(Volume-II)

CONCESSION AGREEMENT

BY & BETWEEN

 $\begin{tabular}{ll} Governor\ of\ Punjab \\ (Through\ The\ Secretary,\ Lahore\ Ring\ Road\ Authority) \\ \end{tabular}$

AND

[ullet] (as the Concessionaire)

DATED AS OF [2021]

IN RESPECT OF

The Concession For Engineering, Procurement, Construction, Finance, Operations and Maintenance Of Rawalpindi Ring Road- Project 2021

AUTHORITY INITIALS	Concessionaire Initials
AUTHORIT INITIALS	CONCESSIONAIRE INTIALS

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CONCESSION AGREEMENT

This CONCESSION AGREEMENT (this Agreement) is entered into on this [●] day of [●], 2021 at Rawalpindi, Pakistan:

BY AND BETWEEN

THE LAHORE RING ROAD AUTHORITY, a statutory body constituted pursuant to Section 3 of the Lahore Ring Road Authority Act, 2011, with its headquarters at Bulleh Shah Interchange Gajju Matta (Southern Toll Plaza), Ferozepur Road Lahore, Pakistan (the **Authority** which expression shall, where the context so permits, be deemed to mean and include its successors in interest and permitted assigns);

AND

[INSERT NAME OF CONCESSIONAIRE], a company incorporated under the Applicable Laws of Pakistan, having its registered office located at [insert address], Pakistan (the Concessionaire, which expression shall, where the context so permits, be deemed to mean and include its, successors in interest, administrators and permitted assigns);

(the Authority and the Concessionaire are hereinafter collectively referred to as the **Parties** and each individually as a **Party**).

RECITALS

- A. Rawalpindi Ring Road project is a new construction of approximately sixty five point three kilometers (65.3km) long road. This highway will begin from National Highway (N-5) near Rawat (Radio Pakistan) pass through M-2 motorway, Islamabad International Airport, China Pakistan Economic Corridor (CPEC), M-1 motorway and terminate at Sangjani National Highway Islamabad. To cater to the congested vehicular traffic to pass through Rawalpindi and Islamabad, the GoPb has decided to construct the Rawalpindi Ring Road in three segments: (i) starting from N-5 to DI Hakla six-lane dual carriageway (3 + 3 lanes both sides); (ii) starting from DI Hakla to M-1 two plus two (2+2) rigid pavements parallel to the already existing motorway; and (iii) starting from M-1 to Sangjani six-lane dual carriageway (3 + 3 lanes both sides) by engineering, procuring, constructing, financing, operating and maintaining, through Public Private Partnership on a design, build, finance, operate and transfer (the "DBFOT") basis, the Project Highway along with the Project Facilities in accordance with this Agreement and the subsequent Operation and Maintenance of the same in accordance with this Agreement.
- B. On ------, a Request for Proposals (together with the related advertisements) (the **RFP**) was issued by the Authority to prospective bidders for, *inter alia*, inviting submission of bids for grant of the Concession for the implementation of the Project and subsequently, upon conclusion of the bidding process pursuant to the RFP (the **Bidding Process**), the Sponsor was selected by the Authority for such purposes. The letter of intent was issued to the Sponsor by the Authority on ------ (the **Letter of Intent**);
- C. In accordance with the requirement of the RFP and the terms of the Bid submitted by the Sponsor, the Sponsor incorporated the Concessionaire as a special purpose vehicle to implement the Project and Authority has agreed to grant to the Concessionaire the right and obligation to implement the Project on terms and conditions contained in this Agreement and the Concessionaire hereby accepts the same;
- D. The Concessionaire acknowledges and confirms that it has, based on the RFP, undertaken a thorough due diligence (including the technical and financial viability and legal due diligence) of the Project and its requirements, and on the basis of its independent satisfaction is entering into this Agreement for the purpose of accepting the Concession for the implementation of the Project in accordance with the terms and conditions of this Agreement; and

The Parties are now entering into this Agreement to set out the terms and conditions applicable to, *inter alia*, the Concession and the implementation of the Project and the relationship of Authority and the Concessionaire and their rights and obligations.

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1. DEFINITIONS & INTERPRETATION

1.1 <u>DEFINITIONS</u>

In this Agreement (including the recitals), unless the context shall otherwise require:

AASHTO Standards means the standards applicable to roads and highways published in the relevant publication of the American Association of State Highway and Transportation Officials;

Abandonment or Abandon means the voluntary cessation of the construction or Operation and Maintenance of the Concession Assets by the Concessionaire and / or the withdrawal of all, or substantially all, personnel by Concessionaire from the Project Site for reasons other than a Permitted Event;

Accounting Year means in respect of each Party, the financial year commencing from 1st day of July of any calendar year and ending on 30th day of June of the next calendar year;

Act means the Punjab Public Private Partnership Act, 2019, as amended from time to time and shall include all future enactments in replacement thereof;

Additional Cost means the additional capital expenditure and / or the additional operating cost and / or, any adverse financial impact on the Concessionaire and/or additional taxes and/or all of the above as the case may be, which the Concessionaire has or would be required to incur and which has / have arisen as a consequence of Change of Scope or Change in Law; provided, that the Additional Costs shall be paid directly to the Concessionaire by the Authority in terms of this Agreement and shall not form part of Total Project Cost;

Additional Development Rights means such additional rights, property or assets that are not part of and are not anticipated to be part of the Project as on the Effective Date but are available to the Authority in accordance with Section 29.2 (*Commercial Rights & Additional Facilities*) and may include, without in any manner limited to, provision of Additional Facilities;

Advertising Proceeds shall have the meaning ascribed thereto in Section 29.1 (*Advertising & Advertising Revenues*):

Affected Party shall have the meaning ascribed thereto in Section 21.1 (Force Majeure Event);

Additional Facilities means the facilities including, but not limited to, service stations, motels, hotels, restaurants, shopping areas, amusement parks and other facilities provided or procured to be provided for the benefit of the Users, and that are in addition to (and not part of) the Concession Assets, and are situated along the right of way;

Agreement means this 'Concession Agreement' including the Main Body and all Schedules attached hereto;

Additional Interconnection Points shall have the meaning ascribed thereto in Section 14A.1.1;

Additional Interconnection Points Event shall have the meaning ascribed thereto in Section 14A.1.1(b);

Additional Interconnection Points Compensation shall have the meaning ascribed thereto in Section 14A.1.1(b);

Additional Interconnection Points Compensation Payment Mechanism shall have the meaning ascribed thereto in Section 14A.1.1(b);

Applicable Laws means all applicable laws, promulgated or brought into force and effect by the GoPB, Authority or the Government of Pakistan, as the case may be, including regulations and rules made thereunder, and judgments, decrees, injunctions, writs and orders of any court of record, as may be in force and effect during the subsistence of this Agreement;

Applicable Standards means the standards, specifications, requirements, criterion and timelines (as applicable) set out in relation to and applicable to:

- (a) the Project Works;
- (b) the Project and its implementation;
- (c) the Concession Assets; and
- (d) the performance by the Concessionaire and the Sponsor (as applicable) of their respective obligations under the Authority Agreements;

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in each case above, as contained and set out in (as applicable):

- (i) this Agreement (including all Schedules attached hereto);
- (ii) the Authority Agreements;
- (iii) Applicable Laws;
- (iv) Concessionaire Permits;
- (v) Environmental Standards;
- (vi) Specific Requirements; and
- (vii) any other standards, requirements, criterion and timelines (as applicable), mutually agreed between the Parties from time to time,

provided, however, that in the event of any discrepancy in the standards, requirements, criterion and timelines (as applicable) set out in the abovementioned, the most stringent standards, requirements, criterion and timelines (as applicable), as contained in any of the above-mentioned, shall apply (unless otherwise mutually agreed between the Parties);

Approved Detailed Engineering Design means the Detailed Engineering Design approved by the Independent Engineer (in consultation with the Authority) in accordance with the Applicable Standards (including Section 12.5.2 of this Agreement);

Approved Major Maintenance Contract(s) shall have the meaning ascribed thereto in Section 19.13(b);

Approved Major Maintenance Programme shall have the meaning ascribed thereto in Section 19.13(b);

Arbitration Act means the Arbitration Act, 1940 and shall include modifications to or any re-enactment thereof as in force from time to time;

Associate or Affiliate means, in relation to either Party and/or the Sponsor, a Person who controls, is controlled by, or is under the common control with such Party and/or the Sponsor (as used in this definition, the expression "control" means, with respect to a Person which is a company or corporation, the ownership, directly or indirectly, of more than fifty percent (50%) of the voting shares of such person and the power to direct the management and policies of such Person, whether by operation of law or by contract or otherwise), and with respect to a Person which is not a company or corporation, the power to direct the management and policies of such Person, whether by operation of law or by contract or otherwise);

Authority means the Lahore Ring Road Authority established pursuant to Section 3 of the LRRA Act, for and on behalf of the Government of Punjab, its respective departments or any other authorities, agencies and instrumentalities functioning under the direction or control of the Government of Punjab, and its administrators, successors and permitted assigns for the purposes of carrying out this Project;

Authority Agreements means:

(a)	this Agreement;
(b)	the Project Site Licence Agreement;
(c)	the Concession Direct Agreement;
(d)	Provincial Support Agreement
(e)	the Escrow Agreement;
(f)	Funding & Utilization Agreement;
(g)	the Viability Gap Funding Agreement;
(h)	the VGF Equity Agreement;
(i)	Independent Engineer Agreement;
(j)	Independent Auditor Agreement;

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- (k) Memorandum of Deposit of Title Documents;
- (l) MRG Agreement; and
- (m) any other agreement entered into in respect of the Project between the:
 - (i) Authority; and
 - (ii) Concessionaire and/or the Financiers and/or the Sponsor in respect of the Project and designated as a "Authority Agreement" with the written consent of the Authority;

Authority Conditions Precedent shall have the meaning ascribed thereto in Section 3.1 (*Conditions Precedent*);

Authority Default Termination Amount shall have the meaning ascribed thereto in **SCHEDULE T** (*Termination Payments*);

Authority Event of Default shall have the meaning ascribed thereto in Section 22.2.1 (*Authority Event of Default*);

Authority Indemnified Persons shall have the meaning ascribed thereto in Section 9.1 (*General Indemnity*);

Authority Overriding Power Event shall have the meaning ascribed thereto in Section 8.9 (*Authority Overriding Powers*);

Authority Remedy Amount shall have the meaning ascribed thereto in Section 18.2.3;

Authority Remedy Invoice shall have the meaning ascribed thereto in Section 18.2.3;

Authority Representative means the representative of the Authority appointed by the Authority for purposes of this Agreement in accordance with Section 8.8 (*Authority Representative*);

Award shall have the meaning ascribed thereto in Section 30.3.4;

ASTM Standards means tests and standards prescribed by 'American Society for Testing and Materials' as prescribed internationally;

Base Case means the projections of cash flows contained in the Base Case Financial Model that are used to compute the Base Case Equity IRR;

Base Case Equity IRR shall mean post tax internal rate of return (expressed as percentage) on the Equity of shares, as expressly set out in the Base Case Financial Model;

Base Case Financial Model means the financial model attached herewith as SCHEDULE U (Base Case Financial Model);

Benchmark Toll Revenue(s) shall bear the meaning ascribed thereto in the RFP;

Bid means the technical and financial proposal of the Sponsor with respect to the Project submitted to the Authority on [insert date];

Bidding Process shall have the meaning ascribed thereto in Recital B above;

Bid Security means the bank guarantee submitted by the Sponsor pursuant to the RFP in connection with its Bid for the Concession rights which shall remain valid and in effect until the Bid Security Expiry Date;

Bid Security Expiry Date shall have the meaning ascribed thereto in Section 11.1.4;

Bid Submission Date means [insert date];

Big Four Accounting Firms means:

- (a) A. F. Ferguson & Co. (a member firm of PricewaterhouseCoopers network);
- (b) EY Ford Rhodes (a member firm of Ernst & Young Global Limited);
- (c) KPMG Taseer Hadi& Co.;
- (d) M. Yousuf Adil Saleem & Co. (a member firm of Deloitte Touche Tohmatsu);

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and/or any other successor chartered accountancy firm categorized as one of the Big Four Accounting Firms;

Board shall mean the board formulated under the Punjab Private Partnership Act, 2019;

Board of Arbitrators shall have the meaning ascribed thereto in Section 30.3.1;

Board Resolution means a resolution passed by the board of directors of the Concessionaire authorizing the Concessionaire to, *inter alia*, enter into this Agreement;

Certified Impediment Notice shall have the meaning ascribed thereto in Section 4.15.2;

Change in Complete Control means any issuance, sale, transfer, conveyance, disposal or any event, transaction, arrangement, Encumbrance or agreement of any nature that results in or may result in:

- (a) the issuance of any Ordinary Share to any Person other than the Sponsor; or
- (b) the transfer of direct and/or indirect, legal and/or beneficial ownership of any shares, or securities convertible into shares, that causes or may cause the sale, transfer, conveyance or disposal of the Sponsor's legal and/or beneficial ownership, direct or indirect, in the total (or any part thereof) paid up and outstanding Ordinary Shares; and
- (c) the Sponsor, as a result of (a) or (b) above, holding less than hundred percent (100%) of the Ordinary Shares and/or losing the power to direct the management, policies, control and/or decisions, in each case, of the Concessionaire;

Change in Law means the occurrence of any of the following events on or after the Bid Submission Date:

- (a) the enactment of any new federal, provincial or local government law, as applicable in the Province of Punjab;
- (b) the repeal, modification or re-enactment of any existing federal, provincial or local government law, as applicable in the Province of Punjab;
- (c) the commencement of any federal, provincial or local government law, which has not entered into effect until the date of the Bid Submission Date;
- (d) a change in the interpretation or application of any Applicable Law (as applicable in the Province of Punjab) by a court of record as compared to such interpretation or application by a court of record prior to the date of this Agreement;
- (e) the imposition by a Government Authority of any additional Concessionaire Permit;

provided, that any:

- (i) coming into effect, on or after the Bid Submission Date, of any provision of a statute which is already gazetted in accordance with the Applicable Laws prior to the Bid Submission Date; or
- (ii) any new Applicable Law or any change in the existing Applicable Law under the active consideration of or in the contemplation of the Authority or the Government of Pakistan as of the Bid Submission Date, which is already gazetted in accordance with the Applicable Laws prior the Bid Submission Date,

shall not constitute a 'Change in Law';

Change in Law Termination Amount shall have the meaning ascribed thereto in **SCHEDULE T** (*TERMINATION PAYMENT*);

Change in Shareholding means any issuance, sale, transfer, conveyance, disposal or any event, transaction, arrangement, Encumbrance or agreement of any nature that results in or may result in:

- (a) the issuance of any Ordinary Share to any Person other than the Sponsor; or
- (b) the transfer of direct and / or indirect, legal and/or beneficial ownership of any shares, or securities convertible into shares, that causes or may cause the sale, transfer, conveyance or disposal of the Sponsor's legal and/or beneficial ownership, direct or indirect, in the total (or any part thereof) paid up and outstanding Ordinary Shares of the Concessionaire; and
- (c) the Sponsor, by virtue of (a) or (b) above, divests up to 49% of the Ordinary Shares, does not hold up to 49% of Shares and/or does not lose the power to direct the management, policies and decisions of the Concessionaire;

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Change of Scope shall have the meaning ascribed thereto in Section 16.1 (Change of Scope);

Change of Scope Notice shall have the meaning ascribed thereto in Section 16.2 (Change of Scope Notice);

Commencement Certificate means a certificate to be jointly issued in writing by the Independent Engineer and the Independent Auditor, to the Concessionaire and copied to the Authority in accordance with Section 3.4 (*Commencement Certificate & Commencement Date*);

Commencement Date means the date set out in the Commencement Certificate being the date on which each of the Conditions Precedent stand satisfied, waived and/or deferred;

Commercial Operations Date means the date on which the Project Highway is available for Users, such period commencing on the day immediately succeeding the Substantial Completion Date;

Completion Tests means the tests required to be conducted for achieving Project Highway Section Completion Date or Substantial Completion (as the case may be), as listed in **SCHEDULE G** (*Detailed Project Report*);

Completion Tests Date Notice shall have the meaning ascribed thereto in Section 14.1.1;

Concession shall have the meaning ascribed thereto in Section 2.1.1;

Concession Assets means and includes all tangible and intangible assets of the Project Site, the Project Highway, Project Highway Section and the Project Facilities and all rights, title, benefits, facilities and easements, whether directly and / or indirectly related thereto, relating to and forming part of the Project including (only to the extent of the Project Highway, the Project Site and the Project Facilities) but not limited to (a) rights over the Project Site in the form of Licence, right of way or otherwise, (b) tangible assets such as civil works including foundations, embankments, pavements, road surface, bridges, approaches to bridges, roads, drainage works, lighting facilities, traffic signals, sign boards, milestones, equipment relating to regulation of traffic, road furniture, electrical works for lighting on the intersections and toll plazas, Interchanges, toll plaza, toll control building, toll gates, weighbridges, the Project Facilities and / or the Project Site, telephone and other communication systems and communication equipment for the Project, wayside amenities, administration maintenance facilities, equipment, vehicles etc. on the Project Highway and the Project Facilities situated on the Project Site;

Concession Direct Agreement means the direct agreement that may be entered into between the Concessionaire, the Authority and the Financiers, if required by the Financiers;

Concession Period means, in respect of the Concession and the Concession Assets, the period commencing on the Commencement Date (provided, however, that the Concession Period in respect of the Preliminary Works (if any) shall commence on the Effective Date) and ending on the Trigger Date;

Concessionaire shall have the meaning ascribed thereto in the Preamble;

Concessionaire Authorized Representative shall have the meaning ascribed thereto in Section 7.4.1;

Concessionaire Conditions Precedent shall have the meaning ascribed thereto in Section 3.1.2 (*Conditions Precedent*);

Concessionaire Default Termination Amount shall have the meaning ascribed thereto in **SCHEDULE T** (*Termination Payment*);

Concessionaire Engaged Persons means the each of the Concessionaire's representatives (including the Concessionaire Authorized Representative and the Concessionaire Project Engineer), agents, executives, contractors, employees, subcontractors, vendors, suppliers, parties with whom it has entered into the Project Agreements, Contractors and other personnel, in each case, that are engaged, hired, appointed, contracted (directly or indirectly) by the Concessionaire for the performance of Project Works or any part thereof;

Concessionaire Event of Default shall have the meaning ascribed thereto in Section 22.1 (*Concessionaire Event of Default*);

Concessionaire Indemnified Persons shall have the meaning ascribed thereto in Section 9.1.2;

Concessionaire Permits means all such approvals, consents, authorizations, notifications, concessions, acknowledgements, licences, permits, decisions or similar items that relate to the Project and its implementation including all such consents and authorizations issued by a Government Authority and which the Concessionaire is or its Contractors are required to obtain from any Government Authority and thereafter to maintain to fulfill its obligations under the Authority Agreements, including the Specified Concessionaire Permits; provided, however, that in no event shall the Concessionaire Permits include any concessions or

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exemptions from the Applicable Laws unless they are expressly granted pursuant to the terms of the Authority Agreements;

Concessionaire Preliminary Notice shall have the meaning ascribed thereto in Section 23.2 (*Termination for Authority Event of Default*);

Concessionaire Project Engineer shall have the meaning ascribed thereto in Section 7.4.1;

Condition(s) Precedent means the conditions precedent to the achievement of Commencement Date, as listed in Sections 3.1.2, 3.1.3 and 3.1.4 of Section 3.1 (*Conditions Precedent*);

Condition(s) Subsequent means the conditions subsequent listed in Section 3.2 (Conditions Subsequent);

Conditions means the Conditions Precedent and the Conditions Subsequent set out in Article 3 (Conditions);

Construction Drawings means the drawings, designs, calculations and documents prepared and/or to be prepared by the Concessionaire pursuant to the Applicable Standards and the Design Requirements that pertain to the Project and the Concession Assets and which are detailed in SCHEDULE G (*Detailed Project Report*), as amended from time to time by the Concessionaire in accordance with the terms of this Agreement with the approval of the Independent Engineer (in consultation with Authority);

Construction Inspection Report has the meaning ascribed thereto in Section 13.6.2;

Construction Monthly Progress Report has the meaning ascribed thereto in Section 13.5.1;

Construction Performance Security means a first demand irrevocable and unconditional bank guarantee, issued by a scheduled bank in Pakistan (with a minimum credit rating of at least 'AA-' as rated by JCR VIS or an equivalent rating by PACRA) acceptable to the Authority, in the form of a demand guarantee of an amount equal to one percent (1%) of the Pre Estimated Project Cost in the form of the instrument attached herewith as **SCHEDULE L** (*Form of Construction Performance Security*);

Construction Performance Security Expiry Date shall have the meaning ascribed thereto in Section 11.2.6;

Construction Period means the period commencing on the Commencement Date and ending on the Project Construction Completion Date;

Construction Period Damages has the meaning ascribed thereto in Section 14.5 (*Construction Period Damages*);

Construction Period Damages Payment Date shall have the meaning ascribed thereto in Section 14.5 (*Construction Period Damages*);

Construction Period Insurances means the Insurances procured and / or obtained by the Concessionaire pursuant to the provisions of and in accordance with Section 20.1 (Construction Period Insurances) and PART I (Construction Period Insurances) OF SCHEDULE I (Insurances);

Construction Programme shall have the meaning ascribed thereto in Section 13.2.2;

Construction Requirements means the relevant standards, requirements, criterion and timelines (as applicable) that are set out in relation to and are applicable to the Construction Works, as set out in:

- (a) the Main Body;
- (b) the Scope of the Project;
- (c) the AASHTO Standards (to the extent adopted by the National Highway Authority in the "NHA General Specifications of 1998"), being the requirements applicable in respect of matters relating to the Concession Assets;
- (d) the Design Requirements;
- (e) SCHEDULE G (Detailed Project Report);
- (f) the Construction Programme; and
- (g) any other standards, requirements, criterion and timelines (as applicable), mutually agreed between the Parties from time to time,

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provided, however, in the event of any discrepancy in the standards, requirements and criterion set out in the abovementioned, the standards, requirements and criterion in accordance with nationally and internationally accepted standards as per Good Industry Practice (as applicable), shall apply (unless otherwise mutually agreed between the Parties); provided further, that in the event there is any deficiency in the standards and requirements (as applicable) the ASHTO Standards, ASTM Standards and NHA Standards (as certified by the Independent Engineer) shall apply;

Construction Tests shall have the meaning ascribed thereto in Section 13.4.1;

Construction Time For Completion means the time permitted herein for performance and completion of Construction Works and all other obligations to be performed by the Concessionaire for the issuance of the Final Project Construction Completion Certificate, as set out in and contemplated by the Applicable Standards and the Construction Programme, including the:

- (i) completion of engineering and design works and services on or prior to the date set out in the Project Construction Completion Schedule;
- (ii) submission of Construction Drawings on or prior to the dates contemplated by the Applicable Standards and the Construction Programme;
- (iii) performance and completion of each Project Construction Milestone on or prior to its Project Construction Milestone Date;
- (iv) achievement of Substantial Completion on or prior to the Scheduled Substantial Completion Date;
- (v) achievement of Project Construction Completion on or prior to the Scheduled Project Construction Completion Date

Construction Works means all obligations, works, services and duties undertaken and/or performed and/or to be undertaken and/or performed by the Concessionaire until the Project Construction Completion Date pursuant to the Applicable Standards including, *inter alia*, the obligations, works, services and duties undertaken and/or performed and/or to be undertaken and/or performed by the Concessionaire in respect of: (a) preparation, completion and delivery of Construction Drawings; (b) the engineering (including design), procurement and construction of the Concession Assets (including all activities and obligations incidental thereto); (c) the Site Construction Works; and (d) the activities consisting of, and for achievement of, in each case, each Project Construction Milestone;

Contractor(s) means the EPC Contractor and the O&M Contractor and any of the Concessionaire's other direct contractors and any of their direct sub-contractors integrally involved in the Project for the performance of Project Works (or any part thereof);

Corporate Documents means the constitutional documents and the corporate authorizations set out in **SCHEDULE K** (*Corporate Documents*);

Corrupt Act means:

- (a) offering, giving or agreeing to give to the Authority, a Government Authority or to any Person employed by or on behalf of the Authority and/or a Government Authority any gift or consideration of any kind as an inducement or reward:
 - (i) for doing or not doing (or for having done or not having done) any act in relation to the obtaining or performance of this Agreement or any other contract relating to this Agreement with the Authority and/or a Government Authority; or
 - (ii) for showing or not showing favor or disfavor to any Person in relation to this Agreement or any other contract relating to this Agreement with the Authority and/or a Government Authority;
- (b) entering into this Agreement or any other contract relating to this Agreement with the Authority and/or a Government Authority in connection with which commission / discount has been paid / received (as the case may be) or has been agreed to be paid or received by the Concessionaire or on its behalf, or to its knowledge, unless before the relevant contract is entered into particulars of any such commission and the terms and conditions of any such contract for the payment of such commission / discount have been disclosed in writing to the Authority;
- (c) committing any offence:
 - (i) under any law, in respect of fraudulent acts in relation to this Agreement, from time to time dealing with bribery, corruption or extortion;

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- (ii) under any law, in respect of fraudulent acts in relation to this Agreement, creating offences in respect of fraudulent acts; or
- (iii) in respect of fraudulent acts in relation to this Agreement;
- (d) in respect of fraudulent acts in relation to this Agreement, defrauding or attempting to defraud or conspiring to defraud the Authority or any other public body;

Corrupt Act Termination Amount shall have the meaning ascribed thereto in **SCHEDULE T** (*Termination Payments*);

Cure shall mean curing of breach or default of this Agreement by the Party responsible for such breach or default:

Cure Period means:

- (a) in respect of a Concessionaire Event of Default:
 - during any period when any Financing Due is outstanding, the period commencing on the date of receipt by the Concessionaire of the Authority Preliminary Notice and expiring on the date falling ninety (90) days thereafter, or such other time period as may be agreed in the Concession Direct Agreement;
 - (ii) during any period when any Financing Due is not outstanding, the period commencing on the date of receipt by the Concessionaire of the Authority Preliminary Notice and expiring on the date falling forty-five (45) days thereafter;
- (b) in respect of an Authority Event of Default, the period commencing on the date of receipt by the Authority of the Concessionaire Preliminary Notice and expiring on the date falling sixty (60) days thereafter;

DBFOT means design, build, finance, operate and transfer;

Decommissioned Project Area shall have the meaning ascribed thereto in Section 7.13 (*Emergency Decommissioning*);

Defects & Deficiencies means:

- (a) in respect of Project Works, any Project Works (or any part thereof) that fail to conform to the Applicable Standards in any manner (including (without limitation) in services, performance, materials, design, execution, engineering, operations and maintenance and/or workmanship);
- (b) in respect of the Concession Assets, any Concession Asset (or any part thereof) that fail to conform to the Applicable Standards;

Delayed Payment Rate means the six (6) month Karachi Interbank Offered Rate compounded semiannually, calculated for the actual number of days which the relevant amount remains unpaid on the basis of 365-day year;

Design Requirements means the design requirements of the Concession Assets, as set out in **SCHEDULE B** (*Design Requirements*);

Detailed Engineering Design means the detailed engineering design for the Project Highway prepared by the Concessionaire in accordance with Applicable Standards;

Dispute shall have the meaning ascribed thereto in Section 30.1.1;

Dispute Resolution Procedure means the procedure for resolution of Disputes as set out in Article 30 (*Dispute Resolution*);

Divestment Requirements shall have the meaning ascribed thereto in Section 24.1 (*Requirements for Divestment*);

Easementary Rights means all easements, reservations, rights-of-way, utilities and other similar purposes, or zoning or other restrictions relating to the Project Site and to the use of real property relating to the Project Site, which are necessary or appropriate for the conduct of activities of the Concessionaire related to the Concession Assets;

Effective Date means the date on which this Agreement is duly executed by each of the Parties;

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EIA Approval means the approval obtained by the Authority from the Punjab Environmental Protection Agency and Pakistan Environmental Protection Agency in relation to the Project;

Emergency means a condition or situation that is likely to endanger the security of the individuals on or about the Project Site including Users thereof or which poses an immediate threat of material damage to any of the Concession Assets, the Project Site;

Emergency Decommissioning shall have the meaning ascribed thereto in Section 7.13.1;

Encumbrance means any encumbrance on an asset, including but not restricted to mortgage, charge, pledge, lien, hypothecation and / or any security interest, assignment, privilege or priority of any kind having the effect of security or other such obligations and shall include without limitation any designation of loss payees or beneficiaries or any similar arrangement under any insurance policy pertaining to the Concession Assets and / or any part or portion thereof and physical encumbrances and encroachments thereon;

Environmental Standards means collectively, the applicable environmental guidelines and occupational health and safety standards established by the "Pakistan Environmental Protection Agency" and the Punjab Environmental Protection Agency;

EPC Contract(s) means the agreement entered or to be entered into between the Concessionaire and the EPC Contractor(s) in accordance with this Agreement, for, *inter alia*, the design, engineering, procurement, construction, completion, testing of the Concession Assets and the commissioning of the same, as such agreement may be amended by the parties thereto from time to time;

EPC Contractor(s) means the contractor(s) engaged by the Concessionaire in for the purposes of performance of Construction Works;

Equity means the share capital of the Concessionaire, represented in PKR, subscribed to by the Sponsor (subject to the requirements of this Agreement and Funding & Utilization Agreement) for meeting the equity component of the Pre Estimated Project Cost;

Escrow Account means the account established by the Concessionaire with the Escrow Agent in accordance with the Escrow Agreement;

Escrow Agent means the bank selected by the parties to the Escrow Agreement to manage the Toll Revenues, compensation and expenditures of the Concessionaire; provided, that till the Financing Termination Date, such bank shall be one of

Escrow Agreement means the agreement entered into between the Authority, the Financiers, the Escrow Agent and the Concessionaire requiring all revenues of Tolls to be deposited in an Escrow Account managed by the Escrow Agent and allocating such funds to pay operation & maintenance expenses, financing service, remuneration of the Independent Engineer and Independent Auditor, reserves and dividends payments in accordance with an agreed order of priority;

Exempted Vehicles means the following vehicles exempted from Toll:

defence vehicles, including vehicles of armed forces;

(c)	official flag cars;
(d)	fire fighting vehicles;
(e)	funeral vans;
(f)	official vehicles of the Authority or the Concessionaire;
(g)	police vehicles;
(h)	vehicles bearing the plates of: 1. Presidency;

- 2. Prime Minister Secretariat;
 - 3. Governor House;

(a)

(b)

ambulances;

- 4. Chief Minister Secretariat;
- 5. A Foreign dignitary on State visit to Pakistan;
- vehicles deputed for essential services such as cleaning, maintenance of green areas etc. to the extent such essential services are being performed directly by a Government Authority (and not through a third party);

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Exit Implementation Period means:

- in case of Termination of this Agreement, the period commencing on the Termination Date and expiring on the Transfer Date;
- (b) in case of expiry of this Agreement on the Final Expiry Date, the period commencing thirty (30) days prior to the Final Expiry Date and expiring on the Final Expiry Date;

External Auditor shall have the meaning ascribed thereto in Section 17.3.2;

Final Expiry Date means the date falling on the twenty-fifth (25th) yearly anniversary of the Commencement Date; provided, however, the Authority and the Concessionaire may agree to extend the Final Expiry Date (and, as a result, the Concession and the Concession Period) with mutual written consent in accordance with and subject to the Applicable Laws;

Final Project Construction Completion Certificate shall have the meaning ascribed thereto in Section 14.6 (*Final Project Construction Completion Certificate*);

Financial Close means the execution and delivery of the Financing Documents that (together with Equity commitments) evidence sufficient financing for the construction, testing, and commissioning of the Project Highway and achievement of Project Construction Completion (following the resolution of any objections raised by the Authority and/or the Independent Auditor to the Financing Term Sheet that sets out a principal repayment schedule and the other principal terms of the transaction between the Concessionaire and the Financiers) and evidence of commitments for such equity as is required by the Concessionaire to satisfy the requirements of the Financiers and the satisfaction or waiver by the Financiers of all conditions precedent for the initial availability of funds under the Financing Documents and the Concessionaire having immediate access to the Financing;

Financial Close Achievement Notice shall have the meaning ascribed in Section 27.4 (Financial Closing);

Financial Model means the Base Case Financial Model, as may be finalized by the Concessionaire at Financial Close, upon certification of the Independent Auditor in accordance with the terms of this Agreement;

Financiers means the financial institutions, banks, Islamic financiers, funds, trusts or trustees of the holders of debentures or other securities their successors and assigns, that extend Financing to the Concessionaire pursuant to the Financing Documents;

Financing means the finance facilities, loans, advances, financial accommodation and / or arrangement, subscription and / or issuance of debentures / bonds / redeemable capital, risk participation, take out financing and / or any other financial obligation availed by the Concessionaire from the Lenders/Financiers in respect of the Project, pursuant to the Financing Documents.

Financing Amendment Term Sheets shall have the meaning ascribed thereto in Section 27.3.3;

Financing Component means the component that relates to the repayment and servicing of Financing Due (i.e. both Principal repayment and interest/mark-up/rental payments), as set out in the Financial Model;

Financing Documents means the loan agreements for which the Financing Term Sheets related thereto have not been objected to or deemed not to have been objected to by the Authority and/or the Independent Auditor pursuant to Section 27.3 (*Financing Term Sheet & the Financing Amendment Term Sheets*) and all related notes, indentures, security agreements, guarantees, documents under any Islamic financing arrangements (including but not limited to mark up based financing), agreements or other instruments providing security to the Financiers (including consents and acknowledgements of assignment and direct agreements in respect of documents assigned as security to the Financiers) and other documents entered into by the Concessionaire in relation to the construction and permanent financing (including any refinancing) of the Concession Assets (or any part thereof), as such agreement, instruments, guarantees and documents may be amended from time to time in accordance with the provisions of Section 27.3 (*Financing Term Sheet & the Financing Amendment Term Sheets*):

Financing Due means the aggregate of the following sums expressed in Pak Rupees outstanding and payable to the Financier up to the date immediately preceding the Termination Payment Date pursuant to the Financing Documents:

(a)	the principal amount of the debt/ financing provided and disbursed by the Financiers under the
	Financing Documents for financing the Project (the Principal) in accordance with the Financial
	Model and the Financing Term Sheet and Financing Amendment Term Sheets (if any) delivered to

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and not objected to by Authority and the Independent Auditor in accordance with Section 27.3 (Financing Term Sheet & the Financing Amendment Term Sheets);

- the interest or mark-up (or any other term connoting the return paid to the Financiers on financing) accruing on the Principal in accordance with the Financial Model and the Financing Term Sheet and the Financing Amendment Term Sheets delivered to and not objected to by Authority and the Independent Auditor in accordance with Section 27.3 (*Financing Term Sheet & the Financing Amendment Term Sheets*), the same being, for the purposes of calculation in case of Termination, the amount of outstanding financing in the Financial Model calculated using the rate of KIBOR assumed in the Bid or actual KIBOR, whichever is lower;
- (c) only in the event of Termination due to Authority Event of Default or a Political Event, penal interest or charges payable under the Financing Documents to the Financiers; provided, further, that in case the Concessionaire continues to collect Toll Revenues until the Transfer Date the Concessionaire shall be required to make payments to the Financiers in relation to any penal interest or charges payable to the Financiers in accordance with Financial Model;
- (d) **Financing Documents** means the loan/financing agreements or instruments relating to or contemplated by the Financing Term Sheets that have not been objected to or deemed not to have been objected to by the Authority and/or the Independent Auditor pursuant to Section 27.3 (*Financing Term* Sheet & the Financing Amendment Term Sheets) as may be amended from time to time in accordance with the provisions of Section 27.3 (*Financing Term Sheet & the Financing Amendment Term Sheets*);

Financing Term Sheet shall have the meaning ascribed thereto in Section 27.3.1;

Financing Termination Date means the date on which no part of the Financing Due is outstanding and all amounts due and payable by the Concessionaire to the Financiers are paid in accordance with the Financing Documents, as confirmed in writing by the Independent Auditor (in consultation with the Financiers);

First IA List shall have the meaning ascribed thereto in Section 6.1 (Selection);

First IE List shall have the meaning ascribed thereto in Section 5.1 (Independent Engineer Selection);

First Major Maintenance means the Major Maintenance to be undertaken by the Concessionaire during the First Major Maintenance Period in accordance with the Approved Major Maintenance Programme;

First Major Maintenance Commencement Date means the date certified by the Independent Engineer as the date for commencement of the First Major Maintenance in its approval for the Proposed Major Maintenance Programme in respect of the First Major Maintenance Period;

First Major Maintenance Expiry Date means the earlier of (a) the date falling two (2) years from the First Major Maintenance Commencement Date; and (b) the date of completion of the First Major Maintenance, as certified by the Independent Engineer;

First Major Maintenance Period means the period commencing on the First Major Maintenance Commencement Date and expiring on the First Major Maintenance Expiry Date;

Force Majeure Costs means all such costs that are directly attributable to, arise from and are a direct result of, in each case, a Force Majeure Event and shall include interest and principal payments under the Financing Documents that are in accordance with the Financing Term Sheets and the Financing Amendment Term Sheets; any additional capital expenditures; any additional construction costs; and any additional operating costs; provided, however, all such Additional Costs and payment of interest and principal shall be subject to confirmation by the Independent Auditor and the Independent Engineer and provided further, for the purposes of determining such costs, information contained in the Financial Model shall be relied upon;

Force Majeure Event means the occurrence of any or all of the Non Political Events and/or the Political Events;

Force Majeure Notice shall have the meaning ascribed thereto in Section 21.2 (Obligation to Notify);

Force Majeure Period means, as determined by the Independent Engineer, the period commencing from the date of occurrence of a Force Majeure Event and ending on (a) the date on which the Affected Party resumes or should have resumed (as determined by the Independent Engineer) such of its obligations the performance of which it was excused in terms of Section 21.8 (*Excuse from Performance of Obligations*); or (b) the Termination Date; as applicable;

Funding & Utilization Agreement means the agreement (in the form agreed between the Parties and the Sponsor to be entered into, *inter alios*, between the Authority, the Sponsor and the Concessionaire for the

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purposes of, *inter alia*: (a) GoPB/ Authority's direct financial assistance in the form of Viability Gap Funding under the Viability Gap Funding Agreement to the extent of the Viability Gap Funding Amount or the VGF Equity under the VGF Equity Agreement (as the case may be); and (b) Sponsor's contribution towards the Equity of the Concessionaire (issuance of Ordinary Shares in respect thereof) and utilization of the sums received as per (a) and (b) above, in each case, in accordance with the terms thereof;

Good Industry Practice means those practices, methods, techniques, standards, skills, diligence and prudence which are generally and reasonably expected from a reasonably skilled and experienced operator engaged in the same type of undertaking as envisaged in respect of the Concessionaire under this Agreement and acting generally in accordance with the provisions of the Applicable Laws, and would mean good engineering practices in the design, engineering, construction and project management and which would be expected to result in the performance of its obligations by the Concessionaire and in the operation and maintenance of the Project in accordance with the Applicable Standards. "Good Industry Practices" are not limited to optimum practices, methods, techniques, standards, skills, diligence, prudence or acts to the exclusion of all others, but rather are a spectrum of possible practices, methods, techniques, standards, skills, diligence, prudence or acts which could have been expected to accomplish the desired result at reasonable cost consistent with reliability and safety;

GoPB means the Government of Punjab, its respective departments or any other authorities, agencies and instrumentalities functioning under the direction or control of the Government of Punjab, and its administrators, successors and permitted assigns;

Government Authority(ies) means the Government of Pakistan, the GoPB, any governmental department, commission, board, body, bureau, agency, authority, instrumentality, court or other judicial or administrative body having jurisdiction over the Concessionaire, the Project, Project Site, the Concession Assets or any part thereof, or the performance of all or any of the services or obligations of the Concessionaire under or pursuant to this Agreement;

Handover List shall have the meaning ascribed thereto in Section 25.1 (*Liability for Defects During Exit Implementation Period*);

Indemnified Party shall have the meaning ascribed thereto in Section 9.3 (*Notice and Contest of Claims*);

Indemnifying Party shall have the meaning ascribed thereto in Section 9.3 (Notice and Contest of Claims);

Independent Auditor means the auditor appointed in respect of the Project in accordance with Article 5 (*Independent Engineer &Independent Auditor*) and in terms of the Independent Auditor Contract;

Independent Auditor Appointment Term shall have the meaning ascribed thereto in Section 5.7 (*Term of Appointment of the Independent Auditor*);

Independent Auditor Contract means the contract to be entered into between the Authority, the Concessionaire, the Independent Auditor and any other Person agreed by the Parties in accordance with Article 5 (*Independent Engineer & Independent Auditor*);

Independent Auditor Payments shall have the meaning ascribed thereto in Section 5.10 (*Independent Auditor Remuneration*);

Independent Engineer means the engineer appointed in respect of the Project in accordance Article 5 (*Independent Engineer & Independent Auditor*) and in terms of the Independent Engineer Contract;

Independent Engineer Appointment Term shall have the meaning ascribed thereto in Section 5.2 (*Term of Appointment of the Independent Engineer*);

Independent Engineer Contract means the contract to be entered into between the Authority, the Concessionaire, the Independent Engineer and any other Person agreed by the Parties, in accordance with Article 5 (*Independent Engineer & Independent Auditor*);

Independent Engineer Payments shall have the meaning ascribed thereto in Section 5.5 (*Independent Engineer Remuneration*);

Indicative Independent Auditor Terms of Reference means the duties, functions and the scope of work to be performed by the Independent Auditor, as indicatively attached herewith as SCHEDULE N - PART I (Indicative Independent Auditor Terms of Reference); provided, however, upon execution of the Independent Auditor Contract, the scope of work of the Independent Auditor set out therein shall be deemed to replace SCHEDULE N - PART I (Indicative Independent Auditor Terms of Reference);

Indicative Independent Engineer Terms of Reference means the duties, functions and the scope of work to be performed by the Independent Engineer, as indicatively attached herewith as **SCHEDULE N** (*Indicative Independent Engineer Terms of Reference*); provided, however, upon execution of the Independent

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Engineer Contract, the scope of work of the Independent Engineer set out therein shall be deemed to replace SCHEDULE N (*Indicative Independent Engineer Terms of Reference*);

Insurances means all insurances, reinsurance, agreements of insurance and reinsurance and / or arrangement for insurance and / or reinsurance in relation to the Project, the Concession Assets, the Construction Works and / or any part or portion thereof procured or to be procured by the Concessionaire, including but not restricted to the Construction Period Insurances and the Operations Period Insurances;

Interchanges means the four (4) new interchanges to be built and established by the Concessionaire as part of the Concession Assets along the Project Site as set-out in **Schedule W** (*Interchanges*);

ITS shall have the meaning ascribed thereto in Schedule G (Detailed Project Report);

Lapse of Consent means any Concessionaire Permit:

- (a) ceasing to remain in full force and effect and not being renewed or replaced within the time period prescribed by the Applicable Laws for the renewal or replacement of such Concessionaire Permit or, where a time period is not prescribed by the Applicable Laws, within sixty (60) days of such Concessionaire Permit ceasing to be in full force and effect, or
- (b) (other than a Specified Concessionaire Permit) not being issued upon application having been properly and timely made and diligently pursued within the time period prescribed by the Applicable Laws or where a time period is not prescribed by the Applicable Laws, within sixty (60) days of proper application being made for such Concessionaire Permit; or
- (c) being made subject, upon renewal, or otherwise, to any terms or conditions that materially and adversely affect the Concessionaire's (or a Contractor's) ability to perform its obligations under any document included within Authority Agreements and/or the Project Agreements,

in each of the above instances despite such party's compliance with the applicable procedural and substantive requirements as applied in a "non-discriminatory" (as explained in Section 8.3.2) manner;

Licence shall have the meaning ascribed thereto in Section 4.1 (*Licence*);

Losses means any loss, damage, liability, payment and obligation (excluding any indirect or consequential loss, damage, liability, payment or obligation), and all expenses (including, without limitation, reasonable legal fees);

Main Body means this Agreement excluding the Schedules;

Maintenance Requirements means maintenance requirements for the maintenance of the Project, as prescribed by the Applicable Standards;

Major Maintenance shall have the meaning ascribed thereto in the O&M Manual;

Major Maintenance Costs shall have the meaning ascribed thereto in Section 19.12(a);

Major Maintenance Costs Funding Date means in respect of the First Major Maintenance Period and the Second Major Maintenance Period, the date falling three (3) months prior to the First Major Maintenance Commencement Date and the Second Major Maintenance Commencement Date, respectively;

Major Maintenance Milestone means the progressive milestones relating to the performance of the Major Maintenance and the dates for achievement of each such milestone, as set out in the Approved Major Maintenance Programme;

Major Maintenance Milestone Certificate means the certificate issued by the Independent Engineer certifying completion of a Major Maintenance Milestone and achievement of the corresponding Major Maintenance Milestone Date;

Major Maintenance Milestone Date means each date of achievement of a Major Maintenance Milestone, as certified by the Independent Engineer in the relevant Major Maintenance Milestone Certificate;

Major Maintenance Milestone Payment means the payment to be made by the Concessionaire upon achievement of a Major Maintenance Milestone and achievement of the corresponding Major Maintenance Milestone Date;

Major Maintenance Payment Account means the account to be established by the Concessionaire and Notified to the Authority as a Concessionaire Condition Subsequent;

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Major Maintenance Payment Account Bank means the bank mutually agreed between the Concessionaire and the Authority for the purposes of establishing the Major Maintenance Payment Account:

Major Maintenance Payment Account Standing Instructions shall have the meaning ascribed thereto in Section 19.14(b);

Major Maintenance Period means the First Major Maintenance Period and/or the Second Major Maintenance Period;

Material Adverse Effect means, in the opinion of the Independent Engineer (in respect of technical matters) and/or in the opinion of the Independent Auditor (in respect of financial matters), there has occurred or could reasonably be expected to occur an effect, event, matter or circumstance or a change in the circumstances which materially and adversely impairs:

- (a) the business, operations, property, assets, present or future condition (financial or otherwise) or prospects of the Concessionaire, Sponsor or Contractor in respect of the Project;
- (b) the ability or probability (financial or otherwise) of the Concessionaire, Sponsor or Contractor to perform and observe its respective obligations under the Project Agreements;
- (c) the legality, validity or enforceability of, or the rights, obligations or remedies of, the Authority under this Agreement; and/or
- (d) the Concessionaire's ability to implement, design, finance, construct, operate and maintain the Project in accordance with the terms of the Project Agreements;

Material Adverse Impediment shall have the meaning ascribed to it in Section 4.15.1;

Material Breach means breach by either Party or the Sponsor of any of its/their obligations under the Authority Agreements which has/is likely to have a Material Adverse Effect on the Project and which such breaching Party shall have failed to cure by the date falling forty-five (45) days following the date of receipt of a notice issued by the non-breaching Party to the breaching Party to cure such breach;

Material Breach of O&M Requirements shall have the meaning ascribed to it in Section 19.4.1;

Material Impediment Removal Period shall have the meaning ascribed to it in Section 4.15.2;

Minimum Indemnification Amount means the amount equal to PKR 1,000,000/- (Pakistani Rupees One Million only) that a Party's claims for indemnification pursuant to Article 9 (*Indemnities & Limitation of Liabilities*) must exceed in the aggregate before that Party will be entitled to indemnification;

Minimum Revenue Guarantee means the amount that GoPB undertakes to provide according to the MRG Agreement for meeting the Shortfall Amount to the maximum of fifty (50%) percent sharing by the GoPB or in the ratio opted by the Concessionaire according to the table provided in Section 6.5 of the RFP;

New IA List shall have the meaning ascribed thereto in Section 6.2.3;

New IE List shall have the meaning ascribed thereto in Section 5.2.3;

New O&M Performance Security shall have the meaning ascribed to it in Section 11.3.8;

NHA License Agreement means the license agreement executed or to be executed between NHA and the Authority for the use of the CPEC Route by the Authority for the purposes of the Project;

NHA Standards means the relevant standards adopted by 'National Highway Authority';

New Operational Year shall have the meaning ascribed to it in Section 11.3.8;

Non Political Event shall bear the meaning ascribed thereto in Section 21.1.1(b);

Non Political Event Termination Amounts shall have the meaning ascribed thereto in SCHEDULE T (*Termination Payments*);

Notice, Notify, Notification and its grammatical variations means as notified in writing;

Notice of Remedy shall have the meaning ascribed thereto in Section 18.2.1;

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O&M Costs means the operations and maintenance expenses, as set out in the Financial Model and as adjusted from time to time for inflation in accordance with the Financial Model and in accordance with the terms of the O&M Contract;

O&M Contract means the contract entered into or that may be entered into by the Concessionaire in accordance with this Agreement for the provision of the Operation and Maintenance in accordance with O&M Requirements and the O&M Manual;

O&M Contractor means the Person of good repute with whom the Concessionaire has entered into or may enter into the O&M Contract;

O&M Documents means all such reports, records, surveys, plans, analyses, calculations, manuals, operating procedures, guides and manuals, updated 'as built' drawings and documentation of any nature prepared, updated and submitted by the Concessionaire in connection with the Operations and Maintenance to the Authority, the Independent Engineer and/or the Independent Auditor pursuant to the Applicable Standards and pursuant to any requests made in accordance with the Applicable Standards by the Authority, the Independent Engineer and or the Independent Auditor from time to time;

O&M Inspection Report has the meaning ascribed thereto in Section 19.22.2;

O&M Manual shall have the meaning ascribed thereto in Section 19.7 (*O&M Manual*);

O&M Monthly Status Report shall have the meaning ascribed thereto in Section 19.21.1;

O&M Performance Security means a first demand irrevocable and unconditional guarantee, issued by a scheduled bank in Pakistan (with a minimum credit rating of at least 'AA-' as rated by JCR VIS or an equivalent rating by PACRA) acceptable to the Authority in the form of a demand guarantee (being in an amount equal to fifteen percent (15%) of the O&M Costs for the Operational Year to which it pertains) that is furnished from time to time by the Concessionaire to the Authority in accordance with Section 11.3 (*O&M Performance Security*), in the form of the instrument attached herewith as **SCHEDULE M** (*Form of O&M Performance Security*);

O&M Programme shall have the meaning ascribed thereto in Section 18.8.2;

O&M Requirements means the relevant standards, requirements, criterion and timelines (as applicable) that are set out in relation to and are applicable to the Operation and Maintenance, as set out in:

- (a) the Main Body;
- (b) the Scope of the Project;
- (c) the SCHEDULE H (O&M Requirements);
- (d) the O&M Manual;
- (e) the Safety Requirements;
- (f) the Applicable Standards being the requirements applicable in respect of matters relating to the Concession Assets;
- (g) the SCHEDULE G (Detailed Project Report);
- (h) in respect of each Operational Year following Substantial Completion Date, the O&M Programme prepared for such Operational Year in accordance with Section 18.8 (*O&M Programme*); and
- (i) any other standards, requirements, criterion and timelines (as applicable), mutually agreed between the Parties from time to time,

provided, however, in the event of any discrepancy in the standards, requirements, criterion and timelines (as applicable) set out in the abovementioned, the most stringent standards, requirements, criterion and timelines (as applicable), as contained in any of the above-mentioned, shall apply (unless otherwise agreed between the Parties)provided further, that in the event there is any deficiency in the standards and requirements (as applicable) the AASHTO Standards, ASTM Standards and NHA Standards (as certified by the Independent Engineer) shall apply;

O&M Tests shall have the meaning ascribed thereto in Section 19.23 (*O&M Tests*);

O&M Time For Completion means the time permitted herein for performance and completion of Operations and Maintenance and all other obligations to be performed by the Concessionaire during the Operations Period, as set out in and contemplated by the Applicable Standards and each O&M Programme,

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including, performance and completion of each Project O&M Milestone on or prior to its Project O&M Milestone Date;

Operation and Maintenance or Operate and Maintain means all obligations, works, services and duties undertaken and/or performed and/or to be undertaken and/or performed by the Concessionaire during the Operations Period pursuant to the Applicable Standards including (a) the preparation, completion and delivery of all O&M Documents; (b) the operation and maintenance of the Concession Assets during the Operations Period; (c) functions of operations, maintenance, traffic movement, safety measurements etc. and performance of other services and obligations incidental thereto; and (d) achievement of Project O&M Milestones;

Operational Year means each consecutive anniversary of the Project Highway Section Completion Date and ending as of the end of the Day preceding the next anniversary of the Project Highway Section Completion Date, except for the first (1st) Operational Year which shall start on the Project Highway Section Service Commencement Date;

Operations Period means the period commencing on the Project Highway Section Completion Date and ending on the Trigger Date;

Operations Period Insurances means the Insurances procured and / or obtained by the Concessionaire pursuant to the provisions of and in accordance with Section 20.2 (*Operations Period Insurances*) and **PART I** (*Operations Period Insurances*) OF SCHEDULE I (*Insurances*);

Ordinary Share(s) means share capital issued to the Sponsor from time to time. Moreover, these shares shall be recipients of the Termination Payment (if applicable in terms of this Agreement) as well; provided, however, for purposes of calculating the Termination Payment, the term "Equity" shall exclude all amounts comprising injections to the Equity effected after Project Construction Completion Date; provided, that such amounts shall constitute Equity to the extent the same are part of the Pre Estimated Project Cost and determined by the Independent Auditor to be part of the Total Project Cost;

Ordinary Shares Invested Equity means the aggregate of funds invested (as Equity) by the Sponsor and shareholders of Ordinary Shares for funding of the Sponsor Base Equity Amount in accordance with the Funding & Utilization Agreement;

Parties shall have the meaning ascribed thereto in the Preamble;

Permitted Encumbrances means the land within the Project Site as more particularly described in Schedule X [*Permitted Encumbrance*] in relation to which the Authority is unable to provide Vacant Possession to the Concessionaire as of the Commencement Date, and to which land the Concessionaire is willing to forego Vacant Possession, but only if and to the extent that it is not required for exercise of the Concessionaire's rights and obligations with regard to the Project pursuant to the terms of this Agreement;

Permitted Events means:

- (a) Force Majeure Events;
- (b) Authority Events of Default;
- (c) Emergency Decommissioning, to the extent the same does not result from reasons attributable to the Concessionaire:
- (d) Material Adverse Impediment, to the extent the same does not result from reasons attributable to the Concessionaire:
- (e) a Change in Law causing a delay in the performance of the Concessionaire's obligations under this Agreement;
- (f) the occurrence of the circumstances set out in Section 4.9 (*Geological and Archeological Finds*) causing a delay in the performance of the Concessionaire's obligations under this Agreement; and
- (g) the occurrence of the Authority Overriding Power Event, to the extent the same does not result from reasons attributable to the Concessionaire;

Persistent Breach of O&M Requirements shall have the meaning ascribed to it in Section 19.4.1(e);

Person means any individual, firm, company, corporation, society, partnership (whether or not having a separate legal personality), joint venture, trust, unincorporated organization, government state, association or Government Authority or any other legal entity and shall include successors and assigns;

Political Event	shall have	the meaning	ascribed th	nereto in	Section '	21.1	1(a)
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Political Event Termination Amounts shall have the meaning ascribed thereto in **SCHEDULE T** (*Termination Payments*);

Pre Estimated Project Cost means the estimated cost of the Project, as specified in the Base Case Financial Model and being funded through the proceeds of the Financing, the Sponsor Base Equity Amount and the Viability Gap Funding Amount;

Present Value means the present value to be calculated on the basis of discount rate of seven percent (7%);

Preservation Costs shall have the meaning ascribed thereto in Section 18.3.4;

Project means each of the following activities, as performed (in each case) in accordance with this Agreement:

- (a) the possession of the Concession Assets;
- (b) the design and detailed design, engineering, financing, construction, procurement, permitting, testing and commissioning of, in each case, the Concession Assets;
- (c) the procurement and contracting for goods, equipment and services for the Concession Assets;
- (d) the insuring and Operation and Maintenance of the Concession Assets;
- (e) the making available, on a continuous basis, of the Concession Assets for the Users;
- (f) payments by the Parties of amounts due and payable under this Agreement;
- (g) the recruitment, employment and training of staff for the Concession Assets;
- (h) the transfer of the Concession Assets to the Authority on the Transfer Date;
- (i) all activities incidental or related to any of the above;

Project Agreements means:

- (a) this Agreement;
- (b) the Financing Documents;
- (c) the O&M Contract;
- (d) the EPC Contract;
- (e) any other material contract entered into or to be entered into by the Concessionaire at any time after the Effective Date in connection with the Project and designated as a "Project Agreement" with the consent of the Authority;

Project Construction Completion shall have the meaning ascribed thereto in Section 14.7.1;

Project Construction Completion Check List shall have the meaning ascribed thereto in Section 14.3.3;

Project Construction Completion Check List Items shall have the meaning ascribed thereto in Section 14.4.1:

Project Construction Completion Date shall have the meaning ascribed thereto in Section 14.7.1;

Project Construction Completion Schedule means the schedule attached herewith as **SCHEDULE E** (*Project Construction Completion Schedule*) setting out:

- (a) the Scheduled Project Construction Completion Date;
- (b) the Scheduled Substantial Completion Date;
- (c) the Project Construction Milestones;

Project Construction Milestones means the progressive milestones relating to the performance of Construction Works and other obligations to be performed by the Concessionaire until the Project Construction Completion Date and the dates for achievement of each such milestone, as set out in:

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- (a) this Agreement; and
- (b) the Construction Programme;

Project Construction Milestone Date means the date permitted herein for achievement of each Project Construction Milestone, as set out and contemplated (in respect of each Project Construction Milestone) in:

- (a) the Applicable Standards;
- (b) the Construction Programme;

Project Facilities means the facilities to be constructed, built, installed, erected and / or provided by the Concessionaire on the Project Site, as detailed in **SCHEDULE D** (*Project Facilities*);

Project Highway means almost sixty five point three (65.3) kilometres long road, as more particularly described and indicated in the **SCHEDULE F** (*Project Site*) including bridges, culverts and other appurtenances thereto, which shall form part of the Concession Assets and shall be developed in accordance with the Applicable Standards;

Project Highway Section means the first (1st) continuous stretch of the Project Highway starting from N-5 till M-2 of at least thirty six point two (36.2) km in length as confirmed by the Project Highway Section Completion Certificate issued by the Independent Engineer pursuant to Section 14.3.2;

Project Highway Section Completion Certificate means the certificate issued or to be issued in accordance with Section 14.3.2 by the Independent Engineer certifying that a Project Highway Section has been substantially completed;

Project Highway Section Completion Date means the date on which the Project Highway Section Completion Certificate, proving the completion of the Project Highway Section, is issued in accordance with Section 14.3.2;

Project Highway Section Completion Notice means the notice issued or to be issued in accordance with Section 14.3.2 by the Concessionaire notifying that a Project Highway Section has been substantially completed;

Project Highway Section Service Commencement Date means the date of commencement of the services in respect of the Project Highway Section, in accordance with Section 14.3.2 which shall be the Day immediately following the Project Highway Section Completion Date;

Project Management/Implementation Unit means the project management/implementation unit established by the Authority in accordance with the Applicable Laws for the purpose of overseeing the day to day implementation of the Project in accordance with the terms of this Agreement and Applicable Laws, particularly during the Construction Period, and shall be headed by the Authority Representative;

Project Milestone means:

- (a) in respect of Construction Works, the Project Construction Milestones;
- (b) in respect of the Operations and Maintenance, the Project O&M Milestones;

Project Milestone Date means:

- (a) in respect of a Project Construction Milestone, the respective Project Construction Milestone Date for such Project Construction Milestone;
- (b) in respect of a Project O&M Milestone, the respective Project O&M Milestone Date for such Project O&M Milestone;

Project O&M Milestones means the progressive milestones relating to the performance and completion of Operation and Maintenance that are to be achieved by the Concessionaire pursuant to the Applicable Standards during an Operational Year of the Operation Period, as set out in:

(a) the Applicable Standards and specifications;

the Applicable Standards; and

(a)

(b) the O&M Programme for such Operational Year;

Project O&M Milestone Date means the date permitted herein for achievement of each Project O&M Milestone, as set out and contemplated (in respect of each Project O&M Milestone) in:

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(b) the O&M Programme

Project Requirements means the Design Requirements, the Construction Requirements and the O&M Requirements, applicable;

Project Site means the site on which the Project is to be implemented comprising of the immovable property including the Right of Way on which the Project Facilities and the Project Highway are to be constructed, built, installed, erected and / or provided by the Concessionaire, in accordance with the terms of this Agreement, as demarcated in the map attached hereto in **SCHEDULE F** (*Project Site*);

Project Site Conditions shall have the meaning ascribed to it in Section 4.4.1;

Project Site Licence Agreement means the agreement of Licence (in the form agreed between the Parties) to be entered into between the Authority and the Concessionaire pursuant to which the Authority shall Licence the land comprising the Project Site to the Concessionaire;

Project Works means all obligations, works, services and duties undertaken and/or performed and/or to be undertaken and/or performed by the Concessionaire pursuant to the Applicable Standards and shall include:

- (a) the Construction Works and all obligations, works, services and duties undertaken and/or performed and/or to be undertaken and/or performed by the Concessionaire until the Project Construction Completion Date;
- (b) the Operations and Maintenance and all obligations, works, services and duties undertaken and/or performed and/or to be undertaken and/or performed by the Concessionaire during the Operations Period;

PKR or Pak Rupees means the lawful currency of the Islamic Republic of Pakistan;

Proposed Completion Tests Date shall have the meaning ascribed thereto in Section 14.1.1;

Proposed Construction Programme shall have the meaning ascribed thereto in Section 13.2.1;

Proposed Detailed Design shall have the meaning ascribed thereto in Section 12.5.3;

Proposed Major Maintenance Contract(s) shall have the meaning ascribed thereto in Section 19.11.2(b);

Proposed Major Maintenance Programme shall have the meaning ascribed thereto in Section 19.11.2(a);

Proposed O&M Programme shall have the meaning ascribed to it in Section 19.8.1;

Protected Assets shall have the meaning ascribed thereto in Section 8.9.1(b);

Provincial Support Agreement means the agreement entitled the Provincial Support Agreement entered into between the Government of Punjab (through Secretary Finance, Government of Punjab and/or any other department and/or government agency designated by the GoPB), the Authority and the Concessionaire;

Public-Private Partnership means public-private partnership as ascribed in Act 2019;

Punjab PPP Authority means the Punjab Public Private Partnership Authority established under the Act;

Relief Costs means the increase in such capital expenditures and costs and/or the operating costs, in each case, that are set out in the Financial Model and which directly result from a Relief Event (excluding such Relief Events that are set out in Section 15.2.1 (b), (f) and (g)), as determined by the Independent Engineer and the Independent Auditor pursuant to Article 15 (*Relief Orders*) and which are set out in the Relief Order; provided, however, for the purposes of determining such costs, information contained in the Financial Model shall be relied upon by the Independent Engineer and the Independent Auditor;

Relief Event(s) shall have the meaning ascribed thereto in Section 15.2.1;

Relief Order means a written order jointly issued by the Independent Auditor and the Independent Engineer to the Parties pursuant to Article 15 (*Relief Orders*) authorizing an extension of Time For Completion and/or payment of Relief Costs in accordance with Article 15 (*Relief Extensions & Relief Compensations*);

Relief Order Proposal shall have the meaning ascribed thereto in Section 15.4.1;

Relief Order Request shall have the meaning ascribed thereto in Section 15.2.1;

Remedy Event shall have the meaning ascribed thereto in Section 18.2.1;

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Remedy Time Period shall have the meaning ascribed thereto in Section 18.2.1;

RFP shall have the meaning ascribed to in Recital B above;

Right of Way or **ROW** means only the land forming part of the concession area to be acquired and owned by the Authority (if not already so acquired and owned) as on the Commencement Date for the intended use of the Project, which shall be handed over to the Concessionaire for the purpose of implementation of the Project or part thereof, in accordance with the terms of this Agreement, as more particularly described in Schedule A [Scope of the Project]. For avoidance of doubt, anything under ground level or over and above ground level which does not make physical contact with the land forming right of way of the Concessionaire shall not be a part of the Concessionaire's right of way;

Safety Requirements means the arrangements and procedures for conducting safety related measures in respect of the Concession Assets, as set out in the O&M Manual;

SBP means the State Bank of Pakistan, established under the State Bank of Pakistan Act, 1956 (Act No. XXXII of 1956);

Scheduled Commencement Date means the date falling one-hundred-eighty (180) days after the Effective Date, as may be extended from time to time in accordance with this Agreement;

Scheduled Project Construction Completion Date shall have the meaning ascribed thereto in Section 14.4.2;

Scheduled Substantial Completion Date means the date falling twenty-four (24) months after the Commencement Date, as such date as may be extended from time to time in accordance with the terms of this Agreement solely pursuant to a Relief Order;

Scope of the Project means the scope of the Project, as set out in SCHEDULE A (Scope of the Project);

Second Major Maintenance means the Major Maintenance to be undertaken by the Concessionaire during the Second Major Maintenance Period in accordance with the Approved Major Maintenance Programme;

Second Major Maintenance Commencement Date means the date certified by the Independent Engineer as the date for commencement of the Second Major Maintenance in its approval for the Proposed Major Maintenance Programme in respect of the Second Major Maintenance Period;

Second Major Maintenance Expiry Date means the earlier of (a) the date falling two (2) years from the Second Major Maintenance Commencement Date; and (b) the date of completion of the Second Major Maintenance, as certified by the Independent Engineer;

Second Major Maintenance Period means the period commencing on the Second Major Maintenance Commencement Date and expiring on the Second Major Maintenance Expiry Date;

Shortfall Amount has the meaning ascribed to it in Section 17.4.4

Site Construction Works means all obligations, works, services and duties undertaken and/or performed and/or to be undertaken and/or performed by the Concessionaire at the Project Site during the Construction Period pursuant to the Applicable Standards including, inter alia, the obligations, works, services and duties undertaken and/or performed and/or to be undertaken and/or performed by the Concessionaire in respect of:
(a) the procurement, construction, commissioning and completion of the Concession Assets (including all activities and obligations incidental thereto); (b) construction, alteration, up-gradation, repair, restoration, maintenance, extension, demolition or dismantling of buildings or structures, forming or to form, part of the Project Site, whether permanent or not, on which the Concession Assets shall be situated; and (c) performing all obligations and activities for performance and completion of each Project Construction Milestone; provided, however, "Site Construction Works" does not include any of the following work:

- (a) the drilling for, or extraction of, oil or natural gas;
- (b) the extraction (whether by underground or surface working) of minerals, including tunneling or boring, or constructing underground works, for that purpose;
- (c) clearance of the Project Site, to the extent such clearance is to be expressly performed by the Authority in accordance with the terms of this Agreement

Specific Term Sheet Parameters shall have the meaning ascribed thereto in Section 27.3.1;

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Specific Requirements means:

- (a) in respect of Construction Works, the Construction Requirements; and
- (b) in respect of Operations and Maintenance, the O&M Requirements;

Specified Concessionaire Permits means the Concessionaire Permits set out in **SCHEDULE J** (*Specified Concessionaire Permits*);

Sponsor means [to be finalized after bidding], being the shareholder of the Concessionaire that is required, together with its Associates (if any), subject to the terms of this Agreement, to hold (directly and/or indirectly) one hundred percent (100%) of the total Equity of Shares;

Sponsor Base Equity Amount means the amount set out in the Financial Model;

Substantial Completion shall have the meaning ascribed thereto in Section 14.3.4;

Substantial Completion Certificate means the certificate issued by the Independent Engineer at the request of the Concessionaire in accordance with Section 14.3 (*Substantial Completion Certificate*);

Substantial Completion Date shall have the meaning ascribed thereto in Section 14.3.4.

