

TENDER PURPOSE ONLY

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED

CLIENT:



HIMACHAL PRADESH ROAD
AND OTHER INFRASTRUCTURE DEVELOPMENT
CORPORATION LIMITED.

CONSULTANT:




SATRA SERVICES AND SOLUTIONS PVT LTD.
#1-8-359 to 363, 4th Floor, Centre Point Building, SP Road, Begumpet,
Secunderabad, Telangana – 500003, India.
Tel: +91 40 2784 0040, Fax: +91 40 2784 0050,
E-mail: info@satragroup.in, Web: www.satragroup.in

PROJECT:

Himachal Pradesh State Roads Transformation
Project (HPSRTP)

SCALE:
HOR 1:1000



DESIGNED	MADHU.K
DRAWN	DANIEL
CHECKED	CS/AH
APPROVED	PRADEEP KAPLA

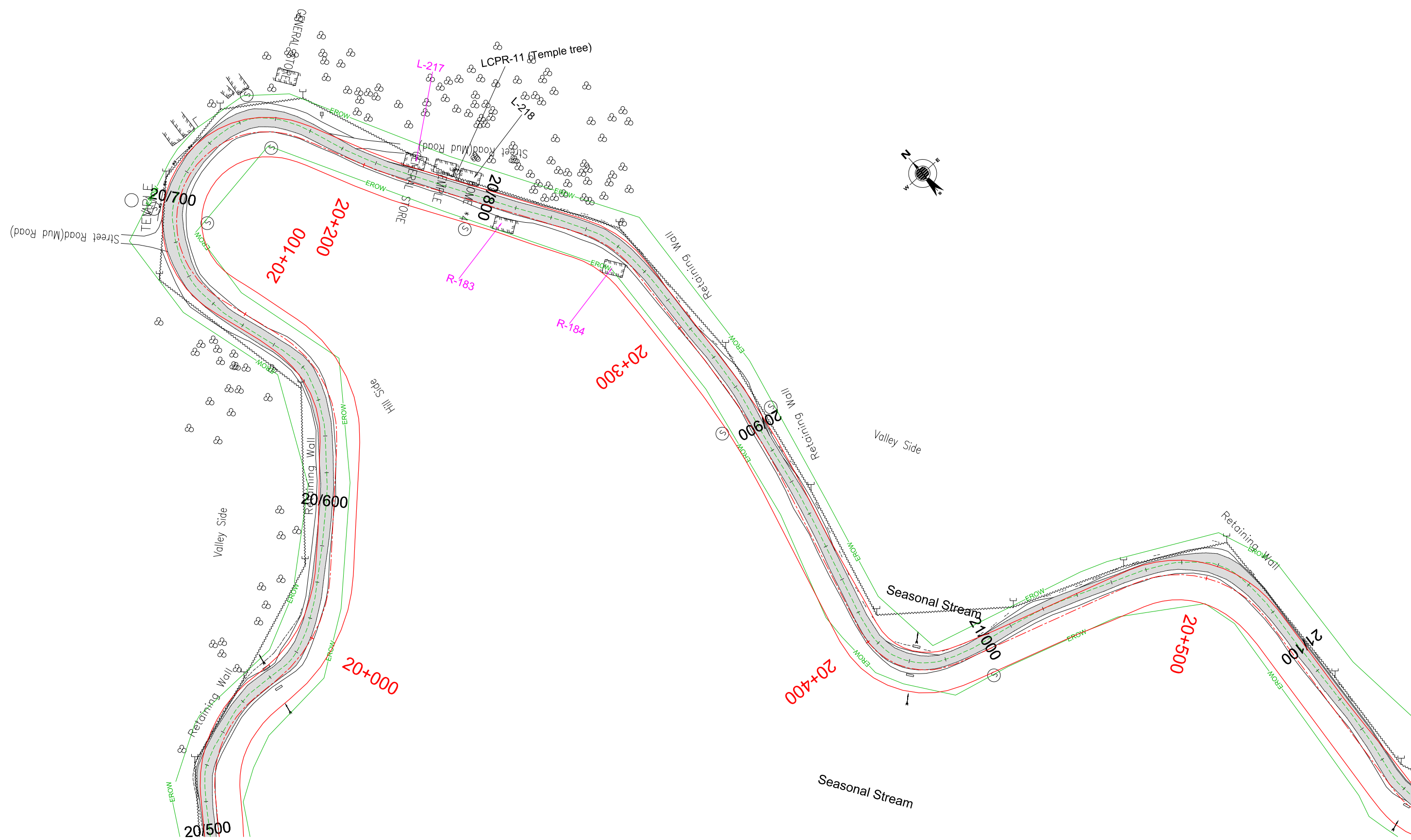
TITLE :

ENCUMBRANCE PLAN
FROM CH: 19+600 TO 20+000




DRAWING NO : HP/MAN-KAL/EP-019

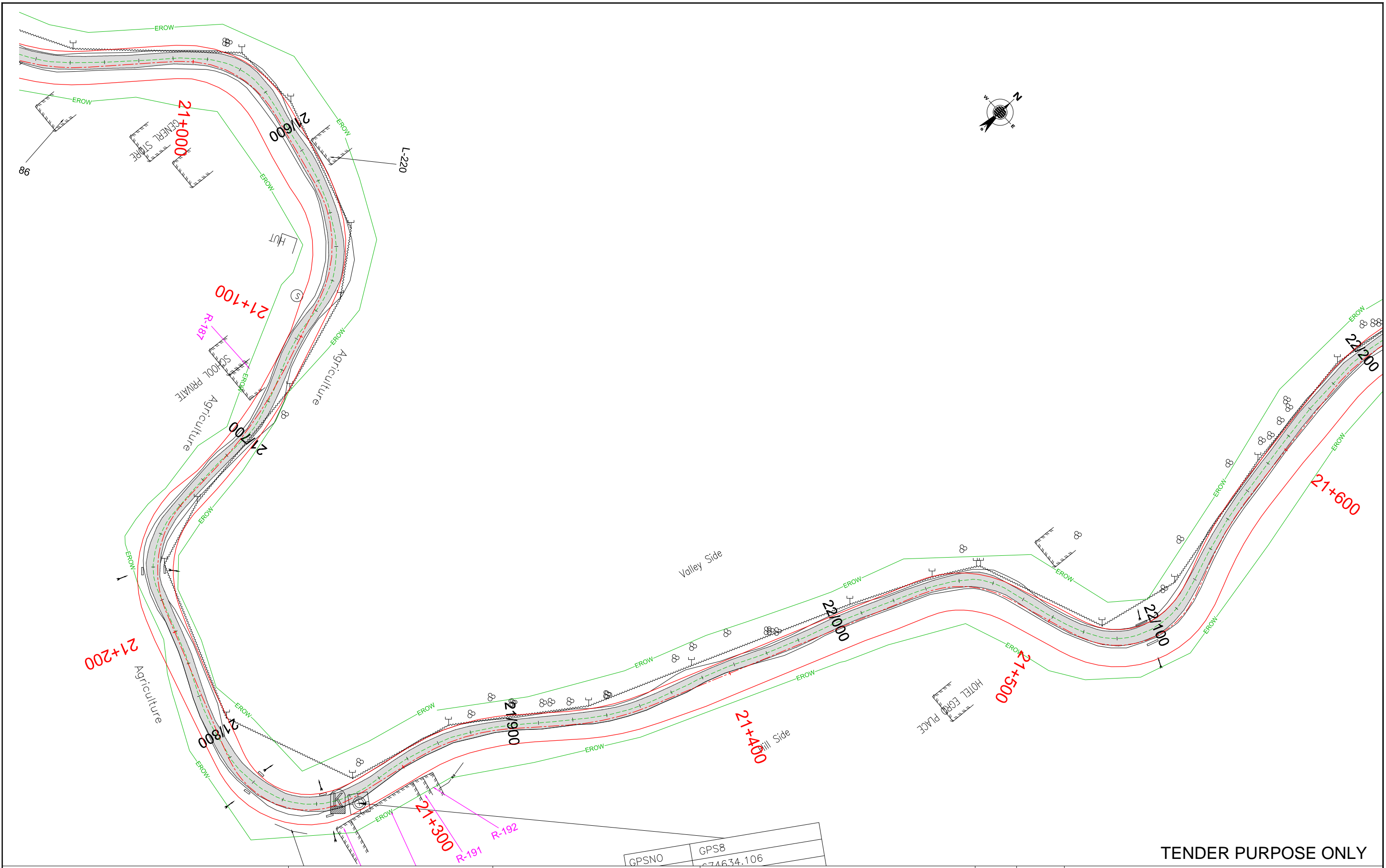
ROAD NAME : Package-VI:
Upgradation of Mandi - Rewalsar - Kalkhar Road in
Mandi District From Km 11+000 To Km 27+854

SHEET 19 OF 36




TENDER PURPOSE ONLY

							<div>CLIENT:</div> <div><div>HIMACHAL PRADESH ROAD AND OTHER INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.</div></div>		<div>CONSULTANT:</div> <div><div>SATRA SERVICES AND SOLUTIONS PVT LTD. #1-8-359 to 363, 4th Floor, Centre Point Building, SP Road, Begumpet, Secunderabad, Telangana – 500003, India. Tel: +91 40 2784 0040, Fax: +91 40 2784 0050, E-mail: info@satragroup.in, Web: www.satragroup.in</div></div>		<div>PROJECT:</div> <div>Himachal Pradesh State Roads Transformation Project (HPSRTP)</div> <div><div>SCALE: HOR 1:1000</div><div></div></div>		<div>DESIGNED</div> <div>MADHU.K</div>	<div>DRAWN</div> <div>DANIEL</div>	<div>CHECKED</div> <div>CS/AH</div>	<div>APPROVED</div> <div>PRADEEP KAPLA</div>	<div>TITLE : ENCUMBRANCE PLAN FROM CH: 20+000 TO 20+500</div> <div>DRAWING NO : HP/MAN-KAL/EP-020</div> <div><div>ROAD NAME : Package-VI: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 11+000 To Km 27+854</div><div>SHEET 20 OF 36</div></div>			
REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED														



REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED

CLIENT:



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E-mail: info@satragroup.in, Web: www.satragroup.in

PROJECT:

Himachal Pradesh State Roads Transformation
Project (HPSRTP)

SCALE:
HOR 1:1000



DESIGNED	MADHU.K
DRAWN	DANIEL
CHECKED	CS/AH
APPROVED	PRADEEP KAPLA

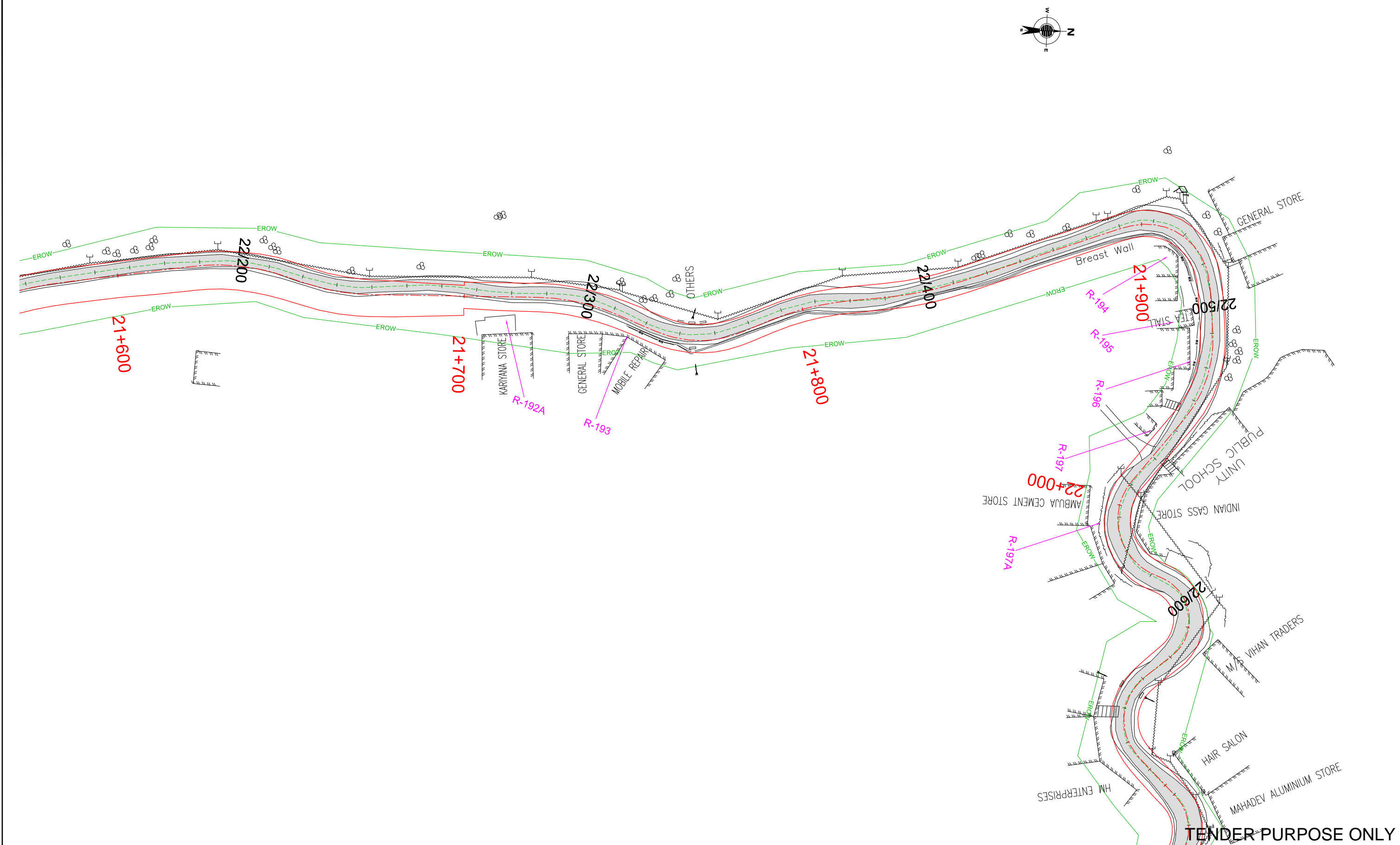
TENDER PURPOSE ONLY

TITLE : ENCUMBRANCE PLAN
FROM CH: 21+000 TO 21+600

DRAWING NO : HP/MAN-KAL/EP-022

ROAD NAME : Package-VI:
Upgradation of Mandi - Rewalsar - Kalkhar Road in
Mandi District From Km 11+000 To Km 27+854

SHEET 22 OF 36



REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED

CLIENT:



HIMACHAL PRADESH ROAD
AND OTHER INFRASTRUCTURE DEVELOPMENT
CORPORATION LIMITED.

CONSULTANT:




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E-mail: info@satragroup.in, Web: www.satragroup.in

PROJECT:

Himachal Pradesh State Roads Transformation
Project (HPSRTP)

SCALE:
HOR 1:1000



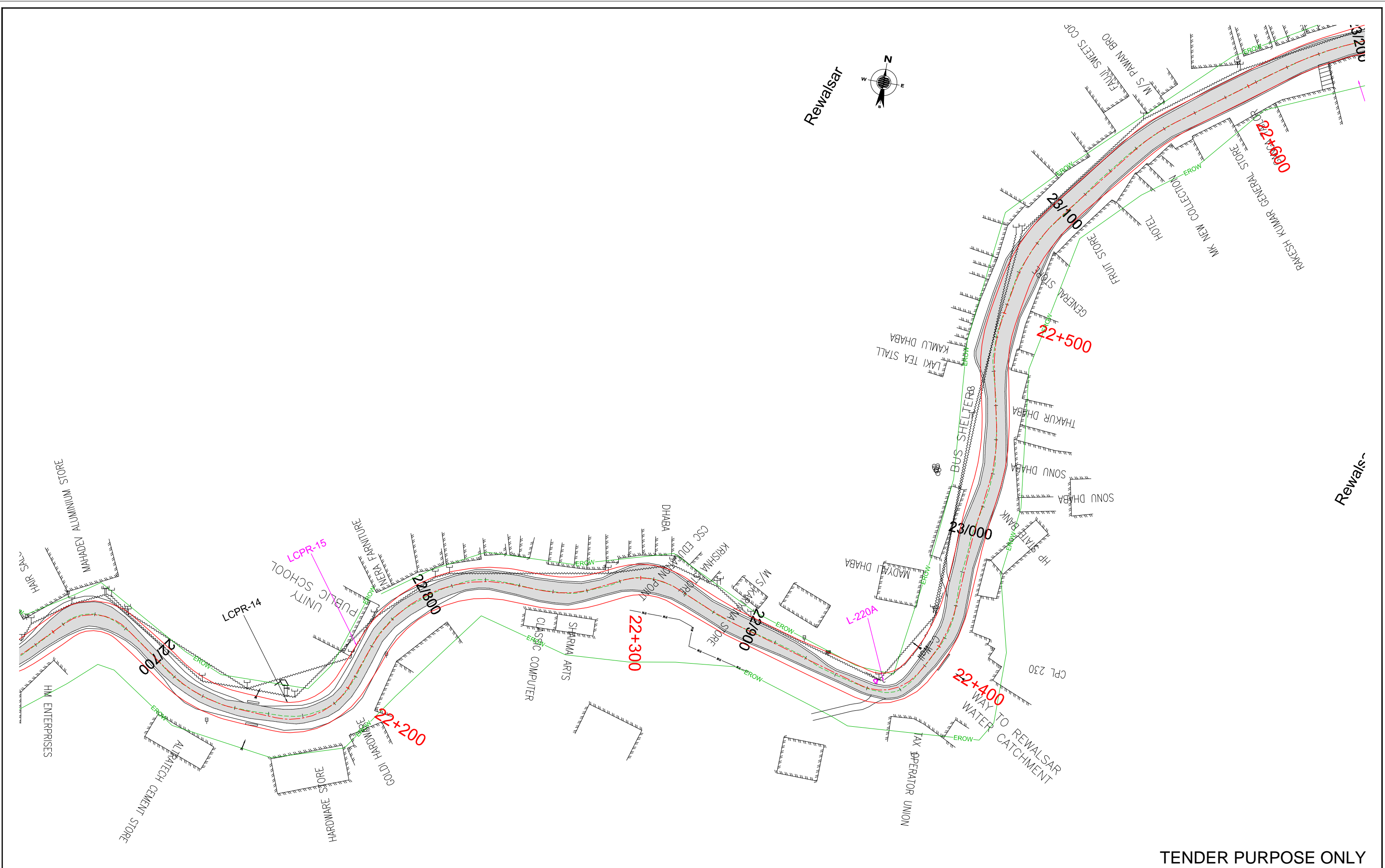
DESIGNED	MADHU.K
DRAWN	DANIEL
CHECKED	CS/AH
APPROVED	PRADEEP KAPLA

TITLE : ENCUMBRANCE PLAN
FROM CH: 21+600 TO 22+100

DRAWING NO : HP/MAN-KAL/EP-023

ROAD NAME : Package-VI:
Upgradation of Mandi - Rewalsar - Kalkhar Road in
Mandi District From Km 11+000 To Km 27+854

SHEET 23 OF 36



TENDER PURPOSE ONLY

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED

CLIENT:



HIMACHAL PRADESH ROAD
AND OTHER INFRASTRUCTURE DEVELOPMENT
CORPORATION LIMITED.

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E-mail: info@satragroup.in, Web: www.satragroup.in

PROJECT:

Himachal Pradesh State Roads Transformation
Project (HPSRTP)

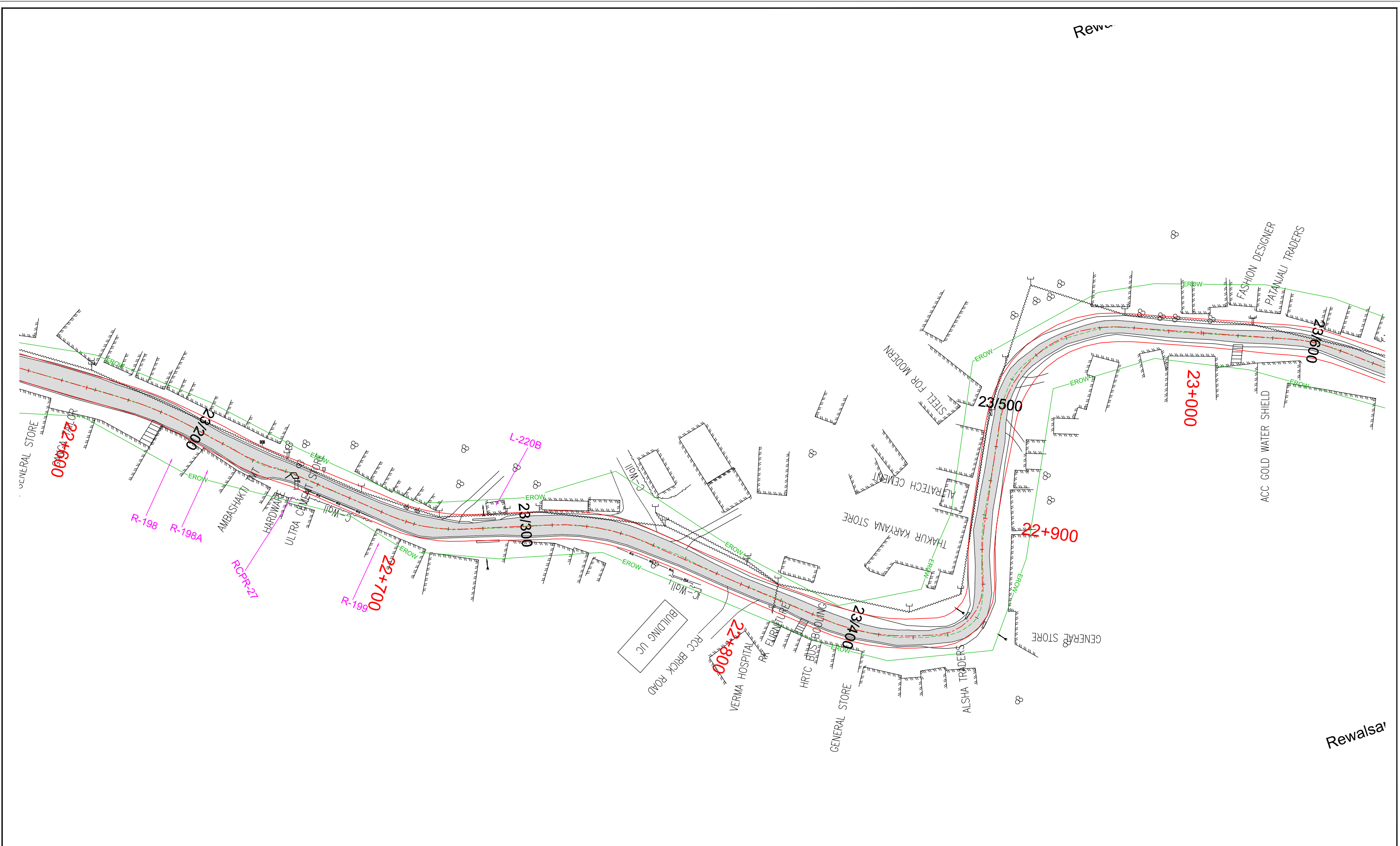
SCALE:

HOR 1:1000



DESIGNED	MADHU.K
DRAWN	DANIEL
CHECKED	CS/AH
APPROVED	PRADEEP KAPLA

TITLE : ENCUMBRANCE PLAN FROM CH: 22+100 TO 22+600	
DRAWING NO : HP/MAN-KAL/EP-024	
ROAD NAME : Package-VI: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 11+000 To Km 27+854	SHEET 24 OF 36



TENDER PURPOSE ONLY

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED

CLIENT:

 HIMACHAL PRADESH ROAD
AND OTHER INFRASTRUCTURE DEVELOPMENT
CORPORATION LIMITED.

CONSULTANT:


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Tel: +91 40 2784 0040, Fax: +91 40 2784 0050,
E-mail: info@satragroup.in, Web: www.satragroup.in

PROJECT:

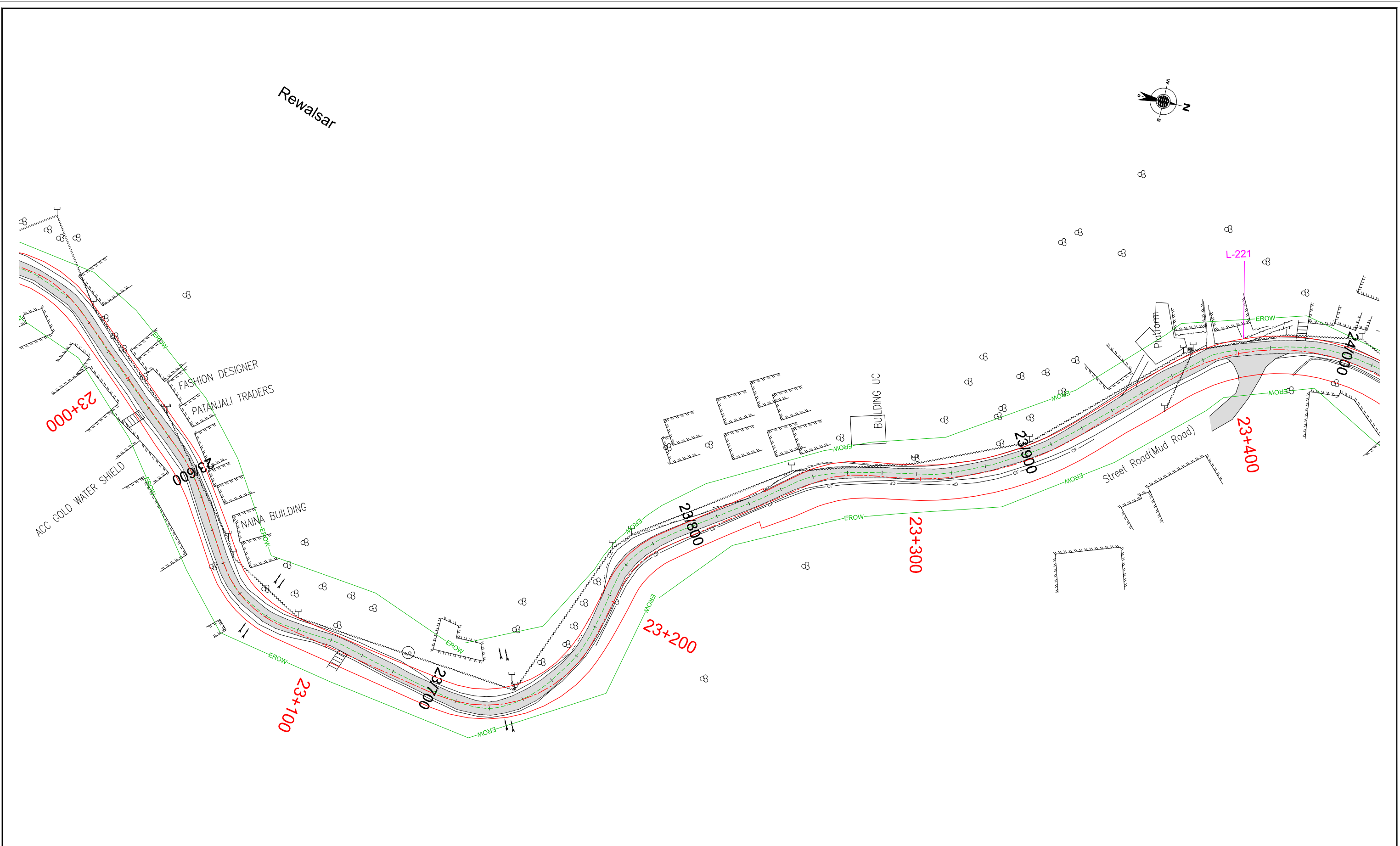
Himachal Pradesh State Roads Transformation
Project (HPSRTP)

SCALE:
HOR 1:1000



DESIGNED	MADHU.K
DRAWN	DANIEL
CHECKED	CS/AH
APPROVED	PRADEEP KAPLA

TITLE : ENCUMBRANCE PLAN FROM CH: 22+600 TO 23+000	
DRAWING NO : HP/MAN-KAL/EP-025	
ROAD NAME : Package-VI: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 11+000 To Km 27+854	SHEET 25 OF 36



TENDER PURPOSE ONLY

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED

CLIENT:



HIMACHAL PRADESH ROAD
AND OTHER INFRASTRUCTURE DEVELOPMENT
CORPORATION LIMITED.

CONSULTANT:




SATRA SERVICES AND SOLUTIONS PVT LTD.
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E-mail: info@satragroup.in, Web: www.satragroup.in

PROJECT:

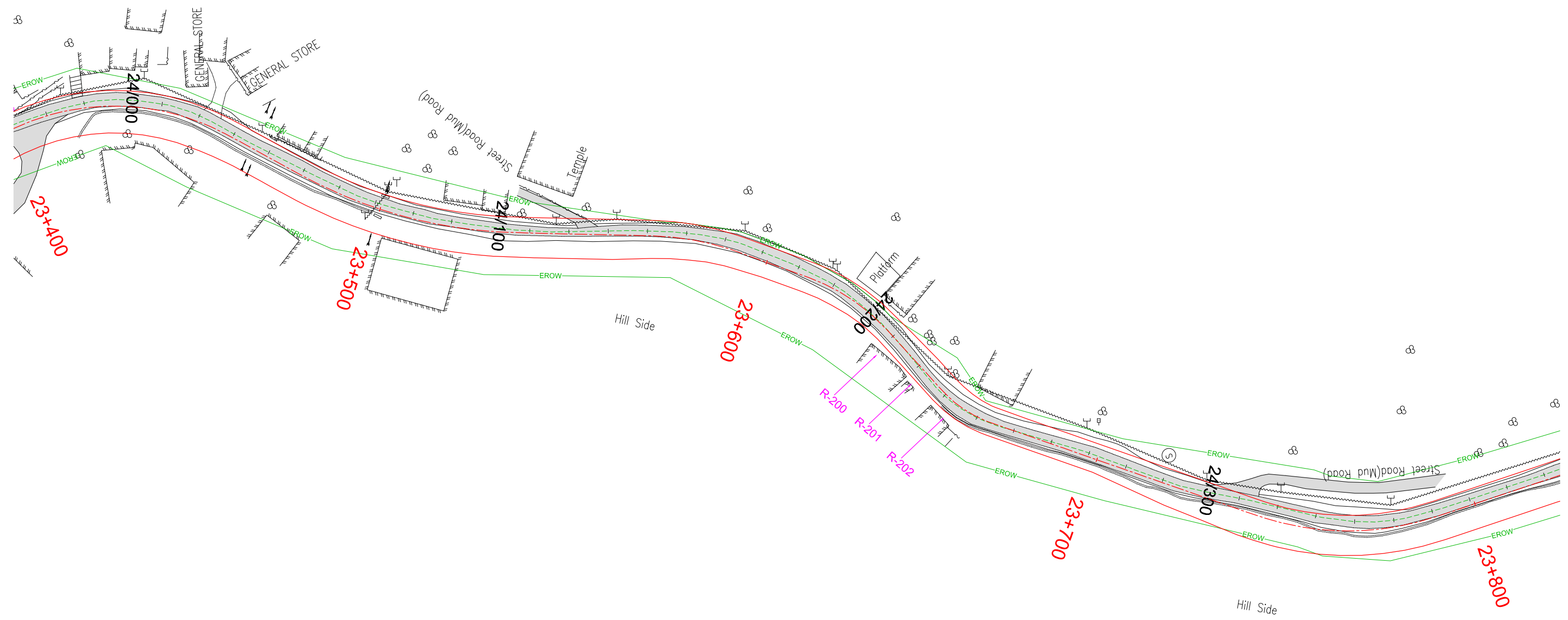
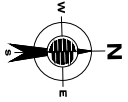
Himachal Pradesh State Roads Transformation
Project (HPSRTP)

SCALE:
HOR 1:1000



DESIGNED	MADHU.K
DRAWN	DANIEL
CHECKED	CS/AH
APPROVED	PRADEEP KAPLA


TITLE : ENCUMBRANCE PLAN FROM CH: 23+000 TO 23+400	
DRAWING NO : HP/MAN-KAL/EP-026	
ROAD NAME : Package-VI: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 11+000 To Km 27+854	SHEET 26 OF 36



TENDER PURPOSE ONLY

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED

CLIENT:



HIMACHAL PRADESH ROAD
AND OTHER INFRASTRUCTURE DEVELOPMENT
CORPORATION LIMITED.

