

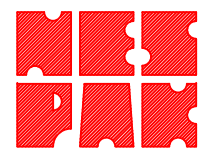
**GOVERNMENT OF KHYBER PAKHTUNKHWA
C & W DEPARTMENT**



**REHABILITATION AND UPGRADATION
OF THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24.377KM
KM 0+000 ~ KM 24+377**

TENDER DRAWINGS

MARCH, 2021



**NATIONAL ENGINEERING SERVICES PAKISTAN (PVT.) LIMITED.
NESPAK HOUSE 2nd Floor Attaturk Avenue, Sector G-5/2 Islamabad- Pakistan.**

LIST OF DRAWINGS

Sr.No.	TITLE OF DRAWING	DRAWING No.	TOTAL NO OF SHEETS
1	LIST OF DRAWINGS AND GENERAL NOTES	38164/102/TD/LDG001	01
2	KEY MAP	38164/102/TD/KM002	01
3	SYMBOLS AND ABBREVIATIONS	38164/102/TD/SA002A	01
4	ROUTE LOCATION PLAN	38164/102/TD/RLP 01~32	32
5	TYPICAL CROSS SECTIONS	38164/102/TD/TS001,TS002	02
6	SCHEDULE OF STRUCTURES	38164/102/TD/SS003,004	02
7	TRAVERSE STATION DATA	38164/102/TD/TS005,006	02
8	SLAB CULVERT DETAILS (SINGLE CELL)	38164/102/TD/SC007	01
9	TYPICAL CULVERT DETAILS (MULTI CELL)	38164/102/TD/SC008	01
10	TYPICAL SLAB CULVERT REINFORCEMENT DETAILS	38164/102/TD/SC009	01
11	TYPICAL PIPE CULVERT DETAILS	38164/102/TD/PC001,002	02
12	TYPICAL STONE MASONRY RETAINING WALL DETAILS	38164/102/TD/RW011	01
13	GENERAL NOTES FOR STRUCTURES	38164/102/TD/GNS0012	01
14	REBAR SHAPE CODE	38164/102/TD/RS0013	01
15	MISCELLANEOUS PROTECTION DETAIL	38164/102/TD/0014	01
16	TYPICAL DRAIN DETAIL	38164/102/TD/D0015	01
17	TYP DETAIL OF SERVICE DUCTS	38164/102/TD/D0016	01
18	TYPICAL SUPERELEVATION DETAILS	38164/102/TD/TS0018	01
19	TYPICAL ROAD SIGN DETAILS	38164/102/TD/RS0019~28	09
20	PAVEMENT MARKING AND ROAD STUDS	38164/102/TD/PMS0029	01
21	METAL GUARD RAIL	38164/102/TD/GR030,031	02
22	PI STATION DATA	38164/102/TD/PD00	04
23	LIST OF SUPERELEVATION	38164/102/TD/PD0010B~10I	17
24	DETAIL PLAN & PROFILE DRAWINGS	4169/(ii)/TD/P 001~051	51

GENERAL NOTES

- ALL DIMENSIONS SHOWN ON PLAN AND PROFILE DRAWINGS ARE IN METERS WHEREAS ANGULAR MEASUREMENTS ARE IN DEGREES, MINUTES AND SECONDS (360° TO A CIRCLE).
- EACH DRAWING SHALL BE READ IN CONJUNCTION WITH OTHER DRAWINGS.
- GRID CO-ORDINATES AND ELEVATIONS ARE BASED ON UTM ZONE 42-N.
- MINOR CHANGES IN HORIZONTAL/VERTICAL ALIGNMENT MAY BE CARRIED OUT AT SITE WITH PRIOR APPROVAL OF THE ENGINEER.
- STRUCTURES SHOWN ON PLAN/PROFILE ARE SYMBOLIC. FOR DETAIL OF STRUCTURES AND PROTECTION WORKS SEE RELEVANT DRAWING. HOWEVER DETAILED INVENTORY OF STRUCTURES SHALL BE PREPARED AS PER SITE CONDITION/REQUIREMENTS AND SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES AT SITE.
- FOR PAVEMENT MARKING AND ROAD SIGNS, CONTRACTOR SHALL SUBMIT DETAILED PLANS DRAWINGS FOR APPROVAL OF THE ENGINEER.
- LOCATION OF UNDER GROUND CABLES/UTILITIES SHOWN ON PLANS ARE APPROXIMATE. EXACT LOCATION SHALL BE DETERMINED BY THE CONTRACTOR AT HIS OWN COST.
- ANY DAMAGE DONE TO THE UTILITIES DURING EXCAVATION/EXECUTION OF WORKS SHALL BE IMMEDIATELY REPAIRED BY THE CONTRACTOR AT HIS OWN COST TO THE SATISFACTION OF CONCERNED DEPARTMENTS.
- THE SUBGRADE MATERIAL SHALL HAVE A MINIMUM SOAKED C.B.R. OF 08% AT 95% M.D.D. AASHTO T-180 FOR BOTH FILL AND CUT SECTIONS.
- THE LENGTHS, SIZES, SLOPES, INVERT LEVELS AND OTHERS GIVEN DETAILS REGARDING CULVERTS, AS SHOWN IN SCHEDULE OF STRUCTURES ARE TENTATIVE. THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS OF EACH CULVERT LOCATIONS WITH THE REQUIRED SKEW ANGLE AS PER SITE REQUIREMENTS AND SHALL SUBMIT THE SAME TO THE ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION EXECUTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO CATER FOR ALL TEMPORARY TRAFFIC DIVERSIONS BEFORE START OF CONSTRUCTION OF THE ROAD TO THE ENTIRE SATISFACTION OF THE ENGINEER INCLUDING DETOUR ROAD IF REQUIRED AND ITS MAINTENANCE, SPRINKLING OF WATER, GRADING AND COMPACTION WHEN AND WHERE REQUIRED AT HIS OWN COST.
- RETAINING/BREAST/TOE WALL, GUARD RAIL, CONCRETE CURB STONES, FOOTPATH, ROAD SIGNS, GANTRY SIGNS, PAVEMENT STUDS AND OTHER ANCILLARY ITEMS SHALL BE PROVIDED AS PER THE BOQ ITEMS, AS PER SITE REQUIREMENT OR AS DIRECTED BY THE ENGINEER. CONTRACTOR SHALL PREPARE THE SHOP DRAWINGS FOR EACH ACTIVITY/ LOCATION ALONG WITH METHODOLOGY AND SHALL SUBMIT FOR APPROVAL TO THE ENGINEER PRIOR TO START OF CONSTRUCTION.
- TWO COATS OF BITUMEN PAINT SHALL BE APPLIED ON CONCRETE FACES IN CONTACT WITH THE SOIL. COST OF THIS ITEM IS DEEMED TO BE INCLUDED IN THE RELEVANT BOQ ITEM RATES AND NO SEPERATE PAYMENT SHALL BE MADE FOR THIS ITEM OF WORK.
- RETAINING/DRAINAGE STRUCTURES FOUNDATION SHALL BE PLACED ON FIRM,HARD AND ROCKY STRATA, OR AS DIRECTED BY ENGINEER.
- ROADWAY EXCAVATION MATERIAL SHALL BE UTILIZED IN MOST EFFECTIVE MANNER IN THE EMBANKMENT EVEN WITH BLENDING /MIXING WITH THE SUPERIOR MATERIALS (IF REQUIRED, WITHOUT AT ANY EXTRA COST). ROADWAY EXCAVATION SHALL NOT BE DISPOSED OFF OUTSIDE RIGHT OF WAY.
- ALL SHARP BENDS/CARVES SHALL BE WIDENED AS PER AASHTO STANDARDS.
- NSL PROVIDED IN ROAD PROFILE DRAWING IS GENERATED USING TIN, WHICH MAY HAVE SLIGHT VARIATION FROM ACTUAL NSL AT SITE. PRIOR TO EXECUTION, JOINT CROSS SECTION / ACTUAL NSL OF DESIGN CENTER LINE WILL BE PROVIDED TO M/S NESPAK TO FINALIZE THE ROAD PROFILE PRIOR TO COMMENCE CONSTRUCTION ACTIVITIES AT SITE.
- PCC PARAPET SHALL BE PROVIDED THROUGH OUT PROJECT LENGTH ON VALLEY SIDE WITH INTERMITTENT GAPS AS PER DRAWING 38164/102/TD/RW011
- RETAINING WALL/BREAST WALL MADE WITH R.R MASONRY SHALL BE PROVIDED KEEPING IN VIEW THE SITE REQUIREMENT AS PER THE ENGINEER APPROVAL.



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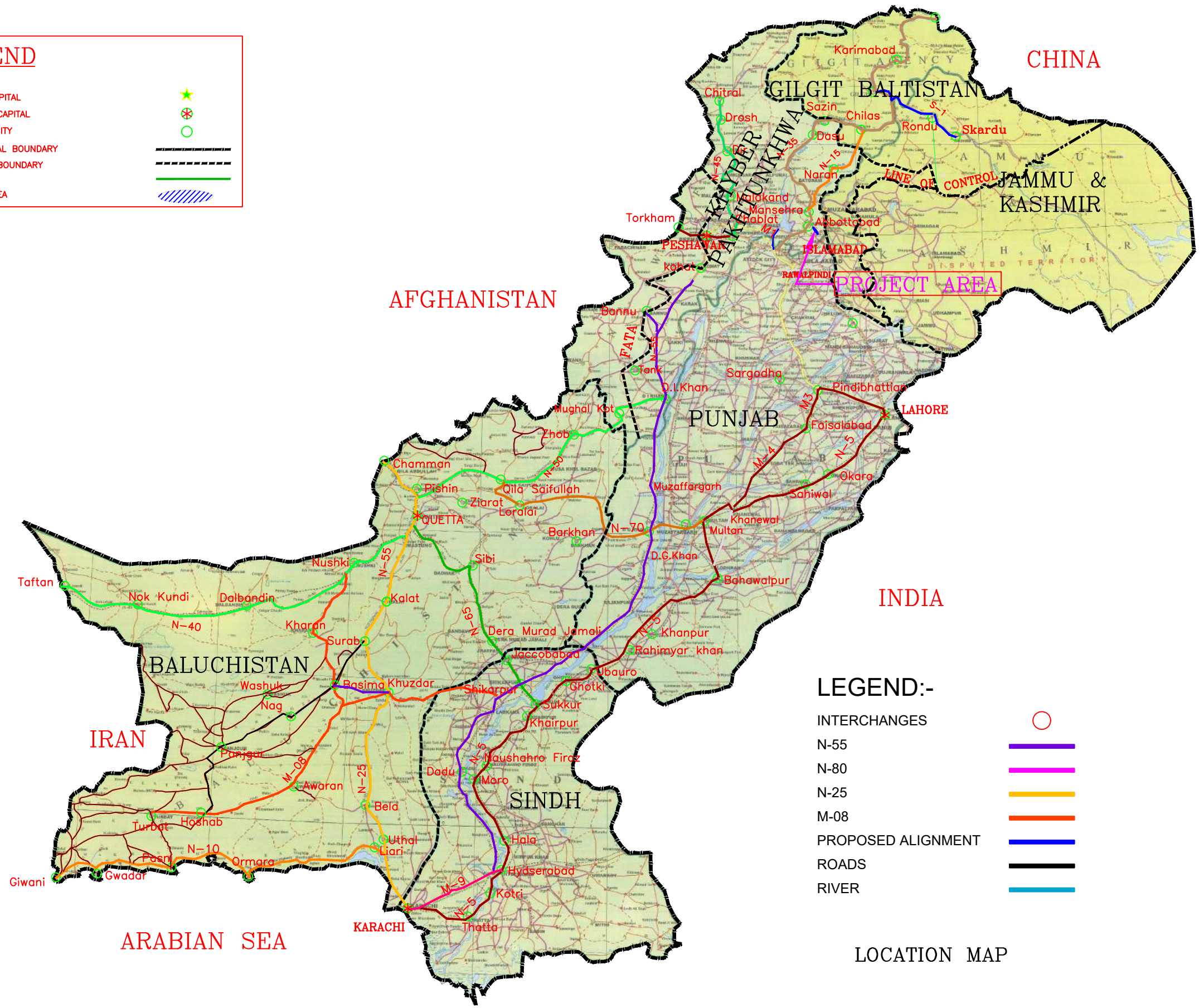
REV.	DATE	DESCRIPTION	APPROVED	APPROVED

DRAWN	PROJECT:
	REHABILITATION AND UPGRADING OF THANDIANI ROAD IN DISTRICT ABBOTTABAD - 24.00 KM

TITLE	DWG NO.
LIST OF DRAWINGS & GENERAL NOTES	38164/102/TD/LDG001
DATE	
JANUARY, 2021	

LEGEND

- NATIONAL CAPITAL
- PROVINCIAL CAPITAL
- IMPORTANT CITY
- INTERNATIONAL BOUNDARY
- PROVINCIAL BOUNDARY
- ROADS
- PROJECT AREA



LEGEND:-

- INTERCHANGES
- N-55
- N-80
- N-25
- M-08
- PROPOSED ALIGNMENT
- ROADS
- RIVER

LOCATION MAP



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PROJECT:
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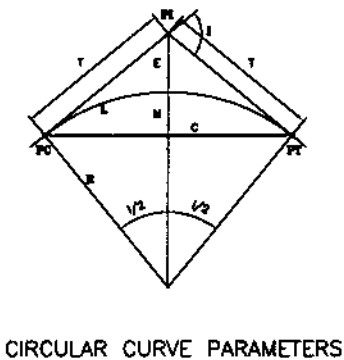
TITLE KEY MAP	
DATE JANUARY, 2021	DWG NO. 38164/102/TD/KM002

SYMBOLS

DESIGN CENTER LINE		MANHOLE	
AGRICULTURE LAND		NULLAH	
LAND ACQUISITION		CULVERT / BRIDGE	
TREES		T&T BOX	
BUSHES		HAND PUMP	
MOSQUE		CANAL / DRAIN	
PERMANENT HOUSE / TEMPORARY		LINED WATER COURSE	
GRAVES / GRAVE YARD		UNLINED WATER COURSE	
TELEPHONE POLE		SPUR STRUCTURE	
ELECTRIC & T&T LINE		GRID LINE	
DIRT TRACK		SPOT LEVEL (TYP.)	
METALLED ROAD		ROAD SIGN (IN PLAN)	
ELECTRIC POLE		EXISTING GROUND LEVEL (PROFILE)	
HIGH TENSION LINE PYLON		FINISHED GRADE LINE	
HORIZONTAL CURVE DATA		C/WAYS IN PROFILE	
GRID NORTH		CULVERT IN PROFILE	
TRAVERSE / BM POINTS		C/WAYS IN PLAN	
POINT OF INTERSECTION			
FENCE			
SUI GAS & WATER PIPE LINE			
TUBE WELL			
BOUNDARY LINE			

ABBREVIATIONS

A	AREA	P	OFFSET OF TANGENT LINE TO PC OF SHIFTED CIRCLE CURVE
ALG.	ALIGNMENT	PC	POINT OF HORIZONTAL CURVATURE (START OF HORIZONTAL CURVE)
B	BREADTH	P.C.	REINFORCED CONCRETE PIPE CULVERT
BC	BOX CULVERT	PGL	PROFILE GRADE LINE
B.M	BENCH MARK	P.I.	PLASTICITY INDEX
BOP	BEGINNING OF PROJECT	PI	POINT OF HORIZONTAL INTERSECTION
C	CHORD LENGTH	PR	POINT OF ROTATION
C.B.R	CALIFORNIA BEARING RATIO	PT	POINT OF HORIZONTAL TANGENCY (END OF HORIZONTAL CURVE)
C/C	CENTER TO CENTER	R	RADIUS OF HORIZONTAL CURVE
CHD.	CHECKED	R.C	REINFORCED CONCRETE
C/L, E	CENTER LINE	REINF.	REINFORCEMENT
CM/cm	CENTIMETER	REV.	REVISION
CONC.	CONCRETE	RHS.	RIGHT HAND SIDE
CONST./JT	CONSTRUCTION JOINT	R.O.W.	RIGHT OF WAY
CS	CURVE TO SPIRAL	RT.	RIGHT
CUL	CULVERT	R/W	RETAINING WALL
Cu.m	CUBIC METER	RWC	RELOCATED WATER COURSE
CURVE LEN	VERTICAL CURVE LENGTH	S	SLOPE GRADIENT (PERCENT)
DC	DEPTH OF CUT	SE	SUPERELEVATION
Da	DEGREE OF CURVE (BY ARC)	S.B.P	SHOULDER BREAK POINT
Dc	DEGREE OF CURVE (BY CHORD)	S.C.	SLAB CULVERT
DEG	DEGREE	SC	SPIRAL TO CURVE, SLAB CULVERT
DIA.	DIAMETER	SHLD	SHOULDER
DIM.	DIMENSION	Sq.m	SQUARE METER
D/S	DOWNSTREAM	S.T.	SHORT TANGENT
D.S.T	DOUBLE SURFACE TREATMENT	ST	SPIRAL TO TANGENT
DRG.	DRAWING	STA./STA	STATION (CHAINAGE)
E	EASTING, EAST, EXTERNAL DISTANCE (SHIFT)	STRUCT	STRUCTURE
ELEV./EL	ELEVATION	SUPEREL.	SUPERELEVATION
EDP	END OF PROJECT	S'WALK	SIDE WALK
EXP./JT	EXPANSION JOINT	T	TANGENT LENGTH OF HORIZONTAL CURVE
G.I	GALVANIZED IRON	TS	TANGENT TO SPIRAL
H/HOR.	HORIZONTAL	T.S.T	TRIPPLE SURFACE TREATMENT
H.T/LT	HIGH TENSION/LOW TENSION	TAN.	TANGENT
HF	HEIGHT OF FILL	TH	THICKNESS
HFL	HIGH FLOOD LEVEL	TR	TRANSITION
HWY.	HIGHWAY	TYP.	TYPICAL
I	DEFLECTION ANGLE (HORIZONTAL CURVE)	U/S	UPSTREAM
ic	CIRCULAR DEFLECTION ANGLE	V	VERTICAL
IL	INVERT LEVEL	VAR.	VARIABLE
K	SMOOTHNESS FACTOR (IN CASE OF VERTICAL CURVE)	VER.	VERIFIED
Kg.	KILOGRAM	VPC	VERTICAL POINT OF CURVATURE (START OF VERTICAL CURVE)
KM/Km	KILOMETER	VPI	VERTICAL POINT OF INTERSECTION OF PROFILE GRADE.
L	LENGTH OF HORIZONTAL CURVE/SPIRAL	VPT	VERTICAL POINT OF TANGENCY (END OF VERTICAL CURVE)
LIN.M	LINEAR METER	W.	WEST, WIDTH OF ROADWAY
LHS.	LEFT HAND SIDE	W.B.M	WATER BOUND MACADAM
LT.	LEFT	WC	WATER COURSE
LT	LONG TANGENT	X	DISTANCE, PERPENDICULAR TO THE TANGENT, FROM BEGINNING TO THE END OF SPIRAL
M/m	METER	Y	DISTANCE, PERPENDICULAR TO THE TANGENT, FROM BEGINNING TO THE END OF SPIRAL
M	MIDDLE ORDINATE	θ	SKREW ANGLE
MAX.	MAXIMUM		
M.H	MAN HOLE		
MIN.	MINIMUM		
mm	MILLIMETER		
N.S.L	NATURAL SURFACE LEVEL (E.G.L)		
N	NORTHING, NORTH		
NO.	NUMBER		
N.T.S	NOT TO SCALE		



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				CHD./VER.	
				APPROVED	

PROJECT:
REHABILITATION AND UPGRADING
OF THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24.00 KM

TITLE	SYMBOLS AND ABBREVIATIONS	
DATE	JANUARY, 2021	DWG NO. 38164/102/TD/SA002A



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PROJECT:
**REHABILITATION AND UPGRADING
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TITLE	ROUTE LOCATION PLAN	
DATE	JANUARY, 2021	DWG NO. 38164/102/TD/ RLP-01



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PROJECT:
**REHABILITATION AND UPGRADING
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TITLE	ROUTE LOCATION PLAN	
DATE	JANUARY, 2021	DWG NO. 38164/102/TD/ RLP-02



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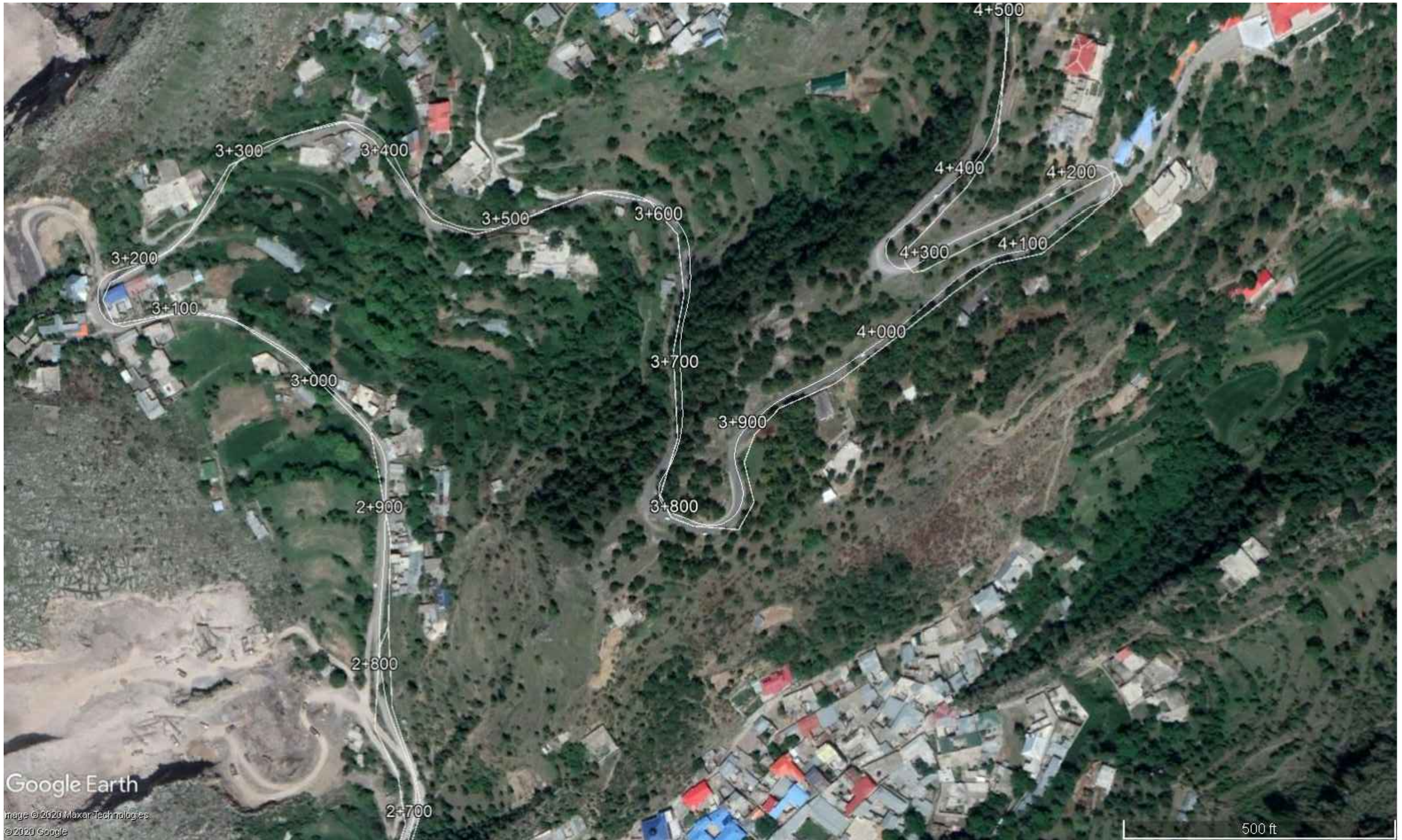
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PROJECT:
**REHABILITATION AND UPGRADING
OF THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24.000 KM**

TITLE	DATE	DWG NO.
ROUTE LOCATION PLAN	JANUARY, 2021	38164/102/TD/ RLP-03



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TITLE	ROUTE LOCATION PLAN	
DATE	JANUARY, 2021	DWG NO. 38164/102/TD/ RLP-04



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PROJECT:	REHABILITATION AND UPGRADING OF THANDIANI ROAD IN DISTRICT ABBOTTABAD - 24.000 KM
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DATE	JANUARY, 2021	DWG NO. 38164/102/TD/ RLP-05



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TITLE	ROUTE LOCATION PLAN	
DATE	JANUARY, 2021	DWG NO. 38164/102/TD/ RLP-06



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PROJECT:		TITLE	
REHABILITATION AND UPGRADING OF THANDIANI ROAD IN DISTRICT ABBOTTABAD - 24.000 KM		ROUTE LOCATION PLAN	
DATE	DWG NO.		
JANUARY, 2021	38164/102/TD/	RLP-7	



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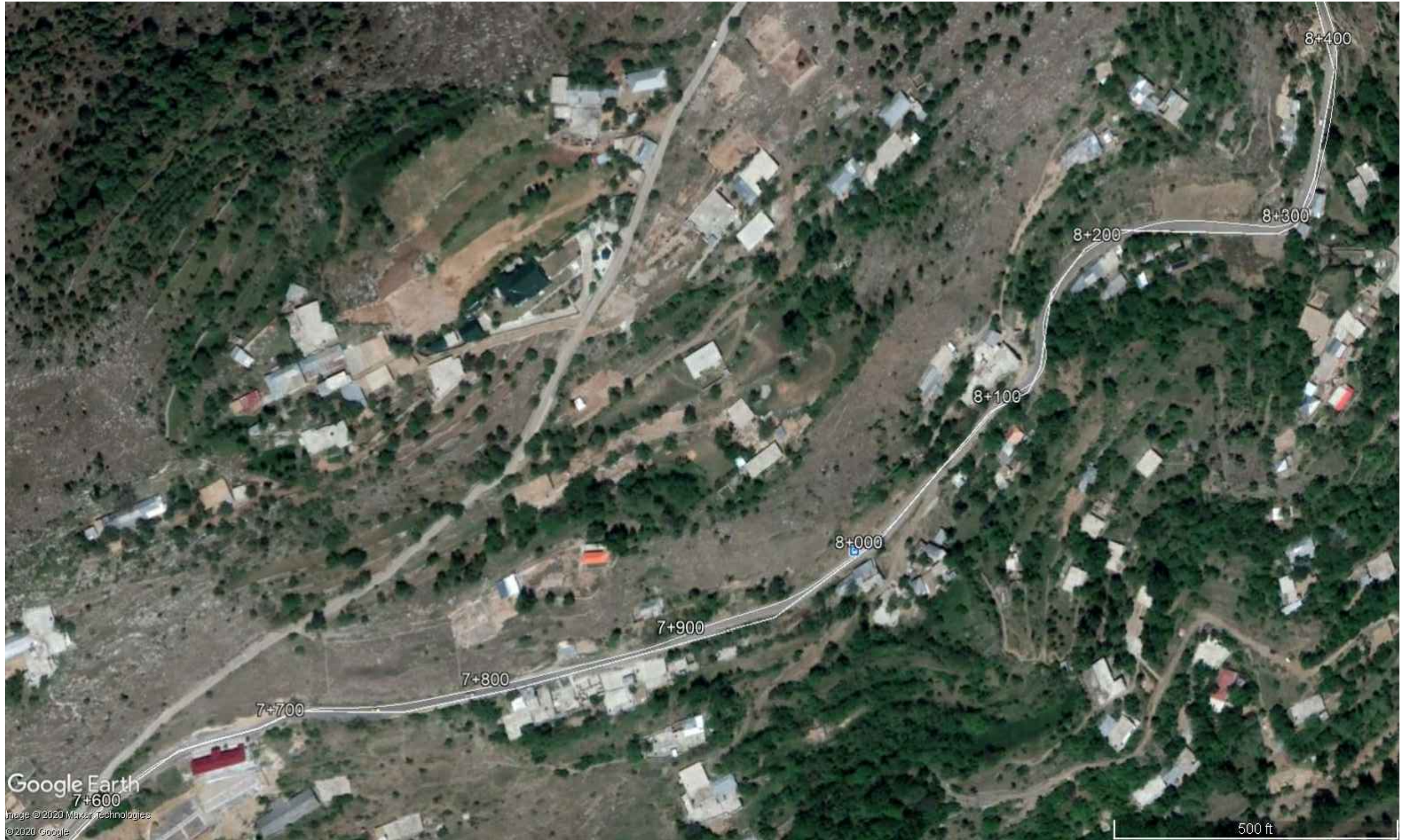
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TITLE	ROUTE LOCATION PLAN	
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TITLE	ROUTE LOCATION PLAN	
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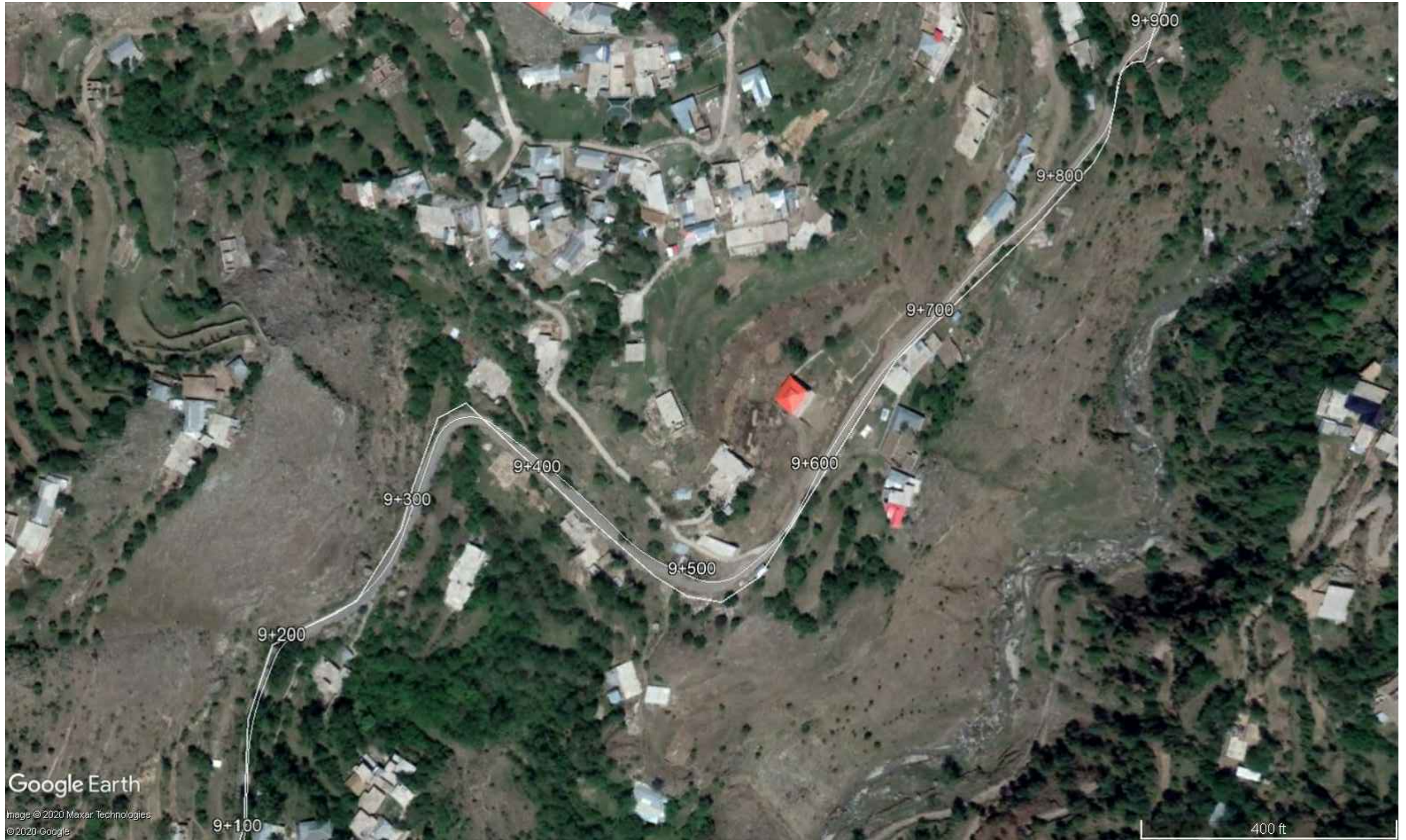
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TITLE	ROUTE LOCATION PLAN	
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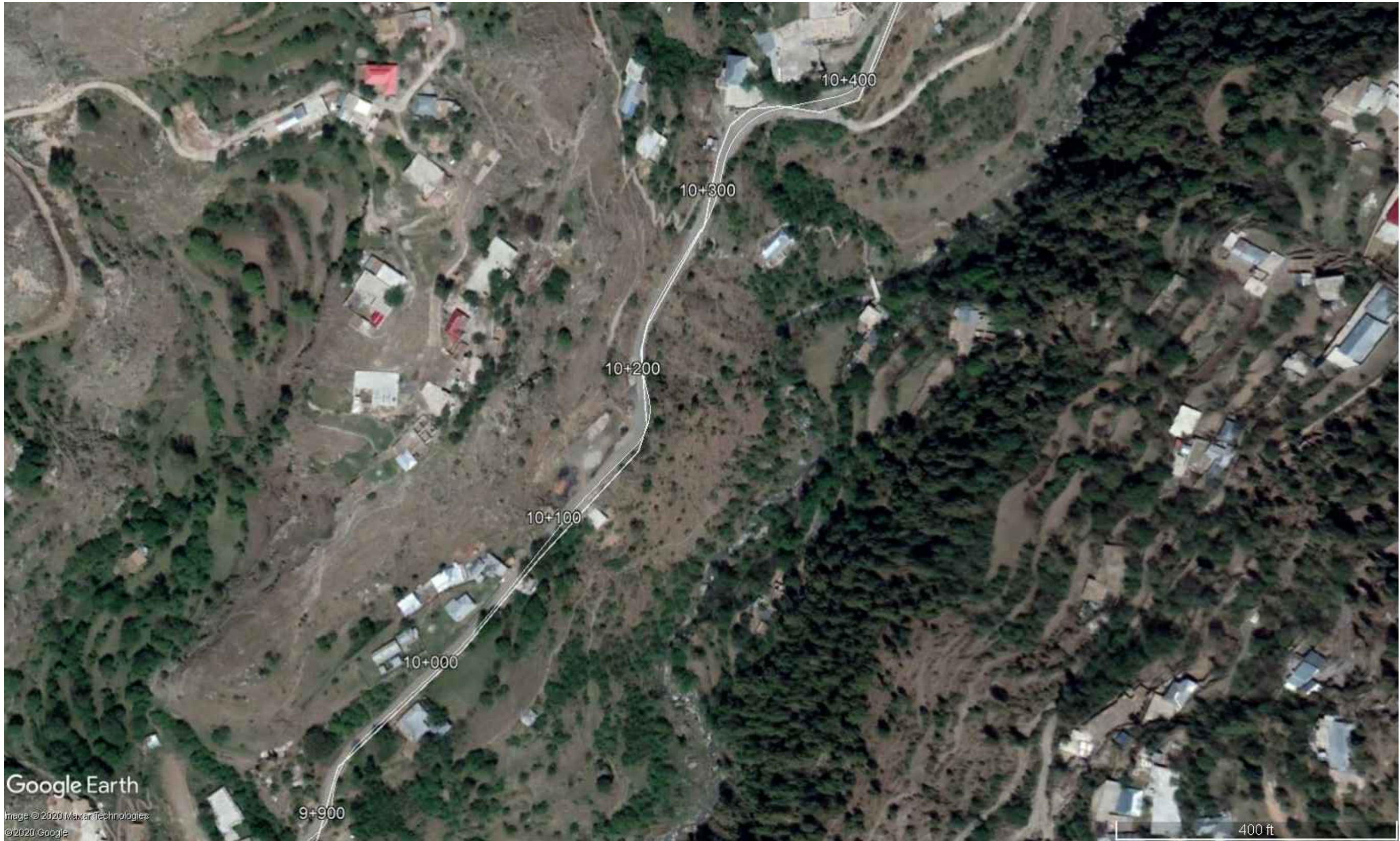
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TITLE	ROUTE LOCATION PLAN	
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TITLE	ROUTE LOCATION PLAN	
DATE	JANUARY, 2021	DWG NO. 38164/102/TD/ RLP-12



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TITLE	ROUTE LOCATION PLAN	
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TITLE	ROUTE LOCATION PLAN	
DATE	JANUARY, 2021	DWG NO. 38164/102/TD/ RLP-14



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OF THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24.000 KM**

TITLE	ROUTE LOCATION PLAN	
DATE	JANUARY, 2021	DWG NO. 38164/102/TD/ RLP-16



KHYBER PAKHTUNKHWA
INTEGRATED TOURISM
AND ENTERPRISE
DEVELOPMENT PROJECT
C&W DEPARTMENT, KP



NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED

PROJECT: REHABILITATION AND UPGRADING OF THANDIANI ROAD IN DISTRICT ABBOTTABAD - 24.000 KM		TITLE: ROUTE LOCATION PLAN
DATE: JANUARY, 2021	DWG NO.: 38164/102/TD/	RLP-17



KHYBER PAKHTUNKHWA
INTEGRATED TOURISM
AND ENTERPRISE
DEVELOPMENT PROJECT
C&W DEPARTMENT, KP



NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED

DRAWN	
SUBMITTED	
RECOMMENDED	
CHD./VER.	
APPROVED	

PROJECT:
**REHABILITATION AND UPGRADING
OF THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24.000 KM**

TITLE	ROUTE LOCATION PLAN	
DATE	JANUARY, 2021	DWG NO. 38164/102/TD/ RLP-18



KHYBER PAKHTUNKHWA
INTEGRATED TOURISM
AND ENTERPRISE
DEVELOPMENT PROJECT
C&W DEPARTMENT, KP



NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED

DRAWN	
SUBMITTED	
RECOMMENDED	
CHD./VER.	
PROJECT:	REHABILITATION AND UPGRADING OF THANDIANI ROAD IN DISTRICT ABBOTTABAD - 24.000 KM

TITLE	ROUTE LOCATION PLAN	
DATE	JANUARY, 2021	DWG NO. 38164/102/TD/ RLP-19



KHYBER PAKHTUNKHWA
INTEGRATED TOURISM
AND ENTERPRISE
DEVELOPMENT PROJECT
C&W DEPARTMENT, KP



NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED

DRAWN	
SUBMITTED	
RECOMMENDED	
CHD./VER.	
APPROVED	

PROJECT:
**REHABILITATION AND UPGRADING
OF THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24.000 KM**

TITLE	ROUTE LOCATION PLAN	
DATE	JANUARY, 2021	DWG NO. 38164/102/TD/ RLP-20



KHYBER PAKHTUNKHWA
INTEGRATED TOURISM
AND ENTERPRISE
DEVELOPMENT PROJECT
C&W DEPARTMENT, KP



NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED

PROJECT:
**REHABILITATION AND UPGRADING
OF THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24.000 KM**

TITLE	ROUTE LOCATION PLAN		
DATE	JANUARY, 2021	DWG NO.	38164/102/TD/ RLP-21



KHYBER PAKHTUNKHWA
INTEGRATED TOURISM
AND ENTERPRISE
DEVELOPMENT PROJECT
C&W DEPARTMENT, KP



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PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED

DRAWN	
SUBMITTED	
RECOMMENDED	
CHD./VER.	
APPROVED	

PROJECT:	REHABILITATION AND UPGRADING OF THANDIANI ROAD IN DISTRICT ABBOTTABAD - 24.000 KM
TITLE	ROUTE LOCATION PLAN
DATE	JANUARY, 2021
DWG NO.	38164/102/TD/ RLP-22



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KHYBER PAKHTUNKHWA
INTEGRATED TOURISM
AND ENTERPRISE
DEVELOPMENT PROJECT
C&W DEPARTMENT, KP



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PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED

DRAWN SUBMITTED RECOMMENDED CHD./VER. APPROVED	PROJECT: REHABILITATION AND UPGRADING OF THANDIANI ROAD IN DISTRICT ABBOTTABAD - 24.000 KM
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TITLE	ROUTE LOCATION PLAN
DATE	JANUARY, 2021
DWG NO.	38164/102/TD/ RLP-23



KHYBER PAKHTUNKHWA
INTEGRATED TOURISM
AND ENTERPRISE
DEVELOPMENT PROJECT
C&W DEPARTMENT, KP



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REV.	DATE	DESCRIPTION	APPROVED	APPROVED

DRAWN	
SUBMITTED	
RECOMMENDED	
CHD./VER.	
APPROVED	

PROJECT:
**REHABILITATION AND UPGRADING
OF THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24.000 KM**

TITLE	ROUTE LOCATION PLAN	
DATE	JANUARY, 2021	DWG NO. 38164/102/TD/ RLP-24



KHYBER PAKHTUNKHWA
INTEGRATED TOURISM
AND ENTERPRISE
DEVELOPMENT PROJECT
C&W DEPARTMENT, KP



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PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED

DRAWN	
SUBMITTED	
RECOMMENDED	
CHD./VER.	
APPROVED	

PROJECT:
**REHABILITATION AND UPGRADING
OF THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24.000 KM**

TITLE	ROUTE LOCATION PLAN	
DATE	JANUARY, 2021	DWG NO. 38164/102/TD/ RLP-25



KHYBER PAKHTUNKHWA
INTEGRATED TOURISM
AND ENTERPRISE
DEVELOPMENT PROJECT
C&W DEPARTMENT, KP



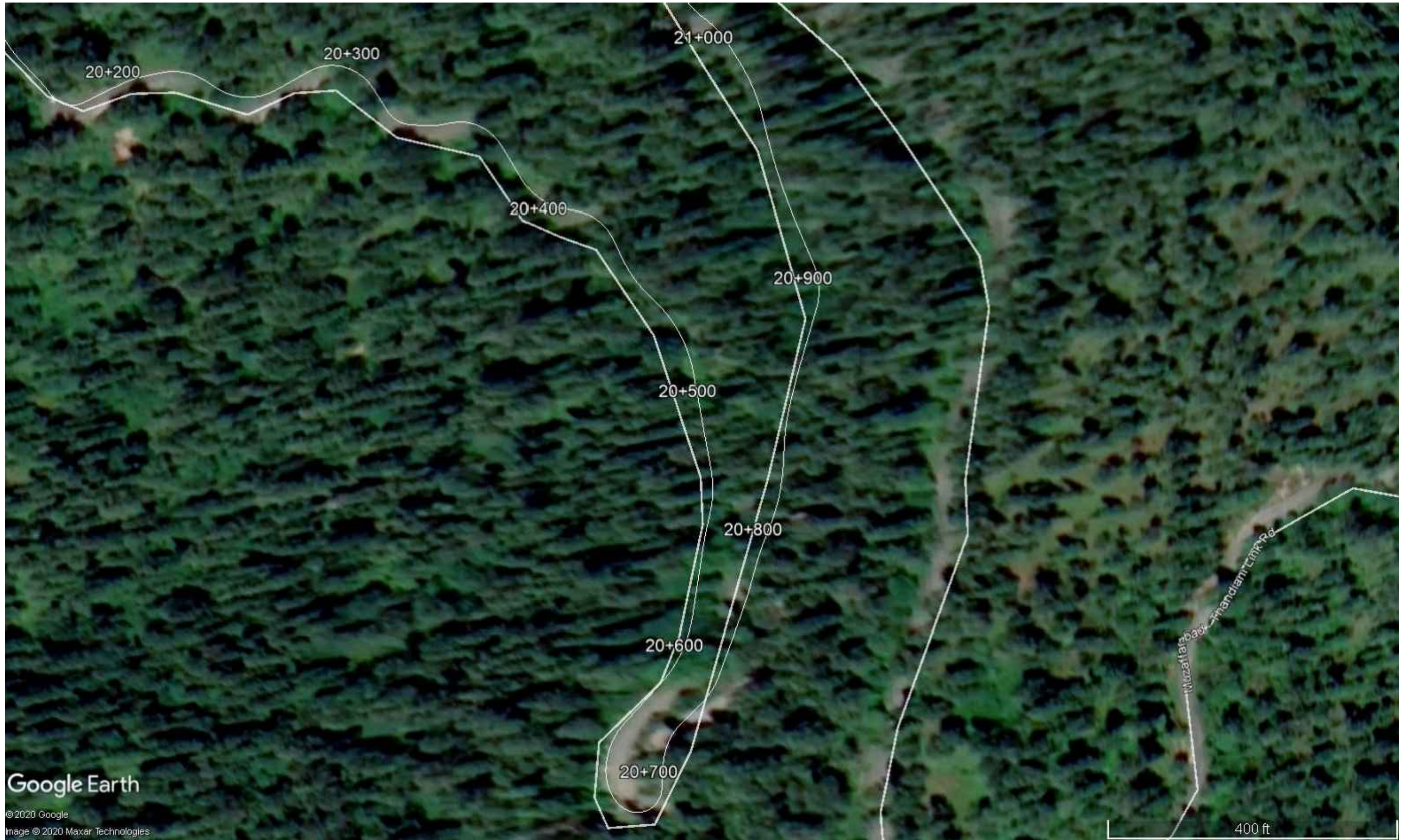
NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED

DRAWN	
SUBMITTED	
RECOMMENDED	
CHD./VER.	
APPROVED	

PROJECT:
**REHABILITATION AND UPGRADING
OF THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24.000 KM**

TITLE	ROUTE LOCATION PLAN	
DATE	JANUARY, 2021	DWG NO. 38164/102/TD/ RLP-26



Google Earth

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INTEGRATED TOURISM
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REV.	DATE	DESCRIPTION	APPROVED	APPROVED

DRAWN	
SUBMITTED	
RECOMMENDED	
CHD./VER.	
APPROVED	

PROJECT:
**REHABILITATION AND UPGRADING
OF THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24.000 KM**

TITLE	ROUTE LOCATION PLAN	
DATE	JANUARY, 2021	DWG NO. 38164/102/TD/ RLP-27



KHYBER PAKHTUNKHWA
INTEGRATED TOURISM
AND ENTERPRISE
DEVELOPMENT PROJECT
C&W DEPARTMENT, KP



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REV.	DATE	DESCRIPTION	APPROVED	APPROVED

DRAWN	
SUBMITTED	
RECOMMENDED	
CHD./VER.	
APPROVED	

PROJECT:
**REHABILITATION AND UPGRADING
OF THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24.000 KM**

TITLE	ROUTE LOCATION PLAN	
DATE	JANUARY, 2021	DWG NO. 38164/102/TD/ RLP-28



KHYBER PAKHTUNKHWA
INTEGRATED TOURISM
AND ENTERPRISE
DEVELOPMENT PROJECT
C&W DEPARTMENT, KP



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REV.	DATE	DESCRIPTION	APPROVED	APPROVED

DRAWN	
SUBMITTED	
RECOMMENDED	
CHD./VER.	
APPROVED	

PROJECT:
**REHABILITATION AND UPGRADING
OF THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24.000 KM**

TITLE	ROUTE LOCATION PLAN	
DATE	JANUARY, 2021	DWG NO. 38164/102/TD/ RLP-29



KHYBER PAKHTUNKHWA
INTEGRATED TOURISM
AND ENTERPRISE
DEVELOPMENT PROJECT
C&W DEPARTMENT, KP



NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED

PROJECT:	TITLE
REHABILITATION AND UPGRADING OF THANDIANI ROAD IN DISTRICT ABBOTTABAD - 24.000 KM	ROUTE LOCATION PLAN
DATE	DWG NO.
JANUARY, 2021	38164/102/TD/ RLP-30



KHYBER PAKHTUNKHWA
INTEGRATED TOURISM
AND ENTERPRISE
DEVELOPMENT PROJECT
C&W DEPARTMENT, KP



NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED

DRAWN	
SUBMITTED	
RECOMMENDED	
CHD./VER.	
APPROVED	

PROJECT:
**REHABILITATION AND UPGRADING
OF THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24.000 KM**

TITLE	ROUTE LOCATION PLAN	
DATE	JANUARY, 2021	DWG NO. 38164/102/TD/ RLP-31



KHYBER PAKHTUNKHWA
INTEGRATED TOURISM
AND ENTERPRISE
DEVELOPMENT PROJECT
C&W DEPARTMENT, KP



NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED

DRAWN	
SUBMITTED	
RECOMMENDED	
CHD./VER.	
APPROVED	

PROJECT:
**REHABILITATION AND UPGRADING
OF THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24.000 KM**

TITLE	ROUTE LOCATION PLAN	
DATE	JANUARY, 2021	DWG NO. 38164/102/TD/ RLP-32



KHYBER PAKHTUNKHWA
INTEGRATED TOURISM
AND ENTERPRISE
DEVELOPMENT PROJECT
C&W DEPARTMENT, KP



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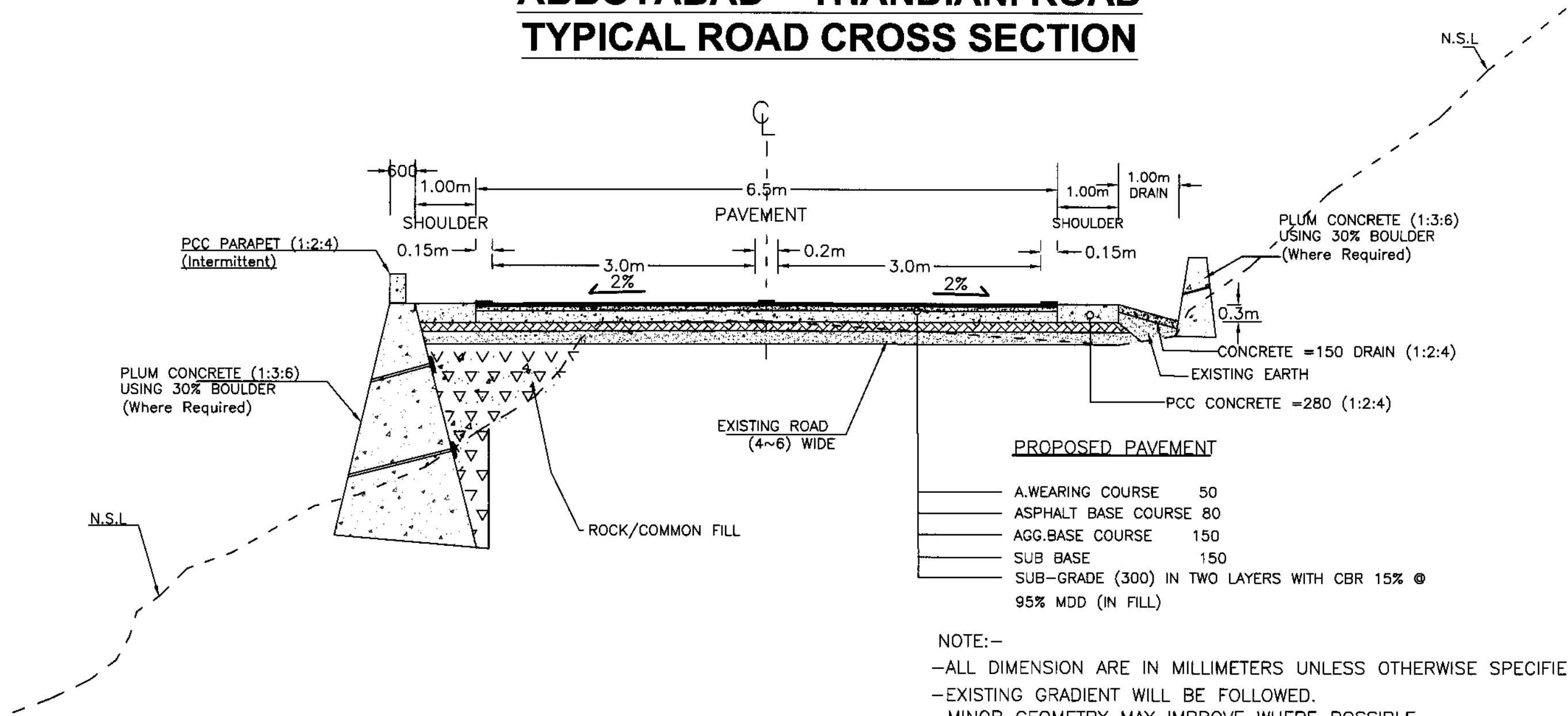
REV.	DATE	DESCRIPTION	APPROVED	APPROVED

DRAWN	
SUBMITTED	
RECOMMENDED	
CHD./VER.	
APPROVED	

PROJECT:
**REHABILITATION AND UPGRADING
OF THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24.000 KM**

TITLE	ROUTE LOCATION PLAN	
DATE	JANUARY, 2021	DWG NO. 38164/102/TD/ RLP-32

ABBOTABAD ~ THANDIANI ROAD TYPICAL ROAD CROSS SECTION



PROPOSED PAVEMENT

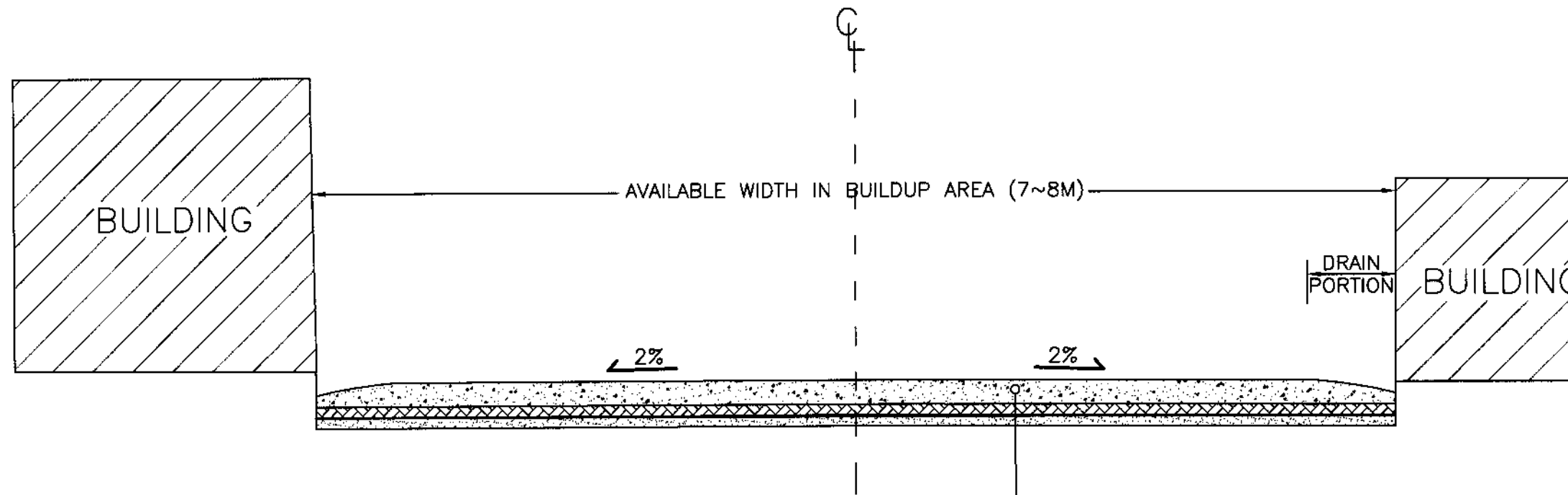
A.WEARING COURSE	50
ASPHALT BASE COURSE	80
AGG.BASE COURSE	150
SUB BASE	150
SUB-GRADE (300) IN TWO LAYERS WITH CBR 15% @ 95% MDD (IN FILL)	

NOTE:-
 -ALL DIMENSION ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
 -EXISTING GRADIENT WILL BE FOLLOWED.
 -MINOR GEOMETRY MAY IMPROVE WHERE POSSIBLE.

CONSTRUCTION METHODOLOGY:

- 1- ACHIEVE WIDENING AS PER TYPICAL CROSS SECTION.
- 2- REMOVE THE BITUMINOUS LAYER OF EXISTING ROAD IN FULL WIDTH AND COMPACT UNDERLYING PAVEMENT LAYER AS PER AASHTO 95% MDD.
- 3- PREPARE HILL SIDE UPTO SUBGRADE AS PER COMPACTION AASHTO 95% MDD.
- 4- PREPARE VALLEY SIDE UPTO SUBGRADE SUBJECT TO SUITABILITY OF EXISTING SHOULDER MATERIAL.
- 5- LAY SUBBASE, AGGREGATE BASE IN HALF WIDTH DULY COMPACTED AS PER SPECIFICATIONS (TRAFFIC MAY PLY IN OTHER HALF PORTION).
- 6- RAISE THE EXISTING RETAINING WALLS ON VALLEY SIDE UPTO FINISHED ROAD LEVEL SIMULTANEOUSLY TO STEP -5 AND CONSTRUCT PCC PARAPET.
- 7- LAY ASPHALTIC BASE COURSE AND ASPHALT WEARING COURSE IN HALF WIDTH ALONG WITH CONSTRUCTION OF PCC SHOULDERS.

ABBOTABAD ~ THANDIANI ROAD PROPOSED TYPICAL ROAD CROSS SECTION (BUILT UP AREA)



APPLICABLE BUILT UP REACHES	
CHAINAGE	
FROM	TO
0+000	0+250
0+500	0+750
1+000	1+800
1+800	2+600
2+800	3+650
4+100	4+200
4+550	4+650
6+650	7+000
7+300	8+350
8+800	9+200
9+300	10+200
10+320	10+500
12+400	12+800

PROPOSED PAVEMENT

- CONCRETE CLASS "A" 300 (HAVING 4000 psi)
- LEAN CONCRETE 150 (1500 psi)
- SUB-GRADE IN TWO LAYERS WITH CBR 15% @ 95% MDD



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INTEGRATED TOURISM
AND ENTERPRISE
DEVELOPMENT PROJECT
C&W DEPARTMENT, KP



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PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED

PROJECT:
REHABILITATION AND UPGRADING
OF THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24.00 KM

TITLE	
TYPICAL ROAD CROSS SECTION	
DATE	DWG NO.
JANUARY, 2021	38164/102/TD/ TS002

LIST OF STRUCTURE

PROPOSED SCHEDULE OF STRUCTURES

Sr.No	Chainage	Proposed Structure Span x Height	Skew	Remarks
1	0+050	1(2X1)	-	SLAB CULVERT
2	0+200	1(2X1)	-	SLAB CULVERT
3	0+390	1(2X1)	-	SLAB CULVERT
4	0+865	1(2X1)	-	SLAB CULVERT
5	1+800	1(2X1)	-	SLAB CULVERT
6	2+010	DIA 0.90	-	PIPE CULVERT
7	2+490	1(2X1)	-	SLAB CULVERT
8	2+550	1(2X1)	-	SLAB CULVERT
9	2+710	DIA 0.90	-	PIPE CULVERT
10	4+030	DIA 0.90	-	PIPE CULVERT
11	5+460	DIA 0.90	-	PIPE CULVERT
12	5+590	DIA 0.90	-	PIPE CULVERT
13	5+850	DIA 0.90	-	PIPE CULVERT
14	6+030	DIA 0.90	-	PIPE CULVERT
15	6+710	DIA 0.90	-	PIPE CULVERT
16	7+980	DIA 0.90	-	PIPE CULVERT
17	8+130	DIA 0.90	-	PIPE CULVERT
18	8+560	DIA 0.90	-	PIPE CULVERT
19	9+190	DIA 0.90	-	PIPE CULVERT
20	9+350	1(2X1)	-	SLAB CULVERT
21	9+610	DIA 0.90	-	PIPE CULVERT
22	9+870	1(2X1)	-	SLAB CULVERT
23	10+340	1(2X1)	-	SLAB CULVERT
24	10+790	DIA 0.90	-	PIPE CULVERT



KHYBER PAKHTUNKHWA
INTEGRATED TOURISM
AND ENTERPRISE
DEVELOPMENT PROJECT
C&W DEPARTMENT, KP



NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED	APPROVED	APPROVED	APPROVED	APPROVED	APPROVED

PROJECT:
REHABILITATION AND UPGRADING
OF THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24.00 KM

TITLE
SCHEDULE OF STRUCTURES

DATE
JANUARY, 2021

DWG NO.
38164/102/TD/SS003

PROPOSED SCHEDULE OF STRUCTURES

Sr.No	Chainage	Proposed Structure Span x Height	Skew	Remarks
25	10+920	DIA 0.90	-	PIPE CULVERT
26	12+475	1(2X1)	-	SLAB CULVERT
27	12+890	DIA 0.90	-	PIPE CULVERT
28	12+980	DIA 0.90	-	PIPE CULVERT
29	13+730	DIA 0.90 2 NO	-	PIPE CULVERT
30	14+190	1(2X1)	-	SLAB CULVERT
31	14+290	DIA 0.90 2 NO	-	PIPE CULVERT
32	14+440	DIA 0.90	-	PIPE CULVERT
33	15+725	1(2X1)	-	SLAB CULVERT
34	16+370	1(2X1)	-	SLAB CULVERT
35	17+790	1(2X1)	-	SLAB CULVERT
36	20+130	DIA 0.90	-	PIPE CULVERT
37	20+300	1(2X1)	-	SLAB CULVERT CHOKED
38	21+080	1(2X1)	-	SLAB CULVERT CHOKED
39	21+160	DIA 0.90	-	PIPE CULVERT
40	22+140	1(2X1)	-	SLAB CULVERT
41	22+640	1(2X1)	-	SLAB CULVERT
42	22+790	DIA 0.90	-	PIPE CULVERT
43	23+370	1(2X1)	-	SLAB CULVERT
44	23+315	1(2X1)	-	SLAB CULVERT
45	23+430	DIA 0.90	-	PIPE CULVERT
46	24+015	1(2X1)	-	SLAB CULVERT

NOTE

ADDITIONAL STRUCTURE (IF REQUIRED) SHALL BE PROVIDED AS PER SITE REQUIREMENT OR AS PER THE DIRECTION OF THE ENGINEER.



KHYBER PAKHTUNKHWA
INTEGRATED TOURISM
AND ENTERPRISE
DEVELOPMENT PROJECT
C&W DEPARTMENT, KP



NATIONAL ENGINEERING SERVICES
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REV.	DATE	DESCRIPTION	APPROVED	APPROVED

PROJECT:
REHABILITATION AND UPGRADING
OF THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24.00 KM

TITLE SCHEDULE OF STRUCTURES	
DATE JANUARY, 2021	DWG NO. 38164/102/TD/ SS004

TRAVERSE STATION

SUMMARY OF SURVEY CONTROL POINTS

SR. No.	Easting (m)	Northing (m)	Elevation (m)	Code
1	340166.386	3780810.430	1180.423	T1
2	340242.323	3780536.788	1161.672	T2
3	340960.923	3781384.604	1248.005	T3
4	341027.166	3781375.961	1250.902	T4
5	341145.837	3781398.212	1255.922	T5
8	341794.766	3782120.216	1387.125	T8
9	341811.597	3781899.898	1413.794	T9
10	342255.853	3782399.757	1491.095	T10
11	342491.221	3782399.501	1521.207	T11
12	342762.724	3782339.214	1565.016	T12
13	343474.060	3783725.345	1707.589	T13
14	343691.822	3783760.615	1687.852	T14
15	344543.505	3784566.602	1618.183	T15
16	344702.980	3784534.180	1615.340	T16
17	345141.254	3785068.647	1614.667	T17
18	345379.754	3785399.507	1635.673	T18
19	346208.581	3786452.860	1750.664	T19
20	346218.235	3786544.732	1741.488	T20
21	346281.478	3787211.824	1798.683	T21



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INTEGRATED TOURISM
AND ENTERPRISE
DEVELOPMENT PROJECT
C&W DEPARTMENT, KP



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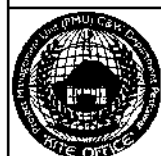
REV.	DATE	DESCRIPTION	APPROVED	APPROVED

PROJECT:
REHABILITATION AND UPGRADING
OF THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24.00 KM

TITLE
TRAVERSE STATIONS
DATE
JANUARY, 2021
DWG NO.
38164/102/TD/ TS005

SUMMARY OF SURVEY CONTROL POINTS

SR. No.	Easting (m)	Northing (m)	Elevation (m)	Code
22	346242.809	3787375.640	1834.170	T22
23	346274.124	3788097.633	1917.870	T23
24	346290.659	3788187.973	1924.281	T24
25	346401.741	3788316.581	1945.267	T25
26	346467.430	3788160.029	1996.124	T26
27	346646.057	3788213.334	2033.633	T27
28	346764.332	3787828.613	2095.273	T28
29	346852.353	3787797.837	2101.640	T29
30	347313.481	3787502.129	2242.225	T30
31	347278.461	3787613.843	2251.131	T31
32	347453.859	3787885.602	2359.085	T32
33	347488.264	3788014.138	2373.200	T33
34	348062.037	3787642.707	2468.926	T34
35	347996.180	3788052.438	2505.764	T35
36	347890.702	3788178.558	2523.215	T36
37	347937.844	3788657.089	2571.773	T37
38	348106.014	3789250.925	2604.534	T38
39	348192.614	3789308.286	2609.927	T39
40	348643.108	3789479.590	2640.932	T40
41	348619.166	3789348.831	2650.075	T41



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INTEGRATED TOURISM
AND ENTERPRISE
DEVELOPMENT PROJECT
C&W DEPARTMENT, KP



NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

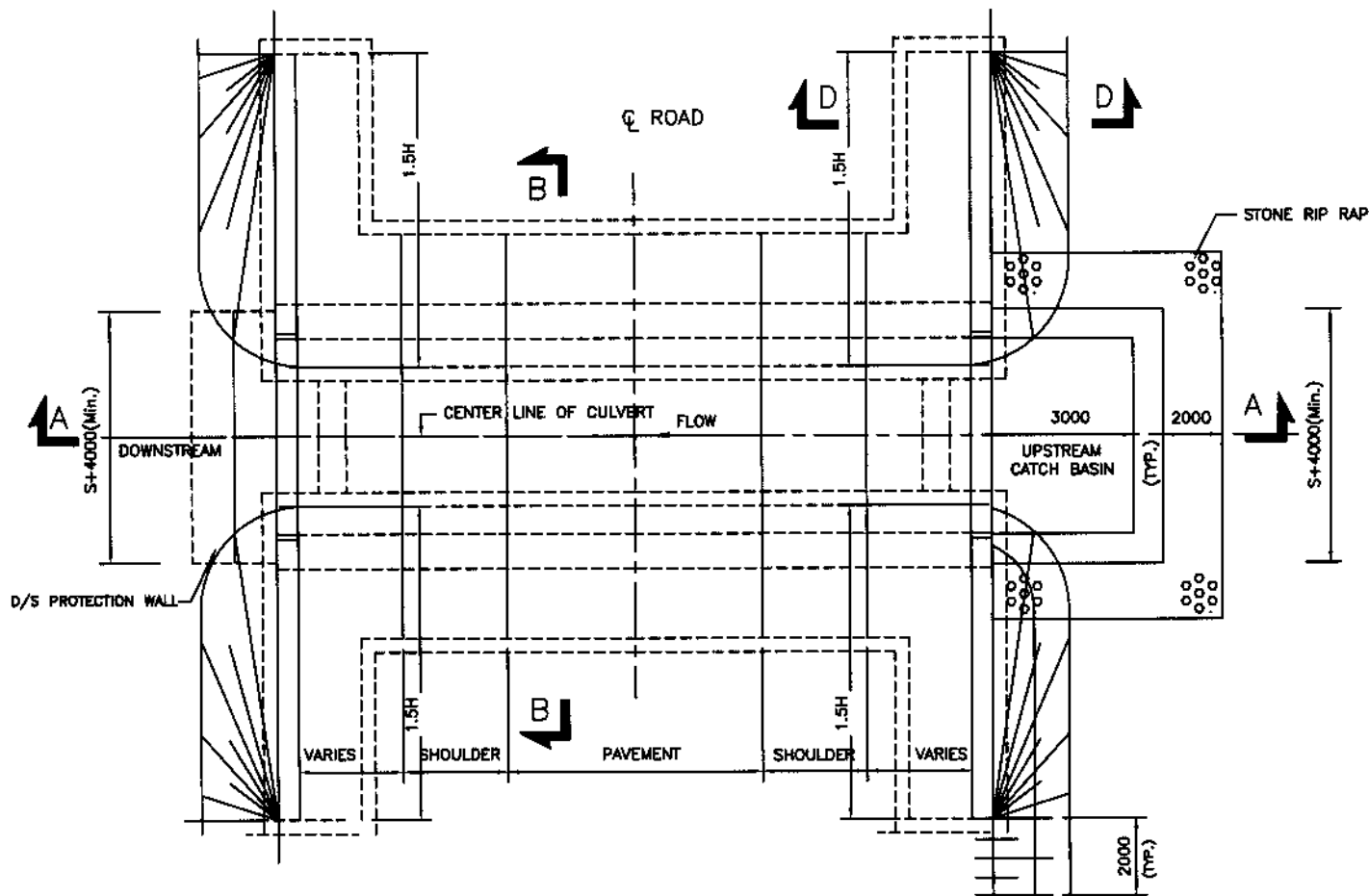
REV.	DATE	DESCRIPTION	APPROVED	APPROVED

PROJECT:
REHABILITATION AND UPGRADING
OF THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24.00 KM

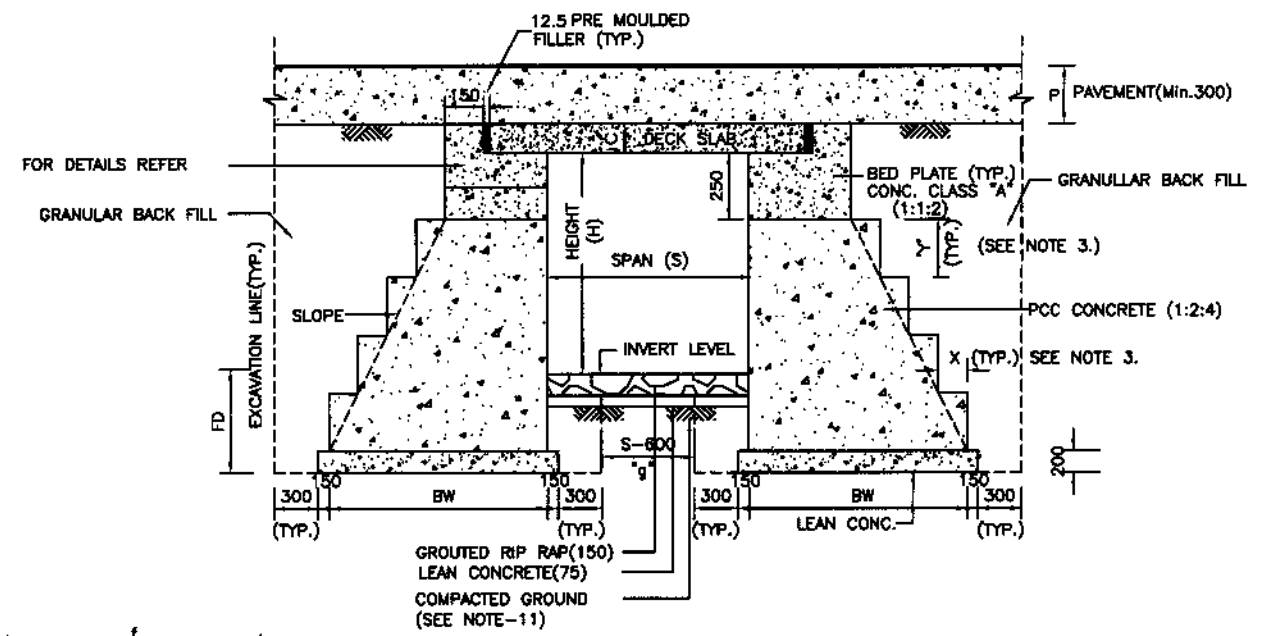
TITLE
TRAVERSE STATIONS

DATE
JANUARY, 2021

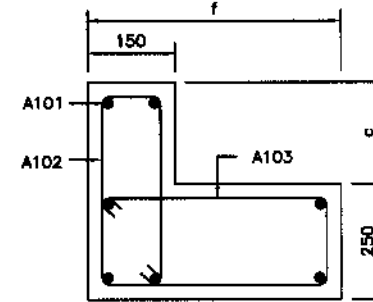
DWG NO.
38164/102/TD/ TS006



PLAN OF CULVERT



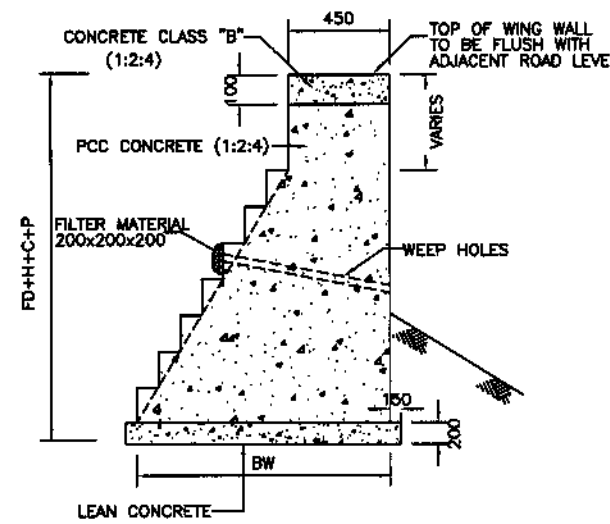
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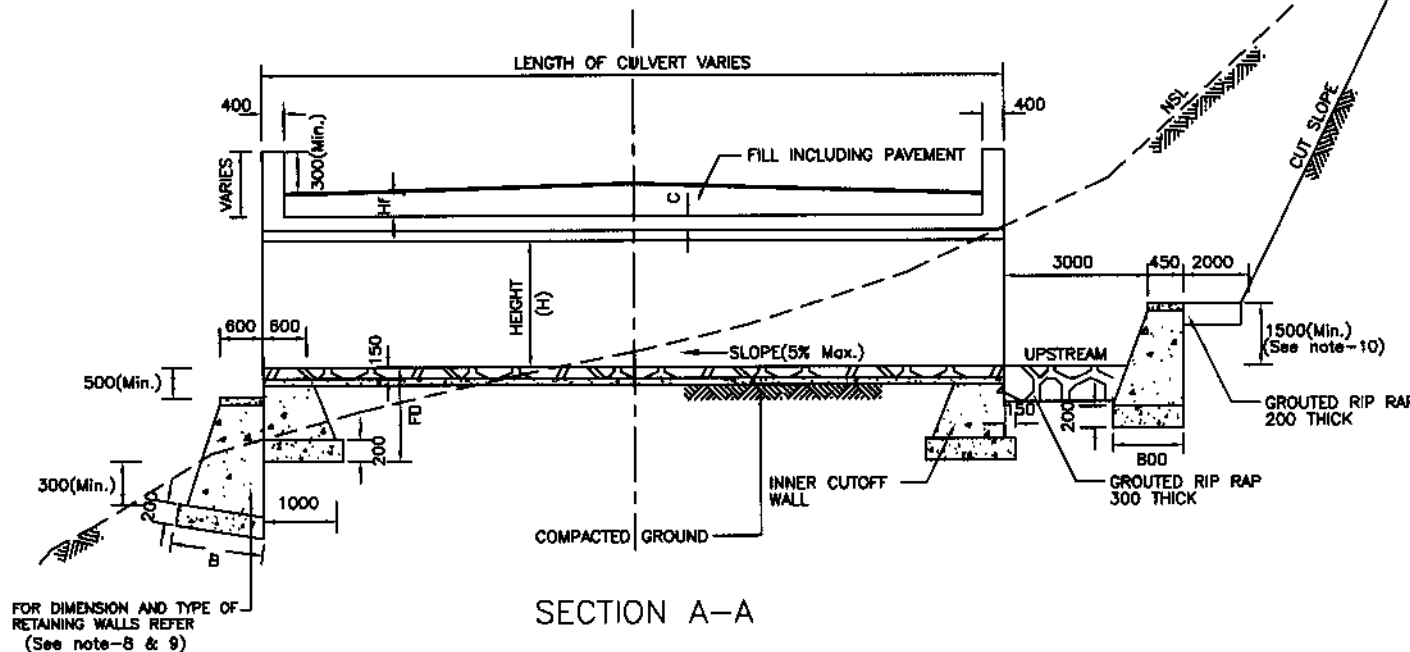
REINFORCEMENT
DETAIL OF BED PLATE
FOR ABUTMENT

NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
2. READ THIS DWG. IN CONJUNCTION WITH DWG. No 38164/102/TD/008.
3. DIMENSION 'x' & 'y' SHALL BE FIXED FOR EACH INDIVIDUAL CASE DEPENDING UPON SLOPE OF THE MASONARY WALL.
4. FOR DIMENSION BW,c,f,FD,H AND S REFER TABLES ON DWG. No. 38164/102/TD/008
5. EXPANSION JOINT BETWEEN DECK SLAB AND BED PLATE SHALL NOT BE PAID SEPERATELY.
6. FOR DETAILS OF REINFORCEMENT IN BED PLATE REFER DWG.No.38164/102/TD/007
7. FOR DECK SLAB AND EDGE BEAM REINFORCEMENT, SEE DETAILS ON DWG.
8. A MINIMUM OF 1500 mm HIGH RETAINING WALL TYPE RW-1 SHALL BE CONSTRUCTED AT D/S OF ALL THOSE CULVERTS WHOSE INTRUSION OF CULVERT ABUTMENT INTO NATURAL GROUND IS LESS THAN 1000 AT D/S OF CVLVERT. THIS HEIGHT MAY BE INCREASED DEPENDING UPON D/S SLOPE WITH PRIOR APPROVAL OF THE ENGINEER.
9. IN CASE OF MILD SLOPES AT D/S, CUTOFF WALL MAY BE CONSTRUCTED AT AN HORIZONTAL OFFSET (MAX. UPTO 2000) AWAY FROM THE ABUTMENT. IN SUCH CASES, SPACE BETWEEN THE ABUTMENT AND D/S CUTOFF WALL SHALL BE LINED WITH 300 THICK GROUTED RIPRAP.
10. HEIGHT OF WALL ALONG U/S CATCH BASIN MAY VARY DEPENDING UPON SITE CONDITION WITH PRIOR APPROVAL OF THE ENGINEER.
11. IN CASE DIMENSION 'g' IS LESS THAN 1000, THE EARTHEN WEDGE SHALL BE REMOVED AND REPLACED WITH APPROVED BACKFILL MATERIAL.
12. WEEP HOLES SHALL BE PROVIDED ALONG OUTLET WING WALL AT A LEVEL FLUSH WITH CULVERT INLET AT @2.0m C/C .



WING WALL
SECTION D-D



SECTION A-A

FOR DIMENSION AND TYPE OF
RETAINING WALLS REFER
(See note-8 & 9)



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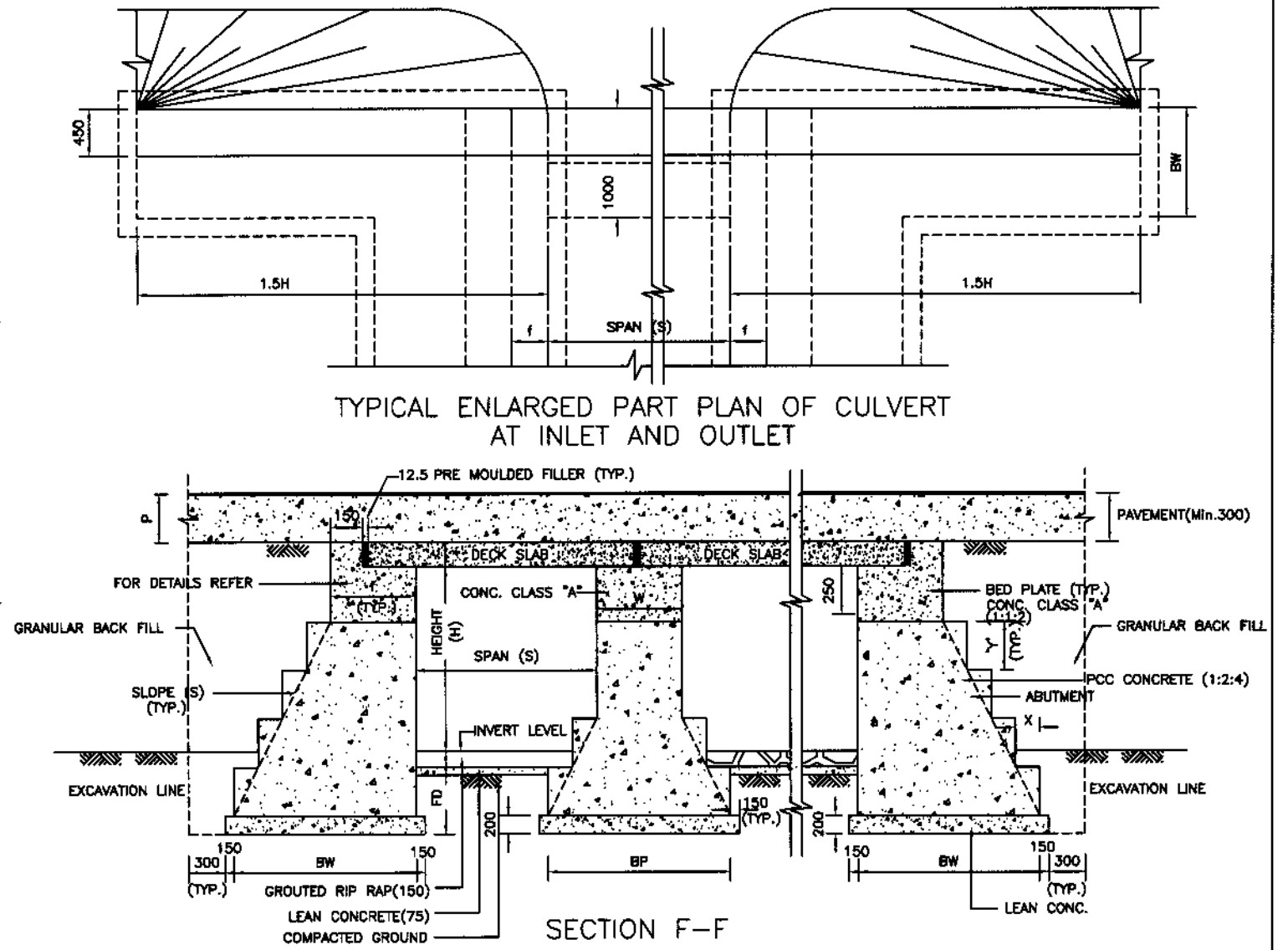
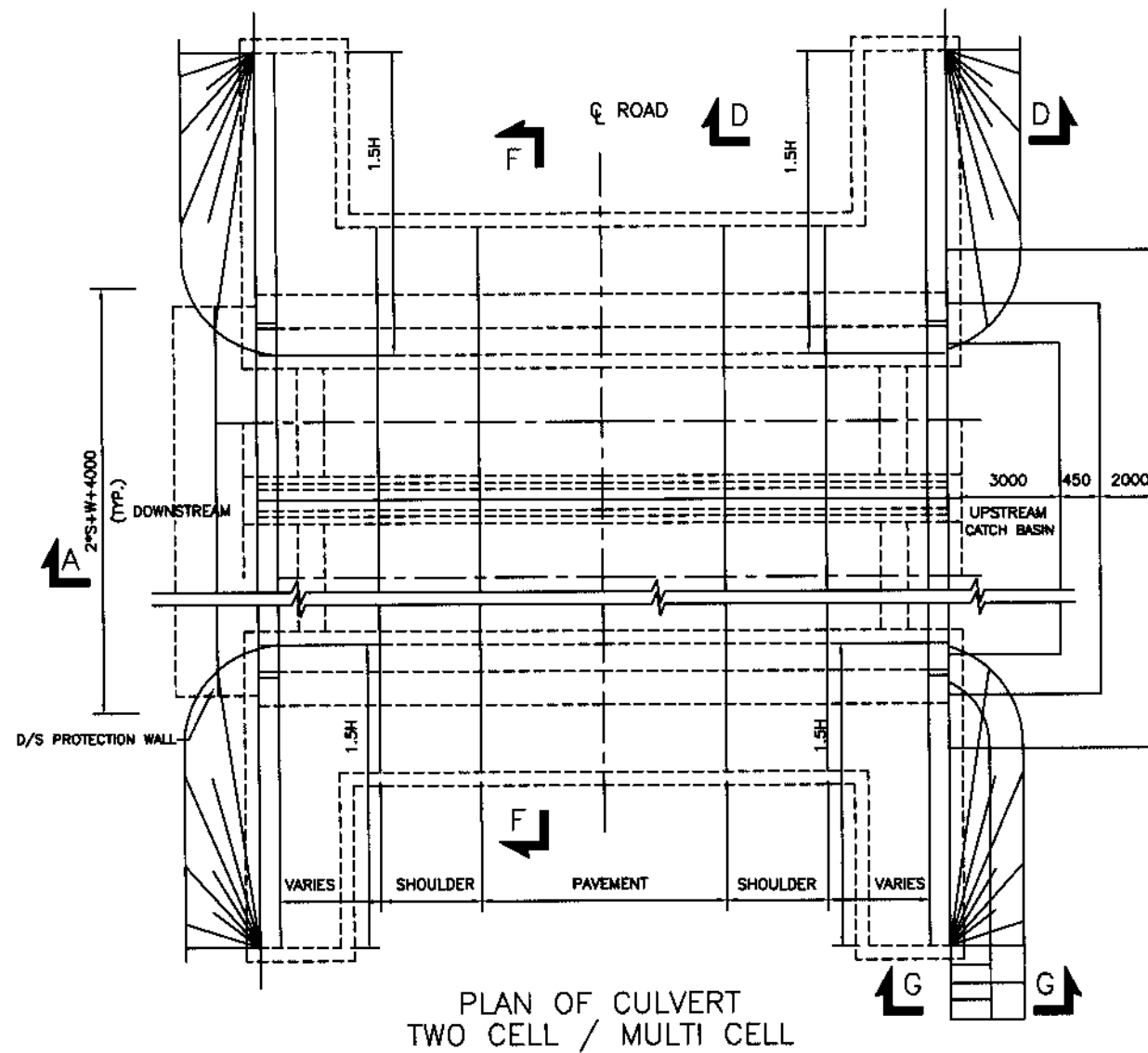
REV.	DATE	DESCRIPTION	APPROVED	APPROVED

PROJECT:
REHABILITATION AND UPGRADING
OF THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24.00 KM

TITLE
TYPICAL CULVERT DETAILS
(SINGLE CELL)

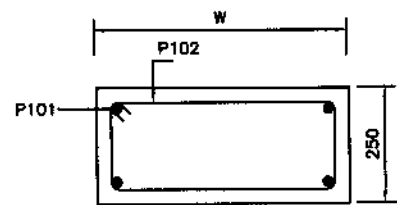
DATE
JANUARY, 2021

DWG NO.
38164/102/TD/ SC007



BED PLATE REINFORCEMENT

ABUTMENT						PIER						
SPAN (m)	BAR MARK	DIA mm	NOS.	BAR MARK	DIA mm	SPACING	BAR MARK	DIA mm	NOS.	BAR MARK	DIA mm	SPACING
0.6	A101	13	7	A102/A103	10	200	-	-	-	-	-	-
1.0	✓	13	✓	✓	10	✓	-	-	-	-	-	-
1.5	✓	13	✓	✓	10	✓	-	-	-	-	-	-
2.0	✓	13	✓	✓	10	✓	-	-	-	-	-	-
2.5	✓	16	✓	✓	10	✓	-	-	-	-	-	-
3.0	✓	16	✓	✓	10	✓	-	-	-	-	-	-
3.5	✓	16	✓	✓	10	✓	P101	16	4	P102	10	200
4.0	✓	18	✓	✓	10	✓	P101	16	4	P102	10	200
4.5	✓	19	✓	✓	13	✓	✓	19	✓	✓	13	✓
5.0	✓	19	✓	✓	13	✓	✓	✓	✓	✓	✓	✓
5.5	✓	19	✓	✓	13	✓	✓	✓	✓	✓	✓	✓
6.0	✓	19	✓	✓	13	✓	✓	✓	✓	✓	✓	✓
6.5	✓	19	✓	✓	13	✓	✓	✓	✓	✓	✓	✓
7.0	✓	19	✓	✓	13	✓	✓	✓	✓	✓	✓	✓



ABUTMENT BED PLATE
DIMENSIONS

SPAN (m)	c mm	f mm
0.6	200	450
1.0	200	450
1.5	200	450
2.0	250	450
2.5	250	450
3.0	300	600
3.5	300	600
4.0	350	600
4.5	350	600
5.0	400	600
5.5	400	600
6.0	450	650
6.5	450	650
7.0	500	700

ABUTMENT AND PIER
DIMENSIONS (WITHOUT FILL)

HEIGHT (m) H	FD mm	BW mm	W mm	BP mm
0.6	1120	1204	-	-
1.0	1200	1540	-	-
1.5	1300	1960	-	-
2.0	1400	2380	-	-
2.5	1500	2800	600	3950
3.0	1600	3220	600	3950
3.5	1700	3640	750	4150
4.0	1800	4060	750	4350
4.5	1900	4480	750	4550
5.0	2000	4900	900	4900
5.5	2100	5320	900	5100
6.0	2200	5740	1000	5400
6.5	2300	6160	1000	5600
7.0	2400	6580	1000	5800

FD = FOUNDATION DEPTH
 BW = BASE WIDTH OF ABUTMENT AND
 BASE WIDTH OF CUT-OFF WALL
 W = WIDTH OF PIER
 BP = BASE WIDTH OF PIER
 f = WIDTH OF ABUTMENT BED PLATE
 S = SPAN

NOTE:-
 1. FOR NOTES REFER DWG. NO.38164/102/TD/SC008



KHYBER PAKHTUNKHWA
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 C&W DEPARTMENT, KP



NATIONAL ENGINEERING SERVICES
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REV.	DATE	DESCRIPTION	APPROVED	APPROVED

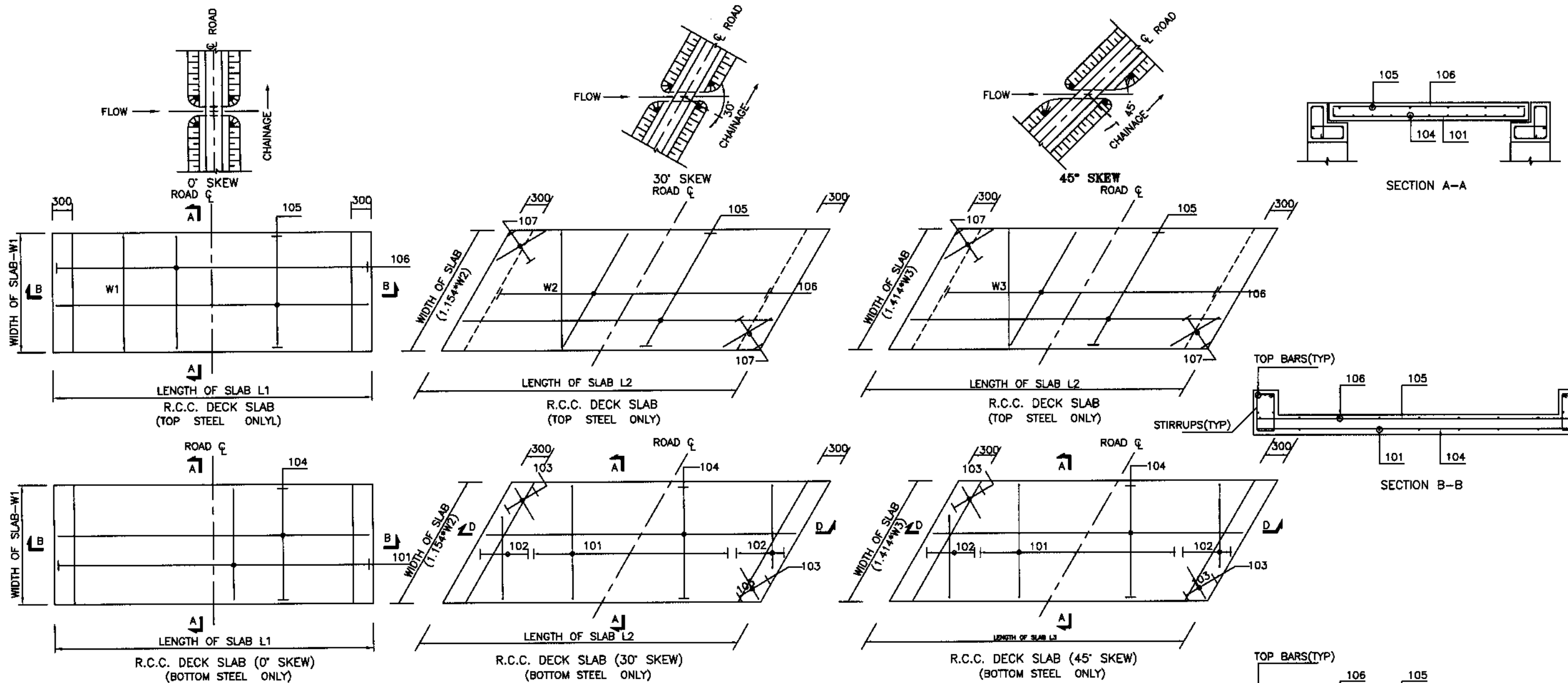
DRAWN
 SUBMITTED
 RECOMMENDED
 CHD./VER.
 APPROVED

PROJECT:
 REHABILITATION AND UPGRADING
 OF THANDIANI ROAD IN DISTRICT
 ABBOTTABAD - 24.00 KM

TITLE
 TYPICAL CULVERT DETAILS
 (MULTI CELL)

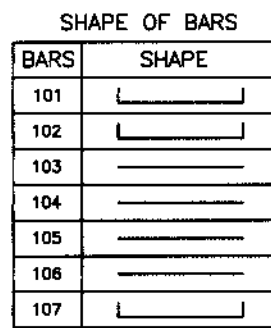
DATE
 JANUARY, 2021

DWG NO.
 38164/102/TD/ SC008



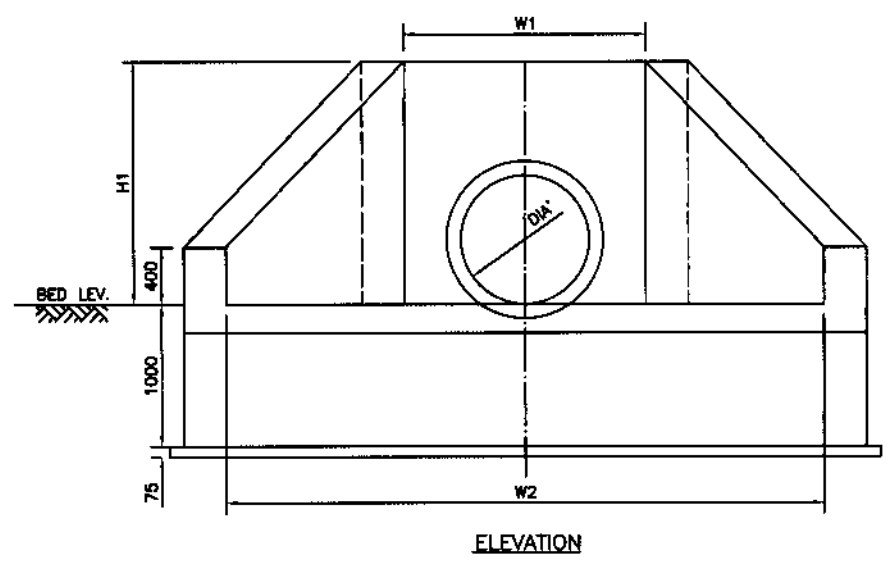
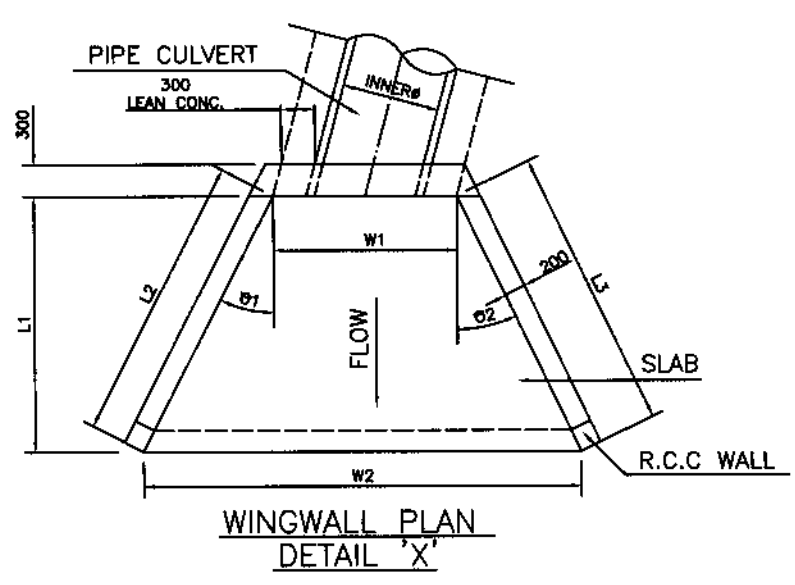
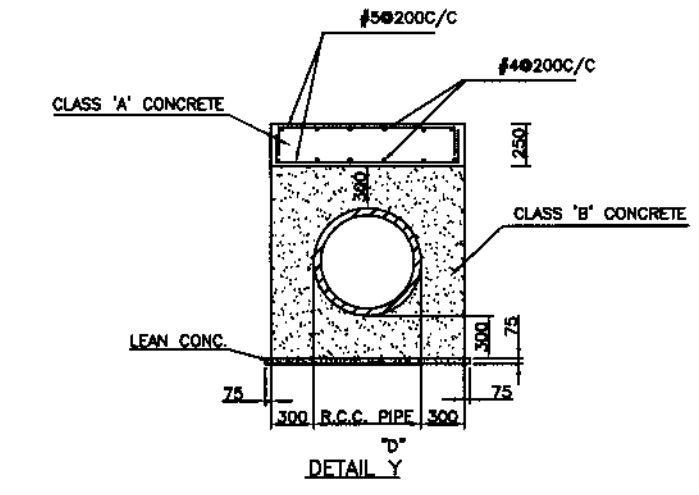
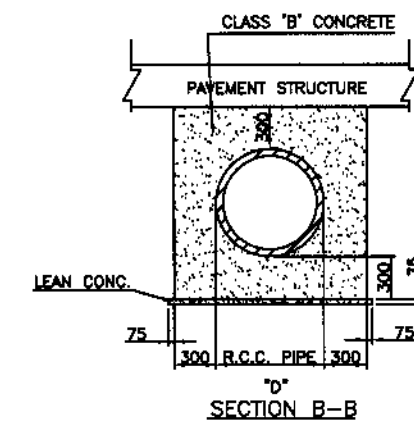
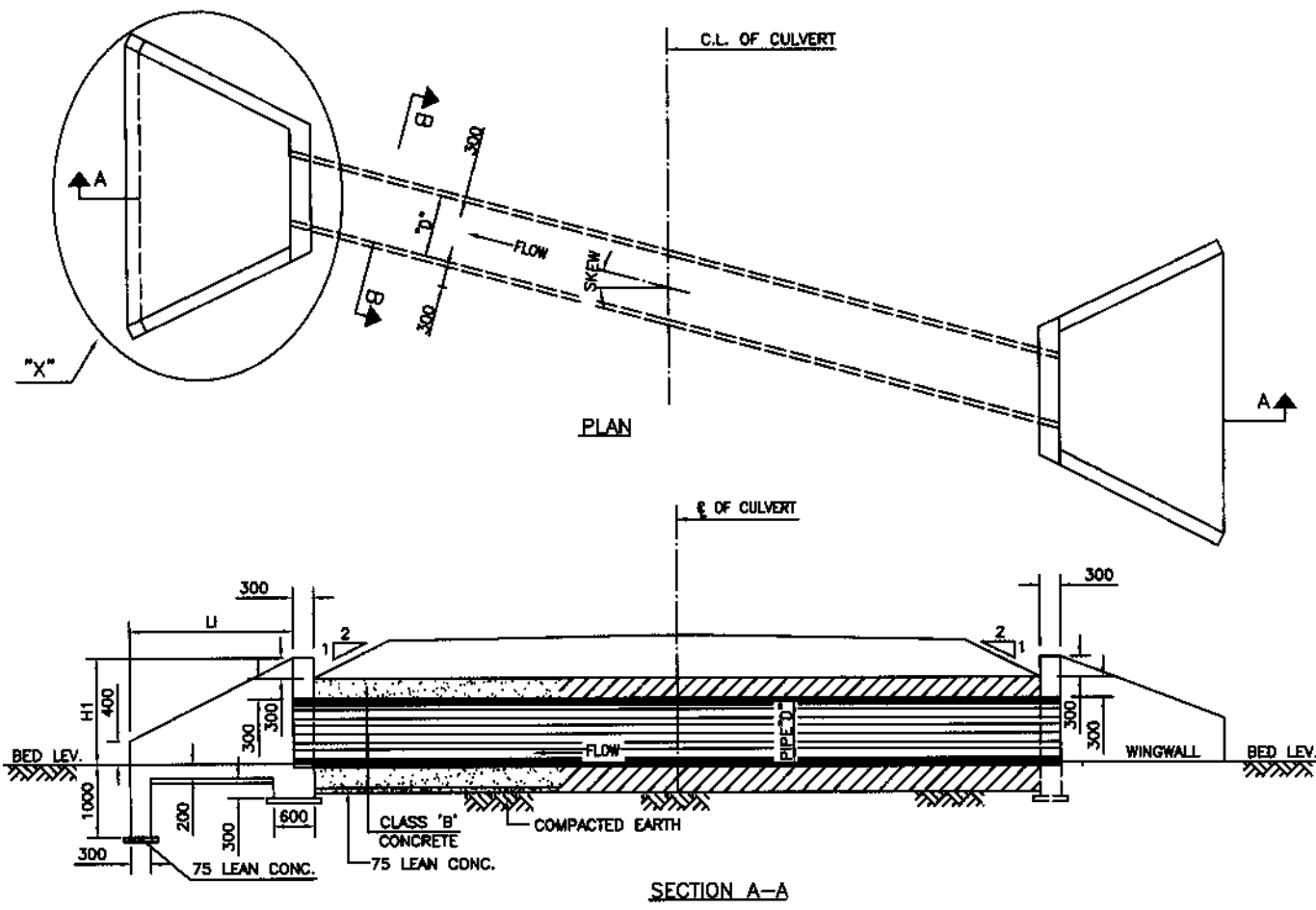
T A B L E

DECK SLAB REINFORCEMENT																	EDGE BEAM REINFORCEMENT																	
SPAN	MARK	DIA. mm	SPAC. mm	MARK	DIA. mm	SPAC. mm	MARK	DIA. mm	SPAC. mm	MIN. NOS	L m	MARK	DIA. mm	SPAC. mm	MARK	DIA. mm	SPAC. mm	MARK	DIA. mm	SPAC. mm	MIN. NOS	NORMAL		SKEW 30°		SKEW 45°		TOP BARS						
																						LONG BARS DIA	STIRRUPS DIA	LONG BARS DIA	STIRRUPS DIA	LONG BARS DIA	STIRRUPS DIA	DIA	NOS					
0.60	101	13	160	102	13	160	103	13	200	3	0.75	104	13	200	105	13	300	106	13	300	107	13	300	2	13	4	10	300	13	6	10	300	13	4
1.00	101	16	160	102	16	160	103	13	200	4	0.75	104	13	200	105	13	300	106	13	300	107	13	300	2	16	4	10	250	16	8	10	250	16	4
1.50	101	16	110	102	16	110	103	13	170	8	1.00	104	13	170	105	13	300	106	13	300	107	13	300	3	19	4	13	300	19	6	13	250	19	4
2.00	101	19	150	102	19	150	103	13	170	7	1.25	104	13	170	105	13	300	106	13	300	107	13	300	3	19	4	13	300	19	6	13	250	19	4
2.50	101	19	120	102	19	120	103	16	250	7	1.50	104	16	250	105	13	300	106	13	300	107	13	300	3	19	4	13	300	19	6	13	250	19	4
3.00	101	19	110	102	19	110	103	16	250	9	1.75	104	16	250	105	13	300	106	13	300	107	13	300	3	19	4	13	300	19	6	13	250	19	4
3.50	101	25	150	102	25	150	103	16	220	10	1.75	104	16	220	105	13	300	106	16	300	107	16	300	3	25	4	13	300	25	6	13	300	25	4
4.00	101	25	150	102	25	150	103	16	220	12	2.00	104	16	220	105	13	300	106	16	300	107	16	300	4	25	4	13	300	25	6	13	300	25	4
4.50	101	25	130	102	25	130	103	16	200	13	2.00	104	16	200	105	16	300	106	16	300	107	16	300	4	25	4	13	300	25	6	13	300	25	4
5.00	101	25	130	102	25	130	103	16	200	14	2.25	104	16	200	105	16	300	106	16	300	107	16	300	4	25	4	13	300	25	6	13	300	25	4
5.50	101	25	110	102	25	110	103	16	200	15	2.25	104	16	200	105	16	300	106	16	300	107	16	300	4	25	4	13	300	25	6	13	300	25	4
6.00	101	32	180	102	32	180	103	16	200	16	2.50	104	16	200	105	16	300	106	16	300	107	16	300	4	32	4	13	250	32	6	13	250	32	4
6.50	101	32	180	102	32	180	103	16	200	18	2.75	104	16	200	105	16	300	106	16	300	107	16	300	4	32	4	13	250	32	6	13	250	32	4
7.00	101	32	140	102	32	140	103	16	200	18	2.75	104	16	200	105	16	300	106	16	300	107	16	300	4	32	4	13	250	32	6	13	250	32	4



NOTE :-
 1- ALL CONCRETE SHALL BE CLASS 'A' WHERE AS REINFORCEMENT BARS SHALL BE GRADE 40.
 2- CLEAR COVER TO ALL REINFORCEMENT SHALL BE 40 mm.

<p>KHYBER PAKHTUNKHWA INTEGRATED TOURISM AND ENTERPRISE DEVELOPMENT PROJECT C&W DEPARTMENT, KP</p>	<p>NATIONAL ENGINEERING SERVICES PAKISTAN (PVT.) LTD.</p>	DRAWN SUBMITTED RECOMMENDED CHD./VER.	PROJECT: REHABILITATION AND UPGRADING OF THANDIANI ROAD IN DISTRICT ABBOTTABAD - 24.00 KM	TITLE TYPICAL SLAB CULVERT REINFORCEMENT DETAILS
		REV. DATE DESCRIPTION APPROVED APPROVED	DATE JANUARY, 2021	DWG NO. 38164/102/TD/ SC009



* EXACT EXTENDED LENGTH OF THE STRUCTURES WILL BE DECIDED BY THE ENGINEER AS PER SITE CONDITIONS AND GEOMETRY OF THE ROAD.
 * WING WALLS ANGLE AND LENGTHS ARE WILL BE ADJUSTED AS PER SITE CONDITION.

NOTES:-
 * THE CULVERTS HAS BEEN DESIGNED FOR A BEARING CAPACITY OF 1.00 TON/SQFT.
 * REINFORCED CONCRETE PIPE SHALL BE MANUFACTURED & TESTED IN ACCORDANCE WITH AASHTO DESIGNATION M-170.
 * ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
 * IN CASE HEIGHT OF FILL ABOVE CULVERT IS LESS THAN 500mm FOLLOW DETAIL Y.



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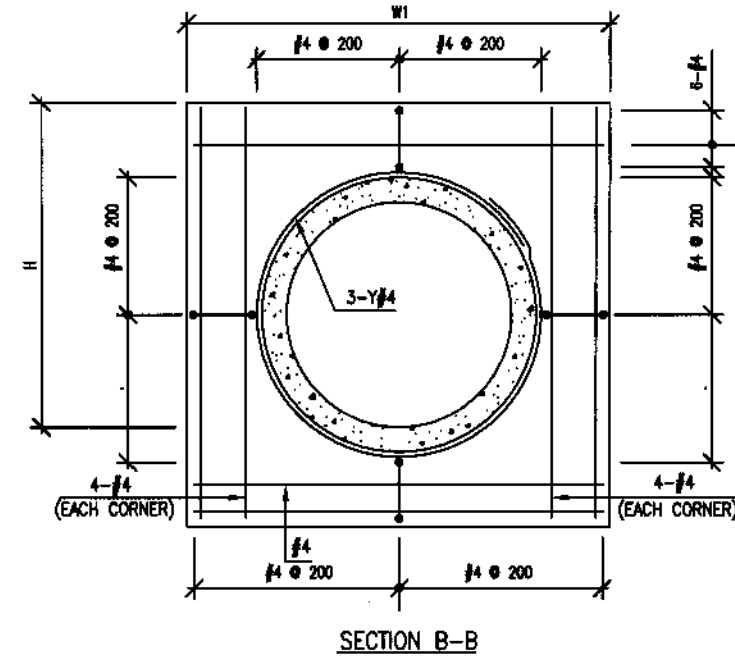
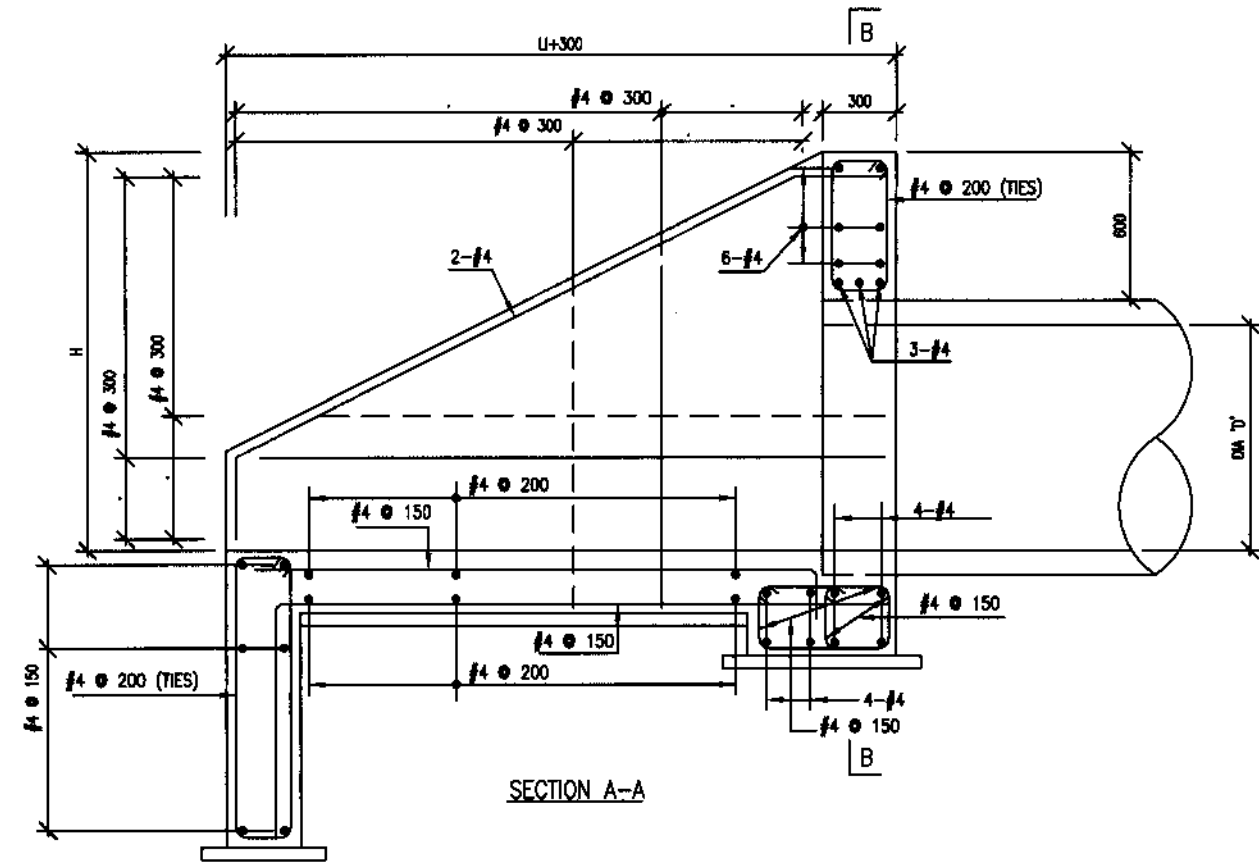
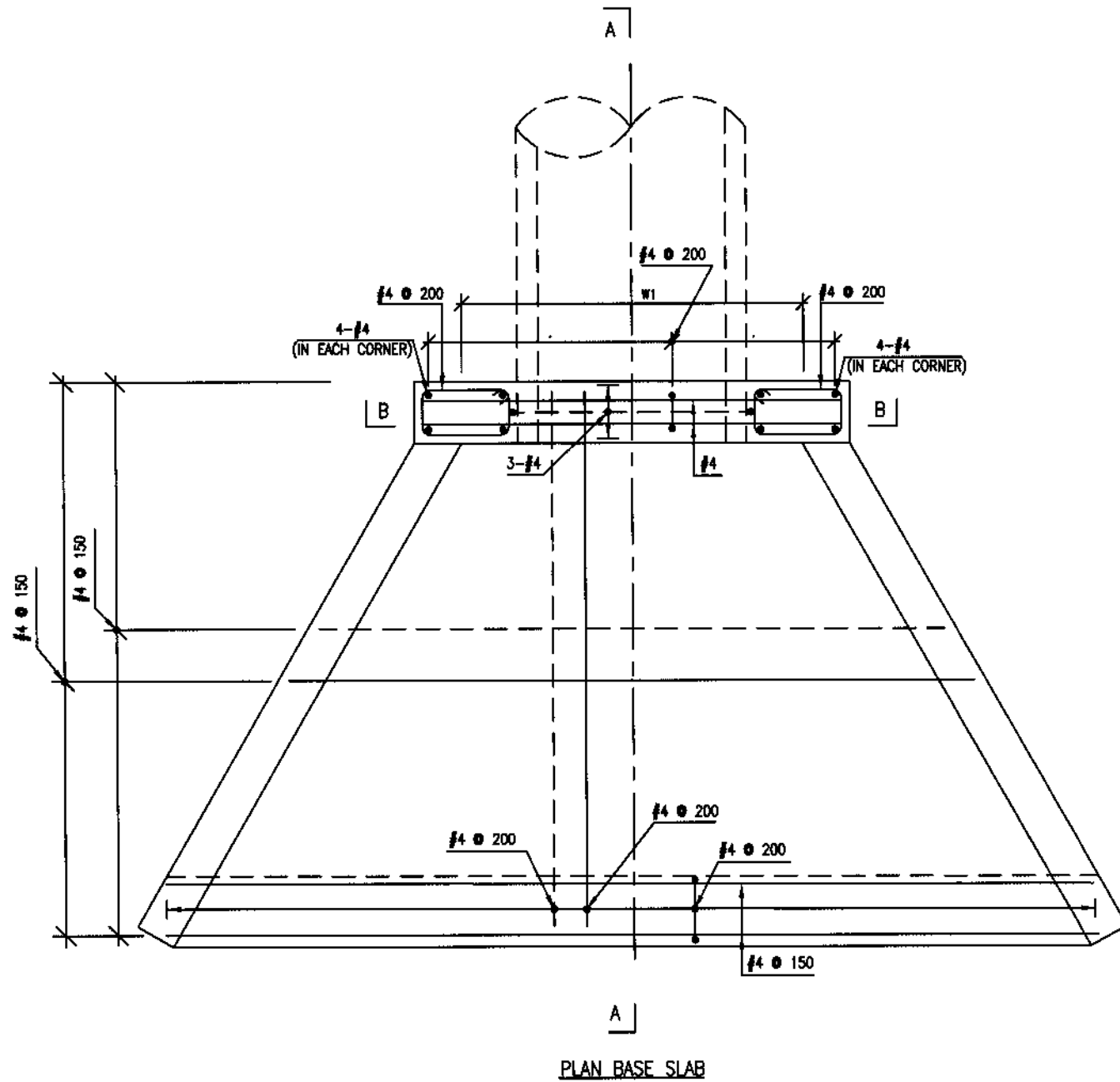


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REV.	DATE	DESCRIPTION	APPROVED	APPROVED

PROJECT:
 REHABILITATION AND UPGRADING
 OF THANDIANI ROAD IN DISTRICT
 ABBOTTABAD - 24.000 KM

TITLE	TYPICAL R.C.C PIPE CULVERT GENERAL ARRANGEMENT CONCRETE OUTLINE
DATE	JANUARY, 2021
DWG NO.	38164/102/TD/ PC001



NOTES:-

- * THE CULVERTS HAS BEEN DESIGNED FOR A BEARING CAPACITY OF 1.00 TON/SQFT.
- * REINFORCED CONCRETE PIPE CLASS II SHALL BE MANUFACTURED & TESTED IN ACCORDANCE WITH AASHTO DESIGNATION M-170.
- * ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.



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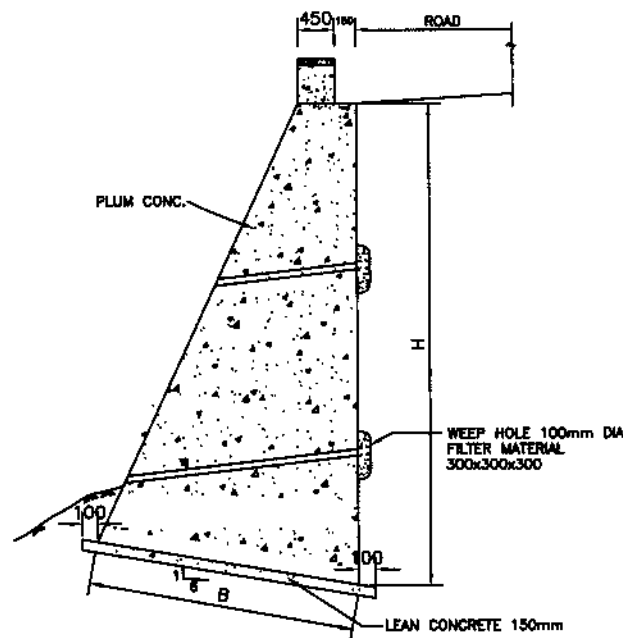
REV.	DATE	DESCRIPTION	APPROVED	APPROVED

PROJECT:
REHABILITATION AND UPGRADING
OF THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24.000 KM

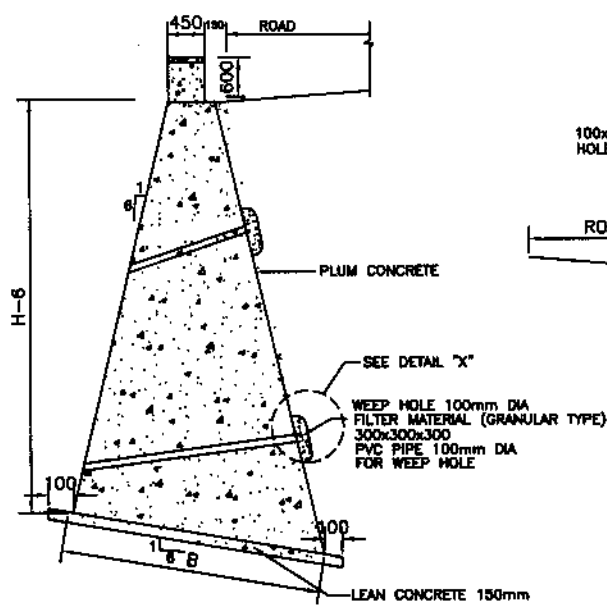
TITLE
R.C.C WING WALL
REINFORCEMENT DETAIL
(SINGLE CELL)

DATE
JANUARY, 2021

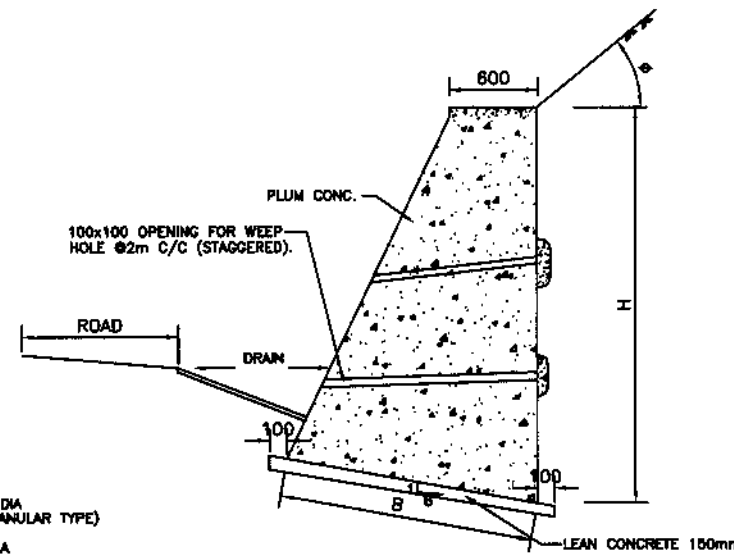
DWG NO.
38164/102/TD/ PC002



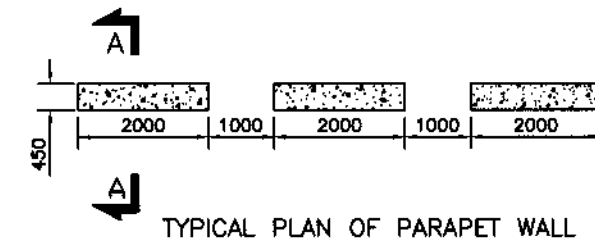
TYPICAL SECTION OF PLUM CONCRETE
RETAINING WALL TYPE 1



TYPICAL SECTION OF PLUM CONCRETE
RETAINING WALL TYPE 2



TYPICAL SECTION OF PLUM CONCRETE
RETAINING/BREAST WALL TYPE 3



APPLICABLE WHERE NO RETAINING WALL EXISTS
SECTION A-A

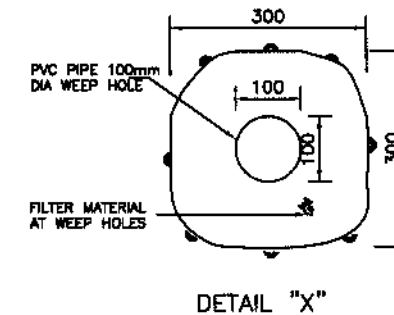


TABLE:-

TYPE-1		TYPE-2		TYPE-3 $\theta < 40^\circ$		TYPE-3 $\theta > 40^\circ$	
H (m)	B (m)	H (m)	B (m)	H (m)	B (m)	H (m)	B (m)
1.50	0.60	1.50	0.80	1.50	0.80	1.50	1.10
2.00	0.80	2.00	1.05	2.00	1.00	2.00	1.40
2.50	1.00	2.50	1.40	2.50	1.40	2.50	1.70
3.00	1.20	3.00	1.70	3.00	1.70	3.00	2.00
3.50	1.50	3.50	2.10	3.50	2.00	3.50	2.30
4.00	1.80	4.00	2.40	4.00	2.40	4.00	2.70
4.50	2.00	4.50	2.70	4.50	2.70	4.50	3.00
5.00	2.30	5.00	3.00	5.00	3.00	5.00	3.60
5.50	2.60	5.50	3.30	5.50	3.30	5.50	3.90
6.00	2.90	6.00	4.00	6.00	3.70	6.00	4.30
7.00	3.40	7.00	4.70	6.50	4.00	6.50	4.70
8.00	3.90	8.00	5.50	7.00	4.40	7.00	5.00
		9.00	6.00	7.50	4.70		
		10.00	6.60	8.00	5.00		
		11.00	7.20				
		12.00	7.80				

NOTES

- 1- ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
- 2- WEEP HOLES PVC PIPE 100mm DIA SHALL BE STAGGERED AT AN INTERVAL OF 2m VERTICAL AND HORIZONTAL AND AS ADDITIONALLY DIRECTED BY THE ENGINEER.
- 3- THE SLOPE OF WEEP HOLE SHALL BE 1 IN 8 FROM BACK OF THE WALL TO THE OUTER FACE OR AS DIRECTED BY THE ENGINEER.
- 4- TYPE OF RETAINING WALL SHALL BE DECIDED BY THE ENGINEER AS PER SITE CONDITIONS KEEPING FOLLOWING IN VIEW.
- 5- PLUM CONCRETE (70% CONCRETE & 30% ROCK FILL MATERIAL HAVING STONE SIZE RANGING BETWEEN 200-300) BE UTILIZED.
- 6- TYPE 1 RETAINING WALL SHALL BE PROVIDED WHERE THE ROAD IS WELL AWAY FROM THE NALLAH, RIVER/RIVINE.
- 7- TYPE 2 RETAINING WALL SHALL BE PROVIDED WHERE THE ROAD IS IN CLOSE VICINITY OF THE RIVER/RIVINE OR CLIFF FACE.
- 8- TYPE 3 RETAINING WALL SHALL BE PROVIDED TO RETAIN THE SCREED MATERIAL (BREAST WALL).
- 9- PCC PARAPET SHALL BE PROVIDED AT TOP OF RETAINING WALL AND AT OTHER HAZARDOUS LOCATIONS. GUARD RAIL SHALL BE PROVIDED OVER 4m HIGH FILL OR AS DIRECTED BY THE ENGINEER.
- 10- VERTICAL SLOPE TO THE OUTER FACE OF THE RETAINING WALL TYPE 2 CAN BE CHANGE UP TO 1 IN 10.
- 11- PAYMENT FOR WEEP HOLES AND FILTER MATERIAL IS INCLUDED IN THE COST OF OTHER ITEMS AND SHALL NOT BE PAID SEPARATELY.



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NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED

PROJECT:
REHABILITATION AND UPGRADING
OF THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24.00 KM

TITLE	TYPICAL PLUM CONC. RETAINING WALL DETAILS	
DATE	JANUARY, 2021	DWG NO. 38164/102/TD/RWP011

1. GENERAL:

- 1.1 SPECIFIC TO PROJECT ONLY AND SHOULD BE READ IN CONJUNCTION WITH THE PROJECT SPECIFICATIONS, STRUCTURAL ENGINEERING DRAWINGS, RELEVANT CONTRACT CONDITIONS AND ENGINEER'S INSTRUCTIONS.
- 1.2 ALL DRAWINGS SHALL BE CO-ORDINATED WITH OTHER SPECIALTY DRAWINGS / DETAILS. ANY DISCREPANCY, ERROR OR RECTIFICATION IF REQUIRED, SHALL BE BROUGHT TO THE NOTICE OF THE ENGINEER FOR NECESSARY APPROVAL.
- 1.3 ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS IN METRES, UNLESS SPECIFIED OTHERWISE.
- 1.4 ALL ELEVATIONS SHOWN ON DRAWINGS ARE FINISHED SURFACE LEVELS UNLESS NOTED OTHERWISE.
- 1.5 ALL EXPOSED CONCRETE CORNERS, EDGES AND ANGLES SHALL BE CHAMFERED OR FILLETED 20mm x 20 mm UNLESS SPECIFIED OTHERWISE.
- 1.6 THE CONTRACTOR SHALL SUBMIT, COMPLETE METHODOLOGY FOR DIFFERENT WORK ITEMS LIKE EXCAVATION/BACKFILLING, DEWATERING/DRAINAGE, CONCRETING, JOINTS ETC FOR APPROVAL OF ENGINEER.
- 1.7 ALL EXPOSED SURFACES SHALL HAVE CLASS 1 SURFACE FORM FINISH UNLESS SPECIFIED OTHERWISE.

2. MATERIALS:

2.1 ALL THE MATERIALS AND WORKMANSHIP SHALL BE ACCORDING TO THE AASHTO SPECIFICATIONS AND ASTM STANDARDS EXCEPT WHERE MODIFIED BELOW, OR IN "PARTICULAR SPECIFICATIONS AND SPECIAL PROVISIONS" OF TENDER DOCUMENTS.

2.2 CONCRETE

CONCRETE CLASSIFICATION AND STRENGTHS SHALL BE AS PER TABLE GIVEN BELOW:

CONCRETE	CLASS	28 DAYS (150cm X 30 Cm) CYLINDER STRENGTH Kg/Sq.Cm
CULVERT (TOP SLAB), BOTTOM SLAB, WALLS WINGWALL-----	1 : 1 : 2	(4000 psi)
APPROACH SLAB, CUTOFF WALL -----	1 : 2 : 4	(3000 psi)
LEAN-----	1 : 3 : 6	(1,500 psi)

2.3 REINFORCEMENT

REINFORCING STEEL SHALL BE DEFORMED ROUND BARS OF INTERMEDIATE GRADE (GRADE 60) CONFORMING TO AASHTO M-31 (ASTM A-615) WITH MINIMUM YIELD STRENGTH OF 4,200 Kg/Sq.Cm (60,000 Psi).

3. CONCRETE COVER:

THE MINIMUM COVER TO REINFORCEMENT SHALL BE AS UNDER UNLESS SPECIFIED OTHERWISE.

TOP SLAB	
TOP.....	40 mm
BOTTOM.....	25 mm
APPROACH SLAB	
BOTTOM.....	50 mm
TOP.....	75 mm
WALLS	
EARTH SIDE.....	50 mm
OTHER SIDE.....	40 mm

4. FOUNDATIONS:

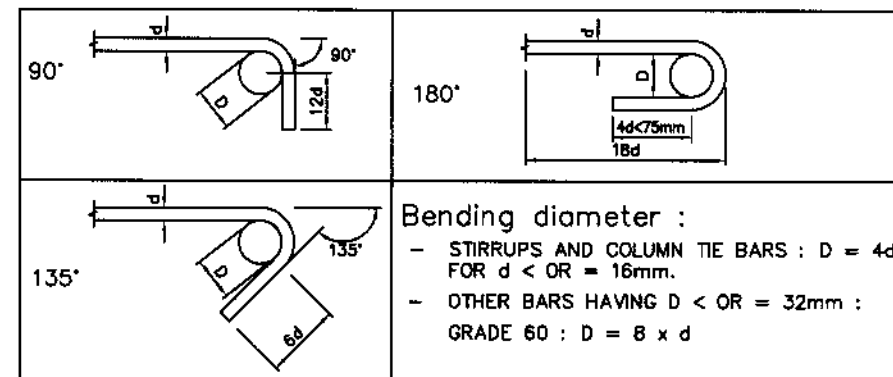
- 4.1 ALL THE EXCAVATION FOR OPEN FOUNDATIONS / BOX CULVERTS SHALL BE SUBJECTED TO INSPECTION BY THE ENGINEER PRIOR TO POURING OF CONCRETE.
- 4.2 BEHIND THE ABUTMENT AND WING WALLS, COMPACTED GRANULAR BACKFILL SHALL BE PLACED IN LAYERS OF THICKNESS APPROPRIATE TO THE COMPACTION EQUIPMENT ENSURING A MINIMUM IN SITU COMPACTION OF 95% MODIFIED PROCTOR.

5. JOINTS:

- 5.1 THE CONTRACTOR SHALL SUBMIT COMPLETE LAYOUT AND DETAILS OF ALL CONSTRUCTION JOINTS FOR APPROVAL OF THE ENGINEER.
- 5.2 CONCRETE IN DECK SLAB SHALL BE PLACED IN FULL WIDTH. NO CONSTRUCTION JOINT SHALL BE PERMITTED. DIAPHRAGMS AND DECK SLAB SHALL BE CAST MONOLITHICALLY, EXCEPT AS SHOWN ON DRAWING AT LOCATION FOR INSTALLATION OF EXPANSION JOINTS.
- 5.3 CONCRETE FOR THE BARRIERS AND SIDEWALKS SHALL BE PLACED NO SOONER THAN 20 DAYS AFTER PLACING OF CONCRETE.

6. BAR BENDING SCHEDULE

DETAILED BAR BENDING SCHEDULE SHALL BE PREPARED BY THE CONTRACTOR AND SUBMITTED FOR ENGINEER'S APPROVAL. LAP LENGTHS AND STANDARD HOOKS SHALL BE AS GIVEN BELOW:



7. TENDER DOCUMENTS, DRAWINGS & CONSTRUCTION DRAWINGS:

7.1 TENDER DRAWINGS ISSUED WITH TENDER DOCUMENTS ARE TO APPRAISE THE BIDDERS OF THE GENERAL NATURE & FAIR IDEA OF THE WORK TO PREPARE BOQ & TENDER DOCUMENTS. ENGINEER SHALL ISSUE THE DETAILED CONSTRUCTION DRAWINGS & SUCH FIELD SKETCHES FROM TIME TO TIME AS NECESSARY FOR THE EASE OF CONSTRUCTION.

7.2 THE CONTRACTOR SHALL CHECK ALL CONSTRUCTION DRAWINGS AND CONTRACT DOCUMENTS CAREFULLY AS SOON AS PRACTICABLE AFTER RECEIPT THERE OF, AND SHALL PROMPTLY ADVISE THE ENGINEER'S REP OF ANY ERRORS OR OMISSIONS THERE IN PRIOR TO START OF ANY CONSTRUCTION ACTIVITIES.

8. SCAFFOLDING:

ALL SCAFFOLDING SHALL BE DESIGNED BY THE CONTRACTOR & THE TRAFFIC MOVEMENT UNDERNEATH SUCH SCAFFOLDING MAY REMAIN UNOBSTRUCTED.

9. LIST OF SYMBOLS AND ABBREVIATIONS:

- B = BOTTOM
- B.H = BORE HOLE
- C. JT. = CONSTRUCTION JOINT
- ℄ = CENTRELINE
- C/C = CENTER TO CENTER
- DIA. = DIAMETER
- EXP. JT. = EXPANSION JOINT
- E.F = EACH FACE
- ELE. = ELEVATION
- F.F = FAR FACE
- G.I = GALVANIZED IRON
- ID = INTERNAL DIAMETER
- I.F = INNER FACE
- m = METER
- mm = MILLIMETER
- N.F = NEAR FACE
- N.S.L = NATURAL SURFACE LEVEL
- P.G.L = PROFILE GRADE LEVEL
- SYM. = SYMMETRICAL
- T = TOP
- TH. = THICK
- TYP. = TYPICAL
- θ = SKEW ANGLE IN DEGREES

TABLE NO.1

(i) SPLICE LENGTH IN TENSION

Bar Size	SPLICE LENGTH mm									
	#3	#4	#5	#6	#7	#8	#9	#10	#11	
210	710	945	1180	1410	2060	2355	2645	2940	3240	
280	610	820	1020	1225	1780	2040	2995	2550	2805	
350	425	565	705	845	1215	1390	1565	1785	1960	

(b) OTHER BARS

Bar Size	SPLICE LENGTH mm									
	#3	#4	#5	#6	#7	#8	#9	#10	#11	
210	550	730	905	1085	1590	1815	2035	2265	2490	
280	475	630	790	945	1375	1570	1785	1960	2160	
350	325	435	540	650	935	1070	1205	1360	1505	

(ii) SPLICE LENGTH IN COMPRESSION

Bar Size	SPLICE LENGTH (mm) IN COMPRESSION (Fy=4220Kg/cm ²)									
	#3	#4	#5	#6	#7	#8	#9	#10	#11	
Splice Length	300	380	480	575	670	765	860	955	1050	

(iii) EMBEDMENT LENGTH IN TENSION

Bar Size	SPLICE LENGTH mm									
	#3	#4	#5	#6	#7	#8	#9	#10	#11	
210	545	730	910	1090	1590	1820	2050	2310	2565	
280	475	630	785	945	1360	1555	1755	1975	2190	
350	425	565	705	845	1215	1390	1565	1785	1960	

(b) OTHER BARS

Bar Size	SPLICE LENGTH mm									
	#3	#4	#5	#6	#7	#8	#9	#10	#11	
210	420	560	700	840	1225	1400	1580	1775	1970	
280	365	485	605	725	1045	1195	1350	1520	1685	
350	325	435	540	650	935	1070	1205	1360	1505	



KHYBER PAKHTUNKHWA INTEGRATED TOURISM AND ENTERPRISE DEVELOPMENT PROJECT C&W DEPARTMENT, KP



NATIONAL ENGINEERING SERVICES PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED

PROJECT: REHABILITATION AND UPGRADING OF THANDIANI ROAD IN DISTRICT ABBOTTABAD - 24.00 KM

TITLE: GENERAL NOTES FOR STRUCTURES
DATE: JANUARY, 2021
DWG NO.: 38164/102/TD/GNS0012

SHAPE CODE	METHOD OF MEASUREMENT OF BENDING DIMENSIONS	TOTAL LENGTH OF BAR (L) MEASURED ALONG CENTRELINE	SKETCH AND DIMENSIONS TO BE GIVEN IN SCHEDULE	SHAPE CODE	METHOD OF MEASUREMENT OF BENDING DIMENSIONS	TOTAL LENGTH OF BAR (L) MEASURED ALONG CENTRELINE	SKETCH AND DIMENSIONS TO BE GIVEN IN SCHEDULE	SHAPE CODE	METHOD OF MEASUREMENT OF BENDING DIMENSIONS	TOTAL LENGTH OF BAR (L) MEASURED ALONG CENTRELINE	SKETCH AND DIMENSIONS TO BE GIVEN IN SCHEDULE	SHAPE CODE	METHOD OF MEASUREMENT OF BENDING DIMENSIONS	TOTAL LENGTH OF BAR (L) MEASURED ALONG CENTRELINE	SKETCH AND DIMENSIONS TO BE GIVEN IN SCHEDULE
1.		A	Straight	17.		$A+B+C$ Where B is at least 2 diameters		33.		$A+0.57B+C$		40.		$2A+2B+C+2D-2R-2d$	
2.		$A+H$		18.		$A+2B+C+E$ If angle with horizontal is 45° or less		34.		$A+B+C+D$ If angle with horizontal is 45° or less		50.		A+B	
3.		$A+2H$		19.		$A+B+C+D+E-R-2d$		35.		$A+B+C-1/2R-d$		51.		$A+2B+2C-2R-4d$	
4.		$A+B$		20.		$2A+1.14B$		36.		$A+B+C$ If angle with horizontal is 45° or less		52.		$A+2B-R-2d$	
5.		$A+2B$		21.		$2A+B+2Bd$		37.		$A+B+C+D-1/2R-3d$		53.		A+B+C	
6.		$A+B-1/2R-d$		22.		$A+B+C+D+E-2R-4d$		38.		$A+B+C+D+E$ If angle with horizontal is 45° or less		54.		$A+B+C+D-1/2R-2d$	
7.		$A+B+C-R-2d$		23.		$A+2B+D+10d$		39.		A		55.		$A+B+C+D+E$	
8.		$A+B+C+D+E-2R-4d$		24.		$A+10d$		40.		$A+B+D+E+1/2R-d$		56.		$A+B+C+D-1/2R-d$	
9.		$A+B+D-R-2d$		25.		$2A+2B+22d$		41.		A+B+C		57.		$A+B+C+D+E-2/2R-3d$	
10.		$A+B+C+D-1/2R-3d$		26.		$A+B+0.57C+D-1/2R-2.57d$		42.		$A+2B+2D-2R-4d$		58.		$A+B+C+D-R+22d$	
11.		$A+B+C+D+E-R-2d$		27.		$2A+B+20d$		43.		$A+2B+2D-2R-4d$		59.		$A+B+C-1/2R-d$	
12.		$A+B+C+D-1/2R-d$		28.		$2A+2B+C+20d$		44.		$A+2B+2C-R-2d$		60.		$2(A+B)+C-R-2d$	
13.		$A+B+C+D+E-1/2R-d$		29.		$A+B+C+10d$		45.		$A+2(B+C+D)-R-2d$		61.		$A+2B+C+D-R-2d$	
14.		$2(A+B+C)+D-R-2d$		30.		$10+20d$		46.		$2(A+B+C)+D-R-2d$					
15.		$(C/37) \times 3.14(A+C)+6d$ Where, B is not greater than A/3. d = dia of bar.	HELIX A = internal dia.(mm) B = pitch of helix(mm) C = overall height(mm)	31.		$A+B+C+D-1/2R-d$		47.		$A+B+C+D+E-2R-4d$					
16.		A+B		32.		$2(A+B+C)+D-R-2d$		48.		$A+B+C-1/2R-d$					

NOTES:
1- "d" AND "D" ARE THE DIAMETER OF REINFORCEMENTS.
2- "R" IS THE RADIUS OF BEND IN ROUNDS.



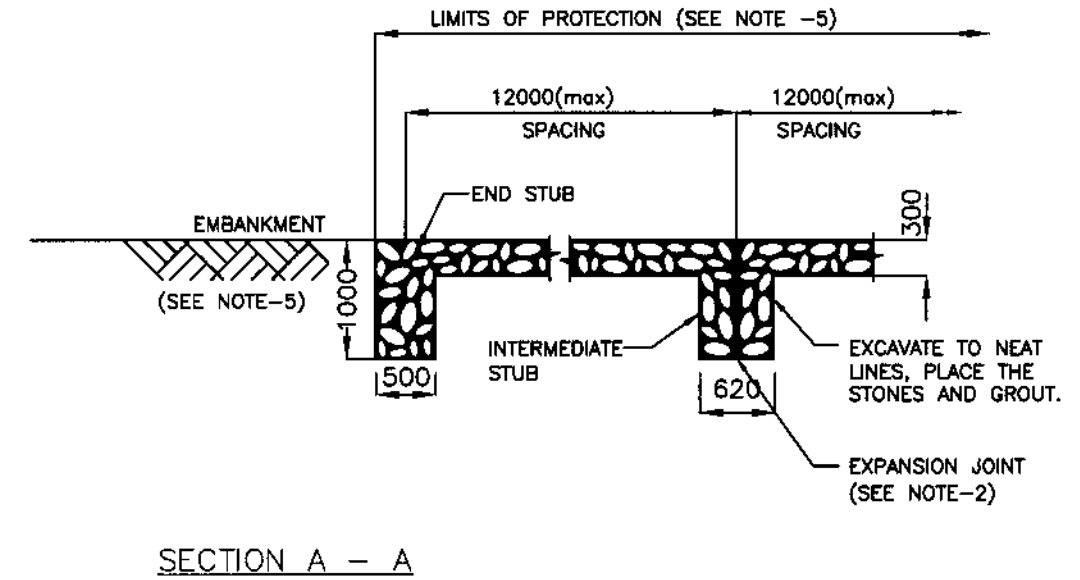
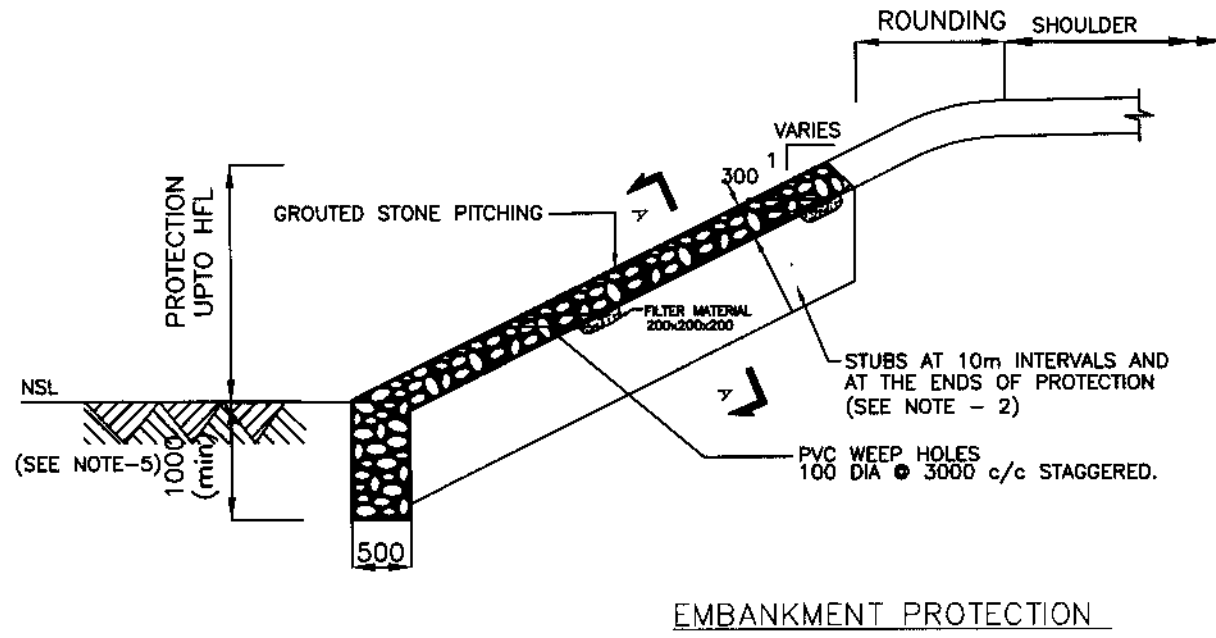
KHYBER PAKHTUNKHWA
INTEGRATED TOURISM
AND ENTERPRISE
DEVELOPMENT PROJECT
C&W DEPARTMENT, KP

NES
NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED

PROJECT:
REHABILITATION AND UPGRADING
OF THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24.00 KM

TITLE
REBAR SHAPE CODE
DATE
JANUARY, 2021
DWG NO.
38164/102/TD/RS0013



NOTES

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
2. EXPANSION JOINT IN MORTARED RIPRAP SHALL BE PROVIDED AT AN MAXIMUM INTERVAL OF 10m. TYPE OF MATERIAL TO BE USED SHALL BE AS APPROVED BY THE ENGINEER. NO SEPRATE PAYMENT SHALL BE MADE FOR PROVISION AND FIXATION OF EXPANSION JOINTS AND WEEP HOLES.
3. SUPPLY AND ERECTION OF STEEL ANGLE STAKES SHALL BE PROVIDED AS SHOWN ON DRAWINGS AT NO EXTRA COST TO THE EMPLOYER.
4. IN CASE ROCK IS ENCOUNTERED DEPTH OF PROTECTION WORKS SHALL BE ADJUSTED AS DIRECTED BY THE ENGINEER (MINIMUM DEPTH IN ROCK SHALL BE KEPT 300MM)
5. LOCATION & HEIGHT OF PROTECTION WORKS SHALL BE DECIDED BY THE ENGINEER ON COMPLETION OF EMBANKMENT WORKS.



