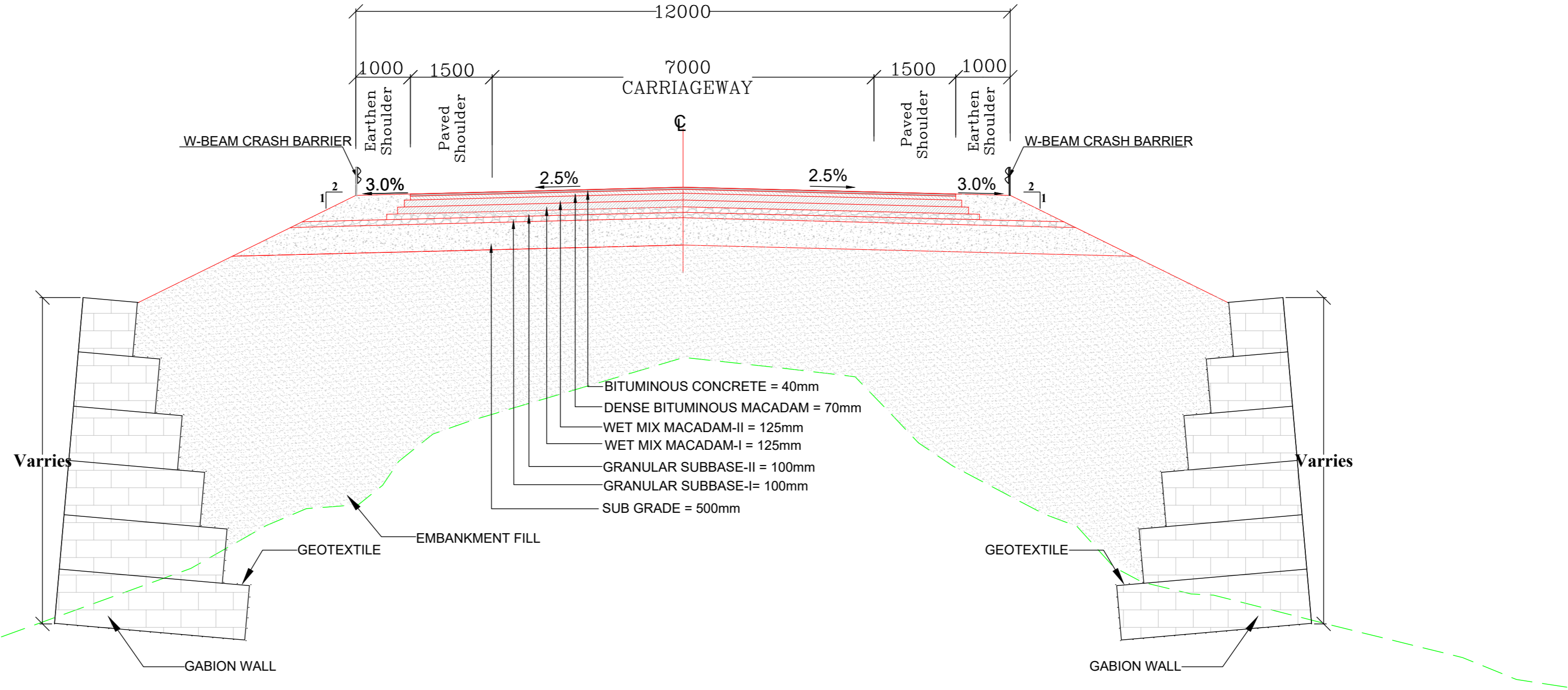
ISSUE	DATE	AMENDMENT \ ISSUE DESCRIPTION	CLIENT	CONSULTANT:	Project	Drawing Title
R0	Oct.-2019		NATIONAL HIGHWAY & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD. (MINISTRY OF ROAD TRANSPORT & HIGHWAY) GOVERNMENT OF INDIA	TPF Getinsa Euroestudios S.L. In Association with RODIC CONSULTANTS PVT. LTD. 1, JAI SINGH MARG (FIRST FLOOR), YMCA CULTURAL CENTRE BUILDING NEW DELHI - 110001 (INDIA)	FINAL DETAILED PROJECT REPORT	Consultancy Services for Preparation of Detailed Project Report and providing Pre-Construction activities in respect of the following stretches on NH-244 (old NH-1B) in the State of Jammu & Kashmir. (i) Sudhmahadev - Dranga Tunnel of approx. length 4.5 Km and its approach roads on Chenani - Sudhmahadev - Goha road portion, (ii) Vailoo Tunnel of approx length 10.00 Km under Sinthan Pass and its approach roads on Goha - Khellani - Khanabal road portion & the extended road section from Goha side approach road of Sudhmahadev Daranga tunnel upto Khellani town.
R1	Apr.-2020					TYPICAL CROSS SECTION
						Drawing No. RCPL-TPF-3-BHC-01-R1



