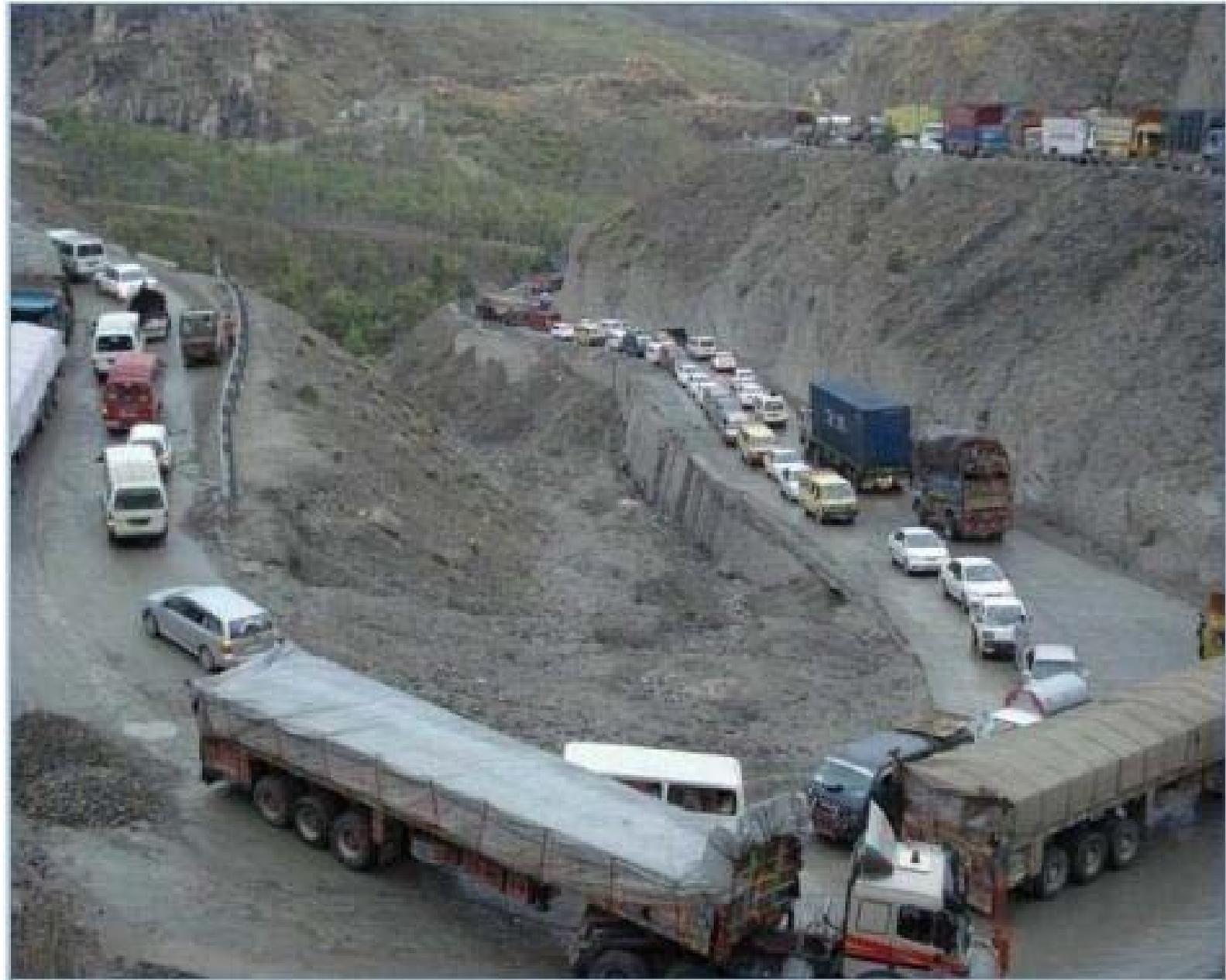




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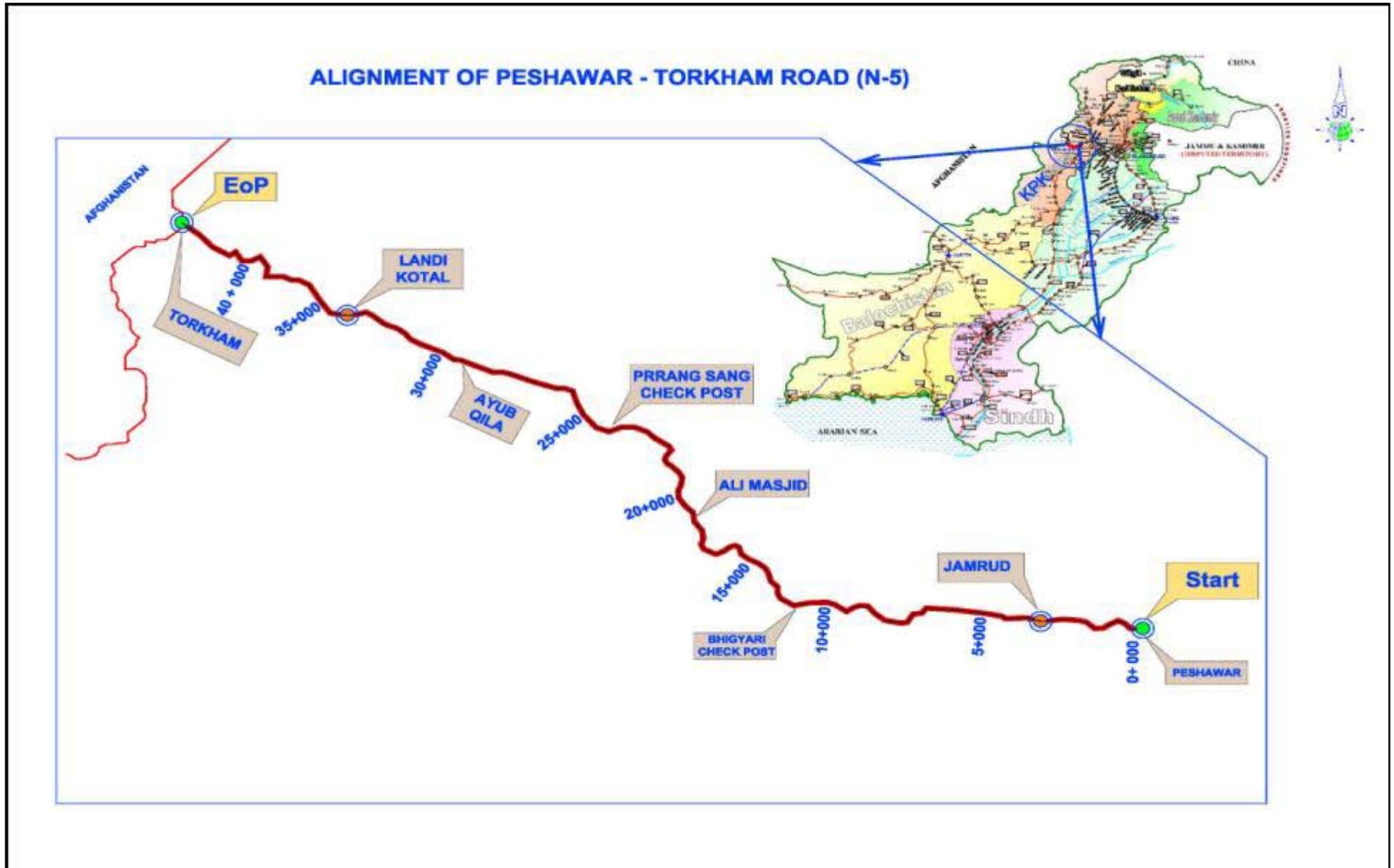
STRENGTHENING & IMPROVEMENT OF PESHAWAR - TORKHAM ROAD KHYBER AGENCY, FATA

MONTHLY PROGRESS REPORT # 24
FEBRUARY 2015

TABLE OF CONTENTS

SUMMARY	2
1 INTRODUCTION	4
1.1 PROJECT BACKGROUND	5
1.2 SCOPE OF WORK	6
1.3 GENERAL CONTRACT DATA	7
1.4 SECTIONS DATA	8
1.5 ALIGNMENT SKETCHES	9
1.6 TYPICAL CROSS SECTIONS OF ROAD	15
2 M&E SERVICES & PROGRESS OF ACTIVITIES	18
2.1 M&E CONSULTANTS MAJOR ACTIVITIES DURING THE MONTH	19
2.2 MATTERS REQUIRING ATTENTION	20
2.2.1 COMPLETION OF SECTION I, II AND III	20
2.2.2 PROCESS OF PC-1s APPROVAL	20
2.2.3 COMPLEXITY IN MAINTAINING TRAFFIC ON DIVERSIONS / DETOURS	20
2.2.4 DELAY IN UTILITIES SHIFTING FROM CONSTRUCTION CORRIDOR	20
2.2.5 ENVIRONMENTAL COMPLIANCE	20
2.3 SECTION WISE ACTIVITIES STATUS	21
3 CIVIL WORKS SECTION-I	22
3.1 CUMULATIVE MILESTONE WISE PROGRESS STATUS (SECTION-I)	23
3.2 PHYSICAL PROGRESS STATUS (SECTION-I)	24
3.3 CULVERTS PHYSICAL PROGRESS STATUS (SECTION-I)	25
4 CIVIL WORKS SECTION-II	26
4.1 CUMULATIVE MILESTONE WISE PROGRESS STATUS (SECTION – II)	27
4.2 PAVEMENT CONSTRUCTION PHYSICAL PROGRESS STATUS (SECTION – II)	29
4.3 CULVERTS PHYSICAL PROGRESS STATUS (SECTION-II)	30
5 CIVIL WORKS SECTION-III	31
5.1 CUMULATIVE MILESTONE WISE PROGRESS STATUS (SECTION - III)	32
5.2 PAVEMENT CONSTRUCTION PHYSICAL PROGRESS STATUS (SECTION – III)	35
5.3 CULVERTS PHYSICAL PROGRESS STATUS (SECTION – III)	37
6 BRIDGES	38
6.1 BRIDGE (KM: 09+560) CUMULATIVE MILESTONE WISE PROGRESS STATUS	39
6.2 BRIDGE (KM: 09+560) PHYSICAL PROGRESS STATUS	40
6.3 BRIDGE (KM: 18+475) PHYSICAL PROGRESS STATUS	41
6.4 BRIDGE (KM: 23+750) CUMULATIVE MILESTONE WISE PROGRESS STATUS	42
6.5 BRIDGE (KM: 23+750) PHYSICAL PROGRESS STATUS	43
6.6 BRIDGE (KM: 27+250) PHYSICAL PROGRESS STATUS	44
6.7 MCC (KM: 11+190) CUMULATIVE MILESTONE WISE PROGRESS STATUS	45
6.8 MCC (KM: 22+925) CUMULATIVE MILESTONE WISE PROGRESS STATUS	46
6.9 MULTICELL CULVERT PHYSICAL PROGRESS STATUS	47
7 MATERIAL TESTING REPORTS	48
7.1 SUMMARY OF FIELD DENSITY TESTS	49

7.2	SUMMARY OF EARTH WORK QUALITY TEST	50
7.3	ASPHALTIC BASE COURSE QUALITY TESTS REPORT	51
7.4	ASPHALTIC WEARING COURSE QUALITY TESTS REPORT	51
7.5	AGGREGATE QUALITY TESTS FOR CONCRETE	52
7.6	SUMMARY OF CONCRETE COMPRESSIVE STRENGTH	54
7.7	SUMMARY OF ASPHALTIC WEARING COURSE CORE COMPACTION	55
7.8	SUMMARY OF CORE THICKNESS OF ASPHALTIC WEARING COURSE	58
8	ENVIRONMENTAL COMPLIANCE MONITORING	61
9	APPENDICES	73
9.1	PC'S SUMMARY TABLE.....	74
9.2	CONTRACTOR IPC's (SECTION-I)	74
9.3	CONTRACTOR IPC's (SECTION-II)	75
9.4	CONTRACTOR IPC's (SECTION-III)	75
9.5	CONTRACTOR IPC's (02 BRIDGES & 02 MC CULVERTS)	76
9.6	RECORD OF COORDINATION MEETINGS / JOINT SITE VISITS	77
9.7	MOBILIZATION OF M&E STAFF	78
10	PROJECT PHOTOGRAPHS	82



SUMMARY

Peshawar – Torkham road is an integral part of National Highway (N-5), a vital piece of the nation’s infrastructure, which connects Pakistan with Afghanistan at Torkham border and plays an important role in the economic activities as well as providing timely logistic support to the security agencies deployed in Khyber Agency. The project “Strengthening & Improvement of Peshawar Torkham Road” is funded with United State Agency for International Development (USAID) grant amounting to USD 67 Millions and implemented by FATA Secretariat as project proponent through Frontier Works Organization (FWO) as EPC (Engineer, Procure, and Construct) Contractor.

The 46 KM Peshawar – Torkham road (PTR) has been split into multiple sections for designing / construction purposes due to inherited site specific conditions such as live traffic corridor, gigantic hilly terrain, safety and security restrictions etc. Work on project was commenced by FWO on October 15, 2012. The initially agreed completion date of December 31, 2014 as per Article 4 of the Activity Agreement No AID-015-DOD has now been extended for one additional year. Three PILs signed for Sec I, II, and III & 01 PIL for 02 Bridges & 02 MCC expired on December 31, 2014. However, as per para (c) of the attachment titled “Fixed Amount Reimbursement” to the respective PILs, reimbursement requests can be entertained up to three months i.e. March 31, 2015.

Safety works i.e. fixing of guard rails along road alignment in Sec I,II,III and gabion protection works continued on Bridges at KM 9+560 & 23+750 and multi cell culverts at KM 11+190 & 22+925.

PC-1 of Sec-VII approved at the FDWP forum during the reporting month. Construction work continued in Sec IV to IX. The contractor teams utilized 22 days out of 24 of available working days in the reporting month due to torrential rains in the vicinity of the project. The overall certified amount till the end of reporting month was USD 28,949,124.

FWO was constantly advised for demonstrating good environmental practice in conformity with the construction environmental management plan.

Physical progress till the end of reporting period presented as under:

Section I - (KM: 0+000 To 9+000)	99.70 %
Section II - (KM: 9+000 To 14+000)	99.14%
Section III - (KM: 14+000 To 19+000)	97.00 %
Section IV - (KM: 19+000 To 24+000)	57.00 %
Section V - (KM: 24+000 To 29+000)	68.00 %
Section VI - (KM: 29+000 To 33+000)	38.00 %
Section VII - (KM: 33+000 To 37+000)	11.00 %

Bridge (KM: 9+560)	99.86 %
Bridge (KM: 18+475)	98.00 %
Bridge (KM: 23+750)	77.00 %
Bridge (KM: 27+000)	17.00 %
Bridge (KM: 27+250)	60.00 %
Multicell Culvert (KM: 11+190)	99.76 %
Multicell Culvert (KM: 22+925)	96.45 %

A total of 28.5 KM of both flexible & rigid pavements are substantially complete and open for traffic. About 02 KM Asphaltic base course has been cumulatively completed in Sec IV to Sec VII. Roadway excavation is in progress in Sec VII, VIII, IX & Loop-III for widening & improvement in the geometry of the road.

INTRODUCTION

1.1 PROJECT BACKGROUND

The Federally Administered Tribal Area (FATA) Secretariat of the Government of Pakistan (GoP) under the Quick Impact Projects (QIPs) in the Khyber Agency has inked an agreement with USAID for financial assistance in the form of a Grant for Strengthening and Improvement of 46 KM long existing two-lane, two-way carriageway from Peshawar to Torkham (N – 5). The Project will support the GoP in improving accessibility to the remotely located areas of Khyber agency and enhance logistic support to law enforcing agencies, besides assisting trade between Pakistan and Afghanistan. The Sponsoring agency for the Peshawar Torkham Road Project is FATA secretariat, headed by Additional Chief Secretary FATA. The Executing agency is Frontier Works Organization (FWO).

Table: 1

Civil Works Package Features									
Physical Limits	Peshawar to Torkham								
Feature	Section – I	Section – II	Section – III	Section – IV	Section – V	Section – VI	Section – VII	Section – VIII	Section – IX
Kilometers	0+000 to 9+000	9+000 to 14+000	14+000 to 19+000 & Loop-I	19+000 to 21+100 22+400 to 24+000 & Loop-II	21+100 to 22+400 24+000 to 29+000	29+000 to 33+000	33+000 to 37+000	37+000 to 41+000	41+000 to 43+465 & Loop-III
Black Top	Total 12.3 meter (7.3 meter carriageway & 2.5 meter structural shoulders on either side)								
Completion Period	807 Calendar Days								

1.2 SCOPE OF WORK

The project involves widening, strengthening and improvement of the existing two lane carriageway, including construction of new cross drainage structures, bridges, rigid pavements and earth retaining structures spread over 46 KM. The entire road length has been split into multiple sections for designing / construction purposes. Length of each section varies according to topographical features and live traffic conditions along the project route.

Being an EPC form of contract, FWO is fully responsible for design and construction of the project in conformity with the NHA's specifications and standard engineering practices. NESPAK is providing design and quality control services to FWO. While AGES Consultants has been entrusted with the Construction Monitoring and Evaluation Services including Quality Assurance and Environmental Monitoring of the project on behalf of the USAID Pakistan Mission.

1.3 GENERAL CONTRACT DATA

1.	Name of Project	Strengthening and Improvement of Peshawar Torkham Road (N-5) Khyber Agency FATA
2.	Project Construction Cost	US \$ 67 Million
3.	Donor Agency	USAID PAKISTAN
4.	Donor's Agency Representative	Engr. Farhat Ali Shah Banori, USAID/COR
5.	Sponsoring Agency	FATA Secretariat, Peshawar
6.	Sponsoring Agency Representative	Mr. Muhammad Ali, Project Director, PMU FATA
7.	Executing Agency	Frontier Works Organization (FWO)
8.	Executing Agency Representative	Col. Shahzada Adil Sultan (Project Director FWO)
9.	M&E Consultants	AGES Consultants
10.	M&E Consultants Representative	Engr. Aziz-ul- Haq, Project Manager
11.	Time for Completion	807 Calendar Days
12.	Mode of Construction Contract	EPC (Engineer, Procure and Construct) Contract
13.	Chronology	
	Signing of MoU (USAID–FATA–NHA)	Sep 18, 2012
	Signing of Consultancy Contract (USAID – AGES)	Sep 30, 2012
	M&E Consultants Mobilization	Oct 01, 2012
	Project Date of Commencement	Oct 15, 2012
	Project Original Date of Completion	Dec 31, 2014
	Project Revised Date of Completion	Dec 31, 2015

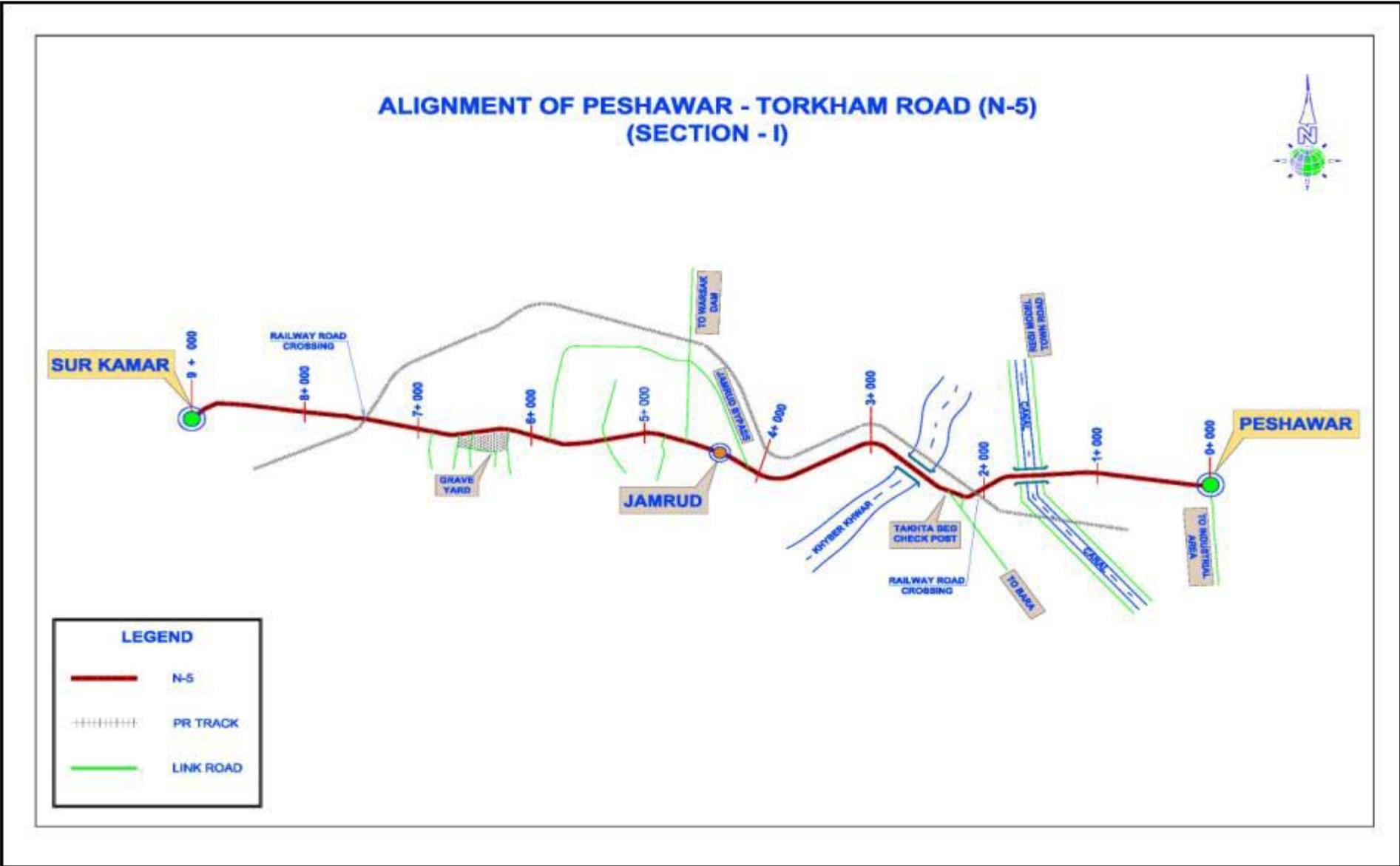
1.4 SECTIONS DATA

1.	Name of Package	Section – I (CH: KM: 0+000 to CH: KM: 9+000)
2.	PIL # 01 Cost (Section – I)	Rs. 937.939 Million (US \$ 9.978 M)
3.	Approval of PIL (Section – I)	Jan 10, 2013
1.	Name of Package	Section – II (CH: KM: 9+000 to CH: KM: 14+000)
2.	PIL # 02 Cost (Section – II)	Rs. 985.266 Million (US \$ 9.383 M)
3.	Approval of PIL (Section – II)	Dec, 18, 2013
1.	Name of Package	Section – III (CH: KM: 14+000 to CH: KM: 19+000 & Loop-I)
2.	PIL # 03 Cost (Section – III)	Rs. 989.320 Million (US \$ 9.512 M)
3.	Approval of PIL (Section – III)	Feb, 04, 2014
1.	Name of Package	Construction of Two Bridges and Two Multi-cell Culverts
2.	PIL # 04 Cost	Rs. 348.5 Million (US \$ 3.668 M)
3.	Approval of PIL	June 27, 2014