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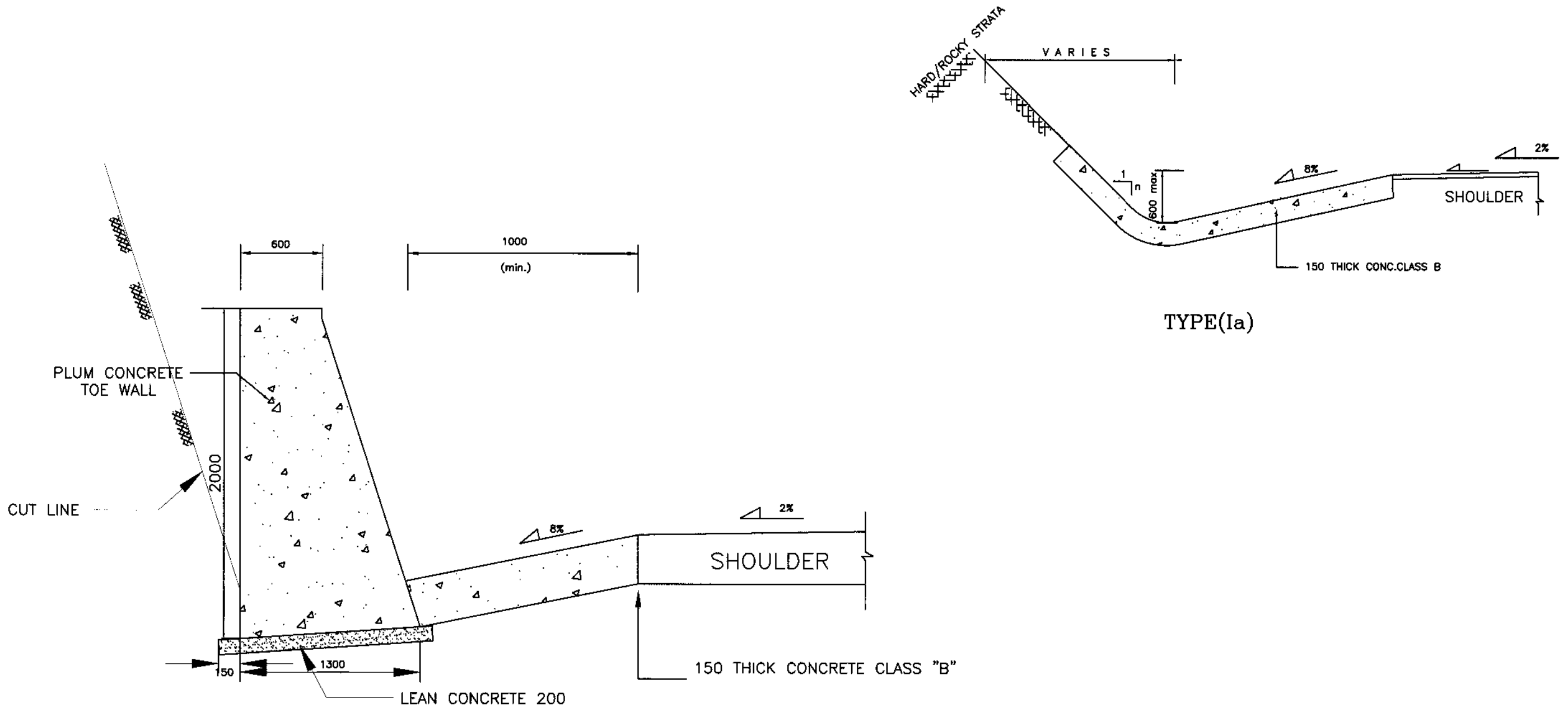
REV.	DATE	DESCRIPTION	APPROVED	APPROVED

PROJECT:
REHABILITATION AND UPGRADING
OF THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24.00 KM

TITLE
MISCELLANEOUS PROTECTION DETAILS

DATE
JANUARY, 2021

DWG NO.
38164/102/TD/0014



TYPE(Ia)

TYPE(Ib)
(In Common Material)

NOTES: -

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
2. INVERT LEVEL OF DRAIN SHALL GENERALLY FOLLOW PROFILE GRADE AND SHALL BE CONNECTED TO ADJOINING CULVERTS/CHUTES.
3. ACTUAL TYPE ,LOCATION, LENGTH, SLOPE AND INVERT LEVEL OF DRAIN SHALL BE AS APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION AT SITE.
4. TOE WALL ALONG DRAIN TYPE(1b) SHALL BE PROVIDED WITH R.R MASONRY. WHERE CUT HEIGHT EXCEEDING 2M, OR AS PER SITE REQUIREMENT ACCORDING TO THE ENGINEER DECISION APPROVAL THE BASE SHOULD BE FOLLOWED AS PERDWG 38164/102/TD/ RW011.



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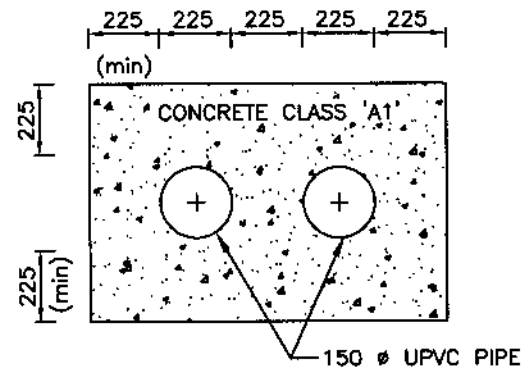


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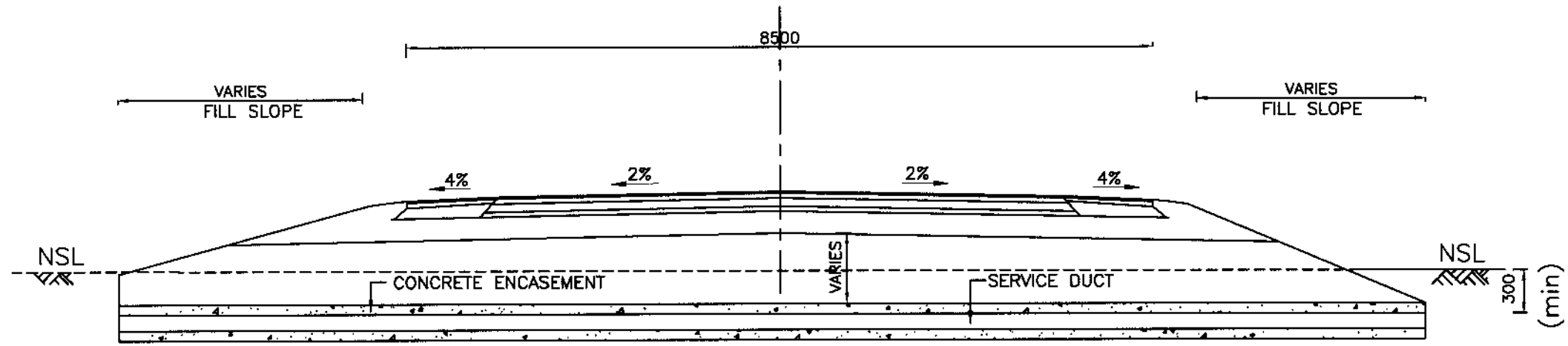
REV.	DATE	DESCRIPTION	APPROVED	APPROVED

PROJECT:
REHABILITATION AND UPGRADING
OF THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24.00 KM

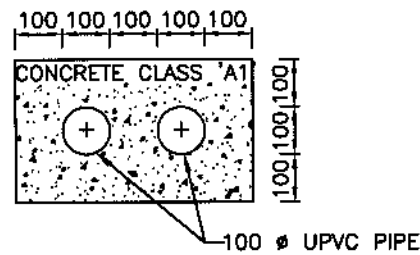
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DATE JANUARY, 2021	DWG NO. 38164/102/TD/D0015



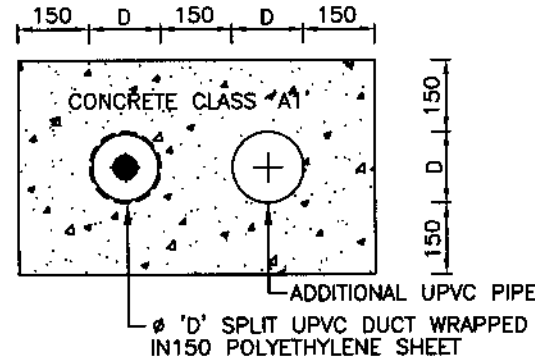
(FUTURE DUCTS FOR ELECTRICAL CABLES)



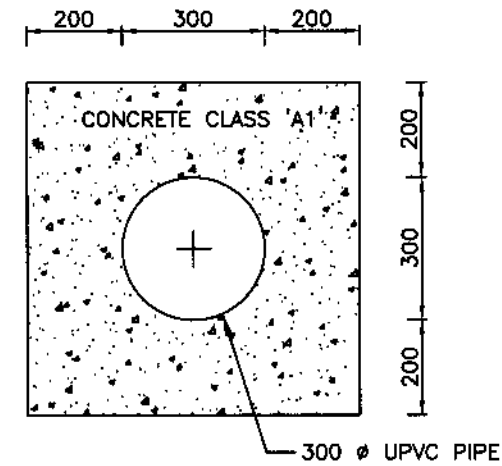
TYPICAL CROSS SECTION OF SERVICE DUCTS ACROSS



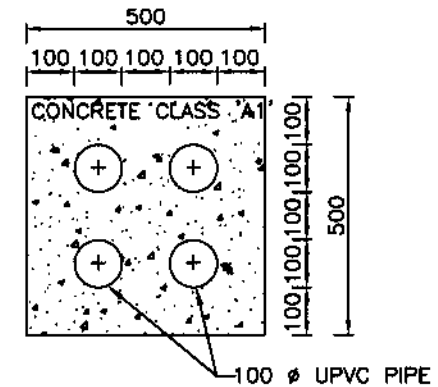
(FUTURE DUCTS FOR TELEPHONE CABLES TWO WAY)



DUCT FOR PROTECTION OF EXISTING SERVICES



(FUTURE DUCTS FOR WATER LINES)



(FUTURE DUCTS FOR TELEPHONE CABLES 4 WAY)

NOTES

1. ALL DIMENSIONS ARE IN MILLIMETERS, UNLESS NOTED OTHERWISE.
2. SERVICE DUCTS WILL BE PROVIDED AS PER SITE REQUIREMENT. POSITION OF SERVICE DUCTS SHALL BE COORDINATED BY THE CONTRACTOR WITH THE CONCERNED AUTHORITY DURING CONSTRUCTION WITH APPROVAL OF THE ENGINEER'S REPRESENTATIVE.



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INTEGRATED TOURISM
AND ENTERPRISE
DEVELOPMENT PROJECT
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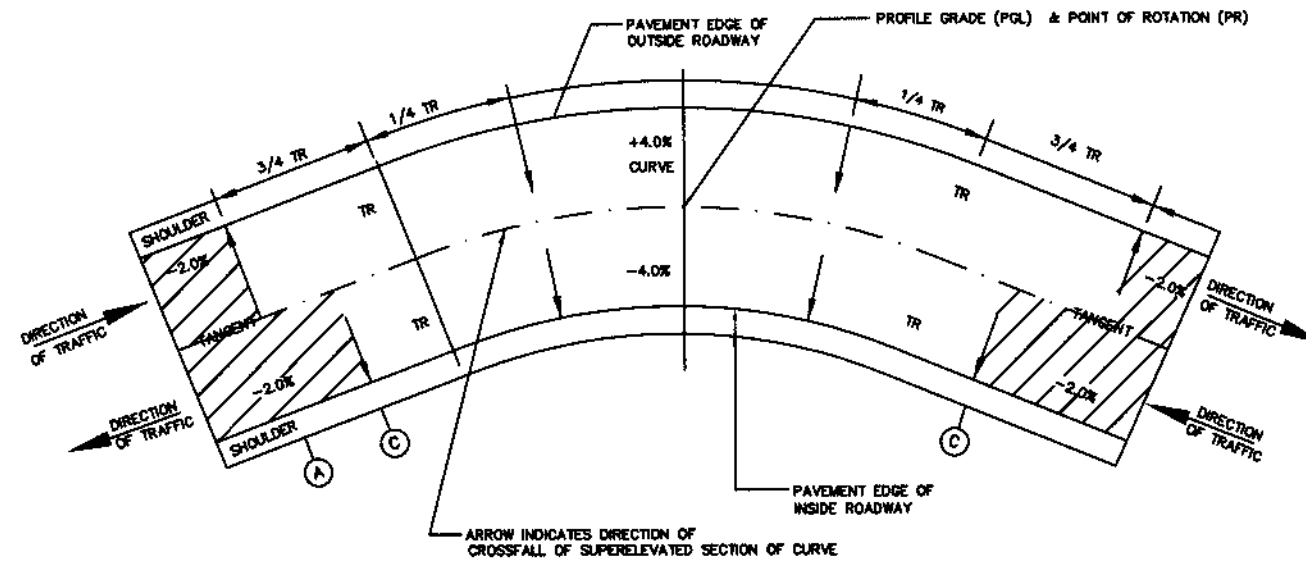
REV.	DATE	DESCRIPTION	APPROVED	APPROVED

PROJECT:	REHABILITATION AND UPGRADING OF THANDIANI ROAD IN DISTRICT ABBOTTABAD - 24.00 KM
TITLE	DETAILS OF SERVICE DUCTS
DATE	JANUARY, 2021
DWG NO.	38164/102/TD/D0016

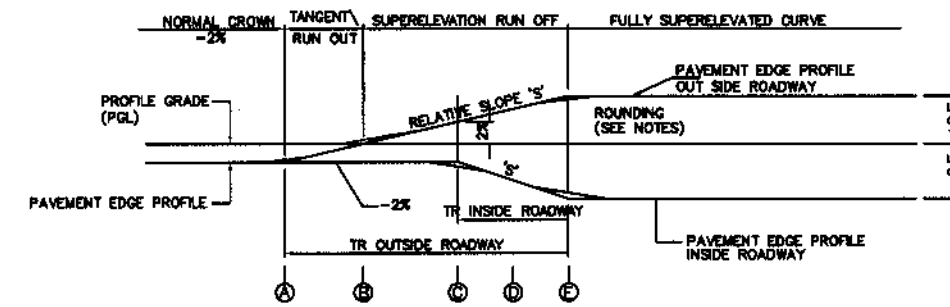
TABLE-I
RELATIVE SLOPE FOR SUPERELEVATED EDGE (S%)

DESIGN SPEED Km / Hr	2 LANE ROAD	1 LANE RAMP	2 LANE RAMP
80	0.87	0.80	1.00
80	0.80		
100	0.45		
120*	0.40		

* VALUE TO BE ADOPTED FOR THIS PROJECT.



**PLAN OF TYPICAL
SUPERELEVATION TRANSITION**



**PROFILE OF TYPICAL EDGE
SUPERELEVATION TRANSITIONS**

	SHOULDER	PAVEMENT	PAVEMENT	SHOULDER
(A)	-4%	-2%	-2%	-4%
(B)	0%	0%	-2%	-4%
(C)	+1%	+1%	-2%	-4%
(D)	+2%	+2%	-2%	-4%
(E)	+3%	+3%	-3%	-4%
(F)	+4%	+4%	-4%	-4%

**SECTIONS OF TYPICAL
DISTRIBUTION OF SUPERELEVATION**

NOTES :-

- ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.
- ALL SUPERELEVATION RATES ARE EXPRESSED IN UNITS PER HUNDRED (%).
- PROFILE GRADE LINE (PGL) AND POINT OF ROTATION (PR) SHALL BE AS SHOWN IN THE TYPICAL CROSS SECTION.
- FOLLOWING SIGN CONVENTION FOR SUPERELEVATION RATE ARE APPLICABLE
(-) WHEN LEFT EDGE OF PAVEMENT OR SHOULDER, IN DIRECTION OF TRAFFIC IS LOWER THAN RIGHT EDGE.
(+) WHEN LEFT EDGE OF PAVEMENT OR SHOULDER, IN DIRECTION OF TRAFFIC, IS HIGHER THAN RIGHT EDGE.
- EDGE PROFILES OF SUPERELEVATED PAVEMENT AND SHOULDERS SHALL BE FREE FROM IRREGULARITIES, ROUNDING AT POINTS A,C & E SHALL BE ACHIEVED USING A 20 METER MINIMUM VERTICAL CURVE.
- THE FORMULAE USED FOR CALCULATION OF INNER & OUTER TR_o ARE AS UNDER:-
(i). LENGTH OF TR = $\frac{\text{REQUIRED S.E.} + \text{CROSS SLOPE} \times \text{PAVEMENT WIDTH TO BE ROTATED}}{\text{S FACTOR}}$
(ii). 'S' FACTOR IS TAKEN FROM TABLE-I. THE LENGTH OF TR_o ARE INDICATED ON PLAN & PROFILE SHEETS, WHICH MAY BE ADJUSTED AS PER SITE CONDITIONS AND/OR AS APPROVED BY THE ENGINEER'S REPRESENTATIVE.
- THE RATE OF SUPERELEVATION (S.E) IS RESTRICTED TO A MAXIMUM OF 6%.



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INTEGRATED TOURISM
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DEVELOPMENT PROJECT
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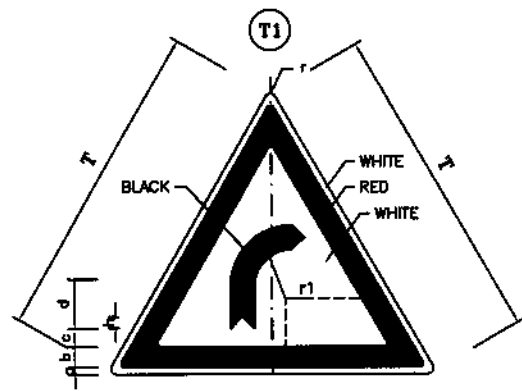
REV.	DATE	DESCRIPTION	APPROVED	APPROVED

PROJECT:
REHABILITATION AND UPGRADING
OF THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24.00 KM

TITLE
TYPICAL SUPERELEVATION DETAILS

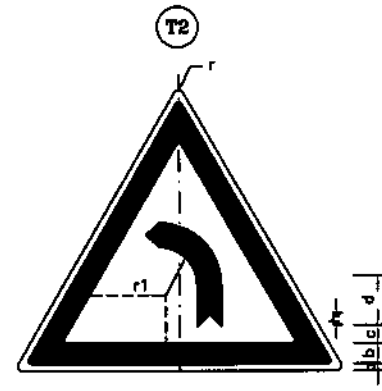
DATE
JANUARY, 2021

DWG NO.
38164/102/TD/ TS0018



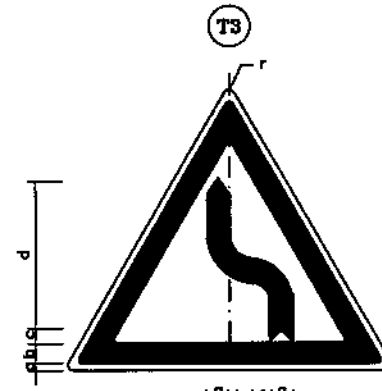
RIGHT BEND
DIMENSION(cm)

PARTS	SIGN SIZE	
	90cm	120cm
r	3.5	4.7
a	1.0	1.3
b	6.5	8.7
c	4.0	5.3
d	11.5	15.3
e	8.5	11.3
f	7.0	9.3
g	6.0	8.0
h	3.5	4.7
r1	12.5	16.7



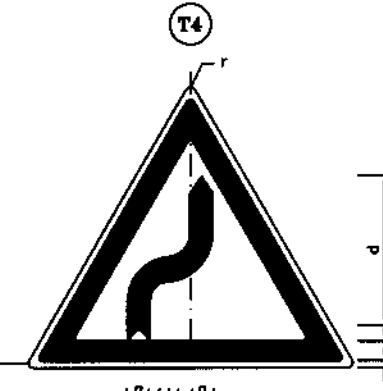
LEFT BEND
DIMENSION(cm)

PARTS	SIGN SIZE	
	90cm	120cm
r	3.5	4.7
a	1.0	1.3
b	6.5	8.7
c	4.0	5.3
d	11.5	15.3
e	8.5	11.3
f	7.0	9.3
g	6.0	8.0
h	3.5	4.7
r1	12.5	16.7



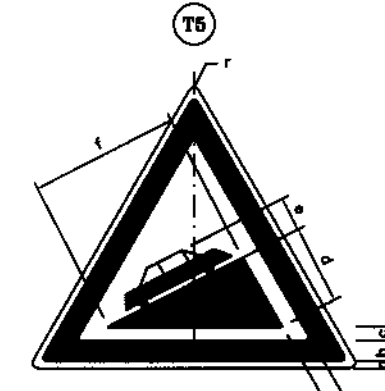
SERIES OF CURVES (FIRST TO LEFT)
DIMENSION(cm)

PARTS	SIGN SIZE	
	90cm	120cm
r	3.5	4.7
a	1.0	1.3
b	6.5	8.7
c	3.0	4.0
d	33.0	44.0
e	14.0	18.7
f	8.0	10.7
g	7.0	9.3
h	2.0	2.7
i	3.5	4.7
r1	4.5	6.0



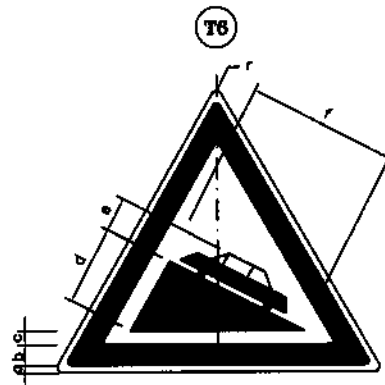
SERIES OF CURVES (FIRST TO RIGHT)
DIMENSION(cm)

PARTS	SIGN SIZE	
	90cm	120cm
r	3.5	4.7
a	1.0	1.3
b	6.5	8.7
c	3.0	4.0
d	33.0	44.0
e	14.0	18.7
f	8.0	10.7
g	7.0	9.3
h	2.0	2.7
i	3.5	4.7
r1	4.5	6.0



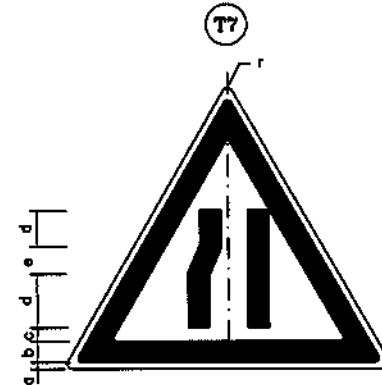
STEEP ASCEND
DIMENSION(cm)

PARTS	SIGN SIZE	
	90cm	120cm
r	3.5	4.7
a	1.0	1.3
b	6.5	8.7
c	3.5	4.7
d	23.5	31.3
e	11.5	15.3
f	33.0	44.0



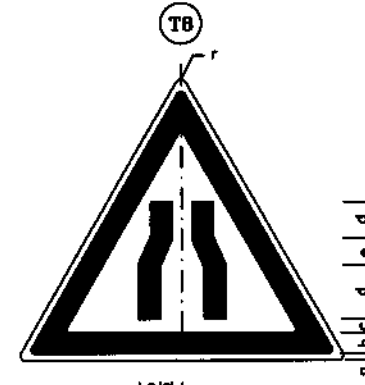
STEEP DESCEND
DIMENSION(cm)

PARTS	SIGN SIZE	
	90cm	120cm
r	3.5	4.7
a	1.0	1.3
b	6.5	8.7
c	3.5	4.7
d	23.5	31.3
e	11.5	15.3
f	33.0	44.0



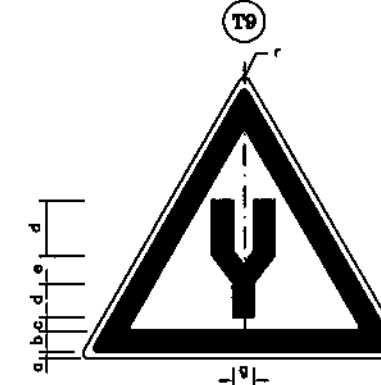
ROADWAY NARROWS (FROM LEFT)
DIMENSION(cm)

PARTS	SIGN SIZE	
	90cm	120cm
r	3.5	4.7
a	1.0	1.3
b	6.5	8.7
c	3.5	4.7
d	10.0	13.3
e	14.0	18.7
f	2.5	3.3
g	5.0	6.7



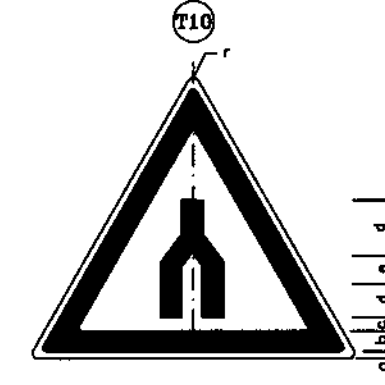
ROADWAY NARROWS
DIMENSION(cm)

PARTS	SIGN SIZE	
	90cm	120cm
r	3.5	4.7
a	1.0	1.3
b	6.5	8.7
c	3.5	4.7
d	10.0	13.3
e	14.0	18.7
f	2.5	3.3
g	5.0	6.7



DUAL CARRIAGEWAY STARTS
DIMENSION(cm)

PARTS	SIGN SIZE	
	90cm	120cm
r	3.5	4.7
a	1.0	1.3
b	6.5	8.7
c	4.5	6.0
d	18.0	20.0
e	9.0	12.0
f	12.0	16.0
g	9.0	12.0
h	7.0	9.3



DUAL CARRIAGEWAY ENDS
DIMENSION(cm)

PARTS	SIGN SIZE	
	90cm	120cm
r	3.5	4.7
a	1.0	1.3
b	6.5	8.7
c	4.0	5.30
d	15.0	20.0
e	9.0	12.0
f	12.0	16.0
g	9.0	12.0
h	7.0	9.3

NOTE:-
CONTRACTOR SHALL PREPARE DETAILED TRAFFIC SIGNAGE PLAN PRIOR TO EXECUTION AS PER SITE REQUIREMENT.
SAME SHALL BE APPROVED BY THE ENGINEER AFTER SITE VERIFICATION AND SHALL BE ISSUED FOR CONSTRUCTION.



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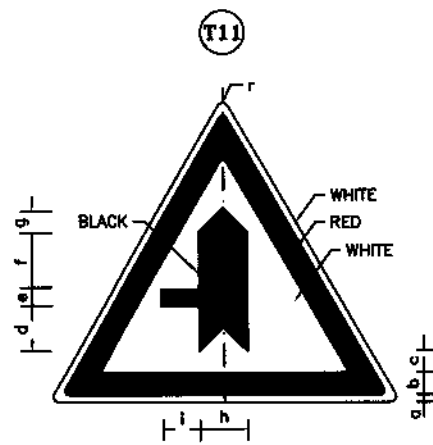


NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED

PROJECT:
REHABILITATION AND UPGRADING
OF THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24.00 KM

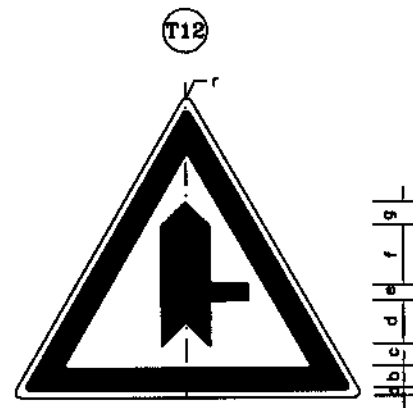
TITLE	DATE	DWG NO.
ROAD SIGNS (1) (INFORMATORY SIGN)	JANUARY, 2021	38164/102/TD/RS0019



MINOR ROAD FROM LEFT

DIMENSION(cm)

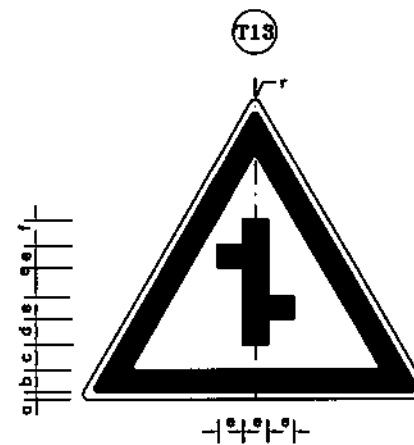
PARTS	Sign Size	
	90cm	120cm
r	3.5	4.7
a	1.0	1.3
b	6.5	8.7
c	3.0	4.0
d	13.5	18.0
e	5.5	7.3
f	15.0	20.0
g	7.0	9.3
h	14.0	18.7
i	10.5	14.0



MINOR ROAD FROM RIGHT

DIMENSION(cm)

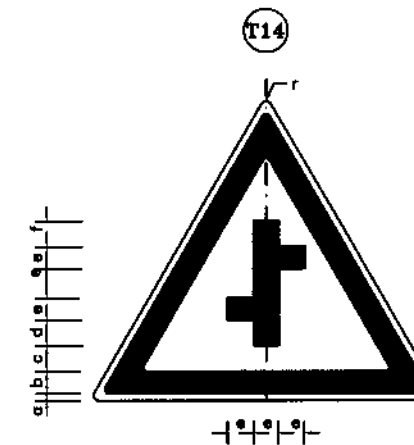
PARTS	Sign Size	
	90cm	120cm
r	3.5	4.7
a	1.0	1.3
b	6.5	8.7
c	3.0	4.0
d	13.5	18.0
e	5.5	7.3
f	15.0	20.0
g	7.0	9.3
h	14.0	18.7
i	10.5	14.0



MINOR ROAD CROSSING WITH AN OFFSET

DIMENSION(cm)

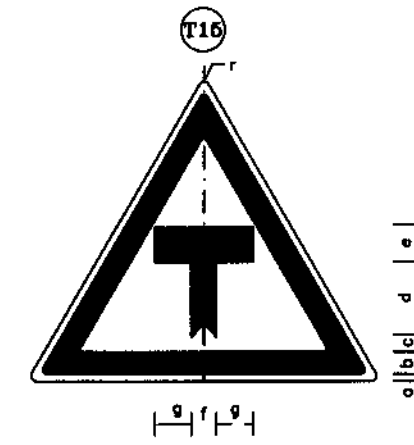
PARTS	Sign Size	
	90cm	120cm
r	3.5	4.7
a	1.0	1.3
b	6.5	8.7
c	2.5	3.3
d	8.0	10.7
e	7.5	10.0
f	8.0	12.0



MINOR ROAD CROSSING WITH AN OFFSET

DIMENSION(cm)

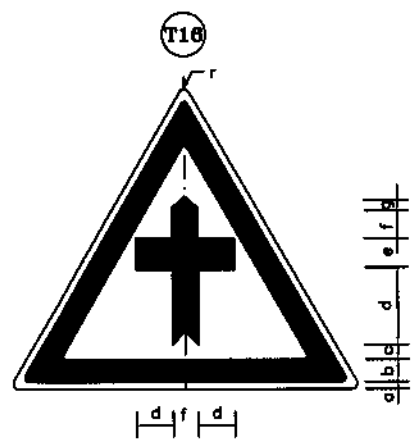
PARTS	Sign Size	
	90cm	120cm
r	3.5	4.7
a	1.0	1.3
b	6.5	8.7
c	2.5	3.3
d	8.0	10.7
e	7.5	10.0
f	9.0	12.0



T- JUNCTION AHEAD

DIMENSION(cm)

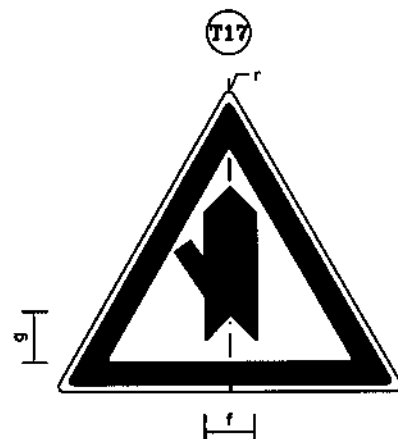
PARTS	Sign Size	
	90cm	120cm
r	3.5	4.7
a	1.0	1.3
b	6.5	8.7
c	3.0	4.0
d	15.5	20.7
e	7.0	9.3
f	5.0	6.7
g	11.0	14.7
h	2.5	3.3



CROSS ROAD AHEAD

DIMENSION(cm)

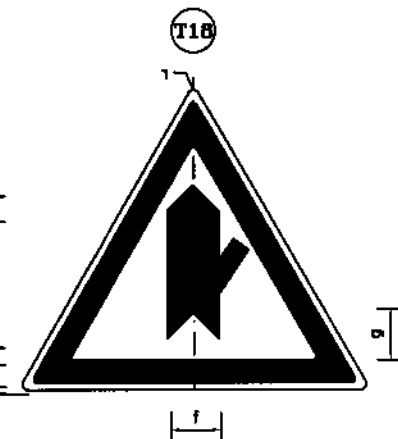
PARTS	Sign Size	
	90cm	120cm
r	3.5	4.7
a	1.0	1.3
b	6.5	8.7
c	3.0	4.0
d	13.0	17.3
e	7.0	9.3
f	10.0	13.3
g	2.5	3.3
i	5.0	6.7



MINOR ROAD FROM LEFT

DIMENSION(cm)

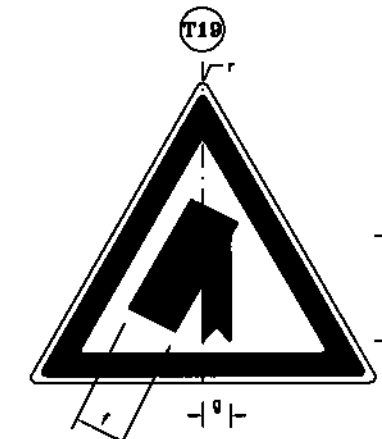
PARTS	Sign Size	
	90cm	120cm
r	3.5	4.7
a	1.0	1.3
b	6.5	8.7
c	3.5	4.7
d	33.0	44.0
e	7.0	9.3
f	14.0	18.7
g	15.0	20.0
h	3.0	4.0
i	5.5	7.3



MINOR ROAD FROM RIGHT

DIMENSION(cm)

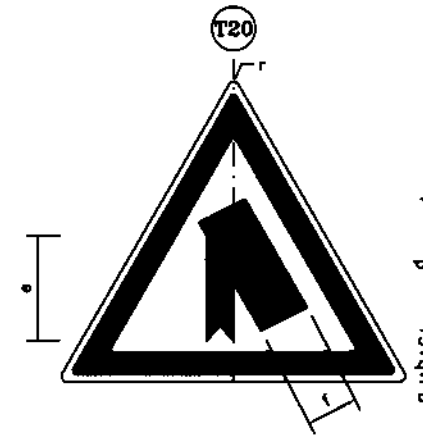
PARTS	Sign Size	
	90cm	120cm
r	3.5	4.7
a	1.0	1.3
b	6.5	8.7
c	3.5	4.7
d	33.0	44.0
e	7.0	9.3
f	14.0	18.7
g	15.0	20.0
h	3.0	4.0
i	5.5	7.3



MAIN ROAD (ON LEFT)

DIMENSION(cm)

PARTS	Sign Size	
	90cm	120cm
r	3.5	4.7
a	1.0	1.3
b	6.5	8.7
c	2.5	3.3
d	39.0	52.0
e	27.0	36.0
f	13.0	17.3
g	5.0	6.7



MAIN ROAD (ON RIGHT)

DIMENSION(cm)

PARTS	Sign Size	
	90cm	120cm
r	3.5	4.7
a	1.0	1.3
b	6.5	8.7
c	2.5	3.3
d	39.0	52.0
e	27.0	36.0
f	13.0	17.3
g	5.0	6.7



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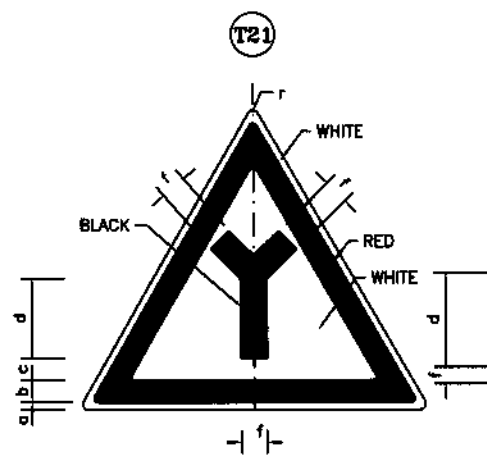
REV.	DATE	DESCRIPTION	APPROVED	APPROVED

PROJECT:
REHABILITATION AND UPGRADING
OF THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24.00 KM

TITLE
ROAD SIGNS (2)
(INFORMATORY SIGN)

DATE
JANUARY, 2021

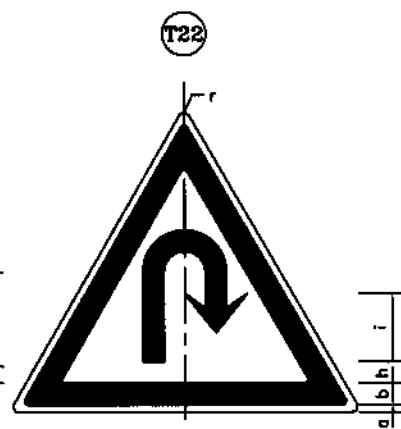
DWG NO.
38164/102/TD/ RS0020



Y-JUNCTION

DIMENSION(cm)

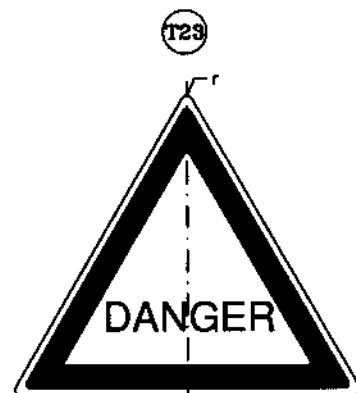
PARTS	Sign Size	
	90cm	120cm
r	3.5	4.7
a	1.0	1.3
b	6.5	8.7
c	3.0	4.0
d	17.0	22.7
e	13.0	17.3
f	7.0	9.3



U-TURN

DIMENSION(cm)

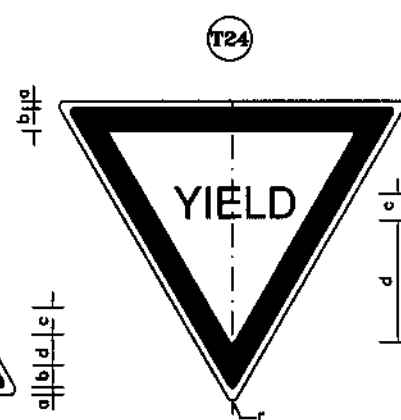
PARTS	Sign Size	
	90cm	120cm
r	3.5	4.7
a	1.0	1.3
b	6.5	8.7
c	5.5	7.3
d	7.0	9.3
e	5.0	6.7
f	2.5	3.3
g	23.0	30.7
h	7.5	10.0
i	12.0	16.0



DANGER WARNING

DIMENSION(cm)

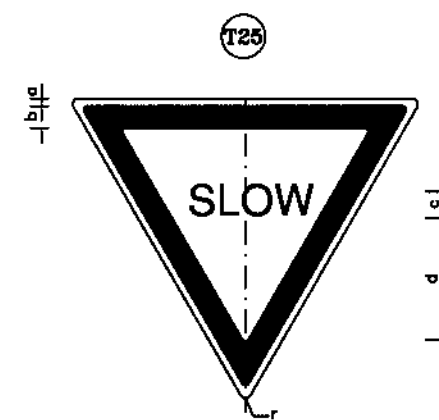
PARTS	Sign Size	
	90cm	120cm
r	3.5	4.7
a	1.0	1.3
b	6.5	8.7
c	6.5	8.7
d	7.0	9.5



GIVE WAY

DIMENSION(cm)

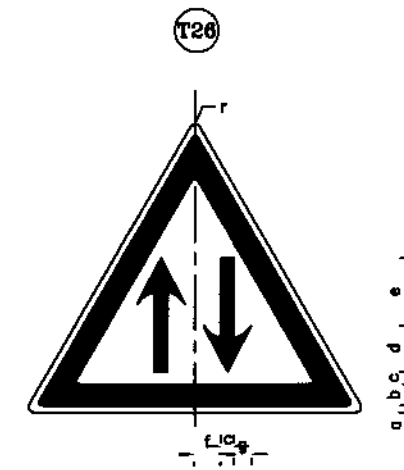
PARTS	Sign Size	
	90cm	120cm
r	3.5	4.7
a	1.0	1.3
b	6.5	8.7
c	6.5	8.7
d	16.0	21.3



SLOW

DIMENSION(cm)

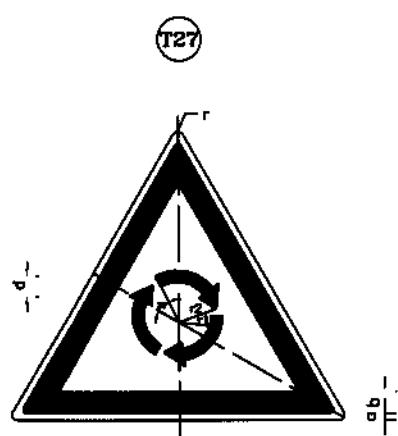
PARTS	Sign Size	
	90cm	120cm
r	3.5	4.7
a	1.0	1.3
b	6.5	8.7
c	6.5	8.7
d	16.0	21.3



TWO WAY TRAFFIC

DIMENSION(cm)

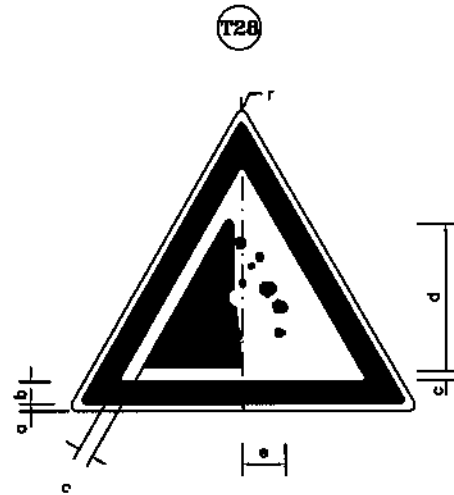
PARTS	Sign Size	
	90cm	120cm
r	3.5	4.7
a	1.0	1.3
b	6.5	8.7
c	4.0	5.7
d	9.0	21.3
e	19.0	21.3
f	6.0	21.3
g	3.5	21.3



ROUNDABOUT

DIMENSION(cm)

PARTS	Sign Size	
	90cm	120cm
r	3.5	120
a	1.0	-
b	6.5	-
c	3.0	-
d	9.0	-
r1	12.0	-
r2	18.0	-



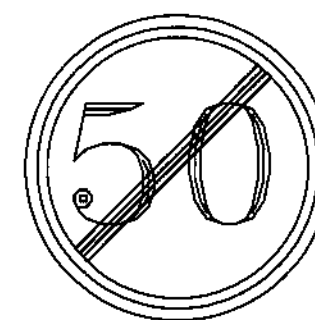
FALLING ROCKS

DIMENSION(cm)

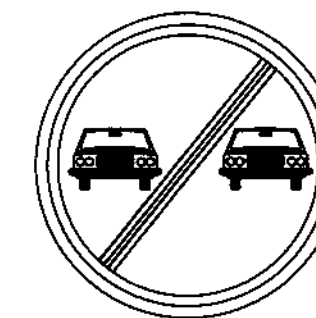
PARTS	Sign Size	
	90cm	120cm
r	3.5	4.7
a	1.0	1.3
b	6.5	8.7
c	3.5	4.7
d	38.0	50.7
e	12.0	18.0



Entry to 30KM/h zone



END OF SPEED LIMIT IMPOSED



END OF PROHIBITION OF OVFERTAKING



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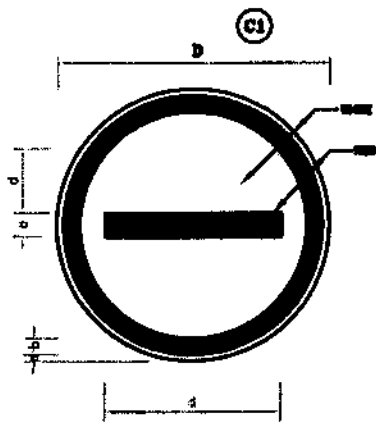
REV.	DATE	DESCRIPTION	APPROVED	APPROVED

PROJECT:
REHABILITATION AND UPGRADING
OF THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24.00 KM

TITLE
ROAD SIGNS (3)
(WARNING SIGN)

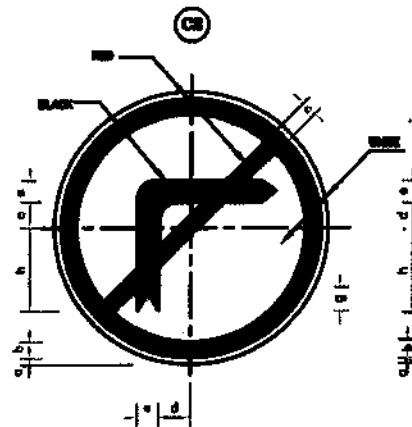
DATE
JANUARY, 2021

DWG NO.
38164/102/TD/RS0021



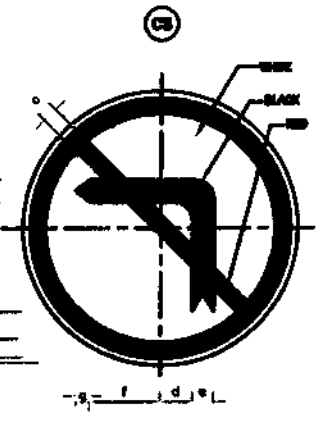
NO ENTRY
DIMENSION (cm)

PARTS	Sign Size	
	90mm	120mm
a	1.0	1.5
b	4.0	5.3
c	0.5	0.7
d	04.0	05.3



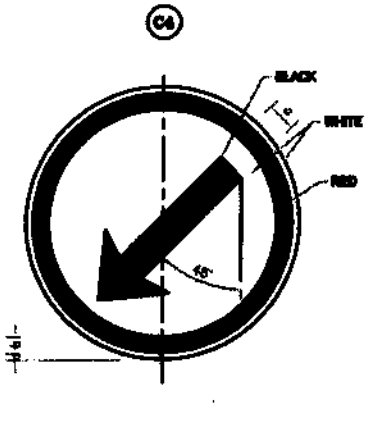
NO RIGHT TURN
DIMENSION (cm)

PARTS	Sign Size	
	90mm	120mm
a	1.0	1.5
b	0.5	0.7
c	0.5	0.7
d	0.5	0.5
e	10.0	13.3
f	25.0	33.7
g	0.5	0.7
h	25.0	40.0



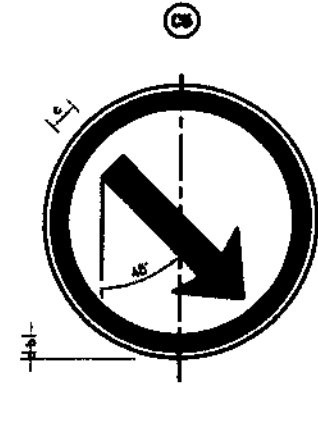
NO LEFT TURN
DIMENSION (cm)

PARTS	Sign Size	
	90mm	120mm
a	1.0	1.5
b	0.5	0.7
c	0.5	0.7
d	0.5	0.5
e	10.0	13.3
f	25.0	33.7
g	0.5	0.7
h	25.0	40.0



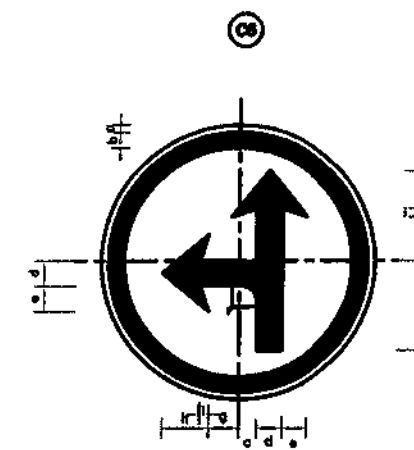
KEEP LEFT
DIMENSION (cm)

PARTS	Sign Size	
	90mm	120mm
a	1.0	1.5
b	0.5	0.7
c	0.5	0.7
d	0.5	0.5
e	20.0	26.7
f	25.0	33.7
g	4.5	6.0



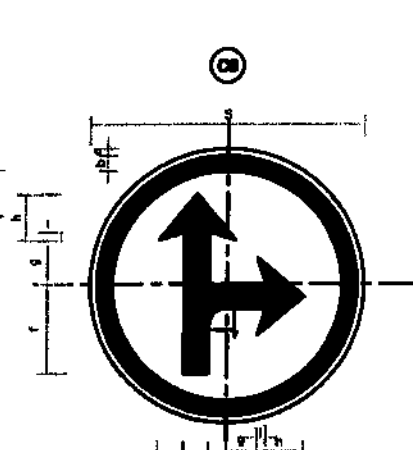
KEEP RIGHT
DIMENSION (cm)

PARTS	Sign Size	
	90mm	120mm
a	1.0	1.5
b	0.5	0.7
c	0.5	0.7
d	0.5	0.5
e	20.0	26.7
f	25.0	33.7
g	4.5	6.0



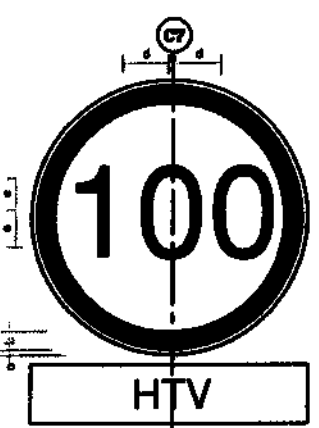
STRAIGHT OR LEFT ONLY SIGN
DIMENSION (cm)

PARTS	Sign Size	
	90mm	120mm
a	1.0	1.5
b	0.5	0.7
c	10.0	13.3
d	0.5	0.7
e	0.5	0.5
f	24.0	31.3
g	10.0	14.0
h	20.0	26.7
i	4.5	6.0
j	0.5	0.7



STRAIGHT OR RIGHT ONLY SIGN
DIMENSION (cm)

PARTS	Sign Size	
	90mm	120mm
a	1.0	1.5
b	0.5	0.7
c	10.0	13.3
d	0.5	0.7
e	0.5	0.5
f	24.0	31.3
g	10.0	14.0
h	20.0	26.7
i	4.5	6.0
j	0.5	0.7



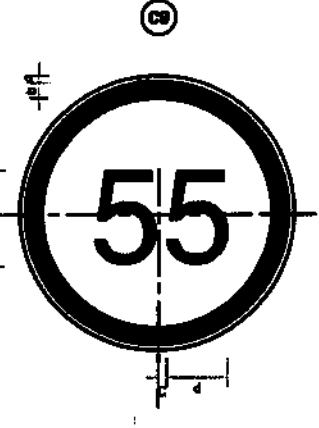
SPEED LIMIT (100)
DIMENSION (cm)

PARTS	Sign Size	
	90mm	120mm
a	1.0	1.5
b	0.5	0.7
c	2.0	4.0
d	25.0	33.7
e	25.0	33.7



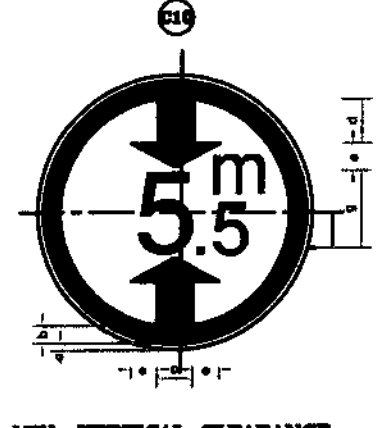
SPEED LIMIT (120)
DIMENSION (cm)

PARTS	Sign Size	
	90mm	120mm
a	1.0	1.5
b	0.5	0.7
c	2.0	3.0
d	0.5	0.5
e	11.0	14.0
f	25.0	33.7
g	40.0	53.3



SPEED LIMIT (55)
DIMENSION (cm)

PARTS	Sign Size	
	90mm	120mm
a	1.0	1.5
b	0.5	0.7
c	3.0	4.0
d	25.0	33.7
e	25.0	33.7



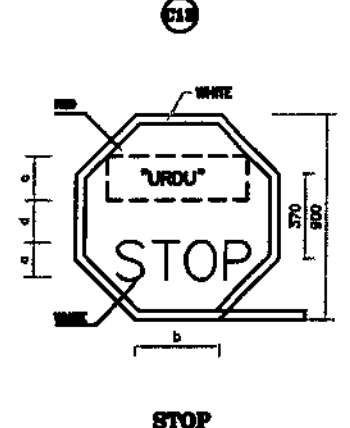
MIN. VERTICAL CLEARANCE
DIMENSION (cm)

PARTS	Sign Size	
	90mm	120mm
a	1.0	1.5
b	0.5	0.7
c	15.0	20.0
d	15.0	17.0
e	0.5	11.0
f	21.0	41.0
g	24.0	33.0
h	12.0	16.0



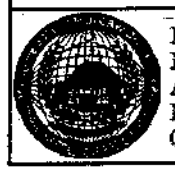
MAX. GROSS WEIGHT LIMIT
DIMENSION (cm)

PARTS	Sign Size	
	90mm	120mm
a	1.0	1.5
b	0.5	0.7
c	15.0	20.0
d	2.0	3.0
e	17.0	22.0
f	1.0	2.0
g	17.0	22.0
h	3.0	4.0
i	10.0	13.0



STOP
DIMENSION (cm)

PARTS	Sign Size	
	90mm	120mm
a	1.0	1.5
b	27.0	40.0
c	20.0	26.0
d	10.0	10.0
e	20.0	40.0
f	60.0	100.0



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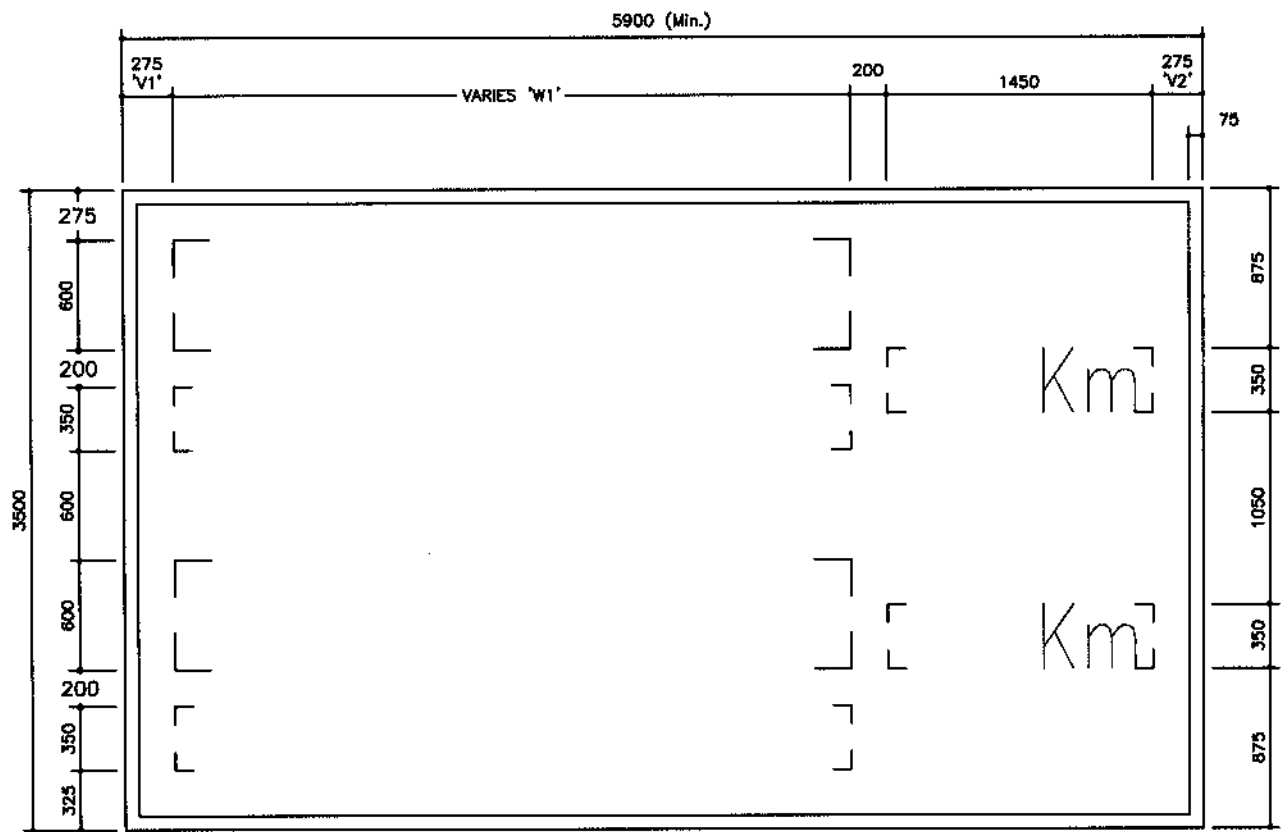
REV.	DATE	DESCRIPTION	APPROVED	APPROVED

PROJECT:
REHABILITATION AND UPGRADING
OF THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24.00 KM

TITLE
ROAD SIGNS (4)
(REGULATORY SIGN)

DATE
JANUARY, 2021

DWG NO.
38164/102/TD/RS0022



(R21)

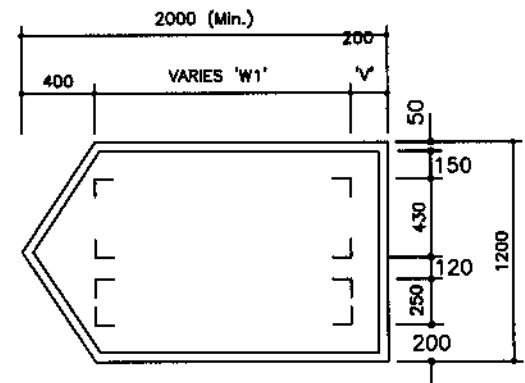
DISTANCE SIGN
(After the junction)



(Beginning of built up area)

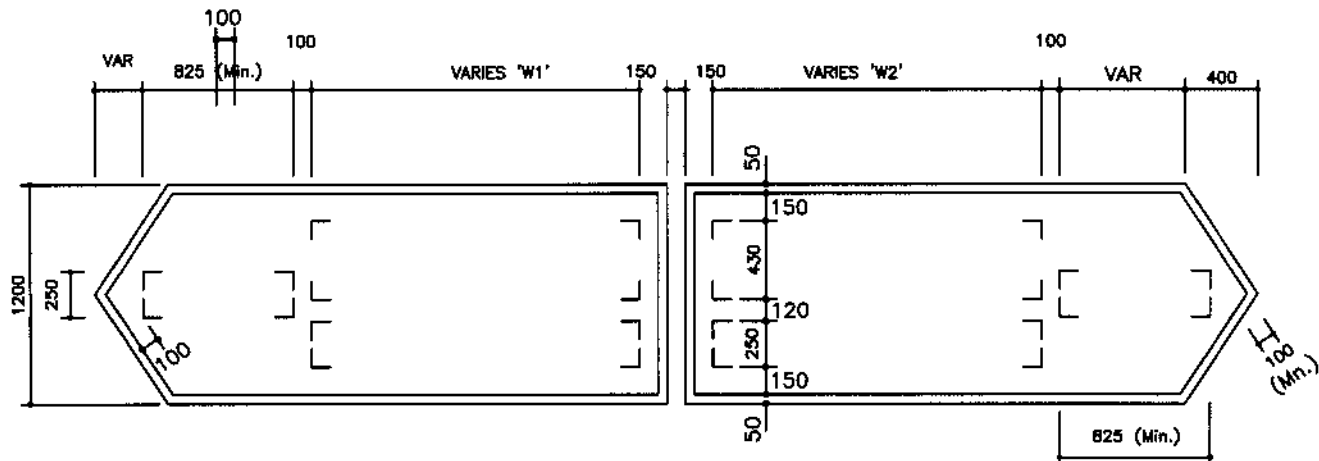


(End of built up area)



(R20)

EXIT SIGN
(At exit ramp nose)



(R19)

DISTANCE & DESTINATION SIGN
(At T- Junction)

NOTE

FOR NOTES REFER DRAWING NO. 3829/102/TD/RS0026.



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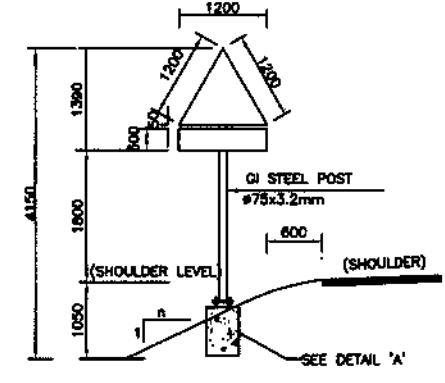
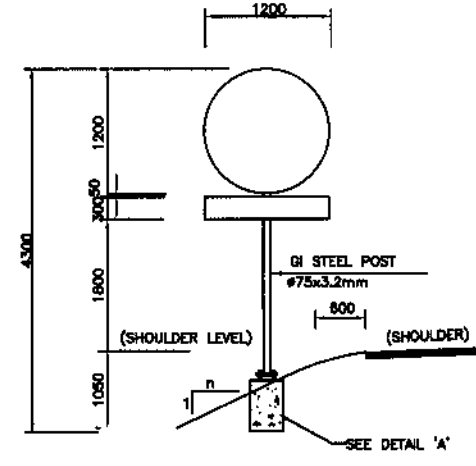
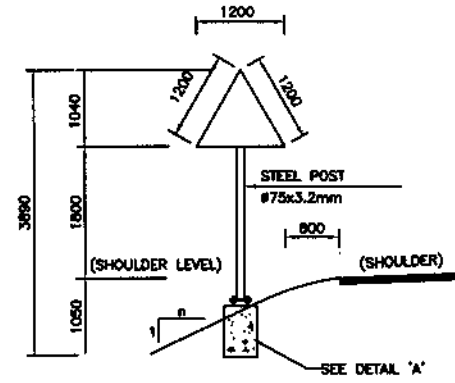
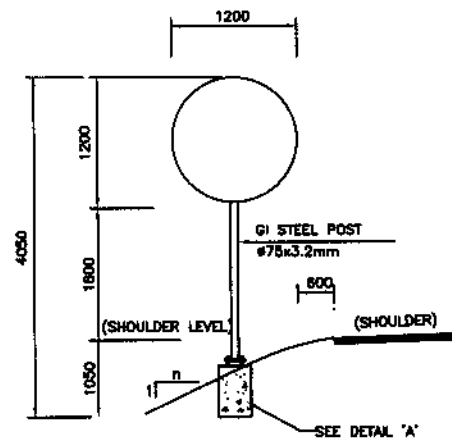


NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

					DRAWN
					SUBMITTED
					RECOMMENDED
					CHD./VER.
REV.	DATE	DESCRIPTION	APPROVED	APPROVED	

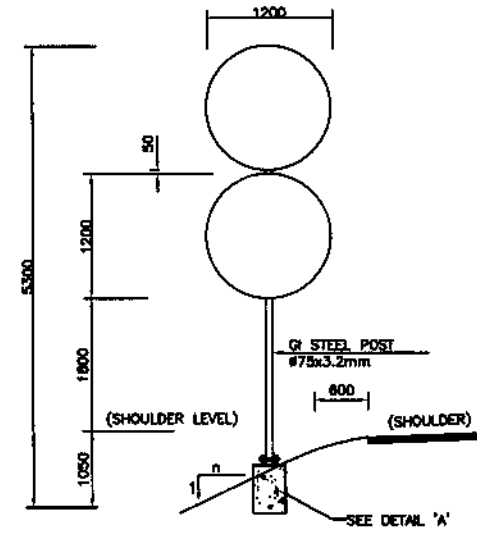
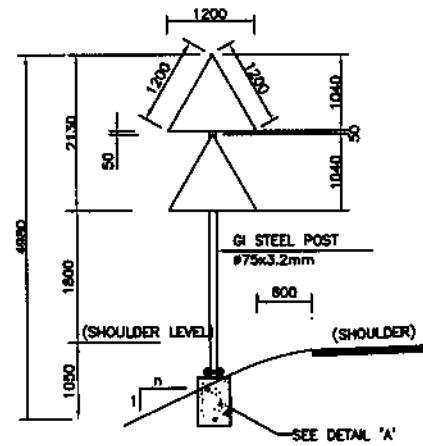
PROJECT:
REHABILITATION AND UPGRADING
OF THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24.00 KM

TITLE	ROAD SIGNS (6) (REGULATORY SIGN)
DATE	JANUARY, 2021
DWG NO.	38164/102/TD/RS0024

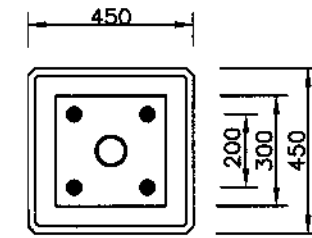


SINGLE SIGNS

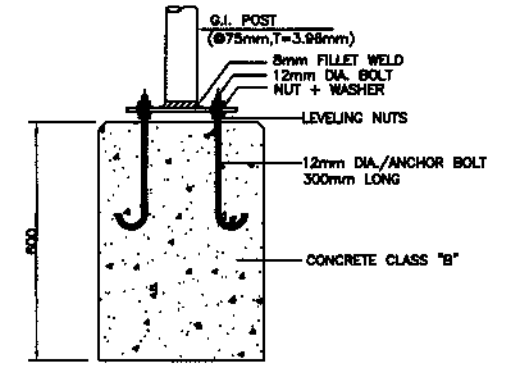
SINGLE SIGNS WITH ADDITIONAL PLATE



DOUBLE SIGNS



PLAN



SECTION

PRECAST CONCRETE FOUNDATION (TYPE-1) DETAIL 'A'

NOTES:-

- 1- ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
- 2- POST LENGTH AS SHOWN ARE FOR EXPRESSWAY SIGNS OF 1200mm NOMINAL SIZE. FOR RAMP, POST LENGTH SHALL BE ADJUSTED ACCORDINGLY.
- 3- PRECAST CONCRETE FOUNDATION BLOCKS SHALL BE CAST USING CLASS "B" CONCRETE.
- 4- SIGN PANELS SHALL BE MADE OF ALUMINUM ALLOY PLATES OF MINIMUM 3mm THICKNESS.
- 5- FOR ALL TRIANGULAR, CIRCULAR SIGNS AND INFORMATION SIGNS OF LESS THEN 1.5m Sq.m AREA, USE INNER DIA 75mm, 3.2mm THICK CIRCULAR GI POST WITH.
- 6- ALL SIGN POSTS SHALL BE PAINTED WITH NON-REFLECTORISED BLACK AND WHITE PAINT STRIPES 300mm WIDE.
- 7- ALL SIGN BACK PANELS SHALL BE PAINTED WITH GRAY ENAMEL PAINT.
- 8- ALL POSTS SHALL BE 300mm SHORT OF SIGN TOP.



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DEVELOPMENT PROJECT
C&W DEPARTMENT, KP



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REV.	DATE	DESCRIPTION	APPROVED	APPROVED

PROJECT:
REHABILITATION AND UPGRADING
OF THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24.00 KM

TITLE	TYPICAL PLACEMENT OF ROAD SIGNS	
DATE	JANUARY, 2021	DWG NO. 38164/102/TD/RS0026

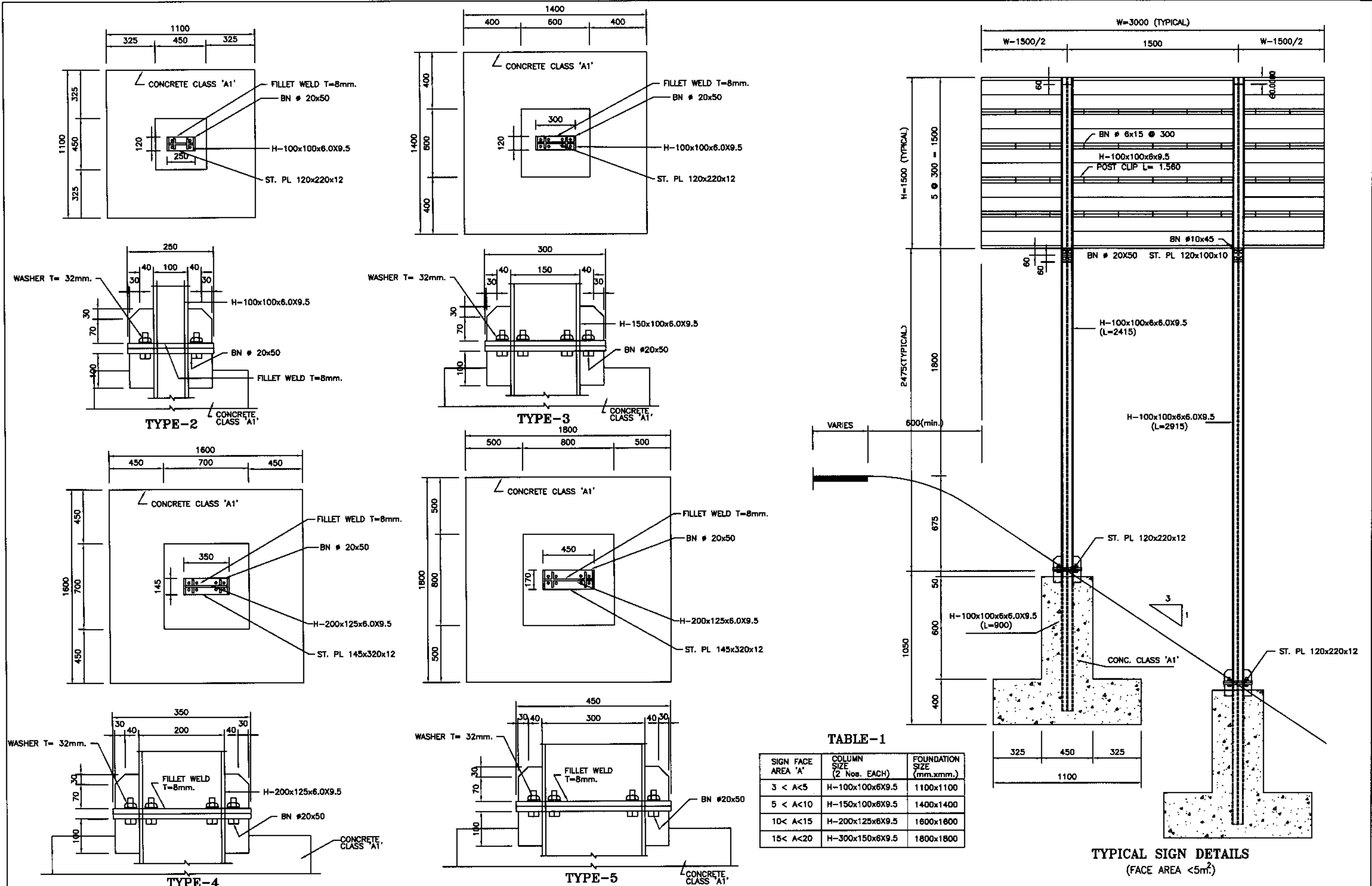


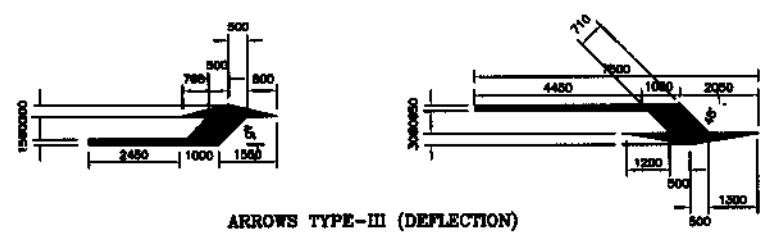
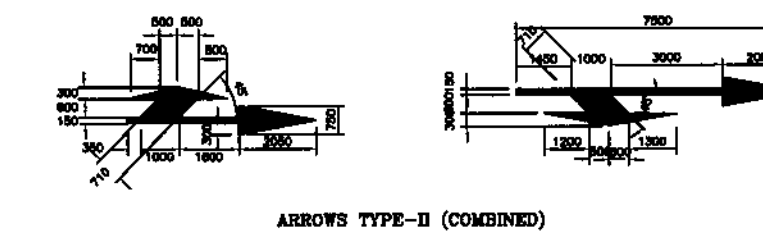
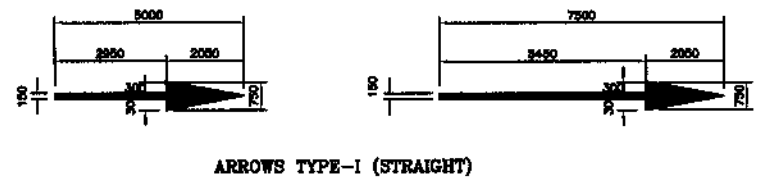
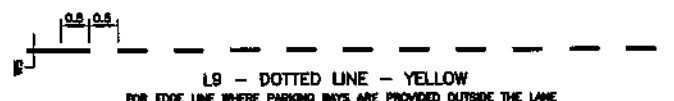
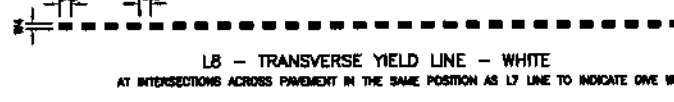
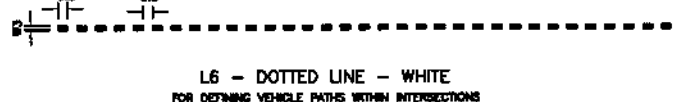
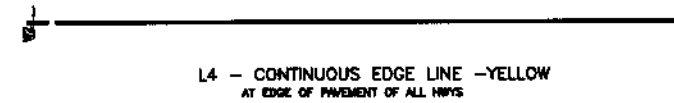
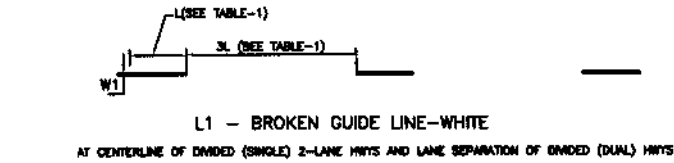
TABLE-1

SIGN FACE AREA 'A'	COLUMN SIZE (2 Nos. EACH)	FOUNDATION SIZE (mm.xmm.)
3 < A < 5	H-100x100x6x9.5	1100x1100
5 < A < 10	H-150x100x6x9.5	1400x1400
10 < A < 15	H-200x125x6x9.5	1600x1600
15 < A < 20	H-300x150x6x9.5	1800x1800

TYPICAL SIGN DETAILS (FACE AREA < 5m²)

PAVEMENT MARKING LINES

SCALE 1:300
FOR DIMENSIONS L & W1 TO W5 (SEE TABLE-1)

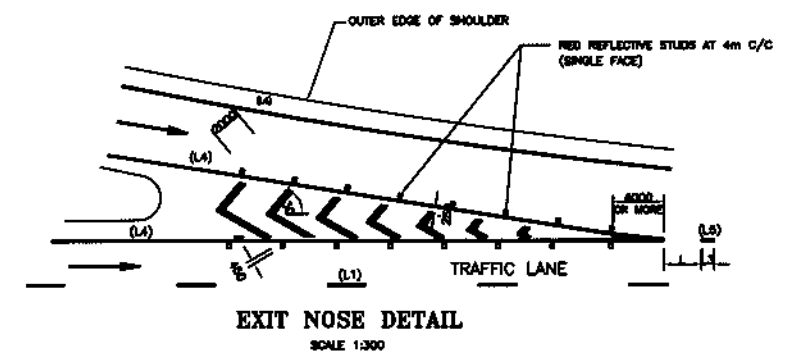
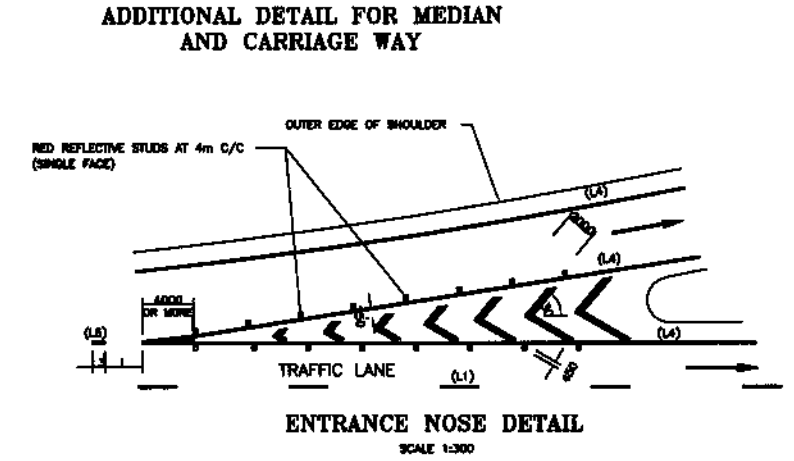
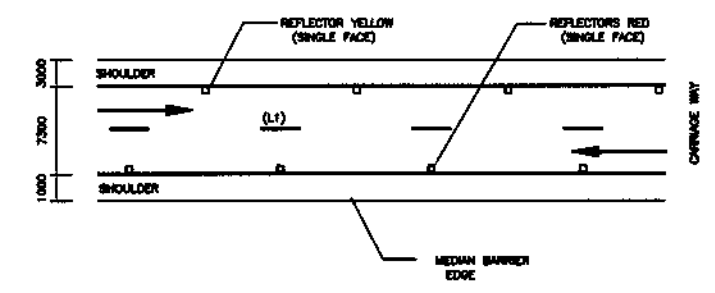
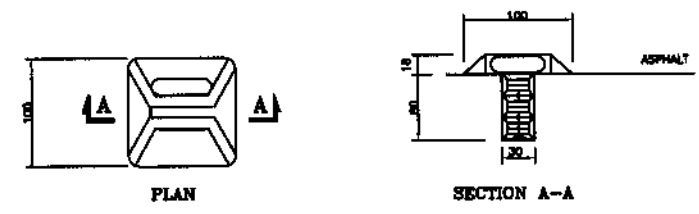


(FOR <60 Km/hr) (FOR >60 Km/hr)

LANE SELECTION ARROWS - WHITE

TABLE - 1

ROADWAY SPEED	L (mm)	W1	W2	W3	W4	W5
>120 Km/hr	4000	200	300	200	400	100



PAVEMENT MARKING & ROAD STUDS DETAILS

NOTES :-

- ALL DIMENSIONS ARE IN MILLIMETERS.
- AT APPROACHES TO INTERSECTIONS/ROUNDABOUTS, CENTER LINE OR LANE SEPARATION LINE (L1) BECOMES (L2) FOR A LENGTH = 150m AND CONTINUOUS LINE (L3) FOR LAST 50m.
- LENGTH OF STORKE IN (L2) = LENGTH OF GAP IN MATCHING (L1).
- LOCATION OF DIRECTIONAL ARROWS, NOSES AND STOP SIGN SHALL BE PLACED AS DIRECTED BY THE ENGINEER.



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DEVELOPMENT PROJECT
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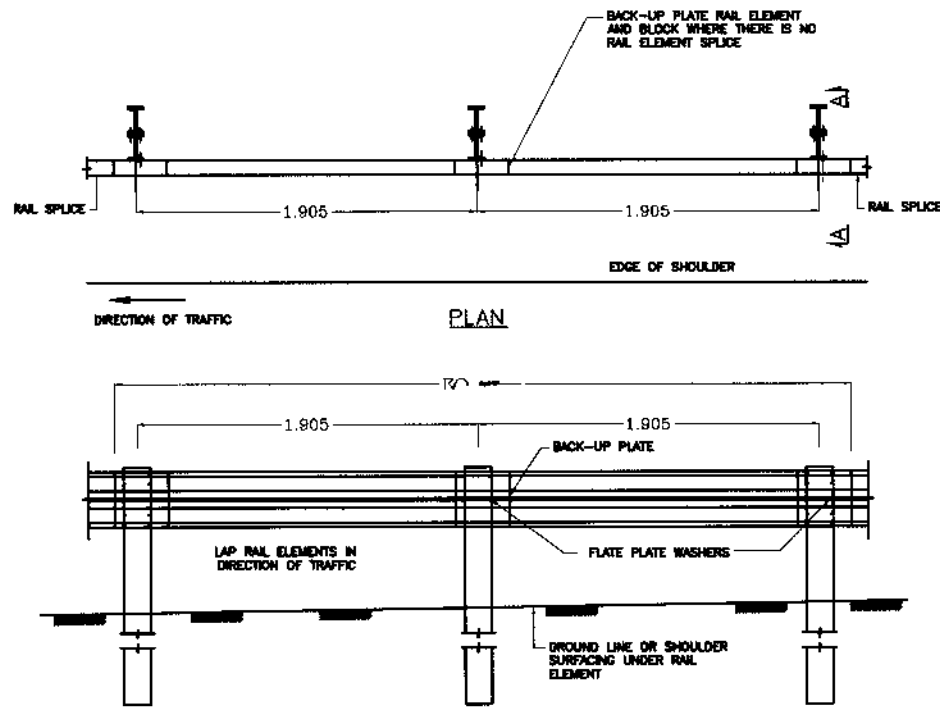


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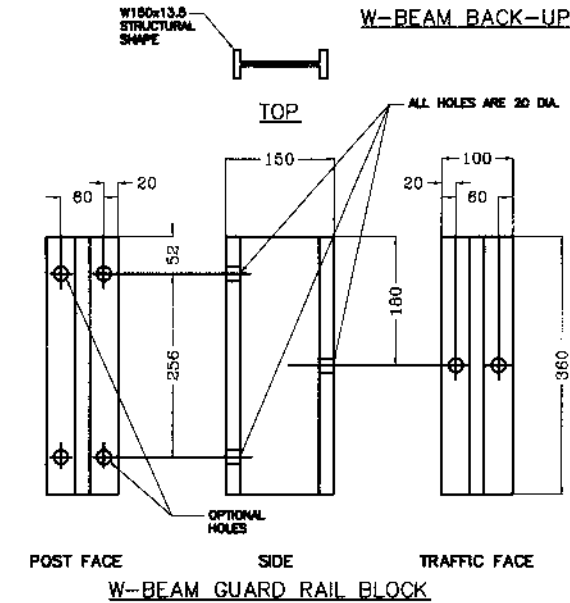
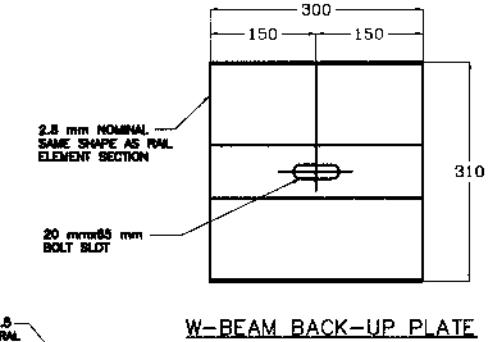
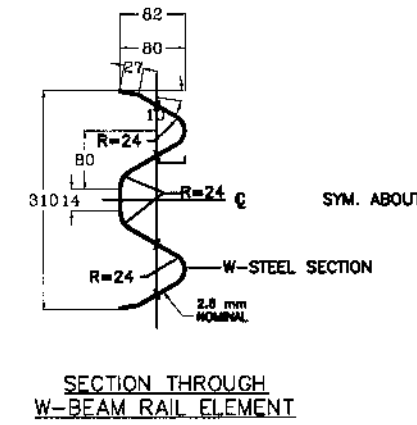
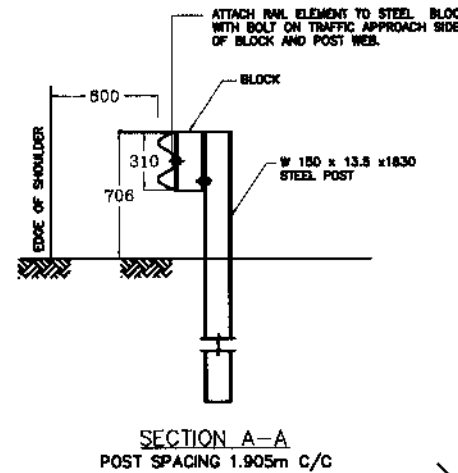
REV.	DATE	DESCRIPTION	APPROVED	APPROVED

PROJECT:
REHABILITATION AND UPGRADING
OF THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24.00 KM

TITLE
PAVEMENT MARKING AND ROAD STUDS
DATE
JANUARY, 2021
DWG NO.
38164/102/TD/PMS0029

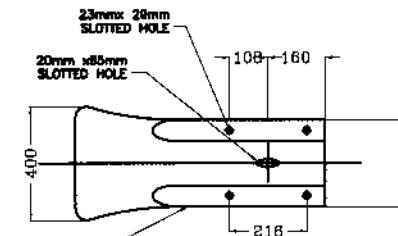
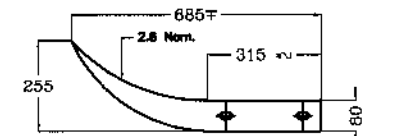
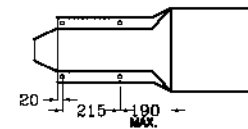


METAL W-BEAM GUARD RAILING WITH W150x13.5 STEEL POSTS AND BLOCKS



APPLICABLE REACHES

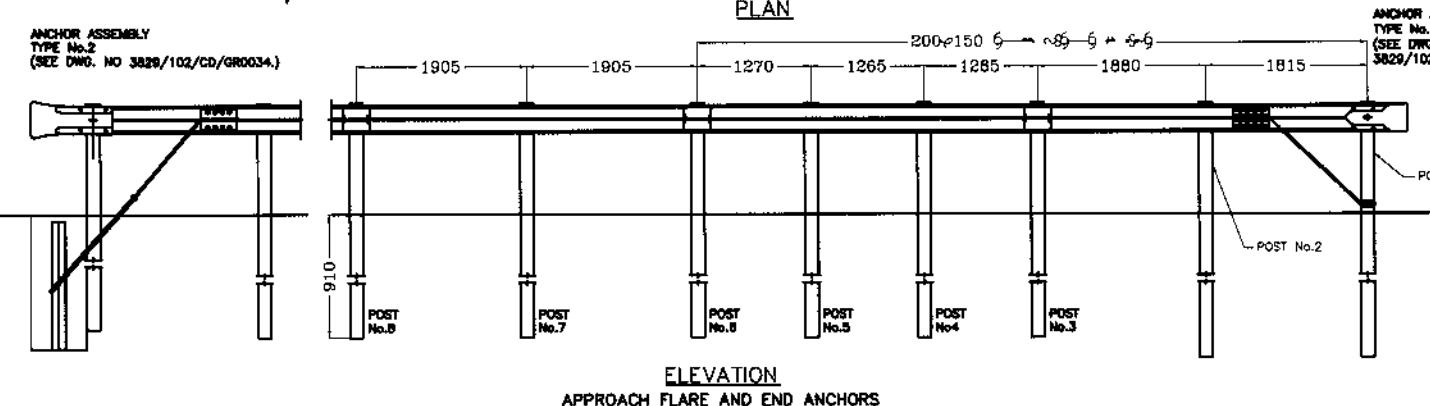
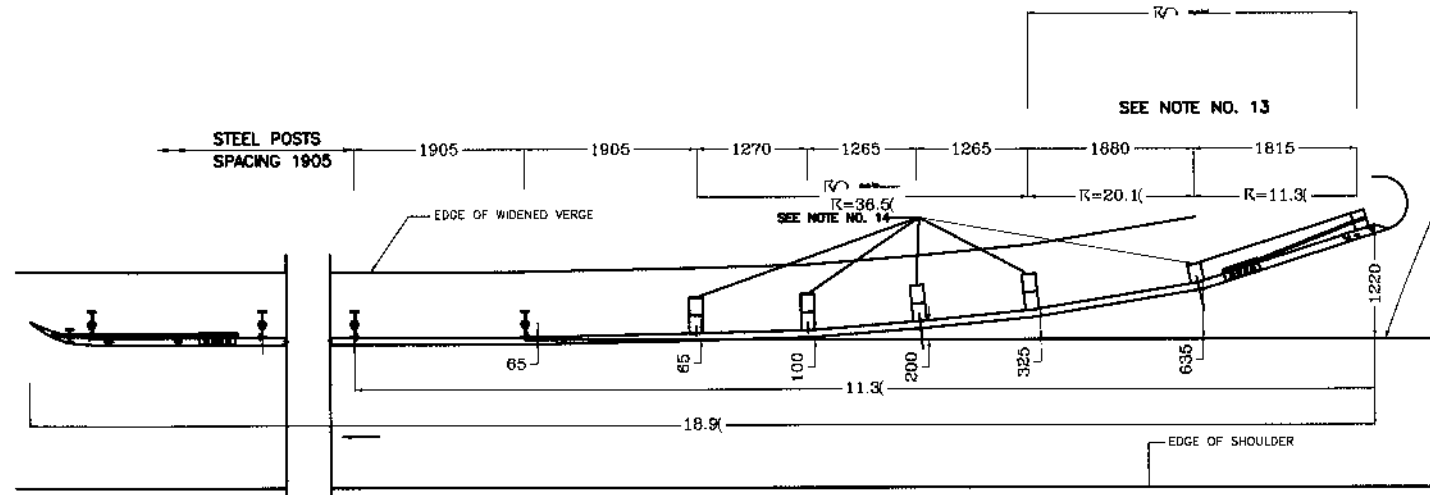
GUARD RAIL SHALL BE PROVIDED ADDITIONALLY ON CULVERT APPROACHES AND AT CRITICAL LOCATIONS/SHARP BENDS.



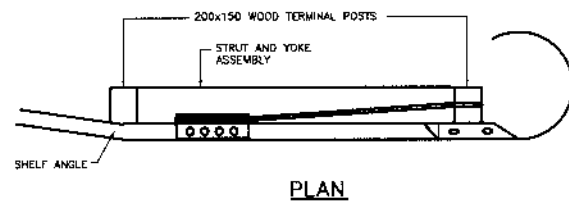
SAME SHAPE AS RAIL ELEMENT SECTION

NOTES

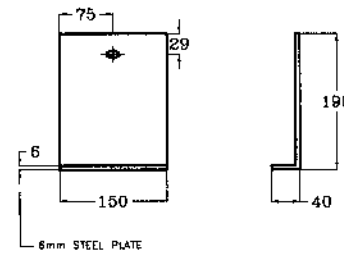
- ALL DIMENSIONS ARE IN MILLIMETERS, UNLESS NOTED OTHERWISE.
- ALL LAPS SHALL BE IN THE DIRECTION OF TRAFFIC.
- W-BEAM TERMINAL SECTIONS SHALL BE USED IN PLACE OF END ANCHORAGE RAIL AT THE DEPARTURE END ONLY OR AT OTHER RESTRICTED LOCATIONS AS APPROVED BY THE ENGINEER.
- W-BEAM RAIL SECTION SHALL CONFORM TO AASHTO M-180 AND SHALL BE TYPE-II, CLASS 'B'.
- WHERE THE GUARD RAIL HAS TO FOLLOW A CURVE OF LESS THAN 45m RADIUS, THE BEAM SHALL BE CURVED TO SUIT, BY THE BEAM MANUFACTURER.
- THE HOLES FOR ANCHORAGE POSTS SHALL BE BACKFILLED WITH WELL COMPACTED GRANULAR MATERIAL. THE SPACE INSIDE THE TERMINAL NOSE SHALL BE FILLED WITH CONCRETE, CLASS 20.
- THE CONTRACTOR SHALL PREPARE DRAWINGS SHOWING LOCATIONS, ELEVATIONS AND SPACING OF POSTS AT EACH CULVERT/HIGH FILL LOCATION AND SHALL OBTAIN APPROVAL OF THE ENGINEER.
- BACKFILLING OF THE POST HOLES SHALL BE CARRIED OUT AS FOLLOWS:
 - IN CASE OF ROCK, CORED HOLES-250 DIA (AS MADE) WILL BE BACKFILLED WITH LEAN CONCRETE CLASS 15
 - IN CASE OF STRATA OTHER THAN ROCK, HOLES-300 DIA (AS MADE) WILL BE BACKFILLED WITH LEAN CONCRETE CLASS 15 OR THE POSTS MAY BE HAMMERED IN PLACE AS APPROVED BY THE ENGINEER.
- NO EXTRA PAYMENT SHALL BE MADE TO THE CONTRACTOR FOR CORING AND OR CONCRETING FOR POST FIXATION.
- EXISTING EMBANKMENT MAY BE WIDENED WHERE NECESSARY TO ACCOMMODATE GUARD RAIL FLARE AT APPROACH END.
- BACK-UP PLATE TO BE USED BETWEEN GUARD RAIL ELEMENT AND STEEL BLOCK ON STEEL POST WHERE THERE IS NO RAIL ELEMENT SPLICE.
- DIRECTION OF TRAFFIC INDICATED BY ARROW (→).
- POST SPACING AND HEIGHT IS AS PER TYPE OF RAIL SPECIFIED IN HIGHWAY DESIGN STANDARDS SECTION 16.
- THE RAIL ELEMENT CONNECTING POST NOS. 1, 2, AND 3 HAS A COMPOUND BEND WITH A RADIUS OF 11.3m BETWEEN POST NOS. 1 AND 2, AND A RADIUS OF 20.1m BETWEEN POST NOS. 2 AND 3. THE RADIUS CHANGES AT POST NO. 2.
- SHELF ANGLES TO SUPPORT THE RAIL ELEMENT SHALL BE INSTALLED ON POST NOS. 2, 3, 4, 5 AND 6 OF THE FLARE. SEE DWG. NO. 3829/102/CD/GR0034
- FOR GUARD RAIL EXTENDED INTO CUT BANK, THE POSTS INSTALLED ON SLOPES GREATER THAN 10:1, SHOULD BE 2400 LONG.
- THE FLARE RATE FOR THE GUARD RAIL EXTENDED INTO CUT BANKS MAY BE INCREASED AFTER CROSSING THE DITCH BOTTOM (AT THE ANGLE POINT), TO SHORTEN THE LENGTH OF TERMINAL (UPTO 8:1).
- TYPE NO.2 WOULD BE USED ON THE TRAIL END OF A 1WAY SINGLE CARRIAGEWAY, AND ON THE TRAIL END FOR A DUAL CARRIAGEWAY.
- MINOR ADJUSTMENTS TO POST SPACING AND OFFSETS MAY BE REQUIRED TO FIT SITE CONDITIONS.



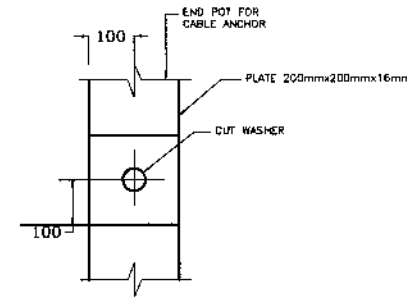
REV.	DATE	DESCRIPTION	APPROVED	APPROVED



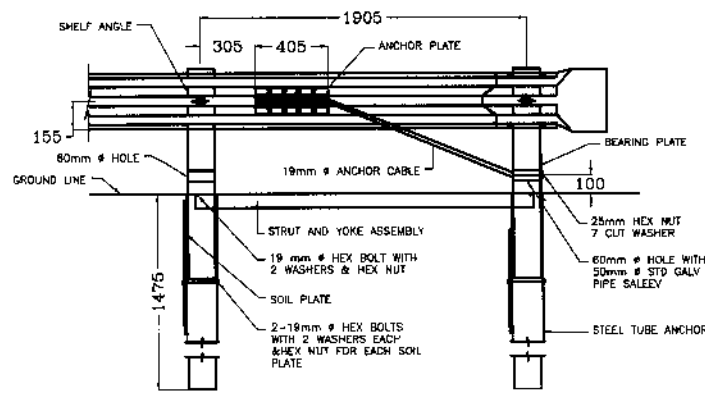
PLAN



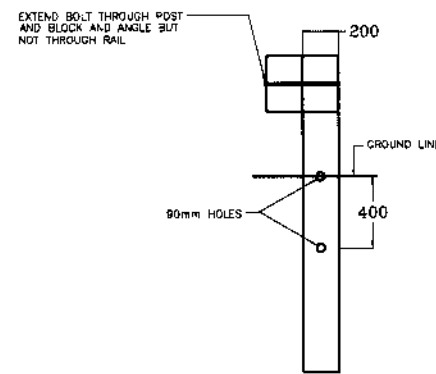
SHELF ANGLE



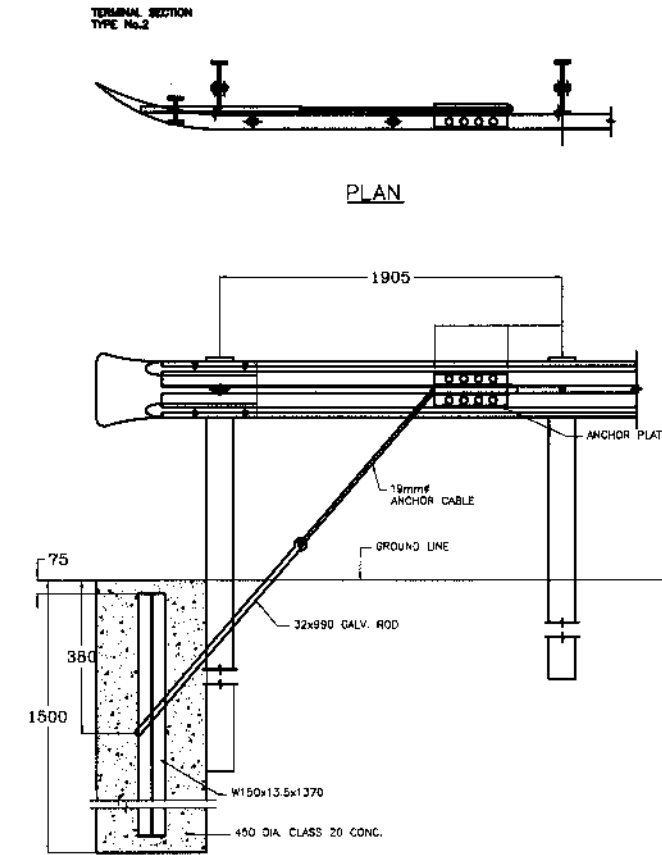
BEARING PLATE DETAIL



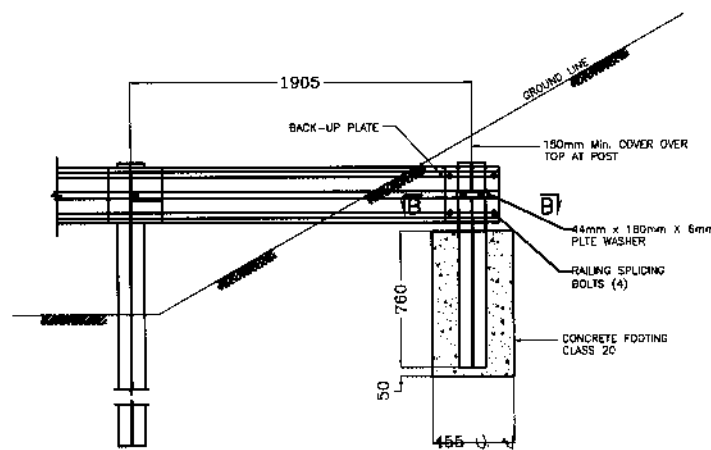
ELEVATION
ANCHORS ASSEMBLY
TYPE NO.1 (BREAKAWAY)



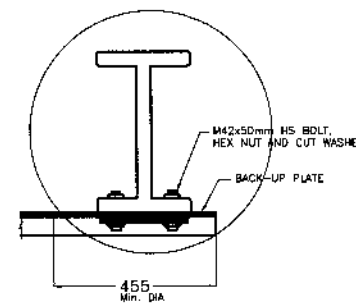
BREAKAWAY POST
(POST NO. 2, 3, 4, 5, AND 6)



ELEVATION
ANCHORS ASSEMBLY
TYPE NO.2



ELEVATION
BURIED POST ANCHOR



SECTION B - B

NOTES

1. ALL DIMENSIONS ARE IN MILLIMETERS, UNLESS NOTED OTHERWISE.
2. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DWG. NO. 38164/102/TD/GR0030.
3. THE LAYOUT AND DETAILS SHOWN ON THIS PLAN ARE INDICATIVE ONLY OF THE VARIOUS POSSIBILITIES AVAILABLE FOR THE APPROACH AND TAIL ENDS FOR GUARD RAIL INSTALLATION.
4. IN CASE SOLID ROCK IS ENCOUNTERED, THE POST MAY BE SHORTENED, PROVIDED IT EXTENDS INTO THE SOLID ROCK A MIN. OF 900mm.



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NATIONAL ENGINEERING SERVICES
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REV.	DATE	DESCRIPTION	APPROVED	APPROVED

PROJECT:
REHABILITATION AND UPGRADING
OF THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24.00 KM

TITLE	
TYPICAL GUARD RAIL DETAILS (2)	
DATE	DWG NO.
JANUARY, 2021	38164/102/TD/GR0031

PI STATION DATA

PI STATION	EASTING	NORTHING	DIRECTION	PI STATION	EASTING	NORTHING	DIRECTION	PI STATION	EASTING	NORTHING	DIRECTION
0+000.00	3,780,819.1407m	340,182.1357m	N16° 57' 32"E	1+792.46	3,781,427.6047m	341,295.6055m	N53° 13' 09"E	3+259.50	3,782,114.9993m	341,559.5222m	N29° 04' 35"E
0+055.44	3,780,872.1703m	340,198.3070m	N24° 15' 48"E	1+855.71	3,781,466.2650m	341,347.3200m	S83° 48' 51"E	3+300.68	3,782,151.3903m	341,579.7574m	N76° 13' 06"E
0+107.44	3,780,919.6031m	340,219.6871m	N13° 04' 19"E	1+953.43	3,781,455.4515m	341,447.0912m	S78° 03' 17"E	3+383.35	3,782,171.6303m	341,662.2734m	S25° 51' 18"E
0+177.11	3,780,987.5557m	340,235.4649m	S76° 35' 24"E	2+020.29	3,781,441.6074m	341,512.5292m	N52° 54' 27"E	3+468.13	3,782,087.5742m	341,703.0071m	N72° 33' 33"E
0+241.11	3,780,970.4940m	340,307.0268m	S64° 52' 27"E	2+072.18	3,781,474.5721m	341,556.1284m	N42° 17' 12"E	3+572.23	3,782,123.5561m	341,817.5397m	S56° 51' 04"E
0+291.01	3,780,949.2698m	340,352.2825m	N8° 25' 29"W	2+165.63	3,781,543.7707m	341,619.0649m	S24° 47' 29"W	3+617.37	3,782,097.0433m	341,858.1343m	S1° 30' 39"E
0+331.99	3,781,015.1687m	340,342.5223m	N17° 35' 21"W	2+214.59	3,781,406.6499m	341,555.7316m	S40° 45' 51"W	3+653.07	3,782,058.8257m	341,859.1423m	S14° 53' 08"W
0+397.01	3,781,077.2083m	340,322.8552m	N85° 05' 42"E	2+269.61	3,781,364.7447m	341,519.6056m	S60° 34' 49"E	3+684.30	3,782,028.4894m	341,851.0786m	S2° 00' 58"E
0+440.83	3,781,082.1621m	340,380.5782m	N38° 40' 58"E	2+289.96	3,781,350.6373m	341,544.6220m	N25° 18' 32"E	3+747.21	3,781,965.4302m	341,853.2984m	S33° 32' 29"W
0+494.30	3,781,125.1703m	340,415.0131m	N7° 40' 45"E	2+324.21	3,781,387.2849m	341,561.9522m	N50° 30' 09"E	3+790.43	3,781,928.2648m	341,828.6604m	S67° 57' 11"E
0+610.63	3,781,242.1723m	340,430.7889m	N7° 16' 10"W	2+380.77	3,781,423.7666m	341,606.2122m	N28° 51' 46"E	3+859.82	3,781,898.0933m	341,903.1613m	N17° 28' 50"W
0+655.65	3,781,287.0353m	340,425.0661m	N64° 21' 03"E	2+477.57	3,781,508.9731m	341,653.1767m	N1° 07' 30"W	3+887.91	3,781,964.3583m	341,882.2928m	N49° 34' 58"E
0+705.81	3,781,311.0848m	340,475.1512m	N46° 29' 05"E	2+521.74	3,781,554.1934m	341,652.2888m	N16° 19' 47"E	3+922.34	3,781,989.0014m	341,911.2306m	N66° 05' 58"E
0+759.19	3,781,347.9874m	340,514.0175m	N70° 00' 16"E	2+575.24	3,781,605.7527m	341,667.3948m	N2° 45' 54"W	3+958.01	3,782,003.5079m	341,943.9657m	N55° 59' 37"E
0+884.39	3,781,390.9249m	340,632.0163m	N78° 27' 01"E	2+616.00	3,781,646.7803m	341,665.4133m	N11° 34' 56"W	4+009.36	3,782,032.2617m	341,986.5848m	N50° 37' 19"E
0+979.80	3,781,410.0439m	340,725.5738m	N65° 25' 15"E	2+639.16	3,781,669.4978m	341,660.7574m	N9° 51' 53"E	4+072.18	3,782,072.1266m	342,035.1552m	N78° 22' 56"E
1+028.72	3,781,430.4315m	340,770.1470m	N88° 14' 26"E	2+672.09	3,781,702.2494m	341,666.4527m	N16° 38' 28"E	4+106.09	3,782,079.1135m	342,069.1388m	N49° 10' 44"E
1+100.81	3,781,432.6692m	340,842.9916m	N59° 26' 55"E	2+713.89	3,781,742.3132m	341,678.4276m	N20° 14' 08"W	4+135.12	3,782,098.3326m	342,091.3878m	N61° 47' 32"E
1+147.68	3,781,457.0251m	340,884.2548m	N76° 21' 18"E	2+773.45	3,781,799.3735m	341,657.3932m	N6° 07' 29"W	4+165.97	3,782,112.9542m	342,118.6482m	N29° 15' 41"W
1+207.79	3,781,471.2564m	340,942.8792m	S86° 19' 28"E	2+808.82	3,781,834.6494m	341,653.6079m	N2° 30' 57"E	4+182.42	3,782,131.2531m	342,108.3955m	S57° 39' 43"W
1+250.24	3,781,468.5199m	340,985.4791m	N76° 21' 28"E	2+831.99	3,781,857.8316m	341,654.6265m	N5° 45' 42"E	4+235.01	3,782,100.4891m	342,059.8033m	S66° 38' 07"W
1+329.79	3,781,487.3324m	341,062.9910m	S38° 34' 57"W	2+872.07	3,781,897.7079m	341,658.6500m	N2° 43' 55"E	4+282.19	3,782,081.7576m	342,016.4442m	S57° 22' 09"W
1+371.61	3,781,412.1954m	341,003.0473m	S7° 02' 18"E	2+936.59	3,781,962.1633m	341,661.7257m	N32° 26' 33"W	4+319.11	3,782,061.8131m	341,985.2947m	N29° 00' 05"W
1+497.51	3,781,378.0481m	341,007.2633m	N89° 09' 50"W	2+962.84	3,781,984.8926m	341,647.2776m	N45° 52' 50"W	4+336.01	3,782,081.5587m	341,974.3489m	N50° 07' 03"E
1+545.74	3,781,380.6375m	340,829.8249m	N89° 40' 50"E	3+020.50	3,782,025.0975m	341,605.8177m	N58° 22' 24"W	4+416.02	3,782,134.7818m	342,038.0428m	N10° 56' 53"E
1+568.96	3,781,382.0246m	341,078.6217m	N76° 30' 20"E	3+083.10	3,782,057.9767m	341,552.4293m	S76° 27' 29"W	4+465.18	3,782,184.5879m	342,047.6774m	N0° 36' 53"W
1+624.43	3,781,394.9976m	341,132.6810m	N85° 54' 56"E	3+149.30	3,782,041.7611m	341,485.1029m	N8° 49' 27"W	4+557.79	3,782,277.3167m	342,046.6824m	N33° 56' 04"E
1+660.30	3,781,397.5558m	341,168.5044m	N69° 38' 21"E	3+174.01	3,782,074.6305m	341,480.0003m	N72° 44' 41"E	4+613.03	3,782,324.0970m	342,078.1583m	N76° 43' 56"E
1+750.98	3,781,429.1792m	341,253.7151m	S87° 50' 51"E	3+217.27	3,782,088.9165m	341,525.9941m	N52° 07' 09"E	4+637.36	3,782,329.9506m	342,102.9830m	N67° 50' 08"E



KHYBER PAKHTUNKHWA
INTEGRATED TOURISM
AND ENTERPRISE
DEVELOPMENT PROJECT
C&W DEPARTMENT, KP



NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED

DRAWN	PROJECT:

TITLE	PI STATION DATA

REHABILITATION AND UPGRADING
OF THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24.00 KM

DATE
JANUARY, 2021

DWG NO.
38164/102/TD/ PD0010A

PI STATION	EASTING	NORTHING	DIRECTION	PI STATION	EASTING	NORTHING	DIRECTION	PI STATION	EASTING	NORTHING	DIRECTION
4+661.11	3,782,338.9221m	342,125.0061m	S86° 46' 28"E	6+186.75	3,782,803.6458m	342,840.9155m	N44° 29' 30"E	7+708.65	3,783,747.4906m	343,558.2695m	S85° 59' 18"E
4+713.19	3,782,335.9645m	342,177.4852m	N74° 02' 43"E	6+224.87	3,782,830.9174m	342,867.7074m	N58° 43' 50"W	7+748.49	3,783,744.6779m	343,598.3745m	N78° 44' 46"E
4+759.07	3,782,348.6509m	342,221.8600m	N40° 53' 04"E	6+243.33	3,782,846.1820m	342,842.5714m	S54° 36' 01"W	7+817.03	3,783,758.0985m	343,665.8211m	N77° 12' 34"E
4+806.70	3,782,385.2555m	342,253.5504m	N50° 26' 47"E	6+295.77	3,782,814.4488m	342,797.9179m	N59° 12' 37"W	7+880.75	3,783,772.2063m	343,727.9648m	N69° 59' 49"E
4+866.74	3,782,423.5190m	342,299.8793m	S88° 17' 41"E	6+383.36	3,782,833.4637m	342,766.0073m	S30° 21' 11"W	7+913.83	3,783,783.5320m	343,759.0768m	N74° 15' 16"E
4+905.80	3,782,422.3045m	342,340.6731m	N60° 33' 55"E	6+399.65	3,782,749.5047m	342,716.8412m	N32° 21' 49"E	7+957.38	3,783,795.3522m	343,801.0003m	N54° 51' 18"E
4+962.93	3,782,450.6331m	342,390.8774m	N63° 44' 35"E	6+457.23	3,782,893.9767m	342,808.3978m	N30° 09' 05"E	8+012.65	3,783,827.3361m	343,846.4328m	N40° 33' 19"E
5+022.19	3,782,476.8549m	342,444.0337m	S71° 18' 06"E	6+531.86	3,782,958.5256m	342,845.8928m	N66° 40' 02"E	8+043.80	3,783,851.1200m	343,866.7858m	N45° 47' 27"E
5+089.15	3,782,454.8314m	342,509.1060m	S23° 54' 01"W	6+599.88	3,782,986.0079m	342,909.6054m	N34° 58' 49"E	8+070.52	3,783,869.7665m	343,885.9544m	N41° 35' 04"E
5+128.43	3,782,403.3309m	342,486.2839m	S78° 33' 03"E	6+655.70	3,783,032.8961m	342,942.4130m	N42° 31' 48"E	8+097.74	3,783,890.1277m	343,904.0220m	N59° 49' 07"E
5+152.89	3,782,396.6085m	342,519.4759m	N65° 21' 31"E	6+723.47	3,783,082.8726m	342,988.2563m	N84° 11' 38"W	8+126.59	3,783,904.6956m	343,929.0710m	N9° 08' 19"W
5+249.12	3,782,437.1765m	342,607.9154m	N11° 14' 27"E	6+741.04	3,783,087.6578m	342,941.1976m	N3° 13' 39"W	8+150.93	3,783,931.5387m	343,924.7529m	N26° 43' 12"E
5+285.59	3,782,476.1772m	342,615.6666m	N9° 24' 08"W	6+771.52	3,783,121.6675m	342,939.2798m	N18° 11' 31"W	8+189.47	3,783,966.4737m	343,942.3387m	N74° 22' 01"E
5+320.45	3,782,510.7622m	342,609.9396m	N14° 51' 55"E	6+793.47	3,783,142.6139m	342,932.3963m	N20° 39' 21"E	8+236.84	3,783,979.9493m	343,990.4956m	S86° 34' 11"E
5+374.51	3,782,563.5517m	342,623.9515m	N38° 35' 49"E	6+852.70	3,783,198.8888m	342,953.6111m	N30° 31' 02"W	8+268.12	3,783,978.0619m	344,021.9836m	S84° 32' 52"E
5+435.84	3,782,611.9219m	342,662.5609m	N53° 15' 46"E	6+885.95	3,783,228.9351m	342,935.9003m	N29° 54' 33"E	8+306.77	3,783,974.3891m	344,060.4641m	N14° 40' 07"E
5+468.68	3,782,631.5994m	342,688.9245m	S8° 49' 04"E	6+919.26	3,783,260.3619m	342,953.9781m	N35° 20' 01"E	8+358.65	3,784,030.7333m	344,075.2129m	N6° 51' 24"E
5+521.03	3,782,559.8222m	342,700.0588m	S16° 04' 49"W	6+961.87	3,783,295.1335m	342,978.6283m	N39° 38' 12"E	8+398.92	3,784,070.7535m	344,080.0251m	N20° 35' 22"W
5+545.59	3,782,535.8186m	342,693.1395m	S7° 31' 23"E	7+043.64	3,783,358.1150m	343,030.7990m	N50° 34' 50"E	8+494.53	3,784,160.7833m	344,046.2040m	N36° 26' 47"E
5+580.76	3,782,500.7475m	342,697.7710m	S49° 44' 42"E	7+099.16	3,783,393.4462m	343,073.7823m	N54° 54' 24"E	8+581.21	3,784,237.6767m	344,102.9911m	N52° 34' 34"E
5+637.67	3,782,462.4762m	342,742.9709m	S16° 51' 50"E	7+139.56	3,783,416.6776m	343,106.8453m	N43° 00' 07"E	8+627.02	3,784,265.6160m	344,139.5025m	N75° 54' 59"E
5+679.62	3,782,421.4878m	342,755.3960m	S6° 01' 03"E	7+195.05	3,783,457.3208m	343,144.7482m	N45° 08' 18"E	8+664.47	3,784,274.8138m	344,176.1651m	N55° 18' 26"E
5+721.46	3,782,379.8051m	342,759.7898m	N75° 03' 44"E	7+274.15	3,783,513.1193m	343,200.8165m	N58° 19' 38"E	8+760.27	3,784,329.5066m	344,255.1724m	N8° 53' 38"E
5+739.55	3,782,386.1705m	342,783.6493m	N22° 37' 16"W	7+345.06	3,783,550.4468m	343,261.3190m	N71° 31' 25"E	8+817.18	3,784,388.6441m	344,264.4265m	N83° 55' 18"E
5+760.62	3,782,411.2003m	342,773.2197m	N15° 31' 08"W	7+371.55	3,783,558.8748m	343,286.5421m	N65° 19' 03"E	8+915.77	3,784,400.0391m	344,371.4355m	S72° 31' 01"E
5+809.65	3,782,458.4612m	342,760.0962m	N0° 09' 10"W	7+408.27	3,783,574.2153m	343,319.9213m	N52° 28' 47"E	8+949.70	3,784,389.7393m	344,404.1358m	S40° 11' 18"E
5+853.49	3,782,502.4925m	342,759.9788m	N34° 41' 28"W	7+444.69	3,783,596.4480m	343,348.8744m	N46° 08' 27"E	9+013.17	3,784,340.8084m	344,445.4687m	N12° 03' 28"E
5+905.14	3,782,545.6225m	342,730.1239m	N13° 05' 22"E	7+477.82	3,783,619.4181m	343,372.7779m	N48° 32' 44"E	9+052.44	3,784,410.0021m	344,460.2491m	N22° 52' 19"E
5+983.93	3,782,624.4701m	342,748.4570m	N38° 43' 16"E	7+547.22	3,783,665.3632m	343,424.7928m	N40° 18' 53"E	9+086.20	3,784,441.1752m	344,473.3992m	N3° 03' 13"E
6+021.13	3,782,653.8024m	342,771.9744m	N15° 20' 25"E	7+587.67	3,783,696.2299m	343,450.9832m	N50° 56' 56"E	9+147.73	3,784,502.9131m	344,476.6926m	N24° 38' 00"E
6+075.26	3,782,706.3865m	342,786.3994m	N26° 42' 12"E	7+642.58	3,783,730.8738m	343,493.6871m	N79° 29' 09"E	9+194.20	3,784,545.6093m	344,496.2704m	N67° 21' 23"E
6+125.99	3,782,751.7846m	342,809.2355m	N31° 25' 09"E	7+682.16	3,783,738.2461m	343,533.4103m	N69° 36' 05"E	9+248.24	3,784,566.8275m	344,547.1351m	N20° 47' 08"E



KHYBER PAKHTUNKHWA
INTEGRATED TOURISM
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DEVELOPMENT PROJECT
C&W DEPARTMENT, KP



NATIONAL ENGINEERING SERVICES
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REV.	DATE	DESCRIPTION	APPROVED	APPROVED

PROJECT:
REHABILITATION AND UPGRADING
OF THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24.00 KM

TITLE
PI STATION DATA

DATE
JANUARY, 2021

DWG NO.
38164/102/TD/ PD0010B

PI STATION	EASTING	NORTHING	DIRECTION	PI STATION	EASTING	NORTHING	DIRECTION	PI STATION	EASTING	NORTHING	DIRECTION
9+355.08	3,784,670.0407m	344,586.3124m	S51° 02' 37"E	10+753.19	3,785,532.4469m	345,389.0937m	N1° 06' 53"E	11+724.89	3,786,098.3474m	346,032.7832m	S78° 47' 18"E
9+411.82	3,784,623.6801m	344,643.6522m	S45° 12' 54"E	10+791.69	3,785,570.9368m	345,389.8426m	S80° 30' 43"E	11+792.29	3,786,084.8780m	346,100.7364m	N10° 40' 50"E
9+467.58	3,784,584.3854m	344,683.2431m	S64° 52' 02"E	10+822.10	3,785,564.0941m	345,430.7852m	N85° 43' 04"E	11+821.69	3,786,121.3045m	346,107.6066m	N1° 35' 01"W
9+511.89	3,784,565.4409m	344,723.6250m	N51° 00' 42"E	10+864.80	3,785,567.2926m	345,473.5012m	N55° 43' 29"E	11+861.91	3,786,161.5890m	346,106.4928m	N9° 36' 20"E
9+556.59	3,784,595.5975m	344,760.8807m	N27° 36' 11"E	10+910.91	3,785,593.7166m	345,512.2731m	N38° 39' 13"E	11+906.08	3,786,205.2553m	346,113.8827m	N4° 05' 54"E
9+604.04	3,784,638.1144m	344,783.1109m	N31° 40' 43"E	10+939.92	3,785,616.4984m	345,530.4945m	N43° 15' 24"E	11+929.89	3,786,229.0213m	346,115.5856m	N17° 32' 08"E
9+652.48	3,784,679.3399m	344,808.5510m	N45° 58' 30"E	10+967.06	3,785,636.2687m	345,549.0969m	N7° 38' 33"W	11+976.28	3,786,273.3300m	346,129.5864m	N7° 05' 43"E
9+699.66	3,784,712.2384m	344,842.5887m	N40° 38' 08"E	10+999.71	3,785,670.1794m	345,544.5467m	N19° 58' 43"E	12+023.38	3,786,320.1490m	346,135.4141m	N30° 04' 18"E
9+731.82	3,784,736.6563m	344,863.5436m	N52° 15' 24"E	11+039.70	3,785,708.2676m	345,558.3936m	S68° 07' 26"E	12+108.97	3,786,394.8152m	346,178.6474m	N26° 18' 36"E
9+774.50	3,784,762.8259m	344,897.3502m	N40° 53' 06"E	11+061.91	3,785,696.9253m	345,586.6425m	N39° 36' 09"E	12+136.91	3,786,419.8680m	346,191.0346m	N29° 35' 31"E
9+834.07	3,784,807.9069m	344,936.3802m	N5° 54' 51"E	11+090.45	3,785,721.1674m	345,606.6991m	N51° 17' 38"E	12+167.00	3,786,446.0323m	346,205.8931m	N1° 42' 27"E
9+862.96	3,784,837.3996m	344,939.4353m	N51° 04' 19"E	11+131.12	3,785,746.6419m	345,638.4895m	N29° 55' 33"E	12+187.75	3,786,467.0833m	346,206.5206m	N15° 53' 46"E
9+891.36	3,784,856.0568m	344,962.5343m	N8° 26' 36"E	11+177.78	3,785,787.3071m	345,661.8974m	N82° 13' 35"E	12+213.51	3,786,491.9090m	346,213.5906m	N6° 08' 47"E
9+922.53	3,784,887.7815m	344,967.2435m	N48° 24' 42"E	11+207.89	3,785,791.6214m	345,693.5001m	N54° 29' 54"E	12+250.73	3,786,528.9830m	346,217.5830m	N9° 36' 28"W
10+014.73	3,784,949.9744m	345,037.3221m	N39° 54' 00"E	11+264.60	3,785,824.8685m	345,740.1079m	N25° 47' 02"W	12+325.20	3,786,602.6679m	346,205.1099m	N35° 41' 09"W
10+105.00	3,785,019.2975m	345,095.2855m	N45° 54' 02"E	11+305.28	3,785,867.2278m	345,719.6452m	N30° 57' 43"E	12+370.66	3,786,640.0559m	346,178.2580m	N16° 06' 26"W
10+167.57	3,785,062.8698m	345,140.2493m	N13° 51' 27"W	11+330.20	3,785,890.4825m	345,733.5970m	S82° 25' 36"E	12+392.47	3,786,661.1206m	346,172.1751m	N55° 55' 11"E
10+208.13	3,785,105.1911m	345,129.8091m	N30° 46' 51"E	11+355.83	3,785,886.7328m	345,761.8003m	N85° 29' 03"E	12+431.34	3,786,685.0818m	346,207.5919m	N36° 17' 39"E
10+242.32	3,785,136.5178m	345,148.4693m	N32° 42' 53"E	11+374.55	3,785,888.2109m	345,780.5157m	S82° 20' 14"E	12+464.77	3,786,712.2082m	346,227.5139m	N86° 33' 16"E
10+288.14	3,785,175.0699m	345,173.2333m	N11° 07' 21"E	11+394.78	3,785,885.5044m	345,800.6320m	N75° 41' 27"E	12+505.69	3,786,714.7678m	346,270.0277m	N20° 23' 22"E
10+334.27	3,785,220.6020m	345,182.1848m	N77° 56' 55"E	11+435.06	3,785,895.5044m	345,839.8375m	N27° 18' 10"E	12+550.29	3,786,759.7137m	346,286.7334m	N4° 48' 33"W
10+399.40	3,785,235.3631m	345,251.3251m	N23° 37' 13"E	11+465.78	3,785,923.6991m	345,854.3916m	N76° 35' 31"E	12+578.10	3,786,787.9940m	346,284.3541m	N10° 23' 26"E
10+462.84	3,785,295.6963m	345,277.7094m	N58° 38' 37"E	11+494.96	3,785,930.9307m	345,884.7274m	N32° 37' 38"E	12+621.70	3,786,830.9446m	346,292.2298m	N30° 11' 27"E
10+494.17	3,785,312.5125m	345,305.3060m	N18° 34' 50"E	11+515.54	3,785,948.9532m	345,896.2653m	N62° 12' 04"E	12+651.00	3,786,856.5002m	346,307.0980m	N35° 23' 09"E
10+521.67	3,785,339.4897m	345,314.3746m	N29° 47' 01"E	11+532.81	3,785,957.1878m	345,911.8845m	N37° 12' 24"E	12+671.79	3,786,873.4603m	346,319.1446m	N31° 15' 52"E
10+555.88	3,785,369.2405m	345,331.4018m	N39° 26' 52"E	11+555.16	3,785,975.2122m	345,925.5690m	N66° 19' 24"E	12+691.57	3,786,890.3750m	346,329.4145m	N26° 07' 01"E
10+587.78	3,785,393.9141m	345,351.7034m	N77° 33' 13"E	11+594.86	3,785,991.3651m	345,962.4072m	N32° 14' 10"E	12+766.95	3,786,958.0633m	346,362.5994m	N0° 44' 01"E
10+619.03	3,785,400.8300m	345,383.0378m	N18° 50' 47"E	11+620.85	3,786,013.7223m	345,976.5060m	N11° 11' 30"E	12+799.58	3,786,990.9791m	346,363.0209m	N10° 30' 14"E
10+663.09	3,785,444.4522m	345,397.9274m	N8° 31' 56"E	11+642.21	3,786,034.8940m	345,980.6949m	N47° 13' 48"E	12+835.61	3,787,026.4425m	346,369.5962m	N5° 53' 18"W
10+684.05	3,785,465.2382m	345,401.0459m	N20° 28' 21"W	11+665.76	3,786,051.1643m	345,998.2836m	N22° 51' 24"E	12+865.51	3,787,056.3823m	346,366.5084m	N11° 14' 57"E
10+724.17	3,785,503.1514m	345,386.8914m	N4° 17' 57"E	11+692.10	3,786,075.7840m	346,008.6615m	N46° 54' 42"E	12+890.08	3,787,080.5968m	346,371.3246m	N70° 34' 06"W



KHYBER PAKHTUNKHWA
INTEGRATED TOURISM
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C&W DEPARTMENT, KP



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REV.	DATE	DESCRIPTION	APPROVED	APPROVED

PROJECT:
REHABILITATION AND UPGRADING
OF THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24.00 KM

TITLE		PI STATION DATA	
DATE	JANUARY, 2021	DWG NO.	38164/102/TD/ PD0010C

PI STATION	EASTING	NORTHING	DIRECTION	PI STATION	EASTING	NORTHING	DIRECTION	PI STATION	EASTING	NORTHING	DIRECTION
9+355.08	3,784,670.0407m	344,586.3124m	S51° 02' 37"E	10+753.19	3,785,532.4469m	345,389.0937m	N1° 06' 53"E	11+821.69	3,786,121.3045m	346,107.6066m	N1° 35' 01"W
9+411.82	3,784,623.6801m	344,643.6522m	S45° 12' 54"E	10+791.69	3,785,570.9368m	345,389.8426m	S80° 30' 43"E	11+861.91	3,786,161.5890m	346,106.4928m	N9° 36' 20"E
9+467.58	3,784,584.3854m	344,683.2431m	S64° 52' 02"E	10+822.10	3,785,564.0941m	345,430.7852m	N85° 43' 04"E	11+906.08	3,786,205.2553m	346,113.8827m	N4° 05' 54"E
9+511.89	3,784,565.4409m	344,723.6250m	N51° 00' 42"E	10+864.80	3,785,567.2926m	345,473.5012m	N55° 43' 29"E	11+929.89	3,786,229.0213m	346,115.5856m	N17° 32' 08"E
9+556.59	3,784,595.5975m	344,760.8807m	N27° 36' 11"E	10+910.91	3,785,593.7166m	345,512.2731m	N38° 39' 13"E	11+976.28	3,786,273.3300m	346,129.5864m	N7° 05' 43"E
9+604.04	3,784,638.1144m	344,783.1109m	N31° 40' 43"E	10+939.92	3,785,616.4984m	345,530.4945m	N43° 15' 24"E	12+023.38	3,786,320.1490m	346,135.4141m	N30° 04' 18"E
9+652.48	3,784,679.3399m	344,808.5510m	N45° 58' 30"E	10+967.06	3,785,636.2687m	345,549.0969m	N7° 38' 33"W	12+108.97	3,786,394.8152m	346,178.6474m	N26° 18' 36"E
9+699.66	3,784,712.2384m	344,842.5887m	N40° 38' 08"E	10+999.71	3,785,670.1794m	345,544.5467m	N19° 58' 43"E	12+136.91	3,786,419.8680m	346,191.0346m	N29° 35' 31"E
9+731.82	3,784,736.6563m	344,863.5436m	N52° 15' 24"E	11+039.70	3,785,708.2676m	345,558.3936m	S68° 07' 26"E	12+167.00	3,786,446.0323m	346,205.8931m	N1° 42' 27"E
9+774.50	3,784,762.8259m	344,897.3502m	N40° 53' 06"E	11+061.91	3,785,696.9253m	345,586.6425m	N39° 36' 09"E	12+187.75	3,786,467.0833m	346,206.5206m	N15° 53' 46"E
9+834.07	3,784,807.9069m	344,936.3802m	N5° 54' 51"E	11+090.45	3,785,721.1674m	345,606.6991m	N51° 17' 38"E	12+213.51	3,786,491.9090m	346,213.5906m	N6° 08' 47"E
9+862.96	3,784,837.3996m	344,939.4353m	N51° 04' 19"E	11+131.12	3,785,746.6419m	345,638.4895m	N29° 55' 33"E	12+250.73	3,786,528.9830m	346,217.5830m	N9° 36' 28"W
9+891.36	3,784,856.0568m	344,962.5343m	N8° 26' 36"E	11+177.78	3,785,787.3071m	345,661.8974m	N82° 13' 35"E	12+325.20	3,786,602.6679m	346,205.1099m	N35° 41' 09"W
9+922.53	3,784,887.7815m	344,967.2435m	N48° 24' 42"E	11+207.89	3,785,791.6214m	345,693.5001m	N54° 29' 54"E	12+370.66	3,786,640.0559m	346,178.2580m	N16° 06' 26"W
10+014.73	3,784,949.9744m	345,037.3221m	N39° 54' 00"E	11+264.60	3,785,824.8685m	345,740.1079m	N25° 47' 02"W	12+392.47	3,786,661.1206m	346,172.1751m	N55° 55' 11"E
10+105.00	3,785,019.2975m	345,095.2855m	N45° 54' 02"E	11+305.28	3,785,867.2278m	345,719.6452m	N30° 57' 43"E	12+431.34	3,786,685.0818m	346,207.5919m	N36° 17' 39"E
10+167.57	3,785,062.8698m	345,140.2493m	N13° 51' 27"W	11+330.20	3,785,890.4825m	345,733.5970m	S82° 25' 36"E	12+464.77	3,786,712.2082m	346,227.5139m	N86° 33' 16"E
10+208.13	3,785,105.1911m	345,129.8091m	N30° 46' 51"E	11+355.83	3,785,886.7328m	345,761.8003m	N85° 29' 03"E	12+505.69	3,786,714.7678m	346,270.0277m	N20° 23' 22"E
10+242.32	3,785,136.5178m	345,148.4693m	N32° 42' 53"E	11+374.55	3,785,888.2109m	345,780.5157m	S82° 20' 14"E	12+550.29	3,786,759.7137m	346,286.7334m	N4° 48' 33"W
10+288.14	3,785,175.0699m	345,173.2333m	N11° 07' 21"E	11+394.78	3,785,885.5044m	345,800.6320m	N75° 41' 27"E	12+578.10	3,786,787.9940m	346,284.3541m	N10° 23' 26"E
10+334.27	3,785,220.6020m	345,182.1848m	N77° 56' 55"E	11+435.06	3,785,895.5044m	345,839.8375m	N27° 18' 10"E	12+621.70	3,786,830.9446m	346,292.2298m	N30° 11' 27"E
10+399.40	3,785,235.3631m	345,251.3251m	N23° 37' 13"E	11+465.78	3,785,923.6991m	345,854.3916m	N76° 35' 31"E	12+651.00	3,786,856.5002m	346,307.0980m	N35° 23' 09"E
10+462.84	3,785,295.6963m	345,277.7094m	N58° 38' 37"E	11+494.96	3,785,930.9307m	345,884.7274m	N32° 37' 38"E	12+671.79	3,786,873.4603m	346,319.1446m	N31° 15' 52"E
10+494.17	3,785,312.5125m	345,305.3060m	N18° 34' 50"E	11+515.54	3,785,948.9532m	345,896.2653m	N62° 12' 04"E	12+691.57	3,786,890.3750m	346,329.4145m	N26° 07' 01"E
10+521.67	3,785,339.4897m	345,314.3746m	N29° 47' 01"E	11+532.81	3,785,957.1878m	345,911.8845m	N37° 12' 24"E	12+766.95	3,786,958.0633m	346,362.5994m	N0° 44' 01"E
10+555.88	3,785,369.2405m	345,331.4018m	N39° 26' 52"E	11+555.16	3,785,975.2122m	345,925.5690m	N66° 19' 24"E	12+799.58	3,786,990.9791m	346,363.0209m	N10° 30' 14"E
10+587.78	3,785,393.9141m	345,351.7034m	N77° 33' 13"E	11+594.86	3,785,991.3651m	345,962.4072m	N32° 14' 10"E	12+835.61	3,787,026.4425m	346,369.5962m	N5° 53' 18"W
10+619.03	3,785,400.8300m	345,383.0378m	N18° 50' 47"E	11+620.85	3,786,013.7223m	345,976.5060m	N11° 11' 30"E	12+865.51	3,787,056.3823m	346,366.5084m	N11° 14' 57"E
10+663.09	3,785,444.4522m	345,397.9274m	N8° 31' 56"E	11+642.21	3,786,034.8940m	345,980.6949m	N47° 13' 48"E	12+890.08	3,787,080.5968m	346,371.3246m	N70° 34' 06"W
10+684.05	3,785,465.2382m	345,401.0459m	N20° 28' 21"W	11+665.76	3,786,051.1643m	345,998.2836m	N22° 51' 24"E	12+906.58	3,787,087.5403m	346,351.6422m	N29° 46' 45"W
10+724.17	3,785,503.1514m	345,386.8914m	N4° 17' 57"E	11+692.10	3,786,075.7840m	346,008.6615m	N46° 54' 42"E	12+929.59	3,787,108.0815m	346,339.8881m	N31° 24' 11"W
				11+724.89	3,786,098.3474m	346,032.7832m	S78° 47' 18"E	12+956.74	3,787,131.2478m	346,325.7456m	N6° 24' 33"E
				11+792.29	3,786,084.8780m	346,100.7364m	N10° 40' 50"E	12+989.48	3,787,164.8961m	346,329.5253m	N52° 49' 19"W



KHYBER PAKHTUNKHWA
INTEGRATED TOURISM
AND ENTERPRISE
DEVELOPMENT PROJECT
C&W DEPARTMENT, KP



NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED

PROJECT:
REHABILITATION AND UPGRADING
OF THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24.00 KM

TITLE
PI STATION DATA
DATE
JANUARY, 2021
DWG NO.
38164/102/TD/ PD0010D

SUPERELEVATION SCHEME

Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane
	0+000.00m	Begin Alignment	-2.00%	-2.00%	9	0+438.12m	End Normal Crown	-2.00%	-2.00%	17	1+063.57m	Level Crown	-2.00%	0.00%	25	1+612.80m	Reverse Crown	2.00%	-2.00%
1	0+025.28m	End Normal Crown	-2.00%	-2.00%	9	0+447.56m	Level Crown	-2.00%	0.00%	17	1+073.07m	Reverse Crown	-2.00%	2.00%	25	1+620.35m	Begin Full Super	3.60%	-3.60%
1	0+034.62m	Level Crown	0.00%	-2.00%	9	0+457.01m	Reverse Crown	-2.00%	2.00%	18	1+082.57m	Begin Full Super	-4.00%	4.00%	25	1+628.46m	End Full Super	3.60%	-3.60%
1	0+043.95m	Reverse Crown	2.00%	-2.00%	9	0+464.56m	Begin Full Super	-3.60%	3.60%	18	1+118.01m	End Full Super	-4.00%	4.00%	25	1+636.02m	Reverse Crown	2.00%	-2.00%
1	0+048.62m	Begin Full Super	3.00%	-3.00%	9	0+522.31m	End Full Super	-3.60%	3.60%	18	1+127.51m	Reverse Crown	-2.00%	2.00%	25	1+645.46m	Level Crown	0.00%	-2.00%
1	0+062.23m	End Full Super	3.00%	-3.00%	9	0+529.86m	Reverse Crown	-2.00%	2.00%	18	1+137.01m	Level Crown	-2.00%	0.00%	25	1+654.91m	Begin Normal Crown	-2.00%	-2.00%
1	0+066.90m	Reverse Crown	2.00%	-2.00%	9	0+539.31m	Level Crown	-2.00%	0.00%	18	1+146.51m	Begin Normal Crown	-2.00%	-2.00%	26	1+623.61m	End Normal Crown	-2.00%	-2.00%
1	0+076.23m	Level Crown	0.00%	-2.00%	9	0+548.75m	Begin Normal Crown	-2.00%	-2.00%	18	1+110.75m	End Normal Crown	-2.00%	-2.00%	26	1+633.08m	Level Crown	-2.00%	0.00%
1	0+085.57m	Begin Normal Crown	-2.00%	-2.00%	10	0+572.22m	End Normal Crown	-2.00%	-2.00%	18	1+120.22m	Level Crown	0.00%	-2.00%	26	1+642.56m	Reverse Crown	-2.00%	2.00%
2	0+073.64m	End Normal Crown	-2.00%	-2.00%	10	0+581.63m	Level Crown	-2.00%	0.00%	18	1+129.70m	Reverse Crown	2.00%	-2.00%	26	1+651.08m	Begin Full Super	-3.80%	3.80%
2	0+083.05m	Level Crown	-2.00%	0.00%	10	0+591.04m	Reverse Crown	-2.00%	2.00%	18	1+138.22m	Begin Full Super	3.80%	-3.80%	26	1+669.31m	End Full Super	-3.80%	3.80%
2	0+092.47m	Reverse Crown	-2.00%	2.00%	10	0+597.63m	Begin Full Super	-3.40%	3.40%	18	1+156.92m	End Full Super	3.80%	-3.80%	26	1+677.84m	Reverse Crown	-2.00%	2.00%
2	0+099.05m	Begin Full Super	-3.40%	3.40%	10	0+623.41m	End Full Super	-3.40%	3.40%	18	1+165.45m	Reverse Crown	2.00%	-2.00%	26	1+687.31m	Level Crown	-2.00%	0.00%
2	0+115.73m	End Full Super	-3.40%	3.40%	10	0+630.00m	Reverse Crown	-2.00%	2.00%	18	1+174.92m	Level Crown	0.00%	-2.00%	26	1+696.79m	Begin Normal Crown	-2.00%	-2.00%
2	0+122.32m	Reverse Crown	-2.00%	2.00%	10	0+639.41m	Level Crown	-2.00%	0.00%	18	1+184.39m	Begin Normal Crown	-2.00%	-2.00%	27	1+711.59m	End Normal Crown	-2.00%	-2.00%
2	0+131.73m	Level Crown	-2.00%	0.00%	10	0+648.83m	Begin Normal Crown	-2.00%	-2.00%	19	1+170.97m	End Normal Crown	-2.00%	-2.00%	27	1+721.09m	Level Crown	0.00%	-2.00%
2	0+141.15m	Begin Normal Crown	-2.00%	-2.00%	11	0+606.49m	End Normal Crown	-2.00%	-2.00%	19	1+180.44m	Level Crown	0.00%	-2.00%	27	1+730.59m	Reverse Crown	2.00%	-2.00%
3	0+125.98m	End Normal Crown	-2.00%	-2.00%	11	0+616.16m	Level Crown	0.00%	-2.00%	19	1+189.91m	Reverse Crown	2.00%	-2.00%	27	1+740.09m	Begin Full Super	4.00%	-4.00%
3	0+135.65m	Level Crown	0.00%	-2.00%	11	0+625.82m	Reverse Crown	2.00%	-2.00%	19	1+198.44m	Begin Full Super	3.80%	-3.80%	27	1+751.44m	End Full Super	4.00%	-4.00%
3	0+145.31m	Reverse Crown	2.00%	-2.00%	11	0+645.16m	Begin Full Super	6.00%	-6.00%	19	1+216.90m	End Full Super	3.80%	-3.80%	27	1+770.94m	Reverse Crown	2.00%	-2.00%
3	0+164.65m	Begin Full Super	6.00%	-6.00%	11	0+660.75m	End Full Super	6.00%	-6.00%	19	1+225.43m	Reverse Crown	2.00%	-2.00%	27	1+780.44m	Level Crown	0.00%	-2.00%
3	0+180.00m	End Full Super	6.00%	-6.00%	11	0+680.08m	Reverse Crown	2.00%	-2.00%	19	1+234.90m	Level Crown	0.00%	-2.00%	27	1+789.94m	Begin Normal Crown	-2.00%	-2.00%
3	0+199.34m	Reverse Crown	2.00%	-2.00%	11	0+689.75m	Level Crown	0.00%	-2.00%	19	1+244.37m	Begin Normal Crown	-2.00%	-2.00%	28	1+749.90m	End Normal Crown	-2.00%	-2.00%
3	0+209.00m	Level Crown	0.00%	-2.00%	11	0+699.41m	Begin Normal Crown	-2.00%	-2.00%	20	1+214.32m	End Normal Crown	-2.00%	-2.00%	28	1+759.50m	Level Crown	-2.00%	0.00%
3	0+218.67m	Begin Normal Crown	-2.00%	-2.00%	12	0+670.11m	End Normal Crown	-2.00%	-2.00%	20	1+223.82m	Level Crown	-2.00%	0.00%	28	1+769.10m	Reverse Crown	-2.00%	2.00%
4	0+208.35m	End Normal Crown	-2.00%	-2.00%	12	0+679.61m	Level Crown	-2.00%	0.00%	20	1+233.32m	Reverse Crown	-2.00%	2.00%	28	1+783.50m	Begin Full Super	-5.00%	5.00%
4	0+217.82m	Level Crown	0.00%	-2.00%	12	0+689.11m	Reverse Crown	-2.00%	2.00%	20	1+242.82m	Begin Full Super	-4.00%	4.00%	28	1+800.10m	End Full Super	-5.00%	5.00%
4	0+227.29m	Reverse Crown	2.00%	-2.00%	12	0+698.61m	Begin Full Super	-4.00%	4.00%	20	1+257.46m	End Full Super	-4.00%	4.00%	28	1+814.50m	Reverse Crown	-2.00%	2.00%
4	0+235.82m	Begin Full Super	3.80%	-3.80%	12	0+712.80m	End Full Super	-4.00%	4.00%	20	1+266.96m	Reverse Crown	-2.00%	2.00%	28	1+824.10m	Level Crown	-2.00%	0.00%
4	0+246.31m	End Full Super	3.80%	-3.80%	12	0+722.30m	Reverse Crown	-2.00%	2.00%	20	1+276.46m	Level Crown	-2.00%	0.00%	28	1+833.70m	Begin Normal Crown	-2.00%	-2.00%
4	0+254.84m	Reverse Crown	2.00%	-2.00%	12	0+731.80m	Level Crown	-2.00%	0.00%	20	1+285.96m	Begin Normal Crown	-2.00%	-2.00%	29	1+804.30m	End Normal Crown	-2.00%	-2.00%
4	0+264.31m	Level Crown	0.00%	-2.00%	13	0+741.30m	Begin Normal Crown	-2.00%	-2.00%	21	1+253.61m	End Normal Crown	-2.00%	-2.00%	29	1+813.85m	Level Crown	0.00%	-2.00%
4	0+273.79m	Begin Normal Crown	-2.00%	-2.00%	13	0+722.46m	End Normal Crown	-2.00%	-2.00%	21	1+263.27m	Level Crown	0.00%	-2.00%	29	1+823.39m	Reverse Crown	2.00%	-2.00%
5	0+231.58m	End Normal Crown	-2.00%	-2.00%	13	0+732.00m	Level Crown	0.00%	-2.00%	21	1+272.94m	Reverse Crown	2.00%	-2.00%	29	1+834.85m	Begin Full Super	4.40%	-4.40%
5	0+241.25m	Level Crown	-2.00%	0.00%	13	0+741.55m	Reverse Crown	2.00%	-2.00%	21	1+292.27m	Begin Full Super	6.00%	-6.00%	29	1+873.94m	End Full Super	4.40%	-4.40%
5	0+250.92m	Reverse Crown	-2.00%	2.00%	14	0+753.00m	Begin Full Super	4.40%	-4.40%	21	1+313.01m	End Full Super	6.00%	-6.00%	29	1+885.39m	Reverse Crown	2.00%	-2.00%
5	0+270.25m	Begin Full Super	-6.00%	6.00%	14	0+765.00m	End Full Super	4.40%	-4.40%	21	1+332.35m	Reverse Crown	2.00%	-2.00%	29	1+894.94m	Level Crown	0.00%	-2.00%
5	0+286.14m	End Full Super	-6.00%	6.00%	14	0+776.46m	Reverse Crown	2.00%	-2.00%	21	1+342.01m	Level Crown	0.00%	-2.00%	29	1+904.48m	Begin Normal Crown	-2.00%	-2.00%
5	0+305.47m	Reverse Crown	-2.00%	2.00%	14	0+786.00m	Level Crown	0.00%	-2.00%	21	1+351.68m	Begin Normal Crown	-2.00%	-2.00%	30	1+919.02m	End Normal Crown	-2.00%	-2.00%
5	0+315.14m	Level Crown	-2.00%	0.00%	14	0+795.55m	Begin Normal Crown	-2.00%	-2.00%	22	1+324.89m	End Normal Crown	-2.00%	-2.00%	30	1+929.02m	Level Crown	0.00%	-2.00%
5	0+324.80m	Begin Normal Crown	-2.00%	-2.00%	14	0+846.32m	End Normal Crown	-2.00%	-2.00%	22	1+334.46m	Level Crown	0.00%	-2.00%	30	1+939.02m	Begin Full Super	2.00%	-2.00%
6	0+298.01m	End Normal Crown	-2.00%	-2.00%	14	0+856.32m	Level Crown	0.00%	-2.00%	22	1+344.02m	Reverse Crown	2.00%	-2.00%	30	1+939.02m	Reverse Crown	2.00%	-2.00%
6	0+307.30m	Level Crown	-2.00%	0.00%	14	0+866.32m	Reverse Crown	2.00%	-2.00%	22	1+356.46m	Begin Full Super	4.60%	-4.60%	30	1+967.81m	End Full Super	2.00%	-2.00%
6	0+316.58m	Reverse Crown	-2.00%	2.00%	15	0+867.32m	Begin Full Super	2.20%	-2.20%	22	1+384.82m	End Full Super	4.60%	-4.60%	30	1+967.81m	Reverse Crown	2.00%	-2.00%
6	0+320.30m	Begin Full Super	-2.80%	2.80%	15	0+901.38m	End Full Super	2.20%	-2.20%	22	1+397.26m	Reverse Crown	2.00%	-2.00%	30	1+977.81m	Level Crown	0.00%	-2.00%
6	0+343.62m	End Full Super	-2.80%	2.80%	15	0+902.38m	Reverse Crown	2.00%	-2.00%	22	1+406.82m	Level Crown	0.00%	-2.00%	30	1+987.81m	Begin Normal Crown	-2.00%	-2.00%
6	0+347.34m	Reverse Crown	-2.00%	2.00%	15	0+912.38m	Level Crown	0.00%	-2.00%	22	1+416.39m	Begin Normal Crown	-2.00%	-2.00%	31	1+972.31m	End Normal Crown	-2.00%	-2.00%
6	0+356.62m	Level Crown	-2.00%	0.00%	15	0+922.38m	Begin Normal Crown	-2.00%	-2.00%	23	1+384.92m	End Normal Crown	-2.00%	-2.00%	31	1+981.91m	Level Crown	-2.00%	0.00%
6	0+365.91m	Begin Normal Crown	-2.00%	-2.00%	15	0+946.64m	End Normal Crown	-2.00%	-2.00%	23	1+394.58m	Level Crown	-2.00%	0.00%	31	1+991.51m	Reverse Crown	-2.00%	2.00%
7	0+343.10m	End Normal Crown	-2.00%	-2.00%	15	0+956.12m	Level Crown	-2.00%	0.00%	23	1+404.25m	Reverse Crown	-2.00%	2.00%	31	2+005.91m	Begin Full Super	-5.00%	5.00%
7	0+352.76m	Level Crown	0.00%	-2.00%	15	0+965.59m	Reverse Crown	-2.00%	2.00%	23	1+423.58m	Begin Full Super	-6.00%	6.00%	31	2+031.90m	End Full Super	-5.00%	5.00%
7	0+362.43m	Reverse Crown	2.00%	-2.00%	16	0+974.12m	Begin Full Super	-3.80%	3.80%	23	1+442.21m	End Full Super	-6.00%	6.00%	31	2+046.30m	Reverse Crown	-2.00%	2.00%
7	0+381.76m	Begin Full Super	6.00%	-6.00%	16	0+985.39m	End Full Super	-3.80%	3.80%	23	1+461.54m	Reverse Crown	-2.00%	2.00%	31	2+055.90m	Level Crown	-2.00%	0.00%
7	0+398.14m	End Full Super	6.00%	-6.00%	16	0+993.91m	Reverse Crown	-2.00%	2.00%	23	1+471.21m	Level Crown	-2.00%	0.00%	31	2+065.50m	Begin Normal Crown	-2.00%	-2.00%
7	0+417.48m	Reverse Crown	2.00%	-2.00%	16	1+003.39m	Level Crown	-2.00%	0.00%	23	1+480.87m	Begin Normal Crown	-2.00%	-2.00%	32	2+037.16m	End Normal Crown	-2.00%	-2.00%
7	0+427.14m	Level Crown	0.00%	-2.00%	16	1+012.86m	Begin Normal Crown	-2.00%	-2.00%	24	1+527.29m	End Normal Crown	-2.00%	-2.00%	32	2+046.53m	Level Crown	-2.00%	0.00%
7	0+436.81m	Begin Normal Crown	-2.00%	-2.00%	16	0+978.94m	End Normal Crown	-2.00%	-2.00%	24	1+537.29m	Level Crown	-2.00%	0.00%	32	2+055.91m	Reverse Crown	-2.00%	2.00%
8	0+398.48m	End Normal Crown	-2.00%	-2.00%	16	0+988.35m	Level Crown	0.00%											

Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane
33	2+110.01m	Begin Full Super	6.00%	-6.00%	41	2+585.89m	End Full Super	-3.80%	3.80%	49	2+955.14m	Reverse Crown	-2.00%	2.00%	57	3+334.45m	Level Crown	0.00%	-2.00%
33	2+119.17m	End Full Super	6.00%	-6.00%	41	2+594.41m	Reverse Crown	-2.00%	2.00%	49	2+964.78m	Level Crown	-2.00%	0.00%	57	3+344.05m	Begin Normal Crown	-2.00%	-2.00%
33	2+138.50m	Reverse Crown	2.00%	-2.00%	41	2+603.89m	Level Crown	-2.00%	0.00%	49	2+974.42m	Begin Normal Crown	-2.00%	-2.00%	58	3+328.60m	End Normal Crown	-2.00%	-2.00%
33	2+148.17m	Level Crown	0.00%	-2.00%	41	2+613.36m	Begin Normal Crown	-2.00%	-2.00%	50	2+930.59m	End Normal Crown	-2.00%	-2.00%	58	3+338.24m	Level Crown	0.00%	-2.00%
33	2+157.84m	Begin Normal Crown	-2.00%	-2.00%	42	2+586.61m	End Normal Crown	-2.00%	-2.00%	50	2+940.11m	Level Crown	-2.00%	0.00%	58	3+347.89m	Reverse Crown	2.00%	-2.00%
34	2+171.91m	End Normal Crown	-2.00%	-2.00%	42	2+596.09m	Level Crown	-2.00%	0.00%	50	2+949.64m	Reverse Crown	-2.00%	2.00%	58	3+365.24m	Begin Full Super	5.60%	-5.60%
34	2+181.28m	Level Crown	0.00%	-2.00%	42	2+605.56m	Reverse Crown	-2.00%	2.00%	50	2+950.11m	Begin Full Super	-4.20%	4.20%	58	3+392.83m	End Full Super	5.60%	-5.60%
34	2+190.66m	Reverse Crown	2.00%	-2.00%	42	2+614.09m	Begin Full Super	-3.80%	3.80%	50	2+965.47m	End Full Super	-4.20%	4.20%	58	3+410.19m	Reverse Crown	2.00%	-2.00%
34	2+196.28m	Begin Full Super	3.20%	-3.20%	42	2+617.88m	End Full Super	-3.80%	3.80%	50	2+975.95m	Reverse Crown	-2.00%	2.00%	58	3+419.83m	Level Crown	0.00%	-2.00%
34	2+232.60m	End Full Super	3.20%	-3.20%	42	2+626.40m	Reverse Crown	-2.00%	2.00%	50	2+985.47m	Level Crown	-2.00%	0.00%	58	3+429.48m	Begin Normal Crown	-2.00%	-2.00%
34	2+238.22m	Reverse Crown	2.00%	-2.00%	42	2+635.88m	Level Crown	-2.00%	0.00%	50	2+995.00m	Begin Normal Crown	-2.00%	-2.00%	59	3+397.62m	End Normal Crown	-2.00%	-2.00%
34	2+247.60m	Level Crown	0.00%	-2.00%	42	2+645.35m	Begin Normal Crown	-2.00%	-2.00%	51	2+986.56m	End Normal Crown	-2.00%	-2.00%	59	3+407.20m	Level Crown	-2.00%	0.00%
34	2+256.97m	Begin Normal Crown	-2.00%	-2.00%	43	2+602.29m	End Normal Crown	-2.00%	-2.00%	51	2+996.01m	Level Crown	-2.00%	0.00%	59	3+416.79m	Reverse Crown	-2.00%	2.00%
35	2+225.42m	End Normal Crown	-2.00%	-2.00%	43	2+611.84m	Level Crown	0.00%	-2.00%	51	3+005.45m	Reverse Crown	-2.00%	2.00%	59	3+430.20m	Begin Full Super	-4.80%	4.80%
35	2+235.08m	Level Crown	-2.00%	0.00%	43	2+621.38m	Reverse Crown	2.00%	-2.00%	51	3+013.01m	Begin Full Super	-3.60%	3.60%	59	3+490.11m	End Full Super	-4.80%	4.80%
35	2+244.75m	Reverse Crown	-2.00%	2.00%	43	2+632.84m	Begin Full Super	4.40%	-4.40%	51	3+027.89m	End Full Super	-3.60%	3.60%	59	3+503.52m	Reverse Crown	-2.00%	2.00%
35	2+264.08m	Begin Full Super	-6.00%	6.00%	43	2+645.16m	End Full Super	4.40%	-4.40%	51	3+035.45m	Reverse Crown	-2.00%	2.00%	59	3+513.11m	Level Crown	-2.00%	0.00%
35	2+266.77m	End Full Super	-6.00%	6.00%	43	2+656.62m	Reverse Crown	2.00%	-2.00%	51	3+044.89m	Level Crown	-2.00%	0.00%	59	3+522.69m	Begin Normal Crown	-2.00%	-2.00%
35	2+286.11m	Reverse Crown	-2.00%	2.00%	43	2+666.16m	Level Crown	0.00%	-2.00%	51	3+054.34m	Begin Normal Crown	-2.00%	-2.00%	60	3+521.91m	End Normal Crown	-2.00%	-2.00%
35	2+295.77m	Level Crown	-2.00%	0.00%	43	2+675.71m	Begin Normal Crown	-2.00%	-2.00%	52	3+030.42m	End Normal Crown	-2.00%	-2.00%	60	3+531.49m	Level Crown	0.00%	-2.00%
35	2+305.44m	Begin Normal Crown	-2.00%	-2.00%	44	2+643.90m	End Normal Crown	-2.00%	-2.00%	52	3+039.97m	Level Crown	-2.00%	0.00%	60	3+541.07m	Reverse Crown	2.00%	-2.00%
36	2+247.61m	End Normal Crown	-2.00%	-2.00%	44	2+653.35m	Level Crown	0.00%	-2.00%	52	3+049.52m	Reverse Crown	-2.00%	2.00%	60	3+554.49m	Begin Full Super	4.80%	-4.80%
36	2+257.27m	Level Crown	-2.00%	0.00%	44	2+662.79m	Reverse Crown	2.00%	-2.00%	52	3+060.97m	Begin Full Super	-4.40%	4.40%	60	3+586.62m	End Full Super	4.80%	-4.80%
36	2+266.94m	Reverse Crown	-2.00%	2.00%	44	2+670.35m	Begin Full Super	3.60%	-3.60%	52	3+102.18m	End Full Super	-4.40%	4.40%	60	3+600.04m	Reverse Crown	2.00%	-2.00%
36	2+286.27m	Begin Full Super	-6.00%	6.00%	44	2+673.81m	End Full Super	3.60%	-3.60%	52	3+113.63m	Reverse Crown	-2.00%	2.00%	60	3+609.62m	Level Crown	0.00%	-2.00%
36	2+287.36m	End Full Super	-6.00%	6.00%	44	2+681.36m	Reverse Crown	2.00%	-2.00%	52	3+123.18m	Level Crown	-2.00%	0.00%	60	3+619.20m	Begin Normal Crown	-2.00%	-2.00%
36	2+306.69m	Reverse Crown	-2.00%	2.00%	44	2+690.81m	Level Crown	0.00%	-2.00%	52	3+132.72m	Begin Normal Crown	-2.00%	-2.00%	61	3+573.05m	End Normal Crown	-2.00%	-2.00%
36	2+316.36m	Level Crown	-2.00%	0.00%	44	2+700.25m	Begin Normal Crown	-2.00%	-2.00%	53	3+102.39m	End Normal Crown	-2.00%	-2.00%	61	3+582.71m	Level Crown	0.00%	-2.00%
36	2+326.03m	Begin Normal Crown	-2.00%	-2.00%	45	2+670.99m	End Normal Crown	-2.00%	-2.00%	53	3+112.06m	Level Crown	0.00%	-2.00%	61	3+592.36m	Reverse Crown	2.00%	-2.00%
37	2+277.98m	End Normal Crown	-2.00%	-2.00%	45	2+680.58m	Level Crown	-2.00%	0.00%	53	3+121.73m	Reverse Crown	2.00%	-2.00%	61	3+610.71m	Begin Full Super	5.80%	-5.80%
37	2+287.45m	Level Crown	0.00%	-2.00%	45	2+690.16m	Reverse Crown	-2.00%	2.00%	53	3+141.06m	Begin Full Super	6.00%	-6.00%	61	3+621.51m	End Full Super	5.80%	-5.80%
37	2+296.92m	Reverse Crown	2.00%	-2.00%	45	2+703.58m	Begin Full Super	-4.80%	4.80%	53	3+148.99m	End Full Super	6.00%	-6.00%	61	3+639.85m	Reverse Crown	2.00%	-2.00%
37	2+305.45m	Begin Full Super	3.80%	-3.80%	45	2+722.94m	End Full Super	-4.80%	4.80%	53	3+168.32m	Reverse Crown	2.00%	-2.00%	61	3+649.51m	Level Crown	0.00%	-2.00%
37	2+342.17m	End Full Super	3.80%	-3.80%	45	2+736.36m	Reverse Crown	-2.00%	2.00%	53	3+177.99m	Level Crown	0.00%	-2.00%	61	3+659.16m	Begin Normal Crown	-2.00%	-2.00%
37	2+350.69m	Reverse Crown	2.00%	-2.00%	45	2+745.94m	Level Crown	-2.00%	0.00%	53	3+187.65m	Begin Normal Crown	-2.00%	-2.00%	62	3+619.05m	End Normal Crown	-2.00%	-2.00%
37	2+360.17m	Level Crown	0.00%	-2.00%	45	2+755.53m	Begin Normal Crown	-2.00%	-2.00%	54	3+130.98m	End Normal Crown	-2.00%	-2.00%	62	3+628.55m	Level Crown	0.00%	-2.00%
37	2+369.64m	Begin Normal Crown	-2.00%	-2.00%	46	2+741.11m	End Normal Crown	-2.00%	-2.00%	54	3+140.65m	Level Crown	0.00%	-2.00%	62	3+638.05m	Reverse Crown	2.00%	-2.00%
38	2+338.72m	End Normal Crown	-2.00%	-2.00%	46	2+750.61m	Level Crown	0.00%	-2.00%	54	3+150.32m	Reverse Crown	2.00%	-2.00%	62	3+647.55m	Begin Full Super	4.00%	-4.00%
38	2+348.19m	Level Crown	-2.00%	0.00%	46	2+760.11m	Reverse Crown	2.00%	-2.00%	54	3+169.65m	Begin Full Super	6.00%	-6.00%	62	3+658.44m	End Full Super	4.00%	-4.00%
38	2+357.66m	Reverse Crown	-2.00%	2.00%	46	2+769.61m	Begin Full Super	4.00%	-4.00%	54	3+173.47m	End Full Super	6.00%	-6.00%	62	3+667.94m	Reverse Crown	2.00%	-2.00%
38	2+366.19m	Begin Full Super	-3.80%	3.80%	46	2+777.18m	End Full Super	4.00%	-4.00%	54	3+192.80m	Reverse Crown	2.00%	-2.00%	62	3+677.44m	Level Crown	0.00%	-2.00%
38	2+394.85m	End Full Super	-3.80%	3.80%	46	2+786.68m	Reverse Crown	2.00%	-2.00%	54	3+202.47m	Level Crown	0.00%	-2.00%	62	3+686.94m	Begin Normal Crown	-2.00%	-2.00%
38	2+403.38m	Reverse Crown	-2.00%	2.00%	46	2+796.18m	Level Crown	0.00%	-2.00%	54	3+212.13m	Begin Normal Crown	-2.00%	-2.00%	63	3+648.81m	End Normal Crown	-2.00%	-2.00%
38	2+412.85m	Level Crown	-2.00%	0.00%	46	2+805.68m	Begin Normal Crown	-2.00%	-2.00%	55	3+181.93m	End Normal Crown	-2.00%	-2.00%	63	3+658.31m	Level Crown	-2.00%	0.00%
38	2+422.32m	Begin Normal Crown	-2.00%	-2.00%	47	2+778.86m	End Normal Crown	-2.00%	-2.00%	55	3+191.49m	Level Crown	-2.00%	0.00%	63	3+667.81m	Reverse Crown	-2.00%	2.00%
39	2+432.32m	End Normal Crown	-2.00%	-2.00%	47	2+788.31m	Level Crown	0.00%	-2.00%	55	3+201.06m	Reverse Crown	-2.00%	2.00%	63	3+677.31m	Begin Full Super	-4.00%	4.00%
39	2+441.82m	Level Crown	-2.00%	0.00%	47	2+797.75m	Reverse Crown	2.00%	-2.00%	55	3+213.49m	Begin Full Super	-4.60%	4.60%	63	3+691.10m	End Full Super	-4.00%	4.00%
39	2+451.32m	Reverse Crown	-2.00%	2.00%	47	2+805.31m	Begin Full Super	3.60%	-3.60%	55	3+220.80m	End Full Super	-4.60%	4.60%	63	3+700.60m	Reverse Crown	-2.00%	2.00%
39	2+460.82m	Begin Full Super	-4.00%	4.00%	47	2+812.31m	End Full Super	3.60%	-3.60%	55	3+233.24m	Reverse Crown	-2.00%	2.00%	63	3+710.10m	Level Crown	-2.00%	0.00%
39	2+493.25m	End Full Super	-4.00%	4.00%	47	2+819.87m	Reverse Crown	2.00%	-2.00%	55	3+242.80m	Level Crown	-2.00%	0.00%	63	3+719.60m	Begin Normal Crown	-2.00%	-2.00%
39	2+502.75m	Reverse Crown	-2.00%	2.00%	47	2+829.31m	Level Crown	0.00%	-2.00%	55	3+252.37m	Begin Normal Crown	-2.00%	-2.00%	64	3+702.46m	End Normal Crown	-2.00%	-2.00%
39	2+512.25m	Level Crown	-2.00%	0.00%	47	2+838.75m	Begin Normal Crown	-2.00%	-2.00%	56	3+220.19m	End Normal Crown	-2.00%	-2.00%	64	3+712.01m	Level Crown	0.00%	-2.00%
39	2+521.75m	Begin Normal Crown	-2.00%	-2.00%	48	2+806.95m	End Normal Crown	-2.00%	-2.00%	56	3+229.69m	Level Crown	-2.00%	0.00%	64	3+721.55m	Reverse Crown	2.00%	-2.00%
40	2+484.84m	End Normal Crown	-2.00%	-2.00%	48	2+816.95m	Level Crown	0.00%	-2.00%	56	3+239.19m	Reverse Crown	-2.00%	2.00%	64	3+733.01m	Begin Full Super	4.40%	-4.40%
40	2+494.34m	Level Crown	0.00%	-2.00%	48	2+826.95m	Reverse Crown	2.00%	-2.00%	56	3+248.69m	Begin Full Super	-4.00%	4.00%	64	3+760.04m	End Full Super	4.40%	-4.40%
40	2+503.84m	Reverse Crown	2.00%	-2.00%	48	2+828.95m	Begin Full Super	2.40%	-2.40%	56	3+269.86m	End Full Super	-4.00%	4.00%	64	3+771.49m	Reverse Crown	2.00%	-2.00%
40	2+513.34m	Begin Full Super	-4.00%	-4.00%	48	2+835.04m	End Full Super	2.40%	-2.40%	56	3+279.36m	Reverse Crown	-2.00%	2.00%	64	3+781.04m	Level Crown	0.00%	-2.00%
40	2+529.91m	End Full Super	4.00%	-4.00%	48	2+837.04m	Reverse Crown	2.00%	-2.00%	56	3+288.86m	Level Crown	-2.00%	0.00%	64	3+790.58m	Begin Normal Crown	-2.00%	-2.00%
40	2+539.41m	Reverse Crown	2.00%	-2.00%	48	2+847.04m	Level Crown	0.00%	-2.00%	56	3+298.36m	Begin Normal Crown	-2.00%	-2.00%	65	3+741.54m	End Normal Crown	-2.00%	-2.00%
40	2+548.91m	Level Crown	0.00%	-2.00%	48	2+857.04m	Begin Normal Crown	-2.00%	-2.00%	57	3+255.02m	End Normal Crown	-2.00%	-2.00%	65	3+751.21m	Level Crown	-2.00%	0.00%
40	2+558.41m	Begin Normal Crown	-2.00%	-2.00%	49	2+898.07m	End Normal Crown	-2.00%	-2.00%	57	3+264.62m	Level Crown	0.00%	-2.00%	65	3+760.87m	Reverse Crown	-2.00%	2.00%
41	2+536.80m	End Normal Crown	-2.00%	-2.00%	49	2+907.71m	Level Crown	-2.00%	0.00%	57	3+274.22m	Reverse Crown	2.00%	-2.00%	65	3+780.21m	Begin Full Super	-6.00%	6.00%
41	2+546.27m	Level Crown	-2.00%	0.00%	49	2+917.36m	Reverse Crown	-2.00%	2.00%	57	3+288.62m	Begin Full Super	5.00%	-5.00%	65	3+789.66m	End Full Super	-6.00%	6.00%
41	2+555.75m	Reverse Crown	-2.00%	2.00%	49	2+934.71m	Begin Full Super	-5.60%	5.60%	57	3+310.45m	End Full Super	5.00%	-					

Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane
65	3+828.33m	Begin Normal Crown	-2.00%	-2.00%	74	4+126.69m	End Normal Crown	-2.00%	-2.00%	82	4+524.46m	Level Crown	0.00%	-2.00%	90	4+887.60m	Reverse Crown	-2.00%	2.00%
66	3+786.54m	End Normal Crown	-2.00%	-2.00%	74	4+136.36m	Level Crown	-2.00%	0.00%	82	4+534.02m	Reverse Crown	2.00%	-2.00%	90	4+903.97m	Begin Full Super	-5.40%	5.40%
66	3+796.20m	Level Crown	-2.00%	0.00%	74	4+146.02m	Reverse Crown	-2.00%	2.00%	82	4+546.46m	Begin Full Super	4.60%	-4.60%	90	4+907.11m	End Full Super	-5.40%	5.40%
66	3+805.87m	Reverse Crown	-2.00%	2.00%	74	4+162.06m	End Full Super	-6.00%	6.00%	82	4+567.97m	End Full Super	4.60%	-4.60%	90	4+923.48m	Reverse Crown	-2.00%	2.00%
66	3+825.20m	Begin Full Super	-6.00%	6.00%	74	4+165.36m	Begin Full Super	-6.00%	6.00%	82	4+580.41m	Reverse Crown	2.00%	-2.00%	90	4+933.11m	Level Crown	-2.00%	0.00%
66	3+853.05m	End Full Super	-6.00%	6.00%	74	4+181.39m	Reverse Crown	-2.00%	2.00%	82	4+589.97m	Level Crown	0.00%	-2.00%	90	4+942.74m	Begin Normal Crown	-2.00%	-2.00%
66	3+872.39m	Reverse Crown	-2.00%	2.00%	74	4+191.06m	Level Crown	-2.00%	0.00%	82	4+599.54m	Begin Normal Crown	-2.00%	-2.00%	91	4+979.15m	End Normal Crown	-2.00%	-2.00%
66	3+882.05m	Level Crown	-2.00%	0.00%	74	4+200.72m	Begin Normal Crown	-2.00%	-2.00%	83	4+572.81m	End Normal Crown	-2.00%	-2.00%	91	4+988.77m	Level Crown	0.00%	-2.00%
66	3+891.72m	Begin Normal Crown	-2.00%	-2.00%	75	4+142.72m	End Normal Crown	-2.00%	-2.00%	83	4+582.46m	Level Crown	0.00%	-2.00%	91	4+998.38m	Reverse Crown	2.00%	-2.00%
67	3+843.59m	End Normal Crown	-2.00%	-2.00%	75	4+152.39m	Level Crown	-2.00%	0.00%	83	4+592.10m	Reverse Crown	2.00%	-2.00%	91	5+013.77m	Begin Full Super	5.20%	-5.20%
67	3+853.25m	Level Crown	0.00%	-2.00%	75	4+162.06m	Reverse Crown	-2.00%	2.00%	83	4+609.46m	Begin Full Super	5.60%	-5.60%	91	5+028.88m	End Full Super	5.20%	-5.20%
67	3+862.92m	Reverse Crown	2.00%	-2.00%	75	4+178.53m	End Full Super	-6.00%	6.00%	83	4+615.43m	End Full Super	5.60%	-5.60%	91	5+044.26m	Reverse Crown	2.00%	-2.00%
67	3+882.25m	Begin Full Super	6.00%	-6.00%	75	4+181.39m	Begin Full Super	-6.00%	6.00%	83	4+632.78m	Reverse Crown	2.00%	-2.00%	91	5+053.88m	Level Crown	0.00%	-2.00%
67	3+889.99m	End Full Super	6.00%	-6.00%	75	4+197.86m	Reverse Crown	-2.00%	2.00%	83	4+642.43m	Level Crown	0.00%	-2.00%	91	5+063.49m	Begin Normal Crown	-2.00%	-2.00%
67	3+909.33m	Reverse Crown	2.00%	-2.00%	75	4+207.53m	Level Crown	-2.00%	0.00%	83	4+652.07m	Begin Normal Crown	-2.00%	-2.00%	92	5+026.19m	End Normal Crown	-2.00%	-2.00%
67	3+918.99m	Level Crown	0.00%	-2.00%	75	4+217.20m	Begin Normal Crown	-2.00%	-2.00%	84	4+608.25m	End Normal Crown	-2.00%	-2.00%	92	5+035.83m	Level Crown	0.00%	-2.00%
67	3+928.66m	Begin Normal Crown	-2.00%	-2.00%	76	4+203.03m	End Normal Crown	-2.00%	-2.00%	84	4+617.72m	Level Crown	-2.00%	0.00%	92	5+045.48m	Reverse Crown	2.00%	-2.00%
68	3+888.90m	End Normal Crown	-2.00%	-2.00%	76	4+212.44m	Level Crown	0.00%	-2.00%	84	4+627.19m	Reverse Crown	-2.00%	2.00%	92	5+062.83m	Begin Full Super	5.60%	-5.60%
68	3+898.45m	Level Crown	0.00%	-2.00%	76	4+221.85m	Reverse Crown	2.00%	-2.00%	84	4+635.72m	Begin Full Super	-3.80%	3.80%	92	5+098.42m	End Full Super	5.60%	-5.60%
68	3+907.99m	Reverse Crown	2.00%	-2.00%	76	4+228.44m	Begin Full Super	3.40%	-3.40%	84	4+638.96m	End Full Super	-3.80%	3.80%	92	5+115.77m	Reverse Crown	2.00%	-2.00%
68	3+919.45m	Begin Full Super	4.40%	-4.40%	76	4+241.53m	End Full Super	3.40%	-3.40%	84	4+647.49m	Reverse Crown	-2.00%	2.00%	92	5+125.42m	Level Crown	0.00%	-2.00%
68	3+925.10m	End Full Super	4.40%	-4.40%	76	4+248.12m	Reverse Crown	2.00%	-2.00%	84	4+656.96m	Level Crown	-2.00%	0.00%	92	5+135.06m	Begin Normal Crown	-2.00%	-2.00%
68	3+936.55m	Reverse Crown	2.00%	-2.00%	76	4+257.53m	Level Crown	0.00%	-2.00%	84	4+666.44m	Begin Normal Crown	-2.00%	-2.00%	93	5+082.73m	End Normal Crown	-2.00%	-2.00%
68	3+946.10m	Level Crown	0.00%	-2.00%	76	4+266.94m	Begin Normal Crown	-2.00%	-2.00%	85	4+623.04m	End Normal Crown	-2.00%	-2.00%	93	5+092.40m	Level Crown	-2.00%	0.00%
68	3+955.64m	Begin Normal Crown	-2.00%	-2.00%	77	4+248.09m	End Normal Crown	-2.00%	-2.00%	85	4+632.59m	Level Crown	0.00%	-2.00%	93	5+102.07m	Reverse Crown	-2.00%	2.00%
69	3+925.53m	End Normal Crown	-2.00%	-2.00%	77	4+257.38m	Level Crown	-2.00%	0.00%	85	4+642.13m	Reverse Crown	2.00%	-2.00%	93	5+121.40m	Begin Full Super	-6.00%	6.00%
69	3+934.98m	Level Crown	-2.00%	0.00%	77	4+266.66m	Reverse Crown	-2.00%	2.00%	85	4+653.59m	Begin Full Super	4.40%	-4.40%	93	5+126.05m	End Full Super	-6.00%	6.00%
69	3+944.42m	Reverse Crown	-2.00%	2.00%	77	4+270.38m	Begin Full Super	-2.80%	2.80%	85	4+668.15m	End Full Super	4.40%	-4.40%	93	5+145.39m	Reverse Crown	-2.00%	2.00%
69	3+951.98m	Begin Full Super	-3.60%	3.60%	77	4+293.94m	End Full Super	-2.80%	2.80%	85	4+679.60m	Reverse Crown	2.00%	-2.00%	93	5+155.05m	Level Crown	-2.00%	0.00%
69	3+963.98m	End Full Super	-3.60%	3.60%	77	4+297.65m	Reverse Crown	-2.00%	2.00%	85	4+689.15m	Level Crown	0.00%	-2.00%	93	5+164.72m	Begin Normal Crown	-2.00%	-2.00%
69	3+971.54m	Reverse Crown	-2.00%	2.00%	77	4+306.94m	Level Crown	-2.00%	0.00%	85	4+698.69m	Begin Normal Crown	-2.00%	-2.00%	94	5+111.22m	End Normal Crown	-2.00%	-2.00%
69	3+980.98m	Level Crown	-2.00%	0.00%	77	4+316.23m	Begin Normal Crown	-2.00%	-2.00%	86	4+676.26m	End Normal Crown	-2.00%	-2.00%	94	5+120.82m	Level Crown	-2.00%	0.00%
69	3+990.43m	Begin Normal Crown	-2.00%	-2.00%	78	4+277.93m	End Normal Crown	-2.00%	-2.00%	86	4+685.76m	Level Crown	-2.00%	0.00%	94	5+130.42m	Reverse Crown	-2.00%	2.00%
70	3+980.11m	End Normal Crown	-2.00%	-2.00%	78	4+287.60m	Level Crown	0.00%	-2.00%	86	4+695.26m	Reverse Crown	-2.00%	2.00%	94	5+144.82m	Begin Full Super	-5.00%	5.00%
70	3+990.11m	Level Crown	-2.00%	0.00%	78	4+297.27m	Reverse Crown	2.00%	-2.00%	86	4+704.76m	Begin Full Super	-4.00%	4.00%	94	5+159.88m	End Full Super	-5.00%	5.00%
70	4+000.11m	Reverse Crown	-2.00%	2.00%	78	4+315.94m	End Full Super	6.00%	-6.00%	86	4+721.35m	End Full Super	-4.00%	4.00%	94	5+174.28m	Reverse Crown	-2.00%	2.00%
70	4+002.11m	Begin Full Super	-2.40%	2.40%	78	4+316.60m	Begin Full Super	6.00%	-6.00%	86	4+730.85m	Reverse Crown	-2.00%	2.00%	94	5+183.88m	Level Crown	-2.00%	0.00%
70	4+016.59m	End Full Super	-2.40%	2.40%	78	4+335.28m	Reverse Crown	2.00%	-2.00%	86	4+740.35m	Level Crown	-2.00%	0.00%	94	5+193.48m	Begin Normal Crown	-2.00%	-2.00%
70	4+018.59m	Reverse Crown	-2.00%	2.00%	78	4+344.94m	Level Crown	0.00%	-2.00%	86	4+749.85m	Begin Normal Crown	-2.00%	-2.00%	95	5+201.08m	End Normal Crown	-2.00%	-2.00%
70	4+028.59m	Level Crown	-2.00%	0.00%	78	4+354.61m	Begin Normal Crown	-2.00%	-2.00%	87	4+719.51m	End Normal Crown	-2.00%	-2.00%	95	5+210.69m	Level Crown	-2.00%	0.00%
70	4+038.59m	Begin Normal Crown	-2.00%	-2.00%	79	4+297.89m	End Normal Crown	-2.00%	-2.00%	87	4+729.11m	Level Crown	-2.00%	0.00%	95	5+220.31m	Reverse Crown	-2.00%	2.00%
71	4+029.49m	End Normal Crown	-2.00%	-2.00%	79	4+307.55m	Level Crown	0.00%	-2.00%	87	4+738.71m	Reverse Crown	-2.00%	2.00%	95	5+235.69m	Begin Full Super	-5.20%	5.20%
71	4+039.01m	Level Crown	0.00%	-2.00%	79	4+317.22m	Reverse Crown	2.00%	-2.00%	87	4+753.11m	Begin Full Super	-5.00%	5.00%	95	5+259.26m	End Full Super	-5.20%	5.20%
71	4+048.54m	Reverse Crown	2.00%	-2.00%	79	4+332.47m	End Full Super	6.00%	-6.00%	87	4+764.25m	End Full Super	-5.00%	5.00%	95	5+274.64m	Reverse Crown	-2.00%	2.00%
71	4+059.01m	Begin Full Super	4.20%	-4.20%	79	4+336.55m	Begin Full Super	6.00%	-6.00%	87	4+778.65m	Reverse Crown	-2.00%	2.00%	95	5+284.26m	Level Crown	-2.00%	0.00%
71	4+084.57m	End Full Super	4.20%	-4.20%	79	4+351.80m	Reverse Crown	2.00%	-2.00%	87	4+788.25m	Level Crown	-2.00%	0.00%	95	5+293.87m	Begin Normal Crown	-2.00%	-2.00%
71	4+095.04m	Reverse Crown	2.00%	-2.00%	79	4+361.47m	Level Crown	0.00%	-2.00%	87	4+797.85m	Begin Normal Crown	-2.00%	-2.00%	96	5+251.43m	End Normal Crown	-2.00%	-2.00%
71	4+104.57m	Level Crown	0.00%	-2.00%	79	4+371.14m	Begin Normal Crown	-2.00%	-2.00%	88	4+775.37m	End Normal Crown	-2.00%	-2.00%	96	5+261.01m	Level Crown	-2.00%	0.00%
71	4+114.09m	Begin Normal Crown	-2.00%	-2.00%	80	4+371.77m	End Normal Crown	-2.00%	-2.00%	88	4+784.78m	Level Crown	0.00%	-2.00%	96	5+270.60m	Reverse Crown	-2.00%	2.00%
72	4+069.89m	End Normal Crown	-2.00%	-2.00%	80	4+381.34m	Level Crown	-2.00%	0.00%	88	4+794.20m	Reverse Crown	2.00%	-2.00%	96	5+284.01m	Begin Full Super	-4.80%	4.80%
72	4+079.53m	Level Crown	-2.00%	0.00%	80	4+390.90m	Reverse Crown	-2.00%	2.00%	88	4+800.78m	Begin Full Super	3.40%	-3.40%	96	5+286.98m	End Full Super	-4.80%	4.80%
72	4+089.17m	Reverse Crown	-2.00%	2.00%	80	4+403.34m	Begin Full Super	-4.60%	4.60%	88	4+812.57m	End Full Super	3.40%	-3.40%	96	5+300.39m	Reverse Crown	-2.00%	2.00%
72	4+105.29m	End Full Super	-5.60%	5.60%	80	4+427.13m	End Full Super	-4.60%	4.60%	88	4+819.15m	Reverse Crown	2.00%	-2.00%	96	5+309.98m	Level Crown	-2.00%	0.00%
72	4+106.53m	Begin Full Super	-5.60%	5.60%	80	4+439.56m	Reverse Crown	-2.00%	2.00%	88	4+828.57m	Level Crown	0.00%	-2.00%	96	5+319.56m	Begin Normal Crown	-2.00%	-2.00%
72	4+122.65m	Reverse Crown	-2.00%	2.00%	80	4+449.13m	Level Crown	-2.00%	0.00%	88	4+837.98m	Begin Normal Crown	-2.00%	-2.00%	97	5+279.83m	End Normal Crown	-2.00%	-2.00%
72	4+132.29m	Level Crown	-2.00%	0.00%	80	4+458.69m	Begin Normal Crown	-2.00%	-2.00%	89	4+821.75m	End Normal Crown	-2.00%	-2.00%	97	5+289.33m	Level Crown	0.00%	-2.00%
72	4+141.93m	Begin Normal Crown	-2.00%	-2.00%	81	4+428.16m	End Normal Crown	-2.00%	-2.00%	89	4+831.34m	Level Crown	0.00%	-2.00%	97	5+298.83m	Reverse Crown	2.00%	-2.00%
73	4+102.56m	End Normal Crown	-2.00%	-2.00%	81	4+437.50m	Level Crown	-2.00%	0.00%	89	4+840.92m	Reverse Crown	2.00%	-2.00%	97	5+308.33m	Begin Full Super	4.00%	-4.00%
73	4+112.04m	Level Crown	0.00%	-2.00%	81	4+446.83m	Reverse Crown	-2.00%	2.00%	89	4+854.34m	Begin Full Super	4.80%	-4.80%	97	5+332.02m	End Full Super	4.00%	-4.00%
73	4+121.51m	Reverse Crown	2.00%	-2.00%	81	4+451.50m	Begin Full Super	-3.00%	3.00%	89	4+877.38m	End Full Super	4.80%	-4.80%	97	5+341.52m	Reverse Crown	2.00%	-2.00%
73	4+130.04m	Begin Full Super	3.80%	-3.80%	81	4+478.73m	End Full Super	-3.00%	3.00%	89	4+890.80m	Reverse Crown	2.00%	-2.00%	97	5+351.02m	Level Crown	0.00%	-2.00%
73	4+140.12m	End Full Super	3.80%	-3.80%	81	4+483.40m	Reverse Crown	-2.00%	2.00%	89	4+900.38m	Level Crown	0.00%	-2.00%	97	5+360.52m	Begin Normal Crown	-2.00%	-2.00%
73	4+148.65m	Reverse Crown	2.00%	-2.00%	81	4+492.73m	Level Crown	-2.00%	0.00%	89	4+909.97m	Begin Normal Crown	-2.00%	-2.00%	98	5+332.71m	End Normal Crown	-2.00%	-2.00%
73	4+158.12m	Level Crown	0.00%	-2.00%	81	4+502.06m	Begin Normal Crown	-2.00%	-2.00%	90	4+868.34m	End Normal Crown	-2.00%	-					

Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane
98	5+361.21m	Begin Full Super	4.00%	-4.00%	106	5+718.50m	Begin Full Super	-6.00%	6.00%	114	6+090.27m	Reverse Crown	2.00%	-2.00%	122	6+478.28m	Level Crown	-2.00%	0.00%
98	5+387.26m	End Full Super	4.00%	-4.00%	106	5+737.14m	Reverse Crown	-2.00%	2.00%	114	6+099.69m	Level Crown	0.00%	-2.00%	122	6+488.28m	Begin Normal Crown	-2.00%	-2.00%
98	5+396.76m	Reverse Crown	2.00%	-2.00%	106	5+746.81m	Level Crown	-2.00%	0.00%	114	6+109.10m	Begin Normal Crown	-2.00%	-2.00%	123	6+487.52m	End Normal Crown	-2.00%	-2.00%
98	5+406.26m	Level Crown	0.00%	-2.00%	106	5+756.47m	Begin Normal Crown	-2.00%	-2.00%	115	6+096.45m	End Normal Crown	-2.00%	-2.00%	123	6+497.09m	Level Crown	0.00%	-2.00%
98	5+415.76m	Begin Normal Crown	-2.00%	-2.00%	107	5+698.70m	End Normal Crown	-2.00%	-2.00%	115	6+106.45m	Level Crown	0.00%	-2.00%	123	6+506.66m	Reverse Crown	2.00%	-2.00%
99	5+403.86m	End Normal Crown	-2.00%	-2.00%	107	5+708.36m	Level Crown	-2.00%	0.00%	115	6+116.45m	Begin Full Super	2.00%	-2.00%	123	6+519.09m	Begin Full Super	4.60%	-4.60%
99	5+413.49m	Level Crown	0.00%	-2.00%	107	5+718.03m	Reverse Crown	-2.00%	2.00%	115	6+116.45m	Reverse Crown	2.00%	-2.00%	123	6+543.27m	End Full Super	4.60%	-4.60%
99	5+423.12m	Reverse Crown	2.00%	-2.00%	107	5+735.69m	End Full Super	-6.00%	6.00%	115	6+135.51m	End Full Super	2.00%	-2.00%	123	6+555.70m	Reverse Crown	2.00%	-2.00%
99	5+432.13m	End Full Super	5.40%	-5.40%	107	5+737.36m	Begin Full Super	-6.00%	6.00%	115	6+135.51m	Reverse Crown	2.00%	-2.00%	123	6+565.27m	Level Crown	0.00%	-2.00%
99	5+439.49m	Begin Full Super	5.40%	-5.40%	107	5+755.02m	Reverse Crown	-2.00%	2.00%	115	6+145.51m	Level Crown	0.00%	-2.00%	123	6+574.83m	Begin Normal Crown	-2.00%	-2.00%
99	5+448.50m	Reverse Crown	2.00%	-2.00%	107	5+764.69m	Level Crown	-2.00%	0.00%	115	6+155.51m	Begin Normal Crown	-2.00%	-2.00%	124	6+551.04m	End Normal Crown	-2.00%	-2.00%
99	5+458.13m	Level Crown	0.00%	-2.00%	107	5+774.36m	Begin Normal Crown	-2.00%	-2.00%	116	6+152.71m	End Normal Crown	-2.00%	-2.00%	124	6+560.52m	Level Crown	-2.00%	0.00%
99	5+467.76m	Begin Normal Crown	-2.00%	-2.00%	108	5+730.72m	End Normal Crown	-2.00%	-2.00%	116	6+162.18m	Level Crown	0.00%	-2.00%	124	6+569.99m	Reverse Crown	-2.00%	2.00%
100	5+413.03m	End Normal Crown	-2.00%	-2.00%	108	5+740.09m	Level Crown	0.00%	-2.00%	116	6+171.66m	Reverse Crown	2.00%	-2.00%	124	6+578.52m	Begin Full Super	-3.80%	3.80%
100	5+422.70m	Level Crown	0.00%	-2.00%	108	5+749.47m	Reverse Crown	2.00%	-2.00%	116	6+180.18m	Begin Full Super	3.80%	-3.80%	124	6+619.84m	End Full Super	-3.80%	3.80%
100	5+432.37m	Reverse Crown	2.00%	-2.00%	108	5+755.09m	Begin Full Super	3.20%	-3.20%	116	6+193.20m	End Full Super	3.80%	-3.80%	124	6+628.37m	Reverse Crown	-2.00%	2.00%
100	5+451.70m	Begin Full Super	6.00%	-6.00%	108	5+766.13m	End Full Super	3.20%	-3.20%	116	6+201.73m	Reverse Crown	2.00%	-2.00%	124	6+637.84m	Level Crown	-2.00%	0.00%
100	5+465.38m	End Full Super	6.00%	-6.00%	108	5+771.75m	Reverse Crown	2.00%	-2.00%	116	6+211.20m	Level Crown	0.00%	-2.00%	124	6+647.32m	Begin Normal Crown	-2.00%	-2.00%
100	5+484.71m	Reverse Crown	2.00%	-2.00%	108	5+781.13m	Level Crown	0.00%	-2.00%	116	6+220.67m	Begin Normal Crown	-2.00%	-2.00%	125	6+620.83m	End Normal Crown	-2.00%	-2.00%
100	5+494.38m	Level Crown	0.00%	-2.00%	108	5+790.50m	Begin Normal Crown	-2.00%	-2.00%	117	6+176.75m	End Normal Crown	-2.00%	-2.00%	125	6+630.83m	Level Crown	0.00%	-2.00%
100	5+504.04m	Begin Normal Crown	-2.00%	-2.00%	109	5+773.31m	End Normal Crown	-2.00%	-2.00%	117	6+186.42m	Level Crown	-2.00%	0.00%	125	6+640.83m	Reverse Crown	2.00%	-2.00%
101	5+483.60m	End Normal Crown	-2.00%	-2.00%	109	5+782.76m	Level Crown	0.00%	-2.00%	117	6+196.09m	Reverse Crown	-2.00%	2.00%	125	6+641.83m	Begin Full Super	2.20%	-2.20%
101	5+493.17m	Level Crown	0.00%	-2.00%	109	5+792.20m	Reverse Crown	2.00%	-2.00%	117	6+215.42m	Begin Full Super	-6.00%	6.00%	125	6+669.53m	End Full Super	2.20%	-2.20%
101	5+502.74m	Reverse Crown	2.00%	-2.00%	109	5+799.76m	Begin Full Super	3.60%	-3.60%	117	6+223.37m	End Full Super	-6.00%	6.00%	125	6+670.53m	Reverse Crown	2.00%	-2.00%
101	5+515.17m	Begin Full Super	4.60%	-4.60%	109	5+819.35m	End Full Super	3.60%	-3.60%	117	6+242.70m	Reverse Crown	-2.00%	2.00%	125	6+680.53m	Level Crown	0.00%	-2.00%
101	5+526.47m	End Full Super	4.60%	-4.60%	109	5+826.90m	Reverse Crown	2.00%	-2.00%	117	6+252.37m	Level Crown	-2.00%	0.00%	125	6+690.53m	Begin Normal Crown	-2.00%	-2.00%
101	5+538.91m	Reverse Crown	2.00%	-2.00%	109	5+836.35m	Level Crown	0.00%	-2.00%	117	6+262.04m	Begin Normal Crown	-2.00%	-2.00%	126	6+661.09m	End Normal Crown	-2.00%	-2.00%
101	5+548.47m	Level Crown	0.00%	-2.00%	109	5+845.79m	Begin Normal Crown	-2.00%	-2.00%	118	6+204.20m	End Normal Crown	-2.00%	-2.00%	126	6+670.76m	Level Crown	-2.00%	0.00%
101	5+558.04m	Begin Normal Crown	-2.00%	-2.00%	110	5+813.98m	End Normal Crown	-2.00%	-2.00%	118	6+213.87m	Level Crown	-2.00%	0.00%	126	6+680.42m	Reverse Crown	-2.00%	2.00%
102	5+510.43m	End Normal Crown	-2.00%	-2.00%	110	5+823.60m	Level Crown	-2.00%	0.00%	118	6+223.54m	Reverse Crown	-2.00%	2.00%	126	6+699.76m	Begin Full Super	-6.00%	6.00%
102	5+520.07m	Level Crown	-2.00%	0.00%	110	5+833.21m	Reverse Crown	-2.00%	2.00%	118	6+241.45m	End Full Super	-6.00%	6.00%	126	6+717.46m	End Full Super	-6.00%	6.00%
102	5+529.72m	Reverse Crown	-2.00%	2.00%	110	5+848.60m	Begin Full Super	-5.20%	5.20%	118	6+242.87m	Begin Full Super	-6.00%	6.00%	126	6+736.79m	Reverse Crown	-2.00%	2.00%
102	5+543.90m	End Full Super	-5.60%	5.60%	110	5+857.58m	End Full Super	-5.20%	5.20%	118	6+260.79m	Reverse Crown	-2.00%	2.00%	126	6+746.46m	Level Crown	-2.00%	0.00%
102	5+547.07m	Begin Full Super	-5.60%	5.60%	110	5+872.96m	Reverse Crown	-2.00%	2.00%	118	6+270.45m	Level Crown	-2.00%	0.00%	126	6+756.12m	Begin Normal Crown	-2.00%	-2.00%
102	5+561.26m	Reverse Crown	-2.00%	2.00%	110	5+882.58m	Level Crown	-2.00%	0.00%	118	6+280.12m	Begin Normal Crown	-2.00%	-2.00%	127	6+701.62m	End Normal Crown	-2.00%	-2.00%
102	5+570.90m	Level Crown	-2.00%	0.00%	110	5+892.19m	Begin Normal Crown	-2.00%	-2.00%	119	6+270.52m	End Normal Crown	-2.00%	-2.00%	127	6+711.29m	Level Crown	0.00%	-2.00%
102	5+580.54m	Begin Normal Crown	-2.00%	-2.00%	111	5+860.43m	End Normal Crown	-2.00%	-2.00%	119	6+280.52m	Level Crown	-2.00%	0.00%	127	6+720.96m	Reverse Crown	2.00%	-2.00%
103	5+531.95m	End Normal Crown	-2.00%	-2.00%	111	5+870.05m	Level Crown	0.00%	-2.00%	119	6+290.52m	Reverse Crown	-2.00%	2.00%	127	6+738.21m	End Full Super	6.00%	-6.00%
103	5+541.49m	Level Crown	-2.00%	0.00%	111	5+879.67m	Reverse Crown	2.00%	-2.00%	119	6+291.52m	Begin Full Super	-2.20%	2.20%	127	6+740.29m	Begin Full Super	6.00%	-6.00%
103	5+551.04m	Reverse Crown	-2.00%	2.00%	111	5+895.05m	Begin Full Super	5.20%	-5.20%	119	6+300.02m	End Full Super	-2.20%	2.20%	127	6+757.54m	Reverse Crown	2.00%	-2.00%
103	5+562.49m	Begin Full Super	-4.40%	4.40%	111	5+913.07m	End Full Super	5.20%	-5.20%	119	6+301.02m	Reverse Crown	-2.00%	2.00%	127	6+767.21m	Level Crown	0.00%	-2.00%
103	5+596.71m	End Full Super	-4.40%	4.40%	111	5+928.45m	Reverse Crown	2.00%	-2.00%	119	6+311.02m	Level Crown	-2.00%	0.00%	127	6+776.87m	Begin Normal Crown	-2.00%	-2.00%
103	5+608.16m	Reverse Crown	-2.00%	2.00%	111	5+938.07m	Level Crown	0.00%	-2.00%	119	6+321.02m	Begin Normal Crown	-2.00%	-2.00%	128	6+739.63m	End Normal Crown	-2.00%	-2.00%
103	5+617.71m	Level Crown	-2.00%	0.00%	111	5+947.68m	Begin Normal Crown	-2.00%	-2.00%	120	6+294.25m	End Normal Crown	-2.00%	-2.00%	128	6+749.18m	Level Crown	-2.00%	0.00%
103	5+627.25m	Begin Normal Crown	-2.00%	-2.00%	112	5+947.21m	End Normal Crown	-2.00%	-2.00%	120	6+303.92m	Level Crown	0.00%	-2.00%	128	6+758.72m	Reverse Crown	-2.00%	2.00%
104	5+596.65m	End Normal Crown	-2.00%	-2.00%	112	5+956.80m	Level Crown	0.00%	-2.00%	120	6+313.58m	Reverse Crown	2.00%	-2.00%	128	6+770.18m	Begin Full Super	-4.40%	4.40%
104	5+606.23m	Level Crown	0.00%	-2.00%	112	5+966.38m	Reverse Crown	2.00%	-2.00%	120	6+332.92m	Begin Full Super	6.00%	-6.00%	128	6+772.77m	End Full Super	-4.40%	4.40%
104	5+615.82m	Reverse Crown	2.00%	-2.00%	112	5+979.80m	Begin Full Super	4.80%	-4.80%	120	6+352.80m	End Full Super	6.00%	-6.00%	128	6+784.22m	Reverse Crown	-2.00%	2.00%
104	5+629.23m	Begin Full Super	4.80%	-4.80%	112	5+987.67m	End Full Super	4.80%	-4.80%	120	6+372.13m	Reverse Crown	2.00%	-2.00%	128	6+793.77m	Level Crown	-2.00%	0.00%
104	5+645.23m	End Full Super	4.80%	-4.80%	112	6+001.08m	Reverse Crown	2.00%	-2.00%	120	6+381.80m	Level Crown	0.00%	-2.00%	128	6+803.31m	Begin Normal Crown	-2.00%	-2.00%
104	5+658.64m	Reverse Crown	2.00%	-2.00%	112	6+010.67m	Level Crown	0.00%	-2.00%	120	6+391.47m	Begin Normal Crown	-2.00%	-2.00%	129	6+753.98m	End Normal Crown	-2.00%	-2.00%
104	5+668.23m	Level Crown	0.00%	-2.00%	112	6+020.25m	Begin Normal Crown	-2.00%	-2.00%	121	6+353.59m	End Normal Crown	-2.00%	-2.00%	129	6+763.62m	Level Crown	0.00%	-2.00%
104	5+677.81m	Begin Normal Crown	-2.00%	-2.00%	113	5+983.38m	End Normal Crown	-2.00%	-2.00%	121	6+363.59m	Level Crown	0.00%	-2.00%	129	6+773.27m	Reverse Crown	2.00%	-2.00%
105	5+646.81m	End Normal Crown	-2.00%	-2.00%	113	5+992.92m	Level Crown	-2.00%	0.00%	121	6+373.59m	Begin Full Super	2.00%	-2.00%	129	6+790.62m	Begin Full Super	5.60%	-5.60%
105	5+656.26m	Level Crown	0.00%	-2.00%	113	6+002.47m	Reverse Crown	-2.00%	2.00%	121	6+373.59m	Reverse Crown	2.00%	-2.00%	129	6+795.41m	End Full Super	5.60%	-5.60%
105	5+665.70m	Reverse Crown	2.00%	-2.00%	113	6+013.92m	Begin Full Super	-4.40%	4.40%	121	6+393.12m	End Full Super	2.00%	-2.00%	129	6+812.76m	Reverse Crown	2.00%	-2.00%
105	5+673.26m	Begin Full Super	3.60%	-3.60%	113	6+027.95m	End Full Super	-4.40%	4.40%	121	6+393.12m	Reverse Crown	2.00%	-2.00%	129	6+822.41m	Level Crown	0.00%	-2.00%
105	5+685.90m	End Full Super	3.60%	-3.60%	113	6+039.40m	Reverse Crown	-2.00%	2.00%	121	6+403.12m	Level Crown	0.00%	-2.00%	129	6+832.05m	Begin Normal Crown	-2.00%	-2.00%
105	5+693.46m	Reverse Crown	2.00%	-2.00%	113	6+048.95m	Level Crown	-2.00%	0.00%	121	6+413.12m	Begin Normal Crown	-2.00%	-2.00%	130	6+811.65m	End Normal Crown	-2.00%	-2.00%
105	5+702.90m	Level Crown	0.00%	-2.00%	113	6+058.49m	Begin Normal Crown	-2.00%	-2.00%	122	6+426.17m	End Normal Crown	-2.00%	-2.00%	130	6+821.31m	Level Crown	-2.00%	0.00%
105	5+712.35m	Begin Normal Crown	-2.00%	-2.00%	114	6+041.34m	End Normal Crown	-2.00%	-2.00%	122	6+436.17m	Level Crown	-2.00%	0.00%	130	6+830.98m	Reverse Crown	-2.00%	2.00%
106	5+679.83m	End Normal Crown	-2.00%	-2.00%	114	6+050.75m	Level Crown	0.00%	-2.00%	122	6+446.17m	Begin Full Super	-2.00%	2.00%	130	6+850.31m	Begin Full Super	-6.00%	6.00%
106	5+689.50m	Level Crown	-2.00%	0.00%	114	6+060.16m	Reverse Crown	2.00%	-2										

Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane
130	6+892.13m	Begin Normal Crown	-2.00%	-2.00%	139	7+343.86m	End Normal Crown	-2.00%	-2.00%	147	7+681.38m	Level Crown	0.00%	-2.00%	155	8+084.10m	Reverse Crown	2.00%	-2.00%
131	6+841.36m	End Normal Crown	-2.00%	-2.00%	139	7+353.27m	Level Crown	-2.00%	0.00%	147	7+690.97m	Reverse Crown	2.00%	-2.00%	155	8+096.85m	End Full Super	5.00%	-5.00%
131	6+851.03m	Level Crown	0.00%	-2.00%	139	7+362.69m	Reverse Crown	-2.00%	2.00%	147	7+704.38m	Begin Full Super	4.80%	-4.80%	155	8+098.50m	Begin Full Super	5.00%	-5.00%
131	6+860.70m	Reverse Crown	2.00%	-2.00%	139	7+369.27m	Begin Full Super	-3.40%	3.40%	147	7+712.55m	End Full Super	4.80%	-4.80%	155	8+111.25m	Reverse Crown	2.00%	-2.00%
131	6+880.03m	Begin Full Super	6.00%	-6.00%	139	7+373.81m	End Full Super	-3.40%	3.40%	147	7+725.97m	Reverse Crown	2.00%	-2.00%	155	8+120.85m	Level Crown	0.00%	-2.00%
131	6+888.93m	End Full Super	6.00%	-6.00%	139	7+380.40m	Reverse Crown	-2.00%	2.00%	147	7+735.55m	Level Crown	0.00%	-2.00%	155	8+130.45m	Begin Normal Crown	-2.00%	-2.00%
131	6+908.26m	Reverse Crown	2.00%	-2.00%	139	7+389.81m	Level Crown	-2.00%	0.00%	147	7+745.14m	Begin Normal Crown	-2.00%	-2.00%	156	8+086.10m	End Normal Crown	-2.00%	-2.00%
131	6+917.93m	Level Crown	0.00%	-2.00%	139	7+399.22m	Begin Normal Crown	-2.00%	-2.00%	148	7+708.95m	End Normal Crown	-2.00%	-2.00%	156	8+095.76m	Level Crown	-2.00%	0.00%
131	6+927.60m	Begin Normal Crown	-2.00%	-2.00%	140	7+375.83m	End Normal Crown	-2.00%	-2.00%	148	7+718.36m	Level Crown	-2.00%	0.00%	156	8+105.43m	Reverse Crown	-2.00%	2.00%
132	6+891.65m	End Normal Crown	-2.00%	-2.00%	140	7+385.33m	Level Crown	-2.00%	0.00%	148	7+727.78m	Reverse Crown	-2.00%	2.00%	156	8+124.76m	Begin Full Super	-6.00%	6.00%
132	6+900.88m	Level Crown	0.00%	-2.00%	140	7+394.83m	Reverse Crown	-2.00%	2.00%	148	7+734.36m	Begin Full Super	-3.40%	3.40%	156	8+125.58m	End Full Super	-6.00%	6.00%
132	6+910.11m	Reverse Crown	2.00%	-2.00%	140	7+404.33m	Begin Full Super	-4.00%	4.00%	148	7+762.39m	End Full Super	-3.40%	3.40%	156	8+144.91m	Reverse Crown	-2.00%	2.00%
132	6+912.88m	Begin Full Super	2.60%	-2.60%	140	7+412.13m	End Full Super	-4.00%	4.00%	148	7+768.98m	Reverse Crown	-2.00%	2.00%	156	8+154.58m	Level Crown	-2.00%	0.00%
132	6+925.63m	End Full Super	2.60%	-2.60%	140	7+421.63m	Reverse Crown	-2.00%	2.00%	148	7+778.39m	Level Crown	-2.00%	0.00%	156	8+164.24m	Begin Normal Crown	-2.00%	-2.00%
132	6+928.40m	Reverse Crown	2.00%	-2.00%	140	7+431.13m	Level Crown	-2.00%	0.00%	148	7+787.80m	Begin Normal Crown	-2.00%	-2.00%	157	8+113.12m	End Normal Crown	-2.00%	-2.00%
132	6+937.63m	Level Crown	0.00%	-2.00%	140	7+440.63m	Begin Normal Crown	-2.00%	-2.00%	149	7+850.94m	End Normal Crown	-2.00%	-2.00%	157	8+122.79m	Level Crown	0.00%	-2.00%
132	6+946.86m	Begin Normal Crown	-2.00%	-2.00%	141	7+416.04m	End Normal Crown	-2.00%	-2.00%	149	7+860.27m	Level Crown	-2.00%	0.00%	157	8+132.45m	Reverse Crown	2.00%	-2.00%
133	6+933.51m	End Normal Crown	-2.00%	-2.00%	141	7+425.41m	Level Crown	-2.00%	0.00%	149	7+869.61m	Reverse Crown	-2.00%	2.00%	157	8+149.51m	End Full Super	6.00%	-6.00%
133	6+943.51m	Level Crown	0.00%	-2.00%	141	7+434.79m	Reverse Crown	-2.00%	2.00%	149	7+874.27m	Begin Full Super	-3.00%	3.00%	157	8+151.79m	Begin Full Super	6.00%	-6.00%
133	6+953.51m	Begin Full Super	2.00%	-2.00%	141	7+440.41m	Begin Full Super	-3.20%	3.20%	149	7+887.20m	End Full Super	-3.00%	3.00%	157	8+168.84m	Reverse Crown	2.00%	-2.00%
133	6+953.51m	Reverse Crown	2.00%	-2.00%	141	7+448.95m	End Full Super	-3.20%	3.20%	149	7+891.87m	Reverse Crown	-2.00%	2.00%	157	8+178.51m	Level Crown	0.00%	-2.00%
133	6+970.22m	End Full Super	2.00%	-2.00%	141	7+454.57m	Reverse Crown	-2.00%	2.00%	149	7+901.20m	Level Crown	-2.00%	0.00%	157	8+188.17m	Begin Normal Crown	-2.00%	-2.00%
133	6+970.22m	Reverse Crown	2.00%	-2.00%	141	7+463.95m	Level Crown	-2.00%	0.00%	149	7+910.54m	Begin Normal Crown	-2.00%	-2.00%	158	8+141.93m	End Normal Crown	-2.00%	-2.00%
133	6+980.22m	Level Crown	0.00%	-2.00%	141	7+473.32m	Begin Normal Crown	-2.00%	-2.00%	150	7+884.17m	End Normal Crown	-2.00%	-2.00%	158	8+151.51m	Level Crown	0.00%	-2.00%
133	6+990.22m	Begin Normal Crown	-2.00%	-2.00%	142	7+452.96m	End Normal Crown	-2.00%	-2.00%	150	7+894.17m	Level Crown	0.00%	0.00%	158	8+161.10m	Reverse Crown	2.00%	-2.00%
134	7+005.44m	End Normal Crown	-2.00%	-2.00%	142	7+462.96m	Level Crown	0.00%	-2.00%	150	7+904.17m	Begin Full Super	2.00%	-2.00%	158	8+174.51m	Begin Full Super	4.80%	-4.80%
134	7+014.73m	Level Crown	0.00%	-2.00%	142	7+472.96m	Begin Full Super	2.00%	-2.00%	150	7+904.17m	Reverse Crown	2.00%	-2.00%	158	8+201.78m	End Full Super	4.80%	-4.80%
134	7+024.01m	Reverse Crown	2.00%	-2.00%	142	7+472.96m	Reverse Crown	2.00%	-2.00%	150	7+923.48m	End Full Super	2.00%	-2.00%	158	8+215.20m	Reverse Crown	2.00%	-2.00%
134	7+027.73m	Begin Full Super	2.80%	-2.80%	142	7+482.68m	End Full Super	2.00%	-2.00%	150	7+923.48m	Reverse Crown	2.00%	-2.00%	158	8+224.78m	Level Crown	0.00%	-2.00%
134	7+059.44m	End Full Super	2.80%	-2.80%	142	7+482.68m	Reverse Crown	2.00%	-2.00%	150	7+933.48m	Level Crown	0.00%	0.00%	158	8+234.37m	Begin Normal Crown	-2.00%	-2.00%
134	7+063.15m	Reverse Crown	2.00%	-2.00%	142	7+492.68m	Level Crown	0.00%	-2.00%	150	7+943.48m	Begin Normal Crown	-2.00%	-2.00%	159	8+200.34m	End Normal Crown	-2.00%	-2.00%
134	7+072.44m	Level Crown	0.00%	-2.00%	142	7+502.68m	Begin Normal Crown	-2.00%	-2.00%	151	7+919.96m	End Normal Crown	-2.00%	-2.00%	159	8+209.84m	Level Crown	0.00%	-2.00%
134	7+081.72m	Begin Normal Crown	-2.00%	-2.00%	143	7+516.81m	End Normal Crown	-2.00%	-2.00%	151	7+929.46m	Level Crown	-2.00%	0.00%	159	8+219.34m	Reverse Crown	2.00%	-2.00%
135	7+073.69m	End Normal Crown	-2.00%	-2.00%	143	7+526.22m	Level Crown	-2.00%	0.00%	151	7+938.96m	Reverse Crown	-2.00%	2.00%	159	8+228.84m	Begin Full Super	4.00%	-4.00%
135	7+082.98m	Level Crown	0.00%	-2.00%	143	7+535.63m	Reverse Crown	-2.00%	2.00%	151	7+948.46m	Begin Full Super	-4.00%	4.00%	159	8+244.57m	End Full Super	4.00%	-4.00%
135	7+092.26m	Reverse Crown	2.00%	-2.00%	143	7+542.22m	Begin Full Super	-3.40%	3.40%	151	7+966.00m	End Full Super	-4.00%	4.00%	159	8+254.07m	Reverse Crown	2.00%	-2.00%
135	7+095.98m	Begin Full Super	2.80%	-2.80%	143	7+552.19m	End Full Super	-3.40%	3.40%	151	7+975.50m	Reverse Crown	-2.00%	2.00%	159	8+263.57m	Level Crown	0.00%	-2.00%
135	7+102.34m	End Full Super	2.80%	-2.80%	143	7+558.78m	Reverse Crown	-2.00%	2.00%	151	7+985.00m	Level Crown	-2.00%	0.00%	159	8+273.07m	Begin Normal Crown	-2.00%	-2.00%
135	7+106.05m	Reverse Crown	2.00%	-2.00%	143	7+568.19m	Level Crown	-2.00%	0.00%	151	7+994.50m	Begin Normal Crown	-2.00%	-2.00%	160	8+259.22m	End Normal Crown	-2.00%	-2.00%
135	7+115.34m	Level Crown	0.00%	-2.00%	143	7+577.60m	Begin Normal Crown	-2.00%	-2.00%	152	7+977.02m	End Normal Crown	-2.00%	-2.00%	160	8+268.88m	Level Crown	-2.00%	0.00%
135	7+124.62m	Begin Normal Crown	-2.00%	-2.00%	144	7+554.72m	End Normal Crown	-2.00%	-2.00%	152	7+986.46m	Level Crown	-2.00%	0.00%	160	8+278.55m	Reverse Crown	-2.00%	2.00%
136	7+106.88m	End Normal Crown	-2.00%	-2.00%	144	7+564.17m	Level Crown	0.00%	-2.00%	152	7+995.91m	Reverse Crown	-2.00%	2.00%	160	8+297.88m	Begin Full Super	-6.00%	6.00%
136	7+116.32m	Level Crown	-2.00%	0.00%	144	7+573.61m	Reverse Crown	2.00%	-2.00%	152	8+003.46m	Begin Full Super	-3.60%	3.60%	160	8+309.29m	End Full Super	-6.00%	6.00%
136	7+125.77m	Reverse Crown	-2.00%	2.00%	144	7+581.17m	Begin Full Super	3.60%	-3.60%	152	8+021.68m	End Full Super	-3.60%	3.60%	160	8+328.63m	Reverse Crown	-2.00%	2.00%
136	7+133.32m	Begin Full Super	-3.60%	3.60%	144	7+594.09m	End Full Super	3.60%	-3.60%	152	8+029.23m	Reverse Crown	-2.00%	2.00%	160	8+338.29m	Level Crown	-2.00%	0.00%
136	7+145.71m	End Full Super	-3.60%	3.60%	144	7+601.65m	Reverse Crown	2.00%	-2.00%	152	8+038.68m	Level Crown	-2.00%	0.00%	160	8+347.96m	Begin Normal Crown	-2.00%	-2.00%
136	7+153.27m	Reverse Crown	-2.00%	2.00%	144	7+611.09m	Level Crown	0.00%	-2.00%	152	8+048.12m	Begin Normal Crown	-2.00%	-2.00%	161	8+327.36m	End Normal Crown	-2.00%	-2.00%
136	7+162.71m	Level Crown	-2.00%	0.00%	144	7+620.54m	Begin Normal Crown	-2.00%	-2.00%	153	8+014.26m	End Normal Crown	-2.00%	-2.00%	161	8+336.65m	Level Crown	-2.00%	0.00%
136	7+172.16m	Begin Normal Crown	-2.00%	-2.00%	145	7+599.80m	End Normal Crown	-2.00%	-2.00%	153	8+024.26m	Level Crown	0.00%	-2.00%	161	8+345.93m	Reverse Crown	-2.00%	2.00%
137	7+234.67m	End Normal Crown	-2.00%	-2.00%	145	7+609.33m	Level Crown	0.00%	-2.00%	153	8+034.26m	Reverse Crown	2.00%	-2.00%	161	8+349.65m	Begin Full Super	-2.80%	2.80%
137	7+244.00m	Level Crown	0.00%	-2.00%	145	7+618.85m	Reverse Crown	2.00%	-2.00%	153	8+036.26m	Begin Full Super	2.40%	-2.40%	161	8+367.61m	End Full Super	-2.80%	2.80%
137	7+253.34m	Reverse Crown	2.00%	-2.00%	145	7+629.33m	Begin Full Super	4.20%	-4.20%	153	8+051.31m	End Full Super	2.40%	-2.40%	161	8+371.33m	Reverse Crown	-2.00%	2.00%
137	7+258.00m	Begin Full Super	3.00%	-3.00%	145	7+655.01m	End Full Super	4.20%	-4.20%	153	8+053.31m	Reverse Crown	2.00%	-2.00%	161	8+380.61m	Level Crown	-2.00%	0.00%
137	7+290.11m	End Full Super	3.00%	-3.00%	145	7+665.49m	Reverse Crown	2.00%	-2.00%	153	8+063.31m	Level Crown	0.00%	-2.00%	161	8+389.90m	Begin Normal Crown	-2.00%	-2.00%
137	7+294.78m	Reverse Crown	2.00%	-2.00%	145	7+675.01m	Level Crown	0.00%	-2.00%	153	8+073.31m	Begin Normal Crown	-2.00%	-2.00%	162	8+359.98m	End Normal Crown	-2.00%	-2.00%
137	7+304.11m	Level Crown	0.00%	-2.00%	145	7+684.54m	Begin Normal Crown	-2.00%	-2.00%	154	8+043.47m	End Normal Crown	-2.00%	-2.00%	162	8+369.55m	Level Crown	-2.00%	0.00%
137	7+313.44m	Begin Normal Crown	-2.00%	-2.00%	146	7+652.81m	End Normal Crown	-2.00%	-2.00%	154	8+053.47m	Level Crown	-2.00%	0.00%	162	8+379.11m	Reverse Crown	-2.00%	2.00%
138	7+312.37m	End Normal Crown	-2.00%	-2.00%	146	7+662.33m	Level Crown	-2.00%	0.00%	154	8+063.47m	Reverse Crown	-2.00%	2.00%	162	8+391.55m	Begin Full Super	-4.60%	4.60%
138	7+321.84m	Level Crown	0.00%	-2.00%	146	7+671.86m	Reverse Crown	-2.00%	2.00%	154	8+065.47m	Begin Full Super	-2.40%	2.40%	162	8+405.72m	End Full Super	-4.60%	4.60%
138	7+331.31m	Reverse Crown	2.00%	-2.00%	146	7+681.95m	End Full Super	-4.20%	4.20%	154	8+075.57m	End Full Super	-2.40%	2.40%	162	8+418.16m	Reverse Crown	-2.00%	2.00%
138	7+339.84m	Begin Full Super	3.80%	-3.80%	146	7+682.33m	Begin Full Super	-4.20%	4.20%	154	8+077.57m	Reverse Crown	-2.00%	2.00%	162	8+427.72m	Level Crown	-2.00%	0.00%
138	7+350.17m	End Full Super	3.80%	-3.80%	146	7+692.43m	Reverse Crown	-2.00%	2.00%	154	8+087.57m	Level Crown	-2.00%	0.00%	162	8+437.29m	Begin Normal Crown	-2.00%	-2.00%
138	7+358.70m	Reverse Crown	2.00%	-2.00%	146	7+701.95m	Level Crown												

Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane
163	8+447.49m	Begin Full Super	3.80%	-3.80%	171	9+006.74m	End Full Super	-6.00%	6.00%	179	9+485.59m	Reverse Crown	-2.00%	2.00%	187	9+862.72m	Level Crown	-2.00%	0.00%
163	8+532.66m	End Full Super	3.80%	-3.80%	171	9+026.08m	Reverse Crown	-2.00%	2.00%	179	9+495.09m	Level Crown	-2.00%	0.00%	187	9+872.35m	Begin Normal Crown	-2.00%	-2.00%
163	8+541.18m	Reverse Crown	2.00%	-2.00%	171	9+035.74m	Level Crown	-2.00%	0.00%	179	9+504.59m	Begin Normal Crown	-2.00%	-2.00%	188	9+822.26m	End Normal Crown	-2.00%	-2.00%
163	8+550.66m	Level Crown	0.00%	-2.00%	171	9+045.41m	Begin Normal Crown	-2.00%	-2.00%	180	9+467.72m	End Normal Crown	-2.00%	0.00%	188	9+831.91m	Level Crown	0.00%	-2.00%
163	8+560.13m	Begin Normal Crown	-2.00%	-2.00%	172	9+019.33m	End Normal Crown	-2.00%	-2.00%	180	9+477.39m	Level Crown	-2.00%	0.00%	188	9+841.57m	Reverse Crown	2.00%	-2.00%
164	8+546.47m	End Normal Crown	-2.00%	-2.00%	172	9+028.78m	Level Crown	0.00%	-2.00%	180	9+487.06m	Reverse Crown	-2.00%	2.00%	188	9+859.91m	Begin Full Super	5.80%	-5.80%
164	8+555.97m	Level Crown	0.00%	-2.00%	172	9+038.22m	Reverse Crown	2.00%	-2.00%	180	9+506.39m	Begin Full Super	-6.00%	6.00%	188	9+864.71m	End Full Super	5.80%	-5.80%
164	8+565.47m	Reverse Crown	2.00%	-2.00%	172	9+045.78m	Begin Full Super	3.60%	-3.60%	180	9+514.16m	End Full Super	-6.00%	6.00%	188	9+883.06m	Reverse Crown	2.00%	-2.00%
164	8+574.97m	Begin Full Super	4.00%	-4.00%	172	9+059.02m	End Full Super	3.60%	-3.60%	180	9+533.49m	Reverse Crown	-2.00%	2.00%	188	9+892.71m	Level Crown	0.00%	-2.00%
164	8+587.28m	End Full Super	4.00%	-4.00%	172	9+066.58m	Reverse Crown	2.00%	-2.00%	180	9+543.16m	Level Crown	-2.00%	0.00%	188	9+902.37m	Begin Normal Crown	-2.00%	-2.00%
164	8+596.78m	Reverse Crown	2.00%	-2.00%	172	9+076.02m	Level Crown	0.00%	-2.00%	180	9+552.82m	Begin Normal Crown	-2.00%	-2.00%	189	9+852.68m	End Normal Crown	-2.00%	-2.00%
164	8+606.28m	Level Crown	0.00%	-2.00%	172	9+085.47m	Begin Normal Crown	-2.00%	-2.00%	181	9+515.59m	End Normal Crown	-2.00%	-2.00%	189	9+862.35m	Level Crown	-2.00%	0.00%
164	8+615.78m	Begin Normal Crown	-2.00%	-2.00%	173	9+049.44m	End Normal Crown	-2.00%	-2.00%	181	9+525.09m	Level Crown	-2.00%	0.00%	189	9+872.01m	Reverse Crown	-2.00%	2.00%
165	8+590.39m	End Normal Crown	-2.00%	-2.00%	173	9+058.94m	Level Crown	-2.00%	0.00%	181	9+534.59m	Reverse Crown	-2.00%	2.00%	189	9+890.47m	End Full Super	-6.00%	6.00%
165	8+599.96m	Level Crown	0.00%	-2.00%	173	9+068.44m	Reverse Crown	-2.00%	2.00%	181	9+544.09m	Begin Full Super	-4.00%	4.00%	189	9+891.35m	Begin Full Super	-6.00%	6.00%
165	8+609.52m	Reverse Crown	2.00%	-2.00%	173	9+077.94m	Begin Full Super	-4.00%	4.00%	181	9+568.56m	End Full Super	-4.00%	4.00%	189	9+909.80m	Reverse Crown	-2.00%	2.00%
165	8+621.96m	Begin Full Super	4.60%	-4.60%	173	9+094.16m	End Full Super	-4.00%	4.00%	181	9+578.06m	Reverse Crown	-2.00%	2.00%	189	9+919.47m	Level Crown	-2.00%	0.00%
165	8+631.73m	End Full Super	4.60%	-4.60%	173	9+103.66m	Reverse Crown	-2.00%	2.00%	181	9+587.56m	Level Crown	-2.00%	0.00%	189	9+929.14m	Begin Normal Crown	-2.00%	-2.00%
165	8+644.17m	Reverse Crown	2.00%	-2.00%	173	9+113.16m	Level Crown	-2.00%	0.00%	181	9+597.06m	Begin Normal Crown	-2.00%	-2.00%	190	9+879.34m	End Normal Crown	-2.00%	-2.00%
165	8+653.73m	Level Crown	0.00%	-2.00%	173	9+122.66m	Begin Normal Crown	-2.00%	-2.00%	182	9+576.78m	End Normal Crown	-2.00%	-2.00%	190	9+888.92m	Level Crown	0.00%	-2.00%
165	8+663.30m	Begin Normal Crown	-2.00%	-2.00%	174	9+104.92m	End Normal Crown	-2.00%	-2.00%	182	9+586.78m	Level Crown	0.00%	-2.00%	190	9+898.51m	Reverse Crown	2.00%	-2.00%
166	8+628.14m	End Normal Crown	-2.00%	-2.00%	174	9+114.40m	Level Crown	0.00%	-2.00%	182	9+596.78m	Reverse Crown	2.00%	-2.00%	190	9+911.92m	Begin Full Super	4.80%	-4.80%
166	8+637.66m	Level Crown	-2.00%	0.00%	174	9+123.87m	Reverse Crown	2.00%	-2.00%	182	9+598.78m	Begin Full Super	2.40%	-2.40%	190	9+931.64m	End Full Super	4.80%	-4.80%
166	8+647.18m	Reverse Crown	-2.00%	2.00%	174	9+132.40m	Begin Full Super	3.80%	-3.80%	182	9+609.29m	End Full Super	2.40%	-2.40%	190	9+945.06m	Reverse Crown	2.00%	-2.00%
166	8+657.66m	Begin Full Super	-4.20%	4.20%	174	9+162.56m	End Full Super	3.80%	-3.80%	182	9+611.29m	Reverse Crown	2.00%	-2.00%	190	9+954.64m	Level Crown	0.00%	-2.00%
166	8+670.99m	End Full Super	-4.20%	4.20%	174	9+171.09m	Reverse Crown	2.00%	-2.00%	182	9+621.29m	Level Crown	0.00%	-2.00%	190	9+964.23m	Begin Normal Crown	-2.00%	-2.00%
166	8+681.47m	Reverse Crown	-2.00%	2.00%	174	9+180.56m	Level Crown	0.00%	-2.00%	182	9+631.29m	Begin Normal Crown	-2.00%	-2.00%	191	9+972.23m	End Normal Crown	-2.00%	-2.00%
166	8+690.99m	Level Crown	-2.00%	0.00%	174	9+190.04m	Begin Normal Crown	-2.00%	-2.00%	183	9+617.36m	End Normal Crown	-2.00%	-2.00%	191	9+982.23m	Level Crown	-2.00%	0.00%
166	8+700.52m	Begin Normal Crown	-2.00%	-2.00%	175	9+154.46m	End Normal Crown	-2.00%	-2.00%	183	9+626.81m	Level Crown	0.00%	-2.00%	191	9+992.23m	Begin Full Super	-2.00%	2.00%
167	8+709.40m	End Normal Crown	-2.00%	-2.00%	175	9+164.11m	Level Crown	0.00%	-2.00%	183	9+636.25m	Reverse Crown	2.00%	-2.00%	191	9+992.23m	Reverse Crown	-2.00%	2.00%
167	8+718.97m	Level Crown	-2.00%	0.00%	175	9+173.77m	Reverse Crown	2.00%	-2.00%	183	9+643.81m	Begin Full Super	3.60%	-3.60%	191	10+037.14m	End Full Super	-2.00%	2.00%
167	8+728.54m	Reverse Crown	-2.00%	2.00%	175	9+192.11m	Begin Full Super	5.80%	-5.80%	183	9+660.99m	End Full Super	3.60%	-3.60%	191	10+037.14m	Reverse Crown	-2.00%	2.00%
167	8+740.97m	Begin Full Super	-4.60%	4.60%	175	9+195.21m	End Full Super	5.80%	-5.80%	183	9+668.55m	Reverse Crown	2.00%	-2.00%	191	10+047.14m	Level Crown	-2.00%	0.00%
167	8+776.63m	End Full Super	-4.60%	4.60%	175	9+213.56m	Reverse Crown	2.00%	-2.00%	183	9+677.99m	Level Crown	0.00%	-2.00%	191	10+057.14m	Begin Normal Crown	-2.00%	-2.00%
167	8+789.06m	Reverse Crown	-2.00%	2.00%	175	9+223.21m	Level Crown	0.00%	-2.00%	183	9+687.44m	Begin Normal Crown	-2.00%	-2.00%	192	10+067.63m	End Normal Crown	-2.00%	-2.00%
167	8+798.63m	Level Crown	-2.00%	0.00%	175	9+232.87m	Begin Normal Crown	-2.00%	-2.00%	184	9+668.82m	End Normal Crown	-2.00%	-2.00%	192	10+077.63m	Level Crown	0.00%	-2.00%
167	8+808.19m	Begin Normal Crown	-2.00%	-2.00%	176	9+193.45m	End Normal Crown	-2.00%	-2.00%	184	9+678.82m	Level Crown	-2.00%	0.00%	192	10+087.63m	Begin Full Super	2.00%	-2.00%
168	8+759.56m	End Normal Crown	-2.00%	-2.00%	176	9+202.97m	Level Crown	-2.00%	0.00%	184	9+688.82m	Reverse Crown	-2.00%	2.00%	192	10+087.63m	Reverse Crown	2.00%	-2.00%
168	8+769.19m	Level Crown	0.00%	-2.00%	176	9+212.49m	Reverse Crown	-2.00%	2.00%	184	9+689.82m	Begin Full Super	-2.20%	2.20%	192	10+122.33m	End Full Super	2.00%	-2.00%
168	8+778.82m	Reverse Crown	2.00%	-2.00%	176	9+222.97m	Begin Full Super	-4.20%	4.20%	184	9+709.49m	End Full Super	-2.20%	2.20%	192	10+122.33m	Reverse Crown	2.00%	-2.00%
168	8+795.19m	Begin Full Super	5.40%	-5.40%	176	9+269.96m	End Full Super	-4.20%	4.20%	184	9+710.49m	Reverse Crown	-2.00%	2.00%	192	10+132.33m	Level Crown	0.00%	-2.00%
168	8+830.16m	End Full Super	5.40%	-5.40%	176	9+280.43m	Reverse Crown	-2.00%	2.00%	184	9+720.49m	Level Crown	-2.00%	0.00%	192	10+142.33m	Begin Normal Crown	-2.00%	-2.00%
168	8+846.53m	Reverse Crown	2.00%	-2.00%	176	9+289.96m	Level Crown	-2.00%	0.00%	184	9+730.49m	Begin Normal Crown	-2.00%	-2.00%	193	10+122.83m	End Normal Crown	-2.00%	-2.00%
168	8+856.16m	Level Crown	0.00%	-2.00%	176	9+299.48m	Begin Normal Crown	-2.00%	-2.00%	185	9+699.28m	End Normal Crown	-2.00%	-2.00%	193	10+132.49m	Level Crown	-2.00%	0.00%
168	8+865.79m	Begin Normal Crown	-2.00%	-2.00%	177	9+299.22m	End Normal Crown	-2.00%	-2.00%	185	9+708.75m	Level Crown	0.00%	-2.00%	193	10+142.14m	Reverse Crown	-2.00%	2.00%
169	8+879.03m	End Normal Crown	-2.00%	-2.00%	177	9+308.88m	Level Crown	0.00%	-2.00%	185	9+718.22m	Reverse Crown	2.00%	-2.00%	193	10+160.49m	Begin Full Super	-5.80%	5.80%
169	8+888.59m	Level Crown	0.00%	-2.00%	177	9+318.55m	Reverse Crown	2.00%	-2.00%	185	9+726.75m	Begin Full Super	3.80%	-3.80%	193	10+171.63m	End Full Super	-5.80%	5.80%
169	8+898.16m	Reverse Crown	2.00%	-2.00%	177	9+337.88m	Begin Full Super	6.00%	-6.00%	185	9+736.82m	End Full Super	3.80%	-3.80%	193	10+189.97m	Reverse Crown	-2.00%	2.00%
169	8+910.59m	Begin Full Super	4.60%	-4.60%	177	9+355.29m	End Full Super	6.00%	-6.00%	185	9+745.34m	Reverse Crown	2.00%	-2.00%	193	10+199.63m	Level Crown	-2.00%	0.00%
169	8+920.60m	End Full Super	4.60%	-4.60%	177	9+374.62m	Reverse Crown	2.00%	-2.00%	185	9+754.82m	Level Crown	0.00%	-2.00%	193	10+209.28m	Begin Normal Crown	-2.00%	-2.00%
169	8+933.04m	Reverse Crown	2.00%	-2.00%	177	9+384.29m	Level Crown	0.00%	-2.00%	185	9+764.29m	Begin Normal Crown	-2.00%	-2.00%	194	10+160.99m	End Normal Crown	-2.00%	-2.00%
169	8+942.60m	Level Crown	0.00%	-2.00%	177	9+393.96m	Begin Normal Crown	-2.00%	-2.00%	186	9+743.03m	End Normal Crown	-2.00%	-2.00%	194	10+170.57m	Level Crown	0.00%	-2.00%
169	8+952.17m	Begin Normal Crown	-2.00%	-2.00%	178	9+380.96m	End Normal Crown	-2.00%	-2.00%	186	9+752.53m	Level Crown	-2.00%	0.00%	194	10+180.15m	Reverse Crown	2.00%	-2.00%
170	8+911.67m	End Normal Crown	-2.00%	-2.00%	178	9+390.96m	Level Crown	0.00%	-2.00%	186	9+762.03m	Reverse Crown	-2.00%	2.00%	194	10+193.57m	Begin Full Super	4.80%	-4.80%
170	8+921.30m	Level Crown	0.00%	-2.00%	178	9+400.96m	Reverse Crown	2.00%	-2.00%	186	9+771.53m	Begin Full Super	-4.00%	4.00%	194	10+220.42m	End Full Super	4.80%	-4.80%
170	8+930.93m	Reverse Crown	2.00%	-2.00%	178	9+402.96m	Begin Full Super	2.40%	-2.40%	186	9+777.40m	End Full Super	-4.00%	4.00%	194	10+233.84m	Reverse Crown	2.00%	-2.00%
170	8+947.30m	Begin Full Super	5.40%	-5.40%	178	9+420.66m	End Full Super	2.40%	-2.40%	186	9+786.90m	Reverse Crown	-2.00%	2.00%	194	10+243.42m	Level Crown	0.00%	-2.00%
170	8+951.52m	End Full Super	5.40%	-5.40%	178	9+422.66m	Reverse Crown	2.00%	-2.00%	186	9+796.40m	Level Crown	-2.00%	0.00%	194	10+253.00m	Begin Normal Crown	-2.00%	-2.00%
170	8+967.89m	Reverse Crown	2.00%	-2.00%	178	9+432.66m	Level Crown	0.00%	-2.00%	186	9+805.90m	Begin Normal Crown	-2.00%	-2.00%	195	10+218.62m	End Normal Crown	-2.00%	-2.00%
170	8+977.52m	Level Crown	0.00%	-2.00%	178	9+442.66m	Begin Normal Crown	-2.00%	-2.00%	187	9+795.03m	End Normal Crown	-2.00%	-2.00%	195	10+228.62m	Level Crown	0.00%	-2.00%
170	8+987.15m	Begin Normal Crown	-2.00%	-2.00%	179	9+430.28m	End Normal Crown	-2.00%	-2.00%	187	9+804.66m	Level Crown	-2.00%	0.00%	195	10+238.62m	Begin Full Super	2.00%	-2.00%
171	8+949.44m	End Normal Crown	-2.00%	-2.00%	179	9+439.78m	Level Crown	-2.00%	0.00%	187	9+814.29m	Reverse Crown	-2.00%	2.00%	195	10+238.62m	Reverse Crown	2.00%	-2.00%
171	8+959.10m	Level Crown	-2.00%	0.00															

Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane
195	10+266.02m	Begin Normal Crown	-2.00%	-2.00%	204	10+578.56m	End Normal Crown	-2.00%	-2.00%	212	10+923.45m	Level Crown	0.00%	-2.00%	220	11+188.83m	Reverse Crown	-2.00%	2.00%
196	10+252.47m	End Normal Crown	-2.00%	-2.00%	204	10+588.23m	Level Crown	-2.00%	0.00%	212	10+932.89m	Reverse Crown	2.00%	-2.00%	220	11+201.26m	Begin Full Super	-4.60%	4.60%
196	10+262.03m	Level Crown	-2.00%	0.00%	204	10+597.90m	Reverse Crown	-2.00%	2.00%	212	10+939.39m	End Full Super	3.60%	-3.60%	220	11+213.97m	End Full Super	-4.60%	4.60%
196	10+271.60m	Reverse Crown	-2.00%	2.00%	204	10+617.23m	Begin Full Super	-6.00%	6.00%	212	10+940.45m	Begin Full Super	3.60%	-3.60%	220	11+226.41m	Reverse Crown	-2.00%	2.00%
196	10+284.03m	Begin Full Super	-4.60%	4.60%	204	10+618.80m	End Full Super	-6.00%	6.00%	212	10+946.94m	Reverse Crown	2.00%	-2.00%	220	11+235.97m	Level Crown	-2.00%	0.00%
196	10+291.98m	End Full Super	-4.60%	4.60%	204	10+638.13m	Reverse Crown	-2.00%	2.00%	212	10+956.39m	Level Crown	0.00%	-2.00%	220	11+245.54m	Begin Normal Crown	-2.00%	-2.00%
196	10+304.41m	Reverse Crown	-2.00%	2.00%	204	10+647.80m	Level Crown	-2.00%	0.00%	212	10+965.83m	Begin Normal Crown	-2.00%	-2.00%	221	11+216.82m	End Normal Crown	-2.00%	-2.00%
196	10+313.98m	Level Crown	-2.00%	0.00%	204	10+657.46m	Begin Normal Crown	-2.00%	-2.00%	213	10+926.31m	End Normal Crown	-2.00%	-2.00%	221	11+226.48m	Level Crown	-2.00%	0.00%
196	10+323.55m	Begin Normal Crown	-2.00%	-2.00%	205	10+632.27m	End Normal Crown	-2.00%	-2.00%	213	10+935.97m	Level Crown	-2.00%	0.00%	221	11+236.15m	Reverse Crown	-2.00%	2.00%
197	10+283.28m	End Normal Crown	-2.00%	-2.00%	205	10+641.74m	Level Crown	-2.00%	0.00%	213	10+945.64m	Reverse Crown	-2.00%	2.00%	221	11+255.48m	Begin Full Super	-6.00%	6.00%
197	10+292.91m	Level Crown	0.00%	-2.00%	205	10+651.21m	Reverse Crown	-2.00%	2.00%	213	10+964.97m	Begin Full Super	-6.00%	6.00%	221	11+267.35m	End Full Super	-6.00%	6.00%
197	10+302.54m	Reverse Crown	2.00%	-2.00%	205	10+659.74m	Begin Full Super	-3.80%	3.80%	213	10+967.58m	End Full Super	-6.00%	6.00%	221	11+286.69m	Reverse Crown	-2.00%	2.00%
197	10+318.91m	Begin Full Super	5.40%	-5.40%	205	10+666.38m	End Full Super	-3.80%	3.80%	213	10+986.92m	Reverse Crown	-2.00%	2.00%	221	11+296.35m	Level Crown	-2.00%	0.00%
197	10+344.06m	End Full Super	5.40%	-5.40%	205	10+674.91m	Reverse Crown	-2.00%	2.00%	213	10+996.58m	Level Crown	-2.00%	0.00%	221	11+306.02m	Begin Normal Crown	-2.00%	-2.00%
197	10+360.43m	Reverse Crown	2.00%	-2.00%	205	10+684.38m	Level Crown	-2.00%	0.00%	213	11+006.25m	Begin Normal Crown	-2.00%	-2.00%	222	11+263.02m	End Normal Crown	-2.00%	-2.00%
197	10+370.06m	Level Crown	0.00%	-2.00%	205	10+693.85m	Begin Normal Crown	-2.00%	-2.00%	214	10+961.60m	End Normal Crown	-2.00%	-2.00%	222	11+272.68m	Level Crown	0.00%	-2.00%
197	10+379.69m	Begin Normal Crown	-2.00%	-2.00%	206	10+647.59m	End Normal Crown	-2.00%	-2.00%	214	10+971.17m	Level Crown	0.00%	-2.00%	222	11+282.35m	Reverse Crown	2.00%	-2.00%
198	10+355.24m	End Normal Crown	-2.00%	-2.00%	206	10+657.24m	Level Crown	-2.00%	0.00%	214	10+980.74m	Reverse Crown	2.00%	-2.00%	222	11+301.68m	Begin Full Super	6.00%	-6.00%
198	10+364.90m	Level Crown	-2.00%	0.00%	206	10+666.90m	Reverse Crown	-2.00%	2.00%	214	10+993.17m	Begin Full Super	4.60%	-4.60%	222	11+306.68m	End Full Super	6.00%	-6.00%
198	10+374.55m	Reverse Crown	-2.00%	2.00%	206	10+682.51m	End Full Super	-5.80%	5.80%	214	11+005.71m	End Full Super	4.60%	-4.60%	222	11+326.01m	Reverse Crown	2.00%	-2.00%
198	10+392.90m	Begin Full Super	-5.80%	5.80%	206	10+685.24m	Begin Full Super	-5.80%	5.80%	214	11+018.14m	Reverse Crown	2.00%	-2.00%	222	11+335.68m	Level Crown	0.00%	-2.00%
198	10+403.49m	End Full Super	-5.80%	5.80%	206	10+700.86m	Reverse Crown	-2.00%	2.00%	214	11+027.71m	Level Crown	0.00%	-2.00%	222	11+345.35m	Begin Normal Crown	-2.00%	-2.00%
198	10+421.84m	Reverse Crown	-2.00%	2.00%	206	10+710.51m	Level Crown	-2.00%	0.00%	214	11+037.27m	Begin Normal Crown	-2.00%	-2.00%	223	11+288.96m	End Normal Crown	-2.00%	-2.00%
198	10+431.49m	Level Crown	-2.00%	0.00%	206	10+720.17m	Begin Normal Crown	-2.00%	-2.00%	215	10+992.34m	End Normal Crown	-2.00%	-2.00%	223	11+298.63m	Level Crown	0.00%	-2.00%
198	10+441.15m	Begin Normal Crown	-2.00%	-2.00%	207	10+687.85m	End Normal Crown	-2.00%	-2.00%	215	11+002.01m	Level Crown	0.00%	-2.00%	223	11+308.30m	Reverse Crown	2.00%	-2.00%
199	10+421.50m	End Normal Crown	-2.00%	-2.00%	207	10+697.44m	Level Crown	0.00%	-2.00%	215	11+011.67m	Reverse Crown	2.00%	-2.00%	223	11+327.63m	Begin Full Super	6.00%	-6.00%
199	10+431.10m	Level Crown	0.00%	-2.00%	207	10+707.02m	Reverse Crown	2.00%	-2.00%	215	11+031.01m	Begin Full Super	6.00%	-6.00%	223	11+329.94m	End Full Super	6.00%	-6.00%
199	10+440.70m	Reverse Crown	2.00%	-2.00%	207	10+720.44m	Begin Full Super	4.80%	-4.80%	215	11+040.16m	End Full Super	6.00%	-6.00%	223	11+349.28m	Reverse Crown	2.00%	-2.00%
199	10+455.10m	Begin Full Super	5.00%	-5.00%	207	10+727.55m	End Full Super	4.80%	-4.80%	215	11+059.49m	Reverse Crown	2.00%	-2.00%	223	11+358.94m	Level Crown	0.00%	-2.00%
199	10+469.59m	End Full Super	5.00%	-5.00%	207	10+740.97m	Reverse Crown	2.00%	-2.00%	215	11+069.16m	Level Crown	0.00%	-2.00%	223	11+368.61m	Begin Normal Crown	-2.00%	-2.00%
199	10+483.99m	Reverse Crown	2.00%	-2.00%	207	10+750.55m	Level Crown	0.00%	-2.00%	215	11+078.82m	Begin Normal Crown	-2.00%	-2.00%	224	11+325.19m	End Normal Crown	-2.00%	-2.00%
199	10+493.59m	Level Crown	0.00%	-2.00%	207	10+760.14m	Begin Normal Crown	-2.00%	-2.00%	216	11+022.18m	End Normal Crown	-2.00%	-2.00%	224	11+334.74m	Level Crown	-2.00%	0.00%
199	10+503.19m	Begin Normal Crown	-2.00%	-2.00%	208	10+741.24m	End Normal Crown	-2.00%	-2.00%	216	11+031.84m	Level Crown	-2.00%	0.00%	224	11+344.28m	Reverse Crown	-2.00%	2.00%
200	10+454.82m	End Normal Crown	-2.00%	-2.00%	208	10+750.90m	Level Crown	0.00%	-2.00%	216	11+041.51m	Reverse Crown	-2.00%	2.00%	224	11+355.74m	Begin Full Super	-4.40%	4.40%
200	10+464.46m	Level Crown	-2.00%	0.00%	208	10+760.57m	Reverse Crown	2.00%	-2.00%	216	11+060.05m	End Full Super	-6.00%	6.00%	224	11+355.87m	End Full Super	-4.40%	4.40%
200	10+474.11m	Reverse Crown	-2.00%	2.00%	208	10+779.90m	Begin Full Super	6.00%	-6.00%	216	11+060.84m	Begin Full Super	-6.00%	6.00%	224	11+367.32m	Reverse Crown	-2.00%	2.00%
200	10+491.46m	Begin Full Super	-5.60%	5.60%	208	10+792.37m	End Full Super	6.00%	-6.00%	216	11+079.38m	Reverse Crown	-2.00%	2.00%	224	11+376.87m	Level Crown	-2.00%	0.00%
200	10+495.91m	End Full Super	-5.60%	5.60%	208	10+811.71m	Reverse Crown	2.00%	-2.00%	216	11+089.05m	Level Crown	-2.00%	0.00%	224	11+386.42m	Begin Normal Crown	-2.00%	-2.00%
200	10+513.27m	Reverse Crown	-2.00%	2.00%	208	10+821.37m	Level Crown	0.00%	-2.00%	216	11+098.72m	Begin Normal Crown	-2.00%	-2.00%	225	11+343.34m	End Normal Crown	-2.00%	-2.00%
200	10+522.91m	Level Crown	-2.00%	0.00%	208	10+831.04m	Begin Normal Crown	-2.00%	-2.00%	217	11+059.06m	End Normal Crown	-2.00%	-2.00%	225	11+352.84m	Level Crown	0.00%	-2.00%
200	10+532.56m	Begin Normal Crown	-2.00%	-2.00%	209	10+787.44m	End Normal Crown	-2.00%	-2.00%	217	11+068.56m	Level Crown	0.00%	-2.00%	225	11+362.34m	Reverse Crown	2.00%	-2.00%
201	10+489.32m	End Normal Crown	-2.00%	-2.00%	209	10+796.88m	Level Crown	-2.00%	0.00%	217	11+078.06m	Reverse Crown	2.00%	-2.00%	225	11+371.84m	Begin Full Super	4.00%	-4.00%
201	10+498.80m	Level Crown	0.00%	-2.00%	209	10+806.33m	Reverse Crown	-2.00%	2.00%	217	11+087.56m	Begin Full Super	4.00%	-4.00%	225	11+377.19m	End Full Super	4.00%	-4.00%
201	10+508.27m	Reverse Crown	2.00%	-2.00%	209	10+813.88m	Begin Full Super	-3.60%	3.60%	217	11+093.27m	End Full Super	4.00%	-4.00%	225	11+386.69m	Reverse Crown	2.00%	-2.00%
201	10+516.80m	Begin Full Super	3.80%	-3.80%	209	10+830.19m	End Full Super	-3.60%	3.60%	217	11+102.77m	Reverse Crown	2.00%	-2.00%	225	11+396.19m	Level Crown	0.00%	-2.00%
201	10+526.47m	End Full Super	3.80%	-3.80%	209	10+837.74m	Reverse Crown	-2.00%	2.00%	217	11+112.27m	Level Crown	0.00%	-2.00%	225	11+405.69m	Begin Normal Crown	-2.00%	-2.00%
201	10+535.00m	Reverse Crown	2.00%	-2.00%	209	10+847.19m	Level Crown	-2.00%	0.00%	217	11+121.77m	Begin Normal Crown	-2.00%	-2.00%	226	11+360.56m	End Normal Crown	-2.00%	-2.00%
201	10+544.47m	Level Crown	0.00%	-2.00%	209	10+856.63m	Begin Normal Crown	-2.00%	-2.00%	218	11+095.57m	End Normal Crown	-2.00%	-2.00%	226	11+370.19m	Level Crown	-2.00%	0.00%
201	10+553.94m	Begin Normal Crown	-2.00%	-2.00%	210	10+823.49m	End Normal Crown	-2.00%	-2.00%	218	11+105.13m	Level Crown	-2.00%	0.00%	226	11+379.82m	Reverse Crown	-2.00%	2.00%
202	10+525.05m	End Normal Crown	-2.00%	-2.00%	210	10+833.04m	Level Crown	-2.00%	0.00%	218	11+114.70m	Reverse Crown	-2.00%	2.00%	226	11+393.19m	End Full Super	-5.40%	5.40%
202	10+534.50m	Level Crown	0.00%	-2.00%	210	10+842.58m	Reverse Crown	-2.00%	2.00%	218	11+127.13m	Begin Full Super	-4.60%	4.60%	226	11+396.19m	Begin Full Super	-5.40%	5.40%
202	10+543.94m	Reverse Crown	2.00%	-2.00%	210	10+854.04m	Begin Full Super	-4.40%	4.40%	218	11+134.85m	End Full Super	-4.60%	4.60%	226	11+409.57m	Reverse Crown	-2.00%	2.00%
202	10+551.50m	Begin Full Super	3.60%	-3.60%	210	10+874.75m	End Full Super	-4.40%	4.40%	218	11+147.28m	Reverse Crown	-2.00%	2.00%	226	11+419.19m	Level Crown	-2.00%	0.00%
202	10+560.21m	End Full Super	3.60%	-3.60%	210	10+886.20m	Reverse Crown	-2.00%	2.00%	218	11+156.85m	Level Crown	-2.00%	0.00%	226	11+428.82m	Begin Normal Crown	-2.00%	-2.00%
202	10+567.77m	Reverse Crown	2.00%	-2.00%	210	10+895.75m	Level Crown	-2.00%	0.00%	218	11+166.41m	Begin Normal Crown	-2.00%	-2.00%	227	11+397.64m	End Normal Crown	-2.00%	-2.00%
202	10+577.21m	Level Crown	0.00%	-2.00%	210	10+905.30m	Begin Normal Crown	-2.00%	-2.00%	219	11+136.12m	End Normal Crown	-2.00%	-2.00%	227	11+407.30m	Level Crown	-2.00%	0.00%
202	10+586.65m	Begin Normal Crown	-2.00%	-2.00%	211	10+876.61m	End Normal Crown	-2.00%	-2.00%	219	11+145.79m	Level Crown	0.00%	-2.00%	227	11+416.97m	Reverse Crown	-2.00%	2.00%
203	10+548.89m	End Normal Crown	-2.00%	-2.00%	211	10+886.15m	Level Crown	-2.00%	0.00%	219	11+155.46m	Reverse Crown	2.00%	-2.00%	227	11+432.81m	End Full Super	-6.00%	6.00%
203	10+558.53m	Level Crown	0.00%	-2.00%	211	10+895.70m	Reverse Crown	-2.00%	2.00%	219	11+174.79m	Begin Full Super	6.00%	-6.00%	227	11+436.30m	Begin Full Super	-6.00%	6.00%
203	10+568.17m	Reverse Crown	2.00%	-2.00%	211	10+907.15m	Begin Full Super	-4.40%	4.40%	219	11+178.99m	End Full Super	6.00%	-6.00%	227	11+452.14m	Reverse Crown	-2.00%	2.00%
203	10+585.53m	Begin Full Super	5.60%	-5.60%	211	10+914.50m	End Full Super	-4.40%	4.40%	219	11+198.32m	Reverse Crown	2.00%	-2.00%	227	11+461.81m	Level Crown	-2.00%	0.00%
203	10+589.20m	End Full																	

Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane
228	11+458.70m	Begin Full Super	5.60%	-5.60%	236	11+670.34m	End Full Super	-4.60%	4.60%	244	11+991.18m	Reverse Crown	-2.00%	2.00%	252	12+354.89m	Level Crown	-2.00%	0.00%
228	11+470.85m	End Full Super	5.60%	-5.60%	236	11+682.78m	Reverse Crown	-2.00%	2.00%	244	12+000.59m	Level Crown	-2.00%	0.00%	252	12+364.43m	Begin Normal Crown	-2.00%	-2.00%
228	11+488.21m	Reverse Crown	2.00%	-2.00%	236	11+692.34m	Level Crown	-2.00%	0.00%	244	12+010.00m	Begin Normal Crown	-2.00%	-2.00%	253	12+336.84m	End Normal Crown	-2.00%	-2.00%
228	11+497.85m	Level Crown	0.00%	-2.00%	236	11+701.91m	Begin Normal Crown	-2.00%	-2.00%	245	11+976.98m	End Normal Crown	-2.00%	-2.00%	253	12+346.48m	Level Crown	0.00%	-2.00%
228	11+507.49m	Begin Normal Crown	-2.00%	-2.00%	237	11+657.04m	End Normal Crown	-2.00%	-2.00%	245	11+986.42m	Level Crown	0.00%	-2.00%	253	12+356.12m	Reverse Crown	2.00%	-2.00%
229	11+457.69m	End Normal Crown	-2.00%	-2.00%	237	11+666.67m	Level Crown	0.00%	-2.00%	245	11+995.87m	Reverse Crown	2.00%	-2.00%	253	12+367.73m	End Full Super	5.60%	-5.60%
229	11+467.36m	Level Crown	-2.00%	0.00%	237	11+676.30m	Reverse Crown	2.00%	-2.00%	245	12+003.42m	Begin Full Super	3.60%	-3.60%	253	12+373.48m	Begin Full Super	5.60%	-5.60%
229	11+477.02m	Reverse Crown	-2.00%	2.00%	237	11+691.29m	End Full Super	5.40%	-5.40%	245	12+042.65m	End Full Super	3.60%	-3.60%	253	12+385.08m	Reverse Crown	2.00%	-2.00%
229	11+492.74m	End Full Super	-6.00%	6.00%	237	11+692.67m	Begin Full Super	5.40%	-5.40%	245	12+050.21m	Reverse Crown	2.00%	-2.00%	253	12+394.73m	Level Crown	0.00%	-2.00%
229	11+496.36m	Begin Full Super	-6.00%	6.00%	237	11+707.66m	Reverse Crown	2.00%	-2.00%	245	12+059.65m	Level Crown	0.00%	-2.00%	253	12+404.37m	Begin Normal Crown	-2.00%	-2.00%
229	11+512.07m	Reverse Crown	-2.00%	2.00%	237	11+717.29m	Level Crown	0.00%	-2.00%	245	12+069.10m	Begin Normal Crown	-2.00%	-2.00%	254	12+349.11m	End Normal Crown	-2.00%	-2.00%
229	11+521.74m	Level Crown	-2.00%	0.00%	237	11+726.92m	Begin Normal Crown	-2.00%	-2.00%	246	12+081.81m	End Normal Crown	-2.00%	-2.00%	254	12+358.78m	Level Crown	0.00%	-2.00%
229	11+531.40m	Begin Normal Crown	-2.00%	-2.00%	238	11+683.51m	End Normal Crown	-2.00%	-2.00%	246	12+091.81m	Level Crown	-2.00%	0.00%	254	12+368.44m	Reverse Crown	2.00%	-2.00%
230	11+479.37m	End Normal Crown	-2.00%	-2.00%	238	11+693.18m	Level Crown	0.00%	-2.00%	246	12+101.81m	Begin Full Super	-2.00%	2.00%	254	12+387.78m	Begin Full Super	6.00%	-6.00%
230	11+489.01m	Level Crown	0.00%	-2.00%	238	11+702.84m	Reverse Crown	2.00%	-2.00%	246	12+101.81m	Reverse Crown	-2.00%	2.00%	254	12+393.28m	End Full Super	6.00%	-6.00%
230	11+498.65m	Reverse Crown	2.00%	-2.00%	238	11+722.18m	Begin Full Super	6.00%	-6.00%	246	12+116.12m	End Full Super	-2.00%	2.00%	254	12+412.61m	Reverse Crown	2.00%	-2.00%
230	11+514.68m	End Full Super	5.60%	-5.60%	238	11+725.73m	End Full Super	6.00%	-6.00%	246	12+116.12m	Reverse Crown	-2.00%	2.00%	254	12+422.28m	Level Crown	0.00%	-2.00%
230	11+516.01m	Begin Full Super	5.60%	-5.60%	238	11+745.06m	Reverse Crown	2.00%	-2.00%	246	12+126.12m	Level Crown	-2.00%	0.00%	254	12+431.94m	Begin Normal Crown	-2.00%	-2.00%
230	11+532.04m	Reverse Crown	2.00%	-2.00%	238	11+754.73m	Level Crown	0.00%	-2.00%	246	12+136.12m	Begin Normal Crown	-2.00%	-2.00%	255	12+395.91m	End Normal Crown	-2.00%	-2.00%
230	11+541.68m	Level Crown	0.00%	-2.00%	238	11+764.39m	Begin Normal Crown	-2.00%	-2.00%	247	12+110.66m	End Normal Crown	-2.00%	-2.00%	255	12+405.45m	Level Crown	-2.00%	0.00%
230	11+551.32m	Begin Normal Crown	-2.00%	-2.00%	239	11+745.63m	End Normal Crown	-2.00%	-2.00%	247	12+120.66m	Level Crown	0.00%	-2.00%	255	12+415.00m	Reverse Crown	-2.00%	2.00%
231	11+497.03m	End Normal Crown	-2.00%	-2.00%	239	11+755.30m	Level Crown	-2.00%	0.00%	247	12+130.66m	Begin Full Super	2.00%	-2.00%	255	12+426.45m	Begin Full Super	-4.40%	4.40%
231	11+506.66m	Level Crown	-2.00%	0.00%	239	11+764.97m	Reverse Crown	-2.00%	2.00%	247	12+130.66m	Reverse Crown	2.00%	-2.00%	255	12+436.00m	End Full Super	-4.40%	4.40%
231	11+516.29m	Reverse Crown	-2.00%	2.00%	239	11+784.30m	Begin Full Super	-6.00%	6.00%	247	12+143.16m	End Full Super	2.00%	-2.00%	255	12+447.46m	Reverse Crown	-2.00%	2.00%
231	11+532.66m	Begin Full Super	-5.40%	5.40%	239	11+792.60m	End Full Super	-6.00%	6.00%	247	12+143.16m	Reverse Crown	2.00%	-2.00%	255	12+457.00m	Level Crown	-2.00%	0.00%
231	11+532.68m	End Full Super	-5.40%	5.40%	239	11+811.94m	Reverse Crown	-2.00%	2.00%	247	12+153.16m	Level Crown	0.00%	-2.00%	255	12+466.55m	Begin Normal Crown	-2.00%	-2.00%
231	11+549.05m	Reverse Crown	-2.00%	2.00%	239	11+821.60m	Level Crown	-2.00%	0.00%	247	12+163.16m	Begin Normal Crown	-2.00%	-2.00%	256	12+422.89m	End Normal Crown	-2.00%	-2.00%
231	11+558.68m	Level Crown	-2.00%	0.00%	239	11+831.27m	Begin Normal Crown	-2.00%	-2.00%	248	12+131.03m	End Normal Crown	-2.00%	-2.00%	256	12+432.56m	Level Crown	0.00%	-2.00%
231	11+568.31m	Begin Normal Crown	-2.00%	-2.00%	240	11+789.84m	End Normal Crown	-2.00%	-2.00%	248	12+140.69m	Level Crown	-2.00%	0.00%	256	12+442.22m	Reverse Crown	2.00%	-2.00%
232	11+517.38m	End Normal Crown	-2.00%	-2.00%	240	11+799.34m	Level Crown	-2.00%	0.00%	248	12+150.34m	Reverse Crown	-2.00%	2.00%	256	12+461.56m	Begin Full Super	6.00%	-6.00%
232	11+526.98m	Level Crown	0.00%	-2.00%	240	11+808.84m	Reverse Crown	-2.00%	2.00%	248	12+165.00m	End Full Super	-5.80%	5.80%	256	12+466.31m	End Full Super	6.00%	-6.00%
232	11+536.58m	Reverse Crown	2.00%	-2.00%	240	11+818.34m	Begin Full Super	-4.00%	4.00%	248	12+168.69m	Begin Full Super	-5.80%	5.80%	256	12+485.64m	Reverse Crown	2.00%	-2.00%
232	11+550.98m	Begin Full Super	5.00%	-5.00%	240	11+824.96m	End Full Super	-4.00%	4.00%	248	12+183.35m	Reverse Crown	-2.00%	2.00%	256	12+495.31m	Level Crown	0.00%	-2.00%
232	11+558.82m	End Full Super	5.00%	-5.00%	240	11+834.46m	Reverse Crown	-2.00%	2.00%	248	12+193.00m	Level Crown	-2.00%	0.00%	256	12+504.97m	Begin Normal Crown	-2.00%	-2.00%
232	11+573.22m	Reverse Crown	2.00%	-2.00%	240	11+843.96m	Level Crown	-2.00%	0.00%	248	12+202.66m	Begin Normal Crown	-2.00%	-2.00%	257	12+461.97m	End Normal Crown	-2.00%	-2.00%
232	11+582.82m	Level Crown	0.00%	-2.00%	240	11+853.46m	Begin Normal Crown	-2.00%	-2.00%	249	12+156.21m	End Normal Crown	-2.00%	-2.00%	257	12+471.64m	Level Crown	-2.00%	0.00%
232	11+592.42m	Begin Normal Crown	-2.00%	-2.00%	241	11+824.70m	End Normal Crown	-2.00%	-2.00%	249	12+165.81m	Level Crown	0.00%	-2.00%	257	12+481.31m	Reverse Crown	-2.00%	2.00%
233	11+558.49m	End Normal Crown	-2.00%	-2.00%	241	11+834.04m	Level Crown	0.00%	-2.00%	249	12+175.41m	Reverse Crown	2.00%	-2.00%	257	12+500.64m	Begin Full Super	-6.00%	6.00%
233	11+568.16m	Level Crown	-2.00%	0.00%	241	11+843.37m	Reverse Crown	2.00%	-2.00%	249	12+185.64m	End Full Super	5.00%	-5.00%	257	12+507.39m	End Full Super	-6.00%	6.00%
233	11+577.82m	Reverse Crown	-2.00%	2.00%	241	11+848.04m	Begin Full Super	3.00%	-3.00%	249	12+189.81m	Begin Full Super	5.00%	-5.00%	257	12+526.72m	Reverse Crown	-2.00%	2.00%
233	11+592.12m	End Full Super	-6.00%	6.00%	241	11+875.67m	End Full Super	3.00%	-3.00%	249	12+200.04m	Reverse Crown	2.00%	-2.00%	257	12+536.39m	Level Crown	-2.00%	0.00%
233	11+597.16m	Begin Full Super	-6.00%	6.00%	241	11+880.33m	Reverse Crown	2.00%	-2.00%	249	12+209.64m	Level Crown	0.00%	-2.00%	257	12+546.05m	Begin Normal Crown	-2.00%	-2.00%
233	11+611.46m	Reverse Crown	-2.00%	2.00%	241	11+889.67m	Level Crown	0.00%	-2.00%	249	12+219.24m	Begin Normal Crown	-2.00%	-2.00%	258	12+509.93m	End Normal Crown	-2.00%	-2.00%
233	11+621.12m	Level Crown	-2.00%	0.00%	241	11+899.00m	Begin Normal Crown	-2.00%	-2.00%	250	12+180.58m	End Normal Crown	-2.00%	-2.00%	258	12+519.45m	Level Crown	-2.00%	0.00%
233	11+630.79m	Begin Normal Crown	-2.00%	-2.00%	242	11+878.18m	End Normal Crown	-2.00%	-2.00%	250	12+189.95m	Level Crown	-2.00%	0.00%	258	12+528.97m	Reverse Crown	-2.00%	2.00%
234	11+586.05m	End Normal Crown	-2.00%	-2.00%	242	11+887.47m	Level Crown	-2.00%	0.00%	250	12+199.33m	Reverse Crown	-2.00%	2.00%	258	12+539.45m	Begin Full Super	-4.20%	4.20%
234	11+595.63m	Level Crown	-2.00%	0.00%	242	11+896.76m	Reverse Crown	-2.00%	2.00%	250	12+204.95m	Begin Full Super	-3.20%	3.20%	258	12+560.56m	End Full Super	-4.20%	4.20%
234	11+605.22m	Reverse Crown	-2.00%	2.00%	242	11+900.47m	Begin Full Super	-2.80%	2.80%	250	12+221.99m	End Full Super	-3.20%	3.20%	258	12+571.04m	Reverse Crown	-2.00%	2.00%
234	11+618.63m	Begin Full Super	-4.80%	4.80%	242	11+911.68m	End Full Super	-2.80%	2.80%	250	12+227.62m	Reverse Crown	-2.00%	2.00%	258	12+580.56m	Level Crown	-2.00%	0.00%
234	11+622.85m	End Full Super	-4.80%	4.80%	242	11+915.39m	Reverse Crown	-2.00%	2.00%	250	12+236.99m	Level Crown	-2.00%	0.00%	258	12+590.09m	Begin Normal Crown	-2.00%	-2.00%
234	11+636.27m	Reverse Crown	-2.00%	2.00%	242	11+924.68m	Level Crown	-2.00%	0.00%	250	12+246.37m	Begin Normal Crown	-2.00%	-2.00%	259	12+546.32m	End Normal Crown	-2.00%	-2.00%
234	11+645.85m	Level Crown	-2.00%	0.00%	242	11+933.96m	Begin Normal Crown	-2.00%	-2.00%	251	12+210.27m	End Normal Crown	-2.00%	-2.00%	259	12+555.92m	Level Crown	0.00%	-2.00%
234	11+655.44m	Begin Normal Crown	-2.00%	-2.00%	243	11+897.98m	End Normal Crown	-2.00%	-2.00%	251	12+219.64m	Level Crown	-2.00%	0.00%	259	12+565.52m	Reverse Crown	2.00%	-2.00%
235	11+606.92m	End Normal Crown	-2.00%	-2.00%	243	11+907.50m	Level Crown	0.00%	-2.00%	251	12+229.02m	Reverse Crown	-2.00%	2.00%	259	12+576.22m	End Full Super	5.00%	-5.00%
235	11+616.59m	Level Crown	0.00%	-2.00%	243	11+917.03m	Reverse Crown	2.00%	-2.00%	251	12+234.64m	Begin Full Super	-3.20%	3.20%	259	12+579.92m	Begin Full Super	5.00%	-5.00%
235	11+626.26m	Reverse Crown	2.00%	-2.00%	243	11+927.50m	Begin Full Super	4.20%	-4.20%	251	12+266.55m	End Full Super	-3.20%	3.20%	259	12+590.62m	Reverse Crown	2.00%	-2.00%
235	11+638.42m	End Full Super	6.00%	-6.00%	243	11+932.20m	End Full Super	4.20%	-4.20%	251	12+272.17m	Reverse Crown	-2.00%	2.00%	259	12+600.22m	Level Crown	0.00%	-2.00%
235	11+645.59m	Begin Full Super	6.00%	-6.00%	243	11+942.67m	Reverse Crown	2.00%	-2.00%	251	12+281.55m	Level Crown	-2.00%	0.00%	259	12+609.82m	Begin Normal Crown	-2.00%	-2.00%
235	11+657.75m	Reverse Crown	2.00%	-2.00%	243	11+952.20m	Level Crown	0.00%	-2.00%	251	12+290.92m	Begin Normal Crown	-2.00%	-2.00%	260	12+585.50m	End Normal Crown	-2.00%	-2.00%
235	11+667.42m	Level Crown	0.00%	-2.00%	243	11+961.72m	Begin Normal Crown	-2.00%	-2.00%	252	12+285.39m	End Normal Crown	-2.00%	-2.00%	260	12+595.02m	Level Crown	0.00%	-2.00%
235	11+677.09m	Begin Normal Crown	-2.00%	-2.00%	244	11+942.47m	End Normal Crown	-2.00%	-2.00%	252	12+294.94m	Level Crown	-2.00%	0.00%	260	12+604.55m	Reverse Crown	2.00%	-2.00%
236	11+629.23m	End Normal																	

Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane
260	12+657.63m	Begin Normal Crown	-2.00%	-2.00%	269	12+859.90m	End Normal Crown	-2.00%	-2.00%	277	13+277.95m	Level Crown	-2.00%	0.00%	285	13+596.94m	Reverse Crown	2.00%	-2.00%
261	12+624.00m	End Normal Crown	-2.00%	-2.00%	269	12+879.57m	Level Crown	0.00%	-2.00%	277	13+287.61m	Reverse Crown	-2.00%	2.00%	285	13+616.28m	Begin Full Super	6.00%	-6.00%
261	12+633.28m	Level Crown	0.00%	-2.00%	269	12+889.24m	Reverse Crown	2.00%	-2.00%	277	13+306.95m	Begin Full Super	-6.00%	6.00%	285	13+620.29m	End Full Super	6.00%	-6.00%
261	12+642.57m	Reverse Crown	2.00%	-2.00%	269	12+903.94m	End Full Super	6.00%	-6.00%	277	13+310.42m	End Full Super	-6.00%	6.00%	285	13+639.63m	Reverse Crown	2.00%	-2.00%
261	12+646.28m	Begin Full Super	2.80%	-2.80%	269	12+908.57m	Begin Full Super	6.00%	-6.00%	277	13+329.75m	Reverse Crown	-2.00%	2.00%	285	13+649.29m	Level Crown	0.00%	-2.00%
261	12+655.70m	End Full Super	2.80%	-2.80%	269	12+923.27m	Reverse Crown	2.00%	-2.00%	277	13+339.42m	Level Crown	-2.00%	0.00%	285	13+658.96m	Begin Normal Crown	-2.00%	-2.00%
261	12+659.42m	Reverse Crown	2.00%	-2.00%	269	12+932.94m	Level Crown	0.00%	-2.00%	277	13+349.08m	Begin Normal Crown	-2.00%	-2.00%	286	13+620.08m	End Normal Crown	-2.00%	-2.00%
261	12+668.70m	Level Crown	0.00%	-2.00%	269	12+942.61m	Begin Normal Crown	-2.00%	-2.00%	278	13+291.09m	End Normal Crown	-2.00%	-2.00%	286	13+629.69m	Level Crown	-2.00%	0.00%
261	12+677.99m	Begin Normal Crown	-2.00%	-2.00%	270	12+915.18m	End Normal Crown	-2.00%	-2.00%	278	13+300.75m	Level Crown	-2.00%	0.00%	286	13+639.31m	Reverse Crown	-2.00%	2.00%
262	12+646.32m	End Normal Crown	-2.00%	-2.00%	270	12+924.79m	Level Crown	0.00%	-2.00%	278	13+310.42m	Reverse Crown	-2.00%	2.00%	286	13+654.69m	Begin Full Super	-5.20%	5.20%
262	12+655.73m	Level Crown	-2.00%	0.00%	270	12+934.41m	Reverse Crown	2.00%	-2.00%	278	13+328.83m	End Full Super	-6.00%	6.00%	286	13+675.26m	End Full Super	-5.20%	5.20%
262	12+665.15m	Reverse Crown	-2.00%	2.00%	270	12+949.79m	Begin Full Super	5.20%	-5.20%	278	13+329.75m	Begin Full Super	-6.00%	6.00%	286	13+690.65m	Reverse Crown	-2.00%	2.00%
262	12+671.73m	Begin Full Super	-3.40%	3.40%	270	12+962.56m	End Full Super	5.20%	-5.20%	278	13+348.16m	Reverse Crown	-2.00%	2.00%	286	13+700.26m	Level Crown	-2.00%	0.00%
262	12+671.84m	End Full Super	-3.40%	3.40%	270	12+977.95m	Reverse Crown	2.00%	-2.00%	278	13+357.83m	Level Crown	-2.00%	0.00%	286	13+709.88m	Begin Normal Crown	-2.00%	-2.00%
262	12+678.43m	Reverse Crown	-2.00%	2.00%	270	12+987.56m	Level Crown	0.00%	-2.00%	278	13+367.49m	Begin Normal Crown	-2.00%	-2.00%	287	13+661.86m	End Normal Crown	-2.00%	-2.00%
262	12+687.84m	Level Crown	-2.00%	0.00%	270	12+997.18m	Begin Normal Crown	-2.00%	-2.00%	279	13+332.41m	End Normal Crown	-2.00%	-2.00%	287	13+671.47m	Level Crown	0.00%	-2.00%
262	12+697.25m	Begin Normal Crown	-2.00%	-2.00%	271	12+950.69m	End Normal Crown	-2.00%	-2.00%	279	13+341.91m	Level Crown	0.00%	-2.00%	287	13+681.09m	Reverse Crown	2.00%	-2.00%
263	12+664.53m	End Normal Crown	-2.00%	-2.00%	271	12+960.36m	Level Crown	-2.00%	0.00%	279	13+351.41m	Reverse Crown	2.00%	-2.00%	287	13+696.47m	Begin Full Super	5.20%	-5.20%
263	12+673.87m	Level Crown	-2.00%	0.00%	271	12+970.03m	Reverse Crown	-2.00%	2.00%	279	13+359.03m	End Full Super	4.00%	-4.00%	287	13+703.98m	End Full Super	5.20%	-5.20%
263	12+683.20m	Reverse Crown	-2.00%	2.00%	271	12+987.82m	End Full Super	-6.00%	6.00%	279	13+360.91m	Begin Full Super	4.00%	-4.00%	287	13+719.36m	Reverse Crown	2.00%	-2.00%
263	12+687.87m	Begin Full Super	-3.00%	3.00%	271	12+989.36m	Begin Full Super	-6.00%	6.00%	279	13+368.53m	Reverse Crown	2.00%	-2.00%	287	13+728.98m	Level Crown	0.00%	-2.00%
263	12+695.27m	End Full Super	-3.00%	3.00%	271	13+007.15m	Reverse Crown	-2.00%	2.00%	279	13+378.03m	Level Crown	0.00%	-2.00%	287	13+738.59m	Begin Normal Crown	-2.00%	-2.00%
263	12+699.94m	Reverse Crown	-2.00%	2.00%	271	13+016.82m	Level Crown	-2.00%	0.00%	279	13+387.53m	Begin Normal Crown	-2.00%	-2.00%	288	13+690.55m	End Normal Crown	-2.00%	-2.00%
263	12+709.27m	Level Crown	-2.00%	0.00%	271	13+026.49m	Begin Normal Crown	-2.00%	-2.00%	280	13+364.13m	End Normal Crown	-2.00%	-2.00%	288	13+700.22m	Level Crown	-2.00%	0.00%
263	12+718.60m	Begin Normal Crown	-2.00%	-2.00%	272	12+995.47m	End Normal Crown	-2.00%	-2.00%	280	13+373.41m	Level Crown	-2.00%	0.00%	288	13+709.89m	Reverse Crown	-2.00%	2.00%
264	12+731.31m	End Normal Crown	-2.00%	-2.00%	272	13+005.07m	Level Crown	0.00%	-2.00%	280	13+382.70m	Reverse Crown	-2.00%	2.00%	288	13+729.22m	Begin Full Super	-6.00%	6.00%
264	12+740.94m	Level Crown	-2.00%	0.00%	272	13+014.67m	Reverse Crown	2.00%	-2.00%	280	13+386.41m	Begin Full Super	-2.80%	2.80%	288	13+748.46m	End Full Super	-6.00%	6.00%
264	12+750.57m	Reverse Crown	-2.00%	2.00%	272	13+029.07m	Begin Full Super	5.00%	-5.00%	280	13+409.83m	End Full Super	-2.80%	2.80%	288	13+767.79m	Reverse Crown	-2.00%	2.00%
264	12+766.67m	End Full Super	-5.40%	5.40%	272	13+037.89m	End Full Super	5.00%	-5.00%	280	13+413.54m	Reverse Crown	-2.00%	2.00%	288	13+777.46m	Level Crown	-2.00%	0.00%
264	12+766.94m	Begin Full Super	-5.40%	5.40%	272	13+052.29m	Reverse Crown	2.00%	-2.00%	280	13+422.83m	Level Crown	-2.00%	0.00%	288	13+787.12m	Begin Normal Crown	-2.00%	-2.00%
264	12+783.04m	Reverse Crown	-2.00%	2.00%	272	13+061.89m	Level Crown	0.00%	-2.00%	280	13+432.11m	Begin Normal Crown	-2.00%	-2.00%	289	13+733.49m	End Normal Crown	-2.00%	-2.00%
264	12+792.67m	Level Crown	-2.00%	0.00%	272	13+071.49m	Begin Normal Crown	-2.00%	-2.00%	281	13+409.21m	End Normal Crown	-2.00%	-2.00%	289	13+743.09m	Level Crown	-2.00%	0.00%
264	12+802.30m	Begin Normal Crown	-2.00%	-2.00%	273	13+041.12m	End Normal Crown	-2.00%	-2.00%	281	13+418.73m	Level Crown	0.00%	-2.00%	289	13+752.69m	Reverse Crown	-2.00%	2.00%
265	12+769.37m	End Normal Crown	-2.00%	-2.00%	273	13+050.57m	Level Crown	0.00%	-2.00%	281	13+428.25m	Reverse Crown	2.00%	-2.00%	289	13+761.90m	End Full Super	-5.00%	5.00%
265	12+778.84m	Level Crown	0.00%	-2.00%	273	13+060.01m	Reverse Crown	2.00%	-2.00%	281	13+438.73m	Begin Full Super	4.20%	-4.20%	289	13+767.09m	Begin Full Super	-5.00%	5.00%
265	12+788.31m	Reverse Crown	2.00%	-2.00%	273	13+067.57m	Begin Full Super	3.60%	-3.60%	281	13+448.71m	End Full Super	4.20%	-4.20%	289	13+776.30m	Reverse Crown	-2.00%	2.00%
265	12+796.84m	Begin Full Super	3.80%	-3.80%	273	13+071.69m	End Full Super	3.60%	-3.60%	281	13+459.19m	Reverse Crown	2.00%	-2.00%	289	13+785.90m	Level Crown	-2.00%	0.00%
265	12+802.28m	End Full Super	3.80%	-3.80%	273	13+079.24m	Reverse Crown	2.00%	-2.00%	281	13+468.71m	Level Crown	0.00%	-2.00%	289	13+795.50m	Begin Normal Crown	-2.00%	-2.00%
265	12+810.81m	Reverse Crown	2.00%	-2.00%	273	13+088.69m	Level Crown	0.00%	-2.00%	281	13+478.23m	Begin Normal Crown	-2.00%	-2.00%	290	13+747.82m	End Normal Crown	-2.00%	-2.00%
265	12+820.28m	Level Crown	0.00%	-2.00%	273	13+098.13m	Begin Normal Crown	-2.00%	-2.00%	282	13+437.86m	End Normal Crown	-2.00%	-2.00%	290	13+757.37m	Level Crown	-2.00%	0.00%
265	12+829.75m	Begin Normal Crown	-2.00%	-2.00%	274	13+134.74m	End Normal Crown	-2.00%	-2.00%	282	13+447.53m	Level Crown	0.00%	-2.00%	290	13+766.91m	Reverse Crown	-2.00%	2.00%
266	12+800.01m	End Normal Crown	-2.00%	-2.00%	274	13+144.34m	Level Crown	-2.00%	0.00%	282	13+457.19m	Reverse Crown	2.00%	-2.00%	290	13+778.37m	Begin Full Super	-4.40%	4.40%
266	12+809.48m	Level Crown	-2.00%	0.00%	274	13+153.94m	Reverse Crown	-2.00%	2.00%	282	13+476.53m	Begin Full Super	6.00%	-6.00%	290	13+811.03m	End Full Super	-4.40%	4.40%
266	12+818.96m	Reverse Crown	-2.00%	2.00%	274	13+168.34m	Begin Full Super	-5.00%	5.00%	282	13+482.85m	End Full Super	6.00%	-6.00%	290	13+822.48m	Reverse Crown	-2.00%	2.00%
266	12+827.48m	Begin Full Super	-3.80%	3.80%	274	13+174.56m	End Full Super	-5.00%	5.00%	282	13+502.18m	Reverse Crown	2.00%	-2.00%	290	13+832.03m	Level Crown	-2.00%	0.00%
266	12+843.54m	End Full Super	-3.80%	3.80%	274	13+188.96m	Reverse Crown	-2.00%	2.00%	282	13+511.85m	Level Crown	0.00%	-2.00%	290	13+841.57m	Begin Normal Crown	-2.00%	-2.00%
266	12+852.06m	Reverse Crown	-2.00%	2.00%	274	13+198.56m	Level Crown	-2.00%	0.00%	282	13+521.51m	Begin Normal Crown	-2.00%	-2.00%	291	13+833.36m	End Normal Crown	-2.00%	-2.00%
266	12+861.54m	Level Crown	-2.00%	0.00%	274	13+208.16m	Begin Normal Crown	-2.00%	-2.00%	283	13+539.82m	End Normal Crown	-2.00%	-2.00%	291	13+843.36m	Level Crown	0.00%	-2.00%
266	12+871.01m	Begin Normal Crown	-2.00%	-2.00%	275	13+161.96m	End Normal Crown	-2.00%	-2.00%	283	13+549.82m	Level Crown	-2.00%	0.00%	291	13+853.36m	Reverse Crown	2.00%	-2.00%
267	12+832.52m	End Normal Crown	-2.00%	-2.00%	275	13+171.62m	Level Crown	0.00%	-2.00%	283	13+559.82m	Reverse Crown	-2.00%	2.00%	291	13+854.36m	Begin Full Super	2.20%	-2.20%
267	12+842.11m	Level Crown	0.00%	-2.00%	275	13+181.29m	Reverse Crown	2.00%	-2.00%	283	13+560.82m	Begin Full Super	-2.20%	2.20%	291	13+875.71m	End Full Super	2.20%	-2.20%
267	12+851.69m	Reverse Crown	2.00%	-2.00%	275	13+200.62m	Begin Full Super	6.00%	-6.00%	283	13+573.24m	End Full Super	-2.20%	2.20%	291	13+876.71m	Reverse Crown	2.00%	-2.00%
267	12+865.11m	Begin Full Super	4.80%	-4.80%	275	13+213.78m	End Full Super	6.00%	-6.00%	283	13+574.24m	Reverse Crown	-2.00%	2.00%	291	13+886.71m	Level Crown	0.00%	-2.00%
267	12+865.80m	End Full Super	4.80%	-4.80%	275	13+233.11m	Reverse Crown	2.00%	-2.00%	283	13+584.24m	Level Crown	-2.00%	0.00%	291	13+896.71m	Begin Normal Crown	-2.00%	-2.00%
267	12+879.21m	Reverse Crown	2.00%	-2.00%	275	13+242.78m	Level Crown	0.00%	-2.00%	283	13+594.24m	Begin Normal Crown	-2.00%	-2.00%	292	13+863.83m	End Normal Crown	-2.00%	-2.00%
267	12+888.80m	Level Crown	0.00%	-2.00%	275	13+252.45m	Begin Normal Crown	-2.00%	-2.00%	284	13+565.90m	End Normal Crown	-2.00%	-2.00%	292	13+873.48m	Level Crown	-2.00%	0.00%
267	12+898.38m	Begin Normal Crown	-2.00%	-2.00%	276	13+194.83m	End Normal Crown	-2.00%	-2.00%	284	13+575.90m	Level Crown	-2.00%	0.00%	292	13+883.14m	Reverse Crown	-2.00%	2.00%
268	12+848.67m	End Normal Crown	-2.00%	-2.00%	276	13+204.49m	Level Crown	0.00%	-2.00%	284	13+585.90m	Reverse Crown	-2.00%	2.00%	292	13+901.48m	Begin Full Super	-5.80%	5.80%
268	12+858.33m	Level Crown	-2.00%	0.00%	276	13+214.16m	Reverse Crown	2.00%	-2.00%	284	13+587.90m	Begin Full Super	-2.40%	2.40%	292	13+911.23m	End Full Super	-5.80%	5.80%
268	12+868.00m	Reverse Crown	-2.00%	2.00%	276	13+226.19m	End Full Super	6.00%	-6.00%	284	13+597.92m	End Full Super	-2.40%	2.40%	292	13+929.57m	Reverse Crown	-2.00%	2.00%
268	12+887.33m	Begin Full Super	-6.00%	6.00%	276	13+233.49m	Begin Full Super	6.00%	-6.00%	284	13+599.92m	Reverse Crown	-2.00%	2.00%	292	13+939.23m	Level Crown	-2.00%	0.00%
268	12+888.46m	End Full																	

Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane
293	13+929.06m	End Full Super	6.00%	-6.00%	301	14+205.80m	End Full Super	5.00%	-5.00%	309	14+470.26m	Reverse Crown	-2.00%	2.00%	317	14+722.00m	Level Crown	0.00%	-2.00%
293	13+931.55m	Begin Full Super	6.00%	-6.00%	301	14+220.20m	Reverse Crown	2.00%	-2.00%	309	14+479.92m	Level Crown	-2.00%	0.00%	317	14+731.65m	Begin Normal Crown	-2.00%	-2.00%
293	13+948.40m	Reverse Crown	2.00%	-2.00%	301	14+229.80m	Level Crown	0.00%	-2.00%	309	14+489.59m	Begin Normal Crown	-2.00%	-2.00%	318	14+680.13m	End Normal Crown	-2.00%	-2.00%
293	13+958.06m	Level Crown	0.00%	-2.00%	301	14+239.40m	Begin Normal Crown	-2.00%	-2.00%	310	14+437.82m	End Normal Crown	-2.00%	-2.00%	318	14+689.69m	Level Crown	-2.00%	0.00%
293	13+967.73m	Begin Normal Crown	-2.00%	-2.00%	302	14+214.04m	End Normal Crown	-2.00%	-2.00%	310	14+447.39m	Level Crown	0.00%	-2.00%	318	14+699.26m	Reverse Crown	-2.00%	2.00%
294	13+925.79m	End Normal Crown	-2.00%	-2.00%	302	14+223.61m	Level Crown	0.00%	-2.00%	310	14+456.95m	Reverse Crown	2.00%	-2.00%	318	14+711.69m	Begin Full Super	-4.60%	4.60%
294	13+935.41m	Level Crown	-2.00%	0.00%	302	14+233.17m	Reverse Crown	2.00%	-2.00%	310	14+469.39m	Begin Full Super	4.60%	-4.60%	318	14+733.80m	End Full Super	-4.60%	4.60%
294	13+945.02m	Reverse Crown	-2.00%	2.00%	302	14+245.61m	Begin Full Super	4.60%	-4.60%	310	14+479.67m	End Full Super	4.60%	-4.60%	318	14+746.23m	Reverse Crown	-2.00%	2.00%
294	13+960.41m	Begin Full Super	-5.20%	5.20%	302	14+251.37m	End Full Super	4.60%	-4.60%	310	14+492.10m	Reverse Crown	2.00%	-2.00%	318	14+755.80m	Level Crown	-2.00%	0.00%
294	13+966.98m	End Full Super	-5.20%	5.20%	302	14+263.81m	Reverse Crown	2.00%	-2.00%	310	14+501.67m	Level Crown	0.00%	-2.00%	318	14+765.37m	Begin Normal Crown	-2.00%	-2.00%
294	13+982.37m	Reverse Crown	-2.00%	2.00%	302	14+273.37m	Level Crown	0.00%	-2.00%	310	14+511.23m	Begin Normal Crown	-2.00%	-2.00%	319	14+728.72m	End Normal Crown	-2.00%	-2.00%
294	13+991.98m	Level Crown	-2.00%	0.00%	302	14+282.94m	Begin Normal Crown	-2.00%	-2.00%	311	14+477.40m	End Normal Crown	-2.00%	-2.00%	319	14+738.72m	Level Crown	0.00%	-2.00%
294	14+001.60m	Begin Normal Crown	-2.00%	-2.00%	303	14+252.96m	End Normal Crown	-2.00%	-2.00%	311	14+487.06m	Level Crown	0.00%	-2.00%	319	14+748.72m	Reverse Crown	2.00%	-2.00%
295	13+953.76m	End Normal Crown	-2.00%	-2.00%	303	14+262.48m	Level Crown	0.00%	-2.00%	311	14+496.73m	Reverse Crown	2.00%	-2.00%	319	14+750.72m	Begin Full Super	2.40%	-2.40%
295	13+963.31m	Level Crown	0.00%	-2.00%	303	14+272.01m	Reverse Crown	2.00%	-2.00%	311	14+515.37m	End Full Super	6.00%	-6.00%	319	14+765.21m	End Full Super	2.40%	-2.40%
295	13+972.85m	Reverse Crown	2.00%	-2.00%	303	14+282.48m	Begin Full Super	4.20%	-4.20%	311	14+516.06m	Begin Full Super	6.00%	-6.00%	319	14+767.21m	Reverse Crown	2.00%	-2.00%
295	13+984.31m	Begin Full Super	4.40%	-4.40%	303	14+285.45m	End Full Super	4.20%	-4.20%	311	14+534.70m	Reverse Crown	2.00%	-2.00%	319	14+777.21m	Level Crown	0.00%	-2.00%
295	13+993.36m	End Full Super	4.40%	-4.40%	303	14+295.93m	Reverse Crown	2.00%	-2.00%	311	14+544.37m	Level Crown	0.00%	-2.00%	319	14+787.21m	Begin Normal Crown	-2.00%	-2.00%
295	14+004.82m	Reverse Crown	2.00%	-2.00%	303	14+305.45m	Level Crown	0.00%	-2.00%	311	14+554.04m	Begin Normal Crown	-2.00%	-2.00%	320	14+767.73m	End Normal Crown	-2.00%	-2.00%
295	14+014.36m	Level Crown	0.00%	-2.00%	303	14+314.98m	Begin Normal Crown	-2.00%	-2.00%	312	14+500.22m	End Normal Crown	-2.00%	-2.00%	320	14+777.23m	Level Crown	0.00%	-2.00%
295	14+023.91m	Begin Normal Crown	-2.00%	-2.00%	304	14+280.65m	End Normal Crown	-2.00%	-2.00%	312	14+509.84m	Level Crown	0.00%	-2.00%	320	14+786.73m	Reverse Crown	2.00%	-2.00%
296	13+978.05m	End Normal Crown	-2.00%	-2.00%	304	14+290.20m	Level Crown	-2.00%	0.00%	312	14+519.45m	Reverse Crown	2.00%	-2.00%	320	14+796.23m	Begin Full Super	4.00%	-4.00%
296	13+987.65m	Level Crown	0.00%	-2.00%	304	14+299.74m	Reverse Crown	-2.00%	2.00%	312	14+534.83m	End Full Super	5.20%	-5.20%	320	14+805.61m	End Full Super	4.00%	-4.00%
296	13+997.25m	Reverse Crown	2.00%	-2.00%	304	14+309.39m	End Full Super	-4.40%	4.40%	312	14+534.84m	Begin Full Super	5.20%	-5.20%	320	14+815.11m	Reverse Crown	2.00%	-2.00%
296	14+011.65m	Begin Full Super	5.00%	-5.00%	304	14+311.20m	Begin Full Super	-4.40%	4.40%	312	14+550.22m	Reverse Crown	2.00%	-2.00%	320	14+824.61m	Level Crown	0.00%	-2.00%
296	14+015.18m	End Full Super	5.00%	-5.00%	304	14+320.85m	Reverse Crown	-2.00%	2.00%	312	14+559.83m	Level Crown	0.00%	-2.00%	320	14+834.11m	Begin Normal Crown	-2.00%	-2.00%
296	14+029.58m	Reverse Crown	2.00%	-2.00%	304	14+330.39m	Level Crown	-2.00%	0.00%	312	14+569.45m	Begin Normal Crown	-2.00%	-2.00%	321	14+794.52m	End Normal Crown	-2.00%	-2.00%
296	14+039.18m	Level Crown	0.00%	-2.00%	304	14+339.94m	Begin Normal Crown	-2.00%	-2.00%	313	14+521.44m	End Normal Crown	-2.00%	-2.00%	321	14+804.16m	Level Crown	-2.00%	0.00%
296	14+048.78m	Begin Normal Crown	-2.00%	-2.00%	305	14+293.93m	End Normal Crown	-2.00%	-2.00%	313	14+531.08m	Level Crown	-2.00%	0.00%	321	14+813.80m	Reverse Crown	-2.00%	2.00%
297	14+014.09m	End Normal Crown	-2.00%	-2.00%	305	14+303.59m	Level Crown	0.00%	-2.00%	313	14+540.72m	Reverse Crown	-2.00%	2.00%	321	14+831.16m	Begin Full Super	-5.60%	5.60%
297	14+023.59m	Level Crown	0.00%	-2.00%	305	14+313.24m	Reverse Crown	2.00%	-2.00%	313	14+558.08m	Begin Full Super	-5.60%	5.60%	321	14+848.35m	End Full Super	-5.60%	5.60%
297	14+033.09m	Reverse Crown	2.00%	-2.00%	305	14+325.18m	End Full Super	5.80%	-5.80%	313	14+569.88m	End Full Super	-5.60%	5.60%	321	14+865.70m	Reverse Crown	-2.00%	2.00%
297	14+042.59m	Begin Full Super	4.00%	-4.00%	305	14+331.59m	Begin Full Super	5.80%	-5.80%	313	14+587.23m	Reverse Crown	-2.00%	2.00%	321	14+875.35m	Level Crown	-2.00%	0.00%
297	14+055.38m	End Full Super	4.00%	-4.00%	305	14+343.52m	Reverse Crown	2.00%	-2.00%	313	14+596.88m	Level Crown	-2.00%	0.00%	321	14+884.99m	Begin Normal Crown	-2.00%	-2.00%
297	14+064.88m	Reverse Crown	2.00%	-2.00%	305	14+353.18m	Level Crown	0.00%	-2.00%	313	14+606.52m	Begin Normal Crown	-2.00%	-2.00%	322	14+849.03m	End Normal Crown	-2.00%	-2.00%
297	14+074.38m	Level Crown	0.00%	-2.00%	305	14+362.83m	Begin Normal Crown	-2.00%	-2.00%	314	14+569.67m	End Normal Crown	-2.00%	-2.00%	322	14+858.70m	Level Crown	-2.00%	0.00%
297	14+083.88m	Begin Normal Crown	-2.00%	-2.00%	306	14+328.74m	End Normal Crown	-2.00%	-2.00%	314	14+579.22m	Level Crown	0.00%	-2.00%	322	14+868.37m	Reverse Crown	-2.00%	2.00%
298	14+041.45m	End Normal Crown	-2.00%	-2.00%	306	14+338.18m	Level Crown	-2.00%	0.00%	314	14+588.76m	Reverse Crown	2.00%	-2.00%	322	14+883.19m	End Full Super	-6.00%	6.00%
298	14+051.07m	Level Crown	0.00%	-2.00%	306	14+347.63m	Reverse Crown	-2.00%	2.00%	314	14+600.22m	Begin Full Super	4.40%	-4.40%	322	14+887.70m	Begin Full Super	-6.00%	6.00%
298	14+060.68m	Reverse Crown	2.00%	-2.00%	306	14+355.18m	Begin Full Super	-3.60%	3.60%	314	14+606.97m	End Full Super	4.40%	-4.40%	322	14+902.53m	Reverse Crown	-2.00%	2.00%
298	14+076.07m	Begin Full Super	5.20%	-5.20%	306	14+356.38m	End Full Super	-3.60%	3.60%	314	14+618.42m	Reverse Crown	2.00%	-2.00%	322	14+912.19m	Level Crown	-2.00%	0.00%
298	14+082.62m	End Full Super	5.20%	-5.20%	306	14+363.94m	Reverse Crown	-2.00%	2.00%	314	14+627.97m	Level Crown	0.00%	-2.00%	322	14+921.86m	Begin Normal Crown	-2.00%	-2.00%
298	14+098.00m	Reverse Crown	2.00%	-2.00%	306	14+373.38m	Level Crown	-2.00%	0.00%	314	14+637.51m	Begin Normal Crown	-2.00%	-2.00%	323	14+866.91m	End Normal Crown	-2.00%	-2.00%
298	14+107.62m	Level Crown	0.00%	-2.00%	306	14+382.83m	Begin Normal Crown	-2.00%	-2.00%	315	14+621.89m	End Normal Crown	-2.00%	-2.00%	323	14+876.57m	Level Crown	0.00%	-2.00%
298	14+117.23m	Begin Normal Crown	-2.00%	-2.00%	307	14+346.55m	End Normal Crown	-2.00%	-2.00%	315	14+631.48m	Level Crown	-2.00%	0.00%	323	14+886.24m	Reverse Crown	2.00%	-2.00%
299	14+120.11m	End Normal Crown	-2.00%	-2.00%	307	14+355.99m	Level Crown	0.00%	-2.00%	315	14+641.06m	Reverse Crown	-2.00%	2.00%	323	14+905.57m	Begin Full Super	6.00%	-6.00%
299	14+129.34m	Level Crown	0.00%	-2.00%	307	14+365.43m	Reverse Crown	2.00%	-2.00%	315	14+651.81m	End Full Super	-4.80%	4.80%	323	14+911.85m	End Full Super	6.00%	-6.00%
299	14+138.57m	Reverse Crown	2.00%	-2.00%	307	14+372.99m	Begin Full Super	3.60%	-3.60%	315	14+654.48m	Begin Full Super	-4.80%	4.80%	323	14+931.18m	Reverse Crown	2.00%	-2.00%
299	14+141.34m	Begin Full Super	2.60%	-2.60%	307	14+376.89m	End Full Super	3.60%	-3.60%	315	14+665.23m	Reverse Crown	-2.00%	2.00%	323	14+940.85m	Level Crown	0.00%	-2.00%
299	14+157.97m	End Full Super	2.60%	-2.60%	307	14+384.45m	Reverse Crown	2.00%	-2.00%	315	14+674.81m	Level Crown	-2.00%	0.00%	323	14+950.51m	Begin Normal Crown	-2.00%	-2.00%
299	14+160.74m	Reverse Crown	2.00%	-2.00%	307	14+393.89m	Level Crown	0.00%	-2.00%	315	14+684.40m	Begin Normal Crown	-2.00%	-2.00%	324	14+895.42m	End Normal Crown	-2.00%	-2.00%
299	14+169.97m	Level Crown	0.00%	-2.00%	307	14+403.34m	Begin Normal Crown	-2.00%	-2.00%	316	14+635.71m	End Normal Crown	-2.00%	-2.00%	324	14+905.09m	Level Crown	0.00%	-2.00%
299	14+179.20m	Begin Normal Crown	-2.00%	-2.00%	308	14+384.13m	End Normal Crown	-2.00%	-2.00%	316	14+645.36m	Level Crown	0.00%	-2.00%	324	14+914.75m	Reverse Crown	2.00%	-2.00%
300	14+141.78m	End Normal Crown	-2.00%	-2.00%	308	14+393.78m	Level Crown	-2.00%	0.00%	316	14+655.02m	Reverse Crown	2.00%	-2.00%	324	14+932.97m	End Full Super	6.00%	-6.00%
300	14+151.43m	Level Crown	-2.00%	0.00%	308	14+403.42m	Reverse Crown	-2.00%	2.00%	316	14+665.03m	End Full Super	5.80%	-5.80%	324	14+934.09m	Begin Full Super	6.00%	-6.00%
300	14+161.07m	Reverse Crown	-2.00%	2.00%	308	14+420.78m	Begin Full Super	-5.60%	5.60%	316	14+673.36m	Begin Full Super	5.80%	-5.80%	324	14+952.31m	Reverse Crown	2.00%	-2.00%
300	14+178.43m	Begin Full Super	-5.60%	5.60%	308	14+421.51m	End Full Super	-5.60%	5.60%	316	14+683.37m	Reverse Crown	2.00%	-2.00%	324	14+961.97m	Level Crown	0.00%	-2.00%
300	14+183.29m	End Full Super	-5.60%	5.60%	308	14+438.86m	Reverse Crown	-2.00%	2.00%	316	14+693.03m	Level Crown	0.00%	-2.00%	324	14+971.64m	Begin Normal Crown	-2.00%	-2.00%
300	14+200.65m	Reverse Crown	-2.00%	2.00%	308	14+448.51m	Level Crown	-2.00%	0.00%	316	14+702.68m	Begin Normal Crown	-2.00%	-2.00%	325	14+932.59m	End Normal Crown	-2.00%	-2.00%
300	14+210.29m	Level Crown	-2.00%	0.00%	308	14+458.15m	Begin Normal Crown	-2.00%	-2.00%	317	14+650.59m	End Normal Crown	-2.00%	-2.00%	325	14+942.07m	Level Crown	-2.00%	0.00%
300	14+219.94m	Begin Normal Crown	-2.00%	-2.00%	309	14+407.24m	End Normal Crown	-2.00%	-2.00%	317	14+660.25m	Level Crown	0.00%	-2.00%	325	14+951.54m	Reverse Crown	-2.00%	2.00%
301	14+168.84m	End Normal																	

Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane
325	15+010.97m	Begin Normal Crown	-2.00%	-2.00%	334	15+354.03m	End Normal Crown	-2.00%	-2.00%	342	15+628.04m	Level Crown	0.00%	-2.00%	350	15+860.43m	Reverse Crown	-2.00%	2.00%
326	14+968.09m	End Normal Crown	-2.00%	-2.00%	334	15+363.37m	Level Crown	0.00%	-2.00%	342	15+637.61m	Reverse Crown	2.00%	-2.00%	350	15+879.76m	Begin Full Super	-6.00%	6.00%
326	14+977.76m	Level Crown	0.00%	-2.00%	334	15+372.70m	Reverse Crown	2.00%	-2.00%	342	15+650.04m	Begin Full Super	4.60%	-4.60%	350	15+888.72m	End Full Super	-6.00%	6.00%
326	14+987.42m	Reverse Crown	2.00%	-2.00%	334	15+377.37m	Begin Full Super	3.00%	-3.00%	342	15+661.57m	End Full Super	4.60%	-4.60%	350	15+908.06m	Reverse Crown	-2.00%	2.00%
326	15+006.76m	Begin Full Super	6.00%	-6.00%	334	15+388.07m	End Full Super	3.00%	-3.00%	342	15+674.00m	Reverse Crown	2.00%	-2.00%	350	15+917.72m	Level Crown	-2.00%	0.00%
326	15+018.91m	End Full Super	6.00%	-6.00%	334	15+392.73m	Reverse Crown	2.00%	-2.00%	342	15+683.57m	Level Crown	0.00%	-2.00%	350	15+927.39m	Begin Normal Crown	-2.00%	-2.00%
326	15+038.24m	Reverse Crown	2.00%	-2.00%	334	15+402.07m	Level Crown	0.00%	-2.00%	342	15+693.13m	Begin Normal Crown	-2.00%	-2.00%	351	15+877.00m	End Normal Crown	-2.00%	-2.00%
326	15+047.91m	Level Crown	0.00%	-2.00%	334	15+411.40m	Begin Normal Crown	-2.00%	-2.00%	343	15+671.23m	End Normal Crown	-2.00%	-2.00%	351	15+886.62m	Level Crown	-2.00%	0.00%
326	15+057.57m	Begin Normal Crown	-2.00%	-2.00%	335	15+382.71m	End Normal Crown	-2.00%	-2.00%	343	15+680.89m	Level Crown	0.00%	-2.00%	351	15+896.23m	Reverse Crown	-2.00%	2.00%
327	15+011.24m	End Normal Crown	-2.00%	-2.00%	335	15+392.71m	Level Crown	0.00%	-2.00%	343	15+690.56m	Reverse Crown	2.00%	-2.00%	351	15+911.62m	Begin Full Super	-5.20%	5.20%
327	15+020.87m	Level Crown	-2.00%	0.00%	335	15+402.71m	Begin Full Super	2.00%	-2.00%	343	15+709.89m	Begin Full Super	6.00%	-6.00%	351	15+920.56m	End Full Super	-5.20%	5.20%
327	15+030.50m	Reverse Crown	-2.00%	2.00%	335	15+402.71m	Reverse Crown	2.00%	-2.00%	343	15+713.82m	End Full Super	6.00%	-6.00%	351	15+935.94m	Reverse Crown	-2.00%	2.00%
327	15+046.87m	Begin Full Super	-5.40%	5.40%	335	15+411.62m	End Full Super	2.00%	-2.00%	343	15+733.15m	Reverse Crown	2.00%	-2.00%	351	15+945.56m	Level Crown	-2.00%	0.00%
327	15+052.56m	End Full Super	-5.40%	5.40%	335	15+411.62m	Reverse Crown	2.00%	-2.00%	343	15+742.82m	Level Crown	0.00%	-2.00%	351	15+955.17m	Begin Normal Crown	-2.00%	-2.00%
327	15+068.93m	Reverse Crown	-2.00%	2.00%	335	15+421.62m	Level Crown	0.00%	-2.00%	343	15+752.49m	Begin Normal Crown	-2.00%	-2.00%	352	15+916.01m	End Normal Crown	-2.00%	-2.00%
327	15+078.56m	Level Crown	-2.00%	0.00%	335	15+431.62m	Begin Normal Crown	-2.00%	-2.00%	344	15+709.29m	End Normal Crown	-2.00%	-2.00%	352	15+925.42m	Level Crown	0.00%	-2.00%
327	15+088.19m	Begin Normal Crown	-2.00%	-2.00%	336	15+413.63m	End Normal Crown	-2.00%	-2.00%	344	15+718.85m	Level Crown	0.00%	-2.00%	352	15+934.83m	Reverse Crown	2.00%	-2.00%
328	15+062.11m	End Normal Crown	-2.00%	-2.00%	336	15+423.25m	Level Crown	0.00%	-2.00%	344	15+728.42m	Reverse Crown	2.00%	-2.00%	352	15+941.42m	Begin Full Super	3.40%	-3.40%
328	15+071.48m	Level Crown	-2.00%	0.00%	336	15+432.86m	Reverse Crown	2.00%	-2.00%	344	15+734.51m	End Full Super	4.60%	-4.60%	352	15+944.83m	End Full Super	3.40%	-3.40%
328	15+080.86m	Reverse Crown	-2.00%	2.00%	336	15+445.92m	End Full Super	5.20%	-5.20%	344	15+740.85m	Begin Full Super	4.60%	-4.60%	352	15+951.42m	Reverse Crown	2.00%	-2.00%
328	15+086.48m	Begin Full Super	-3.20%	3.20%	336	15+448.25m	Begin Full Super	5.20%	-5.20%	344	15+746.94m	Reverse Crown	2.00%	-2.00%	352	15+960.83m	Level Crown	0.00%	-2.00%
328	15+096.53m	End Full Super	-3.20%	3.20%	336	15+461.30m	Reverse Crown	2.00%	-2.00%	344	15+756.51m	Level Crown	0.00%	-2.00%	352	15+970.24m	Begin Normal Crown	-2.00%	-2.00%
328	15+102.16m	Reverse Crown	-2.00%	2.00%	336	15+470.92m	Level Crown	0.00%	-2.00%	344	15+766.07m	Begin Normal Crown	-2.00%	-2.00%	353	15+942.20m	End Normal Crown	-2.00%	-2.00%
328	15+111.53m	Level Crown	-2.00%	0.00%	336	15+480.53m	Begin Normal Crown	-2.00%	-2.00%	345	15+733.74m	End Normal Crown	-2.00%	-2.00%	353	15+951.61m	Level Crown	-2.00%	0.00%
328	15+120.91m	Begin Normal Crown	-2.00%	-2.00%	337	15+428.19m	End Normal Crown	-2.00%	-2.00%	345	15+743.03m	Level Crown	-2.00%	0.00%	353	15+961.02m	Reverse Crown	-2.00%	2.00%
329	15+085.94m	End Normal Crown	-2.00%	-2.00%	337	15+437.85m	Level Crown	0.00%	-2.00%	345	15+752.31m	Reverse Crown	-2.00%	2.00%	353	15+967.61m	Begin Full Super	-3.40%	3.40%
329	15+095.39m	Level Crown	0.00%	-2.00%	337	15+447.50m	Reverse Crown	2.00%	-2.00%	345	15+753.75m	End Full Super	-2.80%	2.80%	353	15+980.84m	End Full Super	-3.40%	3.40%
329	15+104.83m	Reverse Crown	2.00%	-2.00%	337	15+465.85m	Begin Full Super	5.80%	-5.80%	345	15+756.03m	Begin Full Super	-2.80%	2.80%	353	15+987.43m	Reverse Crown	-2.00%	2.00%
329	15+112.39m	Begin Full Super	3.60%	-3.60%	337	15+480.03m	End Full Super	5.80%	-5.80%	345	15+757.47m	Reverse Crown	-2.00%	2.00%	353	15+996.84m	Level Crown	-2.00%	0.00%
329	15+144.97m	End Full Super	3.60%	-3.60%	337	15+498.38m	Reverse Crown	2.00%	-2.00%	345	15+766.75m	Level Crown	-2.00%	0.00%	353	16+006.25m	Begin Normal Crown	-2.00%	-2.00%
329	15+152.53m	Reverse Crown	2.00%	-2.00%	337	15+508.03m	Level Crown	0.00%	-2.00%	345	15+776.04m	Begin Normal Crown	-2.00%	-2.00%	354	15+972.11m	End Normal Crown	-2.00%	-2.00%
329	15+161.97m	Level Crown	0.00%	-2.00%	337	15+517.69m	Begin Normal Crown	-2.00%	-2.00%	346	15+749.56m	End Normal Crown	-2.00%	-2.00%	354	15+981.78m	Level Crown	0.00%	-2.00%
329	15+171.42m	Begin Normal Crown	-2.00%	-2.00%	338	15+489.77m	End Normal Crown	-2.00%	-2.00%	346	15+759.23m	Level Crown	-2.00%	0.00%	354	15+991.45m	Reverse Crown	2.00%	-2.00%
330	15+127.91m	End Normal Crown	-2.00%	-2.00%	338	15+499.21m	Level Crown	-2.00%	0.00%	346	15+768.89m	Reverse Crown	-2.00%	2.00%	354	15+994.81m	End Full Super	6.00%	-6.00%
330	15+137.52m	Level Crown	-2.00%	0.00%	338	15+508.66m	Reverse Crown	-2.00%	2.00%	346	15+788.23m	Begin Full Super	-6.00%	6.00%	354	16+010.78m	Begin Full Super	6.00%	-6.00%
330	15+147.14m	Reverse Crown	-2.00%	2.00%	338	15+516.21m	Begin Full Super	-3.60%	3.60%	346	15+793.49m	End Full Super	-6.00%	6.00%	354	16+014.15m	Reverse Crown	2.00%	-2.00%
330	15+162.52m	Begin Full Super	-5.20%	5.20%	338	15+517.64m	End Full Super	-3.60%	3.60%	346	15+812.82m	Reverse Crown	-2.00%	2.00%	354	16+023.81m	Level Crown	0.00%	-2.00%
330	15+176.78m	End Full Super	-5.20%	5.20%	338	15+525.20m	Reverse Crown	-2.00%	2.00%	346	15+822.49m	Level Crown	-2.00%	0.00%	354	16+033.48m	Begin Normal Crown	-2.00%	-2.00%
330	15+192.16m	Reverse Crown	-2.00%	2.00%	338	15+534.64m	Level Crown	-2.00%	0.00%	346	15+832.16m	Begin Normal Crown	-2.00%	-2.00%	355	15+981.45m	End Normal Crown	-2.00%	-2.00%
330	15+201.78m	Level Crown	-2.00%	0.00%	338	15+544.09m	Begin Normal Crown	-2.00%	-2.00%	347	15+777.32m	End Normal Crown	-2.00%	-2.00%	355	15+991.11m	Level Crown	0.00%	-2.00%
330	15+211.40m	Begin Normal Crown	-2.00%	-2.00%	339	15+510.77m	End Normal Crown	-2.00%	-2.00%	347	15+786.99m	Level Crown	-2.00%	0.00%	355	16+000.78m	Reverse Crown	2.00%	-2.00%
331	15+207.04m	End Normal Crown	-2.00%	-2.00%	339	15+520.24m	Level Crown	0.00%	-2.00%	347	15+796.65m	Reverse Crown	-2.00%	2.00%	355	16+017.48m	End Full Super	6.00%	-6.00%
331	15+216.63m	Level Crown	0.00%	-2.00%	339	15+529.72m	Reverse Crown	2.00%	-2.00%	347	15+815.66m	End Full Super	-6.00%	6.00%	355	16+020.11m	Begin Full Super	6.00%	-6.00%
331	15+226.21m	Reverse Crown	2.00%	-2.00%	339	15+538.24m	Begin Full Super	3.80%	-3.80%	347	15+815.99m	Begin Full Super	-6.00%	6.00%	355	16+036.81m	Reverse Crown	2.00%	-2.00%
331	15+239.63m	Begin Full Super	4.80%	-4.80%	339	15+552.11m	End Full Super	3.80%	-3.80%	347	15+834.99m	Reverse Crown	-2.00%	2.00%	355	16+046.48m	Level Crown	0.00%	-2.00%
331	15+242.43m	End Full Super	4.80%	-4.80%	339	15+560.64m	Reverse Crown	2.00%	-2.00%	347	15+844.66m	Level Crown	-2.00%	0.00%	355	16+056.14m	Begin Normal Crown	-2.00%	-2.00%
331	15+255.85m	Reverse Crown	2.00%	-2.00%	339	15+570.11m	Level Crown	0.00%	-2.00%	347	15+854.32m	Begin Normal Crown	-2.00%	-2.00%	356	16+000.89m	End Normal Crown	-2.00%	-2.00%
331	15+265.43m	Level Crown	0.00%	-2.00%	339	15+579.58m	Begin Normal Crown	-2.00%	-2.00%	348	15+799.80m	End Normal Crown	-2.00%	-2.00%	356	16+010.54m	Level Crown	0.00%	-2.00%
331	15+275.02m	Begin Normal Crown	-2.00%	-2.00%	340	15+543.03m	End Normal Crown	-2.00%	-2.00%	348	15+809.47m	Level Crown	0.00%	-2.00%	356	16+020.20m	Reverse Crown	2.00%	-2.00%
332	15+225.23m	End Normal Crown	-2.00%	-2.00%	340	15+552.59m	Level Crown	-2.00%	0.00%	348	15+819.13m	Reverse Crown	2.00%	-2.00%	356	16+038.54m	Begin Full Super	5.80%	-5.80%
332	15+234.90m	Level Crown	-2.00%	0.00%	340	15+562.16m	Reverse Crown	-2.00%	2.00%	348	15+836.05m	End Full Super	6.00%	-6.00%	356	16+039.48m	End Full Super	5.80%	-5.80%
332	15+244.56m	Reverse Crown	-2.00%	2.00%	340	15+574.59m	Begin Full Super	-4.60%	4.60%	348	15+838.47m	Begin Full Super	6.00%	-6.00%	356	16+057.83m	Reverse Crown	2.00%	-2.00%
332	15+263.90m	Begin Full Super	-6.00%	6.00%	340	15+580.24m	End Full Super	-4.60%	4.60%	348	15+855.39m	Reverse Crown	2.00%	-2.00%	356	16+067.48m	Level Crown	0.00%	-2.00%
332	15+267.74m	End Full Super	-6.00%	6.00%	340	15+592.67m	Reverse Crown	-2.00%	2.00%	348	15+865.05m	Level Crown	0.00%	-2.00%	356	16+077.14m	Begin Normal Crown	-2.00%	-2.00%
332	15+287.07m	Reverse Crown	-2.00%	2.00%	340	15+602.24m	Level Crown	-2.00%	0.00%	348	15+874.72m	Begin Normal Crown	-2.00%	-2.00%	357	16+028.18m	End Normal Crown	-2.00%	-2.00%
332																			

Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane
358	16+089.48m	End Full Super	-5.20%	5.20%	366	16+314.93m	Begin Full Super	-6.00%	6.00%	374	16+600.75m	Reverse Crown	2.00%	-2.00%	382	16+900.15m	Level Crown	-2.00%	0.00%
358	16+092.52m	Begin Full Super	-5.20%	5.20%	366	16+323.30m	Reverse Crown	-2.00%	2.00%	374	16+610.29m	Level Crown	0.00%	-2.00%	382	16+909.81m	Begin Normal Crown	-2.00%	-2.00%
358	16+104.87m	Reverse Crown	-2.00%	2.00%	366	16+332.97m	Level Crown	-2.00%	0.00%	374	16+619.84m	Begin Normal Crown	-2.00%	-2.00%	383	16+885.47m	End Normal Crown	-2.00%	-2.00%
358	16+114.48m	Level Crown	-2.00%	0.00%	366	16+342.63m	Begin Normal Crown	-2.00%	-2.00%	375	16+574.23m	End Normal Crown	-2.00%	-2.00%	383	16+895.47m	Level Crown	0.00%	-2.00%
358	16+124.10m	Begin Normal Crown	-2.00%	-2.00%	367	16+342.88m	End Normal Crown	-2.00%	-2.00%	375	16+583.89m	Level Crown	-2.00%	0.00%	383	16+905.47m	Reverse Crown	2.00%	-2.00%
359	16+076.82m	End Normal Crown	-2.00%	-2.00%	367	16+352.42m	Level Crown	0.00%	-2.00%	375	16+593.56m	Reverse Crown	-2.00%	2.00%	383	16+907.47m	Begin Full Super	2.40%	-2.40%
359	16+086.44m	Level Crown	0.00%	-2.00%	367	16+361.97m	Reverse Crown	2.00%	-2.00%	375	16+612.89m	Begin Full Super	-6.00%	6.00%	383	16+928.67m	End Full Super	2.40%	-2.40%
359	16+096.05m	Reverse Crown	2.00%	-2.00%	367	16+373.42m	Begin Full Super	4.40%	-4.40%	375	16+613.85m	End Full Super	-6.00%	6.00%	383	16+930.67m	Reverse Crown	2.00%	-2.00%
359	16+105.94m	End Full Super	5.20%	-5.20%	367	16+375.35m	End Full Super	4.40%	-4.40%	375	16+633.18m	Reverse Crown	-2.00%	2.00%	383	16+940.67m	Level Crown	0.00%	-2.00%
359	16+111.44m	Begin Full Super	5.20%	-5.20%	367	16+386.81m	Reverse Crown	2.00%	-2.00%	375	16+642.85m	Level Crown	-2.00%	0.00%	383	16+950.67m	Begin Normal Crown	-2.00%	-2.00%
359	16+121.32m	Reverse Crown	2.00%	-2.00%	367	16+396.35m	Level Crown	0.00%	-2.00%	375	16+652.51m	Begin Normal Crown	-2.00%	-2.00%	384	16+934.02m	End Normal Crown	-2.00%	-2.00%
359	16+130.94m	Level Crown	0.00%	-2.00%	367	16+405.90m	Begin Normal Crown	-2.00%	-2.00%	376	16+621.24m	End Normal Crown	-2.00%	-2.00%	384	16+943.55m	Level Crown	0.00%	-2.00%
359	16+140.55m	Begin Normal Crown	-2.00%	-2.00%	368	16+371.23m	End Normal Crown	-2.00%	-2.00%	376	16+630.88m	Level Crown	-2.00%	0.00%	384	16+953.07m	Reverse Crown	2.00%	-2.00%
360	16+100.95m	End Normal Crown	-2.00%	-2.00%	368	16+381.23m	Level Crown	-2.00%	0.00%	376	16+640.53m	Reverse Crown	-2.00%	2.00%	384	16+963.55m	Begin Full Super	4.20%	-4.20%
360	16+110.55m	Level Crown	-2.00%	0.00%	368	16+391.23m	Begin Full Super	-2.00%	2.00%	376	16+657.88m	Begin Full Super	-5.60%	5.60%	384	16+979.67m	End Full Super	4.20%	-4.20%
360	16+120.15m	Reverse Crown	-2.00%	2.00%	368	16+391.23m	Reverse Crown	-2.00%	2.00%	376	16+659.99m	End Full Super	-5.60%	5.60%	384	16+990.14m	Reverse Crown	2.00%	-2.00%
360	16+133.75m	End Full Super	-5.00%	5.00%	368	16+400.16m	End Full Super	-2.00%	2.00%	376	16+677.34m	Reverse Crown	-2.00%	2.00%	384	16+999.67m	Level Crown	0.00%	-2.00%
360	16+134.55m	Begin Full Super	-5.00%	5.00%	368	16+400.16m	Reverse Crown	-2.00%	2.00%	376	16+686.99m	Level Crown	-2.00%	0.00%	384	17+009.19m	Begin Normal Crown	-2.00%	-2.00%
360	16+148.15m	Reverse Crown	-2.00%	2.00%	368	16+410.16m	Level Crown	-2.00%	0.00%	376	16+696.63m	Begin Normal Crown	-2.00%	-2.00%	385	16+975.90m	End Normal Crown	-2.00%	-2.00%
360	16+157.75m	Level Crown	-2.00%	0.00%	368	16+420.16m	Begin Normal Crown	-2.00%	-2.00%	377	16+660.57m	End Normal Crown	-2.00%	-2.00%	385	16+985.50m	Level Crown	0.00%	-2.00%
360	16+167.35m	Begin Normal Crown	-2.00%	-2.00%	369	16+399.10m	End Normal Crown	-2.00%	-2.00%	377	16+670.13m	Level Crown	0.00%	-2.00%	385	16+995.10m	Reverse Crown	2.00%	-2.00%
361	16+123.65m	End Normal Crown	-2.00%	-2.00%	369	16+408.60m	Level Crown	0.00%	-2.00%	377	16+679.70m	Reverse Crown	2.00%	-2.00%	385	17+009.50m	Begin Full Super	5.00%	-5.00%
361	16+133.31m	Level Crown	0.00%	-2.00%	369	16+418.10m	Reverse Crown	2.00%	-2.00%	377	16+690.58m	End Full Super	4.60%	-4.60%	385	17+014.92m	End Full Super	5.00%	-5.00%
361	16+142.96m	Reverse Crown	2.00%	-2.00%	369	16+427.60m	Begin Full Super	4.00%	-4.00%	377	16+692.13m	Begin Full Super	4.60%	-4.60%	385	17+029.32m	Reverse Crown	2.00%	-2.00%
361	16+161.31m	Begin Full Super	5.80%	-5.80%	369	16+439.95m	End Full Super	4.00%	-4.00%	377	16+703.01m	Reverse Crown	2.00%	-2.00%	385	17+038.92m	Level Crown	0.00%	-2.00%
361	16+163.87m	End Full Super	5.80%	-5.80%	369	16+449.45m	Reverse Crown	2.00%	-2.00%	377	16+712.58m	Level Crown	0.00%	-2.00%	385	17+048.52m	Begin Normal Crown	-2.00%	-2.00%
361	16+182.21m	Reverse Crown	2.00%	-2.00%	369	16+458.95m	Level Crown	0.00%	-2.00%	377	16+722.14m	Begin Normal Crown	-2.00%	-2.00%	386	16+995.79m	End Normal Crown	-2.00%	-2.00%
361	16+191.87m	Level Crown	0.00%	-2.00%	369	16+468.45m	Begin Normal Crown	-2.00%	-2.00%	378	16+678.23m	End Normal Crown	-2.00%	-2.00%	386	17+005.46m	Level Crown	0.00%	-2.00%
361	16+201.52m	Begin Normal Crown	-2.00%	-2.00%	370	16+438.87m	End Normal Crown	-2.00%	-2.00%	378	16+687.83m	Level Crown	-2.00%	0.00%	386	17+015.12m	Reverse Crown	2.00%	-2.00%
362	16+154.59m	End Normal Crown	-2.00%	-2.00%	370	16+448.47m	Level Crown	0.00%	-2.00%	378	16+697.43m	Reverse Crown	-2.00%	2.00%	386	17+034.46m	Begin Full Super	6.00%	-6.00%
362	16+164.22m	Level Crown	-2.00%	0.00%	370	16+458.07m	Reverse Crown	2.00%	-2.00%	378	16+711.83m	Begin Full Super	-5.00%	5.00%	386	17+039.34m	End Full Super	6.00%	-6.00%
362	16+173.85m	Reverse Crown	-2.00%	2.00%	370	16+472.47m	Begin Full Super	5.00%	-5.00%	378	16+737.83m	End Full Super	-5.00%	5.00%	386	17+058.68m	Reverse Crown	2.00%	-2.00%
362	16+190.22m	Begin Full Super	-5.40%	5.40%	370	16+479.57m	End Full Super	5.00%	-5.00%	378	16+752.23m	Reverse Crown	-2.00%	2.00%	386	17+068.34m	Level Crown	0.00%	-2.00%
362	16+198.16m	End Full Super	-5.40%	5.40%	370	16+493.97m	Reverse Crown	2.00%	-2.00%	378	16+761.83m	Level Crown	-2.00%	0.00%	386	17+078.01m	Begin Normal Crown	-2.00%	-2.00%
362	16+214.53m	Reverse Crown	-2.00%	2.00%	370	16+503.57m	Level Crown	0.00%	-2.00%	378	16+771.43m	Begin Normal Crown	-2.00%	-2.00%	387	17+024.45m	End Normal Crown	-2.00%	-2.00%
362	16+224.16m	Level Crown	-2.00%	0.00%	370	16+513.17m	Begin Normal Crown	-2.00%	-2.00%	379	16+739.63m	End Normal Crown	-2.00%	-2.00%	387	17+034.10m	Level Crown	-2.00%	0.00%
362	16+233.79m	Begin Normal Crown	-2.00%	-2.00%	371	16+489.01m	End Normal Crown	-2.00%	-2.00%	379	16+748.96m	Level Crown	0.00%	-2.00%	387	17+043.74m	Reverse Crown	-2.00%	2.00%
363	16+185.72m	End Normal Crown	-2.00%	-2.00%	371	16+498.58m	Level Crown	0.00%	-2.00%	379	16+758.30m	Reverse Crown	2.00%	-2.00%	387	17+061.10m	Begin Full Super	-5.60%	5.60%
363	16+195.38m	Level Crown	0.00%	-2.00%	371	16+508.14m	Reverse Crown	2.00%	-2.00%	379	16+762.96m	Begin Full Super	3.00%	-3.00%	387	17+074.25m	End Full Super	-5.60%	5.60%
363	16+205.05m	Reverse Crown	2.00%	-2.00%	371	16+520.58m	Begin Full Super	4.60%	-4.60%	379	16+773.36m	End Full Super	3.00%	-3.00%	387	17+091.60m	Reverse Crown	-2.00%	2.00%
363	16+224.38m	Begin Full Super	6.00%	-6.00%	371	16+524.50m	End Full Super	4.60%	-4.60%	379	16+778.02m	Reverse Crown	2.00%	-2.00%	387	17+101.25m	Level Crown	-2.00%	0.00%
363	16+229.25m	End Full Super	6.00%	-6.00%	371	16+536.93m	Reverse Crown	2.00%	-2.00%	379	16+787.36m	Level Crown	0.00%	-2.00%	387	17+110.89m	Begin Normal Crown	-2.00%	-2.00%
363	16+248.58m	Reverse Crown	2.00%	-2.00%	371	16+546.50m	Level Crown	0.00%	-2.00%	379	16+796.69m	Begin Normal Crown	-2.00%	-2.00%	388	17+055.30m	End Normal Crown	-2.00%	-2.00%
363	16+258.25m	Level Crown	0.00%	-2.00%	371	16+556.06m	Begin Normal Crown	-2.00%	-2.00%	380	16+785.89m	End Normal Crown	-2.00%	-2.00%	388	17+064.95m	Level Crown	0.00%	-2.00%
363	16+267.92m	Begin Normal Crown	-2.00%	-2.00%	372	16+524.09m	End Normal Crown	-2.00%	-2.00%	380	16+795.49m	Level Crown	0.00%	-2.00%	388	17+074.61m	Reverse Crown	2.00%	-2.00%
364	16+210.54m	End Normal Crown	-2.00%	-2.00%	372	16+533.46m	Level Crown	-2.00%	0.00%	380	16+805.09m	Reverse Crown	2.00%	-2.00%	388	17+089.45m	End Full Super	5.80%	-5.80%
364	16+220.21m	Level Crown	0.00%	-2.00%	372	16+542.84m	Reverse Crown	-2.00%	2.00%	380	16+819.49m	Begin Full Super	5.00%	-5.00%	388	17+092.95m	Begin Full Super	5.80%	-5.80%
364	16+229.88m	Reverse Crown	2.00%	-2.00%	372	16+548.46m	Begin Full Super	-3.20%	3.20%	380	16+822.02m	End Full Super	5.00%	-5.00%	388	17+107.80m	Reverse Crown	2.00%	-2.00%
364	16+243.20m	End Full Super	6.00%	-6.00%	372	16+551.21m	End Full Super	-3.20%	3.20%	380	16+836.42m	Reverse Crown	2.00%	-2.00%	388	17+117.45m	Level Crown	0.00%	-2.00%
364	16+249.21m	Begin Full Super	6.00%	-6.00%	372	16+556.83m	Reverse Crown	-2.00%	2.00%	380	16+846.02m	Level Crown	0.00%	-2.00%	388	17+127.11m	Begin Normal Crown	-2.00%	-2.00%
364	16+262.53m	Reverse Crown	2.00%	-2.00%	372	16+566.21m	Level Crown	-2.00%	0.00%	380	16+855.62m	Begin Normal Crown	-2.00%	-2.00%	389	17+075.53m	End Normal Crown	-2.00%	-2.00%
364	16+272.20m	Level Crown	0.00%	-2.00%	372	16+575.58m	Begin Normal Crown	-2.00%	-2.00%	381	16+816.92m	End Normal Crown	-2.00%	-2.00%	389	17+085.20m	Level Crown	-2.00%	0.00%
364	16+281.86m	Begin Normal Crown	-2.00%	-2.00%	373	16+545.29m	End Normal Crown	-2.00%	-2.00%	381	16+826.59m	Level Crown	-2.00%	0.00%	389	17+094.86m	Reverse Crown	-2.00%	2.00%
365	16+250.97m	End Normal Crown	-2.00%	-2.00%	373	16+554.82m	Level Crown	-2.00%	0.00%	381	16+836.25m	Reverse Crown	-2.00%	2.00%	389	17+113.90m	End Full Super	-6.00%	6.00%
365	16+260.64m	Level Crown	-2.00%	0.00%	373	16+564.34m	Reverse Crown	-2.00%	2.00%	381	16+854.47m	End Full Super	-6.00%	6.00%	389	17+114.20m	Begin Full Super	-6.00%	6.00%
365	16+270.30m	Reverse Crown	-2.00%	2.00%	373	16+574.76m	End Full Super	-4.20%	4.20%	381	16+855.59m	Begin Full Super	-6.00%	6.00%	389	17+133.23m	Reverse Crown	-2.00%	2.00%
365	16+289.64m	Begin Full Super	-6.00%	6.00%	373	16+574.82m	Begin Full Super	-4.20%	4.20%	381	16+873.81m	Reverse Crown	-2.00%	2.00%	389	17+142.90m	Level Crown	-2.00%	0.00%
365	16+294.74m	End Full Super	-6.00%	6.00%	373	16+585.24m	Reverse Crown	-2.00%	2.00%	381	16+883.47m	Level Crown	-2.00%	0.00%	389	17+152.57m	Begin Normal Crown	-2.00%	-2.00%
365	16+314.07m	Reverse Crown	-2.00%	2.00%	373	16+594.76m	Level Crown	-2.00%	0.00%	381	16+893.14m	Begin Normal Crown	-2.00%	-2.00%	390	17+115.68m	End Normal Crown	-2.00%	-2.00%
365	16+323.74m	Level Crown	-2.00%	0.00%	373	16+604.29m	Begin Normal Crown	-2.00%	-2.00%	382	16+835.29m	End Normal Crown	-2.00%	-2.00%	390	17+124.91m	Level Crown	0.00%	-2.00%
365	16+333.41m	Begin Normal Crown	-2.00%	-2.00%	374	16+564.27m	End Normal Crown	-2.00%	-2.00%	382	16+844.96m	Level Crown	-2.00%	0.00%	390	17+134.14m	Reverse Crown	2.00%	-2.00%
366	16+276.27m	End Normal																	

Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane
390	17+162.81m	Begin Normal Crown	-2.00%	-2.00%	399	17+385.29m	End Normal Crown	-2.00%	-2.00%	407	17+661.12m	Level Crown	-2.00%	0.00%	415	17+973.98m	Reverse Crown	2.00%	-2.00%
391	17+123.49m	End Normal Crown	-2.00%	-2.00%	399	17+394.62m	Level Crown	0.00%	-2.00%	407	17+670.62m	Reverse Crown	-2.00%	2.00%	415	17+993.32m	Begin Full Super	6.00%	-6.00%
391	17+133.09m	Level Crown	0.00%	-2.00%	399	17+403.95m	Reverse Crown	2.00%	-2.00%	407	17+680.12m	Begin Full Super	-4.00%	4.00%	415	17+996.65m	End Full Super	6.00%	-6.00%
391	17+142.69m	Reverse Crown	2.00%	-2.00%	399	17+408.62m	Begin Full Super	3.00%	-3.00%	407	17+691.43m	End Full Super	-4.00%	4.00%	415	18+015.99m	Reverse Crown	2.00%	-2.00%
391	17+157.09m	Begin Full Super	5.00%	-5.00%	399	17+419.22m	End Full Super	3.00%	-3.00%	407	17+700.93m	Reverse Crown	-2.00%	2.00%	415	18+025.65m	Level Crown	0.00%	-2.00%
391	17+172.88m	End Full Super	5.00%	-5.00%	399	17+423.88m	Reverse Crown	2.00%	-2.00%	407	17+710.43m	Level Crown	-2.00%	0.00%	415	18+035.32m	Begin Normal Crown	-2.00%	-2.00%
391	17+187.28m	Reverse Crown	2.00%	-2.00%	399	17+433.22m	Level Crown	0.00%	-2.00%	407	17+719.93m	Begin Normal Crown	-2.00%	-2.00%	416	17+982.40m	End Normal Crown	-2.00%	-2.00%
391	17+196.88m	Level Crown	0.00%	-2.00%	399	17+442.55m	Begin Normal Crown	-2.00%	-2.00%	408	17+691.59m	End Normal Crown	-2.00%	-2.00%	416	17+992.04m	Level Crown	-2.00%	0.00%
391	17+206.48m	Begin Normal Crown	-2.00%	-2.00%	400	17+415.94m	End Normal Crown	-2.00%	-2.00%	408	17+701.06m	Level Crown	0.00%	-2.00%	416	18+001.68m	Reverse Crown	-2.00%	2.00%
392	17+156.33m	End Normal Crown	-2.00%	-2.00%	400	17+425.57m	Level Crown	-2.00%	0.00%	408	17+710.53m	Reverse Crown	2.00%	-2.00%	416	18+019.04m	Begin Full Super	-5.60%	5.60%
392	17+166.00m	Level Crown	-2.00%	0.00%	400	17+435.20m	Reverse Crown	-2.00%	2.00%	408	17+719.06m	Begin Full Super	3.80%	-3.80%	416	18+020.30m	End Full Super	-5.60%	5.60%
392	17+175.66m	Reverse Crown	-2.00%	2.00%	400	17+451.57m	Begin Full Super	-5.40%	5.40%	408	17+730.92m	End Full Super	3.80%	-3.80%	416	18+037.66m	Reverse Crown	-2.00%	2.00%
392	17+190.12m	End Full Super	-6.00%	6.00%	400	17+458.11m	End Full Super	-5.40%	5.40%	408	17+739.45m	Reverse Crown	2.00%	-2.00%	416	18+047.30m	Level Crown	-2.00%	0.00%
392	17+195.00m	Begin Full Super	-6.00%	6.00%	400	17+474.48m	Reverse Crown	-2.00%	2.00%	408	17+748.92m	Level Crown	0.00%	-2.00%	416	18+056.94m	Begin Normal Crown	-2.00%	-2.00%
392	17+209.45m	Reverse Crown	-2.00%	2.00%	400	17+484.11m	Level Crown	-2.00%	0.00%	408	17+758.40m	Begin Normal Crown	-2.00%	-2.00%	417	18+007.31m	End Normal Crown	-2.00%	-2.00%
392	17+219.12m	Level Crown	-2.00%	0.00%	400	17+493.74m	Begin Normal Crown	-2.00%	-2.00%	409	17+722.10m	End Normal Crown	-2.00%	-2.00%	417	18+016.85m	Level Crown	-2.00%	0.00%
392	17+228.79m	Begin Normal Crown	-2.00%	-2.00%	401	17+445.77m	End Normal Crown	-2.00%	-2.00%	409	17+731.74m	Level Crown	-2.00%	0.00%	417	18+026.40m	Reverse Crown	-2.00%	2.00%
393	17+182.26m	End Normal Crown	-2.00%	-2.00%	401	17+455.43m	Level Crown	0.00%	-2.00%	409	17+741.38m	Reverse Crown	-2.00%	2.00%	417	18+036.76m	End Full Super	-4.40%	4.40%
393	17+191.85m	Level Crown	0.00%	-2.00%	401	17+465.08m	Reverse Crown	2.00%	-2.00%	409	17+757.76m	End Full Super	-5.60%	5.60%	417	18+037.85m	Begin Full Super	-4.40%	4.40%
393	17+201.43m	Reverse Crown	2.00%	-2.00%	401	17+483.43m	Begin Full Super	5.80%	-5.80%	409	17+758.74m	Begin Full Super	-5.60%	5.60%	417	18+048.21m	Reverse Crown	-2.00%	2.00%
393	17+214.85m	Begin Full Super	4.80%	-4.80%	401	17+483.54m	End Full Super	5.80%	-5.80%	409	17+775.12m	Reverse Crown	-2.00%	2.00%	417	18+057.76m	Level Crown	-2.00%	0.00%
393	17+217.78m	End Full Super	4.80%	-4.80%	401	17+501.88m	Reverse Crown	2.00%	-2.00%	409	17+784.76m	Level Crown	-2.00%	0.00%	417	18+067.30m	Begin Normal Crown	-2.00%	-2.00%
393	17+231.19m	Reverse Crown	2.00%	-2.00%	401	17+511.54m	Level Crown	0.00%	-2.00%	409	17+794.40m	Begin Normal Crown	-2.00%	-2.00%	418	18+025.59m	End Normal Crown	-2.00%	-2.00%
393	17+240.78m	Level Crown	0.00%	-2.00%	401	17+521.19m	Begin Normal Crown	-2.00%	-2.00%	410	17+748.32m	End Normal Crown	-2.00%	-2.00%	418	18+035.26m	Level Crown	0.00%	-2.00%
393	17+250.36m	Begin Normal Crown	-2.00%	-2.00%	402	17+471.03m	End Normal Crown	-2.00%	-2.00%	410	17+757.99m	Level Crown	0.00%	-2.00%	418	18+044.93m	Reverse Crown	2.00%	-2.00%
394	17+239.59m	End Normal Crown	-2.00%	-2.00%	402	17+480.70m	Level Crown	-2.00%	0.00%	410	17+767.66m	Reverse Crown	2.00%	-2.00%	418	18+063.83m	End Full Super	6.00%	-6.00%
394	17+249.00m	Level Crown	0.00%	-2.00%	402	17+490.37m	Reverse Crown	-2.00%	2.00%	410	17+786.99m	Begin Full Super	6.00%	-6.00%	418	18+064.26m	Begin Full Super	6.00%	-6.00%
394	17+258.41m	Reverse Crown	2.00%	-2.00%	402	17+508.11m	End Full Super	-6.00%	6.00%	410	17+795.43m	End Full Super	6.00%	-6.00%	418	18+083.17m	Reverse Crown	2.00%	-2.00%
394	17+265.00m	Begin Full Super	3.40%	-3.40%	402	17+509.70m	Begin Full Super	-6.00%	6.00%	410	17+814.76m	Reverse Crown	2.00%	-2.00%	418	18+092.83m	Level Crown	0.00%	-2.00%
394	17+270.18m	End Full Super	3.40%	-3.40%	402	17+527.45m	Reverse Crown	-2.00%	2.00%	410	17+824.43m	Level Crown	0.00%	-2.00%	418	18+102.50m	Begin Normal Crown	-2.00%	-2.00%
394	17+276.77m	Reverse Crown	2.00%	-2.00%	402	17+537.11m	Level Crown	-2.00%	0.00%	410	17+834.09m	Begin Normal Crown	-2.00%	-2.00%	419	18+065.79m	End Normal Crown	-2.00%	-2.00%
394	17+286.18m	Level Crown	0.00%	-2.00%	402	17+546.78m	Begin Normal Crown	-2.00%	-2.00%	411	17+793.42m	End Normal Crown	-2.00%	-2.00%	419	18+075.46m	Level Crown	-2.00%	0.00%
394	17+295.59m	Begin Normal Crown	-2.00%	-2.00%	403	17+511.71m	End Normal Crown	-2.00%	-2.00%	411	17+803.03m	Level Crown	0.00%	-2.00%	419	18+085.12m	Reverse Crown	-2.00%	2.00%
395	17+261.98m	End Normal Crown	-2.00%	-2.00%	403	17+521.12m	Level Crown	0.00%	-2.00%	411	17+812.65m	Reverse Crown	2.00%	-2.00%	419	18+104.46m	Begin Full Super	-6.00%	6.00%
395	17+271.32m	Level Crown	-2.00%	0.00%	403	17+530.53m	Reverse Crown	2.00%	-2.00%	411	17+827.26m	End Full Super	5.20%	-5.20%	419	18+107.12m	End Full Super	-6.00%	6.00%
395	17+280.65m	Reverse Crown	-2.00%	2.00%	403	17+535.17m	End Full Super	3.40%	-3.40%	411	17+828.03m	Begin Full Super	5.20%	-5.20%	419	18+126.45m	Reverse Crown	-2.00%	2.00%
395	17+285.32m	Begin Full Super	-3.00%	3.00%	403	17+537.12m	Begin Full Super	3.40%	-3.40%	411	17+842.65m	Reverse Crown	2.00%	-2.00%	419	18+136.12m	Level Crown	-2.00%	0.00%
395	17+302.12m	End Full Super	-3.00%	3.00%	403	17+541.76m	Reverse Crown	2.00%	-2.00%	411	17+852.26m	Level Crown	0.00%	-2.00%	419	18+145.79m	Begin Normal Crown	-2.00%	-2.00%
395	17+306.78m	Reverse Crown	-2.00%	2.00%	403	17+551.17m	Level Crown	0.00%	-2.00%	411	17+861.88m	Begin Normal Crown	-2.00%	-2.00%	420	18+092.24m	End Normal Crown	-2.00%	-2.00%
395	17+316.12m	Level Crown	-2.00%	0.00%	403	17+560.58m	Begin Normal Crown	-2.00%	-2.00%	412	17+812.14m	End Normal Crown	-2.00%	-2.00%	420	18+101.91m	Level Crown	0.00%	-2.00%
395	17+325.45m	Begin Normal Crown	-2.00%	-2.00%	404	17+519.22m	End Normal Crown	-2.00%	-2.00%	412	17+821.75m	Level Crown	-2.00%	0.00%	420	18+111.58m	Reverse Crown	2.00%	-2.00%
396	17+295.37m	End Normal Crown	-2.00%	-2.00%	404	17+528.89m	Level Crown	-2.00%	0.00%	412	17+831.37m	Reverse Crown	-2.00%	2.00%	420	18+130.91m	Begin Full Super	6.00%	-6.00%
396	17+305.04m	Level Crown	0.00%	-2.00%	404	17+538.56m	Reverse Crown	-2.00%	2.00%	412	17+846.75m	Begin Full Super	-5.20%	5.20%	420	18+136.79m	End Full Super	6.00%	-6.00%
396	17+314.70m	Reverse Crown	2.00%	-2.00%	404	17+557.00m	End Full Super	-6.00%	6.00%	412	17+867.72m	End Full Super	-5.20%	5.20%	420	18+156.12m	Reverse Crown	2.00%	-2.00%
396	17+334.04m	Begin Full Super	6.00%	-6.00%	404	17+557.89m	Begin Full Super	-6.00%	6.00%	412	17+883.11m	Reverse Crown	-2.00%	2.00%	420	18+165.79m	Level Crown	0.00%	-2.00%
396	17+338.01m	End Full Super	6.00%	-6.00%	404	17+576.34m	Reverse Crown	-2.00%	2.00%	412	17+892.72m	Level Crown	-2.00%	0.00%	420	18+175.45m	Begin Normal Crown	-2.00%	-2.00%
396	17+357.35m	Reverse Crown	2.00%	-2.00%	404	17+586.00m	Level Crown	-2.00%	0.00%	412	17+902.34m	Begin Normal Crown	-2.00%	-2.00%	421	18+136.51m	End Normal Crown	-2.00%	-2.00%
396	17+367.01m	Level Crown	0.00%	-2.00%	404	17+595.67m	Begin Normal Crown	-2.00%	-2.00%	413	17+875.75m	End Normal Crown	-2.00%	-2.00%	421	18+145.93m	Level Crown	-2.00%	0.00%
396	17+376.68m	Begin Normal Crown	-2.00%	-2.00%	405	17+543.59m	End Normal Crown	-2.00%	-2.00%	413	17+885.42m	Level Crown	0.00%	-2.00%	421	18+155.34m	Reverse Crown	-2.00%	2.00%
397	17+319.49m	End Normal Crown	-2.00%	-2.00%	405	17+553.19m	Level Crown	-2.00%	0.00%	413	17+895.09m	Reverse Crown	2.00%	-2.00%	421	18+161.93m	Begin Full Super	-3.40%	3.40%
397	17+329.15m	Level Crown	0.00%	-2.00%	405	17+562.79m	Reverse Crown	-2.00%	2.00%	413	17+914.42m	Begin Full Super	6.00%	-6.00%	421	18+164.91m	End Full Super	-3.40%	3.40%
397	17+338.82m	Reverse Crown	2.00%	-2.00%	405	17+577.19m	Begin Full Super	-5.00%	5.00%	413	17+921.98m	End Full Super	6.00%	-6.00%	421	18+171.50m	Reverse Crown	-2.00%	2.00%
397	17+351.08m	End Full Super	6.00%	-6.00%	405	17+589.98m	End Full Super	-5.00%	5.00%	413	17+941.31m	Reverse Crown	2.00%	-2.00%	421	18+180.91m	Level Crown	-2.00%	0.00%
397	17+358.15m	Begin Full Super	6.00%	-6.00%	405	17+604.38m	Reverse Crown	-2.00%	2.00%	413	17+950.98m	Level Crown	0.00%	-2.00%	421	18+190.33m	Begin Normal Crown	-2.00%	-2.00%
397	17+370.41m	Reverse Crown	2.00%	-2.00%	405	17+613.98m	Level Crown	-2.00%	0.00%	413	17+960.64m	Begin Normal Crown	-2.00%	-2.00%	422	18+145.32m	End Normal Crown	-2.00%	-2.00%
397	17+380.08m	Level Crown	0.00%	-2.00%	405	17+623.58m	Begin Normal Crown	-2.00%	-2.00%	414	17+914.55m	End Normal Crown	-2.00%	-2.00%	422	18+154.96m	Level Crown	-2.00%	0.00%
397	17+389.74m	Begin Normal Crown	-2.00%	-2.00%	406	17+584.48m	End Normal Crown	-2.00%	-2.00%	414	17+924.22m	Level Crown	-2.00%	0.00%	422	18+164.61m	Reverse Crown	-2.00%	2.00%
398	17+348.54m	End Normal Crown	-2.00%	-2.00%	406	17+594.05m	Level Crown	-2.00%	0.00%	414	17+933.88m	Reverse Crown	-2.00%	2.00%	422	18+181.96m	Begin Full Super	-5.60%	5.60%
398	17+358.12m	Level Crown	-2.00%	0.00%	406	17+603.61m	Reverse Crown	-2.00%	2.00%	414	17+951.74m	End Full Super	-6.00%	6.00%	422	18+191.72m	End Full Super	-5.60%	5.60%
398	17+367.71m	Reverse Crown	-2.00%	2.00%	406	17+616.05m	Begin Full Super	-4.60%	4.60%	414	17+953.22m	Begin Full Super	-6.00%	6.00%	422	18+209.08m	Reverse Crown	-2.00%	2.00%
398	17+381.12m	Begin Full Super	-4.80%	4.80%	406	17+625.21m	End Full Super	-4.60%	4.60%	414	17+971.08m	Reverse Crown	-2.00%	2.00%	422	18+218.72m	Level Crown	-2.00%	0.00%
398	17+385.98m	End Full																	

Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane
423	18+215.59m	End Full Super	-5.80%	5.80%	431	18+451.56m	End Full Super	6.00%	-6.00%	439	18+710.37m	Reverse Crown	2.00%	-2.00%	447	19+027.87m	Level Crown	0.00%	-2.00%
423	18+215.78m	Begin Full Super	-5.80%	5.80%	431	18+470.89m	Reverse Crown	2.00%	-2.00%	439	18+719.97m	Level Crown	0.00%	-2.00%	447	19+037.49m	Begin Normal Crown	-2.00%	-2.00%
423	18+233.93m	Reverse Crown	-2.00%	2.00%	431	18+480.56m	Level Crown	0.00%	-2.00%	439	18+729.57m	Begin Normal Crown	-2.00%	-2.00%	448	18+997.82m	End Normal Crown	-2.00%	-2.00%
423	18+243.59m	Level Crown	-2.00%	0.00%	431	18+490.22m	Begin Normal Crown	-2.00%	-2.00%	440	18+678.09m	End Normal Crown	-2.00%	-2.00%	448	19+007.49m	Level Crown	-2.00%	0.00%
423	18+253.24m	Begin Normal Crown	-2.00%	-2.00%	432	18+456.48m	End Normal Crown	-2.00%	-2.00%	440	18+687.74m	Level Crown	-2.00%	0.00%	448	19+017.16m	Reverse Crown	-2.00%	2.00%
424	18+224.22m	End Normal Crown	-2.00%	-2.00%	432	18+465.95m	Level Crown	-2.00%	0.00%	440	18+697.38m	Reverse Crown	-2.00%	2.00%	448	19+034.91m	End Full Super	-6.00%	6.00%
424	18+233.89m	Level Crown	0.00%	-2.00%	432	18+475.42m	Reverse Crown	-2.00%	2.00%	440	18+712.89m	End Full Super	-5.60%	5.60%	448	19+036.49m	Begin Full Super	-6.00%	6.00%
424	18+243.55m	Reverse Crown	2.00%	-2.00%	432	18+483.95m	Begin Full Super	-3.80%	3.80%	440	18+714.74m	Begin Full Super	-5.60%	5.60%	448	19+054.24m	Reverse Crown	-2.00%	2.00%
424	18+262.89m	Begin Full Super	6.00%	-6.00%	432	18+496.83m	End Full Super	-3.80%	3.80%	440	18+730.25m	Reverse Crown	-2.00%	2.00%	448	19+063.91m	Level Crown	-2.00%	0.00%
424	18+270.99m	End Full Super	6.00%	-6.00%	432	18+505.36m	Reverse Crown	-2.00%	2.00%	440	18+739.89m	Level Crown	-2.00%	0.00%	448	19+073.58m	Begin Normal Crown	-2.00%	-2.00%
424	18+290.33m	Reverse Crown	2.00%	-2.00%	432	18+514.83m	Level Crown	-2.00%	0.00%	440	18+749.53m	Begin Normal Crown	-2.00%	-2.00%	449	19+022.85m	End Normal Crown	-2.00%	-2.00%
424	18+299.99m	Level Crown	0.00%	-2.00%	432	18+524.31m	Begin Normal Crown	-2.00%	-2.00%	441	18+695.96m	End Normal Crown	-2.00%	-2.00%	449	19+032.43m	Level Crown	-2.00%	0.00%
424	18+309.66m	Begin Normal Crown	-2.00%	-2.00%	433	18+499.02m	End Normal Crown	-2.00%	-2.00%	441	18+705.63m	Level Crown	0.00%	-2.00%	449	19+042.01m	Reverse Crown	-2.00%	2.00%
425	18+257.26m	End Normal Crown	-2.00%	-2.00%	433	18+508.68m	Level Crown	0.00%	-2.00%	441	18+715.29m	Reverse Crown	2.00%	-2.00%	449	19+055.43m	Begin Full Super	-4.80%	4.80%
425	18+266.93m	Level Crown	-2.00%	0.00%	433	18+518.33m	Reverse Crown	2.00%	-2.00%	441	18+733.76m	End Full Super	6.00%	-6.00%	449	19+056.51m	End Full Super	-4.80%	4.80%
425	18+276.60m	Reverse Crown	-2.00%	2.00%	433	18+534.06m	End Full Super	5.80%	-5.80%	441	18+734.63m	Begin Full Super	6.00%	-6.00%	449	19+069.92m	Reverse Crown	-2.00%	2.00%
425	18+286.00m	End Full Super	-6.00%	6.00%	433	18+536.68m	Begin Full Super	5.80%	-5.80%	441	18+753.09m	Reverse Crown	2.00%	-2.00%	449	19+079.51m	Level Crown	-2.00%	0.00%
425	18+295.93m	Begin Full Super	-6.00%	6.00%	433	18+552.40m	Reverse Crown	2.00%	-2.00%	441	18+762.76m	Level Crown	0.00%	-2.00%	449	19+089.09m	Begin Normal Crown	-2.00%	-2.00%
425	18+305.34m	Reverse Crown	-2.00%	2.00%	433	18+562.06m	Level Crown	0.00%	-2.00%	441	18+772.43m	Begin Normal Crown	-2.00%	-2.00%	450	19+051.30m	End Normal Crown	-2.00%	-2.00%
425	18+315.00m	Level Crown	-2.00%	0.00%	433	18+571.71m	Begin Normal Crown	-2.00%	-2.00%	442	18+731.79m	End Normal Crown	-2.00%	-2.00%	450	19+060.84m	Level Crown	0.00%	-2.00%
425	18+324.67m	Begin Normal Crown	-2.00%	-2.00%	434	18+525.34m	End Normal Crown	-2.00%	-2.00%	442	18+741.43m	Level Crown	-2.00%	0.00%	450	19+070.39m	Reverse Crown	2.00%	-2.00%
426	18+282.37m	End Normal Crown	-2.00%	-2.00%	434	18+535.01m	Level Crown	-2.00%	0.00%	442	18+751.07m	Reverse Crown	-2.00%	2.00%	450	19+081.84m	Begin Full Super	4.40%	-4.40%
426	18+292.04m	Level Crown	-2.00%	0.00%	434	18+544.67m	Reverse Crown	-2.00%	2.00%	442	18+768.43m	Begin Full Super	-5.60%	5.60%	450	19+085.64m	End Full Super	4.40%	-4.40%
426	18+301.70m	Reverse Crown	-2.00%	2.00%	434	18+561.54m	End Full Super	-6.00%	6.00%	442	18+782.23m	End Full Super	-5.60%	5.60%	450	19+097.10m	Reverse Crown	2.00%	-2.00%
426	18+317.49m	End Full Super	-6.00%	6.00%	434	18+564.01m	Begin Full Super	-6.00%	6.00%	442	18+799.58m	Reverse Crown	-2.00%	2.00%	450	19+106.64m	Level Crown	0.00%	-2.00%
426	18+321.04m	Begin Full Super	-6.00%	6.00%	434	18+580.87m	Reverse Crown	-2.00%	2.00%	442	18+809.23m	Level Crown	-2.00%	0.00%	450	19+116.19m	Begin Normal Crown	-2.00%	-2.00%
426	18+336.82m	Reverse Crown	-2.00%	2.00%	434	18+590.54m	Level Crown	-2.00%	0.00%	442	18+818.87m	Begin Normal Crown	-2.00%	-2.00%	451	19+069.28m	End Normal Crown	-2.00%	-2.00%
426	18+346.49m	Level Crown	-2.00%	0.00%	434	18+600.21m	Begin Normal Crown	-2.00%	-2.00%	443	18+774.98m	End Normal Crown	-2.00%	-2.00%	451	19+078.94m	Level Crown	0.00%	-2.00%
426	18+356.16m	Begin Normal Crown	-2.00%	-2.00%	435	18+547.79m	End Normal Crown	-2.00%	-2.00%	443	18+784.64m	Level Crown	0.00%	-2.00%	451	19+088.61m	Reverse Crown	2.00%	-2.00%
427	18+298.97m	End Normal Crown	-2.00%	-2.00%	435	18+557.39m	Level Crown	0.00%	-2.00%	443	18+794.31m	Reverse Crown	2.00%	-2.00%	451	19+107.94m	Begin Full Super	6.00%	-6.00%
427	18+308.64m	Level Crown	-2.00%	0.00%	435	18+566.99m	Reverse Crown	2.00%	-2.00%	443	18+813.64m	Begin Full Super	6.00%	-6.00%	451	19+120.02m	End Full Super	6.00%	-6.00%
427	18+318.31m	Reverse Crown	-2.00%	2.00%	435	18+577.46m	End Full Super	5.00%	-5.00%	443	18+819.34m	End Full Super	6.00%	-6.00%	451	19+139.36m	Reverse Crown	2.00%	-2.00%
427	18+336.32m	End Full Super	-6.00%	6.00%	435	18+581.39m	Begin Full Super	5.00%	-5.00%	443	18+838.67m	Reverse Crown	2.00%	-2.00%	451	19+149.02m	Level Crown	0.00%	-2.00%
427	18+337.64m	Begin Full Super	-6.00%	6.00%	435	18+591.86m	Reverse Crown	2.00%	-2.00%	443	18+848.34m	Level Crown	0.00%	-2.00%	451	19+158.69m	Begin Normal Crown	-2.00%	-2.00%
427	18+355.66m	Reverse Crown	-2.00%	2.00%	435	18+601.46m	Level Crown	0.00%	-2.00%	443	18+858.01m	Begin Normal Crown	-2.00%	-2.00%	452	19+104.30m	End Normal Crown	-2.00%	-2.00%
427	18+365.32m	Level Crown	-2.00%	0.00%	435	18+611.06m	Begin Normal Crown	-2.00%	-2.00%	444	18+845.39m	End Normal Crown	-2.00%	-2.00%	452	19+113.97m	Level Crown	-2.00%	0.00%
427	18+374.99m	Begin Normal Crown	-2.00%	-2.00%	436	18+564.81m	End Normal Crown	-2.00%	-2.00%	444	18+855.06m	Level Crown	0.00%	-2.00%	452	19+123.63m	Reverse Crown	-2.00%	2.00%
428	18+327.17m	End Normal Crown	-2.00%	-2.00%	436	18+574.43m	Level Crown	-2.00%	0.00%	444	18+864.72m	Reverse Crown	2.00%	-2.00%	452	19+138.51m	End Full Super	-6.00%	6.00%
428	18+336.84m	Level Crown	0.00%	-2.00%	436	18+584.05m	Reverse Crown	-2.00%	2.00%	444	18+881.30m	End Full Super	6.00%	-6.00%	452	19+142.97m	Begin Full Super	-6.00%	6.00%
428	18+346.50m	Reverse Crown	2.00%	-2.00%	436	18+599.43m	Begin Full Super	-5.20%	5.20%	444	18+884.06m	Begin Full Super	6.00%	-6.00%	452	19+157.85m	Reverse Crown	-2.00%	2.00%
428	18+360.86m	End Full Super	6.00%	-6.00%	436	18+610.69m	End Full Super	-5.20%	5.20%	444	18+900.63m	Reverse Crown	2.00%	-2.00%	452	19+167.51m	Level Crown	-2.00%	0.00%
428	18+365.84m	Begin Full Super	6.00%	-6.00%	436	18+626.07m	Reverse Crown	-2.00%	2.00%	444	18+910.30m	Level Crown	0.00%	-2.00%	452	19+177.18m	Begin Normal Crown	-2.00%	-2.00%
428	18+380.20m	Reverse Crown	2.00%	-2.00%	436	18+635.69m	Level Crown	-2.00%	0.00%	444	18+919.96m	Begin Normal Crown	-2.00%	-2.00%	453	19+129.05m	End Normal Crown	-2.00%	-2.00%
428	18+389.86m	Level Crown	0.00%	-2.00%	436	18+645.31m	Begin Normal Crown	-2.00%	-2.00%	445	18+863.42m	End Normal Crown	-2.00%	-2.00%	453	19+138.66m	Level Crown	0.00%	-2.00%
428	18+399.53m	Begin Normal Crown	-2.00%	-2.00%	437	18+596.98m	End Normal Crown	-2.00%	-2.00%	445	18+873.09m	Level Crown	0.00%	-2.00%	453	19+148.28m	Reverse Crown	2.00%	-2.00%
429	18+348.91m	End Normal Crown	-2.00%	-2.00%	437	18+606.52m	Level Crown	0.00%	-2.00%	445	18+882.76m	Reverse Crown	2.00%	-2.00%	453	19+163.66m	Begin Full Super	5.20%	-5.20%
429	18+358.58m	Level Crown	-2.00%	0.00%	437	18+616.07m	Reverse Crown	2.00%	-2.00%	445	18+902.09m	Begin Full Super	6.00%	-6.00%	453	19+182.92m	End Full Super	5.20%	-5.20%
429	18+368.24m	Reverse Crown	-2.00%	2.00%	437	18+627.52m	Begin Full Super	4.40%	-4.40%	445	18+903.13m	End Full Super	6.00%	-6.00%	453	19+198.30m	Reverse Crown	2.00%	-2.00%
429	18+384.27m	End Full Super	-6.00%	6.00%	437	18+637.43m	End Full Super	4.40%	-4.40%	445	18+922.46m	Reverse Crown	2.00%	-2.00%	453	19+207.92m	Level Crown	0.00%	-2.00%
429	18+387.58m	Begin Full Super	-6.00%	6.00%	437	18+648.89m	Reverse Crown	2.00%	-2.00%	445	18+932.13m	Level Crown	0.00%	-2.00%	453	19+217.53m	Begin Normal Crown	-2.00%	-2.00%
429	18+403.60m	Reverse Crown	-2.00%	2.00%	437	18+658.43m	Level Crown	0.00%	-2.00%	445	18+941.80m	Begin Normal Crown	-2.00%	-2.00%	454	19+171.82m	End Normal Crown	-2.00%	-2.00%
429	18+413.27m	Level Crown	-2.00%	0.00%	437	18+667.98m	Begin Normal Crown	-2.00%	-2.00%	446	18+907.17m	End Normal Crown	-2.00%	-2.00%	454	19+181.48m	Level Crown	-2.00%	0.00%
429	18+422.93m	Begin Normal Crown	-2.00%	-2.00%	438	18+630.24m	End Normal Crown	-2.00%	-2.00%	446	18+916.83m	Level Crown	-2.00%	0.00%	454	19+191.14m	Reverse Crown	-2.00%	2.00%
430	18+375.74m	End Normal Crown	-2.00%	-2.00%	438	18+639.90m	Level Crown	-2.00%	0.00%	446	18+926.50m	Reverse Crown	-2.00%	2.00%	454	19+209.48m	Begin Full Super	-5.80%	5.80%
430	18+385.32m	Level Crown	-2.00%	0.00%	438	18+649.57m	Reverse Crown	-2.00%	2.00%	446	18+945.83m	Begin Full Super	-6.00%	6.00%	454	19+218.53m	End Full Super	-5.80%	5.80%
430	18+394.90m	Reverse Crown	-2.00%	2.00%	438	18+668.90m	Begin Full Super	-6.00%	6.00%	446	18+948.85m	End Full Super	-6.00%	6.00%	454	19+236.88m	Reverse Crown	-2.00%	2.00%
430	18+408.32m	Begin Full Super	-4.80%	4.80%	438	18+669.97m	End Full Super	-6.00%	6.00%	446	18+968.18m	Reverse Crown	-2.00%	2.00%	454	19+246.53m	Level Crown	-2.00%	0.00%
430	18+409.31m	End Full Super	-4.80%	4.80%	438	18+689.31m	Reverse Crown	-2.00%	2.00%	446	18+977.85m	Level Crown	-2.00%	0.00%	454	19+256.19m	Begin Normal Crown	-2.00%	-2.00%
430	18+422.73m	Reverse Crown	-2.00%	2.00%	438	18+698.97m	Level Crown	-2.00%	0.00%	446	18+987.51m	Begin Normal Crown	-2.00%	-2.00%	455	19+204.43m	End Normal Crown	-2.00%	-2.00%
430	18+432.31m	Level Crown	-2.00%	0.00%	438	18+708.64m	Begin Normal Crown	-2.00%	-2.00%	447	18+961.22m	End Normal Crown	-2.00%	-2.00%	455	19+214.10m	Level Crown	0.00%	-2.00%
430	18+441.89m	Begin Normal Crown	-2.00%	-2.00%	439	18+661.58m	End Normal Crown	-2.00%	-2.00%	447	18+970.83m	Level Crown	0.00%	-2.00%	455	19+223.77m	Reverse Crown	2.00%	-2.00%
431	18+410.83m	End Normal																	

Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane
455	19+294.99m	Begin Normal Crown	-2.00%	-2.00%	464	19+489.28m	End Normal Crown	-2.00%	-2.00%	472	19+736.91m	Level Crown	0.00%	-2.00%	480	20+021.47m	Reverse Crown	-2.00%	2.00%
456	19+249.38m	End Normal Crown	-2.00%	-2.00%	464	19+498.51m	Level Crown	0.00%	-2.00%	472	19+746.57m	Reverse Crown	2.00%	-2.00%	480	20+040.80m	Begin Full Super	-6.00%	6.00%
456	19+258.93m	Level Crown	-2.00%	0.00%	464	19+507.74m	Reverse Crown	2.00%	-2.00%	472	19+761.88m	End Full Super	5.80%	-5.80%	480	20+048.03m	End Full Super	-6.00%	6.00%
456	19+268.47m	Reverse Crown	-2.00%	2.00%	464	19+509.10m	End Full Super	2.60%	-2.60%	472	19+764.91m	Begin Full Super	5.80%	-5.80%	480	20+067.37m	Reverse Crown	-2.00%	2.00%
456	19+279.93m	Begin Full Super	-4.40%	4.40%	464	19+510.51m	Begin Full Super	2.60%	-2.60%	472	19+780.22m	Reverse Crown	2.00%	-2.00%	480	20+077.03m	Level Crown	-2.00%	0.00%
456	19+288.31m	End Full Super	-4.40%	4.40%	464	19+511.87m	Reverse Crown	2.00%	-2.00%	472	19+789.88m	Level Crown	0.00%	-2.00%	480	20+086.70m	Begin Normal Crown	-2.00%	-2.00%
456	19+299.76m	Reverse Crown	-2.00%	2.00%	464	19+521.10m	Level Crown	0.00%	-2.00%	472	19+799.53m	Begin Normal Crown	-2.00%	-2.00%	481	20+044.41m	End Normal Crown	-2.00%	-2.00%
456	19+309.31m	Level Crown	-2.00%	0.00%	464	19+530.33m	Begin Normal Crown	-2.00%	-2.00%	473	19+767.26m	End Normal Crown	-2.00%	-2.00%	481	20+054.06m	Level Crown	0.00%	-2.00%
456	19+318.85m	Begin Normal Crown	-2.00%	-2.00%	465	19+506.63m	End Normal Crown	-2.00%	-2.00%	473	19+776.84m	Level Crown	0.00%	-2.00%	481	20+063.72m	Reverse Crown	2.00%	-2.00%
457	19+270.26m	End Normal Crown	-2.00%	-2.00%	465	19+516.08m	Level Crown	-2.00%	0.00%	473	19+786.42m	Reverse Crown	2.00%	-2.00%	481	20+080.66m	End Full Super	5.80%	-5.80%
457	19+279.93m	Level Crown	-2.00%	0.00%	465	19+525.52m	Reverse Crown	-2.00%	2.00%	473	19+799.84m	Begin Full Super	4.80%	-4.80%	481	20+082.06m	Begin Full Super	5.80%	-5.80%
457	19+289.60m	Reverse Crown	-2.00%	2.00%	465	19+533.08m	Begin Full Super	-3.60%	3.60%	473	19+800.36m	End Full Super	4.80%	-4.80%	481	20+099.00m	Reverse Crown	2.00%	-2.00%
457	19+305.21m	End Full Super	-6.00%	6.00%	465	19+547.30m	End Full Super	-3.60%	3.60%	473	19+813.78m	Reverse Crown	2.00%	-2.00%	481	20+108.66m	Level Crown	0.00%	-2.00%
457	19+308.93m	Begin Full Super	-6.00%	6.00%	465	19+554.85m	Reverse Crown	-2.00%	2.00%	473	19+823.36m	Level Crown	0.00%	-2.00%	481	20+118.31m	Begin Normal Crown	-2.00%	-2.00%
457	19+324.55m	Reverse Crown	-2.00%	2.00%	465	19+564.30m	Level Crown	-2.00%	0.00%	473	19+832.95m	Begin Normal Crown	-2.00%	-2.00%	482	20+070.46m	End Normal Crown	-2.00%	-2.00%
457	19+334.21m	Level Crown	-2.00%	0.00%	465	19+573.74m	Begin Normal Crown	-2.00%	-2.00%	474	19+803.28m	End Normal Crown	-2.00%	-2.00%	482	20+080.09m	Level Crown	-2.00%	0.00%
457	19+343.88m	Begin Normal Crown	-2.00%	-2.00%	466	19+533.72m	End Normal Crown	-2.00%	-2.00%	474	19+812.84m	Level Crown	-2.00%	0.00%	482	20+089.72m	Reverse Crown	-2.00%	2.00%
458	19+288.68m	End Normal Crown	-2.00%	-2.00%	466	19+543.38m	Level Crown	-2.00%	0.00%	474	19+822.41m	Reverse Crown	-2.00%	2.00%	482	20+101.55m	End Full Super	-5.40%	5.40%
458	19+298.35m	Level Crown	-2.00%	0.00%	466	19+553.05m	Reverse Crown	-2.00%	2.00%	474	19+831.51m	End Full Super	-4.60%	4.60%	482	20+106.09m	Begin Full Super	-5.40%	5.40%
458	19+308.02m	Reverse Crown	-2.00%	2.00%	466	19+570.66m	End Full Super	-6.00%	6.00%	474	19+834.84m	Begin Full Super	-4.60%	4.60%	482	20+117.92m	Reverse Crown	-2.00%	2.00%
458	19+327.35m	Begin Full Super	-6.00%	6.00%	466	19+572.38m	Begin Full Super	-6.00%	6.00%	474	19+843.94m	Reverse Crown	-2.00%	2.00%	482	20+127.55m	Level Crown	-2.00%	0.00%
458	19+332.36m	End Full Super	-6.00%	6.00%	466	19+589.99m	Reverse Crown	-2.00%	2.00%	474	19+853.51m	Level Crown	-2.00%	0.00%	482	20+137.18m	Begin Normal Crown	-2.00%	-2.00%
458	19+351.69m	Reverse Crown	-2.00%	2.00%	466	19+599.66m	Level Crown	-2.00%	0.00%	474	19+863.07m	Begin Normal Crown	-2.00%	-2.00%	483	20+095.75m	End Normal Crown	-2.00%	-2.00%
458	19+361.36m	Level Crown	-2.00%	0.00%	466	19+609.33m	Begin Normal Crown	-2.00%	-2.00%	475	19+815.06m	End Normal Crown	-2.00%	-2.00%	483	20+105.42m	Level Crown	0.00%	-2.00%
458	19+371.02m	Begin Normal Crown	-2.00%	-2.00%	467	19+570.87m	End Normal Crown	-2.00%	-2.00%	475	19+824.73m	Level Crown	-2.00%	0.00%	483	20+115.09m	Reverse Crown	2.00%	-2.00%
459	19+319.95m	End Normal Crown	-2.00%	-2.00%	467	19+580.54m	Level Crown	0.00%	-2.00%	475	19+834.39m	Reverse Crown	-2.00%	2.00%	483	20+130.43m	End Full Super	6.00%	-6.00%
459	19+329.62m	Level Crown	0.00%	-2.00%	467	19+590.20m	Reverse Crown	2.00%	-2.00%	475	19+853.73m	Begin Full Super	-6.00%	6.00%	483	20+134.42m	Begin Full Super	6.00%	-6.00%
459	19+339.29m	Reverse Crown	2.00%	-2.00%	467	19+608.81m	End Full Super	6.00%	-6.00%	475	19+862.73m	End Full Super	-6.00%	6.00%	483	20+149.76m	Reverse Crown	2.00%	-2.00%
459	19+354.21m	End Full Super	6.00%	-6.00%	467	19+609.54m	Begin Full Super	6.00%	-6.00%	475	19+882.07m	Reverse Crown	-2.00%	2.00%	483	20+159.43m	Level Crown	0.00%	-2.00%
459	19+358.62m	Begin Full Super	6.00%	-6.00%	467	19+628.14m	Reverse Crown	2.00%	-2.00%	475	19+891.73m	Level Crown	-2.00%	0.00%	483	20+169.10m	Begin Normal Crown	-2.00%	-2.00%
459	19+373.55m	Reverse Crown	2.00%	-2.00%	467	19+637.81m	Level Crown	0.00%	-2.00%	475	19+901.40m	Begin Normal Crown	-2.00%	-2.00%	484	20+118.46m	End Normal Crown	-2.00%	-2.00%
459	19+383.21m	Level Crown	0.00%	-2.00%	467	19+647.47m	Begin Normal Crown	-2.00%	-2.00%	476	19+871.50m	End Normal Crown	-2.00%	-2.00%	484	20+128.06m	Level Crown	-2.00%	0.00%
459	19+392.88m	Begin Normal Crown	-2.00%	-2.00%	468	19+617.93m	End Normal Crown	-2.00%	-2.00%	476	19+880.94m	Level Crown	-2.00%	0.00%	484	20+137.66m	Reverse Crown	-2.00%	2.00%
460	19+347.67m	End Normal Crown	-2.00%	-2.00%	468	19+627.43m	Level Crown	-2.00%	0.00%	476	19+890.39m	Reverse Crown	-2.00%	2.00%	484	20+145.24m	End Full Super	-5.00%	5.00%
460	19+357.32m	Level Crown	-2.00%	0.00%	468	19+636.93m	Reverse Crown	-2.00%	2.00%	476	19+897.94m	Begin Full Super	-3.60%	3.60%	484	20+152.06m	Begin Full Super	-5.00%	5.00%
460	19+366.98m	Reverse Crown	-2.00%	2.00%	468	19+644.04m	End Full Super	-4.00%	4.00%	476	19+907.02m	End Full Super	-3.60%	3.60%	484	20+159.64m	Reverse Crown	-2.00%	2.00%
460	19+385.19m	End Full Super	-5.80%	5.80%	468	19+646.43m	Begin Full Super	-4.00%	4.00%	476	19+914.58m	Reverse Crown	-2.00%	2.00%	484	20+169.24m	Level Crown	-2.00%	0.00%
460	19+385.32m	Begin Full Super	-5.80%	5.80%	468	19+653.54m	Reverse Crown	-2.00%	2.00%	476	19+924.02m	Level Crown	-2.00%	0.00%	484	20+178.84m	Begin Normal Crown	-2.00%	-2.00%
460	19+403.53m	Reverse Crown	-2.00%	2.00%	468	19+663.04m	Level Crown	-2.00%	0.00%	476	19+933.47m	Begin Normal Crown	-2.00%	-2.00%	485	20+141.96m	End Normal Crown	-2.00%	-2.00%
460	19+413.19m	Level Crown	-2.00%	0.00%	468	19+672.54m	Begin Normal Crown	-2.00%	-2.00%	477	19+895.78m	End Normal Crown	-2.00%	-2.00%	485	20+151.63m	Level Crown	-2.00%	0.00%
460	19+422.84m	Begin Normal Crown	-2.00%	-2.00%	469	19+651.11m	End Normal Crown	-2.00%	-2.00%	477	19+906.44m	Level Crown	0.00%	-2.00%	485	20+161.29m	Reverse Crown	-2.00%	2.00%
461	19+390.64m	End Normal Crown	-2.00%	-2.00%	469	19+660.55m	Level Crown	0.00%	-2.00%	477	19+916.11m	Reverse Crown	2.00%	-2.00%	485	20+174.88m	End Full Super	-6.00%	6.00%
461	19+400.31m	Level Crown	-2.00%	0.00%	469	19+670.00m	Reverse Crown	2.00%	-2.00%	477	19+935.44m	Begin Full Super	6.00%	-6.00%	485	20+180.63m	Begin Full Super	-6.00%	6.00%
461	19+409.97m	Reverse Crown	-2.00%	2.00%	469	19+677.55m	Begin Full Super	3.60%	-3.60%	477	19+941.11m	End Full Super	6.00%	-6.00%	485	20+194.21m	Reverse Crown	-2.00%	2.00%
461	19+424.09m	End Full Super	-6.00%	6.00%	469	19+682.97m	End Full Super	3.60%	-3.60%	477	19+950.45m	Reverse Crown	2.00%	-2.00%	485	20+203.88m	Level Crown	-2.00%	0.00%
461	19+429.31m	Begin Full Super	-6.00%	6.00%	469	19+690.52m	Reverse Crown	2.00%	-2.00%	477	19+970.11m	Level Crown	0.00%	-2.00%	485	20+213.55m	Begin Normal Crown	-2.00%	-2.00%
461	19+443.43m	Reverse Crown	-2.00%	2.00%	469	19+699.97m	Level Crown	0.00%	-2.00%	477	19+979.78m	Begin Normal Crown	-2.00%	-2.00%	486	20+177.47m	End Normal Crown	-2.00%	-2.00%
461	19+453.09m	Level Crown	-2.00%	0.00%	469	19+709.41m	Begin Normal Crown	-2.00%	-2.00%	478	19+923.70m	End Normal Crown	-2.00%	-2.00%	486	20+187.05m	Level Crown	0.00%	-2.00%
461	19+462.76m	Begin Normal Crown	-2.00%	-2.00%	470	19+671.91m	End Normal Crown	-2.00%	-2.00%	478	19+933.36m	Level Crown	-2.00%	0.00%	486	20+196.64m	Reverse Crown	2.00%	-2.00%
462	19+406.95m	End Normal Crown	-2.00%	-2.00%	470	19+681.48m	Level Crown	-2.00%	0.00%	478	19+943.03m	Reverse Crown	-2.00%	2.00%	486	20+206.57m	End Full Super	4.80%	-4.80%
462	19+416.62m	Level Crown	0.00%	-2.00%	470	19+691.04m	Reverse Crown	-2.00%	2.00%	478	19+962.36m	Begin Full Super	-6.00%	6.00%	486	20+210.05m	Begin Full Super	4.80%	-4.80%
462	19+426.29m	Reverse Crown	2.00%	-2.00%	470	19+703.48m	Begin Full Super	-4.60%	4.60%	478	19+968.34m	End Full Super	-6.00%	6.00%	486	20+219.99m	Reverse Crown	2.00%	-2.00%
462	19+444.18m	End Full Super	6.00%	-6.00%	470	19+709.76m	End Full Super	-4.60%	4.60%	478	19+987.67m	Reverse Crown	-2.00%	2.00%	486	20+229.57m	Level Crown	0.00%	-2.00%
462	19+445.62m	Begin Full Super	6.00%	-6.00%	470	19+722.19m	Reverse Crown	-2.00%	2.00%	478	19+997.34m	Level Crown	-2.00%	0.00%	486	20+239.15m	Begin Normal Crown	-2.00%	-2.00%
462	19+463.51m	Reverse Crown	2.00%	-2.00%	470	19+731.76m	Level Crown	-2.00%	0.00%	478	20+007.00m	Begin Normal Crown	-2.00%	-2.00%	487	20+192.47m	End Normal Crown	-2.00%	-2.00%
462	19+473.18m	Level Crown	0.00%	-2.00%	470	19+741.32m	Begin Normal Crown	-2.00%	-2.00%	479	19+971.36m	End Normal Crown	-2.00%	-2.00%	487	20+202.14m	Level Crown	0.00%	-2.00%
462	19+482.84m	Begin Normal Crown	-2.00%	-2.00%	471	19+694.93m	End Normal Crown	-2.00%	-2.00%	479	19+981.03m	Level Crown	0.00%	-2.00%	487	20+211.80m	Reverse Crown	2.00%	-2.00%
463	19+436.76m	End Normal Crown	-2.00%	-2.00%	471	19+704.59m	Level Crown	0.00%	-2.00%	479	19+990.69m	Reverse Crown	2.00%	-2.00%	487	20+231.14m	Begin Full Super	6.00%	-6.00%
463	19+446.34m	Level Crown	-2.00%	0.00%	471	19+714.26m	Reverse Crown	2.00%	-2.00%	479	20+010.03m	Begin Full Super	6.00%	-6.00%	487	20+232.34m	End Full Super	6.00%	-6.00%
463	19+455.93m	Reverse Crown	-2.00%	2.00%	471	19+733.59m	Begin Full Super	6.00%	-6.00%	479	20+013.79m	End Full Super	6.00%	-6.00%	487	20+251.67m	Reverse Crown	2.00%	-2.00%
463	19+469.34m	Begin Full Super	-4.80%	4.80%	471	19+741.45m	End Full Super	6.00%	-6.00%	479	20+033.12m	Reverse Crown	2.00%	-2.00%	487	20+261.34m	Level Crown	0.00%	-2.00%
463	19+475.15m	End Full																	

Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane
488	20+252.96m	Begin Full Super	-6.00%	6.00%	496	20+488.24m	End Full Super	4.80%	-4.80%	504	20+755.56m	Reverse Crown	-2.00%	2.00%	512	20+995.73m	Level Crown	-2.00%	0.00%
488	20+262.36m	End Full Super	-6.00%	6.00%	496	20+501.66m	Reverse Crown	2.00%	-2.00%	504	20+765.22m	Level Crown	-2.00%	0.00%	512	21+005.30m	Begin Normal Crown	-2.00%	-2.00%
488	20+281.69m	Reverse Crown	-2.00%	2.00%	496	20+511.24m	Level Crown	0.00%	-2.00%	504	20+774.87m	Begin Normal Crown	-2.00%	-2.00%	513	20+962.09m	End Normal Crown	-2.00%	-2.00%
488	20+291.36m	Level Crown	-2.00%	0.00%	496	20+520.82m	Begin Normal Crown	-2.00%	-2.00%	505	20+750.69m	End Normal Crown	-2.00%	-2.00%	513	20+971.71m	Level Crown	-2.00%	0.00%
488	20+301.03m	Begin Normal Crown	-2.00%	-2.00%	497	20+506.93m	End Normal Crown	-2.00%	-2.00%	505	20+760.07m	Level Crown	-2.00%	0.00%	513	20+981.32m	Reverse Crown	-2.00%	2.00%
489	20+257.79m	End Normal Crown	-2.00%	-2.00%	497	20+516.55m	Level Crown	0.00%	-2.00%	505	20+769.44m	Reverse Crown	-2.00%	2.00%	513	20+994.96m	End Full Super	-5.20%	5.20%
489	20+267.46m	Level Crown	0.00%	-2.00%	497	20+526.16m	Reverse Crown	2.00%	-2.00%	505	20+775.07m	Begin Full Super	-3.20%	3.20%	513	20+996.71m	Begin Full Super	-5.20%	5.20%
489	20+277.13m	Reverse Crown	2.00%	-2.00%	497	20+540.91m	End Full Super	5.20%	-5.20%	505	20+777.08m	End Full Super	-3.20%	3.20%	513	21+010.35m	Reverse Crown	-2.00%	2.00%
489	20+296.46m	Begin Full Super	6.00%	-6.00%	497	20+541.55m	Begin Full Super	5.20%	-5.20%	505	20+782.71m	Reverse Crown	-2.00%	2.00%	513	21+019.96m	Level Crown	-2.00%	0.00%
489	20+306.20m	End Full Super	6.00%	-6.00%	497	20+556.29m	Reverse Crown	2.00%	-2.00%	505	20+792.08m	Level Crown	-2.00%	0.00%	513	21+029.58m	Begin Normal Crown	-2.00%	-2.00%
489	20+325.53m	Reverse Crown	2.00%	-2.00%	497	20+565.91m	Level Crown	0.00%	-2.00%	505	20+801.46m	Begin Normal Crown	-2.00%	-2.00%	514	20+977.52m	End Normal Crown	-2.00%	-2.00%
489	20+335.20m	Level Crown	0.00%	-2.00%	497	20+575.52m	Begin Normal Crown	-2.00%	-2.00%	506	20+768.06m	End Normal Crown	-2.00%	-2.00%	514	20+987.18m	Level Crown	0.00%	-2.00%
489	20+344.87m	Begin Normal Crown	-2.00%	-2.00%	498	20+535.92m	End Normal Crown	-2.00%	-2.00%	506	20+777.51m	Level Crown	0.00%	-2.00%	514	20+996.85m	Reverse Crown	2.00%	-2.00%
490	20+295.81m	End Normal Crown	-2.00%	-2.00%	498	20+545.21m	Level Crown	-2.00%	0.00%	506	20+786.95m	Reverse Crown	2.00%	-2.00%	514	21+006.45m	End Full Super	6.00%	-6.00%
490	20+305.47m	Level Crown	-2.00%	0.00%	498	20+554.49m	Reverse Crown	0.00%	2.00%	506	20+794.46m	End Full Super	3.60%	-3.60%	514	21+016.18m	Begin Full Super	6.00%	-6.00%
490	20+315.14m	Reverse Crown	-2.00%	2.00%	498	20+558.21m	Begin Full Super	-2.80%	2.80%	506	20+794.51m	Begin Full Super	3.60%	-3.60%	514	21+025.78m	Reverse Crown	2.00%	-2.00%
490	20+326.05m	End Full Super	-6.00%	6.00%	498	20+564.54m	End Full Super	-2.80%	2.80%	506	20+802.02m	Reverse Crown	2.00%	-2.00%	514	21+035.45m	Level Crown	0.00%	-2.00%
490	20+334.47m	Begin Full Super	-6.00%	6.00%	498	20+568.25m	Reverse Crown	-2.00%	2.00%	506	20+811.46m	Level Crown	0.00%	-2.00%	514	21+045.12m	Begin Normal Crown	-2.00%	-2.00%
490	20+345.38m	Reverse Crown	-2.00%	2.00%	498	20+577.54m	Level Crown	-2.00%	0.00%	506	20+820.91m	Begin Normal Crown	-2.00%	-2.00%	515	21+024.87m	End Normal Crown	-2.00%	-2.00%
490	20+355.05m	Level Crown	-2.00%	0.00%	498	20+586.82m	Begin Normal Crown	-2.00%	-2.00%	507	20+782.58m	End Normal Crown	-2.00%	-2.00%	515	21+034.87m	Level Crown	0.00%	-2.00%
490	20+364.71m	Begin Normal Crown	-2.00%	-2.00%	499	20+563.02m	End Normal Crown	-2.00%	-2.00%	507	20+792.10m	Level Crown	-2.00%	0.00%	515	21+044.87m	Reverse Crown	2.00%	-2.00%
491	20+313.83m	End Normal Crown	-2.00%	-2.00%	499	20+572.60m	Level Crown	0.00%	-2.00%	507	20+801.63m	Reverse Crown	-2.00%	2.00%	515	21+045.87m	Begin Full Super	2.20%	-2.20%
491	20+323.46m	Level Crown	-2.00%	0.00%	499	20+582.19m	Reverse Crown	2.00%	-2.00%	507	20+812.10m	Begin Full Super	-4.20%	4.20%	515	21+052.70m	End Full Super	2.20%	-2.20%
491	20+333.09m	Reverse Crown	-2.00%	2.00%	499	20+595.60m	Begin Full Super	4.80%	-4.80%	507	20+821.68m	End Full Super	-4.20%	4.20%	515	21+053.70m	Reverse Crown	2.00%	-2.00%
491	20+341.34m	End Full Super	-5.40%	5.40%	499	20+609.70m	End Full Super	4.80%	-4.80%	507	20+832.16m	Reverse Crown	-2.00%	2.00%	515	21+063.70m	Level Crown	0.00%	-2.00%
491	20+349.46m	Begin Full Super	-5.40%	5.40%	499	20+623.12m	Reverse Crown	2.00%	-2.00%	507	20+841.68m	Level Crown	-2.00%	0.00%	515	21+073.70m	Begin Normal Crown	-2.00%	-2.00%
491	20+357.71m	Reverse Crown	-2.00%	2.00%	499	20+632.70m	Level Crown	0.00%	-2.00%	507	20+851.20m	Begin Normal Crown	-2.00%	-2.00%	516	21+042.35m	End Normal Crown	-2.00%	-2.00%
491	20+367.34m	Level Crown	-2.00%	0.00%	499	20+642.28m	Begin Normal Crown	-2.00%	-2.00%	508	20+814.70m	End Normal Crown	-2.00%	-2.00%	516	21+051.95m	Level Crown	-2.00%	0.00%
491	20+376.97m	Begin Normal Crown	-2.00%	-2.00%	500	20+609.28m	End Normal Crown	-2.00%	-2.00%	508	20+824.26m	Level Crown	0.00%	-2.00%	516	21+061.55m	Reverse Crown	-2.00%	2.00%
492	20+324.16m	End Normal Crown	-2.00%	-2.00%	500	20+618.94m	Level Crown	-2.00%	0.00%	508	20+833.83m	Reverse Crown	2.00%	-2.00%	516	21+075.95m	Begin Full Super	-5.00%	5.00%
492	20+333.82m	Level Crown	0.00%	-2.00%	500	20+628.59m	Reverse Crown	-2.00%	2.00%	508	20+840.51m	End Full Super	4.60%	-4.60%	516	21+077.18m	End Full Super	-5.00%	5.00%
492	20+343.49m	Reverse Crown	2.00%	-2.00%	500	20+645.77m	End Full Super	-5.80%	5.80%	508	20+846.26m	Begin Full Super	4.60%	-4.60%	516	21+091.58m	Reverse Crown	-2.00%	2.00%
492	20+362.82m	Begin Full Super	6.00%	-6.00%	500	20+646.94m	Begin Full Super	-5.80%	5.80%	508	20+852.95m	Reverse Crown	2.00%	-2.00%	516	21+101.18m	Level Crown	-2.00%	0.00%
492	20+366.69m	End Full Super	6.00%	-6.00%	500	20+664.12m	Reverse Crown	-2.00%	2.00%	508	20+862.51m	Level Crown	0.00%	-2.00%	516	21+110.78m	Begin Normal Crown	-2.00%	-2.00%
492	20+386.03m	Reverse Crown	2.00%	-2.00%	500	20+673.77m	Level Crown	-2.00%	0.00%	508	20+872.08m	Begin Normal Crown	-2.00%	-2.00%	517	21+076.23m	End Normal Crown	-2.00%	-2.00%
492	20+395.69m	Level Crown	0.00%	-2.00%	500	20+683.43m	Begin Normal Crown	-2.00%	-2.00%	509	20+833.83m	End Normal Crown	-2.00%	-2.00%	517	21+085.73m	Level Crown	0.00%	-2.00%
492	20+405.36m	Begin Normal Crown	-2.00%	-2.00%	501	20+627.94m	End Normal Crown	-2.00%	-2.00%	509	20+843.21m	Level Crown	0.00%	-2.00%	517	21+095.23m	Reverse Crown	2.00%	-2.00%
493	20+362.93m	End Normal Crown	-2.00%	-2.00%	501	20+637.60m	Level Crown	-2.00%	0.00%	509	20+852.58m	Reverse Crown	2.00%	-2.00%	517	21+104.73m	Begin Full Super	4.00%	-4.00%
493	20+372.60m	Level Crown	-2.00%	0.00%	501	20+647.27m	Reverse Crown	-2.00%	2.00%	509	20+858.21m	Begin Full Super	3.20%	-3.20%	517	21+105.84m	End Full Super	4.00%	-4.00%
493	20+382.27m	Reverse Crown	-2.00%	2.00%	501	20+659.57m	End Full Super	-6.00%	6.00%	509	20+860.73m	End Full Super	3.20%	-3.20%	517	21+115.34m	Reverse Crown	2.00%	-2.00%
493	20+401.60m	Begin Full Super	-6.00%	6.00%	501	20+666.60m	Begin Full Super	-6.00%	6.00%	509	20+866.36m	Reverse Crown	2.00%	-2.00%	517	21+124.84m	Level Crown	0.00%	-2.00%
493	20+402.38m	End Full Super	-6.00%	6.00%	501	20+678.91m	Reverse Crown	-2.00%	2.00%	509	20+875.73m	Level Crown	0.00%	-2.00%	517	21+134.34m	Begin Normal Crown	-2.00%	-2.00%
493	20+421.72m	Reverse Crown	-2.00%	2.00%	501	20+688.57m	Level Crown	-2.00%	0.00%	509	20+885.11m	Begin Normal Crown	-2.00%	-2.00%	518	21+130.28m	End Normal Crown	-2.00%	-2.00%
493	20+431.38m	Level Crown	-2.00%	0.00%	501	20+698.24m	Begin Normal Crown	-2.00%	-2.00%	510	20+859.39m	End Normal Crown	-2.00%	-2.00%	518	21+140.28m	Level Crown	0.00%	-2.00%
493	20+441.05m	Begin Normal Crown	-2.00%	-2.00%	502	20+640.97m	End Normal Crown	-2.00%	-2.00%	510	20+869.06m	Level Crown	-2.00%	0.00%	518	21+150.28m	Reverse Crown	2.00%	-2.00%
494	20+388.01m	End Normal Crown	-2.00%	-2.00%	502	20+650.64m	Level Crown	-2.00%	0.00%	510	20+878.73m	Reverse Crown	-2.00%	2.00%	518	21+151.28m	Begin Full Super	2.20%	-2.20%
494	20+397.67m	Level Crown	0.00%	-2.00%	502	20+660.31m	Reverse Crown	-2.00%	2.00%	510	20+895.54m	End Full Super	-6.00%	6.00%	518	21+183.42m	End Full Super	2.20%	-2.20%
494	20+407.34m	Reverse Crown	2.00%	-2.00%	502	20+679.64m	Begin Full Super	-6.00%	6.00%	510	20+898.06m	Begin Full Super	-6.00%	6.00%	518	21+184.42m	Reverse Crown	2.00%	-2.00%
494	20+425.69m	End Full Super	6.00%	-6.00%	502	20+686.46m	End Full Super	-6.00%	6.00%	510	20+914.87m	Reverse Crown	-2.00%	2.00%	518	21+194.42m	Level Crown	0.00%	-2.00%
494	20+426.67m	Begin Full Super	6.00%	-6.00%	502	20+705.79m	Reverse Crown	-2.00%	2.00%	510	20+924.54m	Level Crown	-2.00%	0.00%	518	21+204.42m	Begin Normal Crown	-2.00%	-2.00%
494	20+445.02m	Reverse Crown	2.00%	-2.00%	502	20+715.46m	Level Crown	-2.00%	0.00%	510	20+934.21m	Begin Normal Crown	-2.00%	-2.00%	519	21+172.86m	End Normal Crown	-2.00%	-2.00%
494	20+454.69m	Level Crown	0.00%	-2.00%	502	20+725.13m	Begin Normal Crown	-2.00%	-2.00%	511	20+905.60m	End Normal Crown	-2.00%	-2.00%	519	21+182.39m	Level Crown	-2.00%	0.00%
494	20+464.36m	Begin Normal Crown	-2.00%	-2.00%	503	20+674.32m	End Normal Crown	-2.00%	-2.00%	511	20+914.89m	Level Crown	0.00%	-2.00%	519	21+191.91m	Reverse Crown	-2.00%	2.00%
495	20+418.10m	End Normal Crown	-2.00%	-2.00%	503	20+683.98m	Level Crown	0.00%	-2.00%	511	20+924.17m	Reverse Crown	2.00%	-2.00%	519	21+202.39m	Begin Full Super	-4.20%	4.20%
495	20+427.68m	Level Crown	-2.00%	0.00%	503	20+693.65m	Reverse Crown	2.00%	-2.00%	511	20+927.89m	Begin Full Super	2.80%	-2.80%	519	21+210.77m	End Full Super	-4.20%	4.20%
495	20+437.27m	Reverse Crown	-2.00%	2.00%	503	20+712.98m	Begin Full Super	6.00%	-6.00%	511	20+945.99m	End Full Super	2.80%	-2.80%	519	21+221.24m	Reverse Crown	-2.00%	2.00%
495	20+450.68m	Begin Full Super	-4.80%	4.80%	503	20+714.74m	End Full Super	6.00%	-6.00%	511	20+949.71m	Reverse Crown	2.00%	-2.00%	519	21+230.77m	Level Crown	-2.00%	0.00%
495	20+454.15m	End Full Super	-4.80%	4.80%	503	20+734.07m	Reverse Crown	2.00%	-2.00%	511	20+958.99m	Level Crown	0.00%	-2.00%	519	21+240.29m	Begin Normal Crown	-2.00%	-2.00%
495	20+467.56m	Reverse Crown	-2.00%	2.00%	503	20+743.74m	Level Crown	0.00%	-2.00%	511	20+968.28m	Begin Normal Crown	-2.00%	-2.00%	520	21+227.67m	End Normal Crown	-2.00%	-2.00%
495	20+477.15m	Level Crown	-2.00%	0.00%	503	20+753.41m	Begin Normal Crown	-2.00%	-2.00%	512	20+941.58m	End Normal Crown	-2.00%	-2.00%	520	21+236.95m	Level Crown	0.00%	-2.00%
495	20+486.73m	Begin Normal Crown	-2.00%	-2.00%	504	20+704.91m	End Normal Crown	-2.00%	-2.00%	512	20+951.15m	Level Crown	-2.00%	0.00%	520	21+246.24m	Reverse Crown	2.00%	-2.00%
496	20+439.64m	End Normal																	

Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane
520	21+283.36m	Begin Normal Crown	-2.00%	-2.00%	529	21+519.16m	End Normal Crown	-2.00%	-2.00%	537	21+724.91m	Level Crown	0.00%	-2.00%	545	21+914.49m	Reverse Crown	2.00%	-2.00%
521	21+263.20m	End Normal Crown	-2.00%	-2.00%	529	21+528.74m	Level Crown	0.00%	-2.00%	537	21+734.58m	Reverse Crown	2.00%	-2.00%	545	21+933.51m	End Full Super	6.00%	-6.00%
521	21+273.20m	Level Crown	0.00%	-2.00%	529	21+538.32m	Reverse Crown	2.00%	-2.00%	537	21+748.40m	End Full Super	6.00%	-6.00%	545	21+933.82m	Begin Full Super	6.00%	-6.00%
521	21+283.20m	Begin Full Super	2.00%	-2.00%	529	21+551.74m	Begin Full Super	4.80%	-4.80%	537	21+753.91m	Begin Full Super	6.00%	-6.00%	545	21+952.84m	Reverse Crown	2.00%	-2.00%
521	21+283.20m	Reverse Crown	2.00%	-2.00%	529	21+553.11m	End Full Super	4.80%	-4.80%	537	21+767.73m	Reverse Crown	2.00%	-2.00%	545	21+962.51m	Level Crown	0.00%	-2.00%
521	21+288.59m	End Full Super	2.00%	-2.00%	529	21+566.53m	Reverse Crown	2.00%	-2.00%	537	21+777.40m	Level Crown	0.00%	-2.00%	545	21+972.18m	Begin Normal Crown	-2.00%	-2.00%
521	21+288.59m	Reverse Crown	2.00%	-2.00%	529	21+576.11m	Level Crown	0.00%	-2.00%	537	21+787.07m	Begin Normal Crown	-2.00%	-2.00%	546	21+930.68m	End Normal Crown	-2.00%	-2.00%
521	21+298.59m	Level Crown	0.00%	-2.00%	529	21+585.70m	Begin Normal Crown	-2.00%	-2.00%	538	21+737.21m	End Normal Crown	-2.00%	-2.00%	546	21+940.34m	Level Crown	-2.00%	0.00%
521	21+308.59m	Begin Normal Crown	-2.00%	-2.00%	530	21+537.20m	End Normal Crown	-2.00%	-2.00%	538	21+746.88m	Level Crown	0.00%	-2.00%	546	21+950.01m	Reverse Crown	-2.00%	2.00%
522	21+291.10m	End Normal Crown	-2.00%	-2.00%	530	21+546.83m	Level Crown	-2.00%	0.00%	538	21+756.54m	Reverse Crown	2.00%	-2.00%	546	21+965.92m	End Full Super	-6.00%	6.00%
522	21+300.33m	Level Crown	-2.00%	0.00%	530	21+556.46m	Reverse Crown	-2.00%	2.00%	538	21+775.88m	Begin Full Super	6.00%	-6.00%	546	21+969.34m	Begin Full Super	-6.00%	6.00%
522	21+309.57m	Reverse Crown	-2.00%	2.00%	530	21+571.09m	End Full Super	-5.40%	5.40%	538	21+775.98m	End Full Super	6.00%	-6.00%	546	21+985.25m	Reverse Crown	-2.00%	2.00%
522	21+312.33m	Begin Full Super	-2.60%	2.60%	530	21+572.83m	Begin Full Super	-5.40%	5.40%	538	21+795.32m	Reverse Crown	2.00%	-2.00%	546	21+994.92m	Level Crown	-2.00%	0.00%
522	21+319.20m	End Full Super	-2.60%	2.60%	530	21+587.46m	Reverse Crown	-2.00%	2.00%	538	21+804.98m	Level Crown	0.00%	-2.00%	546	22+004.59m	Begin Normal Crown	-2.00%	-2.00%
522	21+321.97m	Reverse Crown	-2.00%	2.00%	530	21+597.09m	Level Crown	-2.00%	0.00%	538	21+814.65m	Begin Normal Crown	-2.00%	-2.00%	547	21+958.86m	End Normal Crown	-2.00%	-2.00%
522	21+331.20m	Level Crown	-2.00%	0.00%	530	21+606.72m	Begin Normal Crown	-2.00%	-2.00%	539	21+762.85m	End Normal Crown	-2.00%	-2.00%	547	21+968.43m	Level Crown	-2.00%	0.00%
522	21+340.43m	Begin Normal Crown	-2.00%	-2.00%	531	21+554.78m	End Normal Crown	-2.00%	-2.00%	539	21+772.40m	Level Crown	0.00%	-2.00%	547	21+977.99m	Reverse Crown	-2.00%	2.00%
523	21+302.69m	End Normal Crown	-2.00%	-2.00%	531	21+564.44m	Level Crown	0.00%	-2.00%	539	21+781.94m	Reverse Crown	2.00%	-2.00%	547	21+985.91m	End Full Super	-4.60%	4.60%
523	21+312.35m	Level Crown	0.00%	-2.00%	531	21+574.11m	Reverse Crown	2.00%	-2.00%	539	21+793.40m	Begin Full Super	4.40%	-4.40%	547	21+990.43m	Begin Full Super	-4.60%	4.60%
523	21+322.00m	Reverse Crown	2.00%	-2.00%	531	21+593.38m	End Full Super	6.00%	-6.00%	539	21+796.01m	End Full Super	4.40%	-4.40%	547	21+998.34m	Reverse Crown	-2.00%	2.00%
523	21+331.06m	End Full Super	5.80%	-5.80%	531	21+593.44m	Begin Full Super	6.00%	-6.00%	539	21+807.46m	Reverse Crown	2.00%	-2.00%	547	22+007.91m	Level Crown	-2.00%	0.00%
523	21+340.35m	Begin Full Super	5.80%	-5.80%	531	21+612.71m	Reverse Crown	2.00%	-2.00%	539	21+817.01m	Level Crown	0.00%	-2.00%	547	22+017.47m	Begin Normal Crown	-2.00%	-2.00%
523	21+349.40m	Reverse Crown	2.00%	-2.00%	531	21+622.38m	Level Crown	0.00%	-2.00%	539	21+826.56m	Begin Normal Crown	-2.00%	-2.00%	548	21+992.23m	End Normal Crown	-2.00%	-2.00%
523	21+359.06m	Level Crown	0.00%	-2.00%	531	21+632.05m	Begin Normal Crown	-2.00%	-2.00%	540	21+790.19m	End Normal Crown	-2.00%	-2.00%	548	22+001.56m	Level Crown	-2.00%	0.00%
523	21+368.71m	Begin Normal Crown	-2.00%	-2.00%	532	21+588.53m	End Normal Crown	-2.00%	-2.00%	540	21+799.84m	Level Crown	-2.00%	0.00%	548	22+010.89m	Reverse Crown	-2.00%	2.00%
524	21+322.07m	End Normal Crown	-2.00%	-2.00%	532	21+598.17m	Level Crown	-2.00%	0.00%	540	21+809.50m	Reverse Crown	-2.00%	2.00%	548	22+015.56m	Begin Full Super	-3.00%	3.00%
524	21+331.67m	Level Crown	-2.00%	0.00%	532	21+607.81m	Reverse Crown	-2.00%	2.00%	540	21+824.68m	End Full Super	-5.80%	5.80%	548	22+019.92m	End Full Super	-3.00%	3.00%
524	21+341.27m	Reverse Crown	-2.00%	2.00%	532	21+616.95m	End Full Super	-5.60%	5.60%	540	21+827.84m	Begin Full Super	-5.80%	5.80%	548	22+024.58m	Reverse Crown	-2.00%	2.00%
524	21+355.67m	Begin Full Super	-5.00%	5.00%	532	21+625.17m	Begin Full Super	-5.60%	5.60%	540	21+843.03m	Reverse Crown	-2.00%	2.00%	548	22+033.92m	Level Crown	-2.00%	0.00%
524	21+360.34m	End Full Super	-5.00%	5.00%	532	21+634.31m	Reverse Crown	-2.00%	2.00%	540	21+852.68m	Level Crown	-2.00%	0.00%	548	22+043.25m	Begin Normal Crown	-2.00%	-2.00%
524	21+374.74m	Reverse Crown	-2.00%	2.00%	532	21+643.95m	Level Crown	-2.00%	0.00%	540	21+862.34m	Begin Normal Crown	-2.00%	-2.00%	549	22+009.94m	End Normal Crown	-2.00%	-2.00%
524	21+384.34m	Level Crown	-2.00%	0.00%	532	21+653.60m	Begin Normal Crown	-2.00%	-2.00%	541	21+813.88m	End Normal Crown	-2.00%	-2.00%	549	22+019.60m	Level Crown	-2.00%	0.00%
524	21+393.94m	Begin Normal Crown	-2.00%	-2.00%	533	21+600.58m	End Normal Crown	-2.00%	-2.00%	541	21+823.38m	Level Crown	0.00%	-2.00%	549	22+029.27m	Reverse Crown	-2.00%	2.00%
525	21+374.72m	End Normal Crown	-2.00%	-2.00%	533	21+610.25m	Level Crown	0.00%	-2.00%	541	21+832.88m	Reverse Crown	2.00%	-2.00%	549	22+048.60m	Begin Full Super	-6.00%	6.00%
525	21+384.20m	Level Crown	0.00%	-2.00%	533	21+619.92m	Reverse Crown	2.00%	-2.00%	541	21+842.38m	Begin Full Super	4.00%	-4.00%	549	22+051.84m	End Full Super	-6.00%	6.00%
525	21+393.67m	Reverse Crown	2.00%	-2.00%	533	21+632.24m	End Full Super	6.00%	-6.00%	541	21+847.86m	End Full Super	4.00%	-4.00%	549	22+071.17m	Reverse Crown	-2.00%	2.00%
525	21+402.20m	Begin Full Super	3.80%	-3.80%	533	21+639.25m	Begin Full Super	6.00%	-6.00%	541	21+857.36m	Reverse Crown	2.00%	-2.00%	549	22+080.84m	Level Crown	-2.00%	0.00%
525	21+412.51m	End Full Super	3.80%	-3.80%	533	21+651.57m	Reverse Crown	2.00%	-2.00%	541	21+866.86m	Level Crown	0.00%	-2.00%	549	22+090.51m	Begin Normal Crown	-2.00%	-2.00%
525	21+421.04m	Reverse Crown	2.00%	-2.00%	533	21+661.24m	Level Crown	0.00%	-2.00%	541	21+876.36m	Begin Normal Crown	-2.00%	-2.00%	550	22+034.52m	End Normal Crown	-2.00%	-2.00%
525	21+430.51m	Level Crown	0.00%	-2.00%	533	21+670.90m	Begin Normal Crown	-2.00%	-2.00%	542	21+833.21m	End Normal Crown	-2.00%	-2.00%	550	22+044.19m	Level Crown	0.00%	-2.00%
525	21+439.98m	Begin Normal Crown	-2.00%	-2.00%	534	21+631.60m	End Normal Crown	-2.00%	-2.00%	542	21+842.77m	Level Crown	-2.00%	0.00%	550	22+053.86m	Reverse Crown	2.00%	-2.00%
526	21+406.85m	End Normal Crown	-2.00%	-2.00%	534	21+641.26m	Level Crown	-2.00%	0.00%	542	21+852.34m	Reverse Crown	-2.00%	2.00%	550	22+064.70m	End Full Super	6.00%	-6.00%
526	21+416.51m	Level Crown	-2.00%	0.00%	534	21+650.91m	Reverse Crown	-2.00%	2.00%	542	21+864.77m	Begin Full Super	-4.60%	4.60%	550	22+073.19m	Begin Full Super	6.00%	-6.00%
526	21+426.18m	Reverse Crown	-2.00%	2.00%	534	21+669.26m	Begin Full Super	-5.80%	5.80%	542	21+866.73m	End Full Super	-4.60%	4.60%	550	22+084.04m	Reverse Crown	2.00%	-2.00%
526	21+441.52m	End Full Super	-6.00%	6.00%	534	21+670.52m	End Full Super	-5.80%	5.80%	542	21+879.16m	Reverse Crown	-2.00%	2.00%	550	22+093.70m	Level Crown	0.00%	-2.00%
526	21+445.51m	Begin Full Super	-6.00%	6.00%	534	21+688.86m	Reverse Crown	-2.00%	2.00%	542	21+888.73m	Level Crown	-2.00%	0.00%	550	22+103.37m	Begin Normal Crown	-2.00%	-2.00%
526	21+460.85m	Reverse Crown	-2.00%	2.00%	534	21+698.52m	Level Crown	-2.00%	0.00%	542	21+898.29m	Begin Normal Crown	-2.00%	-2.00%	551	22+079.72m	End Normal Crown	-2.00%	-2.00%
526	21+470.52m	Level Crown	-2.00%	0.00%	534	21+708.17m	Begin Normal Crown	-2.00%	-2.00%	543	21+863.12m	End Normal Crown	-2.00%	-2.00%	551	22+089.38m	Level Crown	0.00%	-2.00%
526	21+480.19m	Begin Normal Crown	-2.00%	-2.00%	535	21+664.13m	End Normal Crown	-2.00%	-2.00%	543	21+872.72m	Level Crown	-2.00%	0.00%	551	22+099.05m	Reverse Crown	2.00%	-2.00%
527	21+437.86m	End Normal Crown	-2.00%	-2.00%	535	21+673.79m	Level Crown	0.00%	-2.00%	543	21+882.32m	Reverse Crown	-2.00%	2.00%	551	22+109.58m	End Full Super	6.00%	-6.00%
527	21+447.46m	Level Crown	0.00%	-2.00%	535	21+683.44m	Reverse Crown	2.00%	-2.00%	543	21+896.72m	Begin Full Super	-5.00%	5.00%	551	22+118.38m	Begin Full Super	6.00%	-6.00%
527	21+457.06m	Reverse Crown	2.00%	-2.00%	535	21+696.26m	End Full Super	5.80%	-5.80%	543	21+897.38m	End Full Super	-5.00%	5.00%	551	22+128.91m	Reverse Crown	2.00%	-2.00%
527	21+471.46m	Begin Full Super	5.00%	-5.00%	535	21+701.79m	Begin Full Super	5.80%	-5.80%	543	21+911.78m	Reverse Crown	-2.00%	2.00%	551	22+138.58m	Level Crown	0.00%	-2.00%
527	21+481.59m	End Full Super	5.00%	-5.00%	535	21+714.60m	Reverse Crown	2.00%	-2.00%	543	21+921.38m	Level Crown	-2.00%	0.00%	551	22+148.25m	Begin Normal Crown	-2.00%	-2.00%
527	21+495.99m	Reverse Crown	2.00%	-2.00%	535	21+724.26m	Level Crown	0.00%	-2.00%	543	21+930.98m	Begin Normal Crown	-2.00%	-2.00%	552	22+099.58m	End Normal Crown	-2.00%	-2.00%
527	21+505.59m	Level Crown	0.00%	-2.00%	535	21+733.91m	Begin Normal Crown	-2.00%	-2.00%	544	21+878.94m	End Normal Crown	-2.00%	-2.00%	552	22+109.15m	Level Crown	-2.00%	0.00%
527	21+515.19m	Begin Normal Crown	-2.00%	-2.00%	536	21+681.42m	End Normal Crown	-2.00%	-2.00%	544	21+888.61m	Level Crown	-2.00%	0.00%	552	22+118.71m	Reverse Crown	-2.00%	2.00%
528	21+478.61m	End Normal Crown	-2.00%	-2.00%	536	21+691.02m	Level Crown	-2.00%	0.00%	544	21+898.27m	Reverse Crown	-2.00%	2.00%	552	22+129.65m	End Full Super	-4.60%	4.60%
528	21+488.20m	Level Crown	-2.00%	0.00%	536	21+700.62m	Reverse Crown	-2.00%	2.00%	544	21+912.89m	End Full Super	-6.00%	6.00%	552	22+131.15m	Begin Full Super	-4.60%	4.60%
528	21+497.78m	Reverse Crown	-2.00%	2.00%	536	21+715.02m	Begin Full Super	-5.00%	5.00%	544	21+917.61m	Begin Full Super	-6.00%	6.00%	552	22+142.08m	Reverse Crown	-2.00%	2.00%
528	21+511.20m	Begin Full Super	-4.80%	4.80%	536	21+718.70m	End Full Super	-5.00%	5.00%	544	21+932.22m	Reverse Crown	-2.00%	2.00%	552	22+151.65m	Level Crown	-2.00%	0.00%
528	21+528.63m	End Full																	

Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane
553	22+148.27m	Begin Full Super	-6.00%	6.00%	561	22+442.90m	End Full Super	-5.40%	5.40%	569	22+685.72m	Reverse Crown	2.00%	-2.00%	577	22+970.37m	Level Crown	-2.00%	0.00%
553	22+162.01m	End Full Super	-6.00%	6.00%	561	22+459.27m	Reverse Crown	-2.00%	2.00%	569	22+695.17m	Level Crown	0.00%	-2.00%	577	22+979.81m	Begin Normal Crown	-2.00%	-2.00%
553	22+181.35m	Reverse Crown	-2.00%	2.00%	561	22+468.90m	Level Crown	-2.00%	0.00%	569	22+704.61m	Begin Normal Crown	-2.00%	-2.00%	578	22+961.60m	End Normal Crown	-2.00%	-2.00%
553	22+191.01m	Level Crown	-2.00%	0.00%	561	22+478.53m	Begin Normal Crown	-2.00%	-2.00%	570	22+688.93m	End Normal Crown	-2.00%	-2.00%	578	22+971.13m	Level Crown	0.00%	-2.00%
553	22+200.68m	Begin Normal Crown	-2.00%	-2.00%	562	22+434.48m	End Normal Crown	-2.00%	-2.00%	570	22+698.35m	Level Crown	-2.00%	0.00%	578	22+980.65m	Reverse Crown	2.00%	-2.00%
554	22+147.24m	End Normal Crown	-2.00%	-2.00%	562	22+444.11m	Level Crown	0.00%	-2.00%	570	22+707.76m	Reverse Crown	-2.00%	2.00%	578	22+991.13m	Begin Full Super	4.20%	-4.20%
554	22+156.85m	Level Crown	0.00%	-2.00%	562	22+453.74m	Reverse Crown	2.00%	-2.00%	570	22+714.35m	Begin Full Super	-3.40%	3.40%	578	22+995.15m	End Full Super	4.20%	-4.20%
554	22+166.47m	Reverse Crown	2.00%	-2.00%	562	22+469.25m	End Full Super	5.40%	-5.40%	570	22+721.61m	End Full Super	-3.40%	3.40%	578	23+005.62m	Reverse Crown	2.00%	-2.00%
554	22+181.85m	Begin Full Super	5.20%	-5.20%	562	22+470.11m	Begin Full Super	5.40%	-5.40%	570	22+728.20m	Reverse Crown	-2.00%	2.00%	578	23+015.15m	Level Crown	0.00%	-2.00%
554	22+193.48m	End Full Super	5.20%	-5.20%	562	22+485.62m	Reverse Crown	2.00%	-2.00%	570	22+737.61m	Level Crown	-2.00%	0.00%	578	23+024.67m	Begin Normal Crown	-2.00%	-2.00%
554	22+208.86m	Reverse Crown	2.00%	-2.00%	562	22+495.25m	Level Crown	0.00%	-2.00%	570	22+747.02m	Begin Normal Crown	-2.00%	-2.00%	579	22+983.19m	End Normal Crown	-2.00%	-2.00%
554	22+218.48m	Level Crown	0.00%	-2.00%	562	22+504.88m	Begin Normal Crown	-2.00%	-2.00%	571	22+705.84m	End Normal Crown	-2.00%	-2.00%	579	22+992.86m	Level Crown	0.00%	-2.00%
554	22+228.09m	Begin Normal Crown	-2.00%	-2.00%	563	22+457.39m	End Normal Crown	-2.00%	-2.00%	571	22+715.41m	Level Crown	-2.00%	0.00%	579	23+002.52m	Reverse Crown	2.00%	-2.00%
555	22+185.99m	End Normal Crown	-2.00%	-2.00%	563	22+467.05m	Level Crown	-2.00%	0.00%	571	22+724.98m	Reverse Crown	-2.00%	2.00%	579	23+021.86m	Begin Full Super	6.00%	-6.00%
555	22+195.54m	Level Crown	-2.00%	0.00%	563	22+476.72m	Reverse Crown	-2.00%	2.00%	571	22+735.47m	End Full Super	-4.60%	4.60%	579	23+025.37m	End Full Super	6.00%	-6.00%
555	22+205.08m	Reverse Crown	-2.00%	2.00%	563	22+496.05m	Begin Full Super	-6.00%	6.00%	571	22+737.41m	Begin Full Super	-4.60%	4.60%	579	23+044.70m	Reverse Crown	2.00%	-2.00%
555	22+216.54m	Begin Full Super	-4.40%	4.40%	563	22+498.90m	End Full Super	-6.00%	6.00%	571	22+747.91m	Reverse Crown	-2.00%	2.00%	579	23+054.37m	Level Crown	0.00%	-2.00%
555	22+236.74m	End Full Super	-4.40%	4.40%	563	22+518.23m	Reverse Crown	-2.00%	2.00%	571	22+757.47m	Level Crown	-2.00%	0.00%	579	23+064.03m	Begin Normal Crown	-2.00%	-2.00%
555	22+248.20m	Reverse Crown	-2.00%	2.00%	563	22+527.90m	Level Crown	-2.00%	0.00%	571	22+767.04m	Begin Normal Crown	-2.00%	-2.00%	580	23+009.44m	End Normal Crown	-2.00%	-2.00%
555	22+257.74m	Level Crown	-2.00%	0.00%	563	22+537.56m	Begin Normal Crown	-2.00%	-2.00%	572	22+727.89m	End Normal Crown	-2.00%	-2.00%	580	23+019.10m	Level Crown	-2.00%	0.00%
555	22+267.29m	Begin Normal Crown	-2.00%	-2.00%	564	22+501.27m	End Normal Crown	-2.00%	-2.00%	572	22+737.49m	Level Crown	-2.00%	0.00%	580	23+028.77m	Reverse Crown	-2.00%	2.00%
556	22+228.57m	End Normal Crown	-2.00%	-2.00%	564	22+510.94m	Level Crown	0.00%	-2.00%	572	22+747.09m	Reverse Crown	-2.00%	2.00%	580	23+048.10m	Begin Full Super	6.00%	6.00%
556	22+238.24m	Level Crown	0.00%	-2.00%	564	22+520.60m	Reverse Crown	2.00%	-2.00%	572	22+761.49m	Begin Full Super	-5.00%	5.00%	580	23+050.34m	End Full Super	-6.00%	6.00%
556	22+247.91m	Reverse Crown	2.00%	-2.00%	564	22+539.94m	Begin Full Super	6.00%	-6.00%	572	22+773.10m	End Full Super	-5.00%	5.00%	580	23+069.67m	Reverse Crown	-2.00%	2.00%
556	22+267.24m	Begin Full Super	6.00%	-6.00%	564	22+544.01m	End Full Super	6.00%	-6.00%	572	22+787.50m	Reverse Crown	-2.00%	2.00%	580	23+079.34m	Level Crown	-2.00%	0.00%
556	22+274.02m	End Full Super	6.00%	-6.00%	564	22+563.35m	Reverse Crown	2.00%	-2.00%	572	22+797.10m	Level Crown	-2.00%	0.00%	580	23+089.00m	Begin Normal Crown	-2.00%	-2.00%
556	22+293.35m	Reverse Crown	2.00%	-2.00%	564	22+573.01m	Level Crown	0.00%	-2.00%	572	22+806.70m	Begin Normal Crown	-2.00%	-2.00%	581	23+031.60m	End Normal Crown	-2.00%	-2.00%
556	22+303.02m	Level Crown	0.00%	-2.00%	564	22+582.68m	Begin Normal Crown	-2.00%	-2.00%	573	22+777.59m	End Normal Crown	-2.00%	-2.00%	581	23+041.26m	Level Crown	0.00%	-2.00%
556	22+312.68m	Begin Normal Crown	-2.00%	-2.00%	565	22+557.83m	End Normal Crown	-2.00%	-2.00%	573	22+787.22m	Level Crown	0.00%	-2.00%	581	23+050.93m	Reverse Crown	2.00%	-2.00%
557	22+256.93m	End Normal Crown	-2.00%	-2.00%	565	22+567.33m	Level Crown	-2.00%	0.00%	573	22+796.85m	Reverse Crown	2.00%	-2.00%	581	23+070.26m	Begin Full Super	6.00%	-6.00%
557	22+266.60m	Level Crown	0.00%	-2.00%	565	22+576.83m	Reverse Crown	-2.00%	2.00%	573	22+812.28m	End Full Super	5.40%	-5.40%	581	23+070.76m	End Full Super	6.00%	-6.00%
557	22+276.26m	Reverse Crown	2.00%	-2.00%	565	22+586.33m	Begin Full Super	-4.00%	4.00%	573	22+813.22m	Begin Full Super	5.40%	-5.40%	581	23+090.09m	Reverse Crown	2.00%	-2.00%
557	22+284.94m	End Full Super	6.00%	-6.00%	565	22+586.67m	End Full Super	-4.00%	4.00%	573	22+828.65m	Reverse Crown	2.00%	-2.00%	581	23+099.76m	Level Crown	0.00%	-2.00%
557	22+295.60m	Begin Full Super	6.00%	-6.00%	565	22+596.17m	Reverse Crown	-2.00%	2.00%	573	22+838.28m	Level Crown	0.00%	-2.00%	581	23+109.43m	Begin Normal Crown	-2.00%	-2.00%
557	22+304.27m	Reverse Crown	2.00%	-2.00%	565	22+605.67m	Level Crown	-2.00%	0.00%	573	22+847.91m	Begin Normal Crown	-2.00%	-2.00%	582	23+053.64m	End Normal Crown	-2.00%	-2.00%
557	22+313.94m	Level Crown	0.00%	-2.00%	565	22+615.17m	Begin Normal Crown	-2.00%	-2.00%	574	22+840.36m	End Normal Crown	-2.00%	-2.00%	582	23+063.31m	Level Crown	-2.00%	0.00%
557	22+323.61m	Begin Normal Crown	-2.00%	-2.00%	566	22+580.29m	End Normal Crown	-2.00%	-2.00%	574	22+850.03m	Level Crown	0.00%	-2.00%	582	23+072.98m	Reverse Crown	-2.00%	2.00%
558	22+276.69m	End Normal Crown	-2.00%	-2.00%	566	22+589.89m	Level Crown	0.00%	-2.00%	574	22+859.69m	Reverse Crown	2.00%	-2.00%	582	23+087.34m	End Full Super	-6.00%	6.00%
558	22+286.29m	Level Crown	0.00%	-2.00%	566	22+599.49m	Reverse Crown	2.00%	-2.00%	574	22+876.49m	End Full Super	6.00%	-6.00%	582	23+092.31m	Begin Full Super	-6.00%	6.00%
558	22+295.89m	Reverse Crown	2.00%	-2.00%	566	22+613.65m	End Full Super	5.00%	-5.00%	574	22+879.03m	Begin Full Super	6.00%	-6.00%	582	23+106.68m	Reverse Crown	-2.00%	2.00%
558	22+310.29m	Begin Full Super	5.00%	-5.00%	566	22+613.89m	Begin Full Super	5.00%	-5.00%	574	22+895.83m	Reverse Crown	2.00%	-2.00%	582	23+116.34m	Level Crown	-2.00%	0.00%
558	22+313.32m	End Full Super	5.00%	-5.00%	566	22+628.05m	Reverse Crown	2.00%	-2.00%	574	22+905.49m	Level Crown	0.00%	-2.00%	582	23+126.01m	Begin Normal Crown	-2.00%	-2.00%
558	22+327.72m	Reverse Crown	2.00%	-2.00%	566	22+637.65m	Level Crown	0.00%	-2.00%	574	22+915.16m	Begin Normal Crown	-2.00%	-2.00%	583	23+074.32m	End Normal Crown	-2.00%	-2.00%
558	22+337.32m	Level Crown	0.00%	-2.00%	566	22+647.25m	Begin Normal Crown	-2.00%	-2.00%	575	22+866.65m	End Normal Crown	-2.00%	-2.00%	583	23+083.96m	Level Crown	0.00%	-2.00%
558	22+346.92m	Begin Normal Crown	-2.00%	-2.00%	567	22+599.59m	End Normal Crown	-2.00%	-2.00%	575	22+876.31m	Level Crown	-2.00%	0.00%	583	23+093.60m	Reverse Crown	2.00%	-2.00%
559	22+309.07m	End Normal Crown	-2.00%	-2.00%	567	22+609.25m	Level Crown	-2.00%	0.00%	575	22+885.98m	Reverse Crown	-2.00%	2.00%	583	23+103.53m	End Full Super	5.60%	-5.60%
559	22+318.57m	Level Crown	0.00%	-2.00%	567	22+618.92m	Reverse Crown	-2.00%	2.00%	575	22+902.75m	End Full Super	-6.00%	6.00%	583	23+110.96m	Begin Full Super	5.60%	-5.60%
559	22+328.07m	Reverse Crown	2.00%	-2.00%	567	22+637.73m	End Full Super	-6.00%	6.00%	575	22+905.31m	Begin Full Super	-6.00%	6.00%	583	23+120.89m	Reverse Crown	2.00%	-2.00%
559	22+337.57m	Begin Full Super	4.00%	-4.00%	567	22+638.25m	Begin Full Super	-6.00%	6.00%	575	22+922.08m	Reverse Crown	-2.00%	2.00%	583	23+130.53m	Level Crown	0.00%	-2.00%
559	22+355.69m	End Full Super	4.00%	-4.00%	567	22+657.06m	Reverse Crown	-2.00%	2.00%	575	22+931.75m	Level Crown	-2.00%	0.00%	583	23+140.17m	Begin Normal Crown	-2.00%	-2.00%
559	22+365.19m	Reverse Crown	2.00%	-2.00%	567	22+666.73m	Level Crown	-2.00%	0.00%	575	22+941.41m	Begin Normal Crown	-2.00%	-2.00%	584	23+088.67m	End Normal Crown	-2.00%	-2.00%
559	22+374.69m	Level Crown	0.00%	-2.00%	567	22+676.40m	Begin Normal Crown	-2.00%	-2.00%	576	22+893.01m	End Normal Crown	-2.00%	-2.00%	584	23+098.31m	Level Crown	-2.00%	0.00%
559	22+384.19m	Begin Normal Crown	-2.00%	-2.00%	568	22+623.03m	End Normal Crown	-2.00%	-2.00%	576	22+902.68m	Level Crown	0.00%	-2.00%	584	23+107.95m	Reverse Crown	-2.00%	2.00%
560	22+361.27m	End Normal Crown	-2.00%	-2.00%	568	22+632.66m	Level Crown	0.00%	-2.00%	576	22+912.34m	Reverse Crown	2.00%	-2.00%	584	23+123.46m	End Full Super	-5.60%	5.60%
560	22+370.72m	Level Crown	-2.00%	0.00%	568	22+642.29m	Reverse Crown	2.00%	-2.00%	576	22+928.36m	End Full Super	6.00%	-6.00%	584	23+125.31m	Begin Full Super	-5.60%	5.60%
560	22+380.16m	Reverse Crown	-2.00%	2.00%	568	22+656.04m	End Full Super	5.40%	-5.40%	576	22+931.68m	Begin Full Super	6.00%	-6.00%	584	23+140.82m	Reverse Crown	-2.00%	2.00%
560	22+387.72m	Begin Full Super	-3.60%	3.60%	568	22+658.66m	Begin Full Super	5.40%	-5.40%	576	22+947.69m	Reverse Crown	2.00%	-2.00%	584	23+150.46m	Level Crown	-2.00%	0.00%
560	22+401.47m	End Full Super	-3.60%	3.60%	568	22+672.41m	Reverse Crown	2.00%	-2.00%	576	22+957.36m	Level Crown	0.00%	-2.00%	584	23+160.10m	Begin Normal Crown	-2.00%	-2.00%
560	22+409.03m	Reverse Crown	-2.00%	2.00%	568	22+682.04m	Level Crown	0.00%	-2.00%	576	22+967.02m	Begin Normal Crown	-2.00%	-2.00%	585	23+109.03m	End Normal Crown	-2.00%	-2.00%
560	22+418.47m	Level Crown	-2.00%	0.00%	568	22+691.67m	Begin Normal Crown	-2.00%	-2.00%	577	22+923.73m	End Normal Crown	-2.00%	-2.00%	585	23+118.70m	Level Crown	-2.00%	0.00%
560	22+427.92m	Begin Normal Crown	-2.00%	-2.00%	569	22+649.05m	End Normal Crown	-2.00%	-2.00%	577	22+933.18m	Level Crown	-2.00%	0.00%	585	23+128.37m	Reverse Crown	-2.00%	2.00%
561	22+404.04m	End Normal																	

Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane
585	23+194.77m	Begin Normal Crown	-2.00%	-2.00%	594	23+384.87m	End Normal Crown	-2.00%	-2.00%	602	23+634.71m	Level Crown	0.00%	-2.00%	610	23+870.65m	Reverse Crown	2.00%	-2.00%
586	23+149.92m	End Normal Crown	-2.00%	-2.00%	594	23+394.44m	Level Crown	0.00%	-2.00%	602	23+644.38m	Reverse Crown	2.00%	-2.00%	610	23+889.98m	Begin Full Super	6.00%	-6.00%
586	23+159.37m	Level Crown	0.00%	-2.00%	594	23+404.00m	Reverse Crown	2.00%	-2.00%	602	23+656.92m	End Full Super	6.00%	-6.00%	610	23+890.84m	End Full Super	6.00%	-6.00%
586	23+168.81m	Reverse Crown	2.00%	-2.00%	594	23+416.44m	Begin Full Super	4.60%	-4.60%	602	23+663.71m	Begin Full Super	6.00%	-6.00%	610	23+910.17m	Reverse Crown	2.00%	-2.00%
586	23+176.37m	Begin Full Super	3.60%	-3.60%	594	23+418.39m	End Full Super	4.60%	-4.60%	602	23+676.25m	Reverse Crown	2.00%	-2.00%	610	23+919.84m	Level Crown	0.00%	-2.00%
586	23+193.15m	End Full Super	3.60%	-3.60%	594	23+430.82m	Reverse Crown	2.00%	-2.00%	602	23+685.92m	Level Crown	0.00%	-2.00%	610	23+929.51m	Begin Normal Crown	-2.00%	-2.00%
586	23+200.71m	Reverse Crown	2.00%	-2.00%	594	23+440.39m	Level Crown	0.00%	-2.00%	602	23+695.58m	Begin Normal Crown	-2.00%	-2.00%	611	23+874.24m	End Normal Crown	-2.00%	-2.00%
586	23+210.15m	Level Crown	0.00%	-2.00%	594	23+449.95m	Begin Normal Crown	-2.00%	-2.00%	603	23+639.06m	End Normal Crown	-2.00%	-2.00%	611	23+883.91m	Level Crown	-2.00%	0.00%
586	23+219.59m	Begin Normal Crown	-2.00%	-2.00%	595	23+403.51m	End Normal Crown	-2.00%	-2.00%	603	23+648.73m	Level Crown	0.00%	-2.00%	611	23+893.57m	Reverse Crown	-2.00%	2.00%
587	23+178.43m	End Normal Crown	-2.00%	-2.00%	595	23+413.08m	Level Crown	-2.00%	0.00%	603	23+658.40m	Reverse Crown	2.00%	-2.00%	611	23+912.30m	End Full Super	-6.00%	6.00%
587	23+188.02m	Level Crown	0.00%	-2.00%	595	23+422.64m	Reverse Crown	-2.00%	2.00%	603	23+674.74m	End Full Super	6.00%	-6.00%	611	23+912.91m	Begin Full Super	-6.00%	6.00%
587	23+197.60m	Reverse Crown	2.00%	-2.00%	595	23+435.08m	Begin Full Super	-4.60%	4.60%	603	23+677.73m	Begin Full Super	6.00%	-6.00%	611	23+931.63m	Reverse Crown	-2.00%	2.00%
587	23+211.02m	Begin Full Super	4.80%	-4.80%	595	23+443.20m	End Full Super	-4.60%	4.60%	603	23+694.07m	Reverse Crown	2.00%	-2.00%	611	23+941.30m	Level Crown	-2.00%	0.00%
587	23+232.22m	End Full Super	4.80%	-4.80%	595	23+455.64m	Reverse Crown	-2.00%	2.00%	603	23+703.74m	Level Crown	0.00%	-2.00%	611	23+950.97m	Begin Normal Crown	-2.00%	-2.00%
587	23+245.64m	Reverse Crown	2.00%	-2.00%	595	23+465.20m	Level Crown	-2.00%	0.00%	603	23+713.40m	Begin Normal Crown	-2.00%	-2.00%	612	23+898.98m	End Normal Crown	-2.00%	-2.00%
587	23+255.22m	Level Crown	0.00%	-2.00%	595	23+474.77m	Begin Normal Crown	-2.00%	-2.00%	604	23+693.05m	End Normal Crown	-2.00%	-2.00%	612	23+908.65m	Level Crown	-2.00%	0.00%
587	23+264.81m	Begin Normal Crown	-2.00%	-2.00%	596	23+465.09m	End Normal Crown	-2.00%	-2.00%	604	23+702.49m	Level Crown	0.00%	-2.00%	612	23+918.31m	Reverse Crown	-2.00%	2.00%
588	23+224.89m	End Normal Crown	-2.00%	-2.00%	596	23+474.73m	Level Crown	0.00%	-2.00%	604	23+711.94m	Reverse Crown	2.00%	-2.00%	612	23+925.99m	End Full Super	-6.00%	6.00%
588	23+234.55m	Level Crown	0.00%	-2.00%	596	23+484.37m	Reverse Crown	2.00%	-2.00%	604	23+719.49m	Begin Full Super	3.60%	-3.60%	612	23+937.65m	Begin Full Super	-6.00%	6.00%
588	23+244.20m	Reverse Crown	2.00%	-2.00%	596	23+500.56m	End Full Super	5.60%	-5.60%	604	23+729.53m	End Full Super	3.60%	-3.60%	612	23+945.33m	Reverse Crown	-2.00%	2.00%
588	23+262.55m	Begin Full Super	5.80%	-5.80%	596	23+501.73m	Begin Full Super	5.60%	-5.60%	604	23+737.09m	Reverse Crown	2.00%	-2.00%	612	23+954.99m	Level Crown	-2.00%	0.00%
588	23+262.89m	End Full Super	5.80%	-5.80%	596	23+517.92m	Reverse Crown	2.00%	-2.00%	604	23+746.53m	Level Crown	0.00%	-2.00%	612	23+964.66m	Begin Normal Crown	-2.00%	-2.00%
588	23+281.24m	Reverse Crown	2.00%	-2.00%	596	23+527.56m	Level Crown	0.00%	-2.00%	604	23+755.98m	Begin Normal Crown	-2.00%	-2.00%	613	23+915.45m	End Normal Crown	-2.00%	-2.00%
588	23+290.89m	Level Crown	0.00%	-2.00%	596	23+537.20m	Begin Normal Crown	-2.00%	-2.00%	605	23+720.05m	End Normal Crown	-2.00%	-2.00%	613	23+925.12m	Level Crown	0.00%	-2.00%
588	23+300.55m	Begin Normal Crown	-2.00%	-2.00%	597	23+491.65m	End Normal Crown	-2.00%	-2.00%	605	23+729.65m	Level Crown	0.00%	-2.00%	613	23+934.78m	Reverse Crown	2.00%	-2.00%
589	23+250.81m	End Normal Crown	-2.00%	-2.00%	597	23+501.22m	Level Crown	0.00%	-2.00%	605	23+739.25m	Reverse Crown	2.00%	-2.00%	613	23+944.40m	End Full Super	6.00%	-6.00%
589	23+260.44m	Level Crown	0.00%	-2.00%	597	23+510.78m	Reverse Crown	2.00%	-2.00%	605	23+753.65m	Begin Full Super	5.00%	-5.00%	613	23+954.12m	Begin Full Super	6.00%	-6.00%
589	23+270.07m	Reverse Crown	2.00%	-2.00%	597	23+523.22m	Begin Full Super	4.60%	-4.60%	605	23+758.96m	End Full Super	5.00%	-5.00%	613	23+963.74m	Reverse Crown	2.00%	-2.00%
589	23+284.98m	End Full Super	5.40%	-5.40%	597	23+531.65m	End Full Super	4.60%	-4.60%	605	23+773.36m	Reverse Crown	2.00%	-2.00%	613	23+973.40m	Level Crown	0.00%	-2.00%
589	23+286.44m	Begin Full Super	5.40%	-5.40%	597	23+544.09m	Reverse Crown	2.00%	-2.00%	605	23+782.96m	Level Crown	0.00%	-2.00%	613	23+983.07m	Begin Normal Crown	-2.00%	-2.00%
589	23+301.35m	Reverse Crown	2.00%	-2.00%	597	23+553.65m	Level Crown	0.00%	-2.00%	605	23+792.56m	Begin Normal Crown	-2.00%	-2.00%	614	23+929.60m	End Normal Crown	-2.00%	-2.00%
589	23+310.98m	Level Crown	0.00%	-2.00%	597	23+563.22m	Begin Normal Crown	-2.00%	-2.00%	606	23+761.56m	End Normal Crown	-2.00%	-2.00%	614	23+939.26m	Level Crown	-2.00%	0.00%
589	23+320.61m	Begin Normal Crown	-2.00%	-2.00%	598	23+516.24m	End Normal Crown	-2.00%	-2.00%	606	23+770.85m	Level Crown	-2.00%	0.00%	614	23+948.93m	Reverse Crown	-2.00%	2.00%
590	23+269.31m	End Normal Crown	-2.00%	-2.00%	598	23+525.91m	Level Crown	0.00%	-2.00%	606	23+780.13m	Reverse Crown	-2.00%	2.00%	614	23+954.02m	End Full Super	-6.00%	6.00%
590	23+278.98m	Level Crown	-2.00%	0.00%	598	23+535.58m	Reverse Crown	2.00%	-2.00%	606	23+783.85m	Begin Full Super	-2.80%	2.80%	614	23+968.26m	Begin Full Super	-6.00%	6.00%
590	23+288.65m	Reverse Crown	-2.00%	2.00%	598	23+544.91m	Begin Full Super	6.00%	-6.00%	606	23+787.86m	End Full Super	-2.80%	2.80%	614	23+973.35m	Reverse Crown	-2.00%	2.00%
590	23+307.98m	Begin Full Super	-6.00%	6.00%	598	23+555.43m	End Full Super	6.00%	-6.00%	606	23+791.58m	Reverse Crown	-2.00%	2.00%	614	23+983.02m	Level Crown	-2.00%	0.00%
590	23+322.94m	End Full Super	-6.00%	6.00%	598	23+574.77m	Reverse Crown	2.00%	-2.00%	606	23+800.86m	Level Crown	-2.00%	0.00%	614	23+992.69m	Begin Normal Crown	-2.00%	-2.00%
590	23+342.28m	Reverse Crown	-2.00%	2.00%	598	23+584.43m	Level Crown	0.00%	-2.00%	606	23+810.15m	Begin Normal Crown	-2.00%	-2.00%	615	23+950.91m	End Normal Crown	-2.00%	-2.00%
590	23+351.94m	Level Crown	-2.00%	0.00%	598	23+594.10m	Begin Normal Crown	-2.00%	-2.00%	607	23+788.79m	End Normal Crown	-2.00%	-2.00%	615	23+960.58m	Level Crown	0.00%	-2.00%
590	23+361.61m	Begin Normal Crown	-2.00%	-2.00%	599	23+551.35m	End Normal Crown	-2.00%	-2.00%	607	23+798.26m	Level Crown	-2.00%	0.00%	615	23+970.25m	Reverse Crown	2.00%	-2.00%
591	23+309.12m	End Normal Crown	-2.00%	-2.00%	599	23+561.02m	Level Crown	0.00%	-2.00%	607	23+807.74m	Reverse Crown	-2.00%	2.00%	615	23+989.58m	Begin Full Super	6.00%	-6.00%
591	23+318.78m	Level Crown	0.00%	-2.00%	599	23+570.68m	Reverse Crown	2.00%	-2.00%	607	23+816.26m	Begin Full Super	-3.80%	3.80%	615	23+991.64m	End Full Super	6.00%	-6.00%
591	23+328.45m	Reverse Crown	2.00%	-2.00%	599	23+585.32m	End Full Super	6.00%	-6.00%	607	23+818.61m	End Full Super	-3.80%	3.80%	615	24+010.97m	Reverse Crown	2.00%	-2.00%
591	23+347.78m	Begin Full Super	6.00%	-6.00%	599	23+590.02m	Begin Full Super	6.00%	-6.00%	607	23+827.14m	Reverse Crown	-2.00%	2.00%	615	24+020.64m	Level Crown	0.00%	-2.00%
591	23+351.93m	End Full Super	6.00%	-6.00%	599	23+604.65m	Reverse Crown	2.00%	-2.00%	607	23+836.61m	Level Crown	-2.00%	0.00%	615	24+030.31m	Begin Normal Crown	-2.00%	-2.00%
591	23+371.26m	Reverse Crown	2.00%	-2.00%	599	23+614.32m	Level Crown	0.00%	-2.00%	607	23+846.08m	Begin Normal Crown	-2.00%	-2.00%	616	23+977.60m	End Normal Crown	-2.00%	-2.00%
591	23+380.93m	Level Crown	0.00%	-2.00%	599	23+623.99m	Begin Normal Crown	-2.00%	-2.00%	608	23+796.70m	End Normal Crown	-2.00%	-2.00%	616	23+987.26m	Level Crown	-2.00%	0.00%
591	23+390.59m	Begin Normal Crown	-2.00%	-2.00%	600	23+567.88m	End Normal Crown	-2.00%	-2.00%	608	23+806.37m	Level Crown	0.00%	-2.00%	616	23+996.91m	Reverse Crown	-2.00%	2.00%
592	23+334.19m	End Normal Crown	-2.00%	-2.00%	600	23+577.55m	Level Crown	-2.00%	0.00%	608	23+816.03m	Reverse Crown	2.00%	-2.00%	616	24+015.26m	Begin Full Super	-5.80%	5.80%
592	23+343.86m	Level Crown	-2.00%	0.00%	600	23+587.21m	Reverse Crown	-2.00%	2.00%	608	23+830.54m	End Full Super	6.00%	-6.00%	616	24+035.38m	End Full Super	-5.80%	5.80%
592	23+353.53m	Reverse Crown	-2.00%	2.00%	600	23+603.73m	End Full Super	-6.00%	6.00%	608	23+835.37m	Begin Full Super	6.00%	-6.00%	616	24+053.73m	Reverse Crown	-2.00%	2.00%
592	23+366.15m	End Full Super	-6.00%	6.00%	600	23+606.55m	Begin Full Super	-6.00%	6.00%	608	23+849.87m	Reverse Crown	2.00%	-2.00%	616	24+063.38m	Level Crown	-2.00%	0.00%
592	23+372.86m	Begin Full Super	-6.00%	6.00%	600	23+623.07m	Reverse Crown	-2.00%	2.00%	608	23+859.54m	Level Crown	0.00%	-2.00%	616	24+073.04m	Begin Normal Crown	-2.00%	-2.00%
592	23+385.48m	Reverse Crown	-2.00%	2.00%	600	23+632.73m	Level Crown	-2.00%	0.00%	608	23+869.21m	Begin Normal Crown	-2.00%	-2.00%	617	24+022.32m	End Normal Crown	-2.00%	-2.00%
592	23+395.15m	Level Crown	-2.00%	0.00%	600	23+642.40m	Begin Normal Crown	-2.00%	-2.00%	609	23+838.13m	End Normal Crown	-2.00%	-2.00%	617	24+031.99m	Level Crown	-2.00%	0.00%
592	23+404.82m	Begin Normal Crown	-2.00%	-2.00%	601	23+585.19m	End Normal Crown	-2.00%	-2.00%	609	23+847.57m	Level Crown	-2.00%	0.00%	617	24+041.65m	Reverse Crown	-2.00%	2.00%
593	23+355.85m	End Normal Crown	-2.00%	-2.00%	601	23+594.86m	Level Crown	-2.00%	0.00%	609	23+857.02m	Reverse Crown	-2.00%	2.00%	617	24+052.90m	End Full Super	-6.00%	6.00%
593	23+365.47m	Level Crown	0.00%	-2.00%	601	23+604.52m	Reverse Crown	-2.00%	2.00%	609	23+864.57m	Begin Full Super	-3.60%	3.60%	617	24+060.99m	Begin Full Super	-6.00%	6.00%
593	23+375.08m	Reverse Crown	2.00%	-2.00%	601	23+623.49m	End Full Super	-6.00%	6.00%	609	23+866.61m	End Full Super	-3.60%	3.60%	617	24+072.23m	Reverse Crown	-2.00%	2.00%
593	23+387.76m	End Full Super	5.20%	-5.20%	601	23+623.86m	Begin Full Super	-6.00%	6.00%	609	23+874.16m	Reverse Crown	-2.00%	2.00%	617	24+081.90m	Level Crown	-2.00%	0.00%
593	23+390.47m	Begin Full																	

Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane	Superelevation Region	Station	Description	Left Outside Lane	Right Outside Lane
618	24+069.58m	End Full Super	6.00%	-6.00%	624	24+258.11m	Level Crown	0.00%	-2.00%
618	24+081.79m	Begin Full Super	6.00%	-6.00%	624	24+267.77m	Begin Normal Crown	-2.00%	-2.00%
618	24+088.91m	Reverse Crown	2.00%	-2.00%	625	24+215.99m	End Normal Crown	-2.00%	-2.00%
618	24+098.58m	Level Crown	0.00%	-2.00%	625	24+225.65m	Level Crown	0.00%	-2.00%
618	24+108.24m	Begin Normal Crown	-2.00%	-2.00%	625	24+235.30m	Reverse Crown	2.00%	-2.00%
619	24+067.29m	End Normal Crown	-2.00%	-2.00%	625	24+247.69m	End Full Super	5.80%	-5.80%
619	24+076.74m	Level Crown	-2.00%	0.00%	625	24+253.65m	Begin Full Super	5.80%	-5.80%
619	24+086.18m	Reverse Crown	-2.00%	2.00%	625	24+266.04m	Reverse Crown	2.00%	-2.00%
619	24+091.33m	End Full Super	-3.60%	3.60%	625	24+275.69m	Level Crown	0.00%	-2.00%
619	24+093.74m	Begin Full Super	-3.60%	3.60%	625	24+285.35m	Begin Normal Crown	-2.00%	-2.00%
619	24+098.89m	Reverse Crown	-2.00%	2.00%	626	24+240.79m	End Normal Crown	-2.00%	-2.00%
619	24+108.33m	Level Crown	-2.00%	0.00%	626	24+250.44m	Level Crown	-2.00%	0.00%
619	24+117.78m	Begin Normal Crown	-2.00%	-2.00%	626	24+260.10m	Reverse Crown	-2.00%	2.00%
620	24+096.81m	End Normal Crown	-2.00%	-2.00%	626	24+272.19m	End Full Super	-5.80%	5.80%
620	24+106.31m	Level Crown	-2.00%	0.00%	626	24+278.44m	Begin Full Super	-5.80%	5.80%
620	24+115.81m	Reverse Crown	-2.00%	2.00%	626	24+290.54m	Reverse Crown	-2.00%	2.00%
620	24+122.93m	End Full Super	-4.00%	4.00%	626	24+300.19m	Level Crown	-2.00%	0.00%
620	24+125.31m	Begin Full Super	-4.00%	4.00%	626	24+309.85m	Begin Normal Crown	-2.00%	-2.00%
620	24+132.43m	Reverse Crown	-2.00%	2.00%	627	24+260.40m	End Normal Crown	-2.00%	-2.00%
620	24+141.93m	Level Crown	-2.00%	0.00%	627	24+269.95m	Level Crown	-2.00%	0.00%
620	24+151.43m	Begin Normal Crown	-2.00%	-2.00%	627	24+279.49m	Reverse Crown	-2.00%	2.00%
621	24+116.23m	End Normal Crown	-2.00%	-2.00%	627	24+285.09m	End Full Super	-4.40%	4.40%
621	24+125.78m	Level Crown	0.00%	-2.00%	627	24+290.95m	Begin Full Super	-4.40%	4.40%
621	24+135.32m	Reverse Crown	2.00%	-2.00%	627	24+296.55m	Reverse Crown	-2.00%	2.00%
621	24+146.78m	Begin Full Super	4.40%	-4.40%	627	24+306.09m	Level Crown	-2.00%	0.00%
621	24+149.41m	End Full Super	4.40%	-4.40%	627	24+315.64m	Begin Normal Crown	-2.00%	-2.00%
621	24+160.86m	Reverse Crown	2.00%	-2.00%	628	24+282.63m	End Normal Crown	-2.00%	-2.00%
621	24+170.41m	Level Crown	0.00%	-2.00%	628	24+292.20m	Level Crown	0.00%	-2.00%
621	24+179.96m	Begin Normal Crown	-2.00%	-2.00%	628	24+301.76m	Reverse Crown	2.00%	-2.00%
622	24+158.55m	End Normal Crown	-2.00%	-2.00%	628	24+308.00m	End Full Super	4.60%	-4.60%
622	24+168.00m	Level Crown	0.00%	-2.00%	628	24+314.20m	Begin Full Super	4.60%	-4.60%
622	24+177.44m	Reverse Crown	2.00%	-2.00%	628	24+320.43m	Reverse Crown	2.00%	-2.00%
622	24+185.00m	Begin Full Super	3.60%	-3.60%	628	24+330.00m	Level Crown	0.00%	-2.00%
622	24+188.32m	End Full Super	3.60%	-3.60%	628	24+339.56m	Begin Normal Crown	-2.00%	-2.00%
622	24+195.87m	Reverse Crown	2.00%	-2.00%	629	24+312.42m	End Normal Crown	-2.00%	-2.00%
622	24+205.32m	Level Crown	0.00%	-2.00%	629	24+322.09m	Level Crown	-2.00%	0.00%
622	24+214.76m	Begin Normal Crown	-2.00%	-2.00%	629	24+331.75m	Reverse Crown	-2.00%	2.00%
623	24+176.10m	End Normal Crown	-2.00%	-2.00%	629	24+339.96m	End Full Super	-6.00%	6.00%
623	24+185.77m	Level Crown	-2.00%	0.00%	629	24+351.09m	Begin Full Super	-6.00%	6.00%
623	24+195.43m	Reverse Crown	-2.00%	2.00%	629	24+359.30m	Reverse Crown	-2.00%	2.00%
623	24+206.80m	End Full Super	-6.00%	6.00%	629	24+368.96m	Level Crown	-2.00%	0.00%
623	24+214.77m	Begin Full Super	-6.00%	6.00%	629	24+378.63m	Begin Normal Crown	-2.00%	-2.00%
623	24+226.14m	Reverse Crown	-2.00%	2.00%	630	24+326.53m	End Normal Crown	-2.00%	-2.00%
623	24+235.80m	Level Crown	-2.00%	0.00%	630	24+336.10m	Level Crown	-2.00%	0.00%
623	24+245.47m	Begin Normal Crown	-2.00%	-2.00%	630	24+345.66m	Reverse Crown	-2.00%	2.00%
624	24+196.67m	End Normal Crown	-2.00%	-2.00%	630	24+351.79m	End Full Super	-4.60%	4.60%
624	24+206.34m	Level Crown	0.00%	-2.00%	630	24+358.10m	Begin Full Super	-4.60%	4.60%
624	24+216.00m	Reverse Crown	2.00%	-2.00%	630	24+364.22m	Reverse Crown	-2.00%	2.00%
624	24+229.11m	End Full Super	6.00%	-6.00%	630	24+373.79m	Level Crown	-2.00%	0.00%
624	24+235.34m	Begin Full Super	6.00%	-6.00%	630	24+383.35m	Begin Normal Crown	-2.00%	-2.00%
624	24+248.44m	Reverse Crown	2.00%	-2.00%		24+376.98m	End Alignment	-2.00%	-2.00%



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DEVELOPMENT PROJECT
C&W DEPARTMENT, KP



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REV.	DATE	DESCRIPTION	APPROVED	APPROVED

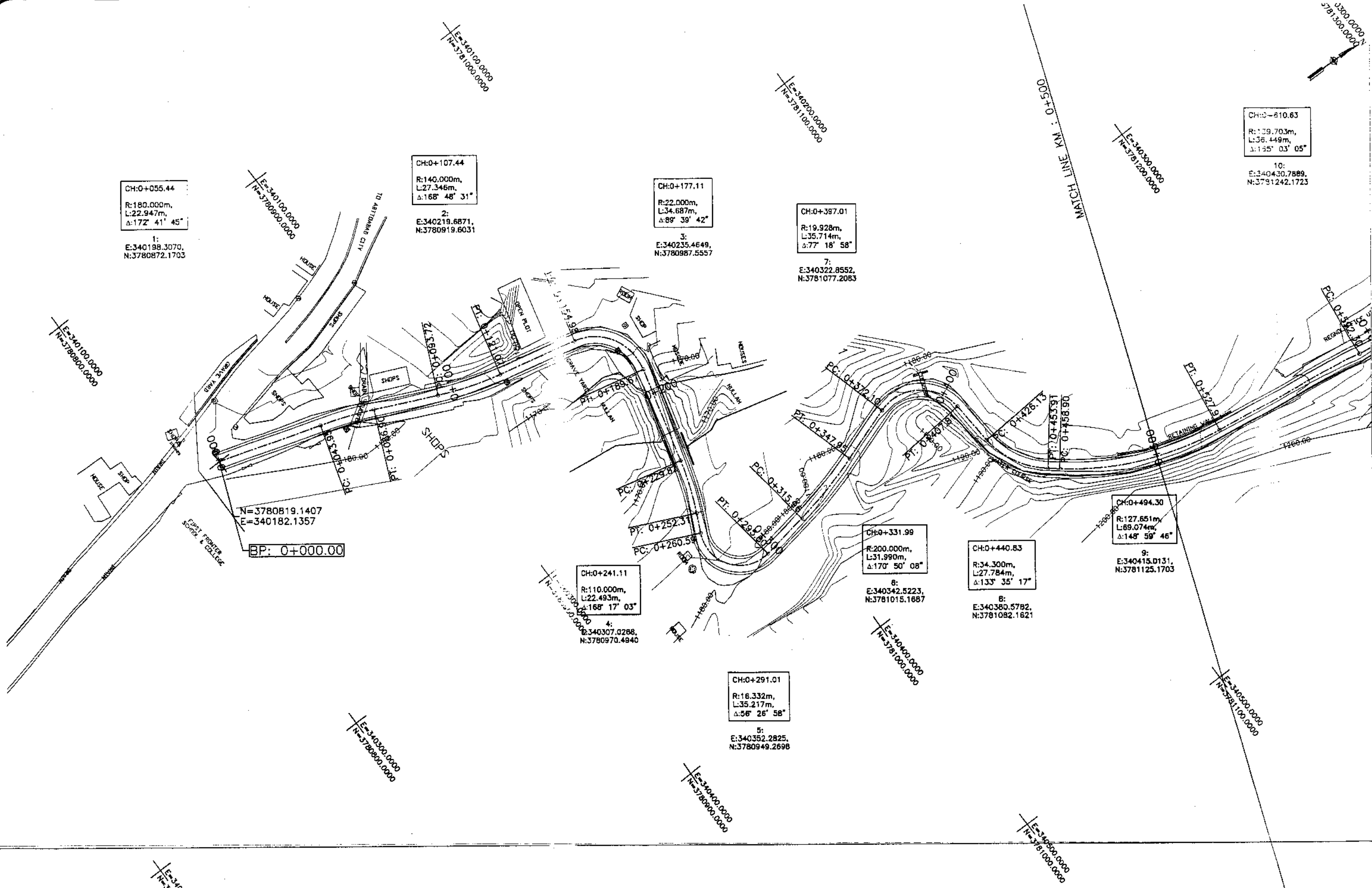
	DRAWN	
	SUBMITTED	
	RECOMMENDED	
	CHD./VER.	
	APPROVED	

PROJECT:
REHABILITATION AND UPGRADING
OF THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24.00 KM

TITLE	
SUPERELEVATION SCHEME	
DATE	DWG NO.
JANUARY, 2021	38164/102/TD/ PD0010T

PLAN AND PROFILE

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KHYBER PAKHTUNKHWA
INTEGRATED TOURISM AND
ENTERPRISE DEVELOPMENT
PROJECT
COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK

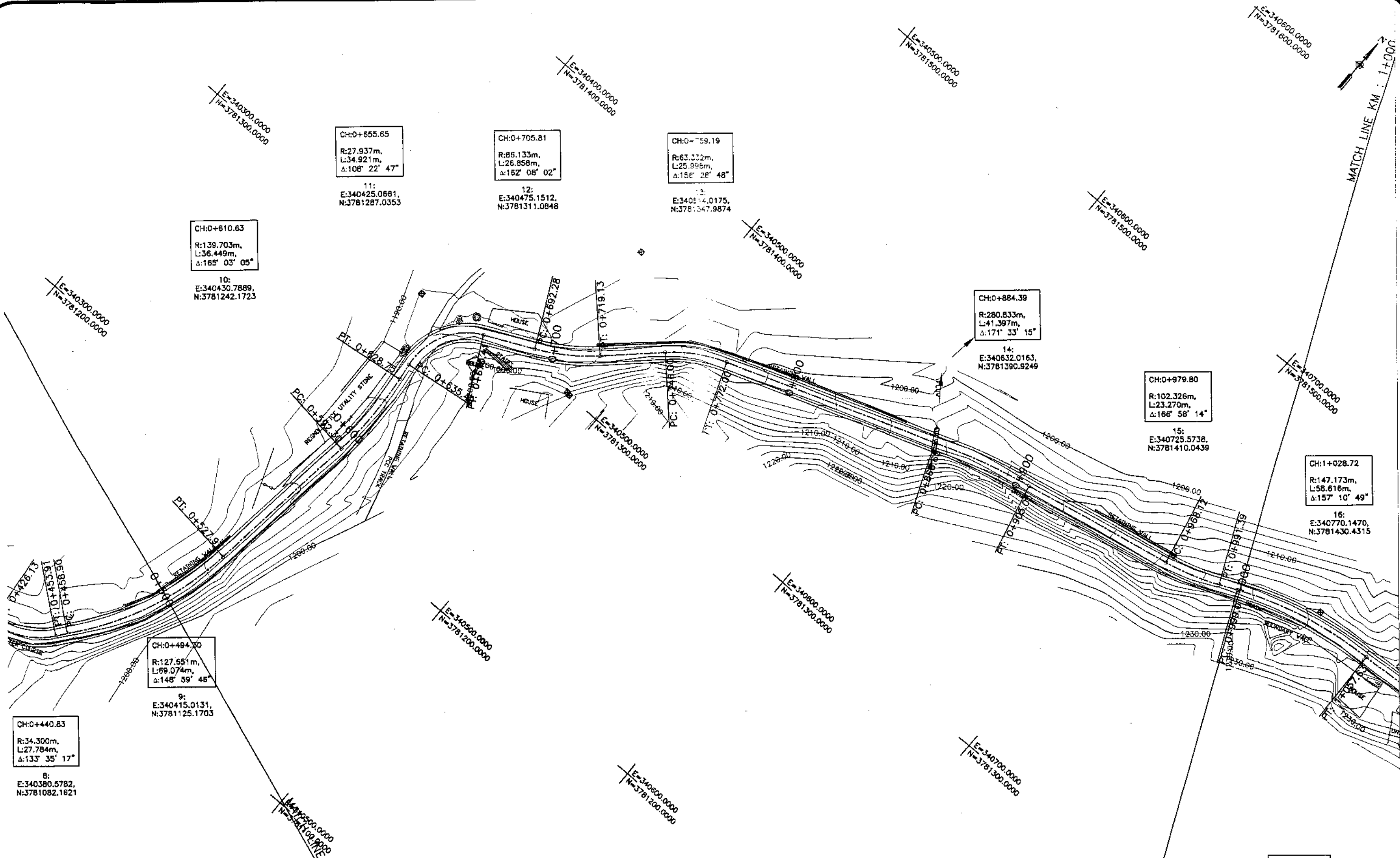
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NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PLAN		SCALE
KM: 0+000 ~ KM: 0+500		1:1000
DATE	DWG NO.	
January 2021	4169/(ii)/TD/P 01	

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INTEGRATED TOURISM AND
ENTERPRISE DEVELOPMENT
PROJECT
COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK



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PAKISTAN (PVT.) LTD.

