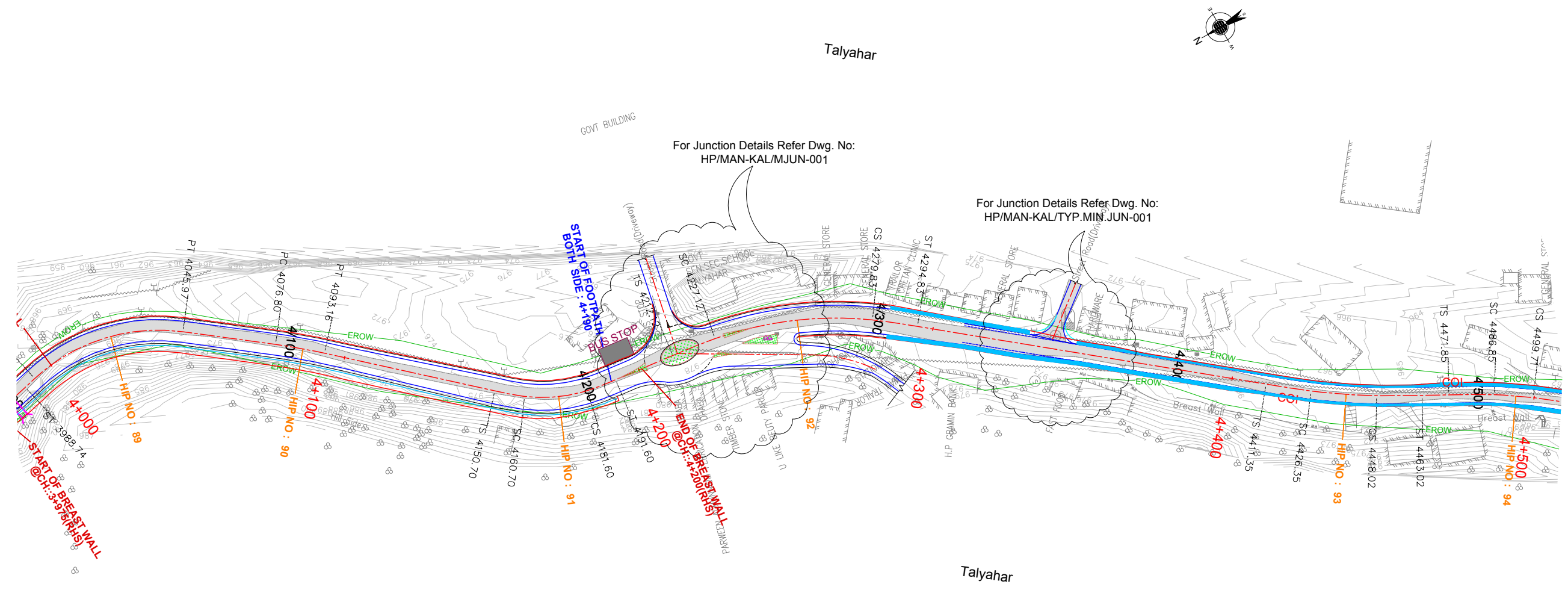


← MANDI

KALKHAR →




For Junction Details Refer Dwg. No: HP/MAN-KAL/MJUN-001

For Junction Details Refer Dwg. No: HP/MAN-KAL/TYP.MIN.JUN-001

TENDER PURPOSE ONLY

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED

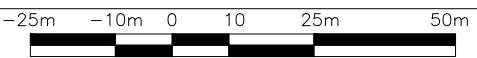
CLIENT:

 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 1:1500
 VER 1:200



DESIGNED: MADHUBABU
 DRAWN: DANIEL
 CHECKED: CHANDRA/ASHIK
 APPROVED: PRADEEP KAPLA

TITLE : PLAN & PROFILE FROM CH: 4+000 TO CH: 4+500

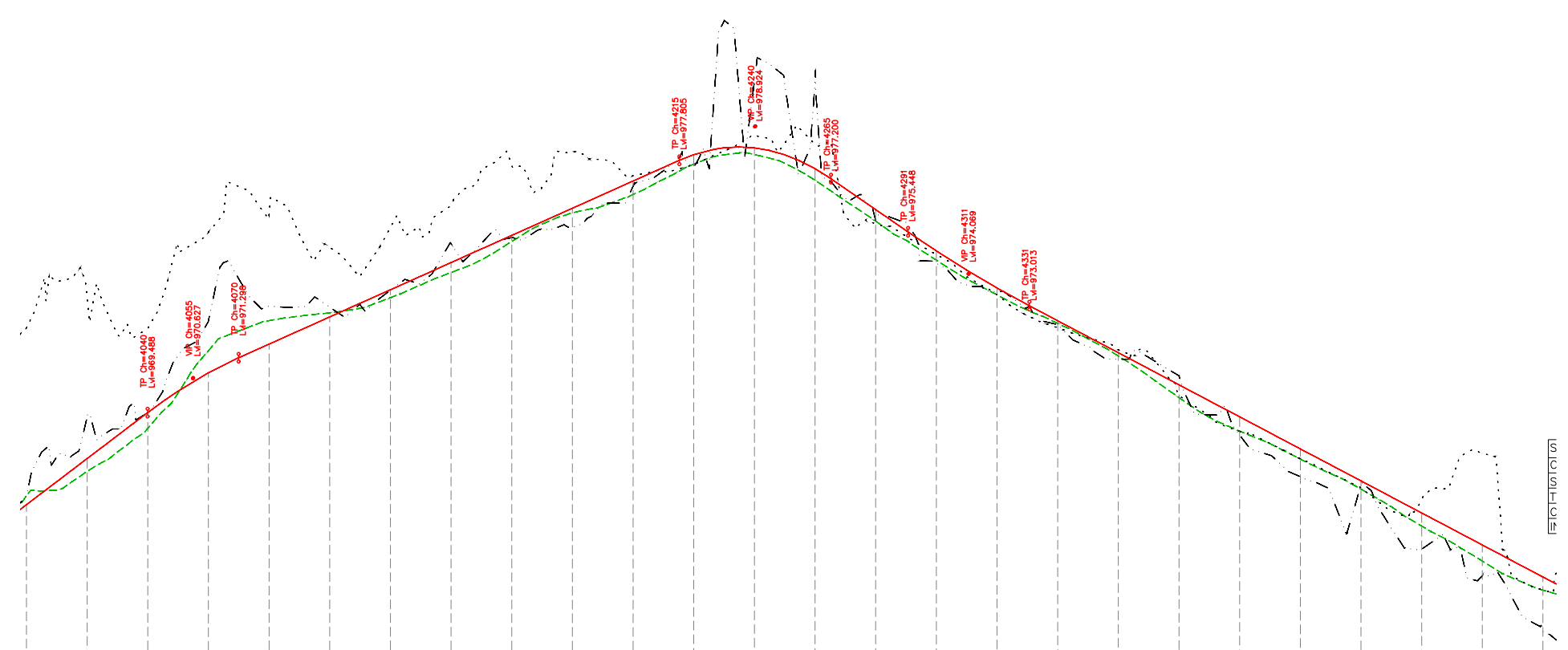
DRAWING NO : HP/MAN-KAL/P&P-09A

ROAD NAME : Package-V: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000

SHEET 09A OF 22

← MANDI

KALKHAR →



DATUM = +956.000m	
PROPOSED ROAD LEVELS(m)	966.456, 967.975, 968.483, 970.803, 971.749, 972.645, 973.540, 974.436, 975.331, 976.227, 977.122, 977.992, 978.826, 979.530, 979.820, 979.597, 979.287, 978.881, 978.351, 977.696, 976.961, 968.296, 967.240, 966.184, 965.128, 964.072
EXISTING ROAD LEVELS(m)	966.748, 967.558, 968.971, 971.532, 972.522, 972.776, 973.279, 974.108, 975.133, 976.074, 976.679, 977.616, 977.997, 978.216, 978.331, 978.370, 978.514, 978.820, 979.370, 979.482, 979.884, 979.984, 980.881, 967.378, 967.961, 966.970, 965.755, 964.600, 963.639
GL AT 5m LHS (m)	972.285, 969.418, 969.486, 972.520, 972.994, 972.968, 973.524, 975.056, 975.254, 976.591, 976.947, 977.639, 980.394, 980.724, 975.720, 974.698, 973.379, 972.287, 971.558, 970.048, 968.874, 967.969, 967.009, 966.622, 964.115, 963.643
GL AT 8m RHS (m)	972.285, 969.418, 969.486, 972.520, 972.994, 972.968, 973.524, 975.056, 975.254, 976.591, 976.947, 977.639, 980.394, 980.724, 975.720, 974.698, 973.379, 972.287, 971.558, 970.048, 968.874, 967.969, 967.009, 966.622, 964.115, 963.643
VERTICAL SCHEMATIC	G=7.592%, L=54.713, G=4.477%, L=145.316, G=-6.897%, L=40.000, G=-5.279%, L=216.638
HORIZONTAL SCHEMATIC	R=60.000, L=52.962, D=30.832, R=200.000, L=16.355, D=57.548, R=50.000, L=20.900, D=20.511, R=120.000, L=52.713, D=116.516, R=200.000, L=21.672
SUPERELEVATION	e=2.50%, e=2.50%, e=5.00%, e=5.00%, e=2.50%, e=2.50%, e=5.00%, e=5.00%
CROSS SECTION DETAILS	TCS-8, TCS-7, TCS-2
PROPOSED CHAINAGE	4+000, 4+020, 4+040, 4+060, 4+080, 4+100, 4+120, 4+140, 4+160, 4+180, 4+200, 4+220, 4+240, 4+260, 4+280, 4+300, 4+320, 4+340, 4+360, 4+380, 4+400, 4+420, 4+440, 4+460, 4+480, 4+500

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 1:1500
 VER 1:200

DESIGNED	MADHUBABU
DRAWN	DANIEL
CHECKED	CHANDRA/ASHIK
APPROVED	PRADEEP KAPLA

TITLE :
 PLAN & PROFILE
 FROM CH: 4+000 TO CH: 4+500

DRAWING NO : HP/MAN-KAL/P&P-09B

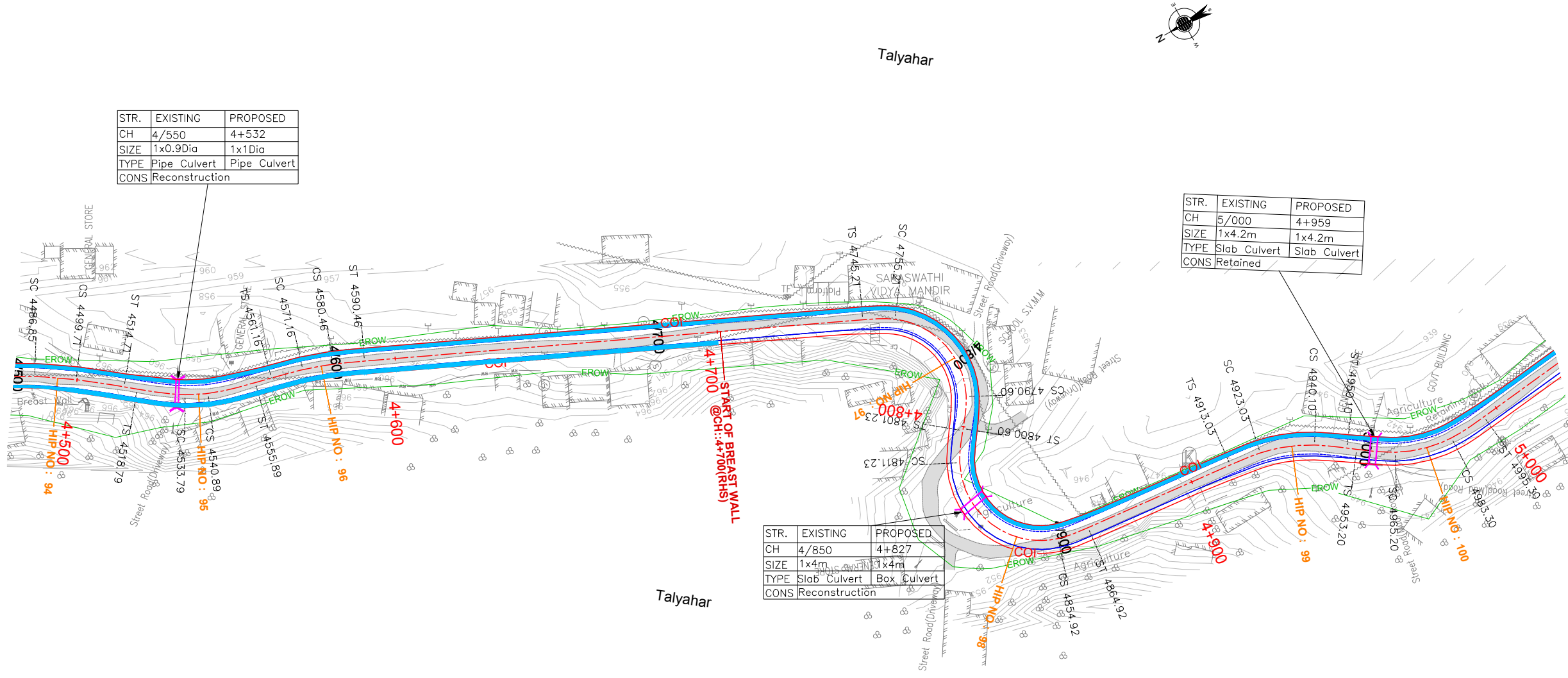
ROAD NAME : Package-V:
 Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000

SHEET 09B OF 22

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← MANDI

KALKHAR →




STR.	EXISTING	PROPOSED
CH	4/550	4+532
SIZE	1x0.9Dia	1x1Dia
TYPE	Pipe Culvert	Pipe Culvert
CONS	Reconstruction	

STR.	EXISTING	PROPOSED
CH	5/000	4+959
SIZE	1x4.2m	1x4.2m
TYPE	Slab Culvert	Slab Culvert
CONS	Retained	

STR.	EXISTING	PROPOSED
CH	4/850	4+827
SIZE	1x4m	1x4m
TYPE	Slab Culvert	Box Culvert
CONS	Reconstruction	

TENDER PURPOSE ONLY

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED

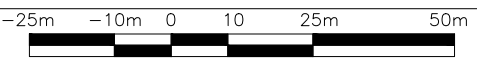
CLIENT:

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PROJECT:
 Himachal Pradesh State Roads Transformation Project (HPSRTP)

SCALE:
 HOR 1:1500
 VER 1:200



DESIGNED: MADHUBABU
 DRAWN: DANIEL
 CHECKED: CHANDRA/ASHIK
 APPROVED: PRADEEP KAPLA

TITLE : PLAN & PROFILE
 FROM CH: 4+500 TO CH: 5+000

DRAWING NO : HP/MAN-KAL/P&P-10A

ROAD NAME : Package-V:
 Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000

SHEET 10A OF 22

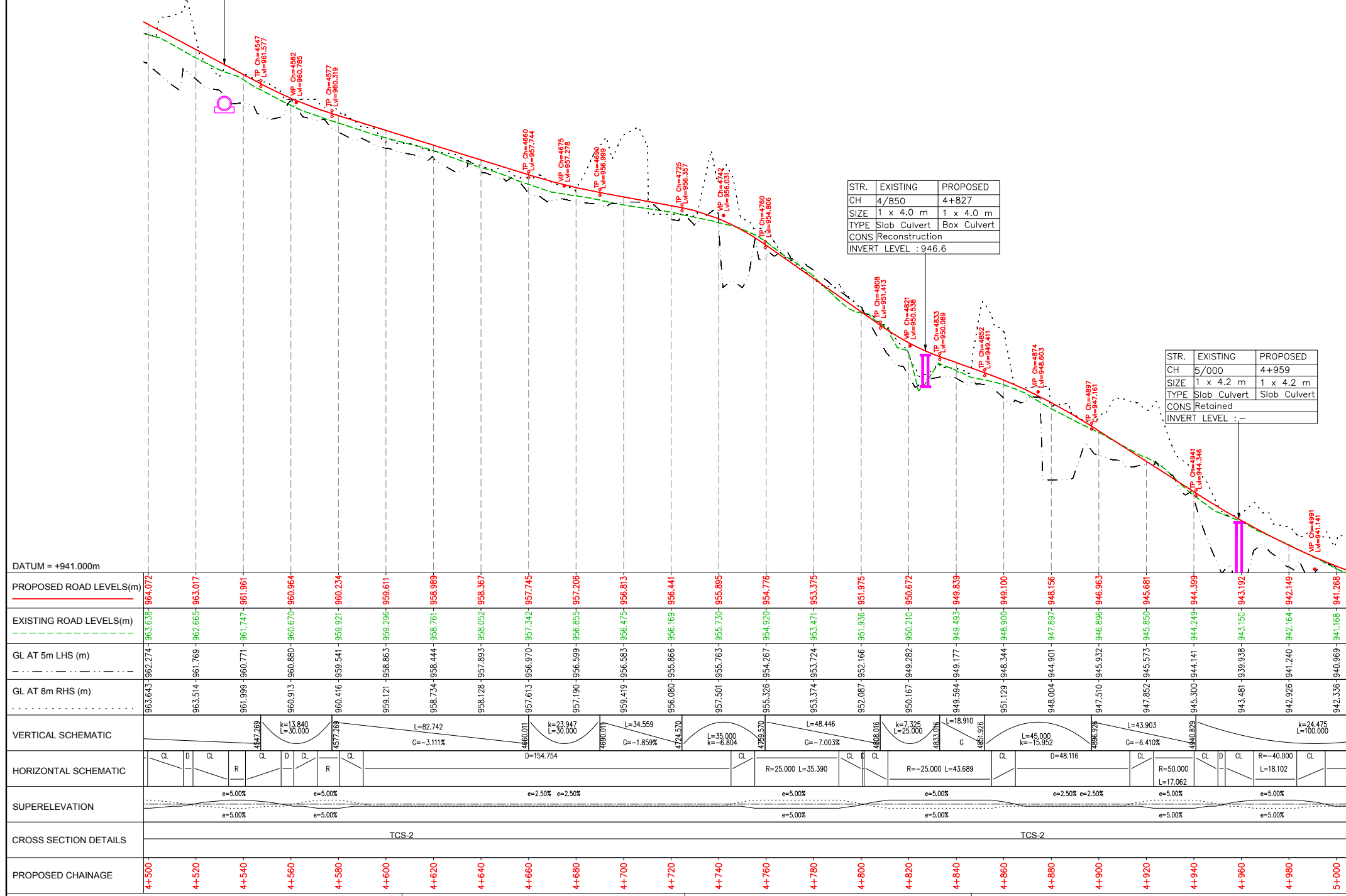
← MANDI

KALKHAR →

STR.	EXISTING	PROPOSED
CH	4/550	4+532
SIZE	1 x 0.9 Dia	1 x 1.0 Dia
TYPE	Pipe Culvert	Pipe Culvert
CONS	Reconstruction	
INVERT LEVEL	: 959.6	

STR.	EXISTING	PROPOSED
CH	4/850	4+827
SIZE	1 x 4.0 m	1 x 4.0 m
TYPE	Slab Culvert	Box Culvert
CONS	Reconstruction	
INVERT LEVEL	: 946.6	

STR.	EXISTING	PROPOSED
CH	5/000	4+959
SIZE	1 x 4.2 m	1 x 4.2 m
TYPE	Slab Culvert	Slab Culvert
CONS	Retained	
INVERT LEVEL	: -	



TENDER PURPOSE ONLY

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED

CLIENT:

 HIMACHAL PRADESH ROAD AND OTHER INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.

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PROJECT:
 Himachal Pradesh State Roads Transformation Project (HPSRTP)

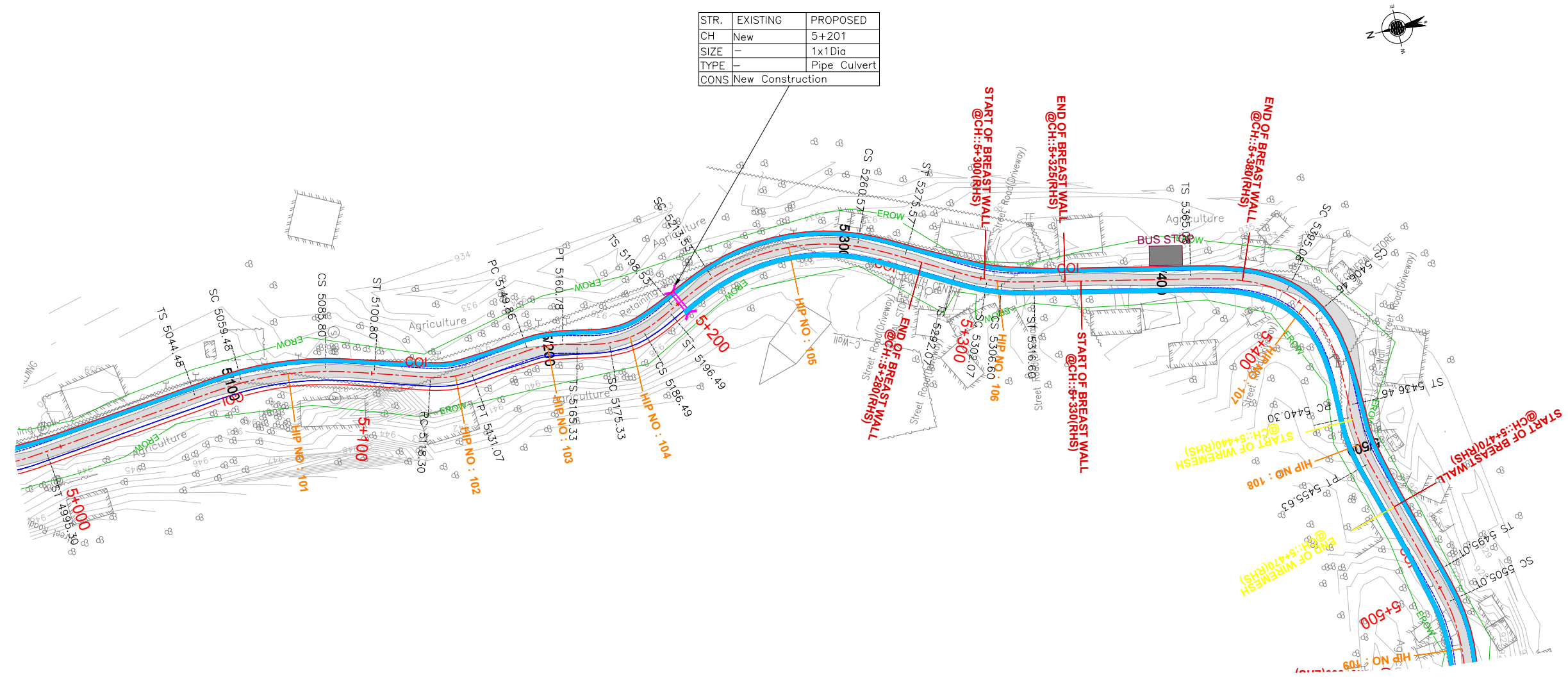
SCALE:
 HOR 1:1500
 VER 1:200

DESIGNED	MADHUBABU
DRAWN	DANIEL
CHECKED	CHANDRA/ASHIK
APPROVED	PRADEEP KAPLA

TITLE : PLAN & PROFILE	
FROM CH: 4+500 TO CH: 5+000	
DRAWING NO : HP/MAN-KAL/P&P-10B	
ROAD NAME : Package-V: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000	
SHEET 10B OF 22	


← MANDI

KALKHAR →



TENDER PURPOSE ONLY

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED

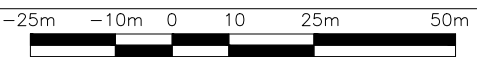
CLIENT:

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CONSULTANT:

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PROJECT:
 Himachal Pradesh State Roads Transformation Project (HPSRTP)

SCALE:
 HOR 1:1500
 VER 1:200



DESIGNED: MADHUBABU
 DRAWN: DANIEL
 CHECKED: CHANDRA/ASHIK
 APPROVED: PRADEEP KAPLA

TITLE : PLAN & PROFILE
 FROM CH: 5+000 TO CH: 5+500

DRAWING NO : HP/MAN-KAL/P&P-11A

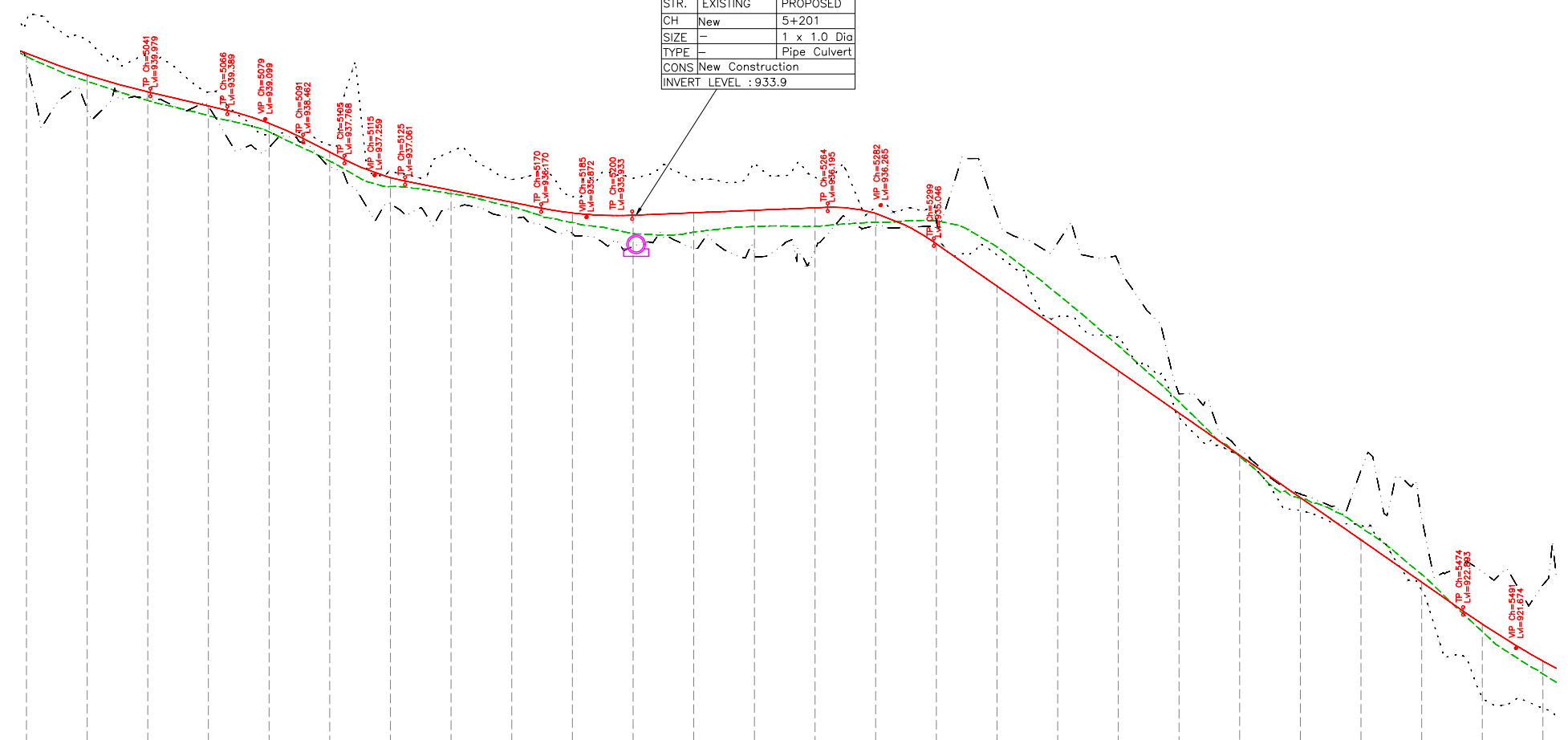
ROAD NAME : Package-V:
 Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000

SHEET 11A OF 22

← MANDI

KALKHAR →

STR.	EXISTING	PROPOSED
CH	New	5+201
SIZE	-	1 x 1.0 Dia
TYPE	-	Pipe Culvert
CONS	New Construction	
INVERT LEVEL	: 933.9	



DATUM = +918.000m	
PROPOSED ROAD LEVELS(m)	941.268 - 940.552 - 939.998 - 939.533 - 938.963 - 938.013 - 937.174 - 936.362 - 935.008 - 935.935 - 936.016 - 936.097 - 936.178 - 935.994 - 934.988 - 933.594 - 932.201 - 930.808 - 929.415 - 928.022 - 926.628 - 925.235 - 923.842 - 922.460 - 921.242
EXISTING ROAD LEVELS(m)	941.168 - 940.548 - 939.716 - 939.215 - 938.679 - 937.718 - 936.879 - 936.639 - 936.212 - 935.329 - 935.380 - 934.685 - 935.575 - 935.702 - 935.744 - 934.883 - 933.333 - 931.635 - 929.790 - 927.979 - 926.614 - 925.643 - 924.101 - 922.213 - 920.816
GL AT 5m LHS (m)	942.336 - 939.442 - 939.992 - 938.600 - 938.248 - 937.542 - 936.316 - 936.158 - 935.890 - 935.534 - 934.905 - 937.090 - 937.641 - 937.181 - 936.205 - 935.930 - 934.627 - 932.585 - 931.942 - 929.266 - 927.996 - 926.212 - 925.727
GL AT 8m RHS (m)	940.969 - 939.514 - 939.172 - 938.172 - 937.542 - 936.316 - 936.158 - 935.890 - 935.534 - 934.905 - 937.090 - 937.641 - 937.181 - 936.205 - 935.930 - 934.627 - 932.585 - 931.942 - 929.266 - 927.996 - 926.212 - 925.727
VERTICAL SCHEMATIC	5040.829 L=25.360 G=-2.325% 5066.183 L=25.000 k=9.027 5091.183 L=20.000 k=6.433 5124.803 L=44.859 G=-1.985% 5169.662 L=12.552 k=30.000 5199.622 G=0.405% L=64.493 5264.153 L=15.000 k=4.748 5299.153 L=174.476 G=-6.966% 5473.630 L=18.657 k=35.000
HORIZONTAL SCHEMATIC	D=49.179 CL R=100.000 L=26.324 D=18.789 R D=48.479 CL=30.000 R=64.000 L=47.044 D=39.381 CL
SUPERELEVATION	e=2.50% e=2.50% e=5.00% e=5.00% e=2.50% e=2.50% e=5.00% e=5.00% e=5.00% e=5.00% e=2.50% e=2.50% e=5.00% e=5.00% e=2.50% e=2.50%
CROSS SECTION DETAILS	TCS-2 TCS-2
PROPOSED CHAINAGE	5+000 5+020 5+040 5+060 5+080 5+100 5+120 5+140 5+160 5+180 5+200 5+220 5+240 5+260 5+280 5+300 5+320 5+340 5+360 5+380 5+400 5+420 5+440 5+460 5+480 5+500