Suspension shall have the meaning ascribed thereto in Section 18.3.1;

Temporary Works means all temporary works of every kind (other than the Concessionaire or its Contractor's equipment) required at the Project Site for the execution and completion of the permanent Construction Works and the remedying of the Defects & Deficiencies;

Termination means the termination of this Agreement and the Concession hereunder upon the issuance of a Termination Notice in accordance with the terms hereof;

Termination Date means the date of issuance of the Termination Notice and this will be the date on which the actual Termination occurs following the Cure Period;

Termination Dividend Amount means the aggregate return on Equity for Ordinary Shares for each of the three (3) Accounting Years falling immediately after the Termination Date, the same being an amount equal to the aggregate of Termination Equity IRR applied to the Equity (Ordinary Shares) for each of the three (3) Accounting Years falling after the Termination Date;

Termination Equity means, as of the Transfer Date occurring due to Termination, the aggregate of the Ordinary Shares Invested Equity reduced on a straight-line basis from the Substantial Completion Date through the term of this Agreement;

Termination Equity IRR means the post-tax internal rate of return, the same being seventeen (17%), on the Equity Ordinary Shares;

Termination Notice means a notice to be issued in writing following the expiry of the relevant Cure Period (if applicable) by a Party notifying the other Party of the Termination of this Agreement in accordance with the applicable provisions of this Agreement;

Termination Payment means:

- (a) in respect of Termination due to a Concessionaire Event of Default, the Concessionaire Default Termination Amount;
- (b) in respect of Termination due to a Corrupt Act, the Corrupt Act Termination Amount;
- (c) in respect of Termination due to an Authority Event of Default, the Authority Default Termination Amount;
- (d) in respect of Termination due to a Political Event, the Political Event Termination Amount;
- (e) in respect of Termination due to a Non Political Event, the Non Political Event Termination Amount;
- (f) in respect of Termination due to a Change in Law, the Change in Law Termination Amount;

Termination Payment Date means the date falling ninety (90) days following the Termination Date;

Time For Completion means (as applicable):

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- (a) in respect of Construction Works, the Construction Time For Completion; and
- (b) in respect of Operations & Maintenance, the O&M Time For Completion

Toll(s) means the amount of money collected by the Concessionaire and/or collected, from the Users of the Concession Assets (except the Exempted Vehicles) or part thereof as the fee for the use of the Concession Assets or part thereof, commencing from the Project Highway Section Services Commencement Date (unless otherwise mutually agreed between the Parties) until the Toll Collection End Date. The words "Tolling", "Tolled" and other grammatical variations of the word "Tolls" shall be construed accordingly;

Toll Collection End Date shall mean the date on which the Concessionaire's right to collect Toll in terms of this Agreement shall stand cancelled and shall cease to exist, such date being:

- (a) In case this Agreement is not terminated prior to the Final Expiry Date, the Final Expiry Date;
- (b) In case this Agreement is terminated prior to the Final Expiry Date and during the period when Financing Due is outstanding, the Transfer Date;
- (c) In case this Agreement is terminated prior to the Final Expiry Date and during the period when no Financing Due is outstanding, the Toll Collection End Date shall be: (i) in case the Concession Agreement is terminated due to Authority Event of Default, the Transfer Date; or (ii) in case the Concession Agreement is terminated due to Concessionaire Event of Default, Force Majeure or Corrupt Act, the Termination Date.

Toll Concession shall mean all concessions and rights granted to the Concessionaire hereunder and under the Authority Agreements in relation to Toll and all matters relating to the same including determination, levying, imposing, demanding, charging, collection, retention and appropriation of the same by the Concessionaire from the Project Highway Section Service Commencement Date until the Trigger Date.

Toll Notification has the meaning ascribed thereto in Section 17.5.1;

Toll Notification Structure means the structure for imposition and adjustments in the Toll and the list of exempted vehicles, as specifically contemplated by **SCHEDULE P** (*Toll Notification Structure*);

Toll Notification Relief Event shall bear the meaning ascribed thereto in Section 17.5.2;

Toll Operations Manual has the meaning ascribed thereto in Section 17.2.2;

Total Project Cost means the actual capital cost of the Project upon completion of the Project, as certified by the Independent Auditor; provided, that the same shall not include (unless otherwise agreed with the Authority) the Additional Cost;

Toll Progress Report shall bear the meaning ascribed thereto in Section 17.3;

Toll Revenues means all income derived by the Concessionaire from the Project from collection of the Tolls;

Transfer Date means:

- (i) in case of early Termination of this Agreement prior to the Final Expiry Date, the Termination Payment Date subject to the Authority making payment of the relevant Termination Payment to the Concessionaire; and (ii) the Concessionaire completing the Divestment Requirements on or prior to such date;
- (ii) in case of achievement of Final Expiry Date pursuant to this Agreement, the Final Expiry Date;

Trigger Date means and includes, the Final Expiry Date and / or the Termination Date, as the case may be;

Unpaid Termination Equity Amount shall have the meaning ascribed thereto in Section 23.5.2;

Unpaid Termination Payment Amount shall have the meaning ascribed thereto in Section 17.7.1;

User means the Person who traverses or travels over or on the Concession Assets or any portion thereof;

Utilities Affected Assets shall have the meaning ascribed thereto in Section 4.12.2;

Utility Proceeds shall have the meaning ascribed to it Section 4.12.3;

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Vacant Possession means delivery to the Concessionaire by the Authority of possession of the Project Site in accordance with this Agreement and in accordance with Applicable Laws, free from all Encumbrances except Permitted Encumbrances, encroachments, existing trees and the grant of all Easementary Rights and all other rights appurtenant thereto, so that the Concessionaire enjoys complete uninterrupted and quiet possession and control of the Project Site throughout the Concession Period;

Viability Gap Funding means viability gap financing to be provided in terms of the Viability Gap Funding Agreement up to the Viability Gap Funding Amount;

Viability Gap Funding Agreement means the agreement (in the form agreed between the Parties) to be entered into, *inter alias*, between the Authority and the Concessionaire for the purposes of, *inter alia*, setting out terms relating to:

- (a) the Authority's/GoPB's disbursement of the Viability Gap Funding up to the Viability Gap Funding Amount:
- (b) the tenor of the Viability Gap Funding, the same being seventeen (17) years with a [twelve] (12) year grace period for both interest/profit/mark-up and repayment commencing from thirteenth (13) year;
- (c) the Viability Gap Funding repayment period to commence upon the Financing Termination Date with repayment being made in five (5) years equal semi-annual installments;
- (d) interest/profit/mark-up to be accrued and paid at a flat rate of ten percent (10%) per annum, calculated on 365 days basis, commencing from expiry of the grace period;
- (e) no interest/profit/mark-up to accrue or be paid during the grace period;

Viability Gap Funding Amount means an amount not exceeding PKR [*insert amount*]/- (Pakistani Rupees [*insert words*]), as set out in the Financial Model and as to be funded by the Authority (in the form of Viability Gap Funding) in terms of the Viability Gap Funding Agreement;

VGF Equity means the upfront viability gap funding as government support provided to the Concessionaire up to a maximum of [PKR 2,000,000,000/- (Pakistani Rupees two billion only)] in Present Value terms by the Authority to be invested in accordance with Section 10.2.3 and the Funding & Utilization Agreement; and

Vesting Certificate shall have the meaning ascribed thereto in Section 24.4 (*Vesting Certificate*).

1.2 <u>Construction</u>

- 1.2.1 In this Agreement, unless the context otherwise requires:
 - (a) references to any legislation or any provision thereof shall include amendment or re-enactment or consolidation of such legislation or any provision thereof so far as such amendment or re-enactment or consolidation applies or is capable of applying to any transaction entered into hereunder;
 - (b) references to laws of Pakistan or Pakistan law or regulation having the force of law shall include the laws, acts, ordinances, rules, regulations, bye laws or notifications which have the force of law in the territory of Pakistan and as from time to time may be amended, modified, supplemented, extended or reenacted;
 - (c) the table of contents, headings or sub-headings in this Agreement are for convenience of reference only and shall not be used in, and shall not affect, the construction or interpretation of this Agreement;
 - (d) the words "include" and "including" are to be construed without limitation and shall be deemed to be followed by "without limitation" or "but not limited to" whether or not they are followed by such phrases;
 - (e) references to "construction" or "building" include, unless the context otherwise requires, investigation, design, developing, engineering, procurement, delivery, transportation, installation, processing, fabrication, testing, commissioning and other activities incidental to the construction, and "construct" or "build" shall be construed accordingly;
 - (f) references to "development" include, unless the context otherwise requires, construction, renovation, refurbishing, augmentation, up-gradation and other activities incidental thereto, and "develop" shall be construed accordingly;
 - (g) any reference to any period of time means a reference to that according to Pakistan Standard Time;

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- (h) any reference to day means a reference to a calendar day as per the Gregorian Calendar;
- (i) references to a "**business day**" shall be construed as a reference to a day (other than a Sunday) on which banks in Pakistan are generally open for business;
- (j) any reference to month means a reference to a calendar month as per the Gregorian calendar;
- (k) references to any date, period or Project Milestone means and include such date, period or Project Milestone as may be extended pursuant to Relief Order;
- (1) any reference to any period commencing "from" a specified day or date and "till" or "until" a specified day or date shall include both such days or dates; provided, that if the last day of any period computed under this Agreement is not a business day, then the period shall run until the end of the next business day;
- (m) the words importing singular shall include plural and vice versa;
- (n) references to any gender shall include the other and the neutral gender;
- (o) "**indebtedness**" shall be construed so as to include any obligation (whether incurred as principal or surety) for the payment or repayment of money, whether present or future, actual or contingent;
- (p) references to the "winding-up", "dissolution", "insolvency", or "reorganization" of a company or corporation shall be construed so as to include any equivalent or analogous proceedings under the law of the jurisdiction in which such company or corporation is incorporated or any jurisdiction in which such company or corporation carries on business including the seeking of liquidation, winding-up, reorganization, dissolution, arrangement, protection or relief of debtors;
- (q) save and except as otherwise provided in this Agreement, any reference, at any time, to any agreement, deed, instrument, Licence or document of any description shall be construed as reference to that agreement, deed, instrument, Licence or other document as amended, varied, supplemented, modified or suspended at the time of such reference; provided, that this sub-section shall not operate so as to increase liabilities or obligations of the Authority hereunder or pursuant hereto in any manner whatsoever;
- (r) any agreement, consent, approval, authorization, notice, communication, information or report required under or pursuant to this Agreement from or by any Party, the Independent Engineer or the Independent Auditor shall be valid and effective only if it is in writing under the hand of a duly authorized representative of such Party, the Independent Engineer or the Independent Auditor, as the case may be, in this behalf and not otherwise;
- (s) the Schedules and Recitals to this Agreement form an integral part of this Agreement and will be in full force and effect as though they were expressly set out in the body of this Agreement;
- (t) references to Recitals, Articles, Sections, or Schedules in this Agreement shall, except where the context otherwise requires, mean references to Recitals, Articles, Sections, and Schedules of or to this Agreement, and references to a Paragraph shall, subject to any contrary indication, be construed as a reference to a Paragraph of this Agreement or of the Schedule in which such reference appears;
- (u) the damages (including the Construction Period Damages) payable by either Party to the other of them, as set forth in this Agreement, whether on per diem basis or otherwise, are mutually agreed genuine preestimated loss and damage likely to be suffered and incurred by the Party entitled to receive the same and are not by way of penalty; and
- (v) time shall be of the essence in the performance of the Parties' respective obligations. If any time period specified herein is extended, such extended time shall also be of the essence.
- 1.2.2 The rule of construction, if any, that a contract should be interpreted against the parties responsible for the drafting and preparation thereof, shall not apply.
- 1.2.3 Any word or expression used in this Agreement shall, unless otherwise defined or construed in this Agreement, bear its ordinary English meaning and, for these purposes, the General Clauses Act 1897 shall not apply.

1.3 COSTS FOR DOCUMENTS

1.3.1 Unless expressly provided otherwise in this Agreement, any documentation required to be provided or furnished by the Concessionaire to the Authority, the Independent Engineer and/or the Independent Auditor or any other relevant person so appointed or nominated by the Authority, the Financiers or any other person legally so required shall be provided free of cost and in three (3) copies, and if the Authority, the Independent

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Engineer and/or the Independent Auditor is required to return any such documentation with their comments and/or approval, they shall be entitled to retain two (2) copies thereof.

1.4 MEASUREMENTS AND ARITHMETIC CONVENTIONS

1.4.1 All measurements and calculations shall be in the metric system and calculations done to two (2) decimal places, with the third digit of five (5) or above being rounded up and below five (5) being rounded down, however all calculations in respect of technical matters shall be in SI/foot pound and second system in accordance with the provision of the SCHEDULE G (*Detailed Project Report*).

1.5 PRIORITY OF AGREEMENTS, ARTICLES, SECTIONS AND SCHEDULES

- 1.5.1 This Agreement, and all other agreements and documents forming part of this Agreement are to be taken as mutually explanatory and, unless otherwise expressly provided elsewhere in this Agreement, the priority of this Agreement and the other Authority Agreement and other documents and agreements forming part thereof or referred to therein shall, in the event of any conflict between them, be in the following order (unless otherwise agreed between the Parties):
 - (a) this Agreement;
 - (b) the Authority Agreements (other than this Agreement).
- 1.5.2 Subject to the provisions of Section 1.5.1, in the event of any ambiguity and / or discrepancies with regard to this Agreement, the following shall apply:
 - (a) between two or more Articles and / or Section of this Agreement, the provisions of a specific Article relevant to the issue under consideration shall prevail over those in other Article and / or Section;
 - (b) between the Article and / or Section of this Agreement and the Schedules, the Article and / or Section shall prevail unless the issue in question /matter is specifically provided for in the Schedule and only referred to in the Article and / or Section, as the case may be;
 - (c) between any two Schedules, the Schedule relevant to the issue shall prevail;
 - (d) between the written description on the Construction Drawings and the Construction Requirements, the latter shall prevail;
 - (e) between the written description on the O&M Documents and the O&M Requirements, the latter shall prevail;
 - (f) between the dimension scaled from the Construction Drawing and its specific written dimension, the latter shall prevail;
 - (g) between the dimension scaled from the O&M Documents and its specific written dimension, the latter shall prevail; and
 - (h) between any value written in numerals and that in words, the latter shall prevail.

2. CONCESSION

2.1 GRANT OF CONCESSION

- 2.1.1 In consideration of the Concessionaire's obligations contained in this Agreement and relying on the Concessionaire's representations, warranties and covenants contained herein, the Authority, subject to the terms of this Agreement, hereby grants to the Concessionaire the Right of Way and authorizes it, for the duration of the Concession Period, to investigate, study, design, engineer, procure, finance, construct, develop, operate maintain and implement the Project on a design, build, finance, operate and transfer basis, and to exercise and enjoy the rights, powers, benefits, privileges and collect Toll as set forth in this Agreement (the Concession).
- 2.1.2 The Concessionaire agrees and undertakes to implement the Project in accordance with the terms of this Agreement and the Authority Agreements.
- 2.1.3 For avoidance of doubt, the provision of service areas and other facilities are not included in the Right of Way of the Project Site. The Authority may, at any time during the Concession Period, establish any service areas that it may deem fit which shall be the sole property of the Authority.

2.2	CONCESSION PERIOD

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2.2.1 The Concession hereby is granted and shall be effective for the Concession Period.

2.3 EXTENSION OF CONCESSION PERIOD

2.3.1 The Concessionaire may request an extension of the Concession Period at any time at least one (1) year prior to the Final Expiry Date; provided, that at the time of the request the Concessionaire is materially in compliance with its obligations under this Agreement and is not otherwise facing a default therein. The Authority has the right to accept or reject this request for extension (subject to the approval of the Board) at its sole and absolute discretion and to the extent the Authority accepts the extension in the Concession Period the Parties shall enter into such instruments, agreements and arrangements (including any amendments in the Authority Agreements) and on such terms and conditions, in each case, as mutually agreed between the Parties.

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3. CONDITIONS

3.1 <u>CONDITIONS PRECEDENT</u>

- 3.1.1 Save and except as expressly provided herein, the respective obligations of the Parties shall be subject to the satisfaction (waiver and/or deferral, in accordance with the terms herein) in full of the conditions precedent specified in Section 3.1.2, Section 3.1.3 and Section 3.1.4 (the **Conditions Precedent**) on or prior to the Scheduled Commencement Date.
- 3.1.2 The Concessionaire shall satisfy the following Conditions Precedent to the satisfaction of the Authority, the Independent Engineer and the Independent Auditor prior to the Scheduled Commencement Date (the Concessionaire Conditions Precedent):
 - (a) the Concessionaire has provided to Authority, the Independent Auditor and the Independent Engineer certified true copies of the executed EPC Contract;
 - (b) the Concessionaire has provided copies of its Corporate Documents to the Authority (with copies delivered to the Independent Engineer and the Independent Auditor), duly certified as true copies by the company secretary or director of the Concessionaire;
 - (c) the Concessionaire has provided to the Authority copies (with copies delivered to the Independent Engineer and Independent Auditor) of its Board Resolution that duly authorizes:
 - (i) the Concessionaire to enter into this Agreement and to undertake the obligations, liabilities, as set out in this Agreement, and the transactions as contemplated by this Agreement;
 - (ii) a specified Person or Persons to:
 - (aa) execute this Agreement on behalf of the Concessionaire; and
 - (bb) undertake all other acts specifically relating to this Agreement, as contemplated by this Agreement;
 - (d) the Concessionaire has provided the Construction Performance Security to the Authority that remains effective and valid till the end of the Construction Performance Security Expiry Date;
 - (e) each of the Specified Concessionaire Permits have been procured by the Concessionaire and the same are effective and valid and have not been cancelled and / or rescinded and the Concessionaire has provided copies of the same to the Authority (with copies delivered to the Independent Engineer and the Independent Auditor);
 - (f) the Concessionaire has provided to the Authority, the Independent Auditor and the Independent Engineer:
 - a certified true copy of the duly executed Financing Term Sheet that is not objected to or deemed not to be objected to by the Authority and the Independent Auditor in accordance with Section 27.3 (Financing Term Sheet and Financing Amendment Term Sheet);
 - (ii) certified true copies of the executed Financing Documents;
 - (iii) the Financial Close Achievement Notice, as issued by the Financiers (or an agent of the same):
 - (g) the Authority has received the following legal opinions:
 - (i) a legal opinion from the legal counsel of the Concessionaire confirming that the Concessionaire has been duly organized and is validly existing under the Applicable Laws and has the requisite power and authority to enter into the Authority Agreements and to undertake the transactions as contemplated by the Authority Agreements and to assume the obligations as contained herein and the enforceability of the same against the Concessionaire;
 - (ii) a legal opinion from the legal counsel of the Sponsor confirming that such Sponsor is validly existing under the applicable laws and that such Sponsor has the requisite authority and power to enter into the Authority Agreement(s) and the Project Agreement(s) to which such Sponsor is a party and to assume the obligations as contained therein and the enforceability of the same against the Sponsor;

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AUTHORITY INITIALS	CONCESSIONAIRE INITIALS

- (h) the Concessionaire has entered into the Project Site Licence Agreement with the Authority for Licence of the Project Site to the Concessionaire in accordance with Article 4 (*Project Site*);
- (i) the Concessionaire has entered into the Independent Engineer Contract for the appointment of the Independent Engineer with the counterparties to such contract;
- (j) the Concessionaire has entered into the Independent Auditor Contract for the appointment of the Independent Auditor with the counterparties to such contract;
- (k) the Concessionaire and the Sponsor have entered into the Funding & Utilization Agreement with the Authority;
- (l) presentation of evidence that the Escrow Account has been established with a reputable bank approved by the Authority and that the Escrow Agreement has been executed;
- (m) the Concessionaire's Approved Detailed Engineering Design of the Project stands approved by the Independent Engineer and the Authority in accordance with Section 12.5;
- (n) the Concessionaire has entered into the Viability Gap Funding Agreement with the Authority;
- (o) the Concessionaire has submitted copies of documents evidencing satisfaction of each of the Concessionaire Conditions Precedent to the Independent Engineer and the Independent Auditor.

3.1.3 Not Used.

- 3.1.4 The Authority shall satisfy the following Conditions Precedent to the satisfaction of the Concessionaire, the Independent Auditor and the Independent Engineer prior to the Scheduled Commencement Date (the **Authority Conditions Precedent**):
 - (a) the Authority has Licenced the Project Site to the Concessionaire in accordance with Article 4 (*Project Site*) and the Project Site Licence Agreement;
 - (b) subject to section 12.5, the Authority has handed over Vacant Possession of the Project Site to the Concessionaire in accordance with Article 4 (*Project Site*);
 - (c) the Authority and the GoPB have entered into the Provincial Support Agreement with *inter alios*, the Concessionaire;
 - (d) the Authority has resolved, settled and satisfactorily concluded all controversies, disputes, claims, suits, objections or restraints whatsoever by the public or any Person, if any in relation to the implementation of the Project by the Concessionaire or otherwise, which is not a Permitted Encumbrance, to such extent that the same do not impinge on the Concessionaire's rights and obligations pursuant to the terms of this Agreement;
 - (e) the Authority has entered into the Independent Engineer Contract for the appointment of the Independent Engineer with the other counterparties to such contract within twenty-five (25) days of the Effective Date;
 - (f) the Authority has entered into the Independent Auditor Contract for the appointment of the Independent Auditor with the other counterparties to such contract within twenty-five (25) days of the Effective Date;
 - (g) the Authority has entered into the Authority Agreements;
 - (h) the Authority has entered into the Funding & Utilization Agreement with the Sponsor and the Concessionaire;
 - (i) the Authority has entered into the Viability Gap Funding Agreement with the Concessionaire and funded the Viability Gap Funding Amount;
 - (j) the Authority has entered into the MRG Agreement;
 - (k) the Authority has entered into the NHA License Agreement; and
 - (l) the Authority has submitted copies of documents evidencing satisfaction of each of the Authority Conditions Precedent to the Independent Engineer and the Independent Auditor.

3.2	CONDITIONS SUBSEQUENT

CESSIONAIRE INITIALS	

- 3.2.1 The Concessionaire undertakes to fulfill the following Conditions Subsequent to the entire satisfaction of the Authority:
 - (a) ninety (90) days prior to the Project Highway Section Completion Date, the Concessionaire shall provide the Authority (with copies to the Independent Engineer and the Independent Auditor) with evidence of appointment of the O&M Contractor;
 - (b) ninety (90) days prior to the Project Highway Section Completion Date, the Concessionaire shall provide evidence that the Major Maintenance Payment Account has been established.
- 3.2.2 The Authority undertakes to fulfill the following Conditions Subsequent to the satisfaction of the Concessionaire: on the issuance of the Commencement Certificate, the Authority shall issue the Toll Notification in accordance with Article 17 (*Tolling Arrangement*) authorizing the Concessionaire to begin collecting the Toll set forth in **Schedule P** (*Toll Notification Structure*).

3.3 WAIVER AND/OR DEFERRAL OF CONDITIONS AND EXTENSION OF SCHEDULED COMMENCEMENT DATE

- 3.3.1 The:
 - (a) Authority may (at its discretion) waive and/or defer any of the Concessionaire Conditions Precedent set forth in Section 3.1.2 of Section 3.1 (*Conditions Precedent*) and/or the Conditions Subsequent set out in Section 3.2 (*Conditions Subsequent*). For the avoidance of doubt, the Authority may, at its sole discretion, grant any waiver and/or deferral hereunder with such conditions as it may deem fit:
 - (b) Concessionaire may (at its discretion) waive and/or defer any of the Authority Conditions Precedent set forth in Section 3.1.4 of Section 3.1 (*Conditions Precedent*). For the avoidance of doubt, the Concessionaire may, at its sole discretion, grant any waiver and/or deferral hereunder with such conditions as it may deem fit;
- 3.3.2 Without prejudice to the terms of Section 3.3.1 above, failure by the Concessionaire or the Authority to satisfy Conditions Subsequent in terms of this Agreement shall constitute a Material Breach.
- 3.3.3 Notwithstanding anything contained herein, the Scheduled Commencement Date may be extended from time to time with the mutual consent of the Parties. In the event either Party, in accordance with Section 3.3.4 below, defers any of the Conditions Precedent of the other Party, then the Parties hereby agree to extend the Scheduled Commencement Date for the corresponding deferral period.
- 3.3.4 Any deferral and/or waiver of a Condition Precedent and/or Condition Subsequent in terms of this Section 3.3 (*Waiver and/or Deferral or Conditions and Extension of Scheduled Commencement Date*) shall be notified in writing to the Independent Engineer and the Independent Auditor by the Party granting such deferral and/or waiver of such condition in accordance with this Agreement.

3.4 COMMENCEMENT CERTIFICATE & COMMENCEMENT DATE

- 3.4.1 Each Party shall promptly inform the other Party in writing (together with copies delivered to the Independent Engineer and the Independent Auditor) when the Conditions Precedent for which it is responsible have been satisfied.
- 3.4.2 The Parties agree that:
 - within fifteen (15) days of the Authority's receipt from the Concessionaire, (through the (a) Independent Engineer and the Independent Auditor), evidence of satisfaction of a Concessionaire Condition Precedent, the Authority shall (through the Authority Representative) notify the Independent Engineer and the Independent Auditor in writing (with a copy to the Concessionaire) whether it has any objections on the satisfaction of such Concessionaire Condition Precedent. In the event the Authority (through the Authority Representative) does not raise any objection in writing on the satisfaction of a Concessionaire Condition Precedent within the fifteen (15) day period set out herein, such Concessionaire Condition Precedent shall be deemed to be not objected to by the Authority. In the event the Authority raises any objections on the satisfaction of a Concessionaire Condition Precedent and notifies the same to the Independent Engineer and the Independent Auditor (with a copy to the Concessionaire) within the fifteen (15) day period set out herein, the Concessionaire shall address such objections and re-submit to the Independent Engineer and the Independent Auditor (with a copy to Authority) evidence of satisfaction of such Concessionaire Condition Precedent and the process in this Section 3.4.2(a) shall be repeated until such time that the Authority has not objected to or is deemed to have not objected to the satisfaction of such Concessionaire Condition Precedent. The provisions of this Section 3.4.2(a) shall apply to each Concessionaire Condition Precedent for which evidence of satisfaction is submitted by the

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AUTHORITY INITIALS	CONCESSIONAIRE INITIALS

Concessionaire to the Independent Engineer and the Independent Auditor (with a copy to the Authority) from time to time;

- (b) within fifteen (15) days of the Concessionaire's receipt from the Authority, through the Independent Engineer and the Independent Auditor, evidence of satisfaction of a Authority Condition Precedent, the Concessionaire shall notify the Independent Engineer and the Independent Auditor in writing (with a copy to the Authority) whether it has any objections on the satisfaction of such Authority Condition Precedent. In the event the Concessionaire does not raise any objection in writing on the satisfaction of Authority Condition Precedent within the fifteen (15) day period set out herein, such Authority Condition Precedent shall be deemed to be not objected to by the Concessionaire. In the event the Concessionaire raises any objections on the satisfaction of a Authority Condition Precedent and notifies the same to the Independent Engineer and the Independent Auditor (with a copy to Authority) within the fifteen (15) day period set out herein, the Authority shall address such objections and re-submit to the Independent Engineer and the Independent Auditor (with a copy to the Concessionaire) evidence of satisfaction of such Authority Condition Precedent and the process in this Section 3.4.2(b) shall be repeated until such time that the Concessionaire has not objected to or is deemed to have not objected to the satisfaction of such Authority Condition Precedent. The provisions of this Section 3.4.2(b) shall apply to each Authority Condition Precedent for which evidence of satisfaction is submitted by the Authority to the Independent Engineer and the Independent Auditor (with a copy to Concessionaire) from time to time.
- 3.4.3 The Parties hereby jointly undertake to procure that the Independent Engineer and the Independent Auditor jointly issue the Commencement Certificate within three (3) days of the date on which the Independent Engineer and the Independent Auditor are satisfied that each of the:
 - (a) Concessionaire Conditions Precedent stand satisfied (and/or waived or deferred by the Authority in accordance with Section 3.3.1(a));
 - (b) Concessionaire Conditions Precedent are not objected to or deemed not to have been objected to by the Authority (acting through the Authority Representative) in accordance with Section 3.4.2(a) and if any Concessionaire Condition Precedent is objected to by the Authority in accordance with Section 3.4.2(a), the Concessionaire has addressed such objections and re-submitted evidence of satisfaction of such Concessionaire Condition Precedent to the Independent Engineer and the Independent Auditor (with a copy to the Authority) in accordance with Section 3.4.2(a);
 - (c) Authority Conditions Precedent stand satisfied (and/or waived or deferred by the Concessionaire in accordance with Section 3.3.1(b));
 - (d) Authority Conditions Precedent are not objected to or deemed to not have been objected to by the Concessionaire in accordance with Section 3.4.2(b) and if any Authority Condition Precedent is objected to by the Concessionaire in accordance with Section 3.4.2(b), the Authority has addressed such objections and re-submitted evidence of satisfaction of such Authority Condition Precedent to the Independent Engineer and the Independent Auditor (with a copy to the Concessionaire) in accordance with Section 3.4.2(b); and

The Independent Engineer and the Independent Auditor, jointly, shall set out in the Commencement Certificate the date on which the Commencement Date is achieved.

3.5 TERMINATION PRIOR TO COMMENCEMENT DATE

3.5.1 In the event:

- (a) the Conditions Precedents are not satisfied, waived and/or deferred on or prior to the date falling ninety (90) days following the Scheduled Commencement Date, (including the extended time, if any) due to reasons attributable to the Concessionaire; and/or
- (b) of occurrence of a Concessionaire Event of Default prior to the Commencement Date;

then the Authority shall have the right (to be exercised in its sole and absolute discretion) to terminate this Agreement by issuance of a written Termination Notice to the Concessionaire. In such case, the Authority shall be entitled to encash the Bid Security or Construction Performance Security (as in effect at such time) to its full value. Except as may be contemplated in the Funding & Utilization Agreement and except for the encashment of the Bid Security or Construction Performance Security (as in effect at such time) in terms of this Section 3.5.1, each Party hereto shall have no claims against the other for costs, damages, compensation or otherwise for such termination of this Agreement.

	RITY INITIALS	Concessionaire Initials
3.5.2	In the event:	
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	or otherwise for such termination of this Agreement.	

- (a) the Conditions Precedents are not satisfied, waived and/or deferred on or prior to the date falling ninety (90) days following the Scheduled Commencement Date, (including the extended time, if any) due to reasons attributable to the Authority and/or a Force Majeure Event; and/or
- (b) of occurrence of a Authority Event of Default prior to Commencement Date,

the Concessionaire shall have the right (to be exercised in its sole discretion) to Terminate this Agreement by issuance of a written Termination Notice to the Authority. In such case, the Authority shall (within fifteen (15) days of its receipt of the Termination Notice) return the Bid Security or Construction Performance Security to the Concessionaire without any encashment, demands or claims. Except as may be contemplated in the Funding & Utilization Agreement, each Party hereto shall have no claims against the other for costs, damages, compensation or otherwise for Termination of this Agreement.

It is clarified that the provisions of this Section 3.5 (Termination Prior to Commencement Date) shall only 3.5.3 apply to any Termination of this Agreement occurring on or prior to the Commencement Date.

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4. PROJECT SITE

4.1 <u>LICENCE</u>

- 4.1.1 The Authority shall, as a Condition Precedent to achievement of Commencement Date, Licence to the Concessionaire, pursuant to the Project Site Licence Agreement, the Vacant Possession of all the land and rights comprising the Project Site (the **Licence**); provided, that immediately after the Effective Date, the Authority shall give the Concessionaire access and the necessary rights to the Project Site to enable the Concessionaire to prepare the Construction Drawings and the Proposed Detailed Design, conduct technical and financial studies and other feasibility studies on the Project, soil investigation of the Project Site and other preliminary studies in connection therewith and/or for proper implementation of the Project in accordance with the terms of this Agreement.
- 4.1.2 The Project Site Licence Agreement shall be duly executed by the Parties and, to the extent required by Applicable Laws, registered by the Concessionaire with the relevant Government Authority and all costs, fees, expenses, duties, charges and taxes (including charges relating to the registration of the Project Site Licence Agreement) relating to the same shall be borne by the Concessionaire.
- 4.1.3 The Concessionaire shall be responsible for payment of all charges in accordance with the Project Site Licence Agreement that relate to the Licence of the Project Site to the Concessionaire by Authority.
- 4.1.4 The Licence shall commence on the physical handing over of the Vacant Possession of the Project Site to the Concessionaire by the Authority and upon commencement shall be co-terminus on the Transfer Date without the need for any action to be taken by the Parties to terminate the Licence. Any extension of the Concession Period shall also extend the License and the Concessionaire and the Authority shall enter into such addendums, extensions or modifications of the Project Site License Agreement as are necessary to give effect to such extension.
- 4.1.5 The Authority shall ensure that the Concessionaire can enjoy Vacant Possession and hold the area of land comprising the Project Site, except where failure to enjoy Vacant Possession has resulted from a breach by the Concessionaire of the Applicable Standards.

4.2 <u>TITLE OF PROJECT SITE & DELIVERY OF VACANT POSSESSION</u>

- 4.2.1 The Authority represents and warrants that it has the power and authority to grant the Licence in respect of the Project Site to the Concessionaire. Furthermore, the Authority shall ensure title/possession of the Project Site is secured by the Scheduled Commencement Date.
- 4.2.2 Subject to Section 15.2 (*Relief Events*), the Authority shall at its own cost and expense, deliver to the Concessionaire the Vacant Possession of the Project Site (including all Easementary Rights), on or prior to the Scheduled Commencement Date.

4.3 <u>Use of Project Site</u>

- 4.3.1 The Concessionaire hereby unconditionally and irrevocably confirms, acknowledges and agrees that the Authority shall enter into the Project Site Licence Agreement with the Concessionaire that shall grant the Licence of the Project Site to Concessionaire for the sole purpose of implementation of the Project and for enjoying the rights and benefits of the Concession granted hereunder and that the Concessionaire shall use the Project Site only for the purposes of implementing the Project thereupon and for purposes incidental or necessary thereto subject always to the terms and conditions of the Applicable Standards. The Concessionaire shall, in carrying out its obligations under this Agreement, utilize all existing roads and land areas at the Project Site.
- 4.3.2 The Concessionaire hereby undertakes that it shall not without prior written consent of the Authority use the Project Site for any purpose other than:
 - (a) for the purposes of the Project and purposes incidental thereto;
 - (b) as permitted under this Agreement (including for the purposes set out in Article 29 (*Additional Matters*)); or
 - (c) as may otherwise be approved by the Authority in writing.

4.4 CONCESSIONAIRE'S RESPONSIBILITY

4.4.1 Subject to Section 4.15 (*Removal of Material Adverse Impediment*), the physical and the ambient conditions (including climatic, hydrological, hydro-geological, ecological, environmental, geotechnical, geological, paleontological and archaeological conditions) of the Project Site (the **Project Site Conditions**) shall be the sole responsibility of the Concessionaire. Accordingly, without limiting any other obligations of the

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Concessionaire that are included in this Agreement, the Concessionaire shall be deemed as at the Effective Date of the Agreement to have:

- (a) carried out an investigation of all Project Site Conditions and of any extraneous material in or under the Project Site including its surface, sub-soil and ground water to enable the Concession Assets to be designed and constructed and for its obligations to be performed with due regard for the Project Site Conditions and the seismic activity (if any) in the region of the Project Site;
- (b) for the purpose of such investigation in section (a), inspected and examined the Project Site and surroundings;
- (c) satisfied itself as to the nature of the Project Site Conditions, the surface, sub-soil and ground water of the Project Site, the form and nature of the Project Site, the load-bearing and other relevant properties of the Project Site, the risk of damage to property affecting the Project Site, the nature of the materials (whether natural or otherwise) to be excavated and the nature of the design, its obligations and material necessary for the implementation of the Project;
- (d) satisfied itself as to the adequacy of its right of passage over, access to and through the Project Site and any accommodation it may require for the purposes of fulfilling any of its obligations included in this Agreement, such as any additional land or buildings located outside the Project Site;
- (e) satisfied itself as to the possibility of interference by Persons with rights-of-way across, access to or use of the Project Site with particular regard to the owners and users of any land adjacent to the Project Site; and
- (f) satisfied itself as to the precautions, times and methods of working necessary to prevent or minimize nuisance or interference being caused to any third parties.
- 4.4.2 To avoid doubt, the Concessionaire accepts full responsibility for all matters in Section 4.4.1 above and the Concessionaire shall, subject to Section 4.15 (*Removal of Adverse Impediment*):
 - (a) not be entitled to make any claim against the Authority whether in contract, tort or otherwise on any ground relating to the matters in Section 4.4.1 above; and
 - (b) indemnify the Authority against all direct Losses sustained by the Authority and/or any third party in consequence of cleaning-up and otherwise dealing with any potentially hazardous materials being any natural or artificial substance, whether in solid, gaseous or liquid form capable of causing harm to any human or any other living organism supported by the environment (including air, water, land, surface land and sub-surface land) or capable of damaging the environment or public health or posing a threat to public safety including any pollutants and any hazardous, toxic, radioactive, noxious, corrosive or dangerous substances and all substances for which in each case liability or responsibility is imposed under applicable environment law) at the Project Site.

4.5 NO SALE OR CREATION OF ENCUMBRANCE

4.5.1 The Concessionaire shall not part with, dispose off, sell, sublease or create any Encumbrance of any nature whatsoever on the whole or any part of the Project Site and shall not place or create nor permit any Contractor or other person claiming through or under the Concessionaire to place or create any Encumbrance over all or any part of the Project Site or the Concession Assets, or on any rights of the Concessionaire therein or under this Agreement, save and except as otherwise expressly set forth in this Agreement.

4.6 PROTECTION OF SITE FROM ENCROACHMENTS

4.6.1 Following the delivery and handing over to the Concessionaire of the Vacant Possession of the Project Site by the Authority and until the Transfer Date, the Concessionaire shall be fully responsible for and shall protect the Project Site and the Concession Assets from, in each case, any and all occupations, thefts (to the extent of the Concession Assets), encroachments and Encumbrances. The Concessionaire further undertakes, covenants and confirms to indemnify the Authority, any Government Authority and GoPB from any costs, claims expenses or charges incurred resulting from any breach of its obligations under this Section 4.6. Provided always, that the Concessionaire shall be responsible for ensuring police security of the Project Highway in accordance with the Applicable Law.

4.7 <u>Special/Temporary Right of Way</u>

4.7.1 The Concessionaire shall, at its own cost and risk, obtain any special or temporary right of way that is not included in the Scope of the Project and description of Project Site and the Concession Assets, and is required by the Concessionaire in connection with access to the Project Site and shall also obtain (at its cost and expense) such other facilities, the provision of which is not the responsibility of the Authority under the Authority Agreements, as may be required by the Concessionaire for the purposes of the Project and its

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implementation in accordance with the Applicable Standards; provided, that the Authority shall reasonably facilitate the Concessionaire in obtaining the aforesaid special or temporary right of way.

4.8 PROJECT SITE ACCESS

4.8.1 Following Licence of the Project Site and delivery of the Vacant Possession of the Project Site to the Concessionaire by the Authority, the Licence granted to the Concessionaire shall always be subject to the right of access of the Authority, any relevant Government Authority, the Independent Auditor and the Independent Engineer and their representatives, officers, employees and agents for inspection, viewing and exercise of their rights and performance of their obligations under this Agreement; provided, that the exercise of such right of access shall not interfere with the Concessionaire's performance of its rights and obligations under this Agreement. Further, the Licence granted to the Concessionaire shall always be subject to the right of access of the Users.

4.9 GEOLOGICAL AND ARCHAEOLOGICAL FINDS

- 4.9.1 It is expressly agreed between the Parties that mining, geological or archaeological rights do not form part of the Licence to be granted to the Concessionaire in terms of the Project Site Licence Agreement and the Concessionaire hereby acknowledges and agrees that it shall not have any mining rights or interest in the underlying minerals, fossils, antiquities, structures or other remnants or things either of particular geological or archaeological interest and that all such rights, interest and property on or under the Project Site shall vest in and belong to the Authority or the relevant concerned Government Authority.
- 4.9.2 The Concessionaire shall procure all no-objection certificates and consents from the concerned department, Government of Punjab that may be required by the Concessionaire under the Applicable Laws, in respect of any potential geological and archeological finds on the Project Site, prior to commencement of the Project Works. Furthermore, the Concessionaire shall take all reasonable precautions to prevent its employees, workmen, agents, representatives and/ or any other persons appointed by the Concessionaire from having access to the Project Site, including the Contractors, from removing or damaging such interest or property (as set out in Section 4.9.1) and shall inform the Authority forthwith of the discovery thereof and comply with such instructions as the Authority and / or the concerned Government Authority may issue in relation to the protection and / or removal of such property. In the event any expenses are incurred by the Concessionaire in fulfilling its obligations as set out in this Section 4.9.2 and/or as a result of the geological and/or archaeological finds being on the Project Site, then the same shall entitle the Concessionaire to issuance of a Relief Order Request and in such case the provisions of Article 15 (Relief Extensions & Relief Compensations) shall apply. Further, in the event the Concessionaire is delayed in performance of its obligations under this Agreement due to the occurrence of the circumstances set out in this Section 4.9 (Geological and Archeological Finds), the Concessionaire shall be granted extensions in the timeline in which it has to perform its obligations under this Agreement (provided that such extensions are duly certified by the Independent Engineer) and in such case the provisions of Article 15 (Relief Extensions & Relief Compensations) shall apply. Notwithstanding anything contained herein, the Authority shall procure the issuance of the instructions required from the concerned Government Authority and referred to in this Section

4.10 EXISTING UTILITIES AND ROADS

4.10.1 Notwithstanding anything to the contrary contained herein, the Concessionaire shall ensure that the respective entities owning the existing roads, right of way or utilities on, under or above the Project Site are enabled by the Concessionaire to keep such utilities in continuous satisfactory use, if necessary, by providing suitable temporary or permanent diversions with the authority of the controlling body of that road, right of way or utility, and the Authority shall, upon written request from the Concessionaire (as certified by the Independent Engineer), initiate and undertake, at the Authority's cost, legal proceedings for acquisition of any right of way or any no objections or permits/ approvals necessary for such diversion. Concessionaire shall be responsible for not damaging the existing utilities and roads and in the event of breach by the Concessionaire of its obligations under this Section 4.10.1, the Concessionaire shall be responsible for rectification of the same at its own cost, risk and expense provided further the Authority shall only be responsible for the relocation of public utilities within sixty (60) days of the Concessionaire providing an alternate relocation plan for the removal of utilities as certified by the Independent Engineer. It is also clarified that the obligation of the Authority to shift the utilities shall be subject to the Concessionaire providing an alternate duct/corridor to relocate such utilities, provided further, in certain cases where shifting of utilities does not require any alternate relocation plan/duct and/or corridor (as certified by the Independent Engineer) the Authority shall remove such utilities as a part of Vacant Possession of the required land, without any hindrances.

4.11 <u>Not Used</u>

4.12 NEW UTILITIES AND ROADS

4.12.1	The Concessionaire	shall	allow	utility	companies	and	other	Government	Authorities	empowered	by
	Applicable Law to se	ek, in	each ca	ase, (su	bject to cons	sent c	of Auth	nority and sub	ject to such o	conditions as	the

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Authority may specify and subject to mutual agreement between the Authority, Concessionaire and the utility companies), access to, and use of the Project Site for laying telephone lines, water pipes, electric cables or other public utilities and in the case of the aforesaid Government Authorities, connectivity with the fiber-optic cables and other utilities and infrastructure forming part of the Concession Assets; provided, that while the Concessionaire shall enable connectivity to the Government Authorities as aforesaid, it shall neither have any obligation to ensure uptime of the infrastructure of the relevant Government Authority nor be exposed to any liability if the connectivity of such infrastructure is discontinued or disrupted due to any reason, except as determined otherwise with mutual agreement between the Authority, Concessionaire and the utility companies; provided, further, that nothing contained in this Section 4.12.1 shall waive and / or relieve or be deemed to waive and / or relieve the obligations of the Concessionaire contained in the Authority Agreements and any damage caused to the Concession Assets by such access to, and use of the Project Site for laying telephone lines, water pipes, electric cables or other public utilities shall be restored forthwith.

- 4.12.2 The affected part of the Concession Assets (or any part thereof) (the **Utilities Affected Assets**) shall be restored in accordance with the Applicable Standards and Good Industry Practice by the Concessionaire and the costs relating to the same shall be borne by the Concessionaire and/or the utility companies in accordance with the terms mutually agreed between the Concessionaire and the utility companies; provided, however, any such terms (including any amendments of the same) shall be subject to the prior approval of the Authority (which approval shall not be unreasonably delayed, conditioned or withheld). Notwithstanding anything to the contrary set out herein, the Authority shall neither be responsible for restoration of any Utilities Affected Assets nor for any costs relating to the same.
- 4.12.3 The Authority exclusively reserves the right to charge fees from the utility company or any other entity for allowing the passage of the telephone lines, water pipes, electric cables or other public utilities over or under the Project Site (the **Utility Proceeds**).

4.13 <u>FELLING OF TREES</u>

- 4.13.1 The Authority undertakes to fell the trees at the Project Site, to be identified by the Concessionaire, the cost of which shall be borne by the Concessionaire, provided further the Concessionaire shall be responsible for procuring any approvals and/or permits from the GoPB or any other government agency for compliance with this Section 4.13.
- 4.13.2 The trees removed by the Concessionaire shall be deemed to be owned by the Authority and shall be disposed in such manner and subject to such conditions as the Authority may in its sole discretion deem appropriate provided however all costs, fees and expenses of such disposal shall be borne by the Authority.
- 4.13.3 The Concessionaire hereby undertakes that it shall (as condition precedent to achievement of Substantial Completion), at its sole cost and expense, plant and maintain trees at the Project Site as provided in the EIA. Furthermore, the Concessionaire undertakes to maintain in accordance with the Applicable Standards all the trees planted by it pursuant to this Section 4.13 (*Felling of Trees*) till the Transfer Date and shall ensure that at all times until Transfer Date, a minimum of number of trees as provided in the EIA, remain planted and maintained at the Project Site.

4.14 <u>AUTHORITY INDEMNITIES IN RESPECT OF PROJECT SITE</u>

- 4.14.1 The Authority shall indemnify and shall hold the Concessionaire harmless from any costs, claims expenses or charges incurred in relocating, rehabilitating or resettling persons in connection with making available the Project Site to the Concessionaire for implementation of the Project and for delivery of Vacant Possession of the Project Site to the Concessionaire.
- 4.14.2 The Authority hereby indemnifies and holds harmless the Concessionaire against all Losses arising in connection with or relating to any defect in title in the Concessionaire's Licenced interest in the Project Siteand/or (b) any litigation or disputes pertaining to the Project Site (whether pending as of the Effective Date or commenced, instituted and/or initiated subsequently), which, in each case, prevent, impede or delay the Concessionaire from constructing or, Operating and Maintaining the Concession Assets in accordance with this Agreement; provided, that such Losses are not the consequence of any breach or non-compliance by the Concessionaire of this Agreement, the Project Site Licence Agreement and the Applicable Standards; provided, further that such action is not a consequence of the Concessionaire's failure to maintain the Project Site in its possession free from encroachments and encumbrances by third parties and/or is not as a consequence or failure by the Concessionaire to meet its obligations under this Agreement .

4.15 REMOVAL OF MATERIAL ADVERSE IMPEDIMENT

4.15.1 Following delivery of the Vacant Possession of the Project Site to the Concessionaire by Authority, the Concessionaire shall be responsible for removal of all impediments, debris (including any structures not in anyone's possession) on the Project Site, whether physical or legal, to the construction and, Operation and Maintenance of the Concession Assets; provided, however, that the Concessionaire shall Notify the Authority of any impediment (the **Material Adverse Impediment**) on the Project Site, whether physical or legal, to the construction and/or, Operation and Maintenance of the Concession Assets which:

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- (a) causes a Material Adverse Effect;
- (b) is not attributable to the Concessionaire; and
- (c) in the opinion of the Independent Engineer, could not have been identified or foreseen through any investigations of the Project Site Conditions carried out, or deemed to be carried out, by the Concessionaire, in terms of Section 4.4; and
- (d) does not result from any non-compliance by the Sponsor and/or the Concessionaire under any Authority Agreements.
- 4.15.2 Any Notice issued by the Concessionaire pursuant to Section 4.15.1 shall be duly verified and certified by the Independent Engineer prior to submission to the Authority and the Independent Engineer shall, prior to delivery of such Notice to the Authority, duly certify in the Notice, *inter alia*, the occurrence and subsistence of the Material Adverse Impediment and the time period required for removal of the same (the **Material Impediment Removal Period**). Upon receipt by the Authority of the Notice duly verified and certified by the Independent Engineer (the **Certified Impediment Notice**), the Authority shall act so as to remove such Material Adverse Impediment within the Material Impediment Removal Period. In the event the Concessionaire suffers delays in the performance of its obligations and/or incurs Relief Costs, in each case, as a direct result of the Material Adverse Impediment, the same shall entitle the Concessionaire to issuance of a Relief Order Request and in such case, the provisions of Article 15 (*Relief Orders*) shall apply.

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5. INDEPENDENT ENGINEER

5.1 <u>SELECTION</u>

- 5.1.1 Within five (5) days from the Effective Date, the Concessionaire shall provide the Authority with a list of five (5) reputable firms of engineers (who have successfully completed projects of similar nature subject to completion certificate) for appointment of the Independent Engineer (the **First IE List**).
- 5.1.2 Within ten (10) days of receipt by the Authority of the First IE List, the Authority shall (subject to one (1) of the firms in the First IE List being acceptable to the Authority) select a reputed firm of engineers from First IE List and the Authority and the Concessionaire shall appoint such firm as the Independent Engineer in terms of the Independent Engineer Contract within ten (10) days of receipt of such selection notice from the Authority.
- 5.1.3 In the event the firms of engineers identified by the Concessionaire in the First IE List are not acceptable to the Authority, the Concessionaire and the Authority shall appoint (in terms of the Independent Engineer Contract) such firm as the Independent Engineer as is mutually acceptable to the Authority and the Concessionaire, where such mutual agreement is reached within twenty-five (25) days of the Effective Date and such appointment is made in terms of the Independent Engineer Contract.
- 5.1.4 The Independent Engineer shall provide the services set out in the Independent Engineer Contact and as requested by the Parties with mutual consent from time to time. Unless mutually agreed otherwise between the Parties, the Independent Engineer Contract shall be in accordance with the Indicative Independent Engineer Terms of Reference.

5.2 TERM OF APPOINTMENT OF THE INDEPENDENT ENGINEER

- 5.2.1 The appointment of the Independent Engineer shall be for an initial term of two (2) years from the date of the effectiveness of the Independent Engineer Contract (the **Independent Engineer Appointment Term**); provided, however, that:
 - (a) the Independent Engineer Appointment Term shall be extended prior to expiry of the same so as to ensure that at all times during the Concession Period an Independent Engineer is retained/appointed, for the purposes set out in this Agreement; or
 - (b) the Parties shall be entitled to appoint a new Independent Engineer prior to the expiry of the Independent Engineer Appointment Term (such appointment to be effective upon expiry of the Independent Engineer Appointment Term) so as to ensure that at all times during the Concession Period an Independent Engineer is retained/appointed for the purposes set out in this Agreement. In the event of the appointment of a new Independent Engineer upon expiry of the Independent Engineer Appointment Term, the provisions of Section 5.2.3 shall apply.
- 5.2.2 The appointment of the Independent Engineer may be terminated:
 - (a) by either Party if, the Independent Engineer is adjudged insolvent and / or bankrupt and / or the winding up proceedings are filed against the Independent Engineer and/or the Independent Engineer files winding up proceedings in a court of law and / or any action for malpractice and / or misadministration is filed against the Independent Engineer in a court of law;
 - (b) by the Parties with the mutual consent of the Parties.
- 5.2.3 Upon the occurrence of any of the events listed in Section 5.2.2, the Parties shall have the right to terminate the Independent Engineer Contract in accordance with the terms of the same or and/or in the event of expiry of the Independent Engineer Appointment Term, the Parties shall appoint a new Independent Engineer in accordance with this Section 5.2.3. In the afore-stated circumstances, the Parties shall replace the appointed Independent Engineer with another consulting engineering firm or body corporate selected by the Authority from the First IE List provided by the Concessionaire pursuant to Section 5.1.1 above; provided, however, that the termination and/or replacement of the Independent Engineer shall not have effect till such time as the replacement Independent Engineer has been appointed. In the event the Authority objects to the appointment of any firm of engineers named in the First IE List, then the Concessionaire shall provide the Authority with a new list of three (3) reputable firms of engineers for appointment of the replacement Independent Engineer (the **New IE List**). Within ten (10) days of receipt by the Authority of the New IE List, the Authority shall either:
 - (a) select a reputable firm of engineer from the New IE List and shall cause the Concessionaire to appoint such firm as the Independent Engineer; or

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(b) reject the appointment of any of the firms provided in the New IE List, in which case, the Parties shall appoint such firm of engineers as the new Independent Engineer as is mutually agreed by the Parties

The provisions of this Article 5 (*Independent Engineer*) shall apply to any new Independent Engineer (including appointment and replacement of the same) appointed in accordance with the terms herein.

- 5.2.4 The term of appointment of the replacement Independent Engineer shall be the unexpired period of the Independent Engineer Appointment Term or such other term as may be mutually agreed between the Parties.
- 5.2.5 The Concessionaire shall ensure that all provisions of this Agreement pertaining to the Independent Engineer and its responsibilities in respect of the matters set out herein are duly incorporated in the Independent Engineer Contract.

5.3 INDEPENDENT ENGINEER AUTHORIZED SIGNATORIES

5.3.1 The Parties shall require the Independent Engineer to designate and notify to the Authority and the Concessionaire of the authorized representatives of the Independent Engineer that shall be authorized by the Independent Engineer to sign for and on behalf of the Independent Engineer, and any communication or document required to be signed by the Independent Engineer shall be valid and effective only if signed by such authorized signatories on behalf of the Independent Engineer; provided, that the Independent Engineer may, by notice in writing to the Parties, substitute any of the authorized signatories.

5.4 DECISION OF INDEPENDENT ENGINEER & DISPUTE RESOLUTION

- 5.4.1 Subject to Section 5.4.2, any advice, instruction, decision, direction and / or award of the Independent Engineer shall be binding on the Parties unless mutually agreed otherwise by the Parties.
- 5.4.2 In the event any Dispute arises between the Authority and the Concessionaire with regard to any advice, instruction, decision, direction and / or award of the Independent Engineer, then such Dispute shall be resolved in accordance with the Dispute Resolution Procedure.

5.5 <u>Independent Engineer Remuneration</u>

- 5.5.1 The Concessionaire shall be solely responsible for the payment of the fees and expenses payable to the Independent Engineer pursuant to the Independent Engineer Contract (the **Independent Engineer Payments**), notwithstanding that the Independent Engineer shall be appointed by and shall fulfill its obligations in accordance with the terms of the Independent Engineer Contract.
- 5.5.2 The Concessionaire undertakes to affect the Independent Engineer Payments in a diligent and timely manner and in accordance with the Independent Engineer Contract.
- 5.5.3 The Parties agree that in the event the Concessionaire fails to make Independent Engineer Payments in a diligent and timely manner without undue justification then the payments shall be made directly through the Escrow Account or the Construction Performance Security at the certification of the Authority.

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6. INDEPENDENT AUDITOR

6.1 <u>SELECTION</u>

- 6.1.1 Within five (5) days from the Effective Date, the Concessionaire shall provide the Authority with a list of four (4) reputable firms of chartered accountants which should be within the "A Category" of SBP for appointment of the Independent Auditor (the **First IA List**).
- 6.1.2 Within ten (10) days of receipt by the Authority of the First IA List, the Authority shall (subject to one of the firms in the First IA List being acceptable to the Authority) select a reputed firm of auditors from First IA List and the Authority and the Concessionaire shall appoint such firm as the Independent Auditor in terms of the Independent Auditor Contract within ten (10) days of receipt of such selection notice from the Authority.
- 6.1.3 In the event the firms of auditors identified by the Concessionaire in the First IA List is not acceptable to the Authority, the Concessionaire and the Authority shall appoint (in terms of the Independent Auditor Contract) such firm as the Independent Auditor as is mutually agreed by the Authority and the Concessionaire, where such mutual agreement is reached within twenty-five (25) days of the Effective Date and such appointment shall be in terms of the Independent Auditor Contract.
- 6.1.4 The Independent Auditor shall provide the services set out in the Independent Auditor Contract and as requested by the Parties with mutual consent from time to time. Unless mutually agreed otherwise between the Parties, the Independent Auditor Contract shall be in accordance with the Indicative Independent Auditor Terms of Reference.

6.2 TERM OF APPOINTMENT OF THE INDEPENDENT AUDITOR

- 6.2.1 The appointment of the Independent Auditor shall be for an initial term of two (2) years from the date of the effectiveness of the Independent Auditor Contract (the **Independent Auditor Appointment Term**); provided, however, that:
 - (a) the Independent Auditor Appointment Term shall be extended prior to expiry of the same with the mutual consent of the Parties so as to ensure that at all times during the Concession Period an Independent Auditor is retained/appointed for the purposes set out in this Agreement; or
 - (b) the Parties shall be entitled to appoint a new Independent Auditor prior to the expiry of the Independent Auditor Appointment Term (such appointment to be effective upon expiry of the Independent Auditor Appointment Term) so as to ensure that at all times during the Concession Period an Independent Auditor is retained/appointed for the purposes set out in this Agreement. In the event of the appointment of a new Independent Auditor upon expiry of the Independent Auditor Appointment Term, the provisions of Section 6.2.3 shall apply.
- 6.2.2 The appointment of the Independent Auditor may be terminated:
 - (a) by either Party if the Independent Auditor is adjudged insolvent and / or bankrupt and / or winding up proceedings are filed against the Independent Auditor and/or the Independent Auditor files winding up proceedings in a court of law and / or any action for malpractice and / or misadministration is filed against the Independent Auditor in a court of law;
 - (b) by the Parties with the mutual consent of the Parties.
- 6.2.3 Upon the occurrence of any of the events listed in Section 6.2.2, the Parties shall have the right to terminate the Independent Auditor Contract in accordance with the terms of the same or and/or in the event of expiry of the Independent Auditor Appointment Term, the Parties shall appoint a new Independent Auditor in accordance with this Section 6.2.3. In the afore-stated circumstances, the Parties shall replace the appointed Independent Auditor with another firm of chartered accountants selected by the Authority from the First IA List provided by the Concessionaire pursuant to Section 6.1.1 above; provided, however, that the termination and/or replacement of the Independent Auditor shall not have effect till such time as the replacement Independent Auditor has been appointed. In the event the Authority objects to the appointment of any firm of chartered accountants named in the First IA List, then the Concessionaire shall provide the Authority with a new list of three (3) reputable firms of chartered accountants for appointment of the replacement Independent Auditor (the New IA List). Within ten (10) days of receipt by the Authority of the New IA List, the Authority shall either:
 - (a) select a reputable firm of chartered accountants from the New IA List and shall cause the Concessionaire to appoint such firm as the Independent Auditor; or

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(b) reject the appointment of any of the firms provided in the New IA List, in which case, the Parties shall appoint one of the Big Four Accounting Firms with mutual consent of the Parties as the new Independent Auditor.

The provisions of this Article 6 (*Independent Auditor*) shall apply to any new Independent Auditor (including appointment and replacement of the same) appointed in accordance with the terms herein.

- 6.2.4 The term of appointment of the replacement Independent Auditor shall be the unexpired period of the Independent Auditor Appointment Term or such other term as may be mutually agreed between the Parties.
- 6.2.5 The Concessionaire shall ensure that all provisions of this Agreement pertaining to the Independent Auditor and its responsibilities in respect of the matters set out herein are duly incorporated in the Independent Auditor Contract.

6.3 INDEPENDENT AUDITOR AUTHORIZED SIGNATORIES

6.3.1 The Parties shall require the Independent Auditor to designate and notify to the Authority and the Concessionaire of the authorized representatives of the Independent Auditor that shall be authorized by the Independent Auditor to sign for and on behalf of the Independent Auditor, and any communication or document required to be signed by the Independent Auditor shall be valid and effective only if signed by such authorized signatories on behalf of the Independent Auditor; provided, that the Independent Auditor may, by notice in writing to the Parties, substitute any of the authorized signatories.

6.4 DECISION OF INDEPENDENT AUDITOR & DISPUTE RESOLUTION

- 6.4.1 Subject to Section 6.4.2, any advice, instruction, decision, direction and / or award of the Independent Auditor shall be binding on the Parties unless mutually agreed otherwise by the Parties.
- 6.4.2 In the event any Dispute arises between the Authority and the Concessionaire with regard to any advice, instruction, decision, direction and / or award of the Independent Auditor, then such Dispute shall be resolved in accordance with the Dispute Resolution Procedure.

6.5 INDEPENDENT AUDITOR REMUNERATION

- 6.5.1 The Concessionaire shall (in consultation with the Authority) be solely responsible for the payment of the fees and expenses payable to the Independent Auditor pursuant to the Independent Auditor Contract (the **Independent Auditor Payments**), notwithstanding that the Independent Auditor shall be appointed by and shall fulfill its obligations in accordance with the terms of the Independent Auditor Contract.
- 6.5.2 The Concessionaire undertakes to affect the Independent Auditor Payments in a diligent and timely manner and in accordance with the Independent Auditor Contract.
- 6.5.3 The Parties agree that in the event the Concessionaire fails to make Independent Auditor Payments in a diligent and timely manner without undue justification then the payments shall be made directly through the Escrow Account or the Construction Performance Security at the certification of the Authority.

