



BIDDING DOCUMENT
FOR
HIRING OF SERVICES FOR RESTORATION/
RELOCATION/ SHIFTING OF PSCA
INFRASTRUCTURE AT DIFFERENT SITES IN
LAHORE

Tender No: PSCA/42/22 June/21

PUNJAB SAFE CITIES AUTHORITY

Date: June 22, 2021

DISCLAIMER

1. This request for bidding documents has been prepared by the Punjab Safe Cities Authority ("PSCA")/ procuring agency. This request constitutes no commitment on the part of the PSCA to enter into any arrangements with any bidder in respect of this proposed procurement or otherwise.
2. The information contained in these bidding documents or as may be subsequently provided to bidder (whether verbally or in documentary or any other form) by or on behalf of the PSCA, on the terms and conditions set out in these bidding documents, are indicative only and are provided solely to assist in a preliminary assessment of the proposed procurement.
3. These bidding documents do not constitute an agreement; its sole purpose is to provide interested bidders with information that may be useful for them in preparing their bids pursuant to these bidding documents.
4. These bidding documents may not be appropriate for all persons and it's not possible for PSCA to consider the objectives and particular needs of each party which reads or uses these bidding documents.
5. The assumption, assessment, statements and information contained in these bidding documents may not be complete, accurate and adequate or correct for the purposes of any or all bidders.
6. Each bidder shall, therefore, conduct its own due investigation and analysis, check the accuracy, adequacy, correctness, reliability and completeness of the assumption, assessments, statements and information contained in these bidding documents and seek independent professional advice on any or all aspects of these bidding documents, as deemed appropriate. However, PSCA not under obligation to consider any such advice or opinion.
7. All information submitted in response to this bidding documents becomes the property of the procuring agency (PSCA), including all business information and proprietary data submitted with all rights of communication and disclosures.
8. The PSCA shall not be responsible for non-receipt or missing or delay of any correspondence/ bid etc., sent by the post / courier / email / fax by the bidder.
9. No decision shall be based solely on the basis of the information provided for any statements, opinions or information provided in these bidding documents.
10. While submitting a proposal in response to these bidding documents, each bidder certifies that he/it understands, accepts and agrees to the disclaimers set forth above.
11. Nothing contained in any provision of these bidding documents or any statements made orally or in writing by the person or party/bidder/contractor shall have the effect of negating or suspending any of the disclaimers set forth herein.
12. PSCA reserves the right to withdraw it or cancel this bidding process or any part thereof, or to vary any of its term at any time during the completion of this process & Contract milestone or termination of such Contract signed between the successful Bidder & PSCA without incurring any financial obligation in connection therewith.
13. PSCA has also right to rectify any arithmetical or typo mistake at any time of this process.



INVITATION FOR BIDS



Punjab Safe Cities Authority, Lahore (PSCA) invites sealed bids from eligible bidders for:

HIRING OF SERVICES FOR RESTORATION/ RELOCATION/ SHIFTING OF PSCA INFRASTRUCTURE AT DIFFERENT SITES IN LAHORE

Interested eligible bidders can obtain detailed bidding documents which are available in the office of PSCA by depositing tender fee of **Rs. 5000/- per LOT (non-refundable)** in favor of “Chief Operating Officer Punjab Safe Cities Authority”, Account# PK07BPUN6580045845500064 (Bank of Punjab) having NTN: 7129125-0 and may also be downloaded from the website of Punjab Safe Cities Authority (www.pscg.gop.pk) & PPRA (www.ppra.punjab.gov.pk).

Sealed and completed bids in accordance with the requirement of the bidding documents must be reached in this office on or before **PST 1100** hours on **July 08, 2021** which **shall be opened on the same date** in the presence of bidder's representative (who chose to attend) at **PST 1130** hours in the office of PSCA.

For obtaining any further information or clarifications, please feel free to contact at procurement@pscagop.pk

Contact: (+92) (42) (99051605-7) Website: www.pscagop.pk

Punjab Safe Cities Authority

The Future of Punjab Police



PPIC3 Centre Qurban Police Line Lahore, Pakistan

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Punjab Safe Cities Authority

Part- I (Section I)

INSTRUCTIONS TO BIDDERS/SERVICES PROVIDERS

A. Introduction

1. Punjab Safe Cities Authority & This Project

- 1.1. Punjab Safe Cities Authority (PSCA) has been established and functioning in Police Qurban Lines Lahore.
- 1.2. PSCA has sufficient funds for this project, subject to the approval of the competent authority.
- 1.3. PSCA intends to hire the services for [Hiring of Services for Restoration/ Relocation/ Shifting of PSCA Infrastructure at Different Sites in Lahore](#) as per requirements of PSCA.

2. Eligible Bidders/ Services Providers

- 2.1. This Invitation for Bids is open to all Bidder(s)/ Service Providers except as provided hereinafter and the Bidder/Service Provider must meet the requirements as described in this bidding Document.
- 2.2. Government-owned enterprises/entities may participate only if they are legally and financially authorized for that purpose.
- 2.3. Bidders/Service Providers shall not be under a declaration of blacklisting by any Government department or Punjab Procurement Regulatory Authority (or any PPRA) or Courts or involved in any corrupt practice or facing such case anywhere or declared bankrupt/ defaulter.
- 2.4. Each bidder/Service Provider is allowed to submit only one bid for either individually or as a partner /firm etc. In case a bidder/Service Provider submits more than one bid his/it's all bids shall be rejected.
- 2.5. Joint Venture (JV) is allowed and in case of a Joint Venture (JV)/ Consortium:
 - 2.5.1. All partners to the JV/Consortium shall be jointly and severally liable; and
 - 2.5.2. JV/Consortium must be represented by its Lead Partner and such representative/lead partner must be authorized from all the partners in writing/duly stamped.
 - 2.5.3. The lead partner shall be responsible to provide all authorization documents/evidence on behalf of all Consortium/JV partners such

- as JV signatory authorization or legal status of all JV partners.
- 2.5.4. Lead partner and its JV partners should meet the requirements as described in definitions.
- 2.5.5. The Foreign Bidder/Service Provider is entitled to participate only in a Consortium/JV arrangement with a domestic partner, in accordance with provisions of PEC Bye-laws/ relevant applicable laws.
- 2.5.6. In case of consortium/JV the foreign Bidder/Service Provider should have business, sales and support in Pakistan. If not, the Bidder/Service Provider shall establish such office for business, sales and support in Pakistan.
- 2.5.7. A Bidder/Service Provider shall be deemed to be registered in an eligible country, if the Bidder/Service Provider has got its registered head office in that country; or is constituted, incorporated, or registered or deemed to be registered under the prevailing Acts/laws and operates in conformity with the provisions of the laws of that country.
- 2.5.8. Application submitted by a consortium/ Joint Venture (JV) shall include the Joint Venture Agreement (on Stamp paper of amounting PKRs. 1,200) entered into by all partners. Any member of the JV shall not be allowed to withdraw itself from or shall not be excluded by the other after signing of contract and if it is essential that shall be replaced with the prior approval of the Employer on solid reasons and justifications and with the same range/profile company/partner or higher but in no case lower to the profile/ experience etc. of the said partner (required to be replaced).
- 2.5.9. In case the bid is submitted through JV/consortium, and in case of fraudulent practice or attempt to such fraudulent practice all JV partners shall be blacklisted.
- 2.5.10. In case any partner of JV/consortium has been debarred/ blacklisted/ bankrupt by any Procuring Agency/Authority or Court than the application of such JV shall be rejected whether it is at any stage and such debarment

shall equally be applicable in case of each partner.

2.5.11. Specific technical experience/ past performance of JV partners or its key staff cannot be aggregated to fulfil minimum qualification requirement e.g. *if it is required that the Bidder/Service Provider must have past experience of business/establishment for 05 years, the JV partners shall not be allowed to combine the partners' experience of (2) year for one firm (JV partner) and (3) year of second firm (JV partner), with a view to reaching the total 5-year experience.*

2.5.12. In case any JV partner was debarred/blacklisted/bankrupt at the time of bid submission and this information was not provided then all such JV Partners shall be debarred/blacklisted on this sole ground at any time even during the bidding process/contract period or after completion of the contract. However, if any JV Partner declare bankrupt/blacklist/debar during the process of procurement or contract period, PSCA may decide at its own to continue the contract with remaining JV Partner allowing to include any other partner as provided above para or cancel the contract/reject such bid without releasing any payment and forfeiting performance guarantee/bid security.

3. Scope of Services

3.1. PSCA intends to hire services for [Hiring of Services for Restoration/ Relocation/ Shifting of PSCA Infrastructure at Different Sites in Lahore](#), for specific time period. Detailed document for Scope of Services/Service Level Agreement (*which is integral part of this bidding document*) is attached as Annex-A

3.2. Service Provider shall appoint Project Coordinator/ Manager for this project to coordinate with Punjab Safe Cities Authority and all relevant departments.

3.3. The bidder/Service Provider may visit the site at its own risk and cause if he desired so.

- 4. Cost of Bidding** 4.1. The Bidder/Service Provider shall bear all costs associated with the preparation and submission of its bid, and the PSCA will, in no case, be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

B. The Bidding Documents

- 5. Content of Bidding Documents** 5.1. The services required, bidding procedures, and contract terms are prescribed in the bidding documents. In addition to the Invitation for Bids, the bidding documents include:

- a. Instructions to Bidders/Service Providers (ITB);
- b. Bid Data Sheet (duly signed & stamped)
- c. Specification of Bids;
- d. Preparation of Bids;
- e. Price Schedule;
- f. Bid Submission Form;
- g. Bid evaluation Criteria;
- h. Technical & Financial Bids;
- i. Performance Security Form;
- j. Services/Goods Delivery time or completion time/schedule, Payment milestone;
- k. Contract Forms;
- l. General Conditions of Contract (GCC);
- m. Special Conditions of Contract (SCC);
- n. Any other/subsequent form if any;

- 5.2. The Bidder/Service Provider is expected to examine all instructions, forms, terms, and specifications in the bidding documents. Failure to furnish all information required by the bidding documents or to submit a bid not substantially responsive to the bidding documents in every respect will be at the Service Provide/Bidder's risk and may result in the rejection of its bid.

- 6. Clarification of Bidding Documents** 6.1. A prospective Bidder/Service Provider requiring any clarification of the bidding documents may notify the PSCA in writing or by email at the Punjab Safe Cities Authority's address seven (07) calendar days before to the closing date and time of the bids or as per decision of PSCA.
- 6.2. Pre-bid meeting may be called by the PSCA at its own or to clarify the bidding document. But it is the sole discretion of the PSCA which can't be claim by any bidder /Service Provider as a right.

7. Amendment of Bidding Documents

7.1. At any time prior to the deadline for submission of bids, PSCA, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Service Provider/Bidder, may modify the bidding documents by amendment.

7.2. All prospective Service Provider/Bidders that have submitted the bidding documents will be notified of the amendment in writing or by email, and will be bidding on them.

7.3. In order to allow prospective Service Provider/Bidder reasonable time to incorporate the amendment (if any) in account to preparing their bids, the PSCA, at its discretion, may extend the deadline for the submission of bids.

C. Preparation of Bids

8. Language of Bid

8.1. The bid prepared by the Bidder/Service Provider, as well as all correspondence and documents relating to the bid exchanged by the Bidder/Service Provider and the PSCA shall be written in English language specified in the Bid Data Sheet. Supporting documents and printed literature furnished by the Bidder/Service Provider may be in same language.

8.2. In case of any other language, the authentic copy of the translation & translated document (duly notarized) shall be enclosed and in case of any ambiguity the true contract / copy shall be prevailed.

9. Documents Comprising the Bid

9.1. The bid prepared by the Bidder/Service Provider shall comprise the following components:

- (a) A Bid Form and a Price Schedule completed in accordance with relevant ITB Clauses and evaluation criteria;
- (b) Documentary evidence established in accordance with relevant ITB Clause that the Bidder/Service Provider is eligible to bid and is qualified to perform the contract if its bid is accepted;
- (c) Documentary evidence established in accordance with relevant ITB Clause that the services to be supplied by the bidder/Service Provider are conform to the bidding documents; and

- (d) Bid security furnished in accordance with relevant ITB Clause or any other information required by PSCA.

10. Bid Form

- 10.1. The Bidder/Service Provider shall complete the Bid Form and the appropriate Price Schedule furnished in the bidding documents, indicating the services provided and delivery of any items regarding the provision of services.

11. Bid Prices

- 11.1. The Bidder/Service Provider shall fill up the Performa provided in the bidding document as required.

- 11.2. Prices quoted by the Bidder/Service Provider shall be fixed during the Service Provider/Bidder's performance of the contract and not subject to variation on any account, unless otherwise specified in the Bid Data Sheet. A bid submitted with an **adjustable price/Optional quotation** will be treated as nonresponsive and rejected.

12. Bid Currencies

- 12.1. Prices shall be quoted in **Pak Rupees** unless otherwise specified in the Bid Data Sheet.

13. Documents Establishing Bidder's Eligibility and Qualification

- 13.1. Pursuant to relevant ITB Clause, the Bidder/Service Provider shall furnish, as part of its bid, documents establishing the Service Provider/Bidder's eligibility to bid and its qualifications to perform the contract if its bid is accepted.

- 13.2. The documentary evidence of the Service Provider/Bidder's eligibility to bid shall establish to the PSCA satisfaction that the Service Provider/Bidder, at the time of submission of its bid, is eligible as defined under relevant ITB Clause.

- 13.3. The documentary evidence of the Service Provider/Bidder's qualifications to perform the contract if its bid is accepted shall establish to the PSCA satisfaction:

- (a) That if a bidder/Service Provider is a firm / company or organization has a valid certificate from Government entity in respect of its registration / renewal.
- (b) That the Service Provider/Bidder has the financial, technical, managerial and production capability necessary to perform the contract;

- (c) That the Service Provider/Bidder meets the qualification criteria listed in the Bid Data Sheet.

14. Conformity to Bidding Documents

- 14.1. Pursuant to relevant ITB Clause, the Service Provider/Bidder shall furnish, as part of its bid, documents establishing the eligibility and conformity to the bidding documents of all services and any goods of works related to such services, which the Service Provider/Bidder proposes to supply under the contract.
- 14.2. Documentary evidence of the eligibility of the Services Provider inform of literature, letter, work plan, scope of work etc.

15. Bid Security

- 15.1. Pursuant to relevant ITB Clause, the Bidder/ Service Provider shall furnish, as part of its bid, a bid security in the amount specified in the Bid Data Sheet.
- 15.2. The bid security shall be in Pak. Rupees as per bid data sheet or as required by PSCA.
- 15.3. Unsuccessful Service Provider/bidders' bid security will be discharged or returned as promptly as possible the expiration of the period of bid validity prescribed by the PSCA pursuant to relevant ITB Clause as per PPRA rules 2014 (amended). The bid security of successful Service Provider/bidder shall be released after receiving of valid performance guarantee and/or contract signing.
- 15.4. The bid security is required to protect the PSCA against the risk of Service Provider/Bidder's conduct which would warrant the security's forfeiture under the followings:
- (a) If a Service Provider withdraws its bid during the period of bid validity specified by the Service Provider/Bidder on the Bid Form; or
 - (b) In the case of a successful Service Provider/Bidder, if the Service Provider/Bidder fails;
 - I. to sign the contract in accordance with requirements
 - II. to furnish performance guarantee in accordance with relevant ITB Clause.

- III. to submit its bid in accordance with the conditions of knock out clause / basic requirement or in case of any false information or submission a fake documents or in case of any illegal / fraudulent practice.

16. Period of Validity of Bids

- 16.1. Bids shall remain valid for the period specified in the Bid Data Sheet after the date of bid opening prescribed by the Punjab Safe Cities Authority, pursuant to relevant ITB Clause. A bid valid for a shorter period shall be rejected by the PSCA.
- 16.2. In exceptional circumstances, the PSCA may solicit the Service Provider/Bidder's consent to an extension of the period of validity as provided in PPRA Rules 2014 amended time to time.

D. Submission of Bids

17. Sealing/ Signing & Marking of Bids

- 17.1. The Service Provider/Bidder shall seal the bid(s) **(technical and financial) in separate envelopes** after duly marking each page and stamping, signing of the bid(s) (each pages) and then separately in an **outer envelope**. The Bidder. Service Provider than pack the both envelopes in main envelope with clear name, address of the Bidder & PSCA and tender title.

18. Deadline for Submission of Bids

- 18.1. Bids received by the PSCA at the address specified must no later than the time and date specified in the Tender.
- 18.2. PSCA may, at its discretion, extend this deadline for the submission of bids by amending the bidding documents in accordance with applicable laws.

19. Late Bids

- 19.1. Any bid received by the PSCA after the deadline for submission of bids prescribed by the PSCA pursuant to said ITB Clause will be rejected and returned unopened to the Service Provider/Bidder.

20. Withdrawal of Bids

- 20.1. The Service Provider/Bidder may withdraw its bid after the bid's submission, provided that written notice of such withdrawal should receive in the office of PSCA prior to two days of the deadline prescribed for submission of bids.

- 20.2. The Service Provider/Bidder's withdrawal notice shall be prepared, sealed, marked, and dispatched in accordance with the provisions of said ITB Clauses. A withdrawal notice may also be sent by email, but followed by a signed confirmation copy, postmarked no later than the two days prior to deadline for submission of bids (That request/mail shall reach in PSCA within – in office hours- before the day stated above).

E. Opening and Evaluation of Bids

- 21. Process of Procurement** 21.1. The process provided in these bidding documents shall be followed that is not contrary to the method provided in the PPRA Rules, 2014 titled as “**SINGLE STAGE TWO ENVELOP**”, if otherwise it is not mentioned.
- 22. Opening of Bids by the Punjab safe cities authority** 22.1. PSCA will open all bids in the presence of Service Provider/bidders' representatives who choose to attend, at the time, on the date, and at the place specified in the Bid Data Sheet. The Service Provider/bidders' representatives with authorization letter and Original Identity Card who are present shall sign an attendance sheet evidencing their presence.
- 22.2. The Service Provider/Bidders' names, bid modifications or withdrawals, bid prices, discounts, and the presence or absence of requisite bid security and such other details as the Punjab Safe Cities Authority, at its discretion, may consider appropriate, will be announced at the opening. No bid shall be rejected at bid opening (after opening the bids), except late bids, which shall be returned unopened to the Service Provider/Bidder or bids without bidding fee, once the bids are opened it shall be evaluated accordingly.
- 22.3. The bid without required documents/ documentary evidences, unsigned or unstamped documents or deficient in any manner may not be considered for the evaluation. Evaluation of submitted proposal will be made on the basis of provided documents only and PSCA may forfeit the bid security in such eventuality if submitted bids are deficient or legally incorrect.
- 23. Preliminary Examination** 23.1. PSCA will preliminary examine the received bids to determine whether they are complete, whether any

computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed, and whether the bid document fee has paid and bids are generally in order.

23.2. PSCA may waive any minor informality, nonconformity, or irregularity in a bid which does not constitute a material deviation or change the substance of the bid, provided such waiver does not prejudice or affect the relative ranking of any Service Provider/Bidder.

23.3. At the stage of preliminary examination (after opening of the bids) no bid shall be returned or rejected except stated above.

24. Clarification of Bids

24.1. During evaluation of the bids/prior the signing of the contract, PSCA may, at its discretion, ask the Service Provider/Bidder for a clarification of its bid. The request for clarification and the response shall be in writing, and no change in the prices or substance of the bid shall be sought, offered, accepted or permitted.

24.2. PSCA, during evaluation of the bids/prior the signing of the contract may also ask for the following clarification among others:

- a. Request for any technical information deemed essential for the development of the solution design document.
- b. Familiarize themselves with the works/services to be performed in accordance with the Inquiry documents.
- c. Request the locations coordinates and Point of Contact (POC) from the concern office.
- d. Familiarize themselves with the working conditions, applicable laws and regulations, labor conditions, environmental aspects and all other conditions that can affect timely delivery of required service.
- e. Make his own arrangement and inquiries with regards to transportation of own staff and equipment.
- f. Ask to the bidder for test report from any lab or institution at the bidder's cost or ask for submitting the fee for such test or examine the performance of the machine/equipment at PSCA office or anywhere.
- g. Any other certificate or exercise or action or test that PSCA deems necessary for the said project.

24.3. PSCA, at any level prior and after the contract execution may ask for the following Inspections & Tests:

- a. PSCA or its representative shall have the right to assign any team to inspect and/or to test the services to confirm their conformity to the Contract specifications. PSCA shall notify the Service Provider/bidder in writing the details of Point of Contact (POC) for this purpose.
- b. The inspections and tests may be conducted on any premises. If conducted on the premises of the Bidder/Contractor, all reasonable facilities and assistance, including access to drawings and production data, shall be furnished to the inspectors at no charge.
- c. If any inspected or tested services fail to conform to the Specifications, PSCA may reject the services, and the Service Provider/bidder shall either replace the rejected services or make alterations necessary to meet specification requirements free of cost to PSCA.
- d. Any other action may be taken by PSCA to inspect or test.

24.4. The Service Provider/bidder to present the proposed solution/methodology (if any) within three (03) days or as and when required after the submission of bid.

25. Qualification & Evaluation of Bids

25.1. In the absence of prequalification, PSCA will determine to its satisfaction whether the Service Provider/Bidder is qualified to perform the contract satisfactorily, in accordance with the Evaluation Criteria.

25.2. The determination will take into account the Service Provider/Bidder's financial, technical, and service capabilities. It will be based upon an examination of the documentary evidence of the Service Provider/Bidder's qualifications submitted by the Service Provider/Bidder, pursuant to ITB relevant Clause(s), as well as such other information, as the PSCA deems necessary and appropriate.

25.3. PSCA will **technically evaluate** and compare the bids, which have been determined to be substantially responsive, as per Technical Specifications/ Requirement/ Evaluation criteria.

25.4. Technical responsive bidders shall be intimated accordingly and the technical disqualified/

irresponsive bidder may collect their financial bid subject to submitting an application to PSCA with the contents that he/it is satisfied with the technical results announced by PSCA and shall not object against this process before any legal forum/court.

25.5. If any technically disqualified bidder showed his/its dissatisfaction on the technical evaluation report/ results its financial bid(s) shall be retained and shall be returned accordingly.

25.6. PSCA shall only **financially evaluate** those bid/ bids, which are declared technically responsive, and the quoted price shall be inclusive of all prevailing taxes and duties, if otherwise not mentioned.

25.7. Arithmetical errors may be rectified if PSCA desired on the following basis.

- a. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail, and the total price shall be corrected.
- b. If the Service Provider does not accept the correction of the errors, its bid will be rejected, and its bid security shall be forfeited.
- c. If there is a discrepancy between words and figures, the amount in words will prevail.

25.8. PSCA may consider a single bid if it is responsive.

25.9. Financial evaluation bid shall be free from all computational errors.

26. Announcement of Evaluation of Bids

26.1. PSCA shall announce the evaluation report through email/ fax/ letter or any other way and also follow the guidelines of the government in this regard.

27. Contacting the Punjab Safe Cities Authority

27.1. No Service Provider/Bidder shall contact the PSCA on any matter relating to its bid, from the time of the bid opening to the time evaluation report is made public. If the Service Provider/Bidder wishes to bring additional information or has grievance to the notice of the Punjab Safe Cities Authority, it shall do so in writing.

27.2. Any effort by a Service Provider/Bidder to influence the PSCA during bid evaluation, or bid comparison may result in the rejection of the Service Provider/Bidder's bid and forfeiting of its bid security and its blacklisting.

F. Award of Contract

- 28. Award Criteria**
- 28.1. Subject to relevant ITB Clause, PSCA will award the contract to the successful Service Provider/ Bidder whose bid has been determined to be substantially responsive in accordance with the evaluation criteria and has been determined to be the lowest evaluated bid as defined in PPRA Rules 2014.
- 28.2. In case if more than one Service Provider/ Bidder quotes the same cost/equal (lowest bid) the PSCA may ask only to those lowest Service Provider/ Bidders at once to submit their financial bids again or opt any other option under intimation to all such bidders.
- 29. Punjab Safe Cities Authority's Right to Vary Quantities at Time of Award**
- 29.1. PSCA reserves the right at the time of contract awarding to add/delete terms and conditions, the Scope of services originally specified in the Schedule of Requirements or payment milestone without any change in unit price in accordance with prevailing rules & regulations.
- 30. Punjab Safe Cities Authority's Right to Accept or Reject All Bids**
- 30.1. PSCA reserves the right to reject all bids, or any lot in case of more than one lot and to annul the bidding process at any time prior to contract award. In such rejection, PSCA shall incur no liability, solely or by virtue of its invoking the clause of rejection towards the bidder(s)/Service Provider or any obligation to inform the Service Provider/Bidder or bidders the grounds for the rejection of bids.
- 31. Notification of Award**
- 31.1. Prior to the expiration of the period of bid validity, PSCA will notify the successful Service Provider/Bidder in writing by registered letter or by email, that its bid has been accepted subject to verification of the performance guarantee (if any). However, such acceptance shall not be termed as a contract or the Service Providers/ bidders cannot make any claim or specific as a vested right on this ground.
- 31.2. The notification of award will constitute the formation of the Contract subject to receipt of a valid Performance Guarantee (if any) duly verified by the concern bank.
- 32. Signing Contract**
- 32.1. After notifications to the successful Service Provider/ Bidder that its bid has been accepted, the successful bidder/Service Provider will send the same notification to PSCA after signing and stamping within a week or before. Subsequently, the stamp

paper for the Contract shall be provided by the bidder/ Service Provider within seven (07) days (or extendable date or as per requirement by the PSCA).

32.2. Prior to that signing of the contract the successful Service Provider/bidder may discuss any issue regarding the contents of the contract with PSCA. Nevertheless, there shall be no variation or amendment in the proposed contract without prior approval or consent of PSCA. However, no amendment, variation shall be allowed that violate the principles of procurement.

32.3. The Stamp Duty on the contract of the same shall be imposed as per the "The Stamp Act, 1899" that shall be paid by the bidder/ service provider.

32.4. If the successful Service Provider/bidder fails to submit the model contract in the prescribed time period as mentioned above, the next lowest evaluated bidder/Service Provider (whose bid is responsive and acceptable) may be issued a letter of acceptance. In such case, the bid security of the former Service Provider/bidder shall be forfeited in addition to any other legal action.

33. Commencement of the Contract

33.1. The Contract shall be commenced after its signing subject to confirmation the performance guarantee (if any) from the concern bank.

34. Integrity Pact

34.1. PSCA may require from the Service Provider/bidder (qualified) for submission of an integrity pact.

35. Performance Security

35.1. Within Seven (07) days or as per requirement of PSCA of the receipt of notification of award from the Punjab Safe Cities Authority, the successful Service Provider/Bidder shall furnish the performance security (if required) in accordance with the Conditions of Contract, on the Performance Security Form provided in the bidding documents, or in another form acceptable to the Punjab Safe Cities Authority.

35.2. Failure of the successful Service Provider/ Bidder to comply with the requirement of relevant ITB Clauses or any other requirement shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security/black listing, in which event or on any other reason deems appropriate, the PSCA may make the award to the next lowest

evaluated Service Provider/Bidder or call for new bids.

**36. Corrupt
Fraudulent
Practices**

or 36.1. PSCA requires that Service Provider/ Bidders, observe the highest standard of ethics during the procurement and execution of agreement/ contract(s). For the purposes of this provision, the terms set forth in PPRA Rules/ Act or any other Law(s)/ Rule(s) of the Pakistan for corrupt or fraudulent practices shall be applicable:

36.2. PSCA will bar a firm/ company, in accordance with prevailing Blacklisting procedures under Punjab Procurement Rules 2014 in any case if deems so.

36.3. Furthermore, Service Provider/ Bidders shall be aware of the provision stated in General Conditions of Contract.

**37. Grievance
Redressal
Committee**

37.1. In case of any dis-satisfaction or objection against the evaluation report, the aggrieved Service Provider/bidder may approach to the Grievance Redressed Committee (GRC) that shall be notified by the PSCA for the purpose to address the grievance within 10 days after the announcement of the final evaluation report as provided in PPRA Rules 2014 amended. Nevertheless, the disqualified bidder cannot object its technical ineligibility at the stage of the announcement of final evaluation report/results i.e after technical & financial evaluation of the bid(s).

37.2. In case, if the bid of any Bidder/Service Provide is declared technically irresponsive or disqualified by the technical evaluation committee of PSCA such bidder/ Service Provider can file its technical rejection grievance within three (03) days after such announcement to GRC of PSCA. After three (03) days, his technical rejection grievance shall not be considered/ received and straightforwardly rejected.

**38. Resolution
of Disputes**

38.1. Punjab Safe Cities Authority (through its COO) and the Service Provider shall make every effort to resolve amicably by direct informal negotiation or any disagreement or dispute arising between them under or in connection with the Contract within thirty (30) days.