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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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 1:1500
VER 1:200

DESIGNED	MADHUBABU
DRAWN	DANIEL
CHECKED	CHANDRA/ASHIK
APPROVED	PRADEEP KAPLA

TITLE : PLAN & PROFILE FROM CH: 5+000 TO CH: 5+500

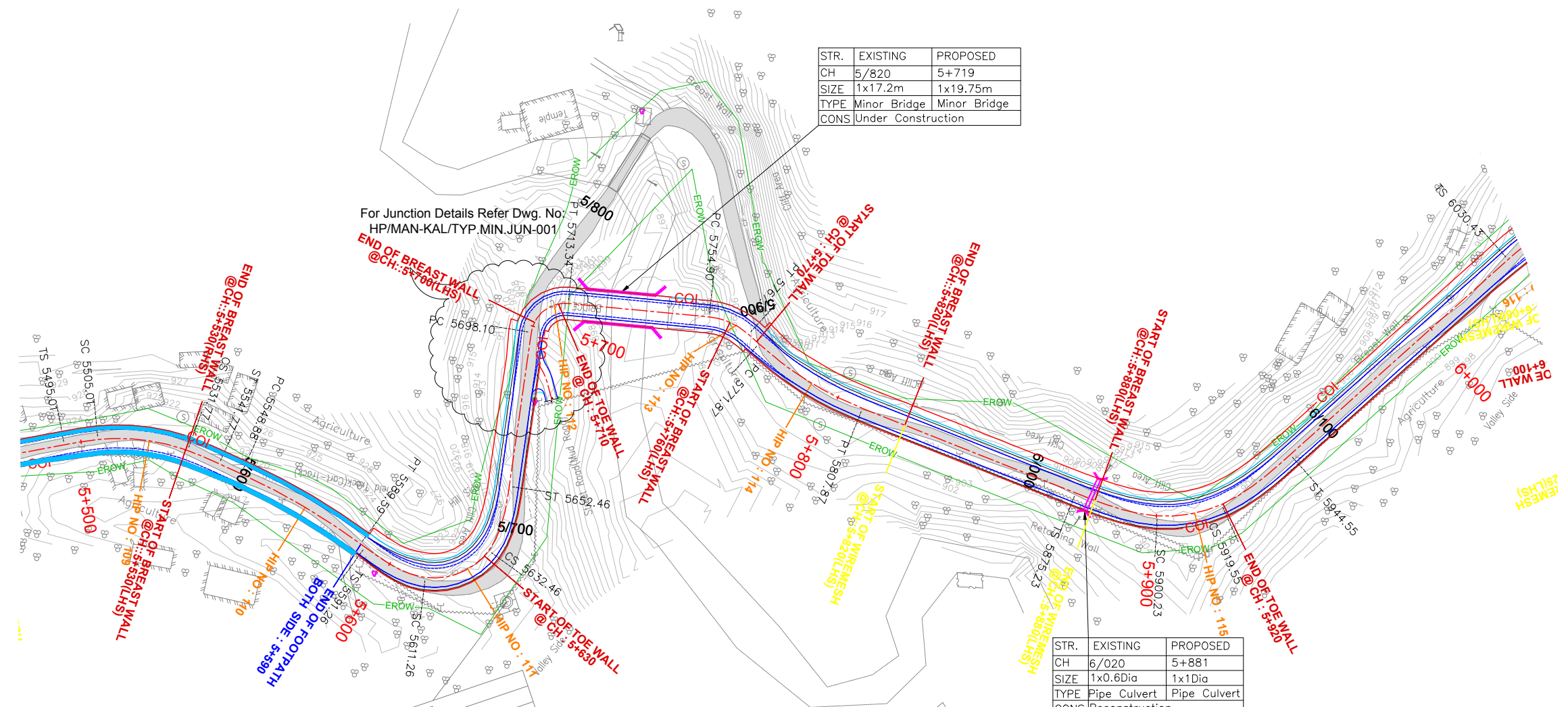
DRAWING NO : HP/MAN-KAL/P&P-11B

ROAD NAME : Package-V: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000

SHEET 11B OF 22



STR.	EXISTING	PROPOSED
CH	5/820	5+719
SIZE	1x17.2m	1x19.75m
TYPE	Minor Bridge	Minor Bridge
CONS		Under Construction



For Junction Details Refer Dwg. No.
HP/MAN-KAL/TYP.MIN.JUN-001


GPSNO	GPS3
EASTING	680345.612
NORTHING	3505918.690
LEVEL	76° 54' 31.669 E
LONGITUDE	31° 40' 27.452 N
LATITUDE	

STR.	EXISTING	PROPOSED
CH	6/020	5+881
SIZE	1x0.6Dia	1x1Dia
TYPE	Pipe Culvert	Pipe Culvert
CONS		Reconstruction

TENDER PURPOSE ONLY

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED

CLIENT:



HIMACHAL PRADESH ROAD AND OTHER INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.

CONSULTANT:

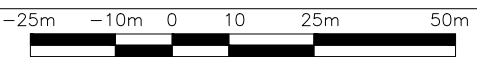


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Tel: +91 40 2784 0040, Fax: +91 40 2784 0050, E-mail: info@satragroup.in, Web: www.satragroup.in

PROJECT:

Himachal Pradesh State Roads Transformation Project (HPSRTP)

SCALE:
HOR 1:1500
VER 1:200



DESIGNED	MADHUBABU
DRAWN	DANIEL
CHECKED	CHANDRA/ASHIK
APPROVED	PRADEEP KAPLA

TITLE : PLAN & PROFILE
FROM CH: 5+500 TO CH: 6+000

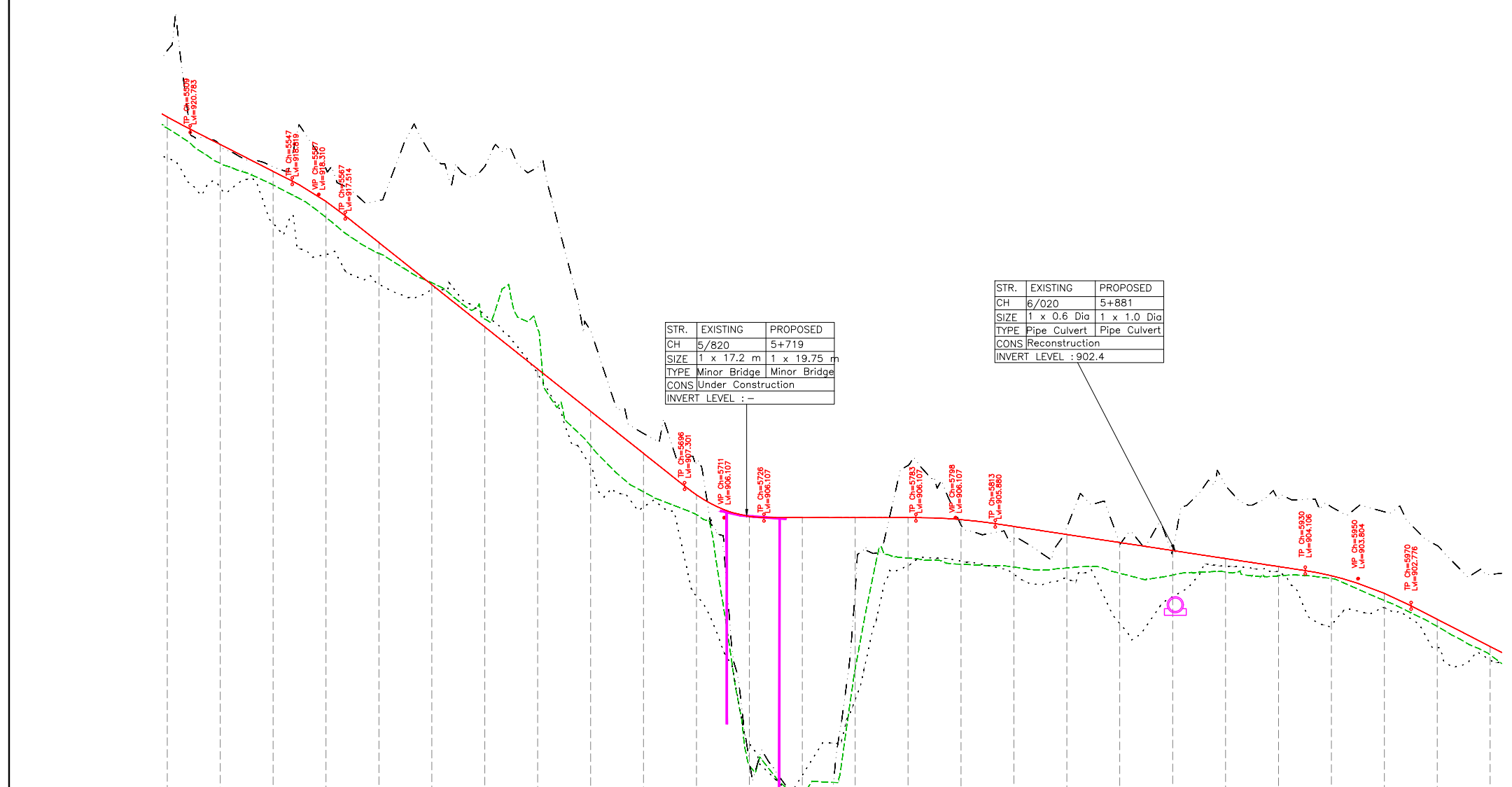
DRAWING NO : HP/MAN-KAL/P&P-12A

ROAD NAME : Package-V:
Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000

SHEET 12A OF 22

MANDI ←

→ KALKHAR



STR.	EXISTING	PROPOSED
CH	5/820	5+719
SIZE	1 x 17.2 m	1 x 19.75 m
TYPE	Minor Bridge	Minor Bridge
CONS	Under Construction	
INVERT LEVEL	:-	

STR.	EXISTING	PROPOSED
CH	6/020	5+881
SIZE	1 x 0.6 Dia	1 x 1.0 Dia
TYPE	Pipe Culvert	Pipe Culvert
CONS	Reconstruction	
INVERT LEVEL	: 902.4	

PROPOSED ROAD LEVELS(m)	EXISTING ROAD LEVELS(m)	GL AT 5m LHS (m)	GL AT 8m RHS (m)
921.242	920.816	919.696	919.696
920.204	919.494	918.579	918.579
919.186	918.673	917.229	917.229
918.051	917.448	916.051	916.051
916.496	916.086	914.929	914.929
914.904	914.981	914.724	914.724
913.312	913.612	913.770	913.770
911.720	913.224	911.535	911.535
910.127	908.622	908.083	908.083
908.535	907.083	906.508	906.508
906.970	906.221	903.172	903.172
906.147	896.733	897.573	897.573
906.107	895.569	896.377	896.377
906.107	900.395	899.221	899.221
906.107	904.582	904.289	904.289
906.033	904.548	904.462	904.462
905.773	904.241	903.969	903.969
905.470	904.205	903.835	903.835
905.167	904.006	902.112	902.112
904.864	903.939	903.128	903.128
904.562	904.054	904.269	904.269
904.259	903.910	904.063	904.063
903.912	903.807	902.052	902.052
903.248	902.978	902.700	902.700
902.266	902.000	901.194	901.194
901.239	900.923	900.729	900.729

VERTICAL SCHEMATIC	HORIZONTAL SCHEMATIC	SUPERELEVATION	CROSS SECTION DETAILS																							
PROPOSED CHAINAGE	5+500	5+520	5+540	5+560	5+580	5+600	5+620	5+640	5+660	5+680	5+700	5+720	5+740	5+760	5+780	5+800	5+820	5+840	5+860	5+880	5+900	5+920	5+940	5+960	5+980	6+000

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 1:1500
 VER 1:200

DESIGNED: MADHUBABU
 DRAWN: DANIEL
 CHECKED: CHANDRA/ASHIK
 APPROVED: PRADEEP KAPLA

TITLE : PLAN & PROFILE
 FROM CH: 5+500 TO CH: 6+000

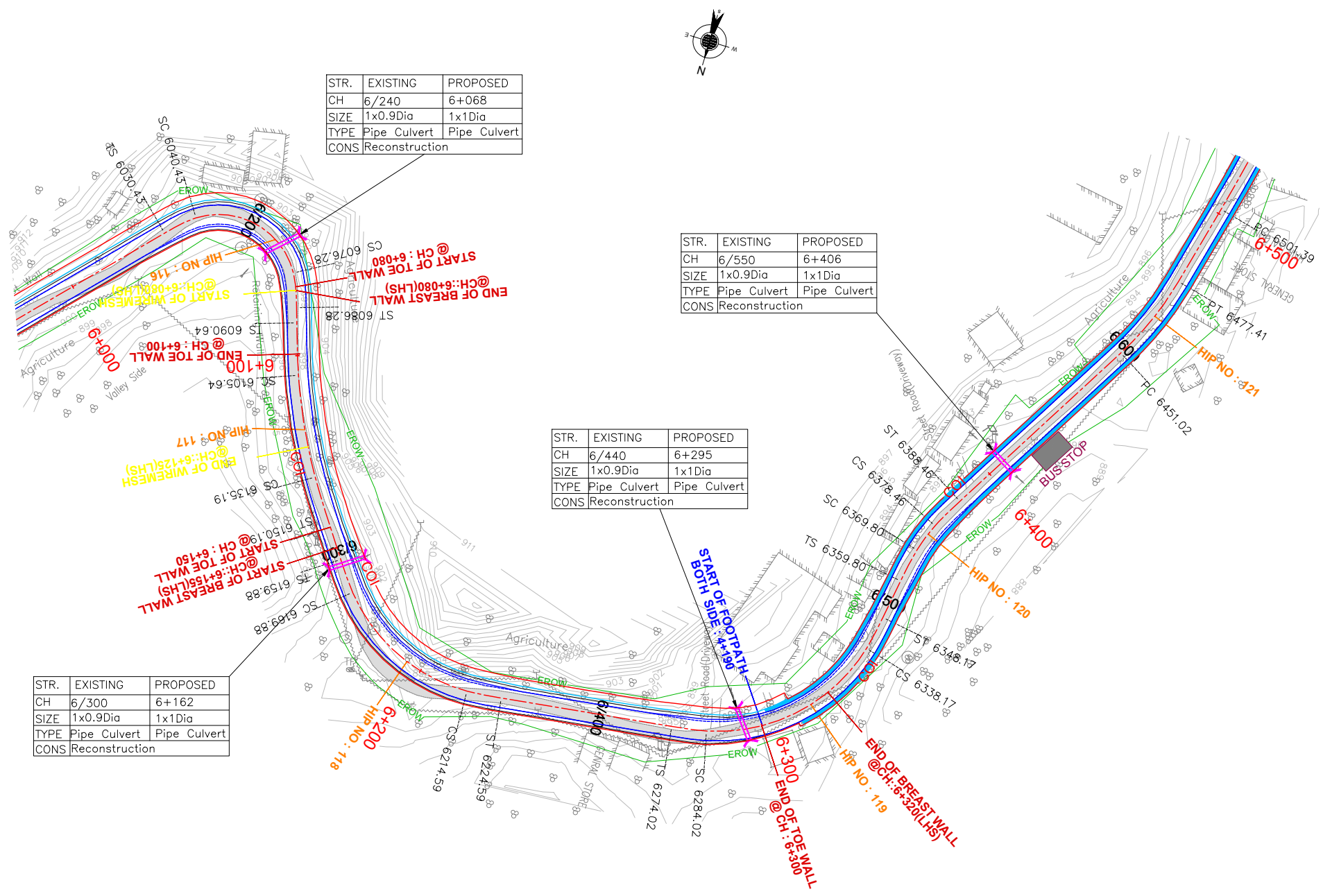
DRAWING NO : HP/MAN-KAL/P&P-12B

ROAD NAME : Package-V:
 Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000

SHEET 12B OF 22


← MANDI

KALKHAR →



TENDER PURPOSE ONLY

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED

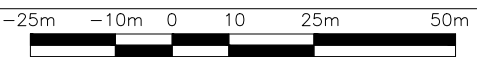
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PROJECT:
 Himachal Pradesh State Roads Transformation Project (HPSRTP)

SCALE:
 HOR 1:1500
 VER 1:200



DESIGNED: MADHUBABU
 DRAWN: DANIEL
 CHECKED: CHANDRA/ASHIK
 APPROVED: PRADEEP KAPLA

TITLE : PLAN & PROFILE
 FROM CH: 6+000 TO CH: 6+500

DRAWING NO : HP/MAN-KAL/P&P-13A

ROAD NAME : Package-V:
 Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000

SHEET 13A OF 22

MANDI ←

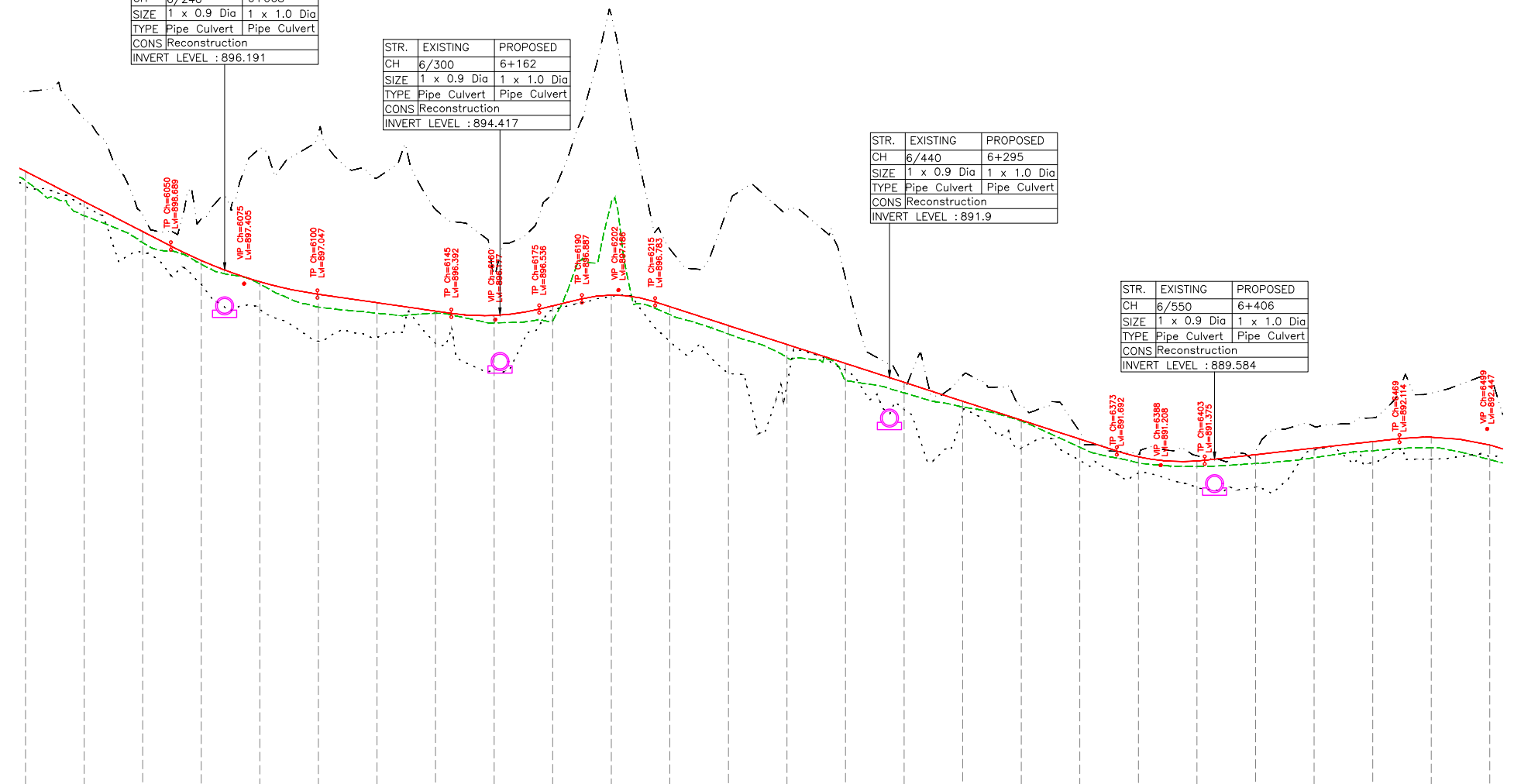
→ KALKHAR

STR.	EXISTING	PROPOSED
CH	6/240	6+068
SIZE	1 x 0.9 Dia	1 x 1.0 Dia
TYPE	Pipe Culvert	Pipe Culvert
CONS	Reconstruction	
INVERT LEVEL	: 896.191	

STR.	EXISTING	PROPOSED
CH	6/300	6+162
SIZE	1 x 0.9 Dia	1 x 1.0 Dia
TYPE	Pipe Culvert	Pipe Culvert
CONS	Reconstruction	
INVERT LEVEL	: 894.417	

STR.	EXISTING	PROPOSED
CH	6/440	6+295
SIZE	1 x 0.9 Dia	1 x 1.0 Dia
TYPE	Pipe Culvert	Pipe Culvert
CONS	Reconstruction	
INVERT LEVEL	: 891.9	

STR.	EXISTING	PROPOSED
CH	6/550	6+406
SIZE	1 x 0.9 Dia	1 x 1.0 Dia
TYPE	Pipe Culvert	Pipe Culvert
CONS	Reconstruction	
INVERT LEVEL	: 889.584	



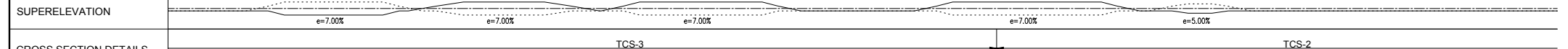
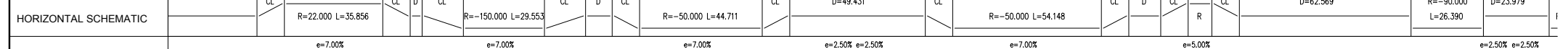
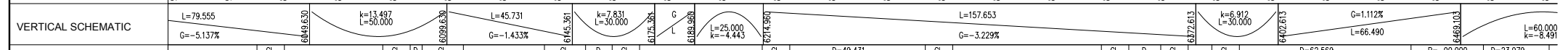
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PROPOSED ROAD LEVELS(m)	900.239	900.211	899.184	898.196	897.471	897.042	896.755	896.468	896.319	896.646	897.014	896.620	895.974	895.328	894.683	894.037	893.391	892.745	892.100	891.453	891.351	891.568	891.790	892.013	892.165	891.895
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EXISTING ROAD LEVELS(m)	900.923	899.721	898.803	898.069	897.394	896.604	896.396	896.394	896.067	896.129	900.161	896.350	895.687	894.885	894.100	893.676	893.198	892.717	892.286	891.821	891.286	891.172	891.265	891.463	891.702	891.805	891.396
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GL AT 5m LHS (m)	903.964	903.023	899.761	898.621	902.043	902.561	901.013	899.938	897.563	900.488	906.585	896.591	900.029	899.925	897.596	893.886	894.273	893.251	891.370	891.596	891.531	891.682	892.534	892.821	893.670	894.182
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GL AT 8m RHS (m)	900.729	900.047	898.482	897.378	896.552	895.441	895.567	895.363	894.501	896.508	896.979	895.419	894.334	893.940	894.462	893.107	892.944	891.789	891.370	890.941	890.455	890.459	891.726	891.295	891.418	891.518
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PROPOSED CHAINAGE	6+000	6+020	6+040	6+060	6+080	6+100	6+120	6+140	6+160	6+180	6+200	6+220	6+240	6+260	6+280	6+300	6+320	6+340	6+360	6+380	6+400	6+420	6+440	6+460	6+480	6+500
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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 1:1500
 VER 1:200

DESIGNED	MADHUBABU
DRAWN	DANIEL
CHECKED	CHANDRA/ASHIK
APPROVED	PRADEEP KAPLA

TITLE :
 PLAN & PROFILE
 FROM CH: 6+000 TO CH: 6+500

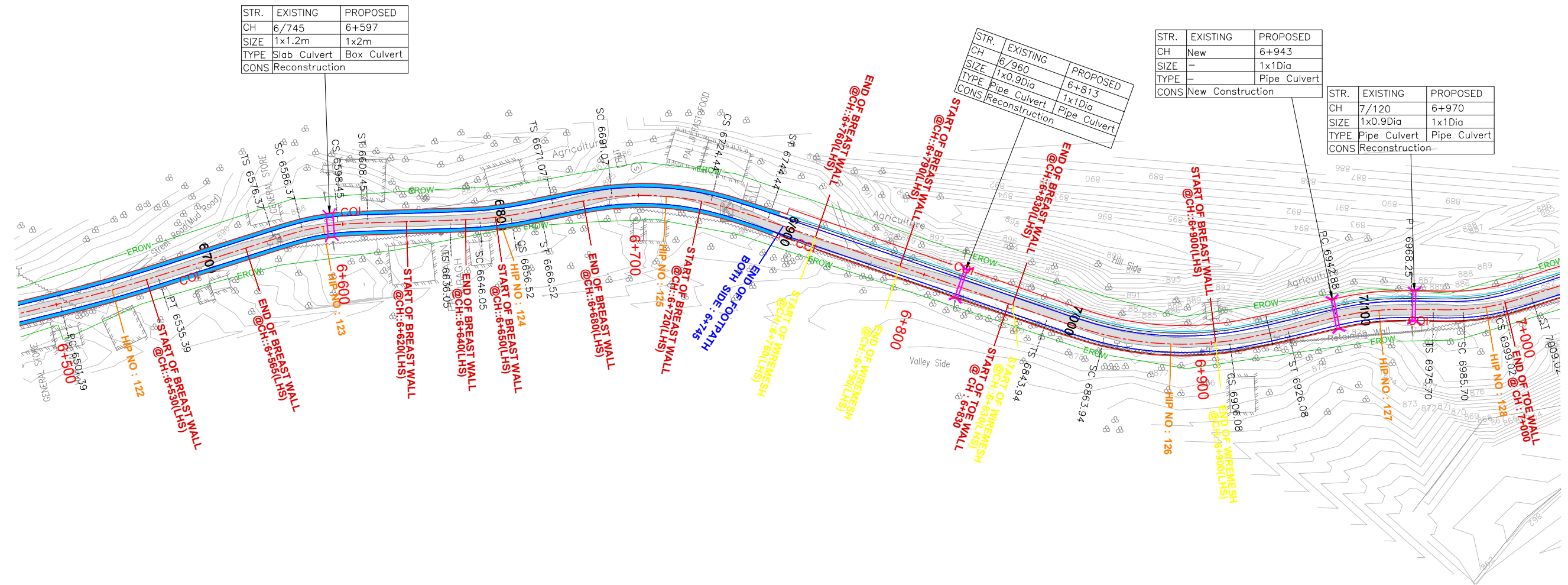
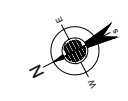
DRAWING NO : HP/MAN-KAL/P&P-13B

ROAD NAME : Package-V:
 Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000

SHEET 13B OF 22

← MANDI

KALKHAR →



STR.	EXISTING	PROPOSED
CH	6/745	6+597
SIZE	1x1.2m	1x2m
TYPE	Slab Culvert	Box Culvert
CONS	Reconstruction	


STR.	EXISTING	PROPOSED
CH	6/960	6+813
SIZE	1x0.9Dia	1x1Dia
TYPE	Pipe Culvert	Pipe Culvert
CONS	Reconstruction	

STR.	EXISTING	PROPOSED
CH	New	6+943
SIZE	-	1x1Dia
TYPE	-	Pipe Culvert
CONS	New Construction	

STR.	EXISTING	PROPOSED
CH	7/120	6+970
SIZE	1x0.9Dia	1x1Dia
TYPE	Pipe Culvert	Pipe Culvert
CONS	Reconstruction	

TENDER PURPOSE ONLY

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED

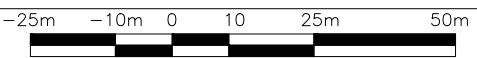
CLIENT:

 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 1:1500
 VER 1:200



DESIGNED: MADHUBABU
 DRAWN: DANIEL
 CHECKED: CHANDRA/ASHIK
 APPROVED: PRADEEP KAPLA

TITLE : PLAN & PROFILE FROM CH: 6+500 TO CH: 7+000

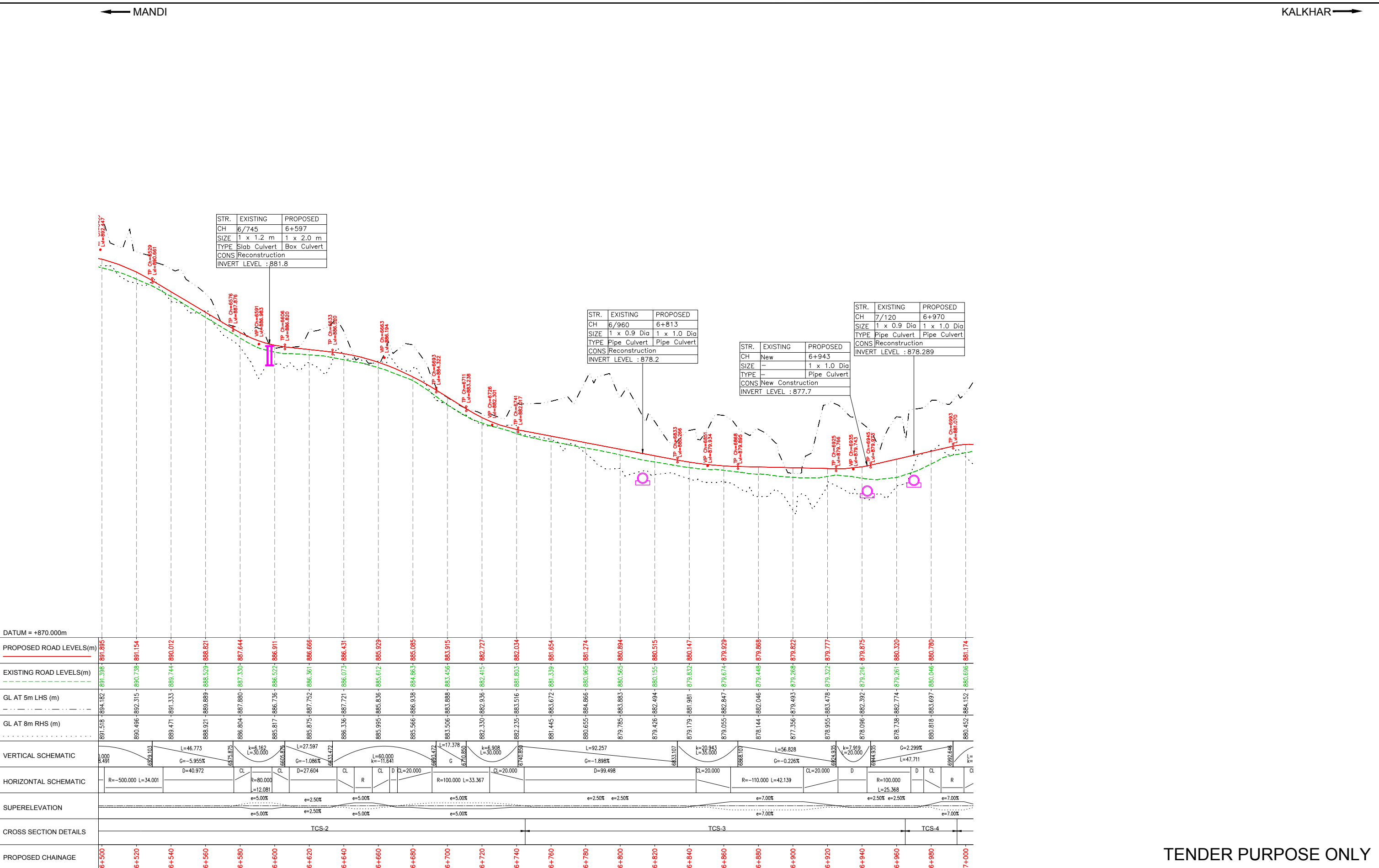
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ROAD NAME : Package-V: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000

