

National Highways & Infrastructure Development Corporation Ltd.

07.12.2020

Sub: Construction of Uni-Directional Khellani Tunnel of length 1.574 Km & its approach Road from Km 29.030 to Km 31.449 of total length of 2.419 Km on NH-244 in Union Territory of Jammu & Kashmir on EPC Mode.”

Amendment No-IV

S n	Clause and Description	As Per RFP		Amendments/Modifications
1.	NIT RFP	The National Highways & Infrastructure Development Corporation Limited represented by its Managing Director now invites bids from eligible contractors for the following project:		
2	Section-1 of RFP	The National Highways & Infrastructure Development Corporation Limited (NHIDCL) ... carry out the bidding process .... are as follows:		The National Highways & Infrastructure Development Corporation Limited (NHIDCL) ..... carry out the <b>National Competitive bidding</b> process for .... as follows:
3	2.2.2.2 (iii) (a) (a1) of RFP	<p><b>For Stand-alone specialized projects:</b></p> <p><b>(a) Major Bridges/ROB/Flyovers projects:</b></p> <p><b>(a1) In case the cost of specialized project is more than ₹ 1,000 Cr:</b> The sole Bidder or in case the Bidder being a Joint Venture, any member of Joint Venture shall have completed at least one similar Major Bridge/ ROB/ Flyover project in the last 10 (Ten) financial years preceding the Bid Due having span equal to or greater than <u>50% of the longest span or 100 m, whichever is less of the structure proposed in this project</u> and also the cost of such similar project shall be atleast <u>20% of the Estimated Project Cost</u>. For this purpose, a project shall be considered to be completed, if more than 90% of the value of work has been completed and such completed value of work is equal to or more than 20% of the Estimated Project Cost.</p>		<p><b>For Stand-alone specialized projects:</b></p> <p><b>(a) Major Bridges/ROB/Flyovers projects:</b></p> <p><b>(a1) In case the cost of specialized project is more than ₹ 1,000 Cr:</b> The sole Bidder or in case the Bidder being a Joint Venture, any member of Joint Venture shall have completed at least one similar Major Bridge/ ROB/ Flyover project in the last 10 (Ten) financial years preceding the Bid Due Date (works completed 30 days prior to the bid due date shall also be considered for this clause), having span equal to or greater than <u>50% of the longest span or 100 m, whichever is less of the structure proposed in this project</u> and also the cost of such similar project shall be atleast <u>20% of the Estimated Project Cost</u>. For this purpose, a project shall be considered to be completed, if more than 90% of the value of work has</p>



			been completed and such completed value of work is equal to or more than 20% of the Estimated Project Cost.
4.	Section 2: Instruction to bidders, 2.2.2.2 (iii) (a)	<p><b>For Stand-alone specialized projects:</b></p> <p><b>(a) Major Bridges/ROB/Flyovers projects:</b></p> <p><b>(a2) ) In case the cost of specialized project is more than ₹ 1,000 Cr:</b> The sole Bidder or in case the Bidder being a Joint Venture, any member of Joint Venture shall have completed at least one similar Bridge/ ROB/ Flyover project in the last 10 (Ten) years preceding the Bid Due having span equal to or greater than 50% of the longest span of the structure proposed in this project or 100m, whichever is less, and also <u>the cost of such similar project shall be atleast 20% of the Estimated Project Cost or ₹ 1000Cr.</u> whichever is less. For this purpose, a project shall be considered to be completed, if more than 90% of the value of work has been completed and such completed value of work is equal to or more than 20% of the Estimated Project Cost or ₹ 1000 Cr., whichever is less.</p>	<p><b>For Stand-alone specialized projects:</b></p> <p><b>(a) Major Bridges/ROB/Flyovers projects:</b></p> <p><b>(a2) In case the cost of specialized project is more than ₹ 1,000 Cr:</b> The sole Bidder or in case the Bidder being a Joint Venture, any member of Joint Venture shall have completed at least one similar Bridge/ ROB/ Flyover project in the last 10 (Ten) years preceding the Bid Due Date (works completed 30 days prior to the bid due date shall also be considered for this clause), having span equal to or greater than 50% of the longest span of the structure proposed in this project or 100m, whichever is less, and also <u>the cost of such similar project shall be atleast 20% of the Estimated Project Cost or ₹ 1000Cr.</u> whichever is less. For this purpose, a project shall be considered to be completed, if more than 90% of the value of work has been completed and such completed value of work is equal to or more than 20% of the Estimated Project Cost or ₹ 1000 Cr., whichever is less.</p>
5.	Section 2: Instruction to bidders, 2.2.2.2 (iii) (b)	<p><b>Tunnel project:</b> The sole Bidder or in case the Bidder being a Joint Venture, any member of Joint Venture shall have completed atleast one tunnel project in the last 10 (Ten) years preceding the Bid Due Date consisting of single or twin tubes (including tunnel(s) for roads/Railway/Metro rail/irrigation/ hydro-electric projects etc.) having atleast <u>50% of the cross- sectional area of the tunnel to be constructed or cross sectional area of 2 lane highway tunnel, whichever is less, and 20% length of the tunnel to constructed in this project or 2 km, whichever is less and the cost of such project shall be atleast 20% of the Estimated Project Cost or Rs. 1000 crore, whichever is less.</u> For this purpose, a project shall be considered to be completed, if more than 90% of the value of work has been completed and such completed value of work is equal to or <u>more than 20% of the Estimated Project Cost or ₹ 1000 Cr., whichever is less.</u></p>	<p><b>Tunnel project:</b> The sole Bidder or in case the Bidder being a Joint Venture, any member of Joint Venture shall have completed atleast one tunnel project in the last 10 (Ten) years preceding the Bid Due Date (works completed 30 days prior to the bid due date shall also be considered for this clause), consisting of single or twin tubes (including tunnel(s) for roads/Railway/Metro rail/irrigation/ hydro-electric projects etc.) having atleast <u>50% of the cross- sectional area of the tunnel to be constructed or cross sectional area of 2 lane highway tunnel, whichever is less, and 20% length of the tunnel to constructed in this project or 2 km, whichever is less and the cost of such project shall be atleast 20% of the Estimated Project Cost</u></p>

		<p>or Rs. 1000 crore, whichever is less. For this purpose, a project shall be considered to be completed, if more than 90% of the value of work has been completed and such completed value of work is equal to or more than 20% of the Estimated Project Cost or ₹ 1000 Cr., whichever is less.</p>																										
<p>6. 2.2.2.3 (ii) Note of RFP</p>	<p>The Bidder shall have a minimum Average Annual Turnover (updated to the price level of the year based on factors indicated in table below) of 15% (Fifteen percent) of the Estimated Project Cost for the last 5 (five) financial years.</p> <table border="1" data-bbox="774 638 1005 1187"> <tr> <td>Year</td> <td>Year-1</td> <td>Year-2</td> <td>Year-3</td> <td>Year-4</td> <td>Year-5</td> </tr> <tr> <td>Up-dation factor</td> <td>1.00</td> <td>1.05</td> <td>1.10</td> <td>1.15</td> <td>1.20</td> </tr> </table> <p>Note: For all the certificates issued by Statutory auditor/Chartered accountant for evaluation under para 2.2.2.2 and 2.2.2.3, the Authority will verify the figures using UDIN number and the figures uploaded on UDIN portal will prevail over the figures in the certificate. In case, UDIN number is not mentioned in the certificate the same will not be considered for evaluation.</p>	Year	Year-1	Year-2	Year-3	Year-4	Year-5	Up-dation factor	1.00	1.05	1.10	1.15	1.20	<p>(i) The Bidder shall have a minimum Average Annual Turnover (updated to the price level of the year based on factors indicated in table below) of 15% (Fifteen percent) of the Estimated Project Cost for the last 5 (five) financial years.</p> <table border="1" data-bbox="893 1344 1037 1904"> <tr> <td>Year</td> <td>Year-1</td> <td>Year-2</td> <td>Year-3</td> <td>Year-4</td> <td>Year-5</td> <td>Year-6*</td> </tr> <tr> <td>Up-dation factor</td> <td>1.00</td> <td>1.05</td> <td>1.10</td> <td>1.15</td> <td>1.21</td> <td>1.25</td> </tr> </table> <p>*In case, the audited annual financial statements/accounts for the year-1 are not available and undertaking has been submitted duly endorsed by the statutory auditor is submitted then only year-6 will be considered.</p> <p>Note: The Statutory Auditor (SA) shall upload the information on UDIN portal and attach a copy of the certificate downloaded from the portal indicating net worth and turn over for each of the last five years.</p>	Year	Year-1	Year-2	Year-3	Year-4	Year-5	Year-6*	Up-dation factor	1.00	1.05	1.10	1.15	1.21	1.25
Year	Year-1	Year-2	Year-3	Year-4	Year-5																							
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Up-dation factor	1.00	1.05	1.10	1.15	1.21	1.25																						
<p>7. Section 2 Cl 2.2.2.5 (iii) b (i)</p>	<p>In case of projects executed by applicant under category 3 and 4 as a member of Joint Venture, the project cost should be restricted to the share of the applicant in the joint venture for determining eligibility as per provision under clause 2.2.2.2 (ii). Also, if the project has been executed by the applicant under category 3 and 4 as a sub-contractor, the project cost should be restricted to the approved cost of sub-contract by Authority.</p>	<p>In case of projects executed by applicant under category 3 and 4 as a member of Joint Venture, the project cost should be restricted to the share of the applicant in the joint venture for determining eligibility as per provision under clause 2.2.2.2. Also, if the project has been executed by the applicant under category 3 and 4 as a sub-contractor, the project cost should be restricted to the</p>																										



			approved cost of sub-contract by Authority.				
8.	2.2.2.6 (ii) of RFP	For a project to qualify as an Eligible Project under Categories 3 and 4, the Bidder should have received payments from its client(s) for construction works executed, fully or partially, during the 5 (five) financial years immediately preceding the Bid Due Date, and only the amounts (gross) actually received, during such 5 (five) financial years shall qualify for purposes of computing the Experience Score. However, receipts of or work executed amount less than 10% of the Estimated Project Cost shall not be reckoned as receipts for Eligible Projects. For the avoidance of doubt, construction works shall not include supply of goods or equipment except when such goods or equipment form part of a turn-key construction contract / EPC contract for the project. Further, the cost of land and also cost towards pre-construction activities (like shifting of utilities etc.) shall not be included hereunder.	For a project to qualify as an Eligible Project under Categories 3 and 4, the Bidder should have received payments from its client(s) as main contractor or approved sub-contractor of the Authority for construction works executed, fully or partially, during the 5 (five) financial years immediately preceding the Bid Due Date, and only the amounts (gross) actually received, during such 5 (five) financial years shall qualify for purposes of computing the Experience Score. However, receipts of or work executed amount less than 5% of the Estimated Project Cost shall not be reckoned as receipts for Eligible Projects. For the avoidance of doubt, construction works shall not include supply of goods or equipment except when such goods or equipment form part of a turn-key construction contract / EPC contract for the project. Further, the cost of land and also cost towards pre-construction activities (like shifting of utilities etc.) shall not be included hereunder.				
9.	2.21.1 (a) Performance Security	(a) Within 30 (thirty) days of receipt of Letter of Acceptance, the selected Bidder shall furnish to the Authority an irrevocable and unconditional guarantee issued by the nationalized bank or a Scheduled Bank in India having a net worth of at least ₹ 1,000 crore (Rupees One thousand Crore), in favour of the Authority in the format at Appendix –VII. In case the Bank Guarantee is issued by a foreign bank outside India, confirmation of the same by any nationalised bank in India is required. For the avoidance of doubt, Scheduled Bank shall mean a bank as defined under Section 2(e) of the Reserve Bank of India Act, 1934. A scanned copy of the Bank Guarantee shall be uploaded on e-procurement portal while applying to the tender.	(a) Within 30 (thirty) days of receipt of Letter of Acceptance, the selected Bidder shall furnish to the Authority an irrevocable and unconditional guarantee issued by the Public Sector Banks or Scheduled Private Banks having the Net Worth of Rs 1,000/- crores or more as per the latest annual report of the bank, in favour of the Authority. The list of such banks is mentioned below. The Authority reserves the right to add or remove any of names bank on which BG shall be accepted based on advisories from the Govt./RBI. The BGs issued by 'Foreign Banks' and Banks not mentioned in the given list shall not be accepted.				
			<table border="1"> <thead> <tr> <th>List of Scheduled Public Sector Banks</th> <th>List of Private Sector Banks</th> </tr> </thead> <tbody> <tr> <td>1. Bank of</td> <td>1. Axis Bank Ltd.</td> </tr> </tbody> </table>	List of Scheduled Public Sector Banks	List of Private Sector Banks	1. Bank of	1. Axis Bank Ltd.
List of Scheduled Public Sector Banks	List of Private Sector Banks						
1. Bank of	1. Axis Bank Ltd.						



10. 2.21.1 (b) Performance Security	(i) Deleted  (ii) Deleted	(i) If the Bid Price offered by the Selected Bidder is lower than 15% but upto 20% of the Estimated Project Cost, then the Additional Performance Security shall be 10% of the Bid Price offered by the selected Bidder.  (ii) If the Bid Price offered by the Selected Bidder is lower than 20% of the Estimated Project Cost, then the Additional Performance Security shall be 20% of the Bid Price offered by the Selected Bidder.
11.  Appendix -XI Format for Turnover	In case financial statements of the latest financial year are not audited and therefore, the bidder cannot make it available, the bidder shall provide an undertaking to this effect and statutory auditor shall certify the same. In such case, the bidder shall provide the audited financial statements for five years immediately preceding the year for which the audited annual report is not being produced as per clause 2.2.2.8 of the RFP. In case, undertaking duly certified by statutory auditor is not submitted under such circumstances, the annual turnover for the year for which audited annual financial statements are not available shall be considered as 'Nil' for the purposes of arriving at the average annual turnover.	In case financial statements of the latest financial year are not audited and therefore, the bidder cannot make it available, the bidder shall provide an undertaking to this effect and statutory auditor shall certify the same. In such case, the bidder shall provide the audited financial statements for five years immediately preceding the year for which the audited annual report is not being produced as per clause 2.2.2.8 of the RFP which shall be considered for evaluation. In case, undertaking duly certified by Statutory auditor is not submitted under by the bidder, under such circumstances, the annual turnover for the year for which audited annual financial statements are not available shall be considered as 'Nil' for the purposes of arriving at the average annual turnover.
12. Appendix-IA Annex-IV Details of Eligible Projects	-	<ul style="list-style-type: none"> <li>• Whether main contractor or sub-contractor</li> <li>• If sub-contractor, whether approved by the Authority or not. (if approved sub-contractor, a copy of such approval must be attached with the Bid)</li> </ul>
13. Appendix-IA Annex-IV Details of Eligible	7. In case of projects in Categories 1 and 2, particulars such as name, address and contact details of owner/ Authority/ Agency (i.e. concession grantor, counter party to concession, etc.) may be provided. In case of projects in Categories 3 and 4, similar particulars of the client need to be	7. In case of projects in Categories 1 and 2, particulars such as name, address and contact details of owner/ Authority/ Agency (i.e. concession grantor, counter party to concession, etc.) may be provided. In case of projects in Categories 3 and 4, similar particulars of the

Projects, Instructions	provided	client need to be provided with the details whether the work was executed as main contractor or sub-contractor. In case the work has been executed as a sub-contractor of the main contractor, approval of the Authority must be submitted alongwith the bid.
14. Section-7 of DATA SHEET	Physical Submission of Bid Documents/POA etc.: Upto 11:00 hrs IST on BID Opening Date.	Physical Submission of Bid Documents/POA etc.: Upto 11:00 hrs IST on BID Opening Date. <b>before issue of LOA.</b>
15.	Online Bid submission	Online Bid submission
16. Section-7 of DATA SHEET	Bid Due date	Bid Due date
	16.12.2020 (1130 hrs)	23.12.2020 (1130 hrs)
	Bid opening date	Bid opening date
	17.12.2020 (1130 hrs)	24.12.2020 (1130 hrs)
18. Sch G Annexure-III	Format for Performance bank Guarantee	As per Annexure-a
19.	<p><b>Maintenance obligations of the Contractor</b></p> <p>The Contractor ... of 5 (five) years, ... Maintenance obligations, the Contractor shall be paid:</p> <p>(a) .....</p> <p>(b) .....</p> <p>(c) .....</p> <p>(d) .....</p>	<p><b>Maintenance obligations of the Contractor</b></p> <p>The .... of 10(Ten) years, ... Maintenance obligations, the Contractor shall be paid:(if not included in the Schedule - H):</p> <p>(a) .....</p> <p>(b) .....</p> <p>(c) .....</p> <p>(d) .....</p> <p>(e) For any other works: The contractor shall be paid at the rate of 0.50% of the contract price for the entire duration of maintenance period.</p>
20. Cl.7.1 of Article 7 of DCA	<p>(a) <b>deleted.</b></p> <p>(b) <b>deleted.</b></p> <p>(c) <b>deleted.</b></p>	<p>(a) If the Bid Price offered by the Selected Bidder is lower than 15% but upto 20% of the Estimated Project Cost, then the Additional Performance Security shall be 10% of the Bid Price offered by the selected Bidder.</p> <p>(b) If the Bid Price offered by the Selected Bidder is lower than 20% of the Estimated</p>

Project Cost, then the Additional Performance Security shall be 20% of the Bid Price offered by the Selected Bidder.  
 (c) This Additional Performance Security shall be treated as part of the Performance Security.

**Dates for providing Right of Way of Construction Zone**

The dates on which the Authority shall provide Right of Way of Construction Zone to the Contractor on different stretches of the Site are stated below:

Sl. No.	From (km)	To (km)	Length (m)	Width (m)	Date of providing Right of Way*
-1	29+490	31+080	1590	51.5	150 (one hundred and fifty) days after the Appointed Date
	31+080	31+150	70	40	
	31+150	31+180	30	30	
	31+180	31+300	120	40	
	31+300	31+400	100	30	
(i) Full Right of Way (full width)	31+400	31+449	49	18	On Appointed date
	31+180	31+300	120	40	
	31+300	31+400	100	30	
(ii) Part Right of Way (part width)	29.030	29.490	460	7	On Appointed date
(iii) Balance Right of Way (width)	29.030	29.100	70	8	
	29.100	29.490	390	10-45	150 (one hundred and fifty) days after the Appointed Date

\*The dates specified herein shall in no case be beyond 150 (one hundred and fifty) days after the Appointed Date.

**Dates for providing Right of Way of Construction Zone**

The dates on which the Authority shall provide Right of Way of Construction Zone to the Contractor on different stretches of the Site are stated below:

Sl. No.	From (km)	To (km)	Length (m)	Width (m)	Date of providing Right of Way*
-1	29+490	31+080	1590	51.5	90% land on Appointed date
	31+080	31+150	70	40	
	31+150	31+180	30	30	
	31+180	31+300	120	40	
	31+300	31+400	100	30	
New Alignment	31+400	31+449	49	18	On Appointed date
	31+180	31+300	120	40	
	31+300	31+400	100	30	
(i) Full Right of Way (full width)	31+400	31+449	49	18	On Appointed date
(ii) Part Right of Way (part width)	29.030	29.490	460	10-45	
	29.100	29.490	390	10-45	150 (one hundred and fifty) days after the appointed date.

The dates specified herein shall in no case be beyond 150 (one hundred and fifty) days after the appointed date.