CONSULTANT:




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E-mail: info@satragroup.in, Web: www.satragroup.in

PROJECT:

Himachal Pradesh State Roads Transformation
Project (HPSRTP)

SCALE:
HOR 1:1000



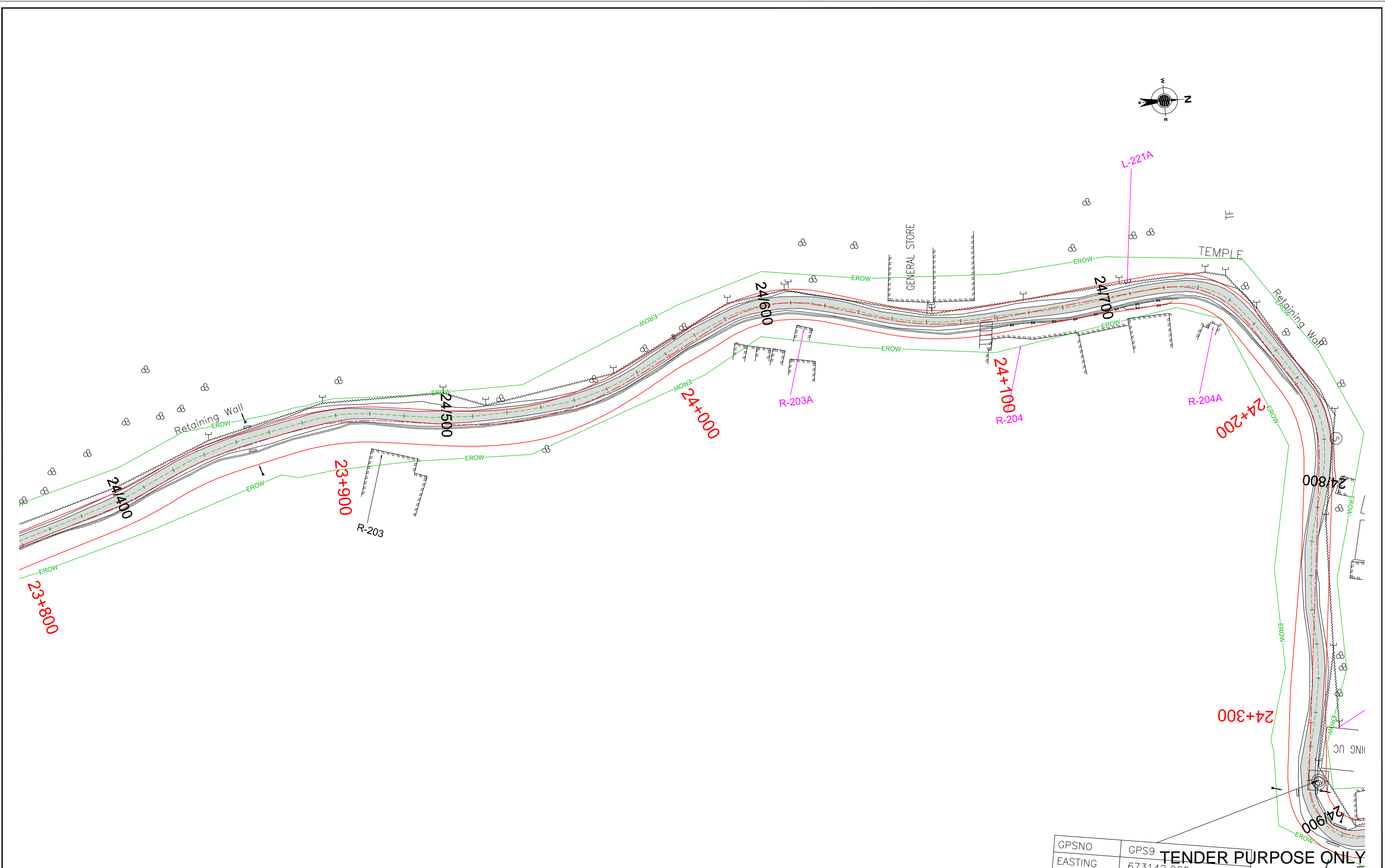
DESIGNED	MADHU.K
DRAWN	DANIEL
CHECKED	CS/AH
APPROVED	PRADEEP KAPLA




TITLE : ENCUMBRANCE PLAN
FROM CH: 23+400 TO 23+800

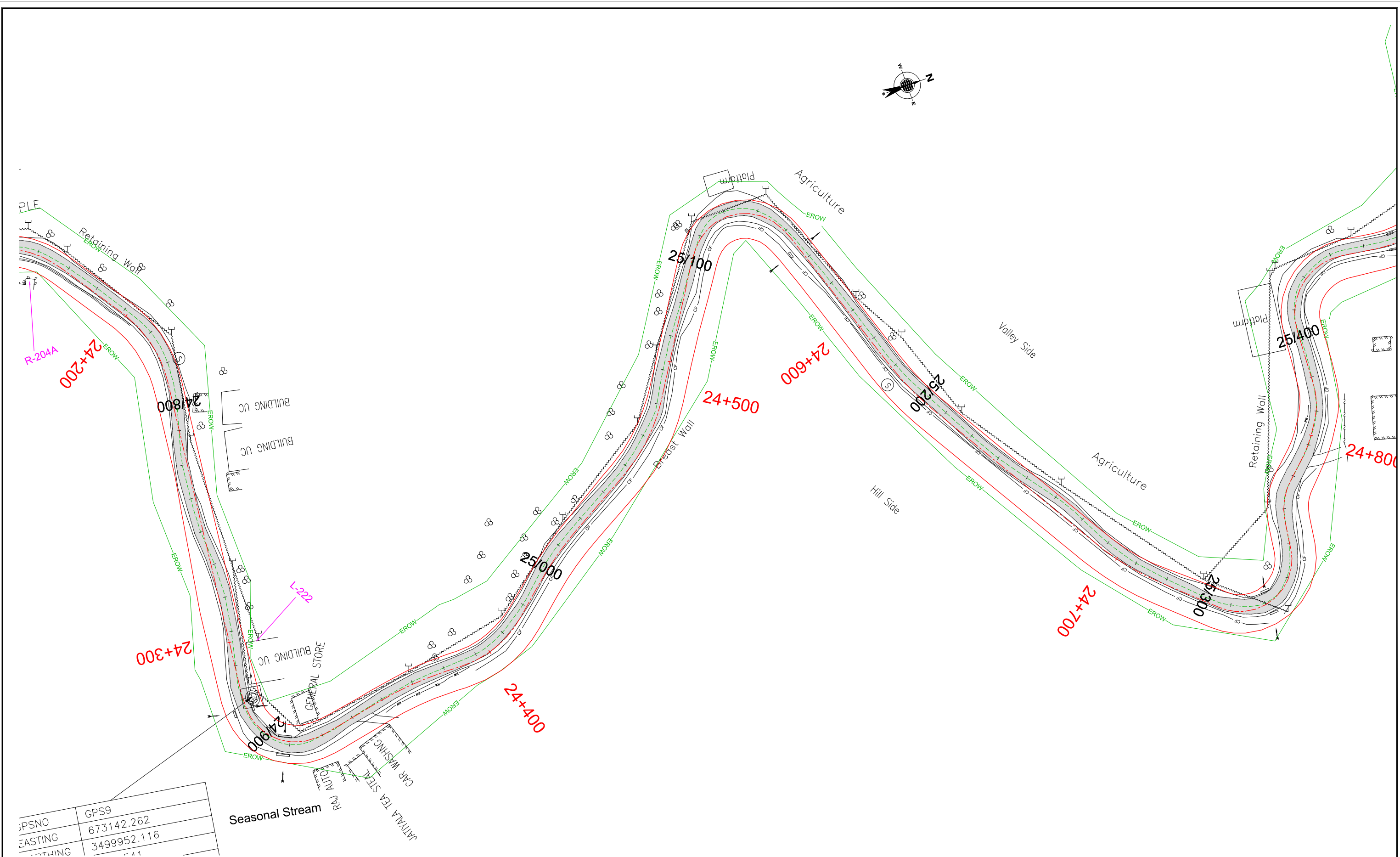
DRAWING NO : HP/MAN-KAL/EP-027

ROAD NAME : Package-VI:
Upgradation of Mandi - Rewalsar - Kalkhar Road in
Mandi District From Km 11+000 To Km 27+854

SHEET 27 OF 36



<div><div><div>REV</div><div>DATE</div><div>DESCRIPTION</div><div>DESIGNED</div><div>DRAWN</div><div>CHECKED</div><div>APPROVED</div></div><table><tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr></table></div>																																										<div>CLIENT:</div> <div><div>HIMACHAL PRADESH ROAD AND OTHER INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.</div></div>		<div>CONSULTANT:</div> <div><div>SATRA SERVICES AND SOLUTIONS PVT LTD. #1-8-359 to 363, 4th Floor, Centre Point Building, SP Road, Begumpet, Secunderabad, Telangana - 500003, India. Tel: +91 40 2784 0040, Fax: +91 40 2784 0050, E-mail: info@satragroup.in, Web: www.satragroup.in</div></div>		<div>PROJECT:</div> <div>Himachal Pradesh State Roads Transformation Project (HPSRTP)</div> <div><div>SCALE:</div><div>HOR 1:1000</div><div></div></div>		<table><tr><td>DESIGNED</td><td>MADHU.K</td></tr><tr><td>DRAWN</td><td>DANIEL</td></tr><tr><td>CHECKED</td><td>CS/AH</td></tr><tr><td>APPROVED</td><td>PRADEEP KAPLA</td></tr></table>		DESIGNED	MADHU.K	DRAWN	DANIEL	CHECKED	CS/AH	APPROVED	PRADEEP KAPLA	<div>TITLE :</div> <div>ENCUMBRANCE PLAN FROM CH: 23+800 TO 24+300</div> <div>DRAWING NO : HP/MAN-KAL/EP-028</div> <div>ROAD NAME : Package-VI: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 11+000 To Km 27+854</div> <div>SHEET 28 OF 36</div>	
DESIGNED	MADHU.K																																																										
DRAWN	DANIEL																																																										
CHECKED	CS/AH																																																										
APPROVED	PRADEEP KAPLA																																																										




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673142.262
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TENDER PURPOSE ONLY

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED

CLIENT:



HIMACHAL PRADESH ROAD
AND OTHER INFRASTRUCTURE DEVELOPMENT
CORPORATION LIMITED.

CONSULTANT:




SATRA SERVICES AND SOLUTIONS PVT LTD.
#1-8-359 to 363, 4th Floor, Centre Point Building, SP Road, Begumpet,
Secunderabad, Telangana – 500003, India.
Tel: +91 40 2784 0040, Fax: +91 40 2784 0050,
E-mail: info@satragroup.in, Web: www.satragroup.in

PROJECT:

Himachal Pradesh State Roads Transformation
Project (HPSRTP)

SCALE:
HOR 1:1000



DESIGNED	MADHU.K
DRAWN	DANIEL
CHECKED	CS/AH
APPROVED	PRADEEP KAPLA

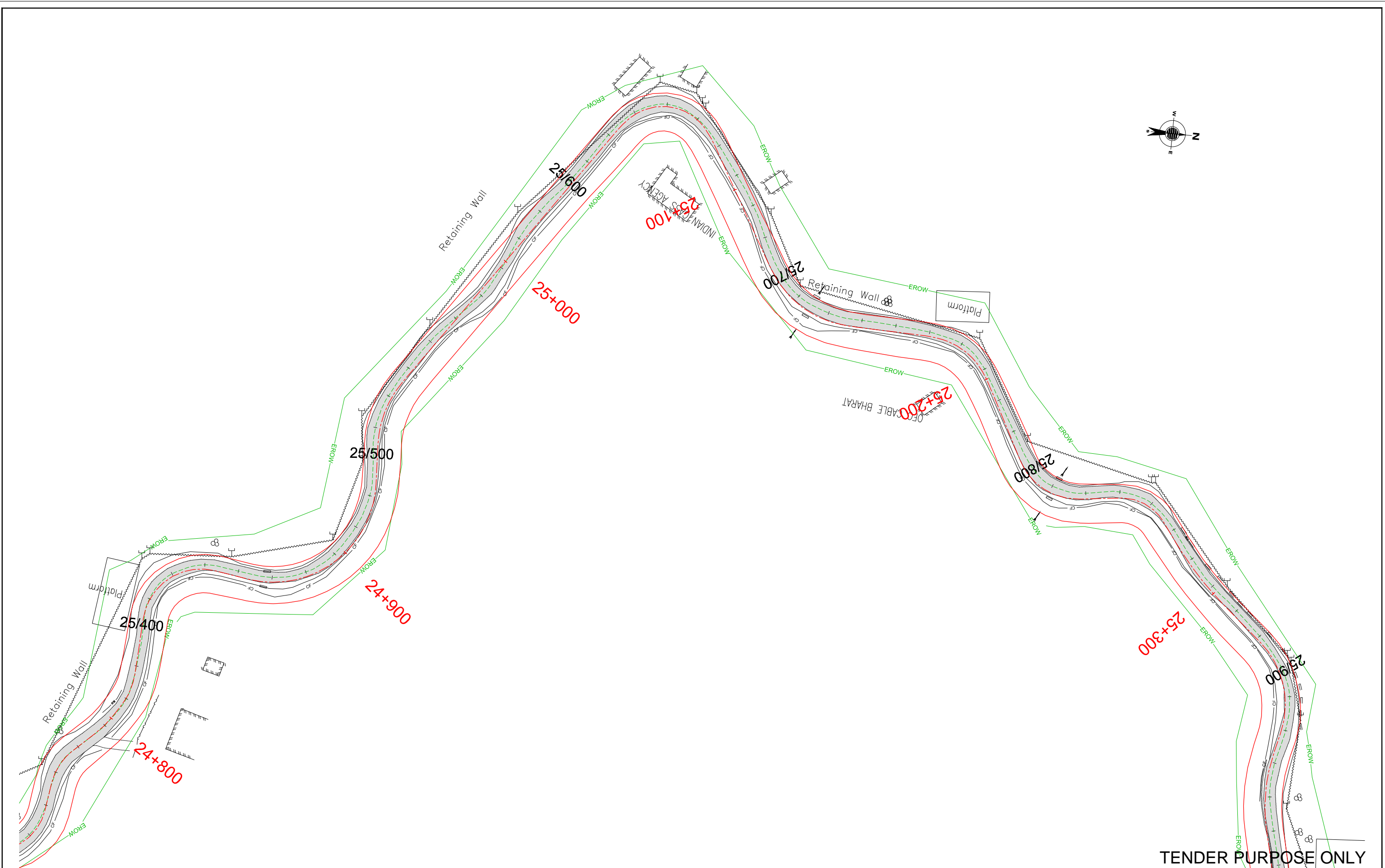
TITLE :

ENCUMBRANCE PLAN
FROM CH: 24+300 TO 24+800

DRAWING NO : HP/MAN-KAL/EP-029

ROAD NAME : Package-VI:
Upgradation of Mandi - Rewalsar - Kalkhar Road in
Mandi District From Km 11+000 To Km 27+854


SHEET 29 OF 36



TENDER PURPOSE ONLY

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED

CLIENT:



HIMACHAL PRADESH ROAD
AND OTHER INFRASTRUCTURE DEVELOPMENT
CORPORATION LIMITED.

CONSULTANT:



SATRA SERVICES AND SOLUTIONS PVT LTD.


#1-8-359 to 363, 4th Floor, Centre Point Building, SP Road, Begumpet,
Secunderabad, Telangana – 500003, India.
Tel: +91 40 2784 0040, Fax: +91 40 2784 0050,
E-mail: info@satragroup.in, Web: www.satragroup.in

PROJECT:

Himachal Pradesh State Roads Transformation
Project (HPSRTP)

SCALE:

HOR 1:1000



DESIGNED	MADHU.K
DRAWN	DANIEL
CHECKED	CS/AH
APPROVED	PRADEEP KAPLA

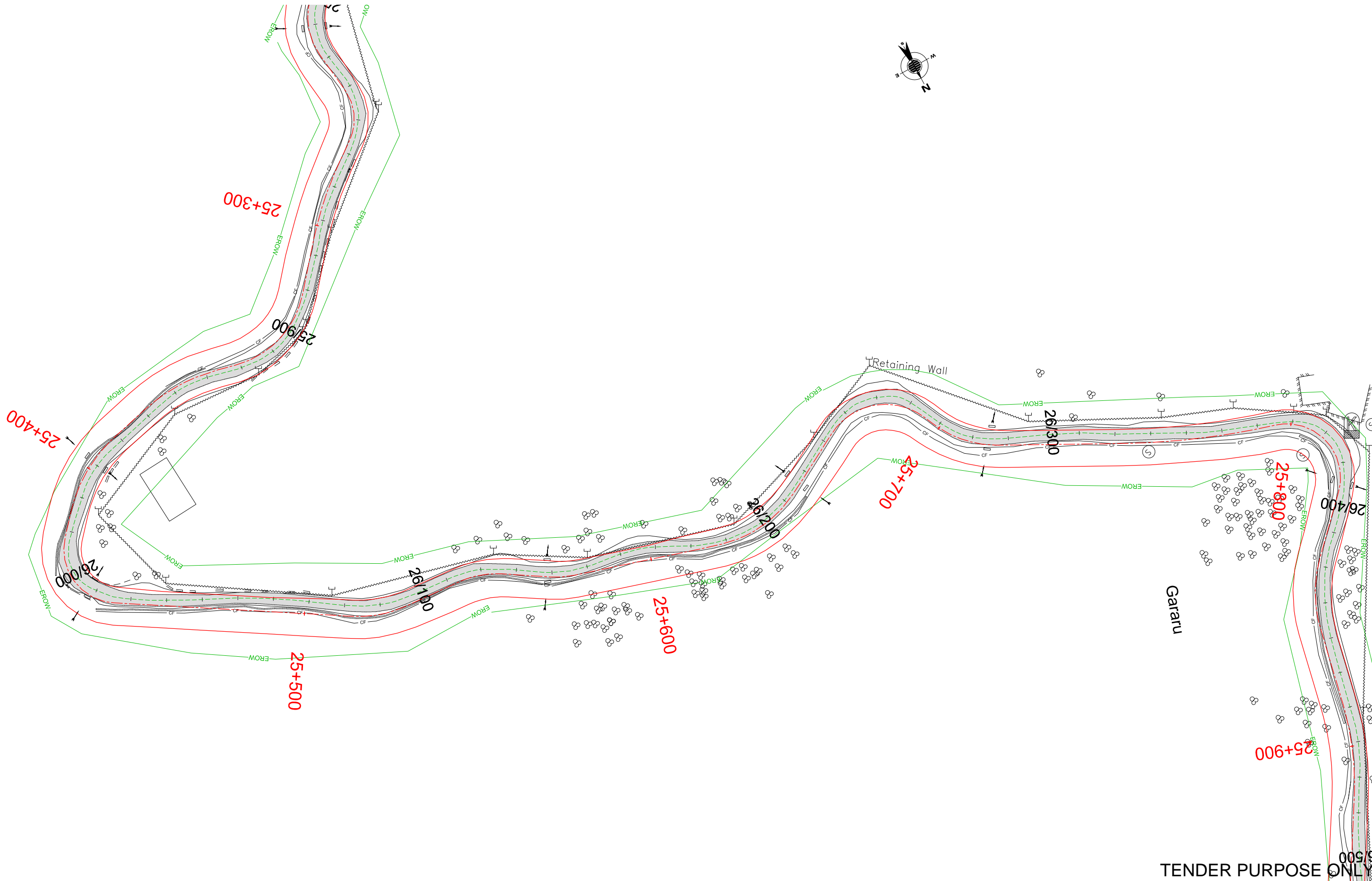
TITLE :

ENCUMBRANCE PLAN
FROM CH: 24+800 TO 25+300




DRAWING NO : HP/MAN-KAL/EP-030

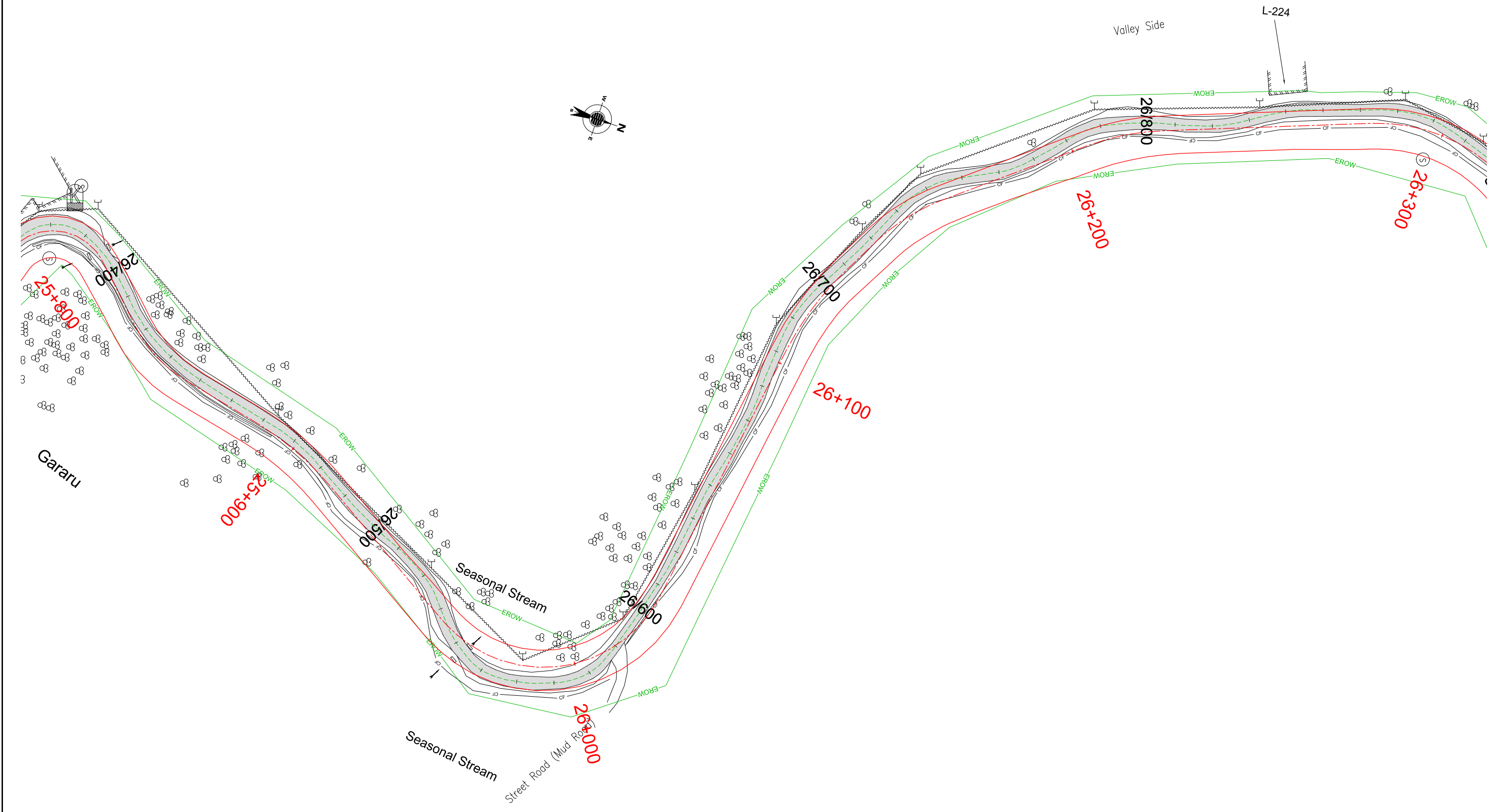
ROAD NAME : Package-VI:
Upgradation of Mandi - Rewalsar - Kalkhar Road in
Mandi District From Km 11+000 To Km 27+854

SHEET 30 OF 36



TENDER PURPOSE ONLY

							<div>CLIENT:</div> <div><div>HIMACHAL PRADESH ROAD AND OTHER INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.</div></div>		<div>CONSULTANT:</div> <div><div>SATRA SERVICES AND SOLUTIONS PVT LTD. #1-8-359 to 363, 4th Floor, Centre Point Building, SP Road, Begumpet, Secunderabad, Telangana – 500003, India. Tel: +91 40 2784 0040, Fax: +91 40 2784 0050, E-mail: info@satragroup.in, Web: www.satragroup.in</div></div>		<div>PROJECT:</div> <div>Himachal Pradesh State Roads Transformation Project (HPSRTP)</div>		<div>DESIGNED</div> <div>MADHU.K</div>		<div>TITLE :</div> <div>ENCUMBRANCE PLAN FROM CH: 25+300 TO 25+800</div>	
									<div>DRAWN</div> <div>DANIEL</div>		<div>DRAWING NO : HP/MAN-KAL/EP-031</div>					
									<div>CHECKED</div> <div>CS/AH</div>		<div>ROAD NAME :</div> <div>Package-VI: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 11+000 To Km 27+854</div>		<div>SHEET 31 OF 36</div>			
<div>REV</div> <div>DATE</div>		<div>DESCRIPTION</div>					<div>DESIGNED</div>	<div>DRAWN</div>	<div>CHECKED</div>	<div>APPROVED</div>	<div>SCALE:</div> <div>HOR 1:1000</div>		<div></div>		<div>APPROVED</div> <div>PRADEEP KAPLA</div>	



TENDER PURPOSE ONLY

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E-mail: info@satragroup.in, Web: www.satragroup.in

PROJECT:

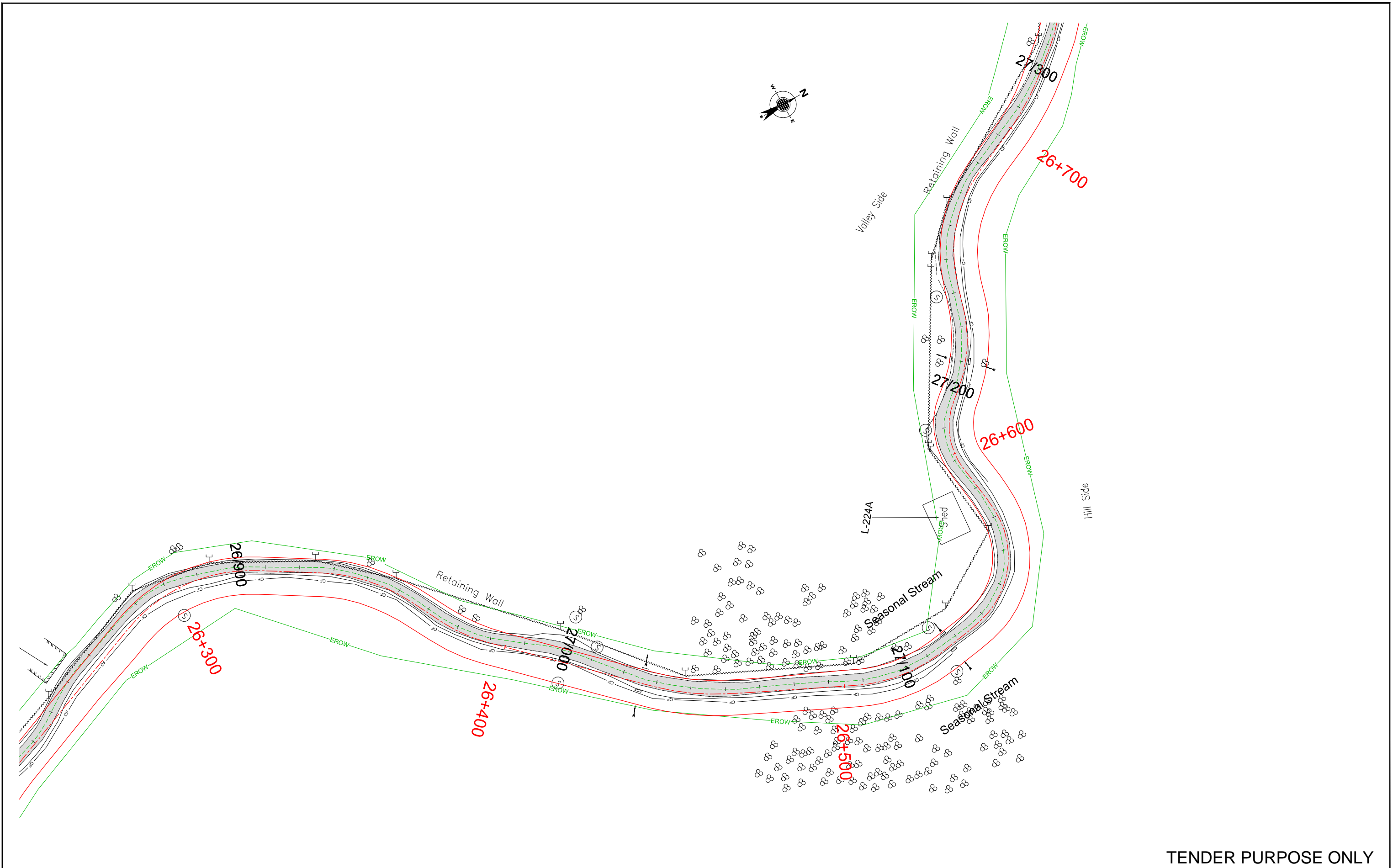
Himachal Pradesh State Roads Transformation
Project (HPSRTP)

SCALE:
HOR 1:1000



DESIGNED	MADHU.K
DRAWN	DANIEL
CHECKED	CS/AH
APPROVED	PRADEEP KAPLA

TITLE : ENCUMBRANCE PLAN FROM CH: 25+800 TO 26+300	
DRAWING NO : HP/MAN-KAL/EP-032	
ROAD NAME : Package-VI: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 11+000 To Km 27+854	SHEET 32 OF 36



TENDER PURPOSE ONLY

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED

CLIENT:



HIMACHAL PRADESH ROAD
AND OTHER INFRASTRUCTURE DEVELOPMENT
CORPORATION LIMITED.

CONSULTANT:




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PROJECT:

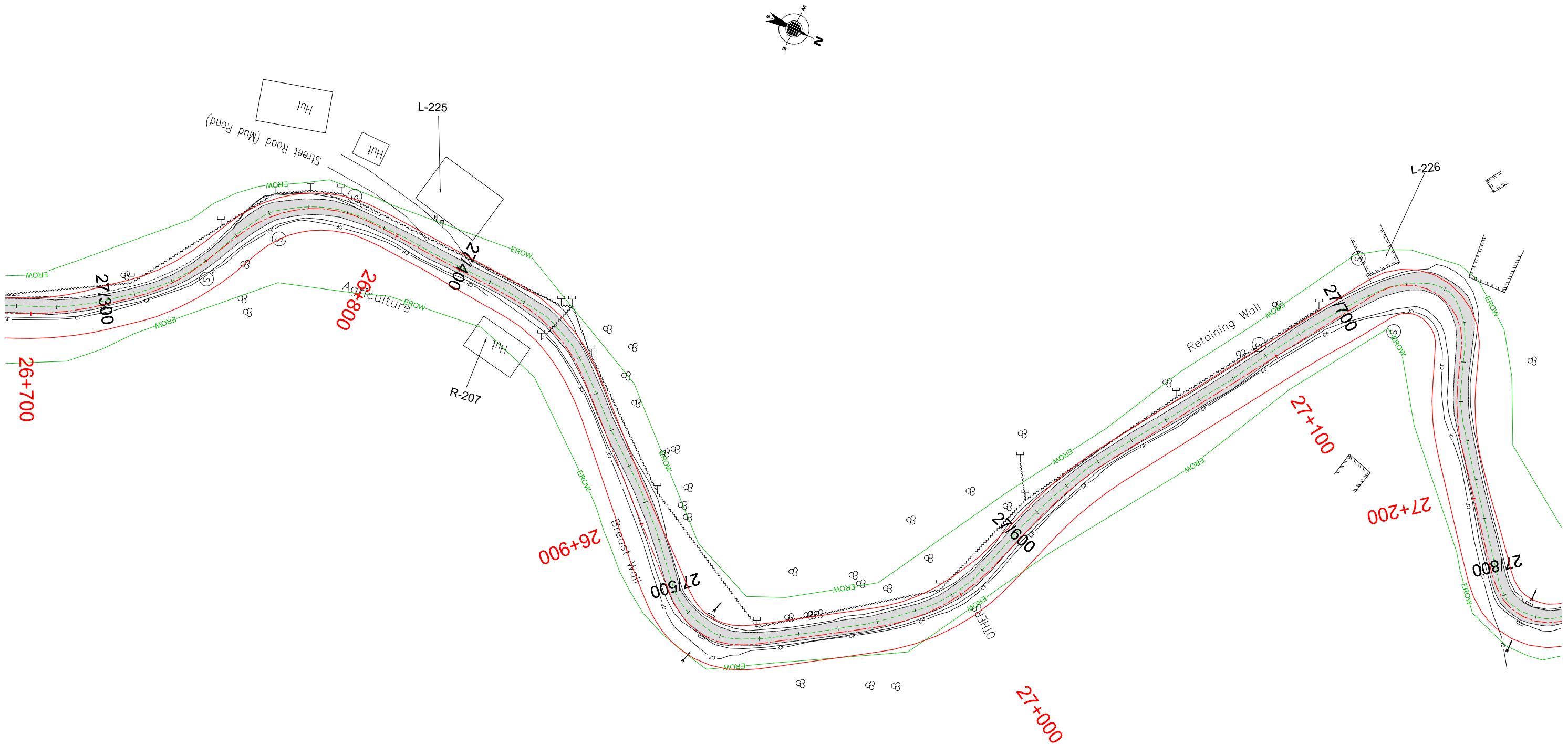
Himachal Pradesh State Roads Transformation
Project (HPSRTP)

SCALE:
HOR 1:1000



DESIGNED	MADHU.K
DRAWN	DANIEL
CHECKED	CS/AH
APPROVED	PRADEEP KAPLA

TITLE : ENCUMBRANCE PLAN FROM CH: 26+300 TO 26+700	
DRAWING NO : HP/MAN-KAL/EP-033	
ROAD NAME : Package-VI: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 11+000 To Km 27+854	SHEET 33 OF 36



TENDER PURPOSE ONLY

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED

CLIENT:



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E-mail: info@satragroup.in, Web: www.satragroup.in

PROJECT:

Himachal Pradesh State Roads Transformation
Project (HPSRTP)

SCALE:
HOR 1:1000



DESIGNED	MADHU.K
DRAWN	DANIEL
CHECKED	CS/AH
APPROVED	PRADEEP KAPLA

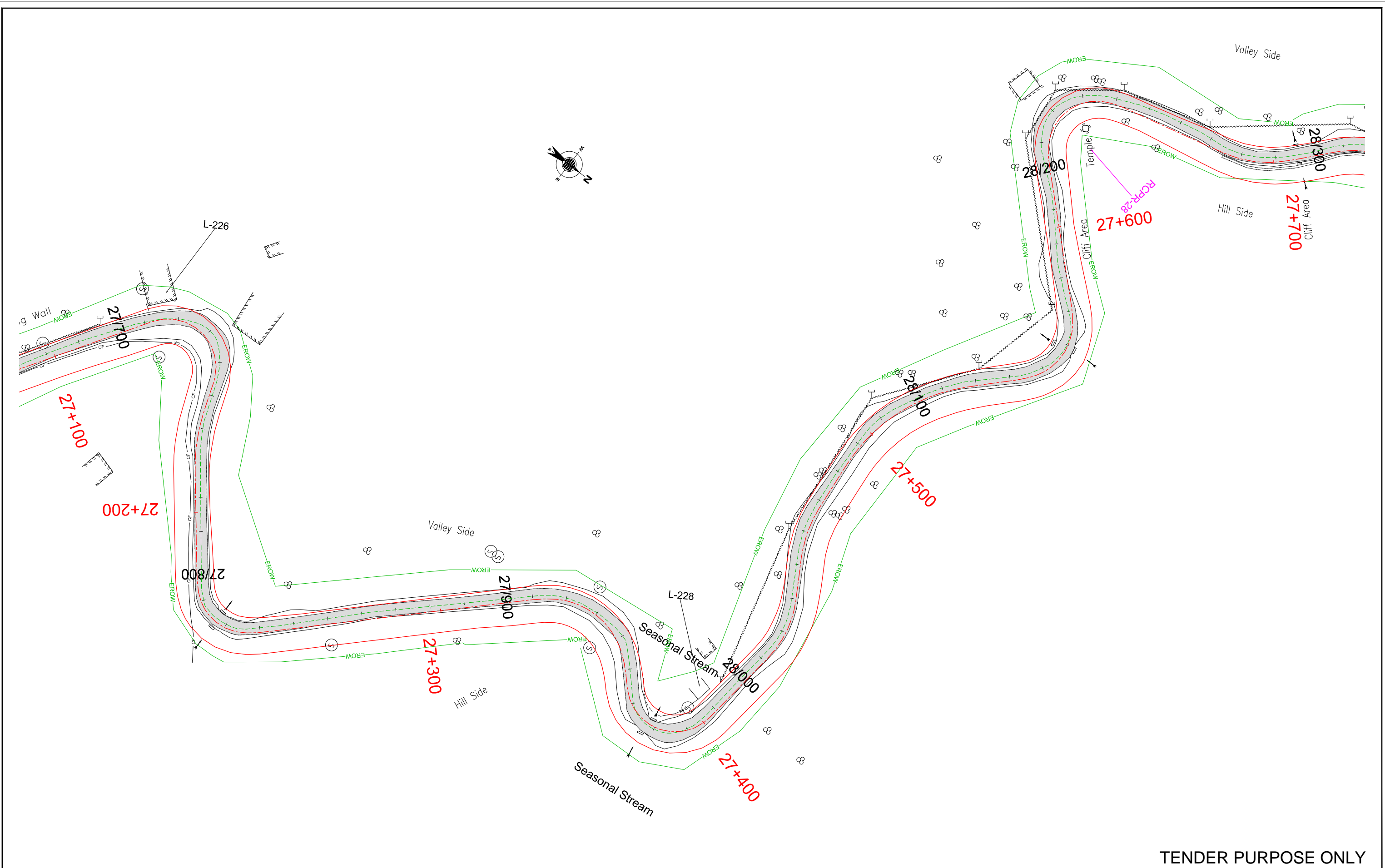
TITLE :

ENCUMBRANCE PLAN
FROM CH: 26+700 TO 27+200

DRAWING NO : HP/MAN-KAL/EP-034

ROAD NAME : Package-VI:
Upgradation of Mandi - Rewalsar - Kalkhar Road in
Mandi District From Km 11+000 To Km 27+854

SHEET 34 OF 36



TENDER PURPOSE ONLY

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E-mail: info@satragroup.in, Web: www.satragroup.in

PROJECT:

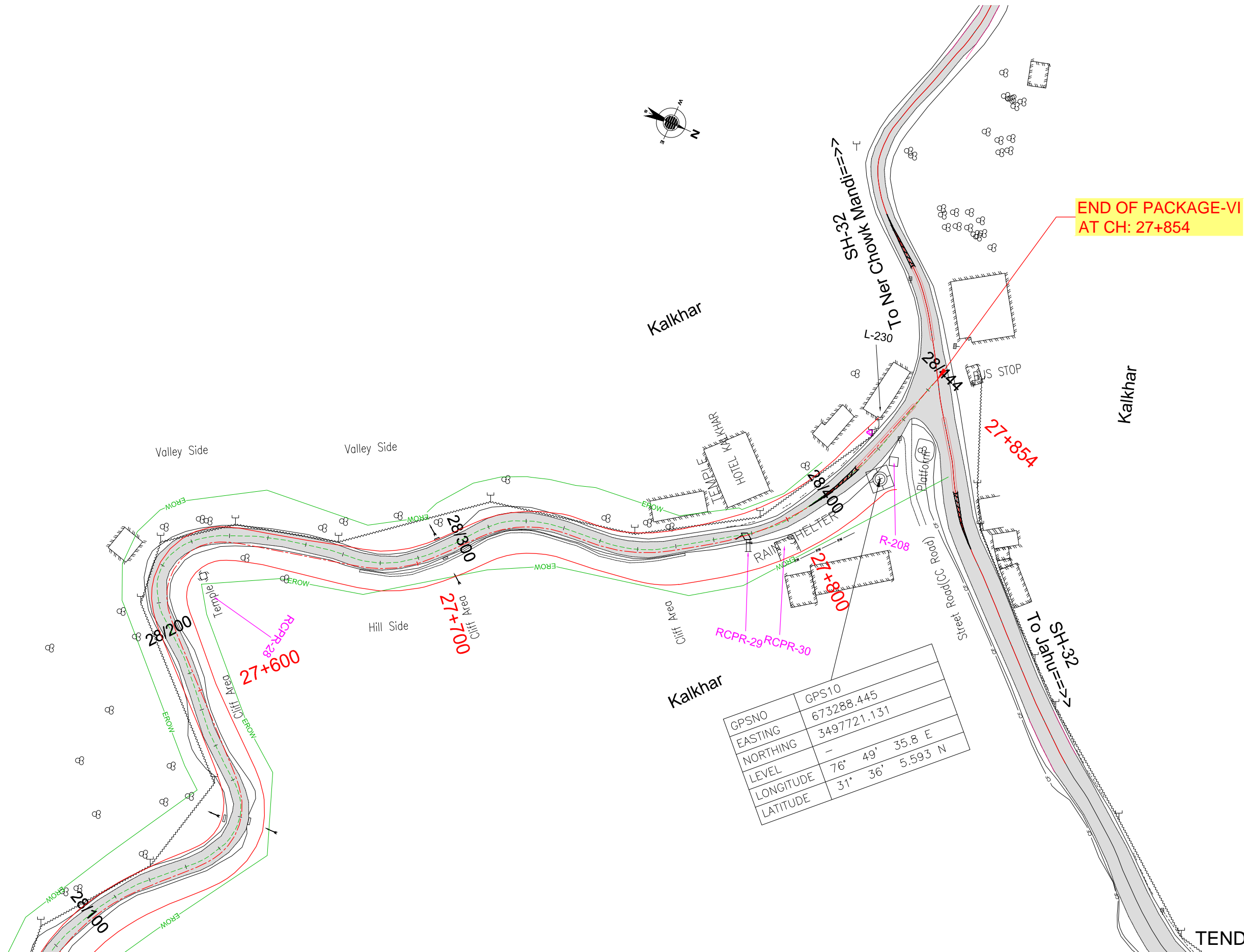
Himachal Pradesh State Roads Transformation
Project (HPSRTP)

SCALE:
HOR 1:1000






DESIGNED	MADHU.K
DRAWN	DANIEL
CHECKED	CS/AH
APPROVED	PRADEEP KAPLA

TITLE : ENCUMBRANCE PLAN FROM CH: 27+200 TO 27+700	
DRAWING NO : HP/MAN-KAL/EP-035	
ROAD NAME : Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 11+000 To Km 27+854	SHEET 35 OF 36



GPSNO	GPS10
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NORTHING	3497721.131
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LONGITUDE	76° 49' 35.8 E
LATITUDE	31° 36' 5.593 N


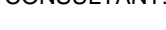
TENDER PURPOSE ONLY

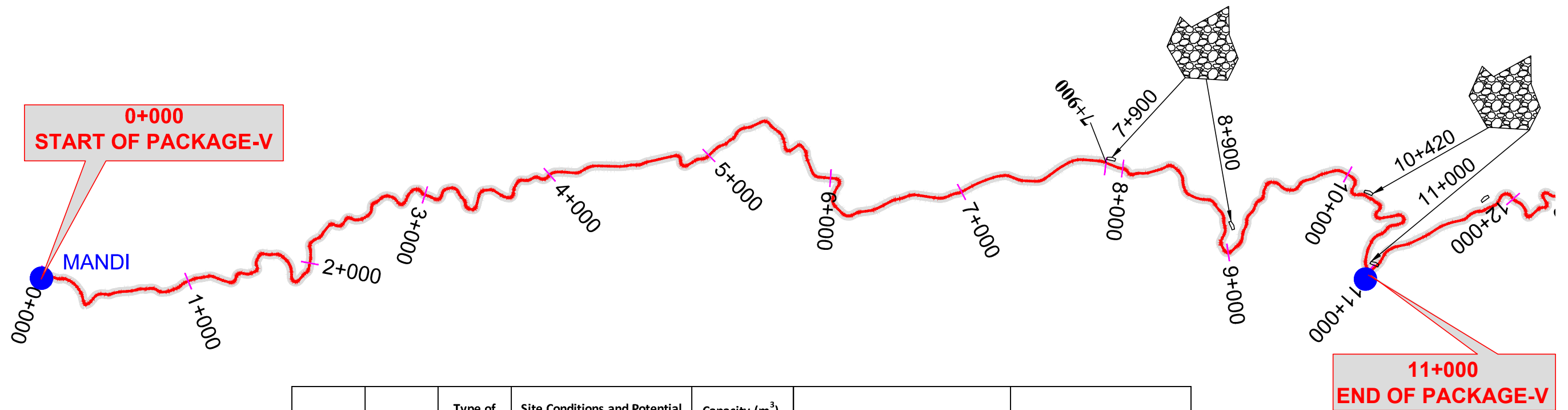
							<div>CLIENT:</div> <div></div> <div>HIMACHAL PRADESH ROAD AND OTHER INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.</div>	<div>CONSULTANT:</div> <div></div> <div>SATRA SERVICES AND SOLUTIONS PVT LTD.</div> <div>#1-8-359 to 363, 4th Floor, Centre Point Building, SP Road, Begumpet, Secunderabad, Telangana – 500003, India. Tel: +91 40 2784 0040, Fax: +91 40 2784 0050, E-mail: info@satragroup.in, Web: www.satragroup.in</div>	<div>PROJECT:</div> <div>Himachal Pradesh State Roads Transformation Project (HPSRTP)</div>	DESIGNED	MADHU.K	TITLE : ENCUMBRANCE PLAN FROM CH: 27+700 TO 27+854	
DRAWN	DANIEL												
CHECKED	CS/AH	DRAWING NO : HP/MAN-KAL/EP-036											
APPROVED	PRADEEP KAPLA	ROAD NAME : Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 11+000 To Km 27+854	SHEET 36 OF 36										
SCALE: HOR 1:1000													
REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED							

MISP AND ESMP DETAILS DRAWINGS

MISP AND ESMP DETAILED DRAWINGS		
S.No.	TITLE	DRAWING NOS
1	DEBRIS DISPOSAL LOCATION LAYOUT PLAN	HP/MAN-KAL/DD-001A
2	DEBRIS DISPOSAL LOCATION LAYOUT PLAN	HP/MAN-KAL/DD-001B
3	DEBRIS DISPOSAL LOCATION LAYOUT PLAN	HP/MAN-KAL/DD-001C
4	DEBRIS DISPOSAL PLAN & SECTION	HP/MAN-KAL/DD-002
5	SEASONAL STREAMS LAYOUT PLAN	HP/MAN-KAL/SS-001
6	SUGGESTED QUARRY & BORROW AREAS LOCATION PLAN	HP/MAN-KAL/QB-001
7	TYPICAL LAYOUT OF CONSTRUCTION CAMP	HP/MAN-KAL/TCC-001
8	TYPICAL DETAIL OF SEPTIC TANK& OIL INTERCEPTOR	HP/MAN-KAL/ST-001
9	TYPICAL LAYOUT FOR CREMATORIUM @ CHN 27+650	HP/MAN-KAL/CR-001
10	RENOVATION/IMPROVEMENT OF NATURAL WATER SOURCE AT KM 12+482.	HP/MAN-KAL/NWS-001
11	RENOVATION/IMPROVEMENT OF NATURAL WATER SOURCE AT KM 18+048	HP/MAN-KAL/NWS-002
12	NOISE BARRIER AT KM 22+545 (UNITY PUBLIC SCHOOL).	HP/MAN-KAL/NB-001
13	RESIZING OF PLATFORM AT KM22+997.	HP/MAN-KAL/RS-001
14	RELOCATION OF RELIGIOUS SHRINE AT KM 24+218.	HP/MAN-KAL/RS-002
15	RECONSTRUCTION OF PEPPAL TREE PLATFORM AT KM 24+734.	HP/MAN-KAL/RS-003
16	RELOCATION OF RELIGIOUS SHRINE AT KM 28+216.	HP/MAN-KAL/RS-004
17	RECONSTRUCTION OF RELIGIOUS SHRINE/PEPPAL TREE WITH PLATFORM AT KM 28+415.	HP/MAN-KAL/RS-005

TENDER PURPOSE ONLY

							<div> HIMACHAL PRADESH ROAD AND OTHER INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.</div>	<div> SATRA SERVICES AND SOLUTIONS PVT LTD. #1-8-359 to 363, 4th Floor, Centre Point Building, SP Road, Begumpet, Secunderabad, Telangana – 500003, India. Tel: +91 40 2784 0040, Fax: +91 40 2784 0050, E-mail: info@satragroup.in, Web: www.satragroup.in</div>	PROJECT: Himachal Pradesh State Roads Transformation Project (HPSRTP)	DESIGNED		MADHU.K	TITLE : INDEX FOR MISP & ESMP DRAWINGS	
DRAWN		DANIEL												
										DRAWING NO : HP/MAN-KAL/INDEX				
										ROAD NAME : Package-VI: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 11+000 To Km 27+854			SHEET 01 OF 01	
										APPROVED		PRADEEP KAPLA		
SCALE:		NOT TO SCALE												
REV	DATE	DESCRIPTION			DESIGNED	DRAWN	CHECKED	APPROVED						



S.No.	Location	Type of Land	Site Conditions and Potential Impacts	Capacity (m ³), Area (Ha)	Mitigation Measures	Remarks
1	7+900 (LHS)	Govt/ PWD Land	The site is in old alignment of the road very next to the ROW, in PWD land. The site have 3 trees and they can be restored after filling.	4,000m ³ (L=100m; W=8m; H=5m),	Provision of gabion wall to avoid it getting eroded during rainy season with rainwater and to support the disposed debris. The boundary of the gabion wall needs to be follow the stream border.	It may gave extra space for road widening the road and visibility to the other side vehicles since the alignment is passing through the settlement areas.
2	8+900 (LHS)	Govt/ PWD Land	The site is near to habitation. It's a barren land (valley)	3,600m ³ (L=80m; W=9m; H=5m)	A consultation with the local people needs to be carried prior to using the site and any operation will be done based on outcome of the consultation.	It might help to the local people to park own vehicles.
			Dust and noise pollution during disposal of material.		Trees replantation should be taken in priority stages.	
3	10+420 (LHS)	Govt/ PWD Land	The site is a barren land next to the habitation and having some trees.	12,000m ³ (L=150m; W=8m; H=10m),	Provision of gravity wall to support debris, and to avoid erosion. Provision of bioengineering measures to stabilise slope.	It help to provide parking space to the road users. And also provide access to the drinking water structure next to this location.
4	11+000 (LHS)	Govt/ PWD Land	The site us barren land located next to the khud and having shrubs and trees.	20,000 m ³ (L=200m; W=10m; H=10m),	Dump can be done in two layers with two levels, while dumping and provide gravity/gabion walls to avoid erosion to the khud.	It helps in better visibility of bridge and vehicles coming opposite side to the vehicular user.

NOTE :-


1. THE DEBRIS DISPOSAL LOCATIONS ARE ADJACENT TO ROAD (WITHIN 5 TO 10M AVERAGE DISTANCE) AND EASY ACCESS TO THE CONTRACTOR.
2. CONTRACTOR WILL ALSO APPROACH DISTRICT ADMINISTRATION FOR THE IDENTIFICATION OF SUITABLE DEBRIS DISPOSABLE SITE/LAND FOR DEBRIS, AS PER CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT REULES,2016.

LEGEND:-

 DEBRIS DISPOSAL LOCATION

TENDER PURPOSE ONLY

CLIENT:



HIMACHAL PRADESH ROAD AND OTHER INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.

CONSULTANT:



SATRA SERVICES AND SOLUTIONS PVT LTD.
#1-8-359 to 363, 4th Floor, Centre Point Building, SP Road, Begumpet, Secunderabad, Telangana - 500003, India.
Tel: +91 40 2784 0040, Fax: +91 40 2784 0050, E-mail: info@satragroup.in, Web: www.satragroup.in

PROJECT:

Himachal Pradesh State Roads Transformation Project (HPSRTP)

DESIGNED: MADHU.K

DRAWN: DANIEL

CHECKED: CS/AH

APPROVED: PRADEEP KAPLA

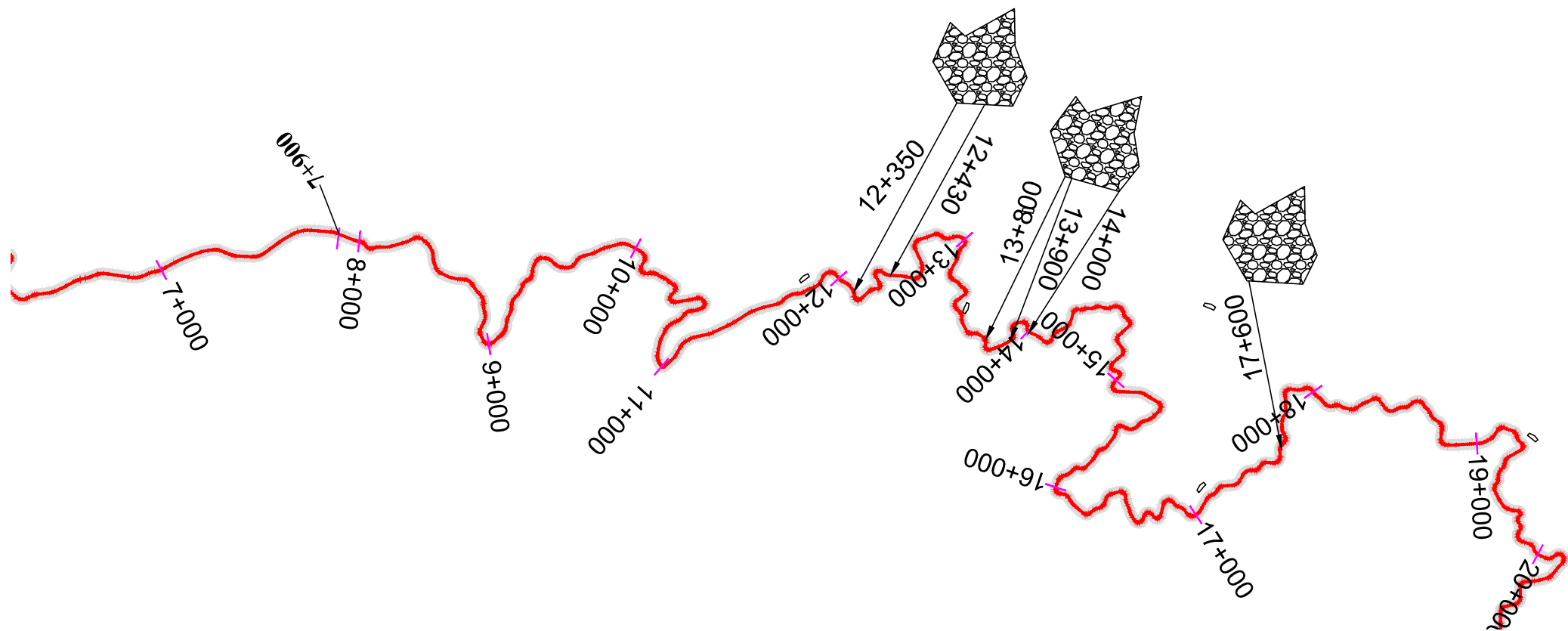
SCALE: NOT TO SCALE

TITLE : DEBRIS DISPOSAL LOCATION PLAN


DRAWING NO : HP/MAN-KAL/DD-001A

ROAD NAME : Package-VI: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 11+000 To Km 27+854

SHEET 01 OF 03



LEGEND:-

 DEBRIS DISPOSAL LOCATION

S.No.	Location	Type of Land	Site Conditions and Potential Impacts	Capacity (m³), Area (Ha)	Mitigation Measures	Remarks
5	12+350 (LHS)	Govt/ PWD Land	This land is having shrubs and small trees and if it has been filled or levelled it might be used for social activities.	6,300m³ (L=70mW=15m; H=6m)	Dump can be done in two stages and entire land is in PWD ownership. Dumping can be done with one stage of Gravity wall and other layers with gabion or Gravity wall.	The levelled land might be helpful to the PWD works at time of repair works and maintenance. There is nala at an distance of 30 m from road. Dumping should be done by considering nala as boundary and without interfering with nala.
	12+430 (LHS)			2,500 m³ (L=50m; W=10m; H=5m)		
6	13+800 (LHS)	Govt/	This land is in barren and having 4 trees and situated in curve.	2,400 m³ (L=40mW=10m; H=6m)	Dump can be done in two stages and entire land is in PWD ownership. Dumping can be done with one stage of Gravity wall and other layers with gabion or Gravity wall.	Helps to provide better visibility of road at curve and can gives additional area for bioengineering solutions.
	13+900 (LHS)			4,800m³ (L=120mW=8m; H=5m)		
	14+000 (LHS)			1,600m³ (L=40mW=8m; H=5m),		
7	17+600 (LHS)	Govt/PWD Land	The land identified for debris disposal is a barren. Have 5 tree on the boundary of the area. There is a nala coming from natural drinking water source.	50,000m³ (L=250m; W=20m; H=10m),	Provision of gabion/gravity wall to support the debris, Provision of bioengineering measures to stabilise slope and aesthetics. Tree will not be impacted because these are in the periphery of the area.	Help to improve the safety in future years and easy to expand. The dump should made by considering the nala as border and if necessary, extend the outlet to the end of dump boundary.

- NOTE : –
1.


THE DEBRIS DISPOSAL LOCATIONS ARE ADJACENT TO ROAD (WITHIN 5 TO 10M AVERAGE DISTANCE) AND EASY ACCESS TO THE CONTRACTOR.
2.

CONTRACTOR WILL ALSO APPROACH DISTRICT ADMINISTRATION FOR THE IDENTIFICATION OF SUITABLE DEBRIS DISPOSABLE SITE/LAND FOR DEBRIS, AS PER CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT REULES,2016.

TENDER PURPOSE ONLY


REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED

CLIENT:



HIMACHAL PRADESH ROAD AND OTHER INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.

CONSULTANT:



SATRA SERVICES AND SOLUTIONS PVT LTD.
#1-8-359 to 363, 4th Floor, Centre Point Building, SP Road, Begumpet, Secunderabad, Telangana – 500003, India.
Tel: +91 40 2784 0040, Fax: +91 40 2784 0050,
E-mail: info@satragroup.in, Web: www.satragroup.in

PROJECT:

Himachal Pradesh State Roads Transformation Project (HPSRTP)

DESIGNED

MADHU.K

DRAWN

DANIEL

CHECKED

CS/AH

APPROVED

PRADEEP KAPLA

TITLE :

DEBRIS DISPOSAL LOCATION PLAN

DRAWING NO :

HP/MAN-KAL/DD-001B

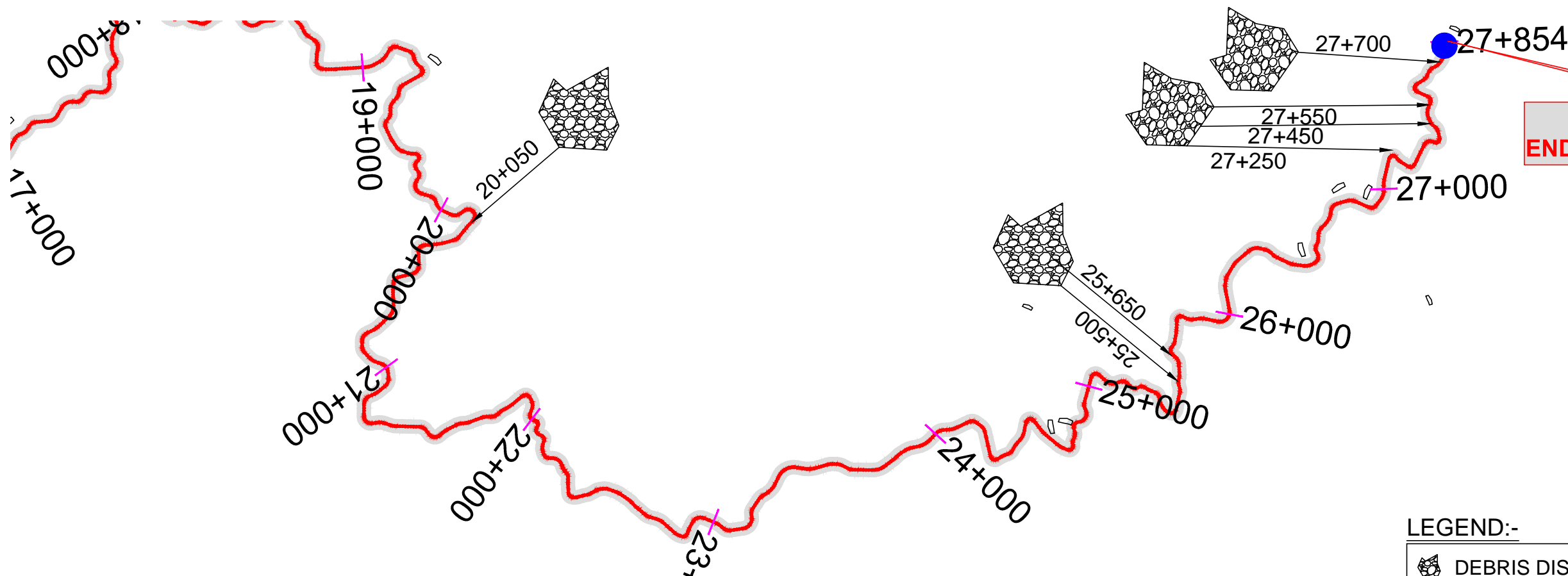
ROAD NAME :

Package-VI:
Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 11+000 To Km 27+854

SCALE:

NOT TO SCALE

SHEET 02 OF 03



LEGEND:-

 DEBRIS DISPOSAL LOCATION


S.No.	Location	Type of Land	Site Conditions and Potential Impacts	Capacity (m ³), Area (Ha)	Mitigation Measures	Remarks
8	20+050 (LHS)	Govt/ PWD Land	It's a open land and having steep slope and tees.	50,000m ³ (L=200mW=25m; H=10m),	The area is already using for dumping/disposing the landslides waste and the remaining area can be used for new site to dispose. The Bio- engineering solutions can help to improve the slope stability and aesthetics.	It may increase the safety of the road and the wall should be closed at down form end of nala.
9	25+500 (LHS)	Govt/PWD Land	The land is in ownership of PWD and having 7 tall trees, there is link road at downside at a distance of 150 m	2,000 m ³ (L=40m; W=10m; H=5m)	Provision of gabion wall to support debris, Provision of bioengineering measures to stabilise slope. And also it helps to develop more green space.	Prior consultation is must to avoid public resistance from the users of downside road.
10	25+650 (LHS)	Govt/ PWD Land	Open land valley side having a seasonal stream at bottom, 7 number of trees were situated which were more than 30 m tall.	2,000 m ³ (L=50m; W=10m; H=4m),	Provision of gabion/gravity wall to support debris, and escapes the movement of earthen material form muck, bio-engineering provisions can help to improve the vegetation.	It may increase the safety of the road and the wall should be closed at down form end of nala.
11	27+250 (LHS)	Govt/ PWD Land	Its under ownership of PWD and there were 2 no of trees.	4,000 m ³ (L=100m; W=10m; H=4m),	Provision of gabion/gravity wall to support debris, and escapes the movement of earthen material form muck, bio-engineering provisions can help to improve the vegetation.	It may increase the safety of the road.
12	27+450 (LHS)	Govt/ PWD Land	Its under ownership of PWD and there were 5 no of trees.	2,560m ³ (L=80m; W=8m; H=4m)	Provision of gabion/gravity wall to support debris, and escapes the movement of earthen material form muck, bio-engineering provisions can help to improve the vegetation.	It may increase the safety of the road.
	27+550 (LHS)			2,800m ³ (L=100m; W=7m; H=4m)		
13	27+700 (LHS)	Govt/ PWD Land	Its under ownership of PWD and there is a nala at curve and a Samshanghat at downside	2,100m ³ (L=70mW=5m; H=6m)	The dump should terminate next to the Samshanghat and the nala need to extend till the wall to avoid over weight on wall in monsoon.	Help to improve the safety in future years and easy to expand. The dump should made by considering the nala as border and if necessary, extend the outlet to the end of dump boundary
Total				1,72,600 m ³		The villagers need a proper access to the shamsahngaht.

- NOTE : –
1. THE DEBRIS DISPOSAL LOCATIONS ARE ADJACENT TO ROAD (WITHIN 5 TO 10M AVERAGE DISTANCE) AND EASY ACCESS TO THE CONTRACTOR.
 2. CONTRACTOR WILL ALSO APPROACH DISTRICT ADMINISTRATION FOR THE IDENTIFICATION OF SUITABLE DEBRIS DISPOSABLE SITE/LAND FOR DEBRIS, AS PER CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT REULES,2016.

TENDER PURPOSE ONLY


REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED

CLIENT:



HIMACHAL PRADESH ROAD AND OTHER INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.

CONSULTANT:



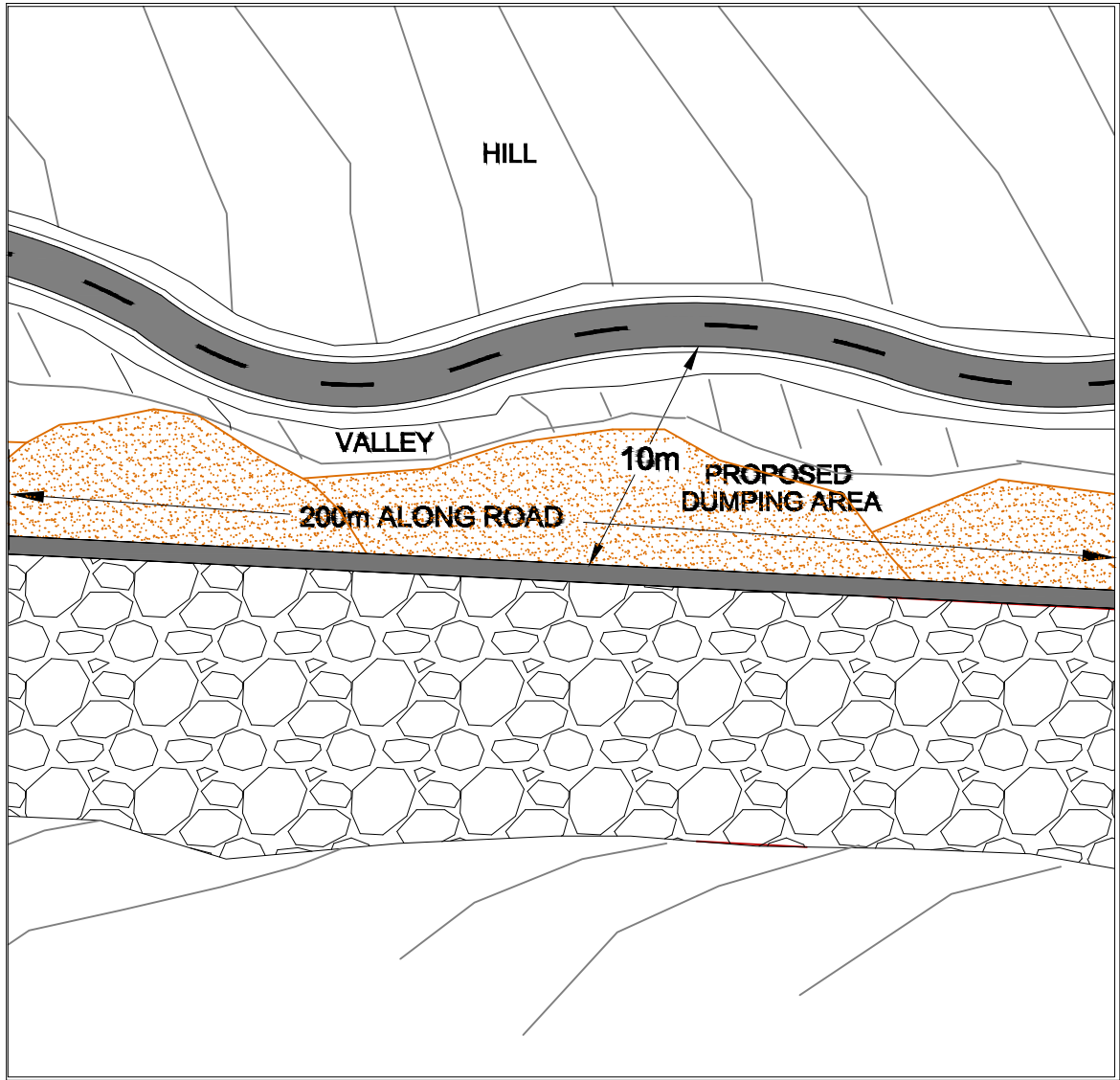
SATRA SERVICES AND SOLUTIONS PVT LTD.
#1-8-359 to 363, 4th Floor, Centre Point Building, SP Road, Begumpet, Secunderabad, Telangana – 500003, India.
Tel: +91 40 2784 0040, Fax: +91 40 2784 0050, E-mail: info@satragroup.in, Web: www.satragroup.in

PROJECT:

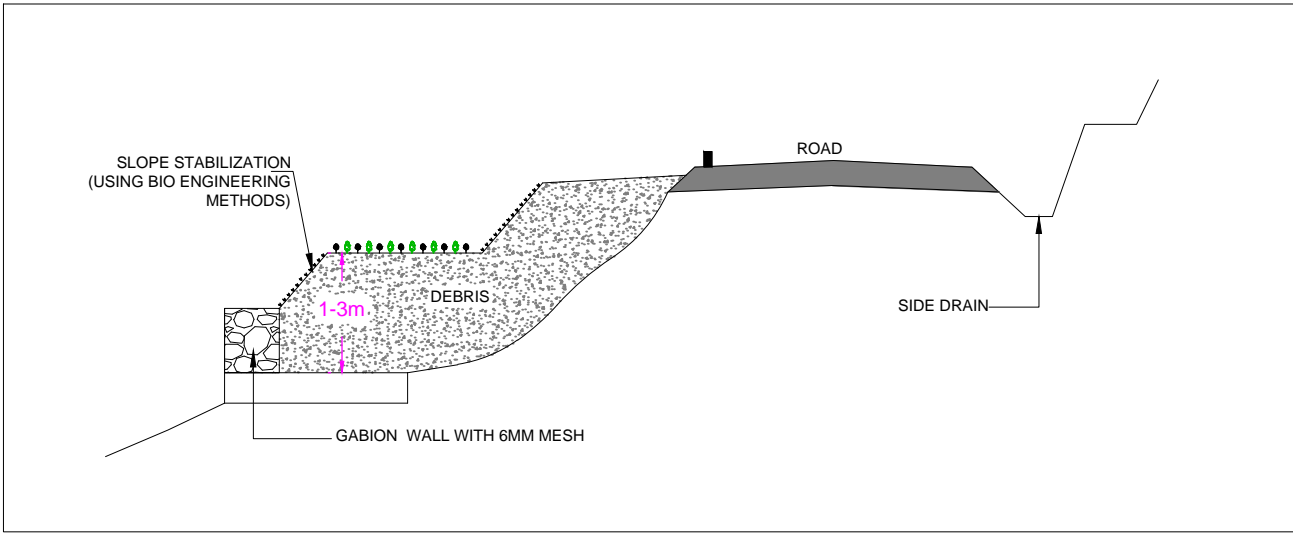
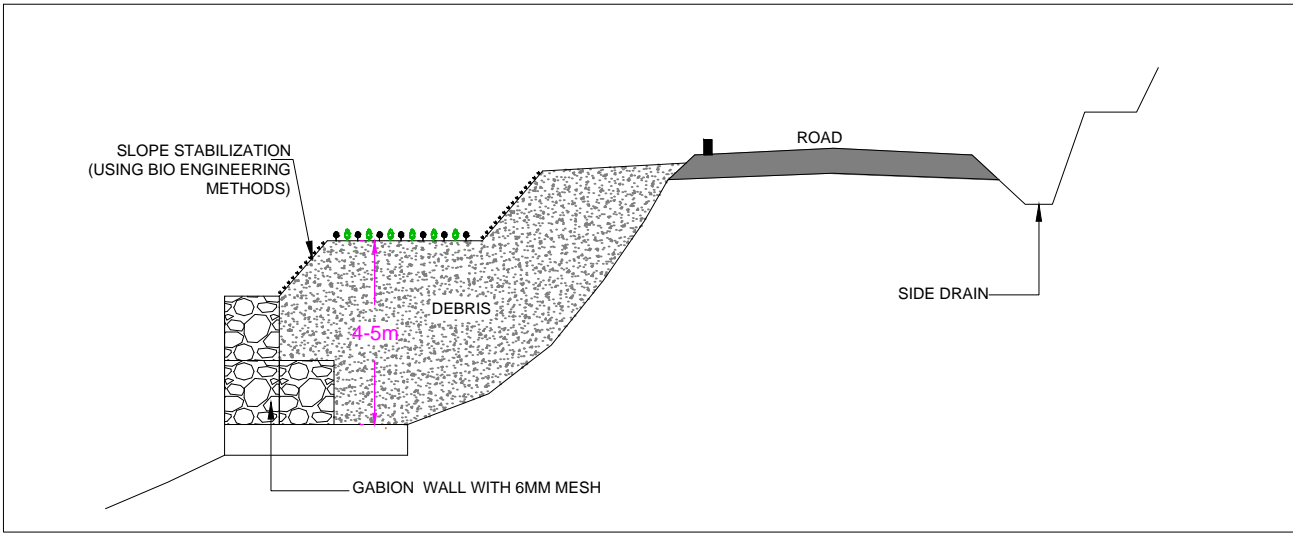
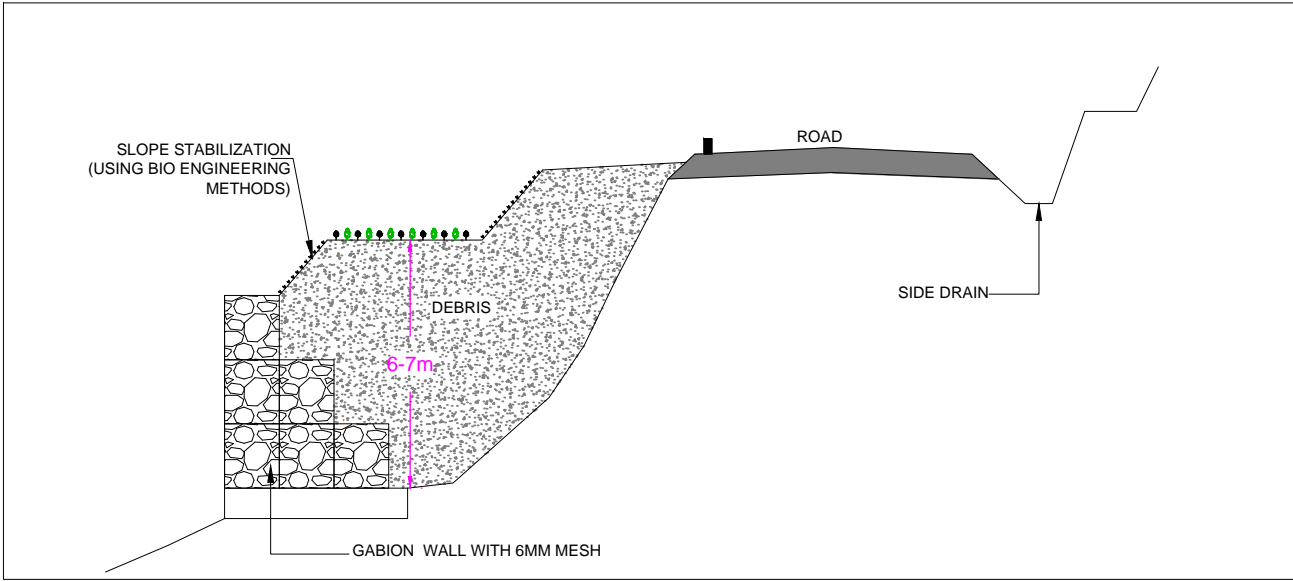
Himachal Pradesh State Roads Transformation Project (HPSRTP)

SCALE: NOT TO SCALE

DESIGNED	MADHU.K	TITLE : DEBRIS DISPOSAL LOCATION PLAN	
DRAWN	DANIEL		
CHECKED	CS/AH	DRAWING NO : HP/MAN-KAL/DD-001C	
APPROVED	PRADEEP KAPLA	ROAD NAME : Package-VI: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 11+000 To Km 27+854	SHEET 03 OF 03




TYPICAL FRONT VIEW OF DEBRIS DISPOSAL SITE



TYPICAL CROSS SECTIONS

TENDER PURPOSE ONLY

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED

CLIENT:
 HIMACHAL PRADESH ROAD
AND OTHER INFRASTRUCTURE DEVELOPMENT
CORPORATION LIMITED.