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7. CONCESSIONAIRE'S REPRESENTATIONS, WARRANTIES AND CERTAIN OBLIGATIONS & UNDERTAKINGS

7.1 CONCESSIONAIRE REPRESENTATIONS & WARRANTIES

- 7.1.1 The Concessionaire hereby represents and warrants to the Authority that:
 - (a) it is duly organized and validly existing under the Applicable Laws, and that it has full power and authority to execute and perform its obligations under this Agreement and to carry out the transactions contemplated hereby;
 - (b) it has taken all necessary corporate and other actions under the Applicable Laws to:
 - (i) authorize the execution, delivery and performance of this Agreement; and
 - (ii) validly exercise its rights and perform its obligations under this Agreement;
 - (c) this Agreement and all obligations contained herein constitutes its legal, valid and binding obligations, enforceable against it in accordance with the terms hereof;
 - (d) it has the financial standing and capability to undertake and implement the Project in accordance with the Applicable Standards and neither the Concessionaire nor the Sponsor have committed a breach in respect of their payment obligations in relation to a financial indebtedness;
 - (e) it is subject to the Applicable Laws, and hereby expressly and irrevocably waives any immunity in any jurisdiction in respect of this Agreement and/or or matters arising hereunder including any obligation, liability or responsibility hereunder;
 - (f) the execution, delivery and performance of this Agreement does not and shall not conflict with, result in the breach of, constitute a default under, or accelerate performance required by any of the terms of its memorandum and articles of association or any of its constitutive and corporate charters, filings with Government Authorities, documents, or any Applicable Laws or any covenant, contract, agreement, arrangement, understanding, decree or order to which it is a party or by which it or any of its properties or assets is bound or affected;
 - (g) there are no actions, suits, proceedings, or investigations pending or, to its knowledge, threatened against it under the Applicable Laws before any court or before any other judicial, quasi-judicial or other authority, the outcome of which may result in the breach of this Agreement or which individually or in the aggregate may result in any material impairment of its ability to perform any of its obligations under this Agreement;
 - (h) it has no knowledge of any violation or default with respect to any order, writ, injunction or decree of any court or any legally binding order of any Government Authority which may result in any Material Adverse Effect on its ability to perform its obligations under this Agreement and no fact or circumstance exists which may give rise to such proceedings that would have a Material Adverse Effect on the performance of its obligations under this Agreement;
 - (i) it has complied with Applicable Laws in all material respects and has not been subject to any fines, penalties, injunctive relief or any other civil or criminal liabilities which in the aggregate have or may have a Material Adverse Effect on its ability to perform its obligations under this Agreement;
 - (j) the Sponsor (together its nominee directors holding a single share each) owns one hundred percent (100%) of the issued and paid-up share capital of the Concessionaire as of the Effective Date;
 - (k) the Concessionaire and the Sponsor (along with its Associates (if any)) have the financial standing and resources to fund the Sponsor Base Equity Amount in accordance with Authority Agreements;
 - (l) the Concessionaire has the ability to achieve Financial Close in terms of the Financing Term Sheet;
 - (m) no representation or warranty made by the Concessionaire and contained herein or in any other document furnished by it to the Authority or to any Government Authority in relation to the Concessionaire Permits contains any untrue or misleading statement of material fact or omits or will omit to state a material fact necessary to make such representation or warranty misleading;
 - (n) no sums, in cash or kind, have been paid or will be paid, by it or on its behalf, to any Person by way of fees, commission or otherwise for securing the Concession or entering into this Agreement or for influencing or attempting to influence any officer or employee of the Authority in connection therewith and neither the Concessionaire nor the Sponsor (together with their Affiliates) have engaged in any Corrupt Act in respect of the foregoing;

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- (o) each of the Concessionaire and the Sponsor has complied with requirements of the Applicable Laws and the RFP (to the extent the same are applicable to the Concessionaire and the bidders) in the preparation, finalization, delivery and submission of its Bid for the award of the Project and the Concession to the Concessionaire and have undertaken all acts and deeds (to the extent the same are applicable to the Concessionaire and the bidders) necessary for award of the Concession and the Project to the Concessionaire in terms of the RFP and the Applicable Laws;
- (p) all representations, breach of which may cause a Material Adverse Effect, provided by the Concessionaire and/or Sponsor in its Bid (as may be applicable) submitted in response to the RFP, is true and accurate in all respects;
- (q) it is subject to civil and commercial law with respect to this Agreement and it hereby expressly and irrevocably waives any sovereign immunity (if any) in any jurisdiction.
- (r) the Concessionaire has furnished a valid and effective Construction Performance Security to the Authority prior to the Bid Security Expiry Date and the Construction Performance Security is valid and subsisting.
- 7.1.2 In the event that any occurrence or circumstance comes to the attention of either Party that renders any of its aforesaid representations or warranties untrue or incorrect, such Party shall immediately Notify the other Party of the same. Such Notification shall not have the effect of remedying any breach of the representation or warranty that has been found to be untrue or incorrect nor shall it adversely affect or waive any right, remedy or obligation of either Party under this Agreement or any Authority Agreement.

7.2 <u>Concessionaire's General Undertakings</u>

- 7.2.1 The Concessionaire hereby undertakes that it shall, at its own cost and expense:
 - (a) comply with and perform all duties, obligations, acts, deeds and obligations set out in, in each case, the Applicable Standards;
 - (b) continuously and diligently undertake, perform and complete all Project Works and Concession Assets in accordance with the Applicable Standards and within the Time For Completion;
 - (c) ensure that all Project Works and Concession Assets comply with the Applicable Standards;
 - (d) investigate, study, finance, design, construct, Operate and Maintain the Concession Assets in accordance with the Applicable Standards;
 - (e) ensure and achieve each Project Milestone on or prior to its Project Milestone Date in accordance with the Applicable Standards including:
 - (A) achieve Substantial Completion on or prior to the Scheduled Substantial Completion Date;
 - (B) achieve Project Construction Completion on or prior to the Scheduled Project Construction Completion Date;
 - (f) remedy any Defects & Deficiencies in the Project Works (including in the performance of the same) and/or the Concession Assets at its own cost and risk;
 - (g) obtain and maintain all Concessionaire Permits (including any renewals of the same) in conformity with the Applicable Laws and be in compliance thereof, and deliver copies of the same to the Authority, the Independent Engineer and the Independent Auditor from time to time;
 - (h) be in compliance with and perform all its obligations in accordance with, in each case, the Applicable Laws and fulfill the requirements (including the environmental requirements) under the Applicable Laws,
 - (i) procure and maintain in full force and effect, as necessary, appropriate proprietary rights, Licences, agreements and permissions for materials, methods, processes and systems used in or incorporated into the Project;
 - (j) appoint, supervise, monitor and control as necessary, the activities of the Concessionaire Engaged Persons (including those of the Contractors under their respective and relevant Project Agreements), provided that, at all times, the Concessionaire shall be fully responsible for all acts or omissions of the Concessionaire Engaged Persons, as further contemplated in Section 7.3;
 - (k) make its own arrangements for materials (including construction materials), parts, components, supplies, tools, machinery etc. for performance of the Project Works;

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- (l) be responsible for strict compliance with the relevant Applicable Standards notwithstanding the appointment and/or engagement by it of the Concessionaire Engaged Persons to implement the Project (or any part thereof) and performance of Project Works (or any part thereof);
- (m) keep and maintain the Project Site free from all encroachments and take all steps necessary to remove encroachments, if any;
- (n) except as provided in this Agreement, make payments to the relevant Government Authority, if required, for provision of such services as are not provided in the normal course or are available only on payment;
- (o) afford access of the Project Site to the authorized representatives of the Authority, the Independent Engineer, Independent Auditor and any Government Authority having jurisdiction over the Project, including those concerned with safety, security or environmental protection to inspect the Project Works and the Concession Assets and, upon reasonable notice, to investigate any matter within their authority, and provide to such Persons assistance reasonably required to carry out their respective duties and functions;
- (p) not engage in any business or activity other than the business or related to, and conducted for, the purpose of the Project and/or other than as provided in this Agreement;
- (q) maintain its corporate existence and its rights to carry on operations of its business;
- (r) provide all necessary assistance to the Authority Representative, as the Authority Representative may reasonably require for the performance of its duties and services;
- (s) make all payments to the Authority of the amounts due and payable by the Concessionaire in accordance with the terms of this Agreement and the Authority Agreements;
- (t) ensure that no damage is caused to any property belonging to Authority and/or other third parties in the execution of the Project Works;
- (u) coordinate and manage all the Project Works and be responsible for the coordination and general management of the Project Works;
- (v) provide to the Authority, the Independent Auditor and the Independent Engineer all such information relating to the Project Works and the execution and completion of the same as is reasonably requested by the Authority, the Independent Auditor and the Independent Engineer from time to time:
- (w) Notify the Authority, the Independent Engineer and/or the Independent Auditor (as applicable) without undue delay upon becoming aware of any changes in the information provided and/or to be provided to the same by the Concessionaire pursuant to the Applicable Standards;
- (x) provide all necessary assistance to the Independent Engineer and the Independent Auditor as the same may reasonably require for the performance of their duties and services in accordance with the Independent Engineer Contract and the Independent Auditor Contract, respectively, and for the performance of its roles and obligations contemplated under this Agreement and the Authority Agreements;
- (y) ensure that the Project Agreements entered into by the Concessionaire shall not be inconsistent with the terms and conditions of the Authority Agreements;
- (z) submit from time to time to the Authority and the Independent Engineer its detailed design, construction methodology and quality assurance procedures for implementation and completion of the Project in accordance with the Applicable Standards and the same shall be subject to the review and approval of the Independent Engineer;
- (aa) undertake, do and perform from time to time, all such acts, deeds and things as may be necessary or required before commencement of Project Works (or any part thereof) for the performance of the Project Works under and in accordance with the Applicable Standards;
- (bb) construct, provide and maintain a reasonably furnished site office accommodation for the Independent Engineer at the Project Site commencing from the Commencement Date and until the Transfer Date;
- (cc) ensure the safety of the Concession Assets and the Users in accordance with the Safety Requirements;

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- (dd) maintain the Project Site and the Concession Assets in good condition.
- (ee) comply with the Design Requirements.
- (ff) the Concessionaire shall comply with all the conditions set—out in the EIA Approval obtained by the Authority in accordance with the Applicable Laws and the same stands approved by the Punjab Environmental Protection Agency and has submitted a copy of each of the same (i.e. the report and its approval) to the Authority (with a copy delivered to the Independent Engineer and the Independent Auditor).

7.3 CONCESSIONAIRE ENGAGED PERSONS

- 7.3.1 The Concessionaire shall, commencing from the Effective Date, have requisite organization and designate and appoint suitable officers/ representatives as it may deem appropriate to implement and supervise the Project, to deal with the Independent Engineer/Independent Auditor/the Authority and to be responsible for all necessary exchange of information required pursuant to the Applicable Standards.
- 7.3.2 The Concessionaire shall ensure that the Concessionaire Engaged Persons experienced and qualified for the purposes of Project implementation and performance of the Project Works and are at all times properly trained for their respective functions. The Concessionaire shall be responsible for maintaining harmony and good industrial relations among the Concessionaire Engaged Persons.
- 7.3.3 The Concessionaire shall be fully and solely responsible for:
 - (a) observance by all the Concessionaire Engaged Persons of all the provisions and requirements of the Applicable Standards;
 - (b) the acts, omissions, failure to perform, breaches or defaults of the Concessionaire Engaged Persons of the Applicable Standards as fully as if they were the acts, omissions, failures, breaches or defaults of the Concessionaire of the Applicable Standards under this Agreement and the Authority Agreement.
- 7.3.4 The Concessionaire shall be responsible for strict compliance with the Applicable Standards notwithstanding the appointment and/or engagement by it of the Concessionaire Engaged Persons to implement the Project (or any part thereof) and performance of Project Works (or any part thereof) and any engagement by the Concessionaire of any of the Concessionaire Engaged Persons shall not release or discharge the Concessionaire of any of its liabilities, responsibilities or obligations under the Applicable Standards and the Concessionaire shall not be entitled to any relief or compensation (including any extension of Time For Completion and/or monetary compensations) under this Agreement or otherwise for any acts, omissions, failures, breaches or defaults of the Concessionaire Engaged Persons. Notwithstanding anything to the contrary, the Authority shall not be liable or responsible in any manner whatsoever under any Applicable Laws, in contract, tort or otherwise in respect of the Concessionaire Engaged Persons.
- 7.3.5 Employment of any foreign Concessionaire Engaged Persons shall be subject to grant of requisite regulatory permits and approvals including employment/residential visas and work permits, if any required, and the obligation to apply for and obtain the same shall be the sole responsibility of the Concessionaire and, notwithstanding anything to the contrary contained in this Agreement or otherwise, refusal of or inability to obtain any such permits and approvals by the Concessionaire or the relevant Contractor shall not constitute Force Majeure Event, and shall not in any manner excuse the Concessionaire from the performance and discharge of its obligations and liabilities under the Applicable Standards. The Concessionaire shall use reasonable efforts to promote local contractors and to employ and engage, to the extent practicable local employees and contractors.
- 7.3.6 The Concessionaire undertakes that it shall itself and any of its Concessionaire Engaged Persons shall be available to attend any meetings with the Authority, the Independent Engineer and/or the Independent Auditor at all reasonable times, as required and Notified by the Authority, the Independent Engineer and/or the Independent Auditor (as applicable) to the Concessionaire. All costs for attending such meetings by (including those relating to preparation and attendance in such meetings by the Concessionaire Engaged Persons) shall be on the Concessionaire's account.

7.4 CONCESSIONAIRE AUTHORIZED REPRESENTATIVE & CONCESSIONAIRE PROJECT ENGINEER

- 7.4.1 Within seven (7) days following the Effective Date, the Concessionaire shall:
 - (a) appoint, with the prior written consent of the Authority (which consent shall be deemed to be accorded in case no response from Authority is received within fifteen (15) days of Authority's receipt of the Concessionaire's written request for such consent) and prior Notification to the Independent Engineer and the Independent Auditor, its representative duly authorized to deal with the Authority in respect of all matters under or arising out of or relating to this Agreement (the Concessionaire Authorized Representative);

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- (b) appoint, with the prior written consent of the Authority(which consent shall be deemed to be accorded in case no response from Authority is received within fifteen (15) days of Authority's receipt of the Concessionaire's written request for such consent) and prior Notification to the Independent Engineer and the Independent Auditor, at its sole cost and expense one or more established consulting engineering firm to design and supervise the Construction Works and in particular to ensure that the Construction Works are performed and are in accordance with the Applicable Standards and Good Industry Practice (the **Concessionaire Project Engineer**);
- (c) ensure that the Concessionaire Authorized Representative or the Concessionaire Project Engineer perform their respective obligations in the same manner as the Concessionaire is required to perform its obligations under this Agreement; and
- (d) prior to the appointment or any substitution of the Concessionaire Authorized Representative and/or the Concessionaire Project Engineer, the Concessionaire shall submit the details of the same to the Authority in writing (with copies to the Independent Engineer and the Independent Auditor) and shall provide any other information reasonably requested by the Authority in respect of the same.
- 7.4.2 The Concessionaire shall substitute the Concessionaire Authorized Representative and the Concessionaire Project Engineer with the prior approval of the Authority. The approval by the Authority shall not be unreasonably withheld, conditioned or delayed; provided, however, in the event the Authority fails to grant its approval or disapproval to the Concessionaire for the appointment and/or substitution of the Concessionaire Authorized Representative and/or the Concessionaire Project Engineer within fifteen (15) days following the receipt of such request by the Authority from the Concessionaire, the approval of the Authority for the appointment and/or substitution of the Concessionaire Authorized Representative and/or the Concessionaire Project Engineer shall be deemed accorded. The Concessionaire hereby unconditionally and irrevocably confirms, acknowledges and agrees that the liability of the Concessionaire for the performance of its obligation pursuant to this Agreement shall neither be rescinded, waived, reduced, cancelled, terminated and / or in any manner adversely impacted as a direct and / or indirect consequence of the approval or otherwise of the Authority pursuant to this Section.

7.5 THE EPC CONTRACTOR & THE O&M CONTRACTOR

- 7.5.1 The Concessionaire hereby undertakes that it shall:
 - (a) ensure that the EPC Contract and the O&M Contracts are entered into on an arm's length basis and on commercially viable terms;
 - (b) ensure that the assets created and/or constructed forming part of the Concession Assets pursuant to the EPC Contract and the O&M Contract vest in Authority on the Transfer Date;
 - (c) ensure that the EPC Contractor or the O&M Contractor perform their respective obligations in the same manner that the Concessionaire is required to perform its obligations under this Agreement; and
 - (d) deliver copies of each of the EPC Contract(s) and the O&M Contract(s) to Authority within five (5) days of its execution prior to EPC Contractors' mobilization.
- 7.5.2 The Authority shall not be liable for losses (including any Losses) of any nature resulting from the EPC Contract and the O&M Contract entered into by the Concessionaire as a result of the expiry of the Concession Period or Termination of this Agreement.
- 7.5.3 Prior to the appointment or any substitution of the EPC Contractor and/or the O&M Contractor, the Concessionaire shall submit the details of the same to the Authority, the Independent Engineer and the Independent Auditor and shall provide any other information reasonably requested by the Authority, the Independent Engineer and the Independent Auditor in respect of the same.
- 7.5.4 The Authority shall have the right to approve and/or disapprove the appointment and/or replacement of the EPC Contractor and/or the O&M Contractor, if:
 - (a) any such appointment and/or replacement, in the reasonable opinion of the Authority, has any implications on national security interests of Pakistan; and/or
 - (b) such EPC Contractor and/or O&M Contractor is from the country of origin that is proscribed by the Applicable Laws and/or is black listed by any Government Authority;

and the decision of the Authority in this regard shall be final and binding on the Concessionaire. The Concessionaire hereby unconditionally and irrevocably confirms, acknowledges and agrees that the liability of the Concessionaire for the performance of its obligations pursuant to this Agreement shall neither be rescinded, waived, reduced, cancelled, terminated and / or in any manner adversely impacted as a direct and / or indirect consequence of the approval or otherwise of the Authority pursuant to this Section.

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- 7.5.5 The Independent Engineer (in respect of technical matters) and the Independent Auditor (in respect of financial matters) shall have the right to approve and / or disapprove the appointment and / or replacement of the EPC Contractor and/or the O&M Contractor, if any, in the event (in the reasonable opinion of the Independent Engineer (in respect of technical matters) and the Independent Auditor (in respect of financial matters)):
 - (a) such EPC Contractor is technically and financially incapable (to the extent of its scope of work) of performing the Construction Works (or any part thereof); or
 - (b) such O&M Contractor is technically and financially incapable (to the extent of its scope of work) to perform the Operations and Maintenance (or any part thereof).
- 7.5.6 The execution of the EPC Contract(s) and/or the O&M Contract(s), or any amendment thereof shall be subject to the prior approval of the Independent Engineer in respect of payment terms, payment milestones, scope of the relevant Project Works and technical matters to ensure conformity with the terms of the Concession Agreement. The Concessionaire shall deliver to the Independent Engineer copies of the proposed EPC Contract(s) and O&M Contract(s) (with a copy to the Authority), or any amendment thereof. The Authority shall, within fifteen (15) days of its receipt of the proposed EPC Contract(s) and/or the O&M Contract(s), provide its comments or observation on the same, if any, to the Independent Engineer. The Independent Engineer shall within twenty-eight (28) days of the delivery of the proposed EPC Contract(s) and O&M Contract(s) and/or any amendments thereof by the Concessionaire, grant its approval or disapproval of the same, in consultation with Authority, and/or after removing any objection by Authority). In the event no approval or objections to the proposed EPC Contract(s) and/or the O&M Contracts is granted by the Independent Engineer within twenty-eight (28) days of the delivery of the same by the Concessionaire, it shall be deemed not to have been objected to by the Independent Engineer.
- 7.5.7 The Concessionaire shall deliver certified (as being true and correct) copies of the executed EPC Contract(s) and O&M Contract(s), together with all amendments thereto, to the Authority, the Independent Engineer and the Independent Auditor within five (5) days of execution of the same.

7.6 <u>Concessionaire Permits</u>

- 7.6.1 The Concessionaire shall make or cause to be made, in a timely fashion, all applications (whether initial or renewal applications) for the Concessionaire Permits in the prescribed form and with the prescribed fee (in each case, in accordance with the Applicable Laws) to the appropriate Government Authority and shall diligently pursue all such applications. The information supplied in the applications shall be complete and accurate and shall satisfy the substantive and procedural requirements of the Applicable Laws applied in a "non-discriminatory" manner.
- 7.6.2 The Concessionaire shall make or cause to be made, at least monthly prior to the Project Construction Completion Date, and at least quarterly thereafter, reports listing its schedule for submitting Concessionaire Permits application forms or renewal application forms, the status of any Concessionaire Permit applications then outstanding, notifications of the granting or denial of any Concessionaire Permit or Concessionaire Permit renewal, and notifications of any violations of any Concessionaire Permit. Each report shall be submitted to the Authority, the Independent Engineer and the Independent Auditor and shall include copies of all applications and notifications discussed in the report which have not been provided with a previous report. The first section of each report shall also summarize any problems regarding any Concessionaire Permit or Concessionaire Permit application that may materially affect the Concessionaire's performance under any Authority Agreement. In the event of any Lapse of Consent, the Concessionaire shall submit a report pursuant to this Section 7.6.2 within three (3) days after becoming aware thereof.

7.7 Preliminary Works

7.7.1 The Concessionaire shall perform the Preliminary Works in accordance with this Agreement, as mutually agreed between the Parties. The costs of all Preliminary Works shall be deemed to be included in the Pre Estimated Project Cost and the Total Project Cost.

7.8 NOT USED

7.9 ACCESS ROUTE & TRANSPORTATION

7.9.1 The Concessionaire shall be responsible for selection and usage of all transportation means, transportation routes, roads, bridges, highways and routes within, and to and from the Project Site in respect of performance of its Project Works and the Authority shall not be responsible for any claims attributable to Concessionaire in respect of the same. The Concessionaire shall (as between the Parties) be responsible for the repair of access routes damaged by the Concessionaire and/or the Concessionaire Engaged Persons.

7.10 TAXES AND SUBSIDIES

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- 7.10.1 The Concessionaire shall be responsible to make all payments in respect of the rates, taxes (as applicable), charges, levies, assessments or equivalent taxes levied on it.
- 7.10.2 The Concessionaire may raise any objections in terms of any charges levied on it by any Government Authority; provided, that such objections shall be filed and pursued at the Concessionaire's cost and the Concessionaire shall be entitled to any benefit accruing as a result of the Concessionaire's successful objection.
- 7.10.3 The Concessionaire fully understands that the Authority or any other Government Authority shall not provide any guarantee, subsidy, grant or any financial support of any nature to the Concessionaire in respect of the Project other than as provided under the Authority Agreements.

7.11 PROTECTION OF THE ENVIRONMENT

- 7.11.1 The Concessionaire shall comply with all Applicable Standards (including any condition which may from time to time be imposed by any Government Authority, including the 'Punjab Environmental Protection Agency' as regards collection, treatment and disposal or discharge of effluents or waste) pertaining to protection of the environment in its arrangements, execution of Project Works, procurement, construction and operations on Project Site. The Concessionaire shall take all necessary steps to protect the environment (both on and off the Project Site) and shall not cause damage and nuisance to people and property resulting from pollution, noise and other results of its operations. The Concessionaire shall ensure that air emissions, surface discharges and effluent from the Project Site during the Concession Period shall not exceed the values prescribed by Applicable Standards.
- 7.11.2 The Concessionaire shall provide properly designed storage areas for its hazardous materials that are impermeable to leakage into the surrounding soil for storage of hazardous wastes. Such storage shall also be covered and protected from inundation and overflow by rainfall into the surrounding soil. Any hazardous materials generated during completion of the Project Works by the Concessionaire (including any of its Concessionaire Engaged Persons) shall be properly disposed off by the Concessionaire on completion of the Works. The Concessionaire shall be responsible for keeping safe and disposing any hazardous materials and any dangerous substances on the Project Site generated from time to time during performance and completion of the Project Works or brought on to the Project Site by the Concessionaire.
- 7.11.3 The Concessionaire undertakes to indemnify, defend and hold the Authority harmless from any and all liabilities, claims, damages, costs, penalties, fines, expenses, fees (including reasonable attorney's fees) and charges of any nature associated with any non-compliance by the Concessionaire of its obligations contained in this Section 7.11.3 (*Protection of Environment*).

7.12 <u>Internal Infrastructure Linkages</u>

7.12.1 The Concessionaire shall be responsible for internal infrastructure linkages required for the Project such as waste water and storm water drainage at the Project Site. The Authority shall use reasonable efforts to facilitate for the provision with respective Government Authorities at no cost to itself and it shall be the Concessionaire's responsibility to fulfill any monetary or other compliances, as may be required by such Government Authorities.

7.13 <u>EMERGENCY DECOMMISSIONING</u>

- 7.13.1 In the event, during the Operations Period, in the reasonable opinion of the Concessionaire, there exists an Emergency that warrants de-commissioning and closure to traffic and/or the Users of the whole or any part of the Concession Assets(the **Decommissioned Project Area**), the Concessionaire shall be entitled to decommission and close the whole or any part of Decommissioned Project Area, as the case may be, to the traffic and/or the Users for so long as such Emergency and the consequences thereof warrant (the **Emergency Decommissioning**); provided, however, that such Emergency Decommissioning and the particulars thereof shall be notified by the Concessionaire to the Authority and the Independent Engineer without any delay, and the Concessionaire shall diligently abide by the Applicable Standards (including the Safety Requirements) in dealing with such Emergency Decommissioning and act in accordance with the directions that the Independent Engineer may issue for dealing with such Emergency Decommissioning; provided, however:
 - (a) that the Independent Engineer shall, within seven (7) days from the date of the Emergency Decommissioning, certify whether such Emergency Decommissioning was warranted; and
 - (b) that the Concessionaire shall re-commission the Decommissioned Project Area, without any delay, whenever the Independent Engineer either: (i) notifies the Concessionaire to re-commission the same; or (ii) certifies that such Emergency Decommissioning was not warranted.
- 7.13.2 Without prejudice to the provisions of Section 7.13.1 (b), the Concessionaire hereby undertakes to recommission the Decommissioned Project Area efficiently and in a time sensitive manner and as quickly as practicable after the circumstances leading to the Emergency Decommissioning have ceased to exist or have

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so abated as to enable the Concessionaire to re-commission the Decommissioned Project Area and shall notify the Authority and the Independent Engineer of the same without any delay.

- 7.13.3 The Emergency Decommissioning of the Decommissioned Project Area and the re-commissioning thereof shall, as soon as practicable, be brought to the notice of the affected Persons / Users by means of public announcements/notice by the Authority. The Independent Engineer shall determine whether the Concessionaire has successfully re-commissioned the Decommissioned Project Area and made the same available for traffic / Users as soon as practicable upon the termination / ceasing of the circumstances that have resulted in the Emergency Decommissioning.
- 7.13.4 All expenses, charges, fees, overheads and costs of any nature and all delays, in each case, resulting from and relating to the Emergency Decommissioning shall be borne by and shall be on account of the Concessionaire; provided, however, in the event the Emergency Decommissioning results from a Authority Event of Default and/or a Force Majeure Event, the Concessionaire shall be entitled to issuance of a Relief Order Request and in such case, the provisions of Article 15 (Relief Extensions & Relief Compensations) shall apply.

7.14 RESTORATION OF LOSS OR DAMAGE TO PROJECT

7.14.1 Save and except as a result of a Permitted Events (excluding a Non Political Event), in the event that the Project Works and/or Concession Assets or any part thereof suffers any loss or damage during the Concession Period, the Concessionaire shall, at its cost and expense, rectify and remedy such loss or damage forthwith in accordance with the Applicable Standards so that the Project Works and the Concession Assets conform to the Applicable Standards.

7.15 <u>ACCOUNTS AND REPORTS</u>

7.15.1 <u>APPOINTMENT OF AUDITORS</u>

The Concessionaire shall make arrangements with respect to the installation and operation of an accounting and cost control system and for the appointment, as statutory auditors, of a reputed firm of independent chartered accountants reasonably acceptable to the Authority and the Independent Auditor.

7.15.2 SPECIFIC RECORDS

The Concessionaire shall maintain complete and accurate records accounting for all transactions relating to any Relief Order, Relief Costs, extensions of Time For Completion, Change of Scope, minutes of board meetings and shareholder meetings and other records, which records shall be subject to inspection and audit by the Authority, the Independent Engineer and the Independent Auditor.

7.15.3 PERIODIC REPORTS

The Concessionaire shall in accordance with this Agreement furnish to the Authority, the Independent Engineer and the Independent Auditor, (with a copy to the Punjab PPP Authority) the Construction Monthly Progress Report and the O&M Monthly Status Report.

The Concessionaire shall, as soon as available but in any event within sixty (60) days of filing, furnish to the Authority, the Independent Engineer and the Independent Auditor two (2) copies of all documents filed in compliance with the requirements of the Companies Act, 2017 as amended or superseded from time to time or any other Applicable Laws.

The Concessionaire shall, as soon as available, furnish to the Authority, the Independent Engineer and the Independent Auditor, a report on any factors materially and adversely affecting, or that might materially and adversely affect, the Project or the Concessionaire's business and operations.

7.15.4 <u>Reporting of Changes</u>

7.15.5 <u>Lists of Financiers and Creditors</u>

The Concessionaire shall, at least fourteen (14) days prior to it becoming effective, report to the Authority, the Independent Engineer and the Independent Auditor any contemplated (i) material change in its memorandum and articles of association; (ii) change in its fiscal year; (iii) change in the constitution of its board of directors; (iv) change in its chief executive officer, and (v) without prejudice to the provisions of Section 10.3 (*Change of Control*), registration of a transfer of Ordinary Shares to any Person who thereby becomes a registered holder of greater than five percent (5%) of the issued Ordinary Shares, or of a transfer of Ordinary Shares to or from a Person or entity who, immediately prior to such transfer, held greater than five (5) percent of the issued Ordinary Shares; provided, however, that, reporting as aforesaid shall not relieve the Concessionaire from its obligations or liabilities towards any other Government Authority having jurisdiction over any such matter.

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Together with the periodic reports required by Section 7.15.5, the Concessionaire shall also furnish to the Authority, the Independent Engineer and the Independent Auditor a list of

- (i) the Financiers; and
- (ii) each of its creditors to which the Concessionaire has an outstanding obligation of PKR 1,000,000 (Pakistani Rupees One Million only) or more,

in each case, along with statements or schedules of repayment of local and foreign loans/debts to such Financiers and creditors duly certified by its statutory auditors on a six (6) monthly basis in each Accounting Year. The report shall also indicate any changes, as compared to the report submitted the previous Accounting Year that might have occurred.

7.15.6 <u>Information Regarding Statutory Notice/Winding Up Proceedings</u>

The Concessionaire shall, within seven (7) days of receipt thereof, provide to the Authority, the Independent Engineer and the Independent Auditor a copy of any notice that the Concessionaire may be served under Sections 301 and 302 (as such Sections may be amended, modified or relocated) of the Companies Act, 2017 by any of the Financiers or its creditors.

The Concessionaire shall provide to the Authority, the Independent Engineer and the Independent Auditor all information in respect of any further actions taken by the Financiers or its creditors following any notice under Sections 301 and 302 (as such Sections may be amended, modified or relocated) of the Companies Act, 2017.

7.15.7 FAILURE BY THE CONCESSIONAIRE TO SUBMIT REPORTS, DOCUMENTS AND INFORMATION

In addition to the rights the Authority may have under this Agreement or under the Applicable Laws, in the event that the Concessionaire fails to submit any of the documents, reports or information as and when required under this Agreement, the Authority shall be entitled to assess against and recover from the Concessionaire reasonable costs established from time to time by the Authority for such non-compliance. Such reasonable costs shall be paid to the Authority within ten (10) days of notice of such non-compliance and assessment by the Authority; provided, that such costs shall not exceed an amount equal to PKR 15,000/(Pakistani Rupees Fifteen Thousand only) for each day that each such document, report or information remains outstanding commencing from the date that notice thereof is delivered by the Authority to the Concessionaire.

7.16 <u>AFFIRMATIONS</u>

- 7.16.1 The Concessionaire hereby declares that it has not obtained or induced the procurement of this Agreement and/or any Project Agreement and/or any Authority Agreement and/or any contract, consent, approval, right, interest, privilege or other obligation or benefit related to this Agreement and/or any Authority Agreement and/or the Project from the Authority and/or any Government Authority through any corrupt (including Corrupt Act)or illegal business practice.
- 7.16.2 Without limiting the generality of the foregoing, the Concessionaire represents and warrants that it has fully disclosed in writing all commissions, brokerage and other fees, and other compensation (other than compensation paid to employees of the Concessionaire for services provided) paid or payable to any Person within or outside Pakistan in relation to the Project and has not given or agreed to give and shall not give, or agree to give to any Person within or outside Pakistan either directly or indirectly through any natural or juridical Person, including its Affiliates, employees, agents, associates, brokers, consultants, officers, directors, promoters, shareholders or subsidiaries (and any of their employees, agents, associates, brokers, consultants, officers, directors, promoters, shareholders or sponsors), any commission, gratification, bribe, finder's fee or kickback, whether described as consultation fee or otherwise, with the object of obtaining or inducing the procurement of any Authority Agreement or any Project Agreement or any contract, right, interest, privilege or other obligation or benefit related to any Authority Agreement or the Project from the Authority or any Government Authority, except that which has been expressly declared pursuant hereto.
- 7.16.3 The Concessionaire accepts full responsibility and strict liability for making any intentional false declaration, not making full disclosure, misrepresenting facts or taking any action likely to defeat the purpose of the representations and warranties contained herein and the declarations required hereby. The Concessionaire agrees in the event that any of the representations and warranties made by it in Section 7.16.1 and 7.16.2 are proved to be materially incorrect, that any contract, consent, approval, right, interest, privilege or other obligation or benefit obtained or procured as aforesaid shall, without prejudice to any other right and remedies available to the Authority, be voidable and without legal effect at the option of the Authority.
- 7.16.4 Notwithstanding any rights and remedies that are available to and may be exercised by the Authority in this regard, the Concessionaire agrees to indemnify the Authority for any loss (including Losses) or damage incurred by it on account of its corrupt business practices and further pay compensation to the Authority in an amount equivalent to ten (10) times the amount of any commission, gratification, bribe, finder's fee or

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kickback paid or given by the Concessionaire (either directly or indirectly through any natural or juridical Person, including its Affiliates, employees, agents, associates, brokers, consultants, officers, directors, promoters, shareholders, sponsors or subsidiaries (and any of their employees, agents, associates, brokers, consultants, officers, directors, promoters, shareholders or sponsors), as aforesaid for the purpose of obtaining or inducing the procurement of any Authority Agreement or any Project Agreement or any contract, consent, approval, right, interest, privilege or other obligation or benefit related to any Authority Agreement or the Project from the Authority or any Governmental Authority.

7.17 NO RELIEF FROM LIABILITY

- 7.17.1 No review, non-objection or approval by the Authority, the Independent Engineer, the Independent Auditor or any Government Authority of any Concession Asset or Project Works (including any agreement, document, instrument, drawing, specifications or design proposed by the Concessionaire) shall relieve the Concessionaire from any liability that it would otherwise have had for its negligence in the performance and completion of the Project Works and the Concession Assets (including preparation of an agreement, document, instrument, drawing, specification or design) or failure to comply with the Applicable Laws with respect thereto, or to satisfy the Concessionaire's obligations under the Authority Agreements, nor shall the Authority, the Independent Engineer, the Independent Auditor or any Government Authority be liable to the Concessionaire or any other Person by reason of its review and approval of an agreement, document, instrument, drawing, specification, or design.
- 7.17.2 The Concessionaire shall, at all times, be responsible and liable for all its obligations under the Applicable Standards notwithstanding anything contained in the Project Agreements or any other agreement, and no default under any Project Agreement or other agreement shall excuse the Concessionaire from its obligations or liability hereunder.

7.18 <u>WITHOUT PREJUDICE</u>

7.18.1 The representations, warranties, undertakings, obligations, roles and responsibilities of the Concessionaire set out in this Article 7 (*Concessionaire's Representations, Warranties And Certain Obligations & Undertakings*) shall not limit or prejudice in any manner the representations, warranties, undertakings, obligations, roles and responsibilities of the Concessionaire set out elsewhere in the Authority Agreements.

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8. AUTHORITY REPRESENTATIONS, WARRANTIES AND CERTAIN OBLIGATIONS & UNDERTAKINGS

8.1 AUTHORITY REPRESENTATIONS & WARRANTIES

- 8.1.1 The Authority hereby represents and warrants to the Concessionaire that:
 - (a) it has taken all necessary actions under Applicable Laws to:
 - (i) authorize the execution, delivery and performance of this Agreement; and
 - (ii) validly exercise its rights and perform its obligations under this Agreement;
 - (b) this Agreement and all obligations contained herein constitutes its legal, valid and binding obligations, enforceable against it in accordance with the terms hereof;
 - (c) the execution, delivery and performance of this Agreement will not conflict with, result in the breach of, constitute a default under, or accelerate performance required by any of Applicable Laws or any covenant, contract, agreement, arrangement, understanding, decree or order to which it is a party or by which it or any of its properties or assets are bound or affected;
 - (d) there are no actions, suits, proceedings, or investigations pending or, to its knowledge, threatened against it under the Applicable Laws before any court or before any other judicial, quasi-judicial or other authority, the outcome of which may result in a Material Adverse Effect;
 - (e) it has no knowledge of any violation or default with respect to any order, writ, injunction or decree of any court or any legally binding order of any Government Authority which may result in any Material Adverse Effect on its ability to perform its obligations under this Agreement and no fact or circumstance exists which may give rise to such proceedings that would adversely affect the performance of its material obligations under this Agreement; and
 - (f) it has complied with Applicable Laws in all material respects and has not been subject to any fines, penalties, injunctive relief or any other civil liabilities which in the aggregate have or may have a Material Adverse Effect.
- 8.1.2 In the event that any occurrence or circumstance comes to the attention of either Party that renders any of its aforesaid representations or warranties untrue or incorrect, such Party shall immediately notify the other Party of the same. Such notification shall not have the effect of remedying any breach of the representation or warranty that has been found to be untrue or incorrect nor shall it adversely affect or waive any right, remedy or obligation of either Party under this Agreement or any Authority Agreement.

8.2 GENERAL UNDERTAKINGS

- 8.2.1 The Authority hereby undertakes to the Concessionaire that it shall:
 - (a) ensure peaceful use of the Project Site by the Concessionaire without any let or hindrance from the Authority and/or any person or Government Authority claiming through or under them;
 - (b) procure police assistance for regulation of traffic on the Project Highway and provide reasonable assistance to the Concessionaire in procuring police assistance for removal of trespassers, removal of encroachments and security on and/or in respect of the Project;
 - (c) nominate two (2) observers on the board of directors of the Concessionaire;
 - (d) upon a reasonable written request of the Concessionaire, provide police support at and/or near the Project Site as required by the Concessionaire;
 - (e) support, cooperate with and facilitate the Concessionaire in the implementation of the Project in accordance with the provisions of the Authority Agreements; and
 - (f) issue the Toll Notification upon issuance of the Commencement Certificate (substantially, in the form set out in SCHEDULE R (*Form of Toll Notification*) as per SCHEDULE P (*Toll Notification Structure*) and Applicable Laws in order to implement the Toll Notification Structure.

8.3 SUPPORT FOR CONCESSIONAIRE PERMITS & CONDITIONS FOR CONCESSIONAIRE PERMITS

8.3.1	Subject to the Concessionaire's timely submission of reports required by Section 7.6.2, upon request of the
	Concessionaire, the Authority shall support and use reasonable efforts to expedite consideration of the
	applications for the Concessionaire Permits or reissuance(s) thereof filed pursuant to Section 7.6

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(Concessionaire Permits), and the timely issuance thereof or reissuance of a Concessionaire subject to a Lapse of Consent by any Government Authority. Any request for support under this Section shall be made by the Concessionaire and shall be accompanied with copies of the application for the Concessionaire Permit, any notice that the issuance or reissuance of the Concessionaire Permit was denied or deferred, and a statement of the efforts in obtaining the issuance or reissuance of the Concessionaire Permit to date.

8.3.2 The Authority or any Government Authority may attach such "non discriminatory" terms and conditions (as explained in Section 8.6 (Non-Discriminatory)) to the issuance or renewal of any of the Concessionaire Permits as are in accordance with the Applicable Laws and the attachment of such terms and conditions shall not in and of itself constitute a breach of this Agreement by the Authority, a Force Majeure Event, or a Authority Event of Default. The Concessionaire and its Contractors shall abide by all such terms and conditions (subject to this Section 8.3.2 and provisions in this Agreement relating to Change in Law and Lapse of Consent). If the Concessionaire (including where it is acting through its Contractors) fails to abide by any term or condition of any Concessionaire Permit, then the Authority or any Government Authority may exercise any power pursuant to the Applicable Laws (provided such power is exercised in a "nondiscriminatory" manner) in respect of such failure and (subject to this Section 8.3.2 and provisions in this Agreement relating to Change in Law and Lapse of Consent) such exercise shall not of itself constitute a breach of this Agreement by the Authority, a Force Majeure Event, or a Authority Event of Default; provided, however, that, with respect to all such Concessionaire Permits issued by the Authority or any Government Authority that is also a department or instrumentality of Authority, the Authority shall not, and the Authority shall ensure that no such Government Authority shall, terminate prior to its expiration date or revoke any such Concessionaire Permit earlier than the later of (a) thirty (30) days after delivery to the Concessionaire (or the relevant Contractor) of written notice by the Authority or such department or instrumentality of Authority of such failure and (b) the period of time, if any, that must expire under the Applicable Laws or the relevant Concessionaire Permit prior to early termination or revocation of any such Concessionaire Permit; provided, further, that nothing in this Section shall limit the Authority or any Government Authority from taking any action in relation to a breach of, or non-compliance with, a Concessionaire Permit (other than termination or revocation) which it is entitled to take under the Applicable Laws (provided such action is taken in a "non-discriminatory" manner).

8.4 <u>Support for Obligations</u>

8.4.1 Upon reasonable request by the Concessionaire, the Authority shall use its reasonable efforts and its good offices to support the Concessionaire's performance of its obligations under and pursuant to this Agreement, including, its obligations to design, finance, insure, acquire, construct, complete, commission, own, operate and maintain the Concession Assets. If the Concessionaire has failed to comply with its obligations under any Authority Agreement and such failure is the principal cause of the Concessionaire's difficulties in performing such activities, the Authority may advise the Concessionaire of such determination, and the Authority shall not be obligated to take any action to assist the Concessionaire until such time as the Concessionaire has fully complied with its obligations under the Authority Agreements. By agreeing to use its reasonable efforts and its good offices to support the Concessionaire's efforts, the Authority has not relieved, and does not relieve in any way, the Concessionaire of its obligations or potential liability under the Authority Agreements and the other documents comprising the Project Agreements.

8.5 PROCEDURE

8.5.1 To the extent permitted under the Applicable Laws, all applications and any other necessary requisites, whether for the Concessionaire, its employees or Contractors, are to be routed through the Concessionaire.

8.6 Non-Discriminatory

8.6.1 The use of the term "non-discriminatory" or "discriminatory" in any Authority Agreement is not intended to prohibit or limit in any way the Authority or any Government Authority from making rational distinctions between parties or from using measures, establishing conditions, or enforcing requirements that are, in each case, intended or designed to advance the purposes of the program being implemented by the Authority or any Government Authority or of a Concessionaire Permit. It is intended, however, to prohibit the use of Government Authority, over Concessionaire Permits, for example, to deprive the Concessionaire of the benefits of the Authority Agreements or any other Project Agreement by the application of a higher standard to the Concessionaire (alone, or together with others in a small class) than to others similarly situated because of, for example, its foreign ownership, or to gain commercial or political advantage.

8.7 POWERS OF THE GOPB TO CHARGE AND IMPLEMENT FEES & FINES

8.7.1 The Concessionaire expressly agrees and undertakes that the GoPB either directly or through the Authority shall have an exclusive right to demand, collect and implement additional fees, revenues (other than Toll Revenues) and fines on the Project Highway such as on traffic and axle load violations in accordance with Applicable Laws on the Users; provided, that the implementation methodology in respect of such regulatory regimes shall be determined by the Independent Engineer in accordance with Applicable Laws.

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- **AUTHORITY REPRESENTATIVE** Unless already appointed prior to the Effective Date, the Authority shall, within seven (7) days following the Effective Date, appoint its representative duly authorized to deal on its behalf to facilitate on all matters under or arising out of or relating to the Authority Agreements (the **AUTHORITY REPRESENTATIVE**). The Authority may, by notice in writing to the Concessionaire, substitute the Authority Representative at its discretion at any time. The Authority shall ensure that at all times during the Concession Period, the Authority Representative remains appointed.
- 8.8.1 The Authority Representative shall oversee the day to day implementation of the Project and facilitate implementation of the Project in accordance with the Authority Agreements.
- 8.8.2 The function of the Authority Representative shall be:
 - (a) to protect the interest of the Authority by ensuring through monitoring and inspecting that the progress of Construction Works and O&M Works, the supervision of which shall be carried out by the Independent Engineer, in accordance with this Agreement, according to the Applicable Laws, Project Requirements, Good Industry Practices and international standards;
 - (b) oversee that the Concessionaire complies with all highway safety standards in accordance with Good Industry Practice;
 - (c) coordinate and organize services to be provided by other agencies including public utility agencies, emergency services and traffic policing, during the construction of the Project Facilities;
 - (d) clarify and resolve with the Concessionaire Authorized Representative, the Independent Engineer, the Independent Auditor any difficulties and disputes arising pursuant to this Agreement, and manage any complaints by or against third parties.

8.9 <u>AUTHORITY OVERRIDING POWERS</u>

8.9.1 Notwithstanding anything contained in this Agreement, the Authority shall have the right upon the occurrence of a national emergency, civil commotion and / or as a consequence of a Force Majeure Event, to take over the performance of any or all the obligations of the Concessionaire to the extent deemed necessary by the Authority or as directed by the relevant Government Authority, and exercise such control over the Concession Assets and / or give such directions to the Concessionaire as may be deemed necessary by the Authority; provided, however, that the exercise of such overriding powers by the Authority shall be of no greater scope and of no longer duration than is reasonably required in the circumstances which causes the exercise of such overriding power by the Authority (the Authority Overriding Power Event). The Concessionaire hereby agrees to act in accordance with the instructions issued by the Authority pursuant to the provisions of this Section and undertakes to provide assistance and co-operation to the Authority for performance of its obligations hereunder. In the event the Authority exercises its overriding powers under this Section 8.9 (Authority Overriding Powers) whereby the Concessionaire incurs any costs and expenses and/or is delayed in performance of its obligations under this Agreement, the Concessionaire shall be entitled to issuance of a Relief Request and in such case, the provisions of Article 15(Relief Extensions & Relief Compensations) shall apply.

8.10 SOVEREIGN IMMUNITY

- 8.10.1 The Authority unconditionally and irrevocably:
 - (a) agrees that the execution, delivery and performance by it of the Authority Agreements and all other agreements, documents and writings relating to the same constitute private and commercial acts and not public or governmental acts;
 - (b) agrees that should any proceedings be brought against it or its assets(other than any of its assets which are significant in respect of national security of Pakistan (the **Protected Assets**)) in any jurisdiction in relation to the Authority Agreements or any transaction contemplated by the Authority Agreements, no immunity, sovereign or otherwise, from such proceedings, execution, attachment or other legal process shall be claimed by or on behalf of itself or with respect to any of its assets(other than the Protected Assets);
 - (c) waives any such right of immunity, sovereign or otherwise, which the Authority or its assets now has or may acquire in the future (other than the Protected Assets), in respect of proceedings under the Authority Agreements; and

8.11 GOPB SUPPORT

8.11.1	In order to provide further support to the Project and to facilitate the Concessionaire in securing Financing
	for the Project, the Authority shall, as Conditions Precedent, permit the creation of an Encumbrance over
	specified open areas (not forming part of the carriageway) within the Project Site, up to the maximum value

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of PKR 1,000,000,000/- (Pakistani Rupees One Billion only), only for indebtedness to the Financiers under the Financing Documents.

8.12 <u>WITHOUT PREJUDICE</u>

8.12.1 The representations, warranties, undertakings, obligations, roles and responsibilities of the Authority set out in this Article 8 (*Authority Representations, Warranties And Certain Obligations & Undertakings*) shall not limit or prejudice in any manner the representations, warranties, undertakings, obligations, roles and responsibilities of the Concessionaire set out elsewhere in the Authority Agreements.

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9. INDEMNITIES& LIMITATION OF LIABILITY

9.1 GENERAL INDEMNITY

9.1.1 **The Concessionaire**

The Concessionaire shall indemnify and defend the Authority, for itself and its officers, servants, agents, Government Authority and Government owned and/or controlled entities/enterprises relating to the Project (the **Authority Indemnified Persons**) against, and hold the Authority Indemnified Persons harmless from, at all times after the Effective Date, any and all Losses, incurred, suffered, sustained or required to be paid, directly or indirectly, by, or sought to be imposed upon, the Authority Indemnified Persons for personal injury or death to persons or damage to property arising out of any negligent or intentional act or omission by the Concessionaire, any third party actions, claims and expenses arising out of any negligent or intentional act or omission by the Concessionaire and Concessionaire Engaged Persons in connection with this Agreement. Notwithstanding anything to the contrary contained in the preceding sentence, nothing in this Section 9.1.1 shall apply to any Loss in respect of and to the extent of which the Authority receives proceeds from insurance policies relating to the Project. The Concessionaire shall indemnify the Authority against any defect in design, construction, maintenance or operation of the Project and be liable to reimburse all costs, charges, expenses suffered by the Authority or an end user due to any such defect.

9.1.2 **The Authority**

Except as specifically provided elsewhere in this Agreement, the Authority shall indemnify and defend the Concessionaire, for itself and as trustee for its officers, directors and employees against (the **Concessionaire Indemnified Persons**), and hold the Concessionaire Indemnified Persons harmless from, at all times after the Effective Date, any and all Loss incurred, suffered, sustained or required to be paid, directly or indirectly, by, or sought to be imposed upon the Concessionaire Indemnified Persons for personal injury or death to persons or damage to property arising out of any negligent or intentional act or omission by the Authority in connection with this Agreement. Notwithstanding anything to the contrary contained in the preceding sentence, nothing in this Section 9.1.2 shall apply to any Loss in respect of and to the extent of which the Concessionaire receives proceeds from insurance policies or indemnification from another party relating to the Project.

9.1.3 **Joint Negligence**

In the event injury or damage results from the joint or concurrent negligent or intentional acts or omissions of the Parties (as determined by the Independent Engineer and the Independent Auditor), each Party shall be liable under this indemnification in proportion to its relative degree of fault, as determined by the Independent Engineer and the Independent Auditor.

9.2 ASSERTION OF CLAIMS TO EXCEED MINIMUM INDEMNIFICATION AMOUNT

9.2.1 Each Party shall be solely liable, and shall not be entitled to assert any claim for indemnification under this Agreement, for any Loss that would otherwise be the subject of indemnification under this Agreement, until all Losses of such Party, in the aggregate, during the then-current Accounting Year, exceed the Minimum Indemnification Amount. For the purposes of this Section 9.2 (Assertion of Claims to Exceed Minimum Indemnification Amount), a Loss (or claim for indemnification) shall be deemed to arise in the Accounting Year in which the event giving rise to such Loss (or claim for indemnification) occurred, or if the event is continuing in more than one (1) Accounting Year, in the Accounting Year such event ends.

9.3 NOTICE AND CONTEST OF CLAIMS

9.3.1 In the event that either Party receives a claim or demand from a third party in respect of which it is entitled to the benefit of an indemnity under this Article 9 (*Indemnities & Limitation of Liability*) (the **Indemnified Party**) it shall notify the other Party (the **Indemnifying Party**) within twenty-one (21) days of receipt of the claim or demand and shall not settle or pay the claim without the prior approval of the Indemnifying Party, which approval shall not be unreasonably withheld, conditioned or delayed. In the event that the Indemnifying Party wishes to contest or dispute the claim or demand, it may conduct the proceedings in the name of the Indemnified Party, subject to the Indemnified Party being secured against any costs involved, to its reasonable satisfaction.

9.4 DEFENSE OF CLAIMS

9.4.1 The Indemnifying Party shall be entitled, at its option and expense and with counsel of its selection, to assume and control the defense of such claim, action, suit or proceeding, subject to the prior approval of the Indemnified Party; provided, however, it gives prompt notice of its intention to do so to the Indemnified Party, and reimburses the Indemnified Party for the reasonable costs and expenses incurred by the Indemnified Party prior to assumption by the Indemnifying Party of such defense.

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- 9.4.2 Not Used.
- 9.4.3 Unless and until the Indemnifying Party acknowledges in writing its obligation to indemnify the Indemnified Party and assumes control of the defense of a claim, suit, action or proceeding in accordance with Section 9.4.1, the Indemnified Party shall have the right, but not the obligation, to contest, defend and litigate, with counsel of its own selection, any claim, action, suit or proceeding by any third party, alleged or asserted against such Party in respect of, resulting from, related to or arising out of any matter for which it is entitled to be indemnified hereunder, and the reasonable costs and expense thereof shall be subject to the indemnification obligations of the Indemnifying Party hereunder.
- 9.4.4 Upon assumption by the Indemnifying Party of the control of the defense of a claim, suit, action or proceeding, the Indemnifying Party shall reimburse the Indemnified Party for the reasonable costs and expenses of the Indemnified Party in the defense of the claim, suit, action or proceeding prior to the Indemnifying Party's acknowledgment of the Indemnification and assumption of the defense.
- 9.4.5 Following acknowledgment of the indemnification and assumption of the defense by the Indemnifying Party, the Indemnified Party shall have the right to employ its own counsel, and such counsel may participate in such action, but the fees and expenses of such counsel shall be at the expense of such Indemnified Party, when and as incurred, unless:
 - (a) the employment of counsel by such Indemnified Party has been authorized in writing by the Indemnifying Party; or
 - (b) the Indemnified Party shall have reasonably concluded that there may be a conflict of interest between the Indemnifying Party and the Indemnified Party in the conduct of the defense of such action; or
 - (c) the Indemnifying Party shall not, in fact, have employed independent counsel reasonably satisfactory to the Indemnified Party, to assume the defense of such action and shall have been so notified by the Indemnified Party; or
 - (d) the Indemnified Party shall have reasonably concluded and specifically Notified the Indemnifying Party either:
 - (i) that there may be specific defenses available to it which are different from or additional to those available to the Indemnifying Party; or
 - (ii) that such claim, action, suit or proceeding involves or could have a Material Adverse Effect upon it beyond the scope of this Agreement.

Provided that if Sections 9.4.5, (b), (c) or (d) shall be applicable, then the counsel for the Indemnified Party shall have the right to direct the defense of such claim, demand, action, suit or proceeding on behalf of the Indemnified Party, and the reasonable fees and disbursements of such counsel shall constitute legal or other expenses hereunder.

9.5 No Consequential Claims

9.5.1 Notwithstanding anything to the contrary contained in this Article 9 (*Indemnities& Limitation of Liability*), the indemnities herein provided shall not include any claim or recovery in respect of any cost, expense, loss or damage of an indirect, incidental or consequential nature, including loss of profit, except as expressly provided in this Agreement.

9.6 Survival on Termination

9.6.1 The provisions of this Article 9 (*Indemnities& Limitation of Liability*) shall survive Termination for a maximum period of five (5) years following Termination and the provisions of this Article 9 (*Indemnities& Limitation of Liability*) shall apply solely in respect of claims that arose immediately on or prior to the Termination Date.

9.7 <u>LIMITATION OF LIABILITY & INDEMNIFICATION FOR FINES AND PENALTIES</u>

9.7.1 Neither Party shall be liable to the other Party in contract, tort, warranty, strict liability (except as may be expressly provided in any Authority Agreement), or any other legal theory for any indirect, consequential, incidental, punitive, or exemplary damages; provided, that the Authority hereby agrees that the Termination Payment payable under this Agreement are not indirect, consequential, incidental, punitive or exemplary damages. Neither Party shall have any liability to the other Party except pursuant to, or for breach of any Authority Agreement; provided, however, that this provision is not intended to constitute a waiver of any rights of one Party against the other with regard to matters unrelated to any Authority Agreement or to any activity not contemplated by the same.

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9.7.2	Any fines or other penalties incurred by the Concessionaire for other governmental directions issued pursuant thereto and in Permits shall not be reimbursed by Authority or any Government of the Concessionaire.	accordance therewith or the Concessionaire
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10. FUNDING REQUIREMENTS & SHAREHOLDING MATTERS

10.1 FUNDING OF VIABILITY GAP FUNDING

- 10.1.1 The Authority hereby undertakes to fund the Viability Gap Funding Amount (in the form of the Viability Gap Funding) in accordance with the terms of the Viability Gap Funding Agreement. The Viability Gap Funding Amount shall be utilized from time to time in accordance with the Viability Gap Funding Agreement.
- 10.1.2 The Concessionaire hereby undertakes to procure funding by the Sponsor from time to time of the Sponsor Base Equity Amount through subscription in cash in Pak Rupees for Ordinary Shares by the Sponsor in accordance with the Funding & Utilization Agreement. The Sponsor Base Amount shall be utilized from time to time in accordance with the Funding & Utilization Agreement.
- 10.1.3 The Authority hereby undertakes to further provide support in form of upfront VGF Equity, in lieu of Minimum Revenue Guarantee, amounting to [insert amount]. The VGF Equity shall be utilized from time to time in accordance with the Funding & Utilization Agreement.

10.2 SHARES

- 10.2.1 The Authority shall have the right (to be exercised in its sole discretion) to nominate two (2) non-voting directors on the board of directors of the Concessionaire at its discretion.
- 10.2.2 Upon funding of the Sponsor Base Equity Amount (or any part thereof) by the Sponsor from time to time in accordance with the Funding & Utilization Agreement, the Sponsor shall be issued Ordinary Shares by the Concessionaire in accordance with the Applicable Laws. The obligation to fund the Sponsor Base Equity Amount shall be independent of the shareholding of the Sponsor in the Concessionaire.
- 10.2.3 Upon funding of the VGF Equity (or any part thereof) by the Authority in accordance with the Funding & Utilization Agreement, the Authority shall be issued preference shares by the Concessionaire in accordance with the Applicable Laws, carrying no voting rights and bearing ten (10%) percent dividend after the Financing Termination Date payable to the Authority through the Escrow Account.

10.3 CHANGE IN COMPLETE CONTROL, CHANGE IN CONTROL AND CHANGE IN SHAREHOLDING

- 10.3.1 The Concessionaire shall not undertake or permit and hereby undertakes to procure that the Sponsor does not undertake or permit any Change In Complete Control until the fourth (4th) anniversary of the Commercial Operations Date unless such Change In Complete Control:
 - (a) is required by any Applicable Laws or by the operation of the Applicable Laws or by order of a court, tribunal, or Government Authority with appropriate jurisdiction; or
 - (b) is affected with the prior written approval of the Authority.
- 10.3.2 The Concessionaire shall not undertake or permit and hereby undertakes to procure that the Sponsor does not undertake or permit any Change In Control following the fourth (4th) anniversary of the Commercial Operations Date until the Transfer Date unless such Change In Control:
 - (a) is required by any Applicable Laws or by the operation of the Applicable Laws or by order of a court, tribunal, or Government Authority with appropriate jurisdiction; or
 - (b) is affected with the prior written approval of the Authority; provided, that the Authority shall provide its determination in writing within ninety (90) days of the Authority having received a written request by the Concessionaire; provided, further, that the Authority shall exercise its discretion to grant such approval under this Section 10.3.2 in accordance with, *inter alia*, the Applicable Laws.
- 10.3.3 Following the fourth (4th) anniversary of the Commercial Operations Date, the Concessionaire may undertake or permit and the Sponsor may undertake or permit, in each case, any Change of Shareholding, without the consent of the Authority but with prior Notification to the Authority; provided, that the Person(s) acquiring and/or subscribing to the Ordinary Shares resulting in the Change of Shareholding is:
 - (a) not from a nationality proscribed by the Applicable Laws;
 - (b) not blacklisted by any Government Authority; and

(c)not a defaulter of any bank or financial institution.

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10.4 CHANGE IN FORM & PUBLIC LISTING OF THE CONCESSIONAIRE

On the best efforts basis and subject to the commercial considerations of the Concessionaire and its stakeholders, the Concessionaire shall make all necessary plans and arrangements to publicly list itself on the stock market within three (3) years of the Commercial Operations Date so that the shares of the Concessionaire are available to general public as an investment option.

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11. BID SECURITY, CONSTRUCTION PERFORMANCE SECURITY & O&M PERFORMANCE SECURITY

11.1 <u>BID SECURITY</u>

- 11.1.1 Pursuant to the requirements of the RFP, the Sponsor has submitted a duly valid and effective Bid Security to the Authority and the Concessionaire hereby represents and warrants that:
 - (a) the Bid Security is fully secured by the Sponsor as a principal debtor and not as surety without any recourse on the Concessionaire, its assets or properties;
 - (b) all costs, expenses, fees and other charges of any nature, in each case, associated with the issuance, maintenance and encashment of the Bid Security are solely on account of the Sponsor.

11.1.2 The Bid Security shall secure:

- (a) all of the Sponsor's obligations, liabilities, payments, indemnities, representations, guarantees, warranties and responsibilities under the RFP and any Authority Agreement to which they are a party;
 and
- (b) all of the Concessionaire's obligations, liabilities, payments, liquidated damages, indemnities, representations, guarantees, warranties and responsibilities under the Authority Agreements, including the integrity and quality of the Concessionaire's and its Contractors' workmanship, the timely and continuous performance of the Project Works, the quality and quantity of the any equipment, materials, items and components supplied, the performance of Project Works by the Concessionaire and compliance of the same with the Applicable Standards and all other works and services to be provided by the Concessionaire under the Authority Agreements.
- 11.1.3 The Bid Security shall be encashable in accordance with the terms thereof and shall be payable on the Authority's first written demand without any prior notice, reference or recourse to the Concessionaire, the Sponsors or any other entity or person.
- 11.1.4 The Concessionaire shall be obligated to maintain and keep valid the Bid Security until submission by the Concessionaire of a fully valid and effective Construction Performance Security in accordance with the terms of this Agreement (the **Bid Security Expiry Date**). In the event the Bid Security expires prior to the Bid Security Expiry Date, the Concessionaire shall extend the validity of the Bid Security, at least fifteen (15) business days prior to its expiry, so as to keep it valid and enforceable until the Bid Security Expiry Date. In the event of failure by the Concessionaire to keep valid or extend the validity of the Bid Security in accordance with this Section 11.1.4, the Authority shall have the right to encash the Bid Security at any time prior to its expiry to its full outstanding value at any time.
- 11.1.5 Upon delivery of a valid and effective Construction Performance Security by the Concessionaire to the Authority in accordance with Section 11.2 (*Construction Performance Security*) the Bid Security shall automatically terminate and be simultaneously returned to the Concessionaire.

11.2 CONSTRUCTION PERFORMANCE SECURITY

- 11.2.1 At any time prior to the Bid Security Expiry Date, the Concessionaire shall provide the Authority the Construction Performance Security. The Construction Performance Security:
 - (c) has been issued and maintained without any recourse on the Concessionaire, its assets or properties;
 - (a) has not been secured through any Concession Assets and no Encumbrance of any nature has been created on the assets and properties of the Concessionaire in respect of the same;
 - (d) all costs, expenses, fees and other charges of any nature, in each case, associated with the issuance, maintenance and encashment of the Construction Performance Security are solely on account of the Sponsor.
- 11.2.2 The Construction Performance Security shall secure:
 - (c) all of the Sponsor's obligations, liabilities, payments, indemnities, representations, guarantees, warranties and responsibilities under the Authority Agreements to which it is a party; and
 - (d) all of the Concessionaire's obligations, liabilities, payments, liquidated damages, indemnities, representations, guarantees, warranties and responsibilities under the Authority Agreements, including the integrity and quality of the Concessionaire's and its Contractors' workmanship, the timely and

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continuous performance of the Project Works, the quality and quantity of the any equipment, materials, items and components supplied, the performance of Project Works by the Concessionaire and compliance of the same with the Applicable Standards and all other works and services to be provided by the Concessionaire under the Authority Agreements.

The Construction Performance Security came into force and became automatically effective upon issuance and delivery of the same to the Authority.

- 11.2.3 The Construction Performance Security shall be encashable in accordance with the terms thereof and shall be payable on the Authority's first written demand without any prior notice, reference or recourse to the Concessionaire, the Sponsors or any other entity or person.
- 11.2.4 The Concessionaire shall be obligated to adjust the Construction Performance Security from time to time to reflect any amounts payable by the Authority pursuant to Article 16 (*Change of Scope*), such increase being an amount equal to one percent (1%) of the amounts payable to the Concessionaire from time to time in accordance with Article 16 (*Change of Scope*). The Concessionaire shall maintain the Construction Performance Security for an amount of one percent (1%) of the Pre Estimated Project Costs throughout its validity. In addition, the Construction Performance Security shall be adjusted, as condition precedent to issuance of the Final Project Construction Completion Certificate, prior to the Project Construction Completion Date so that it is equal in value to one percent (1%) of the Pre Estimated Project Cost less the aggregate of any encashments made by the Authority prior to the date of adjustment.
- 11.2.5 The Concessionaire shall be obligated to maintain and keep valid the Construction Performance Security until the date falling twenty-seven (27) months following Substantial Completion Date (the Construction Performance Security Expiry Date), as evidenced by a certificate jointly issued by the Independent Engineer and the Independent Auditor. In the event the Construction Performance Security expires prior to the Construction Performance Security Expiry Date, the Concessionaire shall extend the validity of the Construction Performance Security, at least fifteen (15) business days prior to its expiry, so as to keep it valid and enforceable until the Construction Performance Security Expiry Date. In the event of failure by the Concessionaire to keep valid or extend the validity of the Construction Performance Security in accordance with this Section 11.2.6, the Authority shall have the right to encash the Construction Performance Security at any time to its full outstanding value at any time.
- 11.2.6 Upon the issuance of a certificate jointly issued by the Independent Engineer and the Independent Auditor evidencing the occurrence of Construction Performance Security Expiry Date, the Construction Performance Security shall be null and void and shall be returned to the Concessionaire by the Authority within ten (10) business days of receipt by the Authority of the afore-stated certificate.