- NOTE:-**
1. All Dimensions are in millimeters except otherwise specified
  2. For Details of Section ("A") Kindly refer the standard drawing .
  3. Retaining wall is provided where height of embankment is greater than 2m.
  4. Toe wall is provided where height of embankment is less than 2m.
  5. Extra widening will be Provided where radius of horizontal curve is less than 300m.
  6. PROW Varies From 24 - 100m.

ISSUE	DATE	AMENDMENT \ ISSUE DESCRIPTION	CLIENT	CONSULTANT:	Project	Consultancy Services for Preparation of Detailed Project Report and providing Pre-Construction activities in respect of the following stretches on NH-244 (old NH-1B) in the State of Jammu & Kashmir. (i) Sudhmahadev - Dranga Tunnel of approx. length 4.5 Km and its approach roads on Chenani - Sudhmahadev - Goha road portion, (ii) Vailoo Tunnel of approx length 10.00 Km under Sinthan Pass and its approach roads on Goha - Khellani - Khanabal road portion & the extended road section from Goha side approach road of Sudhmahadev Daranga tunnel upto Khellani town.
R0	Oct.-2019		NATIONAL HIGHWAY & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD. (MINISTRY OF ROAD TRANSPORT & HIGHWAY) GOVERNMENT OF INDIA	TPF Getinsa Euroestudios S.L. In Association with RODIC CONSULTANTS PVT. LTD. 1, JAI SINGH MARG (FIRST FLOOR), YMCA CULTURAL CENTRE BUILDING NEW DELHI - 110001 (INDIA)	FINAL DETAILED PROJECT REPORT	
R1	Apr.-2020				Scale :- N.T.S.	
					Designed:	
					Drawn:	
					Checked:	
					Approved:	
						Drawing Title
						Drawing No.
						RCPL-TPF-3-BHC-02-R1

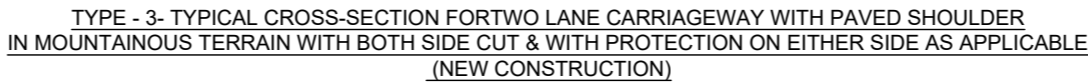
NO. OF COURSES	H (M)	B (M)
5	4	3
6	5	3.5
7	6	4
8	7	4.5
9	8	5
10	9	5.5
11	10	6



TYPE - 2 - TYPICAL CROSS-SECTION FOR TWO LANE CARRIAGEWAY WITH PAVED SHOULDER  
IN MOUNTAINOUS TERRAIN WITH BOTH SIDE FILL & WITH PROTECTION ON EITHER SIDE AS APPLICABLE  
(NEW CONSTRUCTION)

