



**GOVERNMENT OF THE PUNJAB  
PLANNING AND DEVELOPMENT BOARD  
(ROAD SECTION)**

**WORKING PAPER**

**PART A**

**Date of receipt of PC-I in P&D Board: 28-10-2024**

**PROJECT PROFILE:**

1. Project Title: **CONSTRUCTION OF DUAL CARRIAGEWAY FROM BOSAN ROAD (SAIDANWALA CHOWK) TO HEAD MUHAMMADWALA, LENGTH =11.68 KM, DISTRICT MULTAN.**
2. Location: District Multan
3. Sponsoring Agency: Communication & Works Department
4. Executing Agency: Punjab Highway Department
5. Operation & Maintenance Punjab Highway Department
6. Name of the Relevant Department (s) /Pre-PDWP meeting was held on **28.11.2024** under the Stakeholder(s) invited in chairmanship of Member (ID) Pre-PDWP
7. Name of the Sector's specialist / consultants / advisor / expert / invited in Pre-PDWP
8. Cost:

<b>(Rs. in million)</b>			
<b>Original</b>	<b>1<sup>st</sup> Revised</b>	<b>2<sup>nd</sup> Revised</b>	<b>Increase</b>
Rs. 1353.018 (24.01.2022)	Rs. 1481.669 (30.11.2022)	<b>1637.603 Proposed</b>	<b>155.934</b>

9. Source of Financing Provincial ADP 2024-25 reflected at G. Sr. No. 1313  
Expenditure up to 30.06.2024 is Rs. 875.000 million
10. Allocation (2024-25) Rs. 129.000 million

**11. BRIEF DESCRIPTION OF THE PROJECT:**

The proposed road starts from Bosan Road, Saidan Wala Chowk, and extends to Head Muhammad Wala at Khushab-Muzaffargarh Road. The existing single carriageway, constructed in 2011-12 by NHA, is in deteriorated condition and unable to accommodate the current traffic volume of 39,448 VPD, as per a traffic study by the P&D Directorate, Lahore. To address this, a dual carriageway was proposed to improve connectivity and traffic flow. Land acquisition for the project was completed, with MDA acquiring land from Km 0.00 to 4.30. The scheme was Administratively approved by the CWD letter No SOH(C&W)1-21/2022 dated 21-01-2022 for Rs.1353.018 Million and technically sanctioned vide CE Letter No.1131/Plg dated 26-01-2022 for Rs.1253.945M. After completing all codal formalities work was allotted to the contractor and is in progress.

Following a 10% price variation cushion approved by the Punjab P&D Board, the scheme's cost was administratively revised to Rs. 1,481.669 million and technically sanctioned at Rs. 1,367.464 million. The scheme is reflected at ADP 2024-25 No. 1313.

Now, the C&W Department has submitted the 2<sup>nd</sup> revised PC-I / cost estimate amounting to **Rs. 1,637.603 Million** for consideration of PDWP.

#### **REASONS OF REVISION:**

- i. Due to price variation as admissible under clause 55 of contract agreement.
- ii. Due to amendments in rates of bridge over Shujabad Canal (Work yet to be allotted).
- iii. Due to provision for removal of unsuitable material from RD 3+00 to 16+00 and from 39+00 to 52+00.
- iv. Due to provisions of breaching holes & stone pitching in breaching section, edge kerb stones, sand filling around manholes, refixing of existing guard rail, 12 No 36" Dia RCC pipe culverts and 500 Rft Footpath cum drain as per site requirement.
- v. Due to increase in provision of shifting of utility services as per demand notices.

#### **DESIGN & SCOPE:**

Total Length	=	11.68 Km
<b><u>EXISTING FEATURES</u></b>		
Metaled Width	=	24 ft
Flexible Pavement (Length)	=	11.68 Km
Type of Flexible Pavement	=	Carpet 5" thick
<b><u>PROPOSED FEATURES</u></b>		
Metaled Width	=	24 ft + 24 ft
Flexible Pavement	=	11.68 Km
Asphalt	=	5" Thick (3" ABC + 2" AWC)
Sub Base	=	10" Thick
Base Course	=	12" Thick
Treated Shoulders (TST)	=	2-ft (Inner) and 8-ft (Outer)

#### **12. a) Sector Issues**

Insufficient availability of funds against the ever-increasing demand of road infrastructure, resulting in generation of excessive throw forward

#### **b) Sector Strategy**

The provincial sectoral strategy envisages construction of a high quality infrastructure as planning, constructing and maintaining road network in public sector under need driven and cost effective regimes aiming at providing best possible means of communication to the general public

#### **13. Relationship of the project with the Sectoral policy /Growth Strategy, 2023.**

Project is aligned with the growth strategy, 2023

#### **14. Alignment with the Punjab Spatial Strategy, 2047(Comments of urban unit)**

N/A

#### **15. Other major ongoing projects in the Sector**

- i. CONSTRUCTION OF DUAL CARRIAGEWAY FROM BOSAN ROAD (SAIDANWALA CHOWK) TO HEAD MUHAMMADWALA, LENGTH=11.68 KM, DISTRICT MULTAN (2<sup>ND</sup> REVISED).