11.3 <u>O&M Performance Security</u>

- 11.3.1 The Concessionaire hereby undertakes to procure issuance and delivery to the Authority of the O&M Performance Security from time to time in accordance with this Section 11.3 (*O&M Performance Security*).
- 11.3.2 The Concessionaire shall deliver the O&M Performance Security, for an amount equal to fifteen percent (15%) of the O&M Cost, to the Authority prior to the Construction Performance Security Expiry Date and shall replace the same thirty (30) days prior to commencement of each Operational Year falling after the expiry of Construction Performance Security Expiry Date. The O&M Performance Security provided in the first instance shall become effective simultaneously upon return of the Construction Performance Security to the Concessionaire by the Authority and thereafter, each O&M Performance Security provided prior to commencement of an Operational Year shall become automatically become effective simultaneously upon return of the O&M Performance Security for the previous Operational Year.
- 11.3.3 Notwithstanding anything to the contrary, the O&M Contractor may be the applicant for the issuance of the O&M Performance Security provided that the O&M Performance Security should be issued on behalf of the Concessionaire in favour of the Authority in accordance with the terms hereof, provided however, the it shall not absolve the Concessionaire of any of its liabilities under this Agreement.
- 11.3.4 The O&M Performance Security:
 - (a) shall be issued and maintained without any recourse on the Concessionaire, its assets or properties;
 - (b) shall not be secured through any Concession Assets and no Encumbrance of any nature shall be created on the assets and properties of the Concessionaire in respect of the same.

All costs, expenses, fees and other charges of any nature, in each case, associated with the issuance, maintenance and encashment of the O&M Performance Security are solely on account of the Sponsors.

11.3.5 The O&M Performance Security shall secure:

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- (a) all of the Sponsors' obligations, liabilities, payments, indemnities, representations, guarantees, warranties and responsibilities under the Authority Agreements to which they are a party; and
- (b) all of the Concessionaire's obligations, liabilities, payments, liquidated damages, indemnities, representations, guarantees, warranties and responsibilities under the Authority Agreements, including the integrity and quality of the Concessionaire's and its Contractors' workmanship, the timely and continuous performance of the Project Works during the Operations Period, the quality and quantity of the any equipment, materials, items and components supplied, the performance of Project Works during the Operations Period by the Concessionaire and compliance of the same with the Applicable Standards and all other works and services to be provided by the Concessionaire under the Authority Agreements.
- 11.3.6 The O&M Performance Security shall be encashable in accordance with the terms thereof and shall be payable on the Authority's first written demand without any prior notice, reference or recourse to the Concessionaire, the Sponsors or any other entity.
- 11.3.7 The O&M Performance Security provided by the Concessionaire in respect of an Operational Year shall remain in force and effect until the date that falls on the expiry of such Operational Year subject to receipt by the Authority of a fully valid and effective O&M Performance Security for the subsequent Operational Year in accordance with the terms of this Agreement on or prior to such date (the **O&M Performance Security Expiry Date**). In the event an O&M Performance Security expires prior to the O&M Performance Security Expiry Date, the Concessionaire shall extend the validity of the O&M Performance Security, at least fifteen (15) business days prior to its expiry, so as to keep it valid and enforceable until the O&M Performance Security Expiry Date. In the event of failure by the Concessionaire to keep valid or extend the validity of any O&M Performance Security in accordance with this Section 11.3.7, the Authority shall have the right to encash such O&M Performance Security at any time prior to its expiry to its full outstanding value at any time
- 11.3.8 Upon the delivery of an O&M Performance Security for an Operational Year (the New O&M Performance Security) to the Authority by the Concessionaire in accordance with this Section 11.3 (*O&M Performance Security*) on or prior to the commencement of such Operational Year (the New Operational Year), the previous O&M Performance Security issued for the previous Operational Year shall be null and void upon delivery of the New O&M Performance Security and commencement of the New Operational Year and shall be returned to the Concessionaire by the Authority simultaneously with the provision of the New O&M Performance Security.
- 11.3.9 Notwithstanding anything to the contrary, the Concessionaire hereby undertakes and agrees that the O&M Performance Security shall remain valid:
 - (a) in case of Termination, at least for two (2) year after the Termination Notice has been issued;
 - (b) in case of expiry of this Agreement on the Final Expiry Date, two (2) year after the Final Expiry Date.

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12. CONSTRUCTION DRAWINGS

12.1 PREPARATION OF CONSTRUCTION DRAWINGS

- 12.1.1 The Concessionaire shall prepare the Construction Drawings in accordance with the Applicable Standards and shall complete and deliver the same to the Authority and the Independent Engineer from time to time within the Construction Time For Completion. Further, the Concessionaire hereby undertakes that the Construction Drawings shall comply with the Applicable Standards.
- 12.1.2 Defects & Deficiencies, errors, omissions, ambiguities, inconsistencies, inadequacies and other defects in the Construction Drawings or arising therefrom shall be rectified by the Concessionaire at its sole cost and risk.
- 12.1.3 The Authority, the Independent Engineer and the Independent Auditor (as applicable) may use the Construction Drawings for such purposes as the same may require for the purposes of the Project.
- 12.1.4 The Concessionaire may at its discretion and subject to the Applicable Standards and the Design Requirements, propose with or without modifications the drawings made available by the Authority or adopt its own Construction Drawings after prior approval of the Independent Engineer; provided, however, that the Concessionaire shall always remain solely responsible and liable for the adequacy and accuracy of the Construction Drawings and shall not hold the Authority responsible or liable for the adequacy and / or the accuracy of the drawings provided by the Authority.
- 12.1.5 Notwithstanding the Concessionaire's decision to adopt the drawings as provided by the Authority, irrespective of whether such drawings are adopted with or without modifications, or the adoption by the Concessionaire of its own Construction Drawings, the Concessionaire hereby confirms and agrees that all Construction Drawings shall remain subject to the review, approval and acceptance by the Independent Engineer prior to the adoption of the same by the Concessionaire.
- 12.1.6 The Authority and the Independent Engineer shall have the right to review and inspect all Construction Drawings. The Concessionaire shall provide all such Construction Drawings that the Authority and the Independent Engineer as may be reasonably required by the Authority and/or the Independent Engineer to inspect in respect of the Construction Works. It is made clear that nothing in the above shall diminish the Concessionaire's responsibility to provide the Authority and the Independent Engineer with sufficient information to enable the same to satisfy themselves regarding the Construction Works.

12.2 <u>DETAILS OF CONSTRUCTION DRAWINGS</u>

- 12.2.1 The Construction Drawings to be submitted by the Concessionaire to the Independent Engineer shall include, but not be limited to, the following details:
 - (a) alignment of the Project Highway and the Project Facilities;
 - (b) plan and profile drawings of road, general drawings including road cross section(s) with pavement structure, setting out data, road furniture details, bench marks details, intersections details and drainage details;
 - (c) detailed structural drawings;
 - (d) general arrangement drawings of bridges, details of foundation, transoms, girders, deck slab, railings and kerbs, signage, land marking, joints and bearing pads including steel reinforcement details for each component; and
 - (e) such further information and details as may be requested by the Independent Engineer and the Authority acting reasonably.
- 12.2.2 All Construction Drawings submitted by the Concessionaire shall comply with and shall be in accordance with the Design Requirements and the Applicable Standards.

12.3 REVIEW & APPROVAL OF CONSTRUCTION DRAWINGS

- 12.3.1 The Concessionaire shall promptly and in such sequence as is consistent with the Construction Requirements, submit four (4) copies of the Construction Drawings to the Independent Engineer and the Authority.
- 12.3.2 The submission of the Construction Drawings by the Concessionaire to the Independent Engineer and the Authority pursuant to the provisions of Section 12.3.1 shall constitute the representation of the Concessionaire that the Concessionaire has verified and determined that the Construction Drawings submitted by the Concessionaire are in conformity with the Design Requirements.

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- 12.3.3 Within fifteen (15) days of receipt of the Construction Drawings, the Independent Engineer shall review and comment on the same taking into account, inter alia, the comments of the Authority, if any, thereon, and convey its comments/observations to the Concessionaire on the conformity of the Construction Drawings with Design Requirements.
- 12.3.4 The Concessionaire hereby undertakes to revise the Construction Drawings to the extent necessary and to resubmit the same for the review of the Independent Engineer and the Authority, in the event the comments and the observations of the Independent Engineer and/or the Authority indicate that the Construction Drawings initially submitted by the Concessionaire for review by the Independent Engineer pursuant to the provisions of Section 12.3.1, are not in conformity with the Design Requirements. The Independent Engineer shall provide its observations and comments on such re-submitted Construction Drawings, if any, within fifteen (15) days of receipt of such revised Construction Drawings.
- 12.3.5 The Concessionaire shall simultaneously with the submission of Construction Drawings to the Independent Engineer prepare and submit to the Independent Engineer the construction plan providing, inter alia, the "critical path method" in respect of the Project.
- 12.3.6 Notwithstanding anything contained herein:
 - (a) in the event, the response of the Authority is not provided within the period stipulated in Section 12.3.3 and / Section or 12.3.4, then the Independent Engineer may, at its discretion proceed with the approval of Construction Drawings, on the basis of the Construction Drawings submitted by the Concessionaire to the Independent Engineer;
 - (b) the Concessionaire shall be solely liable for the Construction Drawings and their compliance and conformity with the Design Requirements, and shall not be relieved and / or absolved in any manner whatsoever of its obligations hereunder, irrespective of whether or not the Independent Engineer has provided its observations and comments in accordance with this Section 12.3 (*Review of Construction Drawings*);
 - (c) the Concessionaire shall continue to be liable for the Concessionaire's obligations and liabilities set out in this Agreement and shall neither be relieved of the same nor shall the same be transferred to any other Person, including, but not restricted to the Independent Engineer and / or the Authority, as a consequence of the requirement for the Independent Engineer to provide its observations and comments pursuant to Section 12.3.3 and / or Section 12.3.4. Neither the review of the Construction Drawings by the Independent Engineer, the failure of the Independent Engineer to provide its observations and comments in the approval nor the provision of the observations and comments by the Independent Engineer and / or the Authority on the Construction Drawings shall relieve the Concessionaire of its obligations and liabilities hereunder, nor shall the same be construed as a waiver of the Concessionaire's obligations contained herein; nor shall the Authority be held liable for the observations and comments provided by the Independent Engineer on the Construction Drawings.
 - (d) the Concessionaire shall be obligated to provide a copy of the approved Construction Drawings to the Authority and the Independent Engineer prior to commencement of Construction Works in accordance with the terms of this Agreement.
- 12.3.7 The Concessionaire hereby undertakes that the Concessionaire shall be solely responsible and liable for:
 - (a) achieving completion of each Project Construction Milestone on or prior to its respective Project Construction Milestone Date;
 - (b) achieving Substantial Completion Date on or prior to the Scheduled Substantial Completion Date;
 - (c) achieving Project Construction Completion on or prior to the Scheduled Project Construction Completion Date,

and, in each case above, the said obligation and liability of the Concessionaire shall not be reduced, negated, rescinded and/or waived by any delay and/or failure of the Independent Engineer to fulfill its obligations as set out in this Section 12.3 (*Review of Construction Drawings*).

12.4 Submission of final Construction Drawings Prior to Project Construction Completion Date

12.4.1	Within forty-five (45) days of the Substantial Completion Date and in any event as one of the conditions
12.4.1	
	precedent to the issuance of the Final Project Construction Completion Certificate, the Concessionaire shall
	submit to the Authority, in respect of each Project Construction Milestone, the "as built" Construction
	Drawings, duly verified and approved (in form and substance) by the Independent Engineer, including "as
	built" survey, illustrating the layout of the Project Highway and the Project Facilities and setback lines, if
	any, of the buildings and structures forming part of the Project Highway and the Project Facilities and

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reflecting the same as actually designed, engineered and constructed.

- 12.4.2 The Construction Drawings to be submitted by the Concessionaire pursuant to this Section 12.4 (Submission of Construction Drawings Prior to Final Construction Completion Date) shall be in such form as may be requested by the Authority, including but not restricted to paper format (hard copies), digital format, micro films or such other format as may be acceptable to the Authority.
- 12.4.3 The Concessionaire shall be responsible for amending, modifying and updating the Construction Drawings from time to time during the Operations Period including, carrying out any amendments and modifications resulting from the operations, repairs, maintenance and other activities relating to the Operations and Maintenance subject to the approval of Independent Engineer. All updated, amended and/or modified Construction Drawings shall be submitted by the Concessionaire to the Authority and the Independent Engineer and shall be subject to review of the same. Preparation, completion and delivery of the updated, amended and/or modified Construction Documents pursuant to this Section 12.4.3 shall form part of the Concessionaire's obligations relating to the O&M Documents.

12.5 APPROVAL OF DETAILED ENGINEERING DESIGN

- 12.5.1 Notwithstanding anything to the contrary, the Concessionaire shall, within ninety (90) days of the Effective Date, procure issuance of the Approved Detailed Engineering Design, which shall set out, *inter alia*, and in addition to any other matters determined by the Independent Engineer, the exact location of the Project Site, the relocation of existing utilities etc. and all other matters relation to any relocations/impediments in relation to the Project Site.
- 12.5.2 The Parties hereby acknowledge and agree that the delivery of Vacant Possession of the Project Site, the exact area, location, relocation of existing utilities and other relevant matters relating to the same are a function of the Approved Detailed Engineering Design.
- 12.5.3 Subject to Section 12.5.1, the Concessionaire shall, as part of the process of the Concessionaire Conditions Precedent submit its Detailed Engineering Design (in batches at the Concessionaire's discretion) to the Independent Engineer (with a copy to Authority) within two (2) months of the Effective Date for the approval of the Independent Engineer and Authority (the **Proposed Detailed Design**). Within thirty (30) days of the receipt of each batch of the Proposed Detailed Design, the Independent Engineer and Authority shall review the same and convey their observations to the Concessionaire with particular reference of the conformity of the same with Applicable Standards and **SCHEDULE B** (*Design Requirements*). In case, no comments/observations are provided by the Independent Engineer and/or the Authority, as the case may be, within twenty (20) days of their receipt of the Proposed Detailed Design, the Concessionaire shall notify the Independent Engineer and Authority about such inactivity. In case, no comments are received from the Independent Engineer and/or Authority are received within ten (10) days following such notification, each batch of the Proposed Detailed Design, as submitted by the Concessionaire, will be deemed to be approved by the Independent Engineer and Authority.
- 12.5.4 In the event the specific observations of the Independent Engineer and Authority on the Proposed Detailed Design (or part thereof) indicate that the Proposed Detailed Design is not in conformity with the Applicable Standards, the Proposed Detailed Design (or part thereof) shall be revised by the Concessionaire, at the cost and expense of the Concessionaire, and resubmitted to the Independent Engineer and Authority, as the case may be, for their review and approval within a period of fifteen (15) days after receiving the observations of the Independent Engineer and Authority on the Proposed Detailed Design. Following receipt of the observations on the revision (within the time periods contemplated herein), the Independent Engineer and Authority shall give their observations, if any, within seven (7) days of their receipt of the revised Detailed Engineering Design from the Concessionaire. In the event the Independent Engineer and/or Authority give their observations on the revised Detailed Engineering Design, the Concessionaire shall revise the Detailed Engineering Design and submit the same to the Independent Engineer and Authority within 15 days after receiving of observations on the same.

13. CONSTRUCTION WORKS

13.1 <u>Construction Works</u>

- 13.1.1 The Concessionaire shall commence the Construction Works in accordance with the Applicable Standards and shall perform and complete the same in accordance with the Construction Time For Completion. The Concessionaire shall commence the Site Construction Works on the Commencement Date; provided, however, all Preliminary Works forming part of Site Construction Works (if any) shall commence in accordance with the mutual agreement between the Parties. The Concessionaire shall immediately upon commencement of the Site Construction Works Notify the Authority, the Independent Engineer and the Independent Auditor of the same.
- 13.1.2 The Concessionaire shall perform the Construction Works in accordance with the Applicable Standards and shall ensure that the same complies with the Applicable Standards. During the Construction Period, the

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- Concessionaire shall be responsible for ensuring that the roads and lanes existing on the Project Site are available for the Users in accordance with the Applicable Standards.
- 13.1.3 Without limiting the provisions of Section 13.1.2, the Concessionaire shall be in particular responsible for the performance and compliance, in each case, of the Construction Works with the Construction Requirements.
- 13.1.4 The Concessionaire shall perform the Construction Works within the Construction Time For Completion and hereby undertakes to perform and complete each Project Construction Milestone on or prior to its Project Construction Milestone Date.
- 13.1.5 The Concessionaire shall perform the Construction Works either itself, or through the EPC Contractor(s) appointed in accordance with the terms of this Agreement; provided, however, the Concessionaire shall remain solely responsible and liable for performance (within Construction Time For Completion) and compliance of the Construction Requirements with the Applicable Standards irrespective of whether the Construction Works are undertaken by the Concessionaire or the EPC Contractor(s)

13.2 CONSTRUCTION PROGRAMME

- 13.2.1 Within thirty (30) days following the Effective Date, the Concessionaire shall submit to the Independent Engineer, a proposed program (including primavera level 5), to be prepared in compliance with the Applicable Standards and Good Industry Practices, for performance of the Construction Works and achievement of each Project Construction Milestone (the **Proposed Construction Programme**). The Proposed Construction Programme shall not amend or vary the timelines for achievement of the Project Construction Milestones set out in the Project Construction Completion Schedule. The Proposed Construction Programme shall include, without restriction, the following:
 - (a) the Project Construction Milestones to be achieved and the respective Project Construction Milestone Dates for each of the same;
 - (b) the detailed order in which the Construction Works shall be performed, together with timelines for performance of the same;
 - (c) arrangements and procedures for carrying out the Construction Works;
 - (d) the timelines, intervals and procedures for conducting the inspection of all elements of the Construction Works and any completed Concession Assets;
 - (e) arrangements and procedures for conducting safety related measures in relation to the Construction Works; and
 - (f) all major events and activities in the preparation of the Construction Drawings and the Construction Monthly Progress Reports and submission of the same to the Authority, the Independent Engineer and/or the Independent Auditor (as applicable) for the review and approval (as applicable).
- 13.2.2 Within fourteen (14) days of the receipt of the Proposed Construction Programme by the Independent Engineer, the Independent Engineer shall finalize its comments on the same and shall ensure the incorporation of its comments and submit the same to the Authority. The Authority shall prior to granting its approval in respect of the Proposed Construction Programme, within fifteen (15) days of the Independent Engineer's request for the same, revert to the Independent Engineer in respect of any observations and comments that it may have, if any; provided, however, that the approval of the Proposed Construction Programme shall be granted by Authority within fifteen (15) days of the Independent Engineer's request for such approval if the Proposed Construction Programme is recommended by the Independent Engineer for approval after addressing any comments and observations of the Authority on the same. The Proposed Construction Programme, as approved by the Authority on the Independent Engineer's recommendation, shall be binding on the Parties (the Construction Programme); provided, however, that the Construction Programme may be amended from time to time by the mutual agreement between the Parties and the Independent Engineer.
- 13.2.3 The Concessionaire shall, whenever required by the Authority, the Independent Engineer and/or the Independent Auditor, provide in writing, a general description of the arrangements and methods which the Concessionaire proposes to adopt for the execution of the Construction Works. Any alteration to such arrangements and methods shall be made by the Concessionaire with prior written consent of the Independent Engineer and the Authority.
- 13.2.4 Any reports (including the Construction Monthly Progress Reports) submitted by the Concessionaire and covering the execution of the Construction Works shall emphasize any delays in the Construction Time For Completion.

13.3	TRAFFIC FLOW & SAFETY		
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- 13.3.1 Following commencement of the Site Construction Works, the Concessionaire shall ensure that the existing roads on the Project Site remain open to traffic and that the traffic flow is safe at all times during the Construction Period in accordance with the Applicable Standards. The Concessionaire shall ensure minimal disruption in traffic on the existing roads and lanes situated at the Project Site.
- 13.3.2 The Concessionaire undertakes to perform the Site Construction Works in such manner as to ensure compliance with the obligation set out in Section 13.3.1.

13.4 <u>Construction Tests</u>

- 13.4.1 The Concessionaire shall conduct or procure to be conducted such tests, as specified in **SCHEDULE G** (*Detailed Project Report*), in order to determine whether the Construction Works conform to the Applicable Standards (the **Construction Tests**). The Construction Tests shall be conducted at such time and frequency and in such manner as may be specified by the Independent Engineer and the Authority in accordance with the **SCHEDULE G** (*Detailed Project Report*).
- 13.4.2 The Concessionaire hereby undertakes to conduct the Construction Tests under the supervision of the Independent Engineer and the Authority and in accordance with the Applicable Standards at its own cost and expense, provided however, in the event during the Construction Period the Authority determines that the Construction Works are not in accordance with the Construction Requirements then the Authority shall conduct separate tests to determine the quality of the Construction Works. In the event it is determined that the Construction Works are not in accordance with the Construction Requirements (as determined by the Independent Engineer) the Concessionaire shall repair the same and the cost of such tests shall be borne by the Concessionaire provided however in the event it is determined that the Construction Works are in accordance with the Construction Requirements (as determined by the Independent Engineer), the cost of such tests shall be borne by Authority.
- 13.4.3 The Concessionaire hereby undertakes to carry out, at its sole cost, the necessary remedial measures required to rectify the Defects & Deficiencies in the Construction Works and/or the Concession Assets that are identified in the Construction Tests and to ensure that as a consequence of such remedial measures the Construction Works and the Concession Assets conform to the Applicable Standards. The Concessionaire further undertakes that the remedial measures required to be undertaken by the Concessionaire pursuant to this Section 13.4.3 shall be repeated by the Concessionaire at its sole cost till such time as the Construction Works and the Concession Assets conform to the Applicable Standards to the satisfaction of the Independent Engineer. In the afore-stated circumstances, the Independent Engineer may require the Concessionaire to conduct additional tests to determine whether the Defects & Deficiencies are rectified and in such case the costs of such additional tests shall be borne by the Concessionaire.
- 13.4.4 The Concessionaire shall maintain proper record of the Construction Tests and the remedial measures taken to cure the Defects & Deficiencies, if any, indicated by the Construction Test results.
- 13.4.5 Results of all Construction Tests shall be jointly recorded by the Independent Engineer, the Concessionaire and the EPC Contractor.

13.5 CONSTRUCTION MONTHLY PROGRESS REPORTS

- 13.5.1 Commencing from the Effective Date and until issuance of the Final Project Construction Completion Certificate, the Concessionaire shall, no later than ten (10) days after the end of each calendar month, furnish to the Authority, the Authority Representative, the Independent Auditor and the Independent Engineer a monthly report (the Construction Monthly Progress Report) stating in reasonable detail the status and condition of the Construction Works and the Concession Assets including its compliance or otherwise with the Applicable Standards and shall promptly give such other relevant information as may be required by the Independent Engineer, the Independent Auditor and/or and the Authority. In particular, the Construction Monthly Progress Report shall separately identify and state in reasonable detail the Defects & Deficiencies in the Construction Works and/or the Concession Assets that require rectification and any delays in the Construction Time For Completion. The Construction Monthly Progress Report shall also expressly highlight all Defects & Deficiencies in the Construction Works and/or the Concession Assets identified by the Independent Engineer in its Construction Inspection Report and shall set out all actions taken and arrangements made by the Concessionaire for remedying the same.
- 13.5.2 Each Construction Monthly Progress Report shall be updated by the Concessionaire based on any observations and comments made by the Independent Engineer and/or the Authority and shall be provided again to each of the Authority and the Independent Engineer until such time that it is approved by the Independent Engineer; provided, that the Independent Engineer shall not accord its approval of the Construction Monthly Progress Report until it is satisfied that all reasonable comments and observations of the Authority on the Construction Monthly Progress Report are addressed.

13.5.3	The Construction Monthly Progress Report shall be in the form approved by the Independent Engineer from
	time to time.

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13.6 <u>Construction Inspection Report</u>

- 13.6.1 Commencing from the appointment of the Independent Engineer and until the issuance of the Final Project Construction Completion Certificate, the Concessionaire shall procure that the Independent Engineer inspects the Construction Works and the Concession Assets at least once a month and shall make all arrangements for the same.
- 13.6.2 The Independent Engineer shall make a report of such inspection (**Construction Inspection Report**) stating in reasonable detail the Defects & Deficiencies, if any, in the Construction Works and /or the Concession Assets with particular reference to the Applicable Standards.
- 13.6.3 The Independent Engineer shall, within ten (10) days of commencement of a month, provide a copy of the Construction Inspection Report to the Concessionaire and the Authority.
- 13.6.4 The Concessionaire hereby undertakes that, within fifteen (15) days from receipt of the Construction Inspection Report, it shall rectify and remedy the Defects & Deficiencies, if any, stated in the Construction Inspection Report, on its own cost and expense.
- 13.6.5 The inspection or submission of the Construction Inspection Report by the Independent Engineer shall not relieve or absolve the Concessionaire of its obligations and liabilities hereunder in any manner whatsoever.

13.7 <u>Delays During Construction</u>

13.7.1 In the event the Concessionaire fails to achieve any Project Construction Milestone or the Independent Engineer shall have reasonably determined that the rate of progress of Construction Works is such that the Project cannot achieve Project Construction Completion on or before the Scheduled Project Construction Completion Date then the Independent Engineer shall issue a notice to the Concessionaire to this effect and the Concessionaire shall, within seven (7) days of such notice, inform the Independent Engineer in reasonable detail about the steps the Concessionaire proposes to undertake to expedite progress and the period within which it shall achieve the Project Construction Completion by the Scheduled Project Construction Completion Date and the Substantial Completion by the Scheduled Substantial Completion Date.

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14. COMPLETION

14.1 <u>COMPLETION TESTS</u>

- 14.1.1 At least thirty (30) days prior to the expected Project Highway Section Completion Date and Commercial Operations Date respectively, the Concessionaire shall issue a notice to the Authority and the Independent Engineer (the **Completion Tests Date Notice**) fixing a date and time for performance of the Completion Tests (the **Proposed Completion Tests Date**).
- 14.1.2 The Proposed Completion Tests Date proposed by the Concessionaire shall be final for the conducting of the Completion Tests; provided, however, in the event the Proposed Completion Tests Date is unacceptable to the Independent Engineer and/or the Authority, the Concessionaire, the Authority and the Independent Engineer's receipt of the Concessionaire's Completion Tests Date Notice with an aim to mutually agree on an alternative date and time for performance of the Completion Tests, which date shall be no later than ten (10) days from the Proposed Completion Tests Date. If the Parties are unable to mutually agree on an alternative date and time for performance of the Completion Tests, the Concessionaire shall be entitled (with prior Notification to the Independent Engineer and the Authority) to carry out the Completion Tests on or after the tenth (10th) day from the Proposed Completion Tests Date.
- 14.1.3 Subject to the terms of this Agreement, in the event any Completion Tests are to be repeated due to reasons not attributable to the Authority, as determined by the Independent Engineer, such Completion Tests shall be repeated on account of the Concessionaire.
- 14.1.4 The Completion Tests shall be attended by the Authority Representative and such other representatives of the Authority as the Authority may nominate in writing, subject to notification of the same to the Concessionaire and the Independent Engineer.
- 14.1.5 The Concessionaire shall provide such assistance as the Independent Engineer may reasonably require for conducting the Completion Tests.

14.2 SCHEDULED SUBSTANTIAL COMPLETION DATE

14.2.1 The Concessionaire hereby guarantees that the Substantial Completion shall be achieved in accordance with the provisions of the Applicable Standards and that the Substantial Completion Date shall occur on or before the Scheduled Substantial Completion Date.

14.3 <u>Project Highway Section Completion Certificate and Substantial Completion Certificate</u>

- 14.3.1 The Completion Tests shall be conducted in accordance with the provisions of Section 14.1 (*Completion Tests*) and **SCHEDULE G** (*Detailed Project Report*).
- 14.3.2 Upon completion of a Project Highway Section, the Concessionaire shall so notify the Independent Engineer ("Project Highway Section Completion Notice"). Within seven (7) Days of receipt of a Project Highway Section Completion Notice, the Independent Engineer shall undertake the inspection of the relevant Construction Works with the Concessionaire, and record any defects therein and/or produce an incomplete works list in respect thereof shall within fifteen (15) Days of the inspection, issue:
 - (a) the Project Highway Section Completion Certificate, if the Independent Engineer is satisfied at least ninety-five percent (95%) of the Project Highway Section has been completed, the Completion Tests are successfully passed and if the movement and safety of the Users is not affected, as determined by the Independent Engineer;
 - (b) the incomplete works list (which shall include all identified defects in the relevant Construction Works) relevant to the Section, if the Independent Engineer determines that the relevant Construction Works have not been completed to the satisfaction of the Independent Engineer according to the requirement laid down in 14.3.2 (a) above.
 - Provided however, Project Highway Section Completion Certificate shall not be granted without complete installation and operation of ITS.
- 14.3.3 The Independent Engineer shall (in consultation with the Authority), at the request of the Concessionaire, issue a Substantial Completion Certificate, within ten (10) days of the successful completion of the Completion Tests, if the Completion Tests are successful though certain works or things forming part thereof are outstanding and not yet complete. In such an event, the Substantial Completion Certificate shall have appended thereto a list of outstanding items signed jointly by the Independent Engineer and the Concessionaire (the **Project Construction Completion Check List**); provided, that the Independent Engineer shall not withhold the Substantial Completion Certificate for reason of any work remaining

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incomplete if the delay in completion thereof is attributable to the Authority. The Independent Engineer shall set out the date in the Substantial Completion Certificate on which the Completion Tests are successfully passed (the **Substantial Completion Date**) and Substantial Completion is achieved.

14.3.4 The Parties hereto expressly agree that a Substantial Completion Certificate under this Section shall, upon request of the Concessionaire to this effect, be issued by the Independent Engineer, if at least ninety-five percent (95%) of the Project Highway has been completed, the Completion Tests are successfully passed and if the movement and safety of the Users is not affected, as determined by the Independent Engineer (the **Substantial Completion**). Substantial Completion shall not be granted without complete installation and operation of ITS. Upon issuance of such Substantial Completion Certificate in terms of this Section 14.3.4, the Substantial Completion shall be achieved.

14.4 PROJECT CONSTRUCTION COMPLETION CHECK LIST & FAILURE TO ACHIEVE SUBSTANTIAL COMPLETION

- 14.4.1 Notwithstanding that the Substantial Completion Certificate shall be signed by the Independent Engineer (in consultation with the Authority), the Project Construction Completion Check List shall be jointly signed by the Independent Engineer and the Concessionaire as a confirmation of the outstanding works, actions and things required to be completed by the Concessionaire in line with the relevant Project Requirements (the **Project Construction Completion Check List Items**).
- 14.4.2 The Concessionaire undertakes to complete all Project Construction Completion Check List Items by the date determined by the Independent Engineer and set out in the Substantial Completion Certificate (the Scheduled Project Construction Completion Date); provided, however, the Parties agree that the Scheduled Project Construction Completion Date shall not be determined by the Independent Engineer to fall on any date that falls ninety (90) days following the Substantial Completion Date.
- 14.4.3 The Concessionaire shall be liable for payment of Construction Period Damages to the Authority in the event the Concessionaire fails to achieve Substantial Completion on or prior to the Scheduled Substantial Completion Date. In the event the Concessionaire fails to achieve Substantial Completion within a period of ninety (90) days from the Scheduled Substantial Completion Date, then such failure of the Concessionaire shall constitute a Concessionaire Event of Default, and the Authority may, at its sole discretion and without prejudice to its other rights and remedies available under the Authority Agreements, terminate this Agreement in accordance with Article 23 (*Termination*).

14.5 CONSTRUCTION PERIOD DAMAGES

- 14.5.1 In the event the Concessionaire fails to achieve Substantial Completion by the Scheduled Substantial Completion Date, then the Concessionaire shall pay to the Authority damages in a sum calculated at the rate of one point zero percent (1.0%) of the amount of Construction Performance Security for each full day of delay in achieving Substantial Completion beyond the Scheduled Substantial Completion Date up to a maximum of hundred percent (100%) of the amount of the Construction Performance Security (the Construction Period Damages). All Construction Period Damages becoming due and payable by the Concessionaire in terms of this Section 14.5 (Construction Period Damages) shall be invoiced by the Authority to the Concessionaire and shall become due and payable on the date falling thirty (30) days following the Concessionaire's receipt of such invoice (the Construction Period Damages Payment Date). In the event of failure by the Concessionaire to pay the Construction Period Damages to the Authority by the Construction Period Damages Payment Date, the Authority shall have the right to encash the Construction Performance Security in an amount equal to the Construction Period Damages. Notwithstanding anything contained herein, the recovery of Construction Period Damages under this Section 14.5.1 shall be without prejudice to the rights of the Authority under the Authority Agreements (including the right of Termination in accordance with Section 14.4.3).
- 14.5.2 The Parties agree that the amounts of Construction Period Damages provided under this Section 14.5 (*Construction Period Damages*) are in lieu of actual damages and are the Parties' reasonable and genuine estimates of the losses and damages that may reasonably be anticipated from such failures in respect of such matters, and do not constitute a penalty.

14.6 FINAL PROJECT CONSTRUCTION COMPLETION CERTIFICATE

14.6.1 Within ninety (90) days from the date of issuance of the Substantial Completion Certificate, the Independent Engineer shall issue a certificate certifying that the Project has achieved Project Construction Completion (the **Final Project Construction Completion Certificate**); provided, however, the Final Project Construction Completion Certificate may be issued only upon the confirmation by the Independent Engineer (in consultation with Authority) that the Project Construction Completion Check List Items have been completed in accordance with the Applicable Standards.

14.7 PROJECT CONSTRUCTION COMPLETION DATE

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14.7.1 The Project shall be deemed to achieve project construction completion (the **Project Construction Completion**) on the date of issuance of the Final Project Construction Completion Certificate (the **Project Construction Completion Date**).

14.8 SCHEDULED PROJECT CONSTRUCTION COMPLETION DATE

14.8.1 Subject to the terms of this Agreement, the Concessionaire hereby guarantees that the Project Construction Completion Date shall be achieved in accordance with the provisions of this Agreement and that the Project Construction Completion Date shall occur on or before the Scheduled Project Construction Completion Date.

14.9 <u>Not Used</u>

14.10 TITLE TO PROJECT SITE, CONSTRUCTION WORKS AND CONCESSION ASSETS

- 14.10.1 The Authority shall retain all rights and title to the Project Site throughout the Concession Period. Subject to the terms of this Agreement, the Concessionaire has, and shall have, no title to, ownership interest in or lien over, the Project Site nor shall create any Encumbrance with respect thereto.
- 14.10.2 Subject to Section 14.10.1, the Concessionaire shall retain all legal and beneficial rights of the Concession Assets (including the Construction Works) as and when the same are performed and/or completed until the Transfer Date.
- 14.10.3 On the Transfer Date, the Concessionaire shall transfer the ownership rights to the Concession Assets to the Authority in accordance with the terms of this Agreement.

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14A INTERCONNECTIVITY OF THE PROJECT

14A.1 MECHANISM FOR INTERCONNECTIVITY OF THE PROJECT

- 14A.1.1The Parties acknowledge and agree that, in addition to the infrastructure connectivity relating to the Project existing as of the Effective Date and specified in the SCHEDULE G (*Detailed Project Report*), additional interconnection points for connection of connecting roads to the Project may be developed and constructed by a Government Authority (including the Authority) (the Additional Interconnection Points); provided, that the compensation payable to the Concessionaire as a result of such development and construction shall be determined in accordance with the following mechanism:
 - (a) the Authority shall, from time to time, Notify the Concessionaire, the Independent Engineer and the Independent Auditor in respect of development and construction of any Additional Interconnection Points and the planning documentation prepared in respect thereof shall also consider compensation payable to the Concessionaire (to be determined in accordance with this Article 14A (*Interconnectivity of the Project*) as a result of development and construction of any such Additional Interconnection Points;
 - (b) establishment and construction of the Additional Interconnection Points (the Additional Interconnection Points Event) shall not be undertaken unless the Concessionaire and the Authority mutually agree in writing (i) the formula and principles for computing the compensation payable by the Authority to the Concessionaire as a result of the Additional Interconnection Points Event (the Additional Interconnection Points Compensation); and (ii) the funding and payment mechanism in relation to the Additional Interconnection Points Compensation (the Additional Interconnection Points Compensation Payment Mechanism). The Parties shall, acting in good faith and reasonably, agree in writing the Additional Interconnection Points Compensation and the Additional Interconnection Points Compensation Payment Mechanism no later than one hundred and twenty (120) days prior to the Additional Interconnection Points Event. Upon agreement of the Additional Interconnection Points Compensation Payment Mechanism between the Parties in accordance with this Section 14A.1.1(b), any determination and certification of the quantum of compensation based on the agreed formula and principles in relation to Additional Interconnection Points Compensation shall be undertaken by the Independent Engineer and the Independent Auditor;
 - (c) in the event any Dispute arises between the Parties in relation to this Article 14A (*Interconnectivity of the Project*), then such Dispute shall be resolved in accordance with the Dispute Resolution Procedure; provided, that the Additional Interconnection Point Event shall not be undertaken or caused to be undertaken prior to (i) final resolution of the Dispute through the Dispute Resolution Procedure, and (ii) the Award in relation to such Dispute attaining finality in accordance with the Arbitration Act;
 - (d) in the event the Additional Interconnection Point Event is undertaken or caused to be undertaken (i) prior to the Parties arriving at a mutual agreement in relation to the Additional Interconnection Points Compensation and the Additional Interconnection Points Compensation Payment Mechanism in accordance with Section 14A.1.1(b) above, or (ii) in violation of Section 14A.1.1(c) above, the same shall constitute a Material Breach by the Authority and entitle the Concessionaire to Terminate this Agreement and be paid the Authority Default Termination Amount, in each case, in accordance with the terms of this Agreement.

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15. RELIEF EXTENSIONS & RELIEF COMPENSATIONS

15.1 <u>Not Used</u>

15.2 <u>Relief Events</u>

- 15.2.1 The Concessionaire shall be only entitled to initiate a request to the Independent Engineer and Independent Auditor (the **Relief Order Request**) for a Relief Order relating to, as applicable, an extension of the Time For Completion and/or payment of Relief Costs by the Authority in the event of occurrence of the following event which event (or its effects) continues for a period of more than fifteen (15) days as certified by the Independent Engineer and circumstances (the **Relief Events**):
 - (a) a Material Adverse Impediment; provided, that the Concessionaire shall be entitled to only an extension in Time For Completion for any delays and to Relief Costs that, in each case, directly result from the Material Adverse Impediment and as are determined by the Independent Engineer and Independent Auditor in the Relief Order;
 - (b) a Political Event; provided, that the Concessionaire shall be entitled to only an extension in Time For Completion for any delays and to Relief Costs that, in each case, directly result from the Political Event and as are determined by the Independent Engineer and Independent Auditor in the Relief Order;
 - (c) an Emergency Decommissioning directly resulting from an Authority Event of Default or a Political Event; provided, that the Concessionaire shall be entitled to only an extension in Time For Completion for any delays and to Relief Costs that, in each case, directly result from Emergency Decommissioning caused by a Political Event and as are determined by the Independent Engineer and Independent Auditor in the Relief Order;
 - (d) the occurrence of the circumstances set out in Section 4.9 (*Geological and Archeological Finds*) causing a delay in the performance of the Concessionaire's obligations under this Agreement; provided, that the Concessionaire shall be entitled to only an extension in Time For Completion for any delays and to Relief Costs that, in each case, directly result from the occurrence of the circumstances set out in Section 4.9 (*Geological and Archaeological Finds*) and as are determined by the Independent Engineer and Independent Auditor in the Relief Order;
 - (e) the occurrence of the Authority Overriding Power Event; provided, that the Concessionaire shall be entitled to only an extension in Time For Completion for any delays and to Relief Costs that, in each case, directly result from the Authority Overriding Power Event and as are determined by the Independent Engineer and Independent Auditor in the Relief Order;
 - (f) a Non Political Event; provided, that the Concessionaire shall be entitled to only an extension in Time For Completion for any delays that directly result from the Non Political Event and as are determined by the Independent Engineer and Independent Auditor in the Relief Order;
 - (g) a Toll Notification Relief Event, provided that the Concessionaire shall be entitled to only an extension in Time for Completion for any delays and to Relief Compensation, in each case that directly results from the Toll Notification Relief Event and as determined by the Independent Engineer and the Independent Auditor in the Relief Order;
 - (h) an Emergency Decommissioning directly resulting from a Non Political Event; provided, that the Concessionaire shall be entitled to only an extension in Time For Completion for any delays that directly result from Emergency Decommissioning caused by a Non Political Event and as are determined by the Independent Engineer and Independent Auditor in the Relief Order.
- 15.2.2 If due to the occurrence of a Relief Event the Concessionaire is entitled to initiate a Relief Request, the Concessionaire shall prepare and deliver to the Independent Engineer and the Independent Auditor (with a copy to the Authority) a Relief Order Request, together with the Relief Order Proposal that is prepared in accordance with and is subject to Section 15.4 (Relief Order Procedure) and, if applicable, Section 15.5 (Additional Requirements For Relief Orders Relating To Extension Of Time For Completion). Each Relief Order Request prepared in accordance with Section 15.4 (Relief Order Procedure) and, if applicable, Section 15.5 (Additional Requirements For Relief Orders Relating To Extension Of Time For Completion) shall specifically set out in detail the events and circumstances constituting the Relief Event, together with all supporting satisfactory documentary evidence relating thereto.
- 15.2.3 Following submission to the Independent Engineer and the Independent Auditor of a Relief Order Request pursuant to Section 15.2.2, the Independent Engineer and the Independent Auditor shall proceed in accordance with Section 15.4 (*Relief Order Procedure*) and Section 15.5 (*Additional Requirements For Relief Orders Relating To Extension Of Time For Completion*).

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15.2.4 Notwithstanding anything to the contrary, the Parties agree that the Concessionaire shall not be entitled to any extensions of Time For Completion and/or Relief Costs, as applicable, due to occurrence of a Relief Event, until such time the same is determined by the Independent Engineer and the Independent Auditor and set out in the Relief Order issued by the same in accordance with this Agreement provided further that the Independent Engineer certifies that the Concessionaire has no space for parallel or alternate sequencing of works available for carrying out its obligations within the prescribed timelines and until the Concessionaire has proved to have made all its efforts to avoid such Relief Event according to Good Industry Practices.

Without prejudice to the Concessionaire's entitlement to Relief Costs throughout the Concession Period upon occurrence of a Relief Event, if any of the Relief Events specified in Sections 15.2.1 (a), (b), (c), (e), (h) and (i) occur after the Commercial Operations Date, the Concessionaire shall, in addition to the Relief Costs, be entitled to loss of Toll Revenues (if any) attributable to such Relief Event (as set out in the Relief Order) and in such case the provisions of Article 15 (*Relief Extension and Relief Compensations*) shall apply.

15.3 <u>Not Used</u>

15.4 RELIEF ORDER PROCEDURE

- 15.4.1 In case the Concessionaire submits a Relief Order Request to the Independent Engineer and the Independent Auditor (with a copy to the Authority) pursuant to Section 15.2 (*Relief Events*) then prior to the Independent Auditor and the Independent Engineer issuing a Relief Order, the Concessionaire shall prepare and submit to the Independent Auditor and the Independent Engineer (with a copy to the Authority), as soon as practicable, a detailed proposal (the **Relief Order Proposal**) containing:
 - (a) a description of the proposed work to be performed and a detailed programme for its execution;
 - (b) the Concessionaire's proposal for any necessary modifications to the Construction Programme and/or the O&M Programme, as applicable;
 - (c) the Concessionaire's proposal for any Relief Costs and any adjustments to Time For Completion and/or any Project Milestone Date, accompanied by detailed pricing and documentary evidence;
 - (d) a statement whether and the extent to which, in Concessionaire's opinion, the proposed proposals contained in the Relief Proposal would, notwithstanding the exercise of all due skill and care, result in defective Project Works or prevent the Concessionaire from performing its obligations under the Agreement, including defects liability,

provided, however, each Relief Order Request and Relief Order Proposal submitted by the Concessionaire that proposes an extension to Time For Completion or any Project Milestone Date for a Project Milestone shall be additionally subject to the provisions and requirements of Section 15.5 (Additional Requirements For Relief Orders Relating To Extension Of Time For Completion);

provided, further, however, in the event of submission of any Relief Order Request and a Relief Order Proposal, the Concessionaire shall provide such additional information as the Authority, the Independent Engineer and/or the Independent Auditor may reasonably request; and

provided, further, however, the Concessionaire shall keep and maintain such contemporary records (as may be necessary to substantiate any proposals contained in the Relief Order Proposal and/or the Relief Order Request) as may reasonably be requested by the Independent Engineer, the Independent Auditor and /or the Authority and the Concessionaire shall permit the Independent Engineer, the Independent Auditor and /or the Authority to inspect all such records and shall provide the same Representative with copies as required.

- 15.4.2 The Parties agree that compliance by the Concessionaire with the provisions of this Article 15 (*Relief Orders*) shall be a conditions precedent to the Independent Engineer and the Independent Auditor issuance of a Relief Order, unless waived in writing by the Authority. Further, notwithstanding anything to the contrary contained herein:
 - (a) if the Project Works (or any part thereof) are not in accordance with this Agreement, any rectification in that respect undertaken by the Concessionaire shall not entitle the Concessionaire to issuance of a Relief Order;
 - (b) the Concessionaire is expressly precluded from any extension of the Time For Completion and any extension of a Project Milestone Date for Project Milestone or to payment of any Relief Costs due to delays resulting from any act or omission of the Concessionaire and/or the Concessionaire Engaged Persons;
 - (c) the Concessionaire shall not be entitled to any extensions of the Time For Completion for any delays or failure to perform and hence shall not be entitled to initiate Relief Order Request for issuance of a Relief Order to the extent the Concessionaire is, in any case, in delay of performance of its

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obligations under the Agreement.

- 15.4.3 Following receipt by the Independent Engineer and the Independent Auditor from the Concessionaire of the Relief Order Proposal and the Relief Order Request, the Independent Engineer and the Independent Auditor shall review the Concessionaire's proposals contained in the Relief Order Proposal and the Relief Order Request, for the purpose of determining:
 - (a) the occurrence and subsistence of the Relief Event and the Concessionaire's entitlement to issuance of the Relief Order Request;
 - (b) whether to proceed with the proposals submitted by the Concessionaire in its submitted Relief Order Proposal;
 - (c) (if applicable) any amendments or modifications to the estimates and proposals submitted by the Concessionaire in the Relief Order Proposal;
 - (d) other matters set forth in the Relief Order Proposal and the Relief Order Request including determination of extension of Time For Completion and Relief Costs; and
 - (e) any other matters considered necessary by the Independent Engineer and the Independent Auditor for the purposes of issuance of the Relief Order.
- 15.4.4 Following the Independent Engineer and the Independent Auditor's determination of matters set out in Section 15.4.3 (together with any other matters relating to their evaluation for issuance for Relief Order), the Independent Engineer and the Independent Auditor shall either amend, approve or disapprove in writing the Concessionaire's submitted proposals contained in the Relief Order Proposal and the Relief Order Request within twenty-one (21) days following receipt by the Independent Engineer and the Independent Auditor from the Concessionaire of the Relief Order Proposal and the Relief Order Request. If the Independent Engineer and the Independent Auditor amend, modify or reject the Relief Order Proposal and the Relief Order Request, in each case, submitted by the Concessionaire, the Concessionaire shall submit a revised Relief Order Proposal and Relief Order Request taking into account the amendments, modifications and comments on the same made by the Independent Engineer and the Independent Auditor, which shall be subject to approval by the Independent Engineer and the Independent Auditor within twenty-one (21) days of submission of the revised Relief Order Proposal and the Relief Order Request. In the event of the Independent Engineer and the Independent Auditor's approval of the Relief Order Proposal and the Relief Order Request or, if applicable, a revision of the same approved by the Independent Engineer and the Independent Auditor, it is agreed that the Independent Engineer and the Independent Auditor shall jointly issue a written order of Relief Order to the Authority and the Concessionaire simultaneously. All extensions in Time For Completion, the Concession Period and in any Project Milestone Date for achievement of a Project Milestone and all Relief Costs, as applicable, shall be expressly set out in the Relief Order and shall be (subject to Section 15.6 below) binding on the Parties; provided, however, that such extensions in Time For Completion, the Concession Period and in any Project Milestone Date for achievement of a Project Milestone and the Relief Costs set in the Relief Order shall not be in excess of the Concessionaire's request under the Relief Order Proposal and the Relief Order Request; provided, further, that any Relief Costs shall be paid by the Authority to the Concessionaire within ninety (90) days of receipt of the Relief Order by the Authority. In the event, the Authority fails to make payment of Relief Costs (as determined and certified by the Independent Engineer and the Independent Auditor) within ninety (90) days of receipt of the Relief Order, late payment interest on the Relief Costs (or part thereof which is unpaid) shall be paid at the rate of Delayed Payment Rate, such interest commencing to accrue from the date of receipt of the Relief Order and ending on the actual date on which the Authority makes payment of the Relief Costs.
- 15.4.5 Notwithstanding anything to the contrary, in the event of occurrence of a Relief Event (excluding a Non Political Event and an Emergency Decommissioning directly resulting from a Non Political Event, in each case, for which no Relief Costs shall be payable), the Concessionaire shall be only entitled to such Relief Costs that:
 - (a) are directly attributable to the Relief Event; and

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- (b) represent increase (as a result of a Relief Event) in only such costs that are expressly set out in the Financial Model.
- 15.4.6 Subject to the terms of this Agreement, the Project Works shall not be delayed pending the issuance of a Relief Order by the Independent Auditor and the Independent Engineer or by the granting of an extension of Time For Completion or payment of Relief Costs.

15.5	ADDITIONAL	REQUIREMENTS	FOR	RELIEF	ORDERS	RELATING	TO	EXTENSION	OF	TIME	FOR
	COMPLETION										

15.5.1	The Parties agree that the provisions of this Section 15.5 (Additional Requirements for Relief Orders Relating
	to Extension of Time For Completion) shall apply to each Relief Order Proposal and the Relief Order Request

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that, in each case, proposes an extension to the Time For Completion or to any Project Milestone Date for a Project Milestone.

- 15.5.2 Any Relief Order Proposal and/or, if applicable, the Relief Order Request submitted by the Concessionaire shall be subject to the Concessionaire otherwise being ready to progress with the aspect of the Project Works for which an extension is being sought. In the event the Concessionaire is in any event delayed in the performance of its obligations due to reasons other than the Relief Event, the Concessionaire shall not be granted any extension of Time For Completion to the extent of its delay.
- 15.5.3 In all cases where the Concessionaire submits a Relief Order Proposal and the Relief Order Request, the Concessionaire shall consult with the Authority, the Authority Representative, the Independent Engineer and the Independent Auditor in order to determine steps (if any) which can be taken to overcome or minimize the actual or anticipated delay. The Concessionaire shall thereafter comply with all reasonable instructions that the Independent Engineer and the Independent Auditor shall give in order to overcome or minimize such delay.
- 15.5.4 If the Concessionaire intends to initiate a Relief Order Request for issuance of a Relief Order for an extension of Time For Completion, the Concessionaire shall give Notice to the Independent Engineer and the Independent Auditor (with a copy to the Authority) of such intention as soon as possible and in any event within seven (7) days of the day the Concessionaire should reasonably have become aware of the start of the Relief Event giving rise to the delay, together with any other notice required by the Agreement and relevant to such cause. The Concessionaire is further required to submit to the Independent Engineer and the Independent Auditor (with a copy to the Authority), as part of the Relief Order Proposal relating to the Relief Order Request that pertains to an extension of Time for Completion, an acceleration strategy and schedule to demonstrate how such delay can be eliminated and/or mitigated.
- 15.5.5 Within twenty-eight (28) days of the first day of a delay that has resulted from the Relief Event in initiation of the Relief Order Request by the Concessionaire for issuance of a Relief Order by the Independent Engineer and the Independent Auditor for an extension of Time for Completion, the Concessionaire shall submit full supporting details of its request, including, without limitation, a critical path analysis of the alleged delay reflecting the considerations set forth in this Section. If the Concessionaire cannot submit all relevant details within such period because the cause of delay has continued for a period exceeding seven (7) days, the Concessionaire shall submit interim details at intervals of not more than twenty-eight (28) days (from the first day of such delay) and full and final supporting details of its request within sixty (60) days of the last day of delay. In the appropriate circumstances, the Authority shall have the right to waive the time periods set out as above.

15.6 <u>DISPUTES AND BURDEN OF PROOF</u>

- 15.6.1 Any Dispute between the Parties in reference to the issuance of a Relief Order and/or any matters relating to the same shall be resolved pursuant to Article 30 (*Dispute Resolution*).
- 15.6.2 In case of a Dispute regarding the application of the provisions of this Article 15 (*Relief Orders*), the Concessionaire shall have the burden of proof as to its entitlement to relief under this Article 15 (*Relief Orders*).

15.7 <u>Full Compensation</u>

- 15.7.1 Any:
 - (a) extensions of Time For Completion; and/or
 - (b) payment of Relief Costs,

in each case, granted pursuant to a Relief Order shall be deemed to be full and complete compensation to the Concessionaire by the Authority in respect of matters relating to the Relief Order.

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16. CHANGE OF SCOPE

16.1 CHANGE OF SCOPE

16.1.1 Notwithstanding anything to the contrary contained in this Agreement, the Authority may require a change / amendment in the Scope of the Project (the **Change of Scope**); provided, that the accrued and cumulative change at any given time does not result in a variation in the Pre Estimated Project Cost by more than fifteen percent (15%), as determined by the Independent Engineer and the Independent Auditor. All Additional Costs to be paid by the Authority in respect of the Change of Scope and any extensions in the timelines for the performance by the Concessionaire of its obligations resulting from a Change of Scope shall be in accordance with Section 16.2 and Section 16.3.

16.2 CHANGE OF SCOPE NOTICE

- 16.2.1 The Authority may request for the Change of Scope by issuing a Change of Scope Notice in accordance with the provisions of this Section 16.2 (*Change of Scope Notice*).
- 16.2.2 The Authority may request for a Change of Scope by issuing a notice in writing to the Concessionaire through the Independent Engineer (the **Change of Scope Notice**):
 - (a) at least ninety (90) days prior to the Scheduled Substantial Completion Date in the event the Change of Scope is required during the Construction Period; and
 - (b) at any time in the event the Change of Scope is required during the Operations Period.
- 16.2.3 In the event at any time during the Construction Period and/or the Operations Period, the Concessionaire determines that a Change of Scope is necessary for providing safer and improved services to the Users, the Concessionaire shall issue a request in writing to the Authority through the Independent Engineer to consider issuing a Change of Scope Notice in respect of the same. The Authority shall within forty-five (45) days from the date of receipt of such notice, either accept such request for Change of Scope, on an "as is" basis or with modifications, and issue the requisite Change of Scope Notice in accordance with the provisions of this Section 16.2 (Change of Scope Notice) or communicate its reasons for not accepting the same to the Concessionaire.

16.3 CHANGE OF SCOPE ORDER

- 16.3.1 The Concessionaire shall, within fifteen (15) days of receipt of the Change of Scope Notice, provide to the Independent Engineer such information as is necessary and reasonable together with the preliminary documentation and details, including the calculations, where necessary, in support of the following:
 - (a) the impact which the Change of Scope is likely to have on the Construction Requirements in the event the Change of Scope applicable during the Construction Period and/or the O&M Requirements in the event the Change of Scope applicable during the Operations Period;
 - (b) the budgeted estimate of the Additional Cost to be incurred by the Concessionaire for implementing the Change of Scope;
 - (c) the estimated additional time (number of days) that the Concessionaire would require to achieve Substantial Completion and/or Project Construction Completion consequent to the Change of Scope and any delay, if any, in the Final Expiry Date;
 - (d) any extensions in the Project Construction Completion Schedule resulting from the Change of Scope; and
 - (e) any extensions in the timelines for performance by the Concessionaire of its obligations under this Agreement resulting from the Change of Scope.
- 16.3.2 The Independent Engineer shall after reviewing the information, documentation and the budgeted estimate of the Additional Cost submitted by the Concessionaire pursuant to Section 16.3.1, settle the rates, approve the designs and forward the budgeted estimates of the Additional Cost, as duly certified by the Independent Engineer and the Independent Auditor (in consultation with the Concessionaire) to the Authority. Notwithstanding anything to the contrary set out herein, in the event the Concessionaire disagrees with the determinations of the Independent Engineer, the decision of the Authority shall be final.
- 16.3.3 The Authority may, within a period of fifteen (15) days from the date of receipt of such statement, issue an order in writing to the Concessionaire, through the Independent Engineer instructing the Concessionaire to affect the Change of Scope (the **Change of Scope Order**).

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- 16.3.4 In the event, the Authority for any reason whatsoever decides not to issue a Change of Scope Order in accordance with Section 16.3.1, then the Authority shall reimburse the Concessionaire for the cost/expenses actually incurred by the Concessionaire in the preparation and submission of the drawings, documents, estimates and other information in compliance with the Change of Scope Notice; provided, such costs and expenses are duly certified by the Independent Auditor and the Independent Engineer.
- 16.3.5 The mode for payment of the Additional Costs to the Concessionaire shall be as follows and shall be complied by the Authority within forty-five (45) days of the issuance of a Change of Scope Order and until such time that the following conditions are complied by the Authority, the Concessionaire shall not be obligated to commence and/or perform the works forming part of the Change of Scope Order:
 - (a) ten percent (10%) of the Additional Cost shall be paid in advance upon issuance of the Change of Scope Order (or as agreed between the Parties in accordance with Applicable Laws);
 - (b) the remaining ninety percent (90%) shall be transferred by the Authority to an escrow account pursuant to an escrow arrangement agreed with the Concessionaire wherefrom the same shall be utilized progressively upon certification by the Independent Engineer of the performance of works.
- 16.3.6 The Change of Scope Order shall be effective from the date that the Authority notifies the mode of reimbursement of the Additional Cost to the Concessionaire pursuant to sub-section 16.3.5 of this Section 16.3 (*Change of Scope Order*).
- 16.3.7 Save for the advance payment under Section 16.3.5(a), the Authority shall progressively pay the Additional Cost in accordance with sub-section 16.3.5 of this Section 16.3 (*Change of Scope Order*) or any other modality as mutually agreed between the Parties, only upon receiving a certificate from the Independent Engineer confirming that the Concessionaire has completed the relevant milestone(s) of the works in accordance with the Change of Scope Order.

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17. TOLLING ARRANGEMENT

17.1 <u>TOLL COLLECTION OPERATIONS</u>

17.1.1 During the period commencing from Commencement Date and until the Toll Collection End Date, the Concessionaire shall be authorized to collect, demand, levy and charge the Tolls from the Users (except the Exempted Vehicles), in accordance with **Schedule P** (*Toll Notification Structure*). All funds collected from Tolls shall be deposited immediately with the Escrow Agent and allocated in accordance with the terms of the Escrow Agreement.

17.2 COMMENCEMENT OF TOLL COLLECTION

- 17.2.1 The Concessionaire shall commence collecting the Tolls at the relevant Interchanges in respect of the Project Highway Section from the Project Highway Section Service Commencement Date, from the Day immediately following the Day of issuance of the relevant Project Highway Section Completion Certificate and continue such collection until the Trigger Date, based on the Toll Structure set out in **Schedule P** (*Toll Notification Structure*).
- 17.2.2 At least thirty (30) days prior to the Project Highway Section Completion Date the Concessionaire shall provide a copy of a toll operations manual (the **Toll Operations Manual**) for the review and approval of Independent Engineer and the Authority. If upon review of the Toll Operations Manual, Independent Engineer and/or the Authority determines that the procedures set forth therein require amendments, the Concessionaire shall, at its sole cost and expense, incorporate such changes as are required in the Toll Operations Manual and undertake periodic review and revision of the Toll Operations Manual as instructed by Authority and the Independent Engineer.
- 17.2.3 The Authority hereby grants the right and authority to the Concessionaire to commence Tolling at the Project Highway, based on the Toll Notification Structure set out in **Schedule P** (*Toll Notification Structure*) upon issuance of the Project Highway Section Completion Certificate.
- 17.2.4 The Concessionaire shall procure all the Concessionaire Permits, with the facilitation of the Authority, to enable the Concessionaire to commence Toll collection operations at the Interchanges, on the prior to the Project Highway Section Completion Date.
- 17.2.5 In accordance with the NHA License Agreement, NHA and the Concessionaire shall be entitled to collect and generate toll revenue from the Interchanges in a manner as clearly described in **Schedule V** (*Operations and Maintenance of the Portion of the CPEC Route*).
- 17.2.6 The Concessionaire shall commence commercial operations at the Project Highway on the Project Highway Section Completion Date based on the Toll Structure set out in **Schedule P** (*Toll Notification Structure*), and continue such collection until the Toll Collection End Date.
- 17.2.7 Notwithstanding anything to the contrary all Toll Revenues shall be deposited in the Escrow Account and shall be utilized in accordance with the Escrow Agreement.

17.3 TOLL PROGRESS REPORT

Commencing from the Project Highway Section Completion Date and until the Transfer Date, the Independent Engineer shall, no later than ten (10) days after the end of each calendar month, furnish to the Authority, the Independent Auditor and the Financiers (until such time Financing Due is outstanding) a monthly report (the **Toll Progress Report**) stating in reasonable detail the status of the Toll collected from the Project and shall promptly give such other relevant information as may be required by the Authority, the Independent Auditor and/or and the Financiers in respect of the Toll collected from the Project.

17.3.1 In case the Financiers or the Authority is not satisfied with the report of the Independent Engineer, the Authority and/or the Financiers may appoint an external auditor on which the grieving party and the Concessionaire may agree (the **External Auditor**) to survey and collect the data (including Toll and traffic count) from the Project, the cost of which shall be incurred by the inquiring party. The Concessionaire shall provide reasonable assistance and access to the Toll booths and the ITS equipment to conduct such external audit. In the event it is determined by the External Auditor that there is a discrepancy in the records of the Concessionaire and/or the Independent Auditor in the Toll collected from the Project, the decision of the External Auditor shall be final and binding on the Concessionaire. To the extent any amounts are payable to the Authority as a result of determination by the External Auditor, the Concessionaire irrevocably undertakes to pay the same to the Authority, within thirty (30) days of the External Auditor's decision and, in any case, within five (5) days of the Authority's first written demand.

17.4 TOLL REVENUE SHARING

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- 17.4.1 Following the Project Highway Section Completion Date and during any Operational Year, the Concessionaire shall be entitled subject to certification of the Independent Auditor and the terms of the Escrow Agreement, to all revenues generated in such Operational Year equal to the Benchmark Toll Revenues. The Concessionaire shall have the right, subject to any rights of set off (if any) of the Authority and the Escrow Agreement, to utilize such revenues at its discretion.
- 17.4.2 Following the Substantial Completion Date and during any Operational Year, if the Toll Revenues generated during such Operational Year are more than [●] of the Benchmark Toll Revenues, then for up to [●] of the of the Benchmark Toll Revenues, Section 17.4.1 shall apply and the excess (more than [●] of the benchmark Toll Revenues) shall be, subject to certification of the Independent Auditor and the terms of the Escrow Agreement, shared between the Authority and the Concessionaire, 70% to the Authority and 30% to the Concessionaire. The Authority's share and the Concessionaire's share of shall be utilized by the Authority and the Concessionaire respectively in their sole and absolute discretion.
- 17.4.3 Following the Substantial Completion Date and during any Operational Year until Financing Termination Date, if the Toll Revenues fall below 80% of the Benchmark Toll Revenues due to reasons not attributable to the Concessionaire in any Operational Year (the difference between Toll Revenues generated in that Operational Year in accordance with this Section 17.4.3, and 80% of the Benchmark Toll Revenues, shall hereinafter be referred to as the **Shortfall Amount**), then subject to certification of the Independent Auditor and the terms of the Escrow Agreement, the Concessionaire shall fund (or procure that its shareholders fund), along with the Authority, the Shortfall Amount in **x%**, as further set out in terms of the MRG Agreement. For avoidance of doubt, any shortfall in Toll Revenues between 80% and 100% of the Benchmark Toll Revenues shall be on account of and the sole responsibility (including all consequences thereof) of the Concessionaire.

17.5 <u>Issuance of Toll Notification</u>

- 17.5.1 The Authority shall issue a notification (the **Toll Notification**) (substantially, in the form set out in **Schedule R** (*Form of Toll Notification*) and in accordance with **Schedule P** (*Toll Notification Structure*) in accordance with the Applicable Laws in order to implement the Toll Notification Structure. Each Toll Notification issued in respect of such year, shall set-out (in writing) the Toll applicable during such year of the Concession Period. The Authority shall be allowed to revise the Toll Notification based on the actual traffic data (the **Revised Toll Notification**) at such times as contemplated by **SCHEDULE P** (*Toll Notification Structure*) and any Change in Law. In addition, any reduction in the Tolls at any time (with the authorization of the Independent Auditor) shall be subject to the Benchmark Toll Revenues and other mutually agreed parameters (including any financial parameters stated in the RFP) are, in each case, not being adversely affected (as determined by the Independent Auditor) by the Revised Toll Notification; provided, that in case the Authority reduces the Toll so as to adversely impact the Benchmark Toll Revenues and other mutually agreed parameters (including any financial parameters stated in the RFP), the same shall entitle the Concessionaire to a Relief Order Request and in such case the provisions of Article 15 (*Relief Extension and Relief Compensations*) shall apply.
- 17.5.2 The Authority shall ensure that the Toll Notification is issued throughout the Concession Period in accordance with this Agreement. In the event the Authority fails to issue the Toll Notification in accordance with the Toll Notification Structure or suspends the Toll Notification (the Toll Notification Event) and provided that the Toll Notification Event does not directly result from breach by the Concessionaire of its relevant obligations under this Agreement and provided further that the Benchmark Toll Revenues and other mutually agreed parameters (including any financial parameters stated in the RFP) are, in each case, adversely affected (as determined by the Independent Auditor) due to the Toll Notification Event, then such Toll Notification Relief Event and all matters relating to the same shall constitute a Relief Event (the Toll Notification Relief Event) and the same shall entitle the Concessionaire to issuance of a Relief Order Request and in such case the provisions of Article 15 (Relief Orders) shall apply.