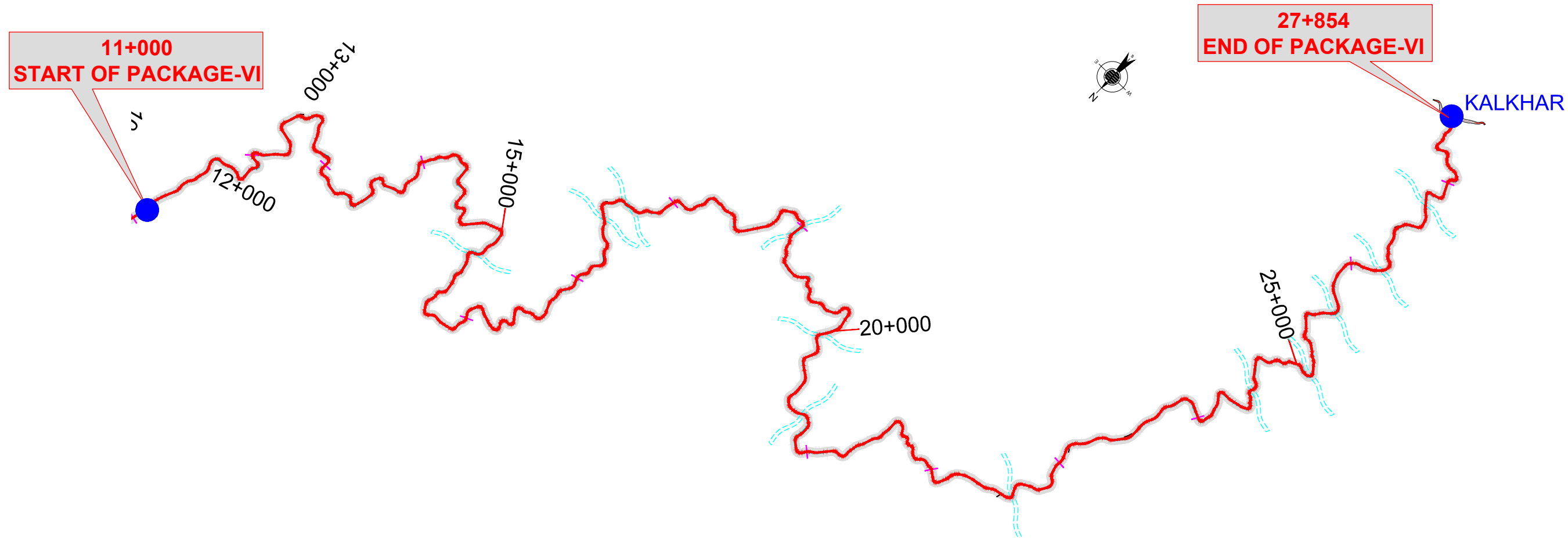
CONSULTANT:
 SATRA SERVICES AND SOLUTIONS PVT LTD.
#1-8-359 to 363, 4th Floor, Centre Point Building, SP Road, Begumpet,
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E-mail: info@satragroup.in, Web: www.satragroup.in



PROJECT:
Himachal Pradesh State Roads Transformation
Project (HPSRTP)

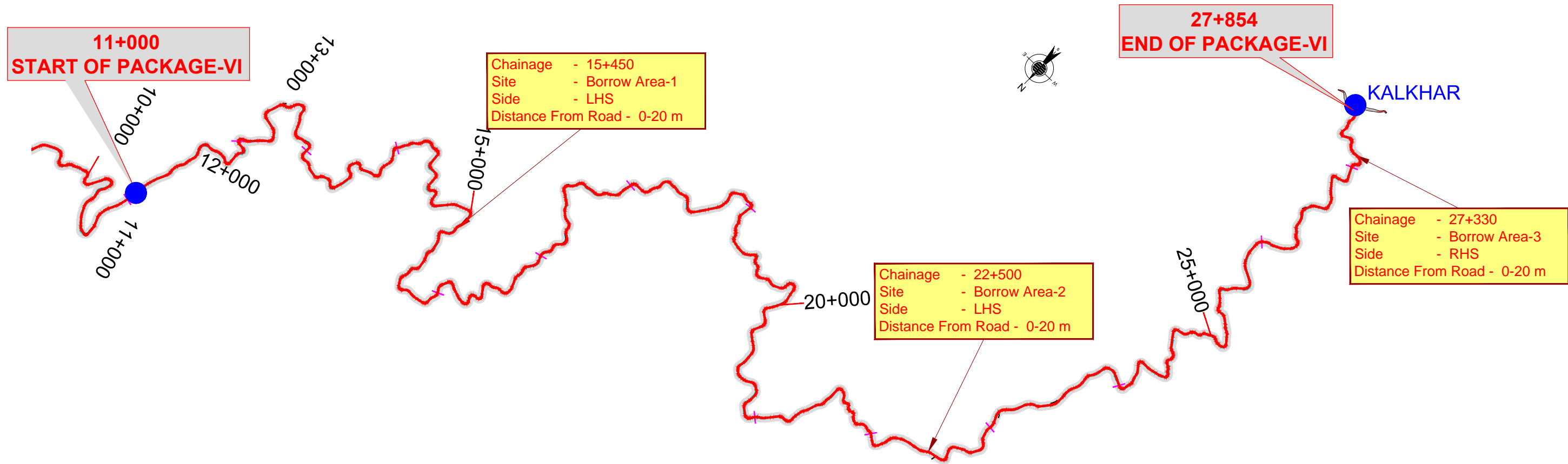
SCALE: NOT TO SCALE

DESIGNED	MADHU.K
DRAWN	DANIEL
CHECKED	CS/AH
APPROVED	PRADEEP KAPLA

TITLE : DEBRIS DISPOSAL LOCATION PLAN	
DRAWING NO : HP/MAN-KAL/DD-02	
ROAD NAME : Package-VI: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 11+000 To Km 27+854	SHEET 02 OF 02



							CLIENT:		CONSULTANT:			PROJECT:		DESIGNED	MADHU.K	TITLE : SEASONAL STREAMS LAYOUT PLAN	
								HIMACHAL PRADESH ROAD AND OTHER INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.		SATRA SERVICES AND SOLUTIONS PVT LTD. #1-8-359 to 363, 4th Floor, Centre Point Building, SP Road, Begumpet, Secunderabad, Telangana – 500003, India. Tel: +91 40 2784 0040, Fax: +91 40 2784 0050, E-mail: info@satragroup.in, Web: www.satragroup.in	Himachal Pradesh State Roads Transformation Project (HPSRTP)		DRAWN	DANIEL	DRAWING NO : HP/MAN-KAL/SS-001		
REV	DATE	DESCRIPTION				DESIGNED					DRAWN	CHECKED	APPROVED	SCALE:	NOT TO SCALE	APPROVED	PRADEEP KAPLA





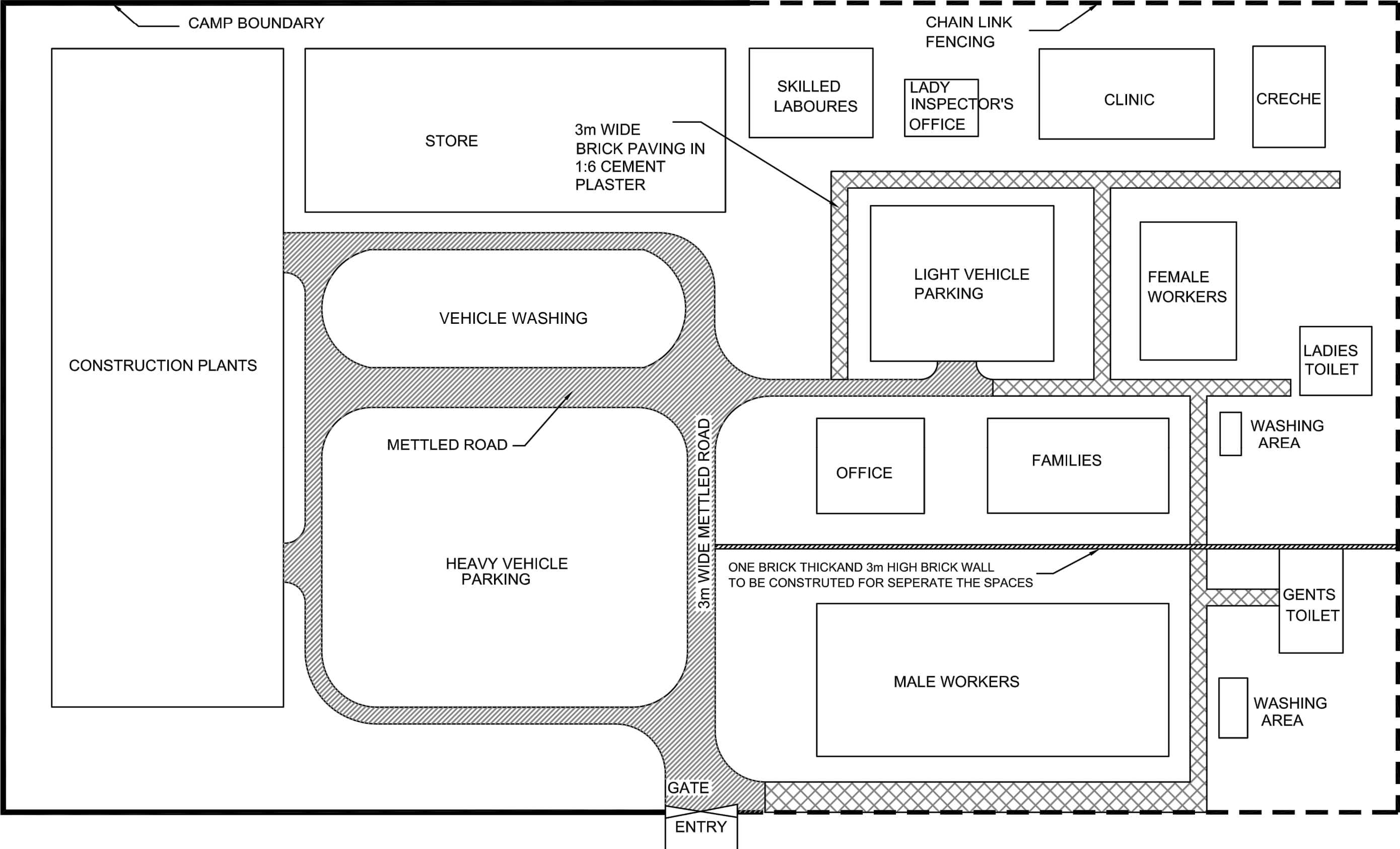
NOTE :-

1. THE ABOVE LOCATIONS ARE INDICATIVE ONLY, THE CONTRACTOR HAS TO IDENTIFY QUARRY AND BARROW AREA LOCATIONS ON HIS OWN AS PER RELEVANT SPECIFICATIONS AND STANDARDS AND IN CONSULTATION WITH PROJECT MANAGER.



- AGGREGATE QUARRY
- BORROW AREA

TENDER PURPOSE ONLY

							<div>CLIENT:</div> <div></div> <div>HIMACHAL PRADESH ROAD AND OTHER INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.</div>	<div>CONSULTANT:</div> <div></div> <div>SATRA SERVICES AND SOLUTIONS PVT LTD. #1-8-359 to 363, 4th Floor, Centre Point Building, SP Road, Begumpet, Secunderabad, Telangana – 500003, India. Tel: +91 40 2784 0040, Fax: +91 40 2784 0050, E-mail: info@satragroup.in, Web: www.satragroup.in</div>	<div>PROJECT:</div> <div>Himachal Pradesh State Roads Transformation Project (HPSRTP)</div>		DESIGNED	MADHU.K	<div>TITLE :</div> <div>SUGGESTED QUARRY & BORROW AREAS LOCATION PLAN</div>	
DRAWN	DANIEL													
CHECKED	CS/AH	DRAWING NO : HP/MAN-KAL/QB-001												
				APPROVED		PRADEEP KAPLA			ROAD NAME : Package-VI: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 11+000 To Km 27+854	SHEET 01 OF 01				
REV	DATE	DESCRIPTION			DESIGNED	DRAWN			CHECKED		APPROVED			



TENDER PURPOSE ONLY

							<div>CLIENT:</div> <div><div>HIMACHAL PRADESH ROAD AND OTHER INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.</div></div>		<div>CONSULTANT:</div> <div><div>SATRA SERVICES AND SOLUTIONS PVT LTD. #1-8-359 to 363, 4th Floor, Centre Point Building, SP Road, Begumpet, Secunderabad, Telangana – 500003, India. Tel: +91 40 2784 0040, Fax: +91 40 2784 0050, E-mail: info@satragroup.in, Web: www.satragroup.in</div></div>		<div>PROJECT:</div> <div>Himachal Pradesh State Roads Transformation Project (HPSRTP)</div>		<div>DESIGNED</div> <div>MADHU.K</div>	<div>TITLE :</div> <div>TYPICAL LAYOUT OF CONSTRUCTION CAMP</div>	
											<div>DRAWING NO : HP/MAN-KAL/TCC-001</div>				
											<div>ROAD NAME :</div> <div>Package-VI: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 11+000 To Km 27+854</div>		<div>SHEET 01 OF 01</div>		
REV	DATE	DESCRIPTION				DESIGNED	DRAWN	CHECKED	APPROVED	SCALE:	NOT TO SCALE		APPROVED	PRADEEP KAPLA	

SEPTIC TANK AND OIL INTERCEPTOR

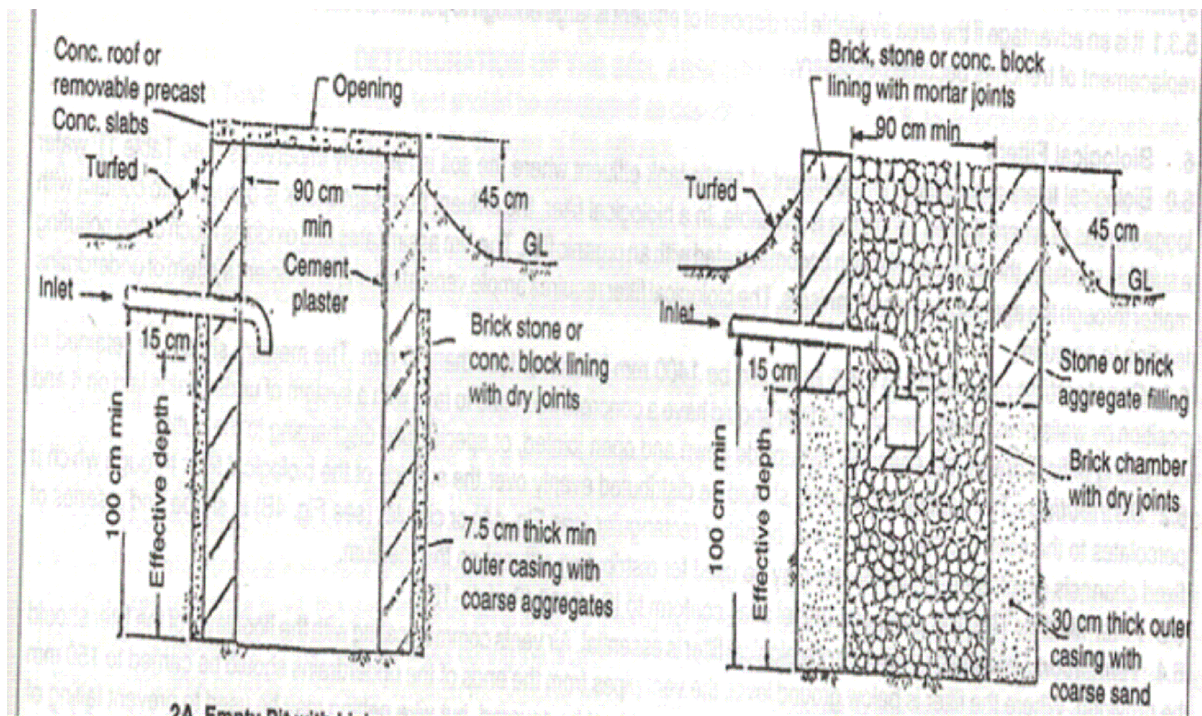
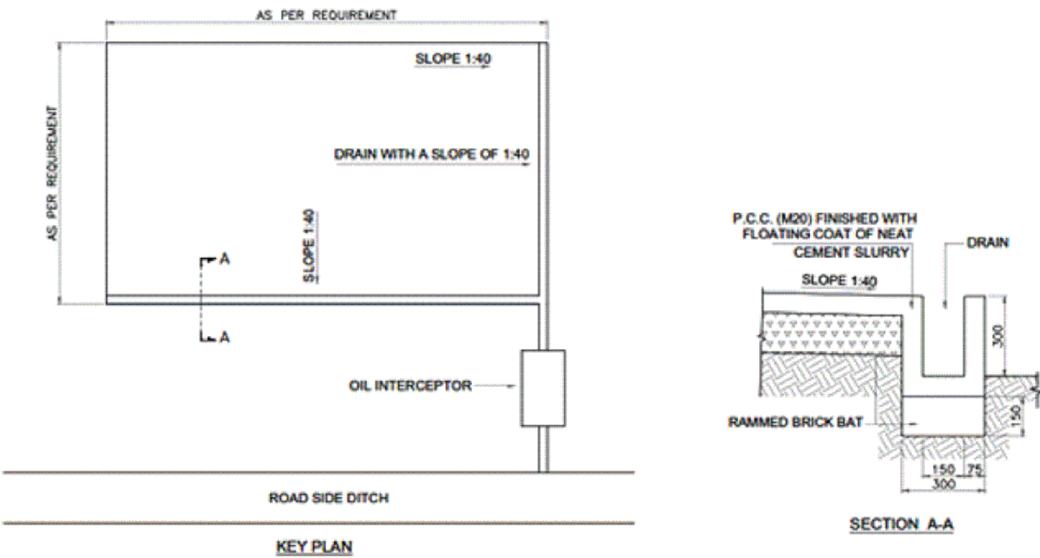
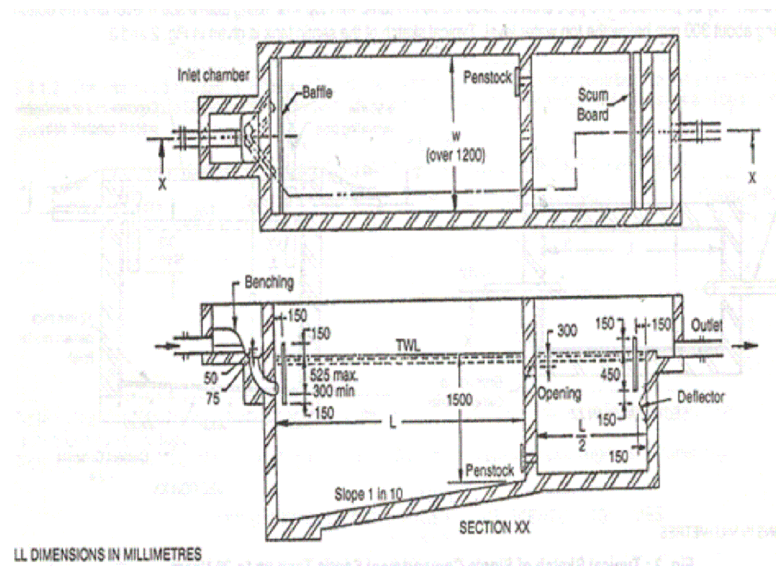


FIGURE. SEPTIC TANK SPECIFICATIONS

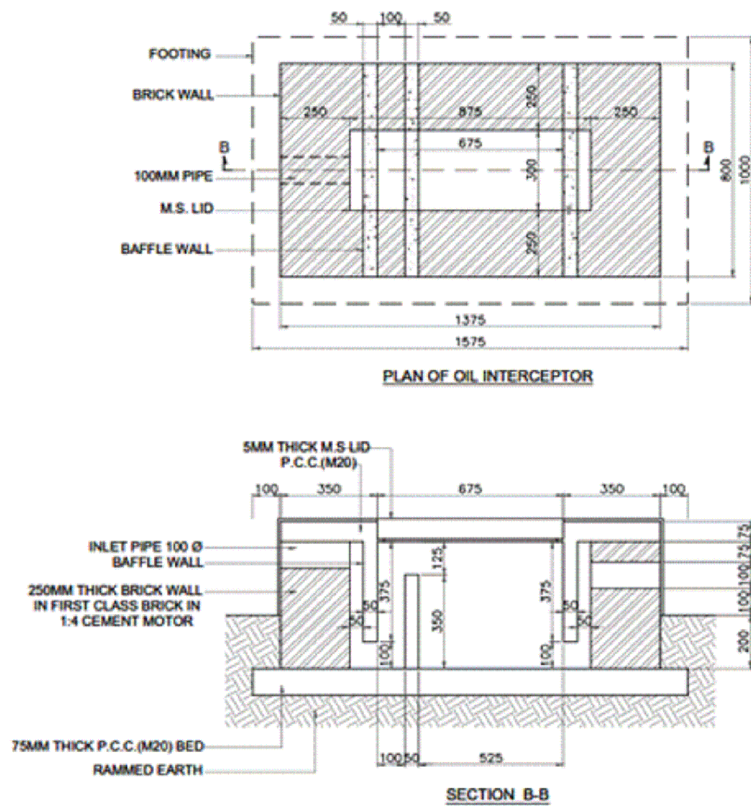


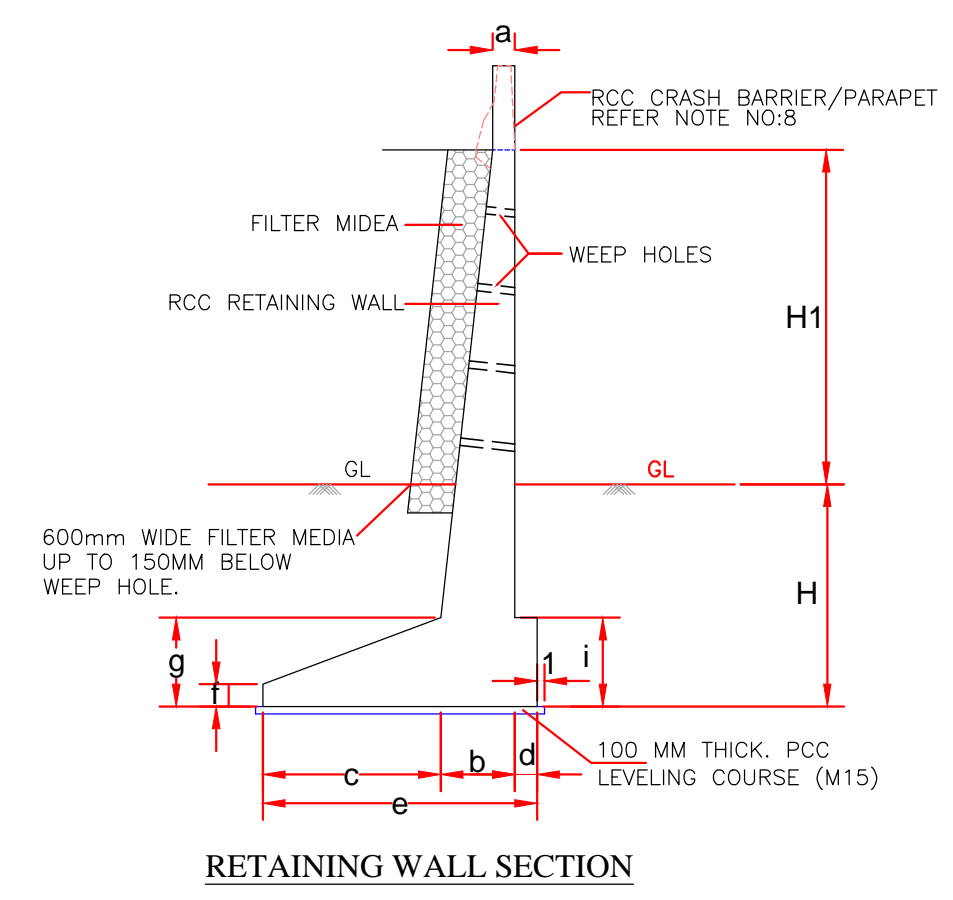
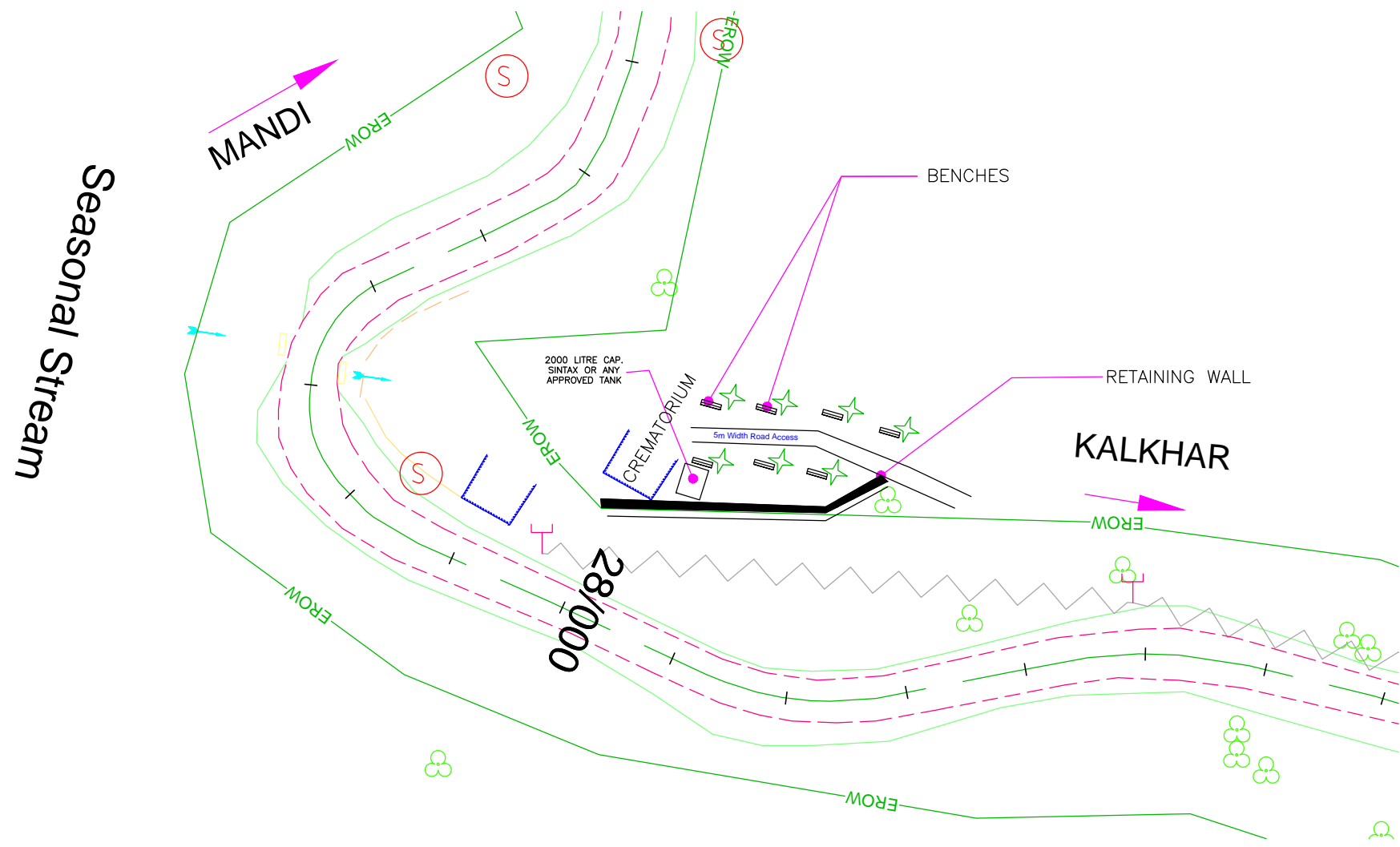


FIGURE. OIL INTERCEPTOR

TENDER PURPOSE ONLY

								<div>CLIENT:</div> <div><div>HIMACHAL PRADESH ROAD AND OTHER INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.</div></div>		<div>CONSULTANT:</div> <div><div>SATRA SERVICES AND SOLUTIONS PVT LTD. #1-8-359 to 363, 4th Floor, Centre Point Building, SP Road, Begumpet, Secunderabad, Telangana - 500003, India. Tel: +91 40 2784 0040, Fax: +91 40 2784 0050, E-mail: info@satragroup.in, Web: www.satragroup.in</div></div>		<div>PROJECT:</div> <div>Himachal Pradesh State Roads Transformation Project (HPSRTP)</div>		<div>DESIGNED</div> <div>MADHU.K</div>	<div>TITLE :</div> <div>TYPICAL DETAILS OF SEPTIC TANK & OIL INTERCEPTOR</div>	
								<div>DRAWN</div> <div>DANIEL</div>								
								<div>CHECKED</div> <div>CS/AH</div>	<div>DRAWING NO : HP/MAN-KAL/ST-001</div>							
								<div>SCALE:</div> <div>NOT TO SCALE</div>	<div>APPROVED</div> <div>PRADEEP KAPLA</div>	<div>ROAD NAME :</div> <div>Package-VI: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 11+000 To Km 27+854</div>		<div>SHEET 01 OF 01</div>				
REV	DATE	DESCRIPTION				DESIGNED	DRAWN	CHECKED	APPROVED							





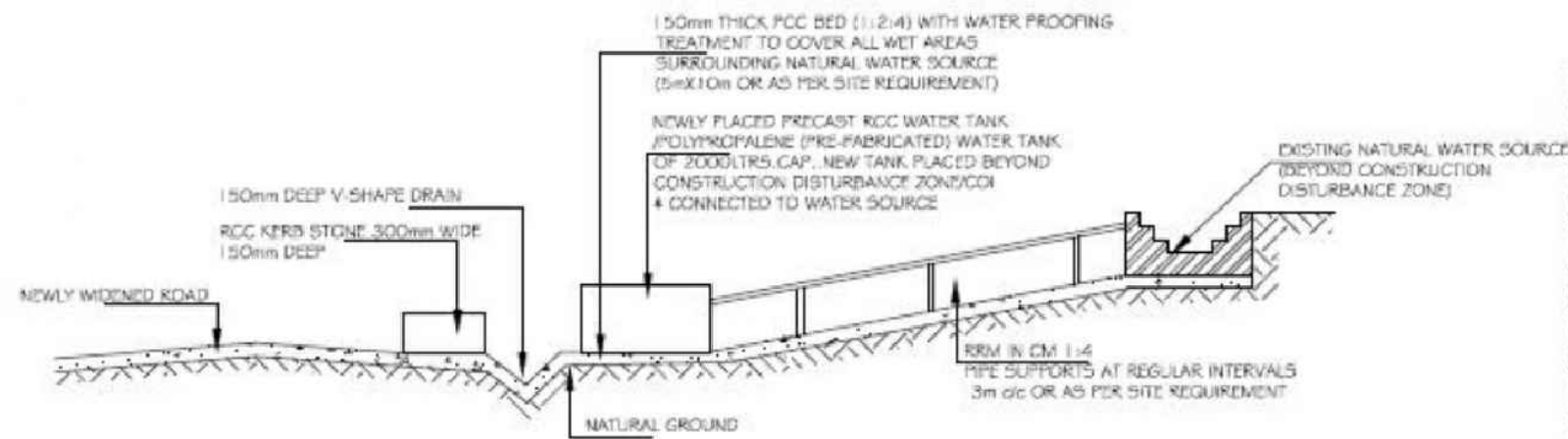
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1		10 ϕ 150 C/C	12 ϕ 120 C/C	16 ϕ 200 C/C	16 ϕ 120 C/C	20 ϕ 130 C/C	20 ϕ 100 C/C	20 ϕ 100 C/C
2		10 ϕ 200 C/C	10 ϕ 200 C/C	10 ϕ 110 C/C	12 ϕ 100 C/C	12 ϕ 100 C/C	12 ϕ 100 C/C	16 ϕ 100 C/C
3		12 ϕ 150 C/C	16 ϕ 150 C/C	20 ϕ 100 C/C	25 ϕ 120 C/C	25 ϕ 100 C/C	25 ϕ 110 C/C	32 ϕ 120 C/C
4		12 ϕ 200 C/C	12 ϕ 200 C/C	12 ϕ 200 C/C	12 ϕ 180 C/C	12 ϕ 180 C/C	12 ϕ 200 C/C	12 ϕ 200 C/C
5		—	12 ϕ 200 C/C	12 ϕ 200 C/C	12 ϕ 180 C/C	12 ϕ 180 C/C	16 ϕ 200 C/C	20 ϕ 200 C/C
6		10 ϕ 200 C/C	10 ϕ 200 C/C	10 ϕ 200 C/C	10 ϕ 150 C/C	10 ϕ 150 C/C	12 ϕ 150 C/C	12 ϕ 150 C/C
7		10 ϕ 200 C/C	10 ϕ 250 C/C	10 ϕ 200 C/C	10 ϕ 150 C/C	10 ϕ 150 C/C	10 ϕ 150 C/C	12 ϕ 150 C/C
m		—	1400	1800	1800	2000	2700	4200

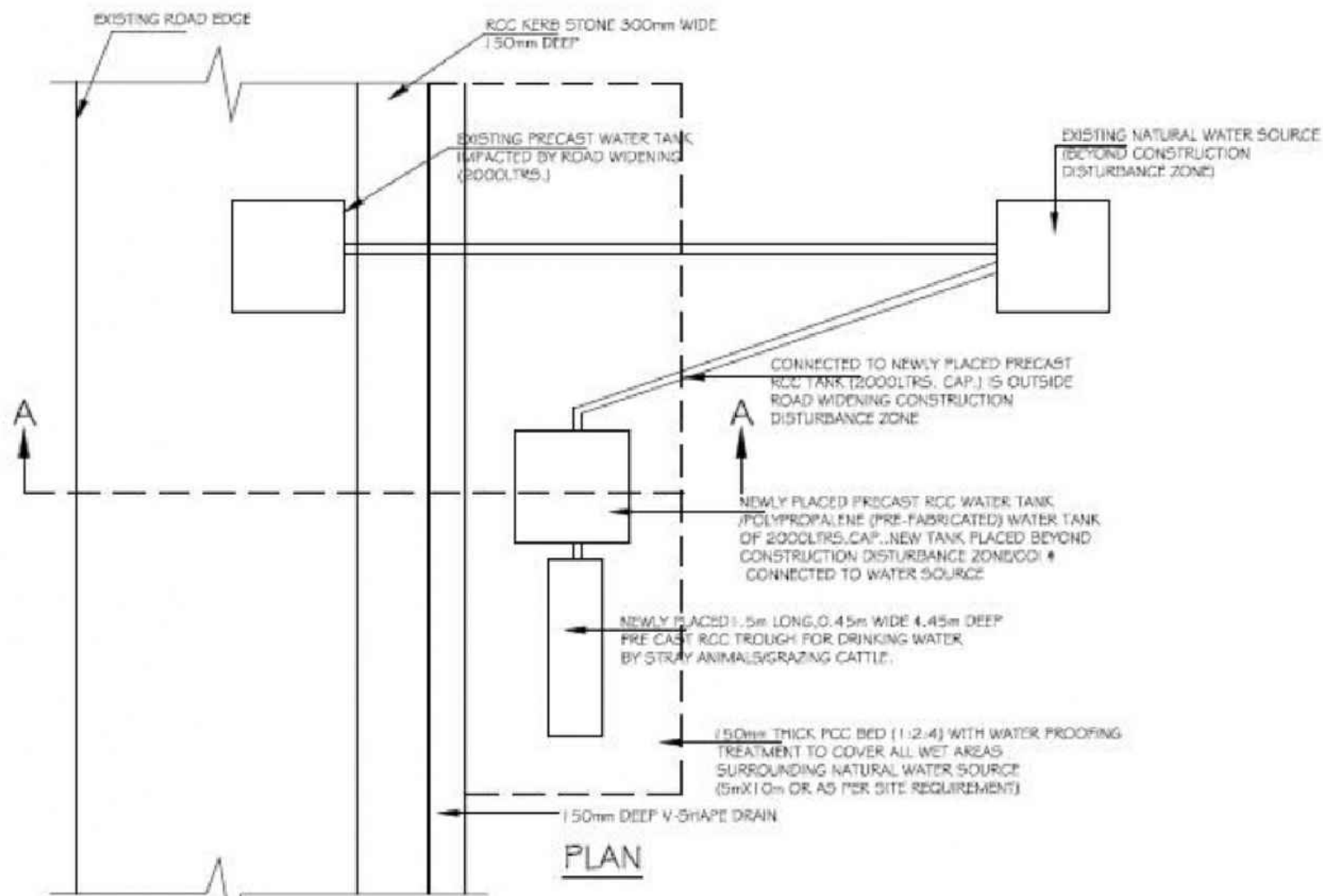
NOTES:
1. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE SPECIFIED.