Annex-II of cl 8.3(i) of Schedule - A

21.	<p>The following expressions and meanings are assigned to the value of the work done:</p> <p>RW= Value of work done for the completion of a stage under the following items of Schedule-H:</p> <p>i. Road works; and</p> <p>ii. Other works</p> <p>BR = Value of work done for the completion of a stage under the items Major Bridges and Structures (Schedule-H)</p> <p>(b) Price adjustment for changes in cost shall be paid in accordance with the following formulae:</p> <p>(i) <math>VRW = 0.85 RW \times [PL \times (LI - LO)/LO + PA \times (AI - AO)/AO + PF \times (FI - FO)/FO + PB \times (BI - BO)/BO + PM \times (MI - MO)/MO + PC \times (CI - CO)/CO + PS \times (SI - SO)/SO]</math></p> <p>(ii) <math>VBR = 0.85 BR \times [PL \times (LI - LO)/LO + PA \times (AI - AO)/AO + PF \times (FI - FO)/FO + PM \times (MI - MO)/MO + PC \times (CI - CO)/CO + PS \times (SI - SO)/SO]</math></p> <p>Where,</p> <p>VRW = Increase or decrease in the cost of road works/other works during the period under consideration due to changes in the rates for relevant components as stated in sub-paragraph (e).</p> <p>VBR = Increase or decrease in the cost of Major Bridges and Structures during the period under consideration due to changes in the rates for relevant components as stated in sub-paragraph (e).</p> <p>PB, PC, PL, PM, and PS are the percentages of bitumen, cement, labour, other materials, and steel/components (including strands and cables) respectively for the relevant item as stated in sub-paragraph (e).</p> <p>PA is the percentage of Plant, machinery and spares component for the relevant item as stated in sub-paragraph (e).</p> <p>PF is the percentage of fuel and lubricants for the relevant items as stated in sub-paragraph (e).</p> <p>A<sub>0</sub> = The wholesale price index as published by the Ministry of Commerce</p>	<p>The following expressions and meanings are assigned to the value of the work done:</p> <p>RTR =Value of work done for the completion of a stage under the following items of Schedule-H: Road works, Tunnel works; and Other works (Schedule-H).</p> <p>(d) Price adjustment for changes in cost shall be paid in accordance with the following formulae:</p> <p><math>VRTR = RTR \times [PL \times (LI - LO)/LO + PA \times (AI - AO)/AO + PF \times (FI - FO)/FO + PC \times (CI - CO)/CO + PS \times (SI - SO)/SO]</math></p> <p>Where</p> <p>VRTR = Increase or decrease in the cost of Road works, Tunnel works, and Structures during the period under consideration due to changes in the rates for relevant components as stated</p> <p>PC, the percentages of cement, for the relevant item. = 0.15</p> <p>PL, the percentages of labour, respectively for the relevant item=0.22</p> <p>PS the percentages of steel/components (including strands and cables) respectively for the relevant item=0.25</p> <p>PA is the percentage of Plant, machinery and spares component for the relevant item=0.18</p> <p>PF is the percentage of fuel and lubricants for the</p>
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	<p>&amp; Industry, Government of India (hereinafter called "WPI") for "Manufacture of machinery for mining, quarrying and construction" for the month of the Base Date.</p> <p>A<sub>1</sub> = The WPI for construction machinery for the month three months prior to the month to which the IPC relates.</p> <p>B<sub>0</sub> = The official retail price of bitumen at the nearest refinery at [Panipat] on the Base Date.</p> <p>B<sub>1</sub> = The official retail price of bitumen at nearest refinery at [Panipat], on the first day of the month three months prior to the month to which the IPC relates.</p> <p>C<sub>0</sub> = The WPI for Ordinary Portland Cement for the month of the Base Date.</p> <p>C<sub>1</sub> = The WPI for Ordinary Portland Cement for the month three months prior to the month to which the IPC relates.</p> <p>F<sub>0</sub> = The official retail price of high speed diesel (HSD) oil at the existing consumer pumps of Indian Oil Corporation ("IOC") in the UT of Jammu &amp; Kashmir on the Base Date.</p> <p>F<sub>1</sub> = The official retail price of HSD at the existing consumer pumps of IOC in the UT of Jammu &amp; Kashmir on the first day of the month three months prior to the month to which the IPC relates.</p> <p>L<sub>0</sub> = The consumer price index for industrial workers for the [circle applicable to worksite in the UT of Jammu &amp; Kashmir], published by Labour Bureau, Ministry of Labour, Government of India, (hereinafter called "CPI") for the month of the Base Date.</p> <p>L<sub>1</sub> = The CPI for the month three months prior to the month to which the IPC relates.</p> <p>M<sub>0</sub> = The WPI for all commodities for the month of the Base Date.</p> <p>M<sub>1</sub> = The WPI for all commodities for the month three months prior to the month to which the IPC relates.</p> <p>S<sub>0</sub> = The WPI for Mild Steel – Long Products for the month of the Base Date.</p> <p>S<sub>1</sub> = The WPI for Mild Steel – Long Products for the month three months prior to the month to which the IPC relates.</p> <p>(e) The following percentages shall govern the price adjustment of the Contract</p>	<p>relevant items=0.05</p> <p>AO = The wholesale price index as published by the Ministry of Commerce &amp; Industry, Government of India (hereinafter called "WPI") for construction machinery for the month of the Base Date.</p> <p>AI = The WPI for construction machinery for the month three months prior to the month to which the IPC relates.</p> <p>CO = The WPI for grey cement for the month of the Base Date.</p> <p>CI = The WPI for grey cement for the month three months prior to the month to which the IPC relates.</p> <p>FO = The official retail price of high speed diesel (HSD) oil at the existing consumer pumps of Indian Oil Corporation ("IOC") in the UTs of [J&amp;K and Ladakh] on the Base Date.</p> <p>FI = The official retail price of HSD at the existing consumer pumps of IOC in the UTs of [J&amp;K and Ladakh] on the first day of the month three months prior to the month to which the IPC relates.</p> <p>LO = The consumer price index for industrial workers for the [circle applicable to project Highway in the UTs of J&amp;K and Ladakh], published by Labour Bureau, Ministry of Labour, Government of India, (hereinafter called "CPI") for the month of the Base Date.</p> <p>LI = The CPI for the month three months prior to the month to which the IPC relates.</p>
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Item	Road Works					Major Bridges and Structures
	Granular work, and Other works	Bituminous work	Cement Concrete Pavement	Culverts, minor bridges and other structures		
Component						
Labour (PL)	[20%]	[20%]	[20%]	[15%]	[15%]	
Cement (PC)	[5%]	Nil	[20%]	[15%]	[15%]	
Steel (PS)	Nil	Nil	Nil	[15%]	[20%]	
Bitumen (PB)	Nil	[15%]	Nil	Nil	Nil	
Fuel and lubricants (PF)	[10%]	[10%]	[10%]	[10%]	[10%]	
Other Materials (PM)	[50%]	[40%]	[35%]	[30%]	[25%]	
Plant, machinery and spares. (PA)	[15%]	[15%]	[15%]	[15%]	[15%]	
Total	100%	100%	100%	100%	100%	

22	Annex-III (Schedule-A)	The project alignment Plan as mentioned.	Legible copy enclosed as Annexure-b.
23.	C1.1.2 of technical specification of the Project	The area in which the works are located is in hilly terrain, the project road starts from 33.161899° N and 75.800597° E and ends at 33.170924° N and 75.807764° E in the state of Jammu & Kashmir.	The area in which the works are located is in hilly terrain, the project road starts from 33° 8'9.55"N, and 75°29'46.09"E and ends at 33° 7'57.46"N and 75°31'6.64"E in the state of Jammu & Kashmir.

Price:

SO = The WPI for steel (re-bars) for the month of the Base Date.

SI = The WPI for steel (re-bars) for the month three months prior to the month to which the IPC relates.

Sum of PA, PL, PC, PS, PF = 0.85

(e) In case an IPC relates to a month which is within 3 (three) months from the Base Date, no price adjustment shall be applicable.

(B. Shivprasad)  
General Manager (T)  
(07.12.2020)

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Annexure-a

Annex – III  
(Schedule - G)  
(See Clause 7.5.v)

**Form for Guarantee for Withdrawal of Retention Money**

National Highways & Infrastructure Development Corporation Limited  
New Delhi

WHEREAS:

- (A) [name and address of contractor] (hereinafter called the “**Contractor**”) has executed an agreement (hereinafter called the “**Agreement**”) with the [name and address of the authority], (hereinafter called the “**Authority**”) for the construction of the \*\*\*\*\* section of [National Highway No. \*\*] on Engineering, Procurement and Construction (the “**EPC**”) basis, subject to and in accordance with the provisions of the Agreement.
- (B) In accordance with Clause 7.5.3 of the Agreement, the Contractor may withdraw the retention money (hereinafter called the “**Retention Money**”) after furnishing to the Authority a bank guarantee for an amount equal to the proposed withdrawal.
- (C) We, ..... through our branch at ..... (the “**Bank**”) have agreed to furnish this bank guarantee (hereinafter called the “**Guarantee**”) for the amount of Rs. ----- cr. (Rs. -----crore) (the “**Guarantee Amount**”).

NOW, THEREFORE, the Bank hereby unconditionally and irrevocably guarantees and affirms as follows:

1. The Bank hereby unconditionally and irrevocably undertakes to pay to the Authority, upon its mere first written demand, and without any demur, reservation, recourse, contest or protest, and without any reference to the Contractor, such sum or sums up to an aggregate sum of the Guarantee Amount as the Authority shall claim, without the Authority being required to prove or to show grounds or reasons for its demand and/or for the sum specified therein.
2. A letter from the Authority, under the hand of an officer not below the rank of General Manager in the National Highways & Infrastructure Development Corporation Limited (NHIDCL), that the Contractor has committed default in the due and faithful performance of all or any of its obligations for under and in accordance with the Agreement shall be conclusive, final and binding on the Bank. The Bank further agrees that the Authority shall be the sole judge as to whether the Contractor is in default in due and faithful performance of its obligations during and under the Agreement and its decision that the Contractor is in default shall be final, and binding on the Bank, notwithstanding any differences between the Authority and the Contractor, or any dispute between them pending before any court, tribunal, arbitrators or any other authority or body, or by the discharge of the Contractor for any reason whatsoever.
3. In order to give effect to this Guarantee, the Authority shall be entitled to act as if the Bank were the principal debtor and any change in the constitution of the Contractor and/or the Bank, whether by their absorption with any other body or corporation or otherwise, shall not in any way or manner affect the liability or obligation of the Bank under this Guarantee.
4. It shall not be necessary, and the Bank hereby waives any necessity, for the Authority to proceed against the Contractor before presenting to the Bank its demand under this Guarantee.
5. The Authority shall have the liberty, without affecting in any manner the liability of the Bank under this Guarantee, to vary at any time, the terms and conditions of the Retention Money and any of the rights and powers exercisable by the Authority against the Contractor, and either to enforce or forbear from enforcing any of the terms and conditions contained in the Agreement and/or the securities available to the Authority, and the Bank shall not be released from its liability and obligation under these presents by any exercise by the Authority of the liberty with reference to the matters aforesaid or by reason of time being given to the Contractor or any other forbearance, indulgence, act or omission on the part of the Authority or of any other matter or thing whatsoever which under any law relating to sureties and guarantors would but for this provision have the effect of releasing the Bank from its liability and obligation under this Guarantee and the Bank hereby waives all of its rights under any such law.
6. This Guarantee is in addition to and not in substitution of any other guarantee or security now or which may hereafter be held by the Authority in respect of or relating to the Retention Money.

7. Notwithstanding anything contained hereinbefore, the liability of the Bank under this Guarantee is restricted to the Guarantee Amount and this Guarantee will remain in force for the period specified in paragraph 8 below and unless a demand or claim in writing is made by the Authority on the Bank under this Guarantee all rights of the Authority under this Guarantee shall be forfeited and the Bank shall be relieved from its liabilities hereunder.
8. The Guarantee shall cease to be in force and effect 90 (ninety) days after the date of the Completion Certificate specified in Clause 12.4 of the Agreement.
9. The Bank undertakes not to revoke this Guarantee during its currency, except with the previous express consent of the Authority in writing, and declares and warrants that it has the power to issue this Guarantee and the undersigned has full powers to do so on behalf of the Bank.
10. Any notice by way of request, demand or otherwise hereunder may be sent by post addressed to the Bank at its above referred branch, which shall be deemed to have been duly authorized to receive such notice and to effect payment thereof forthwith, and if sent by post it shall be deemed to have been given at the time when it ought to have been delivered in due course of post and in proving such notice, when given by post, it shall be sufficient to prove that the envelope containing the notice was posted and a certificate signed by an officer of the Authority that the envelope was so posted shall be conclusive.
11. This Guarantee shall come into force with immediate effect and shall remain in force and effect up to the date specified in paragraph 8 above or until it is released earlier by the Authority pursuant to the provisions of the Agreement.
12. This guarantee shall also be operatable at our.....Branch at New Delhi, from whom, confirmation regarding the issue of this guarantee or extension / renewal thereof shall be made available on demand. In the contingency of this guarantee being invoked and payment thereunder claimed, the said branch shall accept such invocation letter and make payment of amounts so demanded under the said invocation.
13. The guarantor/bank hereby confirms that it is on the SFMS (Structural Finance Messaging System) platform & shall invariably send an advice of this Bank Guarantee to the designated bank of NHIDCL, details of which is as under:

S.No	Particulars	Details
1	Name of Beneficiary	National Highways & Infrastructure Development Corporation Limited
2	Beneficiary Bank Account No.	90621010002610

3	Beneficiary Bank Branch	IFSC SYNB0009062
4	Beneficiary Bank Branch Name	Transport Bhawan, New Delhi
5	Beneficiary Bank Address	Canara Bank (erstwhile Syndicate Bank) transport Bhawan, 1st Parliament Street, New Delhi-110001

Signed and sealed this ..... day of ....., 20..... at .....

SIGNED, SEALED AND DELIVERED For and on behalf of the Bank by:

(Signature)

(Name)

(Designation) (Code Number) (Address) NOTES:

- (i) The bank guarantee should contain the name, designation and code number of the officer(s) signing the guarantee.
- (ii) The address, telephone number and other details of the head office of the Bank as well as of issuing branch should be mentioned on the covering letter of issuing branch.



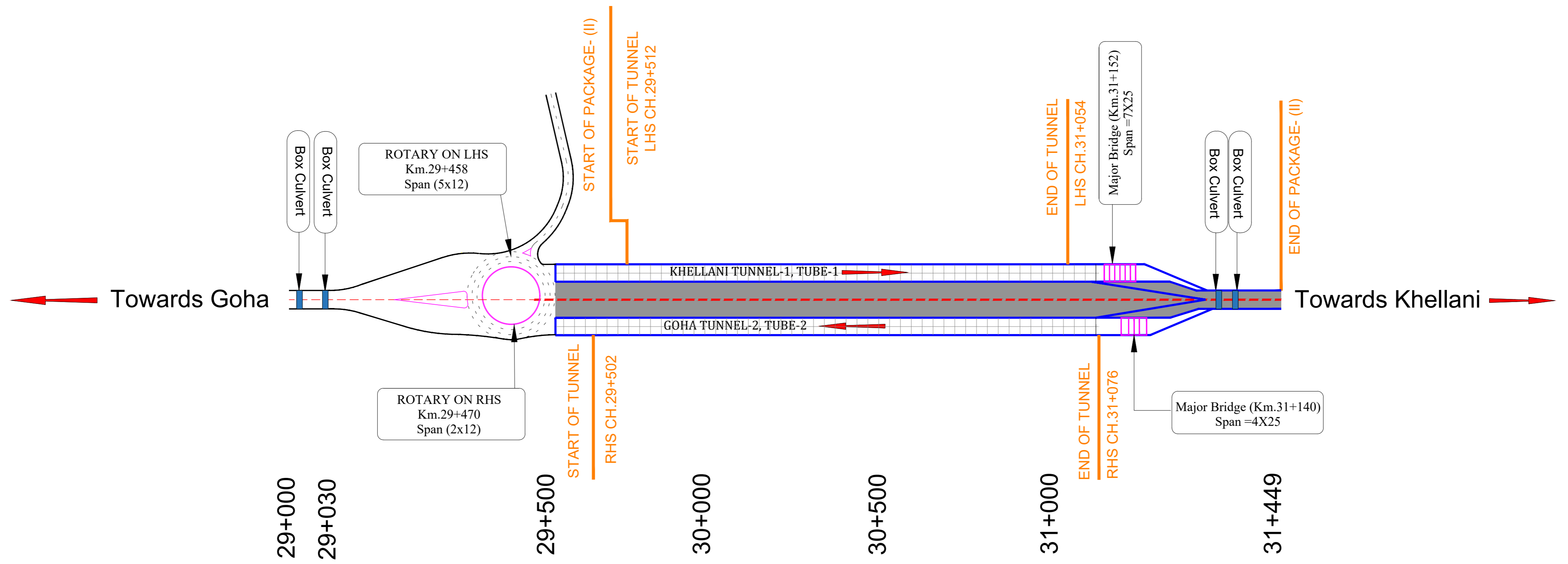

Annex - III  
(Schedule-A)

Construction of Uni-Directional Khellani Tunnel of length 1.574 Km & its approach Road from Km 29.030 to Km 31.449 of total length of 2.419 Km on NH-244 in Union Territory of Jammu & Kashmir on EPC Mode

Alignment Plans

GOHA

KHELLANI



Line Diagram  
Goha-Khellani Package - II  
(Km 29+030 To Km 31+449)



LEGENDS


- Proposed Road
- Proposed Major Bridge
- Proposed Tunnel
- Box Culvert

Revision	DATE	AMENDMENT / ISSUE DESCRIPTION
R0	Oct.2019	
R1	April.2020	

CLIENT  
**NATIONAL HIGHWAY & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.**  
(MINISTRY OF ROAD TRANSPORT & HIGHWAY)  
GOVERNMENT OF INDIA



CONSULTANT:  **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)

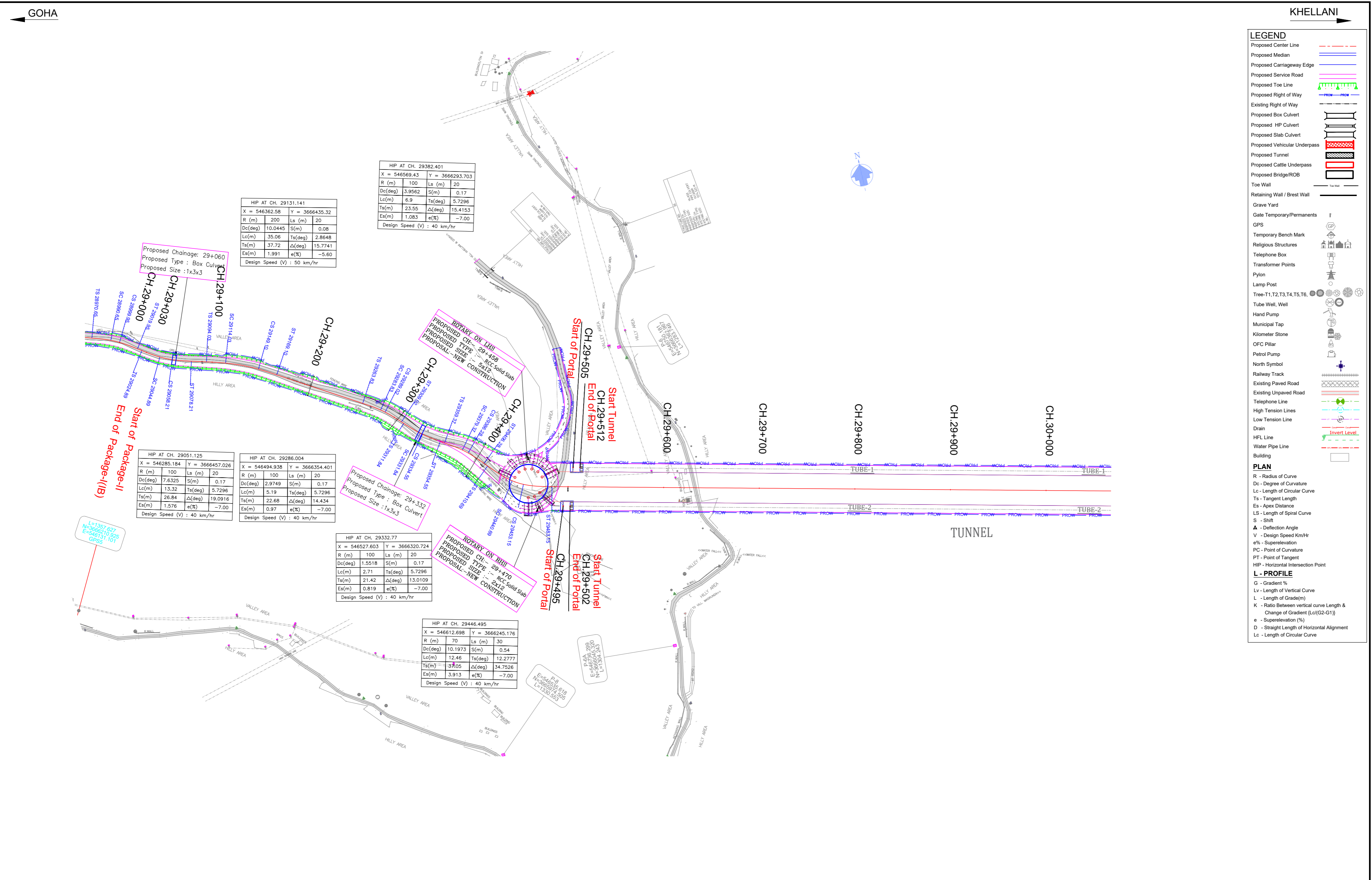
Designed:	<b>MU</b>
Drawn:	<b>RK</b>
Checked:	<b>AP</b>
Approved:	<b>NAP</b> 

<b>TENDER DRAWING</b>	Project Name
Scale	Drawing Title
<b>NTS</b>	Drawing No.