# 16. BREAK DOWN OF THE CAPITAL COST

(Rs in million)

Sr. #.	Items	As per 1 <sup>st</sup> Revised PC-I	As per 2 <sup>nd</sup> Revised PC-I	Difference
1.	<b><u>PART-A, WROK ALLOTTED</u></b> Rehabilitation of existing Carriageway from Bosan Road Saidan Wala Chowk To Head Muhammad Wala L=11.68 Km District Multan.	1448.141	1587.443	139.302
2.	<b><u>PART-B WORK YET TO BE ALLOTTED</u></b> Construction of 3 Span 30' each RCC Bridge Over Shujabad Canal in District Multan.	33.528	50.160	16.632
	<b>TOTAL COST</b>	<b>1481.669</b>	<b>1637.603</b>	<b>155.934</b>

## **PART-A, CONSTRUCTION OF DUAL CARRIAGEWAY FROM BOSAN ROAD (SAIDANWALA CHOWK) TO HEAD MUHAMMADWALA , LENGTH =11.68 KM, DISTRICT MULTAN (WORK ALLOTTED)**

(Rs. in Millions)

Sr. #.	Items	As per 1 <sup>st</sup> Revised PC-I	As per 2 <sup>nd</sup> Revised PC-I	Difference
1.	Road Work	1090.503	1085.925	-4.578
2.	Road Structure	79.377	135.524	56.147
3.	Road Furniture	25.730	25.176	-0.554
4.	Shifting of Utilities	5.000	10.775	5.775
5.	Provision of Breaching Section as per DN	0.000	15.807	15.807
6.	Survey & Mapping	0.234	0.234	0.000
7.	D/d of Old Material	-0.832	0.000	0.832
8.	Price Variation	122.526	180.324	57.798
9.	3% Contingency	35.843	37.399	1.556
10.	2% Consultancy	23.895	24.932	1.037
11.	5% PRA Tax	65.865	71.347	5.482
	<b>Total</b>	<b>1448.141</b>	<b>1587.443</b>	<b>139.302</b>

## **PART-B CONSTRUCTION OF 3 SPAN 30' EACH RCC BRIDGE OVER SHUJABAD CANAL IN DISTRICT MULTAN (WORK YET TO BE ALLOTTED)**

(Rs. in Millions)

Sr. #.	Items	As per 1 <sup>st</sup> Revised PC-I	As per 2 <sup>nd</sup> Revised PC-I	Difference
1.	Construction of 3 Span 30' Each RCC Bridge over Shujabad Canal.	30.480	45.600	15.120
2.	3% Contingency	0.914	1.368	0.454
3.	2% Consultancy	0.610	0.912	0.302
4.	5% PST	1.524	2.280	0.756
	<b>Total</b>	<b>33.528</b>	<b>50.160</b>	<b>16.632</b>

**17. UNIT COST**

Rs.105.343 Million

**18. PERIOD OF IMPLEMENTATION**

42 Months (Till June 2025)

**19. ANNUAL RECURRING EXPENDITURE**

Rs.11.059 million per annum

**20. ANNUAL INCOME AFTER COMPLETION**

N/A

**21. REQUIREMENT OF VEHICLES/STAFF/CONSULTANCY (WITH JUSTIFICATION)**

N/A

**22. EXISTING FACILITIES****PART – B****23. TECHNICAL APPRAISAL**

(Comments of R&amp;B)

Pre-PDWP meeting was held on **28.11.2024** under the chairmanship of Member (ID), wherein project's salient features, design & scope was discussed. Imperative discussion was made on reasons of revision of this PC-1, Physical & financial progress of the scheme and details of price variations. Point wise discussion is listed as under:-

<b>Sr. No.</b>	<b>Observation</b>	<b>Reply of the Department</b>	<b>Recommendations of pre-PDWP</b>
1.	RD wise pictorial evidences of road and drone video may be provided in view of guidelines issued by P&D Board vide No. 12(14)PO(COORD-II)P&D/2022 dated 11.09.2023	Pictorial evidence and drone video attached	Noted
2.	In light of instructions issued by P&D Board vide No. 12(14)PO(COORD-II)P&D/2024 dated 19.07.2024, the sponsor is requested to inform about any audit observations related to the scheme that need to be regularized through the approval of the proposed PC-I, if any.	No. Audit observations regarding this scheme.	Noted
3.	Sponsor to certify that scope of work pertaining to construction of bridge over Shujabad Canal, initially approved at a cost of Rs. 30.480 million has not yet been allotted.	It is certified that construction of pile foundation bridge over shujabad has yet not been allotted to the contractor.	Noted
4.	Sponsor to elucidate/justify the reasons behind not allotting the construction of bridge over Shujabad Canal along with other scope.	Due to not providing of design / drawing from the bridge directorate at the time of allotment of road work.	Noted