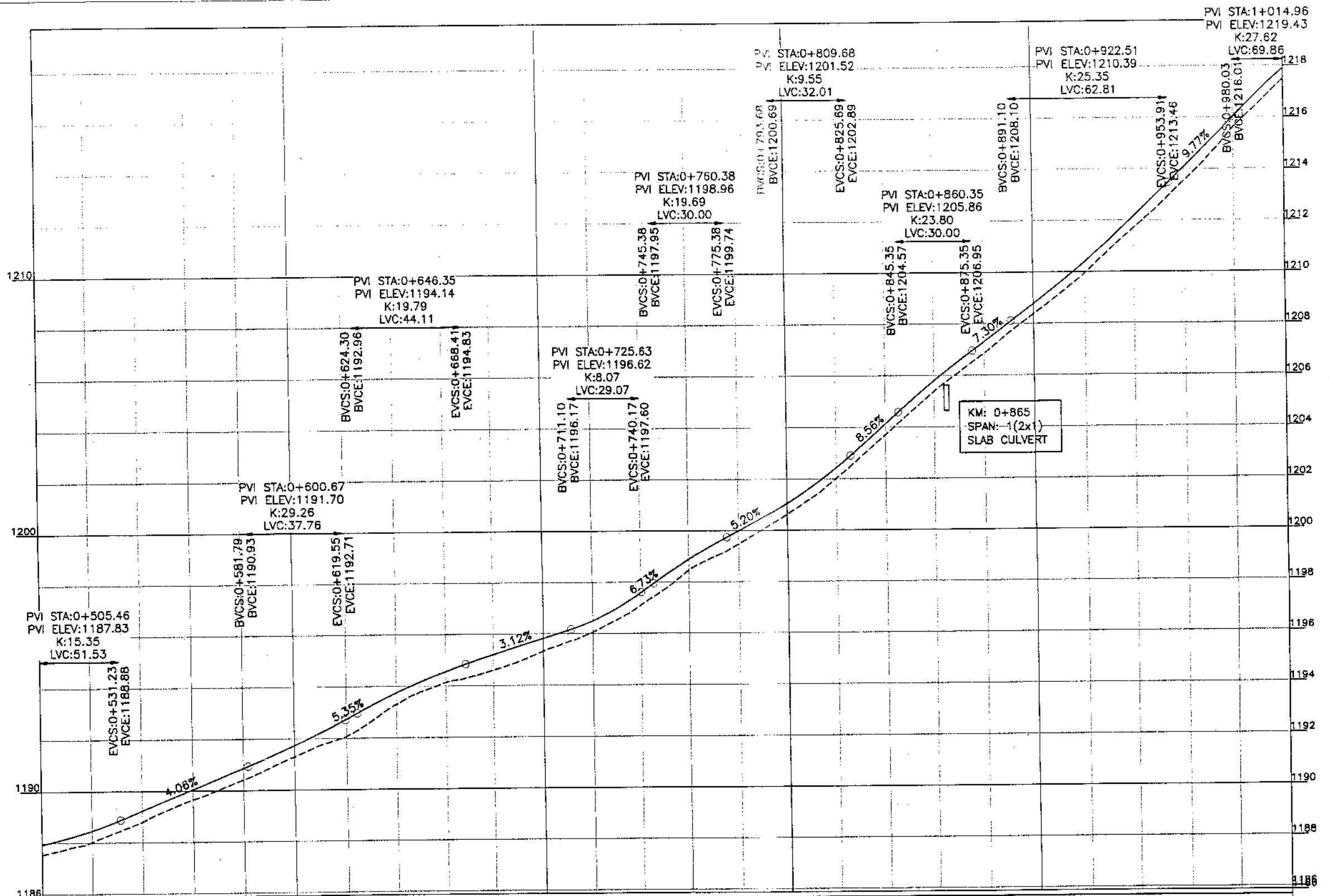
REV.	DATE	DESCRIPTION	APPROVED	APPROVED

DRAWN JUNAID KHAN
SUBMITTED NOSHERWAN NAEEM
RECOMMENDED
CHD./VER.
APPROVED

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PLAN		SCALE
KM: 0+500 ~ KM: 1+000		1:1000
DATE	DWG NO.	
January 2021	4169/(ii)/TD/P 02	

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Horizontal Geometry	R=127.65 L=59.07	T=64.33	R=139.70 L=36.45	T=6.74	R=27.94 L=34.92	T=21.86	R=88.13 L=28.86	T=26.87	R=83.33 L=26.00	T=91.65	R=280.83 L=41.40	T=63.07	R=102.33 L=25.21	R=147.17 L=68.62																																			
Design levels	1188.03	1188.466	1188.798	1189.237	1189.650	1190.049	1190.412	1190.861	1191.297	1191.730	1192.068	1192.735	1193.295	1193.743	1194.131	1194.553	1194.935	1195.196	1195.381	1195.820	1196.081	1196.494	1197.107	1197.587	1198.459	1198.878	1199.466	1199.978	1200.616	1201.040	1202.051	1202.422	1203.703	1204.116	1205.377	1205.783	1206.840	1207.291	1208.357	1208.766	1209.959	1210.374	1211.690	1212.140	1213.518	1214.056	1215.605	1216.011	1217.477
Ground Levels	1187.543	1188.030	1188.798	1189.237	1189.650	1190.049	1190.412	1190.861	1191.297	1191.730	1192.068	1192.735	1193.295	1193.743	1194.131	1194.553	1194.935	1195.196	1195.381	1195.820	1196.081	1196.494	1197.107	1197.587	1198.459	1198.878	1199.466	1199.978	1200.616	1201.040	1202.051	1202.422	1203.703	1204.116	1205.377	1205.783	1206.840	1207.291	1208.357	1208.766	1209.959	1210.374	1211.690	1212.140	1213.518	1214.056	1215.605	1216.011	1217.477



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DEPARTMENT, KPK

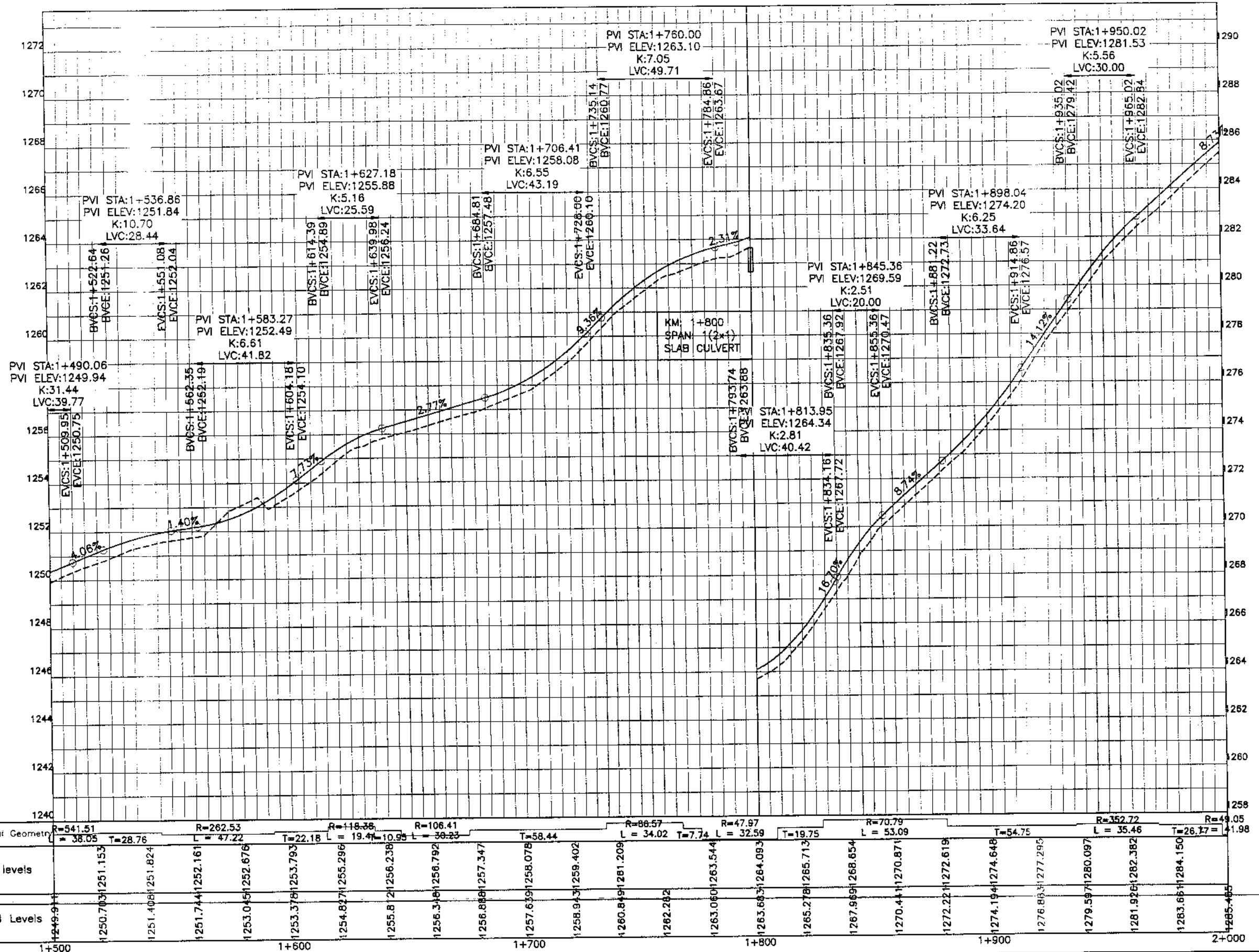
**NES
PAK**
NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PROFILE	SCALE
KM: 0+500 ~ KM: 1+000	1:1000
DATE	DWG NO.
January 2021	4169/(ii)/TD/P 002

DRAWN JUNAID KHAN
SUBMITTED NOSHERWAN NAEEM
RECOMMENDED
CHECKED
APPROVED



KHYBER PAKHTUNKHWA
INTEGRATED TOURISM AND
ENTERPRISE DEVELOPMENT
PROJECT
COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK

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PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED

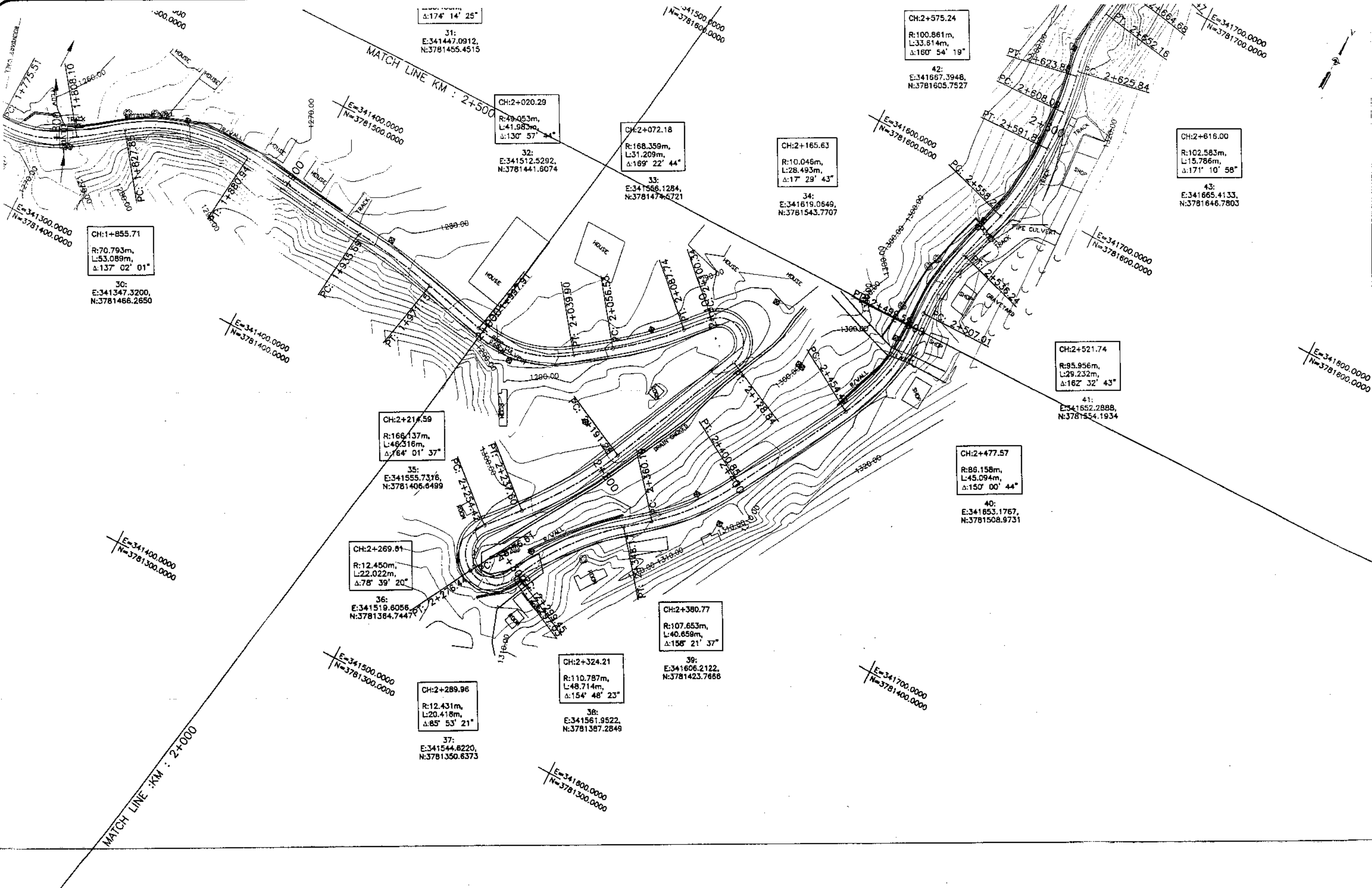
DRAWN: JUNAD KHAN
SUBMITTED: NOSHERWAN MAEEM
RECOMMENDED:
CHD./VER:
APPROVED:

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PROFILE
SCALE: 1:1000

DATE: January 2021
DWG NO.: 4189/(ii)/TD/P 004

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KHYBER PAKHTUNKHWA
INTEGRATED TOURISM AND
ENTERPRISE DEVELOPMENT
PROJECT
COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK

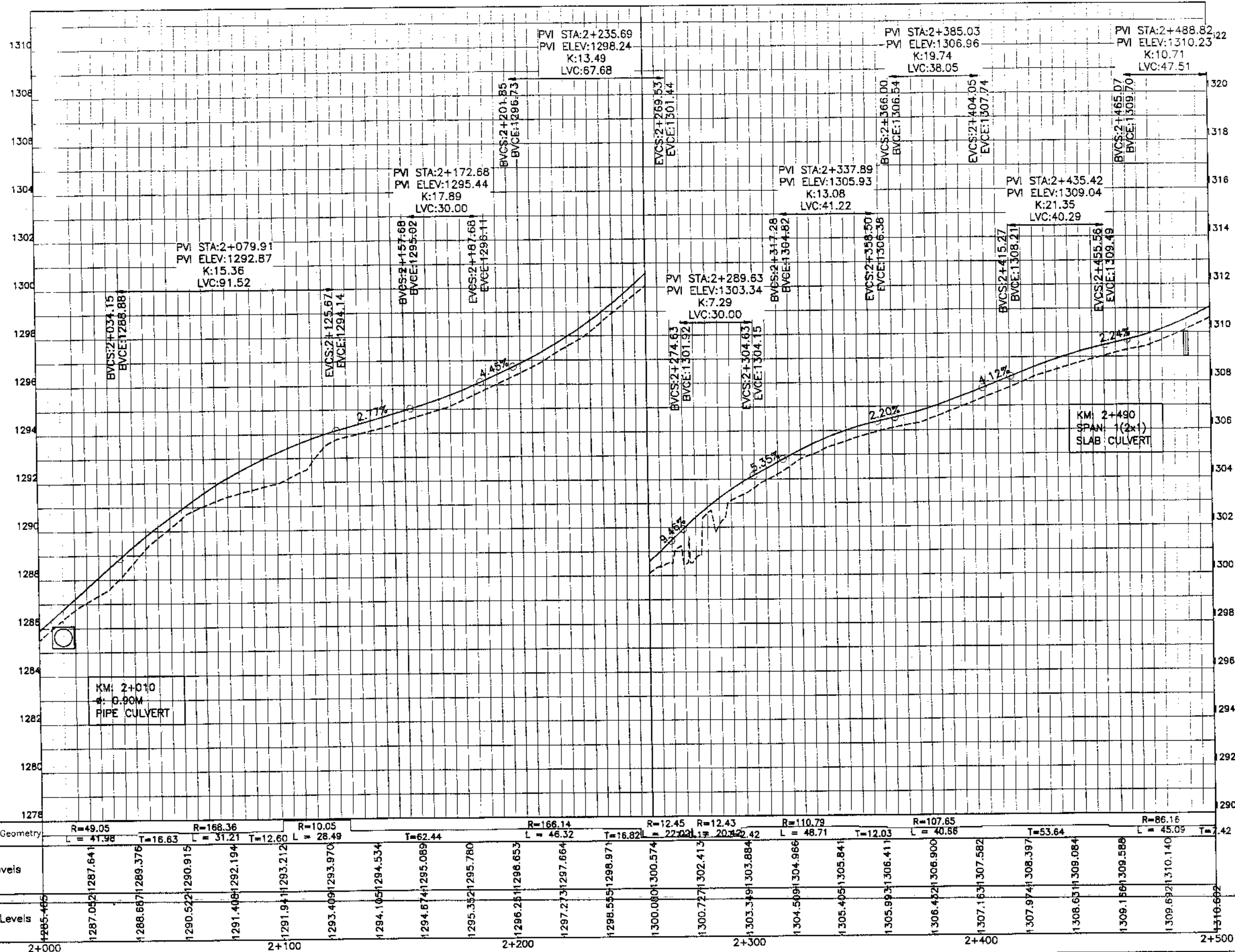


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PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED

DRAWN JUNAD KHAN
SUBMITTED NOSHERWAN NAEEM
RECOMMENDED
CHD./VER.
REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PLAN		SCALE
KM: 2+000 ~ KM: 2+500		1:1000
DATE	DWG NO.	
January 2021	4189/(ii)/TD/P 05	



Horizontal Geometry	R=49.05 L=41.98	R=166.36 L=31.21	R=10.05 L=28.49	R=166.14 L=46.32	R=12.45 L=22.02	R=12.43 L=20.32	R=110.79 L=48.71	R=107.65 L=40.58	R=86.16 L=45.09																																						
Design levels	1287.05	1287.64	1288.67	1289.376	1290.522	1290.915	1291.408	1292.194	1291.94	1293.212	1293.970	1294.105	1294.534	1294.674	1295.089	1295.352	1295.780	1296.251	1296.653	1297.273	1297.664	1298.535	1298.971	1300.080	1300.574	1300.727	1302.413	1303.391	1303.884	1304.509	1304.966	1305.495	1305.841	1305.993	1306.411	1306.452	1306.900	1307.163	1307.582	1307.974	1308.397	1308.651	1308.984	1309.156	1309.568	1309.692	1310.140
Ground Levels	1285.465	1287.05	1288.67	1289.376	1290.522	1290.915	1291.408	1292.194	1291.94	1293.212	1293.970	1294.105	1294.534	1294.674	1295.089	1295.352	1295.780	1296.251	1296.653	1297.273	1297.664	1298.535	1298.971	1300.080	1300.574	1300.727	1302.413	1303.391	1303.884	1304.509	1304.966	1305.495	1305.841	1305.993	1306.411	1306.452	1306.900	1307.163	1307.582	1307.974	1308.397	1308.651	1308.984	1309.156	1309.568	1309.692	1310.140



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DEPARTMENT, KPK

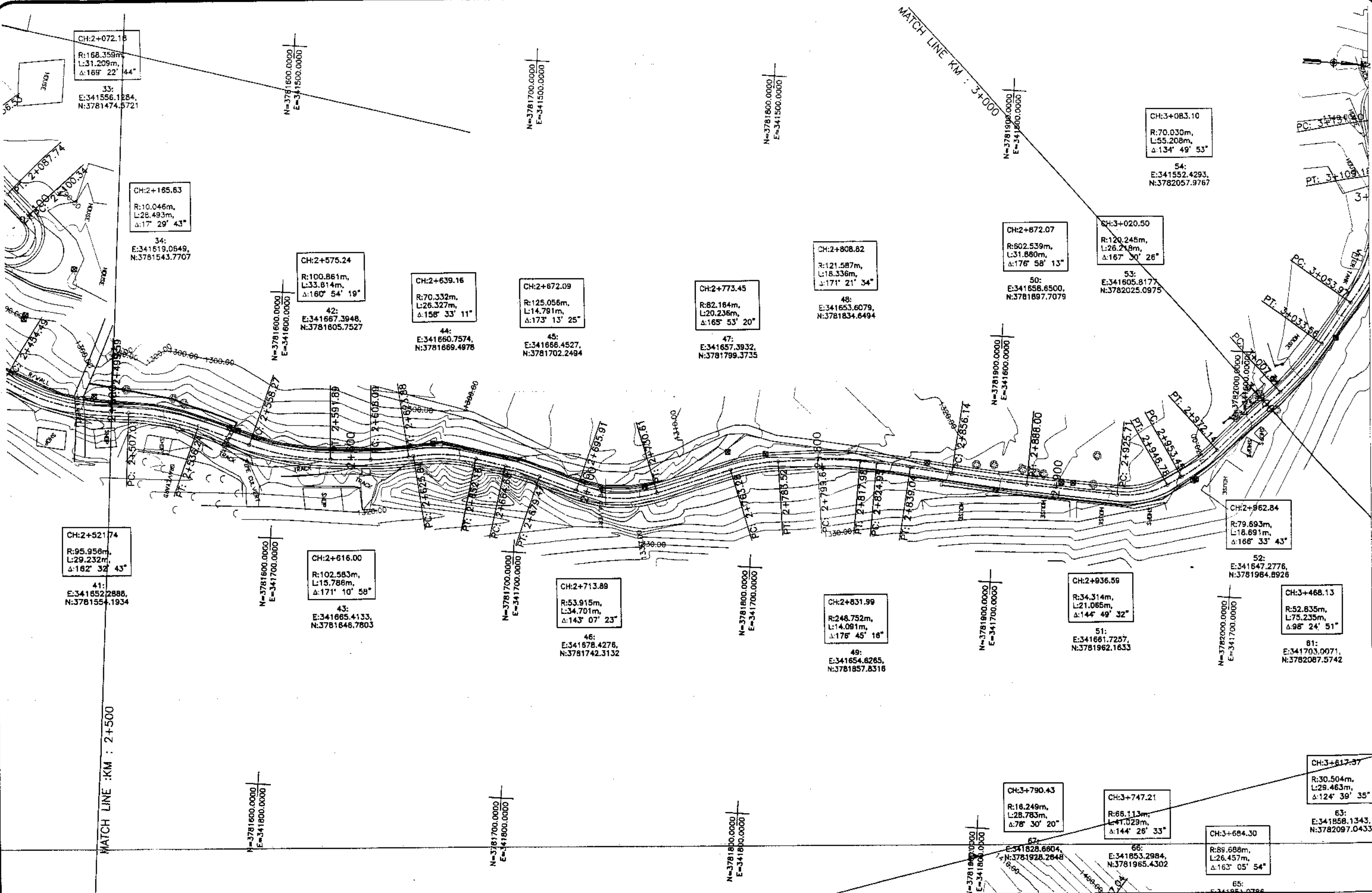
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NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED

DRAWN JUNAID KHAN
SUBMITTED HOSHERWAN NAEEM
RECOMMENDED
CHD./VER.
APPROVED

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PROFILE
SCALE 1:1000
DATE January 2021
DWG NO. 4169/(M)/TD/P 005



KHYBER PAKHTUNKHWA
INTEGRATED TOURISM AND
ENTERPRISE DEVELOPMENT
PROJECT
COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK

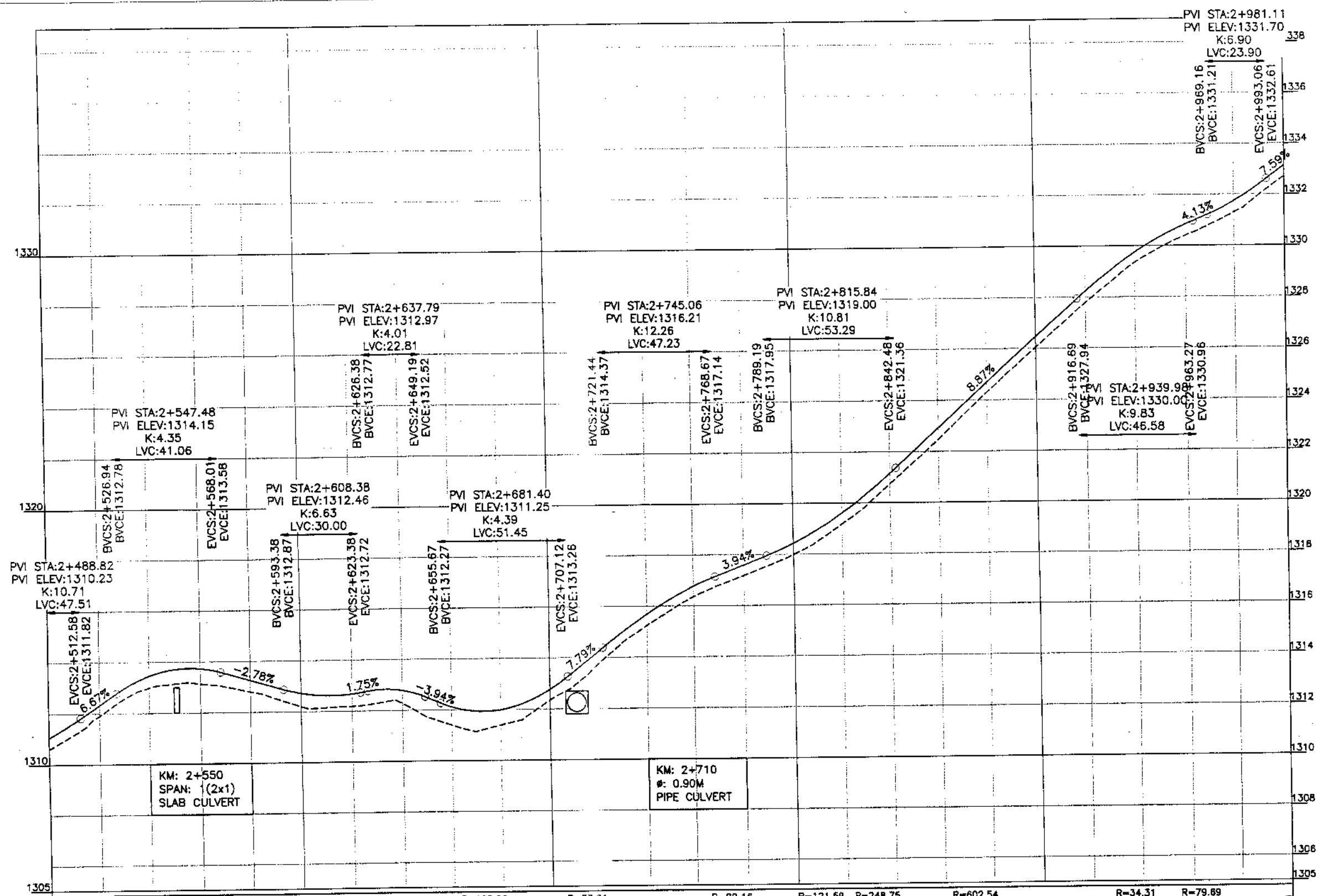
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PAK**
NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED

DRAWN JUNAID KHAN
SUBMITTED NOSHERWAN NAEEM
RECOMMENDED
CHD./VER.
APPROVED

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PLAN		SCALE
KM: 2+500 ~ KM: 3+000		1:1000
DATE	DWG NO.	
January 2021	4169/(11)/TD/P 06	



Horizontal Geometry	R=95.96 L=7.42	T=29.23	T=22.03	R=100.86 L=33.61	T=16.20	R=102.58 L=13.79	R=70.33 L=26.33	R=125.06 L=14.79	R=53.91 L=16.44	T=34.70	T=32.67	R=82.16 L=20.24	T=16.12	R=121.58 L=18.34	R=248.75 L=14.08	R=602.54 L=17.10	T=31.86	T=37.72	R=34.31 L=21.07	R=79.69 L=16.69	T=35.20																												
Design levels	1310.662	1311.895	1312.313	1312.986	1313.452	1313.127	1313.725	1312.799	1312.244	1312.203	1312.722	1312.185	1312.668	1312.263	1312.778	1311.403	1312.117	1311.382	1311.983	1312.339	1312.760	1313.782	1314.260	1315.223	1315.677	1316.394	1316.769	1317.174	1317.587	1317.983	1318.428	1319.171	1319.600	1320.781	1321.142	1322.457	1322.912	1324.269	1324.685	1326.044	1326.458	1327.773	1328.226	1329.332	1329.728	1330.381	1330.823	1331.294	1331.739
Ground Levels	1310.662	1311.895	1312.313	1312.986	1313.452	1313.127	1313.725	1312.799	1312.244	1312.203	1312.722	1312.185	1312.668	1312.263	1312.778	1311.403	1312.117	1311.382	1311.983	1312.339	1312.760	1313.782	1314.260	1315.223	1315.677	1316.394	1316.769	1317.174	1317.587	1317.983	1318.428	1319.171	1319.600	1320.781	1321.142	1322.457	1322.912	1324.269	1324.685	1326.044	1326.458	1327.773	1328.226	1329.332	1329.728	1330.381	1330.823	1331.294	1331.739



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COMMUNICATION & WORKS (C&W)
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REV.	DATE	DESCRIPTION	APPROVED	APPROVED

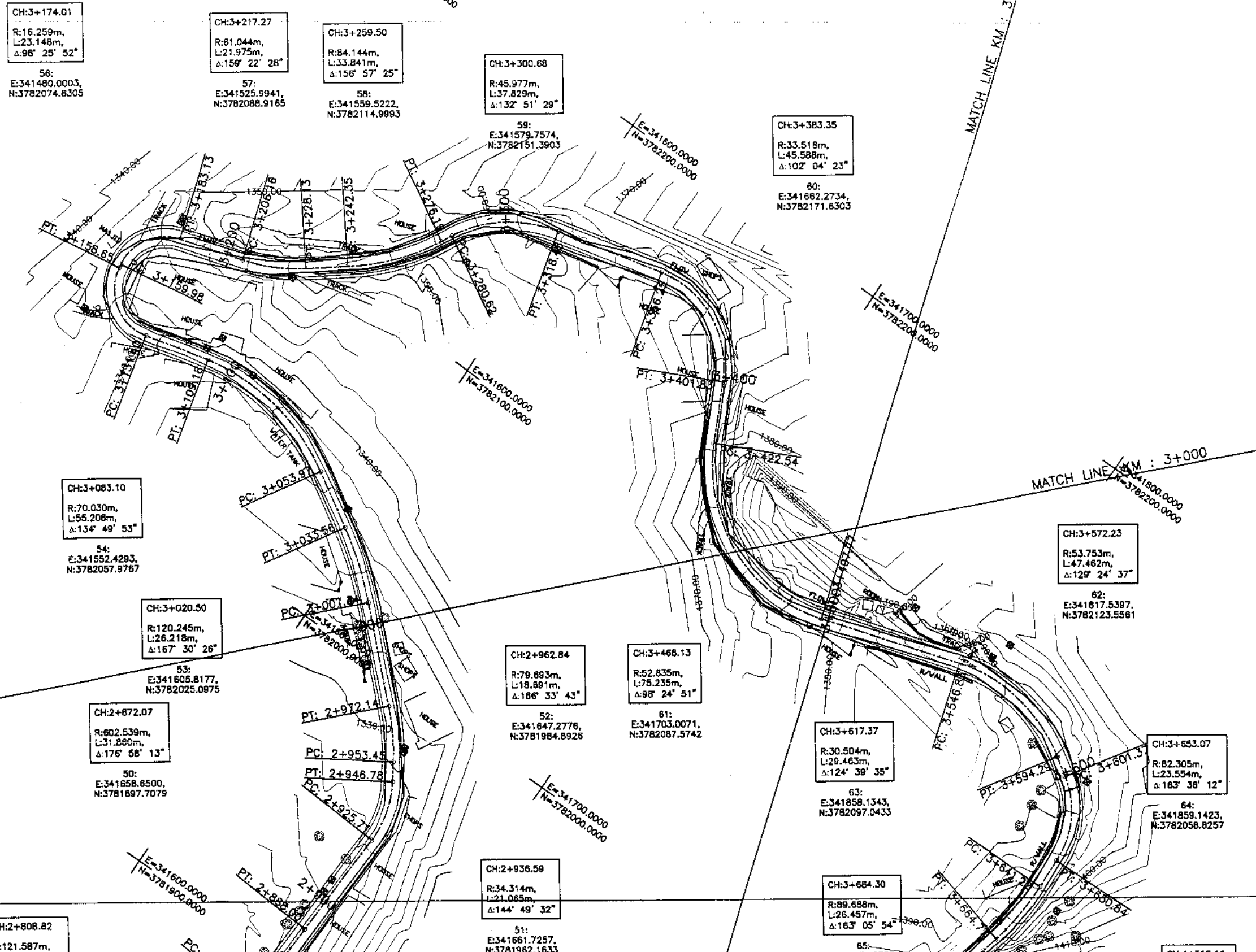

DRAWN JUNAD KHAN
SUBMITTED NOSHERWAN MAEEM
RECOMMENDED
CHD./VER.
APPROVED

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM.

PROFILE
KM: 2+500 ~ KM: 3+000
SCALE 1:1000

DATE January 2021
DWG NO. 4169/(ii)/TD/P 006

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INTEGRATED TOURISM AND
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COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK

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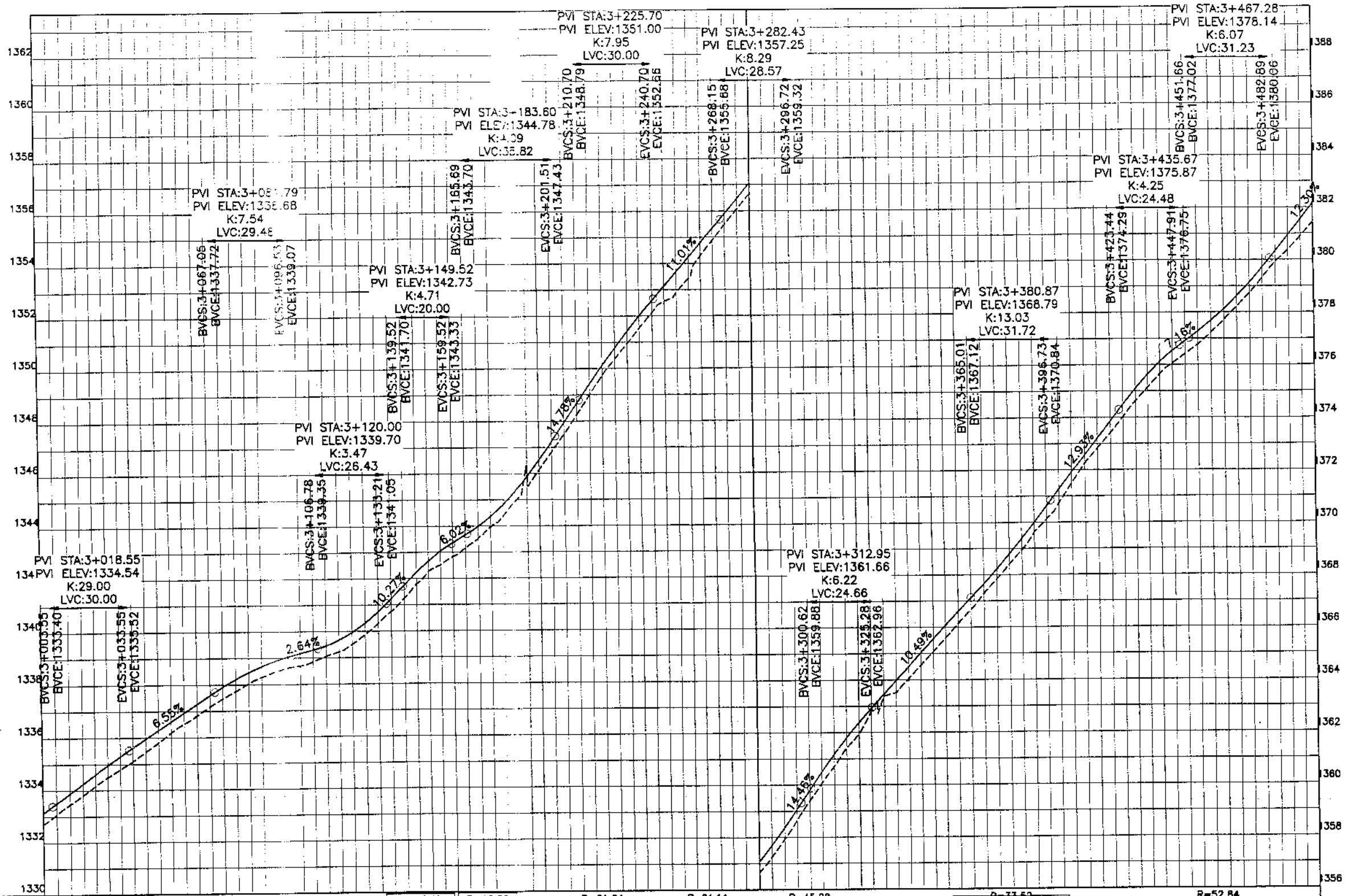
REV.	DATE	DESCRIPTION	APPROVED	APPROVED

DRAWN	JUNAID KHAN
SUBMITTED	NOSHERWAN NAEEM
RECOMMENDED	
CHD./VER.	

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PLAN		SCALE
KM: 3+000 ~ KM: 3+500		1:1000
DATE	DWG NO.	
January 2021	4169/(R)/TD/P 07	

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Station	Horizontal Geometry	Design levels	Ground Levels
3+000	R=120.25 L=35.26 T=26.22 T=20.41	1334.00	1332.799
3+100	R=70.01 L=55.2 T=22.22	1335.52	1334.166
3+200	R=16.49 L=27.26 T=23.03	1337.52	1335.449
3+300	R=16.26 L=23.15 T=23.03	1339.96	1336.825
3+400	R=61.04 L=21.97 T=14.22	1341.75	1338.038
3+500	R=64.14 L=33.84 T=4.43	1343.35	1338.685
3+600	R=45.98 L=37.83 T=37.80	1344.81	1339.496
3+700	R=33.52 L=45.59 T=20.70	1346.27	1341.251
3+800	R=52.84 L=75.23 T=49.05	1347.73	1342.826
3+900		1349.19	1344.382
3+000		1350.65	1346.81
3+100		1352.12	1349.728
3+200		1353.58	1352.123
3+300		1355.05	1354.291
3+400		1356.52	1356.631
3+500		1358.00	1359.366
3+600		1359.48	1361.995
3+700		1361.97	1364.044
3+800		1364.46	1366.137
3+900		1366.95	1368.397
3+000		1369.44	1370.757
3+100		1371.93	1373.406
3+200		1374.42	1375.642
3+300		1376.91	1377.211
3+400		1379.40	1379.331
3+500		1381.89	1381.447

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PROJECT
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DEPARTMENT, KPK

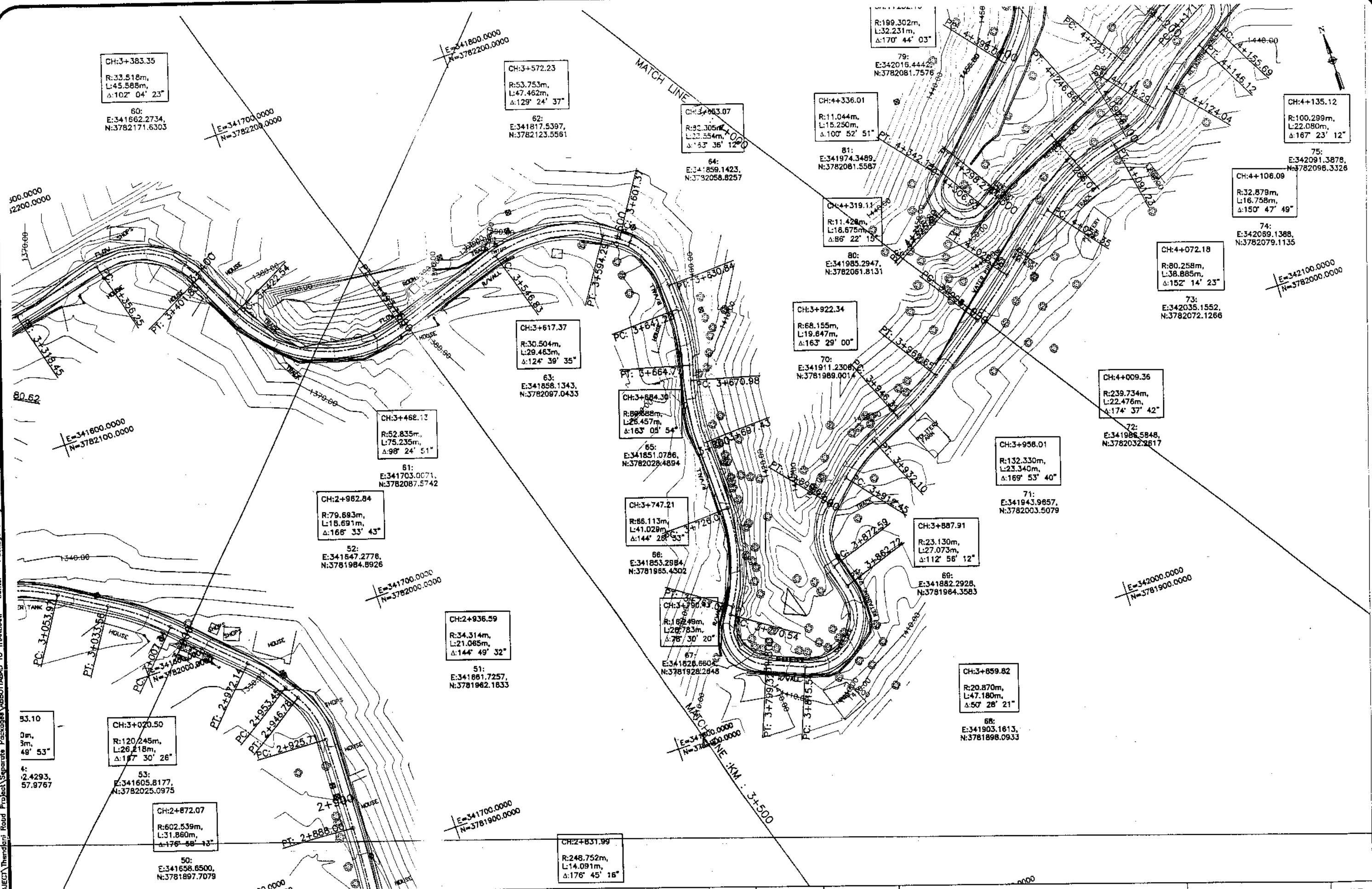
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NATIONAL ENGINEERING SERVICES
PAKISTAN (P.E.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PROFILE		SCALE 1:1000
DATE January 2021	DWG NO. 4169/(ii)/TD/P 007	

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DEPARTMENT, KPK

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PAKISTAN (PVT.) LTD.

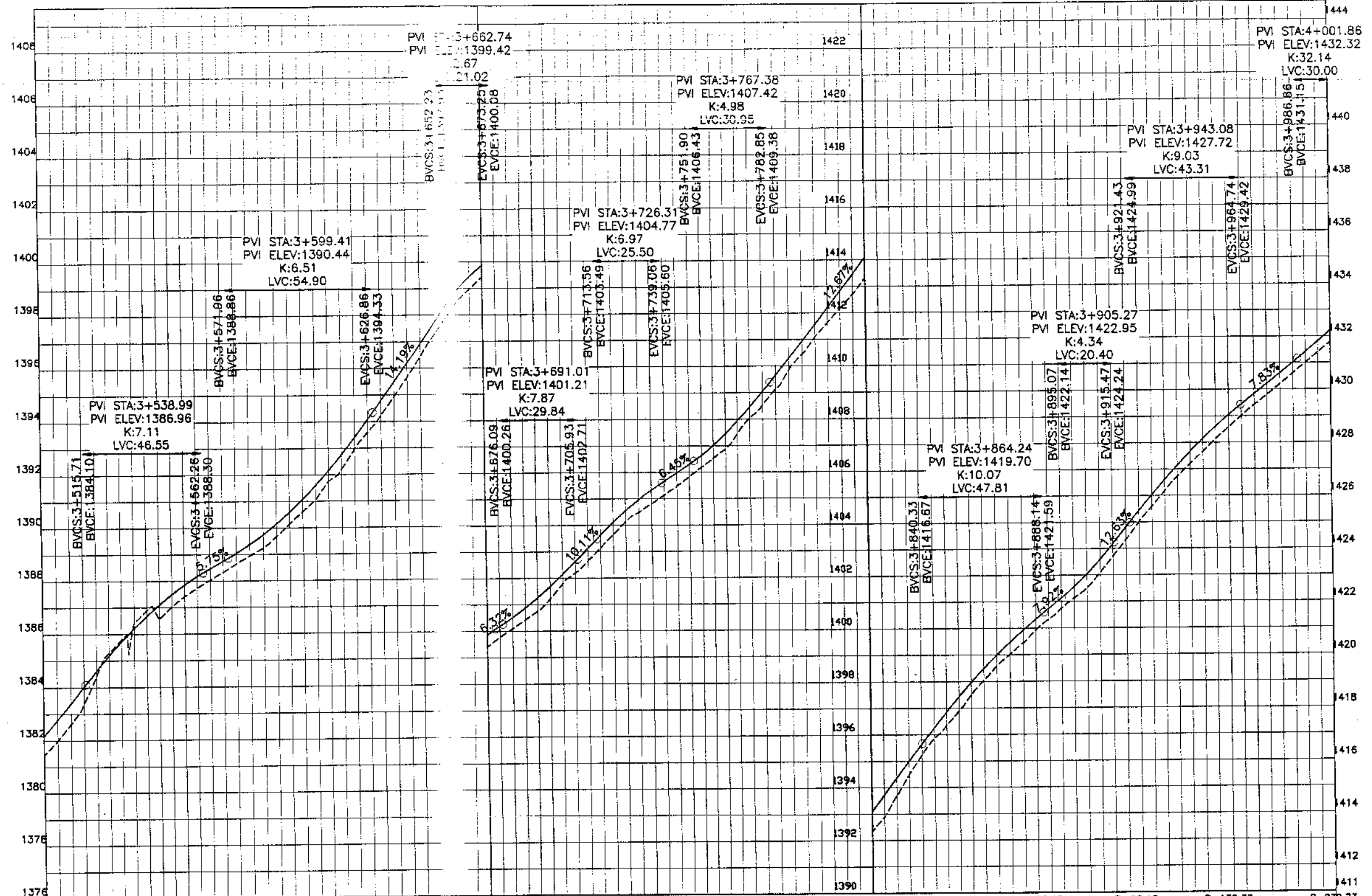
REV.	DATE	DESCRIPTION	APPROVED	APPROVED

DRAWN JUNAID KHAN
SUBMITTED NOSHERWAN NAEEM
RECOMMENDED
CHD./VER.
APPROVED

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PLAN
KM: 3+500 ~ KM: 4+000
SCALE 1:1000

DATE January 2021
DWG NO. 4169/(ii)/TD/P 08



Horizontal Geometry	T=49.05	R=53.75	L=47.46	T=7.09	L=29.46	T=10.38	R=89.69	T=28.57	L=41.03	T=35.51	R=16.25	L=28.78	T=18.21	R=20.87	L=47.18	T=9.87	R=23.13	L=27.07	T=12.79	R=68.15	L=19.69	R=132.33	L=14.21	R=239.73	L=23.34	T=28.46	L=22.48																		
Design levels	1384.42	1384.61	1386.66	1387.75	1388.16	1388.94	1389.36	1390.60	1391.07	1392.95	1393.39	1395.66	1396.19	1398.00	1400.50	1401.78	1402.13	1403.64	1404.10	1405.13	1405.65	1406.53	1407.01	1408.51	1409.03	1411.00	1411.55	1413.32	1414.09	1416.22	1416.62	1418.50	1418.96	1420.46	1420.91	1422.13	1422.55	1424.34	1424.80	1426.72	1427.14	1428.59	1429.03	1430.20	1430.61
Ground Levels	1381.47	1384.42	1386.66	1387.75	1388.16	1388.94	1389.36	1390.60	1391.07	1392.95	1393.39	1395.66	1396.19	1398.00	1400.50	1401.78	1402.13	1403.64	1404.10	1405.13	1405.65	1406.53	1407.01	1408.51	1409.03	1411.00	1411.55	1413.32	1414.09	1416.22	1416.62	1418.50	1418.96	1420.46	1420.91	1422.13	1422.55	1424.34	1424.80	1426.72	1427.14	1428.59	1429.03	1430.20	1430.61



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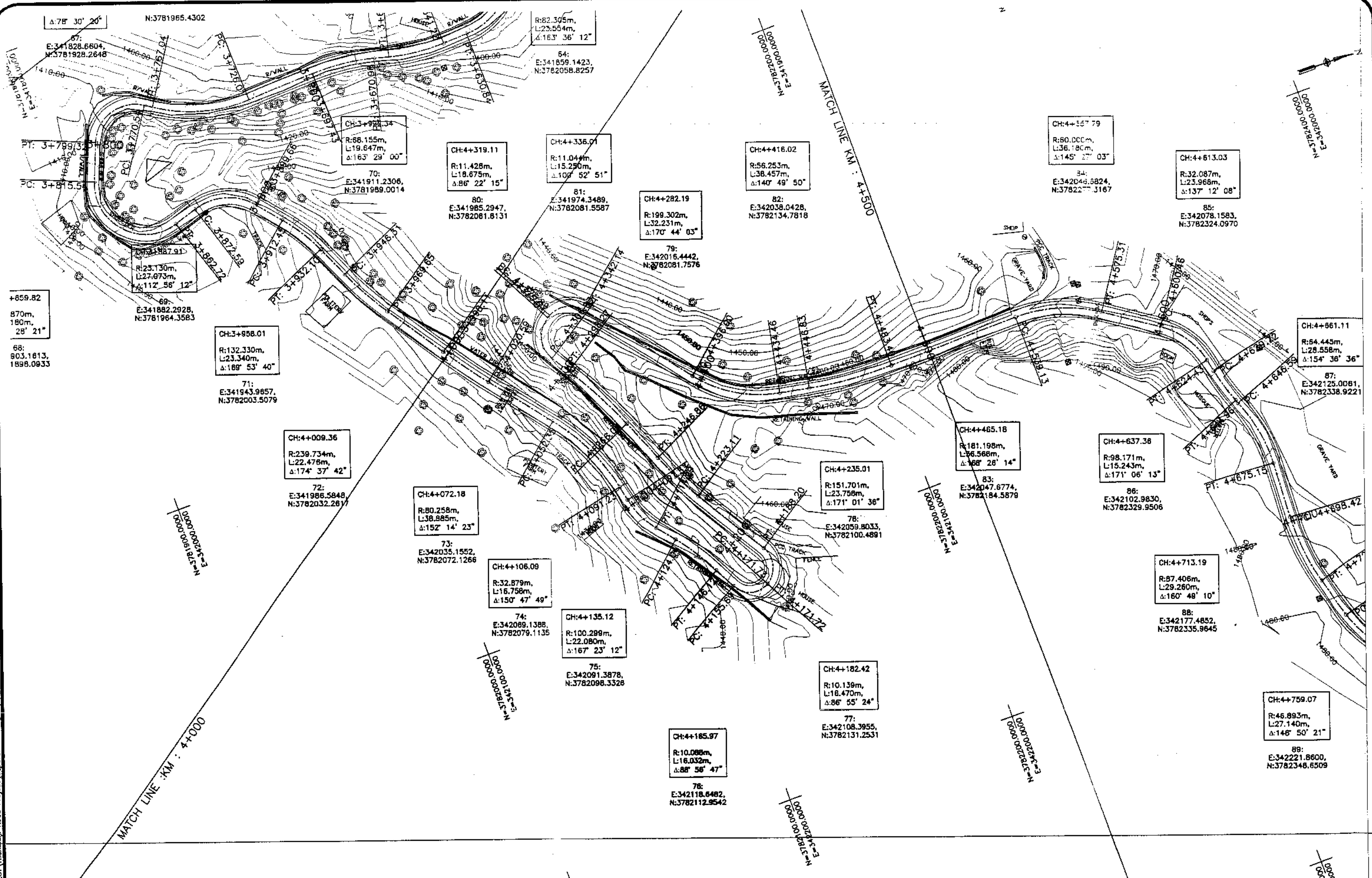
REV.	DATE	DESCRIPTION	APPROVED

DRAWN: JUNAID KHAN
SUBMITTED: NOSHERWAN NAEEM
RECOMMENDED:
CHD./VER.
APPROVED:

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM. (PACKAGE - 1)

PROFILE		SCALE
KM: 3+500 ~ KM: 4+000		1:1000
DATE	DWG NO.	
January 2021	4169/(ii)/TD/P 008	

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KHYBER PAKHTUNKHWA INTEGRATED TOURISM AND ENTERPRISE DEVELOPMENT PROJECT
 COMMUNICATION & WORKS (C&W) DEPARTMENT, KPK

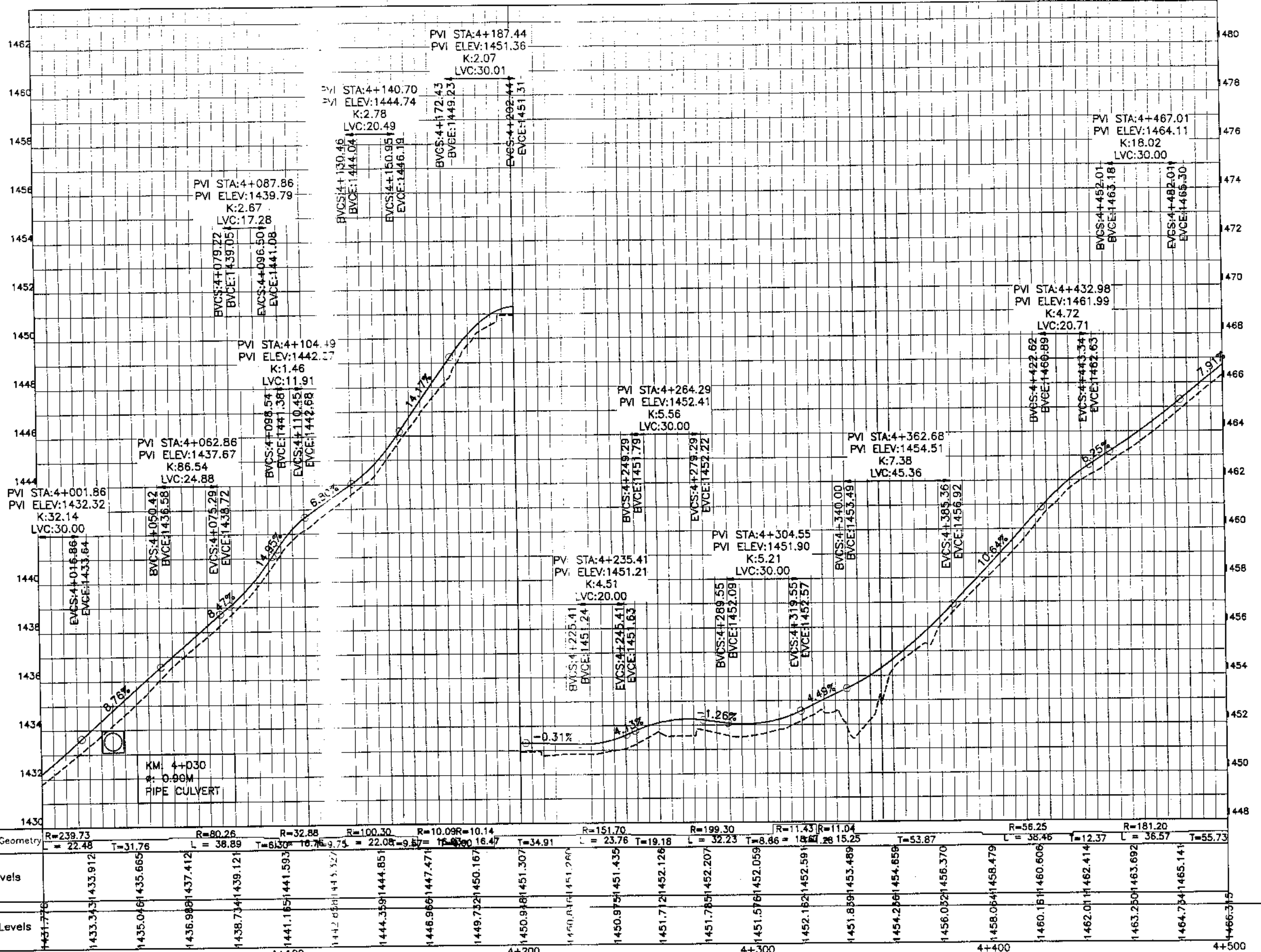
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REV.	DATE	DESCRIPTION	APPROVED	APPROVED

DRAWN: JUNAO KHAN
 SUBMITTED: NOSHERWAN NAEEM
 RECOMMENDED:
 CHD./VER:
 APPROVED:
 APPROVED:
REHABILITATION AND UPGRADATION OF THANDANI ROAD IN DISTRICT ABBOTTABAD - 24 KM. (PACKAGE-1)

PLAN		SCALE
KM: 4+000 ~ KM: 4+500		1:1000
DATE	DWG NO.	
January 2021	4169/(H)/TD/P 09	

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KM. 4+D30
Ø: 0.90M
PIPE CULVERT



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DEPARTMENT, KPK

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REV.	DATE	DESCRIPTION	APPROVED

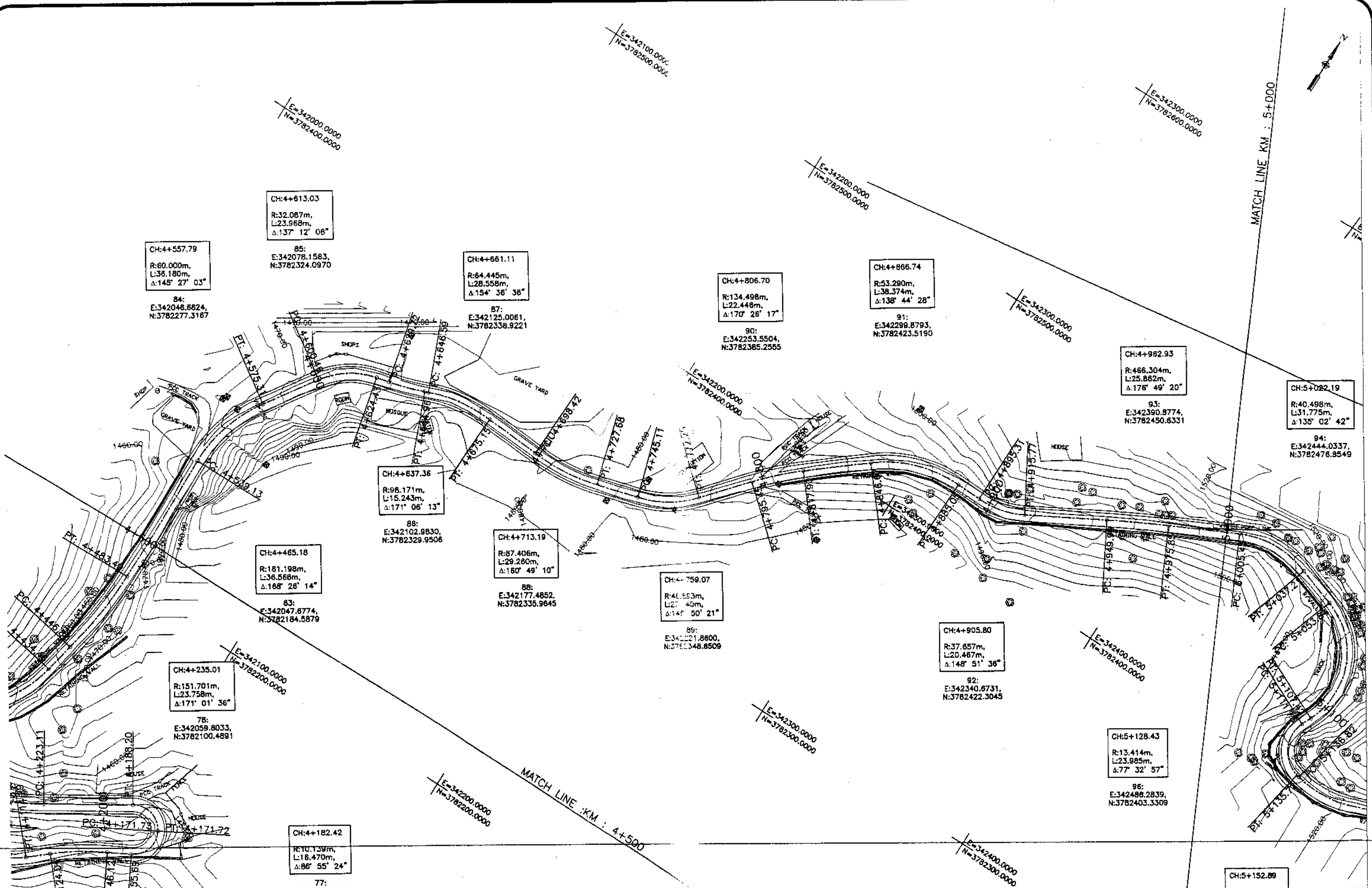
DRAWN JUNWAD KHAN
SUBMITTED HOSHERWAN NAEEM
RECOMMENDED
CHD./VER.
APPROVED

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24. KM

PROFILE
SCALE 1:1000

DATE January 2021
DWG NO. 4189/(ii)/TD/P 009

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CH:4+613.03
R:32.087m,
L:23.968m,
Δ:137° 12' 08"

CH:4+557.79
R:60.000m,
L:36.180m,
Δ:145° 27' 03"

85:
E:342078.1583,
N:3782324.0970

CH:4+661.11
R:64.445m,
L:28.558m,
Δ:154° 36' 36"

87:
E:342125.0061,
N:3782338.9221

CH:4+806.70
R:134.498m,
L:22.448m,
Δ:170° 26' 17"

90:
E:342253.5504,
N:3782365.2555

CH:4+866.74
R:53.290m,
L:38.374m,
Δ:136° 44' 28"

91:
E:342299.8793,
N:3782423.5190

CH:4+962.93
R:466.304m,
L:25.862m,
Δ:176° 49' 20"

93:
E:342390.8774,
N:3782450.6331

CH:5+022.19
R:40.498m,
L:31.775m,
Δ:135° 02' 42"

94:
E:342444.0337,
N:3782476.8549

CH:4+637.36
R:98.171m,
L:15.243m,
Δ:171° 06' 13"

88:
E:342102.9830,
N:3782329.9506

CH:4+713.19
R:87.406m,
L:29.260m,
Δ:160° 49' 10"

88:
E:342177.4852,
N:3782335.9645

CH:4+759.07
R:46.853m,
L:27.40m,
Δ:146° 50' 21"

89:
E:342221.8600,
N:3782348.6509

CH:4+905.80
R:37.657m,
L:20.467m,
Δ:148° 51' 36"

92:
E:342340.6731,
N:3782422.3045

CH:4+235.01
R:151.701m,
L:23.758m,
Δ:171° 01' 36"

78:
E:342059.8033,
N:3782100.4891

CH:4+465.18
R:181.198m,
L:36.568m,
Δ:168° 26' 14"

83:
E:342047.6774,
N:3782184.5879

CH:5+128.43
R:13.414m,
L:23.985m,
Δ:77° 32' 57"

96:
E:342486.2839,
N:3782403.3309

CH:4+182.42
R:10.139m,
L:18.470m,
Δ:86° 55' 24"

77:
E:342108.3955,



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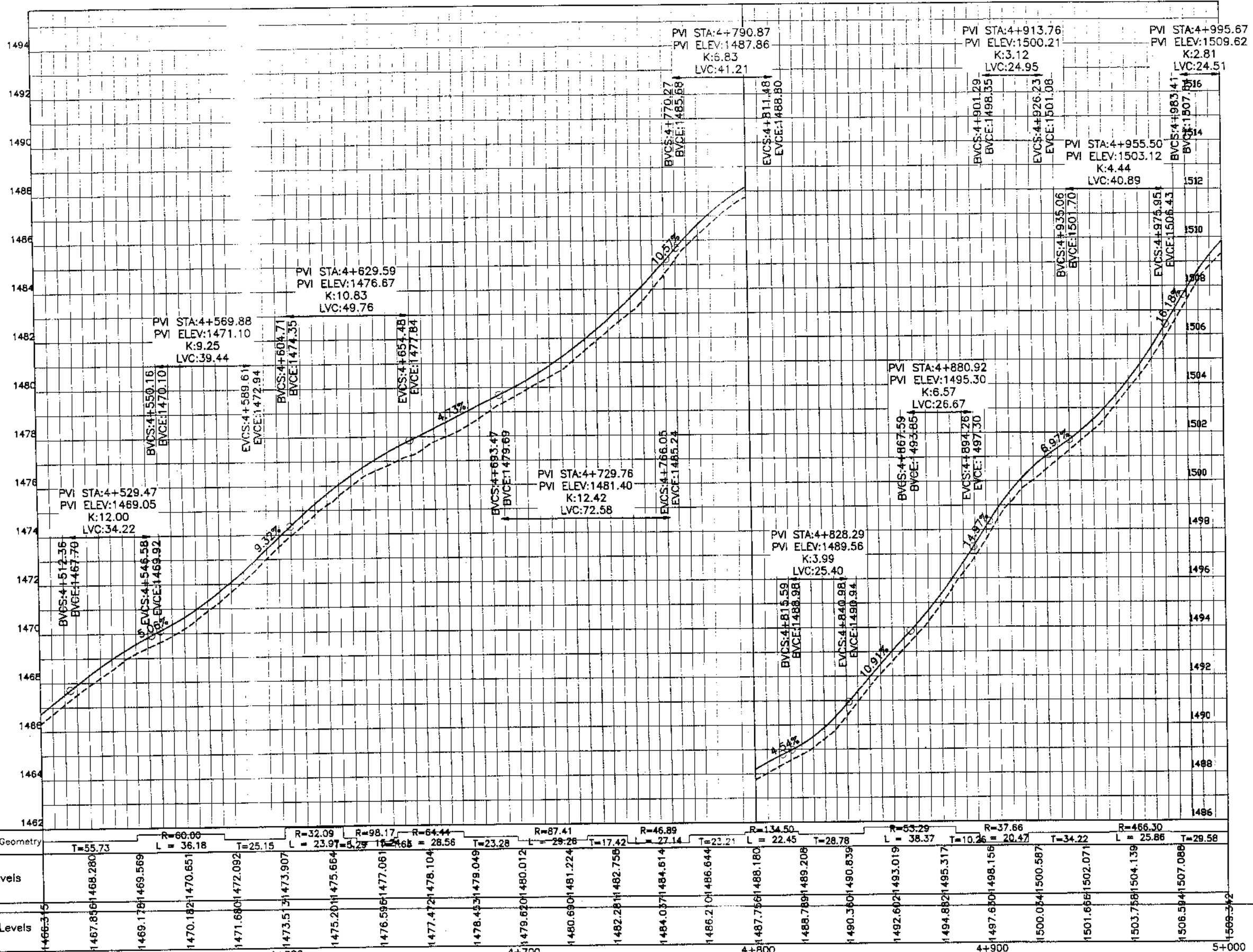
REV.	DATE	DESCRIPTION	APPROVED	APPROVED

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PLAN		SCALE
KM: 4+500 ~ KM: 5+000		1:1000
DATE	DWG NO.	
January 2021	4169/(ii)/TD/P 10	

DRAWN JUNAID KHAN
SUBMITTED NOSHERWAN NAEEM
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APPROVED

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REV.	DATE	DESCRIPTION	APPROVED

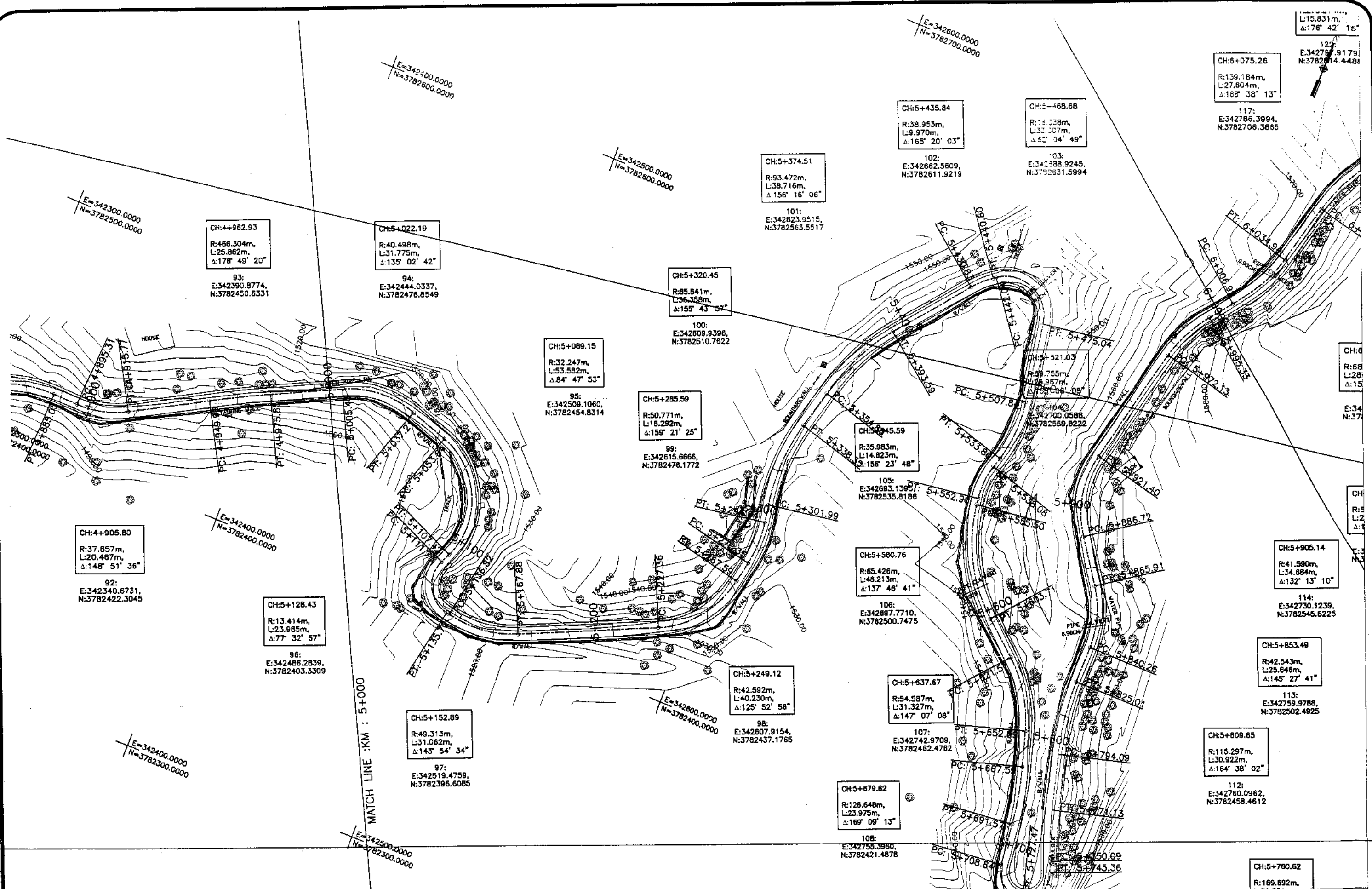
DRAWN: JUNAD KHAN
SUBMITTED: NOSHERWAN NADEM
RECOMMENDED:
CHD./VER:
APPROVED: APPROVED

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PROFILE
SCALE: 1:1000

DATE: January 2021
DWG NO.: 4169/(ii)/TD/P 010

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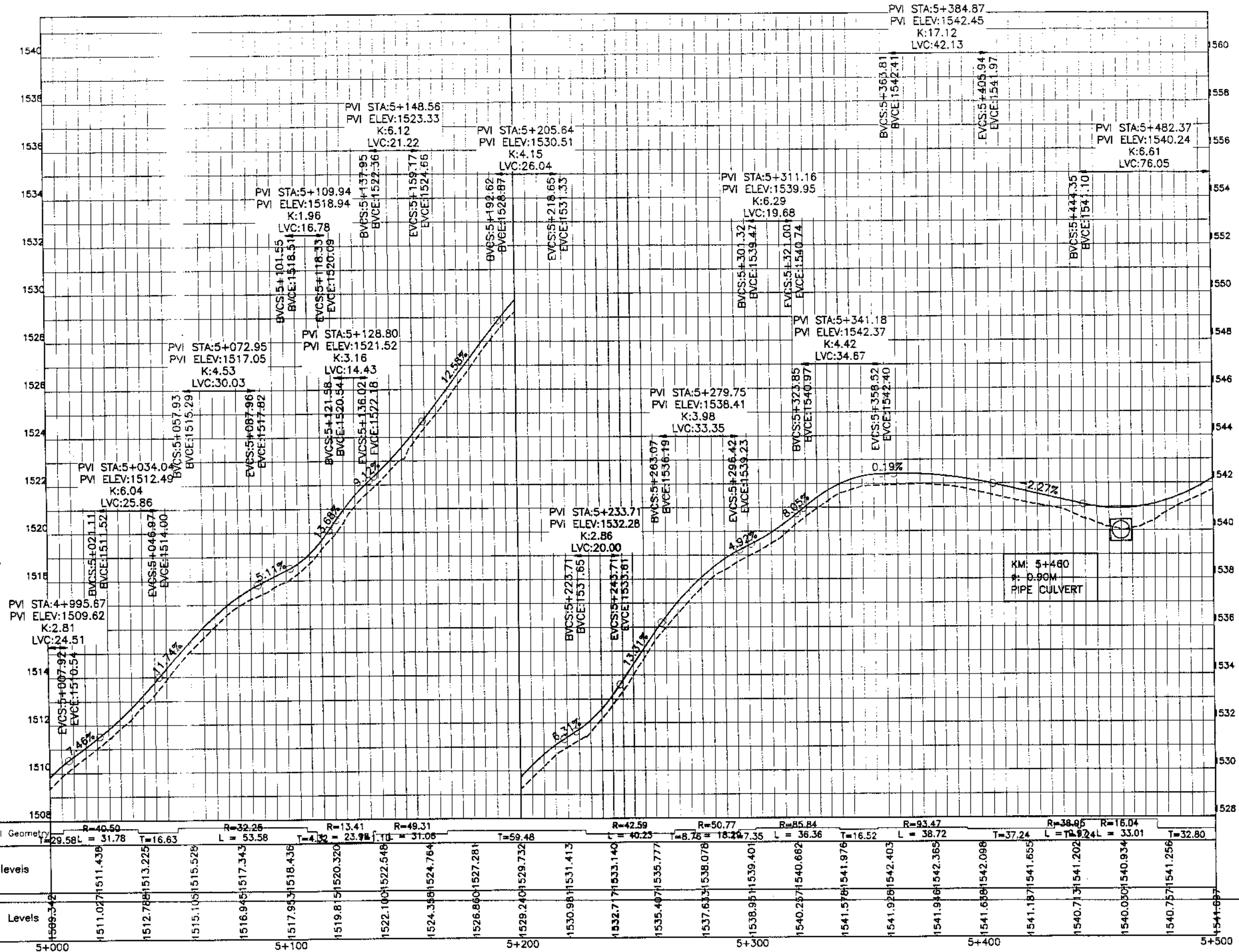
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REV.	DATE	DESCRIPTION	APPROVED	APPROVED

DRAWN JUNAD KHAN
SUBMITTED HOSHERWAN MAEEM
RECOMMENDED
CHD./VER.
REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM.

PLAN
KM: 5+000 ~ KM: 5+500
SCALE
1:1000
DATE
January 2021
DWG NO.
4169/(R)/TD/P 11

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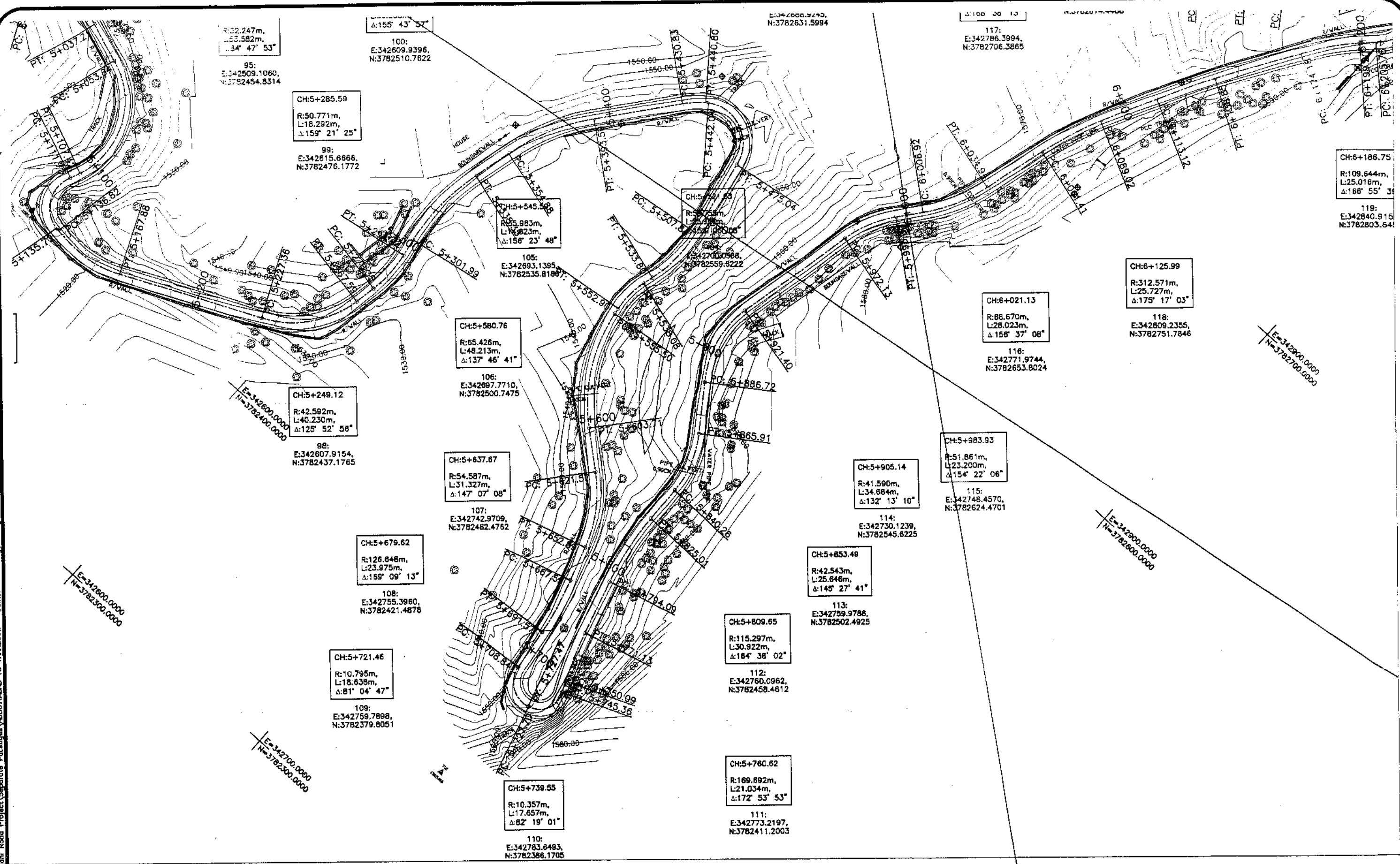
REV.	DATE	DESCRIPTION	APPROVED	APPROVED

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PROFILE KM: 5+000 ~ KM: 5+500		SCALE 1:1000
DATE January 2021	DWG NO. 4169/(ii)/TD/P 011	

DRAWN	JUNAID KHAN
SUBMITTED	NOSHERWAN MAJEED
RECOMMENDED	
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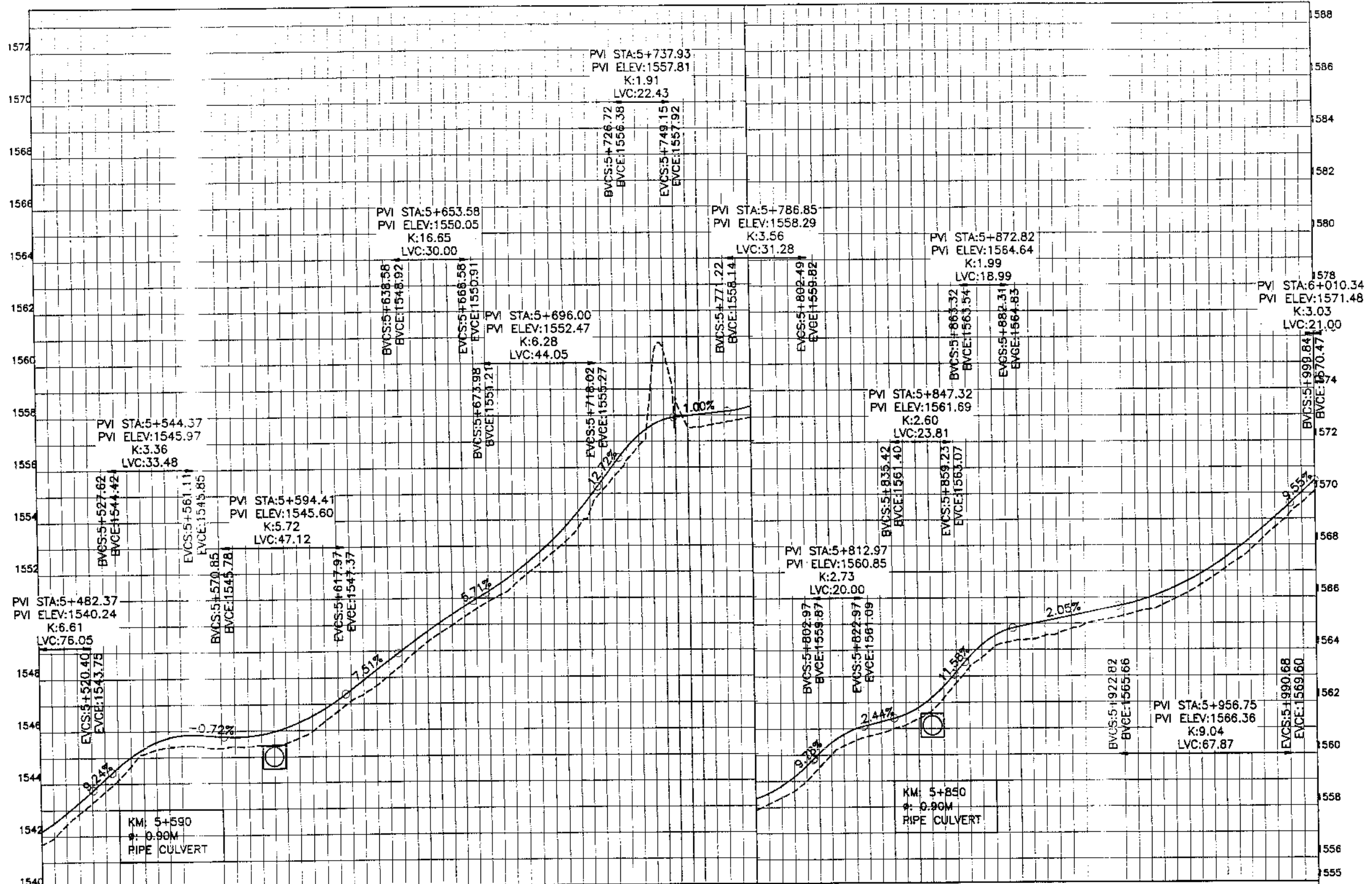
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REV.	DATE	DESCRIPTION	APPROVED

DRAWN	JUNAID KHAN
SUBMITTED	NOSHERWAN NAZEM
RECOMMENDED	
CHD./VER.	
APPROVED	

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24. KM.

PLAN		SCALE
KM: 5+500 ~ KM: 6+000		1:1000
DATE	DWG NO.	
January 2021	4169/(H)/TD/P 12	



Horizontal Geometry	R=59.76 L=32.86	R=35.98 L=25.97	R=65.43 L=48.21	R=54.59 L=31.33	R=126.65 L=23.98	R=10.80 L=17.27	R=10.38 L=17.24	R=169.69 L=21.03	R=115.30 L=30.92	R=42.54 L=25.65	R=41.56 L=34.65	R=51.86 L=23.20																																				
Design levels	1543.289	1543.716	1545.135	1545.336	1545.401	1545.852	1545.364	1545.782	1545.714	1546.307	1547.102	1547.527	1548.472	1549.028	1549.393	1551.121	1551.586	1552.757	1553.238	1555.125	1555.524	1559.411	1557.607	1557.531	1558.026	1557.903	1558.334	1559.013	1559.598	1560.557	1561.003	1561.137	1561.548	1562.750	1563.155	1564.285	1564.773	1564.621	1565.196	1565.130	1565.605	1565.695	1566.178	1566.783	1567.189	1568.259	1568.642	1570.084
Ground Levels	1541.687	1543.289	1545.135	1545.336	1545.401	1545.852	1545.364	1545.782	1545.714	1546.307	1547.102	1547.527	1548.472	1549.028	1549.393	1551.121	1551.586	1552.757	1553.238	1555.125	1555.524	1559.411	1557.607	1557.531	1558.026	1557.903	1558.334	1559.013	1559.598	1560.557	1561.003	1561.137	1561.548	1562.750	1563.155	1564.285	1564.773	1564.621	1565.196	1565.130	1565.605	1565.695	1566.178	1566.783	1567.189	1568.259	1568.642	1570.084



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DEPARTMENT, KPK

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REV.	DATE	DESCRIPTION	APPROVED

DRAWN JUNAID KHAN
SUBMITTED NOSHERWAN NAEEM
RECOMMENDED
CHD./VER.
APPROVED

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PROFILE		SCALE
		1:1000
DATE	DWG NO.	
January 2021	4169/(ii)/TD/P 012	

101:
E:342623.9515,
N:3782663.5517

CH:5+435.84
R:38.953m,
L:9.970m,
Δ:165° 20' 03"

102:
E:342662.5609,
N:3782611.9219

CH:5+468.68
R:16.038m,
L:33.007m,
Δ:62° 04' 49"

103:
E:342688.9245,
N:3782631.5994

CH:6+075.26
R:139.184m,
L:27.504m,
Δ:168° 38' 13"

117:
E:342766.3994,
N:3782706.3865

CH:6+399.65
R:14.126m,
L:39.212m,
Δ:20° 57' 05"

123:
E:342716.8412,
N:3782749.5047

CH:6+383.36
R:322.245m,
L:29.202m,
Δ:175° 20' 28"

124:
E:342766.0073,
N:3782833.4637

CH:6+457.23
R:339.129m,
L:28.789m,
Δ:175° 08' 22"

125:
E:342808.3978,
N:3782893.9767

CH:6+531.86
R:60.947m,
L:38.843m,
Δ:143° 29' 03"

126:
E:342845.8928,
N:3782958.5256

CH:6+295.77
R:275.214m,
L:15.831m,
Δ:176° 42' 15"

122:
E:342797.9179,
N:3782814.4488

CH:6+243.33
R:15.394m,
L:17.912m,
Δ:113° 19' 51"

121:
E:342842.5714,
N:3782846.1820

CH:6+021.13
R:66.670m,
L:28.023m,
Δ:156° 37' 08"

116:
E:342771.9744,
N:3782653.8024

CH:6+125.99
R:312.571m,
L:25.727m,
Δ:175° 17' 03"

118:
E:342809.2355,
N:3782751.7846

CH:6+186.75
R:109.644m,
L:25.016m,
Δ:166° 55' 39"

119:
E:342840.9155,
N:3782803.6458

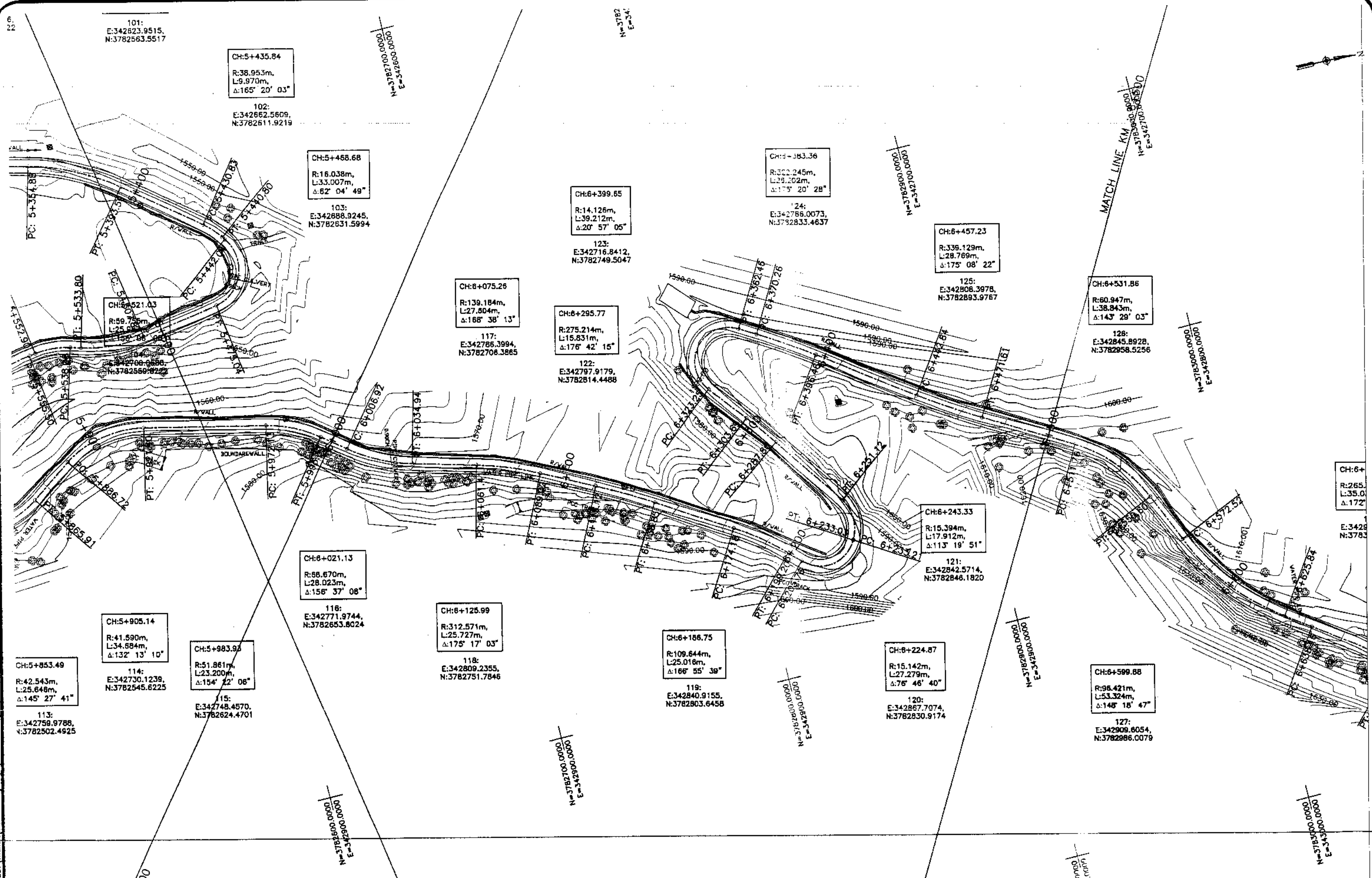
CH:6+224.87
R:15.142m,
L:27.279m,
Δ:76° 46' 40"

120:
E:342867.7074,
N:3782830.9174

CH:6+599.88
R:98.421m,
L:53.324m,
Δ:148° 18' 47"

127:
E:342908.6054,
N:3782886.0079

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DEPARTMENT, KPK

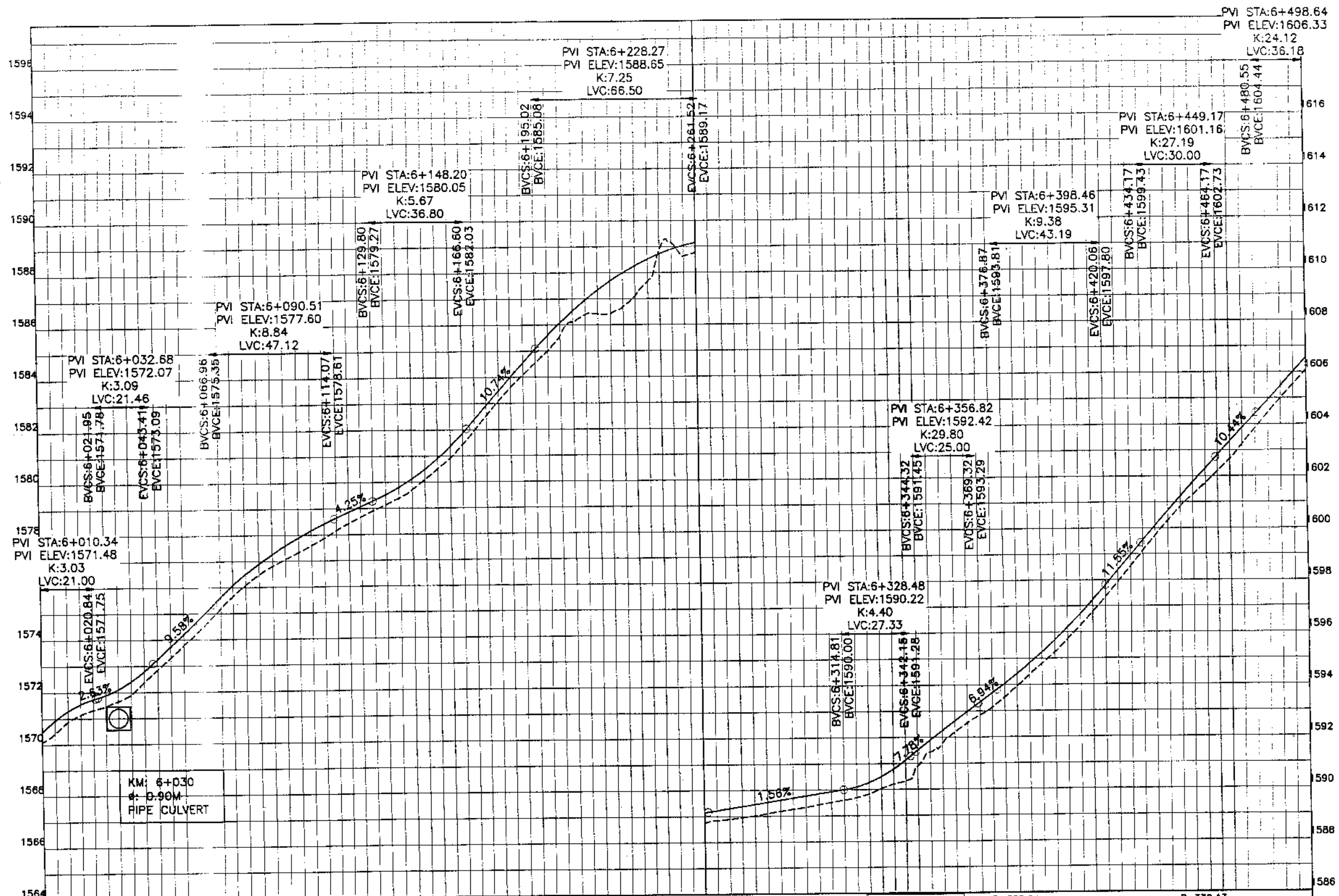
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REV.	DATE	DESCRIPTION	APPROVED	APPROVED

DRAWN: JUNAID KHAN
SUBMITTED: NOSHERWAN NAZEM
RECOMMENDED:
CHD./VER.
APPROVED:
REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM (PACKAGE-1)

SCALE: 1:1000
PLAN: KM: 6+000 ~ KM: 6+500
DATE: January 2021
DWG NO.: 4169/(ii)/TD/P 13

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Horizontal Geometry	R=68.67 L=11.59 T=28.02	R=139.18 L=27.60 T=24.10	R=312.57 L=25.73 T=35.34	R=109.64 L=25.02 T=27.28	R=15.14 L=17.91 T=17.91	R=15.39 L=17.91 T=17.91	R=275.21 L=15.83 T=19.57	R=14.13 L=39.21 T=7.79	R=322.24 L=28.20 T=28.20	R=339.13 L=28.77 T=40.15															
Design levels	1571.316 1571.731	1572.373 1572.786	1574.224 1574.682	1576.087 1576.502	1577.329 1577.896	1578.423 1578.857	1579.308 1579.798	1580.916 1581.360	1583.003 1583.469	1585.008 1585.598	1586.401 1587.333	1587.665 1588.515	1588.759 1589.145	1589.021 1589.458	1589.337 1589.771	1589.694 1590.113	1590.320 1591.116	1592.197 1592.625	1593.516 1594.033	1595.237 1595.701	1597.343 1597.796	1599.718 1600.099	1601.732 1602.291	1603.843 1604.383	
Ground Levels	1570.084	1571.316	1572.373	1574.224	1576.087	1577.329	1578.423	1579.308	1580.916	1583.003	1585.008	1586.401	1587.665	1588.759	1589.021	1589.337	1589.694	1590.320	1592.197	1593.516	1595.237	1597.343	1599.718	1601.732	1603.843



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REV.	DATE	DESCRIPTION	APPROVED	APPROVED

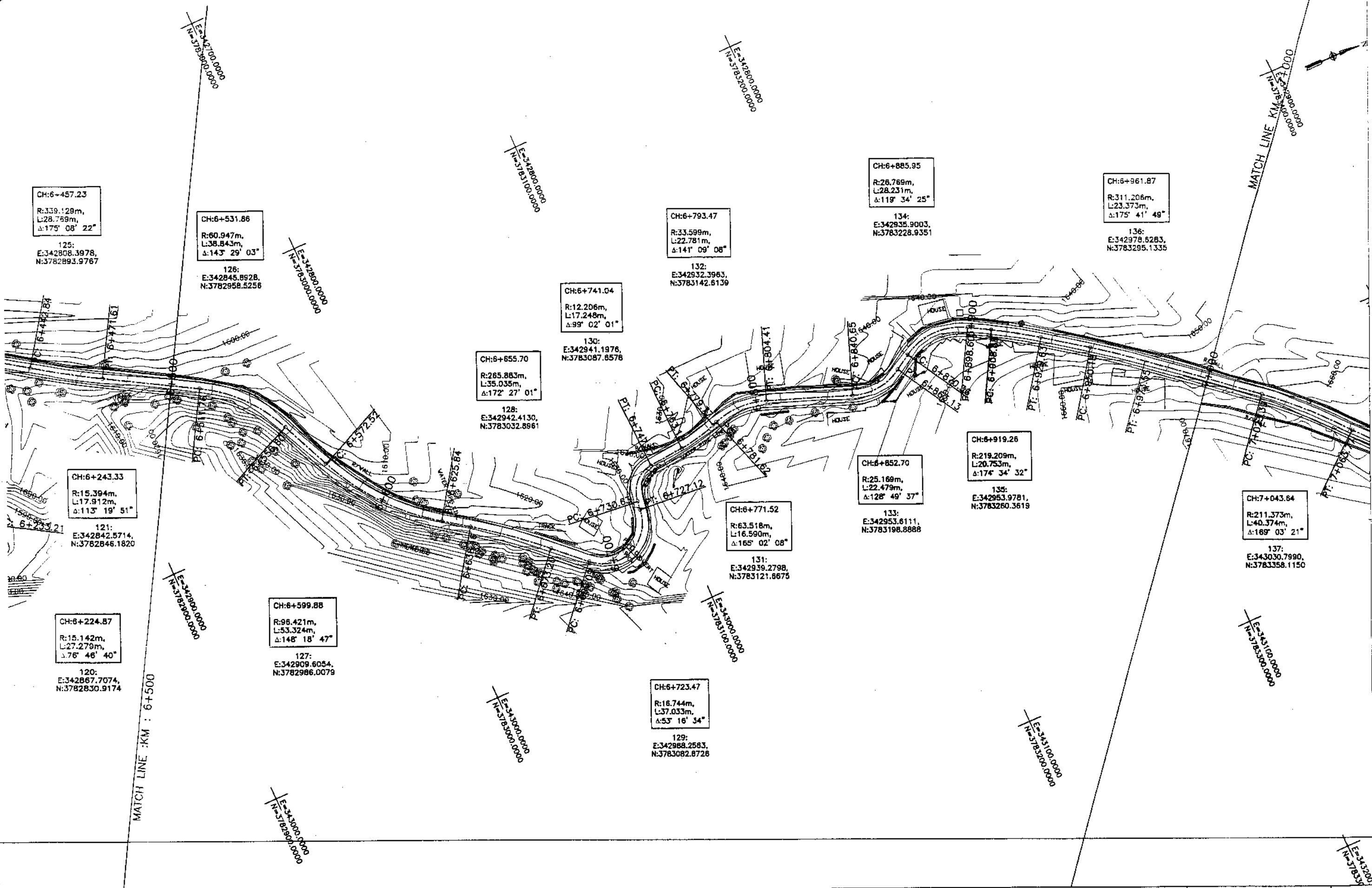
DRAWN: JUNAD KHAN
SUBMITTED: NOSHERWAN NAEEM
RECOMMENDED:
CHD./VER.
APPROVED:

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24. KM

PROFILE
SCALE: 1:1000

DATE: January 2021
DWG NO.: 4169/(ii)/TD/P 013

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REV.	DATE	DESCRIPTION	APPROVED	APPROVED

DRAWN JUNAID KHAN
SUBMITTED HOSHERWAN NAEEM
RECOMMENDED
CHD./VER.
APPROVED

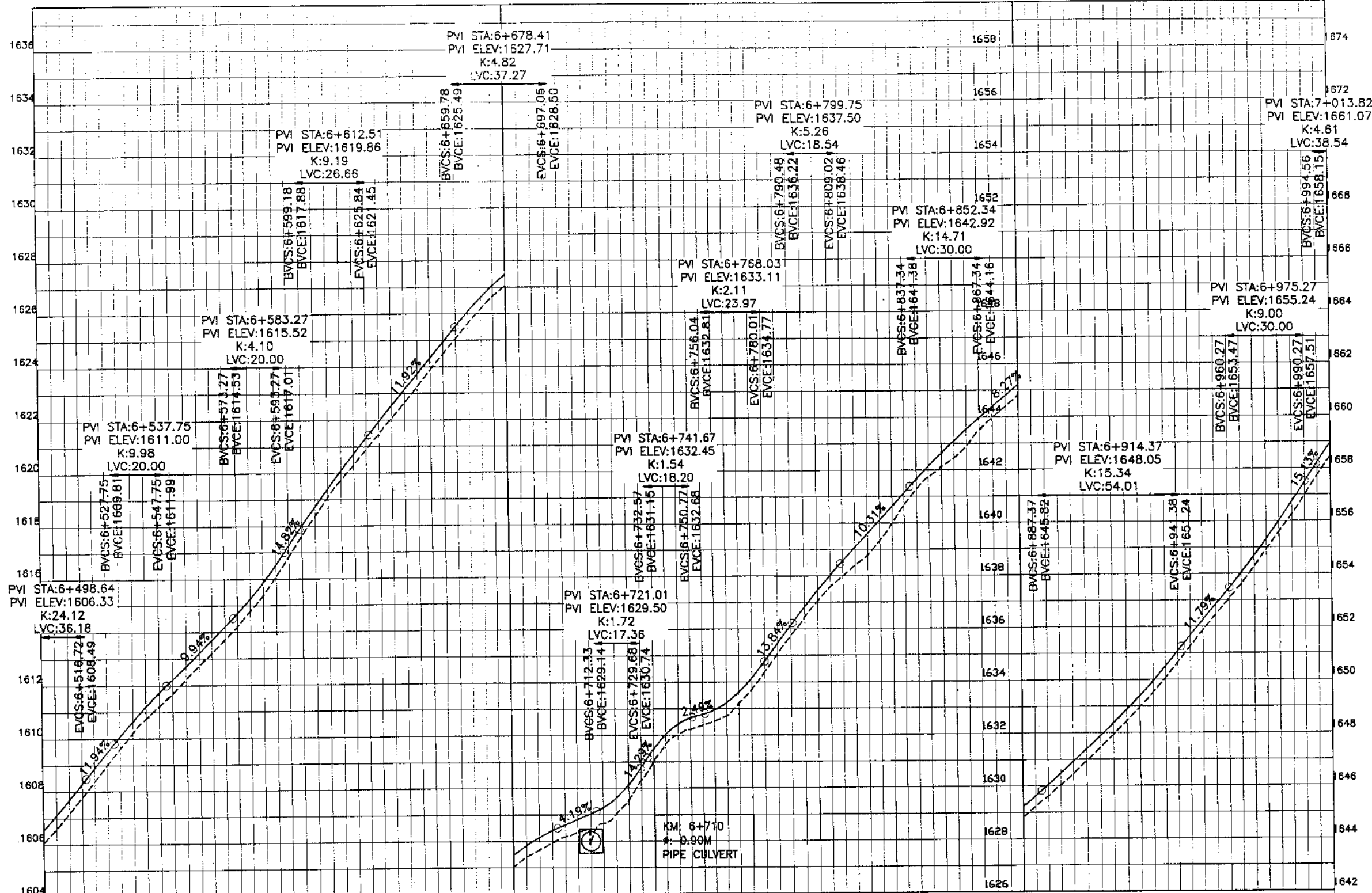
REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PLAN
KM: 6+500 ~ KM: 7+000
SCALE
1:1000

DATE
January 2021

DWG NO.
4169/(ii)/TD/P 14

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Horizontal Geometry	R=60.95 L=40.15	R=96.42 L=38.84	R=265.88 L=53.32	R=16.74 L=12.32	R=12.21 L=35.03	R=63.52 L=17.29	R=33.60 L=15.30	R=25.17 L=22.49	R=26.77 L=7.24	R=219.21 L=28.23	R=311.21 L=10.28														
Design levels	1608.881	1611.194	1613.212	1615.255	1618.004	1620.733	1623.135	1625.519	1627.480	1628.820	1629.530	1631.036	1632.947	1634.767	1637.448	1639.588	1641.648	1643.538	1645.211	1646.917	1648.887	1651.077	1653.435	1656.010	
Ground Levels	1606.097	1608.382	1610.732	1613.212	1614.792	1617.619	1620.310	1622.647	1625.060	1627.050	1628.175	1629.025	1631.666	1632.524	1634.351	1637.043	1638.771	1641.284	1642.895	1644.817	1646.457	1648.450	1650.653	1653.040	1655.598



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DEPARTMENT, KPK

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REV.	DATE	DESCRIPTION	APPROVED	APPROVED

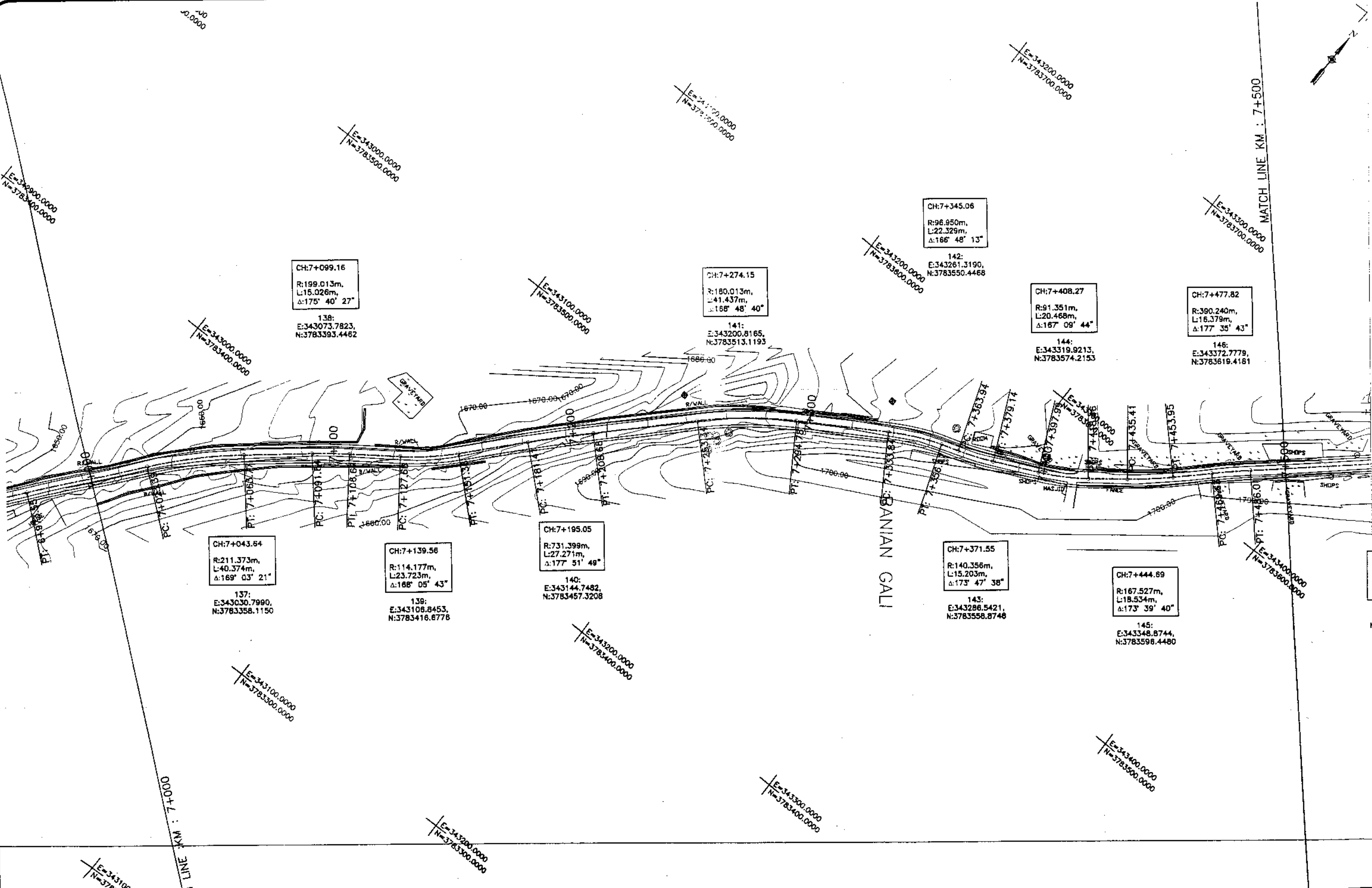
DRAWN JUNAID KHAN
SUBMITTED NOSHERWAN NAEEM
RECOMMENDED
CHD./VER.
APPROVED

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PROFILE
KM: 6+500 ~ KM: 7+000
SCALE 1:1000

DATE January 2021
DWG NO. 4169/(ii)/TD/P 014

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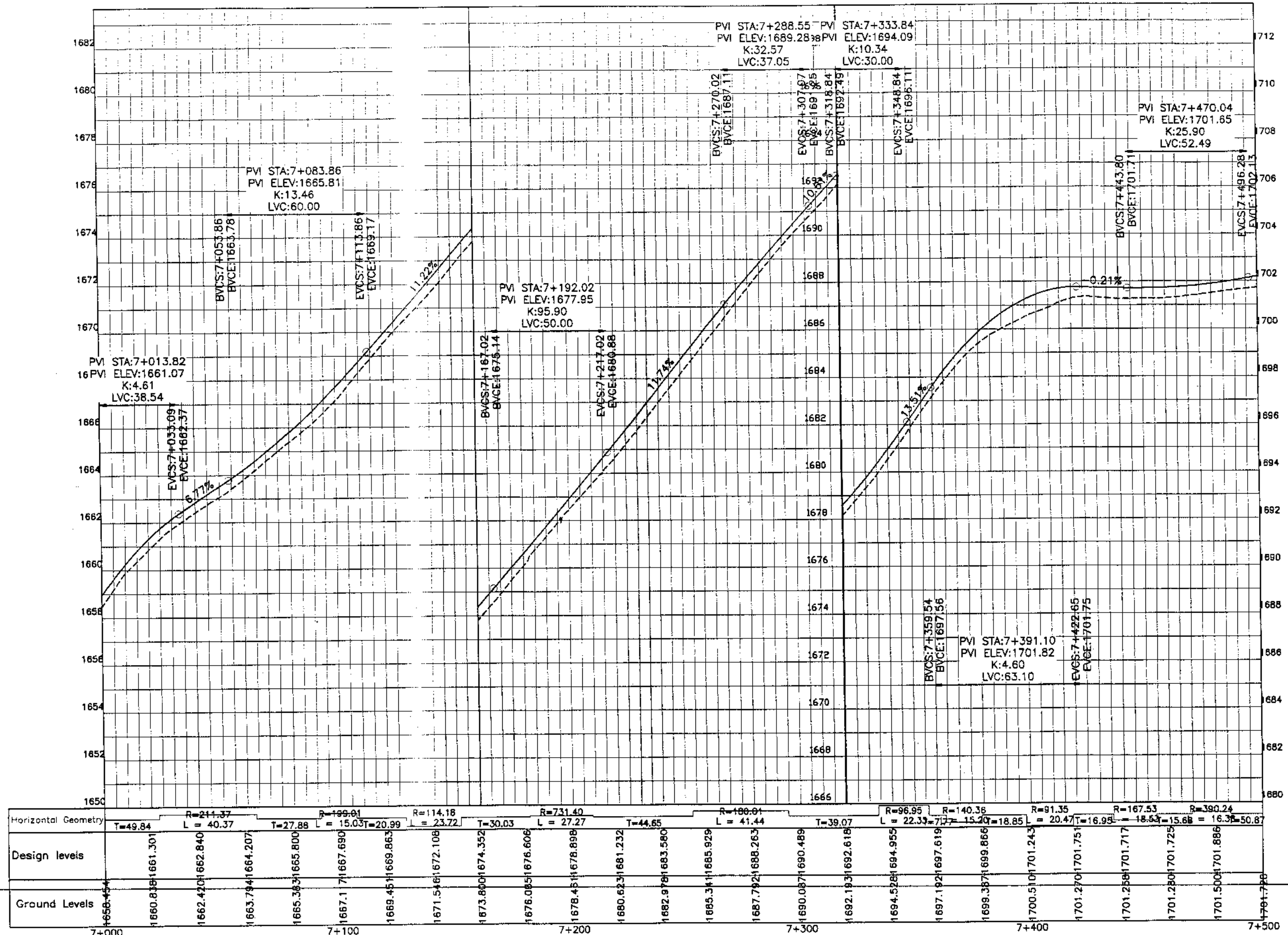
REV.	DATE	DESCRIPTION	APPROVED	APPROVED

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PLAN		SCALE
KM: 7+000 ~ KM: 7+500		1:1000
DATE	DWG NO.	
January 2021	4169/(R)/TD/P 15	



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INTEGRATED TOURISM AND
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PROJECT
COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK

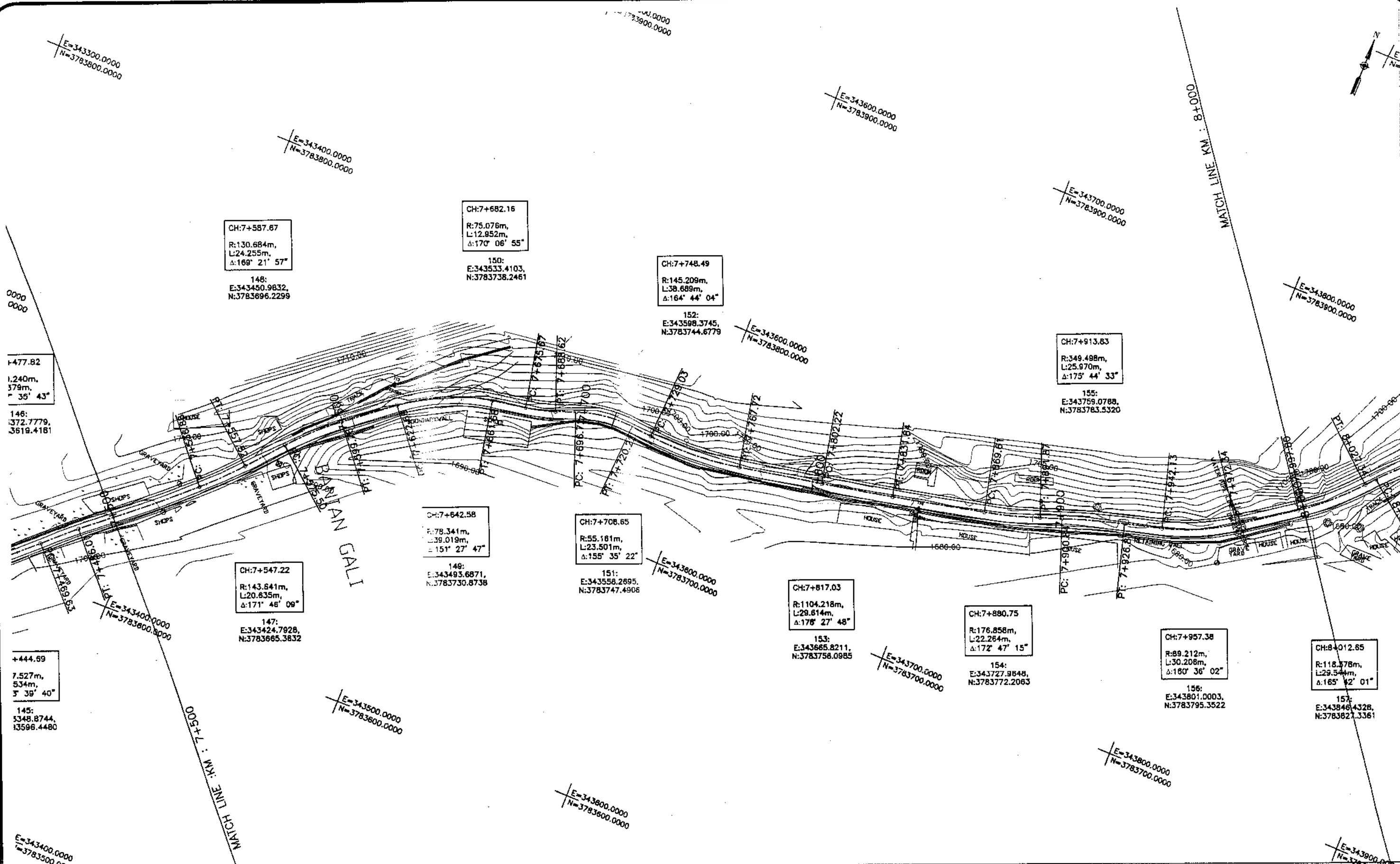
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PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PROFILE
SCALE
1:1000
DATE
January 2021
DWG NO.
4169/(ii)/TD/P 015

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INTEGRATED TOURISM AND
ENTERPRISE DEVELOPMENT
PROJECT
COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK

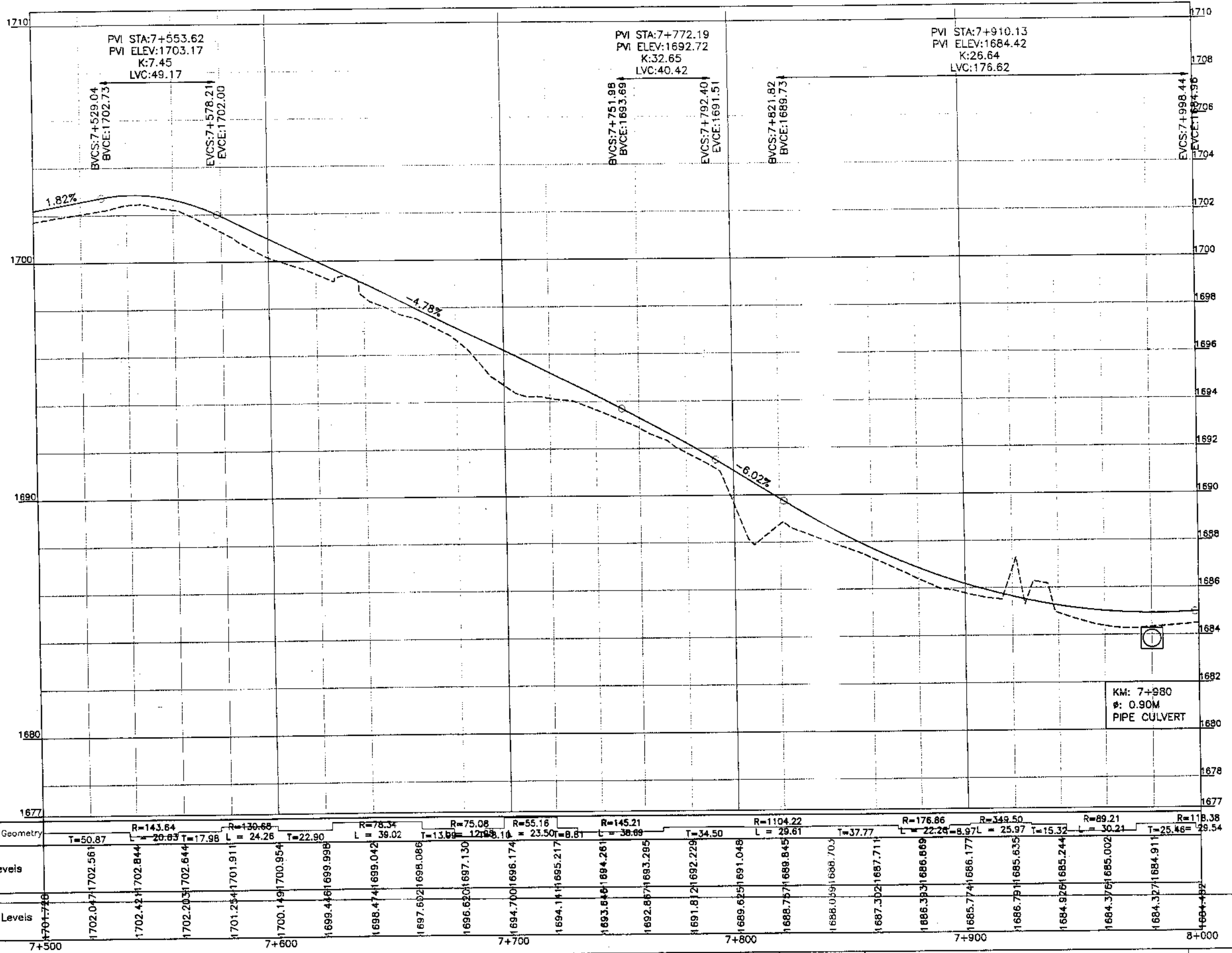
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REV.	DATE	DESCRIPTION	APPROVED	APPROVED

DRAWN JUNAID KHAN
SUBMITTED NOSHERWAN NAEEM
RECOMMENDED
CHD./VER.
REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM.

PLAN		SCALE
KM: 7+500 ~ KM: 8+000		1:1000
DATE	DWG. NO.	
January 2021	4169/(11)/TD/P 16	

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KM: 7+980
 Ø: 0.90M
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 COMMUNICATION & WORKS (C&W)
 DEPARTMENT, KPK

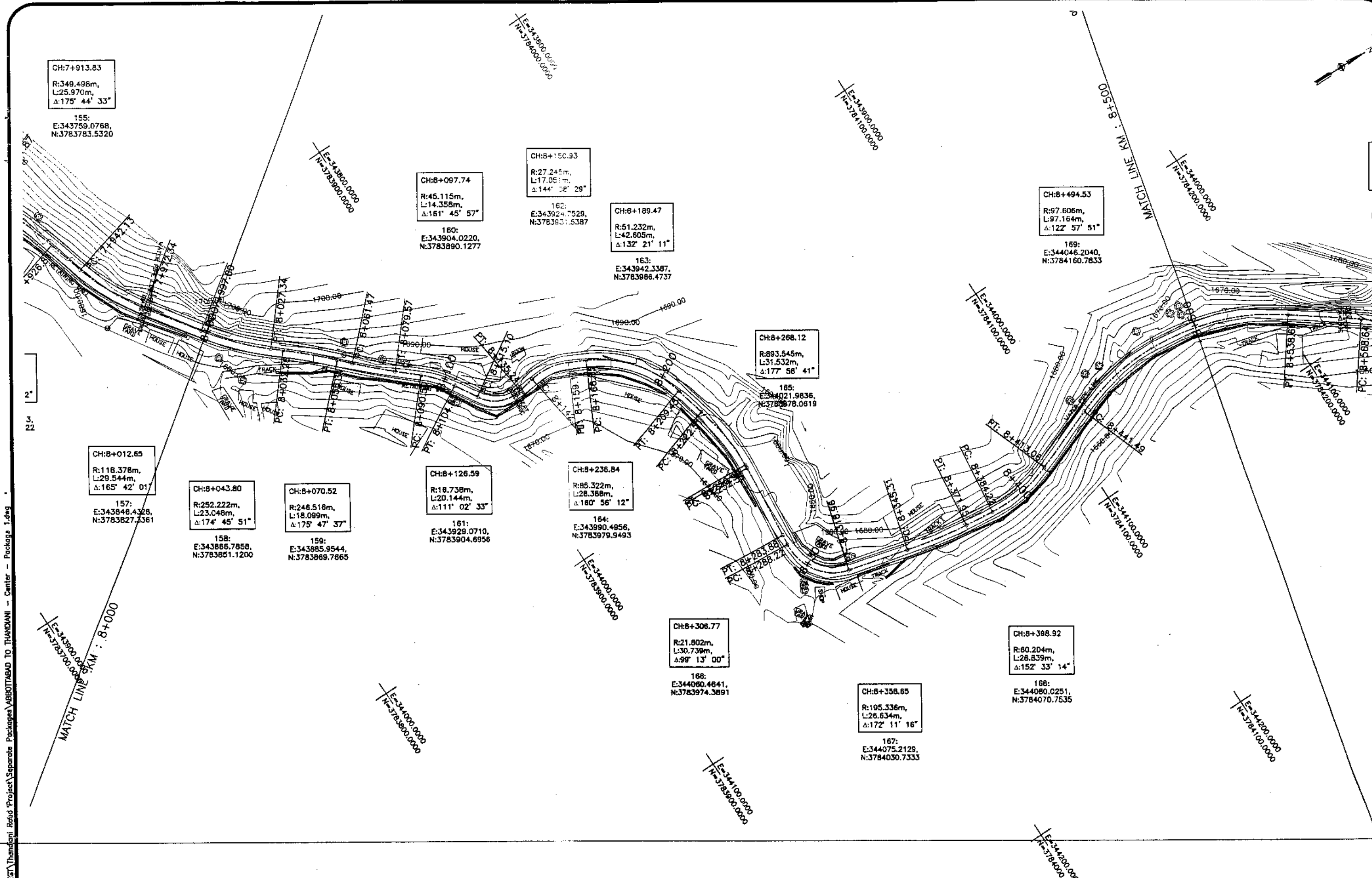
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REV.	DATE	DESCRIPTION	APPROVED

REHABILITATION AND UPGRADATION OF
 THANDIANI ROAD IN DISTRICT
 ABBOTTABAD - 24 KM

PROFILE		SCALE
KM: 7+500 ~ KM: 8+000		1:1000
DATE	DWG NO.	
January 2021	4169/(ii)/TD/P 016	

DRAWN	JUNAD KHAN
SUBMITTED	NOSHERWAN NAEEM
RECOMMENDED	
CHD./VER.	
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INTEGRATED TOURISM AND
ENTERPRISE DEVELOPMENT
PROJECT
COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK

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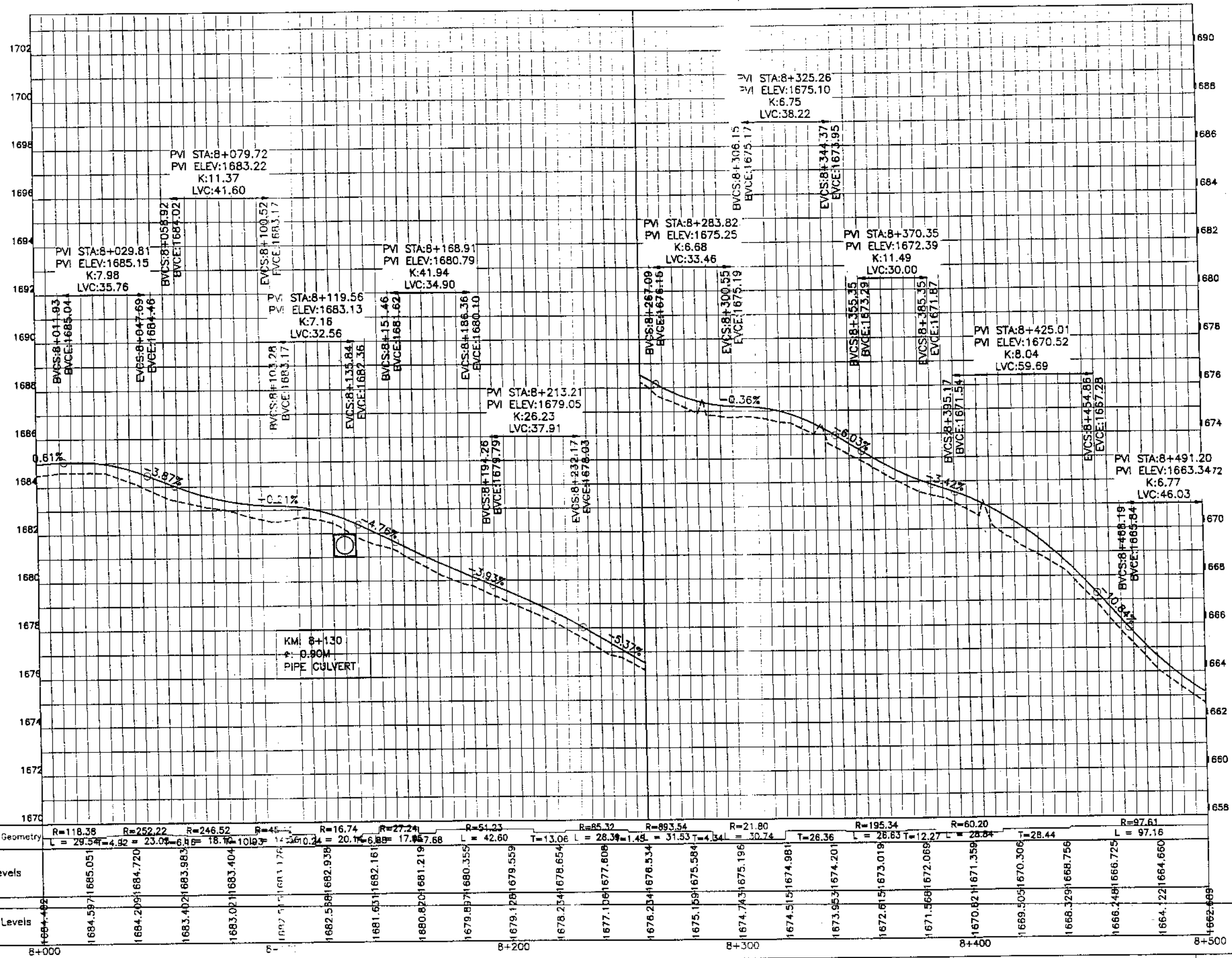
REV.	DATE	DESCRIPTION	APPROVED	APPROVED

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PLAN		SCALE
KM: 8+000 ~ KM: 8+500		1:1000
DATE	DWG NO.	
January 2021	4189/(11)/TD/P 17	

DRAWN	JUNAD KHAN
SUBMITTED	MOSHERWAN NAEEM
RECOMMENDED	
CHD./VER.	