Construction of Uni-Directional Khellani Tunnel of length 1.574 Km & its approach Road from Km 29.030 to Km 31.449 of total length of 2.419 Km on NH-244 in Union Territory of Jammu & Kashmir on EPC Mode

LINE DIAGRAM

Annex - III



**LEGEND**

- Proposed Center Line
- Proposed Median
- Proposed Carriageway Edge
- Proposed Service Road
- Proposed Toe Line
- Proposed Right of Way
- Existing Right of Way
- Proposed Box Culvert
- Proposed HP Culvert
- Proposed Slab Culvert
- Proposed Vehicular Underpass
- Proposed Tunnel
- Proposed Cattle Underpass
- Proposed Bridge/ROB
- Toe Wall
- Retaining Wall / Breast Wall
- Grave Yard
- Gate Temporary/Permanents
- GPS
- Temporary Bench Mark
- Religious Structures
- Telephone Box
- Transformer Points
- Pylon
- Lamp Post
- Tree-T1,T2,T3,T4,T5,T6
- Tube Well, Well
- Hand Pump
- Municipal Tap
- Kilometer Stone
- OFC Pillar
- Petrol Pump
- North Symbol
- Railway Track
- Existing Paved Road
- Existing Unpaved Road
- Telephone Line
- High Tension Lines
- Low Tension Line
- Drain
- HFL Line
- Water Pipe Line
- Building

**PLAN**

- R - Radius of Curve
- Dc - Degree of Curvature
- Lc - Length of Circular Curve
- Ts - Tangent Length
- Es - Apex Distance
- LS - Length of Spiral Curve
- S - Shift
- Δ - Deflection Angle
- V - Design Speed Km/Hr
- e% - Superelevation
- PC - Point of Curvature
- PT - Point of Tangent
- HIP - Horizontal Intersection Point



**L - PROFILE**

- G - Gradient %
- Lv - Length of Vertical Curve
- L - Length of Grade(m)
- K - Ratio Between vertical curve Length & Change of Gradient (Lc/(G2-G1))
- e - Superelevation (%)
- D - Straight Length of Horizontal Alignment
- Lc - Length of Circular Curve

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 CULTURAL CENTRE BUILDING  
 NEW DELHI - 110001 (INDIA)

Designed: **MU**  
 Drawn: **RK**  
 Checked: **AP**  
 Approved: **NAP**

**TENDER DRAWING**  
 Project Name  
 Scale  
 NTS  
 Drawing No. 01

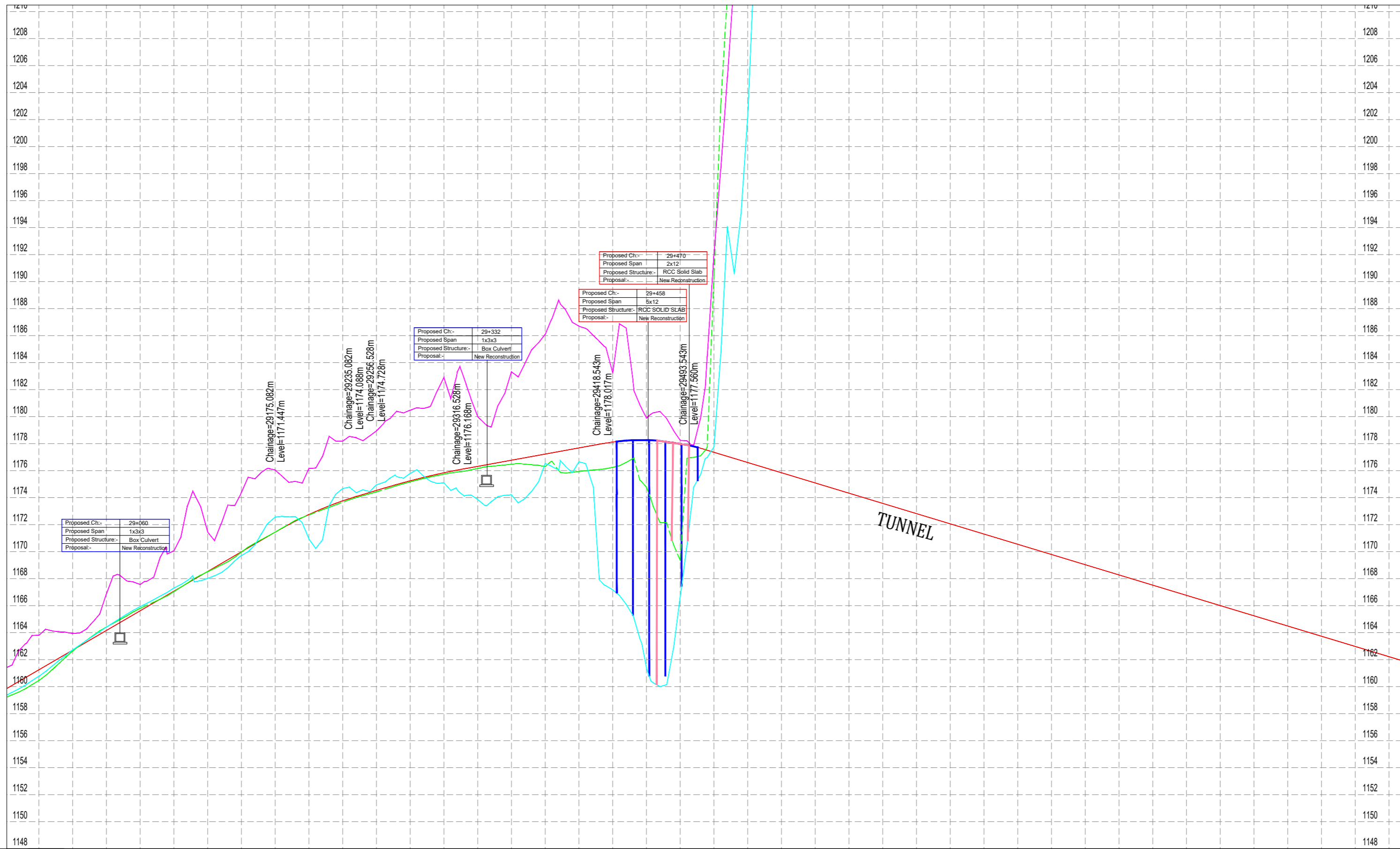
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PLAN & PROFILE  
 (KM.29+000 TO KM.30+000)

Annex - III

GOHA

KHELLANI



**LEGEND**

- Proposed Center Line
- Proposed Median
- Proposed Carriageway Edge
- Proposed Service Road
- Proposed Toe Line
- Proposed Right of Way
- Existing Right of Way
- Proposed Box Culvert
- Proposed HP Culvert
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- Kilometer Stone
- OFC Pillar
- Petrol Pump
- North Symbol
- Railway Track
- Existing Paved Road
- Existing Unpaved Road
- Telephone Line
- High Tension Lines
- Low Tension Line
- Drain
- HFL Line
- Water Pipe Line
- Building

**PLAN**

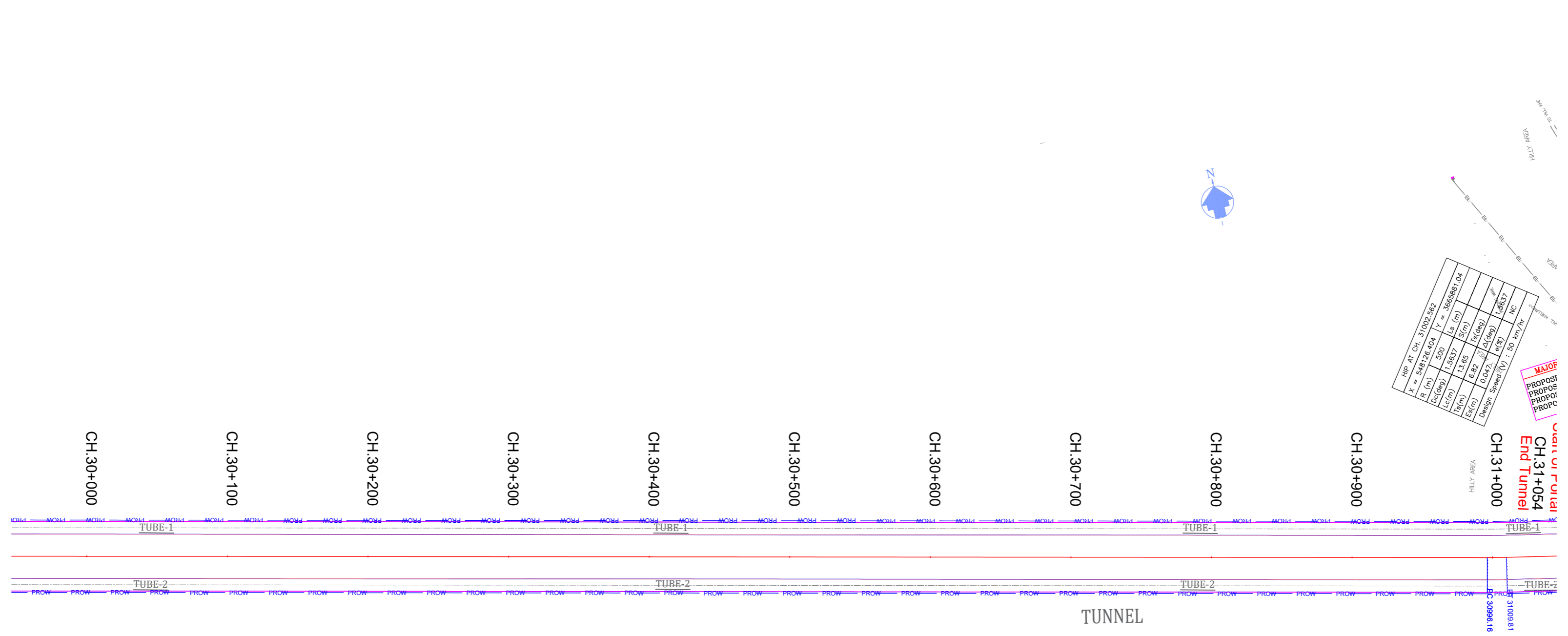
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- e - Superelevation (%)
- D - Straight Length of Horizontal Alignment
- Lc - Length of Circular Curve

DATUM (m) = 1148

Proposed Road Level at Centerline (m)	-1161.259	-1162.711	-1164.166	-1165.621	-1167.076	-1168.532	-1169.987	-1171.442	-1172.897	-1174.352	-1175.807	-1177.262	-1178.717	-1180.172	-1181.627	-1183.082	-1184.537	-1185.992	-1187.447	-1188.902	-1190.357	-1191.812	-1193.267	-1194.722	-1196.177	-1197.632	-1199.087	-1200.542	-1201.997	-1203.452	-1204.907	-1206.362	-1207.817	-1209.272	-1210.727	-1212.182	-1213.637	-1215.092	-1216.547	-1218.002	-1219.457	-1220.912	-1222.367	-1223.822	-1225.277	-1226.732	-1228.187	-1229.642	-1231.097	-1232.552	-1234.007	-1235.462	-1236.917	-1238.372	-1239.827	-1241.282	-1242.737	-1244.192	-1245.647	-1247.102	-1248.557	-1250.012	-1251.467	-1252.922	-1254.377	-1255.832	-1257.287	-1258.742	-1260.197	-1261.652	-1263.107	-1264.562	-1266.017	-1267.472	-1268.927	-1270.382	-1271.837	-1273.292	-1274.747	-1276.202	-1277.657	-1279.112	-1280.567	-1282.022	-1283.477	-1284.932	-1286.387	-1287.842	-1289.297	-1290.752	-1292.207	-1293.662	-1295.117	-1296.572	-1298.027	-1299.482	-1300.937	-1302.392	-1303.847	-1305.302	-1306.757	-1308.212	-1309.667	-1311.122	-1312.577	-1314.032	-1315.487	-1316.942	-1318.397	-1319.852	-1321.307	-1322.762	-1324.217	-1325.672	-1327.127	-1328.582	-1330.037	-1331.492	-1332.947	-1334.402	-1335.857	-1337.312	-1338.767	-1340.222	-1341.677	-1343.132	-1344.587	-1346.042	-1347.497	-1348.952	-1350.407	-1351.862	-1353.317	-1354.772	-1356.227	-1357.682	-1359.137	-1360.592	-1362.047	-1363.502	-1364.957	-1366.412	-1367.867	-1369.322	-1370.777	-1372.232	-1373.687	-1375.142	-1376.597	-1378.052	-1379.507	-1380.962	-1382.417	-1383.872	-1385.327	-1386.782	-1388.237	-1389.692	-1391.147	-1392.602	-1394.057	-1395.512	-1396.967	-1398.422	-1399.877	-1401.332	-1402.787	-1404.242	-1405.697	-1407.152	-1408.607	-1410.062	-1411.517	-1412.972	-1414.427	-1415.882	-1417.337	-1418.792	-1420.247	-1421.702	-1423.157	-1424.612	-1426.067	-1427.522	-1428.977	-1430.432	-1431.887	-1433.342	-1434.797	-1436.252	-1437.707	-1439.162	-1440.617	-1442.072	-1443.527	-1444.982	-1446.437	-1447.892	-1449.347	-1450.802	-1452.257	-1453.712	-1455.167	-1456.622	-1458.077	-1459.532	-1460.987	-1462.442	-1463.897	-1465.352	-1466.807	-1468.262	-1469.717	-1471.172	-1472.627	-1474.082	-1475.537	-1476.992	-1478.447	-1479.902	-1481.357	-1482.812	-1484.267	-1485.722	-1487.177	-1488.632	-1490.087	-1491.542	-1492.997	-1494.452	-1495.907	-1497.362	-1498.817	-1500.272	-1501.727	-1503.182	-1504.637	-1506.092	-1507.547	-1509.002	-1510.457	-1511.912	-1513.367	-1514.822	-1516.277	-1517.732	-1519.187	-1520.642	-1522.097	-1523.552	-1525.007	-1526.462	-1527.917	-1529.372	-1530.827	-1532.282	-1533.737	-1535.192	-1536.647	-1538.102	-1539.557	-1541.012	-1542.467	-1543.922	-1545.377	-1546.832	-1548.287	-1549.742	-1551.197	-1552.652	-1554.107	-1555.562	-1557.017	-1558.472	-1559.927	-1561.382	-1562.837	-1564.292	-1565.747	-1567.202	-1568.657	-1570.112	-1571.567	-1573.022	-1574.477	-1575.932	-1577.387	-1578.842	-1580.297	-1581.752	-1583.207	-1584.662	-1586.117	-1587.572	-1589.027	-1590.482	-1591.937	-1593.392	-1594.847	-1596.302	-1597.757	-1599.212	-1600.667	-1602.122	-1603.577	-1605.032	-1606.487	-1607.942	-1609.397	-1610.852	-1612.307	-1613.762	-1615.217	-1616.672	-1618.127	-1619.582	-1621.037	-1622.492	-1623.947	-1625.402	-1626.857	-1628.312	-1629.767	-1631.222	-1632.677	-1634.132	-1635.587	-1637.042	-1638.497	-1639.952	-1641.407	-1642.862	-1644.317	-1645.772	-1647.227	-1648.682	-1650.137	-1651.592	-1653.047	-1654.502	-1655.957	-1657.412	-1658.867	-1660.322	-1661.777	-1663.232	-1664.687	-1666.142	-1667.597	-1669.052	-1670.507	-1671.962	-1673.417	-1674.872	-1676.327	-1677.782	-1679.237	-1680.692	-1682.147	-1683.602	-1685.057	-1686.512	-1687.967	-1689.422	-1690.877	-1692.332	-1693.787	-1695.242	-1696.697	-1698.152	-1699.607	-1701.062	-1702.517	-1703.972	-1705.427	-1706.882	-1708.337	-1709.792	-1711.247	-1712.702	-1714.157	-1715.612	-1717.067	-1718.522	-1719.977	-1721.432	-1722.887	-1724.342	-1725.797	-1727.252	-1728.707	-1730.162	-1731.617	-1733.072	-1734.527	-1735.982	-1737.437	-1738.892	-1740.347	-1741.802	-1743.257	-1744.712	-1746.167	-1747.622	-1749.077	-1750.532	-1751.987	-1753.442	-1754.897	-1756.352	-1757.807	-1759.262	-1760.717	-1762.172	-1763.627	-1765.082	-1766.537	-1767.992	-1769.447	-1770.902	-1772.357	-1773.812	-1775.267	-1776.722	-1778.177	-1779.632	-1781.087	-1782.542	-1783.997	-1785.452	-1786.907	-1788.362	-1789.817	-1791.272	-1792.727	-1794.182	-1795.637	-1797.092	-1798.547	-1799.999	-1801.454	-1802.909	-1804.364	-1805.819	-1807.274	-1808.729	-1810.184	-1811.639	-1813.094	-1814.549	-1816.004	-1817.459	-1818.914	-1820.369	-1821.824	-1823.279	-1824.734	-1826.189	-1827.644	-1829.099	-1830.554	-1832.009	-1833.464	-1834.919	-1836.374	-1837.829	-1839.284	-1840.739	-1842.194	-1843.649	-1845.104	-1846.559	-1848.014	-1849.469	-1850.924	-1852.379	-1853.834	-1855.289	-1856.744	-1858.199	-1859.654	-1861.109	-1862.564	-1864.019	-1865.474	-1866.929	-1868.384	-1869.839	-1871.294	-1872.749	-1874.204	-1875.659	-1877.114	-1878.569	-1880.024	-1881.479	-1882.934	-1884.389	-1885.844	-1887.299	-1888.754	-1890.209	-1891.664	-1893.119	-1894.574	-1896.029	-1897.484	-1898.939	-1900.394	-1901.849	-1903.304	-1904.759	-1906.214	-1907.669	-1909.124	-1910.579	-1912.034	-1913.489	-1914.944	-1916.399	-1917.854	-1919.309	-1920.764	-1922.219	-1923.674	-1925.129	-1926.584	-1928.039	-1929.494	-1930.949	-1932.404	-1933.859	-1935.314	-1936.769	-1938.224	-1939.679	-1941.134	-1942.589	-1944.044	-1945.499	-1946.954	-1948.409	-1949.864	-1951.319	-1952.774	-1954.229	-1955.684	-1957.139	-1958.594	-1960.049	-1961.504	-1962.959	-1964.414	-1965.869	-1967.324	-1968.779	-1970.234	-1971.689	-1973.144	-1974.599	-1976.054	-1977.509	-1978.964	-1980.419	-1981.874	-1983.329	-1984.784	-1986.239	-1987.694	-1989.149	-1990.604	-1992.059	-1993.514	-1994.969	-1996.424	-1997.879	-1999.334	-2000.789	-2002.244	-2003.699	-2005.154	-2006.609	-2008.064	-2009.519	-2010.974	-2012.429	-2013.884	-2015.339	-2016.794	-2018.249	-2019.704	-2021.159	-2022.614	-2024.069	-2025.524	-2026.979	-2028.434	-2029.889	-2031.344	-2032.799	-2034.254	-2035.709	-2037.164	-2038.619	-2040.074	-2041.529	-2042.984	-2044.439	-2045.894	-2047.349	-2048.804	-2050.259	-2051.714	-2053.169	-2054.624	-2056.079	-2057.534	-2058.989	-2060.444	-2061.899	-2063.354	-2064.809	-2066.264	-2067.719	-2069.174	-2070.629	-2072.084	-2073.539	-2074.994	-2076.449	-2077.904	-2079.359	-2080.814	-2082.269	-2083.724	-2085.179	-2086.634	-2088.089	-2089.544	-2090.999	-2092.454	-2093.909	-2095.364	-2096.819	-2098.274	-2099.729	-2101.184	-2102.639	-2104.094	-2105.549	-2107.004	-2108.459	-2109.914	-2111.369	-2112.824	-2114.279	-2115.734	-2117.189	-2118.644	-2120.099	-2121.554	-2123.009	-2124.464	-2125.919	-2127.374	-2128.829	-2130.284	-2131.739	-2133.194	-2134.649	-2136.104	-2137.559	-2139.014	-2140.469	-2141.924	-2143.379	-2144.834	-2146.289	-2147.744	-2149.199	-2150.654	-2152.109	-2153.564	-2155.019	-2156.474	-2157.929	-2159.384	-2160.839	-2162.294	-2163.749	-2165.204	-2166.659	-2168.114	-2169.569	-2171.024	-2172.479	-2173.934	-2175.389	-2176.844	-2178.299	-2179.754	-2181.209	-2182.664	-2184.119	-2185.574	-2187.029	-2188.484	-2189.939	-2191.394	-2192.849	-2194.304	-2195.759	-2197.214	-2198.669	-2200.124	-2201.579	-2203.034	-2204.489	-2205.944	-2207.399	-2208.854	-2210.309	-2211.764	-2213.219	-2214.674	-2216.129	-2217.584	-2219.039	-2220.494	-2221.949	-2223.404	-2224.859	-2226.314	-2227.769	-2229.224	-2230.679	-2232.134	-2233.589	-2235.044	-2236.499	-2237.954	-2239.409	-2240.864	-2242.319	-2243.774	-2245.229	-2246.684	-2248.139	-2249.594	-2251.049	-2252.504	-2253.959	-2255.414	-2256.869	-2258.324	-2259.779	-2261.234	-2262.689	-2264.144	-2265.599	-2267.054	-2268.509	-2269.964	-2271.419	-2272.874	-2274.329	-2275.784	-2277.239	-2278.694	-2280.149	-2281.604	-2283.059	-2284.514	-2285.969	-2287.424	-2288.879	-2290.334	-2291.789	-2293.244	-2294.699	-2296.154	-2297.609	-2299.064	-2300.519	-2301.974	-2303.429	-2304.884	-2306.339	-2307.794	-2309.249	-2310.704	-2312.159	-2313.614	-2315.069	-2316.524	-2317.979	-2319.434	-2320.889	-2322.344	-2323.799	-2325.254	-2326.709	-2328.164	-2329.619	-2331.074	-2332.529	-2333.984	-2335.439	-2336.894	-2338.349	-2339.804	-2341.259	-2342.714	-2344.169	-2345.624	-2347.079	-2348.534	-2350.089	-2351.544	-2352.999	-2354.454	-2355.909	-2357.364	-2358.819	-2360.274	-2361.729	-2363.184	-2364.639	-2366.094	-2367.549	-2368.999	-2370.454	-2371.909	-2373.364	-2374.819	-2376.274	-2377.729	-2379.184	-2380.639	-2382.094	-2383.549	-2385.004	-2386.459	-2387.914	-2389.369	-2390.824	-2392.279	-2393.734	-2395.189	-2396.644	-2398.099	-2399.554	-2401.009	-2402.464	-2403.919	-2405.374	-2406.829	-2408.284	-2409.739	-2411.194	-2412.649	-2414.104	-2415.559	-2417.014	-2418.469	-2419.924	-2421.379	-2422.834	-2424.289	-2425.744	-2427.199	-2428.654	-2430.10
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**LEGEND**