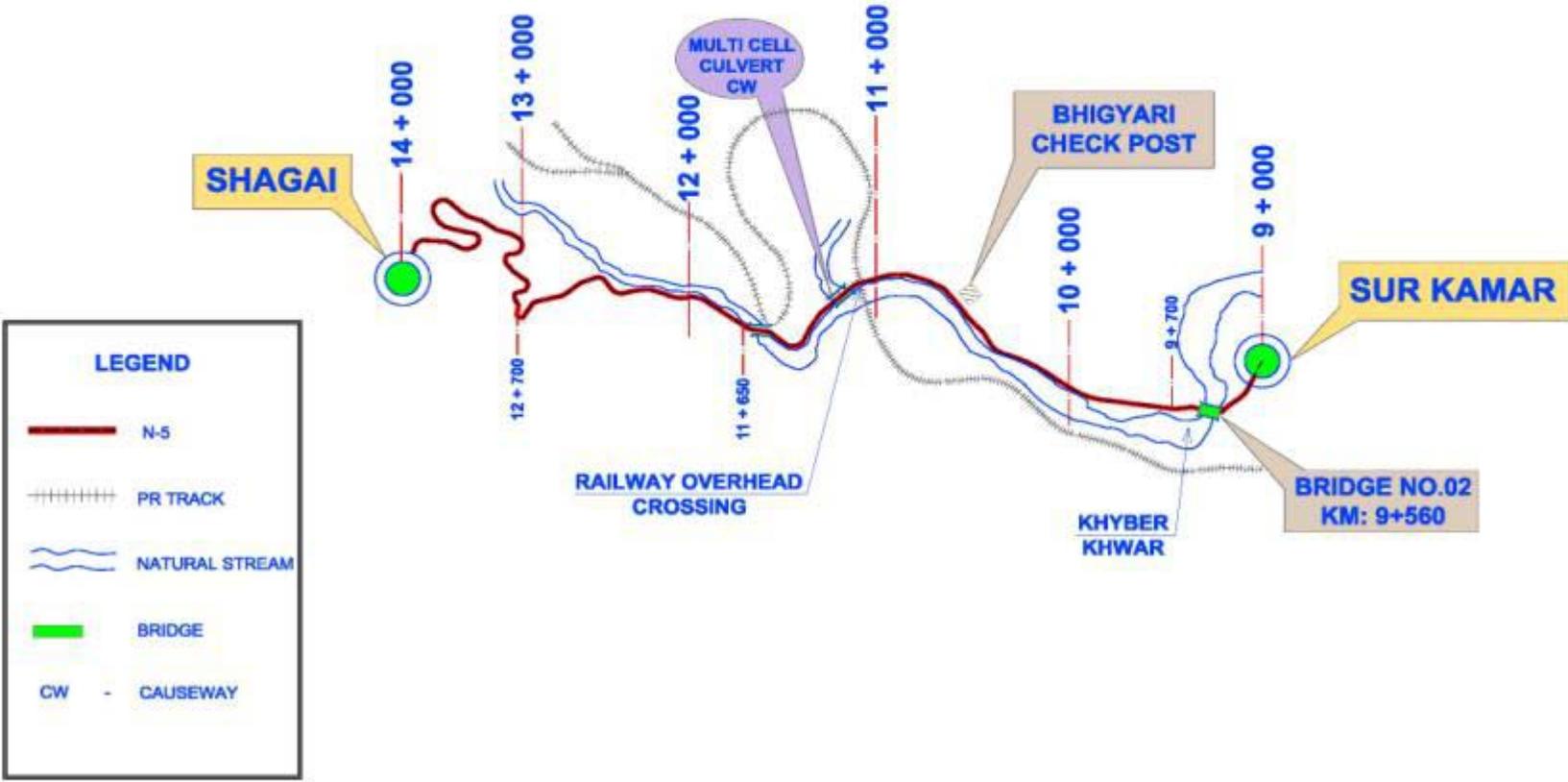
UPCOMING PILS

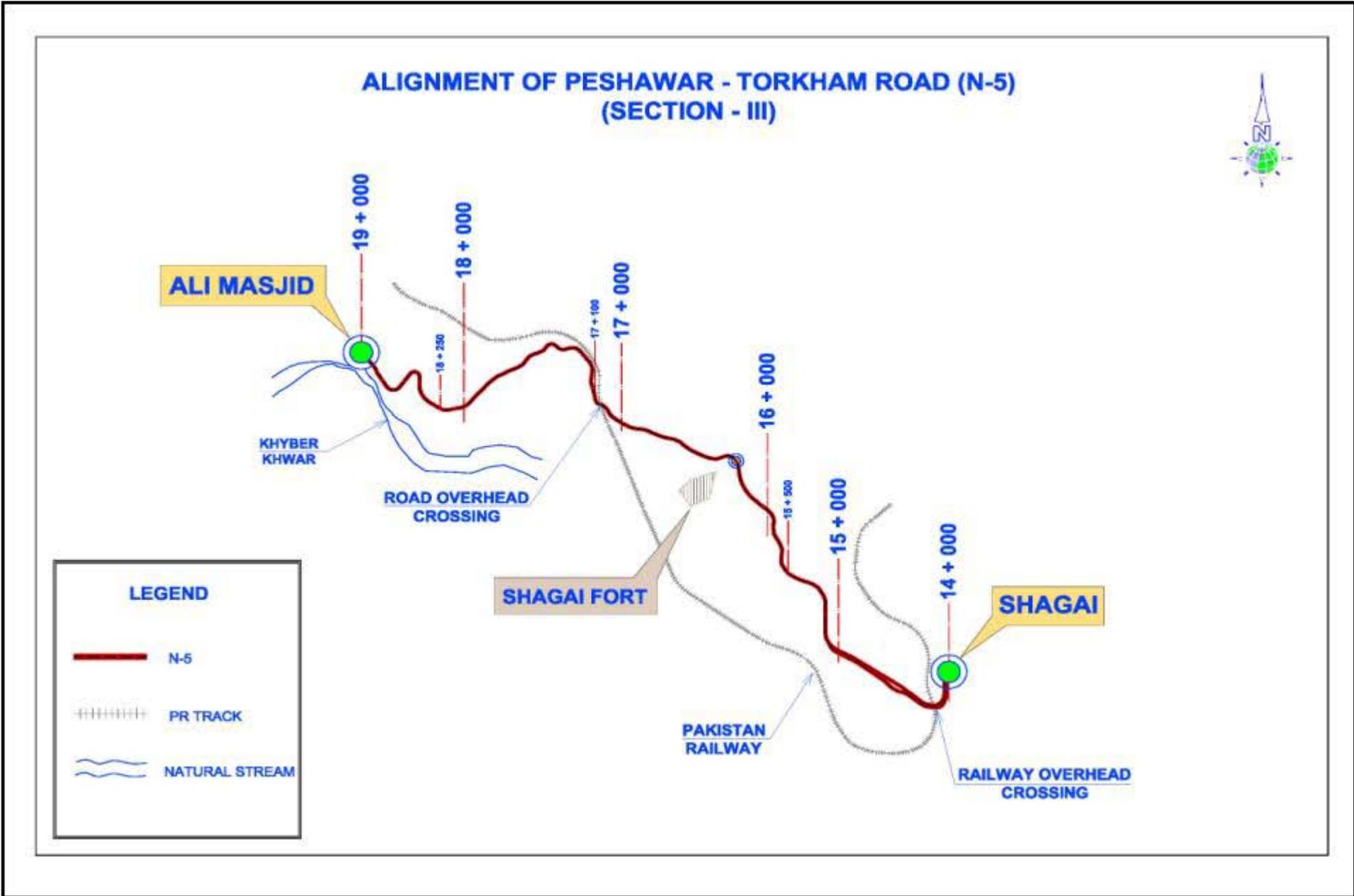
1.	Name of Package	Section – IV (CH: KM: 19+000 to 21+000 CH: KM: 22+400 to 24+000 & Loop-II)
2.	PIL # 05 Cost	Rs. 720.338 Million
3.	Approval of PIL	Awaited
1.	Name of Package	Section –V (CH: KM: 21+100 to 22+400; CH: KM: 24+000 to 29+000)
2.	PIL # 06 Cost	Rs. 806.547 Million
3.	Approval of PIL	Awaited
1.	Name of Package	Construction of 06 Bridges (03 Rehabilitation & 03 New Construction)
2.	PIL # 07 Cost	Rs. 249.052 Million
3.	Approval of PIL	Awaited
1.	Name of Package	Section –VI (CH: KM: 29+100 to 33+000)
2.	PIL # 08 Cost	Rs. 615.822 Million
3.	Approval of PIL	Awaited

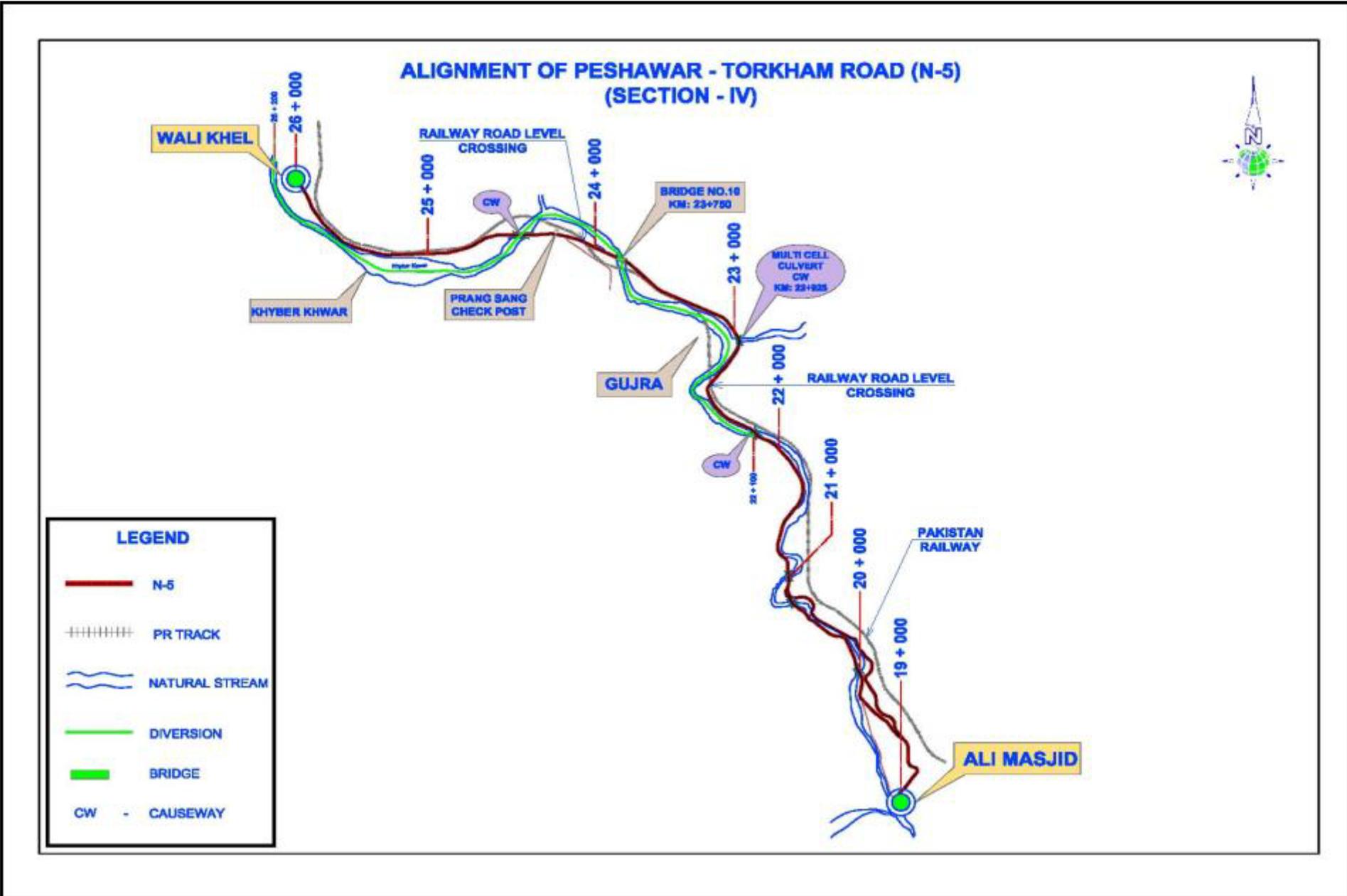
1.5 ALIGNMENT SKETCHES

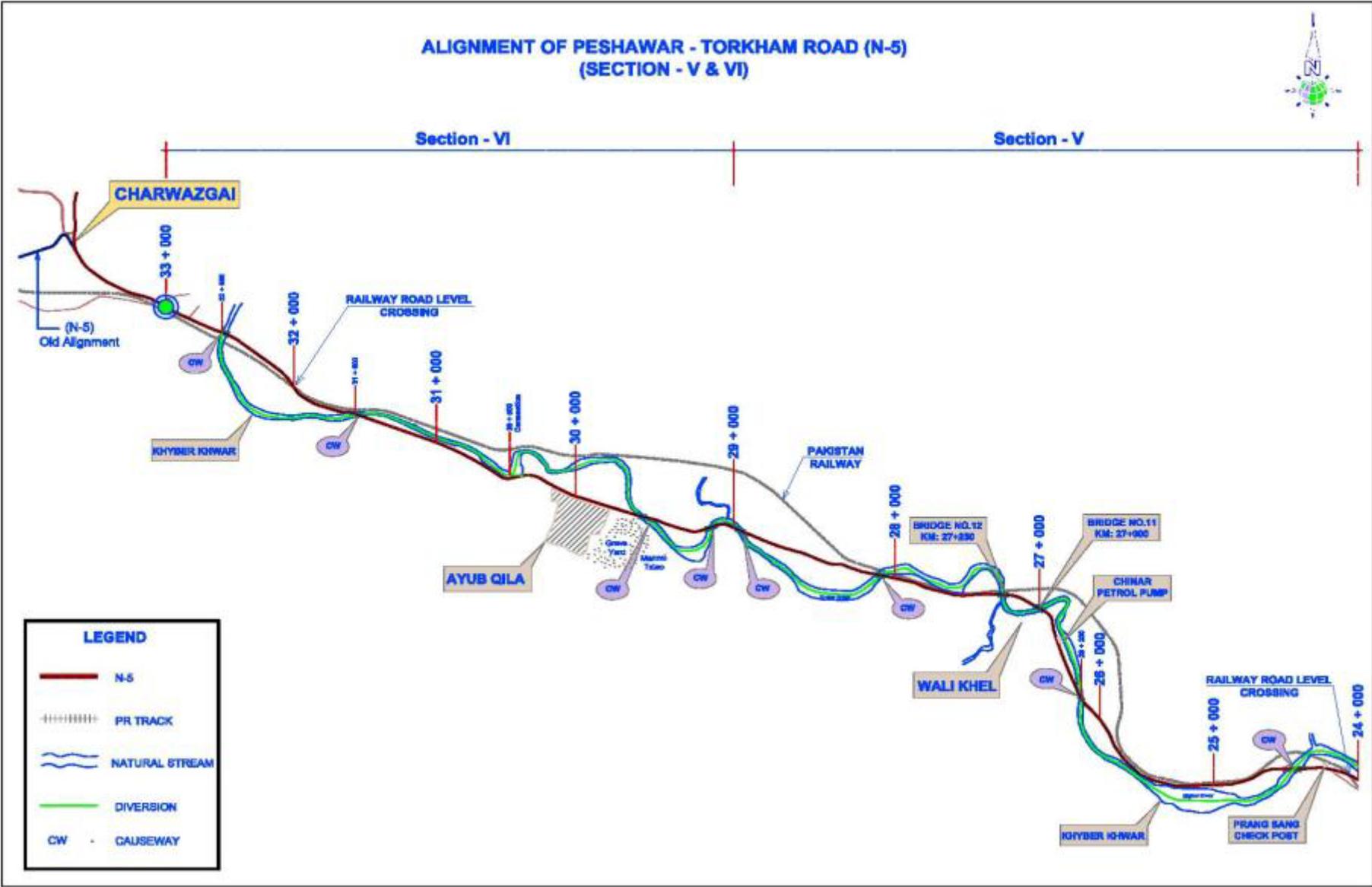


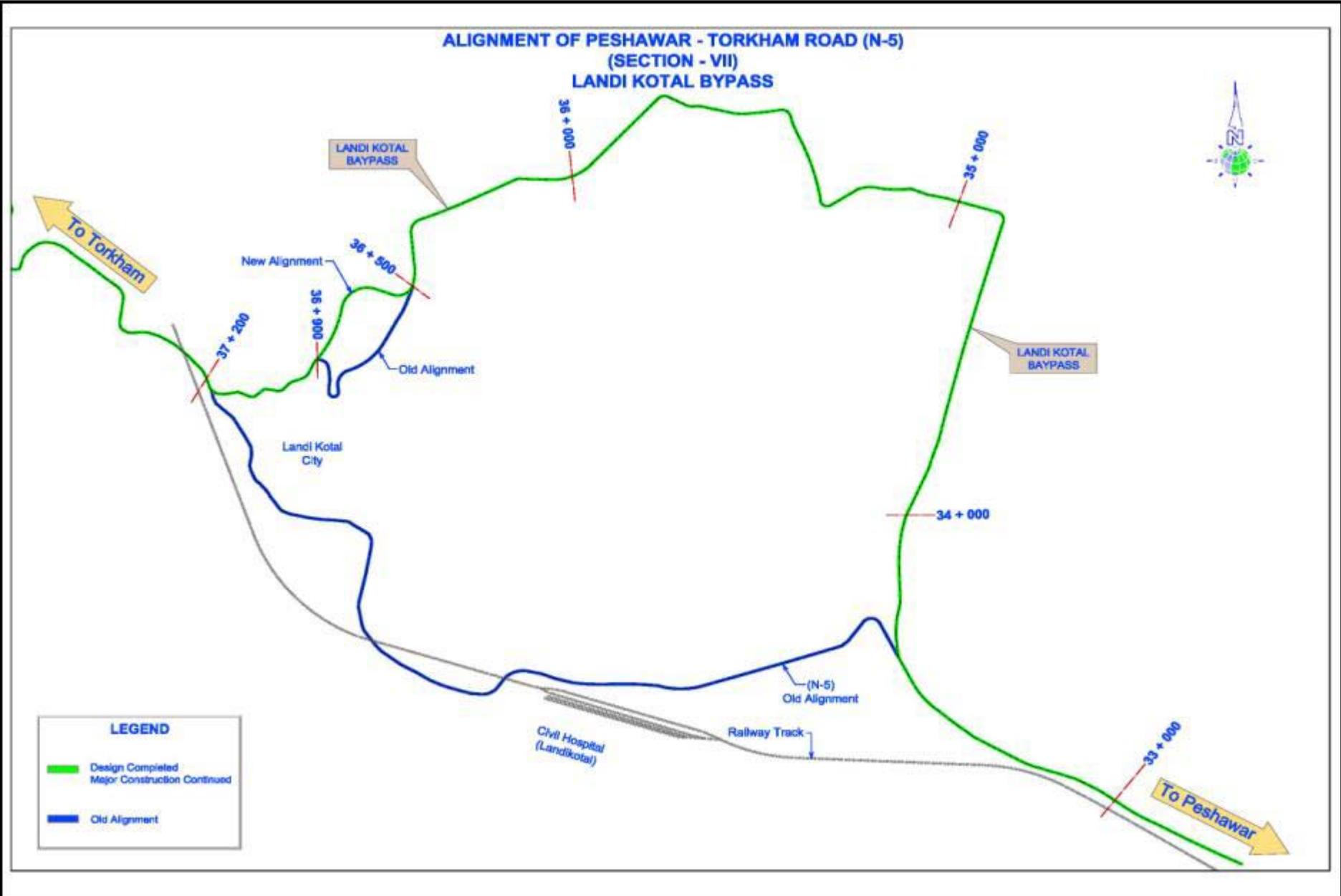
ALIGNMENT OF PESHAWAR - TORKHAM ROAD (N-5) (SECTION - II)