SHEET 14A OF 22

MANDI ←

→ KALKHAR



STR.	EXISTING	PROPOSED
CH	6/745	6+597
SIZE	1 x 1.2 m	1 x 2.0 m
TYPE	Slab Culvert	Box Culvert
CONS	Reconstruction	
INVERT LEVEL : 881.8		

STR.	EXISTING	PROPOSED
CH	6/960	6+813
SIZE	1 x 0.9 Dia	1 x 1.0 Dia
TYPE	Pipe Culvert	Pipe Culvert
CONS	Reconstruction	
INVERT LEVEL : 878.2		

STR.	EXISTING	PROPOSED
CH	New	6+943
SIZE	-	1 x 1.0 Dia
TYPE	-	Pipe Culvert
CONS	New Construction	
INVERT LEVEL : 877.7		

STR.	EXISTING	PROPOSED
CH	7/120	6+970
SIZE	1 x 0.9 Dia	1 x 1.0 Dia
TYPE	Pipe Culvert	Pipe Culvert
CONS	Reconstruction	
INVERT LEVEL : 878.289		

DATUM = +870.000m

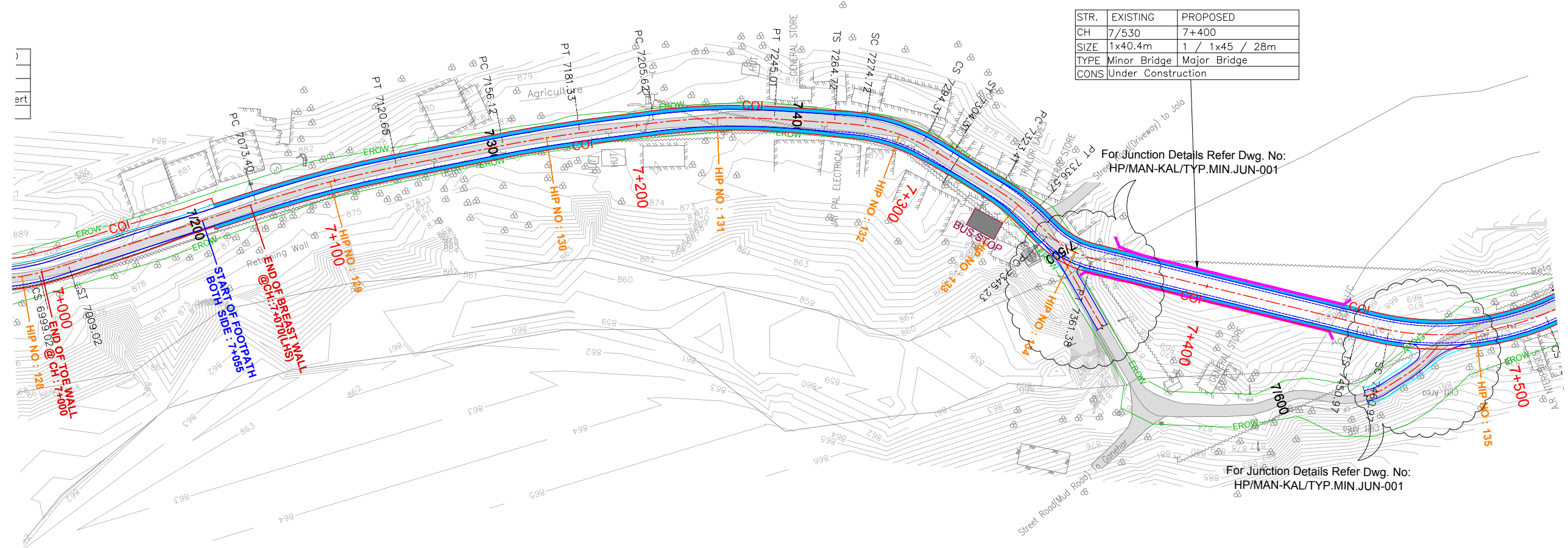
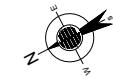
	6+500	6+520	6+540	6+560	6+580	6+600	6+620	6+640	6+660	6+680	6+700	6+720	6+740	6+760	6+780	6+800	6+820	6+840	6+860	6+880	6+900	6+920	6+940	6+960	6+980	7+000		
PROPOSED ROAD LEVELS(m)	891.895	891.154	890.012	888.821	887.644	886.911	886.666	886.431	885.929	885.085	883.915	882.727	882.034	881.654	881.274	880.894	880.515	880.147	879.929	879.868	879.822	879.777	879.875	880.320	880.780	881.174		
EXISTING ROAD LEVELS(m)	891.398	890.730	889.744	888.529	887.330	886.522	886.361	886.073	885.612	884.863	883.659	882.415	881.803	881.339	880.965	880.565	880.155	879.832	879.674	879.448	879.268	879.322	879.216	879.261	880.046	880.696		
GL AT 5m LHS (m)	894.182	892.315	891.333	889.889	888.804	887.756	887.752	887.721	885.936	885.566	883.506	882.330	882.235	881.445	880.655	879.785	879.426	879.179	879.055	882.046	879.493	878.955	878.096	878.738	880.818	880.452		
GL AT 8m RHS (m)	891.518	890.496	889.471	888.921	886.804	885.817	885.875	886.336	885.995	885.566	883.506	882.330	882.235	881.445	880.655	879.785	879.426	879.179	879.055	882.046	879.493	878.955	878.096	878.738	880.818	880.452		
VERTICAL SCHEMATIC	[Vertical curve diagrams showing grades, lengths, and elevations]																											
HORIZONTAL SCHEMATIC	[Horizontal curve diagrams showing radii, lengths, and offsets]																											
SUPERELEVATION	[Superelevation diagrams showing cross-slopes]																											
CROSS SECTION DETAILS	[Cross-section diagrams for TCS-2, TCS-3, and TCS-4]																											
PROPOSED CHAINAGE	[Chainage markers from 6+500 to 7+000]																											

TENDER PURPOSE ONLY

<table border="1"> <thead> <tr> <th>REV</th> <th>DATE</th> <th>DESCRIPTION</th> <th>DESIGNED</th> <th>DRAWN</th> <th>CHECKED</th> <th>APPROVED</th> </tr> </thead> <tbody> <tr><td> </td><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><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED																						<p>CLIENT:</p> <p>HIMACHAL PRADESH ROAD AND OTHER INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.</p>	<p>CONSULTANT:</p> <p>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</p>	<p>PROJECT:</p> <p>Himachal Pradesh State Roads Transformation Project (HPSRTP)</p>	<p>DESIGNED: MADHUBABU</p> <p>DRAWN: DANIEL</p> <p>CHECKED: CHANDRA/ASHIK</p> <p>APPROVED: PRADEEP KAPLA</p>	<p>TITLE :</p> <p>PLAN & PROFILE FROM CH: 6+500 TO CH: 7+000</p> <p>DRAWING NO : HP/MAN-KAL/P&P-14B</p> <p>ROAD NAME : Package-V: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000</p>	<p>SHEET 14B OF 22</p>
	REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED																											
<p>SCALE: HOR 1:1500 VER 1:200</p>																																		
<p>SCALE: HOR 1:1500 VER 1:200</p>																																		
<p>SCALE: HOR 1:1500 VER 1:200</p>																																		

← MANDI

KALKHAR →



STR.	EXISTING	PROPOSED
CH	7/530	7+400
SIZE	1x40.4m	1 / 1x45 / 28m
TYPE	Minor Bridge	Major Bridge
CONS	Under Construction	

For Junction Details Refer Dwg. No: HP/MAN-KAL/TYP.MIN.JUN-001

For Junction Details Refer Dwg. No: HP/MAN-KAL/TYP.MIN.JUN-001

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 1:1500
 VER 1:200

DESIGNED	MADHUBABU
DRAWN	DANIEL
CHECKED	CHANDRA/ASHIK
APPROVED	PRADEEP KAPLA

TITLE : PLAN & PROFILE
 FROM CH: 7+000 TO CH: 7+500

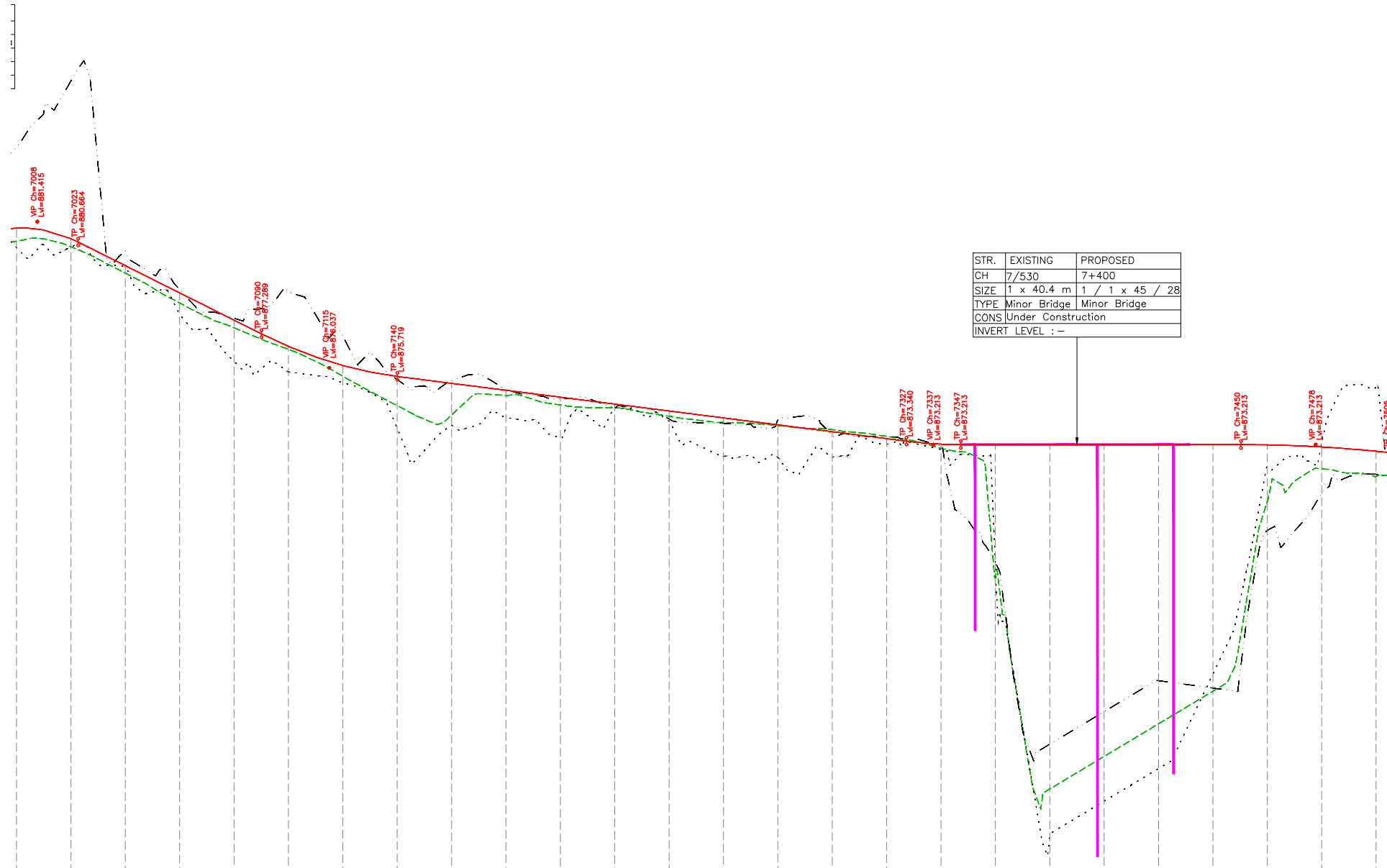
DRAWING NO : HP/MAN-KAL/P&P-15A

ROAD NAME : Package-V:
 Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000

SHEET 15A OF 22

MANDI ←

→ KALKHAR



STR.	EXISTING	PROPOSED
CH	7/530	7+400
SIZE	1 x 40.4 m	1 / 1 x 45 / 28
TYPE	Minor Bridge	Minor Bridge
CONS	Under Construction	
INVERT LEVEL	-	

DATUM = +857.000m	
PROPOSED ROAD LEVELS(m)	880.174, 880.696, 880.788, 879.795, 878.793, 877.791, 876.826, 876.123, 875.719, 875.465, 875.211, 874.957, 874.703, 874.449, 874.195, 873.940, 873.686, 873.432, 873.230, 873.213, 873.213, 873.213, 873.213, 873.213, 873.204, 873.126, 872.971
EXISTING ROAD LEVELS(m)	880.452, 884.152, 880.696, 880.788, 879.720, 880.340, 878.918, 878.424, 877.881, 877.509, 876.819, 876.116, 875.728, 875.491, 875.209, 874.646, 874.307, 874.000, 873.926, 873.572, 874.241, 875.017, 875.211, 874.069, 874.156, 874.254, 874.449, 872.786, 873.996, 874.030, 874.119, 873.918, 873.940, 872.753, 873.563, 873.763, 873.686, 873.032, 873.188, 873.075, 873.230, 868.805, 868.874, 868.403, 873.213, 868.777, 862.195, 860.548, 873.213, 860.100, 863.393, 861.747, 873.213, 861.298, 864.530, 862.945, 873.213, 864.774, 864.280, 864.144, 873.213, 872.379, 870.050, 871.126, 873.204, 873.268, 871.418, 872.319, 873.126, 875.341, 872.125, 872.044, 872.971
GL AT 5m LHS (m)	880.452, 884.152, 880.696, 880.788, 879.720, 880.340, 878.918, 878.424, 877.881, 877.509, 876.819, 876.116, 875.728, 875.491, 875.209, 874.646, 874.307, 874.000, 873.926, 873.572, 874.241, 875.017, 875.211, 874.069, 874.156, 874.254, 874.449, 872.786, 873.996, 874.030, 874.119, 873.918, 873.940, 872.753, 873.563, 873.763, 873.686, 873.032, 873.188, 873.075, 873.230, 868.805, 868.874, 868.403, 873.213, 868.777, 862.195, 860.548, 873.213, 860.100, 863.393, 861.747, 873.213, 861.298, 864.530, 862.945, 873.213, 864.774, 864.280, 864.144, 873.213, 872.379, 870.050, 871.126, 873.204, 873.268, 871.418, 872.319, 873.126, 875.341, 872.125, 872.044, 872.971
GL AT 8m RHS (m)	880.452, 884.152, 880.696, 880.788, 879.720, 880.340, 878.918, 878.424, 877.881, 877.509, 876.819, 876.116, 875.728, 875.491, 875.209, 874.646, 874.307, 874.000, 873.926, 873.572, 874.241, 875.017, 875.211, 874.069, 874.156, 874.254, 874.449, 872.786, 873.996, 874.030, 874.119, 873.918, 873.940, 872.753, 873.563, 873.763, 873.686, 873.032, 873.188, 873.075, 873.230, 868.805, 868.874, 868.403, 873.213, 868.777, 862.195, 860.548, 873.213, 860.100, 863.393, 861.747, 873.213, 861.298, 864.530, 862.945, 873.213, 864.774, 864.280, 864.144, 873.213, 872.379, 870.050, 871.126, 873.204, 873.268, 871.418, 872.319, 873.126, 875.341, 872.125, 872.044, 872.971
VERTICAL SCHEMATIC	
HORIZONTAL SCHEMATIC	
SUPERELEVATION	
CROSS SECTION DETAILS	TCS-3, TCS-2, TCS-2
PROPOSED CHAINAGE	7+000, 7+020, 7+040, 7+060, 7+080, 7+100, 7+120, 7+140, 7+160, 7+180, 7+200, 7+220, 7+240, 7+260, 7+280, 7+300, 7+320, 7+340, 7+360, 7+380, 7+400, 7+420, 7+440, 7+460, 7+480, 7+500

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 1:1500
 VER 1:200

DESIGNED	MADHUBABU
DRAWN	DANIEL
CHECKED	CHANDRA/ASHIK
APPROVED	PRADEEP KAPLA

TITLE : PLAN & PROFILE FROM CH: 7+000 TO CH: 7+500

DRAWING NO : HP/MAN-KAL/P&P-15B

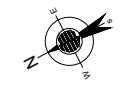
ROAD NAME : Package-V: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000

SHEET 15B OF 22

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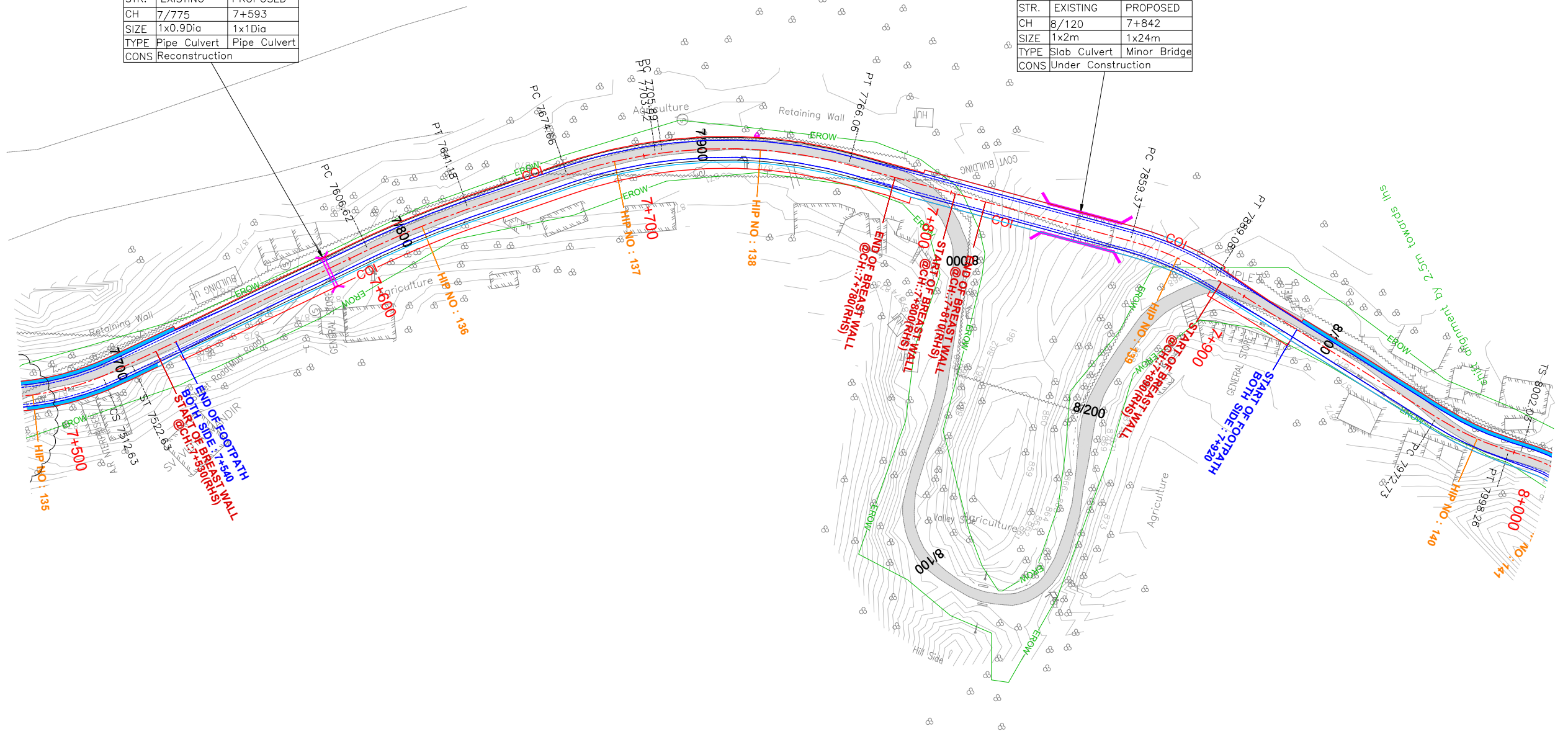
← MANDI

KALKHAR →




STR.	EXISTING	PROPOSED
CH	7/775	7+593
SIZE	1x0.9Dia	1x1Dia
TYPE	Pipe Culvert	Pipe Culvert
CONS	Reconstruction	

STR.	EXISTING	PROPOSED
CH	8/120	7+842
SIZE	1x2m	1x24m
TYPE	Slab Culvert	Minor Bridge
CONS	Under Construction	



TENDER PURPOSE ONLY

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED

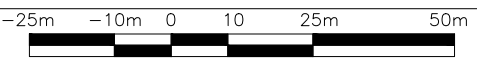
CLIENT:

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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 1:1500
 VER 1:200



DESIGNED: MADHUBABU
 DRAWN: DANIEL
 CHECKED: CHANDRA/ASHIK
 APPROVED: PRADEEP KAPLA

TITLE : PLAN & PROFILE
 FROM CH: 7+500 TO CH: 8+000

DRAWING NO : HP/MAN-KAL/P&P-16A

ROAD NAME : Package-V:
 Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000

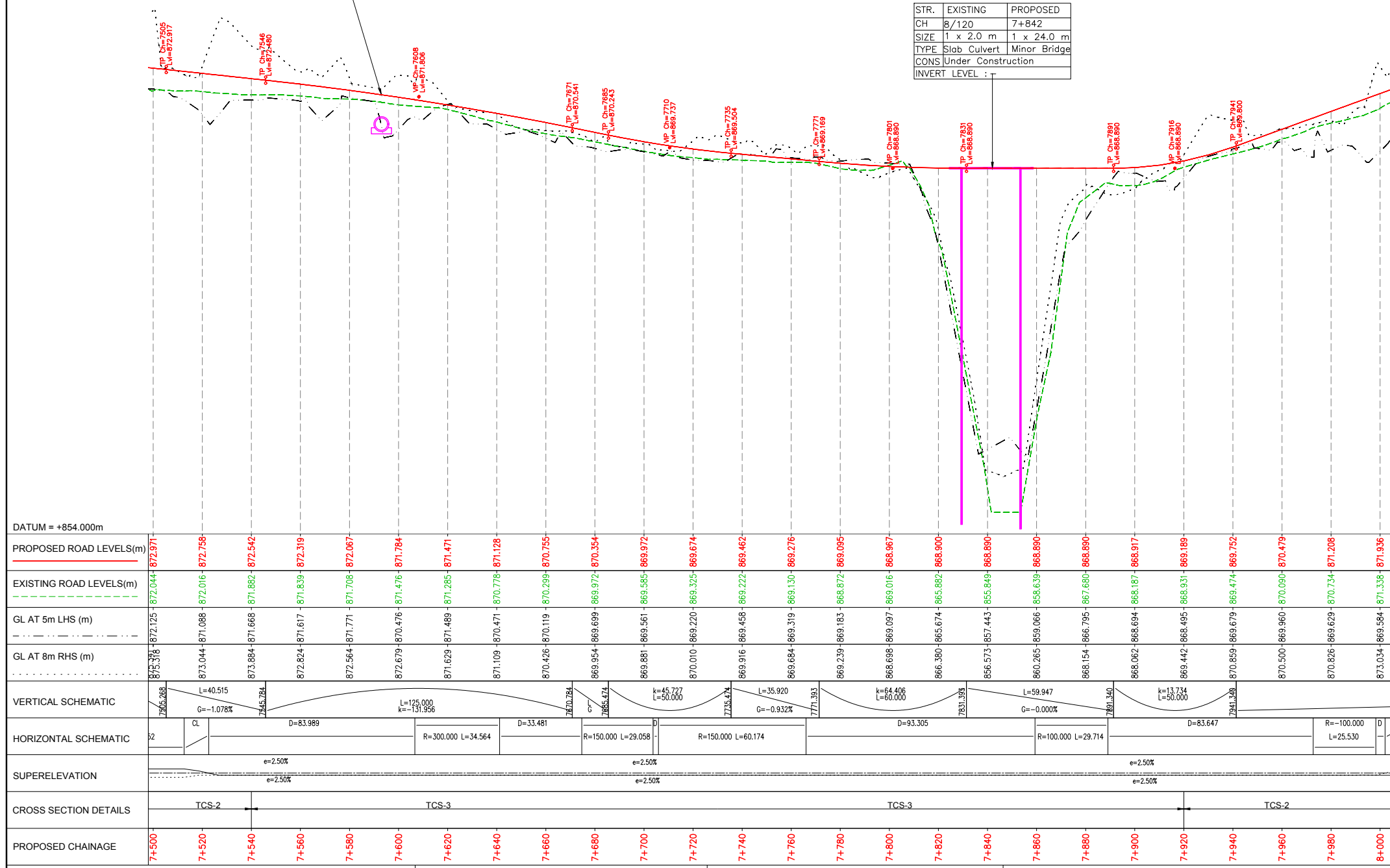
SHEET 16A OF 22

← MANDI

KALKHAR →

STR.	EXISTING	PROPOSED
CH	7/775	7+593
SIZE	1 x 0.9 Dia	1 x 1.0 Dia
TYPE	Pipe Culvert	Pipe Culvert
CONS	Reconstruction	
INVERT LEVEL : 869.2		


STR.	EXISTING	PROPOSED
CH	8/120	7+842
SIZE	1 x 2.0 m	1 x 24.0 m
TYPE	Slab Culvert	Minor Bridge
CONS	Under Construction	
INVERT LEVEL :		



PROPOSED ROAD LEVELS(m)	872.971	872.758	872.542	872.319	872.087	871.784	871.471	871.128	870.755	870.354	869.972	869.674	869.462	869.095	868.967	868.900	868.890	868.890	868.917	869.189	869.752	870.479	871.208	871.936		
EXISTING ROAD LEVELS(m)	872.044	872.016	871.882	871.639	871.706	871.476	871.285	870.778	870.299	869.972	869.585	869.325	869.222	868.872	869.016	865.882	855.849	858.639	868.187	868.931	869.474	870.090	870.734	871.338		
GL AT 5m LHS (m)	872.125	871.088	871.668	871.617	871.771	870.476	871.489	870.471	870.119	869.699	869.581	869.220	869.458	869.319	869.097	865.674	857.443	859.066	866.694	866.495	866.679	869.960	870.629	871.338		
GL AT 8m RHS (m)	873.316	873.044	873.884	872.824	872.564	872.679	871.629	871.109	870.426	869.954	869.881	870.010	869.916	869.684	869.239	866.380	856.573	860.265	868.062	869.442	870.859	870.500	870.826	873.034		
VERTICAL SCHEMATIC	[Vertical curve diagrams showing grades and lengths]																									
HORIZONTAL SCHEMATIC	[Horizontal curve diagrams showing radii and lengths]																									
SUPERELEVATION	[Superelevation diagrams showing e=2.50%]																									
CROSS SECTION DETAILS	[Cross-section diagrams TCS-2 and TCS-3]																									
PROPOSED CHAINAGE	7+500	7+520	7+540	7+560	7+580	7+600	7+620	7+640	7+660	7+680	7+700	7+720	7+740	7+760	7+780	7+800	7+820	7+840	7+860	7+880	7+900	7+920	7+940	7+960	7+980	8+000

TENDER PURPOSE ONLY

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED

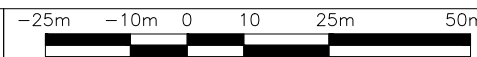
CLIENT:

 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 1:1500
 VER 1:200



DESIGNED	MADHUBABU
DRAWN	DANIEL
CHECKED	CHANDRA/ASHIK
APPROVED	PRADEEP KAPLA

TITLE : PLAN & PROFILE
 FROM CH: 7+500 TO CH: 8+000

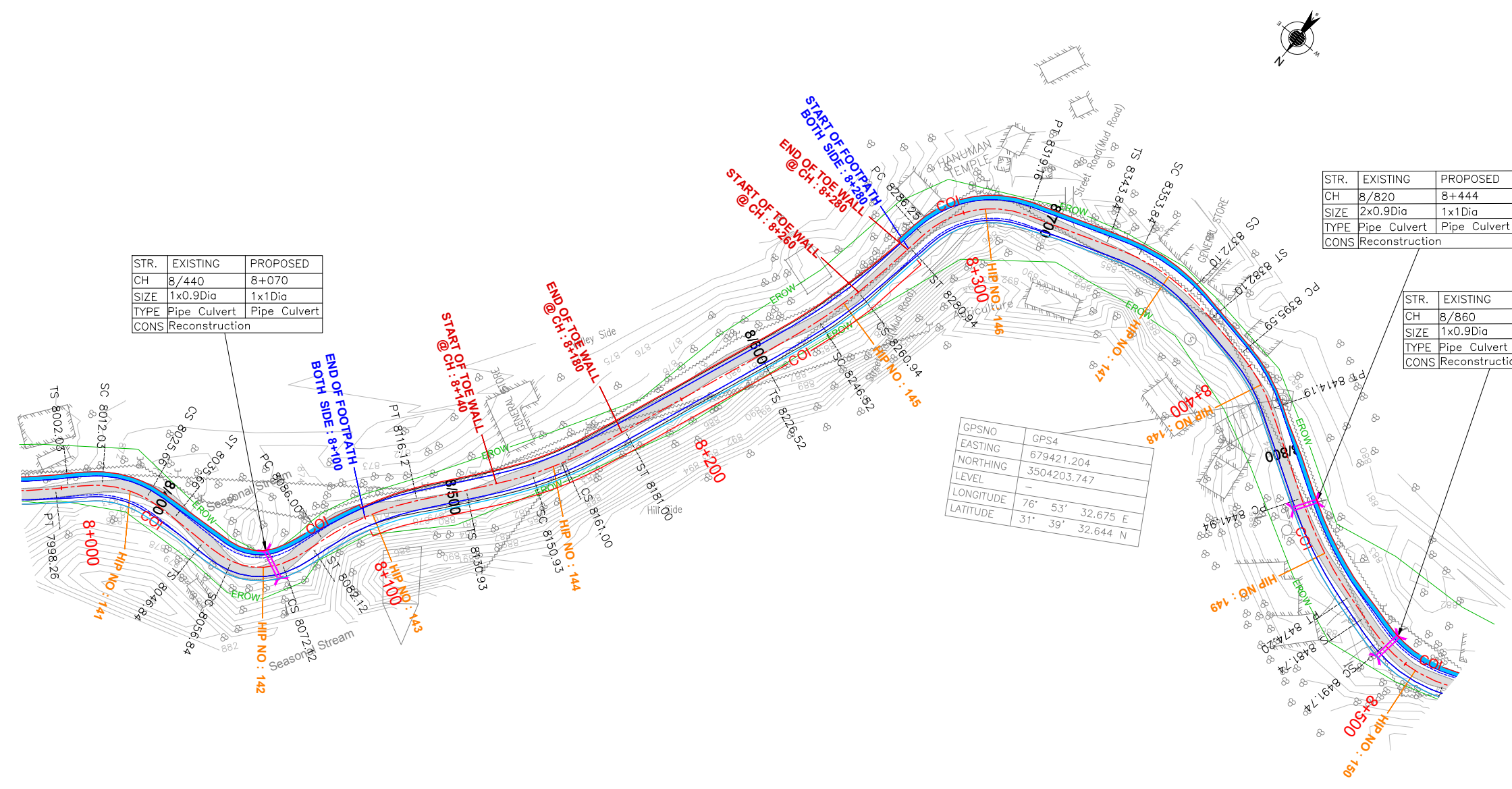
DRAWING NO : HP/MAN-KAL/P&P-16B

ROAD NAME : Package-V:
 Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000

SHEET 16B OF 22

← MANDI

KALKHAR →



STR.	EXISTING	PROPOSED
CH	8/440	8+070
SIZE	1x0.9Dia	1x1Dia
TYPE	Pipe Culvert	Pipe Culvert
CONS	Reconstruction	

STR.	EXISTING	PROPOSED
CH	8/820	8+444
SIZE	2x0.9Dia	1x1Dia
TYPE	Pipe Culvert	Pipe Culvert
CONS	Reconstruction	


STR.	EXISTING	PROPOSED
CH	8/860	8+492
SIZE	1x0.9Dia	1x1Dia
TYPE	Pipe Culvert	Pipe Culvert
CONS	Reconstruction	

GPSNO	GPS4
EASTING	679421.204
NORTHING	3504203.747
LEVEL	-
LONGITUDE	76° 53' 32.675 E
LATITUDE	31° 39' 32.644 N

TENDER PURPOSE ONLY

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED

CLIENT:



HIMACHAL PRADESH ROAD AND OTHER INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.