- Proposed Center Line
- Proposed Median
- Proposed Carriageway Edge
- Proposed Service Road
- Proposed Toe Line
- Proposed Right of Way
- Existing Right of Way
- Proposed Box Culvert
- Proposed HP Culvert
- Proposed Slab Culvert
- Proposed Vehicular Underpass
- Proposed Tunnel
- Proposed Cattle Underpass
- Proposed Bridge/ROB
- Toe Wall
- Retaining Wall / Brest Wall
- Grave Yard
- Gate Temporary/Permanents
- GPS
- Temporary Bench Mark
- Religious Structures
- Telephone Box
- Transformer Points
- Pylon
- Lamp Post
- Tree-T1,T2,T3,T4,T5,T6
- Tube Well, Well
- Hand Pump
- Municipal Tap
- Kilometer Stone
- OFC Pillar
- Petrol Pump
- North Symbol
- Railway Track
- Existing Paved Road
- Existing Unpaved Road
- Telephone Line
- High Tension Lines
- Low Tension Line
- Drain
- HFL Line
- Water Pipe Line
- Building

**PLAN**

- R - Radius of Curve
- Dc - Degree of Curvature
- Lc - Length of Circular Curve
- Ts - Tangent Length
- Es - Apex Distance
- LS - Length of Spiral Curve
- S - Shift
- Δ - Deflection Angle
- V - Design Speed Km/Hr
- e% - Superelevation
- PC - Point of Curvature
- PT - Point of Tangent
- HIP - Horizontal Intersection Point

**L - PROFILE**

- G - Gradient %
- Lv - Length of Vertical Curve
- L - Length of Grade(m)
- K - Ratio Between vertical curve Length & Change of Gradient (Lc/(G2-G1))
- e - Superelevation (%)
- D - Straight Length of Horizontal Alignment
- Lc - Length of Circular Curve

Revision	DATE	AMENDMENT / ISSUE DESCRIPTION
R0	Oct.2019	
R1	April.2020	

CLIENT  
**NATIONAL HIGHWAY & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.**  
 (MINISTRY OF ROAD TRANSPORT & HIGHWAY)  
 GOVERNMENT OF INDIA

CONSULTANT: **getiara eurostudios**

**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:	<b>MU</b>
Drawn:	<b>RK</b>
Checked:	<b>AP</b>
Approved:	<b>NAP</b> <i>[Signature]</i>

**TENDER DRAWING**

Scale  
 NTS

Project Name	Construction of Uni-Directional Khellani Tunnel of length 1.574 Km & its approach Road from Km 29.030 to Km 31.449 of total length of 2.419 Km on NH-244 in Union Territory of Jammu & Kashmir on EPC Mode	
Drawing Title	PLAN & PROFILE (KM.30+000 TO KM.31+000)	
Drawing No.	02	Annex - III

GOHA

KHELLANI

**LEGEND**

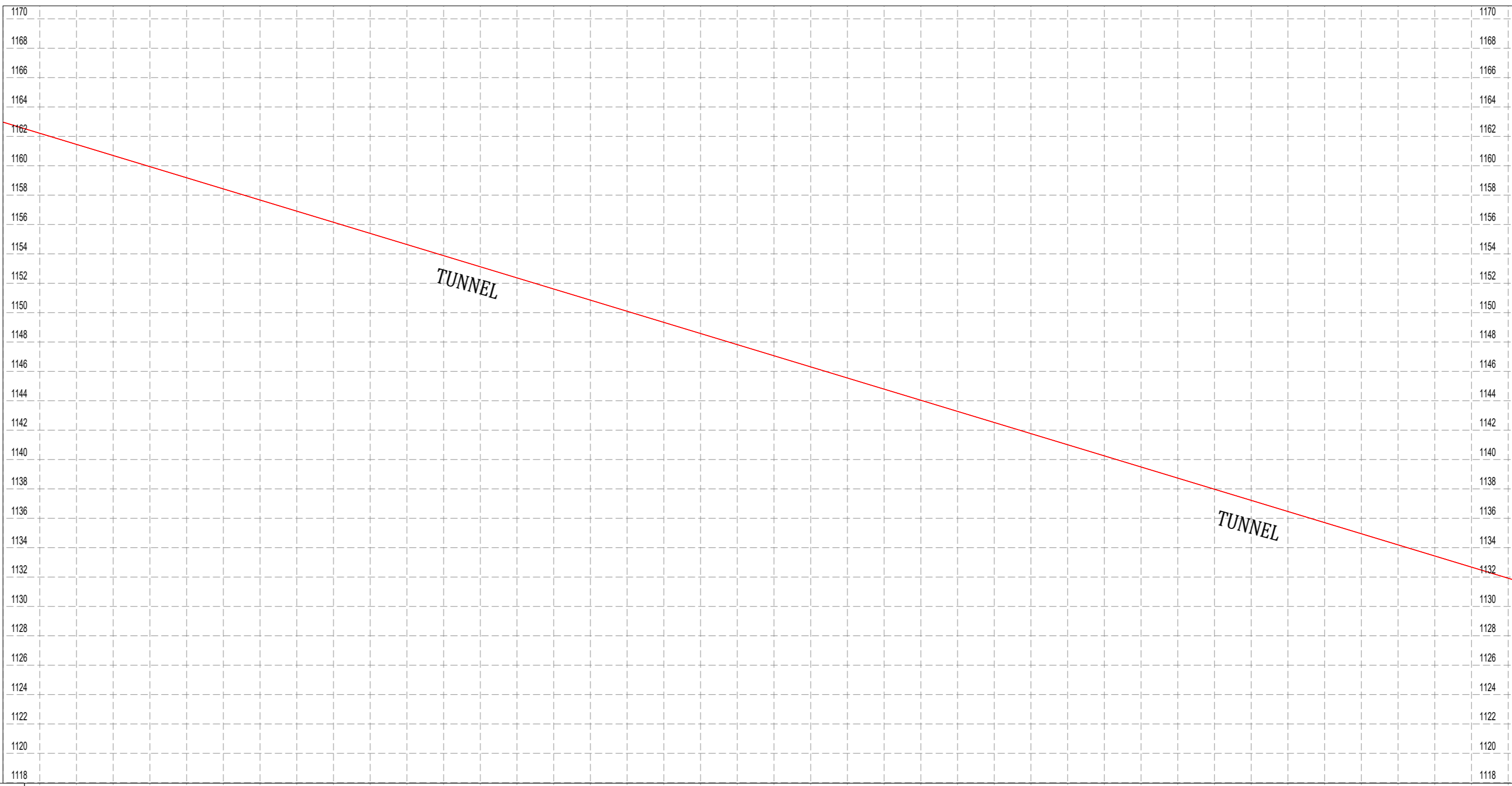
- Proposed Center Line
- Proposed Median
- Proposed Carriageway Edge
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- Proposed Cattle Underpass
- Proposed Bridge/ROB
- Toe Wall
- Retaining Wall / Breast Wall
- Grave Yard
- Gate Temporary/Permanents
- GPS
- Temporary Bench Mark
- Religious Structures
- Telephone Box
- Transformer Points
- Pylon
- Lamp Post
- Tree-T1,T2,T3,T4,T5,T6
- Tube Well, Well
- Hand Pump
- Municipal Tap
- Kilometer Stone
- OFC Pillar
- Petrol Pump
- North Symbol
- Railway Track
- Existing Paved Road
- Existing Unpaved Road
- Telephone Line
- High Tension Lines
- Low Tension Line
- Drain
- HFL Line
- Water Pipe Line
- Building

**PLAN**

- R - Radius of Curve
- Dc - Degree of Curvature
- Lc - Length of Circular Curve
- Ts - Tangent Length
- Es - Apex Distance
- LS - Length of Spiral Curve
- S - Shift
- Δ - Deflection Angle
- V - Design Speed Km/Hr
- e% - Superelevation
- PC - Point of Curvature
- PT - Point of Tangent
- HIP - Horizontal Intersection Point

**L - PROFILE**

- G - Gradient %
- Lv - Length of Vertical Curve
- L - Length of Grade(m)
- K - Ratio Between vertical curve Length & Change of Gradient (Lc(G2-G1))
- e - Superelevation (%)
- D - Straight Length of Horizontal Alignment
- Lc - Length of Circular Curve

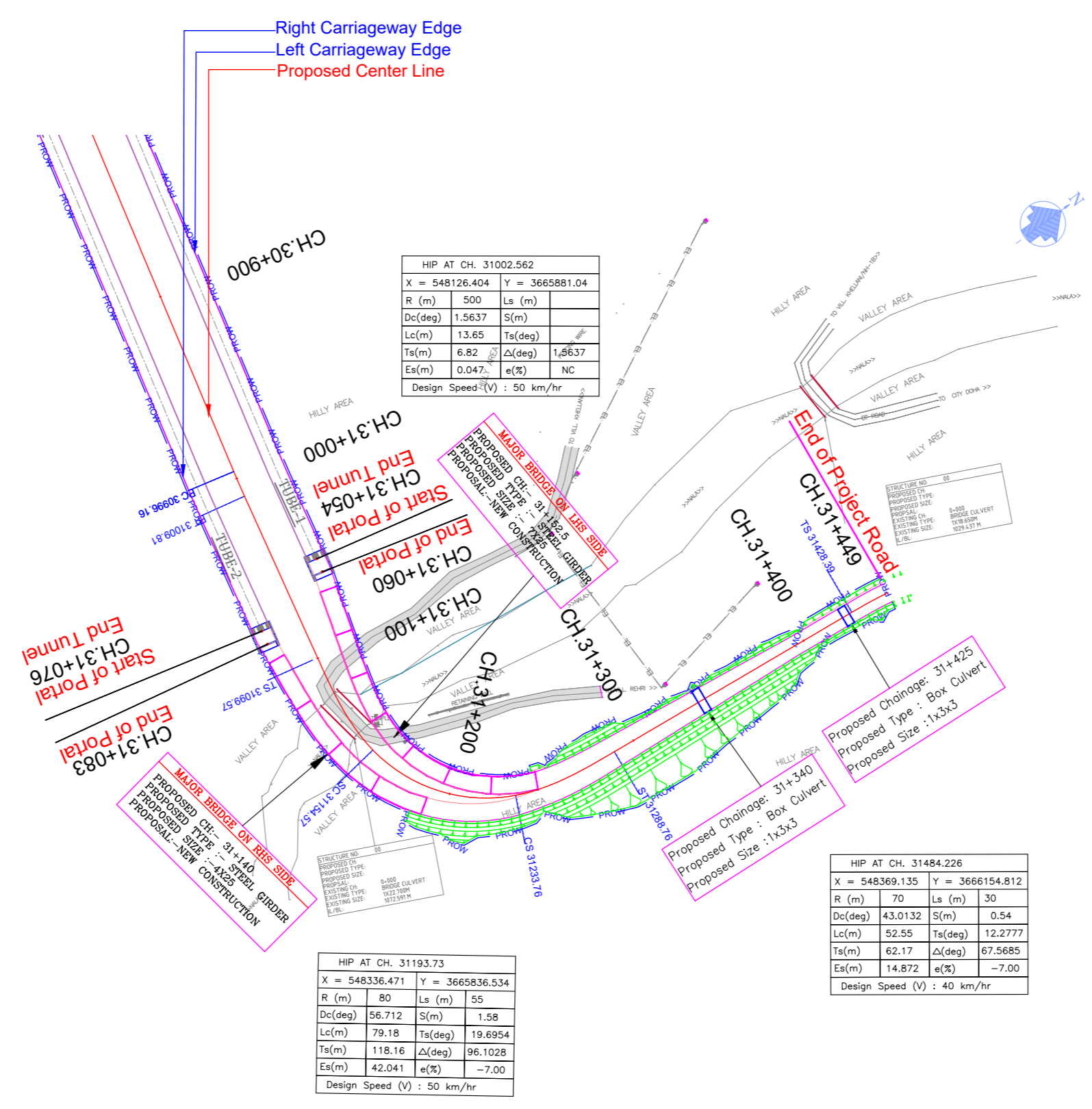


Proposed Road Level at Centerline (m)	1162.215	1161.457	1160.700	1159.942	1159.185	1158.427	1157.670	1156.912	1156.155	1155.397	1154.640	1153.882	1153.125	1152.367	1151.610	1150.852	1150.095	1149.337	1148.580	1147.822	1147.065	1146.307	1145.550	1144.792	1144.035	1143.277	1142.520	1141.762	1141.005	1140.247	1139.490	1138.732	1137.975	1137.217	1136.460	1135.702	1134.945	1134.187	1133.430	1132.672	1131.915			
Existing Ground/Road Level at Centerline (m)	1233.801	1232.884	1231.968	1231.051	1230.135	1229.219	1228.302	1227.386	1226.469	1225.553	1224.636	1223.720	1222.803	1221.887	1220.970	1220.054	1219.137	1218.221	1217.304	1216.388	1215.471	1214.555	1213.638	1212.722	1211.805	1210.889	1209.972	1209.056	1208.139	1207.223	1206.306	1205.390	1204.473	1203.557	1202.640	1201.724	1200.807	1199.891	1198.974	1198.058	1197.141	1196.225	1195.308	
Ground Level CW Edge Left Side (m)	1281.025	1280.009	1278.992	1277.976	1276.959	1275.943	1274.927	1273.910	1272.894	1271.877	1270.861	1269.845	1268.828	1267.812	1266.795	1265.779	1264.762	1263.746	1262.729	1261.713	1260.696	1259.680	1258.663	1257.647	1256.630	1255.614	1254.597	1253.581	1252.564	1251.548	1250.531	1249.515	1248.498	1247.482	1246.465	1245.449	1244.432	1243.416	1242.400	1241.383	1240.367	1239.350	1238.334	
Ground Level CW Edge Right Side (m)	1281.025	1284.028	1287.031	1290.034	1293.037	1296.040	1299.043	1302.046	1305.049	1308.052	1311.055	1314.058	1317.061	1320.064	1323.067	1326.070	1329.073	1332.076	1335.079	1338.082	1341.085	1344.088	1347.091	1350.094	1353.097	1356.100	1359.103	1362.106	1365.109	1368.112	1371.115	1374.118	1377.121	1380.124	1383.127	1386.130	1389.133	1392.136	1395.139	1398.142	1401.145	1404.148	1407.151	1410.154
Proposed Vertical Alignment Schematic	G=-3.03%																																											
Proposed Horizontal Alignment Schematic	L=1540.72m																																											
Superelevation/Crossfall (%)	e=2.5%																																											
Pavement	Subgrade CBR (%) Reconstruction/Strengthening Widening/New construction																																											
Chainage (Km)	30+000	30+025	30+050	30+075	30+100	30+125	30+150	30+175	30+200	30+225	30+250	30+275	30+300	30+325	30+350	30+375	30+400	30+425	30+450	30+475	30+500	30+525	30+550	30+575	30+600	30+625	30+650	30+675	30+700	30+725	30+750	30+775	30+800	30+825	30+850	30+875	30+900	30+925	30+950	30+975	31+000			

Revision	DATE	AMENDMENT / ISSUE DESCRIPTION	CLIENT <b>NATIONAL HIGHWAY &amp; INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.</b> (MINISTRY OF ROAD TRANSPORT & HIGHWAY) GOVERNMENT OF INDIA 	CONSULTANT: <b>TPF Getinsa Euroestudios S.L.</b> In Association with <b>RODIC CONSULTANTS PVT. LTD.</b> 1, JAI SINGH MARG (FIRST FLOOR), YMCA CULTURAL CENTRE BUILDING NEW DELHI - 110001 (INDIA)	Designed:	<b>MU</b>	<b>TENDER DRAWING</b> Project Name Construction of Uni-Directional Khellani Tunnel of length 1.574 Km & its approach Road from Km 29.030 to Km 31.449 of total length of 2.419 Km on NH-244 in Union Territory of Jammu & Kashmir on EPC Mode Scale NTS Drawing Title PLAN & PROFILE (KM.30+000 TO KM.+31+000) Drawing No. 2A
R0	Oct.2019				Drawn:	<b>RK</b>	
R1	April.2020				Checked:	<b>AP</b>	
				Approved:	<b>NAP</b>	Annex - III	

GOHA

KHELLANI



**LEGEND**

- Proposed Center Line
- Proposed Median
- Proposed Carriageway Edge
- Proposed Service Road
- Proposed Toe Line
- Proposed Right of Way
- Existing Right of Way
- Proposed Box Culvert
- Proposed HP Culvert
- Proposed Slab Culvert
- Proposed Vehicular Underpass
- Proposed Tunnel
- Proposed Cattle Underpass
- Proposed Bridge/ROB
- Toe Wall
- Retaining Wall / Breast Wall
- Grave Yard
- Gate Temporary/Permanents
- GPS
- Temporary Bench Mark
- Religious Structures
- Telephone Box
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- Tree-T1,T2,T3,T4,T5,T6
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- North Symbol
- Railway Track
- Existing Paved Road
- Existing Unpaved Road
- Telephone Line
- High Tension Lines
- Low Tension Line
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- HFL Line
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- Building

**PLAN**

- R - Radius of Curve
- Dc - Degree of Curvature
- Lc - Length of Circular Curve
- Ts - Tangent Length
- Es - Apex Distance
- LS - Length of Spiral Curve
- S - Shift
- Δ - Deflection Angle
- V - Design Speed Km/hr
- e% - Superelevation
- PC - Point of Curvature
- PT - Point of Tangent
- HIP - Horizontal Intersection Point



**L - PROFILE**


- G - Gradient %
- Lv - Length of Vertical Curve
- L - Length of Grade(m)
- K - Ratio Between vertical curve Length & Change of Gradient (Lc/(G2-G1))
- e - Superelevation (%)
- D - Straight Length of Horizontal Alignment
- Lc - Length of Circular Curve

Revision	DATE	AMENDMENT / ISSUE DESCRIPTION
R0	Oct.2019	
R1	April.2020	

CLIENT  
**NATIONAL HIGHWAY & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.**  
 (MINISTRY OF ROAD TRANSPORT & HIGHWAY)  
 GOVERNMENT OF INDIA