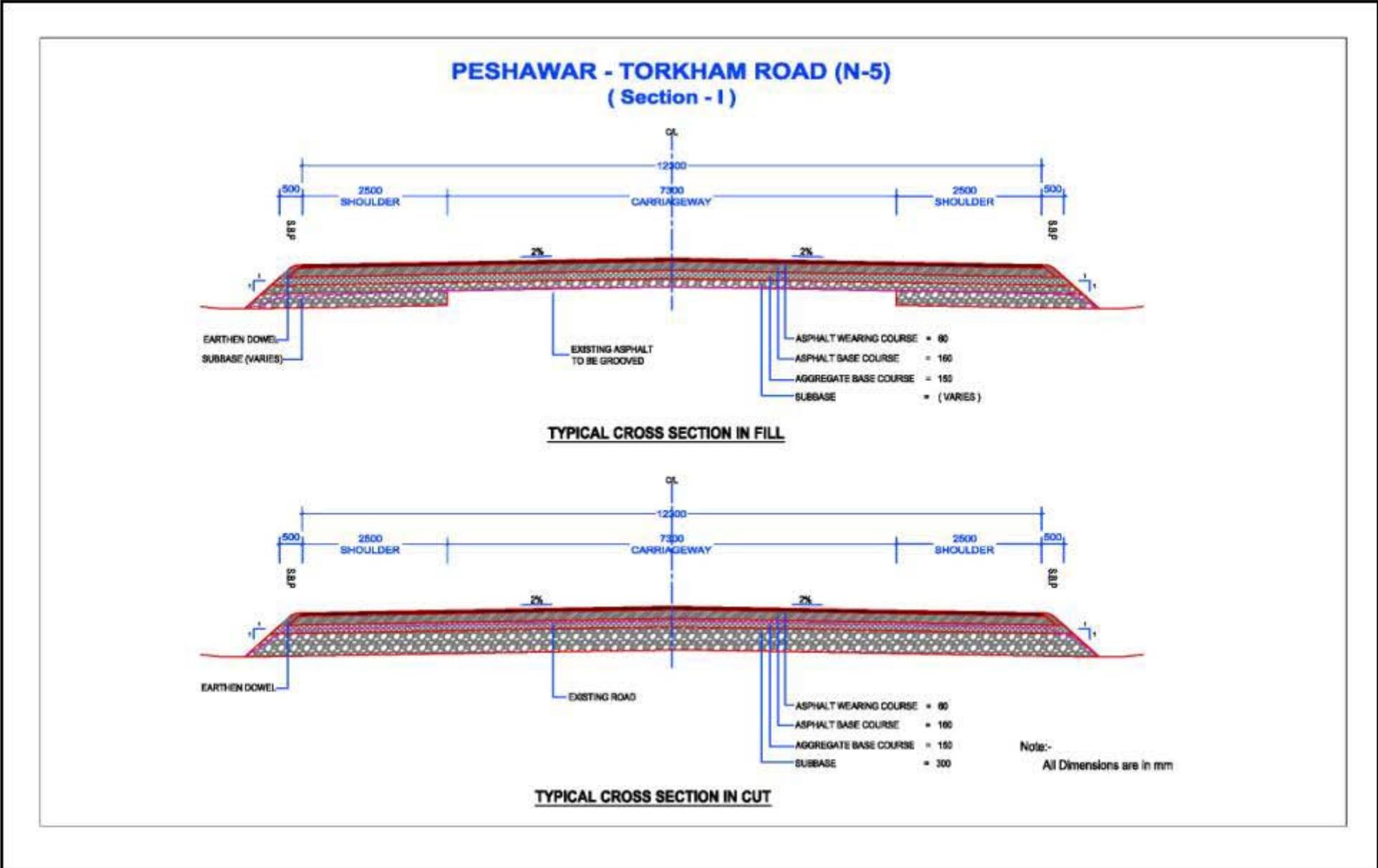


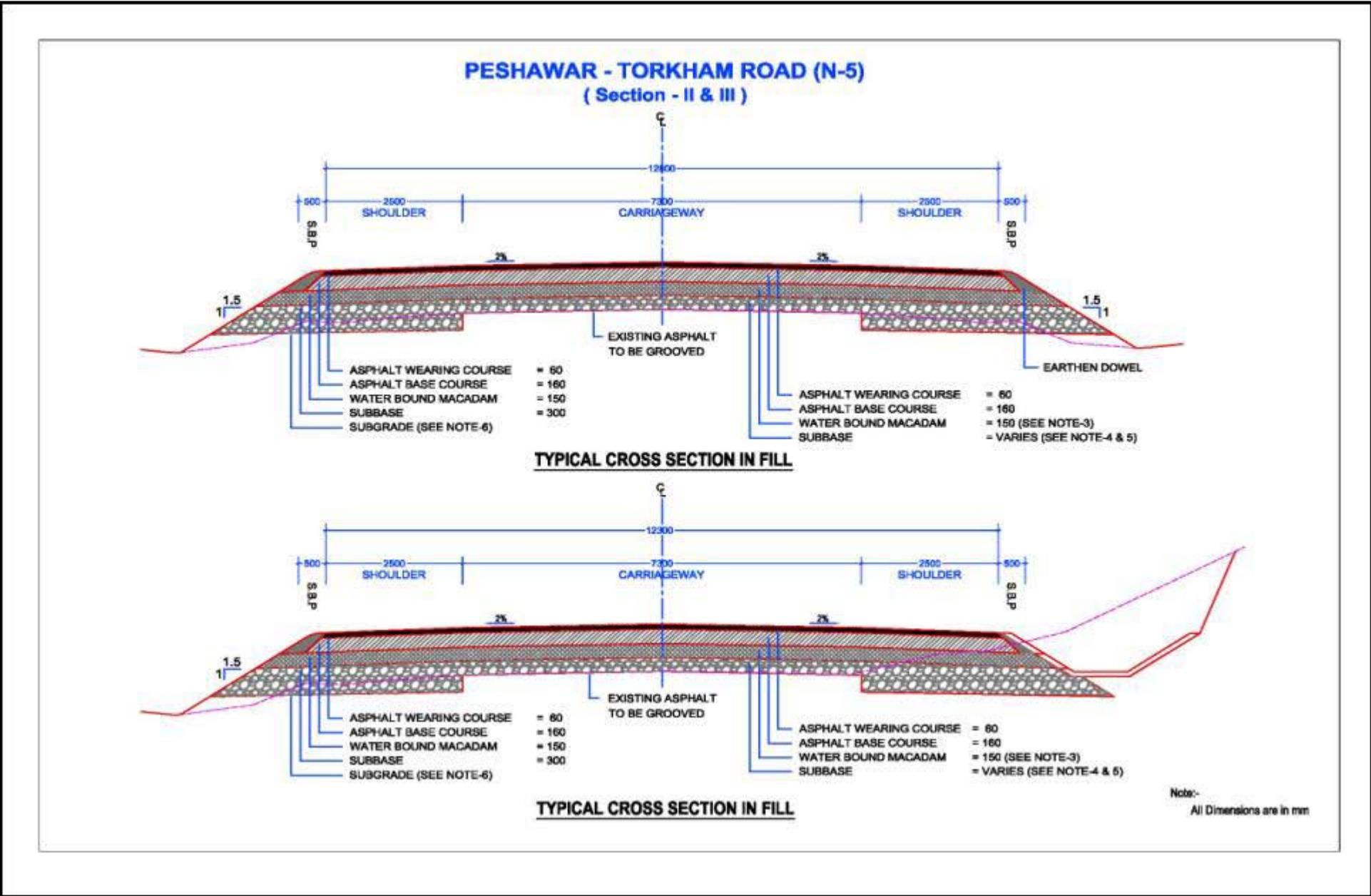


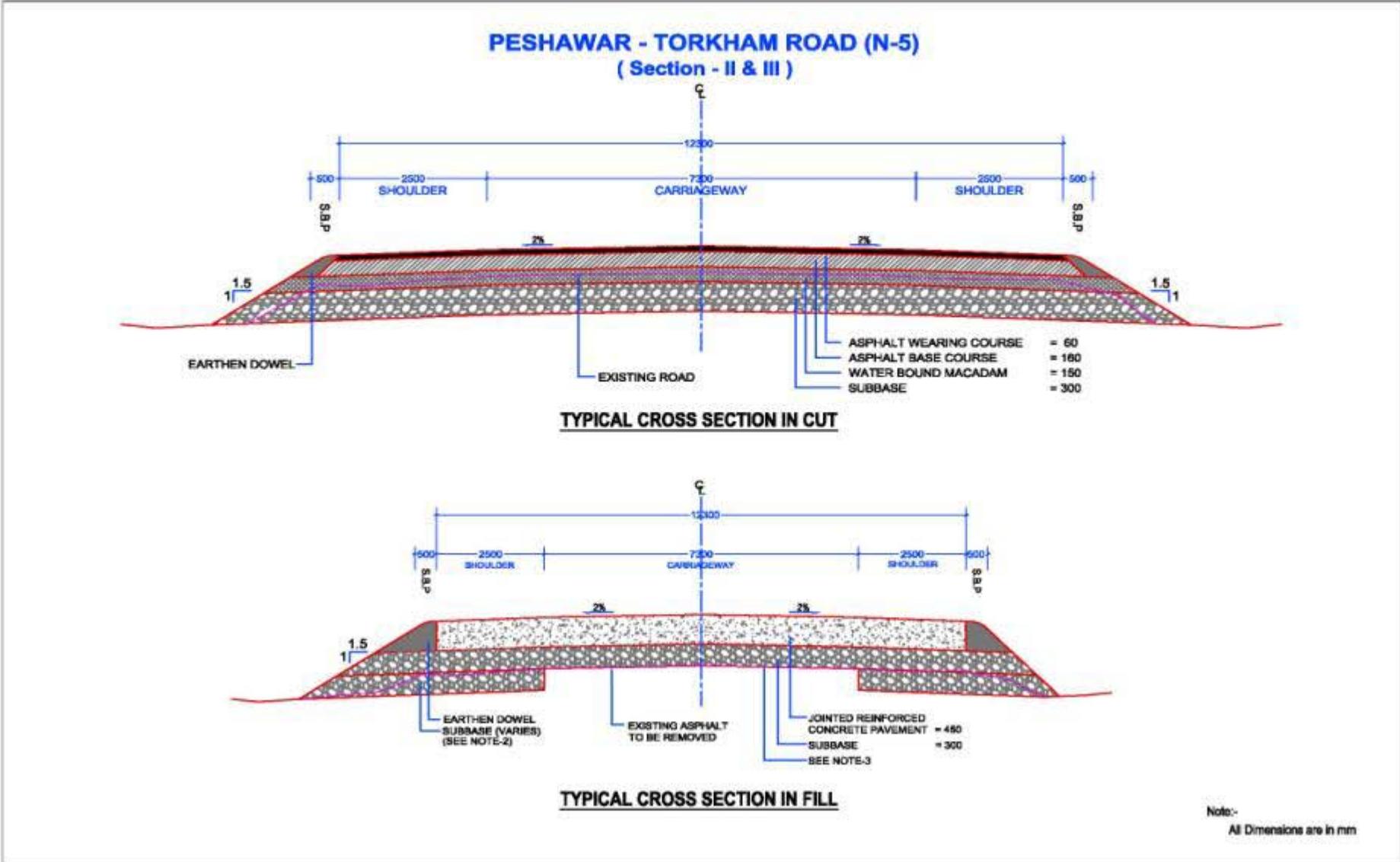




1.6 TYPICAL CROSS SECTIONS OF ROAD







M&E SERVICES & PROGRESS OF ACTIVITIES

2.1 M&E CONSULTANTS MAJOR ACTIVITIES DURING THE MONTH

During the reporting month, M&E Consultants carried out the following activities:

- Conducted Joint site visits with representatives of F W O / NESPAK at regular intervals.
- Conducted follow-up /coordination meetings/ fortnightly meetings with FWO / NESPAK reps.
- Monitoring / documentation of the construction activities on daily basis.
- M&E Consultant's senior management conducted fortnightly site visits and shared information with USAID & FWO / NESPAK reps.
- Maintained close liaison with the Contractor's field staff and shared information pertaining to material quality and construction methodology
- Reviewed / evaluated Contractor's site construction techniques and shared relevant technical standards with FWO/ NESPAK for modification/ improvement.
- Conducted independent & joint field testing of different pavement layers / backfill material, concrete & asphalt concrete works with FWO / NESPAK.
- Regularly shared M&E Consultants Material Testing Laboratory quality test results with USAID, FWO & NESPAK.
- Regularly monitored and shared issues related to detour's management along the construction zone with USAID / FWO; for example:
 - ✓ Traffic operating conditions with regard to detour geometry, surface condition, visibility and traffic safety / management.
 - ✓ Dust suppression activities, particularly during peak traffic hours.

2.2 MATTERS REQUIRING ATTENTION

2.2.1 COMPLETION OF SECTION I, II AND III

The aforementioned sections have been substantially completed and minor / ancillary works are in progress. PILs for these sections & 01 PIL for 02 Bridges & 02 MCC have expired on December 31, 2014. However, as per para (c) of the attachment titled "Fixed Amount Reimbursement" to the respective PILs, reimbursement requests can be entertained up to three months i.e. March 31, 2015.

FWO needs to complete the remaining works on priority and the FATA secretariat needs to inform USAID with necessary supporting documentation to avoid any complication regarding payment reimbursement by USAID.

2.2.2 PROCESS OF PC-1s APPROVAL

Since project commencement in Oct 2012, 09 No: PC-1's (07 for Sec-I To VII) from KM: 0+000 To 37+000, and two PC-1's for 08 bridges plus 02 Multi cell culverts, amounting in total to PKR 6,840 Million have been approved by FATA Development Working Party (FDWP). In order to catch-up the revised completion time of the project, approval of the remaining 02 PC-1s needs to be expedited.

2.2.3 COMPLEXITY IN MAINTAINING TRAFFIC ON DIVERSIONS / DETOURS

Diversion / detours have been provided at intervals b/w KM: 19+400 To EoP. However, condition of the diversion tracks has been creating difficulties for the road commuters and population. Peak hour traffic congestion and its frequency are regularly escalating the problem. Even minor traffic accident on the corridor usually results in rapid disturbance to traffic movement and some time complete blockage of diversions.

In order to ensure smooth traffic movement along the corridor, minimizing traffic delays keeping dust & noise pollution to a minimum, a higher level of communication and liaison would be required throughout the work period to meet the expectations of stakeholders and commuters.

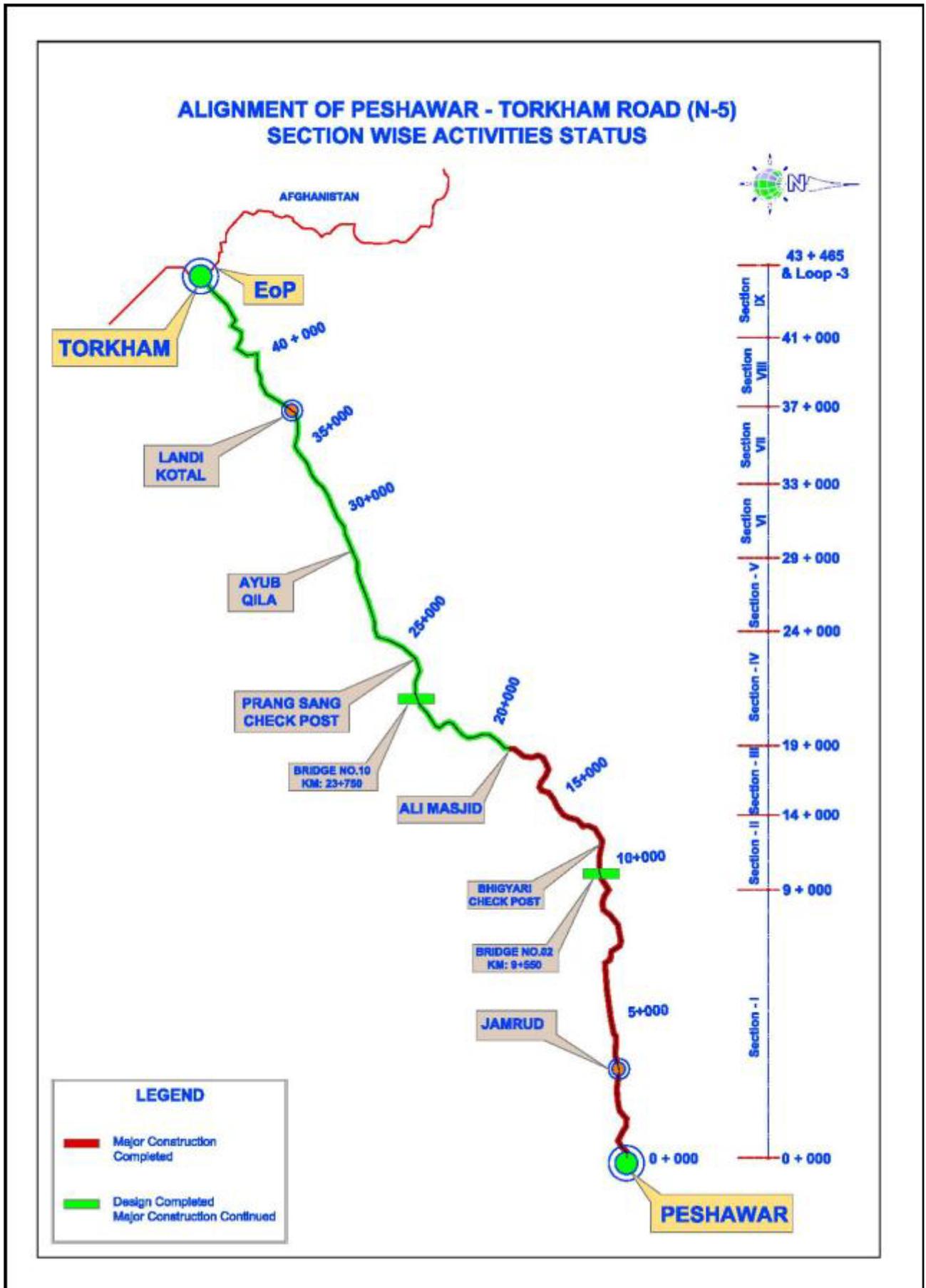
2.2.4 DELAY IN UTILITIES SHIFTING FROM CONSTRUCTION CORRIDOR

Shifting of overhead electric lines (including poles) got delayed despite payment by FWO to the concerned GoP department, thereby putting a constraint on the contractor's capacity to undertake construction work in an un-interrupted and continuous manner.

2.2.5 ENVIRONMENTAL COMPLIANCE

FWO needs to focus more on environmental compliance measures due to inherited site specific conditions such as live traffic corridor, heavy traffic, hilly terrain, and residential and commercial areas along the road.

2.3 SECTION WISE ACTIVITIES STATUS

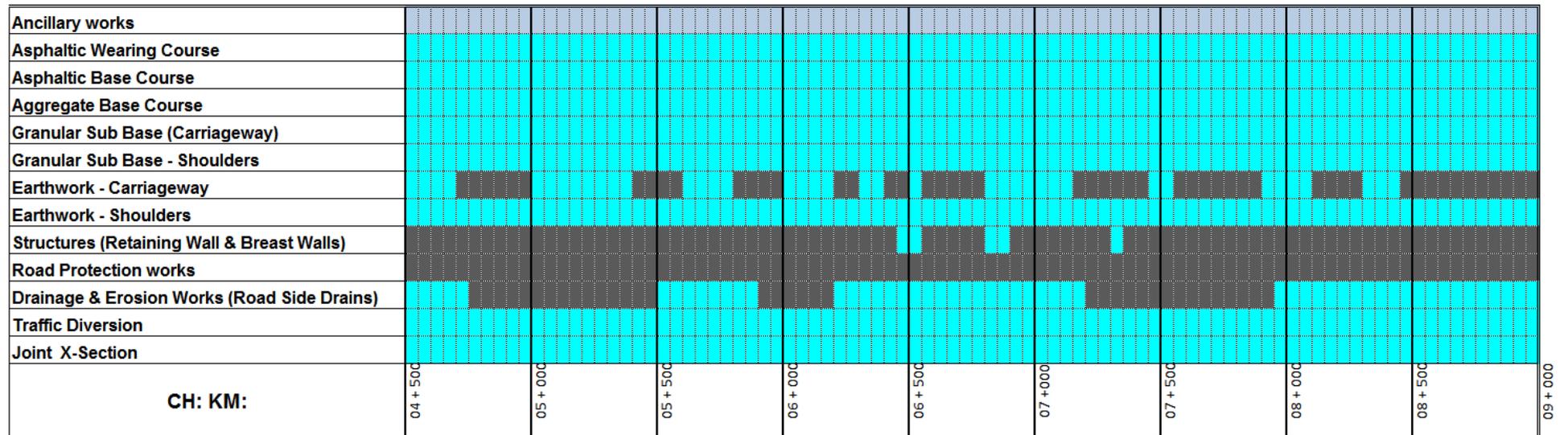
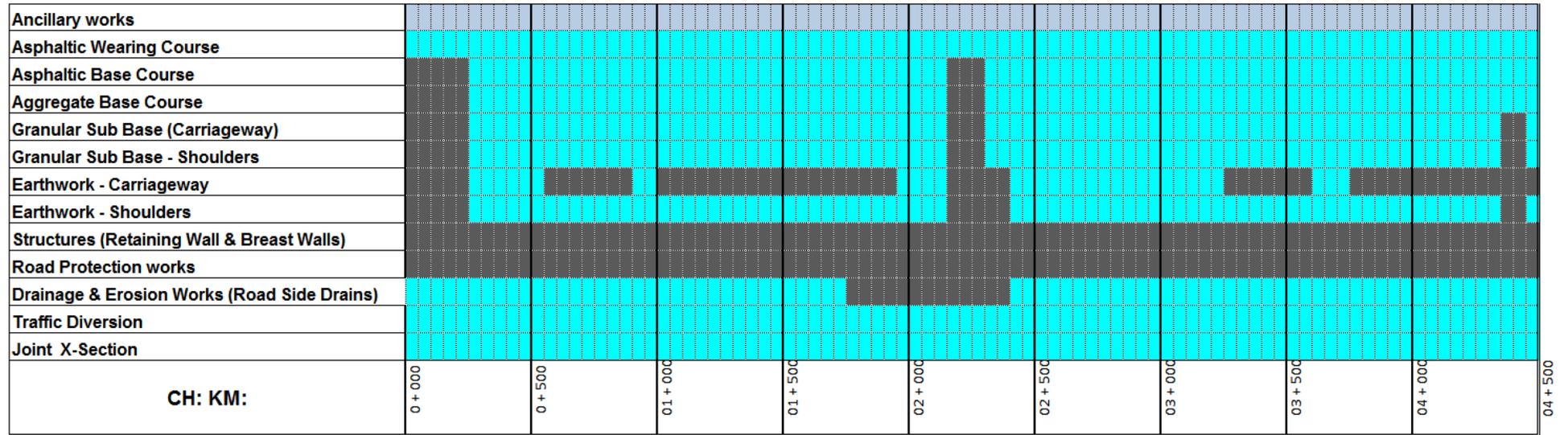


CIVIL WORKS SECTION-I

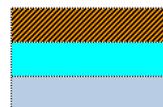
3.1 CUMULATIVE MILESTONE WISE PROGRESS STATUS (SECTION-I)

BILL NO	DESCRIPTION	MILESTONE UNIT	NUMBER OF MILESTONES	AMOUNT AS PER MILESTONE (US \$)	TOTAL AMOUNT (US \$)	PROGRESS UPTO PREVIOUS MONTH			PROGRESS IN THE REPORTING MONTH			MILESTONE WISE COMULATIVE PROGRESS		
						MILESTONE ACHIEVED	AMOUNT (US \$)	PROGRESS %	MILESTONE ACHIEVED	AMOUNT (US \$)	PROGRESS %	MILESTONE ACHIEVED	AMOUNT (US \$)	PROGRESS %
1	EARTH WORK	KM	9	6,339.85	57,058.65	9.00	57,059	100.00	-	-	-	9.00	57,058.65	100.00
2	SUB BASE AND BASF COURSE													
i	GRANULAR SUB BASE	KM	9	111,763.61	1,005,872.49	9.00	1,005,872	100.00	-	-	-	9.00	1,005,872.49	100.00
ii	AGGREGATE BASE COURSE	KM	9	73,611.56	662,504.04	9.00	662,504	100.00	-	-	-	9.00	662,504.04	100.00
iii	ASPIHALTIC BASE COURSE	KM	9	416,600.69	3,749,478.21	9.00	3,749,478	100.00	-	-	-	9.00	3,749,478.21	100.00
3	SURFACE COURSES AND PAVEMENT	KM	9	213,785.71	1,924,071.39	9.00	1,924,071	100.00	-	-	-	9.00	1,924,071.39	100.00
4a	STRUCTURES (RETAINING WALL/BREAST WALL)	JOB	1	38,812.31	38,812.31	1.00	38,812	100.00	-	-	-	1.00	38,812.31	100.00
4b	STRUCTURES (CULVERTS)													
I	WIDENING AND REPAIR OF EXISTING CULVERTS AT RD 1+290 & 5+692	NUMBER	2	10,657.55	21,315.10	2.00	21,315.10	100.00	-	-	-	2.00	21,315.10	100.00
II	CONSTRUCTION OF NEW CULVERTS (No. of Span x Span Width x Height)													
	1 x 2 x 1.5	NUMBER	7	19,268.30	134,878.10	7.00	134,878.10	100.00	-	-	-	7.00	134,878.10	100.00
	1 x 3 x 1.5	NUMBER	3	25,204.07	75,612.21	3.00	75,612.21	100.00	-	-	-	3.00	75,612.21	100.00
	2 x 3 x 1.5	NUMBER	2	40,950.75	81,901.50	2.00	81,901.50	100.00	-	-	-	2.00	81,901.50	100.00
	3 x 3 x 1.5	NUMBER	1	54,597.59	54,597.59	1.00	54,597.59	100.00	-	-	-	1.00	54,597.59	100.00
	5 x 3 x 1.5	NUMBER	1	75,007.57	75,007.57	1.00	75,007.57	100.00	-	-	-	1.00	75,007.57	100.00
5a	DRAINAGE & FROSION WORKS (ROAD SIDE DRAIN)													
i	DRAIN TYPE D-1 & D-2 (COVERED)	KM	5.5	249,002.78	1,369,515.29	5.01	1,247,503.93	91.09	0.40	98,356.10	7.18	5.41	1,345,860.03	98.27
ii	DRAIN TYPE D-1a & D-2a (UNCOVERED)	KM	3	110,128.52	330,385.56	3.00	330,385.56	100.00	-	-	-	3.00	330,385.56	100.00
iii	DRAIN TYPE D-3 (Converted to D-2 type)	KM	1.5	135,439.74	203,159.61	1.50	203,159.61	100.00	-	-	-	1.50	203,159.61	100.00
5b	ROAD PROTECTION WORKS (100 M)	JOB	1	11,047.54	11,047.54	1.00	11,047.54	100.00	-	-	-	1.00	11,047.54	100.00
6	ANCILLARY WORKS COMPLETE IN ALL RESPECT	JOB	1	54,375.49	54,375.49	1.00	54,375.49	100.00	-	-	-	1.00	54,375.49	100.00
7	DIVERSION	KM	9	12,978.72	116,808.48	9.00	116,808.48	100.00	-	-	-	9.00	116,808.48	100.00
8	PLANTATION OF TREES (450 Nos)	KM	9	1,297.87	11,680.83	4.5	5,840.42	50.00	-	-	-	4.5	5,840.42	50.00
	TOTAL PROJECT COST (SECTION-I)				9,978,082		9,850,230	98.72		98,356.10	0.99		9,948,586	99.70

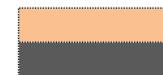
3.2 PHYSICAL PROGRESS STATUS (SECTION-I)



LEGEND



WORKS COMPLETED IN FEB 2015
 WORKS COMPLETED IN PREVIOUS MONTHS
 PARTIAL COMPLETION



SINGLE LANE TRAFFIC MAINTAINED
 ITEM NOT REQUIRED

3.3 CULVERTS PHYSICAL PROGRESS STATUS (SECTION-I)

RCC Railing	Deleted - Replaced with Pipe Culvert Extension	Culvert shifted to Section-III														
Roll Pointing																
RCC Slab Cast in situ																
Flooring/Cut-off wall/ Rip rap																
Back Filling																
Bed plate/Curtain wall																
Stone Masonry (Wing Walls)																
Stone Masonry (Abutments/ Pier)																
Lean Concrete																
Structural Excavation																
Dismantling of Existing Structure																
Size of Culvert (No. of Span*Width*Height)					1*2*1.5	1*2*1.5	1*3*1.5		1*2*1.5	1*3*1.5	1*2*1.5	3*3*1.5	2*3*1.5	5*3*1.5	1*2*1.5	1*2*1.5
Activity																
KM	1+230	2+611	3+081	4+480	4+590	5+202	5+354	5+905	6+050	6+191	6+501	6+648	6+883	7+384		



ACTIVITIES COMPLETED IN PREVIOUS MONTHS



ACTIVITIES NOT REQUIRED

CIVIL WORKS SECTION-II

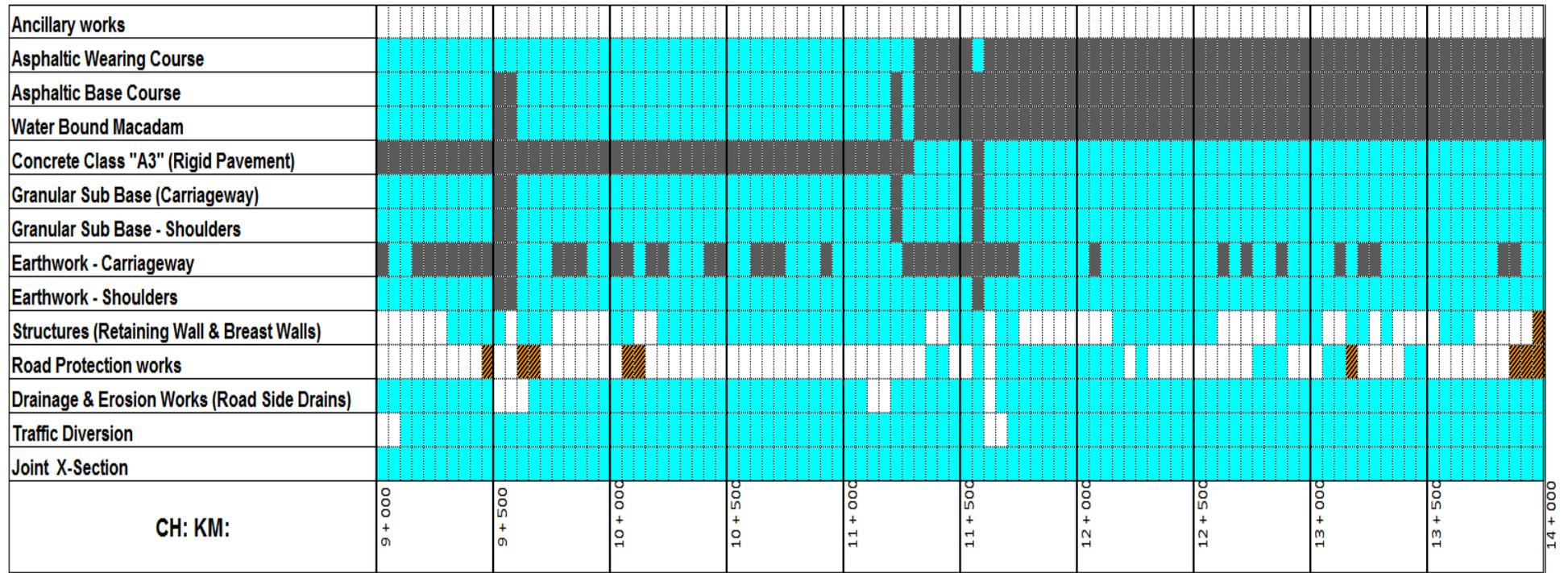
4.1 CUMULATIVE MILESTONE WISE PROGRESS STATUS (SECTION – II)