CONSULTANT:

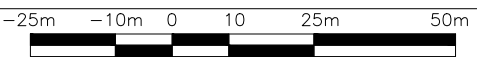


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PROJECT:

Himachal Pradesh State Roads Transformation Project (HPSRTP)

SCALE:
HOR 1:1500
VER 1:200



DESIGNED	MADHUBABU
DRAWN	DANIEL
CHECKED	CHANDRA/ASHIK
APPROVED	PRADEEP KAPLA

TITLE : PLAN & PROFILE
FROM CH: 8+000 TO CH: 8+500

DRAWING NO : HP/MAN-KAL/P&P-17A

ROAD NAME : Package-V:
Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000

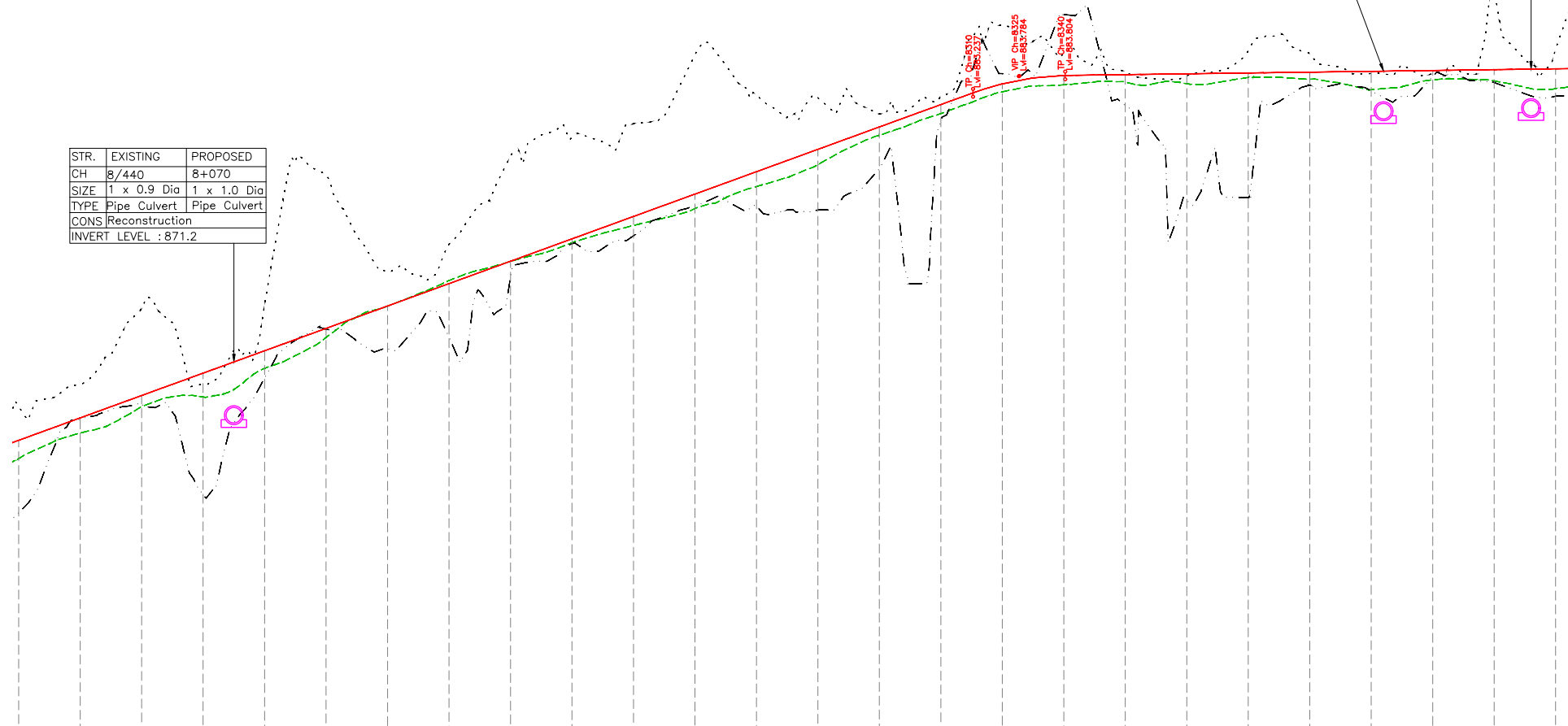
SHEET 17A OF 22

MANDI ←

→ KALKHAR

STR.	EXISTING	PROPOSED	STR.	EXISTING	PROPOSED
CH	8/820	8+444	CH	8/860	8+492
SIZE	2 x 0.9 Dia	1 x 1.0 Dia	SIZE	1 x 0.9 Dia	1 x 1.0 Dia
TYPE	Pipe Culvert	Pipe Culvert	TYPE	Pipe Culvert	Pipe Culvert
CONS	Reconstruction		CONS	Reconstruction	
	INVERT LEVEL : 881.4			INVERT LEVEL : 882.192	

STR.	EXISTING	PROPOSED
CH	8/440	8+070
SIZE	1 x 0.9 Dia	1 x 1.0 Dia
TYPE	Pipe Culvert	Pipe Culvert
CONS	Reconstruction	
	INVERT LEVEL : 871.2	



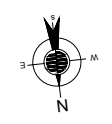
PROPOSED ROAD LEVELS(m)	EXISTING ROAD LEVELS(m)	GL AT 5m LHS (m)	GL AT 8m RHS (m)
871.936	871.336	869.584	873.034
872.664	872.173	872.636	873.737
873.392	873.035	873.116	876.243
874.120	873.345	870.176	873.757
874.848	874.274	873.966	876.357
875.576	875.284	875.543	880.585
876.304	876.299	876.918	877.413
877.032	877.133	875.289	878.312
877.761	877.756	877.231	881.183
878.489	878.361	878.326	881.787
879.217	878.924	878.588	882.230
879.945	879.474	879.564	884.475
880.673	880.190	879.558	883.172
881.401	880.906	880.429	883.077
882.129	881.655	880.770	882.552
882.857	882.568	882.300	883.078
883.585	883.275	883.864	885.446
884.313	883.989	885.787	884.517
885.041	884.703	886.820	883.903
885.769	885.437	887.733	883.789
886.497	886.175	888.539	884.602
887.225	886.912	889.342	884.507
887.953	887.649	890.140	883.867
888.681	888.386	890.937	883.863
889.409	890.123	891.734	886.620
890.137	890.860	892.531	884.673

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: MADHUBABU DRAWN: DANIEL CHECKED: CHANDRA/ASHIK APPROVED: PRADEEP KAPLA		TITLE : PLAN & PROFILE FROM CH: 8+000 TO CH: 8+500 DRAWING NO : HP/MAN-KAL/P&P-17B ROAD NAME : Package-V: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000		SHEET 17B OF 22																										
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REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED																														

TENDER PURPOSE ONLY

← MANDI

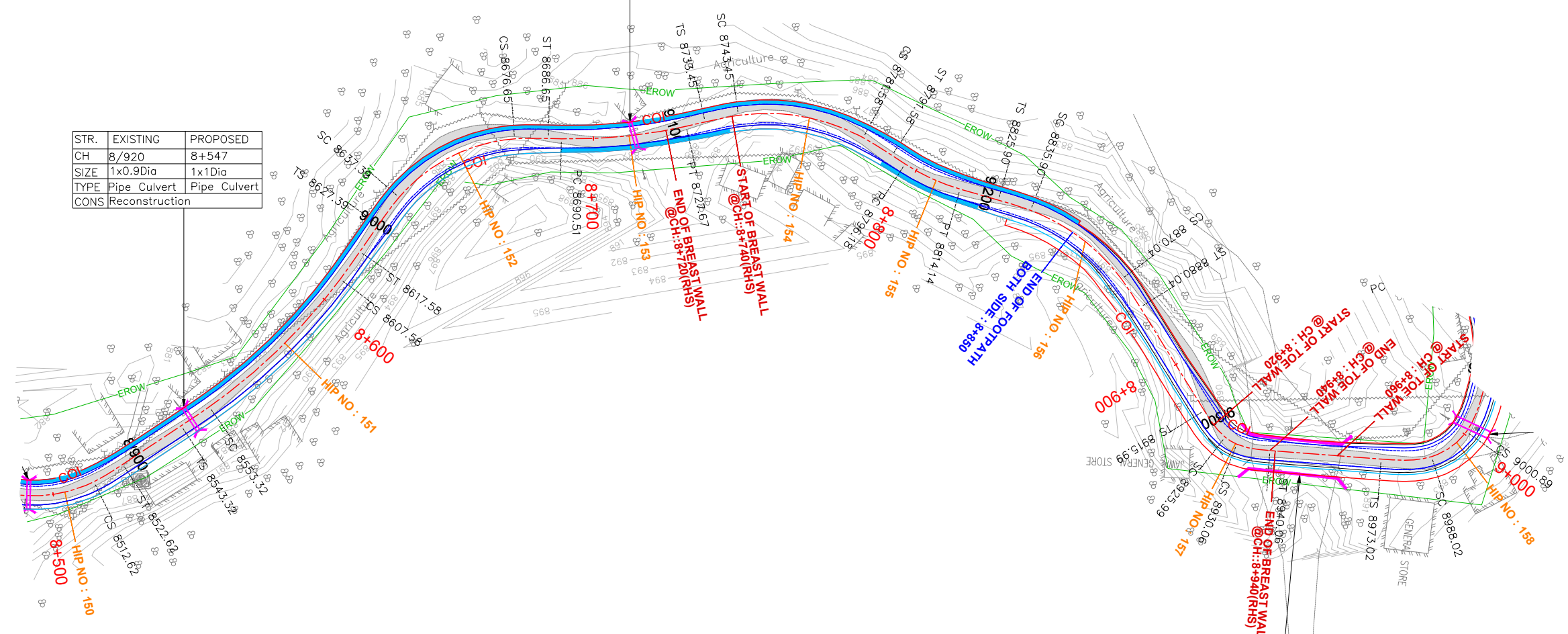
KALKHAR →



STR.	EXISTING	PROPOSED
CH	9/090	8+713
SIZE	1x0.9Dia	1x1Dia
TYPE	Pipe Culvert	Pipe Culvert
CONS	Reconstruction	

STR.	EXISTING	PROPOSED
CH	8/920	8+547
SIZE	1x0.9Dia	1x1Dia
TYPE	Pipe Culvert	Pipe Culvert
CONS	Reconstruction	

STR.	EXISTING	PROPOSED
CH	9/325	8+948
SIZE	1x21.3m	1x21.3m
TYPE	Minor Bridge	Minor Bridge
CONS	Widening	



REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED

CLIENT:

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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 1:1500
 VER 1:200

DESIGNED	MADHUBABU
DRAWN	DANIEL
CHECKED	CHANDRA/ASHIK
APPROVED	PRADEEP KAPLA

TITLE : PLAN & PROFILE
 FROM CH: 8+500 TO CH: 9+000

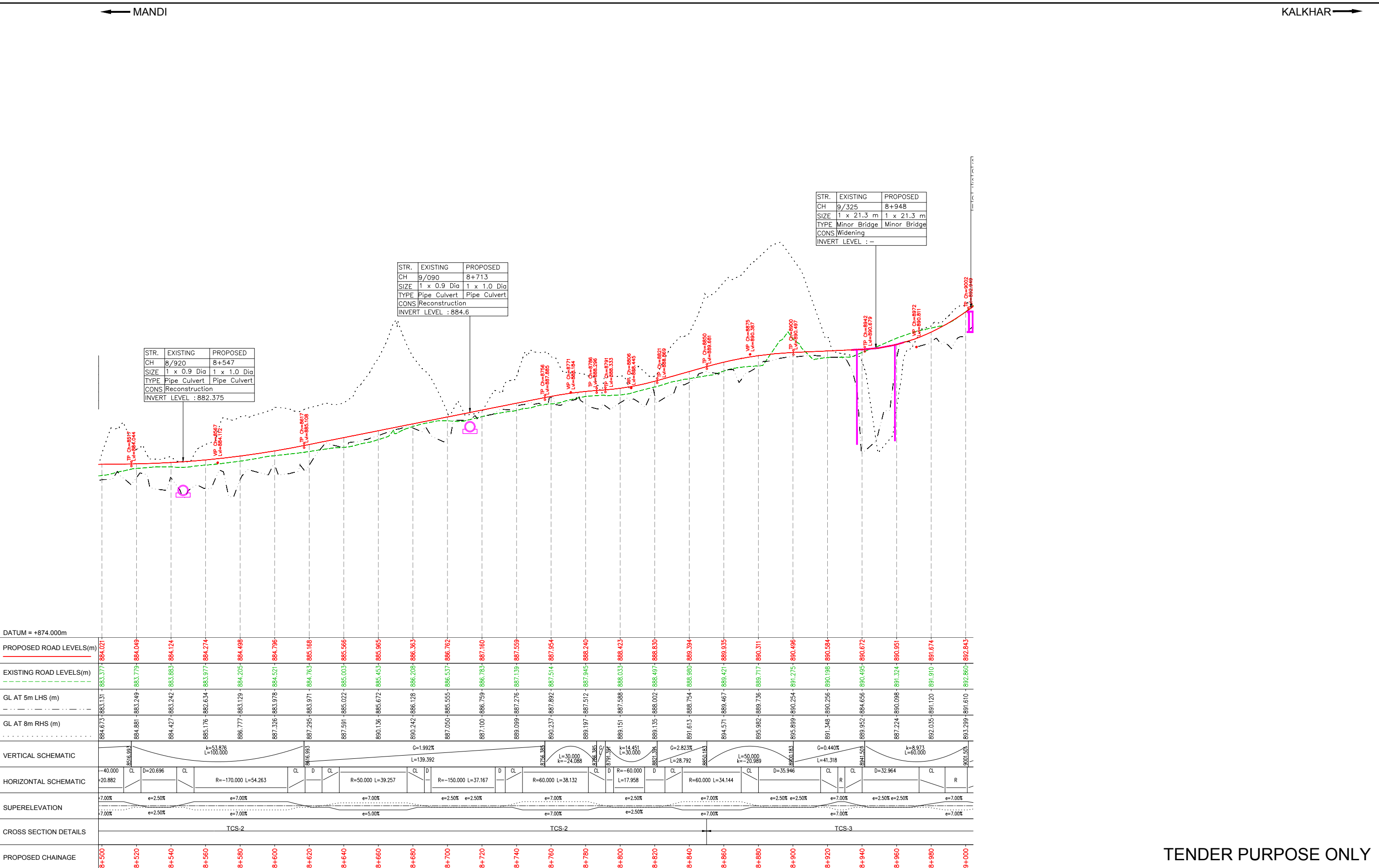
DRAWING NO : HP/MAN-KAL/P&P-18A

ROAD NAME : Package-V:
 Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000



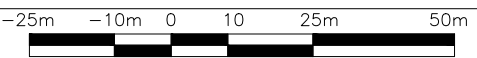
SHEET 18A OF 22

MANDI ←

→ KALKHAR

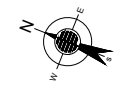


TENDER PURPOSE ONLY

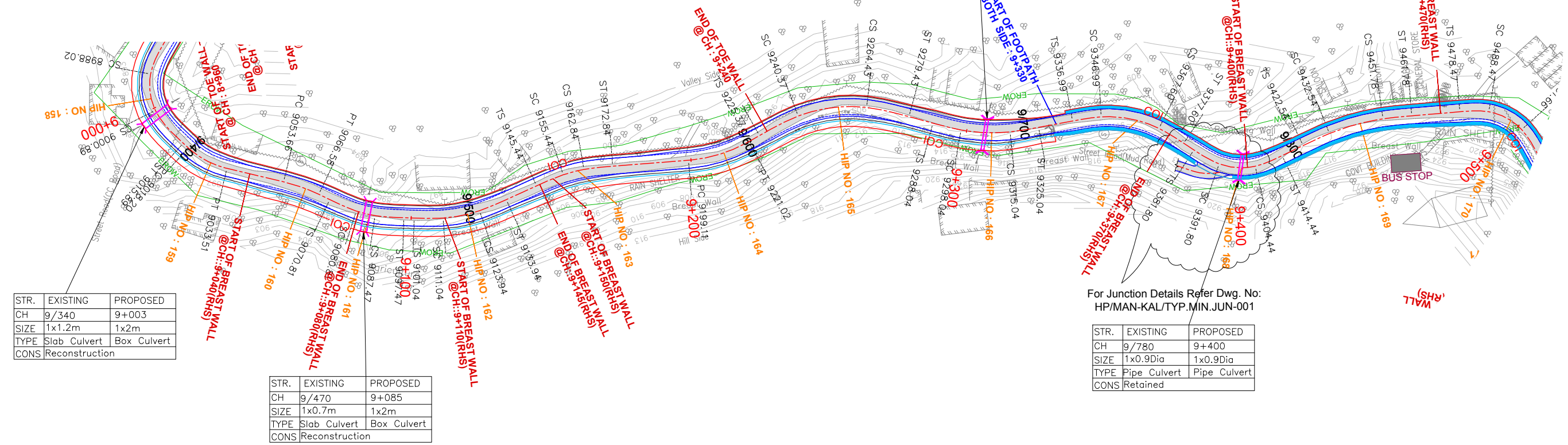
<table border="1"> <thead> <tr> <th>REV</th> <th>DATE</th> <th>DESCRIPTION</th> <th>DESIGNED</th> <th>DRAWN</th> <th>CHECKED</th> <th>APPROVED</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED																						<p>CLIENT:</p>  <p>HIMACHAL PRADESH ROAD AND OTHER INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.</p>	<p>CONSULTANT:</p>  <p>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</p>	<p>PROJECT:</p> <p>Himachal Pradesh State Roads Transformation Project (HPSRTP)</p>	<table border="1"> <tr><td>DESIGNED</td><td>MADHUBABU</td></tr> <tr><td>DRAWN</td><td>DANIEL</td></tr> <tr><td>CHECKED</td><td>CHANDRA/ASHIK</td></tr> <tr><td>APPROVED</td><td>PRADEEP KAPLA</td></tr> </table>	DESIGNED	MADHUBABU	DRAWN	DANIEL	CHECKED	CHANDRA/ASHIK	APPROVED	PRADEEP KAPLA	<p>TITLE :</p> <p>PLAN & PROFILE FROM CH: 8+500 TO CH: 9+000</p> <p>DRAWING NO : HP/MAN-KAL/P&P-18B</p> <p>ROAD NAME : Package-V: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000</p>	<p>SHEET 18B OF 22</p>
	REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED																																			
DESIGNED	MADHUBABU																																									
DRAWN	DANIEL																																									
CHECKED	CHANDRA/ASHIK																																									
APPROVED	PRADEEP KAPLA																																									
<p>SCALE:</p> <p>HOR 1:1500</p> <p>VER 1:200</p> 																																										

← MANDI

KALKHAR →



STR.	EXISTING	PROPOSED
CH	9/680	9+307
SIZE	1x0.9Dia	1x1Dia
TYPE	Pipe Culvert	Pipe Culvert
CONS	Reconstruction	



STR.	EXISTING	PROPOSED
CH	9/340	9+003
SIZE	1x1.2m	1x2m
TYPE	Slab Culvert	Box Culvert
CONS	Reconstruction	


STR.	EXISTING	PROPOSED
CH	9/470	9+085
SIZE	1x0.7m	1x2m
TYPE	Slab Culvert	Box Culvert
CONS	Reconstruction	

For Junction Details Refer Dwg. No: HP/MAN-KAL/TYP.MIN.JUN-001

STR.	EXISTING	PROPOSED
CH	9/780	9+400
SIZE	1x0.9Dia	1x0.9Dia
TYPE	Pipe Culvert	Pipe Culvert
CONS	Retained	

TENDER PURPOSE ONLY

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED

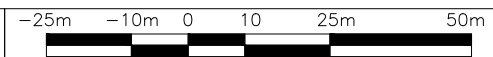
CLIENT:

 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.
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PROJECT:
 Himachal Pradesh State Roads Transformation Project (HPSRTP)

SCALE:
 HOR 1:1500
 VER 1:200



DESIGNED: MADHUBABU
 DRAWN: DANIEL
 CHECKED: CHANDRA/ASHIK
 APPROVED: PRADEEP KAPLA

TITLE :
 PLAN & PROFILE FROM CH: 9+000 TO CH: 9+500

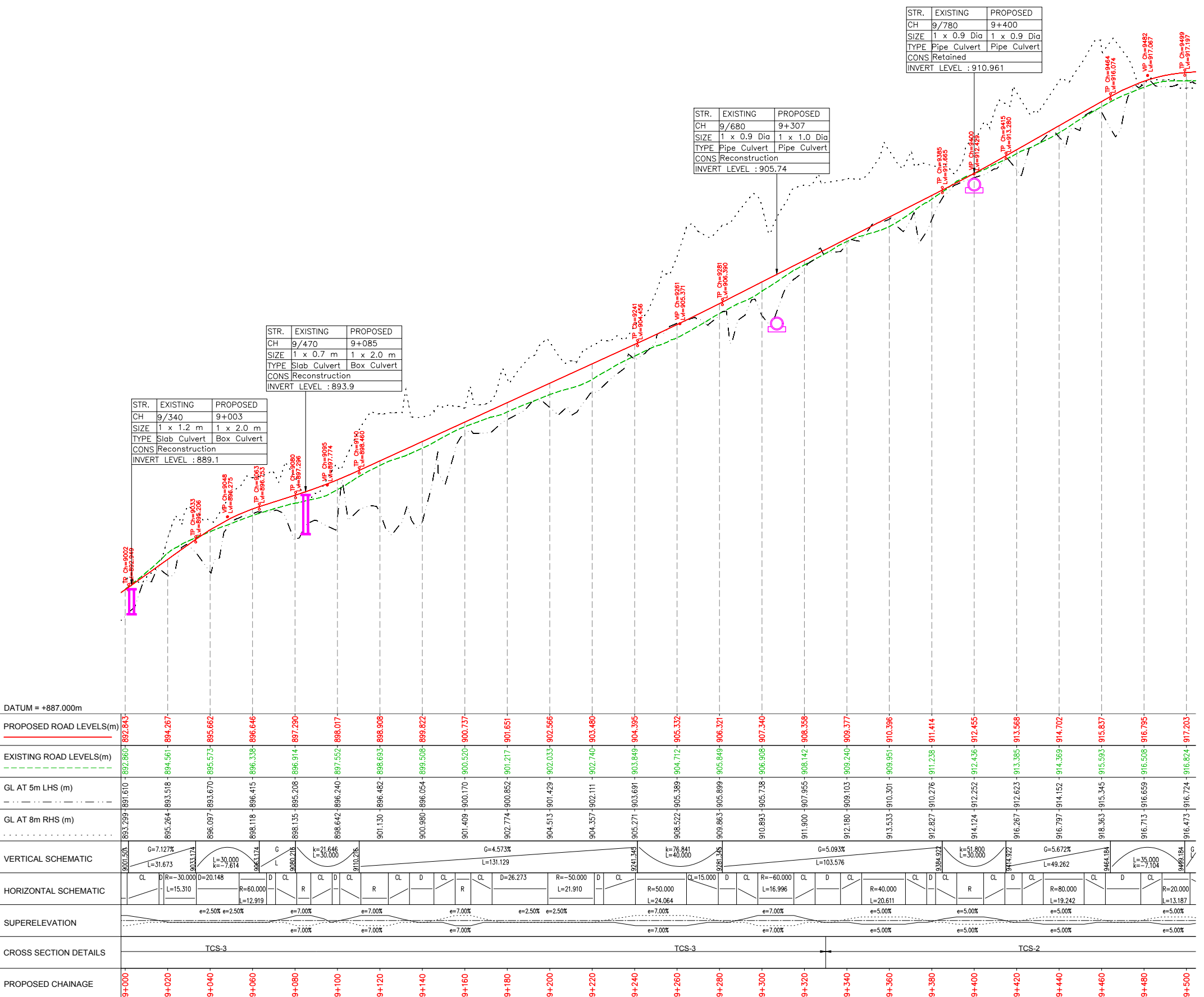
DRAWING NO : HP/MAN-KAL/P&P-19A

ROAD NAME : Package-V: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000

SHEET 19A OF 22

← MANDI

KALKHAR →



STR.	EXISTING	PROPOSED
CH	9/780	9+400
SIZE	1 x 0.9 Dia	1 x 0.9 Dia
TYPE	Pipe Culvert	Pipe Culvert
CONS	Retained	
INVERT LEVEL : 910.961		

STR.	EXISTING	PROPOSED
CH	9/680	9+307
SIZE	1 x 0.9 Dia	1 x 1.0 Dia
TYPE	Pipe Culvert	Pipe Culvert
CONS	Reconstruction	
INVERT LEVEL : 905.74		

STR.	EXISTING	PROPOSED
CH	9/470	9+085
SIZE	1 x 0.7 m	1 x 2.0 m
TYPE	Slab Culvert	Box Culvert
CONS	Reconstruction	
INVERT LEVEL : 893.9		

STR.	EXISTING	PROPOSED
CH	9/340	9+003
SIZE	1 x 1.2 m	1 x 2.0 m
TYPE	Slab Culvert	Box Culvert
CONS	Reconstruction	
INVERT LEVEL : 889.1		

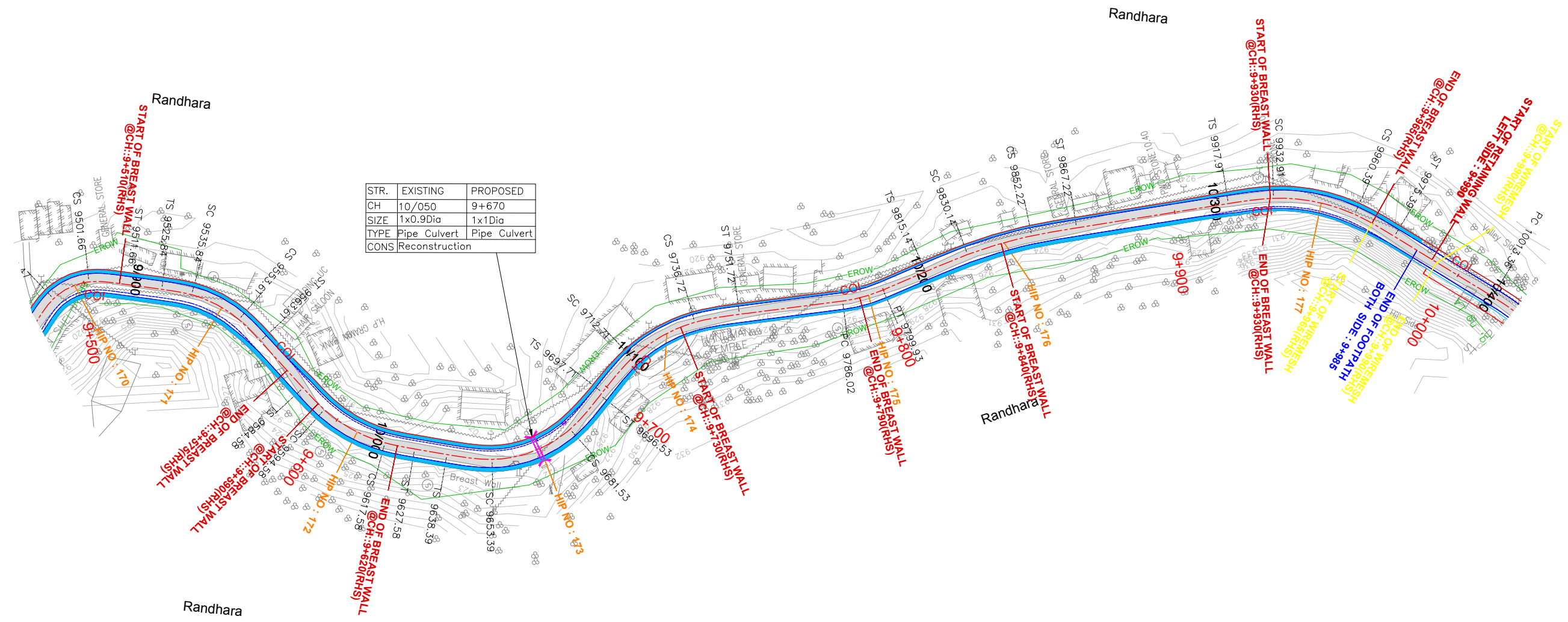
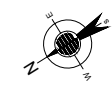
DATUM = +887.000m	
PROPOSED ROAD LEVELS(m)	892.843, 894.267, 895.662, 896.646, 897.290, 898.017, 898.908, 899.822, 900.737, 901.651, 902.566, 903.480, 904.395, 905.332, 906.321, 907.340, 908.358, 909.377, 910.396, 911.414, 912.455, 913.568, 914.702, 915.837, 916.795, 917.203
EXISTING ROAD LEVELS(m)	892.860, 894.561, 895.573, 896.539, 897.552, 898.614, 899.508, 900.520, 901.527, 902.033, 903.049, 904.121, 905.241, 906.389, 907.555, 908.742, 909.940, 911.138, 912.336, 913.585, 914.797, 915.993, 916.508, 916.824
GL AT 5m LHS (m)	891.610, 893.518, 894.670, 895.415, 896.208, 897.044, 897.920, 898.835, 899.740, 900.620, 901.479, 902.311, 903.119, 903.899, 904.641, 905.332, 906.000, 906.640, 907.255, 907.835, 911.276, 912.252, 913.365, 914.529, 915.745, 916.659, 917.203
GL AT 8m RHS (m)	893.299, 895.264, 896.097, 896.118, 898.135, 898.642, 900.130, 900.980, 901.409, 902.774, 904.357, 905.271, 906.522, 908.863, 909.893, 910.893, 911.900, 912.180, 913.533, 914.827, 916.267, 917.797, 918.363, 916.713, 916.473
VERTICAL SCHEMATIC	Vertical curve data including grades (e.g., 7.127%, 4.573%, 5.093%, 5.672%) and lengths (e.g., 31.673, 15.310, 20.148, 12.919, 21.910, 24.064, 15.000, 16.996, 20.611, 19.242, 35.000, 7.104).
HORIZONTAL SCHEMATIC	Horizontal curve data including radii (e.g., 30.000, 60.000, 50.000, 15.000, 60.000, 40.000, 80.000, 20.000) and lengths (e.g., 15.310, 20.148, 21.910, 24.064, 15.000, 16.996, 20.611, 19.242, 35.000, 7.104).
SUPERELEVATION	Superelevation percentages (e) ranging from 2.50% to 7.00%.
CROSS SECTION DETAILS	TCS-3, TCS-3, TCS-2
PROPOSED CHAINAGE	9+000, 9+020, 9+040, 9+060, 9+080, 9+100, 9+120, 9+140, 9+160, 9+180, 9+200, 9+220, 9+240, 9+260, 9+280, 9+300, 9+320, 9+340, 9+360, 9+380, 9+400, 9+420, 9+440, 9+460, 9+480, 9+500