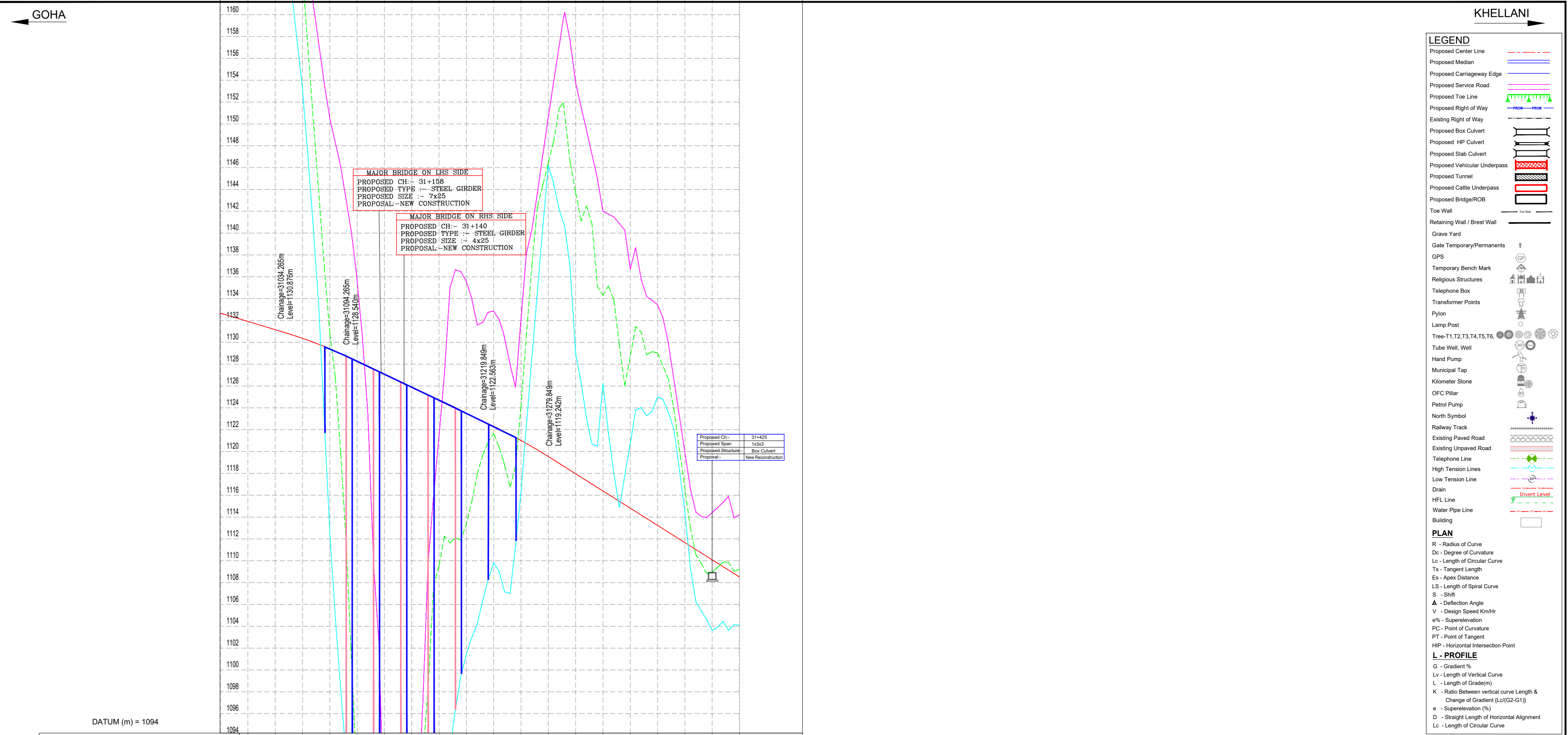


CONSULTANT:  
 **TPF Getinsa Eurostudios S.L.**  
 In Association with  
 **RODIC CONSULTANTS PVT. LTD.**  
 1, JAI SINGH MARG (FIRST FLOOR), YMCA CULTURAL CENTRE BUILDING  
 NEW DELHI - 110001 (INDIA)

Designed:	<b>MU</b>
Drawn:	<b>RK</b>
Checked:	<b>AP</b>
Approved:	<b>NAP</b> 

<b>TENDER DRAWING</b>	Project Name
Scale	Drawing Title
NTS	Drawing No.

Construction of Uni-Directional Khellani Tunnel of length 1.574 Km & its approach Road from Km 29.030 to Km 31.449 of total length of 2.419 Km on NH-244 in Union Territory of Jammu & Kashmir on EPC Mode	
PLAN & PROFILE (KM.31+000 TO KM.31+449)	
03	Annex - III



**LEGEND**

- Proposed Center Line
- Proposed Median
- Proposed Carriageway Edge
- Proposed Service Road
- Proposed Toe Line
- Proposed Right of Way
- Existing Right of Way
- Proposed Box Culvert
- Proposed HP Culvert
- Proposed Slab Culvert
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**PLAN**

- R - Radius of Curve
- Dc - Degree of Curvature
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- A - Deflection Angle
- V - Design Speed Km/Hr
- e% - Superelevation
- PC - Point of Curvature
- PT - Point of Tangent
- HIP - Horizontal Intersection Point

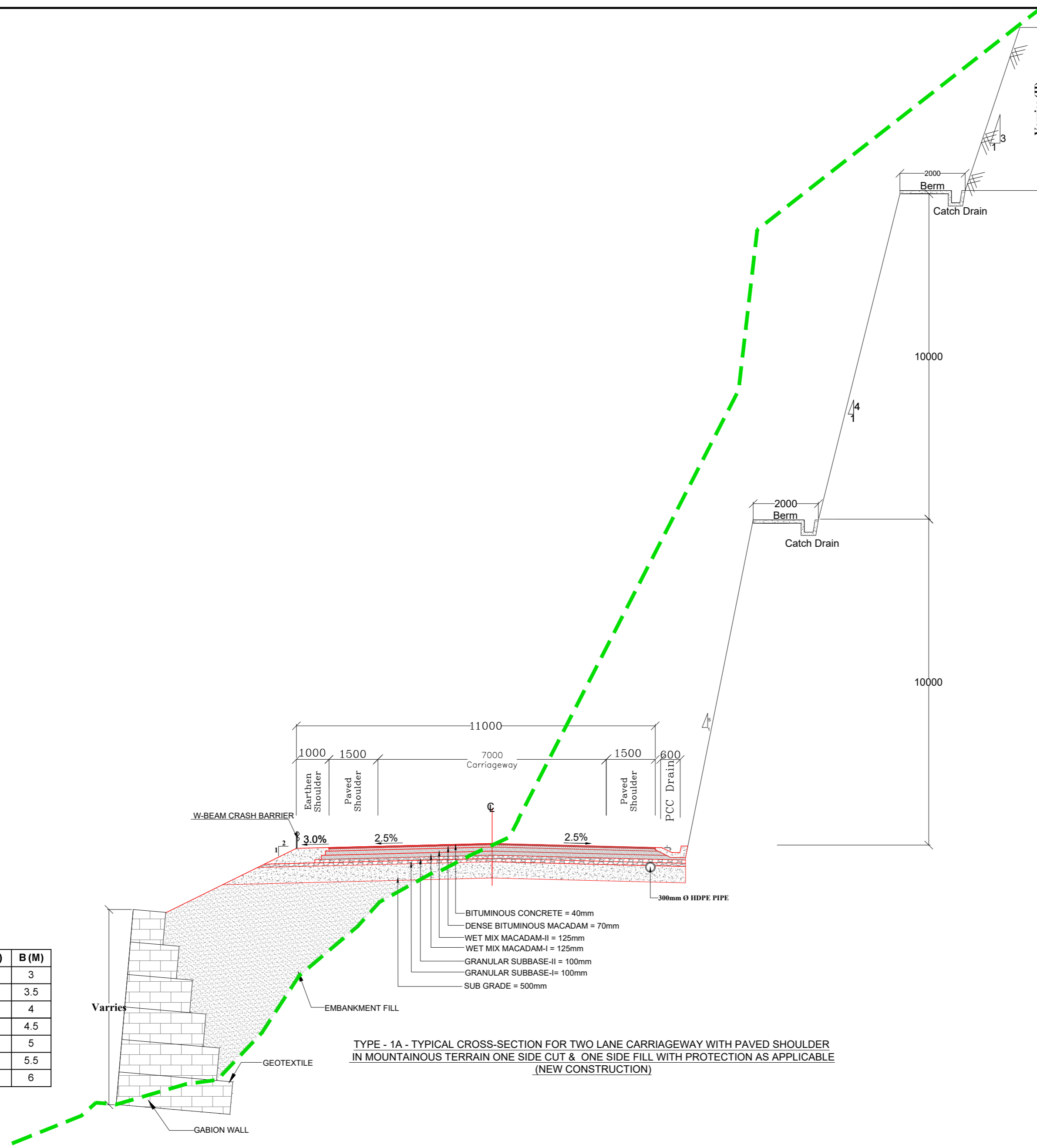
**L - PROFILE**

- G - Gradient %
- Lv - Length of Vertical Curve
- L - Length of Grade(m)
- K - Ratio Between vertical curve Length & Change of Gradient (Lc/(G2-G1))
- e - Superelevation (%)
- D - Straight Length of Horizontal Alignment
- Lc - Length of Circular Curve

Proposed Road Level at Centerline (m)	1131.915	1131.157	1130.384	1129.403	1128.267	1127.077	1125.887	1124.697	1123.508	1122.314	1121.111	1119.945	1118.790	1117.638	1116.485	1115.327	1114.180	1113.032	1111.884	1110.734
Existing Ground/Road Level at Centerline (m)	1209.70	1188.824	1163.630	1130.855	1089.829	1078.583	1078.854	1109.586	1113.379	1112.674	1124.185	1146.433	1143.740	1134.300	1128.728	1129.033	1116.632	1108.942	1109.288	1108.504
Ground Level CW Edge Left Side (m)	1194.644	1175.646	1153.180	1129.382	1103.643	1078.317	1078.144	1108.174	1111.438	1109.810	1112.253	1143.186	1142.008	1132.554	1120.763	1125.000	1114.513	1103.615	1104.092	1104.231
Ground Level CW Edge Right Side (m)	1217.338	1197.708	1168.534	1135.382	1094.196	1078.317	1078.144	1108.174	1111.438	1109.810	1112.253	1143.186	1142.008	1132.554	1120.763	1125.000	1114.513	1103.615	1104.092	1104.231
Proposed Vertical Alignment Schematic	<p>G=-4.76%</p> <p>Lv=60.00m, K=-34.70</p> <p>L=125.58m</p> <p>Lv=60.00m, K=-38.67</p> <p>G=-6.31%</p> <p>L=227.99m</p>																			
Proposed Horizontal Alignment Schematic	<p>D=89.8m</p> <p>Rs=55.0m</p> <p>Lc=79.2m, R=80.0m</p> <p>Rs=65.0m</p> <p>D=139.6m</p>																			
Superelevation/Crossfall (%)	<p>e=5.0%</p> <p>e=5.0%</p> <p>e=2.5%</p>																			
Pavement	<p>Subgrade CBR (%)</p> <p>Reconstruction/Strengthening</p> <p>Widening/New construction</p>																			
Chainage (Km)	31+000	31+025	31+050	31+075	31+100	31+125	31+150	31+175	31+200	31+225	31+250	31+275	31+300	31+325	31+350	31+375	31+400	31+425	31+449	

Revision	DATE	AMENDMENT / ISSUE DESCRIPTION	<b>CLIENT</b> <b>NATIONAL HIGHWAY &amp; INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.</b> (MINISTRY OF ROAD TRANSPORT & HIGHWAY) <b>GOVERNMENT OF INDIA</b> 	<b>CONSULTANT:</b> <b>TPF Getinsa Euroestudios S.L.</b> In Association with <b>RODIC CONSULTANTS PVT. LTD.</b> 1, JAI SINGH MARG (FIRST FLOOR), YMCA CULTURAL CENTRE BUILDING NEW DELHI - 110001 (INDIA)	Designed:	<b>MU</b>	<b>TENDER DRAWING</b>  Scale NTS	Project Name	Construction of Uni-Directional Khellani Tunnel of length 1.574 Km & its approach Road from Km 29.030 to Km 31.449 of total length of 2.419 Km on NH-244 in Union Territory of Jammu & Kashmir on EPC Mode
R0	Oct.2019				Drawn:	<b>RK</b>		Drawing Title	PLAN & PROFILE (KM.31+000 TO KM.31+860)
R1	April.2020				Checked:	<b>AP</b>		Drawing No.	3A
					Approved:	<b>NAP</b>			Annex - III

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 - 1A - TYPICAL CROSS-SECTION FOR TWO LANE CARRIAGEWAY WITH PAVED SHOULDER IN MOUNTAINOUS TERRAIN ONE SIDE CUT & ONE SIDE FILL WITH PROTECTION AS APPLICABLE (NEW CONSTRUCTION)

Revision	DATE	AMENDMENT / ISSUE DESCRIPTION
R0	Oct.2019	
R1	April.2020	

CLIENT  
**NATIONAL HIGHWAY & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.**  
(MINISTRY OF ROAD TRANSPORT & HIGHWAY)  
GOVERNMENT OF INDIA



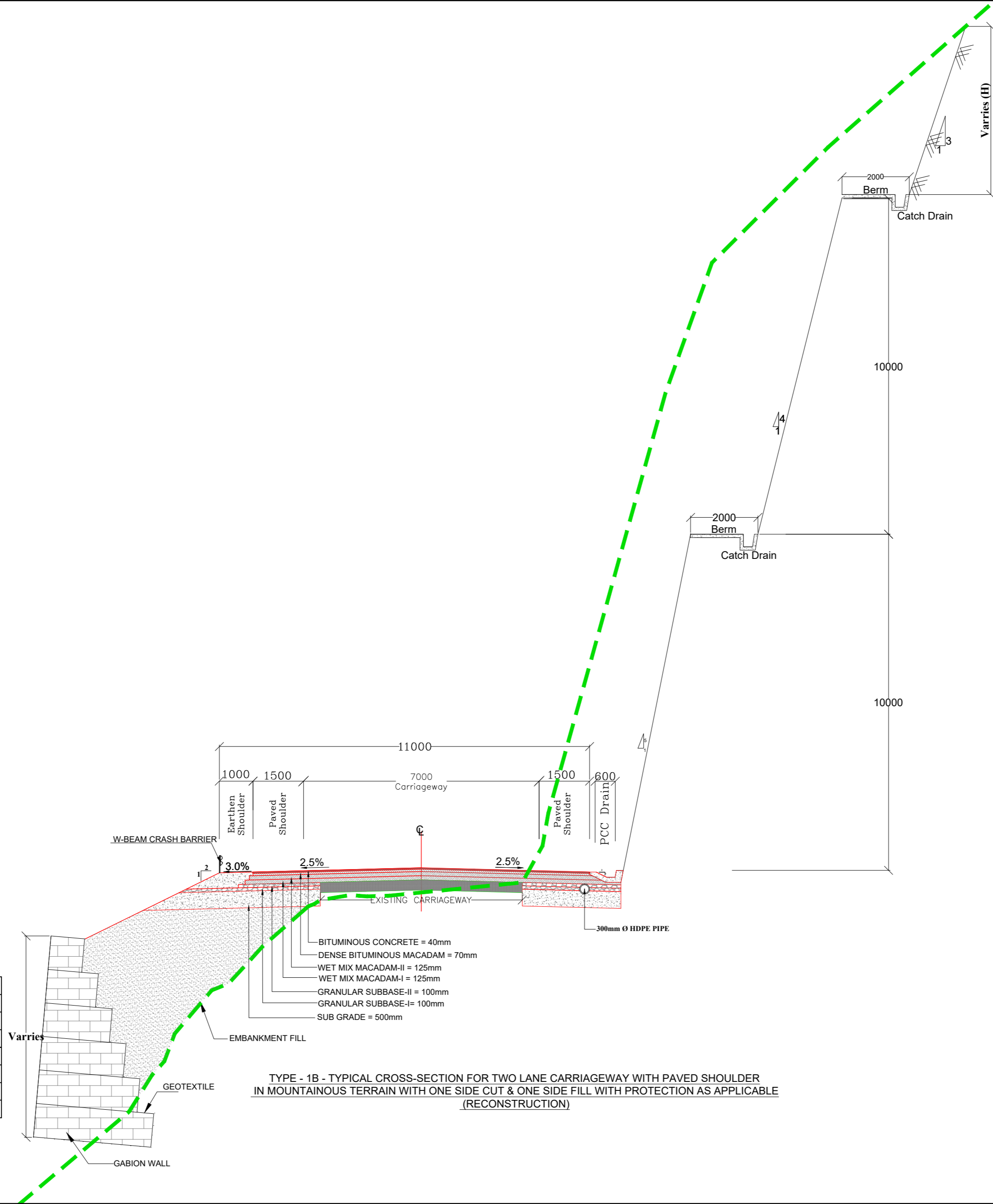
CONSULTANT:  **TPF Getinsa Euroestudios S.L.**  
In Association with  
 **RODIC CONSULTANTS PVT. LTD.**  
1, JAI SINGH MARG (FIRST FLOOR), YMCA  
CULTURAL CENTRE BUILDING  
NEW DELHI - 110001 (INDIA)

Designed:	<b>MU</b>
Drawn:	<b>RK</b>
Checked:	<b>AP</b>
Approved:	<b>NAP</b> 

<b>TENDER DRAWING</b>
Scale NTS

Project Name	Construction of Uni-Directional Khellani Tunnel of length 1.574 Km & its approach Road from Km 29.030 to Km 31.449 of total length of 2.419 Km on NH-244 in Union Territory of Jammu & Kashmir on EPC Mode
Drawing Title	LINE DIAGRAM
Drawing No.	RCPL-TPF-3-BHC-04-R1 <span style="float: right;">Annex - III</span>



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




Revision	DATE	AMENDMENT / ISSUE DESCRIPTION
R0	Oct.2019	
R1	April.2020	

CLIENT  
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CONSULTANT:  **TPF Getinsa Euroestudios S.L.**  
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1, JAI SINGH MARG (FIRST FLOOR), YMCA  
CULTURAL CENTRE BUILDING  
NEW DELHI - 110001 (INDIA)

Designed: **MU**  
Drawn: **RK**  
Checked: **AP**  
Approved: **NAP** 

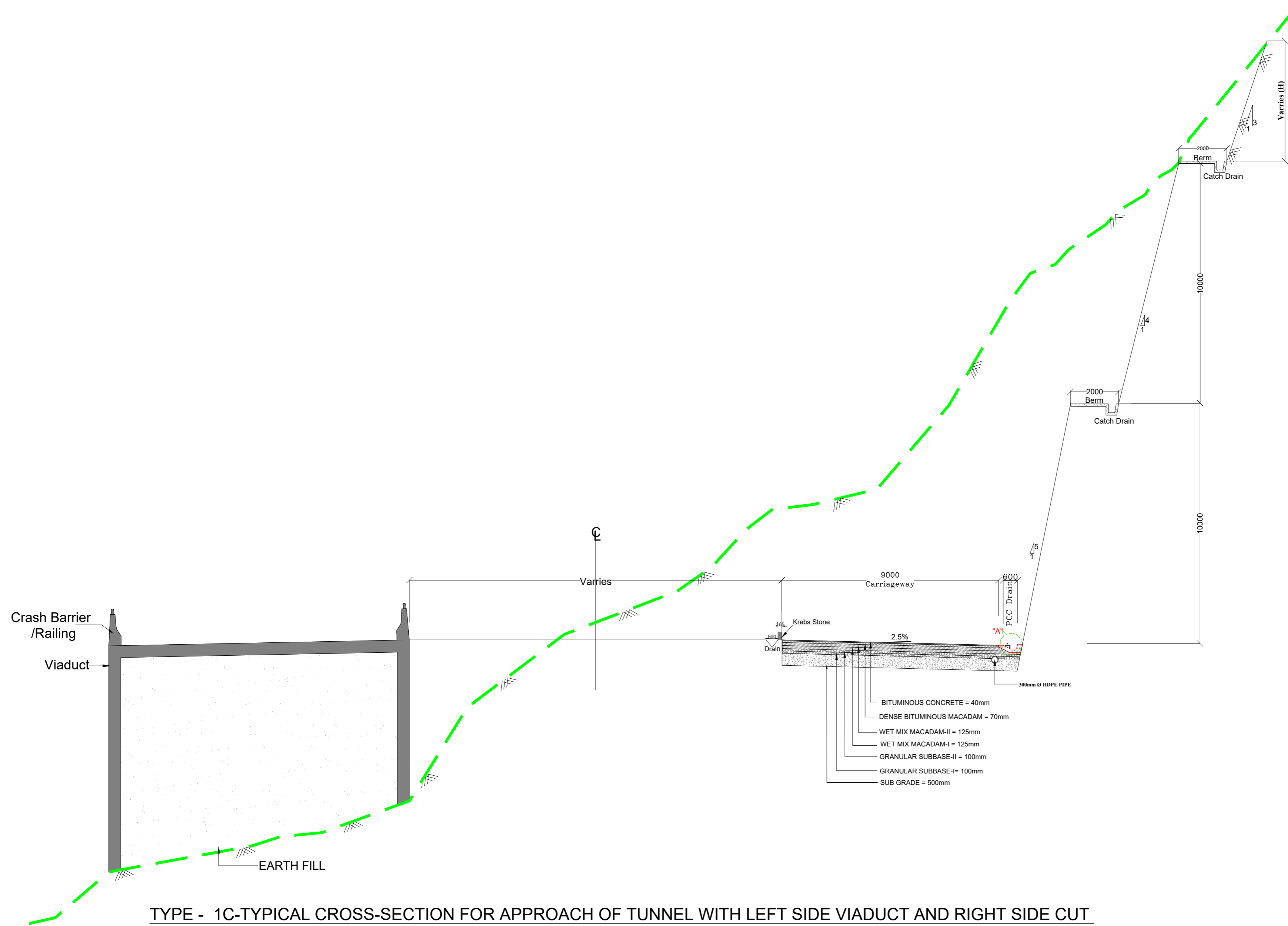
**TENDER DRAWING**  
Scale  
NTS

Project Name  
Construction of Uni-Directional Khellani Tunnel of length 1.574 Km & its approach Road from Km 29.030 to Km 31.449 of total length of 2.419 Km on NH-244 in Union Territory of Jammu & Kashmir on EPC Mode