BILL NO	DESCRIPTION OF BILL	MILESTONE UNIT	NUMBER OF MILESTONES	AMOUNT AS PER MILESTONE (US \$)	TOTAL AMOUNT (US \$)	PROGRESS UP TO PREVIOUS MONTH			PROGRESS IN THE REPORTING MONTH			MILESTONE WISE COMULATIVE PROGRESS		
						MILESTONE ACHIEVED	AMOUNT (US \$)	PROGRESS %	MILESTONE ACHIEVED	AMOUNT (US \$)	PROGRESS %	MILESTONE ACHIEVED	AMOUNT (US \$)	PROGRESS %
1	EARTH WORK (INCLUDING EARTHEN DOWELS)	500 m	10	101,245	1,012,450	10.00	1,012,450	100.00	-	-	-	10.00	1,012,450	100.00
2	SUB BASE AND BASE COURSE													
a	GRANULAR SUB BASE	500 m	10	27,073	270,730	10.00	270,730	100.00	-	-	-	10.00	270,730	100.00
b	WATER BOUND MACADAM	500 m	4.6	28,702	132,029	4.60	132,029	100.00	-	-	-	4.60	132,029	100.00
c	ASPHALTIC BASE COURSE	500 m	4.6	221,168	1,017,373	4.60	1,017,373	100.00	-	-	-	4.60	1,017,373	100.00
3	SURFACE COURSES AND PAVEMENT													
a	ASPHALTIC CONCRETE FOR WEARING COURSE AND ALLIED ACTIVITIES	500 m	4.6	104,708	481,657	4.60	481,657	100.00	-	-	-	4.60	481,657	100.00
b	RIGID PAVEMENT (6.15 m Width Lane of 500 m)	500 m	10.8	262,510	2,835,108	10.80	2,835,108	100.00	-	-	-	10.80	2,835,108	100.00
4a	STRUCTURES (RETAINING WALL /BREAST WALL)													
4a - i	RETAINING WALL - 1975 M	100 m	19.75	70,864	1,399,564	19.36	1,371,927	98.03	0.39	27,636.96	1.97	19.75	1,399,564	100.00
4a - ii	BREAST WALL - 325 M	100 m	3.25	28,169	91,549	3.19	89,858	98.15	-	-	-	3.19	89,858	98.15
4b	STRUCTURES (CULVERTS)													
	CONSTRUCTION OF NEW CULVERTS (No. of Span x Span Width x Height)													
	1 x 2 x 2.5 (15 skew, Flexible Pavement)	No	2	33,373	66,746	2.000	66,746	100.00	-	-	-	2.000	66,746	100.00
	1 x 2 x 2.5 (22 m long, Flexible Pavement)	No	1	49,109	49,109	1.00	49,109	100.00	-	-	-	1.00	49,109	100.00
	1 x 2 x 3 (Flexible Pavement)	No	2	43,350	86,700	2.00	86,700	100.00	-	-	-	2.00	86,700	100.00
	1 x 2 x 3 (Rigid Pavement)	No	0	-	-	-	-	-	-	-	-	-	-	-
	1 x 2 x 3 (15° skew)	No	1	44,585	44,585	1.00	44,585	100.00	-	-	-	1.00	44,585	100.00
	1 x 2 x 3 (30° skew)	No	1	48,068	48,068	1.00	48,068	100.00	-	-	-	1.00	48,068	100.00

CUMULATIVE MILESTONE WISE PROGRESS STATUS (SECTION – II)

BILL NO	DESCRIPTION OF BILL	MILESTONE UNIT	NUMBER OF MILESTONES	AMOUNT AS PER MILESTONE (US \$)	TOTAL AMOUNT (US \$)	PROGRESS UPTO PREVIOUS MONTH			PROGRESS IN THIS MONTH			MILESTONE WISE COMULATIVE PROGRESS		
						MILESTONE ACHIEVED	AMOUNT (US \$)	PROGRESS %	MILESTONE ACHIEVED	AMOUNT (US \$)	PROGRESS %	MILESTONE ACHIEVED	AMOUNT (US \$)	PROGRESS %
	CONSTRUCTION OF NEW CULVERTS (REPLACEMENT OF OLD) (No. of Span x Span Width x Height)													
	1 x 2 x 2.5 (Rigid Pavement)	No	3	33,083	99,249	3.00	99,249	100.00	-	-	-	3.00	99,249	100.00
	1 x 2 x 2.5 (30° skew)(Flexible Pavement)	No	1	36,376	36,376	1.00	36,376	100.00	-	-	-	1.00	36,376	100.00
	1 x 3 x 4.0	No	1	76,130	76,130	1.00	76,130	100.00	-	-	-	1.00	76,130	100.00
	1 x 2 x 4 (22 m length)	No	1	89,408	89,408	1.00	89,408	100.00	-	-	-	1.00	89,408	100.00
	1 x 2 x 4.5 (22 m length)	No	1	105,875	105,875	1.00	105,875	100.00	-	-	-	1.00	105,875	100.00
	1 x 2 x 4.5 (15° skew)	No	1	83,564	83,564	1.00	83,564	100.00	-	-	-	1.00	83,564	100.00
	1 x 3 x 2.5 (15° skew)	No	1	38,000	38,000	1.00	38,000	100.00	-	-	-	1.00	38,000	100.00
	1 x 3 x 4.5 (15° skew)	No	1	88,589	88,589	1.00	88,589	100.00	-	-	-	1.00	88,589	100.00
	Service Ducts	No	23	2,666	61,318	23.00	61,318	100.00	-	-	-	23.00	61,318	100.00
5a	DRAINAGE & EROSION WORKS (ROAD SIDE DRAIN)													
i	DRAIN TYPE D-1 (COVERED) - (0.8 KM)	JOB	1	161,945	161,945	1.00	161,945	100.00	-	-	-	1.00	161,945	100.00
ii	DRAIN TYPE D-4 (0.875 KM)	JOB	1	232,586	232,586	1.00	232,586	100.00	-	-	-	1.00	232,586	100.00
iii	DRAIN TYPE D-3a (3.725 KM)	KM	3.725	34,924	130,092	3.47	121,186	93.15	0.26	8,905.63	6.85	3.725	130,092	100.00
5b	ROAD PROTECTION WORKS (75 M)	JOB	1	404,279	404,279	0.50	202,140	50.00	0.50	202,139.60	50.00	1	404,279	100.00
6	ANCILLARY WORKS COMPLETE IN ALL RESPECTS	JOB	1	70,050	70,050	-	-	-	-	-	-	-	-	-
7	DIVERSION	KM	5	30,579	152,895	5.00	152,895.00	100.00	-	-	-	5.00	152,895.00	100.00
8	MISCELLANEOUS (Relocation of utilities and plantation)	JOB	1	17,460	17,460	0.50	8,730.13	50.00	-	-	-	0.5	8,730.13	50.00
	TOTAL				9,383,484		9,064,331	96.60		238,682	2.54		9,303,013	99.14

4.2 PAVEMENT CONSTRUCTION PHYSICAL PROGRESS STATUS (SECTION – II)



LEGEND



4.3 CULVERTS PHYSICAL PROGRESS STATUS (SECTION-II)

RCC Railing	U/S side																	
	D/S side																	
Roll Pointing	Abt No1																	
	Abt No2																	
Flooring/Cut-off wall/ Riprap	B/W Abts																	
RCC Slab cast insitu																		
Bed plate/Curtain wall	Abt No1																	
	Abt No2																	
Back filling	Abt No1																	
	Abt No2																	
	B/W Abts																	
Stone Masonry (Wing Walls)	U/S side																	
	D/S side																	
Stone Masonry (Abutments/ Pier)	Abt No1																	
	Abt No2																	
Lean Concrete	Abt No1																	
	Abt No2																	
Structural Excavation	Abt No1																	
	Abt No2																	
Dismantling of Existing Structure																		
Pavement Type	Rigid/Flex	Flexible	Flexible	Flexible	Flexible	Flexible	Flexible	Flexible	Rigid	Rigid	Rigid	Rigid	Rigid	Rigid		Rigid	Rigid	Rigid
Construction Sequence (FW/HW)		FW	FW	FW	FW	FW	FW	FW	FW	HW LHS	HW LHS	FW	FW	FW	FW	FW	FW	FW
Size of Culvert (No. of Span*Width*Height)		1*2*3	1*2*2.5 (22M)	1*2*4.5 (22M)	1*3*4 (22M)	1*2*2.5	1*2*3	1*2*2.5	1*2*2.5	1*2*3	1*2*2.5	1*3*4.5	1*2*2.5	1*3*2.5	1*2*4.5	1*2*4	1*2*3	1*2*2.5
KM as per site		10+050	10+502	10+562	10+602	10+788		10+961	11+372	11+691	11+841	12+178	12+337	12+460	12+975	13+212	13+333	13+565
KM as per Drawing		10+025	10+500	10+571	10+615	10+790 (skew)	10+850	10+965 (skew)	11+375	11+690 (skew)	11+840	12+200 (skew)	12+336 (skew)	12+460 (skew)	12+975 (skew)	13+215	13+325 (skew)	13+650

ACTIVITIES COMPLETED IN PREVIOUS MONTHS

ACTIVITIES NOT REQUIRED

CIVIL WORKS SECTION-III

5.1 CUMULATIVE MILESTONE WISE PROGRESS STATUS (SECTION - III)

BILL NO	DESCRIPTION OF BILL	MILESTONE UNIT	NUMBER OF MILESTONES	AMOUNT AS PER MILESTONE (US \$)	TOTAL AMOUNT (US \$)	PROGRESS UPTO PREVIOUS MONTH			PROGRESS IN THE REPORTING MONTH			MILESTONE WISE COMULATIVE PROGRESS		
						MILESTONE ACHIEVED	AMOUNT (US \$)	PROGRESS %	MILESTONE ACHIEVED	AMOUNT (US \$)	PROGRESS %	MILESTONE ACHIEVED	AMOUNT (US \$)	PROGRESS %
1	EARTH WORK	500m	10	104,451.00	1,044,510.00	10	1,044,510.00	100	-	-	-	10	1,044,510.00	100.00
2	SUB BASE AND BASE COURSE													
a	GRANULAR SUB BASE	500m	11.80	39,882.00	470,607.60	11.8	470,607.60	100.00	-	-	-	11.8	470,607.60	100.00
b	WATER BOUND MACADAM	500m	4.70	28,023.00	131,708.10	4.7	131,708.10	100.00	-	-	-	4.7	131,708.10	100.00
c	ASPHALTIC BASE COURSE	500m	4.70	212,362.00	998,101.40	4.7	998,101.40	100.00	-	-	-	4.7	998,101.40	100.00
d	EARTHEN DOWEL	JOB	1.00	24,249.00	24,249.00	1	24,249.00	100.00	-	-	-	1	24,249.00	100.00
3	SURFACE COURSES AND PAVEMENT													
a	ASPHALTIC CONCRETE FOR WEARING COURSE AND ALLIED ACTIVITIES	500m	4.70	101,000.00	474,700.00	4.7	474,700.00	100.00	-	-	-	4.7	474,700.00	100.00
b	RIGID PAVEMENT (HALF PAVEMENT WIDTH)	500m	14.30	216,504.00	3,096,007.20	14.3	3,096,007.20	100.00	-	-	-	14.3	3,096,007.20	100.00
4a	STRUCTURES (RETAINING WALL /BREAST WALL)													
4a - i	RETAINING WALL (RW-2) - TOTAL L = 2780 M													
a	RETAINING WALL (RW-2) : H= 1.5 M ; L= 475 M	100M	4.75	9,353.00	44,426.75	4.75	44,426.75	100.00	-	-	-	4.75	44,426.75	100.00
b	RETAINING WALL (RW-2) : H= 2.0 M ; L= 100 M	JOB	1.00	13,980.00	13,980.00	1	13,980.00	100.00	-	-	-	1.00	13,980.00	100.00
c	RETAINING WALL (RW-2) : H= 2.5 M ; L= 1075 M	100M	10.75	19,044.00	204,723.00	10.75	204,723.00	100.00	-	-	-	10.75	204,723.00	100.00
d	RETAINING WALL (RW-2) : H= 3.0 M ; L= 150 M	JOB	1.00	37,062.00	37,062.00	1	37,062.00	100.00	-	-	-	1.00	37,062.00	100.00
e	RETAINING WALL (RW-2) : H= 4.0 M ; L= 105 M	JOB	1.00	44,200.00	44,200.00	1.00	44,200.00	100.00	-	-	-	1.00	44,200.00	100.00
f	RETAINING WALL (RW-2) : H= 6.0 M ; L= 600 M	100M	6.00	93,510.00	561,060.00	6.00	561,060.00	100.00	-	-	-	6.00	561,060.00	100.00
g	RETAINING WALL (RW-2) : H= 7.0 M ; L= 175 M	100M	1.75	124,511.00	217,894.25	0.42	52,294.62	24.00	0.83	103,344.13	47.43	1.25	155,638.75	71.43
h	RETAINING WALL (RW-2) : H= 8.0 M ; L= 100 M	100M	1.00	164,173.00	164,173.00	0.75	123,129.75	75.00	0.25	41,043.25	25.00	1.00	164,173.00	100.00
4a - ii	BREAST WALL - 225 M	100M	2.25	34,037.00	76,583.25	1.755	59,734.94	78.00	-	-	-	1.755	59,734.94	78.00

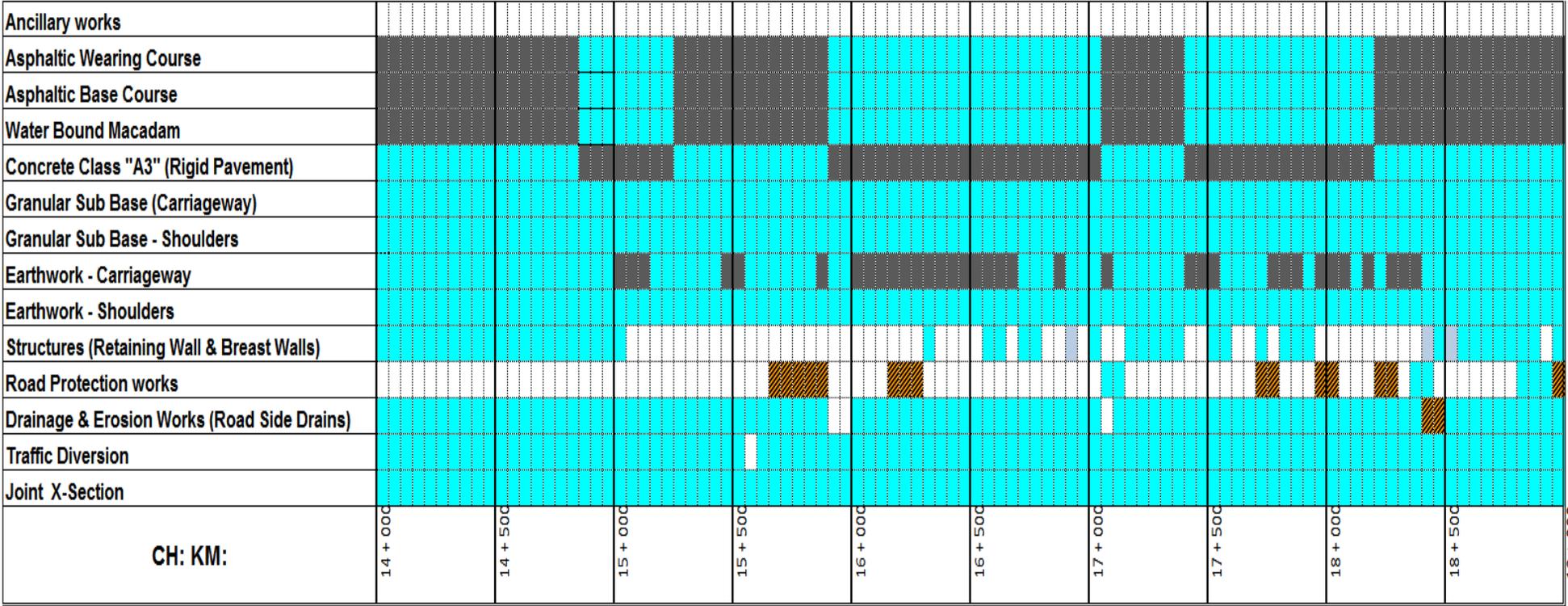
CUMULATIVE MILESTONE WISE PROGRESS STATUS (SECTION – III)

BILL NO	DESCRIPTION OF BILL	MILESTONE UNIT	NUMBER OF MILESTONES	AMOUNT AS PER MILESTONE (US \$)	TOTAL AMOUNT (US \$)	PROGRESS UP TO PREVIOUS MONTH			PROGRESS IN THIS MONTH			MILESTONE WISE COMULATIVE PROGRESS		
						MILESTONE ACHIEVED	AMOUNT (US \$)	PROGRESS %	MILESTONE ACHIEVED	AMOUNT (US \$)	PROGRESS %	MILESTONE ACHIEVED	AMOUNT (US \$)	PROGRESS %
4b	STRUCTURES (CULVERTS)													
NS	CONSTRUCTION OF NEW CULVERTS (No. of Span x Span Width x Height)													
	1 x 2 x 2.5 (Flexible Pavement)	No	1	33,442.00	33,442.00	1.00	33,442.00	100.00	-	-	-	1.00	33,442.00	100.00
	1 x 2 x 3 (Flexible Pavement)	No	1	44,315.00	44,315.00	1.00	44,315.00	100.00	-	-	-	1.00	44,315.00	100.00
	1 x 2 x 4.5 (Flexible Pavement)	No	1	83,501.00	83,501.00	1.00	83,501.00	100.00	-	-	-	1.00	83,501.00	100.00
	1 x 2 x 3 (Loop-1 Rigid Pavement)	No	2	40,667.00	81,334.00	2.00	81,334.00	100.00	-	-	-	2	81,334.00	100.00
	2 x 2 x 3 (Loop-1 Rigid Pavement)	No	1	52,479.00	52,479.00	1	52,479.00	100.00	-	-	-	1	52,479.00	100.00
NS	CONSTRUCTION OF NEW CULVERTS(REPLACEMENT OF OLD) (No. of Span x Span Width x Height)													
	1 x 2 x 2	No	1	27,031.00	27,031.00	1.00	27,031.00	100.00	-	-	-	1.00	27,031.00	100.00
	1 x 2 x 2.5	No	2	33,621.00	67,242.00	2	67,242.00	100.00	-	-	-	2.00	67,242.00	100.00
	1 x 2 x 2.5 (Rigid Pavement)	No	2	33,818.00	67,636.00	2	67,636.00	100.00	-	-	-	2.00	67,636.00	100.00
	1 x 2 x 2.5(15° skew)	No	1	34,445.00	34,445.00	1.00	34,445.00	100.00	-	-	-	1.00	34,445.00	100.00
	1 x 2 x 2.5(30° skew)	No	1	37,186.00	37,186.00	1.00	37,186.00	100.00	-	-	-	1.00	37,186.00	100.00
	1 x 2 x 3 (15° skew)	No	1	45,559.00	45,559.00	1	45,559.00	100.00	-	-	-	1.00	45,559.00	100.00
	1 x 2 x 3 (30° skew)	No	1	49,119.00	49,119.00	1	49,119.00	100.00	-	-	-	1.00	49,119.00	100.00
	1 x 2 x 2.5 (Loop-1)	No	3	30,901.00	92,703.00	3	92,703.00	100.00	-	-	-	3.00	92,703.00	100.00
	2 x 2 x 2.5	No	1	39,933.00	39,933.00	0.91	36,339.03	91.00	-	-	-	0.91	36,339.03	91.00
	Service Ducts	No	6	2,725.00	16,350.00	6.00	16,350.00	100.00	-	-	-	6.00	16,350.00	100.00
5a	DRAINAGE & EROSION WORKS (ROAD SIDE DRAIN)													
i	DRAIN TYPE D-3a (7.0 KM)	500m	14	18,007.00	252,098.00	13.44	242,014.08	96.00	-	-	-	13.44	242014.08	96.00
ii	DRAIN TYPE D-3b (0.225 KM)	JOB	1	16,610.00	16,610.00	0.78	12,955.80	78.00	-	-	-	0.78	12955.80	78.00
5b	ROAD PROTECTION WORKS													
i	STONE PITCHING (100M)	JOB	1	5,416.00	5,416.00	0.4	2,166.40	40.00	0.35	1,895.60	35.00	0.75	4062.00	75.00
ii	METAL GUARD RAIL (475M)	JOB	1	40,008.00	40,008.00	-	-	-	1.00	40,008.00	100.00	1	40008.00	100.00
iii	BARRIER (150M)	JOB	1	45,775.00	45,775.00	1	45,775.00	100.00	-	-	-	1	45,775.00	100.00

CUMULATIVE MILESTONE WISE PROGRESS STATUS (SECTION – III)

BILL NO	DESCRIPTION OF BILL	MILESTONE UNIT	NUMBER OF MILESTONES	AMOUNT AS PER MILESTONE (US \$)	TOTAL AMOUNT (US \$)	PROGRESS UPTO PREVIOUS MONTH			PROGRESS IN THIS MONTH			MILESTONE WISE COMULATIVE PROGRESS		
						MILESTONE ACHIEVED	AMOUNT (US \$)	PROGRESS %	MILESTONE ACHIEVED	AMOUNT (US \$)	PROGRESS %	MILESTONE ACHIEVED	AMOUNT (US \$)	PROGRESS %
6	ANCILLARY WORKS (TRAFFIC ROAD SIGNS, PAVEMENT MARKING / STUDS & KM POSTS)													
i	TRAFFIC SIGNS / KM POSTS	JOB	1	18,894.00	18,894.00	-	-	-	-	-	-	-	-	-
ii	PAVEMENT MARKINGS / STUDS	JOB	1	50,671.00	50,671.00	-	-	-	-	-	-	-	-	-
7	DIVERSION	KM	5	31,259.00	156,295.00	5	156,295.00	100.00				5	156,295.00	100.00
8	MISCELLANEOUS													
a	PLANTATION OF TREES (450 NOS)	JOB	1	10,514.00	10,514.00	0.5	5,257.00	50.00				0.5	5,257.00	50.00
b	SHIFTING OF UTILITIES (OPTIC FIBRE UPTO KM 19)					-	-	-	-	-	-	-	-	-
i	SHIFTING OF O.F.C FROM KM: 04 TO KM: 09	JOB	1	58,744.00	58,744.00	1	58,744.00	100.00				1	58,744.00	100.00
ii	SHIFTING OF O.F.C FROM KM: 09 TO KM: 14	JOB	1	58,744.00	58,744.00	1	58,745.00	100.00				1	58,744.00	100.00
iii	SHIFTING OF O.F.C FROM KM: 14 TO KM: 19	JOB	1	58,744.00	58,744.00	0.5	58,744.00	50.00	0.50	29,372.00	50.00	1	58,744.00	100.00
c	RELOCATION OF ELECTRIC POLES (UPTO KM 30)													
i	RELOCATION OF 45 NO OF ELECTRIC POLES (KM: 09 TO KM:26)	JOB	1	57,708.00	57,708.00	1	57,708.00	100.00				1	57,708.00	100.00
ii	RELOCATION OF 45 NO OF ELECTRIC POLES (KM: 26 TO KM:32+325)	JOB	1	57,708.00	57,708.00	0.49	28,276.92	49.00	0.51	29,431.08	51.00	1	57,708.00	100.00
iii	RELOCATION OF 45 NO OF ELECTRIC POLES (KM:32+325 TO KM: 35+010)	JOB	1	57,700.00	57,700.00	-	-	-	-	-	-	-	-	-
d	RELOCATION OF FC CHECK POSTS & RELOCATION OF SHOP AT KM 14+100													
i	RELOCATION OF FC CHECK POSTS BLOCK - 1 (454 SQ-M)	JOB	1	80,620.00	80,620.00	0.35	28,217.00	35.00	0.25	20,155.00	25.00	0.60	48,372.00	60.00
ii	RELOCATION OF FC CHECK POSTS BLOCK 2 (298 SQ M)	JOB	1	52,918.00	52,918.00	1	52,918.00	100.00				1	52,918.00	100.00
iii	RELOCATION OF FC CHECK POSTS BLOCK 3 (298 SQ M)	JOB	1	52,918.00	52,918.00	-	-	-	0.20	10,583.60	20.00	0.2	10,583.60	20.00
iv	RELOCATION OF SHOP AT KM 14+100 (20 SQ-M)	JOB	1	3,552.00	3,552.00	0.6	2,131.20	60.00	0.40	1,420.80	5,046,681.60	1	3,552.00	100.00
	TOTAL				9,512,705.55		8,959,923	94.19					9,207,803	97