5.	It has been observed that the unit rate used for estimating the bridge is Rs. 9,500/SFT. However, as per the notified rates of the Bridge Directorate for the 2nd Bi-Annual 2024, the unit rate for canal bridges ranges between Rs. 10,400/SFT and Rs. 11,000/SFT, depending on the skew angles. This discrepancy needs to be addressed and rectified in estimate.	When estimate was moved the 2nd bi-annual unit rates were not issued. Now corrected abstract of cost with unit rate @11000/- P.Sft will be submitted.	Noted
6.	Justification for provision of removal of unsuitable material taken in estimate from RD 3+00 to 16+00 and from 39+00 to 52+00 with depth ranging from 2.25 ft to 9 ft and at width of 38 ft is to be provided.  Recommendations of RR&MTI and pictorial evidence in lieu of making this provision is to be provided.	Recommendation regarding unsuitable material by RR&MTI and Pictorial evidence attached.	Noted The quantity take-off in the BOQ of the estimate must align with the depths and lengths specified by RR&MTI and estimate is to be corrected accordingly.
7.	Sponsor to justify the provision of sand around 40 No manholes with dimensions taken in estimate at 24 ft by 24 ft.	The main Trunk sewer line passes through proposed road from Km No.0.00 to 3.00, therefore compaction around manhole can damage the structure of manhole as well as it may cause of settlement of that road, therefore provision of sand filling by 24'x24' is taken in the estimate.	Dimensions taken in estimate for sand filling around manholes must be reviewed and rationalized to ensure accuracy and alignment with the actual requirements.
8.	It has been observed that provision of 14" kerb stones is taken in estimate at length of 07 Km (Single Side) which is to be justified.  Location plan duly marked on google image in lieu of making this provision is to be provided.	Provision of kerb stone is made in the estimate for collection of storm water, where, height of embankment is more than 10', which is from Km No: 4.68 to 11.68 Km.	Noted
9.	Increase in provision of 8' span culvert from 02 No to 04 No with a cost	Provision of 8' RCC Span Slab Culvert has been increased from 2 Nos to 4	The Chief Engineer (Concerned) shall re-validate the provision

	impact of Rs. 7.471 million is to be justified.	Nos at RD: 64+44, 65+44, 140+00 RD 20+20 and same already exist in existing carriageway.	as per recommendations of P&DD before accord of revised TS.
10.	Sponsor to justify the new provision of 12 No RCC pipe culverts with a cost impact of Rs. 22.438 million. Location plan duly marked on google image for this provision may also be provided.	Excess is due to taking provision of 12 Nos Pipe culvert as same already been existed in existing carriageway, Now these are incorporated in revised PC-I for additional carriageway as well. (RD: 18+24, 22+75, 32+68, 46+80, 60+39, 76+70, 94+60, 107+70, 121+47, 196+14, 146+64, 167+70).	-do-
11.	Justification for provision of breaching holes with cost impact of Rs. 15.807 million and allied work pertains to stone pitching amounting to Rs. 6.483 million is to be provided.  Design of breaching holes and rate analysis of instant provision is not attached with PC-I, which are to be provided.	Provision of breaching holes are made as per demand/design provided by Pak Army (letter attached) and provision of stone pitching at that segment i.e 700 Rft has been made to save the Govt. Property/Road.	Provision for the construction of breaching holes may be included in the estimate as per requirements. However, the procurement of explosives under this provision is not justified and may be excluded.
12.	Sponsor to justify the new provision of footpath cum drain taken in estimate at length of 500 Rft.  Drainage plan duly marked on google image in lieu of proposing this provision is to be provided.	Construction of drain cum footpath in a length of 500-Rft is taken at sayidan wala chowk. However Drainage plan marked on Google map attached.	The Chief Engineer (Concerned) shall re-validate the provision as per recommendations of P&DD before accord of revised TS.
13.	It has been observed that new provision is made in estimate i.e. P/F & Refixing of existing of guard rail amounting to Rs. 32.020 million which requires justifications.  Furthermore, rate analysis of this item is not attached with PC-I, which is to be provided.	After construction of additional carriageway, the geometric design of road has been dualized, therefore, provision of existing guard rail in existing carriageway on inner side will be refixed / re-installed at the outer end of newly proposed additional carriageway.	The Chief Engineer (Concerned) shall re-validate the provision as per actual site requirement before accord of revised TS.
14.	Sponsor to justify the increase in cost provision of shifting of utility services by providing	The provision for shifting of utilities is increased due to actual demand notice of concerned agencies.	Noted