Drawing Title  
LINE DIAGRAM

Drawing No.  
RCPL-TPF-3-BHC-05-R1

Annex - III






TYPE - 1C-TYPICAL CROSS-SECTION FOR APPROACH OF TUNNEL WITH LEFT SIDE VIADUCT AND RIGHT SIDE CUT

Revision	DATE	AMENDMENT / ISSUE DESCRIPTION
R0	Oct.2019	
R1	April.2020	

CLIENT  
**NATIONAL HIGHWAY & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.**  
 (MINISTRY OF ROAD TRANSPORT & HIGHWAY)  
 GOVERNMENT OF INDIA

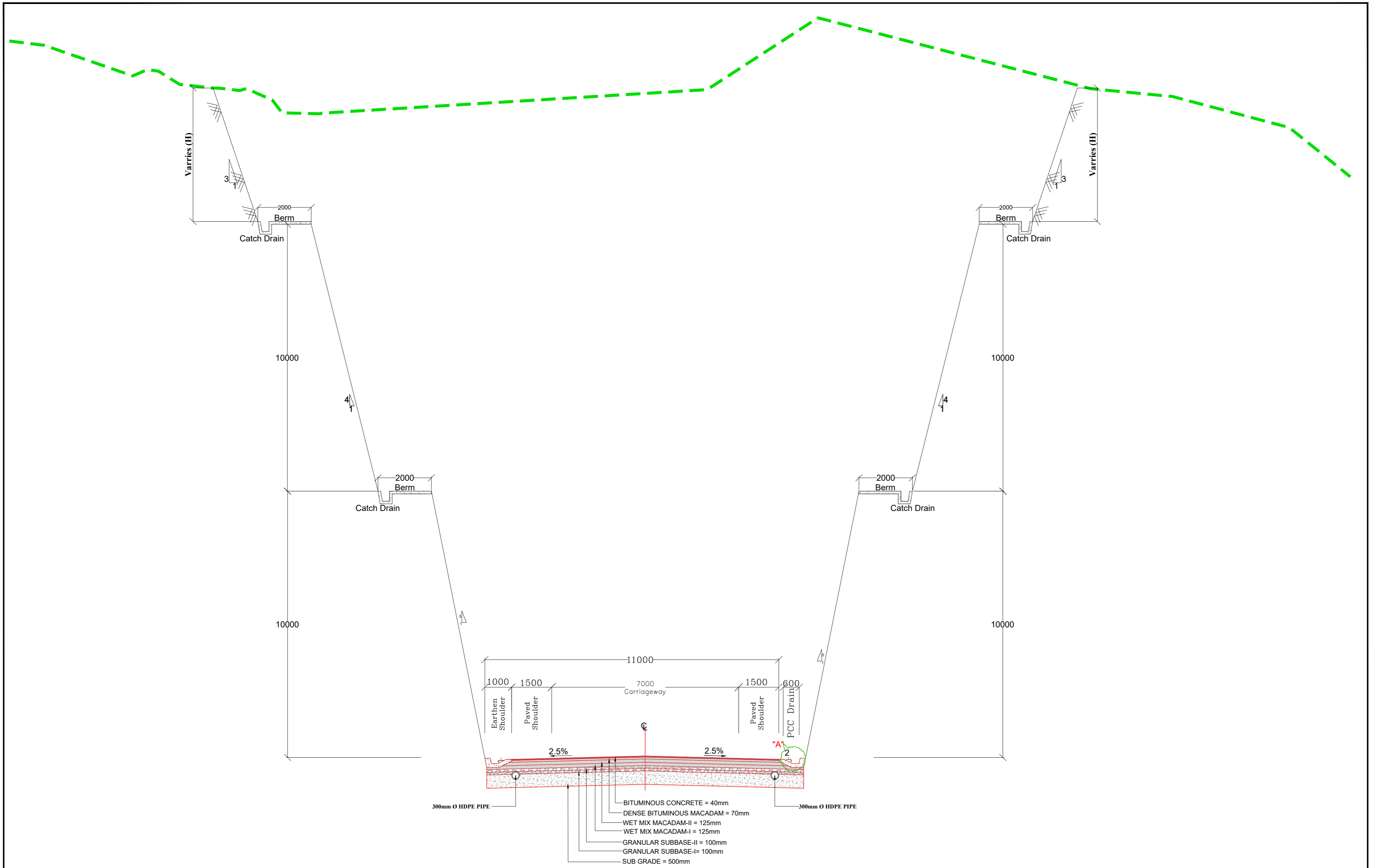


CONSULTANT:  **TPF Getinsa Euroestudios S.L.**  
 In Association with  
 **RODIC CONSULTANTS PVT. LTD.**  
 1, JAI SINGH MARG (FIRST FLOOR), YMCA  
 CULTURAL CENTRE BUILDING  
 NEW DELHI - 110001 (INDIA)

Designed:	<b>MU</b>
Drawn:	<b>RK</b>
Checked:	<b>AP</b>
Approved:	<b>NAP</b> 

<b>TENDER DRAWING</b>
Scale NTS

Project Name	Construction of Uni-Directional Khellani Tunnel of length 1.574 Km & its approach Road from Km 29.030 to Km 31.449 of total length of 2.419 Km on NH-244 in Union Territory of Jammu & Kashmir on EPC Mode
Drawing Title	LINE DIAGRAM
Drawing No.	RCPL-TPF-3-BHC-06-R1 <span style="float: right;">Annex - III</span>






TYPE - 3A- TYPICAL CROSS-SECTION FOR TWO LANE CARRIAGEWAY WITH PAVED SHOULDER IN MOUNTAINOUS TERRAIN WITH BOTH SIDE CUT (NEW CONSTRUCTION)

Revision	DATE	AMENDMENT / ISSUE DESCRIPTION
R0	Oct.2019	
R1	April.2020	

CLIENT  
**NATIONAL HIGHWAY & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.**  
 (MINISTRY OF ROAD TRANSPORT & HIGHWAY)  
 GOVERNMENT OF INDIA

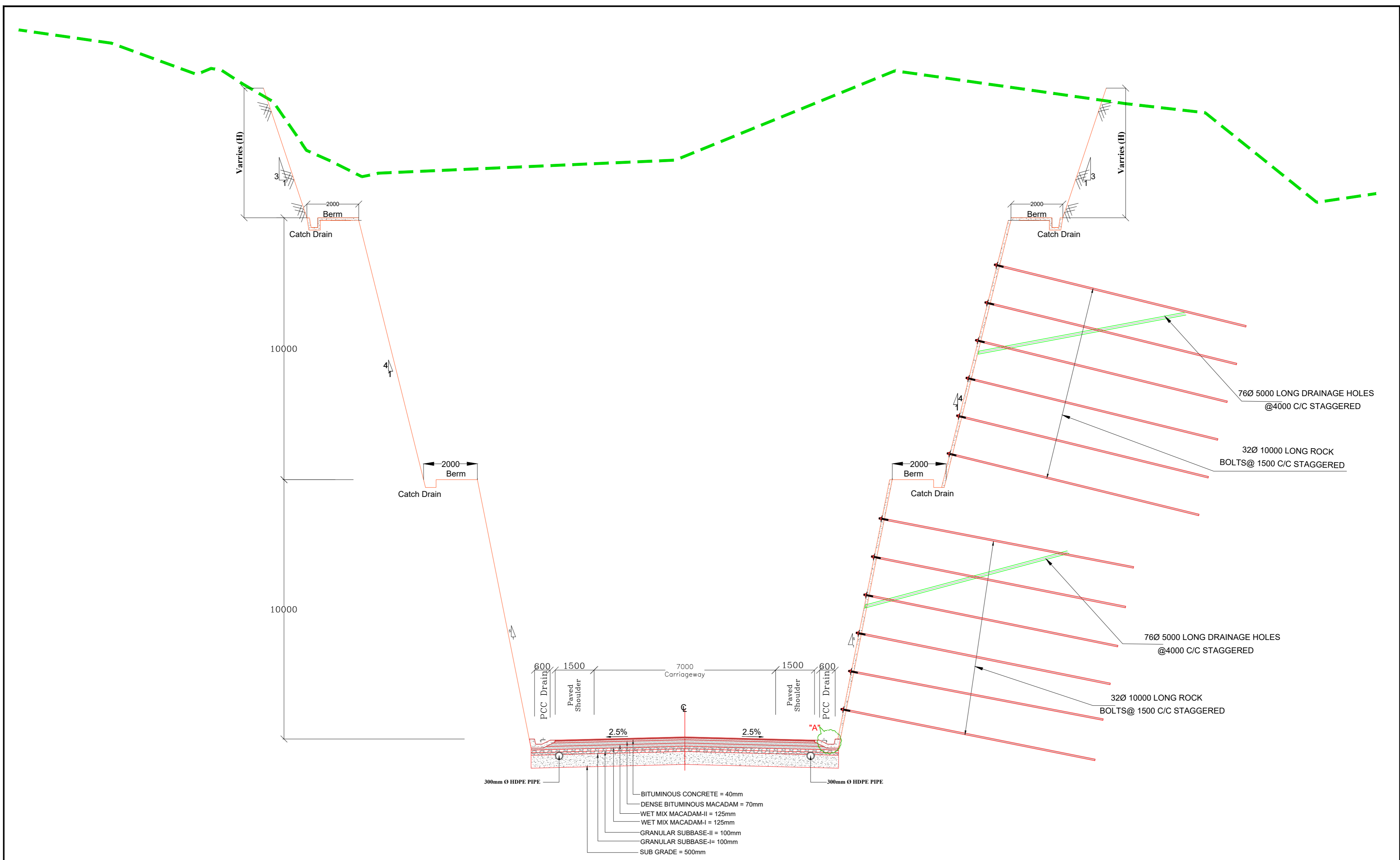


CONSULTANT:  **TPF Getinsa Euroestudios S.L.**  
 In Association with  
 **RODIC CONSULTANTS PVT. LTD.**  
 1, JAI SINGH MARG (FIRST FLOOR), YMCA  
 CULTURAL CENTRE BUILDING  
 NEW DELHI - 110001 (INDIA)

Designed:	<b>MU</b>
Drawn:	<b>RK</b>
Checked:	<b>AP</b>
Approved:	<b>NAP</b> 

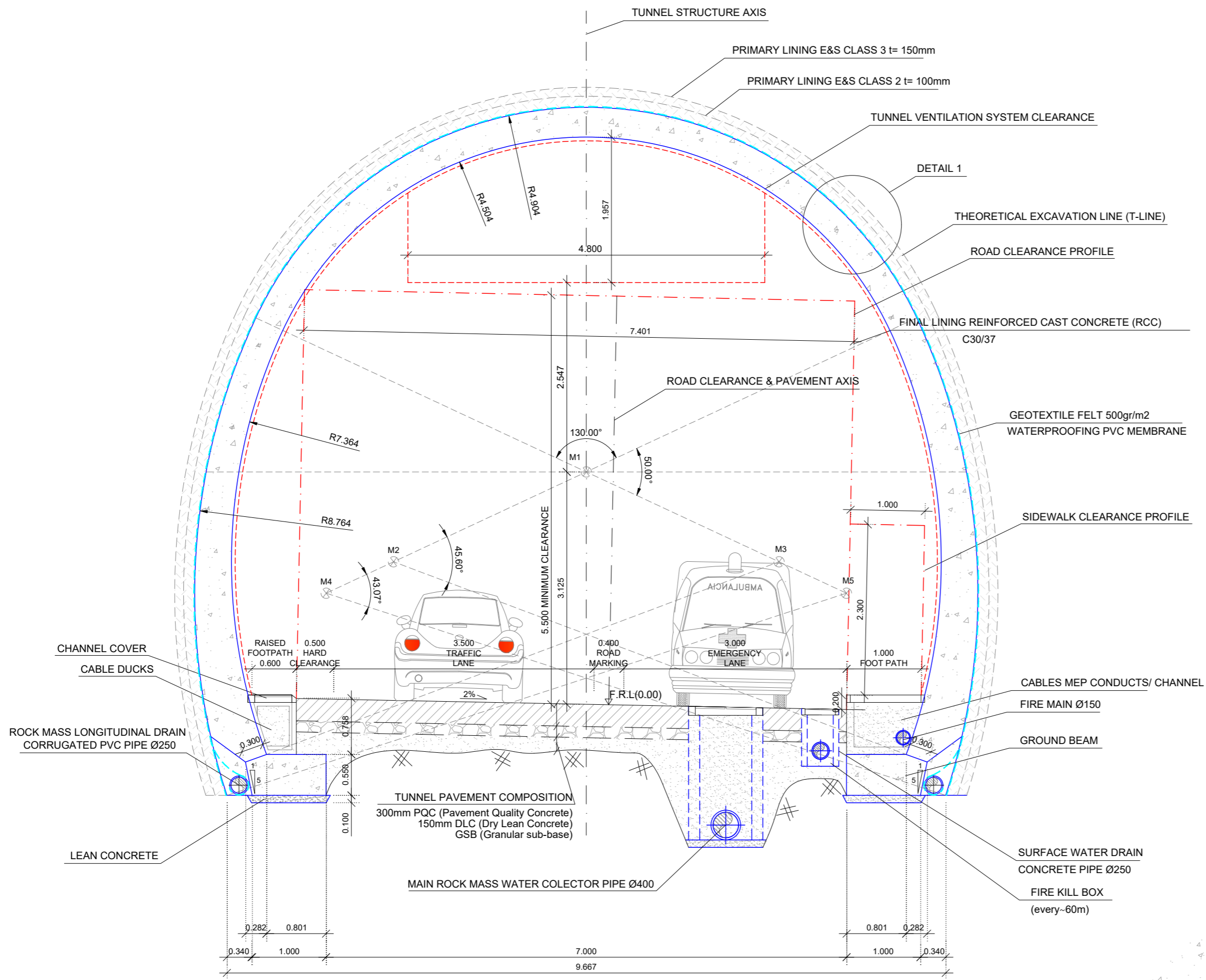
<b>TENDER DRAWING</b>
Scale NTS

Project Name	Construction of Uni-Directional Khellani Tunnel of length 1.574 Km & its approach Road from Km 29.030 to Km 31.449 of total length of 2.419 Km on NH-244 in Union Territory of Jammu & Kashmir on EPC Mode
Drawing Title	LINE DIAGRAM
Drawing No.	RCPL-TPF-3-BHC-07-R1 <span style="float: right;">Annex - III</span>



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

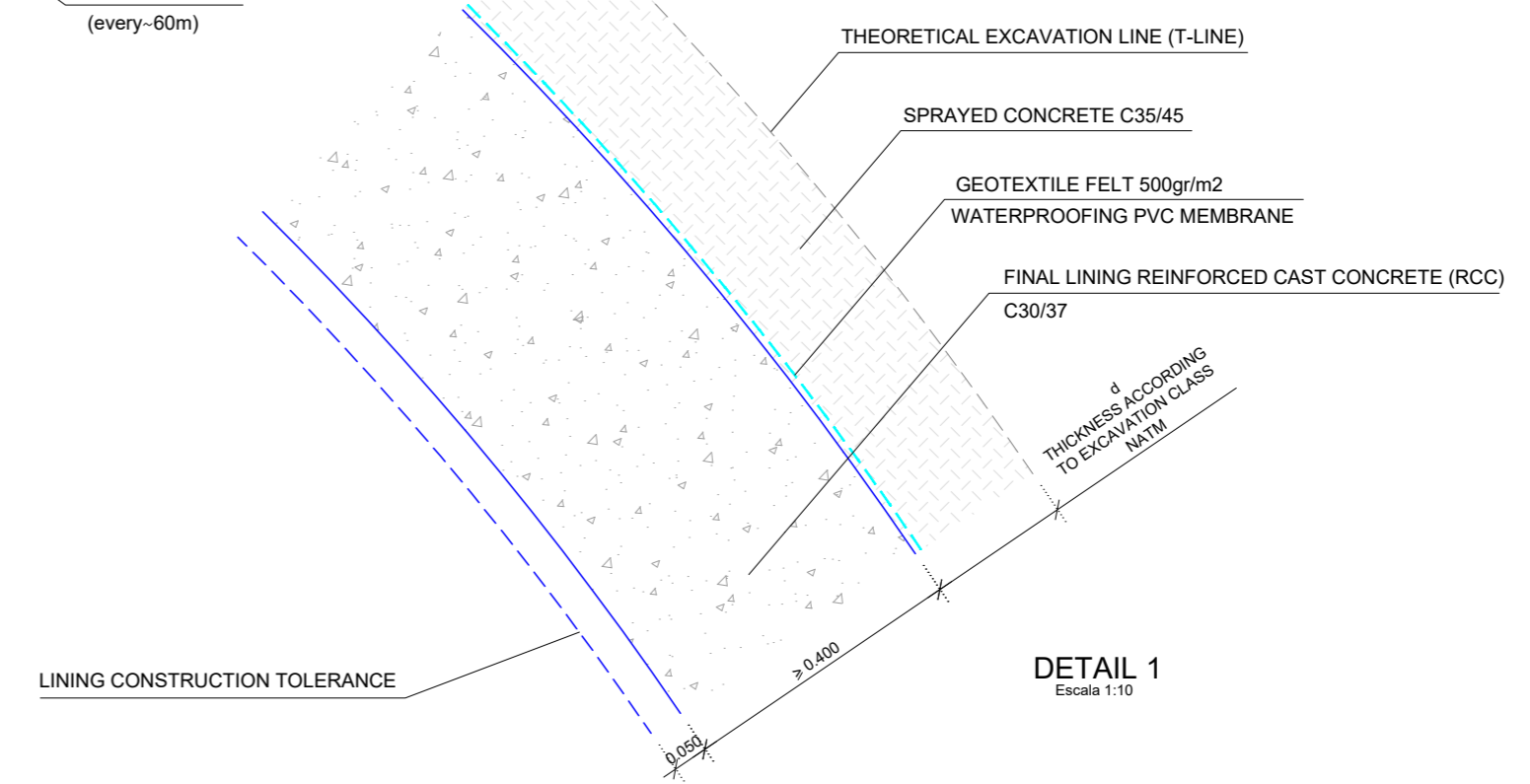
Revision	DATE	AMENDMENT / ISSUE DESCRIPTION	CLIENT	CONSULTANT	Designed:	MU	TENDER DRAWING	Project Name	
R0	Oct.2019		<b>NATIONAL HIGHWAY &amp; INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.</b> (MINISTRY OF ROAD TRANSPORT & HIGHWAY) GOVERNMENT OF INDIA 	 <b>TPF Getinsa Euroestudios S.L.</b> In Association with  <b>RODIC CONSULTANTS PVT. LTD.</b> 1, JAI SINGH MARG (FIRST FLOOR), YMCA CULTURAL CENTRE BUILDING NEW DELHI - 110001 (INDIA)	Drawn:	RK	Scale NTS	Construction of Uni-Directional Khellani Tunnel of length 1.574 Km & its approach Road from Km 29.030 to Km 31.449 of total length of 2.419 Km on NH-244 in Union Territory of Jammu & Kashmir on EPC Mode	
R1	April.2020				Checked:	AP			Drawing Title
					Approved:	NAP 	Drawing No.	RCPL-TPF-3-BHC-08-R1	Annex - III