TENDER PURPOSE ONLY

							<div>CLIENT:</div> <div></div> <div>HIMACHAL PRADESH ROAD AND OTHER INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.</div>	<div>CONSULTANT:</div> <div></div> <div>SATRA SERVICES AND SOLUTIONS PVT LTD. #1-8-359 to 363, 4th Floor, Centre Point Building, SP Road, Begumpet, Secunderabad, Telangana – 500003, India. Tel: +91 40 2784 0040, Fax: +91 40 2784 0050, E-mail: info@satragroup.in, Web: www.satragroup.in</div>	<div>PROJECT:</div> <div>Himachal Pradesh State Roads Transformation Project (HPSRTP)</div>	DESIGNED	MADHUK	TITLE : TYPICAL LAYOUT FOR CREMATORIUM @ CHN 27+650	
DRAWN	DANIEL	DRAWING NO : HP/MAN-KAL/CR-001											
CHECKED	CS/AH												
APPROVED	PRADEEP KAPLA	SCALE:	NOT TO SCALE		ROAD NAME : Package-VI: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 11+000 To Km 27+854				SHEET 01 OF 01				
REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED							

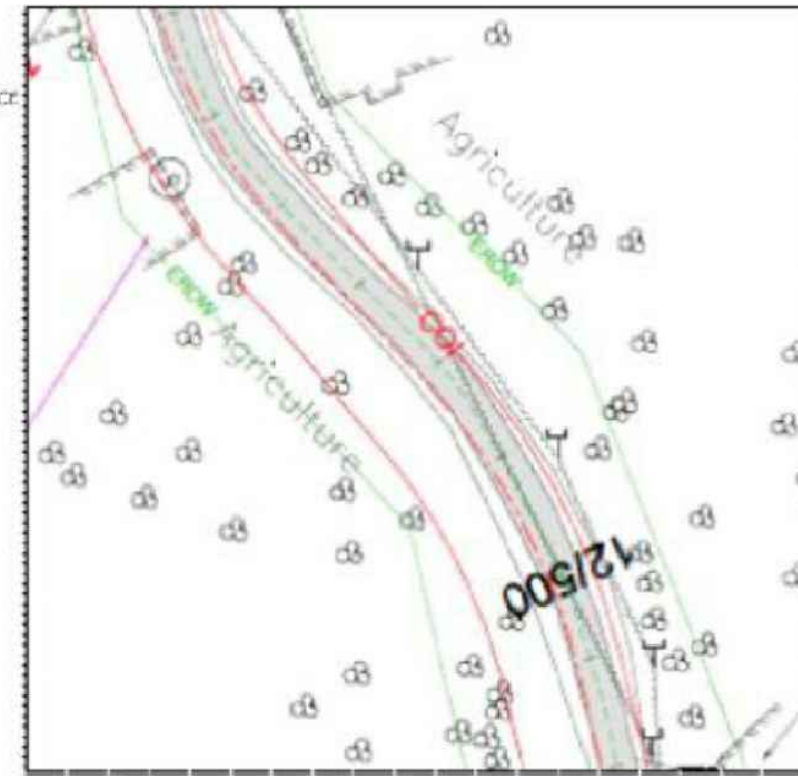


SECTION AT A-A



PLAN

FIG. :- 7-12 RENOVATION/IMPROVEMENT OF NATURAL WATER



LOCATION PLAN



PRESENT SITE PHOTOGRAPH AT CH 12+482



Items for Renovation of Natural Water Source at Ch 12+482

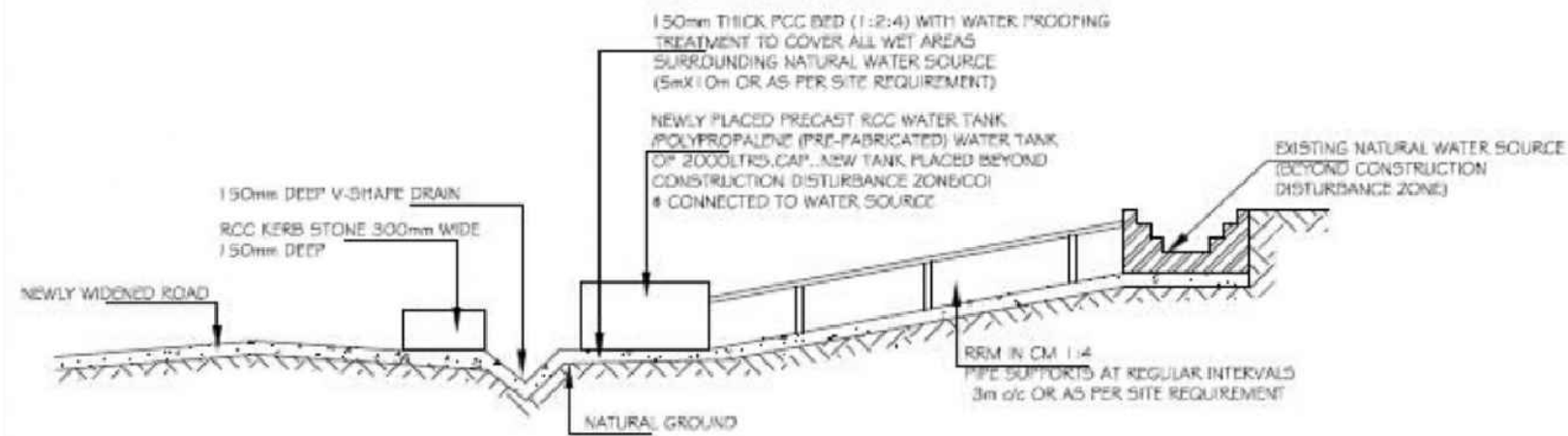
1. Carryout minor repairs to exterior surfaces of natural water source structure, without disturbing source point
2. Install a new pre-cast RCC tank of 2000 litres capacity or rectangular shaped poly-propylene (pre-fabricated) tank in a suitable location in close proximity to natural water source, on a firm and 100 mm thick level bed of PCC.
3. Place a pre-cast concrete trough 1.5 m long, 0.45 m wide and 0.45 m deep to facilitate drinking of water by stary animals and grazing cattle and connect it to pre-cast water storage tank as shown in drawing /as per site requirements
4. Level the area and provide 150 mm thick PCC in and around the natural water source, storage tank and trough, and PCC finished with sloping outwards to drain the water and no water stagnate as required /per site condition
5. Providing two coats of exterior paint/white washing to the entire water body structure as per site conditions/site requirements
6. Removal and/or clearing of unwanted debris/wate material surrounding the water source and disposal of the same at an approved location
7. "3M" make high intensity retro reflective conspicuity tape (2" wide X 1mtr length) shall be pasted along edge of road near structure

Note: All renovation /conservation work at the natural water source shall be carried out in close consultation with local community leaders/regular users of water source. All suggestions shall be duly considered with prior approval of Engineer-in-Charge.

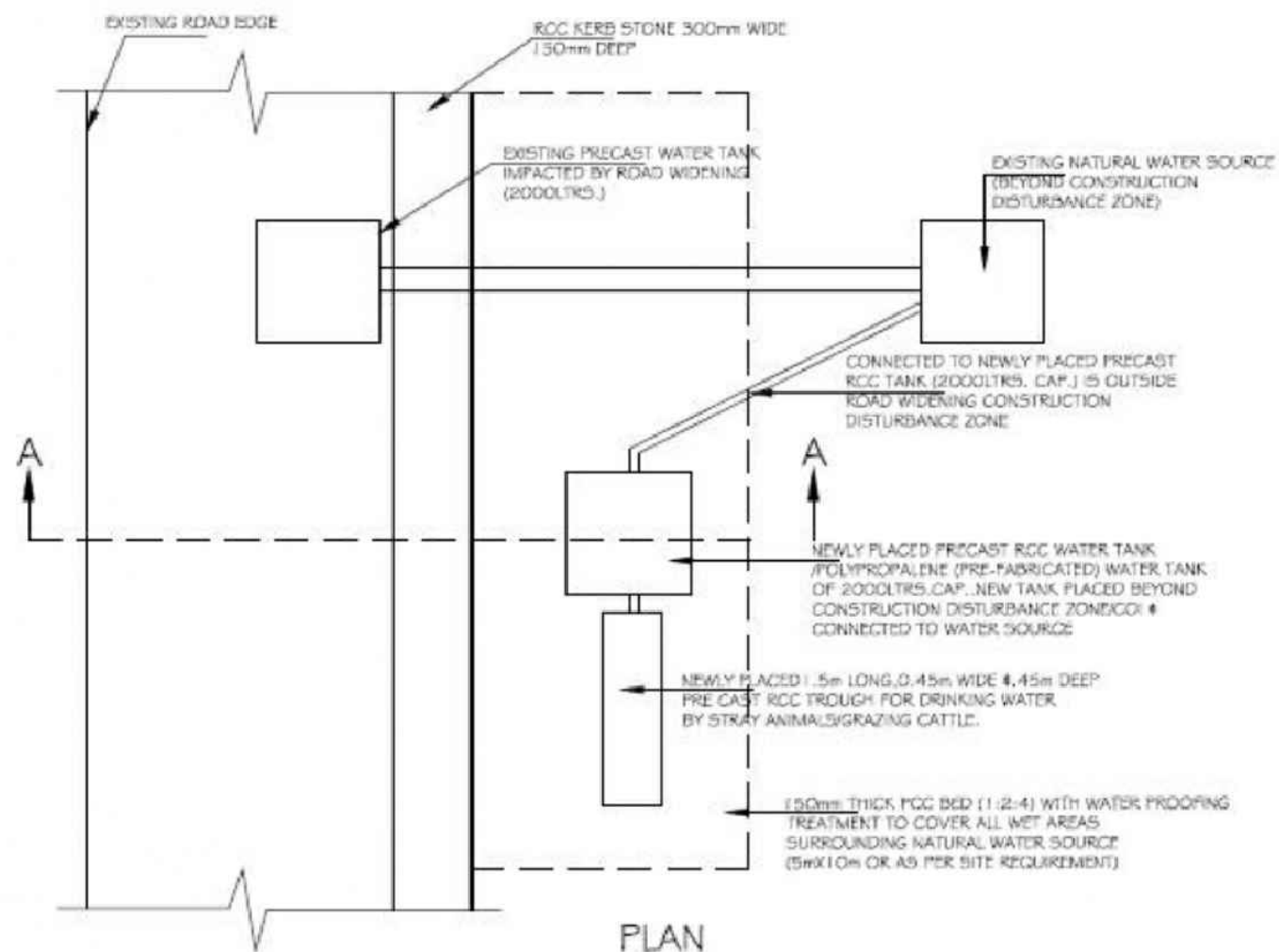
NOTE: The drawing given above is indicative, contractor to submit working drawing in consultation with local authorities,CSC, HPRIDC,for taking up the work.

TENDER PURPOSE ONLY

							<div>CLIENT:</div> <div></div> <div>HIMACHAL PRADESH ROAD AND OTHER INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.</div>	<div>CONSULTANT:</div> <div></div> <div>SATRA SERVICES AND SOLUTIONS PVT LTD. #1-8-359 to 363, 4th Floor, Centre Point Building, SP Road, Begumpet, Secunderabad, Telangana – 500003, India. Tel: +91 40 2784 0040, Fax: +91 40 2784 0050, E-mail: info@satragroup.in, Web: www.satragroup.in</div>	<div>PROJECT:</div> <div>Himachal Pradesh State Roads Transformation Project (HPSRTP)</div>		DESIGNED	MADHU.K	<div>TITLE :</div> <div>RENOVATION/IMPROVEMENT OF NATURAL WATER SOURCE AT KM12+482.</div>	
DRAWN	DANIEL	<div>DRAWING NO :</div> <div>HP/MAN-KAL/NWS-001</div>												
CHECKED	CS/AH			<div>ROAD NAME :</div> <div>Package-VI: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 11+000 To Km 27+854</div>										
APPROVED	PRADEEP KAPLA	<div>SHEET 01 OF 02</div>												
SCALE:				NOT TO SCALE										
REV	DATE	DESCRIPTION					DESIGNED	DRAWN	CHECKED	APPROVED				



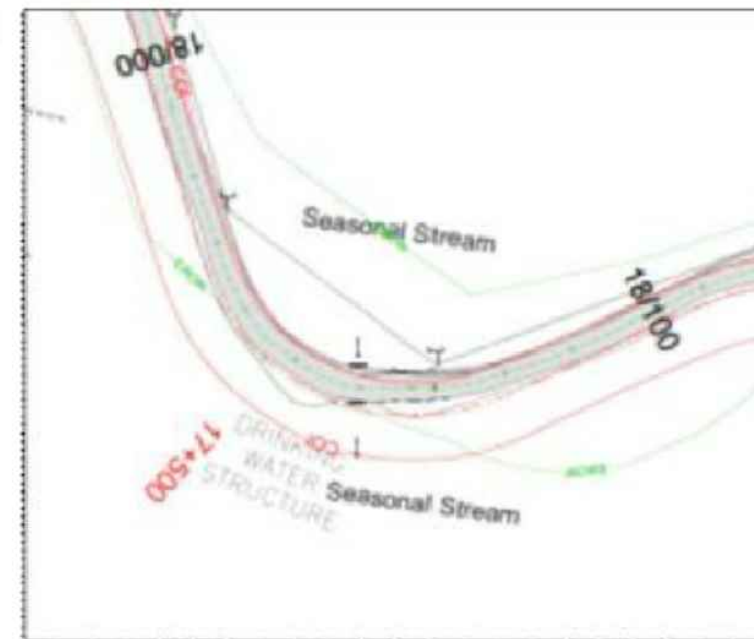
SECTION AT A-A



PLAN

FIG. :- 7-13 RENOVATION/IMPROVEMENT OF NATURAL WATER SOURCE AT CH 18+048.

NOTE: The drawing given above is indicative, contractor to submit working drawing in consultation with local authorities, CSC, HPRIDC, for taking up the work.



LOCATION PLAN





PRESENT SITE PHOTOGRAPH AT CH 18+048

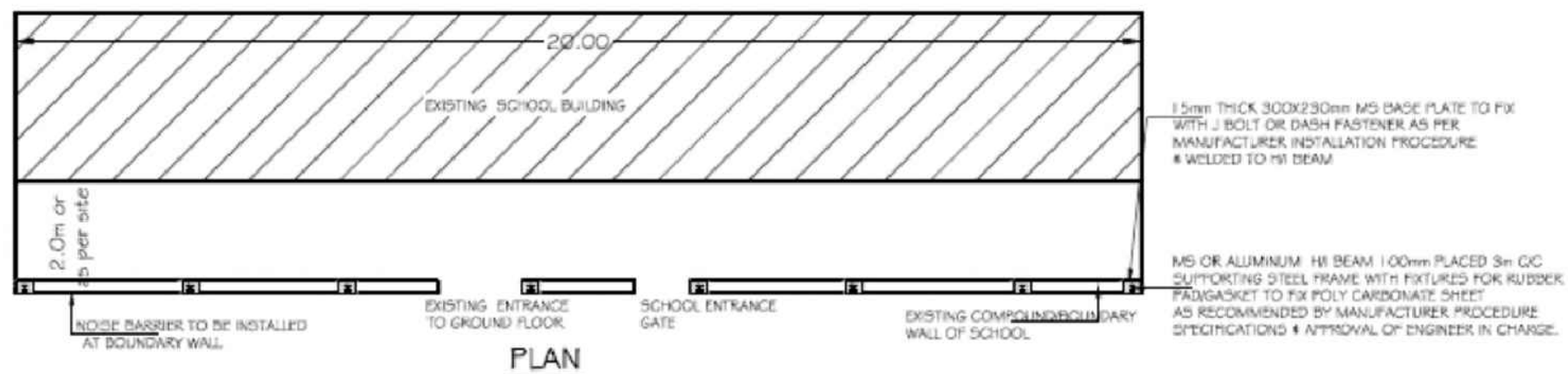
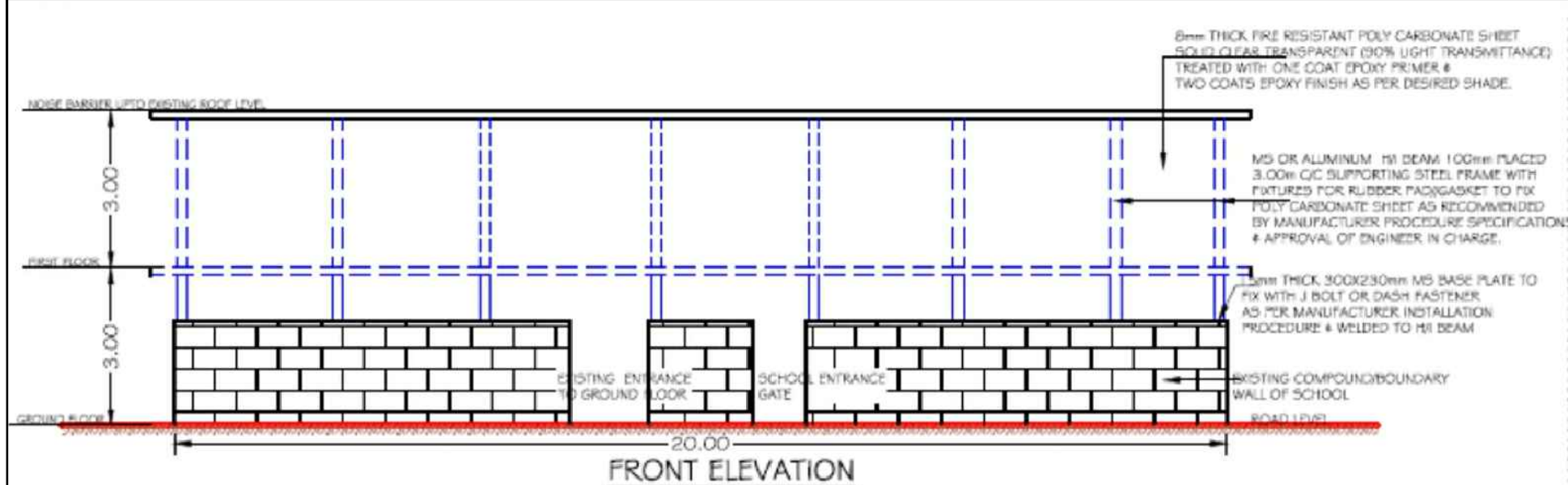
Items for Renovation of Natural Water Source at Ch 18+048

1. Carryout minor repairs to exterior surfaces of natural water source structure, without disturbing source point
2. Install a new pre-cast RCC tank of 2000 litres capacity or rectangular shaped poly-propylene (pre-fabricated) tank in a suitable location in close proximity to natural water source, on a firm and 100 mm thick level bed of PCC.
3. Dismantle the existing pre-cast tank and establish connection with newly placed tank with required pipe connections and plumbing fixtures
4. Place a pre-cast concrete trough 1.5 m long, 0.45 m wide and 0.45 m deep to facilitate drinking of water by stray animals and grazing cattle and connect it to pre-cast water storage tank as shown in drawing /as per site requirements
5. Level the area and provide 150 mm thick PCC in and around the natural water source, storage tank and trough, and PCC finished with sloping outwards to drain the water and no water stagnate as required /per site condition
6. Providing two coats of exterior paint/white washing to the entire water body structure as per site conditions/site requirements
7. Removal and/or clearing of unwanted debris/water material surrounding the water source and disposal of the same at an approved location
7. "3M" make high intensity retro reflective conspicuity tape (2" wide X 1mtr length) shall be pasted along edge of road near structure

Note: All renovation /conservation work at the natural water source shall be carried out in close consultation with local community leaders/regular users of water source. All suggestions shall be duly considered with prior approval of Engineer-in-Charge.

TENDER PURPOSE ONLY

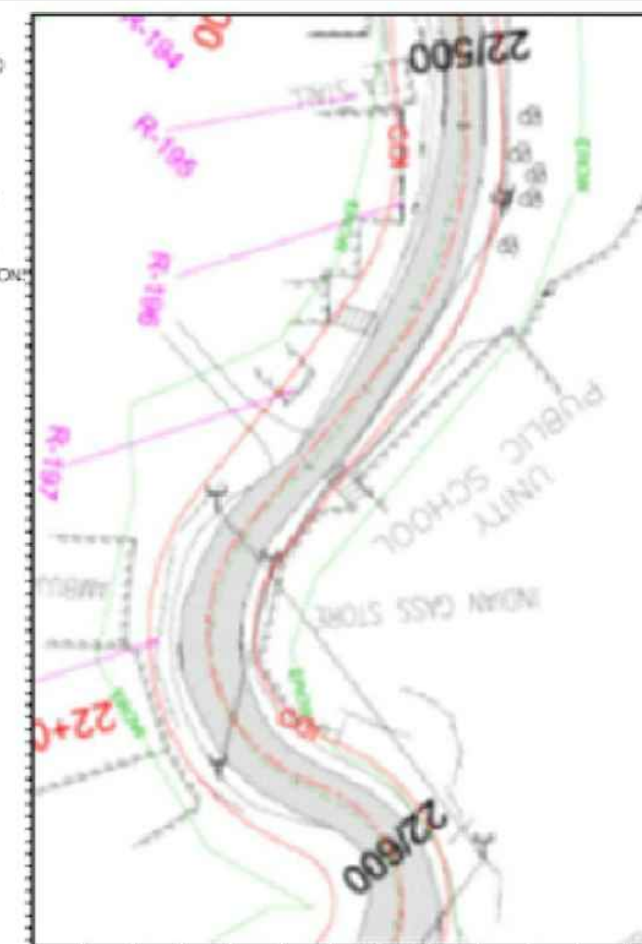
							<div>CLIENT:</div> <div></div> <div>HIMACHAL PRADESH ROAD AND OTHER INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.</div>	<div>CONSULTANT:</div> <div></div> <div>SATRA SERVICES AND SOLUTIONS PVT LTD. #1-8-359 to 363, 4th Floor, Centre Point Building, SP Road, Begumpet, Secunderabad, Telangana – 500003, India. Tel: +91 40 2784 0040, Fax: +91 40 2784 0050, E-mail: info@satragroup.in, Web: www.satragroup.in</div>	<div>PROJECT:</div> <div>Himachal Pradesh State Roads Transformation Project (HPSRTP)</div>		DESIGNED	MADHU.K	<div>TITLE : RENOVAION/IMPROVEMENT OF NATURAL WATER SOURCE AT KM18+048.</div>	
DRAWN	DANIEL													
CHECKED	CS/AH	<div>DRAWING NO : HP/MAN-KAL/NWS-002</div>												
APPROVED	PRADEEP KAPLA			<div>ROAD NAME : Package-VI: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 11+000 To Km 27+854</div>		<div>SHEET 02 OF 02</div>								
SCALE:		NOT TO SCALE												



NOTES :-

- Noise barrier to be installed on the existing boundary wall of school.
- All dimensions shown are to be verified at site.
- Noise barrier design and general arrangement to be confirmed with school authorities.
- All dimensions are in metres unless otherwise specified.

FIG.:- 7-14 NOISE BARRIER AT CH.22+545 (UNITY PUBLIC SCHOOL)



LOCATION PLAN



PRESENT SITE PHOTOGRAPH AT CH.22+545

Items for Noise Barrier at Ch 22+545 for Unity Public School

- Initiate consultation with the school authorities about the noise barrier design, general arrangement and installation requirements and benefits of reduction in ambient noise levels for the school due to installation of noise barrier.
- Consultation during ESIA with School authorities had broadly indicated no objection to installation of noise barrier in front of school, if it does not obstruct the light and at no cost to school.
- Plan and schedule the installation of noise barrier during school holidays and/or weekends to avoid disruption to school activities and ensure utmost safety to school children. Examination days shall be strictly avoided for any construction activity near school premises.
- Plan and complete the installation of noise barrier in ONE -GO and in limited time frame. Installation of Noise barriers in multiple schedules shall be avoided to the extent possible.
- Ensure the entire installation of noise barrier at school premises by the supplier/fabricator is well supervised and all required safety measures for school children and public and road users including plying traffic during installation.
- Ensure the noise barrier is adequately designed, fabricated and installed to withstand the known maximum wind speed known for the region and as per relevant as per standards.
- Removal and/or clearing of unwanted debris/waste material in the premises and/or on road during installation of noise barrier and disposal of the same at an approved location.
- Installation of the noise barrier shall preferably be completed, prior to commencement of construction related to the road widening works.
- "3M" make high intensity retro reflective conspicuity tape (2" wide X 1mtr length) shall be pasted along edge of road near structure.

Note: Any suggestions by the school authorities on the noise barrier design, fabrication, installation, safety aspects and aesthetics shall be duly considered with prior approval of Engineer in Charge.

NOTE: The drawing given above is indicative, contractor to submit working drawing in consultation with local authorities, CSC, HPRIDC, for taking up the work.

TENDER PURPOSE ONLY

						CLIENT:		CONSULTANT:		PROJECT:		DESIGNED	MADHU.K	TITLE : NOISE BARRIER AT KM 22+545 (UNITY PUBLIC SCHOOL).	
						HIMACHAL PRADESH ROAD AND OTHER INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.		SATRA SERVICES AND SOLUTIONS PVT LTD. #1-8-359 to 363, 4th Floor, Centre Point Building, SP Road, Begumpet, Secunderabad, Telangana - 500003, India. Tel: +91 40 2784 0040, Fax: +91 40 2784 0050, E-mail: info@satragroup.in, Web: www.satragroup.in		Himachal Pradesh State Roads Transformation Project (HPSRTP)		DRAWN	DANIEL	DRAWING NO : HP/MAN-KAL/NB-001	
												CHECKED	CS/AH	ROAD NAME : Package-VI: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 11+000 To Km 27+854	
										SCALE: NOT TO SCALE		APPROVED	PRADEEP KAPLA	SHEET 01 OF 01	

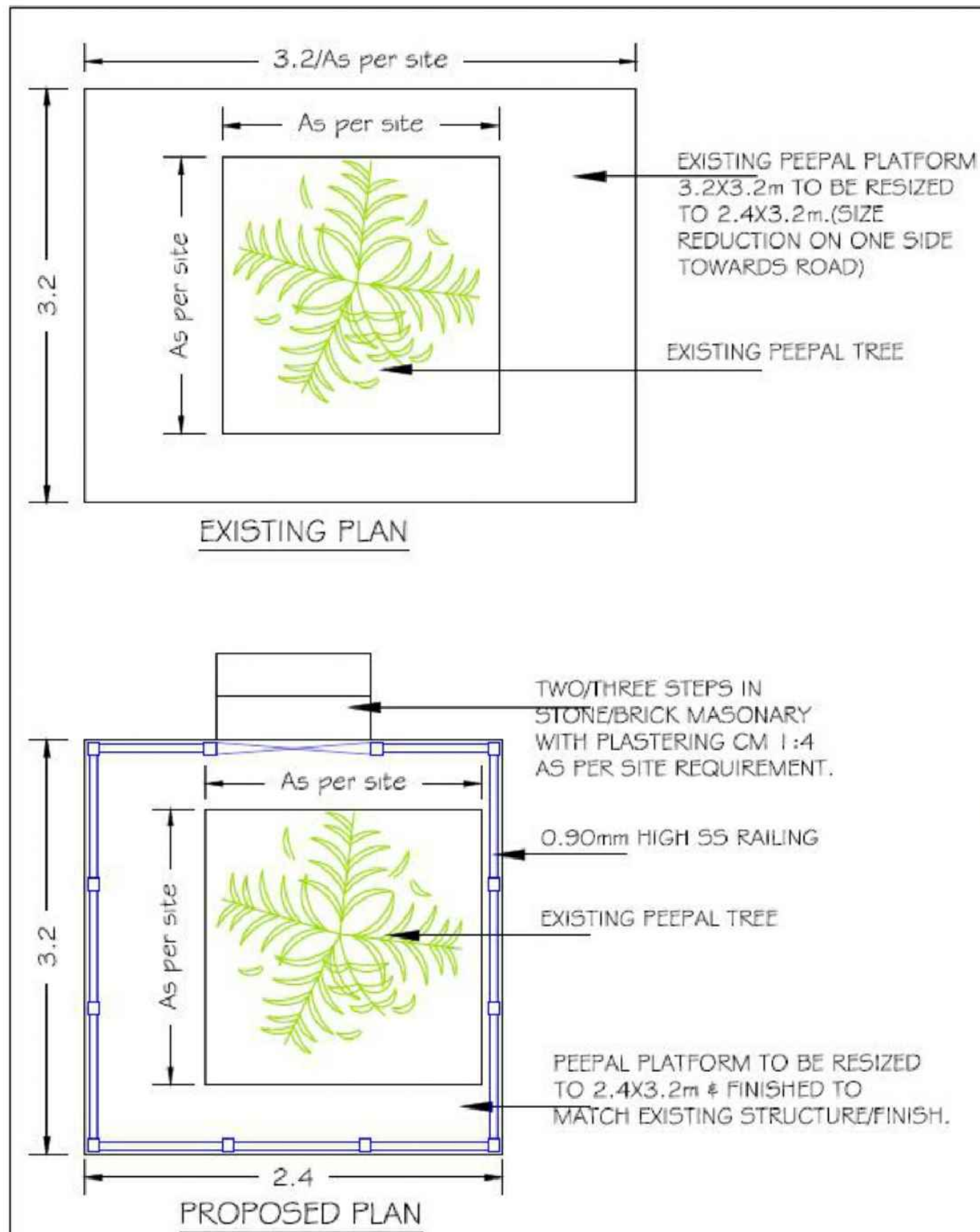
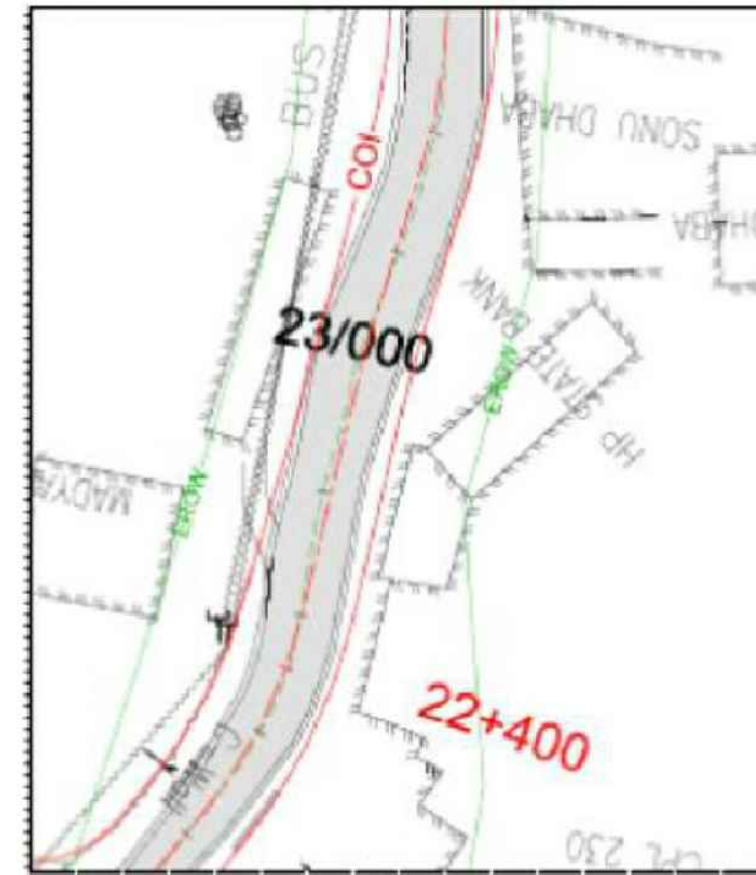


FIG. :- 7-15 RESIZING OF PLATFORM AT CH 22+997



LOCATION PLAN



PRESENT SITE PHOTOGRAPH AT CH 22+997



Items for Resizing and renovation of Religious Shrine at Ch 22+997

1. Partly dismantle the existing platform, towards the roadside as per dimensions shown in the drawing/site requirements, to avoid impact on the shrine
2. Reconstruct the platform as per re-sizing requirements with match the same finish (to extent possible) to the entire masonry work and carryout minor repairs like filling up cracks and redoing broken edges and sides as required /per site condition
3. Providing and Fixing of SS railing all along the edge of the platform (900 mm height and 20 metre long)
4. Providing two coats of exterior paint/white washing to the entire religious as per site conditions/site requirements
5. Removal and/or clearing of unwanted debris/wate material surrounding the shrine and disposal of the same at an approved location
7. "3M" make high intensity retro reflective conspicuity tape (2" wide X 1mtr length) shall be pasted along edge of road near structure

Note: All resizing and renovation /conservation work at the religious shrine shall be carried out in close consultation with local community leaders/regular users of shrine. All suggestions shall be duly considered with prior approval of Engineer-in-Charge.

NOTE: The drawing given above is indicative, contractor to submit working drawing in consultation with local authorities,CSC, HPRIDC,for taking up the work.