38.2. The matter shall be referred to Managing Director of PSCA in case PSCA and Service Provider are not agreed or dispute is unsettled after 30 days who shall

decide the matter in accordance with prevailing laws after affording opportunity of hearing to the parties whose decision shall be final.

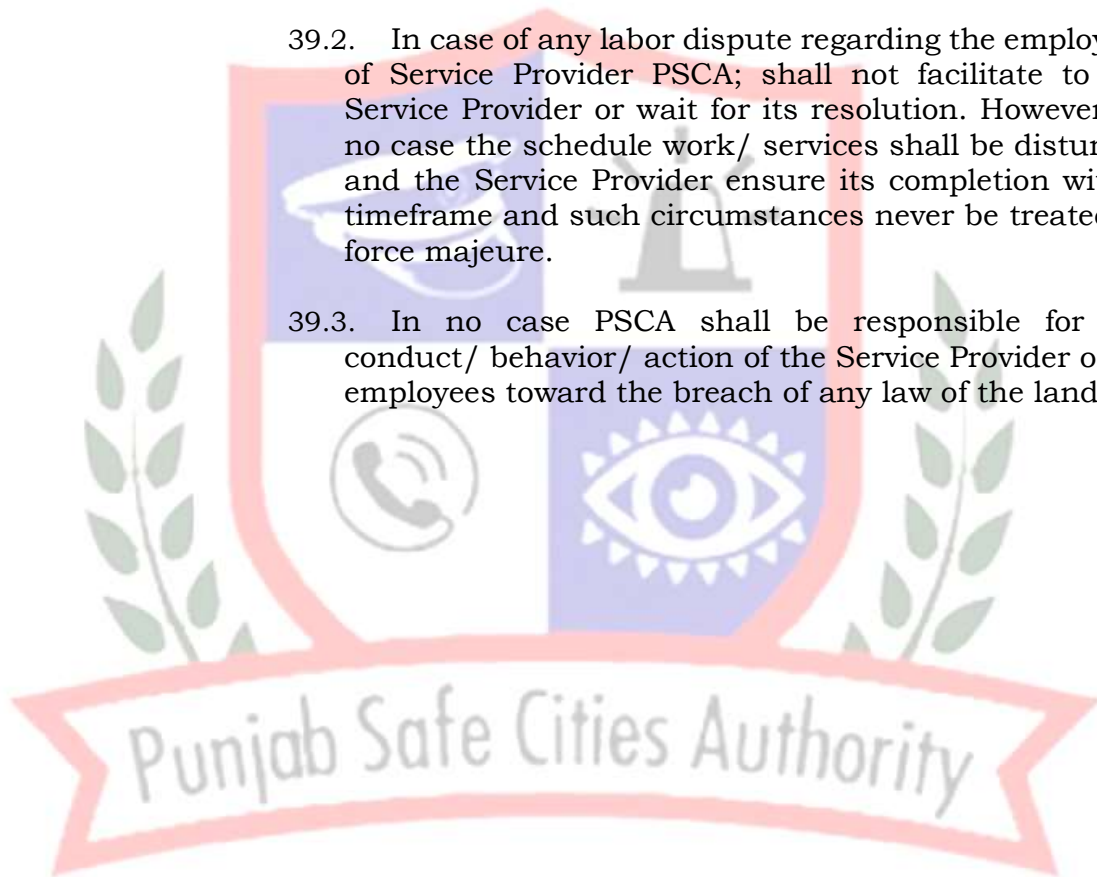
38.3. In case of any objection thereafter, the matter may be referred for decision / arbitration in accordance with Arbitration Act 1940.

**39. General
Guidelines for the
Service Provider**

39.1. In case of any illness/ injuries/ causality resulting from any accident to the staff of service provider; PSCA shall not take any responsibility for the same toward compensation, medical care or meeting any/all medical expenses incurred for the same.

39.2. In case of any labor dispute regarding the employees of Service Provider PSCA; shall not facilitate to the Service Provider or wait for its resolution. However, in no case the schedule work/ services shall be disturbed and the Service Provider ensure its completion within timeframe and such circumstances never be treated as force majeure.

39.3. In no case PSCA shall be responsible for the conduct/ behavior/ action of the Service Provider or its employees toward the breach of any law of the land.



Section-II

Bid Data Sheet

The following specific data for the required services shall complement, supplement, or amend under the provisions provided in the Instructions to Bidders (ITB) Part One. Whenever there is a conflict, the provisions herein shall prevail over those in ITB.

Introduction
PUNJAB SAFE CITIES AUTHORITY
Name of Project: Hiring Of Services For Restoration/ Relocation/ Shifting Of PSCA Infrastructure at Different Sites In Lahore
For clarification purposes, the Employer's address is: PSCA – Qurban Police Lines, Lahore. Phone # : 042-99051605-7 and Email: procurement@psca.gop.pk Requests for clarification shall be received by the PSCA seven (07) calendar days before to the closing date the bids.
Language of the bid – English
Bid Price and Currency
The price quoted shall be delivered duty paid at the following locations in accordance with the Schedule of Requirements including all payment taxes.
The price shall be in Pak Rupees (including all taxes) and shall be fixed subject to verification.
Preparation and Submission of Bids
EVALUATION CRITERIA:
Eligibility Criteria: (Mandatory Requirements):
The bidder has to fulfil all mandatory requirements detailed below, in order to Technically Qualify for the assignment. The interested bidder/Service Provider has to provide documentary evidence(s) against the below mentioned requirements:
a. Legal Status of the bidder (s) (Incorporation Certificate (<i>showing its location and the date of registration</i>), Partnership Deed or Form C/D (whichever is applicable) Affidavit and any other valid supporting document in case of Sole Proprietorship) b. Proof of valid Income Tax Registration (NTN) c. Proof of valid Punjab Sales Tax/ General Sales Tax d. Proof of valid Professional Tax Certificate. e. PEC Active Registration in an appropriate category relevant to the value of the contract agreement (<i>Valid registration is defined as the companies already having registration certificates and applied for its renewal certificate may also be considered</i>). f. Bidding Document Fee – Evidence shall be pasted outside of the main envelope and a copy inside Technical Bid, the evidence shall be presented at the time of bid submission. g. Bid Security against each lot, attached with Technical Bid/proposal. h. JV Agreement in case of such bid, JV Partnership along with all such documents required separately through relevant clause of ITB. i. Audited Financial Statements for the last 03 years from 1st July, 2017 to 30th June, 2020. (Signed & stamped) j. Annual Turnover for the last three (03) years of Rs. 80 Million collectively. k. Current Bank Statement with balance of Rs. Seven (07) Million.

1. Signed & stamped bidding document and all attachments (all type of appendices & statements) m. Submission of undertaking of legal duly stamped (PKRs. 100/=one hundred Rupees) and signed that the firm, company/JV/Consortium, is not blacklisted or involve in any corrupt or illegal practice or banned or declared ineligible / blacklisted by any procuring agency/PPRA/throughout the country/internationally
Amount of Bid Security: LOT # 1: The required bid security is PKRs. 200,000/- that is not more than 5% of the estimated cost in accordance with the Punjab Procuring Rules 2014. LOT # 2: The required bid security is PKRs. 200,000/- that is not more than 5% of the estimated cost in accordance with the Punjab Procuring Rules 2014. LOT # 3: The required bid security is PKRs. 600,000/- that is not more than 5% of the estimated cost in accordance with the Punjab Procuring Rules 2014. Bids shall be in the prescribed format, sealed and accompanied by the Bid Security in the form of Call Deposit Receipt (CDR) in favor of “Chief Operating Officer Punjab Safe Cities Authority”, Account# PK07BPUN-6580045845500064 (Bank of Punjab) having NTN: 7129125-0 having its validity 180 days from the date of opening of bid that shall be annexed with the technical proposal (bid).
Bid Validity Period: 180 days after the date of opening of bid/ extendable period.
Bids must be accompanied by unit price and total price, if applicable.
Deadline for Bid Submission: July 08, 2021 no later than 1100 Hours
Time, Date, and Place for Bid Opening: July 08, 2021 at 1130 Hours PSCA Office. However, in case of said bid opening/ closing date, the office is closed due to public holiday etc. the next working day shall be considered as the bid submission/ opening date and there would be no change in the time as provided above.
Bid Evaluation Criteria for bid evaluation, lowest price offered by the technically qualified/ responsive bidder/ Service Provider inclusive of all taxes.
Contract Award The Bidder whose bid found the Lowest Evaluated Bid as per requirement of PSCA may be called for the execution of the contract and the terms and conditions shall be decided, accordingly and Percentage for quantity/number increase or decrease and the scope of services may be reviewed as per the requirement of PSCA within the parameter of applicable laws/rules.

Note: Original CNIC, in case the owner of the firm/company attend the Bid Opening and the valid authorization letter from the bidder to its representative is required in order to attend the bid opening meeting on bidder's behalf and original identity card or any other legal proof of the bidder/representative.

Section IV

Requirement & Technical Specification

PSCA intends to hire Contractor for Relocation/ Restoration/ Shifting of PSCA Infrastructure, for a specific time period that shall be decided at the time of signing of Contract. Detailed document of Technical Requirements/Scope of Work/Service Level Agreement (which is integral part of this bidding document) is attached as Annex-A.

NOTE:

1. If delivered items/ equipment are not as per standard mentioned in the Bidding Document, Client reserves the right to claim replacement of the same or cancelation of the Contract or any other action along with forfeiting the performance guarantee and take any other legal action.
2. Samples may be sent to any laboratory / factory for its evaluation / examination. In case the samples or delivered items are not as per standard of PSCA or declared substandard as required, the client has right to reject all delivered items and demand replacement of the same as per specification.
3. All site works shall be in the supervision of client representative.
4. Required tests shall be performed and report (galvanization, steel. Concrete, etc. shall be submitted for approval accordingly, if required.
5. The Contractor shall submit and get approval of the plan(s) before executing the works
6. Restoration of site as per original / before start of work / existing condition shall be the responsibility of contractor. Restoration shall be ensured as per actual site condition and as specified and PSCA OFC Manual.

Section-III

EVALUATION CRITERIA LOT # 1, 2 & 3

Sr. #	Criteria	Max. Marks	Description	Documents Required
1.	Number of Years of Existence of Firm	20	05 Years or more = 20 Points 04 Years = 15 Points 03 Years = 10 Points 02 Years = 05 Points - Less Than 02 Years = 0 Point	1. Certificate of Incorporation 2. Partnership deed, Form C/D 3. NTN Certificate Signed & Stamped Supportive Documents
2.	Experience of Similar Nature of Projects / Assignments (project related to cameras Installation, Configuration & Commissioning)	20	05 Projects or more = 20 Points 04 Projects = 15 Points 03 Projects = 10 Points 02 Projects = 05 Points - Less than 02 Projects = 0 Point	Purchase Order/Work Order/Contract/ Completion Certificate or relevant document against the projects
3.	FINANCIAL CAPABILITIES: Financial Capabilities of the firm in order to enable him to technically qualify for this tender	10	Description Average Annual Turnover for the last three (03) years for more than PKR 80 Million.	Marking Criteria 05 Marks
			Current Bank Statement with Positive balance for more than PKR 7.0 (seven) Million.	1. Financial Statements All Supporting Documents (Signed & Stamped)
			Or Available Credit Line (available portion) to finance the project amounting to Rs 7.0 Million	1. Bank Statement 2. Credit Facility Letter All Supporting Documents (Signed & Stamped)

Sr. #	Criteria	Max. Marks	Description	Documents Required
4.	Personal Capabilities	10	*Project Manager (1 Resource) = 05 Points (Minimum of Sixteen (16) years of education in Engineering and 07 years of relevant working experience) *Site Engineer (1 Resource) = 03 Points (Minimum of BE Civil or Relevant Engineering and 07 years of relevant working experience) *Sub Engineers (4 Resource) = 02 Points (DAE in Civil and Electrical Engineering and 07 years of relevant working experience)	Supporting Documents (Detailed CV, Degrees and Proof of Employment)
5.	Work Methodology, Quality Control, Risk Management & Health & Safety Plan***	10	- Work Methodology = 2.5 Points (Mandatory) - Traffic Management Plan - Construction - Installation - Commissioning - Configuration - Testing - Quality Control = 2.5 Points - Risk Management = 2.5 Points - Health & Safety Plan = 2.5 Points	Signed & Stamped
Total Marks =70			Minimum Passing Marks = 50 (Minimum 5 marks have to score in each criteria)	

NOTE

* To qualify, the bidder is required to pass the Evaluation Criteria.

** Supporting Evidence shall be provided

- In case the mentioned equipment is not available, an undertaking shall be provided that the required equipment shall be available as and when required.

*** The bidder shall also describe the employment of human resources in best possible manner for carrying out the task of the assignment. The bidder may also be called for interview to describe its methodology and work etc.

Section-IV

SCHEDULE OF REQUIREMENTS

TABLE 1 DELIVERY SCHEDULE OF SERVICES

LOT #	Delivery Time Period
1	The Contractor shall be required to deliver & install the required items and complete civil work within <u>120 days</u> after the signature of Contract/ issuance of notification and/or as per agreement or as per PSCA requirement, if contrary to above time period.
2	The Contractor shall be required to deliver & install the required items and complete civil work within <u>120 days</u> after the signature of Contract/ issuance of notification and/or as per agreement or as per PSCA requirement, if contrary to above time period.
3	The Contractor shall be required to deliver & install the required items and complete civil work within <u>120 days</u> after the signature of Contract/ issuance of notification and/or as per agreement or as per PSCA requirement, if contrary to above time period.

Punjab Safe Cities Authority

Section VI

1. Bidding Forms

a. BID SUBMISSION FORM

Date: _____
No: _____

To
[PUNJAB SAFE CITIES AUTHORITY]

Having examined the bidding documents including Addenda Nos. [/], the receipt of which is hereby duly acknowledged and affirmed in toto, we, the undersigned, offer to render [Project Title] in conformity with the said bidding documents for the sum of [total bid amount in words and figures] or such other sums as may be ascertained in accordance with the Schedule of Prices attached herewith and made part of this Bid.

We undertake, if our Bid is accepted, to provide the services in accordance with the delivery schedule specified in the Schedule of Requirements. And, prior to execution of the contract no right accrue.

If our Bid is accepted, we will obtain the **guarantee of a bank in a sum equivalent to 10% percent of the Contract Price** for the due performance of the Contract, in the form prescribed by the PUNJAB SAFE CITIES AUTHORITY.

We agree to abide by this Bid for a period of 180 days from the date fixed for Bid opening under relevant clauses of the Instructions to Bidders, and it shall remain binding upon us and shall be accepted at any time before the expiration of that period.

We further affirmed that all the information/documents attached with the bidding document/bid are genuine/original/true copies no document/information is fabricated.

Until a formal Contract is prepared and executed, this Bid, together with your written acceptance thereof and your notification of award, shall constitute a binding Contract between us.

In any case and at any stage of procurement process or thereafter for the verification purpose the Punjab Safe Cities Authority (PSCA) has right to seek the clarification from the undersigned and call any document / record to authenticate/verification of the submitted document from undersigned or any institution. Commissions or gratuities, if any, paid or to be paid by us to agents relating to this Bid, and to contract execution if we are awarded the contract, are listed below:

Name and address of agent	Amount and Currency	Purpose of Commission or gratuity
_____	_____	_____
_____	_____	_____
_____	_____	_____

(if none, state "none")

We understand and no objection that PSCA is not bound to accept the lowest or any received bid and may cancel the process at any time.

Dated this _____ day of _____ 20_____.

[Signature]

[In the capacity of]

Duly authorized to sign Bid for and on behalf of _____

b. UNDERTAKING

I _____ S/O _____ CNIC # _____
 resident of _____ on behalf of (Name of bidder/Service
 Provider/JV/ Consortium) address _____ being
 its _____ (designation) declares on oath that all the
 information/ documents attached with the bidding documents are true and
 genuine.

The bidder has read and understand all the terms & conditions of the bidding
 document and accept each and every condition thoroughly.

The bidder/company has no objection on any term & conditions of the entire
 bidding documents and shall never challenge these term & conditions after
 submitting of our before any court/forum.

All above contents are true and fair to the best of my knowledge and behalf.

Notarized this _____ day of 20_____

Signature: _____

Stamp: _____

Note: Bidder/Service Provider is required to fill this undertaking and submit
 with your bid and in case of failure bid shall be rejected straight forward.

2. Price Schedule

For LOT # 1

BOQ of Gulab Devi					
Sr.#	Description	Qty.	Units	Rate/ Unit	Total Price
Installation of IPNV Poles					
1	Installation and Commissioning of IPNV Poles and allied equipment	4	No's		
2	Shifting of dismantled Equipment to Actual site(for all 4 poles)	1	No's		
3	Grounding wire (1-Core)	200	M		
4	HDPE Pipes From Hand Hole to Main OP	200	M		
5	HDPE Pipes From Main OP to IPNV Pole	60	M		
6	Power Cable from meter to Power cabinet	400	M		
7	CAT 6 Network cable for IPNV Connectivity	200	M		
8	Joint Box/Closure	4	No's		
9	Configuration and FOV Adjustment	4	No's		
10	Splicing Trays	4	No's		
Optical Fiber Cable (OFC) Works					
Sr.#	Description	Quantity	Units		
1	Provision, laying and splicing of Optical Fiber Cable 16F	2,387	M		
2	Provision, laying and splicing of Optical Fiber Cable 48F	1,354	M		
3	Provision, laying and splicing of Optical Fiber Cable 96F	165	M		
4	Provision, laying and splicing of Optical Fiber Cable 04F	207	M		
5	Provision and installation of 96F Joint Box	2	No's		
6	Provision and installation of 16F Joint Box	11	No's		
7	Provision and installation 48F Joint Box	4	No's		
IPNV Foundation					
Sr.#	Description	Quantity	Units		
1	Construction of concrete foundation for camera pole (solar) along with OP including concrete casting, conduit provision and finishing , as per approved drawings, complete in all respects	3	Each		

2	Construction of concrete foundation for camera pole (without solar) along with OP including concrete casting, conduit provision and finishing , as per approved drawings, complete in all respects	1	Each		
3	Provision and installation of earthing rod in OP and allied works as per approved drawing ,complete in all respects	4	Each		
OFC Trench Works					
Sr.#	Description	Quantity	Units		
1	OFC trench works in normal soil including provision and laying of warning tape and reinstatement as per approved cross sections, complete in all respects	210	M		
2	OFC trench works in concrete including provision and laying of warning tape and reinstatement as per approved cross sections ,complete in all respects	207	M		
3	OFC trench works in tuff tile including provision and laying of warning tape and reinstatement as per approved cross sections ,complete in all respects	1,317	M		
4	OFC trench works across (asphalt /concrete) the road including provision and laying of warning tape and reinstatement as per approved cross sections ,complete in all respects	297	M		
5	Providing, laying, cutting, jointing and testing HDPE (High Density Polyethylene) pipe (40mm) working pressure pipe in trenches, complete in all respects	6,096	M		
6	Providing and laying P.C.C (15 cm) with ratio of (1:2:4),including placing ,compaction and finishing complete in all respects(In case of Under depth)	455	M		
7	Providing, laying, cutting, jointing 3" dia. G.I Pipe, 2.9mm thick (11 gauge), complete in all respect	1,646	M		
8	Providing and placing precast handhole as per approved drawing, complete in all respects	6	Each		
9	Providing and placing precast R.C.C(1:2:4) route marker as per approved drawing, complete in all respects	10	Each		
Power Trench Works					

Sr.#	Description	Quantity	Units		
1	Trench works normal soil including providing and laying of warning tape, placing of bricks and reinstatement as per approved cross sections ,complete in all respects	30	M		
2	Trench works in tuff tile including providing and laying of warning tape, placing of bricks and reinstatement as per approved cross sections ,complete in all respects	60	M		
3	Trench works across the road (asphalt /concrete) including provision and laying of warning tape, and reinstatement as per approved cross sections ,complete in all respects	85	M		
4	Providing, laying, cutting, jointing and testing HDPE (High Density Polyethylene) pipe (40mm) working pressure pipe in trenches, complete in all respects	175	M		
5	Providing, laying, cutting, jointing 3" dia. G.I Pipe, 2.9mm thick (11 gauge), complete in all respect	107	M		
Grand Total (PKRs.) for Lot # 1 Inclusive of Applicable Taxes					

Note:

1. The Bidder shall quote for all of above items for lot-1
2. A lump-sum price for all of above items for lot-1 shall be calculated to financially evaluate the bid.
3. Lowest Evaluated bid price shall be considered for Lot-1
4. The Contractor/Bidder is required to complete the price schedule carefully and in case of any discrepancy or multiple price the bid shall not be considered.
5. All equipment, supplies, and materials provided shall be branded.
6. In case of discrepancy between unit price and total, the unit price shall prevail.
7. All prices must be included with all prevailing taxes.
8. The Payment shall be made as per actual work and after testing of Equipment and after the issuance of satisfactory delivery note/certificate from the concerned officer of PSCA.
9. The Successful Bidder may claim the Bill after completion of work at each site / item.
10. Client/PSCA has the right to change in the quantities of the required equipment/ Scope of work or cancel the bid at any point of time.
11. The Bidder is required to fill-up this Performa and submit to PSCA. No alternative or other than this Performa or incomplete Performa shall be acceptable.

12. In case other than this Performa submission the offer/ bid shall be rejected straightforwardly.
13. In case of any discrepancies / differences the content of this price schedule shall prevail.

Grand total in words _____

Date _____

Signature of authorized person

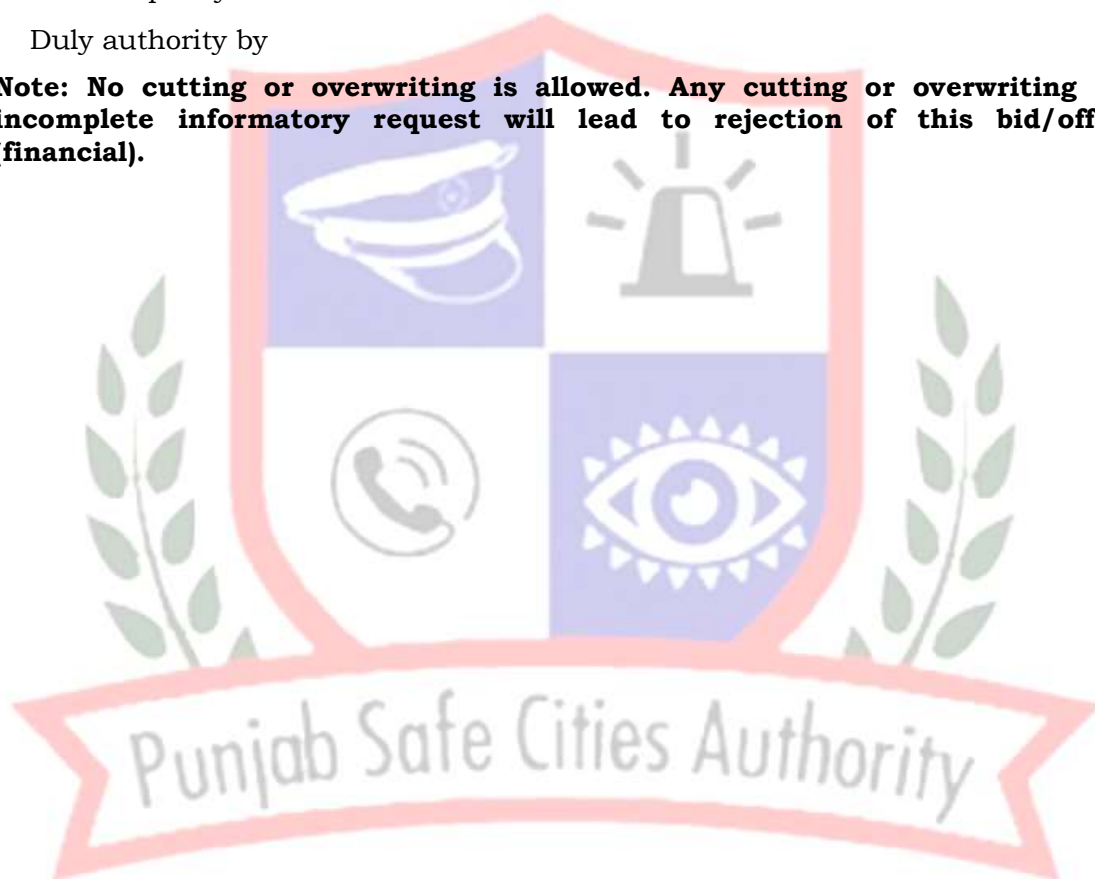
Name: _____

(Company Seal)

In the capacity of

Duly authority by

Note: No cutting or overwriting is allowed. Any cutting or overwriting or incomplete informatory request will lead to rejection of this bid/offer (financial).



1. Price Schedules
LOT # 2

BOQ of Sheran Wala Flyover					
Installation of IPNV Poles					
Sr.#	Description	Quantity	Units	Rate/ Unit	Total Price
1	Installation and Commissioning of IPNV Poles and allied equipment	1	No's		
2	Shifting of dismantled Equipment to Actual site	1	No's		
3	Grounding wire (1-Core)	50	M		
4	HDPE Pipes From Hand Hole to Main OP	50	M		
5	HDPE Pipes From Main OP to IPNV Pole	10	M		
6	Power Cable from meter to Power cabinet	100	M		
7	CAT 6 Network cable for IPNV Connectivity	50	M		
8	Joint Box/Closure	1	No's		
9	Configuration and FOV Adjustment	1	No's		
10	Splicing Trays	1	No's		
OFC Restoration Works					
Sr.#	Description	Quantity	Units	Rate/ Unit	Total Price
1	Provision, laying and splicing of Optical Fiber Cable 16F	3050	M		
2	Provision, laying and splicing of Optical Fiber Cable 48F	1170	M		
3	Provision, laying and splicing of Optical Fiber Cable 04F	215	M		
4	Provision and installation of 16F Joint Box	35	Each		
5	Provision and installation 48F Joint Box	15	Each		
IPNV Foundation					
Sr.#	Description	Quantity	Units	Rate/ Unit	Total Price
1	Construction of concrete foundation for camera pole (solar) along with OP including concrete casting, conduit provision and finishing , as per approved drawings, complete in all respects	1	Each		
2	Provision and installation of earthing rod in OP and allied works as per approved drawing, complete in all respects	1	Each		
OFC Trench Works					

Sr.#	Description	Quantity	Units		
1	OFC trench works(normal soil, concrete, asphalt, tuff tile) including provision and laying of warning tape and reinstatement as per approved cross sections, complete in all respects	1530	M		
2	OFC trench works across the road (asphalt/concrete) including provision and laying of warning tape and reinstatement as per approved cross sections, Complete in all respects	305	M		
3	Providing, laying, cutting, jointing and testing HDPE (High Density Polyethylene) pipe (40mm) working pressure pipe in trenches, complete in all respects	5505	M		
4	Providing and laying P.C.C (15 cm) with ratio of (1:2:4),including placing ,compaction and finishing complete in all respects(In case of Under depth)	306	M		
5	Providing and laying cutting, jointing 3" dia. G.I Pipe, 2.9mm thick (11 gauge), complete in all respect	1428	M		
6	Providing and placing precast handhole as per approved drawing, complete in all respects	13	Each		
7	Providing and placing precast R.C.C(1:2:4) route marker as per approved drawing, complete in all respects	15	Each		
Power Trench Works					
Sr.#	Description	Quantity	Units	Rate/ Unit	Total Price
1	Trench works (normal soil, concrete, asphalt, tuff tile) including providing and laying of warning tape, placing of bricks and reinstatement as per approved cross sections, complete in all respects	90	M		
2	Providing, laying, cutting, jointing and testing HDPE (High Density Polyethylene) pipe (40mm) working pressure pipe in trenches, complete in all respects	90	M		
3	Providing and laying cutting, jointing 3" dia. G.I Pipe, 2.9mm thick (11 gauge), complete in all respect	90	M		

1. The Bidder shall quote for all of above items for lot-2
2. A lump-sum price for all of above items for lot-2 shall be calculated to financially evaluate the bid.
3. Lowest Evaluated bid price shall be considered for Lot-2

4. The Contractor/Bidder is required to complete the price schedule carefully and in case of any discrepancy or multiple price the bid shall not be consider.
5. All equipment, supplies, and materials provided shall be branded.
6. In case of discrepancy between unit price and total, the unit price shall prevail.
7. All prices must be included with all prevailing taxes.
8. The Payment shall be made as per actual work and after testing of Equipment and after the issuance of satisfactory delivery note/certificate from the concerned officer of PSCA.
9. The Successful Bidder may claim the Bill after completion of work at each site / item.
10. Client/PSCA has the right to change in the quantities of the required equipment / Scope of work or cancel the bid at any point of time.
11. The Bidder is required to fill-up this Performa and submit to PSCA. No alternative or other than this Performa or incomplete Performa shall be acceptable.
12. In case other than this Performa submission the offer/ bid shall be rejected straightforwardly.
13. In case of any discrepancies / differences the content of this price schedule shall prevail.