17.6 ESCROW ARRANGEMENT

The Parties shall enter into an Escrow Agreement which shall, inter alia, set out the following provisions:

- a) mechanism to deposit all Toll Revenues (on the succeeding working day of such collection) and the mechanism for distribution of respective share of such revenues to the Concessionaire and the Authority;
- b) right for the Authority and the Concessionaire to set-off and make direct deductions of any amounts in case any amount contractually payable by the Concessionaire or the Authority which have not been paid by the same including payments for the Independent Engineer and Independent Auditor;
- c) Authority's ability (with the confirmation of the Independent Auditor) to determine the amounts of Insurance proceeds (to the extent they are deposited in the Escrow Account) and other compensations received by the Concessionaire and to make adjustments in the amounts of Termination Payments

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payable by the Authority, provided however, the Authority's rights in relation to Insurance proceeds shall be subordinated to Financiers;

- d) the mechanism for the disbursement of funds from the Escrow Account to fund the Major Maintenance Payment Account; and
- e) any other rights and matters contemplated by the Authority (in consultation with the Independent Engineer and the Independent Auditor) which it believes are reasonable and necessary for the transactions of this nature and deductions as determined with the Independent Engineer and the Independent Auditor.

[Escrow Account may have a lien over it in favour of Financiers, if the same is required. Conditions relating to the same shall be incorporated in the Concession Direct Agreement].

18. DEFECTS & DEFICIENCIES, NOTICE OF REMEDY, SUSPENSION

18.1 REMEDYING DEFECTS & DEFICIENCIES

- 18.1.1 The Concessionaire warrants that the:
 - (a) Project Works shall be performed in good workmen like manner in accordance with the Applicable Standards and shall be free from all Defects & Deficiencies; and
 - (b) the Concession Assets shall comply with the Applicable Standards.
- 18.1.2 In order that the Project Works and the Concession Assets comply with the foregoing warranties and that the same are in the condition required by this Agreement, the Concessionaire shall execute all works and services relating to amendment, reconstruction and remedying of Defects & Deficiencies (including the removal, replacement and reinstallation of materials and equipment, remedying of Defects & Deficiencies and retesting of repaired or replaced portions of the Project Works (if appropriate in accordance with Good Industry Practices) at its own cost, risk and expense; provided, however the amendment, reconstruction and remedying of such Defects & Deficiencies shall be at the cost, risk and expense of the Authority in the event the same is caused by a Permitted Events (except a Non Political Event).
- 18.1.3 If the remedying of any Defect & Deficiency or damage is such that it may significantly affect the performance of the Project Works and/or the Concession Assets, the Independent Engineer and/or the Authority may require that certain Construction Tests, O&M Tests and/or the Completion Tests (as the case may be) to be repeated to the extent necessary. The requirement shall be made by written Notice after the Defect & Deficiency or damage is remedied. Such tests shall be carried out by the Concessionaire in accordance with the Applicable Standards and all costs and expenses of any nature associated with reperformance of such tests shall be allocated in accordance with Section 18.1.2.

18.2 NOTICE REMEDY

- 18.2.1 In the event (the **Remedy Events**):
 - (a) the Project Works (or any part thereof) are not performed in accordance with the Applicable Standards; and/or
 - (b) the Project Works (or any part thereof) fail to comply with the Applicable Standards; and/or
 - (c) the Concession Assets (or any part thereof) fails to comply with the Applicable Standards, then the Independent Engineer and/or the Authority (through the Independent Engineer) shall be entitled to issue a Notice to the Concessionaire to rectify and remedy the same (the **Notice of Remedy**). The Notice of Remedy shall set out the reasonable time period (as determined by the Independent Engineer) (the **Remedy Time Period**) in which the Concessionaire shall remedy and rectify the Remedy Events in accordance with the Applicable Standards.
- 18.2.2 In the event of failure by the Concessionaire to remedy the Remedy Events within the Remedy Time Period, the Authority shall, without prejudice to any of its other rights and remedies under this Agreement, be entitled to, with the prior approval of the Independent Engineer and at the risk and cost of the Concessionaire, cause the remedying and rectification of the Remedy Events.
- 18.2.3 The Concessionaire shall reimburse all costs incurred by the Authority (as certified by the Independent Auditor and the Independent Engineer) on account of such remedying and rectification of the Remedy Events within thirty (30) days of receipt of the Authority's claim thereof set out in an invoice approved by the Independent Engineer and the Independent Auditor (the **Authority Remedy Invoice**). In the event of failure by the Concessionaire to pay the amounts set out in the Authority Remedy Invoice (the **Authority Remedy**

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Amount) within the time period set out herein, the Authority shall be entitled to receive such Authority Remedy Amount through encashment of (as in effect at such time) the Construction Performance Security or O&M Performance Security. In the event the funds received by the Authority through encashment of the O&M Performance Security are less than the Authority Remedy Amount, the Concessionaire shall be obligated to pay the Authority the shortfall within three (3) days of the Authority's written demand.

18.3 SUSPENSION

18.3.1 The:

- (a) Authority may by Notice in writing to the Concessionaire (with a copy to the Independent Engineer and the Independent Auditor) require the Concessionaire to suspend forthwith the whole or any part of the Project Works if, in the reasonable opinion of the Authority:(i) such work threatens the safety of the Users and pedestrians; or (ii) such Project Works are not in accordance with the Applicable Standards and/or Good Industry Practices; and/or
- (b) Independent Engineer may, by Notice to the Concessionaire (with a copy to the Authority and the Independent Auditor), require the Concessionaire to suspend forthwith the whole or any part of the Project Works which in the reasonable opinion of the Independent Engineer is being carried on / conducted in a manner that is not in conformity with the Applicable Standards and / or is not in accordance with Good Industry Practice,

(the Suspension, Suspend and its grammatical variations).

- 18.3.2 The Concessionaire shall, pursuant to the any notice issued under Section 18.3.1, Suspend the Project Works or any part thereof for such time and in such manner as may be specified by the Authority and/or the Independent Engineer and thereupon carry out remedial measures to secure the safety of Suspended works and the Users and for compliance of the Suspended Project Works with the Applicable Standards and Good Industry Practices.
- 18.3.3 The Concessionaire may by Notice (with a copy to the Authority) require the Independent Engineer to inspect such remedial measures forthwith and the Independent Engineer shall, following such inspection, make a report to the Authority recommending whether or not the Suspension may be revoked. Upon receiving the recommendations of the Independent Engineer, the Authority shall either revoke such Suspension or instruct the Concessionaire to carry out such other and further remedial measures as may be necessary in the reasonable opinion of the Authority, and the procedure set forth in this Section 18.3 (*Suspension*) shall be repeated till such time as the Suspension hereunder is revoked.
- 18.3.4 All reasonable costs incurred for maintaining and protecting the Project Works (or part thereof) during the period of Suspension (the **Preservation Costs**) shall be borne by the Concessionaire; provided, that if the Suspension has occurred as a result of a Permitted Event, the provisions of Article 21 (*Force Majeure*) and Article 15 (*Relief Orders*), as the case may be, shall apply.
- 18.3.5 All delays caused as a result of the Suspension shall be on account of the Concessionaire; provided, however, in the event the Suspension is caused due to a Permitted Event, any extensions of the Time For Completion shall be subject to the provisions of Article 15 (*Relief Orders*) and Article 21 (*Force Majeure*), as the case may be.

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19. OPERATION AND MAINTENANCE

19.1 OPERATION AND MAINTENANCE

- 19.1.1 The Concessionaire shall perform the Operation and Maintenance in accordance with the Applicable Standards and shall ensure that the same complies with the Applicable Standards. During the Operations Period, the Concessionaire shall be responsible for Operating and Maintaining the Concession Assets on a twenty-four (24) hours per day, three-sixty-five (365) days per year basis according to the Applicable Standards so as to ensure that the same comply with the Applicable Standards.
- 19.1.2 Without limiting the provisions of Section 19.1.1, the Concessionaire shall be in particular responsible for the performance and compliance, in each case, of the Operation and Maintenance in accordance with the O&M Requirements.
- 19.1.3 The Concessionaire shall perform the Operation and Maintenance within the O&M Time For Completion and hereby undertakes to perform and complete each Project O&M Milestone on or prior to its Project O&M Milestone Date.
- 19.1.4 The Concessionaire shall perform the Operation and Maintenance either itself, or through the O&M Contractor appointed in accordance with the terms of this Agreement; provided, however, the Concessionaire shall remain solely responsible and liable for performance (within O&M Time For Completion) and compliance of the Operations and Maintenance with the Applicable Standards irrespective of whether the Operation and Maintenance is undertaken by the Concessionaire or the O&M Contractor.

19.2 OPERATION AND MAINTENANCE OBLIGATIONS OF THE CONCESSIONAIRE

- 19.2.1 The Concessionaire undertakes to perform the Operation and Maintenance of the Concession Assets during the Operations Period in accordance with the provisions of Section 19.1 (*Operation and Maintenance*) and undertakes to modify, repair and to provide all such improvements and services as may be required for the Operation and Maintenance of the Concession Assets in accordance with the Applicable Standards.
- 19.2.2 The Concessionaire hereby agrees that the Operation and Maintenance obligations of the Concessionaire hereunder shall include, without limitation, the performance of the following obligations in accordance with the Applicable Standards and Good Industry Practices and within the O&M Time For Completion:
 - (a) ensuring that during the Operations Period, the Concession Assets are in a condition to permit safe, smooth and uninterrupted flow of traffic during normal operating conditions;
 - (b) minimizing disruption to traffic in the event of accidents or other incidents affecting the safety and use of the Project Highway and by providing a rapid and effective response and maintaining liaison with emergency services of the Authority;
 - (c) carrying out routine maintenance and the periodic preventive maintenance of the Concession Assets;
 - (d) undertaking routine maintenance including prompt repairs of potholes, cracks, joints, drains, embankments, structures, pavement markings, lighting, road signs and other traffic control devices;
 - (e) preventing, with the assistance of concerned law enforcement agencies, any unauthorized use of the Concession Assets;
 - (f) preventing, with the assistance of the concerned law enforcement agencies, any encroachments on the Project Site;
 - (g) protecting the environment (to the extent of the Concessionaire's activities) and providing equipment and materials therefor;
 - (h) operation and maintenance of all communication, control and administrative systems necessary for the efficient operation of the Concession Assets;
 - (i) maintaining a public relations unit to interface with and attend to suggestions from the Users, the Authority, the Government Authorities, media and other agencies;
 - (j) complying with Safety Requirements;
 - (k) promptly removing from the Project Site, all surplus construction machinery and materials, waste materials (including hazardous materials and waste water), rubbish and other debris (including, without limitation, accident debris) and keeping the Project Site in a clean, tidy and orderly condition, in each case, in conformity with the Applicable Standards;

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(l) performing all other activities and obligations relating to Operation and Maintenance so as to comply with the Applicable Standards and also so as to result in the Concession Assets complying with the Applicable Standards.

19.3 <u>Not Used</u>

19.4 MATERIAL BREACH OF O&M REQUIREMENTS

- 19.4.1 The Concessionaire shall be deemed to be in material breach of the O&M Requirements (the **Material Breach of O&M Requirements**) if the Independent Engineer and/or the Authority (through the Independent Engineer), acting reasonably and in accordance with the provisions of this Agreement, has determined that due to breach of its obligations by the Concessionaire:
 - (a) there has been a failure/undue delay in carrying out scheduled/planned maintenance or the scheduled/planned maintenance has not been carried out in accordance with the O&M Requirements;
 - (b) there has been a material failure in performance by the Concessionaire of the Operation and Maintenance (or any part thereof) within the O&M Time For Completion which has resulted in a Material Adverse Effect:
 - (c) the riding quality of the Project Highway or any part thereof has material deteriorated to a level which is below the acceptance level prescribed by the O&M Requirements;
 - (d) there has been a serious or persistent let up in adhering to Safety Requirements and thereby the Concession Assets or any part thereof is not safe for operations;
 - (e) there has been "Persistent Breach of O&M Requirements".

The term "Persistent Breach of O&M Requirements" means:

- (i) any reoccurring and persistent breach of the O&M Requirements that remains un-remedied despite the issuance of Notice of Remedy by the Independent Engineer;
- (ii) repeated occurrences of a breach that has been remedied pursuant to a Notice of Remedy, notwithstanding that the earlier occurrences of breach may have been remedied pursuant to the Notice of Remedy or otherwise,

in each case subsection (e) (i) and (ii) above, that results in a Material Adverse Effect;

provided, however, the Concessionaire shall not be deemed to be in Material Breach of the O&M Requirements in the afore-stated circumstances in the event such breach is caused by the Permitted Events.

19.5 AUTHORITY' RIGHTS WITH REGARD TO MATERIAL BREACH OF O&M REQUIREMENTS

19.5.1 Upon the occurrence of a Material Breach of O&M Requirements, the Authority shall without prejudice to and notwithstanding any other consequences provided therefor shall have the right and be entitled to Terminate this Agreement in accordance with Section 23(*Termination*).

19.6 PRIORITY OF TRAFFIC FLOW

- 19.6.1 The Concessionaire shall ensure that the Project Highway remains open to traffic and that the traffic flow is safe at all times during Operations Period in accordance with the Applicable Standards.
- 19.6.2 The Concessionaire undertakes to conduct the Operation and Maintenance in such manner as to ensure compliance with the obligation set out in Section 19.6.1.

19.7 <u>O&M MANUAL</u>

19.7.1 Ninety (90) days prior to the anticipated date for commencement of the Operations Period (as determined by the Independent Engineer), the Concessionaire, the Concessionaire Project Engineer and the Independent Engineer shall jointly prepare and submit to Authority, an operations, repair, maintenance and safety manual (together with arrangements and procedures for conducting safety related measures) in respect of the Concession Assets that shall comply with the Applicable Standards and Good Industry Practices and shall set out, *inter alia*, the regular preventive maintenance and operating procedures for the Concession Assets, as to be performed pursuant to the Applicable Standards and Good Industry Practices. Such operations, repair, maintenance and safety manual shall include provisions for operation and maintenance of the Concession Assets and shall, *inter alia*, provide for life cycle maintenance, routine maintenance and reactive maintenance which may be reasonably necessary for maintenance and repair of the Concession Assets, including replacement thereof, such that their overall condition conforms to the Applicable Standards. The operations,

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- repair, maintenance and safety manual shall also set out certain Project O&M Milestones and their respective Project O&M Milestone Dates.
- 19.7.2 The operations, repair, maintenance and safety manual jointly prepared by the Concessionaire, the Concessionaire Project Engineer and the Independent Engineer shall be subject to approval of the Authority; provided, however, such approval shall be granted by Authority within fifteen (15) days of the Concessionaire's request for such approval if the operations, repair, maintenance and safety manual is recommended by the Independent Engineer for approval after addressing any comments and observations of the Authority on the same. The operations, repair, maintenance and safety manual, as approved by the Authority, shall be binding on the Parties (the **O&M Manual**).
- 19.7.3 Four (4) copies of the O&M Manual shall be provided by the Concessionaire to each of Authority and the Independent Engineer.
- 19.7.4 The O&M Manual shall be revised and updated on third (3rd) anniversary of its initial preparation and subsequently every three (3) years thereafter, in each case, with mutual consent of the Parties and in consultation with the Independent Engineer; provided, however, the Parties may revise, update and/or amend the O&M Manual with mutual consent at any time.

19.8 <u>O&M Programme</u>

- 19.8.1 Ninety (90) days prior to commencement of the Operations Period and thereafter thirty (30) days prior to the commencement of each Operational Year during the Operations Period, as the case may be, the Concessionaire, the Concessionaire Project Engineer and the Independent Engineer shall jointly prepare and provide to the Authority, a proposed annual program, to be prepared in compliance with the Applicable Standards and Good Industry Practices, of Operation and Maintenance during the upcoming Operational Year (including preventive, urgent and other scheduled maintenance of Concession Assets) (the **Proposed O&M Programme**). The Proposed O&M Programme shall include, without restriction, the following:
 - (a) the Project O&M Milestones to be achieved during the upcoming Operational Year and the respective Project O&M Milestone Dates for each of the same;
 - (b) routine maintenance and preventive maintenance schedule;
 - (c) arrangements and procedures for carrying out urgent repairs in respect of the Concession Assets;
 - (d) criteria to be adopted for determining and ascertaining the maintenance requirements of the Concession Assets:
 - (e) the timelines, intervals and procedures for conducting the inspection of all elements of the Concession Assets;
 - (f) the timelines and intervals at which the Concessionaire shall conduct periodic maintenance in respect of the Concession Assets;
 - (g) arrangements and procedures for conducting safety related measures in relation to the Concession Assets;
 - (h) timelines and intervals for maintenance works and the scope thereof; and
 - (i) all major events and activities in the preparation of O&M Documents and submission of the same to the Authority, the Independent Engineer and/or the Independent Auditor (as applicable) for the review and approval (as applicable);
- 19.8.2 The Proposed O&M Programme jointly prepared by the Concessionaire, the Concessionaire Project Engineer and the Independent Engineer shall be subject to approval of the Authority; provided, however, such approval shall be granted by Authority within twenty-one (21) days of the Concessionaire's request for such approval if the Proposed O&M Programme is recommended by the Independent Engineer for approval after addressing any comments and observations of the Authority on the same. The Proposed O&M Programme prepared in respect of an Operational Year, as approved by the Authority on the Independent Engineer's recommendation, shall be binding on the Parties for such Operational Year (the **O&M Programme**).
- 19.8.3 The Concessionaire shall, whenever required by the Authority, the Independent Engineer and/or the Independent Auditor, provide in writing, a general description of the arrangements and methods which the Concessionaire proposes to adopt for the execution of the Operation and Maintenance. Any alteration to the O&M Programme or to such arrangements and methods shall be made by the Concessionaire with prior written consent of the Independent Engineer.
- 19.8.4 Any reports (including the O&M Monthly Status Reports) submitted by the Concessionaire and covering the execution of the Operation and Maintenance shall emphasize any delays in the O&M Time For Completion.

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19.9 SAFETY, VEHICLE BREAKDOWN AND ACCIDENTS

19.9.1 The Concessionaire shall ensure safe conditions for the Users, and in the event of unsafe conditions, lane closures, diversions, vehicle breakdowns and accidents, it shall follow the relevant Applicable Standards including the setting up of temporary traffic cones and lights, and removal of obstruction and debris without delay, in each case, in accordance with the Applicable Standards.

19.10 <u>Not Used</u>

19.11 MAJOR MAINTENANCE

19.12 TIMING OF MAJOR MAINTENANCE AND MAJOR MAINTENANCE COSTS

The Parties acknowledge that based on the requirements of the Applicable Standards, the Concession Assets should not require the first (1st) Major Maintenance before the date falling ten (10) years following the Project Highway Section Service Commencement Date, and thereafter the Second Major Maintenance should not be required before the date falling ten (10) years following the First Major Maintenance Commencement Date. The Parties acknowledge and agree that the costs of each of the Major Maintenances (the **Major Maintenance Costs**) are expressly set out in the Financial Model and shall be adjusted for inflation in accordance with the Financial Model.

19.13 MAJOR MAINTENANCE PROGRAMME, MAJOR MAINTENANCE CONTRACT(S) AND APPROVALS

- (a) Six (6) months prior to the First Major Maintenance Commencement Date and the Second Major Maintenance Commencement Date, in each case, the Concessionaire shall submit to the Independent Engineer (with a copy to the Authority) a proposed program for Major Maintenance during the upcoming Major Maintenance Period (the **Proposed Major Maintenance Programme**). The Proposed Major Maintenance Programme shall include, without restriction, the following:
 - (i) the Major Maintenance Milestones to be achieved during the upcoming Major Maintenance Period and the respective completion dates for each of the same;
 - (ii) the manner and methodology for implementation of the Major Maintenance;
 - (iii) the arrangements and procedures for conducting safety related measures in relation to the Concession Assets during the upcoming Major Maintenance Period; and
 - (iv) the timelines for implementation of the Major Maintenance.
- (b) The Concessionaire shall, along with the Proposed Major Maintenance Programme, submit to the Independent Engineer (together with a copy to the Authority) one or more proposed contracts in respect of the implementation of the upcoming Major Maintenance (the Proposed Major Maintenance Contract(s)). The Proposed Major Maintenance Programme and the Proposed Major Maintenance Contract(s) shall be subject to the prior approval of the Independent Engineer in respect of payment terms, Major Maintenance Milestones, scope of the Major Maintenance and technical matters to ensure conformity with the terms of the Concession Agreement. The Independent Engineer and/or the Authority (through the Independent Engineer) shall, within thirty (30) days of its receipt of the Proposed Major Maintenance Programme and the Proposed Major Maintenance Contract(s), provide its comments or observations on the same, if any, to the Independent Engineer. The Independent Engineer shall within forty-five (45) days of the delivery of the Proposed Major Maintenance Programme and the Proposed Major Maintenance Contract(s), grant its approval or disapproval of the same. In the event no objections to the Proposed Major Maintenance Programme and the Proposed Major Maintenance Contract(s) are received from Authority within forty-five (45) days of the delivery of the same by the Concessionaire, the same shall be deemed not to have been objected to by the Authority and the Independent Engineer may approve or disapprove at its own discretion. The Concessionaire shall implement the Major Maintenance in accordance with the actual or deemed approved Proposed Major Maintenance Programme (the Approved Major Maintenance Programme) and the actual or deemed approved Proposed Major Maintenance Contract(s) (the Approved Major Maintenance Contract(s)) as approved by the Independent Engineer.
- (c) The Concessionaire shall execute the Approved Major Maintenance Contract(s) prior to the Major Maintenance Costs Funding Date and deliver certified (as being true and correct) copies of the Approved Major Maintenance Programme and the Approved Major Maintenance Contract(s), to the Authority, the Independent Engineer and the Independent Auditor within seven (7) days of execution of the same.

19.14	MAJOR MAINTENANCE PAYMENT ACCOUNT

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- (a) The Concessionaire shall establish and maintain the Major Maintenance Payment Account from the Commencement Date and until the Trigger Date.
- (b) The Concessionaire shall issue irrevocable standing instructions to the Major Maintenance Payment Account Bank (in form and substance agreed between the Parties) (the Major Maintenance Payment Account Standing Instructions) containing, inter alia, instructions to the Major Maintenance Payment Account Bank to debit the Major Maintenance Payment Account on each Major Maintenance Milestone Date (upon receipt of a Major Maintenance Milestone Certificate relating to such Major Maintenance Milestone Date) in an amount equal to the Major Maintenance Milestone Payment and credit the same to the Escrow Account.
- (c) The Major Maintenance Payment Account Standing Instructions issued by the Concessionaire shall be irrevocable and shall remain effective, in each case, until the Trigger Date, and no withdrawal from the Major Maintenance Payment Account may be made by the Authority, except as provided in this Agreement.
- (d) The Major Maintenance Payment Account Standing Instructions (or any part thereof) issued by the Concessionaire may be revoked pursuant a written revocation Notice duly executed and confirmed by the authorized representatives of Authority and the Concessionaire.

The Major Maintenance Payment Account shall be strictly operated and maintained in accordance with the Major Maintenance Payment Account Standing Instructions. Further, the Concessionaire hereby undertakes and covenants with the Concessionaire that it shall not until the Trigger Date create, incur, permit, assume or suffer to exist any Encumbrance whatsoever upon or with respect to the Major Maintenance Payment Account. Further, the Concessionaire hereby undertakes and covenants with the Concessionaire that it shall not until the Trigger Date transfer or dispose of all or any of its rights and benefits under or in respect of the Major Maintenance Payment Account.

19.15 FUNDING AND PAYMENT

- (a) The Concessionaire shall fund the Major Maintenance Payment Account in respect of the First Major Maintenance and the Second Major Maintenance, in each case, in accordance with the Financial Model; provided, that the Concessionaire shall not be in breach of its obligations in this Section 19.15(a) to the extent it has given evidence to the Independent Auditor, the Independent Engineer and the Authority that:
- (b) (i) in case of the First Major Maintenance, either: (A) the Major Maintenance Costs required for the First Major Maintenance (as set out in the Financial Model) are standing to the credit of the Major Maintenance Payment Account prior to the First Major Maintenance Commencement Date; or (B) the funds standing to the credit of the Major Maintenance Payment Account prior to the First Major Commencement Date are sufficient to fund the costs of the First Major Maintenance;
 - (ii) in case of the Second Major Maintenance, either: (A) the Major Maintenance Costs required for the Second Major Maintenance (as set out in the Financial Model) are standing to the credit of the Major Maintenance Payment Account prior to the Second Major Maintenance Commencement Date; or (B) the funds standing to the credit of the Major Maintenance Payment Account prior to the Second Major Maintenance Commencement Date are sufficient to fund the costs of the Second Major Maintenance.

Subject to Section 19.15(a) above, the Concessionaire shall fund the Major Maintenance Payment Costs on each Major Maintenance Costs Funding Date, which Major Maintenance Costs shall be funded by the Concessionaire based on a certificate of the Independent Auditor and the Independent Engineer to be issued six (6) months prior to the Major Maintenance Commencement Date. For the avoidance of doubt, provided further that the determination by the Independent Auditor and the Independent Engineer of the Major Maintenance Costs shall take into account the projected inflation (in accordance with the Financial Model) during the Major Maintenance Period.

19.16 O&M DOCUMENTS

- 19.16.1 The Concessionaire shall prepare the O&M Documents in accordance with the Applicable Standards and shall complete and deliver the same to the Authority, the Independent Engineer and the Independent Auditor (as applicable) from time to time within the O&M Time For Completion. Further, the Concessionaire hereby undertakes that the O&M Documents shall comply with the Applicable Standards.
- 19.16.2 The Authority, the Independent Engineer and the Independent Auditor (as applicable) shall have the right to review and inspect all O&M Documents. The Concessionaire shall provide all such O&M Documents that the Authority, the Independent Engineer and the Independent Auditor may reasonably require to inspect in respect of the Operation and Maintenance. It is made clear that nothing in the above shall diminish the Concessionaire's responsibility to provide the Authority, the Independent Engineer and the Independent

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Auditor with sufficient information to enable the same to satisfy themselves regarding the Operation and Maintenance.

- 19.16.3 For each part of the Operation and Maintenance, if the Authority, the Independent Engineer and the Independent Auditor (as applicable) wish to modify any O&M Documents, the Authority, the Independent Engineer and the Independent Auditor (as applicable) shall immediately submit their proposal for modification to the Concessionaire. Subject to Section 19.12.4, performance of such modification shall be subject to mutual agreement between the Parties.
- 19.16.4 Defects & Deficiencies, errors, omissions, ambiguities, inconsistencies, inadequacies and other defects in the O&M Documents or arising there from shall be rectified by the Concessionaire at its sole cost and risk.
- 19.16.5 The Authority, the Independent Engineer and the Independent Auditor (as applicable) may use the O&M Documents for such purposes as it may require for the purposes of the Project.
- 19.17 <u>Not Used</u>
- 19.18 <u>Not Used</u>

19.19 MODIFICATIONS TO THE PROJECT

19.19.1 The Concessionaire shall not carry out any material modifications to the Concession Assets, save and except where such modifications are necessary for: (a) the Operation and Maintenance of the Concession Assets in conformity with the Applicable Standards; and (b) compliance by the Concession Assets with the Applicable Standards; provided, however, the Concessionaire shall Notify the Independent Engineer and the Authority of the proposed modifications along with particulars thereof at least thirty (30) business days before commencing work on such modifications and shall only implement such modifications upon receipt of the Independent Engineer's and/or Authority's approval of the same, which approval shall be provided or declined by the Independent Engineer and/or the Authority within fifteen (15) days of its receiving the Concessionaire's proposal. For the avoidance of doubt, all modifications made hereunder shall comply with the Applicable Standards.

19.20 BARRIERS AND DIVERSIONS

19.20.1 The Authority shall procure that during the Operations Period, no barriers are erected or placed by any Government Authority on the Concession Assets, except for reasons of Emergency, national security, law and order; provided, that all such barriers shall be in accordance with the Applicable Standards (including the Safety Requirements).

19.21 O&M MONTHLY STATUS REPORT

- 19.21.1 During the Operations Period, the Concessionaire shall, no later than seven (7) days after the end of each calendar month of the Operations Period, furnish to the Authority and the Independent Engineer a monthly report (the **O&M Monthly Status Report**) stating in reasonable detail the condition of the Concession Assets including its compliance or otherwise with the Applicable Standards and shall promptly give such other relevant information as may be required by the Independent Engineer, the Independent Auditor and/or and the Authority. In particular, the O&M Monthly Status Report shall separately identify and state in reasonable detail the Defects & Deficiencies in the Concessionaire Assets and/or the Operation and Maintenance that require rectification and any delays in the performance of its obligations by the Concessionaire set out in the O&M Programme. The O&M Monthly Status Report shall also expressly highlight all Defects & Deficiencies in the Operation and Maintenance and/or the Concession Assets identified by the Independent Engineer in its O&M Inspection Report and shall set out all actions taken and arrangements made by the Concessionaire for remedying the same.
- 19.21.2 Each O&M Monthly Status Report shall be updated by the Concessionaire based on any observations and comments made by the Independent Engineer and shall be provided again to each of the Authority and the Independent Engineer until such time that it is approved by the Independent Engineer; provided, that the Independent Engineer shall not accord its approval of the O&M Monthly Status Report until it is satisfied that all reasonable comments and observations of the Authority on the O&M Monthly Status Report are addressed.
- 19.21.3 The O&M Monthly Status Report shall be in the form approved by the Independent Engineer from time to time

19.22 <u>O&M Inspection Report</u>

19.22.1 During the Operations Period, the Concessionaire shall enable the Independent Engineer to inspect the Operation and Maintenance and the Concession Assets at least once a month and the Concessionaire shall make all arrangements for the same.

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- 19.22.2 The Independent Engineer shall make a report of such inspection (the **O&M Inspection Report**) stating in reasonable detail the Defects & Deficiencies, if any, in the Operation and Maintenance and /or the Concession Assets with particular reference to the Applicable Standards.
- 19.22.3 The Independent Engineer shall, within seven (7) days of commencement of a month, provide a copy of the O&M Inspection Report to the Concessionaire and the Authority.
- 19.22.4 The Concessionaire hereby undertakes that, within fifteen (15) days from receipt of the O&M Inspection Report, it shall rectify and remedy the Defects & Deficiencies, if any, stated in the O&M Inspection Report, on its own cost and expense.
- 19.22.5 The inspection or submission of the O&M Inspection Report by the Independent Engineer shall not relieve or absolve the Concessionaire of its obligations and liabilities hereunder in any manner whatsoever.

19.23 **O&M TESTS**

- 19.23.1 The Concessionaire shall conduct or procure to be conducted such tests, as specified in **SCHEDULE G** (*Detailed Project Report*) and the AASHTO Standards in order to determine whether the Operation and Maintenance and/or the Concession Assets conform to the Applicable Standards (the **O&M Tests**). The O&M Tests shall be conducted at such time and frequency and in such manner, as may be specified by the Independent Engineer and the Authority. In the event the timing and frequency of any O&M Tests is specified by the Authority and it is determined that the Operation and Maintenance is not in accordance with the O&M Requirements (as determined by the Independent Engineer), the cost of such O&M Tests shall be borne by the Concessionaire; provided, however, in the event it is determined that the Operation and Maintenance are in accordance with the O&M Requirements (as determined by the Independent Engineer), the cost of such O&M Tests shall be borne by Authority.
- 19.23.2 The Concessionaire hereby undertakes to conduct the O&M Tests under the supervision of the Independent Engineer (in consultation with the Authority) and in accordance with the Applicable Standards at its own cost and expense.
- 19.23.3 The Concessionaire hereby undertakes to carry out, at its sole cost, the necessary remedial measures required to rectify the Defects & Deficiencies in the Operation and Maintenance and/or the Concession Assets that are identified in the O&M Tests and to ensure that as a consequence of such remedial measures the Operation and Maintenance and the Concession Assets conform to the Applicable Standards. The Concessionaire further undertakes that the remedial measures required to be undertaken by the Concessionaire pursuant to this Section 19.19.3 shall be repeated by the Concessionaire at its sole cost till such time as the Operation and Maintenance and the Concession Assets conform to the Applicable Standards to the satisfaction of the Independent Engineer. In the aforestated circumstances, the Independent Engineer may require the Concessionaire to conduct additional tests to determine whether the Defects & Deficiencies are rectified and in such case the costs of such additional tests shall be borne by the Concessionaire.
- 19.23.4 The Concessionaire shall maintain proper record of the O&M Tests and the remedial measures taken to cure the Defects & Deficiencies, if any, indicated by the O&M Test results.
- 19.23.5 Results of all O&M Tests shall be jointly recorded by the Independent Engineer and the Concessionaire.

19.24 REMEDIAL MEASURES

- 19.24.1 The Concessionaire shall repair or rectify the Defects & Deficiencies, if any, set forth in the O&M Inspection Report or in the O&M Tests results referred to in Section 19.19 (*O&M Tests*) and furnish a report in respect thereof to the Independent Engineer and the Authority within seven (7) days of receiving the O&M Inspection Report or the O&M Tests results, as the case may be; provided, that where the remedying of such Defects & Deficiencies is likely to take more than seven (7) days, the Concessionaire shall submit progress reports of the repair works once every week until such works are completed in conformity with this Agreement.
- 19.24.2 The Independent Engineer shall require the Concessionaire to carry out or cause to be carried out the O&M Tests, at its own cost, to determine that such remedial measures have brought the relevant Concession Assets into compliance with the Applicable Standards and the procedure set forth in this Section 19.20 (*Remedial Measures*) shall be repeated until the Concession Assets conform to the Applicable Standards.
- 19.24.3 The provisions of this Section 19.20 shall not in any manner limit the obligations of the Concessionaire relating to remedying of Defects & Deficiencies set out elsewhere in this Agreement.

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20. INSURANCES

20.1 CONSTRUCTION PERIOD INSURANCES

20.1.1 The Concessionaire shall, at its sole cost and expense, procure and maintain during the Construction Period all such Insurances, as described in PART I (Construction Period Insurances) OF SCHEDULE I (Insurances), that are necessary and required to be procured by the Concessionaire in accordance with the Financing Documents (as contemplated in the Financing Term Sheet) and the Applicable Laws.

20.2 OPERATIONS PERIOD INSURANCES

20.2.1 The Concessionaire shall, at its sole cost and expense, procure and maintain during the Operations Period all such Insurances, as described in PART II (*Operations Period Insurances*) OF SCHEDULE I (*Insurances*), that are necessary and required to be procured by the Concessionaire in accordance with the Financing Documents (as contemplated in the Financing Term Sheet) and Applicable Laws.

20.3 <u>Insurance Companies</u>

- 20.3.1 The Concessionaire agrees that it shall procure the Insurances from such insurance companies that are acceptable to the Authority and further agrees that the Concessionaire shall only procure Insurances through foreign insurance companies if the relevant Insurances are not being offered by local companies at comparable rates, subject always to the prior consent of the Authority.
- 20.3.2 Further, the Insurances to be maintained in terms of this Agreement and in accordance with the terms set out herein will be maintained throughout until the Trigger Date notwithstanding the expiry of the Financing Documents (as contemplated in the Financing Term Sheet).

20.4 EVIDENCE OF INSURANCES

- 20.4.1 The Concessionaire shall, from time to time, provide to the Authority copies (duly attested as certified to be a true and correct copy by the relevant insurance company) of all insurance policies (or appropriate endorsements, certifications or other satisfactory evidence of insurance) obtained by the Concessionaire in accordance with this Agreement.
- 20.4.2 Failure by the Concessionaire to obtain the Insurance coverage or certificates of Insurance required by this Article 20 (*Insurances*) shall not in any way relieve or limit the Concessionaire's obligations and liabilities under any provision of this Agreement.
- 20.4.3 In case the Concessionaire fails to procure or maintain any Insurance required pursuant to this Article 20 (*Insurances*), then the Authority shall have the right to procure such Insurance in accordance with the requirements of **SCHEDULE I** (*Insurances*) and shall be entitled to offset the premiums paid for such insurance against any amounts owed to the Concessionaire pursuant to the terms of this Agreement and the Authority Agreements. The Concessionaire shall be named as the loss payee on any such Insurance procured by the Authority pursuant to this Section 20.4.3.
- 20.4.4 The Concessionaire shall provide the Authority with copies of any underwriters' reports or other reports received by the Concessionaire from any insurance company; provided, that the Authority shall not disclose such reports to any other person except as necessary in connection with administration and enforcement of this Agreement or any other Authority Agreement or as may be required by any Government Authority and shall use and internally distribute such reports only as necessary in connection with the administration and enforcement of this Agreement.

20.5 APPLICATION OF INSURANCE PROCEEDS

- 20.5.1 Subject to the terms of the Financing Documents (as contemplated in the Financing Term Sheet), all moneys received under the Insurance shall be promptly applied by the Concessionaire towards repair, renovation, restoration and/or substitution of the Concession Assets or any part thereof which may have been damaged or destroyed; provided, that all costs relating to such repair, renovation, restoration and / or substitution shall be duly certified by the Independent Engineer and the Independent Auditor.
- 20.5.2 The Concessionaire may, with the prior approval of the Authority, designate the Financiers as the loss payees under the Insurance and/or assign the Insurance in their favor as security for the Financing availed by the Concessionaire from the Financiers pursuant to the Financing Documents (as contemplated in the Financing Term Sheet).
- 20.5.3 The Concessionaire shall carry out the repair, renovation, restoration and / or substitution to the extent possible in such manner that the Concession Assets or any part thereof, shall, after such repair, renovation, restoration and / or substitution be as far as possible in the same condition as they were before such damage or destruction, normal wear and tear excepted.

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20.6 VALIDITY OF INSURANCES

- 20.6.1 The Concessionaire hereby undertakes to promptly pay the insurance premium in respect of the Insurances and to keep the policies in force and valid during the entire Concession Period. The Concessionaire shall provide to the Authority, copies of the renewed policies and other documentary evidence of the payment of the insurance premium in respect of the Insurances.
- 20.6.2 The Concessionaire shall ensure, subject to market availability, that each instrument, contract and / or policy issued in respect of the Insurances shall provide that the Insurance may not be cancelled and / or terminated without at least ten (10) days prior written notice to the Authority of such cancellation and / or termination.
- 20.6.3 Notwithstanding anything contained herein, in the event the Concessionaire fails to comply with its obligations to procure the Insurances in accordance with Section 20.1 (*Construction Period Insurances*) and / or Section 20.2 (*Operations Period Insurances*), then the Authority may, without prejudice to its other rights and remedies for breach, at its option, obtain and maintain such Insurance and all sums incurred by the Authority therefor shall be reimbursed by the Concessionaire to the Authority within seven (7) days from the receipt of a claim by the Concessionaire in respect thereof from the Authority.
- 20.6.4 The Concessionaire shall notify the Authority in advance, prior to any material variation of the Insurances.

20.7 MAINTENANCE OF "OCCURRENCE" FORM POLICIES

20.7.1 A coverage required under this Article 20 (*Insurances*) and **SCHEDULE I** (*Insurances*) and any "umbrella" or excess coverage shall be "occurrence" form policies. In the event the Concessionaire has "claims-made" form coverage, the Concessionaire must obtain prior approval of all "claims-made" policies from the Authority.

20.8 POLICY ENDORSEMENTS

- 20.8.1 The Concessionaire shall cause the insurance companies to provide the following endorsement items in the commercial general liability and, if applicable, umbrella or excess liability policies relating to the construction, Operation and Maintenance of the Concession Assets provided pursuant to this Article 20 (*Insurances*) and **SCHEDULE I** (*Insurances*):
 - (a) the Authority, its officers, servants and agents shall be additionally insured under such policies with respect to claims arising out of or in connection with this Agreement;
 - (b) the insurance shall be primary with respect to the interest of the Authority, its officers, servants and agents and any other insurance maintained by them is excess and not contributory with such policies;
 - (c) the following separation of interests' clause shall be made a part of the policy:
 - "In the event of claims being made by reason of (i) personal and/or bodily injuries suffered by any employee or employees of one insured hereunder for which another insured hereunder is or may be liable, or (ii) damage to property belonging to any insured hereunder for which another insured is or may be liable, then this policy shall cover such insured against whom a claim is made or may be made in the same manner as if separate policies have been issued to each insured hereunder, except with respect to the limits of insurance.";
 - (d) the insurer shall waive all rights of subrogation against the Authority, its officers, servants and agents; and
 - (e) notwithstanding any provision of the policy, the policy may not be canceled or not renewed without the insurer endeavoring to give thirty (30) days written notice to the Authority except in the case of non-payment, in which case it will be ten (10) days with prior written notice to the Authority. All other terms and conditions of the policy shall remain unchanged.

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21. FORCE MAJEURE

21.1 FORCE MAJEURE EVENT

- 21.1.1 A "Force Majeure Event" means any event or circumstance or combination of events or circumstances (including the effects thereof) that is beyond the reasonable control of a Party and that on or after the Commencement Date materially and adversely affects the performance by such affected Party (the Affected Party) of its obligations under or pursuant to this Agreement; provided, however, that, such material and adverse effect could not have been prevented, overcome or remedied in whole or in part by the Affected Party through the exercise of diligence and reasonable care, it being understood and agreed that reasonable care includes acts and activities to protect the Concession Assets from a casualty or other event that are reasonable in light of the probability of the occurrence of such event, the probable effect of such event if it should occur, and the likely efficacy of the protection measures. Without limiting the generality of the foregoing, "Force Majeure Events" hereunder shall include each of the following events and circumstances (including the effects thereof), but only to the extent that each satisfies the requirements above:
 - (a) the following political events that occur inside or directly involve Pakistan (each a **Political Event**):
 - (i) any act of war (whether declared or undeclared), invasion, armed conflict or act of foreign enemy, blockade, embargo, revolution, riot, insurrection, civil commotion, or act or campaign of terrorism or political sabotage; or
 - (ii) any Lapse of Consent of which report to Authority, the Independent Engineer and the Independent Auditor shall have been given under Section 7.6.2 and that shall have existed for thirty (30) consecutive days or more; or
 - (iii) any strike, work-to-rule, go-slow, or analogous labour action that is politically motivated or is widespread or nationwide and that shall have existed for thirty (30) consecutive days or more;
 - (b) the following events beyond the reasonable control of the affected Party (each a **Non Political Event**), including, but not limited to:
 - (i) lightning, fire, earthquake, tsunami, flood, storm, cyclone, typhoon, or tornado, which has, in each case, affected the work or operations for more than fifteen (15) consecutive days; or
 - (ii) any Lapse of Consent of which report to Authority, the Independent Engineer and the Independent Auditor shall have been given under Section 7.6.2 and that shall have existed for less than thirty (30) consecutive days; or
 - (iii) any strike, work-to-rule, go-slow, or analogous labour action that is not politically motivated or is not widespread or nation wide and that shall have existed for thirty (30) consecutive days or more; or
 - (iv) explosion, chemical contamination, radioactive contamination or ionizing radiation; or
 - (v) epidemic or plague.
 - (c) Force Majeure Events shall expressly not include the following conditions, events or circumstances:
 - (i) late delivery or interruption in the delivery of machinery, equipment materials, spare parts or consumables;
 - (ii) a delay in the performance of any Contractor;
 - (iii) a breakdown in machinery and/or equipment; and
 - (v) normal wear and tear or random flaws in materials and equipment,
 - (vi) a delay caused by rainsand monsoons;

provided, that each of the events described in clauses (c)(i), (ii), (iii) or (iv) shall constitute a Force Majeure Event to the extent that such events or circumstances are caused by an event or circumstance that is in itself a Force Majeure Event whether experienced directly by the Concessionaire or by one of its Contractors.

21.2 OBLIGATION TO NOTIFY

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- 21.2.1 Notwithstanding anything contained herein, the Affected Party shall, as soon as practicable, and in any case within seven (7) days of the date of occurrence of a Force Majeure Event or from the date of having knowledge thereof, Notify the Independent Engineer, the Independent Auditor and the other Party, of the occurrence of the Force Majeure Event by the issuance of a notice in writing (the **Force Majeure Notice**).
- 21.2.2 The Affected Party shall provide all relevant details in respect of the Force Majeure Event in the Force Majeure Notice, including but not restricted to the following:
 - (a) the nature and extent of the Force Majeure Event;
 - (b) the estimated Force Majeure Period;
 - (c) the nature of and the extent to which, performance of any of the Affected Party's obligations under this Agreement are affected by the Force Majeure Event;
 - (d) the measures which the Affected Party has taken or proposes to undertake to alleviate/mitigate the impact of the Force Majeure Event and to resume performance of such of its obligations that are affected by the Force Majeure Event; and
 - (e) any other relevant information concerning the Force Majeure Event, and /or the rights and obligations of the Parties under this Agreement.
- 21.2.3 The Parties shall, as soon as practicable upon the receipt of the Force Majeure Notice and in any case within five (5) days from the date of receipt of the same, convene a meeting, along with the Independent Engineer for the purpose of conducting discussions, in good faith, and where necessary the Parties shall agree to conduct inspections and / or surveys of the Project in order to:
 - (a) assess the impact of the underlying Force Majeure Event;
 - (b) to determine the likely duration of Force Majeure Period; and
 - (c) to formulate damage mitigation measures and the steps to be undertaken by the Parties for resumption of the obligations, the performance of which had been affected by the Force Majeure Event.
- 21.2.4 The Affected Party shall during the Force Majeure Period provide to the other Party with regular (not less than weekly) reports in respect of the matters set out Section 21.2.3 and such other information, details and / or documents that the other Party may reasonably require.

21.3 CONSEQUENCE OF FORCE MAJEURE EVENT

- 21.3.1 Upon occurrence of a Force Majeure Event, the following shall apply:
 - (a) there shall be no Termination of this Agreement except in accordance with the provisions of Section 21.5 (*Termination Notice for Force Majeure Event*), Section 21.6 (*Termination Payment for Force Majeure Event*) and Article 23 (*Termination*);
 - (b) in the event of occurrence of a Force Majeure Event:
 - (i) subject to Section 21.8, the Concessionaire shall have the right to apply for a Relief Order Request with respect to the extension of the Project Milestone Dates for the Project Milestones (affected by the Force Majeure Event), in accordance with the provisions of Article 15 (*Relief Orders*);
 - (ii) all costs, fees, expenses and charges arising from and relating to the Force Majeure Event shall be allocated in accordance with Section 21.4 (*Allocation of Costs Arising out of Force Majeure*).

provided, however, that no relief, including extension of Time For Completion, shall be granted to the affected Party to the extent that such failure or delay would nevertheless have been experienced by the Affected Party had the Force Majeure Event not occurred.

21.4 ALLOCATION OF COSTS ARISING OUT OF FORCE MAJEURE

- 21.4.1 Upon occurrence of a Force Majeure Event, the Force Majeure Costs shall be allocated as follows:
 - (a) upon occurrence of a Non Political Event, all Force Majeure Costs shall be on the account of the Concessionaire and the Authority shall not be liable or responsible for the same in any manner;

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(b) upon occurrence of a Political Event, the Authority shall fund and bear the Force Majeure Costs (as set out in a Relief Order) and in such case, the provisions of Article 15 (*Relief Extensions & Relief Compensations*) shall apply.

21.4.2 Not Used

21.4.3 Save and except as expressly provided in this Section 21.4 (*Allocation of Costs Arising out of Force Majeure*) and, if applicable, Section 21.5 (*Termination Notice For Force Majeure Event*) and Section 21.6 (*Termination Payment For Force Majeure Event*), neither Party shall be liable in any manner whatsoever to the other Party in respect of any loss, damage, cost, expense, claims, demands and proceedings relating to or arising out of occurrence or existence of any Force Majeure Event or exercise of any right pursuant hereto.

21.5 TERMINATION NOTICE FOR FORCE MAJEURE EVENT

21.5.1 If:

- (a) a Force Majeure Event subsists for a continuous period of one hundred and twenty (120) days, either Party may in its discretion Terminate this Agreement by issuing a Termination Notice to the other Party; or
- (b) in case of a Political Event, the Authority determines that the Force Majeure Costs relating the same are unacceptable then the Authority may in its discretion Terminate this Agreement by issuing a Termination Notice to the Concessionaire,

in each case above, without being liable in any manner whatsoever, save as provided in this Section 21.5 (*Termination Notice for Force Majeure*) and Section 21.6 (*Termination Payment for Force Majeure Event*), and upon issue of such Termination Notice, this Agreement shall, notwithstanding anything to the contrary contained herein, stand Terminated forthwith; provided, that before issuing such Termination Notice, the Party intending to issue the Termination Notice shall inform the other Party of such intention and grant fifteen (15) days' time to make a representation, and may after the expiry of such fifteen (15) days period, whether or not it is in receipt of such representation, in its sole discretion issue the Termination Notice.

21.6 TERMINATION PAYMENT FOR FORCE MAJEURE EVENT

- 21.6.1 If Termination is on account of a Non Political Event, the Authority shall make a Termination Payment to the Concessionaire on or prior to the Termination Payment Date in an amount equal to the Non Political Event Termination Amount.
- 21.6.2 If Termination is on account of a Political Event, the Authority shall make a Termination Payment to the Concessionaire on or prior to the Termination Payment Date in an amount equal to the Political Event Termination Amounts.

21.7 FORCE MAJEURE DISPUTE RESOLUTION

21.7.1 In the event that the Parties are unable to agree in good faith about the occurrence or existence of a Force Majeure Event, such Dispute shall be finally settled in accordance with the Dispute Resolution Procedure; provided, that the burden of proof as to the occurrence or existence of such Force Majeure Event shall be upon the Party claiming relief and/or excuse on account of such Force Majeure Event.

21.8 EXCUSE FROM PERFORMANCE OF OBLIGATIONS

- 21.8.1 If the Affected Party is rendered wholly or partially unable to perform its obligations under this Agreement because of a Force Majeure Event, it shall be excused from performance of such of its obligations (except payment obligations) to the extent it is unable to perform on account of such Force Majeure Event; provided, that:
 - (a) the suspension of performance shall be of no greater scope and of no longer duration than is reasonably required by the Force Majeure Event and/or of the effects of the same;
 - (b) the Affected Party shall make all reasonable efforts to mitigate or limit damage to the other Party arising out of or as a result of the existence or occurrence of such Force Majeure Event and to cure the same with due diligence; and
 - (c) when the Affected Party is able to resume performance of its obligations under this Agreement, it shall give to the other Party (with a copy to the Independent Engineer and the Independent Auditor) notice to that effect and shall promptly resume performance of its obligations hereunder.

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22. EVENTS OF DEFAULT

22.1 CONCESSIONAIRE EVENT OF DEFAULT

- 22.1.1 Any of the following events shall constitute an event of default by the Concessionaire (the **Concessionaire Event of Default**) unless such event has occurred as a consequence of Permitted Events:
 - (a) any indebtedness of the Concessionaire becomes due and payable prior to its stated maturity due to an event of default under the Financing Documents;
 - (b) the Sponsor Base Equity Amount of the Sponsor of the Concessionaire are not made in the amounts and at the times required by the Funding & Utilization Agreement;
 - (c) any Material Breach by the Concessionaire or the Sponsor of any Authority Agreement which Material Breach has not been cured within forty-five (45) days from the date of written notice thereof by the Authority, or within such time period as provided in the relevant Authority Agreement, respectively;
 - (d) the Concessionaire fails to commence the Site Construction Works within thirty (30) days from the Commencement Date:
 - (e) the Concessionaire fails to achieve Substantial Completion by the date falling ninety (90) days following the Scheduled Substantial Completion Date;
 - (f) any statement, representation or warranty made by the Concessionaire in this Agreement proving to have been incorrect, in any material respect, when made or when reaffirmed and such incorrect statement, representation or warranty having a Material Adverse Effect on the Concessionaire's ability to perform its obligations under this Agreement and/or on the Project or having a Material Adverse Effect on the rights and/or obligations of the Authority hereunder or under the Authority Agreements;
 - (g) the Concessionaire creates any Encumbrance on the Concession Assets in favour of any Person save and except as otherwise expressly permitted in terms of this Agreement;
 - (h) the transfer of the rights and/or obligations of the Concessionaire under this Agreement, save and except as permitted in terms of this Agreement; and/or
 - (i) except for the purpose of amalgamation or reconstruction (provided, that such amalgamation or reconstruction does not affect the ability of the amalgamated or reconstructed entity, as the case may be, to perform its obligations under this Agreement and further; provided, that such amalgamation has been agreed to by the Authority), the occurrence of any of the following events:
 - (i) the passing of a resolution for the dissolution or winding up of the Concessionaire;
 - (ii) the voluntary filing by the Concessionaire of a petition of bankruptcy, moratorium, winding up, or other similar relief;
 - (iii) the appointment of a provisional liquidator in a proceeding for the winding up of the Concessionaire after notice to the Concessionaire and due hearing, which appointment has not been set aside or stayed within ninety (90) days of such appointment;
 - (iv) the making by a court with jurisdiction over the Concessionaire of an order winding up the Concessionaire that is not stayed or reversed by a court of competent authority within ninety (90) days; and/or
 - (v) any proceeding being validly instituted under the Applicable Laws for the dissolution of the Concessionaire or attachment of the Concession Assets in accordance with Applicable Laws that has a Material Adverse Effect and that is not stayed or suspended in ninety (90) days; provided, that, if, within seven (7) business days of the Concessionaire becoming aware of such proceedings being filed, the Concessionaire:
 - (1) confirms to the Authority that such proceedings relate to the recovery of a claim against the Concessionaire that is disputed bona fide by the Concessionaire as payable, and
 - (2) furnishes a certificate by the Independent Auditor to the effect that the Concessionaire is and will remain solvent despite the payment of the claim subject to the said insolvency proceedings,

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then, in such case, the Concessionaire Event of Default set forth in Section 22.1.1(g)(v) shall not constitute a Concessionaire Event of Default until such time that the said certificate by the Independent Auditor is revoked or otherwise ceases to remain accurate;

- (j) an Abandonment by the Concessionaire, without the prior written consent of the Authority, for a period of thirty (30) consecutive days or for an aggregate period of sixty (60) days during any Accounting Year; provided, however, that the Concessionaire shall not be deemed to have Abandoned the Concession Assets so long as it is using all reasonable efforts (as determined by the Independent Engineer) to regain control of the Concession Assets and reinstate its construction and/or Operation and Maintenance, as applicable;
- (k) the Concessionaire is in Material Breach of O&M Requirements;
- (l) any other events or circumstances expressly set out in this Agreement as a Concessionaire Event of Default;
- (m) the Bid Security, Construction Performance Security, or O&M Performance Security in each case, is not issued, renewed, replaced or provided (as the case may be) in accordance with this Agreement or becomes inoperative or ceases to remain valid or in force in breach of the relevant provisions of this Agreement;
- (n) a breach by the Concessionaire of its obligation to take out and maintain the required insurances in accordance with Article 20 (*Insurances*);
- (o) a Change In Control, Change In Complete Control and/or Change In Shareholding has occurred in breach of this Agreement;
- (p) the Concessionaire or the Sponsor repudiate/terminate any of the Authority Agreements or otherwise evidence an intention not to be bound by the same;
- (q) termination of the Project Site Licence Agreement as a result of a material breach by the Concessionaire that is not remedied in accordance with the terms of the Project Site Licence Agreement.
- (r) the Concessionaire has delayed any payment that has fallen due and payable under this Agreement and any of the Authority Agreements and if such delay exceeds sixty (60) days, save where such payment is duly Disputed by the Concessionaire in accordance with this Agreement;
- (s) any assets or shares of the Concessionaire are expropriated, confiscated, compulsorily acquired or nationalised by any Government Authority or entity due to an act or omission of the Concessionaire or its shareholders, causing a Material Adverse Effect;
- (t) (i) the exercise by the Secured Financiers of their remedies under the Financing Documents with respect to either the assets comprising the Concession Assets or any Ordinary Shares pledged to the Secured Financiers under the Financing Documents such that the Concessionaire or its management are removed by the Secured Financiers from control of the Project or of the Concessionaire, and/or (ii) the failure by the Secured Financiers (or the agent of the same) to comply with the Concession Direct Agreement;
- (u) a material breach by the EPC Contractors, the O&M Contractors or any other subcontractor or any of the parties to the Project Agreements or any of their respective contracts with the Concessionaire having a Material Adverse Effect;
- (v) the Concessionaire fails to achieve Project Construction Completion and/or fails to complete the First Major Maintenance and the Second Major Maintenance, in each case, in accordance with the Applicable Standards and/or the timelines set-out in the Applicable Standards (in each case, as certified by the Independent Engineer), which failure continues for a period of thirty (30) days;
- (w) any breach by the Concessionaire of its obligations, including repayment of due amounts on the specified repayment dates, which constitutes an event of default under the Viability Gap Funding Agreement.
- (x) The Concessionaire fails to fund the Major Maintenance Funding Account in accordance with the Financial Model.

22.2 <u>AUTHORITY EVENT OF DEFAULT</u>

22.2.1	The following events shall constitute events of default by the Authority (the Authority Event of Default),
	unless the same has occurred and / or results from a Concessionaire Event of Default or a Force Majeure
	Event:

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- (a) any Material Breach by the Authority of any Authority Agreement and the same has not been cured within forty-five (45) days from the date of written notice thereof by the Concessionaire, or within such time period as provided in the relevant Authority Agreement, respectively;
- (b) any statement, representation or warranty made by the Authority in any Authority Agreement proving to have been incorrect, in any material respect, when made or when reaffirmed and such incorrect statement, representation or warranty having a Material Adverse Effect on the Concessionaire's ability to perform its obligations under this Agreement and/or on the Project;
- (c) any termination, cancellation, resumption or revocation of the Concessionaire's interest established under the Project Site Licence Agreement in respect of the Project Site (otherwise than for a breach of the conditions of the Project Site Licence Agreement by the Concessionaire entitling such termination, cancellation, resumption or revocation);
- (d) any change in any Applicable Laws:
 - (i) making unenforceable, invalid, or void any material undertaking of the Authority under the Authority Agreements; and/or
 - (ii) making:
 - (aa) it unlawful for the Concessionaire, the Financiers or the Sponsor to make or receive any payment, to perform any material obligation or to enjoy or enforce any material right under any Authority Agreement (other than a Change in Law for which compensation is provided in accordance with this Agreement); or
 - (bb) any payment, the performance of any material obligation or the enjoyment or enforcement of any material right unenforceable under any Authority Agreement, invalid or void as a result of any such change in Applicable Laws (other than a Change in Law for which compensation is provided in accordance with this Agreement);
- (e) the expropriation, compulsory acquisition, or nationalization by the Authority or any Government Authority of: (i) any Ordinary Shares in the Concessionaire; or (ii) of any Concession Assets or rights of the Concessionaire;
- (f) any change in, or any change in the interpretation of, any of the Applicable Laws (including the Constitution of Pakistan and any other Applicable Laws that gives effect to the injunctions of Islam, being in the case of a decision of a court, a decision which is no longer in suspense as a result of an appeal) from and after the date of this Agreement having the effect of making:
 - (i) unlawful, unenforceable, invalid, or void any material undertaking of the Authority under any Authority Agreement; or
 - (ii) unlawful for the Concessionaire to make or receive or the Financiers or the Sponsor to receive any payment (including interest or return), for the Concessionaire to perform any material obligation or to enjoy or enforce any material right under this Agreement or any other Project Agreement in relation to the Project; or
 - (iii) any such payment, the performance of any such material obligation or the enjoyment or enforcement of any such material right becoming unenforceable, invalid or void as a result of any such change in the Applicable Laws,

which in the case of (i) (ii) or (iii) above, has a continuing effect for more than one hundred and eighty (180) days without an arrangement being provided to exempt the affected party from the effect of such Change in Law (other than a Change in Law for which compensation is provided in accordance with this Agreement);

- (g) a Change in Law for which no relief is provided under Article 28 (*Change in Law*);
- (h) the Authority has delayed any payment that has fallen due and payable under this Agreement and /or any of the Authority Agreements and if such delay exceeds ninety (90) days, save where such payment is duly Disputed by the Authority in accordance with this Agreement and /or Authority Agreements;
- (i) non-implementation of Toll in accordance with the Toll Implementation Structure and/ or any adverse notification, revocation and/ or amendment of the Toll Notification, provided that the Concessionaire had made a written request at least three (3) months before the date on which the Toll rates had to be revised in accordance with Section 17.5.

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23. TERMINATION

23.1 TERMINATION FOR CONCESSIONAIRE EVENT OF DEFAULT

- 23.1.1 Without prejudice to any other right or remedy which the Authority may have in respect thereof under this Agreement, upon the occurrence and continuation of a Concessionaire Event of Default, the Authority shall be entitled to Terminate this Agreement by issuing a Termination Notice to the Concessionaire; provided, that before issuing the Termination Notice, the Authority shall by a notice in writing inform the Concessionaire of its intention to issue the Termination Notice (the **Authority Preliminary Notice**).
- 23.1.2 In the event the underlying Concessionaire Event of Default is not cured within the Cure Period and the same is subsisting at the expiry of the Cure Period, the Authority shall be entitled to:
 - (a) Terminate this Agreement by issuing the Termination Notice upon expiry of the Cure Period; and
 - (b) encash the Construction Performance Security or the O&M Performance Security, as applicable and in effect as such time, on or following the issuance of the Termination Notice.
- 23.1.3 The following shall apply in respect of Cure Period relating to a Concessionaire Event of Default:
 - (a) the Cure Period provided in this Agreement shall not relieve the Concessionaire from liability for damages (as expressly set out in this Agreement), if any, caused by its underlying breach or default giving rise to the Authority Preliminary Notice;
 - (b) the Cure Period shall not in any way be extended by any period of Suspension under this Agreement;
 - if the cure of any breach by the Concessionaire requires any reasonable action by Concessionaire that must be approved by the Authority and/or the Government Authority hereunder, the applicable Cure Period shall be extended from the date the Concessionaire notifies the Authority of the same until the date that the Authority, and/or the Government Authority, as the case may be, accords the required approval;
 - (d) during any period when any Financing Due is outstanding, the rights of the Parties and the Financiers during the pendency of the Cure Period shall be as set out in the Financing Documents.
- 23.1.4 Upon issuance of a Termination Notice by the Authority (following expiry of the Cure Period) on account of occurrence and continuation of a Concessionaire Event of Default during the Operations Period, the right of the Concessionaire to collect Tolls shall stand terminated, (unless otherwise required by the Financiers and set-out in the Concession Direct Agreement) with immediate effect and no Toll Revenues shall accrue and / or be payable to the Concessionaire from the date of occurrence of the Concessionaire's receipt of the Termination Notice;
- 23.1.5 In the event of Termination due to a Concessionaire Event of Default, the Authority shall pay to the Concessionaire on or prior to the Termination Payment Date, by way of Termination Payment, an amount equal to the Concessionaire Default Termination Amount.

23.2 TERMINATION FOR AUTHORITY EVENT OF DEFAULT

- 23.2.1 Without prejudice to any other right or remedy which the Concessionaire may have in respect thereof under this Agreement, upon the occurrence and continuation of any of the Authority Event of Default, the Concessionaire shall by a notice in writing inform the Authority of its intention to issue the Termination Notice (the **Concessionaire Preliminary Notice**).
- 23.2.2 In the event the underlying Authority Event of Default is not cured by the Authority within the Cure Period and the same is subsisting at the expiry of the Cure Period, the Concessionaire shall be entitled to terminate this Agreement by issuing the Termination Notice upon expiry of the Cure Period.
- 23.2.3 In the event of Termination due to an Authority Event of Default, the Authority shall pay to the Concessionaire on or prior to the Termination Payment Date, by way of Termination Payment, an amount equal to the Authority Default Termination Amount.