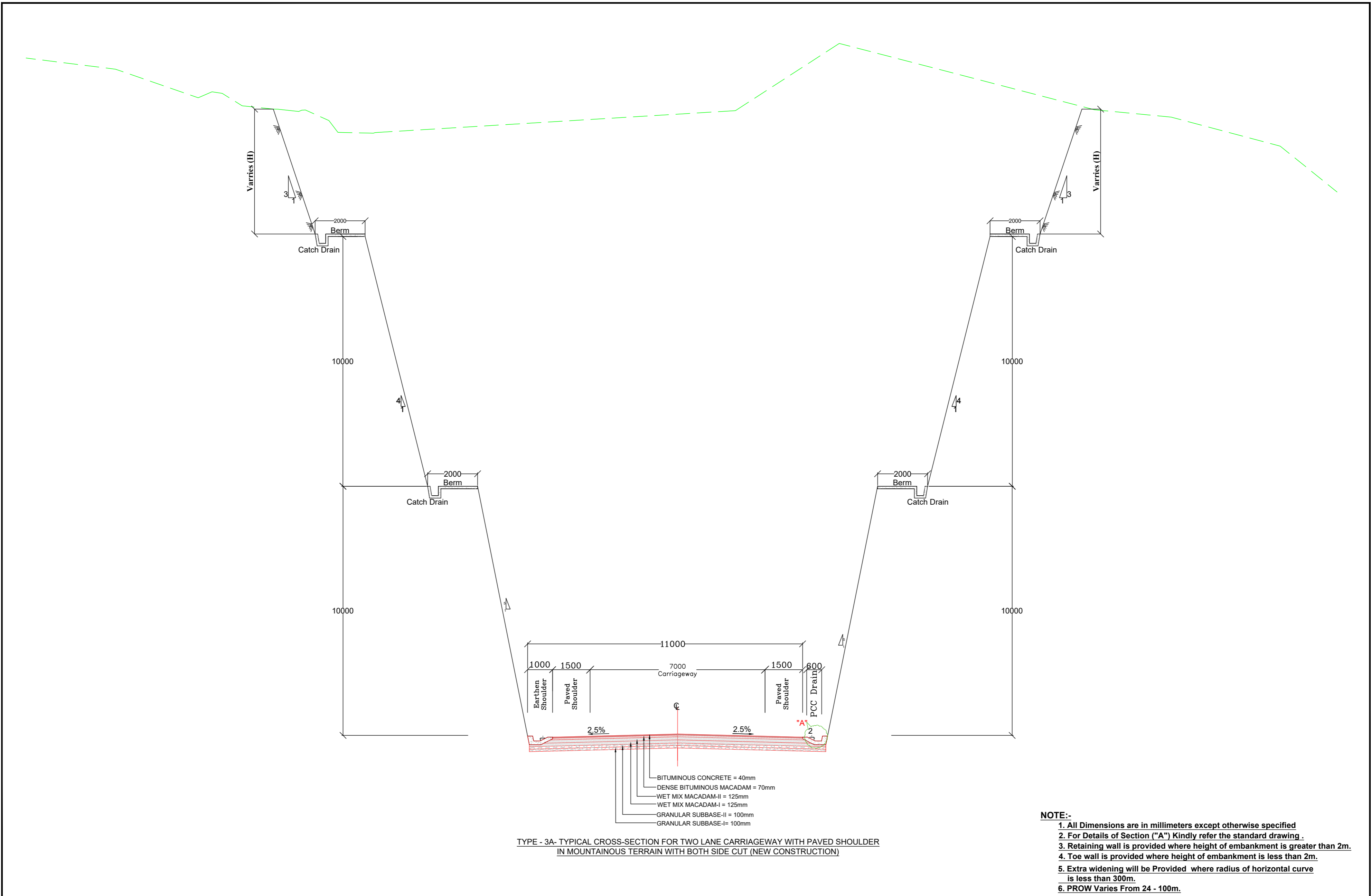
- NOTE:-**
- 1. All Dimensions are in millimeters except otherwise specified
  - 2. For Details of Section ("A") Kindly refer the standard drawing .
  - 3. Retaining wall is provided where height of embankment is greater than 2m.
  - 4. Toe wall is provided where height of embankment is less than 2m.
  - 5. Extra widening will be Provided where radius of horizontal curve is less than 300m.
  - 6. PROW Varies From 24 - 100m.