5.2 PAVEMENT CONSTRUCTION PHYSICAL PROGRESS STATUS (SECTION – III)



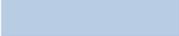
LEGEND

- WORKS COMPLETED IN FEB 2015
- WORKS COMPLETED IN PREVIOUS MONTHS
- PARTIAL COMPLETION
- SINGLE LANE TRAFFIC MAINTAINED
- ITEM NOT REQUIRED

PAVEMENT CONSTRUCTION PHYSICAL PROGRESS STATUS (Loop-I)

Ancillary works			
Asphaltic Wearing Course			
Asphaltic Base Course			
Water Bound Macadam			
Concrete Class "A3" (Rigid Pavement)			
Granular Sub Base (Carriageway)			
Granular Sub Base - Shoulders			
Earthwork - Carriageway			
Earthwork - Shoulders			
Structures (Retaining Wall & Breast Walls)			
Road Protection works			
Drainage & Erosion Works (Road Side Drains)			
Traffic Diversion			
Joint X-Section			
CH: KM:	0 + 000	0 + 500	0 + 922

LEGEND

	WORKS COMPLETED IN FEB 2015		SINGLE LANE TRAFFIC MAINTAINED
	WORKS COMPLETED IN PREVIOUS MONTHS		ITEM NOT REQUIRED
	PARTIAL COMPLETION		

5.3 CULVERTS PHYSICAL PROGRESS STATUS (SECTION – III)

RCC Railing	U/S side																							
	D/S side																							
Roll Pointing	Abt No1																							
	Abt No2																							
Flooring/Cut-off wall/ Riprap	B/W Abts																							
RCC Slab/Precast Pannels																								
Bed plate/Curtain wall	Abt No1																							
	Abt No2																							
Back filling	Abt No1																							
	Abt No2																							
	B/W Abts																							
Stone Masonry (Wing Walls)	U/S side																							
	D/S side																							
Stone Masonry (Abutments/ Pier)	Abt No1																							
	Abt No2																							
Lean Concrete	Abt No1																							
	Abt No2																							
Structural Excavation	Abt No1																							
	Abt No2																							
Dismantling of Existing Structure																								
Pavement Type	Rigid/ Flex	Rigid	Rigid	Rigid	Rigid	Rigid	Rigid	Rigid		Rigid	Rigid	Flexible	Flexible	Flexible	Flexible	Flexible	Flexible	Flexible	Flexible	Flexible	Flexible	Flexible	Flexible	
Construction Sequence(FW / HW)		FW	FW	FW	FW	FW	FW	FW	HW RHS	FW	FW	FW	FW	FW	FW	FW	HW LHS	HW RHS	FW	FW	HW LHS	HW RHS	HW LHS	HW RHS
Size of Culvert (No. of Span*Width*Height)		2*2*2.5	2*2*3	1*2*2.5	1*2*3	1*2*2.5	1*2*3	1*2*2.5	1*2*2	1*2*2.5	1*2*2.5	1*2*2.5	1*2*3	1*2*2.5	1*2*2.5	1*2*2.5	1*2*4.5	1*2*3	1*2*3	1*2*3	1*2*3	1*2*2.5	1*2*2.5	
KM as per site						14+333			15+139	15+647	15+795	16+316	16+618	16+740	17+010	17+435	17+562	17+666	17+901	17+901	18+146	18+146	18+146	
KM as in Drawing		14+250	14+250 (Loop)	14+300	14+300 (Loop)	14+431	14+431 (Loop)	14+600	15+138	15+640	15+795	16+313	16+625	16+750	16+996	17+400	17+561	17+665	17+909 (Skew)	17+909 (Skew)	18+142	18+142	18+142	

 ACTIVITIES COMPLETED IN PREVIOUS MONTHS

 ACTIVITIES NOT REQUIRED

BRIDGES

6.1 BRIDGE (KM: 09+560) CUMULATIVE MILESTONE WISE PROGRESS STATUS

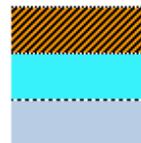
S No	Description	Unit Cost (\$)	Progress upto Previous Month			Progress in this Month			Cumulative Progress		
			Milestone Value	Milestone Cost (\$)	Progress %	Milestone Value	Milestone Cost (\$)	Progress %	Milestone Value	Milestone Cost (\$)	Progress %
1	Pile Load Test	19,330	1	19,330	100	-	-	-	1	19,330	100
	Construction of Piles	290,674	1	290,674	100	-	-	-	1	290,674	100
2	Pile Caps	108,538	1	108,538	100	-	-	-	1	108,538	100
	Abut walls, wing walls, pier shafts & transoms	169,925	1	169,925	100	-	-	-	1	169,925	100
3	Girders	242,915	1	242,915	100	-	-	-	1	242,915	100
	Launching of Girders	15,169	1	15,169	100	-	-	-	1	15,169	100
4	Deck Slabs ,Diaphragms, Barrier & Railing	277,403	1	277,403	100	-	-	-	1	277,403	100
5	Surface course & Pavement	14,400	1	14,400	100	-	-	-	1	14,400	100
	Structural Excavation and Backfill	19,361	1	19,361	100	-	-	-	1	19,361	100
	Approach Slabs	14,152	1	14,152	100	-	-	-	1	14,152	100
	Drainage & Erosion works including 45.30M Stone Masonry Retaining Walls & Gabion	52,425	0.64	33,552	64	0.36	18,873	36	1	52,425	100
	Ancillary Works including (i) 02 Number Road Sign Category -3a. (ii) 195M Pavement marking in Reflective TP Paint for Lines of 15 cm width (iii) 26 number ReflectORIZED pavement Studs Raised Profile Type - (Double)	1,673		-	-	-	-	-		-	-
		1,225,965		1,205,419	98.32		18,873	2		1,224,292	99.86

6.2 BRIDGE (KM: 09+560) PHYSICAL PROGRESS STATUS

BRIDGES	DESCRIPTION	TOTAL	COMPLETED	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	REMARKS
KM: 09+560														
BRIDGE #2 (KM: 09+560)	Piles	36	36											
	Pile Caps	4	4											
	Abutments/ Piers	4	4											
	Transom/ Abutment Seats	4	4											
	Girder Casting	15	15											
	Girder Prestressing	15	15											
	Girder Launching	15	15											
	Deck Slab / Barrier	3	3											
	Expansion Joint	4	4											
	Approach Slab	2	2											
														
				<p>WORKS COMPLETED IN FEB 2015</p> <p>WORKS COMPLETED IN PREVIOUS MONTHS</p> <p>PARTIAL COMPLETION</p>										

6.3 BRIDGE (KM: 18+475) PHYSICAL PROGRESS STATUS

BRIDGES	DESCRIPTION	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	REMARKS
KM: 18+475												
BRIDGE #5 (KM:18+475)	Dismantling of Existing structure											
	Structural Excavation for Slab on Ground											
	Lean Concrete											
	Foundation Slab & cutoff wall concrete											
	Abutment walls construction											
	Abutment seat construction											
	Curtain wall and Approach slab seat											
	RCC Deck slab											
	Protection Works											
	Backfilling											
	NJ Barrier											
	Footpath Paving											
	Bridge Railing											
	Approach slabs											
Ancillary Works												



WORKS COMPLETED IN FEB 2015

WORKS COMPLETED IN PREVIOUS MONTHS

PARTIAL COMPLETION

6.4 BRIDGE (KM: 23+750) CUMULATIVE MILESTONE WISE PROGRESS STATUS

S/ No	Description	Unit Cost (\$)	Progress upto Previous Month			Progress in this Month			Cumulative Progress		
			Milestone Value	Milestone Cost (\$)	Progress %	Milestone Value	Milestone Cost (\$)	Progress %	Milestone Value	Milestone Cost (\$)	Progress %
1	Pile Load Test	19,330	1	19,330	100	-	-	-	1	19,330	100
	Construction of Piles	309,308	1	309,308	100	-	-	-	1	309,308	100
2	Pile Caps	106,579	1	106,579	100	-	-	-	1	106,579	100
	Abut walls, wing walls, pier shafts & transoms	90,180	1	90,180	100	-	-	-	1	90,180	100
3	Girders	187,363	1	187,363	100	-	-	-	1	187,363	100
	Launching of Girders	11,914	1	11,914	100	-	-	-	1	11,914	100
4	Deck Slabs ,Diaphragms, Barrier & Railing	254,785	0.9	229,307	90	-	-	-	0.9	229,307	90
5	Surface course & Pavement	13,125		-	-	-	-	-		-	-
	Structural Excavation and Backfill	57,939	0.9	52,145	90	-	-	-	0.9	52,145	90
	Approach Slabs	17,235		-	-	-	-	-		-	-
	Drainage & Erosion works including 45.30M Stone Masonry Retaining Walls & Gabion protection works	322,224	0.2	64,445	20	0.00	1,450	0	0.20	65,895	20
	Ancillary Works including (i) 02 Number Road Sign Category -3a. (ii) 195M Pavement marking in Reflective TP Paint for Lines of 15 cm width (iii) 26 number Reflectorized pavement Studs Raised Profile Type - (Double)	2,320		-	-	-	-	-		-	-
		1,392,302		1,070,570	76.89	-	1,450	0		1,072,020	77

6.5 BRIDGE (KM: 23+750) PHYSICAL PROGRESS STATUS

BRIDGES	DESCRIPTION	TOTAL	COMPLETED	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	REMARKS
KM: 23+750														
BRIDGE #10 (KM:23+750)	Piles	30	30											
	Pile Caps	3	3											
	Abutments/ Piers	3	3											
	Transom/ Abutment Seats	3	3											
	Girder Casting	10	10											
	Girder Prestressing	10	10											
	Girder Launching	10	10											
	Deck Slab / Barrier	2	2											
	Expansion Joint	3												
	Approach Slab	2	2											



WORKS COMPLETED IN FEB 2015

WORKS COMPLETED IN PREVIOUS MONTHS

PARTIAL COMPLETION

6.6 BRIDGE (KM: 27+250) PHYSICAL PROGRESS STATUS

BRIDGES	DESCRIPTION	TOTAL	COMPLETED	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	REMARKS	
				KM: 27+250											
BRIDGE#12 (KM:27+250)	Piles	36	36	[100% Complete]											
	Pile Caps	6	6	[100% Complete]					[Works Completed in Feb 2015]						
	Abutments/ Piers	6	3	[100% Complete]			[Works Completed in Feb 2015]								
	Transom/ Abutment Seats	6	1	[Works Completed in Feb 2015]											
	Pre cast Panels Casting	65	65	[100% Complete]											
	Panels Launching	65													
	Deck Slab / Barrier	5													
	Expansion Joint	6													
	Approach Slab	2													



WORKS COMPLETED IN FEB 2015

WORKS COMPLETED IN PREVIOUS MONTHS

PARTIAL COMPLETION

6.7 MCC (KM: 11+190)

CUMULATIVE MILESTONE WISE PROGRESS STATUS

S No	Description	Unit Cost (\$)	Progress upto Previous Month			Progress in this Month			Cumulative Progress		
			Milestone Value	Milestone Cost (\$)	Progress %	Milestone Value	Milestone Cost (\$)	Progress %	Milestone Value	Milestone Cost (\$)	Progress %
1	Bottom Slab & Cutt-off wall	131,970	1	131,970	100	-	-	-	1	131,970	100
	Box Walls	86,096	1	86,096	100	-	-	-	1	86,096	100
2	Top Slab	150,422	1	150,422	100	-	-	-	1	150,422	100
	Wing Walls & Apron	149,336	1	149,336	100	-	-	-	1	149,336	100
3	Approach Slabs	14,537	1	14,537	100	-	-	-	1	14,537	100
	Stone Pitching 60 meter length	6,671	-	-	-	1	6,671	100	1	6,671	100
4	Surface course & Pavement	11,293	1	11,293	100	-	-	-	1	11,293	100
	Drainage & Erosion works including 51.0M stone masonry R/Walls including Gabion protection works	52,803	0.95	50,163	95	0.05	2,640	5	1	52,803	100
	Ancillary Works including (i) 02 Number Road Sign Category - 3a. (ii) 142M Pavement marking in Reflective TP Paint for Lines of 15 cm width (iii) 12 Number ReflectORIZED pavement Stud Raised Profile Type - (Double)	1,423	-	-	-	-	-	-	-	-	-
		604,551		593,817	98.22		9,311	1.54		603,128	99.76

6.8 MCC (KM: 22+925) CUMULATIVE MILESTONE WISE PROGRESS STATUS

S No	Description	Unit Cost (\$)	Progress upto Previous Month			Progress in this Month			Cumulative Progress		
			Milestone Value	Milestone Cost (\$)	Progress %	Milestone Value	Milestone Cost (\$)	Progress %	Milestone Value	Milestone Cost (\$)	Progress %
1	Bottom Slab & Cutt-off wall	113,545	1	113,545	100	-	-	-	1	113,545	100
	Box Walls	79,827	1	79,827	100	-	-	-	1	79,827	100
2	Top Slab	97,807	1	97,807	100	-	-	-	1	97,807	100
	Wing Walls & Apron	96,200	1	96,200	100	-	-	-	1	96,200	100
3	Approach Slabs	15,008	1	15,008	100	-	-	-	1	15,008	100
	Stone Pitching 32.80 meter length	8,231		-	-	-	-	-		-	-
4	Surface course & Pavement	8,628	1	8,628	100	-	-	-	1	8,628	100
	Drainage & Erosion works including 51.0M stone masonry R/Walls including Gabion protection works	25,166	0.5	12,583	50	0.25	6,292	25	0.75	18,875	75
	Ancillary Works including (i) 02 Number Road Sign Category - 3a. (ii) 142M Pavement marking in Reflective TP Paint for Lines of 15 cm width (iii) 12 Number Reflectorized pavement Stud Raised Profile Type - (Double)	1,303		-	-	-	-	-		-	-
		445,715		423,598	95.04		6,292	1.41		429,890	96.45

6.9 MULTICELL CULVERT PHYSICAL PROGRESS STATUS

Gabion wall Construction	U/S Side					
	D/S Side					
Retaining wall Construction	Near end					
	Far end					
RCC Railing	Near end					
	Far end					
Approach Slab Construction	Near end					
	Far end					
Backfilling	Near end					
	Far end					
RCC Top Slab	HW Near End					
	HW Far End					
RCC Wing Walls	U/S Side					
	D/S Side					
Concrete Cutoff wall & Apron Construction	U/S Side					
	D/S Side					
RCC Walls (Box only)	outer Walls					
	Inner Walls					
RCC Bottom Slab	FW					
Lean Concrete	FW					
Structural Excavation	FW					
Dismantling of Existing Structure	Causeway					
Pavement Type	Rigid/Flex	Flexible	Flexible			
Construction Sequence(FW / HW)	(FW/HW)	FW	FW			
Size of Culvert	Nos*width*Height	15*3*3 15-cell	10*3*3 10-cell			
KM as per site	KM	11+190	22+925			
KM as in Drawing	KM	11+190	22+926			

	ACTIVITIES COMPLETED IN FEB 2015
	ACTIVITIES COMPLETED IN PREVIOUS MONTHS
	ACTIVITIES NOT REQUIRED
	ACTIVITIES IN PROGRESS

MATERIAL TESTING REPORTS

7.1 SUMMARY OF FIELD DENSITY TESTS

Sub Grade Field Density Tests Report.												
S.No	Date	Location / (KM)	Description	Station (KM)	MDD (g/cc)	OMC (%)	Adj.MDD (g/cc)	Field M.C (%)	Field Density	Achieved Compaction	Required Compaction	Remarks
1	4-Feb-2015	36+700 ~ 36+800 F/W	Sub Grade Top	36+740	2.211	8.0	2.225	5.4	2.143	96.3	95	Pass
2	7-Feb-2015	31+700 ~ 31+775 F/W	Sub Grade Top	31+750	2.279	6.5	2.273	4.9	2.178	95.8	95	Pass
3	11-Feb-2015	23+887 ~ 24+000 F/W	Sub Grade Top	23+950	2.355	5.9	2.361	4.8	2.27	96.1	95	Pass
4	19-Feb-2015	29+300 ~ 29+450 F/W	Sub Grade Top	29+400	2.346	5.3	2.369	4.9	2.272	95.9	95	Pass
Sub Base Field Density Tests Report.												
S.No	Date	Location / (KM)	Description	Station (KM)	MDD (g/cc)	OMC (%)	Adj.MDD (g/cc)	M.C (%)	Field Density	Achieved Compaction	Required Compaction	Remarks
1	4-Feb-2015	36+925 ~ 36+975 F/W	Sub Base 1st	36+950 L/S	2.376	5.4	2.38	5.0	2.349	98.7	98	Pass
2	10-Feb-2015	23+750 ~ 23+826 F/W	Sub Base 1st	23+795	2.383	5.6	2.386	5.1	2.354	98.7	98	Pass
3	12-Feb-2015	31+775 ~ 31+850 F/W	Sub Base 1st	31+825	2.371	5.1	2.371	4.6	2.348	99.0	98	Pass
4	12-Feb-2015	41+625 ~ 41+700 F/W	Sub Base 1st	41+680	2.308	6.0	2.32	5.0	2.288	98.6	98	Pass
5	18-Feb-2015	31+800 ~ 31+850 F/W	Sub Base Top	31+835	2.371	5.1	2.374	4.5	2.331	98.2	98	Pass
Water Bound Macadam Field Density Tests Report.												
S.No	Date	Location / (KM)	Description	Station (KM)	MDD (g/cc)	OMC (%)	Adj.MDD (g/cc)	M.C (%)	Field Density	Achieved Compaction	Required Compaction	Remarks
1	2-Feb-2015	27+900 ~ 28+000 F/W	WBM	27+960 L/S	2.394	5.2	2.503	3.1	2.512	100.4	100	Pass

7.2 SUMMARY OF EARTH WORK QUALITY TEST

Sub Base Material Quality Tests for the Month of February 2015																		
S.No	Location (KM)	Description	Sieves Analysis							MDD (g/cc)	OMC %	L.A %	Sand Equivalent (%)	CBR % at		Specific gravity	Plastic Index	Remarks
			2"	1"	3/8"	#4	#10	#40	#200					0.1"	0.2"			
1	36+000 ~ 37+000	Sub Base	100	76.1	46.8	37.6	29.1	18.8	10.3	2.376	5.4	26.8	38.3	-	73	2.707	N.P	
2	41+000 ~ 42+000	Sub Base	100	85.4	52.7	46.6	29.7	12.2	5.8	2.308	6.1	32.8	35	-	77	2.730	N.P	
Specification Limits for Sub Base			100	55~85	40~70	30~60	20~50	10~30	5~15	-	-	50% Max	25% Min	50% Min		-	6 Max	
Total Nos. of Tests			2							2	2	2	2	-	2	2	2	
Earth fill & Sub Grade Material Quality Tests for the Month of February 2015																		
S.No	Location (KM)	Description	Sieves Analysis							MDD (g/cc)	OMC %	L.A %	Sand Equivalent (%)	CBR % at		Specific gravity	Plastic Index	Remarks
			2"	1"	3/8"	#4	#10	#40	#200					0.1"	0.2"			
1	36+000 ~ 37+000	Earth fill & Sub Grade	100	95.2	72.9	57	37.8	18.5	10.7	2.211	8.1	-	-	-	22	-	4.43	
Specification Limits for Sub Base			100	55~85	40~70	30~60	20~50	10~30	5~15	-	-	50% Max	25% Min	30% Min		-	10 Max	
Total Nos. of Tests			1							1	1	-	-	-	1	-	1	

7.3 ASPHALTIC BASE COURSE QUALITY TESTS REPORT

<u>Specific Gravity A.C (Gb) 1.030</u>					<u>Combined Specific Gravity of Aggregate (Gsb) 2.766</u>							<u>Effective Specific Gravity of Aggregate (Gse) 2.810</u>							
S. No.	Paving Date	Location / R.D	Layer No.	% A.C By Wt of Mix (Pb)	Sieves analysis							Bulk Sp. Gr. (Gmb)	Maximum Sp.Gravity (G _{mm})	% Air Voids (V _a)	VMA (%)	VFA (%)	Stability (Kg)	Los of Stability (%)	Flow (0.01") (0.25mm)
					2"	1½"	3/4"	#4	#8	#50	#200								
1	23-Feb-15	19150 ~ 19+387 F/W	1st Layer	3.76	100	100	68.9	33.4	24.1	5.6	3.6	2.484	2.625	5.4	13.58	60.4	1306	16.5	11.2
2	27-Feb-15	19+150 ~ 19+387 F/W	2nd Layer	3.6	100	100	63.5	30	20.4	6.8	4.1	2.519	2.661	5.0	12.31	59.6	1331	17.8	9.3
JMF LIMITS FOR ASPHALTIC BASE COURSE				3.1 ~ 3.7	100	93~100	60~74	30 ~ 38	18 ~ 26	4.3~12.3	3 ~ 5	-	-	4 ~ 8	11.5 % Min	55 ~ 65	1000 Kg Min	25% Max	8 ~ 14 at (0.01")

7.4 ASPHALTIC WEARING COURSE QUALITY TESTS REPORT

<u>Specific Gravity A.C (Gb) 1.030</u>				<u>Combined Specific Gravity of Aggregate (Gsb) 2.744</u>							<u>Effective Specific Gravity of Aggregate (Gse) 2.785</u>							
S. No	Paving Date	Location / R.D	% A.C By Wt of Mix Pb	Sieves analysis							Bulk Sp. Gr. (Gmb)	Maximum Sp.Gravity (G _{mm})	% Air Voids (V _a)	VMA (%)	VFA (%)	Stability (Kg)	Los of Stability (%)	Flow (0.01") (0.25mm)
				1"	3/4"	3/8"	#4	#8	#50	#200								
1	31-Jan-15	28+410 ~ 28+600 F/W	4.2	100	91.4	67.1	42.3	25.1	7.1	5.5	2.406	2.592	7.1	16.0	55.4	1401	14.8	11.7
JMF LIMITS FOR ASPHALTIC WEARING COURSE			3.6 ~ 4.2	100	87 ~ 99	56~70	39 ~ 47	24 ~ 32	6 ~ 14	3.9~5.9	-	-	4 ~ 7	13 % Min	65 ~ 75	1000 Kg Min	20 % Max	8 ~ 14 at (0.01")

7.5 AGGREGATE QUALITY TESTS FOR CONCRETE

S.No	Date	Description	Aggregate Size	Sieve Analysis						L.A %	Sand Equivalent	Specific Gravity	Soundness	Remarks			
				2"	1½"	1"	¾"	½"	⅜"						#4	#8	
1	25-Feb-2015	KM : 16 Crush Plant Stock Pile Aggregates Quality tests for (A-3) Class Concrete	MATERIAL USED		PERCENT PASSING						-	-	-	-			
			1½" Down Aggregate Passing (%)		100	100	40.2	3.6	1.0	0.7	0		-	-	-	-	
			1" Down Aggregate Passing (%)		100	100	100	81	1.0	0.3	0.0		-	-	-	-	
			¾" Down Aggregate Passing (%)		100	100	100	100	95.2	75.9	13.9						
			COMBINED GRADATION OF BLEND														
			SIEVE SIZE		2"	1½"	1"	¾"	½"	⅜"	#4						
			MATERIAL USED		%USED	PERCENT PASSING											
			1½" Down Aggregate		48	48	48.0	19.3	1.7	0.5	0.336	0	-	-	-	-	-
			1" Down Aggregate		22	22	22	22	17.8	0.2	0.1	0.0	-	-	-	-	-
			¾" Down Aggregate		30	30	30	30	30.0	28.6	22.8	4.2	-	-	-	-	-
			COMBINED GRADATION			100	100.0	71.3	49.5	29.3	23.2	4.2	-	-	-	-	-
SPECIFIED LIMITS			100	95 ~ 100	-	35 ~ 70	-	10 ~ 30	0 ~ 5	-	-	-	-	-			
S.No	Date	Description	Aggregate Size	Sieve Analysis						L.A %	Sand Equivalent	Specific Gravity	Soundness	Remarks			
2	25-Feb-2015	KM : 16 Crush Plant Stock Pile Aggregates Quality tests for (A-1) Class Concrete	MATERIAL USED		PERCENT PASSING												
			1" Down Aggregate Passing (%)		100	100	100	81	1.0	0.3	0						
			¾" Down Aggregate Passing (%)		100	100	100	100	95.2	75.9	13.9						
			COMBINED GRADATION OF BLEND														
			SIEVE SIZE		2"	1½"	1"	¾"	½"	⅜"	#4						
			MATERIAL USED		%USED	PERCENT PASSING											
			1" Down Aggregate		45	45	45.0	45.0	36.5	0.5	0.135	0					
			¾" Down Aggregate		55	55	55	55	55.0	52.4	41.7	7.6					
			COMBINED GRADATION			100	100.0	100.0	91.5	52.8	41.9	7.6					
SPECIFIED LIMITS					100	90 ~ 100	-	20 ~ 55	0 ~ 10								