23.3 TERMINATION FOR CORRUPT ACTS

23.3.1 The Concessionaire warrants that in entering into this Agreement it has not committed any Corrupt Act.

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- 23.3.2 If any Corrupt Act is committed, then the Authority shall be entitled to act in accordance with the following provisions of this Section 23.3; provided, that at all times the Authority shall bear the burden of proof for establishing that a Corrupt Act has been committed:
 - (a) if the Corrupt Act is committed by the Concessionaire or any Associate of the Concessionaire, as the case may be, then in any such case, the Authority may issue a notice to the Concessionaire of its intent to issue a Termination Notice;
 - (b) if the Corrupt Act is committed by an employee of the Concessionaire, then in such case, the Authority may give written notice to the Concessionaire of its intention to issue a Termination Notice; provided, however, the Authority shall not be entitled to issue a Termination Notice in the event the Concessionaire, within forty-five (45) days of its receipt the Authority's notice stating its intention to issue a Termination Notice, terminates such employee's involvement in the Project and (if necessary) provides evidence to the Authority of the performance of any part of the Project deliverables previously performed by such employee by another person;
 - (c) Not used;
 - (d) Not used;
 - (e) if the Corrupt Act is committed by any other person not specified in sub-section (b) above but involved in the Project as a subcontractor or supplier to any Contractor or to the Concessionaire, then the Authority may give notice to the Concessionaire of its intention to issue a Termination Notice; provided, however, that the Authority shall not be entitled to issue a Termination Notice in the event the Concessionaire, within thirty (30) days of its receipt the Authority's notice stating its intention to issue a Termination Notice, procures the termination of such person's involvement in the Project and (if necessary) procures the performance of the relevant contract and procures the performance of the relevant part of the Project Works by another person.
- 23.3.3 Any notice of intention to issue a Termination Notice by the Authority under this Section 23.3 shall specify:
 - (a) the nature of the Corrupt Act;
 - (b) the identity of the party or parties who the Authority believes has committed the Corrupt Act; and
 - (c) the date on which the Termination Notice will be issued, which date shall be subject to the timelines provided in Section 23.3.2(b) and (e), as applicable.
- 23.3.4 Without prejudice to its other rights or remedies under this Section, the Authority shall be entitled to recover from the Concessionaire, the greater of:
 - the amount or value of the gift, consideration or commission which is the subject of the Corrupt Act;
 and
 - (b) any direct losses (including Losses) sustained by the Authority in consequence of any breach of this Section by the Concessionaire.
- 23.3.5 Nothing contained in this Section shall prevent the Concessionaire from paying any proper commission or bonus to its employees within the agreed terms of their employment.
- 23.3.6 In the event of Termination due to a Corrupt Act in accordance with this Section 23.3, the Authority shall pay to the Concessionaire on or prior to the Termination Payment Date, by way of Termination Payment, an amount equal to the Corrupt Act Termination Amount.

23.4 RIGHTS OF THE AUTHORITY ON TERMINATION AND/OR FINAL EXPIRY DATE

- 23.4.1 In case of Termination of this Agreement for any reason whatsoever and subject to receipt by the Concessionaire of the Termination Payment on or prior to the Transfer Date or in case of expiry of this Agreement on the Final Expiry Date, the Authority shall, on the Transfer Date, have the power and authority to:
 - (a) take possession and control of Concession Assets;
 - (b) prohibit the Concessionaire and any person claiming through or under the Concessionaire from entering upon the Concession Assets or dealing with or any part thereof except in the case where the Concessionaire and any person claiming through or under the Concessionaire enters the Concession Assets or deals with or any part thereof as a User.

23.5 TERMINATION PAYMENTS

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- 23.5.1 The Termination Payment shall be payable to the Concessionaire by the Authority on or prior to the Termination Payment Date in accordance with a demand being made by the Concessionaire in writing, subject to the same being duly certified by the Independent Engineer and Independent Auditor.
- 23.5.2 The recipients of the Termination Payment shall be the holders of the Ordinary Shares; provided, however, for the purposes of calculating the Termination Payment, the term Equity shall exclude all amounts comprising injections to the Equity effected after Project Construction Completion Date; provided, that such amounts shall constitute Equity to the extent the same are part of the Pre Estimated Project Cost and determined by the Independent Auditor to be part of the Total Project Cost.

23.5.3 To the extent:

- (a) the Termination Equity and/or Termination Dividend Amount is payable by the Authority to the Concessionaire upon Termination of this Agreement; and
- (b) the Authority fails to make payment of such due and payable Termination Equity and/or Termination Dividend Amount (the **Unpaid Termination Equity Amount**) by the date falling fifty (50) days following the Termination Payment Date,

then, the Authority shall (in addition to the payment of the due and payable Unpaid Termination Equity Amount) make payment to the Concessionaire of late payment interest on the Unpaid Termination Equity Amount at the rate of Delayed Payment Rate, such interest commencing to accrue on the date falling fifty (50) days following the Termination Payment Date and ending on the actual date on which the Authority makes payment of the Unpaid Termination Equity Amount. The stipulation regarding additional amounts payable in respect of delayed Unpaid Termination Equity Amount contained in this Section 23.5.2 shall not be construed nor be deemed to authorize any delay in payment of any amount due to the Concessionaire nor be construed or deemed to be a waiver of the underlying breach of payment obligations, in each case, in the afore-stated circumstances.

23.6 MODE OF PAYMENT

- 23.6.1 Notwithstanding any instructions to the contrary issued or any dispute raised by the Concessionaire, the Termination Payment, and all other payments that are or may be payable by the Authority under any of the provisions of this Agreement shall, so long as the Financing Due is outstanding, be made only by way of credit directly to a bank account of the Concessionaire designated by the Financiers and advised to the Authority and the Concessionaire in writing and in the event the Financing Due is not outstanding, to a bank account of the Concessionaire notified by the Concessionaire.
- 23.6.2 Notwithstanding anything to the contrary contained in this Agreement, any Termination pursuant to the provisions of this Agreement shall be without prejudice to accrued rights of either Party including its right to claim and recover money damages and other rights and remedies which it may have in law or contract. All rights and obligations of either Party under this Agreement, including without limitation Termination Payment, shall survive the Termination of this Agreement to the extent such survival is necessary for giving effect to such rights and obligations.

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24. DIVESTMENT OF RIGHTS AND INTEREST

24.1 REQUIREMENTS FOR DIVESTMENT

- 24.1.1 In case of (as applicable):
 - (A) Termination of this Agreement prior to Final Expiry Date and subject to the Authority fully complying with all its obligations in respect of making Termination Payments on or prior to the Termination Payment Date; or
 - (B) one (1) year prior to expiry of this Agreement on the Final Expiry Date,

the Concessionaire shall comply with and conform complete compliance with the following requirements by the Transfer Date (the **Divestment Requirements**):

- (a) Notify to the Authority forthwith the location and particulars of all Concession Assets;
- (b) deliver forthwith the actual or constructive possession of the Concession Assets, free and clear of all Encumbrances:
- (c) unless this Agreement is Terminated due to a Permitted Event (excluding Non-Political Event), cure all Concession Assets of all Defects & Deficiencies in accordance with the Handover List; provided, that in the event of Termination during the Construction Period, all Concession Assets shall be handed over on 'as is where is' basis after bringing them to a safe condition;
- (d) deliver and transfer all relevant records, reports, intellectual property and other Licences pertaining to the Concession Assets and its design, engineering, construction, Operation and Maintenance, including all programs and manuals pertaining thereto, and complete 'as built' Construction Drawings, other Construction Drawings and the O&M Documents as on the Transfer Date;
- (e) transfer and/or deliver to the Authority, all Concessionaire Permits to the extent permissible under Applicable Laws;
- (f) execute such deeds of conveyance, documents and other writings as the Authority may reasonably require for conveying, divesting and assigning all the rights, title and interest of the Concessionaire in the Concession Assets, including manufacturers' warranties in respect of any plant or equipment and the right to receive outstanding insurance claims, absolutely unto the Authority or its nominee; and
- (g) train all staff notified by the Authority for Operations and Maintenance in accordance with the O&M Manual;
- (h) comply with all other requirements as may be prescribed or required under Applicable Laws for completing the divestment and assignment of all rights, title and interest of the Concessionaire in the Concession Assets, free from all Encumbrances, absolutely unto the Authority or to its nominee.
- 24.1.2 The Authority may, in its sole discretion, waive any of the Divestment Requirements set forth in Section 24.1.1.

24.2 <u>Inspection and Cure</u>

- 24.2.1 In case of:
 - (a) Termination during the Operations Period, not earlier than thirty (30) days prior to Termination but not later than fifteen (15) days prior to the Transfer Date; or
 - (b) expiry of this Agreement on the Final Expiry Date, not earlier twelve (12) months prior to Transfer Date but not later than six (06) months prior to the Transfer Date,

the Independent Engineer shall verify, after giving due notice to the Concessionaire of the time, date and venue of such verification, compliance by the Concessionaire with the Applicable Standards, and if required, cause appropriate tests to be carried out. In the event of Termination (excluding Termination due to Political Event or an Authority Event of Default) or expiry of this Agreement on the Final Expiry Date, the Concessionaire shall bear the cost for this purpose. In the event of Termination due to Authority Event of Default or Political Event, the Authority shall bear the cost for this purpose. All Defects & Deficiencies shall be cured by the Concessionaire at its cost unless the same is due to a Political Event or an Authority Event of Default in which case, the Authority shall bear such costs.

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24.2.2 Until the Transfer Date, all risks shall vest with the Concessionaire for loss of or damage to the whole or any part of the Concession Assets and following the Transfer Date, all risks in relation to the same shall be deemed to have been transferred to and vest with the Authority.

24.3 COOPERATION AND ASSISTANCE FOR TRANSFER OF THE CONCESSION ASSETS

- 24.3.1 The Parties shall cooperate on a best effort basis and take all necessary measures, in good faith, to achieve a smooth transfer of the Concession Assets in accordance with the provisions of this Agreement so as to protect the safety of and avoid undue delay or inconvenience to the users, other members of the public or the lawful occupiers of any part of the Project Site and the Concession Assets.
- 24.3.2 The Parties shall provide to each other (as applicable):
 - (a) in case of Termination of this Agreement, two (2) months prior to the Termination Payment Date in the event of Termination and immediately in the event of either Party conveying to the other Party its intent to issue a Termination Notice, as the case may be; or
 - (b) in case of expiry of this Agreement on the Final Expiry Date, six (6) months prior to the Final Expiry Date.

as much information and advice as is reasonably practicable regarding the proposed arrangements for operation of the Project following the Transfer Date. The Concessionaire shall further provide such reasonable advice and assistance as the Authority, its appointed concessionaire or agent may reasonably require for operation of the Project until the Transfer Date.

24.4 <u>VESTING CERTIFICATE</u>

- 24.4.1 Subject to:
 - (a) in case of Termination of this Agreement, the Authority fully complying with all its obligations in respect of making Termination Payments on or prior to the Termination Payment Date; or
 - (b) expiry of this Agreement on the Final Expiry Date,

the divestment of all rights, title and interest in the Project shall be deemed to be complete on the Transfer Date, and the Independent Auditor and the Independent Engineer shall jointly, without unreasonable delay, thereupon issue a certificate (the **Vesting Certificate**) substantially in the form set forth in **SCHEDULE O** (*Form of Vesting Certificate*), which will have the effect of constituting evidence of divestment by the Concessionaire of all of its rights, title and interest in the Concession Assets, and their vesting in the Authority pursuant hereto.

24.5 TRANSFER CONSIDERATION

24.5.1 The Parties agree that the Concession Assets shall be transferred to the Authority on the Transfer Date for a sum of (as consideration) PKR 1/- (Pakistani Rupees One only).

24.6 <u>DIVESTMENT COSTS</u>

- 24.6.1 Subject to Section 24.6.2, the Concessionaire shall bear and pay, in case of Termination due to a Concessionaire Event of Default and/or due to Corrupt Act and/or due to a Non Political Event or in case of expiry of this Agreement on the Final Expiry Date, all costs incidental to divestment of all of the rights, title and interest of the Concessionaire in the Concession Assets in favour of the Authority, save and except that all stamp duties payable on any deeds or documents executed by the Concessionaire in connection with such divestment shall be borne by the Authority. In the event of Termination due to a Force Majeure Event and/or an Authority Event of Default, the Authority shall bear and pay all the above mentioned costs.
- 24.6.2 The Authority shall be responsible for the costs and expenses, including stamp duties, taxes, legal fees and expenses incurred in connection with the transfer of the Concession Assets to the Authority or its nominated agency on the Transfer Date. The Authority shall at its own cost obtain or effect all clearances, permits, authorizations, consents and approvals under or pursuant to Applicable Laws and take such other actions as may be necessary for such transfer.
- 24.6.3 In the event of any Dispute relating to matters covered by and under this Article 24 (*Divestment of Rights and Interest*), the Dispute Resolution Procedure shall apply.

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25. DEFECTS LIABILITY DURING EXIT IMPLEMENTATION PERIOD

25.1 <u>Liability for Defects During Exit Implementation Period</u>

- 25.1.1 Without prejudice to any obligation of the Concessionaire in this Agreement, the Concessionaire shall be responsible for all Defects & Deficiencies in the Concession Assets during the Exit Implementation Period in accordance with this Section 25.1.1 and it shall have the obligation to repair or rectify all Defects & Deficiencies observed by the Independent Engineer in the Concession Assets during the aforesaid period, as set out in a list jointly prepared by the Independent Engineer and the Concessionaire (the **Handover List**) within:
 - (a) in case of Termination of this Agreement, two (2) year of the issuance of a Termination Notice;
 - (b) in case of expiry of this Agreement on the Final Expiry Date, two (2) year after the Final Expiry Date.
- 25.1.2 Notwithstanding anything to the contrary set out herein, the provisions of this Article 25 (*Defects Liability During Exit Implementation Period*) shall not apply to any Defects & Deficiencies caused by a Political Event that has resulted in Termination.

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26. DISCLAIMER

26.1 <u>DISCLAIMER</u>

- 26.1.1 Subject to the terms of this Agreement, the Concessionaire acknowledges that prior to the execution of this Agreement, the Concessionaire has, after a complete and careful examination and due diligence, made an independent evaluation of the RFP, the Scope of the Project, the Project Requirements, the Project Site, existing structures, local conditions, physical qualities of ground, subsoil and geology, traffic volumes and all information provided by the Authority or obtained, procured or gathered otherwise, and has determined to its satisfaction the accuracy or otherwise thereof and the nature and extent of difficulties, risks and hazards as are likely to arise or may be faced by it in the course of performance of its obligations hereunder and on the basis of such examination and determinations is entering into this Agreement for the purpose of accepting the Concession for the implementation of the Project in accordance with the terms and conditions of this Agreement. Except as expressly provided in this Agreement, the Authority makes no representation whatsoever, express, implicit or otherwise, regarding the accuracy, adequacy, correctness, reliability and/or completeness of any assessment, assumptions, statement or information provided by it and the Concessionaire confirms that it shall have no claim whatsoever against the Authority in this regard.
- 26.1.2 Subject to the terms of Agreement, the Concessionaire acknowledges and hereby accepts the risk of inadequacy, mistake or error in or relating to any of the matters set forth in Section 26.1.1 and hereby acknowledges and agrees that the Authority shall not be liable for the same in any manner whatsoever to the Concessionaire, the Sponsor and their Associates or any person claiming through or under any of them.
- 26.1.3 Any mistake or error in or relating to any of the matters set forth in Section 26.1.1 shall not vitiate this Agreement or render it voidable.
- 26.1.4 In the event that either Party becomes aware of any mistake or error relating to any of the matters set forth in sub-section 26.1.1 of this Section 26.1 (*Disclaimer*) above, such Party shall immediately notify the other Party, specifying the mistake or error; provided, however, it is expressly agreed between the Parties that any such failure on part of the Authority to give any notice pursuant to this sub-section 26.1.4 of Section 26.1 (*Disclaimer*) shall not prejudice the disclaimer of the Authority contained in sub-section 26.1.1 of this Section 26.1 (*Disclaimer*) and shall not in any manner shift to the Authority any risks assumed by the Concessionaire pursuant to this Agreement.
- 26.1.5 Except as otherwise provided in this Agreement, all risks relating to the Concession Assets shall be borne by the Concessionaire and the Authority shall not be liable in any manner for such risks or the consequences thereof.

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27. ASSIGNMENT AND CHARGES

27.1 RESTRICTION ON ASSIGNMENT AND CHARGES

- 27.1.1 Subject to Section 27.2 (*Permitted Assignment and Charges*) and the Financing Documents, this Agreement shall not be assigned by the Concessionaire to any person, save and except with the prior consent in writing of the Authority, which consent the Authority shall be entitled to decline without assigning any reason.
- 27.1.2 Subject to the provisions of Section 27.2 (Permitted Assignment and Charges), the Concessionaire shall not:
 - (a) create nor permit to subsist any Encumbrance, or otherwise transfer or dispose of all or any of its rights and benefits under this Agreement; or
 - (b) create or permit to subsist any Encumbrance on the Concession Assets or otherwise transfer or dispose of the Concession Assets;

in each case above, except with prior consent in writing of the Authority, which consent the Authority shall be entitled to decline without assigning any reason.

27.2 PERMITTED ASSIGNMENT AND CHARGES

- 27.2.1 The restriction set forth in sub-section 27.1.2 of Section 27.1 (*Restriction on Assignment and Charges*) shall not apply to:
 - (a) liens and Encumbrances arising by operation of law (or by an agreement evidencing the same) in the ordinary course of business of the Project;
 - (b) assignment of rights, interest and obligations of the Concessionaire under this Agreement, the Authority Agreements, and/or the Project Agreements, Encumbrances, pledges/hypothecation of goods/assets, and any and all other bank accounts of the Concessionaire, a mortgage/charge in relation to the Construction Works and the Concession Assets (excluding the Project Site), a charge on the present and future movable, immovable and intellectual property of the Concessionaire, in each case, arising or created as security only for indebtedness to the Financiers under the Financing Documents in accordance with the Financing Term Sheet or the Financing Amendment Term Sheets, as the case may be.

27.3 FINANCING TERM SHEET & FINANCING AMENDMENT TERM SHEETS

- 27.3.1 Prior to Financial Close, the Concessionaire shall deliver to the Authority and the Independent Auditor a schedule or a copy of the term sheet reflecting the proposed material terms of the Financing Documents, and setting forth a principal repayment schedule that provides for financing repayment that is not greater than the aggregate of the Financing Component set out in the Financial Model using the assumptions of the Financial Model, together with the maximum principal amounts and interest (or markup) rate or rates and any schedules or formulae that will be included in the Financing Documents for the computation of principal and interest (or markup), fees and charges payable to the Financiers upon the winding up for early termination of the Financing under the Financing Documents, and shall also identify the equity commitments, individually and in total, of the Sponsor (the Specific Term Sheet Parameters). The Authority and the Independent Auditor will evaluate the Specific Term Sheet Parameters to ensure that the principal financial terms are not greater than the aggregate of the Financing Component set out in the Financial Model using the assumptions of the Financial Model, and to evaluate the impact on the Authority's obligations upon any Termination of this Agreement If Authority and/or the Independent Auditor has any objections to the terms specified in such term sheet or schedule, it shall inform the Concessionaire thereof within thirty (30) days of its receipt thereof; otherwise, the Authority and the Independent Auditor shall be deemed not to have objected to those terms (the Financing Term Sheet) and the Concessionaire shall be entitled thereafter to execute the Financing Documents, consistent with those terms and a principal repayment schedule of the specified term or a shorter term without further notice to or approval by Authority and/or the Independent Auditor. The Concessionaire shall provide the Authority, the Independent Engineer and the Independent Auditor with a copy of the Financing Documents no later than fifteen (15) business days of its execution (provided that, to the extent that the commercial terms of these executed Financing Documents do not materially deviate from the Financing Term Sheet, the Authority and the Independent Auditor shall have no further right to raise any objection in respect of these Financing Documents).
- 27.3.2 Following Financial Close, the Concessionaire shall deliver to the Authority and the Independent Auditor, copies of all amendments to the executed Financing Documents within ten (10) business days after the execution of each such document. The Concessionaire shall not execute any amendment or modification changing or affecting the repayment of principal (including any refinancing or restructuring of payment obligations under any Financing Document) or enter into any loan agreement for secured financing or otherwise incur any additional secured financing without submitting to the Authority and the Independent Auditor, no less than thirty (30) business days prior to execution of such amendment or modification to the

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loan documents or new loan agreements, a schedule or term sheet setting forth the proposed revised principal repayment schedule and the other key financial terms or material modifications related thereto.

- 27.3.3 The Authority and the Independent Auditor shall notify the Concessionaire of any objections to the term sheet or schedule related to the proposed modification to the principal repayment schedule as soon as reasonably possible, and in any case within thirty (30) days of receipt of the term sheet or schedule. In case no objection has been received by the Concessionaire on or before the expiry of the thirty (30) days after receipt of the term sheet or schedule related to the proposed modification, the Authority and the Independent Auditor shall be deemed not to object to those amendments or terms (the **Financing Amendment Term Sheets**). At the request of the Authority and the Independent Auditor, prior to the execution of such amendments or modifications to the Financing Documents or new Financing Documents, the Concessionaire shall deliver to Authority and the Independent Auditor, in a form satisfactory to Authority, assurances, undertakings or agreements that no alteration or enhancement as a result of such refinancing or new or additional debt financing shall increase in any respect the financial obligations of the Authority hereunder or under any Authority Agreement or affect in any way the right of the Authority to acquire the Concession Assets free and clear of all Encumbrances upon the Authority's payment of the applicable Termination Payment.
- 27.3.4 Notwithstanding anything to the contrary, the Concessionaire shall not make any addition, replacement or amendments to any of the Financing Documents without the prior written consent of the Authority if such addition, replacement or amendment has, or may have, the effect of imposing or increasing any financial liability or obligation on the Authority, and in the event that any replacement or amendment is made without such consent, the Concessionaire shall not enforce such replacement or amendment nor permit enforcement thereof against the Authority.

27.4 FINANCIAL CLOSING

27.4.1 Upon achievement of Financial Close, the Concessionaire shall procure issuance by Financiers (or an agent of the same) of a Notice issued to the Authority (with a copy to the Independent Auditor and the Independent Engineer) certifying the achievement of Financial Close (the **Financial Close Achievement Notice**).

27.5 ASSIGNMENT BY THE AUTHORITY

27.5.1 Notwithstanding anything to the contrary contained in this Agreement or any other Authority Agreement, the Authority shall not assign and/ or transfer any of its rights and benefits and/or obligations under this Agreement or any Authority Agreement to an assignee or any Person without the consent of the Concessionaire.

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28. CHANGE IN LAW

28.1 <u>INCREASE IN COSTS</u>

- 28.1.1 If as a result of Change in Law, the Concessionaire suffers an increase in costs or reduction in net after-tax return or other financial burden, the aggregate financial effect of which exceeds of PKR 5,000,000/- (Pak Rupees Five Million) in any Accounting Year (as determined by the Independent Auditor and the Independent Engineer), the Concessionaire may so Notify the Authority and propose amendments to this Agreement so as to place the Concessionaire in the same financial position as it would have enjoyed had there been no such Change in Law resulting in the cost increase, reduction in return or other financial burden as aforesaid. Upon notice by the Concessionaire, the Parties shall meet, as soon as reasonably practicable but no later than thirty (30) days from the date of notice, and either agree on amendments to this Agreement or on any other mutually agreed arrangement; provided, that if no agreement is reached within sixty (60) days of the aforesaid notice, the Concessionaire may by Notice to Authority (as certified by the Independent Engineer and the Independent Auditor) require the Authority to pay the Additional Costs (as determined and certified by the Independent Engineer and the Independent Auditor), and within thirty (30) days of receipt of such Notice, along with particulars thereof, the
- 28.1.2 In the event as a result of a Change in Law the Concessionaire is delayed in performance of any of its obligations under this Agreement, then the Concessionaire shall be entitled to claim and shall be granted an extension in the timelines for performance of its obligations under this Agreement, as determined by the Independent Engineer. Further, the Concessionaire shall be excused from performance of its obligations to the extent it is unable to perform on account of such Change in Law.
- 28.1.3 Notwithstanding anything contained to the contrary in this Agreement, in the event:
 - (a) of failure by the Authority to pay the Additional Costs (as determined by the Independent Engineer and the Independent Auditor) within thirty (30) days of receipt of a Notice (as certified by the Independent Engineer and the Independent Auditor) issued by the Concessionaire in accordance with Section 28.1.1; and/or
 - (b) the Change in Law (together with its effects) subsists for a period of sixty (60) days or more,

the Concessionaire shall have the right to issue a Concessionaire Preliminary Notice to Authority of its intent to terminate this Agreement and, subsequently (at any time after the date falling thirty (30) days from the date of issuance by the Concessionaire of the afore stated Concessionaire Preliminary Notice) immediately Terminate this Agreement by issuance of a Termination Notice.

28.1.4 If Termination is on account of a Change in Law, the Authority shall pay a Change in Law Termination Amount to the Concessionaire.

28.2 <u>REDUCTION IN COSTS</u>

If as a result of Change in Law, the Concessionaire benefits from a reduction in costs or increase in net aftertax return or other financial gains, the aggregate financial effect of which exceeds PKR 5,000,000 (Pak Rupees Five Million) in any Accounting Year (as determined by the Independent Auditor and the Independent Engineer), the Authority may so notify the Concessionaire and propose amendments to this Agreement so as to place the Concessionaire in the same financial position as it would have enjoyed had there been no such Change in Law resulting in the decreased costs, increase in return or other financial gains as aforesaid. Upon notice by the Authority, the Parties shall meet, as soon as reasonably practicable but no later than thirty (30) days from the date of notice, and either agree on such amendments to this Agreement or on any other mutually agreed arrangement; provided, that if no agreement is reached within sixty (60) days of the aforesaid notice, the Authority may by notice require the Concessionaire to pay an amount that would place the Concessionaire in the same financial position that it would have enjoyed had there been no such Change in Law, and within fifteen (15) days of receipt of such notice, along with particulars thereof, the Concessionaire shall pay the amount specified therein to the Authority; provided, that if the Concessionaire shall Dispute such claim of the Authority, the same shall be settled in accordance with the Dispute Resolution Procedure. For the avoidance of doubt, it is agreed that this Section 28.2 (Reduction in Costs) shall be restricted to such Change in Law directly affecting the Concessionaire's costs of performing its obligations under this Agreement.

28.3 RESTRICTION ON CASH COMPENSATION

28.3.1 The Parties acknowledge and agree that the demand for cash compensation under this Article 28 (*Change in Law*) shall be restricted to the effect of Change in Law during the respective Accounting Year and shall be made at any time after commencement of such year, but no later than one (1) year from the close of such Accounting Year. Any demand for cash compensation payable for and in respect of any subsequent Accounting Year shall be made after the commencement of the Accounting Year to which the demand pertains, but no later than one (1) year from the close of such Accounting Year.

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AUTHORITY INITIALS	Concessionaire Initials

29. ADDITIONAL MATTERS

29.1 ADVERTISING & ADVERTISING REVENUES

- 29.1.1 The Authority shall have a right to propose from time to time a plan for various advertising activities to be implemented on the Concession Assets (the **Authority Advertising Plan**). The Authority shall submit the Authority Advertising Plan to the Independent Engineer and the Independent Auditor for each of their approval. In the event, as determined by the Independent Engineer and/or the Independent Auditor, the implementation of the Authority Advertising Plan will cause any delays and/or an impediment to the Concessionaire in the performance of its material obligations under this Agreement and/or causes an adverse financial impact on the Concessionaire and/or has an adverse effect on the safety of the Users, such Authority Advertising Plan can be rejected by the Independent Engineer and the Independent Auditor and the Authority shall have the right to propose a new advertising plan.
- 29.1.2 In the event the Authority Advertising Plan is approved by the Independent Engineer and the Independent Auditor, the Authority shall be fully responsible for the implementation of the Authority Advertising Plan.
- 29.1.3 The Authority exclusively reserves the right to the revenues relating to and/or generated through the approved Authority Advertising Plan from the implementation of the approved Authority Advertising Plan, as determined by the Independent Auditor) (the **Advertising Proceeds**). All Advertising Proceeds shall be paid directly to Authority.

29.2 MONITORING AND OPERATING FEES

29.2.1 The Concessionaire shall pay to the Punjab PPP Authority, in the manner prescribed by the Board (as formulated under the Act), [one (1%) percent of the Pre Estimated Project Cost as monitoring fees], in equal instalments each year for five (5) Operational Years after Commercial Operations Date.

29.3 COMMERCIAL RIGHTS & ADDITIONAL FACILITIES

- 29.3.1 At any time prior to the expiration of the Concession Period, the Authority shall have the exclusive right to establish Additional Facilities along the Project Site or either through the Concessionaire or any other party at its sole and absolute discretion. Nothing contained in this Agreement shall prevent the Authority from granting Additional Development Rights to any person who is not affiliated with the Concessionaire or its shareholders.
- 29.3.2 Subject to Section 29.3.1, nothing contained in this Agreement shall obligate the Authority in any way to grant or deny such Additional Development Rights and its decision regarding such rights will be carried out at its complete discretion. For the avoidance of doubt, Additional Development Rights are not a part of the Concession Assets.
- 29.3.3 For the purposes of implementation by the Authority of its development rights the Concessionaire shall enter into all such agreements as may be reasonably required by the Authority to give full effect to the grant of Additional Development Rights and to enable the Authority to use the Additional Development Rights granted by the Authority and are solely for the benefit of Authority and/or its designated (as notified to the Concessionaire) nominee.

The Authority shall make use of all Additional Development Rights granted to it in such a manner so as not to impair the general integrity of the Concession Assets and with full regard for the safety of all Users and shall implement the Additional Development Rights so as to avoid danger to any such Persons.

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30. DISPUTE RESOLUTION

30.1 DISPUTE RESOLUTION

- 30.1.1 Any dispute, difference or controversy of whatever nature howsoever arising under or out of or in relation to this Agreement (including its interpretation) between the Parties, and so notified in writing by either Party to the other Party (the **Dispute**) shall, in the first instance, be attempted to be resolved amicably in accordance with the conciliation procedure set forth in Section 30.2 (*Conciliation*).
- 30.1.2 The Parties agree to use their best efforts for resolving all Disputes promptly, equitably and in good faith, and further agree to provide each other with reasonable access during normal business hours to all non-privileged records, information and data pertaining to any Dispute.

30.2 CONCILIATION AND MEDIATION

- 30.2.1 In the event of any Dispute between the Parties, either Party may call upon the Independent Engineer and/or the Independent Auditor, as the case may be, to mediate and assist the Parties in arriving at an amicable settlement thereof. Failing mediation by the Independent Engineer and/or the Independent Auditor as the case may be, either Party may request for their departmental heads to meet to resolve such Dispute. In the event the Parties are unable to resolve the matters through conciliation, within thirty (30) days (or such extended period as mutually agreed by the Parties) of commencement of the conciliation process in terms of this Section 30.2.1, either Party may approach the Board to appoint a mediator to resolve the matter
- 30.2.2 If no consensus is achieved, the Parties shall dispute in an amicable manner by mediation by an independent and impartial mediator appointed by the Board. In the event the Parties are unable to resolve the matters through mediation, either Party may refer the Dispute to arbitration in accordance with the provisions of Section 30.3 (*Arbitration*).

30.3 <u>Arbitration</u>

- 30.3.1 Any Dispute which is not resolved amicably by conciliation, as provided in Section 30.2 (*Conciliation*), shall be finally decided by reference to arbitration by a board of arbitrators (the "**Board of Arbitrators**") appointed in accordance with Section 30.3.3. Such arbitration shall be held in accordance with the provisions of the Arbitration Act.
- 30.3.2 The venue and seat of such arbitration shall be Rawalpindi.
- 30.3.3 There shall be a Board of Arbitrators consisting of three (3) arbitrators, of whom each Party shall select one, and the third arbitrator shall be appointed by the two (2) arbitrators so selected, and in the event the two (2) arbitrators are unable to agree on the third arbitrator, then the same will be appointed in accordance with the Arbitration Act.
- 30.3.4 The arbitrators shall make a reasoned award (the **Award**). Any Award made in any arbitration held pursuant to this Article 30 (*Dispute Resolution*) shall be final and binding on the Parties as from the date it is made, and the Concessionaire and the Authority agree and undertake to carry out such Award without delay.
- 30.3.5 The Concessionaire and the Authority agree that an Award may be enforced against the Concessionaire and/or the Authority, as the case may be, and their respective assets wherever situated.
- 30.3.6 This Agreement and the rights and obligations of the Parties shall remain in full force and effect, pending the Award in any arbitration proceedings hereunder.

31. MISCELLANEOUS

31.1 GOVERNING LAW AND JURISDICTION

31.1.1 This Agreement shall be construed and interpreted in accordance with and governed by the Applicable Laws and the courts of appropriate jurisdiction in the Province of Punjab shall have the exclusive jurisdiction over all Disputes or matters arising out of or relating to this Agreement.

[The regulation, rights and responsibilities of the Authority in relation to laws applicable provincially shall continue to be in force in respect of the Project except in so far as they are removed or amended, explicitly or implicitly, by this Agreement which in all respects shall take precedence (subject to Change in Law and the relevant provisions of this Agreement).

31.2 WAIVER

31.2.1 Waiver by either Party of any default by the other Party in the observance and performance of any provision of or obligations or under this Agreement:

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- (a) shall not operate or be construed as a waiver of any other or subsequent default hereof or of other provisions or obligations under this Agreement;
- (b) shall not be effective unless it is in writing and executed by a duly authorized representative of such Party; and
- (c) shall not affect the validity or enforceability of this Agreement in any manner.
- 31.2.2 Neither the failure by either Party to insist on any occasion upon the performance of the terms, conditions and provisions of this Agreement or any obligation thereunder nor time or other indulgence granted by a Party to the other Party shall be treated or deemed as waiver of such breach or acceptance of any variation or the relinquishment of any such right hereunder.

31.3 <u>Survival</u>

31.3.1 Termination of this Agreement (a) shall not relieve the Concessionaire or the Authority of any obligations hereunder which expressly or by implication survives Termination hereof, and (b) except as otherwise provided in any provision of this Agreement expressly limiting the liability of either Party, shall not relieve either Party of any obligations or liabilities for loss or damage to the other Party arising out of or caused by acts or omissions of such Party prior to the effectiveness of such Termination or arising out of such Termination.

31.4 <u>AMENDMENTS</u>

31.4.1 This Agreement and the Schedules together constitute a complete and exclusive statement of the terms of this Agreement between the Parties on the subject hereof and no amendment or modification hereto shall be valid and effective unless agreed to by all the Parties hereto and evidenced in writing subject to the approval of the Board.

31.5 NOTICES

31.5.1 Unless otherwise stated, notices to be given under this Agreement including but not limited to a notice of waiver of any term, breach of any term of this Agreement and Termination of this Agreement, shall be in writing and shall be given by hand delivery, recognized international courier, mail, telex or facsimile transmission and delivered or transmitted to the Parties at their respective addresses set forth below in SCHEDULE S (*Notices*) or such address, telex number, or facsimile number as may be duly notified by the respective Parties from time to time, and shall be deemed to have been made or delivered (a) in the case of any communication made by letter, when delivered by hand, by recognized international courier or by mail (registered, return receipt requested) at that address and (b) in the case of any communication made by telex or facsimile, when transmitted properly addressed to such telex number or facsimile number.

31.6 CONFIDENTIALITY

- 31.6.1 Each of the Parties and their Contractors (including the Concessionaire Engaged Persons), subcontractors, consultants, employees and agents and each of their respective successors and permitted assigns shall hold in confidence all documents and other information, whether technical or commercial, supplied to it by or on behalf of the other Party, relating to the design, construction, insurance, Operation and Maintenance, transfer, management and Financing of the Concession Assets, and all information and documents obtained in accordance with the terms of the Authority Agreements, and shall not, without the consent of the other Party, save as required by Applicable Laws or appropriate regulatory authorities, prospective lenders to, or investors in the Concessionaire and their professional advisers, publish or otherwise disclose or use the same for its own purposes otherwise than as may be required to perform its obligations under this Agreement. Notwithstanding the above, nothing herein contained shall preclude the use of provisions similar to those contained in the Authority Agreements and the other agreements referred to herein and in agreements prepared and issued or to be prepared and issued in connection with other projects by the Authority.
- 31.6.2 The provisions of paragraph (a) hereinabove shall not apply to:
 - (a) any information in the public domain otherwise than by breach of this Agreement or any other Authority Agreement;
 - (b) information in the possession of the receiving Party thereof before divulgence as aforesaid, and which was not obtained under any obligation of confidentiality.

31.7 SEVERABILITY

31.7.1 If for any reason whatever any provision of this Agreement is or becomes invalid, illegal or unenforceable or is declared by any court of competent jurisdiction or any other instrumentality to be invalid, illegal or unenforceable, the validity, legality or enforceability of the remaining provisions shall not be affected in any

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manner, and the Parties will negotiate in good faith with a view to agreeing upon one or more provisions which may be substituted for such invalid, unenforceable or illegal provisions, as nearly as is practicable.

31.8 COST OVERRUNS

31.8.1 Notwithstanding anything contained in this Agreement, the Authority shall only be liable to pay for any costs, expenses, losses, charges or fees of any nature pursuant to this Agreement as expressly stated in this Agreement. Unless otherwise provided, any cost overruns incurred by the Concessionaire over and above the Pre Estimated Project Costs as provided in the Base Case Financial Model, shall solely be the responsibility of the Concessionaire.

31.9 NOTIFICATION FOR MAXIMUM WEIGHING VEHICLES

31.9.1 As a safeguard for the Concessionaire, the Authority hereby agrees that it shall take all reasonable measures to issue notifications for limitation on permissible gross vehicle weight, maximum axle load, and vehicle width, height and length to be allowed on the Project Highway.

31.10 NO PARTNERSHIP

- 31.10.1 Nothing contained in this Agreement shall be construed or interpreted as constituting a partnership between the Parties. Neither Party shall have any authority to bind the other in any manner whatsoever.
- 31.10.2 Notwithstanding anything to the contrary set out in this Agreement or elsewhere, nothing contained in this Agreement shall be construed or interpreted as the Concessionaire providing designing and/or engineering consulting services to the Authority.

31.11 LANGUAGE

31.11.1 All notices required to be given under this Agreement and all communications, documentation and proceedings which are in any way relevant to this Agreement shall be in writing and in English language.

31.12 EXCLUSION OF IMPLIED WARRANTIES

31.12.1 This Agreement expressly excludes any warranty, condition or other undertaking implied at law or by custom or otherwise arising out of any other agreement (except the Authority Agreements) between the Parties or any representation by any Party not contained in a binding legal agreement executed by the Parties.

31.13 COUNTERPARTS

31.13.1 This Agreement shall be executed in two counterparts, each of which when executed and delivered shall constitute an original of this Agreement.

31.14 <u>Set-Off</u>

31.14.1 Each Party shall have the right to withhold and set-off against any amount it is liable to pay to the other Party hereunder, the amount of any payment due by one Party to the other under this Agreement.

31.15 <u>Late Payment</u>

- 31.15.1 If any sum which becomes payable under any term of this Agreement by Authority to the Concessionaire is not paid within the time allowed for payment thereof, Authority shall together with such delayed payment also pay an additional amount on such sum at the rate of the Delayed Payment Rate calculated from the date falling fifty (50) days from the due date for payment thereof until the same is paid to or otherwise realized by the Concessionaire.
- 31.15.2 If any sum which becomes payable under any term of this Agreement by Concessionaire to the Authority is not paid within the time allowed for payment thereof, Concessionaire shall together with such delayed payment also pay an additional amount on such sum at the rate of the Delayed Payment Rate calculated from the date falling fifty (50) days from the due date for payment thereof until the same is paid to or otherwise realized by the Authority.

31.16 INDEPENDENCE

31.16.1 In respect of all matters dealing with the Agreement, the Independent Engineer and the Independent Auditor shall be independent and shall ensure that it performs all its obligations in accordance with their respective terms of reference and this Agreement.

31.17 ENTIRE AGREEMENT

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31.17.1	applicable),	as at the d	ate hereof, co	onstitutes the	e entire und	erstanding	between tl	ne Parties 1	greements, as regarding the regarding the
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LIST OF SCHEDULES

SCHEDULE	Δ_	SCOPE OF	THE P	POIECT

SCHEDULE B - DESIGN REQUIREMENTS

SCHEDULE C -LIST OF CONSTRUCTION DRAWINGS

SCHEDULE D - PROJECT FACILITIES

SCHEDULE E - PROJECT CONSTRUCTION COMPLETION SCHEDULE

SCHEDULE F - PROJECT SITE

SCHEDULE G - DETAILED PROJECT REPORT

SCHEDULE H - O&M REQUIREMENTS

SCHEDULE I – PART I– CONSTRUCTION PERIOD INSURANCES

SCHEDULE I - PART II- OPERATION PERIOD INSURANCES

SCHEDULE J – SPECIFIED CONCESSIONAIRE PERMITS

SCHEDULE K - CORPORATE DOCUMENTS

SCHEDULE L – FORM OF CONSTRUCTION PERFORMANCE SECURITY

SCHEDULE M – FORM OF O&M PERFORMANCE SECURITY

SCHEDULE N –INDICATIVE INDEPENDENT AUDITOR TERMS OF REFERENCE

SCHEDULE N - PART II-INDICATIVE INDEPENDENT ENGINEER TERMS OF REFERENCE

SCHEDULE O – FORM OF VESTING CERTIFICATE

SCHEDULE P - TOLL NOTIFICATION STRUCTURE

SCHEDULE Q-ITS

SCHEDULE R - TOLL NOTIFICATION

SCHEDULE S – NOTICES

SCHEDULE T – TERMINATION PAYMENTS

SCHEDULE U – FINANCIAL MODEL

SCHEDULE V – OPERATION AND MAINTENANCE OF PORTION OF THE CPEC ROUTE

SCHEDULE W-INTERCHANGES

SCHEDULE X – PERMITTED ENCUMBRANCES

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SCHEDULE A - SCOPE OF THE PROJECT

1. DETAILED PROJECT SCOPE

Terms of Reference to achieve overall objectives of the Project are as follows:

1.1 GENERAL

The proposed Rawalpindi Ring road project is located in district Rawalpindi and the alignment is traversing along the southern outer periphery of Rawalpindi city from East to West direction. It will originate from N-5 near radio Pakistan transmitters and terminates at N-5 near Sangjani. The Total Length of this project is approximately sixty five point three kilometers (65.3km) which is indicative at this stage. Exact length shall be determined at the Detailed Design stage. Proposed right of way (ROW) of 110 meters has been adopted in general for the whole alignment of the Project.

The Concessionaire shall be responsible for the overall implementation of the Project, including but not limited to the investigation, study, engineering, procurement, construction, financing and Operation and Maintenance of the Project in line with the terms and conditions and the minimum technical standards defined in **SCHEDULE G** (*Detailed Project Report*) prepared by NESPAK and attached with the RFP.

1.2 PROJECT COMPONENTS

Project Components include detailed design, construction, operation and maintenance of following listed items:

- 1. Construction of dual carriage way ring road with a central divider (NJB) and a design speed of 120km/hr for the length between start and end points as mentioned in section 1.0 and 2.0 of this Schedule –A in three segments:
- i. From BOP at N-5 (near Radio Pakistan) up to DI Khan-Hakla existing motorway (51.7 km) shall be six-lane dual carriageway (3+3 lanes both sides).
- ii. From DI Khan-Hakla motorway Interchange up to M-1 Peshawar -Islamabad motorway (9km) shall be 2+2 rigid pavements both sides parallel to the existing motorway.
- iii. From M-1 Peshawar -Islamabad motorway up to Sangjani at N-5 EOP (4.6km) shall be six-lane dual carriageway (3 + 3 lanes both sides).

Major components include earthworks, pavement works, ancillary works Roadway will have an integral subgrade width of approximately 32m. The standard lane width for a free way of approximately 3.60m shall be adopted with 1m asphaltic inner and 3.0m TST outer shoulder. The average embankment height shall be 3.5m with a side slope of 2:1 depending on the soil angle of repose. Road furniture comprising of lane markings, traffic signs, metallic Beam guardrails and reflectors shall be provided as shown in the typical cross-sections (DPR). Provision of service roads/tracks throughout the entire length to compensate farm to market roads where required for the smooth connectivity of traffic.

- 2. Improvement/upgrading/rehabilitation of exiting two lane road crossings through flyover/bridges between start and end points, to meet the Applicable Standards set forth in the relevant Schedules of this Concession Agreement.
- 3. Construction of 2 major bridges over river and 7 bridges over Nullahs.
- 4. Construction of 30 major Flyover/Overpass bridges at existing road crossings.
- 5. Construction of 7 underpasses and 18 cattle creep at minor road/track crossings.
- 6. Concessionaire shall carryout a detailed condition evaluation of Cattle creep, culverts, and shall decide, the number of non-vehicular crossings for construction.
- 7. State of the art fully automated four (4) toll Plazas at four interchanges shall be established with multimodal and express lanes subject to approved detailed design, duly equipped with Intelligent Transportation System located as per Layout. Tentative locations of Toll Plazas are shown in the Project design Plan in DPR. Exact location to be decided by Concessionaire Moreover, Concessionaire may provide more toll plazas, with the approval of Authority.
- 8. Four (4) new weigh stations on both sides shall be provided.
- 9. Construction of toll control building four (4) nos. along with residences for tolling staff.

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- Construction of Office & Residence for RRR Authority. Exact location to be decided by Concessionaire.
- 11. The ring road shall be fenced facility covering maximum possible width to secure the future extension of the roadway, except that the urbanized area at either end of the ring road shall only be fenced to the extent required and possible;
- 12. The Concessionaire shall also be responsible for providing any additional future lanes for the Ring road.
- 13. Service road outside the ring road fence shall be provided. The Service Road shall crisscross the main road using available structures. Ultimately the Service Roads shall be provided on both sides, when settlements/traffic requirements justify.
- 14. Interchanges as per Schedule W Interchanges shall be established by the Concessionaire;
- 15. The Concessionaire shall also facilitate any future development requirements of any additional Interchanges in accordance with the mechanism specified in this Agreement.
- 16. ITS as per Schedule-Q
- 17. The Concessionaire shall ensure installation of the ITS services in prior to the Project Highway Section Service Commencement Date
- 18. Road furniture design and road structure safety features including, but not limited to, the Reflectorized lane markings, Emergency parking areas, Rumbles strips, Ring road signage and Gantries as per the international Highways standards, Installation of lighting and reflectorized lane marking along the entire length as well as interchanges and Toll Plazas as per NTRC Standard Manual for Pakistan. Raised pavement markers shall be fixed as per international standards, Informative and other road signage shall be as per AASHTO standards;
- 19. Lighting of the Ring Road along the complete length, Interchanges and critical areas, i.e. Toll Plazas, weigh stations, both sides along the entire ring road, underpasses and pedestrian bridges etc.
- 20. Provision of utility ducts along the carriageway and crossing of future utilities like OFC, suigas pipeline, water pipelines etc. The execution of work for utility ducts will be carried out on interface with the mutual understanding of the Concessionaire and concerned agency.
- 21. The access / connectivity of the Ring Road to local residence will be borne by the Concessionaire with the mutual consent of the Authority.
- 22. Procure, operate and maintain six (6) No's of ambulance.
- 23. Procure, operate and maintain four (4) No's crane for stranded vehicles.
- 24. Procure, operate and maintain eight (8) No's police patrolling vehicles.

1.3 PROJECT ALIGNMENT

The proposed road will be originated from G.T Road (N-5) near Radio Pakistan transmitters at km 0+000. The major areas through which the proposed alignment is passing is enlisted below:

Rawat - Chakbeli Road

Bahria town

Soan River

Adiala Road

Chakri Road

Motorway (M-2) near Murat

New Islamabad International Airport

Hakla – DI Khan Motorway

Motorway (M-1)

And will be terminated on G.T road (N-5) near Sangjani at km 65+300.

The developed alignment confirmed to 120 Km /hr. speed (The Project Design Speed is mentioned in the relevant sections/schedules of this Concession Agreement).

The Concessionaire, under this Concession Agreement, is required to construct the above mentioned 6-lane divided highway facility as per the design standards/specifications and cross-sectional elements (Schematics of Typical Cross-sections are attached).

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1.4 DETAILED DESIGN OF THE PROJECT

Detailed design shall be based on preliminary design and its parameters as mentioned in RFP Documents.

1.5 CONSTRUCTION OF THE PROJECT ROAD, BRIDGES, CULVERTS AND ANCILLARIES

- The Concessionaire will be responsible for all aspects of construction in conformity with AASHTO
 Design standards, the NHA General Specifications, 1998, ASTM, MUTCD, AASHTO-LRFD, and
 WPHC-1967 and in accordance with the Concession Agreement, including the Construction
 Requirements, as set out in the Concession Agreement.
- During construction, the Concessionaire will be required to comply with the traffic management requirements set out in the Concession Agreement to minimize the impact of construction on other roads and provide certainty for Users.
- As stated in the Concession Agreement, the Concessionaire must plan for the Substantial Completion Date no later than twenty-four (24) months after the Commencement Date.
- Cost overruns and delays in completing the work shall be governed by the Concession Agreement and related Authority Agreements.

1.6 THE CONCESSIONAIRE SHALL NEED TO:

- Construct the Project within estimated time and the Construction Time For Completion
- Carry-out all quality control tests as per NHA General Specifications, (latest AASHTO recommendations) (see SCHEDULE G (*List of Tests & Completion Tests*) of the Concession Agreement as per AASHTO and ASTM references). Records of tests will be signed-off by the Independent Engineer
- Submit Constructions Programme of the Project
- Submit road safety plan and issues diversion plan during construction to obtain control of traffic and minimum hindrance to traffic and make proper liaison with the local police and other relevant civil and district administration/authorities of the area before commencement of work.
- The Concessionaire should provide independent supervision officer and facilitates their offices and inspection vehicles
- Construction material will be used from approved sources with appropriate tests and certification
- The Concessionaire has to make sure that the Project Site is clean from any debris, construction material and-machinery during Operation Period
- International and local safety standards and best practice procedure should be followed during Construction Period
- The Concessionaire has to submit the 'As-built drawings' at completion of Works in accordance with the Concession Agreement

1.7 FACILITIES TO BE PROVIDED BY CONCESSIONAIRE:

1.7.1 **Temporary Water Supply**

- The Concessionaire shall be responsible for supply of water for construction activities, for offices and accommodation of Concessionaire
- Where water tank and pumps are temporarily removed, supply to the property must be maintained by the Concessionaire

1.7.2 **Engineer's Facilities**

• The Concessionaire shall provide following facilities for the Independent Engineer and its staff:

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➤ Construct/Provide, furnish, equip and maintain site office

The office shall be provided/constructed, furnished, equipped and maintained by the Concessionaire, at all times for the duration of the Concession Period including extension period if any

Provide, furnish equip and maintain accommodation

The accommodation shall be rented, furnished, equipped and maintained by the Concessionaire, at all times for the duration of the Concession Period including extension period if any

Survey Equipment

The Survey equipment and their accessories shall be provided and maintained by the Concessionaire along with survey helpers and all consumables, at all times for the duration of the Concession Period including extension period if any

Vehicles

Vehicles shall be provided with driver, fuel, maintenance, insurance, registration etc. by the Concessionaire at all times for the `Concession Period including extension period if any.

1.7.3 **Laboratory facility with testing equipment:**

- The Concessionaire shall furnish the laboratory testing facility with testing equipment, services, supplies, attendants, furniture and its running and maintenance cost for the tests to be conducted
- All tests shall be executed according to AASHTO, ASTM and BS standards as provided in NHA General Specifications, 1998 and all required equipment for facilitation of tests should be furnished in the lab with two sets of latest edition of prescribed standards (one to be placed in the laboratory and other for the Independent Engineer)
- **Note:** The Concessionaire should submit the list of tests to be carried out and their sample forms in the proposed methodology

1.7.4 Temporary road, traffic management and control, general protection

- Layout plans showing the detailed proposals of temporary diversions to be carried out by the Concessionaire/its Contractor(s) shall be submitted to the Independent Engineer and to concerned district police, civil agencies and local administration for their written approval 10 days before the implantation date
- Diversions must be constructed in advance of any interference within the right of way / existing carriage way and shall be maintained in accordance to traffic load in a condition satisfactory to the Independent Engineer

1.7.5 **Operation and Maintenance**

- The Concessionaire is required to carry out the Operation and Maintenance in respect of the Project in conformity with AASHTO standards and in accordance with the Concession Agreement. The Operation and Maintenance O&M Requirements which are set out in the Main Body of the Concession Agreement (including Article 19 (*Operation and Maintenance*)) and SCHEDULE H (*O&M Requirements*) of the Concession Agreement
- The general scope of Operation and Maintenance includes all services associated with the planning, management and delivery of the operations, maintenance and asset preservation activities to ensure compliance with AASHTO standards and with all performance measures set out in the Concession Agreement
- The Project should not require a Major Maintenance before ten years of Project Highway Section Completion Date and afterwards, should not require another major maintenance before ten years of first Major Maintenance. The Concessionaire shall build the Major Maintenance expense into their Annuity Amount Payments for that year; however, the payment for the Major Maintenance shall be made at the time of actual expense only after certification by the Independent Engineer and the Independent Auditor.

1.7.6 **OPERATIONS Role**

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- The Concessionaire should ensure the smooth flow of vehicles and minimization of traffic delay and closures
- The Concessionaire should ensure the safety of commuters and shall provide emergency support to commuters
- Control building, safety vehicles, tow trucks, ambulances, patrolling vehicles should be used by developer to ensure smooth operations of Project Works
- The Concessionaire should ensure the administration, monitoring of conditions, traffic control, assessment of the need for load restriction, posting of warnings to vehicles, and signage
- Other facilitations will be operated and maintained by the Concessionaire
- Quality management on a self-auditing basis, in conformity with AASHTO testing procedures

1.7.7 **Operation Methodology**

- Patrolling on two hour intervals at night, on 12/7/365 basis
- Patrolling on three hour intervals at day, on 12/7/365 basis
- Emergency & Rescue response system
- Provision of Tow away facilities
- Provision of emergency medical services/ambulance/clinic
- Maintaining traffic sign maintenance data
- Maintaining Cat eyes
- Maintaining Road marking
- Maintaining Culverts
- Maintaining road
- Maintaining weigh bridges
- Maintaining weight violations data
- Maintaining death/injuries data
- Preparing periodic report with peak hour flows and peak day flows and other statistics
- Maintaining operational crew & equipment for emergency Maintenance
- Preparing and implementing education programs and campaigns on:
 - Road safety and customer safety
 - Customer response & comments
 - Customer awareness
 - Operational staff awareness
 - Incentives for fragment road users
 - ➤ Maintaining fire fighting systems

1.7.8 Maintenance Role		
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The Concessionaire shall maintain the Concession Assets including road pavement, structures, pavement markings, drainage infrastructure, electrical systems, mechanical installations, closed landfill sites, environment, inspections, periodic repairs, traffic maintenance, toll booths, toll collection buildings and emergency maintenance.

a) Annual/Routine Maintenance (after construction phase)

- Isolated holes, pot holes, fold pavements, skin patch, windings and rutting in asphaltic layer should immediately be repaired
- Any damages to side barrier due to any accident or other causes should immediately be repaired
- Road Marking Maintenance
- Cat's Eyes Maintenance
- Traffic Sign Maintenance
- Minor maintenance due to damage caused by Road accidents

Any damage to above items due to any reason, immediately be repaired and maintained.

b) **Periodic/Major Maintenance**

- Over-lays (two overlays, first after 10 years of Project Highway Section Completion Date and second on 10th year of first overlay). Standard procedure be adopted for overlay as approved by the Independent Engineer.
- Potholes Maintenance
- Guard Rail / NJ Barrier Maintenance
- Shoulder Maintenance
- New Road Marking.
- International Road Roughness Test at selected sections identified by an Independent Engineer should be carried-out at every three years of operation and any portion of pavement found failed should be maintained as per AASHTO standards with approval from Independent Engineer. All the formalities will be checked for their stability and smooth operation.

The Concessionaire is required to carry out Project appraisal in detail and price the same in accordance with foreseen work. The construction of the Project is to be completed within 24-months of the Commencement Date and the bids not accompanied with the workable completion schedule of 24-months construction period shall be declared as non- responsive. Any deviation on from the submitted schedule by the successful bidder till the signing of Concession Agreement shall be treated as a breach and shall cause forfeiture of security deposit unless an agreement, in writing, is reached with the Authority for such a change.

1.8 <u>FINANCING</u>

- a. The Concessionaire is responsible for developing and implementing the financing structure for the Concession including the financing and commercial arrangements for the design, construction, operations and maintenance work in accordance with the Concession Agreement
- b. The Concessionaire shall get incorporated a company exclusively for the purpose of implementing the Project ("Project Company" and/ or "SPV"). The Concessionaire shall not undertake or permit and hereby undertakes to procure that the Sponsors do not undertake or permit any Change in Ownership And/or Control during the Concession Period, except as may be permitted pursuant to the Concession Agreement.

1.9 HAND-OVER OF THE STRUCTURE

The Concessionaire is responsible for handing over the structures to the Authority in a good working condition at the end of the Concession Period as specified in the Concession Agreement without any further compensation to the Concessionaire at the time of such transfer. These structures are subject to an inspection and correction process in order to ensure that they are handed over in accordance with established terms and conditions in compliance with the requirements set forth in this agreement.

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SCHEDULE B – DESIGN AND CONSTRUCTION REQUIREMENTS

1. PROJECT REQUIREMENTS

- The Project requirements shall conform to the minimum design requirements set out in this SCHEDULE B (Design Requirement) on the basis of which the Volume III Preliminary Design Report (PDR) has been prepared. Preliminary Design Report, Drawings and Setting out & Profile Data are included in PDR to lay down minimum design requirements of the Project for the purpose of bid. Functional parameters of the Project as given in the geometric design criteria in Detailed Design Report are the minimum requirements and must be met by the Concessionaire while preparing detailed design. However, during design and implementation stage and without reducing these functional parameters and/or without prejudice to any other term of this Agreement, the Concessionaire may, due to unpredictable circumstances or any other practical reason, suggest an alternate/improved design for any component of the Project e.g. Flyover, bridge structures, road pavement structure, rigid pavement etc. the Concessionaire shall submit its alternate design along with specifications to the Independent Engineer/the Authority for review and approval. Such alternate design, if approved by the Independent Engineer and the Authority, may replace the relevant part of the design.
- b) At least two (2) weeks prior to commencement of the design work, the Concessionaire shall finalize a quality assurance plan for the design work (Quality Assurance Plan).
- c) The cross section of the road within ROW may vary depending on the decision of the Authority regarding additional lane/ service roads to be provided or not along the main carriageway for future development. Such adjustment, if any, will be communicated to the Concessionaire before signing the Agreement.
- d) Carryout map/ satellite photographs study and review of all material/documents/studies/preliminary design/drawings provided supplemented with area reconnaissance and detailed topographic survey, study options for alignment of additional carriageway, design of in-route towns and present all options with merits and demerits after ground assessment of salient features of each alignment.
- e) For items other than main road, Interchanges, subways, bridge and culverts, where tailor-made specifications are not available in the PDR, the same shall be finalized in consultation with the Independent Engineer.
- f) Preparation of schemes for highway development, restriction on building lines, control lines, control of access, prevention of unauthorized occupation of land and removal of encroachment shall be as per regulations of Government of the Punjab.
- g) Guidelines for the selection of material grades/types of bitumen and the use of other additives, e.g. anti-stripping agents for mixes as given in the Project Specifications shall be followed.
- h) Concessionaire shall perform all requisite soil investigations before design of any structure. Carry out soil & material investigation to determine the "Subsoil Condition", other required soil tests and analysis for the authenticity of any available report as the Authority will not be liable to any discrepancy. Material used in the fill and its compaction requirements shall conform to the Project Specifications. Carry out condition survey of existing cross structure (bridges, culverts, drains, retaining walls etc.), and pavement structure to determine load carrying capacity, strength evaluation, rehabilitation methodologies
- i) Carry out hydrological studies for each structure by determining catchment areas for each and every structure.
- j) Carry out geotechnical investigations for new bridges (where required)
- k) Carry out traffic surveys and studies. Due consideration should be given to heavy vehicles/large vehicles traversing the Project road.

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- 1) Carry out study for drainage, bus stops lanes if any, parking areas if any, and service roads (if the existing Right of Way permits and as defined in the Preliminary design.
- m) Prepare Construction Drawings
- n) Preparation of land acquisition and utility/infrastructures relocation folders
- 0) The Concessionaire shall comply with all the conditions set—out in the Environmental Impact Study and EIA Approval obtained by the Authority in accordance with the Applicable Laws.
- o) Land acquisition and clearance of encroachment will be the responsibility of the Authority
- Carry out a detailed design for weigh bridges, offices and residence of operation and maintenance staff.
- q) Give detailed plan of implementation strategy
- r) In addition to the infrastructure connectivity relating to the Project Highway existing as of the Effective Date and specified in the Detailed Project Report, the Authority shall have the right to develop and construct any Additional Interconnection Points (including any toll plazas to be constructed provided the same shall not form part of the Concession Assets and the Concessionaire shall not have any collection rights in respect of the same, unless otherwise mutually agreed between the Parties) for connection of connecting roads to the Project Highway, then such development construction shall be undertaken and in accordance with Article 14A (Interconnectivity of the Project) of this Agreement.

2. CONSTRUCTION REQUIREMENTS

The Project Facilities shall be so constructed as to meet the requirements in respect thereof contained in the Preliminary Design Report (PDR) and the Design Requirements. Technical Specification (General Specifications and Particular Specifications & Special Provisions) and Environmental Impact Assessment Study Report are included in PDR to lay down minimum construction requirements of the Project. In addition, the Concessionaire shall observe and meet the following requirements.

2.1 Prior to Construction

(b)

Traffic Management Plan;

Prior to commencement of any construction activity, the Concessionaire shall finalize the Construction Programme in consultation with the Independent Engineer. The Construction Programme shall, inter alia, include:

- (a) A detailed Schedule of implementation for putting up and operationalizing the Project Facilities, and which shall specify at all major milestones;
- (b) The Critical Path Method (CPM)/ Programme Evaluation and Review Technique (PERT) charts or similar activity planning technique/ method for monitoring. This would cover all stages/ aspects of the Project implementation including design and engineering, procurement of materials and equipment, installation, construction and testing;
- (c) Manpower deployment plan, including the designation of key personnel for the management and supervision of all Project activities. (This would include the designation of suitably qualified personnel for areas such as contract administration and supervision, construction management, traffic and safety, environmental management, plant and equipment maintenance, procurement, materials management and quality control); and
- (d) A broad method statement for key items (Earthwork, Granular Sub base/WBM, Bituminous Layers, Concrete Works and Pre-stressing Concrete) setting out the methodology of construction, materials and construction equipment mobilization/utilization plans, broad output calculations and details of the quality assurance and quality control procedures.
- (d) Format of the monthly report giving details of the physical progress in implementation of the (Monthly Progress Report).

Prior to commencement of the Operations Period, the Concessionaire shall also finalize in consultation with the Independent Engineer the O&M Programme in accordance with the terms of this Agreement and which shall, inter alia, include the following:

(a)	An Environmental Management Plan based on the environmental assessment report contained in
	the PDR or based on such other alternate assessment made by the Concessionaire;

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(c) A safety management programme including an Emergency Response Protocol.

The Concessionaire shall, in consultation with the Independent Engineer workout an appropriate Schedule for submission of documents set out in 2.1 and 2.2 above to the Independent Engineer for review.

Prior to commencement of construction of any of the Project Facilities, the Concessionaire shall have:

- (a) Obtained all such Concessionaire Permits as are necessary to commence construction of such Project Facilities;
- (b) Finalized such Drawings as are necessary and the Implementation Schedule in consultation with the Independent Engineer;
- (c) Mobilized the requisite resources, personnel and organization necessary for the same and designated and appointed suitable officers/ representatives as it may deem appropriate with responsibility to supervise implementation of the Project and for exchange of information with the Independent Engineer and Authority;
- (d) Finalized in consultation with the Independent Engineer a method statement setting out details of the actual methods that would be adopted by the Concessionaire for the construction of such Project Facilities including details of equipment and machinery that would be used, their locations, and arrangements for conveying and handling materials;
- (e) Finalized in consultation with the Independent Engineer quality assurance and quality control procedures to cover all aspects of the work so as to ensure the desired quality. This would include establishment of a well-equipped functional laboratory.

2.2 During Construction

The Concessionaire shall:

- (a) Ensure that the construction of the Project Facilities is undertaken with minimal inconvenience to the traffic passing through Project area and provide detours wherever required;
- (b) Ensure that the standard of service on the existing roads is maintained to the extent possible at the level that existed prior to the commencement of construction;
- (c) Take the necessary precautions to minimize accidents and respond to Emergency as quickly as possible;
- (d) Take precautions to avoid inconvenience to, damage to, destruction of or disturbance to any third party rights and properties;
- (e) Provide a safe, clear and informative system of road signs;
- (f) ensure adequate safety of road users and the personnel deployed at the Project Site which would include measures for the safety of traffic such as the provision and maintenance of barricades, traffic signs and illumination during night in consultation with the Independent Engineer;
- (g) Be in compliance with the Applicable Laws and Concessionaire Permits obtained for the Project including the clearances obtained by Authority;
- (h) Adhere to the Construction Programme during the Construction Period and O&M Programme during the Operations Period;
- (i) pay all utility bills and expenses in relation to the usage of public utilities;
- (j) Deploy adequate number of qualified and competent personnel having relevant experience and skills for implementation of the Project and interaction with the Independent Engineer/ Authority.
- (k) Provide safety manual for project implementation and O&M implementation period.

In flexible pavement type, longitudinal cold joint shall not be allowed while laying asphaltic base and wearing courses. The bituminous layers shall be laid in full width including the paved shoulders in a single go.

2.3 Positions and Levels

(a) The Concessionaire shall be responsible for:

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- (i) The accurate setting-out in relation to original survey control points, lines and levels of reference provided by Authority;
- (ii) The correctness of the positions, levels, dimensions and alignment of all parts of the works;
- (iii) The provision of all necessary instruments, appliances and labour in connection with the foregoing responsibilities;
- (b) If, at any time during execution of the works, any error is noticed in the position, levels, dimensions or alignment of any part of the Construction Works, the Concessionaire, on being asked to do so by the Independent Engineer, shall at his own cost, rectify such errors to the satisfaction of the Independent Engineer.
- (c) The checking of any setting-out or of any line or level by the Independent Engineer shall not in any way relieve the Concessionaire of his responsibility for the accuracy thereof and the Concessionaire shall carefully protect and preserve all benchmarks, sight rails, pegs and other materials used in setting-out the works.