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: MADHUBABU DRAWN: DANIEL CHECKED: CHANDRA/ASHIK APPROVED: PRADEEP KAPLA		TITLE : PLAN & PROFILE FROM CH: 9+000 TO CH: 9+500 DRAWING NO : HP/MAN-KAL/P&P-19B ROAD NAME : Package-V: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000		SHEET 19B OF 22
REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED	SCALE: HOR 1:1500 VER 1:200 			


← MANDI

KALKHAR →



TENDER PURPOSE ONLY

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED

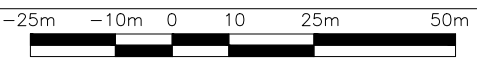
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PROJECT:
 Himachal Pradesh State Roads Transformation Project (HPSRTP)

SCALE:
 HOR 1:1500
 VER 1:200



DESIGNED: MADHUBABU
 DRAWN: DANIEL
 CHECKED: CHANDRA/ASHIK
 APPROVED: PRADEEP KAPLA

TITLE :
 PLAN & PROFILE
 FROM CH: 9+500 TO CH: 10+000

DRAWING NO : HP/MAN-KAL/P&P-20A

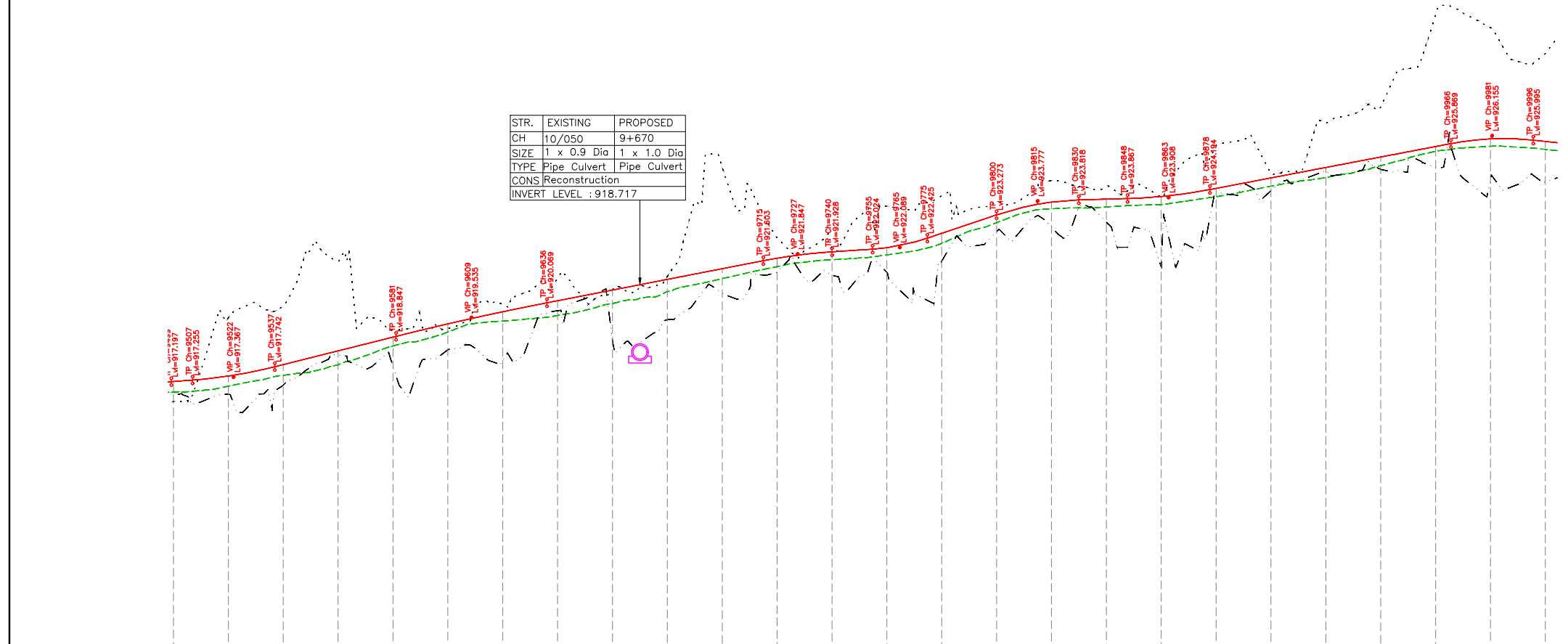
ROAD NAME : Package-V:
 Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000

SHEET 20A OF 22

MANDI ←

→ KALKHAR


STR.	EXISTING	PROPOSED
CH	10/050	9+670
SIZE	1 x 0.9 Dia	1 x 1.0 Dia
TYPE	Pipe Culvert	Pipe Culvert
CONS	Reconstruction	
INVERT LEVEL : 918.717		



DATUM = +907.000m	
PROPOSED ROAD LEVELS(m)	917.203, 917.403, 917.819, 918.319, 918.819, 919.302, 919.743, 920.145, 920.534, 920.923, 921.312, 921.695, 921.928, 922.077, 922.602, 923.274, 923.740, 923.846, 923.942, 924.238, 924.619, 925.000, 925.381, 925.763, 926.041, 925.948
EXISTING ROAD LEVELS(m)	916.824, 917.033, 917.430, 917.814, 918.499, 919.005, 919.405, 919.607, 920.050, 920.476, 920.852, 921.387, 921.866, 922.236, 922.563, 923.494, 923.563, 923.651, 923.936, 924.316, 924.637, 925.066, 925.595, 925.771, 925.659
GL AT 5m LHS (m)	916.724, 916.730, 917.068, 917.581, 917.757, 918.161, 918.319, 919.129, 919.361, 919.781, 920.031, 920.419, 920.691, 921.031, 921.443, 921.895, 922.008, 922.443, 922.889, 923.159, 923.589, 923.968, 924.273, 924.513, 924.780, 925.074, 925.381, 925.781, 926.090, 926.408, 926.726
GL AT 8m RHS (m)	916.473, 916.524, 919.945, 921.581, 919.078, 919.129, 920.026, 920.969, 920.545, 921.031, 921.443, 921.895, 922.008, 922.443, 922.889, 923.159, 923.589, 923.968, 924.273, 924.513, 924.780, 925.074, 925.381, 925.781, 926.090, 926.408, 926.726
VERTICAL SCHEMATIC	Vertical curve diagrams showing grades (e.g., -2.50%, 5.00%, 1.945%, 2.50%, 0.275%, 1.906%) and curve lengths (L) and elevations.
HORIZONTAL SCHEMATIC	Horizontal alignment diagrams showing curve radii (R), curve lengths (L), and stationing.
SUPERELEVATION	Diagrams showing super-elevation percentages (e) across the road width.
CROSS SECTION DETAILS	TCS-2, TCS-2, TCS-5
PROPOSED CHAINAGE	9+500, 9+520, 9+540, 9+560, 9+580, 9+600, 9+620, 9+640, 9+660, 9+680, 9+700, 9+720, 9+740, 9+760, 9+780, 9+800, 9+820, 9+840, 9+860, 9+880, 9+900, 9+920, 9+940, 9+960, 9+980, 10+000

TENDER PURPOSE ONLY

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED

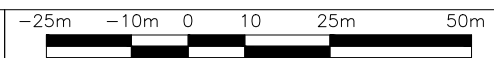
CLIENT:

 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 1:1500
 VER 1:200



DESIGNED	MADHUBABU
DRAWN	DANIEL
CHECKED	CHANDRA/ASHIK
APPROVED	PRADEEP KAPLA

TITLE : PLAN & PROFILE
 FROM CH: 9+500 TO CH: 10+000

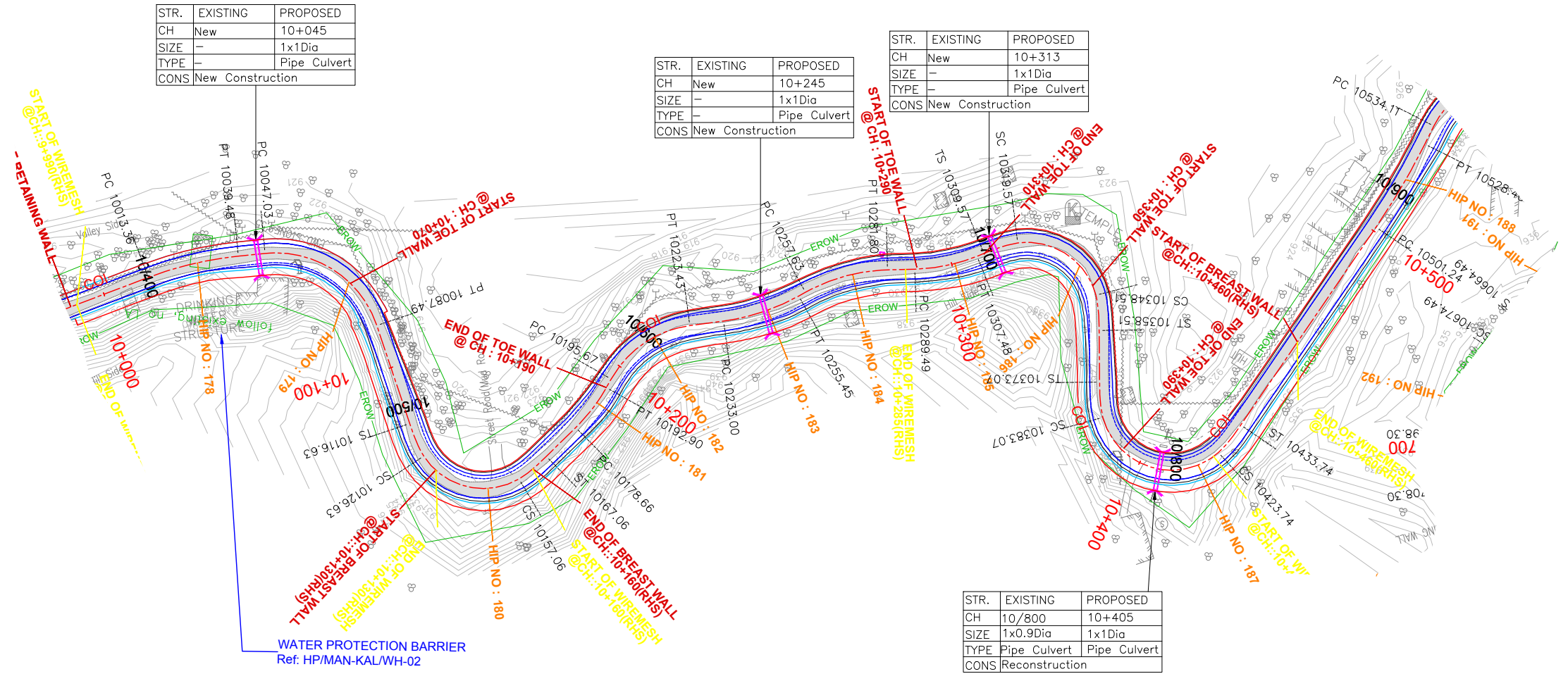
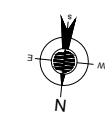
DRAWING NO : HP/MAN-KAL/P&P-20B

ROAD NAME : Package-V:
 Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000

SHEET 20B OF 22

← MANDI


KALKHAR →



WATER PROTECTION BARRIER
Ref: HP/MAN-KAL/WH-02

TENDER PURPOSE ONLY

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED

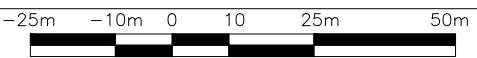
CLIENT:

 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 1:1500
 VER 1:200



DESIGNED	MADHUBABU
DRAWN	DANIEL
CHECKED	CHANDRA/ASHIK
APPROVED	PRADEEP KAPLA

TITLE :
 PLAN & PROFILE
 FROM CH: 10+000 TO CH: 10+500

DRAWING NO : HP/MAN-KAL/P&P-21A

ROAD NAME : Package-V:
 Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000

SHEET 21A OF 22

MANDI ←

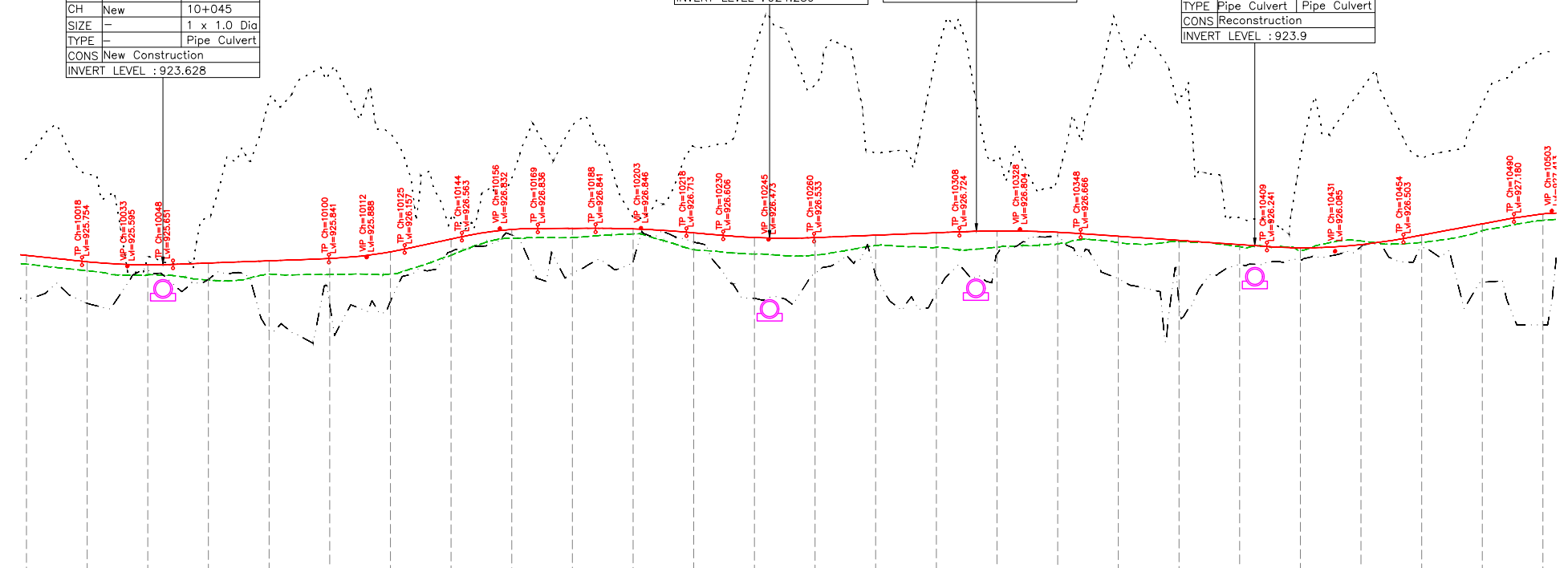
→ KALKHAR

STR.	EXISTING	PROPOSED
CH	New	10+045
SIZE	-	1 x 1.0 Dia
TYPE	-	Pipe Culvert
CONS	New Construction	
INVERT LEVEL		: 923.628

STR.	EXISTING	PROPOSED
CH	New	10+245
SIZE	-	1 x 1.0 Dia
TYPE	-	Pipe Culvert
CONS	New Construction	
INVERT LEVEL		: 924.239

STR.	EXISTING	PROPOSED
CH	New	10+313
SIZE	-	1 x 1.0 Dia
TYPE	-	Pipe Culvert
CONS	New Construction	
INVERT LEVEL		: 924.524


STR.	EXISTING	PROPOSED
CH	10/800	10+405
SIZE	1 x 0.9 Dia	1 x 1.0 Dia
TYPE	Pipe Culvert	Pipe Culvert
CONS	Reconstruction	
INVERT LEVEL		: 923.9



DATUM = +915.000m	
PROPOSED ROAD LEVELS(m)	929.948, 925.737, 925.636, 925.694, 925.768, 925.843, 926.064, 926.486, 926.802, 926.839, 926.822, 926.692, 926.537, 926.534, 926.614, 926.694, 926.753, 926.710, 926.580, 926.441, 926.303, 926.199, 926.289, 926.615, 926.987, 927.316
EXISTING ROAD LEVELS(m)	925.659, 925.443, 925.308, 925.134, 925.335, 925.314, 925.533, 925.953, 926.503, 926.533, 926.656, 926.135, 925.992, 925.955, 926.273, 926.213, 926.327, 926.371, 926.406, 926.238, 926.102, 926.423, 926.373, 926.764, 927.104
GL AT 5m LHS (m)	929.148, 928.622, 925.896, 927.201, 931.048, 931.960, 929.974, 927.280, 928.473, 930.249, 927.207, 929.531, 932.732, 931.562, 929.328, 929.559, 929.115, 928.473, 933.350, 931.182, 927.193, 929.186, 931.404, 929.154, 930.981, 932.640
GL AT 8m RHS (m)	924.476, 924.369, 925.481, 925.155, 923.469, 924.303, 924.431, 926.074, 926.617, 925.366, 925.739, 926.394, 924.538, 925.347, 925.328, 924.720, 925.987, 926.587, 925.177, 924.328, 925.654, 925.826, 926.232, 926.182, 926.081, 925.655, 927.104
VERTICAL SCHEMATIC	L=22.703, G=-1.062%, k=20.929, L=30.000, G=0.371%, L=51.405, k=14.031, L=24.993, G=2.152%, L=18.873, L=25.000, k=-11.779, G=0.030%, L=19.036, L=30.000, k=-32.738, G=0.399%, L=47.884, L=40.000, k=-36.651, G=-0.692%, L=61.397, k=17.644, L=45.000, G=1.858%, L=36.443, L=25.000, k=-10.000
HORIZONTAL SCHEMATIC	R=100.000, L=26.127, R=30.000, L=40.463, D=29.134, R=20.000, L=30.437, D=14.233, R=30.000, L=27.756, R=60.000, L=22.451, R=50.000, L=24.179, R=20.000, L=28.933, R=20.000, L=40.672, D=67.504
SUPERELEVATION	e=2.50%, e=2.50%, e=7.00%, e=2.50%, e=2.50%, e=7.00%, e=2.50%, e=2.50%, e=7.00%, e=2.50%, e=2.50%, e=7.00%, e=2.50%, e=2.50%, e=7.00%, e=2.50%, e=2.50%
CROSS SECTION DETAILS	TCS-5, TCS-4, TCS-4, TCS-3
PROPOSED CHAINAGE	10+000, 10+020, 10+040, 10+060, 10+080, 10+100, 10+120, 10+140, 10+160, 10+180, 10+200, 10+220, 10+240, 10+260, 10+280, 10+300, 10+320, 10+340, 10+360, 10+380, 10+400, 10+420, 10+440, 10+460, 10+480, 10+500

TENDER PURPOSE ONLY

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED

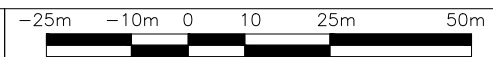
CLIENT:

 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 1:1500
 VER 1:200



DESIGNED	MADHUBABU
DRAWN	DANIEL
CHECKED	CHANDRA/ASHIK
APPROVED	PRADEEP KAPLA

TITLE : PLAN & PROFILE
 FROM CH: 10+000 TO CH: 10+500

DRAWING NO : HP/MAN-KAL/P&P-21B

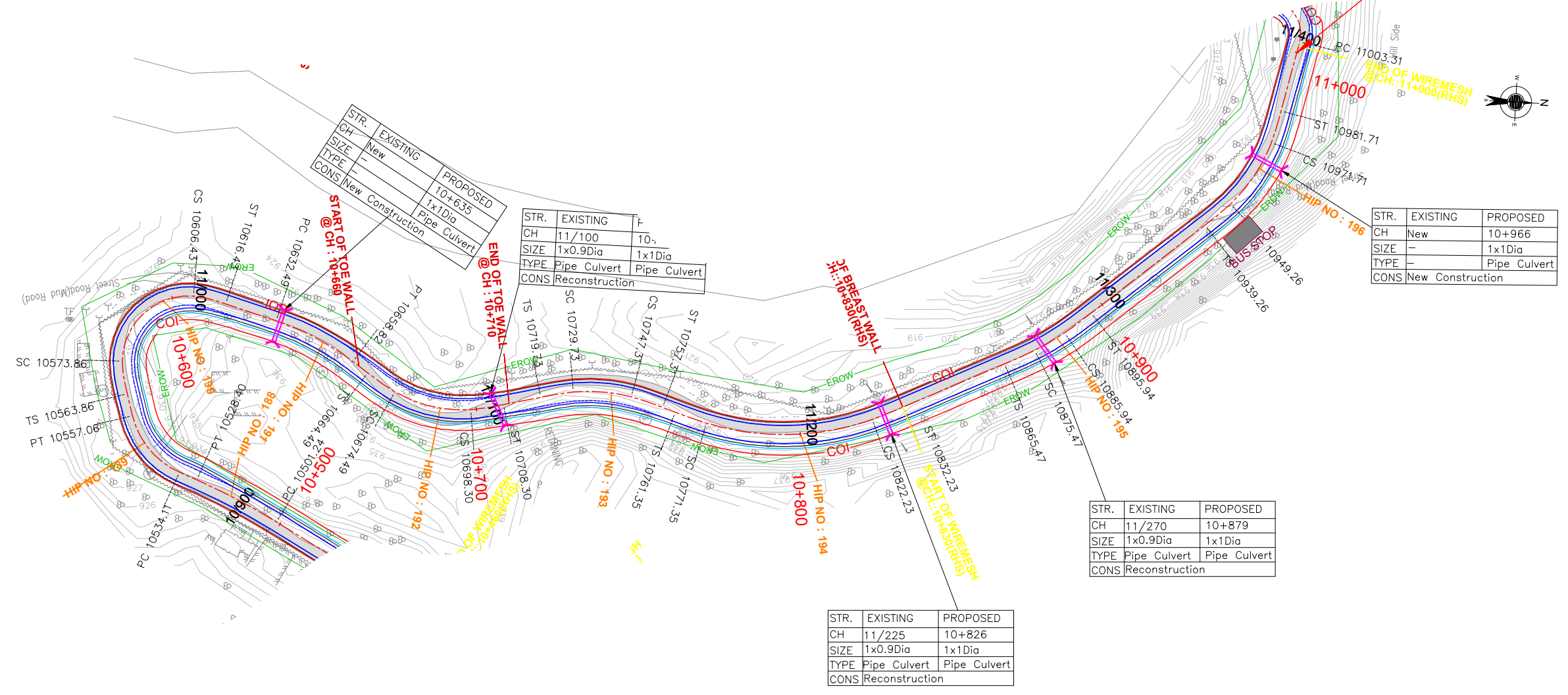
ROAD NAME : Package-V:
 Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000

SHEET 21B OF 22

← MANDI


KALKHAR →

**END OF PACKAGE-5
AT CH: 11+000**



TENDER PURPOSE ONLY

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED

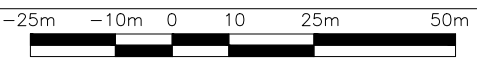
CLIENT:

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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 1:1500
 VER 1:200



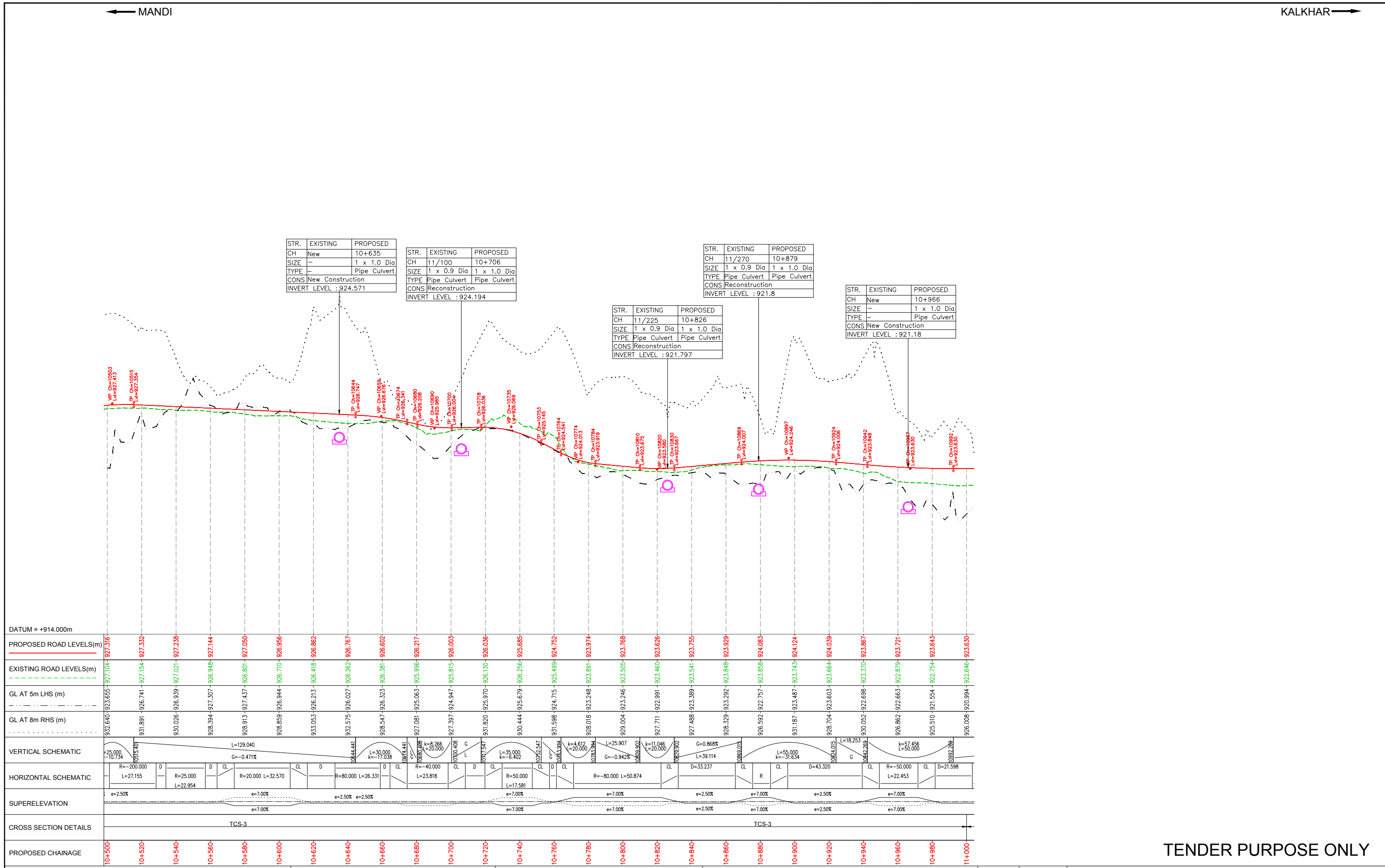
DESIGNED: MADHUBABU
 DRAWN: DANIEL
 CHECKED: CHANDRA/ASHIK
 APPROVED: PRADEEP KAPLA