ISSUE	DATE	AMENDMENT \ ISSUE DESCRIPTION	CLIENT	CONSULTANT:	Project	
R0	Oct.-2019		NATIONAL HIGHWAY & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD. (MINISTRY OF ROAD TRANSPORT & HIGHWAY) GOVERNMENT OF INDIA	TPF Getinsa Euroestudios S.L. In Association with RODIC CONSULTANTS PVT. LTD. 1, JAI SINGH MARG (FIRST FLOOR), YMCA CULTURAL CENTRE BUILDING NEW DELHI - 110001 (INDIA)	FINAL DETAILED PROJECT REPORT	
R1	Apr.-2020				Scale :- N.T.S.	
					Designed: Drawn: Checked: Approved:	
						Drawing Title
						Drawing No. RCPL-TPF-3-BHC-03-R1



1. All Dimensions are in millimeters except otherwise specified
2. For Details of Section ("A") Kindly refer the standard drawing .
3. Retaining wall is provided where height of embankment is greater than 2m.
4. Toe wall is provided where height of embankment is less than 2m.
5. Extra widening will be Provided where radius of horizontal curve is less than 300m.
6. PROW Varies From 24 - 100m.

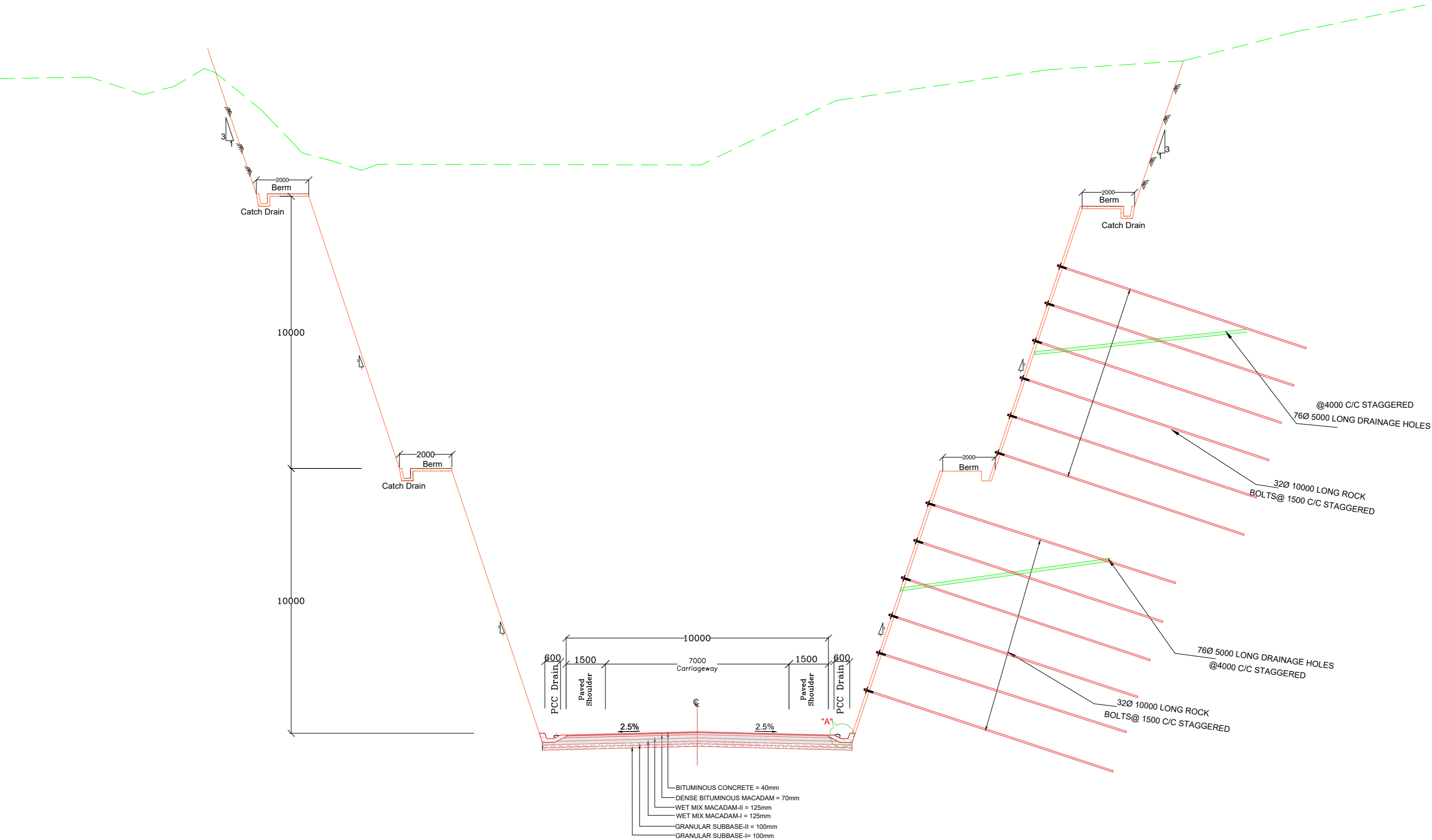
ISSUE	DATE	AMENDMENT \ ISSUE DESCRIPTION	CLIENT	CONSULTANT:	FINAL DETAILED PROJECT REPORT				Project	Consultancy Services for Preparation of Detailed Project Report and providing Pre-Construction activities in respect of the following stretches on NH-244 (old NH-1B) in the State of Jammu & Kashmir. (i) Sudhmahadev - Dranga Tunnel of approx. length 4.5 Km and its approach roads on Chenani - Sudhmahadev - Goha road portion. (ii) Vailoo Tunnel of approx length 10.00 Km under Sinthan Pass and its approach roads on Goha - Khellani - Khanabal road portion & the extended road section from Goha side approach road of Sudhmahadev Dranga tunnel upto Khellani town.
R0	Oct.-2019		 <b>NATIONAL HIGHWAY &amp; INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.</b> <b>(MINISTRY OF ROAD TRANSPORT &amp; HIGHWAY)</b> <b>GOVERNMENT OF INDIA</b>	 <b>TPF Getinsa Eurostudios S.L.</b> <b>In Association with</b>  <b>RODIC CONSULTANTS PVT. LTD.</b> 1, JAI SINGH MARG (FIRST FLOOR), YMCA CULTURAL CENTRE BUILDING NEW DELHI - 110001 (INDIA)	Designed: <input type="text"/> Scale :- N.T.S. <input type="text"/>				Drawing Title	TYPICAL CROSS SECTION
R1	Apr.-2020			Drawn: <input type="text"/>				Drawing No.	RCPL-TPF-3-BHC-04-R1	
				Checked: <input type="text"/>						
					Approved: <input type="text"/>					