TENDER PURPOSE ONLY

In consultation with local authorities, SSC, PWD, etc, for taking up the work.							CLIENT:		CONSULTANT:		PROJECT:		DESIGNED	MADHU.K	TITLE : RESIZING OF PLATFORM AT KM 22+997					
							 HIMACHAL PRADESH ROAD AND OTHER INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.	 SATRA SERVICES AND SOLUTIONS PVT LTD. #1-8-359 to 363, 4th Floor, Centre Point Building, SP Road, Begumpet, Secunderabad, Telangana – 500003, India. Tel: +91 40 2784 0040, Fax: +91 40 2784 0050, E-mail: info@satragroup.in, Web: www.satragroup.in	Himachal Pradesh State Roads Transformation Project (HPSRTP)		DRAWN	DANIEL	DRAWING NO : HP/MAN-KAL/RS-001							
REV	DATE	DESCRIPTION				DESIGNED	DRAWN	CHECKED	APPROVED	SCALE:	NOT TO SCALE		APPROVED	PRADEEP KAPLA	ROAD NAME : Package-VI: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 11+000 To Km 27+854		SHEET 01 OF 05			

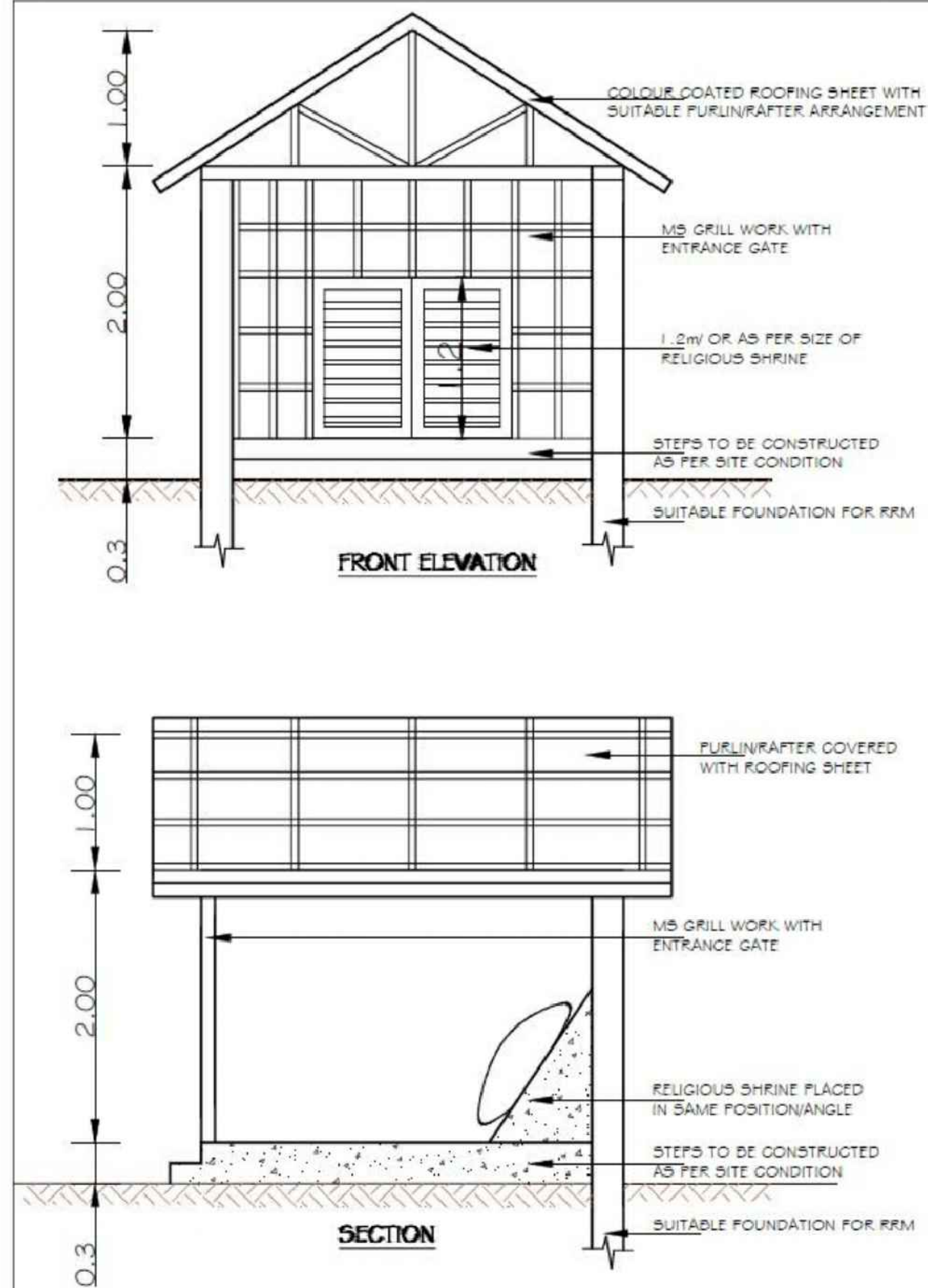
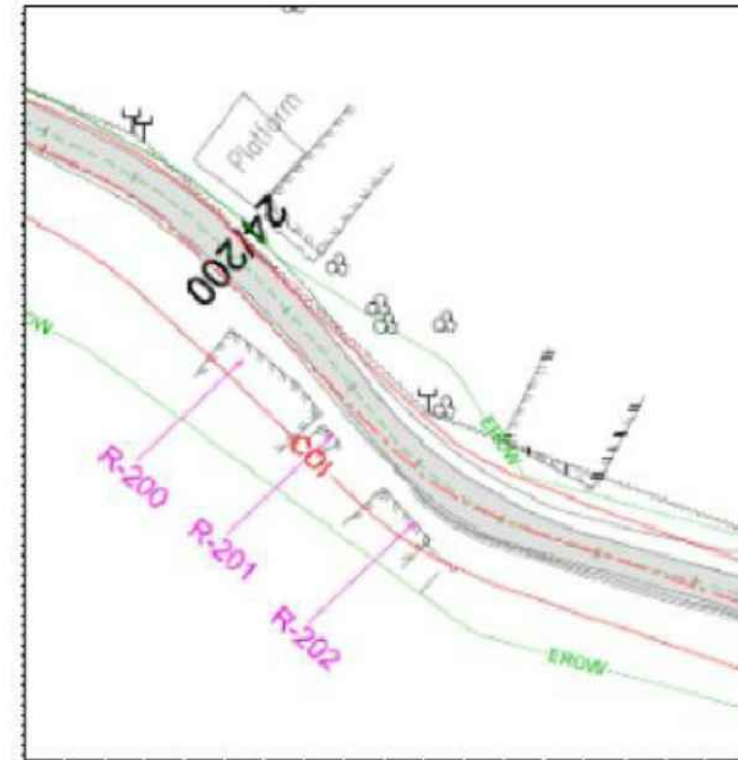


FIG. :- 7-16 RELOCATION OF RELIGIOUS SHRINE AT CH 24+218



LOCATION PLAN



PRESENT SITE PHOTOGRAPH AT CH 24+218



Items for Relocation of Religious Shrine at Ch 24+218

1. Identify a suitable location, within the proximity of existing location of the shrine but beyond the construction disturbance zone, in consultation with the local community leaders and or regular visitors to shrine
2. Clear and prepare the identified site for construction of platform as shown in the drawings/as per site requirements
3. All construction work for relocation of shrine shall be undertaken as shown in drawing /site construction and as agreed upon with the local community leaders and or regular visitors to shrine
4. All relocation work shall be completed prior to commencement of construction works related to road widening
5. Ensure utmost care and the shrine is handled diligently and carefully, while shifting from its existing location to the new location, in cooperation and/or consultation with local community leaders and or regular visitors to shrine
6. All works related to relocation of the religious shrine shall be essentially completed prior to commencement of construction related to the road widening works
7. Once the relocation is completed and all civil works are completed as shown in drawings/site requirements, facilitate a pooja ceremony to the satisfaction of local community/ regular visitors prior to handing over of the shrine
7. "3M" make high intensity retro reflective conspicuity tape (2" wide X 1mtr length) shall be pasted along edge of road near structure

Note: All relocation work including the civil works shall be carried out in close consultation with local community leaders/regular users of shrine. All suggestions shall be duly considered with prior approval of Engineer-in-Charge.

NOTE: The drawing given above is indicative, contractor to submit working drawing in consultation with local authorities, CSC, HPRIDC, for taking up the work.

TENDER PURPOSE ONLY

							<div>CLIENT:</div> <div><div>HIMACHAL PRADESH ROAD AND OTHER INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.</div></div>		<div>CONSULTANT:</div> <div><div>SATRA SERVICES AND SOLUTIONS PVT LTD. #1-8-359 to 363, 4th Floor, Centre Point Building, SP Road, Begumpet, Secunderabad, Telangana – 500003, India. Tel: +91 40 2784 0040, Fax: +91 40 2784 0050, E-mail: info@satragroup.in, Web: www.satragroup.in</div></div>		<div>PROJECT:</div> <div>Himachal Pradesh State Roads Transformation Project (HPSRTP)</div>		<div>DESIGNED</div> <div>MADHU.K</div>		<div>TITLE :</div> <div>RELOCATION OF RELIGIOUS SHRINE AT KM 24+218.</div>		
									<div>DRAWN</div> <div>DANIEL</div>		<div>DRAWING NO :</div> <div>HP/MAN-KAL/RS-002</div>						
									<div>CHECKED</div> <div>CS/AH</div>		<div>ROAD NAME :</div> <div>Package-VI: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 11+000 To Km 27+854</div>		<div>SHEET 02 OF 05</div>				
											<div>APPROVED</div> <div>PRADEEP KAPLA</div>						
<div>REV</div> <div>DATE</div> <div>DESCRIPTION</div> <div>DESIGNED</div> <div>DRAWN</div> <div>CHECKED</div> <div>APPROVED</div>									<div>SCALE:</div> <div>NOT TO SCALE</div>								

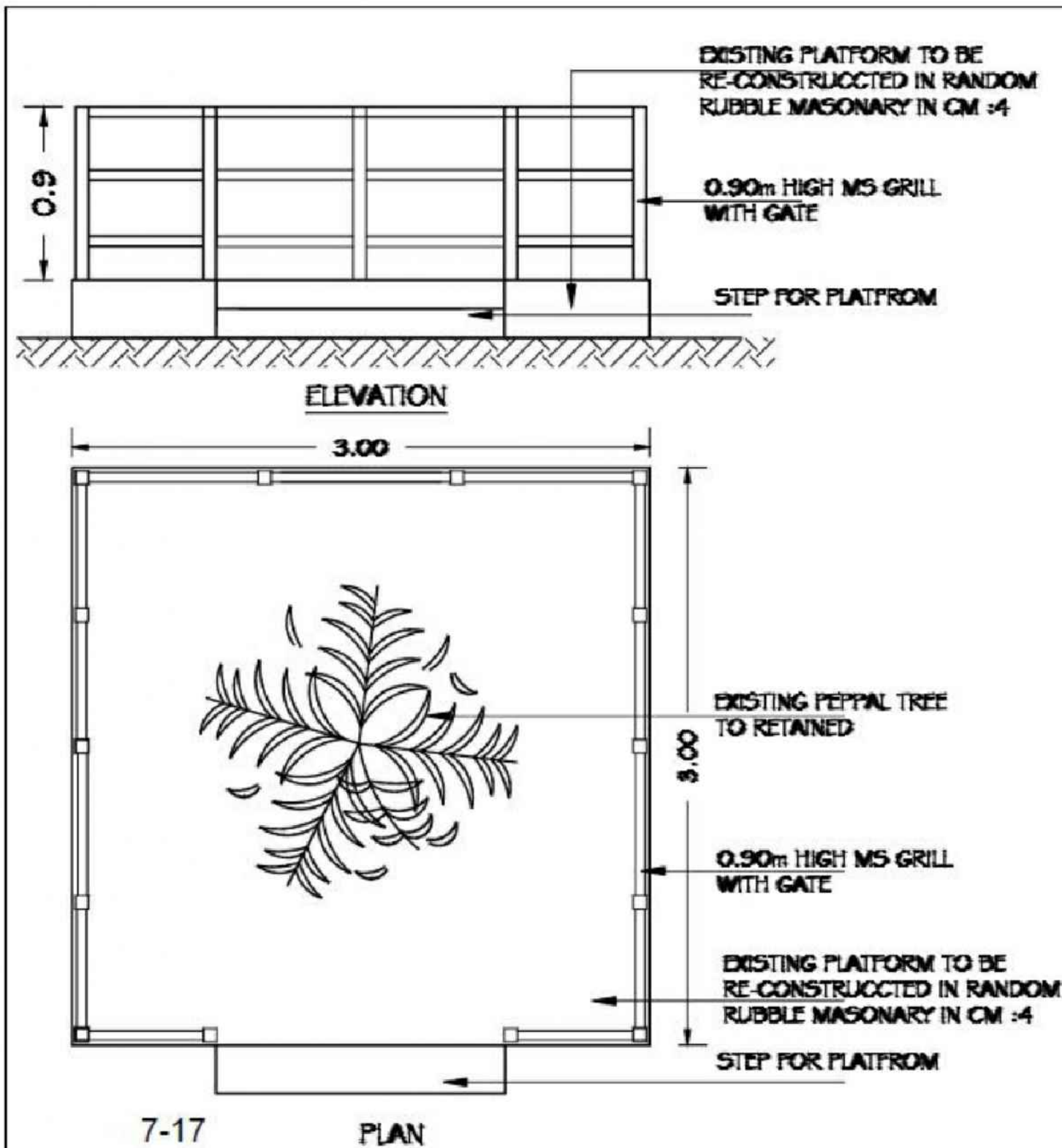
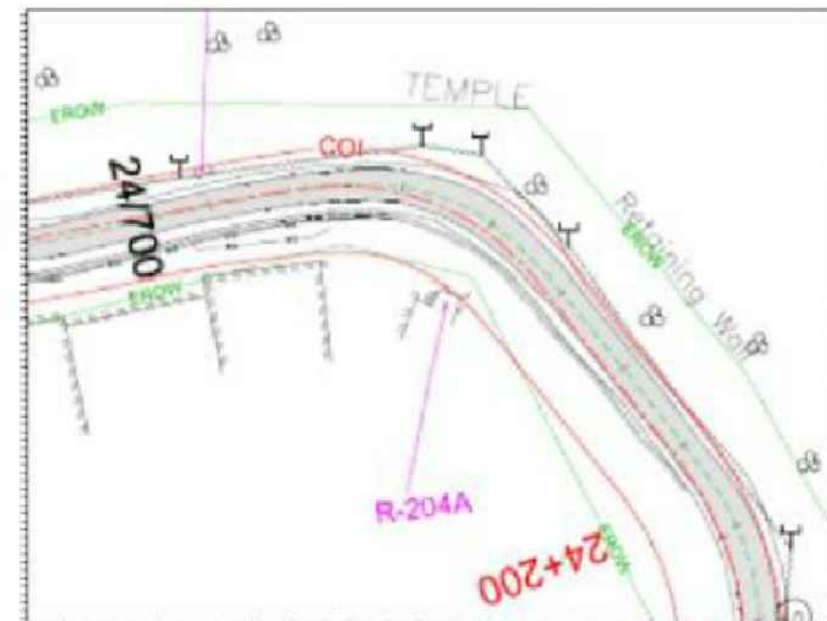


FIG. :- RECONSTRUCTION OF PEPPAL TREE PLATFORM AT CH 24+734



LOCATION PLAN



PRESENT SITE PHOTOGRAPH AT CH 24+734



Items for Renovation of Religious Shrine at Ch 24+734

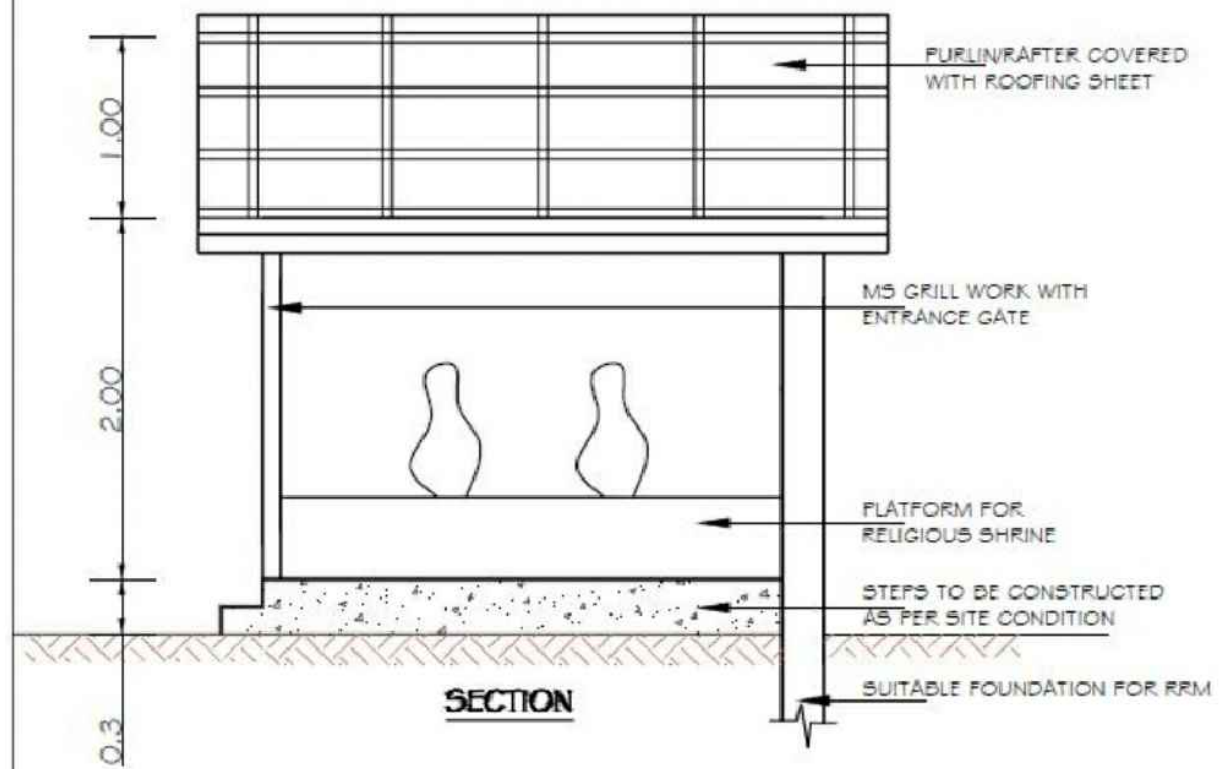
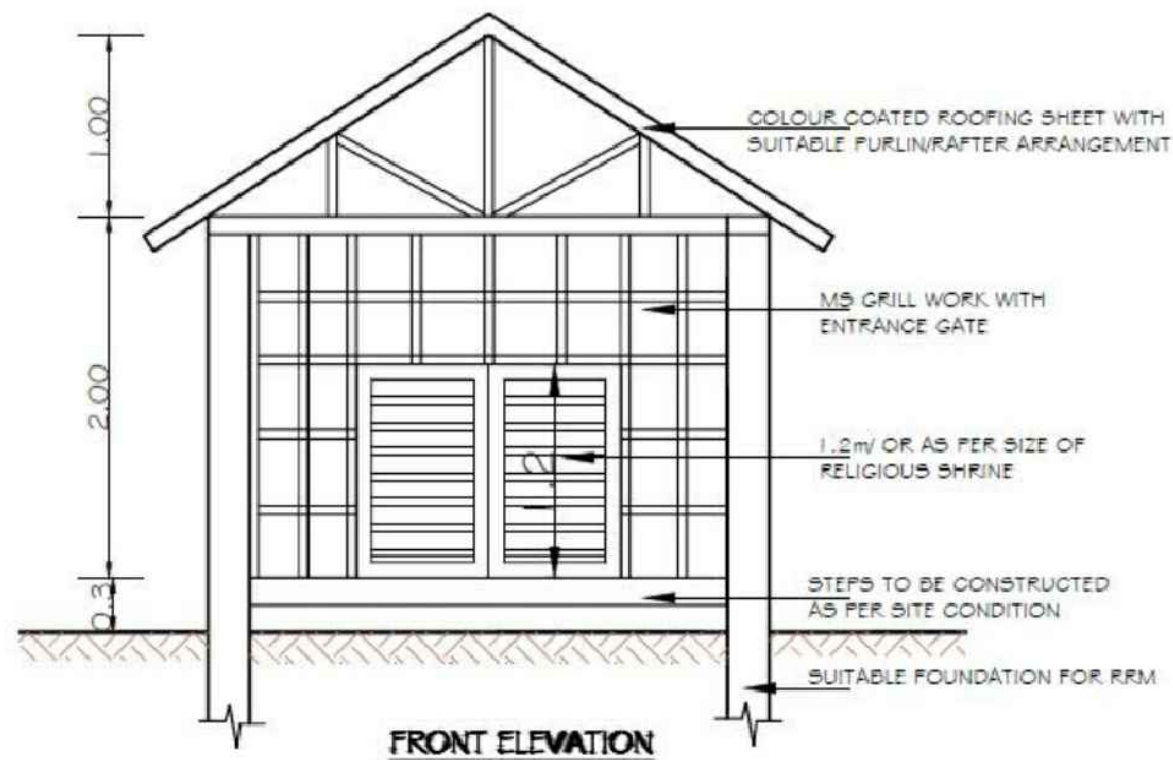
1. Dismantle existing masonry of the platform and scavenge/segregate the materials, which can be reused for reconstruction of masonry along with new materials as per required /shown in Drawings and site requirements
2. Provide and reconstruct the platform around the peepal tree as per dimensions shown in Drawings and space availability as per site conditions
3. Construct masonry steps to facilitate ease of entry and exit to the shrine, providing with SS hand railing as shown in the drawing/site requirements
4. Providing cement 12 mm thick plastering in CM 1:4 to all external surfaces of the platform with a neat coat of cement finish
5. Providing and Fixing of SS railing all along the edge of the platform (900 mm height and 20 metre long)
6. Providing two coats of exterior paint/white washing to the entire super structure of dug well including anti corrosive painting to M S frame supporting the fly wheel as per site requirements
7. Removal and/or clearing of unwanted debris/wate material surrounding the dug well and disposal of the same at an approved location
7. "3M" make high intensity retro reflective conspicuity tape (2" wide X 1mtr length) shall be pasted along edge of road near structure

Note: All renovation /conservation work at the religious shrine shall be carried out in close consultation with local community leaders/regular users of shrine. All suggestions shall be duly considered with prior approval of Engineer-in-Charge.

NOTE: The drawing given above is indicative, contractor to submit working drawing in consultation with local authorities,CSC, HPRIDC,for taking up the work.

TENDER PURPOSE ONLY

							<div>CLIENT:</div> <div></div> <div>HIMACHAL PRADESH ROAD AND OTHER INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.</div>	<div>CONSULTANT:</div> <div></div> <div>SATRA SERVICES AND SOLUTIONS PVT LTD. #1-8-359 to 363, 4th Floor, Centre Point Building, SP Road, Begumpet, Secunderabad, Telangana – 500003, India. Tel: +91 40 2784 0040, Fax: +91 40 2784 0050, E-mail: info@satragroup.in, Web: www.satragroup.in</div>	<div>PROJECT:</div> <div>Himachal Pradesh State Roads Transformation Project (HPSRTP)</div>	DESIGNED	MADHU.K	TITLE : RECONSTRUCTION OF PEPPAL TREE PLATFORM AT KM 24+734.		
DRAWN	DANIEL													
CHECKED	CS/AH	DRAWING NO : HP/MAN-KAL/RS-003												
APPROVED	PRADEEP KAPLA	ROAD NAME : Package-VI: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 11+000 To Km 27+854		SHEET 03 OF 05										
REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED								



Items for Relocation of Religious Shilms for Relocation of Religious Shrine at Ch 28+216



1. Identify a suitable location, within the proximity of existing location of the shrine but beyond the construction disturbance zone, in consultation with the local community leaders and or regular visitors to shrine
2. Clear and prepare the identified site for construction of platform as shown in the drawings/as per site requirements
3. All construction work for relocation of shrine shall be undertaken as shown in drawing /site construction and as agreed upon with the local community leaders and or regular visitors to shrine
4. All relocation work shall be completed prior to commencement of construction works related to road widening
5. Ensure utmost care and the shrine is handled diligently and carefully, while shifting from its existing location to the new location, in cooperation and/or consultation with local community leaders and or regular visitors to shrine
6. All works related to relocation of the religious shrine shall be essentially completed prior to commencement of construction related to the road widening works
7. Once the relocation is completed and all civil works are completed as shown in drawings/site requirements, facilitate a pooja ceremony to the satisfaction of local community/ regular visitors prior to handing over of the shrine
7. "3M" make high intensity retro reflective conspicuity tape (2" wide X 1mtr length) shall be pasted along edge of road near structure

Note: All relocation work including the civil works shall be carried out in close consultation with local community leaders/regular users of shrine. All suggestions shall be duly considered with prior approval of Engineer

FIG. :- 7-18 RELOCATION OF RELIGIOUS SHRINE AT CH 28+216

NOTE: The drawing given above is indicative, contractor to submit working drawing in consultation with local authorities,CSC, HPRIDC,for taking up the work.

TENDER PURPOSE ONLY

							CLIENT:	CONSULTANT:	PROJECT:		DESIGNED	MADHU.K	TITLE : RELOCATION OF RELIGIOUS SHRINE AT KM28+216.					
							 HIMACHAL PRADESH ROAD AND OTHER INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.	 SATRA SERVICES AND SOLUTIONS PVT LTD. #1-8-359 to 363, 4th Floor, Centre Point Building, SP Road, Begumpet, Secunderabad, Telangana – 500003, India. Tel: +91 40 2784 0040, Fax: +91 40 2784 0050, E-mail: info@satragroup.in, Web: www.satragroup.in	Himachal Pradesh State Roads Transformation Project (HPSRTP)		DRAWN	DANIEL	DRAWING NO : HP/MAN-KAL/RS-004					
						CHECKED					CS/AH							
REV	DATE	DESCRIPTION				DESIGNED			DRAWN	CHECKED	APPROVED	SCALE:	NOT TO SCALE		APPROVED	PRADEEP KAPLA	ROAD NAME : Package-VI: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 11+000 To Km 27+854	SHEET 04 OF 05



PRESENT SITE PHOTOGRAPH
AT CH 28+415



LOCATION PLAN



FIG. :- 7-19 RENOVATION OF RELIGIOUS SHRINE/PEPPAL TREE
WITH PLATFORM AT CH 28+415

900mm HIGH SS RAILING ALL AROUND
PLATFORM AS PER SITE REQUIREMENT

MINOR REPAIR TO MASONRY
PLATFORM & 12mm THICK PLASTERING
IN CM 1:4

RE CONSTRUCTION OF STEPS FOR EASE OF
ENTRY & EXIT OF VISITORS WITH SS HAND
RAILING AS PER SITE REQUIREMENT



Items for Renovation of Religious Shrine at Ch 28+415

1. Carryout minor repairs to the entire masonry work like filling up cracks and redoing broken edges and sides as required /per site condition
2. Providing and Fixing of SS railing all along the edge of the platform (900 mm height and 20 metre long)
3. Reconstruction of steps to facilitate ease of entry and exit to the shrine, providing with SS hand railing as shown in the drawing/site requirements
4. Providing two coats of exterior paint/white washing to the entire religious shrine including the adjacent water tank structure for ablution purposes as per site conditions/site requirements
5. Removal and/or clearing of unwanted debris/wate material surrounding the shrine and disposal of the same at an approved location
7. "3M" make high intensity retro reflective conspicuity tape (2" wide X 1mtr length) shall be pasted along edge of road near structure

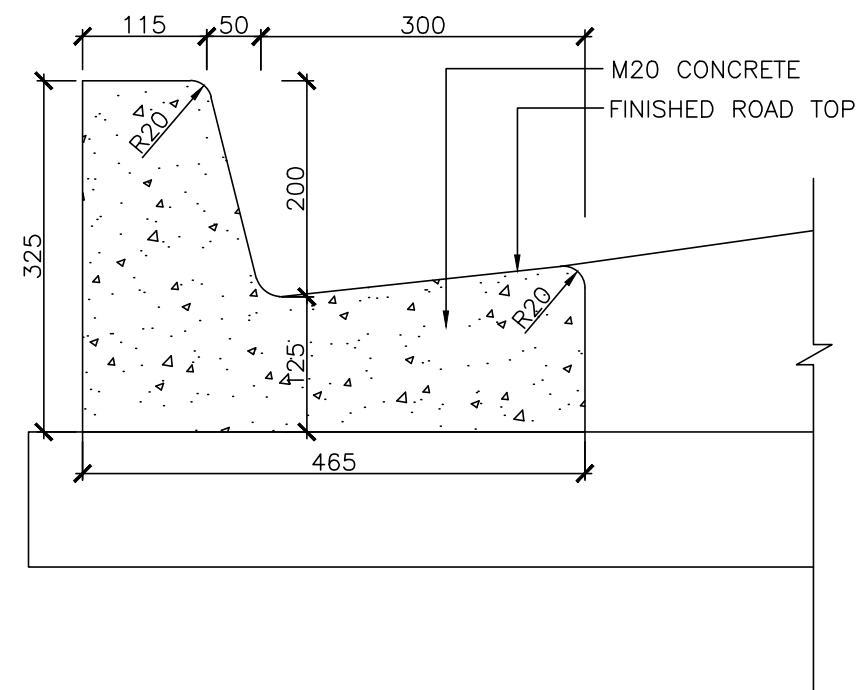
Note: All renovation /conservation work at the religious shrine shall be carried out in close consultation with local community leaders/regular users of shrine. All suggestions shall be duly considered with prior approval of Engineer-in-Charge.

NOTE: The drawing given above is indicative, contractor to submit working drawing in consultation with local authorities,CSC, HPRIDC,for taking up the work.

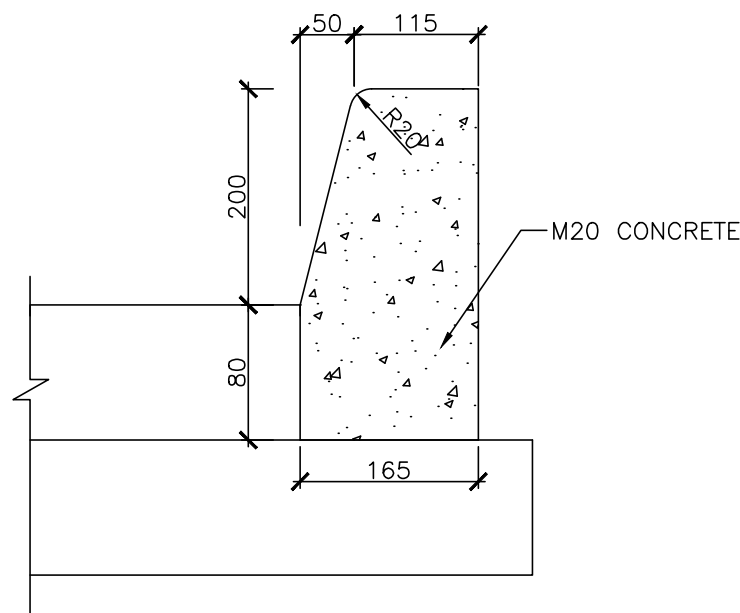
TENDER PURPOSE ONLY

In consultation with local authorities, CCC, HP RDO, for taking up the work.							CLIENT:	CONSULTANT:	PROJECT:	DESIGNED	MADHU.K	TITLE : RECONSTRUCTION OF RELIGIOUS SHRINE / PEPPAL TREE WITH PLATFORM AT KM 28+415.	
							 HIMACHAL PRADESH ROAD AND OTHER INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.	 SATRA SERVICES AND SOLUTIONS PVT LTD. #1-8-359 to 363, 4th Floor, Centre Point Building, SP Road, Begumpet, Secunderabad, Telangana – 500003, India. Tel: +91 40 2784 0040, Fax: +91 40 2784 0050, E-mail: info@satragroup.in, Web: www.satragroup.in	Himachal Pradesh State Roads Transformation Project (HPSRTP)	DRAWN	DANIEL	DRAWING NO : HP/MAN-KAL/RS-005	
						CHECKED				CS/AH	ROAD NAME : Package-VI: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 11+000 To Km 27+854		
						APPROVED				PRADEEP KAPLA	SHEET 05 OF 05		
						SCALE:				NOT TO SCALE			
REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED							