2.4 Tests

- (a) Various quality control tests would be undertaken for the Project as per the standards prescribed in the Project Specifications. Where no testing methods are specified by the said specifications,
- (b) Upon geotechnical investigations for new bridges (where required)
- (c) Carry out traffic surveys and studies. Due consideration should be given to heavy vehicles/large vehicles traversing the Project road.
- (d) Carry out study for drainage, bus stops lanes if any, parking areas if any, and service roads (if the existing Right of Way permits and as defined in the Preliminary design.
- (e) Prepare Construction Drawings
- (f) Preparation of land acquisition and utility/infrastructures relocation folders
- (g) Comply with the Environment Impact Assessment and the EIA Approval
- (h) Land acquisition and clearance of encroachment will be the responsibility of the Authority
- (i) Carry out a detailed design for weigh bridges, offices and residence of operation and maintenance staff.
- (j) Give detailed plan of implementation strategy

After Completion of Construction

Upon completion of construction (including road marking work) but prior to issue of the Final Project Construction Completion Certificate, the Project Site shall be cleared of all construction equipment, surplus materials, debris and temporary installations and shall be left in tidy and an aesthetically pleasing appearance to the satisfaction of the Independent Engineer.

3. PRELIMINARY DESIGN OF PROJECT

Rawalpindi Ring Road has a total length of sixty five point three kilometres (65.3km). It is to be a 6-Lane dual carriageway including Interchanges, Flyover, Overpasses, canal bridges, cattle creep, subways, water course culverts, utility culverts & at-grade Service Roads/ tracks both sides on specified locations with proper drainage system. The Geometric Design of the project is governed by AASHTO 2018 criteria for Highways Design.

Traffic information provided in the Preliminary Design Report is for guidance of the Concessionaire shall verify this information and base his design on verified information. The Concessionaire shall ensure that desirable condition of the project roads, as described in project requirements, is maintained throughout the construction period.

Horizontal and Vertical alignment

The designed horizontal and vertical alignments shown in the PDR are the minimum requirements to be maintained for the Project road. Dimensions of different project components given herein are the minimum requirements and must be met by the Concessionaire while preparing detailed design. Detailed designing of the Project based on conceptual designs (preliminary designs, drawings and reports with cross-section of road will be provided to concessionaire by Authority). However, the Concessionaire will be responsible for

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all aspects of design in conformity with Applicable Standards and in accordance with the Concession Agreement, including the design requirements as set out in the Concession Agreement.

The Geometric Design Standards for the Project Facilities shall be as per Policy Design, AASHTO -2018 Geometric Design of Highway & Streets. These should be adhered to and the geometric design standards are the minimum requirements to be maintained for the Project Road.

Typical Cross sections

Typical Cross-section and details of the pavement structure are shown in DPR. In addition, wire mesh shall be provided for full length on both sides at ROW limits. In fill sections, slope stabilization shall be by Riprap on both sides for specific length of ring road.

Service Roads

Service Roads of 6.0m width are to be provided on both sides of main road at urban reaches for a length of 12.3km up to AWC (Paved) as shown in the PDR. Apart from that, Earthen track on both sides for a length of 41km will run up to subgrade level. The pavement structure for Service Roads are given in PDR. In addition, walkways will be constructed along service roads on single side (where required). The layout plan shall be guiding for locations where service road is to be provided.

Interchanges/ Intersections

All Interchanges are designed according to the AASHTO 2018 publication 'A Policy on the Geometric Design of Highway and Streets'. Geometric Design Criteria as given in the Preliminary Design Report to be applied. The standards for loops & ramps design speed, radius and stopping sight distance for interchanges recommended are given PDR. Maximum vertical gradient of 3% is adopted for the design. In addition, Solar gridding will be done at Interchanges.

- (i) Adequately designed Interchanges/ junctions with channelization, all right turn and left turn (acceleration and deceleration) lanes (auxiliary) at major Interchanges/intersections for safe and smooth movement of traffic.
- (ii) Auxiliary acceleration & deceleration lanes for left turning, traffic movement at entrances to major roadside facilities.
- (iii) Provision of Geometric Design Criteria as given in the Preliminary Design Report to be applied.

Structures & Bridges

Overpass bridges, Flyover, river bridges, nullah bridges, underpasses, cattle creeps, culverts, pipe culverts built wide enough to accommodate 6 lanes dual carriageway (i.e. 3 x 3-Lane each) will be provided or as specified in PDR. Detailed Location of Interchanges, list of Flyover, Overpass bridges, river/nullah bridges underpasses, cattle creep and culverts are provided in PDR. The design standards and loading to be considered for structures in accordance with provisions of 'AASHTO LRFD Bridge Design Specifications'.

Pavement Design

Pavement Design shall be based on the following parameters:

Traffic Forecast: At least as in the PDR

Design Life: Flexible Pavement – 10 years

Rigid Pavement- 25 years

Flexible Pavement:

- (i) The flexible pavement may be designed as per the AASHTO method.
- (ii) Pavement of service roads as per PDR.
- (iii) Flexible pavement shall have Asphaltic Wearing Course (AWC) overlaid on Asphaltic Base Course (ABC). Underneath the ABC, Water Bound Macadam (WBM) shall be provided to act as a base course. The WBM granular material shall conform to the Grading as given in Project Specifications. The density and other physical requirements shall be as stipulated in project specifications. Material chosen for subgrade shall have 4 day soaked CBR not less than 8% at 95% Modified Dry Density (MDD) tested as per AASHTO T-

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- 180. At merged part with CPEC Motorway, Rigid pavement is also part of scope.
- (iv) The finished pavement profile for the total project length shall be designed to fulfil the criteria for drainage sewerage and other criteria's as per Applicable Standards.
- (v) Asphaltic inner shoulder shall have the composition and thickness of the pavement structure including the wearing course same as that of main carriageway pavement providing a monolithic pavement.

Rigid Pavement:

Rigid pavement being part of scope is applicable at outer 3rd lane of main carriageway (both sides) throughout the project length and 2+2 rigid pavement shall be constructed parallel to merged part with existing CPEC Motorway which is already 2+2 lanes.

Drainage System

An effective surface drainage system of the project facilities shall be designed. Surface drainage shall be designed such that there is no visible water pool within the project road. An effective drainage system shall also be planned and designed for the drainage of medians, Interchanges, intersections/junctions, service roads, toll plazas, including sewerage to main drain. Operational Facilities Maintenance Yards, other highway features ensuring that there shall be no pooling of water at any time on the project facilities. In rural stretches of the Project Road, these shall have adequate capacity for the design run off and be located and shaped to avoid creating traffic hazard and erosion of soil. Drainage channels, chutes and pipe culverts shall be installed ensuring that conflicts do not occur.

Road Illuminations

Road illumination will be on full length of project. The average level of illumination on all the recommended stretches of urban areas, rural areas, Interchanges, junctions/intersections, toll plazas, roadside amenities, and Maintenance Yard shall be around 1~1.5 cd/m2 with high mast pole of 12m height. Pad mounted transformers with security fence around it shall be provided. The layout of the lighting system together with type of luminaries for different locations shall be determined in consultation with the Independent Engineer. In urban areas, it is recommended that full-cut off luminaries shall be provided. Arrangement of lighting installations shall be LED and staggered except on curves. The layout of lighting poles, their height and spacing shall be finalised in consultation with the Independent Engineer so that the minimum illumination level prescribed in the aforesaid clauses can be achieved; Overhead electrical power and telecommunication lines erected within the ROW by the Concessionaire shall be provided with adequate clearance so that safe use of the project road is not affected. Vertical and horizontal clearances shall be as directed by Independent Engineer.

Road Furniture

Road furniture such as traffic signs, pavement markings, cat eyes etc. on the Project Highway shall be provided as per specifications as identified by Independent Engineer.

Traffic Signs

Road Markings

A complete range of permanent retro-reflective Traffic signs as per the requirements defined in but not limited to the PDR for the safe and efficient movement of traffic. These signs are to be of Regulatory, Warning and Informatory types as per standards shown in PDR and placed on the roadside. The proposed signs and their location shall be approved by the Independent Engineer as per standards. The overhead signs shall be placed on a structurally sound gantry or cantilever structure made of tubular structure or steel structure as shown in the PDR. The final location shall be finalised in consultation with the Independent Engineer. These signs shall be of high intensity retro reflective sheeting. The height, lateral clearance and installation of the sign structures shall be as per Project Specifications; On kerbed road sections the edges of the road signs shall be at least 600 mm away from the edge of the kerb, whereas on un-kerbed road sections the edge of the signs shall be at a distance of 2.5m from the edge of the carriageway; Design and location of route marker signs for road shall be as per requirements of Project Specifications. The design, placement, dimensions and lettering of boards shall be as per Project Specifications. The design, location and materials to be used for road cat eyes and the colour, configuration, size and location of size of traffic signs shall be as per Project Specifications; Road cat eyes shall conform to the recommended practice as per Project Specifications.

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Road markings shall be of hot applied thermoplastic materials with glass reflectorizing beads as per relevant clauses of Project Specifications. Road markings shall be as per AASHTO or BS standards. These markings shall be applied to road centre lines, edge lines, continuity line, stop lines, give-way lines, diagonal/chevron markings, zebra crossing and at parking areas by means of an approved self-propelled machine which has a satisfactory cut-off valve capable of applying broken lines automatically.

Traffic safety Measures

Single faced New Jersey' type (NJB) shall be constructed at edges of both outer shoulders for entire length of project road if HFL is greater than 5m. Double faced NJBs shall be provided in the median. Details of these installations are shown in the (Detailed Project Report). NJB's installation shall have short transition flared section at the approach ends. The NJB shall be finalized in consultation with the Independent Engineer.

Plantation

Planting along the road shall follow a variety of schemes depending upon location requirement as specified by Independent Engineer. Local, indigenous species that grow in that area shall be planted as directed by Independent Engineer. On medians and islands, planting of dust and gaseous substance-absorbing shrubs such as neriumodorum (Kanayr) is recommended. To ensure survival from herbivorous animals, shrubs/plants containing latex shall only be planted. Visibility of any signs, signals or any other devices erected for traffic control, traffic guidance and/or information shall not be obstructed by plantation.

Ancillary Facilities

Service areas, maintenance yard including operation facilities shall be included in the general layout for planning. Development of service areas up to subgrade top level shall be done by the Concessionaire.

Operation Facility

Operational Facility with earth filling in the allocated spaces, construction of boundary walls and connections to project road shall be done by the Concessionaire. Remaining works of design and construction of this facility shall be the Authority responsibility.

Maintenance Yard

At least two maintenance yard shall be developed by the concessionaire at location shown on the drawings. Earth fill and connection to road shall be done by the Concessionaire. Remaining works of design and construction of this facility shall be the Authority responsibility.

Toll plazas and Weigh stations

Toll plazas with electronic weigh stations and operation buildings (as shown in plans & in consultation with independent Engineer) shall be designed to meet their functional requirements and shall be compatible with the regional architecture and microclimate. Number of lanes shall depend upon number of vehicles entering / exiting at any specific point as determined from traffic study performed by the Concessionaire. Number of lanes and Toll Collection Booths shall be such that average delay per vehicle is not more than 15 seconds. However, at least three (3) lanes plus one (1) Emergency Lane of cement concrete pavement with islands are to be constructed at locations of the Toll Plazas. Toll Plazas and Toll booths shall be provided at all entry points, air-conditioned having a size of minimum 1.5x3.5m. Toll Plaza Facilities comprising control room/operational room, office rooms, Masjid and washrooms, shall be provided at every toll location. All toll plazas shall have generator room on each side for stand-by power generators to ensure continuous power supply.

Allied building works

Locally available materials shall be given preference but not at the cost of construction quality. All brick masonry works shall be of first class type and as per good practice. All the open spaces around the building(s) shall be landscaped. Boundary walls, fencing with barbed wires, controlled entry points and cattle-catches at all entry and exit points to the buildings shall be provided to protect them from intruders and animals. The design of water storage (including overhead reservoir) and distribution systems, laying of mains and pipes, cleaning and disinfecting of water supply system shall be as per site requirements. The design, layout and construction of sanitary, sewer and sewage disposal system with all ancillary works such as connections, manholes and inspection chambers and septic tanks shall be as per site requirements. Each septic tank shall have a soak pit of adequate size. The location of the septic tanks and subsurface absorption system shall be as indicated by Independent Engineer. The design and location of all electrical installations, distribution system, wiring, fittings, accessories and lighting protection of buildings shall conform as specified by

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Independent Engineer. The internal road system shall have the same material specification as that of the Project Road. For Internal parking facility, road shall be constructed as per site requirements.

Provision to be made for other important facilities such as lay-bys, emergency U-turns etc as provided in the PDR & in consultation with Independent Engineer.

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For details, refer schedule Q

Important Note: The Parties agree that all the Project Facilities shall be completed in accordance with Detailed Project Report, PDR. (Attached as VOLUME-3)

PDR

2. GEOMETRIC DESIGN CRITERIA

A summary of the design criteria is provided hereunder, however, to promote innovation, Bidders are encouraged to develop Proposals that differ or vary from the reference design and that comply with the requirements of the Concession Agreement. The general performance requirements for the Project Highway are given below:

Design life

Bridges Buildings	100 years 50 Years
Culverts/Drains/Retaining Walls etc.	50 years
Communication & Electrical Cabling	40 years
Electric & Electronic systems	25 years
Pavement*	10 years

^{*}First Major Maintenance shall be provided 10 years after Substantial Completion Date of project and second Major Maintenance after 10 years of the first Major Maintenance.

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Design Criteria

Item	Sub-Item	Ring road	Interchanges
1) Design Speed		120 Km/hour	60 V /h
Posted speed		110 Km/hour	60 Km/hour
2) Road Cross Section			
2.1) Width	a) No. of Lanes	3 (both side)	1 (Loop & Ramp)
	b) Lane width	3.60m	3.60m
	c) Travel lane width	10.8 m	3.60m
	d) Service road width (Both sides)	6.0m	-
	e) Shoulder (Inner)	1m	1.0m
	f) Shoulder (outer)	3.0m	3.0m
	g) Median	0.6 m	0.6 m
	h) FP/Drain	-	-
2.2) Camber	a) Carriageway	2.0 %	2.0 %
	b) Shoulders	2.0 %	2.0 %
2.3) Embankment Slope	(H:V)	2:1	2:1
2.4) Right-of -Way	As per typical x-sec		
3) Stopping Sight Distance in meter		250.0 m	85
5) Minimum Horizontal Curve Radius		756.0 m	125.0 m
6) Maximum Super elevation		6%	6%
7) Maximum Gradient		3%	3%
8) Rate of Vertical Curvature			
8.1) k value for crest curves			
For stopping sight distance (m/%A)		95.0	11.0
8.2) k value for sag curves (m/%A)		63.0	18.0
9) Minimum length of vertical curvature		-	-
10) Design Life of Pavement		10 years	10 Years
11) Standards for Geometric Design		A policy on Geometric Design of Highways and streets, 2018 of AASHTO	
12) Standards for Pavement Do	esign	, AASHTO Guide for structures 1993	or design of pavement

Above design criteria is general, however, specific design criteria is provided in preliminary design. Other design criteria not specified herein shall be approved by the Independent Engineer / Authority before being adopted for the design.

3. CODES AND STANDARDS

Structures:

The codes and standards applicable for the design of the Project Facilities are given in the (*Detailed Project Report*) and listed below as a ready reference:

Geometrics:
AASHTO 2018 publication 'A Policy on the Geometric Design of Highway and Streets'
Pavements:
AASHTO Guide for Design of Pavement Structures, 1993
Road Signs:
Manual of Uniform Traffic Control Devices for Streets and Highways by FHWA – 2003

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BCP (2007) Building Code of Pakistan

WPCPHB (1967) West Pakistan Code of Practice for Highway Bridges

AASHTO Standard Specifications for Highway Bridges -(2012)

LRFD

American Association of State Highway and Transportation

Officials

ACI 318-08 Building Code Requirements for Reinforced Concrete - American

Concrete Institute

ACI 301-02 Specifications for Structural Concrete -

American Concrete Institute

ASTM A-615 Specifications for Deformed and Plain Billet Steel Bars for

Concrete Reinforcement

American Society of Testing Materials Specifications for Portland Cement

Specifications for Concrete Aggregate

ACI-350 R **Environmental Engineering Concrete Structures**

ASTM C-33

UBC 1997 Uniform Building Code of USA

Drainage:

ASTM C-150

Water and Sanitation Agency (WASA), Design Criteria

Electrical:

CIBSE & CIE Standards

For Bridges & Culverts

Width (See Cross Section attached in PDR)

Live Load Class AA Loading for bending movements and Class A

loading for shear according to West Pakistan Highway

Code (1967).

For Material and Testing:

ASTM -American Society for Testing Materials

AASHTO-American Association of State Highway and Transportation Officials.

For Structures:

AASHTO LRFD (Latest Edition) American Association of State Highway and Transportation Officials.

Loading:

West Pakistan Code of Practice for Highway Bridges 1967.

Seismic Design:

AASHTO analysis and design with latest seismic zoning map for Pakistan as per revised current Government of Pakistan seismic parameters.

Structural Design Drawings:

Drawing scale of 1:500 shall be used showing the main features of the structure proposed, the centreline of the proposed carriageway, the topography of the adjoining terrain and the benchmarks, the final design plans shall include all details in appropriate scale necessary to construct the said structures. The choice of structure and specifications will be determined keeping in view the economy, aesthetics of material. For Scale of drawings, refer Preliminary Design Drawings. All drawings must be in MKS system.

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Where the aforesaid are silent on any aspect, the following standards in order of preference shall be adopted in consultation with the Independent Engineer, unless otherwise specified in this Schedule:

- (e) British Standards (BS)
- (f) Suitable specification/standard devised by the Independent Engineer and approved by the the Authority
- (g) Any other standard proposed by the Concessionaire, recommended by the Independent Engineer and approved by the Authority.

Any items of building works not covered by the project specifications shall conform to Punjab Building Department Specifications for Class 1 Building Works. For this purpose, building works shall be deemed to include ancillary facilities, landscape elements and/or any other works incidental to the building works.

Reporting Requirements and Documents to be provided

During the construction, the Concessionaire shall submit to the Independent Engineer/ Authority Monthly Progress Report (for each calendar month or part thereof) within 5 business days of the last day of the month. The report shall review the progress made, identify slippages if any, and project the future activities to be undertaken (including rectifications), operations and maintenance activities undertaken and would, inter alia, include the following:

- (a) Listing of working drawings/sketches submitted
- (b) Comments of Independent Engineer, if any, on the working drawings/sketches submitted
- (c) Concessionaire's response to the comments on the Drawings/sketches
- (d) Listing of the "As-Built" drawings submitted
- (e) Progress of pre-construction activities mobilization of plant and equipment, personnel, site office, utility relocation etc.
- (f) Concessionaire's compliance inspection report, if any required
- (g) Constraints in construction
- (h) Progress data with "S" curves, if applicable
- (i) Project data with contract detail and sectional completion details
- (j) Tests carried out, if any, and results thereof
- (k) Remedial measures taken by the Concessionaire following such tests, where required
- (l) Traffic management steps taken by the Concessionaire
- (m) Review of milestones and reasons for delay, if any
- (n) Suspension of construction, if any, its reasons, duration and the steps undertaken to resume construction
- (o) Change of Scope Notice issued by LRRA, if any, and status thereof
- (p) All actual or potential deviations from the Construction Programme and/or the O&M Programme
- (q) Disagreements/ Disputes, if any and proposed measures to be taken
- (r) Maintenance activities carried out by the Concessionaire on the Traffic control & diversion arrangements.
- (s) Monthly weather report giving daily temperature maximum and minimum value, rainfall and any other significant event hampering progress of work
- (t) Monthly status of equipment available at Project site and its status i.e. working/idle/under-repair etc.

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AUTHORITY INITIALS	Concessionaire Initials

- (u) Injury to any construction personnel during construction, its severity, cause and remedial measure(s) taken to avoid recurrence
- (v) Brief report of any accident/incident within the Project Site, injury/fatality, property damage, cause of accident and actions taken to avoid recurrence
- (w) Summary of daily journal for incident lane closure, time and duration and length
- (x) Traffic detour/diversion for construction time and duration and number of available lanes
- (y) Notes of meetings between the Concessionaire, the Independent Engineer and LRRA highlighting critical decisions taken or agreements reached. 5.2 Prior to making request for the issue of Completion Certificate, the Concessionaire shall submit to LRRA the following documents, free of costs:
- (z) Three (3) hardcopies and two (2) copies in electronic form (two Compact Discs) of the "As-Built" drawings of the Project Road detailed, accurately scaled and sequentially numbered, covering all relevant engineering features, which in relation to structures shall also include cross sections in each drawing;
- (aa) Copies of all geotechnical and borehole reports obtained by the Concessionaire; and
- (ab) Three (3) hardcopies and two (2) copies in electronic form (two Compact Discs) of the Operations and Maintenance Manual.

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SCHEDULE C – LIST OF CONSTRUCTION DRAWINGS

1. GENERAL DRAWINGS

- List of Drawings
- Location Plan
- General Notes, Abbreviation, Legend
- List of Traverse & Bench Mark
- Typical X-sections
- Details of rehabilitation of existing pavement structure including widening
- Setting out Data
- Geometric Design Criteria & Super-elevation Details
- Traffic Signs, Pavement Marking, Raised Profile type Road Stud Details
- Guard Rail Details
- Foot Path, Bus Bays, Service Road etc.
- Misc. Details

2. PLAN & PROFILE DRAWINGS

In plans, complete topography of the area (ROW), details of point of intersections and curve geometry (coordinates, deflection angle, radius, length of curve, tangent length, super elevation, etc including PI, PC and PT chainage), chainage at every 25m, bridges, culverts etc. should be provided.

In Profile, chainage, existing ground/road level, finished road level (FRL), grade, Vertical Profile data, bridges, culverts etc. should be provided.

Super-elevation, tangent run out and super-elevation runoff data should also be provided in Plan & Profile drawings.

3. STRUCTURE DRAWINGS

- General Notes
- Site Plan of bridge
- General Arrangement of bridges
- Abutment/Pier Concrete/reinforcement detail
- Pile reinforcement Details
- Girder concrete/reinforcement detail
- Transom/diaphragms concrete/reinforcement detail
- Deck Slab, kerb, barrier, railing, expansion joints, bearing pads etc. details
- Schedule of culverts
- General arrangement of box/pipe culverts
- Dimensional details of box/pipe culvert
- Reinforcement detail of box culverts
- Details of wing/head wall (concrete & reinforcement
- Details of retaining wall/protection works
- Details of drains etc.
- Details of retrofitting/rehabilitation of existing bridges/culverts including widening
- etc

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SCHEDULE D – PROJECT FACILITIES

1.0 GENERAL

The facilities to be procured, constructed, built, installed, erected or provided by the Concessionaire on the project site (Project Facilities) shall be those set out in the **SCHEDULE G** (*Detailed Project Report*) which broadly includes the facilities described hereunder. Any additional Project Facilities included hereunder shall be deemed to be part of the PDR and shall accordingly form part of the Project Facilities. Subject to **SCHEDULE B** (*Design Requirements*), dimensions of different project components given herein are the minimum requirements and must be met by the Concessionaire while preparing detailed design.

2.0 PROJECT ROAD

- 2.1 Ring Road
- 2.2 Service Roads
- 2.3 Intersection/Junctions
- 2.4 Structures & Bridges
- 2.5 Drainage
- 2.6 Traffic Signs
- 2.7 Road Markings
- 2.8 Traffic Safety Measures
- 2.9 Site Development of Toll Plazas
- 2.10 Road Illuminations
- 2.11 Intelligent Transportation System
- 3.0 ANCILLARY FACILITIES

Authority Divisional Office Complex

Understanding of the Objectives of the Building

Authority Divisional Office Complex is to be developed and provided for the use of Authority's staff shall be a state-of-the-art building with all future promises. It shall be environmentally appropriate, socially acceptable, and climatically -responsive and shall represent our traditional architectural style.

It shall have covered area of approximately 4,000 sq.m with 2 floors fully finished with partitioning of office style. An overhead and an underground water reservoir shall also be provided in the office complex. The complex shall have internal paved roads, boundary wall with steel gate, paved parking and proper indoor and outdoor illumination with high mast poles. Planning and arrangement of the building shall be approved by Authority. The complex should include an administrative office building and should have furniture, furnishings (wall to wall carpeting and curtains), HVAC facility for building, office equipment (computers, 15 no., 02 colour printers & 2 laser Printers, telephone network for whole building, 01 fax machines, 01 photocopier), utilities (potable water, sanitation, electricity, internet connection and stand-by power generator 350KVA and complete boundary wall with steel gates for 4 kanal area). The complex should have internal paved roads, paved parking and proper indoor and outdoor illumination.

Basic facilities to be provided by the Concessionaire should at least include electricity, overhead and underground reservoir of suitable capacity to ensure 24 hours water supply, drinking water, toilets, drainage, litter collection bins and proper waste disposal systems.

Authority office complex will have open/green spaces around the building which will be linked through articulated walkways. The green spaces will be beautifully landscaped through hard & soft materials and will provide a refreshing environment. Authority office will be well equipped with all the allied facilities required for an office complex.

Building should be thoughtfully scaled, sensitivity oriented and an Eco friendly. Combination of materials will be used to add a new dimension to the form.

Structural Design:	
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Structural design of various components of the project will be designed using modern analysis and design techniques. Latest structural analysis and design software such as ETABS, SAP2000 and ST AAD-Pro will be used for the analysis and design of the project. The structural design of building shall meet the current edition of design code i.e. Uniform Building Code (1997 Edition), International Conference of Building Officials- USA, and American Concrete Institute (ACI 318-99). The structural system of the building will be an RCC frame structure comprising of a beam column arrangement with a grid spacing of 20' c/c. Brick masonry walls shall be provided.

Following basic loads to be considered in design:

- Dead loads
- Live loads
- Earth Pressure
- Pressure of water and other liquids
- Wind loads
- Seismic loads

Emergency/Fire Exit:

Building should be provided with at least (02) emergency/fire exit staircases in addition to main staircase,

Staircase shall be separated from the main building by two fire doors opening outwards, the fire doors shall be hinge type with clear width of at least 04 ft and minimum one hour fire-resistance. Fire hydrants will be provided at every floor with standard fire hose lengths and fire extinguishers metal containers with chemicals for each floor.

Electrical Design:

The designing of electrical system shall involve following activities:

- LV. Distribution System within project premises from incoming supply
- Main Single Line diagrams for the designed Low Voltage system
- Standby Power Supply System
- Internal Illumination Design
- Small power system
- External Lighting
- Grounding system
- Fire Alarm and CCTV System
- Communication system

Plumbing Design:

Plumbing design for water supply and sanitation shall be carried out in accordance with applicable plumbing codes.

The plumbing system for water supply will be designed keeping in view residual pressure in pipelines of the main water supply scheme. As per standard practices and friction losses calculated, the following criteria shall be adopted for designing:

Minimum Pressure	=	8 psi
Maximum Pressure	=	25 psi
Design Formula	=	Hazen Willia
Pipes (Water supply)	=	PPRC Pipes
Pipes (Sewerage)	=	UPVC Pipes

HVAC Design:

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Authority office complex will be served by HVAC to the reception, waiting area, main office halls, Conference rooms, Executive rooms, Officers' room and adjacent areas.

Description of Finishes and Areas:

Description	Finish		
Description	Floor	Walls	Sealing
Entrance/Waiting/Reception	2'x2' Granite tiles	Textured Paint	Gypsum board
Executive rooms	2'x2' imported Porcelain tiles	Textured Paint	Gypsum board
Conference room	2'x2' imported Porcelain tiles	Textured Paint	Gypsum board
Officer rooms	18"x18" Porcelain tiles	Textured Paint	Gypsum board
Office Halls	18"x18" Porcelain tiles	Plastic emulsion	Gypsum board
Kitchen & Toilets	12"x12" Ceramic tiles	Ceramic tiles / Plastic emulsion	Vinyl Emulsion
Record Rooms	12"x12" Ceramic tiles	Vinyl Emulsion	Vinyl Emulsion
Library	18"x18" Porcelain tiles	Plastic emulsion	Gypsum board
Prayer Area	18"x18" Porcelain tiles	Plastic emulsion	Vinyl Emulsion
Mess	12"x12" Ceramic tiles	Ceramic tiles/ Plastic emulsion	Vinyl Emulsion
Wardy Godam	12"x12" Ceramic tiles	Vinyl Emulsion	Vinyl Emulsion
Guard room	12"x12" Ceramic tiles Vinyl Emulsion Vinyl Emulsion		
Door & Windows	A combination of solid Deodar wood Panel doors, Beach wood Panel doors and Aluminum framed glazed doors & windows with 5 to 8 mm thick glass, as required.		
Lights	LED lights, Spot lights & Wall mounted lights		
External Finish	Graffiatto & Sandstone		
Sanitary Fittings & Fixtures Porta, Sonex, Master			

Description	of	areas	is	as	fo	llows:	
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Area:	2 Kanals in Plan (Total area of plot for complex 4 kanals)
Structure:	Ground + 02 Floors (complete with finish work including internal partitioning of office style).

Ring Road Authority Residential Complex

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Authority Divisional Residential Complex is to be developed and provided for the use of Authority staff shall be a state-of-the-art building with all future promises. It shall be environmentally appropriate, socially acceptable, and climatically -responsive and shall represent our traditional architectural style.

It shall have covered area of approximately 4,000 sq.m with 01 floors fully finished with 06 executive rooms alongwith TV lounge, kitchen and other allied facilities, 02 rooms for drivers with kitchen and allied facilities. An overhead and an underground water reservoir shall also be provided in the residential complex. The complex shall have internal paved roads, boundary wall with steel gate, paved parking and proper indoor and outdoor illumination with high mast poles. Planning and arrangement of the building shall be approved by Authority. The complex should include 07 units of 1.5 Ton (18000 BTU) independently fixed with executive rooms and TV lounge. Utilities (potable water, sanitation, electricity, internet connection and stand-by power generator 350KVA and complete boundary wall with steel gates for 4 kanal area). The complex should have internal paved roads, paved parking and proper indoor and outdoor illumination.

Basic facilities to be provided by the Concessionaire should at least include electricity, overhead and underground reservoir of suitable capacity to ensure 24 hours water supply, drinking water, toilets, drainage, litter collection bins and proper waste disposal systems.

Authority residential complex will have open/green spaces around the building which will be linked through articulated walkways. The green spaces will be beautifully landscaped through hard & soft materials and will provide a refreshing environment.

Building should be thoughtfully scaled, sensitivity oriented and an Eco friendly. Combination of materials will be used to add a new dimension to the form.

Police Lines

Earthfilling in the allocated space, construction of boundary wall and connections to Service Road shall be done by the Concessionaire. Remaining works of design and construction of this facility shall be Authority's responsibility.

Operational and Toll Plaza Building

Earthfilling in the allocated spaces, construction of boundary walls and connections to ring road shall be done by the Concessionaire. Remaining works of design and construction of these facilities shall be Authority's responsibility.

Service Areas comprising Filling Station, Tuckshop, Masjid, Washrooms etc

Earthfilling in the allocated spaces, construction of boundary walls and connections to ring road shall be done by the Concessionaire. Remaining works of design and construction of these facilities shall be Authority's responsibility.

Maintenance Yards

At least one maintenance yard shall be developed by the concessionaire at location shown on the drawings. Earth fill and connection to road shall be done by the Concessionaire.

Illumination

Illumination with suitable high mast pole and lamppost should be provided at Project Highway and Authority Office and residential Complex. It shall be provided in accordance with the Design Requirements.

Landscaping

Landscaping shall be carried out at interchanges and Authority Office and residential Complex in consultation with Independent Engineer.

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SCHEDULE E – PROJECT CONSTRUCTION COMPLETION SCHEDULE

Anticipated start of design	Within 10 days of Effective Date
Anticipated end of design	Within 120 days of Effective Date
Commencement Date	Within 180 days from the Effective Date
Anticipated start of construction	Commencement Date
Substantial Completion	24 months from Commencement Date
Anticipated expiry of Concession Agreement & handover of facilities	25 years following Commencement Date
Scheduled Project Completion Date	As determined by Independent Auditor on Substantial Completion but in any event not exceeding 90 days following Substantial Completion Date

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SCHEDULE F - PROJECT SITE

Rawalpindi Ring Road project is a new construction of approximately sixty five point three kilometers (65.3km) long highway project. This highway will run through the Rawalpindi southern rural stretches from east to west direction. It will originate from N-5 near radio Pakistan transmitters and terminates at N-5 near Sangjani.

The alignment which starts at radio Pakistan transmitter's proceeds to M-2, Hakla DI Khan motorway and Peshawar road N-5, passes through plain/rolling/hilly terrain with thickly populated small towns, Chaks, green fields/orchards on both sides.

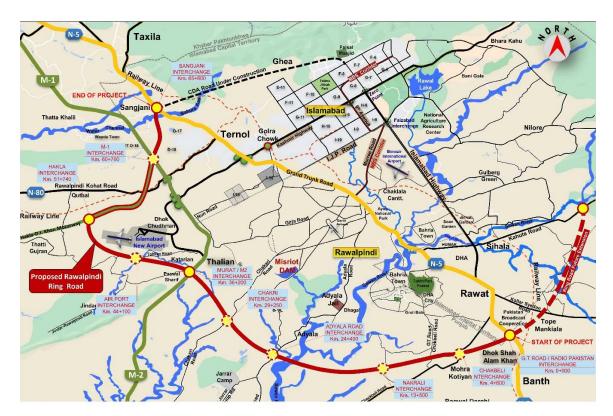
Other major roads/ areas through which the proposed alignment is passing is enlisted below:

- Rawat Chakbeli Road
- Bahria town
- Soan River
- Adiala Road
- Chakri Road
- New Islamabad International Airport
- Motorway (M-1)

A proposed right of way (ROW) of 110m has been adopted in general for the whole alignment of the Project except at interchanges, toll plazas and service areas where such ROW could not be maintained due to site/design requirements. Any additional land required for the project will be handed over by the Authority to accommodate the project facilities if so required and mutually agreed.

For the avoidance of doubt, the final parameters of the Project Site shall be communicated by the Authority to the Concessionaire within two (2) weeks of the date of Financial Close and shall be as per the requirements of the Detailed Engineering Design as approved in accordance with the terms of this Agreement.

Furthermore, the Project Site does not include the land required for making any future interchanges in addition to the four (4) Interchanges as proposed in the Detailed Engineering Design. In the event, the Concessionaire is desirous of constructing any additional future interchanges, the Concessionaire will obtain an NOC from the Authority upon payment of the applicable fee and ensure the installation of ITS on any such future interchanges.



LOCATION MAP OF PROJECT AREA

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SCHEDULE $G-DETAILED\ PROJECT\ REPORT(DPR)\ /\ LIST\ of\ TESTS\ &\ COMPLETION\ TESTS$

The Concessionaire shall furnish the laboratory testing facility with testing equipment, services, supplies, attendants/helper, furniture and its running and maintenance cost for the tests to be conducted. The Concessionaire shall also provide for the laboratory a vehicle with driver to be approved by the Independent Engineer for the sole use of the laboratory to transport testing equipment, testing samples and laboratory technicians, for carrying out inspection and testing on site throughout the same period.

All tests shall be executed as per the designated standard and all required equipment for facilitation of the tests should be furnished in the lab with two sets of latest edition of prescribed standards (one to be placed in the laboratory and other in the Independent Engineer office).

The Concessionaire should submit the list of tests to be carried out and their sample forms in the proposed methodology.

THE TESTS

A) <u>LABORATORY TESTS</u>

The Laboratory shall be equipped to perform the following tests:

SR. NO.	TESTS	AASHTO DESIGNATION
1	Dry preparation of soil samples	T-87
2	Soil Classification	M-145
3	Determination of Moisture Content	T-265
4	Atterberg Limits	T-89 & 90
5	Moisture density relationship (Modified Method)	T-180
6	C.B.R Test and swelling test	T-193
7	Relative Density Test	ASTM D4253, D4254
8	Sieve Analysis of Soils, aggregate and Mineral Filler	T-88, T-27 & T- 37
9	Los Angeles Abrasion test of aggregates	T-96
10	Sand Equivalent	T-176
11	Soundness of aggregates	T-104
12	Asphalt Coating	T-195
13	Coating and stripping of Bitumen Aggregate	T-182
14	Specific Gravity & Absorption of Coarse Aggregate	T-85
15	Specific Gravity and Absorption of Fine Aggregate	T-84
16	Penetration of bitumen material	T-49
17	Amount of Passing No. 200 sieve	T-11
18	Quantitative Extraction of Bitumen from Mixtures	T-164
19	Gradation analysis of bitumen extracted aggregates	T-30
20	Specific gravity of compacted bitumen mixture	T-166
SR. NO.	TESTS	AASHTO DESIGNATION
21	Marshall test and loss in stability	T-245
22	Maximum specific gravity of bitumen paving mixture	T-209
23	Air voids in compacted paving bitumen mix	T-269
24	Specific gravity of bitumen material	T-228
25	Softening point of bitumen (Ring and Ball method)	T-53
26	Sampling aggregates	T-2
27	Fineness Modulus	T-27

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28	Organic impurities	T-21
29	Mortar Strength	T-71
30	Friable particles	T-112
31	Potential reactivity of carbonate rocks for concrete aggregates (rock-Cylinder method)	ASTM C-586
32	Unit weight of aggregates	T-19
33	Air content of freshly mixed concrete by volumetric method	T-196
34	Making and curing of concrete test specimens	T-126
35	Curing concrete compressive test specimens	T-23
36	Compressive strength of cylinder concrete specimens	T-22
37	Setting time and consistency of cement	T-131
38	Normal consistency of hydraulic cement	T-129

B) <u>FIELD TESTS:</u>

The following tests will be carried out for field control/spot checking purposes as the Works proceeds: -

SR. NO.	TEST	AASHTO DESIGNATION
1	In-place density by Sand Cone Method	T-191
2	Sampling fresh concrete	T-141
3	Slump of Portland cement concrete	T-119
4	Sampling bituminous materials	T-40
5	Determining the temp. of bituminous paving mixtures	-
6	Determining Degree of Pavement Compaction by coring	T-230
7	Bulk specific gravity	T-166
8	Density of soil and soil aggregate by Nuclear methods	T-238
9	Moisture content of soil and soil aggregate by Nuclear method	T-239

C) <u>ENVIRONEMNTAL MONITORING TESTS</u>:

The following tests will be carried out for field control/spot checking purposes as the Works proceeds: -

SR. NO.	TEST	Monitoring Parameters / Performance Indicator
1	Water Resources/ Water Quality	Compliance with PEQS 2016.
2	Ambient Air & Motor Vehicle Exhaust and Noise	Compliance with PEQS 2016.
3	Noise Pollution	Compliance with PEQS 2016.

THE COMPLETION TESTS

Completion Tests shall mean the final inspection and tests of the Concession Assets by the Independent Engineer to ensure that the same conforms to the Project Requirements.

The road roughness value shall be measured as per relevant ASTM standard or ASTM E-1274 at least after every three (3) years by a properly calibrated Bump Integrator device (profilometer) before the monsoon and soon after the monsoon i.e. in the months of May and September in consultation with the Independent Engineer. It shall be measured longitudinally or transversely along the line picking up worst surface characteristics, which include the rut areas and depressions etc. The Concessionaire shall ensure that at no point during the Operations Period the roughness in the road surface shall fall below the prescribed acceptable roughness values given in the following Table.

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Sr. No.	Service Factor	Level 1 (Desirable)	Level 2 (Acceptable)
1	Roughness by Bump Integrator (max. permissibility)	2000 mm/Km (Allowable Tolerance: +5%)	3000 mm/Km

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SCHEDULE H - O&M REQUIREMENTS

1.0 General

- a) The Concessionaire shall comply with the O&M Requirements set out in this Schedule. In doing so, the Concessionaire shall ensure that the Project Facilities are maintained to the standards and specifications as set out in the Project Requirements and Preliminary Design Report (PDR)and shall also meet the requirements of AASHTO Maintenance Manual for Roadways and Bridges and any other requirements set out in the Agreement.
 - b) In the design, planning and implementation of all works and functions associated with the operation and maintenance of the Project Facilities, the Concessionaire shall take all such actions and do all such things (including without limitation, organizing itself, adopting measures and standards, executing procedures including inspection procedures, highway patrols, and engaging contractors, if any, agents and employees) in such manner, as will:
 - (i) Ensure the safety of personnel deployed on and users of the Project Facilities or part thereof;
 - (ii) Keep the Project Facilities safe from undue deterioration and wear;
 - (iii) Permit unimpaired performance of statutory duties and functions of any party in relation to the Project;
 - (iv) During the Concession Period, the Concessionaire shall ensure that:
 - (v) The Project Facilities are kept free from undue deterioration and undue wear;
 - (ii) applicable and adequate safety measures are taken;
 - (iii) minimum delay is caused to users of the Project Facilities;
 - (iv) adverse effects on the environment and to the owners and occupiers of property and/or land in the vicinity of the Project Facilities, due to any of its actions, is minimized;
 - (v) Any situation which has arisen or likely to arise on account of any accident or other emergency is responded to as quickly as possible and its adverse effects controlled/minimized;
 - (vi) disturbance or damage or destruction to property of third party by operations of the Project Facilities is controlled/minimized;
 - (vii) Members of the public are treated with due courtesy and consideration by its employees/agents;
 - (viii) Users are provided with adequate information and forewarned of any event or any other matter affecting the Project Facilities to enable them to control/minimize any adverse consequences by such event or matter;
 - (ix) A complaint register to record grievances of any member of the public in relation to the operations and maintenance of the Project/Project Facilities is duly maintained;
 - (x) Traffic data and data relating to the operation and maintenance of the Project Facilities are collected;
 - (xi) All materials used in the maintenance, repair and replacement of any of the Project Facilities shall meet the Design Requirements/ standards prescribed in the PDR;
 - (xii) The personnel assigned by the Concessionaire have the requisite qualifications and experience and are given the training necessary to enable the Concessionaire meet the O&M Requirements;
 - (xiii) The Concessionaire shall be responsible of bearing all costs and expenses in relation to utility bills, cleaning, watch and ward, maintenance for all Project Facilitates, including Ancillary Facilities and horticulture works.

2.0 Operation and Maintenance Manual and O&M Plans

- (a) Prior to the commencement of any construction activity, the Concessionaire, in consultation with the Independent Engineer, shall finalize the O&M Plan Implementation Period.
- (b) As provided in Schedule H, the Concessionaire shall finalize the following in consultation with the Independent Engineer prior to submitting application for the Completion Certificate for the Project:

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- (i) the O&M Manual;
- (ii) the O&M Plan for the first year of operations.
- (c) Six weeks prior to the anniversary of COD each year, the Concessionaire shall submit an annual O&M Plan for the next year of operations.

1. OPERATION AND MAINTENANCE

- The Concessionaire is required to carry out Operations & Maintenance O&M in respect of the Project in conformity with AASHTO standards and in accordance with the Concession Agreement. The O&M Requirements are set out, *inter alia*, in Article 19 (*Operations and Maintenance*) and this **SCHEDULE H** (*O&M Requirements*) of the Concession Agreement.
- The general scope of Operations & Maintenance includes all services associated with the planning, management and delivery of the operations, maintenance and asset preservation activities to ensure compliance with AASHTO standards and with all performance measures set out in the Concession Agreement.
- The Project should not require a Major Maintenance before ten years of Substantial Completion Date and afterwards, should not require another major maintenance before ten years of first Major Maintenance. The cost for the Major Maintenance shall be borne by the Concessionaire.

2. OPERATIONS ROLE

- The Concessionaire will ensure the smooth flow of vehicles and minimization of traffic delays and closures
- The Concessionaire will ensure the safety of commuters and will provide emergency support to commuters
- Safety vehicle, two trucks, ambulances, patrolling vehicles will be used by Concessionaire to ensure smooth operations of works
- The Concessionaire will ensure the administration, monitoring of conditions, traffic control, assessment of the need for load restriction, posting of warnings to vehicles, and signage
- The Concessionaire will ensure the Quality Management on a self-auditing basis, in conformity with AASHTO testing procedures
- The Concessionaire shall places prime importance on health, safety, and environmental issues and actively pursue the highest standards of Environment and Social performance.
- Following Operation methodology should be followed by the Concessionaire:
 - Patrolling on two hour intervals at night, on 12/7/365 basis
 - Patrolling on three hour intervals at day, on 12/7/365 basis
 - Emergency & Rescue response system
 - Provision of emergency medical services/ambulance/clinic
 - Maintaining traffic sign maintenance data
 - Maintaining Cat eyes
 - Maintaining Road marking
 - Maintaining Culverts
 - Maintaining road
 - Maintaining weigh bridges
 - Maintaining weight violations data

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- Maintaining death/injuries data
- Preparing periodic report with peak hour flows and peak day flows and other statistics
- Maintaining operational crew & equipment for emergency maintenance
- Preparing and implementing education programs and campaigns on:
 - ☐ Road safety and customer safety
 - ☐ Customer response & comments
 - ☐ Customer awareness
 - ☐ Operational staff awareness
 - ☐ Incentives for fragment road users
 - ☐ Maintaining fire fighting systems

Maintenance Activities

1. Routine Maintenance

- (a) In order to ensure smooth and uninterrupted flow of traffic during normal operating conditions for all twenty-four (24) hours of a day, routine maintenance of the Project Facilities shall include but not be limited to:
 - (i) prompt repairs of potholes, electrical items, concrete joints, drains, pavement marking, lighting and signage;
 - (ii) patching, drain cleaning, repairing of signs, carrying out repairs to pavement crack by sealing;
 - (iii) replacement of equipment/consumables, horticultural maintenance and repairs to equipment, pavements, bridges, structures and other civil works which are part of the Project/Project Facilities;
 - (iv) profile corrective course of minimum 40mm thick Asphaltic Wearing Course where directed by the Independent Engineer. Polished asphalt surfaces, if any, shall be roughened by nominal milling in consultation with the Independent Engineer before overlaying fresh Asphaltic Wearing Course;
 - (v) maintenance of the approach roads to underpasses / overpasses and drainages within the Project Site in accordance with Good Industry Practice;
 - (vi) paved shoulders and Service Roads shall also be treated and maintained in similar manner as applicable to the Ring Road traffic lanes;
 - (vii) rip-rap (stone pitching) shall be repaired wherever required;
 - (viii) keeping the Project Site / Project Facilities in a clean, tidy and orderly condition free of litter and debris and taking all practical measures to prevent damage to the Project Facilities or any other property on or near the Project Site. Removing and disposing of in accordance with all Applicable Laws and Concessionaire Permits, all rubbish, debris, etc. including any and all equipment, supplies, materials and wastes brought to reproduced by the Concessionaire / Contractor on the Project Site;
 - (ix) undertaking maintenance works in accordance with the O&M Plan and O&M Manual;
 - (x) preventing, with the assistance of concerned law enforcement agencies where necessary, any unauthorized entry to and exit from and any encroachments including any encroachments on the ROW/Project Site;
 - (xi) taking all reasonable measures for the safety of all the workmen, material,

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supplies and equipment brought to the Project Site. Explosives, if any, shall be stored, transported and disposed of by the Concessionaire in accordance with Applicable Laws/Concessionaire Permits.

- (b) For routine maintenance works, the Concessionaire shall generally follow the operational and performance criteria specified in the respective standard specification for each of the performance indictors covered under pavement condition survey, roughness and Benkeleman Beam Deflection (BBD) deflections. Where such criteria are not specified in the standards, the Concessionaire, for the purpose of routine maintenance shall set forth such criteria as to conform to good international standards and Good Industry Practice for sound pavement maintenance practices in consultation with the Independent Engineer.
- (c) The Concessionaire shall regularly carry out the necessary preventive maintenance activities for the Project Facilities to ensure adherence to the Design Requirements/ specifications set out in the PDR throughout the Concession Period.
- (d) Asset Management, Project Deliverables and Tolerance Criteria: The Concessionaire shall strictly follow and adhere to the Asset Management, Project Deliverables and Tolerance Criteria as given in O&M Manual approved by the Independent Engineer.

2. Strengthening/Rehabilitation

- (a) This activity shall be carried out at the start of 11th and 21styear from COD.
- (b) The Concessionaire shall carry out traffic survey and pavement condition survey for evaluation of existing pavement and designing of the pavement to increase its life by another seven (7) years. The Concessionaire shall makeup the structural deficiency with Asphaltic concrete overlays of appropriate thickness. Besides the profile corrective course, even if no structural layer is warranted, the Concessionaire shall still lay a minimum 50 mm thick layer of Asphaltic Wearing Course. Polished asphalt surfaces, if any, shall be roughened by nominal milling in consultation with the Independent Engineer before overlaying fresh Asphaltic Wearing Course. Asphaltic Wearing Course over bridge deck slabs shall be removed by milling before overlaying fresh Asphaltic Wearing Course.

The Concessionaire shall be allowed to use cold/hot in-place recycling of existing bituminous layers provided such operations impart an equivalent structural strength as could be achieved by traditional overlay method. Design and methodology of strengthening/ rehabilitation shall be got recommended from the Independent Engineer and approved from LRRA.

- (c) The paved shoulders and Service Roads shall also be treated in a similar manner as applicable to the Ring Road traffic lanes.
- (d) The shoulders shall be restored to the design cross section as per the PDR. This will involve application of additional material of same characteristics to bring it back to the required cross section.
- (e) The rip-rap (stone pitching) shall be repaired wherever required.
- (f) Pavement marking, lighting and signage as specified and other road side features wherever required shall be restored to meet the relevant standards specified.

3. Emergency Maintenance

- (a) The Emergency Response Protocol ("ERP") shall be developed by the Concessionaire in consultation with the Authority, hospital/ambulance services, fire departments and other authorities/support personnel and the Independent Engineer. This shall be a part of the O&M Manual developed by the Concessionaire.
- (b) The ERP shall set out steps to be taken and measures to be adopted by the Concessionaire in responding to/dealing with Emergency including those situations related to vehicle accidents involving personal injuries or fatalities, property damage and force majeure as follows:
 - (i) In the event of an Emergency, the Concessionaire shall immediately carryout an inspection of the area affected by the Emergency. Where

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Emergency has necessitated closure of the Project Facilities or part thereof, the Concessionaire shall promptly carryout any repair works necessary to restore the Project Facilities to safe condition and in any event, shall carryout such works before the affected area of the Project Facilities is re-opened to traffic;

- (ii) The Concessionaire shall ensure that sufficient staff, plant, equipment and materials, including without limitation medical assistance are available to respond to Emergency within reasonable period at all times during the Concession Period;
- (iii) The Concessionaire shall employ appropriate personnel as 'Duty Officers' and shall ensure that a Duty Officer is on duty at all times to respond to Emergency. A Schedule of the telephone numbers of the Duty Officers shall be provided to Authority Independent Engineer and Authority so that contact can be made with a Duty Officer at anytime. The Concessionaire shall ensure that Duty Officers are empowered to mobilise the necessary staff, plant, equipment and materials in response to information or instruction from Authority, Independent Engineer, Authority or other emergency services in the event of Emergency. Procedures for liaison between Duty Officers and the Authority, other emergency services and families of the affected shall be developed as part of the ERP.
- (c) In case of Emergency, the Concessionaire shall
 - (i) Carryout such emergency maintenance and repairs as may be required to repair the damages, if any, in consultation with the Independent Engineer and where required under the supervision of the Authority in order to ensure that the Project Facilities are returned to normal operating standards as quickly as possible;
 - (ii) Follow the relevant operating procedure specified in the O&M Manual including the setting up of temporary traffic cones and lights as well as the removal of obstruction and debris expeditiously;
 - (iii) Take all necessary measures to minimise pollution in accordance with the procedure specified in the O&M Plan/Environmental Management Plan where liquid or soluble material spillage is involved.

4. Other Maintenance Works

- (a) Illumination: The maintenance will normally involve cleaning of luminaries, replacement of burnt out luminaries, damaged illumination poles or brackets and repairs to transformers. Detailed maintenance procedure for the same shall be prepared in consultation with the Independent Engineer. In case of any breakdown, illumination shall be restored within twenty-four (24) hours. The following standards shall broadly apply:
 - (i) Illumination shall be maintained at the designed level throughout the Concession Period:
 - (ii) All faults shall be repaired instantly and lighting restored and missing and damaged items shall be replaced instantly;
 - (iii) Cleaning shall be done at regular intervals as specified in the O&M Manual to ensure that lighting is not below the specified standard;
 - (iv) All installations shall be safeguarded against weathering and ageing effect by repainting and other preventive measures;
 - (v) The servicing of stand-by power generation units shall be carried out in accordance with the manufacturer's instructions.
- (b) Road Signs and Road Markings
 - (i) All traffic signs and markings shall always be kept clean, visible and in correct alignment and position.
 - (ii) Any damage to traffic signs which reduces or threatens to reduce full and

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clear visibility shall be rectified within twenty-four (24) hours of its occurrence. If they are used as base for posters, the posters shall be removed and the signs shall be cleaned within twenty-four (24) hours. Signs shall be washed using detergent solution followed by clean water to maintain their visibility and reflectivity unimpaired due to dust etc.

- (iii) Any part of traffic signs damaged due to weathering, corrosion, vandalism or any other cause shall be replaced by the Concessionaire within seven (7) days.
- (iv) Any mandatory sign including those for traffic safety, damaged beyond repair shall be replaced within two (2) days and all other signs replaced within three (3) days.
- (v) Appropriate devices for measuring the luminosity and reflectivity shall be used to check visibility and reflectivity of signs, delineators and markings.
 These shall be replaced by similar material if the reduction in the level of these two requirements falls below 50% of the original level.
- (vi) Lane marking with thermo-plastic paint shall be carried out wherever and whenever required especially soon after any overlay/renewal course is provided.

(c) Landscaping

- (i) Maintenance of road land scape shall include attending to repairs to elements of the landscape connected services as and when necessary, and replacement of irreparable items of work;
- (ii) Trees shall be maintained in a proper manner and no indiscriminate felling of trees shall be resorted. The felling of trees shall be undertaken in consultation with the Independent Engineer and after obtaining due permission of the Forest Department, as applicable;
- (iii) While borrowing earth from any land for maintenance its hall be ensured that no earth is removed from around the roots of trees;
- (iv) Maintenance operations include numbering and maintaining a register of all road side trees within the Right of Way(ROW);
- (v) The routine maintenance such as trimming and shaping shall also cover those hedges and trees within the ROW, which affect the performance of the Project Road;

Cutting or clearance to safeguard visibility at intersections, road bends, accesses and signs shall be carried out in such a way as to avoid permanent damage to hedges and trees. Hedges and trees overhanging carriageways shall be trimmed to provide a minimum head room of 5.5meters at all times.

Turf within the ROW shall be mown as to achieve a visual pattern in harmony with adjacent areas. Mowing shall be done when the height of turf reaches 150mm.

The O&M Manual shall include a maintenance and management plan for trees, shrubs, turf and hedges to sustain their development in a manner pleasing in appearance.

(d) Safety Barriers

The Concrete Barrier (New Jersey Type) should require minimum maintenance for visibility and cleanliness / finishing except in case of damage due to impact.

(e) Road Furniture

- (i) Maintenance of road furniture like traffic signs, pavement markings, road studs etc. and attending to repairs to various parts of the road furniture and connected services as and when necessary, and replacement of irreparable items of work in reasonable period;
- (ii) At the end of the Concession Period, all road furniture shall be handed over to LRRA in useable and in working order.

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4.0 Safety and Traffic Management Operations

4.1 Safety

- (a) The Concessionaire shall implement a Safety Management Programme in line with relevant authority and NHA guidelines. This shall form a part of the O&M Manual.
- (b) The Concessionaire shall nominate a traffic safety and control officer (Traffic Safety Officer) who shall be responsible for all arrangements necessary for traffic safety and control including the provision and operation of recovery vehicles for breakdown. The Traffic Safety Officer shall be available on call on twenty-four (24) hours' basis.
- (h) In case of Emergency, the Concessionaire shall take prompt and effective steps to minimise the adverse effects to road users and shall act as requested or as directed by the Police and take all such safety precautions and measures to minimise the risk of personal injury.
- (i) Provide safety manual being part of O&M Manual for its Implementation period.

4.2 Traffic Management

(a) General

Traffic Management shall be undertaken during scheduled and unscheduled construction work and maintenance activities and also during any Emergency. Traffic Management during Emergency shall be undertaken in consultation with the Independent Engineer. The extent of the traffic management shall be assessed as per the site conditions.

(b) Traffic Management Plan

The Concessionaire shall provide, erect, maintain, reposition, cover, uncover and remove traffic signs as required in respect of works on the Project Site (including without limitation any diversions). Adequate safety during night time shall be ensured by providing mobile emergency lighting units with illuminated warning signs at important locations finalized in consultation with the Independent Engineer.

(c) Corridor Control Plan

- (i) Regular twenty-four (24) hours patrol/surveillance of the ROW in respect of the Project/Project Facilities shall be required to monitor, report and take actions against activities, such as, encroachments, unauthorized construction of road or entrance connections, structures, interference with drainage system etc., within 150 m of the Ring Road corridor.
- (ii) Surveillance shall also include traffic operation and management of accidents/other incidents.
- (iii) The Corridor Control Plan shall be developed in consultation with local administrative authorities and the Independent Engineer and shall form a part of the O&M Manual.

5.0 Inspections & Frequency

The Concessionaire shall plan an inspection programme for the Project Facilities for its smooth operations as follows:

5.1 Visual Inspection

Visual Inspections are broad general inspections carried out frequently by road/bridge maintenance engineers having adequate knowledge of road structures. The purpose of visual inspection is to report the obstacles to traffic and fairly obvious deficiencies, which could lead to accidents or maintenance problems. Such inspections should be frequent. The visual inspection may be carried out by visual assessment with careful observation of the specific object/item of the Project Facilities for identification and for quantification of the deficiencies or damages of the Project Facilities.

5.2 Close Inspection

Close inspections may be visual and/or by standard instrumental aids for assessment of defects/deficiencies of Project Road with careful observation of specific element(s). The close inspection may be daily/periodic but it is more intensive and would require detailed examination of element of the Project Road. It should cover all the aspects of the specific element of Project Road against a checklist. The frequency of close inspections

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would depend upon the nature of structure of Project Road. This inspection is to be carried out by the Road/Bridge Engineer having good knowledge of road structures with theoretical background to analyse the nature and extent of defects/deficiencies, suggest suitable remedial measures to rectify/remedy them and quantify repair work.

5.3 Thorough Inspection

A thorough inspection is comprehensive and detailed for assessment of defects/deficiencies of the Project Road by visual inspection or with aid of standard equipment and non-destructive testing where necessary. Such an inspection is to be carried out on the basis of comprehensive checklist of items related to the materials, condition and situation of the structure etc. The checklist is to be prepared meticulously well in advance of inspection. The thorough inspection should be undertaken during the most critical weather conditions, which are generally rainy and foggy seasons in Punjab. During rainy season the road /bridge structures are under severe condition thereby the damage and deficiencies are more pronounced. The inspection carried out during the said period offers the most critical evaluation of the performance of the structure. The thorough inspections would be of critical importance for bridges, culverts and drainage structures, as well as road pavements during adverse weather condition of monsoon period.

5.4 Frequency of Inspections

The type of inspection and related frequency of various items of Project Road and its facilities have been indicated in the TableI-2 below. The frequency of inspection can be suitably revised in consultation with the Independent Engineer if the situation so warrants. The objective and minimum frequency of inspections under normal circumstances shall be as under. If the exigencies a rise, the interval of inspection shall be reduced.

TableI-2
Objective and Frequency of Inspection

Object	Item	Daily	Monthly	Quarterly	Before and after rainy season
D' 1' C C	Pavement	V	С	-	T
Riding Surface	Expansion joints	V	С	-	T
Median	Kerb	V	С	-	T
	Shape	V	-	С	T
Cida Clamas	Turf	-	V	-	T
Side Slopes	Pitching &masonry	-	V	-	T
	Retaining wall	-	С	-	T
Drainage	Side/Toedrain	VR	С	-	-
	Gullies and catch Pits	VR	С	-	-
	Superstructure	-	-	С	T
	Substructure	-	-	С	T
Bridges	Head wing walls &aprons	-	-	С	T
	Painting	-	-	-	T
	Handrail	-	С	T	
Culverts/ Underpasses		-	-	-	T
SafetyBarrier		V	-	С	T
	Signs		T	С	-
Traffic operation facilities	Marking	V	С	T	-
Tacinities	Delineator	V	С	T	-
	Lighting	V	С	С	-
Other facilities	Vegetation/landscaping	V	С	T	-

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				-
Traffic Conditions	V	T	С	-
Encroachments	V	T	-	-

LEGEND

V Visual inspectionC Close inspection

T Thorough inspection

VR Visual inspection during rainy season only

6.0 Reporting Requirements

The reporting and information that generally need to be provided by the Concessionaire are given below. The Requirements given below are indicative of the type of information to be provided. The format of such reports, recording requirements, software standards and number of copies required would be finalised in consultation with the Independent Engineer. All reports and records shall be in the English language.

6.1 Inspection Reports and Remedial Measures

The periodicity of inspections for maintenance activities by the Concessionaire shall be set out in the O&M Manual and regular reports on the same shall be sent to the Independent Engineer. Where required, the Concessionaire shall carry out any maintenance, repair or rehabilitation works found necessary as a result of such inspections.

6.2 Monthly O&M Report

During the Concession Period, within five (5) days of the end of each calendar month or part thereof, the Concessionaire shall provide to the Independent Engineer a monthly report (Monthly O&M Report) which shall contain the following minimum information:

- (a) Inspections undertaken by the Concessionaire during the month and action taken/proposed thereafter;
- (b) Details of all reports submitted to the Independent Engineer during the month
- (c) O&M inspection compliance report
- (d) Maintenance activities undertaken during the month ended
- (e) Details of any Emergency and action taken

The format of the O&M Report would be finalized in consultation with the Independent Engineer.

7.0 O&M Manual

- (a) The O&M Manual prepared by the Concessionaire in consultation with the Independent Engineer shall set out the O&M standards and details of the O&M activities to be undertaken during the Concession Period, so that the Project Facilities shall at all times conform to the Design Requirements/Specifications set out in the PDR.
- (b) The O&M Manual should have separate sections for operations and maintenance.
- (c) The Manual should include without limitation the following aspects:
 - (i) Organization structure with responsibilities of key personnel;
 - (ii) Traffic Management Plan including the Corridor Control Plan;
 - (iii) Safety Management Programme including the Emergency Response Protocol;
 - (iv) Inspection Procedures;
 - (v) Maintenance Intervention Levels;
 - (vi) Asset Management, Project Deliverables and Tolerance Criteria;

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- (vii) Environment Management Plan;
- (viii) Maintenance Programme;
- (ix) Management information system;
- (x) Report Formats.

8.0 Miscellaneous

- (a) Inventory
 - (i) The Concessionaire shall maintain an inventory of all items comprised in the Project Facilities (the "Inventory"), in a format to be developed in consultation with the Independent Engineer.
 - (ii) Throughout the Concession Period the Concessionaire shall keep the Inventory updated to take account of works carried out on and other changes made to the Project Facilities.
 - (iii) A copy of the Inventory shall be submitted by the Concessionaire to the Independent Engineer within thirty (30) days of receipt of a request for the same.
- (b) Abnormal Indivisible Load Routing (Oversize and Overweight)
 - (i) The Concessionaire shall take all reasonable steps to facilitate the transit of Abnormal Indivisible Loads along the Project Facilities.
 - (ii) The Concessionaire shall develop a procedure for handling Abnormal Indivisible Loads in consultation with local authorities and the Independent Engineer.
- (c) Equipment belonging to third parties

The Concessionaire shall be responsible for installation, operation, maintenance and removal of any equipment belonging to third parties.

Important Note: The Parties agree that all the O&M Requirements shall be completed in accordance with Detailed Project Report attached as Volume III to the RFP.

3. MAINTENANCE ROLE

Concessionaire is responsible for maintaining the Concession Assets, including the Project Facilities, the Project Road and the relating road pavement, structures, pavement markings, drainage infrastructure, electrical systems, mechanical installations, closed landfill sites, environmental inspections, periodic repairs, traffic maintenance and emergency maintenance mentioned as under.

a) Annual/Routine Maintenance

- Isolated holes, Pot holes, fold pavements, skin patch, widening roads in asphaltic layer should immediately be repaired
- Any damages to side barrier due to any accident or other causes should immediately be reported periodically and repaired
- Road Marking Maintenance
- Cat's Eyes Maintenance
- Traffic Sign Maintenance
- Minor maintenance due to damage caused by Road accidents

Any damage to above items due to any reason, immediately be repaired and maintained.

b) <u>Periodic/Major Maintenance</u>

- Over-lays (two overlays, first after 10 years of Substantial Completion and second on 10th year of first overlay)
- Potholes Maintenance
- Guard Rail Maintenance
- Shoulder Maintenance by edge drop off / rain cut

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New Road Markings, where required. International Road Roughness Test at selected sections identified by the Independent Engineer should be carried out at every three years of operation and any portion of pavement found failed should be maintained as per AASHTO standards with approval from Independent Engineer. All the formalities will be checked for their stability and smooth operation.