Grand total in words _____

Date _____

Signature of authorized person

Name: _____

(Company Seal)

In the capacity of

Duly authority by

Note: No cutting or overwriting is allowed. Any cutting or overwriting or incomplete informatory request will lead to rejection of this bid/offer (financial).

Punjab Safe Cities Authority

1. Price Schedules
LOT # 3

BOQ of Shahkaam Chowk Flyover					
Installation of IPNV Poles					
Sr.#	Description	Quantity	Units	Rate/Unit	Total Price
1	Installation and Commissioning of IPNV Poles and allied equipment	2	No's		
2	Shifting of dismantled Equipment to Actual site(for 2 poles)	1	No's		
3	Grounding wire (1-Core)	100	M		
4	HDPE Pipes From Hand Hole to Main OP	100	M		
5	HDPE Pipes From Main OP to IPNV Pole	20	M		
6	Power Cable from meter to Power cabinet	100	M		
7	Provision and Installation of Power Connection	2	No's		
8	CAT 6 Network cable for IPNV Connectivity	100	M		
9	Joint Box/Closure	2	No's		
10	Configuration and FOV Adjustment	2	No's		
11	Splicing Trays	2	No's		
VMS Reinstallation					
Sr.#	Description	Quantity	Units	Rate/Unit	Total Price
1	Installation and Commissioning of VMS Pole and Screen	1	Job		
2	Installation and commissioning of Power Cabinet	1	Job		
3	Provision and Installation of Power Connection	1	Job		
4	Power Cable				
i	From Power meter to Power cabinet (2-Core)	100	M		
ii	From Power cabinet to VMS Pole (3-Core)	50	M		
5	CAT 6 Network cable for VMS Connectivity	100	M		
OFC Restoration Works					
Sr.#	Description	Quantity	Units	Rate/Unit	Total Price
1	Provision, laying and splicing of Optical Fiber Cable 16F	6666	M		
2	Provision, laying and splicing of Optical Fiber Cable 96F	300	M		
3	Provision, laying and splicing of Optical Fiber Cable 04F	944	M		
4	Provision and installation of 16F Joint Box	43	Each		
5	Provision and installation of 96F Joint Box	2	Each		
6	Provision and commissioning Fiber Optic Cable Splice Trays	14	No's		
OFC Trench Works					

Sr.#	Description	Quantity	Units	Rate/Unit	Total Price
1	OFC trench works in normal soil including provision and laying of warning tape and reinstatement as per approved cross sections, complete in all respects	4081	M		
2	OFC trench works in tuff tile including provision and laying of warning tape and reinstatement as per approved cross sections, complete in all respects	1534	M		
3	OFC trench works in concrete including provision and laying of warning tape and reinstatement as per approved cross sections, complete in all respects	150	M		
4	OFC trench works across the road(asphalt/concrete) including provision and laying of warning tape and reinstatement as per approved cross sections, complete in all respects	636	M		
5	Providing, laying, cutting, jointing and testing HDPE (High Density Polyethylene) pipe (40mm) working pressure pipe in trenches, complete in all respects	19203	M		
6	Providing, laying, cutting, jointing and testing HDPE (High Density Polyethylene) pipe (63mm) working pressure pipe in trenches, complete in all respects	1940	M		
7	Providing and laying P.C.C (15 cm) with ratio of (1:2:4),including placing ,compaction and finishing complete in all respects(In case of Under depth)	1490	M		
8	Providing, laying, cutting and jointing 3" dia. G.I Pipe, 2.9mm thick (11 gauge), complete in all respect	4598	M		
9	HDD/thrust Bore (100mm dia) across the road, complete in all respects	250	M		
10	Providing and placing precast handhole as per approved drawing, complete in all respects	17	Each		
11	Providing and placing precast R.C.C(1:2:4) route marker as per approved drawing, complete in all respects	30	Each		
Power Trench Works					
Sr.#	Description	Quantity	Units	Rate/Unit	Total Price
1	Trench works in normal soil including providing and laying of warning tape, placing of bricks and reinstatement as per approved cross sections, complete in all respects	90	M		
2	Trench work in tuff tile including providing and laying of warning tape, placing of bricks and reinstatement as per approved cross sections, complete in all respects	102	M		

3	Trench works across the road(asphalt/concrete) including provision and laying of warning tape and reinstatement as per approved cross sections, complete in all respects	140	M		
4	Providing, laying, cutting, jointing and testing HDPE (High Density Polyethylene) pipe (40mm) working pressure pipe in trenches, complete in all respects	332	M		
5	Providing and laying, cutting, jointing 3" dia. G.I Pipe, 2.9mm thick (11 gauge), complete in all respect	188	M		
Bridge Attachment					
Sr.#	Description	Quantity	Units	Rate/Unit	Total Price
1	Providing and fixing galvanized angle iron brackets including omega clamps as per approved section, complete in all respects	82	Each		
2	Providing, laying, cutting, jointing and testing of HDPE (High Density Polyethylene) pipe (40mm) working pressure pipe in trenches, complete in all respects	164	M		
3	Providing, laying, cutting, jointing 3" dia. G.I Pipe, 2.9mm thick (11 gauge), complete in all respect	164	M		
IPNV Foundation					
Sr.#	Description	Quantity	Units	Rate/Unit	Total Price
1	Construction of concrete foundation for camera pole (solar) along with OP including concrete casting, conduit provision and finishing , as per approved drawings, complete in all respects	2	Each		
2	Provision and installation of earthing rod and allied works as per approved drawing, complete in all respects	2	Each		
VMS Foundation					
Sr.#	Description	Quantity	Units	Rate/Unit	Total Price
1	Construction of concrete foundation(4.5m "F") along with OP including concrete casting, conduit provision and finishing as per approved drawings, complete in all respects	1	Each		
2	Construction of OP as per approved drawing, complete in all respects	1	Each		
3	Construction of Power Cabinet Foundation as per approved drawings ,complete in all respects	1	Each		
4	Provision and installation of earthing rod and allied works as per approved drawing, complete in all respects	2	Each		

Traffic Installation Specifications (VMS Power Cabinet) Shahkaam Chowk Flyover

1 Power Cables

- a) 2-Core 4mm² Copper Cu/PVC/600/1000V from the power meter to the main OP/Power Cabinet. The Color of a core for the 2-Core cable shall be red and black
- b) 3-Core 2.5mm² Copper Cu/PVC/600/1000V from the power cabinet to the hanging cabinet. The Color of the core for the 3-Core cable shall be red, yellow, and blue.
- c) All the cables shall be of London Metal Exchange (LME) Grade Electrolytic Copper of 99.99%
- d) All the cables shall have the purity & PVC of appropriate Electrical Grade

2 CAT-6 Networking Cable

- a) CAT6 Double Shielded (STP) Ethernet Network Cable (26 American Wire Gauge – AWG stranded, pure bare copper conductors).
- b) The cable shall be a flexible and durable CAT-6 cable with high bandwidth of up to 550 MHz and guarantees high-speed data transfer for server applications, cloud video surveillance, and online high-definition video streaming.

3 Reflective Stickers on Cabinets

- a) The Contractor shall provide Reflective Tape Printing Stickers for Cabinet Number (Safe Spot ID) = 4 Digits. The final design of the sticker must be approved by the employer before printing. Material of sticker should be Reflective Vinyl.

Side	Height (inch)	Width (inch)
VMS Power Cabinet (Sticker)		
Side 1	42	20
Side 2	42	20
Back	42	20
Front	32	15



Note

1. The Bidder shall quote for all of above items for lot-3
2. A lump-sum price for all of above items for lot-3 shall be calculated to financially evaluate the bid.
3. Lowest Evaluated bid price shall be considered for Lot-3
4. The Contractor/Bidder is required to complete the price schedule carefully and in case of any discrepancy or multiple price the bid shall not be consider.
5. All equipment, supplies, and materials provided shall be branded.
6. In case of discrepancy between unit price and total, the unit price shall prevail.
7. All prices must be included with all prevailing taxes.
8. The Payment shall be made as per actual work and after testing of Equipment and after the issuance of satisfactory delivery note/certificate from the concerned officer of PSCA.
9. The Successful Bidder may claim the Bill after completion of work at each site / item.
10. Client/PSCA has the right to change in the quantities of the required equipment / Scope of work or cancel the bid at any point of time.
11. The Bidder is required to fill-up this Performa and submit to PSCA. No alternative or other than this Performa or incomplete Performa shall be acceptable.
12. In case other than this Performa submission the offer/ bid shall be rejected straightforwardly.
13. In case of any discrepancies / differences the content of this price schedule shall prevail.

Grand total in words _____

Date _____

Signature of authorized person

Name: _____

(Company Seal)

In the capacity of

Duly authority by

Note: No cutting or overwriting is allowed. Any cutting or overwriting or incomplete informatory request will lead to rejection of this bid/offer (financial).



Part-II (Section I)

1. CONTRACT FORM

THIS AGREEMENT made the ____ day of _____ 20____ between PSCA (hereinafter called “the Employer/Client”) of the one part and [name of Service Providers] of (hereinafter called “the Service Provider”) of the other part:

WHEREAS the PSCA invited bids for the services and viz., [brief description of services] and has accepted a bid by the Service Provider for the supply of those services in the sum of [contract price in words and figures] (hereinafter called “the Contract Price”).

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this contract words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.
2. The following documents shall be deemed to form and be read and construed as integral part of this Contract, viz.:
 - a. The Bid Form and the Price Schedule submitted by the Bidder;
 - b. The Schedule of Requirements;
 - c. The Scope of Services;
 - d. The General Conditions of Contract;
 - e. The Special Conditions of Contract; and
 - f. The PSCA Notification of Award.
 - g. The clarifications provided to the Service Providers
3. The Client hereby covenants to pay the Service Provider in consideration of the provision of the services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the contract at the times and in the manner prescribed by the contract.
4. The Client may add, delete, review any condition or clause of the contract at the time of signing with mutual consent without affecting the substance of the bid process/price. The contract may be extended for a reasonable period with the consent of the parties.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with their respective laws the day and year first above written.

Signed, sealed, delivered by _____ the _____ (for the PUNJAB SAFE CITIES AUTHORITY)

Signed, sealed, delivered by _____ the _____ (for the Service Providers/Bidder).

Section II

General Conditions of Contract

- 1. Definitions** 1.1. In this Contract, the following terms shall be interpreted as indicated:
- a. “Applicable Laws/ Rules” means the laws/ Rules of Islamic Republic of Pakistan/Punjab, as they may be issued and enforced from time to time.
 - b. “Authority” means Punjab Safe Cities Authority, Lahore
 - c. “Bidder” means who accept all the terms & conditions of these bidding documents and submit its bid and participate as a competitor in the process of this procurement
 - d. “Bid Security” means the bank guarantee or other form of security submitted by a bidder together with a bid to secure the obligations of the bidder participating in a bidding proceedings
 - e. “Blacklisting” means debarring the bidder/ Service Provider to participate in any procurement process on any ground provided in the document and uploaded its status on PPRA website or any other procurement site of the country/ world as blacklisted.
 - f. “Conflict of Interest” means
 - i. where a bidder/Service Provider could be perceived as providing biased professional advice to a procuring agency to obtain an undue benefit for himself or those affiliated with him;
 - ii. receiving or giving any remuneration directly or indirectly in connection with the assignment except as providing in the contract;
 - iii. any engagement in consulting or other procurement activities of a Service Provider that conflicts with his role or relationship with the procuring agency;
 - iv. where an official of procuring agency engaged in the procurement process has a financial or economic interest in the outcome of the process of procurement, in a direct or an indirect

- g.** “Contract” means the agreement entered into between the PSCA and the Service Provider/Contractor, as recorded in the Contract Form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.
- h.** “Contract Price” means the price payable to the Service Provider under the Contract for the full and proper performance of its contractual obligations.
- i.** “Competent Authority” means the officer(s) empowered to approve the bidding process and the contract on behalf of PSCA.
- j.** “Company” means a company registered or deemed to be register under companies Act, 2018 or under any other authority or foreign company registered in Pakistan.
- k.** “Contractor” means a legally established professional firm/ company/ or entity that may provide(s) the goods or services to the client under the contract
- l.** “Corrupt & Fraudulent Practices” includes the offering, giving, receiving, or soliciting of anything of value to influence the action of a public official or the supplier or contractor in the procurement process or in contract execution to the detriment of the procuring agencies; or misrepresentation of facts in order to influence a procurement process or the execution of a contract, collusive practices among bidders (prior to or after bid submission) designed to establish bid prices at artificial, non-competitive levels and to deprive the procuring agencies of the benefits of free and open competition and any request for, or solicitation of anything of value by any public official in the course of the exercise of his duty. ; it may include any of the following:
 - i.** Coercive practice by impairing or harming or threatening to impair or harm, directly or indirectly, any party or property of the party to influence the action of the party to achieve a wrongful gain or to cause a wrongful loss to another party;
 - ii.** Collusive practice by arrangement between two or more parties to the procurement process or contract execution, designed to achieve with or without the knowledge of the procuring agency to establish prices at

- artificial, noncompetitive levels for any wrongful gain;
- iii. Offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence the acts of another party for wrongful gain;
 - iv. Any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;
 - v. Obstructive practice by harming or threatening to harm, directly or indirectly, person or their property to influence their participation in a procurement process, or affect the execution of a contract or deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false statements before investigators in order to materially impede an investigation or making false statements before investigators in order to materially impede an investigation into allegations of a corrupt, fraudulent, coercive or collusive practice; or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation, or acts intended to materially impede the exercise of inspection and audit process;
- m.** “Day” means calendar day and “Year” means calendar year if otherwise not provided.
- n.** “Employer/Client” means the PSCA that signs the contract for the services with the selected/qualified service provider.
- o.** “Firm” means a firm register or deemed to be register with the office of registrar.
- p.** “GCC” means the General Conditions of Contract contained in this section.
- q.** “Goods” means required goods as mentioned in Scope of work or any other related item, material or goods required under the contract for the [Hiring Of Services For](#)

Restoration/ Relocation/ Shifting Of PSCA Infrastructure At Different Sites In Lahore.

- r.** Joint Venture; means a contractual business undertaking between two or more persons/ firms/ companies.
- s.** “Performance Guarantee” means the bank guarantee or other form of security submitted by the contractor to secure obligations under the contract in accordance with the requirement in the bidding document
- t.** Province” means Punjab Province.
- u.** “SCC” means the Special Conditions of Contract.
- v.** “Service Provider” means a legally established professional firm/ company or entity that may provide/provides the services to the client under the contract
- w.** “Supplier” means a legally established professional firm/ company/ or entity that may provide/provides the goods or services to the client under the contract
- x.** “Services” means the work to be performed by the firm/company or entity pursuant to the contract / SLA.
- y.** “PPRA Rules means the Punjab Procurement Rules 2014 amended to date or any other instructions of the Government relating to the procurement process.
- z.** “Punjab Safe Cities Authority” means the organization hiring the services/the Employer/Client/PSCA.
- aa.** “The Project Site,” where applicable, means the place or places named in SCC/SLA or directed by the PSCA.
- bb.** “Working Day” mean day when office is not closed due to any public notified holiday
- cc.** “Work” means all such work required or may be required by PSCA through this process of Procurement/Contract.

2.Application

- 2.1 These General Conditions shall apply to the extent that provisions of other parts of the Contract do not supersede them.

3. Scope of Services

- 3.1. Contractor shall be required to perform the work/complete the assignment and provide all related service to PSCA as per description and requirement mentioned Section IV/ attached Annex-A of the bidding document(s)
- 3.2. Service Provider shall appoint Project Coordinator/ Manager for this project to coordinate with Punjab Safe Cities Authority and all relevant departments.
- 3.3 The bidder/Service Provider may visit the site at his own risk and cause if he desired so

4. Use of Contract Documents and Information; Inspection and Audit

- 4.1 The Service Provider/ Bidder shall not, without prior written consent of PSCA, disclose the Contract, SLA or any provision thereof, or any specification, plan, drawing, pattern, sample, or information furnished by or on behalf of the PSCA in connection therewith, to any person other than a person employed by the PSCA in the performance of the Contract.
- 4.2 The Service Provider/ Bidder shall permit the PSCA to inspect the Service Provider/ Bidder's accounts and records relating to the performance of the Service Provider/ Bidder and to have them audited by auditors appointed by the PSCA, if so required.

5. Performance Guarantee

- 5.1 Within seven (7) days of receipt of the notification of Contract award, the successful Service Provider/Bidder shall furnish to the PSCA the performance security in the amount specified in SCC before the execution of the contract.
- 5.2 The proceeds of the performance guarantee shall be payable to the PSCA as compensation for any loss resulting from the Service Provider's failure to complete its obligations under the Contract.
- 5.3 The performance security shall be denominated in the currency of the Contract acceptable to the PSCA and shall be in a form of:
 - a. Bank guarantee or an irrevocable letter of credit issued by a reputable bank located in Punjab, in the form provided in the bidding documents or another form acceptable to the Punjab Safe Cities Authority.
- 5.4 The performance security will be discharged by PSCA and returned to the Service Provider not later than thirty (30)

days following the date of completion of the Service Provider's performance obligations under the Contract, including any warranty obligations, unless specified otherwise in SCC.

5.5 The Performance security shall be verified promptly from the concerned bank prior to signing the contract and in case of its non-confirmation, PSCA has right to blacklisting such Service Provider/bidders.

6. Transportation

6.1 The Service Provider is required to provide/ construct the desired services or the works connected with the scope of the services as per the contract or required by PSCA or requirement to complete the assignment on a specified place of destination and such related costs shall be included in the Contract Price and cannot be claimed separately in addition to the contractual price.

7. Service Provider's Responsibilities

7.1 Service Provider shall ensure the completion of the services in accordance with the terms of the contract / SLA after approval of PSCA.

7.2. All terms & conditions provided in Part-1 of this bidding document, especially regarding Eligibility of Bidders shall be mutatis mutandis applicable in GCC Section.

8. Payment & Prices

8.1 The method and conditions of payment to be made to the Service Provider under the Contract or the payment milestone & SLA.

9. Change Orders

9.1 PSCA at any time, by a written order given to the Service Providers, may make any changes within the general scope of the contract in any one or more notwithstanding anything contrary to prevailing Laws / Rules.

10. Contract & its Commencements

10.1 No variation in or modification of the terms of the Contract shall be made except by written amendment signed by the parties.

10.2 The contract shall be commenced after verification of the Bank guarantee submitted by the Service Provider from the concerned bank if otherwise not provided.

11. Delays in the Service Provider's Performance

11.1 Delay in provision of Services by the Service Provider in accordance with the time schedule prescribed by the PSCA in the Schedule of Requirements shall not be tolerated and in such default penalty for delaying services shall be imposed **@ 0.2% per day of the total contract amount with total cap of 10% of the total value of the**

Contract. Moreover, any penalty may be imposed by PSCA in case of any default by the Contractor/Service Provider in addition to initiating legal action against such defaulter. PSCA has also right to stop its pending payment or forfeit its guarantee/security submitted to PSCA in this procurement or any other contract.

11.2 PSCA focal person shall conduct visit to the sites in order to monitor progress. The Service Provider shall not obstruct visit of PSCA focal person and provide the reasonable facility to such person.

12. Termination for Default

12.1 PSCA, without prejudice to any other remedy for breach of Contract, by written notice of default sent to the Service Providers, may terminate this Contract in whole or in part:

- (a) If the Service Provider fails to perform the services within the period(s) specified in the Contract, or within any extension thereof granted by the PSCA pursuant to GCC relevant Clause or
- (b) If the Service Provider fails to perform any other obligation(s) under the Contract.
- (c) If the Service Providers, in the judgment of the PSCA has engaged in corrupt or fraudulent practices in competing for or in executing the Contract. For the purpose of this clause: "Corrupt practice" means that defined in PPRA Rules 2014 or Act 2009 amended to date. However, PSCA shall follow the prevailing rules and law in case of termination of the contract, if required.

12.2 In the event PSCA terminates the Contract in whole or in part, PSCA may procure, upon such terms and in such manner as it deems appropriate Services similar to those undelivered, and such additional costs shall be payable by the Service Providers. However, the Service Provider shall continue performance of the Contract to the extent not terminated.

13. Force Majeure

13.1 Notwithstanding anything contrary provided in the provisions of GCC Clauses, the Service Provider shall not be liable for forfeiture of its performance security, liquidated damages, or termination for default if and to the extent that its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.

13.2 For purposes of this clause, "Force Majeure" means an event beyond the control of the Service Provider and not

involving the Service Provider's fault or negligence and not foreseeable.

13.3 If a Force Majeure situation arises, the Service Provider shall promptly notify the PSCA in writing of such condition and the cause thereof. Unless otherwise directed by the PSCA in writing, the Service Provider shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event. The benefit of Force Majeure shall be in favor of client (PSCA) if it happened anytime.

14. Termination for Insolvency

14.1 PSCA may at any time terminate the Contract by giving written notice to the Service Provider if the Service Provider becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Service Providers, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the Punjab safe cities authority.

15. Termination for Convenience

15.1 PSCA, by written notice to the Service Providers or without such notice, may terminate the Contract, in total or in part, at any time before the accomplishment of the contract for its convenience. In case of issuing the notice of termination, PSCA shall specify that the termination is for the PSCA convenience, to what extent/ or whole of the contract with the Service Provider is terminated, and the date upon which such termination becomes effective. In case of such termination the provided performance or rendered services before the period of such termination may be considered by PSCA if satisfied.

15.2 All enabling Laws of the land including clauses of PPRA Laws / Rules / Regulations shall be strictly followed in process of procurement or black listing or contract management etc.

16. Resolution of Disputes

16.1 PSCA /through its Chief Operating Officer (COO) and the Service Provider shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract within thirty (30) days.

16.2 The matter shall be referred to the Managing Director PSCA if Service Provider is not agreed or dispute is unsettled after 30 days who shall decide the matter in

accordance with prevailing laws after affording opportunity of hearing to the parties whose decision will be final.

16.3 In case of any objection therefore, the matter may be referred for judication / arbitration in accordance with arbitration Act 1940.

17. Governing Language

17.1 The Contract shall be written in the language English. The version of the Contract written in the specified language shall govern its interpretation. All correspondence and other documents pertaining to the Contract/ process which are exchanged by the parties shall be written in the same language. In case of any other language the authenticated translation duly attested may be added with bid and, In case of any ambiguity the language of original documents shall prevails.

18. Applicable Law

18.1 The Procurement process & Contract shall be commenced and competed in accordance with the applicable laws of Islamic Republic of Pakistan/ Punjab.

19. Notices

19.1 Any notice given by one party to the other pursuant to this Contract shall be sent to the other party in writing or by fax or by email or any other modern devices (accepted by PSCA) and confirmed in writing to the other party's address specified in the bidding document and construed its receiving if not responded.

20. Taxes & Duties

20.1 Service Provider/bidder shall be entirely responsible for all taxes, duties, license fees, etc., incurred until discharging of the contracted services Punjab safe cities authority.

21. Corrupt or Fraudulent Practices

21.1 TPSCA requires that Service Provider/Bidders, Service Providers, and Service Providers observe the highest standard of ethics during the procurement and execution of contracts. For the purposes of this provision, the terms set forth in PPRA Rules /Act shall be applicable:

(a) PSCA will bar a firm/company/individual bidders/Service Providers /consultants / contractor or what so ever named, in accordance with Blacklisting procedures under Punjab Procurement Rules 2014 in any case if deems so.

21.2 Furthermore, Service Provider/ Bidders shall be aware of the provision stated in the General Conditions of Contract.

22.Blacklisting Mechanism

22.1. PSCA may, under the applicable Law (s) for a specified period, debar a bidder/ Service Provider from participating in any public procurement process of PSCA, if the bidder or contractor has:

- (a) acted in a manner detrimental to the public interest or good practices;
- (b) consistently failed to perform his obligation under the contract;
- (c) not performed the contract up to the mark;
- (d) indulged in any corrupt practice.

22.2 If PSCA debars a bidder/service provider, the procuring agency:

- (a) shall forward the decision to the Punjab Procurement Regulatory Authority (PPRA) for publication on the website of the PPRA; and
- (b) may request the PPRA to debar the bidder or contractor for procurement of all procuring agencies.

22.3 PSCA has right to take any legal action against the bidder/ company if he is found involve in corrupt practice in addition to blacklisting.

23.Completion of Work/ Services

23.1 The authorized person of PSCA shall issue a satisfactory performance certificate to the Service Provider on the completion of the work/ services entrusted to him through the contract/SLA by PSCA.

23.2 On basis of this completion certificate the services provider shall claim the payment/ services charges from the PSCA.

23.3 After issuing of completion certificate the contract/ SLA deems to be terminated subject to any other condition such as warrantee, guarantee or performance mentioned in the contract/ SLA.

Section III

Special Conditions of Contract

The following Special Conditions of Contract shall supplement the General Conditions of Contract. Whenever there is a conflict, the provisions herein shall prevail over those in the General Conditions of Contract.

1. Definitions

- a) The PSCA: *The procuring agency*
- b) The country: *Islamic Republic of Pakistan*
- c) The Service Provider/Contractor: *Whose bid is responsive technically/financially & lowest evaluated acceptable to PSCA.*
- d) The Project Site is: *PPIC3 Lahore*

2. Performance Security

The amount of performance security, i.e. (Which shall be within 10% of the contract price) in the shape of non-recourse, irrevocable and unconditional bank guarantee from scheduled bank of Pakistan/ having setup in Punjab on the prescribed format attached with the bidding document shall be submitted by the winner/ lowest evaluated bidder to PSCA after issuing of the letter of acceptance with in seven (7) working days (in official hour). In case of fail to deposit the required performance security with in prescribed time/ extended time in writing, PSCA has the right to reject the bid of such bidder and forfeit his bid security in addition to initiate other legal action against him. The performance security may be released after the completion of the satisfactory services as per the contract / SLA or as per the satisfaction of PSCA.

3. Bid Validity

The bid validity time period is 180 days from the date of opening of bid (s). In case of any extreme reason PSCA may extend the bid validity period for the same period as per applicable Law (s). In case of any fraud, false document or discrepancy PSCA reserves the right to initiate a legal proceeding including blacklisting of bidder/Service Provider as per procurement procedure/PPRA Rules 2014 (amended).

4. Payment Mechanism:

The contractor/ Service Provider shall be paid by PSCA against invoice for the satisfactorily completed services for/to the PSCA.

Payment shall be made in Pak Rupees and subject to certification of invoice and issuance of satisfactory certificate/ Work Completion Note by PSCA (*unit head/focal person of assignment of relevant user department*) that the services have been rendered satisfactorily, pursuant to the performance indicators.

In case of any mala fide, deceptive and fraudulent tactics used in delaying/suspension of the said delivery of goods, the Client reserves

the right to forfeit Performance Guarantee as per relevant provision of bidding document and takes necessary Legal Action against the Contractor as per applicable laws.

5. Termination

PSCA has the right to scrape the procurement process at any stage before the signing of the contract or to terminate the contract as per his convenience without prior notice or by written notice of seven (7) days. The duration of the contract shall be decided at the time of contract signing, the contract shall be decided at the time of contract.

Note: PSCA has right to add/incorporate any condition at the time of signing of the contract but not contrary to any applicable law (s)/and/or with the consent of the Service Provider and/ or may review any terms and condition/clause of the bidding documents within the parameters of existing laws.



PERFORMANCE SECURITY FORM

To:

[Client Address]

WHEREAS [name of Service Provider] (hereinafter called “the Service Provider”) has undertaken, in pursuance of Contract No. [Reference number of the contract] dated _____ 20____ to supply [description of services] (hereinafter called “the Contract”).

AND WHEREAS it has been stipulated by you in the said Contract that the Service Provider shall furnish you with a bank guarantee by a reputable bank for the sum specified therein as security for compliance with the Service Provider’s performance obligations in accordance with the Contract.

AND WHEREAS we have agreed to give the Service Provider a guarantee:

THEREFORE WE hereby affirm that we are Guarantors and responsible to you, on behalf of the Service Provider, up to a total of [amount of the guarantee in words and figures], and we undertake to pay you, upon your first written demand declaring the Service Provider to be in default under the Contract and without cavil or argument, any sum or sums within the limits of [amount of guarantee] as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

This guarantee is valid until the ____ day of _____ 20____.