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INTEGRATED TOURISM AND
ENTERPRISE DEVELOPMENT
PROJECT
COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK



NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

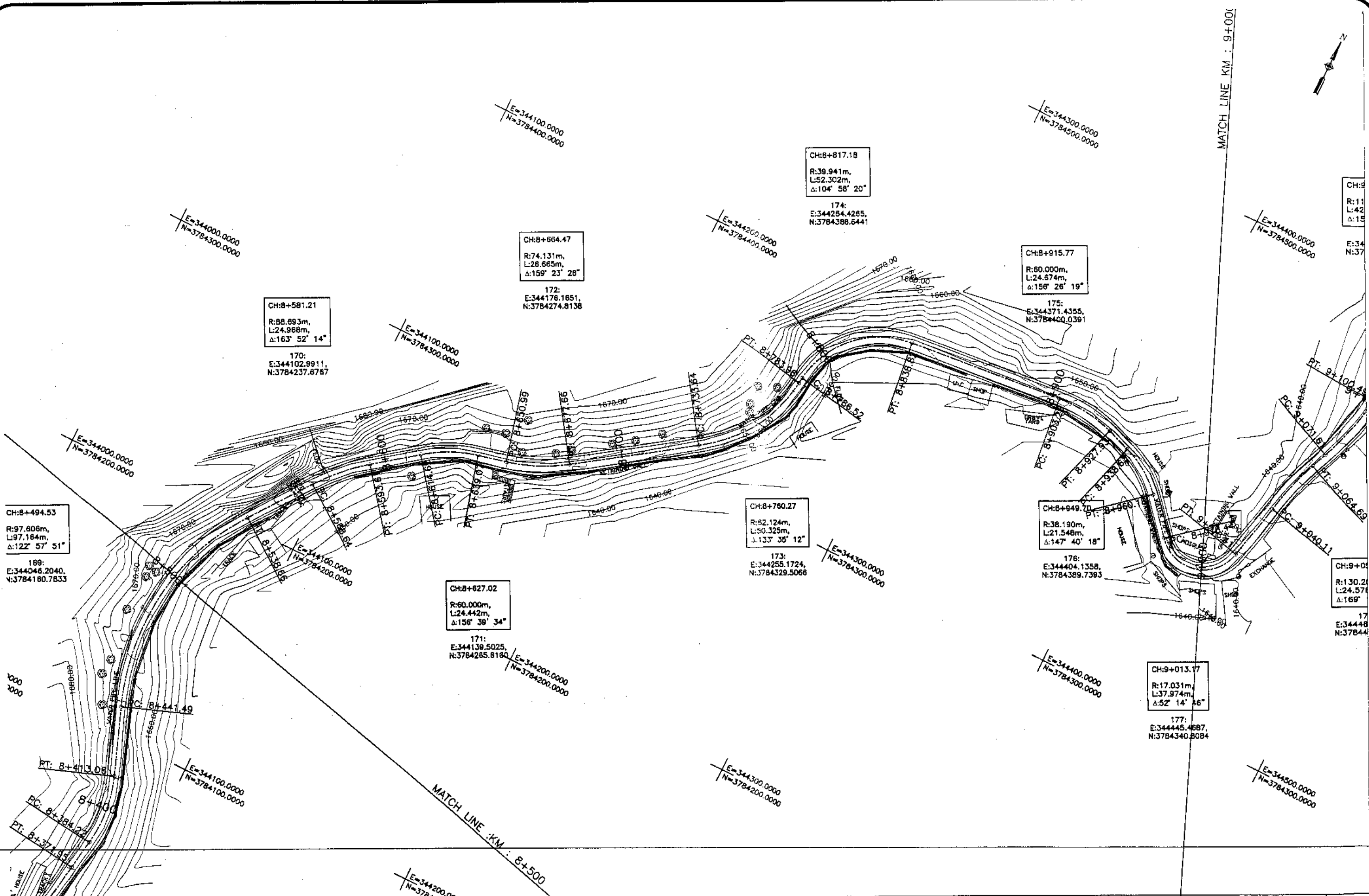
REV.	DATE	DESCRIPTION	APPROVED

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM.

PROFILE		SCALE
KM: 8+000 ~ KM: 8+500		1:1000
DATE	DWG NO.	
January 2021	4169/(ii)/TD/P 017	

DRAWN	JUNAD KHAN
SUBMITTED	NOSHERWAN NAEEM
RECOMMENDED	
CHD./VER.	
APPROVED	

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COMMUNICATION & WORKS (C&W) DEPARTMENT, KPK

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NATIONAL ENGINEERING SERVICES PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED

DRAWN JUNAID KHAN
SUBMITTED NOSHERWAN NAEEM
RECOMMENDED
CHD./VER.
APPROVED

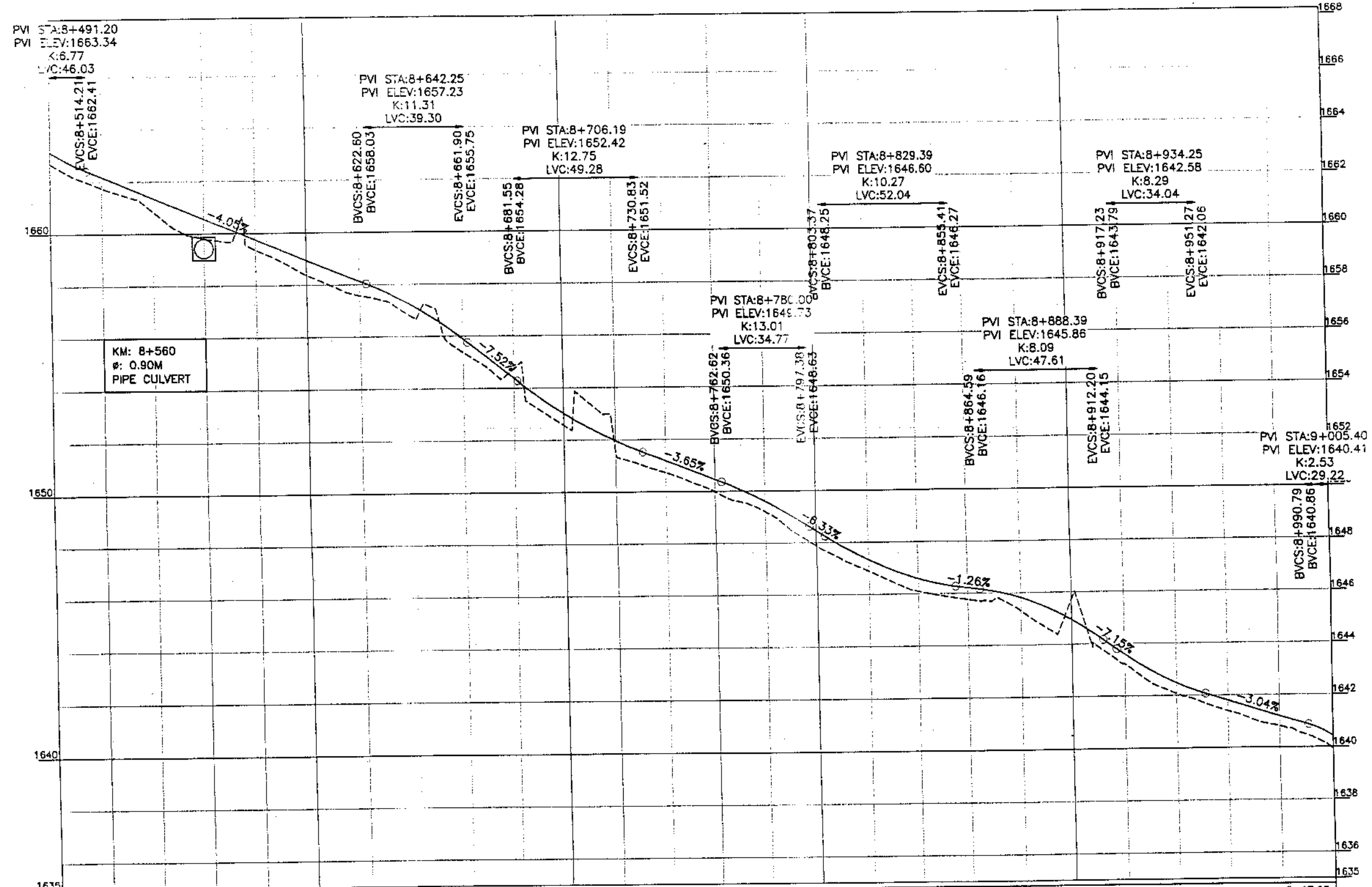
REHABILITATION AND UPGRADATION OF THANDIANI ROAD IN DISTRICT ABBOTTABAD - 24 KM

PLAN
 KM: 8+500 ~ KM: 9+000
SCALE
 1:1000

DATE January 2021
DWG NO. 4169/(ii)/TD/P 18



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Horizontal Geometry	R=97.61 L = 97.16	T=29.99	R=88.68 L = 24.97	T=21.01	R=60.00 L = 24.44	T=11.93	R=74.13 L = 26.68	T=55.98	R=62.12 L = 50.32	T=2.50	R=39.94 L = 52.30	T=64.44	R=60.00 L = 24.67	T=10.70	R=38.19 L = 21.55	T=18.25	R=17.03 L = 37.97																															
Design levels	1661.75	1662.177	1660.872	1661.368	1659.806	1660.559	1659.358	1659.750	1658.370	1658.947	1657.572	1658.132	1656.713	1657.189	1655.376	1655.895	1654.723	1654.392	1652.568	1653.022	1651.537	1651.984	1650.726	1651.187	1649.979	1650.456	1649.210	1647.869	1648.460	1646.887	1647.329	1646.094	1646.562	1645.761	1646.214	1645.307	1645.815	1645.113	1644.934	1643.309	1643.601	1642.075	1642.480	1641.394	1641.794	1640.808	1641.186	1639.836
Ground Levels	1662.689	1662.177	1660.872	1661.368	1659.806	1660.559	1659.358	1659.750	1658.370	1658.947	1657.572	1658.132	1656.713	1657.189	1655.376	1655.895	1654.723	1654.392	1652.568	1653.022	1651.537	1651.984	1650.726	1651.187	1649.979	1650.456	1649.210	1647.869	1648.460	1646.887	1647.329	1646.094	1646.562	1645.761	1646.214	1645.307	1645.815	1645.113	1644.934	1643.309	1643.601	1642.075	1642.480	1641.394	1641.794	1640.808	1641.186	1639.836



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DEPARTMENT, KPK

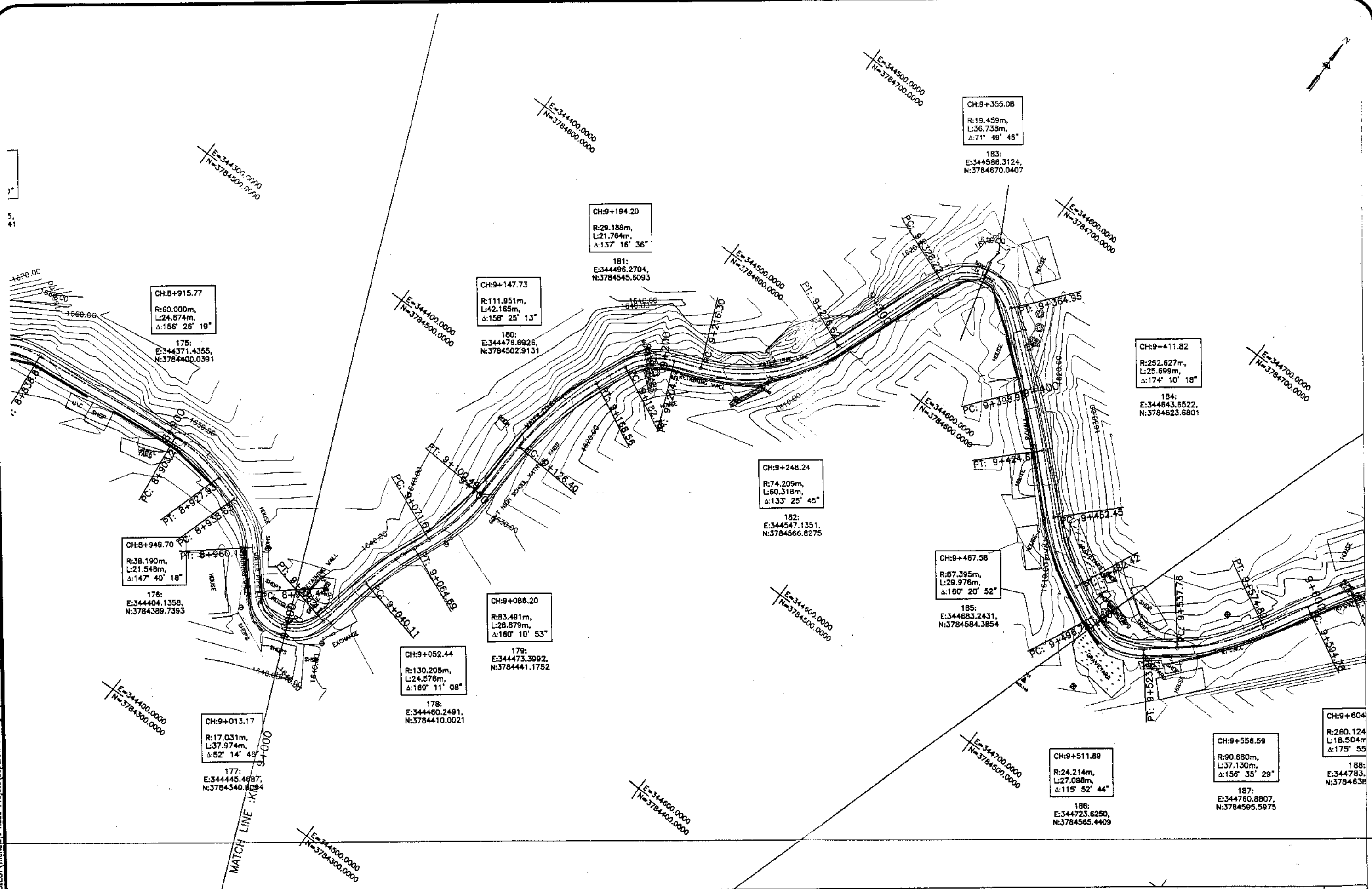
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REV.	DATE	DESCRIPTION	APPROVED	APPROVED

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PROFILE KM: 8+500 ~ KM: 9+000		SCALE 1:1000
DATE January 2021	DWG NO. 4169/(ii)/TD/P 018	

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INTEGRATED TOURISM AND
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COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK

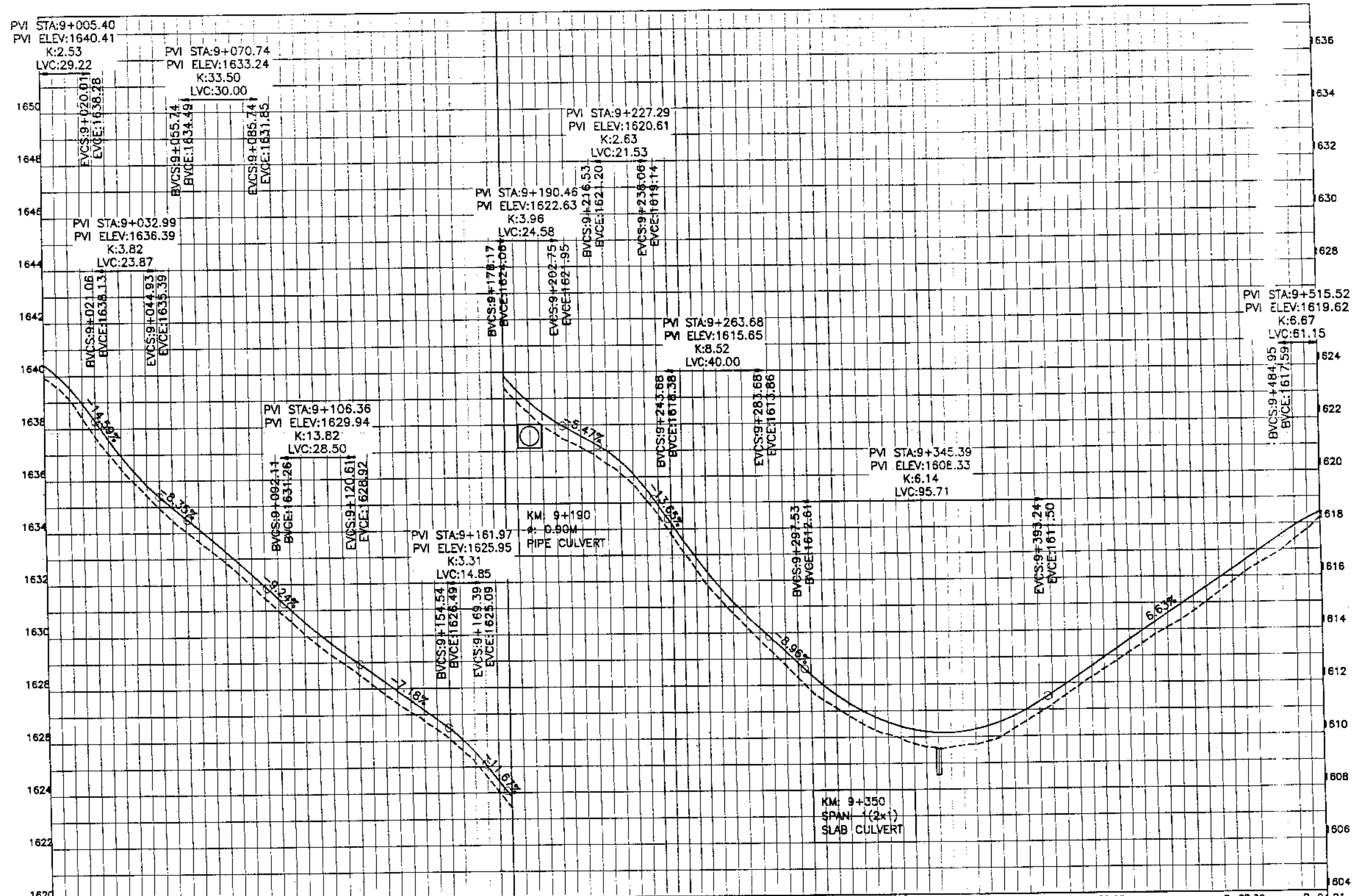
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NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED

DRAWN	JUNAID KHAN
SUBMITTED	NOSHERWAN NAEEM
RECOMMENDED	
CHD./VER.	
APPROVED	

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PLAN		SCALE
KM: 9+000 ~ KM: 9+500		1:1000
DATE	DWG NO.	
January 2021	4169/(ii)/TD/P 19	



Station	Horizontal Geometry	Design Levels	Ground Levels
9+000	R=17.03 L=37.97 T=23.70	1639.90	1639.90
9+025	R=130.21 L=24.58 T=6.92	1637.68	1638.28
9+050	R=83.49 L=28.88 T=25.90	1635.43	1635.83
9+075	R=111.85 L=42.17 T=14.22	1633.64	1634.13
9+100	R=29.19 L=21.76 T=11.78	1631.93	1632.37
9+125	R=74.21 L=60.32 T=51.59	1630.09	1630.55
9+150	R=15.45 L=36.74 T=34.01	1628.55	1628.96
9+175	R=252.63 L=25.70 T=27.78	1627.07	1627.53
9+200	R=87.39 L=29.98 T=14.93	1625.69	1626.04
9+225	R=24.21 L=14.93 T=7.10	1623.42	1623.85
9+250		1621.64	1622.15
9+275		1620.50	1620.98
9+300		1618.49	1618.87
9+325		1615.80	1616.30
9+350		1613.72	1614.19
9+375		1611.78	1612.39
9+400		1610.51	1611.01
9+425		1609.75	1610.28
9+450		1609.67	1610.18
9+475		1610.28	1610.78
9+500		1611.53	1611.95
		1612.82	1613.27
		1614.08	1614.60
		1615.41	1615.93
		1616.70	1617.25



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DEPARTMENT, KPK

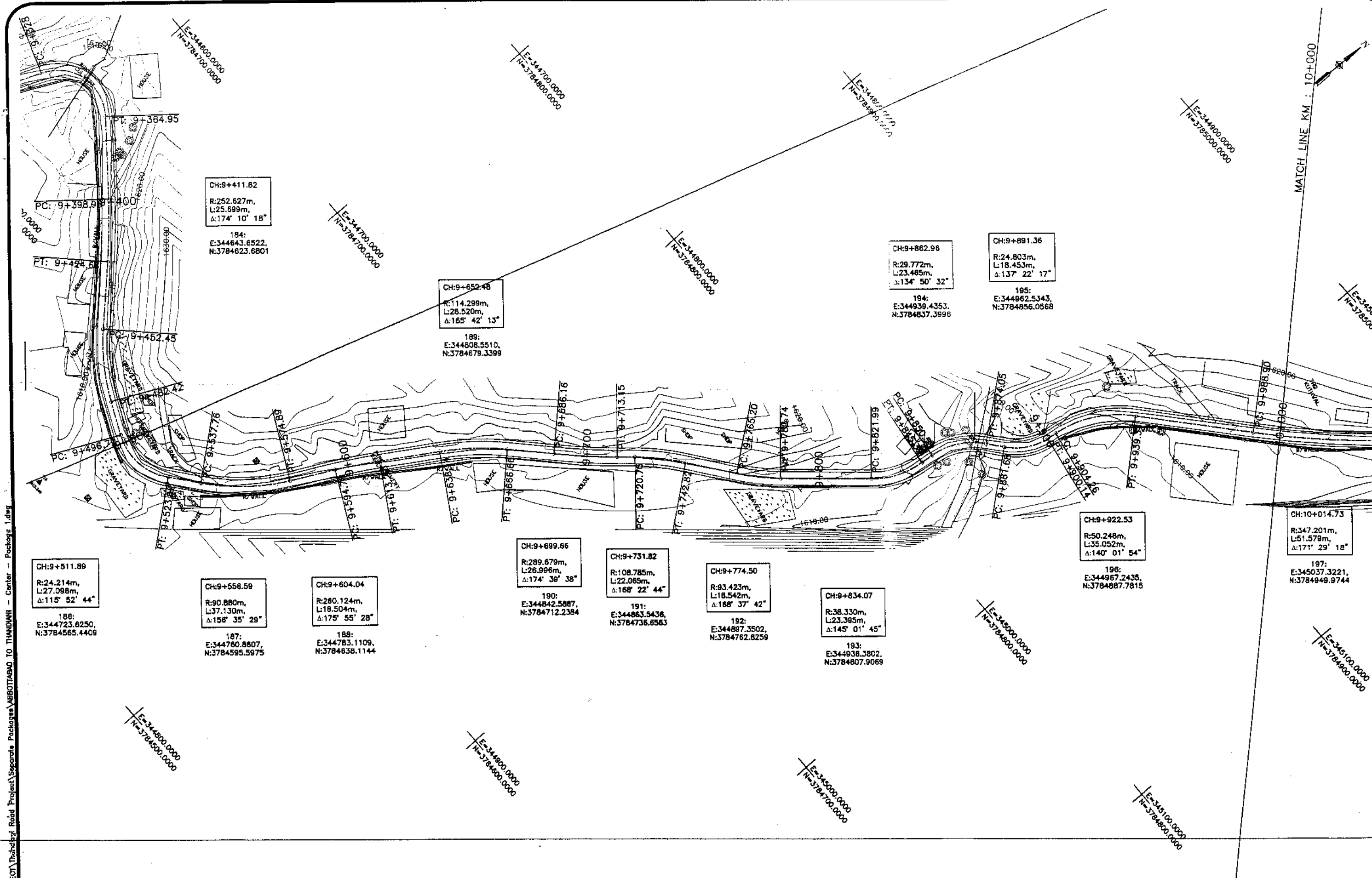
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REV.	DATE	DESCRIPTION	APPROVED

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PROFILE		SCALE
KM: 9+000 ~ KM: 9+500		1:1000
DATE	DWG NO.	
January 2021	4169/(ii)/TD/P 019	

DRAWN	JUNAID KHAN
SUBMITTED	NOSHERWAN NAEM
RECOMMENDED	
CHK./VER.	
APPROVED	



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CH:9+511.89
R:24.214m,
L:27.098m,
Δ:115° 52' 44"
186:
E:344723.6250,
N:3784565.4409

CH:9+556.59
R:90.880m,
L:37.130m,
Δ:156° 35' 29"
187:
E:344760.8807,
N:3784595.5975

CH:9+604.04
R:260.124m,
L:18.504m,
Δ:175° 55' 28"
188:
E:344783.1109,
N:3784638.1144

CH:9+699.66
R:289.679m,
L:26.996m,
Δ:174° 39' 38"
190:
E:344842.5887,
N:3784712.2384

CH:9+731.82
R:108.785m,
L:22.065m,
Δ:168° 22' 44"
191:
E:344863.5436,
N:3784736.8563

CH:9+774.50
R:93.423m,
L:16.542m,
Δ:168° 37' 42"
192:
E:344897.3502,
N:3784762.6259

CH:9+834.07
R:38.330m,
L:23.395m,
Δ:145° 01' 45"
193:
E:344938.3802,
N:3784807.9069

CH:9+922.53
R:50.248m,
L:35.052m,
Δ:140° 01' 54"
196:
E:344967.2435,
N:3784887.7815

CH:10+014.73
R:347.201m,
L:51.578m,
Δ:171° 29' 18"
197:
E:345037.3221,
N:3784949.9744



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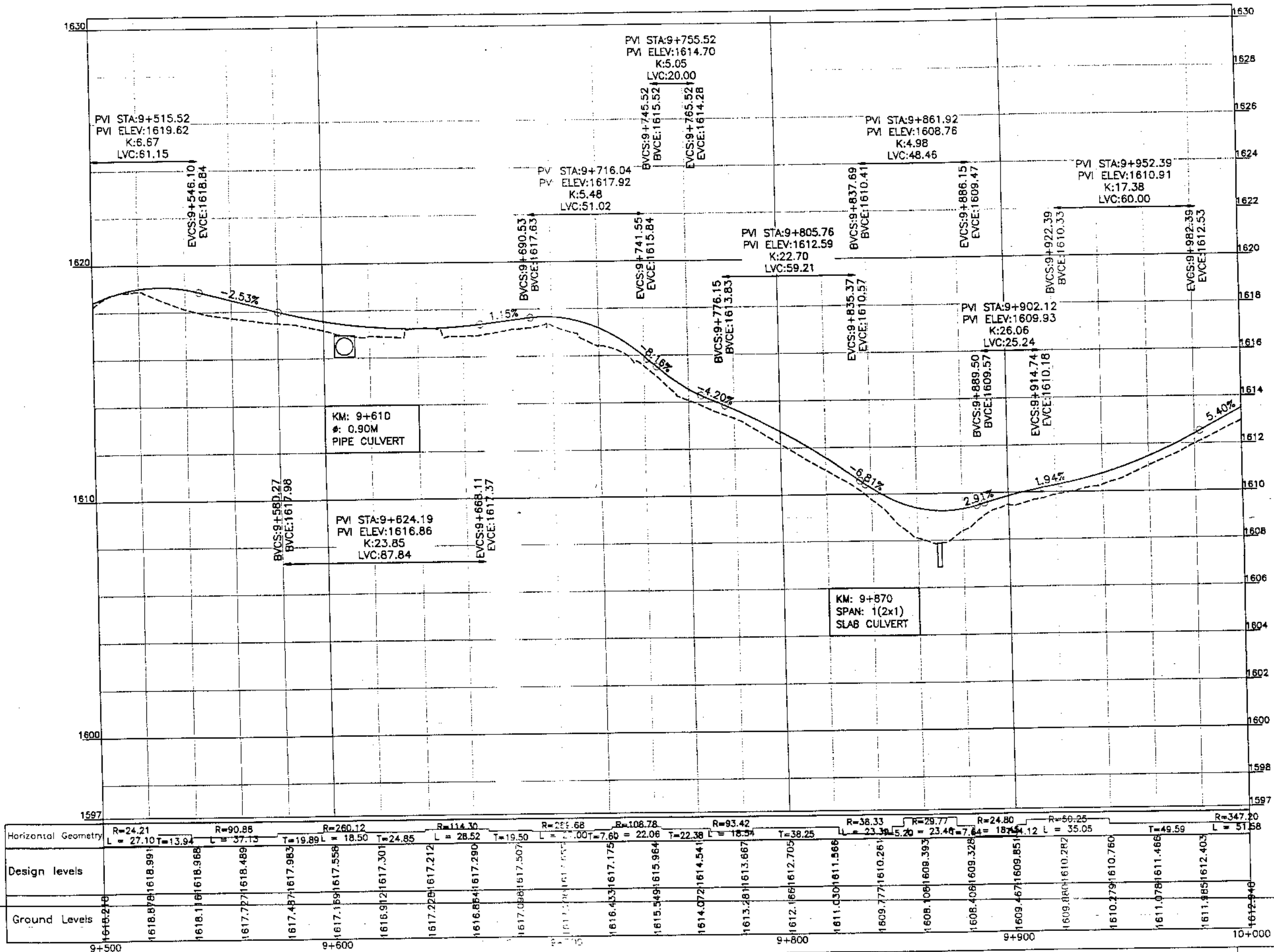
REV.	DATE	DESCRIPTION	APPROVED	APPROVED

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PLAN		SCALE
KM: 9+500 ~ KM: 10+000		1:1000
DATE	DWG NO.	
January 2021	4168/(11)/TD/P 20	

DRAWN	JUNAID KHAN
SUBMITTED	MOSHERWAN NAEEM
RECOMMENDED	
CHD./VER.	
APPROVED	

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PROJECT
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DEPARTMENT, KPK

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REV.	DATE	DESCRIPTION	APPROVED	APPROVED

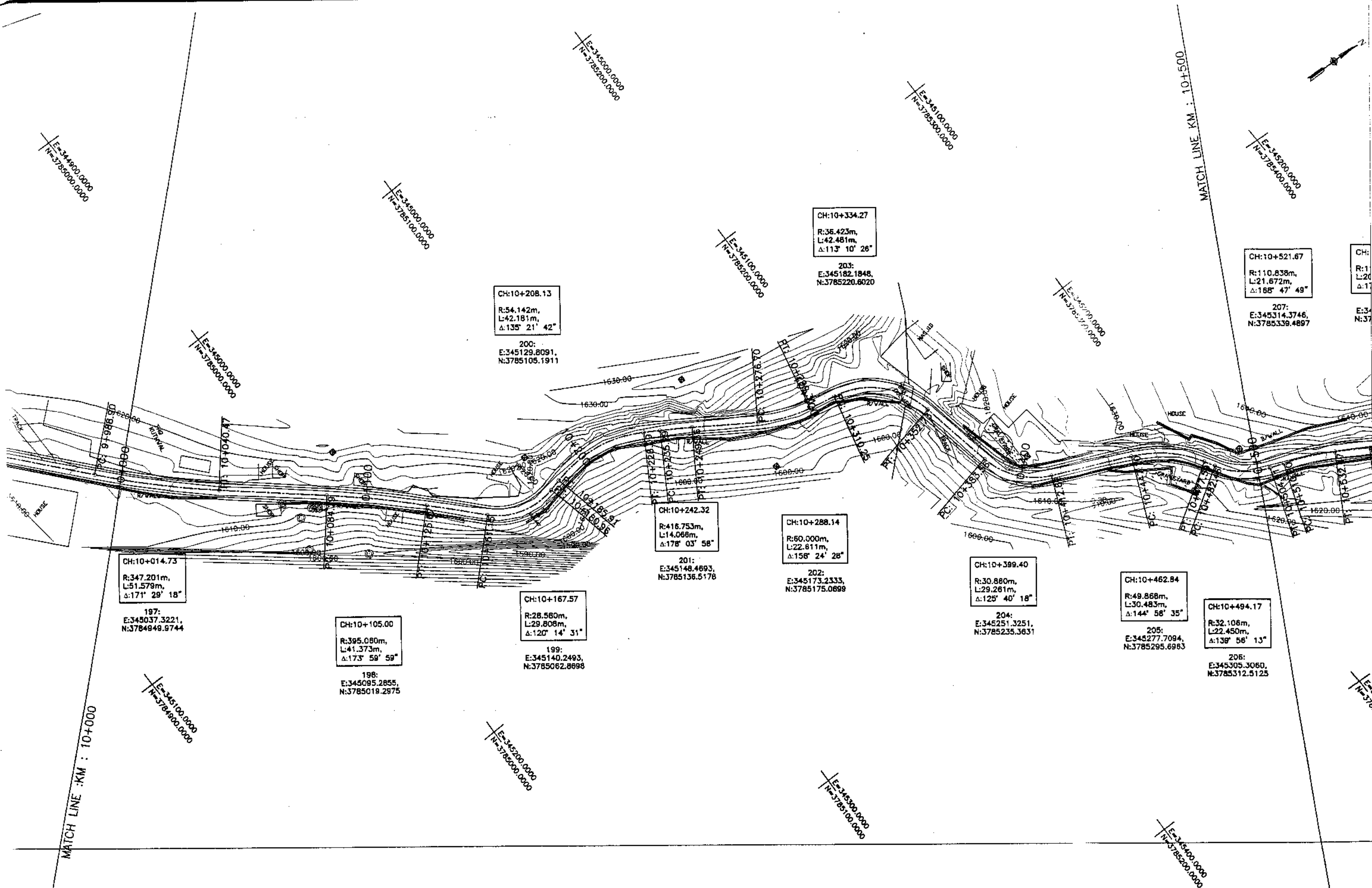
DRAWN: JUNAD KHAN
SUBMITTED: NOSHERWAN NAEEM
RECOMMENDED:
CHD./VER.:
APPROVED:

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PROFILE
KM: 9+500 ~ KM: 10+000
SCALE: 1:1000

DATE: January 2021
DWG NO.: 4169/(ii)/TD/P 020

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DEPARTMENT, KPK



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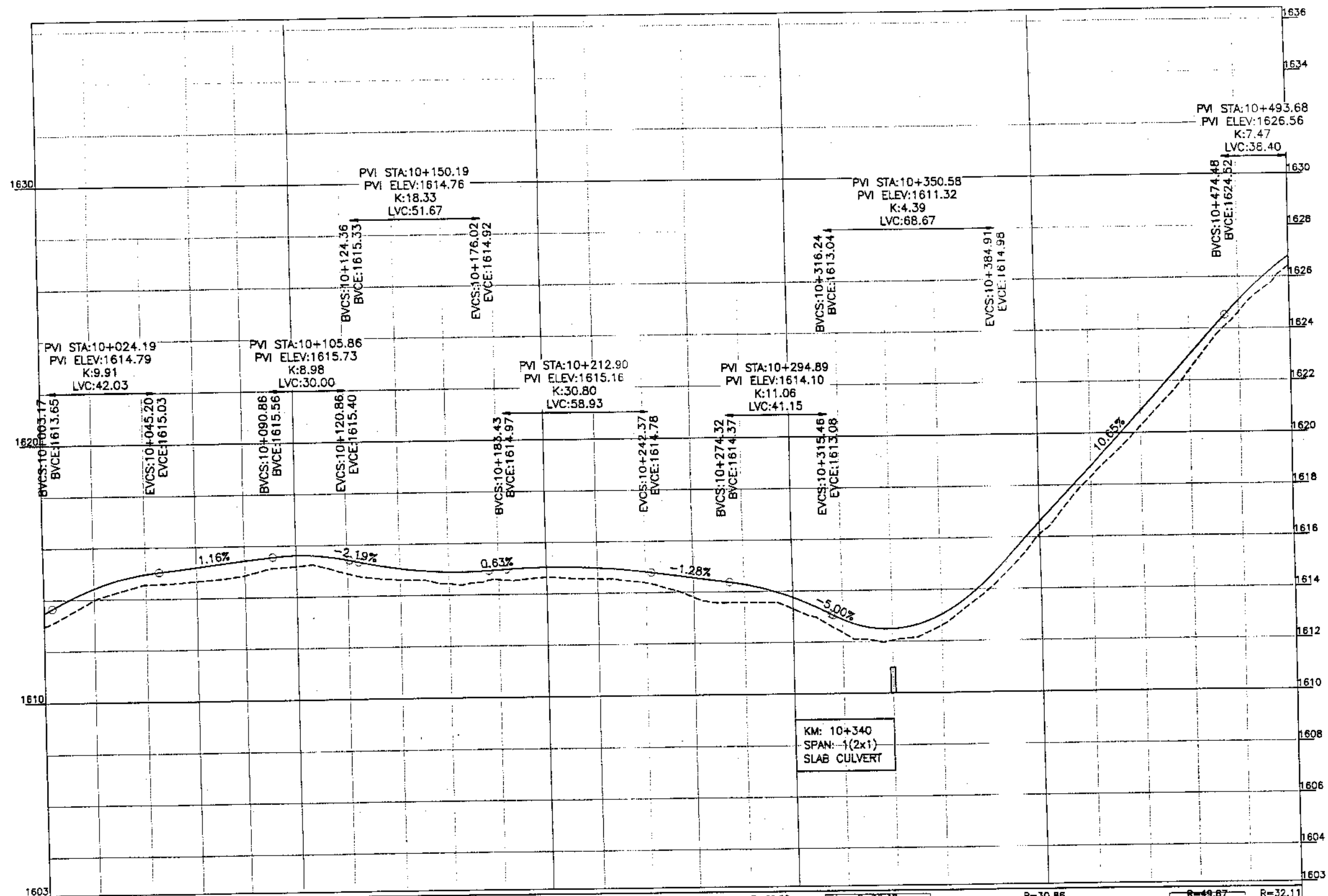
REV.	DATE	DESCRIPTION	APPROVED	APPROVED

REHABILITATION AND UPGRADEMENT OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PLAN		SCALE
KM: 10+000 ~ KM: 10+500		1:1000
DATE	DWG NO.	
January 2021	4169/(ii)/TD/P 21	

DRAWN	JUNAD KHAN
SUBMITTED	MOSHERWAN NAEEM
RECOMMENDED	
CHD./VER.	
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Horizontal Geometry	R=347.20 L=51.58	T=43.82	R=395.06 L=41.37	T=25.49	R=28.58 L=29.81	T=4.94	R=54.14 L=42.18	T=7.26	R=416.75 L=22.61	T=10.93	R=60.00 L=42.48	T=30.83	R=30.86 L=29.26	T=34.28	R=49.67 L=30.48	T=41.87	R=32.11 L=22.45																															
Design levels	1613.970	1614.418	1614.552	1614.956	1614.682	1615.200	1614.859	1615.431	1615.190	1615.616	1614.880	1615.420	1614.601	1615.050	1614.439	1614.893	1614.568	1614.949	1614.643	1615.030	1614.557	1614.984	1614.386	1614.808	1613.792	1614.552	1613.571	1614.281	1613.286	1613.741	1612.361	1612.865	1612.036	1612.492	1612.608	1613.030	1614.033	1614.481	1616.108	1616.583	1618.302	1618.714	1620.253	1620.844	1622.405	1622.974	1624.632	1625.094
Ground Levels	1612.940	1613.970	1614.552	1614.956	1614.682	1615.200	1614.859	1615.431	1615.190	1615.616	1614.880	1615.420	1614.601	1615.050	1614.439	1614.893	1614.568	1614.949	1614.643	1615.030	1614.557	1614.984	1614.386	1614.808	1613.792	1614.552	1613.571	1614.281	1613.286	1613.741	1612.361	1612.865	1612.036	1612.492	1612.608	1613.030	1614.033	1614.481	1616.108	1616.583	1618.302	1618.714	1620.253	1620.844	1622.405	1622.974	1624.632	1625.094



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REV.	DATE	DESCRIPTION	APPROVED	APPROVED

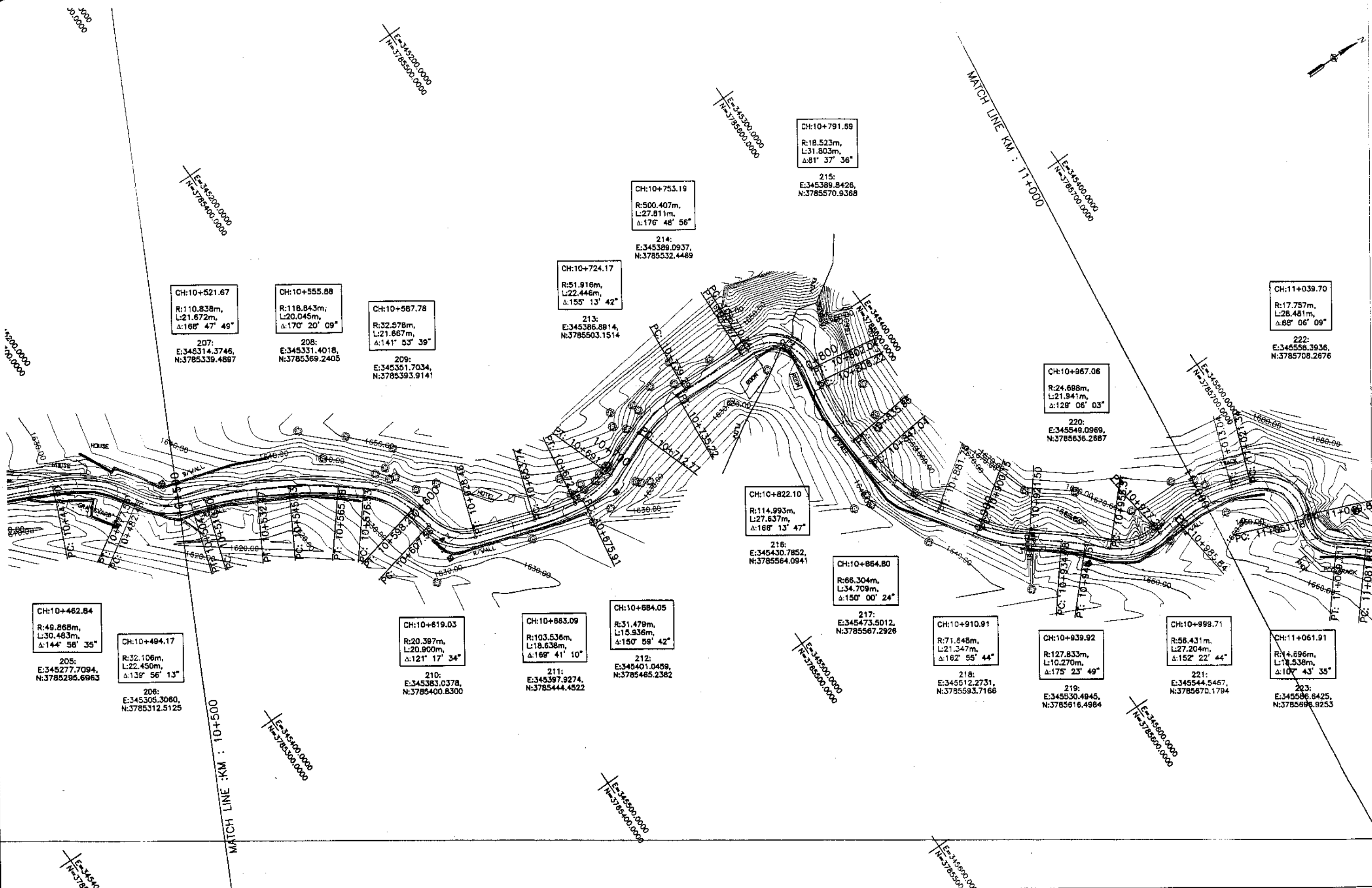
DRAWN JUNAID KHAN
SUBMITTED NOSHERWAN NAEEM
RECOMMENDED
CHD./VER.
APPROVED

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PROFILE
KM: 10+000 ~ KM: 10+500
SCALE 1:1000

DATE January 2021
DWG NO. 4169/(ii)/TD/P 021

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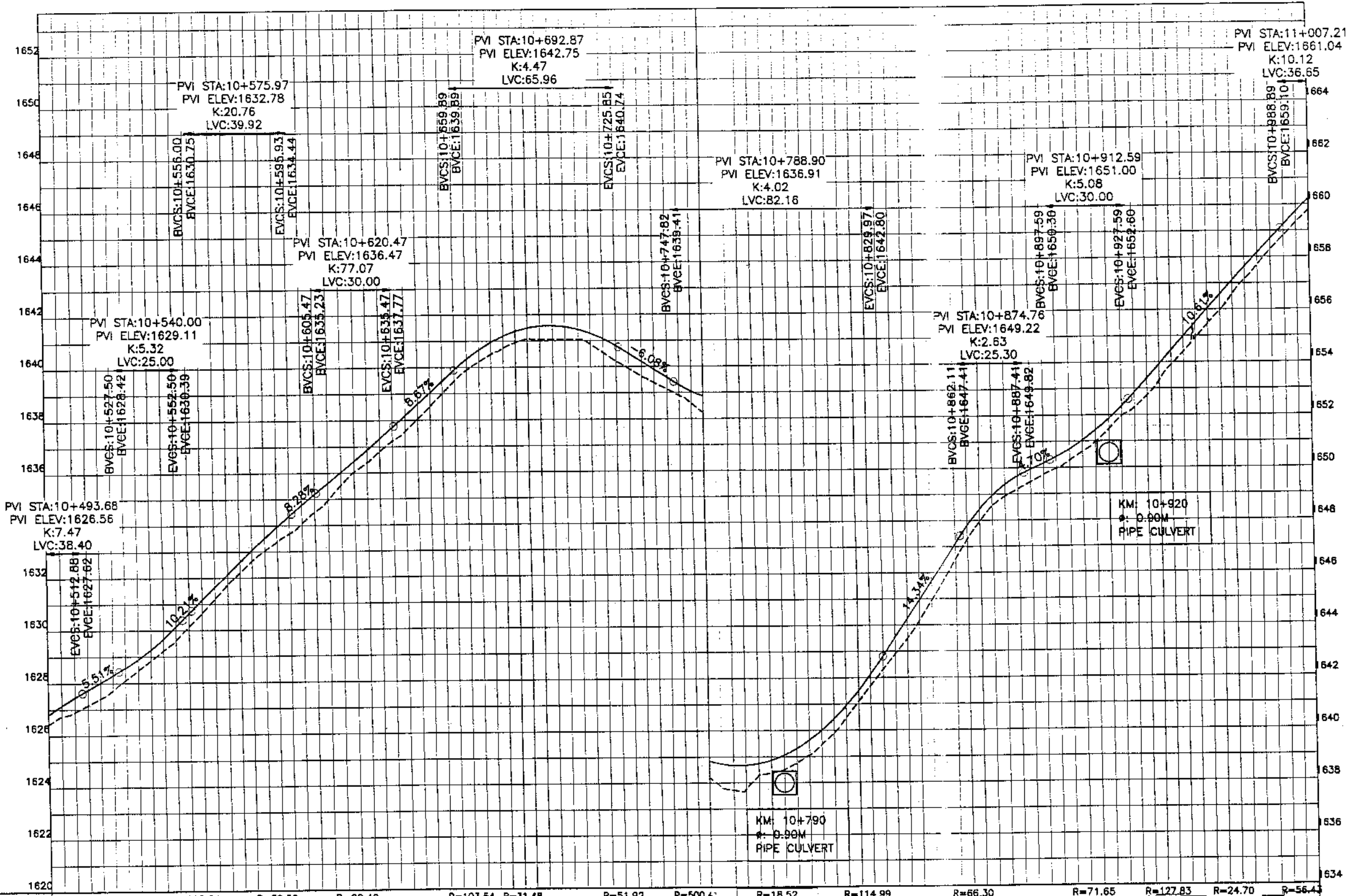
REV.	DATE	DESCRIPTION	APPROVED	APPROVED

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PLAN		SCALE
Km: 10+500 ~ Km: 11+000		1:1000
DATE	DWG NO.	
January 2021	4169/(H)/TD/P 22	

DRAWN	JUNAID KHAN
SUBMITTED	NOSHERWAN NAEEM
RECOMMENDED	
CHD./VER.	
APPROVED	

F:\KITE PROJECT\Thandiani Road Project\Saparata Pakkage\ABBOTTABAD TO THANDIANI - Center - Package 1.dwg



Horizontal Curve	R=32.11	R=110.84	R=118.84	R=32.58	R=20.40	R=103.54	R=31.48	R=51.82	R=500.4	R=18.52	R=114.99	R=66.30	R=71.65	R=127.83	R=24.70	R=56.43																																	
L	22.49	21.87	13.36	20.06	10.65	21.67	9.37	20.90	T=25.28	L=18.52	15.04	20.93	L=22.45	4.07	27.81	3.14	31.80	T=6.18	27.84	11.19	34.71	T=18.40	L=21.33	13.28	10.27	26	21.94	8.59	27.20																				
Design levels	1626.417	1627.403	1628.011	1628.848	1630.644	1631.151	1632.642	1633.057	1634.065	1634.775	1636.037	1636.446	1637.573	1638.185	1639.477	1639.899	1640.726	1641.182	1641.054	1641.570	1640.527	1641.062	1639.178	1639.884	1639.216	1639.852	1638.280	1638.738	1639.045	1639.619	1641.090	1641.495	1643.48	1644.239	1646.516	1647.108	1648.915	1649.366	1649.959	1650.418	1651.458	1651.847	1653.503	1653.912	1655.445	1656.034	1657.705	1658.156	1659.791
Ground Levels	1626.417	1627.403	1628.011	1628.848	1630.644	1631.151	1632.642	1633.057	1634.065	1634.775	1636.037	1636.446	1637.573	1638.185	1639.477	1639.899	1640.726	1641.182	1641.054	1641.570	1640.527	1641.062	1639.178	1639.884	1639.216	1639.852	1638.280	1638.738	1639.045	1639.619	1641.090	1641.495	1643.48	1644.239	1646.516	1647.108	1648.915	1649.366	1649.959	1650.418	1651.458	1651.847	1653.503	1653.912	1655.445	1656.034	1657.705	1658.156	1659.791



KHYBER PAKHTUNKHWA
INTEGRATED TOURISM AND
ENTERPRISE DEVELOPMENT
PROJECT
COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK

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NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED

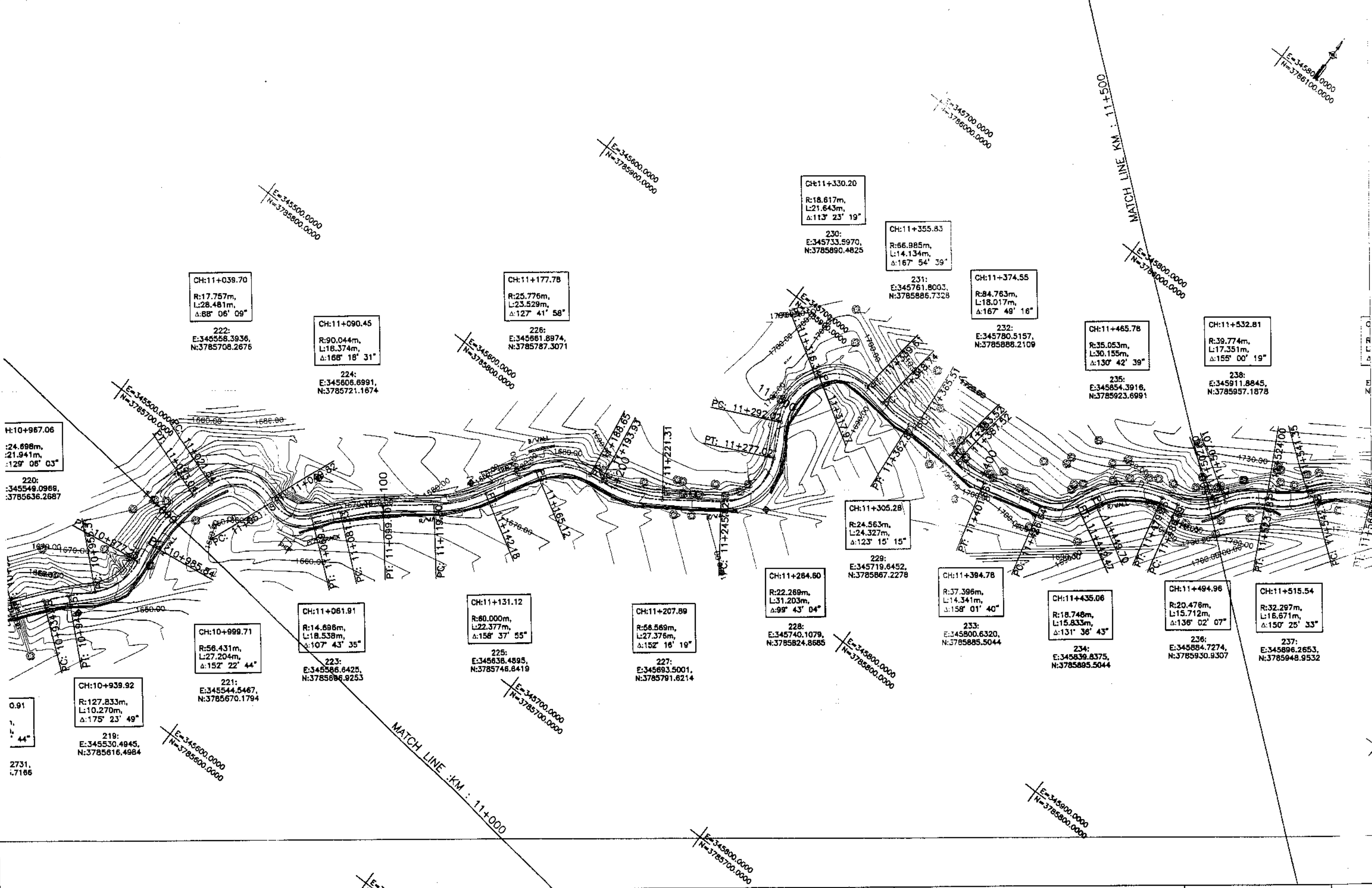
DRAWN: JUNAD KHAN
SUBMITTED: MOSHERWAN NAEEM
RECOMMENDED:
CHD./VER.
APPROVED:

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PROFILE
KM: 10+500 ~ KM: 11+000
SCALE: 1:1000

DATE: January 2021
DWG NO.: 4165/(ii)/TD/P 022

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ENTERPRISE DEVELOPMENT
PROJECT
COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK



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PAKISTAN (PVT.) LTD.

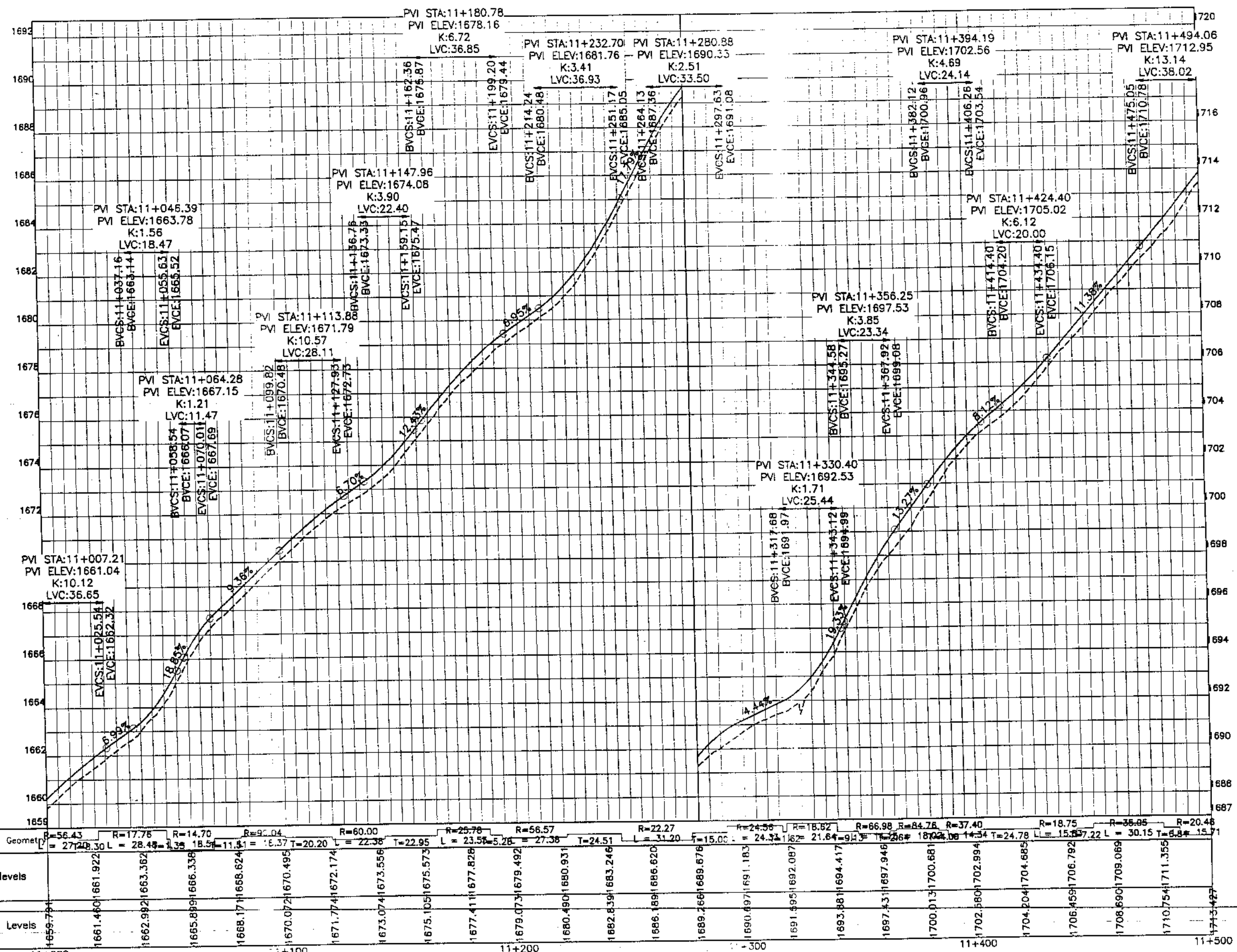
REV.	DATE	DESCRIPTION	APPROVED	APPROVED

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PLAN		SCALE
KM: 11+000 ~ KM: 11+500		1:1000
DATE	DWG NO.	
January 2021	4169/(ii)/TD/F	

DRAWN	JUNAID KHAN
SUBMITTED	MOSHERWAN NAZEM
RECOMMENDED	
CHD./VER.	
APPROVED	

F:\XITE PROJECT\Thandi Road Project\Separate Packages\ABBOTTABAD TO THANDIANI - Center - Package 1.dwg



Station	11+000	11+025	11+050	11+075	11+100	11+125	11+150	11+175	11+200	11+225	11+250	11+275	11+300	11+325	11+350	11+375	11+400	11+425	11+450	11+475	11+500					
Design Levels	1661.40	1661.92	1662.36	1663.38	1666.62	1670.49	1672.17	1673.56	1675.57	1677.82	1679.49	1680.93	1683.24	1686.62	1689.67	1691.83	1692.08	1694.41	1697.94	1700.68	1702.99	1704.88	1706.79	1709.09	1711.35	1713.42
Ground Levels	1659.74	1661.40	1662.92	1665.89	1668.17	1670.07	1671.77	1673.07	1675.10	1677.41	1679.07	1680.49	1682.83	1686.18	1689.49	1690.89	1691.99	1693.88	1697.43	1700.13	1702.58	1704.20	1706.46	1708.69	1710.75	1713.42



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INTEGRATED TOURISM AND
ENTERPRISE DEVELOPMENT
PROJECT
COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK

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PAKISTAN (PVT.) LTD.

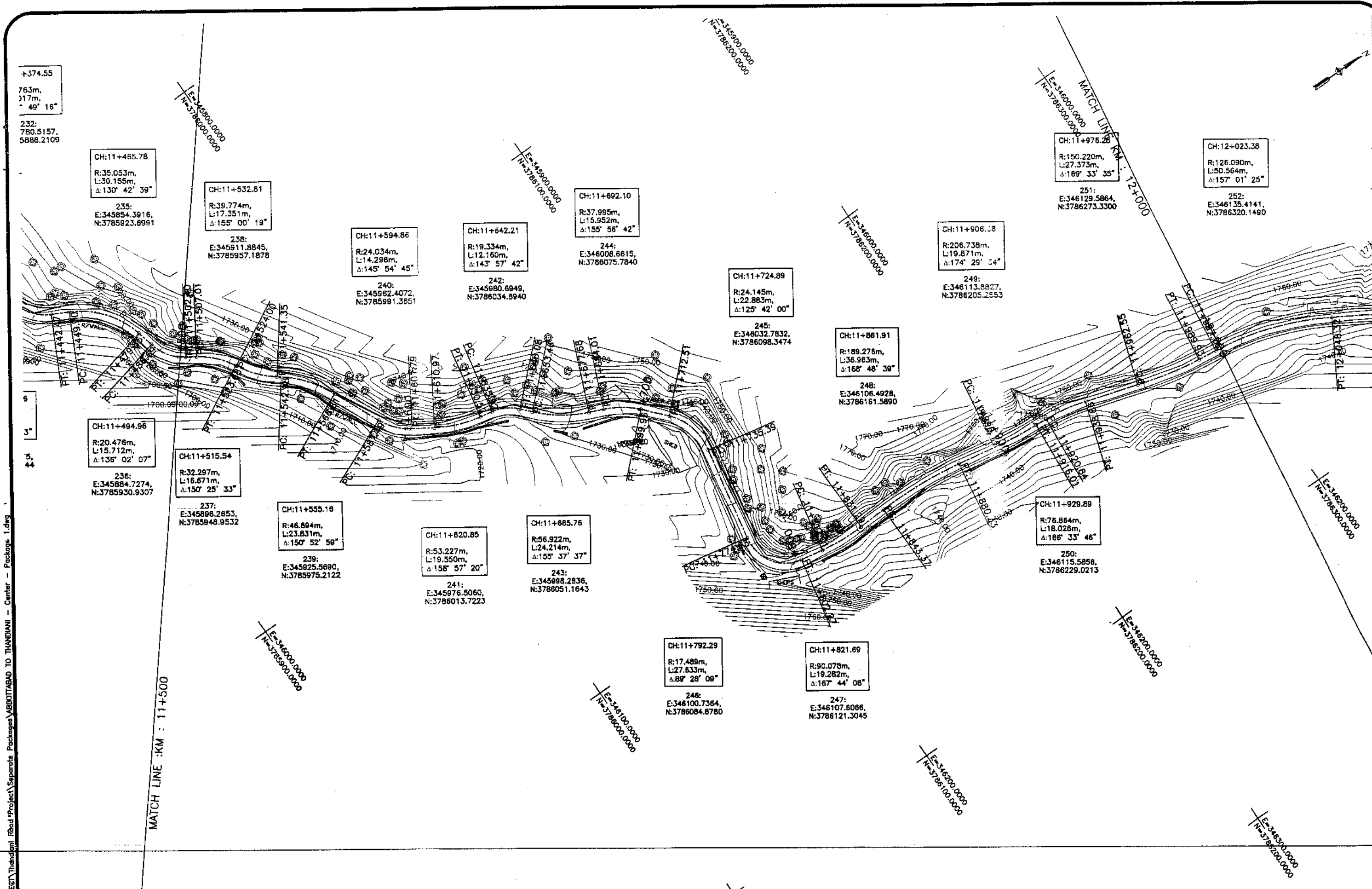
REV.	DATE	DESCRIPTION	APPROVED	APPROVED

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PROFILE	SCALE
KM: 11+000 ~ KM: 11+500	1:1000
DATE	DWG NO.
January 2021	4169/(ii)/TD/P 023

DRAWN	JUNAID KHAN
SUBMITTED	NOSHERWAN NAEEM
RECOMMENDED	
CHK. VER.	
APPROVED	

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+374.55
763m,
117m,
- 49' 16"

232:
780.5157,
5888.2109

CH:11+465.78
R:35.053m,
L:30.155m,
Δ:130° 42' 39"

235:
E:345854.3916,
N:3785923.8991

CH:11+532.81
R:39.774m,
L:17.351m,
Δ:155° 00' 19"

238:
E:345911.8845,
N:3785957.1878

CH:11+594.86
R:24.034m,
L:14.298m,
Δ:145° 54' 45"

240:
E:345962.4072,
N:3785991.3651

CH:11+642.21
R:19.334m,
L:12.160m,
Δ:143° 57' 42"

242:
E:345980.6949,
N:3786034.8940

CH:11+692.10
R:37.995m,
L:15.952m,
Δ:155° 56' 42"

244:
E:346008.6615,
N:3786075.7840

CH:11+724.89
R:24.145m,
L:22.883m,
Δ:125° 42' 00"

245:
E:348032.7832,
N:3786098.3474

CH:11+906.18
R:206.738m,
L:19.871m,
Δ:174° 29' 34"

249:
E:346113.8827,
N:3786205.2553

CH:11+976.28
R:150.220m,
L:27.373m,
Δ:169° 33' 35"

251:
E:346129.5864,
N:3786273.3300

CH:12+023.38
R:126.090m,
L:50.564m,
Δ:157° 01' 25"

252:
E:346135.4141,
N:3786320.1490

CH:11+494.96
R:20.476m,
L:15.712m,
Δ:135° 02' 07"

236:
E:345884.7274,
N:3785930.9307

CH:11+515.54
R:32.297m,
L:16.671m,
Δ:150° 25' 33"

237:
E:345896.2853,
N:3785948.9532

CH:11+555.16
R:46.894m,
L:23.831m,
Δ:150° 52' 59"

239:
E:345925.5690,
N:3785975.2122

CH:11+620.85
R:53.227m,
L:19.550m,
Δ:158° 57' 20"

241:
E:345976.5060,
N:3786013.7223

CH:11+665.76
R:56.922m,
L:24.214m,
Δ:155° 37' 37"

243:
E:345998.2836,
N:3786051.1643

CH:11+792.29
R:17.489m,
L:27.633m,
Δ:89° 28' 08"

246:
E:346100.7364,
N:3786084.8760

CH:11+821.69
R:90.078m,
L:19.282m,
Δ:167° 44' 08"

247:
E:348107.8086,
N:3786121.3045

CH:11+929.89
R:76.864m,
L:18.026m,
Δ:168° 33' 46"

250:
E:346115.5858,
N:3786229.0213



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DEPARTMENT, KPK

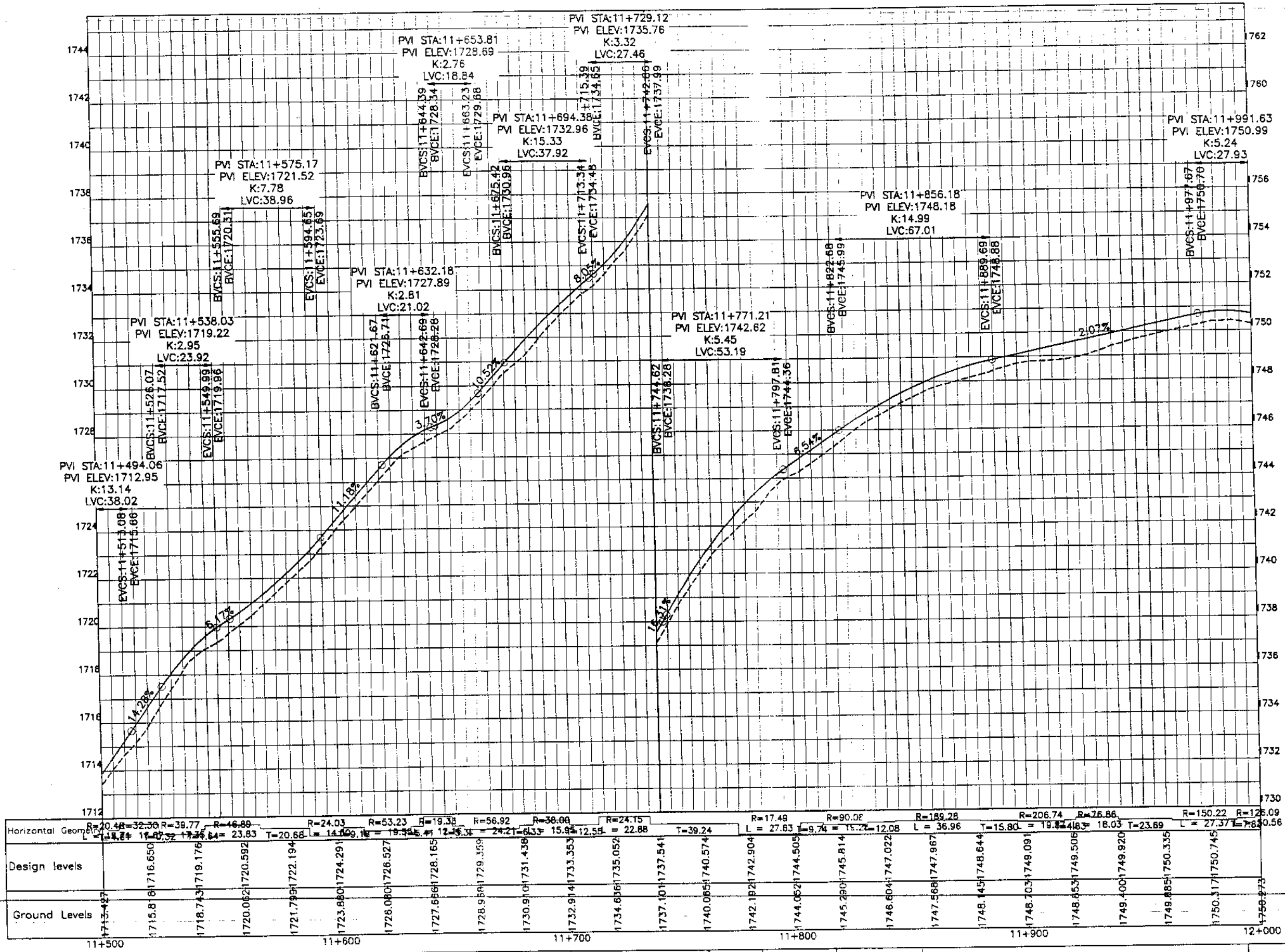
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PAK**
NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED

DRAWN JUNAID KHAN
SUBMITTED NOSHERWAN NAZEM
RECOMMENDED
CHG./VER.
REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PLAN
KM: 11+500 ~ KM: 12+000
SCALE 1:1000
DATE January 2021
DWG NO. 4169/(ii)/TD/P 24

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INTEGRATED TOURISM AND
ENTERPRISE DEVELOPMENT
PROJECT
COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK

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PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED

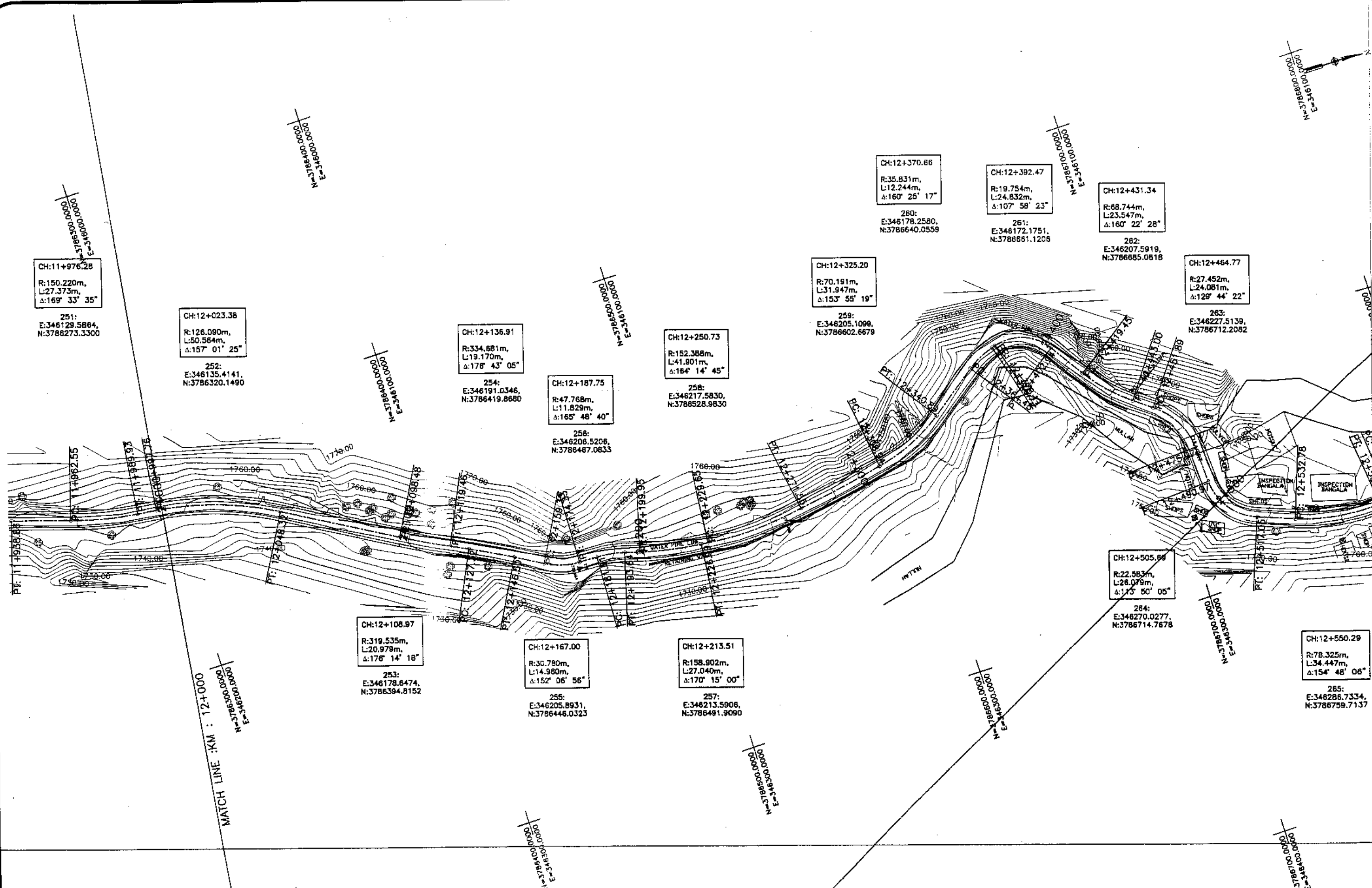
DRAWN: JUNAI KHAN
SUBMITTED: NOS-ERWAN NAEEM
RECOMMENDED:
CHD./VER:
APPROVED:

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM (P&C) (G-1)

PROFILE
KM: 11+500 ~ KM: 12+000 | SCALE: 1:1000

DATE: January 2021
DWG NO.: 4169/(ii)/TD/P 024

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KHYBER PAKHTUNKHWA
INTEGRATED TOURISM AND
ENTERPRISE DEVELOPMENT
PROJECT
COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK



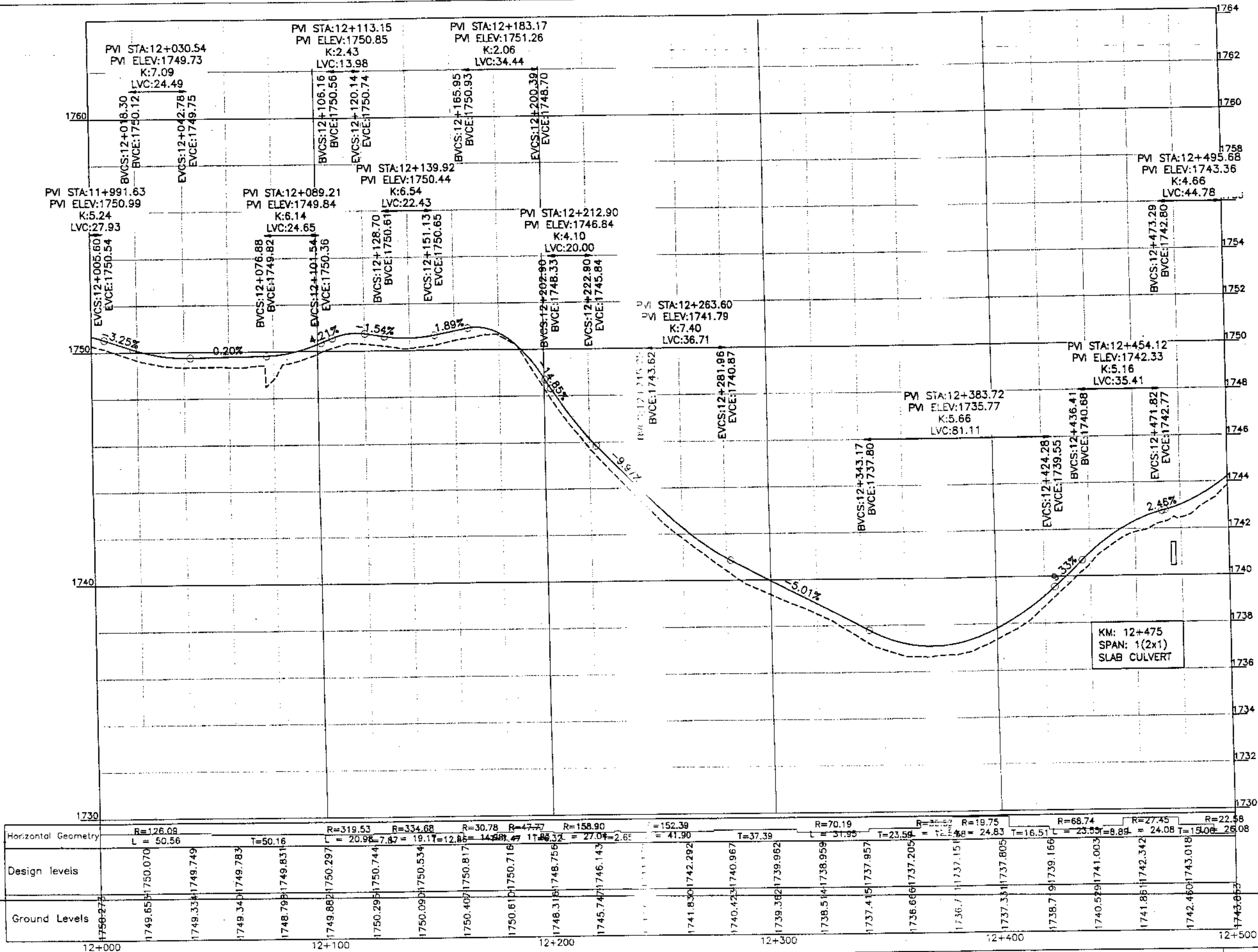
NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED

DRAWN JUNAID KHAN
SUBMITTED NOSHERWAN NAEM
RECOMMENDED
CHD./VER.
APPROVED

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PLAN		SCALE
KM: 12+000 ~ KM: 12+500		1:1000
DATE	DWG NO.	
January 2021	4169/(11)/TD/P 25	



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INTEGRATED TOURISM AND
ENTERPRISE DEVELOPMENT
PROJECT
COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK



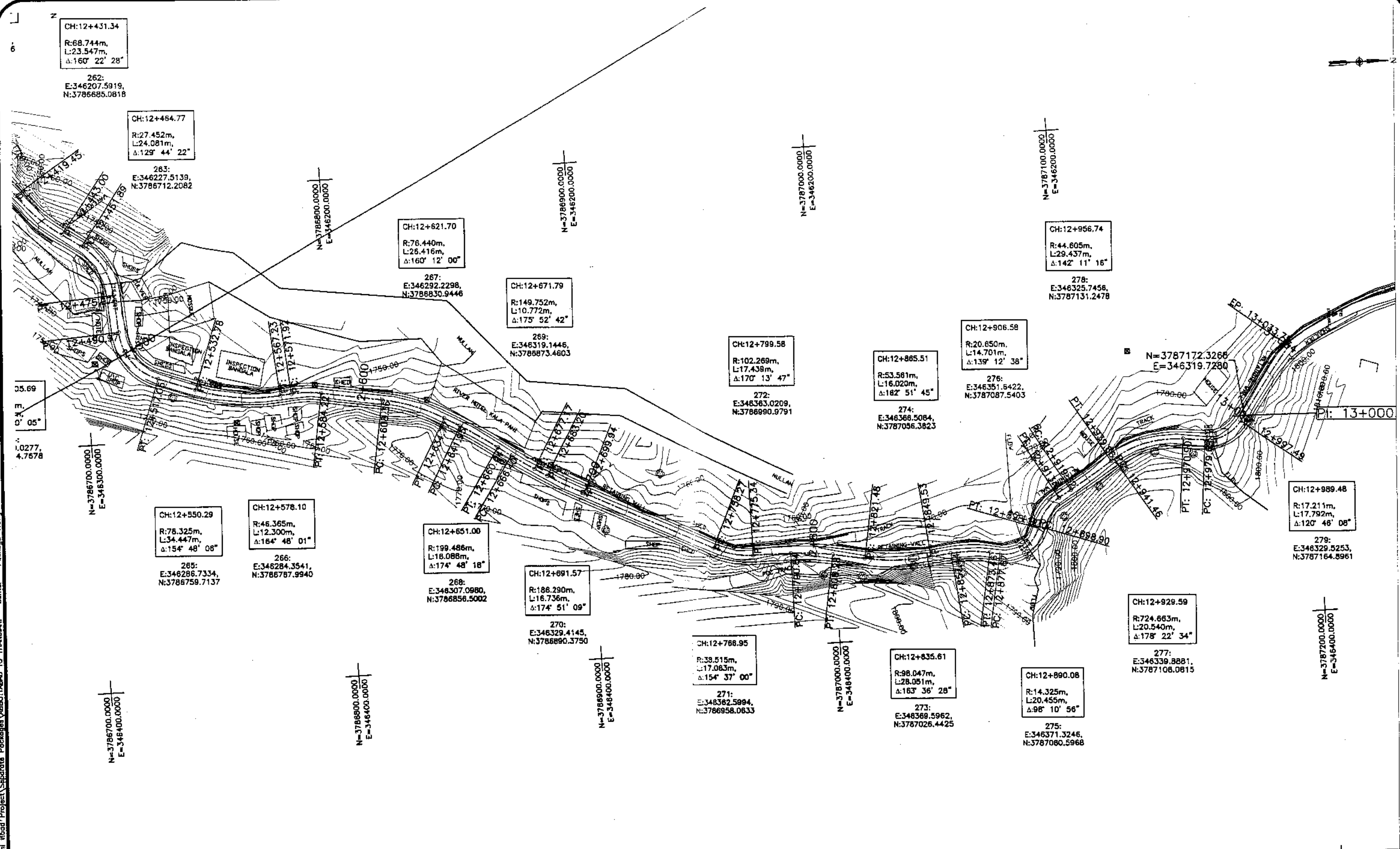
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REV.	DATE	DESCRIPTION	APPROVED	APPROVED

REHABILITATION AND UPGRADEMENT OF
THE DIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PROFILE		SCALE
KM: 12+000 ~ KM: 12+500		1:1000
DATE	DWG NO.	
January 2021	4169/(ii)/TD/P 025	

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INTEGRATED TOURISM AND
ENTERPRISE DEVELOPMENT
PROJECT
COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK



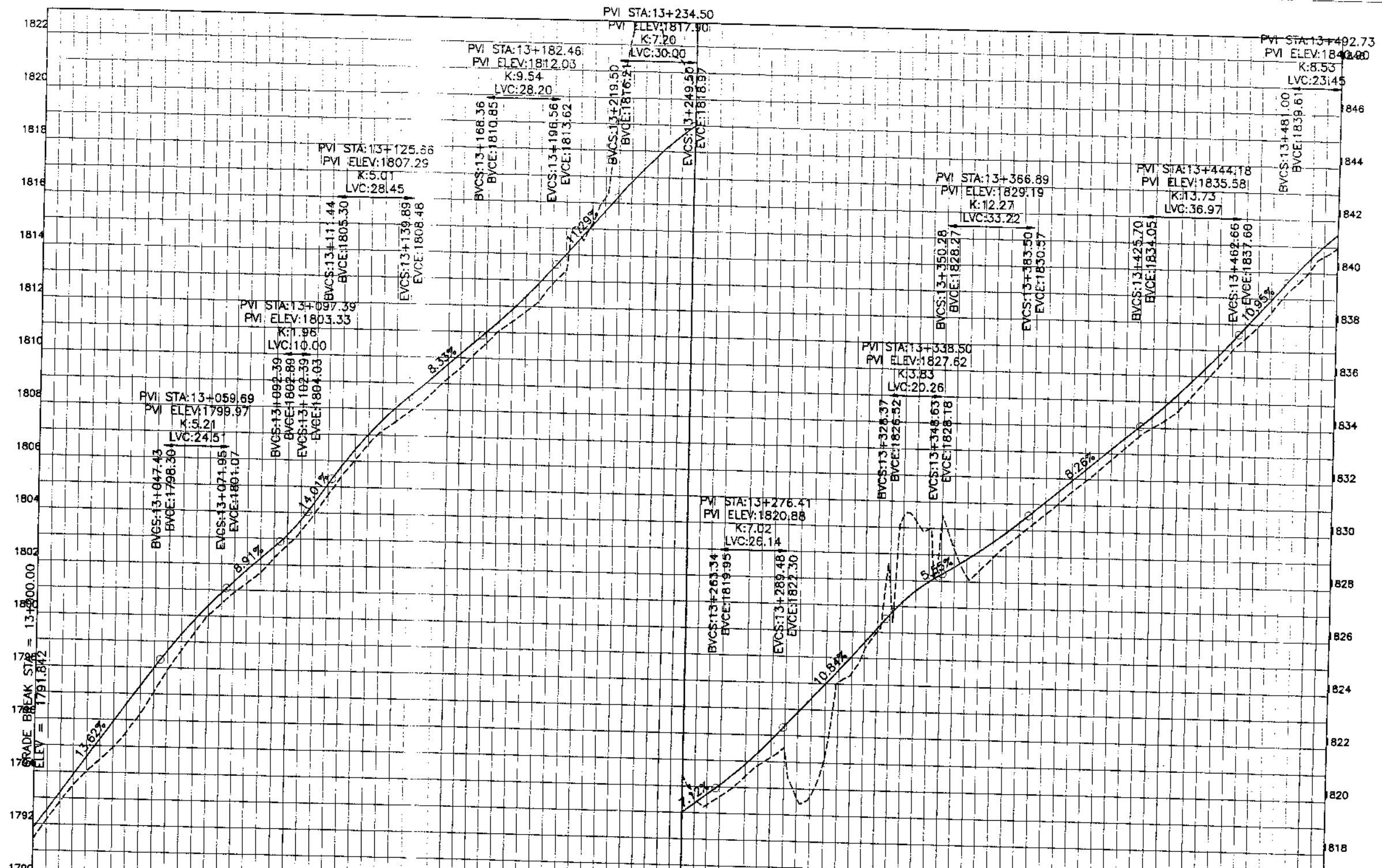
NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PLAN		SCALE
KM: 12+500 ~ KM: 13+000		1:1000
DATE	DWG NO.	
January 2021	4189/(ii)/TD/P 26	

200.0000
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Station	13+000	13+100	13+200	13+300	13+400
Horizontal Geometry	R=49.43, L=24.81		R=117.40, L=29.61		R=1173.66, L=29.61
Vertical Geometry	T=21.08, L=24.81		T=16.04, L=15.45		T=47.82, L=22.22
Design Levels	1794.018	1796.206	1799.360	1801.274	1803.259
Ground Levels	1794.431	1794.018	1794.566	1797.290	1799.863

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ENTERPRISE DEVELOPMENT
PROJECT**
COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK

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NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

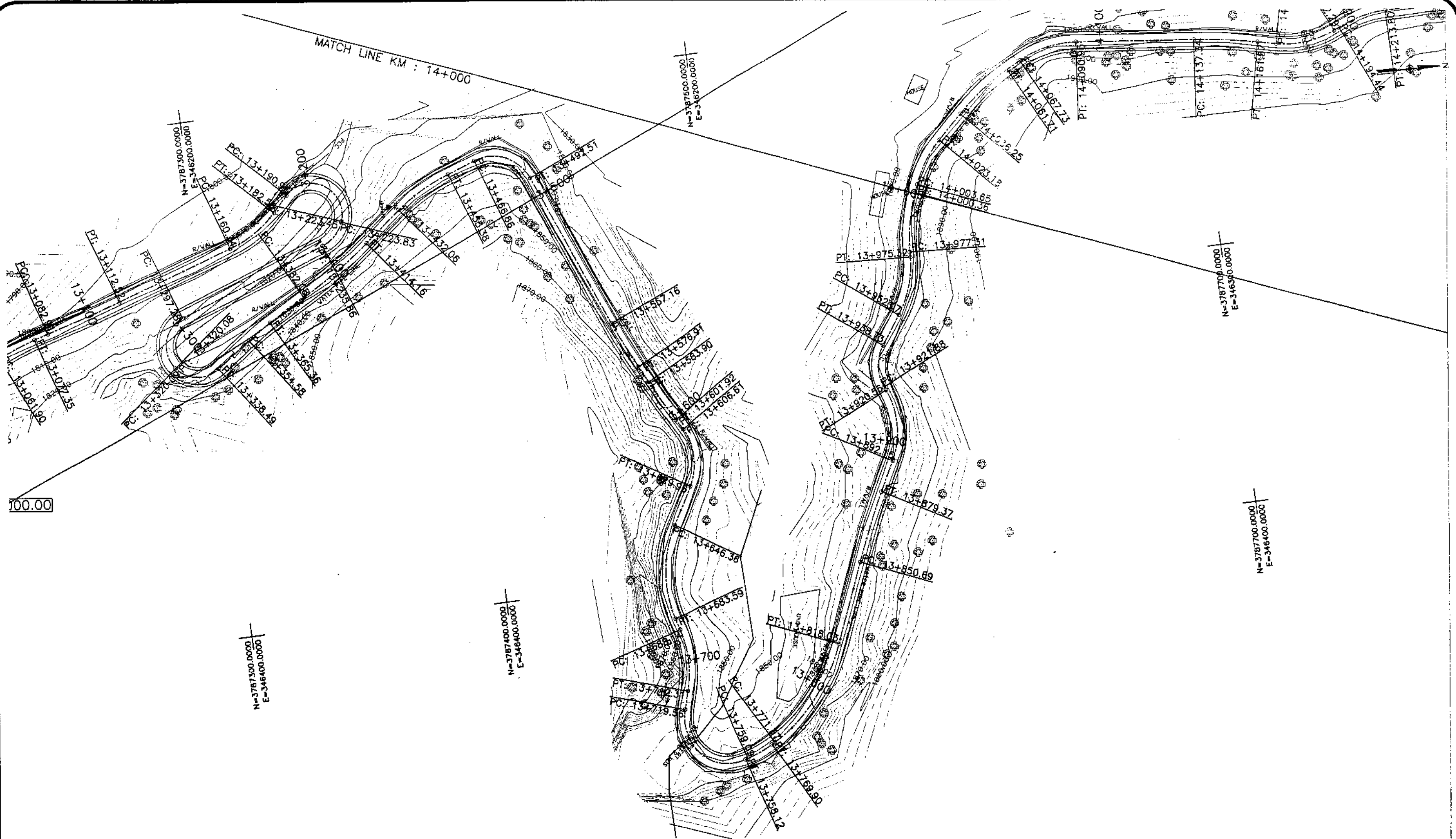
REV.	DATE	DESCRIPTION	APPROVED	APPROVED

DRAWN: JUNAID KHAN
SUBMITTED: NOSHERWAN NAEEM
RECOMMENDED:
CHD./VER:
APPROVED:

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PROFILE
KM: 13+000 ~ KM: 13+500
SCALE: 1:1000
DATE: January 2021
DWG NO: 4169/(11)/TD/P 027

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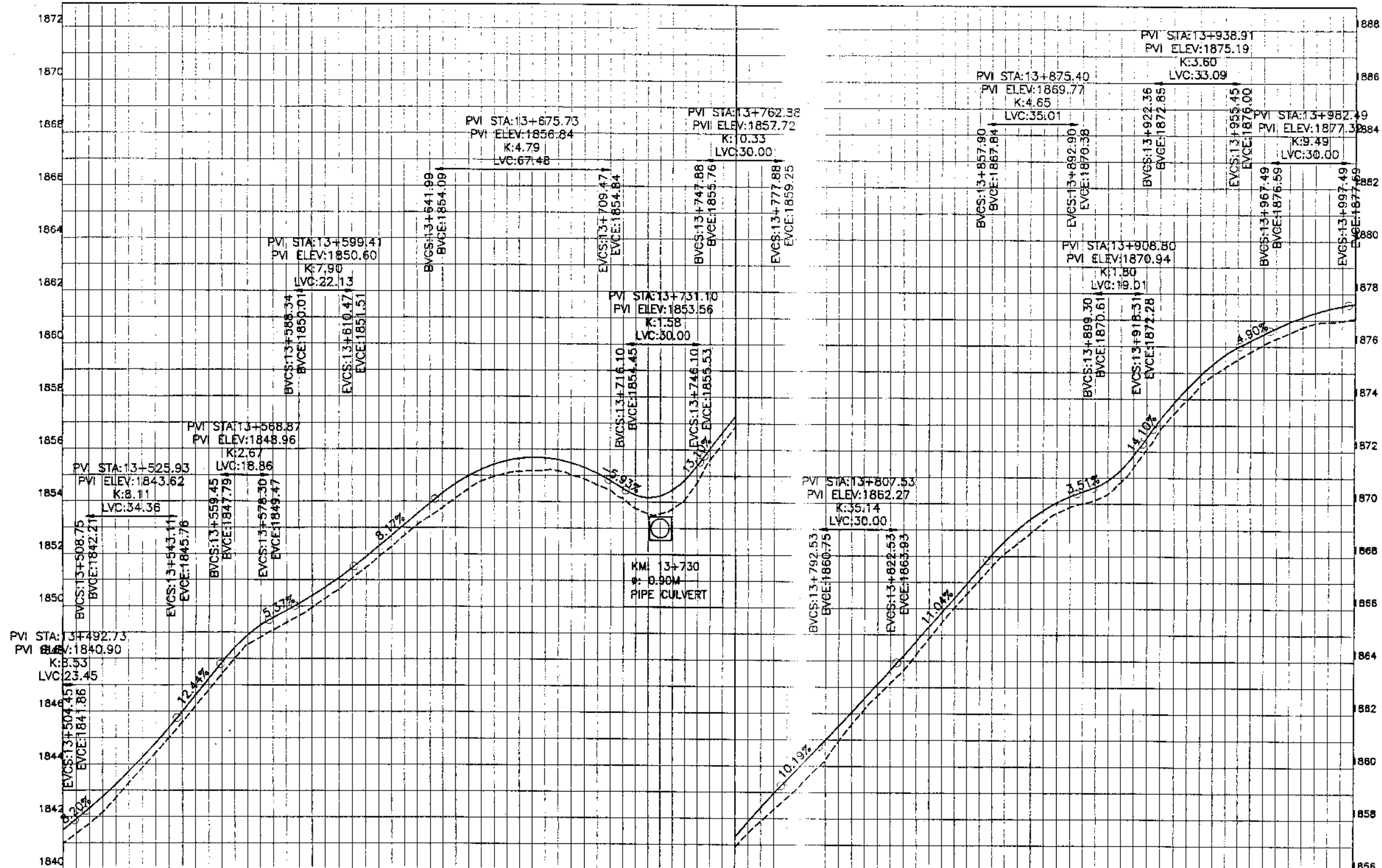
KHYBER PAKHTUNKHWA
INTEGRATED TOURISM AND
ENTERPRISE DEVELOPMENT
PROJECT
COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK

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NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	CHD./VER.	APPROVED

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PLAN		SCALE
KM: 13+500 ~ KM: 14+000		1:1000
DATE	DWG NO.	
January 2021	4169/(ii)/TD/P 28	



Station	13+500	13+550	13+600	13+650	13+700	13+750	13+800	13+850	13+900	13+950	14+000																																					
Horizontal Geometry	$T=64.65$ $R=269.84$ $R=246.01$ $R=21.82$ $R=44.98$ $R=41.33$ $R=17.82$ $R=49.98$ $R=69.84$ $R=269.83$ $R=30.88$ $R=15.95$ $R=40.22$ $R=69.35$																																															
Vertical Geometry	$L=19.75$ $L=66.99$ $L=18.24$ $L=23.35$ $L=16.40$ $L=37.23$ $L=4.54$ $L=24.17$ $L=7.24$ $L=38.57$ $L=46.66$ $L=32.86$ $L=28.68$ $L=12.77$ $L=28.41$ $L=16.85$ $L=13.34$ $L=23.24$ $L=23.06$																																															
Design levels	1840.976	1842.710	1843.213	1844.994	1845.378	1847.417	1847.860	1849.093	1849.562	1850.287	1850.723	1851.881	1852.288	1853.434	1853.923	1854.778	1855.218	1855.683	1855.311	1853.762	1854.288	1854.093	1854.846	1856.890	1857.276	1858.787	1859.468	1860.947	1861.514	1863.199	1863.652	1865.461	1865.860	1867.623	1868.064	1869.279	1869.752	1870.118	1870.635	1872.066	1872.522	1874.521	1874.909	1875.796	1876.222	1876.731	1877.120	1877.977
Ground Levels	1840.976	1842.710	1843.213	1844.994	1845.378	1847.417	1847.860	1849.093	1849.562	1850.287	1850.723	1851.881	1852.288	1853.434	1853.923	1854.778	1855.218	1855.683	1855.311	1853.762	1854.288	1854.093	1854.846	1856.890	1857.276	1858.787	1859.468	1860.947	1861.514	1863.199	1863.652	1865.461	1865.860	1867.623	1868.064	1869.279	1869.752	1870.118	1870.635	1872.066	1872.522	1874.521	1874.909	1875.796	1876.222	1876.731	1877.120	1877.977



KHYBER PAKHTUNKHWA
INTEGRATED TOURISM AND
ENTERPRISE DEVELOPMENT
PROJECT
COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK

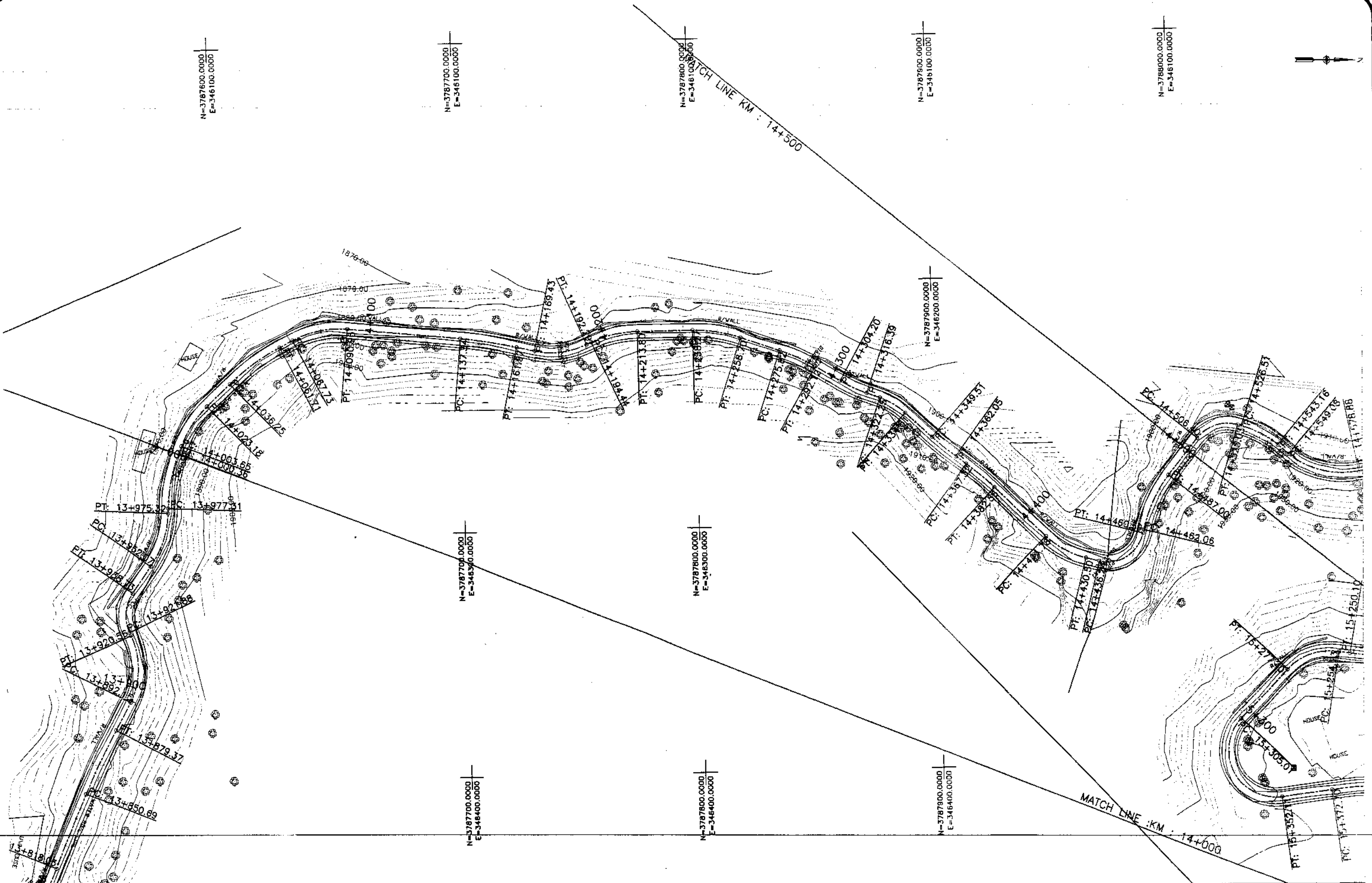
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PAR
NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED

DRAWN: JUNAD KHAN
SUBMITTED: NOSHERWAN NAEEM
RECOMMENDED:
CHD./VER.
REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PROFILE
KM: 13+500 ~ KM: 14+000
SCALE: 1:1000
DATE: January 2021
DWC NO.: 4169/(ii)/TD/P 028

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KHYBER PAKHTUNKHWA
INTEGRATED TOURISM AND
ENTERPRISE DEVELOPMENT
PROJECT
COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK

**NES
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NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

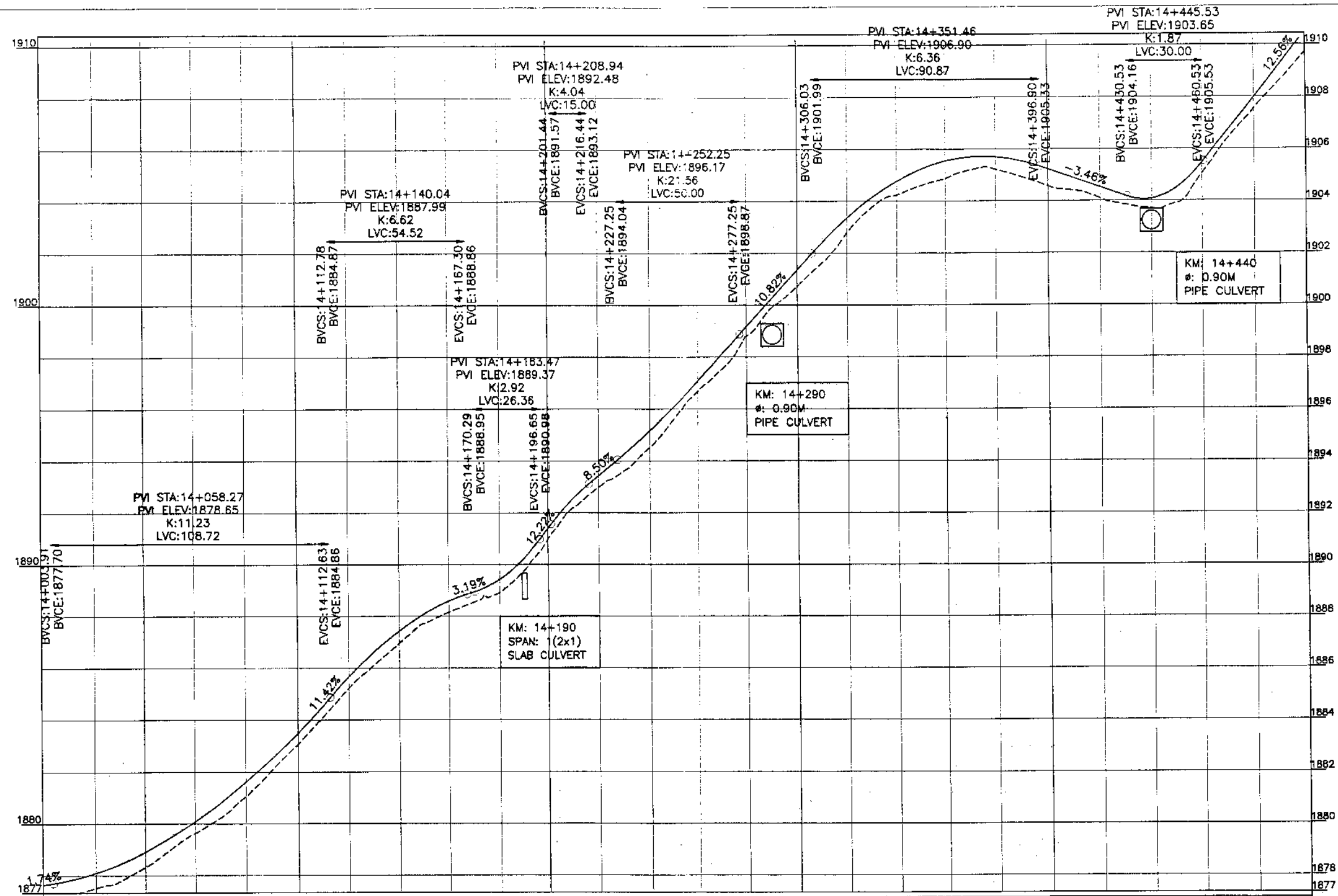
REV.	DATE	DESCRIPTION	APPROVED

DRAWN	JUNAID KHAN
SUBMITTED	NOSHERWAN NAEEM
RECOMMENDED	
CHD./VER.	
APPROVED	

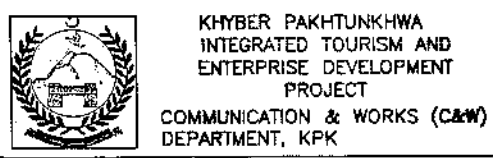
REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PLAN		SCALE
KM: 14+000 ~ KM: 14+500		1:1000
DATE	DWG NO.	
January 2021	4169/(ii)/TD/P 29	

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Horizontal Geometry	R=69.36	R=45.35	R=89.26	R=40.43	R=213.85	R=35.49	R=46.18	R=61.21	R=81.84	R=67.35	R=30.54	R=125.70	R=117.75	R=35.92	R=15.44	R=57.25																																	
Vertical Geometry	L=19.53	L=13.07	L=25.48	L=6.02	L=24.63	L=7.48	L=22.82	L=19.36	L=24.47	L=20.43	L=17.11	L=16.30	L=12.05	L=12.88	L=12.75	L=15.61	L=15.27	L=15.24	L=29.22	L=18.75	L=24.35	L=24.94	L=18.40																										
Design levels	1877.067	1877.514	1878.094	1878.321	1878.907	1879.633	1880.077	1881.050	1881.602	1883.040	1883.484	1885.215	1885.659	1886.919	1887.423	1888.153	1888.583	1888.928	1889.422	1890.977	1891.391	1892.983	1893.424	1894.527	1895.163	1896.671	1897.074	1898.799	1899.170	1900.714	1901.335	1902.793	1903.346	1904.254	1904.757	1904.851	1905.538	1905.214	1905.691	1904.575	1905.223	1904.097	1904.530	1903.708	1904.076	1905.044	1905.463	1907.554	1907.973
Ground Levels	1877.067	1877.514	1878.094	1878.321	1878.907	1879.633	1880.077	1881.050	1881.602	1883.040	1883.484	1885.215	1885.659	1886.919	1887.423	1888.153	1888.583	1888.928	1889.422	1890.977	1891.391	1892.983	1893.424	1894.527	1895.163	1896.671	1897.074	1898.799	1899.170	1900.714	1901.335	1902.793	1903.346	1904.254	1904.757	1904.851	1905.538	1905.214	1905.691	1904.575	1905.223	1904.097	1904.530	1903.708	1904.076	1905.044	1905.463	1907.554	1907.973



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PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	DRAWN	JUNAD KHAN
				SUBMITTED	NOSHERWAN MAZEEM
				RECOMMENDED	
				CHD./VER.	
				APPROVED	

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM (PACKAGE-2)

PROFILE		SCALE
KM: 14+000 ~ KM: 14+500		1:1000
DATE	DWG NO.	
January 2021	4169/(ii)/TD/P 029	

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KHYBER PAKHTUNKHWA
INTEGRATED TOURISM AND
ENTERPRISE DEVELOPMENT
PROJECT
COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK



NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

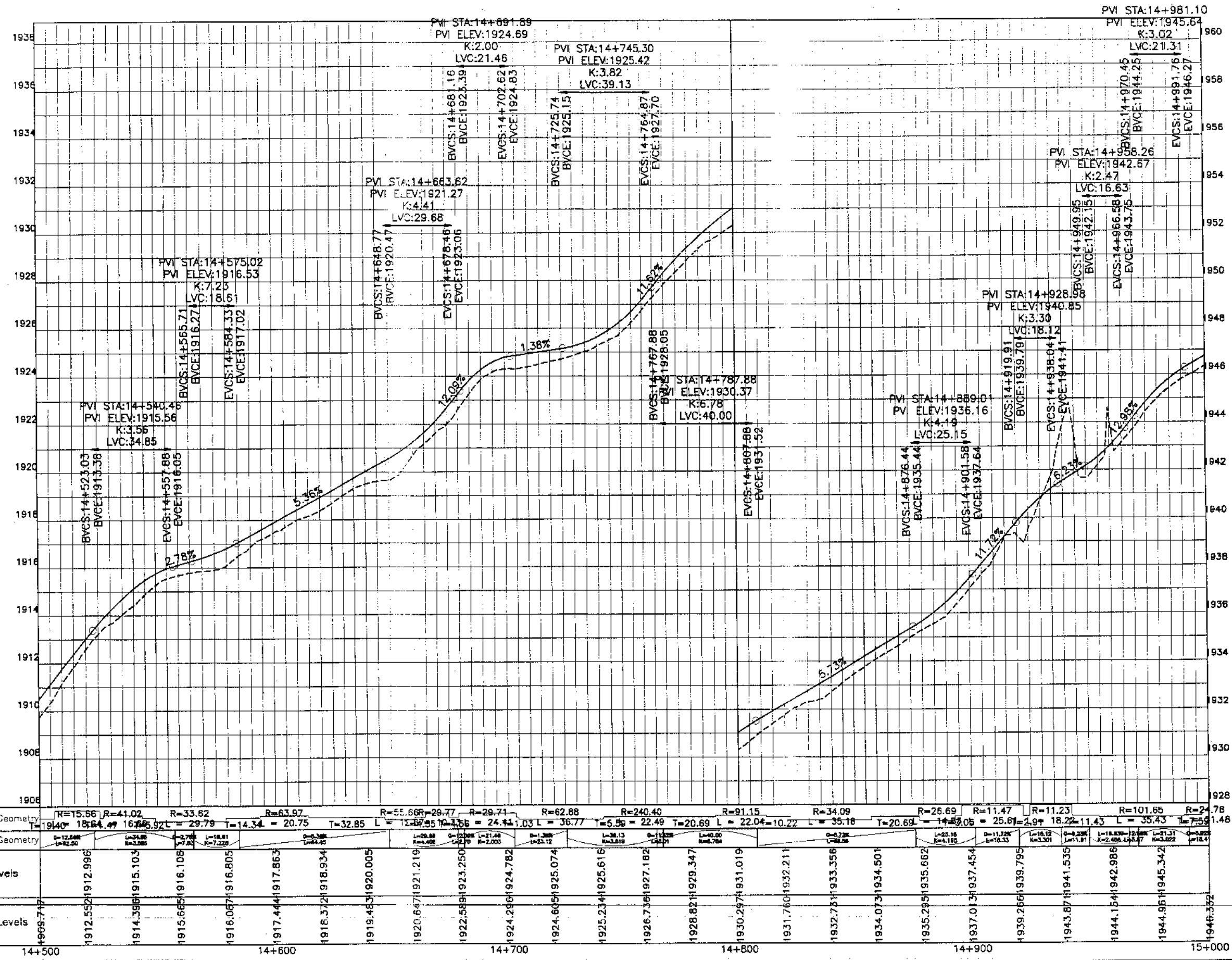
REV.	DATE	DESCRIPTION	APPROVED	APPROVED

DRAWN JUNAID KHAN
SUBMITTED NOSHERWAN NAEEM
RECOMMENDED
CHD./VER.
APPROVED

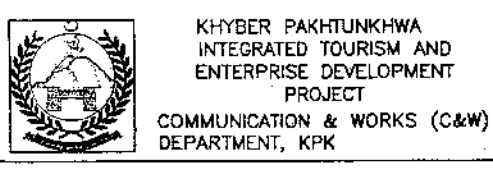
REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM (PACKAGE-2)

PLAN		SCALE
KM: 14+500 ~ KM: 15+000		1:1000
DATE	DWG NO.	
January 2021	4169/(R)/TD/P 30	

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Station	14+500	14+550	14+600	14+650	14+700	14+750	14+800	14+850	14+900	14+950	15+000																	
Horizontal Geometry	R=15.86	R=41.02	R=33.82	R=63.97	R=55.68	R=29.77	R=29.71	R=62.88	R=240.40	R=91.15	R=34.09	R=26.69	R=11.47	R=11.23	R=101.65	R=2.78												
Vertical Geometry	L=12.88 K=3.56	L=34.88 K=3.56	L=37.78 K=3.56	L=18.11 K=3.56	L=12.88 K=3.56	L=12.88 K=3.56	L=12.88 K=3.56	L=12.88 K=3.56	L=12.88 K=3.56	L=12.88 K=3.56	L=12.88 K=3.56	L=12.88 K=3.56	L=12.88 K=3.56	L=12.88 K=3.56	L=12.88 K=3.56	L=12.88 K=3.56												
Design Levels	1912.55	1912.99	1915.10	1916.10	1916.80	1917.86	1918.93	1920.00	1921.19	1922.50	1923.25	1924.78	1925.07	1925.61	1927.18	1929.34	1931.01	1932.21	1933.56	1934.50	1935.62	1937.45	1939.79	1941.53	1942.98	1945.34	1946.35	
Ground Levels	1909.74	1912.55	1914.39	1915.65	1916.07	1917.44	1918.37	1919.45	1920.67	1922.58	1924.28	1924.65	1925.23	1926.73	1928.82	1930.29	1931.76	1932.73	1934.07	1935.29	1937.01	1939.26	1943.87	1944.15	1944.95	1946.35	1946.35	1946.35



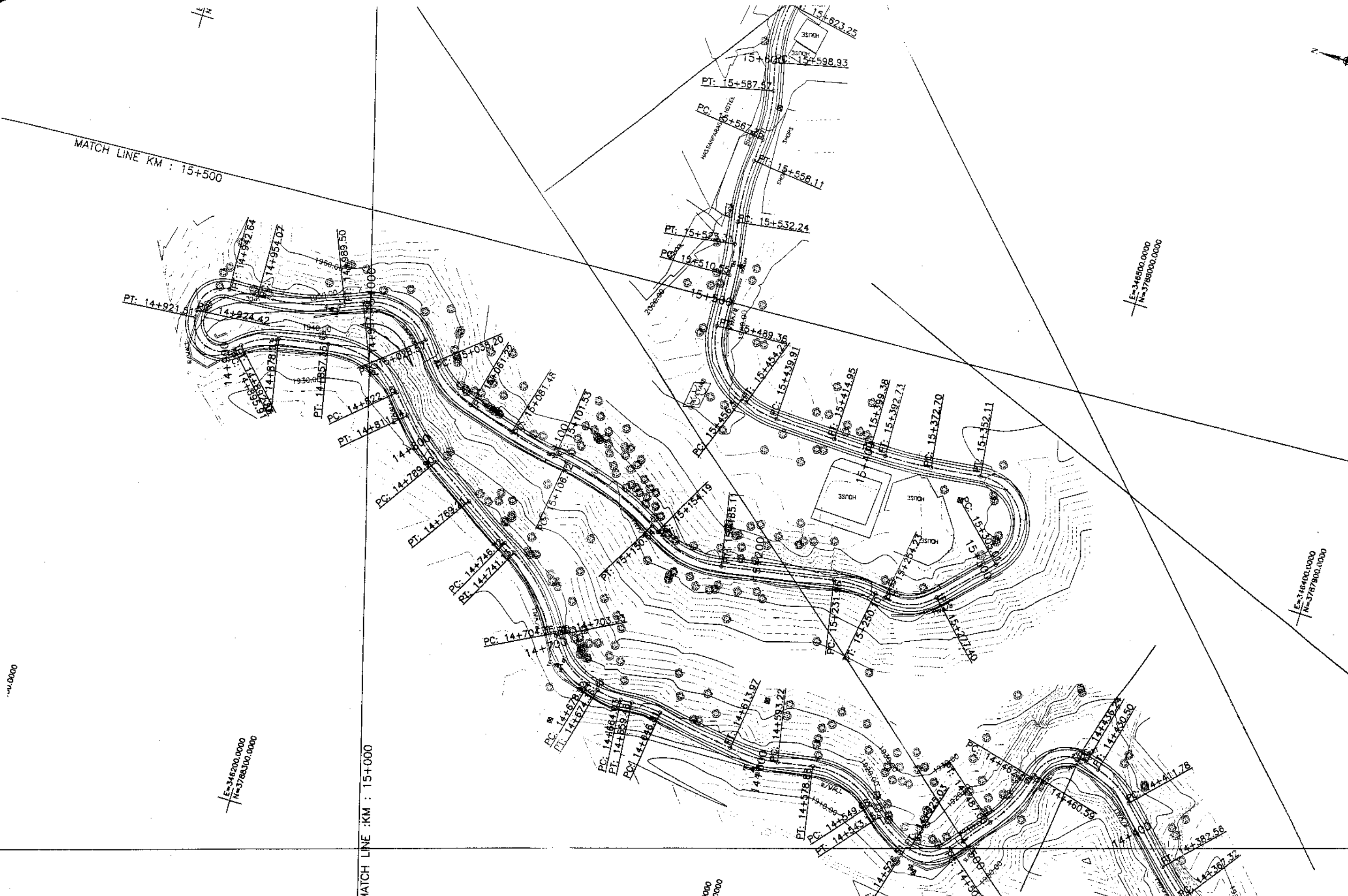
NES
PVT
NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED

DRAWN: JUNAID KHAN
SUBMITTED: NOSHERWAN NAZEM
RECOMMENDED:
CHD./VER.
APPROVED:
REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PROFILE		SCALE
KM: 14+500 ~ KM: 15+000		1:1000
DATE	DWG NO.	
January 2021	4189/(ii)/TD/P 030	

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PROJECT
COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK



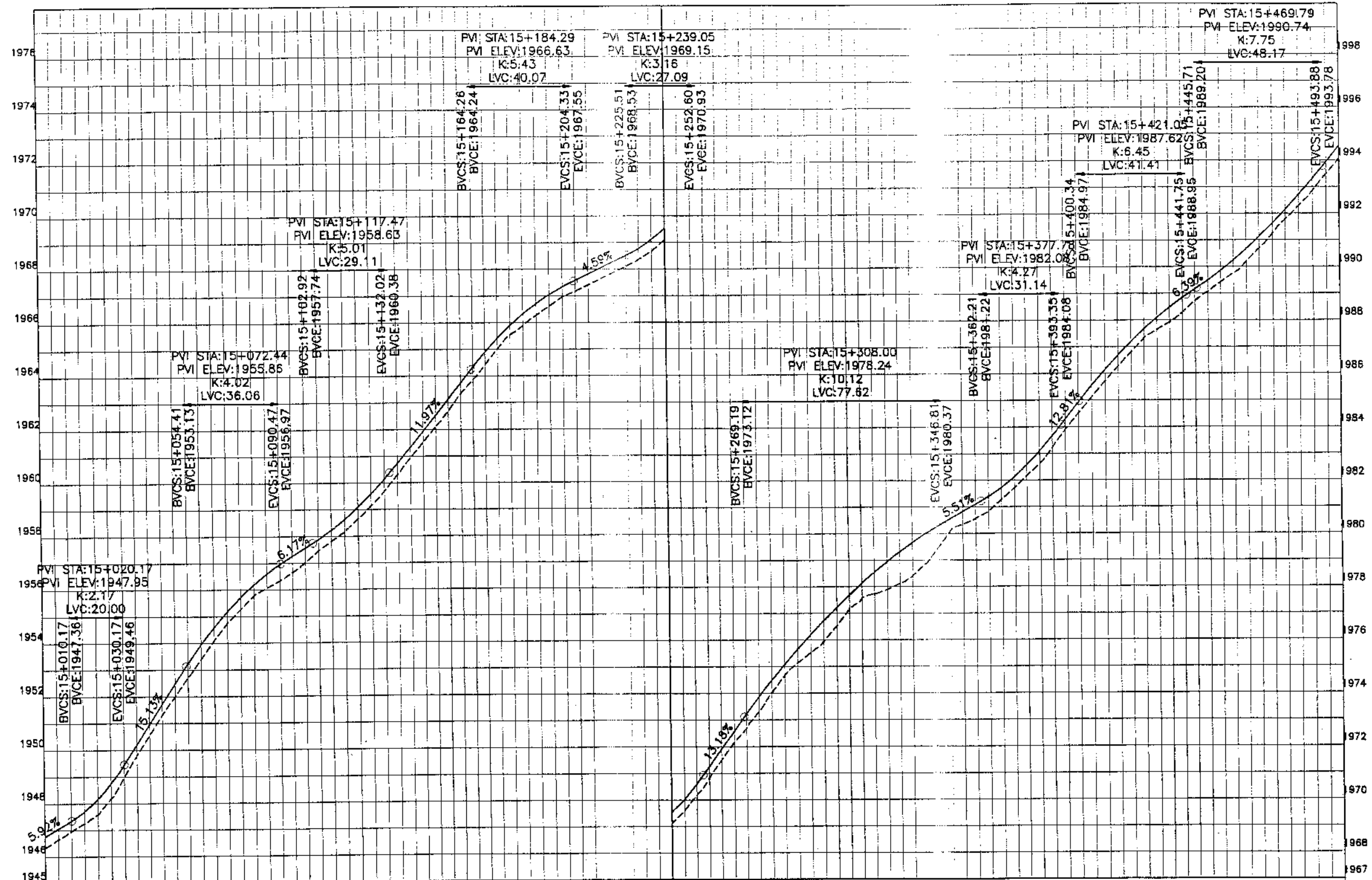
NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	CHD./VER.

DRAWN JUNAID KHAN
SUBMITTED HOSHERWAN NAEEM
RECOMMENDED
REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM (PACKAGE-2)

PLAN		SCALE
KM: 15+000 ~ KM: 15+500		1:1000
DATE	DWG NO.	
January 2021	4169/(ii)/TD/P 31	

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Station	15+000	15+100	15+200	15+300	15+400	15+500
Horizontal Geometry	R=24.78 L=31.48 T=9.63	R=37.40 L=23.92 T=20.26	R=159.93 L=20.75 T=5.19	R=118.47 L=43.92 T=3.55	R=44.14 L=36.92 T=46.85	R=50.96 L=18.14 T=23.17
Vertical Geometry	G=18.12% L=12.45	G=16.12% L=12.45	G=14.12% L=12.45	G=12.12% L=12.45	G=10.12% L=12.45	G=8.12% L=12.45
Design levels	1947.58	1950.95	1953.93	1956.18	1957.58	1959.08
Ground Levels	1946.32	1948.16	1950.95	1953.93	1956.18	1957.58



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INTEGRATED TOURISM AND
ENTERPRISE DEVELOPMENT
PROJECT
COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK

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PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED

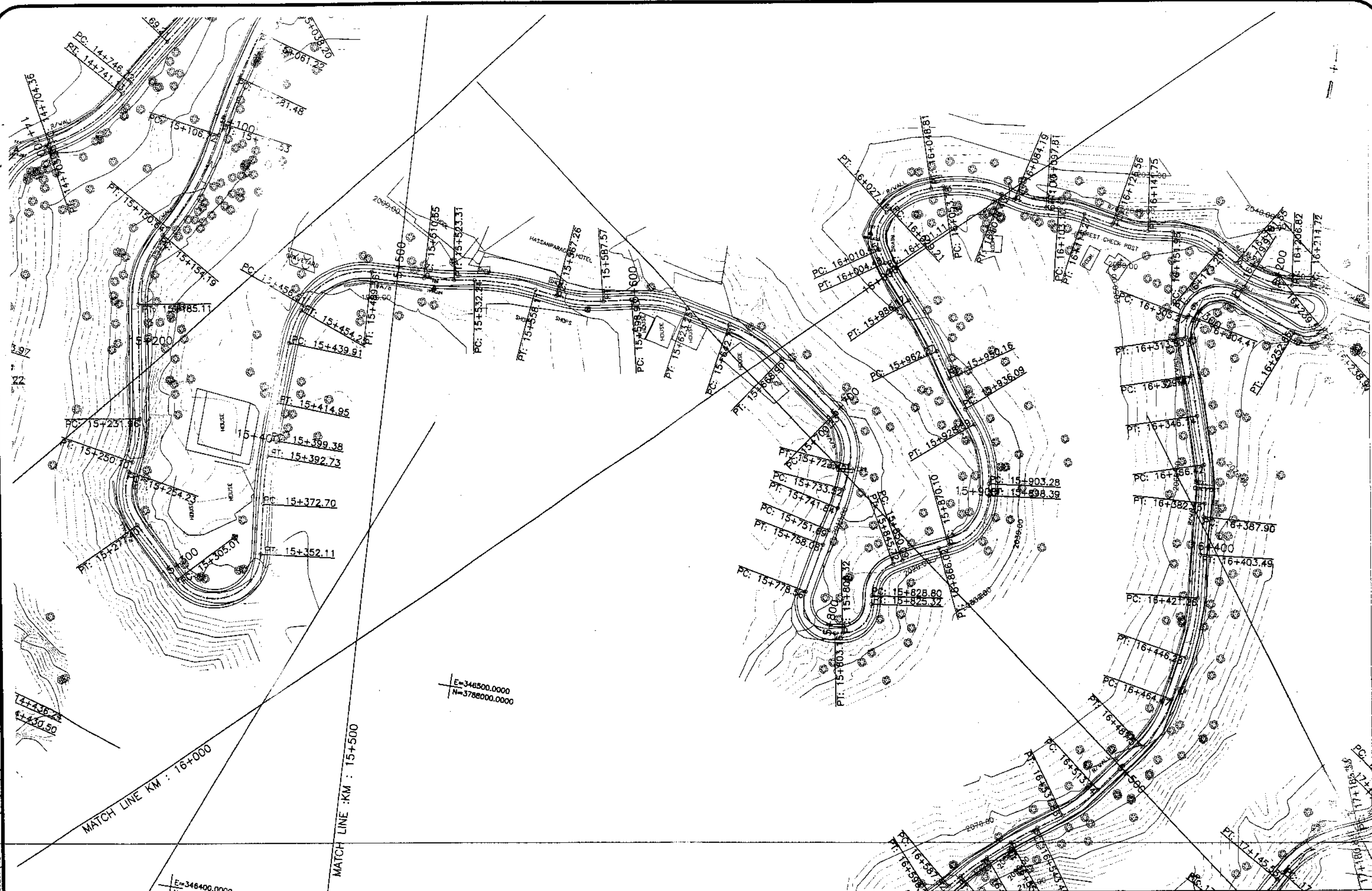
DRAWN: JUNWAD KHAN
SUBMITTED: NOSHERWAN NAEEM
RECOMMENDED:
CHD./VER.
APPROVED:

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM (PACKAGE-2)

PROFILE
KM: 15+000 ~ KM: 15+500
SCALE: 1:1000

DATE: January 2021
DWG NO.: 4169/(ii)/TD/P 031

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KHYBER PAKHTUNKHWA
INTEGRATED TOURISM AND
ENTERPRISE DEVELOPMENT
PROJECT
COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK

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PAKISTAN (PVT.) LTD.