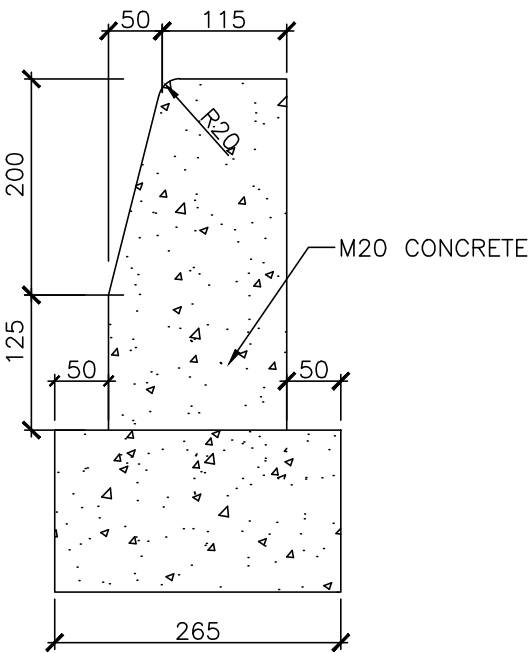
HIGHWAY STANDARD DETAILS DRAWINGS



DETAILS OF KERB WITH CHANNEL



DETAILS OF KERB





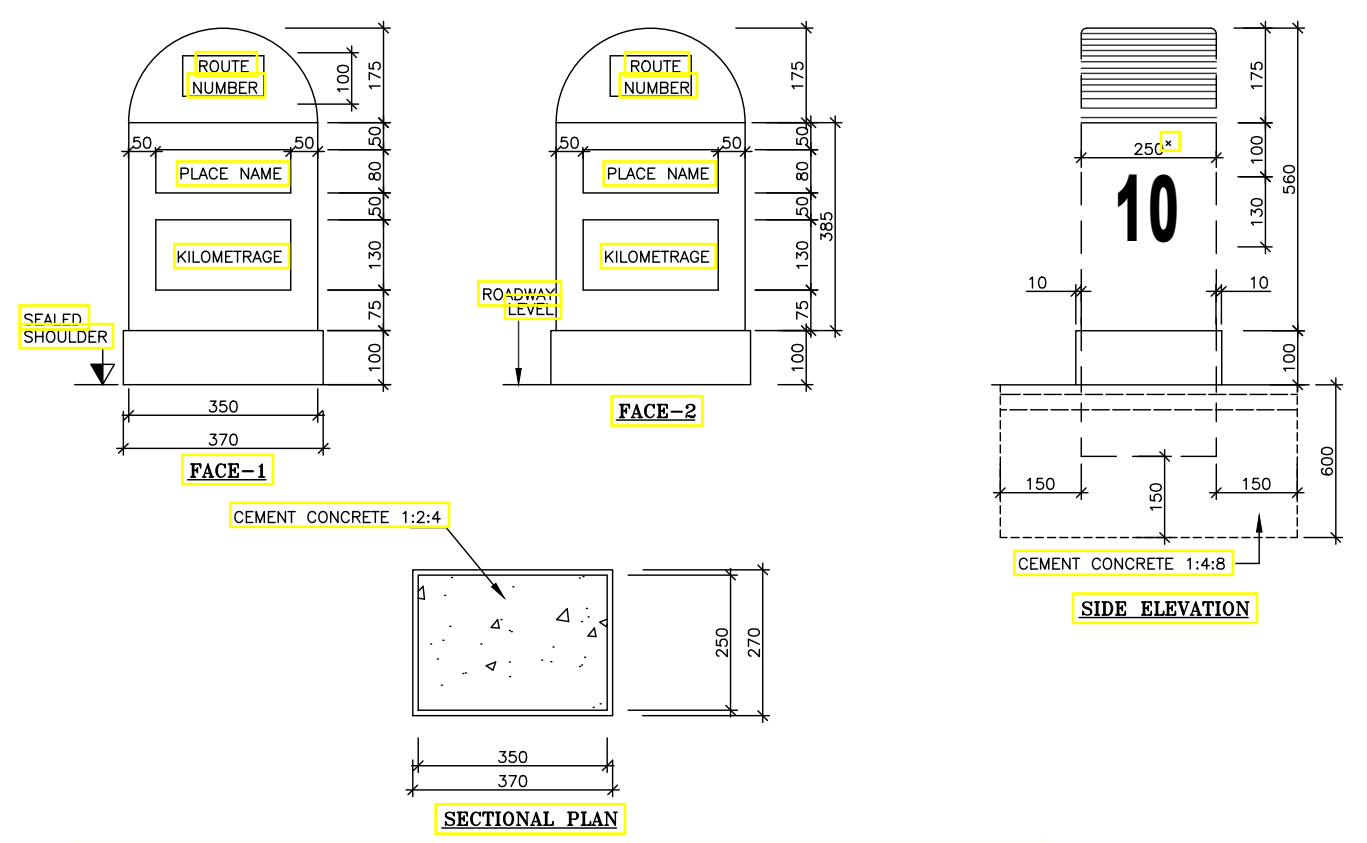
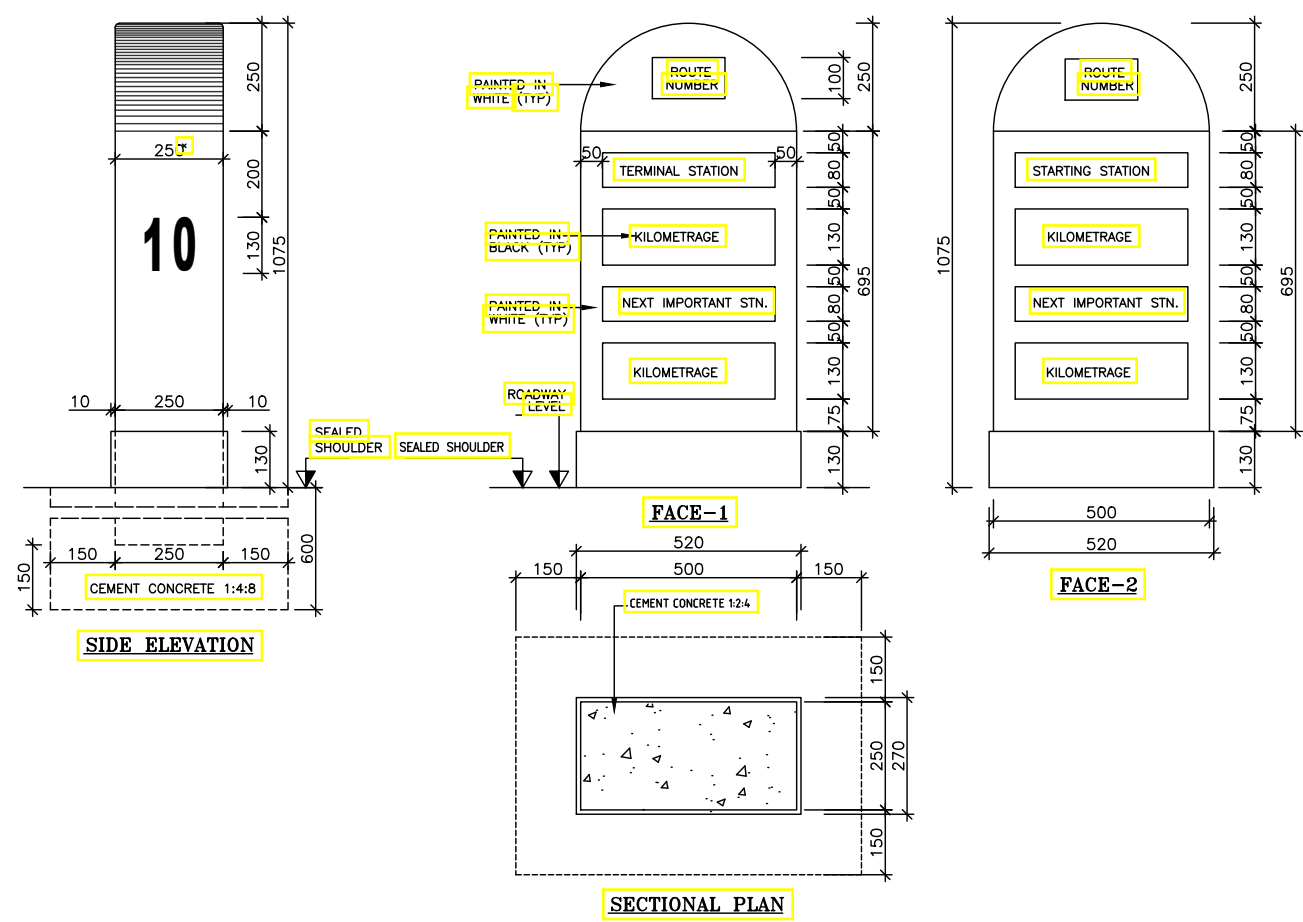
DETAILS OF KERB

NOTES :

1. GRADE OF CONCRETE IS M20.

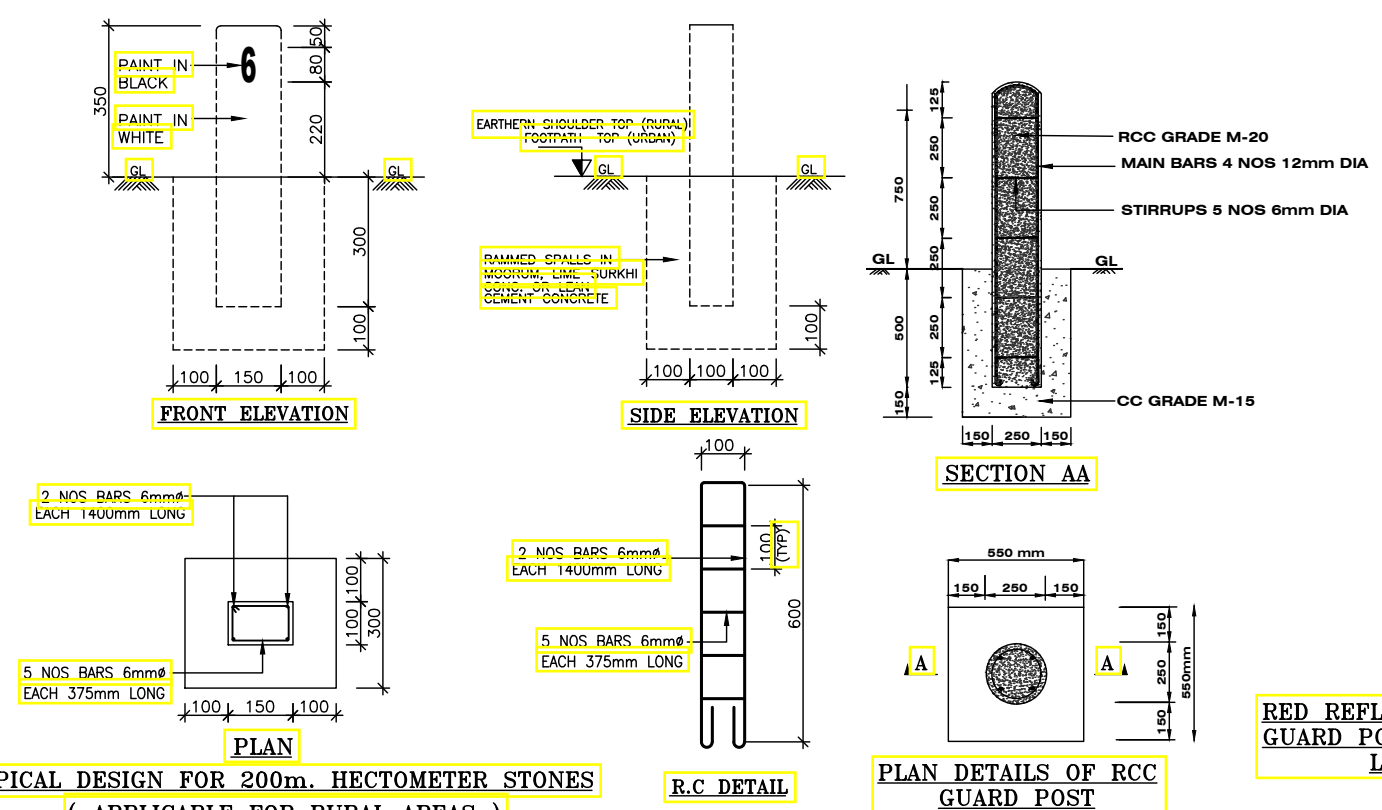
TENDER PURPOSE ONLY

							<div>CLIENT:</div> <div></div> <div>HIMACHAL PRADESH ROAD AND OTHER INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.</div>	<div>CONSULTANT:</div> <div></div> <div>SATRA SERVICES AND SOLUTIONS PVT LTD.</div> <div>#1-8-359 to 363, 4th Floor, Centre Point Building, SP Road, Begumpet, Secunderabad, Telangana - 500003, India Tel: +91 40 2784 0040, Fax: +91 40 2784 0050, E-mail: info@satragroup.in, Web: www.satragroup.in</div>	<div>PROJECT:</div> <div>Himachal Pradesh State Roads Transformation Project (HPSRTP)</div>		DESIGNED	MADHUBABU	TITLE : TYPICAL DETAILS OF KERB		
DRAWN	DANIEL														
SCALE:		NOT TO SCALE		CHECKED	CHANDRA/ASHIK	DRAWING NO : HP/MAN-KAL/MISC-001									
				APPROVED	PRADEEP KAPLA	ROAD NAME : Package-VI: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 11+000 To Km 27+854			SHEET 01 OF 01						
REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED									

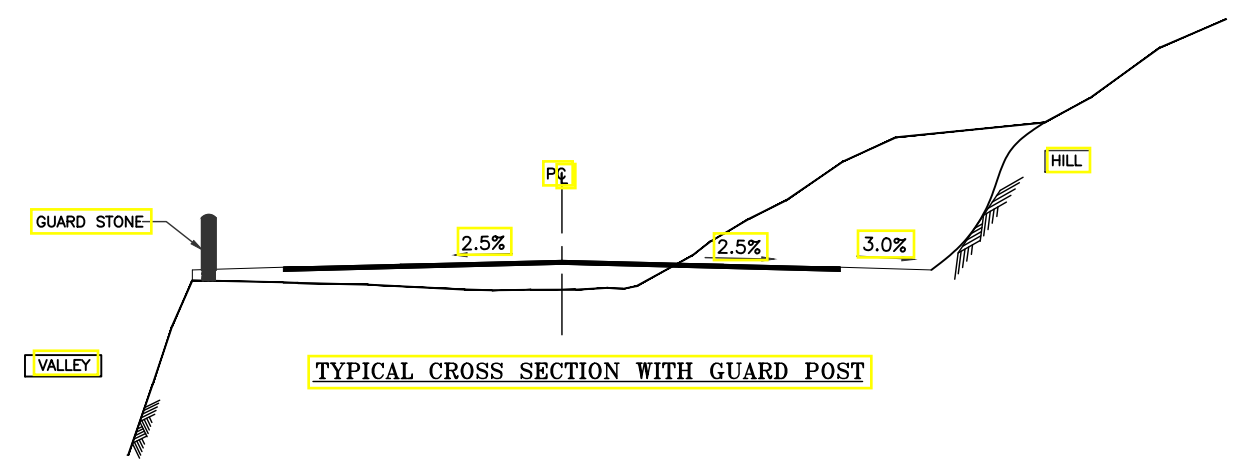


TYPE DESIGNS FOR ORDINARY KILOMETRE STONES ON MAJOR DISTRICT ROAD

TYPE DESIGNS FOR 5TH KILOMETRE STONE ON MAJOR DISTRICT ROAD





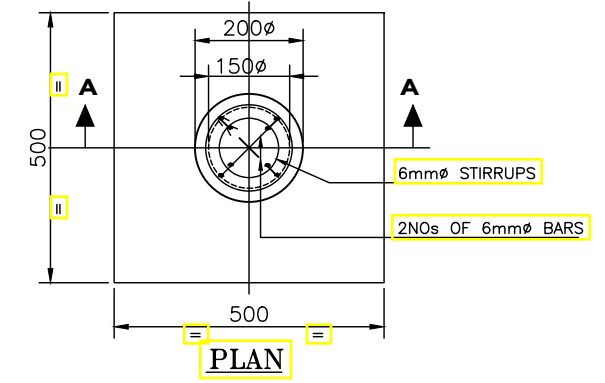
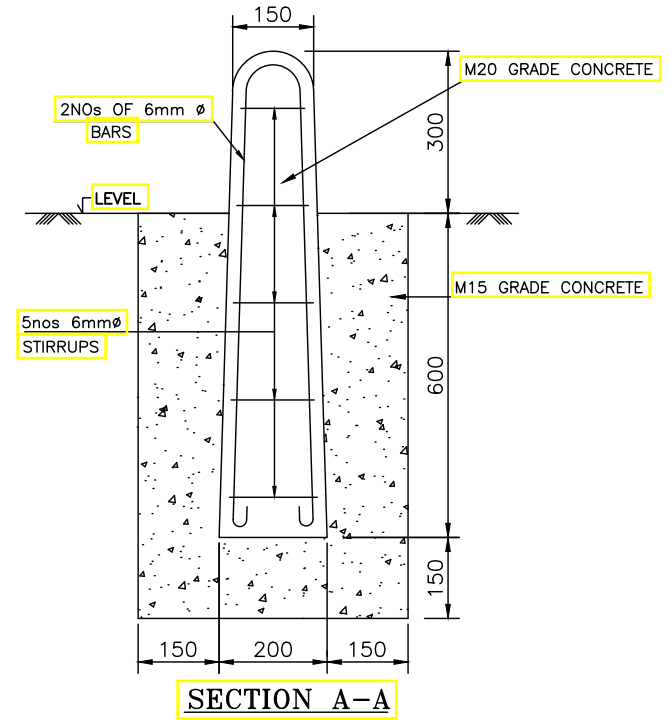
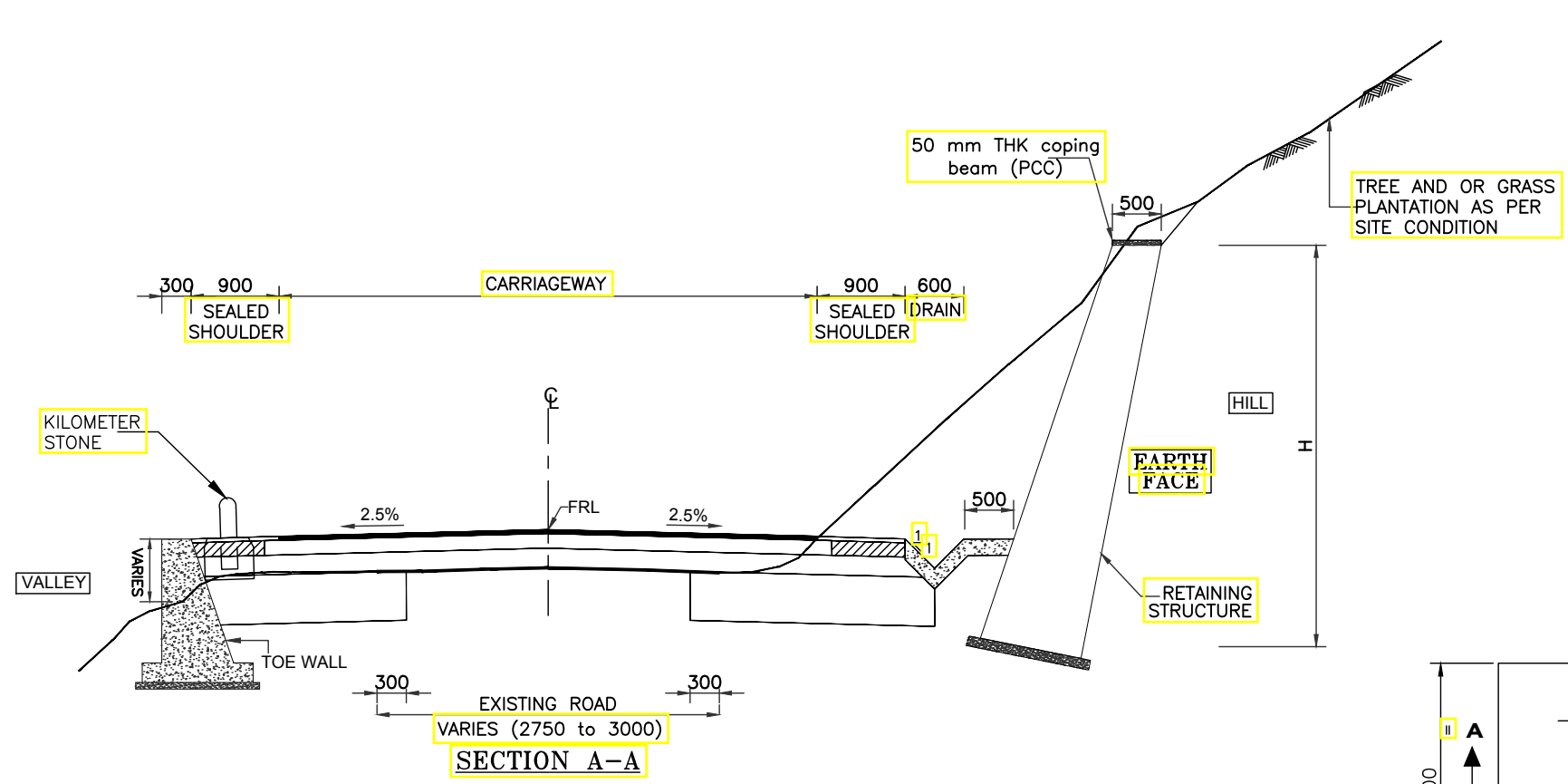
TYPICAL DESIGN FOR 200m. HECTOMETER STONES
(APPLICABLE FOR RURAL AREAS)



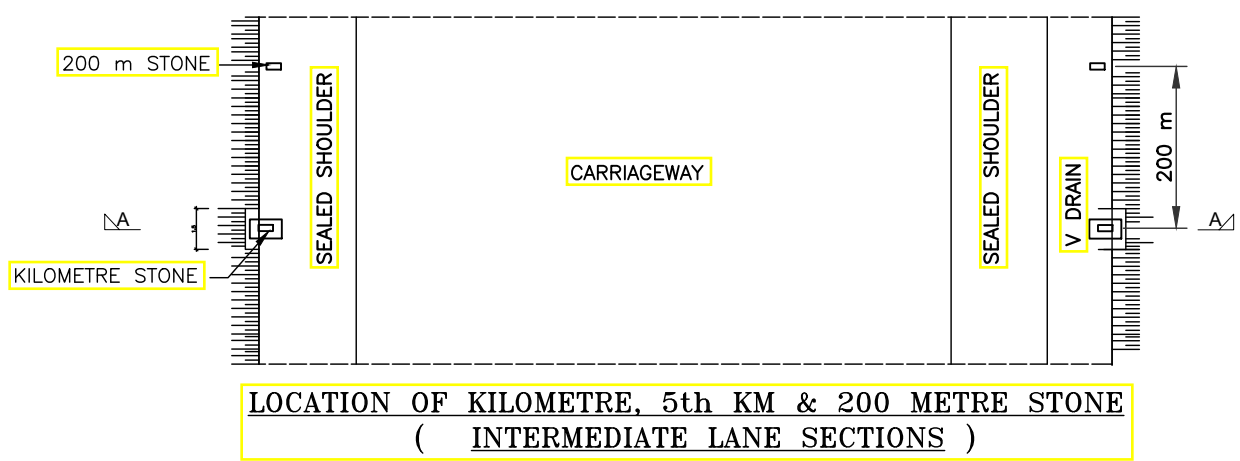
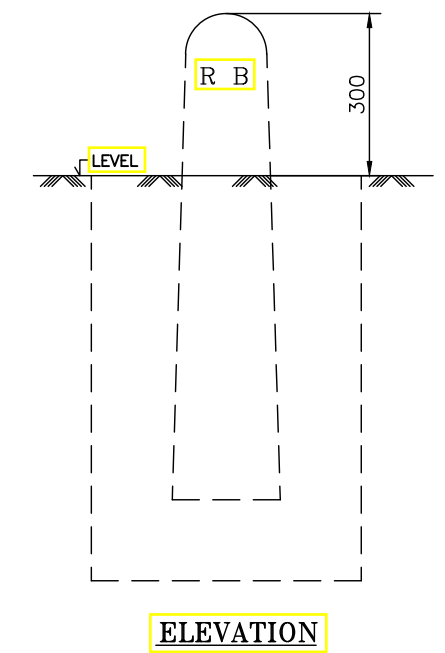
- NOTES:-
1. BACKGROUND COLOUR SHALL BE WHITE WITH BLACK LETTERS & NUMERALS FOR NUMBERS OF STATIONS & DISTANCES.
 2. STANDARDS FOR LETTER & NUMBER SIZES FOR ALL KM SHALL BE AS PER IRC: 8-1980
 3. SIZE OF NUMBERS FOR 200M STONES SHALL BE AS PER IRC: 26-1967
 4. DETAILS OF BOUNDARY STONES SHALL BE AS PER IRC: 25-1967
 5. THE STONES SHALL BE PROVIDED ON LEFT SIDE OF ROAD AS SHOWN INDEPENDENTLY FOR EACH DIRECTION OF TRAFFIC FLOW.
 6. FOR DETAILS REFER IRC:8-1980 & IRC:26-1967

TENDER PURPOSE ONLY

							<div>CLIENT:</div> <div><div>HIMACHAL PRADESH ROAD AND OTHER INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.</div></div>		<div>CONSULTANT:</div> <div><div>SATRA SERVICES AND SOLUTIONS PVT LTD. #1-8-359 to 363, 4th Floor, Centre Point Building, SP Road, Begumpet, Secunderabad, Telangana – 500003, India. Tel: +91 40 2784 0040, Fax: +91 40 2784 0050, E-mail: info@satragroup.in, Web: www.satragroup.in</div></div>		<div>PROJECT:</div> <div>Himachal Pradesh State Roads Transformation Project (HPSRTP)</div>		<div>DESIGNED</div> <div>MADHUBABU</div>		<div>TITLE :</div> <div>TYPICAL DETAILS OF KILOMETRE, GUARD POST & BOUNDRY STONES</div> <div>DRAWING NO : HP/MAN-KAL/MISC-002A</div> <div>ROAD NAME : Package-VI: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 11+000 To Km 27+854</div> <div>SHEET 01 OF 02</div>		
									<div>DRAWN</div> <div>DANIEL</div>								
									<div>CHECKED</div> <div>CHANDRA/ASHIK</div>								
											<div>APPROVED</div> <div>PRADEEP KAPLA</div>						
REV		DATE		DESCRIPTION			DESIGNED	DRAWN	CHECKED	APPROVED	SCALE:		NOT TO SCALE				





TYPICAL BOUNDARY STONE
DESIGN WITH R.C.C AS MATERIAL

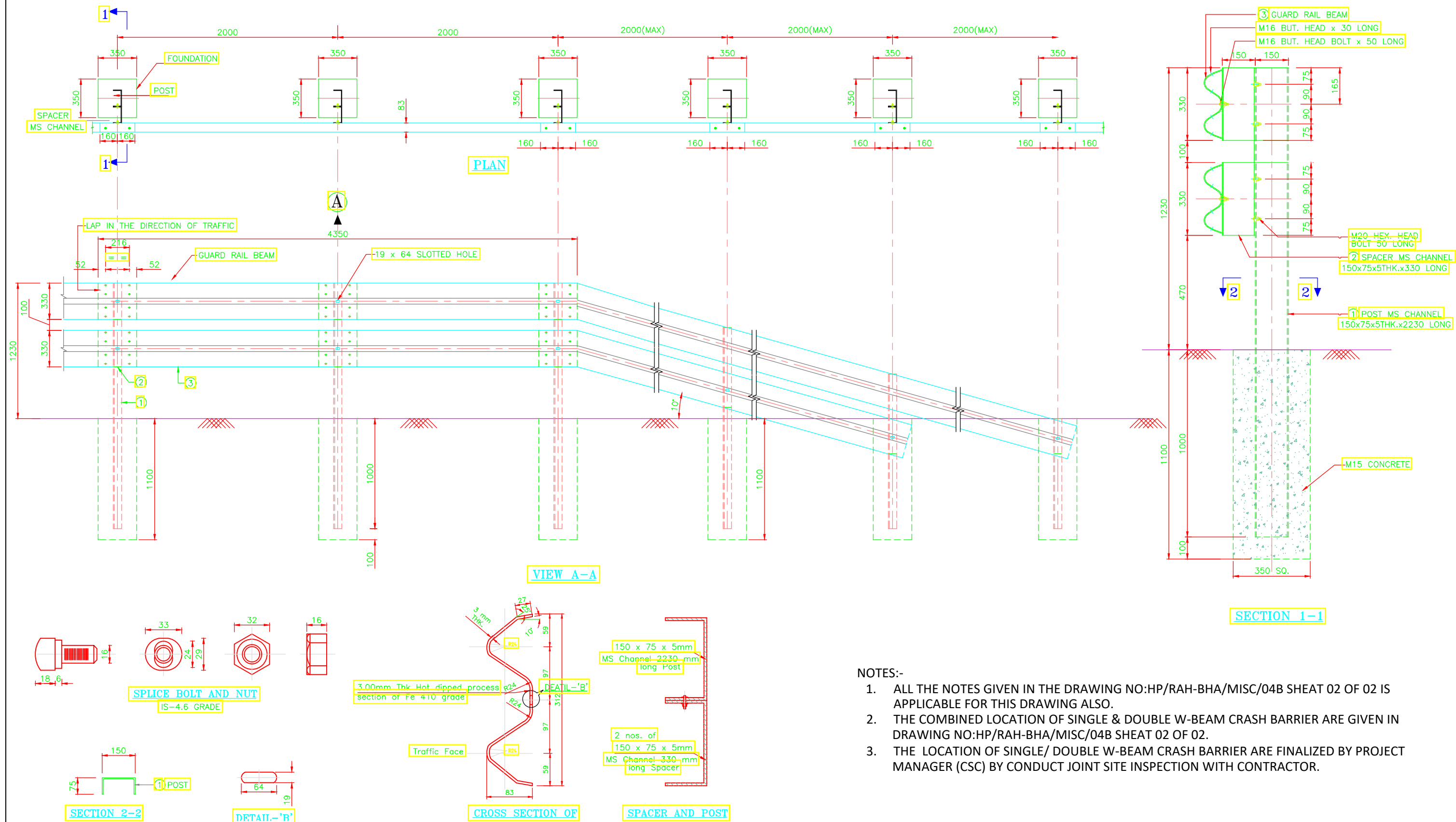


LOCATION OF KILOMETRE, 5th KM & 200 METRE STONE
(INTERMEDIATE LANE SECTIONS)

BAR BENDING SCHEDULE					
SL NO.	TYPE OF M.S.BAR	NO. OF BARS	SHAPE OF BARS	DIA IN mm	LENGTH OF MS BAR INCLUDING HOOKS
1	MAIN BARS	2		6	1.84m
2	TOPMOST STIRRUP	1		6	370mm
3	STIRRUP(FIRST FROM TOP)	1		6	405mm
4	STIRRUP(SECOND FROM TOP)	1		6	440mm
5	STIRRUP(THIRD FROM TOP)	1		6	475mm
6	BOTTOM MOST STIRRUP	1		6	810mm

TENDER PURPOSE ONLY

								<div>CLIENT:</div> <div><div>HIMACHAL PRADESH ROAD AND OTHER INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.</div></div>		<div>CONSULTANT:</div> <div><div>SATRA SERVICES AND SOLUTIONS PVT LTD. #1-8-359 to 363, 4th Floor, Centre Point Building, SP Road, Begumpet, Secunderabad, Telangana – 500003, India. Tel: +91 40 2784 0040, Fax: +91 40 2784 0050, E-mail: info@satragroup.in, Web: www.satragroup.in</div></div>		<div>PROJECT:</div> <div>Himachal Pradesh State Roads Transformation Project (HPSRTP)</div>		<div>DESIGNED</div> <div>MADHUBABU</div>		<div>TITLE :</div> <div>TYPICAL DETAILS OF KILOMETRE & BOUNDRY STONES</div>			
								<div>DRAWN</div> <div>DANIEL</div>		<div>DRAWING NO :</div> <div>HP/MAN-KAL/MISC-002B</div>									
								<div>CHECKED</div> <div>CHANDRA/ASHIK</div>		<div>ROAD NAME :</div> <div>Package-VI: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 11+000 To Km 27+854</div>									
								<div>APPROVED</div> <div>PRADEEP KAPLA</div>		<div>SHEET 02 OF 02</div>									
<div>REV</div>		<div>DATE</div>		<div>DESCRIPTION</div>		<div>DESIGNED</div>		<div>DRAWN</div>		<div>CHECKED</div>		<div>APPROVED</div>							

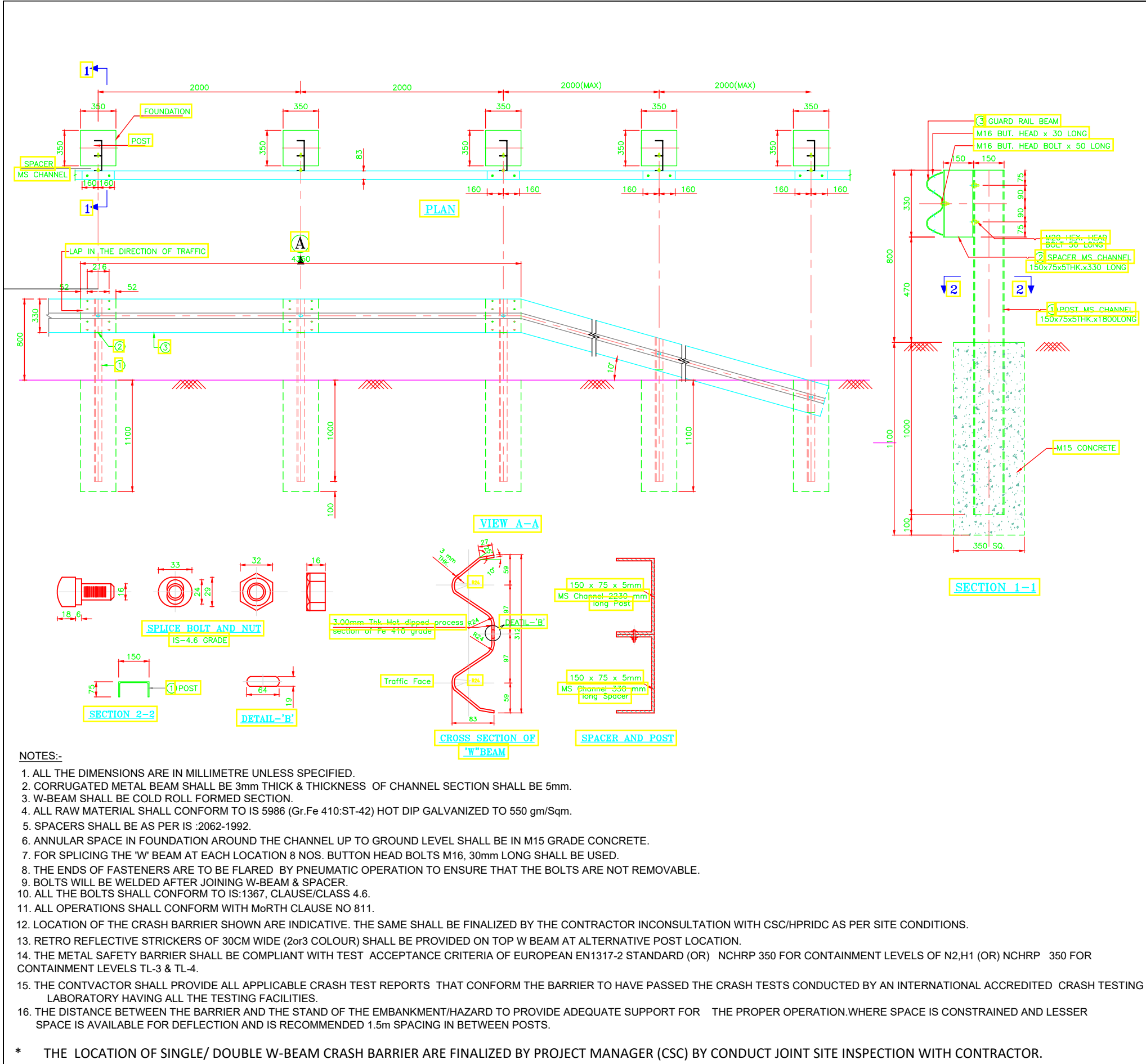


NOTES:-

- ALL THE NOTES GIVEN IN THE DRAWING NO:HP/RAH-BHA/MISC/04B SHEAT 02 OF 02 IS APPLICABLE FOR THIS DRAWING ALSO.
- THE COMBINED LOCATION OF SINGLE & DOUBLE W-BEAM CRASH BARRIER ARE GIVEN IN DRAWING NO:HP/RAH-BHA/MISC/04B SHEAT 02 OF 02.
- THE LOCATION OF SINGLE/ DOUBLE W-BEAM CRASH BARRIER ARE FINALIZED BY PROJECT MANAGER (CSC) BY CONDUCT JOINT SITE INSPECTION WITH CONTRACTOR.