- NOTE:-**
- 1. All Dimensions are in millimeters except otherwise specified
  - 2. For Details of Section ("A") Kindly refer the standard drawing .
  - 3. Retaining wall is provided where height of embankment is greater than 2m.
  - 4. Toe wall is provided where height of embankment is less than 2m.
  - 5. Extra widening will be Provided where radius of horizontal curve is less than 300m.
  - 6. PROW Varies From 24 - 100m.

ISSUE	DATE	AMENDMENT \ ISSUE DESCRIPTION	CLIENT	CONSULTANT:	FINAL DETAILED PROJECT REPORT				Project	Consultancy Services for Preparation of Detailed Project Report and providing Pre-Construction activities in respect of the following stretches on NH-244 (old NH-1B) in the State of Jammu & Kashmir. (i) Sudhmahadev - Dranga Tunnel of approx. length 4.5 Km and its approach roads on Chenani - Sudhmahadev - Gohra road portion. (ii) Vailoo Tunnel of approx length 10.00 Km under Sinthan Pass and its approach roads on Gohra - Khellani - Khanabal road portion & the extended road section from Gohra side approach road of Sudhmahadev Dranga tunnel upto Khellani town.
R0	Oct.-2019		NATIONAL HIGHWAY & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD. (MINISTRY OF ROAD TRANSPORT & HIGHWAY) GOVERNMENT OF INDIA 	TPF Getinsa Euroestudios S.L. In Association with RODIC CONSULTANTS PVT. LTD. 1, JAI SINGH MARG (FIRST FLOOR), YMCA CULTURAL CENTRE BUILDING NEW DELHI - 110001 (INDIA) 	Designed:		Scale :- N.T.S.	Drawing Title	TYPICAL CROSS SECTION	
R1	Apr.-2020				Drawn:			Checked:		
					Approved:					