Signature and seal of the Guarantors

[Name of bank or financial institution]

[Address]

[Date]

JOINT VENTURE AGREEMENT

(Applicable to Joint Venture Only)

(Shall be a Formal Joint Venture agreement on a Stamp Paper of value PKRs. 1,200/-)

To: Punjab Safe Cities Authority, Lahore

[Name and address of the Leading Member firm] who for the purpose of this Agreement shall hereinafter called "Lead Member"

[Name and address of the all Member firms]

Who, for the purpose of this Agreement shall hereinafter called "Member". They hereby declare:

- i. That we (all JV partners) will legalize a Joint Venture in case the Contract is awarded to their JV
- ii. That all JV partners have nominated _____ (name of the Lead Member) as the Lead Member of the Joint Venture.
- iii. That all JV partners authorized Mr./Ms. _____ (Name of the person who is authorized to act as the Representative on behalf of the Joint Venture) to act as the Joint Venture's Representative in the name and on the behalf of all Joint Venture partners.
- iv. That all members of the Joint Venture shall be liable jointly and severally for the execution of the Contract or any other assignment or project related work/ services or consequences of any such action of the lead partner.
- v. That this Joint Venture is constituted for the project titled "Hiring of Services for Operation & Maintenance (O&M) of PPIC3 Lahore Project".
- vi. That after submitting of this bid (through JV) for pre-qualification/ qualification in said project/ procurement of this Joint Venture shall not be modified in its composition or constitution until the completion of Contract without the prior consent of the Employer/PSCA.
- vii. The JV (all partners) are under obligation, undertake and acknowledged that in case of any wrong entry or providing false intimation or forged document all the JV partners shall be blacklisted or any other legal action may be initiated against them (all JV partners) by the PSCA

1. Signed for and on behalf of [Name of the Lead Member]

Signature	
Name	
Designation:	
Date	
Seal	

2. Signed for and on behalf of [Name of the Member]

Signature	
Name	
Designation:	
Date	
Seal	

UNDERTAKING

FOR NON-DISCLOSURE OF INFORMATION

1. With reference to goods/services/works required by Punjab Safe Cities
Authority (PSCA) for

_____.

it is hereby asseverated & acknowledged that the confidential/sensitive or any other restricted information provided/acquired by PSCA during the period of our contract period shall be solely used for the intended purpose only. The undersigned contractor shall be under obligation not to share any confidential data or such data/information prohibited by PSCA with any person/ kinsman during or after the completion/termination of my contract agreement/assignment.

2. If there is a requirement for sharing of any information/data etc., related to PSCA with any other person, authority, department, entity or public or private institution, company etc., the undersigned contractor shall not share any information/data without prior permission from the competent authority of PSCA, for such purpose.
3. In case of any breach related to non-disclosure of data, undersigned contractor shall be bound to accept the responsibility and to pay any damages/loss determined by Chief Operating Officer of PSCA or any other penalty imposed by PSCA. Moreover, PSCA reserves the right to initiate any legal proceedings against the undersigned before the Court of Competent Jurisdiction and in such case the undersigned shall bear all the expenditures borne by the PSCA in relation to the Court proceedings.
4. The above undertaking is correct and true to the best of my knowledge and belief. We have read and understood the above contents and accepted/signed the same without any duress, undue influence or pressure, coercion and with my free consent.

Signatures _____ Name _____

DOCUMENT CHECKLIST

Bidder should provide these and other documents if mention in the bidding documents

SR. #	DOCUMENTS REQUIRED	ATTACHED
TECHNICAL PROPOSAL		
1.	Bidding Forms	
2.	Legal Status of the bidder (Incorporation Certificate- <i>showing its location and the date of registration etc.</i> -, partnership deed & Form C/D (as applicable) Affidavit and any other valid supporting document in case of sole proprietorship)	
3.	Proof of valid Income Tax Registration (NTN)	
4.	Proof of valid Punjab Sales Tax/ General Sales Tax	
5.	Proof of valid Professional Tax Certificate.	
6.	PEC Active Registration in an appropriate category relevant to the value of the contract agreement (<i>Valid registration is defined as the companies already having registration certificates and applied for its renewal certificate may also be considered</i>).	
7.	Bidding Document Fee – Evidence shall be pasted outside of the main envelope, the evidence shall be presented at the time of bid submission	
8.	Bid Security (Original) attached with Technical Bid/proposal	
9.	Signed & stamped bidding document and all attachment documents	
10.	Submission of undertaking of legal duly stamped (PKRs. 100/=one hundred Rupees) and signed that the firm, company, is not blacklisted or involve in any corrupt or illegal practice or banned or declared ineligible / blacklisted by any procuring agency/PPRA	
11.	The valid authorization letter from the bidder to its representative to attend the bid opening meeting on bidder's behalf and original identity card or any other legal proof of the bidder/representative.	
12.	Audited Financial Statements & Bank Statement for the last years as required above. (Signed & stamped).	
13.	Proof of Relevant Experience for providing services/works to Public or Private organizations	
14.	Undertaking for Non-Disclosure of Information	
15.	All other supporting Documents as required under Evaluation Criteria.	
FINANCIAL PROPOSAL		
16.	Price Schedule	

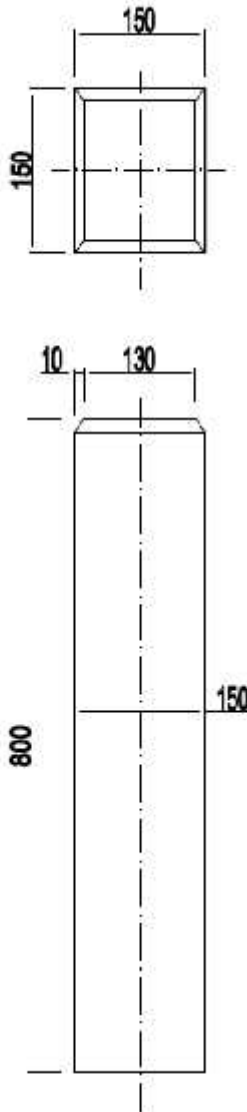
BOQ of Gulab Devi			
Installation of IPNV Poles			
Sr.#	Description	Quantity	Units
1	Installation and Commissioning of IPNV Poles and allied equipment	4	No's
2	Shifting of dismantled Equipment to Actual site(for all 4 poles)	1	No's
3	Grounding wire (1-Core)	200	M
4	HDPE Pipes From Hand Hole to Main OP	200	M
5	HDPE Pipes From Main OP to IPNV Pole	60	M
6	Power Cable from meter to Power cabinet	400	M
7	CAT 6 Network cable for IPNV Connectivity	200	M
8	Joint Box/Closure	4	No's
9	Configuration and FOV Adjustment	4	No's
10	Splicing Trays	4	No's
Optical Fiber Cable (OFC) Works			
Sr.#	Description	Quantity	Units
1	Provision, laying and splicing of Optical Fiber Cable 16F	2,387	M
2	Provision, laying and splicing of Optical Fiber Cable 48F	1,354	M
3	Provision, laying and splicing of Optical Fiber Cable 96F	165	M
4	Provision, laying and splicing of Optical Fiber Cable 04F	207	M
5	Provision and installation of 96F Joint Box	2	No's
6	Provision and installation of 16F Joint Box	11	No's
7	Provision and installation 48F Joint Box	4	No's
IPNV Foundation			
Sr.#	Description	Quantity	Units
1	Construction of concrete foundation for camera pole (solar) along with OP including concrete casting, conduit provision and finishing , as per approved drawings, complete in all respects	3	Each
2	Construction of concrete foundation for camera pole (without solar) along with OP including concrete casting, conduit provision and finishing , as per approved drawings, complete in all respects	1	Each

3	Provision and installation of earthing rod in OP and allied works as per approved drawing ,complete in all respects	4	Each
OFC Trench Works			
Sr.#	Description	Quantity	Units
1	OFC trench works in normal soil including provision and laying of warning tape and reinstatement as per approved cross sections, complete in all respects	210	M
2	OFC trench works in concrete including provision and laying of warning tape and reinstatement as per approved cross sections ,complete in all respects	207	M
3	OFC trench works in tuff tile including provision and laying of warning tape and reinstatement as per approved cross sections ,complete in all respects	1,317	M
4	OFC trench works across (asphalt /concrete) the road including provision and laying of warning tape and reinstatement as per approved cross sections ,complete in all respects	297	M
5	Providing, laying, cutting, jointing and testing HDPE (High Density Polyethylene) pipe (40mm) working pressure pipe in trenches, complete in all respects	6,096	M
6	Providing and laying P.C.C (15 cm) with ratio of (1:2:4),including placing ,compaction and finishing complete in all respects(In case of Under depth)	455	M
7	Providing, laying, cutting, jointing 3" dia. G.I Pipe, 2.9mm thick (11 gauge), complete in all respect	1,646	M
8	Providing and placing precast handhole as per approved drawing, complete in all respects	6	Each
9	Providing and placing precast R.C.C(1:2:4) route marker as per approved drawing, complete in all respects	10	Each
Power Trench Works			
Sr.#	Description	Quantity	Units
1	Trench works normal soil including providing and laying of warning tape, placing of bricks and reinstatement as per approved cross sections ,complete in all respects	30	M
2	Trench works in tuff tile including providing and laying of warning tape, placing of bricks and reinstatement as per approved cross sections ,complete in all respects	60	M

3	Trench works across the road (asphalt / concrete) including provision and laying of warning tape, and reinstatement as per approved cross sections ,complete in all respects	85	M
4	Providing, laying, cutting, jointing and testing HDPE (High Density Polyethylene) pipe (40mm) working pressure pipe in trenches, complete in all respects	175	M
5	Providing, laying, cutting, jointing 3" dia. G.I Pipe, 2.9mm thick (11 gauge), complete in all respect	107	M

Gulab Devi Civil Work Specifications

Route Marker

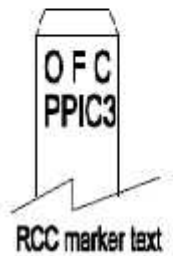


The Bar Configuration Drawing

S/N	Dimension	dia.(mm)	Length.(mm)	Qty.(pcs)
①	750	5	750	4
②	100	5	400	4
sketch drawing				

Main Materials Table

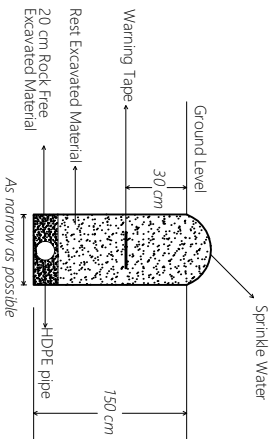
Sr	Steel bar(kg)	Norma Cement (kg)	Sand (kg)	Rubble Φ 2-2.5cm (kg)	Φ 0.7mm steel wire (kg)
①	Grade40 Φ 5.0mm				
②	0.75	6.2	12.4	24.9	0.025



NOTE:

1. The side with text should be faced to road.
2. The top 30cm of marker should be painted with red painting.
3. Arial type Text of "OFC PPIC3" should be graved and painted with black color. Text Height=50mm
4. The marker should be buried in 50cm depth; 30cm should be above the ground.
5. The concrete mix ratio is 1:2:4

Remark: If the RCC marker can't install due to the route is on pavement or asphalt, try divert forward or backward, if still not possible, then may exempt prior to customer agree.

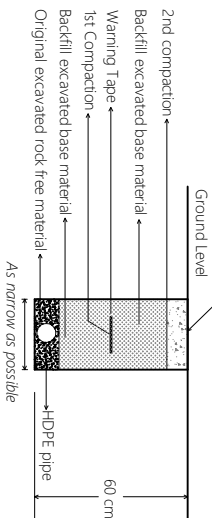


Normal soil surface/Markable soil surface

Note:

- If depth can't reach design depth due to underground services, after vet by PSCA, then:
 - Backfill and reinstate as per above sketch if Depth >2ft
 - Pour extra 15cm PCC if 1ft<Depth<2ft, then backfill and reinstate as per sketch.
 - Put GI protection+15cm PCC if depth<1ft.
- If settles, put extra soil on the top.

Reinstate surface as per actual with 10cm-15cm thickness 1:2.4 concrete layer and exact thickness advised by the PSCA

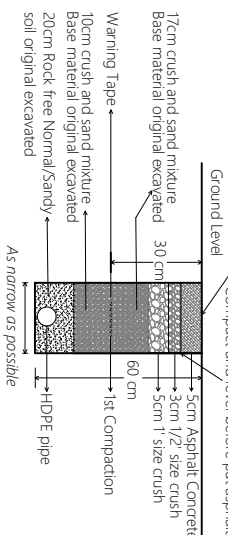


Concrete surface at side of road/inside of important building boundary

Note:

- Cutter is mandatory to cut the surface in a straight smooth mode
- Soil underground shall be excavated layer by layer and placed along trench separately so that can be placed back layer by layer as per original sequence.
- Must compact layer by layer to avoid settlement.
- If depth can't reach design depth due to underground services after vet by PSCA, then:
 - Backfill and reinstate as per above sketch if Depth >1ft.
 - Pour extra 15cm PCC if 1/2ft<Depth<1ft, then backfill and reinstate as per sketch.
 - Put GI protection+10cm PCC if Depth ≤1/2ft.

Compact asphalt layer by skilled labor

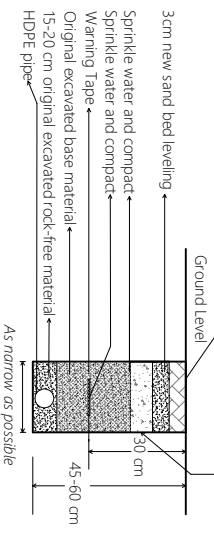


Asphalt cutting along normal asphalt road

Note:

- Cutter is mandatory to cut the surface in a straight smooth mode
- Soil underground shall be excavated layer by layer and placed along trench separately so that can be placed back layer by layer as per original sequence.
- Must compact layer by layer to avoid settlement.
- If depth can't reach design depth due to underground services after vet by PSCA, then:
 - Backfill and reinstate as per above sketch if Depth >1ft.
 - Pour extra 15cm PCC if 1/2ft<Depth<1ft, then backfill and reinstate as per sketch.
 - Put GI protection+10cm PCC if Depth ≤1/2ft.

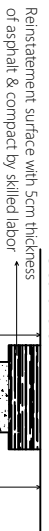
Place tuff tiles and pour sand to fill the gaps with skilled mason in the same pattern as before



Reinstatement for Tuff Tiles on footpath

Note:

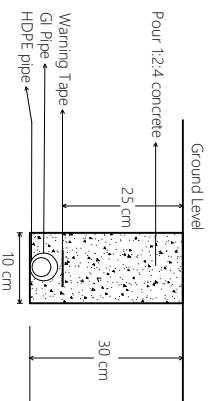
- Tuff tiles shall be removed carefully and staded properly so that can be installed again.
- Skilled mason is mandatory to assure proper paver work.
- New sand bed layer is must to assure the leveling and avoid settlement.
- If PCC layer found during excavation, need redo PCC layer with 2 inch thickness when doing backfilling.
- Soil underground shall be excavated layer by layer and placed along trench separately so that can be placed back layer by layer as per original sequence.
- Must compact layer by layer to avoid settlement.
- If depth can't reach design depth due to underground services after vet by PSCA, then:
 - Backfill and reinstate as per above sketch if Depth >1ft.
 - Pour extra 15cm PCC if 1/2ft<Depth<1ft, then backfill and reinstate as per sketch.
 - Put GI protection+10cm PCC if Depth ≤1/2ft.



Road cut perpendicular cross asphalt road with mini-trench on main fast track main roads

Note:

- Cutter is mandatory to cut the surface in a straight smooth mode.
- Trench bottom shall be cleaned for laying pipe properly.
- 1:2.4 concrete shall be mixed, poured and precaution measures shall be taken to avoid people step in it before cured.
- Top asphalt layer shall be poured and compact to same level by skilled labor.



Road cut cross roads other than main road fast tracks by mini-trench / or along the very congested roads (e.g. Ashura Wailed City area) where normal trench can't work

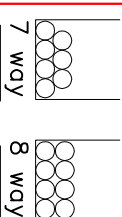
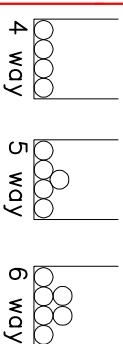
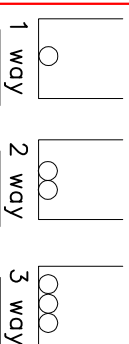
Note:

- Cutter is mandatory to cut the surface in a straight smooth mode.
- Trench bottom shall be cleaned for laying pipe properly.
- 1:2.4 concrete shall be mixed, poured and precaution measures shall be taken to avoid people step in it before cured.

GENERAL NOTES :

- Similar depth level in section between two hand hole shall be maintained to avoid bumpy pipe shape to smooth the cable pulling.
- Trench alignment shall try best to avoid zig zag shape to smooth the Cable pulling.
- During the excavation and backfill, reinstatement, standing by inspection shall be done on site by PSCA representative to verify the quality and quantity and record the inspection result on checklist OSP-2A and OSP-2B
- After work completion,debris shall be removed

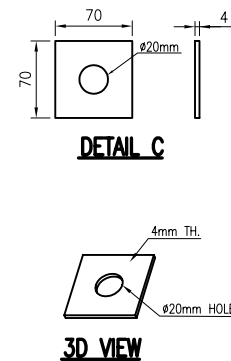
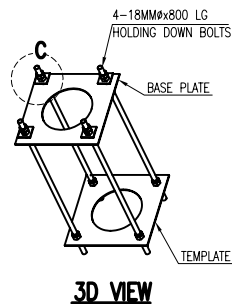
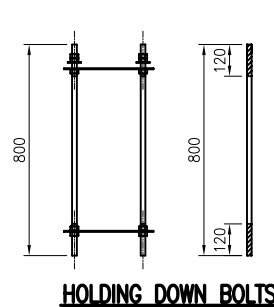
DUCT WAY FORMATION :



SUBMITTED BY		
REV.	DATE	SIGNATURE
APPROVED BY		
REV.	DATE	SIGNATURE
PROJECT NAME		
PPIC3 Project		
DRAWING TITLE		
OSP Trench Section Standard		
Drawing S.No		
GD-001A-1		



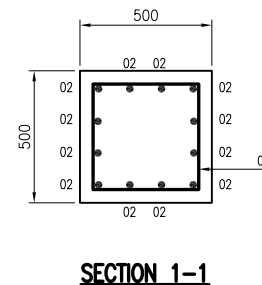
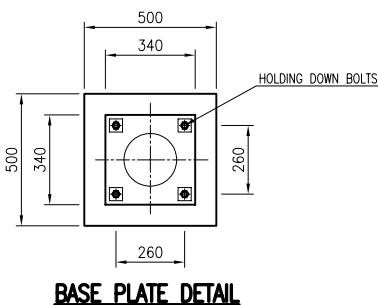
TOTAL SHEET
01/01



1. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE NOTED.
2. ASSUMED NET BEARING CAPACITY = 41.56 KPA
3. FOLLOWING CONCRETE GRADE SHALL BE USED:
CHIMNEY & PAD – CLASS A MINIMUM CYLINDER STRENGTH OF 3000 PSI (21MPa) AT 28 DAYS.
– CLASS E MINIMUM CYLINDER STRENGTH OF 2175 PSI (15MPa) AT 28 DAYS.
4. MAXIMUM AGGREGATE SIZE SHALL BE 20 MM. GRADATION SHALL BE IN ACCORDANCE WITH ASTM C33.
5. CLEAR CONC. COVER ARE AS FOLLOWS :
COLUMN = 75mm
FOOTING SIDES = 75mm
FOOTING TOP & BOTTOM = 50mm
6. OPC SHALL BE USED FOR ALL CONCRETE WORKS.
7. REINFORCEMENT SHALL BE GRADE 60 IN ACCORDANCE WITH ASTM A615. REINFORCEMENT HAS BEEN CALLED UP THUS :

8. BACKFILL SHALL BE DONE IN LAYERS NOT EXCEEDING 150MM MEASURED AS COMPACTED MATERIAL AND SATURATED WITH SUFFICIENT WATER AND COMPACTED.
9. QUANTITIES FOR FOUNDATION ARE AS FOLLOWS :

	UNIT	QUANTITY
i) EXCAVATION	CM	1.8
ii) BACKFILL	CM	1.2
iii) CONCRETE CLASS A	CM	0.57
iv) REINF. GRADE 60	KG	49



SECTION 1-1

CONSTRUCTION DRAWING

NOTES ADDED AS PER NESPAK COMMENTS	SIDRA	08-11-16	C
NOTE ADDED FOR SWEET SOIL/GREEN BELT	SIDRA	02-11-16	B
FOOTING REINFORCEMENT REVISED AS PER NESPAK COMMENTS	SIDRA	28-10-16	A
DESCRIPTION	BY	DATE	REV

CLIENT



PUNJAB SAFE CITY AUTHORITY

CONTRACTOR



HUAWEI TECHNOLOGIES CO. LTD.

CONSULTANT



ENGINEERING DESIGN BUREAU

LAHORE

PROJECT

PUNJAB SAFE CITY AUTHORITY

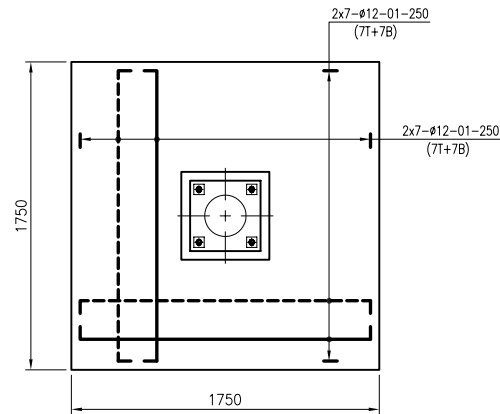
TITEL

IPNV CAMERA POLE (WITHOUT SOLAR), MODEL TOWN
PRECAST/INSITU ISOLATED FOOTING

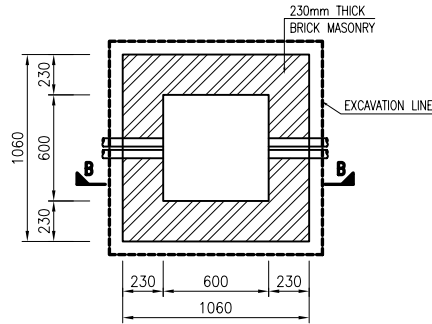
SCALE	DRAWN	DESIGNED	CHECKED	APPROVED	DATE
AS SHOWN	SIDRA	KAMRAN	AMNAH	I. Z.	OCT, 2016
DRG. NO. PSCA-HUAWEI-FDB-POLE-FD05					REVISION C

BAR BENDING SCHEDULE

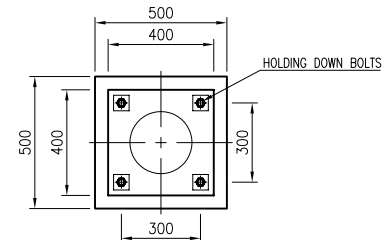
MK	SIZE (MM)	NO	CUT LENGTH (MM)	SHAPE	WEIGHT (KG)
01	Ø 12	20	1250		22
02	Ø 12	12	1550		17
03	Ø 10	7	1600		7
04	Ø 10	3	1600		3
					49



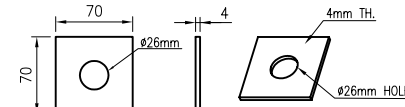
PLAN



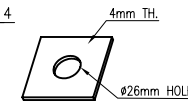
OP PLAN
SCALE= 1:2



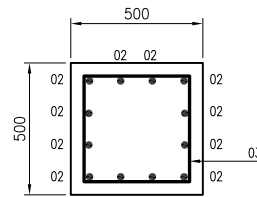
BASE PLATE DETAIL



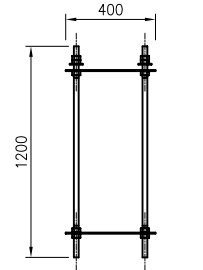
DETAIL C



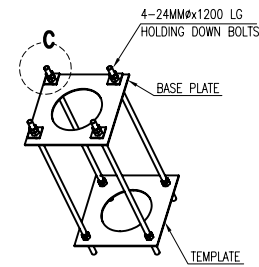
3D VIEW



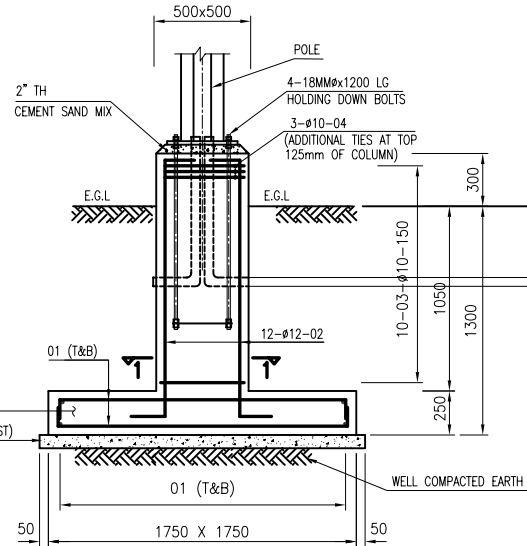
SECTION 1-1



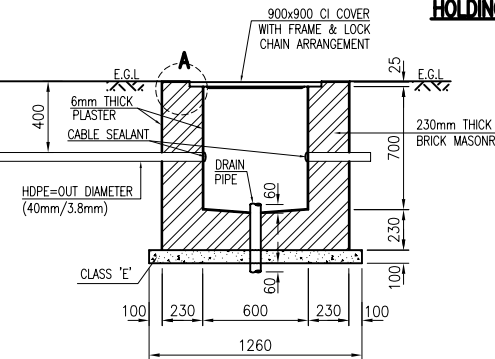
HOLDING DOWN BOLTS



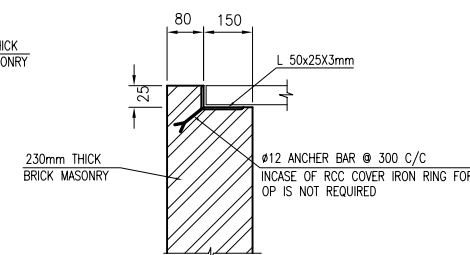
3D VIEW



ELEVATION



OP SECTION B-B
SCALE= 1:2



DETAIL-A

BAR BENDING SCHEDULE

MK	SIZE (MM)	NO	CUT LENGTH (MM)	SHAPE	WEIGHT (KG)
01	12	28	1850		46
02	12	12	1875		20
03	10	10	1800		11
04	10	3	1800		3
					80

NOTES

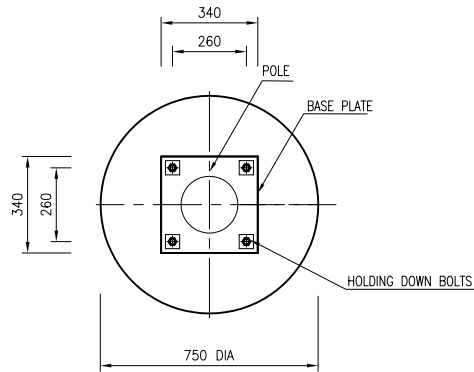
- ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE NOTED.
- ASSUMED NET BEARING CAPACITY = 41.56 KPA
- FOLLOWING CONCRETE GRADE SHALL BE USED:
CHIMNEY & PAD - CLASS A MINIMUM CYLINDER STRENGTH OF 3000 PSI (21MPA) AT 28 DAYS.
- CLASS E MINIMUM CYLINDER STRENGTH OF 2175 PSI (15MPA) AT 28 DAYS.
- MAXIMUM AGGREGATE SIZE SHALL BE 20 MM. GRADATION SHALL BE IN ACCORDANCE WITH ASTM C33.
- CLEAR CONC. COVER = 50mm
- OPC SHALL BE USED FOR ALL CONCRETE WORKS.
- REINFORCEMENT SHALL BE GRADE 60 IN ACCORDANCE WITH ASTM A615. REINFORCEMENT HAS BEEN CALLED UP THUS :
10 0 10 03 150
SPACING
BAR MARK
BAR DIAMETER (MM)
REINFORCEMENT (GRADE 60)
NUMBER OF BARS
- BACKFILL SHALL BE DONE IN LAYERS NOT EXCEEDING 200MM MEASURED AS COMPACTED MATERIAL AND SATURATED WITH SUFFICIENT WATER AND COMPACTED.
- ALL BRICKS SHALL BE FIRST CLASS BRICK LAID IN 1:3 CEMENT SAND MORTAR.
- QUANTITIES FOR FOUNDATION ARE AS FOLLOWS :
UNIT QUANTITY
i) EXCAVATION CM 4.7
ii) BACKFILL CM 3.4
iii) CONCRETE CLASS A CM 1.1
iv) REINFT. GRADE 60 KG 80
- QUANTITIES FOR OP ARE AS UNDER :
UNIT QUANTITY
i) EXCAVATION CM 1.7
ii) BRICK CM 0.73
iii) CONCRETE CLASS E CM 0.16
iv) PLASTER M² 6

CONSTRUCTION DRAWING

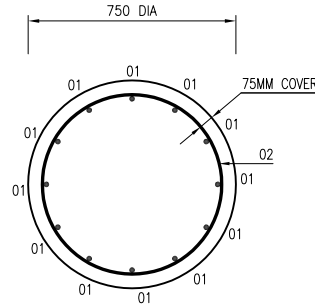
CONCRETE COVER REVISED	SIDRA	09-11-16	B
DRAINAGE PIPE ADDED	SIDRA	27-10-16	A
DESCRIPTION	BY	DATE	REV.
CLIENT	PUNJAB SAFE CITY AUTHORITY		
FOR	HUAWEI TECHNOLOGIES CO. LTD.		
CONSULTANT	ENGINEERING DESIGN BUREAU		
PROJECT	PUNJAB SAFE CITY AUTHORITY		
TITLE	IPW CAMERA POLE (WITH SOLAR), MODEL TOWN PRECAST/INSITU ISOLATED FOOTING		
SCALE	DRAWN	DESIGNED	CHECKED
AS SHOWN	SIDRA	KAMRAN	AMNAH
DRG. NO.	REVISION	DATE	
PSCA-HUAWEI-EDB-POLE-FD06	B	OCT, 2016	

NOTES:

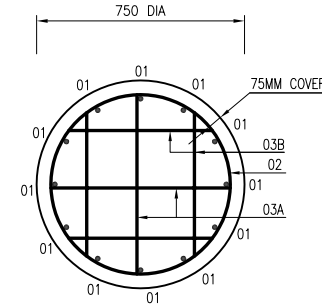
- FILL BELOW FOUNDATION LEVEL SHALL BE REPLACED WITH STRUCTURAL BACKFILL SAND GRAVEL MIX. (50:50 RATIO) IN LAYERS NOT EXCEEDING 150MM AS COMPACTED TO 98%-100% MAXIMUM MOD. AASHTO DENSITY. DEPTH OF REPLACEMENT SHALL BE:-
1. FILL BELOW FOUNDATION LEVEL < 600MM, REPLACE FOR FULL DEPTH
2. FILL BELOW FOUNDATION LEVEL > 600MM, REPLACE UPTO 600MM



SECTION 1-1



SECTION 2-2



SECTION 3-3

NOTES

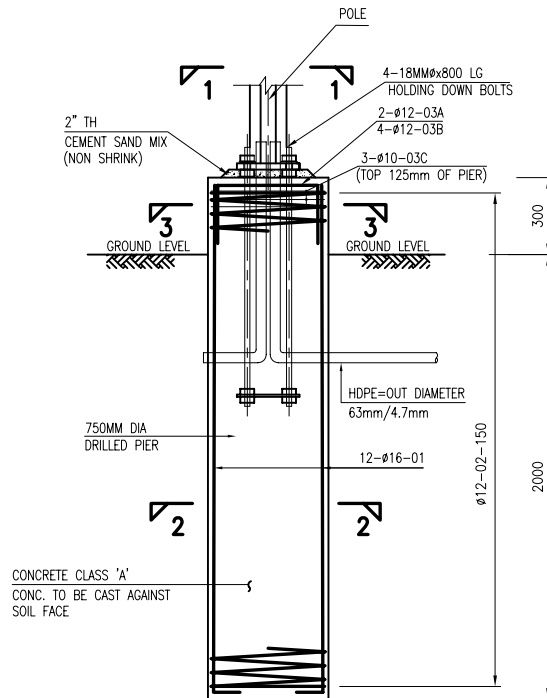
- ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE NOTED.
- ALL CONCRETE SHALL HAVE MINIMUM CYLINDER STRENGTH OF 3000 PSI (21MPA) AT 28 DAYS.
- MAXIMUM AGGREGATE SIZE SHALL BE 40 MM. GRADATION SHALL BE IN ACCORDANCE WITH ASTM C33.
- CLEAR CONC. COVER = 75mm
- OPC SHALL BE USED FOR ALL CONCRETE WORKS.
- REINFORCEMENT SHALL BE GRADE 60 IN ACCORDANCE WITH ASTM A615.