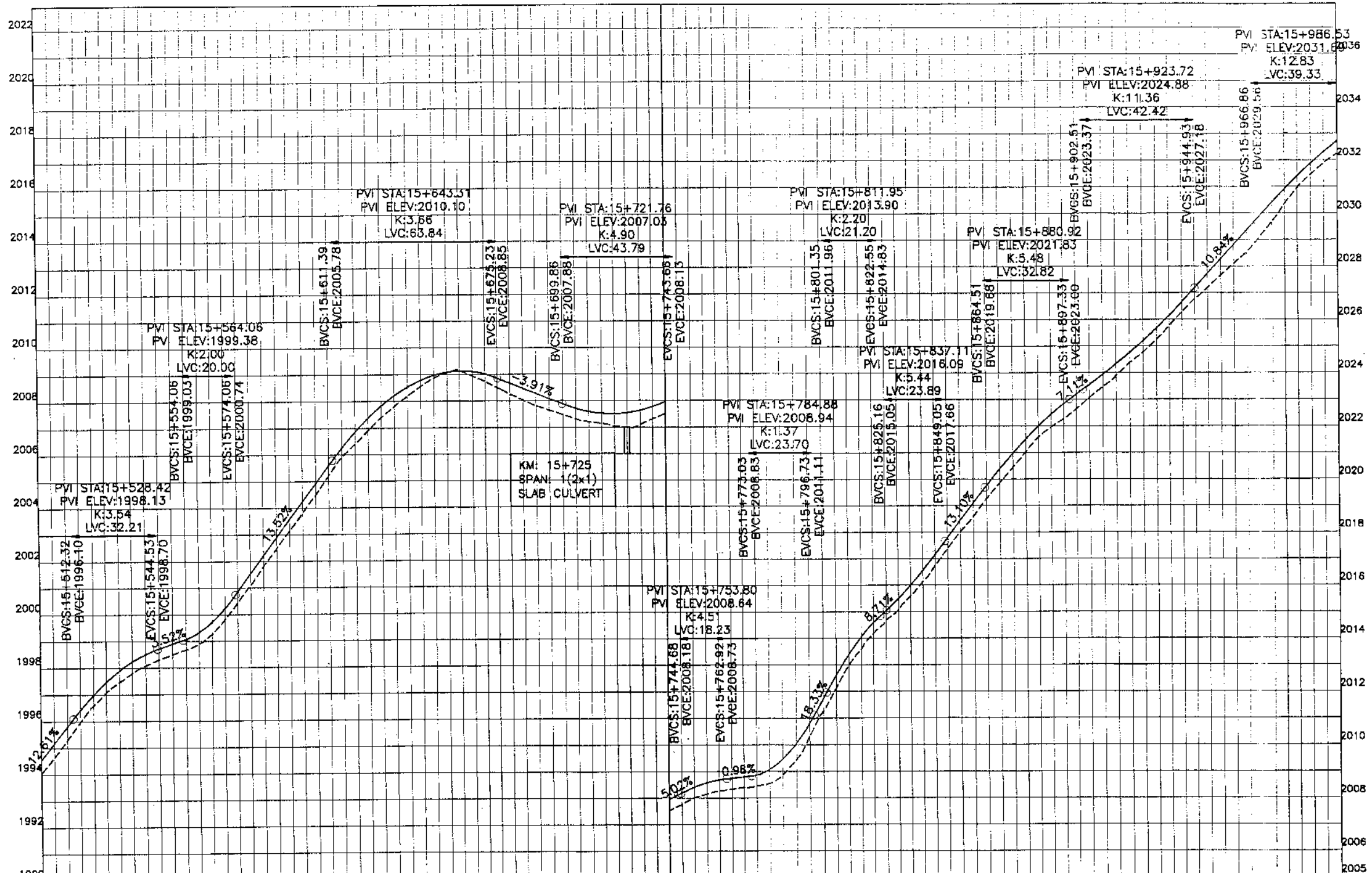
REV.	DATE	DESCRIPTION	APPROVED	APPROVED

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PLAN		SCALE
KM: 15+500 ~ KM: 16+000		1:1000
DATE	DWG NO.	
January 2021	4169/(R)/TD/P 32	

DRAWN	JUNAID KHAN
SUBMITTED	NOSHERWAN NAEEM
RECOMMENDED	
CHD./VER.	
APPROVED	

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Station	Horizontal Geometry	Vertical Geometry	Design Levels	Ground Levels
15+500	R=127.32	L=12.17	1994.982	1994.982
15+528.42	R=100.86	L=12.17	1996.596	1996.596
15+544.53	R=61.07	L=12.17	1998.084	1998.084
15+564.06	R=60.00	L=12.17	1998.881	1998.881
15+574.06	R=60.07	L=12.17	2001.099	2001.099
15+611.39	R=22.41	L=12.17	2003.814	2003.814
15+643.51	R=60.00	L=12.17	2006.392	2006.392
15+675.23	R=22.41	L=12.17	2008.194	2008.194
15+699.86	R=60.00	L=12.17	2009.149	2009.149
15+721.76	R=22.41	L=12.17	2008.259	2008.259
15+725	R=60.00	L=12.17	2007.484	2007.484
15+733.69	R=22.41	L=12.17	2007.014	2007.014
15+744.68	R=60.00	L=12.17	2007.522	2007.522
15+762.92	R=22.41	L=12.17	2008.262	2008.262
15+773.03	R=60.00	L=12.17	2008.549	2008.549
15+796.73	R=22.41	L=12.17	2011.253	2011.253
15+801.35	R=60.00	L=12.17	2014.167	2014.167
15+811.95	R=22.41	L=12.17	2016.120	2016.120
15+825.16	R=60.00	L=12.17	2018.586	2018.586
15+849.05	R=22.41	L=12.17	2021.027	2021.027
15+857.11	R=60.00	L=12.17	2022.639	2022.639
15+864.51	R=22.41	L=12.17	2024.371	2024.371
15+880.92	R=60.00	L=12.17	2026.279	2026.279
15+897.33	R=22.41	L=12.17	2028.097	2028.097
15+902.51	R=60.00	L=12.17	2030.357	2030.357
15+923.72	R=22.41	L=12.17	2032.246	2032.246
15+966.86	R=60.00	L=12.17		
15+986.53	R=22.41	L=12.17		



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DEPARTMENT, KPK

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PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED

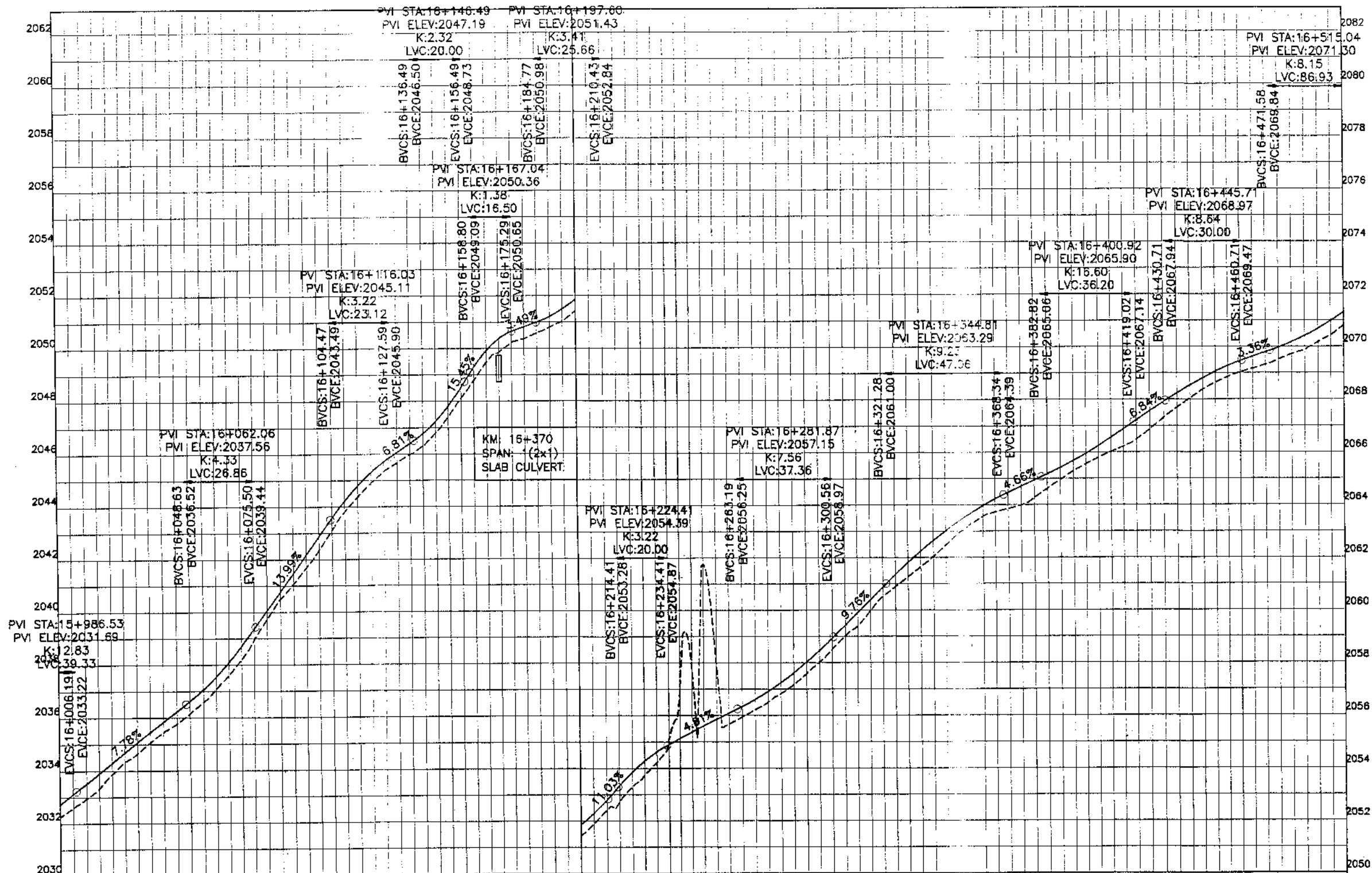
DRAWN JUNARD KHAN
SUBMITTED NOSHERWAN NAEM
RECOMMENDED
CHD./VER.
APPROVED

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PROFILE
KM: 15+500 ~ KM: 16+000
SCALE 1:1000

DATE January 2021
DWG NO. 4168/(H)/TD/P 032

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Station	16+000	16+100	16+200	16+300	16+400	16+500
Horizontal Geom	R=16.73R=13.65 R=31.86 R=45.92 R=42.48 R=41.54 R=47.89 R=31.42 R=38.82 R=10.08 R=10.77 R=13.94 R=16.34 R=1532.15 R=85.46 R=333.85 R=90.81 R=49.21					
Vertical Geom	L=7.75 G=2.44	L=7.75 G=2.44	L=23.12 G=3.22	L=23.12 G=3.22	L=23.12 G=3.22	L=23.12 G=3.22
Design levels	2032.246	2033.867	2034.291	2035.449	2037.067	2037.551
Ground Levels	2032.246	2033.867	2034.291	2035.449	2037.067	2037.551



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INTEGRATED TOURISM AND
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PROJECT
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DEPARTMENT, KPK

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PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PROFILE		SCALE
KM: 16+000 ~ KM: 16+500		1:1000
DATE	DWG NO.	
January 2021	4169/(11)/TD/P 033	

DRAWN	JUNAID KHAN
SUBMITTED	MOSHERWAN NAEE
RECOMMENDED	
CHD./VER.	
APPROVED	

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INTEGRATED TOURISM AND
ENTERPRISE DEVELOPMENT
PROJECT
COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK

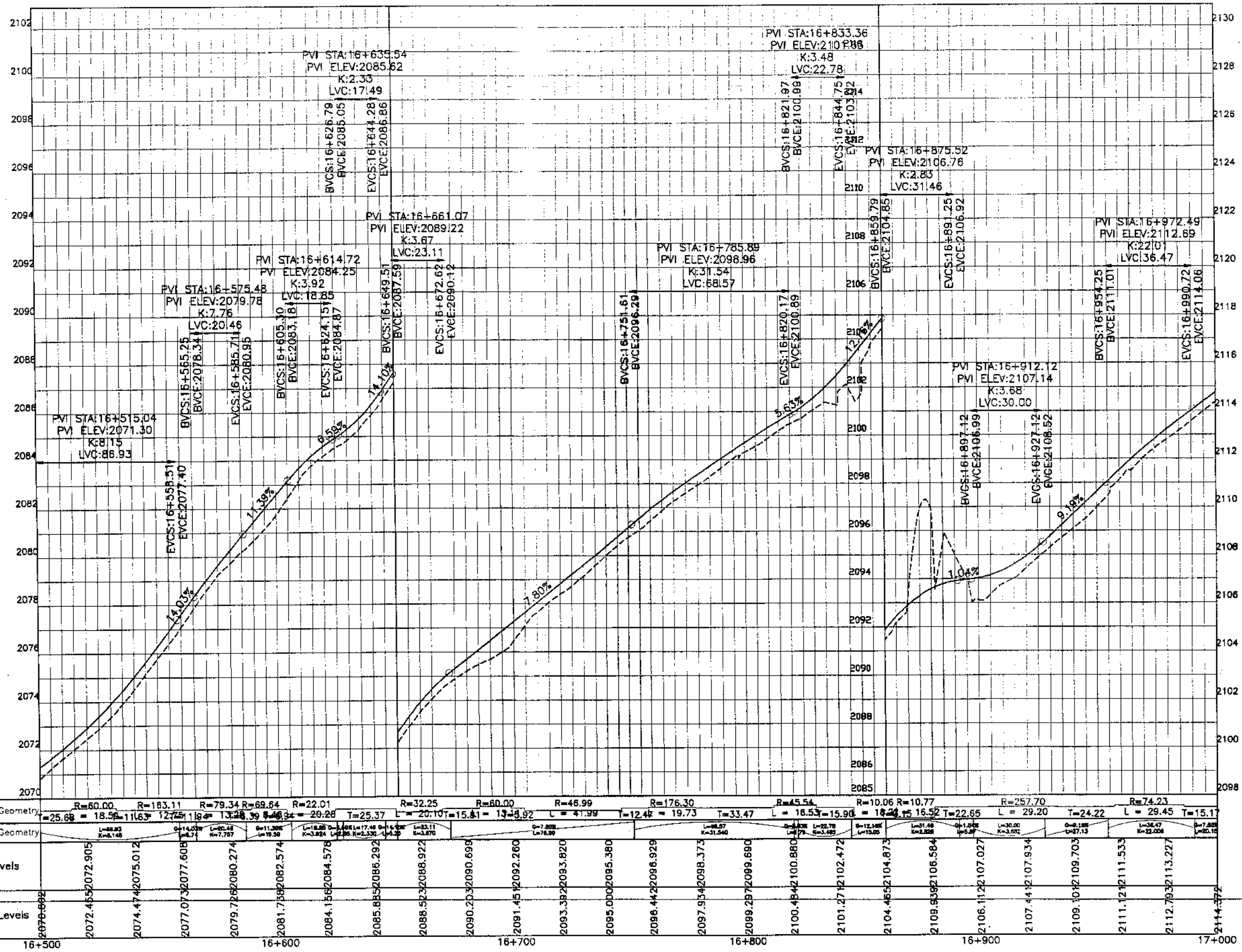
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NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED

DRAWN JUNAID KHAN
SUBMITTED NOSHERWAN NAEEM
RECOMMENDED
CHD./VER.
APPROVED

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM (PACKAGE-2)

PLAN		SCALE
KM: 16+500 ~ KM: 17+000		1:1000
DATE	DWG NO.	
January 2021	4169/(ii)/TD/P 34	



Horizontal Geometry	R=60.00	R=163.11	R=79.34	R=69.84	R=22.01	R=32.25	R=60.00	R=46.99	R=176.30	R=45.54	R=10.06	R=10.77	R=257.70	R=74.23																																		
Vertical Geometry	L=25.68	L=18.56	L=116.63	L=12.75	L=119.4	L=13.28	L=39.46	L=29.28	L=25.37	L=20.10	L=15.81	L=13.43	L=9.2	L=4.99	L=12.42	L=19.73	L=33.47	L=18.53	L=15.90	L=18.24	L=16.52	L=22.65	L=29.20	L=24.22	L=29.45	L=15.17																						
Design levels	2072.45	2072.905	2074.47	2075.012	2077.07	2077.608	2079.72	2080.274	2081.73	2082.574	2084.15	2084.578	2085.85	2086.292	2088.52	2088.922	2090.25	2090.699	2091.45	2092.260	2093.39	2093.820	2095.00	2095.380	2098.44	2098.929	2097.93	2098.373	2099.29	2099.690	2100.48	2100.880	2101.27	2102.472	2104.46	2104.873	2108.63	2108.584	2106.11	2107.027	2107.44	2107.934	2109.10	2109.703	2111.12	2111.533	2112.70	2113.227
Ground Levels	2076.692	2072.45	2074.47	2075.012	2077.07	2077.608	2079.72	2080.274	2081.73	2082.574	2084.15	2084.578	2085.85	2086.292	2088.52	2088.922	2090.25	2090.699	2091.45	2092.260	2093.39	2093.820	2095.00	2095.380	2098.44	2098.929	2097.93	2098.373	2099.29	2099.690	2100.48	2100.880	2101.27	2102.472	2104.46	2104.873	2108.63	2108.584	2106.11	2107.027	2107.44	2107.934	2109.10	2109.703	2111.12	2111.533	2112.70	2113.227



KHYBER PAKHTUNKHWA
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ENTERPRISE DEVELOPMENT
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DEPARTMENT, KPK

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PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED

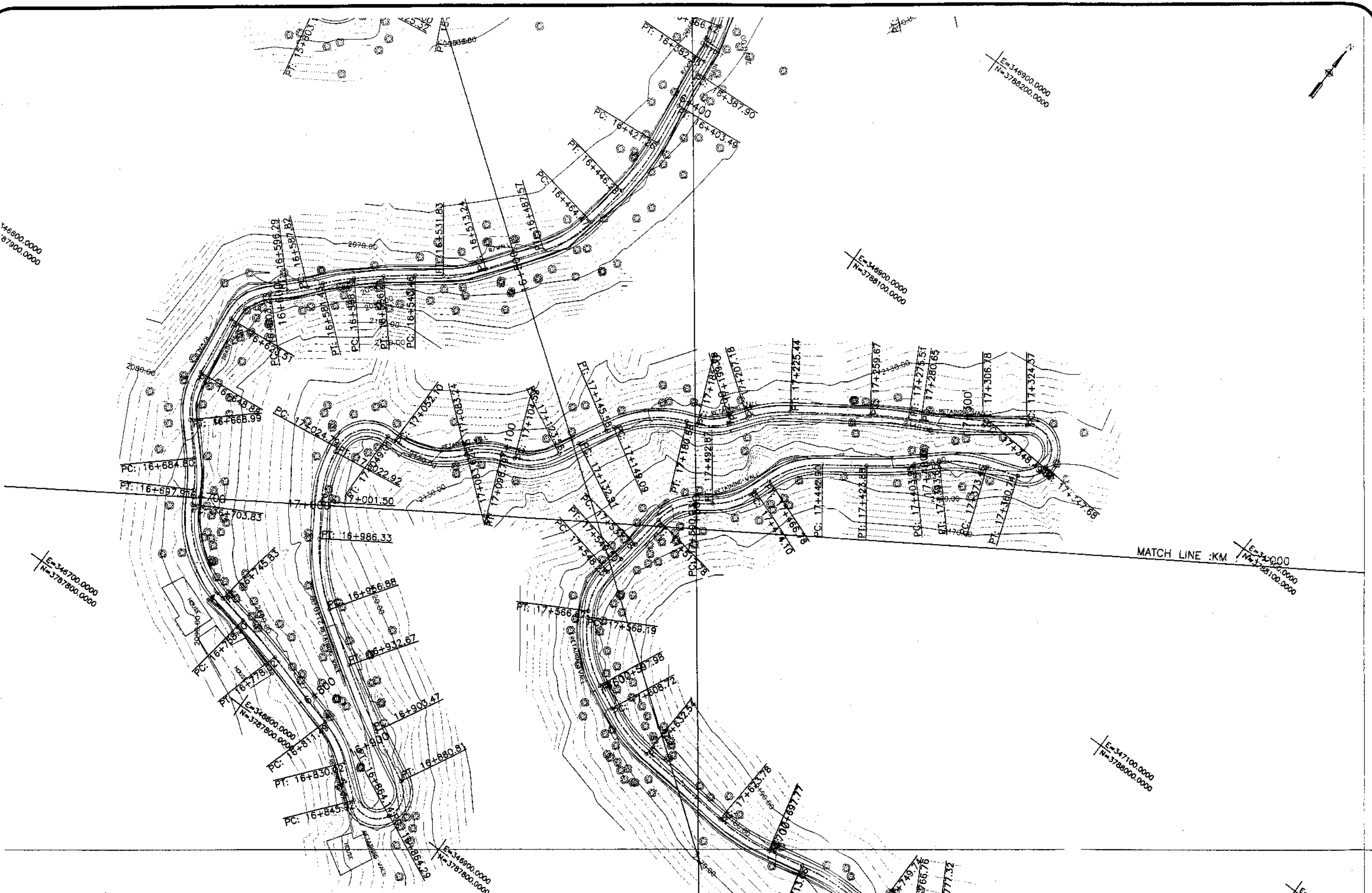
DRAWN JUNAD KHAN
SUBMITTED NOSHERWAN NAEEM
RECOMMENDED
CHD./VER.
APPROVED


REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM


PROFILE
KM: 16+500 ~ KM: 17+000
SCALE 1:1000

DATE January 2021
DWG NO. 4169/(ii)/TD/P 034

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**KHYBER PAKHTUNKHWA
INTEGRATED TOURISM AND
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PROJECT**
 COMMUNICATION & WORKS (C&W)
 DEPARTMENT, KPK


**NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.**

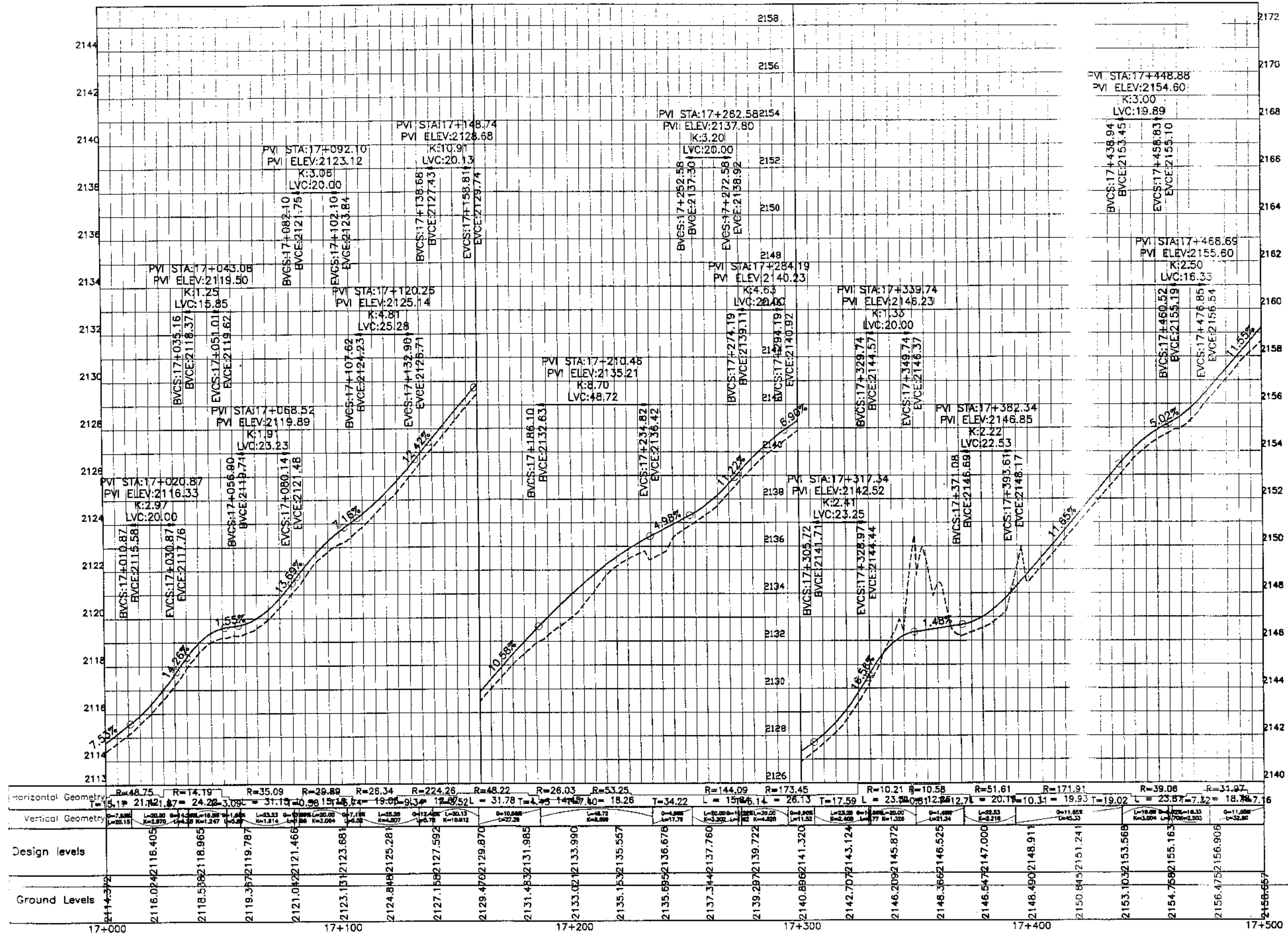
REV.	DATE	DESCRIPTION	APPROVED	APPROVED

DRAWN JUNAD KHAN
 SUBMITTED NOSHERWAN NAEEM
 RECOMMENDED
 CHD./VER.
 APPROVED

**REHABILITATION AND UPGRADE OF
THANDIARI ROAD IN DISTRICT
ABBOTTABAD - 24 KM**

PLAN		SCALE
KM: 17+000 ~ KM: 17+500		1:1000
DATE	DWG NO.	
January 2021	4169/(1)/TD/P 35	

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KHYBER PAKHTUNKHWA
INTEGRATED TOURISM AND
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COMMUNICATION & WORKS (C&W)
DEPARTMENT, KFK

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PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED

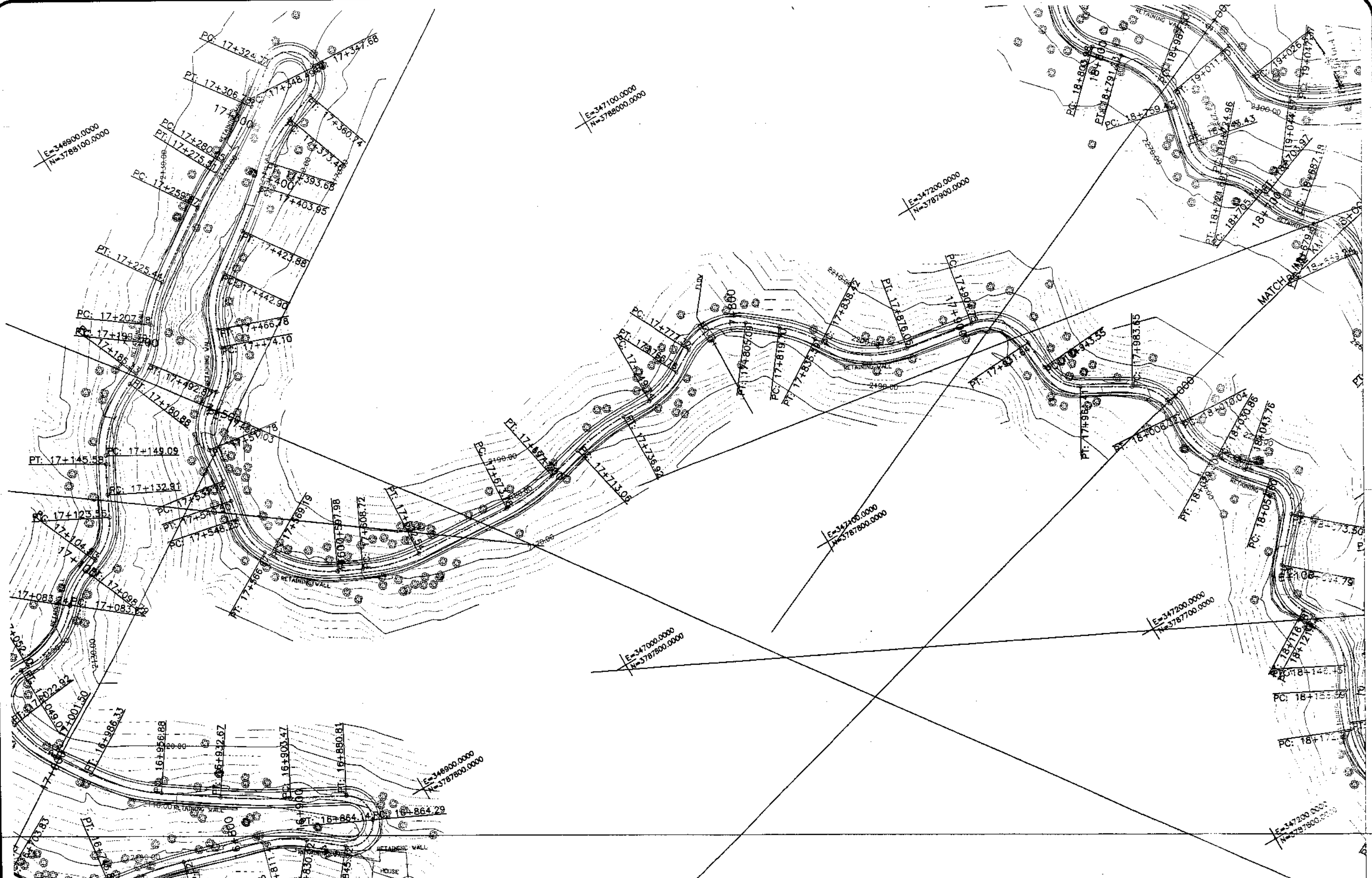
DRAWN: JUNAID KHAN
SUBMITTED: MOSHERWAN NAEEM
RECOMMENDED:
CHD./VER.
APPROVED:

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PROFILE
KM: 17+000 ~ KM: 17+500
SCALE: 1:1000

DATE: January 2021
DWG NO.: 4169/(ii)/TD/P 035

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KHYBER PAKHTUNKHWA
INTEGRATED TOURISM AND
ENTERPRISE DEVELOPMENT
PROJECT
COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK



NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

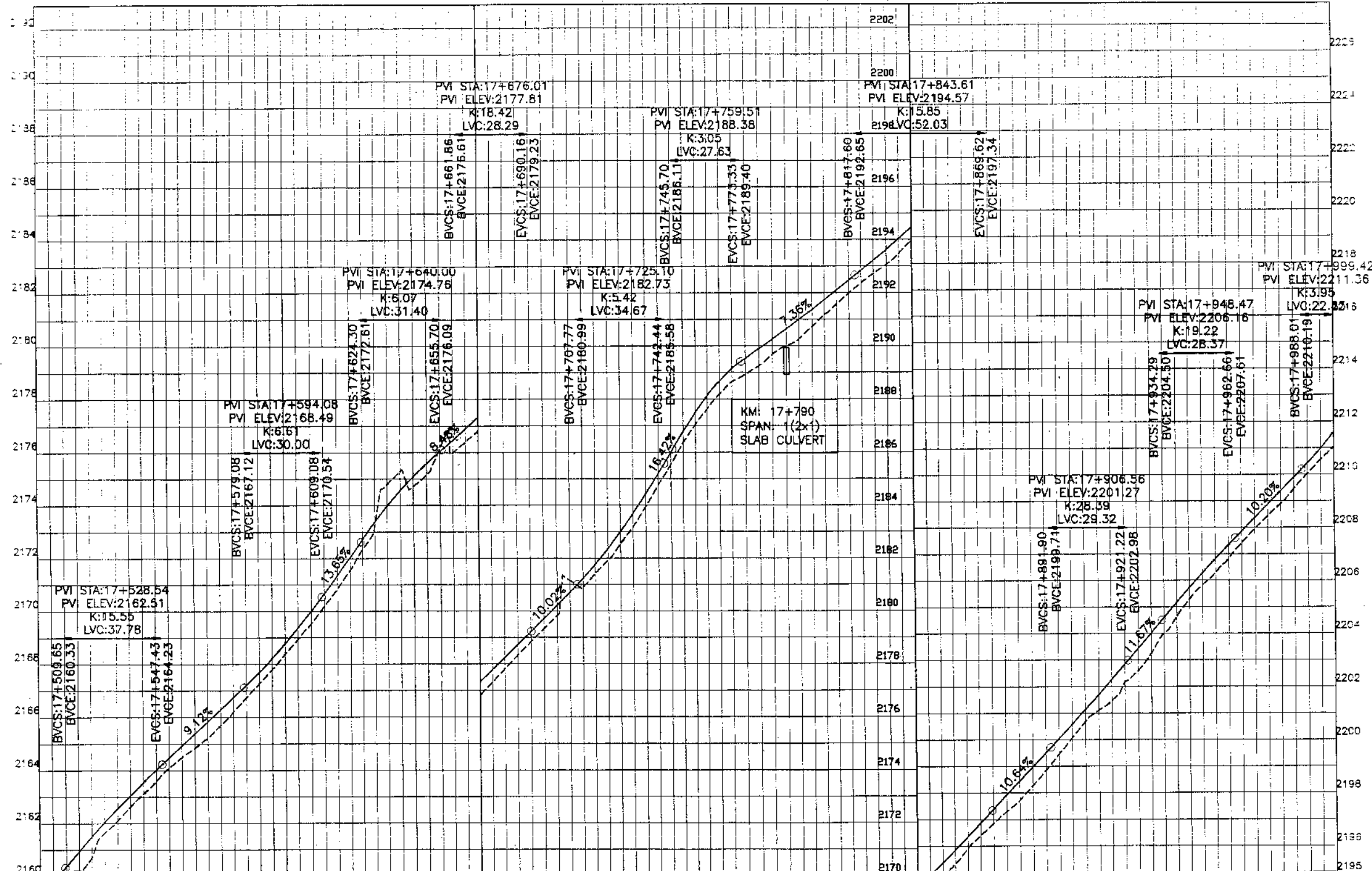
REV.	DATE	DESCRIPTION	APPROVED

DRAWN	JUNAID KHAN
SUBMITTED	NOSHERWAN MAEEM
RECOMMENDED	
CHD./VER.	
APPROVED	

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PLAN		SCALE
KM: 17+500 ~ KM: 18+000		1:1000
DATE	DWG NO.	
January 2021	4169/(ii)/TD/P 36	

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Station	17+500	17+550	17+600	17+650	17+700	17+750	17+800	17+850	17+900	17+950	18+000																																						
Horizontal Geometry	R=22.33	R=144.61	R=26.06	R=47.33	R=61.99	R=83.67	R=105.90	R=33.63	R=23.99	R=44.28	R=44.37																																						
Vertical Geometry	L=11.28 K=15.346	L=37.78 K=15.346	L=6.128 K=15.346	L=30.00 K=8.815	L=13.208 K=15.23	L=31.40 K=8.970	L=28.29 K=15.425	L=10.028 K=17.81	L=34.87 K=8.415	L=18.828 K=13.28	L=27.83 K=10.046	L=32.03 K=15.251																																					
Design Levels	2159.657	2160.702	2161.491	2163.106	2163.539	2164.832	2165.380	2166.732	2167.204	2168.922	2169.358	2171.547	2172.027	2175.284	2175.974	2176.454	2177.817	2178.239	2179.824	2180.215	2181.915	2182.356	2184.739	2185.181	2187.817	2188.124	2189.212	2189.887	2190.719	2191.359	2192.356	2192.832	2193.951	2194.450	2195.910	2196.341	2197.717	2198.440	2200.066	2200.580	2202.165	2202.836	2204.421	2205.162	2206.817	2207.333	2208.899	2209.374	2211.649
Ground Levels	2159.657	2160.702	2161.491	2164.832	2165.380	2166.732	2167.204	2168.922	2169.358	2171.547	2172.027	2175.284	2175.974	2176.454	2177.817	2178.239	2179.824	2180.215	2181.915	2182.356	2184.739	2185.181	2187.817	2188.124	2189.212	2189.887	2190.719	2191.359	2192.356	2192.832	2193.951	2194.450	2195.910	2196.341	2197.717	2198.440	2200.066	2200.580	2202.165	2202.836	2204.421	2205.162	2206.817	2207.333	2208.899	2209.374	2211.649		

**KHYBER PAKHTUNKHWA
INTEGRATED TOURISM AND
ENTERPRISE DEVELOPMENT
PROJECT**
COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK

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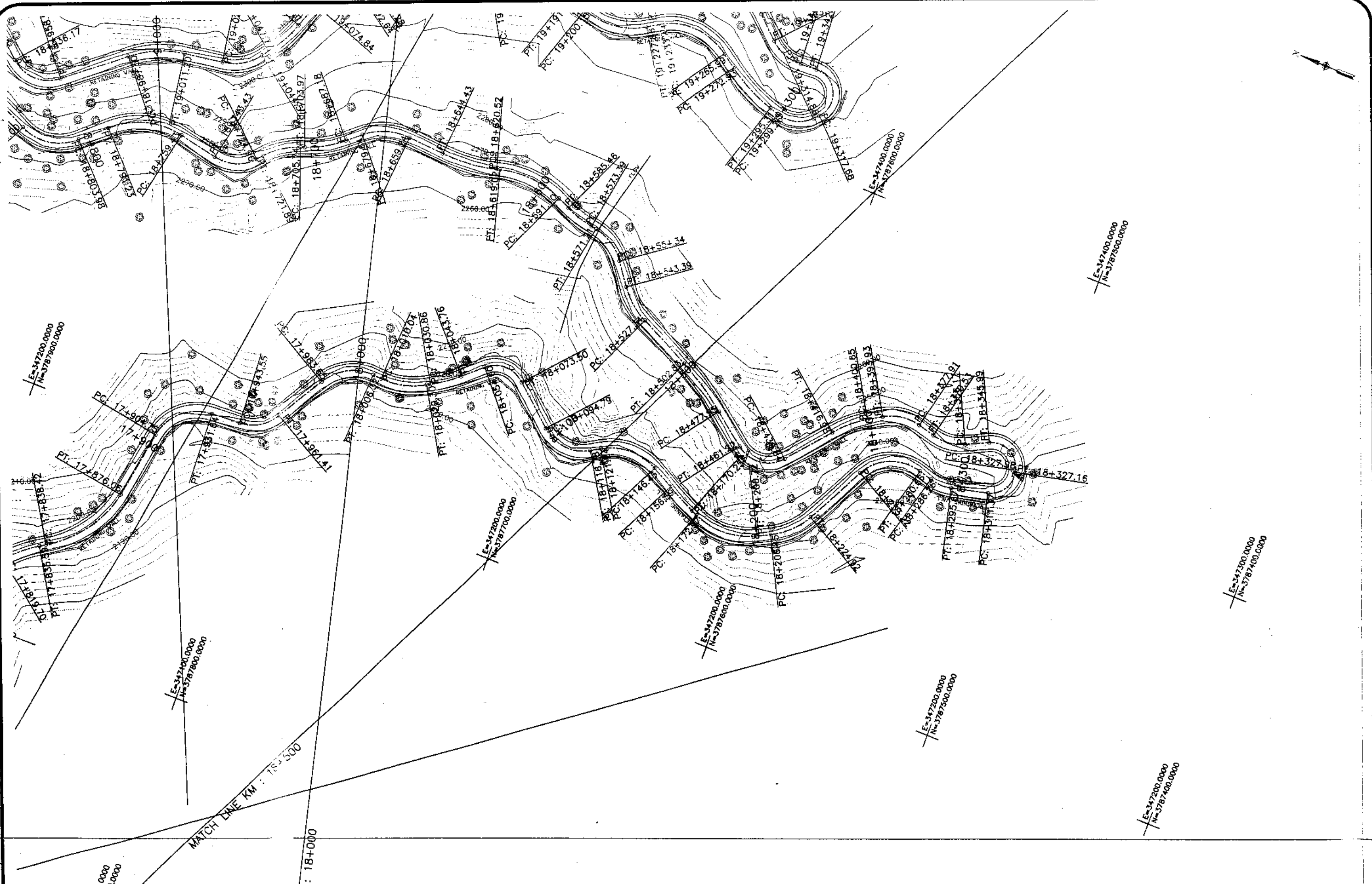
REV.	DATE	DESCRIPTION	APPROVED

DRAWN	JUNAD KHAN
SUBMITTED	NOSHERWAN NAEEM
RECOMMENDED	
CHD./VER.	
APPROVED	

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PROFILE		SCALE
KM: 17+500 ~ KM: 18+000		1:1000
DATE	DWG NO.	
January 2021	4169/(R)/TD/P 036	

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KHYBER PAKHTUNKHWA
INTEGRATED TOURISM AND
ENTERPRISE DEVELOPMENT
PROJECT
COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK



NATIONAL ENGINEERING SERVICES
F-11 KISTAN (PVT.) LTD.

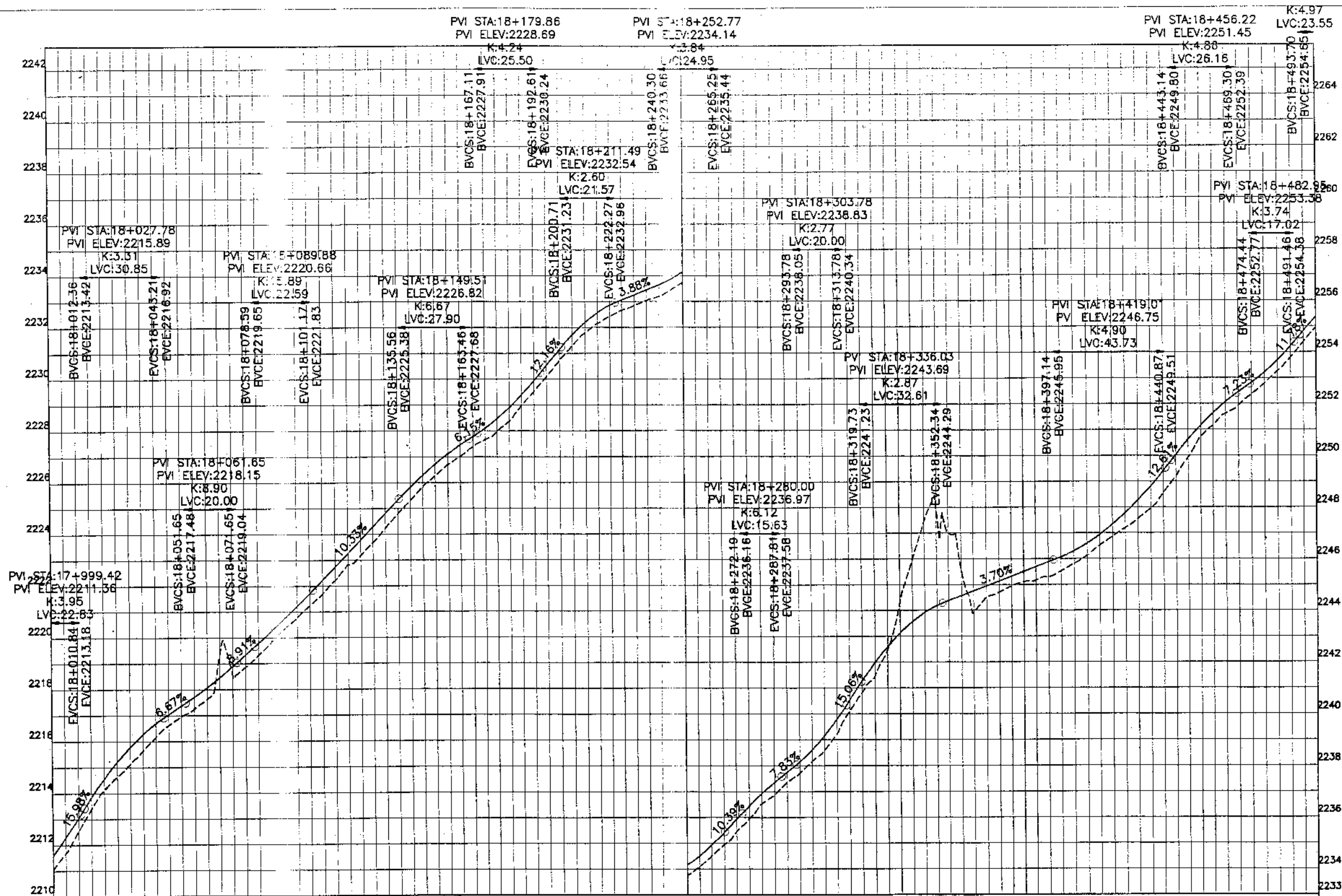
REV.	DATE	DESCRIPTION	APPROVED	APPROVED

DRAWN JUNAID KHAN
SUBMITTED NOSHERWAN HAEEM
RECOMMENDED
CHD./VER.
APPROVED

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PLAN		SCALE
KM: 18+000 ~ KM: 18+500		1:1000
DATE	DWG NO.	
January 2021	4169/(ii)/TD/P	

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Station	18+000	18+100	18+200	18+300	18+400	18+500																																									
Horizontal Geometry	R=26.42 R=32.80 R=65.36	R=13.09	R=17.45 R=24.78 R=142.57 R=32.50	R=30.61	R=20.31 R=18.33 R=10.17 R=10.00	R=20.58 R=20.21 R=50.28																																									
Vertical Geometry	L=22.80 K=3.989	L=30.80 K=3.312	L=3.75 K=4.44 L=20.00 K=4.803	L=6.31 K=4.81 L=25.50 K=10.992	L=10.33 K=3.8 L=12.80 K=4.238 L=12.10 K=2.84 L=21.27 K=2.804	L=24.85 K=3.833 L=10.65 K=2.84 L=12.00 K=2.758 L=15.00 K=2.84 L=32.41 K=2.870	L=1.75 K=4.44 L=1.75 K=4.44 L=4.75 K=4.804 L=7.25 K=4.804 L=17.00 K=4.804 L=17.00 K=4.804																																								
Design Levels	2214.14	2214.556	2216.16	2216.667	2217.62	2218.075	2219.30	2219.782	2221.24	2221.708	2223.175	2223.774	2225.309	2225.826	2227.019	2227.459	2228.370	2228.894	2230.71	2231.140	2232.426	2232.858	2233.192	2233.644	2234.50	2234.926	2236.528	2238.15	2238.604	2240.83	2241.272	2245.926	2243.588	2245.60	2244.573	2244.939	2245.312	2245.526	2246.060	2246.858	2247.324	2248.546	2249.403	2251.15	2251.633	2252.780	2253.208
Ground Levels	2211.049	2214.14	2216.16	2216.667	2217.62	2218.075	2219.30	2219.782	2221.24	2221.708	2223.175	2223.774	2225.309	2225.826	2227.019	2227.459	2228.370	2228.894	2230.71	2231.140	2232.426	2232.858	2233.192	2233.644	2234.50	2234.926	2236.528	2238.15	2238.604	2240.83	2241.272	2245.926	2243.588	2245.60	2244.573	2244.939	2245.312	2245.526	2246.060	2246.858	2247.324	2248.546	2249.403	2251.15	2251.633	2252.780	2253.208



KHYBER PAKHTUNKHWA
INTEGRATED TOURISM AND
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DEPARTMENT, KPK

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PAKISTAN (P.T.) LTD.

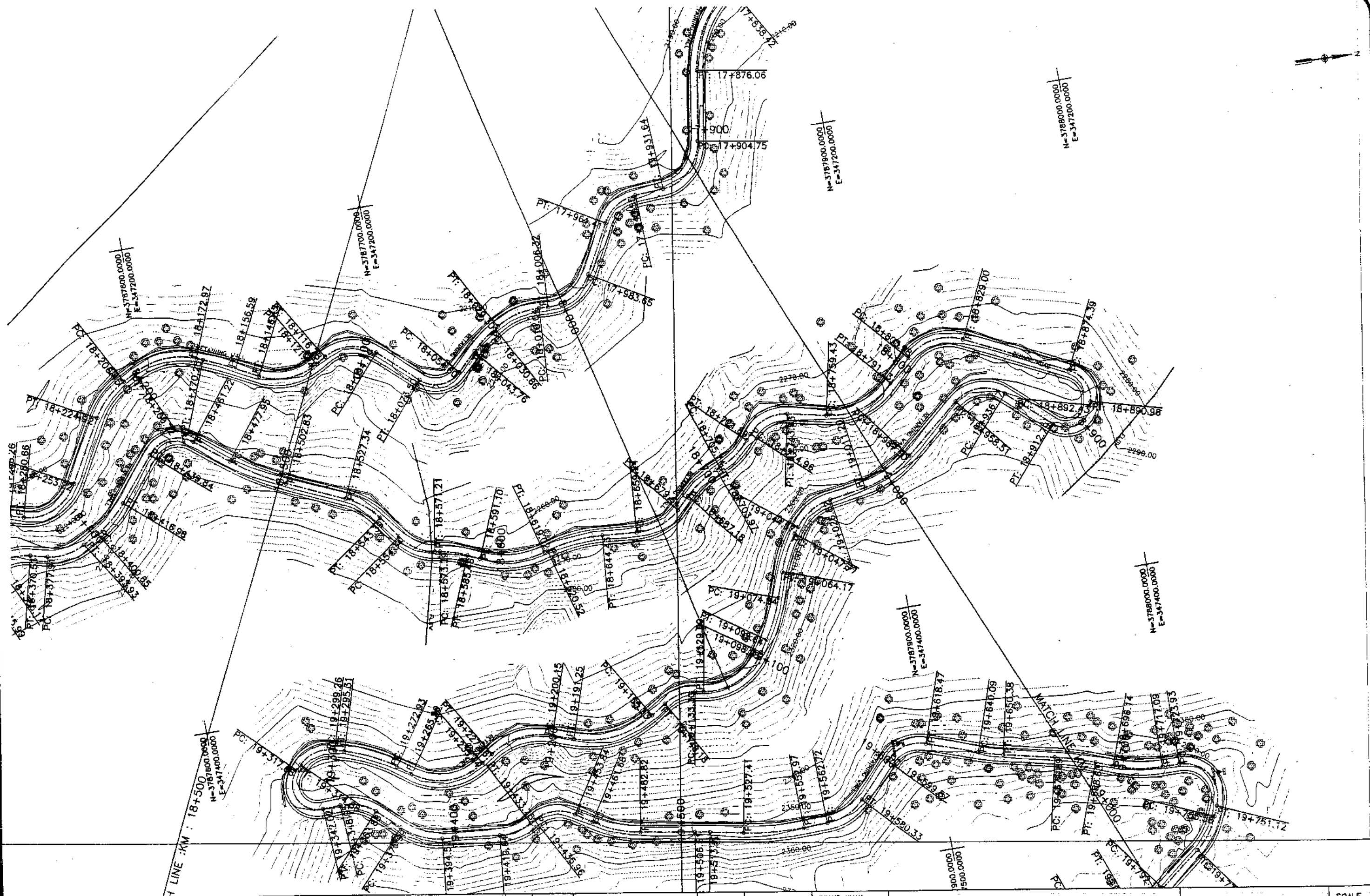
REV.	DATE	DESCRIPTION	APPROVED

DRAWN	JUNAD KHAN
SUBMITTED	NOSHERWAN NAEEM
RECOMMENDED	
CHD./VER.	
APPROVED	

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PROFILE		SCALE
KM: 18+000 ~ KM: 18+500		1:1000
DATE	DWG NO.	
January 2021	4169/(R)/TD/P 037	

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INTEGRATED TOURISM AND
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PROJECT
COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK



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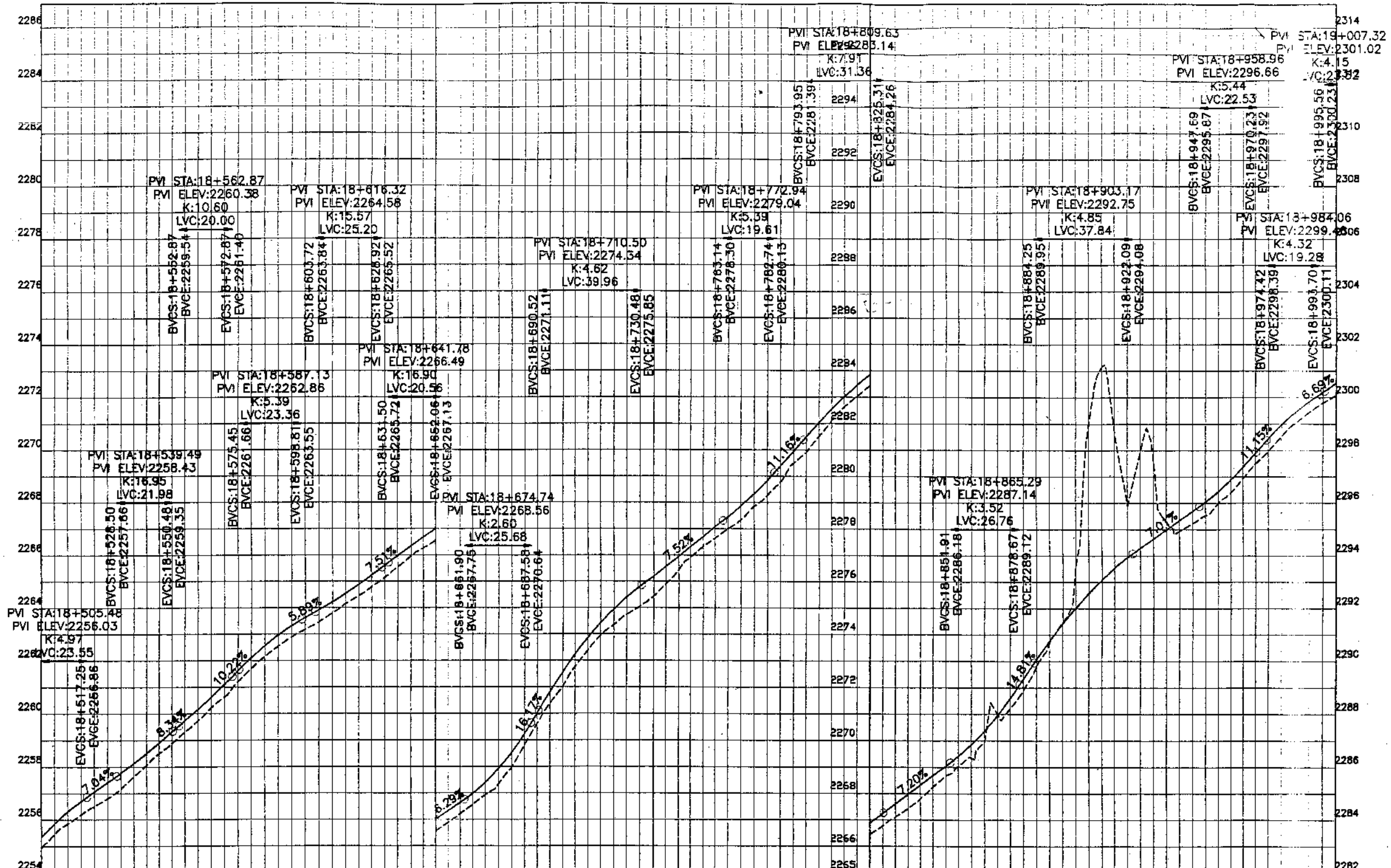
REV.	DATE	DESCRIPTION	APPROVED	APPROVED

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PLAN		SCALE
KM: 18+500 ~ KM: 19+000		1:1000
DATE	DWG NO.	
January 2021	4169/(ii)/TD/P 38	

DRAWN JUNAID KHAN
SUBMITTED NOSHERWAN NAEEM
RECOMMENDED
CHD./VER.
APPROVED

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Station	Horizontal Geometry	Vertical Geometry	Design Levels	Ground Levels
18+500	R=31.45	L=24.66	2254.937	2254.937
18+550	R=21.84	L=16.85	2256.5	2256.5
18+600	R=48.84	L=10.85	2258.05	2258.05
18+650	R=40.25	L=10.85	2259.7	2259.7
18+700	R=66.41	L=10.85	2261.7	2261.7
18+750	R=25.88	L=10.85	2263.17	2263.17
18+800	R=48.58	L=10.85	2264.4	2264.4
18+850	R=33.52	L=10.85	2265.95	2265.95
18+900	R=17.56	L=10.85	2267.2	2267.2
18+950	R=32.91	L=10.85	2268.95	2268.95
19+000	R=20.74	L=10.85	2272.02	2272.02



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DEPARTMENT, KPK

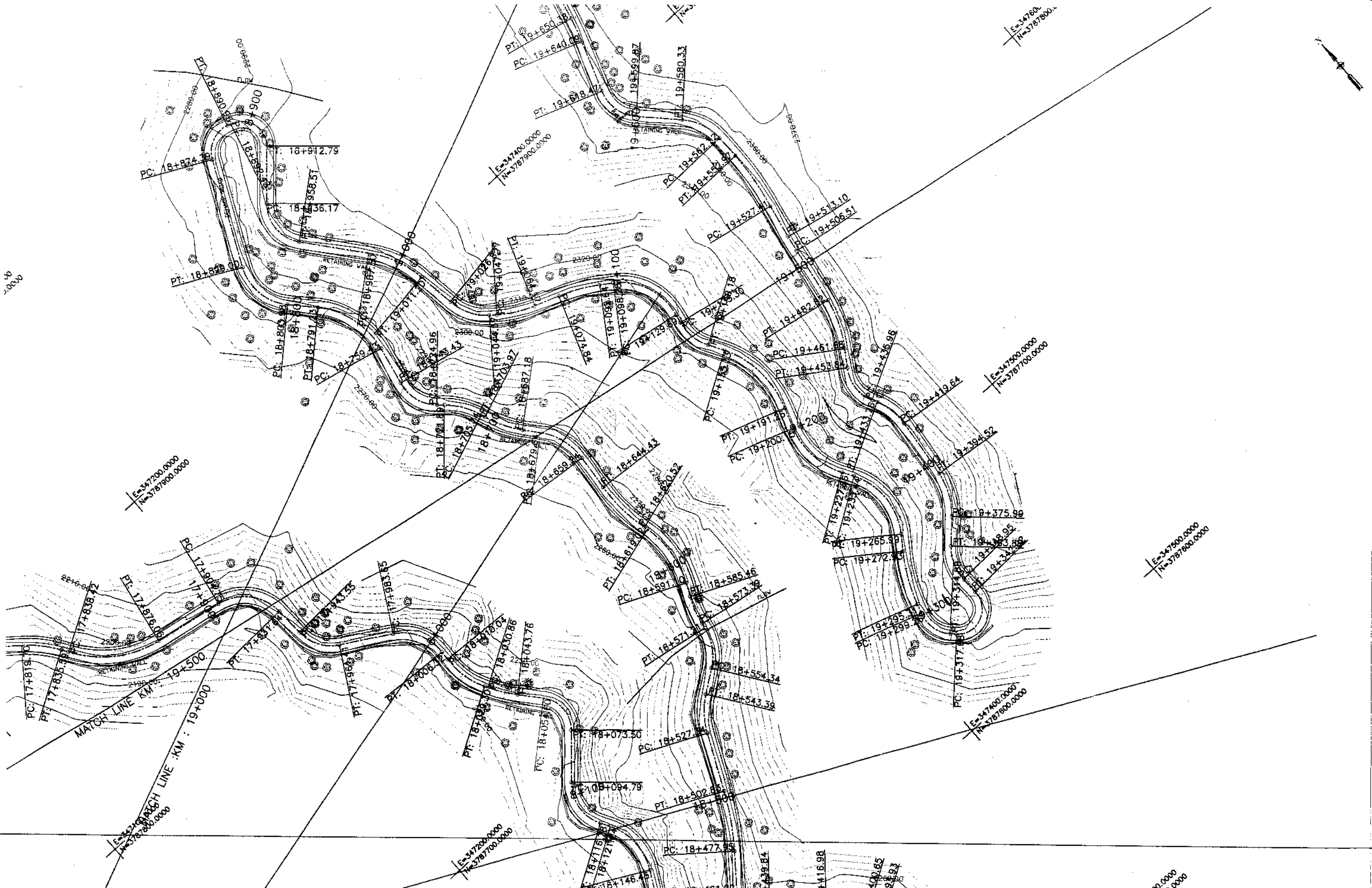
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NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PROFILE		SCALE
KM: 18+500 ~ KM: 19+000		1:1000
DATE	DWG NO.	
January 2021	4169/(ii)/TD/P 038	

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KHYBER PAKHTUNKHWA
INTEGRATED TOURISM AND
ENTERPRISE DEVELOPMENT
PROJECT
COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK



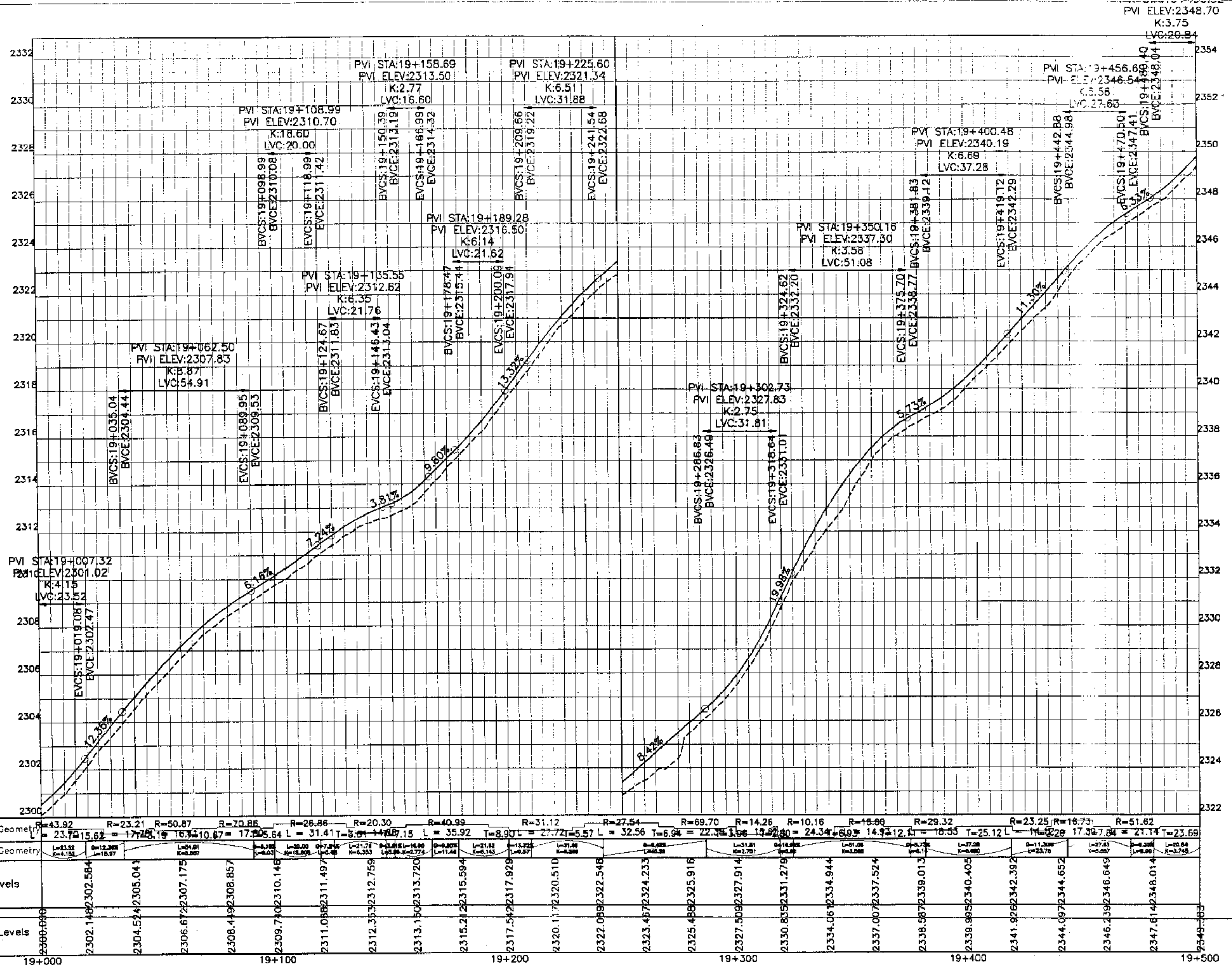
NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED

DRAWN	JUNAD KHAN
SUBMITTED	NOSHERWAN NAEEM
RECOMMENDED	
CHD./VER.	
APPROVED	

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PLAN		SCALE
KM: 19+000 ~ KM: 19+500		1:1000
DATE	DWG NO.	
January 2021	4169/(ii)/TD/P 39	



Station	Horizontal Geometry	Vertical Geometry	Design Levels	Ground Levels
19+000	R=43.92	L=23.72	2302.14	2300.00
2302.14	R=23.21	L=15.62	2302.30	2301.08
2304.54	R=50.87	L=17.23	2304.42	2302.47
2306.67	R=70.86	L=16.41	2306.67	2304.08
2308.49	R=26.86	L=10.67	2308.49	2308.85
2309.74	R=20.30	L=31.41	2309.74	2310.14
2311.08	R=40.99	L=15.01	2311.08	2311.49
2312.35	R=31.12	L=16.29	2312.35	2312.75
2313.15	R=27.64	L=16.29	2313.15	2313.72
2315.21	R=69.70	L=11.28	2315.21	2315.59
2317.54	R=14.26	L=12.72	2317.54	2317.92
2320.11	R=10.16	L=12.72	2320.11	2320.51
2322.09	R=18.89	L=5.57	2322.09	2322.54
2323.47	R=29.32	L=32.56	2323.47	2324.23
2325.48	R=23.25	L=6.94	2325.48	2325.91
2327.50	R=16.73	L=22.35	2327.50	2327.91
2330.85	R=51.62	L=14.93	2330.85	2331.27
2334.06	R=16.73	L=24.34	2334.06	2334.94
2337.00	R=16.73	L=14.93	2337.00	2337.52
2338.58	R=16.73	L=14.93	2338.58	2339.01
2339.98	R=16.73	L=14.93	2339.98	2340.40
2341.92	R=16.73	L=14.93	2341.92	2342.39
2344.09	R=16.73	L=14.93	2344.09	2344.65
2346.23	R=16.73	L=14.93	2346.23	2346.64
2347.61	R=16.73	L=14.93	2347.61	2348.01



KHYBER PAKHTUNKHWA
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PROJECT
COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK

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NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED

DRAWN: JUNAD KHAN
SUBMITTED: NOSHERWAN NAEEM
RECOMMENDED:
CHD./VER.
APPROVED:

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PROFILE		SCALE
KM: 19+000 ~ KM: 19+500		1:1000
DATE	DWG NO.	
January 2021	4169/(i)/TD/P 039	

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KHYBER PAKHTUNKHWA
INTEGRATED TOURISM AND
ENTERPRISE DEVELOPMENT
PROJECT
COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK

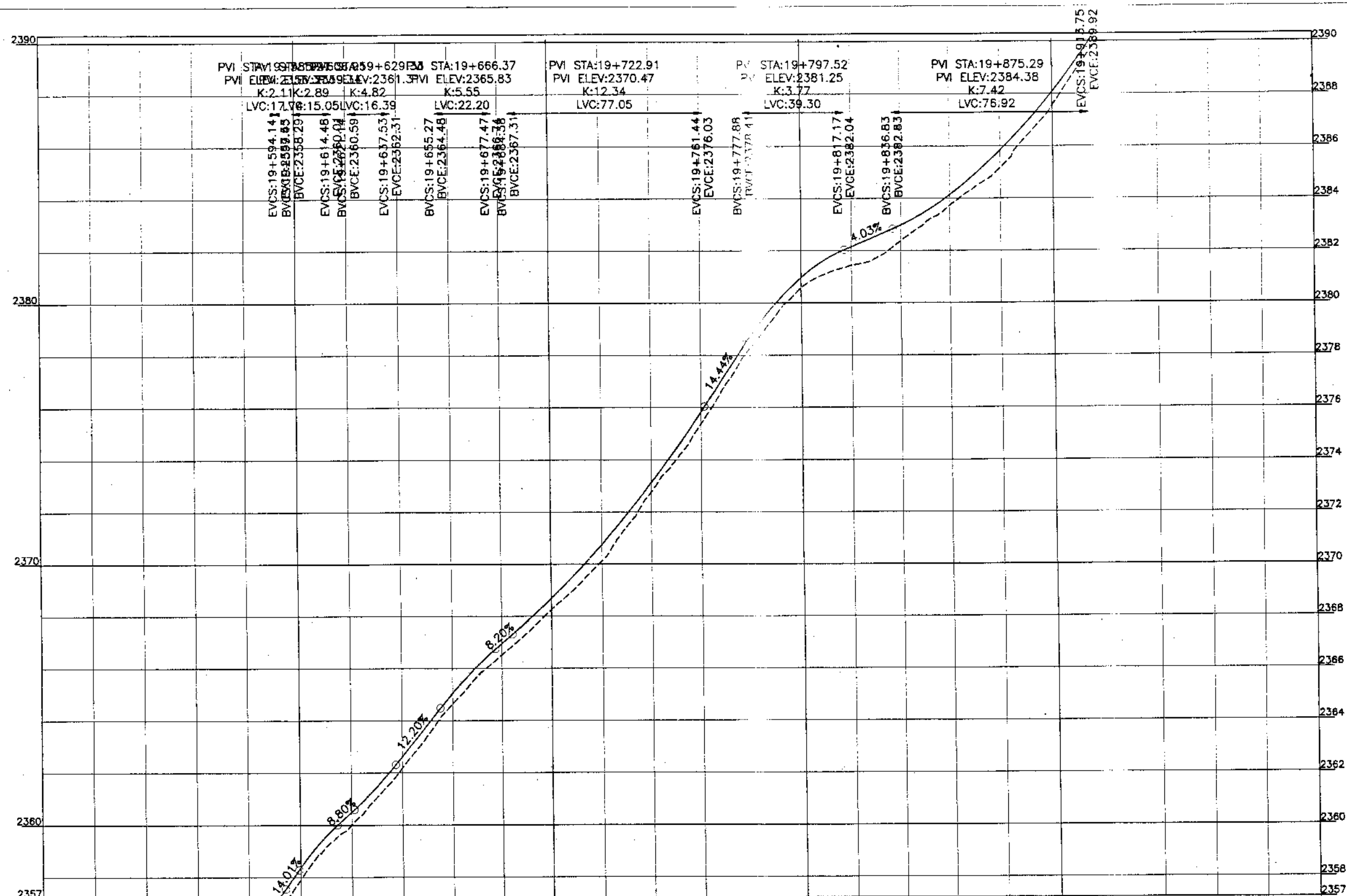
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PAK
NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED


REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM


PLAN	SCALE
KM: 19+500 ~ KM: 20+000	1:1000
DATE	DWG NO.
January 2021	4169/(ii)/TD/P. 40

DRAWN JUNAID KHAN
SUBMITTED NOSHERWAN NAEEM
RECOMMENDED
CHD./VER.
APPROVED



Station	19+500	19+550	19+600	19+650	19+700	19+750	19+800	19+850	19+900	19+950	20+000																																					
Horizontal Geometry	R=231.81	R=115.75	R=23.25	R=18.63	R=92.32	R=118.38	R=60.00	R=13.82	R=31.53	R=53.85	R=60.00	R=17.88	R=119.29	R=12.72	R=17.06																																	
Vertical Geometry	L=2.32	L=4.32	L=25.55	L=9.75	L=17.61	L=19.54	L=18.60	L=21.62	L=10.26	L=21.51	L=16.75	L=20.95	L=6.84	L=27.19	L=4.46	L=15.63	L=22.96	L=15.86	L=19.46	L=17.52	L=28.34	L=19.88	L=20.47	L=13.09	L=25.00	L=1.92	L=25.31	L=22.36																				
Design levels	2349.303	2351.074	2352.034	2352.352	2352.489	2354.312	2355.609	2356.041	2357.924	2358.369	2360.004	2360.492	2362.180	2362.615	2364.651	2365.035	2366.526	2366.950	2368.259	2368.689	2370.124	2370.744	2372.757	2373.123	2375.370	2375.826	2377.209	2378.709	2380.577	2380.955	2381.435	2382.152	2382.367	2382.965	2383.727	2384.126	2385.165	2385.827	2387.545	2388.067	2390.378	2390.820	2392.750	2393.244	2394.258	2394.854	2395.980	2396.351
Ground Levels	2349.303	2351.074	2352.034	2352.352	2352.489	2354.312	2355.609	2356.041	2357.924	2358.369	2360.004	2360.492	2362.180	2362.615	2364.651	2365.035	2366.526	2366.950	2368.259	2368.689	2370.124	2370.744	2372.757	2373.123	2375.370	2375.826	2377.209	2378.709	2380.577	2380.955	2381.435	2382.152	2382.367	2382.965	2383.727	2384.126	2385.165	2385.827	2387.545	2388.067	2390.378	2390.820	2392.750	2393.244	2394.258	2394.854	2395.980	2396.351


**KHYBER PAKHTUNKHWA
INTEGRATED TOURISM AND
ENTERPRISE DEVELOPMENT
PROJECT**
 COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK

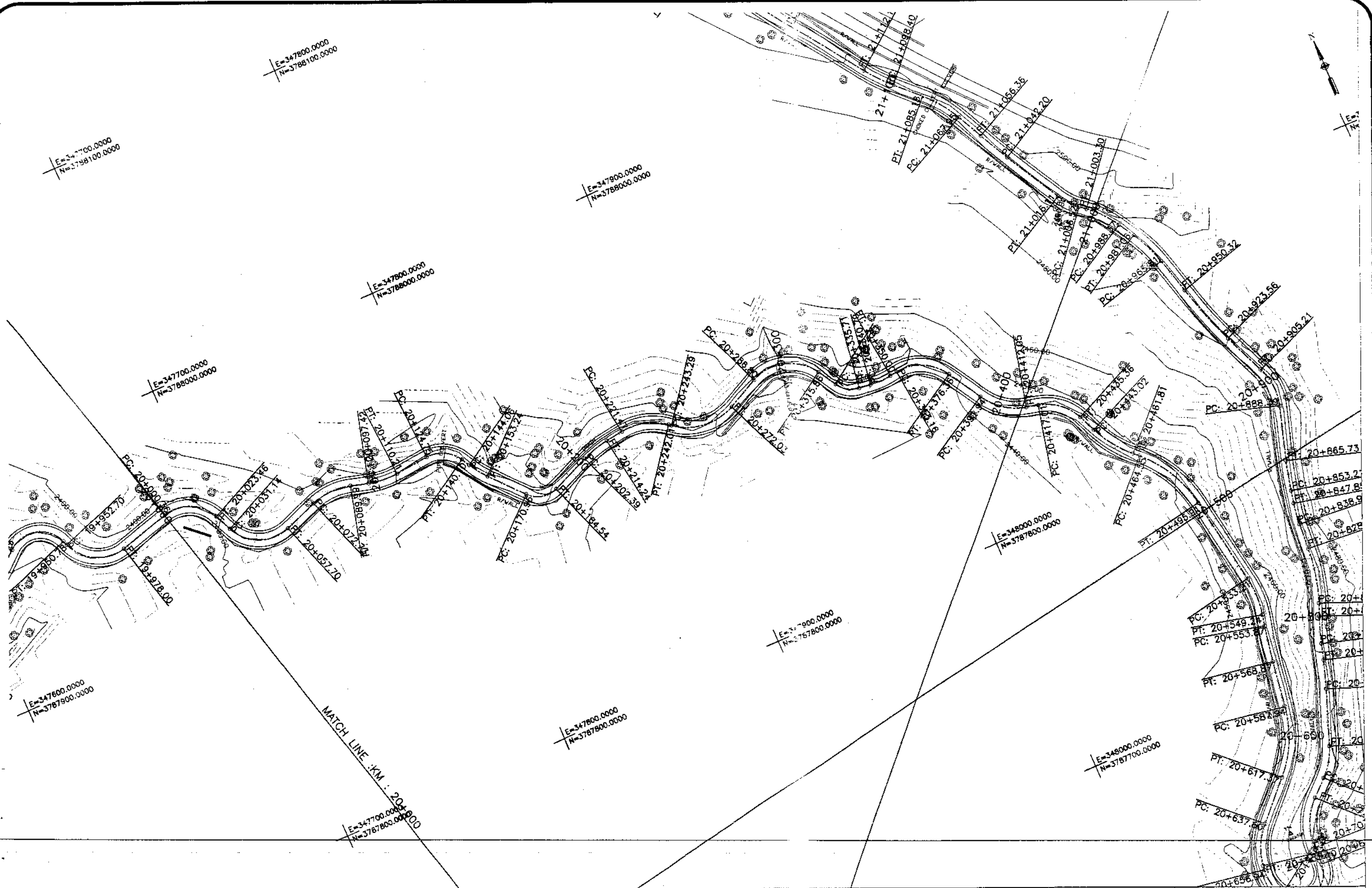

**NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.**

REV.	DATE	DESCRIPTION	APPROVED

DRAWN: JUNAD KHAN
 SUBMITTED: NOSHERWAN MAEEM
 RECOMMENDED:
 CHD./VER.
 APPROVED:
**REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM**

PROFILE
 KM: 19+500 ~ KM: 20+000
 SCALE: 1:1000
 DATE: January 2021
 DWG NO.: 4169/(ii)/TD/P 040

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KHYBER PAKHTUNKHWA
INTEGRATED TOURISM AND
ENTERPRISE DEVELOPMENT
PROJECT
COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK



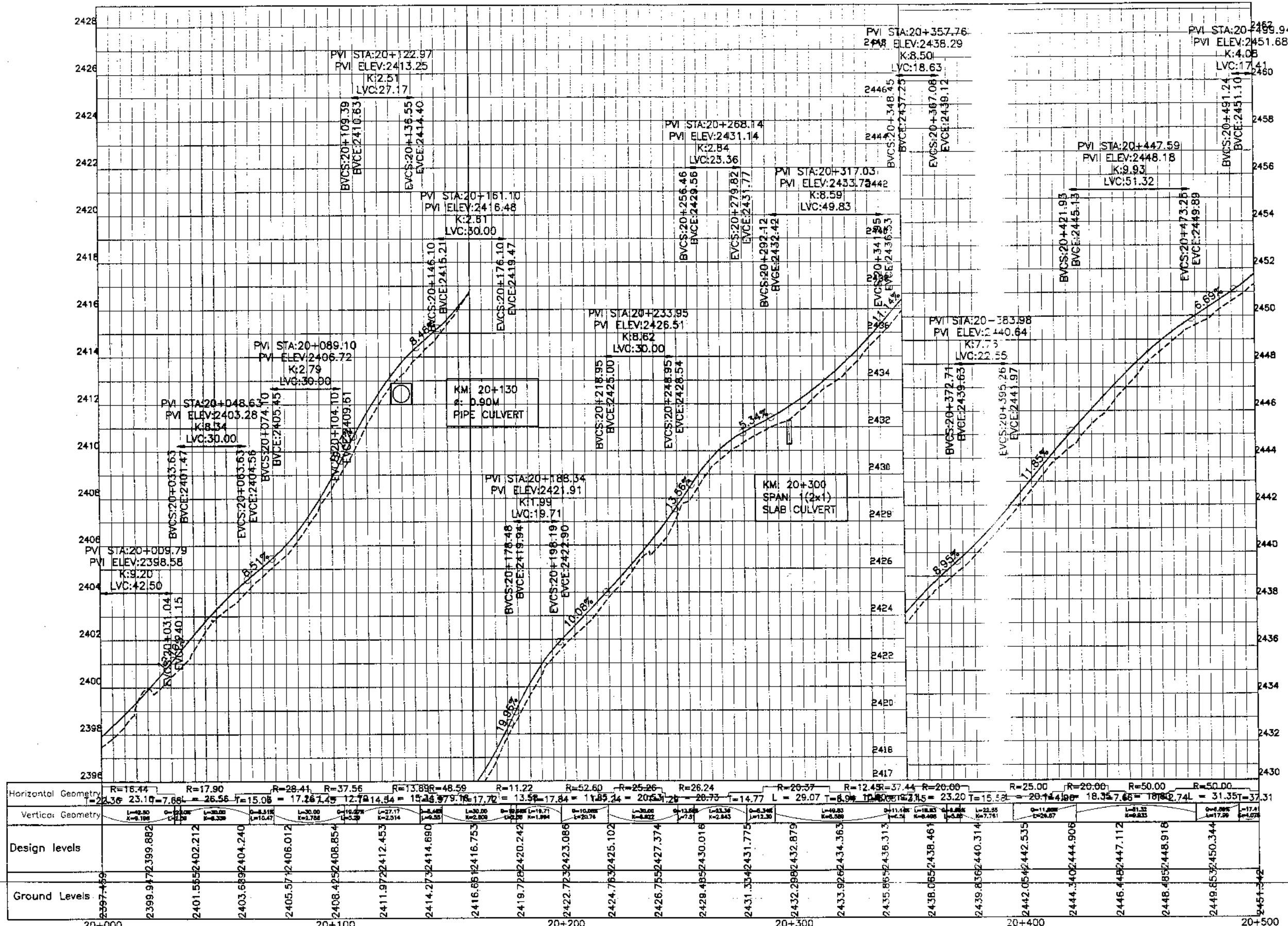
NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED

DRAWN JUNAD KHAN
SUBMITTED NOSHERWAN NAEEM

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PLAN
KM: 20+000 ~ KM: 20+500
SCALE 1:1000
DATE January 2021
DWG NO. 4169/(11)/TD/P 41



Station	Horizontal Geometry	Vertical Geometry	Design Levels	Ground Levels
20+000	R=16.44	L=42.80, K=8.186	2397.469	2397.469
20+020.212	R=17.90	L=30.00, K=6.338	2399.972	2399.972
20+040.424	R=28.41	L=10.47, K=2.514	2401.565	2401.565
20+060.636	R=37.56	L=10.47, K=2.514	2403.689	2403.689
20+080.848	R=48.59	L=10.47, K=2.514	2405.572	2405.572
20+100	R=11.22	L=10.47, K=2.514	2408.425	2408.425
20+120	R=26.24	L=10.47, K=2.514	2411.972	2411.972
20+140	R=25.26	L=10.47, K=2.514	2414.273	2414.273
20+160	R=26.24	L=10.47, K=2.514	2416.661	2416.661
20+180	R=26.24	L=10.47, K=2.514	2418.728	2418.728
20+200	R=26.24	L=10.47, K=2.514	2422.723	2422.723
20+220	R=26.24	L=10.47, K=2.514	2424.763	2424.763
20+240	R=26.24	L=10.47, K=2.514	2426.755	2426.755
20+260	R=26.24	L=10.47, K=2.514	2428.485	2428.485
20+280	R=26.24	L=10.47, K=2.514	2431.334	2431.334
20+300	R=26.24	L=10.47, K=2.514	2432.288	2432.288
20+320	R=26.24	L=10.47, K=2.514	2433.926	2433.926
20+340	R=26.24	L=10.47, K=2.514	2435.865	2435.865
20+360	R=26.24	L=10.47, K=2.514	2438.065	2438.065
20+380	R=26.24	L=10.47, K=2.514	2439.836	2439.836
20+400	R=26.24	L=10.47, K=2.514	2442.054	2442.054
20+420	R=26.24	L=10.47, K=2.514	2444.340	2444.340
20+440	R=26.24	L=10.47, K=2.514	2446.448	2446.448
20+460	R=26.24	L=10.47, K=2.514	2448.485	2448.485
20+480	R=26.24	L=10.47, K=2.514	2449.853	2449.853
20+500	R=26.24	L=10.47, K=2.514	2451.442	2451.442

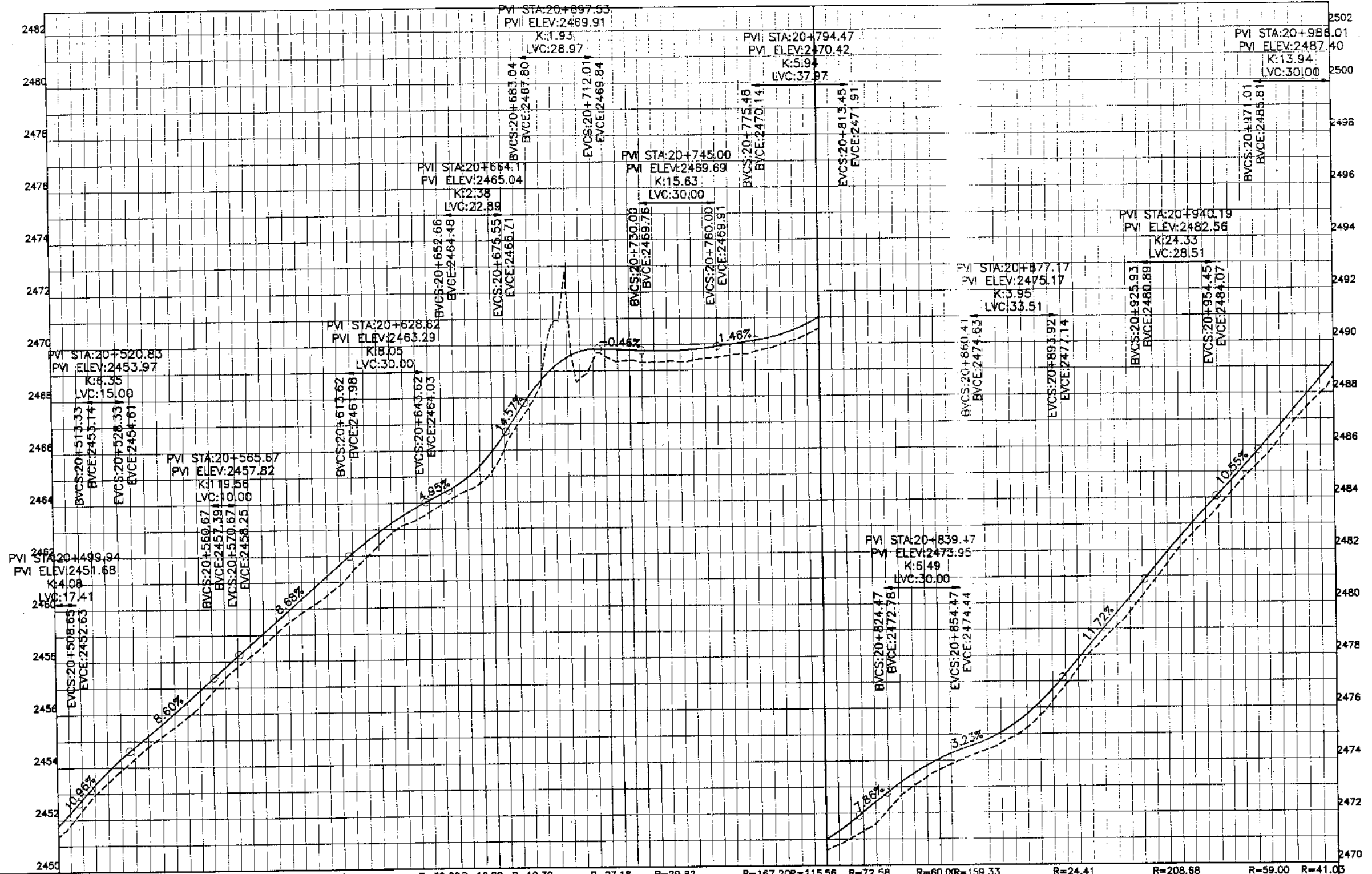
KHYBER PAKHTUNKHWA INTEGRATED TOURISM AND ENTERPRISE DEVELOPMENT PROJECT
COMMUNICATION & WORKS (C&W) DEPARTMENT, KPK

NATIONAL ENGINEERING SERVICES PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED

REHABILITATION AND UPGRADATION OF THANDIANI ROAD IN DISTRICT ABBOTTABAD - 24 KM

PROFILE
KM: 20+000 ~ KM: 20+500
SCALE: 1:1000
DATE: January 2021
DWG NO.: 4169/(ii)/TD/P 041



Station	Horizontal Geometry	Vertical Geometry	Design Levels	Ground Levels
20+500	T=37.31 L=16.03 R=40.00 R=205.00	0+4.800 L=15.00 R=18.00	2451.342	2451.342
20+550	L=15.00 R=19.07 L=29.43	0+4.800 L=10.00 R=18.00	2453.400	2453.400
20+600	L=29.43	0+4.800 L=10.00 R=18.00	2455.151	2455.151
20+650	L=29.43	0+4.800 L=10.00 R=18.00	2456.832	2456.832
20+700	L=29.43	0+4.800 L=10.00 R=18.00	2458.513	2458.513
20+750	L=29.43	0+4.800 L=10.00 R=18.00	2460.194	2460.194
20+800	L=29.43	0+4.800 L=10.00 R=18.00	2461.875	2461.875
20+850	L=29.43	0+4.800 L=10.00 R=18.00	2463.556	2463.556
20+900	L=29.43	0+4.800 L=10.00 R=18.00	2465.237	2465.237
20+950	L=29.43	0+4.800 L=10.00 R=18.00	2466.918	2466.918
21+000	L=29.43	0+4.800 L=10.00 R=18.00	2468.599	2468.599



KHYBER PAKHTUNKHWA
INTEGRATED TOURISM AND
ENTERPRISE DEVELOPMENT
PROJECT
COMMUNICATION & WORKS (C&W)
DEPARTMENT, KP

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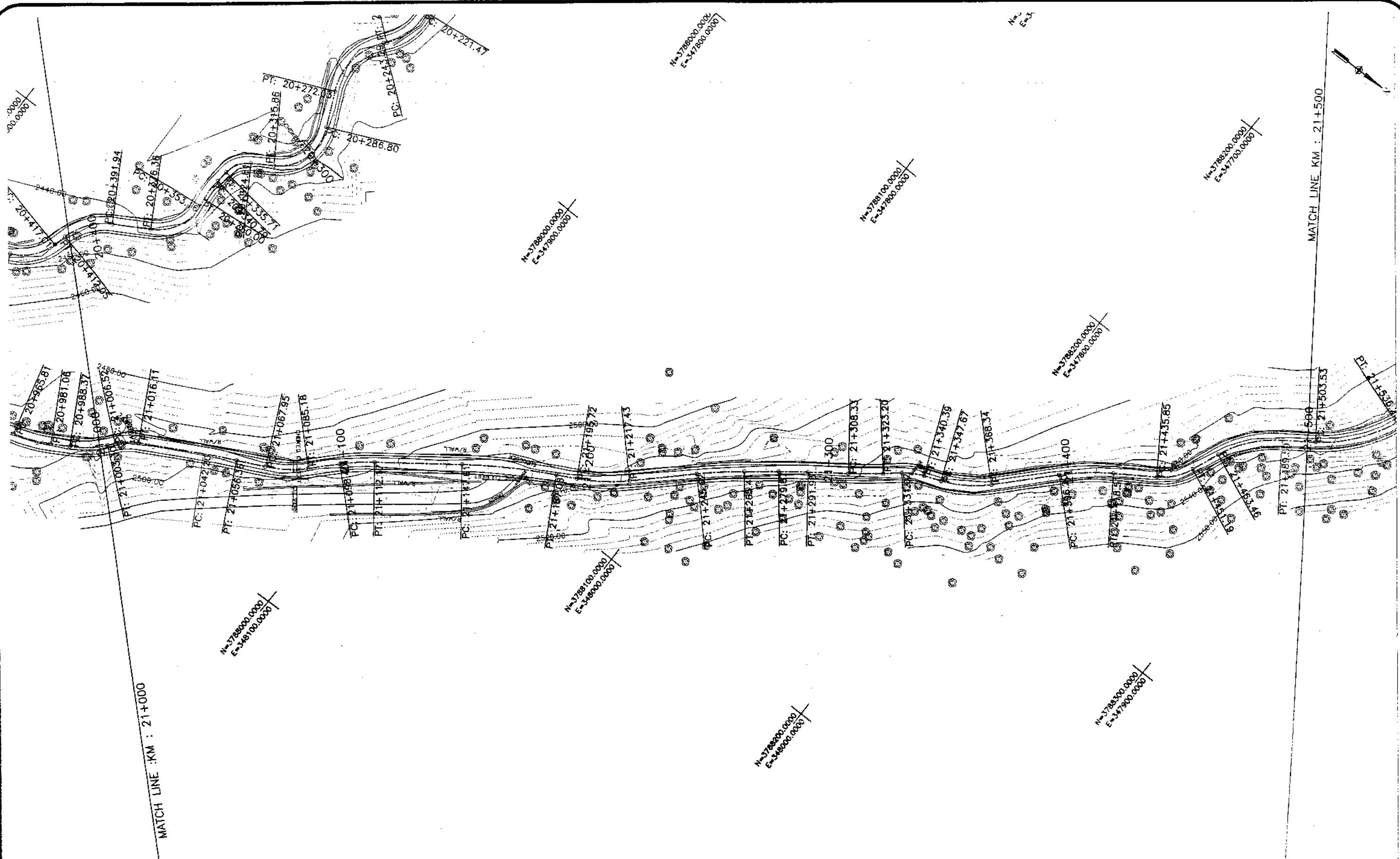
REV.	DATE	DESCRIPTION	APPROVED

DRAWN JUNAID KHAN
SUBMITTED NOSHERWAN NADEM
RECOMMENDED
CHD./VER.
APPROVED

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PROFILE
KM: 20+500 ~ KM: 21+000
SCALE 1:1000
DATE January 2021
DWG NO. 4169/(ii)/TO/P 042

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KHYBER PAKHTUNKHWA
INTEGRATED TOURISM AND
ENTERPRISE DEVELOPMENT
PROJECT
COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK



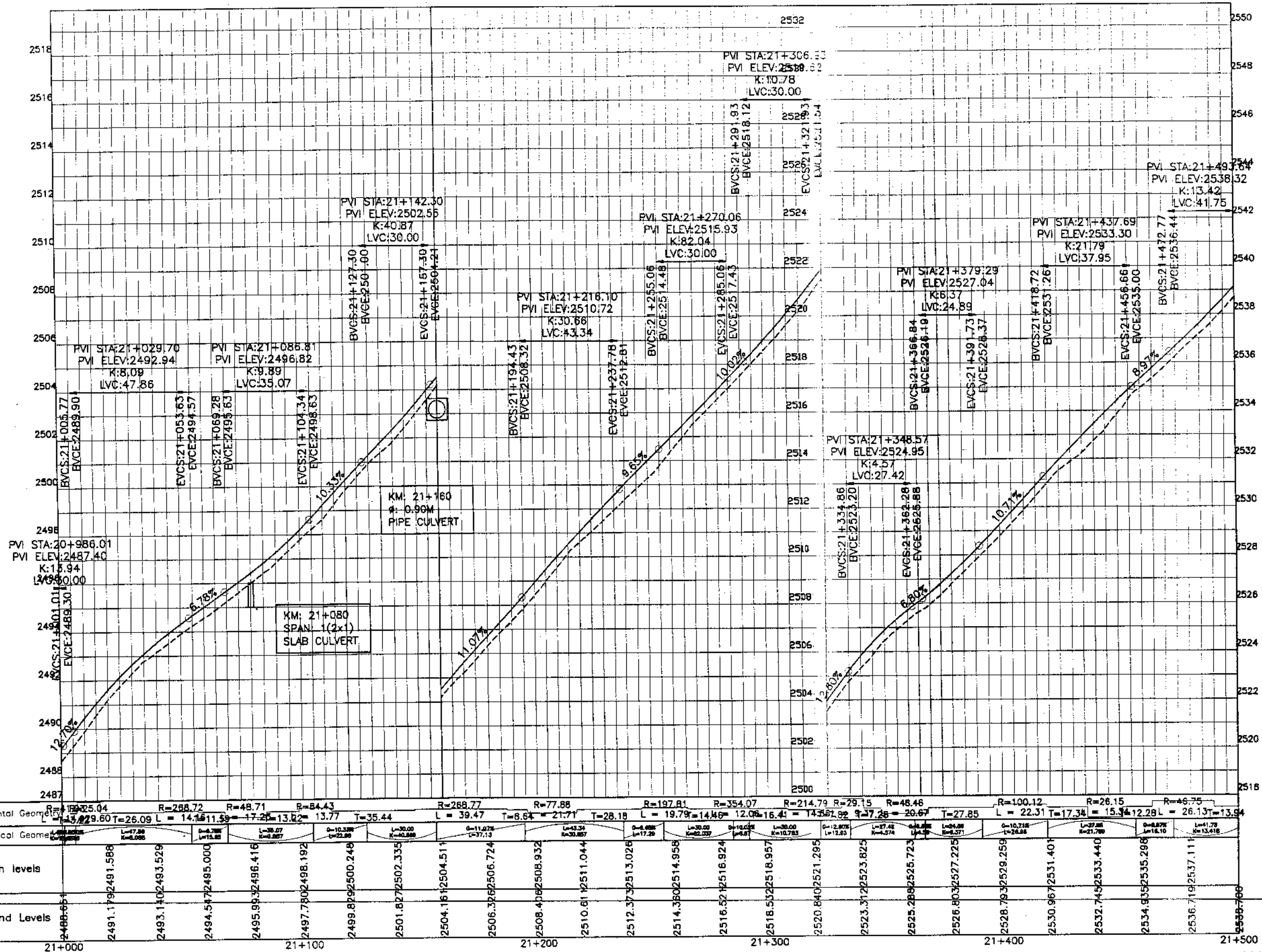
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PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PLAN		SCALE
KM: 21+000 ~ KM: 21+500		1:1000
DATE	DWG NO.	
January 2021	4169/(II)/TD/P 43	

DRAWN	JUNAID KHAN
SUBMITTED	NOSHERWAN NAEEM
RECOMMENDED	
CHD./VER.	
APPROVED	



KHYBER PAKHTUNKHWA
INTEGRATED TOURISM AND
ENTERPRISE DEVELOPMENT
PROJECT
COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK



NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

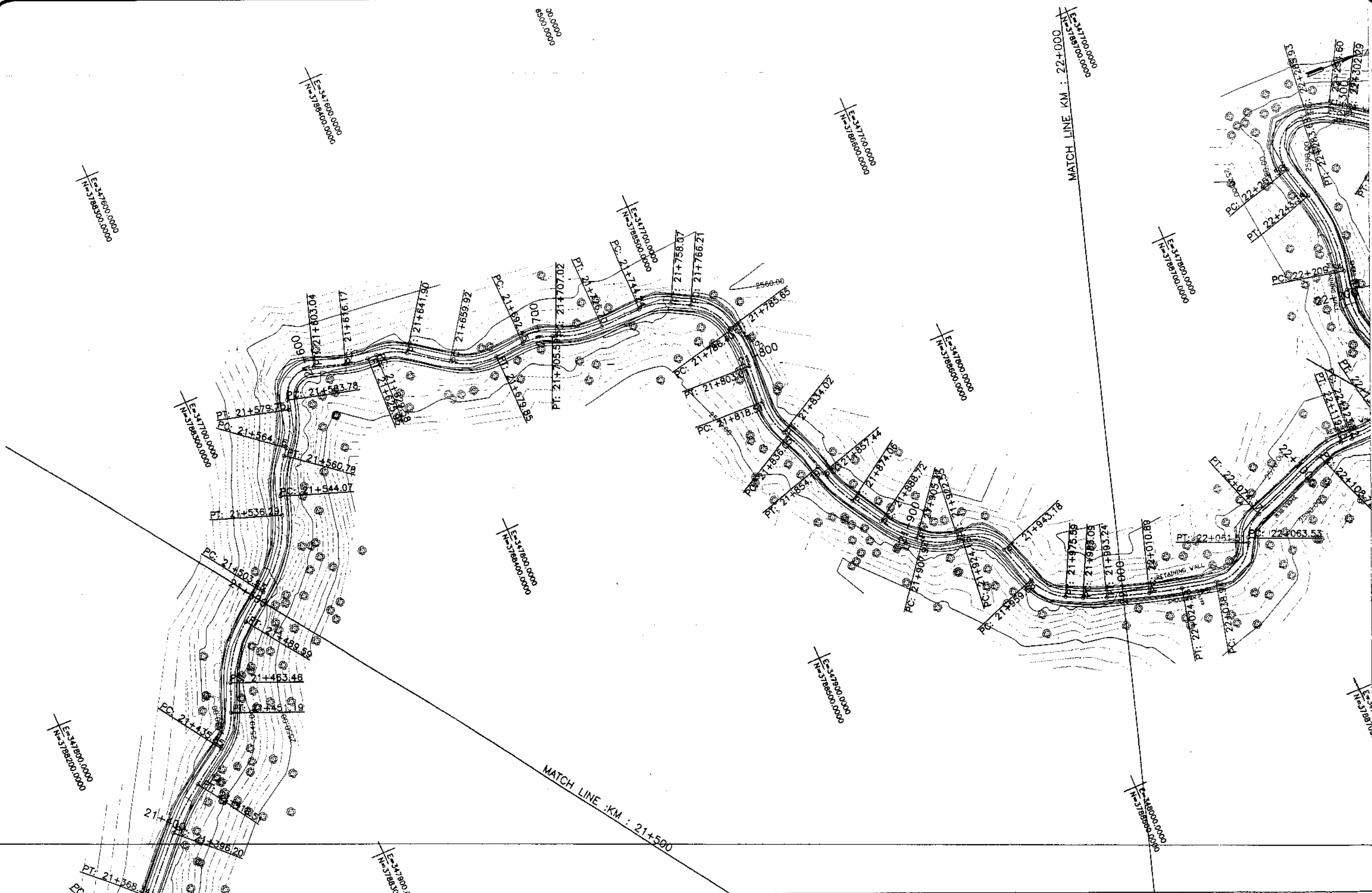
REV.	DATE	DESCRIPTION	APPROVED

DRAWN	JUNAID KHAN
SUBMITTED	NOSHERWAN NAEEM
RECOMMENDED	
CHD./VER.	
APPROVED	

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PROFILE		SCALE
KM: 21+000 ~ KM: 21+500		1:1000
DATE	DWG NO.	
January 2021	4169/(ii)/TD/P 043	

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KHYBER PAKHTUNKHWA
INTEGRATED TOURISM AND
ENTERPRISE DEVELOPMENT
PROJECT
COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK



NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

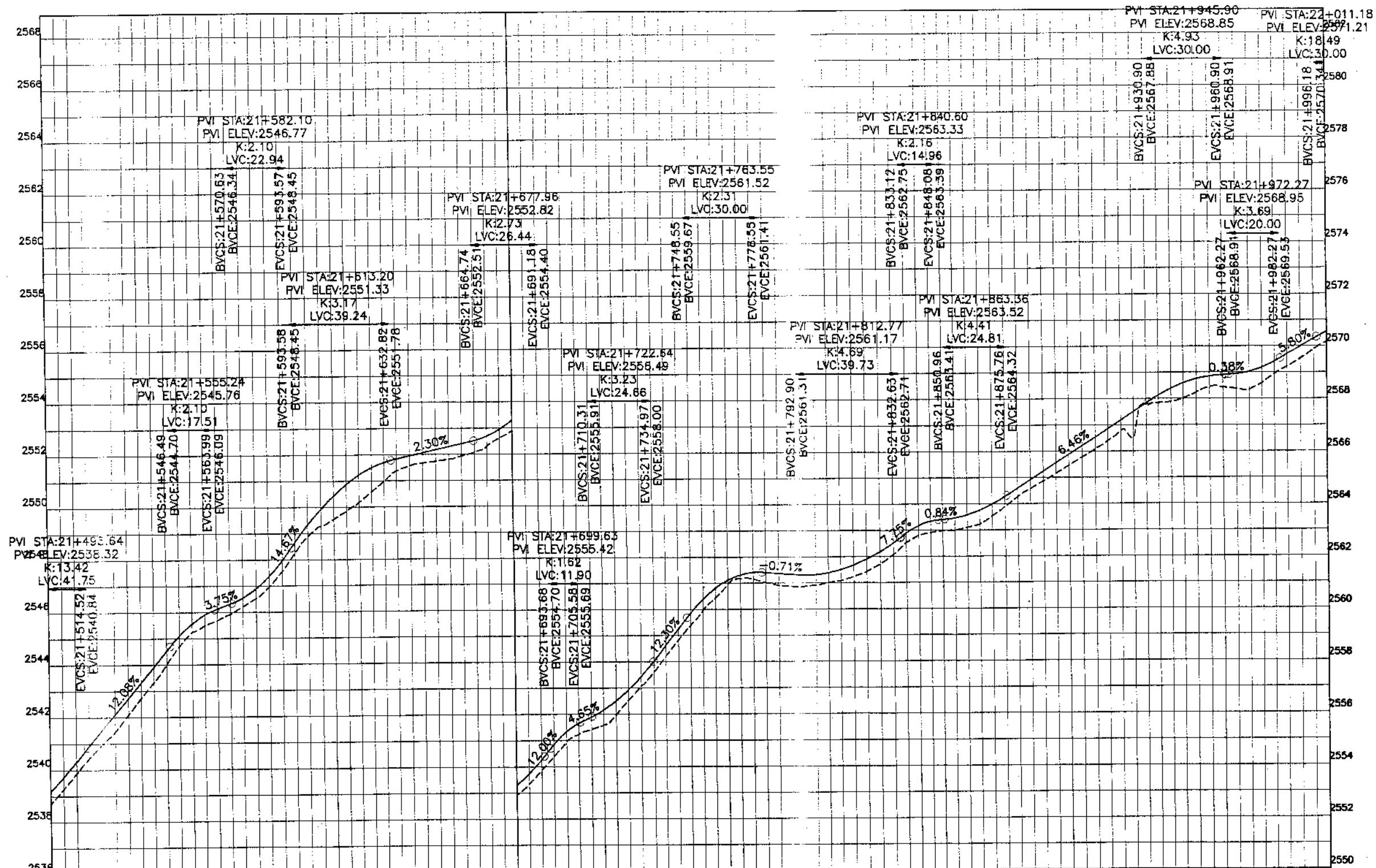
REV.	DATE	DESCRIPTION	APPROVED

DRAWN	JUNAID KHAN
SUBMITTED	NOSHERWAN NAEEM
RECOMMENDED	
CHD./VER.	
APPROVED	

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PLAN		SCALE
KM: 21+500 ~ KM: 22+000		1:1000
DATE	DWG NO.	
January 2021	4169/(ii)/TD/P 44	

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Horizontal Geometry	R=53.60	R=50.31	R=37.91	R=11.84	R=34.53	R=21.22	R=30.20	R=28.61	R=45.53	R=27.54	R=23.24	R=84.42	R=29.09	R=83.75	R=57.02	R=48.44	R=25.65	R=16.68	R=20.65	R=60.00				
Vertical Geometry	L=11.78 K=13.218	L=12.08 K=13.87	L=17.81 K=2.101	L=3.78 K=0.84	L=22.84 K=14.878	L=39.24 K=3.172	L=2.308 K=3.1	L=28.44 K=2.727	L=22.84 K=14.878	L=24.88 K=3.228	L=30.86 K=2.308	L=7.182 K=14.26	L=39.73 K=4.284	L=24.88 K=3.228	L=24.81 K=3.228	L=24.81 K=3.228	L=30.86 K=2.308	L=30.86 K=2.308	L=30.86 K=2.308	L=30.86 K=2.308				
Design levels	2540.01	2541.50	2543.32	2545.89	2548.87	2551.22	2551.94	2552.25	2552.93	2554.33	2555.51	2558.62	2560.79	2561.40	2561.31	2561.89	2562.17	2563.58	2564.59	2565.88	2567.17	2568.36	2568.90	2569.40
Ground Levels	2538.76	2540.01	2543.32	2545.89	2548.87	2551.22	2551.94	2552.25	2552.93	2554.33	2555.51	2558.62	2560.79	2561.40	2561.31	2561.89	2562.17	2563.58	2564.59	2565.88	2567.17	2568.36	2568.90	2569.40



KHYBER PAKHTUNKHWA
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ENTERPRISE DEVELOPMENT
PROJECT
COMMUNICATION & WORKS (C&W)
DEPARTMENT, KFK

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NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

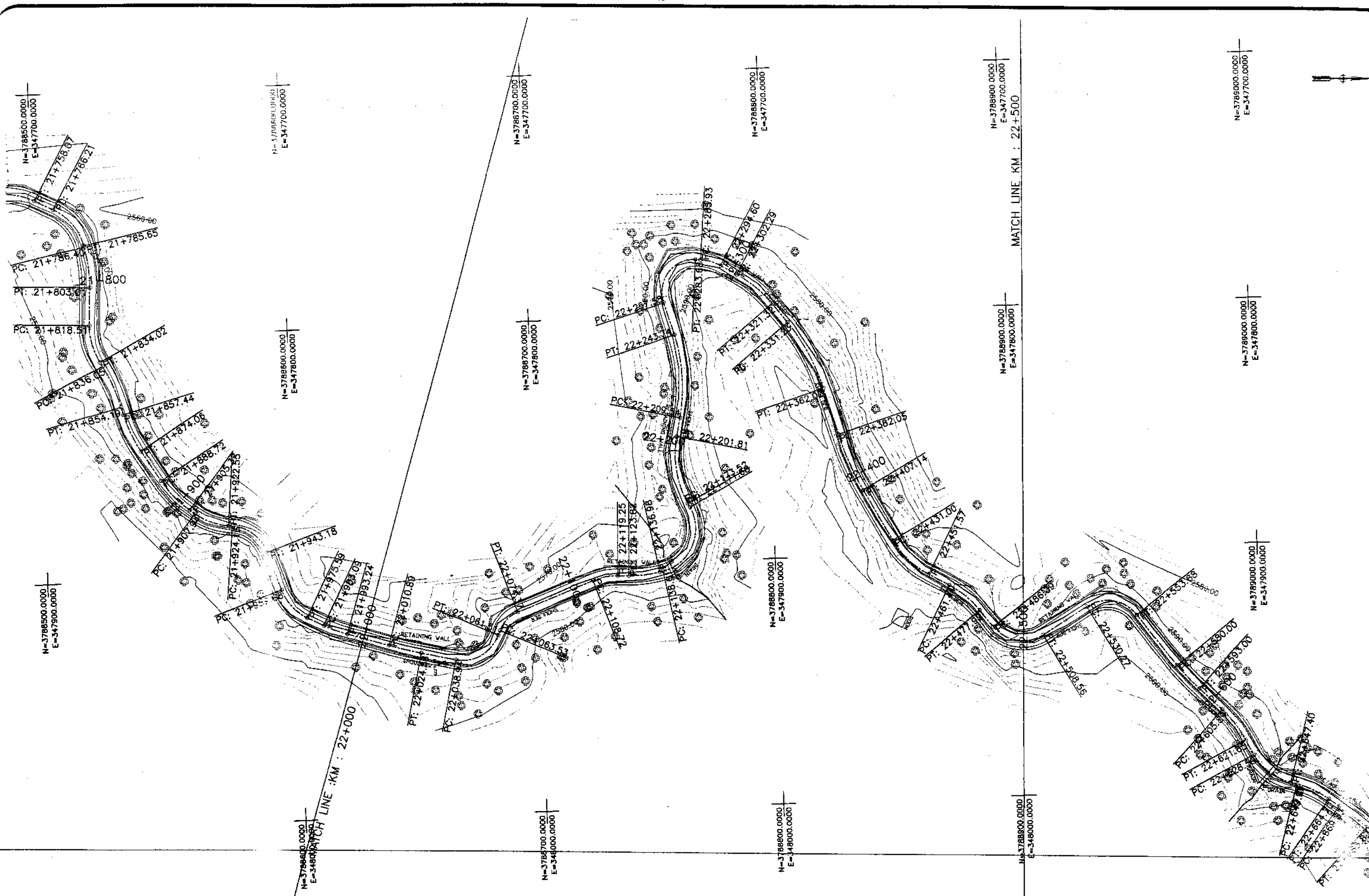
REV.	DATE	DESCRIPTION	APPROVED

DRAWN	JUNAID KHAN
SUBMITTED	NOSHERWAN NAEM
RECOMMENDED	
CHD./VER.	
APPROVED	

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PROFILE	SCALE
KM: 21+500 ~ 22+000	1:1000
DATE	DWG NO.
January 2021	169/(ii)/TD/P 044

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KHYBER PAKHTUNKHWA
INTEGRATED TOURISM AND
ENTERPRISE DEVELOPMENT
PROJECT
COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK



NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

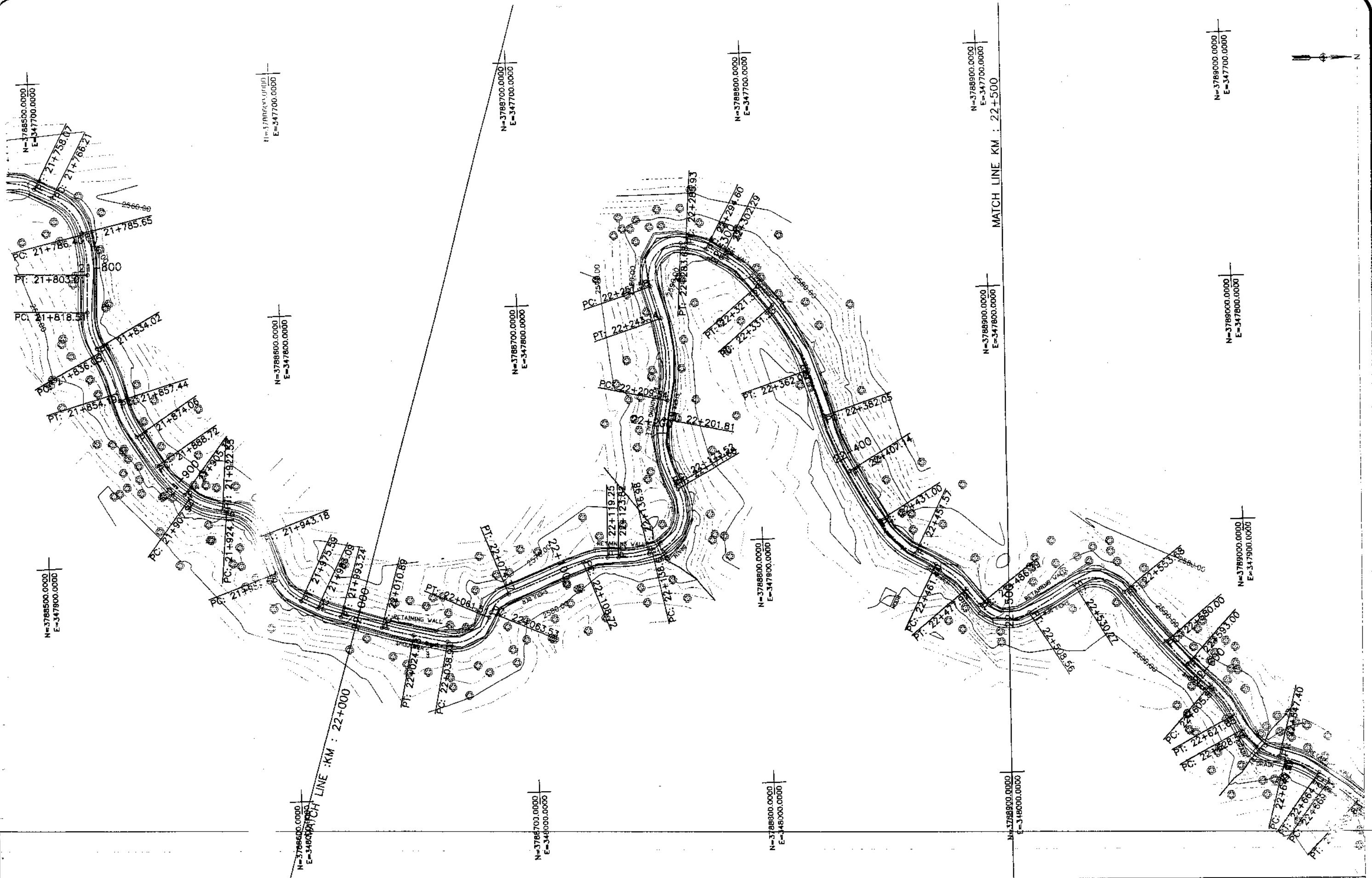
REV.	DATE	DESCRIPTION	APPROVED	APPROVED

DRAWN	JUNAID KHAN
SUBMITTED	NOSHERWAN NAEEM
RECOMMENDED	
CHD./VER.	
APPROVED	

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PLAN		SCALE
KM: 22+000 ~ KM: 22+500		1:1000
DATE	DWG NO.	
January 2021	4169/(R)/TD/F	45

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KHYBER PAKHTUNKHWA
INTEGRATED TOURISM AND
ENTERPRISE DEVELOPMENT
PROJECT
COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK



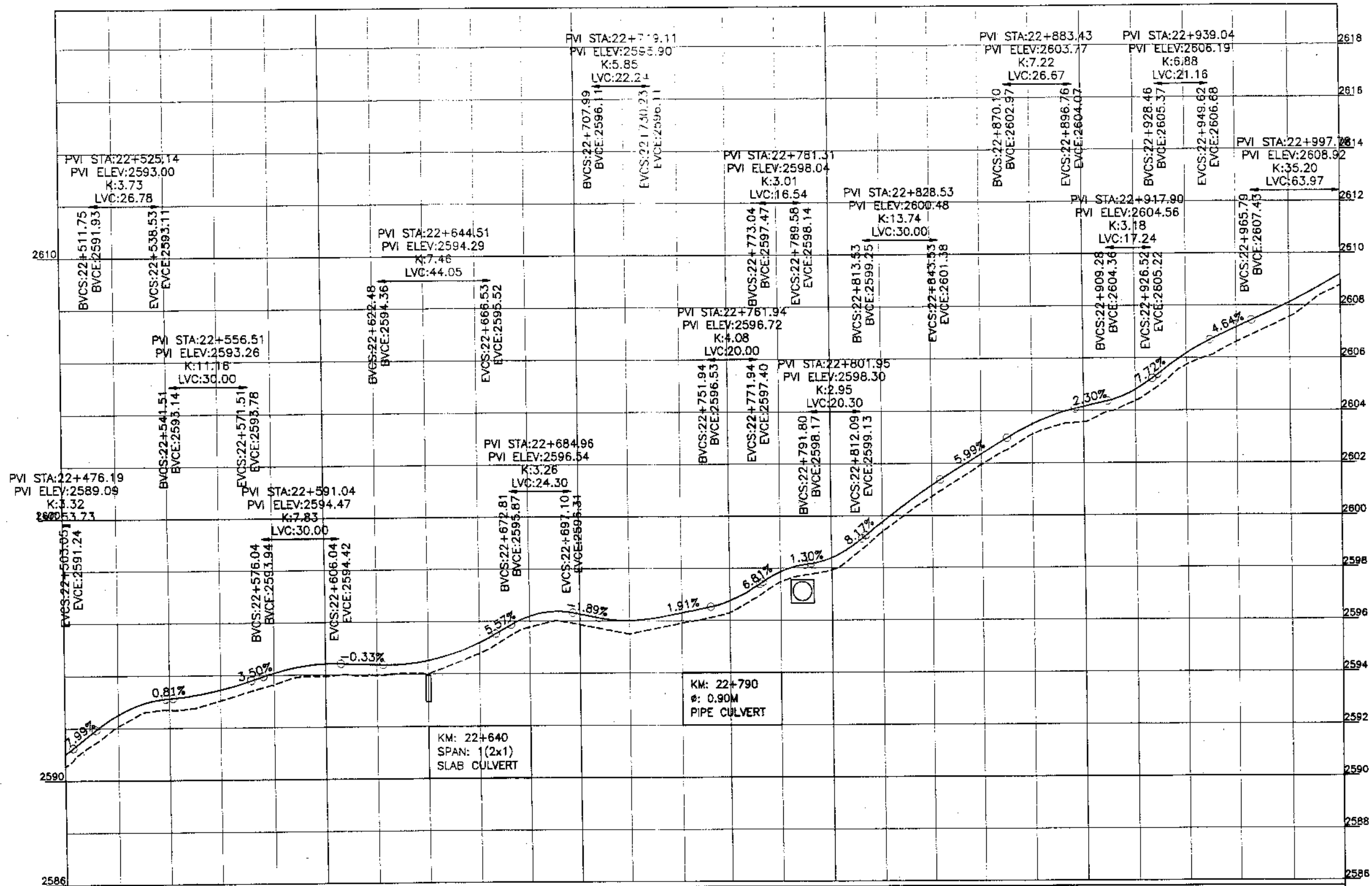
NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED

DRAWN JUNAID KHAN
SUBMITTED NOSHERWAN NASEEM
RECOMMENDED
CHD./VER.
APPROVED

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PLAN		SCALE
KM: 22+000 ~ KM: 22+500		1:1000
DATE	DWG NO.	
January 2021	4169/(ii)/TD/-	45



Station	22+500	22+525	22+550	22+575	22+600	22+625	22+650	22+675	22+700	22+725	22+750	22+775	22+800	22+825	22+850	22+875	22+900	22+925	22+950	22+975	23+000	
Horizontal Geom.	R=15.24 L=22.17	R=16.16 L=21.71	R=85.31 L=23.41	T=26.32 L=13.00	R=45.70 L=12.89	R=22.37 L=15.26	R=39.28 L=14.23	R=117.48 L=14.01	R=143.36 L=25.18	R=57.98 L=17.25	R=49.93 L=23.48	R=36.27 L=15.40	T=48.41 L=16.40	R=24.46 L=16.40	R=25.96 L=16.76	R=24.79 L=16.76	R=125.35 L=14.53	R=79.95 L=17.35				
Vertical Geom.	G=2.998	G=2.731	G=2.571	G=2.411	G=2.251	G=2.091	G=1.931	G=1.771	G=1.611	G=1.451	G=1.291	G=1.131	G=0.971	G=0.811	G=0.651	G=0.491	G=0.331	G=0.171	G=0.011	G=-0.149	G=-0.309	G=-0.469
Design levels	2592.068	2592.502	2592.936	2593.370	2593.804	2594.238	2594.672	2595.106	2595.540	2595.974	2596.408	2596.842	2597.276	2597.710	2598.144	2598.578	2599.012	2599.446	2599.880	2600.314	2600.748	2601.182
Ground Levels	2590.546	2592.068	2592.502	2593.034	2593.566	2594.098	2594.630	2595.162	2595.694	2596.226	2596.758	2597.290	2597.822	2598.354	2598.886	2599.418	2599.950	2600.482	2601.014	2601.546	2602.078	2602.610



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COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK

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PAKISTAN (PVT.) LTD.

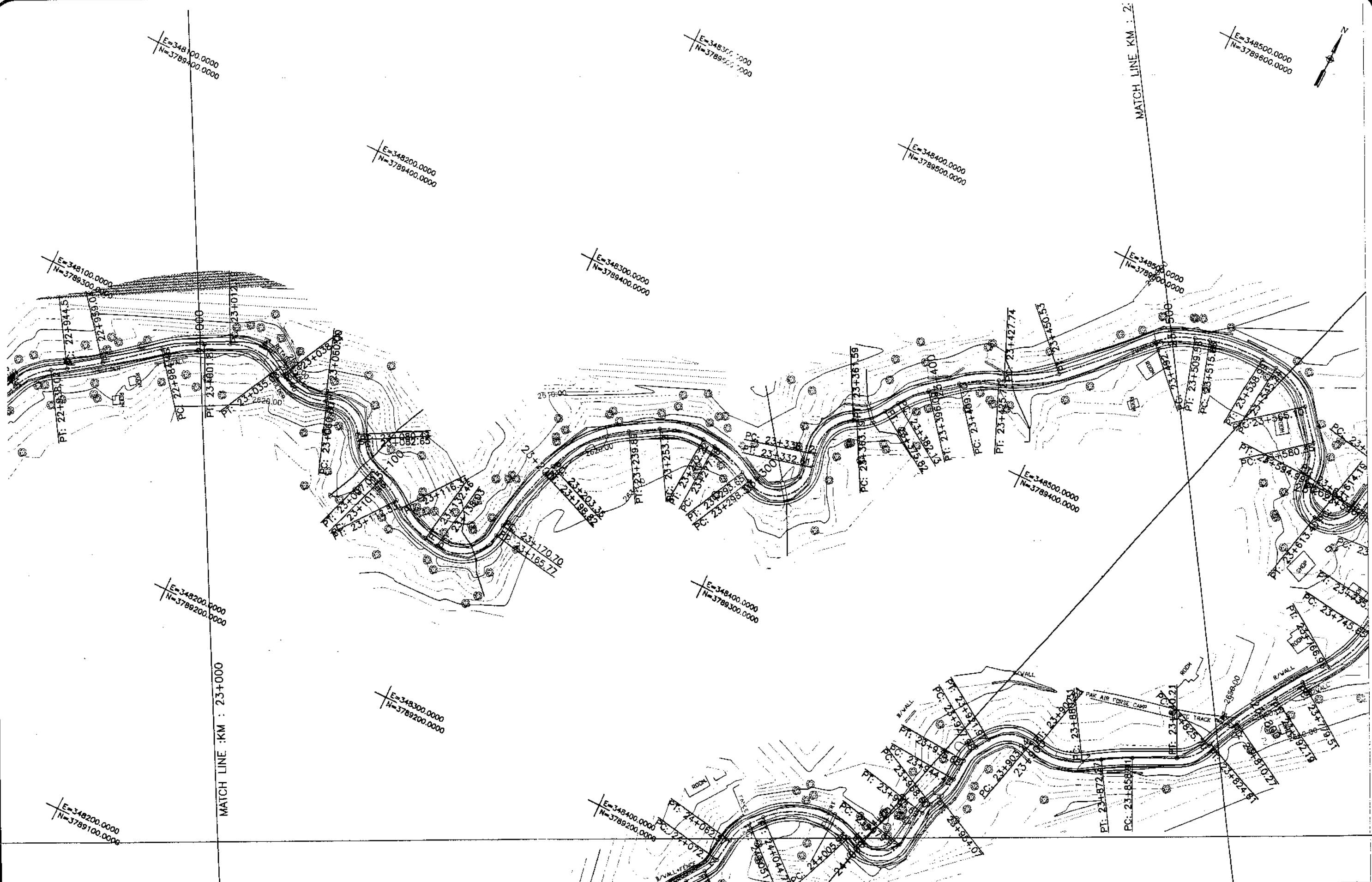
REV.	DATE	DESCRIPTION	APPROVED

DRAWN	JUNAID KHAN
SUBMITTED	NOSHERWAN HAEEM
RECOMMENDED	
CHD./VER.	
APPROVED	

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM (PACKAGE-2)

PROFILE		SCALE
KM: 22+500 ~ KM: 23+000		1:1000
DATE	DWG NO.	
January 2021	4169/(H)/TD/P 046	

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INTEGRATED TOURISM AND
ENTERPRISE DEVELOPMENT
PROJECT
COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK

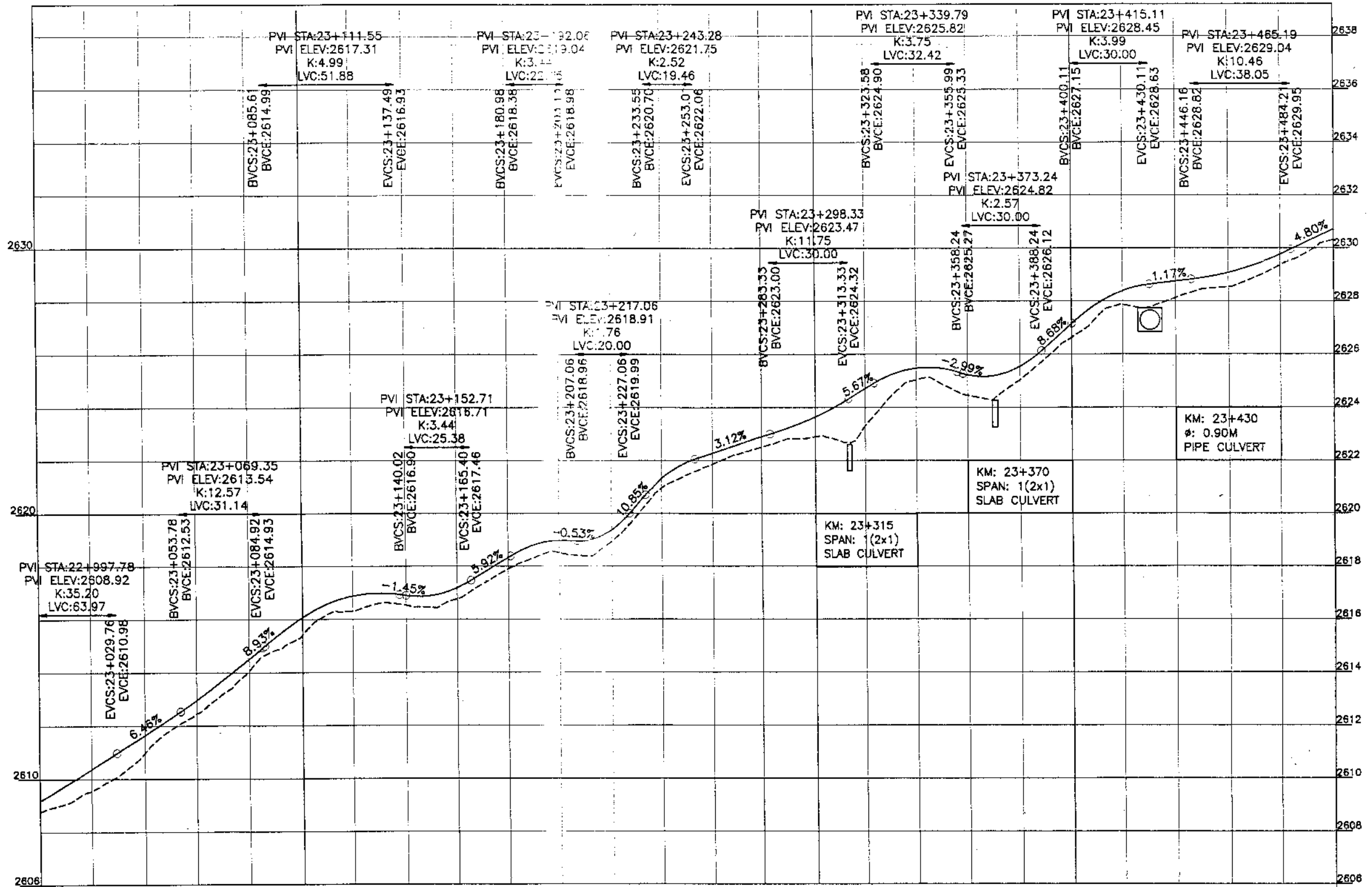


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PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	DRAWN	JUNAID KHAN
				SUBMITTED	NOSHERWAN NAZEM
				RECOMMENDED	
				CHD./VER.	
				APPROVED	

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PLAN		SCALE
KM: 23+000 ~ KM: 23+500		1:1000
DATE	DWC NO.	
January 2021	4169/(R)/TD/P 47	



Horizontal Geometry	R=79.95	R=24.12	R=26.41	R=14.19	R=19.51	R=33.38	R=33.80	R=17.41	R=132.27	R=53.95	R=31.02	R=39.59	R=14.88	R=17.61	R=25.00	R=43.00	R=60.00	R=59.75	R=35.00
Vertical Geometry	L=30.97 K=30.19	L=31.14 K=12.57	L=31.14 K=12.57	L=31.14 K=12.57	L=31.14 K=12.57	L=31.14 K=12.57	L=31.14 K=12.57	L=31.14 K=12.57	L=31.14 K=12.57	L=31.14 K=12.57	L=31.14 K=12.57	L=31.14 K=12.57	L=31.14 K=12.57	L=31.14 K=12.57	L=31.14 K=12.57	L=31.14 K=12.57	L=31.14 K=12.57	L=31.14 K=12.57	L=31.14 K=12.57
Design levels	2609.55	2610.365	2611.643	2612.950	2614.499	2616.069	2617.880	2619.885	2621.950	2624.184	2626.527	2629.069	2631.814	2634.770	2637.937	2641.415	2645.315	2649.637	2654.382
Ground Levels	2608.766	2609.552	2610.982	2612.445	2614.068	2615.412	2616.316	2616.530	2617.902	2618.506	2619.314	2620.355	2621.622	2623.117	2624.847	2626.820	2629.035	2631.492	2634.201



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PROJECT
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REV.	DATE	DESCRIPTION	APPROVED	APPROVED

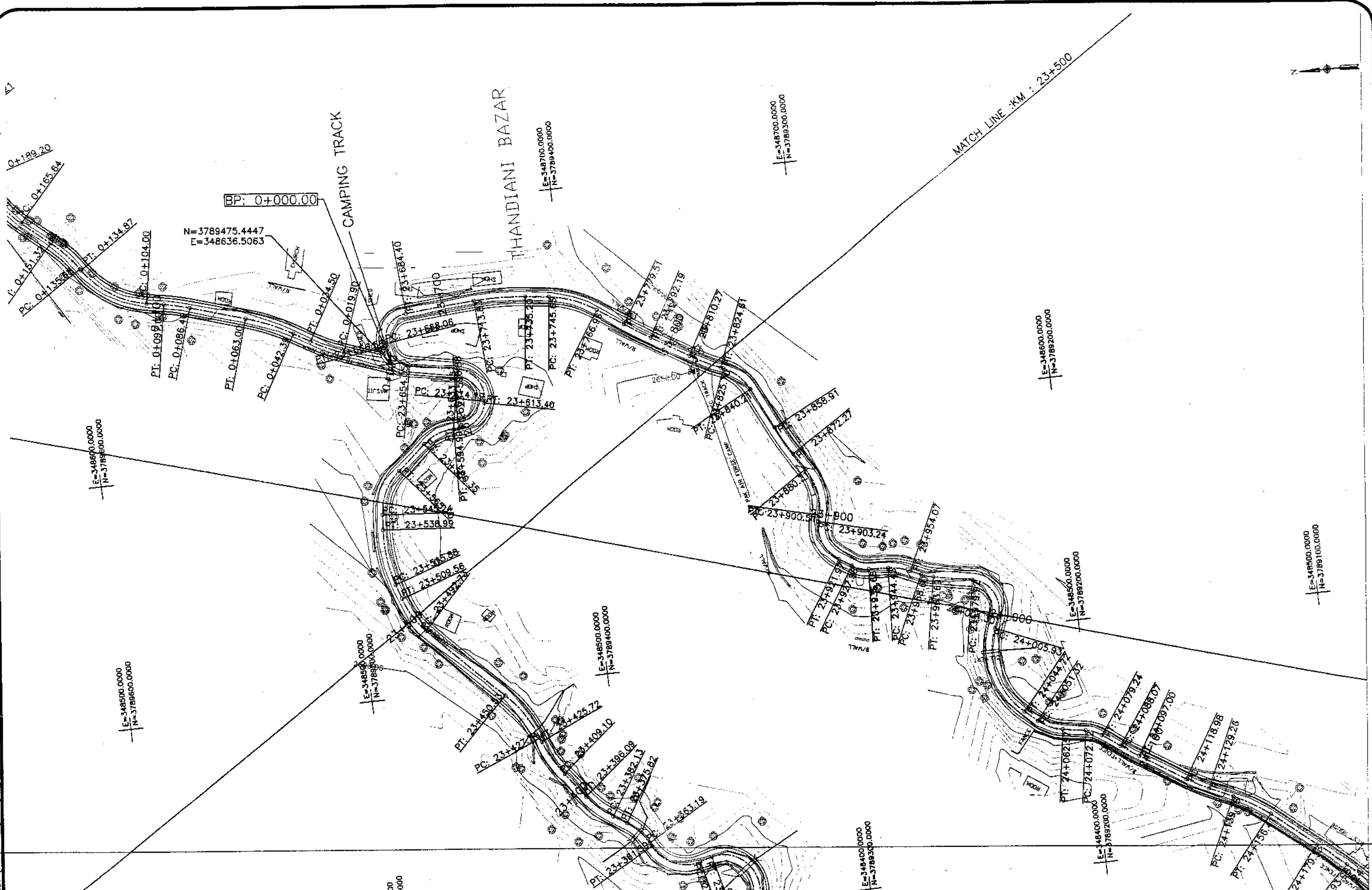
DRAWN: JUNAD KHAN
SUBMITTED: NOSHERWAN NAEEM
RECOMMENDED:
CHD./VER.
APPROVED:

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PROFILE
KM: 23+000 ~ KM: 23+500
SCALE: 1:1000

DATE: January 2021
DWG NO.: 4169/(ii)/TD/P 047

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KHYBER PAKHTUNKHWA
INTEGRATED TOURISM AND
ENTERPRISE DEVELOPMENT
PROJECT
COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK



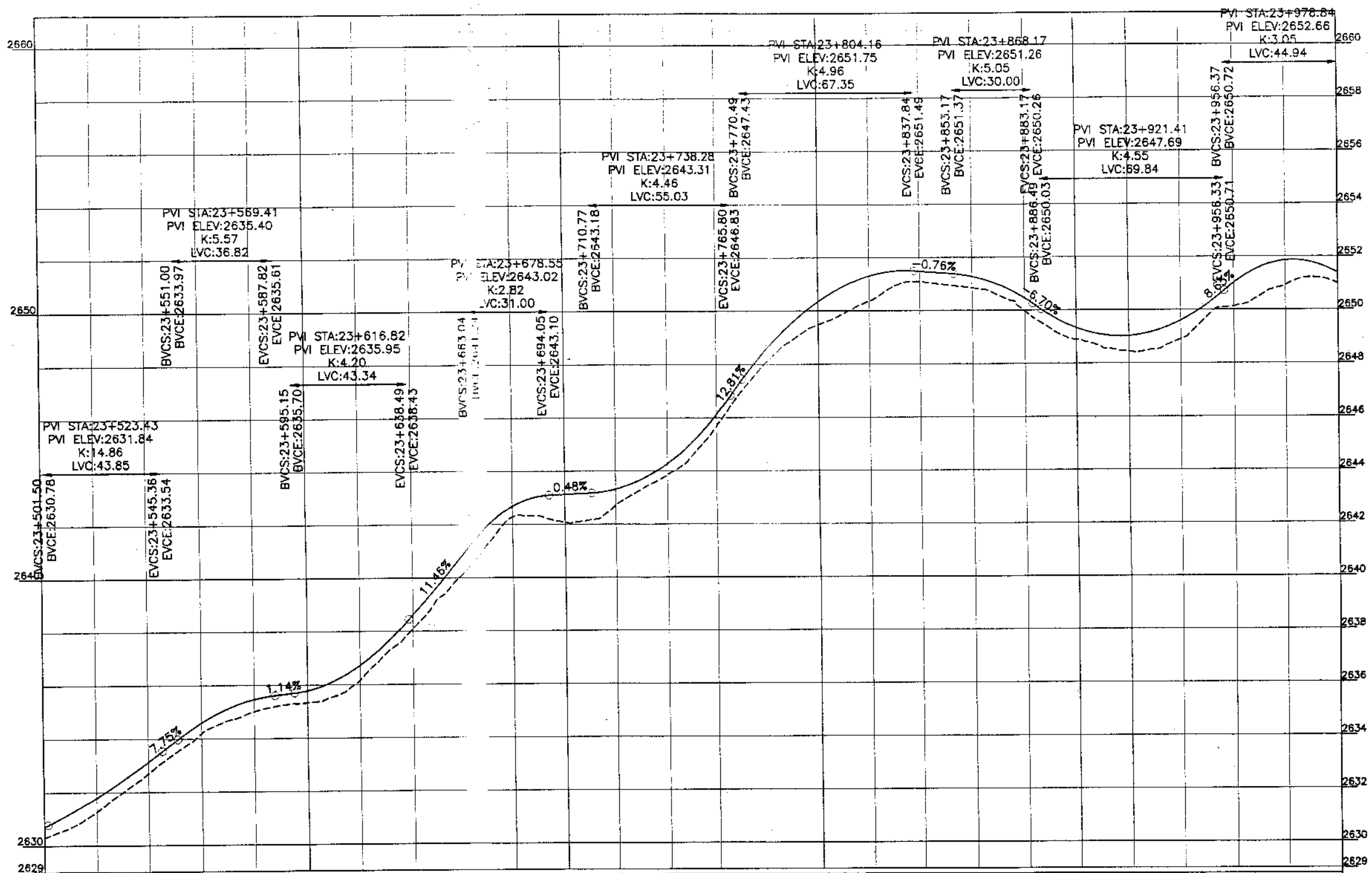
NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	DRAWN	JUNAID KHAN
				SUBMITTED	NOSHERWAN NAEEM
				RECOMMENDED	
				CHD./VER.	
				APPROVED	

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PLAN		SCALE
KM: 23+500 ~ KM: 24+000		1:1000
DATE	DWG NO.	
January 2021	4159/(ii)/TD/P 48	

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Horizontal Geometry	R=35.00	R=60.00	R=26.00	R=26.00	R=11.71	R=12.00	R=10.00	R=10.00	R=115.00	R=45.00	R=190.00	R=100.00	R=26.00	R=125.00	R=26.00	R=15.00	R=15.00	R=26.00	R=12.00																													
Vertical Geometry	L=15.35	L=23.10	L=6.26	L=19.80	L=15.25	L=11.00	L=18.52	L=18.96	L=20.94	L=25.36	L=16.34	L=29.43	L=21.37	L=10.45	L=21.31	L=12.15	L=12.80	L=18.07	L=14.51	L=18.70	L=15.34	L=20.19	L=18.74	L=18.74	L=16.62	L=16.79	L=16.65	L=16.62	L=6.23	L=21.38																		
Design levels	2630.316	2631.289	2631.787	2632.699	2633.131	2634.197	2634.600	2635.018	2635.459	2635.335	2635.781	2636.144	2636.717	2638.087	2638.602	2640.166	2640.895	2642.288	2642.678	2642.076	2643.124	2642.701	2643.316	2643.856	2644.275	2645.674	2646.129	2648.067	2648.562	2649.337	2650.366	2651.307	2651.094	2651.475	2650.850	2651.277	2649.870	2650.458	2648.888	2649.328	2648.443	2649.021	2648.886	2649.594	2650.122	2651.009	2650.817	2651.848
Ground Levels	2630.316	2631.289	2631.787	2632.699	2633.131	2634.197	2634.600	2635.018	2635.459	2635.335	2635.781	2636.144	2636.717	2638.087	2638.602	2640.166	2640.895	2642.288	2642.678	2642.076	2643.124	2642.701	2643.316	2643.856	2644.275	2645.674	2646.129	2648.067	2648.562	2649.337	2650.366	2651.307	2651.094	2651.475	2650.850	2651.277	2649.870	2650.458	2648.888	2649.328	2648.443	2649.021	2648.886	2649.594	2650.122	2651.009	2650.817	2651.848

KHYBER PAKHTUNKHWA
INTEGRATED TOURISM AND
ENTERPRISE DEVELOPMENT
PROJECT
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DEPARTMENT, KPK

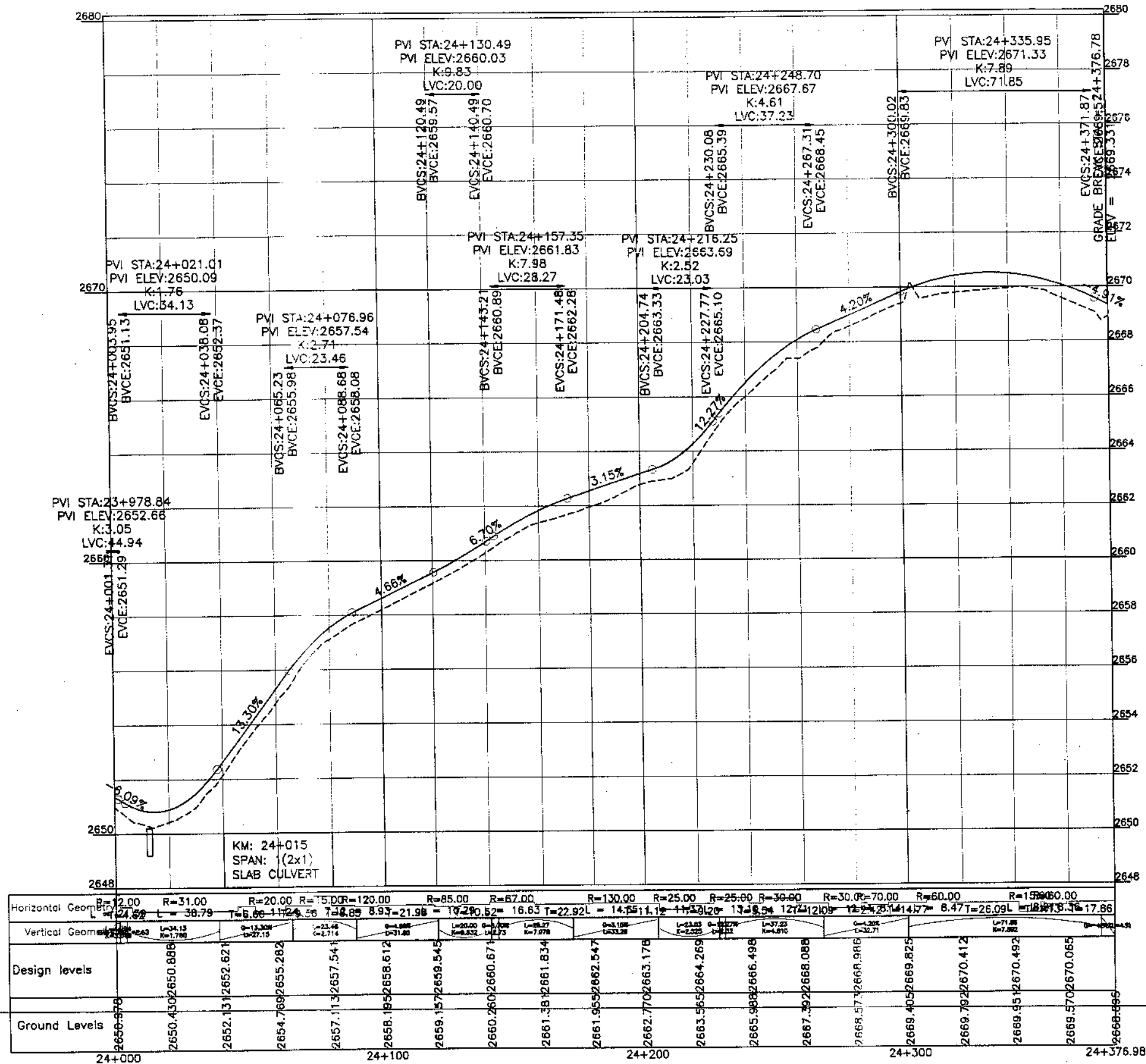
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PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	CHD./VER.

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PROFILE	SCALE
KM: 23+500 ~ KM: 24+000	1:1000
DATE	DWG NO.
January 2021	4169/(R)/TD/P 048

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Horizontal Geometry	R=2.00	R=31.00	R=20.00	R=15.00	R=120.00	R=85.00	R=67.00	R=130.00	R=25.00	R=25.00	R=30.00	R=30.00	R=70.00	R=60.00	R=150.00																								
Vertical Geometry	L=24.52	L=38.79	L=5.66	L=11.24	L=24.56	L=8.89	L=21.98	L=19.20	L=16.63	L=22.92	L=14.65	L=11.12	L=11.20	L=8.54	L=12.74	L=12.09	L=12.24	L=25.14	L=14.17	L=8.47	L=26.09	L=18.13	L=17.86																
Design levels	2650.970	2650.430	2650.886	2652.13	2652.621	2654.769	2655.282	2657.113	2657.541	2658.195	2658.612	2659.157	2659.545	2660.260	2660.671	2661.38	2661.834	2661.965	2662.547	2662.770	2663.178	2663.565	2664.269	2665.988	2666.498	2667.392	2668.088	2668.57	2668.986	2669.405	2669.825	2669.792	2670.412	2669.95	26670.492	2669.570	2670.065		
Ground Levels	2648	2650	2652	2654	2656	2658	2660	2662	2664	2666	2668	2670	2672	2674	2676	2678	2680	2680	2680	2680	2680	2680	2680	2680	2680	2680	2680	2680	2680	2680	2680	2680	2680	2680	2680	2680	2680	2680	2680



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INTEGRATED TOURISM AND
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PROJECT
COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK

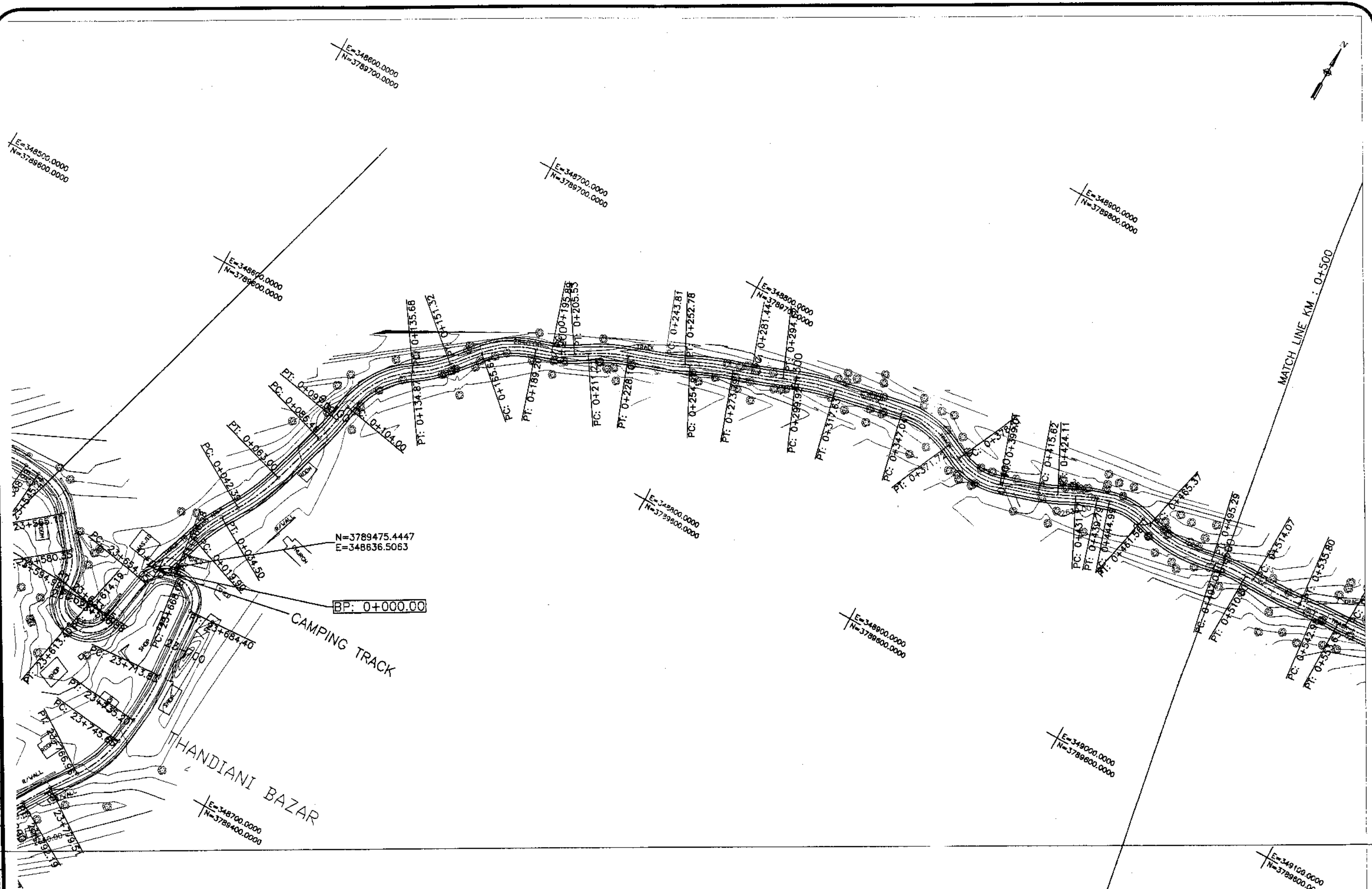
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PAK**
NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	DRAWN	JUNAID KHAN
				SUBMITTED	NOSHERWAN NAEM
				RECOMMENDED	
				CHD./VER.	
				APPROVED	

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PROFILE		SCALE
KM: 24+000 ~ KM: 24+367		1:1000
DATE	DWG NO.	
January 2021	4169/(ii)/TD/P 049	

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INTEGRATED TOURISM AND
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COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK



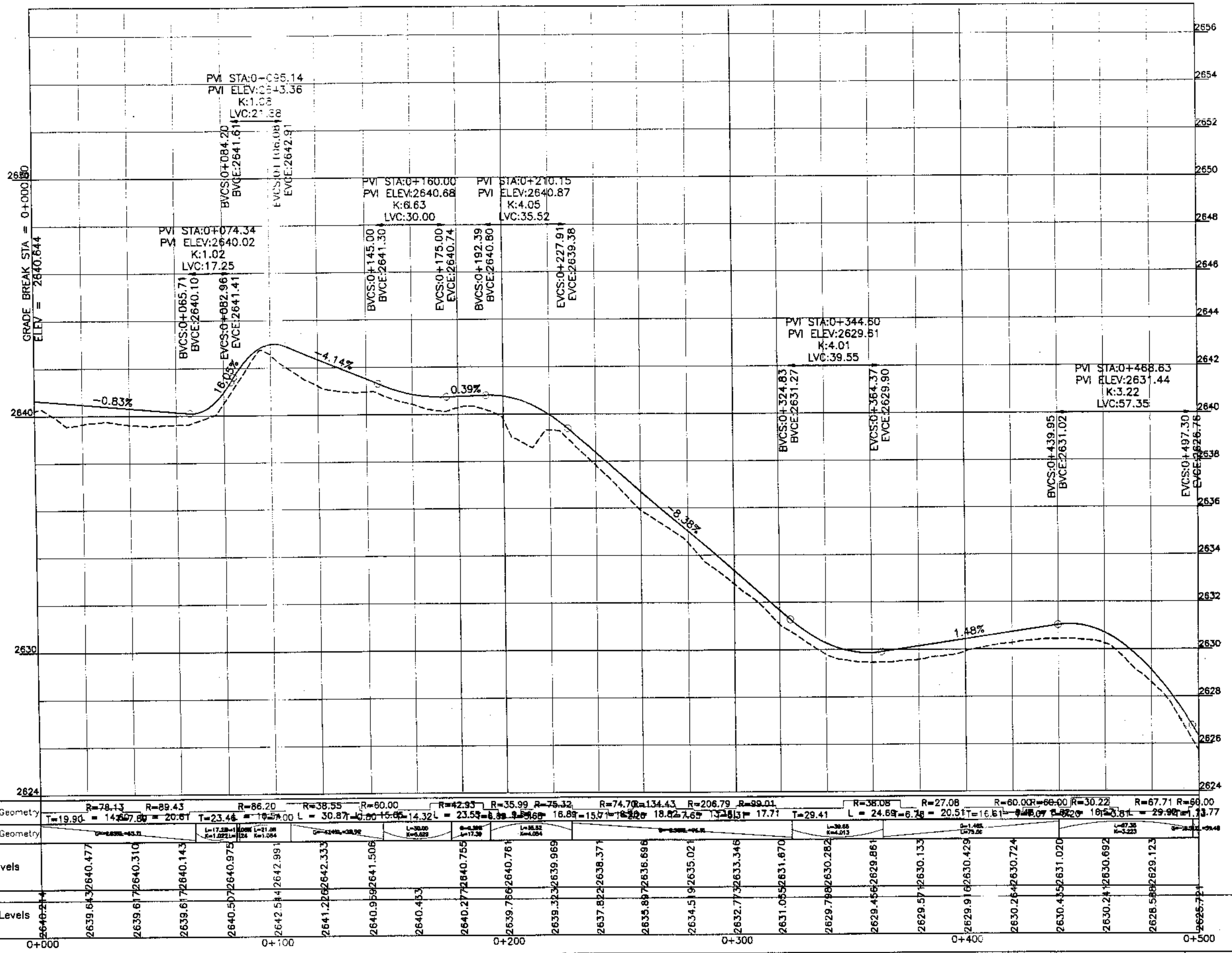
NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	CHD./VER.	APPROVED

DRAWN: JURNAID KHAN
SUBMITTED: NOSHERWAN NAEEM
RECOMMENDED:
CHD./VER.:
APPROVED:
REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PLAN		SCALE
KM: 0+000 ~ KM: 0+500		1:1000
DATE	DWG NO.	
January 2021	4169/(ii)/TD/P 50	

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Station	0+000	0+100	0+200	0+300	0+400	0+500
Design levels	2639.64	2640.31	2640.14	2640.97	2642.99	2642.33
Ground Levels	2640.24	2639.61	2640.47	2640.75	2639.75	2639.99



KHYBER PAKHTUNKHWA
INTEGRATED TOURISM AND
ENTERPRISE DEVELOPMENT
PROJECT
COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK

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NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

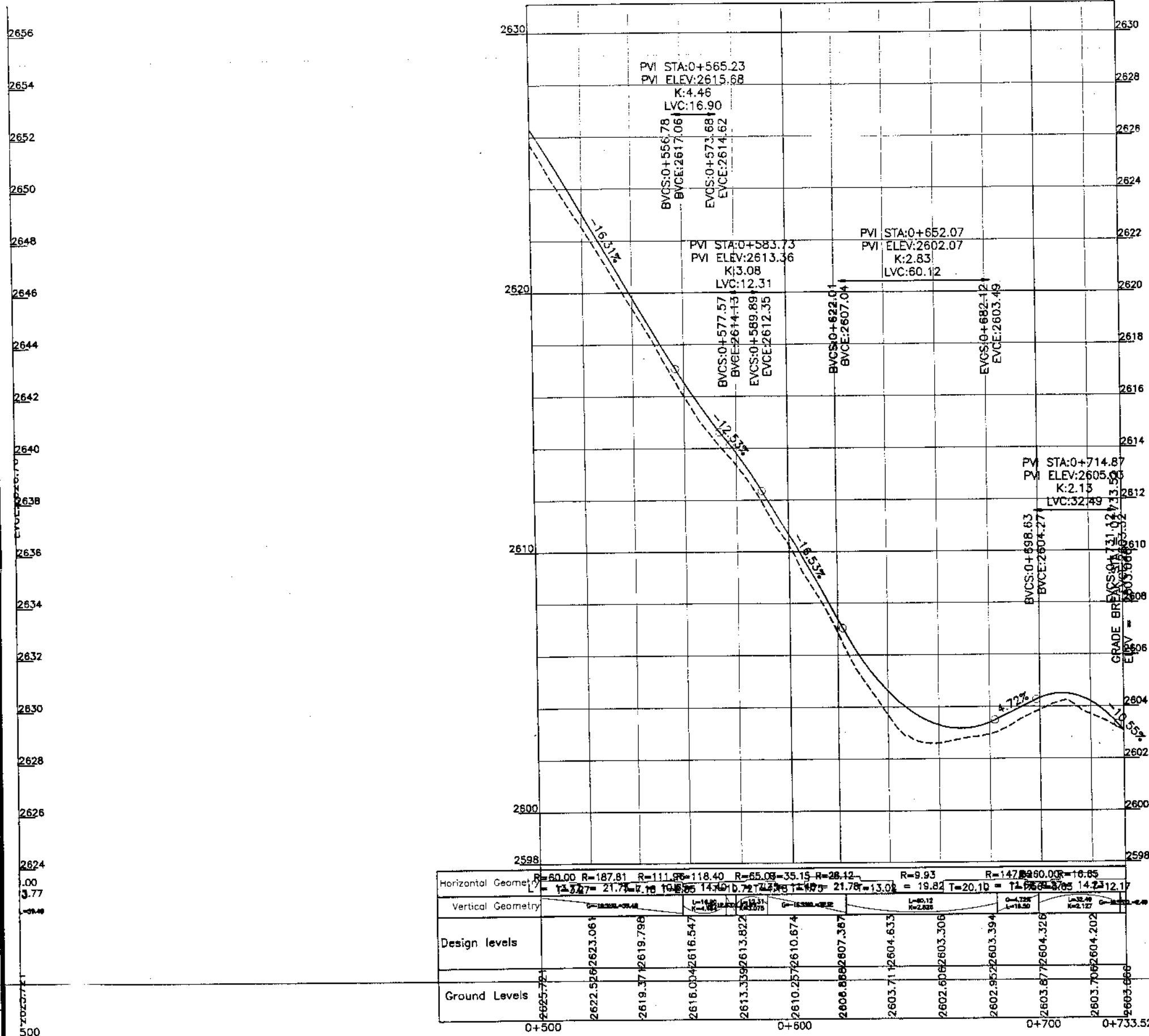
REV.	DATE	DESCRIPTION	APPROVED

DRAWN: JUNAID KHAN
SUBMITTED: MOSHERWAN NAEEM
RECOMMENDED:
CHD./YER:
APPROVED:

REHABILITATION AND UPGRADATION OF
THANDIARI ROAD IN DISTRICT
ABBOTTABAD - 24 KM

PROFILE		SCALE
KM: 0+000 ~ KM: 0+500		1:1000
DATE	DWG NO.	
January 2021	4169/(ii)/TD/P 050	

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Station	0+500	0+550	0+600	0+650	0+700	0+733.52																	
Horizontal Geometry	R=60.00	R=187.81	R=111.96	R=118.40	R=65.08	R=35.15	R=28.12	R=9.93	R=147.82	R=260.00	R=16.85												
Vertical Geometry	L=12.72	L=21.73	L=7.18	L=10.85	L=14.40	L=7.27	L=14.40	L=14.75	L=21.78	L=13.08	L=19.82	L=20.10	L=14.95	L=3.85	L=14.23	L=12.17							
Design levels	2625.72	2622.52	2623.06	2619.37	2619.79	2616.00	2616.54	2613.33	2613.82	2610.25	2610.67	2606.88	2607.39	2603.71	2604.63	2602.60	2603.30	2602.95	2603.39	2603.87	2604.32	2603.70	2604.20
Ground Levels	2625.72	2622.52	2623.06	2619.37	2619.79	2616.00	2616.54	2613.33	2613.82	2610.25	2610.67	2606.88	2607.39	2603.71	2604.63	2602.60	2603.30	2602.95	2603.39	2603.87	2604.32	2603.70	2604.20



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INTEGRATED TOURISM AND
ENTERPRISE DEVELOPMENT
PROJECT
COMMUNICATION & WORKS (C&W)
DEPARTMENT, KPK

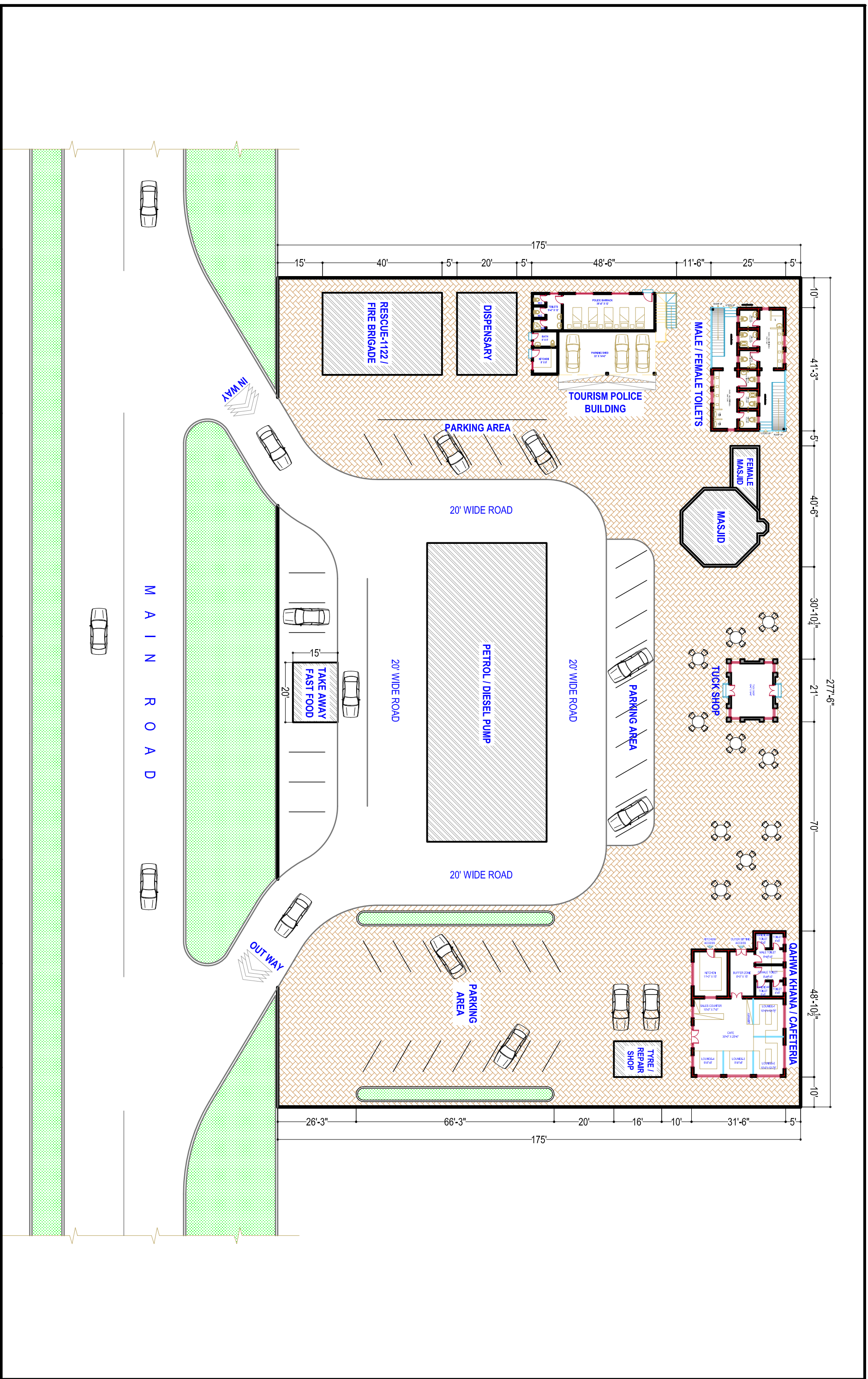
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NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED

DRAWN: JUNIAD KHAN
SUBMITTED: NOSHERWAN NAEEM
RECOMMENDED:
CHD./VER.
APPROVED:

REHABILITATION AND UPGRADATION OF
THANDIANI ROAD IN DISTRICT
ABBOTTABAD -- 24 KM

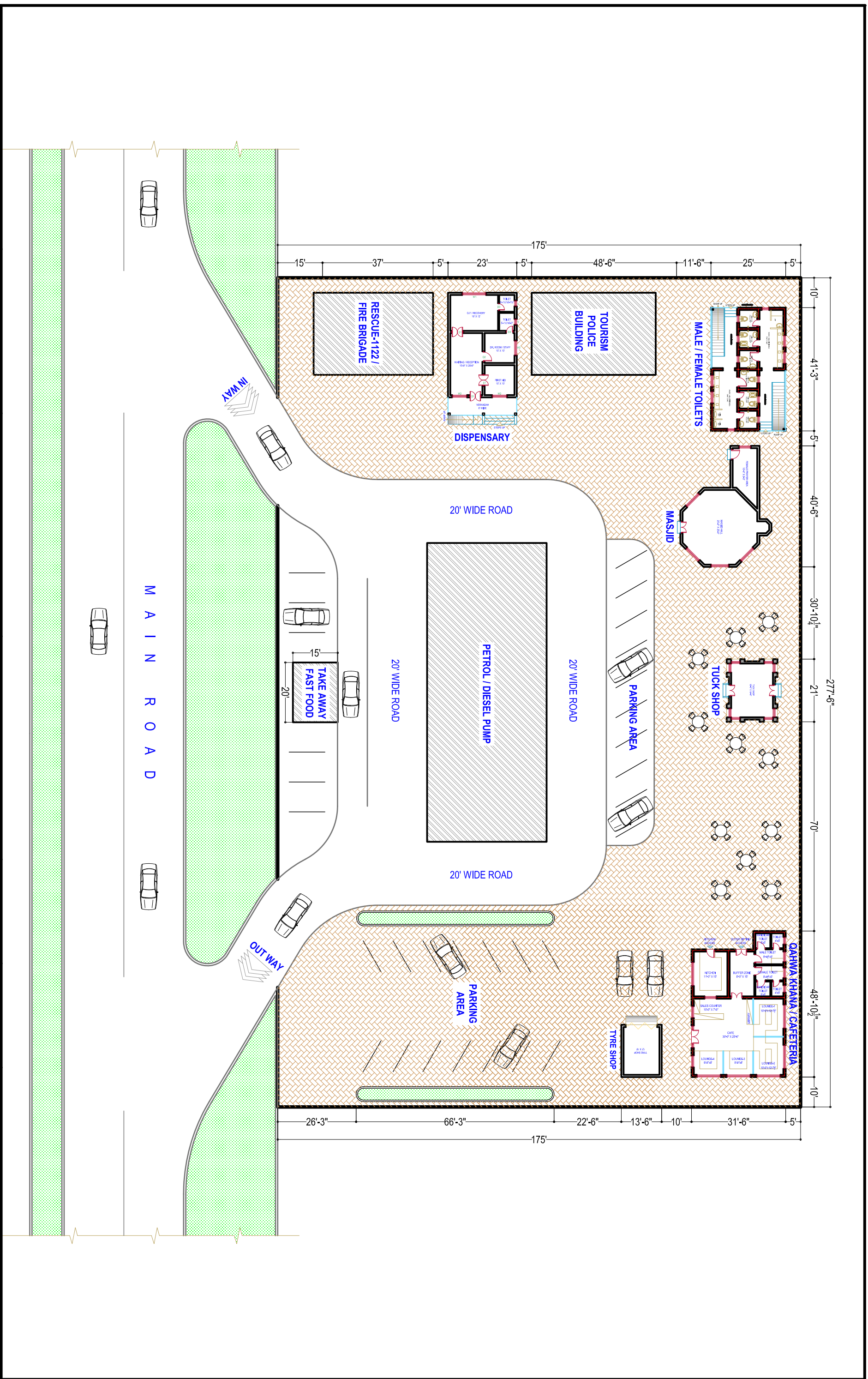
PROFILE		SCALE
KM: 0+500 ~ KM: 0+733		1:1000
DATE	DWG NO.	
January 2021	4169/(ii)/TD/P 051	



PROJECT:-		CONTENTS:-		DRG. NO:-		SHEET NO:-	
DESIGN OF REST AREA		LAYOUT PLAN					
DIRECTOR GENERAL (CULTURE & TOURISM AUTHORITY)		PROJECT DIRECTOR PMU KITTE		DATE:- MARCH-2021		SCALE:- READ AS SHOWN	
				PROJECT MANAGEMENT UNIT (PMU) KITTE COMMUNICATION & WORKS DEPARTMENT			







PROJECT:-

CONTENTS:-

DESIGN OF REST AREA

LAYOUT PLAN

M/S NESPAK PVT. LTD.