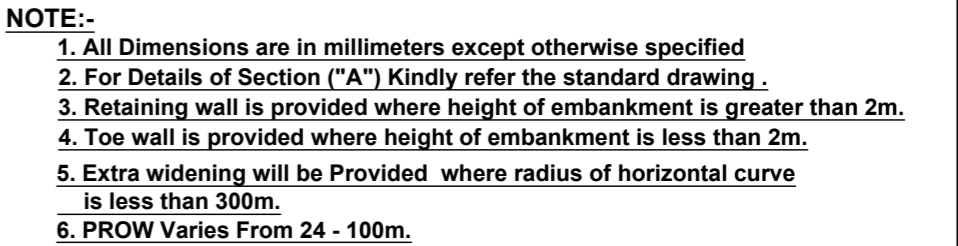




TYPE - 5- TYPICAL CROSS-SECTION FORTWO LANE CARRIAGEWAY WITH PAVED SHOULDER  
IN MOUNTAINOUS TERRAIN WITH BOTH SIDE CUT & WITH ROCK BOLTING ON RIGHT SIDE  
(NEW CONSTRUCTION)

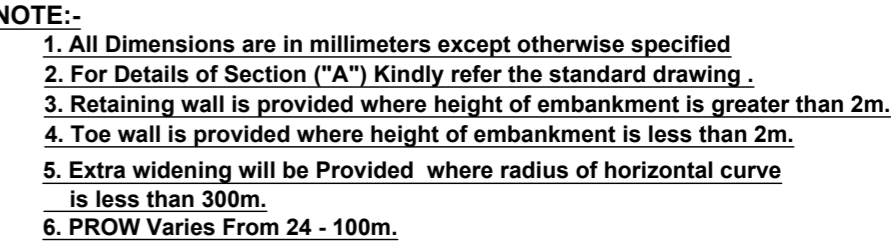
- NOTE:-**
- 1. All Dimensions are in millimeters except otherwise specified
  - 2. For Details of Section ("A") Kindly refer the standard drawing .
  - 3. Retaining wall is provided where height of embankment is greater than 2m.
  - 4. Toe wall is provided where height of embankment is less than 2m.
  - 5. Extra widening will be Provided where radius of horizontal curve is less than 300m.
  - 6. PROW Varies From 24 - 100m.

ISSUE	DATE	AMENDMENT \ ISSUE DESCRIPTION	CLIENT	CONSULTANT:	Project	Drawing Title
R0	Oct.-2019		NATIONAL HIGHWAY & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD. (MINISTRY OF ROAD TRANSPORT & HIGHWAY) GOVERNMENT OF INDIA	TPF Getinsa Euroestudios S.L. In Association with RODIC CONSULTANTS PVT. LTD. 1, JAI SINGH MARG (FIRST FLOOR), YMCA CULTURAL CENTRE BUILDING NEW DELHI - 110001 (INDIA)	FINAL DETAILED PROJECT REPORT	Consultancy Services for Preparation of Detailed Project Report and providing Pre-Construction activities in respect of the following stretches on NH-244 (old NH-1B) in the State of Jammu & Kashmir. (i) Sudhmahadev - Dranga Tunnel of approx. length 4.5 Km and its approach roads on Chenani - Sudhmahadev - Gohra road portion, (ii) Vailoo Tunnel of approx length 10.00 Km under Sinthan Pass and its approach roads on Goha - Khellani - Khanabal road portion & the extended road section from Goha side approach road of Sudhmahadev Daranga tunnel upto Khellani town.
R1	Apr.-2020					TYPICAL CROSS SECTION
						Drawing No. RCPL-TPF-3-BHC-07-R1