Coordinates with respect to F.R.L.:

POINT	X	Y
M1	-0.3007	3.1310
M2	-2.8927	1.9223
M3	2.2914	1.9223
M4	-3.7990	1.4997
M5	3.1977	1.4997

**TUNNEL FUNCTIONAL REGULAR SECTION WITHOUT INVERT**  
Escala 1:50





**DETAIL 1**  
Escala 1:10

Revision	DATE	AMENDMENT / ISSUE DESCRIPTION
R0	Oct.2019	
R1	April.2020	

**CLIENT**  
NATIONAL HIGHWAY & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.  
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GOVERNMENT OF INDIA

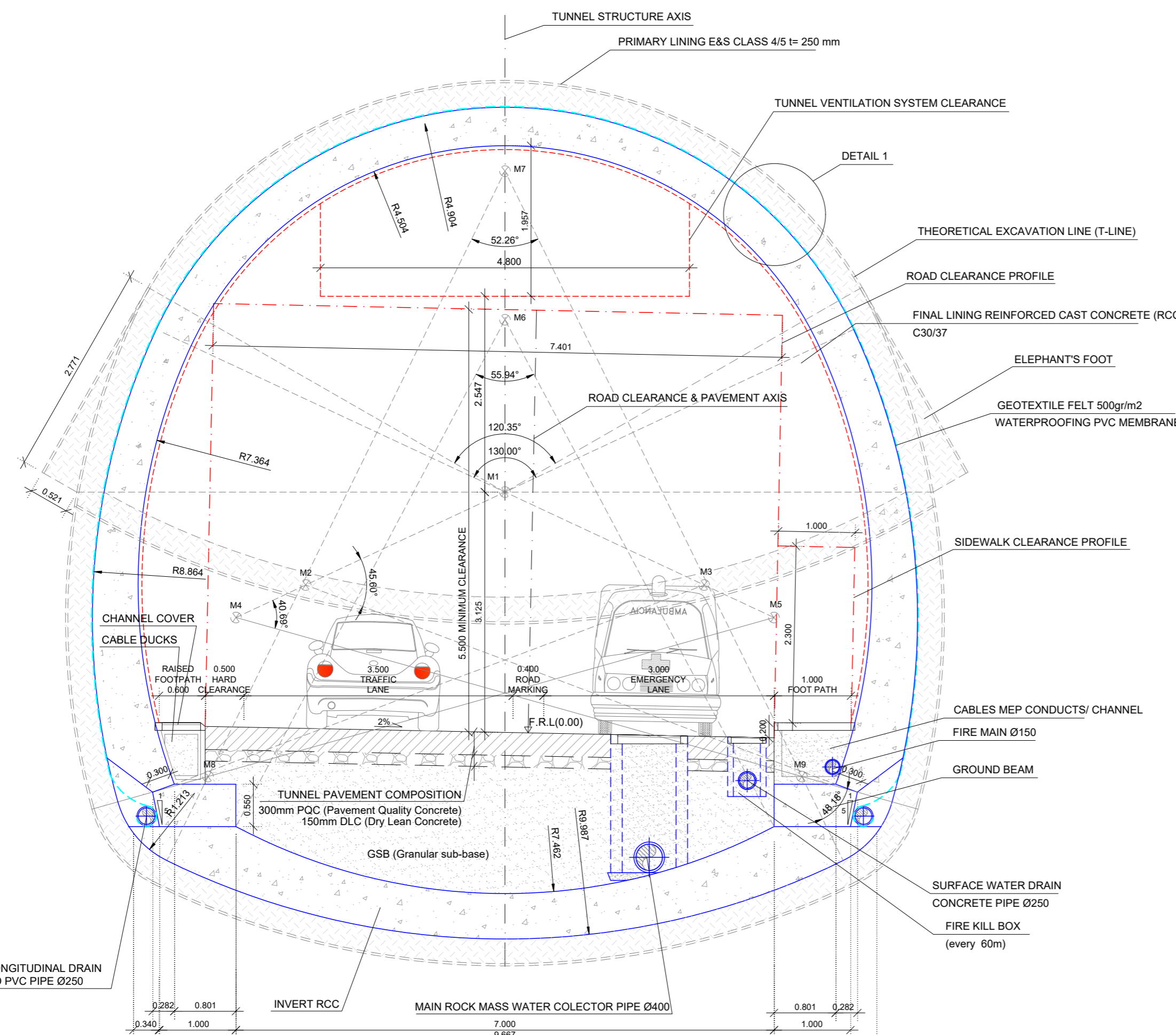


**CONSULTANT:**  **TPF Getinsa Eurostudios S.L.**  
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1, JAI SINGH MARG (FIRST FLOOR), YMCA CULTURAL CENTRE BUILDING  
NEW DELHI - 110001 (INDIA)

**Designed:** MU  
**Drawn:** RK  
**Checked:** AP  
**Approved:** NAP

**TENDER DRAWING**  
Scale: NTS

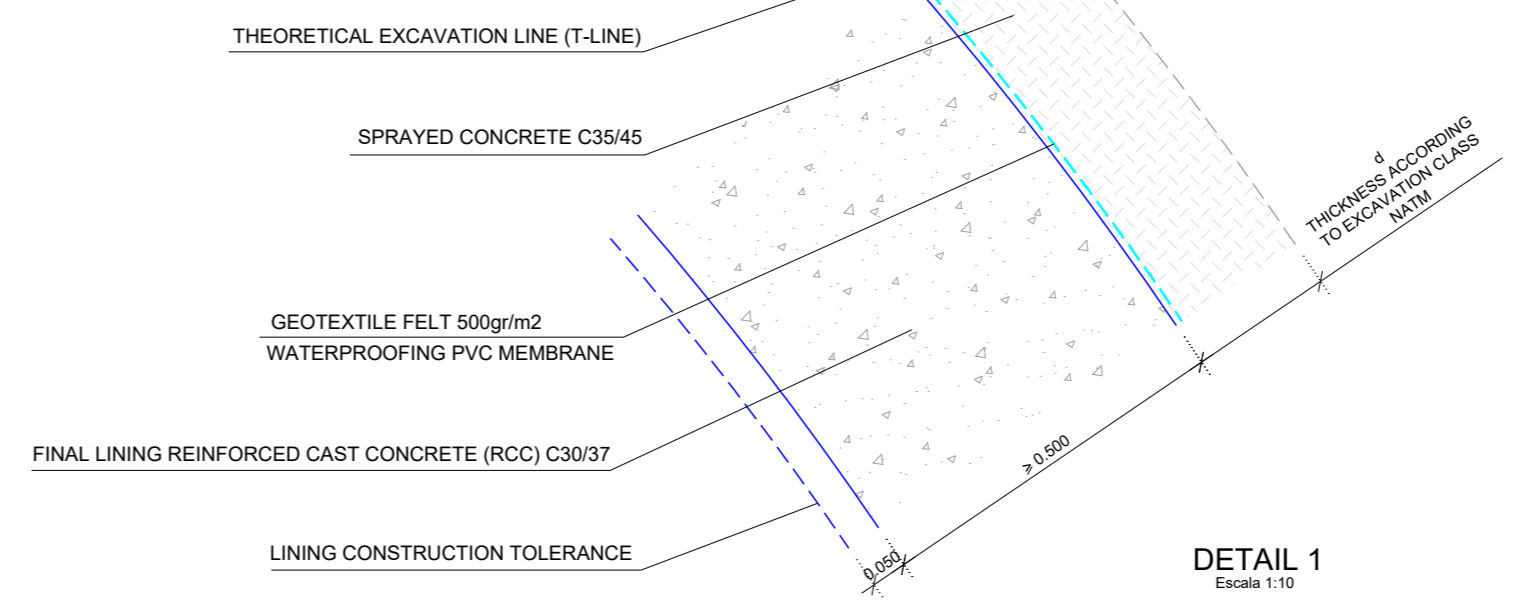
**Project Name:** Construction of Uni-Directional Khellani Tunnel of length 1.574 Km & its approach Road from Km 29.030 to Km 31.449 of total length of 2.419 Km on NH-244 in Union Territory of Jammu & Kashmir on EPC Mode  
**Drawing Title:** FUNCTIONAL SECTION OF TUNNEL WITHOUT INVERT  
**Drawing No.:** RCPL-TPF-3-AHC-01-R0  
Annex - III



TUNNEL FUNCTIONAL REGULAR SECTION WITH INVERT  
Escala 1:50

Coordinates with respect to F.R.L.:

POINT	X	Y
M1	-0.3007	3.1310
M2	-2.8927	1.9223
M3	2.2914	1.9223
M4	-3.7990	1.4997
M5	3.1977	1.4997
M6	-0.3007	5.3516
M7	-0.3007	7.3048
M8	-4.1626	-0.5685
M9	3.5609	-0.5685



DETAIL 1  
Escala 1:10

Revision	DATE	AMENDMENT / ISSUE DESCRIPTION
R0	Oct.2019	
R1	April.2020	

CLIENT  
**NATIONAL HIGHWAY & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.**  
(MINISTRY OF ROAD TRANSPORT & HIGHWAY)  
GOVERNMENT OF INDIA

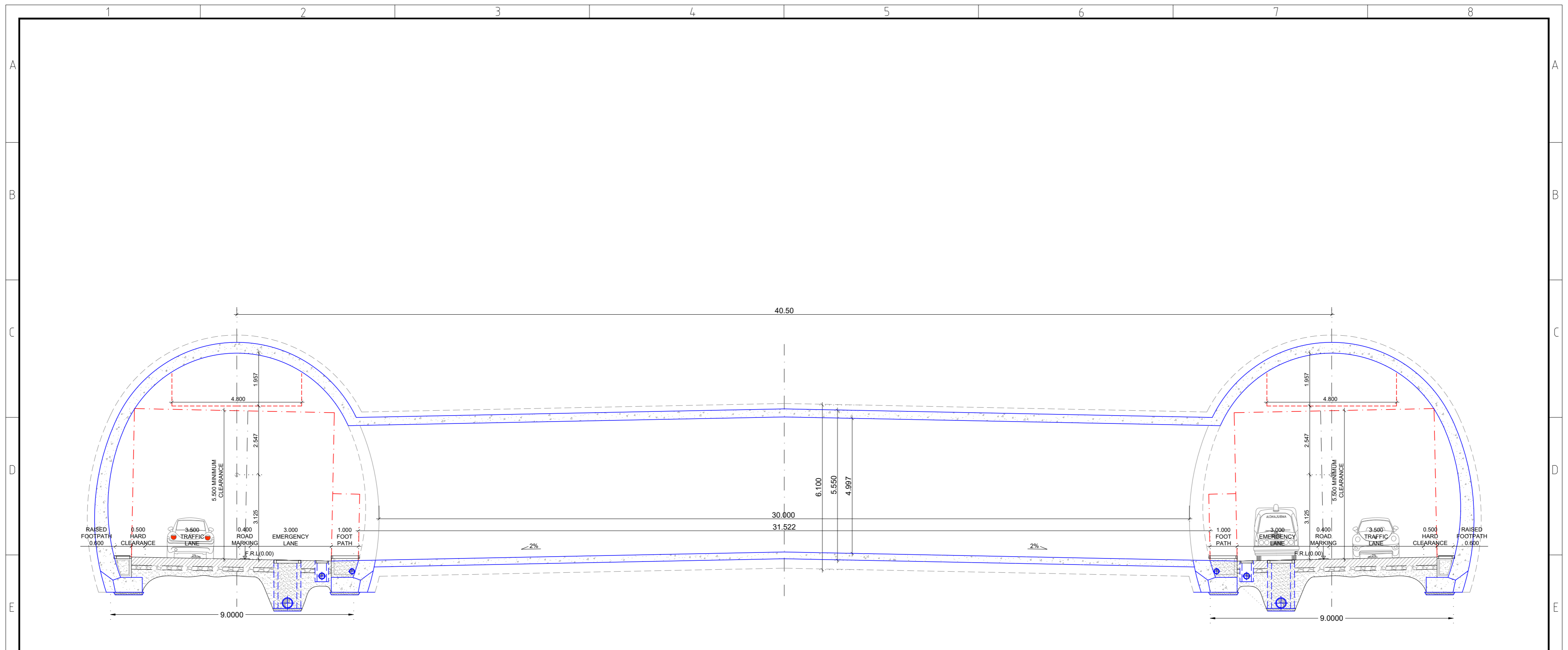


CONSULTANT:  
**TPF Getinsa Euroestudios S.L.**  
In Association with  
**RODIC CONSULTANTS PVT. LTD.**  
1, JAI SINGH MARG (FIRST FLOOR), YMCA  
CULTURAL CENTRE BUILDING  
NEW DELHI - 110001 (INDIA)

Designed: **MU**  
Drawn: **RK**  
Checked: **AP**  
Approved: **NAP**

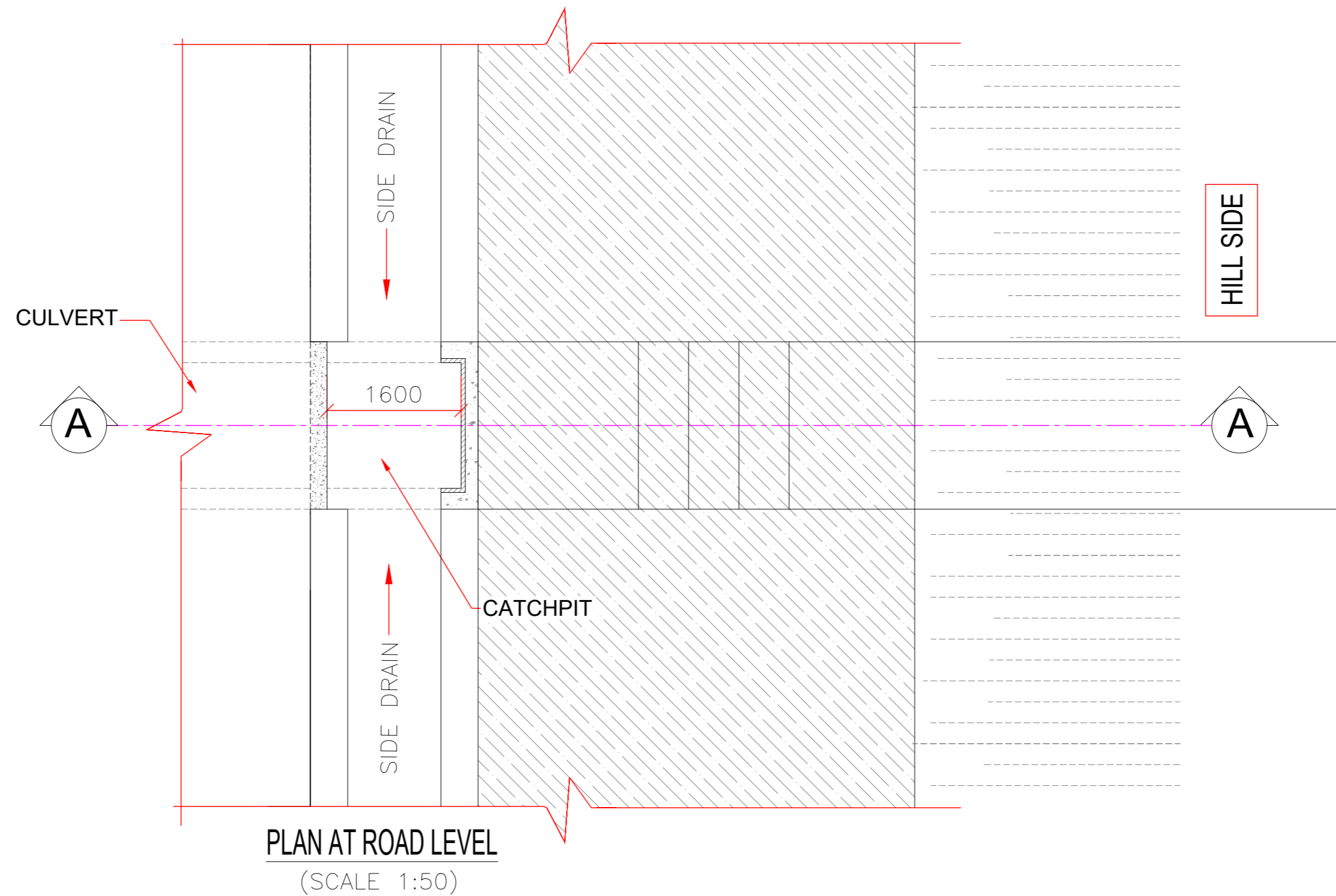
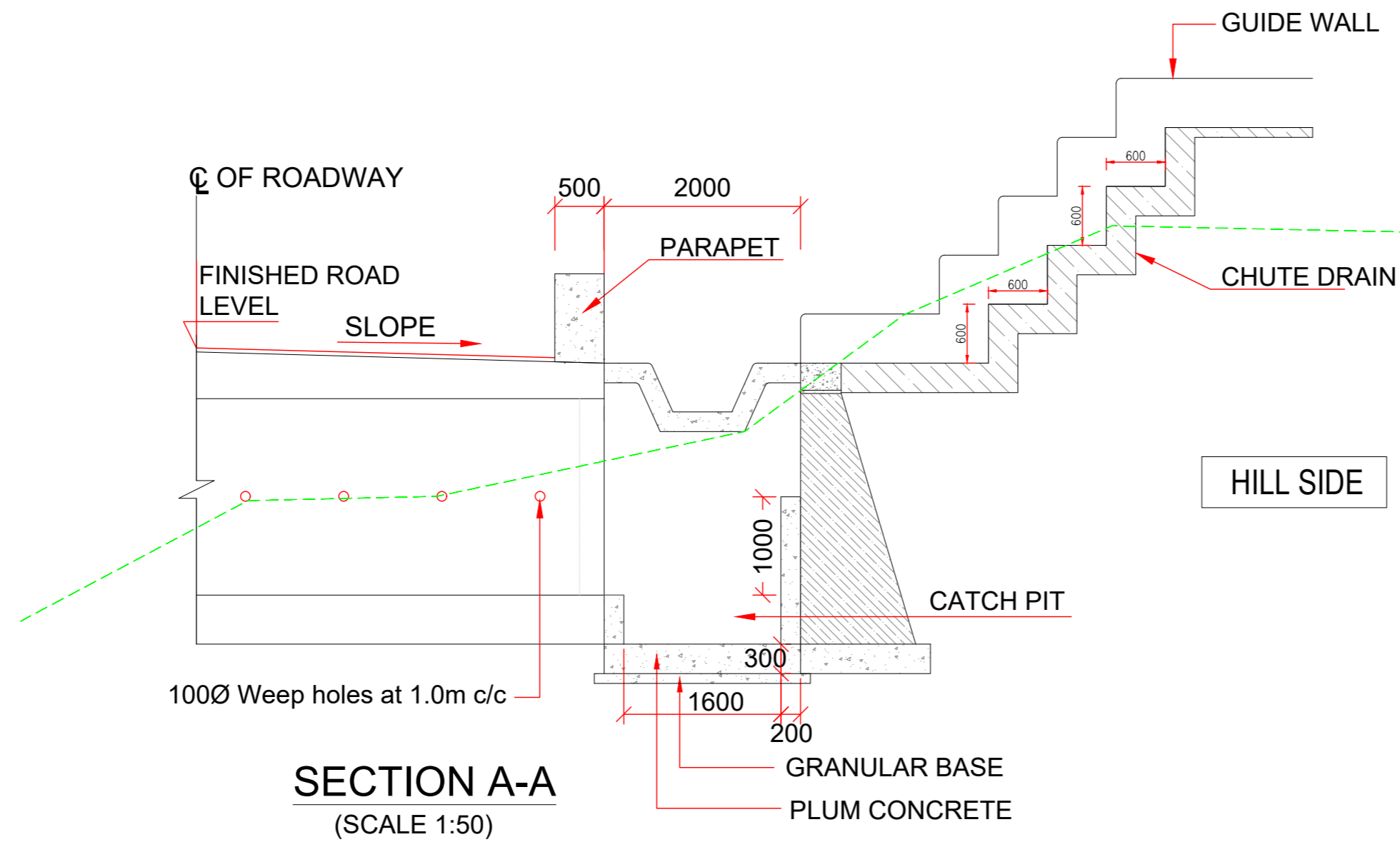
**TENDER DRAWING**  
Scale: **NTS**