REINFORCEMENT HAS BEEN CALLED UP THUS :

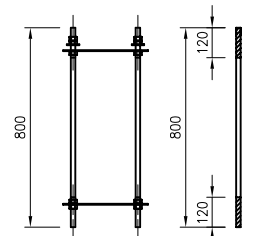
12	Ø 16	01	200	SPACING
				BAR MARK
				BAR DIAMETER (MM)
				REINFORCEMENT (GRADE 60)
				NUMBER OF BARS

- QUANTITIES FOR FOUNDATION ARE AS UNDER :

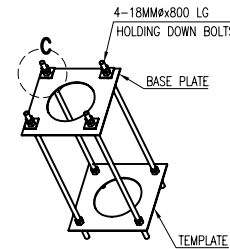
	UNIT	QUANTITY
i) EXCAVATION	CM	0.9
ii) CONCRETE CLASS 'A'	CM	1.0
iii) REINFT. GRADE 60	KG	80



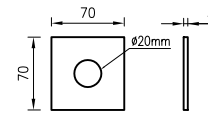
DRILLED PIER ELEVATION



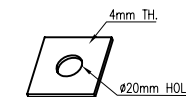
HOLDING DOWN BOLTS



3D VIEW

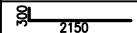
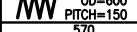
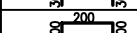


DETAIL C



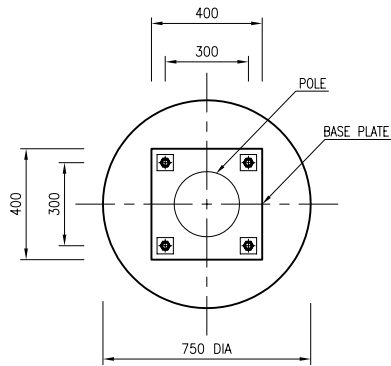
3D VIEW

BAR BENDING SCHEDULE

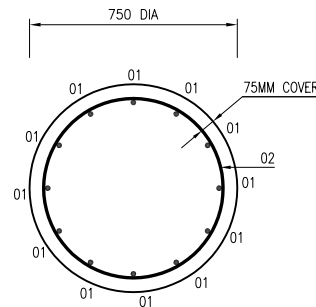
MK	SIZE (MM)	NO	CUT LENGTH (MM)	SHAPE	WEIGHT (KG)
01	Ø 16	12	2450		46
02	Ø 12	1	27M		24
03A	Ø 12	2	1170		2
03B	Ø 12	4	800		3
03C	Ø 10	3	2485		5
					80

CONSTRUCTION DRAWING

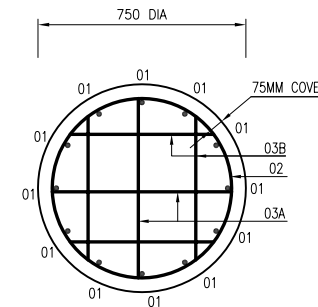
PIER DEPTH REVISED AS PER NESPAK COMMENTS		SIDRA/02-11-16	A		
DESCRIPTION		BY	DATE	REV.	
CLIENT		PUNJAB SAFE CITY AUTHORITY			
CONTRACTOR		HUAWEI TECHNOLOGIES CO. LTD.			
CONSULTANT		ENGINEERING DESIGN BUREAU LAHORE			
PROJECT		PUNJAB SAFE CITY AUTHORITY			
TITLE		CAMERA POLE DRILLED PIER FOUNDATION DRAWING (WOS) MODEL TOWN			
SCALE	DRAWN	DESIGNED	CHECKED	APPROVED	DATE
AS SHOWN	SIDRA	KAMRAN	AMNAH	I. Z.	JULY, 2016
DRG. NO.		PSCA-HUAWEI-EDB-POLE-FD07			REVISION
					A



SECTION 1-1



SECTION 2-2



SECTION 3-3

NOTES

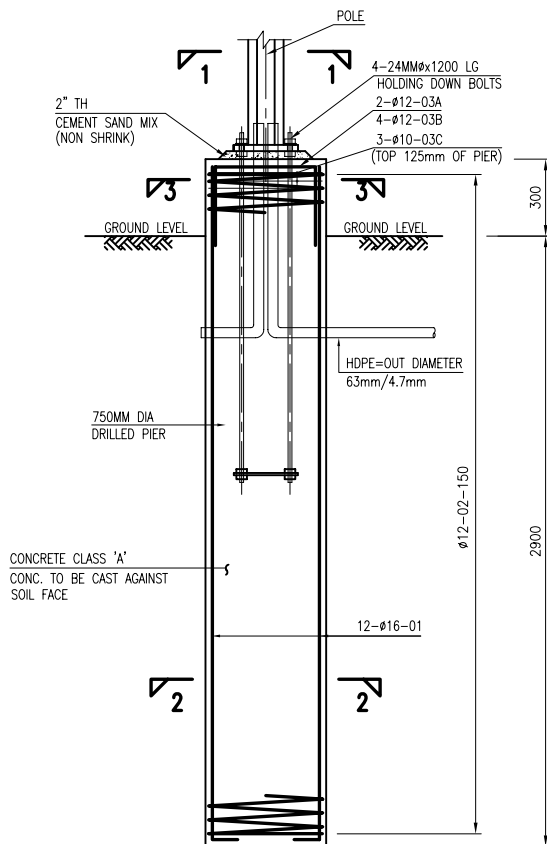
1. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE NOTED.
2. ALL CONCRETE SHALL HAVE MINIMUM CYLINDER STRENGTH OF 3000 PSI (21MPa) AT 28 DAYS.
3. MAXIMUM AGGREGATE SIZE SHALL BE 40 MM. GRADATION SHALL BE IN ACCORDANCE WITH ASTM C33.
4. CLEAR CONC. COVER = 75mm
5. OPC SHALL BE USED FOR ALL CONCRETE WORKS.
6. REINFORCEMENT SHALL BE GRADE 60 IN ACCORDANCE WITH ASTM A615.

REINFORCEMENT HAS BEEN CALLED UP THUS :

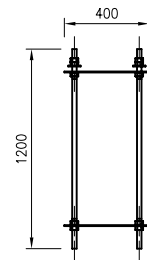
12	Ø 16	01	200	SPACING
				BAR MARK
				BAR DIAMETER (MM)
				REINFORCEMENT (GRADE 60)
				NUMBER OF BARS

7. QUANTITIES FOR FOUNDATION ARE AS UNDER :

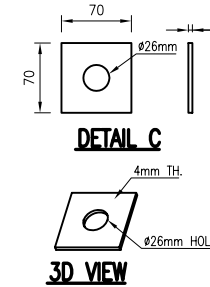
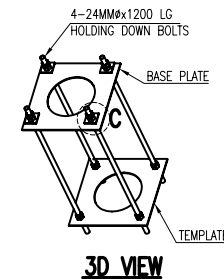
	UNIT	QUANTITY
i) EXCAVATION	CM	1.3
ii) CONCRETE CLASS 'A'	CM	1.41
iii) REINFT. GRADE 60	KG	108



DRILLED PIER ELEVATION



HOLDING DOWN BOLTS



DETAIL C

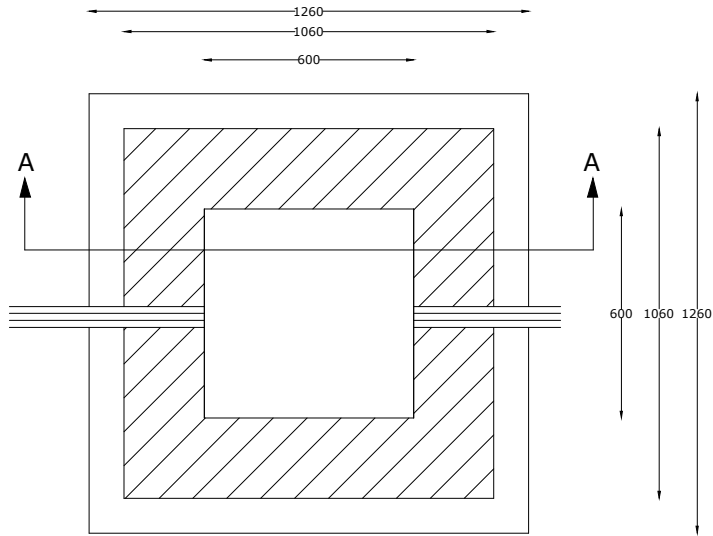
3D VIEW

BAR BENDING SCHEDULE

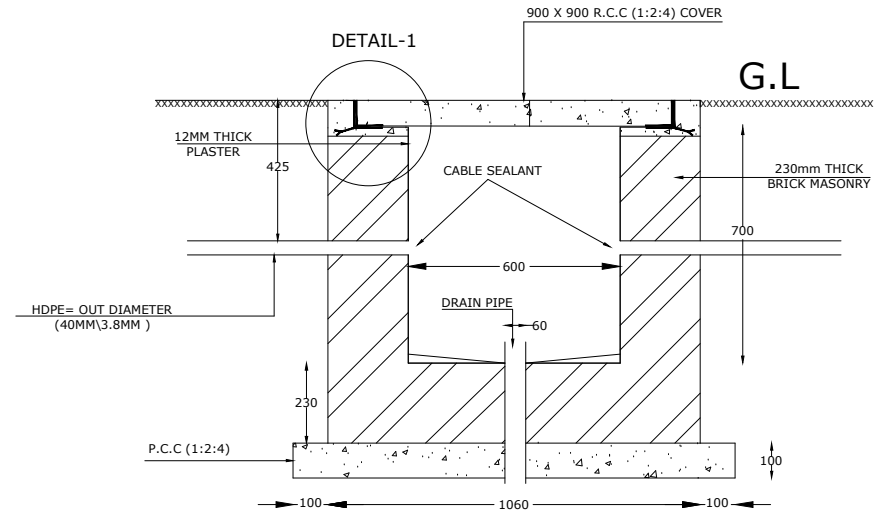
MK	SIZE (MM)	NO	CUT LENGTH (MM)	SHAPE	WEIGHT (KG)
01	Ø 16	12	3350		64
02	Ø 12	1	38M		34
03A	Ø 12	2	1170		2
03B	Ø 12	4	800		3
03C	Ø 10	3	2485		5
					108

CONSTRUCTION DRAWING

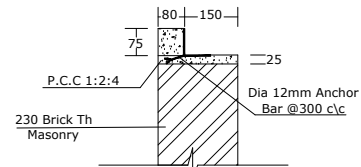
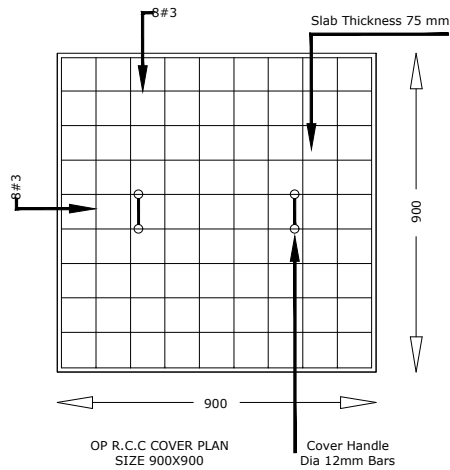
PIER DEPTH REVISED AS PER NESPAK COMMENTS	SIDRA	02-11-16	A
DESCRIPTION	BY	DATE	REV.
CLIENT	PUNJAB SAFE CITY AUTHORITY		
CONTRACTOR	HUAWEI TECHNOLOGIES CO. LTD.		
CONSULTANT	ENGINEERING DESIGN BUREAU LAHORE		
PROJECT	PUNJAB SAFE CITY AUTHORITY		
TITLE	CAMERA POLE WITH SOLAR PANEL DRILLED PIER FOUNDATION DRAWING, MODEL TOWN		
SCALE	DRAWN	DESIGNED	CHECKED
AS SHOWN	SIDRA	KAMRAN	AMNAH
		APPROVED	DATE
		I. Z.	OCT, 2016
DRG. NO.	PSCA-HUAWEI-EDB-POLE(SP)-FD08		REVISION
			A



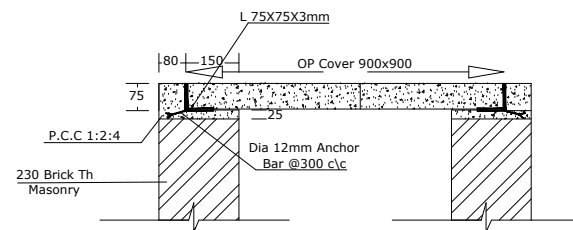
OP PLAN



OP SECTION



DETAIL-1



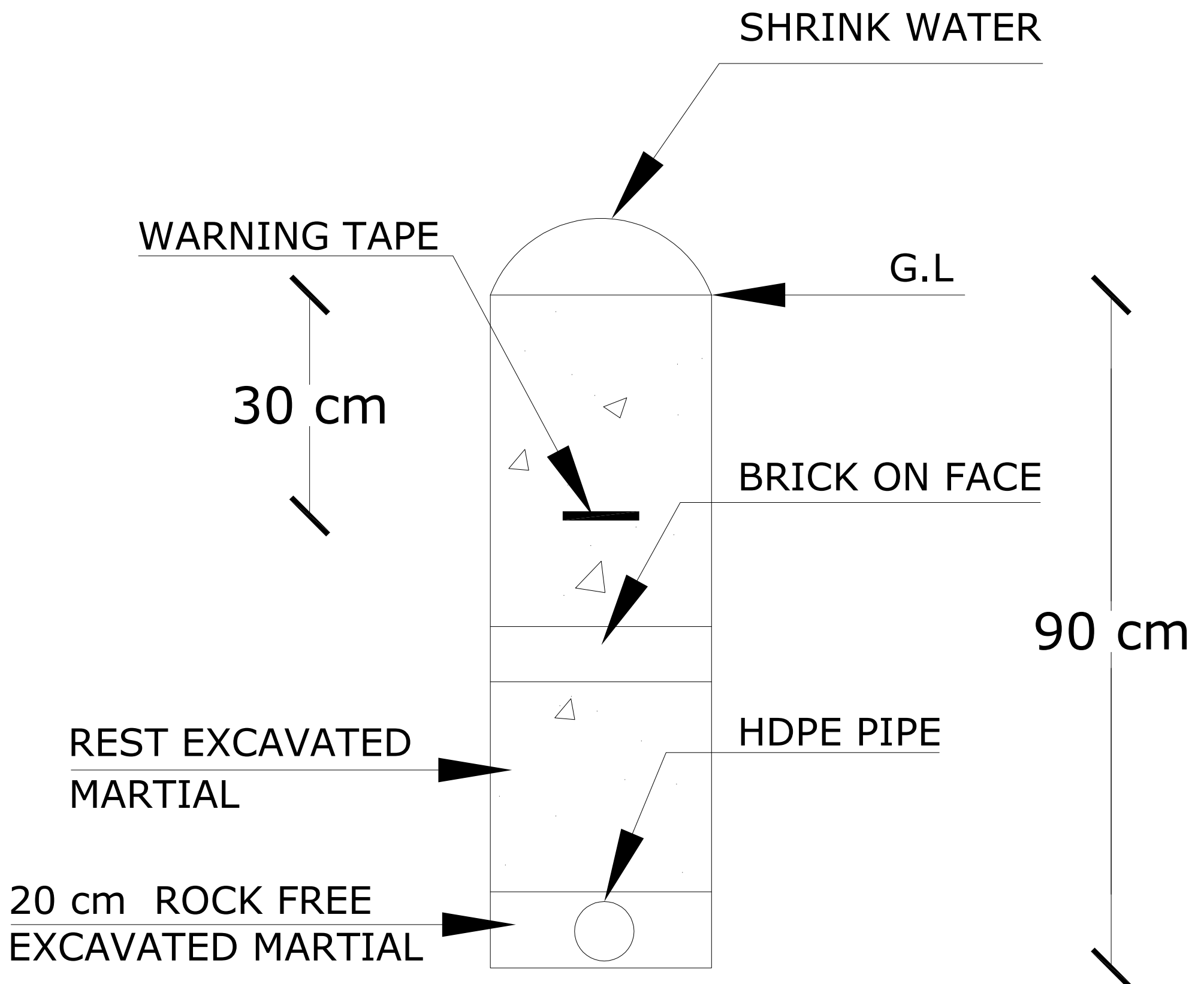
SECTION-AA

TITLE

DRAWING FOR OP AND RCC COVER

DWG NO
OP-01





Power Trench Section

Notes:

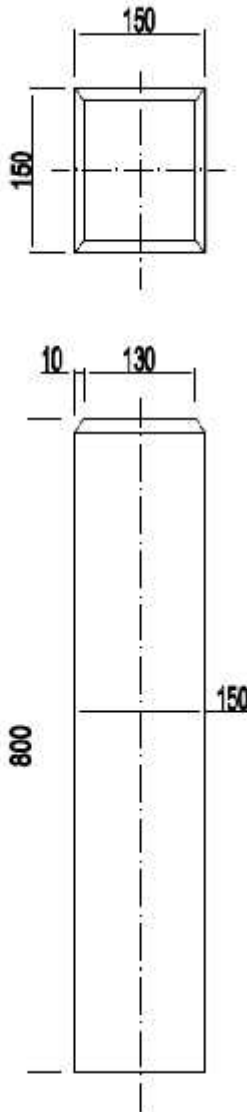
1. If depth can't reach design depth due to underground services, then:
 - 1.1. Backfill and reinstate as per above sketch if Depth > 2ft
 - 1.2. Pour extra 15cm PCC if $1\text{ft} < \text{Depth} < 2\text{ft}$, then backfill and reinstate as per sketch.
2. If settles, put extra soil on the top.
3. After work completion, debris shall be removed from site at earliest.

BOQ of Sheran Wala Flyover			
Installation of IPNV Poles			
Sr.#	Description	Quantity	Units
1	Installation and Commissioning of IPNV Poles and allied equipment	1	No's
2	Shifting of dismantled Equipment to Actual site	1	No's
3	Grounding wire (1-Core)	50	M
4	HDPE Pipes From Hand Hole to Main OP	50	M
5	HDPE Pipes From Main OP to IPNV Pole	10	M
6	Power Cable from meter to Power cabinet	100	M
7	CAT 6 Network cable for IPNV Connectivity	50	M
8	Joint Box/Closure	1	No's
9	Configuration and FOV Adjustment	1	No's
10	Splicing Trays	1	No's
OFC Restoration Works			
Sr.#	Description	Quantity	Units
1	Provision, laying and splicing of Optical Fiber Cable 16F	3050	M
2	Provision, laying and splicing of Optical Fiber Cable 48F	1170	M
3	Provision, laying and splicing of Optical Fiber Cable 04F	215	M
4	Provision and installation of 16F Joint Box	35	Each
5	Provision and installation 48F Joint Box	15	Each
IPNV Foundation			
Sr.#	Description	Quantity	Units
1	Construction of concrete foundation for camera pole (solar) along with OP including concrete casting, conduit provision and finishing , as per approved drawings, complete in all respects	1	Each
2	Provision and installation of earthing rod in OP and allied works as per approved drawing, complete in all respects	1	Each
OFC Trench Works			
Sr.#	Description	Quantity	Units
1	OFC trench works(normal soil, concrete, asphalt, tuff tile) including provision and laying of warning tape and reinstatement as per approved cross sections, complete in all respects	1530	M
2	OFC trench works across the road (asphalt/concrete) including provision and laying of	305	M

	warning tape and reinstatement as per approved cross sections, Complete in all respects		
3	Providing, laying, cutting, jointing and testing HDPE (High Density Polyethylene) pipe (40mm) working pressure pipe in trenches, complete in all respects	5505	M
4	Providing and laying P.C.C (15 cm) wih ratio of (1:2:4),including placing ,compaction and finishing complete in all respects(In case of Under depth)	306	M
5	Providing and laying cutting, jointing 3" dia. G.I Pipe, 2.9mm thick (11 gauge), complete in all respect	1428	M
6	Providing and placing precast handhole as per approved drawing, complete in all respects	13	Each
7	Providing and placing precast R.C.C(1:2:4) route marker as per approved drawing, complete in all respects	15	Each
Power Trench Works			
Sr.#	Description	Quantity	Units
1	Trench works (normal soil, concrete, asphalt, tuff tile) including providing and laying of warning tape, placing of bricks and reinstatement as per approved cross sections, complete in all respects	90	M
2	Providing, laying, cutting, jointing and testing HDPE (High Density Polyethylene) pipe (40mm) working pressure pipe in trenches, complete in all respects	90	M
3	Providing and laying cutting, jointing 3" dia. G.I Pipe, 2.9mm thick (11 gauge), complete in all respect	90	M

Sheranwala flyover Civil Work Specifications

Route Marker

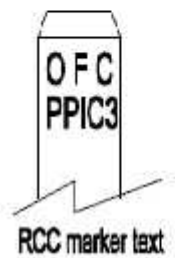


The Bar Configuration Drawing

S/N	Dimension	dia.(mm)	Length.(mm)	Qty.(pcs)
①	750	5	750	4
②	100	5	400	4
sketch drawing				

Main Materials Table

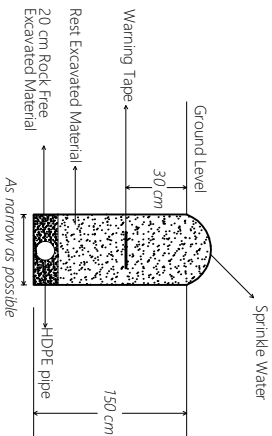
Sr	Steel bar(kg)	Norma Cement (kg)	Sand (kg)	Rubble ϕ 2-2.5cm (kg)	ϕ 0.7mm steel wire (kg)
①	Grade40 ϕ 5.0mm	(kg)	(kg)	(kg)	(kg)
②	0.75	6.2	12.4	24.8	0.025



NOTE:

1. The side with text should be faced to road.
2. The top 30cm of marker should be painted with red painting.
3. Arial type Text of "OFC PPIC3" should be graved and painted with black color. Text Height=50mm
4. The marker should be buried in 50cm depth; 30cm should be above the ground.
5. The concrete mix ratio is 1:2:4

Remark: If the RCC marker can't install due to the route is on pavement or asphalt, try divert forward or backward, if still not possible, then may exempt prior to customer agree.

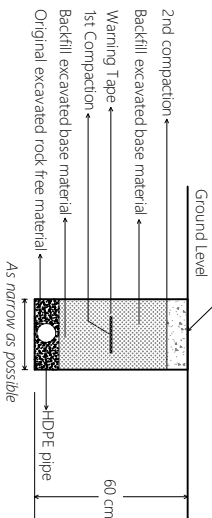


Normal soil surface/Markable soil surface

Note:

1. If depth can't reach design depth due to underground services, after vet by PSCA, then:
 - 1.1. Backfill and reinstate as per above sketch if Depth >2ft
 - 1.2. Pour extra 15cm PCC if 1ft<Depth<2ft, then backfill and reinstate as per sketch.
 - 1.3. Put GI protection+15cm PCC if depth<1ft.
2. If settles, put extra soil on the top.

Reinstate surface as per actual with 10cm-15cm thickness 1:2.4 concrete layer and exact thickness advised by the PSCA

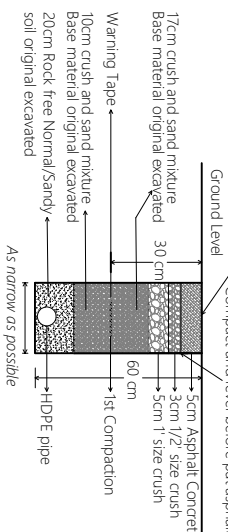


Concrete surface at side of road/inside of important building boundary

Note:

1. Cutter is mandatory to cut the surface in a straight smooth mode
2. Soil underground shall be excavated layer by layer and placed along trench separately so that can be placed back layer by layer as per original sequence.
3. Must compact layer by layer to avoid settlement.
4. If depth can't reach design depth due to underground services after vet by PSCA, then:
 - 4.1. Backfill and reinstate as per above sketch if Depth >1ft.
 - 4.2. Pour extra 15cm PCC if 1/2ft<Depth<1ft, then backfill and reinstate as per sketch.
 - 4.3. Put GI protection+10cm PCC if Depth ≤1/2ft.

Compact asphalt layer by skilled labor

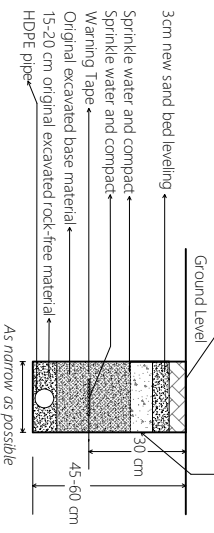


Asphalt cutting along normal asphalt road

Note:

1. Cutter is mandatory to cut the surface in a straight smooth mode
2. Soil underground shall be excavated layer by layer and placed along trench separately so that can be placed back layer by layer as per original sequence.
3. Must compact layer by layer to avoid settlement.
4. If depth can't reach design depth due to underground services after vet by PSCA, then:
 - 4.1. Backfill and reinstate as per above sketch if Depth >1ft.
 - 4.2. Pour extra 15cm PCC if 1/2ft<Depth<1ft, then backfill and reinstate as per sketch.
 - 4.3. Put GI protection+10cm PCC if Depth ≤1/2ft.