TITLE : PLAN & PROFILE
 FROM CH: 10+500 TO CH: 11+000

DRAWING NO : HP/MAN-KAL/P&P-22A

ROAD NAME : Package-V:
 Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000

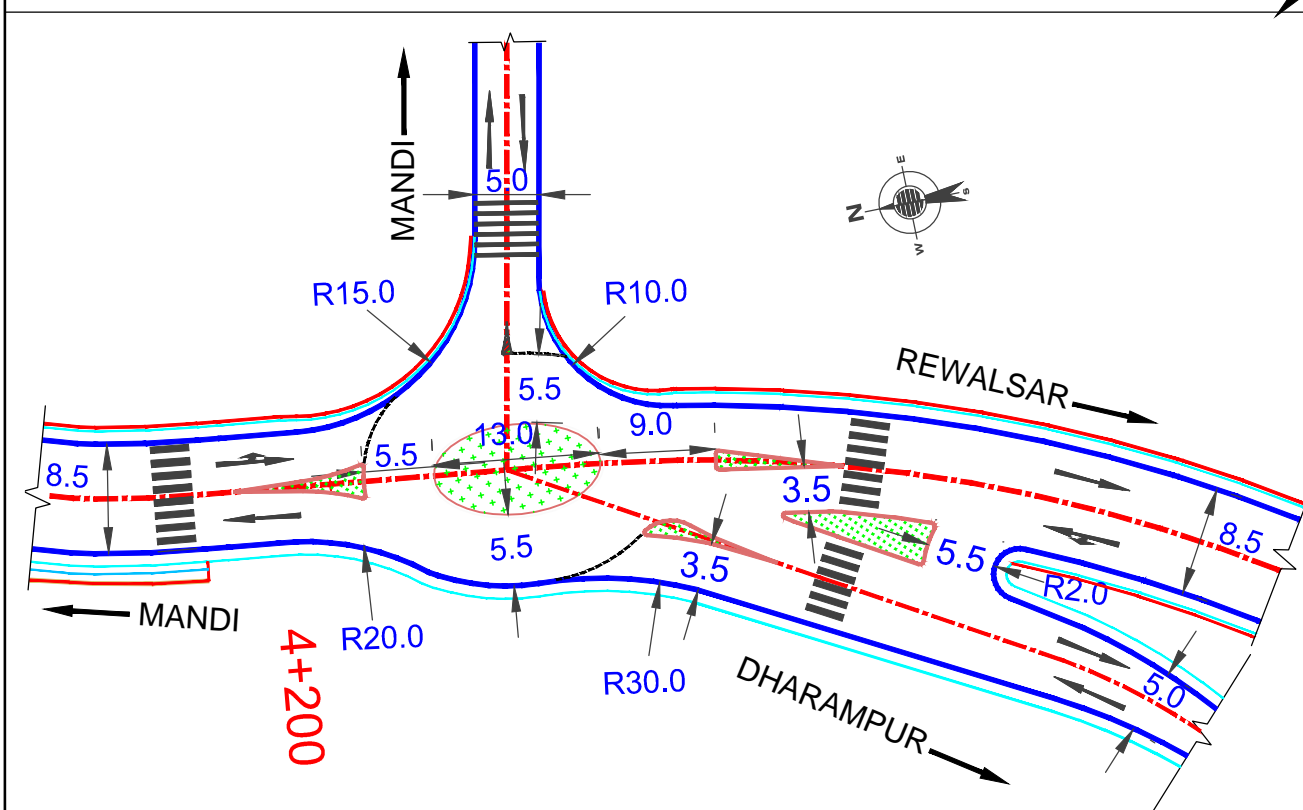
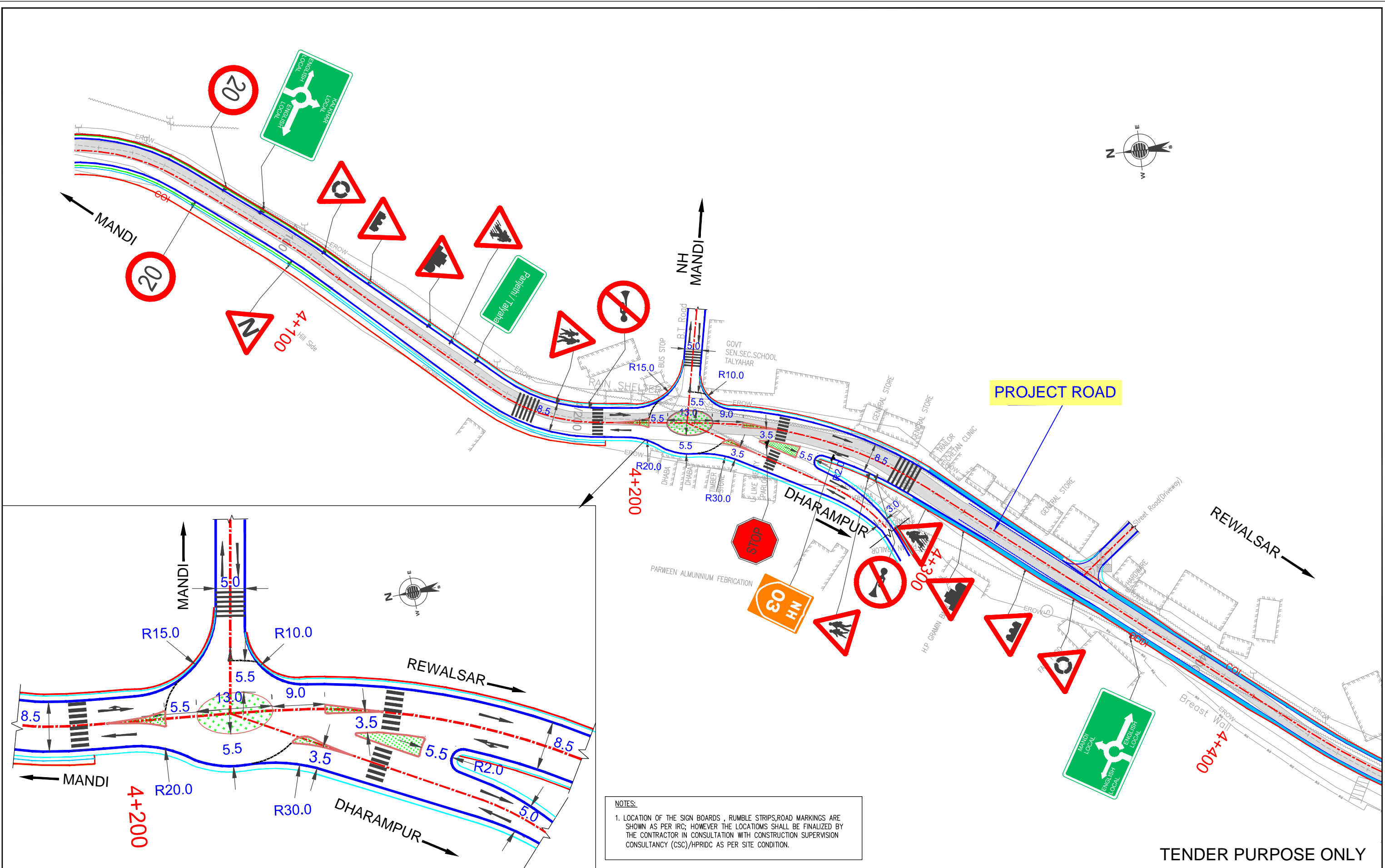
SHEET 22A OF 22



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: MADHUBABU DRAWN: DANIEL CHECKED: CHANDRA/ASHIK APPROVED: PRADEEP KAPLA	TITLE : PLAN & PROFILE FROM CH: 10+500 TO CH: 11+000 DRAWING NO : HP/MAN-KAL/P&P-22B ROAD NAME : Package-V: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000		SHEET 22B OF 22
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MAJOR JUNCTION PLAN



NOTES:
 1. LOCATION OF THE SIGN BOARDS , RUMBLE STRIPS, ROAD MARKINGS ARE SHOWN AS PER IRC; HOWEVER THE LOCATIONS SHALL BE FINALIZED BY THE CONTRACTOR IN CONSULTATION WITH CONSTRUCTION SUPERVISION CONSULTANCY (CSC)/HPRDC AS PER SITE CONDITION.

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: MADHUK
 DRAWN: DANIEL
 CHECKED: CS/AH
 APPROVED: PRADEEP KAPLA

TITLE : MAJOR JUNCTION AT KM 4+214

DRAWING NO : HP/MAN-KAL/MJUN-001

ROAD NAME : Package-V: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000

SHEET 01 OF 01


TRAFFIC SIGNS AND ROAD MARKING PLAN
(KM 0+000 TO 11+000)

Summary of Road Signs Package-V_ MDR-26: MANDI-REWALSAR-KALKHAR

S.No	Description	Locations / Usage	Unit	Quantities
A	Informatory signs			
	a) Facility information Signs of size 800mm x 600mm	Bus stops & Hospitals	Nos	20
	b) Direction / Place Identification signs of 1200mm x 600mm	Settlements and Minor Junctions	Nos	26
	c) Advance Direction / Destination / Reassurance / Place Identification signs of 1200mm x 750mm	Minor Junc. - 4 legged & Major Junc. - 3 Legged	Nos	1
	d) Advance Direction / Destination / Reassurance / Place Identification signs of 1200mm x 1150mm	Major Junctions - 4 -Legged	Nos	2
	e) Route marker signs of rectangular plate of 450mm x 600mm	Major Junctions with SH/NH	Nos	1
B	Cautionary signs			
	a) Cautionary signs of size 600mm (Triangular)	School zone, junctions and Curvatures	Nos	136
	b) Chevron Boards - Single Chevrons of 500 x 548 (WXH in mm) Sinlge sign post with TWO Chevron Boards	Curvatures	Nos	214
	c) Chevron Boards - Single Chevrons of 500 x 548 (WXH in mm) Sinlge sign post with ONE Chevron Boards	Curvatures	Nos	0
C	Mandatory signs, size			
	a) Circular of size 600mm	Speed Restricted Zones & Curvatures	Nos	62
	c) Octagonal of size 750mm	Junctions	Nos	8
D	Object marker (Hazardous)	Bridges & Culverts	Nos	204
E	Triple Chevron Signs (Hazardous)	Triple Chevron - Hairpin Bends / Blind Curves	Nos	4
F	Convex Mirrors	Hairpin Bends / Blind Curves	Nos	2
G	Road Studs RED -WHITE Bi - directional	Blind Curves, Hairpin Bends & Built-up Locations	Nos	1622
H	Road Studs Yellow Bi - directional	Blind Curves, Hairpin Bends & Built-up Locations	Nos	1622
I	Rumble Strip Markings	Blind curves, Hairpin Bends, School Zone and Junctions	Sq.m	207.90
J	Pedestrian Crossing - Markings	School Zones & Busstops	Sq.m	176.00

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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 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)

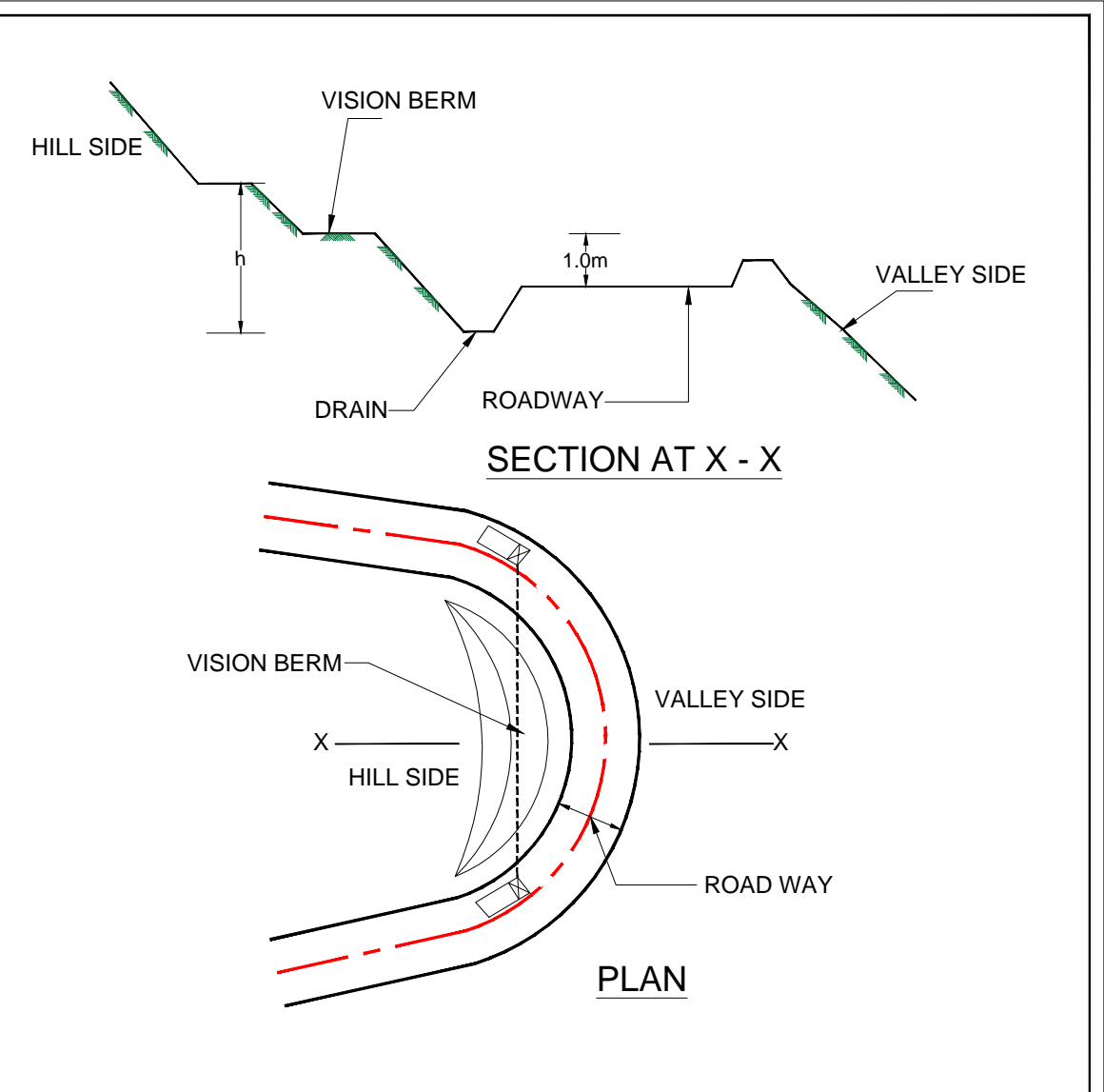
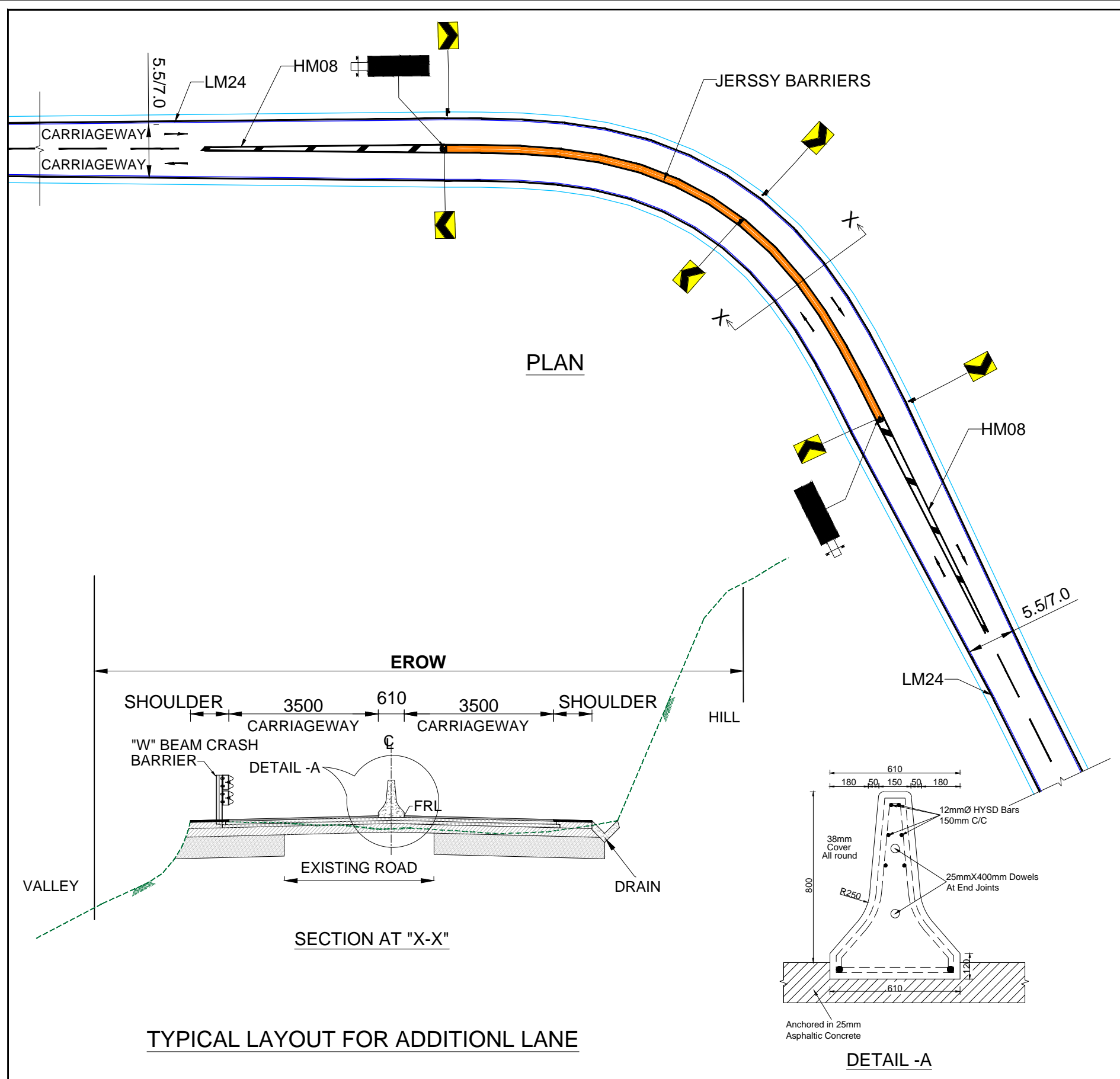
DESIGNED	MADHUBABU
DRAWN	DANIEL
CHECKED	CHANDRA/ASHIK
APPROVED	PRADEEP KAPLA

TITLE : **SUMMARY OF ROAD SIGNS**

DRAWING NO : **HP/MAN-KAL/SRS-001**

ROAD NAME : **Package-V: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000**

SHEET 01 OF 01



TYPICAL LAYOUT FOR VISION BERM

MDR-26 -BLIND CURVE LOCATIONS						
S.No	Existing Chainage		Design Chainage		Side	Type
	From	To	From	To		
1	10/440	10/480	10+055	10+095	RHS	Vision Berm
2	10/710	10/740	10+310	10+340	RHS	Vision Berm

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

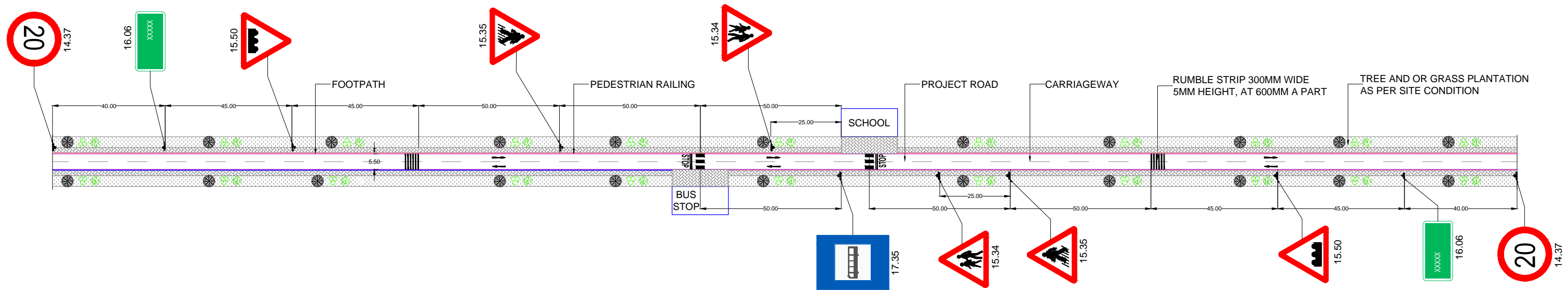
PROJECT:
Himachal Pradesh State Roads Transformation Project (HPSRTP)

SCALE: NOT TO SCALE

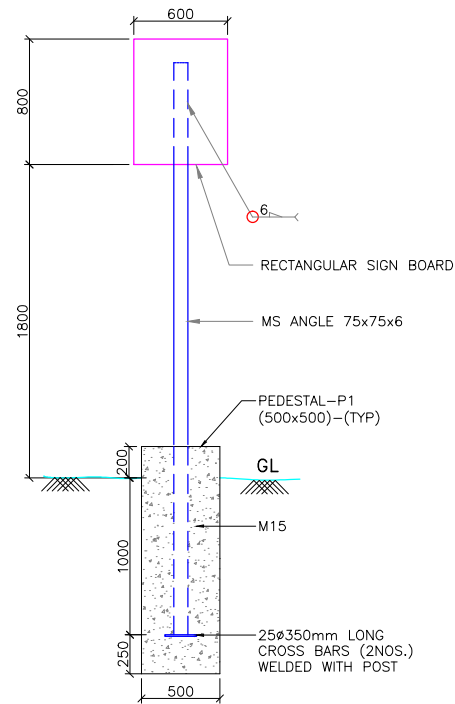
DESIGNED: MADHU.K
 DRAWN: DANIEL
 CHECKED: CS/AH
 APPROVED: PRADEEP KAPLA

TITLE : TYPICAL DRAWINGS FOR VISION BERM & ADDITIONAL LANE AT BLIND CURVE LOCATIONS
 DRAWING NO : HP/MAN-KAL/TYP -VB-001
 ROAD NAME : Package-V: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000
 SHEET 01 OF 01

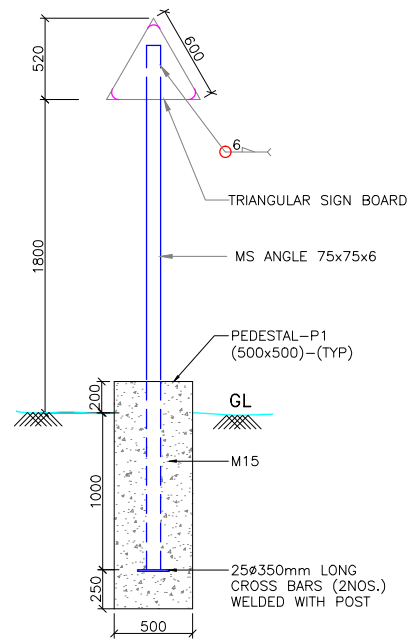
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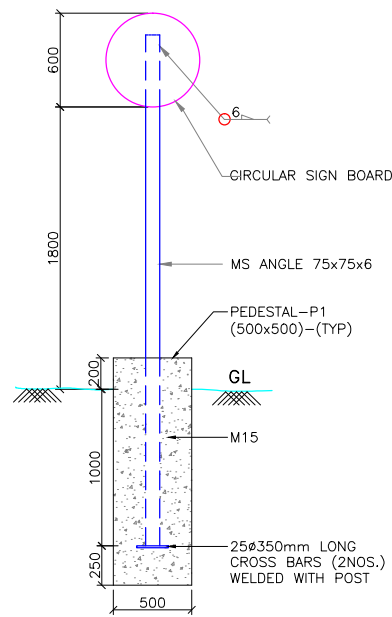
TYPICAL DETAILS OF BUSSTOP & SCHOOL ZONES



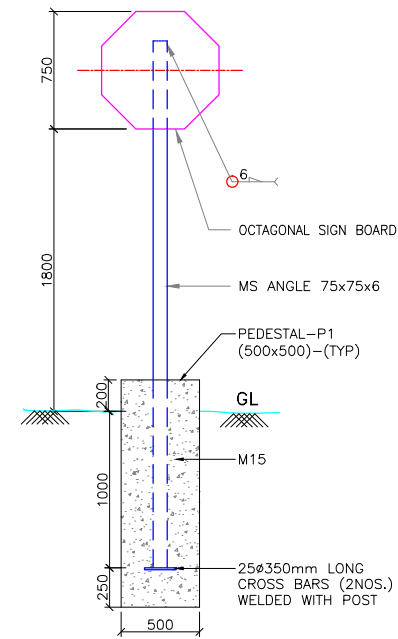
FOR INFORMATORY SIGNS



FOR WARNING SIGNS




FOR MANDATORY SIGNS



MDR-26-PK -V-Bus/Rain Shelters			
Sl.No	Ex. Chainage	Design Chainage	Side
1	1/535	1+530	LHS
2	2/195	2+185	RHS
3	3/190	3+180	LHS
4	4/210	4+190	LHS
5	5/400	5+350	LHS
6	6/570	6+420	RHS
7	7/475	7+320	RHS
8	9/845	9+460	RHS
9	11/345	10+945	RHS

TENDER PURPOSE ONLY

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED

CLIENT:

 HIMACHAL PRADESH ROAD AND OTHER INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.

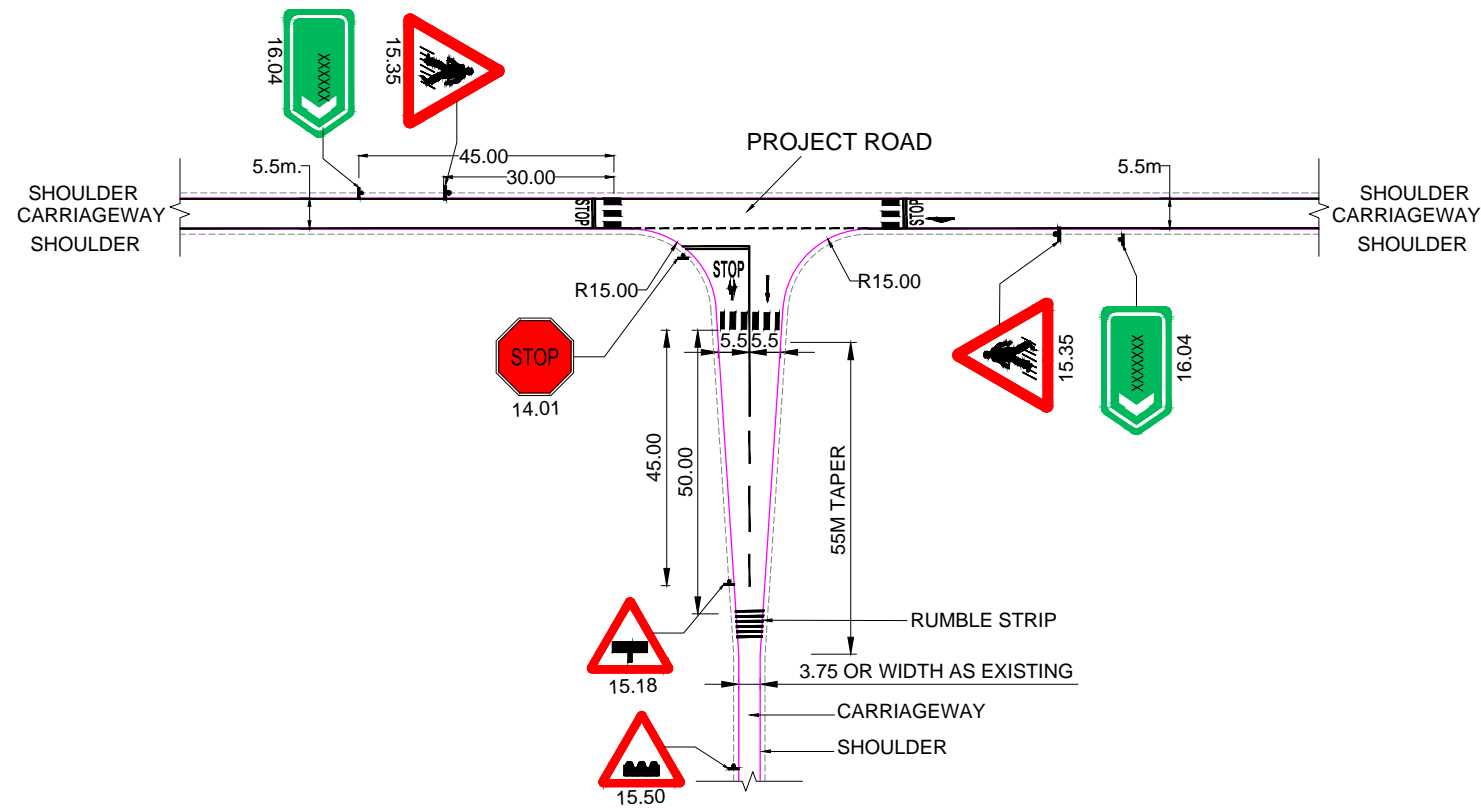
CONSULTANT:

 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

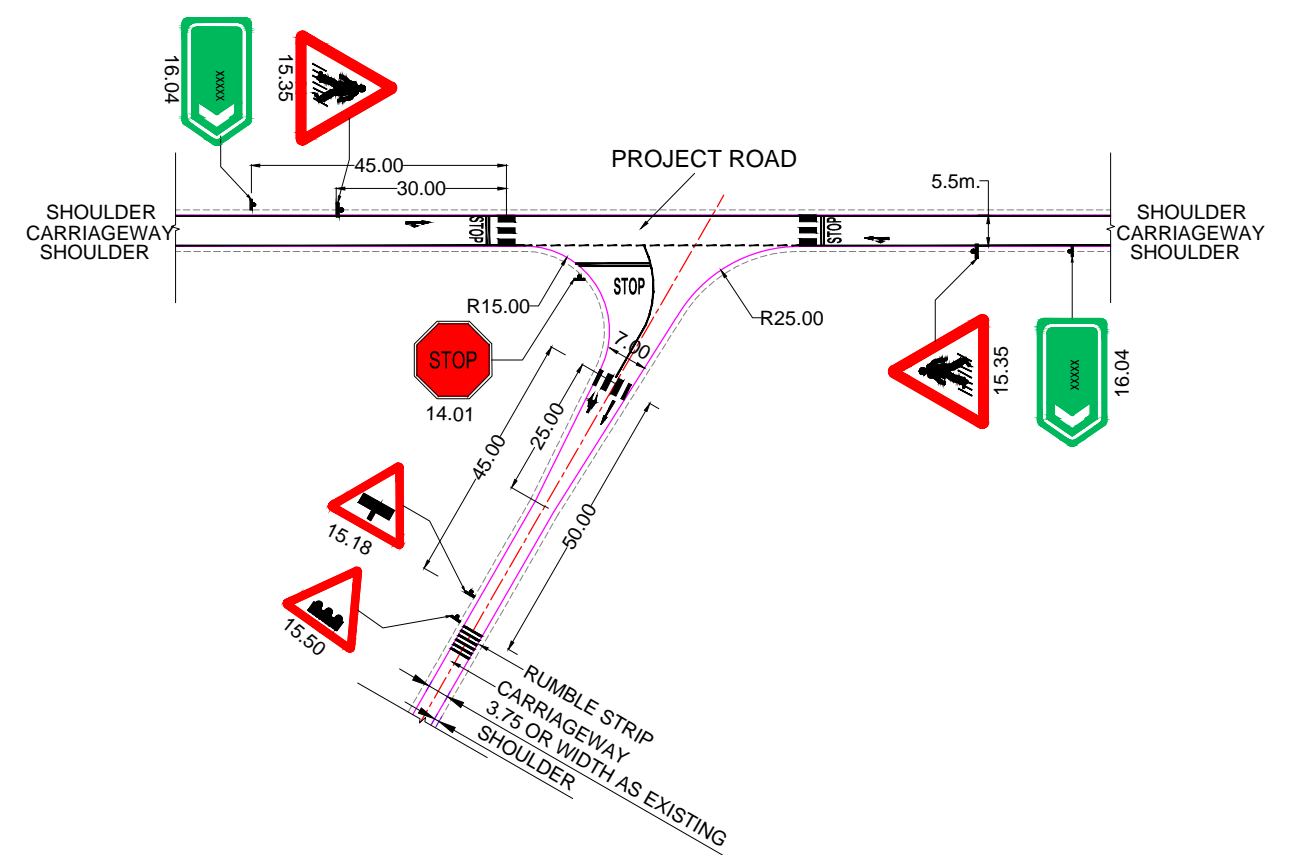
PROJECT:
 Himachal Pradesh State Roads Transformation Project (HPSRTP)