Project Name: Construction of Uni-Directional Khellani Tunnel of length 1.574 Km & its approach Road from Km 29.030 to Km 31.449 of total length of 2.419 Km on NH-244 in Union Territory of Jammu & Kashmir on EPC Mode  
Drawing Title: **FUNCTIONAL SECTION OF WITH INVERT**  
Drawing No.: RCPL-TPF-3-AHC-02-R0  
Annex - III



**CROSS SECTION OF TWIN TUBES BY CROSS PASSAGE AXIS**  
Scale 1:100


Revision	DATE	AMENDMENT / ISSUE DESCRIPTION	<b>CLIENT</b> <b>NATIONAL HIGHWAY &amp; INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.</b> (MINISTRY OF ROAD TRANSPORT & HIGHWAY) <b>GOVERNMENT OF INDIA</b> 	<b>CONSULTANT:</b>  <b>TPF Getinsa Euroestudios S.L.</b> In Association with  <b>RODIC CONSULTANTS PVT. LTD.</b> 1, JAI SINGH MARG (FIRST FLOOR), YMCA CULTURAL CENTRE BUILDING NEW DELHI - 110001 (INDIA)	Designed:	<b>MU</b>	<b>TENDER DRAWING</b>	Project Name	Construction of Uni-Directional Khellani Tunnel of length 1.574 Km & its approach Road from Km 29.030 to Km 31.449 of total length of 2.419 Km on NH-244 in Union Territory of Jammu & Kashmir on EPC Mode			
R0	Oct.2019				Drawn:	<b>RK</b>				Scale NTS	Drawing Title	<b>TWIN TUBES SECTION ALONG CROSS PASSAGE LONGITUDINAL AXIS</b> TYPICAL CROSS SECTION
R1	April.2020				Checked:	<b>AP</b>						





Revision	DATE	AMENDMENT / ISSUE DESCRIPTION
R0	Oct.2019	
R1	April.2020	

CLIENT  
**NATIONAL HIGHWAY & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.**  
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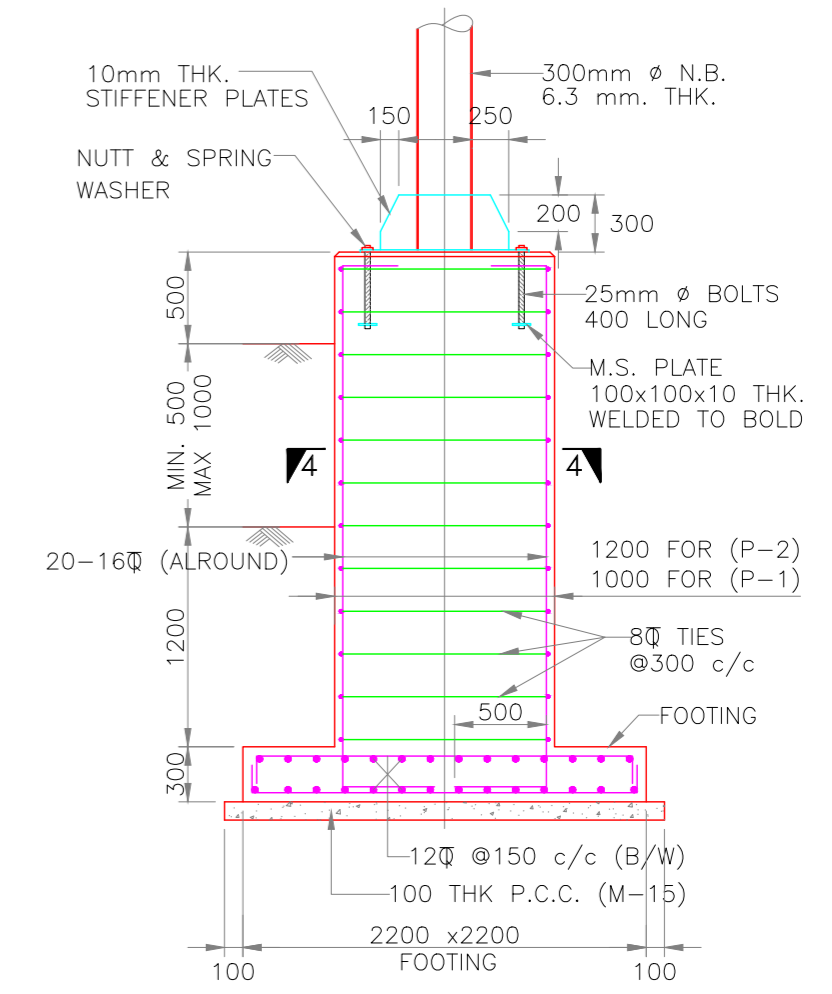
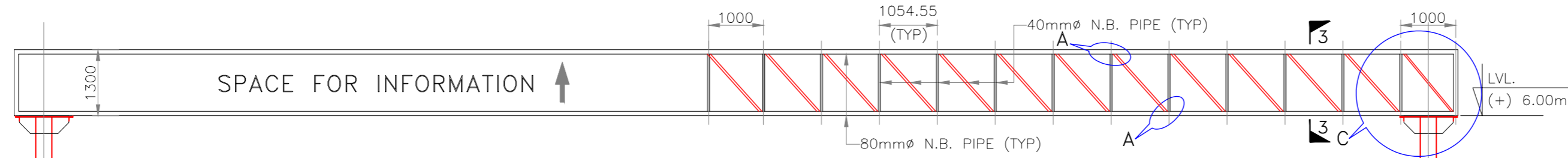
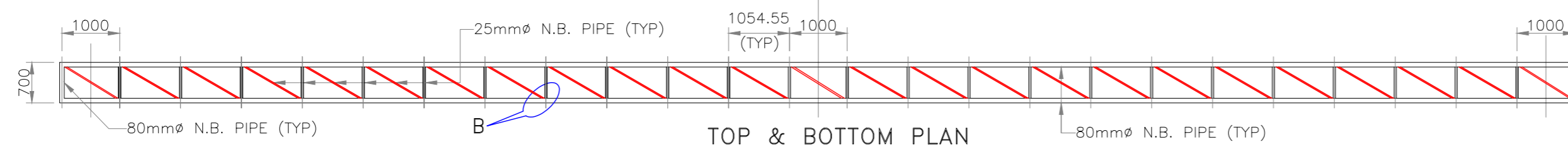
CONSULTANT:  **TPF Getinsa Euroestudios S.L.**  
 In Association with  
**RODIC CONSULTANTS PVT. LTD.**  
 1, JAI SINGH MARG (FIRST FLOOR), YMCA  
 CULTURAL CENTRE BUILDING  
 NEW DELHI - 110001 (INDIA)



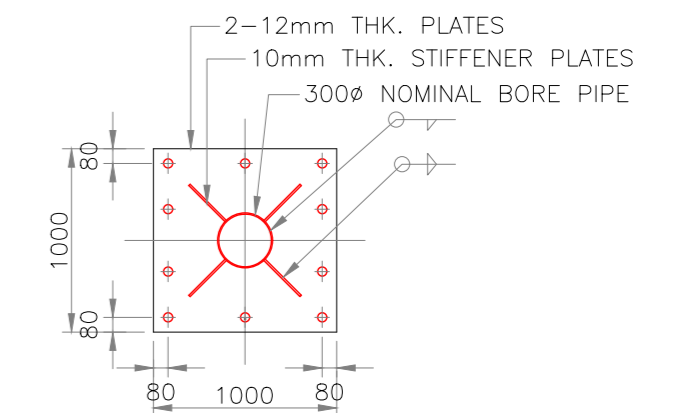
Designed:	<b>MU</b>
Drawn:	<b>RK</b>
Checked:	<b>AP</b>
Approved:	<b>NAP</b> 

<b>TENDER DRAWING</b>
Scale NTS

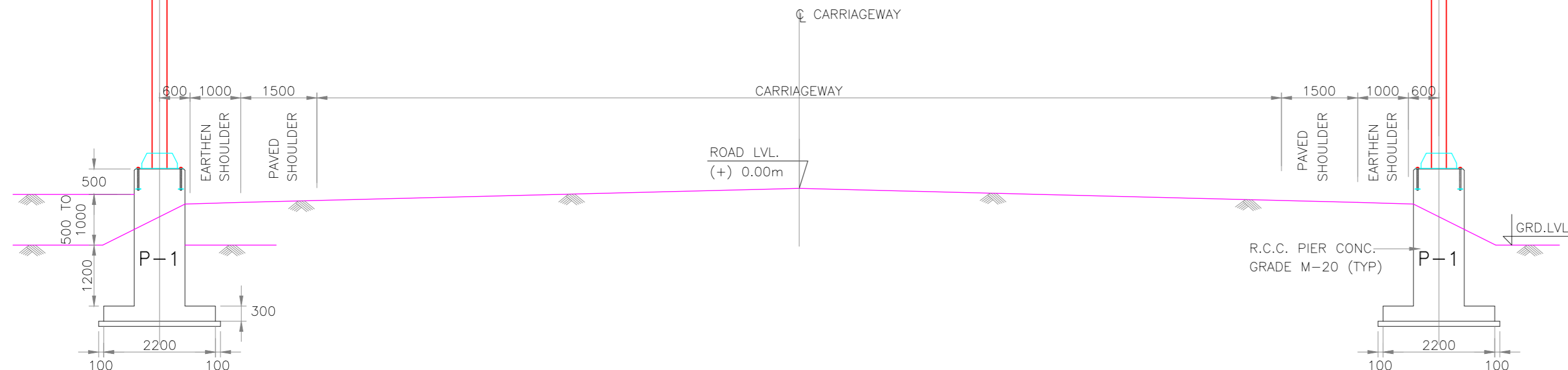
Project Name	Construction of Uni-Directional Khellani Tunnel of length 1.574 Km & its approach Road from Km 29.030 to Km 31.449 of total length of 2.419 Km on NH-244 in Union Territory of Jammu & Kashmir on EPC Mode
Drawing Title	STANDARD DRAWING TYPICAL CATCH PIT
Drawing No.	Annex - III



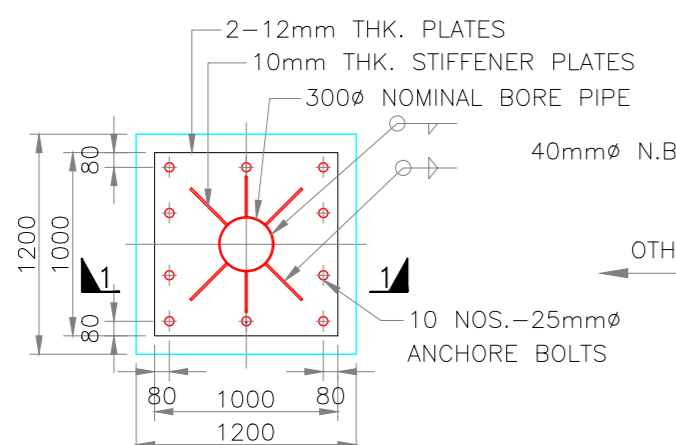
SECTION 1-1



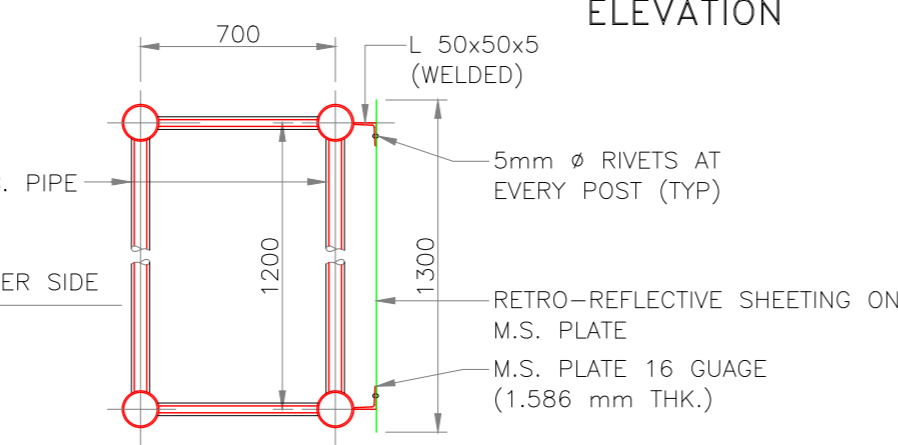
DETAILS COLUMN JUNCTION



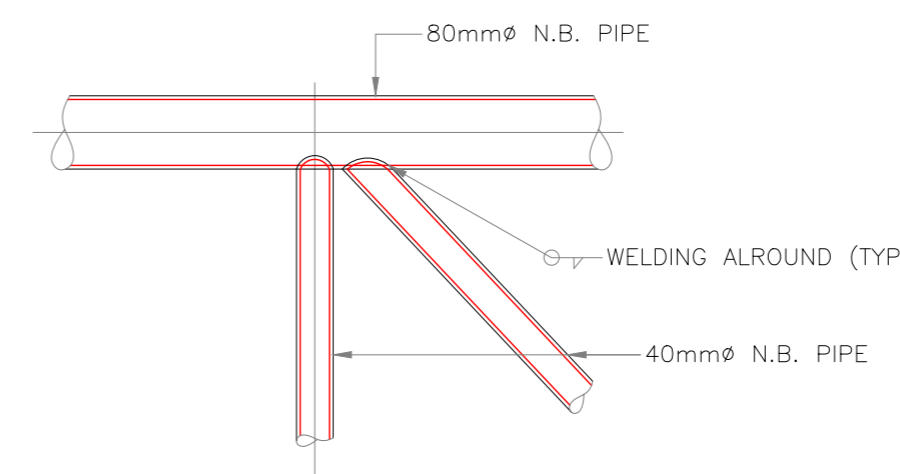
ELEVATION



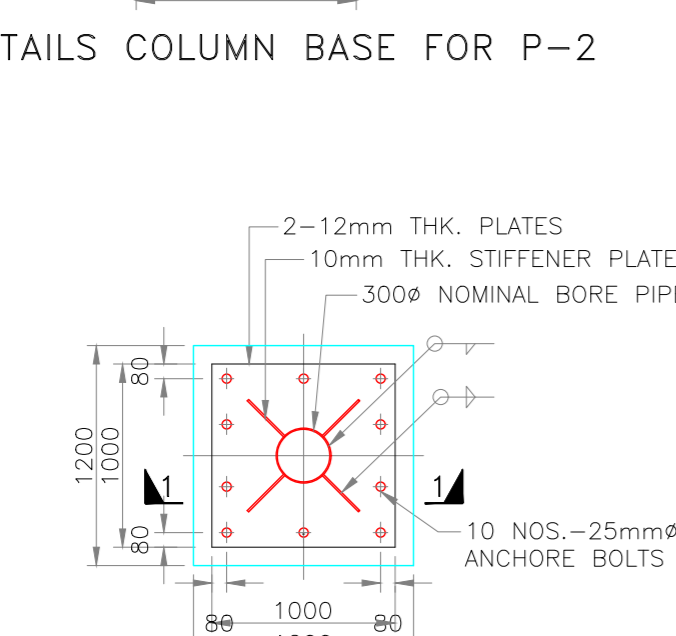
DETAILS COLUMN BASE FOR P-2



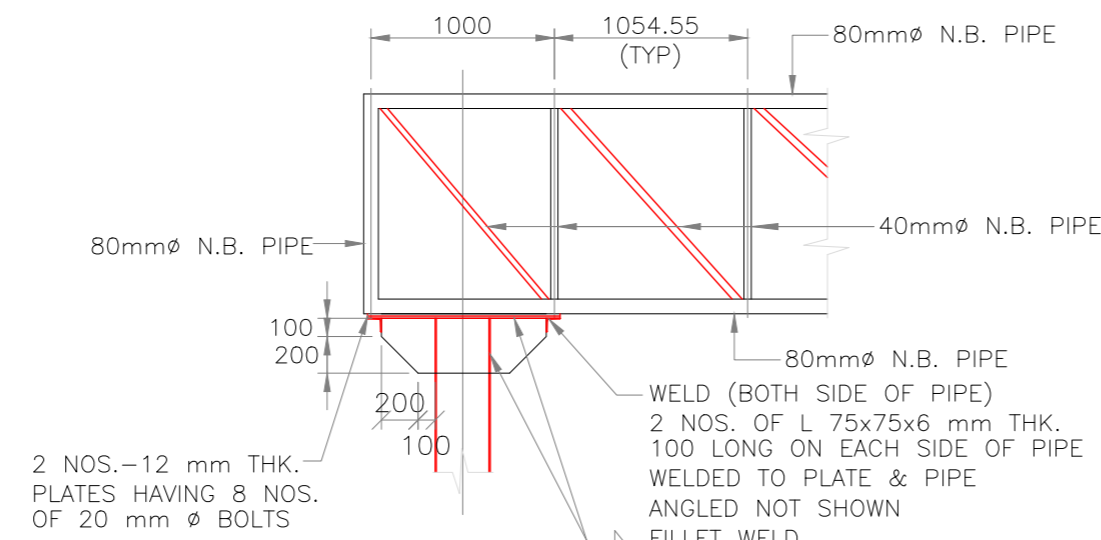
SECTION 3-3 (SIMILAR ARRANGEMENT SHALL BE ON THE OTHER SIDE)



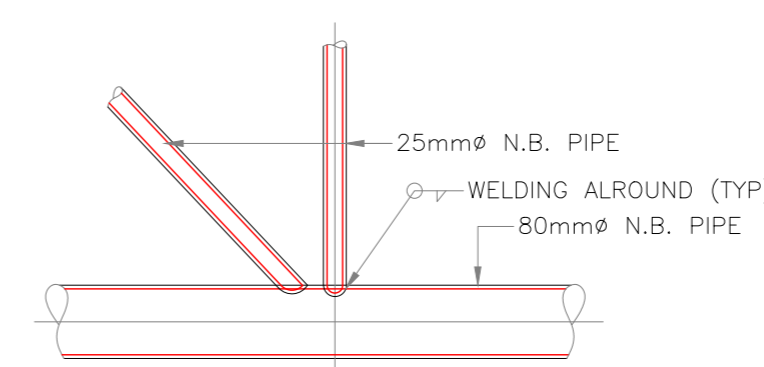
DETAIL-A



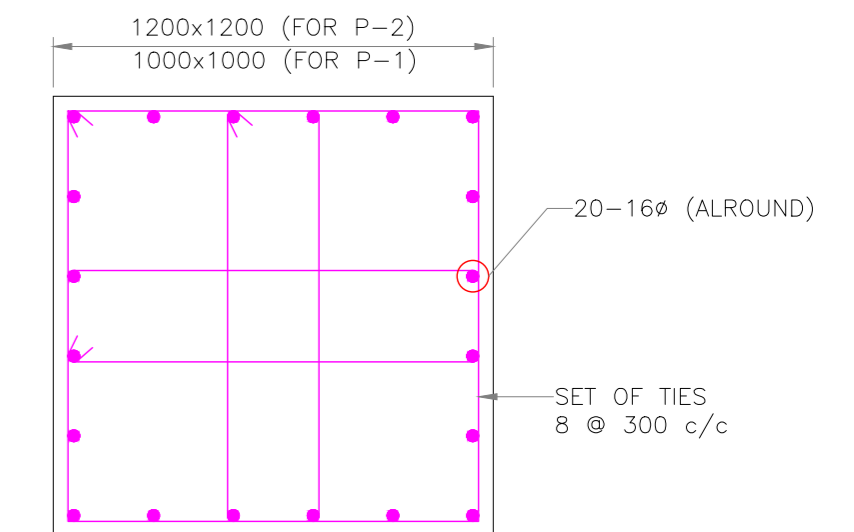
DETAILS COLUMN BASE FOR P-1






DETAIL-C



DETAIL-B



SECTION 4-4

Revision	DATE	AMENDMENT / ISSUE DESCRIPTION	CLIENT <b>NATIONAL HIGHWAY &amp; INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.</b> (MINISTRY OF ROAD TRANSPORT & HIGHWAY) GOVERNMENT OF INDIA 	CONSULTANT:  <b>TPF Getinsa Euroestudios S.L.</b> In Association with  <b>RODIC CONSULTANTS PVT. LTD.</b> 1, JAI SINGH MARG (FIRST FLOOR), YMCA CULTURAL CENTRE BUILDING NEW DELHI - 110001 (INDIA)	Designed:	<b>MU</b>	TENDER DRAWING	Project Name	Construction of Uni-Directional Khellani Tunnel of length 1.574 Km & its approach Road from Km 29.030 to Km 31.449 of total length of 2.419 Km on NH-244 in Union Territory of Jammu & Kashmir on EPC Mode			
R0	Oct.2019				Drawn:	<b>RK</b>				Scale	NTS	Drawing Title
R1	April.2020				Checked:	<b>AP</b>	Approved:					