TENDER PURPOSE ONLY

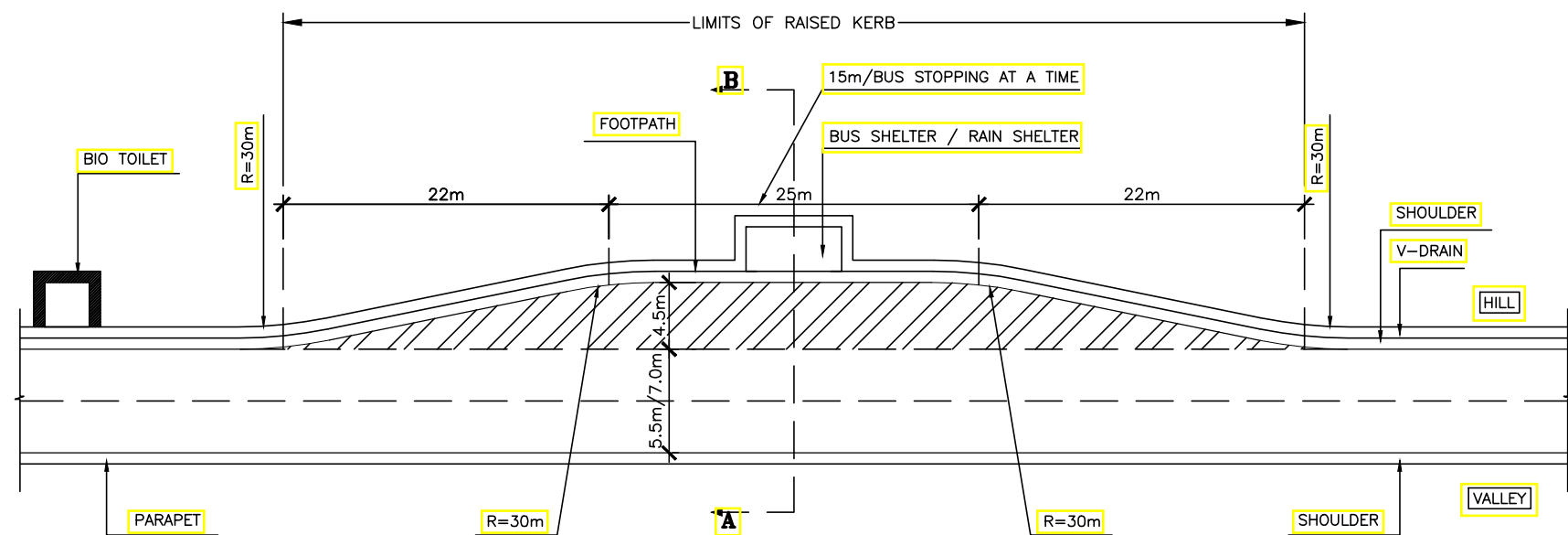
NOTES: 1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED.						CLIENT: HIMACHAL PRADESH ROAD AND OTHER INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.		CONSULTANT: SATRA INFRASTRUCTURE MANAGEMENT SERVICES PVT.LTD.		PROJECT: Himachal Pradesh State Roads Transformation Project (HPSRTP)		DESIGNED: MADHUK DRAWN: DANIEL CHECKED: CS/AH APPROVED: PRADEEP KAPLA		TITLE : TYPICAL DETAILS OF DOUBLE W-BEAM CRASH BARRIER DRAWING NO : HP/MAN-KAL/MISC-004A ROAD NAME : Package-VI: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 11+000 To Km 27+854		SHEET 01 OF 02
REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED			SCALE:		NOT TO SCALE					



CRASH BARRIER SCHEDULE						CRASH BARRIER SCHEDULE					
S.No	Design Ch (Km)		Length (m)	Height above OGL(m)	Side	S.No	Design Ch (Km)		Length (m)	Height above OGL(m)	Side
	From	To					From	To			
1	11000	11020	20	3	LHS	57	20020	20060	40	2	LHS
2	11240	11310	70	3	LHS	58	20250	20300	50	2	LHS
3	11790	11900	110	3	LHS	59	20370	20400	30	3	LHS
4	12320	12350	30	2	LHS	60	20630	20660	30	3	LHS
5	12380	12410	30	2	LHS	61	20930	20960	30	3	LHS
6	13040	13070	30	3	LHS	62	21030	21110	80	2	LHS
7	13070	13100	30	2	LHS	63	21240	21270	30	2	LHS
8	13100	13130	30	2	LHS	64	21280	21330	50	2	LHS
9	13130	13140	10	2	LHS	65	21370	21410	40	3	LHS
10	13180	13190	10	3	LHS	66	21410	21470	60	2	LHS
11	13190	13220	30	3	LHS	67	21510	21540	30	3	LHS
12	13220	13230	10	3	LHS	68	21540	21570	30	2	LHS
13	13380	13440	60	3	LHS	69	21610	21680	70	3	LHS
14	13530	13560	30	3	LHS	70	23290	23340	50	3	LHS
15	13840	13880	40	5	LHS	71	23750	23800	50	2	LHS
16	14070	14100	30	2	LHS	72	23840	23870	30	3	LHS
17	14130	14170	40	3	LHS	73	24150	24200	50	2	LHS
18	14220	14300	80	3	LHS	74	24250	24280	30	2	LHS
19	14300	14330	30	2	LHS	75	24370	24400	30	3	LHS
20	14330	14390	60	3	LHS	76	24420	24480	60	3	LHS
21	14470	14600	130	3	LHS	77	24480	24520	40	2	LHS
22	14660	14700	40	2	LHS	78	24610	24740	130	3	LHS
23	14760	14790	30	2	LHS	79	24850	24920	70	5	LHS
24	15340	15380	40	3	LHS	80	24920	24950	30	4	LHS
25	15380	15450	70	2	LHS	81	24950	24980	30	3	LHS
26	15510	15540	30	2	LHS	82	25010	25060	50	2	LHS
27	15550	15590	40	2	LHS	83	25110	25180	70	3	LHS
28	15840	15900	60	2	LHS	84	25270	25310	40	3	LHS
29	16280	16350	70	3	LHS	85	25310	25340	30	2	LHS
30	16360	16390	30	3	LHS	86	25400	25480	80	3	LHS
31	16390	16420	30	2	LHS	87	25560	25680	120	3	LHS
32	16730	16770	40	2	LHS	88	25700	25790	90	3	LHS
33	16770	16810	40	3	LHS	89	25850	25890	40	3	LHS
34	16810	16840	30	2	LHS	90	25890	25900	10	4	LHS
35	16890	16920	30	2	LHS	91	25900	25960	60	4	LHS
36	17470	17520	50	3	LHS	92	26050	26120	70	3	LHS
37	17520	17560	40	4	LHS	93	26120	26150	30	2	LHS
38	17560	17640	80	3	LHS	94	26300	26350	50	2	LHS
39	17640	17670	30	2	LHS	95	26370	26420	50	2	LHS
40	17760	17800	40	3	LHS	96	26440	26470	30	3	LHS
41	18020	18090	70	3	LHS	97	26600	26660	60	4	LHS
42	18090	18140	50	2	LHS	98	26690	26740	50	3	LHS
43	18300	18330	30	3	LHS	99	26870	26910	40	5	LHS
44	18330	18370	40	2	LHS	100	26920	26990	70	3	LHS
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46	18440	18470	30	3	LHS	102	27170	27200	30	5	LHS
47	18470	18520	50	2	LHS	103	27200	27230	30	5	LHS
48	18520	18580	60	3	LHS	104	27230	27240	10	5	LHS
49	18630	18680	50	3	LHS	105	27250	27280	30	4	LHS
50	18820	18880	60	2	LHS	106	27280	27350	70	3	LHS
51	18960	19040	80	3	LHS	107	27470	27500	30	3	LHS
52	19040	19110	70	2	LHS	108	27500	27540	40	3	LHS
53	19110	19130	20	2	LHS	109	27650	27670	20	4	LHS
54	19360	19400	40	3	LHS	110	27670	27680	10	4	LHS
55	19530	19560	30	3	LHS	111	27710	27750	40	3	LHS
56	19560	19590	30	2	LHS	112	27750	27780	30	4	LHS
						113	27810	27850	40	3	LHS

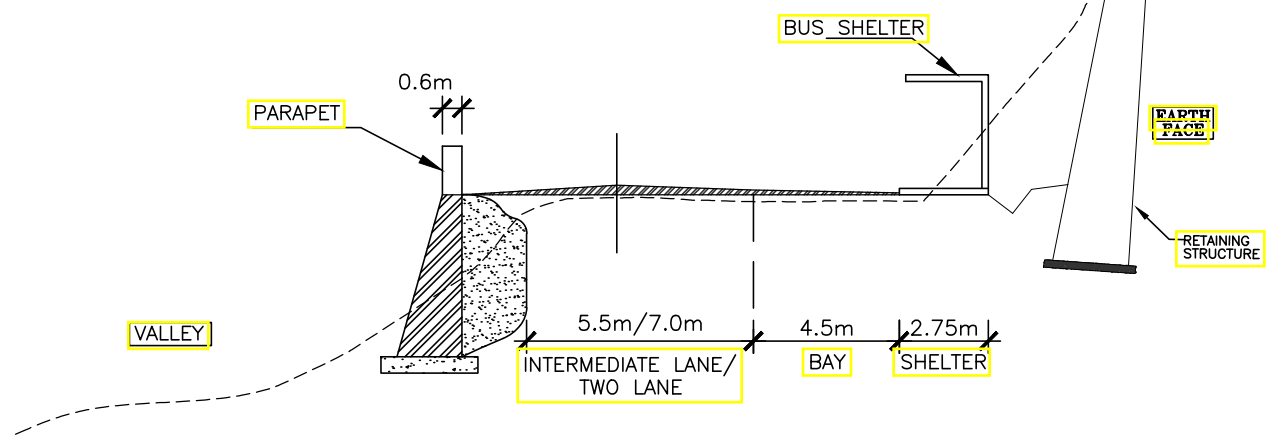
TENDER PURPOSE ONLY

NOTES: 1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED.						CLIENT: HIMACHAL PRADESH ROAD AND OTHER INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.		CONSULTANT: SATRA INFRASTRUCTURE MANAGEMENT SERVICES PVT.LTD.		PROJECT: Himachal Pradesh State Roads Transformation Project (HPSRTP)		DESIGNED: MADHUK DRAWN: DANIEL CHECKED: CS/AH APPROVED: PRADEEP KAPLA		TITLE : TYPICAL DETAILS OF SINGLE W-BEAM CRASH BARRIER	
														DRAWING NO : HP/MAN-KAL/MISC-004B	
														ROAD NAME : Package-VI: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 11+000 To Km 27+854	
[REVISION TABLE]										SCALE: NOT TO SCALE				SHEET 02 OF 02	



TYPICAL PLAN OF BUS BAY



MDR-26-PK -VI-Bus/Rain Shelters					
Sl.No	Ex. Chainage	Design Chainage	Side	Condition	Remarks
1	13/170	12+710	RHS	New	New Proposal
2	16/810	16+270	RHS	New	New Proposal
3	18/360	17+820	LHS	New	New Proposal
4	19/280	18+730	LHS	New	New Proposal
5	23/035	22+460	LHS	New	New Proposal
6	23/940	23+360	RHS	New	New Proposal
7	24/690	24+110	LHS	New	New Proposal
8	27/410	26+815	LHS	New	New Proposal
9	28/385	27+785	RHS	Fair	New Proposal



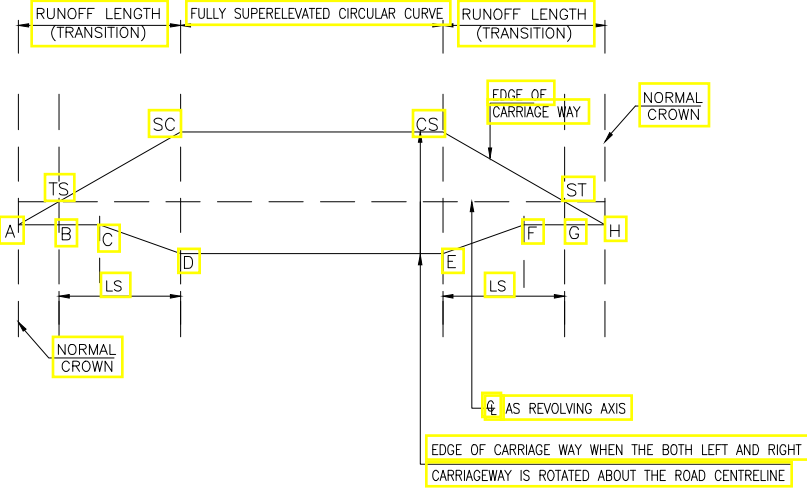
SECTION THROUGH ROAD AT AB

- NOTES:
1. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE SPECIFIED.
 2. FOR OTHER DETAILS PLEASE REFER IRC –SP-48 – 1998
 3. ADEQUATE FACILITIES FOR EFFICIENT DRAINAGE OF THE BUS STOP AREA INCLUDING LAY-BYES SHOULD BE ENSURED.
 4. PAVEMENT MARKINGS SHOULD BE PROVIDED AS INDICATED ON THE DRAWING.THE WORD BUS SHOULD BE WRITTEN ON THE PAVEMENT AT THE ENTRY TO THE BUS WAY FOR DETAILED GUIDANCE SEE IRC:35.
 5. IN THE BUS STOP AREA THE SHOULDER ON BUS STOP SIDE SHOULD BE RAISED TO FROM FOOTPATHS AS MARKED ON THE DRAWING.THE JUNCTION BETWEEN SHOULDER AND FOOTPATH SHOULD BE SUITABLY TRANSITIONED BY A RAMP.
 6. AREA FOR BUS SHELTER = 347.50 SQM.
 7. BUS BAY LOCATIONS SHOWN ARE INDICATIVE, ACTUAL LOCATION SHALL BE FINALIZED BY THE CONTRACTOR IN CONSULTATION WITH CSC/HPRIDC AS PER SITE CONDITION.
 8. PROTECTION WORKS (BREAST WALL/RETAINING WALL/TOE WALL) TO THE BUS SHELTER SHALL BE FINALIZE CONSULTATION WITH CSC/HPRIDC DURING CONSTRUCTION.
 9. FOR THE DETAILS OF BREAST WALL REFER THE DRAWING NO:HP/MAN-KAL/MISC-017.
 10. FOR THE DETAILS OF RETAINING WALL REFER THE DRAWING NO:HP/MAN-KAL/MISC-023.

TENDER PURPOSE ONLY

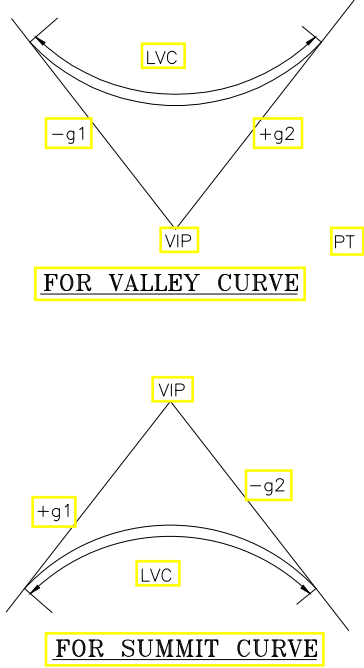
							<div>CLIENT:</div> <div><div>HIMACHAL PRADESH ROAD AND OTHER INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.</div></div>	<div>CONSULTANT:</div> <div><div>SATRA SERVICES AND SOLUTIONS PVT LTD. #1-8-359 to 363, 4th Floor, Centre Point Building, SP Road, Begumpet, Secunderabad, Telangana – 500003, India. Tel: +91 40 2784 0040, Fax: +91 40 2784 0050, E-mail: info@satragroup.in, Web: www.satragroup.in</div></div>	<div>PROJECT:</div> <div>Himachal Pradesh State Roads Transformation Project (HPSRTP)</div>	<div>SCALE:</div> <div>NOT TO SCALE</div>	DESIGNED	MADHUBABU	TITLE : TYPICAL LAYOUT FOR PICKUP BUSBAY ON HILL ROADS		
DRAWN	DANIEL														
CHECKED	CHANDRA/ASHIK	DRAWING NO : HP/MAN-KAL/MISC-005													
APPROVED	PRADEEP KAPLA														
ROAD NAME : Package-VI: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 11+000 To Km 27+854			SHEET 01 OF 01												
REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED									

DETAILS OF SUPERELEVATION



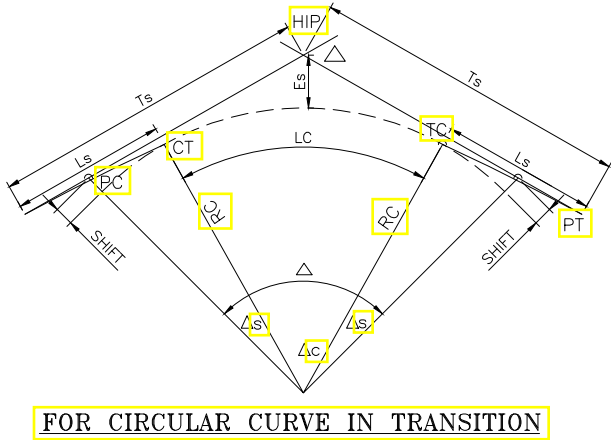
FOR CURVILINEAR SECTION WITH TRANSITION CURVE

DETAILS OF VERTICAL CURVE

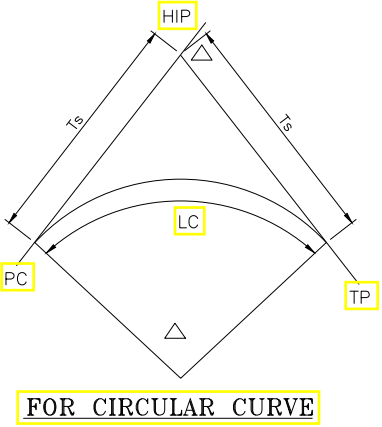


FOR SUMMIT CURVE

DETAILS OF HORIZONTAL CURVE



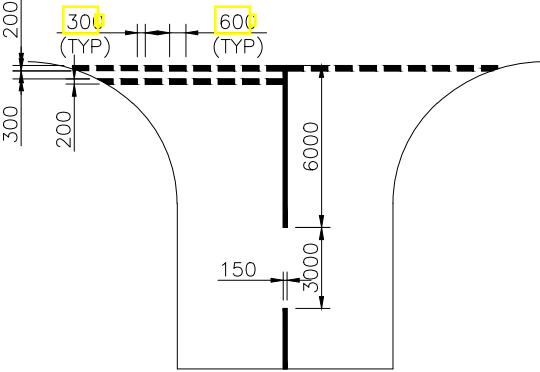
FOR CIRCULAR CURVE IN TRANSITION



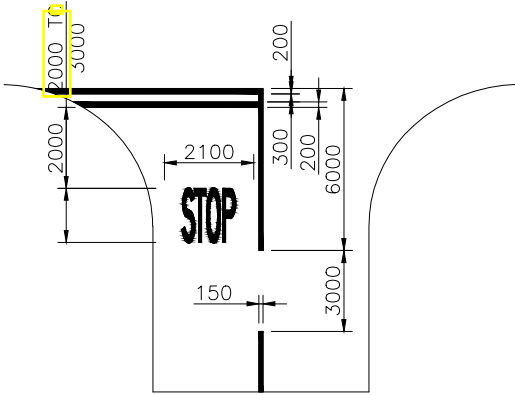
FOR CIRCULAR CURVE

LEGEND:

- (TS) TANGENT TO SPIRAL
- (SC) SPIRAL TO CURVE
- (CS) CURVE TO SPIRAL
- (ST) SPIRAL TO TANGENT
- (PC) POINT OF CURVATURE
- (PT) POINT OF TANGENT
- (Ls) LENGTH OF TRANSITION
- (Ts) TANGENT DISTANCE
- (Δs) DEVIATION ANGLE OF TRANSITION CURVE
- (Δc) DEVIATION ANGLE OF CIRCULAR CURVE
- (LVC) LENGTH OF VERTICAL CURVE
- (g1) VERTICAL GRADIENT
- (HIP) HORIZONTAL INTERSECTION POINT
- (L) RUNOFF LENGTH
- (Δ) TOTAL DEVIATION ANGLE
- (LC) LENGTH OF HORIZONTAL CURVE
- (Es) APEX DISTANCE




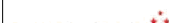
GIVEWAY LINES

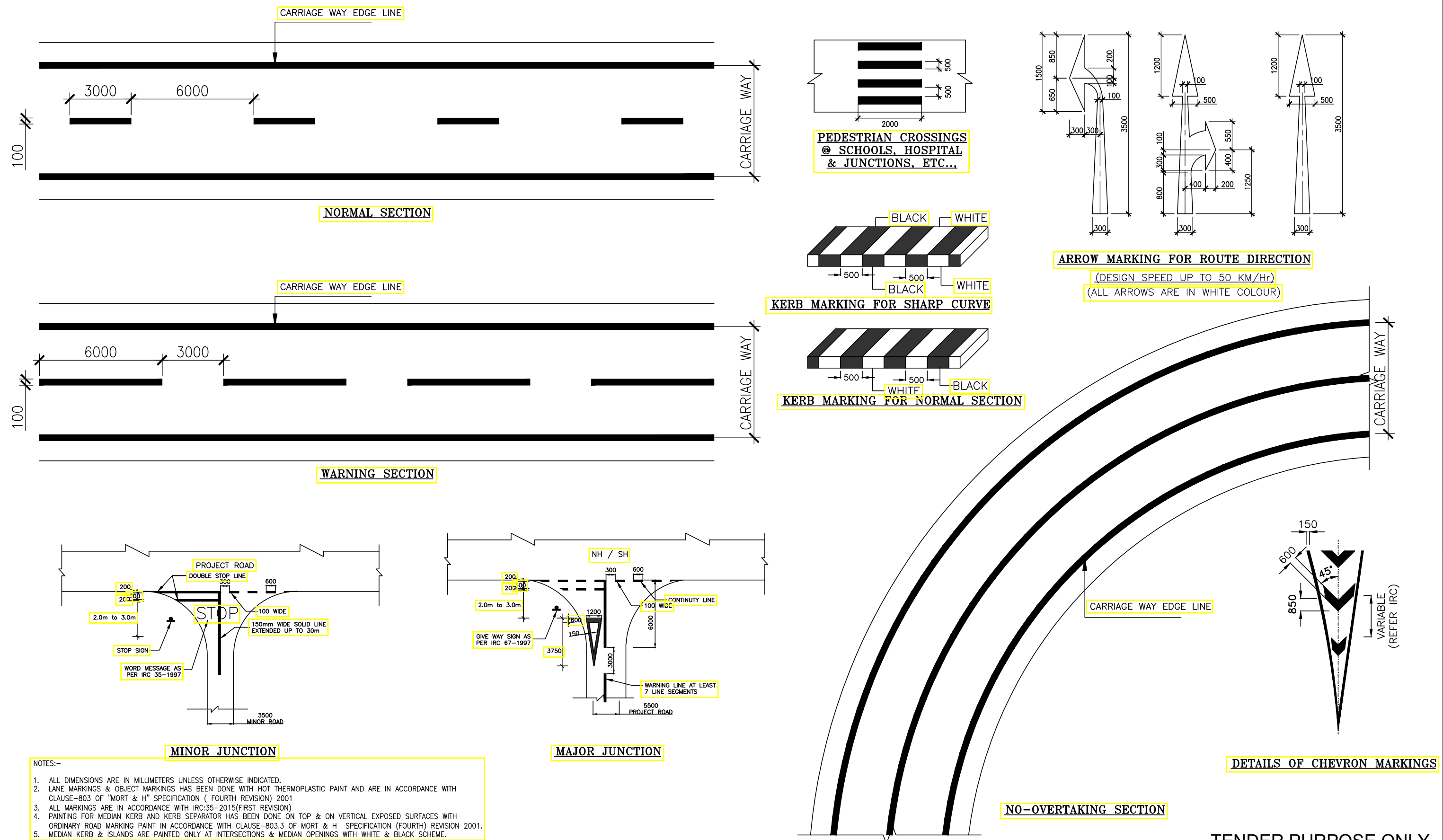




STOP LINES

NOTES:-
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE INDICATED.
2. LANE MARKINGS & OBJECT MARKINGS HAS BEEN DONE WITH HOT THERMOPLASTIC PAINT AND IT IS IN ACCORDANCE WITH CLAUSE-803 OF "MORT&H" SPECIFICATION, REVISION III 1995.
3. ALL MARKINGS ARE IN ACCORDANCE WITH IRC:35-2015(FIRST REVISION).

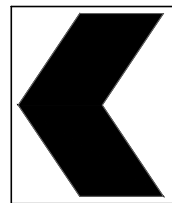
TENDER PURPOSE ONLY

							CLIENT:		CONSULTANT:		PROJECT:		DESIGNED: MADHUBABU		TITLE : TYPICAL DETAILS OF HORIZONTAL, VERTICAL CURVE & SUPER ELEVATION			
							 HIMACHAL PRADESH ROAD AND OTHER INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.		 SATRA SERVICES AND SOLUTIONS PVT LTD. #1-8-359 to 363, 4th Floor, Centre Point Building, SP Road, Begumpet, Secunderabad, Telangana – 500003, India Tel: +91 40 2784 0040, Fax: +91 40 2784 0050, E-mail: info@satragroup.in, Web: www.satragroup.in		Himachal Pradesh State Roads Transformation Project (HPSRTP)		DRAWN: DANIEL		DRAWING NO : HP/MAN-KAL/MISC-006			
													CHECKED: CHANDRA/ASHIK					
																	APPROVED: PRADEEP KAPLA	
									SCALE:		NOT TO SCALE				SHEET 01 OF 01			
REV: DATE: DESCRIPTION: DESIGNED: DRAWN: CHECKED: APPROVED:																		



								<div>CLIENT:</div> <div><div>HIMACHAL PRADESH ROAD AND OTHER INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.</div></div>		<div>CONSULTANT:</div> <div><div>SATRA SERVICES AND SOLUTIONS PVT LTD. #1-8-359 to 363, 4th Floor, Centre Point Building, SP Road, Begumpet, Secunderabad, Telangana – 500003, India Tel: +91 40 2784 0040, Fax: +91 40 2784 0050, E-mail: info@satragroup.in, Web: www.satragroup.in</div></div>		<div>PROJECT:</div> <div>Himachal Pradesh State Roads Transformation Project (HPSRTP)</div>		<div>DESIGNED</div> <div>MADHUBABU</div>		<div>TITLE : TYPICAL DETAILS OF ROAD MARKINGS IN RURAL & URBAN SECTION</div> <div>DRAWING NO : HP/MAN-KAL/MISC-007</div> <div>ROAD NAME : Package-VI: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 11+000 To Km 27+854</div> <div>SHEET 01 OF 01</div>			
								<div>DRAWN</div> <div>DANIEL</div>		<div>CHECKED</div> <div>CHANDRA/ASHIK</div>									
												<div>APPROVED</div> <div>PRADEEP KAPLA</div>							
<div>REV</div>		<div>DATE</div>		<div>DESCRIPTION</div>		<div>DESIGNED</div>		<div>DRAWN</div>		<div>CHECKED</div>		<div>APPROVED</div>							

INFORMATORY / GUIDE SIGNS



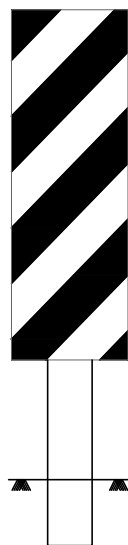
SINGLE CHEVRON (Normal)
Fig.15.72



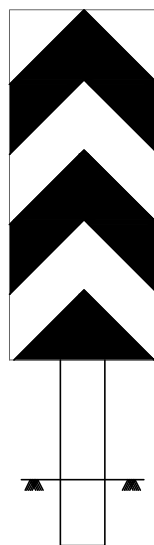
TRIPLE CHEVRON
Fig.15.75



OBJECT HAZARD (Left)
Fig.15.76



OBJECT HAZARD (Right)
Fig.15.77

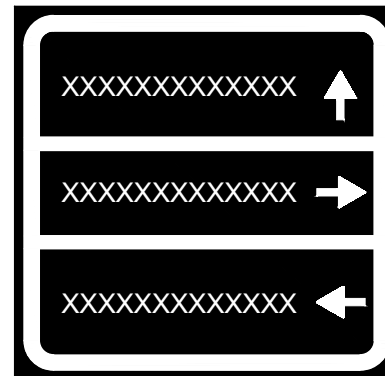


TWO WAY HAZARD MARKER
Fig.15.78

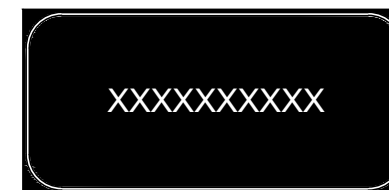
NOTE :

- 1) FOR ROAD SIGNS, SIZES AND DIMENSIONS OF LETTERING REFER IRC 67-2012 "CODE OF PRACTICE FOR ROAD SIGNS"
- 2) MATERIALS, BORDER, SITING AND COLOR FOR ROAD SIGNS SHALL BE AS PER IRC :67-2012.
- 3) CONCESSIONAIRE SHALL PREPARE SHOP DRAWING SHOWING ALL SAFETY FEATURES AND GET APPROVED BY KRFB / ENGINEER INCHARGE BEFORE EXECUTION.
- 4) SIGNS AND ROAD MARKINGS SHOWN ARE ONLY INDICATIVE AND CONCESSIONAIRE SHALL PREPARE SHOP DRAWINGS AS PER ACTUAL SITE CONDITIONS.

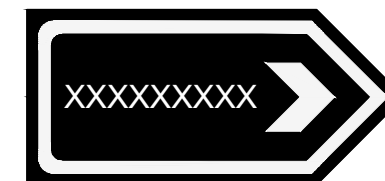
DIRECTION AND PLACE IDENTIFICATION SIGNS



ADVANCE DIRECTION / DESTINATION SIGN
Fig.16.01



PLACE IDENTIFICATION SIGN
Fig.16.06

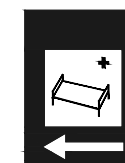


DIRECTION SIGN
Fig.16.04

FACILITY INFORMATORY SIGNS



FILLING STATION
Fig.17.06



HOSPITAL
Fig.17.07



FIRST-AID POST
Fig.17.04



POLICE STATION
Fig.17.13





PARKING THIS SIDE
Fig.18.01



BUS STOP
Fig.17.35

TENDER PURPOSE ONLY

							CLIENT:	CONSULTANT:	PROJECT:	DESIGNED	MADHUBABU	TITLE : ROAD SIGNS (INFORMATORY SIGNS)		
							 HIMACHAL PRADESH ROAD AND OTHER INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.	 SATRA SERVICES AND SOLUTIONS PVT LTD. #1-8-359 to 363, 4th Floor, Centre Point Building, SP Road, Begumpet, Secunderabad, Telangana - 500003, India. Tel: +91 40 2784 0040; Fax: +91 40 2784 0050, E-mail: info@satragroup.in, Web: www.satragroup.in	Himachal Pradesh State Roads Transformation Project (HPSRTP)	DRAWN	DANIEL	DRAWING NO : HP/MAN-KAL/MISC-008		
										CHECKED	CHANDRA/ASHIK	ROAD NAME : Package-VI: Upgradation of Mandi - Rewalsar - Kalkhar Road		SHEET 01 OF 01
										APPROVED	PRADEEP KAPLA	in Mandi District From Km 11+000 To Km 27+854		
										SCALE:	NOT TO SCALE			
REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED								

MANDATORY / REGULATORY SIGNS



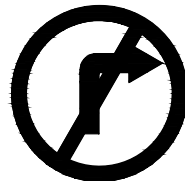
STOP SIGNS
Fig.14.01



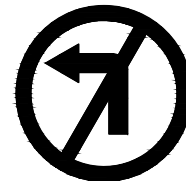
GIVE WAY SIGN
Fig.14.02



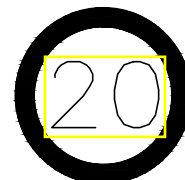
OVER TAKING PROHIBITED
Fig.14.23



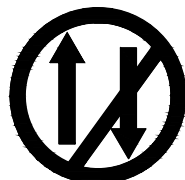
RIGHT TURN PROHIBITED
Fig.14.22



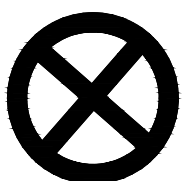
LEFT TURN PROHIBITED
Fig.14.21



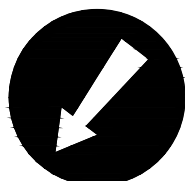
SPEED LIMIT
Fig.14.37



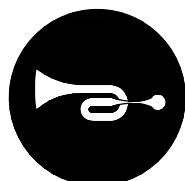
ONE WAY
Fig.14.20



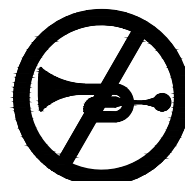
NO PARKING AND
NO STOPPING
Fig.14.28



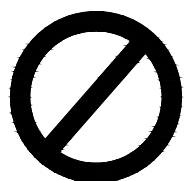
COMPULSORY KEEP LEFT
Fig.14.48



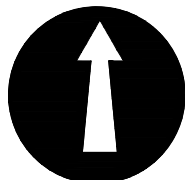
COMPULSORY
SOUND HORN KEEP
Fig.14.57



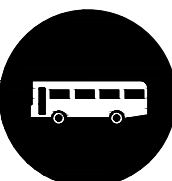
HORN PROHIBITED
Fig.14.18



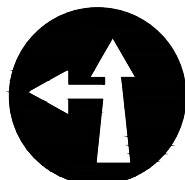
NO PARKING
Fig.14.27



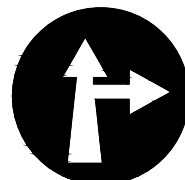
COMPULSORY AHEAD
Fig.14.41



BUS BAY
Fig.17.36





COMPULSORY AHEAD
OR LEFT TURN
Fig.14.43




COMPULSORY AHEAD
OR RIGHT TURN
Fig.14.42


TENDER PURPOSE ONLY

							<div>CLIENT:</div> <div></div> <div>HIMACHAL PRADESH ROAD AND OTHER INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.</div>	<div>CONSULTANT:</div> <div></div> <div>SATRA SERVICES AND SOLUTIONS PVT LTD.</div> <div>#1-8-359 to 363, 4th Floor, Centre Point Building, SP Road, Begumpet, Secunderabad, Telangana – 500003, India. Tel: +91 40 2784 0040, Fax: +91 40 2784 0050, E-mail: info@satragroup.in, Web: www.satragroup.in</div>	<div>PROJECT:</div> <div>Himachal Pradesh State Roads Transformation Project (HPSRTP)</div>		DESIGNED	MADHUBABU	TITLE : ROAD SIGNS (MANDATORY SIGNS)		
DRAWN	DANIEL	DRAWING NO : HP/MAN-KAL/MISC-009													
CHECKED	CHANDRA/ASHIK				ROAD NAME : Package-VI: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 11+000 To Km 27+854										
APPROVED	PRADEEP KAPLA										SCALE:	NOT TO SCALE	SHEET 01 OF 01		
REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED									


CAUTIONARY / WARNING SIGNS




LEFT HAND CURVE
Fig.15.01




RIGHT HAND CURVE
Fig.15.02




RIGHT REVERSE BEND
Fig.15.05




LEFT REVERSE BEND
Fig.15.06




SERIES OF BEND
Fig.15.07




SIDE ROAD RIGHT
Fig.15.09




SIDE ROAD LEFT
Fig.15.10




'Y' INTER-SECTION
Fig.15.11




'Y' INTER-SECTION
Fig.15.12




'Y' INTER-SECTION
Fig.15.13



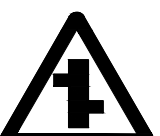
CROSS ROAD SIGNS
Fig.15.14




T-INTERSECTION
MAJOR ROAD AHEAD
Fig.15.16




MAJOR ROAD AHEAD
Fig.15.19




STAGGERED INTERSECTION
Fig.15.20




STAGGERED INTERSECTION
Fig.15.21




T-INTERSECTION
Fig.15.17




NARROW BRIDGE AHEAD
Fig.15.25




PEDESTRIANS CROSSING
Fig.15.33




SCHOOL AHEAD
Fig.15.34




BUILT-UP-AREA
Fig.15.35



RUMBLE STRIP
Fig.15.50




OVERHEAD CKKJLES
Fig.15.57



MEN AT WORK

END



Fig.15.42 + SUPPLIMENTORY PLATE
"END" AT THE LEVELING SIDE OF WORK ZONE



TRAFFIC SIGNALS
Fig.15.18

NOTE :
1) FOR ROAD SIGNS, SIZES AND DIMENSIONS OF LETTERING REFER IRC 67-2012 "CODE OF PRACTICE FOR ROAD SIGNS"
2) MATERIALS, BORDER, SITING AND COLOR FOR ROAD SIGNS SHALL BE AS PER IRC :67-2012.
3) CONCESSIONAIRE SHALL PREPARE STRIP PLAN SHOWING ALL SAFETY FEATURES AND GET APPROVED BY KRFB / ENGINEER INCHARGE BEFORE EXECUTION.
4) SIGNS AND ROAD MARKINGS SHOWN ARE ONLY INDICATIVE AND CONCESSIONAIRE SHALL PREPARE SHOP DRAWINGS AS PER ACTUAL SITE CONDITIONS.

TENDER PURPOSE ONLY

								<div>CLIENT:</div> <div><div>HIMACHAL PRADESH ROAD AND OTHER INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.</div></div>		<div>CONSULTANT:</div> <div><div>SATRA SERVICES AND SOLUTIONS PVT LTD. #1-8-359 to 363, 4th Floor, Centre Point Building, SP Road, Begumpet, Secunderabad, Telangana – 500003, India Tel: +91 40 2784 0040, Fax: +91 40 2784 0050, E-mail: info@satragroup.in, Web: www.satragroup.in</div></div>		<div>PROJECT:</div> <div>Himachal Pradesh State Roads Transformation Project (HPSRTP)</div>		<div>DESIGNED</div> <div>MADHUBABU</div>	<div>TITLE :</div> <div>ROAD SIGNS (WARNING SIGNS)</div>		
										<div>DRAWN</div> <div>DANIEL</div>		<div>DRAWING NO :</div> <div>HP/MAN-KAL/MISC-010</div>					
										<div>CHECKED</div> <div>CHANDRA/ASHIK</div>		<div>ROAD NAME :</div> <div>Package-VI:</div>					
												<div>Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 11+000 To Km 27+854</div>		<div>SHEET 01 OF 01</div>			
<div>REV</div> <div>DATE</div> <div>DESCRIPTION</div> <div>DESIGNED</div> <div>DRAWN</div> <div>CHECKED</div> <div>APPROVED</div>										<div>SCALE:</div> <div>NOT TO SCALE</div>		<div>APPROVED</div> <div>PRADEEP KAPLA</div>					