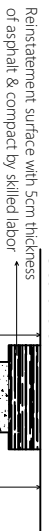
Place tuff tiles and pour sand to fill the gaps with skilled mason in the same pattern as before



Reinstatement for Tuff Tiles on footpath

Note:

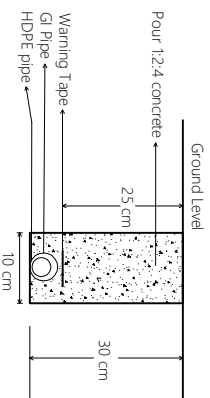
1. Tuff tiles shall be removed carefully and staded properly so that can be installed again.
2. Skilled mason is mandatory to assure proper paver work.
3. New sand bed layer is must to assure the leveling and avoid settlement.
4. If PCC layer found during excavation, need redo PCC layer with 2 inch thickness when doing backfilling.
5. Soil underground shall be excavated layer by layer and placed along trench separately so that can be placed back layer by layer as per original sequence.
6. Must compact layer by layer to avoid settlement.
7. If depth can't reach design depth due to underground services after vet by PSCA, then:
 - 7.1. Backfill and reinstate as per above sketch if Depth >1ft.
 - 7.2. Pour extra 15cm PCC if 1/2ft<Depth<1ft, then backfill and reinstate as per sketch.
 - 7.3. Put GI protection+10cm PCC if Depth ≤1/2ft.



Road cut perpendicular cross asphalt road with mini-trench on main fast track main roads

Note:

1. Cutter is mandatory to cut the surface in a straight smooth mode.
2. Trench bottom shall be cleaned for laying pipe properly.
3. 1:2.4 concrete shall be mixed, poured and precaution measures shall be taken to avoid people step in it before cured.
4. Top asphalt layer shall be poured and compact to same level by skilled labor.



Road cut cross roads other than main road fast tracks by mini-trench / or along the very congested roads (e.g. Ashura Wailed City area) where normal trench can't work

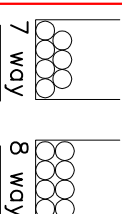
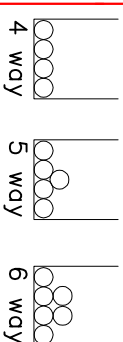
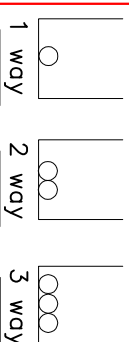
Note:

1. Cutter is mandatory to cut the surface in a straight smooth mode.
2. Trench bottom shall be cleaned for laying pipe properly.
3. 1:2.4 concrete shall be mixed, poured and precaution measures shall be taken to avoid people step in it before cured.

GENERAL NOTES :

1. Similar depth level in section between two hand hole shall be maintained to avoid bumpy pipe shape to smooth the cable pulling.
2. Trench alignment shall try best to avoid zig zag shape to smooth the Cable pulling.
3. During the excavation and backfill, reinstatement, standing by inspection shall be done on site by PSCA representative to verify the quality and quantity and record the inspection result on checklist OSP-2A and OSP-2B
4. After work completion,debris shall be removed

DUCT WAY FORMATION :

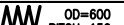


SUBMITTED BY		
REV.	DATE	SIGNATURE
APPROVED BY		
REV.	DATE	SIGNATURE
PROJECT NAME		
PPIC3 Project		
DRAWING TITLE		
OSP Trench Section Standard		
Drawing S.No		
GD-001A-1		



TOTAL SHEET
01/01



MK	SIZE (MM)	NO	CUT LENGTH (MM)	SHAPE	WEIGHT (KG)
01	ø 16	12	3850		73
02	ø 12	1	46M		41
03A	ø 12	2	1170		2
03B	ø 12	4	800		3
03C	ø 10	3	2485		5
					12

1. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE NOTED.
2. ALL CONCRETE SHALL HAVE MINIMUM CYLINDER STRENGTH OF 3000 PSI (21MPa) AT 28 DAYS.
3. MAXIMUM AGGREGATE SIZE SHALL BE 40 MM. GRADATION SHALL BE IN ACCORDANCE WITH ASTM C33.
4. CLEAR CONC. COVER = 75mm
5. OPC SHALL BE USED FOR ALL CONCRETE WORKS.
6. REINFORCEMENT SHALL BE GRADE 60 IN ACCORDANCE WITH ASTM A615.

REINFORCEMENT HAS BEEN CALLED UP THIS :

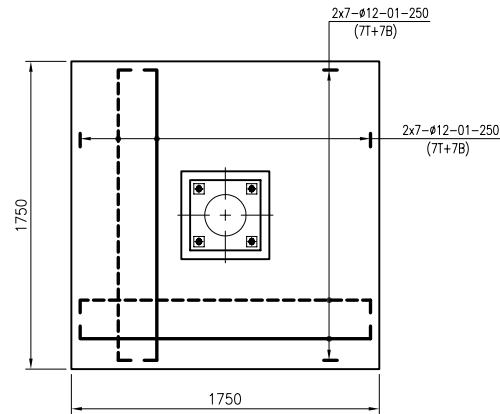
	UNIT	QUANTITY
i) EXCAVATION	CM	1.5
ii) CONCRETE CLASS 'A'	CM	1.64
iii) REINF. GRADE 60	KG	124

8. QUANTITIES FOR OP ARE AS UNDER :	
	UNIT QUANTITY
i) EXCAVATION	CM 1.7
ii) BRICK	CM 0.73
iii) CONCRETE CLASS E	CM 0.16
iv) PLASTER	M ² 6

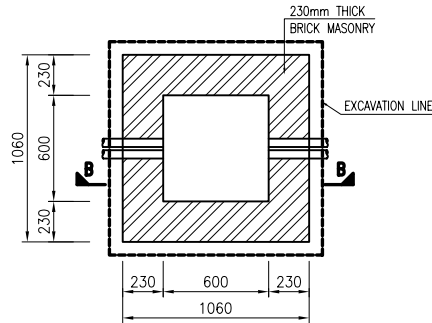
9. BASE PLATE & ANCHORS WEIGHT = 27.3KG

CONSTRUCTION DRAWING

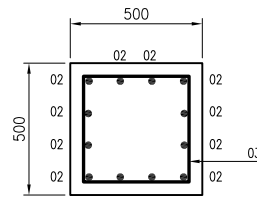
OP & BASE PLATE DETAIL ADDED		S.K	25/01/17	A	
DESCRIPTION		BY	DATE	REV.	
CLIENT					
		PUNJAB SAFE CITY AUTHORITY			
CONTRACTOR					
		HUAWEI TECHNOLOGIES CO. LTD.			
CONSULTANT					
		ENGINEERING DESIGN BUREAU LAHORE			
PROJECT					
		PUNJAB SAFE CITY AUTHORITY			
TITLE					
CAMERA POLE WITH SOLAR PANEL DRILLED PIER FOUNDATION DRAWING, CITY DIVISION					
SCALE	DRAWN	DESIGNED	CHECKED	APPROVED	DATE
AS SHOWN	SIDRA	KAMRAN	AMNAH	I. Z.	JAN, 2017
DRG. NO.					REVISION
PSCA-HUAWEI-EDB-POLE(SP)-FD14					A



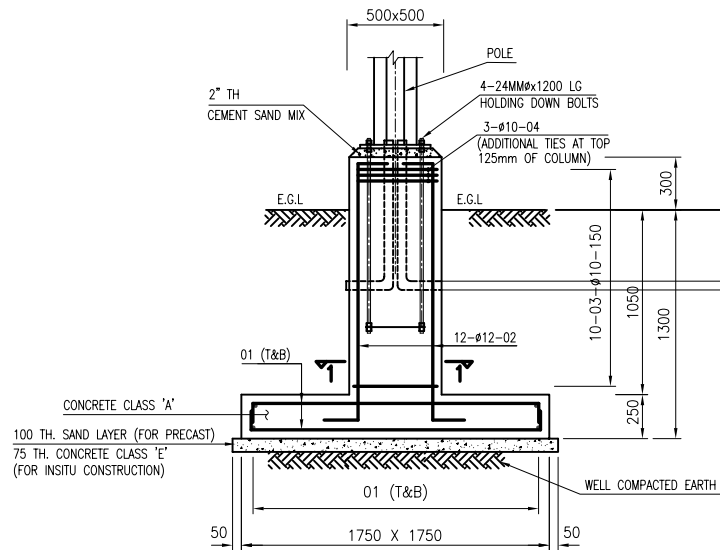
PLAN



OP PLAN
SCALE= 1:2



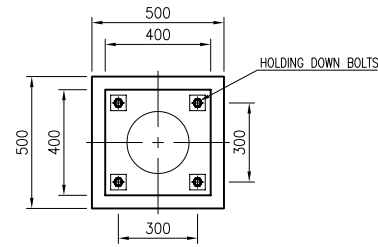
SECTION 1-1



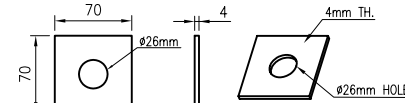
ELEVATION

NOTES:

- FILL BELOW FOUNDATION LEVEL SHALL BE REPLACED WITH STRUCTURAL BACKFILL SAND GRAVEL MIX. (50:50 RATIO) IN LAYERS NOT EXCEEDING 150MM AS COMPACTED TO 98%-100% MAXIMUM MOD. AASHTO DENSITY. DEPTH OF REPLACEMENT SHALL BE:-
1. FILL BELOW FOUNDATION LEVEL < 700MM, REPLACE FOR FULL DEPTH
2. FILL BELOW FOUNDATION LEVEL > 700MM, REPLACE UPTO 700MM

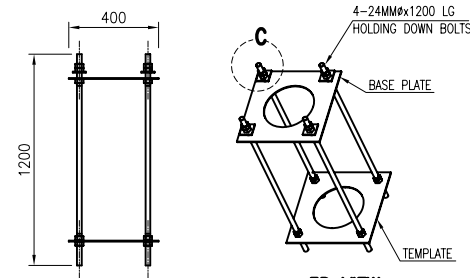


BASE PLATE DETAIL



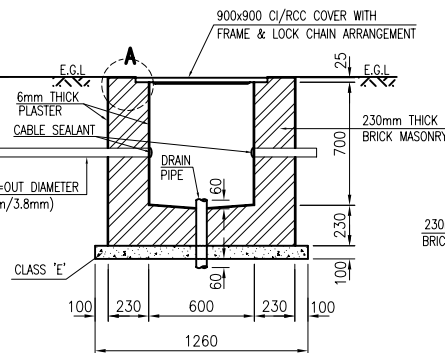
DETAIL C

3D VIEW

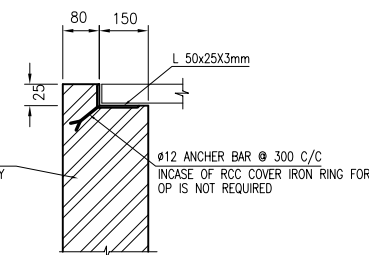


HOLDING DOWN BOLTS

3D VIEW



OP SECTION B-B
SCALE= 1:2



DETAIL-A

BAR BENDING SCHEDULE

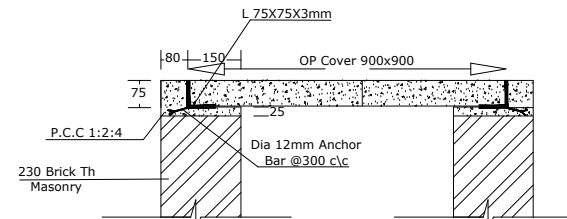
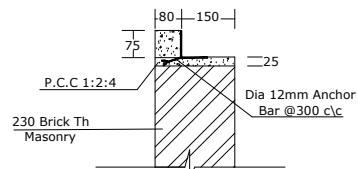
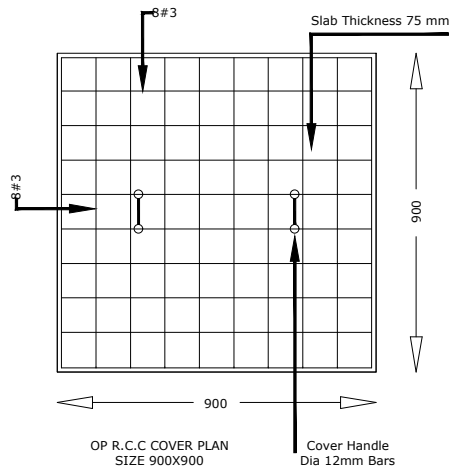
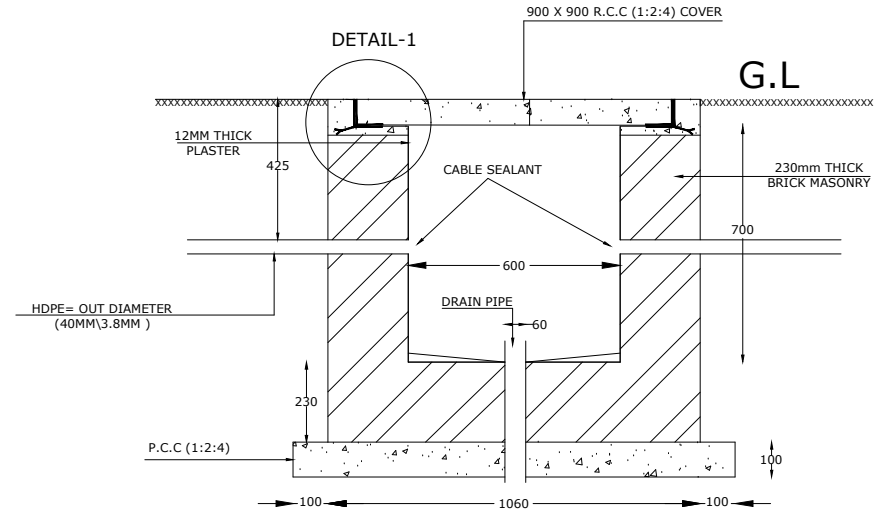
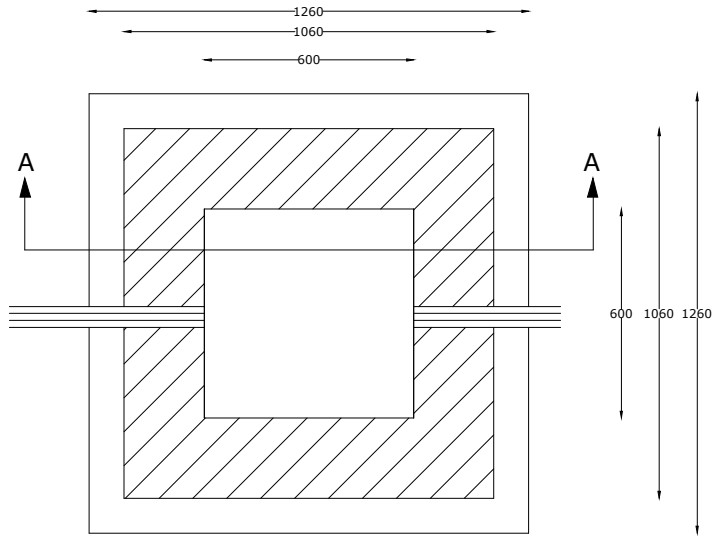
MK	SIZE (MM)	NO	CUT LENGTH (MM)	SHAPE	WEIGHT (KG)
01	ø 12	28	1850	100 1650 100	46
02	ø 12	12	1875	200 1475 200	20
03	ø 10	10	1800	400 400 400	11
04	ø 10	3	1800	400 400 400	3
					80

NOTES

- ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE NOTED.
 - NET BEARING CAPACITY = 110 KPA
 - FOLLOWING CONCRETE GRADE SHALL BE USED:
CHIMNEY & PAD - CLASS A MINIMUM CYLINDER STRENGTH OF 3000 PSI (21MPA) AT 28 DAYS.
- CLASS E MINIMUM CYLINDER STRENGTH OF 2175 PSI (15MPA) AT 28 DAYS.
 - MAXIMUM AGGREGATE SIZE SHALL BE 20 MM. GRADATION SHALL BE IN ACCORDANCE WITH ASTM C33.
 - CLEAR CONC. COVER = 50mm
 - OPC SHALL BE USED FOR ALL CONCRETE WORKS.
 - REINFORCEMENT SHALL BE GRADE 60 IN ACCORDANCE WITH ASTM A615. REINFORCEMENT HAS BEEN CALLED UP THUS :
- | 10 | ø | 10 | 03 | 150 | SPACING |
|----|---|----|----|-----|--------------------------|
| | | | | | BAR MARK |
| | | | | | BAR DIAMETER (MM) |
| | | | | | REINFORCEMENT (GRADE 60) |
| | | | | | NUMBER OF BARS |
- BACKFILL SHALL BE DONE IN LAYERS NOT EXCEEDING 150MM MEASURED AS COMPACTED MATERIAL AND SATURATED WITH SUFFICIENT WATER AND COMPACTED.
 - ALL BRICKS SHALL BE FIRST CLASS BRICK LAID IN 1:3 CEMENT SAND MORTAR.
 - QUANTITIES FOR FOUNDATION ARE AS FOLLOWS :
- | | UNIT | QUANTITY |
|-----------------------|------|----------|
| i) EXCAVATION | CM | 4.7 |
| ii) BACKFILL | CM | 3.4 |
| iii) CONCRETE CLASS A | CM | 1.1 |
| iv) REINFT. GRADE 60 | KG | 80 |
| v) CONCRETE CLASS E | CM | 0.18 |
- QUANTITIES FOR OP ARE AS UNDER :
- | | UNIT | QUANTITY |
|-----------------------|----------------|----------|
| i) EXCAVATION | CM | 1.7 |
| ii) BRICK | CM | 0.73 |
| iii) CONCRETE CLASS E | CM | 0.16 |
| iv) PLASTER | M ² | 6 |
- BASE PLATE & ANCHORS WEIGHT = 27.3KG

CONSTRUCTION DRAWING

OP & BASE PLATE DETAIL ADDED	S.K	25/01/17	A
DESCRIPTION	BY	DATE	REV.
CLIENT	PUNJAB SAFE CITY AUTHORITY		
CONTRACTOR	HUAWEI TECHNOLOGIES CO. LTD.		
CONSULTANT	ENGINEERING DESIGN BUREAU LAHORE		
PROJECT	PUNJAB SAFE CITY AUTHORITY		
TITLE	IPNV CAMERA POLE (WITH SOLAR), CITY DIVISION PRECAST/INSITU ISOLATED FOOTING		
SCALE	DRAWN	DESIGNED	CHECKED
AS SHOWN	SIDRA	KAMRAN	AMNAH
DRG. NO.	PSCA-HUAWEI-EDB-POLE-FD16		REVISION
			A



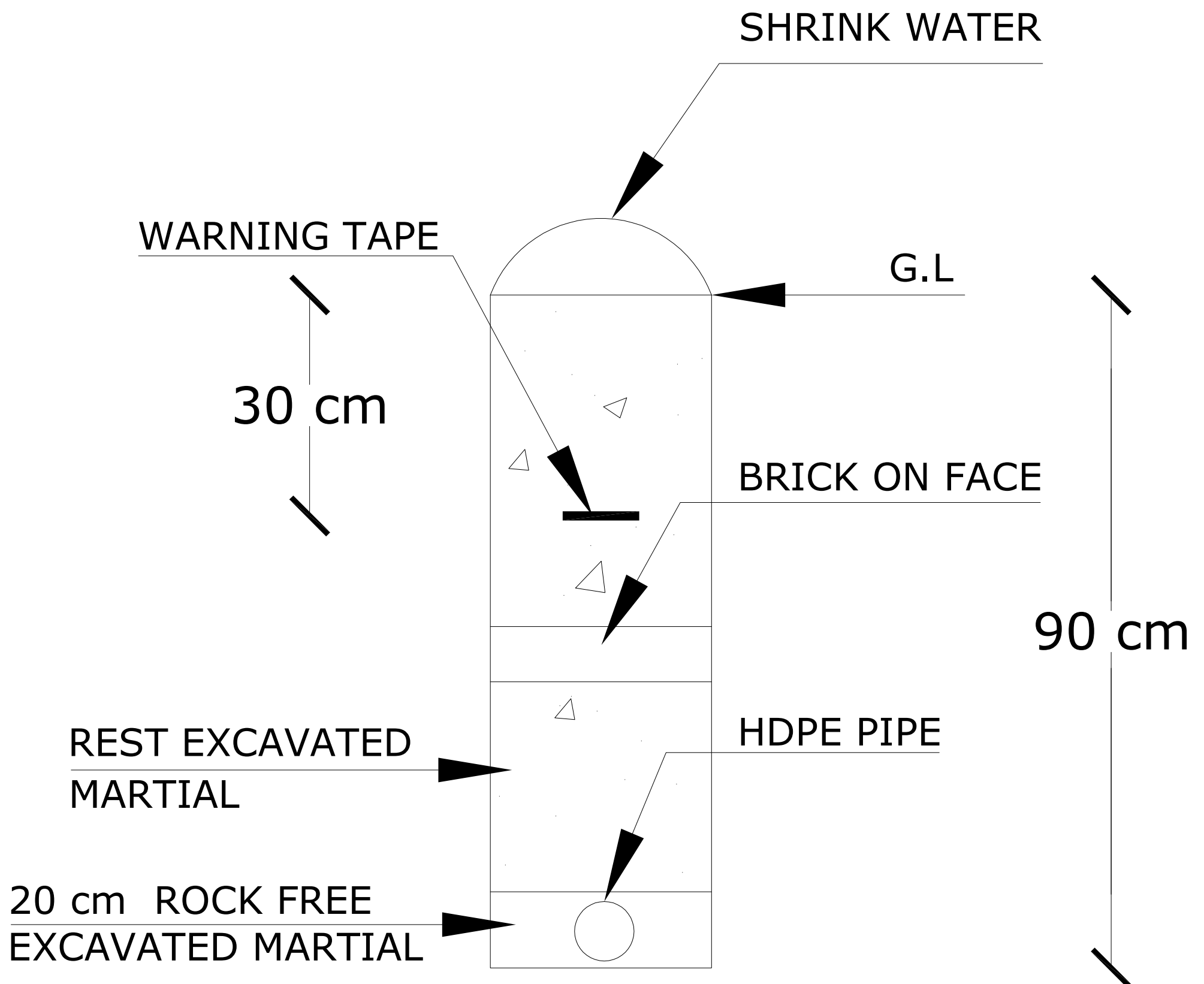
TITLE

DRAWING FOR OP AND RCC COVER

DWG NO

OP-01





Power Trench Section

Notes:

1. If depth can't reach design depth due to underground services, then:
 - 1.1. Backfill and reinstate as per above sketch if Depth > 2ft
 - 1.2. Pour extra 15cm PCC if $1\text{ft} < \text{Depth} < 2\text{ft}$, then backfill and reinstate as per sketch.
2. If settles, put extra soil on the top.
3. After work completion, debris shall be removed from site at earliest.

BOQ of Shahkaam Chowk Flyover			
Installation of IPNV Poles			
Sr.#	Description	Quantity	Units
1	Installation and Commissioning of IPNV Poles and allied equipment	2	No's
2	Shifting of dismantled Equipment to Actual site(for 2 poles)	1	No's
3	Grounding wire (1-Core)	100	M
4	HDPE Pipes From Hand Hole to Main OP	100	M
5	HDPE Pipes From Main OP to IPNV Pole	20	M
6	Power Cable from meter to Power cabinet	100	M
7	Provision and Installation of Power Connection	2	No's
8	CAT 6 Network cable for IPNV Connectivity	100	M
9	Joint Box/Closure	2	No's
10	Configuration and FOV Adjustment	2	No's
11	Splicing Trays	2	No's
VMS Reinstallation			
Sr.#	Description	Quantity	Units
1	Installation and Commissioning of VMS Pole and Screen	1	Job
2	Installation and commissioning of Power Cabinet	1	Job
3	Provision and Installation of Power Connection	1	Job
4	Power Cable		
i	From Power meter to Power cabinet (2-Core)	100	M
ii	From Power cabinet to VMS Pole (3-Core)	50	M
5	CAT 6 Network cable for VMS Connectivity	100	M
OFC Restoration Works			
Sr.#	Description	Quantity	Units
1	Provision, laying and splicing of Optical Fiber Cable 16F	6666	M
2	Provision, laying and splicing of Optical Fiber Cable 96F	300	M
3	Provision, laying and splicing of Optical Fiber Cable 04F	944	M
4	Provision and installation of 16F Joint Box	43	Each
5	Provision and installation of 96F Joint Box	2	Each
6	Provision and commissioning Fiber Optic Cable Splice Trays	14	No's
OFC Trench Works			
Sr.#	Description	Quantity	Units
1	OFC trench works in normal soil including provision and laying of warning tape and reinstatement as per approved cross sections, complete in all respects	4081	M

2	OFC trench works in tuff tile including provision and laying of warning tape and reinstatement as per approved cross sections, complete in all respects	1534	M
3	OFC trench works in concrete including provision and laying of warning tape and reinstatement as per approved cross sections, complete in all respects	150	M
4	OFC trench works across the road(asphalt/concrete) including provision and laying of warning tape and reinstatement as per approved cross sections, complete in all respects	636	M
5	Providing, laying, cutting, jointing and testing HDPE (High Density Polyethylene) pipe (40mm) working pressure pipe in trenches, complete in all respects	19203	M
6	Providing, laying, cutting, jointing and testing HDPE (High Density Polyethylene) pipe (63mm) working pressure pipe in trenches, complete in all respects	1940	M
7	Providing and laying P.C.C (15 cm) with ratio of (1:2:4),including placing ,compaction and finishing complete in all respects(In case of Under depth)	1490	M
8	Providing, laying, cutting and jointing 3" dia. G.I Pipe, 2.9mm thick (11 gauge), complete in all respect	4598	M
9	HDD/thrust Bore (100mm dia) across the road, complete in all respects	250	M
10	Providing and placing precast handhole as per approved drawing, complete in all respects	17	Each
11	Providing and placing precast R.C.C(1:2:4) route marker as per approved drawing, complete in all respects	30	Each
Power Trench Works			
Sr.#	Description	Quantity	Units
1	Trench works in normal soil including providing and laying of warning tape, placing of bricks and reinstatement as per approved cross sections, complete in all respects	90	M
2	Trench work in tuff tile including providing and laying of warning tape, placing of bricks and reinstatement as per approved cross sections, complete in all respects	102	M
3	Trench works across the road(asphalt/concrete) including provision and laying of warning tape and reinstatement as per approved cross sections, complete in all respects	140	M

4	Providing, laying, cutting, jointing and testing HDPE (High Density Polyethylene) pipe (40mm) working pressure pipe in trenches, complete in all respects	332	M
5	Providing and laying, cutting, jointing 3" dia. G.I Pipe, 2.9mm thick (11 gauge), complete in all respect	188	M
Bridge Attachment			
Sr.#	Description	Quantity	Units
1	Providing and fixing galvanized angle iron brackets including omega clamps as per approved section, complete in all respects	82	Each
2	Providing, laying, cutting, jointing and testing of HDPE (High Density Polyethylene) pipe (40mm) working pressure pipe in trenches, complete in all respects	164	M
3	Providing, laying, cutting, jointing 3" dia. G.I Pipe, 2.9mm thick (11 gauge), complete in all respect	164	M
IPNV Foundation			
Sr.#	Description	Quantity	Units
1	Construction of concrete foundation for camera pole (solar) along with OP including concrete casting, conduit provision and finishing , as per approved drawings, complete in all respects	2	Each
2	Provision and installation of earthing rod and allied works as per approved drawing, complete in all respects	2	Each
VMS Foundation			
Sr.#	Description	Quantity	Units
1	Construction of concrete foundation(4.5m "F") along with OP including concrete casting, conduit provision and finishing as per approved drawings, complete in all respects	1	Each
2	Construction of OP as per approved drawing, complete in all respects	1	Each
3	Construction of Power Cabinet Foundation as per approved drawings ,complete in all respects	1	Each
4	Provision and installation of earthing rod and allied works as per approved drawing, complete in all respects	2	Each

Traffic Installation Specifications (VMS Power Cabinet)

Shahkaam Chowk Flyover

1 Power Cables

- a) 2-Core 4mm² Copper Cu/PVC/600/1000V from the power meter to the main OP/Power Cabinet. The Color of a core for the 2-Core cable shall be red and black
- b) 3-Core 2.5mm² Copper Cu/PVC/600/1000V from the power cabinet to the hanging cabinet. The Color of the core for the 3-Core cable shall be red, yellow, and blue.
- c) All the cables shall be of London Metal Exchange (LME) Grade Electrolytic Copper of 99.99%
- d) All the cables shall have the purity & PVC of appropriate Electrical Grade

2 CAT-6 Networking Cable

- a) CAT6 Double Shielded (STP) Ethernet Network Cable (26 American Wire Gauge – AWG stranded, pure bare copper conductors).
- b) The cable shall be a flexible and durable CAT-6 cable with high bandwidth of up to 550 MHz and guarantees high-speed data transfer for server applications, cloud video surveillance, and online high-definition video streaming.