AGGREGATE QUALITY TESTS FOR CONCRETE

S.No	Date	Description	Aggregate Size	Sieve Analysis								LA %	Sand Equivalent	Specific Gravity	Soundness	Remarks		
				2"	1½"	1"	¾"	½"	⅜"	#4	#8							
3	25-Feb-2015	KM : 16 Crush Plant Stock Pile Aggregates Quality tests for Class "B" Concrete	MATERIAL USED		PERCENT PASSING													
			1½" Down Aggregate Passing (%)	100	100	40.2	3.6	1.0	0.7	0								
			1" Down Aggregate Passing (%)	100	100	100	81	1.0	0.3	0								
			¾" Down Aggregate Passing (%)	100	100	100	100	95.2	75.9	13.9								
			COMBINED GRADATION OF BLEND															
			SIEVE SIZE		2"	1½"	1"	¾"	½"	⅜"	#4							
			MATERIAL USED		%USED	PERCENT PASSING												
			1½" Down Aggregate	65	65	65.0	26.1	2.3	0.7	0.455	0							
			1" Down Aggregate	20	20	20	20	16.2	0.2	0.1	0.0							
			¾" Down Aggregate	15	15	15	15	15.0	14.3	11.4	2.1							
			COMBINED GRADATION		100	100.0	61.1	33.5	15.1	11.9	2.1							
			SPECIFIED LIMITS		95 ~ 100	-	35 ~ 70	-	10 ~ 30	-	0 ~ 5							
S.No	Date	Description	Location	Sieve Analysis								FM	Sand Equivalent	Specific Gravity	Soundness	Remarks		
				¾"	#4	#8	#16	#30	#50	#100	#200							
4	25-Feb-2015	Concrete Sand	Concrete Plant Stock Pile	100	96.4	86.4	68	45.2	17.1	5.1	2.5	2.8	-	-	-			
				100	95~100	-	45~85	-	10~30	2~10	0 ~ 3	2.3~3.1	75%	-	10% Max	Spec. Limits		

7.6 SUMMARY OF CONCRETE COMPRESSIVE STRENGTH

Description	Casting date	Testing date	Age/Days	Load in (KN)	Length (cm)	Dia (cm)	Area (cm ²)	Load in Kg	Strength (Kg/cm ²)			Remarks
									Achieved	Average	Required	
Concrete Class "A-3" Rigid Pavement 26+710.4 ~ 26+733.2 L/S 0+910.5 ~ 0+936 R/S Lope # 2	13-Jan-2015	10-Feb-2015	28 Days	604	30.48	15.24	182.4	61590	337.7	347.9	280	OK
				618	30.48			63017	345.5			
				645	30.48			65771	360.6			
Concrete Class "A-3" Rigid Pavement 28+201.4 ~ 28+224.2 R/S 28+361.0 ~ 28+383.8 L/S	8-Feb-2015	15-Feb-2015	7 Days	490	30.48	15.24	182.4	49965	273.9	269.6	210	OK
				470	30.48			47926	262.8			
				487	30.48			49659	272.3			
Concrete Class "A-3" Rigid Pavement 26+710.4 ~ 26+733.2 L/S 0+910.5 ~ 0+936 R/S Lope # 2	19-Jan-2015	16-Feb-2015	28 Days	626	30.48	15.24	182.4	63833	350.0	353.1	280	OK
				630	30.48			64241	352.2			
				639	30.48			65159	357.2			
Concrete Class "A-3" Pile #1 Pier #1 Bridge #11 (27+000)	21-Jan-2015	18-Feb-2015	28 Days	641	30.48	15.24	182.4	65363	358.3	341.2	280	OK
				590	30.48			60162	329.8			
				600	30.48			61182	335.4			
Concrete Class "A-3" Rigid Pavement 0+547.5 ~ 0+580.5 R/S Lope # II	21-Jan-2015	18-Feb-2015	28 Days	633	30.48	15.24	182.4	64547	353.9	344.2	280	OK
				610	30.48			62202	341.0			
				604	30.48			61590	337.7			
Concrete Class "A-3" Rigid Pavement	12-Feb-2015	19-Feb-2015	7 Days	514	30.48	15.24	182.4	52413	287.3	282.1	210	OK
				490	30.48			49965	273.9			
				510	30.48			52005	285.1			
Concrete Class "A-3" Rigid Pavement 1.138.7 ~ 1+155.2 R/S 1+039.7 ~ 1+072.7 R/S Lope # II	17-Feb-2015	24-Feb-2015	7 Days	544	30.48	15.24	182.4	55472	304.1	302.3	210	OK
				563	30.48			57409	314.7			
				515	30.48			52515	287.9			

7.7 SUMMARY OF ASPHALTIC WEARING COURSE CORE COMPACTION

S. No	CORE NO.	DATE	COVERED AREA	STATION	OFFSET FROM C/L	WT. IN AIR(g)	WT. IN WATER(g)	SSD. WT (g)	VOLUME (cc)	DENSITY (g/cc)	LAB.DENSITY (GMB)	ACHIEVED COMPACTION	REQUIRED COMPACTION	REMARKS
1	C-1	4-Feb-2015	27+420 ~ 27+520	27+425	2.2m R/S	967	569.2	975.6	406.4	2.379	2.454	97.0	97	OK
2	C-2			27+510	5.1m L/S	912.5	535.9	917.3	381.4	2.393	2.454	97.5	97	OK
3	C-3		27+520 ~ 27+620	27+560	5.2m R/S	716.4	425.5	723.0	297.5	2.408	2.454	98.1	97	OK
4	C-4			27+590	4.8m L/S	1019.9	598.7	1024.9	426.2	2.393	2.454	97.5	97	OK
5	C-5		27+620 ~ 27+720	27+645	1.7m R/S	1245.1	728.7	1248.6	519.9	2.395	2.454	97.6	97	OK
6	C-6			27+700	5.2m L/S	990.1	581.7	997.5	415.8	2.381	2.454	97.0	97	OK
7	C-7		27+720 ~ 27+820	27+750	3.1m R/S	707.1	417.1	711.7	294.6	2.400	2.454	97.8	97	OK
8	C-8			27+795	4.7m L/S	809.8	474.6	813.8	339.2	2.387	2.454	97.3	97	OK
9	C-9		27+820 ~ 27+885	27+830	5.2m R/S	903.5	532.2	910.5	378.3	2.388	2.454	97.3	97	OK
1	C-1	4-Feb-2015	28+410 ~ 28+510	28+430	3.1m R/S	833.2	483.8	838.9	355.1	2.346	2.406	97.5	97	OK
2	C-2			28+470	5.0m L/S	1139.8	664	1144.5	480.5	2.372	2.406	98.6	97	OK
3	C-3		28+510 ~ 28+610	28+525	2.2m R/S	886.0	516.7	895.1	378.4	2.341	2.406	97.3	97	OK
4	C-4			28+580	4.1m L/S	947.3	557	952.7	395.7	2.394	2.406	99.5	97	OK
5	C-5		28+610 ~ 28+710	28+650	4.2m R/S	859.1	505.1	868.6	363.5	2.363	2.406	98.2	97	OK
6	C-6			28+700	5.0m L/S	761	447	765.8	318.8	2.387	2.406	99.2	97	OK
7	C-7		28+710 ~ 28+810	28+740	2.4m R/S	896.7	528.4	902.2	373.8	2.399	2.406	99.7	97	OK
8	C-8			28+800	1.8m L/S	813.2	471.6	817.8	346.2	2.349	2.406	97.6	97	OK
9	C-9		28+810 ~ 28+910	28+855	3.5m R/S	753.7	446.2	760.6	314.4	2.397	2.406	99.6	97	OK
10	C-10			28+900	5.5m R/S	955.5	558.7	961.8	403.1	2.370	2.406	98.5	97	OK
11	C-11		28+910 ~ 29+010	28+945	3.2m R/S	960.0	561.5	964	402.5	2.385	2.406	99.1	97	OK
12				28+900	1.1m R/S	642.3	373.8	647	273.2	2.351	2.406	97.7	97	OK
1	C-1	4-Feb-2015	29+100 ~ 29+200	29+110	2.6m L/S	1081	636.3	1090.1	453.8	2.382	2.455	97.0	97	OK
2	C-2			29+180	5.2m R/S	926.5	550.7	936.5	385.8	2.402	2.455	97.8	97	OK
3	C-3		29+200 ~ 29+240	29+230	1.1m L/S	975.5	575.6	981.5	405.9	2.403	2.455	97.9	97	OK

SUMMARY OF ASPHALTIC WEARING COURSE CORE COMPACTION

S. No	CORE NO.	DATE	COVERED AREA	STATION	OFFSET FROM C/L	WT. IN AIR(g)	WT. IN WATER(g)	SSD. WT (g)	VOLUME (cc)	DENSITY (g/cc)	LAB.DENSITY (GMB)	ACHIEVED COMPACTION	REQUIRED COMPACTION	REMARKS
1	C-1	5-Feb-2015	22+140 ~ 22+240	22+157	2.3m R/S	967	571	974	403	2.400	2.463	97.4	97	OK
2	C-2			22+208	4.8m L/S	921	543	928	385	2.392	2.463	97.1	97	OK
3	C-3		22+240 ~ 22+340	22+275	5.7m R/S	949.0	558	955.0	397	2.390	2.463	97.1	97	OK
4	C-4			22+315	1.9m L/S	1127	680	1143	463	2.434	2.463	98.8	97	OK
5	C-5		22+340 ~ 22+440	22+368	2.2m R/S	833	488	837	349	2.387	2.463	96.9	97	OK
6	C-6			22+405	4.5m L/S	1025	607	1032	425	2.412	2.463	97.9	97	OK
7	C-7		22+440 ~ 22+540	22+480	6.0m R/S	1010	598	1019	421.0	2.399	2.463	97.4	97	OK
8	C-8			22+530	1.8m L/S	1025	605	1033	428	2.395	2.463	97.2	97	OK
9	C-9		22+540 ~ 22+640	22+585	5.1m R/S	990	586	996	410	2.415	2.463	98.0	97	OK
10	C-10			22+630	4.6m L/S	875	524	884	360.0	2.431	2.463	98.7	97	OK
11	C-11		22+640 ~ 22+740	22+675	5.5m R/S	1017.0	607	1026.0	419	2.427	2.463	98.5	97	OK
12	C-12			22+710	2.2m L/S	1109	657	1117	460	2.411	2.463	97.9	97	OK
13	C-13		22+740 ~ 22+840	22+750	1.4m R/S	912	545	922	377	2.419	2.463	98.2	97	OK
14	C-14			22+802	5.2m L/S	958	571	969	398	2.407	2.463	97.7	97	OK
15	C-15		22+840 ~ 22+940	22+878	5.8m R/S	1347	807	1360	553.0	2.436	2.456	99.2	97	OK
16	C-16			22+930	2.8m L/S	868	509	877	368	2.359	2.456	96.0	97	Note-1
17	C-17		22+940 ~ 23+040	22+979	1.6m R/S	1060	621	1065	444	2.387	2.456	97.2	97	OK
18	C-18			23+025	5.5m L/S	1029	612	1037	425.0	2.421	2.456	98.6	97	OK
19	C-19		23+040 ~ 23+140	23+070	6.0m R/S	1092.0	656	1106	450	2.427	2.456	98.8	97	OK
20	C-20			23+110	1.3m L/S	876.0	526	887	361	2.427	2.456	98.8	97	OK
21	C-21		23+140 ~ 23+240	23+164	1.5m R/S	819	488	828	340.0	2.409	2.456	98.1	97	OK
22	C-22			23+195	5.3m L/S	729	433	737	304	2.398	2.456	97.6	97	OK
23	C-23		23+240 ~ 23+340	23+280	5.5m R/S	956	562	962	400	2.390	2.456	97.3	97	OK
24	C-24			23+331	3.4m L/S	845	499	851	352.0	2.401	2.456	97.7	97	OK
25	C-25		23+340 ~ 23+440	23+385	4.2m R/S	1045.0	615	1052	437	2.391	2.456	97.4	97	OK
26	C-26			23+405	5.3m L/S	986.0	582	993	411	2.399	2.456	97.7	97	OK
27	C-27		23+440 ~ 23+500	23+450	1.6m R/S	852	501	856	355	2.400	2.456	97.7	97	OK

Note-1: The pavement behaviour will be monitored and retested.

SUMMARY OF ASPHALTIC WEARING COURSE CORE COMPACTION

S. No	CORE NO.	DATE	COVERED AREA	STATION	OFFSET FROM C/L	WT. IN AIR(g)	WT. IN WATER(g)	SSD. WT (g)	VOLUME (cc)	DENSITY (g/cc)	LAB.DENSITY (GMB)	ACHIEVED COMPACTION	REQUIRED COMPACTION	REMARKS
1	C-1	10-Feb-2015	24+063 ~ 24+163	24+090	4.8m L/S	853	505	861	356	2.396	2.446	98.0	97	OK
2	C-2			24+140	3.0m R/S	1098	650	1106	456	2.408	2.446	98.4	97	OK
3	C-3		24+163 ~ 24+263	24+197	4.5m L/S	903	535	911.0	376	2.402	2.446	98.2	97	OK
4	C-4			24+250	2.8m R/S	802	472	809	337	2.380	2.446	97.3	97	OK
5	C-5		24+263 ~ 24+363	24+283	4.0m L/S	1081	636	1089	453	2.386	2.446	97.6	97	OK
6	C-6			24+345	3.0m R/S	759	447	764	317	2.394	2.446	97.9	97	OK
7	C-7		24+363 ~ 24+438	24+390	5.5m L/S	824	486	829	343.0	2.402	2.446	98.2	97	OK
1	C-1	10-Feb-2015	29+925 ~ 30+025	29+960	3.2m L/S	1047	611	1054	443	2.363	2.424	97.5	97	OK
2	C-2			29+990	4.7m R/S	911	536	917	381	2.391	2.424	98.6	97	OK
3	C-3		30+025 ~ 30+125	30+055	1.5m L/S	815.0	479	823.0	344	2.369	2.424	97.7	97	OK
4	C-4			30+110	4.9m R/S	863	505	870	365	2.364	2.424	97.5	97	OK
5	C-5		30+125 ~ 30+225	30+145	2.9m L/S	889	517	895	378	2.352	2.424	97.0	97	OK
6	C-6			30+210	2.5m R/S	873	507	878	371	2.353	2.424	97.1	97	OK
7	C-7		30+225 ~ 30+325	30+260	1.5m L/S	814	479	820	341.0	2.387	2.424	98.5	97	OK
8	C-8			30+315	4.8m R/S	885	518	893	375	2.360	2.424	97.4	97	OK
9	C-9		30+325 ~ 30+425	30+360	2.0m L/S	714	418	721	303	2.356	2.424	97.2	97	OK
10	C-10			30+410	4.8m R/S	997	584	1006	422.0	2.363	2.424	97.5	97	OK
11	C-11		30+425 ~ 30+525	30+460	2.0m L/S	832.0	488	837.0	349	2.384	2.424	98.3	97	OK
12	C-12			30+510	4.9m R/S	978	576	985	409	2.391	2.424	98.6	97	OK
13	C-13		30+525 ~ 30+625	30+540	5.1m L/S	756	443	761	318	2.377	2.424	98.1	97	OK
14	C-14			30+610	3.9m R/S	909	531	916	385	2.361	2.424	97.4	97	OK
15	C-15		30+625 ~ 30+725	30+650	3.1m L/S	1046	622	1058	436.0	2.399	2.424	99.0	97	OK
16	C-16			30+690	4.5m R/S	850	498	857	359	2.368	2.424	97.7	97	OK
17	C-17		30+725 ~ 30+825	30+745	2.0m L/S	1279	750	1288	538	2.377	2.424	98.1	97	OK
18	C-18			30+820	3.0m R/S	875	513	880	367.0	2.384	2.424	98.4	97	OK
19	C-19		30+825 ~ 30+925	30+855	2.5m L/S	875.0	509	879	370	2.365	2.424	97.6	97	OK
20	C-20			30+910	4.8m R/S	914.0	533	918	385	2.374	2.424	97.9	97	OK
21	C-21		30+925 ~ 31+000	30+940	2.0m L/S	845	496	851	355	2.380	2.424	98.2	97	OK

7.8 SUMMARY OF CORE THICKNESS OF ASPHALTIC WEARING COURSE

S.No	CORE NO.	TESTING DATE	COVER AREA	STATION	OFF SET FROM C/L	CORES THICKNESS (cm)				Average Thickness (cm)	Required Thickness (cm)	REMARKS
						1	2	3	4			
1	T-1	4-Feb-2015	27+420 ~ 27+520	27+425	5.7m R/S	6.5	6.2	6.4	6.5	6.4	6.0	OK
2	T-2			27+510	1.4m L/S	5.9	6.3	6.1	6.1	6.1	6.0	OK
3	T-3		27+520 ~ 27+620	27+560	6.0m R/S	5.1	5.0	5.0	5.1	5.1	6.0	Note-1
4	T-4			27+590	2.0m L/S	6.9	6.5	6.8	6.7	6.7	6.0	OK
5	T-5		27+620 ~ 27+720	27+645	3.8m R/S	7.6	7.5	7.3	7.4	7.5	6.0	OK
6	T-6			27+700	1.0m L/S	6.3	6.5	6.4	6.5	6.4	6.0	OK
7	T-7		27+720 ~ 27+820	27+750	5.5m R/S	4.7	4.5	4.7	4.8	4.7	6.0	Note-1
8	T-8			27+795	1.3m L/S	5.0	4.9	5.2	5.2	5.1	6.0	Note-1
9	T-9		27+820 ~ 27+885	27+830	5.2m R/S	6.2	6	6.0	6.3	6.1	6.0	OK
1	T-1	4-Feb-2015	28+410 ~ 28+510	28+430	5.8m R/S	5.9	5.7	5.9	6.0	5.9	6.0	OK
2	T-2			28+470	2.5m L/S	6.9	6.8	6.6	6.9	6.8	6.0	OK
3	T-3		28+510 ~ 28+610	28+525	4.8m R/S	6.2	6.2	6.0	6	6.1	6.0	OK
4	T-4			28+580	2.0m L/S	6.3	6.1	6.2	6.2	6.2	6.0	OK
5	T-5		28+610 ~ 28+710	28+650	5.3m R/S	5.6	5.9	5.8	5.9	5.8	6.0	OK
6	T-6			28+700	2.4m L/S	5.0	5.2	5.1	5.0	5.1	6.0	Note-1
7	T-7		28+710 ~ 28+810	28+740	2.1m R/S	6.0	6.2	6.3	6.2	6.2	6.0	OK
8	T-8			28+800	5.2m L/S	5.7	5.9	5.8	5.9	5.8	6.0	OK
9	T-9		28+810 ~ 28+910	28+855	6.0m R/S	5.0	5.3	5.1	5.3	5.2	6.0	Note-1
10	T-10			28+900	1.8m R/S	6.3	6.4	6.2	6.5	6.4	6.0	OK
11	T-11		28+910 ~ 29+010	28+945	5.6m R/S	6.0	6.4	6.4	6.5	6.3	6.0	OK
12	T-12			28+900	5.5m R/S	4.3	4.6	4.6	4.4	4.5	6.0	Note-1
1	T-1	4-Feb-2015	29+100 ~ 29+200	29+110	5.0m L/S	6.3	6.6	6.4	6.6	6.5	6.0	OK
2	T-2			29+180	2.1m R/S	6.1	5.8	5.8	6.2	6.0	6.0	OK
3	T-3		29+200 ~ 29+240	29+230	5.5m L/S	6.2	6.3	6.4	6.4	6.3	6.0	OK

Note-1: Deficient layer to be adjusted by additional ACWC as per specification requirement.

SUMMARY OF CORE THICKNESS OF ASPHALTIC WEARING COURSE

S.No	CORE NO.	TESTING DATE	COVER AREA	STATION	OFF SET FROM C/L	CORES THICKNESS (cm)				Average Thickness (cm)	Required Thickness (cm)	REMARKS
						1	2	3	4			
1	T-1	5-Feb-2015	22+140 ~ 22+240	22+157	5.9m R/S	6.3	6.4	6.3	6.4	6.4	6.0	OK
2	T-2			22+208	1.5m L/S	6.2	6.1	6.3	6.2	6.2	6.0	OK
3	T-3		22+240 ~ 22+340	22+275	3.0m R/S	5.7	5.6	5.7	5.7	5.7	6.0	OK
4	T-4			22+315	5.5m L/S	6.7	6.5	6.6	6.7	6.6	6.0	OK
5	T-5		22+340 ~ 22+440	22+368	5.3m R/S	6.2	6.0	6.1	6.1	6.1	6.0	OK
6	T-6			22+405	1.2m L/S	6.7	6.9	6.7	6.8	6.8	6.0	OK
7	T-7		22+440 ~ 22+540	22+480	1.6m R/S	6.5	6.5	6.4	6.5	6.5	6.0	OK
8	T-8			22+530	5.0m L/S	6.8	6.7	6.6	6.7	6.7	6.0	OK
9	T-9		22+540 ~ 22+640	22+585	5.1m R/S	5.7	5.6	5.8	5.7	5.7	6.0	OK
10	T-10			22+630	1.4m L/S	6.5	6.4	6.5	6.6	6.5	6.0	OK
11	T-11		22+640 ~ 22+740	22+675	3.0m R/S	6.4	6.4	6.5	6.4	6.4	6.0	OK
12	T-12			22+710	4.9m L/S	6.3	6.2	6.1	6.0	6.2	6.0	OK
13	T-13		22+740 ~ 22+840	22+750	5.7m R/S	6.4	6.5	6.4	6.3	6.4	6.0	OK
14	T-14			22+802	1.0m L/S	6.2	6.4	6.2	6.3	6.3	6.0	OK
15	T-15		22+840 ~ 22+940	22+878	3.1m R/S	6.7	6.6	6.8	6.7	6.7	6.0	OK
16	T-16			22+930	5.1m L/S	6.0	6.0	6.1	6.0	6.0	6.0	OK
17	T-17		22+940 ~ 23+040	22+979	5.8m R/S	5.9	6.1	6.0	6.1	6.0	6.0	OK
18	T-18			23+025	2.4m L/S	6.5	6.6	6.4	6.5	6.5	6.0	OK
19	T-19		23+040 ~ 23+140	23+070	2.8m R/S	6.3	6.2	6.1	6.2	6.2	6.0	OK
20	T-20			23+110	5.6m L/S	6.8	6.7	6.7	6.8	6.8	6.0	OK
21	T-21		23+140 ~ 23+240	23+164	5.5m R/S	6.0	5.9	6.0	6.1	6.0	6.0	OK
22	T-22			23+195	2.7m L/S	6.6	6.5	6.5	6.4	6.5	6.0	OK
23	T-23		23+240 ~ 23+340	23+280	2.9m R/S	6.3	6.5	6.4	6.4	6.4	6.0	OK
24	T-24			23+331	5.2m L/S	6.6	6.4	6.5	6.6	6.5	6.0	OK
25	T-25		23+340 ~ 23+440	23+385	1.6m R/S	6.2	6.4	6.1	6.3	6.3	6.0	OK
26	T-26			23+405	2.8m L/S	6.0	6.2	6.1	6.0	6.1	6.0	OK
27	T-27		23+440 ~ 23+500	23+450	5.0m R/S	5.9	6.1	6.0	6.1	6.0	6.0	OK

SUMMARY OF CORE THICKNESS OF ASPHALTIC WEARING COURSE

S.No	CORE NO.	TESTING DATE	COVER AREA	STATION	OFF SET FROM C/L	CORES THICKNESS (cm)				Average Thickness (cm)	Required Thickness (cm)	REMARKS
						1	2	3	4			
1	T-1	10-Feb-2015	24+063 ~ 24+163	24+090	2.4m L/S	6.0	5.9	5.9	5.9	5.9	6.0	OK
2	T-2			24+140	5.2m R/S	5.9	5.7	5.8	5.8	5.8	6.0	OK
3	T-3		24+163 ~ 24+263	24+197	2.6m L/S	5.9	6.0	5.9	6.0	6.0	6.0	OK
4	T-4			24+250	4.9m R/S	5.8	6.0	5.8	5.7	5.8	6.0	OK
5	T-5		24+263 ~ 24+363	24+283	2.5m L/S	6.1	6.0	5.9	6.0	6.0	6.0	OK
6	T-6			24+345	5.0m R/S	6.4	6.2	6.3	6.3	6.3	6.0	OK
7	T-7			24+363 ~ 24+438	24+390	2.5m L/S	5.9	6.0	6.0	6.1	6.0	6.0
1	T-1	10-Feb-2015	29+925 ~ 30+025	29+960	5.1m L/S	6.7	6.6	6.4	6.5	6.6	6.0	OK
2	T-2			29+990	2.0m R/S	7.1	7.3	7.2	7.2	7.2	6.0	OK
3	T-3		30+025 ~ 30+125	30+055	3.0m L/S	6.3	6.3	6.4	6.2	6.3	6.0	OK
4	T-4			30+110	2.8m R/S	6.4	6.2	6.1	6.2	6.2	6.0	OK
5	T-5		30+125 ~ 30+225	30+145	5.2m L/S	5.9	5.7	5.8	5.8	5.8	6.0	OK
6	T-6			30+210	5.8m R/S	6.1	5.9	6.0	6.0	6.0	6.0	OK
7	T-7		30+225 ~ 30+325	30+260	5.0m L/S	6.2	6.3	6.0	6.2	6.2	6.0	OK
8	T-8			30+315	2.0m R/S	6.1	6.0	6.3	6.2	6.2	6.0	OK
9	T-9		30+325 ~ 30+425	30+360	5.2m L/S	5.9	6.0	5.8	5.9	5.9	6.0	OK
10	T-10			30+410	2.0m R/S	6.5	6.4	6.4	6.3	6.4	6.0	OK
11	T-11		30+425 ~ 30+525	30+460	5.3m L/S	6.3	6.4	6.5	6.4	6.4	6.0	OK
12	T-12			30+510	2.1m R/S	6.3	6.2	6.2	6.1	6.2	6.0	OK
13	T-13		30+525 ~ 30+625	30+540	4.8m L/S	6.1	6.1	5.9	6.0	6.0	6.0	OK
14	T-14			30+610	2.5m R/S	6.3	6.2	6.3	6.1	6.2	6.0	OK
15	T-15		30+625 ~ 30+725	30+650	5.8m L/S	5.9	6.0	5.9	5.9	5.9	6.0	OK
16	T-16			30+690	2.0m R/S	5.7	5.8	5.7	5.7	5.7	6.0	OK
17	T-17		30+725 ~ 30+825	30+745	4.8m L/S	5.9	5.8	5.7	5.8	5.8	6.0	OK
18	T-18			30+820	2.0m R/S	6.1	6.0	6.2	6.0	6.1	6.0	OK
19	T-19		30+825 ~ 30+925	30+855	5.2m L/S	6.1	6.3	6.2	6.0	6.2	6.0	OK
20	T-20			30+910	3.0m R/S	6.2	6.3	6.2	6.3	6.3	6.0	OK
21	T-21		30+925 ~ 31+000	30+940	5.5m L/S	6.0	5.9	6.0	5.8	5.9	6.0	OK

ENVIRONMENTAL COMPLIANCE MONITORING

Environmental Compliance Officer: Shabir Ahmad Khan

Field Monitor (Social):

Jamil Khan

Road Section under Construction:

Section – I (0+000 to KM; 9+000)

Section – II (KM: 9+000 to 14+000)

Section – III (KM: 14+000 to 19+000 & Loop-I)

Section – IV (KM: 19+000 to 21+100, KM: 22+400 to KM; 24+000 & Loop-II)

Section – V (KM; 21+100 to KM: 22+400 & KM: 24+000 to 29+000)

Section – VI (KM: 29+000 to 33+00)

Section – VII (KM: 33+000 to KM: 37+000)

Section – VIII (KM: 37+000 to KM: 41+000)

Section – IX (KM: 41+000 to KM: 43+465 & Loop-III)

Persons Consulted at Site:

1. Mr. Majid Abbasi, Site Engineer, FWO
2. Mr. Mohammad Afzaal, Site engineer, FWO
3. Mr. Zulfiqar, Site Incharge, FWO
4. Mr. Asjad Hawaldar, Site Commander, FWO
5. Mr. Usman, Site Surveyor, FWO
6. Mr. Abdurrahim, Generator operator, FWO

Work Status:

- Work in progress.
- Work Stopped
- Work Completed

Quality of Environment Compliance:

- Good
- Satisfactory
- Not Satisfactory

Issues at site:

- Proper traffic sign boards were found missing along the road.
- Road blockage from KM 28+000 to KM 43+000 is common at different places due to road construction or traffic control mismanagement.