PROJECT DIRECTOR PMU KITTE

DRG. NO:-

SHEET NO:-

DATE:-

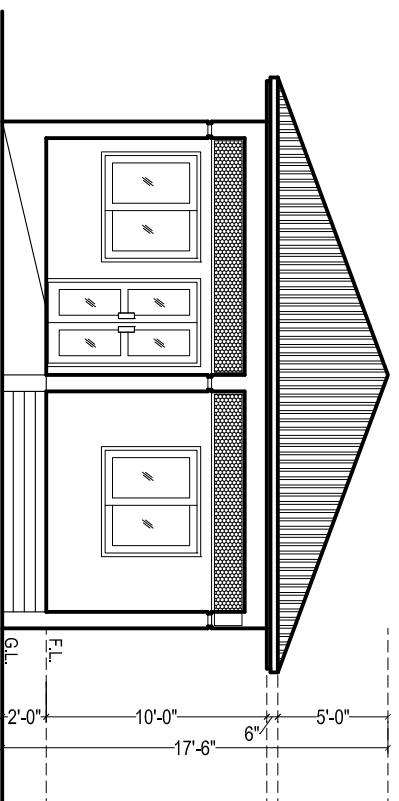
APRIL-2021

SCALE:-

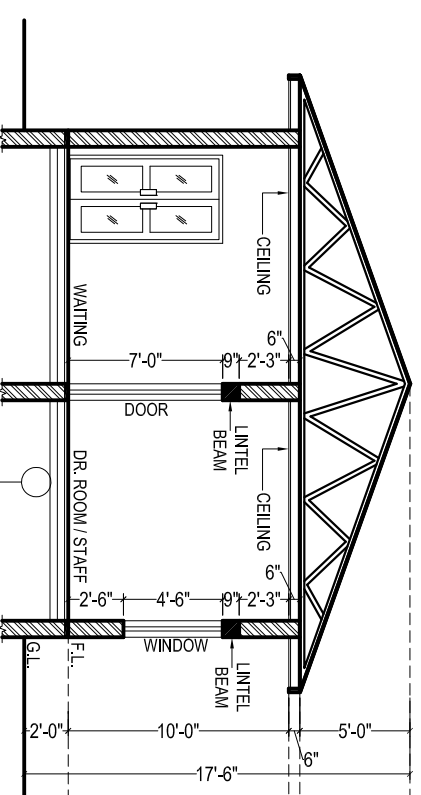
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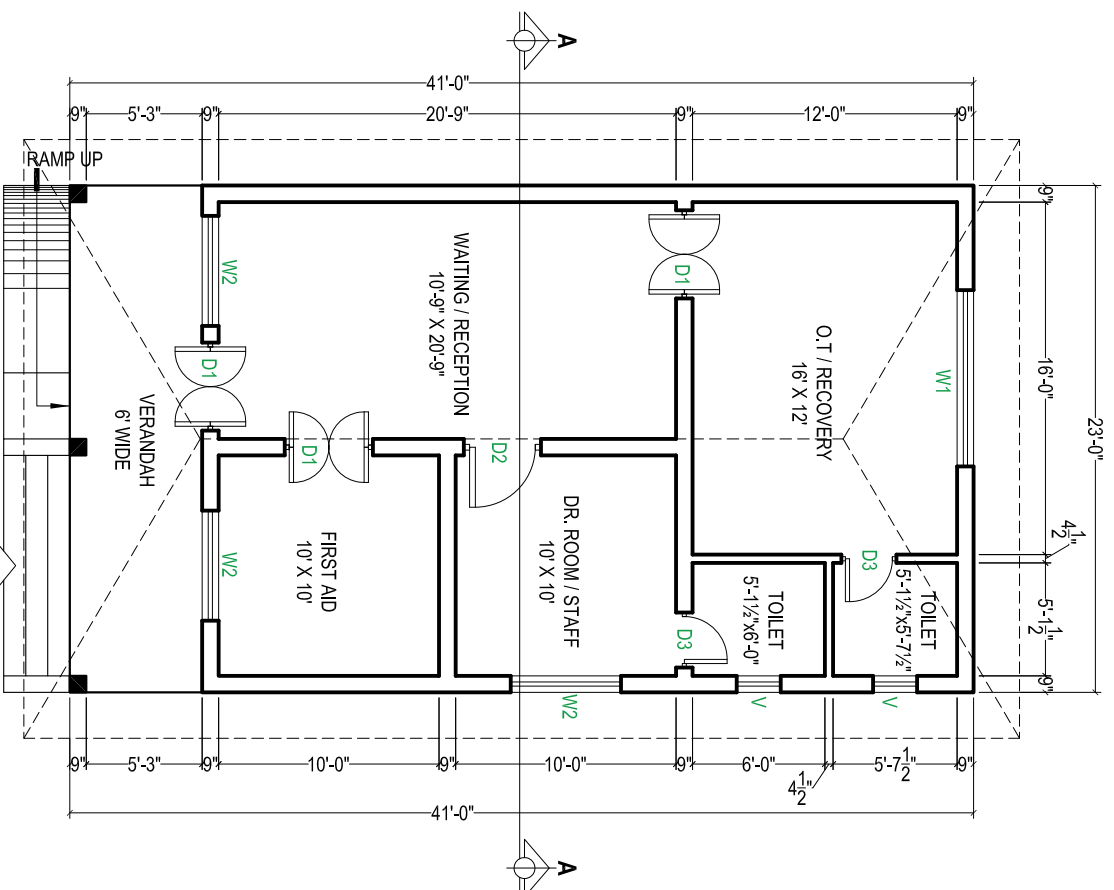
PROJECT MANAGEMENT UNIT (PMU) KITE
COMMUNICATION & WORKS DEPARTMENT



FRONT ELEVATION



- 1/2" thick marble flooring
- 1 1/2" thick cement screed (1:2:4)
- 3" thick p.c.c. (1:3:6)
- 3" thick compacted sand
- hard core



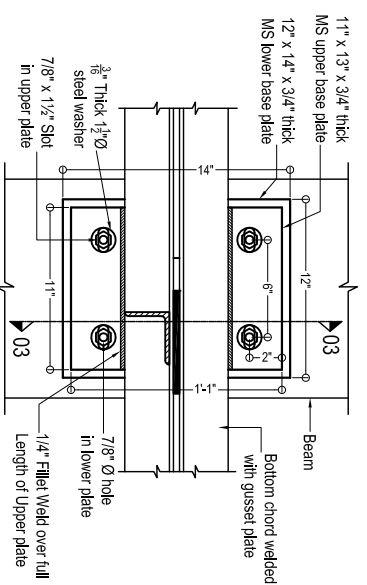
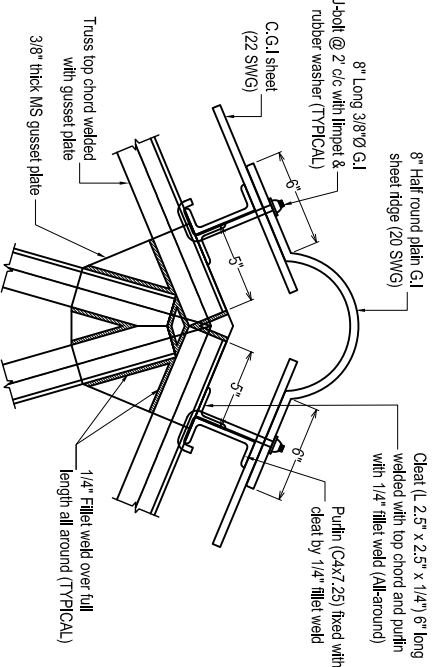
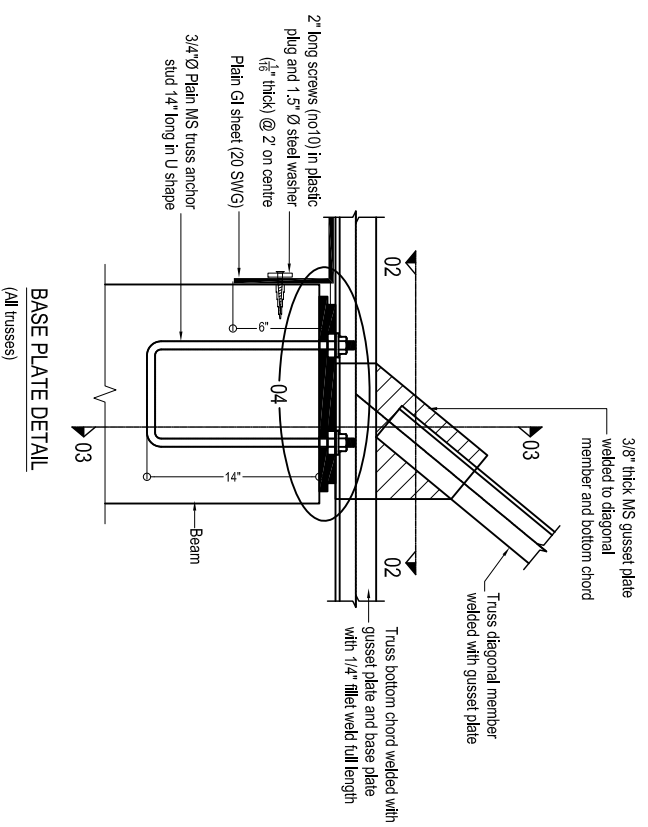
DISPENSARY BLOCK
COVERED AREA = 943.00 SFT

S.NO.	TYPE	SIZE	S/LEVEL
01	D1	4'-0" X 7'-0"	±0'-0"
02	D2	3'-6" X 7'-0"	±0'-0"
03	D3	2'-6" X 7'-0"	±0'-0"
04	W1	8'-0" X 4'-6"	+2'-6"
05	W2	5'-0" X 4'-6"	+2'-6"
06	V	2'-0" X 2'-0"	+5'-0"

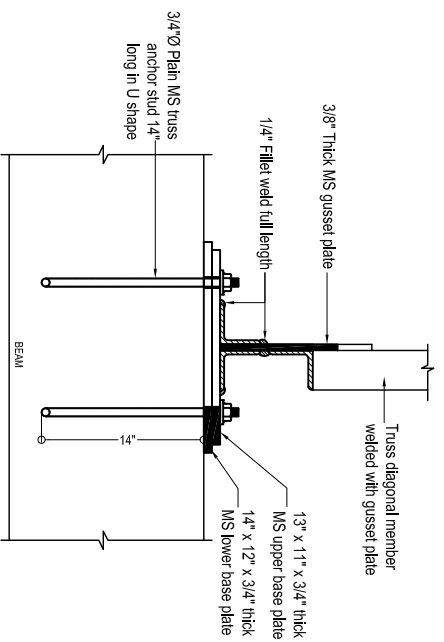
- BUILDING SPECIFICATION**
- * PCC (1:4:8) IN FOUNDATIONS
 - * 2" THICK DPC (DAMP PROOF COURSE) IN 1:2:4 PCC WITH 2 COATS OF HOT BITUMEN WITH POLYTHENE SHEET.
 - * BURNT BRICK MASONRY IN 1:6 CEMENT SAND RATIO MORTAR.
 - * 1/2" THICK PLASTER ON WALLS IN 1:6 CEMENT SAND RATIO.
 - * ALL LINTELS & BEAMS IN 1:2:4 CEMENT:SAND:AGGREGATE RATIO WITH 14 DAYS CURING.
 - * ALL ELECTRICAL WIRING TO BE CONCEALED.
 - * ALL LOAD BEARING WALLS SHALL BE MINIMUM 9" THICK.
 - * ALL PARTION WALLS SHALL BE 4 1/2" THICK.
 - * THEN 1 1/2" BRICK TILES SET IN 1:3 CEMENT SAND RATIO.
 - * ALL INTER FLOOR SLABS SHALL BE COVERED WITH 2" OF PCC (1:4:8) IN SLOP THEN 3/4" TERRAZZO FINISH WITH GLASS STRIPS.
 - * ALL GROUND FLOORS SHALL BE LAID ON COMPACTED EARTH THEN 6" OF WATERED AND RAMMED SAND THEN 4" OF (1:4:8) IN SLOPE THEN 2"(1:4:8) THEN 3/4" TERRAZZO WITH GLASS STRIPS.

PROJECT:- (REST AREA) DISPENSARY BLOCK	CONTENTS:- PLAN, ELEVATION, SECTION & SPECIFICATIONS	M/S NESPAK PVT. LTD. PROJECT DIRECTOR PMU KITE
DRG. NO:- DATE:- APRIL-2021	SHEET NO:- SCALE:- READ AS SHOWN	PROJECT MANAGEMENT UNIT (PMU) KITE COMMUNICATION & WORKS DEPARTMENT

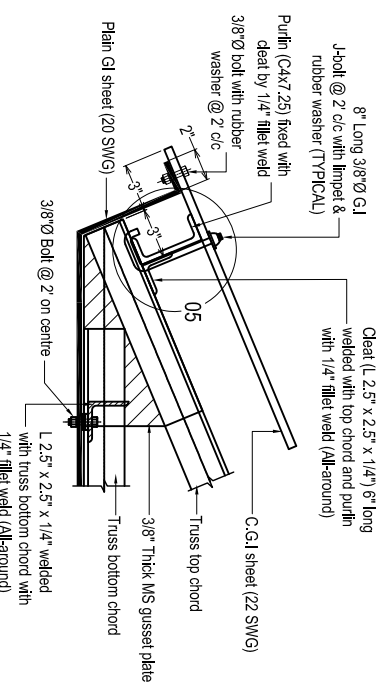




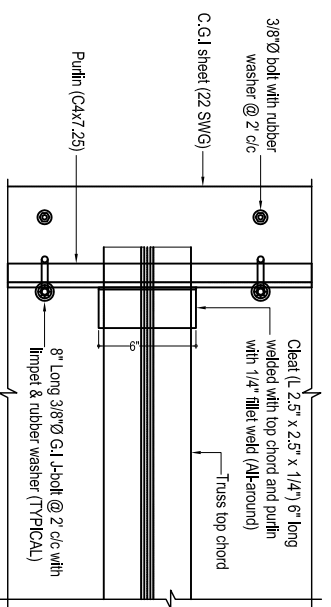
SECTION 02-02



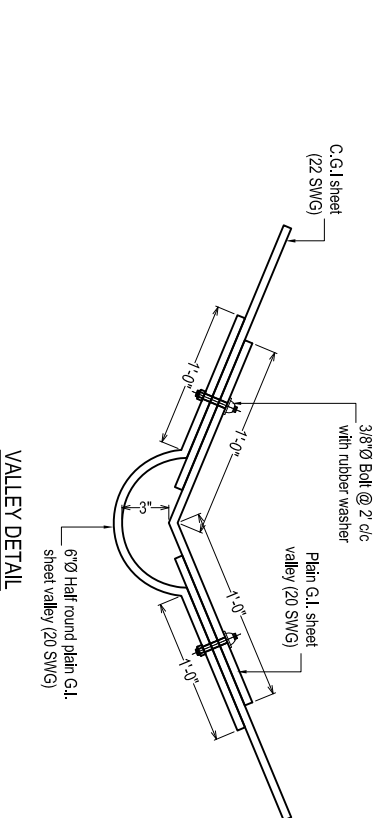
SECTION 03-03



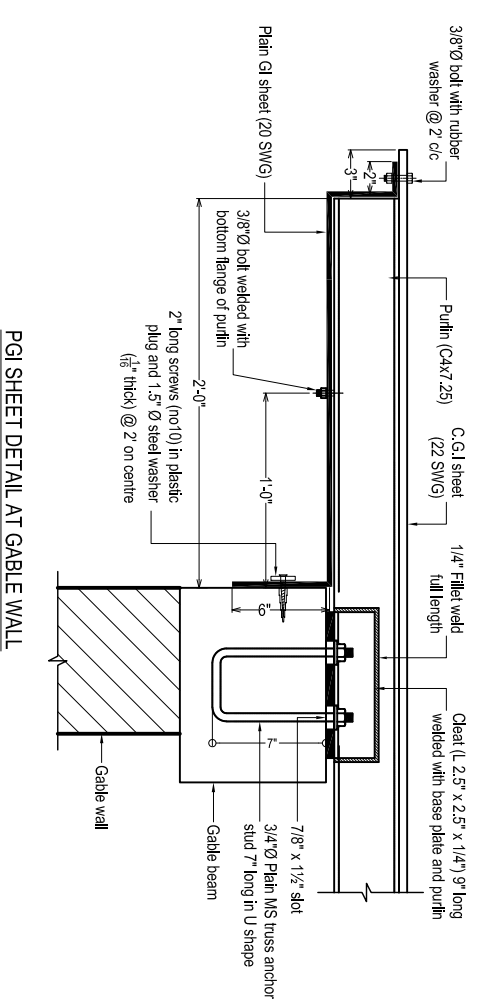
END OF TRUSS PORTION (Elevation)
(All trusses)



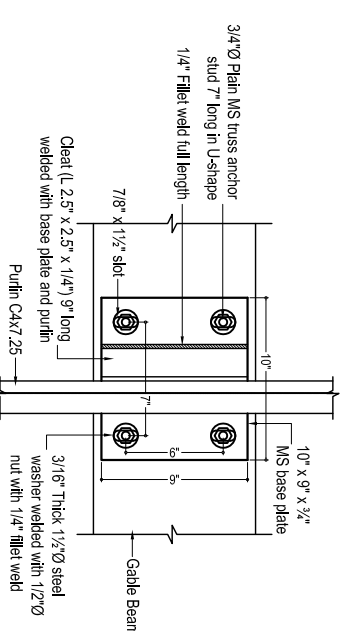
END OF TRUSS PORTION (Plan)



VALLEY DETAIL



PGI SHEET DETAIL AT GABLE WALL



CONNECTION DETAIL
FOR PURLIN ON GABLE WALL

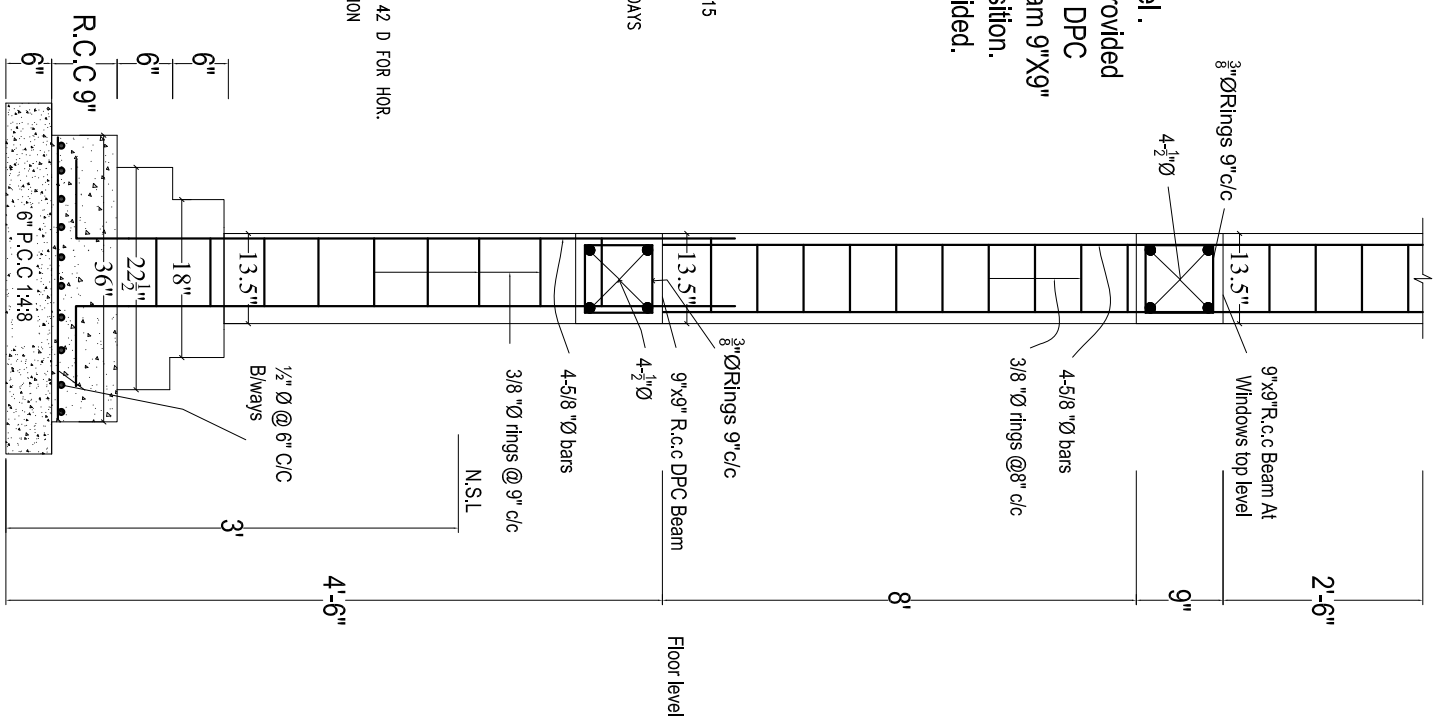
PROJECT:- (REST AREA) DISPENSARY BLOCK	CONTENTS:- TRUSS DETAIL	M/S NESPAK PVT. LTD.	PROJECT DIRECTOR PMU KITE	DRG. NO:-	SHEET NO:-	PROJECT MANAGEMENT UNIT (PMU) KITE COMMUNICATION & WORKS DEPARTMENT
				DATE:- APRIL-2021	SCALE:- READ AS SHOWN	



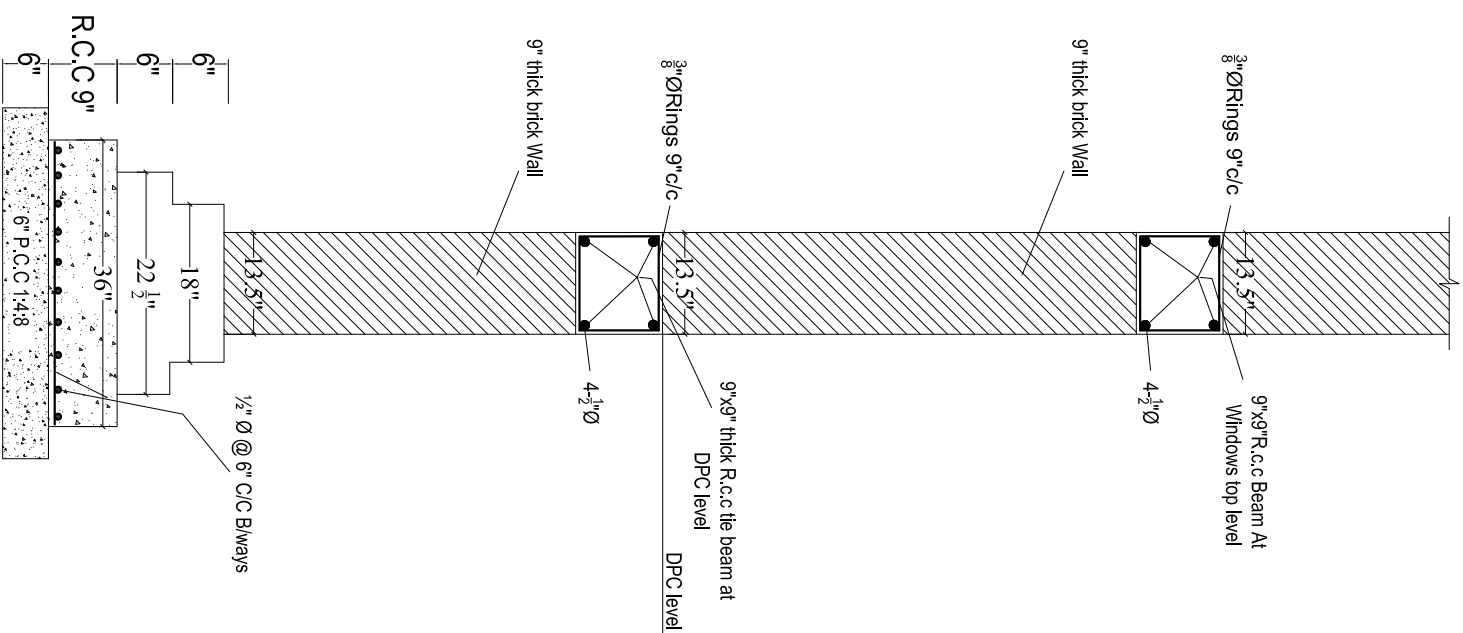
R.c.c columns upto DPC level.
At DPC 9" thick the beam will be provided over 9" thick brick walls, no extra DPC then required. After Providing The beam 9"x9" on walls & columns at shown position. Normal 9" thick brick wall is provided.

NOTES:-

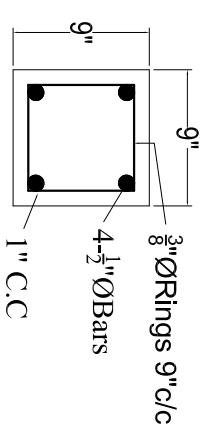
- (1) ALL REINFORCING STEEL IS DEFORMED AS PER ASTM A-615 40000 PSI MIN. YIELD STRENGTH. AND MIN. ULTIMATE STRENGTH OF 65000 PSI .
- (2) ALL CONCRETE IS 3000 PSI CYLINDER STRENGTH AT 28 DAYS WITH MIN. CEMENT CONTENT 400 KG/m³
- (3) CLEAR CONCRETE COVER TO MAIN REINFORCING BARS IS AS BELOW.
FOOTING ON 1:4:8 = 2"
SLABS = 3/4"
BEAMS = 1 1/2" COLUMNS = 1 1/2"
(4) ALL DRAWINGS SHOULD BE READ IN CONJUNCTION WITH THE RELEVANT ARCHITECTURAL AND SERVICES DRGS.
- (5) LEAN IS 1000 PSI CYLINDER STRENGTH AT 28 DAYS MIN MIX 1:4:8
- (6) ALL LAPS ARE 30 TIMES BAR DIAMETER FOR VERTICAL & 42 D FOR HOR.
- (7) EXCAVATION INCLUDING DEWATERING, BRACING OF EXCAVATION TO SAFEGUARD THE ADJOINING PROPERTY AND LIFE AND DEWATERING PITS IN CASE OF RAIN IS CONTRACTOR RESPONSIBILITY. FOR THAT MATTER, A QUALIFIED GEO-TECHNICAL ENGINEER SHOULD BE APPOINTED ON HIS ROLE.
- (8) (a) 1ST THE BEAM AT FOUNDATION LEVEL.
(b) 2ND THE BEAM AT D.P.C. LEVEL.
(c) 3RD THE BEAM AT WINDOW LINTE LEVEL.
(d) R.C.C COLUMN 9"x 9" AT CORNER OF BUILDING SHOULD BE PROVIDED.



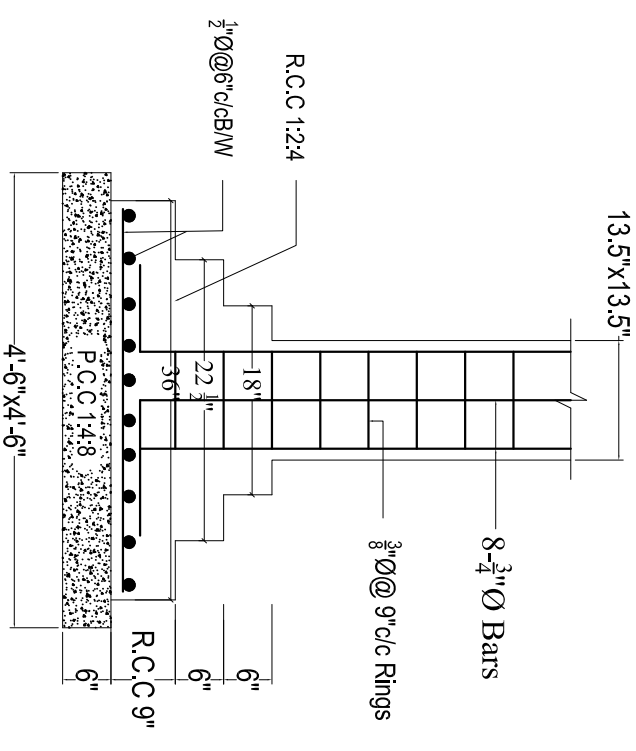
R.c.c Foundation Detail
For R.c.c Column Portion



R.C.C. STRIP FOUNDATION
FOR GROUND FLOOR

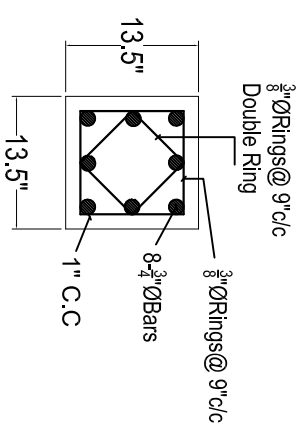


VERANDAH COLUMNS FOUNDATION DETAIL



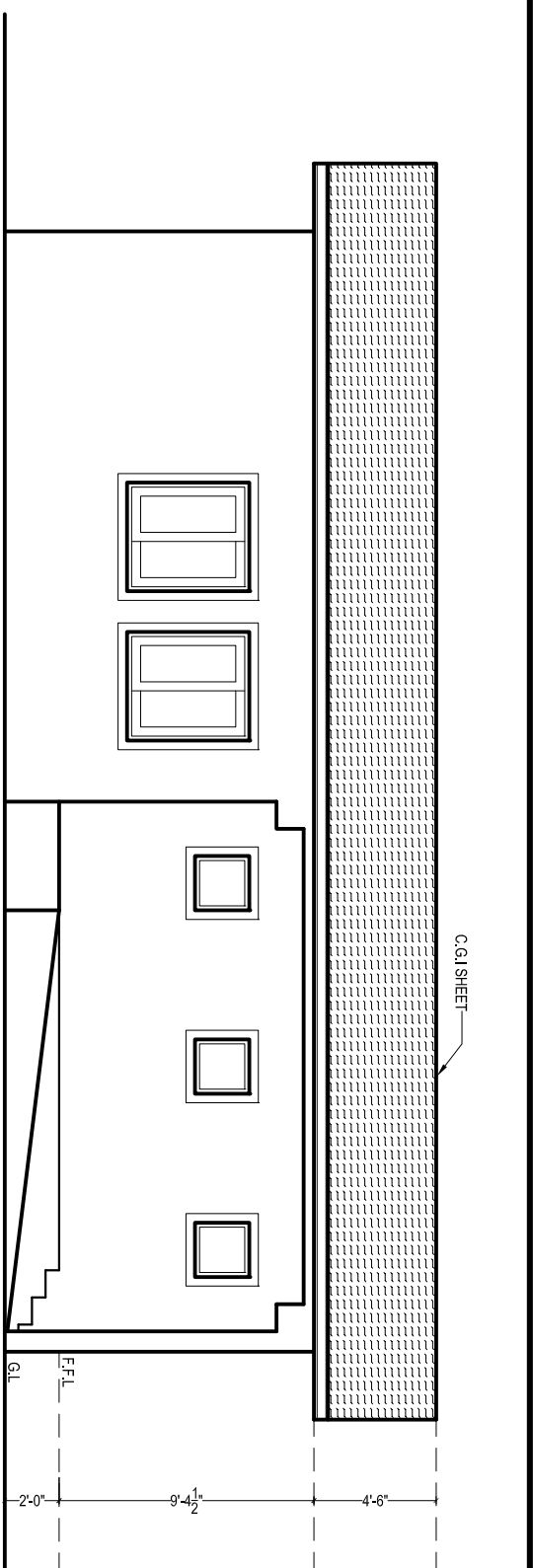
C-1

VERANDAH COLUMN DETAIL

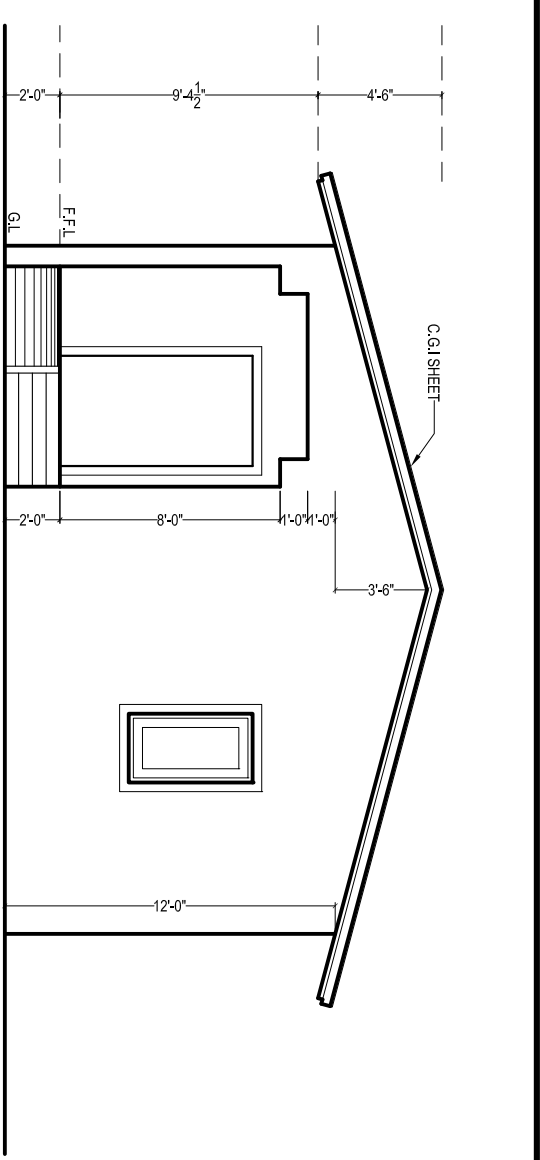


C-2

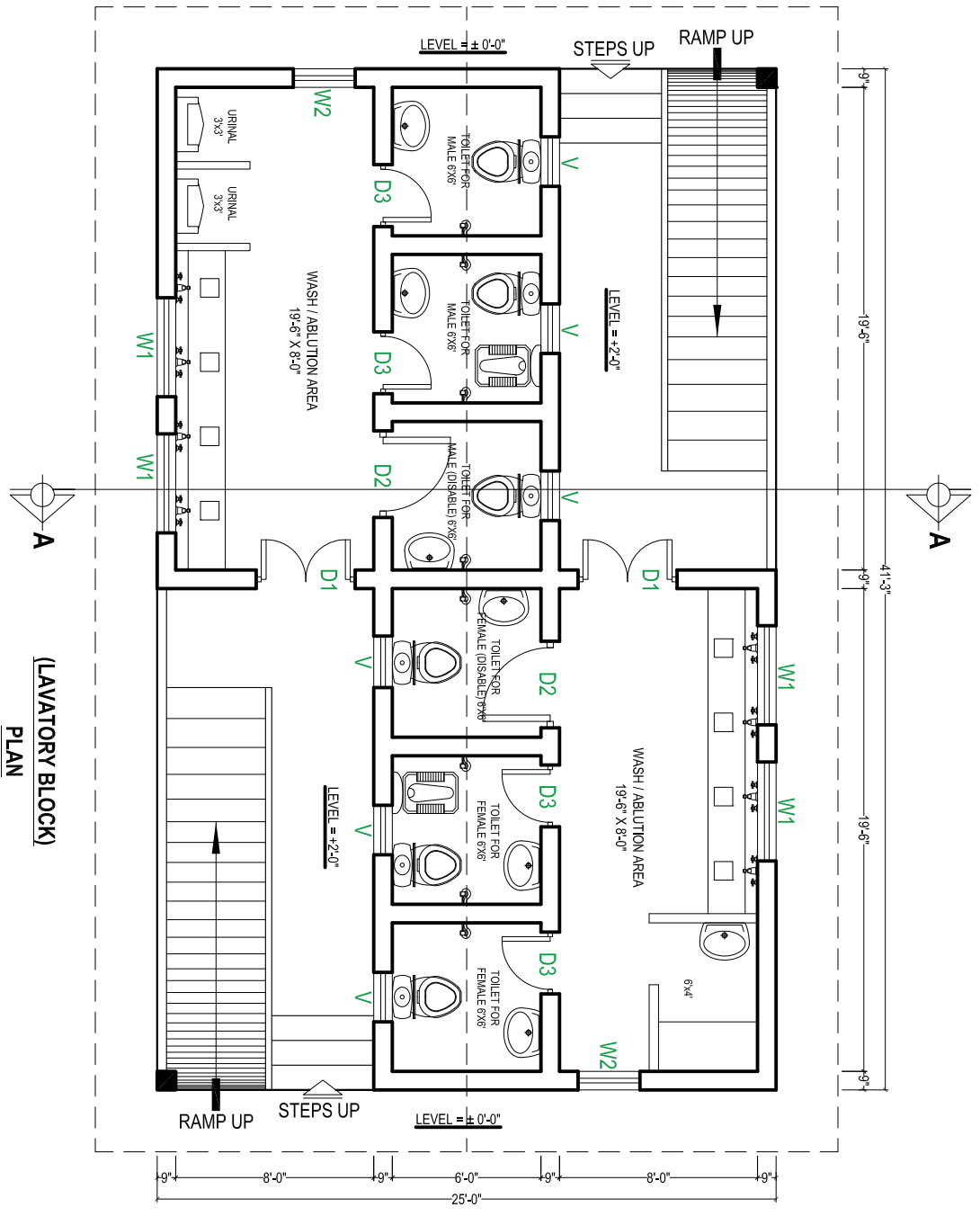
PROJECT:- (REST AREA) DISPENSARY BLOCK	CONTENTS:- COLUMNS, FOUNDATION & WALLS DETAIL	M/S NESPAK PVT. LTD.	PROJECT DIRECTOR PMU KITE	DRG. NO:-	SHEET NO:-	PROJECT MANAGEMENT UNIT (PMU) KITE COMMUNICATION & WORKS DEPARTMENT
				DATE:- APRIL-2021	SCALE:- READ AS SHOWN	



FRONT ELEVATION



RIGHT SIDE ELEVATION



(LAVATORY BLOCK)
PLAN

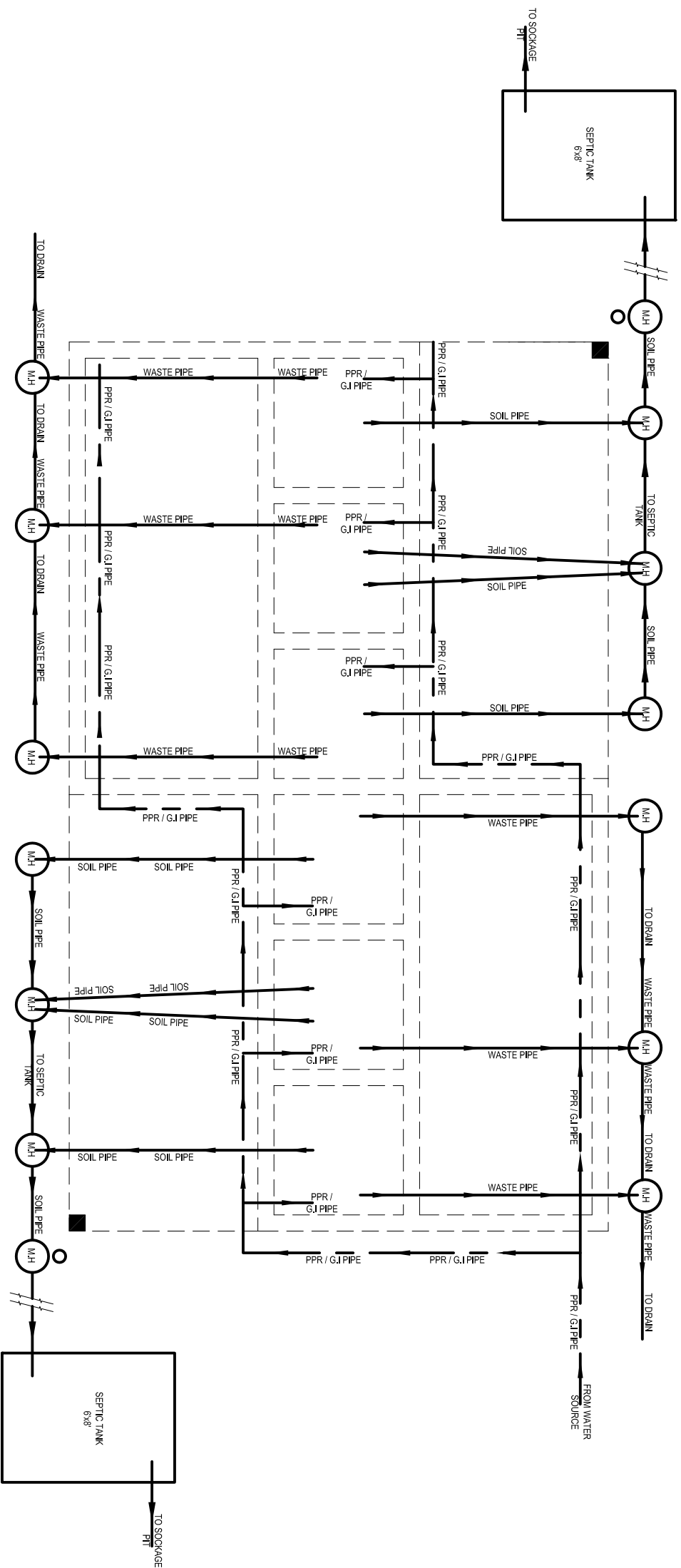
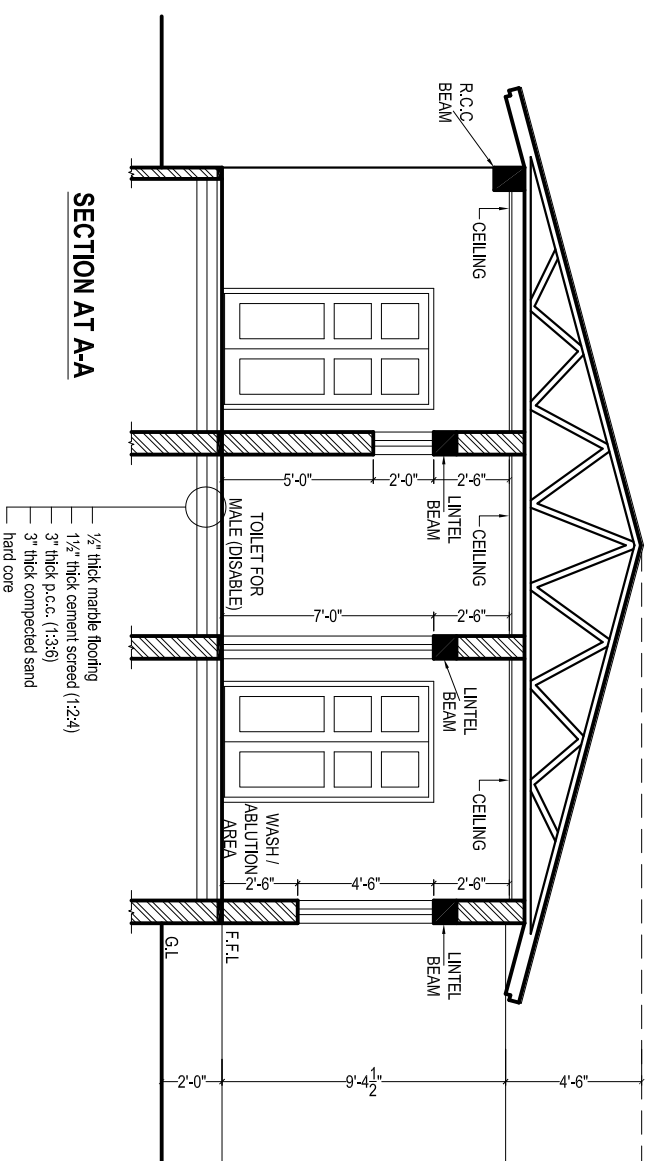
SCHEDULE OF OPENING		
S.NO.	TYPE SIZE	SLEVEL
01	D1 4'-0" X 7'-0"	±0'-0"
02	D2 3'-6" X 7'-0"	±0'-0"
03	D3 2'-6" X 7'-0"	±0'-0"
04	W1 4'-0" X 4'-6"	+2'-6"
05	W2 2'-6" X 4'-6"	+2'-6"
06	V 2'-0" X 2'-0"	+5'-0"

BUILDING SPECIFICATION

- * PCC (1:4:8) IN FOUNDATIONS
- * 2" THICK DPC (DAMP PROOF COURSE) IN 1:2:4 PCC WITH 2 COATS OF HOT BITUMEN WITH POLYTHENE SHEET.
- * BURNT BRICK MASONRY IN 1:6 CEMENT SAND RATIO MORTAR.
- * 1/2" THICK PLASTER ON WALLS IN 1:6 CEMENT SAND RATIO.
- * ALL LINTELS & BEAMS IN 1:2:4 CEMENT:SAND:AGGREGATE RATIO WITH 14 DAYS CURING.
- * ALL ELECTRICAL WIRING TO BE CONCEALED.
- * ALL LOAD BEARING WALLS SHALL BE MINIMUM 9" THICK.
- * ALL PARTION WALLS SHALL BE 4 1/2" THICK.
- * THEN 1 1/2" BRICK TILES SET IN 1:3 CEMENT SAND RATIO.
- * ALL INTER FLOOR SLABS SHALL BE COVERED WITH 2" OF PCC (1:4:8) IN SLOP THEN 3/4" TERRAZZO FINISH WITH GLASS STRIPS.
- * ALL GROUND FLOORS SHALL BE LAID ON COMPACTED EARTH THEN 6" OF WATERED AND RAMMED SAND THEN 4" OF (1:4:8) IN SLOPE THEN 2" (1:4:8) THEN 3/4" TERRAZZO WITH GLASS STRIPS.

PROJECT:- LAVATORY / PUBLIC TOILETS (REST AREA) BLOCK	CONTENTS:- PLAN, ELEVATION, SPECIFICATION	PLINTH AREA:- M/S NESPAK PVT. LTD.	APPROVED BY:- 	DRG. NO:- 	SHEET NO:-
DATE:- APRIL-2021		SCALE:- READ AS SHOWN		PROJECT MANAGEMENT UNIT (PMU) KITE COMMUNICATION & WORKS DEPARTMENT	

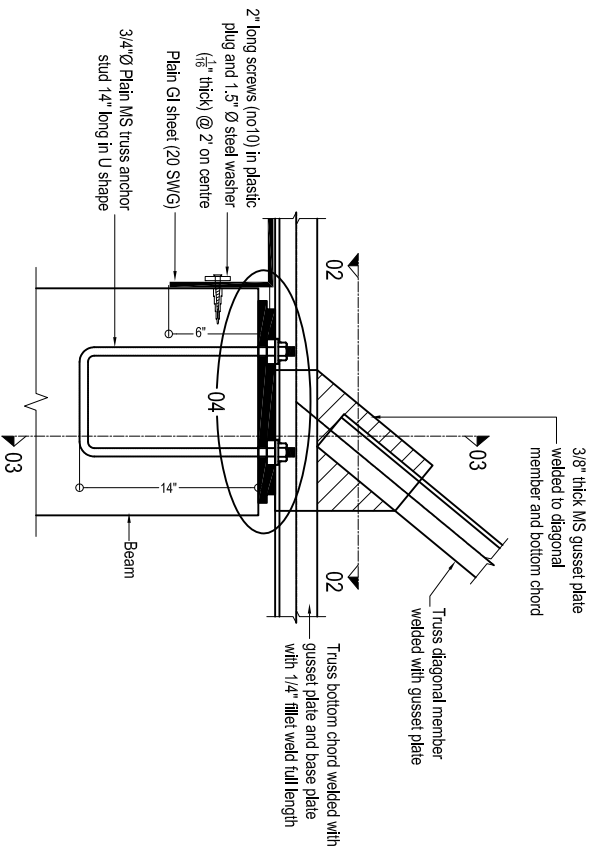




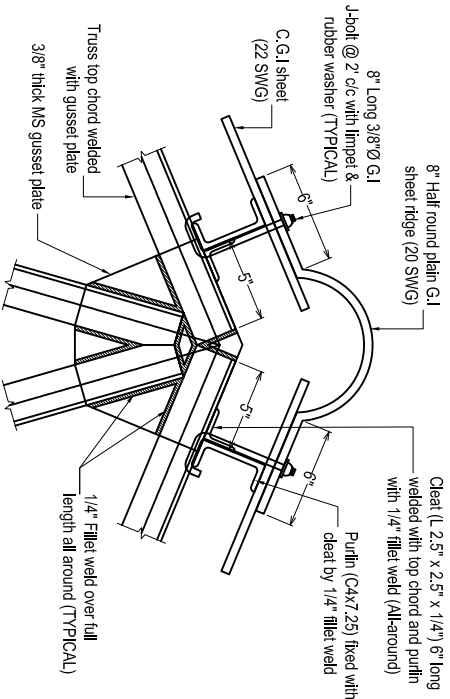
SEWER & WATER SUPPLY PLAN

PROJECT:- LAVATORY / PUBLIC TOILETS (REST AREA) BLOCK	CONTENTS:- SEWER & WATER SUPPLY PLAN & SECTION	PLINTH AREA:-	APPROVED BY:-	DRG. NO:-	SHEET NO:-
M/S NESPAK PVT. LTD.	PROJECT DIRECTOR PMU KITE			DATE:- APRIL-2021	SCALE:- READ AS SHOWN
				PROJECT MANAGEMENT UNIT (PMU) KITE COMMUNICATION & WORKS DEPARTMENT	

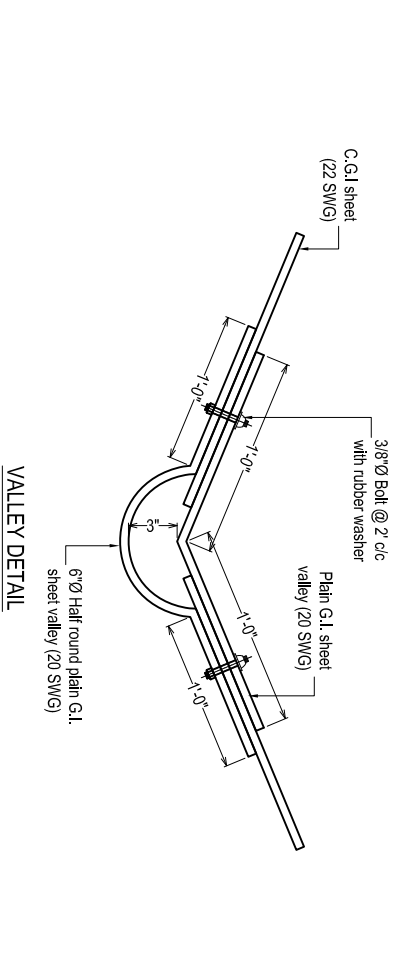




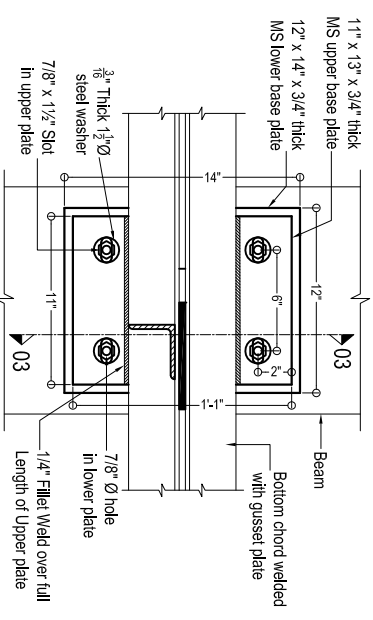
BASE PLATE DETAIL
(All trusses)



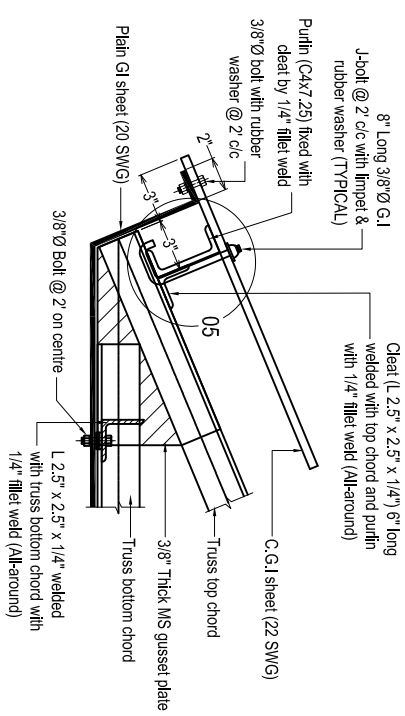
TYPICAL TOP CHORD CONNECTION DETAIL



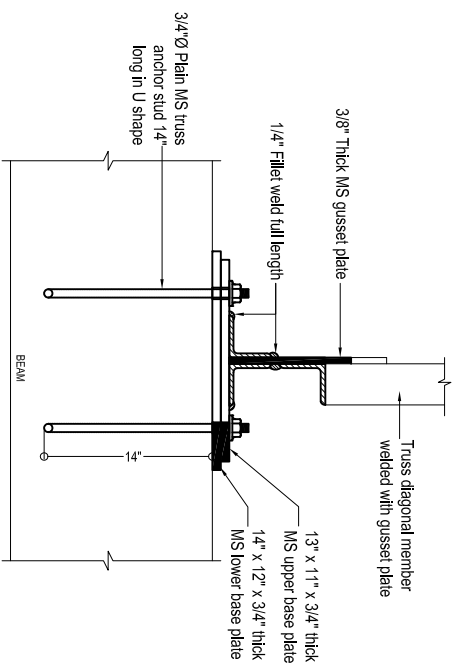
VALLEY DETAIL



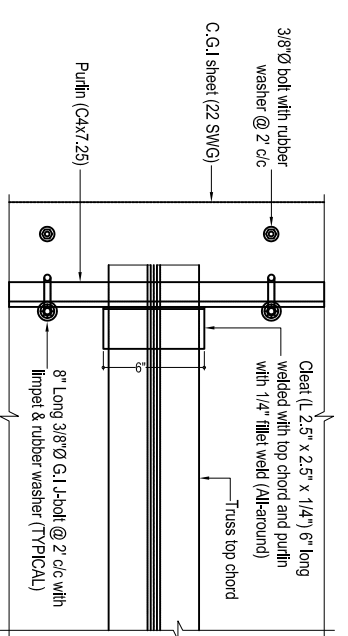
SECTION 02-02



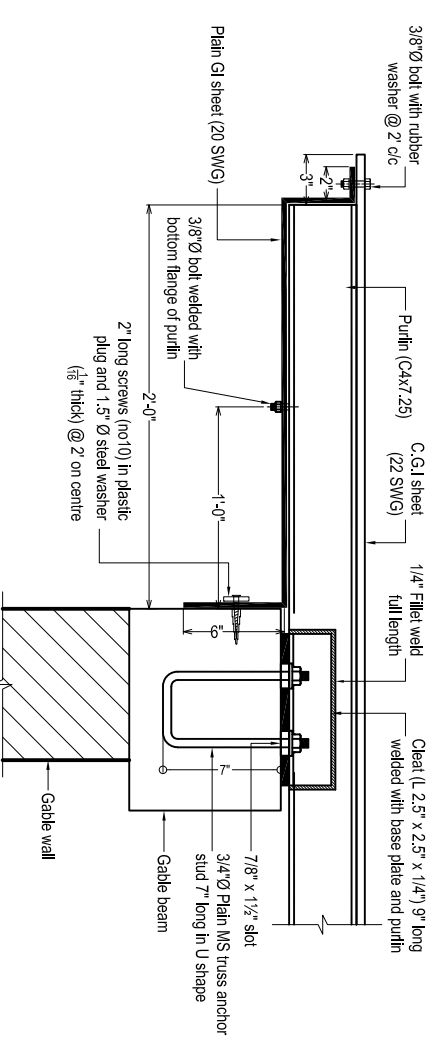
END OF TRUSS PORTION (Elevation)
(All trusses)



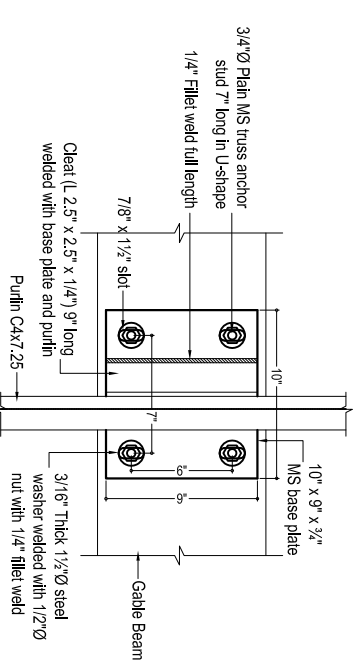
SECTION 03-03



END OF TRUSS PORTION (Plan)



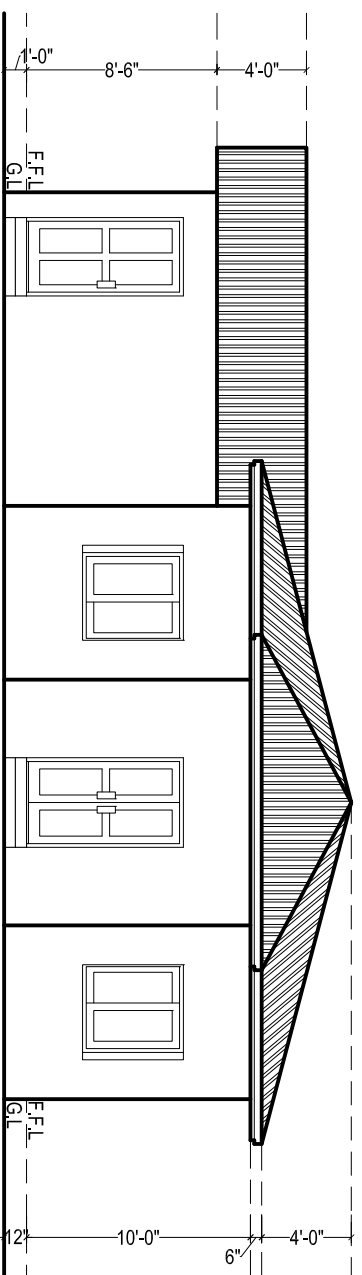
PGI SHEET DETAIL AT GABLE WALL



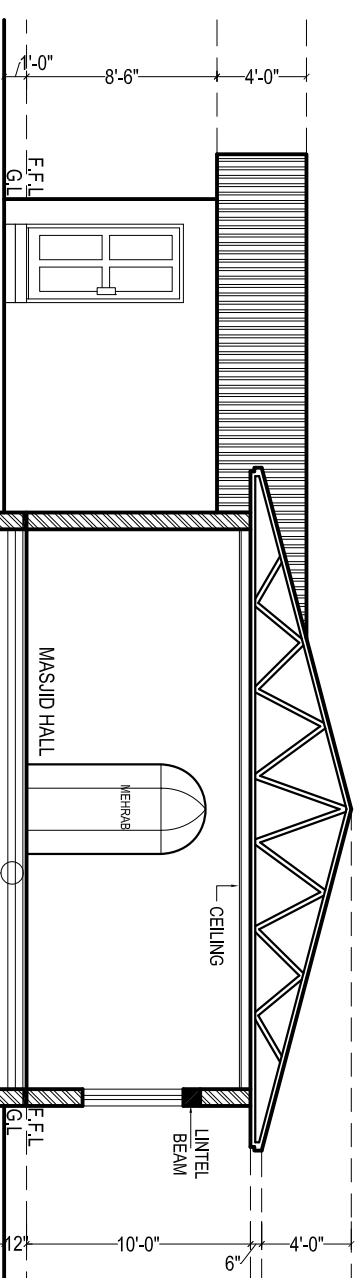
CONNECTION DETAIL
FOR PURLIN ON GABLE WALL

PROJECT:- LAVATORY / PUBLIC TOILETS BLOCK	CONTENTS:- TRUSS DETAIL	M/S NESPAK PVT. LTD.	PROJECT DIRECTOR PMU KITE	DRG. NO:-	SHEET NO:-	DATE:- APRIL-2021	SCALE:- READ AS SHOWN	PROJECT MANAGEMENT UNIT (PMU) KITE COMMUNICATION & WORKS DEPARTMENT
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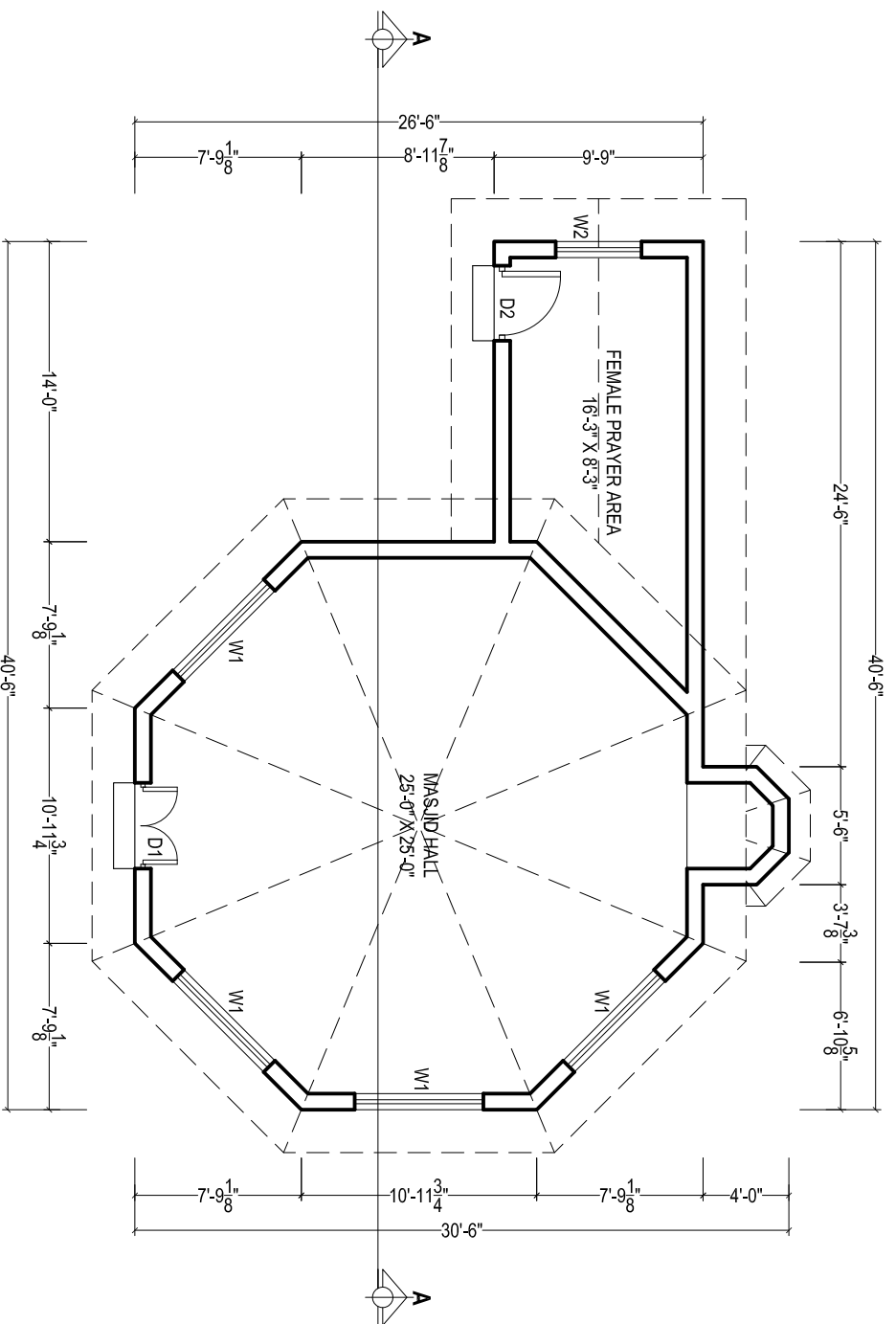




FRONT ELEVATION



SECTION AT A-A



MASJID PLAN
COVERED AREA = 768 SFT

SCHEDULE OF OPENING			
S.NO.	TYPE	SIZE	S/LEVEL
01	D1	4'-0" X 7'-0"	±0'-0"
02	D2	3'-6" X 7'-0"	±0'-0"
04	W1	6'-0" X 4'-6"	+2'-6"
05	W2	4'-0" X 4'-6"	+2'-6"

BUILDING SPECIFICATION

- * PCC (1:4:8) IN FOUNDATIONS
- * 2" THICK DPC (DAMP PROOF COURSE) IN 1:2:4 PCC WITH 2 COATS OF HOT BITUMEN WITH POLYTHENE SHEET.
- * BURNT BRICK MASONRY IN 1:6 CEMENT SAND RATIO MORTAR.
- * 1/2" THICK PLASTER ON WALLS IN 1:6 CEMENT SAND RATIO.
- * ALL LINTELS & BEAMS IN 1:2:4 CEMENT:SAND:AGGREGATE RATIO WITH 14 DAYS CURING.
- * ALL ELECTRICAL WIRING TO BE CONCEALED.
- * ALL LOAD BEARING WALLS SHALL BE MINIMUM 9" THICK.
- * ALL PARTION WALLS SHALL BE 4 1/2" THICK.
- * THEN 1 1/2" BRICK TILES SET IN 1:3 CEMENT SAND RATIO.
- * ALL INTER FLOOR SLABS SHALL BE COVERED WITH 2" OF PCC (1:4:8) IN SLOP THEN 3/4" TERRAZZO FINISH WITH GLASS STRIPS.
- * ALL GROUND FLOORS SHALL BE LAID ON COMPACTED EARTH THEN 6" OF WATERED AND RAMMED SAND THEN 4" OF (1:4:8) IN SLOPE THEN 2"(1:4:8) THEN 3/4" TERRAZZO WITH GLASS STRIPS.

PROJECT:-

(REST AREA)
MASJID

CONTENTS:-

PLAN, ELEVATION, SECTION,
SPECIFICATION

PLINTH AREA:-

M/S NESPAK PVT. LTD.

APPROVED BY:-

PROJECT DIRECTOR PMU KITE

DRG. NO:-

DATE:-

APRIL-2021

SHEET NO:-

SCALE:-

READ AS
SHOWN

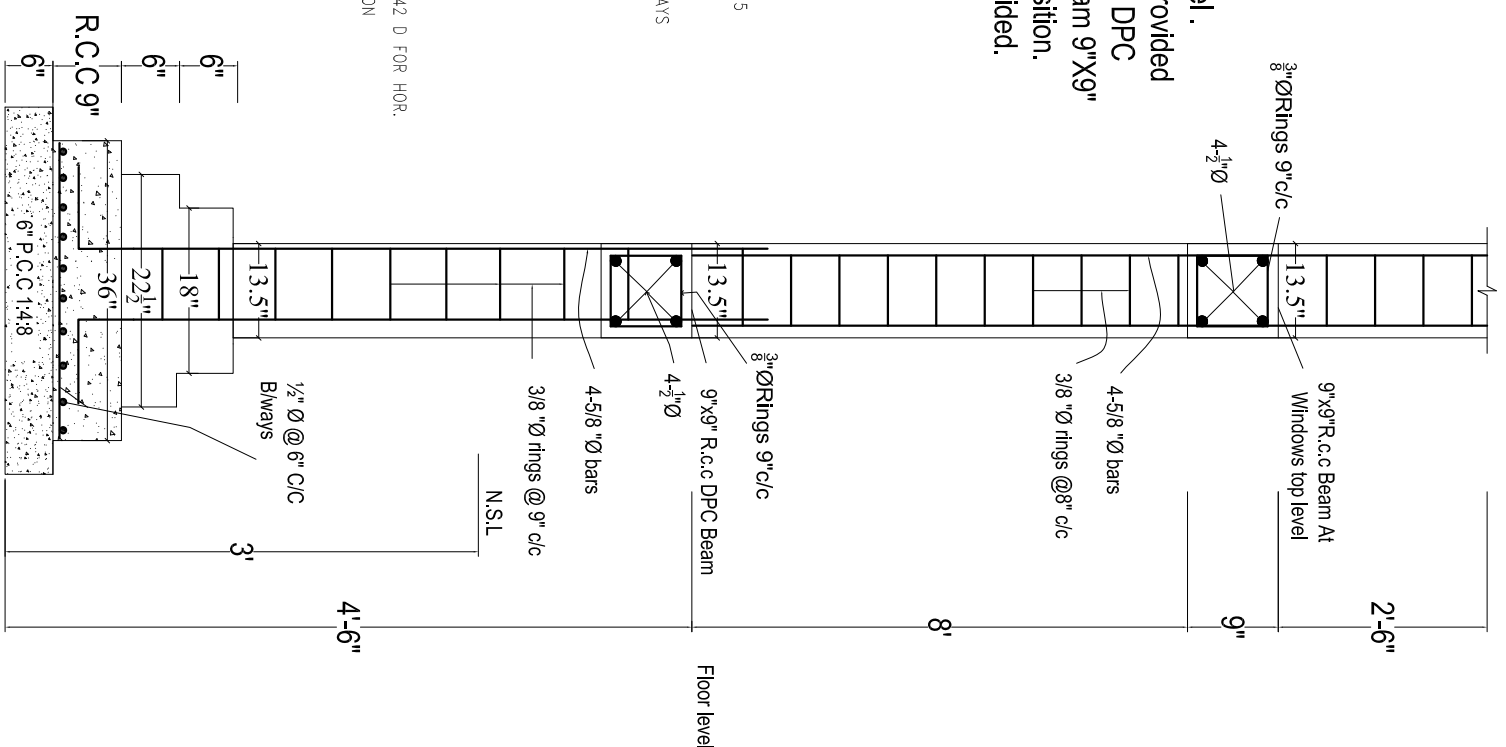
PROJECT MANAGEMENT UNIT (PMU) KITE
COMMUNICATION & WORKS DEPARTMENT



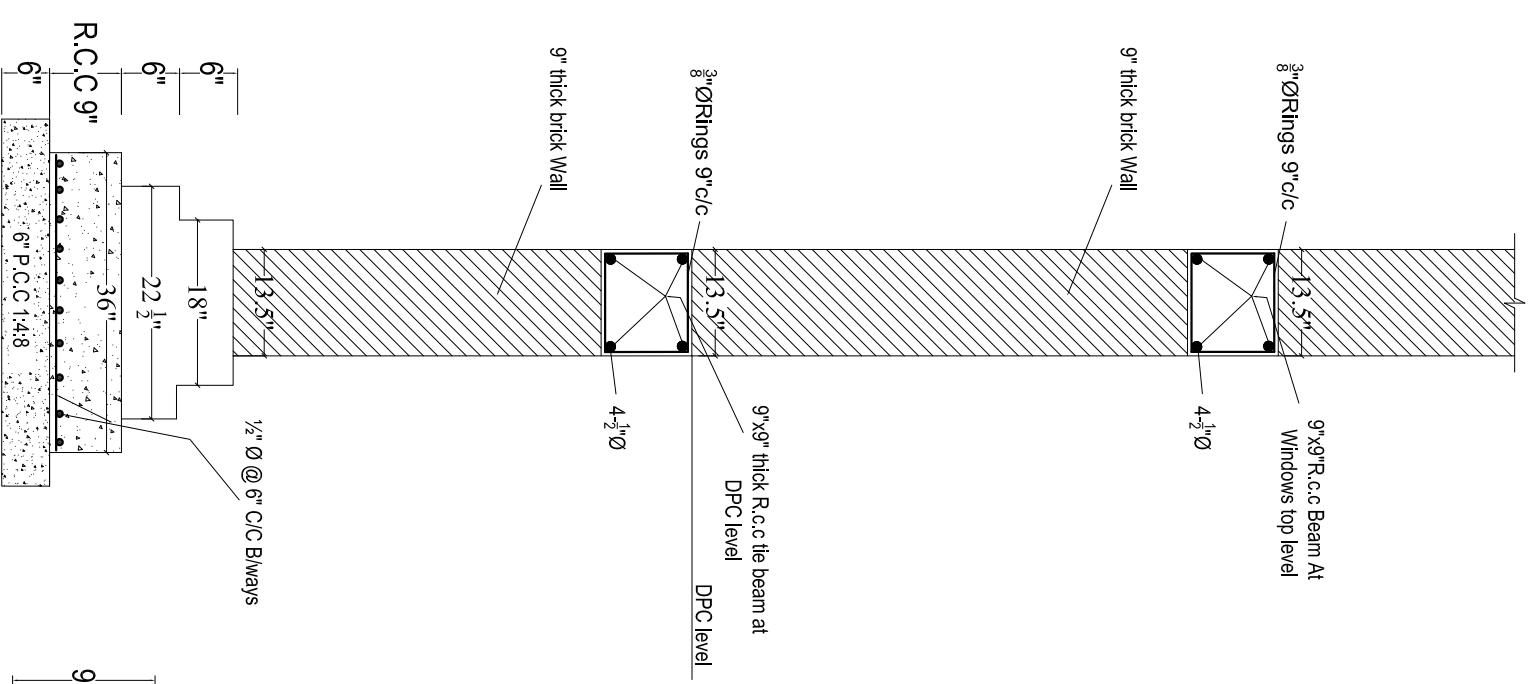
R.c.c columns upto DPC level.
 At DPC 9" thick the beam will be provided
 over 9" thick brick walls, no extra DPC
 then required. After Providing The beam 9"X9"
 on walls & columns at shown position.
 Normal 9" thick brick wall is provided.

NOTES:-

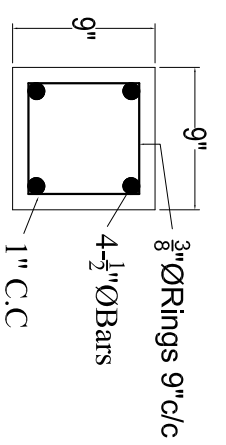
- (1) ALL REINFORCING STEEL IS DEFORMED AS PER ASTM A-615 40000 PSI MIN. YIELD STRENGTH. AND MIN. ULTIMATE STRENGTH OF 65000 PSI .
- (2) ALL CONCRETE IS 3000 PSI CYLINDER STRENGTH AT 28 DAYS WITH MIN. CEMENT CONTENT 400 KG/m³
- (3) CLEAR CONCRETE COVER TO MAIN REINFORCING BARS IS AS BELOW.
 SLABS = 3/4" FOOTING ON 1:4:8 = 2"
 BEAMS = 1 1/2" COLUMNS = 1 1/2"
- (4) ALL DRAWINGS SHOULD BE READ IN CONJUNCTION WITH THE RELEVANT ARCHITECTURAL AND SERVICES DRGS.
- (5) LEAN IS 1000 PSI CYLINDER STRENGTH AT 28 DAYS MIN MIX 1:4:8
- (6) ALL LAPS ARE 30 TIMES BAR DIAMETER FOR VERTICAL & 42 D FOR HOR.
- (7) EXCAVATION INCLUDING DEWATERING, BRACING OF EXCAVATION TO SAFEGUARD THE ADJOINING PROPERTY AND LIFE AND DEWATERING PITS IN CASE OF RAIN IS CONTRACTOR RESPONSIBILITY. FOR THAT MATTER, A QUALIFIED GEO-TECHNICAL ENGINEER SHOULD BE APPOINTED ON HIS ROLE.
- (8) (a) 1ST THE BEAM AT FOUNDATION LEVEL.
 (b) 2ND THE BEAM AT D.P.C. LEVEL.
 (c) 3RD THE BEAM AT WINDOW LITTLE LEVEL.
 (d) R.C.C COLUMN 9" x 9" AT CORNER OF BUILDING SHALUD BE PROVIDED.



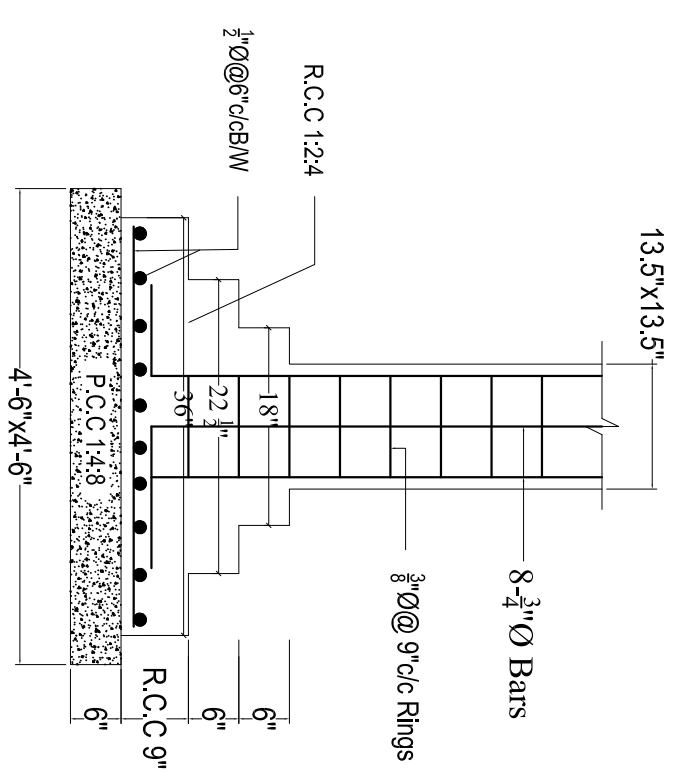
**R.c.c Foundation Detail
 For R.c.c Column Portion**



**R.C.C. STRIP FOUNDATION
 FOR GROUND FLOOR**

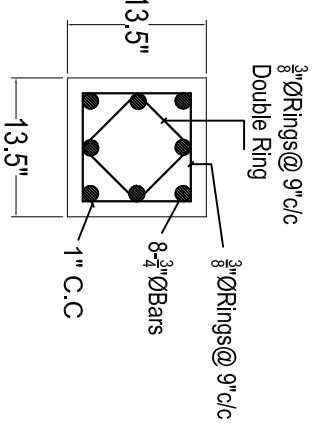


TIE BEAM

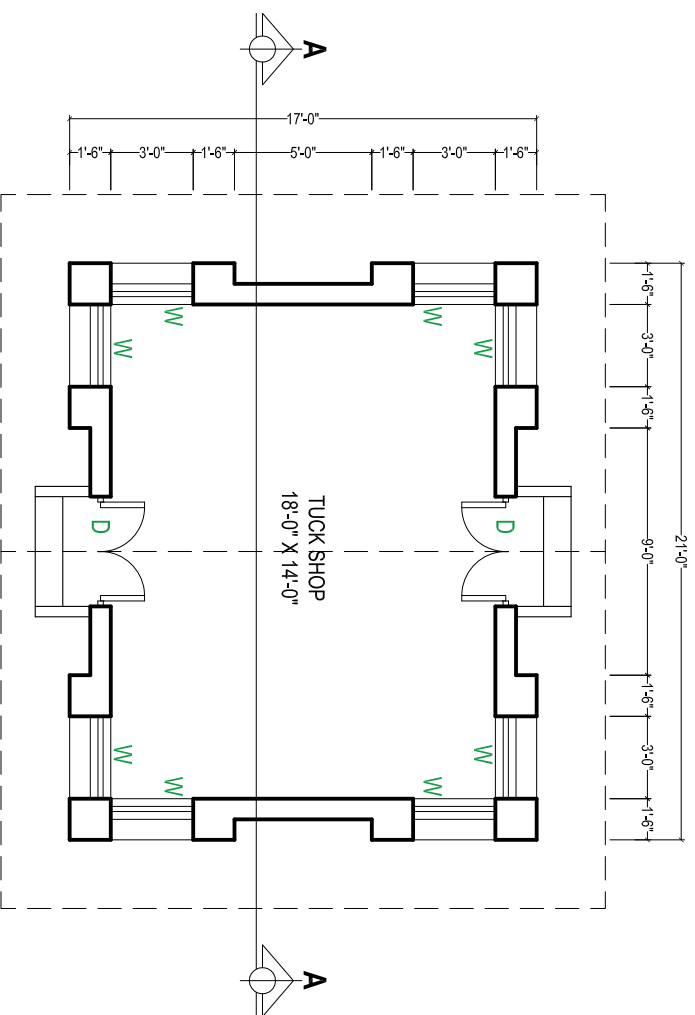
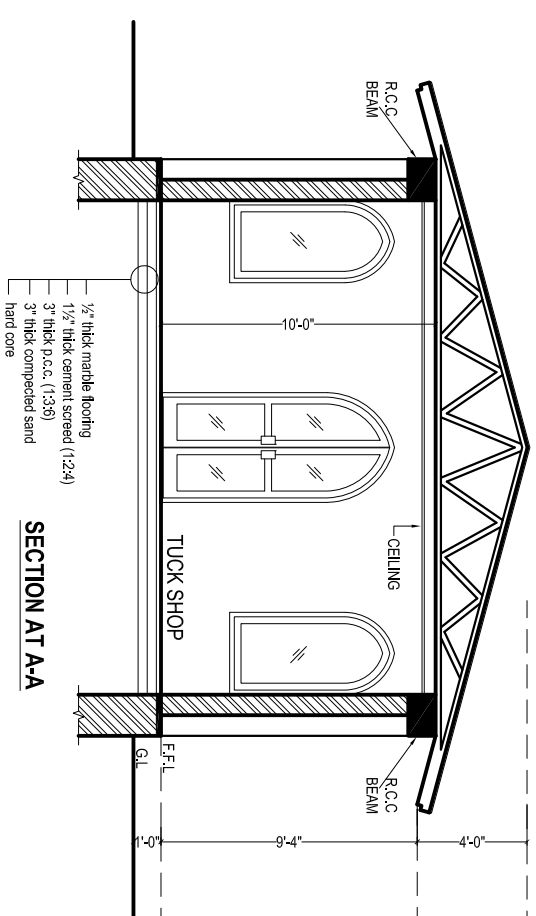
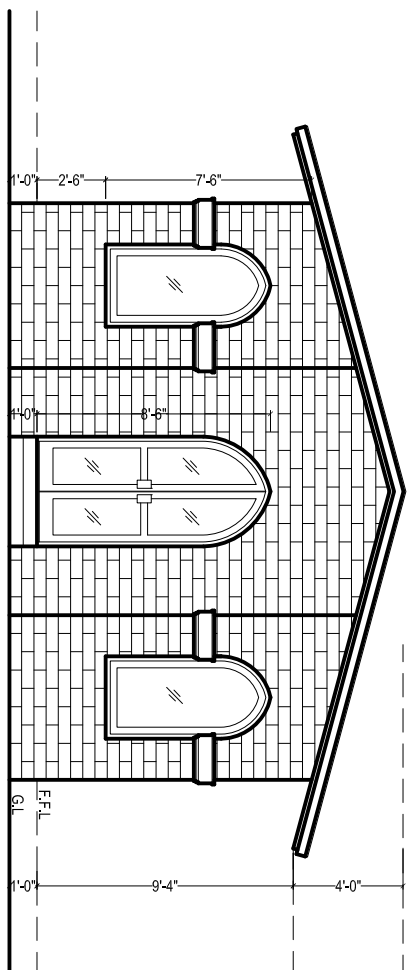


**VERANDAH COLUMNS FOUNDATION DETAIL
 C-1**

**VERANDAH COLUMN DETAIL
 C-2**



PROJECT:- (REST AREA) MASJID		CONTENTS:- COLUMNS, FOUNDATION & WALLS DETAIL		M/S NESPAK PVT. LTD.		PROJECT DIRECTOR PMU KITE		DRG. NO:-		SHEET NO:-		PROJECT MANAGEMENT UNIT (PMU) KITE COMMUNICATION & WORKS DEPARTMENT	
								DATE:- APRIL-2021		SCALE:- READ AS SHOWN			



COVERED AREA = 357.00 SFT.

SCHEDULE OF OPENING			
S.NO.	TYPE	SIZE	S/LEVEL
01	D	4-0" X 8-6"	±0-0"
04	W	3-0" X 6-0"	+2-6"

BUILDING SPECIFICATION

- * PCC (1:4:8) IN FOUNDATIONS
- * 2" THICK DPC (DAMP PROOF COURSE) IN 1:2:4 PCC WITH 2 COATS OF HOT BITUMEN WITH POLYTHENE SHEET.
- * BURNT BRICK MASONRY IN 1:6 CEMENT SAND RATIO MORTAR.
- * 1/2" THICK PLASTER ON WALLS IN 1:6 CEMENT SAND RATIO.
- * ALL LINTELS & BEAMS IN 1:2:4 CEMENT:SAND:AGGREGATE RATIO WITH 14 DAYS CURING.
- * ALL ELECTRICAL WIRING TO BE CONCEALED.
- * ALL LOAD BEARING WALLS SHALL BE MINIMUM 9" THICK.
- * ALL PARTION WALLS SHALL BE 4 1/2" THICK.
- * THEN 1 1/2" BRICK TILES SET IN 1:3 CEMENT SAND RATIO.
- * ALL INTER FLOOR SLABS SHALL BE COVERED WITH 2" OF PCC (1:4:8) IN SLOP THEN 3/4" TERRAZZO FINISH WITH GLASS STRIPS.
- * ALL GROUND FLOORS SHALL BE LAID ON COMPACTED EARTH THEN 6" OF WATERED AND RAMMED SAND THEN 4" OF (1:4:8) IN SLOPE THEN 2" (1:4:8) THEN 3/4" TERRAZZO WITH GLASS STRIPS.

PROJECT:-

(REST AREA)
TUCK SHOP

CONTENTS:-

PLAN, ELEVATION, SECTION,
SPECIFICATION.

DRG. NO:-

DATE:-

APRIL-2021

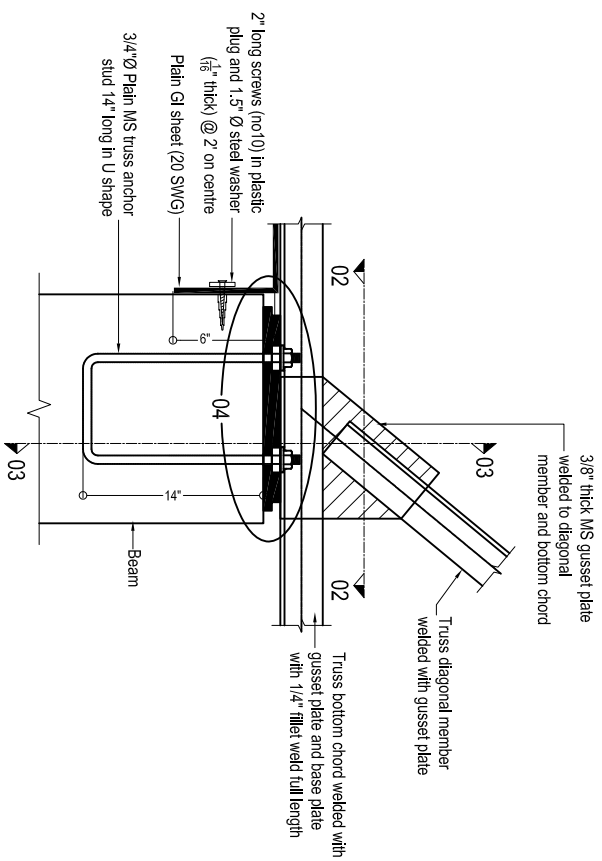
SHEET NO:-

SCALE:-

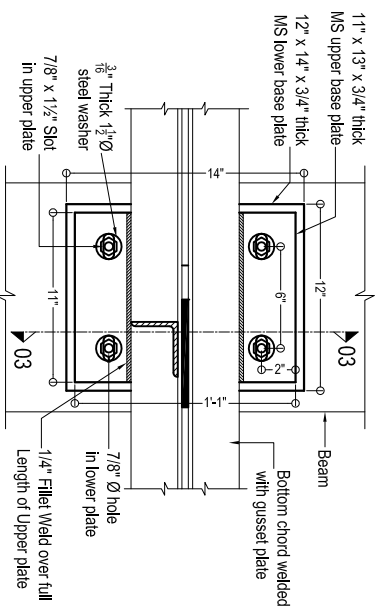
READ AS
SHOWN

PROJECT MANAGEMENT UNIT (PMU) KITE
COMMUNICATION & WORKS DEPARTMENT

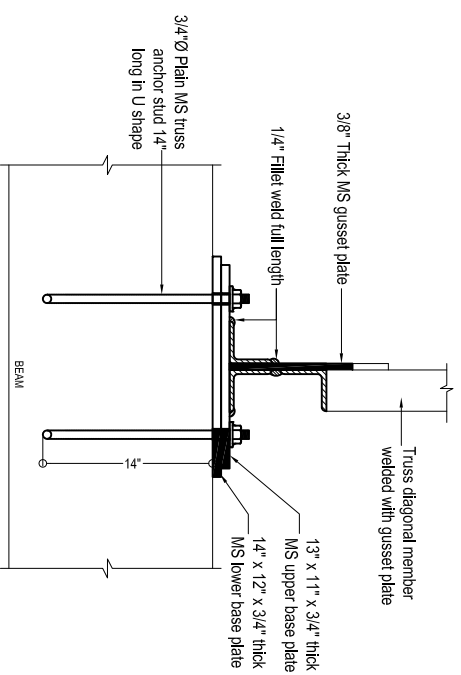




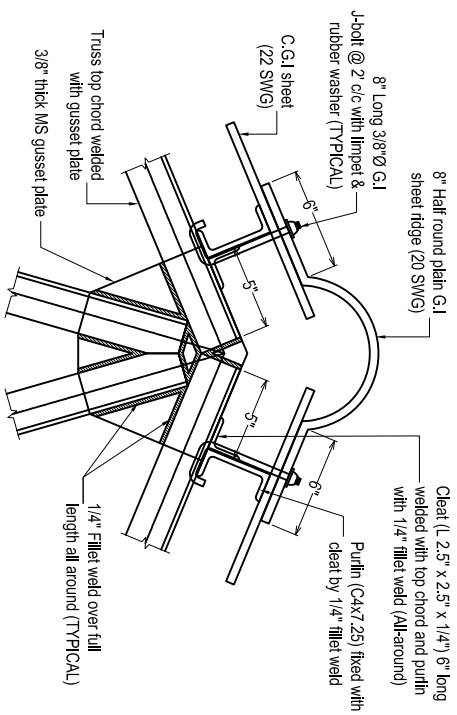
BASE PLATE DETAIL
(All trusses)



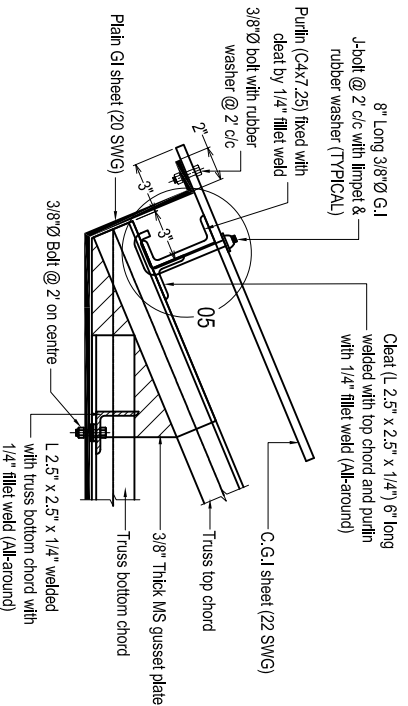
SECTION 02-02



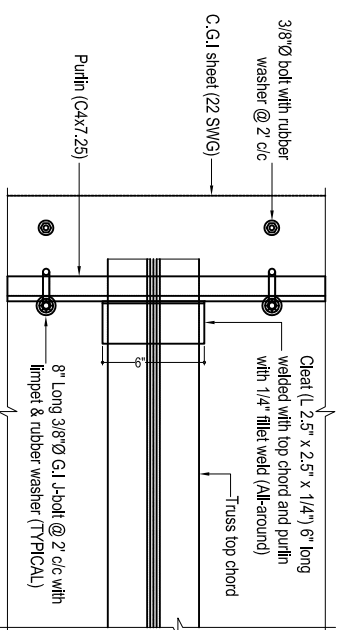
SECTION 03-03



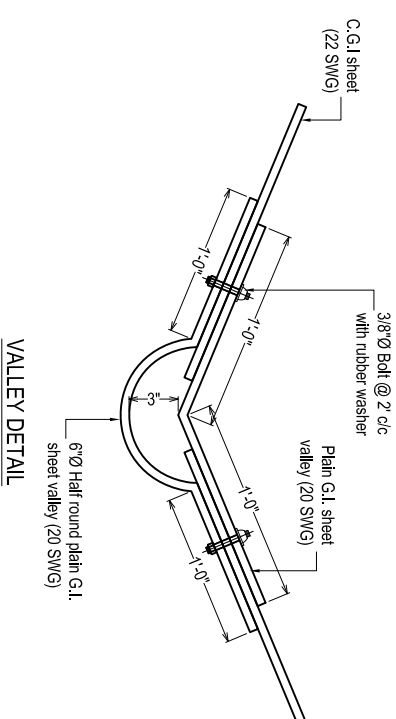
TYPICAL TOP CHORD CONNECTION DETAIL



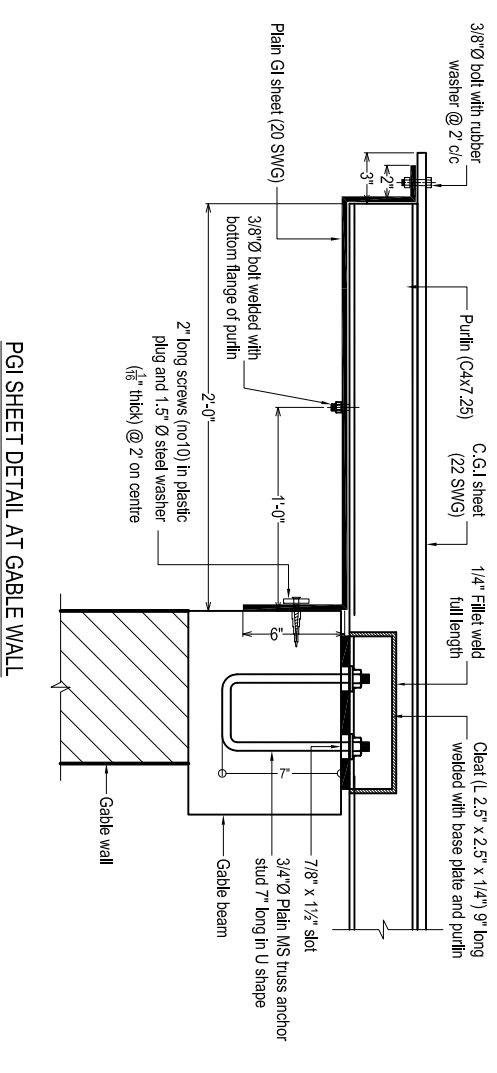
END OF TRUSS PORTION (Elevation)
(All trusses)



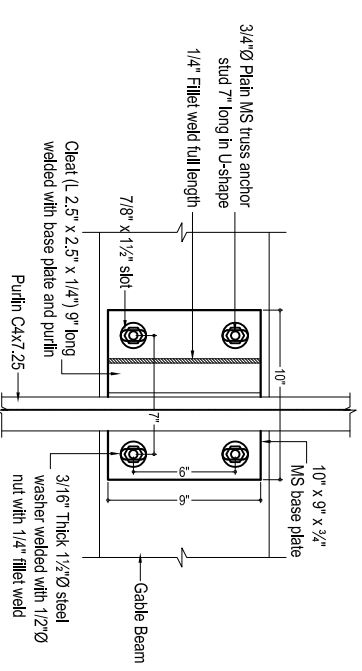
END OF TRUSS PORTION (Plan)



VALLEY DETAIL



PGI SHEET DETAIL AT GABLE WALL



**CONNECTION DETAIL
FOR PURLIN ON GABLE WALL**

PROJECT:-

CONTENTS:-

DRG. NO:-

SHEET NO:-

(REST AREA)
TUCK SHOP

TRUSS DETAIL

M/S NESPAK PVT. LTD.

PROJECT DIRECTOR PMU KITE

DATE:-

APRIL-2021

SCALE:-

READ AS
SHOWN

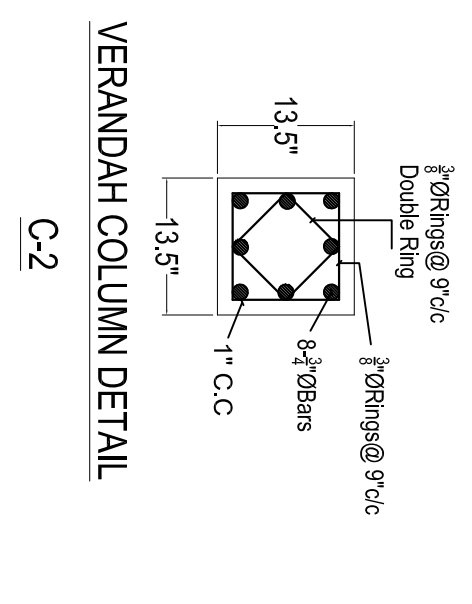
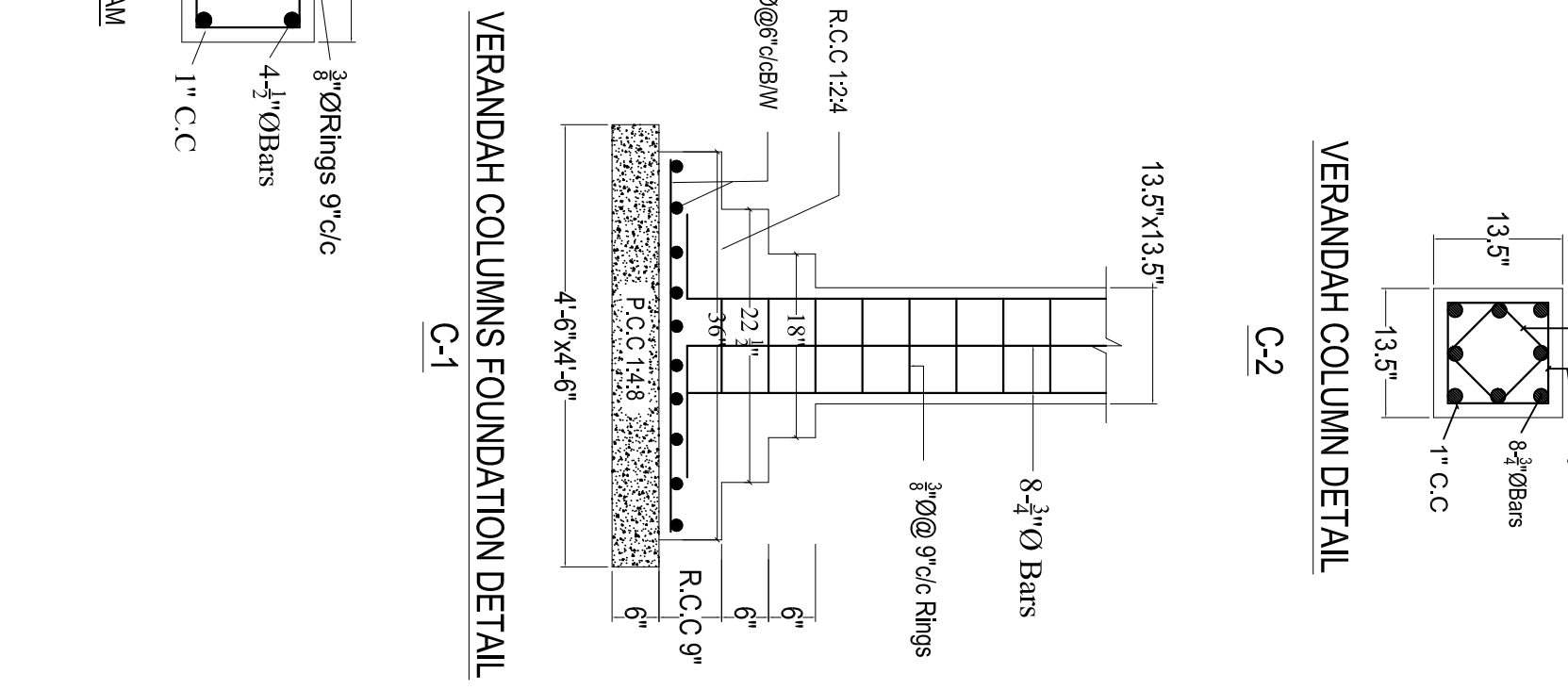
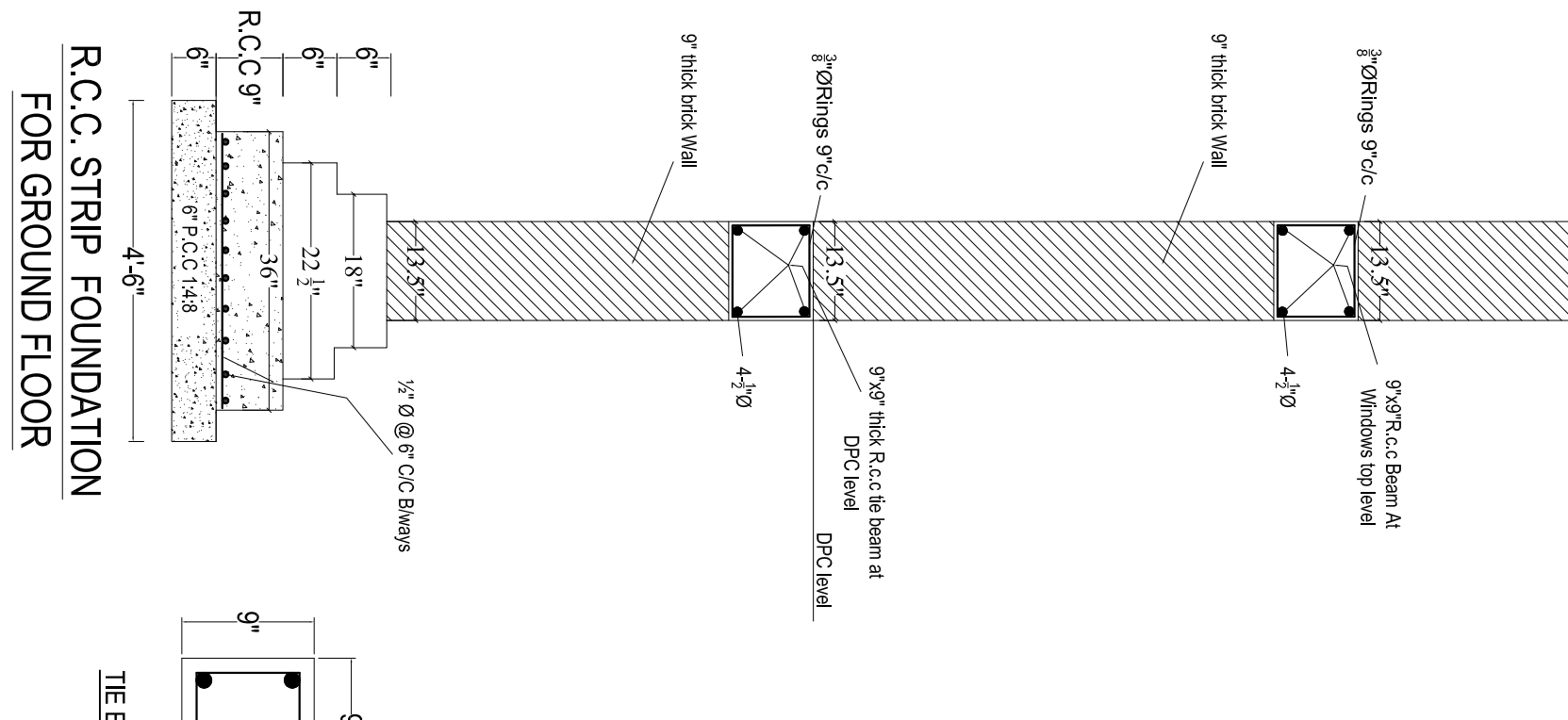
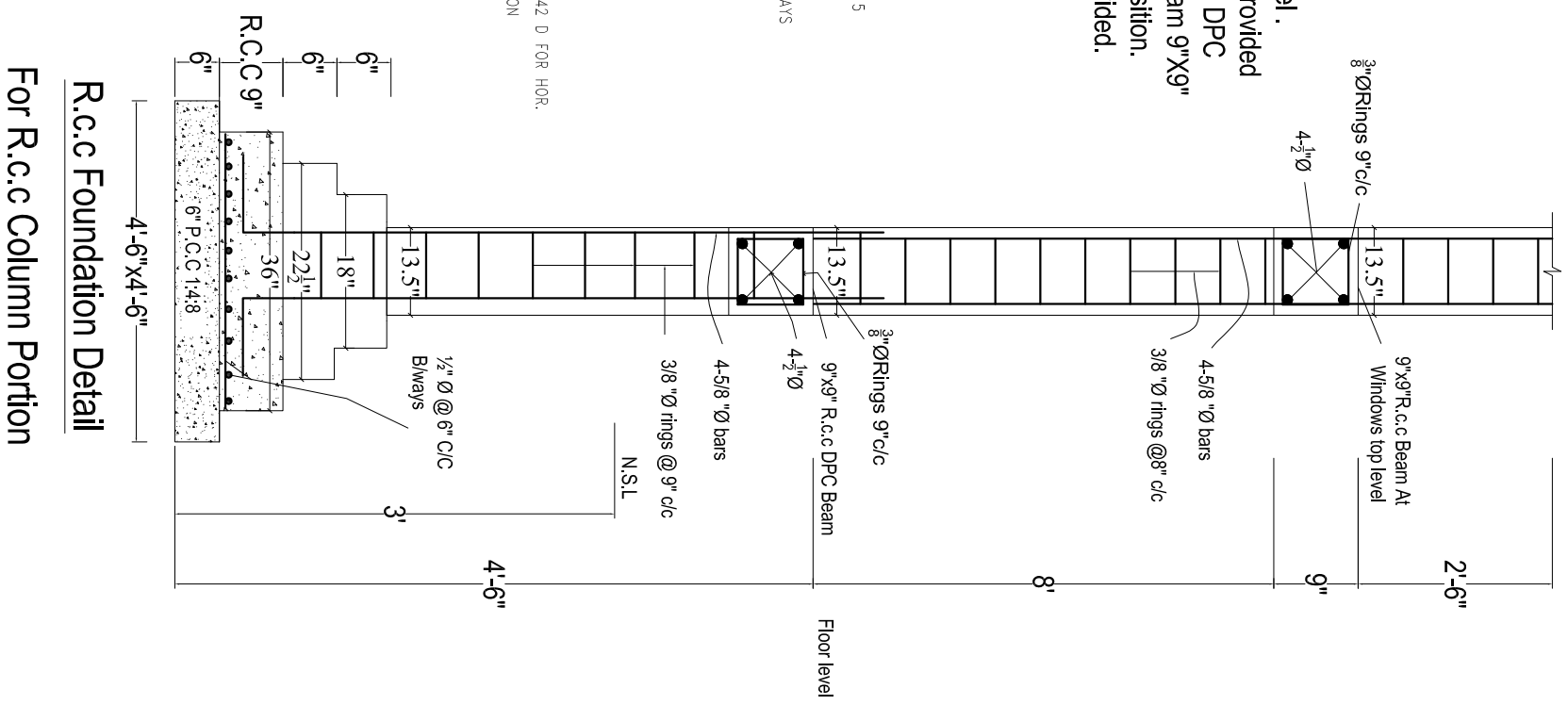
PROJECT MANAGEMENT UNIT (PMU) KITE
COMMUNICATION & WORKS DEPARTMENT



R.c.c columns upto DPC level.
At DPC 9" thick tie beam will be provided
over 9" thick brick walls. no extra DPC
then required. After Providing Tie beam 9"x9"
on walls & columns at shown position.
Normal 9" thick brick wall is provided.

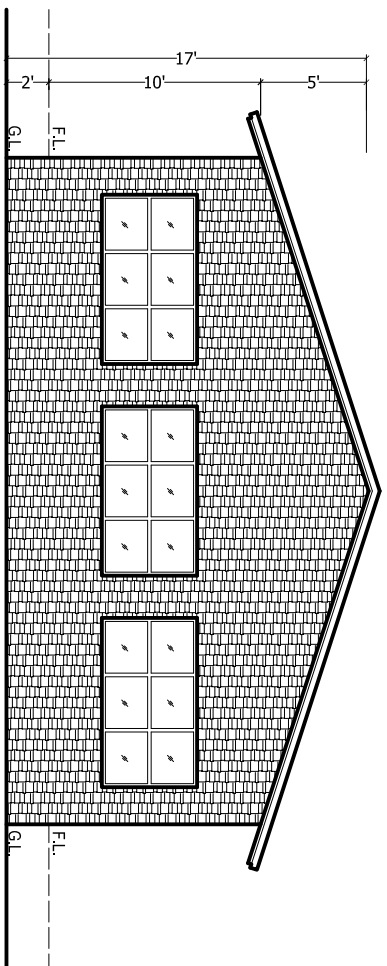
NOTES:-

- (1) ALL REINFORCING STEEL IS DEFORMED AS PER ASTM A-615 40000 PSI MIN. YIELD STRENGTH, AND MIN. ULTIMATE STRENGTH OF 65000 PSI.
- (2) ALL CONCRETE IS 3000 PSI CYLINDER STRENGTH AT 28 DAYS WITH MIN. CEMENT CONTENT 400 KG/m³
- (3) CLEAR CONCRETE COVER TO MAIN REINFORCING BARS IS AS BELOW.
SLABS = 3/4" FOOTING ON 1:4:8 = 2"
BEAMS = 1 1/2" COLUMNS = 1 1/2"
(4) ALL DRAWINGS SHOULD BE READ IN CONJUNCTION WITH THE RELEVANT ARCHITECTURAL AND SERVICES DRGS.
- (5) LEAN IS 1000 PSI CYLINDER STRENGTH AT 28 DAYS MIN. MIX 1:4:8
- (6) ALL LAPS ARE 30 TIMES BAR DIAMETER FOR VERTICAL & 42 D FOR HOR.
- (7) EXCAVATION INCLUDING DEWATERING, BRACING OF EXCAVATION TO SAFEGUARD THE ADJOINING PROPERTY AND LIFE AND DEWATERING PITS IN CASE OF RAIN IS CONTRACTOR RESPONSIBILITY. FOR THAT MATTER, A QUALIFIED GEO-TECHNICAL ENGINEER SHOULD BE APPOINTED ON HIS ROLE.
- (8) (a) 1ST TIE BEAM AT FOUNDATION LEVEL.
(b) 2ND TIE BEAM AT D.P.C. LEVEL.
(c) 3RD TIE BEAM AT WINDOW LINTLE LEVEL.
(d) R.C.C COLUMN 9" x 9" AT CORNER OF BUILDING SHAUD BE PROVIDED.

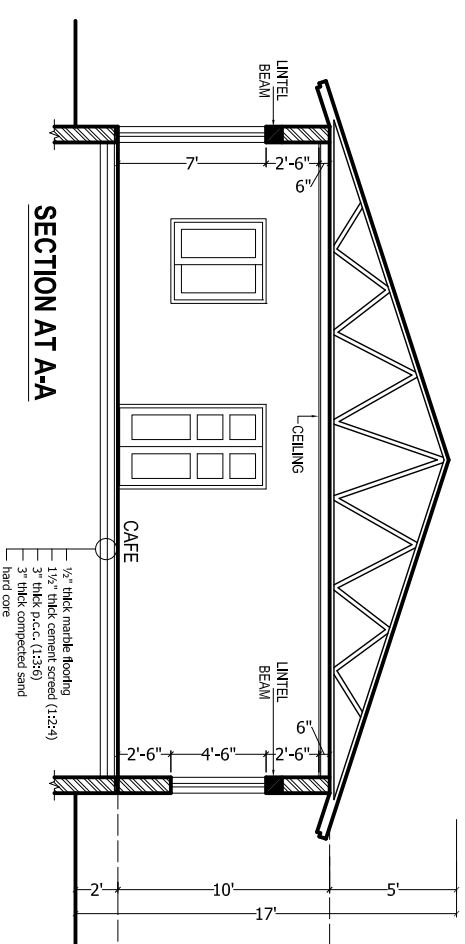


PROJECT:-	CONTENTS:-	DRG. NO:-	SHEET NO:-
(REST AREA) TUCK SHOP	COLUMNS, FOUNDATION & WALLS DETAIL	DATE:- APRIL-2021	SCALE:- READ AS SHOWN
M/S NESPAK PVT. LTD.	PROJECT DIRECTOR PMU KITE	PROJECT MANAGEMENT UNIT (PMU) KITE COMMUNICATION & WORKS DEPARTMENT	

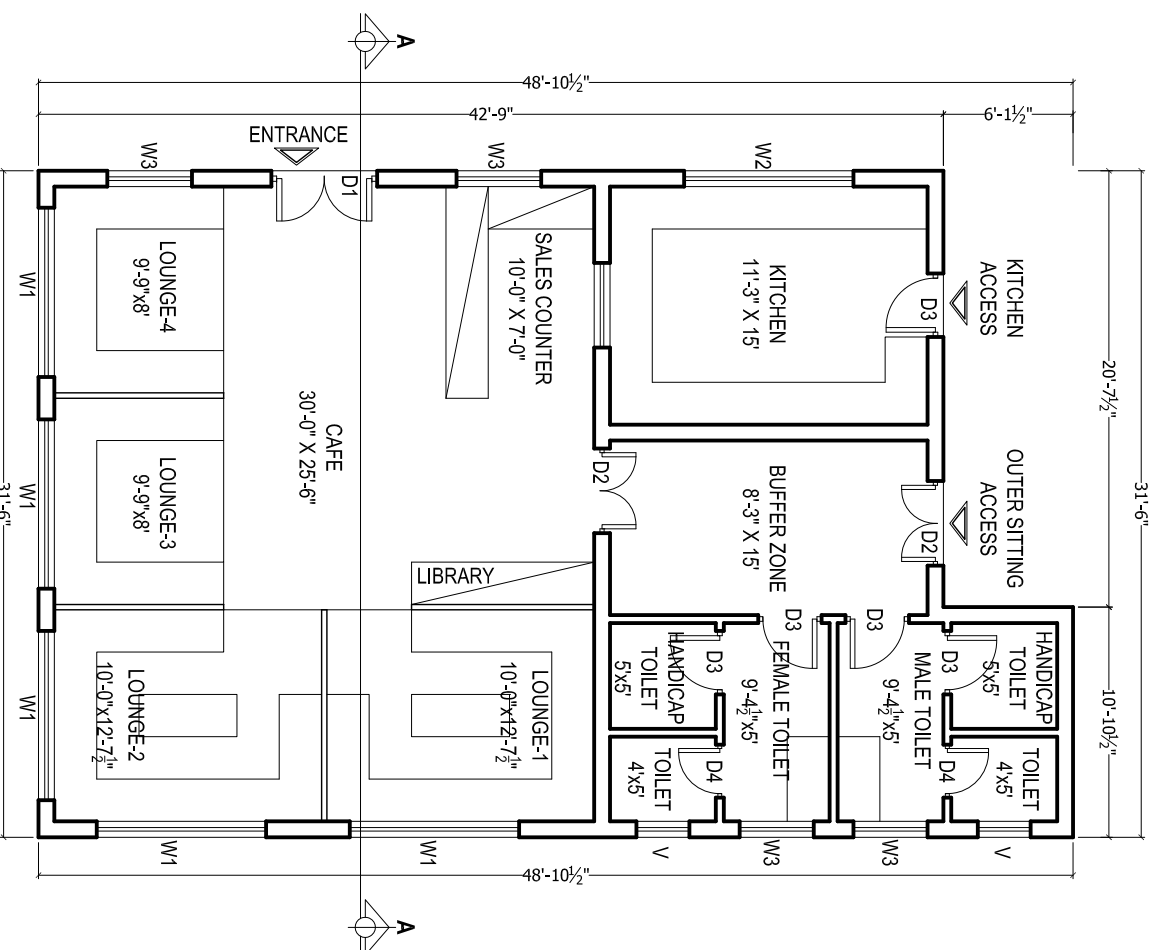




FRONT ELEVATION



SECTION AT A-A



CAFE / KHAWA KHANA
COVERED AREA = 1415 SFT.

S.NO.	TYPE	SIZE	S/LEVEL
01	D1	5'-0" X 7'-0"	±0'-0"
02	D1	4'-0" X 7'-0"	±0'-0"
03	D2	3'-0" X 7'-0"	±0'-0"
04	D3	2'-6" X 7'-0"	±0'-0"
05	W1	8'-0" X 4'-6"	+2'-6"
06	W2	8'-0" X 4'-0"	+3'-0"
07	W3	3'-6" X 4'-6"	+2'-6"
08	V	2'-0" X 2'-0"	+5'-0"

BUILDING SPECIFICATION

- * PCC (1:4:8) IN FOUNDATIONS
- * 2" THICK DPC (DAMP PROOF COURSE) IN 1:2:4 PCC WITH 2 COATS OF HOT BITUMEN WITH POLYTHENE SHEET.
- * BURNT BRICK MASONRY IN 1:6 CEMENT SAND RATIO MORTAR.
- * 1/2" THICK PLASTER ON WALLS IN 1:6 CEMENT SAND RATIO.
- * ALL LINTELS & BEAMS IN 1:2:4 CEMENT SAND: AGGREGATE RATIO WITH 14 DAYS CURING.
- * ALL ELECTRICAL WIRING TO BE CONCEALED.
- * ALL LOAD BEARING WALLS SHALL BE MINIMUM 9" THICK.
- * ALL PARTION WALLS SHALL BE 4 1/2" THICK.
- * THEN 1 1/2" BRICK TILES SET IN 1:3 CEMENT SAND RATIO.
- * ALL INTER FLOOR SLABS SHALL BE COVERED WITH 2" OF PCC (1:4:8) IN SLOP THEN 3/4" TERRAZZO FINISH WITH GLASS STRIPS.
- * ALL GROUND FLOORS SHALL BE LAID ON COMPACTED EARTH THEN 6" OF WATERED AND RAMMED SAND THEN 4" OF (1:4:8) IN SLOPE THEN 2"(1:4:8) THEN 3/4" TERRAZZO WITH GLASS STRIPS.

PROJECT:-

(REST AREA)
CAFE / KHAWA KHANA

CONTENTS:-

PLAN, ELEVATION, SECTION,
SPECIFICATION

DRG. NO:-

SHEET NO:-

DATE:-

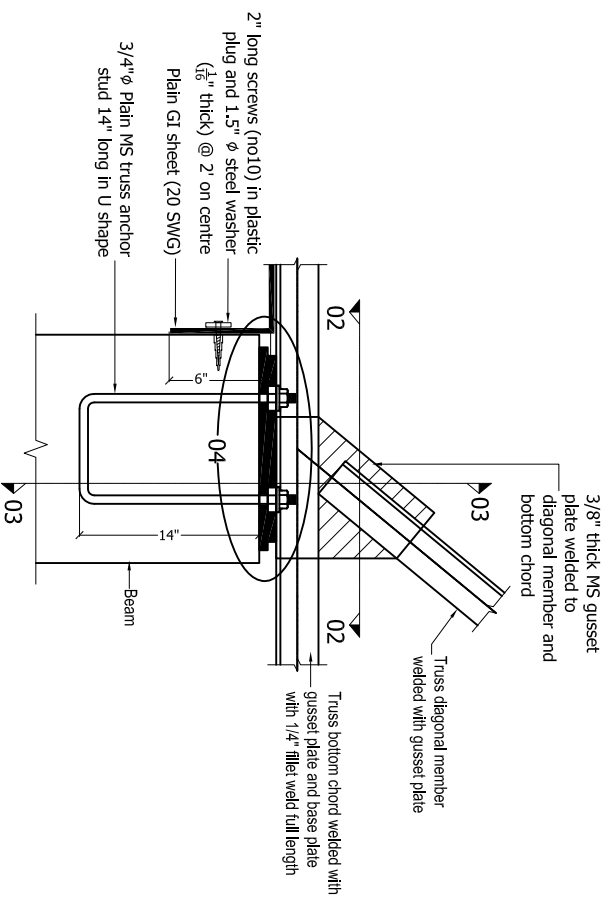
SCALE:-

APRIL-2021

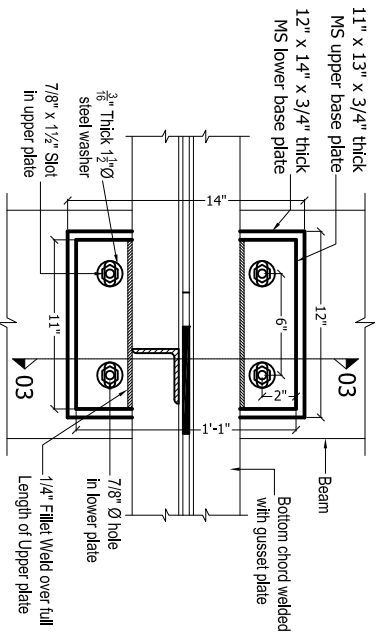
READ AS
SHOWN

PROJECT MANAGEMENT UNIT (PMU) KITE
COMMUNICATION & WORKS DEPARTMENT

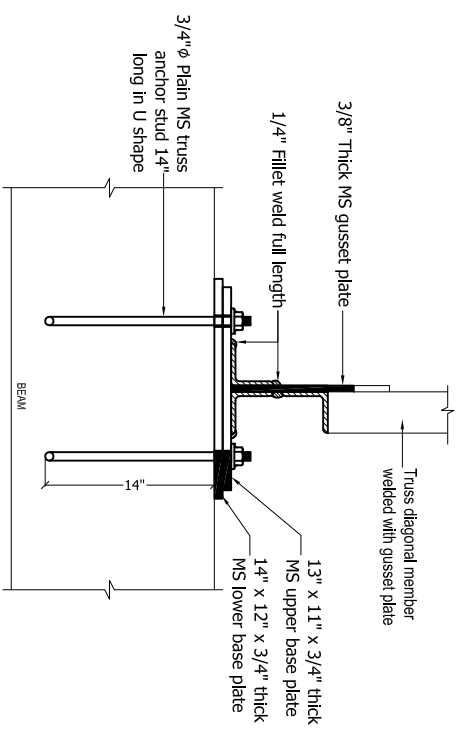




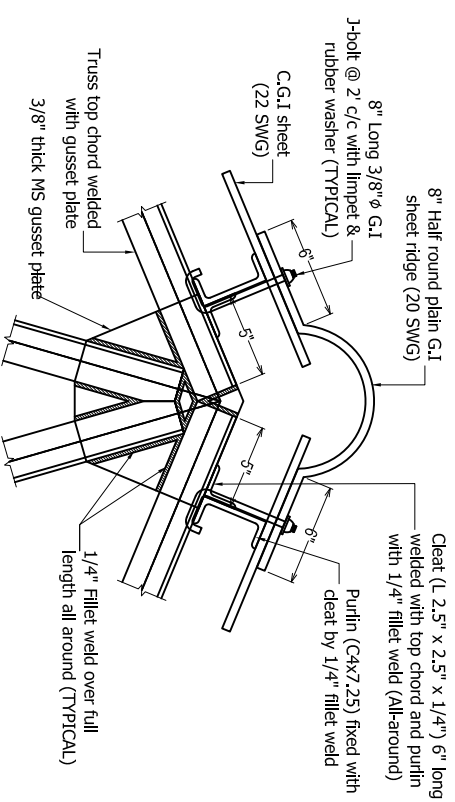
BASE PLATE DETAIL
(All trusses)



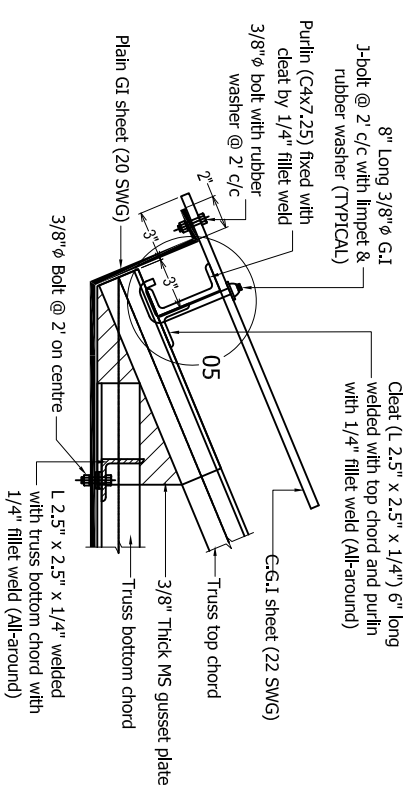
SECTION 02-02



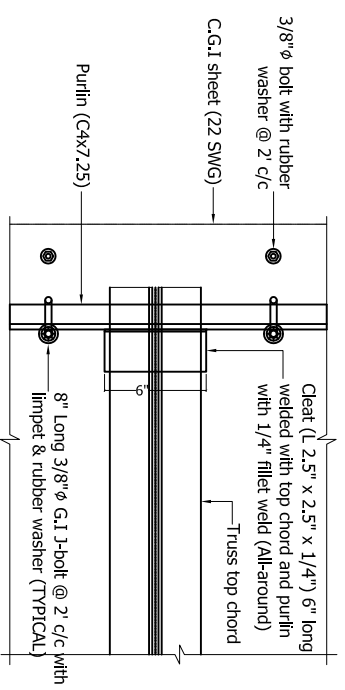
SECTION 03-03



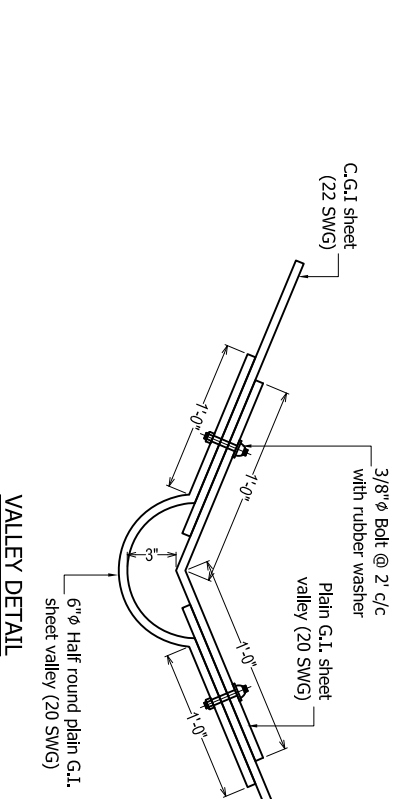
TYPICAL TOP CHORD CONNECTION DETAIL



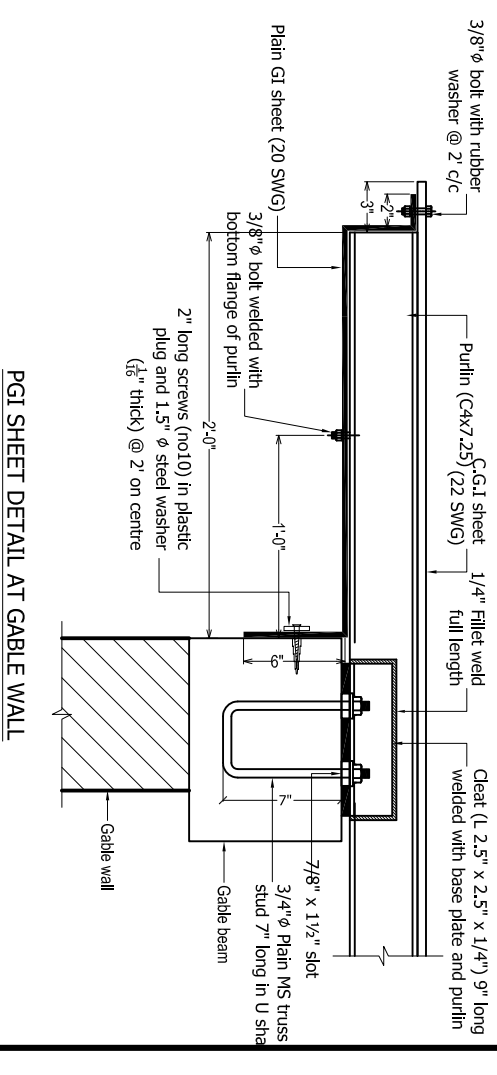
END OF TRUSS PORTION (Elevation)
(All trusses)



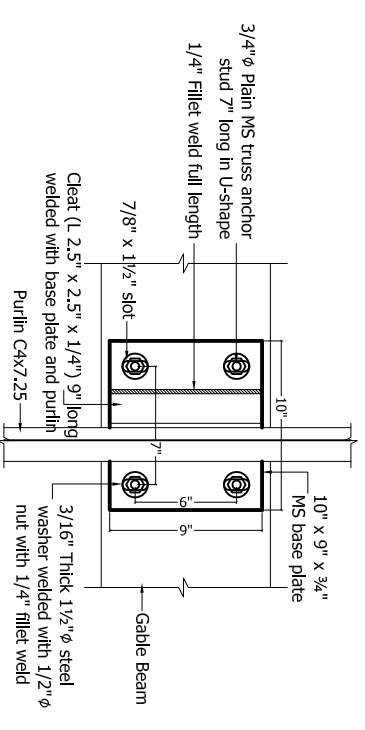
END OF TRUSS PORTION (Plan)



VALLEY DETAIL



PGI SHEET DETAIL AT GABLE WALL



CONNECTION DETAIL
FOR PURLIN ON GABLE WALL

PROJECT:-

(REST AREA)
CAFE / KHAWA KHANA

CONTENTS:-

TRUSS DETAIL

M/S NESPAK PVT. LTD.

PROJECT DIRECTOR PMU KITE

DRG: NO:-

DATE:-

APRIL-2021

SHEET NO:-

SCALE:-

READ AS
SHOWN

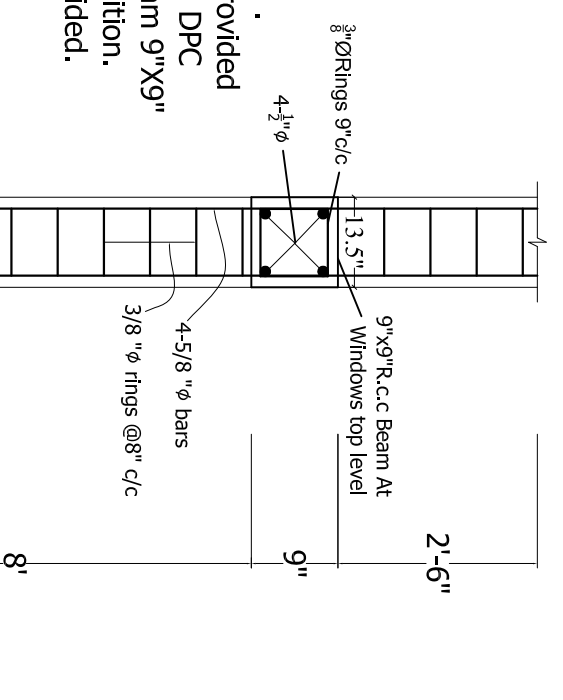
PROJECT MANAGEMENT UNIT (PMU) KITE
COMMUNICATION & WORKS DEPARTMENT



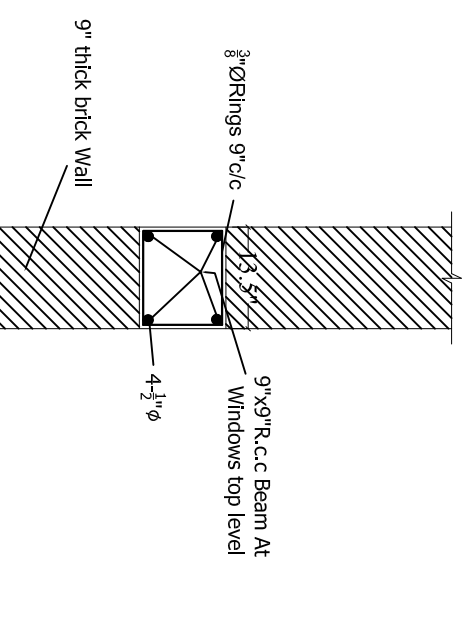
R.c.c columns upto DPC level .
At DPC 9" thick the beam will be provided over 9" thick brick walls, no extra DPC then required. After Providing Tie beam 9"x9" on walls & columns at shown position. Normal 9" thick brick wall is provided.

NOTES:-

- (1) ALL REINFORCING STEEL IS DEFORMED AS PER ASTM A-615 40000 PSI MIN. YIELD STRENGTH. AND MIN. ULTIMATE STRENGTH OF 69000 PSI .
- (2) ALL CONCRETE IS 3000 PSI CYLINDER STRENGTH AT 28 DAYS WITH MIN. CEMENT CONTENT 400 KG/m³
- (3) CLEAR CONCRETE COVER TO MAIN REINFORCING BARS IS AS BELOW.
SLABS = 3/4" FOOTING ON 1:4:8 = 2"
- BEAMS = 1 1/2" COLUMNS = 1 1/2"
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- (5) LEAN IS 1000 PSI CYLINDER STRENGTH AT 28 DAYS MIN MIX 1:4:8
- (6) ALL LAPS ARE 30 TIMES BAR DIAMETER FOR VERTICAL & 42 D FOR HOR.
- (7) EXCAVATION INCLUDING DEWATERING, BRACING OF EXCAVATION TO SAFEGUARD THE ADJOINING PROPERTY AND LIFE AND DEWATERING PITS IN CASE OF RAIN IS CONTRACTOR RESPONSIBILITY. FOR THAT MATTER, A QUALIFIED GEO-TECHNICAL ENGINEER SHOULD BE APPOINTED ON HIS ROLE.
- (8) (a) 1ST TIE BEAM AT FOUNDATION LEVEL.
(b) 2ND TIE BEAM AT D.P.C. LEVEL.
(c) 3RD TIE BEAM AT WINDOW UNITLE LEVEL.
(d) R.C.C COLUMN 9" x 9" AT CORNER OF BUILDING SHOULD BE PROVIDED.



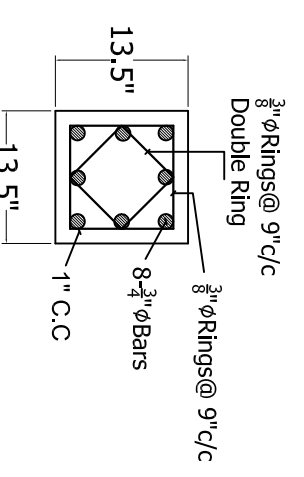
R.c.c Foundation Detail
For R.c.c Column Portion



R.C.C. STRIP FOUNDATION
FOR GROUND FLOOR

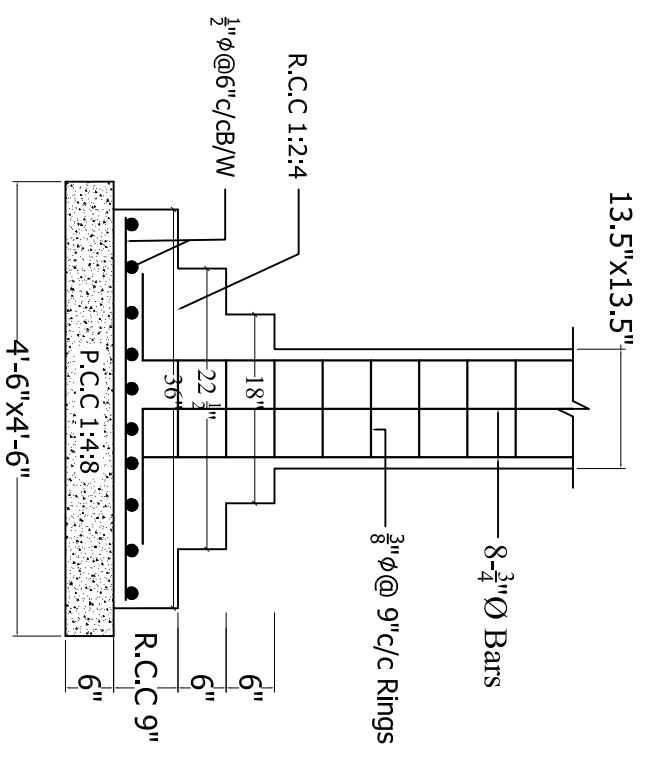
VERANDAH COLUMN DETAIL

C-2

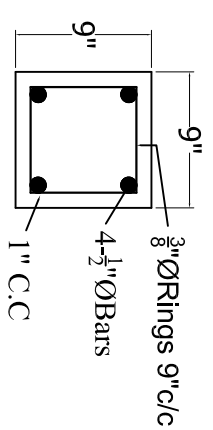


VERANDAH COLUMNS FOUNDATION DETAIL

C-1

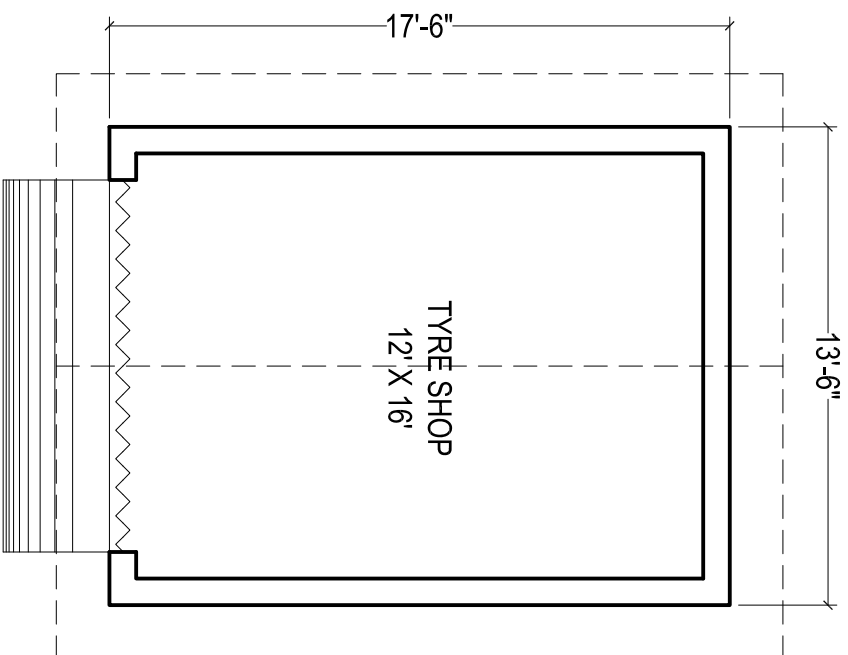
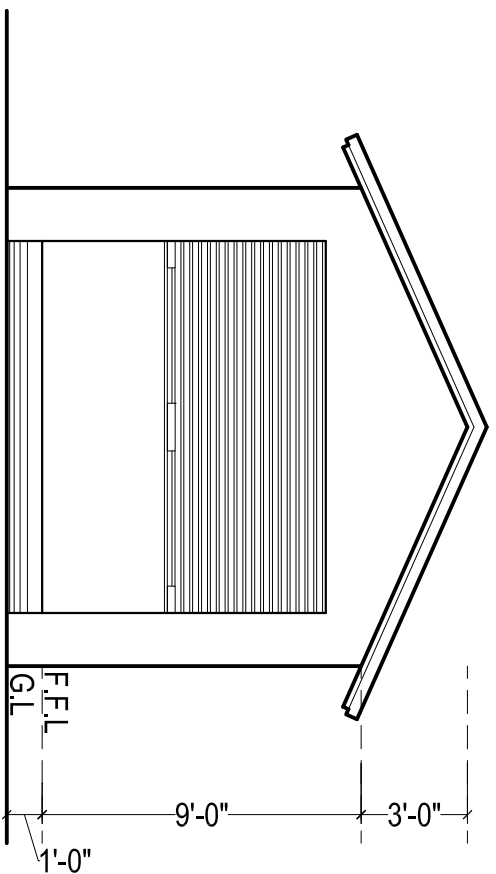


TIE BEAM



PROJECT:- CAFE / KHAWA KHANA (REST AREA)	CONTENTS:- COLUMNS, FOUNDATION & WALLS DETAIL	M/S NESPAK PVT. LTD.	PROJECT DIRECTOR PMU KITE	DRG. NO:-	SHEET NO:-	PROJECT MANAGEMENT UNIT (PMU) KITE COMMUNICATION & WORKS DEPARTMENT
				DATE:- APRIL-2021	SCALE:- READ AS SHOWN	





TYRE SHOP
COVERED AREA = 236 SFT

BUILDING SPECIFICATION

- * PCC (1:4:8) IN FOUNDATIONS
- * 2" THICK DPC (DAMP PROOF COURSE) IN 1:2:4 PCC WITH 2 COATS OF HOT BITUMEN WITH POLYTHENE SHEET.
- * BURNT BRICK MASONRY IN 1:6 CEMENT SAND RATIO MORTAR.
- * 1/2" THICK PLASTER ON WALLS IN 1:6 CEMENT SAND RATIO.
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PROJECT:-

(REST AREA)
TYRE SHOP

CONTENTS:-

PLAN, ELEVATION,
SPECIFICATION

PLINTH AREA:-

M/S NESPAK PVT. LTD.

APPROVED BY:-

PROJECT DIRECTOR PMU KITE

DRG. NO:-

DATE:-

APRIL-2021

SHEET NO:-

SCALE:-

READ AS
SHOWN



PROJECT MANAGEMENT UNIT (PMU) KITE
COMMUNICATION & WORKS DEPARTMENT