3 Reflective Stickers on Cabinets

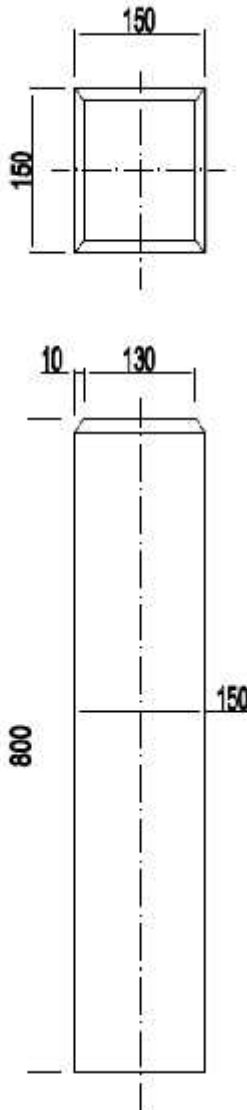
- a) The Contractor shall provide Reflective Tape Printing Stickers for Cabinet Number (Safe Spot ID) = 4 Digits. The final design of the sticker must be approved by the employer before printing. Material of sticker should be Reflective Vinyl.

Side	Height (inch)	Width (inch)
VMS Power Cabinet (Sticker)		
Side 1	42	20
Side 2	42	20
Back	42	20
Front	32	15



Shakam Chowk Flyover

Route Marker

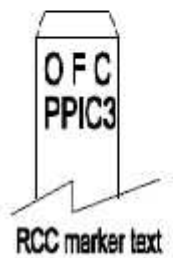


The Bar Configuration Drawing

S/N	Dimension	dia.(mm)	Length.(mm)	Qty.(pcs)
①	750	5	750	4
②	100	5	400	4
sketch drawing				

Main Materials Table

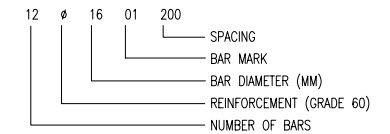
Sr	Steel bar(kg)	Norma Cement (kg)	Sand (kg)	Rubble Φ 2-2.5cm (kg)	Φ 0.7mm steel wire (kg)
①	Grade40 Φ 5.0mm	(kg)	(kg)	(kg)	(kg)
②	0.75	6.2	12.4	24.8	0.025



NOTE:

1. The side with text should be faced to road.
2. The top 30cm of marker should be painted with red painting.
3. Arial type Text of "OFC PPIC3" should be graved and painted with black color. Text Height=50mm
4. The marker should be buried in 50cm depth; 30cm should be above the ground.
5. The concrete mix ratio is 1:2:4

Remark: If the RCC marker can't install due to the route is on pavement or asphalt, try divert forward or backward, if still not possible, then may exempt prior to customer agree.

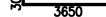


- | | UNIT | QUANTITY |
|------------------------|------|----------|
| i) EXCAVATION | CM | 1.54 |
| ii) CONCRETE CLASS 'A' | CM | 1.68 |
| iii) REINFT. GRADE 60 | KG | 126 |

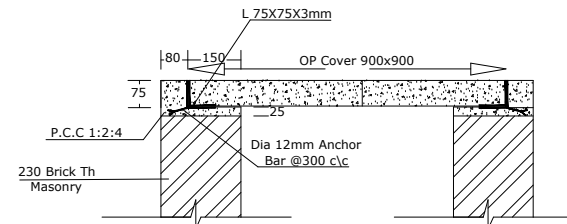
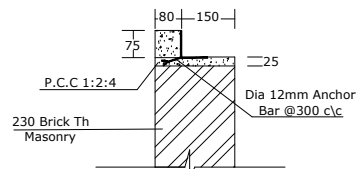
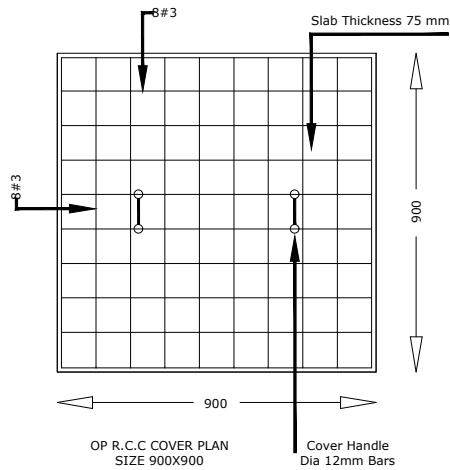
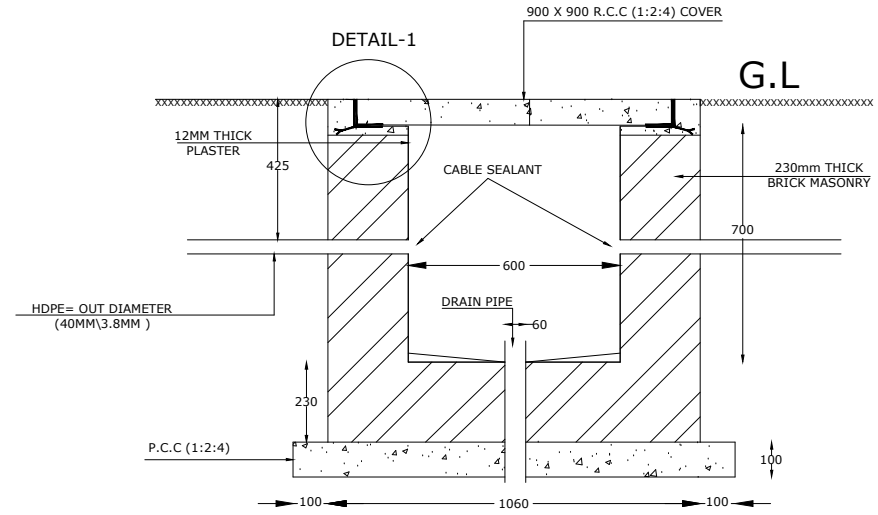
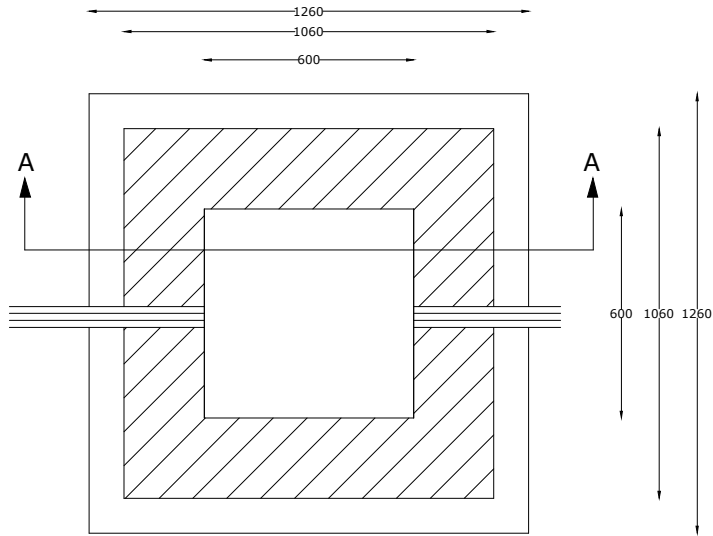
- | | UNIT | QUANTITY |
|-----------------------|----------------|----------|
| i) EXCAVATION | CM | 1.7 |
| ii) BRICK | CM | 0.73 |
| iii) CONCRETE CLASS E | CM | 0.16 |
| iv) PLASTER | M ² | 2 |

- DRILLED PIER ELEVATION**



MK	SIZE (MM)	NO	CUT LENGTH (MM)	SHAPE	WEIGHT (KG)
01	Ø 16	12	3950		75
02	Ø 12	1	46M		41
03A	Ø 12	2	1170		2
03B	Ø 12	4	800		3
03C	Ø 10	3	2485		5
					12

PIER DEPTH REVISED AS PER NESPAK COMMENTS		SIDRA	17-02-17	A	
DESCRIPTION		BY	DATE	REV.	
CLIENT					
		PUNJAB SAFE CITY AUTHORITY			
CONTRACTOR					
		HUAWEI TECHNOLOGIES CO. LTD.			
CONSULTANT					
		ENGINEERING DESIGN BUREAU LAHORE			
PROJECT					
PUNJAB SAFE CITY AUTHORITY					
TITLE					
CAMERA POLE WITH SOLAR PANEL DRILLED PIER FOUNDATION DRAWING, SADDAR DIVISION					
SCALE	DRAWN	DESIGNED	CHECKED	APPROVED	DATE
AS SHOWN	SIDRA	KAMRAN	AMNAH	I. Z.	FEB, 2017
DRG. NO.					REVISION
PSCA-HUAWEI-EDB-POLE(SP)-FD20					A



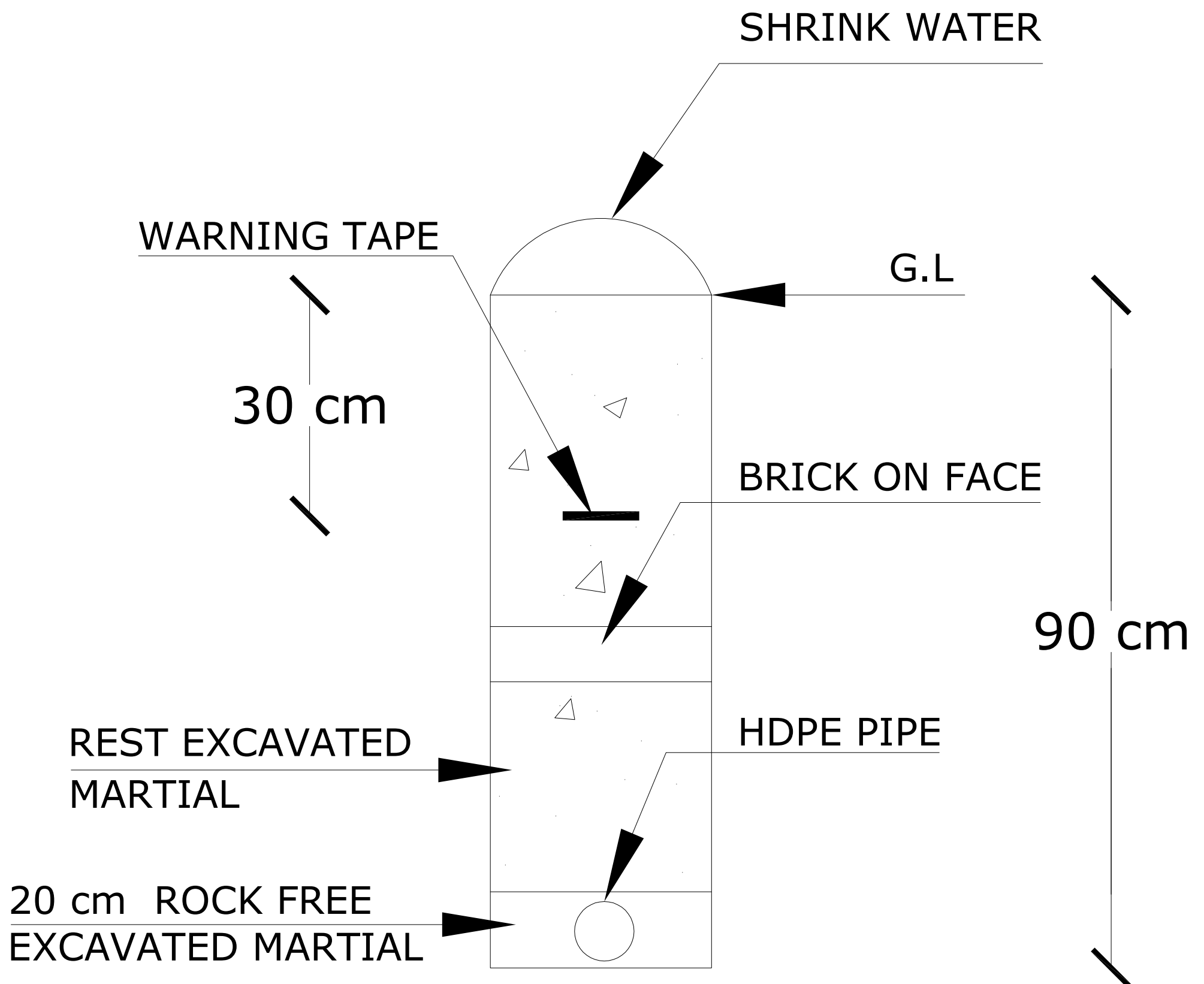
TITLE

DRAWING FOR OP AND RCC COVER

DWG NO

OP-01

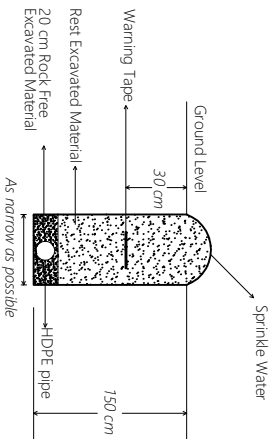




Power Trench Section

Notes:

1. If depth can't reach design depth due to underground services, then:
 - 1.1. Backfill and reinstate as per above sketch if Depth > 2ft
 - 1.2. Pour extra 15cm PCC if $1\text{ft} < \text{Depth} < 2\text{ft}$, then backfill and reinstate as per sketch.
2. If settles, put extra soil on the top.
3. After work completion, debris shall be removed from site at earliest.

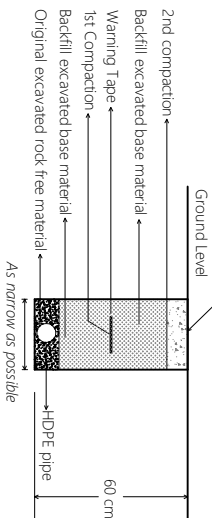


Normal soil surface/Markable soil surface

Note:

- If depth can't reach design depth due to underground services, after vet by PSCA, then:
 - Backfill and reinstate as per above sketch if Depth >2ft
 - Pour extra 15cm PCC if 1ft<Depth<2ft, then backfill and reinstate as per sketch.
 - Put GI protection+15cm PCC if depth<1ft.
- If settles, put extra soil on the top.

Reinstate surface as per actual with 10cm-15cm thickness 1:2.4 concrete layer and exact thickness advised by the PSCA

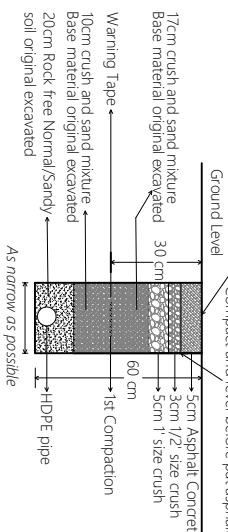


Concrete surface at side of road/inside of important building boundary

Note:

- Cutter is mandatory to cut the surface in a straight smooth mode
- Soil underground shall be excavated layer by layer and placed along trench separately so that can be placed back layer by layer as per original sequence.
- Must compact layer by layer to avoid settlement.
- If depth can't reach design depth due to underground services after vet by PSCA, then:
 - Backfill and reinstate as per above sketch if Depth >1ft.
 - Pour extra 15cm PCC if 1/2ft<Depth<1ft, then backfill and reinstate as per sketch.
 - Put GI protection+10cm PCC if Depth ≤1/2ft.

Compact asphalt layer by skilled labor

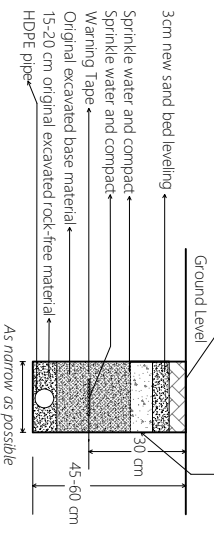


Asphalt cutting along normal asphalt road

Note:

- Cutter is mandatory to cut the surface in a straight smooth mode
- Soil underground shall be excavated layer by layer and placed along trench separately so that can be placed back layer by layer as per original sequence.
- Must compact layer by layer to avoid settlement.
- If depth can't reach design depth due to underground services after vet by PSCA, then:
 - Backfill and reinstate as per above sketch if Depth >1ft.
 - Pour extra 15cm PCC if 1/2ft<Depth<1ft, then backfill and reinstate as per sketch.
 - Put GI protection+10cm PCC if Depth ≤1/2ft.

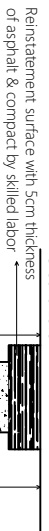
Place tuff tiles and pour sand to fill the gaps with skilled mason in the same pattern as before



Reinstatement for Tuff Tiles on footpath

Note:

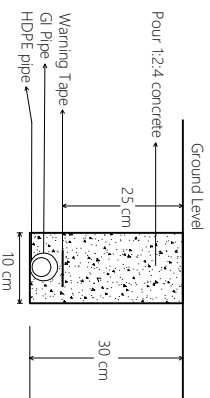
- Tuff tiles shall be removed carefully and staded properly so that can be installed again.
- Skilled mason is mandatory to assure proper paver work.
- New sand bed layer is must to assure the leveling and avoid settlement.
- If PCC layer found during excavation, need redo PCC layer with 2 inch thickness when doing backfilling.
- Soil underground shall be excavated layer by layer and placed along trench separately so that can be placed back layer by layer as per original sequence.
- Must compact layer by layer to avoid settlement.
- If depth can't reach design depth due to underground services after vet by PSCA, then:
 - Backfill and reinstate as per above sketch if Depth >1ft.
 - Pour extra 15cm PCC if 1/2ft<Depth<1ft, then backfill and reinstate as per sketch.
 - Put GI protection+10cm PCC if Depth ≤1/2ft.



Road cut perpendicular cross asphalt road with mini-trench on main fast track main roads

Note:

- Cutter is mandatory to cut the surface in a straight smooth mode.
- Trench bottom shall be cleaned for laying pipe properly.
- 1:2.4 concrete shall be mixed, poured and precaution measures shall be taken to avoid people step in it before cured.
- Top asphalt layer shall be poured and compact to same level by skilled labor.



Road cut cross roads other than main road fast tracks by mini-trench / or along the very congested roads (e.g. Ashura Wailed City area) where normal trench can't work

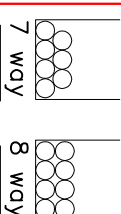
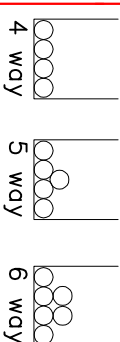
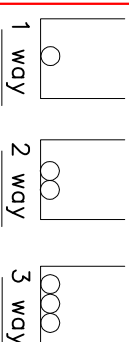
Note:

- Cutter is mandatory to cut the surface in a straight smooth mode.
- Trench bottom shall be cleaned for laying pipe properly.
- 1:2.4 concrete shall be mixed, poured and precaution measures shall be taken to avoid people step in it before cured.

GENERAL NOTES :

- Similar depth level in section between two hand hole shall be maintained to avoid bumpy pipe shape to smooth the cable pulling.
- Trench alignment shall try best to avoid zig zag shape to smooth the Cable pulling.
- During the excavation and backfill, reinstatement, standing by inspection shall be done on site by PSCA representative to verify the quality and quantity and record the inspection result on checklist OSP-2A and OSP-2B
- After work completion,debris shall be removed

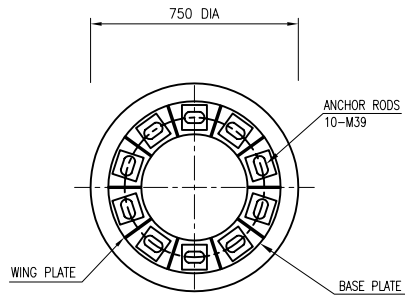
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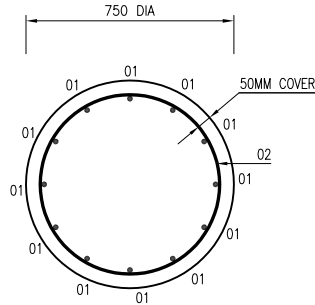
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REV.	DATE	SIGNATURE
APPROVED BY		
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PROJECT NAME		
PPIC3 Project		
DRAWING TITLE		
OSP Trench Section Standard		
Drawing S.No		
GD-001A-1		



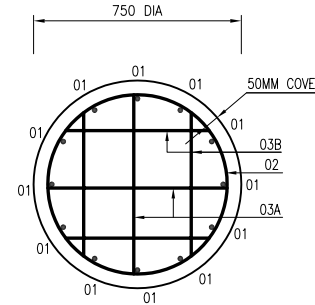
TOTAL SHEET
01/01



SECTION 1-1



SECTION 2-2



SECTION 3-3

NOTES

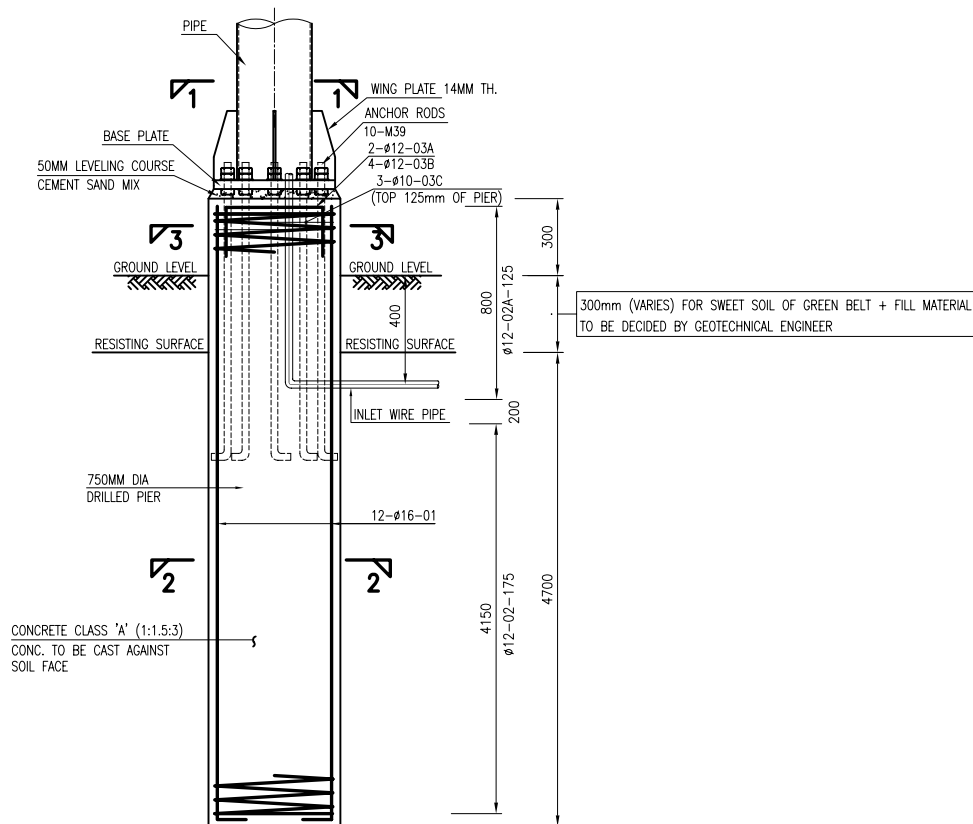
- ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE NOTED.
- ALL CONCRETE SHALL HAVE MINIMUM CYLINDER STRENGTH OF 3000 PSI (21MPA) AT 28 DAYS.
- MAXIMUM AGGREGATE SIZE SHALL BE 40 MM. GRADATION SHALL BE IN ACCORDANCE WITH ASTM C33.
- CLEAR CONC. COVER = 50mm
- OPC SHALL BE USED FOR ALL CONCRETE WORKS.
- REINFORCEMENT SHALL BE GRADE 60 IN ACCORDANCE WITH ASTM A615.

REINFORCEMENT HAS BEEN CALLED UP THUS :

12	Ø	16	01	200	SPACING
			02		BAR MARK
			03A		BAR DIAMETER (MM)
					REINFORCEMENT (GRADE 60)
					NUMBER OF BARS

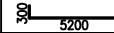
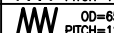
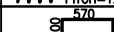
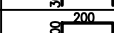
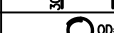
- QUANTITIES FOR FOUNDATION ARE AS UNDER :

	UNIT	QUANTITY
i) EXCAVATION	CM	2.2
ii) CONCRETE CLASS 'A' (1:1.5:3)	CM	2.34
iii) REINFT. GRADE 60	KG	168



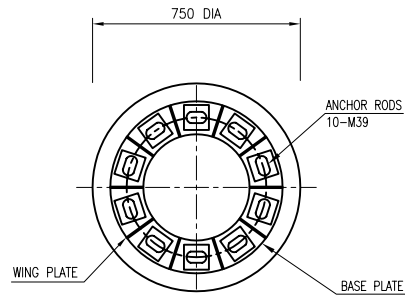
DRILLED PIER ELEVATION

BAR BENDING SCHEDULE

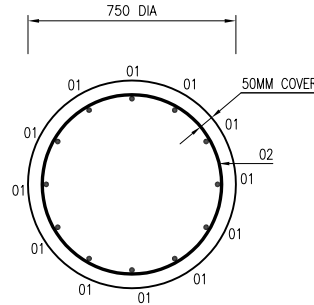
MK	SIZE (MM)	NO	CUT LENGTH (MM)	SHAPE	WEIGHT (KG)
01	Ø 16	12	5500		104
02	Ø 12	1	47.6M		42
02A	Ø 12	1	13M		12
03A	Ø 12	2	1170		2
03B	Ø 12	4	800		3
03C	Ø 10	3	2650		5
					168

CONSTRUCTION DRAWING

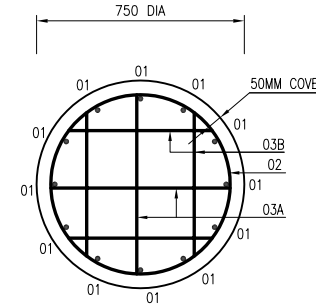
REINFORCEMENT DETAILS REVISED	S.K	05/07/17	B
PIER DEPTH INCREASED AS PER NESPAK COMMENTS	S.K	10/06/17	A
DESCRIPTION	BY	DATE	REV.
CLIENT	PUNJAB SAFE CITY AUTHORITY		
CONTRACTOR	HUAWEI TECHNOLOGIES CO. LTD.		
CONSULTANT	ENGINEERING DESIGN BUREAU LAHORE		
PROJECT	PUNJAB SAFE CITY PROJECT		
TITLE	4.5M "F" TYPE CANTILEVER POLE WITH VMS (CHINA) DRILLED PIER FOUNDATION DETAIL FOR CML LINE		
SCALE	DRAWN	DESIGNED	CHECKED
AS SHOWN	SIDRA	KAMRAN	AMNAH
DRG. NO.	REVISION	APPROVED	DATE
PSCA-HUAWEI-EDB-4.5MF(VMS)-FD01	B	I. Z.	MAY, 2017



SECTION 1-1



SECTION 2-2



SECTION 3-3

NOTES

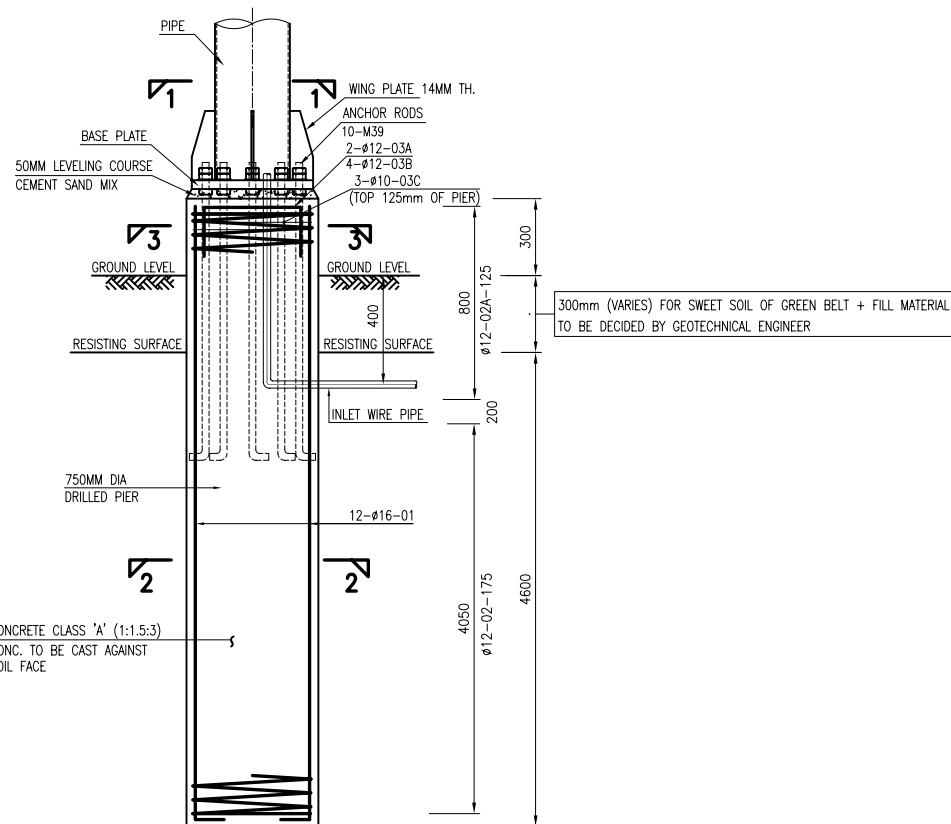
- ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE NOTED.
- ALL CONCRETE SHALL HAVE MINIMUM CYLINDER STRENGTH OF 3000 PSI (21MPA) AT 28 DAYS.
- MAXIMUM AGGREGATE SIZE SHALL BE 40 MM. GRADATION SHALL BE IN ACCORDANCE WITH ASTM C33.
- CLEAR CONC. COVER = 50mm
- OPC SHALL BE USED FOR ALL CONCRETE WORKS.
- REINFORCEMENT SHALL BE GRADE 60 IN ACCORDANCE WITH ASTM A615.