- Though water sprinkled on road to control dust pollution but the problem still remains at few work places along the road.
- FWO staff was found hesitant while sharing their EHS plan with AGES Socio-Environmental team at FWO camp.
- Record concerning workers illness and treatment was found missing both at FWO camp and work places at site.
- While working at sites workers were found without using PPE's (Personal protective equipments).
- Risk assessment report not present at work site.
- Work sites are devoid of the EHS arrangements, such as first aid boxes and ambulance services are still not provided to the workers at site.
- Though promised in the previous meeting with FWO at their camp, the EHS inspectors or Environmental Specialist still not deployed at site.
- Extraction/removal of the newly planted plants along the road, due to careless and no work further for plantation in this respect.

Environmental Monitoring Check List for the Site

S. #	Activity	Mitigation Measures	Monitoring indicators	Observations
Construction Phase				
1	Use of heavy equipments	<ul style="list-style-type: none"> a. Set protocols for vehicle Maintenance. b. Check fuel level, deliveries, and use. c. Check pipes and joints for leaks. d. Tight & check generators cables and fuel lines. e. Prevent over filling of main storage and vehicles tanks. f. Avoid parking of heavy equipments under trees to prevent soil compaction and damage to the roots of the trees. 	Soil contaminations, stability and erosion	During site visit, It was observed that heavy and light machinery was maintained properly at FWO camp. Also noticing that all the vehicles, machinery and equipments are used and parked properly at work places. Therefore, there was no damage to the trees roots which prevented soil compaction at site (Please refer to photo # 01).
2	Flood protection	<ul style="list-style-type: none"> a. Culverts construction to control flood damages and provide safety to embankments. b. Take measures to protect road along the river side. c. Construction of retaining walls. d. Provide new causeways for smooth flow to flood water during rainy seasons. 	Road protection and Safety	To protect road from flood water and provide a smooth flow to sewage disposal, safety measures, such as construction of side drains, culverts and retaining walls in sections IV, V, VI & VII are in progress (Please refer to photos # 05 and 13).
3	Handling and transportation of hazardous waste	<ul style="list-style-type: none"> a. Prevent dumping of hazardous materials near villages and water bodies. b. Burn waste oil which is not reusable. c. Recyclable material should not contain heavy metals that are inflammable, investigate and use less toxic alternative products. d. Prohibit use of waste oil for cooking purposes. 	Soil Contamination and Safety	During site visit, there was found no hazardous material along the road site; therefore, no action as such is further required.

<p>4</p>	<p>Handling of solid Waste</p>	<ul style="list-style-type: none"> a. Site manager should feel responsible for collection and disposal of solid waste. b. Provide Training to the site personnel in waste management and its handling procedures. c. Separation of chemical waste for special handling. d. Record the amount of waste, generated recycled and reused. e. Proper storage and well managed site practices will minimize the damage to potentially contaminate construction materials. f. Store general refuse in enclosed bins to control its further mixing with construction materials. g. Engage a reputable waste collection firm for waste collection and removal of general refuse at site. 	<p>Toxicity, Soil Contamination and Pollution</p>	<p>During site visit, it was observed that the segregation plan for the handling and disposal of solid waste was missing at site area. FWO staff was strictly suggested to comply with solid waste management plan to prevent the contamination of construction materials. So far the arrangements, to handle the construction materials at main storage were satisfactory, but found mostly insufficient at work places. It was advised to the FWO subcontractors to observe the protocols compliance about the labor health and safety issues. Further, also advised to the subcontractors to provide bins for handling the solid waste, especially during retaining walls and culverts construction at sites (Please refer to photos # 05 and 13).</p>
<p>5</p>	<p>Construction crews, camps & Accommodation</p>	<ul style="list-style-type: none"> a. Check quality and maintenance of accommodations for site crew. b. Avoid cutting of vegetation as much as possible. c. Provide sanitation, such as pit latrines to the site crew on temporary basis. d. Use of local labor. e. Screening test for potentially affected HIV and tuberculosis viruses' site crews. f. Provide education and enforced guidelines to local inhabitants. g. Set guidelines to prohibit poaching and plants collection. h. Provide an adequate and good quality of food to the work force. i. Drinking water should meet WHO 	<p>Ground water pollution and conflicts with locals.</p>	<p>During site visit, it was found that the FWO camp was renovated and properly maintained in order to provide basic facilities to the construction crew, such as washrooms, kitchen, TV lounge, café shop, dining hall etc. The quality of food provided to the FWO labor force was good and found sufficiently enough. Other facilities, such as drinking water facilities and health hygiene were also found satisfactory (Please refer to photo # 02).</p>

		standards, and clearly demarcated from water for construction purposes. j. Prohibit domestic pets / livestock to enter into the site.		
6	Material handling, use, and storage	<ul style="list-style-type: none"> a. Securing of construction materials will ensure a safe passage between destinations for transport system. Loaded vehicles shall be properly covered to prevent spillage, and contractor should be held responsible to clear them off. b. Transfer and deposit construction materials directly to the site for use. Avoid stockpiles to create less visual impacts. Leftover of any foreign materials at site should clearly be off, and the project area should also be properly reinstated affected by any construction activity. c. Avoid spray of any bitumen products on vegetation outside the road area. d. Avoid concrete mixing on ground. e. Use of wet gravel at site. f. Avoid direct fall of drainage water into sensitive areas. g. Control all runoff from batching plants so that cement do not contaminate water, and if any, it should be collected, stored and disposed of at a designated site. h. Collect and deliver empty cement bags to recycling plants. i. Storage of contaminated water should not allow to over flow, and will be protected from rain water. 	Dust pollution	FWO labor force was suggested to provide safe passages to dumpers for carrying construction materials from main storage to work places. Also suggested that the construction material should properly be loaded and secured to prevent the material spillage and minimize the stockpiles visual impacts. Compliance of the proper placement and handling of building materials was also missing, especially during retaining walls and culvert construction at site (Please refer to photos # 05 and 13)

7	<p>Materials extraction, Quarrying & logging</p>	<ul style="list-style-type: none"> a. Identify environment friendly materials within budget. b. Use materials from local road cuts first, only if it produces an aggregate of materials for stabilizing surfaces and filling embankments. c. Project area should be properly restored and treated with erosion control measures once materials removed at site. d. Develop logging, quarrying and borrowing plans, and also take into account its accumulative effects. e. Take photos at site before the start of excavation, so that restoration can match the original site as much as possible. Also make sure that site quarries and gravel pits are invisible to travelers on road. f. Adhere and monitor the plans to minimize side impacts due to extraction activities. Try to modify the plans as much as required. g. Restore and sustain the site area once the extraction activity is over. h. Install drainage structures to direct the water away from pits. i. Implement safety protocols to minimize the risks occurring due to collapse of quarry walls, rocks falling, debris, or any other accidental falls from clefts. j. Discuss the use of retaining walls pits and water ponds with local community as an option used for crops, grazing of cattle, or similar use. 	<p>Change in landscape & Creation of water ponds.</p>	<p>During the site visits, there was a general negligence about the compliance of environmental related issues at site. FWO construction crew was hesitant to share their health and safety plans with AGES Socio-environmental monitoring team. Therefore, strictly advised to the FWO labor force to comply with the H& S protocols to avoid risk, if any during construction activities at site. Moreover, A proper maintenance of the quarry areas is also required once the activities of producing construction materials accomplished (Please refer to photos # 04 and 08).</p>
8	<p>Site clearing & leveling</p>	<ul style="list-style-type: none"> a. Minimize disturbance to local flora during construction activities as much as possible. b. Minimize the amount of clearance of small areas for active work once at a time. c. Avoid use of herbicides. Any such use should 	<p>Loss of vegetation, soil erosion, stability, water pollution,</p>	<p>During the site visit, no impact on vegetation was found as most of the project area is rugged, and of hilly nature. However, excavation activities for the purpose of road widening continued at the shoulders of the existing road (Please refer to</p>

		<p>follow health and safety procedures to protect people and the environment.</p> <ul style="list-style-type: none"> d. Limit for herbicides use should specified by the manufacturers. e. Clear the project area without destroying plants and turfs, and take measures to preserve and replant where ever is possible. f. Remove Vegetation during dry periods only, and preserve soil top surface if required re spreading. While if it is removed during wet periods, don't disturb soil just before the actual start of construction. g. Use of erosion control measures such as hay bales. h. Replant and re –vegetate the local flora on immediate basis once removed the equipment from site. 	<p>health of workers and local community.</p>	<p>photos # 05, 07 and 14). Moreover, plantation along Peshawar-Torkham road is also needed on emergency basis. In this regard, some plants species in the Environment Management Plan have been identified for plantation in the project area. It was strongly recommended to the FWO contractor to immediately coordinate with forest department in this regard. There was no use of herbicides in the project area. There were taken appropriate measures for the soil conservation in the project area as the soil being rocky and of hilly nature consisting of sand, silt and gravels.</p>
<p>9</p>	<p>Excavation , cutting , and filling</p>	<ul style="list-style-type: none"> a. Cover Piles with plastic sheets, prevent run off with hay bales, or use similar measures. b. Fencing around excavation activities. c. Investigate shallow over excavation and alternatives. d. Construction crews and supervisors must aware of the historic burials, socio-cultural and religious objects. And, if recovered should properly be guarded to avoid any destruction. e. Ensure that excavation is accompanied by a well-engineered drainage system. f. Don't fill the flow line of a watershed. In arid areas, even the occasional rains may create a strong flow of water in channels. g. Adopt best engineering practices, for example, don't use the soil alone, first lay a bed of rock and then gravel it. h. Balance cuts and fills, wherever is possible to 	<p>Soil erosion, stability and surface water contamination</p>	<p>The excavation process for the widening of road, culverts and retaining walls construction continues at site in sections IV, V, VI, VII, and VIII respectively. While the protocols compliance related to labor safety and environmental issues is generally missing in the above sections. Loop III (KM: 39+500 to 39+550), (KM: 0+100 to KM: 0+125), (KM: 0+775 to KM: 1+100), (KM: 1+200 to KM: 1+250) Rocks excavation for the purpose of road widening continued, while there was found no compliance regarding the issues of labor safety & personal protective measures at the above reaches (Please refer to photos # 06 & 13). During site visit, it was recommended to the subcontractors to also properly cover and fence the all culverts construction at work places. A drainage system for the smooth flow of water during excavations is also needed at site. Water Sprinkling</p>

		<p>minimize the earth work movement.</p> <p>i. Water sprinkling to avoid dust solution on road temporarily used for traffic.</p>		<p>and the proper dumping of excavated materials are also required to avoid dust pollution at site (Please refer to photos # 12 & 16).</p>
10	Traffic Control and management	<p>a. Need for practical efforts in order to control and accommodate traffic along the road as far as much as possible.</p> <p>b. Provide sign boards in order to give directions, and guide drivers about diversions.</p> <p>c. Provide proper traffic management training to the contractor staff at the site before the construction activities take place.</p> <p>d. Avoid as much as possible temporary by passes during land clearing at site.</p> <p>e. Maximum speed limit at project site for heavy machinery should not exceed 20Km/hr.</p> <p>f. Try to keep the road partly closed to provide all time maximum safe passage to the vehicles/pedestrians</p> <p>g. Try to conduct work when traffic volume is low</p> <p>h. Organize a proper schedule in order to deliver sand trucks at the time of less traffic.</p>	<p>Health and Safety of workers & local population</p>	<p>Traffic flows with diversions along the existing road. Despite the diversions arrangements, traffic signboards for the proper traffic control management are missing at site. Especially, the protection sign boards missing at quarry areas have put the people's lives and traffic control management further at risk in the project area. Therefore, FWO contractors are strongly suggested: Install temporary traffic sign boards with reflective materials to maximize drivers' visibility at night. Construction of speed breakers to specify maximum speed limit for heavy machinery at site. The maximum speed limit should not exceed 20Km/hr. Road blockage from KM 20+000 to KM 43+000 is common at different places due to road construction or traffic control mismanagement (Please refer to photo # 06).</p>
11	Blasting	<p>a. Allow minimum blasting as much as possible at site.</p> <p>b. Take Safety measures to provide protection to workers and locals from injuries due to falling of rocks and avalanches.</p> <p>c. Provide protective equipments to the workforce on individual basis.</p>	<p>Noise pollution and occupational safety</p>	<p>Currently, rock excavation for road widening in sections IV, VII, VIII & IX is in progress. The labor safety protocols compliance is generally missing during excavations activities at site. Therefore, FWO is advised to provide PPEs (personal protective equipments) to workers to ensure labor safety at site (Please refer to photos # 05, 07 and 14).</p>
12	Sources of building materials	<p>a. Develop logging, quarrying and borrowing plans to provide cumulative effects of environmental compliance at site.</p> <p>b. Adherence to plans and monitoring over impacts of extraction activities at site. Try to modify these plans as much as required.</p>	<p>Damages to the aquatic, terrestrial ecosystems erosion, siltation, and</p>	<p>The Health & Safety plan and other monitoring measures such as labor safety during extraction activities were found missing at quarry sites. Therefore, FWO should require the developing of logging, quarrying and borrowing plans for the compliance of the labor safety and environmental</p>

		<ul style="list-style-type: none"> c. Fill in quarries and pits before the abandoning of the construction activity. d. Control runoff into pits. 	vector-borne diseases	issues at site.
13	Dust Pollution	<ul style="list-style-type: none"> a. Water spraying. b. Covering of Trucks with tarpaulins. 	Nuisance to the public, undermining the quality of air and water due to contamination	During this site visit, water was sprayed regularly on road, while the problem of dust pollution still continues at some places (Please refer to photos # 12 and 16).
14	Borrow Areas	These impacts of borrow areas can be reversed if a diligent restoration process is placed by the contractor as well as approved by the Highway Division.	Rugged landscape, its interference with the local aesthetics; posing of danger to livestock and local community children; holding of stagnant water and taking up of agricultural land.	No activities about borrow areas were seen at site. However, borrow areas still to be identified, if required.
15	Damages to the existing infrastructure	<ul style="list-style-type: none"> a. Locate different locations of existing infrastructure on both sides of road. b. Avoid damages to locations of water pipes and electricity pylons etc. 	Facilities to the locals	During site visit, it was advised to the FWO authorities to take care of the infrastructure facilities and avoid damages to water pipes and electricity pylons etc. especially during the activities of culverts construction at site. It was also suggested to the workers to inform FWO/ NESPAK / WAPDA/PTCL departments before the excavation activities are started at site.

16	Health & Safety of the workers	<ul style="list-style-type: none"> a. Prepare and implement a Health and Safety Plan at site. b. Exclude public from site area. c. Ensure that workers use Personal Protective Equipments. d. Provide Health & Safety Training (including HIV/AIDS transmission process) to all personnel; e. Follow documented procedures for all activities at site; f. Keep reports and records of accidents. 	Workers and public at risk due to accidents at site	<p>During the site visit, it was observed that the compliance of the protocols related to labor Health and Safety issues was generally followed at camp, but found neglected at work site. In this regard, FWO officials were advised to observe the compliance concerning the protocols of labor safety, preparing of H&S plan and keeping of the records of accidents, illness and treatments of workers etc. Moreover, the training about the compliance of H&S protocols to the workers is also very important to ensure labor safety and good health at site. The health facilities, such as ambulance services, first aid etc. should also be provided to the workers at site. PPEs (Personal protective equipments) in this regard for the safety of workforce were missing at project site (Please refer to photos # 05, 07, 10 and 14).</p> <p>All the construction activities, such as retaining walls and culverts construction and building materials which are extracted at quarry areas should comply the guidelines mentioned above at site (Please refer photos # 04, 05, 07, 08, 13 and 14).</p>
17	Local Employment	Contractor should hire at least 50% of local workforce at project site.	Economic benefits to the local people	Majority of the FWO workforce are regular employees. Local labor is also hired when needed at site.
18	Others concerns like Resettlement etc.	<ul style="list-style-type: none"> a. Resettlement, if any. b. Provide pedestrians and road access to local people. c. Avoid social disturbances over Infrastructure damages, such as telephone cables, sewerage, water supply schemes etc. d. Avoid Social Conflicts with locals. 	Resettlement & Social management	Due to the construction of road on the existing corridor, the issues concerning relocation resettlement in the project area are generally missing. The infrastructure facilities, such as sewerage, telephone cables and electricity lines etc. should properly be cared, protected, and remain undisturbed at project site. During the site visit, there was observed some social conflicts with locals over the damages existed to the infrastructure at site.

Operation and Maintenance of newly constructed road				
19	Road maintenance	<ul style="list-style-type: none"> a. Monitor and Maintain cleanliness of drainage structures, channels, ditches and culverts. b. Fill mud and pot holes with a good quality of gravels, and also remove trees and wooden limbs lying down on road. c. Use water from retention ponds and basins settled for road maintenance. 	Road Maintenance	The construction work of the Peshawar-Torkham road in sections –I, II & III has almost been completed
20	Use and maintenance of equipments	<p>Install concrete pads, drains and oil/water for vehicles maintenance.</p> <p>Areas separation, where equipments, vehicles are maintained and fueled on regular basis.</p>	Water and soil pollution	No compliance was shown at site. The required protocol may properly be addressed.
21	Accidents due to hazardous materials	<ul style="list-style-type: none"> a. In case of a spill, concerned department should be consulted on emergency basis. b. Need for establishing of an administrative department which will administer and monitor the road accidents occurring due to hazardous substances 	Cases of accidents	No compliance was shown at site. The required protocol may properly be addressed.
22	Vehicles management	<ul style="list-style-type: none"> a. Prohibit vehicles to travel on road which promote noise pollution. b. Proper education about noise and air pollution to locals, and how to keep the road clean. 	Visual inspection	No compliance was shown at site. The required protocol may properly be addressed.
23	Other Concerns like road side plantation etc.	<ul style="list-style-type: none"> a. Road side plantation as per budget allocation in the environmental cost. 	Visual inspection	The plantation done three months before by FWO at KM 8+000 to 10+000 have almost been uprooted due to careless at site. Afterwards, there is also seen no more plantation at site (Please refer to photo # 03).

APPENDICES

9.1 PC'S SUMMARY TABLE

S.No	SECTION	PIL AMOUNT (US\$)	AMOUNT CERTIFIED (US\$)	REMAINING AMOUNT (US\$)	CERTIFIED (%)
1	I	9,978,081	9,787,524	190,557	98.09
2	II	9,383,484	8,376,636	1,006,848	89.27
3	III	9,512,705	8,031,134	1,481,571	84.43
4	02 Bridges & 02 MCC	3,668,533	2,753,830	914,703	75.07
TOTAL		32,542,803	28,949,124	3,593,679	88.96

9.2 CONTRACTOR IPC's (SECTION-I)

IPC No:	TOTAL PIL AMOUNT		AMOUNT CLAIMED		DATE OF SUBMISSION BY CONTRACTOR TO FATA	DATE OF SUBMISSION BY FATA TO USAID	DATE OF CERTIFICATION BY M&E CONSULTANTS	AMOUNT CERTIFIED BY M&E CONSULTANTS	
	US \$	EQUIVALENT PKR	US \$	EQUIVALENT PKR				US \$	EQUIVALENT PKR
1	9,978,081	937,939,614	1,444,442	135,777,548	23-May-13	28-May-13	28-Jun-13	597,641	56,178,279
2			2,494,227	234,453,311	28-Jun-13	02-Jul-13	26-Jul-13	2,494,227	234,457,311
3			2,382,898	223,992,366	26-Jul-13	31-Jul-13	29-Aug-13	2,268,345	213,224,394
4			1,738,259	163,396,356	03-Sep-13	11-Sep-13	25-Sep-13	1,096,902	103,108,788
5			699,562	65,758,791	30-Sep-13	03-Oct-13	23-Oct-13	680,293	63,947,570
6			1,287,568	121,031,406	02-Dec-13	02-Dec-13	17-Dec-13	886,305	83,312,672
7			467,684	43,962,288	26-Dec-13	26-Dec-13	30-Dec-13	19,268	1,811,220
8			1,055,814	99,246,516	04-Mar-13	07-Mar-14	03-Apr-14	168,209	15,811,658
9			1,316,284	123,730,696	12-May-14	14-May-14	30-May-14	1,113,124	104,633,660
10			653,768	61,454,158	16-Dec-14	24-Dec-14	25-Dec-14	463,210	43,541,733
UP-TO DATE CERTIFIED AMOUNT								9,787,524	920,027,285

Conversion Rate 1 US \$ = 94 PKR

9.3 CONTRACTOR IPC's (SECTION-II)

	TOTAL PIL AMOUNT		AMOUNT CLAIMED		DATE OF SUBMISSION BY CONTRACTOR TO FATA	DATE OF SUBMISSION BY FATA TO USAID	DATE OF CERTIFICATION BY M&E CONSULTANTS	AMOUNT CERTIFIED BY M&E CONSULTANTS	
	US \$	EQUIVALENT PKR	US \$	EQUIVALENT PKR				US \$	EQUIVALENT PKR
1	9,383,484	985,265,820	1,159,388	121,735,792	26-Dec-13	26-Dec-13	31-Dec-13	661,911	69,500,655
2			1,791,571	188,114,955	18-Mar-14	20-Mar-14	03-Apr-14	666,175	69,948,380
3			2,541,722	266,880,810	12-May-14	14-May-14	30-May-14	2,541,722	266,880,797
4			2,347,005	246,435,540	23-Jul-14	23-Jul-14	09-Aug-14	2,347,005	246,435,540
5			791,415	83,098,567	25-Sep-14	29-Sep-14	30-Sep-14	791,415	83,098,567
6			1,231,421	129,299,241	13-Nov-14	14-Nov-14	21-Nov-14	1,057,893	111,078,752
7			1,317,363	138,323,131	16-Dec-14	24-Dec-14	25-Dec-14	310,515	32,604,069
UP-TO DATE CERTIFIED AMOUNT								8,376,636	879,546,760

Conversion Rate 1 US \$ = 105 PKR

9.4 CONTRACTOR IPC's (SECTION-III)

IPC No:	TOTAL PIL AMOUNT		AMOUNT CLAIMED		DATE OF SUBMISSION BY CONTRACTOR TO FATA	DATE OF SUBMISSION BY FATA TO USAID	DATE OF CERTIFICATION BY M&E CONSULTANTS	AMOUNT CERTIFIED BY M&E CONSULTANTS	
	US \$	EQUIVALENT PKR	US \$	EQUIVALENT PKR				US \$	EQUIVALENT PKR
1	9,512,705	989,321,320	2,203,603	229,174,712	26/12/2013	12-Mar-14	03-Apr-14	727,789	75,690,056
2			3,552,378	369,447,312	12-May-14	14-May-14	30-May-14	3,320,510	345,333,040
3			538,542	56,008,352	23-Jul-14	23-Jul-14	09-Aug-14	306,674	31,894,080
4			2,238,193	232,772,072	25-Sep-14	29-Sep-14	30-Sep-14	2,006,325	208,657,800
5			1,622,701	168,760,925	13-Nov-14	14-Nov-14	21-Nov-14	1,216,964	126,564,256
6			1,934,444	201,182,145	16-Dec-14	24-Dec-14	25-Dec-14	452,872	47,098,688
UP-TO DATE CERTIFIED AMOUNT								8,031,134	835,237,920

Conversion Rate 1 US \$ = 104 PKR

9.5 CONTRACTOR IPC's (02 BRIDGES & 02 MC CULVERTS)

IPC No:	TOTAL PIL AMOUNT		AMOUNT CLAIMED		DATE OF SUBMISSION BY CONTRACTOR TO FATA	DATE OF SUBMISSION BY FATA TO USAID	DATE OF CERTIFICATION BY M&E CONSULTANTS	AMOUNT CERTIFIED BY M&E CONSULTANTS	
	US \$	EQUIVALENT PKR	US \$	EQUIVALENT PKR				US \$	EQUIVALENT PKR
1	3,668,533	348,510,635	2,157,972	205,007,331	11-Aug-14	20-Aug-14	30-Sep-14	1,276,624	121,279,253
2			1,550,949	147,340,126	13-Nov-14	14-Nov-14	21-Nov-14	1,167,202	110,884,236
3			1,224,707	116,347,196	16-Dec-14	24-Dec-14	25-Dec-14	310,004	29,450,337
UP-TO DATE CERTIFIED AMOUNT								2,753,830	261,613,826

Conversion Rate 1 US \$ = 95 PKR

9.6 RECORD OF COORDINATION MEETINGS / JOINT SITE VISITS

Date	Meeting	Participants	Venue
09 Feb'15	Co-ordination Meeting	USAID, FWO, NESPAK, AGES	C.O (FWO) office, Jamrud, Khyber
09 Feb'15	Joint Site Visit	USAID, FWO, NESPAK, AGES	PTR Project
18 Feb'15	QIP's Co-ordination Meeting	USAID, FATA, FWO, NESPAK, AGES	NESPAK HQ, Islamabad

9.7 MOBILIZATION OF M&E STAFF

The following members of the M&E Team were mobilized as various activities of the project progressed. Other staff members will be mobilized according to demand of work load.