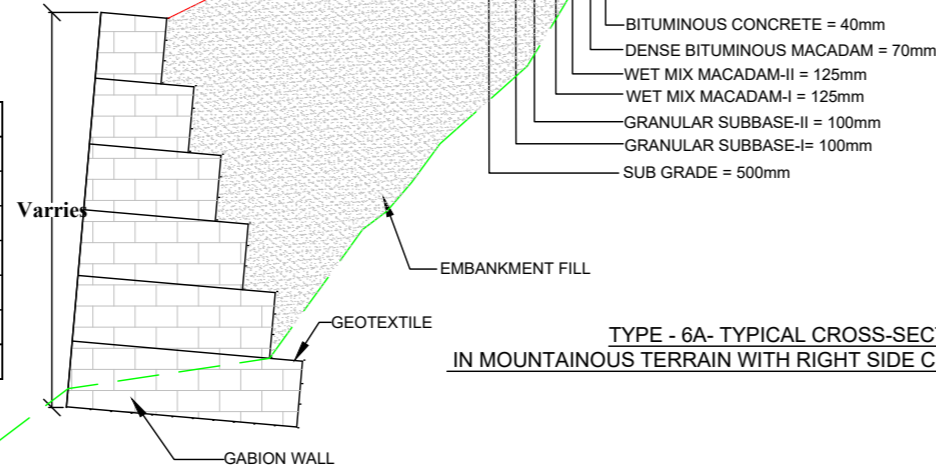
Supply Services for Preparation of Detailed Project Report and providing Pre-Construction activities in respect the following stretches on NH-244 (old NH-1B) in the State of Jammu & Kashmir. (i) Sudhmahadev - Dranga Tunnel approx. length 4.5 Km and its approach roads on Chenani - Sudhmahadev - Gohra road portion, (ii) Vailoo Tunnel of approx length 10.00 Km under Sinthan Pass and its approach roads on **Goha - Khellani - Khanabal road portion & extended road section from Goha side approach road of Sudhmahadev Dranga tunnel upto Khellani town.**

ISSUE	DATE	AMENDMENT \ ISSUE DESCRIPTION	CLIENT	CONSULTANT:	FINAL DETAILED PROJECT REPORT				Project	Consultancy Services for Preparation of Detailed Project Report and providing Pre-Construction activities in respect of the following stretches on NH-244 (old NH-1B) in the State of Jammu & Kashmir: (i) Sudhmahadev - Dranga Tunnel of approx. length 4.5 Km and its approach roads on Chenani - Sudhmahadev - Gohra road portion. (ii) Vailoo Tunnel of approx length 10.00 Km under Sinthan Pass and its approach roads on Goha - Khellani - Khanabal road portion & the extended road section from Goha side approach road of Sudhmahadev Dranga tunnel upto Khellani town.										
R0	Oct.-2019		 <b>NATIONAL HIGHWAY &amp; INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.</b> (MINISTRY OF ROAD TRANSPORT & HIGHWAY) GOVERNMENT OF INDIA	  <b>TPF Getinsa Eurostudios S.L.</b> In Association with <b>RODIE CONSULTANTS PVT. LTD.</b> 1, JAI SINGH MARG (FIRST FLOOR), YMCA CULTURAL CENTRE BUILDING NEW DELHI - 110001 (INDIA)	<table><tr><td>Designed:</td><td></td><td rowspan="4">Scale :- N.T.S.</td><td rowspan="4"></td></tr><tr><td>Drawn:</td><td></td></tr><tr><td>Checked:</td><td></td></tr><tr><td>Approved:</td><td></td></tr></table>				Designed:		Scale :- N.T.S.		Drawn:		Checked:		Approved:		Drawing Title	TYPICAL CROSS SECTION
Designed:		Scale :- N.T.S.																		
Drawn:																				
Checked:																				
Approved:																				
R1	Apr.-2020		Drawing No.	RCPL-TPF-3-BHC-08-R1																