REINFORCEMENT HAS BEEN CALLED UP THUS :

12	Ø	16	01	200	SPACING
12	Ø	16	01	200	BAR MARK
12	Ø	16	01	200	BAR DIAMETER (MM)
12	Ø	16	01	200	REINFORCEMENT (GRADE 60)
12	Ø	16	01	200	NUMBER OF BARS

- QUANTITIES FOR FOUNDATION ARE AS UNDER :

	UNIT	QUANTITY
i) EXCAVATION	CM	2.2
ii) CONCRETE CLASS 'A' (1:1.5:3)	CM	2.3
iii) REINFT. GRADE 60	KG	165



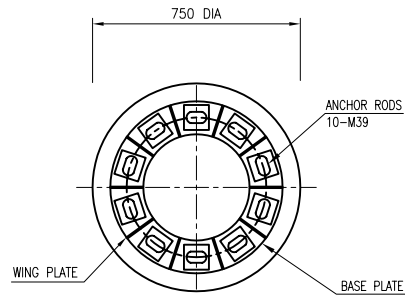
DRILLED PIER ELEVATION

BAR BENDING SCHEDULE

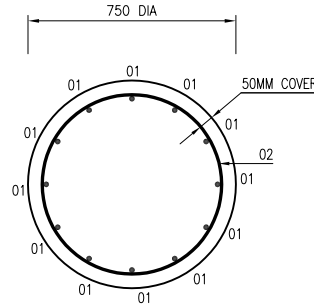
MK	SIZE (MM)	NO	CUT LENGTH (MM)	SHAPE	WEIGHT (KG)
01	Ø 16	12	5400		102
02	Ø 12	1	46.5M		41
02A	Ø 12	1	13M		12
03A	Ø 12	2	1170		2
03B	Ø 12	4	800		3
03C	Ø 10	3	2650		5
					165

CONSTRUCTION DRAWING

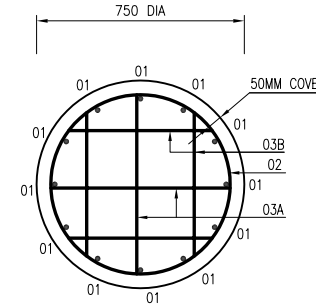
REINFORCEMENT DETAILS REVISED	S.K	05/07/17	A
DESCRIPTION	BY	DATE	REV.
CLIENT	PUNJAB SAFE CITY AUTHORITY		
CONTRACTOR	HUAWEI TECHNOLOGIES CO. LTD.		
CONSULTANT	ENGINEERING DESIGN BUREAU LAHORE		
PROJECT	PUNJAB SAFE CITY PROJECT		
TITLE	4.5M "F" TYPE CANTILEVER POLE WITH VMS (CHINA) DRILLED PIER FOUNDATION DETAIL FOR MODEL TOWN		
SCALE	DRAWN	DESIGNED	CHECKED
AS SHOWN	SHUMAILA	KAMRAN	KAMRAN
DRG. NO.	PSCA-HUAWEI-EDB-4.5MF(VMS)-FD02		REVISION
			A



SECTION 1-1



SECTION 2-2



SECTION 3-3

NOTES

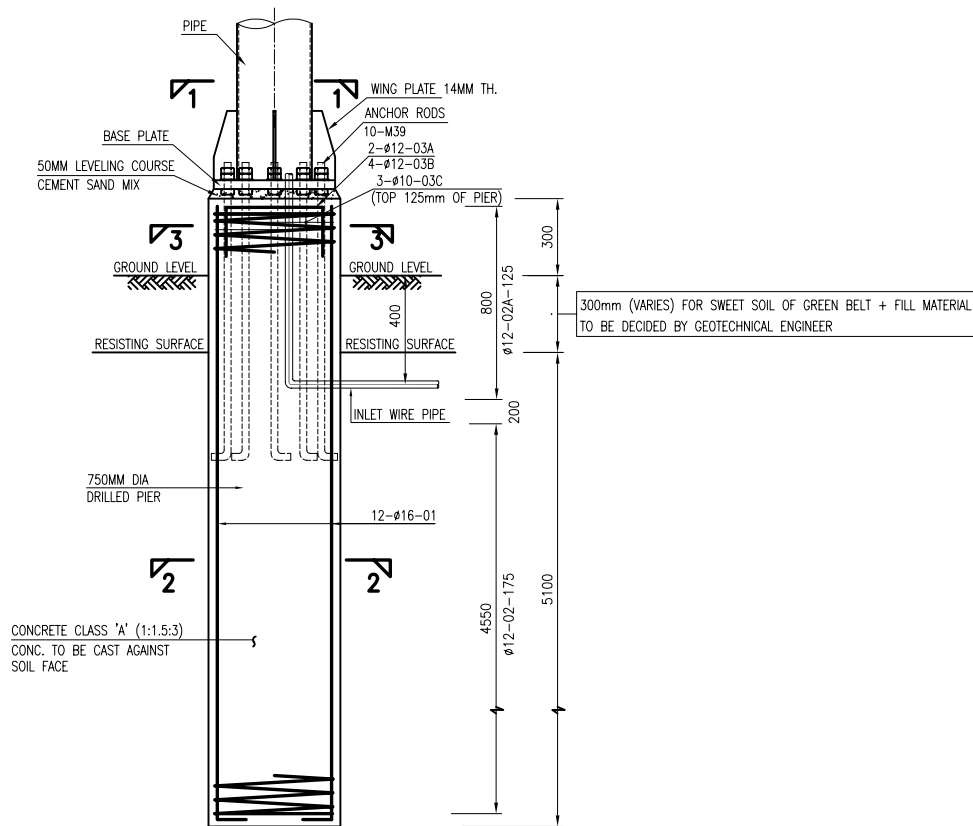
- ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE NOTED.
- ALL CONCRETE SHALL HAVE MINIMUM CYLINDER STRENGTH OF 3000 PSI (21MPA) AT 28 DAYS.
- MAXIMUM AGGREGATE SIZE SHALL BE 40 MM. GRADATION SHALL BE IN ACCORDANCE WITH ASTM C33.
- CLEAR CONC. COVER = 50mm
- OPC SHALL BE USED FOR ALL CONCRETE WORKS.
- REINFORCEMENT SHALL BE GRADE 60 IN ACCORDANCE WITH ASTM A615.

REINFORCEMENT HAS BEEN CALLED UP THUS :

12	Ø	16	01	200	SPACING
					BAR MARK
					BAR DIAMETER (MM)
					REINFORCEMENT (GRADE 60)
					NUMBER OF BARS

- QUANTITIES FOR FOUNDATION ARE AS UNDER :

	UNIT	QUANTITY
i) EXCAVATION	CM	2.4
ii) CONCRETE CLASS 'A' (1:1.5:3)	CM	2.52
iii) REINFT. GRADE 60	KG	180



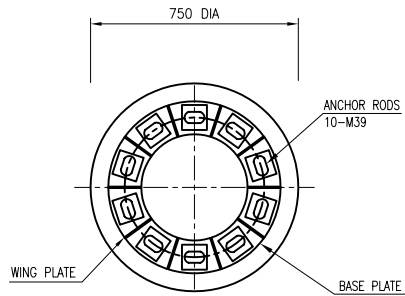
DRILLED PIER ELEVATION

BAR BENDING SCHEDULE

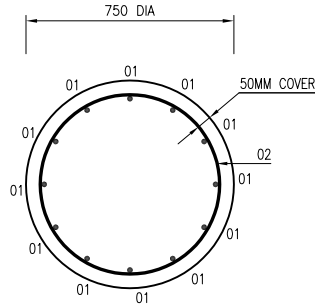
MK	SIZE (MM)	NO	CUT LENGTH (MM)	SHAPE	WEIGHT (KG)
01	Ø 16	12	5900		112
02	Ø 12	1	52M		46
02A	Ø 12	1	13M		12
03A	Ø 12	2	1170		2
03B	Ø 12	4	800		3
03C	Ø 10	3	2650		5
					180

CONSTRUCTION DRAWING

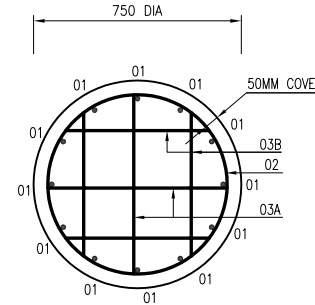
REINFORCEMENT DETAILS	REVISED	S.K	05/07/17	A
DESCRIPTION	BY	DATE	REV.	
CLIENT	PUNJAB SAFE CITY AUTHORITY			
CONTRACTOR	HUAWEI TECHNOLOGIES CO. LTD.			
CONSULTANT	ENGINEERING DESIGN BUREAU LAHORE			
PROJECT	PUNJAB SAFE CITY PROJECT			
TITLE	4.5M "T" TYPE CANTILEVER POLE WITH VMS (CHINA) DRILLED PIER FOUNDATION DETAIL FOR IQBAL TOWN			
SCALE	DRAWN	DESIGNED	CHECKED	APPROVED
AS SHOWN	SHUMAILA	KAMRAN	KAMRAN	I. Z.
DRG. NO.	PSCA-HUAWEI-EDB-4.5MF(VMS)-FD03			REVISION
				A



SECTION 1-1



SECTION 2-2



SECTION 3-3

NOTES

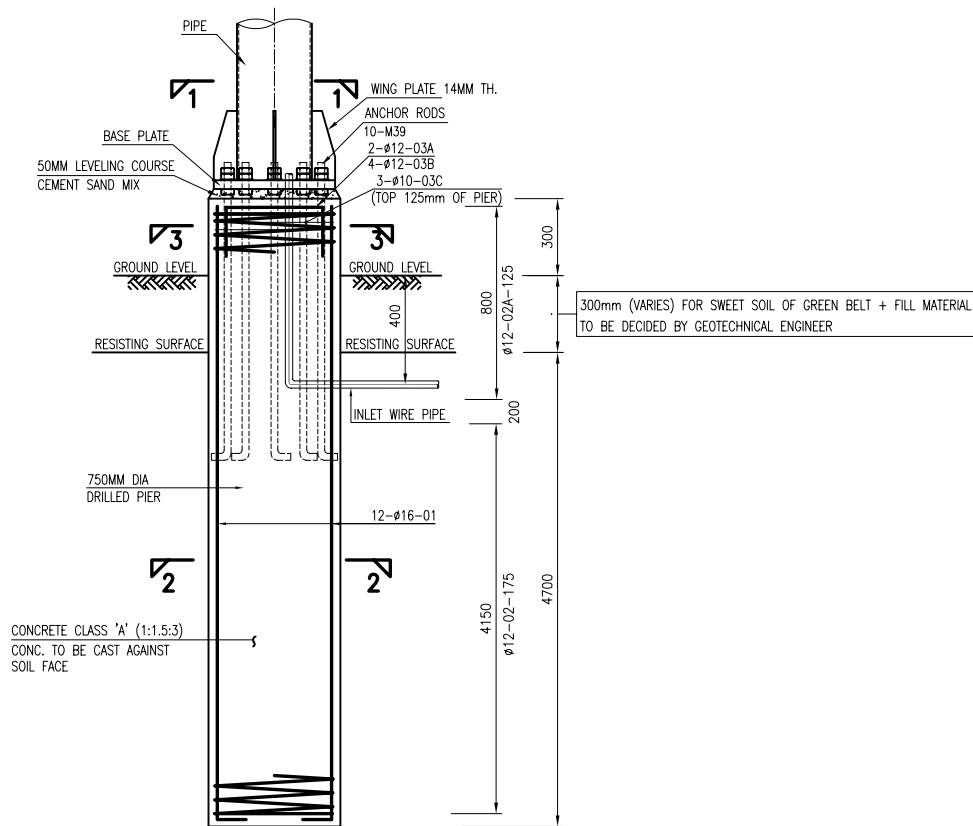
- ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE NOTED.
- ALL CONCRETE SHALL HAVE MINIMUM CYLINDER STRENGTH OF 3000 PSI (21MPA) AT 28 DAYS.
- MAXIMUM AGGREGATE SIZE SHALL BE 40 MM. GRADATION SHALL BE IN ACCORDANCE WITH ASTM C33.
- CLEAR CONC. COVER = 50mm
- OPC SHALL BE USED FOR ALL CONCRETE WORKS.
- REINFORCEMENT SHALL BE GRADE 60 IN ACCORDANCE WITH ASTM A615.

REINFORCEMENT HAS BEEN CALLED UP THUS :

12	Ø	16	01	200	SPACING
					BAR MARK
					BAR DIAMETER (MM)
					REINFORCEMENT (GRADE 60)
					NUMBER OF BARS

- QUANTITIES FOR FOUNDATION ARE AS UNDER :

	UNIT	QUANTITY
i) EXCAVATION	CM	2.2
ii) CONCRETE CLASS 'A' (1:1.5:3)	CM	2.34
iii) REINFT. GRADE 60	KG	168



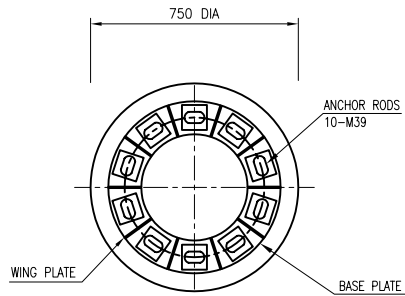
DRILLED PIER ELEVATION

BAR BENDING SCHEDULE

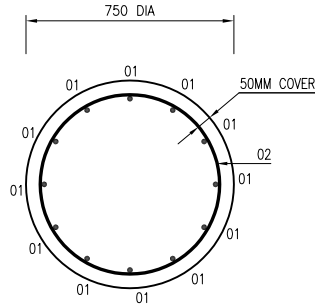
MK	SIZE (MM)	NO	CUT LENGTH (MM)	SHAPE	WEIGHT (KG)
01	Ø 16	12	5500		104
02	Ø 12	1	47.6M		42
02A	Ø 12	1	13M		12
03A	Ø 12	2	1170		2
03B	Ø 12	4	800		3
03C	Ø 10	3	2650		5
					168

CONSTRUCTION DRAWING

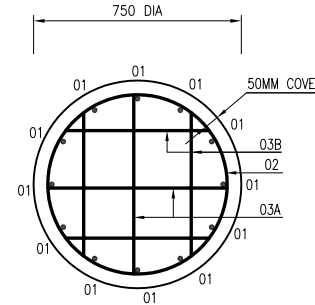
REINFORCEMENT DETAILS REVISED	S.K	05/07/17	B
DESCRIPTION	BY	DATE	REV.
CLIENT	PUNJAB SAFE CITY AUTHORITY		
CONTRACTOR	HUAWEI TECHNOLOGIES CO. LTD.		
CONSULTANT	ENGINEERING DESIGN BUREAU LAHORE		
PROJECT	PUNJAB SAFE CITY PROJECT		
TITLE	4.5M "F" TYPE CANTILEVER POLE WITH VMS (CHINA) DRILLED PIER FOUNDATION DETAIL FOR CITY DIVISION		
SCALE	DRAWN	DESIGNED	CHECKED
AS SHOWN	SHUMAILA	KAMRAN	KAMRAN
DRG. NO.	PSCA-HUAWEI-EDB-4.5MF(VMS)-FD04		REVISION
			A



SECTION 1-1



SECTION 2-2



SECTION 3-3

NOTES

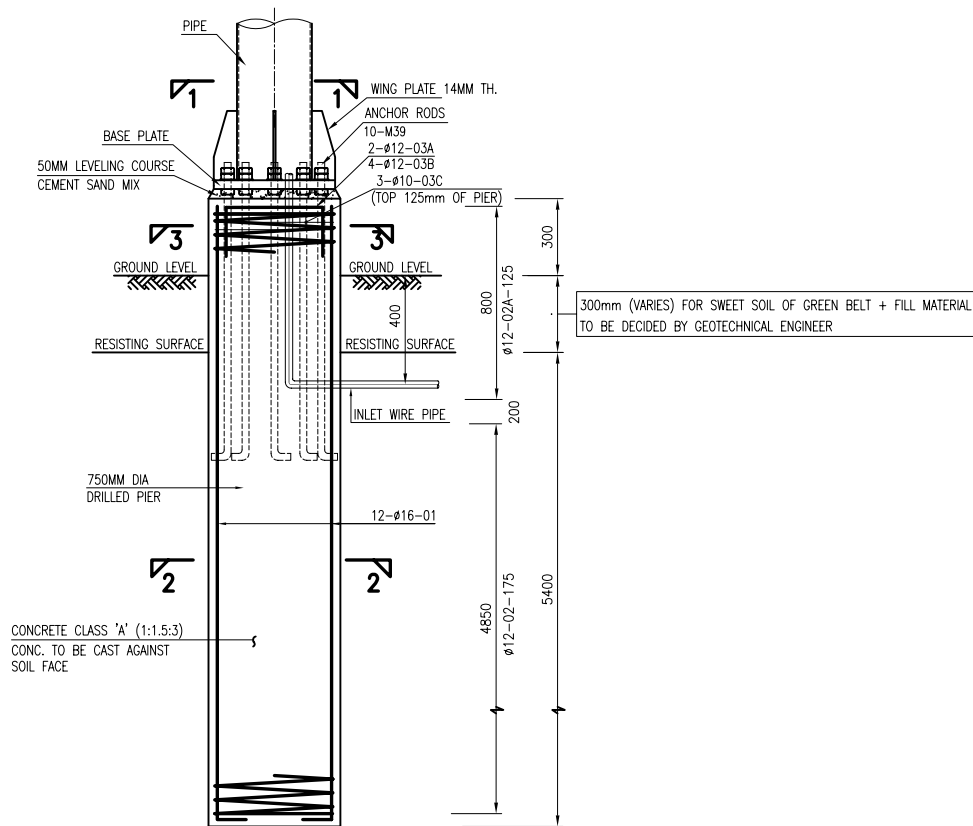
- ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE NOTED.
- ALL CONCRETE SHALL HAVE MINIMUM CYLINDER STRENGTH OF 3000 PSI (21MPA) AT 28 DAYS.
- MAXIMUM AGGREGATE SIZE SHALL BE 40 MM. GRADATION SHALL BE IN ACCORDANCE WITH ASTM C33.
- CLEAR CONC. COVER = 50mm
- OPC SHALL BE USED FOR ALL CONCRETE WORKS.
- REINFORCEMENT SHALL BE GRADE 60 IN ACCORDANCE WITH ASTM A615.

REINFORCEMENT HAS BEEN CALLED UP THUS :

12	Ø	16	01	200	SPACING
			02		BAR MARK
			03A		BAR DIAMETER (MM)
					REINFORCEMENT (GRADE 60)
					NUMBER OF BARS

- QUANTITIES FOR FOUNDATION ARE AS UNDER :

	UNIT	QUANTITY
i) EXCAVATION	CM	2.52
ii) CONCRETE CLASS 'A' (1:1.5:3)	CM	2.65
iii) REINFT. GRADE 60	KG	188



DRILLED PIER ELEVATION

BAR BENDING SCHEDULE

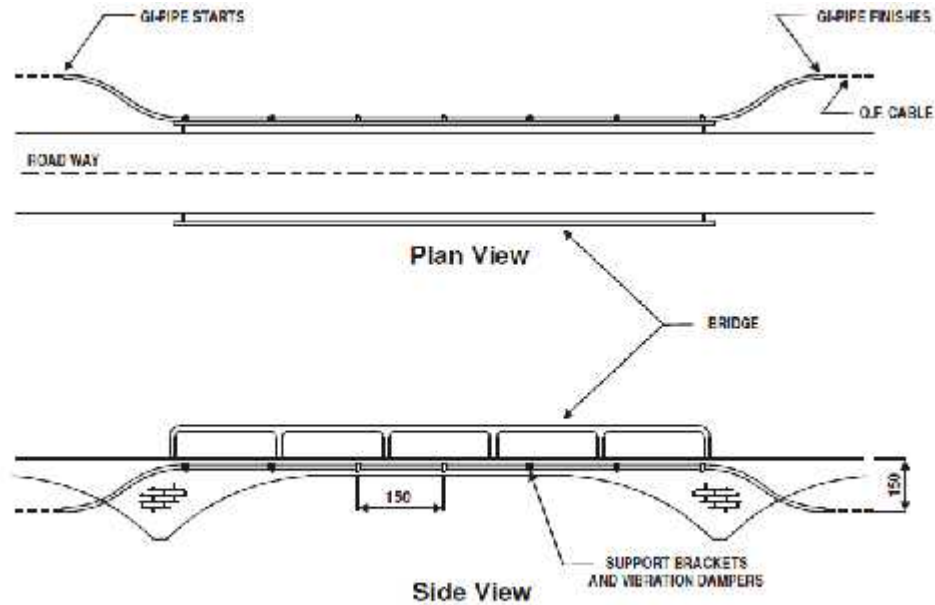
MK	SIZE (MM)	NO	CUT LENGTH (MM)	SHAPE	WEIGHT (KG)
01	Ø 16	12	6200		117
02	Ø 12	1	55.6M		49
02A	Ø 12	1	13M		12
03A	Ø 12	2	1170		2
03B	Ø 12	4	800		3
03C	Ø 10	3	2485		5
					188

CONSTRUCTION DRAWING

REINFORCEMENT DETAILS REVISED	S.K	05/07/17	A
DESCRIPTION	BY	DATE	REV.
CLIENT	PUNJAB SAFE CITY AUTHORITY		
CONTRACTOR	HUAWEI TECHNOLOGIES CO. LTD.		
CONSULTANT	ENGINEERING DESIGN BUREAU LAHORE		
PROJECT	PUNJAB SAFE CITY PROJECT		
TITLE	4.5M "F" TYPE CANTILEVER POLE WITH VMS (CHINA) DRILLED PIER FOUNDATION DETAIL FOR SADDAR DIMSION		
SCALE	DRAWN	DESIGNED	CHECKED
AS SHOWN	SHUMAILA	KAMRAN	KAMRAN
DRG. NO.		APPROVED	DATE
		I. Z.	JUNE, 2017
PSCA-HUAWEI-EDB-4.5MF(VMS)-FD05		REVISION	
			A

Bridge /Nulla Attachment

If bridge construction that does not have a pipe or channel, then GI Pipe should be attached to a solid and suitable section of bridge structures. Attachments required to secure the GI-Pipe have to be designed to suite the structure of the bridge.

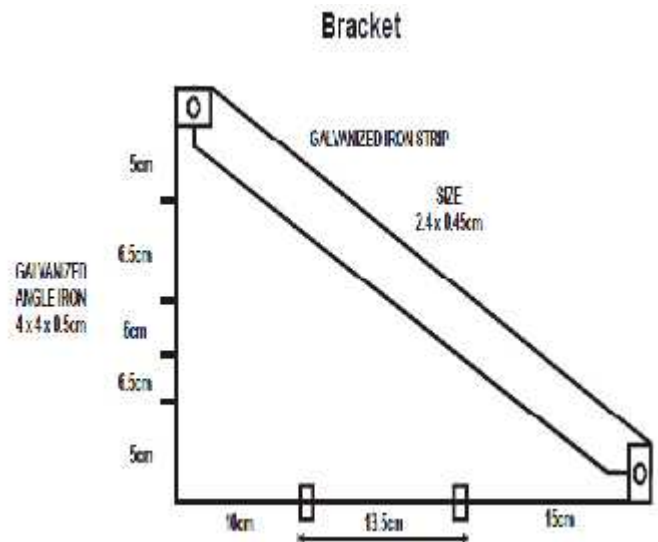
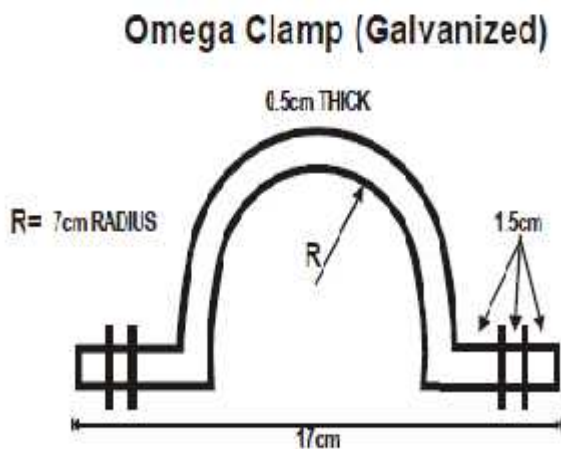


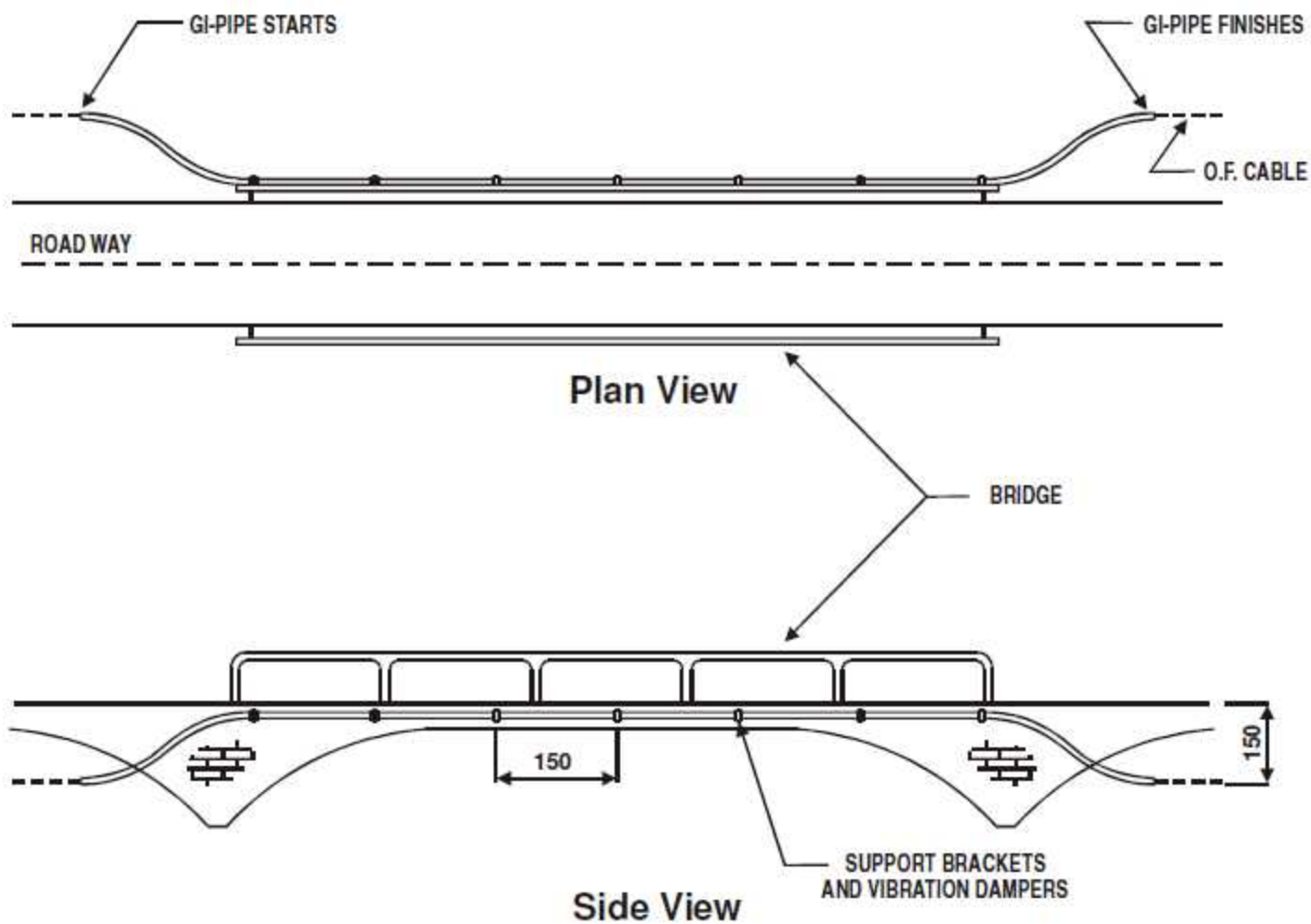
Note: All dimensions are in cm.

Figure 3-1 Attachment on bridge

When crossing short bridge/nulla(<20M), can use omega clamp (galvanized) directly fix the pipe, when laying more than 1 pipe or bridge/nulla length is long (>20M), brackets should be used. Below is the specification for omega clamps and brackets.

When using GI pipe for bridge attachment, pre-bend GI is required at the start and end point of the attachment to extend the GI into underground.





Note: All dimensions are in cm.