PROJECT MANAGER OFFICE – STAFF DEPLOYMENT

S. No	Name	Designation	
1	Aziz-ul-Haq	Project Manager	ROAD COMPONENT
2	Nasir-ul-Mulk	Project Advisor	
3	Abdul Hakim	Senior Technical Specialist	
4	Shabir Ahmad Khan	Environmental Compliance Officer	
5	Muhammad Khurshid (Contract rescinded on 28/2/2015)	Mid-Level Specialist	
6	Amjad Saeed	Mid-Level Specialist	
7	TBN	Reporting Specialist	
8	Saqib Maqbool	Junior Engineer	
9	Arshad Khan	CAD Operator	
10	Sohail Anjum	Senior Surveyor	
11	Abdul Waheed	Manager Admin/Finance	
12	Amir Habib	IT Officer	
13	Muhammad Bilal	Assistant Accountant	
14	TBN	Computer Operator	
15	Jamil Khan	Field Monitor Social	OTHER CONSTRUCTION COMPONENTS
16	Anwar Dad	Quantity Surveyor	
17	Waqar ul Mulk	Junior Architect	
18	TBN	Senior Surveyor	
19	Muhammad Waqas (Contract rescinded on 28/2/2015)	Survey Assistant	
20	Muhammad Ayaz (Contract rescinded on 28/2/2015)	Survey Assistant	
21	TBN	Survey Assistant	
22	Sana Ullah	Accountant	
23	Ihsan Ali	Assistant Office Administrator	
24	TBN	Computer Operator	

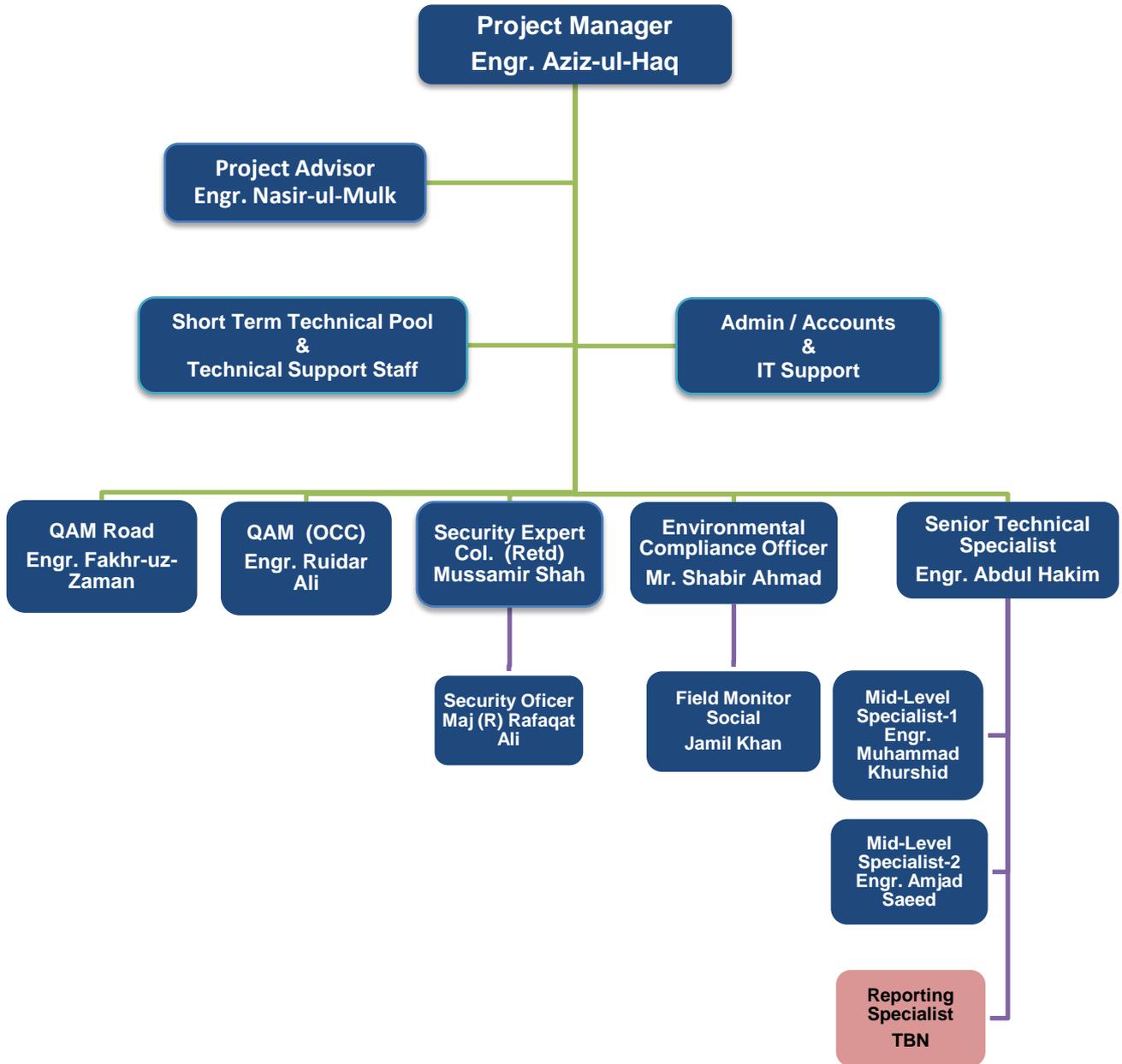
QAM OFFICE (ROAD COMPONENT)

S. No.	Name	Designation
1	Fakhr-uz-Zaman	Quality Assurance Manager (Road)
2	Col. (Rtd) Zafar Alam Khan	M&E Specialist Road
3	Muhammad Ilyas	Field Manager M&E
4	Muhammad Naeem	Field Manager M&E
5	TBN	Office Engineer
6	Rasheed Khan	Field Monitor Road
7	Muhammad Sher (Contract rescinded on 28/2/2015)	Field Monitor Road
8	Ghulam Qasim Khan	Field Monitor Road
9	Atif-ul-Haq	Field Monitor Road
10	Tariq Ibrahim Khan	Quantity Surveyor
11	Asad Khan (Contract rescinded on 28/2/2015)	CAD Operator
12	Major (Rtd.) Razaqat Ali	Security Officer
13	Ihsan Ullah	Accountant
14	Hafiz-ur-Rehman	Assistant Accountant
15	Nasir Alam	Admin Officer
16	Umar Shah	Assistant Office Admin
17	Hamid Ali	Computer Operator

LABORATORY STAFF (ROAD COMPONENT)

S. No.	Name	Designation
1	Gul Zada	Material Engineer
2	Amjad Ali Khan	Senior Lab. Technician
3	Khan Umar	Senior Lab. Technician
4	Shakeel Akbar	Lab. Technician
5	Noor Ali Jan	Lab. Technician
6	Izhar-ul-Haq	Assistant Lab. Technician
7	Babar Naeem	Assistant Lab. Technician

ORGANIZATION CHART FOR CMEP OFFICE, PESHAWAR



LEGEND:

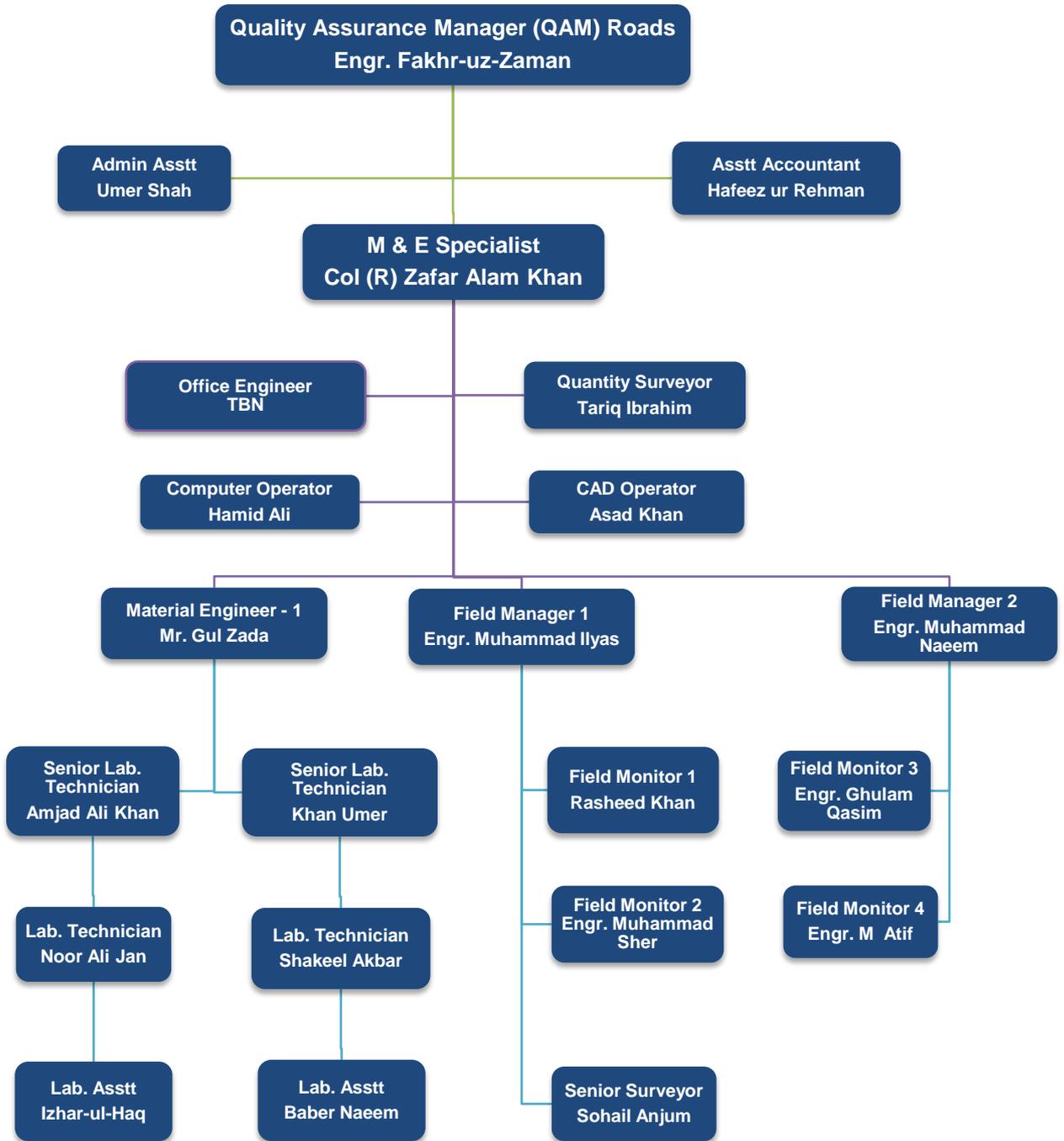


Mobilized



To be mobilized

ORGANIZATION CHART FOR ROAD COMPONENT OF CMEP PROJECT



LEGEND:



Mobilized



To be mobilized with expansion of work

PROJECT PHOTOGRAPHS

VISITS



KM: 19+100 inspection of rigid pavement construction by USAID COR



Group photo of USAID COR with FWO/NESPAK Reps. and M&E Consultants at KM 39+500 PTR

PAVEMENTS



KM 28+224~28+247 HW RHS: Rigid pavement concrete placing in progress.



KM 19+000~19+022 HW LHS: Rigid pavement concrete placing in progress



KM 23+750~23+825 HW RHS; WBM Base spreading in progress



KM 31+850~31+925 FW: Sub base 1st layer leveling & grading in progress.



Km 1+225~1+251 Loop# 2 RHS: Rigid pavement concrete placing & finishing in progress



KM 30+700~30+980 FW: ACWC laying & compaction in progress



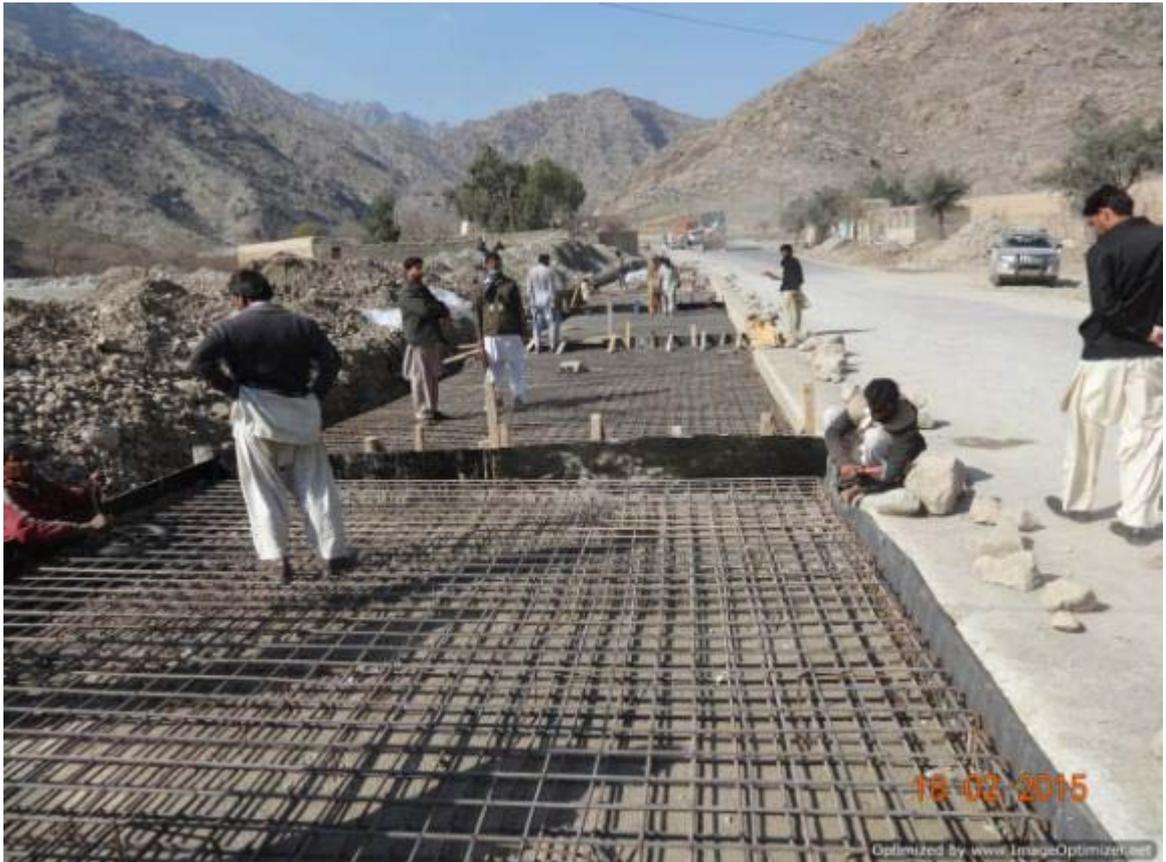
KM 19+150~19+387 HW RHS: ACBC 1st layer compaction in progress



KM 1+188~1+204 HW LHS LOOP-II: Concrete finishing of rigid pavement is in progress.

STRUCTURES

CAUSEWAYS



Causeway at KM 24+495: Formwork fixing in panels for slab on ground is in progress.



Causeway at Km 24+495: Slab on ground concrete placing of widening portion in progress.

BRIDGES



Bridge at KM 9+560: Backfill along gabion protection works is in progress



Bridge at KM 23+750: Approach slab far end concrete casted.



Bridge at KM 23+750 WBM Base spreading on approaches is in progress



Bridge at Km 27+000: Pile boring work in progress



Bridge at KM 27+250: Concrete placing for Pier shaft (1st lift) Pier-III is in progress



Bridge at KM 27+250: Pier shaft (1st lift) Pier-II ready for concrete pouring

RETAINING WALLS



KM 0+212~0+230 LHS LOOP-II: Retaining wall stone masonry in progress



KM 1+225~1+350 LHS LOOP-II: PCC Parapet over Ret wall casted.



KM 18+500~18+525 LHS: Retaining wall structural excavation in progress.



KM 18+525~18+550 LHS: Retaining wall stone masonry in progress

CULVERTS



MCC at Km 11+190: Gabion apron completed at D/S side



Culvert at 33+740: Steel rebar fixing for box culvert is in progress.

50



Culvert at 36+200: Wing wall stone masonry in progress



Culvert at 37+309: Abutment walls stone masonry in progress



Culvert at 37+692: Wing wall stone masonry & backfill bw Abts is in progress



Culvert at 41+517: Abutment walls stone masonry in progress

DRAINS



KM 18+500~18+520 RHS: Drain type D3A lean concrete in progress

ROADWAY EXCAVATION



KM 0+975~1+275 RHS LOOP-III: Hill cutting is in progress



KM 39+350~39+550 RHS: Hill cutting is in progress

MISCELLANEOUS



Bigyari check post buiding roof slab concrete is being placed



KM 0+700~0+750 LHS LOOP-II: NJ Barrier formwork released



KM 17+700~17+775 LHS: Metal guard rail fixing in progress

FIELD / LAB TESTING



Asphalt cores density at AGES Lab



KM 19+300: Sampling of Asphaltic Base for testing



Casting of Concrete Cylinders of Rigid Pavement



KM 30+000: Coring of Asphalt wearing Course



Sampling of Concrete Aggregates for Quality Tests



KM 41+750: Sampling of Sub Base Material

ENVIRONMENTAL MONITORING



(Photo # 01) View of vehicles stand at FWO Camp.



(Photo # 02) View of drinking water filter facility at FWO Camp.



(Photo # 03) KM 10+700 LHS: Plantation require maintenance and protection



(Photo # 04) KM 16+100: FWO Crush plant near Shagai Fort needs proper placement of building material



(Photo # 05) KM 18+100: Cutting & leveling for the construction of the retaining wall foundation needs safety protocols compliance.



(Photo # 06) KM 20+400: Traffic diversions needs traffic control management to avoid traffic blockage.



(Photo # 07) KM 20+600: Drilling and blasting for the road widening needs safety measures and protection sign boards.



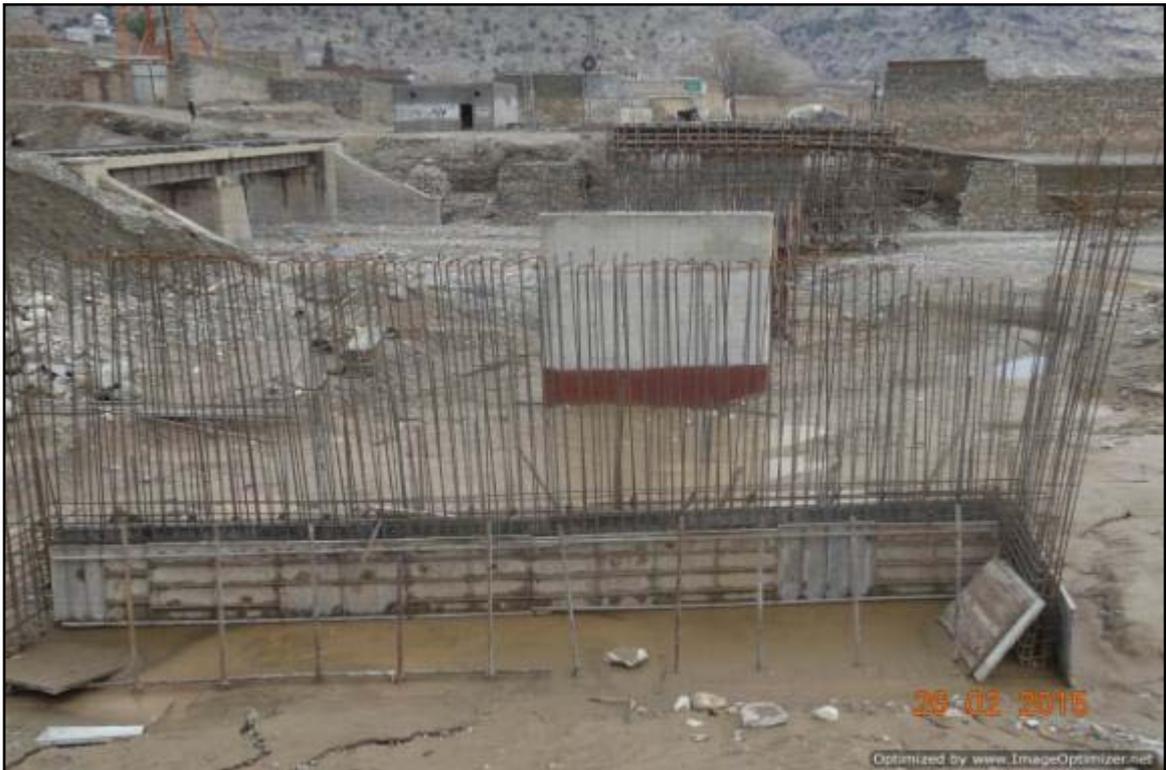
(Photo # 08) KM 24+ 300: Crush Plant near to the quarry area needs safety measures and proper placement of construction materials.



(Photo # 09) KM 24+ 300: View of properly maintained generators at FWO Crush Plant



(Photo # 10) KM 27+ 000: Bridge construction needs Safety measures to avoid damage to the construction of the Pile Cap foundation during raining



(Photo # 11) KM 27+ 250: Bridge construction needs Safety measures to avoid damage to the construction of the Pile Cap foundation during raining



(Photo # 12) KM 35+500: Dust pollution needs sprinkling of water.



(Photo # 13) KM 35+750: During culvert construction, road maintenance and work place safety is required to avoid traffic blockage due to rain at site



(Photo # 14) KM 0+000 LOOP-III: Hill cutting continues, which needs labor safeguards and H&S protocols compliance.



(Photo # 15) KM 0+125 LOOP-III: Removal of mud is required to avoid traffic blockage due to rain in the project area



(Photo # 16) KM 40+250: Dust pollution needs sprinkling of water.