DESIGNED: MADHUBABU
 DRAWN: DANIEL
 CHECKED: CHANDRA/ASHIK
 APPROVED: PRADEEP KAPLA

TITLE : TYPICAL DRAWING FOR TRAFFIC SIGNAGE PLAN AT BUILTUP, SCHOOL ZONE & BUS STOP
DRAWING NO : HP/MAN-KAL/TYP-BSZ-001
ROAD NAME : Package-V: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000
 SHEET 01 OF 01



TYPICAL DETAILS OF SIGN ARRANGEMENT FOR MINOR (T) JUNCTION WITHOUT MEDIAN




TYPICAL DETAILS OF SIGN ARRANGEMENT FOR MINOR (Y) JUNCTION WITHOUT MEDIAN

MDR-26-PK -V-Minor Junctions

S.No	Existing Chainage (KM)	Design Chainage (CH)	Cross Road	Type of Junction
1	1/845	1+840	RHS	T
2	4/360	4+330	LHS	T
3	5/750	5+680	RHS	Y
4	7/490	7+330	LHS	Y
5	7/660	7+470	RHS	Y
6	9/775	9+385	RHS	Y

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)


DESIGNED: MADHUBABU
 DRAWN: DANIEL
 CHECKED: CHANDRA/ASHIK
 APPROVED: PRADEEP KAPLA

TITLE : TRAFFIC SIGNS AND ROAD MARKINGS FOR TYPICAL MINOR JUNCTIONS
 DRAWING NO : HP/MAN-KAL/TYP.MIN.JUN-001
 ROAD NAME : Package-V: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000
 SHEET 01 OF 01



TENDER PURPOSE ONLY

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED


CLIENT:

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PROJECT:
 Himachal Pradesh State Roads Transformation Project (HPSRTP)

SCALE:
 HOR 1:2000



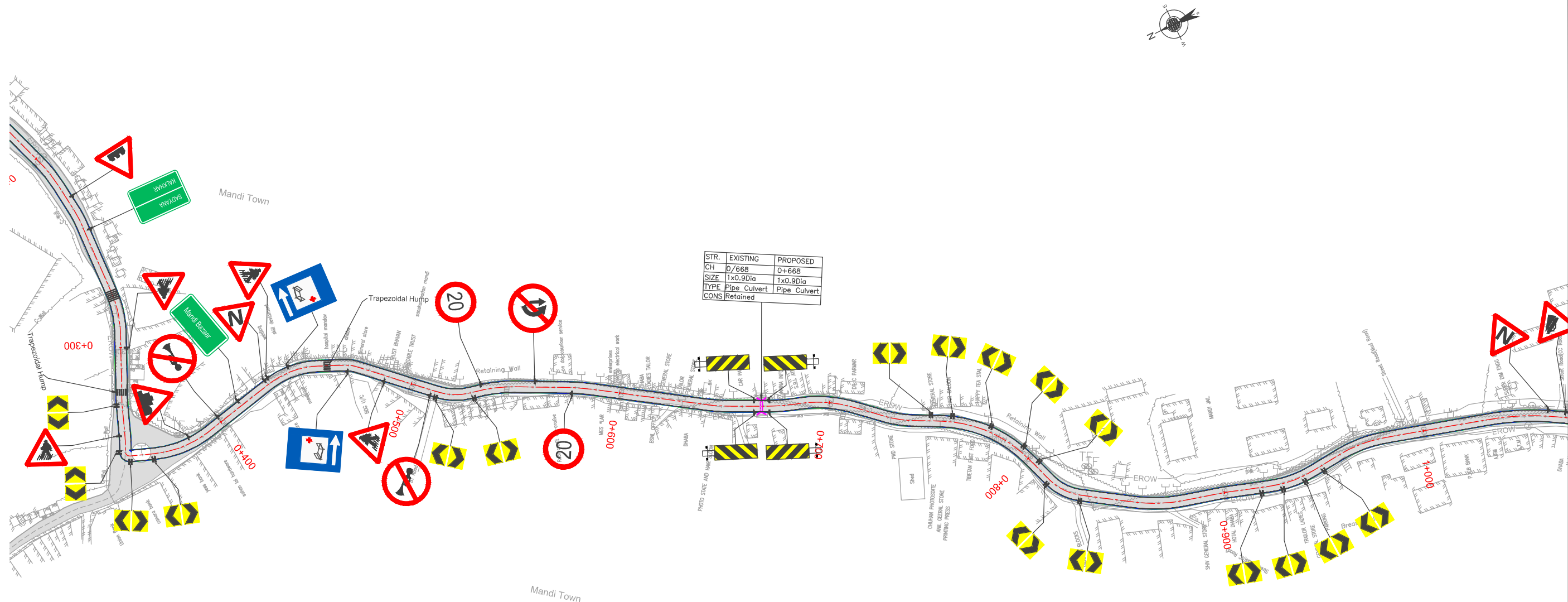
DESIGNED: MADHUBABU
 DRAWN: DANIEL
 CHECKED: CHANDRA/ASHIK
 APPROVED: PRADEEP KAPLA

TITLE :
 TRAFFIC SIGNS AND ROAD MARKING PLAN FROM CH:0+000 TO 0+300

DRAWING NO : HP/MAN-KAL/TSRM-001


ROAD NAME : Package-V: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000

SHEET 01 OF 16



TENDER PURPOSE ONLY

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED


CLIENT:

 HIMACHAL PRADESH ROAD AND OTHER INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.

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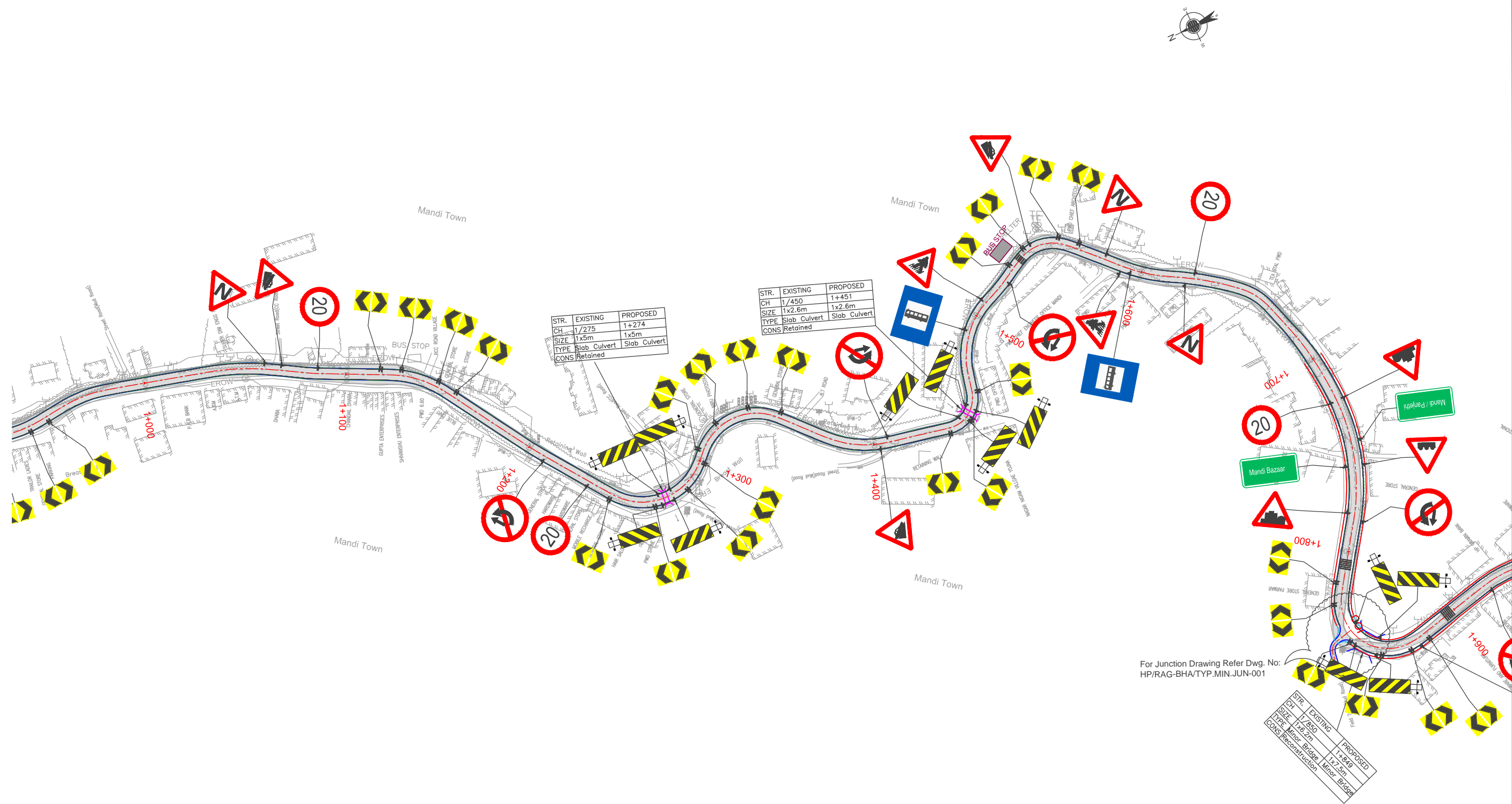
PROJECT:
 Himachal Pradesh State Roads Transformation Project (HPSRTP)

SCALE:
 HOR 1:2000



DESIGNED: MADHUBABU
 DRAWN: DANIEL
 CHECKED: CHANDRA/ASHIK
 APPROVED: PRADEEP KAPLA


TITLE :
 TRAFFIC SIGNS AND ROAD MARKING PLAN FROM CH:0+300 TO 1+000
 DRAWING NO : HP/MAN-KAL/TSRM-002
ROAD NAME : Package-V: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000



For Junction Drawing Refer Dwg. No: HP/RAG-BHA/TYP.MIN.JUN-001

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 1:2000



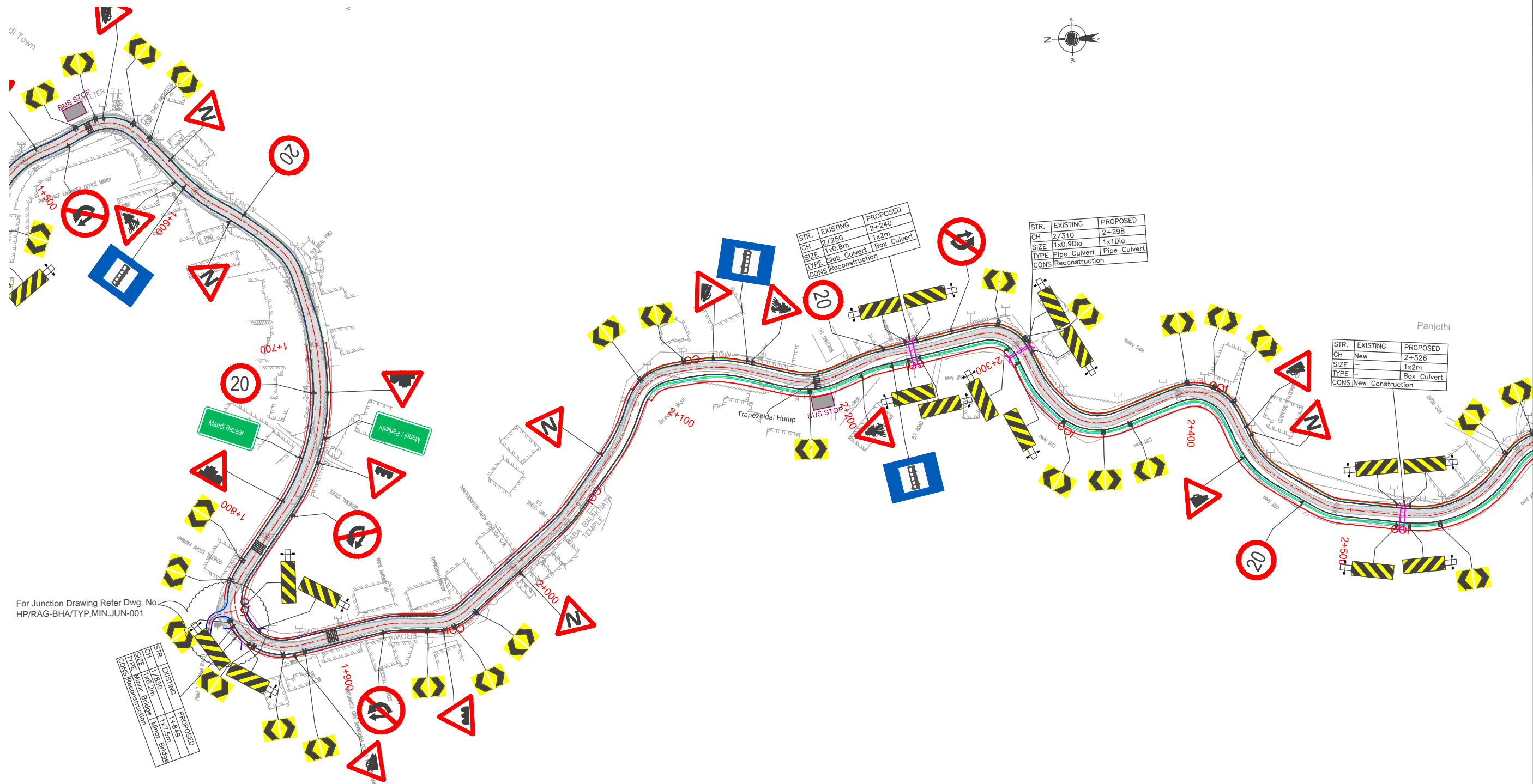
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 DRAWN: DANIEL
 CHECKED: CHANDRA/ASHIK
 APPROVED: PRADEEP KAPLA

TITLE :
 TRAFFIC SIGNS AND ROAD MARKING PLAN FROM CH:1+000 TO 1+700

DRAWING NO : HP/MAN-KAL/TSRM-003

ROAD NAME : Package-V: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000


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For Junction Drawing Refer Dwg. No. HP/RAG-BHA/TYP.MIN.JUN-001

TENDER PURPOSE ONLY

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED


CLIENT:

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PROJECT:
 Himachal Pradesh State Roads Transformation Project (HPSRTP)

SCALE:
 HOR 1:2000



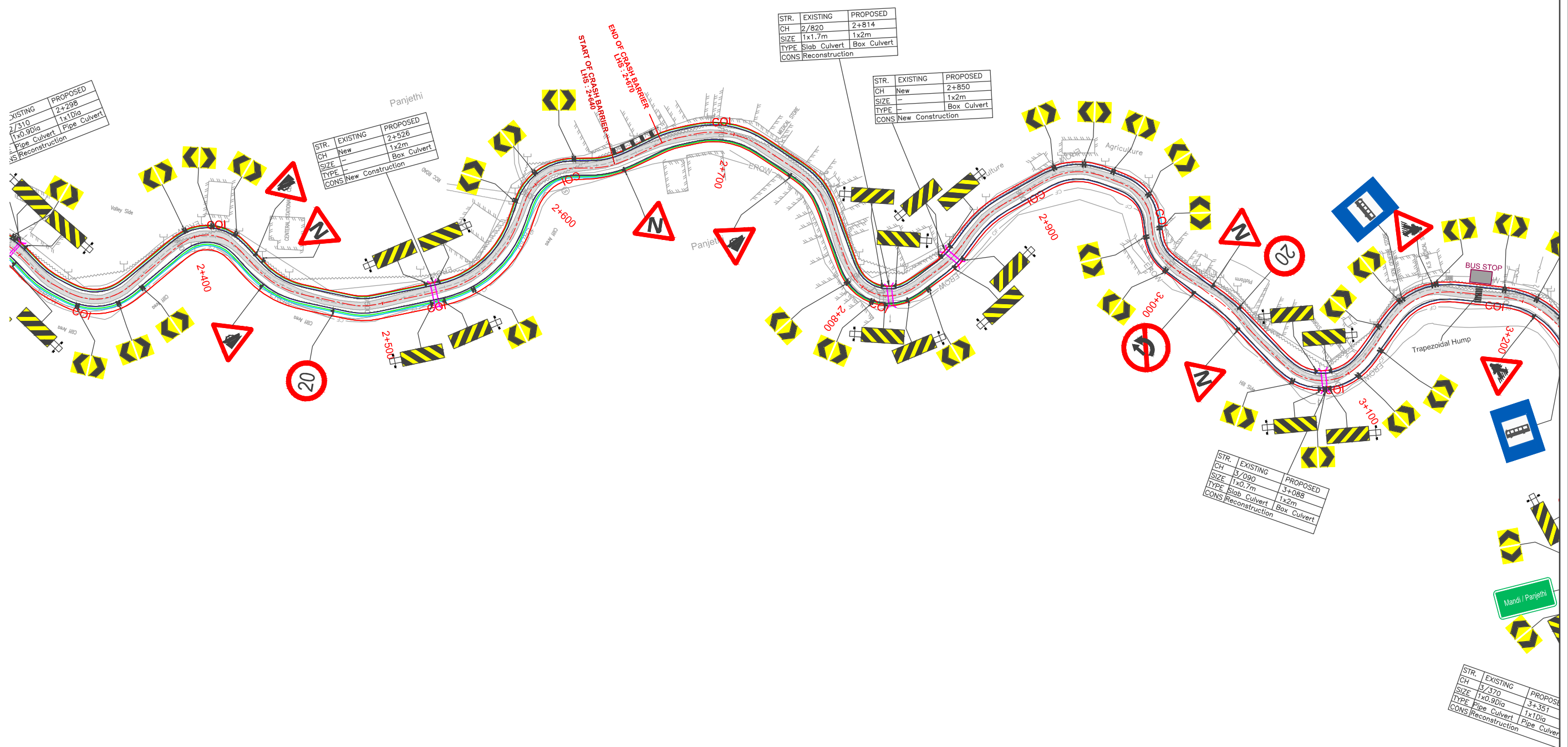
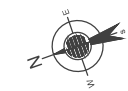
DESIGNED: MADHUBABU
 DRAWN: DANIEL
 CHECKED: CHANDRA/ASHIK
 APPROVED: PRADEEP KAPLA

TITLE :
 TRAFFIC SIGNS AND ROAD MARKING PLAN FROM CH:1+700 TO 2+400


DRAWING NO : HP/MAN-KAL/TSRM-004

ROAD NAME : Package-V: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000

SHEET 04 OF 16



TENDER PURPOSE ONLY

CLIENT:

 HIMACHAL PRADESH ROAD AND OTHER INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.

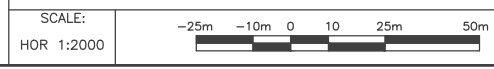
CONSULTANT:

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 #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

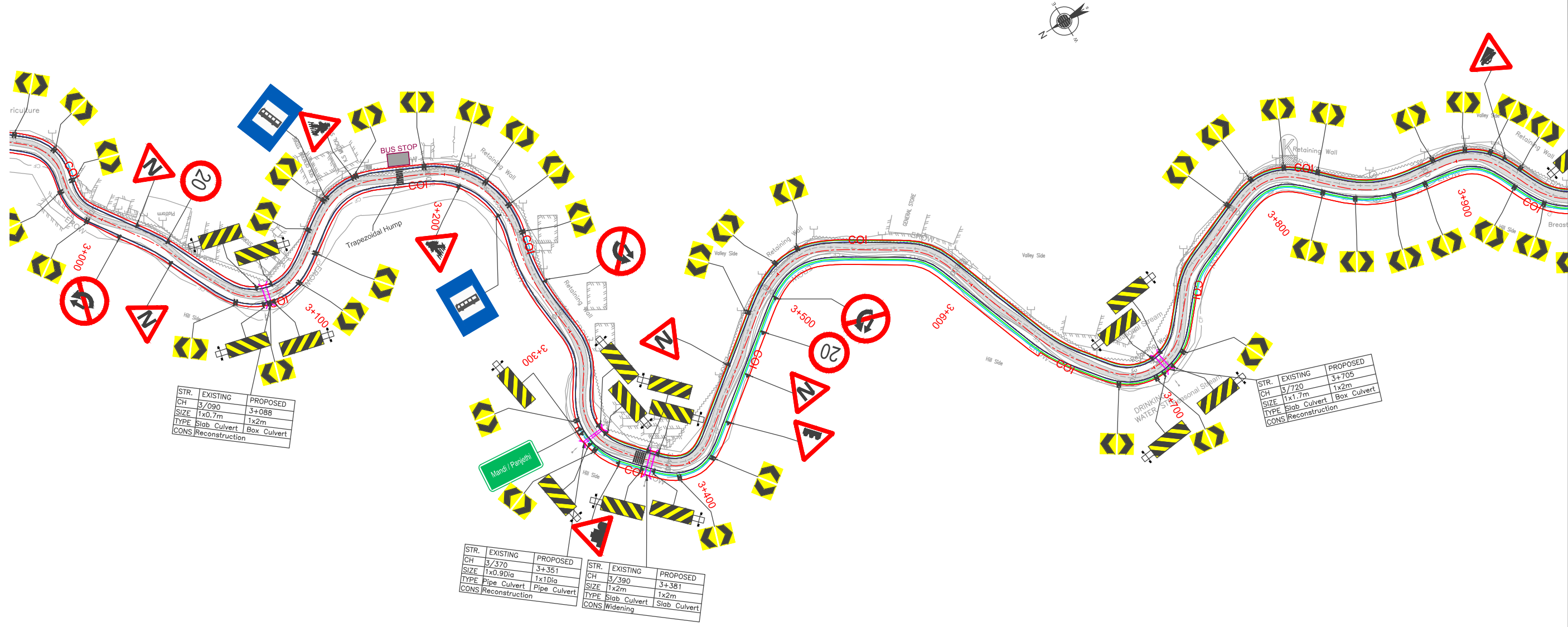
PROJECT:
 Himachal Pradesh State Roads Transformation Project (HPSRTP)

DESIGNED: MADHUBABU
 DRAWN: DANIEL
 CHECKED: CHANDRA/ASHIK
 APPROVED: PRADEEP KAPLA

TITLE :
 TRAFFIC SIGNS AND ROAD MARKING PLAN FROM CH:2+400 TO 3+100
DRAWING NO : HP/MAN-KAL/TSRM-005
ROAD NAME : Package-V: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000



REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED




STR.	EXISTING	PROPOSED
CH	3/090	3+088
SIZE	1x0.7m	1x2m
TYPE	Slab Culvert	Box Culvert
CONS	Reconstruction	

STR.	EXISTING	PROPOSED	STR.	EXISTING	PROPOSED
CH	3/370	3+351	CH	3/390	3+381
SIZE	1x0.9Dia	1x1Dia	SIZE	1x2m	1x2m
TYPE	Pipe Culvert	Pipe Culvert	TYPE	Slab Culvert	Slab Culvert
CONS	Reconstruction		CONS	Widening	

STR.	EXISTING	PROPOSED
CH	3/720	3+705
SIZE	1x1.7m	1x2m
TYPE	Slab Culvert	Box Culvert
CONS	Reconstruction	

TENDER PURPOSE ONLY

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED


CLIENT:

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PROJECT:
 Himachal Pradesh State Roads Transformation Project (HPSRTP)

SCALE:
 HOR 1:2000



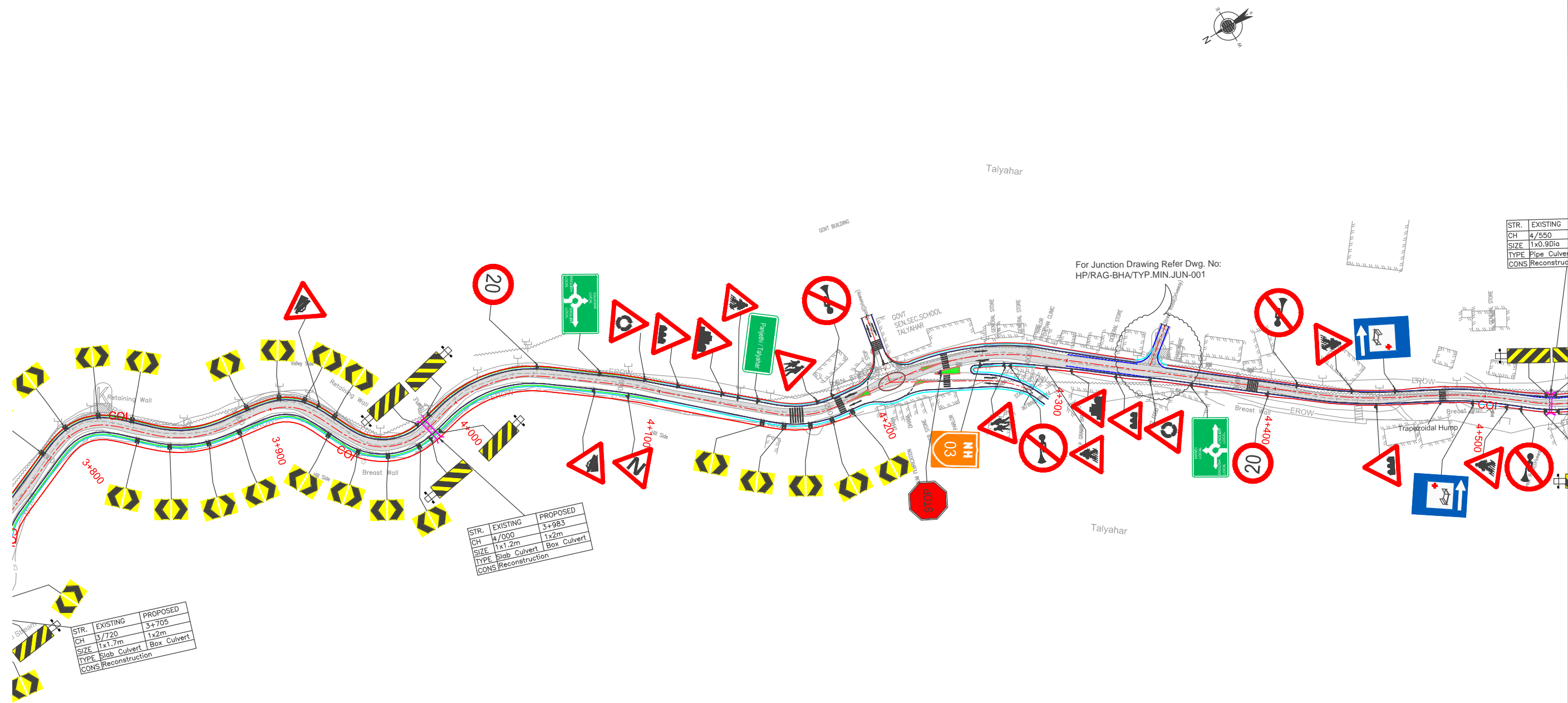
DESIGNED: MADHUBABU
 DRAWN: DANIEL
 CHECKED: CHANDRA/ASHIK
 APPROVED: PRADEEP KAPLA

TITLE :
 TRAFFIC SIGNS AND ROAD MARKING PLAN FROM CH:3+100 TO 3+800

DRAWING NO : HP/MAN-KAL/TSRM-006


ROAD NAME : Package-V: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000

SHEET 06 OF 16



TENDER PURPOSE ONLY

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED


CLIENT:

 HIMACHAL PRADESH ROAD AND OTHER INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.

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PROJECT:
 Himachal Pradesh State Roads Transformation Project (HPSRTP)

SCALE:
 HOR 1:2000



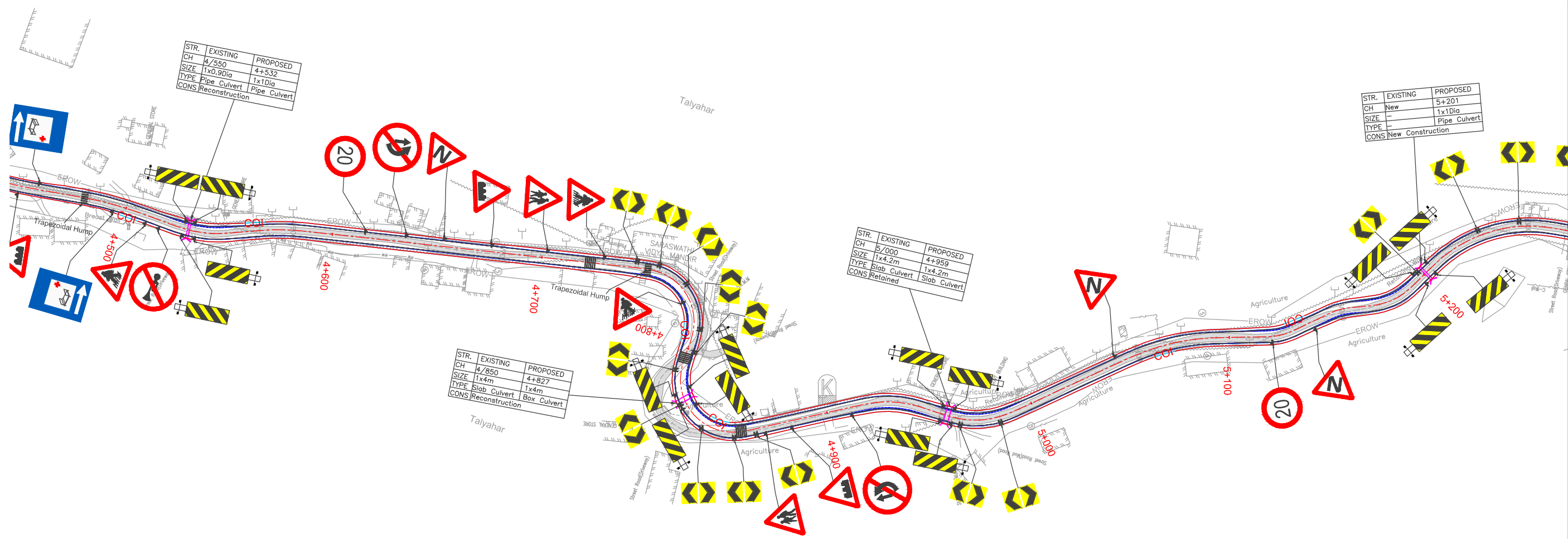
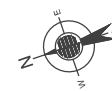
DESIGNED: MADHUBABU
 DRAWN: DANIEL
 CHECKED: CHANDRA/ASHIK
 APPROVED: PRADEEP KAPLA

TITLE :
 TRAFFIC SIGNS AND ROAD MARKING PLAN FROM CH:3+800 TO 4+500

DRAWING NO : HP/MAN-KAL/TSRM-007


ROAD NAME : Package-V:
 Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000

SHEET 07 OF 16



TENDER PURPOSE ONLY

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED


CLIENT:

 HIMACHAL PRADESH ROAD AND OTHER INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.