3.1 Toll Collection

The toll collection system employed on the Dual Carriageway shall, in accordance with **Schedule Q** (**Requirements of Electronic Toll and Ticketing Management System –ETTMS and standards**), be capable of providing the following information and levels of services:

- A receipt must be issued at the point where payment is made, indicating the date and place of issue, together with the vehicle type and the charge levied.
- Sufficient toll collection booths shall be operational at any one time to ensure that the maximum delay experienced by drivers on the approach to the booths is limited to no more than 2 minutes at any location;
- All toll collection staff shall be fully trained in the use of the toll collection equipment, shall be
 appropriately dressed in such a manner that they are easily identifiable as employees of the toll
 operator, and shall be respectful and courteous at times towards members of the public;
- Accurate account shall be kept of daily toll revenue at each of the toll collection points: and
- Wherever possible, either continuously or periodically, data regarding the entry and exit points of all traffic using the facility, by time of day and by vehicle type shall be collected (or retrieved from the toll collection equipment)
- Concessionaire will install equipment, which minimize the pilferage and leakage of toll revenues.

In order to minimize fraud and to provide an independent check on the use of the facility, traffic counts shall be undertaken, at least at monthly intervals, (or on behalf of) the Concessionaire and Concessionaire's own expense, to establish the level of traffic on dual carriageway, by time of day and vehicle type. In addition, at least every six months variations in daily traffic patterns shall be monitored over a period of one week.

3.2 Road Pavement

- 3.2.1 The need for periodic maintenance of the road pavement will be determined by the use of annual condition and usage surveys. The function of these surveys will be to record, in both absolute and relative terms, the road pavement's performance, ride ability and structural integrity. Bump Integrator or latest technology available shall be used for the purpose of condition survey.
- 3.2.2 On an annual basis, condition surveys shall be undertaken of the whole road pavement within the Project Site. These surveys shall be divided into one kilometre sections and shall record:
 - the location, type and magnitude of all cracking in the road pavement (block cracking, alligator cracking, longitudinal and transverse cracking, and edge cracking)
 - the location condition and magnitude of all existing sealing compound in the road pavement;
 - the extent of all potholes and patching. both within the pavement and at the pavement edge;
 - the structural strength of the road pavement and its sub layers. as indicated by the extent of any depressions. or rutting in the inner and outer wheel tracks of the nearside lane;
 - the extent of any bleeding, stripping or spreading of the road surface;
 - the riding quality (roughness) of the pavement.
- 3.2.3 Based on the findings of these surveys, a planned maintenance program shall be developed for the following year, the objective of such a program being to take remedial action at the earliest possible time to both reduce the overall need for maintenance and the consequent disruption to traffic.

In determining this maintenance program, it will be a mandatory requirement that the condition of the road pavement conforms to the following minimum performance standards throughout the period of the Concession:

3.2.4 Extent of Cracking and Joint Sealing

Within any kilometre section of road, the extent of pavement cracking shall not exceed the limit set out in the following table in all cases cracking should be non-spalling.

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Table: Road Pavement, Maximum Acceptable Extent of Cracking

Type o	f Cracking	Maximum Acceptable levels	
a.	Centre Line Cracking		
b.	Wheel Track Cracking	0.1 meters per sq. meter for less than 25 percent of the section length	
c.	Block Cracking		

3.2.5 Extent of Potholes

Within any one kilometer length of road there shall be no more than five existing or patched potholes with a size greater than 500mm x 500mm x 25mm

3.2.6 Extent of Rutting

The depth of rutting at any particular location shall not exceed 13 (Thirteen) millimeters and, additionally, over a one kilometer length of carriageway no more than 250 meters shall be rutted up to depth of 13 (Thirteen) millimeters as per AASHTO Guide for Design of Pavement Structures, Appendix-K. These criteria shall apply to the mean depth of rutting computed from measurements taken every 20 feet (6 meters) along the length of the road.

3.2.7 Riding Quality

The road roughness value shall be measured as per relevant ASTM standard or ASTM E-1274 at least after every three (3) years by a properly calibrated Bump Integrator device (profilometer) before the monsoon and soon after the monsoon i.e. in the months of May and September in consultation with the Independent Engineer. It shall be measured longitudinally or transversely along the line picking up worst surface characteristics, which include the rut areas and depressions etc. The Concessionaire shall ensure that at no point during the Operations Period the roughness in the road surface shall fall below the prescribed acceptable roughness values given in the following Table.

Sr. No.	Service Factor	Level 1 (Desirable)	Level 2 (Acceptable)
1	Roughness by Bump Integrator (max. permissibility)	2000 mm/Km (Allowable Tolerance: +5%)	3000 mm/Km

In 'addition to ensuring that the road pavement meets the above stated minimum performance criteria, the Concessionaire will also be required to conduct a 'rolling routine maintenance programme' to ensure that the road pavement and shoulders are adequately protected from rapid deterioration through the day-to-day actions of raffle and water penetration. This programme shall include, but not be limited to:

- making good all potholes and edge failures within seven days of their being identified or reported:
- sealing all pavement cracks at the earliest possible opportunity following the annual inspection; and
- repairing any existing joint or crack-filling sealant that has ceased to be effective.

3.3 Structure

- 3.3.1 All structures shall be fully inspected at two yearly intervals as part of a planned monitoring procedure, and any identified defects shall be remedied within a period of six months from the date of inspection.
- 3.3.2 In addition, any structure that has been the subject of collision or other damage shall be inspected as soon as is practical and in any event within a period of 24 hours of the incident taking place.
- 3.3.3 If such an inspection shows that the structure's structural integrity has been compromised, appropriate action shall be taken immediately to ensure the safety of road users. Remedial repairs should then be undertaken, as soon as is practical, to restore the structure to a safe operational condition.
- 5.3.4 Minor damage that does not in any way compromise the structural integrity of the structure shall be carried out within six months as part of a rolling maintenance programme.

3.4	Earthworks

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- 5.4.1 All earthworks shall be inspected for signs of deterioration, at three- monthly intervals, and more frequently during the monsoon season, as part of a 'rolling planned maintenance programme' and appropriate remedial action shall be taken to make good any identified defects.
- 5.4.2 In addition, daily inspections of any susceptible areas of earthworks (including rip-rap embankment linings) shall be made during periods when unusually high water levels are identified adjacent to the Project Site, and appropriate action shall be taken to both safeguard the structural integrity of the facility and to remedy any defects that occur.
- 5.4.3. Edge drop-off shall not exceed 15-20mm.

5.5 Drainage

- 5.5.1 The drainage system shall be inspected and routinely maintained at six-monthly intervals. The timing of these inspections shall be such as to ensure that the system is fully functional at times of heaviest rainfall and there is no water ponding which may cause damage to the road pavement.
- 5.5.2 The six-monthly inspection and routine maintenance shall be designed to ensure that the system is free of silt and other debris, all covers and manholes are in place and secured, and are fully functional. Catch basins and culvert inlets and outlets should also be cleaned regularly to remove accumulated debris.
- 5.5.3 In addition, at two-yearly intervals the drainage system shall be fully inspected to ascertain its structural integrity, and appropriate remedial action shall be taken as necessary
- 5.5.4 In rural areas, adjacent agriculture land will take up to Flood Run-off. In urban areas, existing storm water drains shall be connected with the Project Highway's drainage system.

5.6 Road lighting

5.6.1 Routine maintenance activities shall be undertaken at the intervals specified in the following Table

Table: Road Lighting, Maintenance Schedule

Interval	Maintenance Activity
Every 14 days	Remedy any defect leading to non-illumination of the lamp fitting
Every 12 months	Clean all lanterns and examine the water tightness, mechanical, structural and electrical integrity of the necessary remedial repair.
Every 36 months	Bulk change all High Pressure Sodium lamps (SON and SON-T)
Every 5 years or earlier if necessary	Repaint all lamp column in accordance with United Kingdom Department of Transport Standard BD 1/83 or similar.

- 5.6.2 All faults that are not rectified at the time of inspection shall be rectified as follows:
 - Where the identified fault represent a structural or electrical safety hazard, steps shall be taken to effect a permanent or temporary repair within 24 hours and all temporary repairs shall be permanently rectified with in period of 14 days.
 - Where lighting failures constitute a road safety hazard the failure shall be rectified as soon as possible and at least within 14 days of the inspection; and
 - Isolate lamp failures that do not constitute a road safety hazard, and any other defects that do not compromise safety, shall be rectified within six months as part of rolling 6-monthly maintenance programme.

5.7	Road	Signs

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- 5.7.1 Routine maintenance of road signs shall be of two types. The first relates to the visibility and safety of the sign installation and the second relates to the overall condition of the sign.
- 1.7.2 Routine maintenance activities shall be undertaken at the intervals as specified in the Table given below.
- 5.7.3 The maintenance activities set out in the below Table shall include the inspection of all signs at the intervals specified, for the purpose of identifying and rectifying the particular category of fault. All faults that are not rectified at the time of inspection shall be rectified as follows:
 - Where the identified fault represents a safety hazard, steps shall be taken to effect a permanent or temporary repair within 24 hours and all temporary repairs shall be permanently rectified with in period of 28 days.
 - Where the identified fault does not represent a safety hazard, remedial action shall be undertaken as soon as is practical.
 - Any road sign that is damaged beyond repair shall be replaced at the earliest opportunity and in any events within 7 days of the damage occurring.
 - Six monthly stock taking will be carried out and verified by Independent Engineer.
- 5.7.4 In addition to the routine maintenance regime set out in the following Table bulk changes of all lamps shall be carried at intervals appropriate to the type of lamp used.

Table: Road Sign, Maintenance Schedule

Table: Road Sign, Maintenance Schedule		
Interval	Maintenance Activity	
Daily	Visual Inspection for damage or vandalism and the effecting of all emergency repair work identified through inspection or reported by the public, police or other body.	
Every 28 days	Remedy any defect resulting in non-illumination of lamps.	
At least every 6 months but more regularly if needed	Clean the surface material of all signs and luminaries and take appropriate action to ensure that unobstructed visibility is maintained in accordance with the design criteria.	
Every 2 years	Maintain all electrical installation and remedy any identified faults in accordance with united Kingdom IEE Wiring Regulation (15 th Edition) or similarly approved standard.	
Every 2 years	Check the structural integrity of all signs including the security of all brackets, bolts and other fittings the condition of all rivets welded joints frames posts and gantries and carry out all necessary remedial works.	
Every 3 months	Check the appearance and condition of the sign in terms of legibility luminance colour and retroreflective properties and carry out all necessary remedial works.	

5.8 Road Markings

- 5.8.1 All road markings shall be subjected to routine inspection at least once every year. These inspection shall be aimed at determining the extent of degradation of the markings due to:
 - a. Normal wear and tear or damage
 - b. Spread due to movement of the road surface or plasticity of the material
 - c. Loss of color
 - d. Reduction in retro-reflective properties.
- 5.8.2 Apart from subjective inspections of retro-reflective properties, all inspections shall be carried out in daylight conditions:

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5.8.3 In all cases where the level of degradation exceeds the limits set out in the following Table corrective maintenance shall be undertaken within a period of six months and verified by Independent Engineer.

5.9 Vehicular Safety Barriers

5.9.1 Maintenance of safety barriers shall be of two types. The first relates to identifying and rectifying collision damage, and the second relates to maintaining the overall condition of the safety barrier.

Table: Road Markings, Maintenance Performance Thresholds

Type of Degradation	Threshold for Corrective Maintenance	
Wear (erosion)	70% or less of the Thermoplastic material remaining on the road surface	
Spread	10% or greater increase in the dimension of the markings, when compared with specified dimensions	
Colour (luminance factor)	luminance factor 45% or less	
Retro-reflectivity	Nominal 100mcd/m2/1ux	

- 5.9.2 All vehicular safety barriers shall be visually examined on a daily basis to identify damage. All such damage that is identified shall be made safe at the earliest opportunity, and in any event within a period of 24 hours. In addition, permanent repairs to all damaged sections of safety barrier shall be affected within a period of seven days.
- 5.9.3 All safety barriers shall be inspected at six-monthly intervals to determine their condition in terms of structural integrity and horizontal and vertical alignment. Any identified defects that relate directly to user safety shall be rectified as soon as is practical, and in any event made temporarily safe within a period of 24 hours and fully rectified within the following seven days.
- 5.9.4 Other identified defects that do not affect user safety shall be rectified as part of a 'rolling' six-monthly maintenance programme and approved by Independent engineer.

5.10 Toll Collection and Traffic Management Equipment

- 5.10.1 The Maintenance Programme shall specify procedures for regularly checking the condition of toll collection and traffic management equipment and the planned refurbishment or replacement of equipment in order to minimize losses of revenue due to equipment failure and to ensure levels of service are maintained. Independent Engineer will inspect and give a certificate regarding operability.
- 5.10.2 The maintenance programme shall also take account of the technology life of the electrical and electronic equipment, which may be expected to be obsolete within 10 to 15 years, and shall include provision for system upgrading to ensure that the system comply with international or other acceptable standards then prevailing.

5.11 Environmental Monitoring, Sampling and Testing

The Concessionaire should be responsible for all the monitoring activities. The Concessionaire will engage a competent consultant to conduct environmental monitoring on a periodic basis. The overall objective of the environmental monitoring is to ensure that the key environmental parameters in the project area remain within the acceptable limits specified by the Punjab Environmental Quality Standards (PEQS), 2016 and other relevant benchmarks (where required) throughout the project execution. For this purpose, the EPA certified laboratory will carry out the periodic sampling, monitoring, and analysis of the key environmental parameters specified in the EMP and provide their results to the Concessionaire. All the findings and results in the form of monitoring report will be finally shared with respective Environment Department by the Concessionaire.

Following are the **clauses** for the protection of environment during construction and operations stages of the Proposed Project:

- 1. The Concessionaire shall ensure compliance of Punjab Environmental Protection Act, 1997 (Amended 2012 & 2017);
- 2. The Concessionaire shall ensure compliance of Punjab Environmental Quality Standards (PEQS), 2016;
- 3. The Concessionaire shall ensure compliance of conditions of Environmental Approval / No Objection Certificate (NOC) issued by EPA Punjab; and

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4. Mitigation Measures suggested in the EIA Report including Environmental Management Plan (EMP) shall be strictly adhered to minimize any negative impacts on soil, groundwater, ambient air and biological resources of the project area.

Institutional Arrangement for Environmental Management during O&M Phase

The proposed Project will be administrated by the Concessionaire during the O&M phase. Independent Engineer will inspect and give a clearance certificate regarding operation and maintenance performance standards.

Designated Environment and Social Expert by the Concessionaire will be responsible for the following:

- 5.11.1 Coordinating with the operational staff working under the Concessionaire to monitor environmental compliance during operation;
- 5.11.2 Advising on, and monitoring tree plantations along the road;
- 5.11.3 Ensure the implementation of EMP of EIA including clauses of NOC issued by PEPA for O&M phase;
- 5.11.4 Reporting on the progress of environmental compliance to the PEPA;
- 5.11.5 Assessing the long-term environmental impacts of operation;
- 5.11.6 Sustaining a working partnership among the Concessionaire, PEPA, Agriculture department, Irrigation department, Forest and Wildlife departments of the Government of Punjab;
- 5.11.7 Reporting to the Concessionaire about progress of the work.

Other Duties by Designated Environment and Social Expert

The environmental expert will coordinate with the Authority to ensure the implementation of Environmental / HSE Provisions at site.

Ensure the use of SOP during every working activities.

Ensure availability and maintained of PPEs to each and every worker at workplace.

Ensure the record maintenance of each Environmental / HSE related occurrences and communicate with their authority on regular basis.

Will be responsible for preparation of monthly, quarterly and completion reports (and other if any).

Will be responsible for implementation of EMP, NOC and other contractual as well as regulatory requirements triggered during the project execution.

Will be responsible for supervision/monitoring of all the waste management operations and the associated staff.

The Social expert will review and validate the monitoring reports

Status of redressal of community complaints and time spent to resolve the community grievances

Carry out the consultations with affectees, officials of Authority and other concerned departments to share the feedback/ lessons learnt;

Identify gaps regarding implementation and suggest remedial measures; and also develop a corrective action plan.

General Requirements by Concessionaire

The Concessionaire shall place prime importance on health, safety, and environmental issues and actively pursue the highest standards of Environment and Social performance.

The Concessionaire shall perform the Work in full compliance with the provisions, which is relevant for the Work, for the duration of the work.

The Concessionaire shall implement Environment and Social routines, which will ensure that all Personnel are fully aware of the existence, content and expectations of the Environment and Social.

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The Concessionaire will be responsible for ensuring that all Personnel understand and operate in accordance with the principles and requirements of Environment and Social provisions.

The implementation of the proposed EMP involves inputs from various functionaries. The Concessionaire will be primarily responsible for ensuring implementation of the mitigation measures proposed for O & M phase in the EMP. The environmental mitigation cost (during construction and O&M phase) shall be borne by the Concessionaire.

Note: For all the related parameters and performance standards, Refer EIA report.

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PART I – CONSTRUCTION PERIO	OD INSURANCES
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As mutually agreed between the Parties prior to the Commencement Date.

PART II -	OPERATIONS	PERIOD	INSURAN	ICES
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As mutually agreed between the Parties prior to the Commencement Date.

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SCHEDULE J – SPECIFIED CONCESSIONAIRE PERMITS

The following shall constitute the Concessionaire Specified Permits, to the extent the same are required to be procured and are applicable/relevant for the purposes of the Project:

- 1. Rawalpindi Development Authority, Government of Punjab
- 2. PPP P&M Board, Government of Punjab.
- 3. Punjab Environmental Protection Agency.
- 4. Water & Power Development Authority, Government of Pakistan.
- 5. National Transmission & Despatch Company Limited.
- 6. Sui Northern Gas Company Limited.
- 7. Pakistan Telecommunication Authority.
- 8. Oil & Gas Development Corporation.
- 9. Forest Department, Government of Punjab.
- 10. Irrigation Department, Government of Punjab.
- 11. Mosques, Imam Barghas, Places of Religious Affairs, Government of Punjab.
- 12. Graveyards through Ministry of Municipalities and Rural Affairs, Government of Punjab.
- 13. Culture Department, Government of Punjab.

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$\begin{tabular}{ll} \textbf{Draft Concession Agreement for Rawalpindi Ring Road Project RFP-Volume II} \end{tabular}$

SCHEDULE K – CORPORATE DOCUMENTS

- 1. The certified copies of the memorandum and articles of association of the Concessionaire;
- 2. Board Resolution duly passed by the board of directors of the Concessionaire resolving that the Concessionaire may undertake the Project and stating the name of the authorized signatory of the Concessionaire who shall sign this Agreement, the Authority Agreements, the Financing Documents, and the Project Agreements (to which the Concessionaire is a party) and all other necessary documents in favour of the Authority for and on behalf of the Concessionaire;
- 3. Certificate of incorporation; and
- 4. Latest corporate filing with the Securities & Exchange Commission of Pakistan.

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	SCHEDULE L – FORM OF CONSTRUCTION PERFORMANCE SECURITY
То: А UTНОВ	RITY REPRESENTATIVE,
	TEE NO (Hereinafter referred to as the "Guarantee")
understa [•], 202	NAME OF BANK], being the Guarantee issuing bank (hereinafter referred to as the "Guarantor Bank") nds that the following parties have entered into an agreement entitled the "CONCESSION AGREEMENT" dated [2] (hereinafter referred to as the "Agreement") for the design, engineering, construction, financing, sioning, operations and maintenance of the [To Be Inserted] Project under the public private partnership mode:
(a)	THE GOVERNOR OF PUNJAB (THROUGH LAHORE RING ROAD AUTHORITY), having its office at Bulleh Shah Interchange Gajju Matta (Southern Toll Plaza), Ferozepur Road Lahore, (hereinafter referred to as the "Authority"); and
(b)	[●], a company incorporated under the laws of Pakistan, having its registered office located at [●] (hereinafter referred to as the "Concessionaire", which expression shall, where the context so permits, be deemed to mean and include its legal heirs, successors in interest, administrators, executors, and permitted assigns).
to provid	the Guarantor Bank understands that pursuant to the terms of the Agreement, the Concessionaire is required the Authority with a bank guarantee in an amount equal to PKR [Insert Amount in Numbers]/- (Pakistani Insert Amount in Words]).
without reference	we premised, the Guarantor Bank hereby undertakes irrevocably and unconditionally to pay to the Authority, any notice, reference or recourse to the Concessionaire or to any other entity or without any recourse or to the Agreement, any sum or sums (or any part thereof) equivalent in aggregate up to but not exceeding a m amount of:
	PKR [●]/- (Pakistani Rupees [●]) (hereinafter referred to as the "Guaranteed Amount")
the Auth	ttely, however not later than within ten (10) business days from the date of the Guarantor Bank's receipt of ority's first written demand (hereinafter referred to as the " Demand ") at the Guarantor Bank's offices located RT ADDRESS OF THE GUARANTOR BANK AT WHICH DEMAND WILL BE MADE], such Demand stating:
(a)	the total amounts demanded; and
	the bank account to which the amounts demanded pursuant to the demand are to be credited/transferred (hereinafter referred to as the "Bank Account").
	nd shall only be honoured by the Guarantor Bank if it is made by and bears the signature of an authorised r representative of the Authority.
immedia	arantor Bank shall unconditionally honour a Demand hereunder made in compliance with this Guarantee stely (however not later than ten (10) business days) of its receipt of the Authority's Demand, as stated earlier, I transfer the amount specified in the Demand to the Bank Account.
This Gua	arantee shall come into force and shall become automatically effective upon its issuance.
DATE AN Guaranto immedia	ving come into force, this Guarantee and the Guarantor Bank's obligations hereunder shall expire on [INSERT ID TIME] (the Guarantee Expiry Hard Date) irrespective of whether this Guarantee has been returned to the or Bank provided that, in the event that the Authority issues a Demand to the Guarantor Bank on or stely prior to the Guarantee Expiry Hard Date and the same is received by the Guarantor Bank on or prior to rantee Expiry Hard Date, the Guarantor Bank shall honour such Demand.
made by	piry, this Guarantee shall be returned to the Concessionaire without undue delay. Multiple Demands may be the Authority under this Guarantee but the Guarantor Bank's aggregate liability shall be restricted up to the eed Amount.
	Demands may be made by the Authority under this Guarantee but the Guarantor Bank's aggregate liability restricted up to the Guaranteed Amount.
	arantor Bank hereby agrees that any part of the Agreement may be amended, renewed, extended, modified, nised, released or discharged by mutual agreement between the Authority and the Concessionaire without:
(a)	in any way impairing or affecting the Guarantor Bank's liabilities hereunder;

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- (b) notice to the Guarantor Bank; and
- (c) the necessity for any additional endorsement, consent or guarantee by the Guarantor Bank.

This Guarantee for its validity period shall not be affected in any manner by any change in the Guarantor Bank's constitution or of the Concessionaire's constitution or of their successors and assignees and this Guarantee shall be legally valid, enforceable and binding on each of their successors and permitted assignees.

All references to any contract or other instruments are by way of reference only and shall not affect the Guarantor Bank's obligations to make payment under the terms of this Guarantee.

The Authority shall not assign / transfer or cause or permit to be assigned or transferred any of its rights, title, interests and benefits of this Guarantee without the prior written consent of the Guarantor Bank and the Concessionaire.

If one or more of the provisions of this Guarantee are held or found to be invalid, illegal, or unenforceable for any reason whatsoever, in any respect, any such invalidity, illegality, or unenforceability of any provision shall not affect the validity of the remaining provisions of this Guarantee.

The Guarantor Bank hereby declares and confirms that under its constitution and applicable laws, it has the necessary power and authority to:

- (a) enter into, execute and deliver this Guarantee; and
- (b) perform the obligations it has undertaken under this Guarantee, which obligations are valid and legally binding on and enforceable against the Guarantor Bank under the laws of Pakistan.

Further, the Guarantor Bank hereby declares and confirms that the signatory(ies) to this Guarantee is/are its duly authorized officer(s) to execute this Guarantee.

This Guarantee and all rights and obligations arising from this Guarantee shall be governed and construed in all respects in accordance with the laws of Pakistan. The courts in Lahore, Pakistan shall have exclusive jurisdiction in respect of any dispute relating to any matter contained herein.

EXECUTED & ISSUED FOR & ON BEHALF OF THE GUARANTOR BANK	
Name: Designation: Dated:	
WITNESSES WITNESS I	WITNESS II
NAME: CNIC No.:	NAME CNIC No.:

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SCHEDULE M - FORM OF O&M PERFORMANCE SECURITY

	Schildell in Tokyi of Control and Children of Second in
RAWAL	RITY REPRESENTATIVE, PINDI RING ROAD PROJECT, NMENT OF PUNJAB
	NTEE NO (hereinafter referred to as the "Guarantee")
understa [•], 20	NAME OF BANK], being the Guarantee issuing bank (hereinafter referred to as the "Guarantor Bank") ands that the following parties have entered into an agreement entitled the "CONCESSION AGREEMENT" dated 21 (hereinafter referred to as the "Agreement") for the design, engineering, construction, financing, scioning, operations and maintenance of the Rawalpindi Ring Road Project under the public private partnership
(a)	THE GOVERNOR OF PUNJAB (THROUGH LAHORE RING ROAD AUTHORITY), having its office at Bulleh Shah Interchange Gajju Matta (Southern Toll Plaza), Ferozepur Road Lahore, (hereinafter referred to as the "Authority"); and
(b)	[•], a company incorporated under the laws of Pakistan, having its registered office located at [•], Pakistan (hereinafter referred to as the "Concessionaire", which expression shall, where the context so permits, be deemed to mean and include its legal heirs, successors in interest, administrators, executors, and permitted assigns).
to provi	the Guarantor Bank understands that pursuant to the terms of the Agreement, the Concessionaire is required de the Authority with a bank guarantee in an amount equal to PKR [INSERT AMOUNT IN NUMBERS]/- (Pakistani [INSERT AMOUNT IN WORDS]).
without reference	ove premised, the Guarantor Bank hereby undertakes irrevocably and unconditionally to pay to the Authority, any notice, reference or recourse to the Concessionaire or to any other entity or without any recourse or to the Agreement, any sum or sums (or any part thereof) equivalent in aggregate up to but not exceeding a manount of:
	PKR [●]/- (Pakistani Rupees [●]) (hereinafter referred to as the "Guaranteed Amount")
the Aut	ately, however not later than within ten (10) business days from the date of the Guarantor Bank's receipt of hority's first written demand (hereinafter referred to as the " Demand ") at the Guarantor Bank's offices located RT ADDRESS OF THE GUARANTOR BANK AT WHICH DEMAND WILL BE MADE], such Demand stating:
(a)	the total amounts demanded; and
(b)	the bank account to which the amounts demanded pursuant to the demand are to be credited/transferred (hereinafter referred to as the "Bank Account").
	and shall only be honoured by the Guarantor Bank if it is made by and bears the signature of an authorised or representative of the Authority.
immedi	arantor Bank shall unconditionally honour a Demand hereunder made in compliance with this Guarantee ately (however not later than ten (10) business days) of its receipt of the Authority's Demand, as stated earlier, ll transfer the amount specified in the Demand to the Bank Account.
This Gu	narantee shall come into force and shall become automatically effective upon its issuance.
DATE All Guarant immedi	aving come into force, this Guarantee and the Guarantor Bank's obligations hereunder shall expire on [INSERT ND TIME] (the Guarantee Expiry Hard Date) irrespective of whether this Guarantee has been returned to the tor Bank provided that, in the event that the Authority issues a Demand to the Guarantor Bank on or ately prior to the Guarantee Expiry Hard Date and the same is received by the Guarantor Bank on or prior to trantee Expiry Hard Date, the Guarantor Bank shall honour such Demand.
made by	xpiry, this Guarantee shall be returned to the Concessionaire without undue delay. Multiple Demands may be y the Authority under this Guarantee but the Guarantor Bank's aggregate liability shall be restricted up to the teed Amount.
	arantor Bank hereby agrees that any part of the Agreement may be amended, renewed, extended, modified, mised, released or discharged by mutual agreement between the Authority and the Concessionaire without:
(a)	in any way impairing or affecting the Guarantor Bank's liabilities hereunder;

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- (b) notice to the Guarantor Bank; and
- (c) the necessity for any additional endorsement, consent or guarantee by the Guarantor Bank.

This Guarantee for its validity period shall not be affected in any manner by any change in the Guarantor Bank's constitution or of the Concessionaire's constitution or of their successors and assignees and this Guarantee shall be legally valid, enforceable and binding on each of their successors and permitted assignees.

All references to any contract or other instruments are by way of reference only and shall not affect the Guarantor Bank's obligations to make payment under the terms of this Guarantee.

The Authority shall not assign / transfer or cause or permit to be assigned or transferred any of its rights, title, interests and benefits of this Guarantee without the prior written consent of the Guarantor Bank and the Concessionaire.

If one or more of the provisions of this Guarantee are held or found to be invalid, illegal, or unenforceable for any reason whatsoever, in any respect, any such invalidity, illegality, or unenforceability of any provision shall not affect the validity of the remaining provisions of this Guarantee.

The Guarantor Bank hereby declares and confirms that under its constitution and applicable laws, it has the necessary power and authority to:

(a) enter into, execute and deliver this Guarantee; and

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(b) perform the obligations it has undertaken under this Guarantee, which obligations are valid and legally binding on and enforceable against the Guarantor Bank under the laws of Pakistan.

Further, the Guarantor Bank hereby declares and confirms that the signatory(ies) to this Guarantee is/are its duly authorized officer(s) to execute this Guarantee.

This Guarantee and all rights and obligations arising from this Guarantee shall be governed and construed in all respects in accordance with the laws of Pakistan. The courts in Lahore, Pakistan shall have exclusive jurisdiction in respect of any dispute relating to any matter contained herein.

EXECUTED & ISSUED FOR & ON BEHALF OF THE GUARANTOR BANK			
NAME: DESIGNATION: DATED:			
WITNESSES			
WITNESS I	WITNESS II		
NAME: CNIC No.:	NAME CNIC No.:		

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SCHEDULE N - PART I - INDICATIVE INDEPENDENT AUDITOR TERMS OF REFERENCE

As indicated in the Independent Auditor Contract.		
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 $\begin{tabular}{ll} \textbf{Draft Concession Agreement for Rawalpindi Ring Road Project RFP-Volume II} \end{tabular}$ SCHEDULE N - PART II - INDICATIVE INDEPENDENT ENGINEER TERMS OF REFERENCE As indicated in the Independent Engineer Contract.

SCHEDULE O – FORM OF VESTING CERTIFICATE

- a. [insert details] being the Independent Engineer, and [insert details] being the Independent Auditor, refer to the agreement entitled "Concession Agreement" dated [●], 20 (as amended from time to time) (the "Concession Agreement") relating to, inter alia, the designing, construction, development, operation and maintenance (through Public Private Partnership on a design, build, finance, operate and transfer basis) the Rawalpindi Ring Road (the "Project");
- b. The Independent Engineer and the Independent Auditor hereby acknowledge the compliance the fulfilment by the Concessionaire of the Divestment Requirements set forth in Article 24 of the Concession Agreement and, on such basis, hereby issue this Vesting Certificate (the "Certificate"). Upon issuance of this Certificate, the Authority shall be deemed to have acquired, and all title and interest of the Concessionaire in or about the Concession Assets (as defined in the Concession Agreement) and the same shall be deemed to have vested unto the Authority, free from any encumbrances, charges and liens whatsoever, other than such encumbrances which the Authority was responsible to prevent under the terms of this Agreement.

Signed this day of, at	
FOR AND ON BEHALF OF [INSERT DETAILS]	
Signature	
Name	
Designation	
Signed in the presence of the following witnesses:	
Signature	Signature
Name	Name
NIC No.	NIC No.
FOR AND ON BEHALF OF [●]	
Signature	
Name	
Designation	
Signed in the presence of the following witnesses:	
AUTHORITY INITIALS	CONCESSIONAIRE INITIALS

Signature	Signature	
Name	Name	
NIC No.	NIC No.	

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SCHEDULE P – TOLL NOTIFICATION STRUCTURE

1. Sectional Completion: Upon any sectional completion, i.e. completion of minimum [36] km continuous stretch of the Project that shall start and terminate at Project's interchanges (including completion of fence, interchange(s) for entry / exit, toll plazas and all other safety measures), the Concessionaire shall be allowed to open that stretch to traffic and collect toll on thereof, subject to verification of Independent Engineer and written approval of Authority.

Following toll rates shall be allowed per kilometre upon sectional completion:

i. During first (1st) year of Construction Period:

No.	Category	Per Kilometer Toll Rates (PKR)
1	Car	2.64
2	Hiace	4.42
3	Bus	8.85
4	2-Axle Truck	11.51
5	3-Axle Truck	11.51
6	4-Axle Truck	14.82
7	5-Axle Truck	14.82
8	6-Axle Truck	14.82

2. The toll rates per kilometre, applicable once the Project is fully operational after the completion of the full length sixty five point three (65.3) km highway along with ancillary facilities, are fixed as under:

No.	Category	Per Kilometer Toll Rates (PKR)
1	Car	2.83
2	Hiace	4.73
3	Bus	9.47
4	2-Axle Truck	12.31
5	3-Axle Truck	12.31
6	4-Axle Truck	15.85
7	5-Axle Truck	15.85
8	6-Axle Truck	15.85

3. Vehicles that are above the permissible weight will be charged in accordance with the following structure:

A. Permissible Load

S. NO.	Types of Trucks	Maximum Allowable Weight
1	2 Axle Single	17.5 M. Ton
2	3 Axle Tandem	27.5 M. Ton
3	3 Axle Single	29.5 M. Ton
4	4 Axle Single Tandem	39.5 M. Ton
5	4 Axle Tandem Single	39.5 M. Ton
6	4 Axle Single	41.5 M. Ton
7	5 Axle Single Tridem	48.5 M. Ton
8	5 Axle Single Tandem-Tandem	49.5 M. Ton
9	5 Axle Single-Single Tandem	51.5 M. Ton
10	5 Axle Tandem Single-Single	51.5 M. Ton
11	6 Axel Tandem-Tridem	58.5 M. Ton
12	6 Axel Tandem- Single Tandem	61.5 M. Ton

B. Special Condition

1.	Axle Load limits for Single Axle is 12 tons,	, Tandem	Alex is 22 tons ar	nd Tridem	Axle is 31	tons v	vith Fr	ont
Axle	Load Limit is 5.5 Tons							

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2. The Pressure of Rear Axle should not be more than 120 psi and for Front Axle 100 psi.

C. Fine on Over Loading

S. NO.	Excess Over Permissible Limit	Fine
1	1.1% to 5%	Rs. 1000
2	5.1% to 10%	Rs. 2500
3	10.1% to 15%	Rs. 5000
4	Above 15%	Vehicle will not be allowed to use the
		road

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SCHEDULE Q – REQUIREMENTS OF INTELLIGENT TRANSPORTATION SYSTEM (ITS)

APPROACH & METHODOLOGY

1. PROJECT INTRODUCTION

This aim of this Project is to design and install Intelligent Transportation System (ITS) on Rawalpindi Ring Road (RRR) of about 65.3 Km from N-5 near Radio Pakistan to N-5 Sangjani Interchange. ITS is supposed to improve road safety, traffic efficiency, facilitation of the passengers and automatic toll collection.

ITS shall have following advantages:

- To reduce travel time
- To improve traffic congestion
- To optimize fuel consumption
- To improve traffic efficiency
- To enhance road security and mobility
- To mitigate traffic violations
- To automatically detect and identify moving vehicles

1.1. Components of Proposed Services

Intelligent Transport Systems are evolved by the integration of Information and communication technology with transport infrastructure. State-of-the-art intelligent technologies are tailored specifically for application to the transport Industry. These systems are applied to solve transportation problems which enhance safety and mobility as well as productivity through the use of advanced information and communications technologies.

RDA aims to deploy the state-of the-art Intelligent Transport System (ITS) along Rawalpindi Ring Road for improving road safety, traffic efficiency, passenger facilitation, automated toll collection, logistic management and other applications. This ambitious project will bring the mentioned project to the international level Highway.

2. PROJECT OBJECTIVES

Objectives of ITS are as follows:

- Reducing traffic congestion
- Smoothening the traffic flow
- Reducing traffic accidents
- Improving safety
- Enhancing the mobility of travelers
- Reducing the use of energy
- Reducing fuel consumption
- Reducing pollution
- Reducing capital and operating costs
- Increasing the viability of public transportation
- Responding more efficiently to incidents
- Increasing the ease and convenience of travel
- Automatic toll collection

3. DETAILS OF INTELLIGENT TRANSPORTATION SYSTEMS TO BE IMPLEMENTED

(Traffic Control Center (TCC), Tier III Primary and DR Data Center)

3.1. Traffic Control Center (TCC)

The Traffic Control Centre (TCC) shall be the nerve centre of this project and shall house equipment (hardware, software) and personnel for monitoring, controlling and management of roadway traffic. The Traffic Control Centre (TCC) will be the physical location(s) where the command and control functions occur. Tier-III primary data center shall also be housed in the Traffic Control Center (TCC).

The TCC shall include a powerful combination of technologies to benefit the motoring and public safety. The TCC shall be equipped with servers, switches, routers, firewalls, racks, aisle containment, in-row cooling, fire detection and suppression system, monitoring cameras, cooling system, IP based security system, fingerprints and face recognition locks, decoders, video wall, consoles, workstations and furniture etc. All the software platforms in the TCC shall be integrated so that any event can be processed by single click without any delay.

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The goal of freeway traffic management is to provide motorist safety through incident management, and, to

provide travelling information to the motorists. From the TCC, a team of professionals will manage the ring road traffic during peak periods. From the TCC operators will be able to use the state of the art technology to observe and report traffic incidents. They will be able to control the operation and maintain the desired vehicle flow on the freeway. They will also be able to place messages on the dynamic message signs to



help guide and inform the motorists. Data gathered from the speed monitoring sites will be made available to "drive" a real-time traffic flow map. Real-time traffic flow maps shall be developed based on the video detection and an image processing algorithm to measure traffic-flow according to the average speed of vehicles.

The TCC shall include a powerful combination of technologies to benefit the motoring and public safety. The goal of freeway traffic management is to provide motorist safety through incident management, and, to provide travelling information to the motorists. From the TCC, a team of professionals will manage the ring road traffic during peak periods. From the TCC operators will be able to use the state of the art technology to observe and report traffic incidents. They will be able to control the operation and maintain the desired vehicle flow on the freeway. They will also be able to place messages on the dynamic message signs to help guide and inform the motorists. Data gathered from the speed monitoring sites will be made available to "drive" a real-time traffic flow map. Real-time traffic flow maps shall be developed based on the video detection and an image processing algorithm to measure traffic-flow according to the average speed of vehicles.

TCC shall collect weather data from different weather stations and shall communicate the desired data to the road users in different ways i.e. telephone, radio, navigation devices and Variable Message Signs (VMS) etc. TCC shall also be connected to differed detectors/sensors deployed at road side for different applications such as speed cameras, security cameras, Automatic Number Plate Recognition (ANPR) cameras, speed limits, emergency telephone system, and toll collection data. Through intelligent software received data shall be monitored, controlled and the required information shall be broadcast through different means i.e. VMS and/or viaFM radio system.

To provide real-time traffic information system, different technologies shall be applied. Optical Fiber Cable (OFC) based communication backbone shall be used for primary network and wireless/radio networks shall be used as secondary link of communication. Wireless network shall consist of 4G networks of licensed cellular mobile operators for ITS applications.

The heart of the TCC will be the ITS application and management software which shall be a powerful transportation and event management solution.

UPS and Generators will ensure an uninterrupted power supply within the TCC. The following equipment shall be deployed in the TCC:

- Servers and Workstations
- Video Display Units
- Network switches
- Printer, UPS, Generators
- Solar power supply system

In addition to above mentioned systems, other Extra Low Voltage (ELV) systems can also be deployed at TCC after consultation with the Employer. Few of these systems include IP based Public Address System (PAS), Access Control System, Biometric Attendance System, Fire Alarm System, Wi-Fi System and Building Automation System (BAS) etc.

Tier III Primary Data Center

The Tier III Primary data center shall have Sustainable Facility Infrastructure covering the following:

- 1. Data Storage and Data Transportation with increased demand
- 2. Applications / systems availability / SLA
- 3. Complex & heterogeneous systems
- 4. Service levels for uptime and responsiveness
- 5. Amount of data (live and retention)
- 6. Regulatory compliance and security

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- 7. Changing business demands
- 8. Green practices & energy costs

A Tier III Primary data center shall concurrently maintainable, allowing for any planned maintenance activity of power and cooling systems to take place without disrupting the operation of computer hardware located in the Primary data center.

All aspects of the physical Primary data center, architecture, electrical, mechanical, telecommunications, fire suppression, and security and build out process intact with each other."

Tier III Design Expectations:

- 7/24/365 Operation
- 24 hours Response time backed by Principal support
- Adequate Capacity planning resulting Expandability and Scalability in full capacity in future "From day one in Phased approach"
- Flexible in Power Distribution
- Concurrent Maintainable with Planned Shutdown ensuring one path is active @ Rating III conformance Rating III Design (Paths and components redundant, both)
- System's High Availability @ Rating III Design
- All Quality Assurance and Check points validations are ensured during workmanship services for necessary Installations and modifications for "Architectural, Electrical and Mechanical and Telecom outfit requirements"

Standards:

- (TIA) ANSI/TIA-942-A The Telecommunications Industry Association (TIA) ANSI/TIA-942-A Telecommunications Infrastructure Standard for Primary data centers
- TIA/EIA-568 structured cabling work.

The associated ITDC Facility Core are Design & Engineering including following:

- a. ITDC Facility POD Mechanical (Thermal Design & Electrical Engineering)
- b. ITDC Facility Architecture
- c. ITDC Facility Plumbing & Fire Protection Systems Design
- d. ITDC Facility Structural Engineering
- e. ITDC Physical Security Systems Design
- f. ITDC Cabling Systems Design
- g. ITDC DCIM Information Technology Systems Design
- h. The specialized design integration for above led with ongoing support for high-end Modular IT Primary data center facility, network operations Centers, telecommunications Centers and Communication Center for all these services to run in proactive integrated manner through highly skilled technical staff with always available requirements is operation Rating III ITDC Facility.

The Rated III ITDC Facility site shall have instrumental in integrating innovative solutions with relevant hardware supply, installation with supporting infrastructure solutions including sub layers as under:

- 1. Integrated ITDC Modular Infrastructure Systems covering 5-key functional areas for Enterprise organizations which shall be equally consolidated with defined areas under reduced topology design limited to the following:
 - a. Entrance Room (ER)
 - b. Main Distribution Area (MDA)
 - c. Horizontal Distribution Area (HDA)
 - d. Zone Distribution Area (ZDA), opt.
 - e. Equipment Distribution Area (EDA)
 - f. Ideal is Reduced Primary data center Topology
 - i. Consolidated ER/MDA/HAD
 - ii. Applicable to most enterprises
- 2. MV to LV Substation system with Tie Main features
- 3. Modular UPS & Type Tested Power Distribution Systems
- 4. Generator, Type tested Sync panels & ATS
- 5. Battery Systems
- 6. Precision in row /perimeter Computer Room Air Conditioning
- 7. Cooling Distribution for row-based system
- 8. Heat Rejection Equipment
- 9. flooring ESD compliant
- 10. Fire Detection Systems
- 11. Pre-Action Sprinkler Systems
- 12. Inert Gases/ Other Dry-Type Suppression Systems
- 13. Environmental Monitoring Systems
- 14. Leak Detection Equipment
- 15. CCTV & IP-Camera Systems

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- 16. Access Control Systems
- 17. Facial Recognition system for locks and other
- 18. Racks, Cabinets & Accessories
- 19. Structured Cabling
- 20. Cable Management
- 21. Cable Pathway
 - a) Structured vs. Unstructured Cabling
 - b) Horizontal cabling
 - c) Backbone cabling
 - d) Cross-connect in the entrance room or main distribution area
 - e) Main cross-connect (MC) in the main distribution area
 - Horizontal cross-connect (HC) in the telecommunications room, horizontal distribution area or main distribution area
 - g) Zone outlet or consolidation point in the zone distribution area
 - h) Outlet in the equipment distribution area
- 22. NOC, SOC and Communication Console & Technical Furniture
- 23. Network & Security Infrastructure
- 24. Server & Storage Systems movement and physical deployment
- 25. KVM & Remote Access Systems

DR Data Center

DR Data Center shall comprise of Blade Server, Video Servers/Processors and Video archiving, Video Recorder(s), IP Contact Center, Video wall and Work Stations. Video Storage of 72 Hours shall be provided. Specifications of Blade Server and Video Server/Processor/storage shall be equivalent to the Blade and Video Server for Primary data center. Software Licenses shall be included for creating video walls on the operator's machines where they can see the output of multiple cameras on a single screen. This DR Data Center shall be hosted in an existing toll station located at D.I.Khan or Hakla with backup of all data and recording features of ITS System.

<u>Interface of Traffic Control Center with Rawalpindi Ring Road Authority Head Quarters, Islamabad</u>

The Traffic Control Center and Tier-III Primary Data Center shall be integrated with the existing control center at Rawalpindi Ring Road Authority Headquarters Rawalpindi.

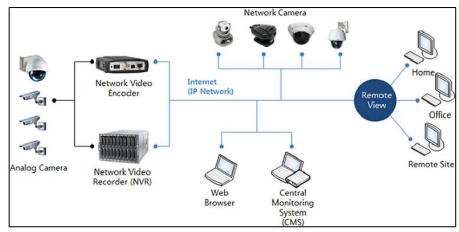
3.2. <u>Video Surveillance System</u>

Video Surveillance System shall be used to provide 100% constant coverage of the entire ring road key locations including TCC, toll plazas, approaches/exits etc. Fixed, PTZ, ANPR and speed detection type cameras shall be deployed.

cameras shall be used in video surveillance system for security and surveillance applications such as fixed, PTZ, ANPR, thermal cameras and speed detection cameras etc. The

CCTV Cameras to

Various types of



be deployed shall be suited to the environment of the ring road including use during incidents and shall be rated according to the latest international standards. Cameras shall have the facility for the screen to be cleaned by remote control from the TCC.

Outdoor Fixed and PTZ Cameras

The outdoor cameras shall support video content analysis, facial recognition, artificial intelligent, object counting, motion detection, cross counting for human and vehicles and intelligent seeing analysis i.e. edge level features. The camera shall be equipped with deep learning algorithm having People and Vehicle Counting technology. The camera shall have Video Metadata technology which can detect, track, capture vehicle, non-motor vehicle and people. The camera shall have Perimeter Protection technology which shall recognize human(s) and vehicle(s) accurately, and shall have detection in restricted areas (such as pedestrian area and vehicle area). The camera shall be equipped with deep Learning Algorithm technology which shall track and process moving human body targets to realize the accurate statistics. The camera shall be certified from international standard i.e. Chartered Engineers (CE) Europe, European Standard EN, Federal Communications Commission (FCC) etc. Outdoor PTZ type cameras shall be installed after every 500m to 1Km or as per

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Employer's requirement. The cameras shall be installed on a pole powered up by solar power supply system and batteries.

ANPR Camera

ANPR cameras shall be used to record the vehicle registration numbers of passing traffic at all entry and exit of ring road and other key locations where required. By matching the encrypted vehicle registration number between camera locations, a journey time can be derived between those two ANPR locations. ANPR camera shall have capability of operating day/night and capturing image of standard and nonstandard number plates of vehicles. The ANPR Camera shall have advance Artificial Intelligence features including Vehicle data structuring, license plate recognition, vehicle size (large bus, heavy truck, medium truck, sedan, minivan, light truck, SUV, MPV, medium bus, pick-up and mini car) and vehicle color detection. ANPR cameras shall be installed at each lane of the toll stations. The camera shall be certified from international standard i.e. Chartered Engineers (CE) Europe, European Standard EN, Federal Communications Commission (FCC) etc. The cameras shall be installed on a pole powered up by solar power supply system and batteries.

Speed Detection Cameras

Speed detection cameras shall have the full control of all moving vehicles simultaneously including individual speed tagging, distance and other essential meta-data of each captured car. Automatic monitor different speed limits for each lane as well as vehicles types. Camera quality and advanced tracking technology shall allow to monitor vehicles from far ranges for the proposed lanes of ring road. These cameras shall support these features: even/odd violation, black list violation, too close violation, red light violation and lane change violation. Speed detection cameras shall be installed after every 10-30 Km or as per Employer's requirement. The camera shall be certified from international standard i.e. Chartered Engineers (CE) Europe, European Standard EN, Federal Communications Commission (FCC) etc. The cameras shall be installed on a pole powered up by solar power supply system and batteries

Network Video Recorder (NVR)

Network Video Recorders (NVRs) shall be installed at TCC which shall view, store and manage real-time video streams of all cameras with related time stamp and camera location. It shall also process the videos using latest video analytics and artificial intelligence features. The NVR shall have sufficient capacity to store video images at full speed and full resolution.

The Video surveillance system shall be designed for continuous operation for a service life of 15 years regardless of location and in accordance with manufacturer's recommendations. Video surveillance system shall be able to fully integrate with the ITS application and management software at the TCC. The information from video surveillance system shall be collated by the TCC and will be used in the future to inform drivers using VMS.

Standards

The system shall be designed according to IEC/BS/EN/ISO/ASTM and Local Standards. Outdoor closed circuit television cameras shall be governed by the following general standards but not limited to:

ISO 12233	Photography. Electronic still picture cameras.
	Resolution measurements
BS EN 50132-7	Alarm systems. CCTV surveillance systems for use in
	security applications. Application guidelines
Consultative Committee for International	Phase Alternation By Line PAL-D Broadcast TV
Radio (CCIR)	standard.
EN 55022:2010	Information technology equipment– Radio disturbance
	characteristics- Limits and methods of measurement
EN60950	Information technology equipment – Safety – Part 1:
1:2006/A11:2009/A1:2010/A12:2011/A2:2013	General requirements
EN 55032:2015	Electromagnetic compatibility of multimedia
	equipment – Emission requirements
IK 10, BS EN 62262:2002	Degrees of protection provided by enclosures for
	electrical equipment against external mechanical
	impacts (IK code)
BS EN 61000-3-3:2013	Electromagnetic compatibility (EMC). Limits.
	Limitation of voltage changes, voltage fluctuations and
	flicker in public low-voltage supply systems
EN 55024:2010+A1:2015	Information technology equipment. Immunity
	characteristics. Limits and methods of measurement

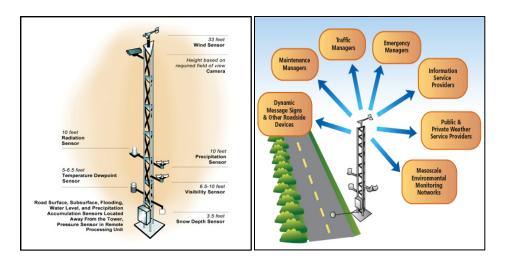
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EN 61000-3-2:2014	Electromagnetic compatibility (EMC). Limits. Limits	
	for harmonic current emissions	
ONVIF	Under process Network interfacing standards for	
	cameras.	

3.3. Weather Information System (WIS)

A weather information system is a combination of technologies that collects, transmits and disseminates weather and road condition information. The component of WIS that collect weather data is the Environmental Sensor Station (ESS). This station is a fixed roadway location with one or more sensors measuring atmospheric, surface and/or hydrological conditions including:

- 1. Atmospheric sensor- Air temperature, Barometric pressure, relative humidity, wind speed and direction, precipitation type and rate, visibility distance.
- 2. Surface sensor- pavement temperature and condition (Dry, Wet, Ice, Freeze point, Chemical concentration), subsurface temperature, subsurface freeze/thaw cycle
- 3. Roadside Controllers capable of:
 - Performing multiple tasks simultaneously to optimize data acquisition from the different environmental sensors.
 - Collecting data from all sensors
 - Process, store, and transmit the data to the TCC software
- 4. Performing multiple tasks simultaneously to optimize data acquisition from the different environmental sensors.
- 5. Hydrologic sensor (Stream, river and tide level) if required.
- 6. Data collected form Environmental Sensor in the field shall be stored on site in a remote processing unit (RPU) located in a cabinet. In addition to RPU, cabinet shall house power supply and battery backup devices. The RPU shall transmit environmental data to TCC via communication network i.e. fiber optics. WIS hardware and software shall collect field data from numerous ESS, process data to support various operational applications, and display road weather data in a format that can be easily interpreted by road user.



Weather information system shall be installed after every 10-30 Km or as per Employer's requirement. The information acquired from the weather information/detection system shall be displayed at the Variable Message Signs.

Standards

Design and implementation of Weather Information system shall be done according to latest international standards. However, few of these standards are listed below:

NTCIP 1201	Global Object (GO) Definitions
NTCIP 1204	Standard for Environmental Sensor Station Interface Protocol

3.4. Variable Message Signs (VMS)

The VMS is an overhead sign capable of displaying standard pre-programmed aspects within a matrix of Surface Mount Device (SMD). The VMS shall incorporate dual-color lanterns using SMD matrices. VMS are used to provide drivers with information about congestion, incidents, speed limit, events and road safety messaging in order that drivers can make informed decisions about their journey or receive information on important national campaigns. VMS shall be preferably placed closed to



the existing power and communication system to minimize cost or any other location deemed to be necessary. VMS shall be powered by utility power supply. In case of absence of utility power supply, backup power shall be provided using solar power supply system.

Then, traffic status of each section shall be broadcasted to the electronic displays installed at different points. Different levels of congestion related to the routes ahead shall be shown on the displays with different colors in order to assist commuters. This system shall be implemented on important parts of ring road. By implanting this system in ring road average speed shall be improved.

Information shall be displayed on the VMS in English, Urdu or any other national language. The main components of VMS shall include but not limited to controller, modem and housing etc. The VMS shall be installed on the gantry after every 10-30 Km or as per Employer's requirement. The size and length of the gantry shall be finalized after consultation with the Employer.

Standards

All equipment shall be designed, manufactured, tested and installed according to the BS/IEC/ISO/ITU/EN/CE recommendations. The following minimum standards shall be applied:

- a. EN 55022:2010 Information technology equipment– Radio disturbance characteristics– Limits and methods of measurement.
- b. EN 61000-3-2:2014: Electromagnetic compatibility (EMC). Limits. Limits for harmonic current emissions
- c. BS EN 61000-3-3:2013: Electromagnetic compatibility (EMC). Limits. Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems.
- d. EN 55024:2010+A1:2015: Information technology equipment. Immunity characteristics. Limits and methods of measurement
- e. EN 60950-1:2006/A11:2009/A1:2010/A12:2011/A2:2013 Information technology equipment Safety Part 1: General requirements.

3.5. Electronic Traffic and Toll Management System

Electronic toll collection system shall be deployed to collect tolls with use of machine assistance and thereafter maintain primary and backup records thereof. The Toll Collection systems shall be set up as a closed loop system allowing automatic toll collection proportionate to the distance covered. Reusable Magnetic Cards may be deployed for this purpose. Information regarding the cash receipts shall be immediately communicated to the Traffic Control Center (TCC) where primary and backup data archives for the collected tolls shall be available in real time or instant viewing. Each toll booth shall be powered by the utility power supply, if available. Solar power supply system, electronic UPS and diesel generating sets shall provide backup power in case of absence of primary power. Automatic Vehicle Classification (AVC) system shall be installed at electronic toll stations at each lane. On the fly toll collection in the form of RFID, E-Tag facility shall also be provided. Toll booths shall allow controlled access of the ring road to the motorists through the use of software controlled retractable barriers.

Software based traffic management shall be deployed in the control center for smooth and safe traffic flow though out the ring road

Standards

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The following communications standards shall be applicable as minimum:

- Crescent HELP;
- ATA 5/16/90;
- ISO 10374.2;
- AAR S-918-92;
- ANSI MH5.1.9-1990

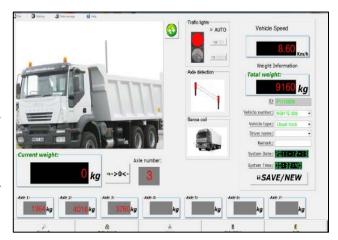
3.6. Weigh-In Motion Detection System

Weighing system shall be deployed at every motor way entrance and at any other location as per employer requirement, for the purpose of enforcement. This system shall measure the weight of all vehicles before entering on the ring road the system shall be connected to the TCC and an alert the TCC operator when an overweight vehicle is detected.

The system shall consist of following minimum components for weighing system configuration:

- a) Weighing sensors (e.g. quartz piezo sensor)
- b) Vehicle detection equipment (e.g. vehicle loop detectors)
- c) Housing and Mounting Structures
- d) Software

The configuration of any weighing system and associated equipment shall support optimum performance at all times. The system shall be designed for continuous operation for a service life of 15 years. It shall be possible to safely maintain all equipment with minimal disruption of traffic. This should be done in such a way as to allow easy access to conduct maintenance on equipment. All installations shall be easily accessible to enable the replacement of equipment. The roadside controller shall detect failed equipment and transmit alerts to the TCC.



Standards

The following standards shall be followed as a minimum.

NTCIP 1201	Global Object (GO) Definitions
NTCIP 1206	Object Definitions for Data Collection
COST 323 Class B(10)	European Commission's Transport Directorate,
	DG VII Recommendation

3.7. Communication Systems

Communication infrastructure is the crucial part of the urban traffic management system for merging the data in the TCC, tracking the data, managing the information and storage.

Major ITS systems such as video surveillance system, Variable Message Signs (VMS), weather information system etc. shall be communicating with the TCC using the telecommunication infrastructure. Communication infrastructure shall consist of network routers, switches, servers, workstations, Local Area Network (LAN) and optical fiber.







Network switches and routers shall be Open Systems Interconnection (OSI) Layer-2 or Layer-3 Managed Ethernet Switches with fiber optic backbone connections. Where pluggable Local-Area-Network/Wide-Area-Network (LAN/WAN) interface is supported, the network switch shall allow hot-swapping (insertion and removal of module without causing disruption to regular functions) of LAN/WAN interface module while in full operation.

Redundant Optical Fiber Communication (OFC) network shall be used as the primary backbone for ITS system. For this purpose, an extensive Optical Fiber Cable (OFC) network shall be deployed. Route planning shall be the first step for OFC related works, which give the general routes based on which, further work will be carried out. However, before route planning, camera installation sites shall first be finalized. After all site locations are finalized, draft route planning shall be done with the assistance of mapping tools (Google Earth etc.). The planning principal will consider the transmission requirement, its safety, feasibility and economics.

Preliminary surveys shall verify and adjust the planned routes, the purpose of surveys shall be to find out the most feasible routes between sites, and to find out possibly less difficult routes which are easier to implement and maintain and easy to get Right of Way (RoW). The draft route plan shall be continuously adjusted till its perfection. These plans shall be important for next step, i.e. preparation of bidding document which shall be the basic guidance for detailed survey and design by the Contractors. Finalized route map shall be plotted on a map (e.g. Google Map) and shall be submitted to Employer for approval.

Standards

Functional standards supported by the network switch shall include:

- IEEE 802.3 full-duplex operation;
- IEEE 802.1p priority queuing,
- IEEE 802.1w RSTP,
- IEEE 802.1QVLAN,
- IEEE 802.3u,

Design and implementation of fiber optic cable backbone network shall be done according to latest international standards. However, few of these standards are listed below:

Standard	Description
ITUT G.652.D	Characteristics Of A Single-Mode Optical Fiber And Cable
ISO/IEC 11801	Information Technology - Generic Cabling for Customers
	Premises
IEC 60793	Optical fibers - Product specifications - General
IEC 60794	Optical fiber cables - Generic specification - Basic optical cable
	test procedures - General guidance
TR-109	PTCL Technical Specifications
TR-192	PTCL Technical Specifications

4. COMPOSITION OF TOLL GATES

Refer PDR, where Typical Cross Section shows the schematic arrangement of Toll Gates, which are similar for all the Toll Plazas. The concessionaire shall ensure installation of full width gantries for cameras at entrance of every toll plaza.

ITS Audit requirement

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As soon as the ITS is online, the Concessionaire shall get a technical audit carried out of the ITS and thereafter a technical audit shall be carried out every three (3) years.	
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SCHEDULE \mathbf{R} – Form of Toll Notification

The Toll Notification shall be issued by the Authority in accordance with the Applicable Laws.		
AUTHORITY INITIALS	Concessionaire Initials	

SCHEDULE S – NOTICES

1.	AUTHORITY:	
	Attention:	[●] ,
	Address:	[•]
	Phone:	[•]
2.	CONCESSION	AIRE:
	Attention:	[•]
	Address:	[•]
	Phone:	[•]

CONCESSIONAIRE INITIALS

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AUTHORITY INITIALS

SCHEDULE T – TERMINATION PAYMENT

SR. No.	TERMINATION PAYMENT AMOUNT	COMPENSATION PAYABLE BY AUTHORITY
1.	Non Political Event Termination	(a) the Termination Equity; plus
1.	Amount	(b) the Financing Due
2.	Political Event Termination Amount	(a) the Termination Equity; plus
		(b) the Termination Dividend Amount, plus
		(c) the Financing Due
3.	Concessionaire Default Termination Amount	(a) the Financing Due
4.	Authority Default Termination Amount	(a) the Termination Equity; plus
	Amount	(b) the Termination Dividend Amount, plus
		(c) the Financing Due
5.	Corrupt Act Termination Amount	(a) the Financing Due
6.	Change in Law Termination	(a) the Termination Equity; plus
	Amount	(b) the Termination Dividend Amount, plus
		(c) the Financing Due

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SCHEDULE U - FINANCIAL MODEL

(The Financial Model in Microsoft Excel Sheet with all t with the Bid to be inserted here)	he working formulas as submitted by the Concessionaire
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Included as Annexure A to this Agreement.	
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SCHEDULE V – OPERATIONS AND MAINTENANCE OF THE PORTION OF THE CPEC ROUTE

1.OPERATIONS

Concessionaire will construct toll plaza prior to entering Hakla – D.I Khan Interchange at R3.

Route -I

For traffic coming from Rawat and heading towards D.I. Khan, the Concessionaire will collect the revenue (toll) from commuters on Hakla - D.I.Khan interchange at R3 whereas and NHA will issue ticket through independent toll booth at R3.

Route-II

For traffic coming from Rawat and travelling towards M-1 (Islamabad-Peshawar Motorway), Hakla- D.I. Khan Motorway & E-35 (Hassanabdal-Mansehra Expressway). The Concessionaire will collect the revenue from commuters at R3 and NHA will issue ticket through independent toll booth and collect its toll on M-1/E-35.

Route-III

NHA will not collect toll from commuters coming from Rawat and heading towards Sangjani as Concessionaire will collect toll at Hakla - D.I. Khan Interchange at R3 toll plaza.

Route-IV

For traffic coming from Sangjani and heading towards Rawat, NHA will issue ticket at Toll Plaza prior to crossing over M-1 (Islamabad-Peshawar Motorway) and collect toll at R3 Toll Plaza on Hakla - D.I. Khan Interchange whereas Concessionaire will issue ticket through independent toll booth for onward travel along R3.

Route-V

For traffic coming from M-1 (Islamabad-Peshawar Motorway) and heading towards Rawat, NHA will collect revenue at R3 toll plaza on Hakla - D.I. Khan Interchange whereas the Concessionaire will issue ticket through independent toll booth for onward travel along R3.

Route -VI

For traffic coming from D.I. Khan and heading towards Rawat, NHA will collect toll at R3 toll plaza on Hakla - D.I.Khan Interchange whereas Concessionaire will issue ticket through independent toll booth at R3.

Route -VII

For traffic coming from Sangjani heading towards D.I. Khan, NHA will issue ticket prior to crossing over M-1 (Islamabad-Peshawar Motorway) and collect toll on Hakla - D.I.Khan motorway.

Route -VIII

For traffic coming from D.I.Khan and heading towards Sangjani, M-1 (Islamabad-Peshawar Motorway) & E-35 (Hassanabdal-Mansehra Motorway) NHA will collect toll and issue ticket at toll plaza before Hakla – D.I.Khan Interchange at R3.

2. MAINTENANCE

The Concessionaire undertakes to maintain the North Bound of CPEC Route Site in good condition at the Concessionaire's own budgeted expense.

NHA undertakes to maintain the South Bound of CPEC Route Site in good condition at the NHA's own budgeted expense.

The operations and maintenance of toll plazas under the command of Concessionaire will be maintained by the Concessionaire itself.

The toll plazas under supervision and command of NHA will be operated and maintained by NHA.

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SCHEDULE W – INTERCHANGES

New Interchanges

In this project, at present four Interchanges shall be constructed out of proposed nine Interchanges in PDR, for adjoining local road terminating points to tie with project road.

Sr. No.	Location	Tentative Chainage*
1	BOP at N-5 (Radio Pakistan)	KM 0+000
2	Murat at M-2	KM 36+200
3	Hakla DI khan Interchange	KM 51+700
4	Sangjani	KM 65+300

^{*}Exact location/chainage of the Interchanges will be finalized in consultation with Authority and reflected in the Detailed Design.

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SIGNATURE PAGE

SIGNATURE PAGE				
GOVERI (Throug ROAD A	on behalf of NOR OF PUNJAB gh SECRETARY, LAHORE RING AUTHORITY) its authorised signatory	}	SIGNATURE	
Name: Designa	tion:			
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