ISSUE	DATE	AMENDMENT \ ISSUE DESCRIPTION	<div>CLIENT</div> <div>NATIONAL HIGHWAY &amp; INFRASTRUCTURE DEVELOPMENT CORPORATION LTD. (MINISTRY OF ROAD TRANSPORT &amp; HIGHWAY) GOVERNMENT OF INDIA</div> <div></div>	<div>CONSULTANT:</div> <div>  </div> <div>TPF Getinsa Eurostudios S.L. In Association with RODIC CONSULTANTS PVT. LTD. 1, JAI SINGH MARG (FIRST FLOOR), YMCA CULTURAL CENTRE BUILDING NEW DELHI - 110001 (INDIA)</div>	FINAL DETAILED PROJECT REPORT			Project	Consultancy Services for Preparation of Detailed Project Report and providing Pre-Construction activities in respect of the following stretches on NH-244 (old NH-1B) in the State of Jammu & Kashmir. (i) Sudhmahadev - Dranga Tunnel of approx. length 4.5 Km and its approach roads on Chenani - Sudhmahadev - Gohra road portion. (ii) Vailoo Tunnel of approx length 10.00 Km under Sinthan Pass and its approach roads on Goha - Khellani - Khanabal road portion & the extended road section from Goha side approach road of Sudhmahadev Dranga tunnel upto Khellani town.	
R0	Oct.-2019				Designed:		Scale :- N.T.S.		Drawing Title	TYPICAL CROSS SECTION
R1	Apr.-2020				Drawn:				Drawing No.	
			Checked:							
			Approved:							

NO. OF COURSES	H (M)	B (M)
5	4	3
6	5	3.5
7	6	4
8	7	4.5
9	8	5
10	9	5.5
11	10	6



- BITUMINOUS CONCRETE = 40mm
- DENSE BITUMINOUS MACADAM = 70mm
- WET MIX MACADAM-II = 125mm
- WET MIX MACADAM-I = 125mm
- GRANULAR SUBBASE-II = 100mm
- GRANULAR SUBBASE-I = 100mm
- SUB GRADE = 500mm

- NOTE:-**
1. All Dimensions are in millimeters except otherwise specified
  2. For Details of Section ("A") Kindly refer the standard drawing .
  3. Retaining wall is provided where height of embankment is greater than 2m.
  4. Toe wall is provided where height of embankment is less than 2m.
  5. Extra widening will be Provided where radius of horizontal curve is less than 300m.
  6. PROW Varies From 24 - 100m.

ISSUE	DATE	AMENDMENT \ ISSUE DESCRIPTION	CLIENT	CONSULTANT:	Project	Consultancy Services for Preparation of Detailed Project Report and providing Pre-Construction activities in respect of the following stretches on NH-244 (old NH-1B) in the State of Jammu & Kashmir. (i) Sudhmahadev - Dranga Tunnel of approx. length 4.5 Km and its approach roads on Chenani - Sudhmahadev - Goha road portion, (ii) Vailoo Tunnel of approx length 10.00 Km under Sinthan Pass and its approach roads on Goha - Khellani - Khanabal road portion & the extended road section from Goha side approach road of Sudhmahadev Daranga tunnel upto Khellani town.
R0	Oct.-2019		NATIONAL HIGHWAY & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD. (MINISTRY OF ROAD TRANSPORT & HIGHWAY) GOVERNMENT OF INDIA	TPF Getinsa Euroestudios S.L. In Association with RODIC CONSULTANTS PVT. LTD. 1, JAI SINGH MARG (FIRST FLOOR), YMCA CULTURAL CENTRE BUILDING NEW DELHI - 110001 (INDIA)	FINAL DETAILED PROJECT REPORT	
R1	Apr.-2020				Scale :- N.T.S.	
					Drawing Title	TYPICAL CROSS SECTION
					Drawing No.	RCPL-TPF-3-BHC-10-R1