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PROJECT:
 Himachal Pradesh State Roads Transformation Project (HPSRTP)

SCALE:
 HOR 1:2000



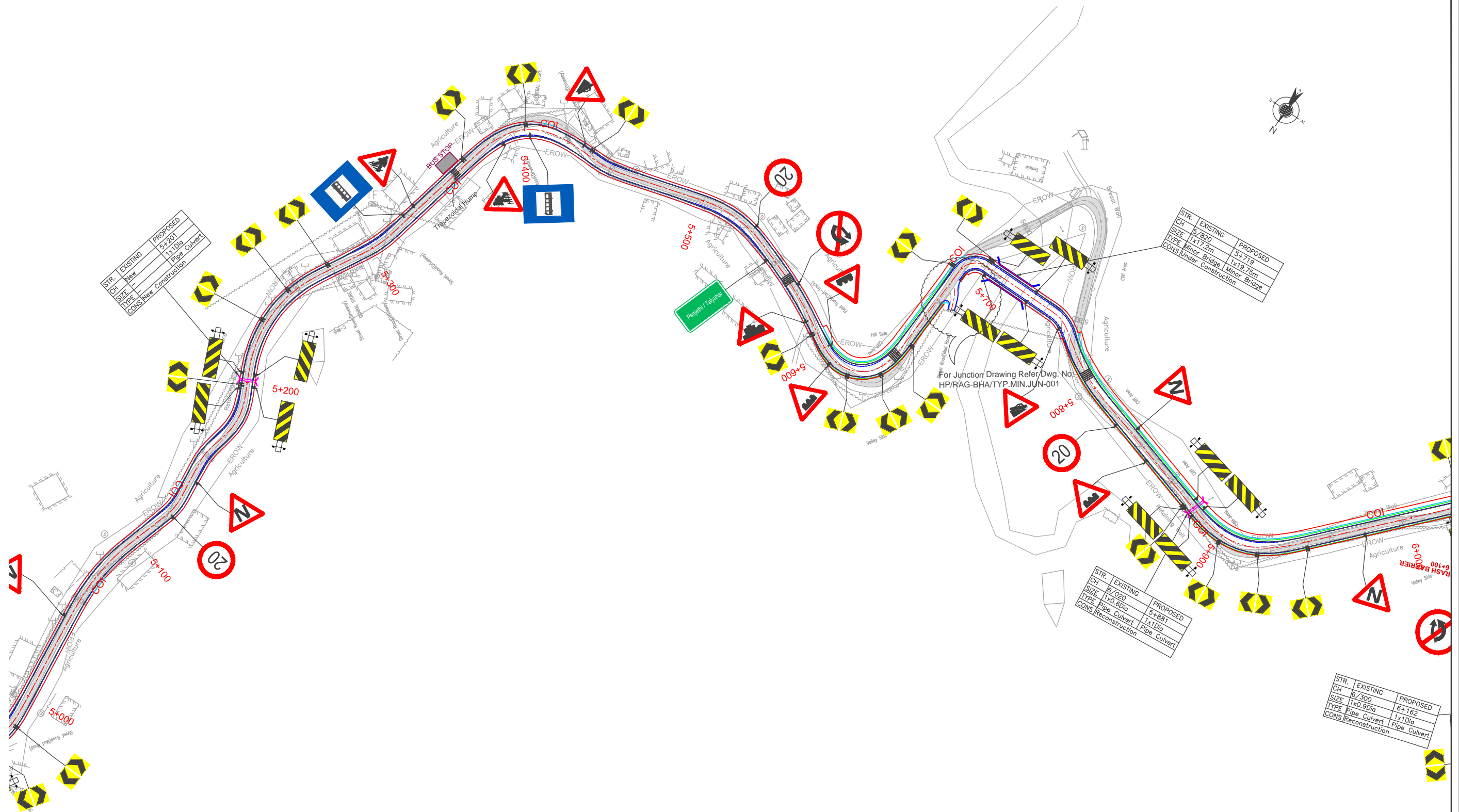
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 DRAWN: DANIEL
 CHECKED: CHANDRA/ASHIK
 APPROVED: PRADEEP KAPLA

TITLE :
 TRAFFIC SIGNS AND ROAD MARKING PLAN FROM CH:4+500 TO 5+200

DRAWING NO : HP/MAN-KAL/TSRM-008

ROAD NAME : Package-V:
 Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000


SHEET 08 OF 16



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 1:2000



DESIGNED	MADHUBABU
DRAWN	DANIEL
CHECKED	CHANDRA/ASHIK
APPROVED	PRADEEP KAPLA

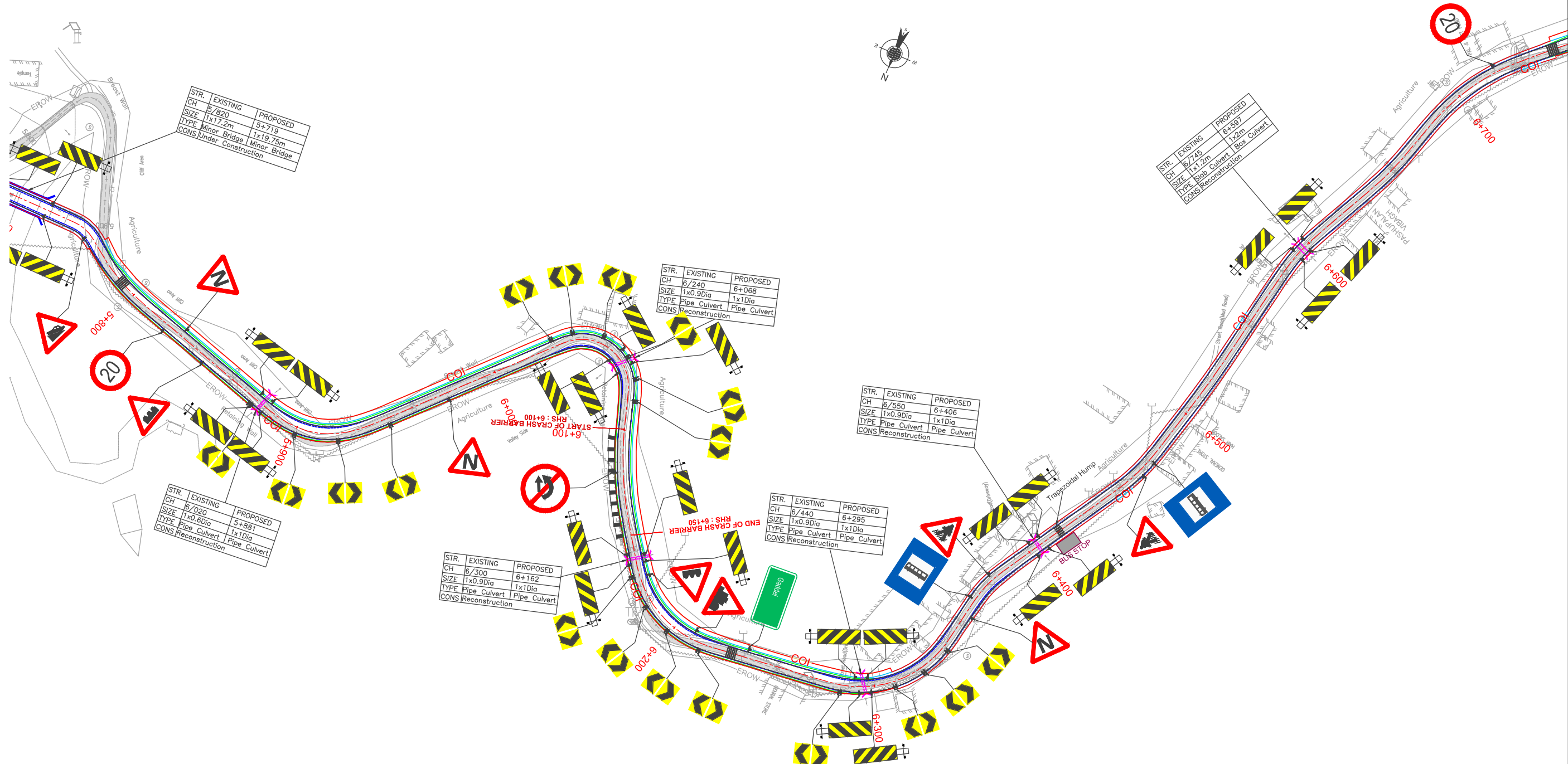
TITLE :

TRAFFIC SIGNS AND ROAD MARKING PLAN FROM CH:5+200 TO 5+900

DRAWING NO : HP/MAN-KAL/TSRM-009


ROAD NAME : Package-V: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000

SHEET 09 OF 16



TENDER PURPOSE ONLY

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED


CLIENT:

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CONSULTANT:

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PROJECT:
 Himachal Pradesh State Roads Transformation Project (HPSRTP)

SCALE:
 HOR 1:2000



DESIGNED: MADHUBABU
 DRAWN: DANIEL
 CHECKED: CHANDRA/ASHIK
 APPROVED: PRADEEP KAPLA

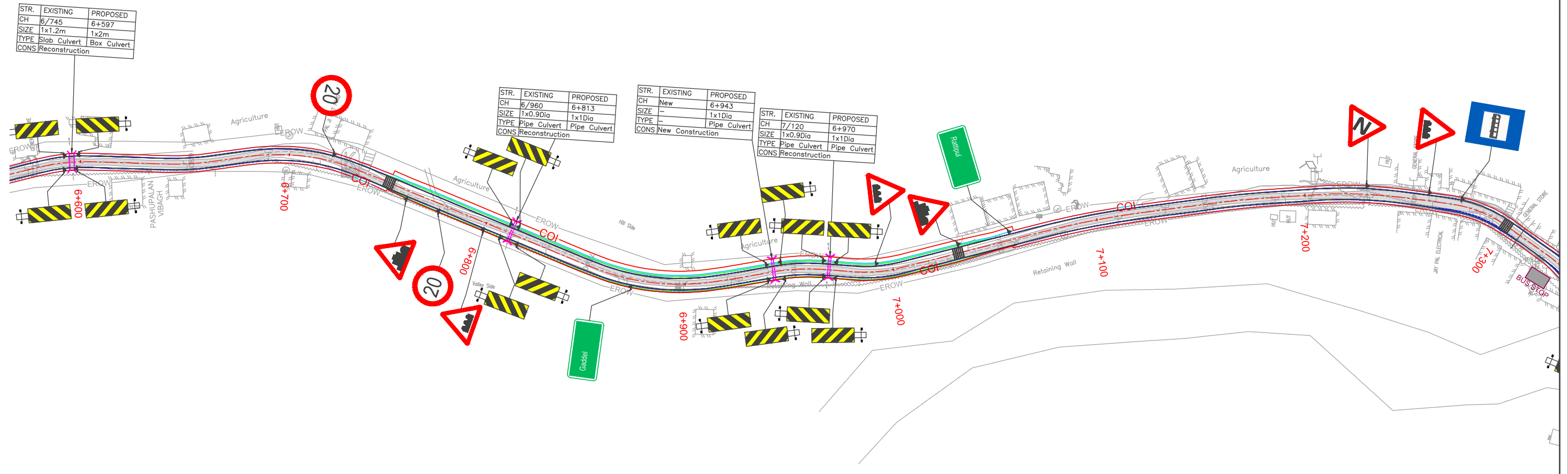
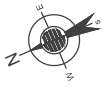
TITLE :
 TRAFFIC SIGNS AND ROAD MARKING PLAN FROM CH:5+900 TO 6+600

DRAWING NO : HP/MAN-KAL/TSRM-010

ROAD NAME : Package-V: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000

SHEET 10 OF 16

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STR.	EXISTING	PROPOSED
CH	6/745	6+597
SIZE	1x1.2m	1x2m
TYPE	Slab Culvert	Box Culvert
CONS	Reconstruction	


STR.	EXISTING	PROPOSED
CH	6/960	6+813
SIZE	1x0.9Dia	1x1Dia
TYPE	Pipe Culvert	Pipe Culvert
CONS	Reconstruction	

STR.	EXISTING	PROPOSED
CH	New	6+943
SIZE	-	1x1Dia
TYPE	-	Pipe Culvert
CONS	New Construction	

STR.	EXISTING	PROPOSED
CH	7/120	6+970
SIZE	1x0.9Dia	1x1Dia
TYPE	Pipe Culvert	Pipe Culvert
CONS	Reconstruction	

TENDER PURPOSE ONLY

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED


CLIENT:

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PROJECT:
 Himachal Pradesh State Roads Transformation Project (HPSRTP)

SCALE:
 HOR 1:2000



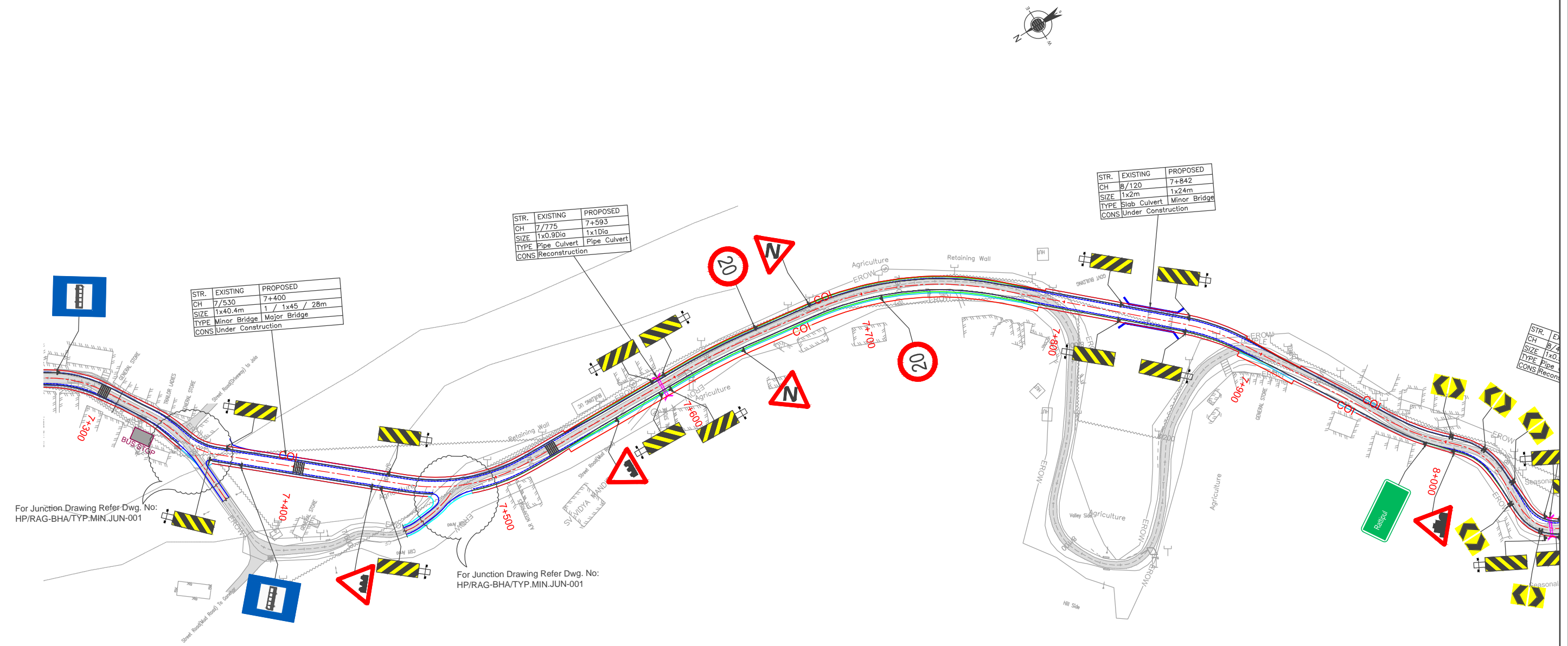
DESIGNED	MADHUBABU
DRAWN	DANIEL
CHECKED	CHANDRA/ASHIK
APPROVED	PRADEEP KAPLA

TITLE :
 TRAFFIC SIGNS AND ROAD MARKING PLAN FROM CH:6+600 TO 7+300

DRAWING NO : HP/MAN-KAL/TSRM-001


ROAD NAME : Package-V:
 Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000

SHEET 11 OF 16



TENDER PURPOSE ONLY

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED


CLIENT:

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PROJECT:
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SCALE:
 HOR 1:2000



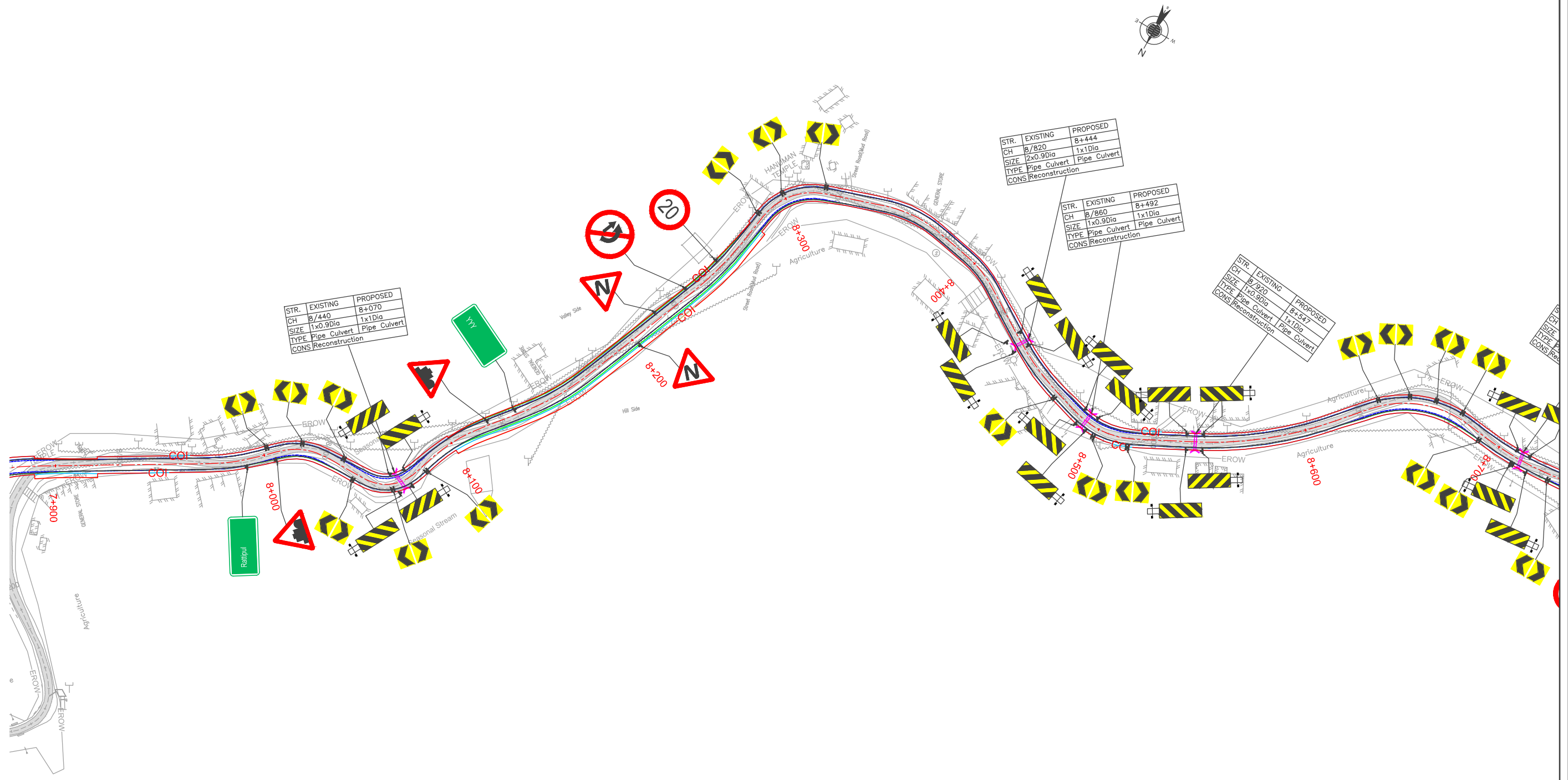
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 DRAWN DANIEL
 CHECKED CHANDRA/ASHIK
 APPROVED PRADEEP KAPLA

TITLE :
 TRAFFIC SIGNS AND ROAD MARKING PLAN FROM CH:7+300 TO 8+000


DRAWING NO : HP/MAN-KAL/TSRM-012

ROAD NAME : Package-V:
 Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000

SHEET 12 OF 16



TENDER PURPOSE ONLY

CLIENT:

 HIMACHAL PRADESH ROAD AND OTHER INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.

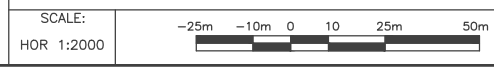
CONSULTANT:

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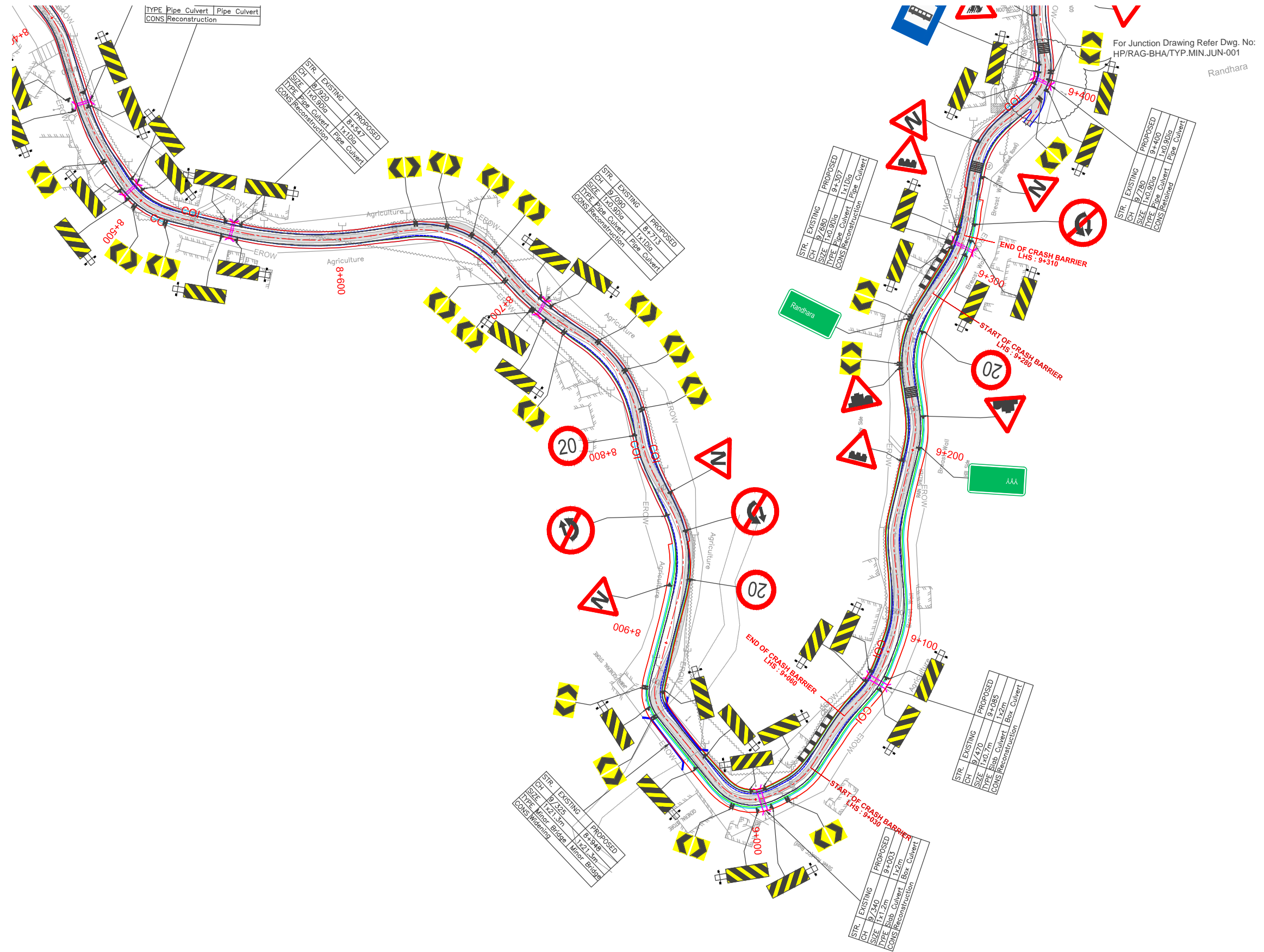
PROJECT:
 Himachal Pradesh State Roads Transformation Project (HPSRTP)

DESIGNED: MADHUBABU
 DRAWN: DANIEL
 CHECKED: CHANDRA/ASHIK
 APPROVED: PRADEEP KAPLA


TITLE :
 TRAFFIC SIGNS AND ROAD MARKING PLAN FROM CH:8+000 TO 8+700
 DRAWING NO : HP/MAN-KAL/TSRM-013
ROAD NAME : Package-V: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000



REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED



REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED


CLIENT:

 HIMACHAL PRADESH ROAD AND OTHER INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.

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PROJECT:
 Himachal Pradesh State Roads Transformation Project (HPSRTP)

SCALE:
 HOR 1:2000



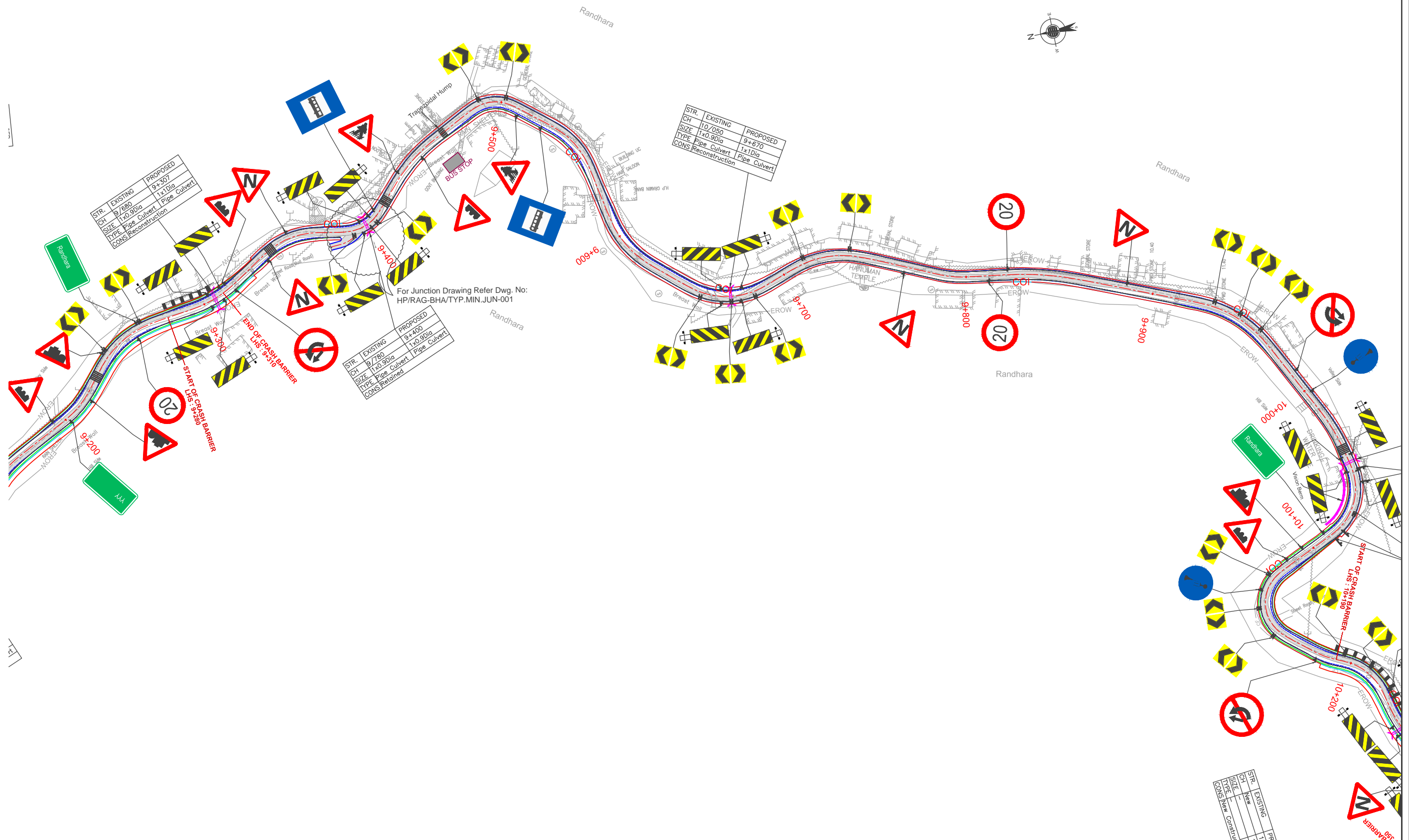
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 DRAWN: DANIEL
 CHECKED: CHANDRA/ASHIK
 APPROVED: PRADEEP KAPLA

TITLE :
 TRAFFIC SIGNS AND ROAD MARKING PLAN FROM CH:8+700 TO 9+400

DRAWING NO : HP/MAN-KAL/TSRM-014



ROAD NAME : Package-V: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000

SHEET 14 OF 16



For Junction Drawing Refer Dwg. No: HP/RAG-BHA/TYP.MIN.JUN-001

TENDER PURPOSE ONLY

<table border="1"> <thead> <tr> <th>REV</th> <th>DATE</th> <th>DESCRIPTION</th> <th>DESIGNED</th> <th>DRAWN</th> <th>CHECKED</th> <th>APPROVED</th> </tr> </thead> <tbody> <tr><td> </td><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><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	REV	DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED																						<p>CLIENT:</p>  <p>HIMACHAL PRADESH ROAD AND OTHER INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.</p>	<p>CONSULTANT:</p>  <p>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</p>	<p>PROJECT:</p> <p>Himachal Pradesh State Roads Transformation Project (HPSRTP)</p>	<table border="1"> <tr> <td>DESIGNED</td> <td>MADHUBABU</td> </tr> <tr> <td>DRAWN</td> <td>DANIEL</td> </tr> <tr> <td>CHECKED</td> <td>CHANDRA/ASHIK</td> </tr> <tr> <td>APPROVED</td> <td>PRADEEP KAPLA</td> </tr> </table>	DESIGNED	MADHUBABU	DRAWN	DANIEL	CHECKED	CHANDRA/ASHIK	APPROVED	PRADEEP KAPLA	<p>TITLE :</p> <p>TRAFFIC SIGNS AND ROAD MARKING PLAN FROM CH:9+400 TO 10+100</p> <p>DRAWING NO : HP/MAN-KAL/TSRM-015</p> <p>ROAD NAME : Package-V: Upgradation of Mandi - Rewalsar - Kalkhar Road in Mandi District From Km 0+000 To Km 11+000</p>	<p>SHEET 15 OF 16</p>
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<p>SCALE:</p> <p>HOR 1:2000</p> 