	copies of actual demand notices received from line agencies.		
15.	Financial profile of the project depicting year-wise original allocation, revised allocation, re-app (if any) and expenditure incurred upto now should be clearly furnished.	Year wise financial statement attached.	Noted
16.	Sponsor to share the copies of EOTs and justification on the basis of which the EOTs were granted.	Copy of time extension with justified reasons attached.	Noted
17.	It has been observed that the price variation is calculated based on the rates applicable in the month when the bill was paid, which is not justified. The sponsor to recalculate the price variation based on the check requests, utilizing the current rates of the items executed on site in the specified month.	Price variation has been calculated on the basis of the month of record entry, however as per check request will be provided shortly.	Chief Engineer (Concerned) shall ensure the provision/ payment of price variation as per guidelines issued by P&D Board.
18.	It has been noted that a factor of 0.15 is currently employed for calculating diesel variation. The sponsor is required to separately categorize roadwork items and Buildings & RCC structure items. For these specific categories, the diesel variation should be calculated using a factor of 0.07, in accordance with Clause 55, Sub-Clause 10	It is clarified that separate factor i.e 0.15 for road work and 0.07 for structure work are applied for calculation of price variation.	Noted
19.	Sponsor to share the physical progress/status of scheme.	<b>New Carriageway:</b> Sub Base = 11.00 Km Base Course = 11.00 Km ABC = 7.50 Km <b>Existing Carriageway:</b> AWC = 7.50 Km	Noted

#### **PART – C**

#### **24. ECONOMIC / FINANCIAL APPRAISAL**

(Comments of Economic Appraisal Section and Finance Department)

#### **PART – D**

#### **25. ENVIRONMENTAL APPRAISAL**

(Comments of Environment Department)

## 26. **CONSIDERATION BY PRE-PDWP**

The scheme is submitted by the C&W Department for revised approval at a cost of **Rs.1,637.603 million**. After detailed deliberations, the cost of revised PC-1 rationalized at **Rs.1,612.528 million**.

## 27. **RECOMMENDATIONS**

- i. The scheme is placed before PDWP for consideration at cost of **Rs.1,612.528 million**. The proposed abstract of cost is given below:

(Rs. in Million)					
Sr. #.	Items	As per 1 <sup>st</sup> Revised PC-I	As per 2 <sup>nd</sup> Revised PC-I	After Pre-PDWP	Difference w.r.t 1 <sup>st</sup> revised cost
<b>PART-A, CONSTRUCTION OF DUAL CARRIAGEWAY FROM BOSAN ROAD (SAIDANWALA CHOWK) TO HEAD MUHAMMADWALA, LENGTH =11.68 KM, DISTRICT MULTAN (WORK ALLOTTED)</b>					
1.	Road Work	1090.503	1085.925	1083.665	-6.838
2.	Road Structure	79.377	135.524	144.184	64.807
3.	Road Furniture	25.730	25.176	25.176	-0.554
4.	Shifting of Utilities	5.000	10.775	10.775	5.775
5.	Provision of Breaching Section as per DN	0.000	15.807	15.807	15.807
6.	Survey & Mapping	0.234	0.234	0.234	0.000
7.	D/d of Old Material	-0.832	0.000	0.000	0.832
8.	Price Variation	122.526	180.324	147.484	24.958
9.	3% Contingency	35.843	37.399	35.843	0.000
10.	2% Consultancy	23.895	24.932	23.895	0.000
11.	5% PRA Tax	65.865	71.347	70.025	4.160
	<b>Sub Total (A)</b>	<b>1448.141</b>	<b>1587.443</b>	<b>1557.088</b>	<b>108.947</b>
<b>PART-B CONSTRUCTION OF 3 SPAN 30' EACH RCC BRIDGE OVER SHUJABAD CANAL IN DISTRICT MULTAN (WORK YET TO BE ALLOTTED)</b>					
1.	Construction of 3 Span 30' Each RCC Bridge over Shujabad Canal.	30.480	45.600	50.400	19.920
2.	3% Contingency	0.914	1.368	1.512	0.598
3.	2% Consultancy	0.610	0.912	1.008	0.398
4.	5% PST	1.524	2.280	2.520	0.996
	<b>Sub Total (B)</b>	<b>33.528</b>	<b>50.160</b>	<b>55.440</b>	<b>21.912</b>
	<b>G. Total (A+B)</b>	<b>1481.669</b>	<b>1637.603</b>	<b>1612.528</b>	<b>130.859</b>

- ii. The gestation period of scheme shall be up to June, 2026.
- iii. The provision of price variation is for estimation purposes solely. The responsibility for payment adjustments stemming from price variation shall rest with the authority competent to accord revised TS.

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